

BT Qualification
QDID: 52727

ACI8107M0-BLE-MD48(S)-V10 module specification

With 256KBytes In-system programmable flash memory

Version :V1.0

Revision History

Date	Revision Content	Revised By	Version
2017/05/25	Initial released	David Liao	V1.0

本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。

The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.

General Description

Avantcom's ACI8107M0 is a BT V4.2 stack (Bluetooth low energy or BLE) module designed based on **AMICCOM A8107M0 SoC solution** which incorporates: **GPIO, UART, I2C, SPI, TFT** and **ADC interfaces** for connecting peripherals and sensors.

Feature of the module:

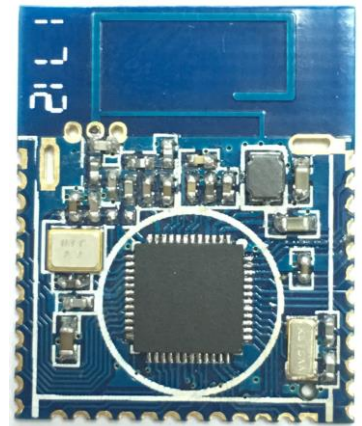
1. Dual Transmission Mode of BLE & RF 2.4G upon customer preference.
2. Low power requirements, ultra-low peak, average and idle mode power consumption.
3. Compatible with a large installed base of mobile phones, tablets and computers.
4. Fully coverage of BLE software stack including(GAP & GATT profile):
Proximity Profile; Heart Rate Profile; Health Thermometer Profile; Blood Pressure Profile; Running Speed & Cadence Profile; HID Over GATT Profile; Alert Notification Profile; Glucose Profile; Cycling Speed & Cadence Profile, ANCS Profile, WeChat API, TaoBao API, OTA(Over-the-air programming), UART OTA, Amicom BLE Mesh, iBeacon, Proprietary 2.4G
5. BLE & RF transmission switching help products to fit all operation system & all kinds of hardware

Application

- 2400 ~ 2483.5 MHz ISM frequency hopping system
- Helicopter and airplane radio controller
- Bluetooth smart device
- Wireless toy and gaming
- Smart remote controller
- Home and building automation
- Wireless keyboard and mouse

Features

- **Blue tooth Low energy V4.2 with 2.4GHZ transceiver.**
 Frequency band: 2400 – 2483MHz.
 TX Power -20 to +6dbm
 High RX sensitivity:
 - -97dBm at 500Kbps data rate(2.4GHz proprietary mode)
 - -94dBm at 1Mbps data rate(Bluetooth low energy mode)
 - -91dBm at 2Mbps data rate
 Programmable data rate 5K ~ 2Mbps.
 Fast settling time synthesizer for frequency hopping system.
- **ARM Cortex-M0 MCU 32 bit processor**
 Serial Wire Debug (SWD), in-Circuit Debugger, In-System programming/ In-Application programming
 256KB Flash memory with copy protection,
 32KB SARM
 32-bit timers x2 and 32-bit dual mode timer x1
 16-bit Sleep timer x2
 Watchdog timer x1
- **Periphery**
 UART (Universal Asynchronous Receiver/Transmitter) x 3 port
 I²C two-wire serial bus(V2.1 of the I²C specification) ,Support Master/Slave mode transmitter / receiver
 - I²C speed MODEs: Standard (up to 100 Kb/s) and Fast (up to 400Kb/s), Fast plus(1MHz)
 SPI Master/Slave Full duplex Synchronous serial communication, Up to 8 SPI slaves device address
 PWM (Pulse width modulator) x 4 Channel
 General Purpose I/O Pins x 31
 Thermal sensor for monitoring relative temperature.
 8-bits ADC for external analog voltage. (0V ~ 0.9V).
 12-bits ADC x 8 channel for general purpose analog input (0V ~ 1.8 V).
 Low Battery Detector.
 AES HW Encryption and Authentication
 RTC(Real Timer Counter)
 TFT LCD controller with 16KB SRAM (DMA Controller for RGB565 format TFT LCD Panel)
- **Flexible Power Management**
 Supply voltage range 2.0V to 3.6V
 RX current consumption with MCU stop and DC-DC turn on: 6.2mA @REGI= 3.3V
 TX current consumption with MCU stop and DC-DC turn on: 9.3mA @ 5dBm, REGI=3.3V.
 Power saving MODE without sleep timer, no SRAM retention (1.3 uA)
 Power saving MODE with sleep timer, 16K SRAM retention (2.1uA)
- **Easy to use.**
 Change frequency channel by one register setting.



本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。

The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.

