

HT/PB3200 Family

Fanless Panel and Box IPCs with Intel® Core i 5th gen. platform



DIGITAL AUTOMATION TECHNOLOGIES

HT/PB3200 - Highlights



- **Fanless Panel/Box IPCs** (Operating temperature 0÷50°C)
- **ASEM STANDARDS** compliants
- **ASEM UBIQUITY Basic Win32/64** runtime included
- Intel® **Broadwell U** (15W) platform
 - Intel® **Celeron 3765U** 1,9Ghz, 2 cores – 2 threads – 2MB smart cache
 - Intel® **Core™ i3-5010U** 2,1Ghz, 2 cores – 4 threads – 3MB smart cache
 - Intel® **Core™ i5-5350U** 1,8Ghz (2,9Ghz Turbo), 2 cores – 4 threads – 3MB smart cache
 - Intel® **Core™ i7-5650U** 2,2Ghz (3,3Ghz Turbo), 2 cores – 4 threads – 4MB smart cache
- **RAM** System memory expandable up to **8GB**
- **Slim** version (SL) for installation with limited depth in the back panel
- Optional **1 x PCI** or **PCIe x4** slot (S1)
- **Mass storage:** Cfast, SSD mSATA and HDD/SSD 2,5" with SATA III interface
- **Isolated 24V DC power supply** input with optionally
 - UPS with external battery kit
 - Kit for ATX mode power supply functionality

HT3200

- **Wide range of 16 mln colors LED backlight TFT LCD displays**
 - 4:3 aspect ratio: 12,1", 15", 17" (5:4), 19" (5:4)
 - 16:10 aspect ratio: 12,1"
 - 16:9 aspect ratio: 15,6", 18,5", 21,5", 24"



HT3200 – Features 1/2



	HT3200	HT3200-TF	HT3200-TFX	HT3200-TFM
LED backlight TFT LCD	12,1" (4:3) – 800x600 / 1024x768 12,1" W (16:9) – 1366x768 15.0" (4:3) – 1024x768 15.6" W (16:9) – 1366x768 / 1920x1080 17" (5:4) – 1280x1024 18.5" W (16:9) – 1366x768/ 1920x1080 19" (5:4) – 1280x1024 21.5" W (16:9) - 1920x1080 24" W (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	12,1" W (16:9) – 1366x768 15.6" W (16:9) – 1366x768 15.6" W (16:9) – 1920x1080 18.5" W (16:9) – 1366x768 18.5" W (16:9) – 1920x1080 21.5" W (16:9) – 1920x1080
TOUCH-SCREEN	Resistive 5 wires	Resistive 5 wires	Resistive 5 wires	P-CAP Multitouch
FRONT PANEL	Aluminium	TrueFlat Aluminium	TrueFlat Stainless steel	TrueFlat Aluminium
PROTECTION GRADE	IP66 – front			
PROCESSORS (soldered)	Intel® Celeron 3765U 1,9Ghz, 2 cores – 2 threads – 2MB smart cache Intel® Core™ i3-5010U 2,1Ghz, 2 cores – 4 threads – 3MB smart cache Intel® Core™ i5-5350U 1,8Ghz (2,9GHz Turbo), 2 cores – 4 threads – 3MB smart cache Intel® Core™ i7-5650U 2,2Ghz (3,3GHz Turbo), 2 cores – 4 threads – 4MB smart cache			
CHIPSET	Intel® Broadwell PCH-LP (Platform controller Hub – Low Power) included into processor			
VIDEO CONTROLLER	Intel® HD Graphics integrated in Celeron™ 3765U microprocessor, 850MHz clock Intel® HD Graphics 5500, integrated in Core™ i3 microprocessor, 900MHz clock Intel® HD Graphics 6000, integrated in Core™ i5, i7 microprocessors, 1GHz clock with LVDS 8bit/color digital interface			
SYSTEM MEMORY – RAM	2GB or 4GB or 8GB or 16GB (1 x SODIMM DDR3 module)			
MASS STORAGE	SL	1 x bootable CFast SATA III slot on board with external rear access 1 x onboard connector for direct insertion of mSATA SSD SATA III		
	S0/S1	1 x bootable CFast SATA III slot on board with external access 1 x onboard connector for direct insertion of mSATA SSD SATA III 1 x onboard connector for 2,5" SSD/HDD 24x7 SATA III with internal installation kit		

