# Chipsmall

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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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## Contact us

Inventek Systems
Embedding Connectivity Everywhere

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

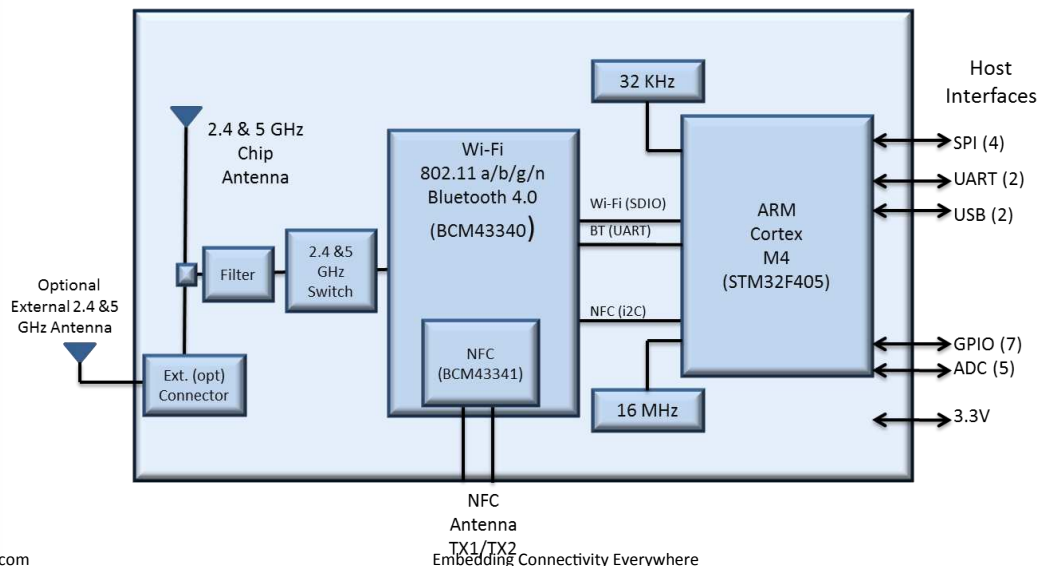## Dual Band WiFi… Bluetooth… NFC… Small Footprint

The Inventek ISM43341-M4G-L44 is an embedded wireless Internet Connectivity device that operate in the 2.4 & 5 Ghz spectrum.  The Wi-Fi modules 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.Fl 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

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## Embedding Connectivity Everywhere

### 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

**WICED™** by BROADCOM.

| 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) |

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