

I-NUCLEO-ISMART STM32 Nucleo ISMART Wi-Fi and Bluetooth Platform

 *Active*

The STM32 Nucleo **ISMART** (Inventek Systems Module ARduino Test) Wi-Fi platform is a user-friendly design kit suited for all of your IoT application needs.

The Inventek ISMART platform enables customers to quickly launch IoT products based on ST microcontrollers and Broadcom's Wi-Fi radios. The robust user friendly Inventek AT command set FW, **IWIN** (Inventek Wireless Interoperability Network), makes it easy to take any STM32 Host microcontroller and communicate with any Inventek **eS-WiFi** (embedded Serial Wi-Fi), module, thus allowing customers to quickly get a Wi-Fi connected application up and running.

The STM32 Nucleo ISMART IoT development platform consists of an Inventek Arduino compatible shield, able to embed each of Inventek's eS-WiFi modules for maximum flexibility between a wide range of combo radio options (including BT/BTLE and/or NFC), designed to be compatible with all of the STM32 Nucleo boards. Inventek's eS-WiFi module portfolio also enables customers to migrate between any/all module options without any board layout changes due to their standardized L44 foot print for all of the eS-WiFi modules offered.

The whole ISMART Design Environment includes the comprehensive STM32Cube HAL library together with various packaged software examples, as well as a direct access to the STM32Cube IWIN Wi-Fi firmware. To get more details, please refer to the I-CUBE-IWIN webpage.

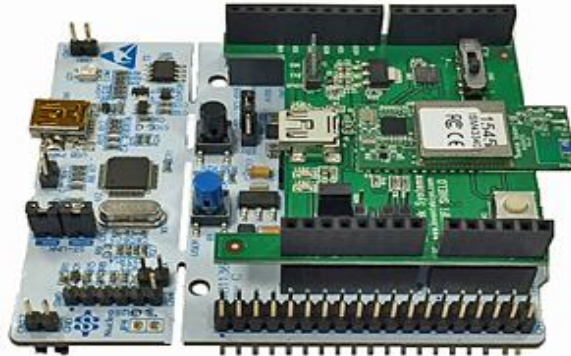
This product is supplied by a third party not affiliated to ST. For complete and latest information on the specification and the purchased parts package, refer to the third party website at www.inventeksys.com



Key Features

- eS-WiFi Modules supported:
 - [ISM43362-M3G-L44-C/U 2.4G Wi-Fi Module](#)
 - [ISM43340-M4G-L44-C/U 2.4G/5G Wi-Fi + BT/BLE Module](#)
- Wi-Fi bands available depending on the eS-WiFi module selected:
 - 2.4 GHz, 802.11b/g/n
 - 2.4 and 5GHz, 802.11 a/b/g/n
- Antenna options:
 - On Board or External
 - <http://www.inventeksys.com/products-page/wifi-antennas/>
- BLE & Wi-Fi Smart Bridge supported when applicable
- 802.11 b/g/n & a/b/g/n Compatible based on Broadcom's MAC/Baseband/Radios.
- Fully contained TCP/IP stack thus minimizing host CPU requirements
- Configurable though IWIN AT commands.
- Network features ICMP (Ping), ARP, DHCP,TCP, UDP
- Secure Wi-Fi authentication WEP-128, WPA-PSK (TKIP), WPA2-PSK

Image



ISMART (Inventek Systems Module ARduino Test)

The Inventek ISMART platform interfaces to the ST Micro ST NUCLEO boards and is compatible with the Arduino UNO R3 connector layout. The Inventek eS-WiFi module requires no operating system and contains an integrated TCP/IP stack. The module hardware can be used with Inventek's IWIN AT Command set or with Broadcom's WICED™.

Design Resources



[DOC# DOC-PB-20108](#) : ISMART Wi-Fi platform: Product Brief



[DOC# DOC-DS-20107](#) : ISMART Wi-Fi platform: User's Manual



[DOC# eS-WiFi Reference Schematic](#) : ISMART Wi-Fi platform: Schematic



DOC# DOxxxx : ISMART Cube Software (In process)

Hardware Features:

- Uses BCM43362, BCM43341 and BCM43340 Broadcom radio devices.
- Embedded microcontrollers:
 - STM32F205 for ISM43362-M3G
 - STM32F405 for ISM43340-M4G and ISM43341-M4G
- Bluetooth 4.0 including BLE support.
- 2.4 & 5 GHz chip antenna on module.
- U.FL Connector for external antenna
- Configurable using Inventek [IWIN](#) AT commands.
- Host interface: UART, SPI.
- Input Power: 3.3 V
- Near Field Communication (NFC option)
- Dual Port FTDI for firmware development and testing.
- SPI Flash for Over The Air (OTA) updates
- FCC and CE approval

Get Software

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