

Touch Panel Industrial Computer Atom N2800 Model**Applications**

- Train operator instruction display panel
- Traffic control center console terminal
- Rail inspection equipment display & control terminal
- NC machine tool control display & operation
- EV rapid battery charger voltage control & operation terminal

Overview

The small all-in-one Touch Panel Industrial Computer Intel Atom N2800 model boasts film/glass or glass/glass resistive touch panel which allows the users to control the product with their gloves on. The feature is suitable for instruction terminal in production line. With rich interfaces including 5 USB ports, audio I/O, LAN, serial ports, and digital I/O, it is also applicable to digital signage.

Features

- [Intel Atom N2800 Dual Core \(1.86 GHz\)](#)
The processor features high performance with low power consumption and high cost performance.
- [Small form factor and high durability](#)
The film/glass or glass/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.
- [Zero Spindle](#)
Booting up from CF drive, the fan less design achieves silent operation and low maintenance. (except HDD model)
- [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.
- [Key switches](#)
Frequently used functions can be assigned to the key switches for convenient & faster operations (key switch type only)
- [High brightness display \(high-brightness model only\)](#)
Applying the high brightness display, the product improves the level of outdoor visibility. The brightness level is software adjustable on the scale of 0 to 255.
- [Brightness Sensor \(Key switch type only\)](#)
The ambient light sensor detects ambient brightness and adjusts brightness level automatically according to operating conditions.

Specifications

Model		Standard model			High-brightness model	
Type	Standard	TPC-E019C10SE	TPC-E019C12SE	TPC-E019C15SE	TPC-E019C12BE	TPC-E019C15BE
	With Key Switch	TPC-E019A10SE	TPC-E019A12SE	TPC-E019A15SE	TPC-E019A12BE	TPC-E019A15BE
Panel	LCD Size	10.4 inches	12.1 inches	15 inches	12.1 inches	15 inches
	Visual Field	Right to left: +/-80°, up: +80°, down: +80°			Right to left: +/-80°, up: +60°, down: +80°	
	Brightness Sensor	Yes (Key switch type only)				
	Contrast Ratio	1 : 900 (typ.)	1 : 1000 (typ.)	1 : 800 (typ.)	1 : 600 (typ.)	1 : 800 (typ.)
	Touch Sensor Method	4-wire resistive glass/glass method		4-wire resistive film/glass method		
	Luminance Level	360 cd/m ² (typ.)	400 cd/m ² (typ.)	315 cd/m ² (typ.)	900 cd/m ² (typ.)	720 cd/m ² (typ.)
	Luminance Level Adjustment	Software programmable from 0 through 255				
	Touch Sensor Surface Finish	Glare, anti-finger	Anti-glare			
	Resolutions	10 bits 1024 x 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: 70,000 hours or longer at 25 degrees C until the brightness decreases to 50 % of the initial value)		LED (lifetime: 50,000 hours or longer at 25 degrees C until the brightness decreases to 50 % of the initial value)	LED (lifetime: 100,000 hours or longer at 25 degrees C until the brightness decreases to 50 % of the initial value)	
	Graphics	Controller	Built into processor			
Resolution		SVGA 800 x 600 *		XGA 1024 x 768	XGA 1024x768	XGA 1024x768
Display Color		16,200,000 colors (max.)		16,190,000 colors (max.)	16,770,000 colors (max.)	
Method		TFT color liquid crystal				
Aspect Ratio		4 : 3				
Dimensions (W x D x H)[mm]		Standard: 271x41x208.9 With key switch: 280x41x208.9	Standard: 306x41x233.9 With key switch: 318.2x41x233.9	Standard: 369x41x279 With key switch: 388x41x279	Standard: 306x47.5x233.9 With key switch: 318.2x47.5x33.9	Standard: 369x54.5x279 With key switch: 388x54.5x279
CPU	Processor	Intel Atom Processor Atom N2800 1.86 GHz				
	Fan	No				
Chip Set		Intel NM10				
Main Memory		1 GB/2GB : DDR3-1066				
BIOS/Loader		Phoenix SecureCore Tiano				
Calendar Clock Backup Battery		Large capacity battery (typical life time: 10 years) BR-1/2AA (Panasonic Corporation)				
OS		Windows 7 Professional for Embedded Systems(32bit) Windows Embedded Standard 7(32bit) Interface Linux System(32bit)				
Boot Device		CFast 8 GB/ 16 GB				
Auxiliary Device		CFast slot x 1 (empty) /4 GB/ 8 GB/ 16 GB * HDD500 GB/ HDD 1 TB/ SSD 8 GB are also available.				

