



# Harmony *i*PC

Industrial PC, Edge Box and Display



# Harmony

## Discover [Harmony](#)

Advanced operator interface and industrial relays

Harmony operator interface and industrial relays enhance operational efficiency and equipment availability across industrial and building applications. **Harmony** includes intelligent connected products and edge terminals that visualize, gather and process data, enabling informed operator decisions

## Explore our offer

- [Harmony Push Buttons and Switches](#)
- [Harmony HMI Operator Terminals, IPC and EdgeBox](#)
- [Harmony Signaling Devices](#)
- [Harmony Electrical Relays](#)
- [Harmony Safety](#)

Life Is On

**Schneider**  
Electric

# Quick access to product information

## Get technical information about your product

References

**Modicon TM3**  
I/O expansion modules for Modicon controllers  
Analog I/O modules

| Number and type of channels                 | Input range                           | Output range             | Resolution               | Input format (internal) | Reference           | Weight (kg)    |
|---|---------------------------------------|--------------------------|--------------------------|-------------------------|---------------------|----------------|
| 2 voltage/current inputs                    | -15...+15 VDC<br>0...20 mA r.t. 20 mA | 16.00V or<br>12.00V r.t. | 16.00V or<br>12.00V r.t. | 0.001V<br>0.001V        | TM3AI2H<br>TM3AI2HG | 0.110<br>0.204 |
| 4 voltage/current inputs                    | -15...+15 VDC<br>0...20 mA r.t. 20 mA | 16.00V or<br>12.00V r.t. | 16.00V or<br>12.00V r.t. | 0.001V<br>0.001V        | TM3AI4<br>TM3AI4G   | 0.100<br>0.204 |
| 4 voltage/current or temperature inputs (T) | -15...+15 VDC<br>0...20 mA r.t. 20 mA | 16.00V or<br>12.00V r.t. | 16.00V or<br>12.00V r.t. | 0.001V<br>0.001V        | TM3AI4T<br>TM3AI4TG | 0.100<br>0.204 |
| 4 differential temperature inputs (T)       | -15...+15 VDC<br>0...20 mA r.t. 20 mA | 16.00V or<br>12.00V r.t. | 16.00V or<br>12.00V r.t. | 0.001V<br>0.001V        | TM3AI4D<br>TM3AI4DG | 0.100<br>0.204 |
| 8 self-diagnosis                            | -15...+15 VDC                         | 16.00V or<br>12.00V r.t. | 16.00V or<br>12.00V r.t. | 0.001V<br>0.001V        | TM3AI8<br>TM3AI8G   | 0.100<br>0.204 |

Share Price Global (English) My Products My Documents Partner Portal

Life Is On Schneider Electric Search products, documents & more

PRODUCTS SOLUTIONS SERVICES SUPPORT ABOUT US

All products Industrial Automation and Control PLC, PAC and Dedicated Controllers Distributed Input/Output (I/O) Modules Modicon TM3

View all Modicon TM3

**TM3AI2H**

Module TM3 - 2 analog inputs high resolution

Show more characteristics >

Related Software >

Add to My Products Compare

Product Datasheet User guide Catalogue CAD Document

Characteristics Documents and Downloads Technical FAQs Additional Information Dimensions Drawings >

Main

range of product Modicon TM3

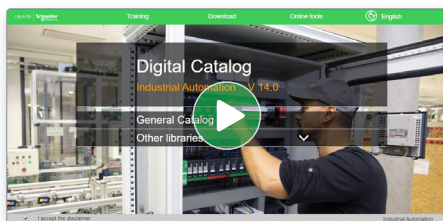
product or component type Analog input module

range compatibility Modicon M251

Each commercial reference presented in a catalog contains a hyperlink. Click on it to obtain the technical information of the product:

- Characteristics, Dimensions and drawings, Mounting and clearance, Connections and schemas, Performance curves
- Product image, Instruction sheet, User guide, Product certifications, End of life manual

## Find your catalog



- > With just 3 clicks, you can access the Industrial Automation and Control catalogs, in both English and French
- > Consult digital automation catalogs at [Digi-Cat Online](#)

Industrial Automation

General Catalog

- Publications, Selections, PLCs, CPUs & I/O
- Books, Catalogs & Interfaces
- Signaling Devices
- HMI (Terminals and Industrial PC)
- Sensors & RFID System
- Motor Starters and Load Management
- Components for Motor Starters
- Variable Speed Drives & Soft Starters
- Motor Control & Robotics
- Interface, Measurement & Control Relays
- PLC, PAC & other Controllers

Publications, Selections, PLCs, CPUs & I/O

Homeless 300

Product Selector

Library 360°

Other libraries

- Up-to-date catalogs
- Embedded product selectors, 360° pictures
- Optimized search by commercial references

## Select your training



- > Find the right [Training](#) for your needs on our Global website
- > Locate the training center with the selector tool, using this [link](#)

Training and courses

Whether you are a professional, a teacher or a student, Schneider Electric offers you a wide range of training solutions to enhance your competences in the field of electrical.

Training by domain of expertise

- Electrical Installation and Safety
- Data Center
- Industrial Automation

# General contents

General presentation and selection guide . . .

1

Harmony HMIPS S-Panel and  
HMIPEP Enclosed Panel PCs . . . . .

2

Harmony HMIBSC Edge Box . . . . .

3

Harmony HMIBM Modular Box PC,  
HMIDM Modular Display and  
HMIDAD Display Adapter. . . . .

4

Harmony HMIR Rack PC . . . . .

5

Harmony HMIDID *i*Display . . . . .

6

Index. . . . .

7



---

## Harmony Industrial PC, Edge Box and Display

### ■ General presentation

- Smart design and engineering ..... page 1/2
- Cybersecurity ..... page 1/2
- Asset performance ..... page 1/3
- Harmony iPC and Edge Box with Node-RED for IIoT wiring ..... page 1/3

### ■ Harmony iPC and Edge Box family

- Harmony Edge Box..... page 1/3
- Harmony Modular Box PC ..... page 1/4
- Harmony Modular Display ..... page 1/4
- Harmony iDisplay ..... page 1/4
- Harmony S-Panel and Enclosed Panel PC ..... page 1/5
- Harmony Rack PCs ..... page 1/5

### ■ Companion products ..... page 1/5

**Selection guide of Harmony Industrial PC, Edge Box and Display . . . . page 1/6**



## Harmony iPC

Industrial PC, Edge Box, and Display

EcoStruxure is Schneider Electric's innovative IoT architecture addressing the needs of automation applications for a wide range of industries.

Harmony Edge Box meets IIoT challenges at the Edge Control level by enabling secured communication from connected products on the shop floor to the required software and applications on the top floor.

This provides improved profitability and new business opportunities, through enhanced asset performance for more efficient operation and maintenance of capital assets. Harmony iPC and Harmony Edge Box offer smart application design and engineering to leverage asset performance with end-to-end cybersecurity.



### Smart design and engineering

#### Configurable hardware

- Millions of possible combinations
- 12 main units, making 3x IIoT Edge Box, 6x Box PC, 36x Panel PC or Thin client, etc.
- Dual Ethernet, wireless, choice of memory, displays, storage, and extensions, etc.
- Up to 7 displays can be connected remotely over a maximum distance of 400 m/1,312 ft

#### Versatile Edge Control software

- Open operating system for any software (HMI, EcoStruxure Machine SCADA Expert, engineering and maintenance tools, thin clients, IT/OT connections, etc.)
- For engineering by automation experts

#### Benefits

- Reduced implementation time
- Best-fit application
- Consistency of operator workstations
- Designed for fast and easy maintenance/replacement



### Cybersecurity

#### ISA/IEC-62443 approved

- Designed according to standards (analyses, threat model, user document, etc.)
- Hardware encryption with TPM
- Secured password boot and operating system settings
- McAfee whitelisting
- Node-RED parallel wiring model does not interfere with automation
- IT infrastructure security
- EcoStruxure Secure Connect Advisor for remote connections

#### Benefits

- System security helps to protect data and assets
- Business continuity

**+ Simplify your machine interfaces with intuitive Harmony iPCs**



**Product Selector**

Click to open the Product Selector and select the right product.



## Asset performance

### Industrial design

- No rotating parts, 0-55°C/32-131 °F operating temperature
- Industrial certifications including hazardous locations and marine
- Conformal coating, UPS
- 11+ years of availability and 4 years of repair service

### IIoT wiring with Node-RED

- Shared operational data with IT and Cloud applications
- Analytics for business enablers
- Secondary sensing connection

#### Benefits

- Leverage crew reactivity for business maximization
- Asset reliability and optimization
- Predictive maintenance with advanced analytics
- Control system sustainability

## Harmony iPC and Edge Box with Node-RED for IIoT wiring

Harmony iPC and Edge Box runs Node-RED to wire devices on the Industrial Internet of Things. Node-RED is a simple, open source graphical programming tool for designing the communication data flow from OT to IT.

The Node-RED community count thousands of nodes ready-to use, to get data from connected products, manage the communication at the Edge Box level, and connect to the IT systems.

Schneider Electric provides some nodes that are tested, validated, and supported to run with Node-RED on the Harmony iPC and Edge Box.

For instance, the Node-RED wiring can be made up of Modbus or UMAs nodes to get data from connected products to EcoStruxure Machine Advisor, Schneider AVEVA Insight Cloud application, or other IT or Cloud application, thus dynamically sharing business information from the shop floor to leverage asset performance.

## Harmony iPC and Edge Box family

As a global specialist in industrial automation, Schneider Electric offers integrated solutions across multiple markets. Harmony iPC provides solutions to applications that need to run on Windows or Linux operating systems in industrial environments. They are a comprehensive range of intuitive Harmony Edge Box and industrial PCs for improved productivity to enhance operator experience.

## Harmony Edge Box

Harmony HMIBSC/HMIBMI/HMIBMO can be used for IIoT at the edge of EcoStruxure for direct connection to Cloud applications (running Node-RED to wire from OT to IT) with enhanced cybersecurity by design.

### Harmony HMIBSC Core

- 2 Gigabit Ethernet, 1x RS-232/422/485, 2x USBs, 1x display port, 1x HDMI
- Qualcomm ARM Cortex-A53 quad-core fanless processor
- 1x full-size mini PCIe slot with optional interface, 1x M.2 slot for extension, 1x SD card slot
- Node-RED

### Harmony HMIBMI Basic

- 2 Gigabit Ethernet, 1x RS-232/422/485, 2x USBs, 1x display port
- Intel Atom Apollo Lake E3930 dual-core fanless processor
- 1x full-size mini PCIe slot with optional interface
- Node-RED, default or to be installed depending on the model

### Harmony HMIBMO Optimized

- 2 Gigabit i210 Ethernet, 1x RS-232/422/485, 4x USBs, 2x display ports
- Intel Atom Apollo Lake E3930 dual-core fanless processor
- 1x full-size mini PCIe slot with optional interface
- Node-RED, default or to be installed depending on the model

**+** Harmony iPCs and Edge Box at Edge Control level for EcoStruxure Machine and EcoStruxure Plant



1



## Harmony Modular Box PC

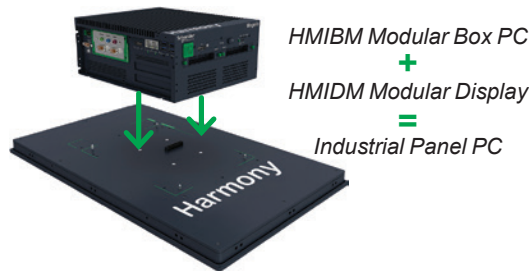
Harmony HMIBM Modular Box PC cater to some of the most demanding field applications running on a Windows operating system platform. They make the complete Panel PC when mounted with Harmony HMIDM Modular Displays. Depending on the model, they are conformal coated, and cULus certified for industrial control, hazardous location and marine. They can run also Trusted Platform Module (TPM) for cybersecured hardware encryption.

### Harmony HMIBM Modular Box PC (Universal/Performance)

- 2 Gigabit Ethernet, 1x RS-232/422/485, 4x USBs, 2x display ports, 3x antenna connectors
- Intel Celeron 2980U dual-core (Universal)/Intel Core i7-4650U (Performance) fanless processors
- 2x full-size mini PCIe expansion slots and 2x optional PCI/PCIe card slots
- 1x CFast card slot, 2x SSD/HDD hot-swappable slot and optional battery backup

## Harmony Modular Display

Harmony HMIDM Modular Displays are the companion of Harmony HMIBM Modular Box PCs. They can be directly mounted on to the Box PC or remotely via cables. This modularity not only allows multiple variations with reduced inventories, it also facilitates maintenance. The Box PC or the Display can be easily replaced without changing the complete Panel PC unit.



### Harmony HMIDM Modular Display

- 4:3 12" and 15" single-touch resistive with front USB
- 16:9 12"/15"/19"/22" multi-touch projected capacitive technology, 7H hardness, anti-scratch
- IP66, Nema 4X indoor front panel

With Harmony HMIDAD Display Adapter, the Harmony Modular Display can be used as a:

- Local display (over a maximum distance of 5 m/16.40 ft)
- Remote display (up to 4 daisy chain displays with same screen definition, and over a maximum distance of 100 m/328 ft for the 1<sup>st</sup> display to 400 m/1,312 ft for the 4<sup>th</sup> display)



## Harmony iDisplay

Harmony HMIDID iDisplays are robust monitors with an excellent screen size/dimensions ratio and can be used in conjunction with industrial PCs. They have the same cut-out dimensions as Harmony Panel PCs and Harmony HMI operator panels, which makes it easy to upgrade installations.

### Harmony HMIDID iDisplay

- 12" and 15" size color TFT LCDs
- 1x USB on front panel, 1x DVI-D video, 1x USB
- IP67/66 and Nema 4X front screen
- Industrial certifications (hazardous location and marine)



New digital technologies are opening up unprecedented opportunities for efficiency and productivity in the industry



## Harmony S-Panel and Enclosed Panel PCs

Harmony HMIPS S-Panel PCs are simple and compact all-in-one hardware, with fanless Intel CPUs, HDD/SSD storage drive slots, and mini PCIe slots for optional interfaces.

### Harmony HMIPSO S-Panel PC (Optimized)

- Intel Atom E3827 dual-core fanless processor, 4 GB DDR3 RAM
- Expansion kit allowing 1x SATA HDD/SSD slot and 1x mini PCIe slot
- W10" and W15" multi-touch projected capacitive technology screens

### Harmony HMIPSP S-Panel PC (Performance)

- Intel i3-4010U dual-core fanless processor, 8 GB DDR3 RAM
- 1x full-size mini PCIe slot and 1x optional interface slot
- W15" and W19" HD multi-touch projected capacitive technology screens

Harmony Enclosed Panel PCs are completely enclosed PCs with IP66 protection on 6 faces and M12 connectors. They are ready to be directly installed on a VESA arm, without any additional enclosure.

### Harmony HMIEPP Enclosed Panel PC (Performance)

- Intel i3-4010U dual-core fanless processor, 8 GB DDR3 RAM
- W19" multi-touch projected capacitive technology screen



## Harmony Rack PC

Harmony HMIR Rack PCs offer a one-stop shop for a complete plant solution that has been tested and validated by Schneider Electric, along with EcoStruxure Hybrid DCS Engineering. Harmony HMIRs can be easily installed in Actassi 19" enclosures and connected to Harmony iDisplay monitors.

### Harmony HMIR●O Rack PC 2U (Optimized) (1)

- Intel Core G540 or G850 processor, 2 GB RAM
- 2x PCI Express (x8) + 1x PCI
- 2 Gigabit Ethernet, 2x RS-232 (+ 4 optional), 6x USB, 1x VGA, 1x DVI
- 1x internal SATA3 slot and 2x external SATA2 trays, 1x DVD-RW drive

### Harmony HMIRSP Rack PC 4U (Performance) (1)

- Intel Xeon E3-1225 processor, 4 to 16 GB RAM
- 4x PCI Express (x16) + 3x PCI
- 2 Gigabit Ethernet, 2x RS-232 (+ 4x optional), 6x USB, 1x VGA, 1x DVI
- Dedicated models with Windows Server operating systems



## Companion products (2)

EcoStruxure™ Secure Connect Advisor provide a secure connection between remote display units on the work site (via SiteManager Embedded) and computers or smart devices in the office (via LinkManager) over a secure central server (GateManager). With EcoStruxure Machine Secure Connect Advisor, maintenance personnel can access Schneider Electric software and update it remotely and securely via the Harmony iPC and Harmony Edge Box, and other connected devices as if they were on site. Troubleshooting and repair can also be performed remotely upon request.

(1) Rack 2U or 4U is a unit used to measure the height of a device to be mounted in a 19" rack enclosure. 1 unit = 44.45 mm/1.75 in. high.

(2) For more information, please refer to "EcoStruxure Secure Connect Advisor catalog DIA5ED2190101EN."

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIPS S-Panel and  
HMIPEP Enclosed Panel PCs

Type of Harmony iPC

Harmony HMIPS S-Panel PC  
HMIPSO Optimized



|                                      |  |
|--------------------------------------|--|
| <b>Fanless</b>                       | ★★★★★  |
| <b>Mounting type</b>                 | Panel PC   |
| <b>Display</b>                       | W10" and W15" multi-touch projected capacitive technology screen   |
| Touch screen                         |  |
| Definition                           | W10": HD WSVGA, 1280 × 800 pixels<br>W15": HD WFXGA, 1366 × 768 pixels   |
| Front protection                     | IP66 front panel, NEMA 4X indoor, and 7H hardness anti-scratch   |
| <b>CPU</b>                           | Intel® Atom E3827 dual-core (1.75 GHz)   |
| Processor                            |  |
| Expansion slots                      | 1x optional full-size mini PCIe slot with optional interface slot (1)  |
| Storage                              | CFast card ≥ 32 GB, or<br>SSD flash disk ≥ 128 GB with 1.5 million hours MTBF (1), or<br>HDD hard disk ≥ 500 GB Enterprise 24/7 (1)                |
| RAM                                  | 4 GB (not user-expandable)   |
| Hot-swap RAID HDD and battery backup | –  |
| <b>Operating system</b>              | None, or WES 7 Premium SP1 (64-bit), or Windows 8.1 Industry (64-bit Multi-language) (2) (4), or Windows 10 IoT Enterprise (64-bit Multi-language) |
| <b>Supply voltage</b>                | 24 V ~ (± 20%). AC power supply with external AC/DC power adapter HMIYPSOMAC1.   |
| <b>Standards and certifications</b>  | CE, cULus (UL IT 60950, CSA IT 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)  |
| <b>Software</b>                      | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Machine SCADA Expert Run Time (4), EcoStruxure Secure Connect Advisor (5)      |
| <b>References</b>                    | <b>HMIPSO●552D1●01, HMIPSO●752D1●01</b>  |
| <b>Pages</b>                         | 2/2 and 2/3  |
| <b>Configured-To-Order</b>           | See configured Harmony S-Panel PC on <a href="#">page 2/23</a>   |

(1) With HMIYPADPSOSTO1 expansion kit for HMIPSO allowing 1 HDD/SSD slot and 1 mini PCIe slot.  
(2) Windows 8.1 requires user activation.  
(3) To be installed and activated by unlimited license HMIRWCZLSPAZZ (Digital) or HMIRWCZLSPMZZ (Paper).

Harmony HMIPS S-Panel PC  
HMIPSP Performance

Harmony HMIPEP Enclosed Panel PC  
HMIPEP Performance



|  |   |
|--|---|
| ★★★★★  | ★★★★★   |
| Panel PC   | Enclosed PC   |
| W15" and W19" multi-touch projected capacitive technology screen   | W19" multi-touch projected capacitive technology screen           |
| HD WFXGA, 1366 × 768 pixels  |   |
| IP66 front panel, NEMA 4X indoor, and 7H hardness anti-scratch   | IP66 on all 6 faces, NEMA 4X indoor, and 7H hardness anti-scratch |
| Intel Core™ i3-4010U dual-core 4 <sup>th</sup> generation (1.7 GHz)  |   |
| 1x full-size mini PCIe slot with optional interface slot   | 1x full-size mini PCIe slot                                       |
| CFast card ≥ 32 GB, or<br>SSD flash disk ≥ 128 GB or ≥ 256 GB with 1.5 million hours MTBF (1), or<br>HDD hard disk ≥ 500 GB Enterprise 24/7 (1)    | SSD flash disk ≥ 128 GB with 1.5 million hours MTBF               |
| 8 GB (not user-expandable)   | –   |
| –  | –   |
| None, or WES 7 Premium SP1 (64-bit), or Windows 8.1 Industry (64-bit Multi-language) (2) (4), or Windows 10 IoT Enterprise (64-bit Multi-language) |   |
| 24 V ~ (± 20%). AC power supply with external AC/DC power adapter HMIYPSPMAC1.   |   |
| CE, cULus (UL IT 60950, CSA IT 60950), RCM, EEcoStruxure Secure Connect Advisor, CCC, FCC (part 15 EMC Class A)                                    |   |
| EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Machine SCADA Expert Run Time (4), EcoStruxure Secure Connect Advisor (5)      |   |
| <b>HMIPSP●752D1●01, HMIPSP●952D1●01</b>  | <b>HMIPEP●952D1●01</b>  |
| 2/4 to 2/7   | 2/8 and 2/9   |
| See configured Harmony S-Panel PC on <a href="#">page 2/23</a>   |   |

(4) With Configured-To-Order Harmony S-Panel PC.  
(5) To be installed and activated with subscription.

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony Edge Box and Modular Box PC

Type of Harmony Edge Box and iPC

Harmony HMIBSC Core Box



|   |  |
|---|--|
| <b>Fanless</b>                          | ★★★★★  |
| <b>Mounting</b>                         | Box PC<br>Panel PC   |
| <b>CPU (1)</b>                          | Processor<br>Expansion slots, interfaces<br>Storage<br>RAM<br>Battery backup         |
| <b>Operating system (1)</b>             | Linux Yocto  |
| <b>Conformal Coating</b>                | Only for HMIBSCEA53D1L0A   |
| <b>Supply voltage</b>                   | 12-24 V $\overline{\text{---}}$ or 100...240 V $\sim$ with power adapter HMIYPSOMAC1 |
| <b>Standards and certifications</b>     | CE, cULus ITE (UL IT 60950, CSA IT 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)  |
| <b>Software, IIoT and Cybersecurity</b> | Secure password boot, Node-RED pre-installed, TPM for Cybersecurity (5)              |
| <b>References</b>                       | <b>HMIBSCEA53D1L0</b>  |
| <b>Pages</b>                            | 3/2 and 3/3  |
| <b>Configured-To-Order</b>              | See configured Harmony Modular Box PC on <a href="#">page 4/32</a>                   |

(1) For mini PCIe card, cellular 4G or 8x analog input interface 0-10 V.  
 (2) For M.2 card, 2x analog input interface 0-10 V / 4-20 mA.  
 (3) To be installed and activated by unlimited license HMIRTCZLSPAZZ (Digital) or HMIRTCZLSPMZZ (Paper).  
 (4) M.2 SSD 1.5 Millions H. MTBF, 3 years manufacturer warranty.  
 (5) Cybersecurity TPM optional module HMIYBINLTPM201 for hardware encryption with Linux.

Harmony HMIBM Modular Box

| HMIBMI Basic IIoT  |  |                                   | HMIBMO Optimized   |  |
|--|--|-----------------------------------|--|--|
|  |  |                                   |  |  |
| ★★★★★  |  |                                   | ★★★★★  |  |
| HMIBM Box wall/book/DIN rail/Flat  |  |                                   | HMIBM Box wall/book/ DIN rail/ Flat  |  |
| HMIBM Box + associated HMIDM Display (9)   |  |                                   | HMIBM Box + associated HMIDM Display (9)   |  |
| Intel Atom Apollo Lake E3930 dual-core 1.8 GHz   |  |                                   | Intel Atom Apollo Lake E3930 dual-core 1.8 GHz   |  |
| 1x mini PCIe full slot with optional interface   |  |                                   | 1x mini PCIe full slot without optional interface  | 1x mini PCIe full slot with optional interface   |
| 64 GB eMMc (soldered)  | 128 GB eMMc (soldered)   | 128 GB eMMc (soldered)            | 64 GB M.2 SSD (4) or None  | 250 GB M.2 SSD (4) or None   |
| 4 GB (not user-expandable)   |  |                                   | 4 GB (not user-expandable)   | 4 GB or 8 GB (not user-expandable)   |
| Optional   |  |                                   | Optional   |  |
| None or Windows 10 IoT Enterprise LTSC (64-bit)  | Windows 10 IoT Enterprise LTSC (64-bit)  | None or Configured-To-Order offer | None or Windows 10 IoT Enterprise LTSC (64-bit)  | None or Windows 10 IoT Enterprise LTSC (64-bit)  |
| No   | No   | Yes                               | No   | Only for HMIBMO0A5DDF10A   |
| 12-24 V $\overline{\text{---}}$ or 100...240 V $\sim$ with power adapter HMIYPSOMAC1   |  |                                   | 12-24 V $\overline{\text{---}}$ or 100...240 V $\sim$ with power adapter HMIYPSOMAC1   |  |
| CE, cULus ITE (UL IT 60950, CSA IT 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)  |  |                                   | CE, RCM, EAC, CCC, cULus Industrial Control (UL 61010, CSA 22.2 No.142), cULus Hazardous locations (ANSI/ISA 12.12.01 and CSA C22.2 No. 213, Class I, Division 2), CE ATEX and IECEx Hazardous Locations 3GD Zone 2/22, Marine DNV (without HDD) |  |
| EcoStruxure Operator Terminal Expert (3), EcoStruxure Secure Connect Advisor (10), McAfee whitelisting (6), TPM (8), Secure password boot UEFI, Node-RED pre-installed/to be installed (7) or None | EcoStruxure Operator Terminal Expert (3), EcoStruxure Secure Connect Advisor (10), McAfee whitelisting (6), TPM (8), Secure password boot UEFI, Node-RED to be installed (7) or None | None or Configured-To-Order offer | EcoStruxure Operator Terminal Expert (3), EcoStruxure Machine SCADA Expert Run Time (11), EcoStruxure Secure Connect Advisor (10), McAfee whitelisting (6), TPM (8), Secure password boot UEFI, Node-RED to be installed (7) or None             | EcoStruxure Operator Terminal Expert (3), EcoStruxure Machine SCADA Expert Run Time (11), EcoStruxure Secure Connect Advisor (10), McAfee whitelisting (6), TPM (8), Secure password boot UEFI, Node-RED to be installed (7) or None |
| <b>HMIBMIEA5DD101</b>  | <b>HMIBMIEA5DD110L</b>   | <b>HMIBMIEA5DD100A</b>            | <b>HMIBMOMA5DD101</b>  | <b>HMIBMOMA5DDF10</b>  |
| 4/2 and 4/3  |  |                                   | 4/4 and 4/5  |  |
| See configured Harmony Modular Box PC on <a href="#">page 4/32</a>   |  |                                   |  |  |

(6) McAfee whitelisting to be installed and requires license sticker HMIYMACWLIOT1.  
 (7) Node-RED to be installed or through USB key Windows 10 Recovery process ("Windows 10 with Node-RED for IIoT Box" option to be selected).  
 (8) Cybersecurity TPM optional module HMIYMINATPM201 for hardware encryption with Windows bit-locker.  
 (9) For more information, refer to [page 1/8](#).  
 (10) To be installed and activated with subscription.  
 (11) With Configured-To-Order Harmony Modular Box PC.

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIBM Modular Box PC

Type of Harmony iPC

Harmony HMIBM Modular Box PC  
HMIBMU Universal



|   |   |                        |
|---|---|------------------------|
| <b>Fanless</b>                          | ★★★★★ (1)   |                        |
| <b>Mounting</b>                         | Box PC<br>Panel PC  |                        |
| <b>CPU (1)</b>                          | Processor<br>Expansion slots<br>Storage<br>RAM<br>Hot-swap RAID HDD and battery backup  |                        |
| <b>Operating system</b>                 | Intel Celeron® 2980U dual-core (1.6 GHz)<br>2x full-size mini PCIe with 2x optional interface slots, PCI/PCIe (none or 2)<br>None, or CFast card ≥ 32 GB, or SSD flash disk ≥ 128 GB with 1.5 million hours MTBF, or HDD hard disk ≥ 500 GB Enterprise 24/7<br>4 GB (not user-expandable)      8 GB (not user-expandable)<br>Optional |                        |
| <b>Conformal coating</b>                | None, or WES 7 Premium SP1 (64-bit), or Windows 8.1 Industry (64-bit Multi-language) (2),(4), or Windows 10 IoT Enterprise (64-bit Multi-language)      None or Configured-To-Order offer   |                        |
| <b>Supply voltage</b>                   | –      Yes  |                        |
| <b>Standards and certifications</b>     | 18...36 V ~ or 100...240 V ~ with modular power adapter HMIYMMAC1<br>CE, RCM, EAC, CCC, cULus Industrial Control (UL 61010, CSA 22.2 No. 142 ), cULus Hazardous locations (ANSI/ISA 12.12.01 and CSA C22.2 No. 213, Class I, Division 2), CE ATEX and IECEx Hazardous Locations 3GD Zone 2/22   |                        |
| <b>Software, IIoT and Cybersecurity</b> | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Machine SCADA Expert Run Time (4), Node-RED to be installed, McAfee whitelisting (5), EcoStruxure Secure Connect Advisor (6), TPM for Cybersecurity (7)      None or Configured-To-Order offer  |                        |
| <b>References</b>                       | <b>HMIBMU•I29D••01</b>  | <b>HMIBMU0I29D•00A</b> |
| <b>Pages</b>                            | 4/6 and 4/7   |                        |
| <b>Configured-To-Order</b>              | See configured Harmony Modular Box PC on <a href="#">page 4/32</a>  |                        |

(1) HMIYBFT4BM11 fan kit is required only when PCI/PCIe expansions cards above 3W are installed.  
 (2) Windows 8.1 requires user activation.  
 (3) To be installed and activated by unlimited license HMIRWCZLSPAZZ (Digital) or HMIRWCZLSPMZZ (Paper).  
 (4) With Configured-To-Order Harmony Modular Box PC.

Harmony HMIBM Modular Box PC  
HMIBMP Performance



|   |  |                        |
|---|--|------------------------|
| <b>Fanless</b>                          | ★★★★★ (1)  |                        |
| <b>Mounting</b>                         | HMIBM Box wall/book mounting<br>HMIBM Box + associated HMIDM Display (8)   |                        |
| <b>CPU (1)</b>                          | Intel Core i7-4650U (1.7 GHz low power with turbo boost at 3.3 GHz)<br>2x full-size mini PCIe with 2x optional interface slots, PCI/PCIe (none or 2)<br>None, or SSD flash disk ≥ 128 GB with 1.5 million hours MTBF, or HDD hard disk ≥ 500 GB Enterprise 24/7<br>8 GB (not user-expandable)      16 GB (not user-expandable)<br>Optional   |                        |
| <b>Operating system</b>                 | None, or WES 7 Premium SP1 (64-bit) (2), or Windows 8.1 Industry (64-bit Multi-language) (2),(4), or Windows 10 IoT Enterprise (64-bit Multi-language)      None or Configured-To-Order offer  |                        |
| <b>Conformal coating</b>                | –      Yes   |                        |
| <b>Supply voltage</b>                   | 18...36 V ~ or 100...240 V ~ with modular power adapter HMIYMMAC1  |                        |
| <b>Standards and certifications</b>     | CE, RCM, EAC, CCC, cULus Industrial Control (UL 61010, CSA 22.2 No. 142 ), cULus Hazardous Locations (ANSI/ISA 12.12.01 and CSA C22.2 No. 213, Class I, Division 2), CE ATEX and IECEx Hazardous Locations 3GD Zone 2/22, Marine DNV (without HDD)   |                        |
| <b>Software, IIoT and Cybersecurity</b> | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Machine SCADA Expert Run Time (4), Node-RED to be installed, McAfee whitelisting (5), EcoStruxure Secure Connect Advisor (6), TPM for Cybersecurity (7)      None or Configured-To-Order offer, Node-RED to be installed, McAfee whitelisting (5), EcoStruxure Secure Connect Advisor (6), TPM for Cybersecurity (7) |                        |
| <b>References</b>                       | <b>HMIBMP•I74D••01</b>   | <b>HMIBMP0I74D•00A</b> |
| <b>Pages</b>                            | 4/8 and 4/9  |                        |
| <b>Configured-To-Order</b>              | See configured Harmony Modular Box on <a href="#">page 4/32</a>  |                        |

(5) McAfee whitelisting to be installed, and requires license sticker HMIYMACWLIOT1.  
 (6) To be installed and activated with subscription.  
 (7) Cybersecurity TPM optional module HMIYMINATPM201 for hardware encryption with Windows bit-locker.  
 (8) For more information, refer to [page 1/8](#).



# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIDM Modular Display and HMIDID iDisplay

Modular displays for Panel PC mounting

Harmony HMIDM Modular Display



|                                     |               |  |                                |                             |                              |
|-------------------------------------|---------------|--|--------------------------------|-----------------------------|------------------------------|
| <b>Display</b>                      | Touch screen  | 4:3 12" single-touch resistive   | 4:3 15" single-touch resistive | W12" multi-touch capacitive | W15" multi-touch capacitive  |
| Definition                          |               | XGA, 1024 x 768 pixels   |                                | WHD/WXGA, 1280 x 800 pixels | WHD/FWXGA, 1366 x 768 pixels |
| Front protection                    |               | IP66, NEMA 4X indoor, and 7H hardness anti-scratch   |                                |                             |                              |
| Front USB port                      |               | 1x USB 2.0 port  | -                              |                             |                              |
| <b>Supply voltage</b>               |               | -  |                                |                             |                              |
| <b>Standards and certifications</b> |               | CE, Marine DNV, RCM, EAC, CCC, cULus Industrial Control (UL 61010, CSA 22.2 No.142), cULus HazLoc (ANSI/ISA 12.12.01 and CSA C22.2 No. 213, Class I, Division 2), CE ATEX and IECEx HazLoc 3GD Zone (15" only), FCC (part 15 EMC Class A). |                                |                             |                              |
| <b>Marine certifications</b>        |               | -  |                                |                             |                              |
| <b>Compatibility</b>                |               | All HMIBM Modular Boxes  |                                |                             |                              |
| <b>Mounting</b>                     | Panel PC      | HMIBM Box + Associated HMIDM Display   |                                |                             |                              |
|                                     | Panel monitor | HMIDAD Adapter + Associated HMIDM Display  |                                |                             |                              |
| <b>References</b>                   |               | <b>HMIDM6421</b>   | <b>HMIDM7421</b>               | <b>HMIDM6521</b>            | <b>HMIDM7521</b>             |
| <b>Pages</b>                        |               | 4/24   |                                |                             |                              |

(1) To be installed and activated by unlimited license HMIRTCZLSPAZZ (Digital) or HMIRTCZLSPMZZ (Paper).  
(2) For more information, please refer to Harmony Display Adapter on page 4/28.

Harmony HMIDM Modular Display

Harmony HMIDAD Display Adapter (2)



|   |                             |  |
|---|-----------------------------|--|
| W19" multi-touch capacitive   | W22" multi-touch capacitive | HMIDM Modular Display with HMIDAD Display Adapter, making remote monitors as:<br>□ Local display (maximum distance of 5 m/16.4 ft)<br>□ Remote display (up to 4 daisy chain displays with same screen definition, and maximum distance of 100 m/328 ft for 1 <sup>st</sup> display to 400 m/1312 ft for 4 <sup>th</sup> display) |
| WHD FWXGA, 1366 x 768 pixels  | Full HD, 1920 x 1080 pixels |  |
| IP66, NEMA 4X indoor, and 7H hardness anti-scratch  |                             |  |
| -   | -                           | 1x USB 2.0 (Type B), 1 display port  |
| -   |                             |  |
| CE, Marine DNV, CCC, EAC, RCM, cULus (UL IT 60950, CSA IT 60950), FCC (part 15 EMC Class A) |                             | CE, cULus HazLoc, ATEX, CCC  |
| -   |                             | -  |
| All HMIBM Modular Boxes   |                             | All Harmony HMI Displays   |
| HMIBM Box + Associated HMIDM Display  |                             | -  |
| HMIDAD Adapter + Associated HMIDM Display   |                             | Harmony HMIDM Display mounted on front   |
| <b>HMIDM9521</b>  | <b>HMIDMA521</b>            | <b>HMIDADP11</b>   |
| 4/25  |                             | 4/31   |



# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIR Rack PC and HMIDID Display

Type of Harmony iPC

Harmony HMIR Rack PC  
HMIRXO Optimized PC 2U (2)



|   |           |   |
|---|-----------|---|
| <b>Fanless</b>                                |           | -   |
| <b>CPU (1)</b>                                | Processor | Intel Core G540 (2.5 GHz)   |
|   | PCI slot  | 2x PCIe (x8) + 1 PCI  |
|   | Storage   | No storage drive or 1 HDD   |
|   | RAM       | 2 GB DDR3   |
| <b>Operating system</b>                       |           | None  |
| <b>Supply voltage</b>                         |           | 110...240 V ~ (300 W single power supply)   |
| <b>Standards and certifications</b>           |           | CE, cULus, EAC, CCC, RCM  |
| <b>Software</b>                               |           | Vijeo Designer Run Time Demo (21 day trial version) (1), EcoStruxure Operator Terminal Expert Run Time Demo (3) |
| <b>Compatible display models</b>              |           | Compatible with all screens of Harmony iDisplay range   |
| <b>References</b>                             |           | <b>HMIRXOHC3001</b>   |
| <b>Pages</b>                                  |           | 5/2 and 5/3   |
| <b>Modular displays for Panel PC mounting</b> |           | Harmony HMIDID iDisplay - Remote monitors with DVI port   |



|                                     |                  |                                     |
|-------------------------------------|------------------|-------------------------------------|
| <b>Display</b>                      | Touch screen     | 12" color multi-touch resistive     |
|                                     | Definition       | XGA, 1024 × 768 pixels              |
|                                     | Front protection | IP65                                |
|                                     | Front USB port   | 1x USB 2.0 port                     |
| <b>Supply voltage</b>               |                  | 12...24 V ---                       |
| <b>Standards and certifications</b> |                  | CE, cULus, EAC, RCM, KC, ATEX/IECEX |
| <b>Marine certifications</b>        |                  | BV, CCS, DNV, GL, LR, RINA, ABS     |
| <b>Compatibility</b>                |                  | All PCs with video port             |
| <b>Mounting</b>                     | Panel PC         | -                                   |
|                                     | Panel monitor    | Yes                                 |
| <b>References</b>                   |                  | <b>HMIDID64DTD1</b>                 |
| <b>Pages</b>                        |                  | 6/2                                 |

(1) Require Vijeo Designer V6.2 SP2 or later to build and download HMI application.  
(2) Rack 2U or 4U is a unit used to measure the height of a device that will be mounted in an 19" rack enclosure. 1 unit = 44.45 mm/1.75 in. high.

