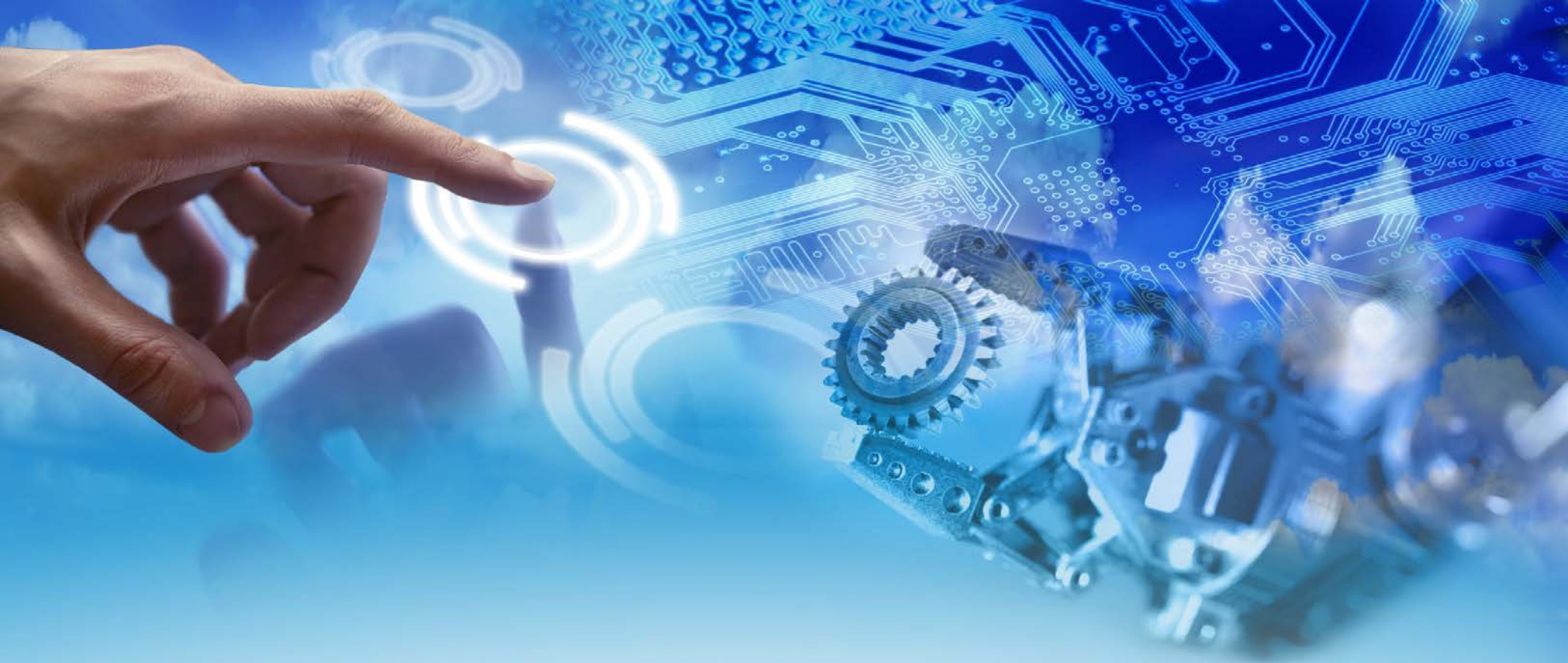




# HT3200 Family

Fanless Panel IPCs with Intel® Core i 5<sup>th</sup> gen. platform



DIGITAL AUTOMATION TECHNOLOGIES

# HT3200 - Highlights

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- **Fanless Panel PC** (Operating temperature 0÷50°C)
- **ASEM STANDARDS** compliants
- 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
- **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"
- **RAM** System memory expandable up to **8GB**
- **Slim** version (SL) for installation with limited depth in the back panel
- Optional **PCI or PCIe x4** slot (S1)
- **Win 7, Win 8.1** and **Linux** operating systems support
- **Mass storage:** Cfast, SSD mSATA and HDD/SSD 2,5" with SATA III interface
- **24V DC power supply** with galvanic isolation with options:
  - UPS with external battery kit
  - Kit for ATX mode power supply functionality

