

Touch Panel Industrial PC Atom E680T Model



Standard Touch Panel



Touch Panel with Key Switch

Key switches

RoHS

Applications

- Driver seat display terminal (construction vehicles ex. cranes, forklifts, outside-use vehicles)
- Gas station control panel display
- EV rapid battery charger voltage control & operation terminal
- Train driver operation instruction display panel
- Traffic control center console terminal
- Rail inspection equipment display & control terminal
- NC machine tool control display & operation

Overview

The Touch Panel Industrial PC Intel Atom E680T model runs in the wide temperature range from -20 degrees C through +80 degrees C (at starting) despite its compact size. It can operate in outdoor digital signage terminal, inside refrigerator monitoring system, and other applications under severe conditions. The product achieves low power consumption and low heat dissipation.

Features

- [Intel Atom E680T \(1.6 GHz\)](#)
The processor features high efficiency in a compact size and operates in a wide temperature range from -20 degrees C to +80 degrees C (at starting).
- [Small form factor and high durability](#)
The glass/glass or film/glass resistive touch panel allows the user to control the product with their gloves on. The feature is suitable for instruction terminal in production line. The small and robust computer and flat touch panel are ideal for embedded systems.
- [Rich interfaces](#)
With rich interfaces including 4 USB ports, audio I/O, and 2 LAN ports, it operates in various application including digital signage and instruction terminal.
- [Two Drive Composition](#)
CFast 2 slots can divide OS and data drives.
- [Wake On LAN](#)
The system can be turned on from another computer on the same local area network.
- [Zero Spindle](#)
Booting up from CF drive, the fan less design achieves silent operation and low maintenance.
- [Energy Saving](#)
Intel Atom Processor & LED back-light system achieves low power consumption.
- [Key switches](#)
Frequently used functions can be assigned to the key switches for convenient & faster operations (key switch type only)

Specifications

Model		CFast Model			
Type	Standard	TPC-C016KB08E	TPC-C016KB10E	TPC-C016KB12E	TPC-C016KB15E
	With Key Switch	TPC-C016KA08E	TPC-C016KA10E	TPC-C016KA12E	TPC-C016KA15E
Panel	LCD Size	8.4 inches	10.4 inches	12.1 inches	15 inches
	Visual Field	Right to left: +/-80° up: +80° down: +60°	Right to left: +/-80° up: +80° down: +60°	Right to left: +/-80° Up/down: +/-80°	Right to left: +/-80° Up/down: +/-80°
	Contrast Ratio	1 : 800 (typ.)	1 : 900 (typ.)	1 : 1000 (typ.)	1 : 800 (typ.)
	Touch Sensor Method	4-wire resistive glass/glass method			4-wire resistive film/glass method
	Luminance Level	320 cd/m ² (typ.)	360 cd/m ² (typ.)	400 cd/m ² (typ.)	315 cd/m ² (typ.)
	Luminance Level Adjustment	Software programmable from 0 through 255			
	Touch Sensor Surface Finish	Glare			Anti-glare
	Resolutions	10 bits 1024 × 1024			
	Environmental Protection	IP54 or equivalent (screen part only), UV protection sheet			
	Durability	Stylus pen: 100,000 times (min.) Finger: 1,000,000 times (min.)			Stylus pen: 100,000 times (min.) Finger: 10,000,000 times (min.)
	Back Light	LED (lifetime: 50,000 hours or longer at 25 degrees C until the brightness decreases to 50 % of the initial value)			
Graphics	Controller	Built into processor			
	Video Memory	Shared with main memory			
	Resolution	SVGA 800 × 600 * Resolutions may vary depending on OS and graphic driver.			XGA 1024 × 768
	Display Color	16,200,000 colors (max.)			16,190,000 colors (max.)
	Method	TFT color liquid crystal			
	Aspect Ratio	4 : 3			
Dimensions (W x D x H)[mm]		Standard: 242 × 39 × 172.4 With key switch: 242 × 39 × 172.4	Standard: 271.3 × 39 × 208.9 With key switch: 280 × 39 × 208.9	Standard: 306 × 39 × 233.9 With key switch: 318.2 × 39 × 233.9	Standard: 369 × 39 × 279 With key switch: 388 × 39 × 279
CPU	Processor	Intel Atom Processor E680T 1.6 GHz			
	Fan	No			
Chip Set		Intel EG20T			
Main Memory		1 GB/2GB : DDR2-800			
BIOS/Loader		Phoenix Secure Core Tiano			
Calendar Clock Backup Battery		Large capacity battery (typical life time: 4.5 years) BR-1/2AA (Panasonic Corporation)			
OS		Windows Embedded Standard 2009, Windows XP Professional (32 bits), Interface Linux System 6 (32 bits)			
Boot Device		CFast 4 GB/ 8 GB/ 16 GB			
Auxiliary Device		CFast slot × 1 (empty) /4 GB/ 8GB/ 16 GB			
Interfaces	Display	LVDS x 1 (20 pins) (Touch panel connected)			
	Audio	Realtek ALC889 Line output x 1 (stereo φ3.5 mini jack), Line input x 1 (stereo φ3.5 mini jack)			
	LAN	RJ-45 connector x 2, Intel WG82574IT controller, 1000BASE-T, Wake On LAN compatible, Jumbo Frame compatible			
	USB	USB Rev.2.0 Series A connector × 4			
	CFast Slot	2 slots (One slot is used for the system and the other for data.)			
	Switch	Power switch			
	Speaker	Built-in speaker (option)			
	External Input/Output	4-pin header connector (DF11-4DS-2C), power on/off × 1, RAS output × 1			
RAS	Watchdog Timer	Software programmable (1 to 255 seconds) Time-up notification is software selectable either reset or interruption			
	Hardware Monitoring	CPU temperature/board temperature/power supply voltage			
	RAS Output	Output format: relay 1a contact output x 1, output condition is software selectable. (watchdog timer, CPU temperature, board temperature, power voltage)			

