

Industrial Panel PC based on Raspberry Pi



The Liberalization of the Industry with Open Source Technology

PANEL PC





Panel PCs for industrial environment using Linux or Android

This Panel PC is based on GNU/Linux (Raspbian/Ubuntu) OS installed on an SD card.

It has many interfaces built in: Ethernet, USB, WiFi...

Using the Ethernet port or WiFi network you can remotely control all parameters, data and inputs/outputs of your control system. Furthermore, Touchberry PI comprises enough I/Os to replace PLCs on simple automation applications.

Open protocols not only allow communication with other Industrial Shields PLCs, but also third-party devices and machinery.

In complex systems, you can create a network between several TOUCHBERRY PI.

Providing integral supervision and control solution for entire production plants and real-time data at hand.

TET

10.1" TouchScreen LVDS, 315 nits, 170° viewing angle. Format 16:9, 1280x720.

Video in

MIPI CSI connector which lets you install an RPF camera module.

Integrated Storage

SD / MMC / SDIO slot.

Power supply

12Vdc to 24Vdc (5.5x2.5 Jack)

Current consumption

2.5A (12Vdc) // 1,25A (24Vdc)

Low level devices

10x GPIOs, SPI, I2C, UART

LAN connectivity

10/100 Ethernet (RJ-45)

IP 65 Available

CPU

Raspberry Pi Quad-core A53 (ARMv8) 64-bit @ 1.4GHz

SOFTWARE

Linux Androi

You can choose among these Operating Systems to boot the Panel PC.

Depending on your installation requirements and/or needs you have the flexibility to select the option that fits best with your project.





Choose the processor That fits your project



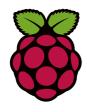
Panel PC based on Raspberry Pi, 7" TouchScreen.
From 12 to 24Vdc
5x optoisolated digital outputs (5-24Vdc)
3x optoisolated digital inputs (5-24Vdc)
2x analog inputs (4-20mA)
2x analog/digital inputs (5-24Vdc for digital) (0-10Vdc for analog)
1x Serial TTL-RS232* - 1x RS485 (half-full duplex) - 1x I2C - 1x SPI - RTC
(Real Time Clock)
UPS included

