



Harmony iPC

Industrial PC, Edge Box and Display



Harmony

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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

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- [Harmony Signaling Devices](#)
- [Harmony Electrical Relays](#)
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Life Is On

Schneider
Electric

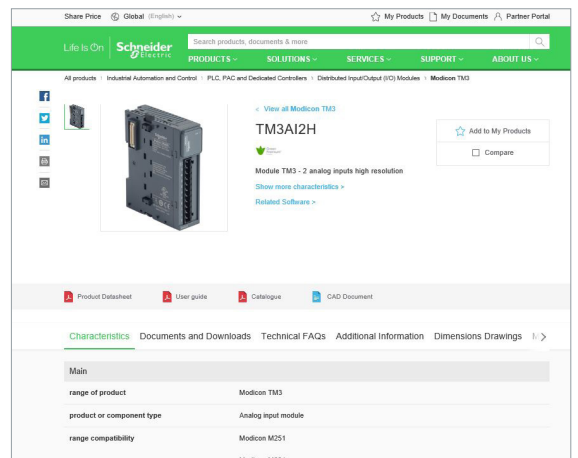
Quick access to product information

Get technical information about your product

References

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

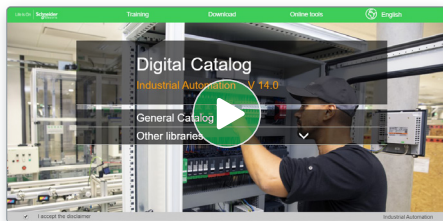
Number and type of channels	Input range	Resolution	Input format (internal (mA))	Reference	Weight (kg)
2 voltage/current inputs	-15...+15 VDC 0...20 mA A, 20 mA	16,000 or 10,000 4 sign	0/20 mA 0/20 mA	TM3AI2H TM3AI2HG	0.110 0.100
4 voltage/current inputs	-15...+15 VDC 0...20 mA A, 20 mA	12,000 or 10,000 4 sign	0/20 mA 0/20 mA	TM3AI4 TM3AI4G	0.100 0.100
4 voltage/current or temperature inputs (I, A, K, S, T, N, E, C) (PT100, RTD100, RTD200, RTD300)	-15...+15 VDC 0...20 mA A, 20 mA	16,000 or 10,000 15	0/20 mA 0/20 mA	TM3TI4 TM3TI4G	0.110 0.100
4 differential temperature inputs (I, A, K, S, T, N, E, C) (Non-isolated)	-15...+15 VDC 0...20 mA A, 20 mA	16,000 or 10,000 15	0/20 mA 0/20 mA	TM3TI4G TM3TI4G	0.100 0.100
8 self-diagnosis	-15...+15 VDC	12,000 or 10,000 15	0/20 mA	TM3I8L	0.110



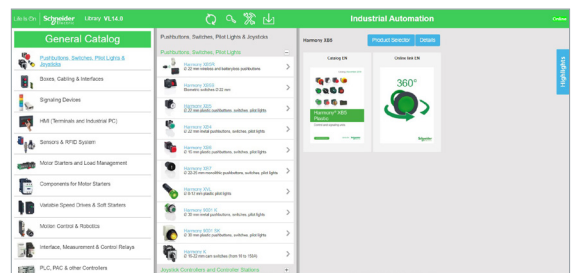
Each commercial reference presented in a catalog contains a hyperlink. Click on it to obtain the technical information of the product:

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

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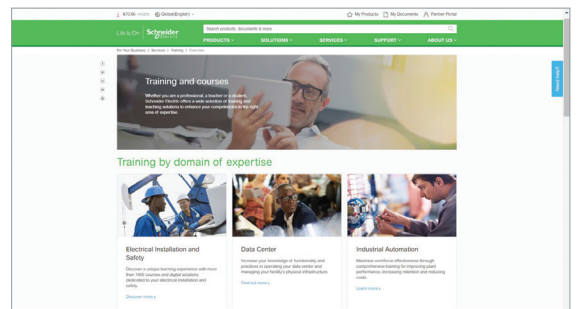


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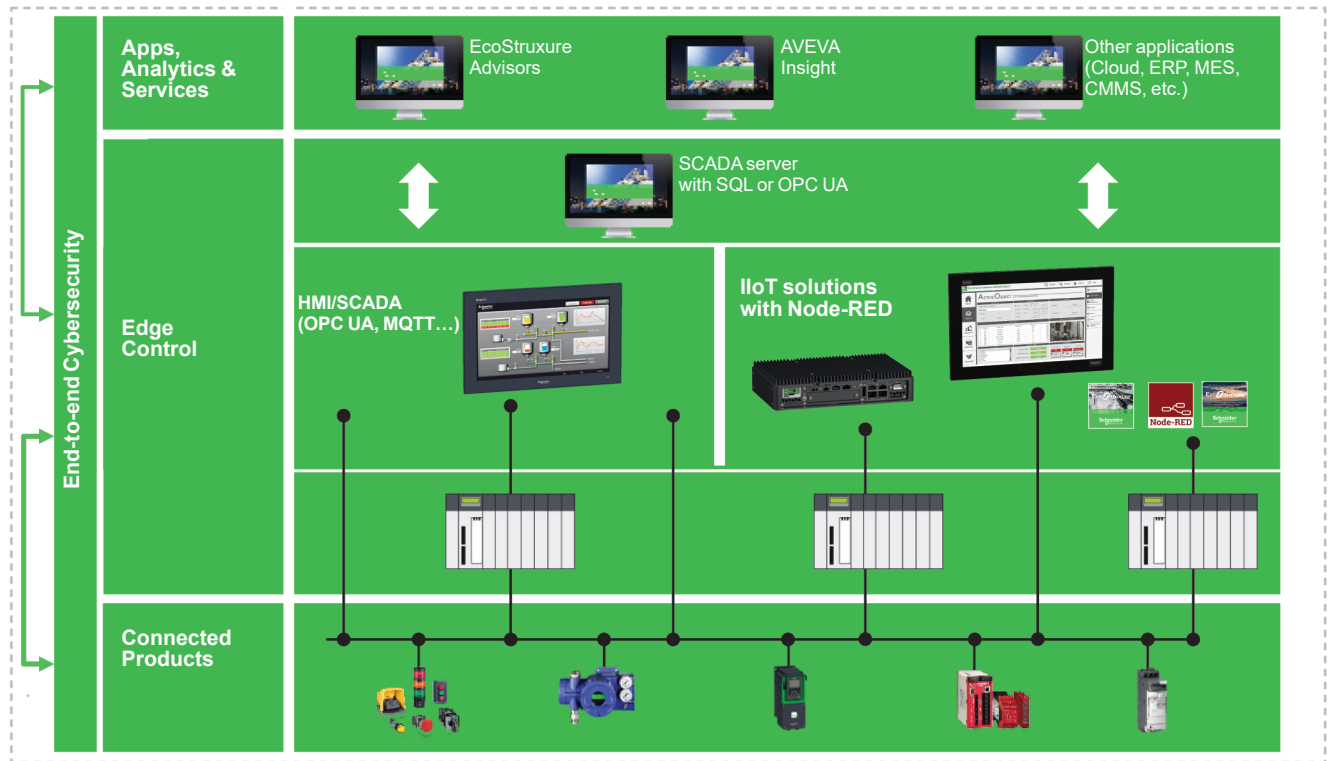
Harmony iPC

Delivering the best digital experience at the Edge of EcoStruxure

Harmony Industrial PCs, Edge Box, and Displays, running at the Edge Control level of EcoStruxure improves your productivity and performance with data management functionality and flexibility. Optimized box and display modularity offers a wide choice and ease of screen replacement.

Running associated software, they deliver the next stage of your digital transformation and experience by leveraging asset performance with end-to-end cybersecurity for more efficient operation and maintenance of capital assets.

EcoStruxure Architecture



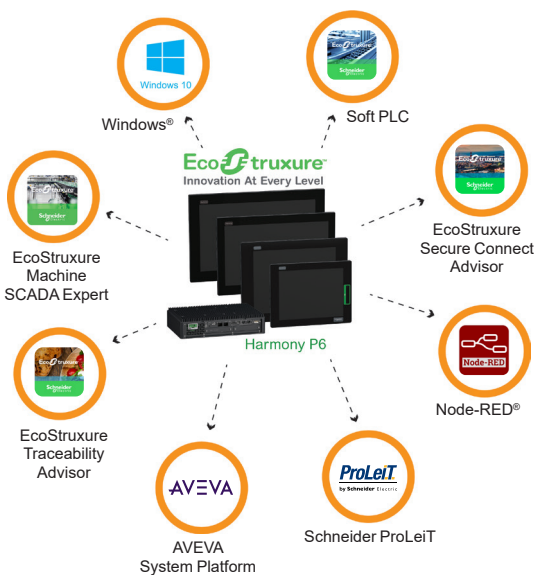
Smart design and engineering

Harmony P6 shortens implementation time for automation engineers and is more economical throughout the life cycle with optimized design and ease of maintenance.

The online Harmony P6 Product Configurator with enlarged line-up offers many possibilities and when linked with EcoStruxure Plant Builder eases the design of complete automation architectures and solutions. Fast deliveries from the regional Flex Center speed up commissioning of exact fit applications.

Harmony P6 Industrial PCs and Edge Box are available with preferred software associations that are tested and validated with the optimum hardware configuration. Ultimately, they can be delivered as pre-installed bundles with activation licenses. This offer is versatile and open to applications running Windows software at the Edge like HMI, SCADA, IIoT Edge, engineering and maintenance tools, thin clients, etc.

There are numerous software applications that can run on Harmony P6 Industrial PCs and Edge Box with Windows or Linux operating systems. For examples of recommended associations and delivery models, see [page 1/6](#).



+ Harmony P6 to digitize industrial machines and plants



Cybersecurity

Harmony P6 Industrial PCs and Edge Box are ready with end-to-end cybersecurity systems to help protect data and assets. They are designed according to IEC 62443 and Achilles standards for industrial automation and control:

- Designed according to standard guidelines for security analysis, threat modeling and tests, user documentation, etc.
- Compliant with Achilles standard, with McAfee Whitelisting available as an option
- Hardware encryption of operating system, storage, and passwords can be activated with Windows BitLocker running the TPM (available default) on the mother board
- Secure boot and secure operating system settings (passwords, patches, etc.)

Harmony P6 Industrial PCs and Edge Box are also validated with EcoStruxure Secure Connect Advisor to create end-to-end cybersecured infrastructure for remote connection to automation sites in the field.

Asset performance

Harmony P6 Industrial PCs and Edge Box deliver a new digital experience at the Edge. They leverage asset performance with predictive maintenance, IoT Edge-to-Cloud connection, Smart Factory, and digitization, meeting the increasing demands of data management, analytics, and dashboards at the Edge.

There are two main IIoT architectures that can run on Harmony P6:

- HMI and SCADA software visualization and connections with drivers available on software like OPC UA and MQTT
- IIoT solutions with Node-RED running Schneider nodes or more advanced IIoT software making the data wiring of the connected products to the apps, analytics, and services at the IT and Cloud levels

Workforce empowerment

With associated software, Harmony P6 provides optimum visualization and control, enhancing the operator experience. The offer leverages operator responsiveness with high-performance quad-core Intel CPUs to maximize business opportunities.

The stylish wide displays provide high visibility during operation and feature:

- Glass-top capacitive multi-touch panel with narrow frame and thin design
- Innovative configurable and noise-resistive touch drivers with three mode settings: default standard mode, glove mode with higher touch sensitivity, and water detection mode, which disables the abnormal touch input

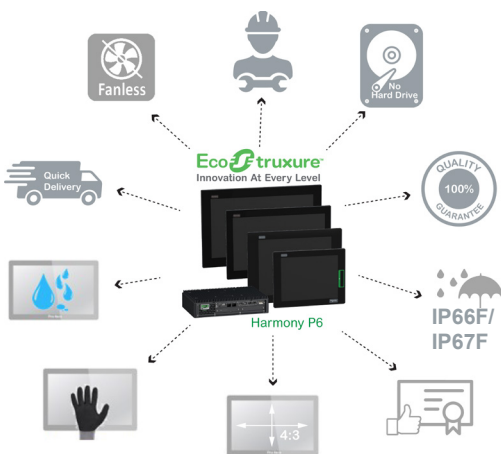
The modularity of Harmony P6 Industrial PCs and Edge Box creates exact fit Box PCs, Panel PCs, and monitors, allowing the configuration to be adapted for each use, while keeping the same operator environment. This consistency of operator workstations at the Edge ensures optimum ergonomics throughout the application.

Investment continuity

Harmony P6 Industrial PCs and Edge Box provide investment continuity along their life cycle. They are as robust as an industrial HMI panel in terms of asset reliability and optimization.

They are designed to help ensure reduced failure rate, easy maintenance and replacement, advanced certification, and redundant storage, with configurable and noise-resistive wide touch screens, supporting a long life cycle.

Harmony P6 Industrial PCs and Edge Box bring a new customer experience to help ensure business continuity with easy selection and migration from legacy products, expanded services support, and regional Flex Centers delivering supply chain efficiencies for both new machines and spare parts, and faster repairs.



1



Harmony Edge Box



Harmony HMIDM Modular Display



Harmony HMIDAD Display Adapter



Harmony HMIP6 Modular Box PCs

Harmony Edge Box family

Harmony HMIBSC/HMIBMI/HMIBMO can be used as entry level Industrial PCs and 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 Box

- 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 expansion slot, 1x SD card slot
- Node-RED

Harmony HMIBMI Basic Box

- 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 Box

- 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 HMIDM Modular Displays are the companion of Harmony Edge Box. They can be mounted directly on the Edge Box or remotely via cables. This modularity not only allows multiple variations with reduced inventories, it also facilitates maintenance. The Box PC or 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 the Harmony HMIDAD Display Adapter, the Harmony HMIDM Modular Display can be used as a:

- Local display (over a maximum distance of 5 m/16.4 ft)
- Remote display (up to 4 daisy chain displays with the same screen definition, and over a maximum distance of 100 m/328 ft for the first display to 400 m/1,312 ft for the fourth display)



Harmony P6 Industrial PC family

Harmony HMIP6 Box PCs are high-end Industrial PCs with a modularity that facilitates fast delivery, multiple options, and easier mounting. They are available in a 4-Box PC format running on Windows 10 operating system. All 4 Box PCs can be mounted on a Modular Display to make a Panel PC.

Harmony HMIP6 Modular Box PC

- 2x LAN IEEE1588, 1x RS-232C non-isolated, USB Type A (2x USB 2.0 and 2x USB 3.0), USB Type C (1x USB 3.0), 1x display port
- Intel Core™ i7-8665UE, Intel Core™ i5-8365UE, Intel Celeron® 4305UE, and Intel Core™ i3-8145UE processors with up to 32 GB RAM
- 1x PCI + 1x PCIe, 2x PCIe or 2x PCI expansion slots, 1x M.2 SSD SATA, 1x or 2x 2.5-inch SATA (HDD/SSD) storage slots
- 1x or 2x expansion slots for optional interfaces (Serial lines, Audio, Wireless, I/O, Ethernet, UPS, etc.)



Harmony HMIDM6 Modular Display



Harmony HMIFP6 Flat Panel Monitors

Harmony P6 Industrial PC family (continued)

Harmony HMIDM6 Wide Modular Displays are multi-touch capacitive screens enabling navigation like on a smartphone or tablet. The 4:3 Modular Displays have resistive technology for heavy gloves and to facilitate mounting in legacy systems, but also benefit from innovative multi-touch screens.

Harmony HMIDM6 Modular Display

- 4:3 12" and 15" multi-touch (2 points) resistive displays with front USB
- 16:9 10"/12"/15"/19"/22" multi-touch (2 points) projected capacitive displays
- Wide Modular Display supports standard mode, glove mode, and water detection mode
- IP66F, IP67F, Type 1, Type 4X (NEMA indoor use only), Type 13

Harmony FP6 Industrial Flat Panel Monitor family

Harmony HMIFP6 Industrial Flat Panel Monitors are robust monitors that can be used in conjunction with Harmony P6 Box PCs, Harmony Industrial PCs, or any third-party PCs. They have the same cut-out dimensions as legacy panels, which makes it easy to upgrade installations.

Harmony HMIFP6 Industrial Flat Panel Monitors

- 4:3 12" and 15" multi-touch (2 points) resistive monitors with front USB
- 16:9 10"/12"/15"/19"/22" multi-touch (2 points) projected capacitive monitors with optimized noise filter
- Wide Modular Display supports standard mode, glove mode, and water detection mode
- IP66F, IP67F, UL 50/50E, Type 1, Type 4X (indoor use only), Type 12, Type 13

Recommended associated software with Harmony Industrial PCs

Numerous software applications can run on Harmony P6 Industrial PCs and Edge Box with Windows 10 or Linux operating systems. This software association helps to digitize plants and machines.

Traditionally, users can either install their own software or have a complete system delivered, to include both hardware and software as a complete project. Harmony Industrial PCs also benefit from innovative options provided by associated software:

- **Solution guide and TVDAs** (Tested Validated Documented Architectures) are available. This documentation facilitates selection, integration, and maintenance of Schneider Electric and partner software associations with Harmony P6. Such tested solutions and architectures help to ensure that users can access technical support and repairs from a single contact window, including both hardware and associated software.
- **Configured-to-order using Harmony Online Product Configurator.** A selection of software licenses are validated and delivered with the Harmony Industrial PC. This means customer can make a single digital journey to configure, define architecture, order, receive fast delivery, and then activate the latest versions of the software to run on the Harmony iPC. Even software pre-installation will be possible for some associations. This kind of digital journey from a single supplier allows stress-free updates and migration.
- **Kitting for repetitive business.** After having defined and validated your own hardware and software single configuration, you can place dedicated repetitive orders to our regional Flex Center.