Power	Rated Voltage	Rated voltage: +7 Vdc to +27 Vdc (continuous operation) Maximum rated voltage: +6 Vdc to +36 Vdc			
	Power Consumption	12.6 W (typ.)	13.6 W (typ.)	14.4 W (typ.)	T.B.D
	Power Supply for External Device	USB I/F: 5 V, maximum supply current 1 A per port, Total amount of all ports: 1A (max.)			
Weight	1.4 kg	1.6 kg	2.1 kg	T.B.D	
Operating Temperature	Temperature: -20 degrees C to +80 degrees C (at starting), -20 degrees C to +70 degrees C (continuous operation) Humidity: 10 % to 85 % (ambient temperature is lower than 40 degrees C.) (non-condensing)*				
Storage Temperature/ Humidity	-30 degrees C to 80 degrees C / 10 % to 85 % Humidity: 10 % to 85 % (ambient temperature is lower than 40 degrees C.) (non-condensing)*				
Corrosive Gas	None				
Line Noise	1kVP - P 50 ns to 1µs pulse				
	Static electricity: in contact: +/-6 kV, in the air: +/-8 kV, radiated electromagnetic field: 10 V/m Conduction: 10 V/m, FTB: signal: 1 kV, power supply: 2 kV				
Environment Resistance	Vibration resistance: 1.0 G (max.) - Vibration frequency: 10 Hz to 150 Hz - Displacement amplitude: 0.075 mm (half amplitude) - Acceleration amplitude: 9.8 m/s ² (1 G) - Duration: 75 minutes				
Shock Resistance	Shock resistance: 10 G (max.) - Duration of activity: 11 ms (not operating)				

* If an ambient temperature is 40 degrees C or higher, use the product under the following conditions for an absolute humidity.
Ambient temperature: less than or equal to 40 degrees C
Relative humidity: Less than or equal to 85%

Configuration Selections

System configurations are selectable depending on your requirement.

Model	Touch Panel Industrial Computer Atom E680T Model
CPU	Atom E680T 1.6GHz
Memory	<input type="checkbox"/> 1 GB <input type="checkbox"/> 2 GB
Display	<input checked="" type="checkbox"/> Touch panel
Boot Device	<input type="checkbox"/> CFast (4 GB) <input type="checkbox"/> CFast (8 GB) <input type="checkbox"/> CFast (16 GB)
Auxiliary Device	<input type="checkbox"/> None (CFast slot) <input type="checkbox"/> CFast (4 GB) <input type="checkbox"/> CFast (8 GB) <input type="checkbox"/> CFast (16 GB)
OS	<input type="checkbox"/> Interface Linux System 6 (L6) (32 bits) <input type="checkbox"/> Interface Linux System 6 (K6) (32 bits) <input type="checkbox"/> Windows Embedded Standard 2009 (32 bits) <input type="checkbox"/> Windows XP Professional (32 bits)
Touch Panel Size	<input type="checkbox"/> 8.4 inch <input type="checkbox"/> 10.4 inch <input type="checkbox"/> 12.1 inch <input type="checkbox"/> 15 inch
Key Switches	<input type="checkbox"/> Yes <input type="checkbox"/> No



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All product specifications are subject to change without prior notice.

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