All product specifications are subject to change without prior notice.

© 2014 Interface Corporation

Interfa ces	Display	LVDS × 1 (20 pins) (Touch panel connected)
	Audio	Realtek ALC898 Line output x 1 (stereo ϕ3.5 mini jack), Line input x 1 (stereo ϕ3.5 mini jack) Microphone input x 1 (stereo ϕ3.5 mini jack)
	LAN	RJ-45 connector × 2 (1 Gbps) Intel WG82574IT controller 1000BASE-T, Wake On LAN, Jumbo Frame compatible
	USB	USB Rev.2.0 Series A connector × 5
	RS-232C	1 port (9-pin D-sub connector) *1
	RS-485	1 port (15-pin D-sub connector) *1
	CFast Slot	2 slots (One slot is used for the system and the other for data.)
	External Input/Output	4-pin header connector (e-con), power on/off × 1, RAS output × 1
	Digital Input/Output	16-pin flat cable connector Isolated digital input x 4 (with interrupt function), normally-open relay contact output x 4
	Switch	Power switch
	Speaker	-
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	Input Voltage	Rated voltage: +7 V _{ic} to +27 V _{ic} (continuous operation) Maximum rated voltage: +6 V _{ic} to +36 V _{ic}
	Power Consumption	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	T.B.D	
Operating Temperature	Temperature: 0 degrees C to +50 degrees C Humidity: 10 % to 85 % (ambient temperature is lower than 40 degrees C.) (non-condensing) ^{*2}	
Storage Temperature/ Humidity	Temperature: -20 degrees C to to 70 degrees C Humidity: 10 % to 85 % (ambient temperature is lower than 40 degrees C.) (non-condensing) ^{*2}	
Corrosive Gas	None	
Line Noise	1kVP - P 50 ns to 1μs pulse	
Noise Immunity	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	10 G (max.) Duration 11 ms (not operating)	

*1 Selectable transfer rates in RS-232C and RS-485 are as follows.

75, 110, 134, 150, 300, 600, 1200, 1800, 2400, 4800, 7200, 9,600, 14,400, 19,200, 38,400, 57600, 115200 [bps]

*2 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 N2800 Model
CPU	Atom N2800 1.86GHz
Memory	<input type="checkbox"/> 1 GB <input type="checkbox"/> 2 GB
Display	<input checked="" type="checkbox"/> Touch panel
Boot Device	<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) <input type="checkbox"/> HDD (500 GB) <input type="checkbox"/> HDD (1 TB) <input type="checkbox"/> SSD (8 GB)
OS	<input type="checkbox"/> Interface Linux System 6 (L6) (32 bit) <input type="checkbox"/> Windows Embedded Standard 7 (32 bit) <input type="checkbox"/> Windows 7 Professional (32 bit) <input type="checkbox"/> Windows Embedded Standard 2009 (32 bit) <input type="checkbox"/> Windows XP Professional (32 bit)
Touch Panel Size	<input type="checkbox"/> 10.4 inch <input type="checkbox"/> 12.1 inch <input type="checkbox"/> 12.1 inch (High brightness) <input type="checkbox"/> 15 inch <input type="checkbox"/> 15 inch (High brightness)
Key Switches	<input type="checkbox"/> Yes <input type="checkbox"/> No



Interface Amita Solutions, Inc.

Phone: (+1) 408-879-2387

Fax: (+1) 408-879-6205

E-mail: sales@amitasol.com

Website: <http://www.interface-amita.com>

All product specifications are subject to change without prior notice.

© 2014 Interface Corporation