Auto RSSI measurement. 8-bits Digital RSSI for clear channel indication.
 Auto WOR (wake up when receive RX packet).
 Auto WOT (wake up to transmit TX packet).
 Auto Calibrations.
 Auto IF function.
 Auto Frequency Compensation.
 Auto CRC Check.
 Separated 256 bytes RX and TX FIFO.
 Support for non-concurrent multiprotocol operation :On-air compatibility with A8106 2.4GHz series

Electrical Specification

Item	Specification	Remark
Standard Bluetooth	BTLE V4.2	
Data Encryption	AES128 engine and CCM	
Antenna Type	Integrated Print circuit board antenna	
Supply voltage	2.0V~3.6V	
Current consumption (MCU in stop mode) With DC-DC	3.3uA @Sleep mode (PM1 with sleep timer) 0.7mA @Stand-by mode 4.2mA @PLL mode 6.6mA @Rx mode (AGC On) 9.8mA @Tx mode (2.5 dBm output) 11.3mA @Tx mode (5 dBm output)	typical
Frequency	2402 – 2480 MHz	ISM band
Transmit output power	2.5 dBm @ room temperature 5 dBm @ room temperature	Typical Annotation1
Rx sensitivity	-93 dBm (typical) @ 1Mbps mode	BER ≤ 1E-3
Modulation	GFSK	
Interface	12 pin 1.27mm header X3	
Dimension ACI8107M0-BLE-MD-V1.0	23.4mm(L) x 19.1mm(W) mm2 with Print circuit board Antenna	
Operating temperature	-40 ~ 85 °C	

Absolute Maximum Ratings

Parameter	With respect to	Rating	Unit
Supply voltage range (VDD)	GND	-0.3 ~ 3.6	V
Digital IO pins range	GND	-0.3 ~ VDD+0.3	V
Voltage on the analog pins range	GND	-0.3 ~ 2.1	V
Input RF level		14	dB
Storage Temperature range		-55 ~ 125	°
ESD Rating	HBM	± 2K	V
	MM	± 100	V

*Stresses above those listed under “Absolute Maximum Rating” may cause permanent damage to the device. These are stress ratings only; functional operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.

*Device is ESD sensitive. Use appropriate ESD precautions. HBM (Human Body MODE) is tested under MIL-STD-883F Method 3015.7. MM (Machine MODE) is tested under JEDEC EIA/JESD22-A115-A.

*Device is Moisture Sensitivity Level III (MSL 3).



本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。

The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.

Electrical Specification in detail

(Ta=25°C, REGI = 3.3V, unless otherwise noted)

Parameter	Description	Min.	Typ.	Max.	Unit
General					
Operating Temperature		-40		85	°C
Supply Voltage (REGI)	Regulator supply input	2.0		3.6	V
Current Consumption (MCU in stop MODE, and RF in sleep MODE)	PM1 with sleep timer		3.3		uA
	PM2 with sleep timer		3.3		uA
	PM3 with sleep timer, 16K SRAM retention		2.1		uA
	PM3 without sleep timer, 16K SRAM off		1.3		uA
Current Consumption (MCU in normal MODE) Without DC-DC MCU Clock @8MHz	Sleep MODE		3		mA
	Standby MODE		3.5		mA
	PLL MODE		9.5		mA
	RX MODE (AGC Off)		15		mA
	RX MODE (AGC On)		15.5		mA
Current Consumption (MCU in STOP MODE) Without DC-DC	TX MODE (@5dBm output)		20		mA
	Standby MODE		1.2		mA
	PLL MODE		5.8		mA
	RX MODE (AGC Off)		11.5		mA
Current Consumption (MCU in STOP MODE) With DC-DC	RX MODE (AGC On)		12.0		mA
	TX MODE (@5dBm output)		18.5		mA
	Standby MODE		0.7		mA
	PLL MODE		4.2		mA
Current Consumption (MCU in STOP MODE) With DC-DC	RX MODE (AGC Off)		6.2		mA
	RX MODE (AGC On)		6.6		mA
	TX MODE (@5dBm output)		9.3		mA
	Synthesizer block				
Crystal settling time	Idle to standby (XTAL SMD2016)		0.6		ms
Crystal frequency			16		MHz
Crystal tolerance			±20		ppm
Crystal Load Capacitance			9		pF
Crystal ESR				80	ohm
PLL settling time	Standby to PLL		75		µS
Transmitter					
Carrier Frequency		2400		2483.5	MHz
Maximum Output Power			4		dBm
RF Power Control Range			20		dB
Out Band Spurious Emission ¹	30MHz~1GHz			-36	dBm
	1GHz~12.75GHz			-30	dBm
	1.8GHz~ 1.9GHz			-47	dBm
	5.15GHz~ 5.3GHz			-47	dBm
Frequency deviation	500Kbps		186K		Hz
	1M		250K		Hz
	2M		500K		Hz

本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。

The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.

