WF-M668-UWP1

Wireless Module&Bluetooth Module

Features：

- **Reserving System**

  IEEE Std. 802.11b

  IEEE Std. 802.11g

  IEEE Std. 802.11n

  IEEE Std. 802.11a

  IEEE Std. 802.11ac

  Bluetooth 2.1+EDR,4.2 LE,5.0

- **Chip Solution**

  MT7668AUN

- **Band**

  2.4G+5 G

Model	Standard	Rate	Channel	POWER
WF-M668-UWP1	IEEE 802.11a/b/g/n/ac	866.7Mbps	2.4G/5G	5V
	Bluetooth 5.0	3Mbps	2.4G	

Sichuan AI-Link Technology Co.,Ltd

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Feedback of customer's Confirmation

We accept the specification after Confirmed

Customer name	Customer signature	Confirmation Date

Please feed back this paper and first paper after your signature by the address,thanks!

ADD： Anzhou,Industrial park,Mianyang,Sichuan,China

Factory： Sichuan AI-Link Technology Co.,Ltd.

Approved	Checked	Designed	Product	WIFI Module
				WF-M668-UWP1
			Date	2017-11-10

Record of Modification

No	Date of modification	Main content of modification	Reason of modification	Serial number of modification	Confirm
A	2017-11-10	Confirmed for the first time			Fan xijun

1. Introduction

WF-M668-UWP1 is based on MT7668AUN,complied with IEEE 802.11ab/g/n/ac dual-band WIFI subsystem and a Bluetooth subsystem..

1.1 RF module Overview

The general HW architecture for the module is shown in Figure 1. This WLAN Module design is based on MTK MT7668AUN. It is a highly integrated single-chip MIMO(Multiple In Multiple Out) Wireless LAN (WLAN) USB2.0 network interface controllercomplying with the 802.11n specification. It combines a MAC, a 2T2R capable baseband,and RF in a single chip. The MT7668 provides a complete solution for a highthroughput performance wireless client.The Bluetooth subsystem contains the Bluetooth radio,baseband,link controller.It also uses the 32-bit RISC MCU for the Bluetooth protocols.

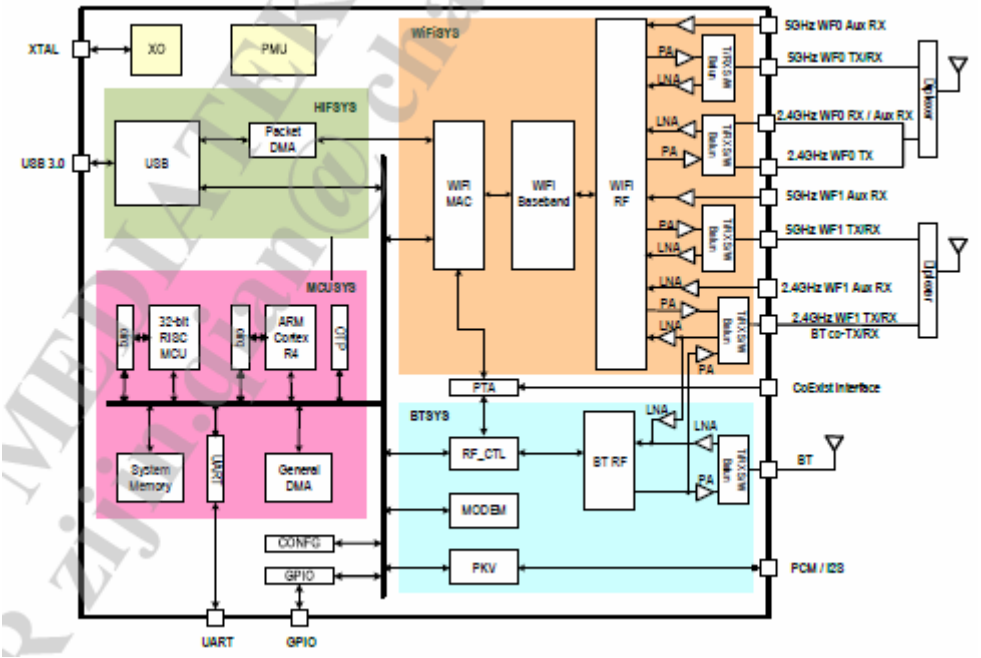


Figure 1 WF-M668-UWP1 Block Diagram

1.2 Specification reference

This specification is based on additional references listed below.

