

CTC Laboratories, Inc.

Room 101 of Building B, Room 107, 108, 207, 208 of Building A, No. 7, Langing 1st Road, Luhu Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China

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TEST REPORT

Report No. CTC2024214416

FCC ID.....: XUJX431PROV5

Applicant-----: Launch Tech Co., Ltd.

Launch Industrial Park, North of Wuhe Avenue, Banxuegang, Address-----:

Longgang, Shenzhen, Guangdong, P.R. China

Manufacturer-----: Launch Tech Co., Ltd.

Launch Industrial Park, North of Wuhe Avenue, Banxuegang, Address-----:

Longgang, Shenzhen, Guangdong, P.R. China

Product Name·····: **AUTO Smart Diagnostic Tool**

Trade Mark-----: LAUNCH

OADD-PO1005V, OADD-PO0805V Model/Type reference·····:

X-431 PRO3(V+ 5.0), X-431 PRO(V 5.0), X-431 PRO3(V+ 5), Listed Model(s) ·····:

X-431 PRO(V 5)

Standard----:: FCC CFR Title 47 Part 15 Subpart C Section 15.247

Date of receipt of test sample...: Sept. 02, 2024

Jun. 22, 2023 ~ Aug. 06, 2023 Date of testing.....

Sept. 02, 2024 ~ Oct. 14, 2024

Date of issue....: Oct. 14, 2024

PASS Result....:

Compiled by:

(Printed name+signature) Jim Jiang

Supervised by:

(Printed name+signature) Eric Zhang Jim Jiang Briczhang

Approved by:

(Printed name+signature) Totti Zhao

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Table of Contents



Report No.: CTC2024214416

Page

1.	TEST	SUMMARY	3
	1.1.	Test Standards	3
	1.2.	REPORT VERSION	
	1.3.	TEST DESCRIPTION	4
	1.4.	TEST FACILITY	
	1.5.	MEASUREMENT UNCERTAINTY	5
	1.6.	ENVIRONMENTAL CONDITIONS	
2.	GEN	ERAL INFORMATION	7
	2.1.	CLIENT INFORMATION	
	2.1.	GENERAL DESCRIPTION OF EUT	
	2.3.	ACCESSORY EQUIPMENT INFORMATION	•
	2.3. 2.4.	OPERATION STATE	
	2.4. 2.5.	MEASUREMENT INSTRUMENTS LIST	
	2.5.	IVIEASUREMENT INSTRUMENTS LIST	11
3.	TEST	TITEM AND RESULTS	12
	3.1.	CONDUCTED EMISSION	12
	3.2.	RADIATED EMISSION	
	3.3.	BAND EDGE EMISSIONS (RADIATED)	
	3.4.	BAND EDGE AND SPURIOUS EMISSIONS (CONDUCTED)	
	3.5.	DTS BANDWIDTH	
	3.6.	CONDUCTED OUTPUT POWER	
	3.7.	Power Spectral Density	
	3.8.	DUTY CYCLE	
	3.9.	ANTENNA REQUIREMENT	

Page 3 of 71

Report No.: CTC2024214416



1. TEST SUMMARY

1.1. Test Standards

The tests were performed according to following standards:

FCC Rules Part 15.247: Operation within the bands of 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz.

RSS-247 Issue 3: Standard Specifications for Frequency Hopping Systems (FHSs) and Digital Transmission Systems (DTSs) Operating in the Bands 902-928MHz, 2400-2483.5MHz and 5725-5850MHz.

ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices.

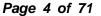
1.2. Report version

Revised No.	Report No.	Date of issue	Description
01	CTC2024214416	Oct. 14, 2024	On the basis of the original report CTC20231384E03, add 4 product models, update battery factory and adapter. Retest conducted emission and radiated spurious emission (below 1GHz), conducted power, bandwidth. Other data refer to the original report.

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1.3. Test Description

FCC Part 15 Subpart C (15.247) / RSS-247 Issue 3						
Test Item	Standard	Section	Dogult	Test		
rest item	FCC	IC	Result	Engineer		
Antenna Requirement	15.203	/	Pass	Jim Jiang		
Conducted Emission	15.207	RSS-Gen 8.8	Pass	Cary Chen		
Radiated Band Edge and Spurious Emissions	15.205&15.209& 15.247(d)	RSS-247 5.5	N/A	N/A		
Conducted Band Edge and Spurious Emissions	15.247(d)	RSS-247 5.5	N/A	N/A		
6dB Bandwidth	15.247(a)(2)	RSS-247 5.2 (a)	Pass	Jim Jiang		
Conducted Max Output Power	15.247(b)(3)	RSS-247 5.4 (d)	Pass	Jim Jiang		
Power Spectral Density	15.247(e)	RSS-247 5.2 (b)	N/A	N/A		
Transmitter Radiated Spurious	15.209&15.247(d)	RSS-247 5.5& RSS-Gen 8.9	Pass	Jim Jiang		

Note: The measurement uncertainty is not included in the test result.



[&]quot;N/A" is no application.

Page 5 of 71

Report No.: CTC2024214416



Test Facility

CTC Laboratories, Inc.

Add: Room 101 of Building B, Room 107, 108, 207, 208 of Building A, No. 7, Langing 1st Road, Luhu Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China

Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

A2LA-Lab Cert. No.: 4340.01

CTC Laboratories, Inc. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

Industry Canada (Registration No.: 9783A, CAB Identifier: CN0029)

CTC Laboratories, Inc. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: 9783A on Jan, 2016.

FCC (Registration No.: 951311, Designation Number CN1208)

CTC Laboratories, Inc. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained inour files. Registration 951311, Aug 26, 2017.

Measurement Uncertainty 1.5.

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01" Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the CTC Laboratories, Inc. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Below is the best measurement capability for CTC Laboratories, Inc.

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Test Items	Measurement Uncertainty	Notes
DTS Bandwidth	±0.0196%	(1)
Maximum Conducted Output Power	±0.686 dB	(1)
Maximum Power Spectral Density Level	±0.743 dB	(1)
Band-edge Compliance	±1.328 dB	(1)
Unwanted Emissions In Non-restricted Freq Bands	9kHz-1GHz: ±0.746dB 1GHz-26GHz: ±1.328dB	(1)
Conducted Emissions 9kHz~30MHz	±3.08 dB	(1)
Radiated Emissions 30~1000MHz	±4.51 dB	(1)
Radiated Emissions 1~18GHz	±5.84 dB	(1)
Radiated Emissions 18~40GHz	±6.12 dB	(1)

Note (1): This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

1.6. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	21°C ~ 27°C
Relative Humidity:	40% ~ 60%
Air Pressure:	101kPa

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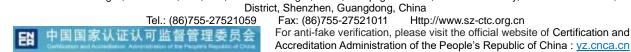
2. GENERAL INFORMATION

2.1. Client Information

Applicant:	Launch Tech Co., Ltd.
Address:	Launch Industrial Park, North of Wuhe Avenue, Banxuegang, Longgang, Shenzhen, Guangdong, P.R. China
Manufacturer:	Launch Tech Co., Ltd.
Address:	Launch Industrial Park, North of Wuhe Avenue, Banxuegang, Longgang, Shenzhen, Guangdong, P.R. China

Report No.: CTC2024214416

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Room 101 of Building B, Room 107, 108, 207, 208 of Building A, No. 7, Lanqing 1st Road, Luhu Community, Guanhu Subdistrict, Longhua





2.2. General Description of EUT

Product Name:	AUTO Smart Diagnostic Tool			
Trade Mark:	LAUNCH			
Model/Type reference:	OADD-PO1005V, OADD-PO0805V			
Listed Model(s):	X-431 PRO3(V+ 5.0), X-431 PRO(V 5.0), X-431 PRO3(V+ 5), X-431 PRO(V 5)			
Model Difference:	All these models are identical in the same PCB, Layout and electrical circuit, The only difference is screen size, antenna and antenna position. OADD-PO1005V, X-431 PRO3(V+ 5.0), X-431 PRO3(V+ 5), these models use the same antenna, the antenna position is the same. OADD-PO0805V, X-431 PRO(V 5.0), X-431 PRO(V 5), these models use the same antenna, the antenna position is the same.			
Power supply:	5Vdc/5A from AC/DC Adapter 7.6Vdc from 6300mAh Li-ion Battery			
Adapter model:	XDJ361R-050500 Input: 100-240V~ 50/60Hz 0.9A Output: 5Vdc/5A			
Hardware version:	/			
Software version:	/			
WIFI 802.11b/ g/ n(HT20)	/ n(HT40)			
Modulation:	802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n: OFDM(BPSK, QPSK, 16QAM, 64QAM)			
Operation frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz			
Channel number:	802.11b/g/n(HT20):11channels 802.11n(HT40):7channels			
Channel separation:	5MHz			
Antenna type:	FPC Antenna			
OADD-PO1005V Antenna gain:	3.30dBi Max			
OADD-PO0805V Antenna gain:	2.96dBi Max			

Note: OADD-PO1005V and OADD-PO0805V have been tested, just the worst case is recorded in the report.

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2.3. Accessory Equipment information

Equipment Information						
Name	Model	S/N	Manufacturer			
/	1	/	1			
/	/	/	/			
Cable Information	Cable Information					
Name	Shielded Type	Ferrite Core	Length			
/	/	/	/			
Test Software Information						
Name	/	/	/			
Engineering mode	/	/	/			





2.4. Operation state

Operation Frequency List: The EUT has been tested under typical operating condition. The Applicant provides communication tools software to control the EUT for staying in continuous transmitting and receiving mode for testing.

Operation Frequency List:

Channel	Frequency (MHz)
01	2412
02	2417
03	2422
04	2427
05	2432
06	2437
07	2442
08	2447
09	2452
10	2457
11	2462

Note: CH 01~CH 11 for 802.11b/g/n(HT20), CH 03~CH 09 for 802.11n(HT40)

Data Rated

Preliminary tests were performed in different data rate, and found which the below bit rate is worst case mode, so only show data which it is a worst case mode.

Mode	Data rate (worst mode)		
802.11b	1Mbps		
802.11g	6Mbps		
802.11n(HT20)	HT-MCS0		
802.11n(HT40)	HT-MCS0		

Test mode

For RF test items:

The engineering test program was provided and enabled to make EUT continuous transmit.

For AC power line conducted emissions:

The EUT was set to connect with the WLAN AP under large package sizes transmission.

For Radiated spurious emissions test item:

The engineering test program was provided and enabled to make EUT continuous transmit. The EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data Recorded in the report.

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2.5. Measurement Instruments List

RF Te	RF Test System					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until	
1	Spectrum Analyzer	R&S	FSV40-N	101331	Mar. 21, 2025	
2	MXA Signal Analyzer	Keysight	N9020A	MY46471737	Dec. 12, 2024	
3	MXG Vector Signal Generator	Agilent	N5182A	MY47420864	Dec. 12, 2024	
4	PSG Analog Signal Generator	Agilent	E8257D	MY46521908	Dec. 12, 2024	
5	EXG Analog Signal Generator	Keysight	N5173B	MY59100842	Dec. 12, 2024	
6	MXG Vector Signal Generator	Keysight	N5182B	MY59100212	Dec. 12, 2024	
7	USB Wideband Power Sensor	Keysight	U2021XA	MY55130004	Mar. 21, 2025	
8	USB Wideband Power Sensor	Keysight	U2021XA	MY55130006	Mar. 21, 2025	
9	Wideband Radio Communication Tester	R&S	CMW500	102414	Dec. 12, 2024	
10	RF Control Unit	Tonscend	JS0806-2	/	Aug. 21, 2025	
11	High and low temperature test chamber	ESPEC	MT3035	/	Mar. 21, 2025	

Radia	Radiated Emission (3m chamber 3)						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until		
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9163	01026	Dec. 18, 2024		
2	Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-647	Dec. 01, 2024		
3	Test Receiver	Keysight	N9038A	MY56400071	Dec. 12, 2024		
4	Broadband Amplifier	SCHWARZBECK	BBV9743B	259	Dec. 12, 2024		
5	Mirowave Broadband Amplifier	SCHWARZBECK	BBV9718C	111	Dec. 12, 2024		
6	3m chamber 3	YIHENG	EE106	/	Aug. 28, 2026		
7	Test Software	FARA	EZ-EMC	FA-03A2	/		

Cond	ucted Emission				
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until
1	LISN	R&S	ENV216	101112	Dec. 12, 2024
2	LISN	R&S	ENV216	101113	Dec. 12, 2024
3	EMI Test Receiver	R&S	ESCS30	100353	Dec. 12, 2024
4	ISN CAT6	Schwarzbeck	NTFM 8158	CAT6-8158-0046	Dec. 12, 2024
5	ISN CAT5	Schwarzbeck	NTFM 8158	CAT5-8158-0046	Dec. 12, 2024
6	Test Software	R&S	EMC32	6.10.10	/

Note: 1. The Cal. Interval was one year.

- 2. The Cal. Interval was three year of the chamber
- 3. The cable loss has calculated in test result which connection between each test instruments.

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3. TEST ITEM AND RESULTS

3.1. Conducted Emission

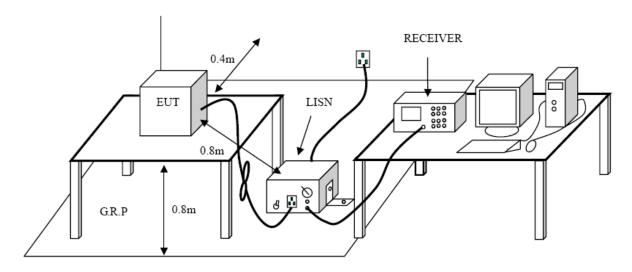
Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.207/ RSS - Gen 8.8:

Fraguency range (MHZ)	Limit (d	BuV)
Frequency range (MHz)	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.

Test Configuration



Test Procedure

- 1. The EUT was setup according to ANSI C63.10:2013 requirements.
- 2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface.
- 3. The EUT and simulators are connected to the main power through a line impedances stabilization network (LISN). The LISN provides a 50ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
- 4. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
- 5. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
- 6. Conducted Emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.
- 7. During the above scans, the emissions were maximized by cable manipulation.

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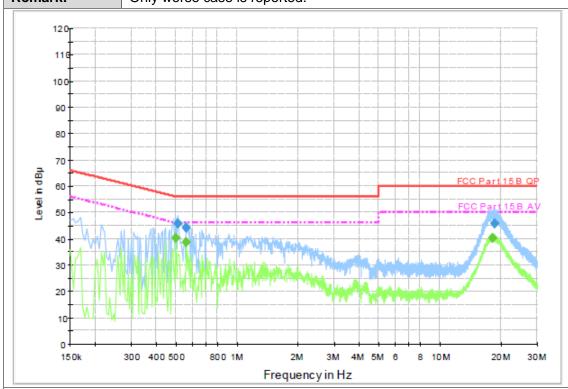
Test Mode:

Please refer to the clause 2.4.

Test Results

Test Voltage:	AC 120V/60 Hz
Terminal:	Line
Remark:	Only worse case is reported

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Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBµ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµ V)	Comment
0.510000	45.9	1000.00	9.000	On	L1	9.5	10.1	56.0	
0.559500	44.4	1000.00	9.000	On	L1	9.5	11.6	56.0	
18.559500	46.0	1000.00	9.000	On	L1	9.7	14.0	60.0	

Final Measurement Detector 2

Frequency	Average	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit	Comment
(MHz)	(dBµ V)	Time	(kHz)			(dB)	(dB)	(dBµ	
		(ms)						V)	
0.496500	40.3	1000.00	9.000	On	L1	9.5	5.8	46.1	
0.559500	38.6	1000.00	9.000	On	L1	9.5	7.4	46.0	
18.078000	40.3	1000.00	9.000	On	L1	9.7	9.7	50.0	

Emission Level= Read Level+ Correct Factor

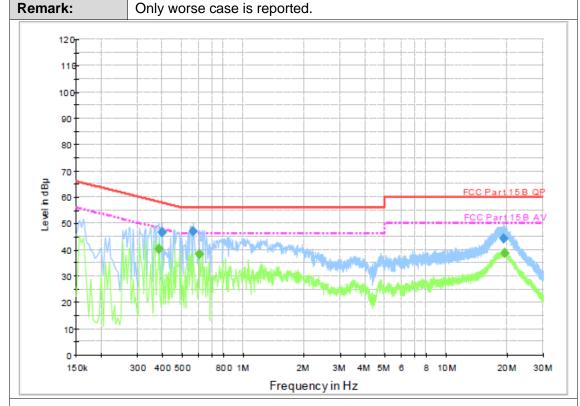
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Test Voltage: AC 120V/60 Hz
Terminal: Neutral

Report No.: CTC2024214416



Final Measurement Detector 1

	Frequency (MHz)	QuasiPeak (dBµ V)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµ	Comment
- 1			(ms)						V)	
	0.397500	46.5	1000.00	9.000	On	N	9.4	11.4	57.9	
	0.564000	47.1	1000.00	9.000	On	N	9.4	8.9	56.0	
	19.284000	44.3	1000.00	9.000	On	N	9.5	15.7	60.0	

Final Measurement Detector 2

	Frequency (MHz)	Average (dBµ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµ V)	Comment
- 1	0.384000	40.2	1000.00	9.000	On	N	9.4	8.0	48.2	
	0.609000	38.4	1000.00	9.000	On	N	9.4	7.6	46.0	
[19.351500	38.8	1000.00	9.000	On	N	9.5	11.2	50.0	

Emission Level= Read Level+ Correct Factor

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3.2. Radiated Emission

Limit

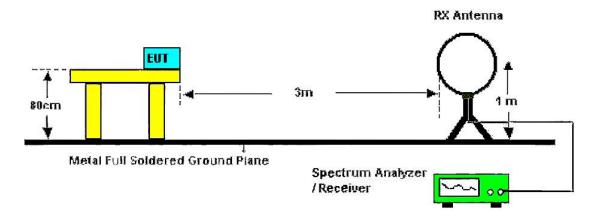
FCC CFR Title 47 Part 15 Subpart C Section 15.209/ RSS - Gen 8.9:

Frequency	Limit (dBuV/m @3m)	Value
30 MHz ~ 88 MHz	40.00	Quasi-peak
88 MHz ~ 216 MHz	43.50	Quasi-peak
216 MHz ~ 960 MHz	46.00	Quasi-peak
960 MHz ~ 1 GHz	54.00	Quasi-peak
Abovo 1 CHz	54.00	Average
Above 1 GHz	74.00	Peak

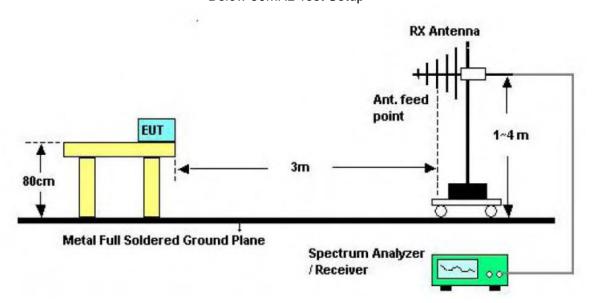
Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level (dBuV/m)=20log Emission Level (uV/m).

Test Configuration



Below 30MHz Test Setup



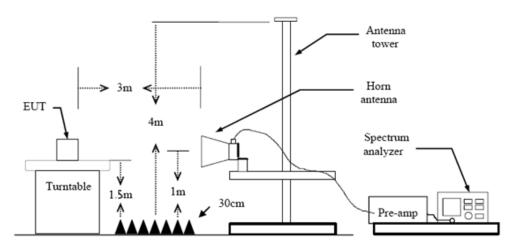
Below 1000MHz Test Setup

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Above 1GHz Test Setup

Test Procedure

- 1. The EUT was setup and tested according to ANSI C63.10:2013
- 2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
- 3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.
- 4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the quidelines.
- 5. Set to the maximum power setting and enable the EUT transmit continuously.
- 6. Use the following spectrum analyzer settings
- (1) Span shall wide enough to fully capture the emission being measured;
- (2) Below 1 GHz:

RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold;

If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

(3) From 1 GHz to 10th harmonic:

RBW=1MHz, VBW=3MHz Peak detector for Peak value.

RBW=1MHz, VBW≥1/T Peak detector for Average value.

Note 1: For the 1/T& Duty Cycle please refer to clause 3.8 Duty Cycle.

Test Mode

Please refer to the clause 2.4.

Test Result

9 KHz~30 MHz

From 9 KHz to 30 MHz: Conclusion: PASS

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

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30MHz-1GHz

Ant.	Pol.		1	Hor	izoı	nta	I									
Test	Mode	:		802	.11	b N	/lo	de 2412MHz								
Ren	nark:			Onl	y w	ors	se	case is reported	l.							
90.0	dBuV/r	n														
80																
70																_
60										FCC Part	15 RE-CI	ass B 3	0-100	ОМ		_
50										Margin -6	dB			ŝ	H	#
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-10																
31	0.000		6	0.00				(MHz)	3	00.00					7	1000.00

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	34.7601	35.96	-16.33	19.63	40.00	-20.37	QP
2	51.3004	34.32	-16.51	17.81	40.00	-22.19	QP
3 *	235.8163	60.88	-18.11	42.77	46.00	-3.23	QP
4	257.4221	52.08	-17.32	34.76	46.00	-11.24	QP
5	381.2485	42.61	-13.46	29.15	46.00	-16.85	QP
6 !	750.1082	47.37	-4.77	42.60	46.00	-3.40	QP

Remarks:

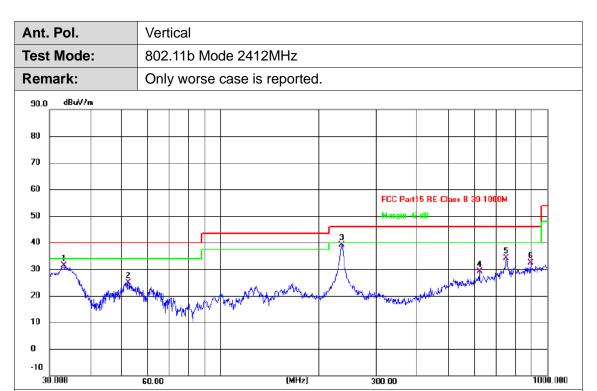
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin_value = Level -Limit value

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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	33.2111	47.64	-16.38	31.26	40.00	-8.74	QP
2	52.3100	41.41	-16.58	24.83	40.00	-15.17	QP
3 *	234.9909	57.17	-18.13	39.04	46.00	-6.96	QP
4	620.7096	36.47	-7.29	29.18	46.00	-16.82	QP
5	750.1082	39.01	-4.77	34.24	46.00	-11.76	QP
6	890.7277	35.23	-2.81	32.42	46.00	-13.58	QP

Remarks:

- 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 2.Margin value = Level -Limit value

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Adobe 1GHz

Ant	t. Pol.		Horiz	ontal							
Tes	st Mode:		TX 80	02.11b l	Mode 24	12MHz					
Rer	mark:			port for		ssion w	hich mo	re than	10 dB bel	ow the	
100.0) dBuV/m										
90											
80								FCC Par	t 15C 3M Abov	e-1G Peak	
70											
60								FCC Par	t 15C 3M Abov	e-1G AV	
50		1 X									
40		2 X									
30											
20											
10											-
0.0	000.000 3400.0	NO F	800.00	8200.00	10600.00	(MHz)	15400.00	17800.00	20200.00	22600.00	2500

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4824.301	47.99	-2.36	45.63	74.00	-28.37	peak
2 *	4824.930	34.98	-2.36	32.62	54.00	-21.38	AVG

Remarks:

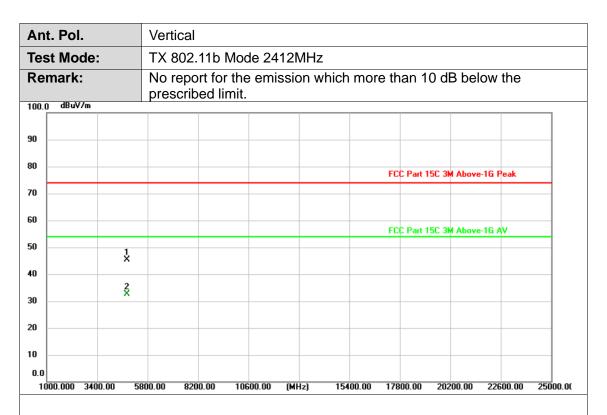
- 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 2.Margin value = Level -Limit value

CTC Laboratories, Inc.

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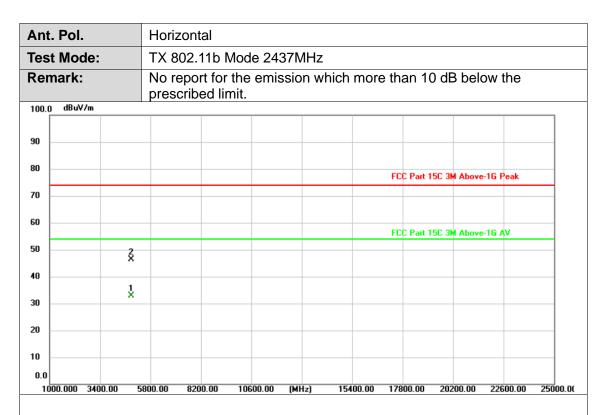
ľ	No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
Γ	1	4823.614	47.85	-2.36	45.49	74.00	-28.51	peak
Γ	2 *	4824.203	34.93	-2.36	32.57	54.00	-21.43	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







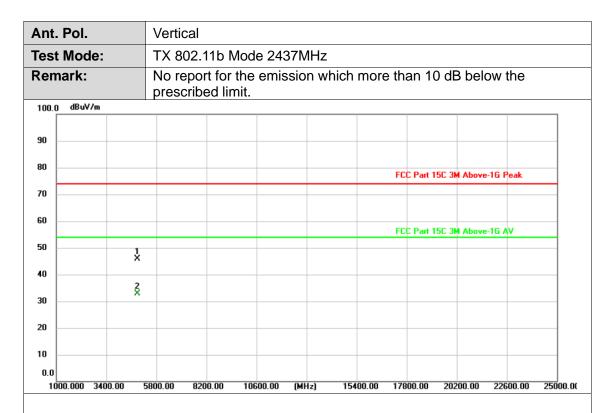
ĺ	No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
	1 *	4873.747	34.91	-2.14	32.77	54.00	-21.23	AVG
	2	4874.509	48.55	-2.14	46.41	74.00	-27.59	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







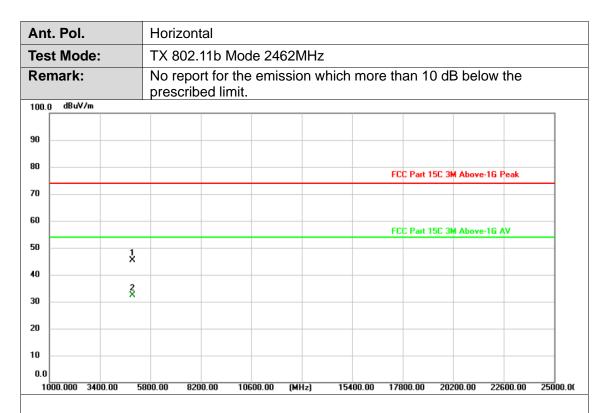
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4873.707	48.05	-2.14	45.91	74.00	-28.09	peak
2 *	4874.866	34.92	-2.14	32.78	54.00	-21.22	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







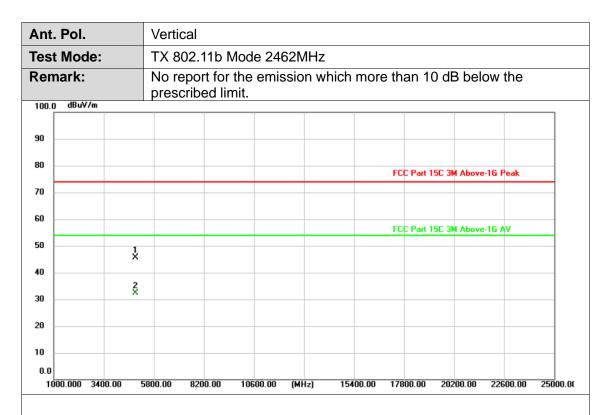
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4923.549	47.20	-1.93	45.27	74.00	-28.73	peak
2 *	4924.344	34.43	-1.93	32.50	54.00	-21.50	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







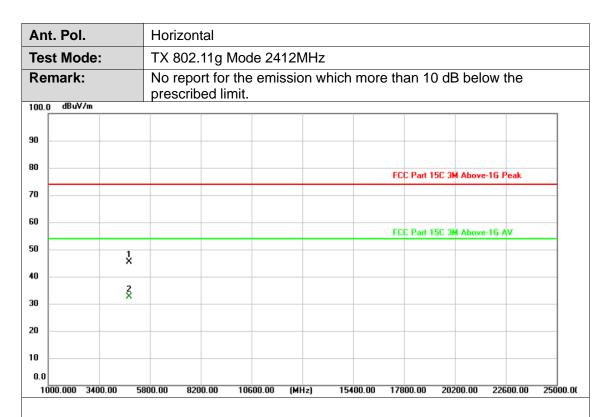
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4923.882	47.52	-1.93	45.59	74.00	-28.41	peak
2 *	4924.770	34.38	-1.93	32.45	54.00	-21.55	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







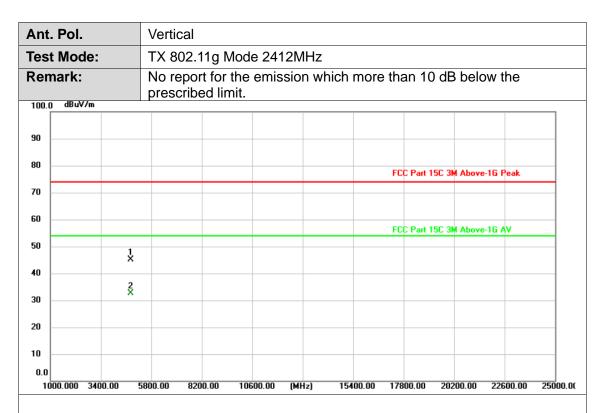
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4823.214	47.76	-2.36	45.40	74.00	-28.60	peak
2 *	4823.376	34.94	-2.36	32.58	54.00	-21.42	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







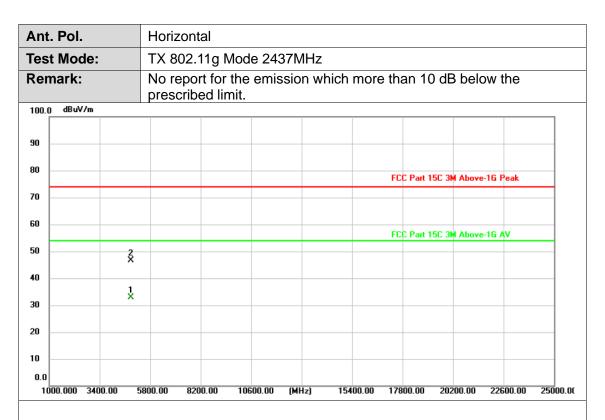
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4823.509	47.57	-2.36	45.21	74.00	-28.79	peak
2 *	4824.069	34.91	-2.36	32.55	54.00	-21.45	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







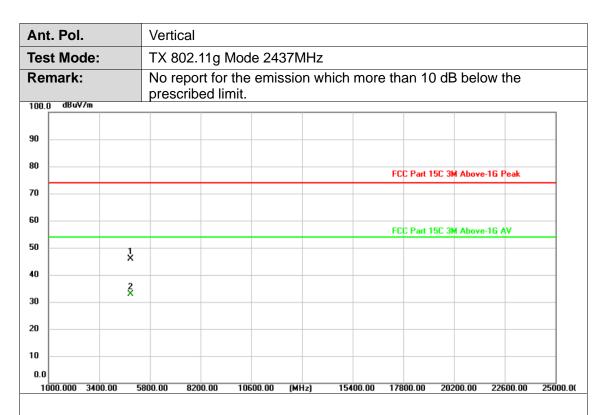
- 1								
	No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
	1 *	4873.435	34.90	-2.14	32.76	54.00	-21.24	AVG
	2	4874.347	48.69	-2.14	46.55	74.00	-27.45	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







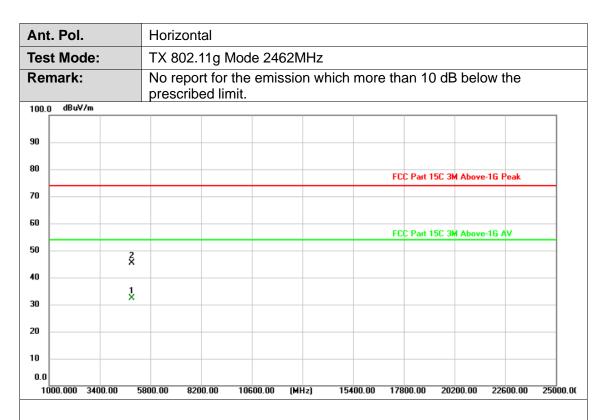
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4873.370	47.94	-2.14	45.80	74.00	-28.20	peak
2 *	4873.837	34.95	-2.14	32.81	54.00	-21.19	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







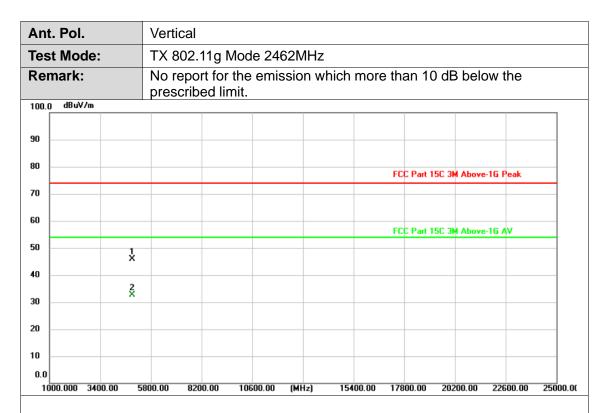
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	4923.171	34.43	-1.93	32.50	54.00	-21.50	AVG
2	4924.837	47.35	-1.93	45.42	74.00	-28.58	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







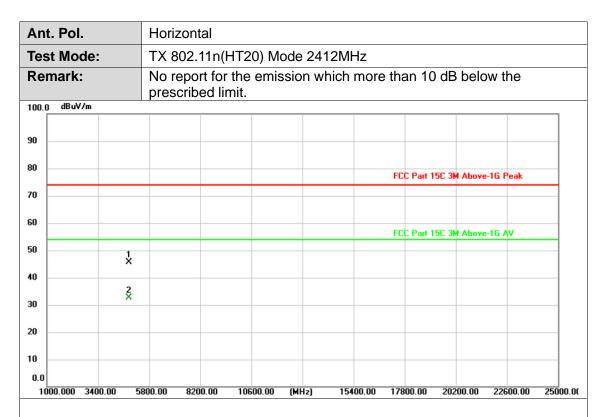
Į.								
	No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
	1	4923.669	47.84	-1.93	45.91	74.00	-28.09	peak
	2 *	4924.784	34.46	-1.93	32.53	54.00	-21.47	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







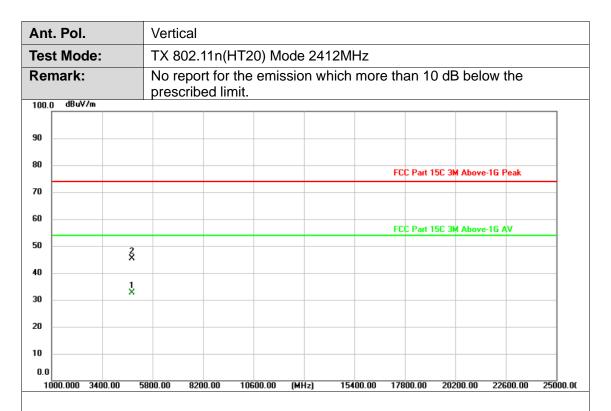
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4824.360	47.91	-2.36	45.55	74.00	-28.45	peak
2 *	4824.570	34.98	-2.36	32.62	54.00	-21.38	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







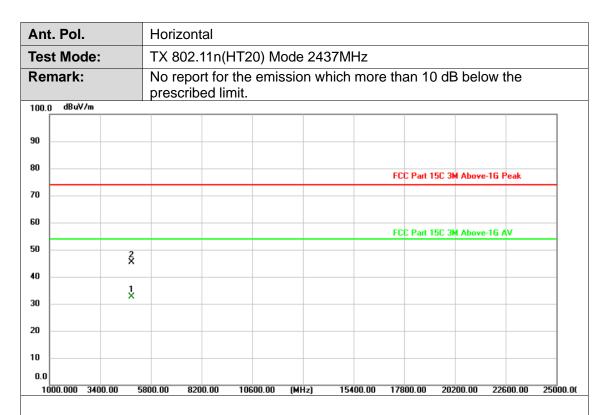
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	4823.806	35.00	-2.36	32.64	54.00	-21.36	AVG
2	4824.837	47.70	-2.36	45.34	74.00	-28.66	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







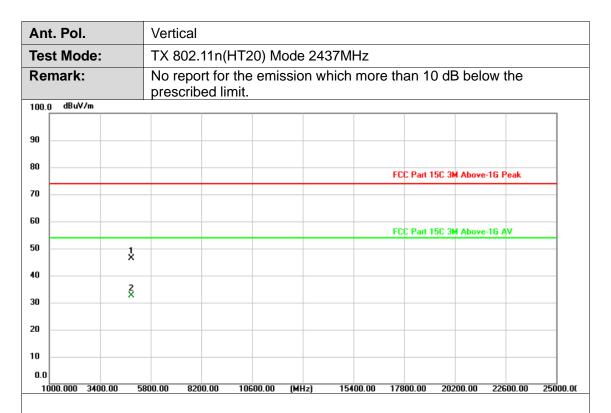
	No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
l	1 *	4873.978	34.89	-2.14	32.75	54.00	-21.25	AVG
	2	4874.670	47.55	-2.14	45.41	74.00	-28.59	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







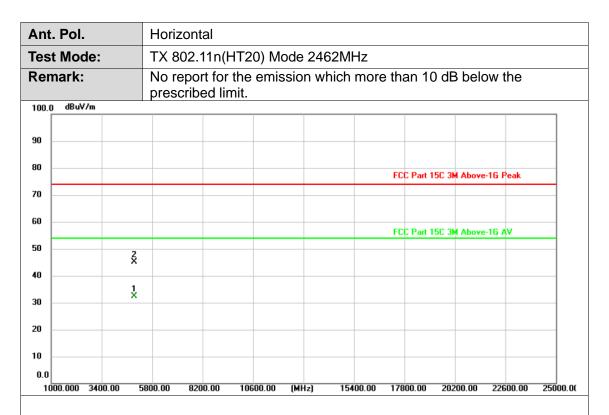
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4873.786	48.61	-2.14	46.47	74.00	-27.53	peak
2 *	4874.518	34.80	-2.14	32.66	54.00	-21.34	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







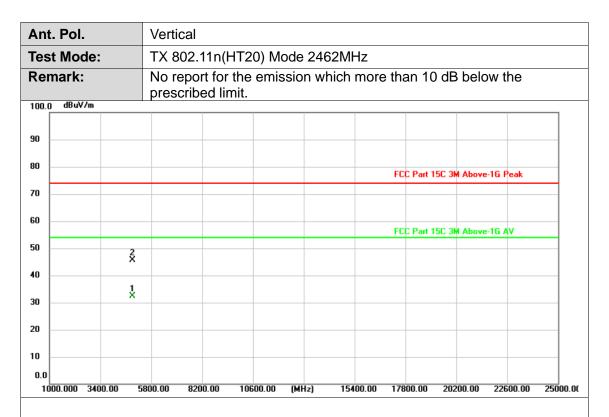
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	4923.120	34.40	-1.93	32.47	54.00	-21.53	AVG
2	4924.923	47.01	-1.93	45.08	74.00	-28.92	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







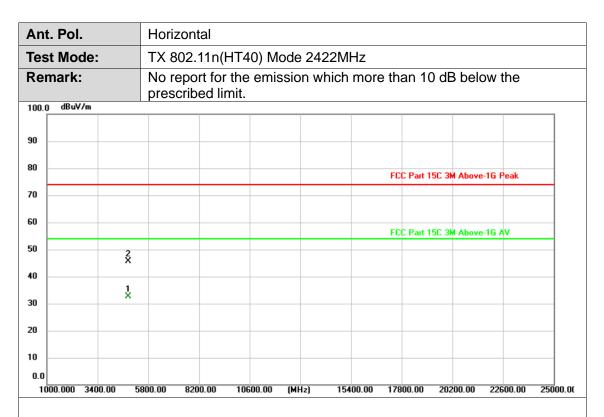
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	4924.608	34.35	-1.93	32.42	54.00	-21.58	AVG
2	4924.725	47.58	-1.93	45.65	74.00	-28.35	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







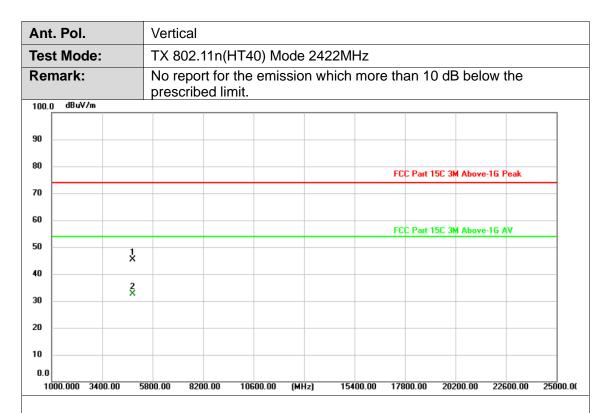
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	4843.806	34.91	-2.27	32.64	54.00	-21.36	AVG
2	4844.190	47.94	-2.27	45.67	74.00	-28.33	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







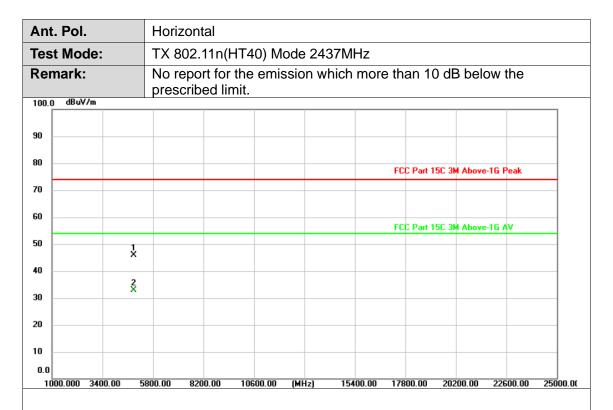
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4844.435	47.75	-2.26	45.49	74.00	-28.51	peak
2 *	4844.936	34.86	-2.26	32.60	54.00	-21.40	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







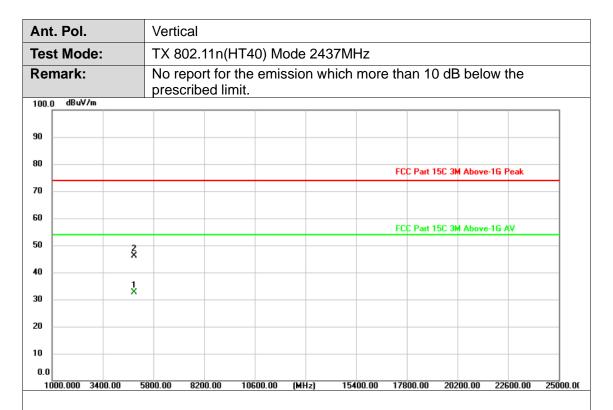
 <u> </u>							
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4873.134	48.10	-2.14	45.96	74.00	-28.04	peak
2 *	4873.898	34.91	-2.14	32.77	54.00	-21.23	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







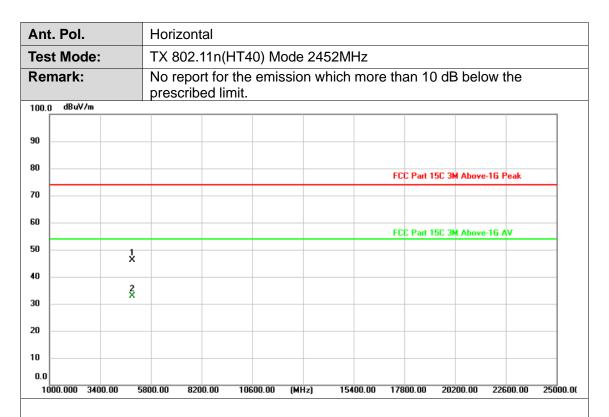
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	4873.557	34.81	-2.14	32.67	54.00	-21.33	AVG
2	4874.864	48.28	-2.14	46.14	74.00	-27.86	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4903.530	48.13	-2.01	46.12	74.00	-27.88	peak
2 *	4903.872	34.78	-2.01	32.77	54.00	-21.23	AVG

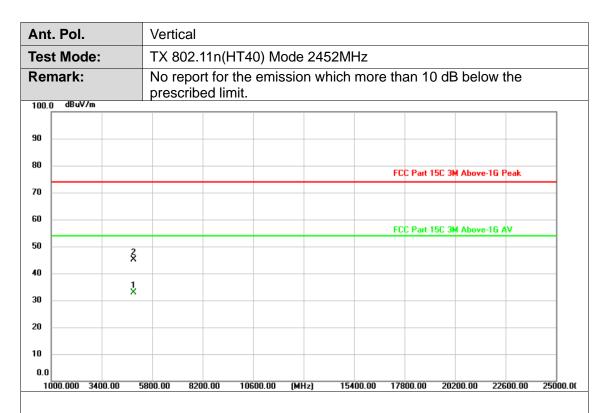
Remarks:

- 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 2.Margin value = Level -Limit value

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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	4903.160	34.87	-2.01	32.86	54.00	-21.14	AVG
2	4903.795	47.21	-2.01	45.20	74.00	-28.80	peak

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor





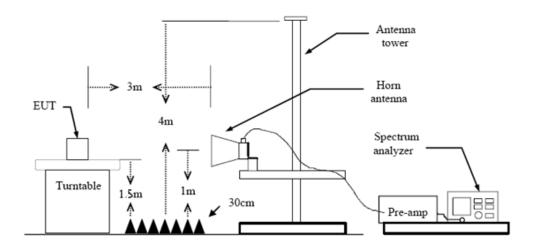
3.3. Band Edge Emissions (Radiated)

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d)/ RSS-247 5.5:

Restricted Frequency Band	(dBuV/m	n)(at 3m)
(MHz)	Peak	Average
2310 ~2390	74	54
2483.5 ~2500	74	54

Test Configuration



Test Procedure

- 1. The EUT was setup and tested according to ANSI C63.10:2013 requirements.
- 2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
- 3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
- 4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.
- 5. The receiver set as follow:
 - RBW=1MHz, VBW=3MHz Peak detector for Peak value.
 - RBW=1MHz, VBW see note 1 with Peak Detector for Average Value.

Note 1: For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 3.8 Duty Cycle.

Test Mode

Please refer to the clause 2.4.

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Test Results



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	2390.000	19.35	32.08	51.43	74.00	-22.57	peak
2 *	2390.000	9.33	32.08	41.41	54.00	-12.59	AVG

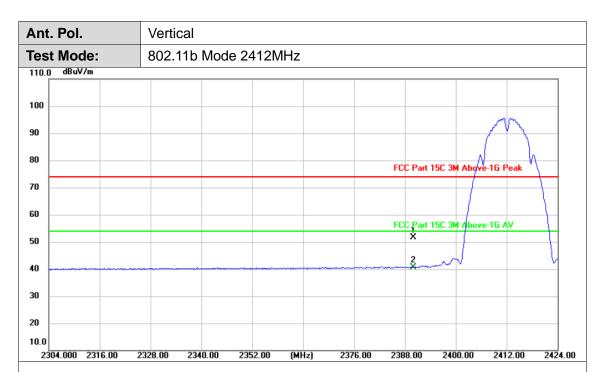
Remarks:

- 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 2.Margin value = Level -Limit value

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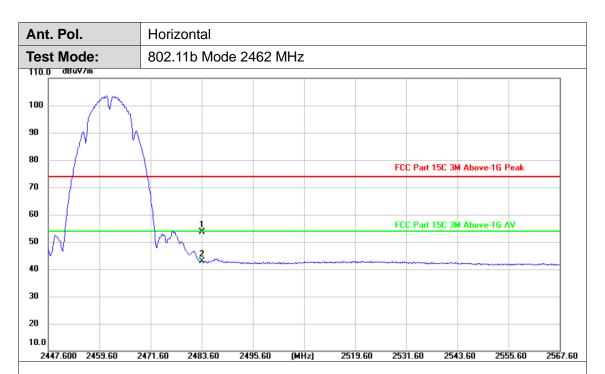
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	2390.000	19.47	32.08	51.55	74.00	-22.45	peak
2 *	2390.000	8.54	32.08	40.62	54.00	-13.38	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







	No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
Γ	1	2483.500	21.22	32.52	53.74	74.00	-20.26	peak
Γ	2 *	2483.500	10.31	32.52	42.83	54.00	-11.17	AVG

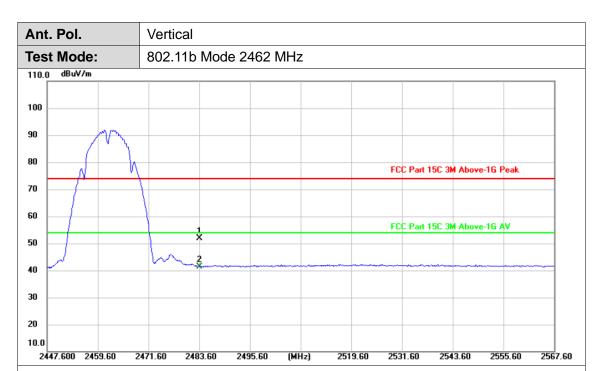
Remarks:

- 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 2.Margin value = Level -Limit value

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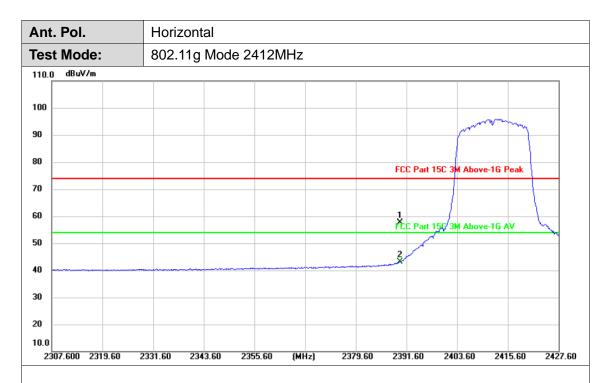
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	2483.500	19.25	32.52	51.77	74.00	-22.23	peak
2 *	2483.500	8.90	32.52	41.42	54.00	-12.58	AVG

Remarks:

- 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 2.Margin value = Level -Limit value

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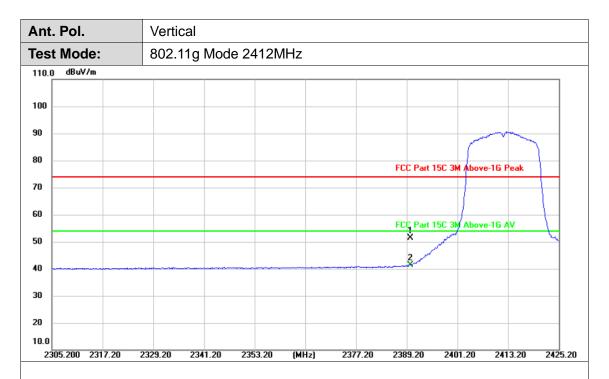
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	2390.000	25.57	32.08	57.65	74.00	-16.35	peak
2 *	2390.000	11.17	32.08	43.25	54.00	-10.75	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







İ	No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
	1	2390.000	19.26	32.08	51.34	74.00	-22.66	peak
	2 *	2390.000	9.42	32.08	41.50	54.00	-12.50	AVG

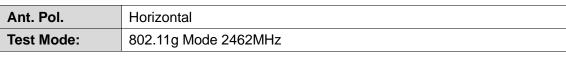
Remarks:

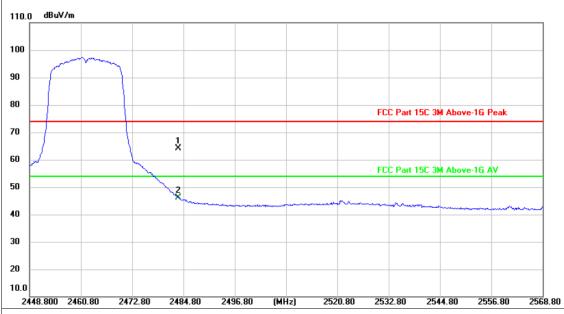
- 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 2.Margin value = Level -Limit value

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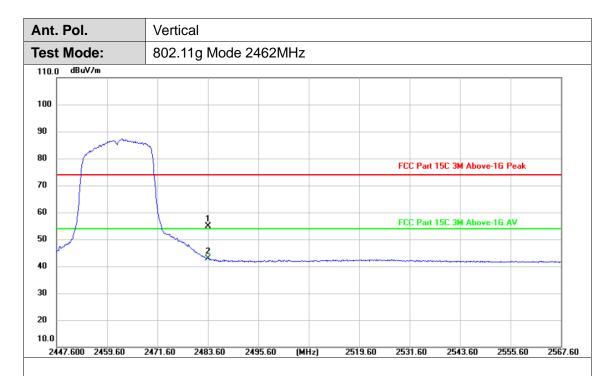
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	2483.500	31.49	32.52	64.01	74.00	-9.99	peak
2 *	2483.500	13.64	32.52	46.16	54.00	-7.84	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	2483.500	22.48	32.52	55.00	74.00	-19.00	peak
2 *	2483.500	10.46	32.52	42.98	54.00	-11.02	AVG

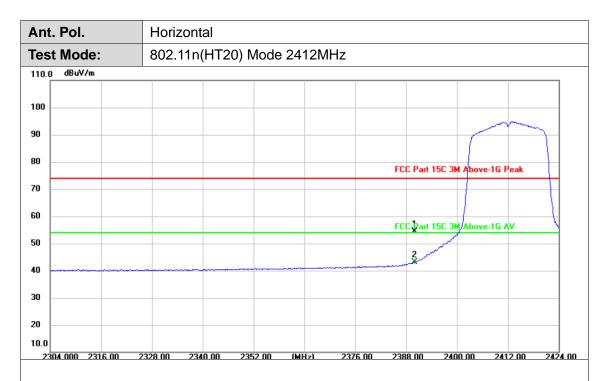
Remarks:

- 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 2.Margin value = Level -Limit value

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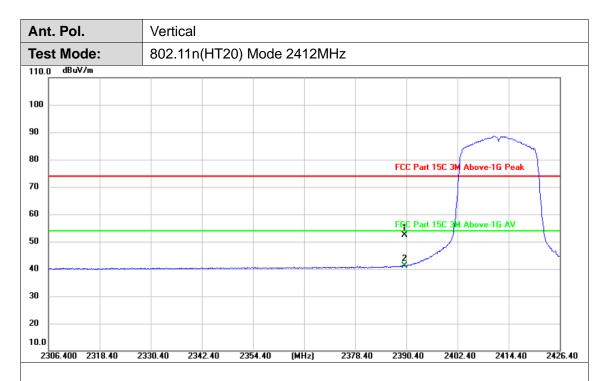
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	2390.000	22.36	32.08	54.44	74.00	-19.56	peak
2 *	2390.000	10.96	32.08	43.04	54.00	-10.96	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







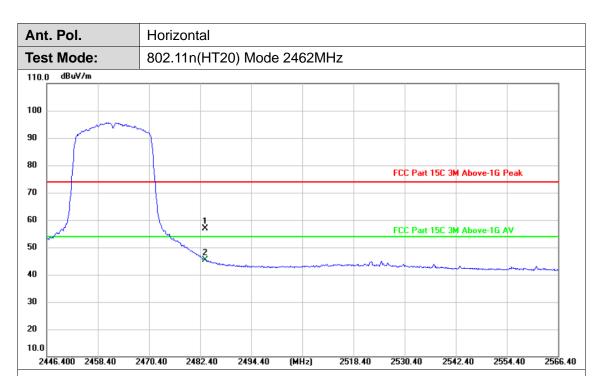
ľ	No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
ľ	1	2390.000	20.31	32.08	52.39	74.00	-21.61	peak
ľ	2 *	2390.000	8.95	32.08	41.03	54.00	-12.97	AVG

Remarks:

- 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 2.Margin value = Level -Limit value

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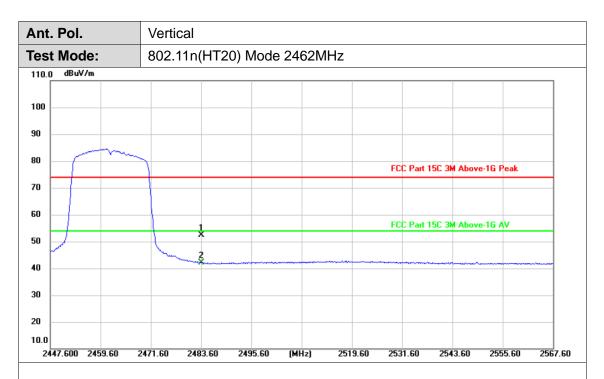
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	2483.500	24.44	32.52	56.96	74.00	-17.04	peak
2 *	2483.500	12.93	32.52	45.45	54.00	-8.55	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	2483.500	19.74	32.52	52.26	74.00	-21.74	peak
2 *	2483.500	9.72	32.52	42.24	54.00	-11.76	AVG

Remarks:

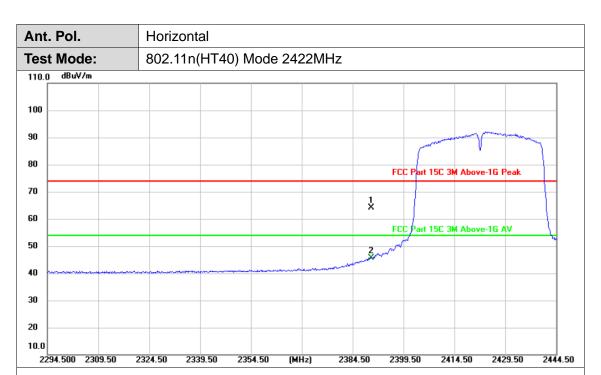
- 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 2.Margin value = Level -Limit value

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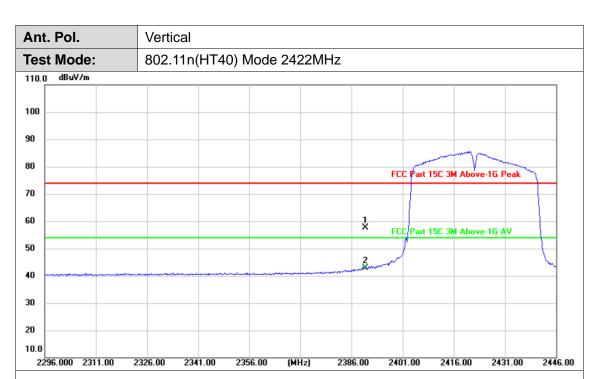
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	2390.000	32.12	32.08	64.20	74.00	-9.80	peak
2 *	2390.000	13.50	32.08	45.58	54.00	-8.42	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







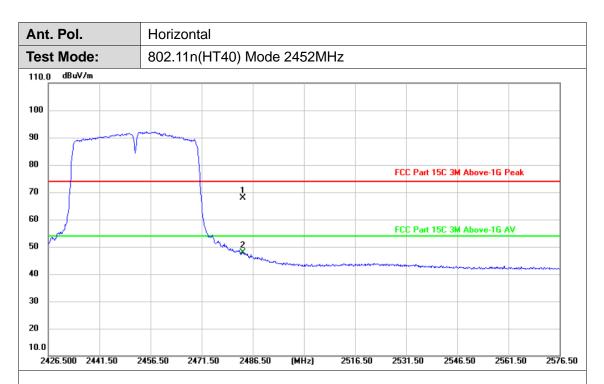
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	2390.000	25.62	32.08	57.70	74.00	-16.30	peak
2 *	2390.000	10.76	32.08	42.84	54.00	-11.16	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







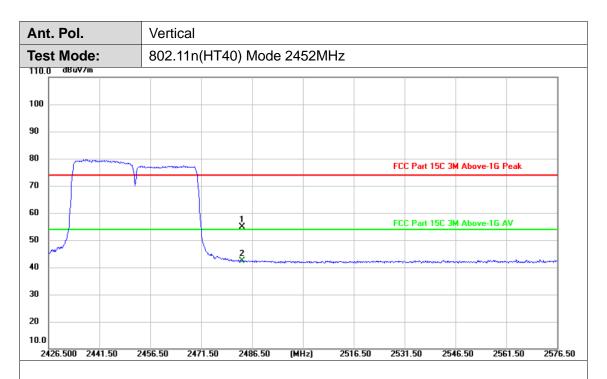
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	2483.500	35.41	32.52	67.93	74.00	-6.07	peak
2	2483.500	15.40	32.52	47.92	54.00	-6.08	AVG

Remarks:

- 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 2.Margin value = Level -Limit value

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	No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
Ì	1	2483.500	22.41	32.52	54.93	74.00	-19.07	peak
	2 *	2483.500	9.75	32.52	42.27	54.00	-11.73	AVG

Remarks:

- 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 2.Margin value = Level -Limit value

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Page 60 of 71

Report No.: CTC2024214416

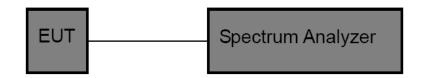


3.4. Band edge and Spurious Emissions (Conducted)

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d):In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

Test Configuration



Test Procedure

- 1. The transmitter output was connected to the spectrum analyzer through an attenuator, the path loss was compensated to the results for each measurement.
- 2. Set to the maximum power setting and enable the EUT transmit continuously
- Use the following spectrum analyzer settings: RBW = 100 kHz, VBW ≥ RBW, scan up through 10th harmonic. Sweep = auto, Detector function = peak, Trace = max hold
- 4. Measure and record the results in the test report.

Test Mode

Please refer to the clause 2.4.

Test Results

(1) Band edge Conducted Test

Note: This test item not applicable.

(2) Conducted Spurious Emissions Test

Note: This test item not applicable.



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3.5. DTS Bandwidth

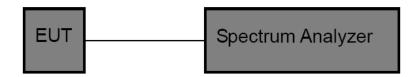
Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (a)(2)/ RSS-247 5.2 a:

Test Item	Limit	Frequency Range(MHz)
DTS Bandwidth	>=500 KHz (6dB bandwidth)	2400~2483.5

Report No.: CTC2024214416

Test Configuration



Test Procedure

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- DTS Spectrum Setting:
 - (1) Set RBW = 100 kHz.
 - (2) Set the video bandwidth (VBW) ≥ 3 RBW.
 - (3) Detector = Peak.
 - (4) Trace mode = Max hold.
 - (5) Sweep = Auto couple.
 - OCB Spectrum Setting:
 - (1) Set RBW = 1% ~ 5% occupied bandwidth.
 - (2) Set the video bandwidth (VBW) ≥ 3 RBW.
 - (3) Detector = Peak.
 - (4) Trace mode = Max hold.
 - (5) Sweep = Auto couple.

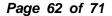
NOTE: The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

Test Mode

Please refer to the clause 2.4.



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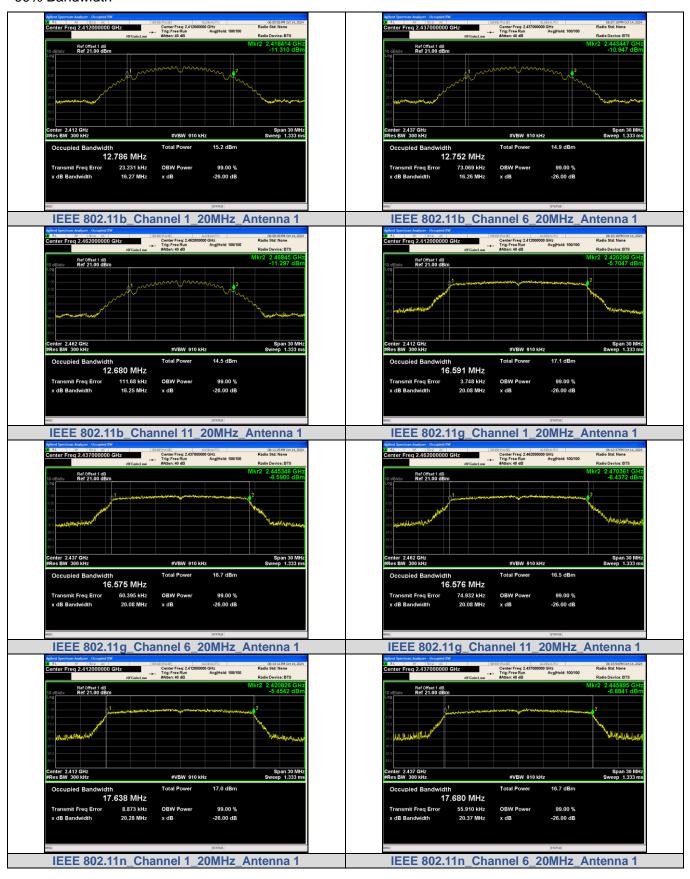
Test Results

Mode	Channel	99% BW (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	12.786	8.047	≥0.5	PASS
	6	12.752	8.059		PASS
	11	12.680	8.057		PASS
IEEE 802.11g	1	16.591	15.10		PASS
	6	16.575	15.06		PASS
	11	16.576	15.30		PASS
IEEE 802.11n_20	1	17.638	15.08		PASS
	6	17.680	15.12		PASS
	11	17.619	15.70		PASS
IEEE 802.11n_40	3	36.063	35.12		PASS
	6	36.074	35.25		PASS
	9	36.022	35.12		PASS

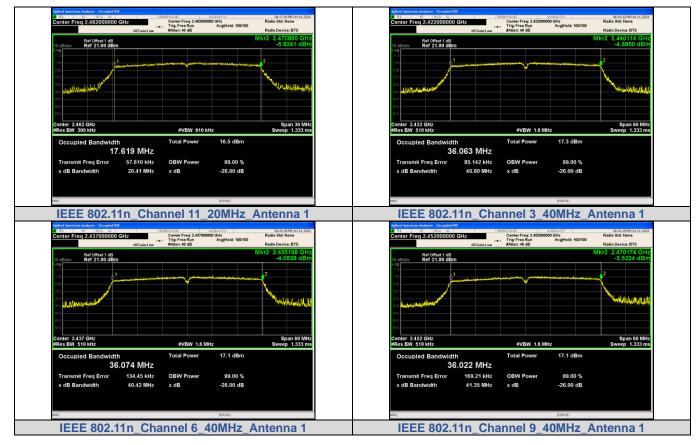
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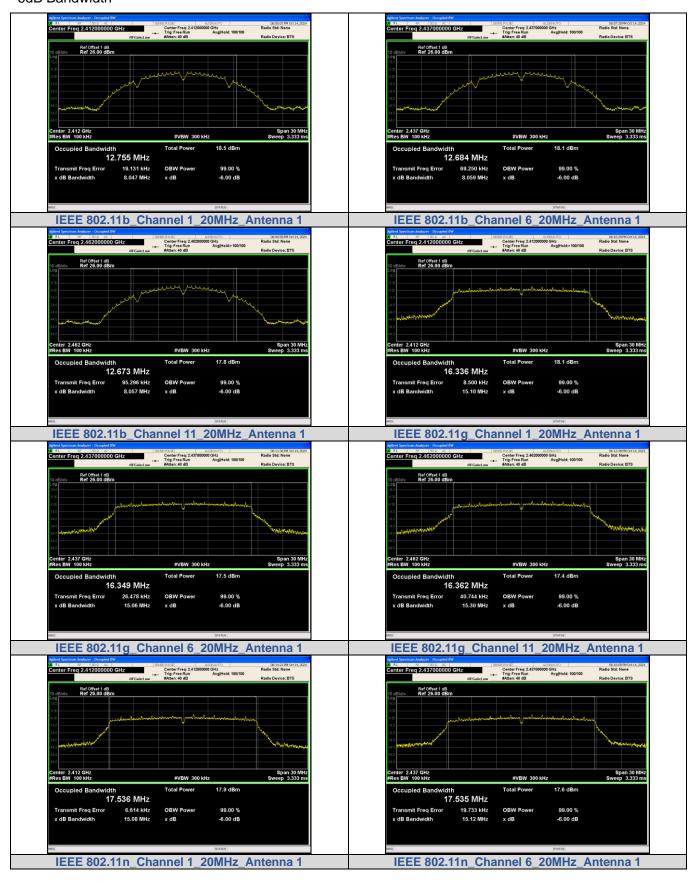
99% Bandwidth



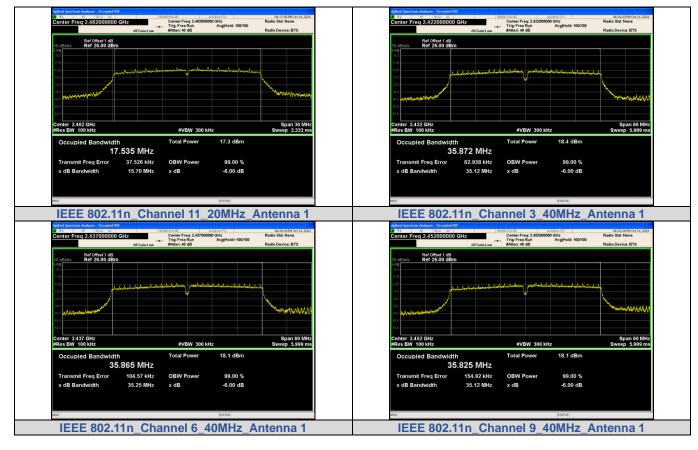




6dB Bandwidth









3.6. Conducted Output Power

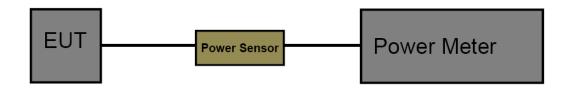
Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (b)(3)/ RSS-247 5.4:

Section	Test Item	Limit	Frequency Range(MHz)
CFR 47 FCC 15.247(b)(3)	Maximum conducted output power	1 Watt or 30dBm	2400~2483.5
ISED RSS-247 5.4 d	EIRP	4 Watt or 36dBm	2400~2483.5

Report No.: CTC2024214416

Test Configuration



Test Procedure

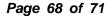
- 1. The maximum conducted output power may be measured using a broadband Peak RF power meter.
- 2. Peak power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor.
- 3. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.
- Record the measurement data.

Test Mode

Please refer to the clause 2.4.

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Test Result

Test Mode	Frequency[MHz]	Result[dBm]	Limit[dBm]	Verdict
802.11b	2412	13.93	<=30	PASS
	2437	13.67	<=30	PASS
	2462	13.30	<=30	PASS
802.11g	2412	18.55	<=30	PASS
	2437	18.16	<=30	PASS
	2462	17.99	<=30	PASS
802.11n(HT20)	2412	18.24	<=30	PASS
	2437	17.91	<=30	PASS
	2462	17.78	<=30	PASS
802.11n(HT40)	2422	18.73	<=30	PASS
	2437	18.59	<=30	PASS
	2452	18.50	<=30	PASS

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3.7. Power Spectral Density

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (e)/ RSS-247 5.2 b:

Test Item	Limit	Frequency Range(MHz)	
Power Spectral Density	8dBm(in any 3 kHz)	2400~2483.5	

Report No.: CTC2024214416

Test Configuration



Test Procedure

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05r02.
- Spectrum Setting:

Set analyzer center frequency to DTS channel center frequency.

Set the span to 1.5 times the DTS bandwidth.

Set the RBW to: 3 kHz Set the VBW to: 10 kHz

Detector: PK Sweep time: Auto

Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

Test Mode

Please refer to the clause 2.4.

Test Result

Note: This test item not applicable.

Tel.: (86)755-27521059

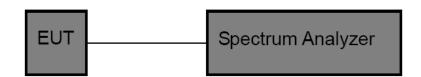


3.8. Duty Cycle

Limit

None, for report purposes only.

Test Configuration



Test Procedure

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- 2. The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05r02.
- 3. Spectrum Setting:

Set analyzer center frequency to DTS channel center frequency.

Set the span to 0Hz Set the RBW to 10MHz Set the VBW to 10MHz

Detector: peak Sweep time: auto

Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

Test Mode

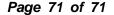
Please refer to the clause 2.4.

Test Result

Note: This test item not applicable.

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3.9. Antenna requirement

Requirement

FCC CFR Title 47 Part 15 Subpart C Section 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

FCC CFR Title 47 Part 15 Subpart C Section 15.247(c) (1)(i):

(i) Systems operating in the 2400~2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

Test Result

The directional gain of the antenna less than 6dBi, please refer to the EUT internal photographs antenna photo.



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