Harmony HMIR Rack PC  
HMIRSP Performance PC 4U (2)



|  |   |
|--|---|
| -  |   |
| Intel Xeon™ Quad core E3-1225 (3.1 GHz)  |   |
| Up to 7 slots: 4x PCIe (x16) + 3x PCI  |   |
| 1x HDD, 2x HDD RAID, or 1x SSD   |   |
| 4 GB DDR3, 8 GB ECC, or 16 GB DDR3   |   |
| Windows Server 2012 R2   |   |
| 110...240 V ~ (500 W single or redundant power supply)   |   |
| CE, cULus, EAC, CCC, RCM   |   |
| Vijeo Designer Run Time Demo (21 day trial version) (1), EcoStruxure Operator Terminal Expert Run Time Demo, None, or EcoStruxure Hybrid DCS leaflet |   |
| Compatible with all screens of Harmony iDisplay range  |   |
| <b>HMIRSPXR6T01</b>  |   |
| 5/2 and 5/3  |   |
| <b>Harmony HMIDID iDisplay</b>   | <b>Alternate Display option with Harmony HMIDAD Display Adapter (4)</b> |



|                                     |                  |   |
|-------------------------------------|------------------|---|
| <b>Display</b>                      | Touch screen     | 15" color multi-touch resistive   |
|                                     | Definition       | XGA, 1024 × 768 pixels  |
|                                     | Front protection | IP65  |
|                                     | Front USB port   | 1x USB 2.0 port   |
| <b>Supply voltage</b>               |                  | 12...24 V ---   |
| <b>Standards and certifications</b> |                  | CE, cULus, EAC, RCM, KC, ATEX/IECEX   |
| <b>Marine certifications</b>        |                  | BV, CCS, DNV, GL, LR, RINA, ABS   |
| <b>Compatibility</b>                |                  | All PCs with video port   |
| <b>Mounting</b>                     | Panel PC         | -   |
|                                     | Panel monitor    | Yes   |
| <b>References</b>                   |                  | <b>HMIDID73DTD1</b>   |
| <b>Pages</b>                        |                  | 6/3   |
|                                     |                  | HMIDM Modular Display with HMIDAD Display Adapter, making remote monitors as:<br><input type="checkbox"/> Local display (maximum distance of 5 m/16.40 ft)<br><input type="checkbox"/> Remote display (up to 4 daisy chain displays with same screen definition, and maximum distance of 100 m/328 ft for 1 <sup>st</sup> display to 400 m/1312 ft for 4 <sup>th</sup> display) |
|                                     |                  | 1x USB 2.0 (Type B), 1x display port  |
|                                     |                  | 12...24 V ---   |
|                                     |                  | CE, cULus HazLoc, ATEX, CCC   |
|                                     |                  | -   |
|                                     |                  | All Harmony HMI Displays  |
|                                     |                  | -   |
|                                     |                  | Harmony HMIDM Display mounted on front  |
| <b>References</b>                   |                  | <b>HMIDADP11</b>  |
| <b>Pages</b>                        |                  | 4/31  |

(3) To be installed and activated by unlimited license HMIRWCZLSPAZZ (Digital) or HMIRWCZLSPMZZ (Paper).  
(4) For more information, please refer to Harmony Display Adapter on page 4/28.



# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIPS S-Panel and HMIPEP Enclosed Panel  
PCs

---

## Harmony HMIPS S-Panel and HMIPEP Enclosed Panel PCs

- Selection guide** ..... [page 2/2](#)
- **HMIPSO Optimized**
  - Presentation ..... [page 2/10](#)
  - Description ..... [page 2/11](#)
  - References
    - Harmony HMIPSO Optimized: 10" touch screen ..... [page 2/12](#)
    - Harmony HMIPSO Optimized: 15" touch screen ..... [page 2/13](#)
- **HMIPSP Performance**
  - Presentation ..... [page 2/14](#)
  - Description ..... [page 2/15](#)
  - References
    - Harmony HMIPSP Performance: 15" touch screen ..... [page 2/16](#)
    - Harmony HMIPSP Performance: 19" touch screen ..... [page 2/17](#)
- **HMIPEP Performance**
  - Presentation ..... [page 2/18](#)
  - Description ..... [page 2/19](#)
  - References
    - Harmony HMIPEP Performance: 19" touch screen ..... [page 2/19](#)
- **References**
  - Separate components
    - Drives ..... [page 2/20](#)
    - Interfaces ..... [page 2/20](#)
    - Accessories ..... [page 2/22](#)
  - Configured-To-Order:  
Harmony HMIPSO/HMIPSP/HMIPEP Panel PCs ..... [page 2/23](#)
  - Equivalent product table ..... [page 2/23](#)



# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIPS S-Panel PC  
HMIPSO Optimized - 10" and 15" touch screens

Type of Harmony iPC

Harmony HMIPSO Optimized S-Panel PC - 10" touch screen



|                                     |  |   |   |   |  |   |
|-------------------------------------|--|---|---|---|--|---|
| <b>Fanless</b>                      |  | ★★★★★   |   |   |  |   |
| <b>Mounting type</b>                |  | Panel PC  |   |   |  |   |
| <b>Screen</b>                       | Type   | LED LCD 5-point multi-touch projected capacitive technology screen  |   |   |  |   |
|                                     | Size   | W 10.1"   |   |   |  |   |
|                                     | Resolution   | HD WSVGA, 1280 × 800 pixels, 267,000 colors   |   |   |  |   |
|                                     | Degree of protection   | IP66 front panel, NEMA 4X indoor, and 7H hardness anti-scratch  |   |   |  |   |
|                                     | View angle   | Vertical 160°, horizontal 160°  |   |   |  |   |
|                                     | Backlight  | Life span > 50,000 hrs @ 25 °C/77 °F  |   |   |  |   |
|                                     | Operate with water on screen   | Yes   |   |   |  |   |
| <b>CPU</b>                          | Processor  | Intel® Atom E3827 dual-core (1.75 GHz, low power)   |   |   |  |   |
|                                     | Storage  | Main drive  | CFast ≥ 32 GB   | SSD flash disk ≥ 128 GB (5-year manufacturer warranty and 1.5 million hours MTBF) (1) | HDD hard disk ≥ 500 GB Enterprise 24/7 (1) | – |
|                                     |  | Slots   | <input type="checkbox"/> 1 CFast card slot<br><input type="checkbox"/> 1x 2.5" SATA HDD/SSD storage slot, user-accessible (1) |   |  |   |
|                                     | Expansion kit (1)  | Optional  | Default   | Default   | Optional                                   |   |
|                                     | RAM  | 4 GB DDR3 (not user-expandable)   |   |   |  |   |
|                                     | Integrated ports   | <input type="checkbox"/> 2 RJ45 Ethernet 10/100/1,000 Mbps<br><input type="checkbox"/> 1 USB 3.0 (Type A), 1 USB 2.0 (Type A)<br><input type="checkbox"/> 1 RS-232, 1 RS-232C/422/485 |   |   |  |   |
|                                     | Watchdog timer   | Timer with 255 levels/intervals, programmable, 1...255 s  |   |   |  |   |
| <b>Operating system</b>             |  | WES 7 Premium SP1 (64-bit Multi-language) (5)   | Windows 10 IIoT Enterprise (64-bit Multi-language)  | None or configured-to-order offer   |  |   |
| <b>Power supply</b>                 | Supply voltage   | 24 V ~ (± 20%), AC power supply with external AC/DC power adapter HMIYPSOMAC1.  |   |   |  |   |
|                                     | Current consumption  | 1.9 A typical   |   |   |  |   |
| <b>Dimensions</b>                   | Overall (W × H × D)  | 283.1 × 202.3 × 61.3 mm (11.15 × 7.96 × 2.41 in.)   |   |   |  |   |
|                                     | Mounting cut-out (W × H) with snap hook (3)                                  | 274.6 × 193.8 mm (10.81 × 7.63 in.)   |   |   |  |   |
| <b>Temperature</b>                  | During operation (1)   | 0...55 °C/32...131 °F   | 0...45 °C/32...113 °F   | 0...55 °C/32...131 °F   |  |   |
|                                     | During storage   | -30...70 °C/-22...158 °F  |   |   |  |   |
| <b>Vibration resistance</b>         | During operation   | 2 g from 5...500 Hz with SSD/CFast and 1 g from 5...500 Hz with HDD   |   |   |  |   |
| <b>Standards and certifications</b> |  | CE, cULus ITE (UL IT 60950, CSAIT 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)  |   |   |  |   |
| <b>Software</b>                     | EcoStruxure Operator Terminal Expert (2)                                     | EcoStruxure Operator Terminal Expert (2)  | EcoStruxure Operator Terminal Expert (2)  | –   |  |   |
|                                     | EcoStruxure Machine SCADA Expert (5), EcoStruxure Secure Connect Advisor (6) |   |   |   |  |   |
| <b>References</b>                   | <b>HMIPSOC552D1W01</b>   | <b>HMIPSOS552D1801</b>  | <b>HMIPSOH552D1801</b>  | <b>HMIPSO0552D1001</b>  |  |   |
| <b>Page</b>                         | 2/12   |   |   |   |  |   |
| <b>Configured-To-Order</b>          | See configured Harmony Optimized S-Panel PC on <a href="#">page 2/23</a>     |   |   |   |  |   |

(1) HMIYPADPSOSTO1 expansion kit for HMIPSO allowing 1 SATA HDD/SSD slot and 1 mini PCIe slot with its optional interface slot. Mini PCIe is limited to 0...45 °C/32...113 °F operating temperature.  
 (2) EcoStruxure Operator Terminal Expert Run Time: The demo version can be used temporarily without activation (installation from EcoStruxure Operator Terminal Expert Build Time DVD) and can be upgraded to unlimited version by purchasing the license HMIRTWCZLSPAZZ (Digital) or HMIRTWCZLSPMZZ (Paper).  
 (3) Snap hook allows mounting of S-Panel PC in the panel cut-out single-handedly.

Harmony HMIPSO Optimized S-Panel PC - 15" touch screen



|                                     |  |   |   |   |  |   |
|-------------------------------------|--|---|---|---|--|---|
| <b>Fanless</b>                      |  | ★★★★★   |   |   |  |   |
| <b>Mounting type</b>                |  | Panel PC  |   |   |  |   |
| <b>Screen</b>                       | Type   | LED LCD 5-point multi-touch projected capacitive technology screen  |   |   |  |   |
|                                     | Size   | W 15.6"   |   |   |  |   |
|                                     | Resolution   | HD FWXGA, 1366 × 768 pixels, 16.7 million colors  |   |   |  |   |
|                                     | Degree of protection   | IP66 front panel, NEMA 4X indoor, and 7H hardness anti-scratch  |   |   |  |   |
|                                     | View angle   | Vertical 140°, horizontal 150°  |   |   |  |   |
|                                     | Backlight  | Life span > 50,000 hrs @ 25 °C/77 °F  |   |   |  |   |
|                                     | Operate with water on screen   | Yes   |   |   |  |   |
| <b>CPU</b>                          | Processor  | Intel Atom E3827 dual-core (1.75 GHz, low power)  |   |   |  |   |
|                                     | Storage  | Main drive  | CFast card ≥ 32 GB  | SSD flash disk ≥ 128 GB (5-year manufacturer warranty and 1.5 million hours MTBF) (1) | HDD hard disk ≥ 500 GB Enterprise 24/7 (1) | – |
|                                     |  | Slots   | <input type="checkbox"/> 1 CFast card slot<br><input type="checkbox"/> 1x 2.5" SATA HDD/SSD storage slot, user-accessible (1) |   |  |   |
|                                     | Expansion kit (1)  | Optional  | Default   | Default   | Optional                                   |   |
|                                     | RAM  | 4 GB DDR3 (not user-expandable)   |   |   |  |   |
|                                     | Integrated ports   | <input type="checkbox"/> 2 RJ45 Ethernet 10/100/1,000 Mbps<br><input type="checkbox"/> 1 USB 3.0 (Type A), 1 USB 2.0 (Type A)<br><input type="checkbox"/> 1 RS-232, 1 RS-232C/422/485 |   |   |  |   |
|                                     | Watchdog timer   | Timer with 255 levels/intervals, programmable, 1...255 s  |   |   |  |   |
| <b>Operating system</b>             |  | WES 7 Premium SP1 (64-bit Multi-language) (4)   | Windows 10 IIoT Enterprise (64-bit Multi-language)  | None or configured-to-order offer   |  |   |
| <b>Power supply</b>                 | Supply voltage   | 24 V ~ (± 20%), AC power supply with external AC/DC power adapter HMIYPSOMAC1.  |   |   |  |   |
|                                     | Current consumption  | 1.7 A typical   |   |   |  |   |
| <b>Dimensions</b>                   | Overall (W × H × D)  | 419.7 × 269 × 61.9 mm (16.52 × 10.59 × 2.44 in.)  |   |   |  |   |
|                                     | Mounting cut-out (W × H) with snap hook (3)                                  | 412.4 × 261.7 mm (16.24 × 10.30 in.)  |   |   |  |   |
| <b>Temperature</b>                  | During operation (1)   | 0...55 °C/32...131 °F   | 0...45 °C/32...113 °F   | 0...55 °C/32...131 °F   |  |   |
|                                     | During storage   | -30...70 °C/-22...158 °F  |   |   |  |   |
| <b>Vibration resistance</b>         | During operation   | 2 g from 5...500 Hz with SSD/CFast and 1 g from 5...500 Hz with HDD   |   |   |  |   |
| <b>Standards and certifications</b> |  | CE, cULus ITE (UL 60950, CSA22.2 n° 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)  |   |   |  |   |
| <b>Software</b>                     | EcoStruxure Operator Terminal Expert (2)                                     | EcoStruxure Operator Terminal Expert (2)  | EcoStruxure Operator Terminal Expert (2)  | –   |  |   |
|                                     | EcoStruxure Machine SCADA Expert (5), EcoStruxure Secure Connect Advisor (6) |   |   |   |  |   |
| <b>References</b>                   | <b>HMIPSOC752D1W01</b>   | <b>HMIPSOS752D1801</b>  | <b>HMIPSOH752D1801</b>  | <b>HMIPSO0752D1001</b>  |  |   |
| <b>Page</b>                         | 2/13   |   |   |   |  |   |
| <b>Configured-To-Order</b>          | See configured Harmony Optimized S-Panel PC on <a href="#">page 2/23</a>     |   |   |   |  |   |

(4) WES 7 Premium SP1 (64-bit Multi-language) supplied in 9 languages (English, French, German, Italian, Portuguese, Spanish, Swedish, Chinese, Russian). Also includes:  
 - Microsoft Word/Excel/Power Point Viewer  
 - Framework.Net 3.5  
 - Web browser  
 (5) EcoStruxure Machine SCADA Expert Run Time with Configured-To-Order Harmony S-Panel PCs.  
 (6) To be installed and activated with subscription.



# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIPS S-Panel PC  
HMIPSP Performance - 19" touch screen

Type of Harmony iPC

Harmony HMIPSP Performance S-Panel PC - 19" touch screen



|                                     |  |   |   |  |
|-------------------------------------|--|---|---|--|
| <b>Fanless</b>                      |  | ★★★★★   |   |  |
| <b>Mounting type</b>                |  | Panel PC  |   |  |
| <b>Screen</b>                       | Type   | LED LCD 5-point multi-touch projected capacitive technology screen  |   |  |
|                                     | Size   | W 18.5"   |   |  |
|                                     | Resolution   | HD WFXGA, 1366 × 768 pixels, 16.7 million colors  |   |  |
|                                     | Degree of protection                                     | IP66 front panel, NEMA 4X indoor, and 7H hardness anti-scratch  |   |  |
|                                     | View angle   | Vertical 160°, horizontal 170°  |   |  |
|                                     | Backlight  | Life span > 50,000 hrs @ 25 °C/77 °F  |   |  |
|                                     | Operate with water on screen                             | Yes   |   |  |
| <b>CPU</b>                          | Processor  | Intel Core i3-4010U dual-core 4 <sup>th</sup> generation (1.7 GHz)  |   |  |
|                                     | Expansion slot   | 1 full-size mini PCIe slot with 1 optional interface slot (1)   |   |  |
|                                     | Storage  | Main drive  | CFast card ≥ 32 GB  |  |
|                                     |  | Slots   | SSD flash disk ≥ 128 GB (5-year manufacturer warranty and 1.5 million hours MTBF) |  |
|                                     | RAM  | 8 GB DDR3 (not user-expandable)   |   |  |
|                                     | Integrated ports   | <input type="checkbox"/> 2 RJ45 Ethernet 10/100/1,000 Mbps<br><input type="checkbox"/> 2 USB 3.0<br><input type="checkbox"/> 1 RS-232, 1 RS-232C/422/485<br><input type="checkbox"/> 1 HDMI port<br><input type="checkbox"/> 1 Audio out<br><input type="checkbox"/> 3 SMA connectors for the external antennas |   |  |
| Watchdog timer                      | Timer with 255 levels/intervals, programmable, 1...255 s |   |   |  |
| <b>Operating system</b>             |  | WES 7 Premium SP1 (64-bit) (5)   Windows 10 IoT Enterprise (64-bit Multi-language)  |   |  |
| <b>Power supply</b>                 | Supply voltage   | 24 V ~ (± 20%), AC power supply with external AC/DC power adapter HMIYPSMAC1.   |   |  |
|                                     | Power consumption  | 28 W typical, 60 W max.   |   |  |
| <b>Dimensions</b>                   | Overall (W × H × D)                                      | 488 × 309 × 56.7 mm (19.21 × 12.16 × 2.23 in.)  |   |  |
|                                     | Mounting cut-out (W × H) with snap hook (3)              | 479.3 × 300.3 mm (18.87 × 11.82 in.)  |   |  |
| <b>Temperature</b>                  | During operation   | 0...55 °C/32...131 °F   |   |  |
|                                     | During storage   | -20...60 °C/-4...140 °F   |   |  |
| <b>Vibration resistance</b>         | During operation   | 2 g from 5...500 Hz with SSD/CFast and 1 g from 5...500 Hz with HDD   |   |  |
| <b>Standards and certifications</b> |  | CE, cULus ITE (UL 60950, CSA22.2 No. 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)   |   |  |
| <b>Software</b>                     |  | EcoStruxure Operator Terminal Expert (2)   EcoStruxure Operator Terminal Expert (2)<br>EcoStruxure Machine SCADA Expert (5), EcoStruxure Secure Connect Advisor (6)   |   |  |
| <b>References</b>                   |  | <b>HMIPSPC952D1W01</b>   <b>HMIPSPS952D1801</b>   |   |  |
| <b>Page</b>                         |  | 2/17  |   |  |
| <b>Configured-To-Order</b>          |  | See configured Harmony Performance S-Panel PC on <a href="#">page 2/23</a>  |   |  |

(1) See accessories ([page 2/17](#)) for additional ports through Mini PCIe and optional interface.  
 (2) EcoStruxure Operator Terminal Expert Run Time: The demo version can be used temporarily without activation (installation from EcoStruxure Operator Terminal Expert Build Time DVD) and can be upgraded to unlimited version by purchasing the license HMIRTCZLSPAZZ (Digital) or HMIRTCZLSPMZZ (Paper).  
 (3) Snap hook allows mounting of S-Panel PC in the panel cut-out single-handedly.

Harmony HMIPSP Performance S-Panel PC - 19" touch screen



|                                     |  |   |   |  |
|-------------------------------------|--|---|---|--|
| <b>Fanless</b>                      |  | ★★★★★   |   |  |
| <b>Mounting type</b>                |  | Panel PC  |   |  |
| <b>Screen</b>                       | Type   | LED LCD 5-point multi-touch projected capacitive technology screen  |   |  |
|                                     | Size   | W 18.5"   |   |  |
|                                     | Resolution   | HD WFXGA, 1366 × 768 pixels, 16.7 million colors  |   |  |
|                                     | Degree of protection                                     | IP66 front panel, NEMA 4X indoor, and 7H hardness anti-scratch  |   |  |
|                                     | View angle   | Vertical 160°, horizontal 170°  |   |  |
|                                     | Backlight  | Life span > 50,000 hrs @ 25 °C/77 °F  |   |  |
|                                     | Operate with water on screen                             | Yes   |   |  |
| <b>CPU</b>                          | Processor  | Intel Core i3-4010U dual-core 4 <sup>th</sup> generation (1.7 GHz)  |   |  |
|                                     | Expansion slot   | 1 full-size mini PCIe slot with 1 optional interface slot (1)   |   |  |
|                                     | Storage  | Main drive  | SSD flash disk ≥ 256 GB (5-year manufacturer warranty and 1.5 million hours MTBF) |  |
|                                     |  | Slots   | HDD hard disk ≥ 500 GB Enterprise 24/7  |  |
|                                     | RAM  | 8 GB DDR3 (not user-expandable)   |   |  |
|                                     | Integrated ports   | <input type="checkbox"/> 2 RJ45 Ethernet 10/100/1,000 Mbps<br><input type="checkbox"/> 2 USB 3.0<br><input type="checkbox"/> 1 RS-232, 1 RS-232C/422/485<br><input type="checkbox"/> 1 HDMI port<br><input type="checkbox"/> 1 Audio out<br><input type="checkbox"/> 3 SMA connectors for the external antennas |   |  |
| Watchdog timer                      | Timer with 255 levels/intervals, programmable, 1...255 s |   |   |  |
| <b>Operating system</b>             |  | Windows 10 IoT Enterprise (64-bit Multi-language)   None or Configured-to-order offer   |   |  |
| <b>Power supply</b>                 | Supply voltage   | 24 V ~ (± 20%), AC power supply with external AC/DC power adapter HMIYPSMAC1.   |   |  |
|                                     | Power consumption  | 28 W typical, 60 W max.   |   |  |
| <b>Dimensions</b>                   | Overall (W × H × D)                                      | 488 × 309 × 56.7 mm (19.21 × 12.16 × 2.23 in.)  |   |  |
|                                     | Mounting cut-out (W × H) with snap hook (3)              | 479.3 × 300.3 mm (18.87 × 11.82 in.)  |   |  |
| <b>Temperature</b>                  | During operation   | 0...55 °C/32...131 °F   |   |  |
|                                     | During storage   | -20...60 °C/-4...140 °F   |   |  |
| <b>Vibration resistance</b>         | During operation   | 2 g from 5...500 Hz with SSD/CFast and 1 g from 5...500 Hz with HDD   |   |  |
| <b>Standards and certifications</b> |  | CE, cULus ITE (UL 60950, CSA22.2 No. 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)   |   |  |
| <b>Software</b>                     |  | EcoStruxure Operator Terminal Expert (2)   EcoStruxure Operator Terminal Expert (2)<br>EcoStruxure Machine SCADA Expert (5), EcoStruxure Secure Connect Advisor (6)   |   |  |
| <b>References</b>                   |  | <b>HMIPSPS952D180L</b>   <b>HMIPSPH952D1801</b>   <b>HMIPSP0952D1001</b>  |   |  |
| <b>Page</b>                         |  | 2/17  |   |  |
| <b>Configured-To-Order</b>          |  | See configured Harmony Performance S-Panel PC on <a href="#">page 2/23</a>  |   |  |

(4) WES 7 Premium SP1 (64-bit) supplied in 9 languages (English, French, German, Italian, Portuguese, Spanish, Swedish, Chinese, Russian). Also includes:  
 - Microsoft Word/Excel/Power Point Viewer  
 - Framework.Net 3.5  
 - Web browser  
 (5) With Configured-To-Order Harmony iPC.  
 (6) To be installed and activated with subscription.



# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIPEP Enclosed Panel PC  
HMIPEP Performance - 19" touch screen

Type of Harmony iPC

Harmony HMIPEP Performance Enclosed Panel PC - 19" touch screen



|                                     |                              |            |
|-------------------------------------|------------------------------|------------|
| <b>Fanless</b>                      |                              |            |
| <b>Mounting type</b>                |                              |            |
| <b>Screen</b>                       | Type                         |            |
|                                     | Size                         |            |
|                                     | Resolution                   |            |
|                                     | Degree of protection         |            |
|                                     | View angle                   |            |
|                                     | Backlight                    |            |
|                                     | Operate with water on screen |            |
| <b>CPU</b>                          | Processor                    |            |
|                                     | Expansion slot               |            |
|                                     | Storage                      | Main drive |
|                                     |                              | Slots      |
|                                     | RAM                          |            |
|                                     | Integrated ports             |            |
| Watchdog timer                      |                              |            |
| <b>Operating system</b>             |                              |            |
| <b>Power supply</b>                 | Supply voltage               |            |
|                                     | Power consumption            |            |
| <b>Dimensions</b>                   | Overall (W × H × D)          |            |
| <b>Temperature</b>                  | During operation             |            |
|                                     | During storage               |            |
| <b>Vibration resistance</b>         | During operation             |            |
| <b>Standards and certifications</b> |                              |            |
| <b>Software</b>                     |                              |            |
| <b>References</b>                   |                              |            |
| <b>Page</b>                         |                              |            |
| <b>Configured-To-Order</b>          |                              |            |

|   |  |
|---|--|
| ★★★★★   |  |
| Enclosed PC   |  |
| LED LCD 5-point multi-touch projected capacitive technology screen                              |  |
| W 18.5"   |  |
| HD WFGA, 1366 × 768 pixels, 16.7 million colors   |  |
| IP66 all over with VESA 100 mounting, NEMA 4X indoor, and 7H hardness anti-scratch front panels |  |
| Vertical 160°, horizontal 170°  |  |
| Life span > 50,000 hrs @ 25 °C/77 °F  |  |
| Yes   |  |
| Intel Core i3-4010U dual-core 4 <sup>th</sup> generation (1.7 GHz)                              |  |
| 1 full-size mini PCIe slot without external interface slot (1)                                  |  |
| SSD flash disk ≥ 128 GB (5-year manufacturer warranty and 1.5 million hours MTBF)               |  |
| <input type="checkbox"/> 1x 2.5" SATA HDD/SSD storage slot, user-accessible                     |  |
| 8 GB DDR3 (not user-expandable)   |  |
| <input type="checkbox"/> 2 Ethernet 10/100/1,000 Mbps M12 A-coding 8-pin female connector       |  |
| <input type="checkbox"/> 1 USB 2.0 with M12 8-pin female connector                              |  |
| <input type="checkbox"/> 1 RS-232 with M12 8-pin male connector                                 |  |
| Timer with 255 levels/intervals, programmable, 1...255 s  |  |
| Windows 10 IoT Enterprise (64-bit Multi-language)   |  |
| 24 V --- (± 20%). AC power supply with external AC/DC power adapter HMIYPSMAC1.                 |  |
| 35 W typical, 60 W max.   |  |
| 419.7 × 269 × 56.7 mm (16.52 × 10.59 × 2.23 in.)  |  |
| 0...55 °C/32...131 °F   |  |
| -20...60 °C/-4...140 °F   |  |
| 2 g from 5...500 Hz with SSD and CFast  |  |
| CE, cULus ITE (UL 60950, CSA22.2 No. 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)           |  |
| EcoStruxure Operator Terminal Expert (2)  |  |
| EcoStruxure Machine SCADA Expert (3), EcoStruxure Secure Connect Advisor (4)                    |  |
| <b>HMIPEPS952D1801</b>  |  |
| 2/19  |  |
| See configured Harmony Enclosed Performance S-Panel PC on <a href="#">page 2/23</a>             |  |

(1) See accessories ([page 2/17](#)) for additional ports through Mini PCIe and optional interface.  
 (2) EcoStruxure Operator Terminal Expert Run Time: The demo version can be used temporarily without activation (installation from EcoStruxure Operator Terminal Expert Build Time DVD) and can be upgraded to unlimited version by purchasing the license HMIRWCZLSPAZZ (Digital) or HMIRWCZLSPMZZ (Paper).

Harmony HMIPEP Performance Enclosed Panel PC - 19" touch screen



|   |  |
|---|--|
| ★★★★★   |  |
| Enclosed PC   |  |
| LED LCD 5-point multi-touch projected capacitive technology screen                              |  |
| W 18.5"   |  |
| HD WFGA 1366 × 768 pixels, 16.7 million colors  |  |
| IP66 all over with VESA 100 mounting, NEMA 4X indoor, and 7H hardness anti-scratch front panels |  |
| Vertical 160°, horizontal 170°  |  |
| Life span > 50,000 hrs @ 25 °C/77 °F  |  |
| Yes   |  |
| Intel Core i3-4010U dual-core 4 <sup>th</sup> generation (1.7 GHz)                              |  |
| 1 full-size mini PCIe slot without external interface slot (1)                                  |  |
| -   |  |
| <input type="checkbox"/> 1x 2.5" SATA HDD/SSD storage slot, user-accessible                     |  |
| 8 GB DDR3 (not user-expandable)   |  |
| <input type="checkbox"/> 2 Ethernet 10/100/1,000 Mbps M12 A-coding 8-pin female connector       |  |
| <input type="checkbox"/> 1 USB 2.0 with M12 8-pin female connector                              |  |
| <input type="checkbox"/> 1 RS-232 with M12 8-pin male connector                                 |  |
| Timer with 255 levels/intervals, programmable, 1...255 s  |  |
| None or configured-to-order offer   |  |
| 24 V --- (± 20%). AC power supply with external AC/DC power adapter HMIYPSMAC1.                 |  |
| 35 W typical, 60 W max.   |  |
| 419.7 × 269 × 56.7 mm (16.52 × 10.59 × 2.23 in.)  |  |
| 0...55 °C/32...131 °F   |  |
| -20...60 °C/-4...140 °F   |  |
| 2 g from 5...500 Hz with SSD and CFast  |  |
| CE, cULus ITE (UL 60950, CSA22.2 No. 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)           |  |
| -   |  |
| EcoStruxure Machine SCADA Expert (3), EcoStruxure Secure Connect Advisor (4)                    |  |
| <b>HMIPEP0952D1001</b>  |  |
| 2/19  |  |
| See configured Harmony Enclosed Performance S-Panel PC on <a href="#">page 2/23</a>             |  |

(3) With Configured-To-Order Harmony iPC.  
 (4) To be installed and activated with subscription.

# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIPS S-Panel PC

### HMIPSO Optimized -10" and 15" touch screens

2



Harmony HMIPSO Optimized S-Panel PCs 10" and 15"

#### Presentation

Harmony HMIPSO Optimized S-Panel PCs are the entry level Panel PCs in the Harmony iPC range. These simple-in-design PCs with Intel™ Atom dual-core CPU cater for the performance requirements of most automation applications in the field.

Harmony Optimized S-Panel PCs offer improved application and operator efficiency with:

- 10"/15" wide TFT multi-touch screens, LED backlight, IP66 protection, and 7H hardness anti-scratch front
- Maintenance-free non-rotating parts and operation up to +55 °C/131 °F (or up to +45 °C/113 °F for models with HDD or mini PCIe)
- Integration of software applications such as HMI EcoStruxure Operator Terminal Expert software and third-party Windows software
- Expansions with optional interfaces based on mini PCIe (Com, USB, HD audio, Video, networks, wireless, etc.)
- Available with WES 7, Windows 10, without an operating system, or with Windows 8.1 in Configured-To-Order offer

#### Overview of the offer

##### Harmony HMIPSO Optimized

The Harmony HMIPSO S-Panel PCs offer comprises 8 references, each equipped with:

- Fanless Intel® Atom E3827 dual-core processor(1.75 GHz)
- 4 GB DDR3 RAM, default mounted
- Connection ports: 1x USB 3.0, 1x USB 2.0, 2x COM (RS-232/422/485), 2 Gigabit Ethernet
- Expansion kit (depending on model): 1x optional/default kit allowing 1x SATA HDD/SSD slot and 1x mini PCIe slot with its optional interface slot
- Power supply: 24 V ~~, AC power supply with external AC/DC power adapter **HMIYPSOMAC1**

The operating systems and storage devices for 10" and 15" touch screens are as follows:

- **HMIPSOC552D1W01** and **HMIPSOC752D1W01**:
  - Operating system: WES 7 Premium SP1 (64-bit)
  - Default storage device: 32 GB CFAST card
- **HMIPSOS552D1801** and **HMIPSOS752D1801**:
  - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
  - Default storage device: 128 GB SSD (5-year manufacturer warranty and 1.5 million hours MTBF)
  - Expansion kit: **HMIYPADPSOSTO1**
- **HMIPSOH552D1801** and **HMIPSOH752D1801**:
  - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
  - Default storage device: 500 GB HDD (Enterprise 24/7)
  - Expansion kit: **HMIYPADPSOSTO1**
- **HMIPSO0552D1001** and **HMIPSO0752D1001**:
  - Operating system: None
  - Default storage device: None

#### Ready-to-run Software for Harmony HMIPSO

Harmony HMIPSO S-Panel PCs are supported by Schneider Electric HMI software. For HMI applications, EcoStruxure Operator Terminal Expert Run Time demo version can be downloaded and activated to unlimited version with **HMIRTCZLSPAZZ** (Digital) or **HMIRTCZLSPMZZ** (Paper) license. For line management and lite supervision, EcoStruxure Machine SCADA Expert Run Time is available via Configured-To-Order process.

For secure remote access, Harmony HMIPSO are supported with EcoStruxure Secure Connect Advisor that will have to be installed and activated with subscription.

For more information on the supported softwares, refer to the following catalogs:

EcoStruxure Operator Terminal Expert ([DIA5ED2140703EN](#)),

EcoStruxure Machine SCADA Expert ([DIA5ED2171201EN](#)),

EcoStruxure Secure Connect Advisor ([DIA5ED2190101EN](#)).

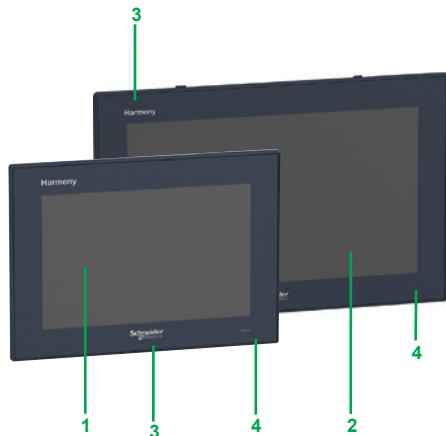
## Description

# Harmony iPC

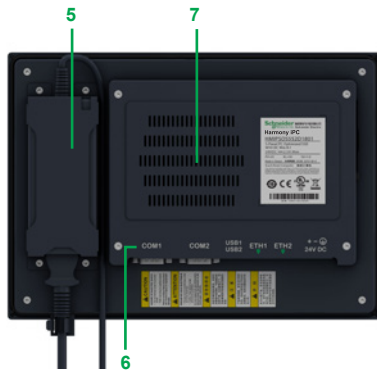
Industrial PC, Edge Box, and Display

Harmony HMIPS S-Panel PC

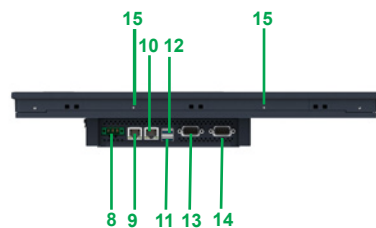
HMIPSO Optimized -10" and 15" touch screens



10" and 15" front view



Rear view



Underside view



Underside view with expansion kit

### Description

#### Harmony HMIPSO Optimized: 10" and 15" touch screens

##### Front view

- 1 10" LCD multi-touch LED screen, HD WSVGA, 1280 × 800 pixels, and 267,000 colors for **HMIPSO●552D1●01**:
  - Brightness: 300 cd/m<sup>2</sup> (adjustable)
  - Type of touch panel: 5-point projected capacitive technology multi-touch
  - Typical viewing angle: 160° (vertically)/160° (horizontally)
- 2 15" LCD multi-touch LED screen, HD WFXGA, 1366 × 768 pixels, and 16 million colors for **HMIPSO●752D1●01**:
  - Brightness: 300 cd/m<sup>2</sup> (adjustable)
  - Type of touch panel: 5-point projected capacitive technology multi-touch
  - Typical viewing angle: 140° (vertically)/150° (horizontally)
- 3 Harmony and Schneider Electric removable stickers
- 4 Power status indicator (Green: On, Orange: Stand-by, No light: Off)

##### Rear view (1)

- 5 Optional AC power supply
- 6 S-Panel PC interface
- 7 Cover for mini PCIe card and HDD/SSD drive

##### Underside view

- 8 DC power connector
- 9 1x Eth1 (10/100/1,000 Mbps)
- 10 1x Eth2 (10/100/1,000 Mbps)
- 11 1x USB2 (USB 2.0)
- 12 1x USB1 (USB 3.0)
- 13 1x COM2 RS-232/422/485 port
- 14 1x COM1 RS-232 port
- 15 Snap hook (2)
- 16 Expansion kit
- 17 Optional interface
- 18 Optional AC power supply

(1) Cooling method is by passive heat sink.

(2) Snap hook allows mounting of S-Panel PC in the panel cut-out single-handedly.

