Fanless

HT3000 [new]

The new fanless HT3000 Panel PC family is equipped with the Intel Ivy Bridge platform and 17 or 35 Watt third generation Core i7, Core i5, Core i3 and Celeron Dual Core processors based on the 22 nm manufacturing process. To date, HT3000 Panel PCs reach the highest performance with a Fanless system.

The all-in-one motherboard integrates two USB 3.0 and two rear access USB 2.0, one USB 2.0 on the IP66 front panel, three 10/100/1000 Mbps Ethernet with "Jumbo Frame" and "Wake on Lan" support, one RS232 serial interface, one rear-access CFast SATA II slot, an additional standard VGA or DVI-I output, one connector for the installation of a 2,5" SATA III HDD or SSD and up to 16 GB of RAM memory with two 1600 Mhz DD3 SODIMM modules

HT3000 family is compliant with the NEW ASEM STANDARDS and it is available with 16 million colors TFT LED Backlight LCDs with 12,1" (SVGA e XGA) and 15" in 4:3 aspect ratio, with 17" and 19" in 5:4 aspect ratio, with 15,6", 18,5", 21,5" in Wide 16:9 aspect ratio. The front panels are in aluminium and aluminium True Flat with 5 wires resistive touch-screen. Wide versions are available with glass True Flat front panels with retro-projected capacitive Multitouch.
To meet different price/performance needs, HT3000 Panel PCs are available with 5 different processors..

FANLESS

c UL us LISTED | NEW ASEM STANDARDS | DISKLESS

W7 Pro | WES | XP Pro

2GB | 4GB | 8GB | 16GB

CEL | i3 | i5 | i7

Res 5 | GFG | P-CAP

MiniPCI | PCI | PCIe

24VDC | UPS

Alu | Alu TF | Alu-TFM | INOX

12,1" | 12,1"X | 15" | 15,6"W | 17" | 18,5"W | 19" | 21,5"W

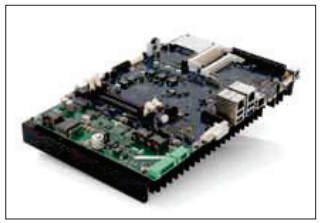

Figure 1: Aluminium P-CAP Multitouch front panel
Figure 2: Close up network
Figure 3: Motherboard 1151

FEATURES | PLUS

- NEW ASEM STANDARDS COMPLIANT:
  - STANDARD CUT-OUT FOR PANEL PCs AND MONITOR S
  - FRONT PANEL IN FOUR DIFFERENT VERSIONS
  - GALVANICALLY ISOLATED POWER SUPPLY
  - FIELDBUS FOR INDUSTRIAL COMMUNICATION (OPTIONAL)
  - INTEGRATED UPS (OPTIONAL)
- UL 508 LISTED COMPONENT CERTIFICATION (PENDING)
- IP66 OR IP66K (STAINLESS STEEL AND P-CAP MULTITOUCH) PROTECTION RATING

