



ATWINC1500



Microchip's SmartConnect-WINC1500 is an IEEE 802.11 b/g/n IoT network controller SoC. It is the ideal add-on to existing MCU solutions bringing Wi-Fi and Network capabilities through UART or SPI-to-Wi-Fi interface. The WINC1500 connects to any AVR, SMART MCU with minimal resource requirements. The WINC1500's most advanced mode is a single stream 1x1 802.11n mode providing up to 72 Mbps PHY throughput. The WINC1500 features a fully integrated Power Amplifier, LNA, Switch and Power Management. The WINC1500 provides internal Flash memory as well as multiple peripheral interfaces including UART and SPI. The only external clock source needed for the WINC1500 is a high-speed crystal or oscillator (26 MHz). The WINC1500 is available in a QFN package or as a certified module.

Features

- Single-band 2.4GHz b/g/n
- Extreme low power
- Compact footprint: 5 x 5 mm QFN
- Operating voltage: 3.0V to 4.2V
- Serial host interface: SPI
- Security protocols supported: WPA/WPA2 Personal, TLS, SSL
- Network services: DHCP, DNS, TCP/IP (IPv4), UDP, HTTP, HTTPS
- Available in a fully-certified module package: ATWINC1500-MR210PB

Parameter Name	Value
Type	Wi-Fi Module
Power Output	17 dBm
Interface	SPI
Pin Count	28
Package	QFN
RF Transceiver	Yes
Operating Temperature Range	-40 to +85C
Vdd Range(V)	0 to 0
Frequency Range	2.412-2.484 MHz
Input Sensitivity	-90 dB
TX Current Consumption	172 mA
RX Current Consumption	70 mA
Operating Voltage Range	3 to 4.2
SPI	1
UART	1
CloudPartner	Yes

Part Number	Leads	Package Type	Temp Range	Packing
ATWINC1500-MR210PB	28	MODULE	-40C to +85C	TRAY
ATWINC1500-MR210PB1172	28	MODULE	-40C to +85C	TRAY
ATWINC1500-MR210UB	28	MODULE	-40C to +85C	TRAY
ATWINC1510-MR210PB	28	MODULE	-40C to +85C	TRAY
ATWINC1510-MR210PB1140	28	MODULE	-40C to +85C	TRAY
ATWINC1510-MR210UB	28	MODULE	0C to +70C	TRAY
ATWINC1510-MR210UB1140	28	MODULE	-40C to +85C	TRAY