

Industrial Panel PC based on Raspberry Pi or Tinker Board

The Liberalization of the Industry
with Open Source Technology.



Industrial Shields®

PANEL PC

Original
Raspberry Pi
included



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.

TFT

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

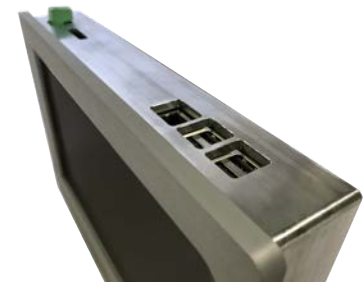
2.5A (12Vdc) // 1,25A (24Vdc)

Low level devices

10x GPIOs , SPI , I2C , UART

LAN connectivity

10/100 Ethernet (RJ-45)



CPU

Raspberry Pi

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

Tinker Board

Rockchip Quad-Core RK3288

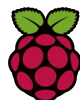
SOFTWARE

Linux Android

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

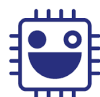
Depending on your installation requirements and/or needs you have the flexibility to select the option that fits best with your project.

Original Raspberry Pi



Choose the processor
That fits your project

Original Tinker Board



TinkerTouch 7"

Panel PC based on TinkerBoard (ASUS), encasing a 7" TouchScreen.

From 12 to 24Vdc

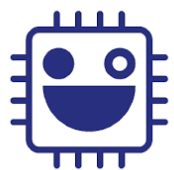
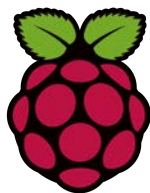
10x GPIOs Optoisolated (5-24Vdc) configurable.

1x RS485-RS232* - 1x Serial TTL - 1x I2C - 1x SPI - RTC (Real Time Clock)

