AXM22001-2A-C

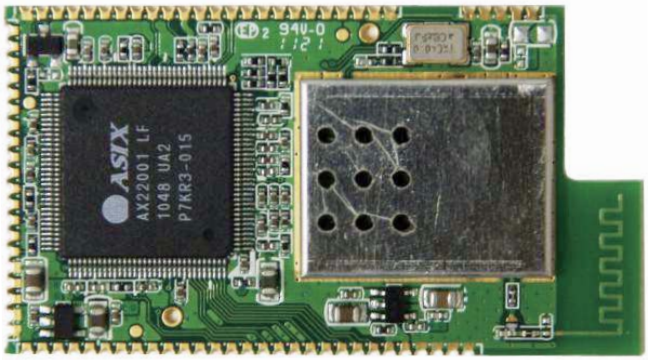
嵌入式可编程WiFi模组

特性：

- IEEE 802.11b/g 无线标准
- 板载PCB 天线
- 室外可达300米传输距离
- 支持基础网络 和 Ad-Hoc网络
- 支持802.11i加密：WEP-64/128, TKIP(WPA-PSK)和AES(WPA2-PSK)
- 双核8051/80390 CPU @ 80MHz
- 1MB 共享Flash，64KB RAM
- 4 路UART
- 高速SPI接口
- I2S 或PCM 接口
- Local Bus host接口
- MII或RMII接口
- I2C接口
- 最多32 GPIOs(4x8)
- 支持实时时钟
- 支持 TCP，UDP,ICMP，IGMP,IPv4, DHCP，BOOTP，ARP，DNS,SMTP, SNTP,UPnP，PPPoE 和 HTTP等协议
- 支持从 Ethernet 或 WiFi进行引导（BOOTP和TFTP）
- 3.3V 电压
- 体积：51.0mm x 28.0mm x 4.5mm

典型应用：

- 串口-WiFi设备服务器
- WiFi 音响
- WiFi 遥控器
- 以太网-WiFi网桥
- Zigbee-WiFi网桥
- WiFi网络摄像头
- WiFi RFID
- SPI-WiFi网桥
- TCP/IP 和 WLAN协处理器
- WiFi网络收音机
- WiFi遥控车
- WiFi RTU及控制器



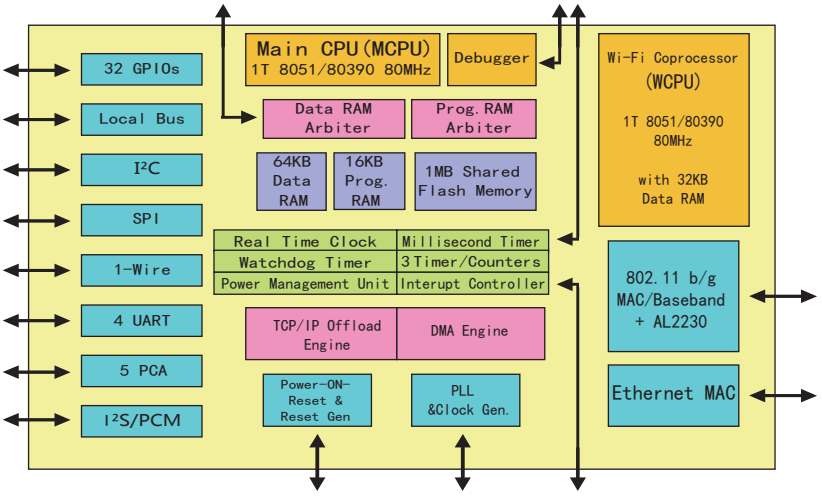
AXM22001-2A-C

AXM22001-2A-C是ASIX公司推出的嵌入式可编程WiFi模组，提供了完整的无线解决方案，兼容802.11b/g无线标准。板载AX22001和AL2230SRF收发器。是一个低成本的嵌入式网络解决方案，可用于需要简单、易用、低成本接入有线/无线局域网或互联网的各类嵌入式应用。

AXM22001-2A-C的核心是AX22001芯片，这颗芯片部包含两个核心（MCPU+WCPU），其中MCPU的资源可以完全开放给客户使用，1MB共享Flash和64KB RAM，可以满足多数应用需求。

AXM22001-2A-C利用MCPU运行应用程序及TCP/IP协议,WCPU则用于处理WLAN协议及以太网至WLAN封包格式的转换。内建的WLAN MAC及基带处理器兼容IEEE 802.11b/g规范,支持802.11i安全特性及802.11e QoS功能。同时支持基于AP的基础网络或Ad-Hoc对等网络。