REFERENCE LIST - PANEL PC

CPU	Reference	Description	Single Board Computer (SBC) Microcontroller	RAM (GB)	Total GPIOs	Ethernet communication 10/100 Gbps Ethernet (RJ-45)	Wi-Fi & BLE (Bluetooth Low Energy)	Bluetooth	USB ports	Operative Systems	Storage	Serial TTL (UART) communication	RS-232 communication	Half/Full Duplex RS-485 communication	SPI external port communication	RTC (Real Time Clock. NOTE: 12C port used: See pinout modification)	μSD included (16GB)	UPS Icluded	Power Supply Voltage (Vdc) Range	Operating Temperture C	Operating Relative Humidity % (no condensation)	Resolution
Raspberry Pi	003002000100	Touchberry Pl 10.1 4B (Panel PC Industrial EMC Aluminum - Raspberry Pl 4B Included + µSD Card with Raspbian)	Raspberry Pi 4 Model B	2 GB	-	X1	WiFi 802.11 b/g/n/ac	5.0 BLE	2x 2.0 3x 3.0	-	Micro SD (TF) card slot	-	-	-	-	-	-	-	12/24 Vdc	0- 40°C	10- 90%	1280 x 720
	003002000200	Touchberry PI 10.1 4B (Panel PC Industrial EMC Aluminum - Raspberry PI 4B Included + 16Gb µSD Card without OS)	Raspberry Pi 4 Model B	2 GB	-	X1	WiFi 802.11 b/g/n/ac	5.0 BLE	2x 2.0 3x 3.0	-	Micro SD (TF) card slot	-	-	-	-	-	X1	-	12/24 Vdc	. 0- 40°C	10- 90%	1280 x 720
	003002000300	Touchberry PI 10.1 4B (Panel PC Industrial EMC Aluminum - Raspberry PI 4B Included)	Raspberry Pi 4 Model B	2 GB	X10	X1	WiFi 802.11 b/g/n/ac	5.0 BLE	2x 2.0 3x 3.0	Linux	Micro SD (TF) card slot	-	-	-	-	-	X1	-	12/24 Vdc	0- 40°C	10- 90%	1280 x 720
	003002000400	Touchberry PI 10.1 4B UPS (Panel PC Industrial EMC Aluminum - Raspberry PI 4 B Included + µSD Card with Raspbian - UPS included)	Raspberry Pi 4 Model B	2 GB	-	X1	WiFi 802.11 b/g/n/ac	4.0 EDR	2x 2.0 3x 3.0	Linux	Micro SD (TF) card slot	-	-	-	-	-	X1	X1	12/24 Vdc	0- 40°C	10- 90%	1280 x 720
	003002000500	Touchberry PI 10.1 4B UPS & RTC & RS485 (Panel PC Industrial EMC Aluminum - Raspberry PI 4 B Included + uSD Card with Raspbian - UPS,RTC,RS485 functions included)	Raspberry Pi 4 Model B	2 GB	-	X1	WiFi 802.11 b/g/n/ac	5.0 BLE	2x 2.0 3x 3.0	Linux	Micro SD (TF) card slot	-	-	X1	-	X1	X1	X1	12/24 Vdc	0- 40°C	10- 90%	1280 x 720
	003002400100	TouchBerry PI 7" - 10 Configurable I/Os - RS485 - RS232 - UPS Included (Raspberry Pi 4B)	Raspberry Pi 4 Model B	2 GB	X10	X1	WiFi 802.11 b/g/n/ac	5.0 BLE	2x 2.0 3x 3.0	Linux	Micro SD (TF) card slot	X1	X1	X1	X1	-	X1	X1	12/24 Vdc	0- 40°C	10- 90%	800x 400











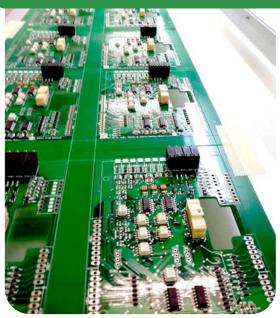
Industrial Shields was born in October 2012 from the hand of an engineer, who, searching for a more flexible PLC equipment and a better price, decided to develop its own solution using **Open** Source Hardware.

Therefore **Industrial Shields** is the brand that provides **Open** Source Hardware for industrial use, including all design and safety required, combining the best of two worlds.

Industrial Shields, designs, produces and markets the range of products based on **Open Source Hardware**.



COMPANY



Bigdata **Cloud Computing** Flexible Hardware Industrial Internet of Things

Boot & Work Corp. S.L. is a company committed to the promotion, development, manufacture and selling of products based on Open Source technology to liberalize the industrial sector and boost the growth of its customers.

Our company's goal is to provide low cost solutions for automation in industrial environments.

The Open Source Hardware solutions are still not widely introduced in the industrial sector, it is a growing market and we are its pioneers.

The balance between **quality and cost is very important** for us and so for the market, using Open Source solutions we can provide more specifications at a better price.

Even more, the Open Source solutions are **more flexible and accessible** than the standard industrial solutions, and furthermore, the software is free of licences.

Industrial Shields are convinced with a perspective focused on Industry 4.0 and the Internet of Things.

QUALITY









Incompliance with:

EN61010-1 | EN61010-2-201 | EN61131-2:2007 (Clause 8: Zone A/B EMC and clause 11:LVD) | EN61000-6-4:2007 + A1 2011 (Emissions) | EN 61000-6-2:2005 (Inmunity) | EMC: FCC Part 15



Industrial Shields has been working worldwide through distributors, or in direct contact with the customers.

Our **commercial, technical and support team** will assist you by phone, email, Skype; or using the ticket system or chat directly in our website.

Get in touch with us. We are here, glad to help and support you.



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