



Partial FCC RF Test Report

APPLICANT : DAP Technologies
EQUIPMENT : Rugged Mobile Tablet Computer
BRAND NAME : DAP
MODEL NAME : 9000WBWZV1
MARKETING NAME : M9010
FCC ID : T5M9000WBWZV1
STANDARD : FCC Part 15 Subpart E
CLASSIFICATION : Unlicensed National Information Infrastructure (UNII)

The product was integrated the WLAN Module (Brand Name: Summit Data Communications / Model Name: SDC-PE15N, FCC ID: TWG-SDCPE15N) during the test.

This is a partial report which is included the Radiated Emission and Conducted Emission tests item. The product was received on Jul. 07, 2011 and completely tested on Sep. 19, 2011. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.4-2003 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by:

Jones Tsai / Manager



SPORTON INTERNATIONAL INC.
No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.



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REVISION HISTORY



SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.407(b)	A9.3	Frequency Band Edges	$\leq -17, -27$ dBm (depend on band)&15.209(a)	Pass	-
3.2	15.207	Gen 7.2.4	AC Conducted Emission	15.207(a)	Pass	Under limit 11.8 dB at 0.52 MHz
3.3	15.407(b)	A9.3	Transmitter Radiated Emission	$\leq -17, -27$ dBm (depend on band)&15.209(a)	Pass	Under limit 3.54 dB at 5725 MHz
3.4	15.407(c)	A9.5	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.5	15.203 & 15.407(a)	A9.2	Antenna Requirement	N/A	Pass	-



1 General Description

1.1 Applicant

DAP Technologies

7450 South Priest DR Tempe, AZ, US

1.2 Manufacturer

Venture Corporation Limited

Blk5006, Ang Mo Kio Avenue 5, #03-07 TECHplace II, Singapore 569870

1.3 Feature of Equipment Under Test

Product Feature & Specification	
Equipment	Rugged Mobile Tablet Computer
Brand Name	DAP
Model Name	9000WBWZV1
Marketing Name	M9010
FCC ID	T5M9000WBWZV1
Tx/Rx Frequency Range	5150 MHz ~ 5250 MHz 5250 MHz ~ 5350 MHz 5470 MHz ~ 5725 MHz
Maximum Output Power to Antenna	<5150 MHz ~ 5250 MHz> 802.11a : 8.43 dBm / 0.0070 W 802.11n (BW 20MHz) : 8.03 dBm / 0.0064 W 802.11n (BW 40MHz) : 8.18 dBm / 0.0066 W <5250 MHz ~ 5350 MHz> 802.11a : 9.85 dBm / 0.0097 W 802.11n (BW 20MHz) : 9.68 dBm / 0.0093 W 802.11n (BW 40MHz) : 8.95 dBm / 0.0079 W <5470 MHz ~ 5725 MHz> 802.11a : 12.41 dBm / 0.0174 W 802.11n (BW 20MHz) : 12.02 dBm / 0.0159 W 802.11n (BW 40MHz) : 11.31 dBm / 0.0135 W
Antenna Type	PIFA Antenna
HW Version	Merlion P3
SW Version	MER_00.00.10
Type of Modulation	OFDM (BPSK / QPSK / 16QAM / 64QAM)
EUT Stage	Production Unit

Remark:

1. For other wireless features of this EUT, test report will be issued separately.
2. This test report recorded only product characteristics and test results of Unlicensed National Information Infrastructure (UNII).
3. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.



1.4 Testing Site

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-3273456 / FAX: +886-3-3284978		
Test Site No.	Sporton Site No.		FCC/IC Registration No.
	CO05-HY	03CH05-HY	722060/4086B-1

1.5 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart E
- FCC Public Notice DA 02-2138, (Measurement Guidelines of UNII)
- ANSI C63.4-2003
- IC RSS-210 Issued 8
- IC RSS-Gen Issue 3

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B (DoC), recorded in a separate test report.

1.6 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
2.	MOUSE	DELL	MOC5UO	FCC DoC	shielded, 1.8 m	N/A
3.	MOUSE	Logitech	M90	FCC DoC	shielded, 1.8 m	N/A
4.	Bluetooth Earphone	Motorola	S705	N/A	N/A	N/A
5.	iPod Earphone	Apple	N/A	FCC DoC	Unshielded, 1.0 m	N/A



2 Test Configuration of Equipment Under Test

2.1 Carrier Frequency Channel

802.11a Carrier Frequency Channel							
Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
36	5180	40	5200	44	5220	48	5240
52	5260	56	5280	60	5300	64	5320
100	5500	104	5520	108	5540	112	5560
116	5580	132	5660	136	5680	140	5700

802.11n (BW 20MHz) Carrier Frequency Channel							
Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
36	5180	40	5200	44	5220	48	5240
52	5260	56	5280	60	5300	64	5320
100	5500	104	5520	108	5540	112	5560
116	5580	132	5660	136	5680	140	5700

802.11n (BW 40MHz) Carrier Frequency Channel							
Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
38	5190	46	5230	54	5270	62	5310
102	5510	110	5550	118	5590	134	5670



2.2 RF Power

Preliminary RF power output tests were performed in different data rate and recorded the in the following table:

Channel	Frequency	Chain	5GHz 802.11a RF Power (dBm)							
			Data Rate							
			6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 36	5180 MHz	A	8.43	-	-	-	-	-	-	-
CH 44	5220 MHz	A	7.94	-	-	-	-	-	-	-
CH 48	5240 MHz	A	8.03	-	-	-	-	-	-	-
CH 52	5260 MHz	A	9.80	-	-	-	-	-	-	-
CH 60	5300 MHz	A	9.74	-	-	-	-	-	-	-
CH 64	5320 MHz	A	9.85	9.81	9.60	9.35	9.34	9.17	8.39	8.35
CH 100	5500 MHz	A	12.13	-	-	-	-	-	-	-
CH 120	5600 MHz	A	12.41	12.19	12.16	12.04	11.82	11.43	11.26	10.90
CH 140	5700 MHz	A	12.26	-	-	-	-	-	-	-

Channel	Frequency	Chain	5GHz 802.11n (BW 20MHz) RF Power (dBm)							
			Data Rate							
			6.5 Mbps	13 Mbps	19.5 Mbps	26 Mbps	39 Mbps	52 Mbps	58.5 Mbps	65 Mbps
CH 36	5180 MHz	A	8.03	-	-	-	-	-	-	-
CH 44	5220 MHz	A	7.74	-	-	-	-	-	-	-
CH 48	5240 MHz	A	7.58	-	-	-	-	-	-	-
CH 52	5260 MHz	A	9.46	-	-	-	-	-	-	-
CH 60	5300 MHz	A	9.30	-	-	-	-	-	-	-
CH 64	5320 MHz	A	9.68	9.14	8.96	8.91	7.72	7.53	7.65	7.17
CH 100	5500 MHz	A	11.84	-	-	-	-	-	-	-
CH 120	5600 MHz	A	12.02	11.57	11.12	11.16	10.46	9.65	10.06	9.63
CH 140	5700 MHz	A	11.58	-	-	-	-	-	-	-



Channel	Frequency	Chain	5GHz 802.11n (BW 40MHz) RF Power (dBm)							
			Data Rate							
			13.5 Mbps	27 Mbps	40.5 Mbps	54 Mbps	81 Mbps	108 Mbps	121.5 Mbps	135.0 Mbps
CH 38	5190 MHz	A	8.18	-	-	-	-	-	-	-
CH 46	5230 MHz	A	8.12	-	-	-	-	-	-	-
CH 54	5270 MHz	A	8.95	8.39	7.93	7.43	6.79	6.38	6.26	6.23
CH 62	5310 MHz	A	8.85	-	-	-	-	-	-	-
CH 102	5510 MHz	A	11.12	-	-	-	-	-	-	-
CH 118	5590 MHz	A	11.31	10.47	10.09	9.76	8.66	8.25	8.58	8.38
CH 134	5670 MHz	A	11.19	-	-	-	-	-	-	-

Remark:

1. The data rates of WLAN 802.11a/n were set in 6Mbps for 802.11a, 6.5Mbps for 802.11n (BW 20MHz), and 13.5Mbps for 802.11n (BW 40MHz) for all the test cases due to the highest RF output power.
2. The EUT is programmed to transmit signal continuously for all testing.
3. Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports.



2.3 Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction (150 kHz to 30 MHz), radiation (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

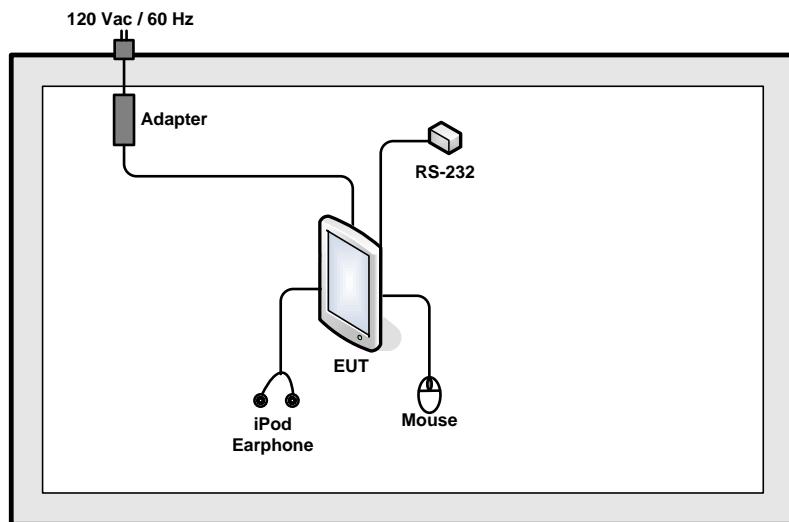
Pre-scanned tests were conducted to determine the final configuration from all possible combinations.

The following tables are showing the test modes as the worst cases and recorded in this report.

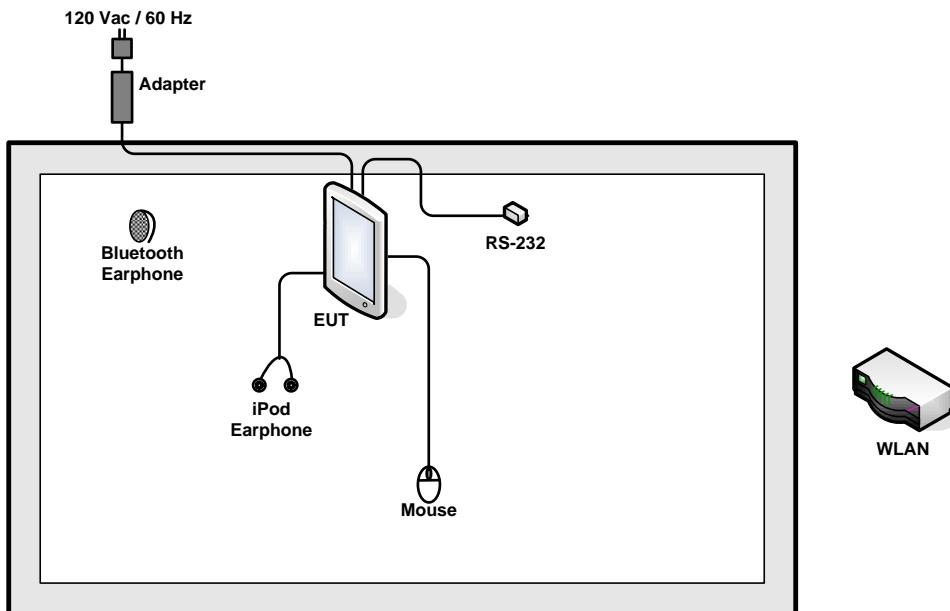
Test Cases	
Test Item	802.11a/n (Modulation : OFDM)
Radiated TCs	<ul style="list-style-type: none">■ Mode 1: 802.11a_CH36_5180 MHz■ Mode 2: 802.11a_CH44_5220 MHz■ Mode 3: 802.11a_CH48_5240 MHz■ Mode 4: 802.11a_CH52_5260 MHz■ Mode 5: 802.11a_CH60_5300 MHz■ Mode 6: 802.11a_CH64_5320 MHz■ Mode 7: 802.11a_CH100_5500 MHz■ Mode 8: 802.11a_CH120_5600 MHz■ Mode 9: 802.11a_CH140_5700 MHz■ Mode 10: 802.11a_CH36_5180 MHz (BW 20M)■ Mode 11: 802.11a_CH44_5220 MHz (BW 20M)■ Mode 12: 802.11a_CH48_5240 MHz (BW 20M)■ Mode 13: 802.11a_CH52_5260 MHz (BW 20M)■ Mode 14: 802.11a_CH60_5300 MHz (BW 20M)■ Mode 15: 802.11a_CH64_5320 MHz (BW 20M)■ Mode 16: 802.11a_CH100_5500 MHz (BW 20M)■ Mode 17: 802.11a_CH120_5600 MHz (BW 20M)■ Mode 18: 802.11a_CH140_5700 MHz (BW 20M)■ Mode 19: 802.11n_CH38_5190 MHz (BW 40M)■ Mode 20: 802.11n_CH46_5230 MHz (BW 40M)■ Mode 21: 802.11n_CH54_5270 MHz (BW 40M)■ Mode 22: 802.11n_CH62_5310 MHz (BW 40M)■ Mode 23: 802.11n_CH102_5510 MHz (BW 40M)■ Mode 24: 802.11n_CH118_5590 MHz (BW 40M)■ Mode 25: 802.11n_CH134_5670 MHz (BW 40M)
AC Conducted Emission	Mode 1 : WLAN Link + Bluetooth Link + Zigbee On + Adapter + TC
Remark: TC stands for Test Configuration, and consists of iPod Earphone, RS-232 Cable, and Mouse	

2.4 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.5 RF Utility

The programmed RF Utility "SRU", is installed in EUT to provide channel selection, power level, data rate and the application type. RF Utility can send transmitting signal for all testing. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.



3 Test Result

3.1 Band Edges Measurement

3.1.1 Limit of Band Edges

- (1) For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz. For transmitters operating in the 5.25–5.35 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz. Devices operating in the 5.25–5.35 GHz band that generate emissions in the 5.15–5.25 GHz band must meet all applicable technical requirements for operation in the 5.15–5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of –27 dBm/MHz in the 5.15–5.25 GHz band. For transmitters operating in the 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.
- (2) The provisions of Section 15.205 Restricted bands of operation of this part apply to intentional radiators operating under this section.

3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. Set both RBW / VBW of spectrum analyzer to 1MHz / 3MHz with convenient frequency span including 1MHz bandwidth from band edge.
2. The band edges was measured and recorded.



3.1.4 Test Result of Radiated Band Edges

Test Mode :	Mode 1			Temperature :		23~26°C		
Test Band :	802.11a			Relative Humidity :		53~56%		
Test Channel :	36			Test Engineer :		Wii Chang		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5147.35	56.47	-17.53	74	49.16	33.95	6.69	33.33	124	8	Peak
5147.35	41.18	-12.82	54	33.87	33.95	6.69	33.33	124	8	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5141.68	54.18	-19.82	74	46.87	33.95	6.69	33.33	100	310	Peak
5141.68	42.21	-11.79	54	34.9	33.95	6.69	33.33	100	310	Average

Test Mode :	Mode 3			Temperature :		23~26°C		
Test Band :	802.11a			Relative Humidity :		53~56%		
Test Channel :	48			Test Engineer :		Wii Chang		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5458	50.62	-23.38	74	42.64	34.25	6.92	33.19	124	6	Peak
5458	38.64	-15.36	54	30.66	34.25	6.92	33.19	124	6	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5392	52.51	-21.49	74	44.69	34.18	6.86	33.22	111	316	Peak
5392	40.5	-13.5	54	32.68	34.18	6.86	33.22	111	316	Average



Test Mode :	Mode 4	Temperature :		23~26°C		
Test Band :	802.11a	Relative Humidity :			53~56%	
Test Channel :	52	Test Engineer :			Wii Chang	

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5074	51.78	-22.22	74	44.62	33.88	6.64	33.36	123	3	Peak
5074	38.19	-15.81	54	31.03	33.88	6.64	33.36	123	3	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5092	51.4	-22.6	74	44.22	33.9	6.64	33.36	110	314	Peak
5092	39.16	-14.84	54	31.98	33.9	6.64	33.36	110	314	Average

Test Mode :	Mode 6	Temperature :		23~26°C		
Test Band :	802.11a	Relative Humidity :			53~56%	
Test Channel :	64	Test Engineer :			Wii Chang	

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5351.19	55.75	-18.25	74	48.01	34.15	6.83	33.24	121	4	Peak
5351.19	40.94	-13.06	54	33.2	34.15	6.83	33.24	121	4	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5354.91	61.94	-12.06	74	54.2	34.15	6.83	33.24	113	318	Peak
5354.91	44.35	-9.65	54	36.61	34.15	6.83	33.24	113	318	Average



Test Mode :	Mode 7			Temperature :	23~26°C				
Test Band :	802.11a			Relative Humidity :	53~56%				
Test Channel :	100			Test Engineer :	Wii Chang				

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	52.54	-15.76	68.3	44.54	34.27	6.92	33.19	118	11	Peak

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	56.04	-12.26	68.3	48.04	34.27	6.92	33.19	106	328	Peak

Test Mode :	Mode 9			Temperature :	23~26°C				
Test Band :	802.11a			Relative Humidity :	53~56%				
Test Channel :	140			Test Engineer :	Wii Chang				

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725	58.5	-9.8	68.3	49.86	34.66	7.17	33.19	102	11	Peak

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725	62.44	-5.86	68.3	53.8	34.66	7.17	33.19	102	327	Peak



Test Mode :	Mode 10			Temperature :		23~26°C		
Test Band :	802.11n (BW 20MHz)			Relative Humidity :		53~56%		
Test Channel :	36			Test Engineer :		Wii Chang		

ANTENNA POLARITY : HORIZONTAL

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5136.85	52.83	-21.17	74	45.56	33.93	6.68	33.34	127	13	Peak
5136.85	41.29	-12.71	54	34.02	33.93	6.68	33.34	127	13	Average

ANTENNA POLARITY : VERTICAL

Frequency (mz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5135.8	57.1	-16.9	74	49.83	33.93	6.68	33.34	100	313	Peak
5135.8	43.69	-10.31	54	36.42	33.93	6.68	33.34	100	313	Average

Test Mode :	Mode 12			Temperature :		23~26°C		
Test Band :	802.11n (BW 20MHz)			Relative Humidity :		53~56%		
Test Channel :	48			Test Engineer :		Wii Chang		

ANTENNA POLARITY : HORIZONTAL

Frequency (mz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5398	51.53	-22.47	74	43.69	34.2	6.86	33.22	108	14	Peak
5398	38.56	-15.44	54	30.72	34.2	6.86	33.22	108	14	Average

ANTENNA POLARITY : VERTICAL

Frequency (mz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5396	54.26	-19.74	74	46.42	34.2	6.86	33.22	100	316	Peak
5396	42.08	-11.92	54	34.24	34.2	6.86	33.22	100	316	Average


FCC RF Test Report
Report No. : FR170707C

Test Mode :	Mode 13			Temperature :		23~26°C		
Test Band :	802.11n (BW 20MHz)			Relative Humidity :		53~56%		
Test Channel :	52			Test Engineer :		Wii Chang		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5100	51.83	-22.17	74	44.62	33.9	6.66	33.35	112	9	Peak
5100	39.91	-14.09	54	32.7	33.9	6.66	33.35	112	9	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5102	53.07	-20.93	74	45.86	33.9	6.66	33.35	110	315	Peak
5102	40.93	-13.07	54	33.72	33.9	6.66	33.35	110	315	Average