HT3200 – Features 2/2



	HT3200	HT3200-TF	HT3200-TFX	HT3200-TFM
LAN	3 x LAN 10/100/1000Mbps (2 x Intel® I210-AT, 1 x Intel® I218-LM) 1 x LAN 10/100/1000Mbps (1 x Intel® I210, optional*)			
USB	2 x USB 3.0 (Type-A, rear) 1 x USB 2.0 (Type-A, rear) 1 x USB 2.0 (Type-A, front, protected)		2 x USB 3.0 (Type-A, rear) 1 x USB 2.0 (Type-A, rear)	
SERIAL	1 x RS232 (DB9M)			
VIDEO OUTPUT	1 x DVI-I (DVI-D + VGA with adapter)			
ADD-ON INTERFACES (optional for S0/S1 – max 1)	1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A) 1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A) 2 x RS232 (DB9M) 2 x USB 2.0 (Type-A)			
FIELDBUS	1 x NETcore X fieldbus *			
WIRELESS COMMUNICATION (optional)	1 x carrier for WiFi module and/or 3G/4G modem *			
EXPANSION SLOT S1	1 x PCI or PCIe x4 (5 Gb/s)			
POWER SUPPLY UNIT	24VDC isolated 24VDC isolated with UPS with external battery kit (optional) ATX Mode push button (optional)			
CERTIFIED O.S.	Microsoft Windows 10 IoT Enterprise 2016 64bit, Microsoft Windows 8.1 Industry Pro 32/64bit, Microsoft Windows 7 Pro/Ultimate 32/64bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit (HT-TFM: no WES7E), Linux			
OPERATING TEMPERATURE	0°- 50°C 0°- 45°C with 24x7 HDD			
APPROVALS	CE, cULus LISTED (61010)			

* Options cannot be installed together

PB3200 – Features 1/2



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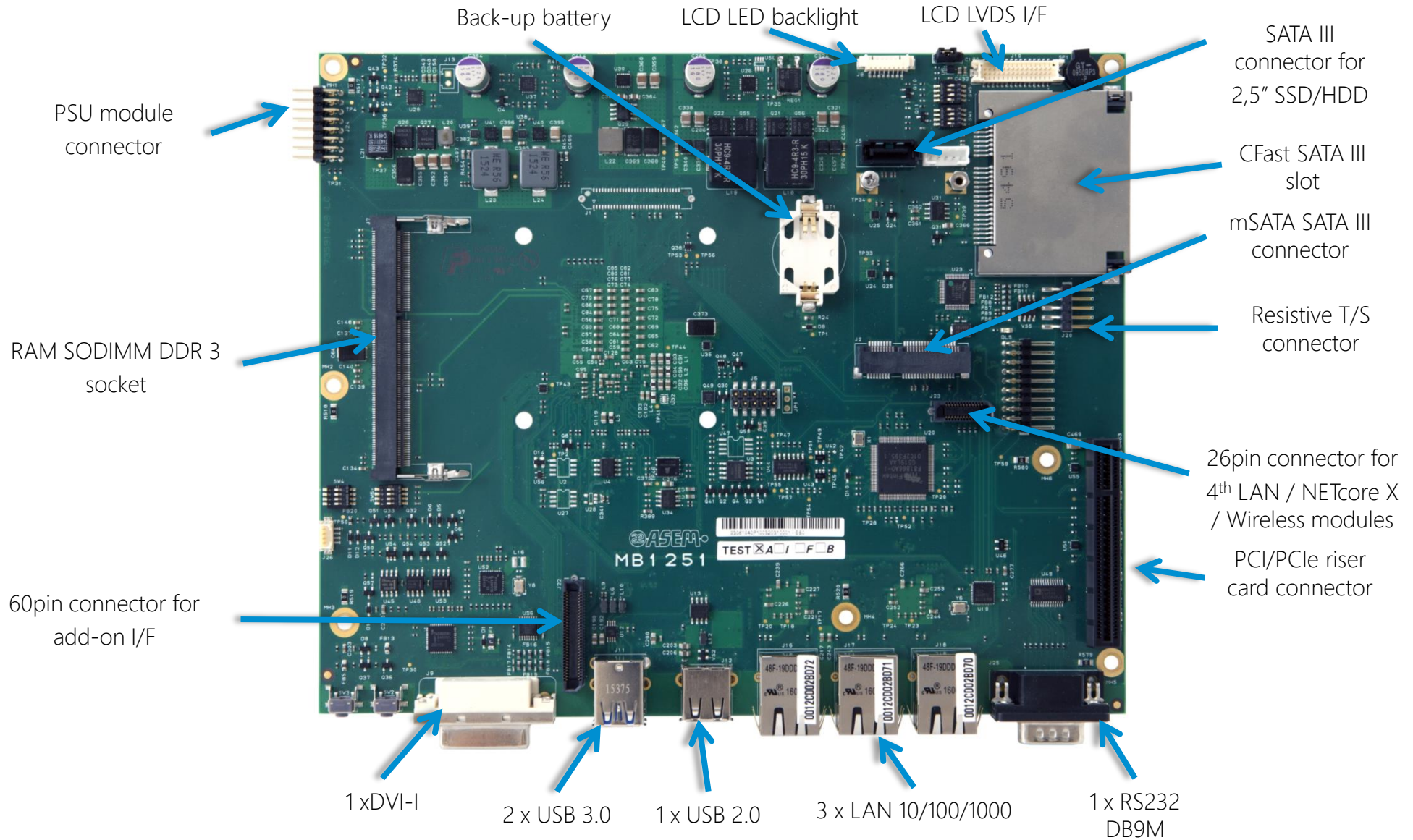
PB3200 – Features 2/2



