

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

ISM43362-M3G-L44-E or -U

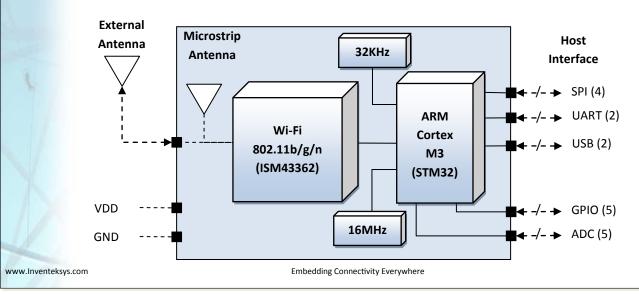
Plug-and-Play... Small Foot Print... Integrated Antenna

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 though 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	
	802.11g/n: 64-QAM, 16-QAM, QPSK, BPSK	
MODULATION TECHNIQUES	802.11b: CCK, DQPSK, DBPSK	
	WEP (64/128-bit),WPA™ (PSK, TKIP) / WPA2™ (AES, CCMP,	
WIRELESS SECURITY	802.1x Authentication)	
HOST INTERFACES	SPI, UART, USB (HID and VCP)	
NETWORK PROTOCOLS	TCP, UDP, IPv4, ARP, ICMP, DHCP Client	
	Power save modes, automatic roaming, auto-rate	
WLAN FUNCTIONS	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

Embedding Connectivity Everywhere

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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