

# PROTOUCH-8 Series (Build-in)

Projected capacitive touch panel computer with Intel® Atom™ E3800 processor

# Preliminary



optional  
UMTS / GPS / Wi-Fi / BT  


IP65 front

24 VDC    CAN    2x RS232    2x LAN    4x USB  
RS485/422

## TFT/HB101PU8

A robust industrial touch panel PC with a 10.1 inch display with projected capacitive touch and chemical resistant front. This version comes with Intel® Atom™ E3800 (formerly Bay Trail) CPU directly attached to the display housing. The fan less devices are well suited for heavy industrial use. Designed with IP65 protection at the front.

- **Build-in version**
- **Multi-core 64-bit Intel® Atom™ processor**
- **24/7 continuous operation**
- **No moving parts, maintenance free**
- **Long term availability with fixed BOM**
- **LED backlight**



### Product Highlights

- Low Power
- Fan less design
- Hardware watchdog
- Temperature supervision
- Real Time Clock
- Persistent Flash BIOS
- ESD- protection on all interfaces
- Reverse polarity protection
- Long term availability
- Operable with thin gloves

### Product Feature

- Intel® Atom™ E3800 Series
- 10.1 inch display
- Wear free projected capacitive touch technology
- Soldered RAM
- Socket for CFast Card
- Ethernet, USB3, RS232, Mini PCIe
- optional RS422/485 and isolated CAN
- Brightness control (Software)

### Markets / Applications

- Industrial Automation
- Transportation and vehicle construction
- PLC replacement
- Cleantech

Processor / Performance		
Intel® Atom™ E3825 1.33GHz 64-bit - Dual Core	•	
Intel® Atom™ E3845 1.91GHz 64-bit - Quad Core		•
Memory		
L2 cache	2MB	2MB
DDR3 RAM	2GB	4GB
8GB DDR3 RAM <sup>1</sup>	optional	optional
TFT Display		
Screen size [inch]	10.1w	10.1w
Resolution [pixel]	1280 x 800	1280 x 800
Brightness [cd/m <sup>2</sup> ]	850	850
Contrast ratio 800:1   Color performance 16.7M	•	•
Viewing angle	H-170° V-170°	H-170° V-170°
Touch Screen		
Projected capacitive technology with resistant front glass	•	•
Features		
Real time clock PC compatible	•	•
Hardware Watchdog & Temperature supervisor	•	•
Intelligent power management (Ignition controller)	•	•
TPM2.0 (SLB9665)	optional	optional
Interfaces		
Socket for CFast	1	1
Socket for microSD Card	1	1
USB version 3.0 (Type A)	1	1
USB version 2.0 (Type A)	3	3
Ethernet 10/100/1000 Mbit (I210-IT) (RJ45)	2	2
RS232 ESD protected (DSUB9)	1	1
RS232 ESD protected <sup>2</sup>	1	1
RS422/485 ESD protected (DSUB9)	optional	optional
CAN (PEAK, SJA1000 compatible) ESD protected, isolated (DSUB9)	1	1
Full size mPCIe socket <sup>2</sup>	1	1
Mini SIM socket (to mPCIe socket)	•	•
I2C bus <sup>2</sup>   HD Audio / Buzzer <sup>2</sup>	•	•
Technical Data		
Dimensions W x H x D [mm]	274 x 193 x 52	274 x 193 x 52
Net weight [gram]	~2100	~2100
Front cutout dimensions [mm]	180 x 161	180 x 161
Wall thickness [mm]	1 to 5	1 to 5
Input Voltage 9...30VDC non-isolated	•	•
Power consumption typ. in Watt @ 24V (100% Backlight no Add-ons)	~15	~20
Environmental Conditions		
Operating temperature	-30°C to +70°C <sup>3</sup>	-30°C to +70°C <sup>3</sup>
Operating temperature (cold start up) -20°C to +70°C <sup>3</sup>	•	•
Storage temperature -20°C to +75°C	•	•
Humidity 20 to 90% non condensing (less than 133.8g/m <sup>3</sup> above +60°C)	•	•
Protection standard IP65 front   IP20 rear	•	•
Shock: designed to meet EN60068-2-27	•	•
Vibration: designed to meet EN60068-2-6	•	•
EMI Conformity EN-55022/55024/61000-6-2/61000-6-4	•	•
Safety according to IEC 60950-1	•	•
UL certification <sup>1</sup>	optional	optional
MTBF ~200 000h (22.8 years) <small>excluding display, excluding battery</small>	•	•
Optional enhancement cards		
Wireless Module (LTE / GPS / WiFi / BT) <sup>1</sup>	optional	optional

<sup>1</sup> Please contact factory for minimum order quantities<sup>2</sup> on internal header<sup>3</sup> Depending on installation situation and interface connection. Please see user documentation.

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Features		
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Hardware Watchdog & Temperature supervisor	•	•
Intelligent power management (Ignition controller)	•	•
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Interfaces		
Socket for CFast	1	1
Socket for SD Card	1	1
USB version 3.0 (Type A)	1	1
USB version 2.0 (Type A)	3	3
Ethernet 10/100/1000 Mbit (I210-IT) (RJ45)	2	2
RS232 ESD protected (DSUB9)	2	2
RS232 ESD protected <sup>2</sup>	2	2
Mini PCIe socket <sup>2</sup>	1	1
I2C bus <sup>2</sup>   HD Audio / Buzzer <sup>2</sup>	•	•
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EMI Conformity EN-55022/55024/61000-6-2/61000-6-4	•	•
Safety according to IEC 60950-1	•	•
UL certification <sup>1</sup>	optional	optional
MTBF ~200 000h (22.8 years) <sup>2</sup> excluding display, excluding battery	•	•
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Product specifications subject to change without notice. | All data is for information purposes only and not guaranteed for legal purposes. Information in this data sheet has been carefully checked and is believed to be accurate. However, no responsibility is assumed for inaccuracies. Please refer to the user documentation for additional product specification.

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Version 0.3 | January 2018

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