Recommended associated software with Harmony Industrial PC

- | | |
|--|--|
| ■ EcoStruxure Machine SCADA Expert | ■ EcoStruxure Traceability Advisor |
| ■ AVEVA System Platform | ■ EcoStruxure Clean in Place Advisor |
| ■ EcoStruxure Automation Expert | ■ Schneider ProLeiT |
| ■ EcoStruxure Augmented Operator Advisor | ■ EcoStruxure Equipment Efficiency Advisor |
| ■ EcoStruxure Plant Data Expert | ■ EcoStruxure Secure Connect Advisor |











For more information, refer to the recommended software associations with Harmony Industrial PC selection guide on [page 1/6](#).

+ Harmony Industrial PCs → Software validated and cybersecured, helping to prevent potential compatibility issues, thus saving time and effort

Harmony iPC

Industrial PC, Edge Box, and Display
Recommended associated software with
Harmony Industrial PCs

Numerous software applications can run on Harmony HMIP6 Industrial PCs and Edge Box with Windows 10 or Linux operating systems for digital plants and machines. The table below shows some examples of recommended associations and delivery models.

Domain	Workforce empowerment		Smart design & engineering			Asset performance			Cybersecurity	Third parties				
Software type	Lite SCADA	Plant SCADA and Historian	PC-based control			Augmented Operator	IIoT solution	End-to-end traceability in Consumer Packaging Goods	Hygiene monitoring in Consumer Packaging Goods	Specialized process control and MES in Consumer Packaging Goods	Manufacturing intelligence	Secured remote connection	Third-party applications (involving limited support)	
Software name	 EcoStruxure Machine SCADA Expert	 AVEVA System Platform	 EcoStruxure Automation Expert	 EcoStruxure Augmented Operator Advisor	 EcoStruxure Plant Data Expert	 EcoStruxure Traceability Advisor	 EcoStruxure Clean in Place Advisor	 Schneider ProLeiT	 EcoStruxure Equipment Efficiency Advisor	 EcoStruxure Secure Connect Advisor				
Software Runtime license for Industrial PC	1.5K and 4K tags	32K and 64K tags	Trial version + license from AVEVA distributor	HMI Runtime	SoftdPAC Windows	SoftdPAC Linux	Server license	"Essential = Node-RED"	Performance (3)	Track & Trace Module		EcoStruxure Machine SCADA Expert + Template	Ecostruxure Secure Connect Advisor	
Harmony HMIPSO/HMIPEP (Windows)	✓✓✓	✓✓	–	✓	–	–	✓	✓	–	–	–	–	✓✓✓	
	Configured-to-order with software license (1)		–	On request (2)	–	–	User installable	User installable (with limited support)	–	–	–	–	User installable (Windows)	
Pages	2/2 to 2/6		–	2/2 to 2/6	–	–	2/2 to 2/6	2/2 to 2/6	–	–	–	–	2/2 to 2/6	
Edge Box Core Harmony HMIBSC (ARM CPU and Linux)	–	–	–	–	✓	–	–	–	–	–	–	✓✓✓	✓✓✓	
	–	–	–	–	On request with dedicated operating system (2)	–	–	Pre-installed on Windows 10 dedicated operating system	–	–	–	User installable and starter kit available	User installable (Linux Yocto)	
Pages	–	–	–	–	3/2 and 3/3	–	–	3/2 and 3/3	–	–	–	3/2 and 3/3	3/2 and 3/3	
Edge Box Harmony HMIBMI/HMIBMO (ATOM CPU and Windows)	✓✓✓	✓✓	✓✓✓	✓✓	–	–	✓✓	–	✓✓	–	✓✓	✓✓✓	✓✓✓	
	Configured-to-order with software license (1)		Industrial Thin Client with Windows Remote Desktop Services	On request (2)	–	–	User installable or IIoT starter pack on request	Pre-installed on Windows 10 dedicated operating system	User installable	–	–	See Lite SCADA/ EcoStruxure Machine SCADA Expert	User installable	User installable (Windows 10)
Pages	4/2 to 4/5		–	–	–	–	4/2 to 4/5	–	–	–	4/2 to 4/5	–	–	
iPC Harmony HMIP6 configured Standard (i3 and Windows 10)	✓✓✓	✓✓	✓✓✓	✓✓✓	–	–	✓✓✓	–	✓✓✓	✓✓✓	–	✓✓✓	✓✓✓	
	Configured-to-order with software license + software pre-installed (1)		User installable for small standalone application	On request (2)	–	–	User installable	Pre-installed	User installable	User installable with Solution guides	–	See Lite SCADA/ EcoStruxure Machine SCADA Expert	User installable	User installable (Windows 10)
iPC Harmony HMIP6 configured Advanced (Celeron, i5, i7 CPUs and Windows 10)	✓✓✓	✓✓	✓✓✓	✓✓✓	–	–	✓✓✓	–	✓✓✓	✓✓✓	–	✓✓✓	✓✓✓	
	Configured-to-order with software license + software pre-installed (1)		User installable in HMIP65 (i5) and HMIP67 (i7) for standalone application	On request (2)	–	–	User installable	Pre-installed	User installable	User installable with Solution guides	–	See Lite SCADA/ EcoStruxure Machine SCADA Expert	User installable	User installable (Windows 10)
Pages	5/2 to 5/3		–	–	–	–	5/2 to 5/3	–	–	–	–	–	–	

(1) Configured-to-order: License delivered in the iPC packaging + software pre-installed in Harmony HMIP6 only from Q3 2021.
 (2) On request: Please contact our Customer Care Center.
 (3) Available Q3 2021.

✓✓✓ Highly recommended ✓✓ Recommended ✓ Acceptable

For more information on supported software, refer to the following catalogs:
 EcoStruxure Machine SCADA Expert (DIA5ED2171201EN)
 EcoStruxure Secure Connect Advisor (DIA5ED2190101EN)
 EcoStruxure Augmented Operator Advisor (DIA5ED2190301EN)
 EcoStruxure Automation Expert (DIA3ED2201101EN)

Harmony iPC

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

Harmony HMIPSO S-Panel and HMIPEP Enclosed Panel PCs

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Harmony iPC

Industrial PC, Edge Box, and Display
Harmony HMIPSO S-Panel PCs
HMIPSO Optimized

Type of Harmony iPC **Harmony HMIPSO Optimized S-Panel PCs**



Fanless		★★★★★	
Mounting type		Panel PC	
Screen	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	
CPU	Processor	Intel® Atom E3827 dual-core (1.75 GHz, low power)	
	Storage	Main drive	SSD flash disk ≥ 128 GB (5-year manufacturer warranty and 1.5 million hours MTBF) (1)
		Slots	<input type="checkbox"/> 1x CFAST card slot <input type="checkbox"/> 1x 2.5" SATA HDD/SSD storage slot, user-accessible (1)
	Expansion kit (1)	Default	
	RAM	4 GB DDR3 (not user-expandable)	
	Integrated ports		<input type="checkbox"/> 2x RJ45 Ethernet 10/100/1,000 Mbps <input type="checkbox"/> 1x USB 3.0 (Type A), 1x USB 2.0 (Type A) <input type="checkbox"/> 1x RS-232, 1x RS-232C/422/485
		Watchdog timer	Timer with 255 levels/intervals, programmable, 1...255 s
Operating system		Windows 10 IIoT Enterprise (64-bit Multi-language)	
Power supply	Supply voltage	24 V ~ (± 20%). AC power supply with external AC/DC power adapter HMIYPSOMAC1.	
	Current consumption	1.9 A typical	
Dimensions	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.)	
Temperature	During operation (1)	0...55 °C/32...131 °F	
	During storage	-30...70 °C/-22...158 °F	
Vibration resistance	During operation	2 g from 5...500 Hz with SSD/CFAST and 1 g from 5...500 Hz with HDD	
Standards and certifications		CE, cULus ITE (UL IT 60950, CSAIT 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)	
Software		EcoStruxure Operator Terminal Expert (2) EcoStruxure Machine SCADA Expert (4), EcoStruxure Secure Connect Advisor (5)	
References		HMIPSOS552D1801	
Pages		2/7	
Configured-to-order		See configured Harmony Optimized S-Panel PC on page 2/13	

(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 HMIRTCZLSPAZZ (Digital) or HMIRTCZLSPMZZ (Paper).
 (3) Snap hook allows mounting of S-Panel PC in the panel cut-out single-handedly.

Harmony HMIPSO Optimized S-Panel PCs



Fanless		★★★★★	
Mounting type		Panel PC	
Screen	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	
CPU	Processor	Intel® Atom E3827 dual-core (1.75 GHz, low power)	
	Storage	Main drive	HDD hard disk ≥ 500 GB Enterprise 24/7 (1) --
		Slots	<input type="checkbox"/> 1x CFAST card slot <input type="checkbox"/> 1x 2.5" SATA HDD/SSD storage slot, user-accessible (1)
	Expansion kit (1)	Default Optional	
	RAM	4 GB DDR3 (not user-expandable)	
	Integrated ports		<input type="checkbox"/> 2x RJ45 Ethernet 10/100/1,000 Mbps <input type="checkbox"/> 1x USB 3.0 (Type A), 1x USB 2.0 (Type A) <input type="checkbox"/> 1x RS-232, 1x RS-232C/422/485
		Watchdog timer	Timer with 255 levels/intervals, programmable, 1...255 s
Operating system		Windows 10 IIoT Enterprise (64-bit Multi-language) None or Configured-to-order offer	
Power supply	Supply voltage	24 V ~ (± 20%). AC power supply with external AC/DC power adapter HMIYPSOMAC1.	
	Current consumption	1.9 A typical	
Dimensions	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.)	
Temperature	During operation (1)	0...45 °C/32...113 °F 0...55 °C/32...131 °F	
	During storage	-30...70 °C/-22...158 °F	
Vibration resistance	During operation	2 g from 5...500 Hz with SSD/CFAST and 1 g from 5...500 Hz with HDD	
Standards and certifications		CE, cULus ITE (UL IT 60950, CSAIT 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)	
Software		EcoStruxure Operator Terminal Expert (2) -- EcoStruxure Machine SCADA Expert (4), EcoStruxure Secure Connect Advisor (5)	
References		HMIPSOH552D1801 HMIPSO0552D1001	
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Configured-to-order		See configured Harmony Optimized S-Panel PC on page 2/13	

(4) EcoStruxure Machine SCADA Expert Run Time with Configured-to-order Harmony S-Panel PCs.
 (5) To be installed and activated with subscription.

Harmony iPC

Industrial PC, Edge Box, and Display
Harmony HMIPEP Enclosed Panel PCs
HMIPEP Performance

Type of Harmony iPC

Harmony HMIPEP Performance Enclosed Panel PCs



Fanless

Mounting type

Screen	Type
	Size
	Resolution
	Degree of protection
	View angle
	Backlight
	Operate with water on screen

CPU	Processor	
	Expansion slot	
	Storage	Main drive
		Slots
	RAM	
	Integrated ports	
Watchdog timer		

Operating system

Power supply	Supply voltage
	Power consumption

Dimensions

Temperature	During operation
	During storage

Vibration resistance

Standards and certifications

Software

References

Pages

Configured-to-order

★★★★★
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 th 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"/> 2x Ethernet 10/100/1,000 Mbps M12 A-coding 8-pin female connector
<input type="checkbox"/> 1x USB 2.0 with M12 8-pin female connector
<input type="checkbox"/> 1x 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 (5).
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)
HMIPEPS952D1801
2/9
See configured Harmony Enclosed Performance S-Panel PC on page 2/13

(1) See accessories ([page 2/10](#) 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).

Harmony HMIPEP Performance Enclosed Panel PCs



★★★★★
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 th 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"/> 2x Ethernet 10/100/1,000 Mbps M12 A-coding 8-pin female connector
<input type="checkbox"/> 1x USB 2.0 with M12 8-pin female connector
<input type="checkbox"/> 1x 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 (5).
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)
HMIPEP0952D1001
2/9
See configured Harmony Enclosed Performance S-Panel PC on page 2/13

(3) With Configured-to-order Harmony iPC.
 (4) To be installed and activated with subscription.
 (5) Not available in Europe.



Harmony HMIPSO Optimized S-Panel PC

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" 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 Windows 10 or without an operating system in Configured-to-order offer

Overview of the offer

Harmony HMIPSO Optimized

The Harmony HMIPSO S-Panel PCs offer comprises 4 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" touch screens are as follows:

- **HMIPSOS552D1801**
 - 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**
 - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
 - Default storage device: 500 GB HDD (Enterprise 24/7)
 - Expansion kit: **HMIYPADPSOSTO1**
- **HMIPSO0552D1001**
 - 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 **HMIRTCWZLSPAZZ** (Digital) or **HMIRTCWZLSPMZZ** (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](#))

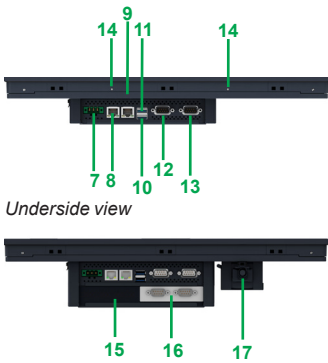
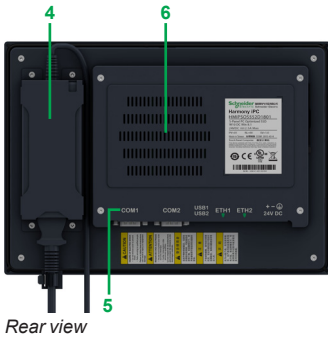
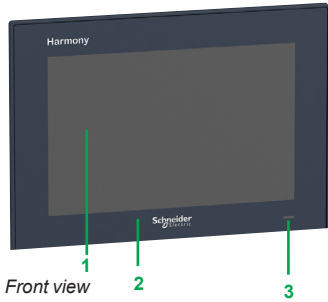
EcoStruxure Secure Connect Advisor ([DIA5ED2190101EN](#))

Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIPSO S-Panel PCs

HMIPSO Optimized



Underside view with expansion kit



HMIPSO552D1801



HMIPSO552D1801

Description

Harmony HMIPSO Optimized

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/m² (adjustable)
 - Type of touch panel: 5-point projected capacitive technology multi-touch
 - Typical viewing angle: 160° (vertically)/160° (horizontally)
- 2 Harmony and Schneider Electric removable stickers
- 3 Power status indicator (Green: On, Orange: Stand-by, No light: Off)

Rear view (1)

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

Underside view

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

Harmony HMIPSO Optimized (Intel Atom E3827 dual-core processor, 1.75 GHz)

Supply voltage	Operating system	Software	Storage	DDR3 RAM (5)	Reference	Weight kg/lb
24 V ⎓ (6)	Windows 10 IoT Enterprise (64-bit Multi-language)	EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4), IIoT monitor with Node-RED	SSD flash disk ≥ 128 GB with 1.5 million hours MTBF (mounted in expansion kit)	4 GB	HMIPSO552D1801	2.50 /5.51
			HDD hard disk ≥ 500 GB (mounted in expansion kit)	4 GB	HMIPSOH552D1801	2.50 /5.51
-	-	-		4 GB	HMIPSO0552D1001	2.50 /5.51

- (1) Cooling method is by passive heat sink.
- (2) Snap hook allows mounting of S-Panel PC in the panel cut-out single-handedly.
- (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 HMIRTCZLSPAZZ (Digital) or HMIRTCZLSPMZZ (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 (not available in Europe).

Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIPEP Enclosed Panel PCs

HMIPEP Performance

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 or without an operating system 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:

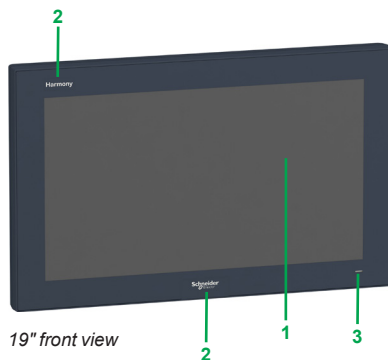
- **HMIPEPS952D1801:**
 - Operating system: Windows 10 IoT Enterprise (64-bit Multi-language)
 - Default storage device: 128 GB SSD (5-year manufacturer warranty and 1.5 million hours MTBF)
- **HMIPEP0952D1001:**
 - Operating system: None
 - Default storage device: None

Ready-to-run Software for Harmony HMIPEP

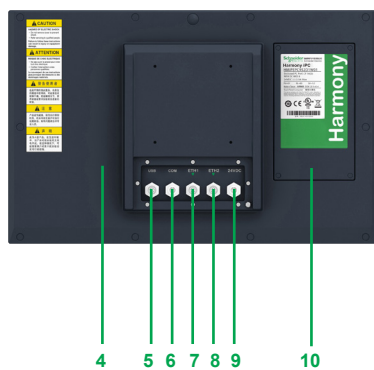
Harmony HMIPEP S-Panel PCs are supported by Schneider Electric HMI software. For HMI applications, EcoStruxure Operator Terminal Expert Run Time demo version can be downloaded and activated to unlimited version with **HMIRTWZLSPAZZ** (Digital) or **HMIRTWZLSPMZZ** (Paper) license. For line management 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](#))



19" front view



19" rear view



HMIPEPS952D1801



HMIPEPS952D1801

Description

Harmony HMIPEP Performance

Front view

- 1 19" LCD multi-touch LED screen, HD WFXGA 1366 × 768 pixels, 16 million colors for **HMIPEP●952D1●01**:
 - Brightness: 300 cd/m² (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

(Intel i3-4010U dual-core processor, 1.7 GHz)

Supply voltage	Expansion slot	Storage	Software	Reference	Weight kg/lb
Windows 10 IoT Enterprise (64-bit Multi-language), 8 GB DDR3 RAM (3)					
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)	HMIPEPS952D1801	8.00/ 17.64
No operating system, 8 GB DDR3 RAM (4)					
24 V $\overline{\text{DC}}$	1x mini PCIe slot		EcoStruxure Machine SCADA Expert (5)	HMIPEP0952D1001	8.00/ 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		Reference	Weight kg/lb
		Optimized HMIPSO	Enclosed Performance HMIPEP		
Drives					
Blank CFAST card	32 GB MLC	Yes	–	HMIYCFA32S	–
Blank SSD with mounting screws	128 GB MLC (5-year warranty and 1.5 million hours MTBF)	All models (1)		HMIYSSDS080S1	–
	256 GB MLC (5-year warranty and 2 million hours MTBF)	All models (1)		HMIYSSDS240S1	–
Blank HDD	Spare 1 TB HDD, blank	All models (1)		HMIYHDD01T21	–
	Spare 500 GB HDD, blank	All models (1)		HMIYHDD50021	–
Interfaces					
NVRAM interface	Mini PCIe with non-volatile RAM, without external connectors	Yes (1)	–	HMIYMINNVRAM1	–
HDMI to DVI interface	HDMI to DVI interface	–	–	HMIYADHDMIDVIS1	–
2 RS-422/485 isolated interface	Mini PCIe with 2x RS-422/485, isolated external interface with connectors	Yes (1)	–	HMIYMINSL24851	–
4 RS-422/485 interface	Mini PCIe with 4x RS-422/485, external interface with connectors	Yes (1)	–	HMIYMINSL44851	–
2 RS-232 isolated interface	Mini PCIe with 2x RS-232, isolated external interface with connectors	Yes (1)	–	HMIYMINSL22321	–
4 RS-232 interface	Mini PCIe with 4x RS-232, external interface with connectors	Yes (1)	–	HMIYMINSL42321	–
1 Profibus DP Master NVRAM interface	Mini PCIe with 1x Profibus DP Master, non-volatile RAM, external interface with connectors	Yes (1)	–	HMIYMINPRO1	–
2 CANopen/CAN bus interface	Mini PCIe with 2x CAN fieldbus, external interface with connectors, drivers for CANopen and CAN bus	Yes (1)	–	HMIYMINCAN1	–

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



Separate components (continued)					
Description	Details	Compatible with		Reference	Weight kg/lb
		Optimized	Enclosed Performance		
		HMIPSO	HMIPEP		
Interfaces (continued)					
RJ45 Ethernet interface	Interface Mini PCIe, 1x RJ45 Ethernet	Yes (1)	–	HMIYMIN1ETH1	–
16DI/8DO interface	Mini PCIe with 16DI/8DO, external interface with connectors, 2 m/6.56 ft cable and DIN rail wiring terminal	Yes (1)	–	HMIYMINIO1	–
2 USB 3.0 interface	Mini PCIe with 2x USB 3.0, external interface with connectors	Yes (1)	–	HMIYMINUSB1	–
3G cellular interface	Mini PCIe with GPRS, SIM card holder and external antenna	Yes (1)	–	HMIYMINGPRS1	–
WiFi interface access point and 2x antennas	Kit with mini PCIe WiFi access point (with Windows 10) + bluetooth and 2x antennas	Yes (1)	–	HMIYMINWIFI2	–
Remote wireless LAN antenna cable	5 m/16.4 ft cable to mount a WiFi antenna remotely from Harmony iPC	Yes (1)	–	HMIYCABWIFIAN51	–
4G cellular interface for North America	Mini PCIe GPRS 4G for North America frequencies. Kit including SIM card holder and external antenna	Yes	–	HMIYMIN4GUS1	–
4G cellular interface for Europe and Asia	Mini PCIe GPRS 4G for Europe and Asia frequencies. Kit including SIM card holder and external antenna	Yes	–	HMIYMIN4GEU1	–
Mini PCIe interface DVI-I for iPC	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	–	HMIYMINDVII1	–
Mini PCIe interface 2VGA + DVI-D	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	–	HMIYMINVGADVID1	–
Mini PCIe interface audio for iPC	Mini PCIe audio card and one external interface with speaker OUT, Line IN and Mic IN connectors	Yes	–	HMIYMINAUD21	–
Mini PCIe interface to Display Adapter	Interface transmitter (2)	Yes	–	HMIYMINDP1	–

(1) Require Expansion kit (HMIYPADPSOSTO1) for HMIPSO Optimized S-Panel PC.
(2) For more information, see long distance multi-display adapter on [page 4/21](#).



PF110396B
HMIYP552PS11



PF143565C
HMIYPSMAC1



PF152522A
HMIYEM1211

Separate components (continued)					
Description	Details	Compatible with		Reference	Weight kg/lb
		Optimized HMIPSO	Enclosed Performance HMIPEP		
Accessories					
USB key blank for iPC recovery	Spare USB memory key blank (1)	All models		HMIYUSBBK111	–
Maintenance kit for HMIPSO PCs	Includes: ■ Screws and dampers for HDD/SSD ■ Screws and clamps for panel mounting ■ Power connector and sticker ■ CFast card pull-out ■ Rubbers for W10" mounting ■ Bracket, screws, and dampers for mini PCIe	Yes	–	HMIYPMKTPSO1	–
Removable protective sheet	Set of 5 protective sheets for W10"	Yes	–	HMIYP552PS11	–
	Set of 5 protective sheets for W19	–	Yes	HMIYP952PS11	–
AC/DC power adapter 110/220 V ~ to 24 V ☰	AC/DC power adapter, provided with US and European power cord	–	–	HMIYPSMAC1 (4)	–
AC/DC power adapter 110/220 V ~ to 24 V ☰	External AC power adapter which can be mounted on the rear side of HMIPSO, provided with US and European power cord	Yes	–	HMIYPSOMAC1	–
M12 connectors	Set of 5 M12 connectors for Enclosed Panel PC	–	Yes	HMIYEM1211	–
M12 cables	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	HMIYCABM1211	–
Expansion kit	Optional expansion kit offering 1 slot for storage drive HDD/SSD and 1 mini PCIe slot with 1 optional interface plate	Yes	–	HMIYPADPSOSTO1	–
VESA mounting kit	VESA mounting kit for HMIPSO W10"	Yes	–	HMIYPVESAPSO551	–
Software (2)					
EcoStruxure Operator Terminal Expert Run Time license	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		HMIRWCZLSPAZZ (Digital) HMIRWCZLSPMZZ (Paper)	–
EcoStruxure Secure Connect Advisor	For HMI secure remote access	All models that support EcoStruxure Secure Connect Advisor		VJOCNT (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 2/13](#)).

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

(4) Not available in Europe.

Configured-to-order Harmony HMIPSO/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 = Magelis).

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 Schneider Electric commercial 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/HMIPEP Panel PCs

Option	Description	
Panel PC	S-Panel PC Optimized DC 4 GB RAM W10" - WXGA	
	Enclosed Panel PC Performance DC 8 GB RAM W19" - FWXGA	
Fanless ULV CPU	Performance Core i3-4010U dual-core	
	Optimized Atom-E3827 dual-core	
Power supply	DC (1)	
Windows operating system	None	
	Windows 10 IoT Enterprise (64-bit Multi-language)	
Main storage device for operating system	None	
	CFast 32 GB	
	HDD 500 GB/1 TB	
	SSD 128 GB/256 GB	
Optional interfaces (pre-mounted)	None	
	NVRAM	
	2x RS-422/485 Isolated/4x RS-422/485	
	2x RS-232 Isolated/4x RS-232	
	16x DI/8x DO	
	Audio	
	Video (DVI and VGA ports)	
	Cellular 3G/4G	
	Wireless LAN + 2x antennas	
	2x CANopen/CAN bus	
	1x Ethernet RJ45	
	Profibus DP Master with NVRAM	
	Software bundle	None
		EcoStruxure Operator Terminal Expert Run Time unlimited license
EcoStruxure Machine SCADA Expert 1,500 tags Run Time license		
EcoStruxure Machine SCADA Expert 4,000 tags Run Time license		
	EcoStruxure Machine SCADA Expert 64,000 tags Run Time license	

(1) AC power supply with external AC/DC power adapter HMIYSPMAC1 (not available in Europe).

Harmony iPC

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

Harmony HMIBSC Edge Box Core

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- **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



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

★★★★★
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
HMIBSCEA53D1L0T
3/6
See configured Harmony Modular Box PC on page 4/22

(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	
HMIBSCEA53D1L01	HMIBSCEA53D1L0A
3/6	
See configured Harmony Modular Box PC on page 4/22	

See configured Harmony Modular Box PC on [page 4/22](#)



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 4/22](#)).

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

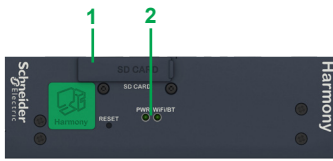
The operating systems, storage devices, and expansion slots are as follows:

- **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

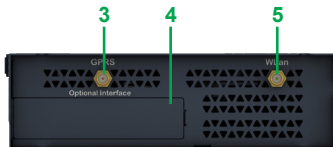
(1) Memory is not user-expandable.

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

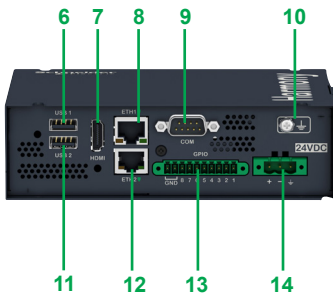
(3) For M.2 card, 2x analog input interface 0-10 V / 4-20 mA.



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_CPINGU118002
HMIBSCEA53D1L0T

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
With 2 expansion slots						
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

3



PF14398BA
HMIYMMAC1

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	HMIYBMKTBC1	-
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	HMIYMUPSKT1	-
UPS cable	UPS cables for HMIBSC (3 m/9.84 ft)	All models	HMIYCABUPS31	-

(1) AC with additional power supply module.

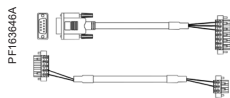
(2) Memory is not user-expandable.

(3) With default TPM module.

(4) With conformal coating.



PF143598A
HMIYMUPSKT1



PF163648A
HMIYCABUPS31

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
Mini PCIe 8x analog input interface 0-10 V	Mini PCIe with 8x analog inputs 0-10 V	All models	HMIYMIN8AI1	–
M.2 2x analog input interface 0-10 V/4-20 mA	M.2 with 2x analog inputs 0-10 V or 4-20 mA selected by switch.	All models	HMIYBIN2AIM21	–
Cellular 4G interface for North America	Mini PCIe GPRS 4G for North America frequencies. Kit including SIM card holder and external antenna	All models	HMIYMIN4GUS1	–
Cellular 4G interface for Europe and Asia	Mini PCIe GPRS 4G for Europe and Asia frequencies. Kit including SIM card holder and external antenna	All models	HMIYMIN4GEU1	–

Accessories

Cable for 4G card in HMIBSC 5 m/16.40 ft	Remote cable for 4G card in IloT Box Core HMIBSC (5 m/16.40 ft)	All models	HMIYCAB4GAN51	–
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Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIBM Edge Box/Modular Box PCs and HMIDM Modular Displays

Harmony HMIBM Edge Box/Modular Box PCs

Selection guide page 4/2

- **HMIBMI Basic**
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 - References page 4/10
- **HMIBMO Optimized**
 - Presentation page 4/8
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- **References**
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 - Drives page 4/11
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Harmony HMIDM Modular Displays

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Harmony HMIDAD Display Adapter

- **Presentation** page 4/18
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- **Architecture** page 4/18
- **Configuration** page 4/19
- **Example of displays connected to Harmony HMIBMO** page 4/20
- **References** page 4/21

Harmony iPC

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

Type of Harmony Edge Box and iPC

Harmony HMIBMI Edge Box Modular

Harmony HMIBMI Basic Modular Box PCs



Fanless

Mounting	Box PC
	Panel PC

CPU	Processor	
	Mini PCIe expansion slots	
	Storage	Main drive
	RAM	
	Battery backup	

Cybersecurity encryption

Operating system

Conformal coating

Supply voltage

Power consumption

Interface	Ethernet	
	Serial ports	
	USB	
	Video	Interface
		Resolution
	Antenna connectors	
	Watchdog timer	

Reset button and buzzer

Overall dimensions (W x H x D)

Temperature	During operation
	During storage

Vibration resistance

Standards and certifications

Software, IloT and Cybersecurity

References

Page

Configured-to-order

★★★★★

HMIBM Box wall/book/ DIN rail/ Flat
HMIBM Box + associated HMIDM Display

Intel Atom Apollo Lake E3930 dual-core 1.8 GHz
1x full-size slot with optional interface
64 GB eMMC (soldered and not user-expandable) 64 GB eMMC (soldered and not user-expandable)
4 GB DDR3 (not user-expandable)
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

2x RJ45 Ethernet 10/100/1,000 Mbps
1x RS-232/422/485 non isolated
1x USB 2.0, 1x USB 3.0
1x display port
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

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

Conforming to EN/IEC 60068-2-30: 0...50 °C /32...122 °F (6)
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 ConnectAdvisor (3), Secure password boot UEFI

Node-RED pre-installed Node-RED (4)

HMIBMIEA5DD1E01 **HMIBMIEA5DD1101**

4/10

See configured Harmony Modular Box PC on [page 4/22](#)

Harmony HMIBMI Basic Modular Box PCs



★★★★★

HMIBM Box wall/book/ DIN rail/ Flat
HMIBM Box + associated HMIDM Display

Intel Atom Apollo Lake E3930 dual-core 1.8 GHz
1x full-size slot with optional interface
128 GB eMMC (soldered and not user-expandable) 64 GB eMMC (soldered and not user-expandable) 128 GB eMMC (soldered and not user-expandable)
4 GB DDR3 (not user-expandable)
Optional

Connector for TPM 2.0 module (5)

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

No Yes

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

20 W

2x RJ45 Ethernet 10/100/1,000 Mbps
1x RS-232/422/485 non isolated
1x USB 2.0, 1x USB 3.0
1x display port
Up to 3200 x 2000 at 60 Hz
2x for WLAN antenna, 1x for GPRS antenna
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.

Conforming to EN/IEC 60068-2-30: 0...50 °C /32...122 °F (6)
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**

4/10

See configured Harmony Modular Box PC on [page 4/22](#)

(1) To be installed and activated by unlimited license HMIRWCZLSPAZZ (Digital) or HMIRWCZLSPMZZ (Paper).
(2) McAfee whitelisting to be installed and requires licence sticker HMIYYMACWLIOT1 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 IloT 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 iPC

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

Type of Harmony Edge Box and iPC

Harmony HMIBMO Edge Box Modular

Harmony HMIBMO Optimized Modular Box PCs (regular)



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

★★★★★	
HMIBM Box wall/book/ DIN rail/ Flat HMIBM Box + associated HMIDM Display	
Intel Atom Apollo Lake E3930 dual-core 1.8 GHz 1x full-size slot without optional interface	
M.2 SSD 64 GB (2) M.2	
4 GB DDR3 (not user-expandable) Optional	
TPM 2.0 module (pre-installed)	Connector for TPM 2.0 module
Windows 10 IoT Enterprise LTSC (64-bit) + TPM 2.0	Windows 10 IoT Enterprise LTSC (64-bit)
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" 1x RS-232/422/485 non isolated 2x USB 2.0, 2x USB 3.0 2x display ports Up to 3200 x 2000 at 60 Hz 2x for WLAN antenna, 1x for GPRS antenna 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) 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 pre-installed Node-RED (7)	
HMIBMOMA5DD1E01	HMIBMOMA5DD1101
4/10	
See configured Harmony Modular Box PC on page 4/22	

(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 PCs (regular)

Harmony HMIBMO Optimized Modular Box PCs (expandable)



★★★★★	
HMIBM Box wall/book/ DIN rail/ Flat HMIBM Box + associated HMIDM Display	
Intel Atom Apollo Lake E3930 dual-core 1.8 GHz 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" 1x RS-232/422/485 non isolated 2x USB 2.0, 2x USB 3.0 2x display ports Up to 3200 x 2000 at 60 Hz 2x for WLAN antenna, 1x for GPRS antenna 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) 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)	
HMIBMO0A5DD1001	HMIBMOMA5DDF10L HMIBMO0A5DDF101 HMIBMO0A5DDF10A
4/10	
See configured Harmony Modular Box PC on page 4/22	

See configured Harmony Modular Box PC on [page 4/22](#)

Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIBM Edge Box and Modular Box PCs

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 Cofigured-To-Order Harmony Box PC versions (see [page 4/22](#)).

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 $\overline{\text{---}}$, 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

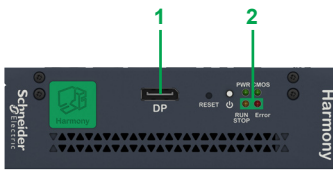
(1) Memory is not user-expandable.

(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.

