

EMBEDDED PRODUCTS OVERVIEW

The Wiicom embedded 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 embedded Wi-Fi modules are plug-and-play without the need to deploy software on board and on host devices.

All Compact 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: UART, RS232, RS485, CAN BUS and digital signals.

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.



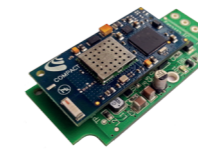
Compact-S-x



Compact-CS-x



PWR-F-RSx-S



PWR-F-RSx-CS



PWR-F-CAN-x

FIELD INTERFACE					
Data Interface	Direct transmission up to 2.5 Mbps	Compact-CS-x: Direct transmission up to 2.5 Mbps Compact-CS-CAN: XML and CSV Format	Direct transmission up to 2.5 Mbps	Direct transmission up to 2.5 Mbps	XML and CSV Format
Electrical Interface	Compact-S-UART: UART and 2 digital I/O Compact-S-D4IO: 4 digital I/O Compact-S-485: RS485 tx+rx without transceiver	Compact-CS-UART: UART and 2 digital I/O Compact-CS-D4IO: 4 digital I/O Compact-CS-485: RS485 tx+rx without transceiver Compact-CS-CAN: CAN TX-RX	PWR-F-RS232-S: RS232 with transceiver PWR-F-RS485-S: RS485 with transceiver	PWR-F-RS232-CS: RS232 with transceiver PWR-F-RS485-CS: RS485 with transceiver	CAN-bus with transceiver and 4 poles universal screw
Electrical Compatibility	TTL Compatible 3.3V / 5V	TTL Compatible 3.3V / 5V	TTL Compatible 5V, ±15KV ESD	TTL Compatible 5V, ±15KV ESD	TTL Compatible 5V
SOCKET TYPES					
TCP Server	yes	yes	yes	yes	yes
TCP Client	no	yes	no	yes	only in PWR-F-CAN-CS
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)	Industrial (-40°C to +85°C)
Dimension	42 x 23 x 5 mm	42 x 23 x 5 mm	67 x 30 x 9 mm	67 x 30 x 9 mm	67 x 30 x 9 mm
POWER SUPPLY					
Consumption	RX = 56mA (@ 5V)	RX = 56mA (@ 5V)	RX = 56mA (@5.5V)	RX = 56mA (@5.5V)	RX = 56mA (@5.5V)
	TX = 130mA (@ 5V)	TX = 130mA (@ 5V)	TX = 160mA (@5.5V)	TX = 160mA (@5.5V)	TX = 160mA (@5.5V)
Supply Voltage	5 - 10 Vdc (typical 5V)	5 - 10 Vdc (typical 5V)	5.5 - 28 Vdc	5.5 - 28 Vdc	5.5 - 28 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



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 equipments. 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 biggest 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 to 10V for embedded versions
 - 5.5 to 28V for PWR versions
- Temperature industrial range (-40 to 85°C)
- Easy integration into existing solutions



EASY WAY TO WI-FI

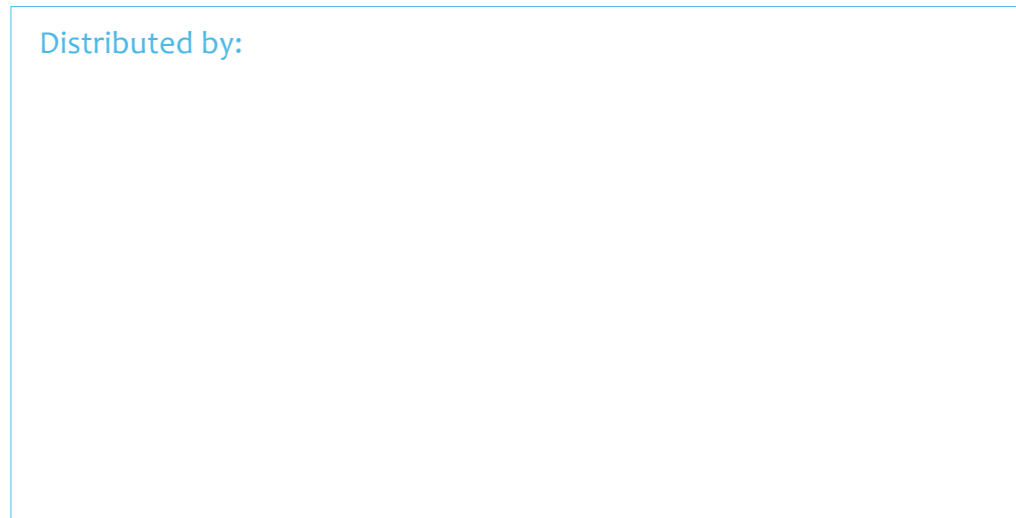
We provide embedded Wi-Fi modules and access solutions to OEMs and system integrators. Our modules are safe, cheap and easy to integrate and ideal to be used by industry leaders in the areas of industrial, smart energy, logistic, health and medical, automotive, audio and consumer applications.

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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