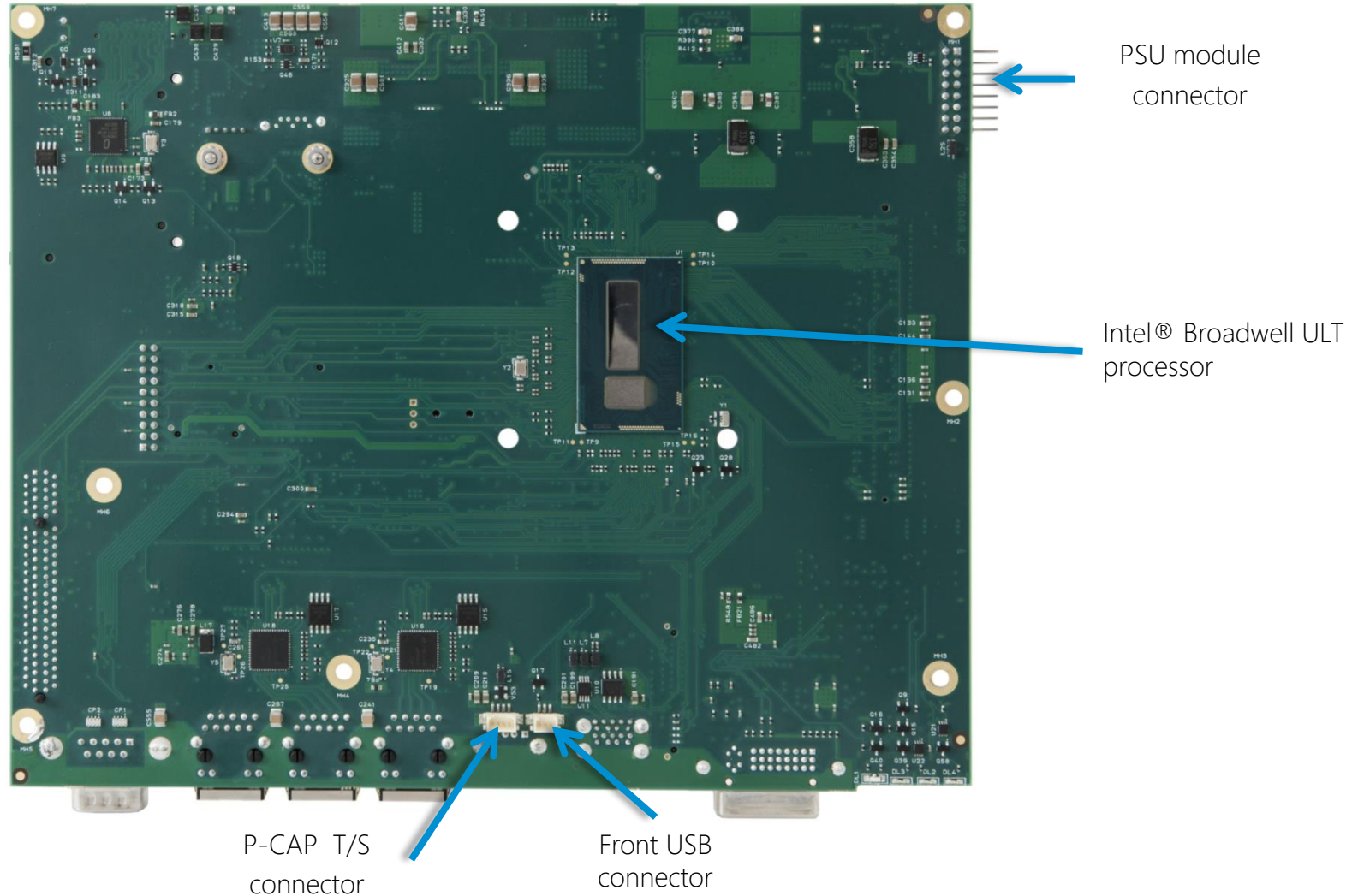
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SERIAL		1 x RS232 (DB9M)
VIDEO OUTPUT		1 x DVI-I (DVI-D + VGA with adapter)
ADD-ON INTERFACES (optional for S0/S1 – max 1)		1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A) 1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A) 2 x RS232 (DB9M) 2 x USB 2.0 (Type-A)
FIELDBUS		1 x NETcore X fieldbus *
WIRELESS COMMUNICATION (optional)		1 x carrier for WiFi module and/or 3G/4G modem *
EXPANSION SLOT	S1	1 x PCI or PCIe x4 (5 Gb/s)
POWER SUPPLY UNIT		24VDC isolated 24VDC isolated UPS with external battery module (optional) ATX Mode push button (optional)
CERTIFIED O.S.		Microsoft Windows 10 IoT Enterprise 2016 64bit, Microsoft Windows 8.1 Industry Pro 32/64bit, Microsoft Windows 7 Pro/Ultimate 32/64bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Linux
OPERATING TEMPERATURE		0°- 50°C 0°- 45°C with 24x7 HDD 5°- 45°C with standard HDD
APPROVALS		CE, cULus LISTED (61010)

