



## Industrial Automation - Products & Configurations

HT5000-TF/S0 BASIC SYSTEM		POWER [W]
Basic Configuration	LCD TFT 15" • Touch-Screen • Intel® Celeron™ dual core 1020E 2,20 GHz • 2GB RAM • Aluminum and polycarbonate TrueFlat front panel • VGA video output for additional external monitor • isolated 24V DC power supply • 12 months warranty	76

HT5000-TF/S1 BASIC SYSTEM		POWER [W]
Basic Configuration	LCD TFT 15" • Touch-Screen • Intel® Celeron™ dual core 1020E 2,20 GHz • 2GB RAM • Aluminum and polycarbonate TrueFlat front panel • VGA video output for additional external monitor • isolated 24V DC power supply • 1 PCI slot • 12 months warranty	82

HT5000-TF/S3 BASIC SYSTEM		POWER [W]
Basic Configuration	LCD TFT 15" • Touch-Screen • Intel® Celeron™ dual core 1020E 2,20 GHz • 2GB RAM • Aluminum and polycarbonate TrueFlat front panel • VGA video output for additional external monitor • isolated 24V DC power supply • 3 PCI slot • 12 months warranty	97

	S0	S1	S3		POWER [W]
<b>PROCESSOR</b>	•	•	•	Intel® Celeron™ dual core 1020E • 2,20 GHz • 2MB smart cache • 2 cores, 2 threads • TDP 35W • socket PGA988	
	•	•	•	Intel® Core™ i3-3120ME • 2,40 GHz • 3MB smart cache • 2 cores, 4 threads • TDP 35W • socket PGA 988	+ 0
	•	•	•	Intel® Core™ i5-3610ME • 2,70 GHz • 3MB smart cache • 2 cores, 4 threads • TDP 35W • socket PGA988	+ 9
	•	•	•	Intel® Core™ i7-3610QE • 2,30 GHz • 6MB smart cache • 4 cores, 8 threads • TDP 45W • socket PGA988	+ 20
	•	•	•	Intel® Celeron™ dual core B840 • 1,9 GHz • 2MB L3 cache • 2 cores, 2 threads • TDP 35W • socket PGA988	+ 0
	•	•	•	Intel® Core™ i3-3110M • 2,40 GHz • 3MB smart cache • 2 cores, 4 threads • TDP 35W • socket PGA 988	+ 0
	•	•	•	Intel® Core™ i5-3230M • 2,60 GHz (3,20 GHz Turbo) • 3MB smart cache • 2 cores, 4 threads • TDP 35W • socket PGA988	+ 9
	•	•	•	Intel® Core™ i7-3540M • 3 GHz (3,70 GHz Turbo) • 4MB smart cache • 2 cores, 4 threads • TDP 35W • socket PGA988	+ 9
<b>DISPLAY &amp; TOUCH-SCREEN</b>	•	•	•	15" LCD TFT 4:3 • XGA, 1024x768, 16M colors • backlight LED, 450 cd/m2 • Viewing angle L:R/U:L (typ): 80°:80°/70°:70°	
	•	•	•	15" Touch-Screen • 5 wires resistive technology • Controller integrated on board	
	•	•	•	15,6" W LCD TFT 16:9 • 1366x768 (HD), 16M colors • LED backlight, 400 cd/m2 • Viewing angle L:R/U:L (typ): 85°:85°/80°:80°	+ 1
	•	•	•	15,6" W Touch-Screen • 5 wires resistive technology • Controller integrated on board	
	•	•	•	17" LCD TFT 5:4 • SXGA, 1280x1024, 16M colors • backlight LED, 350 cd/m2 • Viewing angle L:R/U:L (typ): 85°:85°/80°:80°	+ 15
	•	•	•	17" Touch-Screen • 5 wires resistive technology • Controller integrated on board	
	•	•	•	18,5" W LCD TFT 16:9 • 1366x768 (HD), 16M colors • LED backlight, 300 cd/m2 • Viewing angle L:R/U:L (typ): 75°:75°/70°:70°	+ 11
	•	•	•	18,5" W Touch-Screen • 5 wires resistive technology • Controller integrated on board	
	•	•	•	19" LCD TFT 5:4 • SXGA 1280x1024, 16M colors • backlight LED, 350 cd/m2 • Viewing angle L:R/U:L (typ): 89°:89°/89°:89°	+ 26
	•	•	•	19" Touch-Screen • 5 wires resistive technology • Controller integrated on board	
<b>RAM MEMORY</b>	•	•	•	2 GB • 1 module SODIMM DDR3-1600	
	•	•	•	4 GB • 1 module SODIMM DDR3-1600	+ 1
	•	•	•	8 GB • 1 module SODIMM DDR3-1600	+ 2
	•	•	•	16 GB • 2 x 8 GB modules SODIMM DDR3-1600	+ 4
<b>INTERNAL PSU</b>	•	•	•	24V DC isolated without UPS (uninterruptible power supply)	
	•	•	•	24V DC isolated with UPS (uninterruptible power supply) • integrated in power supply section • batteries kit not included > <b>note 1</b>	+ 1
	•	•	•	115V±230V AC • 180W • autoranging	-
	•	•	•	115V±230V AC • 220W • autoranging	-
<b>RAID</b>	•	•	•	RAID 0, 1	+ 0
<b>EXTERNAL MONITOR OUTPUT</b>	•	•	•	VGA (DB15F) video interface for additional external monitor • Max resolution 2048x1536 SXGA	
	•	•	•	DVI-I (Dual Link) video interface for additional external monitor • Max resolution 2048x1536 SXGA	+ 0
<b>EXPANSION SLOTS</b>	•	•	•	No expansion slots	
	•	•	•	1 x PCI half size • on riser card • expansion board with max consumption 5W	
	•	•	•	1 x PCIe x4 format (Generation 2) half size • on riser card • expansion board with max consumption 5W	+ 0
	•	•	•	3 x PCI half size • on riser card • expansion board with max consumption 5W	
	•	•	•	2 x PCI + 1 x PCIe x4 format (Generation 2) half size • on riser card • expansion board with max consumption 5W	+ 0

