





FCC C2PC Test Report

FCC ID : SQG-WB45NBT

Equipment : 45 Series WB module with Bluetooth

Model No. : WB45NBT

Brand Name : Laird Connectivity

Applicant : Laird Connectivity LLC

Address : W66N220 Commerce Court, Cedarburg, WI

53012 United States Of America

Standard : 47 CFR FCC Part 15.247

Received Date : Mar. 07, 2022

Tested Date : Mar. 28 ~ Apr. 11, 2022

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by: Approved by:

Along Chell // Assistant Manager

Gary Chang / Manager

Report No.: FR350301-12AC Page: 1 of 16
Report Version: Rev. 01



Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information	5
1.2	Local Support Equipment List	
1.3	Test Setup Chart	
1.4	The Equipment List	
1.5	Test Standards	10
1.6	Reference Guidance	10
1.7	Deviation from Test Standard and Measurement Procedure	10
1.8	Measurement Uncertainty	10
2	TEST CONFIGURATION	11
2.1	Testing Facility	11
2.2	The Worst Test Modes and Channel Details	11
3	TRANSMITTER TEST RESULTS	12
3.1	Conducted Output Power	12
3.2	Unwanted Emissions into Restricted Frequency Bands	13
3.3	AC Power Line Conducted Emissions	15
4	TEST LABORATORY INFORMATION	16

Appendix A. Conducted Output Power

Appendix B. Unwanted Emissions into Restricted Frequency Bands

Appendix C. AC Power Line Conducted Emissions



Release Record

Report No.	Version	Description	Issued Date
FR350301-12AC	Rev. 01	Initial issue	Apr. 27, 2022

Report No.: FR350301-12AC Page: 3 of 16



Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emission	[dBuV]: 0.168MHz 44.28 (Margin -20.80dB) - QP	Pass
15.247(d)	Unwanted Emissions	[dBuV/m at 3m]: 2483.50MHz	Pass
15.209	Offwartied Effissions	47.34 (Margin -6.66dB) - AV	F a 3 3
15.247(b)(3)	Conducted Output Power	Max Power [dBm]: 22.74	Pass

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Report No.: FR350301-12AC Page: 4 of 16



1 General Description

1.1 Information

This report is issued as a FCC Class II Permissive Change.

This report is issued as a supplementary report to original ICC report no. FR350301-07AC. The difference is concerned with following items:

- ♦ Changing Power Amplifer, Diplexer , RF Shielding Can
- ♦ Modified applicant name & address.
- ♦ Brand name changed.

Related test items had been performed and recorded in the following sections. Other test results were kept as same as mentioned on original report.

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information							
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS		
2400-2483.5	b	2412-2462	1-11 [11]	1	1-11 Mbps		
2400-2483.5	g	2412-2462	1-11 [11]	1	6-54 Mbps		
2400-2483.5	n (HT20)	2412-2462	1-11 [11]	1	MCS 0-7		

Note 1: RF output power specifies that Maximum Peak Conducted Output Power.

Note 2: 802.11b uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.

Note 3: 802.11g/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.

1.1.2 Antenna Details

Ant.	Brand /Madal	Time	Connector	Operatii	ng Frequenc	ies (MHz) / <i>A</i>	Antenna Gaiı	n (dBi)
No.	Brand /Model	Type	Connector	2400~2483.5	5150~5250	5250~5350	5470~5725	5725~5850
1	MAG.LAYERS EDA-1513-25GR2-B2-CY	Dipole	SMA Jack Reverse	2	2	2	2	2
2	MAG.LAYERS PCA-4606-2G4C1-A13-CY	PCB Dipole	UFL	2.21				
3	Larid NanoBlade-IP04	PCB Dipole	UFL	2	3.9	3.9	4	4
4	Larid MAF95310 Mini NanoBlade Flex	PCB Dipole	UFL	2.79	3.38	3.38	3.38	3.38
5	Larid NanoBlue-IP04	PCB Dipole	UFL	2				
6	Ethertronics WLAN_1000146	PIFA	UFL	2.5	3.5	3.5	3.5	3.5
7	SAA MG7018-41-000-R	Dipole	UFL	1.87	0.85	0.6	0.94	0.92
8	SAA MG7324-41-000-R	Dipole	UFL	1.32	1.04	1.6	2.75	2.24

Report No.: FR350301-12AC Page : 5 of 16



1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	3.3Vdc and 1.8Vdc
-------------------	-------------------

1.1.4 Accessories

N/A

1.1.5 Channel List

Channel	Frequency(MHz)
1	2412
2	2417
3	2422
4	2427
5	2432
6	2437
7	2442
8	2447
9	2452
10	2457
11	2462

Report No.: FR350301-12AC Page: 6 of 16



1.1.6 Test Tool and Duty Cycle

Test Tool	Putty, Version: 0.60.0.0					
	Mode	Duty Cycle (%)	Duty Factor (dB)			
Duty Cycle and Duty	11b	100.00%	0.00			
Factor	11g	99.28%	0.03			
	HT20	98.98%	0.04			