* Options cannot be installed together

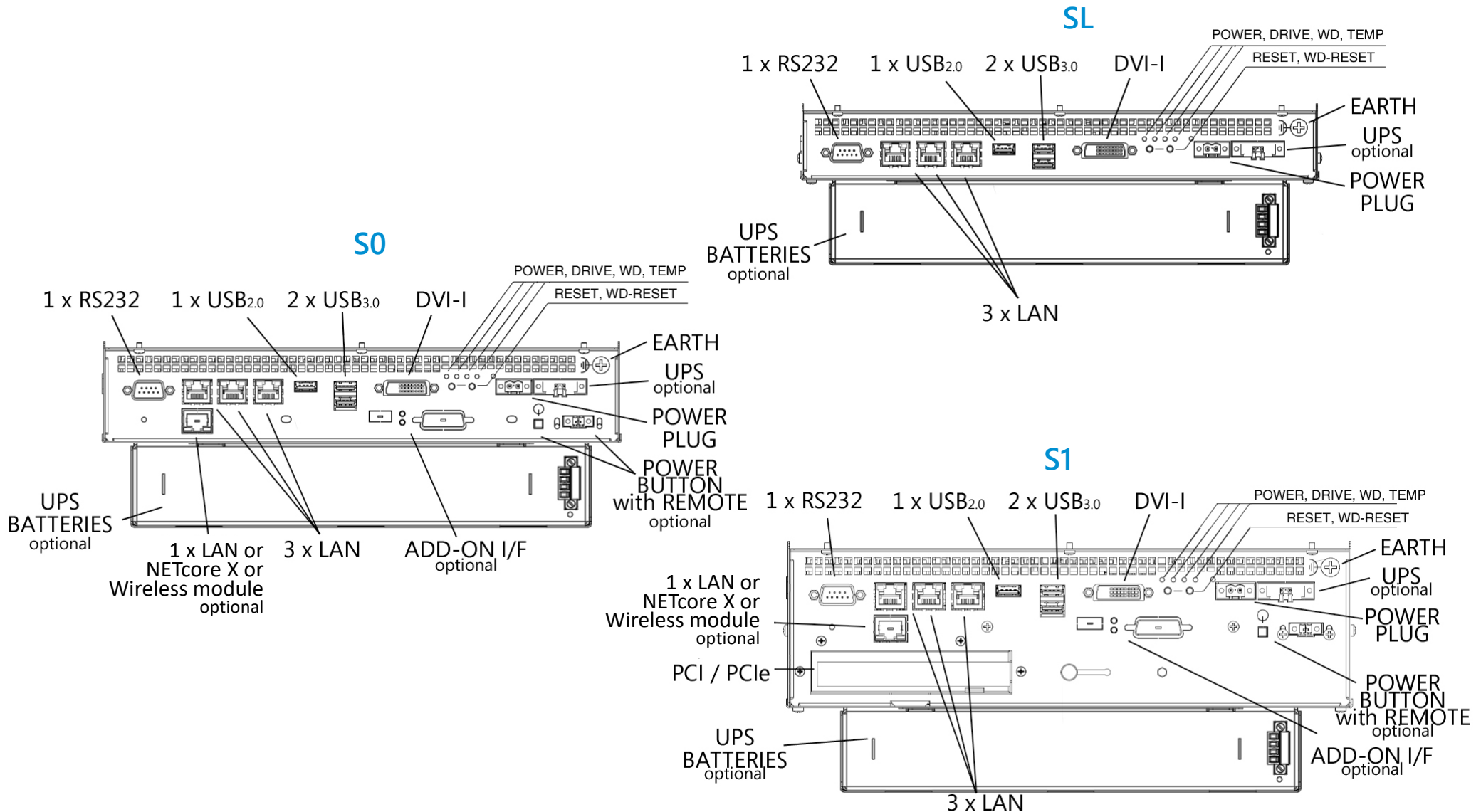
HT/PB3200 – Motherboard «All-in-one» 1251, top