System characteristics

Display	Size	12.1"	12.1"	15.0"	15.6"	17"	18.5"	19"	21.5"
	Type	Color LCD TFT	Color LCD TFT	Color LCD TFT	Color LCD TFT	Color LCD TFT	Color LCD TFT	Color LCD TFT	Color LCD TFT
	Resolution	800x600 (SVGA)	1024x768 (SXGA)	1024x768 (XGA)	1366x768 (WXGA)	1280x768 (SXGA)	1366x768 (WXGA)	1280x768 (SXGA)	1920x1080 (FHD)
	Colors	16.2M	16.2M	16.2M	16.7M	16.7M	16.7M	16.7M	16.7M
	Pixel pitch	0,3075x0,3075mm	0,240 x 0,240mm	0,297x0,297mm	0,252x0,252mm	0,264x0,264mm	0,300x0,300mm	0,294x0,294mm	0,248x0,248mm
	Backlight	LED	LED	LED	LED	LED	LED	LED	LED
	Luminance	500cd/m²	600cd/m²	450cd/m²	300cd/m²	350cd/m²	300cd/m²	350cd/m²	300cd/m²
	Contrast	800:1	700:1	700:1	500:1	1000:1	1000:1	1000:1	5000:1
	Viewing angle L:R/U:L	80°: 80°/80°: 60°	80°: 80°/70°: 70°	80°: 80°/70°: 70°	85°: 85°/80°: 80°	85°:85° / 80°:80°	170° / 160°	85°: 85°/80°: 80°	178° / 178°
	Lifetime (min.)	100.000h	50.000h	100.000h	50.000h	50.000h	50.000h	50.000h	50.000h
Touchscreen Optional	Technology	5 wires – analog - resistive			Projective capacitive - 4 fingers - antiglare				
	Light transimission	80% ±2%			90% ± 3%				
	Lifetime	35mln activations			100mln activation				
	Linearity deviation	< 1 %			< 1%				
	Interface	Serial			USB				
	Glass Film Glass	Optional for 12.1", 15" and 17"			-				
Motherboard	Model	All-in-one, ASEM MB1151							
	HW monitor	Temperature monitor							
	Watch-dog	Time programmable							
CPU	Processor	Intel® Celeron 1047UE	Intel® Celeron™ 1020E	Intel® Core™ i3 3120ME		Intel® Core™ i5 3610ME		Intel® Core™ i7 3612ME	
	Frequency	1.4GHz	2.2GHz	2.4GHz		2.7GHz		2.1GHz	
	Core / Threads	2 / 2	2 / 2	2 / 4		2 / 4		4 / 8	
	Cache	2MB Smart Cache	2MB Smart cache	3MB Smart cache		3MB Smart cache		6MB Smart cache	
	TDP / IS / Technology	17W / 64bit / 22nm	35W / 64bit/ 22nm	35W / 64bit/ 22nm		35W / 64bit/ 22nm		35W / 64bit/ 22nm	
	Platform controller HUB	Intel® HM76	Intel® HM76	Intel® HM76		Intel® HM76		Intel® HM76	
Graphic	Controller	Intel® HD Graphics, 650MHz integrated in microprocessor Celeron™ Intel® HD Graphics 4000, 650MHz integrated in microprocessor Core™							
	Memory	Dynamic Video Memory Technology, memory dimension is selected by operating system, max 512MB							
System memory	Type	DDR3 800/1066							
	Size	2 GB, 4 GB, 8 GB, 16 GB							
	Socket	2 x SODIMM							
Serial interfaces	Type	1 x RS232 (DB9M)							
	UART	16550 compatible (FIFO 16 byte)							
	Transfer rate	115kbps max							
	Optoisolation	No							
Optional (note 2)	Type	1 x RS-232/422/485 (DB15M)							
	UART	16550 compatible (FIFO 16 byte)							
	Transfer rate	187.5kbps max							
	Optoisolation	optional							
PS/2 interfaces	Type	1 x PS/2 Keyboard/Mouse							
Ethernet interfaces	Type	3 x 10/100/1000Mbps (RJ45)							
	Controller	2 x Intel 82574L; 1 x Intel 82579							
	Jumbo frames/WOL	Yes/Yes							
USB interfaces	Type	2 x USB 3.0 (rear, TYPE-A, host port, protected), 2 x USB 2.0 (rear, TYPE-A, host port, protected), 1 x USB 2.0 (front, TYPE-A, host port, protected), 1 x USB 2.0 (rear, TYPE-A, host port, protected optional with serial multistandard interface)							
	Transfer rate	USB 3.0 up to 5Gbit/s (super speed), UBS 2.0 up to 480Mbit/s (high speed)							
Video output	Type	1 x VGA or 1 x DVI-I							
Compact Flash slots	Type	1 x Type I (external access, bootable) with SATA II interface							
Mass storage interfaces	Type	1 x SATA III, 6Gbps, 1 x mSATA III, 6Gbps							
Expansion slots	Type	S0: 2 x MiniPCI on board S1: 2 x MiniPCI on board, 1 x PCI or 1 x PCIe x4 for max 3W half size card							
Battery	Type	Lithium CR20032 (3V)							
	Removable	Yes							
	Lifetime	5 years							
Buttons, leds and keys	Reset buttons	System / Watch-dog							
	LEDs	Power / Storage / Watch-dog / System error							

