



# Bluetooth Module

## Bluetooth Low Energy Soc Smart Module

### Model Number: B70R150

#### Product Description

The B70R150 is a an ultra-low-power system on-chip solution for Bluetooth 5.0 low energy module.This module combines the excellent performance of a leading RF transceiver with a low-power ARM Cortex-M4F and rich powerful supporting features and peripherals.

#### Product Features

- ◆ Embedded 32-bit CPU
- ◆ Supports 2Mbps LE.
- ◆ Frequency bands: 2400 MHz to 2483.5 MHz.
- ◆ Embedded ROM, 160kByte RAM and 8MByte Flash Address Space.
- ◆ 4Kbits EFUSE for manufacturer use
- ◆ Embedded 4Mbits Flash and 160KB SRAM
- ◆ Supports GAP, ATT/GATT, SMP, L2CAP
- ◆ Supports OTA (Over-the-Air) programming
- ◆ Supports 8 channel Low power comparators
- ◆ ROHS compliant

#### Product Specification

Model	Bluetooth Low Energy Soc Smart Module
Product Name	B70R150
Standard	BLE5.0
Interface	UART
Data Transfer Rate	1,2Mbps
Modulation Method	GFSK
Frequency Band	2400~2483.5 MHz
Frequency Range:	2402~2480 MHz
Antenna Type:	PCB Antenna
Antenna Gain:	3dBi
Operating Voltage	3.0V±10%
Current Consumption	<200mA
Operating Temperature	-20 ~85°C ambient temperature
Storage Temperature	-40 ~ 80°C ambient temperature
Humidity	5 to 95 % maximum (non-condensing)
Module size:	Length 16mm* Width 12mm* Height 2.7mm

#### NOTICE:

- ◆ please keep this product and accessories attached to the places which children can't touch;
- ◆ do not splash water or other liquid onto this product, otherwise it may cause damage;
- ◆ do not put this product near the heat source or direct sunlight, otherwise it may cause deformation or malfunction;
- ◆ please keep this product away from flammable or naked flame;
- ◆ please do not repair this product by yourself. Only qualified personnel can be repaired.



## FCC Statement:

FCC standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247

Integral PCB antenna with antenna gain 3.0dBi

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.

Caution: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### FCC Radiation Exposure Statement

This modular complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

If the FCC identification number is 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. This exterior label can use wording such as the following: “Contains Transmitter Module FCC ID: 2AC23-B70 Or Contains FCC ID: 2AC23-B70”

### When the module is installed inside another device, the user manual of the host must contain below warning Statements:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

The devices must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product.

Any company of the host device which install this modular with limit modular approval should perform the test of radiated & conducted emission and spurious emission,etc. according to FCC part 15C : 15.247 and 15.209 & 15.207 ,15B Class B requirement, Only if the test result comply with FCC part 15C : 15.247 and 15.209 & 15.207 ,15B Class B requirement. then the host can be sold legally