HT/PB3200 - Motherboard «All-in-one» 1251, bottom



HT/PB3200 - Rear Interfaces & Connectors



HT/PB3200 - O.S. compatibility

- Operating systems **certified by ASEM**
 - Win 10 IoT Enterprise 2016 64bit
 - Win 8.1 Industry Pro 32/64bit
 - Win 7 Pro/Ultimate 32/64bit
 - Win Embedded Standard 7E/7P 32/64Bit
 - Linux
- Intel® **Broadwell U platform** does not support:
 - Win XP Pro 32bit
 - Windows Embedded Standard 2009 (XPe SP3) 32bit
 - Win 2000/ 98/ NT
- Operating systems supported by the Intel platform but not certified by ASEM
 - VxWorks
 - QNX

HT/PB3200 - Integrated UPS (optional)

UPS integrated in the internal power supply unit

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

UPS features

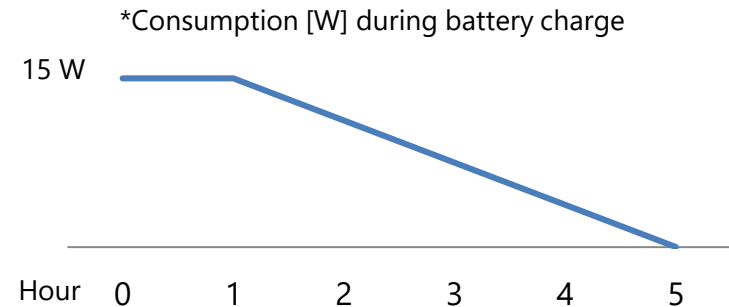
- 12V DC UPS battery backup system
- Input voltage intervention threshold 18V DC
- 10' nominal duration at 25°C, full charge, 5A load (estimated value)
- 15W max consumption during battery charge*

External battery pack

- 2500mAh 12V/6A max lead battery (Pb)
- Full charge in 5 hours
- Lifetime 10y at 25°C, full charge

Software Management Tools

- Smart battery management to extend lifetime
- Battery estimated duration for individual system configuration



HT/PB3200 - Mass Storage

CFast (all versions)

- 1 x bootable CFast SATA III embedded on board with external access



SSD mSATA (all versions)

- 1 x onboard connector for direct insertion of mSATA SSD SATA III



2,5" SSD/HDD (version S0 or S1)

