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ISSC
創傑科技股份有限公司
ISSC Technologies Corp.

BM77 Bluetooth® 4.0 Dual Mode Module

A Bluetooth Module supporting Bluetooth Classic and Bluetooth LE

General Description

The BM77 is a fully-certified Bluetooth® Version 4.0 (BR/EDR/LE) module for designers who want to easily add dual mode Bluetooth® wireless capability to their products.   Delivering local connectivity for the Internet of Things (IoT), the BM77 bridges your product to Smart Phones and Tablets for convenient data transfer, control and access to cloud applications.

This Bluetooth SIG certified (QDID:B021961) module provides a complete wireless solution with Bluetooth stack onboard, integrated antenna, and worldwide radio certifications in a compact surface mount package, 22 x 12 x 2.4 mm.   It supports GAP, SDP, SPP, and GATT profiles.   Data is transferred over the Bluetooth link by sending/receiving data via transparent mode over UART, making it easy to integrate with any processor or Microcontroller with a UART interface.   Configuration is made easy using a Windows® based GUI or directly via UART by a MCU.

Applications

- Mobile Point of Sales (mPOS)
- LED lighting
- Wearables
- Digital Sports
- Fitness
- Health Care/ Medical
- On Board Diagnostics (OBD2)
- Home Automation
- Remote Control Toys

**Bluetooth® 4.0 Dual-Mode Shielded Module
(Part # BM77SPPS3MC2)**

Key Features

- Fully certified Bluetooth Version 4.0 Module

- Bluetooth SIG Certified

- Onboard embedded Bluetooth Stack

- Easy to use transparent mode for data transfer via UART

- Easy to configure with Window GUI or direct by MCU

- Multiple I/O pins for control and status

- Secure AES128 encryption

- GAP, SDP, SPP, GATT profiles

- 2 dBm Transmit Power

- Firmware can be field upgradable via UART

- Compact surface mount module: 22 x 12 x 2.4 mm

- Castellated surface mount pads for easy and reliable host PCB mounting

- Worldwide regulatory certifications

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Specifications

Bluetooth Standard	4.0
Bluetooth Profiles	GAP, SDP, SPP, GATT
Bluetooth Class	2
Frequency	2.4–2.48 GHz
Antenna	Ceramic Chip
Temperature Range	-40°C to +85°C
Maximum Throughput	3 Mbps (Classic); 8 Kbps (LE)
Integration	Surface Mount Module, Castellated Edges
Host Interface	UART
Operating Voltage	3.3V-4.3V
Certifications	Bluetooth, FCC, IC, CE, Japan, KCC
Sensitivity	-90 dBm (Classic); -92 dBm (LE)
RF TX Power	2 dBm
Size	22 x 12 x 2.4 mm

Development Tools

The BM77 Bluetooth® Dual Mode Evaluation Board (EVB) allows the designer to evaluate and demonstrate the capabilities of the ISSC BM77 Bluetooth 4.0 Dual Mode Module.

The evaluation board includes an integrated Configuration and Programming USB interface for plug-and-play capability.
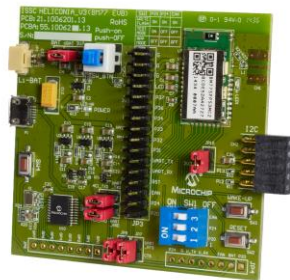
Ordering Information

Part Number	Description
BM77SPPS3MC2-0007AA	Bluetooth® 4.0 Dual Mode, Class 2, Surface Mount module with Antenna
EV77SPPS3MC2A	Evaluation board for the BM77SPPS3MC2 Bluetooth Dual Mode module with USB cable