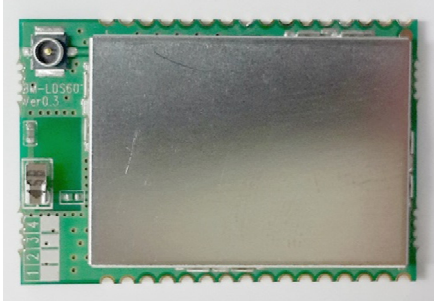# BM-LDS601
SimpleLink™ WiFi Module for IoT
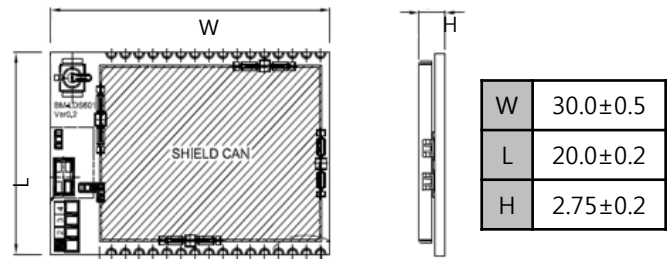*The Internet of Things Made Simple.*

Features

- Dimension : 20.0 X 30.0 X 2.75mm
- 2.4GHz IEEE 802.11b/g/n transceiver
- Standalone SimpleLink™ Wi-Fi Networking module with an Integrated Application ARM® Cortex®-M4
- Small, compact surface-mount module
- On-board ceramic chip antenna and U.FL connector for external antenna
- Multiple serial interface : UART, I2C, SPI, I2S
- Wi-Fi Network Processor Subsystem
  - Wi-Fi and Internet Protocols in ROM
  - TCP/IP Stack
    - Industry-Standard BSD Socket Application Programming Interfaces (APIs)
    - 8 Simultaneous TCP or UDP Sockets
    - 2 Simultaneous TLS and SSL Sockets
  - Powerful Crypto Engine for Fast, Secure Wi-Fi and Internet Connections with 256-Bit AES Encryption for TLS and SSL Connections
  - Station, AP, and Wi-Fi Direct® Modes
  - WPA2 Personal and Enterprise Security
  - SimpleLink Connection Manager for Autonomous and Fast Wi-Fi Connections
  - SmartConfig™ Technology, AP Mode, and WPS2 for Easy and Flexible Wi-Fi Provisioning
  - TX Power
    +16.0 dBm @ 1 DSSS
    +12.5 dBm @ 54 OFDM
    +11.5 dBm @ MCS7
  - RX Sensitivity
    −92.5 dBm @ 1 DSSS
    −72.5 dBm @ 54 OFDM
    −70.5 dBm @ MCS7
- Applications Microcontroller Subsystem
  - ARM® Cortex®-M4 Core at 80 MHz
  - Embedded Memory - RAM (Up to 256KB), External Serial Flash Bootloader, and Peripheral Drivers in ROM
  - Up to 27 Individually Programmable, Multiplexed GPIO Pins
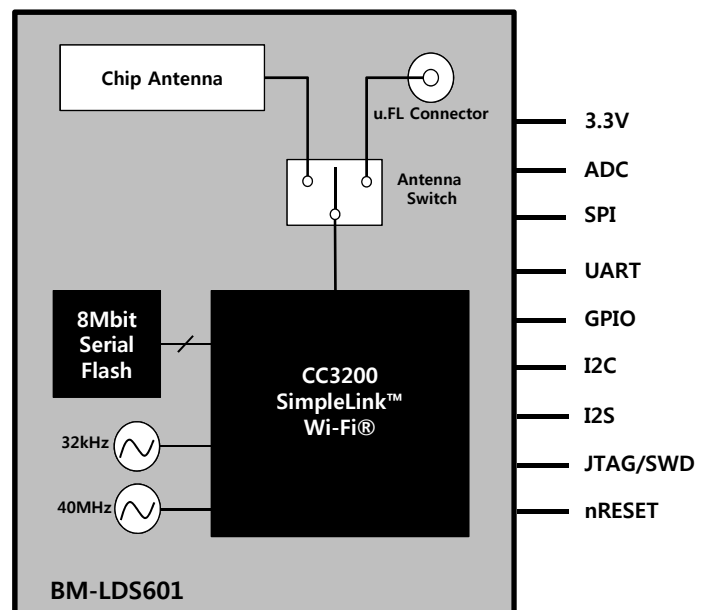
Applications