- 1 x onboard connector for 2,5" SSD/HDD SATA III with internal installation kit



HT/PB3200 - Optional add-on boards for versions S0/S1

Position A

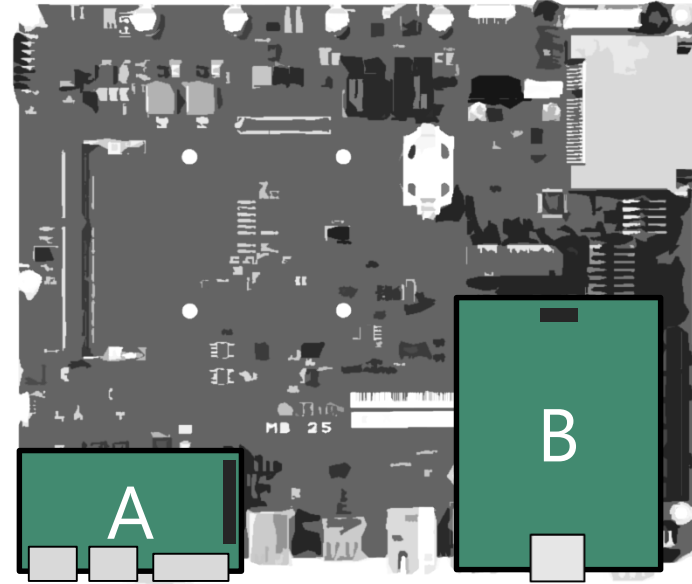
One board among:

- 1 x RS232/422/485 + 1 x USB 2.0
- 1 x RS232/422/485 isol.+ 1 x USB 2.0
- 2 x RS232
- 2 x USB 2.0

Position B

One board between:

- 1 x LAN Gigabit
- 1 x NETcore X fieldbus board
- 1 x wireless modules carrier



Fieldbus available for NETcore X:
EtherCAT *Master/Slave*
PROFINET *Controller/Device*
EtherNet/IP *Scanner/Adapter*
PROFIBUS *Master/Slave*
CANopen *Master/Slave*

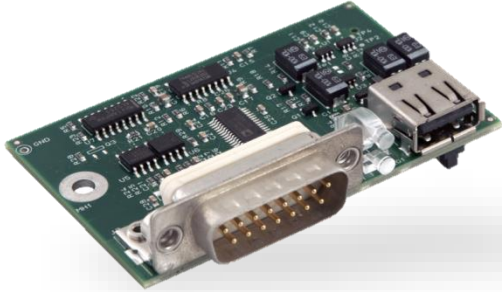
HT/PB3200 - Expansion slot & ASEM add-on

Add-on/Slot \ Version	SL	S0	S1
Add-on	No add-on	Position A (60pin-H), one board among: <ul style="list-style-type: none"> • 1 x RS232/422/485 + 1 x USB • 1 x RS232/422/485 isolated+ 1 x USB • 2 x RS232 • 2 x USB 2.0 Position B, one board between: <ul style="list-style-type: none"> • 1 x LAN Gigabit • 1 x NETcore X fieldbus • 1 x wireless modules carrier 	
PCI or PCIe x4	No slot	No slot	1 board among: <ul style="list-style-type: none"> • NETcore X APCI • CAN RAW PCI • Customer PCI/PCIe*

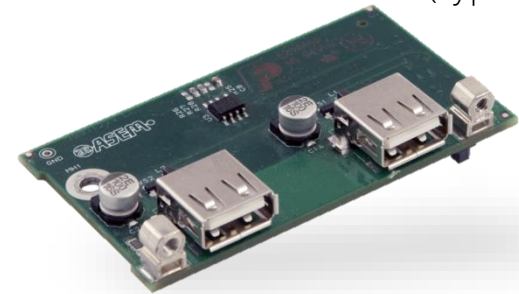
* max 3W

HT/PB3200 - Add-on interfaces Position A (optional)

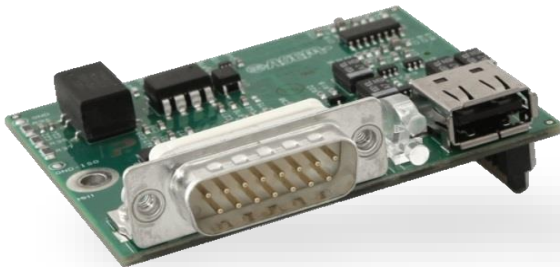
1 x RS232/422/485 (DB15M) + 1 x USB 2.0



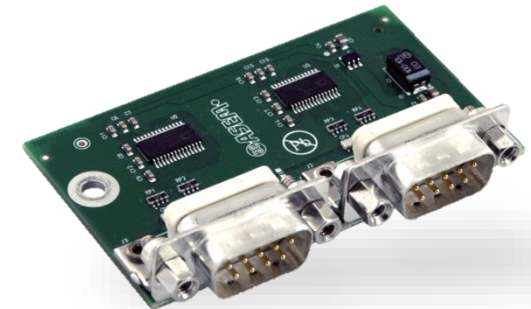
2 x USB 2.0 (Type A)



