Human Machine Interface

PROTOUCH-81 Series (Build-in)

Projected capacitive touch panel computer with Intel® Atom™ E3900 processor

optional
LTE / GPS / Wi-Fi / BT

IP65 front

Projected capacitive touch

USB 1/2 USB 3/4 LAN1 D LAN2 R COM1 COM2 VAUX PF VDC GND

24 VDC   RS232   2x LAN   4x USB

TFT/HB101PU81

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™ E3900 (formerly Apollo Lake) 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
- 24/7 continuous operation
- Maintenance free
- Safety glass, scratch resistant
- 16:9 display with LED backlight

■■ Windows IoT

Debian 9 - Stretch

CE

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

Product Feature

Intel® Atom™ E3900 Series
Intel® Celeron® or Pentium® on request
up to 2.0GHz, up to 4 Cores
10.1 inch display 16:9 ratio
RAM soldered on board up to 8GB
Socket for CFast Card
Ethernet, USB3, RS232, Mini PCIe
optional RS422/485 and isolated CAN
Brightness control (Software)

Markets / Applications

Industrial Automation
Maritime
Railway industry
Transportation and vehicle construction
PLC replacement
Cleantech

Your partner for reliable embedded computer and display solutions.

Order Code   TFT/HB101PU81H18-N102E[1]

Processor / Performance	
Intel® Atom™ x5-E3930 1.80GHz (Burst)	1.3GHz Clock - Dual Core	optional
Intel® Atom™ x5-E3940 1.80GHz (Burst)	1.6GHz Clock - Quad Core	•
Intel® Atom™ x7-E3950 2.00GHz (Burst)	1.6GHz Clock - Quad Core	optional
Memory	
L2 cache	2MB
RAM DDR3L 1866MT/s soldered on board	4GB
8GB / 2GB DDR3 RAM [1]	optional
TFT Display	
Screen size [inch]	10.1w
Resolution [pixel]	1280 x 800
Brightness [cd/m²]	850
Contrast ratio 800:1	Color performance 16.7M	•
Viewing angle	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
Communication Interfaces	
Socket for CFast	1
Socket for SD Card	1
USB version 3.0 (Type A)	1
USB version 2.0 (Type A)	3
Ethernet 10/100/1000 Mbit (I210-IT)	2
RS232 ESD protected (DSUB9)	2
RS232 ESD protected [2]	2
RS422/485 ESD protected	(DSUB9)	optional
CAN (PEAK, SJA1000 compatible) ESD protected, isolated	(DSUB9)	optional
Mini PCIe socket [2]	1
I2C bus [2]	HD Audio / Speaker [2]	•
Technical Data	
Dimensions W x H x D [mm]	274 x 193 x 52
Net weight [gram]	~2100
Front cutout dimensions [mm]	259 x 178
Wall thickness [mm]	1 to 5
Input Voltage 10...30VDC non-isolated	•
Power consumption typ. in Watt @ 24V (without Add-ons)	tbd
Environmental Conditions	
Operating temperature −30°C to +65°C [3]	•
Operating temperature (cold start up) −20°C to +65°C [3]	•
Storage temperature −30°C to +80°C	•
Humidity 20 to 90% non condensing (less than 133.8g/m³ 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-55032/55024/61000-6-2/61000-6-4	•
Safety according to IEC 60950-1	•
UL certification [1]	optional
MTBF ~200 000h (22.8 years) excluding display, excluding battery	•
Optional enhancement cards	
Wireless Module (LTE / GPS / WiFi / BT) [1]	optional

[1] Please contact factory for minimum order quantities

[2] on internal header

[3] Depending on installation situation and use case. Please see user documentation for further information.

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industrial computing