

1. Module : MB2710(JX312-01)



The MB2710 Bluetooth Module integrates BES2710IA-8X chip. BES2710IA-8X is an ultralow power and highly integrated Bluetooth SoC for speakers. BES2710IA-8X provides a BT 5.4 subsystem with integrated RF transceiver for high-standard wireless communications, a codec subsystem for audio applications, and a Power Management Unit (PMU).

2. Module Specification

Chips	BES2710IA-8X
Bluetooth Spec	Bluetooth 5.4
Frequency Band	2402 ~ 2480 MHz
Tx Power	6.31 ~19.953mW (Bluetooth Power Class I)
Rx Sensitivity	< -90dBm (BT1M, BER 0.1%)
Distance	< 100m (Open Space)
Power Voltage	3.3V
Dimension	35mm x 20mm x 3.3 mm
Environmental Range	Operation temperature : -20 ~ +70°C
Modulation	GFSK, $\pi/4$ -DQPSK, 8 DPSK
Communication Method	FHSS

FCC COMPLIANCE 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. 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.

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

The system integrator is responsible for the functioning of the final product; therefore, has to be taken to the external components of the module, as well as any project or installation issue, because the risk of disturbing the GSM network or external devices or having impact on the security. Should there be any doubt, please refer to the technical documentation and the regulations in force. Every module has to be equipped with a proper antenna with specific characteristics. The antenna has to be installed with care in order to avoid any interference with other electronic devices and has to guarantee a minimum distance from the body (20 cm). In case this requirement cannot be satisfied, the system integrator has to assess the final product against the SAR regulation.

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: BEJ-MB2710”