OPTIONS					POWER [W]
<b>TPM</b>	•	•	•	TPM (Trusted Platform Module)	0
<b>SSD mSATA</b>	•	•	•	SSD mSATA (U110/X110), SATA 3, 6Gb/s (Solid State Disk), MLC	2
<b>SSD 2,5"</b>	•	•	•	1 x SSD 2,5" SATA installation kit (SSD not included)	-
	•	•	•	2 x SSD 2,5" SATA installation kit (SSD not included)	-
	•	•	•	SSD 2,5" U/X110 SATA 3, 6Gb/s (Solid State Disk), MLC	5
<b>HDD 2,5"</b>	•	•	•	1 x HDD 2,5" SATA installation kit (HDD not included) • with shock absorber	-
	•	•	•	2 x HDD 2,5" SATA installation kit (HDD not included) • with shock absorber	-
	•	•	•	HDD 2,5" SATA	6
<b>2,5" EXTRACTABLE DRAWER KIT</b>	•	•	•	1 x HDD/SSD 2,5" SATA extractable drawer kit (HDD/SSD not included) • with shock absorber • with drawer	-
	•	•	•	2 x HDD/SSD 2,5" SATA extractable drawers kit (HDD/SSD not included) • with shock absorber • with drawers	-
<b>CFAST</b>	•	•	•	CFAST SATA	0
<b>COMMUNICATION PORTS</b>	•	•	•	1 x RS232/422/485 serial port (DB15M) • 1 x USB 2.0 port > <b>note 2</b>	1
	•	•	•	1 x RS232/422/485 optoisolated serial port (DB15M) • 1 x USB 2.0 port > <b>note 2</b>	1
	•	•	•	2 x RS232 serial ports (DB9M) > <b>note 2</b>	2
	•	•	•	2 x USB 2.0 ports > <b>note 2</b>	0
	•	•	•	1 x Ethernet 10/100/1000Mbps, Intel® 82574L > <b>nota 2</b>	1
	•	•	•	Unmanaged Ethernet switch 4 x 10/100/1000Mbps > <b>nota 2</b>	4
<b>POWER SUPPLY</b>	•	•	•	Kit for ATX mode power supply functionality including on board button, internal cable and connector for remote command.	0
<b>UPS BATTERIES KIT</b>	•	•	•	Batteries kit for rear systems mounting • cable included	15
	•	•	•	Batteries kit for detached mounting (wall mount) • 100cm cable included	15
<b>FIELDBUS</b>	•	•	•	NETcore® X MiniAPCI fieldbus module • For technical details and supported drivers see related page > <b>note 3</b>	3
<b>WARRANTY EXTENSION</b>	•	•	•	Warranty extension to 18 months on basic system and its variants	
	•	•	•	Warranty extension to 24 months on basic system and its variants	
	•	•	•	Warranty extension to 36 months on basic system and its variants	


**NOTES**

For power consumption calculation we recommend to read the tips on pg. 4. The power values does not include the absorbed power of USB devices connected to the ports.

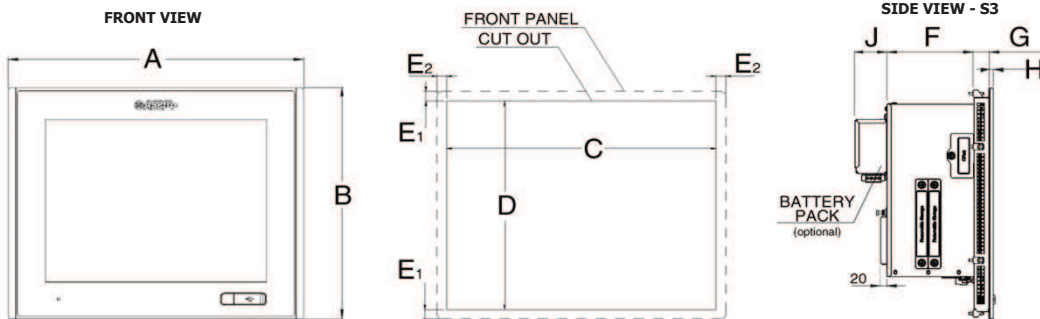
**1:** UPS functionalities are ensured with Microsoft Win32/64bits operating systems only  
The UPS can be used with Intel® Core™ i7-3610QE processor only in S0 version.

