

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

Dual Band WiFi... Bluetooth... NFC... Small Footprint

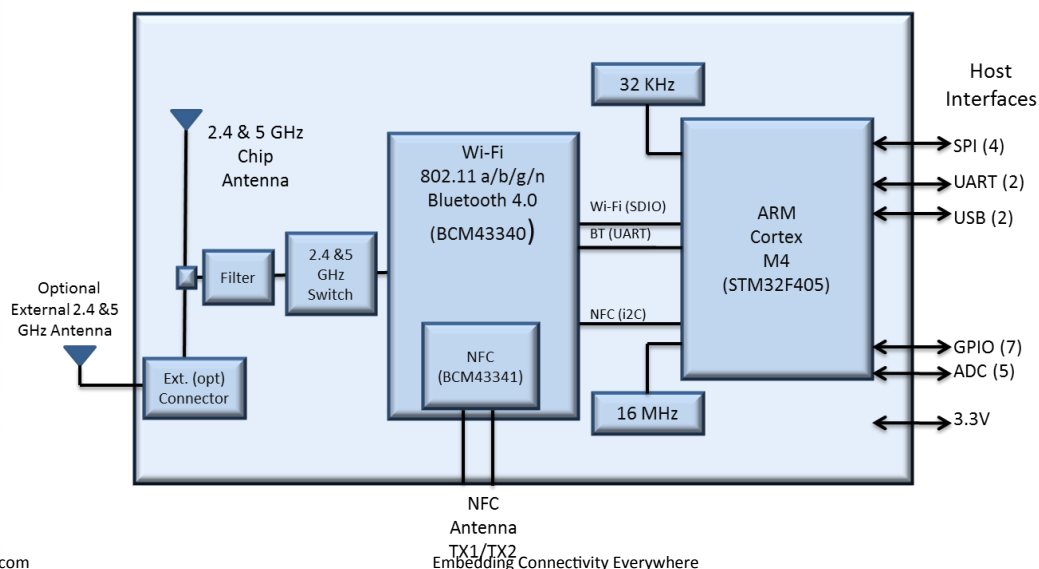
The Inventek ISM43341-M4G-L44 is an embedded wireless Internet Connectivity device that operate in the 2.4 & 5 GHz spectrum. The Wi-Fi module hardware consists of a ARM Cortex M4 host processor, Broadcom BCM43341 Dual-Band (2.4 GHz / 5 GHz) 802.11 g/n MAC/Baseband/Radio with Integrated Bluetooth 4.0, and NFC. Also, the device has two antenna options, a dual band chip antenna or an U.FI connector 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 complete 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, the low-cost, the small foot-print design (14.70 x 34.22 mm), and the ease of design-in make it ideal for a wide range of embedded wireless applications.



Main Features

- ◆ 802.11 a, b, g ,n compliant based on Broadcom MAC/Baseband/Radio device
- ◆ Bluetooth 4.0 & NFC
- ◆ Fully contained TCP/IP stack minimizing host CPU requirements
- ◆ Configurable though simple AT commands
- ◆ FCC and Ce certified in process
- ◆ IEEE 802.11 b/g/n complaint
- ◆ Soft Access Point for up to 4 clients for configuration and ad-hoc networks
- ◆ Host interfaces: USB (HID/VCP),UART, SPI up to 25 MHz.
- ◆ Network features ICMP (Ping), ARP, DHCP,TCP, UDP
- ◆ Low power operation (3.3V supply) built in low power modes



Application Examples

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



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 3.1.2 or WICED SDK 3.1.2 or later
SUPPLY VOLTAGE	3.3V ± 5%
PACKAGE	44-pin LGA, 14.70 mm x 34.22 mm
OPERATING TEMPERATURE	-35°C to +80°C
CERTIFICATIONS	FCC and CE

Device	Description	Firmware	Ordering Number
ISM43340-M4G-L44	Wi-Fi 2.4 & 5 GHz 802.11 & Bluetooth 4.0 Module, TCP Stack on STM32F405 (1 Meg Flash) and On board Chip antenna	UART or SPI	ISM43340-M4G-L44-C
ISM43340-M4G-L44	Wi-Fi 2.4 & 5 GHz 802.11 & Bluetooth 4.0, TCP Stack on STM32F405 (1 Meg Flash) and external connector for antenna, FCC certified	UART or SPI	ISM43340-M4G-L44-U
ISM43341-M4G-L44	Wi-Fi 2.4 & 5 GHz 802.11, Bluetooth 4.0 and NFC, TCP Stack on STM32F405 (1 Meg Flash) and On board Chip antenna	UART or SPI	ISM43341-M4G-L44-C
ISM43341-M4G-L44	Wi-Fi 2.4 & 5 GHz 802.11, Bluetooth 4.0 and NFC, TCP Stack on STM32F405 (1 Meg Flash) and external connector for antenna, FCC certified	UART or SPI	ISM43341-M4G-L44-U
ISM43340-M4G-EVB	Evaluation Board, USB cable, with ISM43340-M4G-L44, Quick Start Guide	UART	ISM43340-M4G-EVB
ISM43341-M4G-EVB	Evaluation Board with NFC, USB cable, with ISM43341-M4G-L44, Quick Start Guide	UART	ISM43341-M4G-EVB
ISM340-USB	USB Wi-Fi / BLE dongle, with ISM43341-M4G-L44 or ISM43340-M4G-L44	USB	ISM340 –USB ISM341-USB (Includes NFC)

Contact
 Inventek Systems
 2 Republic Road
 Billerica Ma 01862
 www.Inventeksys.com 978-667-1962

E-mail
 Sales@Inventeksys.com
 Engineering@Inventeksys.com
 www.Inventeksys.com
 Embedding Connectivity Everywhere