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ISSC Technologies Corp.

Theory of Operation/Technical Description – FCC ID: A8TBM77SPPSYC2A

- RF circuit function:

BM77SPPS05, BM77SPPS03 are based on the IS1677NM, SOC IC.
The major area of the IC chip contains the 2.4GHz, Bluetooth compliant transceiver. Additionally, there is a small area on the SOC,chip dedicated to the implementation of the Bluetooth stack and the Apple MFi protocol. The two Chip Model Nos. reflect these differences in the activated digital device portions of the SOC, by disabling MFi function in Module BM77SPPS03. Both Chips have the same pin layout.

The difference between the modules is as follows:

Module Features		
Module model No.	BM77SPPS05	BM77SPPS03
Feature function	MFi+SPP+ BT-LE	SPP+BT-LE
Chip Model	IS1677NM	IS1677NM
Note:	Provides all feature function	MFI disabled

MFi: "Made for iPod"
SPP: Bluetooth Serial Port Profile
BT Audio: Bluetooth Audio Profiles
BT-LE: Bluetooth 4.0 Low Energy

- RF signal flow:

The Data or Audio signal is encoded into a Data Stream to be the modulation input for the a 2.4GHz, Bluetooth compliant transceiver.

- Description of Antenna system (Baluns, Multiplexers)

The asymmetric RF output of the SoC is connected to the antenna through a filter network

- Show compliance with 15.203 antenna requirements:

PCB chip antenna not changeable by end user.

- Description of all modulation schemes used in the product:

BT-LE:
GFSK
BT BDR and EDR:
GFSK, π /4 PSK, 8DPSK