Test Mode :	Mode 15			Temperature :		23~26°C		
Test Band :	802.11n (BW 20MHz)			Relative Humidity :		53~56%		
Test Channel :	64			Test Engineer :		Wii Chang		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5350.26	55.01	-18.99	74	47.27	34.15	6.83	33.24	109	10	Peak
5350.26	41.7	-12.3	54	33.96	34.15	6.83	33.24	109	10	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5350.57	63.59	-10.41	74	55.85	34.15	6.83	33.24	112	317	Peak
5350.57	45.07	-8.93	54	37.33	34.15	6.83	33.24	112	317	Average



Test Mode :	Mode 16			Temperature :		23~26°C			
Test Band :	802.11n (BW 20MHz)			Relative Humidity :		53~56%			
Test Channel :	100			Test Engineer :		Wii Chang			

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	53.07	-15.23	68.3	45.07	34.27	6.92	33.19	118	8	Peak

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	56.23	-12.07	68.3	48.23	34.27	6.92	33.19	106	323	Peak

Test Mode :	Mode 18			Temperature :		23~26°C			
Test Band :	802.11n (BW 20MHz)			Relative Humidity :		53~56%			
Test Channel :	140			Test Engineer :		Wii Chang			

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725	58.32	-9.98	68.3	52.68	34.66	7.17	33.19	112	13	Peak

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725	62.12	-6.18	68.3	56.12	34.66	7.17	33.19	102	318	Peak



Test Mode :	Mode 19			Temperature :	23~26°C				
Test Band :	802.11n (BW 40MHz)			Relative Humidity :	53~56%				
Test Channel :	38			Test Engineer :	Wii Chang				

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.45	51.61	-22.39	74	48.3	33.95	6.69	33.33	111	9	Peak
5149.45	43.91	-10.09	54	39.6	33.95	6.69	33.33	111	9	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.8	56.72	-17.28	74	63.41	33.95	6.69	33.33	113	315	Peak
5149.8	47.84	-6.16	54	43.53	33.95	6.69	33.33	113	315	Average

Test Mode :	Mode 20			Temperature :	23~26°C				
Test Band :	802.11n (BW 40MHz)			Relative Humidity :	53~56%				
Test Channel :	46			Test Engineer :	Wii Chang				

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5384	51.09	-22.91	74	43.27	34.18	6.86	33.22	111	4	Peak
5384	38.77	-15.23	54	30.95	34.18	6.86	33.22	111	4	Average

ANTENNA POLARITY : VERTICAL										
Frequency (mzH)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5376	53.21	-20.79	74	45.42	34.17	6.85	33.23	100	317	Peak
5376	39.87	-14.13	54	32.08	34.17	6.85	33.23	100	317	Average



Test Mode :	Mode 21			Temperature :	23~26°C				
Test Band :	802.11n (BW 40MHz)			Relative Humidity :	53~56%				
Test Channel :	54			Test Engineer :	Wii Chang				

ANTENNA POLARITY : HORIZONTAL

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5112	52.03	-21.97	74	44.8	33.92	6.66	33.35	121	3	Peak
5112	38.3	-15.7	54	31.07	33.92	6.66	33.35	121	3	Average

ANTENNA POLARITY : VERTICAL

Frequency (mz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5126	52.5	-21.5	74	45.23	33.93	6.68	33.34	100	315	Peak
5126	39.65	-14.35	54	32.38	33.93	6.68	33.34	100	315	Average

Test Mode :	Mode 22			Temperature :	23~26°C				
Test Band :	802.11n (BW 40MHz)			Relative Humidity :	53~56%				
Test Channel :	62			Test Engineer :	Wii Chang				

ANTENNA POLARITY : HORIZONTAL

Frequency (mz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5353.67	63.06	-10.94	74	45.32	34.15	6.83	33.24	135	11	Peak
5353.67	48.27	-5.73	54	40.53	34.15	6.83	33.24	135	11	Average

ANTENNA POLARITY : VERTICAL

Frequency (mz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5353.05	57.22	-16.78	74	62.58	34.15	6.83	33.24	109	317	Peak
5353.05	43.32	-10.68	54	45.06	34.15	6.83	33.24	109	317	Average



Test Mode :	Mode 23			Temperature :	23~26°C				
Test Band :	802.11n (BW 40MHz)			Relative Humidity :	53~56%				
Test Channel :	102			Test Engineer :	Wii Chang				

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	58.76	-9.54	68.3	54.76	34.27	6.92	33.19	105	10	Peak

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	61.89	-6.41	68.3	56.89	34.27	6.92	33.19	108	321	Peak

Test Mode :	Mode 25			Temperature :	23~26°C				
Test Band :	802.11n (BW 40MHz)			Relative Humidity :	53~56%				
Test Channel :	134			Test Engineer :	Wii Chang				

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725	53.01	-15.29	68.3	44.37	34.66	7.17	33.19	101	14	Peak

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725	59.19	-9.11	68.3	50.55	34.66	7.17	33.19	102	317	Peak



3.2 AC Conducted Emission Measurement

3.2.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

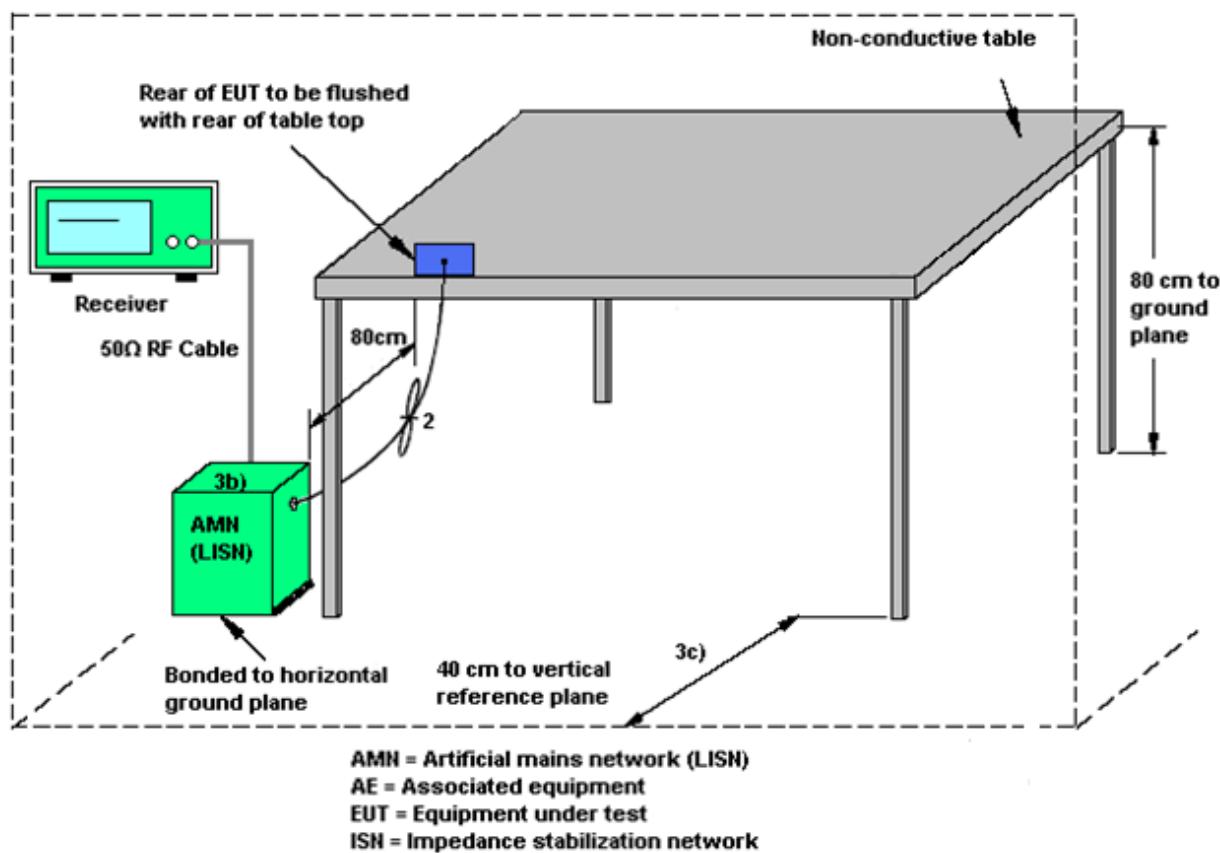
3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

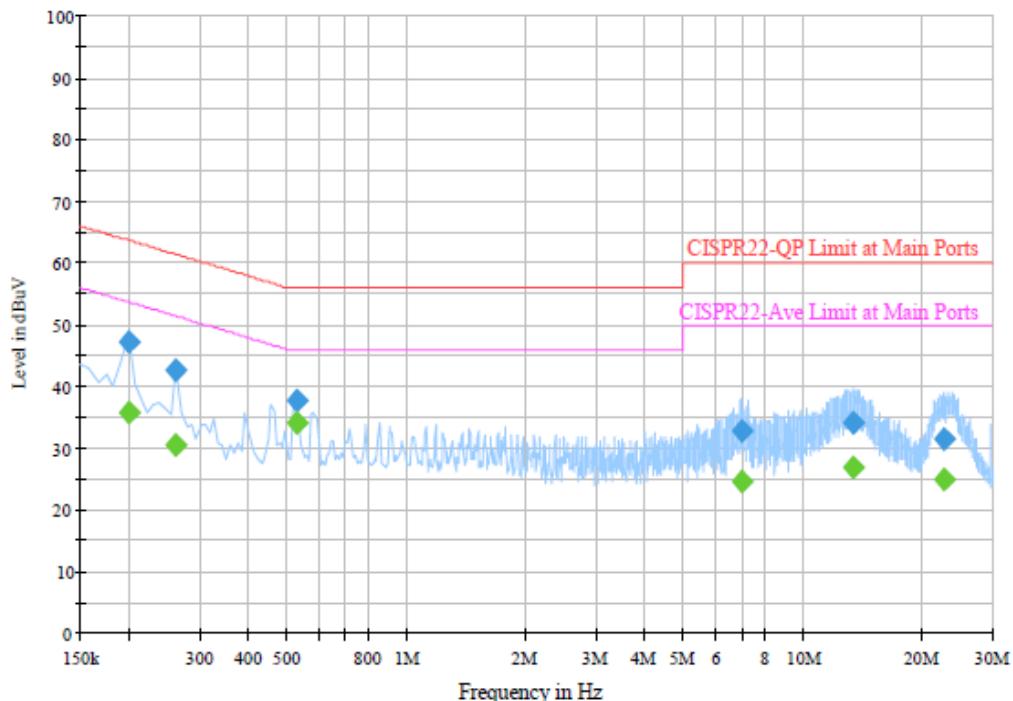
1. Please follow the guidelines in ANSI C63.4-2003.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance stabilization network (LISN).
4. All the support units are connecting to the other LISN.
5. The LISN provides 50 ohm coupling impedance for the measuring instrument.
6. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
7. Both sides of AC line were checked for maximum conducted interference.
8. The frequency range from 150 kHz to 30 MHz was searched.
9. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.2.4 Test Setup



3.2.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	21~23°C
Test Engineer :	Kai-Chun Chu	Relative Humidity :	42~44%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN Link + Bluetooth Link + Zigbee On + Adapter + TC		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		


Final Result 1

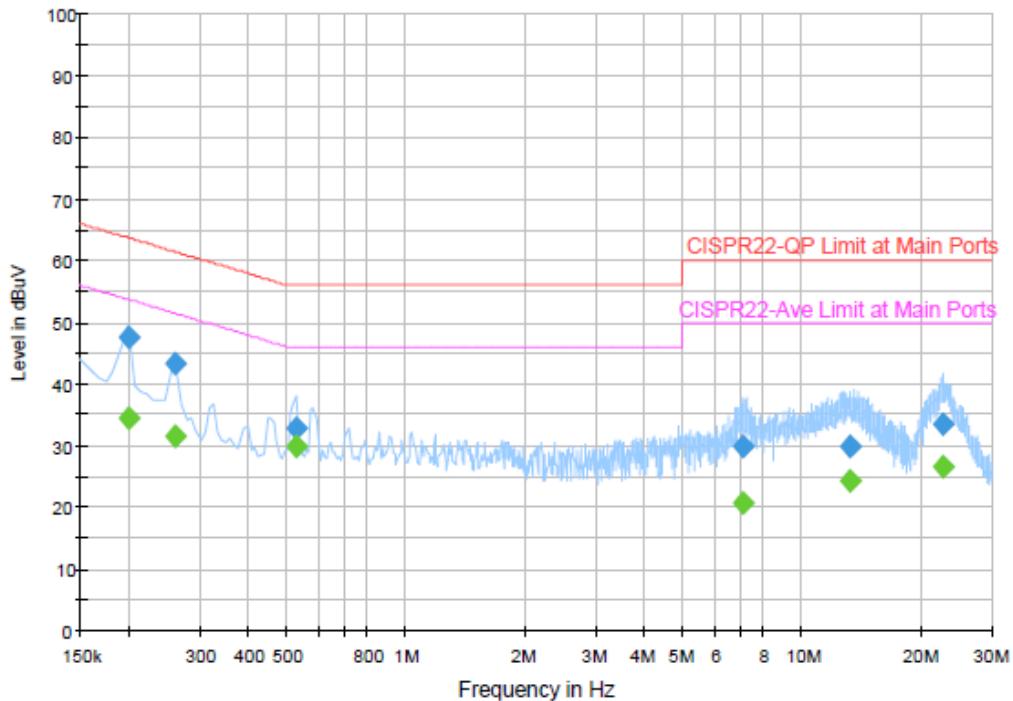
Frequency (MHz)	QuasiPeak (dB μ V)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.198000	47.3	Off	L1	19.4	16.4	63.7
0.262000	42.5	Off	L1	19.4	18.9	61.4
0.526000	37.6	Off	L1	19.4	18.4	56.0
6.950000	32.7	Off	L1	19.5	27.3	60.0
13.382000	34.1	Off	L1	19.6	25.9	60.0
22.502000	31.6	Off	L1	19.8	28.4	60.0

Final Result 2

Frequency (MHz)	Average (dB μ V)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.198000	35.8	Off	L1	19.4	17.9	53.7
0.262000	30.3	Off	L1	19.4	21.1	51.4
0.526000	34.2	Off	L1	19.4	11.8	46.0
6.950000	24.7	Off	L1	19.5	25.3	50.0
13.382000	27.0	Off	L1	19.6	23.0	50.0
22.502000	24.9	Off	L1	19.8	25.1	50.0



Test Mode :	Mode 1	Temperature :	21~23°C
Test Engineer :	Kai-Chun Chu	Relative Humidity :	42~44%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN Link + Bluetooth Link + Zigbee On + Adapter + TC		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.198000	47.7	Off	N	19.4	16.0	63.7
0.262000	43.3	Off	N	19.4	18.1	61.4
0.526000	32.8	Off	N	19.4	23.2	56.0
7.078000	29.7	Off	N	19.6	30.3	60.0
13.246000	30.0	Off	N	19.7	30.0	60.0
22.662000	33.6	Off	N	19.8	26.4	60.0

Final Result 2

Frequency (MHz)	Average (dB μ V)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.198000	34.3	Off	N	19.4	19.4	53.7
0.262000	31.5	Off	N	19.4	19.9	51.4
0.526000	29.9	Off	N	19.4	16.1	46.0
7.078000	20.8	Off	N	19.6	29.2	50.0
13.246000	24.1	Off	N	19.7	25.9	50.0
22.662000	26.5	Off	N	19.8	23.5	50.0



3.3 Radiated Emission Measurement

3.3.1 Limit of Radiated Emission

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209.

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

- (1) For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz.
- (2) For transmitters operating in the 5.25–5.35 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz. Devices operating in the 5.25–5.35 GHz band that generate emissions in the 5.15–5.25 GHz band must meet all applicable technical requirements for operation in the 5.15–5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of –27 dBm/MHz in the 5.15–5.25 GHz band.
- (3) For transmitters operating in the 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.
- (4) The provisions of Section 15.205 Restricted bands of operation of this part apply to intentional radiators operating under this section.

Note: The following formula is used to convert the EIRP to field strength.

$$E = \frac{1000000\sqrt{30P}}{3} \mu\text{V}/\text{m}, \text{ where } P \text{ is the eirp (Watts)}$$

EIRP (dBm)	Field Strength at 3m (dBuV/m)
- 27	68.3

3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

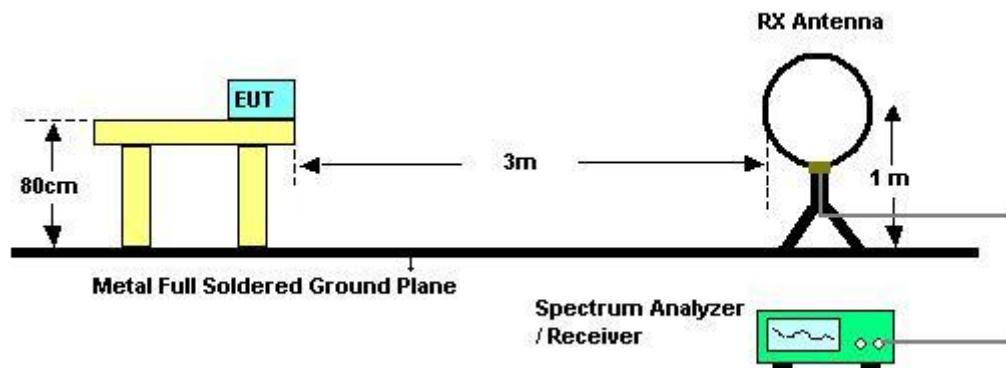


3.3.3 Test Procedures

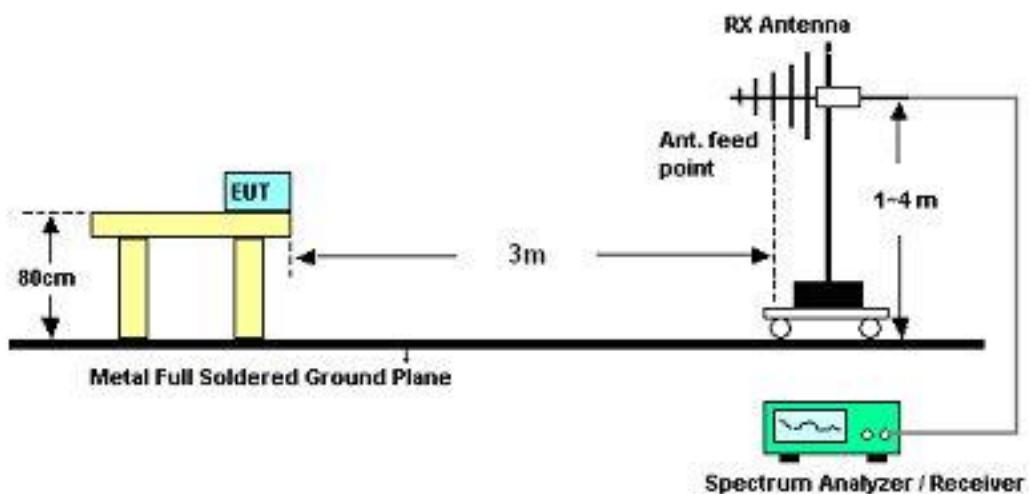
1. The testing follows the guidelines in FCC Public Notice DA 02-2138, (Measurement Guidelines of UNII)
2. The EUT was placed on a rotatable table top 0.8 meter above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest radiation.
5. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
6. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
7. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
8. For testing below 1GHz, If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported.
9. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.3.4 Test Setup

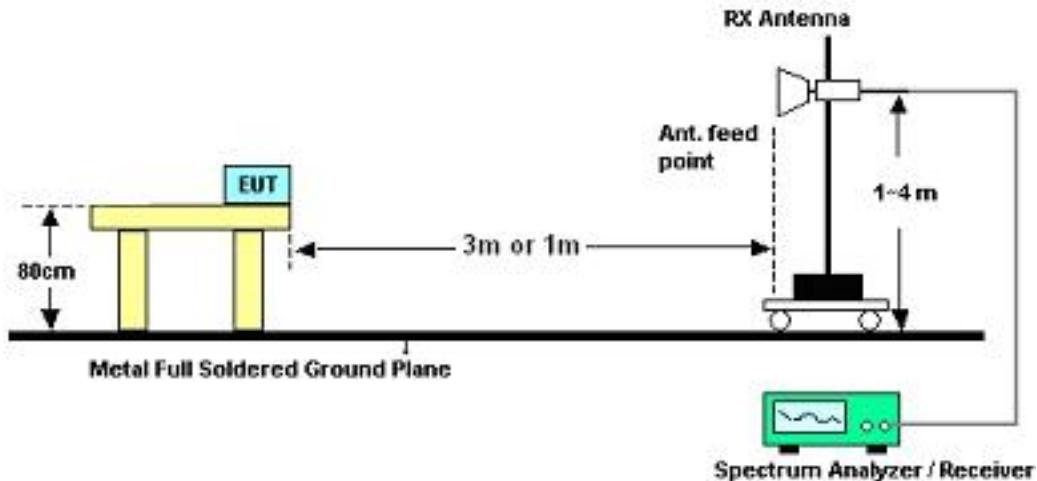
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.3.5 Test Results of Radiated Emissions (9kHz ~ 30MHz)

Temperature	23~26°C	Humidity	53~56%
Test Engineer	Wii Chang		

Freq. (MHz)	Level (dBuV)	Over Limit (dB)	Limit Line (dBuV)	Remark
-	-	-	-	See Note

Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

3.3.6 Test Result of Radiated Emission (30MHz ~ 10th Harmonic)

Test Mode :	Mode 1		Temperature :		23~26°C				
Test Channel :	36		Relative Humidity :		53~56%				
Test Engineer :	Wii Chang		Polarization :		Horizontal				
Remark :	5180 MHz is Fundamental Signals which can be ignored.								