_ IEEE Std. 802.11b
_ IEEE Std. 802.11g
_ IEEE Std. 802.11n
_ IEEE Std. 802.11a
_ IEEE Std. 802.11ac

1.3 System Functions

Table1: General Specification as below:

Standard	IEEE 802.11 b/a/ac/g/n Bluetooth 2.1+EDR,4.2 LE,5.0
Interface	USB 2.0
ANT	2T2R
Modulation	802.11b:DBPSK,DQPSK,CCK for DSSS 802.11a/g:BPSK,QPSK,16QAM,64QAM for OFDM 802.11n:BPSK,QPSK,16QAM,64QAM for OFDM 802.11ac:BPSK, QPSK, 16QAM, 64QAM ,256QAM for OFDM BT: FHSS/GFSK/DQPSK/8DPSK

<table>
<tr><td>Operating Frequency</td><td>2.400 ~ 2.4835 GHz,5.150~5.350 GHz,5.470~5.725 GHz,5.725~5.850 GHz</td></tr>
<tr><td>TX Power</td><td>WiFi:
11b: 17 +/- 1.5dBm (11Mbps)
11g: 15 +/- 1.5dBm (54Mbps)
11a: 15 +/- 1.5dBm (54Mbps)
11n: 15 +/- 1.5dBm (MCS7 HT20)
11n: 15 +/- 1.5dBm (MCS7 HT40)
11ac: 13 +/- 1.5dBm (MCS9 HT20)
11ac: 13 +/- 1.5dBm (MCS9 HT40)
11ac: 13 +/- 1.5dBm (MCS9 HT80)
BT:
DH5,Class 1(5dBm Typical)</td></tr>
<tr><td>Frequency offset</td><td>≤+-15PPM</td></tr>
<tr><td>EVM</td><td>11b @ 11Mbps: (Max.) : 35%, (Typical) : 6%
11a/g @ 54Mbps: (Max.) : -25dB , (Typical) : -30dB
11n @ MCS7 (2.4G/5.8GHT20): (Max.) : -28dB, (Typical) : -32dB
11n @ MCS7 (2.4G/5.8G HT40): (Max.) : -28dB, (Typical) : -32dB
11n @ MCS7 (ac HT20): (Max.) : -28dB, (Typical) : -32dB
11n @ MCS7 (ac HT40): (Max.) : -28dB, (Typical) : -32dB
11n @ MCS7 (ac HT80): (Max.) : -28dB, (Typical) : -32dB</td></tr>
<tr><td>RX Sensitivity</td><td>WiFi:
11b @ 11Mbps: (Max.): -85dBm, (Typical): -86dBm (PER<8%)
11g @ 54Mbps: (Max.): -65dBm, (Typical): -73dBm (PER<10%)
11n @ MCS7 (2.4G/5.8G HT20): (Max.): -64dBm, (Typical): -71dBm (PER<10%)
11n @ MCS7 (2.4G/5.8G HT40): (Max.): -61dBm, (Typical): -68dBm (PER<10%)
11ac@ MCS9(HT20): (Max.): -57dBm, (Typical): -67dBm (PER<10%)
11ac@ MCS9(HT40): (Max.): -54dBm, (Typical): -63dBm (PER<10%)
11ac@ MCS9(HT80): (Max.): -51dBm, (Typical): -58dBm (PER<10%)