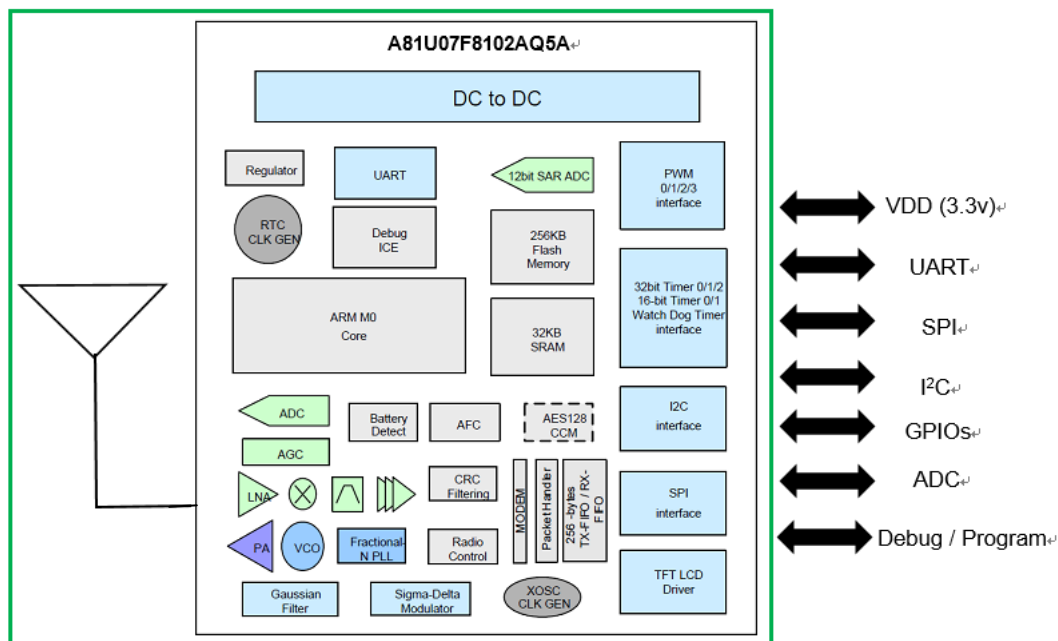
Data rate		5K		2M	Bps
TX settling time	Standby to TX		120		μS
Receiver					
Receiver sensitivity @ BER = 0.1%	Data rate 2M (FIF = 2MHz)		-91		dBm
	Data rate 1M (FIF = 1MHz)		-94		dBm
	Data rate 500K (FIF = 1MHz)		-97		dBm
IF frequency bandwidth			1200/2400		KHz
IF center frequency			1000/2000		KHz
Interference	Co-Channel (C/I ₀)		11		dB
	1 st Adjacent Channel (C/I ₁)		2		dB
	2 nd Adjacent Channel (C/I ₂)		-18		dB
	3 rd Adjacent Channel (C/I ₃)		-28		dB
	Image (C/I _{IM})		-12		dB
Maximum Operating Input Power	@RF input (BER=0.1%)			0	dBm
RX Spurious Emission	30MHz~1GHz			-52	dBm
	1GHz~12.75GHz			-47	dBm
RSSI Range with AGC turn on	@RF input	-100		-10	dBm
RX settling time	Standby to RX		130		μS
12Bit SAR ADC					
Input voltage range		0		1.8	V
External reference voltage			1.8		V
Input capacitor			25		pF
Bandwidth			200		KHz
EOB, effective number of bits			10		bit
INL			+/- 2		LSB
DNL			+/-1		LSB
Conversion time		128		8	μS
Current consumption			0.4		mA
Regulator					
Regulator settling time			200		μS
Band-gap reference voltage			1.21		V
Regulator output voltage			1.21		V
Digital IO DC characteristics					
High Level Input Voltage (V _{IH})		0.8*VDD		VDD	V
Low Level Input Voltage (V _{IL})		0		0.2*VDD	V
High Level Output Voltage (V _{OH})	@I _{OH} = -0.5mA	VDD-0.4		VDD	V
Low Level Output Voltage (V _{OL})	@I _{OL} = 0.5mA	0		0.4	V
DC-DC Buck converter					
Input voltage range		2.0		3.6	V
Output voltage		1.5	1.6	1.8	V
Efficiency (with 100 ohm load @ 3.0V input.)	PWM MODE		89		%
Efficiency (with 100 ohm load @ 3.6V input.)	PWM MODE		86		%
Maximum load current				50	mA

本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。

The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.

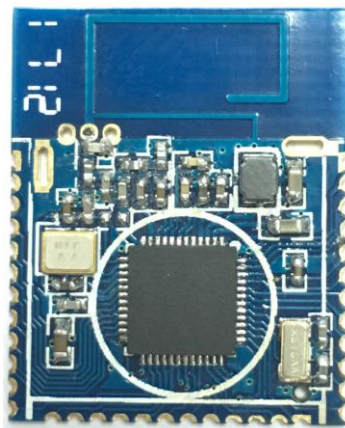
M0 Module Block Diagram

ACI8107M0-BLE-MD48(S)-V10

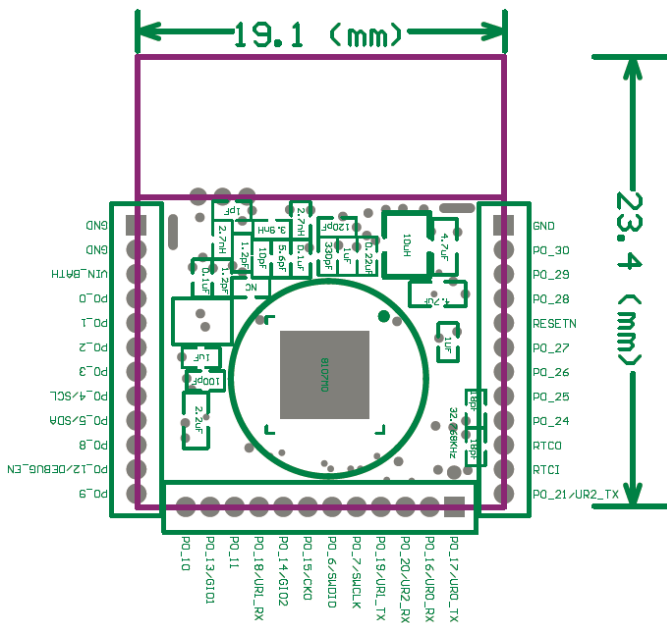


Outline TOP View

ACI8107M0-BLE-MD48(S)-V10



Dimension information



本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。

The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.

