

HT2200 Family

New fanless Panel PCs with Intel® Bay Trail platform



DIGITAL AUTOMATION TECHNOLOGIES

HT2200 - Highlights



- **Fanless Panel PC** (operating temperature 0÷50°C)
- Featuring **ASEM STANDARDS**
- Intel® **Bay Trail SoC platform** with 64bits architecture
 - **Celeron® J1900** 2Ghz (2.41GHz burst frequency), 4 cores – 4 threads – 2MB L2 cache – 10W
- **RAM** System memory expandable up to **8GB**
- **Wide range of 16 mln colors LED backlight TFT LCD displays**
 - 4:3 aspect ratio: 10,4", 12,1", 15", 17" (5:4), 19" (5:4)
 - 16:9 aspect ratio: 15,6", 18,5", 21,5"
- **Slim** version (SL) for installation with limited depth in the back panel
- **3rd gigabit LAN port** optional (S0 and S1 versions)
- Optional **PCI/PCIe** slot (S1 version)
- For the **first time** an **entry level X86 platform** supports **Win 64bit** operating systems.

HT2200 - Long term availability



7/10 years

Product Availability

6/12 months

End Of Life
procedure

Support & Repairs

+ 5 years

HT2200 - ASEM Standards

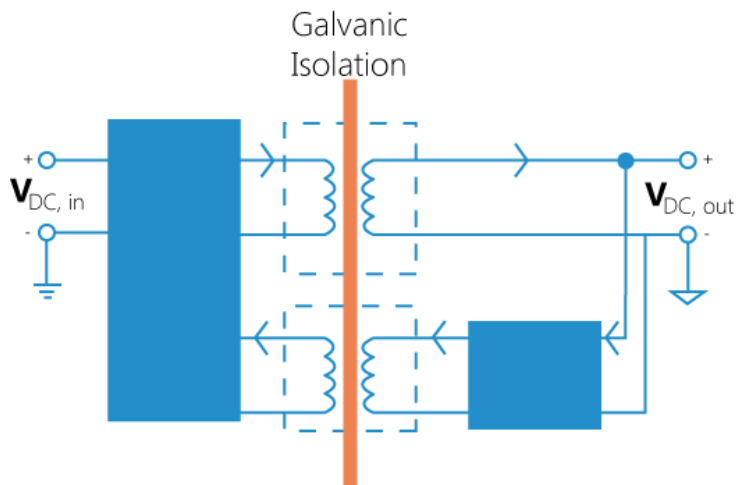
A **unique CUT-OUT** for each different size of LCD to ensure:

- Interchangeability among different Panel PC and Industrial Monitor families
- Future mechanical compatibility

Front panel available in four different variants for all new families:

- Aluminum with USB port and resistive touchscreen
- Aluminum True Flat with USB port and resistive touchscreen
- Stainless steel True Flat with resistive touchscreen
- Aluminum True Flat with Multi-touch P-CAP touchscreen

**ASEM
STANDARDS**



Isolated Power supply with galvanic isolation to prevent:

- Common mode noise at low/medium frequencies on the power supply line
 - Ground loop noise
 - Extra-voltage caused by lightning
- and to guarantee
- Power supply with grounded positive terminal (e.g. Japan)

UPS integrated in the internal power pack

- With external battery pack - rear of the system mounting
- With external battery pack - standalone wall mounting