1.1.7 Power Index of Test Tool

Modulation Mode	Test Frequency (MHz)	Power Index
11b	2412	16.5
11b	2437	16
11b	2462	13.5
11g	2412	14.5
11g	2437	19
11g	2462	12
HT20	2412	14
HT20	2437	19.5
HT20	2462	12.5

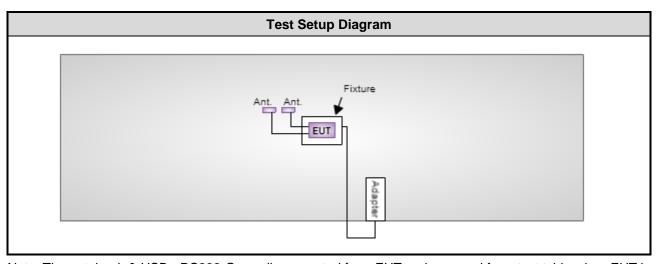
Report No.: FR350301-12AC Page: 7 of 16



1.2 Local Support Equipment List

	Support Equipment List							
No.	Remarks							
1	Notebook	DELL	Latitude E6430	DoC				
2	Fixture				Provided by applicant.			
3	Adapter	ASUS	AD2081320					
4	USB Cable	ICC	mini to A					
5	USB - RS232-G	Pro-BEST	MK-CBL-BF810 USB					

1.3 Test Setup Chart



Note: The notebook & USB - RS232-G are disconnected from EUT and removed from test table when EUT is set to transmit continuously.

Report No.: FR350301-12AC Page: 8 of 16



1.4 The Equipment List

Test Item	Conducted Emission								
Test Site	Conduction room 1 / (Conduction room 1 / (CO01-WS)							
Tested Date	Mar. 31, 2022	Mar. 31, 2022							
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until				
Receiver	R&S	ESR3	101658	Feb. 16, 2022	Feb. 15, 2023				
LISN	R&S	ENV216	101295	Jan. 12, 2022	Jan. 11, 2023				
LISN (Support Unit)	SCHWARZBECK	NSLK 8127	8127667	Jan .07, 2022	Jan .06, 2023				
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 19, 2021	Oct. 18, 2022				
50 ohm terminal (Support Unit)	NA	50	04	May 25, 2021	May 24, 2022				
Measurement Software	t AUDIX e3 6.120210k NA NA								
Note: Calibration Inter	val of instruments listed	d above is one year.							

Test Item	Radiated Emission	Radiated Emission						
Test Site	966 chamber3 / (03Cl	H03-WS)						
Tested Date	Mar. 28, 2022	Mar. 28, 2022						
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until			
Receiver	R&S	ESR3	101657	Mar. 15, 2022	Mar. 14, 2023			
Spectrum Analyzer	R&S	FSV40	101499	Mar. 08, 2022	Mar. 07, 2023			
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 08, 2021	Nov. 07, 2022			
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-685	May 06, 2021	May 05, 2022			
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1206	Dec. 20, 2021	Dec. 19, 2022			
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170508	Jan. 11, 2022	Jan. 10, 2023			
Preamplifier	EMC	EMC02325	980187	Jul. 26, 2021	Jul. 25, 2022			
Preamplifier	Agilent	83017A	MY39501309	Sep. 06, 2021	Sep. 05, 2022			
Preamplifier	EMC	EMC184045B	980192	Jul. 14, 2021	Jul. 13, 2022			
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 05, 2021	Oct. 04, 2022			
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800 -001	Sep. 24, 2021	Sep. 23, 2022			
LF cable-3M	EMC	EMC8D-NM-NM-300 0	131103	Sep. 24, 2021	Sep. 23, 2022			
LF cable-13M	EMC	EMC8D-NM-NM-130 00	131104	Sep. 24, 2021	Sep. 23, 2022			
RF cable-3M	HUBER+SUHNER	SUCOFLEX104	MY22620/4	Sep. 24, 2021	Sep. 23, 2022			
RF cable-8M	EMC	EMC104-SM-SM-80 00	181107	Sep. 24, 2021	Sep. 23, 2022			
Measurement Software	AUDIX	e3	6.120210g	NA	NA			
Note: Calibration Inter	rval of instruments liste	d above is one year.						

Report No.: FR350301-12AC Page: 9 of 16



Test Item	RF Conducted							
Test Site	(TH01-WS)							
Tested Date	Apr. 11, 2022							
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until			
Spectrum Analyzer	R&S	FSV40	101498	Nov. 29, 2021	Nov. 28, 2022			
Power Meter	Anritsu	ML2495A	1241002	Nov. 07, 2021	Nov. 06, 2022			
Power Sensor	Anritsu	MA2411B	1207366	Nov. 07, 2021	Nov. 06, 2022			
Measurement Software	Sporton	SENSE-15247_DTS	V5.10	NA	NA			
Note: Calibration Interval of instruments listed above is one year.								