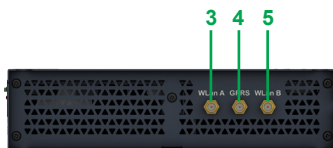
Description

Harmony iPC

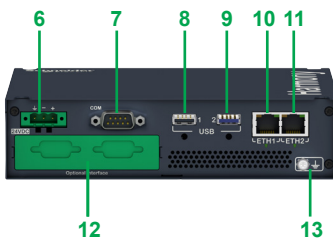
Industrial PC, Edge Box, and Display
Harmony HMIBM Edge Box and Modular Box PCs
HMIBMI Basic



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) IEEE 1588
- 11 Eth2 (10/100/1000 Mbps) IEEE 1588
- 12 Optional interface
- 13 Ground connection pin

4

Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIBM Edge Box and Modular Box PCs

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)

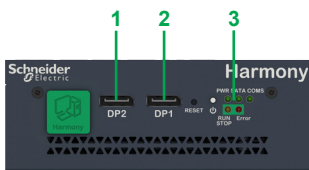
The operating systems, storage devices, and expansion slots are as follows:

- **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)

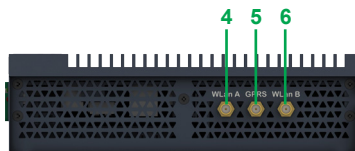
(1) Memory is not user-expandable.

(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.

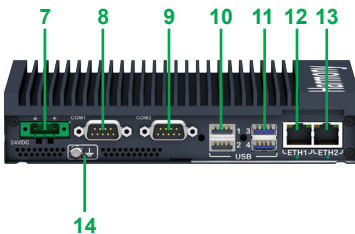
(3) 2.5" HDD/SSD requires HMIYBADHDDBMO1 adapter to be mounted.



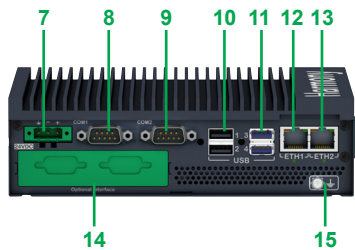
Front view of Optimized Box PC



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 Edge Box and Modular Box PCs

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 the supported softwares, refer to the following catalogs:

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

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

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

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 $\overline{\text{DC}}$ 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	HMIBMIEA5DD1101	1.20/2.64
	Windows 10 IoT Enterprise LTSC (64-bit) + TPM 2.0	EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4), Node-RED (5)	64 GB eMMC (soldered)	4 GB	HMIBMIEA5DD1E01 (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	HMIBMIEA5DD110L	1.20/2.64
	No		64 GB eMMC (soldered)	4 GB	HMIBMIEA5DD1001	1.20/2.64
	No		128 GB eMMC (soldered)	4 GB	HMIBMIEA5DD100A (7)	1.20/2.64



HMIBMIEA5DD110L



HMIBMOMA5DD1E01



HMIBMO0A5DDF101

Harmony HMIBMO Optimized

Intel Atom Apollo Lake E3930 dual-core 1.8 GHz processor/24 V $\overline{\text{DC}}$ 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	HMIBMOMA5DD1101	1.25/2.75
	Windows 10 IoT Enterprise LTSC (64-bit) + TPM 2.0	EcoStruxure Operator Terminal Expert Run Time Demo (3), EcoStruxure Secure Connect Advisor (4), Node-RED (default)	M.2 SSD 64 GB	4 GB	HMIBMOMA5DD1E01 (8)	1.25/2.75
	No		No	4 GB	HMIBMO0A5DD1001	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	HMIBMOMA5DDF10L	1.30/2.86
	No		No	4 GB	HMIBMO0A5DDF101	1.30/2.86
	No		No	8 GB	HMIBMO0A5DDF10A (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.

(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 HMIYBADHDBMO1 adapter to be mounted.

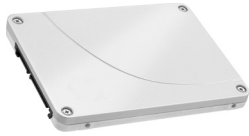
(7) With conformal coating.

(8) Edge Box with TPM 2.0 default module.

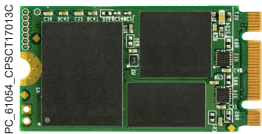
Separate components

Description	Details	Compatible with	Reference	Weight kg/lb
Drives				
Blank SSD with mounting screws	128 GB MLC (5-year warranty and 1.5 million hours MTBF)	HMIBMO (expandable)	HMIYSSDS080S1	–
	256 GB MLC (5-year warranty and 2 million hours MTBF)		HMIYSSDS240S1	–
M.2 SSD	64 GB MLC (3-years warranty and 1.5 million hours MTBF)	HMIBMO	HMIYM2064M1	–
	128 GB MLC (3-years warranty and 1.5 million hours MTBF)	HMIBMO	HMIYM2128M1	–
	250 GB MLC (3-years warranty and 1.5 million hours MTBF)	HMIBMO	HMIYM2256M1	–
Blank HDD	Spare 1 TB HDD, blank	HMIBMO (expandable)	HMIYHDD01T21	–
	Spare 500 GB HDD, blank	HMIBMO (expandable)	HMIYHDD50021	–
Carrier for HDD/SSD	Carrier to mount an HDD/SSD 2.5" in a storage slot of Harmony HMIBMO expandable model	HMIBMO (expandable)	HMIYBADHDBMO1	–
Accessories				
Maintenance kit for HMIBM Box PCs + HMIDM Modular Displays	Includes: <ul style="list-style-type: none"> ■ Screws and dampers for HDD/SSD ■ Screws and clamps for panel mounting ■ Modular Box cover screws ■ Screws for mounting Box to Display ■ Power connector and sticker ■ CFast card pull-out ■ Rubbers for display mounting ■ Filter for fan kit ■ Bracket, screws, and dampers for mini PCIe 	HMIBMI and HMIBMO	HMIYBMKTBM1	–
USB key blank for iPC recovery	Spare USB memory key blank (1)	HMIBMI and HMIBMO	HMIYUSBK111	–
AC power supply (60 W)	AC power adapter (60 W)	HMIBMI and HMIBMO	HMIYPSOMAC1	–
AC power supply for HMIBM	Modular AC power adapter (100 W) (2)	HMIBMI and HMIBMO	HMIYMMAC1	–
UPS battery	UPS battery for HMIBM (no cables)	HMIBMI and HMIBMO	HMIYMUPSKT1	–
UPS cable	UPS cables for HMIBM (3 m/9.84 ft)	HMIBMI and HMIBMO	HMIYCABUPS31	–
VESA mounting kit	VESA mounting kit for HMIBM Box PC + HMIDM6 4:3 12" and W12" Display	HMIBMI and HMIBMO	HMIYPVESA6X21	–
	VESA mounting kit for HMIBM Box PC + HMIDM7/9/A 4:3 15", W15", W19" and W22" Display	HMIBMI and HMIBMO	HMIYPVESA21	–
DP to DVI adapter	DP to DVI-D adapter	HMIBMI and HMIBMO	HMIYADDPDVI11	–
DP to DVI cable	DP to DVI-D cable 3 m/9.84 ft	HMIBMI and HMIBMO	HMIYCABDPDVI31	–
Display adaptation plate	Display adaptation plate from legacy Panel PC 19" display HMIPU●●●●● to Modular Display 15" HMIDM7421	HMIBMI and HMIBMO with HMIDM7421	HMIYAD1915D1	–
DIN rail adapter		HMIBMI and HMIBMO	HMIYADBMODIN11	–

- (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. HMIYPSMAC1 is not certified for IECEx Zone 2 (Gas) and not available in Europe.
- (3) EcoStruxure Machine SCADA Expert available in Configured-to-order (see [page 4/22](#)).
- (4) For more information, please refer to EcoStruxure Secure Connect Advisor catalog [DIA5ED2190101EN](#).



HMIYSSDS240S1



HMIYM2256M1



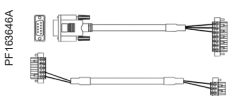
HMIYBADHDBMO1



HMIYMMAC1



HMIYMUPSKT1



HMIYCABDPDVI31

Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIBM Modular Box PCs

Separate components

Separate components (continued)				
Description	Details	Compatible with	Reference	Weight kg/lb
Software and Secure remote access (1)				
EcoStruxure Operator Terminal Expert Run Time license	Converts the 21-day trial version of EcoStruxure Operator Terminal Expert Run Time Demo to an unlimited license.	HMIBMI and HMIBMO with EcoStruxure Operator Terminal Expert	HMIRTCWZLSPAZZ (Digital) HMIRTCWZLSPMZZ (Paper)	–
EcoStruxure Secure Connect Advisor	For HMI secure remote access	HMIBMI and HMIBMO that support EcoStruxure Secure Connect Advisor	VJOCNT (2)	–
Interfaces				
RJ45 Ethernet interface	Interface Mini PCIe, 1x RJ45 Ethernet	HMIBMI and HMIBMO with optional interfaces	HMIYMIN1ETH1	–
2x RS-422/485 isolated interface	Mini PCIe with 2x RS-422/485, isolated external interface with connectors	HMIBMI and HMIBMO with optional interfaces	HMIYMINSL24851	–
4x RS-422/485 interface	Mini PCIe with 4x RS-422/485, external interface with connectors	HMIBMI and HMIBMO with optional interfaces	HMIYMINSL44851	–
2x RS-232 isolated interface	Mini PCIe with 2x RS-232, isolated external interface with connectors	HMIBMI and HMIBMO with optional interfaces	HMIYMINSL22321	–
4x RS-232 interface	Mini PCIe with 4x RS-232, external interface with connectors	HMIBMI and HMIBMO with optional interfaces	HMIYMINSL42321	–
1x Profibus DP Master NVRAM interface	Mini PCIe with 1x Profibus DP Master, non-volatile RAM, external interface with connectors	HMIBMI and HMIBMO with optional interfaces	HMIYMINPRO1	–
2x CANopen/CAN bus interface	Mini PCIe with 2x CAN fieldbus, external interface with connectors, drivers for CANopen and CAN bus	HMIBMI and HMIBMO with optional interfaces	HMIYMINCAN1	–
16x DI/8 DO interface	Mini PCIe with 16x DI/8 DO, external interface with connectors, 2 m/6.56 ft cable and DIN rail wiring terminal	HMIBMI and HMIBMO with optional interfaces	HMIYMINIO1	–
2x USB 3.0 interface	Mini PCIe with USB 3.0, external interface with connectors	HMIBMI and HMIBMO with optional interfaces	HMIYMINUSB1	–
Audio interface	Module with Audio (line in, line out and mic), external interface with connectors	HMIBMI and HMIBMO with optional interfaces	HMIYMINAUD1	–

(1) EcoStruxure Machine SCADA Expert available in Configured-to-order (see [page 4/22](#)).

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



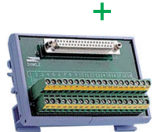
HMIYMINSL24851



HMIYMINCAN1



HMIYMINIO1



HMIYMINIO1

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

(1) 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 Displays

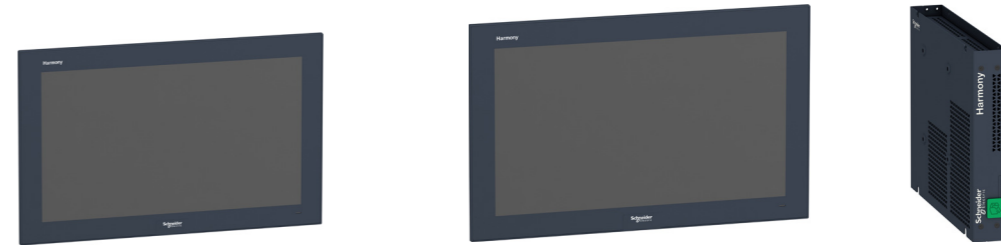
Type of Display	Harmony HMIDM Modular Displays			
Model	4:3 12" touch screen	4:3 15" touch screen	W12" touch screen	W15" touch screen



Screen	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 ² , 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			
	Interface	On the front panel	1x USB 2.0 (Type A) and Reset button		–
On the back panel		–		–	
Supply voltage	From Box PC or mounted Display Adapter				
Standards and certifications (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)			
Power consumption	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.
Mounting	Panel PC (with Box PC HMIBM)	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			
Dimensions	Overall dimensions (W × H × D)	319.1×245.1×66.3 mm/ 12.56×9.65×2.61 in.	390.7×290×28 mm/ 15.38×11.42×1.10 in.	329.2×231.3×66.3 mm/ 12.96×9.11×2.61 in.	419.7×269×28 mm/ 16.52×10.59×1.10 in.
	Cut-out (W × H)	301.5 × 227.5 mm/ 11.87 × 8.96 in.	383.5 × 282.5 mm/ 15.10 × 11.12 in.	310 × 221 mm/ 12.20 × 8.70 in.	412.4 × 261.7 mm/ 16.24 × 10.30 in.
Temperature	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			
References		HMIDM6421	HMIDM7421	HMIDM6521	HMIDM7521
Page		4/17			

(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 Displays		Harmony HMIDAD Display Adapter
W19" touch screen	W22" touch screen	



Screen	LED LCD 5-point multi-touch projected capacitive technology screen		HMIDM Modular Display with HMIDAD Display Adapter, making remote monitors as: <input type="checkbox"/> Local display (maximum distance of 5 m/16.4 ft) <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 ² , 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 $\overline{\text{---}}$ or 100...240 V \sim 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		
HMIDM9521	HMIDMA521	HMIDADP11		
4/17		4/21		

(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 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 Displays

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°

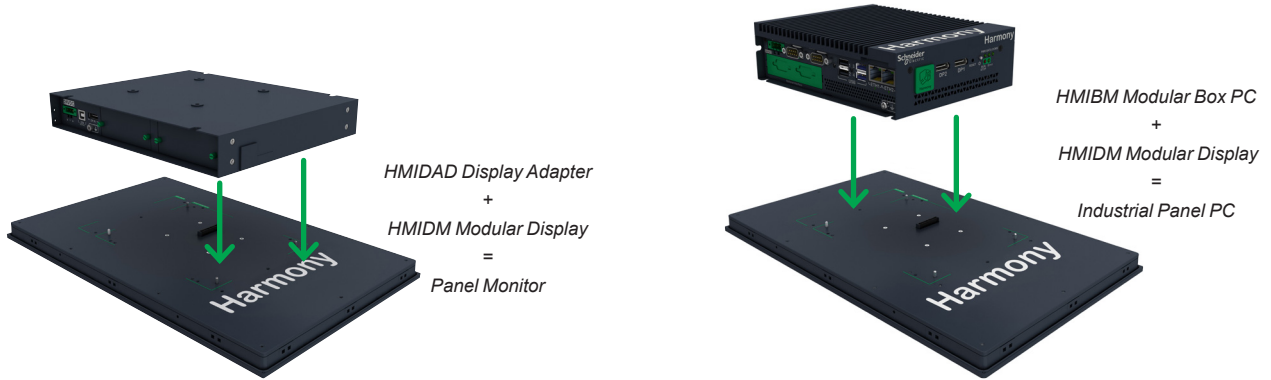
(1) For more information, see pages 4/8 to 4/11.

(2) For more information, see pages 4/18.

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

PF143853A



HMIDM9521

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

Separate components

PF110398B

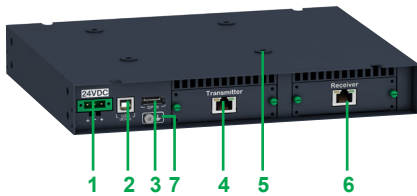


HMIYP752PS11

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



Harmony HMIDAD Display Adapter



4

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.

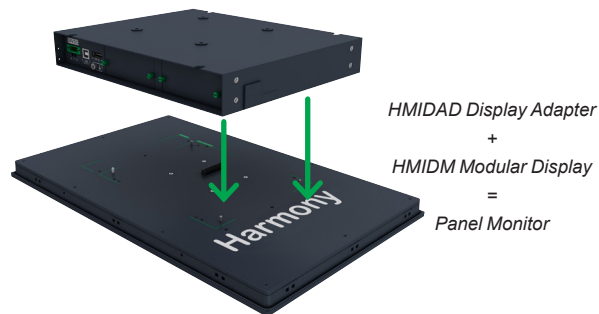
Description

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:

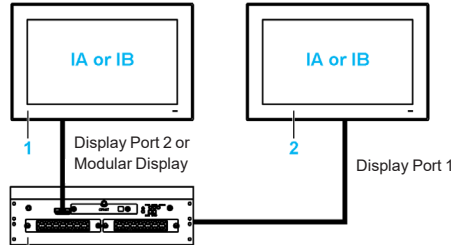


(1) Not operational with Receiver module mounted.
(2) Optional modules.

Configuration

Local display

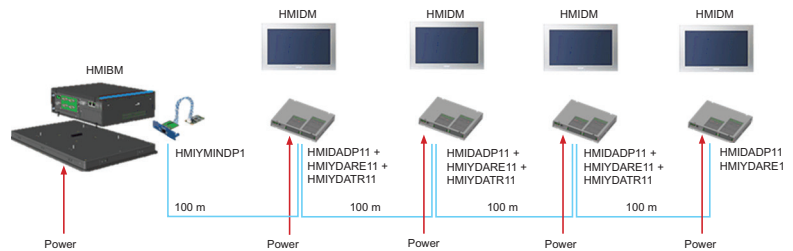
The PC is connected to Display Adapter by 1x USB cable for touch screen and 1x Display Port cable for video with a maximum distance of 5 m/16.4 ft.



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.

