



MD7107-A02
BLE Single Mode
Bluetooth Module Data Sheet



Revision History

Rev.	History	Issue Date	Remark
0.1	Initial issue.	Apr. 2, 2013	Preliminary
0.2	Add Picture and M07Q-C-T.	May. 6, 2013	
0.3	Delete M07Q-C-T.	May. 13, 2013	
0.4	Add GND solder pad.	Aug. 13, 2013	
0.5	Change Module name MD7107.	Aug. 18, 2013	
0.6	Change Module name MD7107-A02 and Add QDID and BQB search.	Aug. 27, 2013	



1. General Description

Bluetooth module - MD7107-A02 is designed for a Bluetooth low energy (BLE) single mode with 0dBm output power wireless applications using A7107 BLE and FSK/GFSK transceiver IC. MD7107-A02 features a fully programmable frequency synthesizer by SPI. The data rate is 1Mbps. MD7107-A02 need to connect with external antenna.

2. General specification

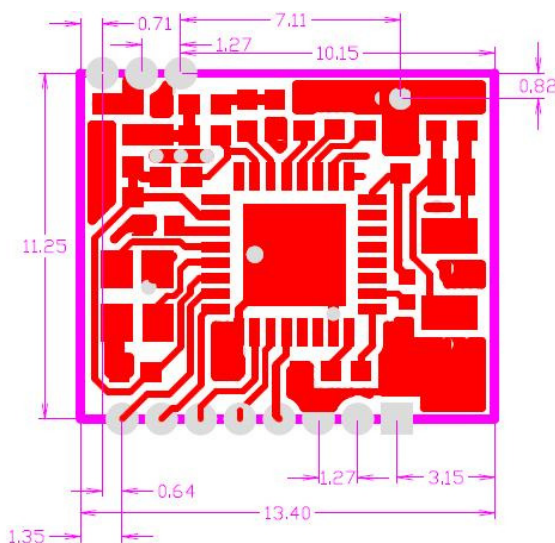
Number	Item	Description
1	Chipset	A7107
2	Dimension	13.4*11.25*2.5mm
3	Range	20 Meters
4	Frequency	2.40GHz~2.48GHz unlicensed ISM Band
5	Bluetooth Standard	V4.0
6	Voltage	2.0~3.6V
7	Temperature	0~50℃
8	Storage Temperature	-40~85℃
9	Frequency Range	2403~2480MHz
10	Max RF Transmission Power	+6.5dBm to -23dBm
11	Receive Sensitivity	-90dBm at 1Mbps(data rate)



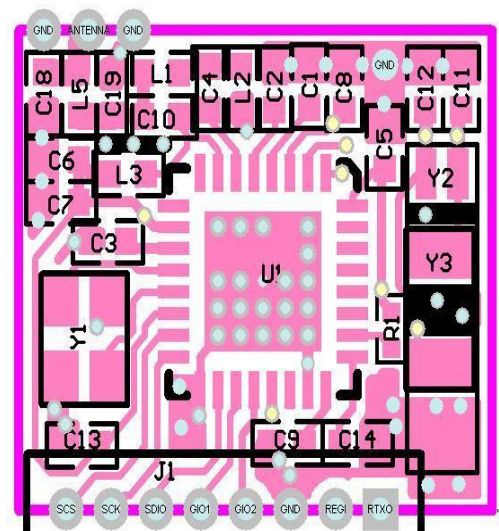
3. Electrical specification

Item	Specification	Remark
Supply voltage	2.0V-3.6V	Unit : Volt
Current consumption	3uA @Sleep mode 1.5mA @Standby mode (Xtal OSC. on) 16.0mA @ RX mode 23.0mA@TX mode (6.5 dBm output)	Typical
Frequency	2402 – 2480 MHz	ISM band
Transmit output power	6.5 dBm @ room temperature	Typical +/- 2dBm
Rx sensitivity	-90 dBm @ Data rate : 1Mbps mode	Typical, BER $\leq 1E-3$, With Gaussian filter.
Modulation	FSK or GFSK	
Interface	11 pin PCB connector	
PCB Dimension	13.4(L) x 11.25(W) x 0.8(H)	Unit : mm
Operating temperature	0 ~ 50 °C	