1.5 Test Standards

47 CFR FCC Part 15.247 ANSI C63.10-2013

1.6 Reference Guidance

FCC KDB 558074 D01 15.247 Meas Guidance v05r02

1.7 Deviation from Test Standard and Measurement Procedure

None

1.8 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Measurement Uncertainty				
Parameters	Uncertainty			
Conducted power	±0.808 dB			
AC conducted emission	±2.92 dB			
Unwanted Emission ≤ 1GHz	±3.96 dB			
Unwanted Emission > 1GHz	±4.51 dB			

Report No.: FR350301-12AC Page: 10 of 16



2 Test Configuration

2.1 Testing Facility

Test Laboratory	International Certification Corporation
Test Site	CO01-WS, TH01-WS
Address of Test Site	No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)
Test Site	03CH03-WS
Address of Test Site	No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 333, Taiwan (R.O.C.)

FCC Designation No.: TW0009FCC site registration No.: 207696

➤ ISED#: 10807C

> CAB identifier: TW2732

2.2 The Worst Test Modes and Channel Details

Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
AC Power Line Conducted Emission	HT20	2437	MCS 0	2
Unwanted Emissions ≤ 1GHz	HT20	2437	MCS 0	1,2,3
	11b	2412	1 Mbps	1
Unwanted Emissions >1GHz	HT20	2437	MCS 0	2
	HT20	2462	MCS 0	3
Conducted Output Power	11b 11g HT20	2412 / 2437 / 2462 2412 / 2437 / 2462 2412 / 2437 / 2462	1 Mbps 6 Mbps MCS 0	2

NOTE:

- 1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement X, Y, and Z-plane. The **Y-plane** results were found as the worst case and were shown in this report.
- 2. Test configurations are listed as below:
 - 1) Configuration 1: Dipole antenna (Antenna No.1)
 - 2) Configuration 2 : PCB Dipole antenna (Antenna No.4)
 - 3) Configuration 3: PIFA antenna (Antenna No.6)

Report No.: FR350301-12AC Page: 11 of 16



3 Transmitter Test Results

3.1 Conducted Output Power

3.1.1 Limit of Conducted Output Power

Conducted power shall not exceed 1Watt.

Antenna gain <= 6dBi, no any corresponding reduction is in output power limit.

Antenna gain > 6dBi

Non Fixed, point to point operations.

The conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dB

Fixed, point to point operations

Systems operating in the 2400–2483.5 MHz band that are used exclusively for fixed, point-to-point Operations, maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

3.1.2 Test Procedures

A broadband RF power meter is used for output power measurement. The video bandwidth of power meter is greater than DTS bandwidth of EUT. If duty cycle of test signal is not 100 %, trigger and gating function of power meter will be enabled to capture transmission burst for measuring output power.

3.1.3 Test Setup



3.1.4 Test Results

Ambient Condition	23°C / 64%	Tested By	Brad Wu
-------------------	------------	-----------	---------

Refer to Appendix A.

Report No.: FR350301-12AC Page: 12 of 16



3.2 Unwanted Emissions into Restricted Frequency Bands

3.2.1 Limit of Unwanted Emissions into Restricted Frequency Bands

Restricted Band Emissions Limit						
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)			
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300			
0.490~1.705	24000/F(kHz)	33.8 - 23	30			
1.705~30.0	30	29	30			
30~88	100	40	3			
88~216	150	43.5	3			
216~960	200	46	3			
Above 960	500	54	3			

Note 1:

Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit **Note 2:**

Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

3.2.2 Test Procedures

- 1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m
- 2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
- 3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

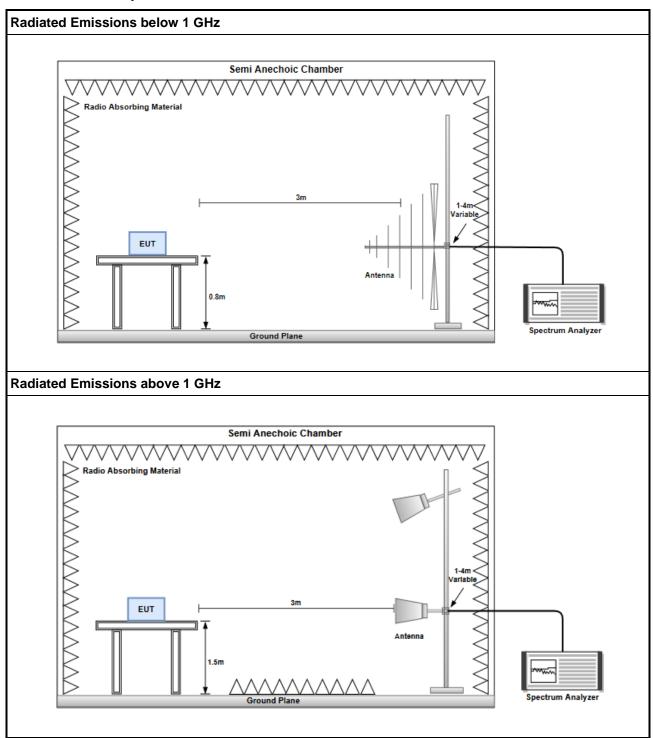
Note:

- 1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
- 2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
- RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

Report No.: FR350301-12AC Page: 13 of 16



3.2.3 Test Setup



3.2.4 Test Results

Refer to Appendix B.

Report No.: FR350301-12AC Page: 14 of 16



3.3 AC Power Line Conducted Emissions

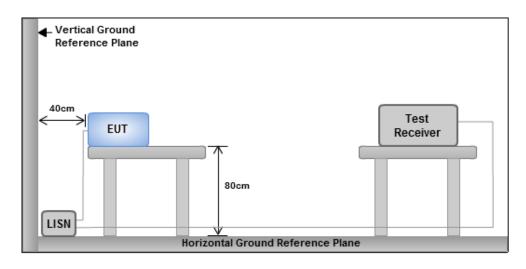
3.3.1 Limit of AC Power Line Conducted Emissions

Conducted Emissions Limit						
Frequency Emission (MHz) Quasi-Peak Average						
0.15-0.5	66 - 56 *	56 - 46 *				
0.5-5	56	46				
5-30	60	50				
Note 1: * Decreases with the logarithm of the frequency.						

3.3.2 Test Procedures

- 1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
- 2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω LISN port.
- 3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
- 4. This measurement was performed with AC 120V / 60Hz.

3.3.3 Test Setup



Note: 1. Support units were connected to second LISN.

Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.3.4 Test Results

Refer to Appendix C.

Report No.: FR350301-12AC Page: 15 of 16



4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website http://www.icertifi.com.tw.

Linkou

Tel: 886-2-2601-1640 No.30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan (R.O.C.)

Kwei Shan

Tel: 886-3-271-8666
No.3-1, Lane 6, Wen San 3rd
St., Kwei Shan Dist., Tao Yuan
City 33381, Taiwan (R.O.C.)
No.2-1, Lane 6, Wen San 3rd
St., Kwei Shan Dist., Tao Yuan
City 33381, Taiwan (R.O.C.)

Kwei Shan Site II Tel: 886-3-271-8640

No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 333, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666 Fax: 886-3-318-0345

Email: ICC_Service@icertifi.com.tw

--END---

Report No.: FR350301-12AC Page: 16 of 16



Summary

Mode	Total Power	Total Power
	(dBm)	(W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	18.70	0.07413
802.11g_Nss1,(6Mbps)_1TX	21.33	0.13583
802.11n HT20_Nss1,(MCS0)_1TX	22.74	0.18793

Result

Mode	Result	DG	Port 1	Total Power	Power Limit	EIRP	EIRP Limit
		(dBi)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.79	17.76	17.76	30.00	20.55	36.00
2437MHz	Pass	2.79	18.7	18.70	30.00	21.49	36.00
2462MHz	Pass	2.79	15.32	15.32	30.00	18.11	36.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.79	20.67	20.67	30.00	23.46	36.00
2437MHz	Pass	2.79	21.33	21.33	30.00	24.12	36.00
2462MHz	Pass	2.79	18.15	18.15	30.00	20.94	36.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.79	20.36	20.36	30.00	23.15	36.00
2437MHz	Pass	2.79	22.74	22.74	30.00	25.53	36.00
2462MHz	Pass	2.79	18.59	18.59	30.00	21.38	36.00

DG = Directional Gain; **Port X** = Port X output power

Page No.: 1 of 1



Conducted Output Power (AVERAGE)

Appendix A

Summary

Mode	Total Power	Total Power
	(dBm)	(W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	16.12	0.04093
802.11g_Nss1,(6Mbps)_1TX	18.07	0.06412
802.11n HT20_Nss1,(MCS0)_1TX	18.39	0.06902

Result

Mode	Result	DG	Port 1	Total Power	Power Limit	EIRP	EIRP Limit
		(dBi)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.79	15.73	15.73	-	18.52	-
2437MHz	Pass	2.79	16.12	16.12	-	18.91	-
2462MHz	Pass	2.79	13.21	13.21	-	16.00	-
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.79	13.48	13.48	-	16.27	-
2437MHz	Pass	2.79	18.07	18.07	-	20.86	-
2462MHz	Pass	2.79	11.33	11.33	-	14.12	-
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.79	12.81	12.81	-	15.60	-
2437MHz	Pass	2.79	18.39	18.39	-	21.18	-
2462MHz	Pass	2.79	11.75	11.75	-	14.54	-

DG = Directional Gain; Port X = Port X output power

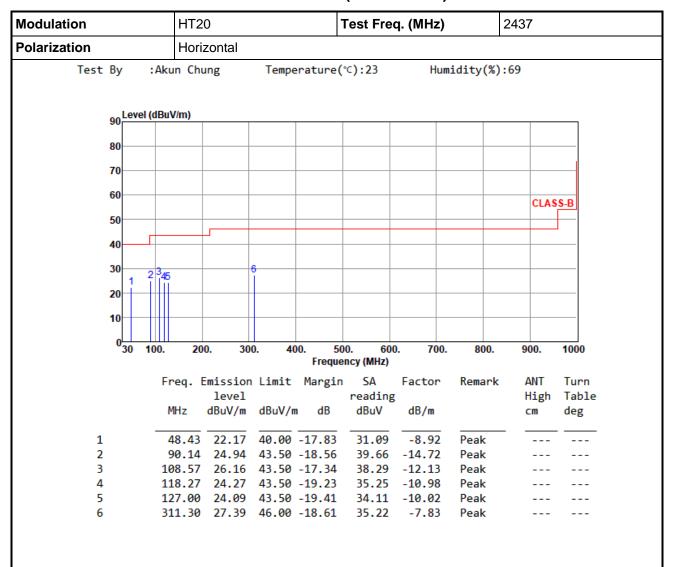
Note : Conducted average output power is for reference only

Page No.: 1 of 1



Configuration 1: Dipole antenna (Antenna No.1)

Transmitter Radiated Unwanted Emissions (Below 1GHz)



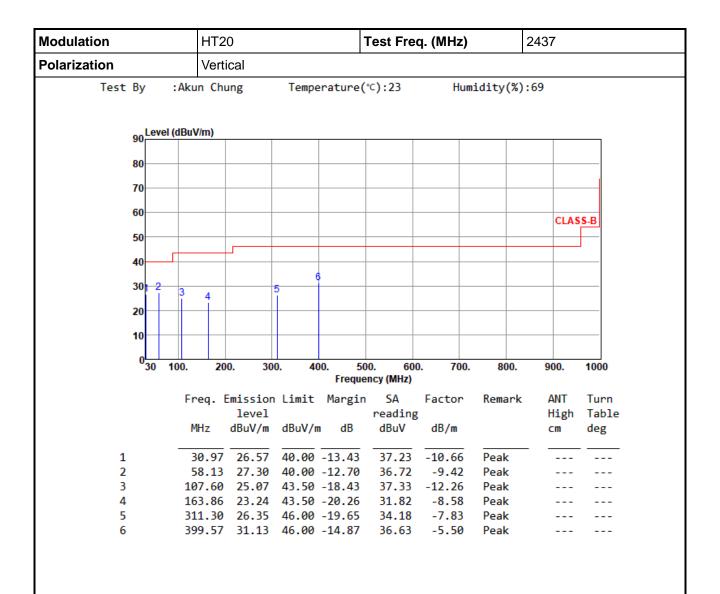
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.





Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

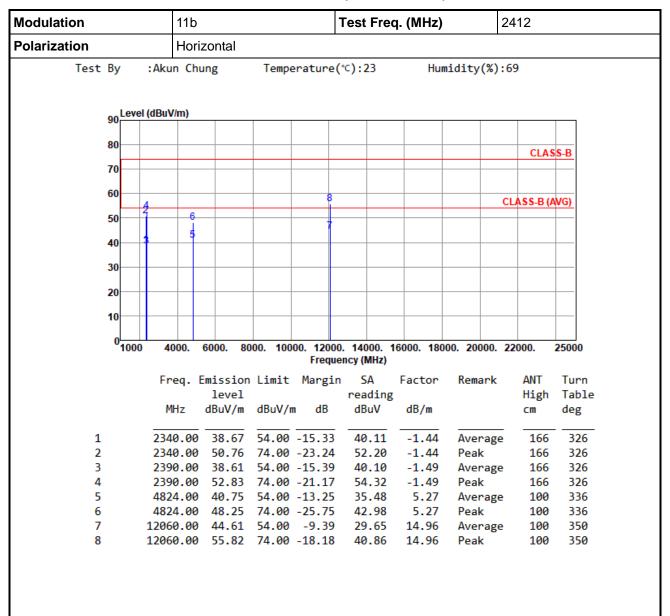
*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.



