

COMPACT-S-x

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

Compact-S-UART

Ordering Code: CMP-R-S01-S

Compact-S-D4IO

Ordering Code: CMP-F-S05-S

Compact-S-485

Ordering Code: CMP-R-S04-S

PRODUCT OVERVIEW

Compact-S-x is a server type Wi-Fi module.

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.

The module is an IEEE 802.11bgn device that directly provides a wireless interface for data transfer and control of equipments. It integrates WLAN protocol and configuration functionality to make a fully WLAN solution.

The module permits ad hoc and infrastructure operation mode. The first one allows the module to create a direct connection to another one; the second allows the module to connect to an existing access point.

COMPACT-S-x FAMILY

Three types of Compact-S-x identify three possible connections to hosts, with various interfaces.

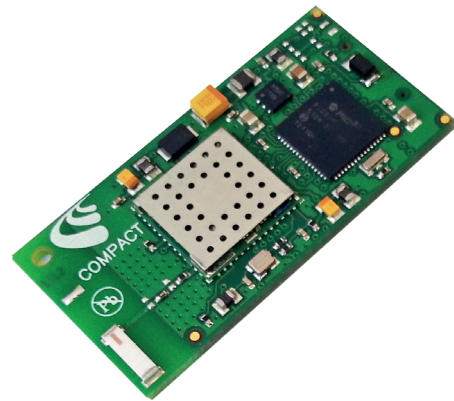
Compact-S-UART makes easy the connection to a machine with an UART (RS232 without transceiver) interface, directly to a Wi-Fi network. Compact-S-UART is also equipped with two digital I/O pins, that are configurables as digital Input or Output.

Compact-S-485 can interface an host equipped with a RS485 transceiver and uses a control pin to enable transmission.

Compact-S-D4IO is equipped with four digital I/O pins, fully configurable as input or output. Pin status is propagated in Wi-Fi with a mask of bits.

ADVANTAGES

In fact the COMPACT-S-x dramatically reduces development time and eliminates the burden of testing and certification, allowing customers to exclusively focus on core product.



NO SOFTWARE NEEDED

The Compact-S-x modules are immediately ready to be used.

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

There's no need to develop 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 (42mm x 23mm x 5mm)
- Interface to host in 3.3V

MODULE SPECIFIC FEATURES

- S-UART: interface to host through UART, 2 digital I/O pins
- S-D4IO: interface to host through 4 digital I/O pins
- S-485: interface to host through RS485 without transceiver.

APPLICATIONS

Signal monitoring in Cloud

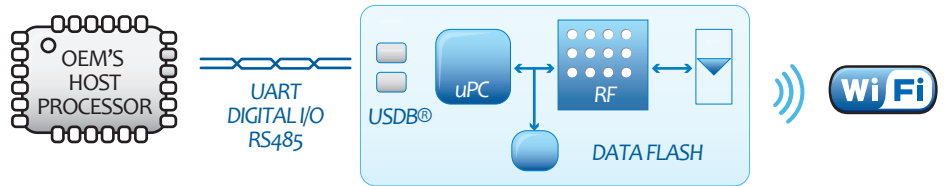
Signals actuation

Industrial applications

Building automation

Environmental monitoring

APPLICATION BLOCK DIAGRAM



FIELD INTERFACE

Data Interface	Direct transmission up to 2.5 Mbps (without overhead)
Electrical Interface	Compact-S-UART: UART and 2 digital I/O pins Compact-S-D4IO: 4 digital I/O pins Compact-S-485: RS485 tx+rx without transceiver
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 type

ENVIRONMENT CONDITIONS

Operating Temperature	Industrial (-40°C to +85°C)
Dimension	42 x 23 x 5 mm

POWER SUPPLY

Consumption	RX = 56mA, TX = 130mA (@4V)
Supply Voltage	4 - 10 Vdc (typical 5V)

PRODUCT SUPPORT

The COMPACT-S-x 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 has presence in all country in Europe. For additional information, please visit www.wiicom.it or contact directly our customer web support.