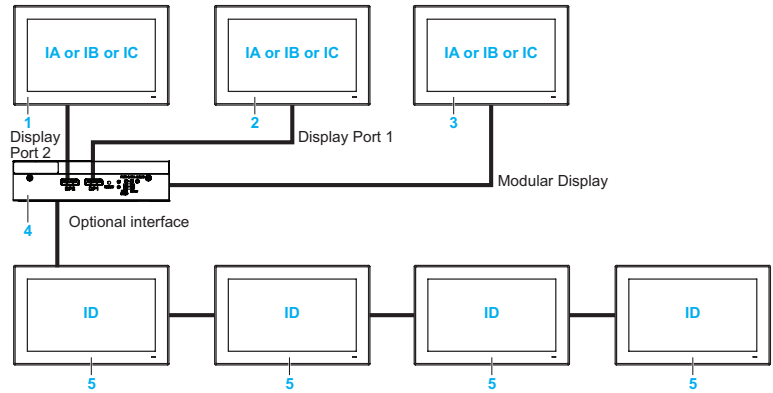
In this configuration, each remote display includes an HMIDM Modular Display + a HMIDADP11 Display Adapter + a HMIYDARE11 Receiver module + a HMIYDATR11 Transmitter module (not required for the last display in the chain).



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.

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)



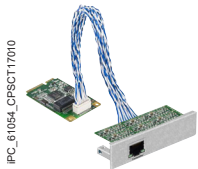
HMIDADP11



HMIYCABDP51



HMIYCABUSB51



HMIYMINDP1



HMIYDARE11



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	HMIDADP11	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	HMIYCABDPDVI31	—
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	HMIYCABDP51	—
USB cable	USB to USB, 5 m/16.4 ft cable for touch screen signal	From HMIDAD Display Adapter to HMIBM Modular Box PC	HMIYCABUSB51	—
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)	HMIYMINDP1	—
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	HMIYDARE11	—
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)	HMIYDATR11	—
AC power supply	External AC power adapter, 60 W	For HMIDADP11 Display Adapter	HMIYPSOMAC1	—
Modular AC power supply	Modular AC power adapter, 100 W for hazardous locations	For HMIDADP11 Display Adapter	HMIYMMAC1	—

(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. Remove the existing driver to install HMIYMINDP1/HMIYMINDVII1/HMIYMINVGADVID1 in Modular Box PC HMIBM.

Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIBM Modular Box PCs and Harmony HMIDM Modular Displays

Configured-to-order

Configured-to-order Harmony HMIBM Modular Box PCs and HMIDM Modular Displays

"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.hmisource.com/wwjpc> is also available to help you easily build the configuration by yourself (password = Magelis). 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 PCs and HMIDM Modular Displays

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 Schneider Electric commercial 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 PCs and HMIDM Modular Displays

Option	Description
Box PC or Display Adapter	Harmony HMIBM Box PC (Basic, Optimized)
	Harmony HMIBSC Core Box
	Harmony HMIDAD Display Adapter
Modular Displays (pre-mounted)	None
	Harmony HMIDM Modular Display 4:3 12"/4:3 15"- XGA
	Harmony HMIDM Modular Display W12"/W15"- FWXGA
	Harmony HMIDM Modular Display W22" - FHD
CPU	None (Display Adapter)
	Intel Atom Apollo Lake E3930
Power supply	DC
	AC
Windows operating system	None
	Windows 10 IoT Enterprise (64-bit Multi-language)
	Linux Yocto
Main storage device for operating system	None
	eMMC soldered
	M.2 64 GB/128 GB/250 GB
Optional interfaces (pre-mounted)	None
	NVRAM
	2x RS-422/485 isolated/4x RS-422/485
	2x RS-232 isolated/4x RS-232
	16x DI/8x DO
	Video (DVI and VGA ports)
	Audio
	Cellular 3G/4G
	Transmitter to Display adapter
	Analog inputs
	Wireless LAN + 2x antennas
	2x CANopen CAN bus
	Profibus DP Master with NVRAM
	Cyber security TPM module
	1x Ethernet RJ45
Software bundle	None
	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
	Vijeo Designer Runtime unlimited license

Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIBM Modular Box PCs and HMIDM Modular Displays

Substitution product table

Legacy Harmony iPC		Replaced by Harmony iPC	
Description	References	Description	References
Harmony S-Box PC Universal HMIBS		Harmony HMIBM Modular Box PC	
Harmony Optimized S-Box PC, 1 slot, 24 V ~	HMIBSO0ND1001	Harmony Modular Box PC, eMMC SSD, 1 slot, 24 V ~ (1)	HMIBMIEA5DD1001
Harmony Optimized S-Box PC, CFAST card, 1 slot, 24 V ~	HMIBSOCND1E01	Harmony Modular Box PC, eMMC SSD, 1 slot, 24 V ~ (1)	HMIBMIMA5DD1101
Harmony Universal S-Box PC, CFAST card, 1 slot, 24 V ~	HMIBSUCND1W01	Harmony Modular Box PC, M.2 SSD, 1 slot, 24 V ~ (1)	HMIBMOMA5DD1101
Harmony Universal S-Box PC, SSD, 1 slot, 24 V ~	HMIBSUSND1W01	Harmony Modular Box PC, M.2 SSD, 1 slot, 24 V ~ (1)	HMIBMOMA5DD1101
Harmony Universal S-Box PC, No OS, 1 slot, 24 V ~	HMIBSU0ND1001	Harmony Modular Box PC, No OS, 1 slot, 24 V ~ (1)	HMIBM00A5DD1001
Harmony Simple Optimized Panel PC HMIPSO			
Harmony Simple Optimized Panel PC, W 15", 24 V ~	HMIPSO●752D1●	Harmony Basic Box PC + Harmony Modular display W 15", 24 V ~	HMIBMI + HMIDM7521

(1) AC with power adapter HMIYPSOMAC1.

Harmony iPC

Industrial PC, Edge Box, and Display
Harmony HMIP6 Modular Box PCs and HMIDM6
Modular Displays

Harmony HMIP6 Modular Box PCs

- Selection guide** page 5/2
- **Presentation**
 - Overview of the offer page 5/4
- **Description** page 5/4
- **Ready-to-run software for Harmony HMIP6** page 5/5

Harmony HMIDM6 Modular Displays

- Selection guide** page 5/3
- **Presentation**
 - Overview of the offer page 5/8
 - Architecture page 5/8
- **Description** page 5/8
- **References** page 5/9

Online Product Configurator

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- **Description** page 5/10
 - Online Product Configurator page 5/10
 - Example Harmony P6 product code page 5/11
- **References**
 - Configured-to-order options for Harmony P6
Modular Box PCs and DM6 Modular Displays page 5/12
 - Substitution table page 5/12
 - Accessories for Harmony P6 Modular Box PCs and
DM6 Modular Displays page 5/13



Harmony iPC

Industrial PC, Edge Box, and Display
Harmony HMIP6 Modular Box PCs

Type of box **Harmony HMIP6 Advanced Modular Box PCs**



Type of cooling	Fanless/Fan with HDD
Mounting	Box Panel PC, Modular Display
CPU	Processor Number of cores/threads Expansion slots Storage slots Memory capacity RAID HDD with Intel Rapid storage
Cybersecurity hardware encryption	TPM 2.0 module (pre-installed)
Operating system	Windows® 10 IoT Enterprise 2019 LTSC (64-bit)
Video controller type	Intel® UHD Graphics 620 (integrated in CPU)
Supply voltage	12...24 V ⎓ or 100...240 V ~
Power consumption	121 W for DC model/140 VA for AC model
Interface	Ethernet Serial ports USB Display ports Watchdog timer
Reset button and buzzer	Yes
Overall dimensions (W x H x D)	290 x 195 x 65 mm/11.42 x 7.68 x 2.56 in. (with no expandable slots)
Temperature	During operation During storage
Vibration resistance	During operation
Standards and certifications	All models: CE, RCM, UL 61010-2-201, CSA C22.2 No. 61010-2-201, UL 121201 (2), and CSA C22.2 No. 213 (2) DC models: IECEx/ATEX for use in Zone 2 gas/Zone 22 dust (2), DetNorske Veritas - Germanischer Lloyd (DNV-GL) (2)
Associated Software	EcoStruxure Machine SCADA Expert, EcoStruxure Augmented Operator Advisor, Node-RED
Compatible with displays	All Harmony HMIDM6 displays (3) and Harmony HMIFP6 industrial monitors
Cybersecurity	EcoStruxure Secure Connect Advisor, Secure password boot, McAfee Whitelisting
References	Available as Configured-to-order only and can be ordered using the online Product Configurator. For more information, see page. 5/10.
Pages	5/4

(1) With HDD and fan: limited to 45 °C/113 °F.
(2) Available in H2 2021.
(3) Except 10" WHMIDM6 display.

Harmony HMIP6 Advanced Modular Box PCs **Harmony HMIP6 Standard Modular Box PCs**



Type of cooling	Fanless/Fan with HDD
Mounting	Wall/Book/Flat No
CPU	Processor Number of cores/threads Expansion slots Storage slots Memory capacity RAID HDD with Intel Rapid storage
Cybersecurity hardware encryption	TPM 2.0 module (pre-installed)
Operating system	Windows® 10 IoT Enterprise 2019 LTSC (64-bit)
Video controller type	Intel UHD Graphics 610 (integrated in CPU) Intel UHD Graphics 620 (integrated in CPU)
Supply voltage	12...24 V ⎓ or 100...240 V ~
Power consumption	121 W for DC model/140 VA for AC model 87 W for DC model/99 VA for AC model
Interface	Ethernet Serial ports USB Display ports Watchdog timer
Reset button and buzzer	Yes
Overall dimensions (W x H x D)	290 x 195 x 65 mm/11.42 x 7.68 x 2.56 in. (with no expandable slots) 250 x 165 x 53 mm/9.84 x 6.5 x 2.09 in.
Temperature	During operation During storage
Vibration resistance	During operation
Standards and certifications	All models: CE, RCM, UL 61010-2-201, CSA C22.2 No. 61010-2-201, UL 121201 (2), and CSA C22.2 No. 213 (2) DC models: IECEx/ATEX for use in Zone 2 gas/Zone 22 dust (2), DetNorske Veritas - Germanischer Lloyd (DNV-GL) (2)
Associated Software	EcoStruxure Machine SCADA Expert, EcoStruxure Augmented Operator Advisor, Node-RED
Compatible with displays	All Harmony HMIDM6 displays and Harmony HMIFP6 industrial monitors
Cybersecurity	EcoStruxure Secure Connect Advisor, Secure password boot, McAfee Whitelisting
References	Available as Configured-to-order only and can be ordered using the online Product Configurator. For more information, see page. 5/10.
Pages	5/4

(1) With HDD and fan: limited to 45 °C/113 °F.
(2) Available in H2 2021.
(3) Except 10" WHMIDM6 display.



Harmony HMIP6 Modular Box PCs

Presentation

Harmony HMIP6 connects OT (Operational Technology) in the field to IT (Information Technology) for the Industrial Internet of Things. With Node-RED, WiFi, Bluetooth, and Windows operating system running on a Intel Core/Celeron CPU, it is well equipped to wire the Internet of Things.

This range features interface modularity with slot-in design for HDD/SSD, optional interfaces, and optional PCI/PCIe slots for Advanced Box only. 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.

Overview of the offer

Harmony HMIP6 Modular Box PC

The Harmony HMIP6 offer comprises Advanced and Standard boxes, each equipped with:

■ Advanced Modular Box PC

- Intel Core/Celeron processor and UHD Graphics accelerator
- Operating system: Windows® 10 IoT Enterprise 2019 LTSC (64-bit)
- Connection ports: USB Type A (2x USB 2.0 and 2x USB 3.0), USB Type C (1x USB 3.0), 1x COM RS-232C, 2x RJ45 Ethernet, 1x Display port
- Expansion slots: 1x PCI + 1x PCIe, 2x PCIe or 2x PCI
- Storage: 1x M.2 SSD SATA, 2x 2.5-inch SATA (HDD/SSD)
- Power supply: 12...24 V $\overline{\text{DC}}$, 100...240 V \sim
- Default TPM module for encryption

■ Standard Modular Box PC

- Intel Core processor and UHD Graphics accelerator
- Operating system: Windows 10 IoT Enterprise 2019 LTSC (64-bit)
- Connection ports: USB Type A (2x USB 2.0 and 2x USB 3.0), USB Type C (1x USB3.0), 1x COM RS-232C, 2x RJ45 Ethernet, 1x Display port
- Storage: 1x M.2 SSD SATA, 1x 2.5-inch SATA (HDD/SSD)
- Power supply: 12...24 V $\overline{\text{DC}}$, 100...240 V \sim
- Default TPM module for encryption

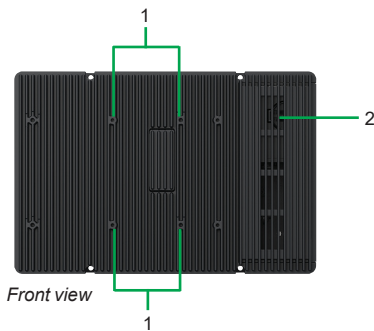
The HMIP6 Modular Boxes are ordered using the Product Configurator. For more information on the Configured-to-order options, see [page 5/10](#).

Description

Harmony HMIP6 Advanced/Standard Modular Box PCs

Front view

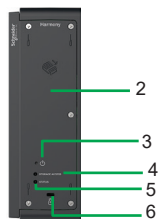
- 1 Mounting holes for VESA 100 x 100 (1)
- 2 Maintenance hatch



Front view

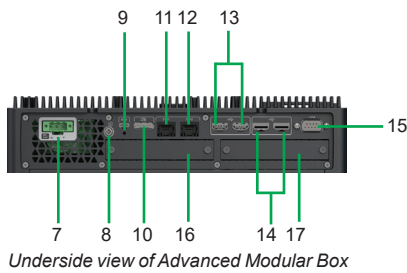
Side view

- 3 Power supply button
- 4 Storage access LED
- 5 Power LED
- 6 Security lock slot (2)

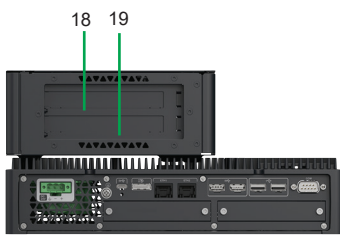


Side view

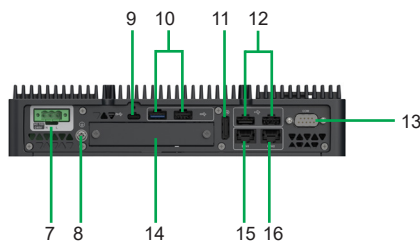
(1) For Advanced Boxes when PCI/PCIe slot is installed, VESA mounting is not possible.
(2) Only Kensington lock supported.



Underside view of Advanced Modular Box



Underside view of Advanced Modular Box with expansion slot and fan



Underside view of Standard Modular Box

Description

Harmony HMIP6 Advanced/Standard Modular Box PCs

Underside view of Advanced Modular Box PC

- 7 DC/AC power connector
- 8 PE terminal
- 9 USB 3.0 (Type C)
- 10 Display port
- 11 Ethernet 1 (10/100/1000 Mbps) IEEE1588
- 12 Ethernet 2 (10/100/1000 Mbps) IEEE1588
- 13 USB 3.0 (Type A)(1)
- 14 USB 2.0 (Type A)(1)
- 15 COM port RS-232C (non-isolated)
- 16 Optional interface slot 1
- 17 Optional interface slot 2
- 18 PCI/PCIe card slot 1
- 19 PCI/PCIe card slot 2
- 20 Fan

Underside view of Standard Modular Box PC

- 7 DC/AC power connector
- 8 PE terminal
- 9 USB 3.0 (Type C)
- 10 USB 3.0 (Type A)(1)
- 11 Display port
- 12 USB 2.0 (Type A)(1)
- 13 COM port RS-232C (non-isolated)
- 14 Optional interface slot
- 15 Ethernet 1 (10/100/1000 Mbps) IEEE1588
- 16 Ethernet 2 (10/100/1000 Mbps) IEEE1588

Ready-to-run software for Harmony HMIP6

Harmony HMIP6 PCs are supported by Schneider Electric HMI software. Harmony HMIP6 running EcoStruxure Machine SCADA Expert (2) can be selected from the on-line configurator and delivered as a best-in-class bundle to improve your business.

For secure remote access, Harmony HMIP6 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 Machine SCADA Expert ([DIA5ED2171201EN](#))

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

EcoStruxure Augmented Operator Advisor ([DIA5ED2190301EN](#))

(1) USB storage devices that support USB 3.0 are recommended. Use USB 3.0 port to connect these storage devices.

(2) Pre-installed version available in H2 2021.

Harmony iPC

Industrial PC, Edge Box, and Display
Harmony HMIDM6 Modular Displays

Type of display	Harmony HMIDM6 Modular Displays	
Model	4:3 12" touch screen	4:3 15" touch screen



Display	Type	TFT color LCD flat screen	
	Size	4:3 12.1"	4:3 15.0"
	Resolution	XGA, 1,024 × 768 pixels, 16 million colors	
	Degree of protection	IP66F, IP67F, Type 1, Type 4X (NEMA indoor use only), Type 13	
	Surface design	Plastic overlay	
	Touch operation	Resistive analog multi-touch (2 points)	
	Touch mode configuration	Not applicable because of resistive analog touch panel	
	Backlight service life	50,000 hours and more	
Interface	On the front panel	1x USB 2.0 (Type A) with front USB cover	
Supply voltage		From Box PC	
Standards and certifications (mounted on front panel of Box PC)		All models: CE, RCM, UL 61010-2-201, CSA C22.2 No. 61010-2-201, UL 121201 (1), and CSA C22.2 No. 213 (1) DC models: IECEx/ATEX for use in Zone 2 gas/Zone 22 dust (1), DetNorske Veritas - Germanischer Lloyd (DNV-GL) (1)	
Power consumption	With Advanced Modular Box	AC model: 156 VA max. DC model: 136 W max.	AC model: 161 VA max. DC model: 141 W max.
	With Standard Modular Box	AC model: 77 VA max DC model: 68 W max.	AC model: 82 VA max DC model: 72 W max.
Mounting	Panel PC (with Box PC)	On front enclosure or VESA 100 × 100 with mounting kit HMIYPVESA●●●●●1 on rear of Box PC	
Dimensions	Overall dimensions (W × H × D)	315 × 241 × 32 mm/ 12.40 × 9.49 × 1.25 in.	397 × 296 × 30 mm/ 15.63 × 11.65 × 1.18 in.
	Cut-out (W × H)	301.5 × 227.5 mm/11.87 × 8.96 in.	383.5 × 282.5 mm/15.1 × 11.12 in.
Temperature	During operation	Conforming to EN/IEC 60068-2-30: 0...60 °C/32...150 °F	
	During storage	Conforming to IEC 61000-4/ EN 55011: -30...+70 °C/-22...+158 °F	
Compatible with boxes		All Standard and Advanced HMIP6 Modular Box PCs	
References		HMIDM6600TM	HMIDM6700TM
Pages		5/9	

(1) Available in H2 2021.
(2) 10" W HMIDM6500WC is compatible with only Standard HMIP6 Modular Box only.