Interface Descriptions

J1 :

Pin No.	Symbol	Function Description	Remark
1	GND	GND	
2	P0_30	General IO	
3	P0_29	General IO	
4	P0_28	General IO	
5	RESETN	RESETN input	
6	P0_27	General IO / LCD_Data[3]	
7	P0_26	General IO / LCD_Data[4]	
8	P0_25	General IO / LCD_Data[5]	
9	P0_24	General IO / LCD_Data[6]	
10	RTCO	P0_23	
11	RTCI	P0_22	
12	P0_21	General IO / LCD_Data[7]	

J2 :

Pin No.	Symbol	Function Description	Remark
1	P0_17	UART0_TX / LCD_A0	
2	P0_16	UART0_RX / LCD_nCS	
3	P0_20	UART2_RX / PWM0 / LCD_nWR / s_LCD_SCL	
4	P0_19	UART1_TX / BB_GIO2	
5	P0_7	SWCLKTCK	
6	P0_6	SWDIOTMS	
7	P0_15	ADC7/BB_CKO / LCD_Data[0] / s_LCD_SDA	
8	P0_14	ADC7/BB_GIO2 / LCD_Data[1]	
9	P0_18	UART1_RX / BB_GIO1	
10	P0_11	ADC5 / BB_GIO1 / LCD_Data[2]	
11	P0_13	PWM3 / I2C_SDA / LCD_TE	
12	P0_10	PWM2 / I2C_SCL	

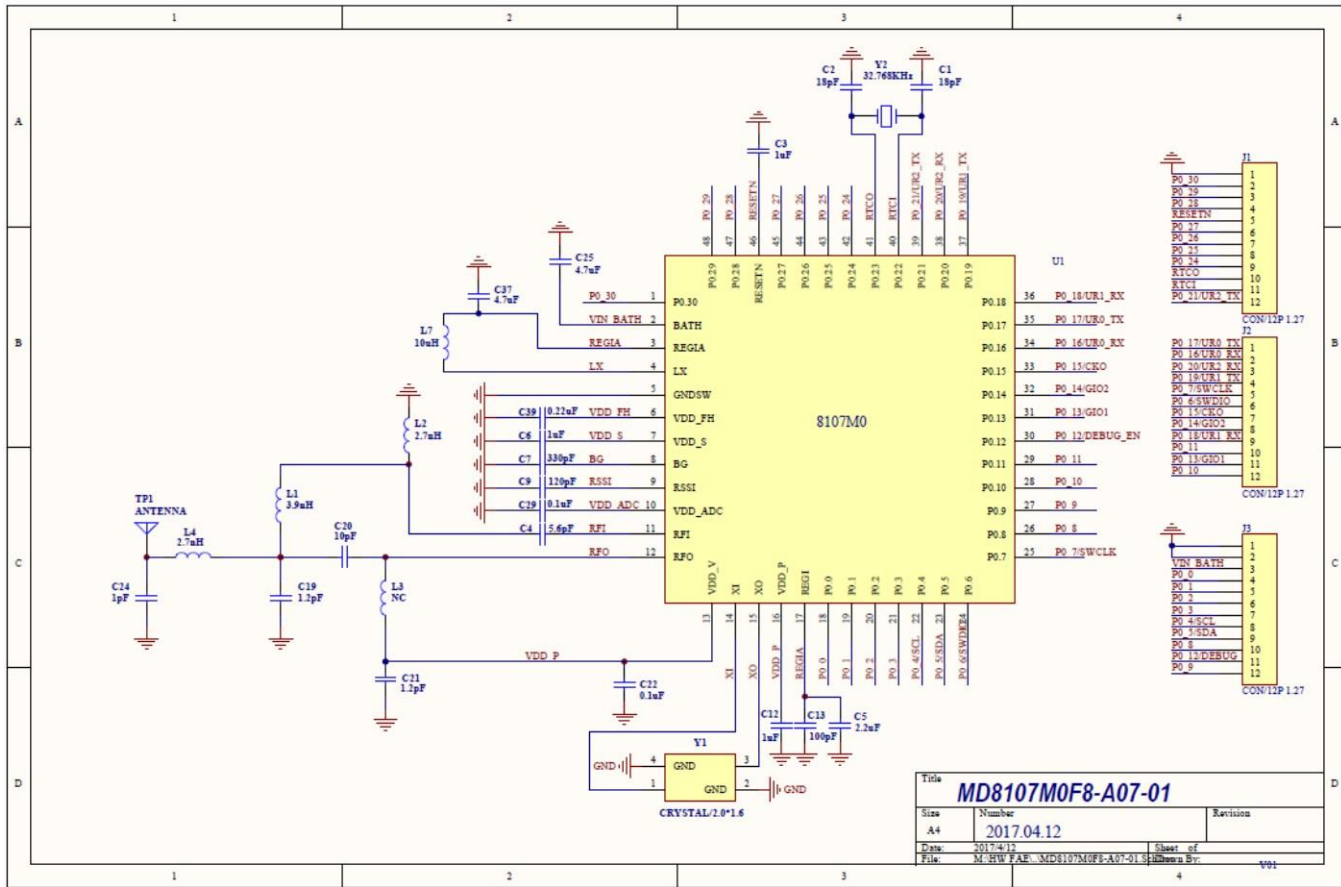
J3 :

