Product Description

The ATC-2000WF is a stand alone, wireless 802.11 networking module. Because of its small form factor and extremely low power consumption, the ATC-2000WF is perfect for mobile wireless applications such as asset monitoring, GPS tracking and battery sensors. The ATC-2000 module incorporates a 2.4GHz radio, processor, TCP/IP stack, real-time clock, crypto accelerator, power management and analog sensor interfaces. This complete solution is preloaded with software to simplify integration and minimizes development of your application. In the simplest configuration the hardware only requires four connections (PWR, TX, RX, GND) to create a wireless data connection. Additionally, the sensor interface provides temperature, audio, motion, acceleration and other analog data without requiring additional hardware. The ATC-2000WF is programmed and controlled with a simple ASCII command language. Once the ATC-2000WF is setup it can scan to find an access point, associate, authenticate and connect over any Wi-Fi network.
(The ATC-2000WF only have UART function. Others functions only appear in embedded module)
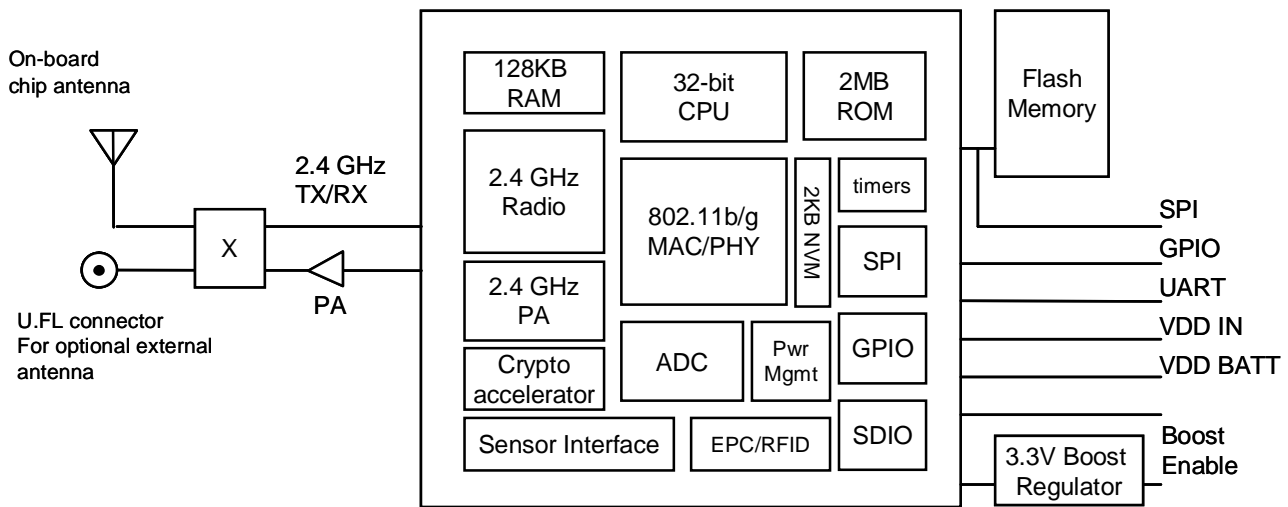
Applications

- Ø Wireless audio
- Ø Remote equipment monitoring
- Ø Telemetry
- Ø Security
- Ø Industrial sensors and controls
- Ø Home Automation
- Ø Medical devices
- Ø Other RS232/485/422 serial device wireless network
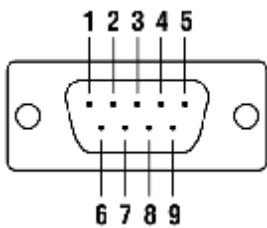
Product Features

- Ø Qualified 2.4GHz IEEE 802.11b/g transceiver
- Ø High throughput, 4Mbps sustained data rate with TCP/IP and WPA2
- Ø Ultra-low power (10uA sleep, 50mA Rx, 100mA Tx)
- Ø On board ceramic chip antenna and U.FL connector for external antenna
- Ø 8 Mbit flash memory and 128 KB RAM
- Ø RS-232/422/485 interfaces
- Ø 10 general purpose digital I/O
- Ø 8 analog sensor interfaces
- Ø Real-time clock for wakeup and time stamping
- Ø Accepts 9V-24V Power supply
- Ø Supports Adhoc connections
- Ø On board ECOS -OS, TCP/IP stacks
- Ø Wi-Fi Alliance certified for WPA2-PSK
- Ø FCC / CE/ ICS certified and RoHS compliant.

Block Diagram

Pin Assignment

RS-232 DB-9(Male)

PIN	RS-232
1/4/6/9	-
2	RXD(in)
3	TXD(out)
5	GND
7	CTS(out)
8	RTS(in)

RS-485/422 6-pin Terminal block

1	2	3	4	5	6
485+(T+)	485-(T-)	R+	R-	VCC(9~32VDC)	GND

Package Checklist

Ø ATC-2000WF unit   1 PCS
Ø Documentation and software CD   1PCS
Ø Power adapter 9V   1PCS
Ø monopole Antenna (2dBi RP-SMA) 1PCS
Ø RS-232 DB9 Female Crossing configuration
    cable   1PCS

Order Information

ATC-2000WF   Wi-Fi（802.11b/g） to Serial Port Converter   RS-232/422/485

Specifications

Overiew

ü Host Data Rate Up to 100 Mbps for SDIO, 44 Mbps for SPI and 2.7 Mbps for UART

ü Throughput   4 Mbps with TCP/IP and WPA2

ü Memory 128 KB RAM,2MB ROM, 2 KB battery-backed memory, 8 Mbit Flash.

ü Intelligent, built-in power management with programmable wakeup

ü Real time clock for time stamping, auto-sleep and auto-wakeup modes

ü Configuration over UART or wireless interfaces using simple ASCII commands

ü Over the air firmware upgrade (FTP), and data file upload.

ü On board flash can be used for custom applications, data logging,   stored data forwarding   to the network

ü Secure WiFi authentication WEP-128, WPA-PSK (TKIP), WPA2-PSK, EAP-TLS for WPA1 & WPA2 Enterprise

ü Built in networking applications DHCP, UDP, DNS, ARP, ICMP

ü 802.11 power save and roaming functions

Serial Interface		
Interface Type		RS-232/485/422 3 in 1(optional)
Connector	RS-232	DB-9 male
	RS-485/422	6-pin Terminal block
Radio Characteristics		
Frequency		2402 ~ 2480MHz
Modulation		DSSS(CCK-11, CCK-5.5, DQPSK-2, DBPSK-1)
Channel intervals		5MHz
Channels		1 - 14
Transmission rate (over the air)		1 – 11Mbps for 802.11b / 6 – 54Mbps for 802.11g
Receive sensitivity		-85dBm typ.
Output level (Class1)		+18dBm
Maximum RF input to U.FL connector		10 dBm
LED Indicators	LINK	WLAN status
	DIS	WLAN status
	ACT	It will flash when transmit the data from WLAN to serial or from serial to WLAN.
	PWR	Power indicator
Power Supply		9~24VDC
Physical Characteristics		
Installation		DIN-Rail Mounting
Housing		Iron (1mm)
Weight		0.5Kg
Dimensions		100 × 86 × 26 mm(3.94 × 3.39 × 1.02 in)
Environmental Limits		
Operating Temperature		-40 ~ 70°C
Storage Temperature		-40 ~ 85°C
Ambient Relative Humidity		5% to 95%(non-condensing)
Standards and Certifications		
		RoHS, CE, FCC

Contact us

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