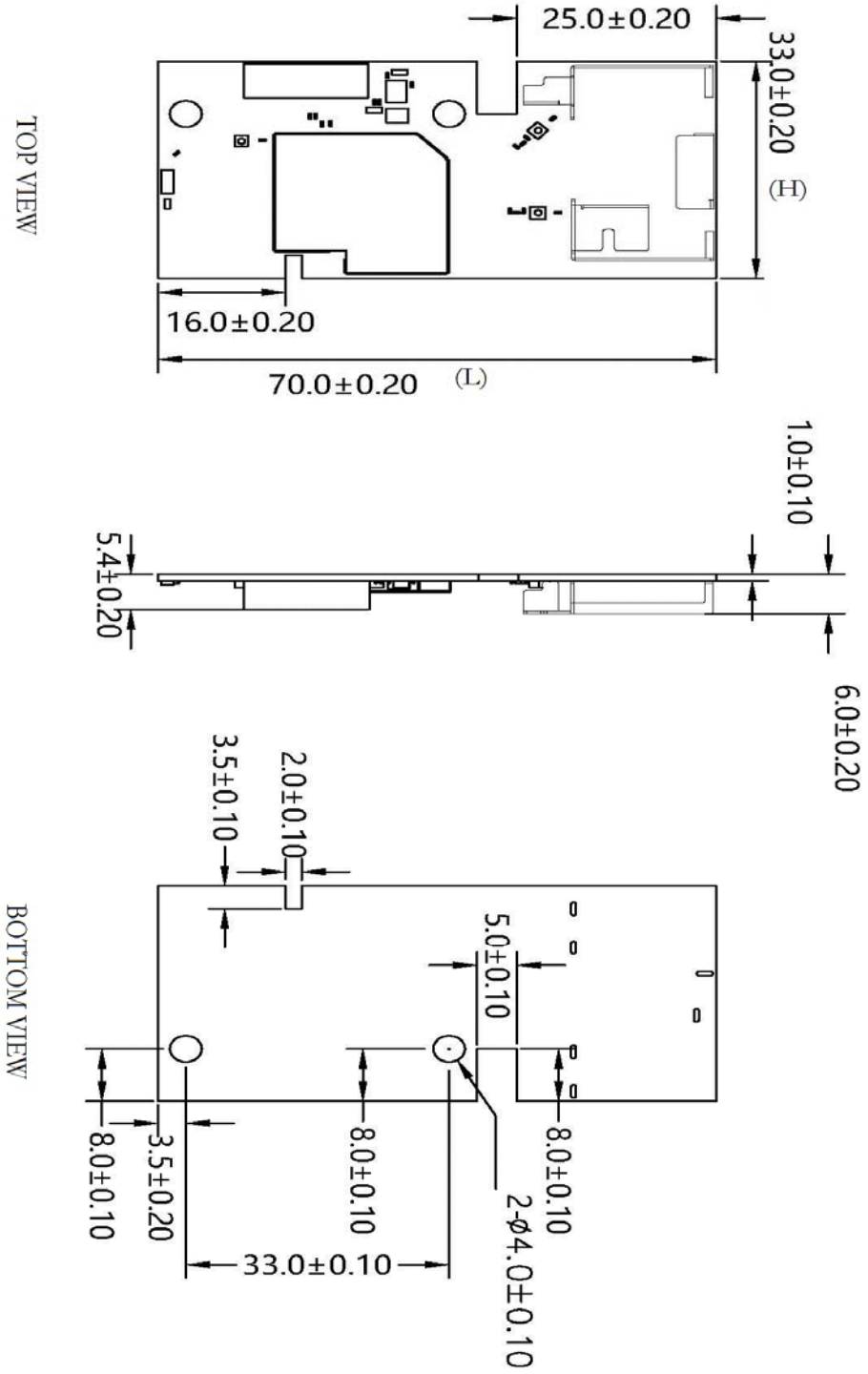
BT:
GFSK: typical -93dBm
π/4 DQPSK: typical -93dBm
8DPSK: typical -87dBm
-97 dBm(BLE)</td></tr>
<tr><td>Channel</td><td>2.4GHz：CH1-CH13
5.8GHz：CH36-CH165</td></tr>
<tr><td>Operation Voltage</td><td>5V+/-5%</td></tr>
<tr><td>Power consumption</td><td>WIFI
<table>
<tr><td>Sleep</td><td>1.5</td></tr>
<tr><td>DTIM=1</td><td>3.3</td></tr>
<tr><td>2.4GHz RX Active, HT20, MCS15</td><td>144</td></tr>
<tr><td>2.4GHz TX CCK, 11Mbps @ 21dBm</td><td>403</td></tr>
<tr><td>2.4GHz TX HT20, MCS15 @ 17.5dBm</td><td>496</td></tr>
<tr><td>2.4GHz TX HT20, MCS8 @ 18dBm</td><td>520</td></tr>
<tr><td>5G VHT80 RX Listen</td><td>154</td></tr>
<tr><td>5GHz RX Active, VHT80, MCS9, Nss=2</td><td>242</td></tr>
<tr><td>5GHz TX VHT80, MCS9, Nss=2 @ 15dBm</td><td>678</td></tr>
<tr><td>5GHz TX VHT80, MCS0, Nss=2 @ 16.5 dBm</td><td>713</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td>BT<table>
<tr><td>Sleep mode, radio off, suspend</td><td>1.5</td></tr>
<tr><td>Bluetooth TX @ 9dBm</td><td>42</td></tr>
<tr><td>Bluetooth RX</td><td>21</td></tr>
<tr><td>Bluetooth SCO connection, HV3 packets + sniff mode + scan</td><td>21</td></tr>
<tr><td>Bluetooth page scan + inquiry scan</td><td>1.7</td></tr>
<tr><td>Bluetooth page scan</td><td>1.6</td></tr>
</table></td></tr>
<tr><td>ANT</td><td>BT gain 1dBi, 2.4G/5G WIFIgain 2dbi</td></tr>
<tr><td>Operation Temperature</td><td>-10℃ to +70℃</td></tr>
<tr><td>Storage Temperature</td><td>-40℃ to +125℃</td></tr>
<tr><td>Hardware version</td><td>JUB7.820.0243-1</td></tr>
<tr><td>Software version</td><td>customer_package_UIv1.84_DLLv3.84_20170627_WinDriverV.0.0.4.26_FWv.66103 above.</td></tr>
</table>

2. Mechanical Specification

Typical Dimension (W x L x T): 70mmx 33mm x6.0mm (tolerance : +/-0.2 mm)