Pin No.	Symbol	Function Description	Remark
1	GND	GND	
2	GND	GND	
3	VIN_BATH	Voltage IN	2.0 ~ 3.6V
4	P0_0	SPI_CS	
5	P0_1	SPI_MISO	
6	P0_2	SPI_MOSI	
7	P0_3	SPI_SCK	
8	P0_4	I2C_SCL	
9	P0_5	I2C_SDA	
10	P0_8	Timer0_EIN / ADC2 / BB_GIO1	
11	P0_12	ADC4 / ICE_MODE / LCD_nRD	
12	P0_9	Timer1_EIN / ADC3 / BB_GIO2	

本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。

The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.

Schematic



Title		
MD8107M0F8-A07-01		
Size	Number	Revision
A4	2017.04.12	
Date	2017.4.12	Sheet of
File	M:\HW\FAE\MD8107M0F8-A07-01	Drawn By: wpt

本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。
The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.

Bill of Material

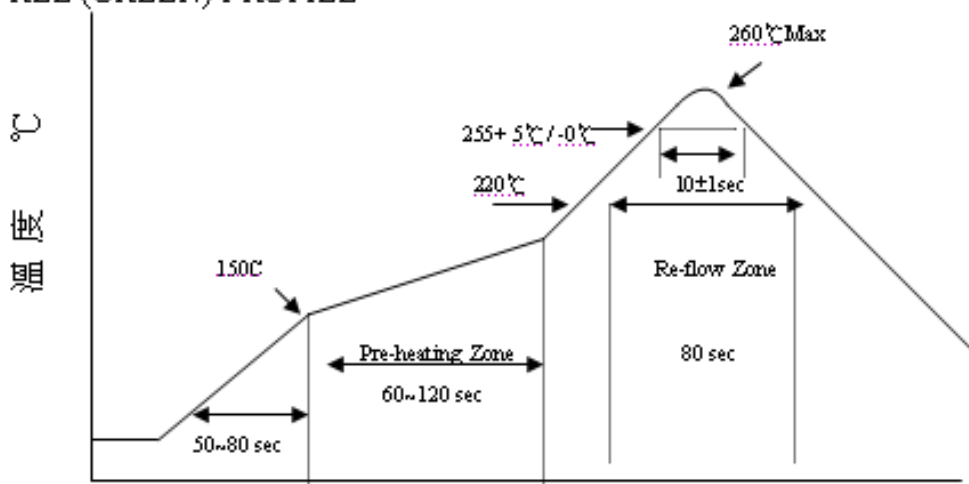
Item	Component	Description	Size	Value	Tol.	Manufacturer	Manufacturer
1	C1, C2	C0G ceramic	0402	18pF	±5%	Murata	GRM1555C1H180J
2	C3, C6, C12	X5R ceramic	0402	1uF	±10%	Murata	GRM155R61A105K
3	C4	C0G ceramic	0402	5.6pF	±0.25pF	Murata	GRM1555C1H5R6C
4	C5	Y5V ceramic	0603	2.2uF	±20%		
5	C7	C0G ceramic	0402	330pF	±5%	Murata	GRM1555C1H331J
6	C9,	C0G ceramic	0402	120pF	±5%	Murata	GRM1555C1H121J
7	C13	C0G ceramic	0402	100pF	±5%	Murata	GRM1555C1H101J
8	C19, C21	C0G ceramic	0402	1.2pF	±0.25pF	Murata	GRM1555C1H1R2C
9	C20	C0G ceramic	0402	10pF	±5%	Murata	GRM1555C1H100J
10	C22,C29	X7R ceramic	0402	0.1uF	±10%	Murata	GRM155R71C104K
11	C24	C0G ceramic	0402	1pF	±0.25pF	Murata	GRM1555C1H1R0C
12	C25,C37	Y5V ceramic	0603	4.7uF	±20%		
13	C39	X5R ceramic	0402	0.22uF	±10%		
14	L1	Chip inductor	0402	3.9nH	±0.3nH	Murata	LQG15HS3N9S
15	L2,L4	Chip inductor	0402	2.7nH	±0.3nH	Murata	LQG15HS2N7S
16	L3		0402	NC			
17	L7	Chip inductor	0805	10uH	±20%	GOTREND(高	GNR2510PM-100M
18	U1		QFN 48	A8107M0		Amicom	A81U07F810GAQ6C/ Q
19	Y1	Crystal	2.0 x1.6mm	16MHz, CL	+10ppm	台灣嘉碩(TST)	Annotation1
20	Y2	Crystal	3.2 x1.5mm	32.768KHz CL =	+20ppm		

Annotation1:

1. A8107M0 has built-in crystal loading. User can set VCOSC[5:0] to meet crystal loading requirement.
2. Recommend VCOSC = 10, if crystal load = 9pF

Reflow Profile

LEAD FREE (GREEN) PROFILE :



本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。

The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.

BTLE QDID Profile Certification Numbers

Bluetooth(R) SIG Qualifications			
QDID	Product Type	Design Name	Design Description
52727	Controller Subsystem	A8105 controller subsystem-4.0	A8105 / A8107 (RF compatible w. A8105) is a high speed 51 family SOC w. single mode Bluetooth low energy (BLE) RF transceiver
45008	Host Subsystem	AMC_BLE Host	A host subsystem for Bluetooth 4.0 LE
49896	Profile Subsystem	AMC_BLE Profile SPL01	A profile subsystem for Bluetooth 4.0 LE
51582	Profile Subsystem	AMC_BLE Profile SPL02	A profile subsystem for Bluetooth 4.0 LE (expansion)
62785	Profile Subsystem	AMC_BLE Profile SPL03	A profile subsystem for Bluetooth 4.1 LE

Note: Profile subsystem QDID is needed only if SIG standard profile is used.

All subsystem by AMICCOM

AMICCOM's custom profiles and services.

Profile/Service	Specification
Alert Notification Profile (ANP)	Overview PDF XML
Alert Notification Service (ANS)	Overview PDF XML
Apple® Notification Center Service (ANCS)	Overview ¹ PDF ² XML ²
Battery Service (BAS)	Overview PDF XML
Body Composition Service (BCS)	Overview ² PDF XML
Bond Management Service (BMS)	Overview ² PDF XML
Blood Pressure Profile (BLP)	Overview PDF XML
Blood Pressure Service (BLS)	Overview PDF XML
Continuous Glucose Monitoring Profile (CGMP)	Overview ² PDF XML ²
Continuous Glucose Monitoring Service (CGMS)	Overview ² PDF XML
Current Time Service (CTS)	Overview PDF XML
Cycling Power Profile (CPP)	Overview ² PDF XML
Cycling Power Service (CPS)	Overview ² PDF XML
Cycling Speed and Cadence Profile (CSCP)	Overview ² PDF XML
Cycling Speed and Cadence Service (CSCS)	Overview ² PDF XML
Device Information Service (DIS)	Overview PDF XML
Environmental Sensing Profile (ESP)	Overview ² PDF XML ²
Environmental Sensing Service (ESS)	Overview ² PDF XML
Find Me Profile (FMP)	Overview PDF XML
Glucose Profile (GLP)	Overview ² PDF XML
Glucose Service (GLS)	Overview ² PDF XML
Health Thermometer Profile (HTP)	Overview PDF XML
Health Thermometer Service (HTS)	Overview ² PDF XML
Heart Rate Profile (HRP)	Overview PDF XML
Heart Rate Service (HRS)	Overview PDF XML
HID over GATT Profile (HOGP)	Overview PDF XML
HID Service (HIDS)	Overview PDF XML
Immediate Alert Service (IAS)	Overview PDF XML
Link Loss Service (LLS)	Overview PDF XML
Location and Navigation Profile (LNP)	Overview ² PDF XML
Location and Navigation Service (LNS)	Overview ² PDF XML
Next DST Change Service (NDCS)	Overview PDF XML
Proximity Profile (PXP)	Overview PDF XML
Phone Alert Status Profile (PASP)	Overview PDF XML
Phone Alert Status Service (PASS)	Overview PDF XML
Reference Time Update Service (RTUS)	Overview PDF XML
Running Speed and Cadence Profile (RSCP)	Overview ² PDF XML
Running Speed and Cadence Service (RSCS)	Overview ² PDF XML
Scan Parameters Profile (SCPP)	Overview PDF XML

本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。

The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.

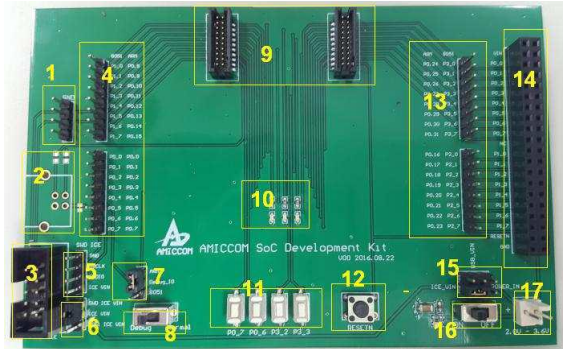
Scan Parameters Service (SCPS)	Overview PDF XML
Time Profile (TIP)	Overview PDF XML
Tx Power Service (TPS)	Overview PDF XML
User Data Service (UDS)	Overview ² PDF XML
Weight Scale Profile (WSP)	Overview ² PDF XML ²
Weight Scale Service (WSS)	Overview ² PDF XML
Wireless Power Transfer Service (WPT) ²	Overview ³ PDF XML ²

Develop Tools

J-LINK V9 ARM Emulator



AMICCOM SoC(51&M0) Development Kit



Software:

Keil C-compiler for ARM Cortex-M processors
A8107M0 Multi-function V0.0Beta BLE Library

AMICCOM 1to4 SoC Writer



Test Fixture for A8107 module



Software:

AMICCOM SOC Writer V2.2.1

OTA APP

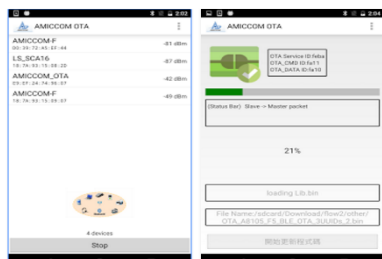


AMICCOM OTA

amiccomswa 生產應用



您沒有任何裝置



AMICCOM updates program over-the-air (OTA)

By Amiccom

Open iTunes to buy and download apps.



Description

AMICCOM updates program over-the-air (OTA)

[AMICCOM Web Site](#) | [AMICCOM OTA Support](#)

What's New in Version 3.7.0

- 修正Flow2無法更新問題
- 修正2Blocks無法更新問題
- 更新死機時的強制重啟顯示 1 "Device is initializing..." 當列重新連上 Device

[View on iTunes](#)

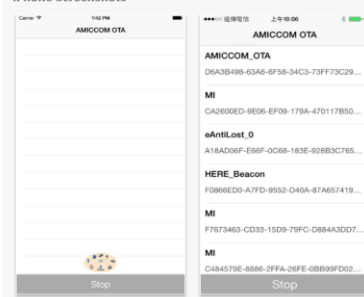
Free
 Category: Productivity
 Updated: Mar 22, 2017
 Version: 3.7.0
 Size: 2.0 MB
 Language: English
 Seller: Amiccom Electronics Corp.
 © 2015 Amiccom Electronics Corp.
 Rated 4+

Compatibility: Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.

Customer Ratings

We have not received enough ratings to display an average for the current version of this application.

iPhone Screenshots



本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。

The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.

A8105/ A8107/ A8107M0 & Mobile BLE Compatibility Testing List

A8107_Multi-function_GEN2_BLE Library_V0.9_20170125

Brand	Model No	OS	Versio	Volume key	Photo key	Support	OTA	Note
Xiaomi	紅米 HM1SW	Android	4.3	--	--			
	小米手機 4C	Android	4.4.4			--	--	
	紅米手機 1S 4G 版	Android	4.4.4			--	--	
	紅米 Note 4G 增強版	Android	4.4.2			--	--	
	Note2	Android	5.0.2	--	--			Other BLE chip not support
	小米 Note	Android	6.0.1					
	小米 5S	Android	6.0.1					
Samsung	S4	Android	4.4.2			--	--	
	GALAXY S5	Android	4.4.2			--	--	
	GALAXY Note3 Lite	Android	4.3	--	--	--	--	Android4.3 not support
	GALAXY Note3 N9002	Android	4.4.2		--	--	--	Other BLE chip not support
	GALAXY A5	Android	4.4.4			--	--	
	GALAXY A7	Android	4.4.4			--	--	
	Note 4 edge	Android	4.4.4			--	--	
	Note 4	Android	4.4.4	--	--	--	--	Other BLE chip not support
	A800	Android	5.1.1					
	Galaxy Note5	Android	5.1.1	--	--			
Lenovo	黃金鬥士 A808t	Android	4.4.2			--	--	
	VIBE Z2 Pro-K920	Android	4.4.2		*	--	--	Other BLE chip not support
	VIBE X2	Android	4.4.2	--	--			
	A3600-d	Android	4.4.2		*	--	--	Other BLE chip not support
	Z90_3	Android	5.0.2					
	A3860	Android	5.1					
Apple	iPhone 5	iOS	7.0.4/ 8.0.2/ 8.1.2	--	--			
	iPhone 5C	iOS	7.1.0					
	iPad Air	iOS	8.3					
	iPad mini2	iOS	8.0.2/ 8.1.2/ 8.1.3	--	--			
	iPad Air 2	iOS	8.1.3					
	iPhone5S	iOS	8.3					
	iPhone6S	iOS	9					
Huawei	榮耀 6	Android	4.4.2	--	--			
	B199	Android	4.3	--	--	--	--	Android4.3 not support
	Ascend M7	Android	4.4.2	--	--	--	--	Other BLE chip not support
	Ascend P7	Android	4.4.2	--	--	--	--	Other BLE chip not support
	H60-L02	Android	4.4.2	--	--	--	--	Other BLE chip not support
	P8Ma	EMUI 系統	3.1					

本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。

The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.

	榮耀 4A	Android	5.1.1	--	--			Other BLE chip not support
	榮耀 8	Android	6.0					
	榮耀暢玩 6X	Android	6.0					
Coolpad	大神 F1	Android	4.4.4			--	--	
	大神 F2	Android	4.4.2			--	--	
	酷派 S6	Android	4.3	--	--	--	--	Android4.3 not support
vivo	Xshot	Android	4.3	--	--	--	--	Android4.3 not support
	X3V	Android	4.4.2	--	--	--	--	Other BLE chip not support
	Y18L	Android	4.3	--	--	--	--	Android4.3 not support
	X9	Android	6.0.1					
	Y66	Android	6.0.1					
LG	G2	Android	4.4.2			--	--	
	G3 國際板 (D857) 855	Android	4.4.2			--	--	
	G3 移動版 (D858)	Android	4.4.2			--	--	
	G3 BEAT 電信版	Android	4.4.2			--	--	
	G4H818	Android	5.1					
Sony	C3 s55t/s55u- S55T	Android	4.4.2		*	--	--	Other BLE chip not support
	T3	Android	4.4.2		*	--	--	Other BLE chip not support
	Z2 I50u/I50t/I50 w-L50T	Android	4.4.2		*	--	--	Other BLE chip not support
HTC	ONE M8w	Android	4.4.2			--	--	
	Desire 816	Android	4.4.2			--	--	
	Desire 820	Android	4.4.2			--	--	
	E9pw	Android	5					
InFocus	M330	Android	4.4.2	--	--			
OPPO	A51	Android	5.1.1					
	R9S Plus	Android	6.0.1					
	A57	Android	6.0.1					

: 重新連線後，不能拍照。

*: 手機內建照相不可用，但安裝 APP 360 相機可拍照。（因 Volume+/ Volume-可以動作，表示有支援 HID 拍照功能）

--: Cell phone not support / Android 4.3 OS not support

本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。

The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.

A8107M0 CE Pre-Test Report

1. SUMMARY OF STANDARDS AND RESULTS

Standard: ETSI EN300 328 (2.4GHz ISM Band)

Item	Description	Frequency (MHz)	Limit	Test Data	Result	Remark
1	E.I.R.P. Power	2400~2483.5	\leq 20 dBm	8.2dBm 6.7dBm	Pass	2402MHz 2480MHz
2	TX Spurious Emission	47~74	\leq -54 dBm	Page 11~12	Pass	TX Mode
		87.5~118				
		174~230				
	Others<1000	\leq -36 dBm	Page 11~12	Pass	TX Mode	
	1000~40000	\leq -30 dBm	Page 5 ~ 8	Pass	TX Mode	
3	RX Spurious Emission	25 ~ 1000	\leq -57 dBm	Page 9 ~10	Pass	RX Mode
		1000~40000	\leq -47 dBm	Page 3 ~ 4	Pass	RX Mode

2. GENERAL INFORMATION

Item	Description	Remark
1	EUT Name	MD8107M0F8-A07
2	EUT Function	2.4GHz Wireless Module
3	Operation Frequency	2402MHz ~2480MHz ISM Band
4	EUT Operation Condition	See Below Table
5	Modulation Technology	GFSK
6	Manufacturer	AMICCOM (笙科電子)
7	Test Site	SPORTON (耕興)
8	Chamber / Open Site	3 meter chamber

EUT Operation Condition

Test Item	Frequency(MHz)	Test Mode
1	1000~40000	TX Burst Mode @ 2402MHz
		TX Burst Mode @ 2480MHz
		RX Mode @ 2440MHz
2	25 ~ 1000	TX Burst Mode @ 2480MHz
		RX Mode @ 2440MHz

本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。

The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.

A8107M0 FCC Pre-Test Report

1. SUMMARY OF STANDARDS AND RESULTS

Standard: FCC Part 15.247 (2.4GHz ISM Band)

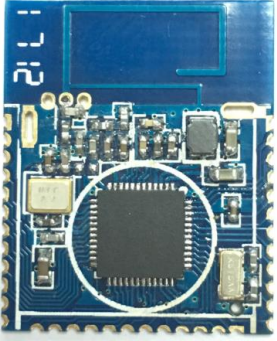

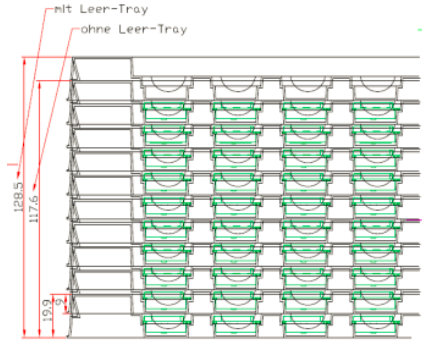

Item	Description	Frequency (MHz)	Limit	Test Data	Result	Remark
1	Radiated Emission Test	33~88	40dBuV/m, QP	Page 8-9	Pass	
		88~216	44dBuV/m, QP	Page 8-9	Pass	
		216~960	46dBuV/m, QP	Page 8-9	Pass	
		960~1000	54dBuV/m, QP	Page 8-9	Pass	
		1000~25000	74dBuV/m, Peak	Page 4-7	Pass	
		1000~25000	54dBuV/m, Average	Page 4-7	Pass	
2	Band Edge Test	Low band edge	74dBuV/m, Peak	Page 10-11	Pass	
			54dBuV/m, Average	Page 10-11	Pass	
		High band edge	74dBuV/m, Peak	Page 12-13	Pass	
			54dBuV/m, Average	Page 12-13	Pass	
3	Max. Peak conducted Output Power	Low Channel	1W, Peak	Po=6.4dBm (Conducted)	Pass	
		High Channel	1W, Peak	Po=5.5dBm (Conducted)	Pass	

本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。

The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.

Order & Shipping Packing information

Item	Module Part No.	Dimension	N.W	MOQ	Tray	Polybag	Carton	Remark
1	ACI8107M0-BLE-MD48(S)-V10	23.4 x 19.1mm	mg	1000PCS	100 pcs	1000pcs/10Tray	5000pcs/5 Bag	Integrated PCB Antenna

Module	Tray	Stacked trays(Vacuum Bag)	Packing carton
23.4 x 19.1mm (PCB Antenna)	300 x 230 x 11(H)mm	300 x 230 x 50(H)mm	380 x 270 x 270(H)mm
			

本資料所有屬璋忠科技企業股份有限公司，非經書面准許不可翻印，複製或以其他形式傳遞或揭露。

The information contained herein is the exclusive property of Avant-Com Inc and shall not be distributed, reproduced, or disclosed in whole or in part without prior permission of Avant-Com Inc.