Electrical characteristics

Power supply	Type	AT, Isolated
	Input voltage	18÷36 VDC (18÷32 VDC with UPS)
	Power consumption	TBD
	UPS	Optional with batteries kit for rear system or detached mounting, 227 x 41.8 x 73.5 mm (W x H x D)

Mechanical characteristics

Case	Type	Panel mount				
	Material	Steel, zinc galvanization				
Front panel (note 1)	Type	HT3000	HT3000-TF	HT3000-TFM	HT3000-TFX	
	Protection	IP66 / NEMA 4	IP66 / NEMA 4	IP66K	IP66K	
	Construction	Aluminum alloy	Aluminum True Flat with polyester foil	Glass	Stainless Steel True Flat with polyester foil	
	Color	-	PANTONE Cool Gray 4C	Black	RAL 7035	
	Touchscreen	Optional	Yes, with OCA (Optical Clear Adhesive)	Yes, with OCA (Optical Clear Adhesive)	Yes, with OCA (Optical Clear Adhesive)	
Measurements mm		HT3000 S0/S1 (WxHxD)	HT3000-TF S0/S1 (WxHxD)	HT3000-TFM S0/S1 (WxHxD)	HT3000-TFX S0/S1 (WxHxD)	Cutout (WxH) / Weight (Kg)
	12,1"	335 x 270 x 76/119	335 x 270 x 76/119	-	335 x 270 x 89/119	315 x 250 / TBD
	15"	390 x 315 x 76/119	390 x 315 x 76/119	-	398 x 315 x 89/119	370 x 295
	15.6"	430 x 275 x 76/119	430 x 275 x 76/119	433 x 281 x 89/119	-	410 x 255
	17"	455 x 355 x 78/121	455 x 355 x 78/121	-	455 x 355 x 91/121	435 x 335
	18.5"	500 x 320 x 78/121	500 x 320 x 78/121	503 x 321 x 91/121	-	480 x 300
	19"	490 x 388 x 78/121	490 x 388 x 78/121	-	490 x 388 x 91/121	470 x 368
	21.5"	579 x 367 x 80/123	579 x 367 x 80/123	582 x 368 x 93/123	-	559 x 347

Environmental characteristics

Temperature	Operation	0° ÷ +50°C also with HDD 24x7, 5° ÷ +45°C with standard HDD
	Storage	-10° ÷ +60°C
Humidity	Operation/Storage	80% (non-condensing)

Warranty & Approvals

UL	Marks	c UL us
	Safety	Conforms to UL-508 (1 UL - Standard for Industrial Control Equipment)
	Certificate N°	Pending
CE	Emission	Conforms to EN 55022 Information technology equipment – Radio disturbance characteristics Conforms to EN 61000-3-2 – Limits for harmonic current emissions Conforms to EN 61000-3-3 – Limits of voltage fluctuation and flicker
	Immunity	Conforms to EN 55024 Information technology equipment – Immunity characteristics
	Safety	Conforms to EN 60950-1 – Information technology equipment – Safety

Warranty		
	Management	By ASEM headquarters
	Standard	12 months
	Extended	18 / 24 / 36 months (optional)

Notes

1 With True Flat front panel, touchscreen is mandatory. Stainless Steel front panel have no USB port on the front

2 RS-232/422/485 standard and optoisolated can be installed one alternative to the other