wiicom
connect everything

BOXED PRODUCTS OVERVIEW

The Wiicom boxed products family is made up of a series of fully certified Wi-Fi modules that offers a quick, easy and cost effective solution to OEMs to enable serial on Wi-Fi connectivity into their products, processes and industrial systems.

All our boxed Wi-Fi modules are plug-and-play without the need to deploy software on board and on host devices.

All modules are a complete IEEE 802.11bgn devices that directly provides a wireless interface for data transfer and control devices to and from the host.

The modules integrate on board the WLAN protocol and all configuration functionalities needed to make a fully wireless solution.

All modules provided by Wiicom permit ad hoc operation mode allowing Wi-Fi connection point-to-point between different devices and infrastructure mode by connecting to the network via an access point, for the transfer of data at anytime and from anywhere.

Different type of modules have different connections to exposed data-bus: RS232, RS485, CAN BUS, both in a direct transparent way and with a XML output.

Thanks to their compact size and extremely low power consumption are perfect to implement the concept of Machine-to-Machine and "wire cutting".

In their simplest configuration, the hardware only requires four connection cables (PWR, TX, RX and GND) to propagate a serial interface to Wi-Fi network. Boxed modules are provided with an Universal Screw Terminal Block with 4 poles or a standard DB9 (or OBD2) especially for CAN Bus modules.

	PWR-F-RS232-B	PWR-F-RS485-B	PWR-F-CAN-B	PWR-F-D4IO-Bx
FIELD INTERFACE				
Data Interface	Direct transmission up to 2.5 Mbps	Direct transmission up to 2.5 Mbps	XML Format for signals or messages CSV Format for signals or messages	Coded transmission / reception 1 byte with status of 4 digital I/O
Electrical Interface	RS232 tx+rx with transceiver 4-poles Universal Screw Terminal Block	RS485 tx+rx without transceiver 4-poles Universal Screw Terminal Block	CAN2.0 HIGH SPEED (H-L) 4-poles Universal Screw Terminal Block	PWR-F-D4IO-BI: 4 digital Inputs PWR-F-D4IO-BO: 4 digital Outputs
Electrical Compatibility	TTL Compatible 5V, ±15KV ESD	TTL Compatible 5V, ±15KV ESD	TTL Compatible 5V	TTL Compatible 5V
SOCKET TYPES				
TCP Server	yes	yes	yes	yes
TCP Client	yes	yes	yes	only in PWR-F-D4IO-BI
ENVIRONMENT CONDITIONS				
Operating Temperature	Industrial (-40°C to +85°C)	Industrial (-40°C to +85°C)	Industrial (-40°C to +85°C)	Industrial (-40°C to +85°C)
Dimension	60 x 32 x 18 mm	60 x 32 x 18 mm	60 x 32 x 18 mm	50 x 72 x 104 mm
POWER SUPPLY				
Consumption	RX = 56mA (@ 5.5V) TX = 160mA (@ 5.5V)	RX = 56mA (@ 5.5V) TX = 160mA (@ 5.5V)	RX = 56mA (@5.5V) TX = 160mA (@5.5V)	RX = 56mA (@6.5V) TX = 160mA (@6.5V)
Supply Voltage	5.5 - 28 Vdc	5.5 - 28 Vdc	5.5 - 28 Vdc	6.5 - 30 Vdc

RF CHARACTERISTICS

WLAN Functions	Ad-hoc and Infrastructure modes
Network Standard Support	IEEE 802.11b/g single stream n
RF Data Rates	802.11 n: 6.5, 13, 19.5, 26, 39, 52, 58.5, 65 Mbps 802.11 g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11 b: 1, 2, 5.5, 11 Mbps
RF Output Power	15-17 dBm
RF Frequency Band	2.412 - 2.484 GHz (integrated antenna)
Security Protocol	WEP, WPA and WPA2-PSK
NetworkProtocols	TCP, IPv4, ARP, ICMP

WLAN Function: Ad-hoc mode

WLAN Function: Infrastructure mode

APPLICATIONS

Industrial equipments
Smart energy
Logistic systems
Automotive
Building automation
Healthcare
Consumer electronics
Environmental monitoring
Cloud ready services

MACHINE TO MACHINE

Eliminate development time on board of equiments.
Allow customers to exclusively focus on core product.

CONNECT PERSONAL DEVICE

Ad hoc operation mode. Industrial device applications with personal devices.

CLOUD COMPUTING

Use real-time data for industrial and embedded applications for one of the bigget challenges of our time.

INTERNET OF THINGS

Infrastructure operation mode, internet connection of machine increases their value.

FEATURES

- Compliant to 802.11b/g and single stream 802.11n
- Ad-hoc and infrastructure operation modes
- Support WEP, WPA and WPA2-PSK security
- Support TCP protocol
- Power-saving management
- Plug&Play configuration and use

BENEFITS

- Protocol and configurations functions for WLAN connectivity included
- Seamless Wi-Fi connectivity for customer applications
- Wide power supply range:
    - 5.5 to 28V
    - -6.5 to 28V for PWR-F-D4IO-Bx
- Temperature industrial range (-40 to 85°C)
- Easy integration into existing solutions
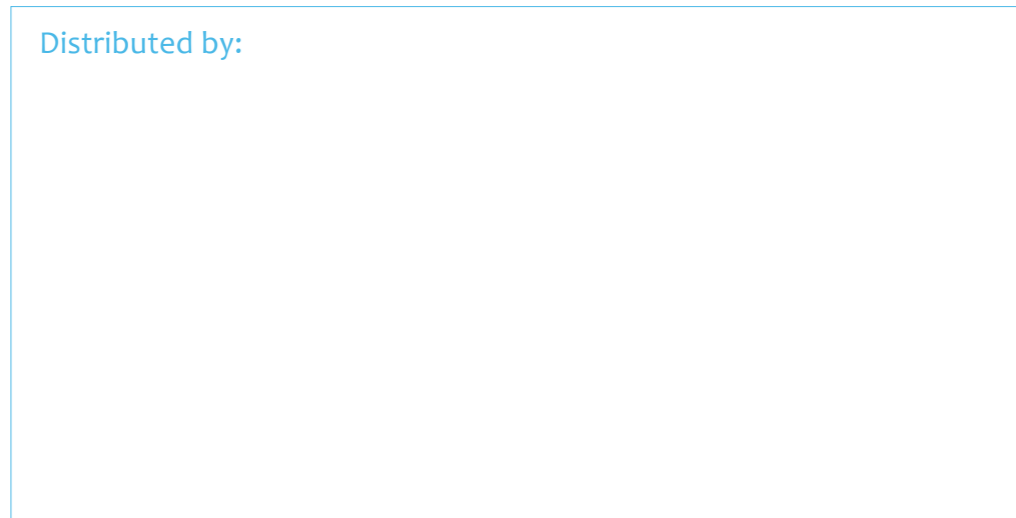
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EASY WAY TO WI-FI

We provide embedded Wi-Fi modules and access solutions to OEMs and system integrators.Our modules are safe, cheap and easy to integrate and ideal to be used by industry leaders in the areas of industrial, smart energy, logistic, health and medical, automotive, audio and consumer applications.

Our solution approach is designed to help customers to reduce development cycles, design uncertainty and improve time to market when imagining Wi-Fi enabled solutions.

Wiicom can offer assistance to the integration of our Wi-Fi embedded modules in the final system and will you support for all the validation and qualification of product both hardware than software.

Wiicom specializes in compact and robust systems for control and monitoring of electronics able to meet the needs of rugged applications, that include extended temperature, vibration, shock, acceleration, EMC, ESD and more.

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BOXED PRODUCTS

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