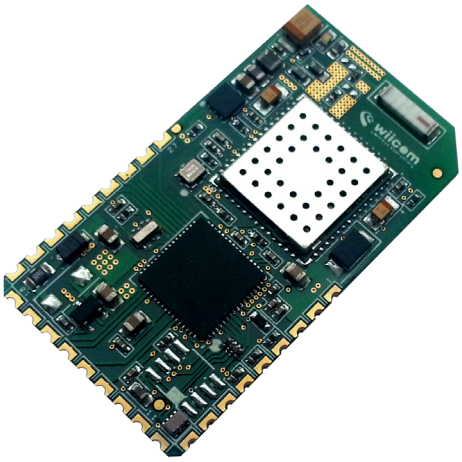
XCWIFI

802.11 b/g/n Wi-Fi OEMs Module, Client/Server Type

XCWIFI: Uart, USB 2.0, RS232, RS485, Digital I/O, Analog Input
XCWIFI-CAN: CAN, Digital I/O, Analog Input



PRODUCT OVERVIEW

XCWIFI is a Wi-Fi embedded module that interfaces various fieldbus such as UART, RS232, RS485, CAN, USB 2.0, up to 8 digital I/O channels, up to 6 Analog Input channels.

The XCWIFI is a plug&play module and it is ready to transfer data from the fieldbus to WiFi - and vice versa - in direct mode.

The module is an IEEE 802.11bgn device that directly provides a wireless interface for data transfer and control of equipments.

It is a complete and fully certified module that offers a quick, easy and cost effective solution to OEMs to enable Wi-Fi connectivity into their systems.

WLAN FUNCTIONS

XCWIFI is a client/server type Wi-Fi embedded module.

This means that it is able to autonomously connect to a server, also public, and communicate with it. It can simulate a wire cutting between two devices if used with another XCWIFI module.

It integrates WLAN protocol and configuration functionality to make a fully WLAN solution.

It permits ad hoc and infrastructure mode to create its own wi-fi network or to connect to an existent access point.

The second one allows the module to create a direct connection to another one; the second allows the module to connect to an existing wi-fi network.

ADVANTAGES

XCWIFI dramatically reduces development time and eliminates the burden of testing and certification, allowing customers to exclusively focus on core product.

NO SOFTWARE NEEDED

The XCWIFI modules are immediately ready to be used.

Thanks to Wiicom configurator software, available on Wiicom website, user can define all Wi-Fi network settings.

There's no need to develope or modify any software on the host board.

FEATURES

- Compliant to 802.11b/g and single stream 802.11n
- Ad-hoc and infrastructure operation modes
- Support WPA/WPA2-PSK and WEP security modes
- Support TCP protocol
- Wide supply range (4 to 10V)
- Temperature industrial range (-40 to 85°C)
- Compact size (46 x 25,4 x 4mm)
- Interface to host in 3.3V

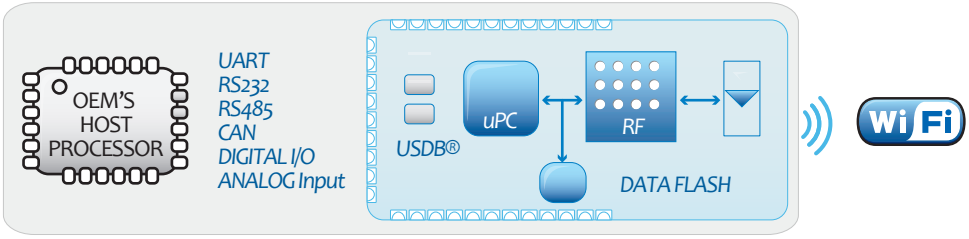
CLOUD READY

The device is ready to be connected to a cloud solution, like Wiicom Sense Cloud, to share data all over the world by Internet.

APPLICATIONS

- Signal monitoring in Cloud
- Signals actuaction
- Industrial applications
- Building automation
- Environmental monitoring

APPLICATION BLOCK DIAGRAM



FIELD INTERFACE

Data Interface	Direct transmission up to 2.5 Mbps (without overead)
Electrical Interface	1 x UART (*) 1 x CAN (*) 1 x USB 2.0-compliant interface 8 x Digital I/O channels: 3.3V (5V tollerant) 6 x Analog Input channels: 0-3.3V, 10 bit ADC (*) with Schmitt Trigger Input 3.3V CMOS Logical Level
Electrical Compatibility	TTL Compatible 3.3V / 5V

RF CHARACTERISTICS

WLAN Functions	Ad-hoc and Infrastructure modes
Network Standard Support	IEEE 802.11b/g single stream n
RF Data Rates	802.11n: 6.5, 13, 19.5, 26, 39, 52, 58.5, 65 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 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
Network Protocols	TCP, IPv4, ARP, ICMP
Socket type	7 available sockets: Server and Client type

ENVIRONMENT CONDITIONS

Operating Temperature	Industrial (-40°C to +85°C)
Dimension	46 x 25,4 x 4 mm (single side SMT)

POWER SUPPLY

Consumption	RX = 56mA, TX = 150mA (@5V)
Supply Voltage	4 - 10 Vdc (typical 5V)

PRODUCT SUPPORT

The XCWIFI can be used in a wide number of applications. It is ideal to be used by industry leaders in the areas of industrial, smart energy, logistic, health and medical, automotive, audio, and consumer applications.

Through distributors Wiicom is present all over Europe. For additional information, please visit www.wiicom.it or contact directly our customer web support.

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