4. Dimension and Interface Pin Out



PCB Size (Unit: mm)

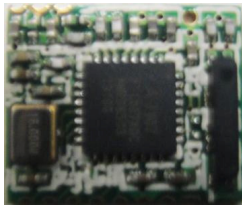


PCB Pin Out



Pin No.	Pin name	Description	Type
1	RTXO	32.768KHz Slower Clock input (Option)	I
2	REGI	RF module supply voltage input	PWR
3	GND	Ground	PWR
4	GIO2	Data transfer over or ready	O
5	GIO1	Data transfer over or ready	O
6	SDIO	SPI data input/output	I/O
7	SCK	SPI Clock	I
8	SCS	SPI Chip Selection	I
9	GND-RF	RF Ground	RF GND
10	RF	RF input/output	RF
11	GND-RF	RF Ground	RF GND

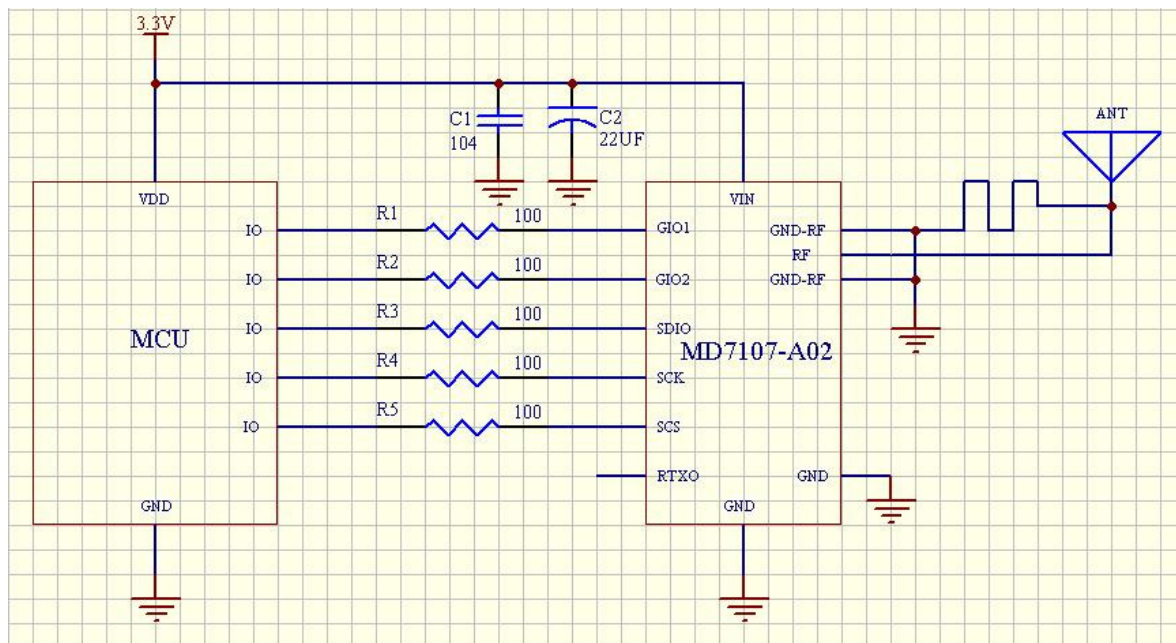
5. Module photograph



MD7107-A02



6. Application Circuit



7. Ordering Information.

Part Number	Size(W*L*H)	Description
MD7107-A02	13.4*11.25*2.5mm	

8. QDID and BQB Information.

QDID: [B021071](#)

BQB search:

Open web site and search: AMIC:

<https://www.bluetooth.org/tpg/listings.cfm>

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