HT2200 - Features 1/2



	HT2200	HT2200-TF	HT2200-TFX	HT2200-TFM
LED backlight TFT LCD	10,4" (4:3) – 800x600 12,1" (4:3) – 800x600 12,1" (4:3) – 1024x768 15,0" (4:3) – 1024x768 15,6" (wide 16:9) – 1366x768 17"(5:4) – 1280x1024 18,5"(wide 16:9) – 1366x768 19" (5:4) – 1280x1024 21,5"(wide 16:9) – 1920x1080		12,1" (4:3) – 800x600 12,1" (4:3) – 1024x768 15,0" (4:3) – 1024x768 17" (5:4) – 1280x1024 19" (5:4) – 1280x1024	15,6" (wide 16:9) – 1366x768 18,5"(wide 16:9) – 1366x768 21,5" (wide 16:9) – 1920x1080
TOUCH-SCREEN	Resistive 5 wires GFG (optional)	Resistive 5 wires	Resistive 5 wires	P-CAP Multitouch 4 fingers
FRONT PANEL	Aluminum	True Flat Aluminum	True Flat Stainless Steel	True Flat Glass
PROTECTION GRADE	IP66 – frontal		IP66K – frontal	
PROCESSOR	Intel® Celeron J1900, 2GHz (2.41GHz burst frequency), 4 cores / 4 threads, 2MB L2 cache, 10W, 22nm technology			
VIDEO CONTROLLER	Intel® HD Graphics integrated in microprocessor, 688MHz Turbo, LVDS 8bit/color digital interface			
SYSTEM MEMORY - RAM	1GB or 2GB or 4GB or 8GB (1 x SODIMM DDR3 module)			
MASS STORAGE	SL	1 bootable CFast embedded on board with external access 1 x SSD mSATA SATA 2		
	S0/S1	1 bootable CFast embedded on board with external access 1 x SSD mSATA or 1 x SSD/HDD 2,5" SATA 2		

HT2200 - Features 2/2



	HT2200	HT2200-TF	HT2200-TFX	HT2200-TFM
LAN	2 x LAN 10/100/1000Mbps (2 x Intel® I210) 1 x LAN 10/100/1000Mbps (1 x Intel® I210, optional for S0/S1)			
USB	1 x USB 3.0 (Type-A, rear) 2 x USB 2.0 (Type-A, rear) 1 x USB 2.0 (Type-A, front)		1 x USB 3.0 (Type-A, rear) 2 x USB 2.0 (Type-A, rear)	
SERIAL	1 x RS232 (DB9M)			
VIDEO OUTPUT	1 x DVI-I (DVI-D + VGA, for VGA output an optional adapter is needed)			
ADD-ON INTERFACES (optional for S0/S1 – max 1)	2 x USB 2.0 (Type-A) 2 x RS232 (DB9M) 1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 1 x RS232/422/485 (DB15M) optoisolated + 1 x USB 2.0			
EXPANSION SLOTS S1	1 x PCI or PCIe x1 (2.5 Gb/s)			
POWER SUPPLY UNIT	24VDC isolated with or without UPS (optional) with external battery pack			
O.S. CERTIFIED	Windows 7 Pro/Ultimate 32/64bit; Microsoft Windows Embedded Standard 7E/7P 32/64 bit; Microsoft Windows 8.1 Industry Pro; Windows Embedded Compact 7 Pro; Linux		Windows 7 Pro/Ultimate 32/64bit; Microsoft Windows Embedded Standard 7P 32/64 bit; Microsoft Windows 8.1 Industry Pro;	
	Other operating systems, such as VxWorks, QNX, etc., have not been certified by ASEM but they are reasonably supported by the Intel platform after verification of compatibility.			
OPERATING TEMPERATURE	0° - 50°C 0° - 45°C with HDD 24x7 5° - 45°C with standard HDD			
APPROVALS	CE, cULus 508 (pending)			