# Harmony iPC

Industrial PC, Edge Box, and Display  
 Harmony HMIPS S-Panel PC  
 HMIPSO Optimized - 10" touch screen

2



HMIPSOS552D1801



HMIPSOS552D1801

| Harmony HMIPSO Optimized: 10" touch screen<br>(Intel Atom E3827 dual-core processor, 1.75 GHz) |                                   |   |   |                 |                                 |   |
|--|-----------------------------------|---|---|-----------------|---------------------------------|---|
| Supply voltage   | Operating system<br>(1)           | Software  | Storage   | DDR3<br>RAM (5) | Reference                       | Weight<br>kg/lb   |
| 24 V ~ (6)   | WES 7 Premium<br>SP1 (64-bit) (2) | EcoStruxure<br>Operator Terminal<br>Expert Run Time<br>Demo (3),<br>EcoStruxure | CFast card ≥ 32 GB  | 4 GB            | <a href="#">HMIPSOC552D1W01</a> | 2.50/<br>5.51   |
|  |                                   | Windows 10 IoT<br>Enterprise (64-bit<br>Multi-language)                         | Secure Connect<br>Advisor (4),<br>IIoT monitor with<br>Node-RED |                 |                                 | SSD flash disk ≥<br>128 GB with 1.5 million<br>hours MTBF (mounted<br>in expansion kit) |
|  |                                   |   | HDD hard disk ≥<br>500 GB (mounted in<br>expansion kit)         | 4 GB            | <a href="#">HMIPSOH552D1801</a> | 2.50/<br>5.51   |
|  |                                   |   |   | 4 GB            | <a href="#">HMIPSO552D1001</a>  | 2.50/<br>5.51   |

- (1) Windows 8.1 Industry SP1 (64-bit Multi-language) operating system is available with Configured-To-Order Harmony HMIPSO (see [page 2/23](#)).
- (2) WES 7 Premium SP1 supplied in 9 languages (English, French, German, Italian, Portuguese, Spanish, Swedish, Chinese, Russian). Also includes:
  - Microsoft® Word/Excel/Power Point Viewer
  - Framework.Net 3.5
  - Web browser
- (3) EcoStruxure Operator Terminal Expert Run Time: The demo version can be used temporarily without activation (installation from EcoStruxure Operator Terminal Expert Build Time DVD) and can be upgraded to unlimited version by purchasing the license HMIRWCZLSPAZZ (Digital) or HMIRWCZLSPMZZ (Paper).
- (4) To be installed and activated with subscription.
- (5) 4 GB DDR3 RAM is not user-expandable.
- (6) AC power supply with external AC/DC power adapter HMIYSPMAC1.

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIPS S-Panel PC  
HMIPSO Optimized - 15" touch screen

PF513948



HMIPSOS752D1801

PF513950



HMIPSOS752D1801

| Harmony HMIPSO Optimized: 15" touch screen<br>(Intel Atom E3827 dual-core processor, 1.75 GHz) |   |  |  |               |                                 |               |
|--|---|--|--|---------------|---------------------------------|---------------|
| Supply voltage   | Operating system (1)                              | Software   | Storage  | DDR3 RAM(5)   | Reference                       | Weight kg/lb  |
| 24 V ~ (6)   | WES 7 Premium SP1 (64-bit) (2)                    | EcoStruxure Operator Terminal Expert RT Demo (3), EcoStruxure Secure Connect Advisor (4) | CFAST card ≥ 32 GB   | 4 GB          | <a href="#">HMIPSOC752D1W01</a> | 3.90/<br>8.60 |
|  |   |  | SSD flash disk ≥ 128 GB with 2 million hours MTBF (mounted in expansion kit) | 4 GB          | <a href="#">HMIPSOS752D1801</a> | 3.90/<br>8.60 |
|  | HDD hard disk ≥ 500 GB (mounted in expansion kit) | 4 GB   | <a href="#">HMIPSOH752D1801</a>  | 3.90/<br>8.60 |                                 |               |
| –  | –   | –  | –  | 4 GB          | <a href="#">HMIPSO0752D1001</a> | 3.90/<br>8.60 |

- (1) Windows 8.1 Industry SP1 (64-bit Multi-language) operating system is available with Configured-To-Order Harmony HMIPSO (see page 2/23).
- (2) WES 7 Premium SP1 supplied in 9 languages (English, French, German, Italian, Portuguese, Spanish, Swedish, Chinese, Russian). Also includes:
  - Microsoft® Word/Excel/Power Point Viewer
  - Framework.Net 3.5
  - Web browser
- (3) EcoStruxure Operator Terminal Expert RT: The demo version can be used temporarily without activation (installation from EcoStruxure Operator Terminal Expert Build Time DVD) and can be upgraded to unlimited version by purchasing the license HMIRWCZLSPAZZ (Digital) or HMIRWCZLSPMZZ (Paper).
- (4) To be installed and activated with subscription.
- (5) 4 GB DDR3 RAM is not user-expandable.
- (6) AC power supply with external AC/DC power adapter HMIYPSMAC1.



# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIPS S-Panel PC

### HMIPSP Performance -15" and 19" touch screens

2



Harmony S-Panel Performance PC 15" and 19"

#### Presentation

Harmony HMIPSP Performance S-Panel PCs are simple all-in-one design performance PCs. The 15"/19" wide screens, HD resolution display, and capacitive multi-touch feature enhances the user experience of these PCs. The fanless Intel Core i3 CPU processor delivers good performance for a wide range of software.

Harmony Performance S-Panel PCs offer improved application and operator efficiency with:

- 15"/19" wide TFT multi-touch screens, LED backlight, IP66 protection, and 7H hardness anti-scratch front
- Slim panels with depth < 57 mm/2.24 in.
- Maintenance-free non-rotating parts and operation up to +55 °C/131 °F
- Integration of software applications such as EcoStruxure Operator Terminal Expert, Lite supervision EcoStruxure Machine SCADA Expert and third-party Windows software
- Expansions with optional interfaces based on mini PCIe (Com, USB, HD audio, Video, networks, wireless, etc.)
- Available with WES 7, Windows 8.1 in Configured-To-Order offer, Windows 10, or without an operating system

#### Overview of the offer

##### Harmony HMIPSP Performance

The Harmony HMIPSP Performance PCs offer comprises 10 references, each equipped with:

- Fanless Intel® i3-4010U dual-core processor (1.7 GHz)
  - 8 GB DDR3 RAM, default mounted
  - Connection ports: 2x USB 3.0, 2x COM (RS-232/422/485), 2x Gigabit Ethernet, 1x HD audio port, 1x HDMI video port, 3x SMA for antennas
  - Expansion slot: 1x mini PCI Express® full slot with 1x optional interface slot
  - Power supply: 24 V ~~, AC power supply with external AC/DC power adapter
- HMIYSPMAC1**

The operating systems and storage devices for 15" and 19" touch screens are as follows:

- **HMIPSPC752D1W01** and **HMIPSPC952D1W01**:
  - Operating system: WES 7 Premium SP1 (64-bit)
  - Default storage device: 32 GB CFAST card
- **HMIPSPS752D1801** and **HMIPSPS952D1801**:
  - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
  - Default storage device: 128 GB SSD (5-year manufacturer warranty and 1.5 million hours MTBF)
- **HMIPSPS752D180L** and **HMIPSPS952D180L**:
  - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
  - Default storage device: 256 GB SSD (5-year manufacturer warranty and 1.5 million hours MTBF)
- **HMIPSPH752D1801** and **HMIPSPH952D1801**:
  - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
  - Default storage device: 500 GB HDD (Enterprise 24/7)
- **HMIPSP0752D1001** and **HMIPSP0952D1001**:
  - Operating system: None
  - Default storage device: None



## Presentation (continued)

### Ready-to-run Software for Harmony HMIPSP

Harmony HMIPSP S-Panel PCs are supported by Schneider Electric HMI software. For HMI applications, EcoStruxure Operator Terminal Expert Run Time demo version can be downloaded and activated to unlimited version with **HMIRTWCZLSPAZZ** (Digital) or **HMIRTWCZLSPMZZ** (Paper) license. For line management and life supervision, EcoStruxure Machine SCADA Expert Run Time is available via Configured-To-Order process.

For secure remote access, Harmony HMIPSP are supported with EcoStruxure Secure Connect Advisor that will have to be installed and activated with subscription.

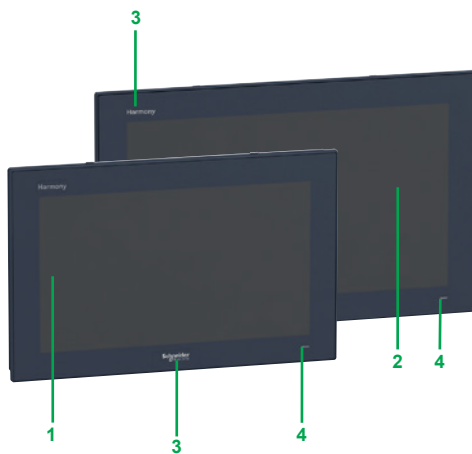
For more information on the supported softwares, refer to the following catalogs: EcoStruxure Operator Terminal Expert ([DIA5ED2140703EN](#)), EcoStruxure Machine SCADA Expert ([DIA5ED2171201EN](#)), EcoStruxure Secure Connect Advisor ([DIA5ED2190101EN](#)).

## Description

### Harmony HMIPSP Performance: 15" and 19" touch screens

#### Front view

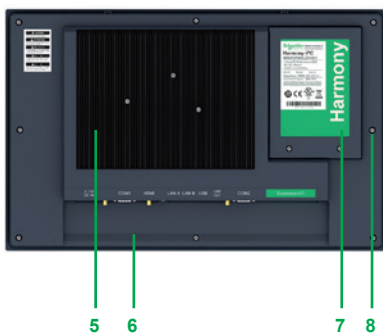
- 1 15" LCD multi-touch LED screen, HD WFXGA, 1366 × 768 pixels, 16 million colors for **HMIPSP•752D1●●●**:
  - Brightness: 300 cd/m<sup>2</sup> (adjustable)
  - Type of touch panel: 5-point projected capacitive technology multi-touch
  - Typical viewing angle: 160° (vertically)/170° (horizontally)
- 2 19" LCD multi-touch LED screen, HD WFXGA, 1366 × 768 pixels, 16 million colors for **HMIPSP•952D1●●●**:
  - Brightness: 300 cd/m<sup>2</sup> (adjustable)
  - Type of touch panel: 5-point projected capacitive technology multi-touch
  - Typical viewing angle: 160° (vertically)/170° (horizontally)
- 3 Harmony and Schneider Electric removable stickers
- 4 Power status indicator (Green: On, Orange: Stand-by, No light: Off)



15" and 19" front view

#### Rear view

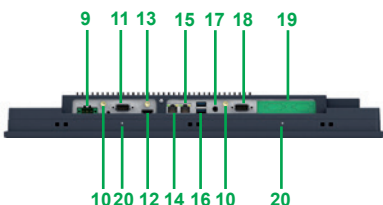
- 5 Heat sink
- 6 S-Panel PC interface
- 7 S-Panel PC cover for storage drives (2.5" SATA HDD/SSD, CFast)
- 8 S-Panel PC rear access to mini PCIe and internal connector for optional interfaces



19" rear view

#### Underside view

- 9 DC power connector
- 10 SMA connector for the external antenna
- 11 1x COM1, RS-232 port
- 12 1x HDMI
- 13 SMA connector for the external antenna
- 14 1x Eth1 (10/100/1000 Mbps) supports AMT (active management technology)
- 15 1x Eth2 (10/100/1000 Mbps)
- 16 1x USB1 (USB 3.0) and 1x USB2 (USB 3.0)
- 17 1x Audio Line out
- 18 1x COM2, RS-232/422/485 port
- 19 1x optional interface
- 20 Snap hook (1)



19" underside view

(1) Snap hook allows mounting of S-Panel PC in the panel cut-out single-handedly.

# Harmony iPC

Industrial PC, Edge Box, and Display  
 Harmony HMIPS S-Panel PC  
 HMIPSP Performance - 15" touch screen

2

PF513847



HMIPSPH752D1801

PF513849



HMIPSPH752D1801

| Harmony HMIPSP Performance: 15" touch screen<br>(Intel i3-4010U dual-core processor, 1.7 GHz) |   |  |  |   |                                 |                                 |
|---|---|--|--|---|---------------------------------|---------------------------------|
| Supply voltage  | Operating system (1)                          | Software   | Storage  | DDR3 RAM (5)  | Reference                       | Weight kg/lb                    |
| 24 V ~ (6)<br>1 mini PCIe slot  | WES 7 Premium SP1 (64-bit Multi-language) (2) | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4) | CFAST card ≥ 32 GB   | 8 GB  | <a href="#">HMIPSPC752D1W01</a> | 6.00/<br>13.23                  |
|   |   | Windows 10 IoT Enterprise (64-bit Multi-language)  | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4) | SSD flash disk ≥ 128 GB with 1.5 million hours MTBF | 8 GB                            | <a href="#">HMIPSPS752D1801</a> |
|   |   |  | SSD flash disk ≥ 256 GB with 1.5 million hours MTBF  | 8 GB  | <a href="#">HMIPSPS752D180L</a> | 6.00/<br>13.23                  |
|   |   |  | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4) | HDD hard disk ≥ 500 GB                              | 8 GB                            | <a href="#">HMIPSPH752D1801</a> |
|   |   |  |  | 8 GB  | <a href="#">HMIPSP0752D1001</a> | 6.00/<br>13.23                  |

- (1) Windows 8.1 Industry SP1 (64-bit Multi-language) operating system is available with Configured-To-Order: Harmony HMIPSP (see [page 2/23](#)).
- (2) WES 7 Premium SP1 supplied in 9 languages (English, French, German, Italian, Portuguese, Spanish, Swedish, Chinese, Russian). Also includes:
  - Microsoft (R) Word/Excel/Power Point Viewer
  - Framework.Net 3.5
  - Web browser
- (3) EcoStruxure Operator Terminal Expert Run Time: The demo version can be used temporarily without activation (installation from EcoStruxure Operator Terminal Expert Build Time DVD) and can be upgraded to unlimited version by purchasing the license HMIRWCZLSPAZZ (Digital) or HMIRWCZLSPMZZ (Paper).
- (4) To be installed and activated with subscription.
- (5) 8 GB DDR3 RAM is not user-expandable.
- (6) AC power supply with external AC/DC power adapter HMIYSPMAC1.

# Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIPS S-Panel PC

HMIPSP Performance - 19" touch screen

PF513948



HMIPSPH952D1801

PF513890



HMIPSPH952D1801

## Harmony HMIPSP Performance: 19" touch screen (Intel i3-4010U dual-core processor, 1.7 GHz)

| Supply voltage                 | Operating system (1)                          | Software   | Storage   | DDR3 RAM(5) | Reference       | Weight kg/lb   |
|--------------------------------|---|--|---|-------------|-----------------|--|
| 24 V ~ (6)<br>1 mini PCIe slot | WES 7 Premium SP1 (64-bit Multi-language) (2) | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4) | CFAST card ≥ 32 GB                                  | 8 GB        | HMIPSPC952D1W01 | 7.00/<br>15.43   |
|                                |   |  | Windows 10 IoT Enterprise (64-bit Multi-language)   |             |                 | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4) |
|                                |   | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4) | SSD flash disk ≥ 256 GB with 1.5 million hours MTBF | 8 GB        | HMIPSPS952D180L | 7.00/<br>15.43   |
|                                |   | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4) | HDD hard disk ≥ 500 GB                              | 8 GB        | HMIPSPH952D1801 | 7.00/<br>15.43   |
|                                |   |  |   | 8 GB        | HMIPSP0952D1001 | 7.00/<br>15.43   |

(1) Windows 8.1 Industry SP1 (64-bit Multi-language) operating system is available with Configured-To-Order Harmony HMIPSP (see page 2/23).

(2) WES 7 Premium SP1 supplied in 9 languages (English, French, German, Italian, Portuguese, Spanish, Swedish, Chinese, Russian). Also includes:

- Microsoft (R) Word/Excel/Power Point Viewer
- Framework.Net 3.5
- Web browser

(3) EcoStruxure Operator Terminal Expert Run Time: The demo version can be used temporarily without activation (installation from EcoStruxure Operator Terminal Expert Build Time DVD) and can be upgraded to unlimited version by purchasing the license HMIRTWCZLSPAZZ (Digital) or HMIRTWCZLSPMZZ (Paper).

(4) To be installed and activated with subscription.

(5) 8 GB DDR3 RAM is not user-expandable.

(6) AC power supply with external AC/DC power adapter HMIYSPMAC1.

# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIPEP Enclosed Panel PC

### HMIPEP Performance -19" touch screen

2



Harmony HMIPEP Performance Enclosed Panel PC 19"

#### Presentation

Harmony HMIPEP Enclosed Performance S-Panel PCs are fully enclosed PCs with IP66 protection on all sides. These 19" wide PCs can be directly mounted on a machine or automation system without any additional enclosure. The HD display and multi-touch features enhance the user experience.

Harmony Enclosed Performance S-Panel PCs offer increased application and operator efficiency with:

- 19" wide HD TFT multi-touch screens, LED backlight, and 7H hardness anti-scratch front
- Ready to be VESA mounted with IP65 protection on all sides and M12 connections
- Slim enclosed panels with 65 mm/2.56 in. depth
- Maintenance-free non-rotating parts and operation up to +55 °C/131 °F
- Available with Windows 10, without an operating system, or with Windows 8.1 in Configured-To-Order offer

#### Overview of the offer

##### Harmony HMIPEP Performance

The Harmony HMIPEP Enclosed Performance PCs offer comprises 2 references, each equipped with:

- Fanless Intel® i3-4010U dual-core processor (1.7 GHz)
- 8 GB DDR3 RAM, default mounted
- 5x M12 Connection ports: 1x USB 2.0, 1x COM (RS-232), 2x Gigabit Ethernet, 1x 24 V  $\overline{\text{---}}$  power supply
- Expansion slot: 1x full-size mini PCIe slot without external interface slot

The operating systems and storage devices for 19" touch screens are as follows:

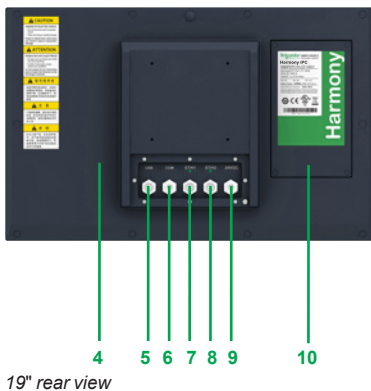
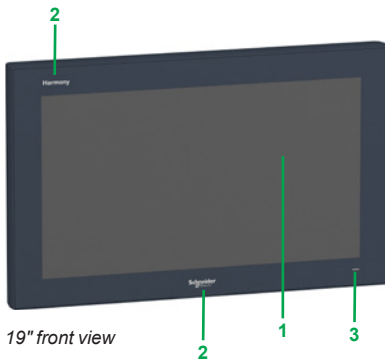
- **HMIPEPS952D1801:**
  - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
  - Default storage device: 128 GB SSD (5-year manufacturer warranty and 1.5 million hours MTBF)
- **HMIPEP0952D1001:**
  - Operating system: None
  - Default storage device: None

#### Ready-to-run Software for Harmony HMIPEP

Harmony HMIPEP S-Panel PCs are supported by Schneider Electric HMI software. For HMI applications, EcoStruxure Operator Terminal Expert Run Time demo version can be downloaded and activated to unlimited version with **HMIRTWZLSPAZZ** (Digital) or **HMIRTWZLSPMZZ** (Paper) license. For line management and lite supervision, EcoStruxure Machine SCADA Expert Run Time is available via Configured-To-Order process.

For secured remote access, Harmony HMIPEP are supported with EcoStruxure Secure Connect Advisor that will have to be installed and activated with subscription.

For more information on the supported softwares, refer to the following catalogs: EcoStruxure Operator Terminal Expert ([DIA5ED2140703EN](#)), EcoStruxure Machine SCADA Expert ([DIA5ED2171201EN](#)), EcoStruxure Secure Connect Advisor ([DIA5ED2190101EN](#)).



## Description

### Harmony HMIPEP Performance: 19" touch screen

#### Front view

- 1 19" LCD multi-touch LED screen, HD WFXGA 1366 × 768 pixels, 16 million colors for **HMIPEP●952D1●01**:
  - Brightness: 300 cd/m<sup>2</sup> (adjustable)
  - Type of touch panel: 5-point projected capacitive technology multi-touch
  - Typical viewing angle: 160° (vertically)/170° (horizontally)
- 2 Harmony and Schneider Electric removable stickers
- 3 Power status indicator (Green: On, Orange: Stand-by, No light: Off)

#### Rear view (1)

- 4 Cover
- 5 1x USB 2.0 with M12 8-pin female connector
- 6 1x RS-232 with M12 8-pin male connector
- 7 1x Eth1 (10/100/1000 Mbps) base-T with M12 8-pin female connector
- 8 1x Eth2 (10/100/1000 Mbps) base-T with M12 8-pin female connector
- 9 1x 24 V  $\overline{\text{DC}}$  power supply with M12 5-pin male connector
- 10 Back cover to access HDD/SSD slot

### Harmony HMIPEP Performance: 19" touch screen (Intel i3-4010U dual-core processor, 1.7 GHz)

| Supply voltage  | Expansion slot    | Storage  | Software   | Reference              | Weight kg/lb   |
|---|-------------------|--|--|------------------------|----------------|
| <b>Windows 10 IoT Enterprise (64-bit Multi-language), 8 GB DDR3 RAM (3)</b> |                   |  |  |                        |                |
| 24 V $\overline{\text{DC}}$   | 1x mini PCIe slot | SSD flash disk $\geq$ 128 GB with 1.5 million hours MTBF | EcoStruxure Operator Terminal Expert Run Time Demo (2), EcoStruxure Secure Connect Advisor (4) | <b>HMIPEPS952D1801</b> | 8.00/<br>17.64 |
| <b>No operating system, 8 GB DDR3 RAM (4)</b>                               |                   |  |  |                        |                |
| 24 V $\overline{\text{DC}}$   | 1x mini PCIe slot |  | EcoStruxure Machine SCADA Expert (5)   | <b>HMIPEP0952D1001</b> | 8.00/<br>17.64 |

(1) Cooling method is by passive heat sink.

(2) EcoStruxure Operator Terminal Expert Run Time: The demo version can be used temporarily without activation (installation from EcoStruxure Operator Terminal Expert Build Time DVD) and can be upgraded to unlimited version by purchasing the license HMIRTCZLSPAZZ (Digital) or HMIRTCZLSPMZZ (Paper).

(3) 8 GB DDR3 RAM is not user-expandable.

(4) To be installed and activated with subscription.

(5) With Configured-To-Order Harmony Modular Box PC.

2



HMIYSSDS240S1



HMIYMINNVRAM1



HMIYMINSL24851



HMIYMINCAN1

### Separate components

| Description                                 | Details   | Compatible with Harmony HMIP |             |                      | Reference                       | Weight<br>kg/lb |
|---|---|------------------------------|-------------|----------------------|---------------------------------|-----------------|
|   |   | Optimized                    | Performance | Enclosed Performance |                                 |                 |
|   |   | HMIPSO                       | HMIPSP      | HMIPEP               |                                 |                 |
| <b>Drives</b>                               |   |                              |             |                      |                                 |                 |
| <b>Blank CFast card</b>                     | 32 GB MLC   | Yes                          |             | –                    | <a href="#">HMIYCFA32S</a>      | –               |
| <b>Blank SSD with mounting screws</b>       | 128 GB MLC (5-year warranty and 1.5 million hours MTBF)   | All models (1)               |             |                      | <a href="#">HMIYSSDS080S1</a>   | –               |
|   | 256 GB MLC (5-year warranty and 2 million hours MTBF)   | All models (1)               |             |                      | <a href="#">HMIYSSDS240S1</a>   | –               |
| <b>Blank HDD</b>                            | Spare 1 TB HDD, blank   | All models (1)               |             |                      | <a href="#">HMIYHDD01T21</a>    | –               |
|   | Spare 500 GB HDD, blank   | All models (1)               |             |                      | <a href="#">HMIYHDD50021</a>    | –               |
| <b>Interfaces</b>                           |   |                              |             |                      |                                 |                 |
| <b>NVRAM interface</b>                      | Mini PCIe with non-volatile RAM, without external connectors  | Yes (1)                      |             | –                    | <a href="#">HMIYMINNVRAM1</a>   | –               |
| <b>HDMI to DVI interface</b>                | HDMI to DVI interface   | –                            | Yes         | –                    | <a href="#">HMIYADHDMIDVIS1</a> | –               |
| <b>2 RS-422/485 isolated interface</b>      | Mini PCIe with 2x RS-422/485, isolated external interface with connectors                           | Yes (1)                      |             | –                    | <a href="#">HMIYMINSL24851</a>  | –               |
| <b>4 RS-422/485 interface</b>               | Mini PCIe with 4x RS-422/485, external interface with connectors                                    | Yes (1)                      |             | –                    | <a href="#">HMIYMINSL44851</a>  | –               |
| <b>2 RS-232 isolated interface</b>          | Mini PCIe with 2x RS-232, isolated external interface with connectors                               | Yes (1)                      |             | –                    | <a href="#">HMIYMINSL22321</a>  | –               |
| <b>4 RS-232 interface</b>                   | Mini PCIe with 4x RS-232, external interface with connectors  | Yes (1)                      |             | –                    | <a href="#">HMIYMINSL42321</a>  | –               |
| <b>1 Profibus DP Master NVRAM interface</b> | Mini PCIe with 1x Profibus DP Master, non-volatile RAM, external interface with connectors          | Yes (1)                      |             | –                    | <a href="#">HMIYMINPRO1</a>     | –               |
| <b>2 CANopen/CAN bus interface</b>          | Mini PCIe with 2x CAN fieldbus, external interface with connectors, drivers for CANopen and CAN bus | Yes (1)                      |             | –                    | <a href="#">HMIYMINCAN1</a>     | –               |

(1) Require Expansion kit (HMIYPADPSOSTO1) for HMIPSO Optimized S-Panel PC.





| Separate components (continued)                    |   |                              |             |                      |                                 |                 |
|--|---|------------------------------|-------------|----------------------|---------------------------------|-----------------|
| Description  | Details   | Compatible with Harmony HMIP |             |                      | Reference                       | Weight<br>kg/lb |
|  |   | Optimized                    | Performance | Enclosed Performance |                                 |                 |
|  |   | HMIPSO                       | HMIPSP      | HMIPEP               |                                 |                 |
| <b>Interfaces (continued)</b>                      |   |                              |             |                      |                                 |                 |
| <b>RJ45 Ethernet interface</b>                     | Interface Mini PCIe, 1x RJ45 Ethernet (3)   | Yes (1)                      | –           | –                    | <a href="#">HMIYMIN1ETH1</a>    | –               |
| <b>16DI/8DO interface</b>                          | Mini PCIe with 16DI/8DO, external interface with connectors, 2 m/6.56 ft cable and DIN rail wiring terminal   | Yes (1)                      | –           | –                    | <a href="#">HMIYMINIO1</a>      | –               |
| <b>2 USB 3.0 interface</b>                         | Mini PCIe with USB 3.0, external interface with connectors  | Yes (1)                      | –           | –                    | <a href="#">HMIYMINUSB1</a>     | –               |
| <b>3G cellular interface</b>                       | Mini PCIe with GPRS, SIM card holder and external antenna   | Yes (1)                      | –           | –                    | <a href="#">HMIYMINGPRS1</a>    | –               |
| <b>WiFi interface access point and 2x antennas</b> | Kit with mini PCIe WiFi access point (with Windows 10) + bluetooth and 2x antennas  | Yes (1)                      | –           | –                    | <a href="#">HMIYMINWIFI2</a>    | –               |
| <b>Remote wireless LAN antenna cable</b>           | 5 m/16.4 ft cable to mount a WiFi antenna remotely from Harmony iPC   | Yes (1)                      | –           | –                    | <a href="#">HMIYCABWIFIAN51</a> | –               |
| <b>4G cellular interface for North America</b>     | Mini PCIe GPRS 4G for North America frequencies. Kit including SIM card holder and external antenna   | Yes                          | –           | –                    | <a href="#">HMIYMIN4GUS1</a>    | –               |
| <b>4G cellular interface for Europe and Asia</b>   | Mini PCIe GPRS 4G for Europe and Asia frequencies. Kit including SIM card holder and external antenna   | Yes                          | –           | –                    | <a href="#">HMIYMIN4GEU1</a>    | –               |
| <b>Mini PCIe interface DVI-I for iPC</b>           | Mini PCIe Graphic video card Full HD 1920 x 1080, with DVI-I connector on an external interface (providing both dual digital and analog signals)              | Yes                          | –           | –                    | <a href="#">HMIYMINDVII1</a>    | –               |
| <b>Mini PCIe interface 2VGA + DVI-D</b>            | Mini PCIe Graphic video card Full HD 1920 x 1080, with 2x VGA connectors on a single external interface and 1x DVI-D connector in a second external interface | Yes                          | –           | –                    | <a href="#">HMIYMINVGADVID1</a> | –               |
| <b>Mini PCIe interface audio for iPC</b>           | Mini PCIe audio card and one external interface with speaker OUT, Line IN and Mic IN connectors   | Yes                          | –           | –                    | <a href="#">HMIYMINAUD21</a>    | –               |
| <b>Mini PCIe interface to Display Adapter</b>      | Interface transmitter (2)   | Yes                          | –           | –                    | <a href="#">HMIYMINDP1</a>      | –               |

(1) Require Expansion kit (HMIYPADPSOSTO1) for HMIPSO Optimized S-Panel PC.  
 (2) For more information, see long distance multi-display adapter on [page 4/31](#).  
 (3) Available in Q2 2020.

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIPSO/HMIPSP/HMIPEP Panel PCs  
Separate components

2



HMIYP552PS11



HMIYPSMAC1



HMIYEM1211

| Separate components (continued)                              |   |   |             |                      |  |                 |
|--|---|---|-------------|----------------------|--|-----------------|
| Description  | Details   | Compatible with Harmony HMIP  |             |                      | Reference  | Weight<br>kg/lb |
|  |   | Optimized   | Performance | Enclosed Performance |  |                 |
|  |   | HMIPSO  | HMIPSP      | HMIPEP               |  |                 |
| <b>Accessories</b>   |   |   |             |                      |  |                 |
| <b>USB key blank for iPC recovery</b>                        | Spare USB memory key blank (1)  | All models  |             |                      | <a href="#">HMIYUSBBK111</a>   | –               |
| <b>Maintenance kit for HMIPSP PCs</b>                        | Includes:<br>■ Screws and dampers for HDD/SSD<br>■ Screws and clamps for panel mounting<br>■ Power connector and sticker<br>■ CFast card pull-out<br>■ Rubbers for W15" and W19" mounting<br>■ Bracket, screws, and dampers for mini PCIe | –   | Yes         |                      | <a href="#">HMIYPMKTPSP1</a>   | –               |
| <b>Maintenance kit for HMIPSO PCs</b>                        | Includes:<br>■ Screws and dampers for HDD/SSD<br>■ Screws and clamps for panel mounting<br>■ Power connector and sticker<br>■ CFast card pull-out<br>■ Rubbers for W10" and W15" mounting<br>■ Bracket, screws, and dampers for mini PCIe | Yes   | –           |                      | <a href="#">HMIYPMKTPSO1</a>   | –               |
| <b>Removable protective sheet</b>                            | Set of 5 protective sheets for W10"   | Yes   | –           |                      | <a href="#">HMIYP552PS11</a>   | –               |
|  | Set of 5 protective sheets for W15"   | Yes   | –           |                      | <a href="#">HMIYP752PS11</a>   | –               |
|  | Set of 5 protective sheets for W19"   | –   | Yes         |                      | <a href="#">HMIYP952PS11</a>   | –               |
| <b>AC/DC power adapter 110/220 V ~ to 24 V ∴</b>             | AC/DC power adapter, provided with US and European power cord   | –   | Yes         | –                    | <a href="#">HMIYPSMAC1</a>   | –               |
| <b>AC/DC power adapter 110/220 V ~ to 24 V ∴</b>             | External AC power adapter which can be mounted on the rear side of HMIPSO, provided with US and European power cord   | Yes   | –           |                      | <a href="#">HMIYPSOMAC1</a>  | –               |
| <b>M12 connectors</b>  | Set of 5 M12 connectors for Enclosed Panel PC   | –   |             | Yes                  | <a href="#">HMIYEM1211</a>   | –               |
| <b>M12 cables</b>  | Set of 5 cables with M12 connectors on one side to Enclosed Panel PC, and DC/USB/COM/2x LAN connectors on the other side  | –   |             | Yes                  | <a href="#">HMIYCABM1211</a>   | –               |
| <b>Expansion kit</b>   | Optional expansion kit offering 1 slot for storage drive HDD/SSD and 1 mini PCIe slot with 1 optional interface plate   | Yes   | –           |                      | <a href="#">HMIYPADPSOSTO1</a>   | –               |
| <b>VESA mounting kit</b>                                     | VESA mounting kit for HMIPSO W10"   | Yes   | –           |                      | <a href="#">HMIYPVESAPSO551</a>  | –               |
|  | VESA mounting kit for HMIPSO W15"   | Yes   | –           |                      | <a href="#">HMIYPVESAPSO751</a>  | –               |
| <b>Software (2)</b>  |   |   |             |                      |  |                 |
| <b>EcoStruxure Operator Terminal Expert Run Time license</b> | Converts the 21-day trial version of EcoStruxure Operator Terminal Expert Run Time Demo to an unlimited license   | All models that support EcoStruxure Operator Terminal Expert HMI software |             |                      | <a href="#">HMIRTWCZLSPAZZ</a> (Digital)<br><a href="#">HMIRTWCZLSPMZZ</a> (Paper) | –               |
| <b>EcoStruxure Secure Connect Advisor</b>                    | For HMI secure remote access  | All models that support EcoStruxure Secure Connect Advisor                |             |                      | <a href="#">VJOCNT</a> (3)   | –               |

(1) USB key including restore image for recovery is supplied with each unit. The spare blank key is only necessary if the default key supplied with the unit is lost.

(2) EcoStruxure Machine SCADA Expert available with Configured-to-Order (see page 2/23).

(3) For more information, please refer to EcoStruxure Secure Connect Advisor catalog [DIA5ED2190101EN](#).

**Configured-To-Order Harmony HMIPSO/HMIPSP/HMIPEP Panel PCs**

"Configured-To-Order" industrial PCs offer a vast number of configuration combinations for Harmony iPCs with certifications. The Schneider Electric Customer Care Center can help user configure the right Harmony iPC based on your automation application and provide a quotation. A web configurator <https://www.hmisource.com/wwipcc> is also available to help user easily build the configuration (password = Harmony).

Our Customer Care Center or the Web configurator will provide the complete parts list for the configured Harmony S-Panel PC and a configuration code that will be the part number of the Harmony iPC.

**Ordering procedure for a configured Harmony Panel PC**

If user have built your Harmony iPC configuration with the Web configurator:

- 1 Please forward the e-mail received from the Web configurator to our Customer Care Center. This e-mail contains a PDF file with your configuration description, and part number code.
- 2 If required, specify the reference root part number GCR\_HMIPCCP2.

If user cannot access the Harmony iPC Web configurator:

- 3 Please contact our Customer Care Center and state the reference root part number GCR\_HMIPCCP2.
- 4 Configure your Harmony Panel PC (see table below) and get your quote with the support of our Customer Care Center.
- 5 Confirm your order.

**Configured-To-Order options for Harmony HMIPSO/HMIPSP/HMIPEP Panel PCs**

| Option  | Description  |
|---|--|
| <b>Panel PC</b>   | S-Panel PC Optimized DC 4 GB RAM W10" - WXGA           |
|   | S-Panel PC Optimized DC 4 GB RAM W15" - FWXGA          |
|   | S-Panel PC Performance DC 8 GB RAM W15" - WHD          |
|   | S-Panel PC Performance DC 8 GB RAM W19" - WHD          |
|   | Enclosed Panel PC Performance DC 8 GB RAM W19" - FWXGA |
| <b>Fanless ULV CPU</b>  | Performance Core i3-4010U dual-core                    |
|   | Optimized Atom-E3827 dual-core                         |
| <b>Power supply</b>   | DC (1)   |
| <b>Windows operating system</b>                                 | None   |
|   | WES7 Premium SP1 (64-bit Multi-language)               |
|   | Win 8.1 Industry (64-bit Multi-language)               |
|   | Windows 10 IoT Enterprise (64-bit Multi-language)      |
| <b>Main storage device for operating system</b>                 | None   |
|   | CFast 32 GB  |
|   | HDD 500 GB/1 TB  |
|   | SSD 128 GB/256 GB                                      |
| <b>Optional interfaces (pre-mounted)</b>                        | None   |
|   | NVRAM  |
|   | 2x RS-422/485 Isolated/4 RS-422/485                    |
|   | 2x RS-232 Isolated/4 RS-232                            |
|   | 16x DI/8 DO  |
|   | Audio  |
|   | Video (DVI and VGA ports)                              |
|   | Cellular 3G/4G   |
|   | Wireless LAN + 2 antennas                              |
|   | 2 CANopen/CAN bus                                      |
|   | 1x Ethernet RJ45                                       |
|   | Profibus DP Master with NVRAM                          |
|   | <b>Software bundle</b>                                 |
| EcoStruxure Operator Terminal Expert Run Time unlimited license |  |
| EcoStruxure Machine SCADA Expert 1500 tags Run Time license     |  |
| EcoStruxure Machine SCADA Expert 4000 tags Run Time license     |  |
| EcoStruxure Machine SCADA Expert 64000 tags Run Time license    |  |

(1) AC power supply with external AC/DC power adapter HMIYSPMAC1.



# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIBSC Edge Box Core

---

## Harmony HMIBSC Edge Box Core

- Selection guide* ..... page 3/2
- **Presentation**..... page 3/4
- **Description**..... page 3/5
- **References**
- HMIBSC Edge Box Core..... page 3/6
- Drives ..... page 3/6
- Separate Components
- Accessories..... page 3/6
- Interfaces ..... page 3/7

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony Edge Box  
HMIBSC Edge Box Core

Type of Harmony Edge Box

Harmony HMIBSC Edge Box Core



|   |   |
|---|---|
| <b>Fanless</b>                          |   |
| <b>Mounting</b>                         | Box<br>Panel PC   |
| <b>CPU</b>                              | Processor<br>Expansion slots<br>Storage <span style="float:right">Main drive</span><br><span style="float:right">Slots</span><br>RAM/MRAM<br>Hot-swap RAID HDD and battery backup |
| <b>Cybersecurity encryption</b>         |   |
| <b>Operating system</b>                 |   |
| <b>Conformal coating</b>                |   |
| <b>Supply voltage</b>                   |   |
| <b>Power consumption</b>                |   |
| <b>Interface</b>                        | Ethernet<br>Serial ports<br>USB<br>Embedded I/O<br>Video interface<br>WLAN embedded<br>Antenna connectors<br>Watchdog timer   |
| <b>Reset button and buzzer</b>          |   |
| <b>Overall dimensions (W x H x D)</b>   |   |
| <b>Temperature</b>                      | During operation<br>During storage  |
| <b>Vibration resistance</b>             | During operation  |
| <b>Standards and certifications</b>     |   |
| <b>Software, IIoT and Cybersecurity</b> |   |
| <b>References</b>                       |   |
| <b>Page</b>                             |   |
| <b>Configured-To-Order</b>              |   |

|  |  |
|--|--|
| ★★★★★  |  |
| Wall / book / DIN rail / Flat  |  |
| No   |  |
| Qualcomm ARM Cortex-A53 Quad core up to 1.2 GHz                                      |  |
| 1x full-size slot with optional interface (1), 1x M.2 slot (not for storage) (2)     |  |
| eMMC 8 GB (soldered and not user-expandable)   |  |
| SD 3.0 (supports standard SD 32 mm x 24 mm , SDHC, SDXC)                             |  |
| 1 GB DDR3 (not user-expandable)  |  |
| -  |  |
| TPM module (pre-installed)   |  |
| Linux Yocto  |  |
| No   |  |
| 12-24 V $\overline{\text{---}}$ or 100...240 V $\sim$ with power adapter HMIYPSOMAC1 |  |
| 16 W   |  |
| 2x RJ45 Ethernet 10/100/1,000 Mbps   |  |
| 1x RS-232 (default) and 1x RS-422/485 (software setting), non-isolated               |  |
| 2x USB 2.0   |  |
| 8x GPIO (Digital General Purpose I/O)  |  |
| 1x HDMI (for configuration only)   |  |
| Wi-Fi WCN3620 802.11 b/g/n 2.4 GHz (4), WCN3620 Bluetooth 4.1 (4)                    |  |
| 1x for WLAN antenna, 1x for GPRS antenna   |  |
| Timer with 255 levels/intervals, programmable, 1...255 s                             |  |
| Yes  |  |
| 157 x 150 x 46 mm/6.18 x 5.91 x 1.81 in. (with no expandable slots)                  |  |
| Conforming to EN/IEC 60068-2-30: 0...50 °C/32...122 °F (5)                           |  |
| Conforming to IEC 61000-4/ EN 55011: -40...85 °C/-40...185 °F                        |  |
| Conforming to IEC 60664-1: 2 g from 5...500 Hz                                       |  |
| CE, cULus ITE (UL IT 60950, CSA IT 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)  |  |
| Secure password boot and Node-RED  |  |
| <b>HMIBSCEA53D1L0T</b>   |  |
| 3/6  |  |
| See configured Harmony Modular Box PC on <a href="#">page 4/32</a>                   |  |

(1) For mini PCIe card, cellular 4G or 8x analog input interface 0-10 V.  
 (2) For M.2 card, 2x analog input interface 0-10 V / 4-20 mA.  
 (3) Cybersecurity TPM optional module HMIYBINLTPM201 for hardware encryption with Linux.  
 (4) Radio Frequency Certifications:  
 - RED for Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK  
 - FCC RF for USA  
 - IC for Canada  
 - SRRC for China (pending)  
 - RCM for Australia, New Zealand  
 - Anatel for Brazil (pending)  
 - TEC for India (pending)  
 (5) Except with optional interface installed: limited to 45 °C/113 °F.

Harmony HMIBSC Edge Box Core



|  |   |
|--|---|
| ★★★★★  |   |
| Wall / book / DIN rail / Flat  |   |
| No   |   |
| Qualcomm ARM Cortex-A53 Quad core up to 1.2 GHz                                      |   |
| 1x full-size slot with optional interface (2)  |   |
| eMMC 8 GB (soldered and not user-expandable)   | eMMC 64 GB (soldered and not user-expandable) |
| SD 3.0 (supports standard SD 32 mm x 24 mm , SDHC, SDXC)                             |   |
| 1 GB DDR3 (not user-expandable)  | 2 GB DDR3 (not user-expandable)               |
| -  |   |
| Connector for TPM module (3)   |   |
| Linux Yocto  |   |
| No   | Yes   |
| 12-24 V $\overline{\text{---}}$ or 100...240 V $\sim$ with power adapter HMIYPSOMAC1 |   |
| 16 W   |   |
| 2x RJ45 Ethernet 10/100/1,000 Mbps   |   |
| 1x RS-232 (default) and 1x RS-422/485 (software setting), non-isolated               |   |
| 2x USB 2.0   |   |
| 8x GPIO (Digital General Purpose I/O)  |   |
| 1x HDMI (for configuration only)   |   |
| Wi-Fi WCN3620 802.11 b/g/n 2.4 GHz (4), WCN3620 Bluetooth 4.1 (4)                    |   |
| 1x for WLAN antenna, 1x for GPRS antenna   |   |
| Timer with 255 levels/intervals, programmable, 1...255 s                             |   |
| Yes  |   |
| 157 x 150 x 46 mm/6.18 x 5.91 x 1.81 in. (with no expandable slots)                  |   |
| Conforming to EN/IEC 60068-2-30: 0...50 °C/32...122 °F (5)                           |   |
| Conforming to IEC 61000-4/ EN 55011: -40...85 °C/-40...185 °F                        |   |
| Conforming to IEC 60664-1: 2 g from 5...500 Hz                                       |   |
| CE, cULus ITE (UL IT 60950, CSA IT 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)  |   |
| Secure password boot and Node-RED  |   |
| <b>HMIBSCEA53D1L01</b>   | <b>HMIBSCEA53D1L0A</b>                        |
| 3/6  |   |
| See configured Harmony Modular Box PC on <a href="#">page 4/32</a>                   |   |





Harmony HMIBSC

## Presentation

Harmony HMIBSC connects OT (Operational Technology) in the field to IT (Information Technology) for an Industrial Internet of Things. With built-in Node-RED, WiFi, and Bluetooth, and a Linux operating system running on a quad-core Qualcomm ARM CPU, it is well adjusted to wire the Internet of Things.

eMMC storage is available by default and can be expanded with an SD card. The two standard Ethernet ports allow OT and IT communications to be separated if necessary. The secure password boot and TPM encryption module afford a high level of cybersecurity by design. The commissioning is made easier and safer with its own HDMI port that connects to an optional screen.

The embedded GPIO and optional cards for analog I/O allow dedicated sensors to be connected to Harmony HMIBSC. The optional cellular 4G card of the Harmony iPC range is supported on Harmony HMIBSC for remote connection to IT systems. All these options can be user mounted or Configured-To-Order (see [page 4/32](#)).

## Overview of the offer

### Harmony HMIBSC Edge Box Core

The Harmony HMIBSC offer comprises 3 product references, each equipped with:

- Fanless Qualcomm ARM Cortex-A53 quad-core processor up to 1.2 GHz
- Default WLAN: 1x WiFi, 1x Bluetooth
- Connection ports: 2x USB 2.0, 1x COM (RS-232/422/485), 2x Gigabit Ethernet, 1x Display port, 1x HDMI
- Expansion slots: 1x full-size mini PCIe slot with optional interface (2), 1x M.2 slot for extension (not for storage) (3), 1x SD card slot
- Power supply: 12-24 V  $\overline{\text{---}}$ , AC with optional external adapter HMIYPSOMAC1

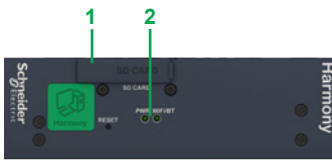
The operating systems, storage devices, and expansion slots are as follows:

- **HMIBSCEA53D1L0T**
  - Operating system: Linux Yocto with secure password boot
  - RAM: 1 GB DDR3 (1)
  - Default storage device: 8 GB eMMC
  - Software: Node-RED
  - Default TPM module for encryption
- **HMIBSCEA53D1L01**
  - Operating system: Linux Yocto with secure password boot
  - RAM: 1 GB DDR3 (1)
  - Default storage device: 8 GB eMMC
  - Software: Node-RED
  - Connector for optional TPM module
- **HMIBSCEA53D1L0A**
  - Operating system: Linux Yocto with secure password boot
  - RAM: 2 GB DDR3 (1)
  - Default storage device: 64 GB eMMC
  - Software: Node-RED
  - Conformal coating
  - Connector for optional TPM module

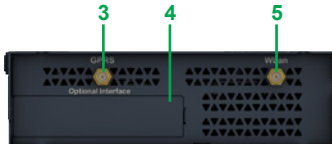
(1) Memory is not user-expandable.

(2) For mini PCIe card, cellular 4G or 8x analog input interface 0-10 V.

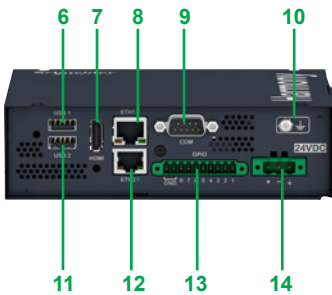
(3) For M.2 card, 2x analog input interface 0-10 V / 4-20 mA.



Front view of Harmony Simple IIoT Core



Top view of Harmony Simple IIoT Core



Underside view of Harmony Simple IIoT Core

## Description

### Harmony HMIBSC

#### Front view

- 1 SD card slot (1)
- 2 LEDs and reset button

#### Top view

- 3 SMA connector for the GPRS/4G external antenna
- 4 Optional interface
- 5 SMA connector for the WLAN external antenna

#### Underside view

- 6 USB1 (USB 2.0)
- 7 HDMI port
- 8 ETH1 (10/100/1000 Mbps) IEEE1588
- 9 COM port RS-232/422/485 (non-isolated) (2)
- 10 Ground connection pin
- 11 USB2 (USB 2.0)
- 12 ETH2 (10/100/1000 Mbps) IEEE1588
- 13 GPIO
- 14 DC power connector

- (1) The default OS can be restored with the SD card.  
(2) RS-232 (default setting) and RS-422/485 (software setting).

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony Edge Box  
HMIBSC Edge Box Core



IPC\_61054\_CPINGLU18002

HMIBSCEA53D1L0T

3



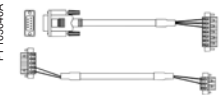
PF143989A

HMIYMMAC1



PF143999A

HMIYMUPSMT1



PF163646A

HMIYCABUPS31

### Harmony HMIBSC Edge Box Core

Qualcomm ARM Cortex-A53 quad-core processor up to 1.2 GHz/24 V  $\overline{\text{DC}}$  supply voltage (1)

| Mini PCIe slot                | Operating system | Software | Storage disk | DDR3 RAM (2) | Reference           | Weight kg/lb |
|-------------------------------|------------------|----------|--------------|--------------|---------------------|--------------|
| <b>With 2 expansion slots</b> |                  |          |              |              |                     |              |
| 1x mini PCIe, full-size       | Linux Yocto      | Node-RED | 8 GB eMMC    | 1 GB         | HMIBSCEA53D1L0T (3) | 1.00/2.20    |
|                               |                  |          |              |              | HMIBSCEA53D1L01     | 1.00/2.20    |
|                               |                  |          | 64 GB eMMC   | 2 GB         | HMIBSCEA53D1L0A (4) | 1.00/2.20    |

### Drives

| Description                               | Compatible with Harmony HMIBSC | Reference   | Weight kg/lb |
|---|--------------------------------|-------------|--------------|
| SD card industrial grade 16 GB for HMIBSC | All models                     | HMIYSD016C1 | -            |
| SD card industrial grade 64 GB for HMIBSC | All models                     | HMIYSD064C1 | -            |

### Separate Components

#### Accessories

| Description                               | Details   | Compatible with Harmony HMIBSC | Reference        | Weight kg/lb |
|---|---|--------------------------------|------------------|--------------|
| Maintenance kit for HMIBSC                | Includes: screws, USB holder, power connector, rubber   | All models                     | HMIYBMKTBSC1     | -            |
| TPM 2.0 cybersecurity module for HMIBSC   | TPM cybersecurity module for HMIBSC IloT Core Box Linux | All models                     | HMIYBINLTPM201   | -            |
| 1x WiFi/Bluetooth antenna for Harmony iPC |   | All models                     | HMIYCABWIFIAN511 | -            |
| AC power supply (60 W)                    | AC power adapter (60 W)                                 | All models                     | HMIYPSOMAC1      | -            |
| AC power supply (100 W)                   | Modular AC power adapter (100 W)                        | All models                     | HMIYMMAC1        | -            |
| UPS battery                               | UPS battery for HMIBSC (no cables)                      | All models                     | HMIYMUPSMT1      | -            |
| UPS cable                                 | UPS cables for HMIBSC (3 m/9.84 ft)                     | All models                     | HMIYCABUPS31     | -            |

(1) AC with additional power supply module.

(2) Memory is not user-expandable.

(3) With default TPM module.

(4) With conformal coating.

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony Edge Box  
HMIBSC Edge Box Core



| Separate Components (continued)                     |   |                                |                               |              |
|---|---|--------------------------------|-------------------------------|--------------|
| Interfaces  |   |                                |                               |              |
| Description   | Details   | Compatible with Harmony HMIBSC | Reference                     | Weight kg/lb |
| <b>Mini PCIe 8x analog input interface 0-10 V</b>   | Mini PCIe with 8x analog inputs 0-10 V  | All models                     | <a href="#">HMIYMIN8AI1</a>   | –            |
| <b>M.2 2x analog input interface 0-10 V/4-20 mA</b> | M.2 with 2x analog inputs 0-10 V or 4-20 mA selected by switch.                                       | All models                     | <a href="#">HMIYBIN2AIM21</a> | –            |
| <b>Cellualr 4G interface for North America</b>      | Mini PCIe GPRS 4G for North America frequencies. Kit including SIM card holder and external antenna   | All models                     | <a href="#">HMIYMIN4GUS1</a>  | –            |
| <b>Cellualr 4G interface for Europe and Asia</b>    | Mini PCIe GPRS 4G for Europe and Asia frequencies. Kit including SIM card holder and external antenna | All models                     | <a href="#">HMIYMIN4GEU1</a>  | –            |
| Accessories   |   |                                |                               |              |
| <b>Cable for 4G card in HMIBSC 5 m/16.40 ft</b>     | Remote cable for 4G card in IloT Box Core HMIBSC (5 m/16.40 ft)                                       | All models                     | <a href="#">HMIYCAB4GAN51</a> | –            |



# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIBM Edge Box/Modular Box PC and HMIDM Modular Display

#### Harmony HMIBM Edge Box/Modular Box PC

**Selection guide** ..... page 4/2

- **HMIBMI Basic**
  - Presentation ..... page 4/10
  - Description ..... page 4/11
  - References ..... page 4/18
- **HMIBMO Optimized**
  - Presentation ..... page 4/12
  - Description ..... page 4/13
  - References ..... page 4/18
- **HMIBMU Universal and HMIBMP Performance**
  - Presentation
  - Harmony HMIBMU Universal ..... page 4/14
  - Harmony HMIBMP Performance ..... page 4/15
  - Description
    - Harmony HMIBMU Universal and HMIBMP Performance, 2 expansion slots ..... page 4/16
    - Harmony HMIBMU Universal and HMIBMP Performance, 4 expansion slots ..... page 4/17
  - References ..... page 4/18
    - HMIBMU Universal ..... page 4/19
    - HMIBMP Performance ..... page 4/20
    - Ready-to-run Software, IIoT and Cybersecurity ..... page 4/18
- **References**
  - Separate components
    - Drives ..... page 4/21
    - Accessories ..... page 4/21
    - Software and Secure remote access ..... page 4/22
    - Interfaces ..... page 4/22
  - Configured-To-Order: Harmony HMIBM Modular Box PC and HMIDM Modular Display ..... page 4/32
  - Equivalent product table ..... page 4/33

#### Harmony HMIDM Modular Display

**Selection guide** ..... page 4/24

- **Presentation**
  - Overview of the offer
    - Harmony HMIDM Modular Display ..... page 4/26
    - Architecture ..... page 4/26
- **References**
  - Harmony HMIDM Modular Displays ..... page 4/27
  - Separate components ..... page 4/27
  - Configured-To-Order: Harmony HMIBM Modular Box PC and HMIDM Modular Display ..... page 4/32
  - Equivalent product table ..... page 4/33

#### Harmony HMIDAD Display Adapter

- **Presentation** ..... page 4/28
- **Description** ..... page 4/28
- **Architecture** ..... page 4/28
- **Configuration** ..... page 4/29
- **Example of displays connected to Harmony HMIBMO** ..... page 4/30
- **References** ..... page 4/31



# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony Edge Box and Modular Box PC  
HMIBMI Basic

Type of Harmony Edge Box and iPC

Harmony HMIBMI Edge Box Modular

Harmony HMIBMI Basic Modular Box PC



Fanless

|          |                    |
|----------|--------------------|
| Mounting | Box PC<br>Panel PC |
|----------|--------------------|

|     |                           |  |  |
|-----|---------------------------|--|--|
| CPU | Processor                 | Intel Atom Apollo Lake E3930 dual-core 1.8 GHz |  |
|     | Mini PCIe expansion slots | 1x full-size slot with optional interface      |  |
|     | Storage                   | Main drive                                     |  |
|     | RAM                       | 4 GB DDR3 (not user-expandable)                |  |
|     | Battery backup            | Optional                                       |  |

Cybersecurity encryption

Operating system

Conformal coating

Supply voltage

Power consumption

|                |  |   |                            |  |
|----------------|--|---|----------------------------|--|
| Interface      | Ethernet   | 2x RJ45 Ethernet 10/100/1,000 Mbps      |                            |  |
|                | Serial ports   | 1x RS-232/422/485 non isolated          |                            |  |
|                | USB  | 1x USB 2.0, 1x USB 3.0                  |                            |  |
|                | Video  | Interface                               | 1x display port            |  |
|                |  | Resolution                              | Up to 3200 x 2000 at 60 Hz |  |
|                | Antenna connectors                                       | 2x for WLAN antenna, 1 for GPRS antenna |                            |  |
| Watchdog timer | Timer with 255 levels/intervals, programmable, 1...255 s |   |                            |  |

Reset button and buzzer

Overall dimensions (W x H x D)

|             |                  |  |
|-------------|------------------|--|
| Temperature | During operation | Conforming to EN/IEC 60068-2-30: 0...50 °C /32...122 °F (6)  |
|             | During storage   | Conforming to IEC 61000-4/ EN 55011:-20...60 °C /-4...140 °F |

Vibration resistance

Standards and certifications

Software, IIoT and Cybersecurity

References

Page

Configured-To-Order

★★★★★

|          |   |
|----------|---|
| Mounting | HMIBM Box wall/book/ DIN rail/ Flat<br>HMIBM Box + associated HMIDM Display |
|----------|---|

|     |                           |  |  |
|-----|---------------------------|--|--|
| CPU | Processor                 | Intel Atom Apollo Lake E3930 dual-core 1.8 GHz |  |
|     | Mini PCIe expansion slots | 1x full-size slot with optional interface      |  |
|     | Storage                   | Main drive                                     |  |
|     | RAM                       | 4 GB DDR3 (not user-expandable)                |  |
|     | Battery backup            | Optional                                       |  |

|                                |                                  |
|--------------------------------|----------------------------------|
| TPM 2.0 module (pre-installed) | Connector for TPM 2.0 module (5) |
|--------------------------------|----------------------------------|

|  |  |
|--|--|
| Windows 10 IoT Enterprise LTSC(64-bit) | Windows 10 IoT Enterprise LTSC(64-bit) |
|--|--|

No

12-24 V  $\square$  or 100...240 V  $\sim$  with power adapter HMIYPSOMAC1

20 W

|                |  |   |                            |  |
|----------------|--|---|----------------------------|--|
| Interface      | Ethernet   | 2x RJ45 Ethernet 10/100/1,000 Mbps      |                            |  |
|                | Serial ports   | 1x RS-232/422/485 non isolated          |                            |  |
|                | USB  | 1x USB 2.0, 1x USB 3.0                  |                            |  |
|                | Video  | Interface                               | 1x display port            |  |
|                |  | Resolution                              | Up to 3200 x 2000 at 60 Hz |  |
|                | Antenna connectors                                       | 2x for WLAN antenna, 1 for GPRS antenna |                            |  |
| Watchdog timer | Timer with 255 levels/intervals, programmable, 1...255 s |   |                            |  |

Yes

187 x 150 x 46 mm/7.36 x 5.91 x 1.81 in.

|             |                  |  |
|-------------|------------------|--|
| Temperature | During operation | Conforming to EN/IEC 60068-2-30: 0...50 °C /32...122 °F (6)  |
|             | During storage   | Conforming to IEC 61000-4/ EN 55011:-20...60 °C /-4...140 °F |

Conforming to IEC 60664-1: 2 g from 5...500 Hz

CE, cULus ITE (UL IT 60950, CSA IT 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)

|  |                        |              |
|--|------------------------|--------------|
| EcoStruxure Operator Terminal Expert Run Time Demo (1), McAfee whitelisting (2), EcoStruxure Secure Connect Advisor (3), Secure password boot UEFI | Node-RED pre-installed | Node-RED (4) |
|--|------------------------|--------------|

|                 |                 |
|-----------------|-----------------|
| HMIBMIEA5DD1E01 | HMIBMIEA5DD1101 |
|-----------------|-----------------|

4/18

See configured Harmony Modular Box PC on page 4/32

(1) To be installed and activated by unlimited license HMIRTCZLSPAZZ (Digital) or HMIRTCZLSPMZZ (Paper).  
 (2) McAfee whitelisting to be installed and requires licence sticker HMIYMACWLIOT1 to be applied.  
 (3) To be installed and activated with subscription.  
 (4) Node-RED to be installed or through USB key Windows 10 Recovery process ("Windows 10 with Node-RED for IIoT Box" option to be selected).  
 (5) For Cybersecurity TPM, optional module HMIYMINATPM201 for hardware encryption with Windows bit-locker.  
 (6) Except with optional interface installed: limited to 45 °C/113 °F.

Harmony HMIBMI Basic Modular Box PC



★★★★★

|          |   |
|----------|---|
| Mounting | HMIBM Box wall/book/ DIN rail/ Flat<br>HMIBM Box + associated HMIDM Display |
|----------|---|

|     |                           |  |  |  |
|-----|---------------------------|--|--|--|
| CPU | Processor                 | Intel Atom Apollo Lake E3930 dual-core 1.8 GHz |  |  |
|     | Mini PCIe expansion slots | 1x full-size slot with optional interface      |  |  |
|     | Storage                   | Main drive                                     |  |  |
|     | RAM                       | 4 GB DDR3 (not user-expandable)                |  |  |
|     | Battery backup            | Optional                                       |  |  |

|                                  |  |  |  |
|----------------------------------|--|--|--|
| Connector for TPM 2.0 module (5) |  |  |  |
|----------------------------------|--|--|--|

|   |    |    |    |
|---|----|----|----|
| Windows 10 IoT Enterprise LTSC (64-bit) | No | No | No |
|---|----|----|----|

No

12-24 V  $\square$  or 100...240 V  $\sim$  with power adapter HMIYPSOMAC1

20 W

|                |  |  |                            |  |
|----------------|--|--|----------------------------|--|
| Interface      | Ethernet   | 2x RJ45 Ethernet 10/100/1,000 Mbps       |                            |  |
|                | Serial ports   | 1x RS-232/422/485 non isolated           |                            |  |
|                | USB  | 1x USB 2.0, 1x USB 3.0                   |                            |  |
|                | Video  | Interface                                | 1x display port            |  |
|                |  | Resolution                               | Up to 3200 x 2000 at 60 Hz |  |
|                | Antenna connectors                                       | 2x for WLAN antenna, 1x for GPRS antenna |                            |  |
| Watchdog timer | Timer with 255 levels/intervals, programmable, 1...255 s |  |                            |  |

Yes

187 x 150 x 46 mm/7.36 x 5.91 x 1.81 in.

|             |                  |  |
|-------------|------------------|--|
| Temperature | During operation | Conforming to EN/IEC 60068-2-30: 0...50 °C /32...122 °F (6)  |
|             | During storage   | Conforming to IEC 61000-4/ EN 55011:-20...60 °C /-4...140 °F |

Conforming to IEC 60664-1: 2 g from 5...500 Hz

CE, cULus ITE (UL IT 60950, CSA IT 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)

|  |  |  |  |
|--|--|--|--|
| EcoStruxure Operator Terminal Expert Run Time Demo (1), McAfee whitelisting (2), EcoStruxure Secure Connect Advisor (3), Secure password boot UEFI, Node-RED (4) |  |  |  |
|--|--|--|--|

|                 |                 |                 |
|-----------------|-----------------|-----------------|
| HMIBMIEA5DD110L | HMIBMIEA5DD1001 | HMIBMIEA5DD100A |
|-----------------|-----------------|-----------------|

4/18

See configured Harmony Modular Box PC on page 4/32

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony Edge Box and Modular Box PC  
HMIBMO Optimized

Type of Harmony Edge Box and iPC

Harmony HMIBMO Edge Box Modular

Harmony HMIBMO Optimized Modular Box PC (regular)



|  |  |
|--|--|
| <b>Fanless</b>                               |  |
| <b>Mounting</b>                              | Box PC<br>Panel PC   |
| <b>CPU</b>                                   | Processor<br>Mini PCIe expansion slots with interface  |
|  | Storage Main drive<br>Slots  |
|  | RAM  |
|  | Battery backup   |
| <b>Cybersecurity encryption</b>              |  |
| <b>Operating system</b>                      |  |
| <b>Conformal coating</b>                     |  |
| <b>Supply voltage</b>                        |  |
| <b>Power consumption</b>                     |  |
| <b>Interface</b>                             | Ethernet<br>Serial ports<br>USB<br>Video Interface<br>Resolution<br>Antenna connectors<br>Watchdog timer |
| <b>Reset button and buzzer</b>               |  |
| <b>Overall dimensions (W x H x D)</b>        |  |
| <b>Temperature</b>                           | During operation<br>During storage   |
| <b>Vibration resistance</b> During operation |  |
| <b>Standards and certifications</b>          |  |
| <b>Software, IIoT and Cybersecurity</b>      |  |
| <b>References</b>                            |  |
| <b>Page</b>                                  |  |
| <b>Configured-To-Order</b>                   |  |

|  |   |
|--|---|
| ★★★★★  |   |
| HMIBM Box wall/book/ DIN rail/ Flat<br>HMIBM Box + associated HMIDM Display  |   |
| Intel Atom Apollo Lake E3930 dual-core 1.8 GHz<br>1x full-size slot without optional interface   |   |
| M.2 SSD 64 GB (2)<br>M.2   |   |
| 4 GB DDR3 (not user-expandable)<br>Optional  |   |
| TPM 2.0 module (pre-installed)   | Connector for TPM 2.0 module                      |
| Windows 10 IoT Enterprise LTSC (64-bit)  | Windows 10 IoT Enterprise LTSC (64-bit) + TPM 2.0 |
| No   |   |
| 12-24 V $\bar{\text{---}}$ or 100...240 V $\sim$ with power adapter HMIYPSOMC1   |   |
| 25 W   |   |
| 2x RJ45 Ethernet 10/100/1,000 Mbps "i210 IEEE1588"<br>1x RS-232/422/485 non isolated<br>2x USB 2.0, 2x USB 3.0<br>2x display ports<br>Up to 3200 x 2000 at 60 Hz<br>2x for WLAN antenna, 1x for GPRS antenna<br>Timer with 255 levels/intervals, programmable, 1...255 s |   |
| Yes  |   |
| 187 x 150 x 38 mm/7.36 x 5.91 x 1.50 in.   |   |
| Conforming to EN/IEC 60068-2-30: 0...55 °C/32...131 °F (8)<br>Conforming to IEC 61000-4/ EN 55011:-30...70 °C/-22...158 °F   |   |
| Conforming to IEC 60664-1: 2 g from 5...500 Hz   |   |
| CE, cULus industrial control (UL 61010-2-201, CSA 22.2 No. 142), cULus HazLoc (ANSI/ISA 12.12.01 and CSA C22.2 No. 213, Class I, Division 2), RCM, CCC, CE ATEX and IECEx HazLoc 3GD Zone 2/22, EAC, Marine DNV (without HDD)  |   |
| EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Machine SCADA Expert Run Time (4), McAfee whitelisting (5), EcoStruxure Secure Connect Advisor (6), Secure password boot UEFI<br>Node-RED pre-installed<br>Node-RED (7)                              |   |
| <b>HMIBMOMA5DD1E01</b>   | <b>HMIBMOMA5DD1101</b>                            |
| 4/18   |   |
| See configured Harmony Modular Box PC on <a href="#">page 4/32</a>   |   |

(1) M.2 SSD 1,5 Millions H. MTBF, 3 Years manufacturer warranty.  
(2) Requires HMIYBADHDDMO1 adapter.  
(3) To be installed and activated by unlimited license HMIRTCZLSPAZZ (Digital) or HMIRTCZLSPMZZ (Paper).  
(4) With Configured-To-Order Harmony Modular Box PC.  
(5) McAfee whitelisting to be installed and requires licence sticker HMIYYMACWLIOT1 to be applied.  
(6) To be installed and activated with subscription.  
(7) Node-RED to be installed or through USB key Windows 10 Recovery process ("Windows 10 with Node-RED for IIoT Box" option to be selected).  
(8) Except with optional interface or HDD installed: limited to 45 °C/113 °F.

Harmony HMIBMO Optimized Modular Box PC (regular)

Harmony HMIBMO Optimized Modular Box PC (expandable)



|  |  |
|--|--|
| ★★★★★  |  |
| HMIBM Box wall/book/ DIN rail/ Flat<br>HMIBM Box + associated HMIDM Display  |  |
| Intel Atom Apollo Lake E3930 dual-core 1.8 GHz<br>1x full-size slot without optional interface   |  |
| 1x full-size slot with optional interface  |  |
| No   | M.2 SSD 250 GB (2) No  |
| M.2  | M.2, 1x HDD/SSD slot (3) with optional interface slot                |
| 4 GB DDR3 (not user-expandable)  | 8 GB DDR3 (not user-expandable)                                      |
| Optional   |  |
| Connector for TPM 2.0 module   |  |
| No   | Windows 10 IoT Enterprise LTSC (64-bit) No                           |
| No   |  |
| 12-24 V $\bar{\text{---}}$ or 100...240 V $\sim$ with power adapter HMIYPSOMAC1  |  |
| 25 W   |  |
| 2x RJ45 Ethernet 10/100/1,000 Mbps "i210 IEEE1588"<br>1x RS-232/422/485 non isolated<br>2x USB 2.0, 2x USB 3.0<br>2x display ports<br>Up to 3200 x 2000 at 60 Hz<br>2x for WLAN antenna, 1x for GPRS antenna<br>Timer with 255 levels/intervals, programmable, 1...255 s |  |
| Yes  |  |
| 187 x 150 x 38 mm/7.36 x 5.91 x 1.50 in. 187 x 150 x 54 mm/7.36 x 5.91 x 2.13 in.  |  |
| Conforming to EN/IEC 60068-2-30: 0...55 °C/32...131 °F (8)<br>Conforming to IEC 61000-4/ EN 55011:-30...70 °C/-22...158 °F   |  |
| Conforming to IEC 60664-1: 2 g from 5...500 Hz   |  |
| CE, cULus industrial control (UL 61010-2-201, CSA 22.2 No. 142), cULus HazLoc (ANSI/ISA 12.12.01 and CSA C22.2 No. 213, Class I, Division 2), RCM, CCC, CE ATEX and IECEx HazLoc 3GD Zone 2/22, EAC, Marine DNV (without HDD)  |  |
| EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Machine SCADA Expert Run Time (4), McAfee whitelisting (5), EcoStruxure Secure Connect Advisor (6), Secure password boot UEFI, Node-RED (7)  |  |
| <b>HMIBMO0A5DD1001</b>   | <b>HMIBMOMA5DDF10L</b> <b>HMIBMO0A5DDF101</b> <b>HMIBMO0A5DDF10A</b> |
| 4/18   |  |
| See configured Harmony Modular Box PC on <a href="#">page 4/32</a>   |  |

(1) M.2 SSD 1,5 Millions H. MTBF, 3 Years manufacturer warranty.  
(2) Requires HMIYBADHDDMO1 adapter.  
(3) To be installed and activated by unlimited license HMIRTCZLSPAZZ (Digital) or HMIRTCZLSPMZZ (Paper).  
(4) With Configured-To-Order Harmony Modular Box PC.  
(5) McAfee whitelisting to be installed and requires licence sticker HMIYYMACWLIOT1 to be applied.  
(6) To be installed and activated with subscription.  
(7) Node-RED to be installed or through USB key Windows 10 Recovery process ("Windows 10 with Node-RED for IIoT Box" option to be selected).  
(8) Except with optional interface or HDD installed: limited to 45 °C/113 °F.

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIBM Modular Box PC  
HMIBMU Universal

Type of Harmony IIoT Box and iPC

Harmony HMIBMU Universal Modular Box PC



|  |   |
|--|---|
| <b>Fanless</b>                               |   |
| <b>Mounting</b>                              | Box PC<br>Panel PC  |
| <b>CPU</b>                                   | Processor<br>Mini PCIe expansion slots<br>Storage Main drive<br>Slots (7)<br>RAM/MRAM<br>Hot-swap RAID HDD and battery backup |
| <b>Cybersecurity encryption</b>              |   |
| <b>Operating system</b>                      |   |
| <b>Conformal coating</b>                     |   |
| <b>Supply voltage</b>                        |   |
| <b>Power consumption</b>                     |   |
| <b>Interface</b>                             | Ethernet<br>Serial ports<br>USB<br>Video Interface<br>Resolution<br>Antenna connectors<br>Watchdog timer                      |
| <b>Reset button and buzzer</b>               |   |
| <b>Overall dimensions (W x H x D)</b>        | With 2 slots (2 mini PCIe)<br>With 4 slots (2 mini PCIe + 2 PCI/PCIe)   |
| <b>Temperature</b>                           | During operation<br>During storage  |
| <b>Vibration resistance</b> During operation |   |
| <b>Standards and certifications</b>          |   |
| <b>Software, IIoT and Cybersecurity</b>      |   |
| <b>References</b>                            | No PCIe/PCI expansion slots<br>1 PCIe (x4) + 1 PCI<br>2 PCI<br>1 PCIe (x1) + 1 PCIe (x4)                                      |
| <b>Page</b>                                  |   |

|   |  |
|---|--|
| ★★★★★ (1)   |  |
| Box PC: HMIBM Box wall/book (4)/flat (5) mounting<br>Panel PC: HMIBM Box + associated HMIDM Display   |  |
| Intel® Celeron® 2980U dual-core (1.6 GHz, low power)<br>2x full-size slots with 2x optional interface slots   |  |
| CFAST card ≥ 32 GB  | SSD ≥ 128 GB (2)                                       |
| 1x CFAST card slot and 2x HDD/SSD slots (hot-swappable)   |  |
| 4 GB DDR3 (not user-expandable)/512 KB non-volatile RAM with 300 KB for user  |  |
| Optional  |  |
| Connector for TPM 1.2 module (8)  |  |
| WES 7 Premium SP1 (64-bit)  | Windows 10 IoT Enterprise (64-bit Multi-language)      |
| -   |  |
| 18...36 V $\overline{\text{---}}$ or 100...240 V $\overline{\text{---}}$ supply with modular power adapter HMIYMMAC1  |  |
| 17.8 W typical, 33.6 W max.   |  |
| 2x RJ45 Ethernet 10/100/1,000 Mbps "i210 IEEE1588"  |  |
| 1x RS-232/422/485 isolated with auto flow control   |  |
| 2x USB 2.0, 2 USB 3.0   |  |
| 2x display ports (1 port is disabled when HMIDM Modular Display is mounted on the front)  |  |
| Up to 3200 × 2000 at 60 Hz  |  |
| 2x for WLAN antenna, 1x for GPRS antenna  |  |
| Timer with 255 levels/intervals, programmable, 1...255 s  |  |
| Yes   |  |
| 254 × 207 × 65.2 mm/10 × 8.15 × 2.57 in.<br>254 × 207 × 103.2 mm/10 × 8.15 × 4.06 in.   |  |
| Conforming to EN/IEC 60068-2-30 for wall/book mounting: 0...55 °C/32...131 °F (4), for flat mounting: 50 °C/122 °F (5)  |  |
| Conforming to IEC 61000-4/ EN 55011: -30...70 °C/-22...158 °F   |  |
| Conforming to IEC 60664-1: 2 g from 5...500 Hz  |  |
| CE, cULus industrial control (UL 61010-2-201, CSA 22.2 No. 142), cULus HazLoc (ANSI/ISA 12.12.01 and CSA C22.2 No. 213, Class I, Division 2), RCM, CCC, CE ATEX and IECEx HazLoc 3GD Zone 2/22, EAC |  |
| EcoStruxure Operator Terminal Expert Run Time Demo (3)  | EcoStruxure Operator Terminal Expert Run Time Demo (3) |
| EcoStruxure Machine SCADA Expert Run Time (10), Node-RED and McAfee whitelisting (6), EcoStruxure Secure Connect Advisor (9)  |  |
| HMIBMUCI29D2W01   | HMIBMUSI29D2801  |
| HMIBMUCI29D4W01   | HMIBMUSI29D4801  |
| -   | -  |
| -   | -  |
| 4/19  |  |

See configured Harmony Modular Box PC on [page 4/32](#)

(1) HMIYBFT4BM11 fan kit is required only when PCI/PCIe expansion cards above 3 W are installed.  
 (2) 5-year Intel warranty and 1.5 million hours MTBF. For high performance, user can preferably use the configuration with 240 GB SSD.  
 (3) EcoStruxure Operator Terminal Expert Run Time demo to be installed and activated by unlimited license HMIRTWCZLSPAZZ (Digital) or HMIRTWCZLSPMZZ (Paper).  
 (4) Except with HDD + HMIDM Modular Display or with PCI/PCIe up to 45 °C/158 °F.  
 (5) Except with HDD, mini PCIe card or PCI/PCIe card mounted which is up to 40 °C/ 104 °F.