Transmitter Radiated Unwanted Emissions (Above 1GHz)

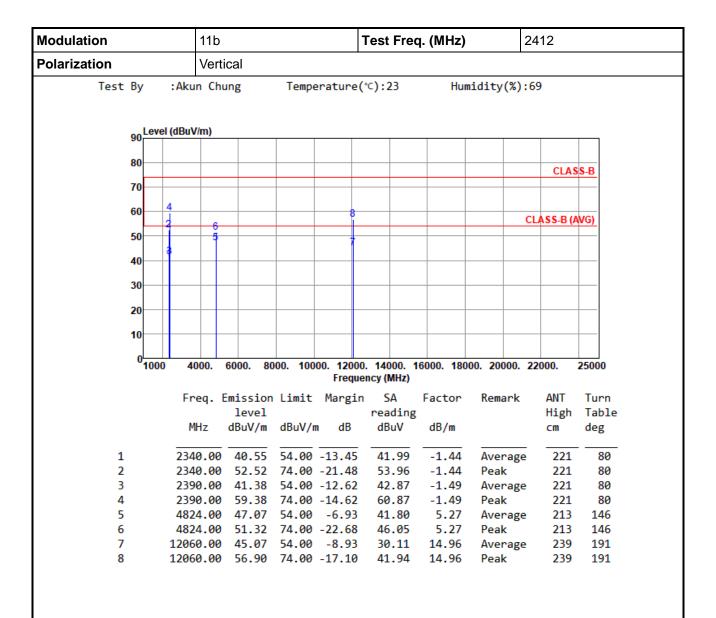


Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).





Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

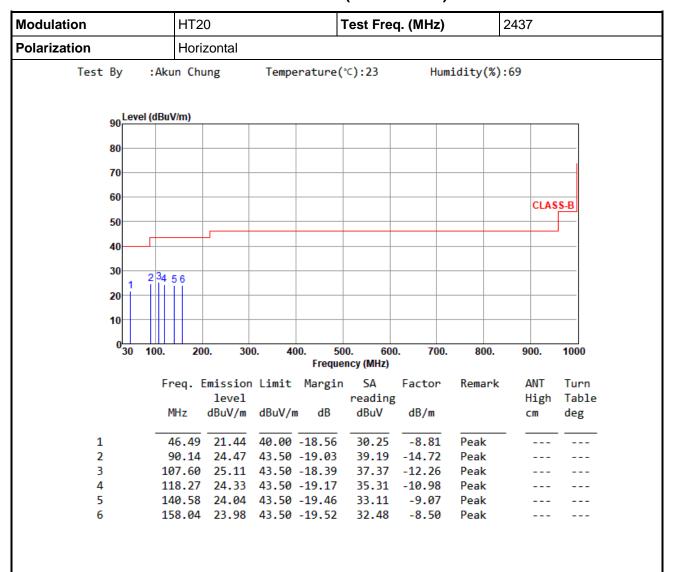
*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) - Limit (dBuV/m).



Configuration 2: PCB Dipole antenna (Antenna No.4)

Transmitter Radiated Unwanted Emissions (Below 1GHz)



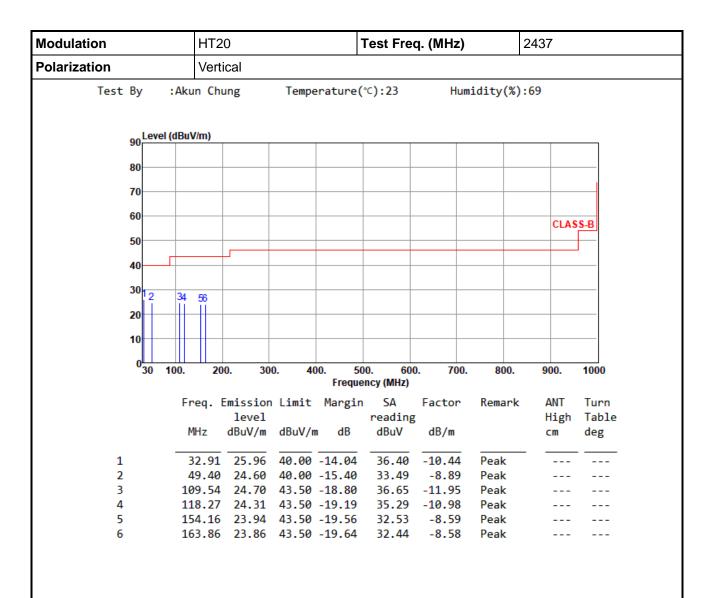
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.





Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

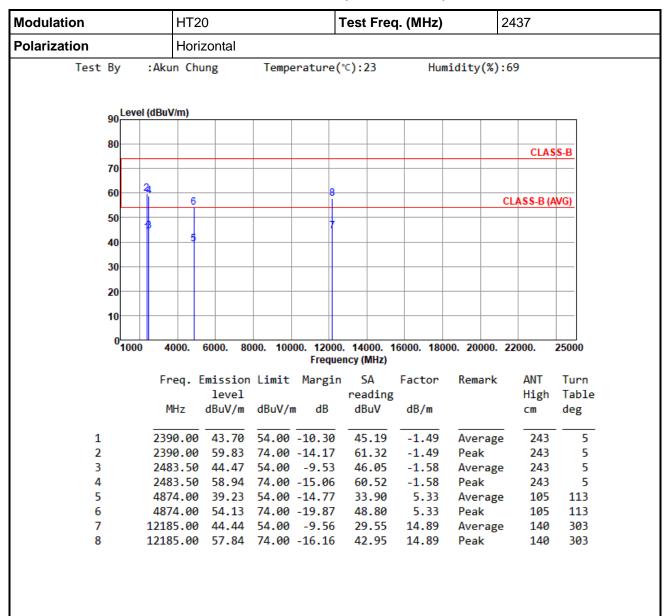
*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.