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
83.19	25.49	-14.51	40	48.86	7.16	1.02	31.55	-	-	Peak
204.96	35.79	-7.71	43.5	57.28	8.49	1.48	31.46	200	36	Peak
216.03	33.6	-12.4	46	54.25	9.3	1.53	31.48	-	-	Peak
449.8	33.96	-12.04	46	47.05	15.92	2.14	31.15	-	-	Peak
479.9	37.09	-8.91	46	49.4	16.61	2.19	31.11	-	-	Peak
600.3	35.39	-10.61	46	45.12	18.72	2.42	30.87	-	-	Peak
5147.35	41.18	-12.82	54	33.87	33.95	6.69	33.33	124	8	Average
5147.35	56.47	-17.53	74	49.16	33.95	6.69	33.33	124	8	Peak
5180	82.04	-	-	74.67	33.98	6.71	33.32	124	8	Average
5180	93.24	-	-	85.87	33.98	6.71	33.32	124	8	Peak
5458	38.68	-15.32	54	30.7	34.25	6.92	33.19	124	8	Average
5458	50.75	-23.25	74	42.77	34.25	6.92	33.19	124	8	Peak



Test Mode :	Mode 1	Temperature :	23~26°C
Test Channel :	36	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Vertical
Remark :	5180 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
38.64	30.02	-9.98	40	47.08	13.7	0.75	31.51	-	-	Peak
61.59	24.43	-15.57	40	49.69	5.41	0.87	31.54	-	-	Peak
216.03	28.48	-17.52	46	49.13	9.3	1.53	31.48	-	-	Peak
479.9	29.99	-16.01	46	42.3	16.61	2.19	31.11	-	-	Peak
524.7	37.47	-8.53	46	48.73	17.48	2.28	31.02	200	68	Peak
907.6	36.24	-9.76	46	41.73	21.96	3.02	30.47	-	-	Peak
5141.68	42.21	-11.79	54	34.9	33.95	6.69	33.33	100	310	Average
5141.68	54.18	-19.82	74	46.87	33.95	6.69	33.33	100	310	Peak
5180	88.31	-	-	80.94	33.98	6.71	33.32	100	310	Average
5180	100.13	-	-	92.76	33.98	6.71	33.32	100	310	Peak
5406	39.15	-14.85	54	31.28	34.2	6.88	33.21	100	310	Average
5406	51.33	-22.67	74	43.46	34.2	6.88	33.21	100	310	Peak



Test Mode :	Mode 2	Temperature :	23~26°C
Test Channel :	44	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Horizontal
Remark :	5220 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
31.89	31.92	-8.08	40	45.53	17.21	0.72	31.54	200	354	Peak
167.97	31.06	-12.44	43.5	52.12	9.12	1.36	31.54	-	-	Peak
202.26	35.2	-8.3	43.5	56.83	8.35	1.47	31.45	-	-	Peak
479.9	37.47	-8.53	46	49.78	16.61	2.19	31.11	-	-	Peak
503.7	34.72	-11.28	46	46.42	17.13	2.24	31.07	-	-	Peak
600.3	35.36	-10.64	46	45.09	18.72	2.42	30.87	-	-	Peak
5124	38.25	-15.75	54	30.98	33.93	6.68	33.34	112	12	Average
5124	51.47	-22.53	74	44.2	33.93	6.68	33.34	112	12	Peak
5220	81.33	-	-	73.87	34.02	6.74	33.3	112	12	Average
5220	92.91	-	-	85.45	34.02	6.74	33.3	112	12	Peak
5442	38.89	-15.11	54	30.96	34.23	6.9	33.2	112	12	Average
5442	51.36	-22.64	74	43.43	34.23	6.9	33.2	112	12	Peak



Test Mode :	Mode 2	Temperature :	23~26°C
Test Channel :	44	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Vertical
Remark :	5220 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
38.64	31.16	-8.84	40	48.22	13.7	0.75	31.51	200	48	Peak
76.44	23.48	-16.52	40	47.74	6.32	0.97	31.55	-	-	Peak
216.03	28.05	-17.95	46	48.7	9.3	1.53	31.48	-	-	Peak
479.9	29.26	-16.74	46	41.57	16.61	2.19	31.11	-	-	Peak
600.3	28.06	-17.94	46	37.79	18.72	2.42	30.87	-	-	Peak
750.1	29.07	-16.93	46	36.79	20.07	2.75	30.54	-	-	Peak
5128	38.93	-15.07	54	31.66	33.93	6.68	33.34	100	319	Average
5128	51.44	-22.56	74	44.17	33.93	6.68	33.34	100	319	Peak
5220	87.32	-	-	79.86	34.02	6.74	33.3	100	319	Average
5220	99.67	-	-	92.21	34.02	6.74	33.3	100	319	Peak
5382	40.33	-13.67	54	32.51	34.18	6.86	33.22	100	319	Average
5382	52.92	-21.08	74	45.1	34.18	6.86	33.22	100	319	Peak



Test Mode :	Mode 3	Temperature :		23~26°C			
Test Channel :	48	Relative Humidity :		53~56%			
Test Engineer :	Wii Chang	Polarization :		Horizontal			
Remark :	5240 MHz is Fundamental Signals which can be ignored.						

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
34.86	25.56	-14.44	40	40.86	15.48	0.74	31.52	-	-	Peak
167.97	30.14	-13.36	43.5	51.2	9.12	1.36	31.54	-	-	Peak
201.99	35.1	-8.4	43.5	56.79	8.29	1.47	31.45	200	36	Peak
479.9	37.34	-8.66	46	49.65	16.61	2.19	31.11	-	-	Peak
600.3	35.17	-10.83	46	44.9	18.72	2.42	30.87	-	-	Peak
881.7	36.67	-9.33	46	42.54	21.64	2.98	30.49	-	-	Peak
5078	38.37	-15.63	54	31.21	33.88	6.64	33.36	124	6	Average
5078	51.74	-22.26	74	44.58	33.88	6.64	33.36	124	6	Peak
5240	81.47	-	-	73.97	34.03	6.76	33.29	124	6	Average
5240	93.25	-	-	85.75	34.03	6.76	33.29	124	6	Peak
5458	38.64	-15.36	54	30.66	34.25	6.92	33.19	124	6	Average
5458	50.62	-23.38	74	42.64	34.25	6.92	33.19	124	6	Peak



Test Mode :	Mode 3	Temperature :	23~26°C
Test Channel :	48	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Vertical
Remark :	5240 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
38.64	30.02	-9.98	40	47.08	13.7	0.75	31.51	201	358	Peak
187.68	29.6	-13.9	43.5	51.28	8.38	1.43	31.49	-	-	Peak
216.03	28.21	-17.79	46	48.86	9.3	1.53	31.48	-	-	Peak
479.9	29.31	-16.69	46	41.62	16.61	2.19	31.11	-	-	Peak
750.1	33.59	-12.41	46	41.31	20.07	2.75	30.54	-	-	Peak
903.4	29.63	-16.37	46	35.25	21.85	3.01	30.48	-	-	Peak
5118	38.8	-15.2	54	31.54	33.92	6.68	33.34	111	316	Average
5118	51.77	-22.23	74	44.51	33.92	6.68	33.34	111	316	Peak
5240	88.28	-	-	80.78	34.03	6.76	33.29	111	316	Average
5240	100.45	-	-	92.95	34.03	6.76	33.29	111	316	Peak
5392	40.5	-13.5	54	32.68	34.18	6.86	33.22	111	316	Average
5392	52.51	-21.49	74	44.69	34.18	6.86	33.22	111	316	Peak



Test Mode :	Mode 4	Temperature :	23~26°C
Test Channel :	52	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Horizontal
Remark :	5260 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
55.11	26.69	-13.31	40	50.85	6.53	0.83	31.52	-	-	Peak
82.92	26.94	-13.06	40	50.31	7.16	1.02	31.55	-	-	Peak
200.91	35.05	-8.45	43.5	56.82	8.22	1.46	31.45	200	14	Peak
479.9	36.55	-9.45	46	48.86	16.61	2.19	31.11	-	-	Peak
600.3	35.16	-10.84	46	44.89	18.72	2.42	30.87	-	-	Peak
787.9	37.23	-8.77	46	44.18	20.78	2.81	30.54	-	-	Peak
5074	38.19	-15.81	54	31.03	33.88	6.64	33.36	123	3	Average
5074	51.78	-22.22	74	44.62	33.88	6.64	33.36	123	3	Peak
5260	81.25	-	-	73.67	34.07	6.78	33.27	123	3	Average
5260	92.8	-	-	85.22	34.07	6.78	33.27	123	3	Peak
5410	38.69	-15.31	54	30.82	34.2	6.88	33.21	123	3	Average
5410	51.01	-22.99	74	43.14	34.2	6.88	33.21	123	3	Peak



Test Mode :	Mode 4	Temperature :	23~26°C
Test Channel :	52	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Vertical
Remark :	5260 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
38.64	29.17	-10.83	40	46.23	13.7	0.75	31.51	198	25	Peak
60.24	24.69	-15.31	40	50.06	5.32	0.87	31.56	-	-	Peak
216.03	27.71	-18.29	46	48.36	9.3	1.53	31.48	-	-	Peak
479.9	29.44	-16.56	46	41.75	16.61	2.19	31.11	-	-	Peak
600.3	30.41	-15.59	46	40.14	18.72	2.42	30.87	-	-	Peak
750.1	27.82	-18.18	46	35.54	20.07	2.75	30.54	-	-	Peak
5092	39.16	-14.84	54	31.98	33.9	6.64	33.36	110	314	Average
5092	51.4	-22.6	74	44.22	33.9	6.64	33.36	110	314	Peak
5260	87.46	-	-	79.88	34.07	6.78	33.27	110	314	Average
5260	99.21	-	-	91.63	34.07	6.78	33.27	110	314	Peak
5426	40.2	-13.8	54	32.31	34.22	6.88	33.21	110	314	Average
5426	51.24	-22.76	74	43.35	34.22	6.88	33.21	110	314	Peak



Test Mode :	Mode 5	Temperature :	23~26°C
Test Channel :	60	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Horizontal
Remark :	5300 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
31.89	28.08	-11.92	40	41.69	17.21	0.72	31.54	-	-	Peak
167.97	30.71	-12.79	43.5	51.77	9.12	1.36	31.54	-	-	Peak
203.88	35.33	-8.17	43.5	56.89	8.42	1.48	31.46	200	48	Peak
311.9	32.64	-13.36	46	49.62	12.49	1.81	31.28	-	-	Peak
479.9	37.05	-8.95	46	49.36	16.61	2.19	31.11	-	-	Peak
600.3	34.73	-11.27	46	44.46	18.72	2.42	30.87	-	-	Peak
5140	38.28	-15.72	54	30.99	33.95	6.68	33.34	122	1	Average
5140	51.72	-22.28	74	44.43	33.95	6.68	33.34	122	1	Peak
5300	80.89	-	-	73.25	34.1	6.8	33.26	122	1	Average
5300	92.67	-	-	85.03	34.1	6.8	33.26	122	1	Peak
5358	38.7	-15.3	54	30.93	34.15	6.85	33.23	122	1	Average
5358	51.09	-22.91	74	43.32	34.15	6.85	33.23	122	1	Peak



Test Mode :	Mode 5	Temperature :	23~26°C
Test Channel :	60	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Vertical
Remark :	5300 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
38.64	28.6	-11.4	40	45.66	13.7	0.75	31.51	200	187	Peak
60.24	24.87	-15.13	40	50.24	5.32	0.87	31.56	-	-	Peak
216.03	27.73	-18.27	46	48.38	9.3	1.53	31.48	-	-	Peak
359.5	26.43	-19.57	46	42.06	13.73	1.92	31.28	-	-	Peak
479.9	29.4	-16.6	46	41.71	16.61	2.19	31.11	-	-	Peak
600.3	29.78	-16.22	46	39.51	18.72	2.42	30.87	-	-	Peak
5146	39.33	-14.67	54	32.02	33.95	6.69	33.33	122	315	Average
5146	51.81	-22.19	74	44.5	33.95	6.69	33.33	122	315	Peak
5300	88.19	-	-	80.55	34.1	6.8	33.26	122	315	Average
5300	99.86	-	-	92.22	34.1	6.8	33.26	122	315	Peak
5372	40.03	-13.97	54	32.24	34.17	6.85	33.23	122	315	Average
5372	51.83	-22.17	74	44.04	34.17	6.85	33.23	122	315	Peak



Test Mode :	Mode 6	Temperature :	23~26°C
Test Channel :	64	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Horizontal
Remark :	5320 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
75.9	24.38	-15.62	40	48.73	6.24	0.96	31.55	-	-	Peak
167.97	31.77	-11.73	43.5	52.83	9.12	1.36	31.54	-	-	Peak
206.85	35.46	-8.04	43.5	56.81	8.62	1.49	31.46	100	32	Peak
311.9	32.42	-13.58	46	49.4	12.49	1.81	31.28	-	-	Peak
479.9	37.45	-8.55	46	49.76	16.61	2.19	31.11	-	-	Peak
503.7	34.98	-11.02	46	46.68	17.13	2.24	31.07	-	-	Peak
5138	38.3	-15.7	54	31.03	33.93	6.68	33.34	121	4	Average
5138	51.12	-22.88	74	43.85	33.93	6.68	33.34	121	4	Peak
5320	81.58	-	-	73.9	34.12	6.81	33.25	121	4	Average
5320	93.13	-	-	85.45	34.12	6.81	33.25	121	4	Peak
5351.19	40.94	-13.06	54	33.2	34.15	6.83	33.24	121	4	Average
5351.19	55.75	-18.25	74	48.01	34.15	6.83	33.24	121	4	Peak



Test Mode :	Mode 6	Temperature :	23~26°C
Test Channel :	64	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Vertical
Remark :	5320 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
38.64	29.15	-10.85	40	46.21	13.7	0.75	31.51	100	54	Peak
49.44	25.26	-14.74	40	47.86	8.17	0.8	31.57	-	-	Peak
216.03	28.1	-17.9	46	48.75	9.3	1.53	31.48	-	-	Peak
359.5	26.14	-19.86	46	41.77	13.73	1.92	31.28	-	-	Peak
479.9	29.94	-16.06	46	42.25	16.61	2.19	31.11	-	-	Peak
503.7	28.76	-17.24	46	40.46	17.13	2.24	31.07	-	-	Peak
5026	38.44	-15.56	54	31.38	33.83	6.61	33.38	113	318	Average
5026	51.34	-22.66	74	44.28	33.83	6.61	33.38	113	318	Peak
5320	88.21	-	-	80.53	34.12	6.81	33.25	113	318	Average
5320	100.11	-	-	92.43	34.12	6.81	33.25	113	318	Peak
5354.91	44.35	-9.65	54	36.61	34.15	6.83	33.24	113	318	Average
5354.91	61.94	-12.06	74	54.2	34.15	6.83	33.24	113	318	Peak



Test Mode :	Mode 7	Temperature :	23~26°C
Test Channel :	100	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Horizontal
Remark :	1. 5500 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz and 5725 MHz are not within a restricted band.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
31.89	18.35	-21.65	40	31.96	17.21	0.72	31.54	-	-	Peak
133.14	22.83	-20.67	43.5	42.29	10.82	1.24	31.52	-	-	Peak
203.88	35.03	-8.47	43.5	56.59	8.42	1.48	31.46	200	13	Peak
311.9	32.29	-13.71	46	49.27	12.49	1.81	31.28	-	-	Peak
359.5	31.29	-14.71	46	46.92	13.73	1.92	31.28	-	-	Peak
479.9	33.5	-12.5	46	45.81	16.61	2.19	31.11	-	-	Peak
5470	52.54	-15.76	68.3	44.54	34.27	6.92	33.19	118	11	Peak
5500	83.08	-	-	75	34.3	6.95	33.17	118	11	Average
5500	95.07	-	-	86.99	34.3	6.95	33.17	118	11	Peak
5725	51.41	-16.89	68.3	42.77	34.66	7.17	33.19	118	11	Peak



Test Mode :	Mode 7	Temperature :	23~26°C
Test Channel :	100	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Vertical
Remark :	1. 5500 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz and 5725 MHz are not within a restricted band.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
33.24	25.25	-14.75	40	39.44	16.63	0.72	31.54	200	87	Peak
200.1	24.59	-18.91	43.5	46.43	8.15	1.46	31.45	-	-	Peak
216.03	27.77	-18.23	46	48.42	9.3	1.53	31.48	-	-	Peak
359.5	24.71	-21.29	46	40.34	13.73	1.92	31.28	-	-	Peak
479.9	29.14	-16.86	46	41.45	16.61	2.19	31.11	-	-	Peak
600.3	29.92	-16.08	46	39.65	18.72	2.42	30.87	-	-	Peak
5470	56.04	-12.26	68.3	48.04	34.27	6.92	33.19	106	328	Peak
5500	89.3	-	-	81.22	34.3	6.95	33.17	106	328	Average
5500	101.35	-	-	93.27	34.3	6.95	33.17	106	328	Peak
5725	52.19	-16.11	68.3	43.55	34.66	7.17	33.19	106	328	Peak



