

Fanless

HT2000 [new]

The new fanless HT2000 Panel PC family offers an excellent price/performance ratio and is equipped with the Intel Cedar Trail platform with 1,86GHz Dual Core D2550 third generation ATOM processor.

The all-in-one motherboard integrates four rear-access USB 2.0, one USB 2.0 on the IP66 front panel, two 10/100/1000 Mbps Ethernet with "Jumbo Frame" and "Wake on Lan" support, one RS232 serial interface, one rear-access CFast SATA II slot and up to 4 GB DD3 SODIMM 1066 Mhz memory modules.

HT2000 family is compliant with the NEW ASEM STANDARDS and it is available with 10,4", 12,1" - SVGA and XGA - 15" in 4:3 aspect ration, 17" and 19" in 5:4 aspect ratio, 15,6", 18,5" and 21,5" in 16:9 Wide 16 million colors TFT LED Backlight LCDs.

The front panels are in aluminium and aluminium True Flat with 5 wires resistive touchscreens. Wide versions are available with glass True Flat front panels with retro-projected capacitive Multitouch.



Figure 1: Extremely thin

Figure 2: Optional UPS

Figure 3: Motherboard 953

FEATURES PLUS



NEW ASEM STANDARDS COMPLIANT:

- STANDARD CUT-OUT FOR PANEL PCs AND MONITORS
- FRONT PANEL IN FOUR DIFFERENT VERSIONS
- GALVANICALLY ISOLATED POWER SUPPLY
- FIELDBUS FOR INDUSTRIAL COMMUNICATION (OPTIONAL)
- INTEGRATED UPS (OPTIONAL)



UL 508 LISTED COMPONENT CERTIFICATION



IP66 OR IP66K (STAINLESS STEEL AND P-CAP MULTITOUCH) PROTECTION RATING

System characteristics

Display	Size	10.4"	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	Color LCD TFT	Color LCD TFT
Resolution	800x600 (SVGA)	800x600 (SVGA)	1024x768 (SXGA)	1024x768 (XGA)	1366x768 (WXGA)	1280x768 (SXGA)	1366x768 (WXGA)	1280x768 (SXGA)	1280x768 (SXGA)	1920x1080 (FHD)
Colors	16.2M	16.2M	16.2M	16.2M	16.2M	16.7M	16.7M	16.7M	16.7M	16.7M
Pixel pitch	0.264x0.264mm	0.3075x0.3075mm	0.3075 x 0.3075mm	0.297x0.297mm	0.252x0.252mm	0.264x0.264mm	0.264x0.264mm	0.300x0.300mm	0.294x0.294mm	0.248x0.248mm
Backlight	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED
Luminance	500cd/m ²	500cd/m ²	600cd/m ²	450cd/m ²	300cd/m ²	300cd/m ²	300cd/m ²	300cd/m ²	350cd/m ²	300cd/m ²
Contrast	700:1	800:1	700:1	700:1	500:1	1000:1	1000:1	1000:1	1000:1	5000:1
Viewing angle L/R/U/L	80°: 80°/60°: 80°	80°: 80°/60°: 80°	80°: 80°/70°: 70°	80°: 80°/70°: 70°	85°: 85°/80°: 80°	85°: 85°/80°: 80°	85°: 85°/80°: 80°	170° / 160°	85°: 85°/80°: 80°	178° / 178°
Lifetime (min.)	50.000h	100.000h	50.000h	100.000h	50.000h	50.000h	50.000h	50.000h	50.000h	50.000h
Touchscreen	Type	HT	5 wires - analog - resistive			Projective capacitive - 4 fingers - antiglare				
Optional	Technology	5 wires - analog - resistive				90% ± 3%				
	Light transmission	80% ± 2%				100mln activation				
	Lifetime	35min activations				< 1%				
	Linearity deviation	< 1 %				USB				
	Interface	Serial				-				
	Glass Film Glass	Optional for 12.1", 15" and 17"								
Motherboard	Model	All-in-one, ASEM MB953								
	HW monitor	Dynamic Video Memory Technology, memory dimension is selected by operating system, max 512MB								
	Watch-dog	Time programmable								
CPU	Processor	Intel® Atom™ dual core D2550 1,86GHz								
	Cache	512KB L2								
	Platform controller	Intel® NM10								
	HUB									
Graphic	Controller	Integrated in microprocessor, 640MHz								
	Memory	Dynamic Video Memory Technology, memory dimension is selected by operating system, max 512MB								
System memory	Type	DDR3 800/1066								
	Size	1 GB, 2 GB, 4 GB								
	Socket	1 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	167.5kbps max								
	Optoisolation	optional								
Ethernet interfaces	Type	2 x 10/100/1000Mbps (RJ45)								
	Controller	2 x Intel 82574L								
	Jumbo frames/WOL	Yes/Yes								
USB interfaces	Type	4 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	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), 1 x Type I optional (external access not bootable)								
Mass storage interfaces	Type	1 x SATA II, 3Gb/s								
Expansion slots	Type	S0: 2 x MiniPCI on board S1: 2 x MiniPCI on board, 1 x PCI/PCIe x1 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	ATX (18-32 VDC with UPS)
	Input voltage	Max 60W @ 24V
	Power consumption	Optional with batteries kit for rear system or detached mounting (wall), 227 x 41.8 x 73.5 mm (W x H x D)
	UPS	

Mechanical characteristics

Case	Type	Panel mount
	Material	Steel, zinc galvanization
Front panel	Type	HT2000
	Protection	IP66
	Construction	Aluminum True Flat with polyester foil
	Color	PANTONE Cool Gray 4C
	Touchscreen	Optional
		Yes, with OCA (Optical Clear Adhesive)
Measurements	HT2000 S0/S1 (W x H x D)	HT2000-TF S0/S1 (W x H x D)
mm	300 x 245 x 76/102	300 x 245 x 76/102
	335 x 270 x 76/102	335 x 270 x 76/102
	380 x 315 x 76/102	380 x 315 x 76/102
	430 x 276 x 76/102	430 x 276 x 76/102
	455 x 355 x 78/104	455 x 355 x 78/104
	500 x 320 x 78/104	500 x 320 x 78/104
	490 x 388 x 78/104	490 x 388 x 78/104
	579 x 367 x 80/106	579 x 367 x 80/106
	HT2000-TFM S0/S1 (W x H x D)	HT2000-TFX S0/S1 (W x H x D)
	300 x 245 x 76/102	300 x 245 x 76/102
	335 x 270 x 76/102	335 x 270 x 76/102
	380 x 315 x 76/102	380 x 315 x 76/102
	433 x 281 x 76/102	433 x 281 x 76/102
	455 x 355 x 78/104	455 x 355 x 78/104
	503 x 321 x 76/102	503 x 321 x 76/102
	582 x 368 x 76/102	582 x 368 x 76/102
	HT2000-TFM S0/S1 (W x H x D)	HT2000-TFX S0/S1 (W x H x D)
	280 x 225	280 x 225
	315 x 250	315 x 250
	370 x 295	370 x 295
	410 x 255	410 x 255
	435 x 335	435 x 335
	480 x 300	480 x 300
	470 x 368	470 x 368
	559 x 347	559 x 347

Environmental characteristics

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

Warranty & Approvals

UL	Marks	Conforms to UL-508 (1 UL - Standard for Industrial Control Equipment)
	Safety	20130926-E356364
	Certificate N°	
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