Transmitter Radiated Unwanted Emissions (Above 1GHz)

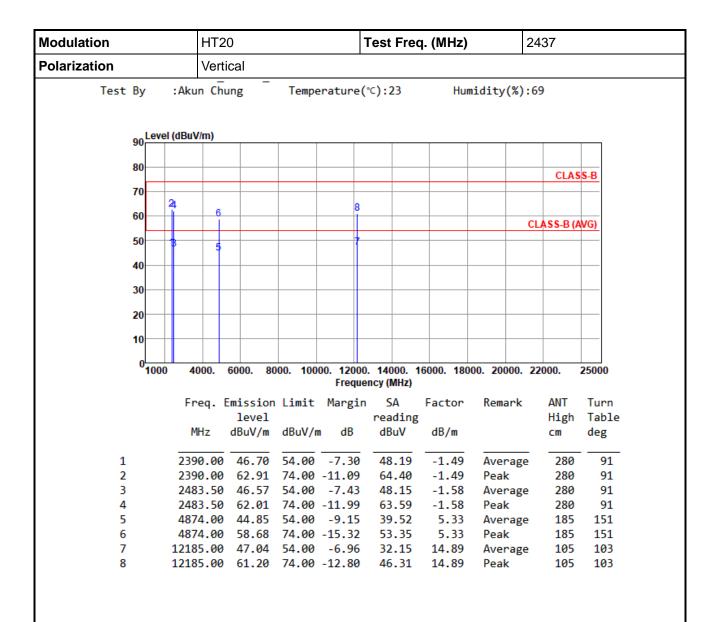


Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).





Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

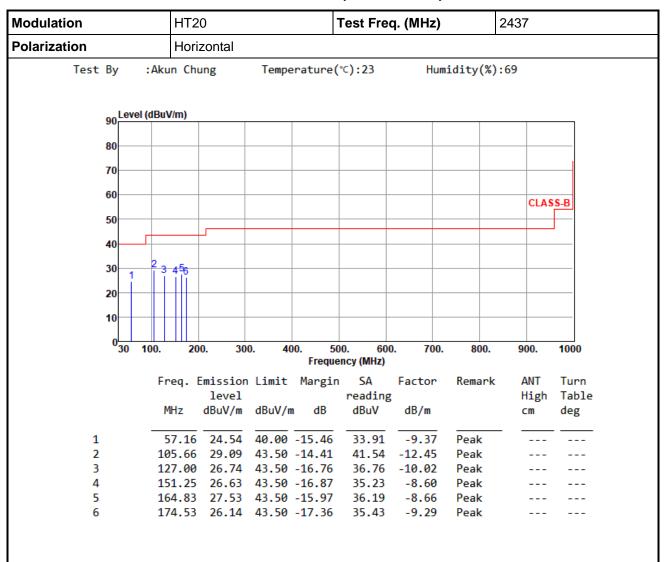
*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) - Limit (dBuV/m).



Configuration 3: PIFA antenna (Antenna No.6)

Transmitter Radiated Unwanted Emissions (Below 1GHz)



Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

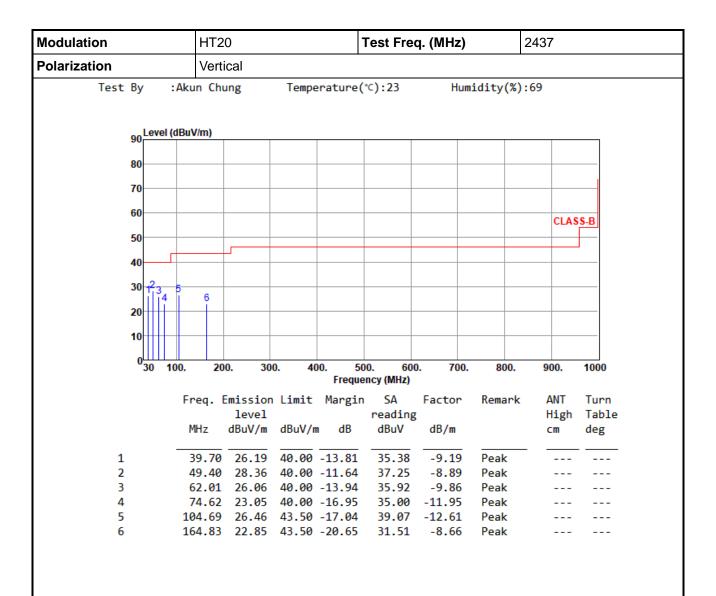
*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Page: 9 of 12





Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

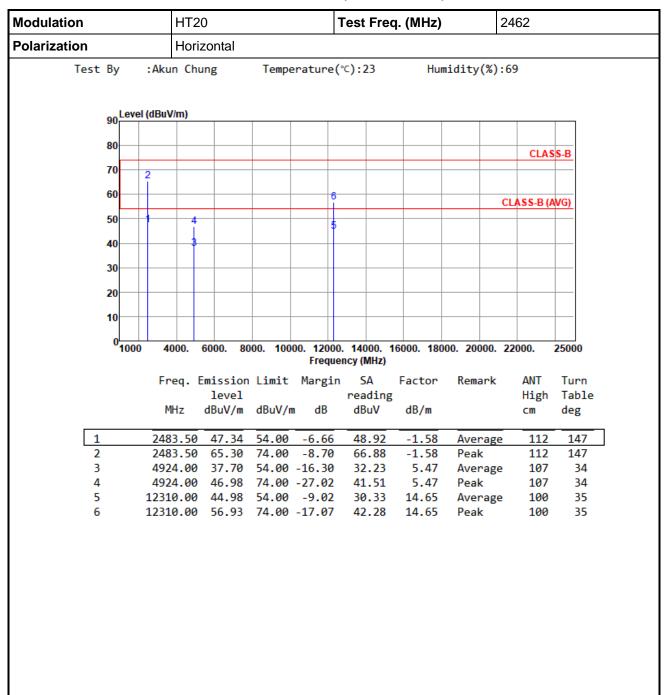
*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.



Transmitter Radiated Unwanted Emissions (Above 1GHz)

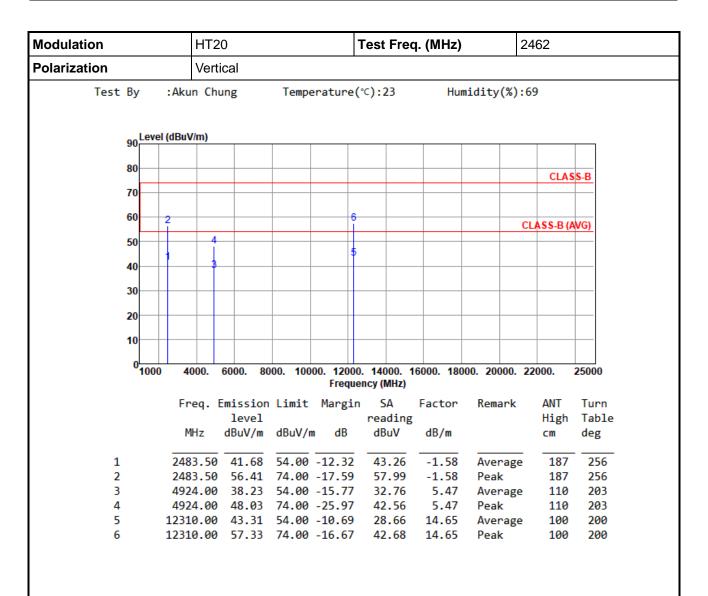


Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).



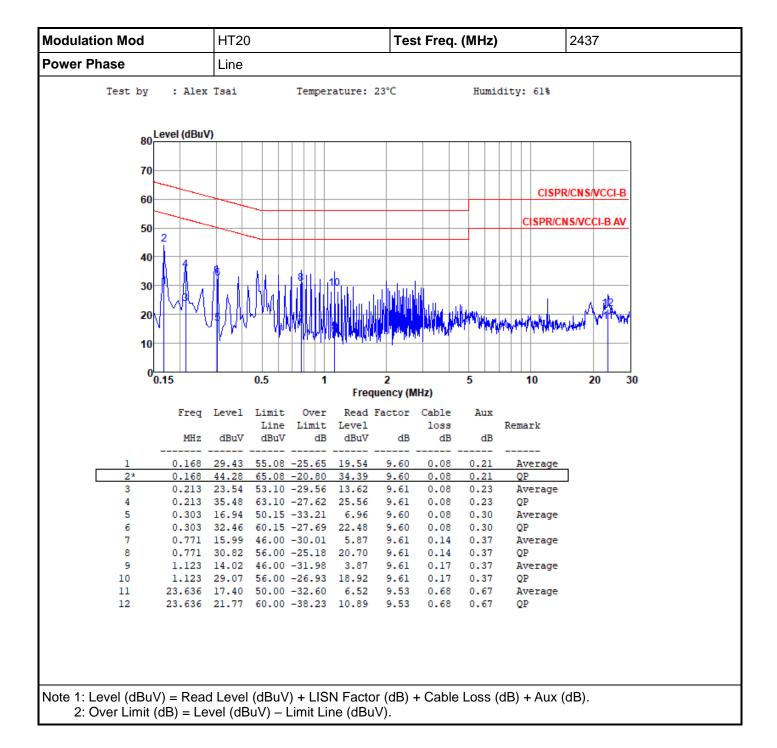


Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) - Limit (dBuV/m).







AC Power Line Conducted Emissions