UPS included

REFERENCE LIST - PANEL PC

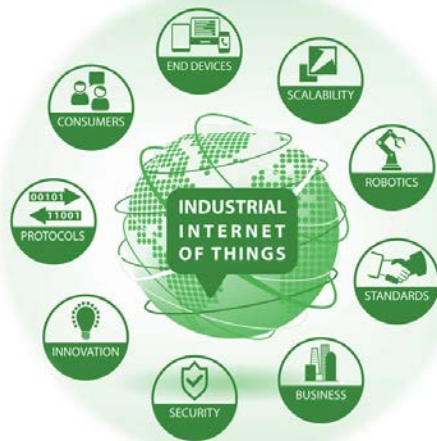
CPU	Reference	Description	Single Board Computer (SBC) Microcontroller	RAM (GB)	Total GPIOs	Ethernet communication 10/100 Gbps Ethernet (RJ-45)	Wi-Fi & BLE (Bluetooth Low Energy)	Bluetooth	USB ports	Operative Systems	Storage	Serial TTL (UART) communication	RS-232 communication	Half/Full Duplex RS-485 communication	SPI external port communication	RTC (Real Time Clock - I2C port used - See pinout modification)	µSD included (16GB)	UPS Included	Power Supply Voltage (Vdc) Range	Operating Temperature C	Operating Relative Humidity % (no condensation)	Resolution
Raspberry Pi	003002000100	Touchberry PI 10.1 4B (Panel PC Industrial EMC Aluminum - Raspberry PI 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 (17) 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 with 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 (17) 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 (17) 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 (17) 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 + µSD 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 (17) 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 (17) card slot	X1	X1	X1	X1	-	X1	X1	12/24 Vdc	0-40°C	10-90%	800x 400
Asus	003001100100	TinkerTouch S 10.1 (Panel PC Industrial, Aluminum enclosure, EMC compliance - ASUS Quad-Core, 2GB, 16Gb eMMC + MicroSD slot - LINUX)	ASUS Tinker Board	2 GB	-	X1	WiFi 802.11 b/g/n	4.0 EDR	4x 2.0	Linux	Micro SD MMC SDIO slot	-	-	X1	-	-	X1	-	12/24 Vdc	0-40°C	10-90%	1280 x 720
	003001100200	TinkerTouch S 10.1 (Panel PC Industrial, Aluminum enclosure, EMC compliance - ASUS Quad-Core, 2GB, 16Gb eMMC + MicroSD slot - ANDROID)	ASUS Tinker Board	2 GB	-	X1	WiFi 802.11 b/g/n	4.0 EDR	4x 2.0	Android	Micro SD MMC SDIO slot	-	-	X1	-	-	X1	-	12/24 Vdc	0-40°C	10-90%	1280 x 720
	003001200100	TinkerTouch S 10.1 UPS (Panel PC Industrial, Aluminum enclosure, EMC compliance - ASUS Quad-Core, 2GB, 16Gb eMMC + MicroSD slot - UPS function included - LINUX)	ASUS Tinker Board	2 GB	-	X1	WiFi 802.11 b/g/n	4.0 EDR	4x 2.0	Linux	Micro SD MMC SDIO slot	-	-	-	-	-	X1	X1	12/24 Vdc	0-40°C	10-90%	1280 x 720
	003001200200	TinkerTouch S 10.1 UPS (Panel PC Industrial, Aluminum enclosure, EMC compliance - ASUS Quad-Core, 2GB, 16Gb eMMC + MicroSD slot - UPS function included - ANDROID)	ASUS Tinker Board	2 GB	-	X1	WiFi 802.11 b/g/n	4.0 EDR	4x 2.0	Android	Micro SD MMC SDIO slot	-	-	-	-	-	X1	X1	12/24 Vdc	0-40°C	10-90%	1280 x 720
	003001300100	TinkerTouch S 10.1 UPS & RTC & RS485 (Panel PC Industrial, Aluminum enclosure, EMC compliance - ASUS Quad-Core, 2GB, 16Gb eMMC + MicroSD slot - UPS, RTC, RS485 functions included - LINUX)	ASUS Tinker Board	2 GB	-	X1	WiFi 802.11 b/g/n	4.0 EDR	4x 2.0	Linux	Micro SD MMC SDIO slot	-	-	-	-	X1	X1	X1	12/24 Vdc	0-40°C	10-90%	1280 x 720
	003001300200	TinkerTouch S 10.1 UPS & RTC & RS485 (Panel PC Industrial, Aluminum enclosure, EMC compliance - ASUS Quad-Core, 2GB, 16Gb eMMC + MicroSD slot - UPS, RTC, RS485 functions included - ANDROID)	ASUS Tinker Board	2 GB	-	X1	WiFi 802.11 b/g/n	4.0 EDR	4x 2.0	Android	Micro SD MMC SDIO slot	-	-	-	-	X1	X1	X1	12/24 Vdc	0-40°C	10-90%	1280 x 720
	003001400100	TinkerTouch 7" - 10 Configurable I/Os - RS485 - RS232 - UPS Included - Linux installed into eMMC	ASUS Tinker Board	2 GB	-	X1	WiFi 802.11 b/g/n	4.0 EDR	4x 2.0	Linux	Micro SD MMC SDIO slot	X1	X1	X1	X1	-	X1	X1	12/24 Vdc	0-40°C	10-90%	800x 400



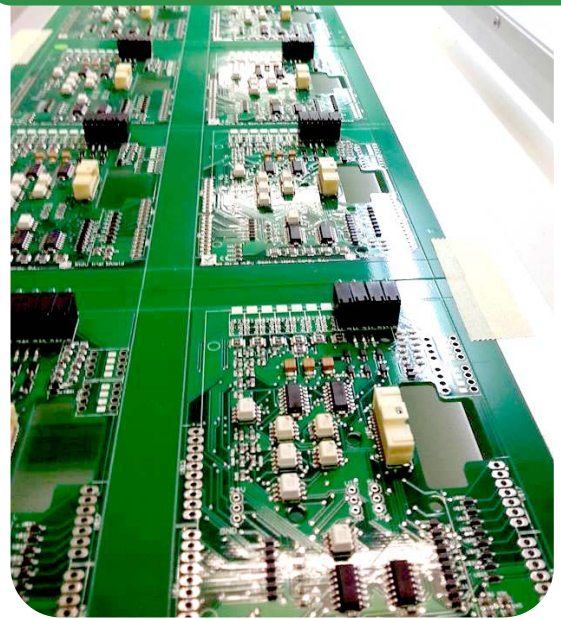
Industrial Shields was born in October 2012 from the hand of an engineer, who, searching for a more flexible PLC equipment and a better price, decided to develop its own solution using **Open Source Hardware**.