HT2200 - Motherboard 954, top

Intel® BayTrail SoC processor

LCD LED backlight

LCD LVDS I/F

mSATA

PSU module connector

SATA 2 for 2,5" SSD/HDD

RAM SODIMM DDR Socket

Back-up battery

Additional LAN connector

Add-on I/F connector

PCI/PCIe riser card connector

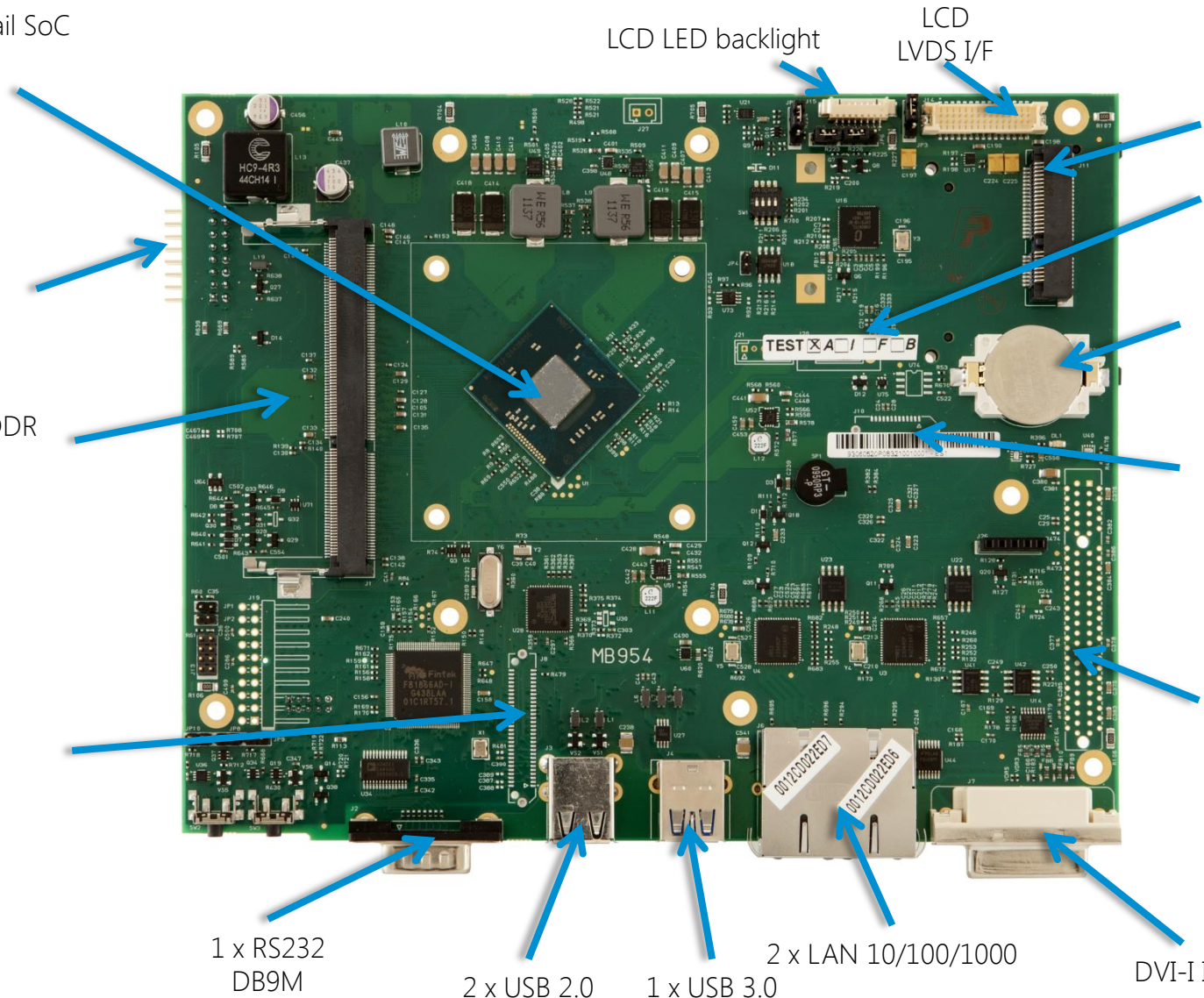
1 x RS232 DB9M

2 x USB 2.0

1 x USB 3.0

2 x LAN 10/100/1000

DVI-I I/F



HT2200 - Motherboard 954, bottom

CFast slot



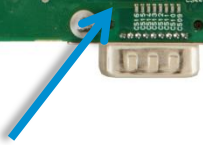