Test Mode :	Mode 8	Temperature :	23~26°C
Test Channel :	120	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Horizontal
Remark :	1. 5600 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz and 5725 MHz are not within a restricted band.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
167.97	29.1	-14.4	43.5	50.16	9.12	1.36	31.54	-	-	Peak
203.88	35.04	-8.46	43.5	56.6	8.42	1.48	31.46	200	173	Peak
216.03	33.39	-12.61	46	54.04	9.3	1.53	31.48	-	-	Peak
311.9	32.87	-13.13	46	49.85	12.49	1.81	31.28	-	-	Peak
359.5	31.31	-14.69	46	46.94	13.73	1.92	31.28	-	-	Peak
479.9	32.9	-13.1	46	45.21	16.61	2.19	31.11	-	-	Peak
5470	49.84	-18.46	68.3	41.89	34.25	6.9	33.2	104	12	Peak
5600	85.16	-	-	76.82	34.47	7.05	33.18	104	12	Average
5600	96.83	-	-	88.49	34.47	7.05	33.18	104	12	Peak
5725	50.84	-17.46	68.3	42.2	34.66	7.17	33.19	104	12	Peak



Test Mode :	Mode 8	Temperature :	23~26°C
Test Channel :	120	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Vertical
Remark :	1. 5600 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz and 5725 MHz are not within a restricted band.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
33.24	25.79	-14.21	40	39.98	16.63	0.72	31.54	-	-	Peak
61.59	24.58	-15.42	40	49.84	5.41	0.87	31.54	-	-	Peak
216.03	27.9	-18.1	46	48.55	9.3	1.53	31.48	-	-	Peak
503.7	28.46	-17.54	46	40.16	17.13	2.24	31.07	-	-	Peak
600.3	30.4	-15.6	46	40.13	18.72	2.42	30.87	-	-	Peak
881.7	37.05	-8.95	46	42.92	21.64	2.98	30.49	200	48	Peak
5470	51.44	-16.86	68.3	43.44	34.27	6.92	33.19	104	328	Peak
5600	91.13	-	-	82.79	34.47	7.05	33.18	104	328	Average
5600	102.99	-	-	94.65	34.47	7.05	33.18	104	328	Peak
5725	52.47	-15.83	68.3	43.83	34.66	7.17	33.19	104	328	Peak



Test Mode :	Mode 9	Temperature :	23~26°C
Test Channel :	140	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Horizontal
Remark :	1. 5700 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz, 5725 MHz are not within a restricted band.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
167.97	28.84	-14.66	43.5	49.9	9.12	1.36	31.54	-	-	Peak
203.07	34.71	-8.79	43.5	56.34	8.35	1.47	31.45	200	158	Peak
216.03	32.81	-13.19	46	53.46	9.3	1.53	31.48	-	-	Peak
311.9	32.28	-13.72	46	49.26	12.49	1.81	31.28	-	-	Peak
479.9	33.26	-12.74	46	45.57	16.61	2.19	31.11	-	-	Peak
600.3	29.65	-16.35	46	39.38	18.72	2.42	30.87	-	-	Peak
5470	49.8	-18.5	68.3	41.8	34.27	6.92	33.19	102	11	Peak
5700	84.96	-	-	76.4	34.6	7.15	33.19	102	11	Average
5700	96.51	-	-	87.95	34.6	7.15	33.19	102	11	Peak
5725	58.5	-9.8	68.3	49.86	34.66	7.17	33.19	102	11	Peak



Test Mode :	Mode 9	Temperature :	23~26°C
Test Channel :	140	Relative Humidity :	53~56%
Test Engineer :	Wii Chang	Polarization :	Vertical
Remark :	1. 5700 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz, 5725 MHz are not within a restricted band.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
33.24	24.94	-15.06	40	39.13	16.63	0.72	31.54	-	-	Peak
60.51	24.39	-15.61	40	49.76	5.32	0.87	31.56	-	-	Peak
216.03	27.69	-18.31	46	48.34	9.3	1.53	31.48	-	-	Peak
479.9	28.67	-17.33	46	40.98	16.61	2.19	31.11	-	-	Peak
600.3	29.93	-16.07	46	39.66	18.72	2.42	30.87	-	-	Peak
914.6	33.45	-12.55	46	38.77	22.12	3.02	30.46	200	168	Peak
5470	50.45	-17.85	68.3	42.45	34.27	6.92	33.19	102	327	Peak
5700	90.72	-	-	82.16	34.6	7.15	33.19	102	327	Average
5700	102.57	-	-	94.01	34.6	7.15	33.19	102	327	Peak
5725	62.44	-5.86	68.3	53.8	34.66	7.17	33.19	102	327	Peak



Test Mode :	Mode 10			Temperature :		23~26°C				
Test Channel :	36			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Horizontal				
Remark :	5180 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5136.85	41.29	-12.71	54	34.02	33.93	6.68	33.34	127	13	Average
5136.85	52.83	-21.17	74	45.56	33.93	6.68	33.34	127	13	Peak
5180	81.74	-	-	74.37	33.98	6.71	33.32	127	13	Average
5180	96.78	-	-	89.41	33.98	6.71	33.32	127	13	Peak
5434	41.95	-12.05	54	34.02	34.23	6.9	33.2	127	13	Average
5434	51.07	-22.93	74	43.14	34.23	6.9	33.2	127	13	Peak

Test Mode :	Mode 10			Temperature :		23~26°C				
Test Channel :	36			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Vertical				
Remark :	5180 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5135.8	43.69	-10.31	54	36.42	33.93	6.68	33.34	100	313	Average
5135.8	57.1	-16.9	74	49.83	33.93	6.68	33.34	100	313	Peak
5180	86.2	-	-	78.83	33.98	6.71	33.32	100	313	Average
5180	102.09	-	-	94.72	33.98	6.71	33.32	100	313	Peak
5352	39.45	-14.55	54	31.71	34.15	6.83	33.24	100	313	Average
5352	50.93	-23.07	74	43.19	34.15	6.83	33.24	100	313	Peak



Test Mode :	Mode 11		Temperature :		23~26°C				
Test Channel :	44		Relative Humidity :		53~56%				
Test Engineer :	Wii Chang		Polarization :		Horizontal				
Remark :	5220 MHz is Fundamental Signals which can be ignored.								

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5058	38.99	-15.01	54	31.87	33.87	6.62	33.37	114	8	Average
5058	51.64	-22.36	74	44.52	33.87	6.62	33.37	114	8	Peak
5220	81.57	-	-	74.11	34.02	6.74	33.3	114	8	Average
5220	96.73	-	-	89.27	34.02	6.74	33.3	114	8	Peak
5376	39.8	-14.2	54	32.01	34.17	6.85	33.23	114	8	Average
5376	52.34	-21.66	74	44.55	34.17	6.85	33.23	114	8	Peak

Test Mode :	Mode 11		Temperature :		23~26°C				
Test Channel :	44		Relative Humidity :		53~56%				
Test Engineer :	Wii Chang		Polarization :		Vertical				
Remark :	5220 MHz is Fundamental Signals which can be ignored.								

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5054	40.08	-13.92	54	32.98	33.85	6.62	33.37	100	321	Average
5054	51.99	-22.01	74	44.89	33.85	6.62	33.37	100	321	Peak
5220	85.74	-	-	78.28	34.02	6.74	33.3	100	321	Average
5220	101.12	-	-	93.66	34.02	6.74	33.3	100	321	Peak
5376	42.84	-11.16	54	35.05	34.17	6.85	33.23	100	321	Average
5376	53.84	-20.16	74	46.05	34.17	6.85	33.23	100	321	Peak



Test Mode :	Mode 12			Temperature :		23~26°C				
Test Channel :	48			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Horizontal				
Remark :	5240 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5078	38.14	-15.86	54	30.98	33.88	6.64	33.36	108	14	Average
5078	52.79	-21.21	74	45.63	33.88	6.64	33.36	108	14	Peak
5240	81.41	-	-	73.91	34.03	6.76	33.29	108	14	Average
5240	96.42	-	-	88.92	34.03	6.76	33.29	108	14	Peak
5398	38.56	-15.44	54	30.72	34.2	6.86	33.22	108	14	Average
5398	51.53	-22.47	74	43.69	34.2	6.86	33.22	108	14	Peak

Test Mode :	Mode 12			Temperature :		23~26°C				
Test Channel :	48			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Vertical				
Remark :	5240 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5086	41.28	-12.72	54	34.12	33.88	6.64	33.36	100	316	Average
5086	53.4	-20.6	74	46.24	33.88	6.64	33.36	100	316	Peak
5240	86.01	-	-	78.51	34.03	6.76	33.29	100	316	Average
5240	101.7	-	-	94.2	34.03	6.76	33.29	100	316	Peak
5396	42.08	-11.92	54	34.24	34.2	6.86	33.22	100	316	Average
5396	54.26	-19.74	74	46.42	34.2	6.86	33.22	100	316	Peak

**FCC RF Test Report**

Report No. : FR170707C

Test Mode :	Mode 13			Temperature :		23~26°C				
Test Channel :	52			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Horizontal				
Remark :	5260 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5100	39.91	-14.09	54	32.7	33.9	6.66	33.35	112	9	Average
5100	51.83	-22.17	74	44.62	33.9	6.66	33.35	112	9	Peak
5260	81.67	-	-	74.09	34.07	6.78	33.27	112	9	Average
5260	96.59	-	-	89.01	34.07	6.78	33.27	112	9	Peak
5376	39.97	-14.03	54	32.18	34.17	6.85	33.23	112	9	Average
5376	51.77	-22.23	74	43.98	34.17	6.85	33.23	112	9	Peak

Test Mode :	Mode 13			Temperature :		23~26°C				
Test Channel :	52			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Vertical				
Remark :	5260 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5102	40.93	-13.07	54	33.72	33.9	6.66	33.35	110	315	Average
5102	53.07	-20.93	74	45.86	33.9	6.66	33.35	110	315	Peak
5260	86.22	-	-	78.64	34.07	6.78	33.27	110	315	Average
5260	102.26	-	-	94.68	34.07	6.78	33.27	110	315	Peak
5420	42.39	-11.61	54	34.5	34.22	6.88	33.21	110	315	Average
5420	54.31	-19.69	74	46.42	34.22	6.88	33.21	110	315	Peak



Test Mode :	Mode 14			Temperature :		23~26°C				
Test Channel :	60			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Horizontal				
Remark :	5300 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5142	39.34	-14.66	54	32.03	33.95	6.69	33.33	106	13	Average
5142	51.77	-22.23	74	44.46	33.95	6.69	33.33	106	13	Peak
5300	81.21	-	-	73.57	34.1	6.8	33.26	106	13	Average
5300	96.37	-	-	88.73	34.1	6.8	33.26	106	13	Peak
5456	40.45	-13.55	54	32.47	34.25	6.92	33.19	106	13	Average
5456	52.24	-21.76	74	44.26	34.25	6.92	33.19	106	13	Peak

Test Mode :	Mode 14			Temperature :		23~26°C				
Test Channel :	60			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Vertical				
Remark :	5300 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5140	41.72	-12.28	54	34.43	33.95	6.68	33.34	111	317	Average
5140	55.06	-18.94	74	47.77	33.95	6.68	33.34	111	317	Peak
5300	85.97	-	-	78.33	34.1	6.8	33.26	111	317	Average
5300	102.25	-	-	94.61	34.1	6.8	33.26	111	317	Peak
5456	42.67	-11.33	54	34.69	34.25	6.92	33.19	111	317	Average
5456	54.97	-19.03	74	46.99	34.25	6.92	33.19	111	317	Peak



Test Mode :	Mode 15			Temperature :		23~26°C				
Test Channel :	64			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Horizontal				
Remark :	5320 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5122	38.27	-15.73	54	31.01	33.92	6.68	33.34	109	10	Average
5122	50.86	-23.14	74	43.6	33.92	6.68	33.34	109	10	Peak
5320	81.74	-	-	74.06	34.12	6.81	33.25	109	10	Average
5320	96.7	-	-	89.02	34.12	6.81	33.25	109	10	Peak
5350.26	41.7	-12.3	54	33.96	34.15	6.83	33.24	109	10	Average
5350.26	55.01	-18.99	74	47.27	34.15	6.83	33.24	109	10	Peak

Test Mode :	Mode 15			Temperature :		23~26°C				
Test Channel :	64			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Vertical				
Remark :	5320 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5100	38.67	-15.33	54	31.46	33.9	6.66	33.35	112	317	Average
5100	51.77	-22.23	74	44.56	33.9	6.66	33.35	112	317	Peak
5320	86.47	-	-	78.79	34.12	6.81	33.25	112	317	Average
5320	102.21	-	-	94.53	34.12	6.81	33.25	112	317	Peak
5350.57	45.07	-8.93	54	37.33	34.15	6.83	33.24	112	317	Average
5350.57	63.59	-10.41	74	55.85	34.15	6.83	33.24	112	317	Peak



Test Mode :	Mode 16			Temperature :		23~26°C			
Test Channel :	100			Relative Humidity :		53~56%			
Test Engineer :	Wii Chang			Polarization :		Horizontal			
Remark :	1. 5500 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz, 5725 MHz are not within a restricted band.								

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	53.07	-15.23	68.3	45.07	34.27	6.92	33.19	118	8	Peak
5500	81.29	-	-	73.21	34.3	6.95	33.17	118	8	Average
5500	96.09	-	-	88.01	34.3	6.95	33.17	118	8	Peak
5725	51.13	-17.17	68.3	42.49	34.66	7.17	33.19	118	8	Peak

Test Mode :	Mode 16			Temperature :		23~26°C			
Test Channel :	100			Relative Humidity :		53~56%			
Test Engineer :	Wii Chang			Polarization :		Vertical			
Remark :	1. 5500 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz, 5725 MHz are not within a restricted band.								

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	56.23	-12.07	68.3	48.23	34.27	6.92	33.19	106	323	Peak
5500	86.8	-	-	78.72	34.3	6.95	33.17	106	323	Average
5500	102.41	-	-	94.33	34.3	6.95	33.17	106	323	Peak
5725	50.38	-17.92	68.3	41.74	34.66	7.17	33.19	106	323	Peak



Test Mode :	Mode 17			Temperature :		23~26°C				
Test Channel :	120			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Horizontal				
Remark :	1. 5600 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz, 5725 MHz are not within a restricted band.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	50.33	-17.97	68.3	42.33	34.27	6.92	33.19	105	16	Peak
5600	82.91	-	-	74.57	34.47	7.05	33.18	105	16	Average
5600	98.56	-	-	90.22	34.47	7.05	33.18	105	16	Peak
5725	50.93	-17.37	68.3	42.29	34.66	7.17	33.19	105	16	Peak

Test Mode :	Mode 17			Temperature :		23~26°C				
Test Channel :	120			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Vertical				
Remark :	1. 5600 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz, 5725 MHz are not within a restricted band.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	50.06	-18.24	68.3	42.06	34.27	6.92	33.19	104	325	Peak
5600	87.99	-	-	79.65	34.47	7.05	33.18	104	325	Average
5600	103.05	-	-	94.71	34.47	7.05	33.18	104	325	Peak
5725	52.24	-16.06	68.3	43.6	34.66	7.17	33.19	104	325	Peak



Test Mode :	Mode 18			Temperature :		23~26°C				
Test Channel :	140			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Horizontal				
Remark :	1. 5700 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz, 5725 MHz are not within a restricted band.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	49.86	-18.44	68.3	41.86	34.27	6.92	33.19	112	13	Peak
5700	82.47	-	-	73.91	34.6	7.15	33.19	112	13	Average
5700	97.16	-	-	88.6	34.6	7.15	33.19	112	13	Peak
5725	61.32	-6.98	68.3	52.68	34.66	7.17	33.19	112	13	Peak

Test Mode :	Mode 18			Temperature :		23~26°C				
Test Channel :	140			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Vertical				
Remark :	1. 5700 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz, 5725 MHz are not within a restricted band.									

Frequency (mzH)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	50.64	-17.66	68.3	42.64	34.27	6.92	33.19	102	318	Peak
5700	88.36	-	-	79.8	34.6	7.15	33.19	102	318	Average
5700	103.65	-	-	95.09	34.6	7.15	33.19	102	318	Peak
5725	64.76	-3.54	68.3	56.12	34.66	7.17	33.19	102	318	Peak



Test Mode :	Mode 19			Temperature :		23~26°C				
Test Channel :	38			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Horizontal				
Remark :	5190 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.45	43.91	-10.09	54	39.6	33.95	6.69	33.33	111	9	Average
5149.45	51.61	-22.39	74	48.3	33.95	6.69	33.33	111	9	Peak
5190	75.56	-	-	68.16	33.98	6.73	33.31	111	9	Average
5190	94.05	-	-	86.65	33.98	6.73	33.31	111	9	Peak
5426	38.68	-15.32	54	30.79	34.22	6.88	33.21	111	9	Average
5426	50.72	-23.28	74	42.83	34.22	6.88	33.21	111	9	Peak

Test Mode :	Mode 19			Temperature :		23~26°C				
Test Channel :	38			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Vertical				
Remark :	5190 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.8	47.84	-6.16	54	43.53	33.95	6.69	33.33	113	315	Average
5149.8	56.72	-17.28	74	63.41	33.95	6.69	33.33	113	315	Peak
5190	78.76	-	-	71.36	33.98	6.73	33.31	113	315	Average
5190	98.46	-	-	91.06	33.98	6.73	33.31	113	315	Peak
5422	39.58	-14.42	54	31.69	34.22	6.88	33.21	113	315	Average
5422	51.61	-22.39	74	43.72	34.22	6.88	33.21	113	315	Peak



Test Mode :	Mode 20		Temperature :		23~26°C				
Test Channel :	46		Relative Humidity :		53~56%				
Test Engineer :	Wii Chang		Polarization :		Horizontal				
Remark :	5230 MHz is Fundamental Signals which can be ignored.								

