High-Power Bluetooth® Module
Model: SN2100

SN2100 is a complete industrial grade high power (class 1) Bluetooth® module with on-board antenna for M2M application. It integrates Bluetooth® IC, PA, RF front end, TCXO and chip antenna into a small LGA form factor. It can be simply dropped into the OEM's design.

The SN2100 offers total 110 dB link budget, which is significantly better than most of the Bluetooth® modules do in the market. This makes it a good fit for industrial control application that usually requires longer distance coverage. The module offers extended product life and industrial standard operating temperature range to fit the industrial usage.

The SN2100 offers standard HCI interface to the host CPU. The Bluetooth profile stack is pre-integrated in the TI MSP430 and TI Stellaris microcontroller development boards.

Features

- *Long range coverage (250 meters)*
- *On-board antenna, FCC/IC certified, CE compliant*
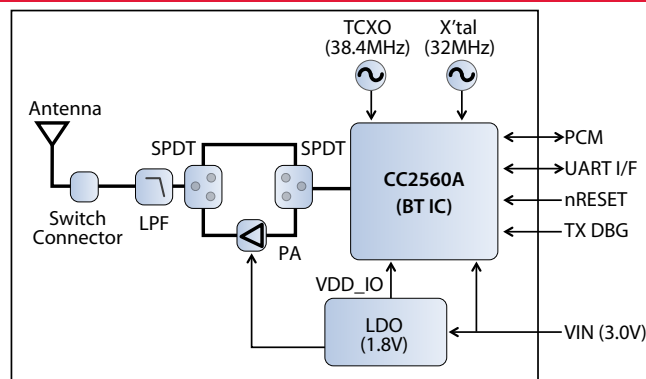- *On-board slow clock*
- *Industrial grade operating temperature*

Applications

- *Lighting control*
- *Home automation*
- *Smart energy*
- *Industrial control*

Block Diagram

TCXO (38.4MHz) X'tal (32MHz)

Antenna

Switch Connector — LPF — SPDT — SPDT — PA — CC2560A (BT IC)

PCM
UART I/F
nRESET
TX DBG

VDD_IO — LDO (1.8V) — VIN (3.0V)

Specifications

Technology	2.4GHz Bluetooth v2 Class 1
Antenna Configuration	On-board chip antenna
Max. Output Power	+18dBm
Receive sensitivity	-92dBm
Data rate support	BDR
32 kHz clock circuit	On-module
Host Interface	UART
Supply Voltage	2.2V to 3.3V
Operating Temperature	-40ºC to 85ºC

Dimensions (mm)

<Top View>

<SideView>

L	W	H
17.5±0.2	16.0±0.2	2.0±0.2
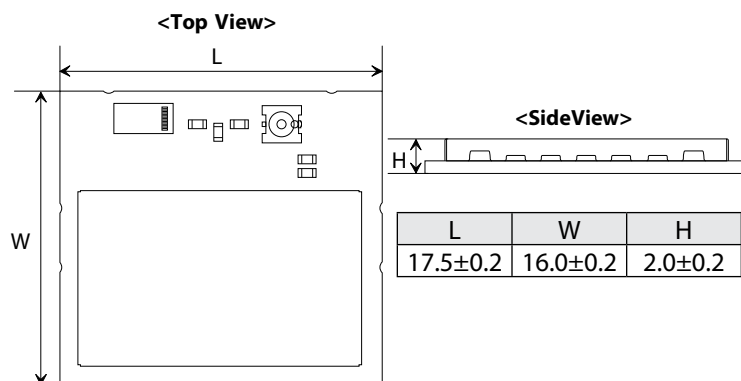
EM Development Kit – P/N 88-00150-85

- *1 EM board*
- *Quick Start Guide*
- *Plug directly onto TI MSP-EXP430F5438*

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