AXM22001-2A-C拥有4 UART,SPI,I2S,PCM,I2C,1-Wire,PCA,Local Bus等多种接口，可以满足不同的应用需求。采用表贴邮票孔的安装方式，并具有安装孔。具有封装较小，成本较低的特点。而且具有预校准的RF前端，客户可以完全规避RF射频部分的测试和合规性测试。用户只需要设计自己的主机所需的功能和接口电路，从而提供更快的上市时间。



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特　　性

Features		Specifications
Microprocessor		ASIX AX22001, dual 8-bit 1T 8051/80390 CPU (MCPU/WCPU) @ 80MHz
RF Transceiver		Airoha AL2230S
Flash Memory		1MB shared Flash memory for MCPU and WCPU program code and configuration data storage
SRAM Data Memory		64KB data memory for MCPU
Radio	Frequency Range	2.412 ~ 2.472 GHz
	Number of Selectable Sub-channels	Up to 13 channels. Profiles available include USA, Canada, Europe, Spain, France, Japan, China, Taiwan and "Other" (multiple countries)
	Modulations	802.11b: DSSS with DBPSK, DQPSK and CCK 802.11g: DSSS with DBPSK, DQPSK and CCK OFDM with BPSK, QPSK, 16QAM and 64QAM
	Antenna	Integrated PCB antenna
RF Receiver Max Receive Level		802.11b DSSS: -5 dBm 802.11b CCK: -10 dBm 802.11g OFDM: -15 dBm
RF Receiver Min Receive Sensitivity		802.11b: -92dBm @ 1 Mbps; -90dBm @ 2 Mbps; -89dBm @ 5.5 Mbps; -85dBm @ 11 Mbps 802.11g: -82dBm @ 6 Mbps; -82dBm @ 9 Mbps; -82dBm @ 12 Mbps; -82dBm @ 18 Mbps; -79dBm @ 24 Mbps; -76dBm @ 36 Mbps; -71dBm @ 48 Mbps; -70dBm @ 54 Mbps
RF Max Output Power		802.11b: 16.5 ±1dBm 802.11g: 14 ± 1dBm @ 54 Mbps; 15 ± 1dBm @ 48 Mbps; 16 ± 1dBm @ 6 ~ 36 Mbps
Range		Max outdoor range up to 300m (984 ft.), line of sight
Security		802.11i security: WEP-64/128, TKIP (WPA-PSK) and AES (WPA2-PSK)
802.11e QoS		1 TX queue but selectable AC for user's application data
WiFi Power Saving		Supports 3 WiFi power saving modes in normal operation of Infrastructure mode with auto-wakeup timer for upcoming Beacon frame reception. ・ Typical Power Saving Mode ・ Fast Power Saving Mode ・ Maximum Power Saving Mode
I/O Functions	Network Interface	802.11b/g WiFi or 10/100M Ethernet through provided MII or RMII interface
	Multi-function I/O	4 UART, SPI, I2S, PCM, I2C, 1-Wire, PCA, Local Bus, etc.
	UART Interface	4 UART interfaces: UART 0, UART 1, High Speed UART 2 and High Speed UART 3 (2 supporting DMA mode, Modem control, hardware RTS/CTS or software Xon/Xoff flow control, remote wakeup and baud rate from 3,600 bps to 921.6 Kbps)
	General Purpose I/O	Up to 32 GPIOs (4 GPIO ports of 8 bits each)
Timers and Real Time Clock		Supports programmable watchdog timer, three 16-bit timer/counters, millisecond timer and real-time clock (RTC) controller
RTC Backup Battery		With connection option in castellated mounting holes to use independent power supply from lithium battery
Protocols Supported		Supports IP/TCP/UDP/ICMP/IGMP Checksum and ARP in hardware; supports TCP, UDP, ICMP, IGMP, IPv4, DHCP, BOOTP, ARP, DNS, SMTP, SNTP, UPnP, PPPoE, Telnet and HTTP in software
Firmware Upgrade		Supports In-System Programming (ISP) for initial Flash memory programming via UART or ICE adaptor; supports reprogrammable boot code and In-Application Programming (IAP) to update boot code or run-time firmware through Ethernet, WiFi or UART interface (US Patent Pending)
Management		Internal web server, Serial login, Telnet login or Windows application utility
Peak Current at 3.3V Power Input in Serial to WiFi Server Application		360mA
WiFi Certified ID		WFA11474 for AXM22001-2A-B
Operating Temperature		0°C to +70°C
Board Size		51.0mm x 28.0mm x 4.5mm.

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