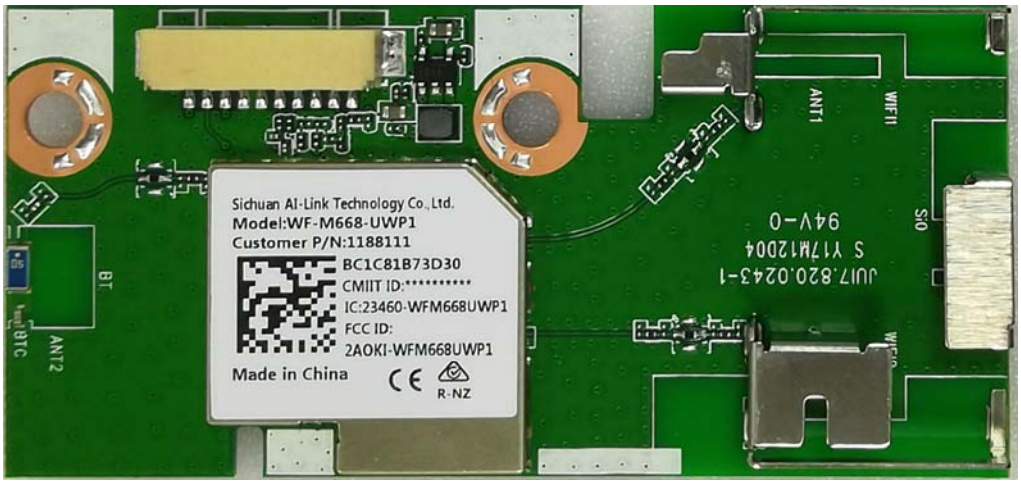
PCB Thickness: 1.0mm



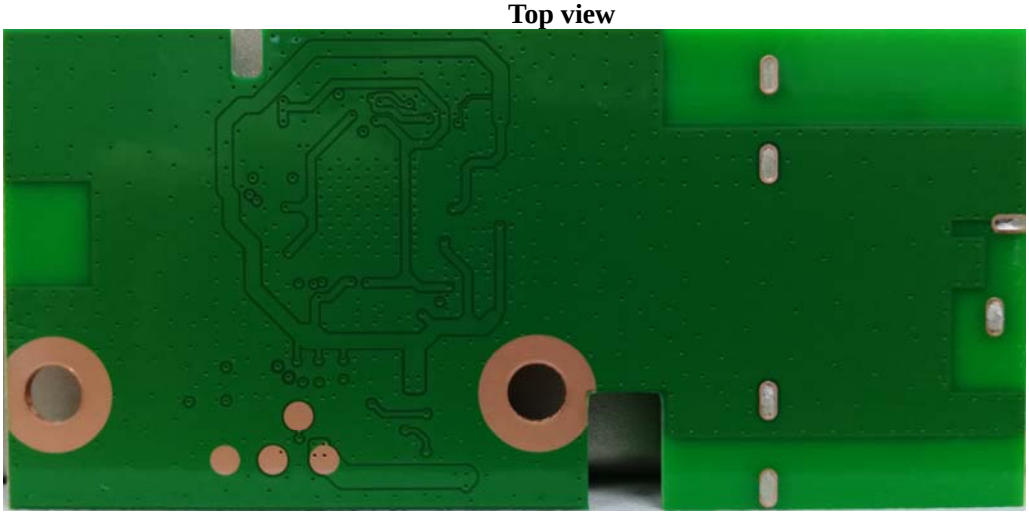
NO	Defintion	NOTE
1	DC_EN	Control the DC/DC to reset the Module
2	NC	No Connect
3	VCC	Power supply
4	DN	USB D-
5	DP	USB D+
6、7	GND	Ground
8	3D_SYNC	3D signal synchronization
9	REG_ON	Reset
10	WLAN_DEV_WAKE	WIFI wake host

3. Product Picture

10 **1**



Top view



Bottom view

Noet: No marked size tolerance: ±0.2mm

4. Electrical Specification

This Specification is based-on conductive DVT testing result. The extreme condition include overall temperature (0℃,+25℃,+60℃) .

4 1 IEEE 802.11g/a Section:

Items	Contents				
Specification	IEEE802.11g IEEE802.11a				
Mode	BPSK, QPSK, 16QAM, 64QAM and OFDM				
Channel	CH1 to CH13 @ 11g CH36 to CH165 @ 11a				
Data rate	6, 9, 12, 18, 24, 36, 48, 54Mbps				
TX Characteristics	Min.	Typ.	Max.	Unit	Remark
1. Power Levels					
1) 15dBm Target (For Each antenna port) @ 11g	13	15	17	dBm	
2) 14dBm Target (For Each antenna port) @ 11a	13	15	17	dBm	
2. Spectrum Mask @ Target Power					
1) at fc +/-11MHz	-	-	-20	dBr	
2) at fc +/-20MHz	-	-	-28	dBr	
3) at fc > +/-30MHz	-	-	-40	dBr	
3. Constellation Error(EVM) @ Target Power					
1) 6Mbps	-	-	-5	dB	
2) 9Mbps	-	-	-8	dB	
3) 12Mbps	-	-	-10	dB	
4) 18Mbps	-	-	-13	dB	
5) 24Mbps	-	-	-16	dB	
6) 36Mbps	-	-	-19	dB	
7) 48Mbps	-	-	-22	dB	
8) 54Mbps	-	-	-25	dB	
4. Frequency Error					
1) IEEE802.11g	-10	-	10	ppm	
2) IEEE802.11a	-10		10	ppm	
RX Characteristics	Min.	Typ.	Max.	Unit	
5. Minimum Input Level Sensitivity(each chain)					
1) 6Mbps (PER ≦10%)	-	-	-82	dBm	
2) 9Mbps (PER ≦10%)	-	-	-81	dBm	
3) 12Mbps (PER ≦10%)	-	-	-79	dBm	
4) 18Mbps (PER ≦10%)	-	-	-77	dBm	
5) 24Mbps (PER ≦10%)	-	-	-74	dBm	
6) 36Mbps (PER ≦10%)	-	-	-70	dBm	
7) 48Mbps (PER ≦10%)	-	-	-66	dBm	
8) 54Mbps (PER ≦10%)	-	-	-65	dBm	
6. Maximum Input Level (PER ≦10%)					
1) IEEE802.11g	-20	-	-	dBm	
2) IEEE802.11a	-30			dBm	

4.2 IEEE 802.11b Section:

Items	Contents

Specification	IEEE802.11b				
Mode	DBPSK, DQPSK and CCK and DSSS				
Channel	CH1 to CH13				
Data rate	1, 2, 5.5, 11Mbps				
TX Characteristics	Min.	Typ.	Max.	Unit	Remark
1. Power Levels(Calibrated)					
1) 17dBm Target (For Each antenna port)	15	17	19	dBm	
2. Spectrum Mask @ Target Power					
1) fc +/-11MHz to +/-22MHz	-	-	-30	dBr	
2) fc > +/-22MHz	-	-	-50	dBr	
3. Constellation Error(EVM) @ Target Power					
1) 1Mbps	-	-	-10	dB	
2) 2Mbps	-	-	-10	dB	
3) 5.5Mbps	-	-	-10	dB	
4) 11Mbps	-	-20	-10	dB	
4. Frequency Error	-10	-	10	ppm	
RX Characteristics	Min.	Typ.	Max.	Unit	
5. Minimum Input Level Sensitivity(each chain)					
1) 1Mbps (FER ≦8%)	-	-83	-76	dBm	
2) 2Mbps (FER ≦8%)	-	-80	-76	dBm	
3) 5.5Mbps (FER ≦8%)	-	-79	-76	dBm	
4) 11Mbps (FER ≦8%)	-	-76	-76	dBm	
6. Maximum Input Level (FER ≦8%)	-10	-	-	dBm	

4.3 IEEE 802.11n HT20 Section:

Items	Contents
Specification	IEEE802.11n HT20 @ 2.4G

	IEEE802.11n HT20 @ 5G				
Mode	BPSK, QPSK, 16QAM, 64QAM and OFDM				
Channel	CH1 to CH13 @ 2.4G CH36 to CH165 @ 5G				
Data rate (MCS index)	MCS0/1/2/3/4/5/6/7/8/9/10/11/12/13/14/15				
TX Characteristics	Min.	Typ.	Max.	Unit	Remark
1. Power Levels					
1) 14dBm Target (For Each antenna port) @ 2.4G	13	15	17	dBm	
2) 13dBm Target (For Each antenna port) @ 5G	13	15	17	dBm	
2. Spectrum Mask @ Target Power					
1) at fc +/-11MHz	-	-	-20	dBr	
2) at fc +/-20MHz	-	-	-28	dBr	
3) at fc > +/-30MHz	-	-	-45	dBr	
3. Constellation Error(EVM) @ Target Power					
1) MCS0	-	-	-5	dB	
2) MCS1	-	-	-10	dB	
3) MCS2	-	-	-13	dB	
4) MCS3	-	-	-16	dB	
5) MCS4	-	-	-19	dB	
6) MCS5	-	-	-22	dB	
7) MCS6	-	-	-25	dB	
8) MCS7	-	-	-28	dB	
4. Frequency Error					
1) IEEE802.11n HT20 @ 2.4G	-10	-	10	ppm	
2) IEEE802.11n HT20 @ 5G	-10	-	10	ppm	
RX Characteristics	Min.	Typ.	Max.	Unit	
5. Minimum Input Level Sensitivity(each chain)					
1) MCS0 (PER ≦10%)	-	-	-82	dBm	
2) MCS1 (PER ≦10%)	-	-	-79	dBm	
3) MCS2 (PER ≦10%)	-	-	-77	dBm	
4) MCS3 (PER ≦10%)	-	-	-74	dBm	
5) MCS4 (PER ≦10%)	-	-	-70	dBm	
6) MCS5 (PER ≦10%)	-	-	-66	dBm	
7) MCS6 (PER ≦10%)	-	-	-65	dBm	
8) MCS7 (PER ≦10%)	-	-	-64	dBm	
6. Maximum Input Level (PER ≦10%)					
1) IEEE802.11n HT20 @ 2.4G	-20	-	-	dBm	
2) IEEE802.11n HT20 @ 5G	-30	-	-	dBm	