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5084	39.5	-14.5	54	32.34	33.88	6.64	33.36	111	4	Average
5084	51.71	-22.29	74	44.55	33.88	6.64	33.36	111	4	Peak
5230	75.02	-	-	67.55	34.03	6.74	33.3	111	4	Average
5230	93.76	-	-	86.29	34.03	6.74	33.3	111	4	Peak
5384	38.77	-15.23	54	30.95	34.18	6.86	33.22	111	4	Average
5384	51.09	-22.91	74	43.27	34.18	6.86	33.22	111	4	Peak

Test Mode :	Mode 20			Temperature :		23~26°C				
Test Channel :	46			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Vertical				
Remark :	5230 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5136	41.17	-12.83	54	33.9	33.93	6.68	33.34	100	317	Average
5136	53.67	-20.33	74	46.4	33.93	6.68	33.34	100	317	Peak
5230	79.2	-	-	71.73	34.03	6.74	33.3	100	317	Average
5230	98.91	-	-	91.44	34.03	6.74	33.3	100	317	Peak
5376	39.87	-14.13	54	32.08	34.17	6.85	33.23	100	317	Average
5376	53.21	-20.79	74	45.42	34.17	6.85	33.23	100	317	Peak



Test Mode :	Mode 21			Temperature :		23~26°C				
Test Channel :	54			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Horizontal				
Remark :	5270 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5112	38.3	-15.7	54	31.07	33.92	6.66	33.35	121	3	Average
5112	52.03	-21.97	74	44.8	33.92	6.66	33.35	121	3	Peak
5270	75.22	-	-	67.64	34.07	6.78	33.27	121	3	Average
5270	94.52	-	-	86.94	34.07	6.78	33.27	121	3	Peak
5360	39.7	-14.3	54	31.93	34.15	6.85	33.23	121	3	Average
5360	51.34	-22.66	74	43.57	34.15	6.85	33.23	121	3	Peak

Test Mode :	Mode 21			Temperature :		23~26°C				
Test Channel :	54			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Vertical				
Remark :	5270 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5126	39.65	-14.35	54	32.38	33.93	6.68	33.34	100	315	Average
5126	52.5	-21.5	74	45.23	33.93	6.68	33.34	100	315	Peak
5270	79.05	-	-	71.47	34.07	6.78	33.27	100	315	Average
5270	98.61	-	-	91.03	34.07	6.78	33.27	100	315	Peak
5360	41.56	-12.44	54	33.79	34.15	6.85	33.23	100	315	Average
5360	53.92	-20.08	74	46.15	34.15	6.85	33.23	100	315	Peak

**FCC RF Test Report**

Report No. : FR170707C

Test Mode :	Mode 22			Temperature :		23~26°C				
Test Channel :	62			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Horizontal				
Remark :	5310 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5146	38.53	-15.47	54	31.22	33.95	6.69	33.33	135	11	Average
5146	51.26	-22.74	74	43.95	33.95	6.69	33.33	135	11	Peak
5310	75.48	-	-	67.8	34.12	6.81	33.25	135	11	Average
5310	93.7	-	-	86.02	34.12	6.81	33.25	135	11	Peak
5353.67	48.27	-5.73	54	40.53	34.15	6.83	33.24	135	11	Average
5353.67	63.06	-10.94	74	45.32	34.15	6.83	33.24	135	11	Peak

Test Mode :	Mode 22			Temperature :		23~26°C				
Test Channel :	62			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Vertical				
Remark :	5310 MHz is Fundamental Signals which can be ignored.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5094	38.65	-15.35	54	31.44	33.9	6.66	33.35	109	317	Average
5094	51.5	-22.5	74	44.29	33.9	6.66	33.35	109	317	Peak
5310	79.69	-	-	72.01	34.12	6.81	33.25	109	317	Average
5310	98.95	-	-	91.27	34.12	6.81	33.25	109	317	Peak
5353.05	43.32	-10.68	54	45.06	34.15	6.83	33.24	109	317	Average
5353.05	57.22	-16.78	74	62.58	34.15	6.83	33.24	109	317	Peak



Test Mode :	Mode 23			Temperature :		23~26°C				
Test Channel :	102			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Horizontal				
Remark :	1. 5510 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz, 5725 MHz are not within a restricted band.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	58.76	-9.54	68.3	54.76	34.27	6.92	33.19	105	10	Peak
5510	75.67	-	-	67.59	34.3	6.95	33.17	105	10	Average
5510	94.55	-	-	86.47	34.3	6.95	33.17	105	10	Peak
5725	50.78	-17.52	68.3	42.14	34.66	7.17	33.19	105	10	Peak

Test Mode :	Mode 23			Temperature :		23~26°C				
Test Channel :	102			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Vertical				
Remark :	1. 5510 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz, 5725 MHz are not within a restricted band.									

Frequency (mzH)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	61.89	-6.41	68.3	56.89	34.27	6.92	33.19	108	321	Peak
5510	80.45	-	-	72.37	34.3	6.95	33.17	108	321	Average
5510	100.88	-	-	92.8	34.3	6.95	33.17	108	321	Peak
5725	51.99	-16.31	68.3	43.35	34.66	7.17	33.19	108	321	Peak



Test Mode :	Mode 24			Temperature :		23~26°C				
Test Channel :	118			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Horizontal				
Remark :	1. 5590 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz, 5725 MHz are not within a restricted band.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	50.13	-18.17	68.3	42.13	34.27	6.92	33.19	102	10	Peak
5590	76.37	-	-	68.09	34.44	7.02	33.18	102	10	Average
5590	94.93	-	-	86.65	34.44	7.02	33.18	102	10	Peak
5725	50.93	-17.37	68.3	42.29	34.66	7.17	33.19	102	10	Peak

Test Mode :	Mode 24			Temperature :		23~26°C				
Test Channel :	118			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Vertical				
Remark :	1. 5590 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz, 5725 MHz are not within a restricted band.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	51.55	-16.75	68.3	43.55	34.27	6.92	33.19	104	326	Peak
5590	80.73	-	-	72.45	34.44	7.02	33.18	104	326	Average
5590	100.92	-	-	92.64	34.44	7.02	33.18	104	326	Peak
5725	51.85	-16.45	68.3	43.21	34.66	7.17	33.19	104	326	Peak



Test Mode :	Mode 25			Temperature :		23~26°C				
Test Channel :	134			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Horizontal				
Remark :	1. 5670 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz, 5725 MHz are not within a restricted band.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	50.61	-17.69	68.3	42.61	34.27	6.92	33.19	101	14	Peak
5670	76.56	-	-	68.04	34.58	7.12	33.18	101	14	Average
5670	96.25	-	-	87.73	34.58	7.12	33.18	101	14	Peak
5725	53.01	-15.29	68.3	44.37	34.66	7.17	33.19	101	14	Peak

Test Mode :	Mode 25			Temperature :		23~26°C				
Test Channel :	134			Relative Humidity :		53~56%				
Test Engineer :	Wii Chang			Polarization :		Vertical				
Remark :	1. 5670 MHz is Fundamental Signals which can be ignored. 2. 5470 MHz, 5725 MHz are not within a restricted band.									

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	50.02	-18.28	68.3	42.02	34.27	6.92	33.19	102	317	Peak
5670	81.19	-	-	72.67	34.58	7.12	33.18	102	317	Average
5670	102.32	-	-	93.8	34.58	7.12	33.18	102	317	Peak
5725	59.19	-9.11	68.3	50.55	34.66	7.17	33.19	102	317	Peak



3.4 Automatically Discontinue Transmission

3.4.1 Limit of Automatically Discontinue Transmission

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Result of Automatically Discontinue Transmission

During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.



3.5 Antenna Requirements

3.5.1 Standard Applicable

According to FCC 47 CFR Section 15.407(a)(1)(2) ,if transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.5.2 Antenna Connected Construction

The antennas type used in this product is PIFA Antenna without connector and it is considered to meet antenna requirement of FCC.

3.5.3 Antenna Gain

The antenna gain is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.



4 List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
EMI Test Receive	R&S	ESCI 7	100724	9kHz~7GHz	Aug. 22, 2011	Aug. 21, 2012	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100081	9KHz – 30MHz	Dec. 03, 2010	Dec. 02, 2011	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100080	9KHz – 30MHz	Dec. 01, 2010	Nov. 30, 2011	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	N/A	Conduction (CO05-HY)
Spectrum Analyzer	R&S	FSP30	101352	9KHz-30GHz	Nov. 03, 2010	Nov. 02, 2011	Radiation (03CH05-HY)
COM-POWER	Double Ridge Horn	AH-118	701030	1HGz~18GHz	N/A	N/A	Radiation (03CH05-HY)
Bilog Antenna	SCHAFFNER	CBL6111C	2725	30MHz ~ 1GHz	Nov. 06, 2010	Nov. 05, 2011	Radiation (03CH05-HY)
Turn Table	HD	Deis HD 2000	420/611	0 - 360 degree	N/A	N/A	Radiation (03CH05-HY)
Antenna Mast	HD	MA 240	240/666	1 m - 4 m	N/A	N/A	Radiation (03CH05-HY)
Horn Antenna	ESCO	3117	66584	1GHz ~ 18GHz	Aug. 04, 2011	Aug. 03, 2012	Radiation (03CH05-HY)
COM-POWER	COM-POWER	PA-103	161075	1KHz - 1GHz	Mar. 29, 2011	Mar. 28, 2012	Radiation (03CH05-HY)
Pre Amplifier	EMCI	EMC051845	SN980048	1HGz~18GHz	Jul. 19, 2011	Jul. 18, 2012	Radiation (03CH05-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	159087	1HGz~18GHz	Feb. 21, 2011	Feb. 20, 2012	Radiation (03CH05-HY)
Pre Amplifier	Agilent	8449B	3008A01917	1GHz- 26.5GHz	Apr. 14, 2011	Apr. 13, 2012	Radiation (03CH05-HY)



5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Contribution	Uncertainty of X_i		$u(X_i)$
	dB	Probability Distribution	
Receiver Reading	0.10	Normal (k=2)	0.05
Cable Loss	0.10	Normal (k=2)	0.05
AMN Insertion Loss	2.50	Rectangular	0.63
Receiver Specification	1.50	Rectangular	0.43
Site Imperfection	1.39	Rectangular	0.80
Mismatch	+0.34 / -0.35	U-Shape	0.24
Combined Standard Uncertainty $U_c(y)$	1.13		
Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.26		

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Contribution	Uncertainty of X_i		$u(X_i)$
	dB	Probability Distribution	
Receiver Reading	0.41	Normal (k=2)	0.21
Antenna Factor Calibration	0.83	Normal (k=2)	0.42
Cable Loss Calibration	0.25	Normal (k=2)	0.13
Pre-Amplifier Gain Calibration	0.27	Normal (k=2)	0.14
RCV/SPA Specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site Imperfection	1.43	Rectangular	0.83
Mismatch	+0.39 / -0.41	U-Shape	0.28
Combined Standard Uncertainty $U_c(y)$	1.27		
Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.54		

Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Contribution	Uncertainty of X_i		$u(X_i)$	C_i	$C_i * u(X_i)$
	dB	Probability Distribution			
Receiver Reading	±0.10	Normal (k=2)	0.10	1	0.10
Antenna Factor Calibration	±1.70	Normal (k=2)	0.85	1	0.85
Cable Loss Calibration	±0.50	Normal (k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site Imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20\log(1-\Gamma_1^*\Gamma_2)$	+0.34 / -0.35	U-Shape	0.244	1	0.244
Combined Standard Uncertainty $U_{c(y)}$	2.36				
Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_{c(y)}$)	4.72				



Appendix A. Photographs of EUT

Please refer to Sporton report number EP170707 as below.



1. External Photograph of EUT

Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010





Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010





2. Photograph of Accessory

Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010

List of Accessory:

Specification of Accessory		
AC Adapter	Brand Name	CINCON ELECTRONICS
	Model Name	TRG36A15 12E03
Battery 1	Brand Name	DAP
	Model Name	VE026-8034
Battery 2	Brand Name	DAP
	Model Name	VE026-8035
LCD Panel	Brand Name	SGD
	Model Name	GNTW70NNBA1E0
Camera 1	Brand Name	DEMARREN
	Model Name	Q5M03A
WWAN Module	Brand Name	Sierra Wireless
	Model Name	MC8355
WLAN Module	Brand Name	Summit Data Communications
	Model Name	SDC-PE15N
Bluetooth Module	Brand Name	Bluegiga
	Model Name	WT21-A
Zigbee Module	Brand Name	Atmel
	Model Name	ATmega128RFA1
Power Cord 1	Brand Name	QUAIL
	Model Name	1062.079(NAM032)
Power Cord 2	Brand Name	QUAIL
	Model Name	8002.079(NAM033)
Power Cord 3	Brand Name	QUAIL
	Model Name	9657.079(NAM034)

Remark: For accessories equipped with this EUT, please refer to the following photos.

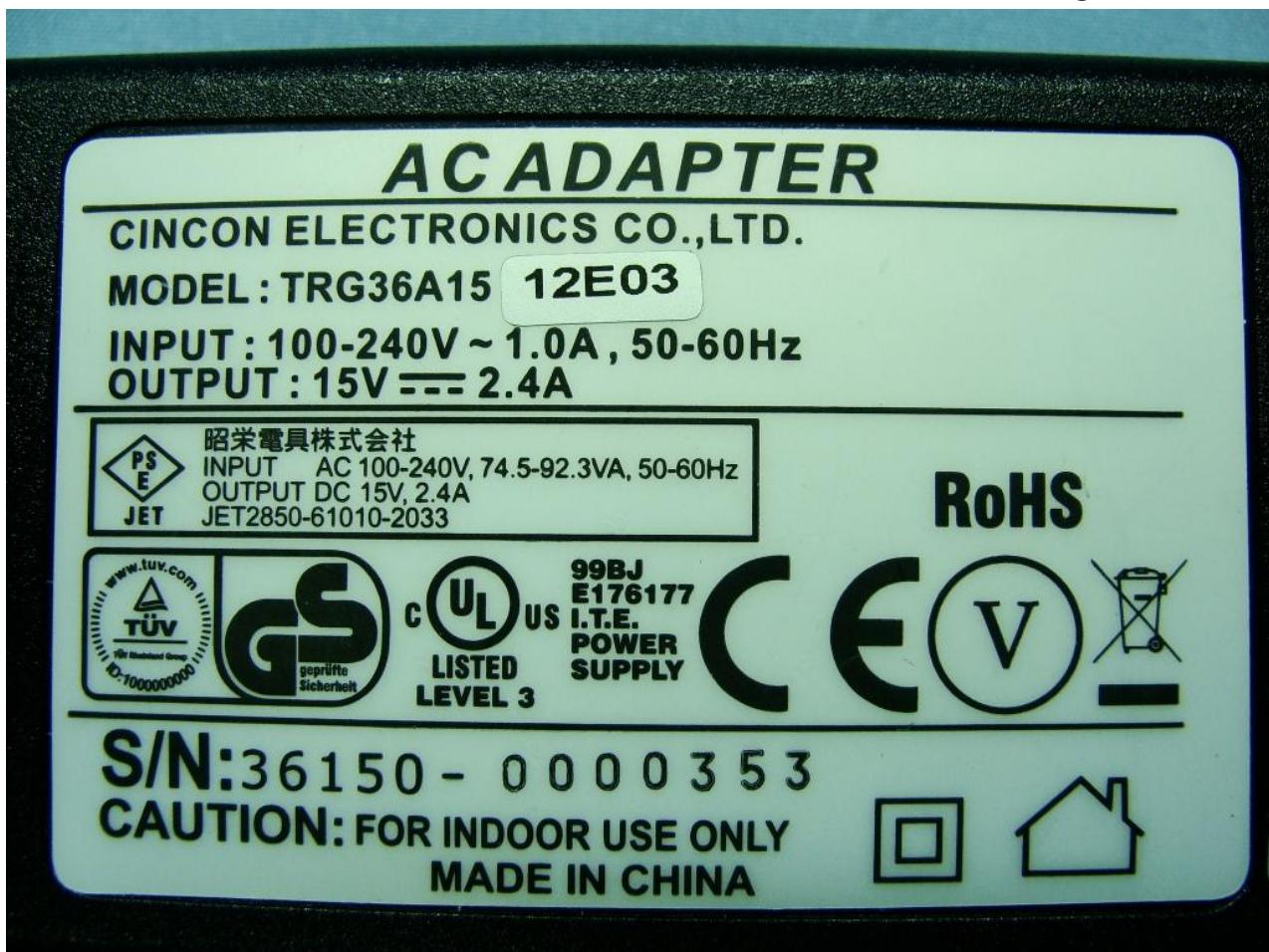


Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010





Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010





Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010

Battery 1



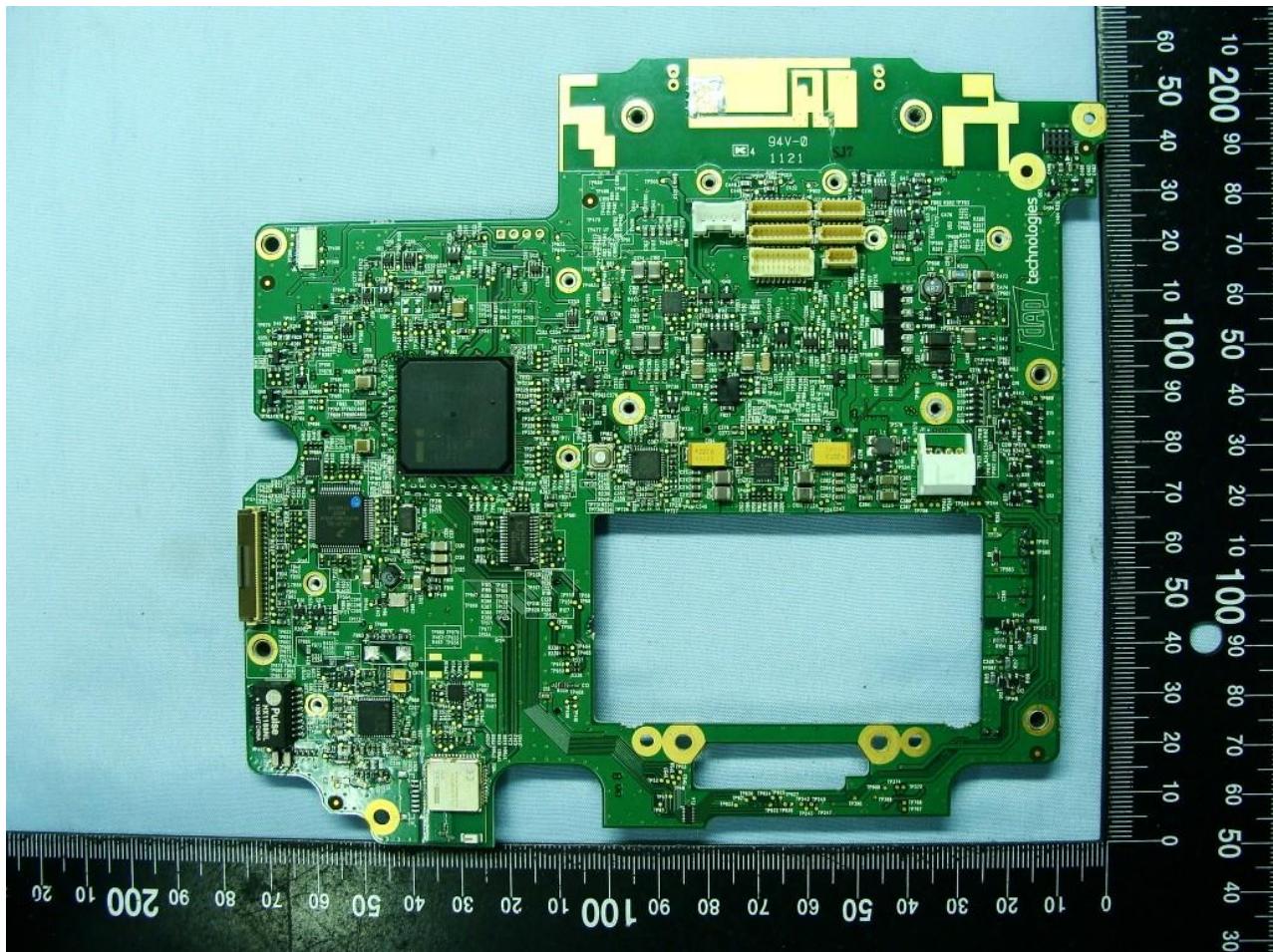
Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010





