Inventek Systems
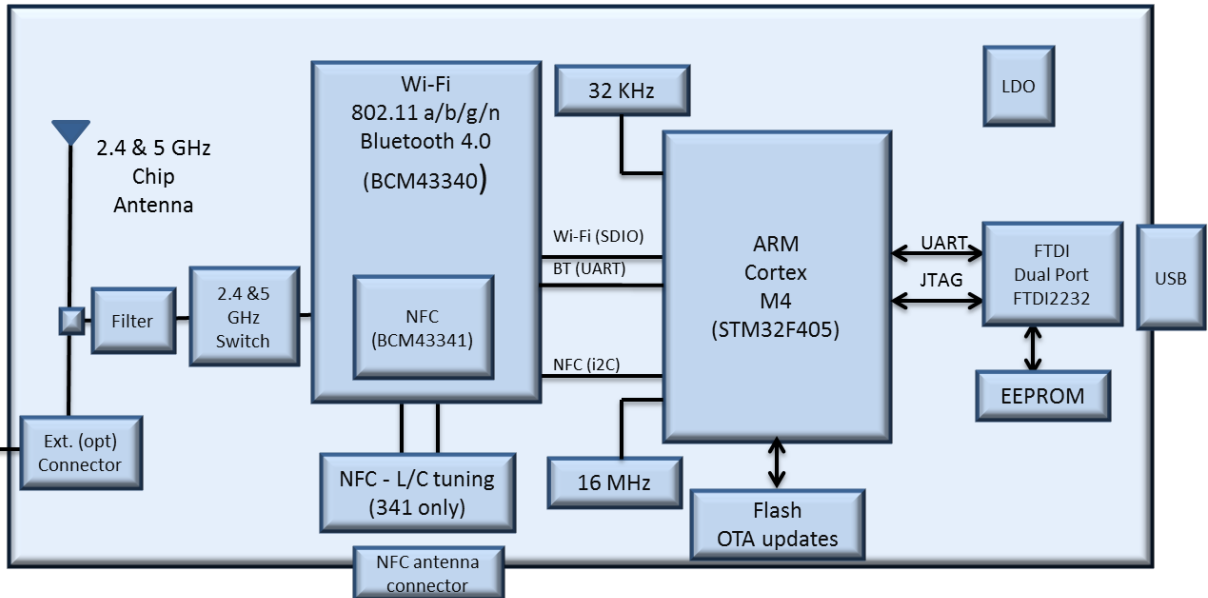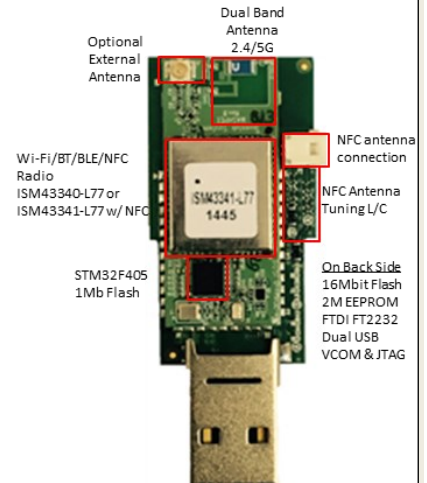Embedding Connectivity Everywhere

COMBO-DUAL-BAND IoT MODULE

Dual-Band Wi-Fi with Bluetooth Smart Bridge with NFC

The Inventek ISM341-USB 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.FI connector for external antenna.

The module provides a USB VCOM port and JTAG port interfaces enabling easy connection to an embedded design.

Dual Band Antenna 2.4/5G
Optional External Antenna
Wi-Fi/BT/BLE/NFC Radio ISM43340-L77 or ISM43341-L77 w/ NFC
ISM43341-L77 1445
NFC antenna connection
NFC Antenna Tuning L/C
STM32F405 1Mb Flash
On Back Side 16Mbit Flash 2M EEPROM FTDI FT2232 Dual USB VCOM & JTAG

Main Features

♦ 802.11 a, b, g ,n compliant based on Broad-com MAC/Baseband/Radio device

♦ Bluetooth 4.0 & NFC

♦ Fully contained TCP/IP stack minimizing host CPU requirements

♦ Configurable though simple AT commands

♦ IEEE 802.11 a/b/g/n complaint

♦ Soft Access Point for up to 4 clients for configuration and ad-hoc networks

♦ Host interfaces: USB (HID/VCP/ JTAG)

♦ Network features
  ICMP (Ping),
  ARP,
  DHCP,TCP,
  UDP

♦ Secure Wi-Fi authentication WEP-128, WPA-PSK (TKIP), WPA2-PSK

WICED™ by BROADCOM.

Block diagram:
2.4 & 5 GHz Chip Antenna — Filter — 2.4 &5 GHz Switch — Wi-Fi 802.11 a/b/g/n Bluetooth 4.0 (BCM43340) — NFC (BCM43341) — 32 KHz — ARM Cortex M4 (STM32F405) — UART / JTAG — FTDI Dual Port FTDI2232 — USB — EEPROM — LDO — 16 MHz — Flash OTA updates — Wi-Fi (SDIO) — BT (UART) — NFC (i2c) — Optional External 2.4 &5 GHz Antenna — Ext. (opt) Connector — NFC - L/C tuning (341 only) — NFC antenna connector

Device	Description	Firmware	Ordering Number
ISM340-USB	USB Wi-Fi / BLE dongle, with ISM43341-M4G-L44 or ISM43340-M4G-L44	USB	ISM340 –USB ISM341-USB (Includes NFC)