Harmony HMIBMU Universal Modular Box PC



|   |  |
|---|--|
| ★★★★★ (1)   |  |
| Box PC: HMIBM Box wall/book (4)/flat (5) mounting<br>Panel PC: HMIBM Box + associated HMIDM Display   |  |
| Intel® Celeron® 2980U dual-core (1.6 GHz, low power)<br>2x full-size slots with 2x optional interface slots   |  |
| HDD ≥ 500 GB, 24/7 Enterprise   | None or Configured-To-Order offer  |
| 1x CFAST card slot and 2x HDD/SSD slots (hot-swappable)   |  |
| 4 GB DDR3 (not user-expandable)/512 KB non-volatile RAM with 300 KB for user  | 8 GB DDR3 (not user-expandable)/512 KB non-volatile RAM with 300 KB for user |
| Optional  |  |
| Connector for TPM 1.2 module (8)  |  |
| Windows 10 IoT Enterprise (64-bit Multi-language)   | None or Configured-To-Order offer  |
| -   |  |
| 18...36 V $\overline{\text{---}}$ or 100...240 V $\overline{\text{---}}$ supply with modular power adapter HMIYMMAC1  |  |
| 17.8 W typical, 33.6 W max.   |  |
| 2x RJ45 Ethernet 10/100/1,000 Mbps "i210 IEEE1588"  |  |
| 1x RS-232/422/485 isolated with auto flow control   |  |
| 2x USB 2.0, 2 USB 3.0   |  |
| 2x display ports (1 port is disabled when HMIDM Modular Display is mounted on the front)  |  |
| Up to 3200 × 2000 at 60 Hz  |  |
| 2x for WLAN antenna, 1x for GPRS antenna  |  |
| Timer with 255 levels/intervals, programmable, 1...255 s  |  |
| Yes   |  |
| 254 × 207 × 65.2 mm/10 × 8.15 × 2.57 in.<br>254 × 207 × 103.2 mm/10 × 8.15 × 4.06 in.   |  |
| Conforming to EN/IEC 60068-2-30 for wall/book mounting: 0...55 °C/32...131 °F (4), for flat mounting: 50 °C/122 °F (5)  |  |
| Conforming to IEC 61000-4/ EN 55011: -30...70 °C/-22...158 °F   |  |
| Conforming to IEC 60664-1: 1 g from 5...500 Hz  |  |
| CE, cULus industrial control (UL 61010-2-201, CSA 22.2 No. 142), cULus HazLoc (ANSI/ISA 12.12.01 and CSA C22.2 No. 213, Class I, Division 2), RCM, CCC, CE ATEX and IECEx HazLoc 3GD Zone 2/22, EAC |  |
| EcoStruxure Operator Terminal Expert Run Time Demo (3)  |  |
| EcoStruxure Machine SCADA Expert Run Time (10), Node-RED and McAfee whitelisting (6), EcoStruxure Secure Connect Advisor (9)  |  |
| HMIBMUHI29D2801   | HMIBMU0I29D2001  |
| HMIBMUHI29D4801   | HMIBMU0I29D4001  |
| -   | -  |
| -   | -  |
| 4/19  |  |

See configured Harmony Modular Box PC on [page 4/32](#)

(6) Node-RED to be installed or through USB key Windows 10 Recovery process ("Windows 10 Recovery process ("Windows 10 with Node-RED for IIoT Box" option to be selected). McAfee whitelisting to be installed and requires licence sticker HMIYYMACWLIOT1 to be applied.  
 (7) Free storage slot requires slide-in HMIYMADSDD1 to mount HDD/SSD 2.5".  
 (8) For Windows 10 operating system. Requires user downgrade to TPM 1.2, with utility tool provided.  
 (9) To be installed and activated with subscription.  
 (10) With Configured-To-Order Harmony Modular Box PC.

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIBM Modular Box PC  
HMIBMP Performance

Type of Harmony IIoT Box and iPC

Harmony HMIBMP Performance Modular Box PC



|  |   |
|--|---|
| <b>Fanless</b>                               |   |
| <b>Mounting</b>                              | Box PC<br>Panel PC  |
| <b>CPU</b>                                   | Processor<br>Mini PCIe expansion slots<br>Storage Main drive<br>Slots (7)<br>RAM/MRAM<br>Hot-swap RAID HDD and battery backup |
| <b>Cybersecurity encryption</b>              |   |
| <b>Operating system</b>                      |   |
| <b>Conformal coating</b>                     |   |
| <b>Supply voltage</b>                        |   |
| <b>Power consumption</b>                     |   |
| <b>Interface</b>                             | Ethernet<br>Serial ports<br>USB<br>Video Interface<br>Resolution<br>Antenna connectors<br>Watchdog timer                      |
| <b>Reset button and buzzer</b>               |   |
| <b>Overall dimensions (W x H x D)</b>        | With 2 slots (2 mini PCIe)<br>With 4 slots (2 mini PCIe + 2 PCI/PCIe)   |
| <b>Temperature</b>                           | During operation<br>During storage  |
| <b>Vibration resistance</b> During operation |   |
| <b>Standards and certifications</b>          |   |
| <b>Software, IIoT and Cybersecurity</b>      |   |
| <b>References</b>                            | No PCIe/PCI expansion slots<br>1 PCIe (x4) + 1 PCI<br>2 PCI<br>1 PCIe (x1) + 1 PCIe (x4)                                      |
| <b>Page</b>                                  |   |
| <b>Configured-To-Order</b>                   |   |

|   |  |
|---|--|
| ★★★★★ (1)   |  |
| Box PC: HMIBM Box wall/book (4)/flat (5) mounting<br>Panel PC: HMIBM Box + associated HMIDM Display   |  |
| Intel Core i7-4650U (1.7 GHz, low power with turbo boost at 3.3GHz)   |  |
| 2x full-size slots with 2x optional interface slots   |  |
| SSD ≥ 128 GB (2)  | HDD ≥ 500 GB, 24/7 Enterprise                          |
| 1x CFast card slot and 2x HDD/SSD slots (hot-swappable)   |  |
| 8 GB DDR3 (not user-expandable)/512 KB non-volatile RAM with 300 KB for user  |  |
| Optional  |  |
| Connector for TPM 1.2 module (8)  |  |
| Windows 10 IoT Enterprise (64-bit Multi-language)   |  |
| -   |  |
| 18...36 V $\overline{\text{---}}$ or 100...240 V $\overline{\text{~}}$ supply with modular power adapter HMIYMMAC1  |  |
| 18.1 W typical, 38.4 W max.   |  |
| 2x RJ45 Ethernet 10/100/1,000 Mbps "i210 IEEE1588"  |  |
| 1x RS-232/422/485 isolated with auto flow control   |  |
| 2x USB 2.0, 2 USB 3.0   |  |
| 2x display ports (1 port is disabled when HMIDM Modular Display is mounted on the front)  |  |
| Up to 3200 x 2000 at 60 Hz  |  |
| 2x for WLAN antenna, 1 for GPRS antenna   |  |
| Timer with 255 levels/intervals, programmable, 1...255 s  |  |
| Yes   |  |
| 254 x 207 x 65.2 mm/10 x 8.15 x 2.57 in.  |  |
| 254 x 207 x 103.2 mm/10 x 8.15 x 4.06 in.   |  |
| Conforming to EN/IEC 60068-2-30: 0...55 °C/32...131 °F (5)  |  |
| Conforming to IEC 61000-4/ EN 55011: -30...70 °C/-22...158 °F   |  |
| Conforming to IEC 60664-1: 2 g from 5...500 Hz  |  |
| CE, cULus industrial control (UL 61010-2-201, CSA 22.2 No. 142), cULus HazLoc (ANSI/ISA 12.12.01 and CSA C22.2 No. 213, Class I, Division 2), CE Atex and IECEx HazLoc 3GD Zone 2/22, Marine DNV (without HDD), RCM, CCC, EAC |  |
| EcoStruxure Operator Terminal Expert Run Time Demo (3)  | EcoStruxure Operator Terminal Expert Run Time Demo (3) |
| EcoStruxure Machine SCADA Expert Run Time (10), Node-RED and McAfee whitelisting (6), EcoStruxure Secure Connect Advisor (9)  |  |
| HMIBMP0174D2801   | HMIBMPHI74D2801  |
| HMIBMP0174D4801   | HMIBMPHI74D4801  |
| -   | -  |
| -   | -  |
| 4/20  |  |
| See configured Harmony Modular Box PC on <a href="#">page 4/32</a>  |  |

(1) HMIYBFKT4BM11 fan kit is required only when PCI/PCIe expansion cards above 3 W are installed.  
 (2) 5-year Intel warranty and 1.5 million hours MTBF.  
 (3) EcoStruxure Operator Terminal Expert Run Time Demo to be installed and activated by unlimited license HMIRTWCZLSPAZZ (Digital) or HMIRTWCZLSPMZZ (Paper).  
 (4) Except with HDD + HMIDM Modular Display or with PCI/PCIe up to 45 °C/158 °F.  
 (5) Except with HDD, mini PCIe card or PCI/PCIe card mounted which is up to 40 °C/ 104 °F.

Harmony HMIBMP Performance Modular Box PC



|   |   |
|---|---|
| ★★★★★ (1)   |   |
| Box PC: HMIBM Box wall/book (4)/flat (5) mounting<br>Panel PC: HMIBM Box + associated HMIDM Display   |   |
| Intel Core i7-4650U (1.7 GHz, low power with turbo boost at 3.3 GHz)  |   |
| 2x full-size slots with 2x optional interface slots   |   |
| None or Configured-To-Order offer   |   |
| 1x CFast card slot and 2x HDD/SSD slots (hot-swappable)   |   |
| 8 GB DDR3 (not user-expandable)/512 KB non-volatile RAM with 300 KB for user  | 16 GB DDR3 (not user-expandable)/512 KB non-volatile RAM with 300 KB for user |
| Optional  |   |
| Connector for TPM 1.2 module (8)  |   |
| None or Configured-To-Order offer   |   |
| -   | Yes   |
| 18...36 V $\overline{\text{---}}$ or 100...240 V $\overline{\text{~}}$ supply with modular power adapter HMIYMMAC1  |   |
| 18.1 W typical, 38.4 W max.   |   |
| 2x RJ45 Ethernet 10/100/1,000 Mbps "i210 IEEE1588"  |   |
| 1x RS-232/422/485 isolated with auto flow control   |   |
| 2x USB 2.0, 2 USB 3.0   |   |
| 2x display ports (1 port is disabled when HMIDM Modular Display is mounted on the front)  |   |
| Up to 3200 x 2000 at 60 Hz  |   |
| 2x for WLAN antenna, 1 for GPRS antenna   |   |
| Timer with 255 levels/intervals, programmable, 1...255 s  |   |
| Yes   |   |
| 254 x 207 x 65.2 mm/10 x 8.15 x 2.57 in.  |   |
| 254 x 207 x 103.2 mm/10 x 8.15 x 4.06 in.   |   |
| Conforming to EN/IEC 60068-2-30: 0...55 °C/32...131 °F (5)  |   |
| Conforming to IEC 61000-4/ EN 55011: -30...70 °C/-22...158 °F   |   |
| Conforming to IEC 60664-1: 1 g from 5...500 Hz  |   |
| CE, cULus industrial control (UL 61010-2-201, CSA 22.2 No. 142), cULus HazLoc (ANSI/ISA 12.12.01 and CSA C22.2 No. 213, Class I, Division 2), CE Atex and IECEx HazLoc 3GD Zone 2/22, Marine DNV (without HDD), RCM, CCC, EAC |   |
| EcoStruxure Operator Terminal Expert Run Time Demo (3)  |   |
| EcoStruxure Machine SCADA Expert Run Time (10), Node-RED and McAfee whitelisting (6), EcoStruxure Secure Connect Advisor (9)  |   |
| HMIBMP0174D2001   | HMIBMP0174D200A   |
| HMIBMP0174D4001   | HMIBMP0174D400A   |
| -   | HMIBMP0174DI00A   |
| -   | HMIBMP0174DE00A   |
| 4/20  |   |
| See configured Harmony Modular Box PC on <a href="#">page 4/32</a>  |   |

(6) Node-RED to be installed or through USB key Windows 10 Recovery process ("Windows 10 with Node-RED for IIoT Box" option to be selected). McAfee whitelisting to be installed and requires licence sticker HMIYMACWLIOT1 to be applied.  
 (7) Free storage slot requires slide-in HMIYMADSD1 to mount HDD/SSD 2.5".  
 (8) For Windows 10 operating system. Requires user downgrade to TPM 1.2, with utility tool provided.  
 (9) To be installed and activated with subscription.  
 (10) With Configured-To-Order Harmony Modular Box PC.

# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIBM Edge Box and Modular Box PC

### HMIBMI Basic



HMIBMI Basic Box PC

#### Presentation

Harmony HMIBM support advanced automation applications requiring Windows operating systems, with powerful CPUs, expansion capabilities, high-availability options (RAID HDD, UPS), and advanced certifications. Their modularity means that HMIBM Box PCs can be converted to Panel PCs by combining them with HMIDM Displays. They can be used for IIoT at the edge of EcoStruxure for direct connection to Cloud applications (running Node-RED to wire from OT to IT) with enhanced cybersecurity by design.

In addition to the referenced offer, the flexibility offered by the modular design allows Configured-To-Order Harmony Box PC versions (see [page 4/32](#)).

#### Overview of the offer

##### Harmony HMIBMI Basic

The Harmony HMIBMI Basic offer comprises 5 product references, each equipped with:

- Fanless Intel Atom Apollo Lake E3930 dual-core processor, 1.8 GHz
- 4 GB DDR3 RAM (1)
- Connection ports: 1x USB 3.0, 1x USB 2.0, 1x COM (RS-232/422/485), 2 Gigabit Ethernet, and 1x Display port
- Expansion slots: 1x full-size mini PCIe slot with optional interface
- Power supply: 12-24 V  $\overline{\text{DC}}$ , AC with optional external adapter HMIYPSOMAC1

The operating systems, storage devices, and expansion slots are as follows:

- **HMIBMIEA5DD1E01 Edge Box**
  - Operating system: Windows 10 IoT Enterprise LTSC (64-bit) + TPM 2.0
  - Default storage device: 64 GB eMMC (soldered, not user-expandable)
  - TPM encryption module, default mounted
  - Software: EcoStruxure Operator Terminal Expert + Node-RED (default)
- **HMIBMIEA5DD1101**
  - Operating system: Windows 10 IoT Enterprise LTSC (64-bit)
  - Default storage device: 64 GB eMMC (soldered, not user-expandable)
  - Software: EcoStruxure Operator Terminal Expert + Node-RED (2)
- **HMIBMIEA5DD110L**
  - Operating system: Windows 10 IoT Enterprise LTSC (64-bit)
  - Default storage device: 128 GB eMMC (soldered, not user-expandable)
  - Software: EcoStruxure Operator Terminal Expert + Node-RED (2)
- **HMIBMIEA5DD1001**
  - Operating system: None
  - Default storage device: 64 GB eMMC (soldered, not user-expandable)
  - Node-RED (2)
- **HMIBMIEA5DD100A**
  - Operating system: None
  - Default storage device: 128 GB eMMC (soldered, not user-expandable)
  - Node-RED (2)
  - Conformal coating: Yes

(1) Memory is not user-expandable.

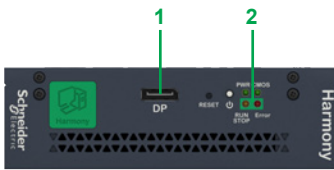
(2) Node-RED can be directly installed by user or through USB key Windows 10 Recovery process where "Windows 10 with Node-RED for IIoT Box" option has to be selected.



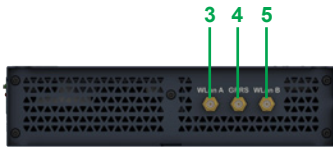
## Description

# Harmony iPC

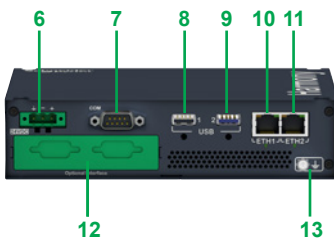
Industrial PC, Edge Box, and Display  
Harmony HMIBM Edge Box and Modular Box PC  
HMIBMI Basic



Front view of Basic Box PC



Top view of Basic Box PC



Underside view of Basic Box PC

### Description

#### Harmony HMIBMI Basic

##### Front view

- 1 Display port
- 2 LEDs and power/reset button

##### Top view

- 3 SMA connector for the WLAN A external antenna
- 4 SMA connector for the cellular 4G external antenna
- 5 SMA connector for the WLAN B external antenna

##### Underside view, 1 expansion slot

- 6 DC power connector
- 7 COM port RS-232 (non-isolated), RS-422/485 (non-isolated)
- 8 USB1 (USB 2.0)
- 9 USB2 (USB 3.0)
- 10 Eth1 (10/100/1000 Mbps) IEEE1588
- 11 Eth2 (10/100/1000 Mbps) IEEE1588
- 12 Optional interface
- 13 Ground connection pin

4



# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIBM Edge Box and Modular Box PC

#### HMIBMO Optimized



HMIBMO Optimized Box PC, regular version



HMIBMO Optimized Box PC, expandable version

4

#### Presentation (continued)

##### Overview of the offer (continued)

##### Harmony HMIBMO Optimized

The Harmony HMIBMO Optimized Box PC offer comprises 6 references, each equipped with:

- Fanless Intel Atom Apollo Lake E3930 dual-core processor, 1.8 GHz
- Connection ports: 2x USB 3.0, 2x USB 2.0, 1x COM (RS-232/422/485), 2 Gigabit i210 Ethernet, and 2x Display port
- Expansion slots: 1x full-size mini PCIe slot
- Power supply: 12-24 V  $\overline{\text{DC}}$ , AC with additional power supply module HMIYPSOMAC1
- Expandable models have 1x optional interface for external connection to mini PCIe cards mounted in the internal slot and 1x HDD/SSD 2.5" slot (3)

The operating systems, storage devices, and expansion slots are as follows:

##### HMIBMOMA5DD1E01 Edge Box

- Operating system: Windows 10 IoT Enterprise LTSC (64-bit) + TPM 2.0
- RAM: 4 GB DDR3 (1)
- Default storage device: 64 GB M.2 SSD
- TPM encryption module, default mounted
- Software: EcoStruxure Operator Terminal Expert + Node-RED (default)
- 1x mini PCIe without optional interface (for wireless cards only)

##### HMIBMOMA5DD1101

- Operating system : Windows 10 IoT Enterprise LTSC (64-bit)
- RAM: 4 GB DDR3 (1)
- Default storage device: 64 GB M.2 SSD
- Software: EcoStruxure Operator Terminal Expert + Node-RED (2)
- 1x mini PCIe without optional interface (for wireless cards only)

##### HMIBMO0A5DD1001

- Operating system: None
- RAM: 4 GB DDR3 (1)
- Default storage device: None
- Software: None
- 1x mini PCIe without optional interface (for wireless cards only)

##### HMIBMOMA5DDF10L

- Operating system: Windows 10 IoT Enterprise LTSC (64-bit)
- RAM: 4 GB DDR3 (1)
- Default storage device: 250 GB M.2 SSD
- Software: EcoStruxure Operator Terminal Expert + Node-RED (2)
- Expandable with 1x optional interface for mini PCIe + 1x HDD/SSD 2.5" slot (3)

##### HMIBMO0A5DDF101

- Operating system: None
- RAM: 4 GB DDR3 (1)
- Default storage device: None
- Expandable with 1x optional interface for mini PCIe + 1x HDD/SSD 2.5" slot (3)

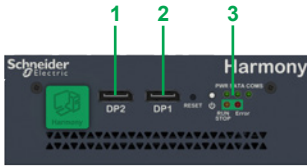
##### HMIBMO0A5DDF10A

- Operating system: None
- RAM: 8 GB DDR3 (1)
- Default storage device: None
- Conformal coating
- Expandable with 1x optional interface for mini PCIe + 1x HDD/SSD 2.5" slot (3)

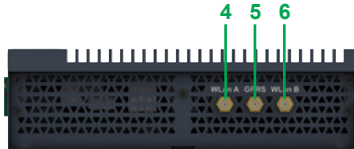
(1) Memory is not user-expandable.

(2) Node-RED can be directly installed by user or through USB key Windows 10 Recovery process where "Windows 10 with Node-RED for IIoT Box" option has to be selected.

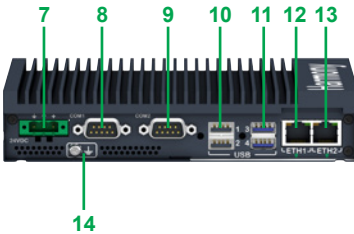
(3) 2.5" HDD/SSD requires HMIYBADHDDBMO1 adapter to be mounted.



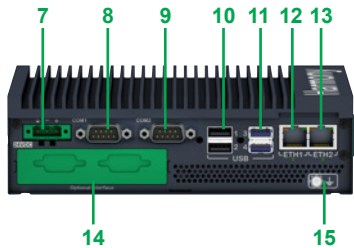
Front view of Optimized Box PC



Top view of Optimized Box PC



Underside view of Optimized Box PC, regular version



Underside view of Optimized Box PC, expandable version

## Description

### Harmony HMIBMO Optimized

#### Front view

- 1 Display Port 2
- 2 Display Port 1
- 3 LEDs and power/reset button

#### Top view

- 4 SMA connector for the WLAN A external antenna
- 5 SMA connector for the cellular 4G external antenna
- 6 SMA connector for the WLAN B external antenna

#### Underside view "regular version" (1)

- 7 DC power connector
- 8 COM1 port RS-232 (non-isolated)
- 9 COM2 port RS-232 (non-isolated), RS-422/485 (non-isolated)
- 10 USB1 and USB2 (USB 2.0)
- 11 USB3 and USB4 (USB 3.0)
- 12 Eth1 (10/100/1000 Mbps) IEEE1588
- 13 Eth2 (10/100/1000 Mbps) IEEE1588
- 14 Ground connection pin

#### Underside view "expandable version" (2)

- 7 DC power connector
- 8 COM1 port RS-232 (non-isolated)
- 9 COM2 port RS-232 (non-isolated), RS-422/485 (non-isolated)
- 10 USB1 and USB2 (USB 2.0)
- 11 USB3 and USB4 (USB 3.0)
- 12 Eth1 (10/100/1000 Mbps) IEEE1588
- 13 Eth2 (10/100/1000 Mbps) IEEE1588
- 14 Optional interface
- 15 Ground connection pin

(1) Regular version: HMIBMOMA5DD1101, HMIBMOMA5DD1E01, HMIBMO0ADD1001  
(2) Expandable version: HMIBMOMA5DDF10L, HMIBMO0A5DDF101, HMIBMO0A5DDF10A

# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIBM Modular Box PC

### HMIBMU Universal and HMIBMP Performance



HMIBMU Universal Box PC  
2 mini PCIe slots



HMIBMU Universal Box PC  
2 mini PCIe + 2 PCI/PCIe slots

#### Presentation (continued)

##### Overview of the offer (continued)

##### Harmony HMIBMU Universal

The Harmony HMIBMU Universal Box PC offer comprises 12 references, each equipped with:

- Fanless Intel® Celeron 2980U processor (1.6 GHz) (2)
- 4 GB or 8 GB DDR3 RAM (3)
- 512 KB non-volatile MRAM with 300 KB for user
- Connection ports: 2 USB 3.0, 2 USB 2.0, 1 COM (RS-232, RS-232/422/485), 2 Gigabit Ethernet, and 2 Display ports (1)
- Expansion slots: 2 full-size mini PCIe slots, 0 or 2 full-size PCI/PCIe slots (2)
- Power supply: 24 V  $\overline{\text{---}}$ , AC with additional power supply module HMIYMMAC1

The operating systems, storage devices, and expansion slots are as follows:

- With 4 GB DDR3 RAM (3), and 2 full-size mini PCIe slots:
  - **HMIBMU0129D2W01**
    - Operating system: WES 7 Premium SP1 (64-bit Multi-language)
    - Default storage device: 32 GB CFast card
  - **HMIBMUSI29D2801**
    - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
    - Default storage device: 128 GB SSD (5-year manufacturer warranty and 1.5 million hours MTBF)
  - **HMIBMUHI29D2801**
    - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
    - Default storage device: 500 GB HDD (Enterprise 24/7)
  - **HMIBMU0129D2001**
    - Operating system: None
    - Default storage device: None
- With 4 GB DDR3 RAM (3), 2 full-size mini PCIe slots and 1 PCI + 1 PCIe (x4) (2):
  - **HMIBMU0129D4W01**
    - Operating system: WES 7 Premium SP1 (64-bit Multi-language)
    - Default storage device: 32 GB CFast card
  - **HMIBMUSI29D4801**
    - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
    - Default storage device: 128 GB SSD (5-year manufacturer warranty and 1.5 million hours MTBF)
  - **HMIBMUHI29D4801**
    - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
    - Default storage device: 500 GB HDD (Enterprise 24/7)
  - **HMIBMU0129D4001**
    - Operating system: None
    - Default storage device: None
- With 8 GB DDR3 RAM (3), conformal coating, and without operating system/ default storage device:
  - **HMIBMU0129D200A**
    - 2 full-size mini PCIe slots
  - **HMIBMU0129D400A**
    - 2 full-size mini PCIe slots, 1 PCI + 1 PCIe (x4) (2)
  - **HMIBMU0129D100A**
    - 2 full-size mini PCIe slots, 2 PCI (2)
  - **HMIBMU0129DE00A**
    - 2 full-size mini PCIe slots, 1 PCIe (x1) + 1 PCIe (x4) (2)

(1) When Modular Box PC is mounted on Display, Display port 2 has no function.

(2) HMIYBFKT4BM11 fan kit is required only when PCI/PCIe expansion cards above 3 W are installed.

(3) Memory is not user-expandable.



HMIBMP Performance Box PC  
2 mini PCIe slots



HMIBMP Performance Box PC  
2 mini PCIe + 2 PCI/PCIe slots

## Presentation (continued)

### Overview of the offer (continued)

#### Harmony HMIBMP Performance

The Harmony HMIBMP Performance Box PC offer comprises 10 references, each equipped with:

- Fanless Intel® Core i7-4650U processor (1.7 GHz) (2)
- 8 GB or 16 GB DDR3 RAM (3)
- 512 KB non-volatile MRAM with 300 KB for user
- Connection ports: 2 USB 3.0, 2 USB 2.0, 1 COM (RS-232/422/485), 2 Gigabit Ethernet, and 2 Display ports (1)
- Expansion slots: 2 full-size mini PCIe slots, 0 or 2 full-size PCI/PCIe slots
- Power supply: 24 V  $\overline{\text{DC}}$ , AC with additional power supply module HMIYMMAC1

The operating systems, storage devices, and expansion slots are as follows:

- With 8 GB DDR3 RAM (3), and 2 full-size mini PCIe slots (2):
  - **HMIBMP0I74D2801**
    - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
    - Default storage device: 128 GB SSD (5-year manufacturer warranty and 1.5 million hours MTBF)
  - **HMIBMPHI74D2801**
    - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
    - Default storage device: 500 GB HDD (Enterprise 24/7)
  - **HMIBMP0I74D2001**
    - Operating system: None
    - Default storage device: None
- With 8 GB DDR3 RAM (3), 2 full-size mini PCIe slots and 1 PCI + 1 PCIe (x4) (2):
  - **HMIBMP0I74D4801**
    - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
    - Default storage device: 128 GB SSD (5-year manufacturer warranty and 1.5 million hours MTBF)
  - **HMIBMPHI74D4801**
    - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
    - Default storage device: 500 GB HDD (Enterprise 24/7)
  - **HMIBMP0I74D4001:**
    - Operating system: None
    - Default storage device: None
- With 16 GB DDR3 RAM (3), conformal coating, and without operating system and default storage device:
  - **HMIBMP0I74D200A**
    - 2 full-size mini PCIe slots
  - **HMIBMP0I74D400A**
    - 2 full-size mini PCIe slots, 1 PCI + 1 PCIe (x4) (2)
  - **HMIBMP0I74DI00A**
    - 2 full-size mini PCIe slots, 2 PCI (2)
  - **HMIBMP0I74DE00A**
    - 2 full-size mini PCIe slots, 1 PCIe (x1) + 1 PCIe (x4) (2)

(1) When Modular Box PC is mounted on Display, Display Port 2 has no function.

(2) HMIYBFKT4BM11 fan kit is required only when PCI/PCIe expansion cards above 3 W are installed.

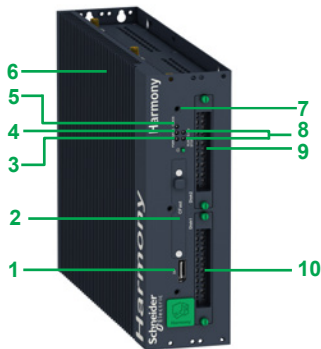
(3) Memory is not user-expandable.

# Harmony iPC

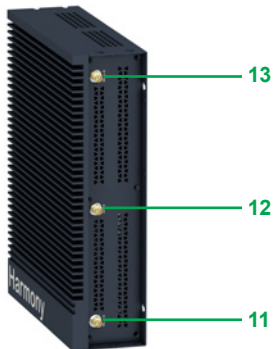
## Industrial PC, Edge Box, and Display

### Harmony HMIBM Modular Box PC

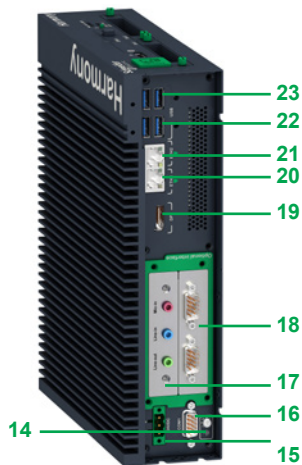
### HMIBMU Universal and HMIBMP Performance



Front view of Harmony Modular Box PC, 2 expansion slots



Top view of Harmony Modular Box PC, 2 expansion slots



Underside view of Harmony Modular Box PC, 2 expansion slots

#### Description

#### Harmony HMIBMU Universal and HMIBMP Performance, 2 expansion slots

##### Front view

- 1 Display port 2 (1)
- 2 Slide-in CFast card slot
- 3 Power status indicator (Green: On, Orange: Stand-by, No light: Off)
- 4 SATA status indicator (Green: On (Storage data transmit), Off (No storage data transmit))
- 5 CMOS status indicator (Orange: On (RTC voltage < 3 V ---), Off (RTC voltage > 3 V ---))
- 6 Fanless heat sink
- 7 Power supply/Reset button
- 8 Programmable status indicators (RUN/STOP and ERR LEDs)
- 9 HDD/SSD 2 (hot-swap and can be redundant RAID configuration) (2)
- 10 HDD/SSD 1 (hot-swap and can be redundant RAID configuration) (2)

##### Top view

- 11 SMA connector for wireless LAN external antenna
- 12 SMA connector for Cellular 4G external antenna
- 13 SMA connector for wireless LAN external antenna

##### Underside view

- 14 DC power connector
- 15 Ground connection pin
- 16 COM1 port RS-232/422/485 (isolated), can be used for communication with HMIYMUPSKT1 UPS battery
- 17 Optional interface 2 with full-size mini PCIe slot
- 18 Optional interface 1 with full-size mini PCIe slot
- 19 Display port 1
- 20 Eth1 (10/100/1,000 Mbps) IEEE1588
- 21 Eth2 (10/100/1,000 Mbps) IEEE1588
- 22 USB1 and USB2 (USB 3.0)
- 23 USB3 and USB4 (USB 2.0)

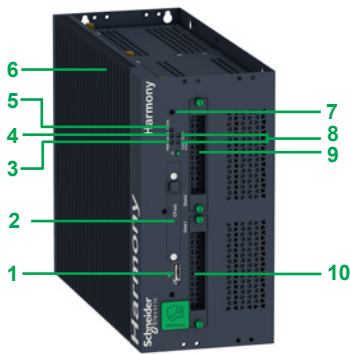
(1) When Modular Box PC is mounted on Display, Display port 2 has no function.  
 (2) Free storage slot requires slide-in HMIYMADSDD1 to mount HDD/SSD 2.5".

# Harmony iPC

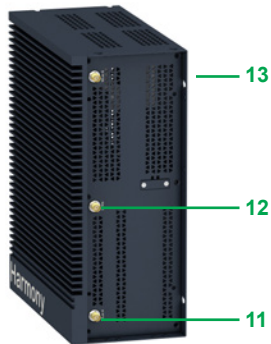
## Industrial PC, Edge Box, and Display

### Harmony HMIBM Modular Box PC

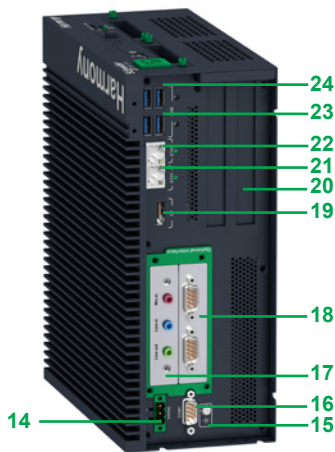
### HMIBMU Universal and HMIBMP Performance



Front view of Harmony Modular Box PC, 4 expansion slots



Top view of Harmony Modular Box PC, 4 expansion slots



Underside view of Harmony Modular Box PC, 4 expansion slots

#### Description

#### Harmony HMIBMU Universal and HMIBMP Performance, 4 expansion slots

##### Front view

- 1 Display port 2 (1)
- 2 Slide-in CFAST card slot
- 3 Power status indicator (Green: On, Orange: Stand-by, No light: Off)
- 4 SATA status indicator (Green: On (Storage data transmit), Off (No storage data transmit))
- 5 CMOS status indicator (Orange: On (RTC voltage < 3 V ---), Off (RTC voltage > 3 V ---))
- 6 Fanless heat sink
- 7 Power supply/Reset button
- 8 Programmable status indicators (RUN/STOP and ERR LEDs)
- 9 HDD/SSD 2 (hot-swap and can be redundant RAID configuration) (2)
- 10 HDD/SSD 1 (hot-swap and can be redundant RAID configuration) (2)

##### Top view

- 11 SMA connector for wireless LAN external antenna
- 12 SMA connector for Cellular 4G external antenna
- 13 SMA connector for wireless LAN external antenna

##### Underside view

- 14 DC power connector
- 15 Ground connection pin
- 16 COM1 port RS-232/422/485 (isolated), can be used for communication with HMIYMUPSKT1 UPS battery
- 17 Optional interface 1 with full-size mini PCIe slot
- 18 Optional interface 2 with full-size mini PCIe slot
- 19 Display port 1
- 20 2x PCI/PCIe slots (3)
- 21 Eth1 (10/100/1,000 Mbps) IEEE1588 (3)
- 22 Eth2 (10/100/1,000 Mbps) IEEE1588 (3)
- 23 USB1 and USB2 (USB 3.0)
- 24 USB3 and USB4 (USB 2.0)

(1) When Modular Box iPC is mounted on Display, Display port 2 has no function.

(2) Free storage slot requires slide-in HMIYMADSDD1 to mount HDD/SSD 2.5".

(3) HMIYBFKT4BM11 fan kit is required only when PCI/PCIe expansion cards above 3 W are installed.



# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIBM Edge Box and Modular Box PC

### HMIBMI Basic and HMIBMO Optimized

#### Ready-to-run Software, IIoT and Cybersecurity

Harmony HMIBM are supported by Schneider Electric HMI software. For HMI applications, EcoStruxure Operator Terminal Expert Run Time demo version can be downloaded and activated to unlimited version with **HMIRTWZLSPAZZ** (Digital) or **HMIRTWZLSPMZZ** (Paper) license. For line management and lite supervision, EcoStruxure Machine SCADA Expert Run Time is available via Configured-To-Order process.

For secure remote access, Harmony HMIBM are supported with EcoStruxure Secure Connect Advisor that will have to be installed and activated with subscription.

For more information on EcoStruxure Operator Terminal Expert, EcoStruxure Secure Connect Advisor and EcoStruxure Machine SCADA Expert, please refer to our website [www.schneider-electric.com](http://www.schneider-electric.com).

The mother board of latest Harmony Modular Box PC are equipped with a pin header to install Cybersecurity TPM optional module **HMIYMINATPM201** for hardware encryption with Windows bit-locker.

For IIoT connections to Cloud applications, Harmony HMIBM can run Node-RED. To activate McAfee whitelisting, the license sticker **HMIYMACWLIOT1** is required to be applied.

