EC32L13DK 2.4GHz 802.11 b/g/n Development Kit

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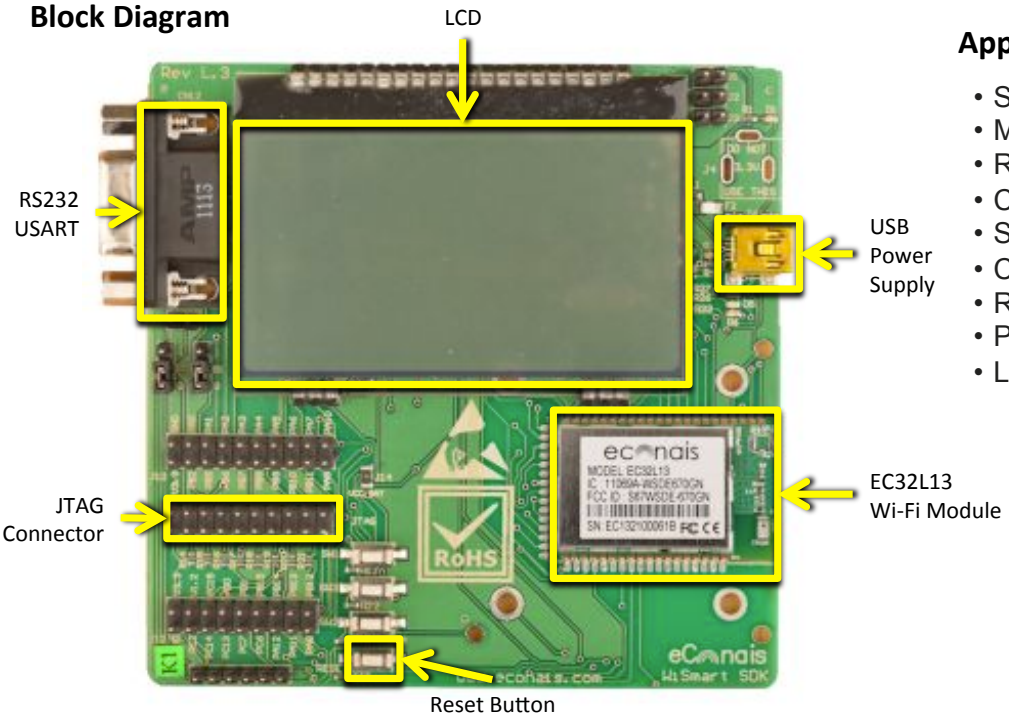
Based on the EC32L13 Wi-Fi module, the EC32L13DK demonstrates the capabilities of an extremely flexible and fully functioning bidirectional serial to Wi-Fi device. It can be connected and transmitting data straight out of the box. With the lowest power consumption modules, smallest footprint, and most comprehensive software library of open source code and open source applications, the EC32L13DK ensures you have the most rapid path to market for Wi-Fi serial data transmission interfaces.

Highlights

- Powerful 32-bit Processors with Flash and RAM to support custom applications
- TCP TX/RX rates of 10/16Mbps and power consumption as low as 2.8uA
- Advanced capabilities: 12b ADC, 12b DAC, Temperature Sensor
- Complete set of interfaces: GPIOs, USARTs, I2C, I2S, SPI, USB1.1, CAN2.0A/B, JTAG
- Free source code for serial to Wi-Fi applications and fully configurable using AT commands via UART
- Ideal for OEM/ODM products requiring Wi-Fi network connectivity or serial transmission interfaces
- LCD provided for complete product development capabilities, all accessories included

Block Diagram



Applications

- Serial to Wi-Fi
- Machine Mode w/API
- RS232 to Wi-Fi
- CAN-BUS to Wi-Fi
- SPI to Wi-Fi
- Cloud Service Integration
- Remote TCP/IP Data Collection
- Process Monitoring and Control
- Large-scale Deployments

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Development Kit

Features

- Wi-Fi Client, AP and Ad-Hoc modes support
- DHCP Client/Server, configurable web server
- Free ARM toolchain
- Advanced WiSmart™ power save engine
- LibWiSmart and sample code included
- Integrated cloud services in LibWiSmart
- WPA/WPA2 ideal for cloud services
- ChibiOS RTOS included
- Terminal (Human) mode, classic AT commands
- Machine mode, structured API and handshakes
- Native serial interface TTL levels, up to 4.5 Mbps
- Data acquisition through TCP/IP network sockets
- Accept and initiate socket connections

Specifications

Radio Technology	2.4GHz IEEE 802.11b/g/n
Power Supply	3.3V
Antenna	SMD or u.fl
Max TX Power	18 dBm
Max RX Sensitivity	-94 dBm
Storage Temperature	-50 to +125 °C
Optimal Operating Temperature	-30 to +85 °C
Max Operating Temp	-40 to +85 °C
Max Distance	400m open space
Roaming	<20 ms
Certifications	RoHS

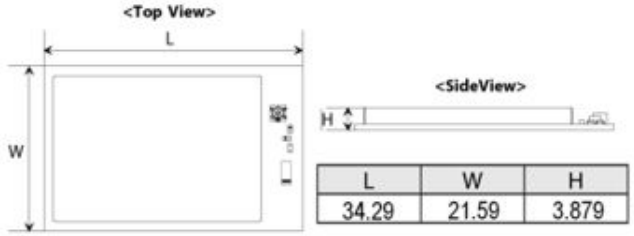
EC32L13 Module

Resource	EC32L13
Processor	32bit
Clock	72MHz
Flash	150KB
RAM	30KB
GPIOs	25x
USARTs	3
Serial to Wi-Fi	Yes
DMR/DMS	Yes
Over-The-Air FW	Yes
WPA/WPA2	Yes
SSL/HTTPS	Yes
Standby	3.1uA
Idle	1.9mA
Active	6.8-7.1mA
TX/RX	10/16 Mbps

Characteristics

Wi-Fi Encryption	No Encryption, WEP, WPA/WPA2 PSK, WPS, WPA/WPA2 Enterprise
Authentication Protocols	TLS, TTLS, PEAP
Power Save	802.11 Power Save MCU Sleep Functions Wi-Fi Sleep Functions
Wi-Fi Mode	Ad-Hoc Wi-Fi Client AP
TCP/IP Protocols and Applications	TCP, UDP, HTTP, RTP, FTP DNS Client, DHCP Client, DHCP Server, HTTP Web Server, HTTP Web Client, Xively™ API
TX Output Power	(b/g/n) 18/14.5/13.5 dBm
RX Sensitivity	-94dBm@1Mbps, -87dBm@11Mbps, -72 dBm@54Mbps
Software Tools	Free Toolchain Open Design Example Applications Powerful Host API of LibWiSmart
Dimensions	20.8x33.5mm with on-module antenna
Antenna	SMD or UFL connector for external antenna

EC32LXX Dimensions (mm)



L	W	H
34.29	21.59	3.879

EC32L13

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