**2:** Communication ports cannot be installed together

**3:** Boards with MiniPCI / MiniAPCI bus cannot be installed together. For technical details and supported drivers see pg.212 or pg.217

**TECHNICAL SPECIFICATIONS**

Case	Panel mount
Overall dimensions & weight	See details on the related section
Front panel	Aluminum TrueFlat • Polycarbonate Pantone Cool Grey 4C color • ASEM logo serigraphed printed
Touchscreen	5 wires resistive technology • on board controller
Frontal protection	IP66
Power supply	24V DC Input voltage: 18÷32V DC • Isolated • ATX mode push button (optional) 115V/230V AC Input voltage: 85÷264V AC • autoranging • S0, S1: 180W; S3: 220W • ATX mode push button (optional)
UPS (optional only for S0 and S1)	12V DC UPS (Uninterruptible Power Supply) battery backup system Batteries module (optional): Pb, 12V/13Ah max, 2500mAh • Charge time 3h@25°C • Discharge time 5'@ 10A and 25°C • Lifetime 10years@25°C
Motherboard	Type "All-In-One" ASEM 1121 Watch dog Time programmable
Intel platform	Processor Intel® Celeron™ dual core 35W • Intel® Ivy Bridge™ third generation 35/45W Chipset Intel® HM76 Express Chipset Intel® • QM77 Express Chipset for RAID
Operating System	O.S. certified by ASEM Microsoft Windows 8 Pro 32/64bit • Windows 7 Pro/Ultimate 32/64bit • Windows XP Pro 32bit • Microsoft Windows Embedded 8 32/64bit • 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 O.S. not supported by Intel platform Microsoft Windows 2000 / 98 / NT • Microsoft Windows CE 5 / 6
Video controller	Intel® HD Graphics integrated in Intel® Celeron™ microprocessor • 650MHz • LVDS 8bit/color digital interface Intel® HD Graphics 4000 integrated in Intel® Core™ microprocessor • 650MHz • LVDS 8bit/color digital interface
Video RAM (shared)	Dynamic Video Memory Technology • Memory quantity is automatically selected by operating system
System memory	DDR3-1600 type • 2 SODIMM modules • min 2GB • max 16GB
Mass storage interfaces	2 x SATA 3, 6Gb/s • 1 x mSATA 3, 6Gb/s • integrated on board
TPM	2x10 (2,54) pin-strip connector for optional TPM module
CFast slot	1 x slot CFast (bootable) external access
Bus expansions slots	on board 2 x MiniPCI on riser card (S1) 1 x PCI or 1 x PCIe x4 • half size boards with 5W max consumption • alternative to each other on riser card (S3) 3 x PCI or 2 x PCI + 1 x PCIe x4 • half size boards with 5W max consumption • alternative to each other
Frontal access interfaces	1 x USB 2.0
Rear access interfaces	3 x Ethernet 10/100/1000 Mbps (RJ45 - 2 x Intel® 82574L, 1 x Intel® 82579LM) • 2 x USB 3.0 (Type A) • 2 x USB 2.0 (Type A) • 1 x PS/2 K/M • VGA or DVI-I output video (2048x1536 SXGA max resolution)
Rear access serial interfaces	1 x RS-232 (DB9M)
Filters	It is recommended to change the filters every 3 months or sooner if the environment conditions require it.
Environmental specifications	Operating temperature: 0° ÷ +50°C, 0°C ÷ +45°C with 24x7 HDD or LCD 24", +5°C ÷ +45°C with standard HDD • Storage temperature: -20° ÷ +60°C • Humidity: 80% (non-condensing)
Approvals	CE (EN 55022, EN 61000-3-2/3, EN 55024, EN 60950-1) • cULus LISTED (UL508)
Standard warranty	12 months • Warranty management by ASEM headquarters

**DIMENSIONS (mm)**


LCD TFT	A	B	C	D	E <sub>1</sub> /E <sub>2</sub>	F (S0/S1/S3)	G	H	J	Weight (kg)
15"	390	315	370	295	10/10	67/84/114	19	6	41,8	tbd
15,6"	430	275	410	255	10/10	67/84/114	19	6	41,8	tbd
17"	455	355	435	335	10/10	67/84/114	21	6	41,8	tbd
18,5"	500	320	480	300	10/10	67/84/114	21	6	41,8	tbd
19"	490	388	470	368	10/10	67/84/114	23	6	41,8	tbd
21,5"	579	367	559	347	10/10	67/84/114	23	6	41,8	tbd
24"	640	402	620	382	10/10	67/84/114	21,3	8	41,8	tbd