#### Harmony HMIBMI Basic

Intel Atom Apollo Lake E3930 dual-core 1.8 GHz processor/24 V --- supply voltage (1)

| Expansion slot                                  | Operating system                        | Software   | Storage disk           | DDR3 RAM (2) | Reference                           | Weight kg/lb |
|---|---|--|------------------------|--------------|-------------------------------------|--------------|
| 1x mini PCIe, full-size with optional interface | Windows 10 IoT Enterprise LTSC (64-bit) | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4), Node-RED (5) | 64 GB eMMC (soldered)  | 4 GB         | <a href="#">HMIBMIEA5DD1101</a>     | 1.20/2.64    |
|   |   | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4), Node-RED (5) | 64 GB eMMC (soldered)  | 4 GB         | <a href="#">HMIBMIEA5DD1E01</a> (8) | 1.20/2.64    |
|   | Windows 10 IoT Enterprise LTSC (64-bit) | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4), Node-RED (5) | 128 GB eMMC (soldered) | 4 GB         | <a href="#">HMIBMIEA5DD110L</a>     | 1.20/2.64    |
|   | No                                      |  | 64 GB eMMC (soldered)  | 4 GB         | <a href="#">HMIBMIEA5DD1001</a>     | 1.20/2.64    |
|   | No                                      |  | 128 GB eMMC (soldered) | 4 GB         | <a href="#">HMIBMIEA5DD100A</a> (7) | 1.20/2.64    |



HMIBMIEA5DD110L



HMIBMOMA5DD1E01



HMIBMO0A5DDF101

#### Harmony HMIBMO Optimized

Intel Atom Apollo Lake E3930 dual-core 1.8 GHz processor/24 V --- supply voltage (1)

##### Regular version (without optional interface)

|  |   |  |               |      |                                     |           |
|--|---|--|---------------|------|-------------------------------------|-----------|
| 1x mini PCIe, full-size without optional interface | Windows 10 IoT Enterprise LTSC (64-bit) | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4), Node-RED (5)       | M.2 SSD 64 GB | 4 GB | <a href="#">HMIBMOMA5DD1101</a>     | 1.25/2.75 |
|  |   | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4), Node-RED (default) | M.2 SSD 64 GB | 4 GB | <a href="#">HMIBMOMA5DD1E01</a> (8) | 1.25/2.75 |
|  | No                                      |  | No            | 4 GB | <a href="#">HMIBMO0A5DD1001</a>     | 1.25/2.75 |

##### Expandable version (with Optional interface and HDD/SSD 2.5" slot (6))

|   |   |  |                |      |                                     |           |
|---|---|--|----------------|------|-------------------------------------|-----------|
| 1x mini PCIe, full-size with optional interface | Windows 10 IoT Enterprise LTSC (64-bit) | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4), Node-RED (5) | M.2 SSD 250 GB | 4 GB | <a href="#">HMIBMOMA5DDF10L</a>     | 1.30/2.86 |
|   |   |  | No             | 4 GB | <a href="#">HMIBMO0A5DDF101</a>     | 1.30/2.86 |
|   | No                                      |  | No             | 8 GB | <a href="#">HMIBMO0A5DDF10A</a> (7) | 1.30/2.86 |

(1) AC with additional power supply module **HMIYPSOMAC1** (or **HMIYMMAC1** for HMIBMO in hazardous locations).

(2) Memory is not user-expandable.

(3) EcoStruxure Operator Terminal Expert Run Time Demo to be installed and activated by unlimited license **HMIRTWZLSPAZZ** (Digital) or **HMIRTWZLSPMZZ** (Paper).

(4) EcoStruxure Secure Connect Advisor license has to be purchased. For more information please refer to our website [www.schneider-electric.com](http://www.schneider-electric.com).

(5) Node-RED can be directly installed by user or through USB key Windows 10 Recovery process where "Windows 10 with Node-RED for IIoT Box" option has to be selected.

(6) 2.5" HDD/SSD requires **HMIYBADHDDBMO1** adapter to be mounted.

(7) With conformal coating.

(8) Edge Box with TPM 2.0 default module.



# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIBM Modular Box PC

### HMIBMU Universal



HMIBMUSI29D2801



HMIBMUCI29D4W01

| Harmony HMIBMU Universal   |   |  |  |              |                                     |              |
|--|---|--|--|--------------|-------------------------------------|--------------|
| Intel Celeron 2980U 1.6 GHz processor/24 V $\overline{\text{DC}}$ supply voltage (1)     |   |  |  |              |                                     |              |
| Expansion slot   | Operating system                          | Software   | Storage disk   | DDR3 RAM (2) | Reference                           | Weight kg/lb |
| <b>With 2 expansion slots</b>  |   |  |  |              |                                     |              |
| 2x mini PCIe, full-size with optional interface  | WES 7 Premium SP1 (64-bit Multi-language) | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4), Node-RED (7) | CFAST card $\geq$ 32 GB                                  | 4 GB         | <a href="#">HMIBMUCI29D2W01</a>     | 3.100/6.800  |
|  |   |  | SSD flash disk $\geq$ 128 GB with 1.5 million hours MTBF | 4 GB         | <a href="#">HMIBMUSI29D2801</a>     | 3.100/6.800  |
|  |   |  | HDD Enterprise 24/7 $\geq$ 500 GB                        | 4 GB         | <a href="#">HMIBMUHI29D2801</a>     | 3.100/6.800  |
| No   | No  | EcoStruxure Secure Connect Advisor (4), Node-RED (7)   | No   | 4 GB         | <a href="#">HMIBMU0I29D2001</a>     | 3.100/6.800  |
| No   | No  | No   | No   | 8 GB         | <a href="#">HMIBMU0I29D200A (6)</a> | 3.100/6.800  |
| <b>With 4 expansion slots (5)</b>  |   |  |  |              |                                     |              |
| 2x mini PCIe, full-size with optional interface + 1x PCI + 1x PCIe (x4), full-size       | WES 7 Premium SP1 (64-bit Multi-language) | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4), Node-RED (7) | CFAST card $\geq$ 32 GB                                  | 4 GB         | <a href="#">HMIBMUCI29D4W01</a>     | 3.900/8.600  |
|  |   |  | SSD flash disk $\geq$ 128 GB with 1.5 million hours MTBF | 4 GB         | <a href="#">HMIBMUSI29D4801</a>     | 3.900/8.600  |
|  |   |  | HDD Enterprise 24/7 $\geq$ 500 GB                        | 4 GB         | <a href="#">HMIBMUHI29D4801</a>     | 3.900/8.600  |
| No   | No  | EcoStruxure Secure Connect Advisor (4), Node-RED (7)   | No   | 4 GB         | <a href="#">HMIBMU0I29D4001</a>     | 3.900/8.600  |
| No   | No  | No   | No   | 8 GB         | <a href="#">HMIBMU0I29D400A</a>     | 3.900/8.600  |
| 2x mini PCIe, full-size with optional interface + 2x PCI, full-size                      | No  | No   | No   | 8 GB         | <a href="#">HMIBMU0I29DI00A (6)</a> | 3.900/8.600  |
| 2x mini PCIe, full-size with optional interface + 1x PCIe (x1) + 1x PCIe (x4), full-size | No  | No   | No   | 8 GB         | <a href="#">HMIBMU0I29DE00A (6)</a> | 3.900/8.600  |

(1) AC with additional power supply module HMIYMMAC1.  
 (2) Memory is not user-expandable.  
 (3) EcoStruxure Operator Terminal Expert Run Time Demo to be installed and activated by unlimited license HMIRTWCZLSPAZZ (Digital) or HMIRTWCZLSPMZZ (Paper).  
 (4) EcoStruxure Secure Connect Advisor license has to be purchased. For more information please refer to our website [www.schneider-electric.com](http://www.schneider-electric.com).  
 (5) HMIYBFKT4BM11 fan kit is required only when PCI/PCIe expansion cards above 3 W are installed.  
 (6) With conformal coating.  
 (7) Node-RED can be directly installed by user or through USB key Windows 10 Recovery process where "Windows 10 with Node-RED for IoT Box" option has to be selected.

# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIBM Modular Box PC

#### HMIBMP Performance



HMIBMP74D2801



HMIBMP74D4801

### Harmony HMIBMP Performance

Intel Core i7-4650U 1.7 GHz processor/24 V  $\square$  supply voltage (1)

| PCI slot  | Operating system                                  | Software  | Storage disk   | DDR3 RAM (2) | Reference                           | Weight kg/lb |
|---|---|---|--|--------------|-------------------------------------|--------------|
| <b>With 2 expansion slots</b>                   |   |   |  |              |                                     |              |
| 2x mini PCIe, full-size with optional interface | Windows 10 IoT Enterprise (64-bit Multi-language) | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4), Node-RED (7), | SSD flash disk $\geq$ 128 GB with 1.5 million hours MTBF | 8 GB         | <a href="#">HMIBMP74D2801</a>       | 3.100/6.800  |
|   |   |   | HDD Enterprise 24/7 $\geq$ 500 GB                        | 8 GB         | <a href="#">HMIBMP74D2801</a>       | 3.100/6.800  |
| No  | No  | EcoStruxure Secure Connect Advisor (4), Node-RED (7)  | No   | 8 GB         | <a href="#">HMIBMP0174D2001</a>     | 3.100/6.800  |
| No  | No  | No  | No   | 16 GB        | <a href="#">HMIBMP0174D200A</a> (6) | 3.100/6.800  |

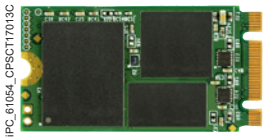
### With 4 expansion slots (5)

|  |   |   |  |       |                                     |             |
|--|---|---|--|-------|-------------------------------------|-------------|
| 2x mini PCIe, full-size with optional interface + 1x PCI + 1x PCIe (x4), full-size       | Windows 10 IoT Enterprise (64-bit Multi-language) | EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4), Node-RED (7), | SSD flash disk $\geq$ 128 GB with 1.5 million hours MTBF | 8 GB  | <a href="#">HMIBMP74D4801</a>       | 3.900/8.600 |
|  |   |   | HDD Enterprise 24/7 $\geq$ 500 GB                        | 8 GB  | <a href="#">HMIBMP74D4801</a>       | 3.900/8.600 |
| No   | No  | EcoStruxure Secure Connect Advisor (4), Node-RED (7)  | No   | 8 GB  | <a href="#">HMIBMP0174D4001</a>     | 3.900/8.600 |
| No   | No  | No  | No   | 16 GB | <a href="#">HMIBMP0174D400A</a> (6) | 3.900/8.600 |
| 2x mini PCIe, full-size with optional interface + 2x PCI, full-size                      | No  | No  | No   | 16 GB | <a href="#">HMIBMP0174DI00A</a> (6) | 3.900/8.600 |
| 2x mini PCIe, full-size with optional interface + 1x PCIe (x1) + 1x PCIe (x4), full-size | No  | No  | No   | 16 GB | <a href="#">HMIBMP0174DE00A</a> (6) | 3.900/8.600 |

(1) AC with additional power supply module HMIYMMAC1.  
 (2) Memory is not user-expandable.  
 (3) EcoStruxure Operator Terminal Expert Run Time Demo to be installed and activated by unlimited license HMIRTCZLSPAZZ (Digital) or HMIRTCZLSPMZZ (Paper).  
 (4) EcoStruxure Secure Connect Advisor license has to be purchased. For more information please refer to our website [www.schneider-electric.com](http://www.schneider-electric.com).  
 (5) HMIYBFKT4BM11 fan kit is required only when PCI/PCIe expansion cards above 3 W are installed.  
 (6) With conformal coating.  
 (7) Node-RED can be directly installed by user or through USB key Windows 10 Recovery process where "Windows 10 with Node-RED for IoT Box" option has to be selected.



HMIYSSDS240S1



HMIYM2256M1



HMIYMADSDD1



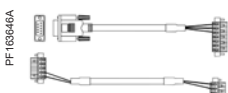
HMIYM2256M1



HMIYMMAC1



HMIYMUPSKT1



HMIYCABUPS31

| Separate components   |  |   |                                |              |
|---|--|---|--------------------------------|--------------|
| Description   | Details  | Compatible with Harmony HMIBM                       | Reference                      | Weight kg/lb |
| <b>Drives</b>   |  |   |                                |              |
| <b>CFast card</b>   | 32 GB MLC, blank   | HMIBMU, HMIBMP                                      | <a href="#">HMIYCF32S</a>      | –            |
| <b>Blank SSD with mounting screws</b>                             | 128 GB MLC (5-year warranty and 1.5 million hours MTBF)  | HMIBMO (expandable), HMIBMU, HMIBMP                 | <a href="#">HMIYSSDS080S1</a>  | –            |
|   | 256 GB MLC (5-year warranty and 2 million hours MTBF)  |   | <a href="#">HMIYSSDS240S1</a>  | –            |
| <b>M.2 SSD</b>  | 64 GB MLC (3-years warranty and 1.5 million hours MTBF)  | HMIBMO  | <a href="#">HMIYM2064M1</a>    | –            |
|   | 128 GB MLC (3-years warranty and 1.5 million hours MTBF)   | HMIBMO  | <a href="#">HMIYM2128M1</a>    | –            |
|   | 250 GB MLC (3-years warranty and 1.5 million hours MTBF)   | HMIBMO  | <a href="#">HMIYM2256M1</a>    | –            |
| <b>Blank HDD</b>  | Spare 1 TB HDD, blank  | HMIBMO (expandable), HMIBMU, HMIBMP                 | <a href="#">HMIYHDD01T21</a>   | –            |
|   | Spare 500 GB HDD, blank  | HMIBMO (expandable), HMIBMU, HMIBMP                 | <a href="#">HMIYHDD50021</a>   | –            |
| <b>Slide-in for HDD/SSD</b>                                       | Slide-in to mount HDD/SSD 2.5" in a storage slot of modular Box PC   | HMIBMU, HMIBMP                                      | <a href="#">HMIYMADSDD1</a>    | –            |
| <b>Carrier for HDD/SSD</b>  | Carrier to mount an HDD/SSD 2.5" in a storage slot of Harmony HMIBMO expandable model  | HMIBMO (expandable)                                 | <a href="#">HMIYBADHDDBMO1</a> | –            |
| <b>Accessories</b>  |  |   |                                |              |
| <b>Maintenance kit for HMIBM Box PCs + HMIDM Modular Displays</b> | Includes: <ul style="list-style-type: none"> <li>■ Screws and dampers for HDD/SSD</li> <li>■ Screws and clamps for panel mounting</li> <li>■ Modular Box cover screws</li> <li>■ Screws for mounting Box to Display</li> <li>■ Power connector and sticker</li> <li>■ CFast card pull-out</li> <li>■ Rubbers for display mounting</li> <li>■ Filter for fan kit</li> <li>■ Bracket, screws, and dampers for mini PCIe</li> </ul> | All models  | <a href="#">HMIYBMKTBM1</a>    | –            |
| <b>Fan kit for HMIBM Box PC</b>                                   | Fan kit to mount PCI/PCIe cards with a power consumption between 3 W to 10 W on a HMIBM Modular Box PC   | HMIBMU and HMIBMP (2 slot models)                   | <a href="#">HMIYBFKT4BM11</a>  | –            |
| <b>USB key blank for iPC recovery</b>                             | Spare USB memory key blank (1)   | All models  | <a href="#">HMIYUSBBK111</a>   | –            |
| <b>AC power supply (60 W)</b>                                     | AC power adapter (60 W)  | HMIBMI, HMIBMO                                      | <a href="#">HMIYPSOMAC1</a>    | –            |
| <b>AC power supply for HMIBM</b>                                  | Modular AC power adapter (100 W) (2)   | All models  | <a href="#">HMIYMMAC1</a>      | –            |
| <b>UPS battery</b>  | UPS battery for HMIBM (no cables)  | All models  | <a href="#">HMIYMUPSKT1</a>    | –            |
| <b>UPS cable</b>  | UPS cables for HMIBM (3 m/9.84 ft)   | All models  | <a href="#">HMIYCABUPS31</a>   | –            |
| <b>VESA mounting kit</b>  | VESA mounting kit for HMIBM Box PC + HMIDM6 4:3 12" and W12" Display   | HMIBMI, HMIBMO<br>HMIBMU and HMIBMP (2 slot models) | <a href="#">HMIYVESA21</a>     | –            |
|   | VESA mounting kit for HMIBM Box PC + HMIDM7/9/A 4:3 15", W15", W19" and W22" Display   | HMIBMI, HMIBMO<br>HMIBMU and HMIBMP (2 slot models) | <a href="#">HMIYVESA21</a>     | –            |
|   | VESA mounting kit for HMIBM Box PC + HMIDM7/9/A 4:3 15", W15", W19" and W22" Display   | HMIBMU and HMIBMP (4 slot models)                   | <a href="#">HMIYVESA41</a>     | –            |
| <b>DP to DVI adapter</b>  | DP to DVI-D adapter  | All models  | <a href="#">HMIYADDPDVI11</a>  | –            |
| <b>DP to DVI cable</b>  | DP to DVI-D cable 3 m/9.84 ft  | All models  | <a href="#">HMIYCABDPDVI31</a> | –            |
| <b>Display adaptation plate</b>                                   | Display adaptation plate from legacy Panel PC 19" display HMIPU●●●●● to Modular Display 15" HMIDM7421  | All models with HMIDM7421                           | <a href="#">HMIYAD1915D1</a>   | –            |
| <b>DIN rail adapter</b>   |  | HMIBMI, HMIBMO                                      | <a href="#">HMIYADBMODIN11</a> | –            |

(1) USB key including restore image for recovery is supplied with each unit. The spare blank key is only necessary if the default key supplied with the unit is lost.  
 (2) Certified for IECEx Zone 22 (Dust) only. HMIYPSPMAC1 is not certified for IECEx Zone 2 (Gas).  
 (3) EcoStruxure Machine SCADA Expert available in Configured-To-Order (see page 4/32).  
 (4) For more information, please refer to EcoStruxure Secure Connect Advisor catalog [DIA5ED2190101EN](#).

# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIBM Modular Box PC

#### Separate components

| Separate components (continued)                              |  |  |  |              |
|--|--|--|--|--------------|
| Description  | Details  | Compatible with Harmony HMIBM                              | Reference  | Weight kg/lb |
| <b>Software and Secure remote access (1)</b>                 |  |  |  |              |
| <b>EcoStruxure Operator Terminal Expert Run Time license</b> | Converts the 21-day trial version of EcoStruxure Operator Terminal Expert Run Time Demo to an unlimited license. | All models with EcoStruxure Operator Terminal Expert       | <a href="#">HMIRTCWZLSPAZZ (Digital)</a><br><a href="#">HMIRTCWZLSPMZZ (Paper)</a> | –            |
| <b>EcoStruxure Secure Connect Advisor</b>                    | For HMI secure remote access   | All models that support EcoStruxure Secure Connect Advisor | <a href="#">VJOCNT(2)</a>  | –            |
| <b>Interfaces</b>  |  |  |  |              |
| <b>RJ45 Ethernet interface</b>                               | Interface Mini PCIe, 1x RJ45 Ethernet (3)  | All models with optional interfaces                        | <a href="#">HMIYMIN1ETH1</a>   | –            |
| <b>NVRAM interface</b>                                       | Mini PCIe with non-volatile RAM, without external connectors   | HMIBMU, HMIBMP   | <a href="#">HMIYMINNVRAM1</a>  | –            |
| <b>2x RS-422/485 isolated interface</b>                      | Mini PCIe with 2x RS-422/485, isolated external interface with connectors  | All models with optional interfaces                        | <a href="#">HMIYMINSL24851</a>   | –            |
| <b>4x RS-422/485 interface</b>                               | Mini PCIe with 4x RS-422/485, external interface with connectors   | All models with optional interfaces                        | <a href="#">HMIYMINSL44851</a>   | –            |
| <b>2x RS-232 isolated interface</b>                          | Mini PCIe with 2x RS-232, isolated external interface with connectors  | All models with optional interfaces                        | <a href="#">HMIYMINSL22321</a>   | –            |
| <b>4x RS-232 interface</b>                                   | Mini PCIe with 4x RS-232, external interface with connectors   | All models with optional interfaces                        | <a href="#">HMIYMINSL42321</a>   | –            |
| <b>1x Profibus DP Master NVRAM interface</b>                 | Mini PCIe with 1x Profibus DP Master, non-volatile RAM, external interface with connectors                       | All models with optional interfaces                        | <a href="#">HMIYMINPRO1</a>  | –            |
| <b>2x CANopen/CAN bus interface</b>                          | Mini PCIe with 2x CAN fieldbus, external interface with connectors, drivers for CANopen and CAN bus              | All models with optional interfaces                        | <a href="#">HMIYMINCAN1</a>  | –            |
| <b>16x DI/8 DO interface</b>                                 | Mini PCIe with 16x DI/8 DO, external interface with connectors, 2 m/6.56 ft cable and DIN rail wiring terminal   | All models with optional interfaces                        | <a href="#">HMIYMINIO1</a>   | –            |
| <b>2x USB 3.0 interface</b>                                  | Mini PCIe with USB 3.0, external interface with connectors   | All models with optional interfaces                        | <a href="#">HMIYMINUSB1</a>  | –            |
| <b>Audio interface</b>                                       | Module with Audio (line in, line out and mic), external interface with connectors                                | All models with optional interfaces                        | <a href="#">HMIYMINAUD1</a>  | –            |

(1) EcoStruxure Machine SCADA Expert available in Configured-To-Order (see [page 4/32](#)).

(2) For more information, please refer to EcoStruxure Secure Connect Advisor catalog [DIA5ED2190101EN](#)

(3) Available in Q2 2020.

PF143569A



HMIYMINNVRAM1

PF143570C



HMIYMINSL24851

PF143576A



HMIYMINCAN1

PF519851



HMIYMINIO1



HMIYMINIO1

# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIBM Modular Box PC

#### Separate components

#### Separate components (continued)

| Description                                      | Details  | Compatible with Harmony HMIBM           | Reference                       | Weight kg/lb |
|--|--|---|---------------------------------|--------------|
| <b>Interfaces (continued)</b>                    |  |   |                                 |              |
| <b>Wireless LAN interface + 2x antennas kit</b>  | Kit with mini PCIe WiFi (access point with Windows 10) + Bluetooth and 2x antennas   | All models                              | <a href="#">HMIYMINWIFI2</a>    | –            |
| <b>Remote wireless LAN antenna cable</b>         | 5 m/16.4 ft cable to mount a WiFi antenna remotely from Harmony iPC  | All models                              | <a href="#">HMIYCABWIFIAN51</a> | –            |
| <b>Cybersecurity TPM for iPC</b>                 | Trusted Platform Module (1) for cyber secured hardware encryption on HMIBM with related connector on mother board, to be activated with Windows bit-locker   | All models                              | <a href="#">HMIYMINATPM201</a>  | –            |
| <b>McAfee whitelisting</b>                       | License sticker and a USB stick with software application for Cybersecurity whitelisting on Windows 10   | All models                              | <a href="#">HMIYYMACWLIOT1</a>  | –            |
| <b>Cellular 3G interface</b>                     | Mini PCIe with GPRS, SIM card holder, and external antenna   | All models                              | <a href="#">HMIYMINGPRS1</a>    | –            |
| <b>Cellular 4G interface for North America</b>   | Mini PCIe GPRS 4G for North America frequencies. Kit including SIM card holder and external antenna  | All models                              | <a href="#">HMIYMIN4GUS1</a>    | –            |
| <b>Cellular 4G interface for Europe and Asia</b> | Mini PCIe GPRS 4G for Europe and Asia frequencies. Kit including SIM card holder and external antenna  | All models                              | <a href="#">HMIYMIN4GEU1</a>    | –            |
| <b>Mini PCIe interface to Display Adapter</b>    | Mini PCIe Interface transmitter with RJ45 port, graphic video card   | All models with optional interfaces (5) | <a href="#">HMIYMINDP1</a>      | –            |
| <b>Mini PCIe interface DVI-I for iPC</b>         | Mini PCIe Graphic video card Full HD 1920 x 1080, with DVI-I connector on an external interface (providing both dual digital and analog signals)             | All models with optional interfaces (5) | <a href="#">HMIYMINDVII1</a>    | –            |
| <b>Mini PCIe interface 2VGA + DVI-D</b>          | Mini PCIe Graphic video card Full HD 1920 x 1080, with 2xVGA connectors on a single external interface and 1x DVI-D connector in a second external interface | All models with optional interfaces (5) | <a href="#">HMIYMINVGADVID1</a> | –            |
| <b>Mini PCIe interface Audio for iPC</b>         | Mini PCIe audio card and one external interface with speaker OUT, Line IN and Mic IN connectors  | All models with optional interfaces     | <a href="#">HMIYMINAUD21</a>    | –            |

(1) TPM delivered at 2.0 version, requiring user downgrade to 1.2 with the provided tool to run on HMIBMU/HMIBMP with BIOS and Windows 10.

(2) HMIYMINDP1 cannot be used with HMIYMINDVII1 or HMIYMINVGADVID1.

(3) HMIYMINDP1 and HMIYMINUSB1 cannot be used together.

(4) Remove the existing driver when user want to install HMIYMINDP1 or HMIYMINDVII1 or HMIYMINVGADVID1.

(5) Limited to a single Mini PCIe graphic video card per unit.

IPC\_61054\_CPSC17017



HMIYMIN4GUS1

IPC\_61054\_CPSC17011



HMIYMINATPM201

IPC\_61054\_CPSC17020



HMIYYMACWLIOT1



# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIDM Modular Display

| Type of Display | Harmony HMIDM Modular Display |                      |                   |                   |
|-----------------|-------------------------------|----------------------|-------------------|-------------------|
| Model           | 4:3 12" touch screen          | 4:3 15" touch screen | W12" touch screen | W15" touch screen |



|   |   |  |  |  |   |
|---|---|--|--|--|---|
| <b>Screen</b>   | Type  | LED LCD single-touch resistive screen  |  | LED LCD 5-point multi-touch projected capacitive technology screen |   |
|   | Size  | 4:3 12.1"  | 4:3 15"                                  | W12.1"   | W15.6"  |
|   | Resolution                                  | XGA, 1024 × 768 pixels, 16.7 million colors  |  | WHD WXGA, 1280 × 800, 16.7 million colors                          | WHD FWXGA, 1366 × 768 pixels, 16.7 million colors |
|   | Degree of protection                        | IP66, Nema 4x indoor front panel, and 7H hardness anti-scratch   |  |  |   |
|   | Brightness                                  | ≥ 300 cd/m <sup>2</sup> , step less adjustment   |  |  |   |
|   | View angle                                  | Vertical 115°, horizontal 140°   |  | Vertical 140°, horizontal 150°                                     |   |
|   | Backlight service life                      | 50,000 hours   |  |  |   |
|   | Operate with water on screen                | Yes for all models   |  |  |   |
|   | <b>Interface</b>                            | On the front panel   | 1x USB 2.0 (Type A) and Reset button     |  | -   |
| On the back panel   |   | -  |  | -  |   |
| <b>Supply voltage</b>   | From Box PC or mounted Display Adapter      |  |  |  |   |
| <b>Standards and certifications</b><br>(mounted on front Panel of Box PC HMIBM or Display Adapter HMIDAD) | Marine                                      | Yes  | Yes                                      | Yes  | Yes   |
|   | IECEX ATEX (2)                              | No   | Yes                                      | No   | Yes   |
|   | Others                                      | CE, RCM, EAC, cULus Industrial Control (UL 61010, CSA 22.2 No.142), cULus HazLoc (ANSI/ISA 12.12.01 and CSA C22.2 No. 213, Class I, Division 2), FCC (part 15 EMC Class A) |  |  |   |
| <b>Power consumption</b>  | With Universal Modular Box PC               | 38.6 W typical, 52.87 W max.   | 39.9 W typical, 48.04 W max.             | 37.4 W typical, 53.65 W max.                                       | 40.9 W typical, 49.5 W max.                       |
|   | With Performance Modular Box PC             | 43.6 W typical, 57.87 W max.   | 44.9 W typical, 53.04 W max.             | 42.6 W typical, 58.65 W max.                                       | 46.1 W typical, 54.5 W max.                       |
|   | With Display Adapter                        | 17.87 W max.   | 13.04 W max.                             | 18.65 W max.   | 14.5 W max.                                       |
| <b>Mounting</b>   | Panel PC (with Box PC HMIDM)                | On front enclosure or VESA 100 × 100 with mounting kit HMIYPVESA●●●●●1 on the rear of Box PC   |  |  |   |
|   | Panel Monitor (with Display Adapter HMIDAD) | On front enclosure or VESA 100 × 100 on the rear of Display Adapter  |  |  |   |
| <b>Dimensions</b>   | Overall dimensions (W × H × D)              | 319.1×245.1×66.3 mm/<br>12.56×9.65×2.61 in.  | 390.7×290×28 mm/<br>15.38×11.42×1.10 in. | 329.2×231.3×66.3 mm/<br>12.96×9.11×2.61 in.                        | 419.7×269×28 mm/<br>16.52×10.59×1.10 in.          |
|   | Cut-out (W × H)                             | 301.5 × 227.5 mm/<br>11.87 × 8.96 in.  | 383.5 × 282.5 mm/<br>15.10 × 11.12 in.   | 310 × 221 mm/<br>12.20 × 8.70 in.                                  | 412.4 × 261.7 mm/<br>16.24 × 10.30 in.            |
| <b>Temperature</b>  | During operation                            | Conforming to EN/IEC 60068-2-30: 0...55 °C/32...131 °F (1)   |  |  |   |
|   | During storage                              | Conforming to IEC 61000-4/ EN 55011: -30...70 °C/-22...158 °F  |  |  |   |
| <b>References</b>   |   | <b>HMIDM6421</b>   | <b>HMIDM7421</b>                         | <b>HMIDM6521</b>   | <b>HMIDM7521</b>                                  |
| <b>Page</b>   |   | 4/27   |  |  |   |

(1) Except Box PC with 2x mini PCIe + display: limited to 45 °C/113 °F.  
(2) CE ATEX and IECEx HazLoc 3GD Zone 2/22.

| Harmony HMIDM Modular Display |                   | Harmony HMIDAD Display Adapter |
|-------------------------------|-------------------|--------------------------------|
| W19" touch screen             | W22" touch screen |                                |



|  |  |  |  |  |
|--|--|--|--|--|
| <b>Screen</b>  | LED LCD 5-point multi-touch projected capacitive technology screen |  | HMIDM Modular Display with HMIDAD Display Adapter, making remote monitors as:<br><input type="checkbox"/> Local display (maximum distance of 5 m/16.4 ft)<br><input type="checkbox"/> Remote display (up to 4 daisy chain displays with same screen definition, and maximum distance of 100 m/328 ft for 1st display to 400 m/1312 ft for 4th display) |  |
|  | W18.5"   | W21.5"   |  |  |
|  | WHD FWXGA, 1366 × 768 pixels, 16.7 million colors                  |  |  | Full HD, 1920 × 1080 pixels, 16.7 million colors |
|  | IP66, Nema 4x indoor front panel, and 7H hardness anti-scratch     |  |  |  |
|  | ≥ 300 cd/m <sup>2</sup> , stepless adjustment                      |  |  |  |
|  | Vertical 140°, horizontal 150°                                     |  |  | Vertical 150°, horizontal 150°                   |
|  | 50,000 hours   |  |  |  |
|  | -  |  |  |  |
|  | -  |  |  |  |
| From Box PC or mounted Display Adapter   |  | According to Harmony HMIDM Modular Display mounted on front  |  |  |
| -  |  | 1x USB 2.0 (Type B), 1 Display Port  |  |  |
| From Box PC or mounted Display Adapter   |  | 24 V ~ or 100...240 V ~ with external power adapter  |  |  |
| Yes  |  | No   |  |  |
| No   |  | Yes  |  |  |
| CE, EAC, RCM, cULus (UL IT 60950, CSA IT 60950), FCC (part 15 EMC Class A)                   |  | CE, cULus CSA 22-2 No 142, cULus HazLoc Class I Division 2 (ANSI/ISA 12-12-01, CSA 22-2 No 213), ATEX, IECEx, FCC (part 15 EMC Class A), CCC |  |  |
| 43.1 W typical, 58.28 W max.   |  | 45.2 W typical, 59.85 W max.   |  |  |
| 48.1 W typical, 63.28 W max.   |  | 50.7 W typical, 64.85 W max.   |  |  |
| 23.28 W max.   |  | 24.85 W max.   |  |  |
| On front enclosure or VESA 100 × 100 with mounting kit HMIYPVESA●●●●●1 on the rear of Box PC |  | -  |  |  |
| On front enclosure or VESA 100 × 100 on the rear of Display Adapter                          |  | On the back of Modular Display HMIDM   |  |  |
| 488 × 309 × 28 mm/19.22 × 12.17 × 1.10 in.   |  | 558.4 × 349.8 × 28 mm/21.98 × 13.77 × 1.10 in.   |  |  |
| 479.3 × 300.3 mm/18.87 × 11.82 in.   |  | 550.3 × 341.8 mm/21.66 × 13.45 in.   |  |  |
| Conforming to EN/IEC 60068-2-30: 0...55 °C/32...131 °F (1)                                   |  | 0...55 °C/32...131 °F  |  |  |
| Conforming to IEC 61000-4/ EN 55011: -30...70 °C/-22...158 °F                                |  | -30...70 °C/-22...158 °F   |  |  |
| <b>HMIDM9521</b>   | <b>HMIDMA521</b>   | <b>HMIDADP11</b>   |  |  |
| 4/27   |  | 4/31   |  |  |

# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIDM Modular Display



Harmony HMIDM 22" Modular Display

#### Presentation

Harmony HMIDM Modular Displays are monitors designed to be easily integrated with:

- Harmony HMIBM Modular Box PCs (1) to make a Panel PC
- Harmony HMIDAD Display Adapter (2) to make a Panel monitor, to be remotely mounted from the PC with Display Port and USB cable (up to 5 m/16.4 ft) or with RJ45 cable (up to 4 Display and 400 m/1312 ft)

In addition to multiple choices, the modularity feature reduces maintenance as the Display can be independently replaced without changing the complete Panel PC or Panel Monitor.

HMIDM Modular Displays are available in:

- 4:3 12" and 15" single-touch resistive screens for easy substitution of legacy Panel PCs, operation with heavy gloves, and front USB connection port
- 16:9 W12", W15", W19" and W22" multi-touch capacitive screens for smartphone or tablet-like navigation on EcoStruxure Operator Terminal Expert software and for displaying SCADA screens in wide format

Harmony HMIDM 4:3 12"/15" and 16:9 12"/15" screens are certified for cULUS Industrial Control and Hazardous Locations. The Harmony HMIDM displays are also Marine DNV and IECEx ATEX (IECEx ATEX only for 4:3/16:9 15" models) certified. When mounted with Harmony HMIBM Modular Box PCs or HMIDAD Display Adapter with similar certifications, these displays can be used for advanced automation applications.

#### Overview of the offer

##### Harmony HMIDM Modular Display

The Harmony HMIDM Modular Display offer comprises 6 references, each equipped with:

- **HMIDM6421**
  - Resolution: XGA, 1024 × 768 pixels, 16.7 million colors
  - Size and type: 4:3 12.1", single-touch resistive screen
  - View angle: Vertical 115°, horizontal 140°
- **HMIDM7421**
  - Resolution: XGA, 1024 × 768 pixels, 16.7 million colors
  - Size and type: 4:3 15", single-touch resistive screen
  - View angle: Vertical 115°, horizontal 140°
- **HMIDM6521**
  - Resolution: WHD WXGA, 1280 X 800 pixels, 16.7 million colors
  - Size and type: W12.1", multi-touch projected capacitive technology screen
  - View angle: Vertical 115°, horizontal 140°
- **HMIDM7521**
  - Resolution: WHD FWXGA, 1366 × 768 pixels, 16.7 million colors
  - Size and type: W15.6", multi-touch projected capacitive technology screen
  - View angle: Vertical 140°, horizontal 150°
- **HMIDM9521**
  - Resolution: WHD FWXGA, 1366 × 768 pixels, 16.7 million colors
  - Size and type: W18.5", multi-touch projected capacitive technology screen
  - View angle: Vertical 140°, horizontal 150°
- **HMIDMA521**
  - Resolution: Full HD, 1920 × 1080 pixels, 16.7 million colors
  - Size and type: W21.5", multi-touch projected capacitive technology screen
  - View angle: Vertical 150°, horizontal 150°

(1) For more information, please refer to pages 4/12 to 4/15.

(2) For more information, please refer to pages 4/28.



## Presentation (continued)

### Architecture

Harmony HMIDM Displays are compatible and easily mountable with all HMIBM Modular Box PCs and HMIDAD Display Adapter.



## References

### Harmony HMIDM Modular Displays



HMIDM9521

| Description                     | Screen  | Interface                 | Reference                 | Weight<br>kg/lb |
|---------------------------------|---|---------------------------|---------------------------|-----------------|
| 4:3 12"<br>TFT LED LCD display  | 12", XGA<br>(1024 × 768 pixels)                 | Single-touch<br>resistive | <a href="#">HMIDM6421</a> | 2.30/<br>5.07   |
| 4:3 15"<br>TFT LED LCD display  | 15", XGA<br>(1024 × 768 pixels)                 |                           | <a href="#">HMIDM7421</a> | 4.20/<br>9.20   |
| 16:9 12"<br>TFT LED LCD display | 12", WHD/FWXGA<br>(1280 × 800 pixels)           | Multi-touch<br>capacitive | <a href="#">HMIDM6521</a> | 2.25/<br>4.96   |
| 16:9 15"<br>TFT LED LCD display | 15.6", WHD/FWXGA<br>(1366 × 768 pixels)         |                           | <a href="#">HMIDM7521</a> | 4.30/<br>9.50   |
| 16:9 19"<br>TFT LED LCD display | 18.5", WHD/FWXGA<br>(1366 × 768 pixels)         |                           | <a href="#">HMIDM9521</a> | 5.20/<br>11.50  |
| 16:9 22"<br>TFT LED LCD display | 21.5",<br>Full HD/FWXGA<br>(1920 × 1080 pixels) |                           | <a href="#">HMIDMA521</a> | 6.60/<br>14.50  |

### Separate components



HMIYP752PS11

| Description                   | Details                                      | Compatible with<br>HMIDM Display | Reference                     | Weight<br>kg/lb |
|-------------------------------|--|----------------------------------|-------------------------------|-----------------|
| Removable<br>protective sheet | Set of 5 protective<br>sheets for 4:3 12"    | <a href="#">HMIDM6421</a>        | <a href="#">MPCYK20SPSKIT</a> | –               |
|                               | Set of 5 protective<br>sheets for 4:3 15"    | <a href="#">HMIDM7421</a>        | <a href="#">MPCYK50SPSKIT</a> | –               |
|                               | Set of 5 protective<br>sheets for HMIDM W12" | <a href="#">HMIDM6521</a>        | <a href="#">HMIYP652PS11</a>  | –               |
|                               | Set of 5 protective<br>sheets for W15"       | <a href="#">HMIDM7521</a>        | <a href="#">HMIYP752PS11</a>  | –               |
|                               | Set of 5 protective<br>sheets for W19"       | <a href="#">HMIDM9521</a>        | <a href="#">HMIYP952PS11</a>  | –               |
|                               | Set of 5 protective<br>sheets for W22"       | <a href="#">HMIDMA521</a>        | <a href="#">HMIYPA52PS11</a>  | –               |



Harmony HMIDAD Display Adapter

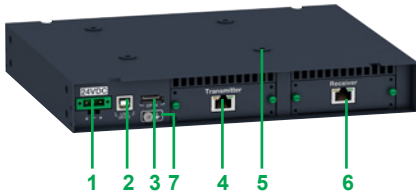
### Presentation

The Harmony HMIDAD Display Adapter can be used to remotely connect a Harmony Modular Display to a Harmony iPC or a third-party PC.

