

Wi-Fi 802.11b/g/n Wireless Networking Module

ISM43362-M3G-L44-E or -U

Plug-and-Play... Small Foot Print... Integrated Antenna

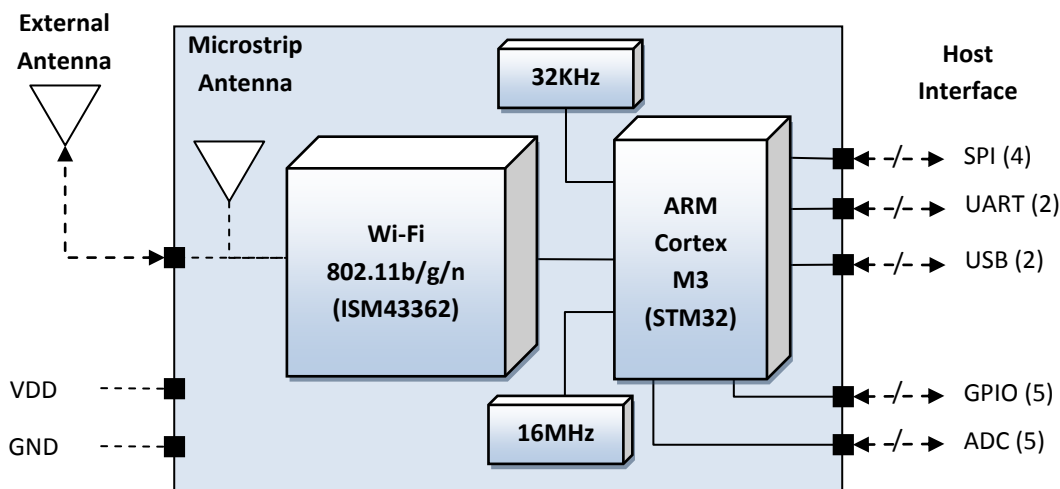
The **ISM43362-M3G-L44** is a member of Inventek's eS-WiFi family of embedded wireless internet connectivity devices that operate in the 2.4 GHz spectrum. The Wi-Fi module's hardware consists of a 120MHz STM 32bit Cortex M3 microcomputer, a Broadcom BCM43362 Wi-Fi device and two antenna options, a PCB trace antenna (-E) or a U.FL connector (-U) for external antenna.

The module provides USB, SPI and UART interfaces enabling easy connection to an embedded design. The Wi-Fi module requires no operating system and has a completely integrated TCP/IP Stack that only requires a simple AT command set to establish connectivity for your wireless product, minimizing development time and testing. The simple AT command set can be run on any 8/16/32 bit microcontroller. The low-cost, small footprint design (15mmx30mm), and ease of design-in make it ideal for a wide range of embedded wireless applications.



Main Features:

- ◆ 802.11 b/g/n compliant based on Broadcom MAC/Baseband/Radio device.
- ◆ Fully contained TCP/IP stack minimizing host CPU requirements.
- ◆ Configurable through simple AT commands.
- ◆ FCC and CE certification.
- ◆ Soft Access Point for up to 7 clients for configuration and ad-hoc networks.
- ◆ Host interfaces: USB (HID/VCP), UART, and SPI.
- ◆ Network features: ICMP (Ping), ARP, DHCP, TCP, UDP
- ◆ Low power operation (3.3V supply) with built in low power modes.
- ◆ Secure Wi-Fi authentication WEP-128, WPA-PSK (TKIP), WPA2-PSK.



Application Examples

- ◆ PDA, Pocket PC, computing devices
- ◆ Building automation and smart energy control
- ◆ Industrial sensing and remote equipment monitoring
- ◆ Health and Fitness
- ◆ Warehousing, logistics and freight management
- ◆ PC and gaming peripherals
- ◆ Printers, scanners, alarm and video systems
- ◆ Medical applications including patient monitoring and remote diagnostics

NETWORK STANDARD	IEEE 802.11b/g/n
RF FREQUENCY	2.400 GHz ~ 2.497 GHz
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
MODULATION TECHNIQUES	802.11g/n: 64-QAM, 16-QAM, QPSK, BPSK
	802.11b: CCK, DQPSK, DBPSK
WIRELESS SECURITY	WEP (64/128-bit), WPA™ (PSK, TKIP) / WPA2™ (AES, CCMP, 802.1x Authentication)
HOST INTERFACES	SPI, UART, USB (HID and VCP)
NETWORK PROTOCOLS	TCP, UDP, IPv4, ARP, ICMP, DHCP Client
WLAN FUNCTIONS	Power save modes, automatic roaming, auto-rate
	Ad-hoc and Infrastructure modes
CONFIGURATION	AT commands, SPI frames
SUPPLY VOLTAGE	3.3V ± 5%
PACKAGE	44-pin LGA, 14.5mm x 30 mm
OPERATING TEMPERATURE	-35°C to +80°C
CERTIFICATIONS	FCC and CE

Product Availability	Model Number	Description
eS-WiFi ISM43362	ISM43362-M3G-L44-E	802.11 b/g/n, 44 pin LGA package, etched antenna
eS-WiFi ISM43362	ISM43362-M3G-L44-U	802.11 b/g/n, 44 pin LGA package, u.fl for antenna

eS-WiFi Evaluation Board	Description
ISM43362-M3G-EVB-E/U	EVB for both ISM43362-M3G-L44-E and ISM43362M3G-L44-U

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