

HT3000 Family

New Panel PCs with Intel® Ivy Bridge platform - 3rd generation Core i processors



DIGITAL AUTOMATION TECHNOLOGIES

HT3000 - Highlights



- **Fanless Panel PC** (operating temperature 0÷50°C)
- Intel® **Ivy Bridge platform** (3rd generation Core i platform)
 - **Celeron 1047UE** 1,4 GHz, Dual Core - 2 Threads - 2MB Smart Cache
 - **Celeron 1020E** 2,2 GHz, Dual Core - 2 Threads - 2MB Smart Cache
 - **Core i3 3120ME** 2,4 GHz, Dual Core - 4 Threads - 3 MB Smart Cache
 - **Core i5 3610ME** 2,7 GHz, Dual Core - 4 Threads - 3 MB Smart Cache
 - **Core i7 3612QE** 2,1 GHz, Quad Core - 8 Threads - 6 MB 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)
 - 16:9 aspect ratio: 15,6", 18,5", 21,5"

HT3000 - Highlights

- Featuring **NEW ASEM STANDARDS** (see page 6)
- Supports **Win Xp, Win 7, Win 8 (Pro & Embedded)** and **Linux** operating systems
- All common **Fieldbuses** available
- Optional PCI/PCIe slot (S1 version, see page 10)
- Fast **mass storage** write/read performance with SATA III interface



HT3000 - Highlights

Entirely **designed**, **engineered** and **manufactured** by ASEM

- Embedded fan-less solution guaranteeing maximum reliability and performances
- IP66 frontal protection rating
- Optional Glass Film Glass touchscreen technology for standard Aluminum front panel
- Operating temperature 0÷50°C also with 24x7 HDD; 5°C÷45°C with standard HDD



HT3000 - Long term availability



10 years
availability



2013

2023

2028



+5 years
support/repairs

HT3000 - New ASEM Standards

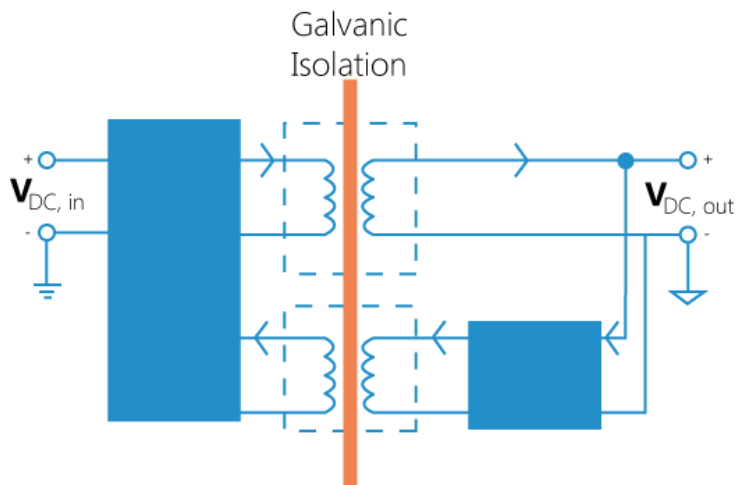
A **unique CUT-OUT** for each different size of LCD to ensure:

- 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

**NEW 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

HT3000 - Features 1/2

NEW ASEM STANDARDS



	HT3000	HT3000-TF	HT3000-TFX	HT3000-TFM
LED backlight TFT LCD	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	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	IP66K – frontal
PROCESSOR	Intel® Celeron™ 1047UE, 1.40GHz, 2 cores / 2 threads, 2MB L2, 17W, 22nm technology Intel® Celeron™ 1020E, 2.20GHz, 2 cores / 2 threads, 2MB L2, 35W, 22nm technology Intel® Core™ i3-3120ME, 2.40GHz, 2 cores / 4 threads, 3MB L2, 35W, 22nm technology Intel® Core™ i5-3610ME, 2.70GHz, 2 cores / 4 threads, 3MB L2, 35W, 22nm technology Intel® Core™ i7-3612QE, 2.1GHz, 4 cores / 8 threads, 6MB L2, 35W, 22nm technology			
CHIPSET	Intel® HM76 Express Chipset			
VIDEO CONTROLLER	Intel® HD Graphics, 650MHz integrated in Celeron™ microprocessor Intel® HD Graphics 4000, 650MHz integrated in Core™ microprocessor			
SYSTEM MEMORY - RAM	2GB / 4GB / 8GB / 16GB			
MASS STORAGE	1 bootable CFast SATA II 3Gb/s embedded on board with external access 1 x SSD 2,5" or 1 x HDD 2,5" SATA III 6Gb/s 1 x SSD mSATA SATA III 6Gb/s			

HT3000 - Features 2/2

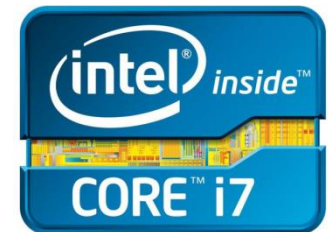
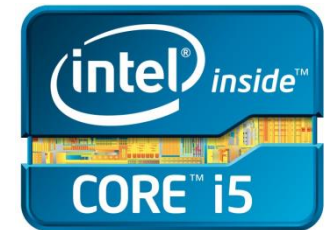
NEW ASEM STANDARDS