### Description

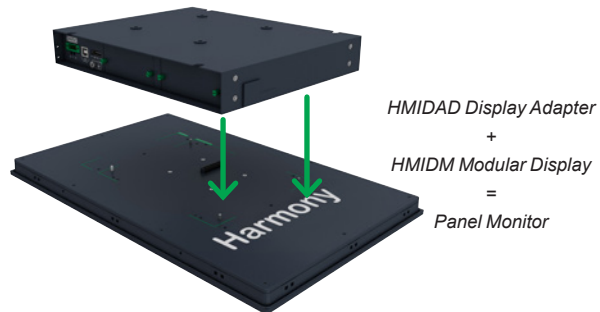
#### Rear view

- 1 DC power supply connection
- 2 USB port type B (USB 2.0 for touch screen OUT) (1)
- 3 Display port (IN) (1)
- 4 Transmitter module (HMIYDATR11) with RJ45 port (2)
- 5 Mounting holes for the VESA
- 6 Receiver module (HMIYDARE11) with RJ45 port (2)
- 7 USB locker



### Architecture

The Display Adapter is mounted on the rear side of the display as shown below:



(1) Not operational with Receiver module mounted.  
(2) Optional modules.

4

# Harmony iPC

## Industrial PC, Edge Box, and Display

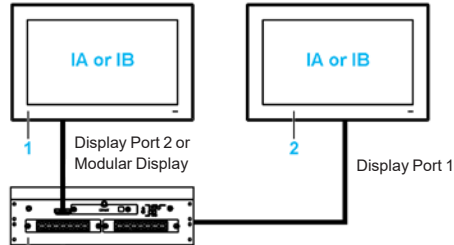
### Harmony HMIDM Modular Display

### Harmony HMIDAD Display Adapter

#### Configuration

##### Local display

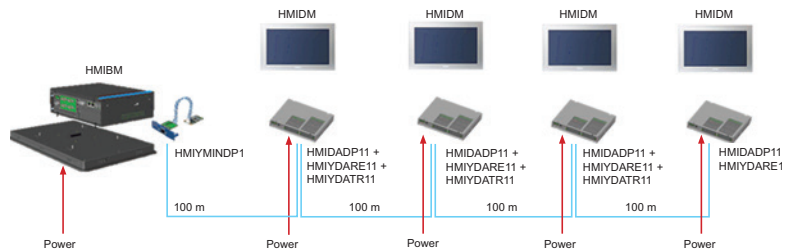
The PC is connected to Display Adapter by 1x USB cable for touch screen and 1x Display Port cable for video with a maximum distance of 5 m/16.4 ft.



##### Remote display

The Harmony iPC with mini PCIe interface can support up to 4 displays with the same screen definition (maximum distance of 100 m/328 ft between each display) when connected to Display adapters that are equipped with transmitter and receiver modules in a daisy chain configuration.

In this configuration, each remote display includes an HMIDM Modular Display + a HMIDADP11 Display Adapter + a HMIYDARE11 Receiver module + a HMIYDATR11 Transmitter module (not required for the last display in the chain).



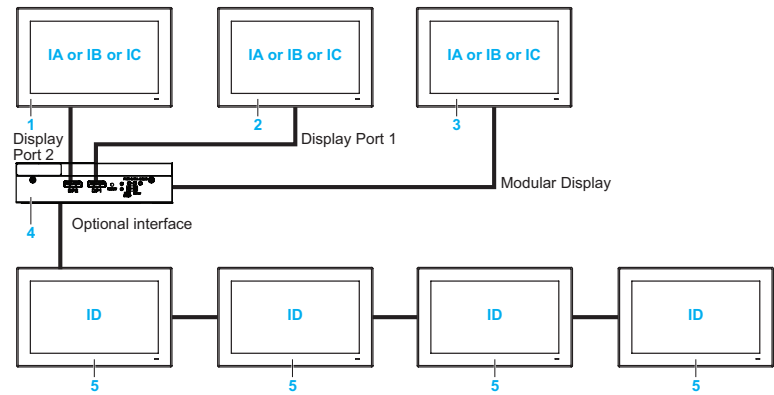
For long distance remote displays:

- Limited to one HMIYMINDP1 mini PCIe per HMIBM Box iPC.
- To set up mini PCIe to Display Adapter Interface (HMIYMINDP1), a display or a third-party panel on host PC is required to install the driver. Once remote display set-ups are ready, the display on host PC can be removed if not used.
- The remote display cable does not support normal LAN HUB or switch as signal type is different.
- CAT6 cable is recommended. CAT5e cable may be used for shorter distances, according to environment conditions and with the maximum screen resolution of 1920 x 1080 pixels.
- The display touch panels can be disabled. When activated, the touch panel on the remote displays can be used only one at a time (waiting time 100 ms).
- The Display Adapter with display does not support brightness control. The brightness is fixed at 100%.
- With remote display (100 m/328 ft) cable, the touch-beep sound cannot be heard from the touch panel side as the buzzer is on the Box iPC side.
- When the host PC is off, or when one of the displays in the daisy chain is off or disconnected, the next displays in the chain get a NO SIGNAL message on their screens.

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIDM Modular Display  
Harmony HMIDAD Display Adapter

## Example of displays connected to Harmony HMIBMO



IA, IB, IC, ID Images (with Windows setting)

**1, 2, 3** Local displays and Display Adapters

**4** Harmony HMIBMO Optimized Modular Box with HMIYMINDP1x mini PCIe transmitter interface with RJ45 port

**5** Harmony HMIDM Modular Display + HMIDADP11 Display Adapters + HMIYDARE11 Receiver module + HMIYDATR11 Transmitter module (not required for the last display in the chain), making a daisy chain of up to 4 remote displays with the same screen definition (set by the receiver module or in the Windows settings)

# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIDM Modular Display

### Harmony HMIDAD Display Adapter



PF513848  
HMIDADP11



IPC\_61054\_CPSCCT17015  
HMIYCABDP51



IPC\_61054\_CPSCCT17016  
HMIYCABUSB51



IPC\_61054\_CPSCCT17010  
HMIYMINDP1



IPC\_61054\_CPSCCT17009A  
HMIYDARE11



IPC\_61054\_CPSCCT17007A  
HMIYDATR11

#### Harmony HMIDAD Display Adapter

| Description     | Characteristics  | Supply voltage                   | Compatible with                 | Reference                 | Weight kg/lb |
|-----------------|--|----------------------------------|---------------------------------|---------------------------|--------------|
| Display Adapter | USB port (OUT) + Display Port (IN) for cable up to 5 m/16.4 ft | 24 V $\overline{\text{---}}$ (1) | Harmony iPC and third-party PCs | <a href="#">HMIDADP11</a> | 1.8/3.96     |

#### Accessories

| Description                                    | Characteristics  | Compatible with  | Reference                      | Weight kg/lb |
|--|--|--|--------------------------------|--------------|
| DVI to DP cable                                | 3 m/9.84 ft  | From PC with DVI port to HMIDAD Display Adapter  | <a href="#">HMIYCABDPDVI31</a> | —            |
| DP to DP cable                                 | Display Port to Display Port, 5 m/16.4 ft cable for digital video signal                                   | From HMIBM Modular Box PC to HMIDAD Display Adapter  | <a href="#">HMIYCABDP51</a>    | —            |
| USB cable                                      | USB to USB, 5 m/16.4 ft cable for touch screen signal  | From HMIDAD Display Adapter to HMIBM Modular Box PC  | <a href="#">HMIYCABUSB51</a>   | —            |
| Transmitter interface for Harmony HMIBM Box PC | Mini PCIe to Display Adapter interface with 1x RJ45 port for category 5 or 6 cable (without Hub or Switch) | For HMIBM Box PC with optional interface to connect to first HMIYDARE11 receiver in the chain mounted in HMIDADP11 Display Adapter (2) | <a href="#">HMIYMINDP1</a>     | —            |
| Receiver for Display Adapter                   | Receiver module with 1x RJ45 port for category 5 or 6 cable (without Hub or Switch)                        | For HMIDADP11 Display Adapter to connect to next HMIYDATR11 transmitter in the chain   | <a href="#">HMIYDARE11</a>     | —            |
| Transmitter for Display Adapter                | Transmitter module with 1x RJ45 port for category 5 or 6 cable (without Hub or Switch).                    | For HMIDADP11 Display Adapter to connect to next HMIYDARE11 receiver in the chain (not required for the last display in the chain)     | <a href="#">HMIYDATR11</a>     | —            |
| AC power supply                                | External AC power adapter, 60 W  | For HMIDADP11 Display Adapter  | <a href="#">HMIYPSOMAC1</a>    | —            |
| Modular AC power supply                        | Modular AC power adapter, 100 W for hazardous locations  | For HMIDADP11 Display Adapter  | <a href="#">HMIYMMAC1</a>      | —            |

- (1) For AC power supply, additional power supply module HMIYPSOMAC1 or HMIYMMAC1 is required. For AC in hazardous locations, AC power supply module HMIYMMAC1 product version PV02 is required.  
 (2) HMIYMINDP1 cannot be used with HMIYMINDVII1/HMIYMINVGADVID1. HMIYMINDP1 and HMIYMINUSB1 cannot be used together in HMIBMP/HMIBMU. Remove the existing driver to install HMIYMINDP1/HMIYMINDVII1/HMIYMINVGADVID1 in Modular Box PC HMIBM.

# Harmony iPC

## Industrial PC, Edge Box, and Display

### Configured-To-Order Harmony HMIBM Modular Box PC and Harmony HMIDM Modular Display

#### Configured-To-Order Harmony HMIBM Modular Box PC and HMIDM Modular Display

"Configured-To-Order" industrial PCs offer a vast number of configuration combinations for Harmony iPCs with certifications. The Schneider Electric Customer Care Center can help you configure the right Harmony iPC based on your automation application and provide a quotation. A web configurator <https://www.hmsource.com/wwipcc> is also available to help you easily build the configuration by yourself (password = Harmony). Our Customer Care Center or the Web configurator will provide the complete parts list for the configured Harmony Modular Box PC/Display and a configuration code that will be the part number of the Harmony iPC.

#### Ordering procedure for a configured Harmony HMIBM Modular Box PC and HMIDM Modular Display

If you have built your Harmony iPC configuration with the Web Configurator:

- 1 Please forward the e-mail received from the Web Configurator to our Customer Care Center. This e-mail contains a PDF file with your configuration description and part number code.
- 2 If required, specify the reference root part number GCR\_HMIPCCP2.

If you cannot access the Harmony iPC Web Configurator:

- 3 Please contact our Customer Care Center and state the reference root part number GCR\_HMIPCCP2.
- 4 Configure your Harmony Panel PC (see table below) and get your quote with the support of our Customer Care Center.
- 5 Confirm your order.

#### Configured-To-Order options for Harmony HMIBM Modular Box PC and HMIDM Modular Display

| Option  | Description   |
|---|---|
| <b>Box PC or Display Adapter</b>                | Harmony HMIBM Box PC (Basic, Optimized, Universal, Performance)<br>Harmony HMIBSC Core Box<br>Harmony HMIDAD Display Adapter  |
| <b>Modular Displays (pre-mounted)</b>           | None<br>Harmony HMIDM Modular Display 4:3 12"/4:3 15"- XGA<br>Harmony HMIDM Modular Display W12"/W15"- FWXGA<br>Harmony HMIDM Modular Display W22" - FHD  |
| <b>CPU</b>                                      | None (Display Adapter)<br>Universal, Intel® Celeron® 2980U fanless<br>Universal, Intel Celeron 2980U with fan for expansion card above 3 W<br>Performance, Intel Core™ i7-4650U fanless<br>Performance, Intel Core i7-4650U with fan for expansion card above 3 W   |
| <b>Power supply</b>                             | DC<br>AC  |
| <b>Windows operating system</b>                 | None<br>WES7 Premium SP1 64-bit Multi-language<br>Windows 8.1 Industry 64-bit Multi-language<br>Windows 10 IoT Enterprise (64-bit Multi-language)<br>Linux Yocto  |
| <b>Main storage device for operating system</b> | None<br>CFast 32 GB<br>M.2 64 GB/128 GB/250 GB<br>HDD 500 GB/1 TB<br>SSD 128 GB/256 GB  |
| <b>Optional interfaces (pre-mounted)</b>        | None<br>NVRAM<br>2 RS-422/485 isolated or 4 RS-422/485<br>2 RS-232 isolated or 4 RS-232<br>16 DI/8 DO<br>Video (DVI and VGA ports)<br>Audio<br>Cellular 3G/4G<br>Transmitter to Display adapter<br>Analog inputs<br>Wireless LAN + 2 antennas<br>2 CANopen CAN bus<br>Profibus DP Master with NVRAM<br>Cyber security TPM module<br>1 Ethernet RJ45 |
| <b>PCI slot configuration</b>                   | None (Display Adapter)<br>2 full-size mini PCIe<br>2 full-size mini PCIe + 1 PCIe (x1) + 1 PCI<br>2 full-size mini PCIe + 1 PCIe (x4) + 1 PCI<br>2 full-size mini PCIe + 2 PCI<br>2 full-size mini PCIe + 1 PCIe (x1) + 1 PCIe  |
| <b>Software bundle</b>                          | None<br>EcoStruxure Operator Terminal Expert Run Time unlimited license<br>EcoStruxure Machine SCADA Expert 1500 tags Run Time license<br>EcoStruxure Machine SCADA Expert 4000 tags Run Time license<br>EcoStruxure Machine SCADA Expert 64000 tags Run Time license   |

# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIBM Modular Box PC and HMIDM Modular Display

#### Equivalent product table

4

| Legacy Harmony iPC  |                              | Replaced by Harmony iPC  |  | Compatibility              |                   |
|---|------------------------------|--|--|----------------------------|-------------------|
| Description   | References                   | Description  | References   | Cut-out for flush mounting | Screen definition |
| <b>Harmony Panel PC - 12" Universal</b>                       |                              | <b>Harmony HMIBM Optimized Modular Box PC + Harmony HMIDM Modular Display</b>  |  |                            |                   |
| Harmony Universal 12" Panel PC, HDD, 100...240 V ~            | <a href="#">HMIPUH6A0701</a> | Harmony Optimized Box PC, M.2, Windows 10 IoT Enterprise (64-bit Multi-language), 24 V ~ + AC power supply module + Harmony 4:3 12" Display, single-touch            | <a href="#">HMIBMOMA5DDF10L</a><br><a href="#">+ HMIYPSOMAC1</a><br><a href="#">+ HMIDM6421</a>                                |                            |                   |
| Harmony Universal 12" Panel PC, HDD, 24 V ~                   | <a href="#">HMIPUH6D0701</a> | Harmony Optimized Box PC, M.2, Windows 10 IoT Enterprise (64-bit Multi-language), 24 V ~ + Harmony 4:3 12" Display, single-touch                                     | <a href="#">HMIBMOMA5DDF10L</a><br><a href="#">+ HMIDM6421</a>   |                            |                   |
| Harmony Universal 12" Panel PC, SSD, 100...240 V ~            | <a href="#">HMIPUF6A0701</a> | Harmony Optimized Box PC, M.2, Windows 10 IoT Enterprise (64-bit Multi-language), 24 V ~ + AC power supply module + Harmony 4:3 12" Display, single-touch            | <a href="#">HMIBMOMA5DDF10L</a><br><a href="#">+ HMIYPSOMAC1</a><br><a href="#">+ HMIDM6421</a><br><a href="#">+ HMIDM6421</a> |                            |                   |
| Harmony Universal 12" Panel PC, SSD, 24 V ~                   | <a href="#">HMIPUF6D0701</a> | Harmony Optimized Box PC, M.2, Windows 10 IoT Enterprise (64-bit Multi-language), 24 V ~ + Harmony 4:3 12" Display, single-touch                                     | <a href="#">HMIBMOMA5DDF10L</a><br><a href="#">+ HMIDM6421</a>   |                            |                   |
| Harmony Universal 12" Panel PC, CFast, 100...240 V ~          | <a href="#">HMIPUC6A0E01</a> | Harmony Optimized Box PC, M.2, Windows 10 IoT Enterprise (64-bit Multi-language), 24 V ~ + AC power supply module + Harmony 4:3 12" Display, single-touch            | <a href="#">HMIBMOMA5DD1101</a><br><a href="#">+ HMIYPSOMAC1</a><br><a href="#">+ HMIDM6421</a>                                |                            |                   |
| Harmony Universal 12" Panel PC, CFast, 24 V ~                 | <a href="#">HMIPUC6D0E01</a> | Harmony Performance Box PC, Base unit, 24 V ~ + Harmony 4:3 12" Display, single-touch  | <a href="#">HMIBMP0I74D2001</a><br><a href="#">+ HMIDM6421</a>   |                            |                   |
| Harmony Universal 12" Panel PC, Base unit                     | <a href="#">HMIPU06D0001</a> | Harmony Optimized Box PC, Base unit 4 GB + Box PC Optimized DC Base unit 4 GB  | <a href="#">HMIBM00A5DD1001</a><br><a href="#">+ HMIDM6421</a>   |                            |                   |
| <b>Harmony Panel PC - 12" Performance</b>                     |                              | <b>Harmony HMIBM Performance Modular Box PC + Harmony HMIDM Modular Display</b>  |  |                            |                   |
| Harmony Performance 12" Panel PC, HDD, 2 slots, 100...240 V ~ | <a href="#">HMIPPH6A2701</a> | Harmony Performance Box PC, HDD, 4 slots, Windows 10 IoT Enterprise (64-bit Multi-language), 24 V ~ + AC power supply module + Harmony 4:3 12" Display, single-touch | <a href="#">HMIBMPHI74D4801</a><br><a href="#">+ HMIYMMAC1</a><br><a href="#">+ HMIDM6421</a>                                  |                            |                   |
| Harmony Performance 12" Panel PC, SSD, 2 slots, 100...240 V ~ | <a href="#">HMIPPF6A2701</a> | Harmony Performance Box PC, HDD, 4 slots, Windows 10 IoT Enterprise (64-bit Multi-language), 24 V ~ + AC power supply module + Harmony 4:3 12" Display, single-touch | <a href="#">HMIBMPSI74D4801</a><br><a href="#">+ HMIYMMAC1</a><br><a href="#">+ HMIDM6421</a>                                  |                            |                   |
| Harmony Performance 12" Panel PC, Base unit                   | <a href="#">HMIPP06D0001</a> | Harmony Performance Box PC, Base unit 2 slots, 24 V ~ + Harmony 4:3 12" Display, single-touch  | <a href="#">HMIBMP0I74D2001</a><br><a href="#">+ HMIDM6421</a>   |                            |                   |
|   |                              | <b>Cut-out or screen definition</b>  | Identical  |                            |                   |
|   |                              |  | Different  |                            |                   |

| Legacy Harmony iPC                                     |                               | Replaced by Harmony iPC                              |                                 |
|--|-------------------------------|--|---------------------------------|
| Description  | References                    | Description  | References                      |
| <b>Harmony S-Box PC Universal HMIBS</b>                |                               | <b>Harmony HMIBM Modular Box PC</b>                  |                                 |
| Harmony Optimized S-Box PC, 1 slot, 24 V ~             | <a href="#">HMIBSO0ND1001</a> | Harmony Modular Box PC, eMMC SSD, 1 slot, 24 V ~ (2) | <a href="#">HMIBMIEA5DD1001</a> |
| Harmony Optimized S-Box PC, CFast card, 1 slot, 24 V ~ | <a href="#">HMIBSOCND1E01</a> | Harmony Modular Box PC, eMMC SSD, 1 slot, 24 V ~ (2) | <a href="#">HMIBMIMA5DD1101</a> |
| Harmony Universal S-Box PC, CFast card, 1 slot, 24 V ~ | <a href="#">HMIBSUCND1W01</a> | Harmony Modular Box PC, M.2 SSD, 1 slot, 24 V ~ (2)  | <a href="#">HMIBMOMA5DD1101</a> |
| Harmony Universal S-Box PC, SSD, 1 slot, 24 V ~        | <a href="#">HMIBSUSND1W01</a> | Harmony Modular Box PC, M.2 SSD, 1 slot, 24 V ~ (2)  | <a href="#">HMIBMOMA5DD1101</a> |
| Harmony Universal S-Box PC, No OS, 1 slot, 24 V ~      | <a href="#">HMIBSU0ND1001</a> | Harmony Modular Box PC, No OS, 1 slot, 24 V ~ (2)    | <a href="#">HMIBM00A5DD1001</a> |
| <b>Configured part numbers for Harmony iPC</b>         |                               |  |                                 |
| Configured Harmony iPC                                 | <a href="#">HMIPCC●1●●●</a>   | Configured iPC                                       | <a href="#">HMIPCC●2●●●</a>     |

(1) No stainless steel bezel.  
 (2) AC with power adapter HMIYPSOMAC1.





---

## Harmony HMIR Rack PC - Optimized and Performance

**Selection guide** ..... page 5/2

■ **Presentation**

- Overview of the offer
  - Harmony HMIRXO Optimized 2U ..... page 5/4
  - Harmony HMIRSP Performance 4U ..... page 5/5
- Storage drive trays and redundant Raid HDD ..... page 5/5
- Remote system monitoring for Harmony HMIR Rack PCs ..... page 5/5
- Harmony iDisplay monitor for Harmony HMIR Rack PCs..... page 5/6
- Software bundles for Harmony HMIR Rack PCs..... page 5/6
- Actassi 19" rack enclosure for Harmony HMIR mounting..... page 5/6

■ **Description**

- Harmony HMIRXO Optimized 2U ..... page 5/7
- Harmony HMIRSP Performance 4U ..... page 5/7

■ **References**

- Harmony HMIRXO Optimized 2U ..... page 5/8
- Harmony HMIRSP Performance 4U ..... page 5/8
- Separate components
  - Storage disks, expansion RAM, peripheral equipment ..... page 5/9
  - Maintenance kit ..... page 5/9
  - Power supply ..... page 5/9
  - Software ..... page 5/9

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIR Rack PC  
HMIRXO Optimized and HMIRSP Performance

Type of Harmony iPC (1)  
Industrial environments

Harmony HMIRXO Optimized Rack PC 2U  
Control rooms and labs



|                                       |   |  |
|---------------------------------------|---|--|
| <b>CPU</b>                            | 3 <sup>rd</sup> generation Processor                                      | Intel Core G540 (2.5 GHz), dual-core   |
|                                       | Micro ATX/ATX Motherboard   | Micro ATX  |
|                                       | PCI Express <sup>®</sup> slot/PCI   | 2x PCI Express (x8) + 1 PCI  |
|                                       | Storage   | 1 internal slot (SATA3) + 2 hot-swap trays (SATA2)   |
|                                       | Slots   | –  |
|                                       | Drives  | –  |
|                                       | RAM (max. 32 GB) (2)  | 2 GB DDR3 in 1 slot  |
| <b>Operating system</b>               |   | –  |
| <b>Supply voltage</b>                 |   | 100...240 V ~ (300 W single power supply)  |
| <b>Cooling method</b>                 |   | 3 fans, user-exchangeable with fan speed control to reduce noise   |
| <b>Interface</b>                      | Ethernet  | 2x Ethernet 10/100/1,000 Mbps  |
|                                       | Serial ports  | 2x RS-232 (+ 3 RS-232 + 1 RS-485 optional with additional HMIYRINSL21)   |
|                                       | USB ports   | 2x USB 2.0, 4x USB 3.0   |
|                                       | Audio   | 2x (Mic, line-out)   |
|                                       | Video   | 1x VGA + 1x DVI  |
|                                       | Interface   | VGA: Up to 2048 × 1536 at 60 Hz, DVI: Up to 1920 × 1200 at 60 Hz   |
|                                       | Resolution  |  |
|                                       | DVD-RW drive  | 1x DVD-RW drive  |
|                                       | Watchdog timer  | System reset output, programmable 1...255 s/min  |
|                                       | Reset button, buzzer, Case-open switch                                    | Yes  |
| <b>Mounting</b>                       |   | 2U in 19" HMIR enclosure (1)   |
| <b>Overall dimensions (W x H x D)</b> |   | 482 × 88.4 × 481.4 mm/18.98 × 3.48 × 18.95 in.   |
| <b>Degree of protection</b>           |   | IP40   |
| <b>Temperature</b>                    | During operation  | Conforming to IEC 60068-2-2: 0...40 °C/32...104 °F   |
|                                       | During storage  | Conforming to IEC 60068-2-2: -20...60 °C/-4...140 °F   |
| <b>Humidity</b>                       | During operation  | Conforming to IEC 60068-2-78: 10...85% at 40 °C/104 °F, non-condensing   |
|                                       | During storage  | Conforming to IEC 60068-2-78: 10...95% at 40 °C/104 °F, non-condensing   |
| <b>Vibration resistance</b>           | During operation  | Conforming to IEC 60068-2-6: 1 g from 5...500 Hz (except for HDD drive)  |
| <b>Shock resistance</b>               | During operation  | Conforming to IEC 60068-2-6: 1 g from 5...500 Hz (except for HDD drive)  |
| <b>Standards and certifications</b>   |   | CE, cULus (UL 60950-1, CSA 22.2 No.60950-1-07), CCC, RMC   |
| <b>Compatible screens</b>             |   | Complete range of Harmony iDisplay screens (see page 6/5)  |
| <b>Software</b>                       | Vijeo Designer (3) and EcoStruxure Operator Terminal Expert Run Time Demo | <input type="checkbox"/> Vijeo Designer Run Time Demo (21-day trial version) to be installed from Software DVD. Unlimited license to be ordered separately (3)<br><input type="checkbox"/> EcoStruxure Operator Terminal Expert Run Time demo to be installed and activated by unlimited license HMIRTCZLSPAZZ (Digital) or HMIRTCZLSPMZZ (Paper). |
|                                       | Bundle (validated and supported) (5)                                      | –  |
| <b>References</b>                     |   | <b>HMIRXOHA3001</b>  |
| <b>Page</b>                           |   | 5/8  |

(1) Rack 2U or 4U is a unit used to measure the height of an equipment that will be mounted in an 19" rack enclosure. 1 unit = 44.45 mm/1.75 in. high.  
 (2) 4 user-accessible RAM slots available.  
 (3) Requires Vijeo Designer V6.2 SP2 or later versions to build and download HMI application.

Harmony HMIRSP Performance PC 4U  
Control rooms and labs



|  |   |   |
|--|---|---|
|  |   | Intel Xeon™ E3-1225 processor (3.1 GHz), quad-core  |
|  | ATX   | ATX   |
|  | Up to 7 slots: 4 PCI Express (x16) + 3 PCI (including 1 PCI slot used for default removable audio connections)  | Up to 7 slots: 4 PCI Express (x16) + 3 PCI (including 1 PCI slot used for default removable audio connections)  |
|  | 1x internal slot (SATA3) + 4 hot-swap trays (SATA2)   | 1x internal slot (SATA3) + 4 hot-swap trays (SATA2)   |
|  | 2x HDD  | 2x HDD  |
|  | RAID ≥ 500 GB 24/7 in front trays with OS   | RAID ≥ 500 GB 24/7 in front trays with OS   |
|  | 8 GB ECC in 2 slots   | 8 GB ECC in 2 slots   |
|  | Windows Server 2012 R2 (5 clients)  | Windows Server 2012 R2 (5 clients)  |
|  | 100...240 V ~ (500 W redundant power supply)  | 100...240 V ~ (500 W redundant power supply)  |
|  | 2 fans, user-exchangeable with fan speed control to reduce noise  | 2 fans, user-exchangeable with fan speed control to reduce noise  |
|  | 2x Ethernet 10/100/1,000 Mbps   | 2x Ethernet 10/100/1,000 Mbps   |
|  | 2x RS-232 (+ 4 optional with additional HMIYRINSL41)  | 2x RS-232 (+ 4 optional with additional HMIYRINSL41)  |
|  | 4x USB 2.0, 2x USB 3.0  | 4x USB 2.0, 2x USB 3.0  |
|  | 2x (Mic, line-out), default in 1 PCI slot   | 2x (Mic, line-out), default in 1 PCI slot   |
|  | 1x VGA + 1x DVI   | 1x VGA + 1x DVI   |
|  | VGA: Up to 2048 × 1536 at 60 Hz, DVI: Up to 1920 × 1200 at 60 Hz  | VGA: Up to 2048 × 1536 at 60 Hz, DVI: Up to 1920 × 1200 at 60 Hz  |
|  | 1x DVD-RW drive   | 1x DVD-RW drive   |
|  | System reset output, programmable 1...255 s/min   | System reset output, programmable 1...255 s/min   |
|  | Yes   | Yes   |
|  | 4U in 19" HMIR enclosure (1)  | 4U in 19" HMIR enclosure (1)  |
|  | 482 × 172.7 × 601.4 mm/18.98 × 6.8 × 23.68 in.  | 482 × 172.7 × 601.4 mm/18.98 × 6.8 × 23.68 in.  |
|  | IP40  | IP40  |
|  | Conforming to IEC 60068-2-2: 0...40 °C/32...104 °F  | Conforming to IEC 60068-2-2: 0...40 °C/32...104 °F  |
|  | Conforming to IEC 60068-2-2: -40...70 °C/-40...158 °F   | Conforming to IEC 60068-2-2: -40...70 °C/-40...158 °F   |
|  | Conforming to IEC 60068-2-78: 10...95% at 40 °C/104 °F, non-condensing  | Conforming to IEC 60068-2-78: 10...95% at 40 °C/104 °F, non-condensing  |
|  | Conforming to IEC 60068-2-78: 10...95% at 60 °C/140 °F, non-condensing  | Conforming to IEC 60068-2-78: 10...95% at 60 °C/140 °F, non-condensing  |
|  | Conforming to IEC 60068-2-6: 1 g from 5...500 Hz (except for HDD drive)   | Conforming to IEC 60068-2-6: 1 g from 5...500 Hz (except for HDD drive)   |
|  | Conforming to IEC 60068-2-27: 10 g/11 ms, half sine wave (except for HDD drive)   | Conforming to IEC 60068-2-27: 10 g/11 ms, half sine wave (except for HDD drive)   |
|  | CE, cULus (UL 60950-1, CSA 22.2 No. 60950-1-07), CCC, RMC   | CE, cULus (UL 60950-1, CSA 22.2 No. 60950-1-07), CCC, RMC   |
|  | Complete range of Harmony iDisplay screens (see page 6/5)   | Complete range of Harmony iDisplay screens (see page 6/5)   |
|  | <input type="checkbox"/> Vijeo Designer Run Time Demo (21-day trial version) to be installed from Software DVD. Unlimited license to be ordered separately (3).<br><input type="checkbox"/> EcoStruxure Operator Terminal Expert Run Time demo to be installed and activated by unlimited license HMIRTCZLSPAZZ (Digital) or HMIRTCZLSPMZZ (Paper). | <input type="checkbox"/> Vijeo Designer Run Time Demo (21-day trial version) to be installed from Software DVD. Unlimited license to be ordered separately (3).<br><input type="checkbox"/> EcoStruxure Operator Terminal Expert Run Time demo to be installed and activated by unlimited license HMIRTCZLSPAZZ (Digital) or HMIRTCZLSPMZZ (Paper). |
|  | EcoStruxure Hybrid DCS leaflet with Windows Server 2012 R2 only   | EcoStruxure Hybrid DCS leaflet with Windows Server 2012 R2 only   |
|  |   | <b>HMIRSPXR6T01</b>   |
|  |   | 5/8   |

(4) With 5-year manufacturers warranty and 1.5 million hours MTBF.  
 (5) Additional software license to be ordered separately.

# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIR Rack PC

### HMIRXO Optimized and HMIRSP Performance



Optimized Harmony Rack PC

#### Presentation

Harmony HMIR Rack PCs are industrial PCs that can be easily installed in a 19" rack enclosure of an automation control room. The HMIRs have:

- Embedded fan speed control for reduced noise
- Hot-swappable drive trays
- Optional redundant RAID hard drive
- Remote system monitor for remote access
- Harmony iDisplay for display screen

The Rack PCs are tested, validated, and supported by Schneider Electric Plant StruXure software: Vijeo Designer and EcoStruxure Operator Terminal Expert HMI Software and EcoStruxure Hybrid DCS Engineering. These PCs offer 4 years of service and minimum 4 years of commercial availability. They can also be extended and substituted to new compliant models.

The Harmony HMIR comprises the following UL60950-certified PCs for various requirements of a plant solution:

- Optimized Rack PC 2U (1): for operator stations and some dedicated applications in clean areas of industrial plants or labs
- Performance Rack PC 4U (1): for Engineering and SCADA servers with redundant power supply and server operating system according to model

#### Overview of the offer

##### Harmony HMIRXO Optimized 2U (1)

The Optimized HMIRXO Rack PC has an Intel Core G540 dual-core CPU (2.5 GHz) on a Micro ATX motherboard, with:

- 2 GB DDR3 RAM (default mounted), user-expandable up to 32 GB in 4 slots
- 3.5" storage slots: 1 internal SATA3 slot and 2 external SATA2 trays
- Expansions: 3 slots for 2 PCI Express® (x8), 1 PCI
- Connection ports: 6 USB 2.0 ports, 2 RS-232 (+ 4 optional), 2 Gigabit Ethernet, 1 VGA, and 1 DVI for video
- 1 optical DVD-RW drive

(1) Rack 2U or 4U is a unit used to measure the height of an equipment that will be mounted in a 19" rack enclosure. 1 unit = 44.45 mm/1.75 in. high.

# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIR Rack PC

#### HMIRXO Optimized and HMIRSP Performance



Performance Harmony Rack PC

#### Presentation (continued)

##### Harmony HMIRSP Performance 4U (1)

The Performance HMIRSP Rack PC has an Intel Xeon E3-1225 quad-core CPU (3.1 GHz) on an ATX motherboard, with:

- RAM, user-expandable up to 32 GB in 4 slots
- 3.5" storage slots: 1 internal SATA3 and 4 free external SATA2 trays
- Expansions: 4 PCI Express (x16), 3 PCI with 1 PCI slot used for removable audio connections
- Connection ports: 4 USB 2.0, 2 USB 3.0, 1 RS-232 (+ 4 optional), 2 Gigabit Ethernet, 1 VGA, and 1 DVI port for video
- 1 optical DVD-RW drive
- 8 GB ECC RAM (default mounted)
- 2x 500 GB Enterprise 24/7 HDD in redundant RAID configuration installed in 2 tray slots
- Windows Server 2012 R2 operating system including 5 clients
- Redundant 100...240 V a power supply 500 W

##### Storage drive trays and redundant RAID HDD

Harmony HMIRs have hot-swappable front trays for storage devices. These trays can be used for a redundant RAID HDD configuration. The Rack PC chipset supports Intel Rapid Storage Technology with internal RAID feature so that when 2 HDDs are available in trays, the RAID can be configured in 2 steps:

- 1 Assign RAID via the configuration menus in the BIOS.
- 2 Adjust the RAID configuration options in the Intel Rapid Storage software provided.

##### Remote monitoring system for Harmony HMIR Rack PCs

Harmony HMIRs can be monitored remotely by installing the Remote Monitoring application provided on any PC. Several Harmony Rack PCs can be monitored for:

- Managing system recovery (backup and restore) and On/Off (e.g., overnight for energy saving)
- Monitoring system parameters such as network connection, system/CPU temperatures, fan speeds, and system voltages
- Configuring alerts via a popup, message, sound, or buzzer with event log entry and system shutdown
- Displaying e-mail alerts and function logs

(1) Rack 2U or 4U is a unit used to measure the height of an equipment that will be mounted in a 19" rack enclosure. 1 unit = 44.45 mm/1.75 in. high.

(2) Dedicated model for running PlantStruxure Process Expert as an engineering workstation. For more information, see [page 5/6](#).

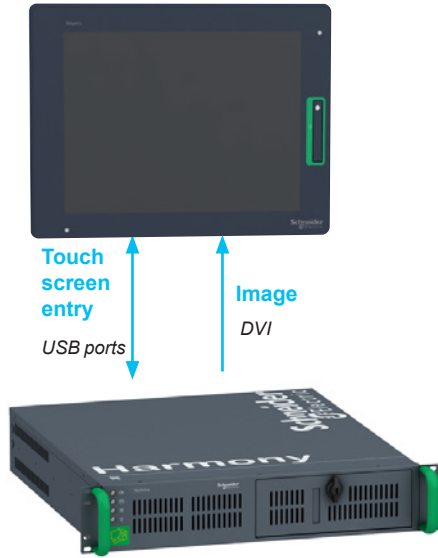
(3) Dedicated model for Windows Server operating system.

# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIR Rack PC

### HMIRXO Optimized and HMIRSP Performance



Connection between Harmony Optimized Rack PC and Harmony iDisplay

#### Presentation (continued)

##### Harmony iDisplay monitor for Harmony HMIR Rack PCs

Harmony Rack PCs can use a Harmony iDisplay monitor as a display screen by connecting via USB, VGA, or DVI ports. This monitor can be mounted in the cut-out that is created in the front of an enclosure door.

The HMIDID Harmony iDisplay models are 12" or 15" multi-touch screens, with 16 million colors and IP67f front panel protection. Depending on the model, they are certified for UL508, UL Hazardous Locations and Marine. For more information on Harmony iDisplay screens, see [page 6/5](#).

##### Software bundles for Harmony HMIR Rack PCs

###### Vijeo Designer/EcoStruxure Operator Terminal Expert and Harmony Rack PC bundles (1)

Harmony Rack PCs are supported by Schneider Electric HMI software for automation.

Vijeo Designer Run Time or EcoStruxure Operator Terminal Expert Run Time can be installed from the Vijeo Designer or EcoStruxure Operator Terminal Expert DVD included with Harmony HMIRs. Vijeo Designer Run Time can be upgraded to the unlimited version with an additional **VJDSNRTMPC** license (2). EcoStruxure Operator Terminal Expert can also be upgraded to the unlimited version with an additional **HMIRTW CZLSPA ZZ** (Digital) or **HMIRTW CZLSPMZZ** (Paper) license.

##### PlantStruxure and Harmony HMIR bundles

The PlantStruxure and Harmony HMIR (used as an engineering workstation) bundle comprises:

- **HMIRSPSXR6T01** with 8 GB RAM (default mounted) (3) and Windows Server 2012 R2
- Leaflet with instructions for downloading EcoStruxure Hybrid DCS from the website
- EcoStruxure Hybrid DCS licenses for software activation have to be ordered separately. For more information, please contact our Customer Care Center.
- Additional part numbers with pre-installed EcoStruxure Hybrid DCS software are available in the [EcoStruxure Hybrid DCS/documents](#)

##### Actassi 19" rack enclosure for Harmony HMIR mounting

Harmony Rack PCs can be mounted on Actassi 19" Rack enclosures. Depending on the Rack PC model weight, additional mounting accessories such as fixed slides/long slides may be required. For more information on Actassi 19" enclosures and mounting accessories, please refer to our website [www.schneider-electric.com](http://www.schneider-electric.com).

(1) As Harmony Rack PC does not have SRAM, it is recommended to save data on a storage drive (USB stick or SSD) to avoid data loss.

(2) Vijeo Designer Run Time is not supported on the Windows Server operating system.

(3) 16 GB RAM is recommended to run EcoStruxure Hybrid DCS. User can upgrade with 2x 4 GB RAM ECC HMIYPRAME040R1.



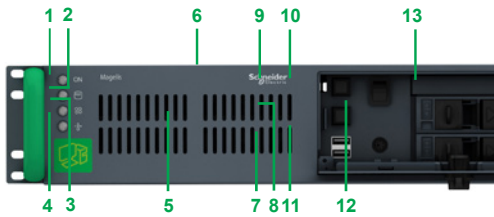
## Description

# Harmony iPC

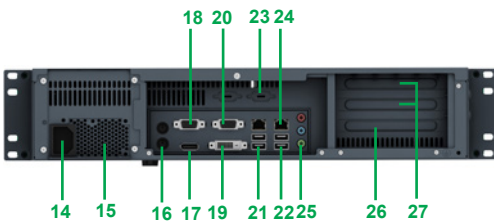
Industrial PC, Edge Box, and Display

Harmony HMIR Rack PC

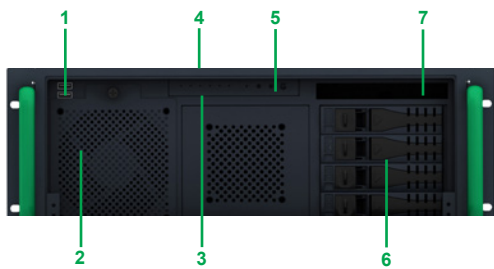
HMIRXO Optimized and HMIRSP Performance



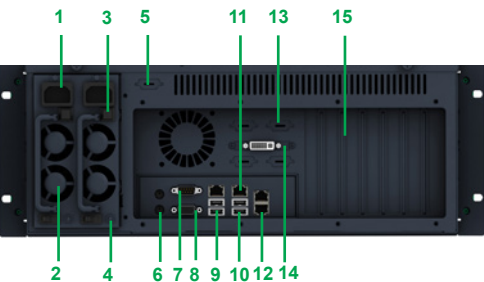
Front view of Optimized Harmony Rack PC



Rear view of Optimized Harmony Rack PC



Front view of Performance Harmony Rack PC



Rear view of Performance Harmony Rack PC (redundant power supply)

### Description

#### Harmony HMIRXO Optimized 2U

##### Front view

- 1 Power LED
- 2 HDD LED
- 3 Temperature LED
- 4 Fan LED
- 5 2 fans
- 6 SATA3 3.5" internal drive
- 7 2 USB 2.0 ports (USB1 and USB2)
- 8 System reset button
- 9 Alarm reset button
- 10 Power supply switch
- 11 KB/MS connector
- 12 2x 3.5" hot-swap hard disk trays (RAID configuration required for hot-swapping the operating system)
- 13 Slim optical drive bay

##### Rear view

- 14 Power connector
- 15 Power supply unit
- 16 KB/MS connector
- 17 Display port connector
- 18 Serial port connector
- 19 DVI connector
- 20 VGA connector
- 21 2 USB 3.0 ports
- 22 2 USB 3.0 ports
- 23 2 spare Sub-D9 slots
- 24 2 LAN ports
- 25 Audio port
- 26 PCI expansion slot
- 27 2 PCI Express expansion slots (x8/x16)

#### Harmony HMIRSP Performance 4U

##### Front view

- 1 2 USB 2.0 ports
- 2 Front-accessible fan
- 3 6 LEDs
- 4 SATA3 3.5" internal drive
- 5 4 switches/buttons
- 6 4x 3.5" hot-swappable hard disk trays (RAID configuration required for hot-swapping the operating system)
- 7 Slim optical drive bay

##### Rear view with redundant power supply

- 1 2 power supply connectors (1)
- 2 2 power supply units (2)
- 3 Button
- 4 LED
- 5 Spare Sub-D9 slot
- 6 KB/MS connector
- 7 Serial port connector
- 8 VGA connector
- 9 2 USB 2.0 ports
- 10 2 USB 3.0 ports
- 11 2 LAN ports
- 12 2 spare LAN ports
- 13 4 spare Sub-D9 slots for additional RS-232 with **HMIYRINSL41** accessory kit
- 14 DVI connector
- 15 Expansion slots (max. 7): 2 PCI Express (x4) and 2 PCI Express (x8/x16) and 3 PCI. By default, audio ports are mounted on 1 slot

(1) Only one power supply connector for Rack PCs with single power supply.

(2) Only one power supply unit for Rack PCs with single power supply.

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIR Rack PC  
HMIRXO Optimized and HMIRSP Performance

PF14010DA



HMIRXOHCA3001

| Harmony HMIRXO Optimized 2U   |                  |          |                          |          |                               |                 |
|---|------------------|----------|--------------------------|----------|-------------------------------|-----------------|
| Intel Core G540 (2.5 GHz) processor for HMIRXO/G850 (2.9 GHz) processor for HMIRSO/DDR3 RAM/AC power supply |                  |          |                          |          |                               |                 |
| PCIe/PCI expansion slots  | Operating system | Software | Storage drives and slots | DDR3 RAM | Reference                     | Weight kg/lb    |
| 2 PCI Express (x8) + 1 PCI  | –                | –        | –                        | 2 GB     | <a href="#">HMIRXOHCA3001</a> | 12.20/<br>26.90 |

PF14010BA



HMIRSPFXA6701

| Harmony HMIRSP Performance 4U   |   |                                |  |          |                                      |                 |
|---|---|--------------------------------|--|----------|--------------------------------------|-----------------|
| Intel Xeon™ E3-1225 processor (3.2 GHz)/DDR3 or ECC RAM/AC power supply |   |                                |  |          |                                      |                 |
| PCIe/PCI expansion slots  | Operating system                                    | Software                       | Storage slots and drives   | RAM      | Reference                            | Weight kg/lb    |
| 4 PCI Express (x16) + 3 PCI (2)   | Windows Server 2012 R2 standard including 5 clients | EcoStruxure Hybrid DCS leaflet | 2 HDD ≥ 500 GB Enterprise 24/7 in 2 hot-swap trays + 2 free trays for hot-swapping + 1 free internal SATA slot | 8 GB ECC | <a href="#">HMIRSPSXR6T01</a><br>(1) | 24.20/<br>53.35 |

(1) Redundant AC power supply, 500 W.  
(2) By default, audio ports are mounted on 1 PCI slot.

# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIR Rack PC

#### Separate components

| Separate components  |  |  |                       |                         |                 |
|--|--|--|-----------------------|-------------------------|-----------------|
| Description  | Details  | Compatible with Harmony HMIR Rack PC   |                       | Reference               | Weight<br>kg/lb |
|  |  | HMIRXO<br>Optimized                    | HMIRSP<br>Performance |                         |                 |
| <b>Storage disks, expansion RAM, peripheral equipment</b>                          |  |  |                       |                         |                 |
| HDD with mounting screws   | 500 GB (Enterprise 24/7), blank  | Yes                                    |                       | HMIYHDD500R1            | —               |
|  | 1 TB (Enterprise 24/7), blank  | Yes                                    |                       | HMIYHDD01TR2            | —               |
| SSD with mounting screws   | 128 GB MLC (5-year warranty and 2 million hours MTBF)  | Yes                                    |                       | HMIYSSDS080S1           | —               |
|  | 256 GB MLC (5-year warranty and 2 million hours MTBF)  | Yes                                    |                       | HMIYSSDS240S1           | —               |
| Power cable China  | China type power cable   | Yes                                    |                       | HMIYRCABPWRCN1          | —               |
| 4 Serial Lines kit for Rack 2U   | Optional kit with 4 cables for motherboard connection, 2 PCI brackets, and 2 communication ports                           | Yes                                    | —                     | HMIYRINSL21             | —               |
| 4 Serial Lines kit for Rack 4U   | Optional kit with 1 PCB for motherboard connection, screws, and 2 × 2 m cables and 2 communication ports for spare housing | —                                      | Yes                   | HMIYRINSL41             | —               |
| Expansion RAM 4 GB for HMIR  | 4 GB DDR3  | Yes                                    |                       | HMIYPRAM3040R1          | —               |
| Expansion RAM 8 GB for HMIR  | 8 GB DDR3  | Yes                                    |                       | HMIYPRAM3080R1          | —               |
| <b>Maintenance kit</b>   |  |  |                       |                         |                 |
| Maintenance kit for Rack PC 2U   | USB cable, fans, holders, filters, motherboard screws, HDD screws, SATA cables, and door keys                              | Yes                                    | —                     | HMIYRMKT2O1             | —               |
| Maintenance kit for Rack PC 2U   |  | —                                      | —                     | HMIYRMKT2U1             | —               |
| Maintenance kit for Rack PC 4U   |  | —                                      | Yes                   | HMIYRMKT4P1             | —               |
| <b>Power supply</b>  |  |  |                       |                         |                 |
| 300 W power supply for Rack PC 2U  | Spare single 110-240 V ~ power supply  | Yes                                    | —                     | HMIYRMAC21              | —               |
| <b>Software</b>  |  |  |                       |                         |                 |
| Vijeo Designer Run Time license for 1 workstation                                  | Converts the 21-day trial version of Vijeo Designer Run Time Demo to an unlimited license                                  | Yes                                    |                       | VJDSNRTMPC              | —               |
| Intelligent Data Service license extension for Vijeo Designer RT for 1 workstation | Used to track the process variables and all operator actions, and offers visibility of the key process values              | Yes (requires storage capacity ≥ 4 GB) |                       | VJDSNTRCKV60M           | —               |
| EcoStruxure Operator Terminal Expert Run Time license for 1 workstation            | Converts the 21-day trial version of EcoStruxure Operator Terminal Expert Run Time Demo to an unlimited license            | Yes                                    |                       | HMIRTWZLSPAZZ (Digital) | —               |
|  |  |  |                       | HMIRTWZLSPMZZ (Paper)   | —               |



# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIDID iDisplay screens

---

## Harmony HMIDID iDisplay screens

|                              |          |
|------------------------------|----------|
| <i>Selection guide</i> ..... | page 6/2 |
| ■ Presentation .....         | page 6/4 |
| ■ Architecture .....         | page 6/4 |
| ■ References .....           | page 6/5 |
| ■ Separate parts .....       | page 6/5 |
| ■ Substitution .....         | page 6/5 |

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIDID iDisplay screens  
12" and 15" flat screens

|   |                                |   |
|---|--------------------------------|---|
| <b>Type of display</b>  |                                | <b>Harmony HMIDID iDisplay flat screen</b>  |
| <b>Model</b>  |                                | <b>12" touch screen</b>   |
|  |                                |   |
| <b>Screen</b>   | Type                           | TFT HD LCD color multi-touch resistive screen (2)   |
|   | Size                           | 12.1"   |
|   | Resolution                     | XGA, 1024 x 768 pixels, 16 million colors   |
|   | Degree of protection           | IP66f, IP67f, and UL50E NEMA 4X/13 for the front panel when installed properly in an enclosure  |
|   | Brightness                     | ≥ 400 cd/m <sup>2</sup> adjustable, 100 level dimming with brightness sensor  |
|   | Backlight                      | 50,000 hours  |
| <b>Interface</b>  | On the front panel             | 1x USB 2.0 (Type A)   |
|   | Other                          | <input type="checkbox"/> 1x DVI-D video (DVI-D 24 pin socket)<br><input type="checkbox"/> 1x USB 2.0 (Type B) from touch screen to PC<br><input type="checkbox"/> Supplied with 5 m/16.4 ft DVI-D and USB cables  |
| <b>Standards and certifications</b>   |                                | CE Europe, RCM Australia, UL 508 and CSA C22.2 No142, Industrial Control Equipment, ANSI/ISA 12.12.01 and CSA C22.2 No213 Class I, Division 2 Hazardous Locations, IECEx/ATEX for use in zones 2/22, EAC (Russia, Belarus, Kazakhstan), KC (Korea Certification)  |
| <b>Marine certifications</b>  |                                | BV, CCS, DNV, GL, LR, RINA, ABS   |
| <b>Supply voltage</b>   |                                | 12...24 V ~   |
| <b>Power consumption</b>  |                                | 17 W max.   |
| <b>Mounting</b>   |                                | Panel on front enclosure or VESA 100 x 100 on the rear of iDisplay  |
| <b>Dimensions</b>   | Overall dimensions (W x H x D) | 315 x 241 x 67 mm/12.40 x 9.50 x 2.64 in.   |
|   | Cut-out (W x H)                | 301.5 x 227.5 mm/11.87 x 8.96 in.   |
| <b>Temperature</b>  | During operation               | 0...60 °C/32...140 °F, according to EN 61131-2 and UL   |
|   | During storage                 | -20...60 °C/-4...140 °F   |
| <b>Shock resistance</b>   |                                | IEC/EN 61131-2 compliant:<br><input checked="" type="checkbox"/> 147 m/s <sup>2</sup><br><input checked="" type="checkbox"/> X, Y, Z directions tested 3 times  |
| <b>Vibration resistance</b>   |                                | Conforming to JIS B 3501 and IEC 61131-2 standards:<br><input checked="" type="checkbox"/> 5...9 Hz, 3.5 mm fixed amplitude<br><input checked="" type="checkbox"/> 9...150 Hz: constant acceleration of 1 g (9.8 m/s <sup>2</sup> )<br><input checked="" type="checkbox"/> X, Y, Z directions tested 10 times (100 minutes) |
| <b>References</b>   |                                | <b>HMIDID64DTD1</b>   |
| <b>Page</b>   |                                | 6/5   |

(1) For more information, please refer to Harmony Display Adapter on page 4/28.  
 (2) Touch function on the display is not available with Windows Server operating system.

|   |                                |  |
|---|--------------------------------|--|
| <b>Harmony HMIDID iDisplay flat screen</b>  |                                | <b>Alternate Display option with Harmony HMIDAD Display adapter(1)</b>   |
| <b>15" touch screen</b>   |                                |  |
|   |                                |  |
| <b>Screen</b>   | Type                           | TFT HD LCD color multi-touch resistive screen (2)  |
|   | Size                           | 15"  |
|   | Resolution                     | XGA, 1024 x 768 pixels, 16 million colors  |
|   | Degree of protection           | IP66f, IP67f, and UL50E NEMA 4X/13 for the front panel when installed properly in an enclosure   |
|   | Brightness                     | ≥ 400 cd/m <sup>2</sup> adjustable, 100 level dimming with brightness sensor   |
|   | Backlight                      | 50,000 hours   |
| <b>Interface</b>  | On the front panel             | 1x USB 2.0 (Type A)  |
|   | Other                          | <input type="checkbox"/> 1x DVI-D video (DVI-D 24 pin socket)<br><input type="checkbox"/> 1x USB 2.0 (Type B) from touch screen to PC<br><input type="checkbox"/> Supplied with 5 m/16.4 ft DVI-D and USB cables   |
| <b>Standards and certifications</b>   |                                | CE Europe, RCM Australia, UL 508 and CSA C22.2 No142, Industrial Control Equipment, ANSI/ISA 12.12.01 and CSA C22.2 No213 Class I, Division 2 Hazardous Locations, IECEx/ATEX for use in zones 2/22, EAC (Russia, Belarus, Kazakhstan), KC (Korea Certification)   |
| <b>Marine certifications</b>  |                                | BV, CCS, DNV, GL, LR, RINA, ABS  |
| <b>Supply voltage</b>   |                                | 12...24 V ~  |
| <b>Power consumption</b>  |                                | 21 W max.  |
| <b>Mounting</b>   |                                | Panel on front enclosure or VESA 100 X 100 on the rear of iDisplay   |
| <b>Dimensions</b>   | Overall dimensions (W x H x D) | 397 x 296 x 67 mm/15.63 x 11.65 x 2.64 in.   |
|   | Cut-out (W x H)                | 383.5 x 282.5 mm/15.10 x 11.12 in.   |
| <b>Temperature</b>  | During operation               | 0...60 °C/32...140 °F, according to EN 61131-2 and UL  |
|   | During storage                 | -20...60 °C/-4...140 °F  |
| <b>Shock resistance</b>   |                                | IEC/EN 61131-2 compliant:<br><input checked="" type="checkbox"/> 147 m/s <sup>2</sup><br><input checked="" type="checkbox"/> X, Y, Z directions tested 3 times   |
| <b>Vibration resistance</b>   |                                | Conforming to JIS B 3501 and IEC 61131-2 standards:<br><input checked="" type="checkbox"/> 5...9 Hz, 3.5 mm fixed amplitude<br><input checked="" type="checkbox"/> 9...150 Hz: constant acceleration of 1 g (9.8 m/s <sup>2</sup> )<br><input checked="" type="checkbox"/> X, Y, Z directions tested 10 times (100 minutes)                            |
| <b>References</b>   |                                | <b>HMIDID73DTD1</b>  |
| <b>Page</b>   |                                | 6/5  |
|   |                                | HMIDM Modular Display with HMIDAD Display Adapter, making remote monitors as:<br><input type="checkbox"/> Local display (maximum distance of 5 m/16.4 ft)<br><input type="checkbox"/> Remote display (up to 4 daisy chain displays with same screen definition, and maximum distance of 100 m/328 ft for 1st Display to 400 m/1312 ft for 4th Display) |
|   |                                | According to Harmony HMIDM Modular Display mounted on front (1)  |
|   |                                | <input type="checkbox"/> 1x Display Port video<br><input type="checkbox"/> 1x USB 2.0 (Type B) from touch screen to PC   |
| <b>Standards and certifications</b>   |                                | CE, cULus, cULus CSA 22-2 No 142, cULus HazLoc Class I Division 2 ANSI/ISA 12-12-01, cULus HazLoc Class I Division 2 CSA 22-2 No 213, ATEX and IECEx Hazardous Locations 3GD Zone 2/22, FCC (part 15 EMC Class A), CCC   |
| <b>Marine certifications</b>  |                                | -  |
| <b>Supply voltage</b>   |                                | 24 V ~ or 100...240 V ~ with external power adapter  |
| <b>Power consumption</b>  |                                | According to Harmony HMIDM Modular Display mounted on the front (1)  |
| <b>Mounting</b>   |                                | Panel on front enclosure or VESA 100 X 100 on the rear of the Display Adapter  |
| <b>Dimensions</b>   |                                | According to Harmony HMIDM Modular Display mounted on front (1)  |
| <b>Temperature</b>  |                                | 0...55 °C/32...131 °F  |
| <b>Shock resistance</b>   |                                | -  |
| <b>Vibration resistance</b>   |                                | Random vibration 5...500 Hz: 2 G   |
| <b>References</b>   |                                | <b>HMIDADP11</b>   |
| <b>Page</b>   |                                | 4/31   |



# Harmony iPC

## Industrial PC, Edge Box, and Display

### Harmony HMIDID iDisplay screens

#### 12" and 15" flat screens



HMIDID73DTD1

### Presentation

Harmony HMIDID iDisplay are monitors with industrial flat screens designed for use with PCs. The 4:3 auto-scaler format screens of iDisplay adapt to screen definition. Harmony HMIDID enhances user experience and efficiency by multi-touch support like a smartphone. In addition to panel mounting, Harmony iDisplay also offers VESA 100x100 mounting on the rear side of the product.

Two screen sizes are available: 12" and 15" to suit various requirements.

Harmony HMIDID screens are certified for PLC product standards and designed for use in severe industrial environments (up to 60 °C, with LED backlight (50,000-hr life) and waterproof front IP67f). They support excellent screen sizes or dimension ratios for easy installation on any machine or in any equipment.

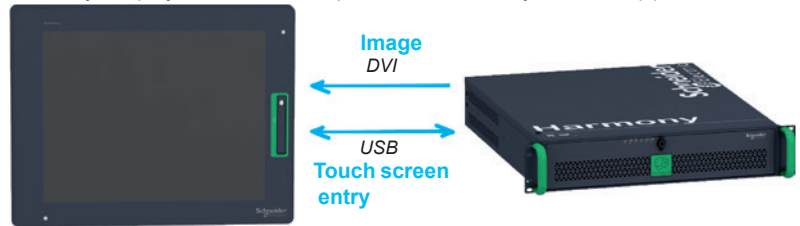
These screens are easily connected to the PC via:

- Standard DVI digital video with auto-scaler
- USB with touch screen drivers (supports up to Windows® 8.1, not available with Windows Server)

Harmony iDisplay screens have the same cut-out dimensions as Harmony HMI Panels, thus making it easy to upgrade installations.

### Architecture

Harmony iDisplay screens are compatible with Harmony Rack PCs (1).



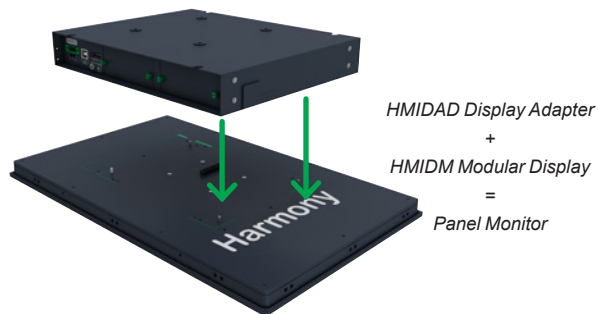
Harmony iDisplay

Harmony Rack PC

6

### Alternate Display option with Harmony HMIDAD Display Adapter

As an alternative option for Harmony HMIDID iDisplay screens, the Harmony HMIDAD Display Adapter can be used to remotely connect a Harmony Modular Display to a Harmony iPC or a third party PC, in the following configurations:



- Local display of up to 1 display (maximum distance of 5 m/16.4 ft). The Harmony iPC or a third party PC, is connected to HMIDADP11 Display Adapter by 1x USB cable for touch screen and 1x Display Port cable for video.
- Remote display of up to 4 displays with the same screen definition (maximum distance of 100 m/328 ft. between each device). Harmony iPC with mini PCIe interface is connected to Display adapters through RJ45 cables. In this configuration, each remote display includes an HMIDM Modular Display + an HMIDADP11 Display Adapter + an HMIYDARE11 Receiver module + an HMIYDATR11 Transmitter module (not required for the last display in the chain).

For more information on Harmony HMIDAD Display Adapter, please refer pages 4/28 to 4/31.

(1) For more information, please refer pages 5/4 to 5/9.

# Harmony iPC

Industrial PC, Edge Box, and Display  
Harmony HMIDID iDisplay screens  
12" and 15" flat screens



HMIDID64DTD1

| References   |  |             |                    |                                  |              |
|--|--|-------------|--------------------|----------------------------------|--------------|
| Description  | Screen                                 | Interface   | Supply voltage     | Reference                        | Weight kg/lb |
| Flat screen for flush mounting, IP66f, IP67f front panel (2) | 12", XGA resistive (1024 x 768 pixels) | Multi-touch | 12...24 V $\equiv$ | <a href="#">HMIDID64DTD1</a> (1) | 3.9/8.6      |
|  | 15", XGA resistive (1024 x 768 pixels) | Multi-touch | 12...24 V $\equiv$ | <a href="#">HMIDID73DTD1</a> (1) | 5.2/11.5     |

| Separate parts  |                 |                                |              |  |
|---|-----------------|--------------------------------|--------------|--|
| Description   | Sold in lots of | Reference                      | Weight kg/lb |  |
| Extra-long cable (10 m/32.81 ft) for connection with Harmony Box PC and Harmony Panel PC industrial PCs | –               | <a href="#">HMIYCABDVI1011</a> | –            |  |
| USB clamp Type B (1 port) for Harmony iDisplay  | 5               | <a href="#">HMIYDUSBCA111</a>  | –            |  |
| iDisplay Adaptation plate from 19" to 15"   | –               | <a href="#">HMIYAD1915D1</a>   | –            |  |

| Substitution                |                               |  |   |
|-----------------------------|-------------------------------|--|---|
| Legacy Harmony iDisplays    |                               | Replaced by Harmony displays                                     |   |
| Description                 | Reference                     | Description  | Reference   |
| <b>Harmony iDisplay 15"</b> |                               | <b>Harmony iDisplay 15" Multi-touch</b>                          |   |
| 15", XGA                    | <a href="#">HMIDID7DT0</a>    | 15" XGA resistive  | <a href="#">HMIDID73DTD1</a>                                |
| <b>Harmony iDisplay 19"</b> |                               | <b>Harmony displays</b>  |   |
| 19"                         | <a href="#">MPCYT90NAN00N</a> | 15" iDisplay monitor multi-Touch + Adaptation plate              | <a href="#">HMIDID73DTD1</a> + <a href="#">HMIYAD1915D1</a> |
|                             |                               | 19" W Modular display + Display Adapter with display port and DC | <a href="#">HMIDM9521</a> + <a href="#">HMIDADP11</a>       |

(1) Supplied with 5 m/16.4 ft DVI cable.  
(2) Harmony iDisplay offers VESA 100x100 mounting on the rear of the product.



---

**Product reference index**

■ Index ..... [page 7/2](#)

|                  |                             |
|------------------|-----------------------------|
| <b>H</b>         |                             |
| HMIBMIEA5DD1E01  | 4/18                        |
| HMIBMIEA5DD100A  | 4/18                        |
| HMIBMIEA5DD1101  | 4/2<br>4/18                 |
| HMIBMIEA5DD110L  | 4/18                        |
| HMIBMIEA5DD1001  | 4/18<br>4/33                |
| HMIBMIMA5DD1101  | 4/33                        |
| HMIBMO0A5DD1001  | 4/33                        |
| HMIBMO0ADD1001   | 4/13                        |
| HMIBMOMA5DD1101  | 4/33                        |
| HMIBMOMA5DD1E01  | 4/4<br>4/13<br>4/18         |
| HMIBMO0A5DDF101  | 4/5<br>4/12<br>4/13<br>4/18 |
| HMIBMO0A5DDF10A  | 4/5<br>4/12<br>4/13<br>4/18 |
| HMIBMOMA5DDF10L  | 4/33                        |
| HMIBMP0I74D200A  | 4/20                        |
| HMIBMP0I74D400A  | 4/20                        |
| HMIBMP0I74D2001  | 4/20<br>4/33                |
| HMIBMP0I74D4001  | 4/20                        |
| HMIBMP0I74DE00A  | 4/20                        |
| HMIBMP0I74DI00A  | 4/20                        |
| HMIBMPHI74D2801  | 4/20                        |
| HMIBMPHI74D4801  | 4/20                        |
| HMIBMPHI74D4801  | 4/20                        |
| HMIBMPSP174D2801 | 4/20                        |
| HMIBMPSP174D4801 | 4/20                        |
| HMIBMU0I29D200A  | 4/19                        |
| HMIBMU0I29D400A  | 4/19                        |
| HMIBMU0I29D2001  | 4/19                        |
| HMIBMU0I29D4001  | 4/19                        |
| HMIBMU0I29DE00A  | 4/19                        |
| HMIBMU0I29DI00A  | 4/19                        |
| HMIBMUCI29D2W01  | 4/19                        |
| HMIBMUCI29D4W01  | 4/19                        |
| HMIBMUHI29D2801  | 4/19                        |
| HMIBMUHI29D4801  | 4/19                        |
| HMIBMUSI29D2801  | 4/19                        |
| HMIBMUSI29D4801  | 4/19                        |
| HMIBSCEA53D1L01  | 3/2<br>3/6                  |
| HMIBSCEA53D1L0A  | 3/2<br>3/6                  |
| HMIBSCEA53D1L0T  | 3/2<br>3/6                  |
| HMIBSO0ND1001    | 4/33                        |
| HMIBSOCND1E01    | 4/33                        |
| HMIBSU0ND1001    | 4/33                        |
| HMIBSUCND1W01    | 4/33                        |
| HMIBSUSND1W01    | 4/33                        |
| HMIDADP11        | 4/31<br>6/5                 |
| HMIDID64DTD1     | 6/5                         |
| HMIDID73DTD1     | 6/5                         |
| HMIDM6421        | 4/27                        |

|                  |                     |
|------------------|---------------------|
| HMIDM6521        | 4/27                |
| HMIDM7421        | 4/27                |
| HMIDM7521        | 4/27                |
| HMIDM9521        | 4/27<br>6/5         |
| HMIDMA521        | 4/27                |
| HMIPPE0952D1001  | 2/19                |
| HMIPPEPS952D1801 | 2/19                |
| HMIPP06D0001     | 4/33                |
| HMIPPF6A2701     | 4/33                |
| HMIPPH6A2701     | 4/33                |
| HMIPSO0552D1001  | 2/12                |
| HMIPSO0752D1001  | 2/13                |
| HMIPSOC552D1W01  | 2/12                |
| HMIPSOC752D1W01  | 2/13                |
| HMIPSOH552D1801  | 2/12                |
| HMIPSOH752D1801  | 2/13                |
| HMIPSOS552D1801  | 2/12                |
| HMIPSOS752D1801  | 2/13                |
| HMIPSP0752D1001  | 2/16                |
| HMIPSP0952D1001  | 2/17                |
| HMIPSPC752D1W01  | 2/16                |
| HMIPSPC952D1W01  | 2/17                |
| HMIPSPH752D1801  | 2/16                |
| HMIPSPH952D1801  | 2/17                |
| HMIPSPS752D180L  | 2/16                |
| HMIPSPS752D1801  | 2/16                |
| HMIPSPS952D180L  | 2/17                |
| HMIPSPS952D1801  | 2/17                |
| HMIPU06D0001     | 4/33                |
| HMIPUC6A0E01     | 4/33                |
| HMIPUC6D0E01     | 4/33                |
| HMIPUF6A0701     | 4/33                |
| HMIPUF6D0701     | 4/33                |
| HMIPUH6A0701     | 4/33                |
| HMIPUH6D0701     | 4/33                |
| HMIRSPSXR6T01    | 5/8                 |
| HMIRTCWZLSPAZZ   | 2/22<br>4/22<br>5/9 |
| HMIRTCWZLSPMZZ   | 2/22<br>4/22<br>5/9 |
| HMIRXOHCA3001    | 5/8                 |
| HMIYAD1915D1     | 4/21<br>6/5         |
| HMIYADBMODIN11   | 4/21                |
| HMIYADDPDVI11    | 4/21                |
| HMIYADHDMIDVIS1  | 2/20                |
| HMIYBADHDBMO1    | 4/21                |
| HMIYBFKT4BM11    | 4/21                |
| HMIYBIN2AIM21    | 3/7                 |
| HMIYBINLTPM201   | 3/6                 |
| HMIYBMKTBM1      | 4/21                |
| HMIYBMKTBSC1     | 3/6                 |
| HMIYCAB4GAN51    | 3/7                 |
| HMIYCABDP51      | 4/31                |
| HMIYCABDPDVI31   | 4/21<br>4/31        |
| HMIYCABDVI1011   | 6/5                 |

|                  |                     |
|------------------|---------------------|
| HMIYCABM1211     | 2/22                |
| HMIYCABUPS31     | 4/21                |
| HMIYCABUSB51     | 4/31                |
| HMIYCABWIFIAN51  | 2/21<br>4/23        |
| HMIYCABWIFIAN511 | 3/6                 |
| HMIYCFA32S       | 2/20<br>4/21        |
| HMIYDARE11       | 4/31                |
| HMIYDATR11       | 4/31                |
| HMIYDUSBCA111    | 6/5                 |
| HMIYEM1211       | 2/22                |
| HMIYHDD01T21     | 2/20<br>4/21        |
| HMIYHDD01TR2     | 5/9                 |
| HMIYHDD500R1     | 5/9                 |
| HMIYHDD50021     | 2/20<br>4/21        |
| HMIYM2064M1      | 4/21                |
| HMIYM2128M1      | 4/21                |
| HMIYM2256M1      | 4/21                |
| HMIYMADSDD1      | 4/21                |
| HMIYMIN1ETH1     | 2/21<br>4/22        |
| HMIYMIN4GEU1     | 2/21<br>3/7<br>4/23 |
| HMIYMIN4GUS1     | 3/7<br>4/23         |
| HMIYMIN8AI1      | 3/7                 |
| HMIYMINATPM201   | 4/23                |
| HMIYMINAUD1      | 4/22                |
| HMIYMINAUD21     | 2/21<br>4/23        |
| HMIYMINCAN1      | 2/20<br>4/22        |
| HMIYMINDP1       | 4/23<br>4/23        |
| HMIYMINDVII1     | 2/21<br>4/23        |
| HMIYMINGPRS1     | 2/21<br>4/23        |
| HMIYMINIO1       | 2/21<br>4/22        |
| HMIYMINNVRAM1    | 2/20<br>4/22        |
| HMIYMINPRO1      | 2/20<br>4/22        |
| HMIYMINSL22321   | 2/20<br>4/22        |
| HMIYMINSL24851   | 2/20<br>4/22        |
| HMIYMINSL42321   | 2/20<br>4/22        |
| HMIYMINSL44851   | 2/20<br>4/22        |
| HMIYMINUSB1      | 2/21<br>4/22        |
| HMIYMINVGADVID1  | 2/21<br>4/23        |
| HMIYMINWIFI2     | 4/23                |
| HMIYMMAC1        | 4/21<br>4/31        |
| HMIYMUPSKT1      | 4/21                |
| HMIYP552PS11     | 2/22                |
| HMIYP652PS11     | 4/27                |

|                 |                      |
|-----------------|----------------------|
| HMIYP752PS11    | 2/22<br>4/27         |
| HMIYP952PS11    | 2/22<br>4/27         |
| HMIYPA52PS11    | 4/27                 |
| HMIYPADPSOSTO1  | 2/22                 |
| HMIYPMKTPSO1    | 2/22                 |
| HMIYPMKTPSP1    | 2/22                 |
| HMIYPRAM3040R1  | 5/9                  |
| HMIYPRAM3080R1  | 5/9                  |
| HMIYPSOMAC1     | 2/22<br>4/21<br>4/31 |
| HMIYPSPMAC1     | 2/22                 |
| HMIYPVESA6X21   | 4/21                 |
| HMIYPVESA21     | 4/21                 |
| HMIYPVESA41     | 4/21                 |
| HMIYPVESAPSO551 | 2/22                 |
| HMIYPVESAPSO751 | 2/22                 |
| HMIYRCABPWRCN1  | 5/9                  |
| HMIYRINSL21     | 5/9                  |
| HMIYRINSL41     | 5/9                  |
| HMIYRMAC21      | 5/9                  |
| HMIYRMKT2O1     | 5/9                  |
| HMIYRMKT2U1     | 5/9                  |
| HMIYRMKT4P1     | 5/9                  |
| HMIYSD016C1     | 3/6                  |
| HMIYSD064C1     | 3/6                  |
| HMIYSSDS080S1   | 2/20<br>4/21<br>5/9  |
| HMIYSSDS240S1   | 2/20<br>4/21<br>5/9  |
| HMIYUSBBK111    | 2/22<br>4/21         |
| HMIYMACWLIOT1   | 4/23                 |

|               |      |
|---------------|------|
| <b>M</b>      |      |
| MPCYK20SPSKIT | 4/27 |
| MPCYK50SPSKIT | 4/27 |
| MPCYT90NAN00N | 6/5  |

|               |              |
|---------------|--------------|
| <b>V</b>      |              |
| VJDSNRTMPC    | 5/9          |
| VJDSNTRCKV60M | 5/9          |
| VJOCNT        | 2/22<br>4/22 |



Life Is On



Learn more about our products at  
[www.schneider-electric.com/hmi](http://www.schneider-electric.com/hmi)

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Design: Schneider Electric  
Photos: Schneider Electric

**Schneider Electric Industries SAS**

Head Office  
35, rue Joseph Monier - CS 30323  
F-92500 Rueil-Malmaison Cedex  
France

DIA5ED2140501EN  
March 2020 - V10.0