Touchscreen connector



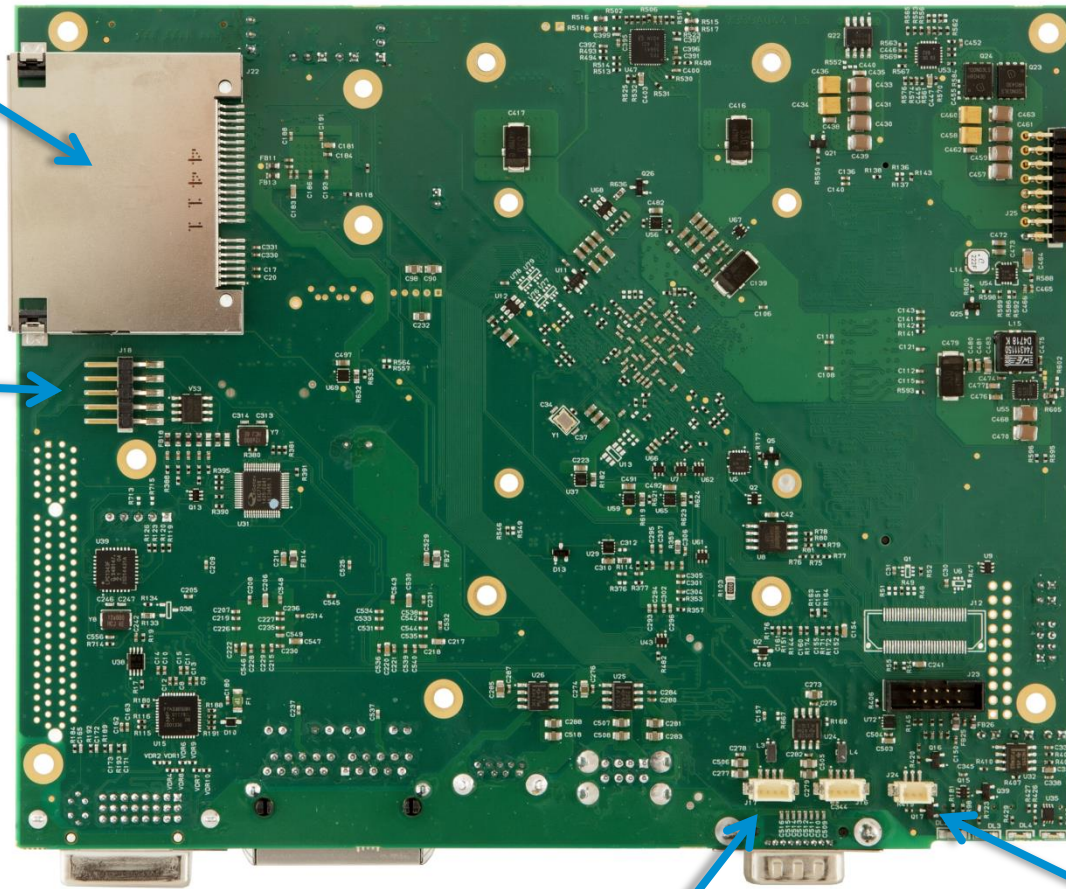
PSU module connector



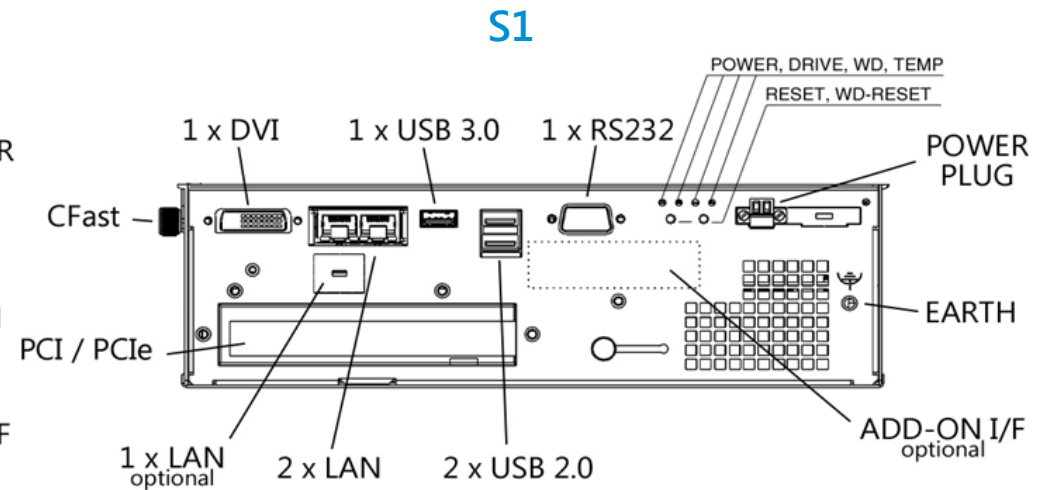
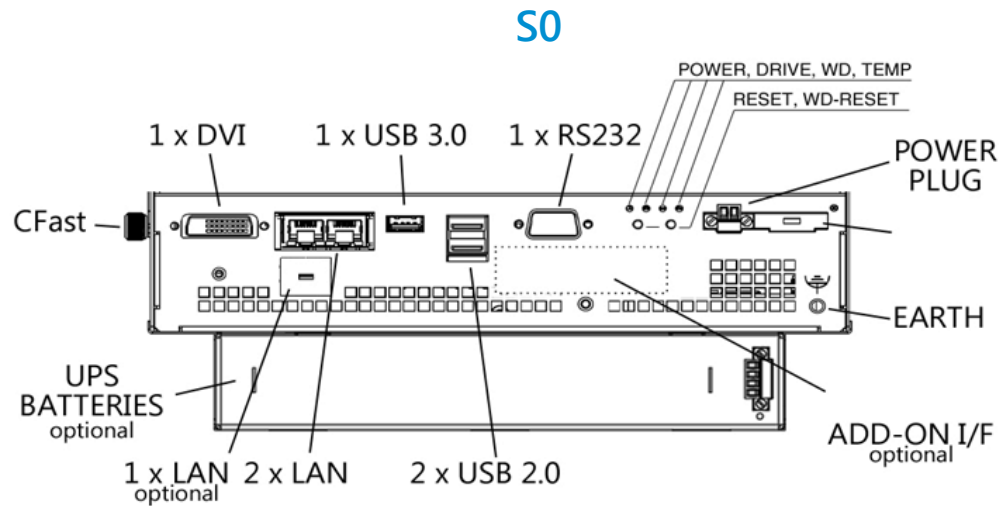
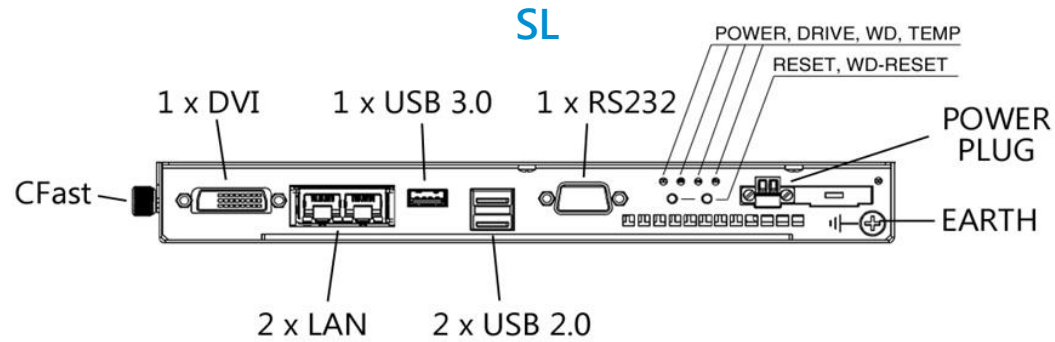
P-CAP Touch connector