Harmony HMIDM6 Modular Displays				
W10" touch screen	W12" touch screen	W15" touch screen	W19" touch screen	W22" touch screen



Display	TFT color LCD flat screen				
	W10.1"	W12.1"	W15.6"	W18.5"	W21.5"
	WXGA, 1,280 × 800 pixels, 16 million colors		FWXGA, 1,366 × 768 pixels, 16 million colors	FHD, 1,920 × 1,080 pixels, 16 million colors	
	IP66F, IP67F, Type 1, Type 4X (NEMA indoor use only), Type 13				
	Glass-top				
	Projective capacitive multi-touch (2 points) with optimized noise filter				
	Yes (standard mode, glove mode, water detection mode)				
	50,000 hours and more				
Interface	-				
Supply voltage	From Box PC				
Standards and certifications (mounted on front panel of Box PC)	All models: CE, RCM, UL 61010-2-201, CSA C22.2 No. 61010-2-201, UL 121201 (1), and CSA C22.2 No. 213 (1) DC models: IECEx/ATEX for use in Zone 2 gas/Zone 22 dust (1), DetNorske Veritas - Germanischer Lloyd (DNV-GL) (1)				
Power consumption	-	AC model: 158 VA max. DC model: 138 W max.	AC model: 159 VA max. DC model: 139 W max.	AC model: 170 VA max. DC model: 150 W max.	AC model: 173 VA max. DC model: 153 W max.
	AC model: 74 VA max. DC model: 65 W max.	AC model: 79 VA max. DC model: 69 W max.	AC model: 80 VA max. DC model: 70 W max.	AC model: 92 VA max. DC model: 82 W max.	AC model: 95 VA max. DC model: 85 W max.
Mounting	On front enclosure or VESA 100 × 100 with mounting kit HMIYPVESA●●●●●1 on rear of Box PC				
Dimensions	268.5 × 198.5 × 30 mm/ 10.57 × 7.81 × 1.18 in.	308.5 × 230.5 × 30 mm/ 12.15 × 9.07 × 1.18 in.	408 × 264 × 30 mm/ 16.06 × 10.39 × 1.18 in.	463.6 × 293.6 × 32 mm/ 18.25 × 11.55 × 1.25 in.	532.6 × 330.6 × 32 mm/ 20.97 × 13.02 × 1.25 in.
	255 × 185 mm/ 10.04 × 7.28 in.	295 × 217 mm/ 11.61 × 8.54 in.	394 × 250 mm/ 15.51 × 9.84 in.	449.5 × 279.5 mm/ 17.7 × 11.0 in.	518.5 × 316.5 mm/ 20.41 × 12.46 in.
Temperature	Conforming to EN/IEC 60068-2-30: 0...50 °C/32...122 °F				
	Conforming to IEC 61000-4/ EN 55011: -30...+70 °C/-22...+158 °F				
Compatible with boxes	All Standard and Advanced HMIP6 Modular Box PCs (2)				
References	HMIDM6500WC	HMIDM6600WC	HMIDM6700WC	HMIDM6800WC	HMIDM6900WC
Pages	5/9				

(1) Available in H2 2021.
(2) 10" W HMIDM6500WC is compatible with only Standard HMIP6 Modular Box only.



More technical information on www.se.com



More technical information on www.se.com



Harmony HMIDM6 Modular Displays

Presentation

Harmony HMIDM6 Modular Displays are monitors designed to be easily integrated with HMIP6 Advanced and Standard Modular Box PCs. In addition to offering multiple options, the modularity feature reduces maintenance as the display can be independently replaced without changing the complete model.

The Harmony HMIDM6 screens are certified for:

- All models: CE, RCM, UL 61010-2-201, CSA C22.2 No. 61010-2-201, UL121201 (1), and CSA C22.2 No. 213 (1)
- DC models: IECEx/ATEX for use in Zone 2 gas/Zone 22 dust (1), DetNorske Veritas - Germanischer Lloyd (DNV-GL) (1)

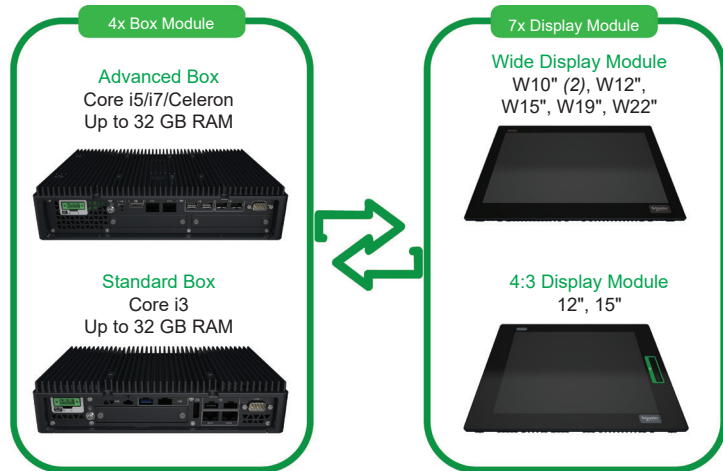
Overview of the offer

Harmony HMIDM6 Modular Displays are available in 4:3 and Wide versions each equipped with:

- **4:3 Modular Display**
 - 12.1" and 15.0" (XGA) color LCD multi-touch (2 points) analog resistive screen, 1x USB 2.0 (Type A) with front USB cover
- **Wide Modular Display**
 - 10.1" and 12.1" (WXGA), 15.6" (FWXGA), 18.5", and 21.5" (FHD) color LCD multi-touch (2 points) projected capacitive screens

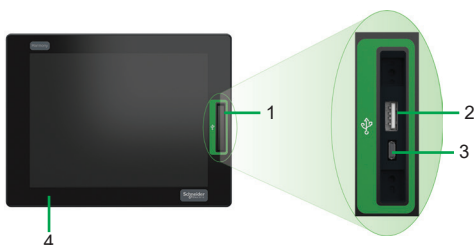
Architecture

Harmony HMIDM6 Modular Displays are compatible and easily mountable with all HMIP6 Modular Boxes. This modularity provides a wide choice, fast delivery, and ease of screen replacement.



Description

- 1 Front USB cover
- 2 USB 2.0 (Type A) (3)
- 3 USB 2.0 Micro-B (4)
- 4 Multi-color status LED (green and orange) indicating the mode



4:3 HMIDM6 Front view



Wide HMIDM6 Front view

(1) Available in H2 2021.
 (2) 10" W HMIDM6500WC is compatible with only Standard HMIP6 Modular Box only.
 (3) By default, the front USB is disabled.
 (4) This interface is not usable.



HMIDM6700TM



HMIDM6800WC



HMIDM6900WC

References

Harmony HMIDM6 Modular Displays

Description	Screen	Interface	Reference	Weight kg/lb
12" TFT LCD display flat screen	4:3 12.1", XGA (1,024 x 768 pixels)	Multi-touch (2 points) analog resistive	HMIDM6600TM	2.40/5.30
15" TFT LCD display flat screen	4:3 15.0", XGA (1,024 x 768 pixels)		HMIDM6700TM	3.70/8.16
W10" TFT LCD display flat screen	10.1" W, WXGA (1,280 x 800 pixels)	Multi-touch (2 points) projected capacitive	HMIDM6500WC	2.00/4.41
W12" TFT LCD display flat screen	12.1" W, WXGA (1,280 x 800 pixels)		HMIDM6600WC	2.60/5.73
W15" TFT LCD display flat screen	15.6" W, FWXGA (1,366 x 768 pixels)		HMIDM6700WC	4.00/8.82
W19" TFT LCD display flat screen	18.5" W, FHD (1,920 x 1,080 pixels)		HMIDM6800WC	4.90/10.80
W22" TFT LCD display flat screen	21.5" W, FHD (1,920 x 1,080 pixels)		HMIDM6900WC	6.50/14.33

Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIP6 Modular Box PCs and HMIDM6 Modular Displays

Online Product Configurator



[How to select the Industrial PC and build a Plant Architecture](#)
Click to view the video (5 min 32 sec)

Presentation

The Harmony P6 Product Configurator is an online software tool embedded in the Schneider Electric website to help configure the right product and accessories from the extensive line-up and associated software. With this online configurator, Harmony P6 offers a smooth journey of reduced design time and multiple possibilities. This tool simplifies and expedites the ordering process via e-mail to our Customer Care Center. The final output from the configurator is an alphanumeric product code representing the configured Harmony P6 to obtain the price and place your order.

The Product Configurator offers the following benefits:

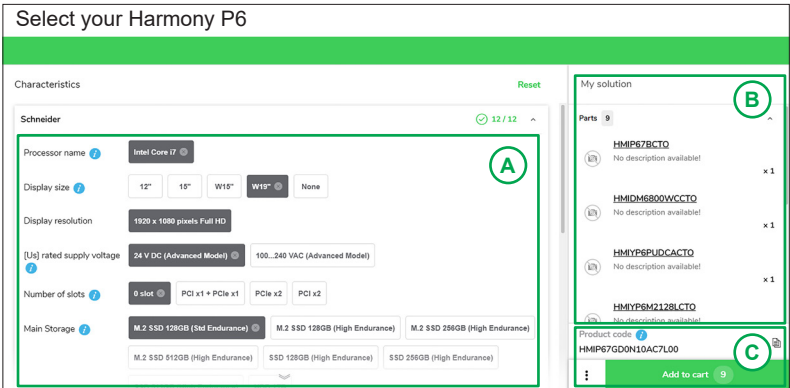
- Easy access: No login, direct access on Schneider Electric website
- Compatibilities between core product and accessories are constantly tested
- Simplified reordering, remote help, and servicing for the same product using the configurator product code

Description

Online Product Configurator

The following steps explain how to build and generate the HMIP6 configured product code in the online Product Configurator:

- 1 Navigate to the Harmony P6 range page on www.se.com/hmiipc.
- 2 Click on Product Configurator and choose the CPUs, displays, power supplies, storage options, memories, optional interfaces, expansion slots, operating system, and associated software based on your requirement.
- 3 An alphanumeric product code representing the complete component selection list is automatically generated. This will be your configured product code for all future communications.



A Configuration area B Components list C Configured Product code

If you have built your Harmony P6 configuration with the Product Configurator:

- 4 Click on Add to cart to add the configured product to the My Products page.
- 5 Navigate to the My Products cart page and download the Configuration XML file and Product List PDF.
- 6 Please email the downloaded files to our Customer Care Center and specify the Schneider Electric commercial reference part number GCR_HMIP6.

If you cannot access the Harmony P6 Product Configurator:

- 7 Please contact our Customer Care Center and state the Schneider Electric commercial reference part number GCR_HMIP6.
- 8 Configure your Harmony P6 and get the quote with the support of our Customer Care Center.
- 9 Confirm your order.

Note: All selections are preferably to be made in the Product Configurator. If you have difficulty accessing or using the Product Configurator, contact the Schneider Electric Customer Care Center or your Schneider Electric sales representative for more information about HMIP6 ordering.

Harmony iPC

Industrial PC, Edge Box, and Display
Harmony HMIP6 Modular Box PCs and
HMIDM6 Modular Displays
Online Product Configurator

Description (continued)

Example Harmony P6 product code

The Schneider Electric commercial reference number for Harmony P6 is GCR_HMIP6. Here is an example of the configurator product code that is generated by selecting the following options in the Product Configurator tool :

Configured product code **HMIP67GD0N10AE7L00**

- Processor: Core i7
- Display: W19"
- Power supply: 24 VDC
- Slots: 0
- Main storage: M.2 SSD 128GB (Std Endurance)
- Secondary storage: None
- FAN: None
- Memory capacity: 16 GB
- Option: Ethernet
- Operating system: Win10 (Core i7)
- Software package: Machine SCADA Expert RT 64K

Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIP6 Modular Box PCs and HMIDM6 Modular Displays

Configured-to-order options, substitution table

Configured-to-order options for Harmony HMIP6 Modular Box and HMIDM6 Modular Displays

Option	Description
Processor type	Intel Core™ i7-8665UE, up to 4.4 GHz for Advanced Modular Box
	Intel Core™ i5-8365UE, up to 4.1 GHz for Advanced Modular Box
	Intel Celeron® 4305UE, up to 2.0 GHz for Advanced Modular Box
	Intel Core™ i3-8145UE, up to 3.9 GHz for Standard Modular Box
Modular Displays	None
	Harmony HMIP6 Modular Display 4:3 12"/4:3 15"- XGA
	Harmony HMIP6 Modular Display W10"/W12"- WXGA
	Harmony HMIP6 Modular Display W15"- FWXGA
Memory capacity	8 GB
	16 GB
	32 GB
Power supply	12...24 VDC
	100...240 VAC
Windows operating system	None
	Windows® 10 IoT Enterprise 2019 LTSC (64-bit)
Main storage device for operating system	None
	1x M.2 SSD SATA (128 GB/256 GB/512 GB)
	2x 2.5-inch HDD (1 TB) or SSD (128 GB/256 GB/512 GB) for Advanced Modular Box
	1x 2.5-inch HDD (1 TB) or SSD (128 GB/256 GB/512 GB) for Standard Modular Box
Optional interfaces	None
	2x RS-422/485 isolated
	2x RS-232 isolated
	4x RS-232C isolated
	WiFi/Bluetooth
	1x Ethernet (GbE IEEE1588)
	Audio with Mic-IN, Line-IN, and Line-OUT
	EtherCAT
	16x DI/8x DO
	Cellular 4G with antenna for US
Cellular 4G with antenna for EU/Asia/Japan	
PCI slot configuration	None
	1x PCI + 1x PCIe
	2x PCIe
	2x PCI
Software bundle	None
	EcoStruxure Machine SCADA Expert 1,500 tags Runtime license
	EcoStruxure Machine SCADA Expert 4,000 tags Runtime license
	EcoStruxure Machine SCADA Expert 32,000 tags Runtime license
	EcoStruxure Machine SCADA Expert 64,000 tags Runtime license

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Current Harmony iPC		Replaced by Harmony iPC		
Description	Reference	Description	Reference	Compatibility
Harmony iPC Modular Display		Harmony DM6 Modular Display		
19" W (FWXGA)	HMIDM9521	19" W (Full HD)	HMIDM6800WC	Yes with adapter (HMIZPAT8W1)
15" W (FWXGA)	HMIDM7521	15" W (FWXGA)	HMIDM6700WC	Yes with adapter (HMIZPAT7W1)
15" (XGA)	HMIDM7421	15" (XGA)	HMIDM6700TM	Yes
12.1" (XGA)	HMIDM6421	12.1" (XGA)	HMIDM6600TM	Yes
12" W (WXGA)	HMIDM6521	12" W (WXGA)	HMIDM6600WC	Yes
22" W (Full HD)	HMIDMA521	22" W (Full HD)	HMIDM6900WC	Yes
		Panel cut-out	Identical	
			Different	

Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIP6 Modular Box PCs and HMIDM6 Modular Displays