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



RoHS
COMPLIANT



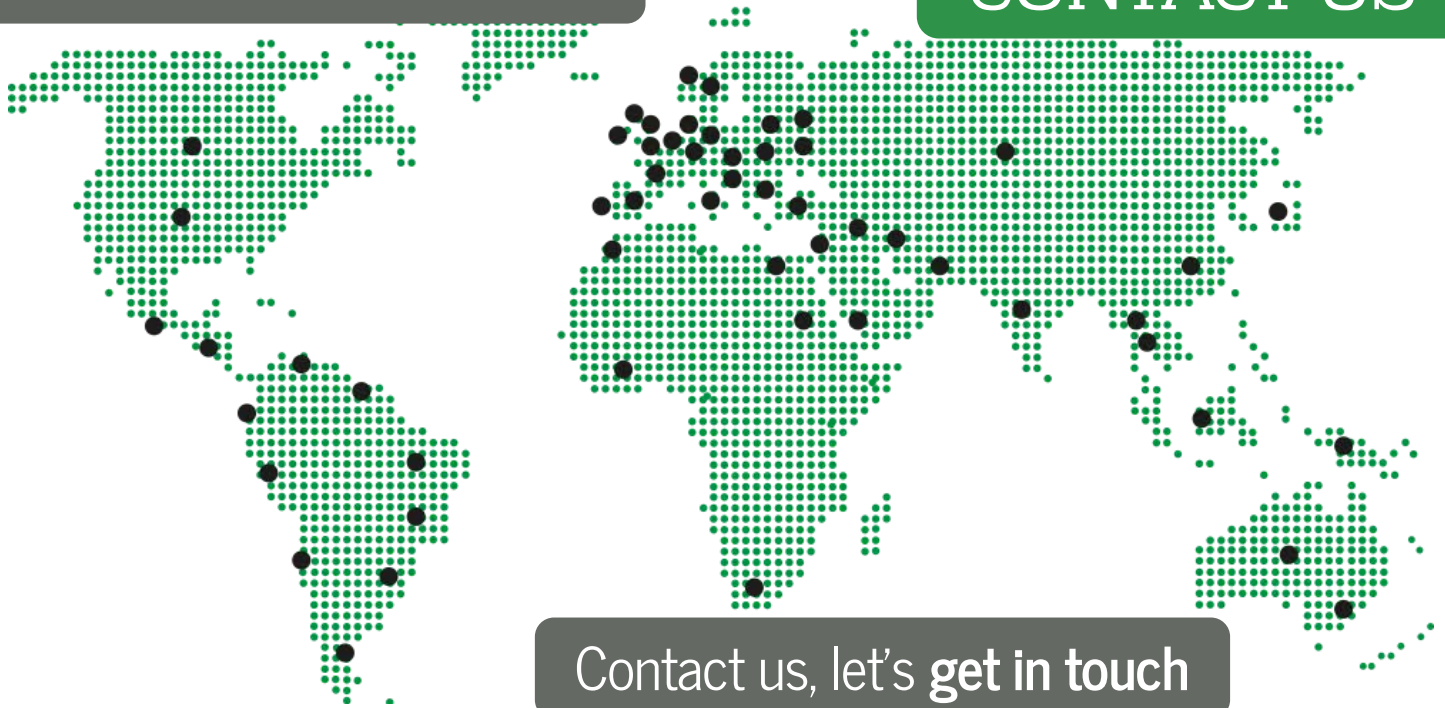
Incompliance with :

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 (Immunity) | EMC: FCC Part 15



Presence in more than 100 countries

CONTACT US



Industrial Shields has been working worldwide through distributors, or in direct contact with the customers. We have been working since 2016 with big players of the market that are selling our products in their websites.

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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