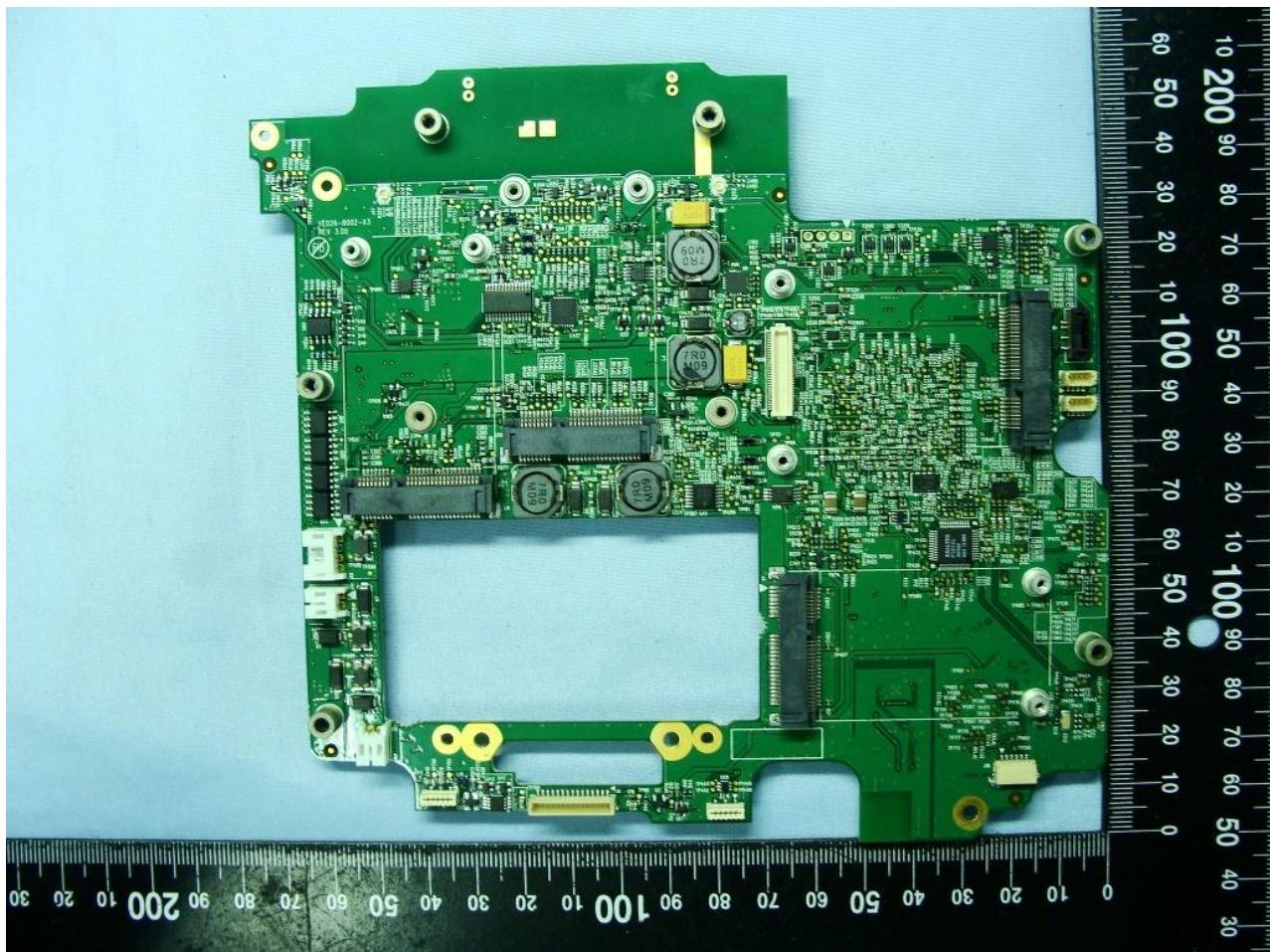
3. Internal Photograph of EUT

Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010





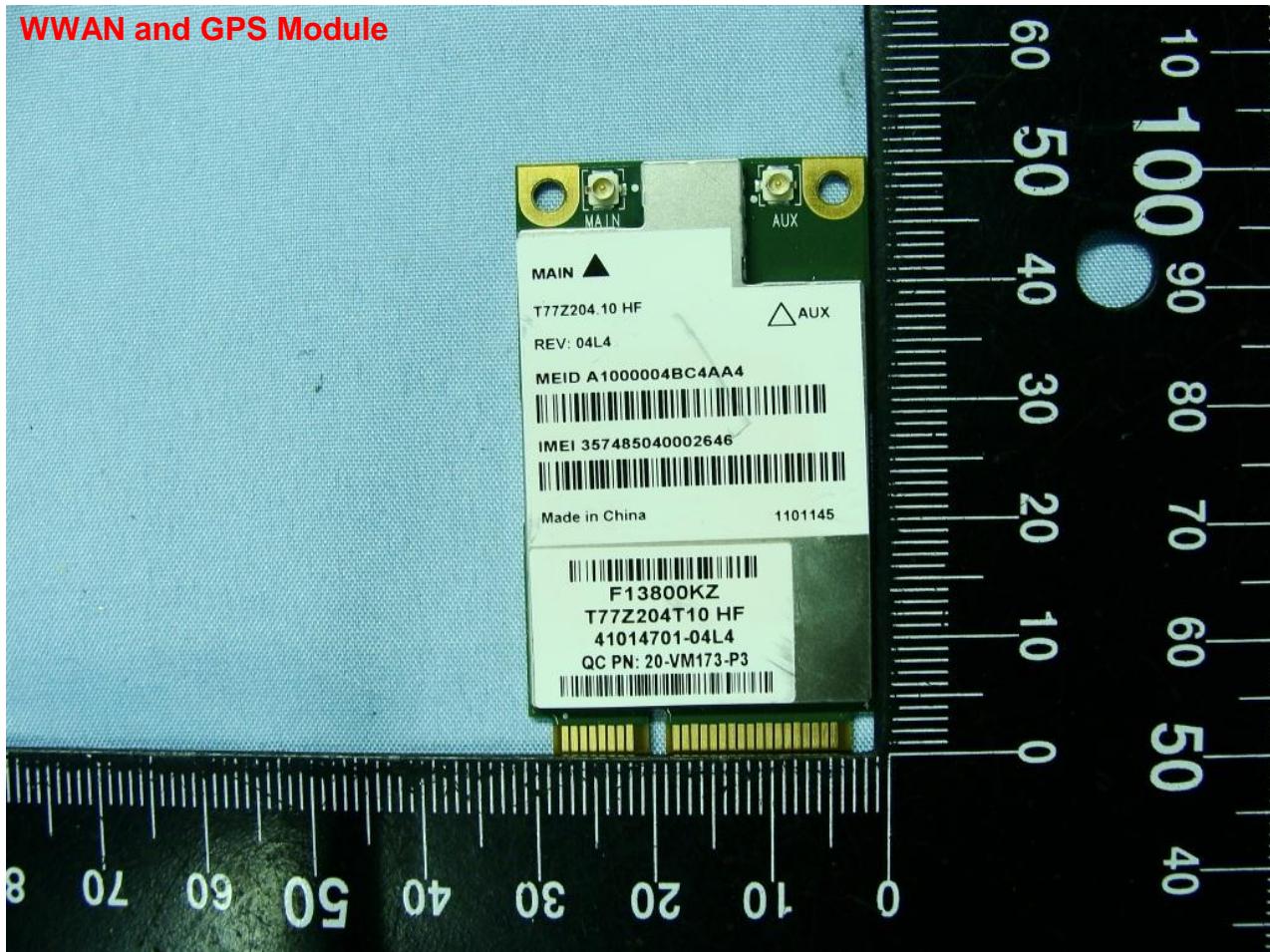
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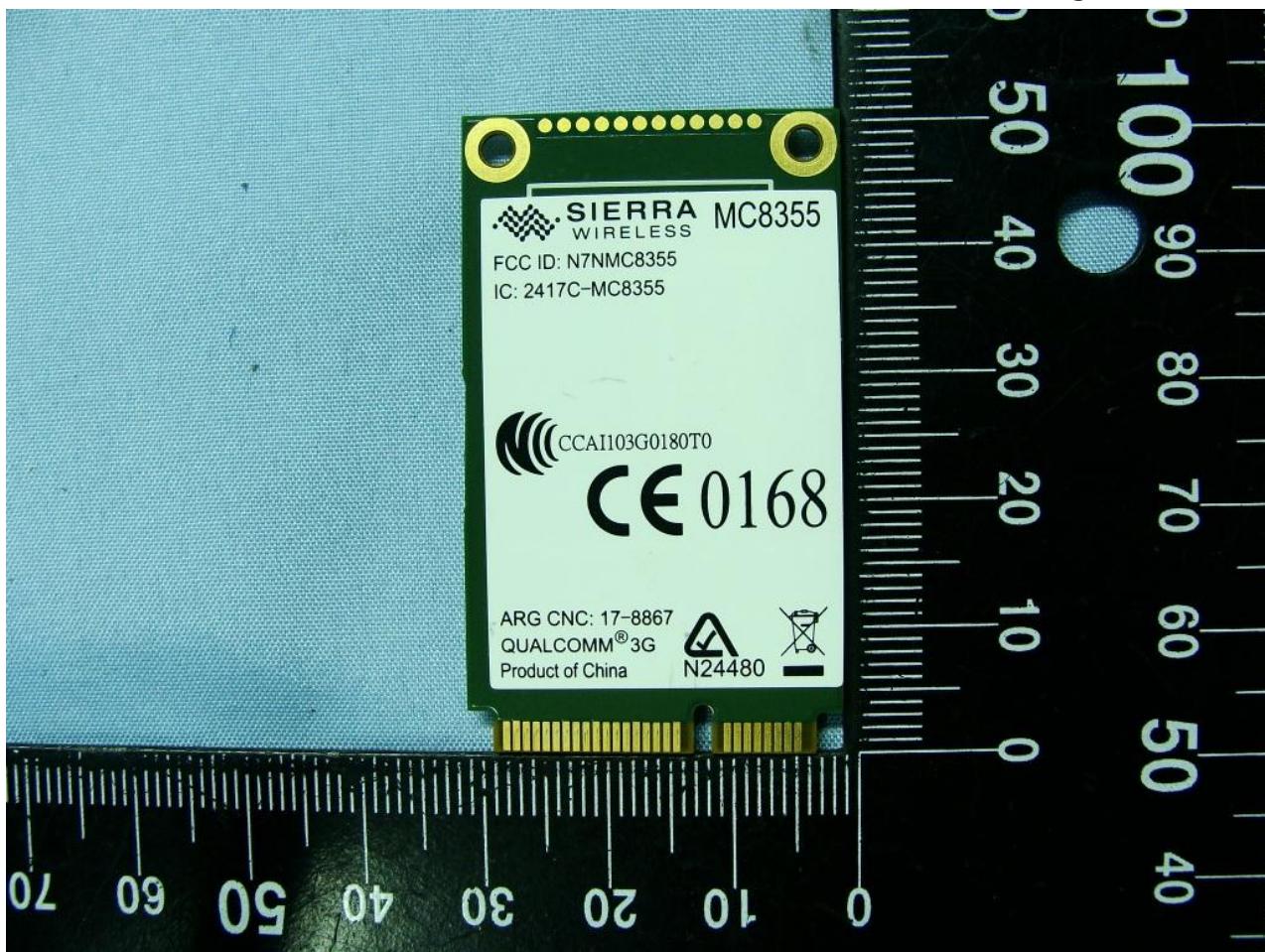
Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010

WWAN and GPS Module





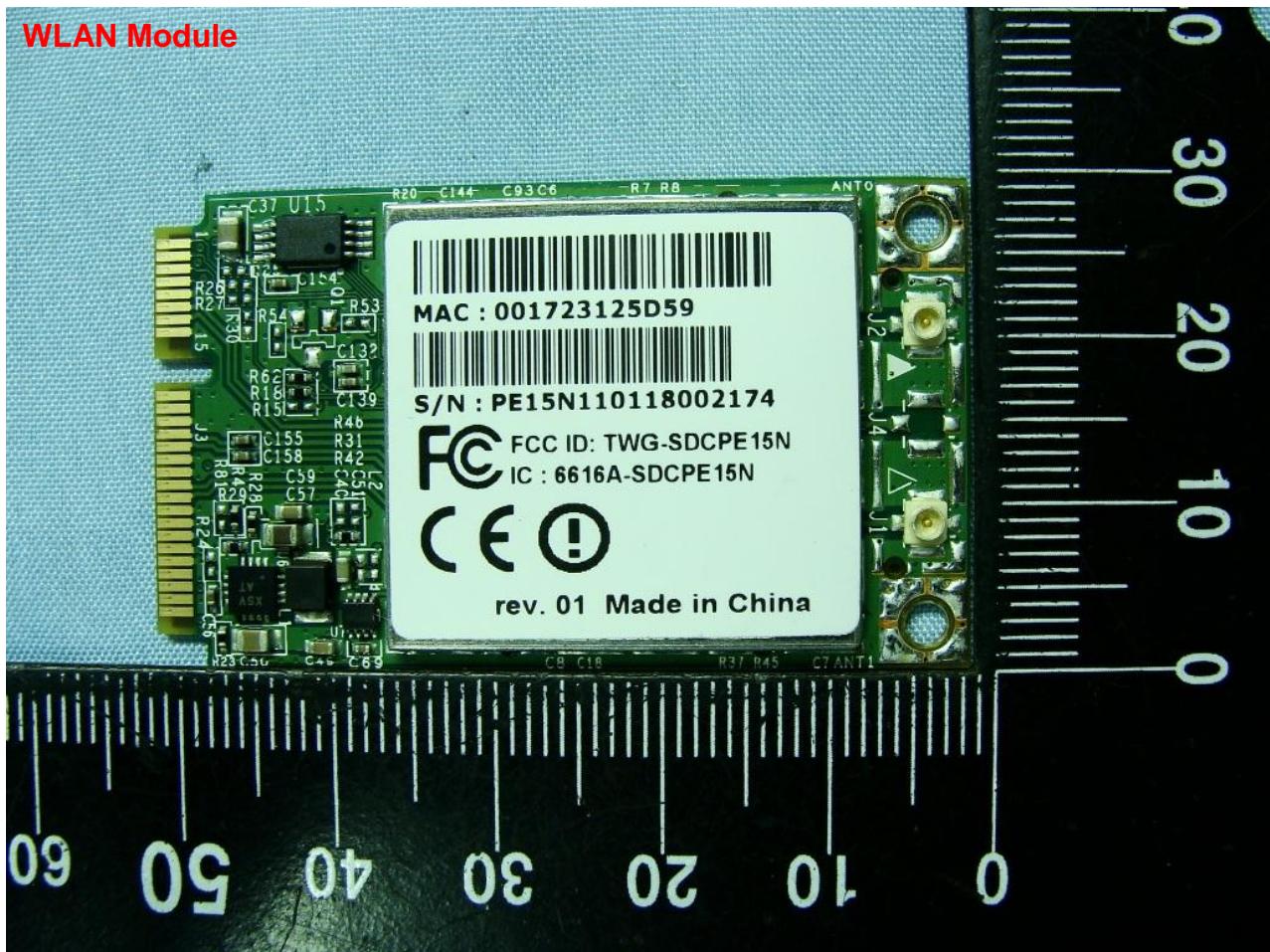
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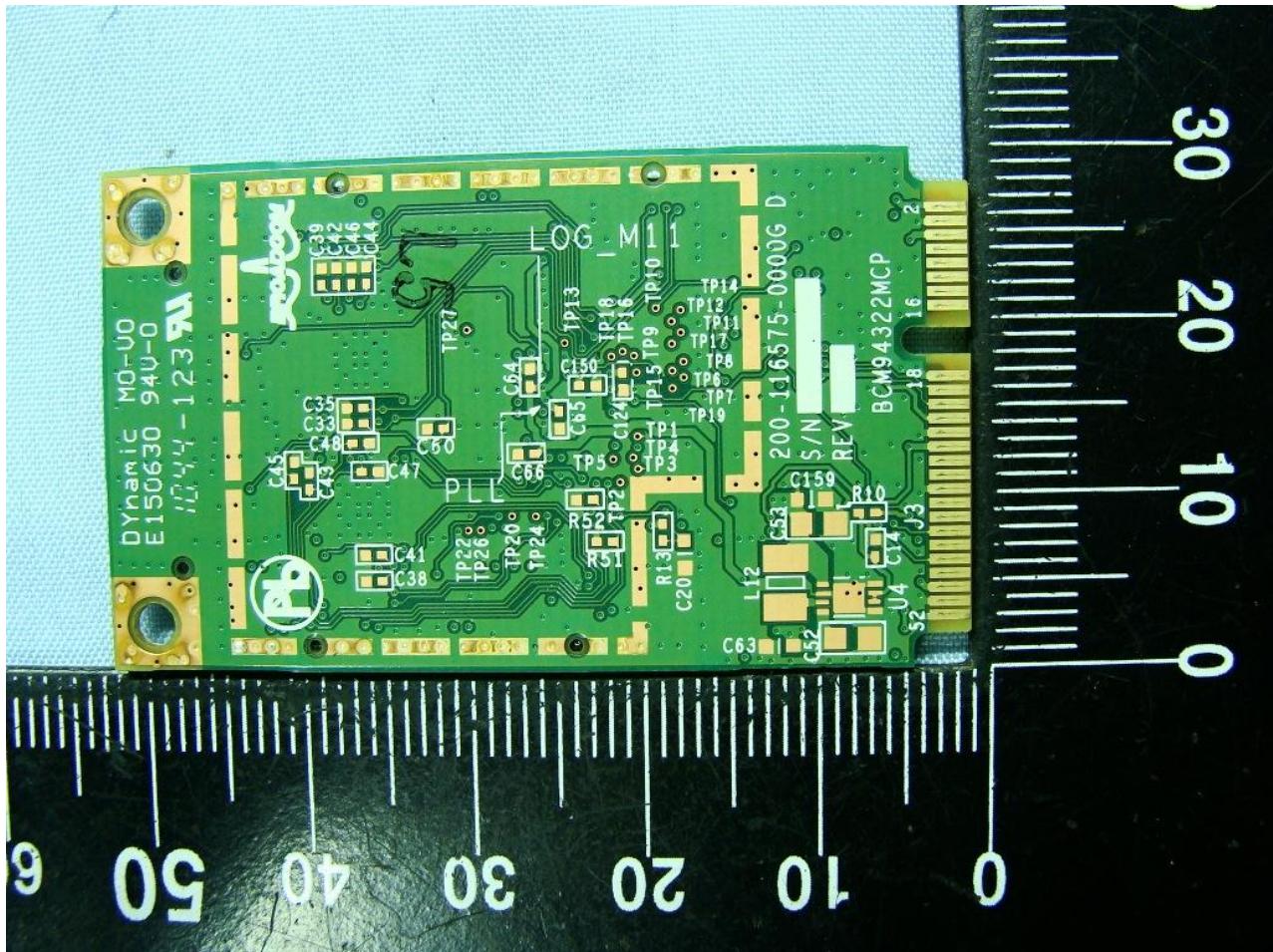
Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010