Substitution table

Current Harmony iPC		Replaced by Harmony iPC	
Description	References	Description	References
Harmony iPC Modular Box PC		Harmony HMIP6 Modular Box PC	
Core i7, 8 GB RAM	HMIBMP0I74D2001	Core i7, 8 GB RAM	HMIP67BD0N008NNN00
Core i7, 16 GB RAM	HMIBMP0I74D200A	Core i7, 16 GB RAM	HMIP67BD0N000ANN00
Core i7, 8 GB RAM	HMIBMP0I74D4001	Core i7, 8 GB RAM	HMIP67BDMN008NNN00
Core i7, 16 GB RAM	HMIBMP0I74D400A	Core i7, 16 GB RAM	HMIP67BDMN000ANN00
Core i7, 16 GB RAM	HMIBMP0I74DE00A	Core i7, 16 GB RAM	HMIP67BDEN008NNN00
Core i7, 8 GB RAM, 500 GB HDD, Windows 10	HMIBMPHI74D2801	Core i7, 8 GB RAM, 512 GB M.2, Windows 10	HMIP67BD0N408N7N00
Core i7, 8 GB RAM, 500 GB HDD, Windows 10	HMIBMPHI74D4801	Core i7, 8 GB RAM, 512 GB M.2, Windows 10	HMIP67BDMN408N7N00
Core i7, 8 GB RAM, 128 GB SSD, Windows 10	HMIBMPSI74D2801	Core i7, 8 GB RAM, 128 GB M.2, Windows 10	HMIP67BD0N108N7N00
Core i7, 8 GB RAM, 128 GB SSD, Windows 10	HMIBMPSI74D4801	Core i7, 8 GB RAM, 128 GB M.2, Windows 10	HMIP67BD0N108N7N00
Core i7, 16 GB RAM	HMIBMP0I74DI00A	Core i7, 16 GB RAM	HMIP67BDPN000ANN00
Celeron, 4 GB RAM	HMIBMU0I29D2001	Celeron, 4 GB RAM	HMIP6CBD0N004NNN00
Celeron, 8 GB RAM	HMIBMU0I29D200A	Celeron, 8 GB RAM	HMIP6CBD0N008NNN00
Celeron, 4 GB RAM	HMIBMU0I29D4001	Celeron, 4 GB RAM	HMIP6CBDMN004NNN00
Celeron, 8 GB RAM	HMIBMU0I29D400A	Celeron, 8 GB RAM	HMIP6CBDMN008NNN00
Celeron, 8 GB RAM	HMIBMU0I29DE00A	Celeron, 8 GB RAM	HMIP6CBDEN008NNN00
Celeron, 8 GB RAM	HMIBMU0I29DI00A	Celeron, 8 GB RAM	HMIP6CBDPN008NNN00
Celeron, 4 GB RAM, 32 GB CFast, WES 7 64 bit	HMIBMUCI29D2W01	Celeron, 4 GB RAM, 128 GB M.2, Windows 10	HMIP6CBD0N104NCN00
Celeron, 4 GB RAM, 32 GB CFast, WES 7 64 bit	HMIBMUCI29D4W01	Celeron, 4 GB RAM, 128 GB M.2, Windows 10	HMIP6CBDMN104NCN00
Celeron, 4 GB RAM, 500 GB HDD, Windows 10	HMIBMUHI29D2801	Celeron, 4 GB RAM, 512 GB M.2, Windows 10	HMIP6CBD0N404NCN00
Celeron, 4 GB RAM, 500 GB HDD, Windows 10	HMIBMUHI29D4801	Celeron, 4 GB RAM, 512 GB M.2, Windows 10	HMIP6CBDMN404NCN00
Celeron, 4 GB RAM, 128 GB SSD, Windows 10	HMIBMUSI29D2801	Celeron, 4 GB RAM, 128 GB M.2, Windows 10	HMIP6CBD0N104NCN00
Celeron, 4 GB RAM, 128 GB SSD, Windows 10	HMIBMUSI29D4801	Celeron, 4 GB RAM, 128 GB M.2, Windows 10	HMIP6CBDMN104NCN00
Harmony iPC Panel PC		Harmony HMIP6 Panel PC	
Core i3, 8 GB RAM, 15" W display	HMIPSP0752D1001	Core i3, 8 GB RAM, 15" W display	HMIP63F10N008NNN00
Core i3, 8 GB RAM, 19" W display	HMIPSP0952D1001	Core i3, 8 GB RAM, 19" W display	HMIP63G10N808NNN00
Core i3, 8 GB RAM, 32 GB CFast, WES 7 64-bit, 15" W display	HMIPSPC752D1W01	Core i3, 8 GB RAM, 128 GB M.2, Windows 10, 15" W display	HMIP63F10N108N3N00
Core i3, 8 GB RAM, 32 GB CFast, WES 7 64-bit, 19" W display	HMIPSPC952D1W01	Core i3, 8 GB RAM, 128 GB M.2, Windows 10, 19" W display	HMIP63G10N108N3N00
Core i3, 8 GB RAM, 500 GB HDD, Windows 7, 15" W display	HMIPSPH752D1701	Core i3, 8 GB RAM, 512 GB M.2, Windows 10, 15" W display	HMIP63F10N408N3N00
Core i3, 8 GB RAM, 500 GB HDD, Windows 10, 15" W display	HMIPSPH752D1801	Core i3, 8 GB RAM, 512 GB M.2, Windows 10, 15" W display	HMIP63F10N408N3N00
Core i3, 8 GB RAM, 500 GB HDD, Windows 7, 19" W display	HMIPSPH952D1701	Core i3, 8 GB RAM, 512 GB M.2, Windows 10, 19" W display	HMIP63G10N408N3N00
Core i3, 8 GB RAM, 500 GB HDD, Windows 10, 19" W display	HMIPSPH952D1801	Core i3, 8 GB RAM, 512 GB M.2, Windows 10, 19" W display	HMIP63G10N408N3N00
Core i3, 8 GB RAM, 128 GB SSD, Windows 7, 15" W display	HMIPSPS752D1701	Core i3, 8 GB RAM, 128 GB M.2, Windows 10, 15" W display	HMIP63F10N108N3N00
Core i3, 8 GB RAM, 128 GB SSD, Windows 7, 15" W display	HMIPSPS752D170L	Core i3, 8 GB RAM, 128 GB M.2, Windows 10, 15" W display	HMIP63F10N108N3N00
Core i3, 8 GB RAM, 128 GB SSD, Windows 10, 15" W display	HMIPSPS752D1801	Core i3, 8 GB RAM, 128 GB M.2, Windows 10, 15" W display	HMIP63F10N108N3N00
Core i3, 8 GB RAM, 256 GB SSD, Windows 10, 15" W display	HMIPSPS752D180L	Core i3, 8 GB RAM, 256 GB M.2, Windows 10, 15" W display	HMIP63F10N308N3N00
Core i3, 8 GB RAM, 128 GB SSD, Windows 7, 19" W display	HMIPSPS952D1701	Core i3, 8 GB RAM, 128 GB M.2, Windows 10, 19" W display	HMIP63G10N108N3N00
Core i3, 8 GB RAM, 128 GB SSD, Windows 7, 19" W display	HMIPSPS952D170L	Core i3, 8 GB RAM, 128 GB M.2, Windows 10, 19" W display	HMIP63G10N108N3N00
Core i3, 8 GB RAM, 128 GB SSD, Windows 10, 19" W display	HMIPSPS952D1801	Core i3, 8 GB RAM, 128 GB M.2, Windows 10, 19" W display	HMIP63G10N108N3N00
Core i3, 8 GB RAM, 256 GB SSD, Windows 10, 19" W display	HMIPSPS952D180L	Core i3, 8 GB RAM, 256 GB M.2, Windows 10, 19" W display	HMIP63G10N308N3N00

Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIP6 Modular Box PCs and HMIDM6 Modular Displays

Accessories



HMIYP6MPR23P2



HMIYP6MPETH



HMIYP6MPECAT



HMIYP6MPAU



HMIYP6MP4GE



HMIYP6M2128



HMIYP6SSD256

Accessories					
Interfaces					
Description	Details	Compatible with	Reference	Weight kg/lb	
2x RS-232C isolated	2x RS-232C isolated dedicated interface options	HMIP6 Advanced and Standard Modular Boxes	HMIYP6MPR23P2	0.30/0.66	
4x RS-232C	4x RS-232C dedicated interface options		HMIYP6MPR23P4	0.30/0.66	
2x RS422/485 isolated	2x RS-485(422) isolated dedicated interface options		HMIYP6MPR42P2	0.30/0.66	
WiFi/Bluetooth with antennas	WiFi/Bluetooth with antenna dedicated interface option		HMIYP6MPWF	0.30/0.66	
16DI/8DO interface	16x Digital input, 8x Digital output with terminal unit dedicated interface option		HMIYP6MPX16Y8	0.30/0.66	
1x Ethernet interface (GbE IEEE1588)	Ethernet dedicated interface option		HMIYP6MPETH	0.30/0.66	
EtherCAT interface (Master)	EtherCAT (Master) dedicated interface option		HMIYP6MPECAT	0.30/0.66	
Audio interface (Mic-IN, Line-IN, Line-OUT)	Audio with Mic-IN, Line-IN and Line-OUT dedicated interface option		HMIYP6MPAU	0.30/0.66	
4G interface for US	4G with antenna dedicated interface option for US		HMIYP6MP4GU	0.30/0.66	
4G interface for EU/Asia/Japan	4G with antenna dedicated interface option for EU, Asia, and Japan		HMIYP6MP4GE	0.30/0.66	
Storage					
M.2 SSD 128 GB (Standard Endurance)	M.2 SSD 128 GB (Standard Endurance)	HMIP6 Advanced and Standard Modular Boxes	HMIYP6M2128L	0.13/0.28	
M.2 SSD 128 GB (High Endurance)	M.2 SSD 128 GB (High Endurance)		HMIYP6M2128	0.13/0.28	
M.2 SSD 256 GB (High Endurance)	M.2 SSD 256 GB (High Endurance)		HMIYP6M2256	0.13/0.28	
M.2 SSD 512 GB (High Endurance)	M.2 SSD 512 GB (High Endurance)		HMIYP6M2512	0.13/0.28	
SSD 128 GB (High Endurance)	2.5" SSD 128 GB (High Endurance)		HMIYP6SSD128	0.20/0.44	
SSD 256 GB (High Endurance)	2.5" SSD 256 GB (High Endurance)		HMIYP6SSD256	0.20/0.44	
SSD 512 GB (High Endurance)	2.5" SSD 512 GB (High Endurance)		HMIYP6SSD512	0.20/0.44	
HDD 1 TB	2.5" HDD 1 TB		HMIYP6HDD1T	0.25/0.55	

Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIP6 Modular Box PCs and HMIDM6 Modular Displays

Accessories

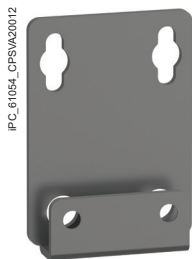
Accessories (continued)					
Description	Details	Compatible with	Reference	Weight	kg/lb
Memory					
DIMM 4 GB	4 GB, 260-pin SO-DIMM, DDR4-2400	HMIP6 Advanced and Standard Modular Boxes	HMIYP6DM4	0.14/0.30	
DIMM 8 GB	8 GB, 260-pin SO-DIMM, DDR4-2400		HMIYP6DM8	0.14/0.30	
DIMM 16 GB	16 GB, 260-pin SO-DIMM, DDR4-2400		HMIYP6DM16	0.14/0.30	
Cables					
WiFi/Bluetooth antenna extension cable (2 pieces/set)	WiFi/Bluetooth extension cable 3 m/9.84 ft	HMIP6 Advanced and Standard Modular Boxes	HMIYP6CBWF3M	0.30/0.66	
USB host extension cable	USB host extension cable 1 m/3.28 ft		XBTZGUSB	0.22/0.49	
DP-DVI cable	To receive the image signal from host, active type 5 m/16.4 ft		HMIYFPCBDPDV5M	0.50/1.10	
4G cellular antenna extension cable (2 pieces/set)	4G cellular extension cable 3 m/9.84 ft		HMIYP6CB4G3M	0.30/0.66	
Adapters					
Book mount adapter	Book mount adapter (Advanced Box)	HMIP6 Advanced Modular Boxes	HMIYP6ADBMA	1.00/2.20	
Book mount adapter	Book mount adapter (Standard Box)	HMIP6 Standard Modular Box	HMIYP6ADBMS	1.00/2.20	
Cut-out adapter for Harmony Modular/S-Panel PC (15" W)	Panel cut-out adapter from Harmony HMIDM Modular Display or S-Panel (15" Wide) to Harmony HMIP6/HMIFP6 (15" Wide)	HMIDM Modular Display/HMIPSO S-Panel PC (15" W)	HMIZPAT7W1	1.00/2.20	
Cut-out adapter for Harmony Modular/S-Panel PC (19" W)	Panel cut-out adapter from Harmony HMIDM Modular Display or S-Panel (19" Wide) to Harmony HMIP6/HMIFP6 (19" Wide)	HMIDM Modular Display/HMIPSO S-Panel PC (19" W)	HMIZPAT8W1	1.10/2.43	
Cut-out adapter for Harmony HMIDT752 (15" W)	Panel cut-out adapter from Harmony GTU (15" Wide) to Harmony HMIP6 (15" Wide)	HMIDT752 (15" W)	HMIZHAT7W1	1.00/2.20	
Cut-out adapter for Harmony HMIDT952 (19" W)	Panel cut-out adapter from Harmony GTU (19" Wide) to Harmony HMIP6 (19" Wide)	HMIDT952 (19" W)	HMIZHAT8W1	1.10/2.43	
Cut-out adapter for Harmony S-Panel PC (10" W)	Panel cut-out adapter from Harmony S-Panel (10" Wide) to Harmony HMIP6 (10" Wide)	HMIPSO S-Panel PC (10" W)	HMIZPAT5W1	0.60/1.32	
Cut-out adapter for Harmony Modular Panel PC (12" W)	Panel cut-out adapter from Harmony HMIDM Modular Display (12" Wide) to Harmony HMIP6/HMIFP6 (12" Wide)	HMIDM Modular Display (12" W)	HMIZPAT6W1	0.60/1.32	
Cut-out adapter for Harmony Modular Panel PC (22" W)	Panel cut-out adapter from Harmony HMIDM Modular Display (22" Wide) to Harmony HMIP6/HMIFP6 (22" Wide)	HMIDM Modular Display (22" W)	HMIZPAT9W1	1.30/2.87	



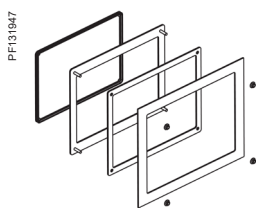
HMIYP6DM4



HMIYP6CB4G3M



HMIYP6ADBMS



HMIZHAT7W1

Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIP6 Modular Box PCs and HMIDM6 Modular Displays

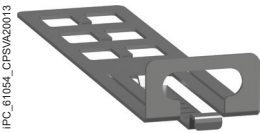
Accessories



PF110386B
HMIZCAG7W1



PG_CP20084
HMIYP6FAN



IPC_01054_CPFS/VA20013
HMIYP6CLUSC



PG_CP20081
HMIDM6800WC

Accessories (continued)					
Screen sheets					
Description	Details	Compatible with	Reference	Weight kg/lb	
Screen protection sheet for 12" display	Disposable, dirt-resistant sheet for screen (5 sheets/set)	12" HMIDM6/HMIFP6 Modular Display	HMIZG66	-	
Screen protection sheet for 15" display		15" HMIDM6/HMIFP6 Modular Display	MPCYK50SPSKIT	-	
Anti-glare sheet for 10" Wide display	Anti-reflection, dirt-resistant sheet for screen (5 sheets/set)	10" W HMIDM6/HMIFP6 Modular Display	HMIZCAG5W1	-	
Anti-glare sheet for 12" Wide display		12" W HMIDM6/HMIFP6 Modular Display	HMIZCAG6W1	-	
Anti-glare sheet for 15" Wide display		15" W HMIDM6/HMIFP6 Modular Display	HMIZCAG7W1	-	
Anti-glare sheet for 19" Wide display		19" W HMIDM6/HMIFP6 Modular Display	HMIZCAG8W1	-	
Anti-glare sheet for 22" Wide display		22" W HMIDM6/HMIFP6 Modular Display	HMIZCAG9W1	-	
Others					
M.2 cooling kit for Advanced Box	M.2 cooling kit for Advanced Box (thermal pad + heat sink)	HMIP6 Advanced Modular Boxes	HMIYP6HSM2A	0.20/0.44	
M.2 cooling kit for Standard Box	M.2 cooling kit for Standard Box (thermal pad + heat sink)	HMIP6 Standard Modular Box	HMIYP6HSM2S	0.20/0.44	
McAfee Whitelisting license	License sticker and a USB stick with software application for Cybersecurity Whitelisting	HMIP6 Advanced and Standard Modular Boxes	HMIYP6SLMCA	0.20/0.44	
Recovery USB for Windows 10	Recovery USB for Windows 10 for Harmony HMIP6	HMIP6 Advanced and Standard Modular Boxes	HMIYP6RUSW10	0.30/0.66	
USB clamp Type A	USB clamp Type A for maintenance (5 pieces/set)	HMIP6 Advanced and Standard Modular Boxes	HMIZCCLUSA	0.30/0.66	
USB clamp Type C	USB clamp Type C for maintenance (5 pieces/set)	HMIP6 Advanced and Standard Modular Boxes	HMIYP6CLUSC	0.30/0.66	
Fan kit with filter	Fan kit with replacement filter (5 pieces/set)	HMIP6 Advanced Modular Boxes	HMIYP6FAN	1.00/2.20	
Harmony HMIDM6 Modular Displays					
12" Modular Display	12.1" XGA display (resistive analog multi-touch)	HMIP6 Advanced and Standard Modular Boxes	HMIDM6600TM	2.40/5.30	
15" Modular Display	15" XGA display (resistive analog multi-touch)		HMIDM6700TM	3.70/8.16	
10" Wide Modular Display	10.1" WXGA display (projected capacitive multi-touch)		HMIDM6500WC	2.00/4.41	
12" Wide Modular Display	12.1" WXGA display (projected capacitive multi-touch)		HMIDM6600WC	2.60/5.73	
15" Wide Modular Display	15.6" FWXGA display (projected capacitive multi-touch)		HMIDM6700WC	4.00/8.82	
19" Wide Modular Display	18.5" FHD display (projected capacitive multi-touch)		HMIDM6800WC	4.90/10.8	
22" Wide Modular Display	21.5" FHD display (projected capacitive multi-touch)		HMIDM6900WC	6.50/14.33	