1 x RS232/422/485 optoisolated (DB15M) + 1 x USB 2.0

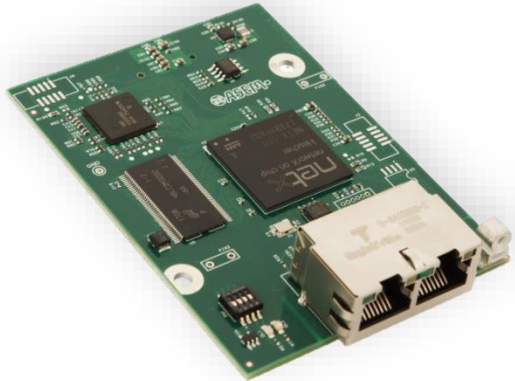


2 x RS232 (DB9M)

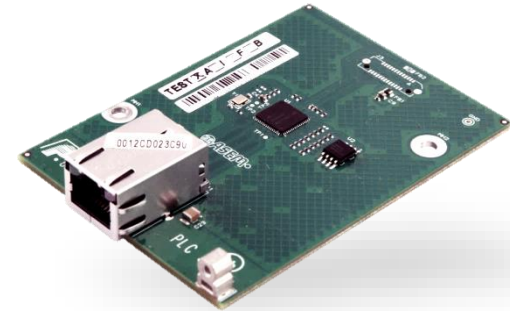


HT/PB3200 - Add-on interfaces Position B (optional)

1 x NETcore X fieldbus



1 x 10/100/1000 Mbps Ethernet (RJ45)

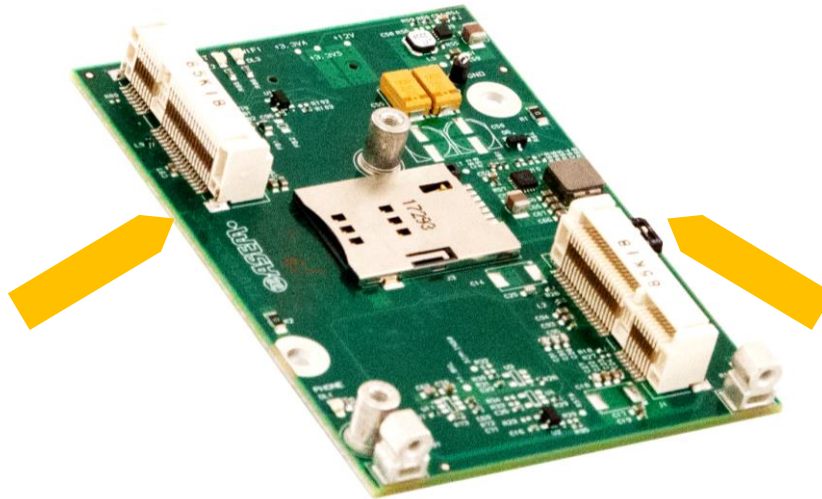


HT/PB3200 – Wireless communication modules (optional)

WiFi half MiniPCle module



Carrier board



Mobile network
2G/3G/4G modem
MiniPCle modules



		3G	4G/LTE	4G/LTE-AM
3G	Europe	✓	✓	-
	North/Latin America	✓	-	✓
	Asia	✓	✓	-
	Africa&Oceania	✓	✓	-
4G/LTE	Europe		✓	-
	North America		-	✓
	Latin America	n.a.	✓	✓
	Asia		✓	-
	Africa&Oceania		✓	-

HT3200 - Long term availability



7/10 years

Product Availability

2016

6/12 months

End Of Life
procedure

Support & Repairs

+ 5 years

ASEM S.p.A.
Via Buia 4
33011 Artegna (UD)
Italy
Tel. +39/0432-9671

industrialautomation@asem.it
www.asem.it