WLAN Module



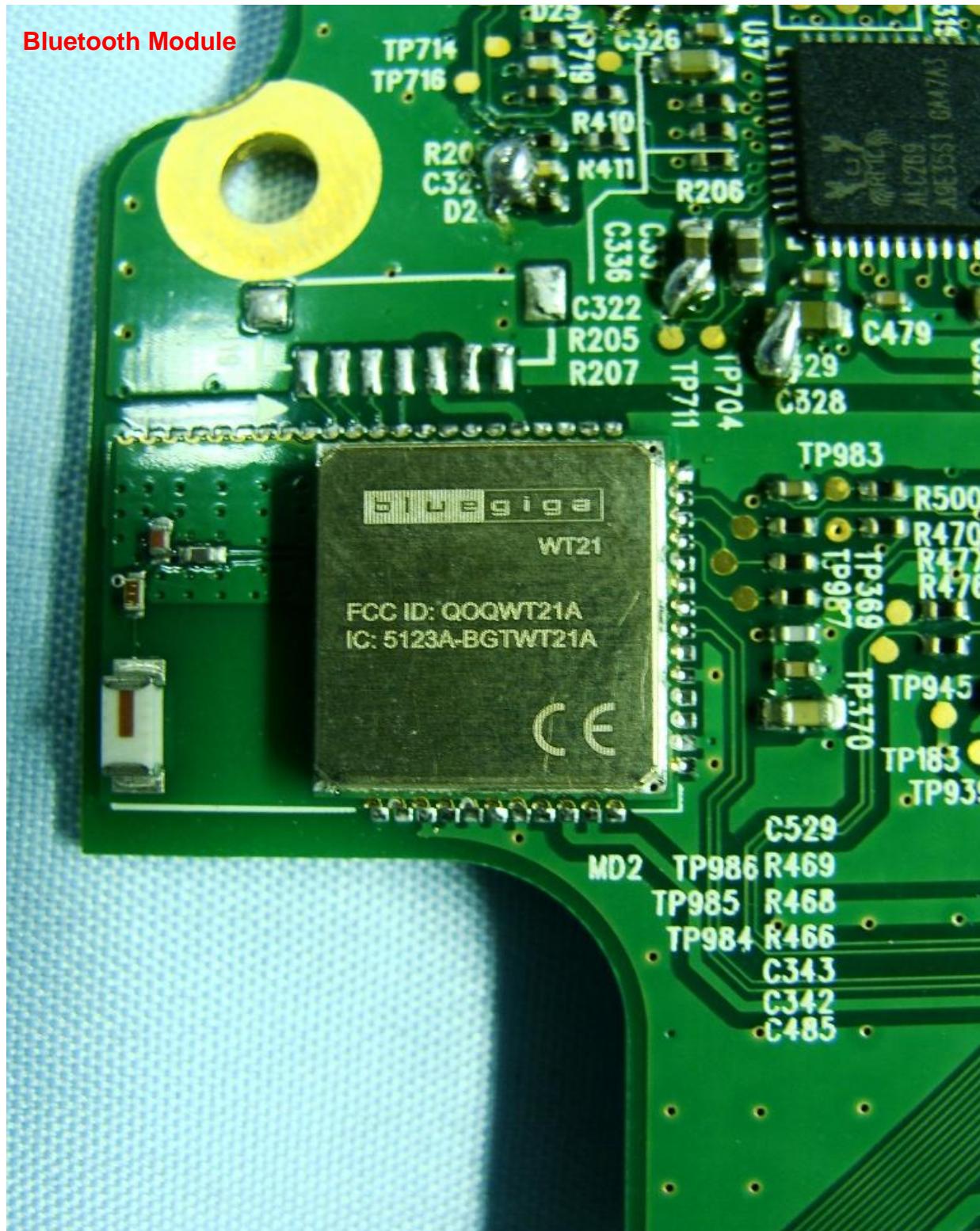


Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010





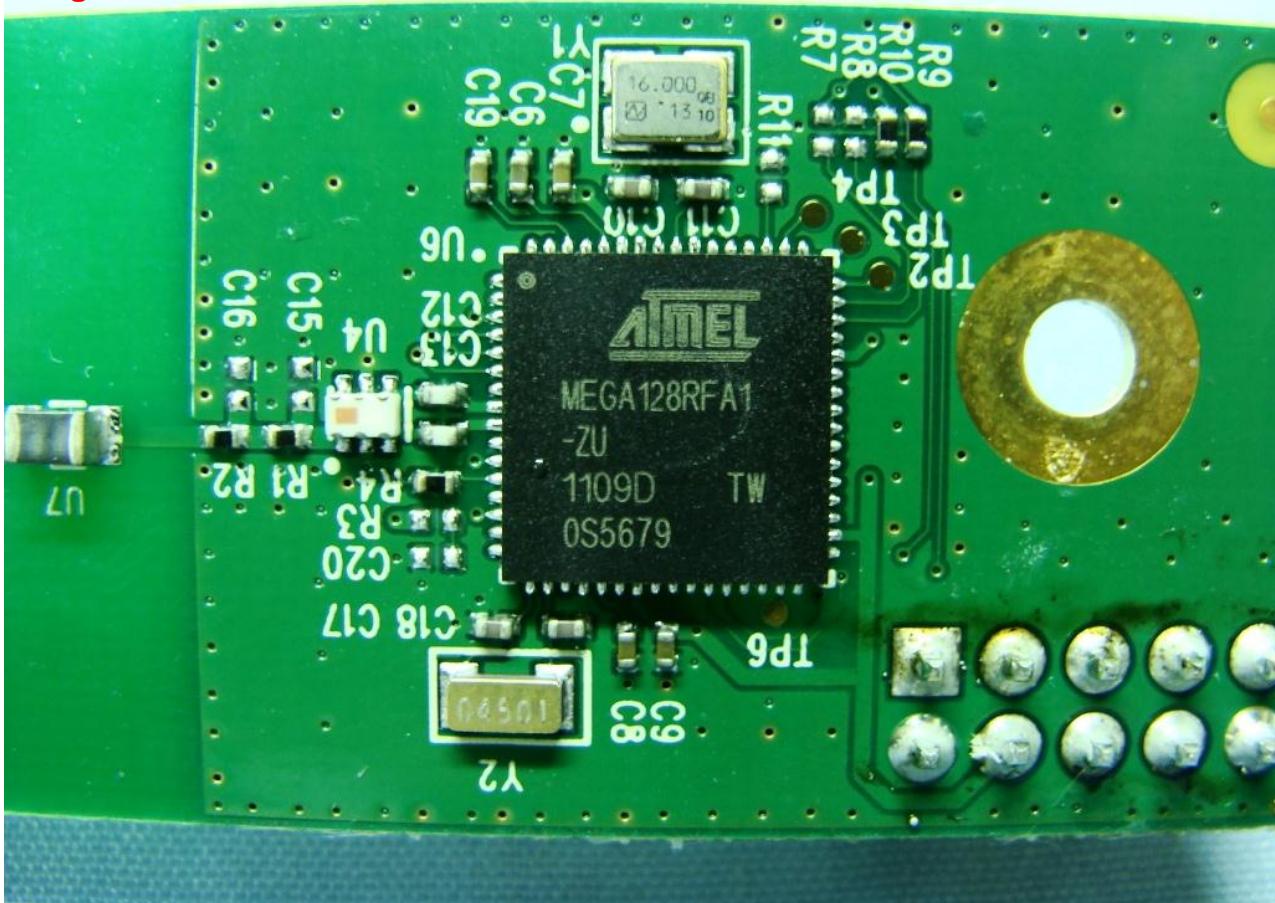
Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010





Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010

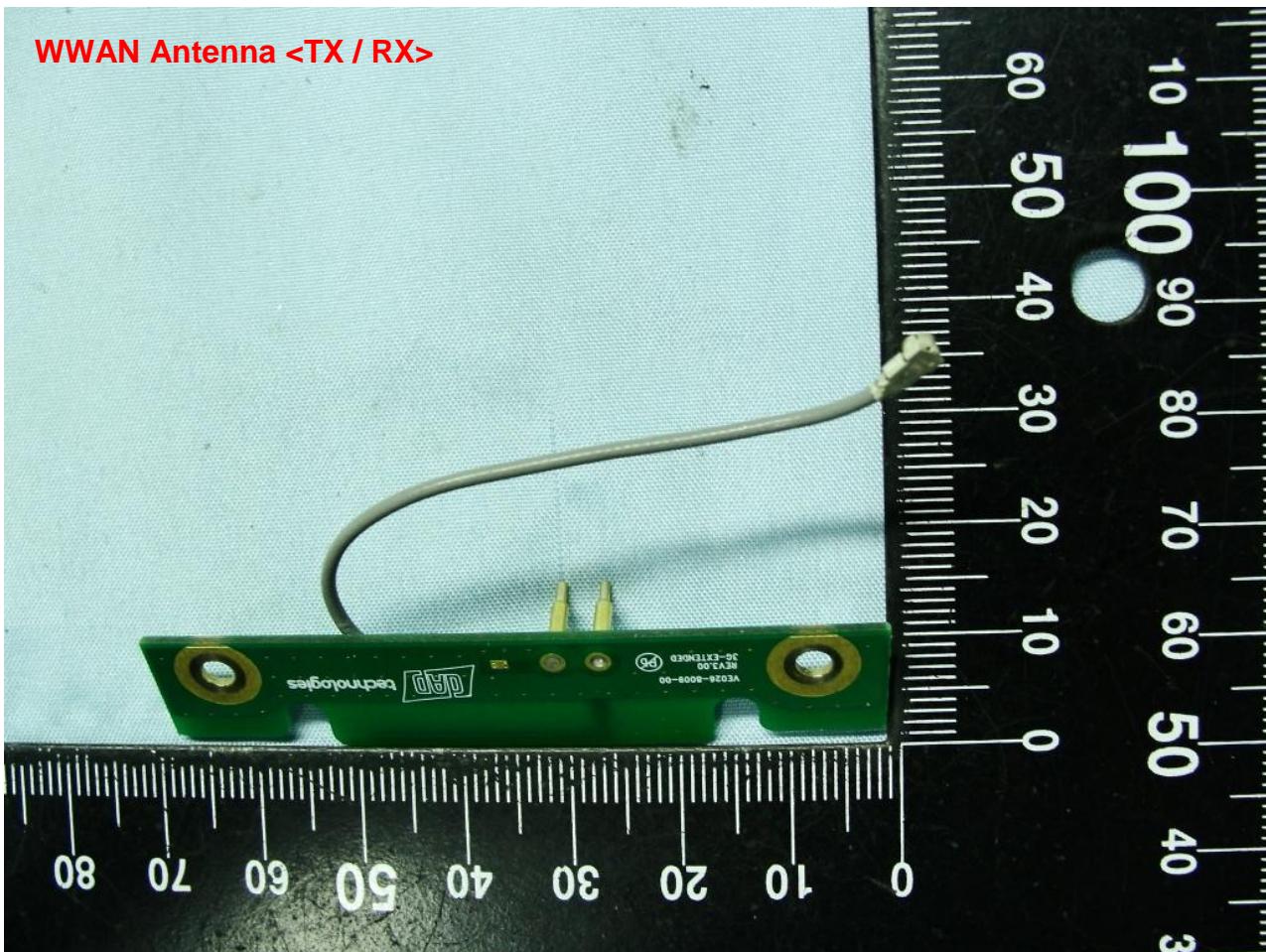
Zigbee Module





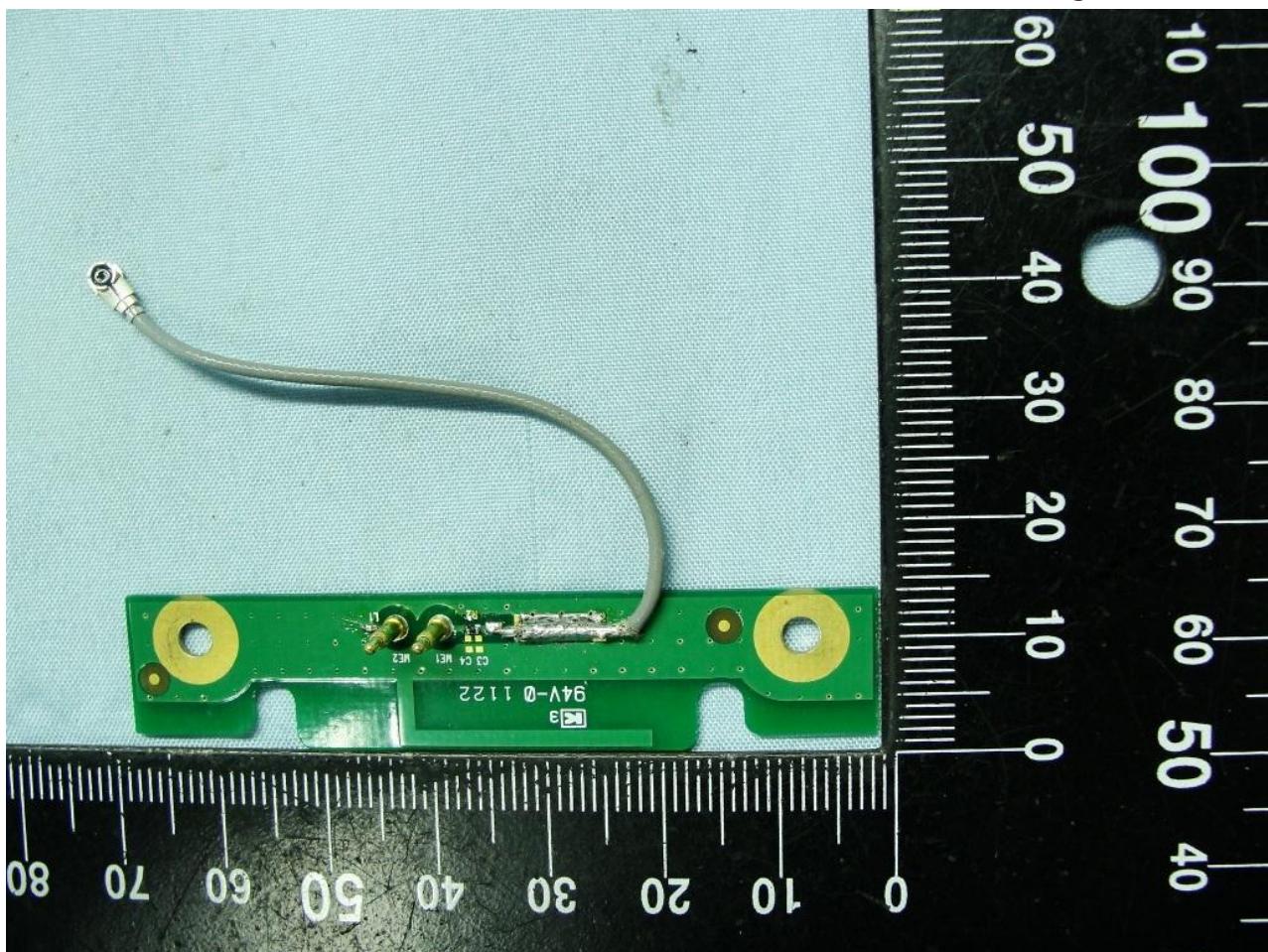
Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010