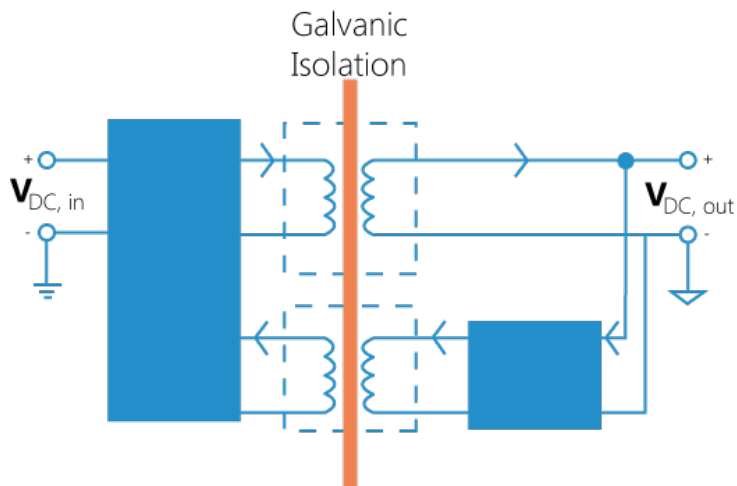
# HT3200 - ASEM Standards

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



**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

# HT3200 – Features 1/2



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

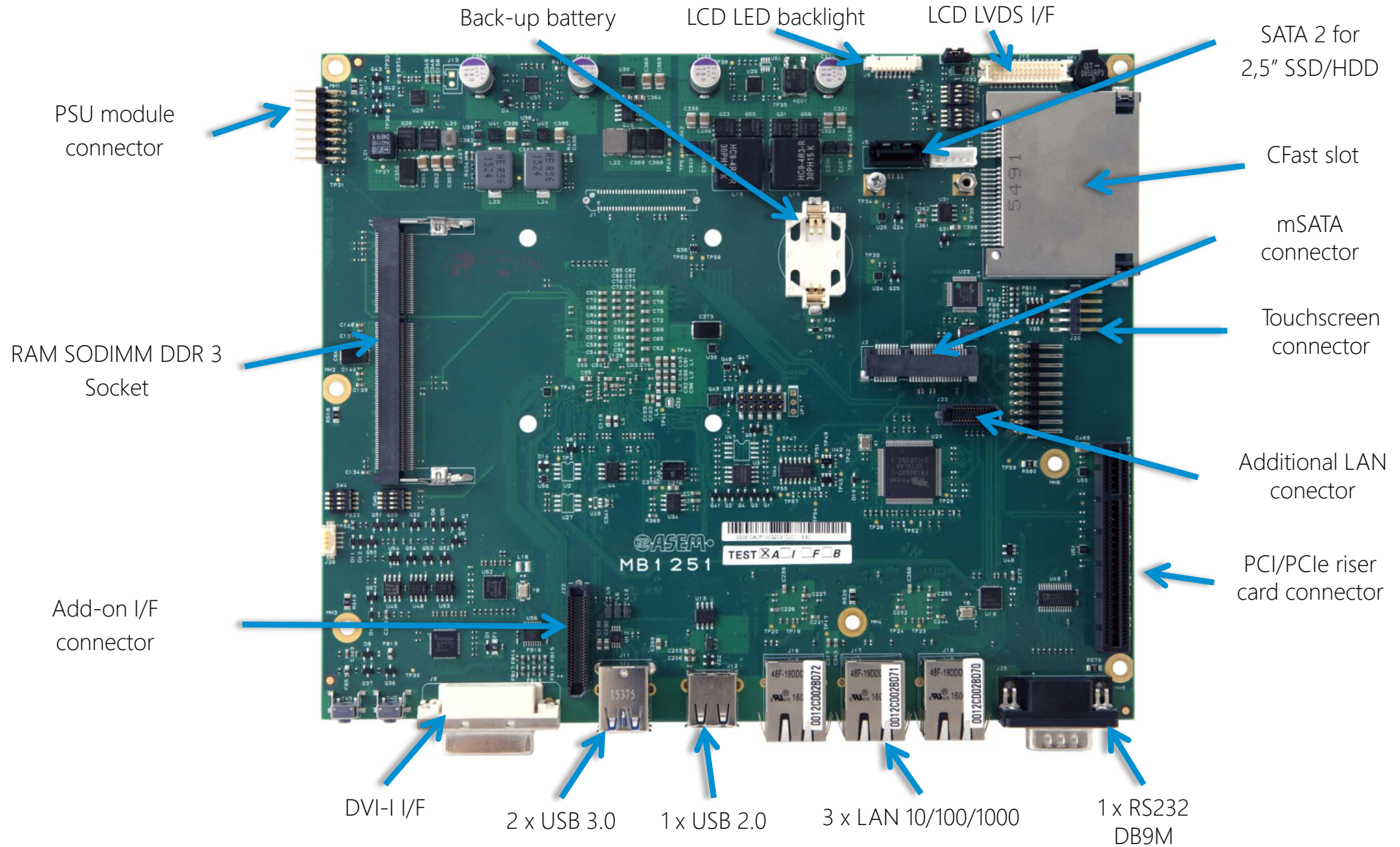
# HT3200 – Features 2/2



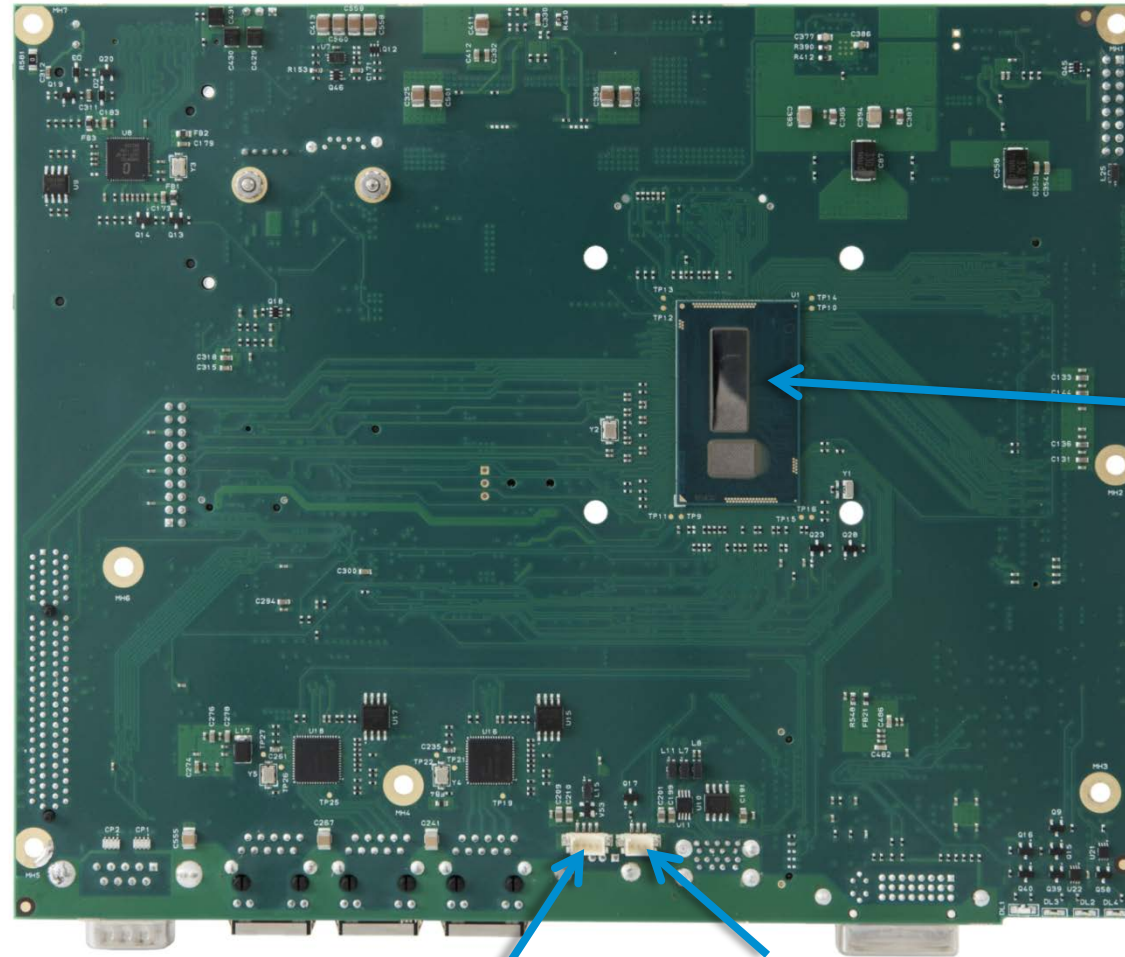
|                                                   | HT3200                                                                                                                                                       | HT3200-TF | HT3200-TFX                                               | HT3200-TFM                                                                                                             |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| LAN                                               | 3 x LAN 10/100/1000Mbps (2 x Intel® I210-AT, 1 x Intel® I218-LM)<br>1 x LAN 10/100/1000Mbps (1 x Intel® I210, optional)                                      |           |                                                          |                                                                                                                        |
| USB                                               | 2 x USB 3.0 (Type-A, rear)<br>1 x USB 2.0 (Type-A, rear)<br>1 x USB 2.0 (Type-A, front, protected)                                                           |           | 2 x USB 3.0 (Type-A, rear)<br>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<br>(optional for S0/S1 – max 1) | 1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A)<br>1 x RS232/422/485 (DB15M) optoisolated + 1 x USB 2.0 (Type-A)<br>2 x RS232 (DB9M)<br>2 x USB 2.0 (Type-A) |           |                                                          |                                                                                                                        |
| EXPANSION SLOT      S1                            | 1 x PCI or PCIe x4 (5 Gb/s)                                                                                                                                  |           |                                                          |                                                                                                                        |
| POWER SUPPLY UNIT                                 | 24VDC isolated<br>UPS (optional) with external battery module<br>ATX Mode push button (optional)                                                             |           |                                                          |                                                                                                                        |
| CERTIFIED O.S.                                    | Windows 7 Pro/Ultimate 32/64bit;<br>Microsoft Windows Embedded Standard 7E/7P 32/64 bit;<br>Microsoft Windows 8.1 Industry Pro;                              |           |                                                          | Windows 7 Pro/Ultimate 32/64bit; Microsoft Windows Embedded Standard 7P 32/64 bit; Microsoft Windows 8.1 Industry Pro; |
| OPERATING TEMPERATURE                             | 0°- 50°C<br>0°- 45°C with 24x7 HDD<br>5°- 45°C with standard HDD                                                                                             |           |                                                          |                                                                                                                        |
| APPROVALS                                         | CE, cULus LISTED (508) pending                                                                                                                               |           |                                                          |                                                                                                                        |



# HT3200 - Motherboard 1251, top



# HT3200 - Motherboard 1251, bottom



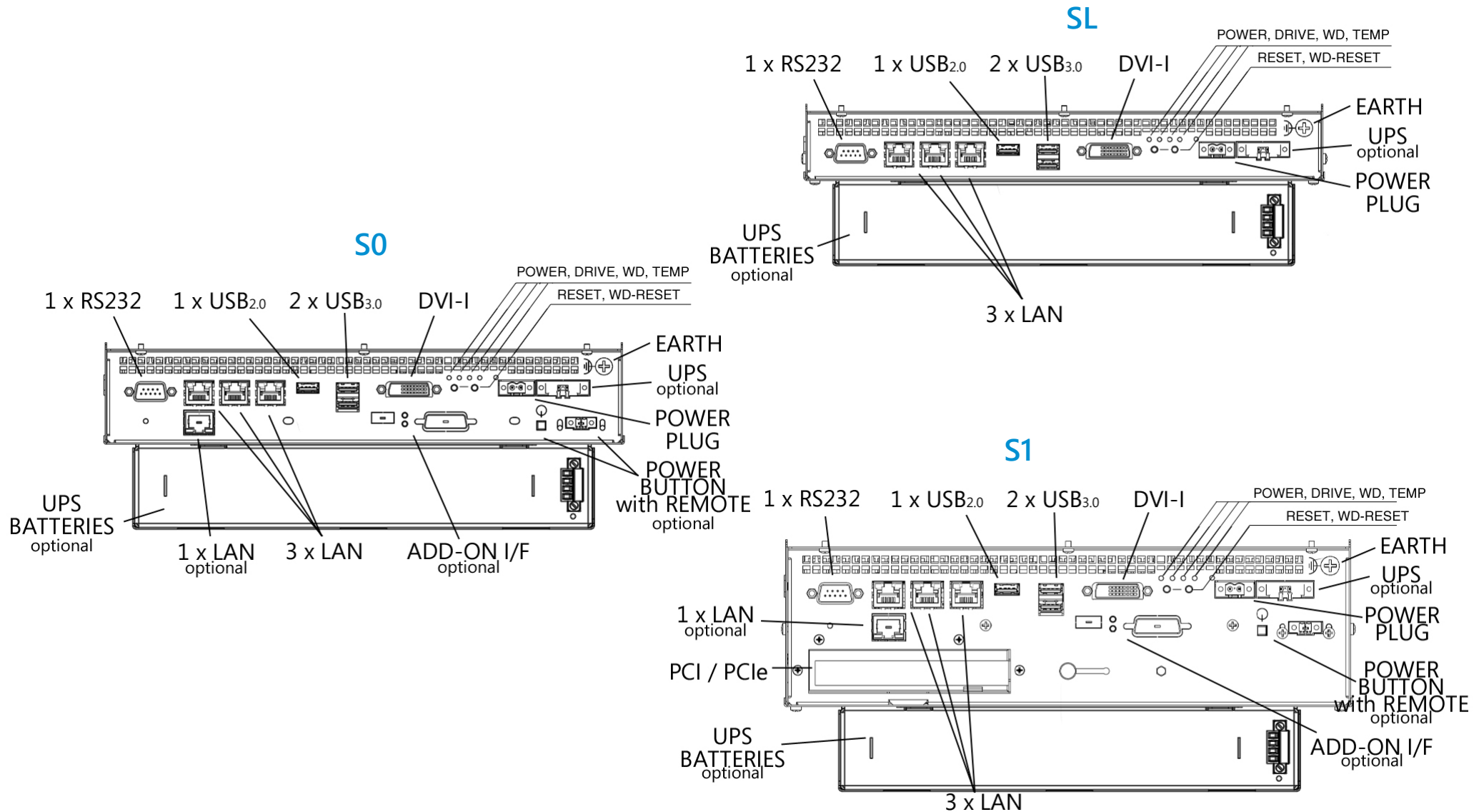
PSU module connector

Intel® Broadwell ULT processor

P-CAP Touch connector

Front USB connector

# HT3200 - Rear Interfaces & Connectors





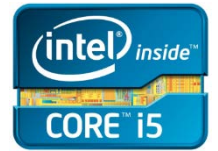
# HT3200 - Processors

- Intel® **Broadwell U platform** (5<sup>th</sup> generation Core i processors)

Ultra low voltage processors

- Intel® **Celeron 3765U** 1,9Ghz, 2 cores – 2 threads – 2MB smart cache – 15W
- Intel® **Core™ i3-5010U** 2,1Ghz, 2 cores – 4 threads – 3MB smart cache – 15W
- Intel® **Core™ i5-5350U** 1,8Ghz (2,9Ghz Turbo), 2 cores – 4 threads – 3MB smart cache – 15W
- Intel® **Core™ i7-5650U** 2,2Ghz (3,1Ghz Turbo), 2 cores – 4 threads – 4MB smart cache – 15W
  - 14nm process technology
  - Smart cache – 2/3/4 MB
  - Fast memory support - DDR3 1333/1600 MHz RAM
  - Low power consumption - 15W TDP

- PCH-LP **Companion Chip on MCP** (Multi Chip Product)
  - Intel® Platform Controller Hub – Low Power
    - Efficiency and space reduction



# HT3200 - 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

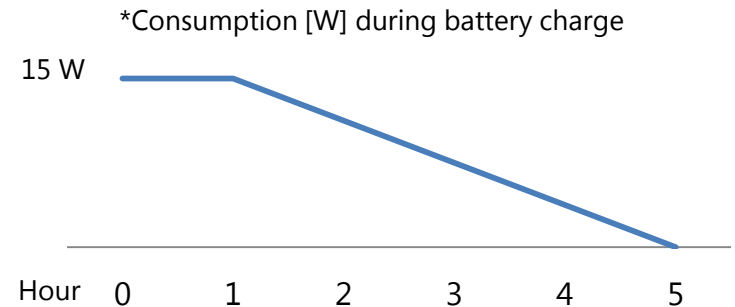
- 12V DC UPS battery backup system
- Input voltage intervention threshold 18V DC
- 10' nominal duration at 25°C, full charge, 5A load (estimated value)
- 15W max consumption during battery charge\*

## External battery pack

- 2500mAh 12V/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



# HT3200 - Mass Storage

## CFast (all versions)

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



CFast card

## Internal SSD mSATA (all versions)

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



mSATA SSD

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

- 1 x SATA III 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

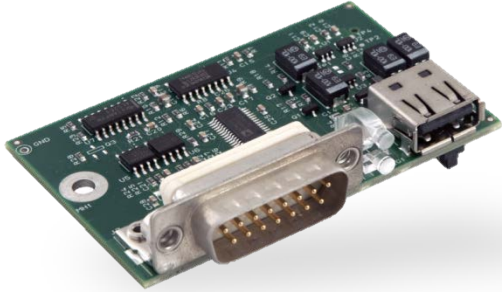
# HT3200 - Expansion slot & ASEM add-on

| Add-on/Slot \ Version | SL        | S0                                                                                                                                                                                                                                                                       | S1                                                                                                                                 |
|-----------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Add-on                | No add-on | 1 board among: <ul style="list-style-type: none"><li>• 1 x RS232/422/485 + 1 x USB</li><li>• 1 x RS232/422/485 isolated+ 1 x USB</li><li>• 2 x RS232</li><li>• 2 x USB 2.0</li></ul> Additional board: <ul style="list-style-type: none"><li>• 1 x LAN Gigabit</li></ul> |                                                                                                                                    |
| PCI or PCIe x4        | No slot   | No slot                                                                                                                                                                                                                                                                  | 1 board among: <ul style="list-style-type: none"><li>• NETcore X APCI</li><li>• CAN RAW PCI</li><li>• Customer PCI/PCIe*</li></ul> |

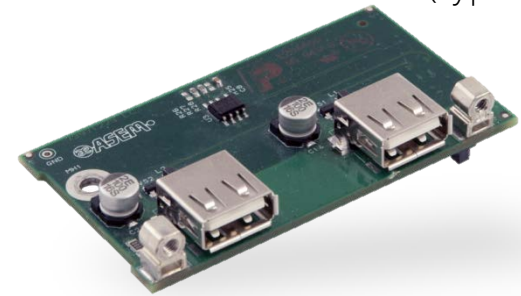
\* max 3W

# HT3200 - ASEM add-on Interfaces (optional)

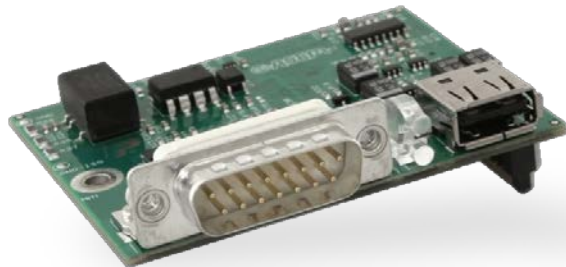
1 x RS232/422/485 (DB15M) + 1 x USB 2.0



2 x USB 2.0 (Type A)



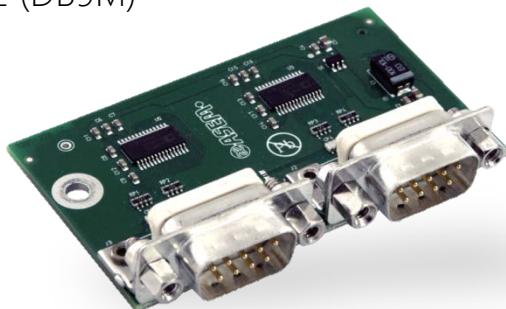
1 x RS232/422/485 optoisolated (DB15M) + 1 x USB 2.0



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



2 x RS232 (DB9M)





# HT3200 - Long term availability



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