- For Internet-of-Things applications, such as:
  - Cloud Connectivity
  - Internet Gateway
  - Home Automation
  - Home Appliances
  - Smart Plug and Metering
  - Access Control
  - Wireless Audio
  - Security Systems
  - IP Network Sensor Nodes
  - IP Network Sensor Nodes
  - Medical and Healthcare
  - Smart Appliances

Dimensions(mm)

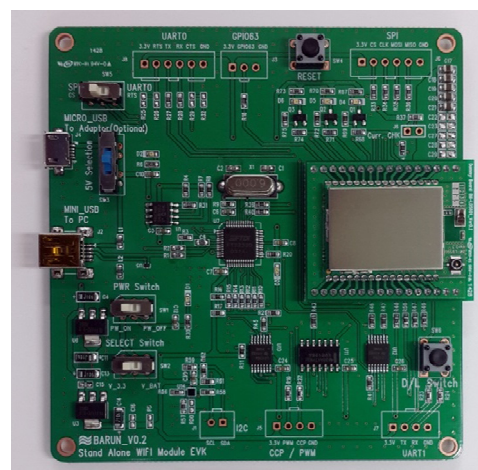|	
W	30.0±0.5
L	20.0±0.2
H	2.75±0.2

BM-LDS601 System Architecture

Note: Information in this brief is subject to change without notice.

BM-LDS601 Specifications

Features	Spec
WLAN Radio	802.11b/g/n
Frequency Band	2.4GHz, Channel CE 1-13, FCC 1-11
WLAN Roles	Station, AP for Configuration, Wi-Fi Direct®
Wi-Fi Security	Open, WEP, WPA, WPA2
Network Protocols	IPv4, TCP, UDP, RAW, ARP, DHCP, DNS, ICMP, mDNS, DNS-SD, HTTP 1.0 Web Server
Network Security	SSL3.0, TLS1.2, HTTPS
Communications Interfaces	SPI, UART, I2C, I2S(McASP)
RF Transmit Power	+16.0dBm@11Mbps +12.5dBm@54Mbps +11.5dBm@MCS7
Receive Sensitivity	-92.5dBm@1Mbps -72.5dBm@54Mbps -70.5dBm@MCS7
Power Consumption	278mA@1Mbps Transmit with max Power 229mA@54Mbps Transmit with max Power 59mA@Receive 15.3mA@Listen 85uA@Deep sleep 4uA@Hibernate 520uA@Idle Connection
Supply Voltage	3.3V
Temperature Range	-40℃ to 85℃

BM-LDS601 Evaluation Board

This version of the Evaluation Board is based on pre-production Module, which can be used for evaluation and software development.

• USB interface to PC for CCS/IAR using FTDI USB drivers
• Flash update over the USB using SimpleLink™ Programmer
• Standalone development platform featuring sensors and LEDs
• Operates from 2 AA alkaline batteries
• On-board antenna and U.FL connector selectable using RF Switch
• Supports 4 wire JTAG and 2 Wire SWD

Module 문의

영업담당 : 김진용주임(jameskim@bec.co.kr)　　　　개발담당 : 최재열책임(Jaeyoul@bec.co.kr)
Office : 031-8020-6083　　　　　　　　　　　　　Office : 031-8020-6071
Mobile : 010-9825-4051　　　　　　　　　　　　　Mobile : 010-8827-5202
㈜ 바른전자 경기도 화성시 동탄면 경기동로 548, Zip.445-812, www.bec.co.kr

FCC Statement

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.
OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

"Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment."

RF Exposure Statement

The antenna(s) must be installed such that a minimum separation distance of at least 20 cm is maintained between the radiator (antenna) and all persons at all times. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

End Product Labeling

The module is labeled with its own FCC ID and IC Certification Number.　If the FCC ID and IC Certification Number are not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module.　In that case, the final end product must be labeled in a visible area with the following:
□ Contains FCC ID: 2ADD8BM-LDS601"

OEM Responsibilities to comply with FCC and Industry Canada Regulations

The module has been certified for integration into products only by OEM integrators under the following condition:

- The transmitter module must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures. As long as the two condition above is met, further transmitter testing will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

IMPORTANT NOTE: In the event that these conditions can't be met (for certain configurations or co-location with another transmitter), then the FCC and Industry Canada authorizations are no longer considered valid and the FCC ID and IC Certification Number can't be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC and Industry Canada authorization.