WWAN Antenna <TX / RX>



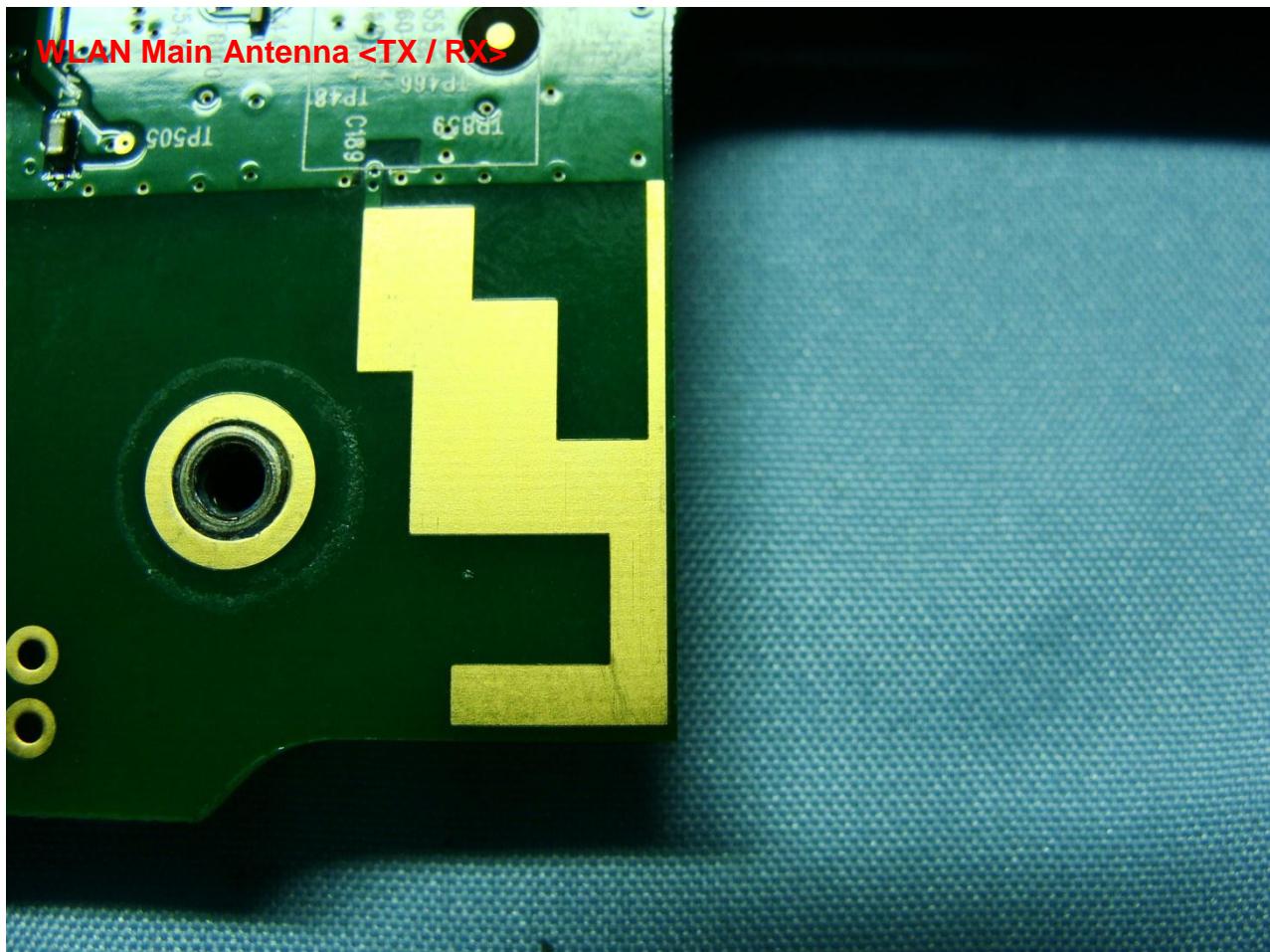


Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010



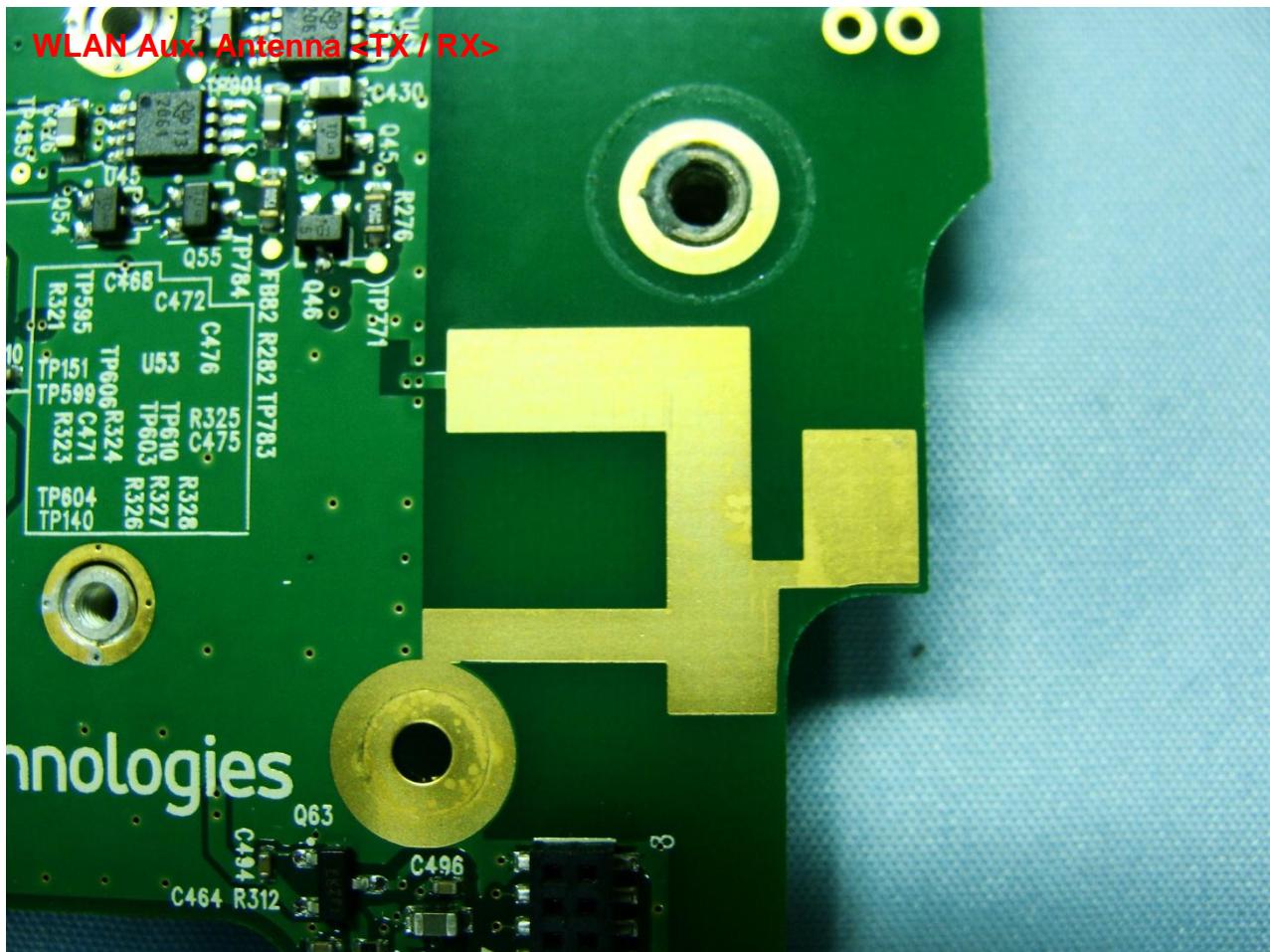


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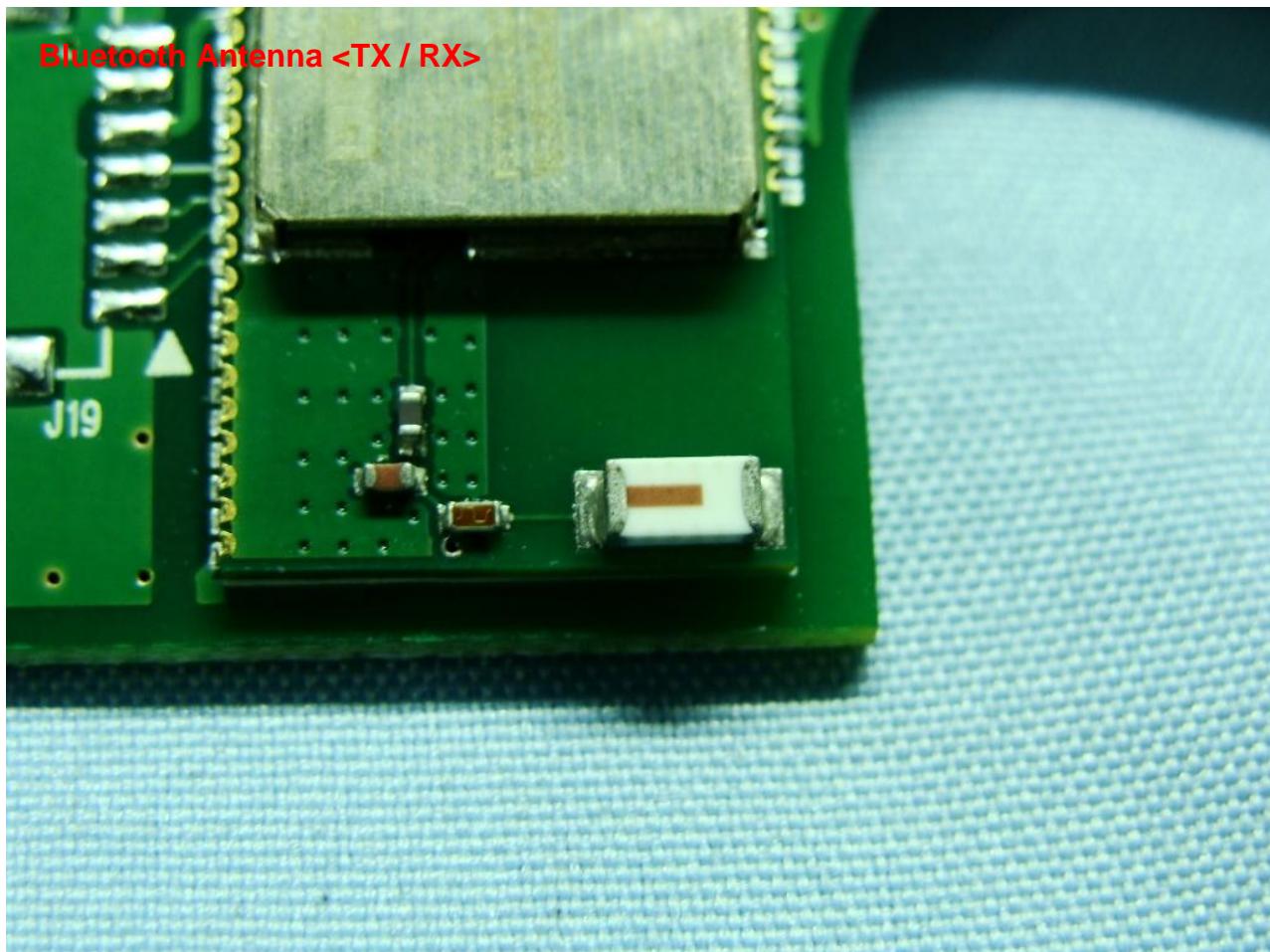


Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010



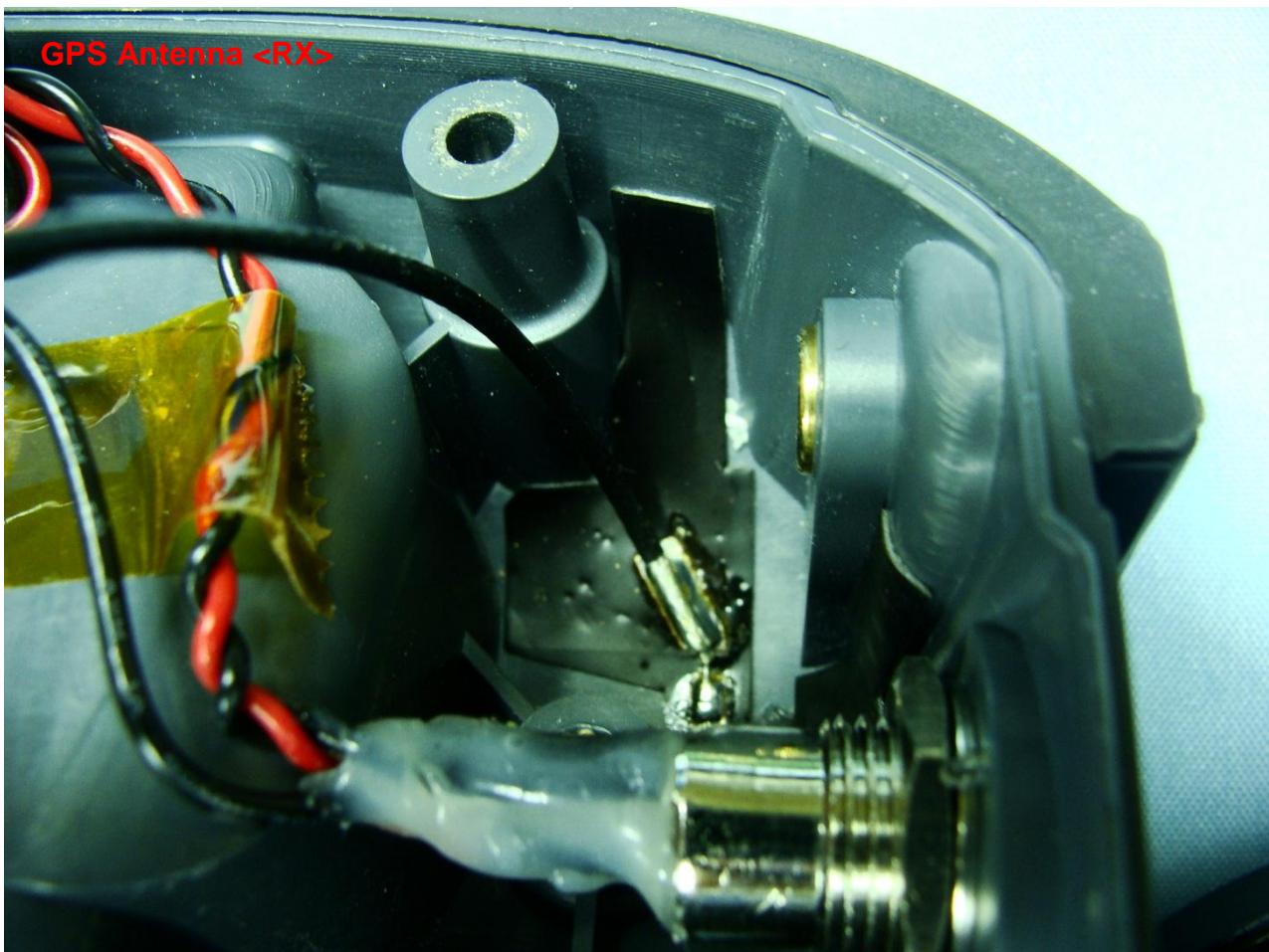


Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010





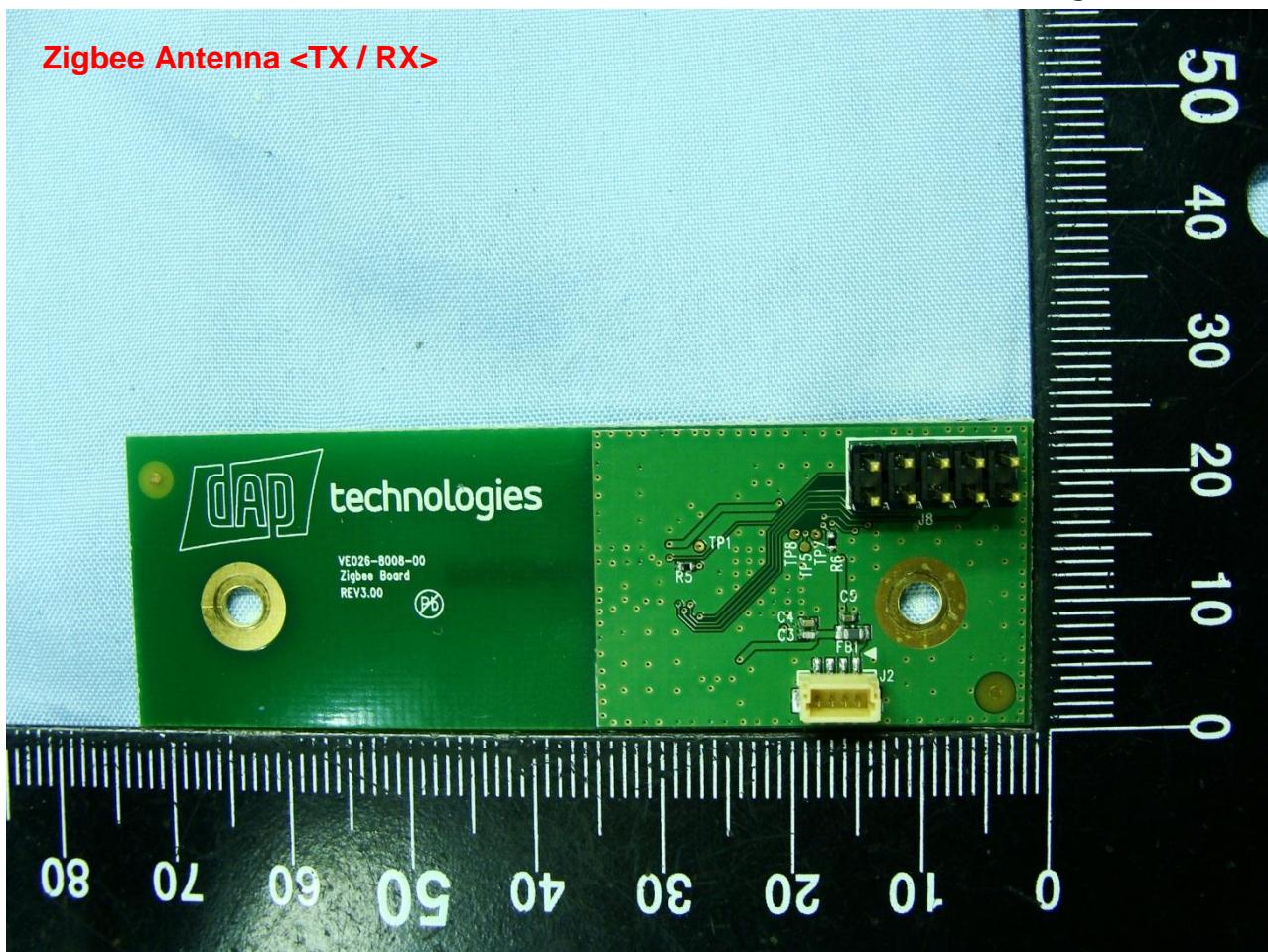
Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010



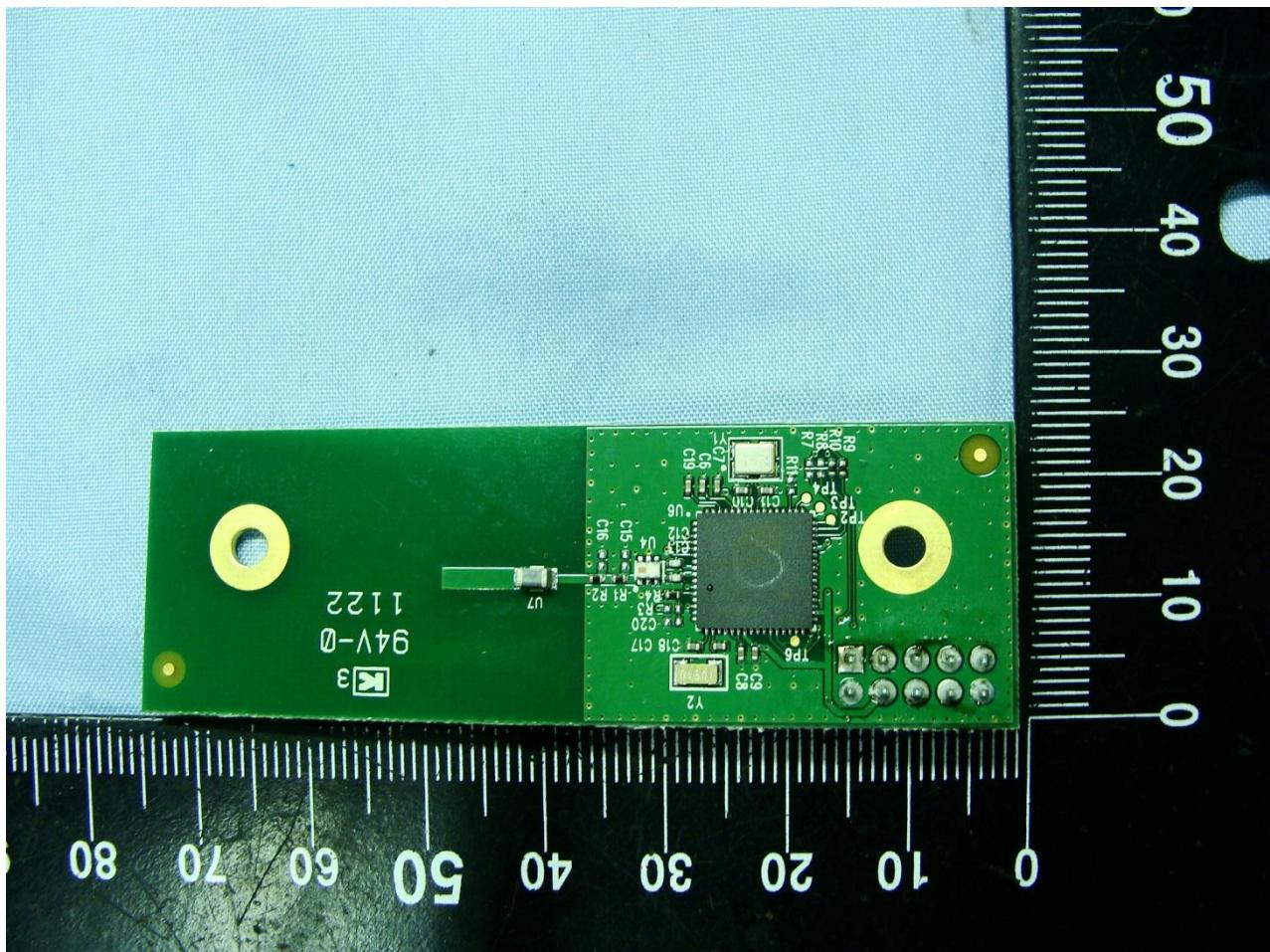


Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010

Zigbee Antenna <TX / RX>



Brand Name: DAP / Model Name: 9000WBWZV1 / Marketing Name: M9010





Appendix B. Setup Photographs

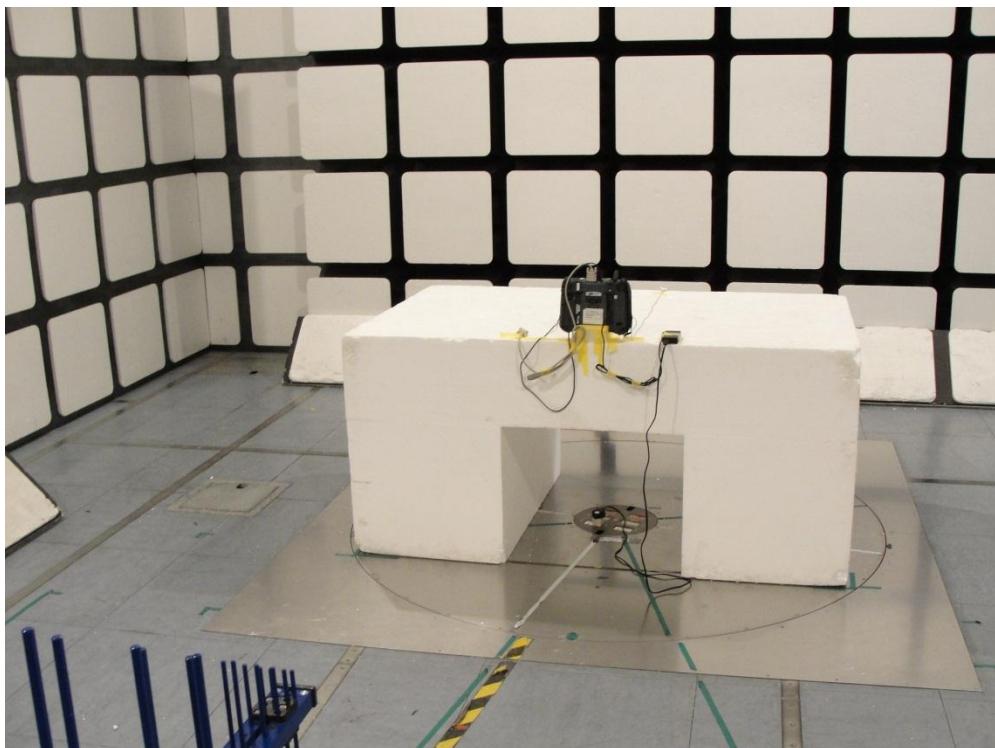
<Conducted Emission>





<Radiated Emission>

LF





HF