	HT3000	HT3000-TF	HT3000-TFX	HT3000-TFM
LAN	3 x LAN 10/100/1000Mbps (2 x Intel® 82574L, 1 x Intel 82579)			
USB	2 x USB 3.0 (rear) 2 x USB 2.0 (rear) 1 x USB 2.0 (front)		2 x USB 3.0 (rear) 2 x USB 2.0 (rear)	
SERIAL	1 x RS232 (DB9M)			
VIDEO OUTPUT	1 x VGA or 1 x DVI-I			
ADD-ON INTERFACES (optional – max 1)	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	S0	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards		
	S1	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards 1 x PCI or 1 x PCIe x4 (5 Gb/s)		
FIELDBUS	NETcore X cards (PROFIBUS, PROFINET, EtherCAT, CANopen, Ethernet IP, MODBUS TCP)			
POWER SUPPLY UNIT	24VDC isolated UPS (optional) with external battery module			
O.S. CERTIFIED	Microsoft Windows 8 Pro/Ultimate 32/64bit; Windows 7 Pro/Ultimate 32/64bit; Windows XP Pro 32bit; Microsoft Windows Embedded Standard 7E/7P 32/64 bit; Windows Embedded Standard 2009 (XPe SP3) 32bit. Other operating systems, such as Linux, 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 also with HDD 24x7 5°- 45°C with standard HDD			
APPROVALS	CE, cULus (pending, February 2014)			

HT3000 - Processors

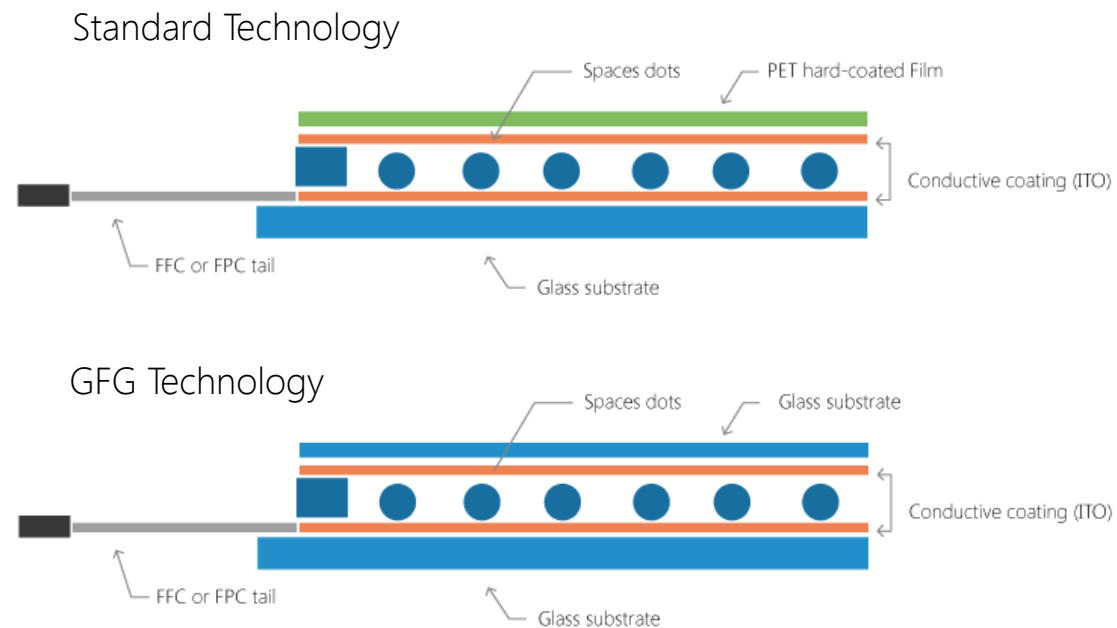
- Intel® **Ivy Bridge platform** (3rd generation Core i processors)
 - 22nm process technology
 - L2 Cache – 2/3/6 MB
 - Fast memory support - DDR3 1600MHz RAM
 - Low power consumption - 17W/35W TDP
- Processors
 - 17 W consumption
 - **Celeron 1047UE** 1,4 GHz, Dual Core - two Threads - 2MB Smart Cache
 - 35 W consumption
 - **Celeron 1020E** 2,2 GHz, Dual Core - two Threads - 2MB Smart Cache
 - **Core i3 3120ME** 2,4 GHz, Dual Core - four Threads - 3 MB Smart Cache
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- HM76 **Companion Chip**
 - Intel® Rapid Storage Technology
 - With one or multiple hard drives



HT3000 - Glass Film Glass (option)

The **Glass-Film-Glass technology** adds an additional thin glass on the surface

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



HT3000 - Integrated UPS (option)

UPS integrated in the internal power supply unit

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

UPS features

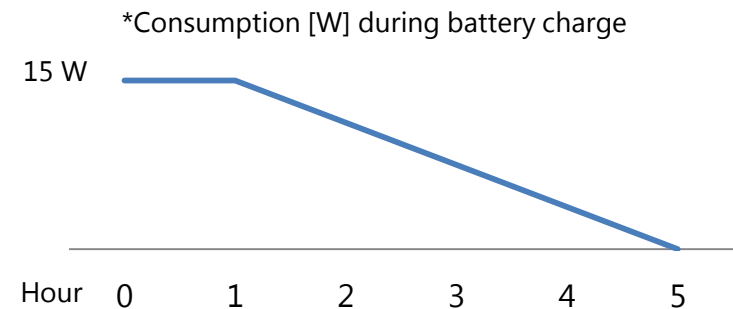
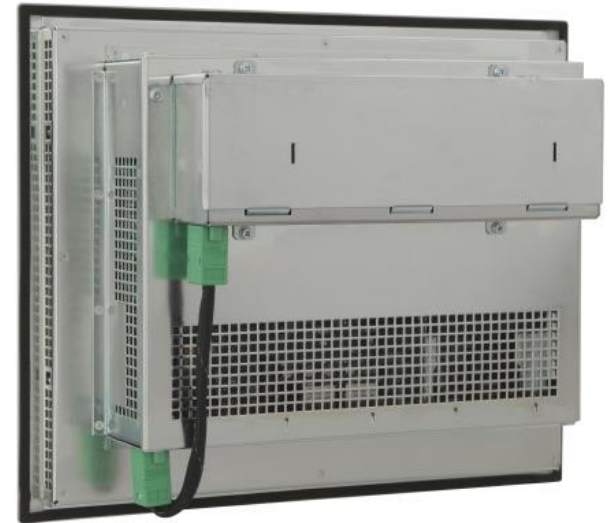
- 12V DC UPS battery backup system
- Input voltage intervention threshold 18V DC
- 15' nominal duration time at 25°C, full charge, 40W load (estimated value)
- 15W max consumption during battery charge*

External battery pack

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

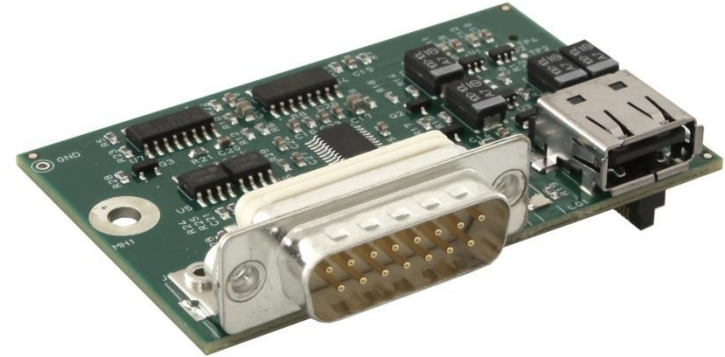
Software Management Tools

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

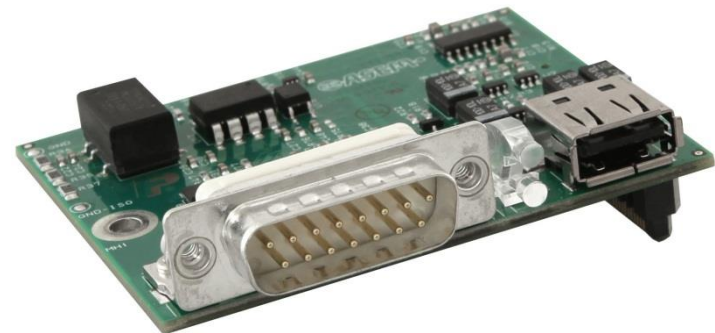


HT3000 - ASEM add-on Interfaces (option)

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



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



HT3000 - Fieldbus MiniPCI Boards (option)

NETcore® X cards enable HT/PB3000 to interface all popular fieldbus

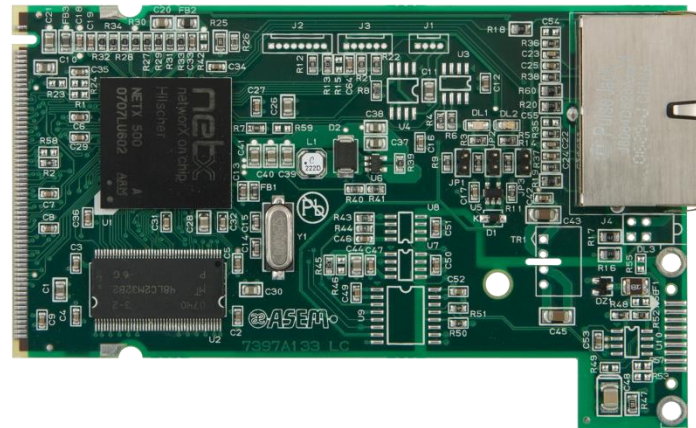
- Master or Slave function
- Available in MiniPCI format

Supported Fieldbuses

EtherCAT®

PROFI®
INDUSTRIAL ETHERNET
NET

EtherNet/IP™



CANopen®

PROFI®
PROCESS FIELD BUS
BUS

CANopen®

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