Front USB connector



HT2200 - Rear Interfaces & Connectors



HT2200 - Processor



- Intel® **Bay Trail SoC** platform (Celeron and Atom processors)
 - 22nm technology process
 - Dual/quad core processors with 64bit architecture (Desktop/Mobile/Industrial)
 - L2 Cache – 512KB / 1MB / 2MB
 - Fast memory - DDR3 1333MHz RAM
 - Low consumption - 3W/10W TDP
- Processor
 - 10 W (Desktop)
 - **Celeron J1900**, 2GHz (2.41GHz burst frequency), 4 cores / 4 threads, 2MB L2 cache
- SoC (System on Chip), no companion chip, all the peripherals are managed directly by the processor

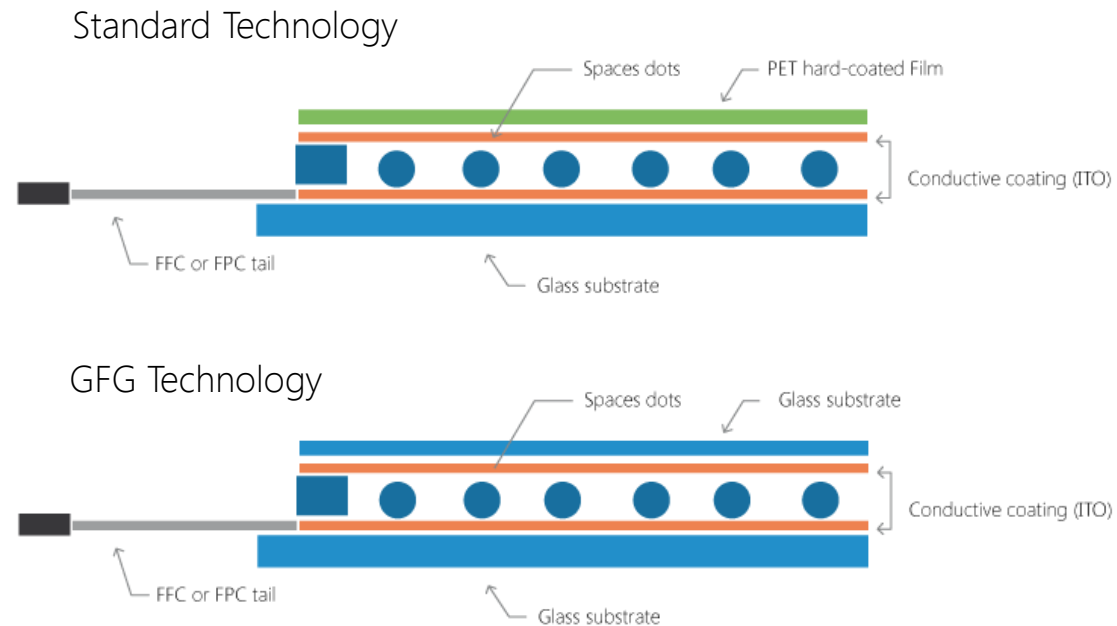
HT2200 - O.S. compatibility

- Intel® **Bay Trail platform** does not support:
 - Win XP Pro 32bit
 - Windows Embedded Standard 2009 (XPe SP3) 32bit
 - Win 2000/ 98/ NT
 - Win CE 5.0 Pro/Pro Plus
 - Win CE 6.0 Pro
- Operating systems **certified by ASEM**
 - Win 8.1 Industry Pro 32/64bit
 - Win 7 Pro/Ultimate 32/64bit
 - Win Embedded Standard 7E/7P 32/64Bit
 - Win Embedded Compact 7 Pro
 - Linux
- Operating systems supported by the Intel platform but not certified by ASEM
 - VxWorks
 - QNX