GTU_61981_CP8CTT1002



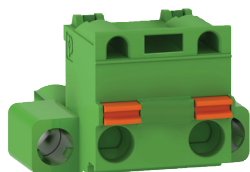
HMIZCWG8W1

PFXZCAF1



HMIZCAF1

PG_OP20179



HMIZCCNAC1

Accessories (continued)				
Description	Details	Compatible with	Reference	Weight kg/lb
Installation gaskets				
Installation gasket for 12" display	Provides dust and moisture resistance when installation gasket is installed in a solid panel	12" HMIDM6/HMIFP6 Modular Display	HMIZD56	–
Installation gasket for 15" display	(1 piece/set)	15" HMIDM6/HMIFP6 Modular Display	HMIZD57	–
Installation gasket for 10" Wide display		10" W HMIDM6/HMIFP6 Modular Display	HMIZD55W	–
Installation gasket for 12" Wide display		12" W HMIDM6/HMIFP6 Modular Display	HMIZD56W	–
Installation gasket for 15" Wide display		15" W HMIDM6/HMIFP6 Modular Display	HMIZX57W	–
Installation gasket for 19" Wide display		19" W HMIDM6/HMIFP6 Modular Display	HMIZCWG8W1	–
Installation gasket for 22" Wide display		22" W HMIDM6/HMIFP6 Modular Display	HMIZCWG9W1	–
Others				
Installation fastener	Installation fastener for maintenance (4 pieces/set)	All HMIDM6/HMIFP6 Modular Displays	HMIZCAF1	–
Connectors				
Power connector (DC)	DC Power connector for maintenance (5 pieces/set)	HMIP6 Advanced and Standard Modular Boxes, HMIFP6 Modular Displays	HMIZCCNDC1	0.20/0.44
Power connector (AC)	AC Power connector for maintenance (5 pieces/set)		HMIZCCNAC1	0.20/0.44

Harmony iPC

Industrial PC, Edge Box, and Display
Harmony HMIFP6 Industrial Flat Panel Monitors

Harmony HMIFP6 Industrial Flat Panel Monitors

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- [Presentation](#)..... page 6/4
- [Description](#).....page 6/4
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 - [Substitution table](#) page 6/7

Harmony iPC

Industrial PC, Edge Box, and Display
Harmony HMIFP6 Industrial Flat Panel Monitors

Type of display	Harmony HMIFP6 Industrial Flat Panel Monitors	
Model	4:3 12" touch screen	4:3 15" touch screen



Display	Type	TFT color LCD flat screen	
	Size	4:3 12.1"	4:3 15.0"
	Resolution	XGA, 1,024 × 768 pixels, 16 million colors	
	Degree of protection (2)	IP66F, IP67F, UL 50/50E, Type 1, Type 4X (indoor use only), Type 12, Type 13	
	Touch operation	Resistive analog multi-touch (2 points)	
	Touch mode configuration	Not applicable, because of resistive analog touch panel	
	Brightness control	Stepless adjustment (0~100 step)	
Interface	Backlight service life	50,000 hours and more	
	Front USB	1x USB 2.0 (Type A) and 1x USB Micro-B (1) with front USB cover	
	Touch	1x USB 2.0 (Type B)	
	Supported operating system	Windows10 IoT Enterprise 2019 LTSC (64-bit), Windows 10 (build 1809 or later)	
Utility tool	Video	DVI-D input	
	Supply voltage	24 V DC	
Standards and certifications (mounted on front panel of Box PC)	Utility tool	Brightness, Calibration, Front USB, Touch buzzer, Touch input mode control	
	Power consumption	17.6 W max.	22.4 W max.
Mounting	Mounting	Panel mount or Portrait mount or VESA 100 × 100 mount	
	Dimensions	Overall dimensions (W × H × D)	315 × 241 × 67.5 mm/ 12.40 x 9.49 x 2.66 in.
Cut-out (W × H)		301.5 × 227.5 mm/ 11.87 x 8.96 in.	383.5 × 282.5 mm/ 15.1 × 11.12 in.
Temperature	During operation	Conforming to EN/IEC 60068-2-30: 0...55 °C/32...131 °F	
	During storage	Conforming to IEC 61000-4/ EN 55011: -20...+60 °C/-4...+140 °F	
Compatible with boxes	All Harmony HMIP6 Standard and Advanced Modular Box PCs, Harmony iPCs, and third-party PCs		
References	HMIFP6600TMD	HMIFP6700TMD	
Pages	6/4		

(1) This interface is unavailable.
(2) On the front panel when properly installed in an enclosure and not using the front panel USB port.
(3) Available in H2 2021.

Harmony HMIFP6 Industrial Flat Panel Monitors				
W10" touch screen	W12" touch screen	W15" touch screen	W19" touch screen	W22" touch screen

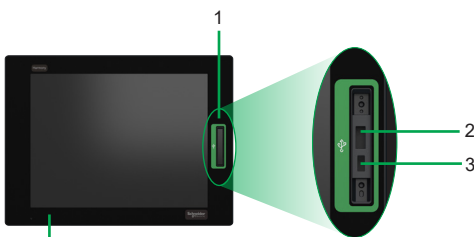


Display	TFT color LCD flat screen				
	W10.1"	W12.1"	W15.6"	W18.5"	W21.5"
	WXGA, 1,280 × 800 pixels, 16 million colors		FWXGA, 1,366 × 768 pixels, 16 million colors	FHD, 1,920 × 1,080 pixels, 16 million colors	
	IP66F, IP67F, UL 50/50E, Type 1, Type 4X (indoor use only), Type 12, Type 13				
	Projective capacitive multi-touch (2 points) with optimized noise filter				
	Yes (standard mode, glove mode, water detection mode)				
	Stepless adjustment (0~100 step)				
Interface	50,000 hours and more				
	-				
	1x USB 2.0 (Type B)				
	Windows10 IoT Enterprise 2019 LTSC (64-bit), Windows 10 (build 1809 or later)				
Utility tool	DVI-D input				
	Brightness, Calibration, Front USB, Touch buzzer, Touch input mode control				
Standards and certifications (mounted on front panel of Box PC)	24 V DC				
	CE, RCM, KC, UL 61010-2-201 and CSA C22.2 No. 61010-2-201, UL 121201 (2)(3) and CSA C22.2 No. 213 (2)(3), IECEx/ATEX for use in Zone 2 gas/Zone 22 dust (2)(3)				
Mounting	Power consumption	12.4 W max.	15.9 W max.	20.0 W max.	30.6 W max.
	Mounting	Panel mount or Portrait mount or VESA 100 × 100 mount			
Dimensions	Overall dimensions (W × H × D)	268.5 × 198.5 × 67.5 mm/ 10.57 x 7.81 x 2.66 in.	308.5 × 230.5 × 67.5 mm/ 12.15 x 9.07 x 2.66 in.	408 × 264 × 67.5 mm/ 16.06 x 10.39 x 2.66 in.	463.6 × 293.6 × 69.5 mm/ 18.25 x 11.56 x 2.74 in.
	Cut-out (W × H)	255 × 185 mm/ 10.04 x 7.28 in.	295 × 217 mm/ 16.14 x 8.54 in.	394 × 250 mm/ 15.51 x 9.84 in.	449.5 × 279.5 mm/ 17.7 x 11.0 in.
Temperature	During operation	Conforming to EN/IEC 60068-2-30: 0...55 °C/32...131 °F			Conforming to EN/IEC 60068-2-30: 0...50 °C/32...122 °F
	During storage	Conforming to IEC 61000-4/ EN 55011: -20...+60 °C/-4...+140 °F			Conforming to IEC 61000-4/ EN 55011: -20...+60 °C/-4...+140 °F
Compatible with boxes	All Harmony HMIP6 Standard and Advanced Modular Box PCs, Harmony iPC and third-party PCs				
References	HMIFP6500WCD	HMIFP6600WCD	HMIFP6700WCD	HMIFP6800WCD	HMIFP6900WCD
Pages	6/4				

(1) This interface is unavailable.
(2) On the front panel when properly installed in an enclosure and not using the front panel USB port.
(3) Available in H2 2021.



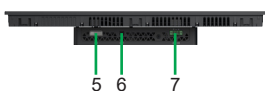
Harmony HMIFP6 Industrial Flat Panel Monitors



4:3 HMIFP6 Front view



Wide HMIFP6 Front view



Wide HMIFP6 Underside view

PE_CP21192



HMIFP6600TMD

PE_CP21198



HMIFP6900WCD

Presentation

Harmony HMIFP6 Industrial Flat Panel Monitors are designed for slim and stylish appearance, better visibility, and high operability in an industrial environment. The modular design and transversal visualization enables Flat Panel Monitors to be easily integrated with Harmony HMIP6, Harmony iPCs and third-party Box PCs.

The Harmony HMIFP6 screens are certified for CE, RCM, UL 61010-2-201, CSA C22.2 No. 61010-2-201, UL121201 (1), and CSA C22.2 No. 213 (1), and IECEx/ATEX for use in Zone 2 gas/Zone 22 dust (1).

Overview of the offer

Harmony HMIFP6 Industrial Flat Panel Monitors are available in 4:3 and Wide versions each equipped with:

■ **4:3 Flat Panel Monitors:** 12.1" and 15.0" (XGA) color LCD multi-touch (2 points) analog resistive screens, 1x USB 2.0 (Type A) with front USB cover

■ **Wide Flat Panel Monitors:** 10.1" and 12.1" (WXGA), 15.6" (FWXGA), 18.5" and 21.5" (FHD) color LCD multi-touch (2 points) projected capacitive screens

Description

Front view

- 1 Front USB cover
- 2 USB 2.0 (Type A) (2)
- 3 USB 2.0 Micro-B (3)
- 4 Multi-color status LED (green and orange) indicating the mode

Underside view

- 5 DVI-D input interface
- 6 USB 2.0 (Type B)
- 7 Power connector

References

Harmony HMIFP6 Industrial Flat Panel Monitors

Description	Screen	Interface	Reference	Weight kg/lb
12" TFT LCD flat screen	4:3 12.1", XGA (1,024 x 768 pixels)	Multi-touch (2 points) analog resistive	HMIFP6600TMD	3.60/8.00
15" TFT LCD flat screen	4:3 15.0", XGA (1,024 x 768 pixels)	Multi-touch (2 points) projected capacitive	HMIFP6700TMD	4.90/10.8
W10" TFT LCD flat screen	10.1" W, FWGA (1,280 x 800 pixels)	Multi-touch (2 points) projected capacitive	HMIFP6500WCD	3.20/7.10
W12" TFT LCD flat screen	12.1" W, FHD (1,280 x 800 pixels)	Multi-touch (2 points) projected capacitive	HMIFP6600WCD	3.90/8.60
W15" TFT LCD flat screen	15.6" W, FWXGA (1366 x 768 pixels)	Multi-touch (2 points) projected capacitive	HMIFP6700WCD	5.30/11.9
W19" TFT LCD flat screen	18.5" W, FHD (1,920 x 1,080 pixels)	Multi-touch (2 points) projected capacitive	HMIFP6800WCD	6.30/13.9
W22" TFT LCD flat screen	21.5" W, FHD (1,920 x 1,080 pixels)	Multi-touch (2 points) projected capacitive	HMIFP6900WCD	8.00/17.7

(1) Available in H2 2021.

(2) By default, this front USB is disabled.

(3) This interface is not usable.

IPC_61054_CPSCT17016



HMIYCABUSB51

PC_CP21218



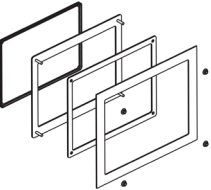
HMIYFPCBDPDV5M

IPC_61054_CPODAM17004



HMIYADDPDV11

PF131947



HMIZPAT8W1

PF150499



HMIZG66

Accessories				
Description	Details	Compatible with	Reference	Weight kg/lb
Cables				
USB cable	USB cable used to receive the touch panel signal from host (5 m/16.4 ft)	All HMIFP6 Modular Displays	HMIYCABUSB51	0.22/ 0.49
DP-DVI cable (5 m)	DP-DVI cable used to receive the image signal from host, active type (5 m/16.4 ft)	All HMIFP6 Modular Displays	HMIYFPCBDPDV5M	0.50/ 1.10
DP-DVI cable (3 m)	DP-DVI cable used to receive the image signal from host, active type (3 m/9.8 ft)	All HMIFP6 Modular Displays	HMIYABDPDV131	0.40/ 0.88
Adapters				
DP-DVI adapter	DP-DVI adapter can convert DP to DVI-D (socket), active type	All HMIFP6 Modular Displays	HMIYADDPDV11	0.10/ 0.22
Cut-out adapter for Harmony Modular Panel PC (12" W)	Panel cut-out adapter from Harmony HMIDM Modular Display (12" Wide) to Harmony HMIP6/HMIFP6 (12" Wide)	HMIDM Modular Display (12" W)	HMIZPAT6W1	0.60/ 1.32
Cut-out adapter for Harmony Modular/S-Panel PC (15" W)	Panel cut-out adapter from Harmony HMIDM Modular Display or S-Panel (15" Wide) to Harmony HMIP6/HMIFP6 (15" Wide)	HMIDM Modular Display or HMIPSO S-Panel (15" W)	HMIZPAT7W1	1.00/ 2.20
Cut-out adapter for Harmony Modular/S-Panel PC (19" W)	Panel cut-out adapter from Harmony HMIDM Modular Display or S-Panel (19" Wide) to Harmony HMIP6/HMIFP6 (19" Wide)	HMIDM Modular Display or HMIPSO S-Panel (19" W)	HMIZPAT8W1	1.10/ 2.43
Cut-out adapter for Harmony Modular Panel PC (22" W)	Panel cut-out adapter from Harmony HMIDM Modular Display (22" Wide) to Harmony HMIP6/HMIFP6 (22" Wide)	HMIDM Modular Display (22" W)	HMIZPAT9W1	1.30/ 2.87
Screen sheets				
Screen protection sheet for 12" display	Disposable, dirt-resistant sheet for screen (5 sheets/set)	12" HMIDM6/HMIFP6 Modular Display	HMIZG66	–
Screen protection sheet for 15" display		15" HMIDM6/HMIFP6 Modular Display	MPCYK50SPSKIT	–
Anti-glare sheet for 10" W display	Anti-reflection, dirt-resistant sheet for screen (5 sheets/set)	10" W HMIDM6/HMIFP6 Modular Display	HMIZCAG5W1	–
Anti-glare sheet for 12" W display		12" W HMIDM6/HMIFP6 Modular Display	HMIZCAG6W1	–
Anti-glare sheet for 15" W display		15" W HMIDM6/HMIFP6 Modular Display	HMIZCAG7W1	–
Anti-glare sheet for 19" W display		19" W HMIDM6/HMIFP6 Modular Display	HMIZCAG8W1	–
Anti-glare sheet for 22" W display		22" W HMIDM6/HMIFP6 Modular Display	HMIZCAG9W1	–

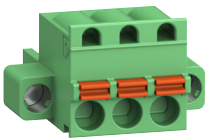
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HMIZD56

Accessories					
Description	Details	Compatible with	Reference	Weight kg/lb	
Installation gaskets					
Installation gasket for 12" display	Provides dust and moisture resistance when this product is installed in a solid panel (1 piece/set)	12" HMIDM6/HMIFP6 Modular Display	HMIZD56	-	
Installation gasket for 15" display		15" HMIDM6/HMIFP6 Modular Display	HMIZD57	-	
Installation gasket for 10" Wide display		10" W HMIDM6/HMIFP6 Modular Display	HMIZD55W	-	
Installation gasket for 12" Wide display		12" W HMIDM6/HMIFP6 Modular Display	HMIZD56W	-	
Installation gasket for 15" Wide display		15" W HMIDM6/HMIFP6 Modular Display	HMIZX57W	-	
Installation gasket for 19" Wide display		19" W HMIDM6/HMIFP6 Modular Display	HMIZCWG8W1	-	
Installation gasket for 22" Wide display		22" W HMIDM6/HMIFP6 Modular Display	HMIZCWG9W1	-	
Others					
DC power connector with fixable screws	Connector to connect DC power cables (5 pieces/set)	All HMIFP6 Modular Displays	HMIZCCNDC1	0.10/ 0.22	
Installation fastener	4 pieces/set	All HMIFP6 Modular Displays	HMIZCAF1	-	
USB clamp Type B	Clamp to help prevent disconnection of USB Type B cable (5 pieces/set)	All HMIFP6 Modular Displays	HMIYFPCLUSB	0.15/ 0.33	

PE_CP21220



HMIZCCNDC1

PFZCAF1



HMIZCAF1

Harmony iPC

Industrial PC, Edge Box, and Display

Harmony HMIFP6 Industrial Flat Panel Monitors

Substitution table

Current Harmony iPC		Replaced by Harmony iPC		
Description	Reference	Description	Reference	Compatibility (1)
Harmony iPC Modular Display		Harmony DM6 Modular Display		Panel cut-out
22" W (Full HD)	HMIDMA521 + HMIDADP11	22" W (Full HD)	HMIFP6900WCD	Yes with adapter (HMIZPAT9W1)
19" W (FWXGA)	HMIDM9521 + HMIDADP11	19" W (Full HD)	HMIFP6800WCD	Yes with adapter (HMIZPAT8W1)
15" W (FWXGA)	HMIDM7521 + HMIDADP11	15" W (FWXGA)	HMIFP6700WCD	Yes with adapter (HMIZPAT7W1)
12" W (WXGA)	HMIDM6521 + HMIDADP11	12" W (WXGA)	HMIFP6600WCD	Yes with adapter (HMIZPAT6W1)
15" (XGA)	HMIDM7421 + HMIDADP11 HMIDID73DTD1	15" (XGA)	HMIFP6700TMD	Yes
12.1" (XGA)	HMIDM6421 + HMIDADP11 HMIDID64DTD1	12.1" (XGA)	HMIFP6600TMD	Yes
			Panel cut-out	Identical
				Different

(1) Supported operating system: Windows10 IoT Enterprise 2019 LTSC (64bit), Windows 10 (build 1809 or later).

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