4.4 IEEE 802.11n HT40 Section:

Items	Contents				
Specification	IEEE802.11n HT20 @ 2.4G IEEE802.11n HT20 @ 5G				
Mode	BPSK, QPSK, 16QAM, 64QAM and OFDM				
Channel	CH3 to CH11 @ 2.4G CH38 to CH163 @ 5G				
Data rate (MCS index)	MCS0/1/2/3/4/5/6/7/8/9/10/11/12/13/14/15				
TX Characteristics	Min.	Typ.	Max.	Unit	Remark
1. Power Levels (Calibrated)					
1) 14dBm Target (For Each antenna port) @ 2.4G	13	15	17	dBm	
2) 13dBm Target (For Each antenna port) @ 5G	13	15	17	dBm	
2. Spectrum Mask @ Target Power					
1) at fc +/-21MHz	-	-	-20	dBr	
2) at fc +/-40MHz	-	-	-28	dBr	
3) at fc > +/-60MHz	-	-	-45	dBr	
3. Constellation Error(EVM) @ Target Power					
1) MCS0	-	-	-5	dB	
2) MCS1	-	-	-10	dB	
3) MCS2	-	-	-13	dB	
4) MCS3	-	-	-16	dB	
5) MCS4	-	-	-19	dB	
6) MCS5	-	-	-22	dB	
7) MCS6	-	-	-25	dB	
8) MCS7	-	-	-28	dB	
4. Frequency Error					
1) IEEE802.11n HT20 @ 2.4G	-10	-	10	ppm	
2) IEEE802.11n HT20 @ 5G	-12	-	12	ppm	
RX Characteristics	Min.	Typ.	Max.	Unit	
5. Minimum Input Level Sensitivity(each chain)					
1) MCS0 (PER ≦10%)	-	-	-79	dBm	
2) MCS1 (PER ≦10%)	-	-	-76	dBm	
3) MCS2 (PER ≦10%)	-	-	-74	dBm	
4) MCS3 (PER ≦10%)	-	-	-71	dBm	
5) MCS4 (PER ≦10%)	-	-	-67	dBm	
6) MCS5 (PER ≦10%)	-	-	-63	dBm	
7) MCS6 (PER ≦10%)	-	-	-62	dBm	
8) MCS7 (PER ≦10%)	-	-	-61	dBm	
6. Maximum Input Level(PER ≦10%)					
1) IEEE802.11n HT20 @ 2.4G	-20	-	-	dBm	
2) IEEE802.11n HT20 @ 5G	-30	-	-	dBm	

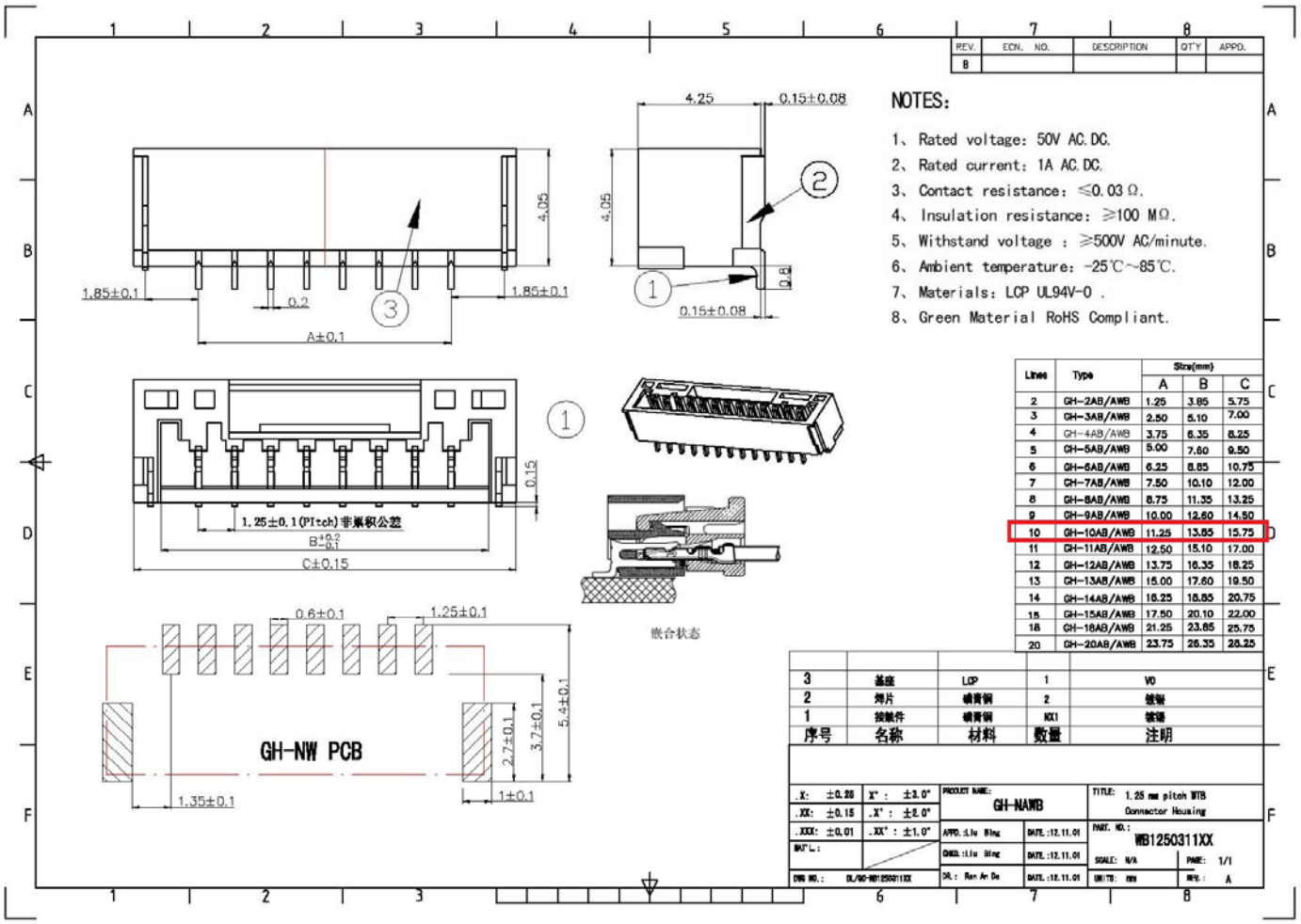
4.5 IEEE 802.11ac Section:

Items	Contents						
Specification	IEEE802.11ac						
Mode	BPSK, QPSK, 16QAM, 64QAM ,256QAM and OFDM						
Channel	CH36 to CH165 VHT20 CH38 to CH163 VHT40 CH42 to CH157 VHT80						
Data rate (MCS index)	MCS0/1/2/3/4/5/6/7/8/9						
TX Characteristics	Min.		Typ.	Max.		Unit	Remark
1. Power Levels (Calibrated)							
1) 11dBm Target (For Each antenna port)	11		13	15		dBm	
2. Spectrum Mask @ Target Power							
1) at fc +/-11MHz /20MHz/30MHz	-		-	-20		dBr	
2) at fc +/-21MHz /40MHz/60MHz	-		-	-28		dBr	
3) at fc +/-41MHz /80MHz/120MHz	-		-	-40		dBr	
3. Constellation Error(EVM) @ Target Power							
1) MCS0	-		-	-5		dB	
2) MCS1	-		-	-10		dB	
3) MCS2	-		-	-13		dB	
4) MCS3	-		-	-16		dB	
5) MCS4	-		-	-19		dB	
6) MCS5	-		-	-22		dB	
7) MCS6	-		-	-25		dB	
8) MCS7	-		-	-27		dB	
9) MCS8				-30		dB	
10) MCS9				-32		dB	
4. Frequency Error	-10		-	10		ppm	
RX Characteristics	Min.		Typ.	Max.		Unit	
5. Minimum Input Level Sensitivity(each chain)			VHT20	VHT40	VHT80		
1) MCS0 (PER ≦10%)	-	-	-82	-79	-76	dBm	
2) MCS1 (PER ≦10%)	-	-	-79	-76	-73	dBm	
3) MCS2 (PER ≦10%)	-	-	-77	-74	-71	dBm	
4) MCS3 (PER ≦10%)	-	-	-74	-71	-68	dBm	
5) MCS4 (PER ≦10%)	-	-	-70	-67	-64	dBm	
6) MCS5 (PER ≦10%)	-	-	-66	-63	-60	dBm	
7) MCS6 (PER ≦10%)	-	-	-65	-62	-59	dBm	
8) MCS7 (PER ≦10%)	-	-	-64	-61	-58	dBm	
9) MCS8 (PER ≦10%)	-	-	-59	-56	-53	dBm	
10) MCS9 (PER ≦10%)	-	-	-57	-54	-51	dBm	
6. Maximum Input Level(PER ≦10%)	-30		-	-		dBm	