HT2200 - Glass Film Glass (option for HT)

The **Glass-Film-Glass technology** adds an additional thin (0,1mm) glass on the surface

- Greater **resistance** to scratches
- Better products **cleaning**
- Available for standard Aluminum front panel in 12", 15" and 17" sizes



HT2200 - Integrated UPS (optional)

UPS integrated in the internal power supply unit

- With external battery pack - rear of the system mounting (solo S0, S1)
- With external battery pack - standalone wall mounting

UPS features

- 12V DC UPS battery backup system
- Input voltage intervention threshold 18V DC
- 10' nominal duration at 25°C, full charge, 5A load (estimated value)
- 15W max consumption during battery charge *

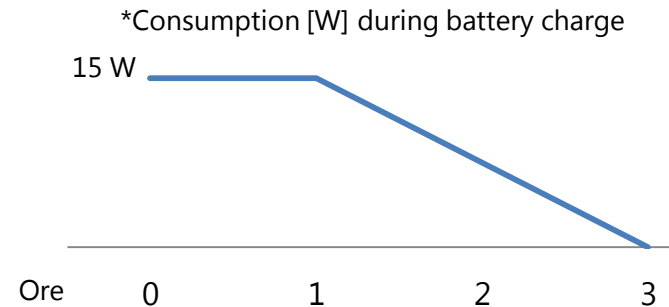
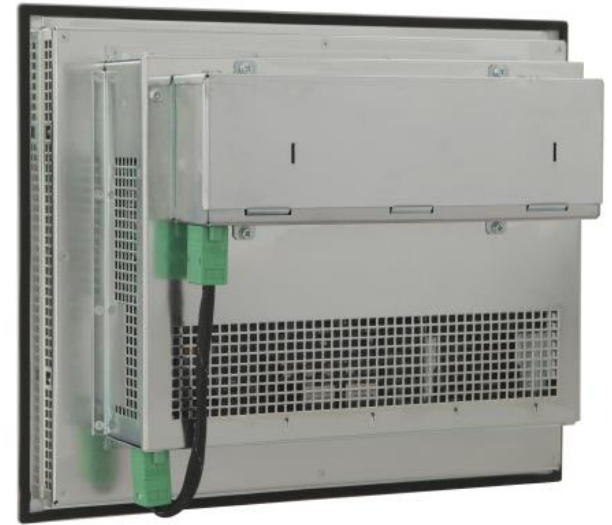
External battery pack

- 2500mAh 12V/13A max lead battery (Pb)
- Full charge in 3 hours
- Lifetime 10y at 25°C, full charge

Software Management Tools

Smart battery management to extend lifetime

Battery estimated duration for individual system configuration



HT2200 - Mass Storage

CFast (all versions)

- 1 x bootable CFast embedded on board with external access



CFast card

Internal SSD mSATA (all versions)

- 1 x mSATA SATA 2 internal connector for direct insertion of mSATA SSD



mSATA SSD

Internal 2,5" SSD/HDD (version S0 or S1 alternative to mSATA)

- 1 x SATA 2 connector for:
 - SSD 2,5" with installation kit
 - HDD 2,5" with installation kit (also 24x7)



SSD/HDD 2,5"
With installation kit

ASEM recommends SSD memory due to its **industrial reliability** and high thermal and vibration shock resistance

HT2200 - Expansion slot & ASEM add-on

Add-on/Slot \ Version	SL	S0	S1
Add-on	No add-on	1 board among: <ul style="list-style-type: none"> • 1 x RS232/422/485 + 1 x USB • 1 x RS232/422/485 opto + 1 x USB • 2 x RS232 • 2 x USB 2.0 Additional board: <ul style="list-style-type: none"> • 1 x LAN Gigabit 	
PCI / PCIe	No slot	No slot	1 board among: <ul style="list-style-type: none"> • NETcore X APCI • CAN RAW PCI • Customer PCI/PCIe*

* max 3W

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