4.6 Bluetooth Section:

Items	Contents				
Specification	BT2.1/3.0/4.0/5.0				
Mode	FHSS,GFSK,DPSK,DQPSK				
Number of Channel	79 Channels				
Frequency Band	2.402 GHz ~2.480GHz				
	Min.	Typ.	Max.	Unit	Remark
1. Output Power	-	3	-	dBm	
2.Gain step		5		dB	Class1
3. Receiver sensitivity (BER ≦0.1%)	-	-93.5	-80	dBm	
4. Maximum usable signal (BER ≦0.1%)	-	-5	-		
5. C/I co-channel (BER<0.1%)	-	4	11	dB	
6. C/I 1MHz (BER<0.1%)	-	-14	0	dB	
7. C/I 2MHz (BER<0.1%)	-	-42	-30	dB	
8. C/I≥3MHz (BER<0.1%)	-	-49	-40	dB	
9. C/I Image channel (BER<0.1%)	-	-25	-9	dB	
10. C/I Image 1MHz (BER<0.1%)	-	-50	-20	dB	
11. Inter-modulation	-	-13	-	dB	
12. Out-of-band blocking					
1). 30MHz to 2000MHz	-10	-	-	dBm	
2). 2000MHz to 2399MHz	-27	-	-	dBm	
3). 2498MHz to 3000MHz	-27	-	-	dBm	
4). 3000MHz to 12.75GHz	-10	-	-	dBm	
13. Modulation characteristics					
1). Δf1avg	140	157	175	KHz	
2). Δf2max (For at least 99.9% of all Δf2max)	115	140	-	KHz	
3). Δf1avg /Δf2avg	0.8	0.98	-	KHz	
14. ICFT	-75	±20	+75	KHz	
15. Carrier frequency drift					
1). One slot packet (DH1)	-25	±15	+25	KHz	
2). Two slot packet (DH3)	-40	±15	+40	KHz	
3). Five slot packet (DH5)	-40	±15	+40	KHz	
4). Max drift rate	-	6	20	KHz/50us	
16. TX output spectrum(20dB bandwidth)	-	922	1000	KHz	
17. In-Band spurious emission					
1). ±2MHz offset	-	-45	-20	dBm	
2). ±3MHz offset	-	-48	-40	dBm	
3). >±3MHz offset	-	-48	-40	dBm	

6、The connector



Lines	Type	Size(mm) A	B	C
2	GH-2AB/AWB	1.25	3.85	5.75
3	GH-3AB/AWB	2.50	5.10	7.00
4	GH-4AB/AWB	3.75	6.35	8.25
5	GH-5AB/AWB	5.00	7.60	9.50
6	GH-6AB/AWB	6.25	8.85	10.75
7	GH-7AB/AWB	7.50	10.10	12.00
8	GH-8AB/AWB	8.75	11.35	13.25
9	GH-9AB/AWB	10.00	12.60	14.50
10	GH-10AB/AWB	11.25	13.85	15.75
11	GH-11AB/AWB	12.50	15.10	17.00
12	GH-12AB/AWB	13.75	16.35	18.25
13	GH-13AB/AWB	15.00	17.60	19.50
14	GH-14AB/AWB	16.25	18.85	20.75
15	GH-15AB/AWB	17.50	20.10	22.00
18	GH-16AB/AWB	21.25	23.85	25.75
20	GH-20AB/AWB	23.75	26.35	28.25

7、Statement：

A、CE Radiation Exposure Statement

Herby, Sichuan AI-Link Technology Co., Ltd. declares that this Wireless Module&Bluetooth Module，WF-M668-UWP1 is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

Operation Temperature：Use the WF-M668-UWP1 in the environment with the temperature between -10℃ and 70℃

Operation Frequency range:2.400 ~ 2.4835 GHz,5.150~5.350 GHz,5.470~5.725 GHz,5.725~5.850 GHz
The above frequency can be used of Europe without restriction.

Max RF Output Power: 20dBm

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B、FCC Radiation Exposure Statement

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 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.
FCC Radiation Exposure Statement
The modular can be installed or integrated in mobile or fix devices only. This modular be installed in any portable device, for example, USB dongle like transmitters is forbidden. This modular complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be collocated or operating in conjunction with antenna or transmitter. 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 label referring to the enclosed module. This exterior label can use wording such as the following:” Contains Transmitter Module FCC ID: 2AOKI-WFM668UWP1 Or Contains FCC ID: 2AOKI-WFM668UWP1 when the module is installed inside another device, the user manual of this device must contain below warning statements;1. 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.(2) This device must accept any interference received, including interference that may undesired operation.2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The devices must be installed and used in strict accordance with the manufacturer’s instructions as described in the user documentation that comes with the product. This device is intended only for OEM integrators under the followingconditions:1) The antenna must be installed such that 20 cm is maintained between the antenna and user.2) The transmitter module may not be co-located with any other transmitter or antenna. Module Antenna Type: BT: Ceramic Antenna, Wifi: Integral Antenna, ANT Gain: BT: 1dBi, 2.4G Wifi: 1dBi, 5G Wifi: 2dBi.

C、IC Radiation Exposure Statement

This device complies with Industry Canada’s licence-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference; and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

The term “IC: “ before the certification/registration number only signifies that the Industry Canada technical specifications were met. This product meets the applicable Industry Canada technical specifications.

Le présent appareil est conforme aux CNR d'Industrie Canada applicable aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement