FCC PART 15E TEST REPORT FOR CERTIFICATION
On Behalf of

DEI Sales Inc. dba Definitive Technology

JMDD Module

Model Number: JMDD

FCC ID: IPUJMDD

Prepared for:	DEI Sales Inc. dba Definitive Technology
	One Viper Way Vista, California 92081, United States
Prepared By:	EST Technology Co., Ltd.
	Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China
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Report Number:	ESTE-R1810004
Date of Test:	September 10 ~ November 13, 2018
Date of Report:	November 15, 2018

TABLE OF CONTENTS

Description Page

TEST REPORT VERIFICATION....3
1. GENERAL INFORMATION....5
1.1. Description of Device (EUT)....5
2. SUMMARY OF TEST....7
2.1. Test methodology....7
2.2. Summary of test result....7
2.3. Test Facilities....8
2.4. Measurement uncertainty....9
2.5. Assistant equipment used for test....9
2.6. Block Diagram....10
2.7. Test mode....11
2.8. Channel List....12
2.9. Test Equipment....13
3. DUTY CYCLE....15
3.1. Limit....15
3.2. Test Procedure....15
3.3. Test Information....16
3.4. Test Result....16
3.5. Test Data....17
4. 26 DB BANDWIDTH....19
4.1. Limit....19
4.2. Test Procedure....19
4.3. Test Information....20
4.4. Test Result....20
4.5. Test Data....22
5. 6 DB BANDWIDTH....42
5.1. Limit....42
5.2. Test Procedure....42
5.3. Test Information....42
5.4. Test Result....42
5.5. Test Data....43
6. OUTPUT POWER....48
6.1. Limit....48
6.2. Test Procedure....50
6.3. Test Information....51
6.4. Test Result....51
7. PEAK POWER SPECTRAL DENSITY....55
7.1. Limit....55
7.2. Test Procedure....56
7.3. Test Information....57
7.4. Test Result....57
7.5. Test Data....61
8. FREQUENCY STABILITY....81

8.1. Limit 81
8.2. Test Procedure 81
8.3. Test Information 82
8.4. Test Result 82
9. RADIATED SPURIOUS EMISSIONS 110
9.1. Limit 110
9.2. Block Diagram of Test setup 111
9.3. Test Procedure 112
9.4. Test Result 112
9.5. Test Data 113
10. BAND EDGE COMPLIANCE 253
10.1. Limit 253
10.2. Block Diagram of Test setup 253
10.3. Test Procedure 253
10.4. Test Result 254
10.5. Test Data 255
11. IN BAND EMISSION 311
11.1. Limit 311
11.2. Test Procedure 311
11.3. Test Information 311
11.4. Test Result 311
11.5. Test Data 312
12. POWER LINE CONDUCTED EMISSIONS 316
12.1. Limit 316
12.2. Test Procedure 316
13. ANTENNA REQUIREMENTS 321
13.1. Limit 321
13.2. Result 321
14. TEST SETUP PHOTO 322
15. PHOTO OF EUT 324

EST Technology Co., Ltd.

Applicant: **Address:**	DEI Sales Inc. dba Definitive Technology One Viper Way Vista, California 92081, United States		
Manufacturer: **Address:**	DEI Sales Inc. dba Definitive Technology One Viper Way Vista, California 92081, United States		
E.U.T:	JMDD Module		
Model Number:	JMDD		
Power Supply:	DC 4.0V From base board; base board use DC 12V From adapter input AC 100-240V ~ 50/60Hz.		
Test Voltage:	AC 120V/60Hz AC 240V/60Hz		
Trade Name:	POLK	Serial No.:	------
Date of Receipt:	September 07, 2018	Date of Test:	September 10 ~ November 13, 2018
Test Specification:	FCC Rules and Regulations Part 15 Subpart E:2018 ANSI C63.10:2013		
Test Result:	The device described above is tested by EST Technology Co., Ltd. The measurement results were contained in this test report and EST Technology Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the FCC Rules and Regulations Part 15 Subpart E requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of EST Technology Co., Ltd. **Date:** November 15, 2018		

Prepared by:	Reviewed by:	Approved by:
Ring	Tony	EST Technology Co.,Ltd. Authorize
Ring / Assistant	Tony / Engineer	Iceman Hu / Manager

Other Aspects:
None.

Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested

This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of EST Technology Co., Ltd.

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Product Name	:	JMDD Module
FCC ID	:	IPUJMDD
Model Number	:	JMDD
Operation frequency	:	UNII Band I: IEEE 802.11a: 5180 ~ 5240MHz; IEEE 802.11n HT20: 5180 ~ 5240MHz; IEEE 802.11n HT40: 5190 ~ 5230MHz; IEEE 802.11ac VHT20: 5180 ~ 5240MHz; IEEE 802.11ac VHT40: 5190 ~ 5230MHz; IEEE 802.11ac VHT80: 5210MHz. UNII Band II: IEEE 802.11a: 5260 ~ 5320MHz; IEEE 802.11n HT20: 5260 ~ 5320MHz; IEEE 802.11n HT40: 5270 ~ 5310MHz; IEEE 802.11ac VHT20: 5260 ~ 5320MHz; IEEE 802.11ac VHT40: 5270 ~ 5310MHz; IEEE 802.11ac VHT80: 5290MHz. UNII Band III: IEEE 802.11a: 5500 ~ 5700MHz; IEEE 802.11n HT20: 5500 ~ 5700MHz; IEEE 802.11n HT40: 5510 ~ 5670MHz; IEEE 802.11ac VHT20: 5500 ~ 5700MHz; IEEE 802.11ac VHT40: 5510 ~ 5670MHz; IEEE 802.11ac VHT80: 5530MHz. UNII Band IV: IEEE 802.11a: 5745 ~ 5825MHz; IEEE 802.11n HT20: 5745 ~ 5825MHz; IEEE 802.11n HT40: 5755 ~ 5795MHz; IEEE 802.11ac VHT20: 5745 ~ 5825MHz; IEEE 802.11ac VHT40: 5755 ~ 5795MHz; IEEE 802.11ac VHT80: 5775MHz.
Number of channel	:	UNII Band I: IEEE 802.11a / n HT20 / ac VHT20: 4 Channels; IEEE 802.11n HT40 / ac VHT40: 2 Channels; IEEE 802.11ac VHT80: 1 Channel. UNII Band II: IEEE 802.11a / n HT20 / ac VHT20: 4 Channels; IEEE 802.11n HT40 / ac VHT40: 2 Channels; IEEE 802.11ac VHT80: 1 Channel. UNII Band III: IEEE 802.11a / n HT20 / ac VHT20: 8 Channels; IEEE 802.11n HT40 / ac VHT40: 3 Channels; IEEE 802.11ac VHT80: 1 Channel. UNII Band IV: IEEE 802.11a / n HT20 / ac VHT20: 5 Channels; IEEE 802.11n HT40 / ac VHT40: 2 Channels; IEEE 802.11ac VHT80: 1 Channel.

Modulation	:	OFDM(QPSK, BPSK, 16-QAM, 64-QAM,256-QAM)
Transmit Data Rate	:	IEEE 802.11a: 54, 48, 36, 24, 18, 12, 9, 6Mbps; IEEE 802.11n HT20: 14.4, 28.9, 43.3, 57.8, 86.7, 115.6, 130.0, 144.4 Mbps; IEEE 802.11ac VHT20: 14.4, 28.8, 43.4, 57.8, 86.6, 115.6, 130, 144.4, 173.4 Mbps; IEEE 802.11n HT40: 30, 60, 90, 120, 180, 240, 270, 300 Mbps; IEEE 802.11ac VHT40: 30, 60, 90, 120, 180, 240, 270, 300, 360, 400 Mbps; IEEE 802.11ac VHT80: 65, 130, 195, 260, 390, 520, 585, 650, 780, 866.6 Mbps.
Channels Spacing	:	IEEE 802.11a: 20MHz; IEEE 802.11n HT20: 20MHz; IEEE 802.11n HT40: 40MHz; IEEE 802.11ac VHT20: 20MHz; IEEE 802.11ac VHT40: 40MHz; IEEE 802.11ac VHT80: 80MHz.
Antenna	:	PIFA antenna

Frequency Range	Antenna 0	Antenna 1	Antenna 2
2400~2483.5 MHz	4.03 dBi	4.10 dBi	3.17 dBi
5150~5250 MHz	/	2.39 dBi	2.91 dBi
5250~5350 MHz	/	1.65 dBi	3.12 dBi
5470~5725 MHz	/	2.97 dBi	4.50 dBi
5725~5850 MHz	/	3.90 dBi	3.56 dBi

2.4G Directional gain: 6.66dBi
5G(Band I) Directional gain: 5.64dBi
5G(Band II) Directional gain: 5.43dBi
5G(Band III) Directional gain: 6.78dBi
5G(Band IV) Directional gain: 6.74dBi
Directional gain $=10\log[(10^{G1/20}+10^{G2/20})^2/N_{ANT}]$ dBi
Note: KDB 662911 D01 Multiple Transmitter Output v02r01

		Note: Bluetooth uses Antenna 0 11a,b,g,n,ac uses Antenna 1 / Antenna 2 11n,ac uses MIMO
Hardware Version	:	40-JMDDAC-RFF4G
Software Version	:	OIM6
Sample Type	:	Prototype production

2. SUMMARY OF TEST

2.1. Test methodology.

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10 Radiated testing was performed at an antenna to EUT distance 3 meters. The tests documented in this report were performed in accordance with ANSI C63.10: 2013 and FCC CFR 47 Part 15.207, 15.209, 15.407 and FCC 14-30. Radio testing was performed according to KDB DA 02-2138、KDB 789033 D02、KDB 905462 D06.

2.2. Summary of test result

Description of Test Item	Standard	Results
99%, 6dB and 26dB Bandwidth	FCC Part 15: 407(a) FCC Part 15: 407(e)	PASS
Maximum Conducted Output Power	FCC Part 15: 407(a)	PASS
Peak Power Spectral Density	FCC Part 15: 407(a)	PASS
Radiated Spurious Emissions	FCC Part 15: 407(b)	PASS
Conducted Unwanted Emissions	FCC Part 15: 407(b)	PASS
Band Edge Measurement	FCC Part 15: 407(b)	PASS
Frequency Stability	FCC Part 15: 407(g)	PASS
Power Line Conducted Emissions	FCC Part 15: 207 FCC Part 15: 407(b)(6)	PASS
Antenna requirement	FCC Part 15: 203 FCC Part 15: 407(a)	PASS

2.3. Test Facilities

EMC Lab	:	Certificated by CNAS, CHINA Registration No.: L5288 Date of registration: November 13, 2017 Certificated by FCC, USA Designation Number: CN1215 Test Firm Registration Number: 722932 Date of registration: November 21, 2017 Certificated by A2LA, USA Registration No.: 4366.01 Date of registration: November 07, 2017 Certificated by Industry Canada CAB identifier No.: CN0035 Date of registration: January 04, 2019 Certificated by VCCI, Japan Registration No.: R-13663; C-14103 Date of registration: July 25, 2017 This Certificate is valid until: July 24, 2020 Certificated by TUV Rheinland, Germany Registration No.: UA 50413872 0001 Date of registration: July 31, 2018 Certificated by TUV/PS, Shenzhen Registration No.: SCN1017 Date of registration: January 27, 2011 Certificated by Intertek ETL SEMKO Registration No.: 2011-RTL-L2-64 Date of registration: April 28, 2011 Certificated by Nemko, Hong Kong Registration No.: 175193 Date of registration: May 4, 2011
Name of Firm	:	EST Technology Co., Ltd.
Site Location	:	Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China

2.4. Measurement uncertainty

Test Item	Uncertainty
Uncertainty for Conduction emission test	2.54dB
Uncertainty for Radiation Emission test (9Khz-30MHz)	3.11
Uncertainty for Radiation Emission test (30MHz-1GHz)	3.62
Uncertainty for Radiation Emission test (1GHz to 18GHz)	4.86
Uncertainty for spurious emissions test (18GHz to 40GHz)	4.67
Uncertainty for radio frequency	7×10-8
Uncertainty for conducted RF Power	0.20dB
Uncertainty for Power density test	0.26dB
Temperature	±0.6˚C
Humidity	±4.0 %
Volatage DC	±1.0%
Volatage (AC, <10KHz)	±1.5%

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

2.5. Assistant equipment used for test

2.5.1. Adapter

M/N : S018BAC1200150
Input : AC 100-240V ~ 50/60Hz
Output : DC 12V

2.5.2. Notebook

Manufacturer : Lenovo
M/N : Thinkpad X250
S/N : 2014AP6082

2.6. Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 (or 1.5) meter high above ground. EUT was be set into test mode by software before test.

(EUT: JMDD Module)

2.7. Test mode

The test software was used to control EUT work in Continuous TX mode, and select test channel, wireless mode

Band	Mode	Channel	Frequency (MHz)	Data rate (Mbps)
UNII Band I	IEEE 802.11a & n HT20 & ac VHT20: 5180-5240MHz	Low	5180	6
		Middle	5200	6
		High	5240	6
	IEEE 802.11n HT40 & ac VHT40: 5180-5240MHz	Low	5190	13.5
		High	5230	13.5
	IEEE 802.11ac VHT80: 5210MHz	/	5210	29.3
UNII Band II	IEEE 802.11a & n HT20 & ac VHT20: 5260-5320MHz	Low	5260	6
		Middle	5300	6
		High	5320	6
	IEEE 802.11n HT40 & ac VHT40: 5270-5310MHz	Low	5270	13.5
		High	5310	13.5
	IEEE 802.11ac VHT80: 5290MHz	/	5290	29.3
UNII Band III	IEEE 802.11a & n HT20 & ac VHT20: 5500-5700MHz	Low	5500	6
		Middle	5580	6
		High	5700	6
	IEEE 802.11n HT40 & ac VHT40: 5510-5670	Low	5510	13.5
		High	5670	13.5
	IEEE 802.11ac VHT80: 5530MHz	/	5530	29.3
UNII Band IV	IEEE 802.11a & n HT20 & ac VHT20: 5745-5825MHz	Low	5745	6
		Middle	5785	6
		High	5825	6
	IEEE 802.11n HT40 & ac VHT40: 5755-5795MHz	Low	5755	13.5
		High	5795	13.5
	IEEE 802.11ac VHT80: 5775MHz	/	5775	29.3

2.8. Channel List

Band	Mode	Channel	Frequency (MHz)
UNII Band I	IEEE 802.11a & n HT20 & ac VHT20: 5180-5240MHz	36	5180
		40	5200
		44	5220
		48	5240
	IEEE 802.11n HT40 & ac VHT40: 5180-5240MHz	38	5190
		46	5230
	IEEE 802.11ac VHT80: 5210MHz	42	5210
UNII Band II	IEEE 802.11a & n HT20 & ac VHT20: 5260-5320MHz	52	5260
		56	5280
		60	5300
		64	5320
	IEEE 802.11n HT40 & ac VHT40: 5270-5310MHz	54	5270
		62	5310
	IEEE 802.11ac VHT80: 5290MHz	58	5290
UNII Band III	IEEE 802.11a & n HT20 & ac VHT20: 5500-5700MHz	100	5500
		104	5520
		108	5540
		112	5560
		116	5580
		132	5660
		136	5680
		140	5700
	IEEE 802.11n HT40 & ac VHT40: 5510-5670	102	5510
		110	5550
		134	5670
	IEEE 802.11ac VHT80: 5530MHz	106	5530
UNII Band IV	IEEE 802.11a & n HT20 & ac VHT20: 5745-5825MHz	149	5745
		153	5765
		157	5785
		161	5805
		165	5825
	IEEE 802.11n HT40 & ac VHT40: 5755-5795MHz	151	5755
		159	5795
	IEEE 802.11ac VHT80: 5775MHz	155	5775

2.9. Test Equipment

2.9.1. For conducted emission test

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESHS30	832354	CEPREI	June 15,18	1 Year
Artificial Mains Network	Rohde & Schwarz	ENV216	101260	CEPREI	June 15,18	1 Year
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	101100	CEPREI	June 15,18	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

2.9.2. For radiated emission test(9 kHz-30MHz)

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	101780	CEPREI	June 15,18	1 Year
Active Loop Antenna	SCHWARZBECK	FMZB1519	1519-038	CEPREI	October 08,17	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

2.9.3. For radiated emissions test (30-1000MHz)

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	101780	CEPREI	June 15,18	1 Year
Bilog Antenna	Teseq	CBL 6111D	27090	CEPREI	June 15,18	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

2.9.4. For radiated emission test(above 1GHz)

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120D1002	CEPREI	June 18,18	1 Year
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170242	CEPREI	June 18,18	1Year
Signal Amplifier	SCHWARZBECK	BBV9718	9718-212	CEPREI	June 18,18	1 Year
Spectrum Analyzer	Rohde &Schwarz	FSV	103173	CEPREI	June 15,18	1 Year
PSA Series Spertrum Analyzer	Agilent	E4447A	MY50180031	CEPREI	June 15,18	1Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

2.9.5. For DFS and connect EUT antenna terminal test

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
TS 8997	Rohde &Schwarz	/	/	/	/	/
Open Switch and Control Unit	Rohde &Schwarz	OSP-B157WB	101309	CEPREI	June 15,18	1Year
Signal and Spectrum Analyzer	Rohde &Schwarz	FSV	103173	CEPREI	June 15,18	1 Year
Signal Generator	Rohde &Schwarz	SMB100A	108752	CEPREI	June 15,18	1 Year
Vector Signal Generator	Rohde &Schwarz	SMBV100A	260753	CEPREI	June 15,18	1Year
Test Software	Rohde &Schwarz	WMS32	V10.40.00	N/A	N/A	N/A
Spectrum Analyzer	Agilent	E4408B	MY44211 139	CEPREI	June 15,18	1 Year
Temperature controller	DK	DK70A	006562	Tiansu	June 03,18	1 Year
AC Source	CHANGJIA NG	3KV	EST215-0 07	N/A	N/A	N/A

3. DUTY CYCLE

3.1. Limit

No Limit.

3.2. Test Procedure

1, The transmitter output (antenna port) was connected to the spectrum analyzer. Connect EUT antenna terminal to the spectrum analyzer with a low loss SMA cable.
2, Place the EUT on the table and set it in the transmitting mode.
Measurements of duty cycle and transmission duration shall be performed using one of the following techniques:
3. A diode detector and an oscilloscope that together have sufficiently short response time to permit accurate measurements of the on- and off-times of the transmitted signal.
4. The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on- and off-times of the transmitted signal
a. Set the center frequency of the instrument to the centre frequency of the transmission
b. Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value(10MHz).
c. Set detector = Peak or average.
d. The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100.
(For example, if VBW and/or RBW are limited to 3MHz, then the zero-span method of measuring duty cycle shall not be used if T≤16.7 microseconds.)

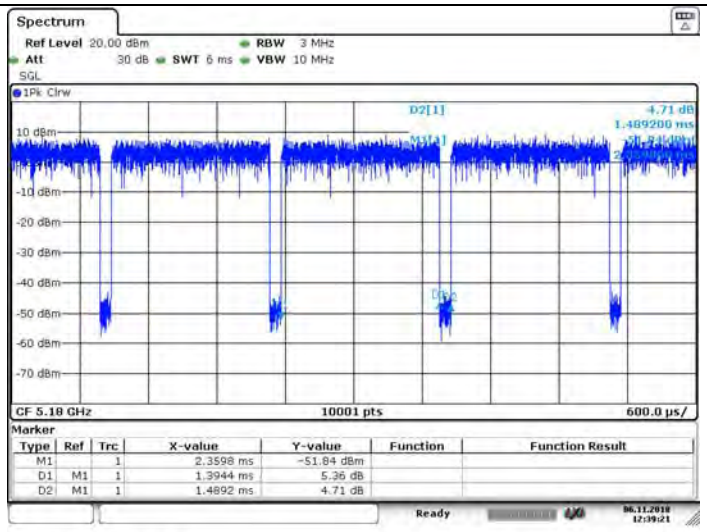
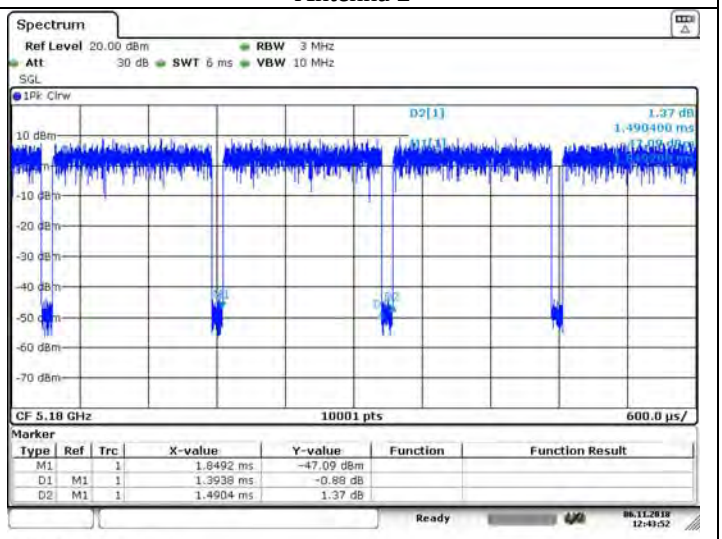
3.3. Test Information

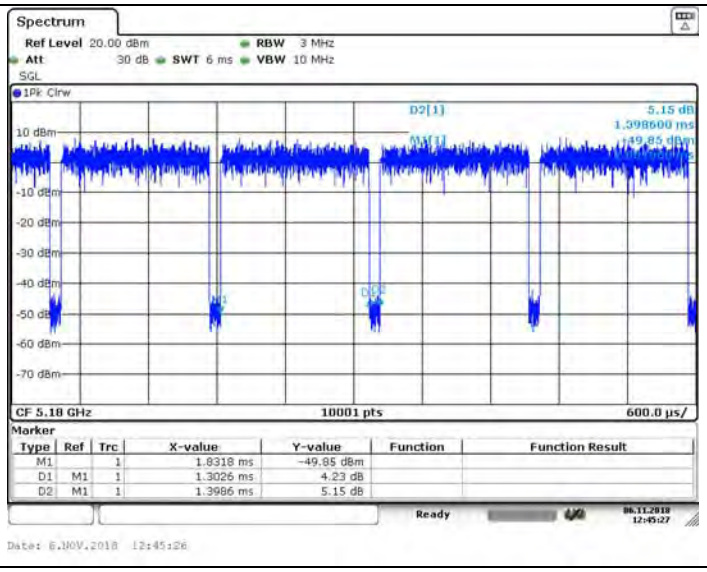
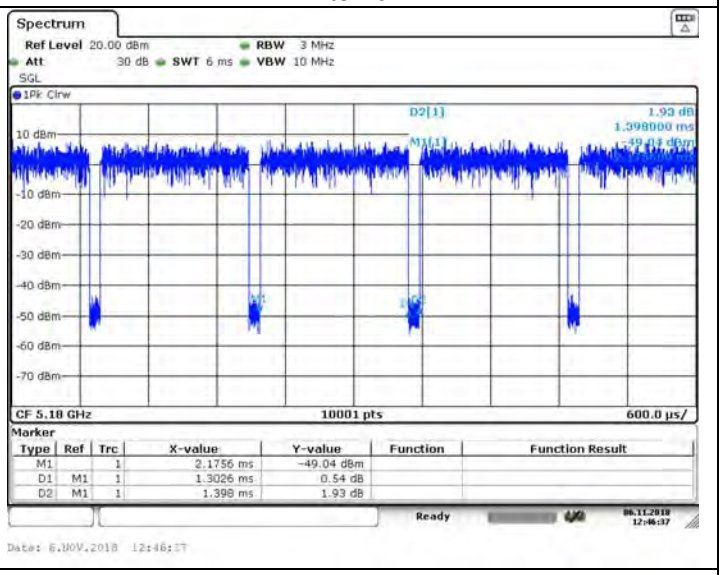
EUT: JMDD Module	
M/N: JMDD	
Test date: 2018-11-06	Test site: RF sit Tested by:Tony

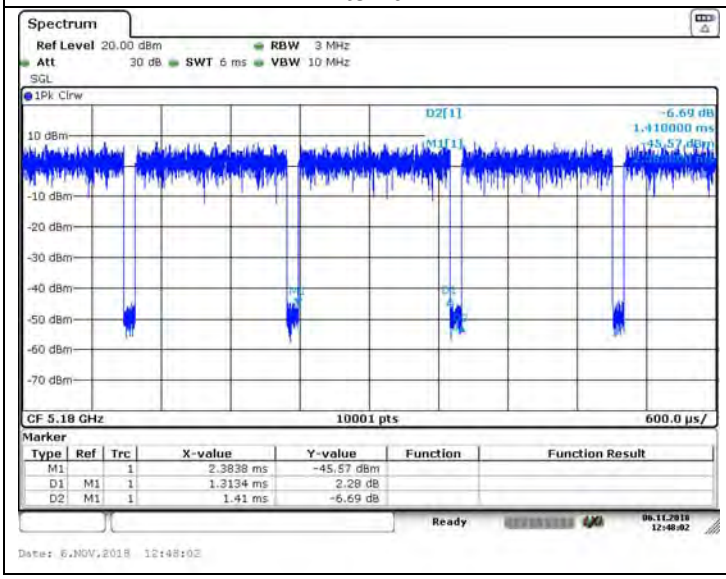
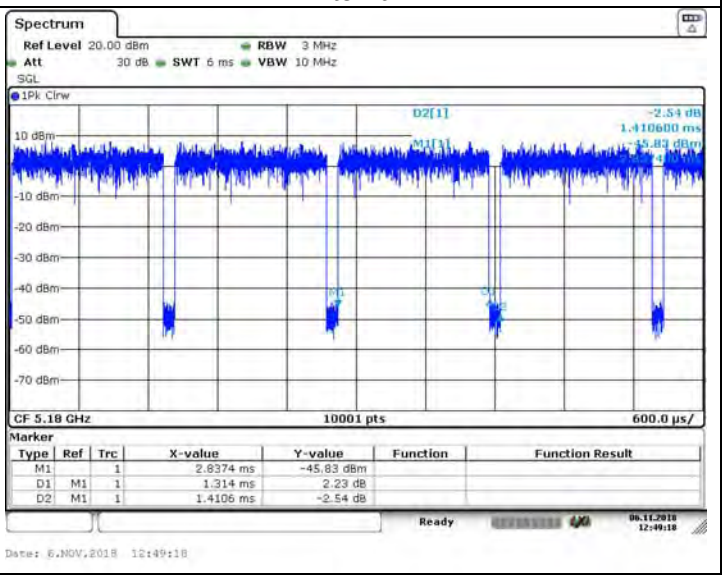
3.4. Test Result

Mode	ANT 1		ANT 2	
	Duty Cycle (%)	Duty Factor (dB)	Duty Cycle (%)	Duty Factor (dB)
IEEE 802.11a	93.63	0.29	93.52	0.29
IEEE 802.11n HT20	93.14	0.31	93.18	0.31
IEEE 802.11ac VHT20	93.15	0.31	93.15	0.31
IEEE 802.11n HT40	87.10	0.60	87.06	0.60
IEEE 802.11ac VHT40	87.17	0.60	87.13	0.60
IEEE 802.11ac VHT80	77.11	1.13	78.08	1.07
Duty Factor=10log(1/x) ; x=Duty Cycle.				

3.5. Test Data

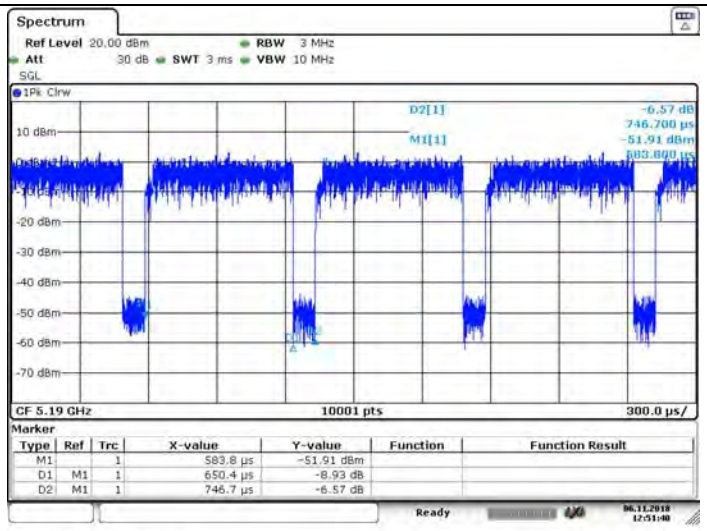
IEEE 802.11a	
Antenna 1	Antenna 2
	

IEEE 802.11n HT20	
Antenna 1	Antenna 2
	

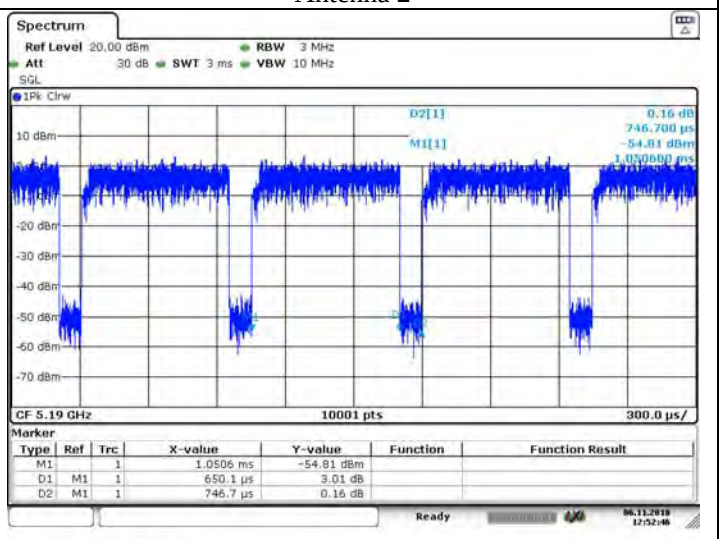
IEEE 802.11ac VHT20	
Antenna 1	Antenna 2
	

IEEE 802.11n HT40

Antenna 1

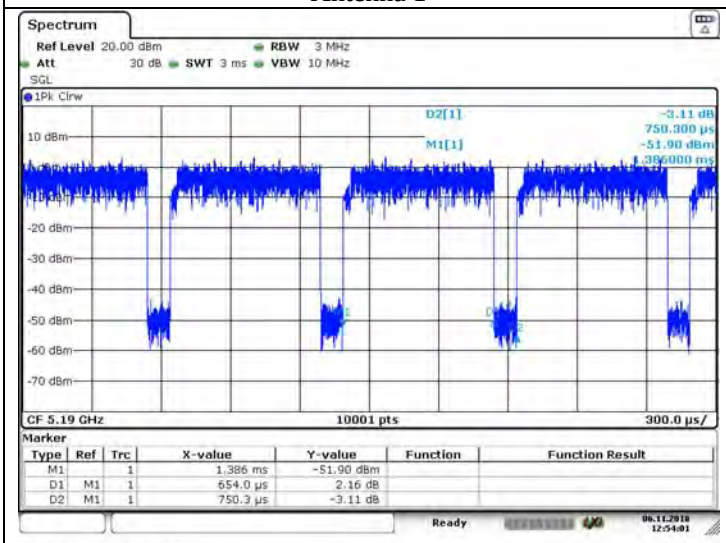


Antenna 2

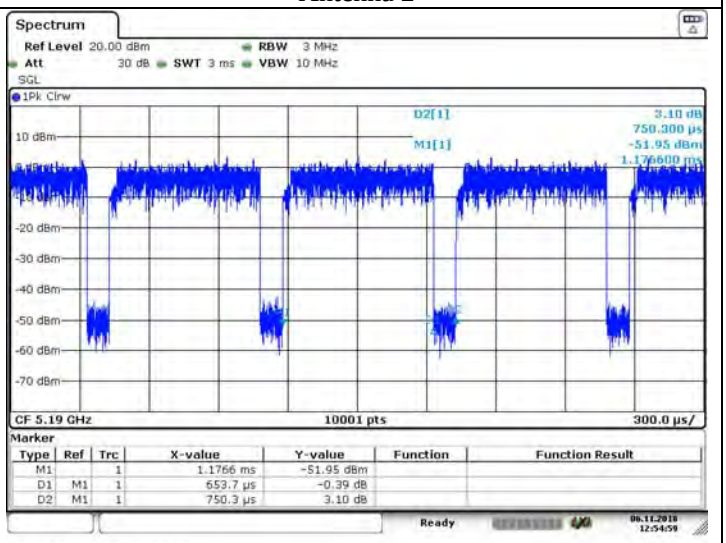


IEEE 802.11ac VHT40

Antenna 1

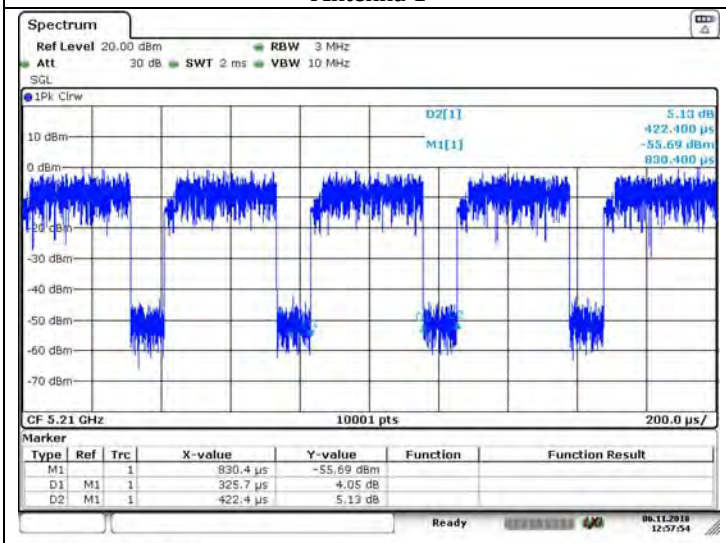


Antenna 2

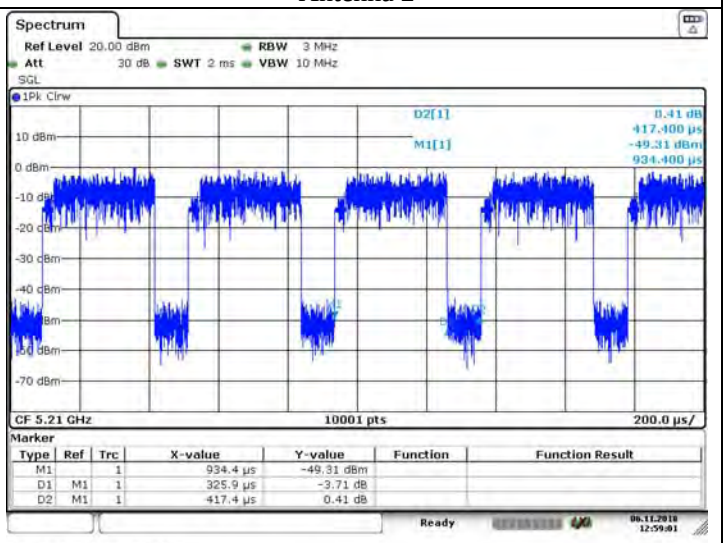


IEEE 802.11ac VHT80

Antenna 1



Antenna 2



4. 26 DB BANDWIDTH

4.1. Limit

No Limit.

4.2. Test Procedure

a, The transmitter output (antenna port) was connected to the spectrum analyzer. Connect EUT antenna terminal to the spectrum analyzer with a low loss SMA cable.
b, Place the EUT on the table and set it in the transmitting mode.
c, Set the spectrum analyzer as RBW > 1%EBW.
d, Set the VBW > RBW.
e, Set the Span >26dB bandwidth.
f, Set the Trace mode = Max hold.
g, Set the Detector = Peak.
h, Set the Sweep = auto.
i, Mark the peak frequency and –26dB (upper and lower) frequency.
j, Repeat until all the rest channels were investigated.

4.3. Test Information

EUT: JMDD Module	
M/N: JMDD	
Test date: 2018-09-19~21	Test site: RF sit Tested by:Tony

4.4. Test Result

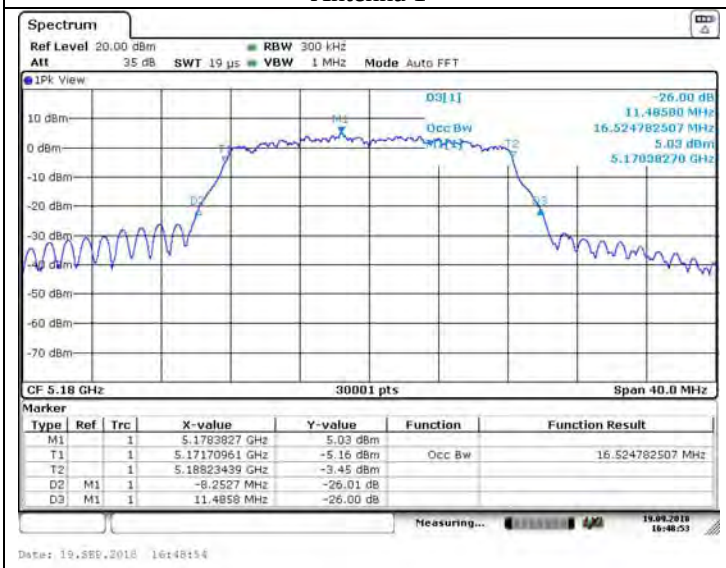
Band	Mode	Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
				Ant 1	Ant 2
UNII Band I	IEEE 802.11a	Low	5180	19.739	20.181
		Middle	5200	19.828	20.078
		High	5240	19.951	19.782
	IEEE 802.11n HT20	Low	5180	20.275	20.050
		Middle	5200	20.180	20.103
		High	5240	20.326	20.138
	IEEE 802.11ac VHT20	Low	5180	20.169	20.014
		Middle	5200	20.295	19.859
		High	5240	20.405	20.018
	IEEE 802.11n HT40	Low	5190	41.249	40.003
		High	5230	40.491	40.217
	IEEE 802.11ac VHT40	Low	5190	40.767	39.979
		High	5230	40.261	40.061
	IEEE 802.11ac VHT80	/	5210	81.469	80.197
Conclusion: Pass					
UNII Band II	IEEE 802.11a	Low	5260	19.925	20.055
		Middle	5300	19.963	20.018
		High	5320	19.813	20.012
	IEEE 802.11n HT20	Low	5260	20.401	20.378
		Middle	5300	20.359	20.203
		High	5320	20.325	20.267
	IEEE 802.11ac VHT20	Low	5260	20.287	20.045
		Middle	5300	20.303	20.050
		High	5320	20.308	20.078
	IEEE 802.11n HT40	Low	5270	41.413	40.403
		High	5310	40.693	40.091
	IEEE 802.11ac VHT40	Low	5270	40.939	40.139
		High	5310	40.689	39.785
	IEEE 802.11ac VHT80	/	5290	81.418	80.050
Conclusion: Pass					

Band	Mode	Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
				Ant 1	Ant 2
UNII Band III	IEEE 802.11a	Low	5500	20.073	19.898
		Middle	5580	19.833	19.751
		High	5700	19.953	19.939
	IEEE 802.11n HT20	Low	5500	20.298	20.225
		Middle	5580	20.289	20.728
		High	5700	20.299	19.977
	IEEE 802.11ac VHT20	Low	5500	20.289	20.026
		Middle	5580	20.447	20.047
		High	5700	20.263	20.011
	IEEE 802.11n HT40	Low	5510	40.507	40.047
		High	5670	40.459	40.233
	IEEE 802.11ac VHT40	Low	5510	40.785	40.097
		High	5670	40.415	39.943
	IEEE 802.11ac VHT80	/	5530	81.576	80.208
Conclusion: Pass					
UNII Band IV	IEEE 802.11a	Low	5745	20.061	20.183
		Middle	5785	20.026	19.770
		High	5825	19.718	19.769
	IEEE 802.11n HT20	Low	5745	20.307	20.137
		Middle	5785	20.213	20.123
		High	5825	20.279	19.914
	IEEE 802.11ac VHT20	Low	5745	20.241	20.007
		Middle	5785	20.213	20.179
		High	5825	20.321	20.057
	IEEE 802.11n HT40	Low	5755	40.523	40.091
		High	5795	40.685	40.291
	IEEE 802.11ac VHT40	Low	5755	40.485	39.585
		High	5795	40.373	40.199
	IEEE 802.11ac VHT80	/	5775	81.637	80.014
Conclusion: Pass					

4.5. Test Data

UNII Band I IEEE 802.11a 5180MHz

Antenna 1



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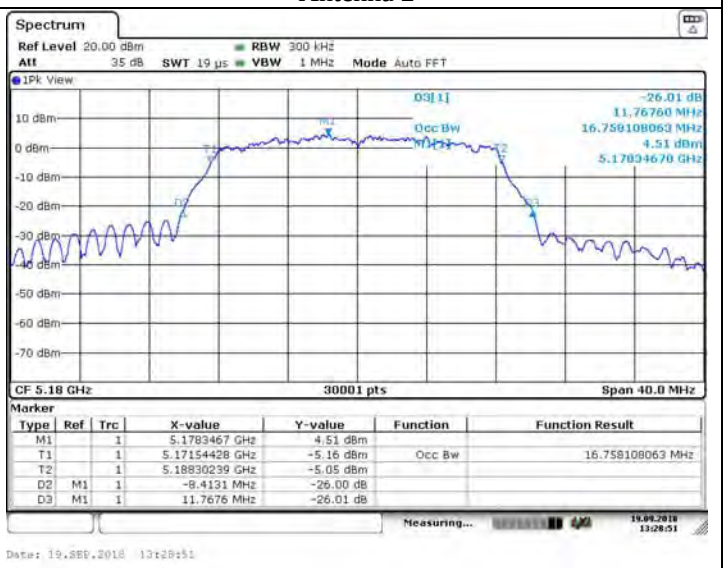

UNII Band I IEEE 802.11a 5200MHz

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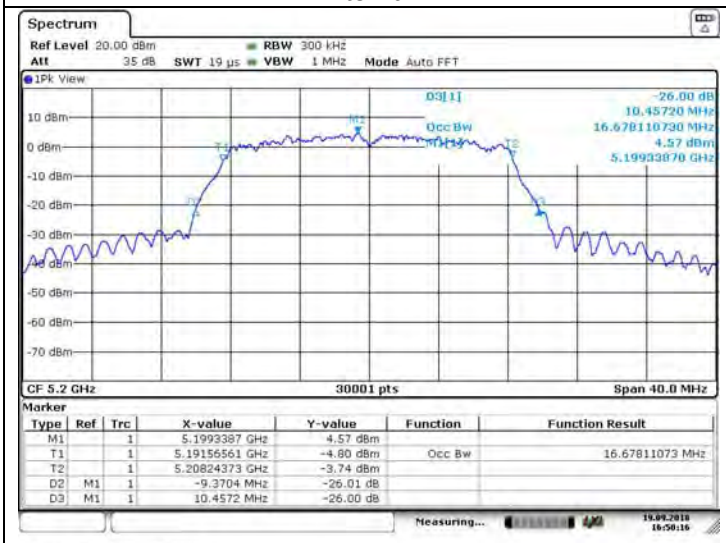

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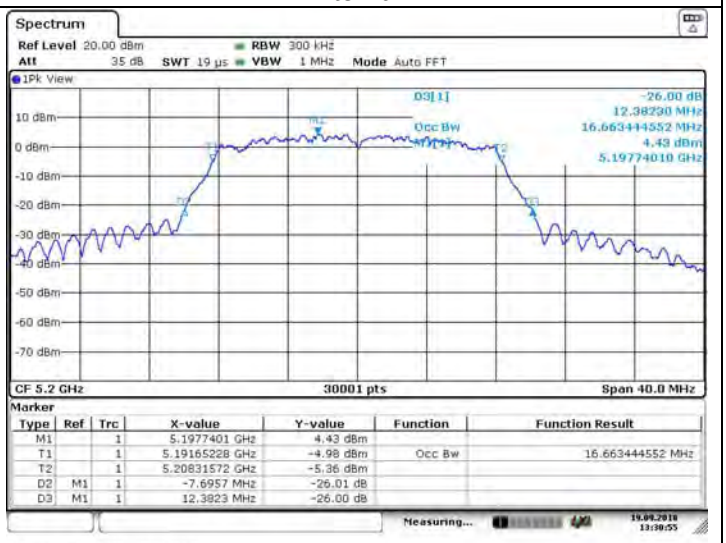
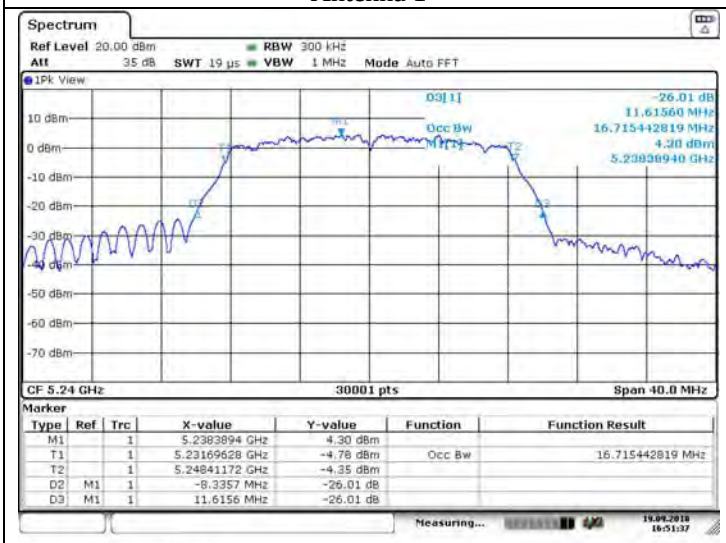


UNII Band I IEEE 802.11a 5240MHz

Antenna 1



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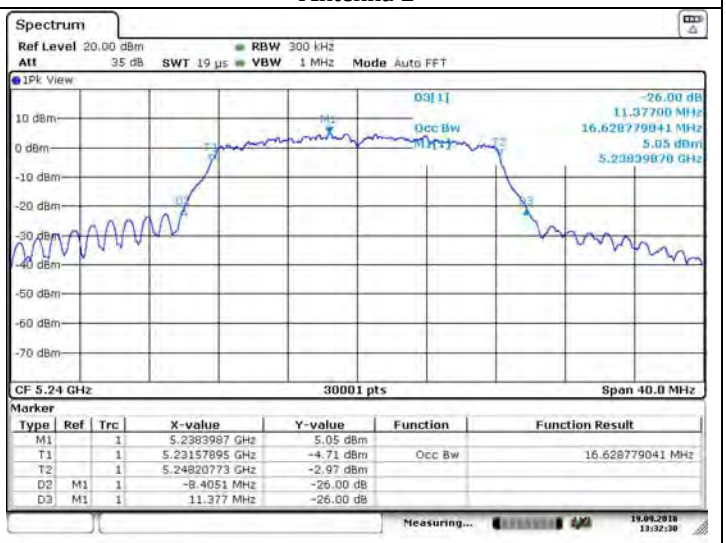
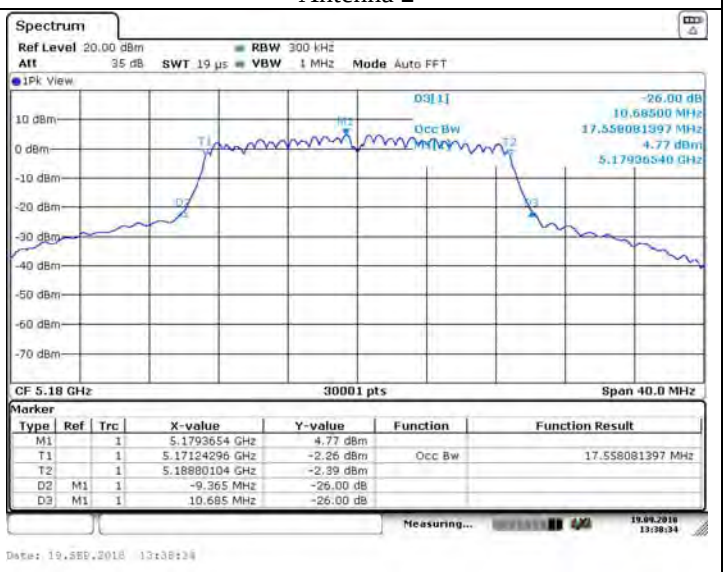


UNII Band I IEEE 802.11n HT20 5180MHz

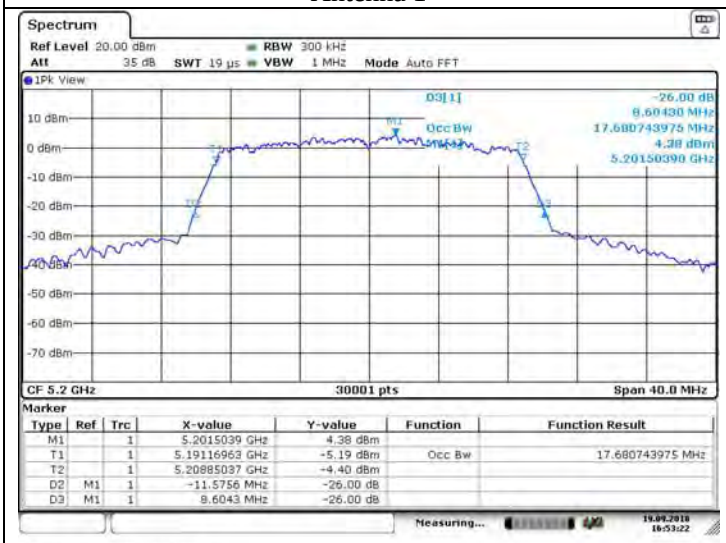
Antenna 1

Antenna 2



UNII Band I IEEE 802.11n HT20 5200MHz

Antenna 1



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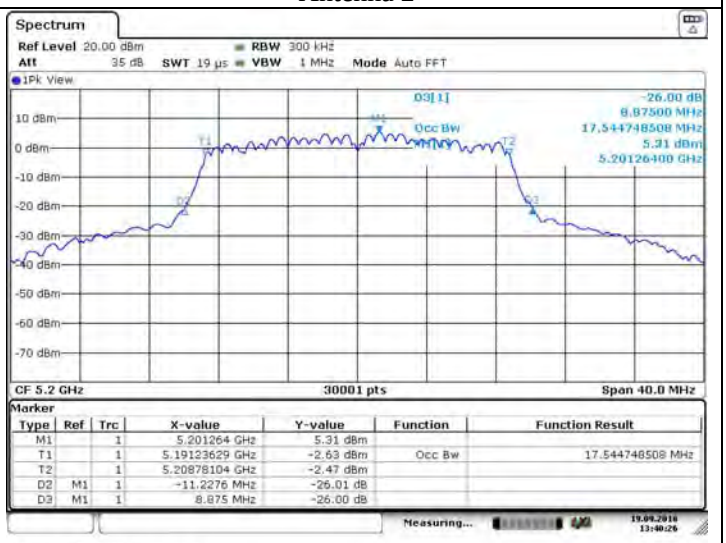
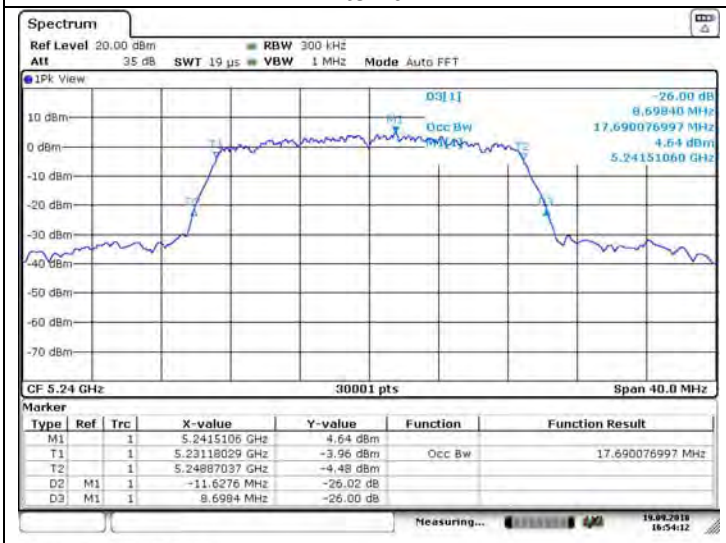


UNII Band I IEEE 802.11n HT20 5240MHz

Antenna 1



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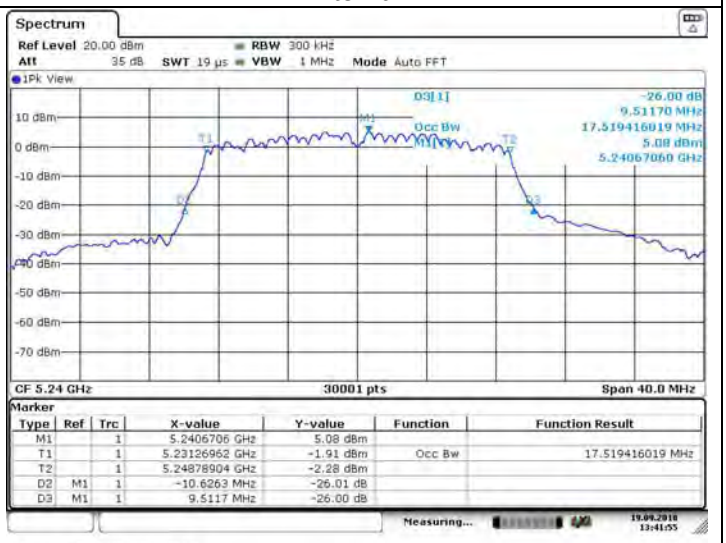
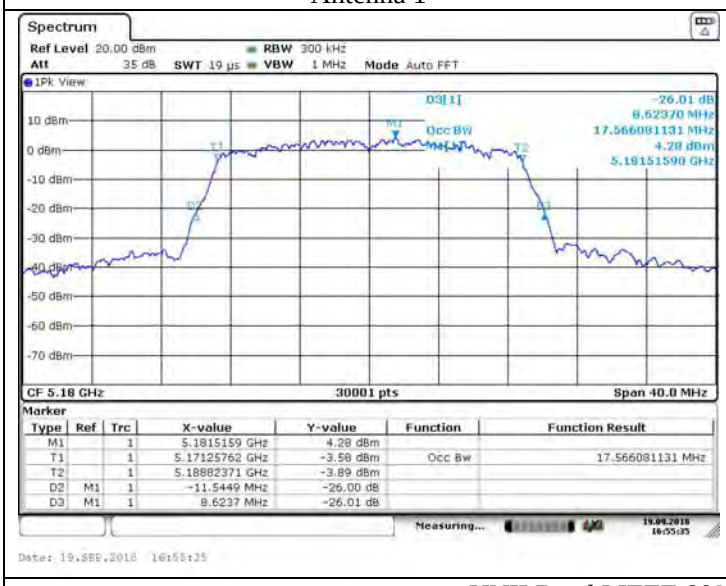


UNII Band I IEEE 802.11ac VHT20 5180MHz

Antenna 1

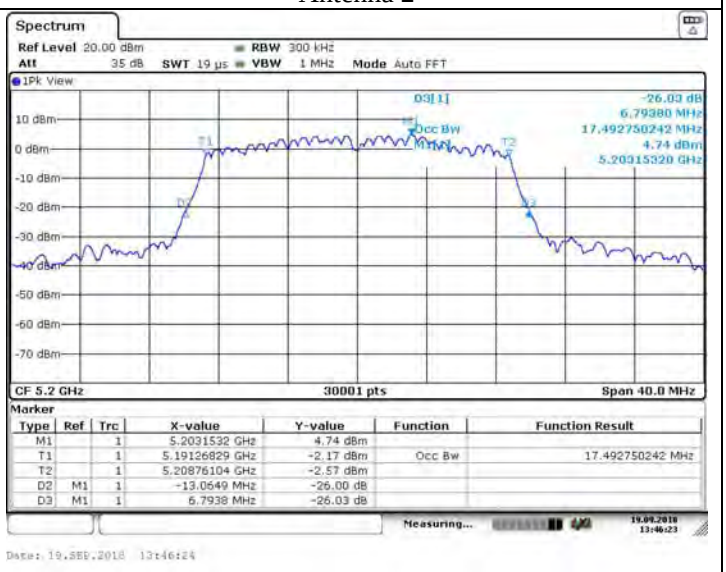


Antenna 2

UNII Band I IEEE 802.11ac VHT20 5200MHz

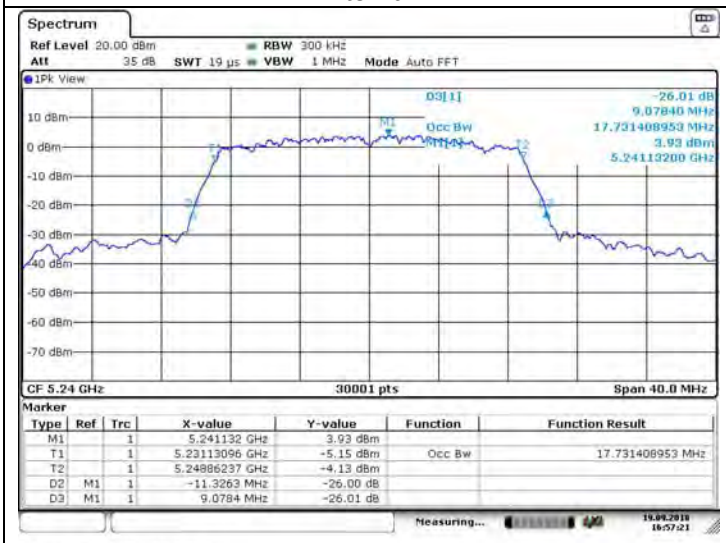
Antenna 1

Antenna 2



UNII Band I IEEE 802.11ac VHT20 5240MHz

Antenna 1



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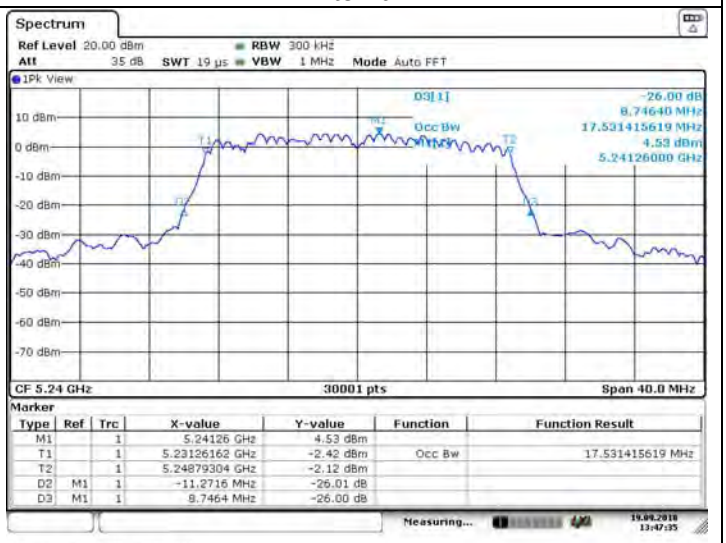
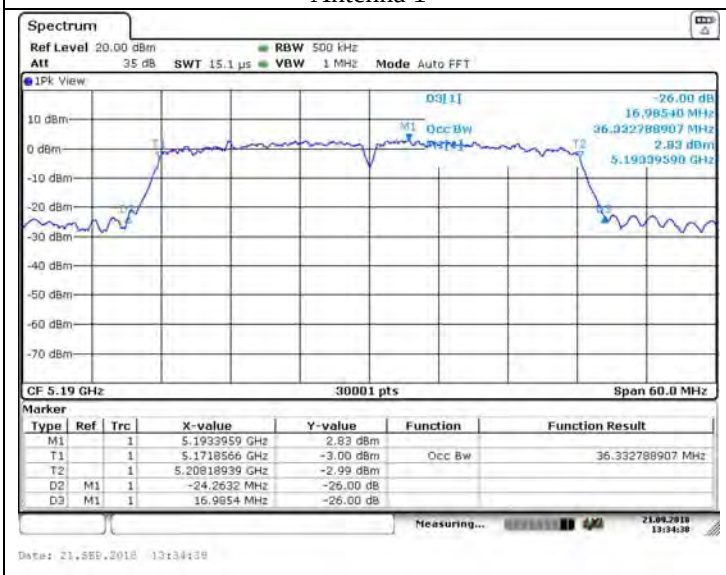


UNII Band I IEEE 802.11n HT40 5190MHz

Antenna 1



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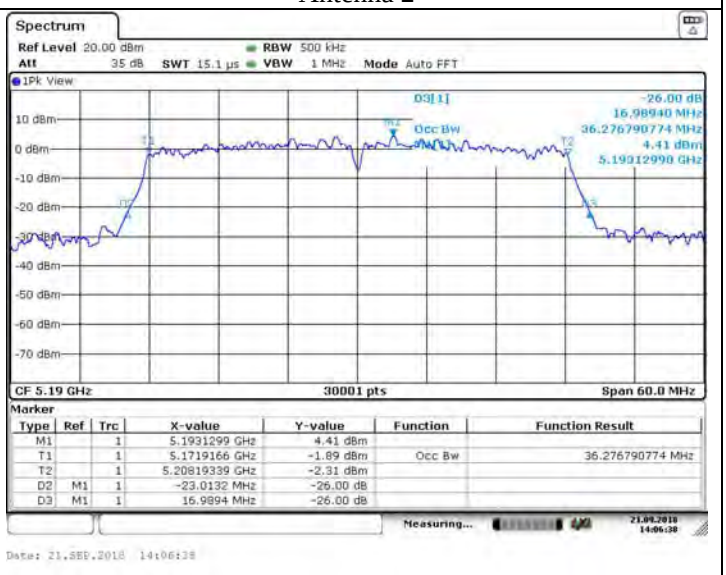
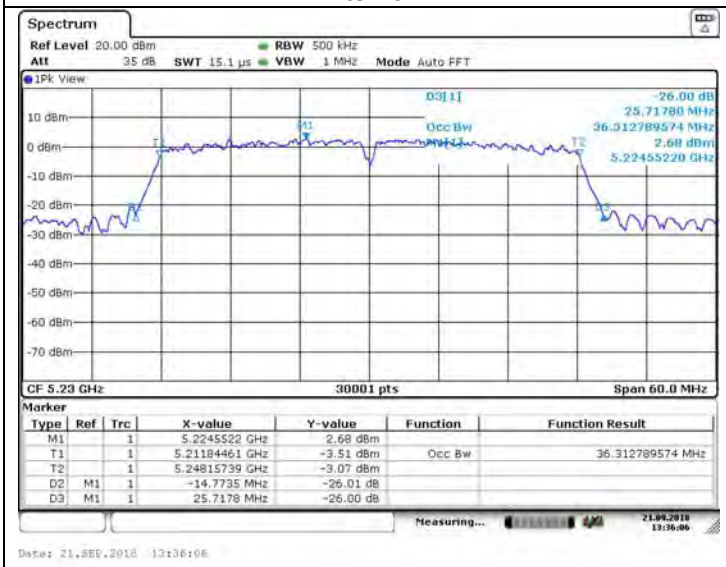


UNII Band I IEEE 802.11n HT40 5230MHz

Antenna 1



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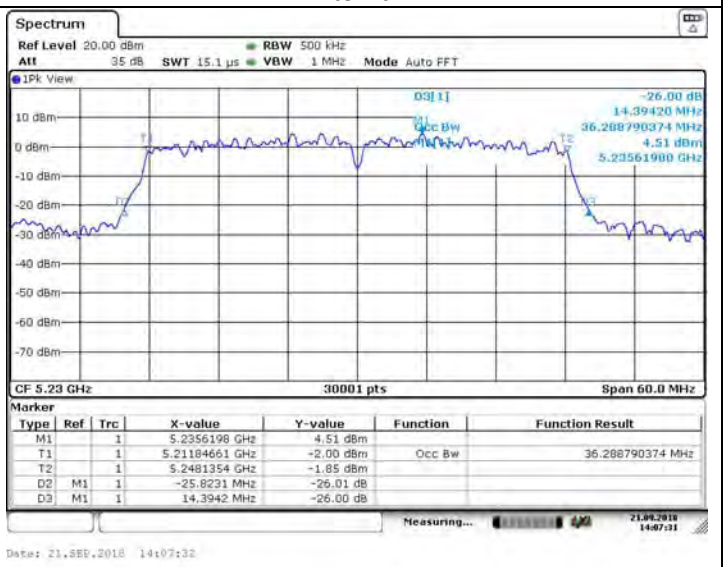
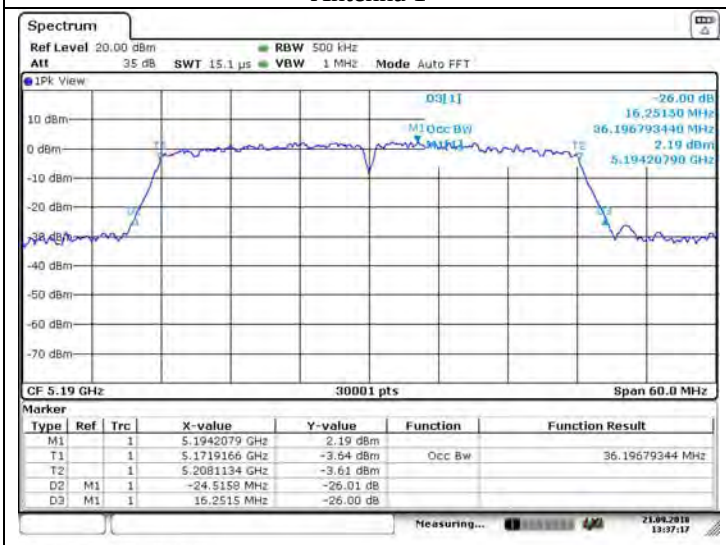


UNII Band I IEEE 802.11ac VHT40 5190MHz

Antenna 1



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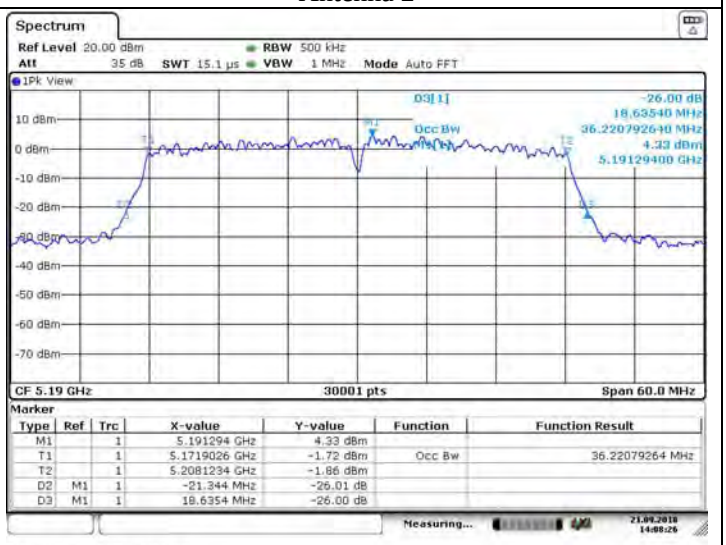
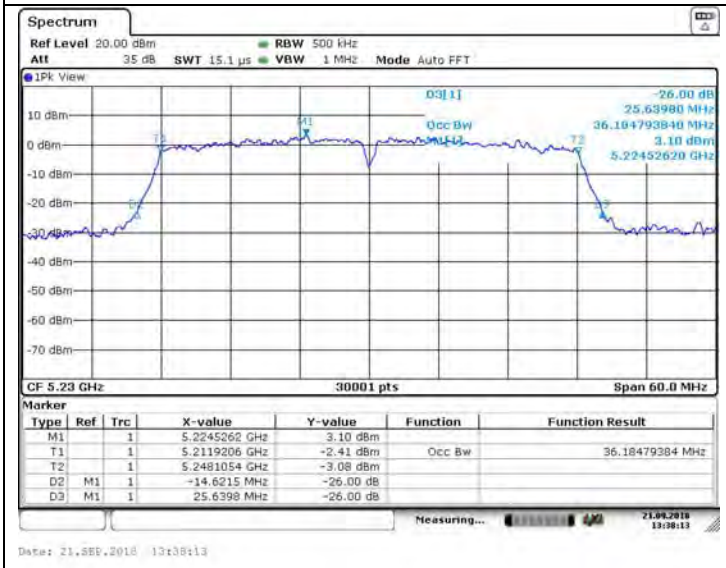
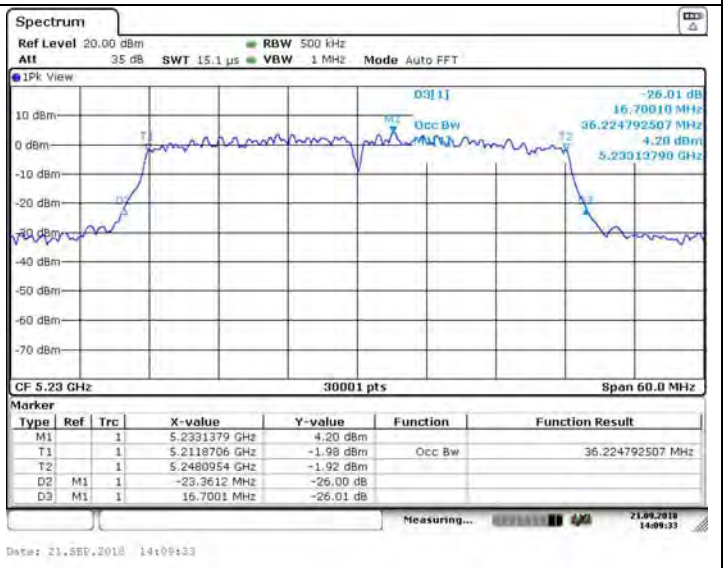
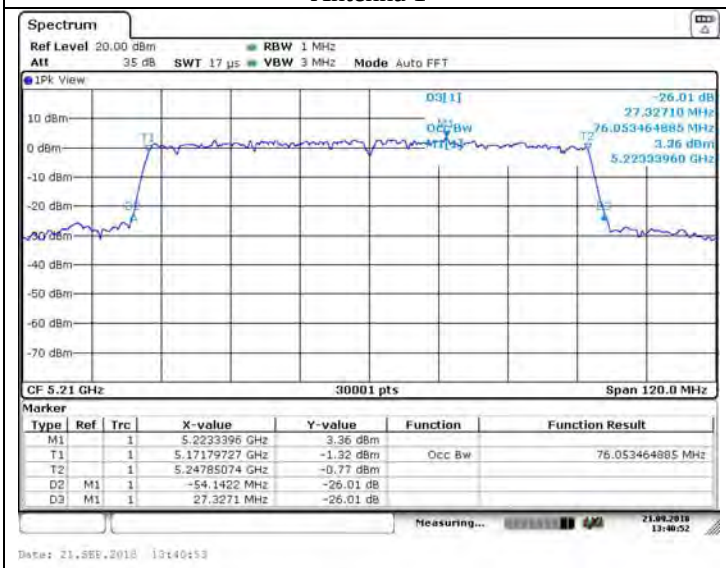
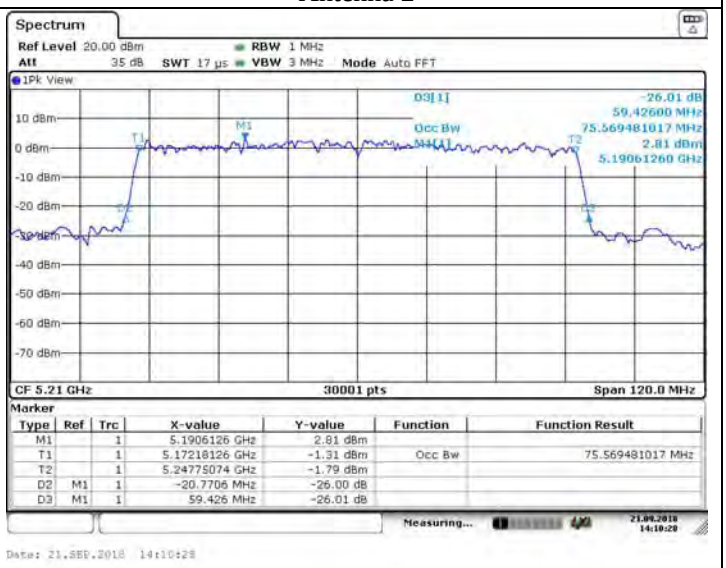
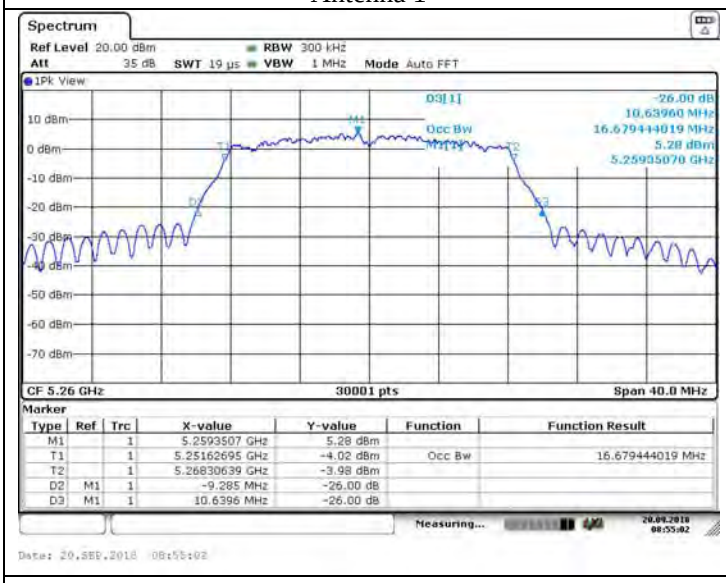


UNII Band I IEEE 802.11ac VHT40 5240MHz	
Antenna 1	Antenna 2
	

UNII Band I IEEE 802.11ac VHT80 5210MHz	
Antenna 1	Antenna 2
	

UNII Band II IEEE 802.11a 5260MHz

Antenna 1



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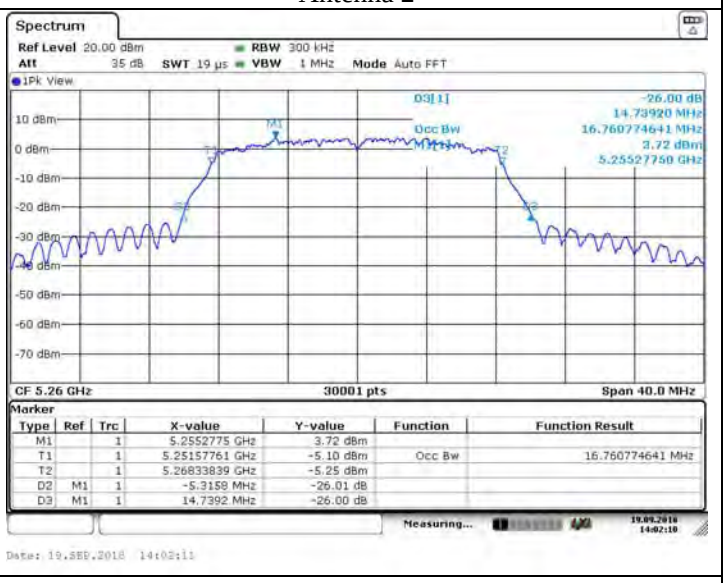
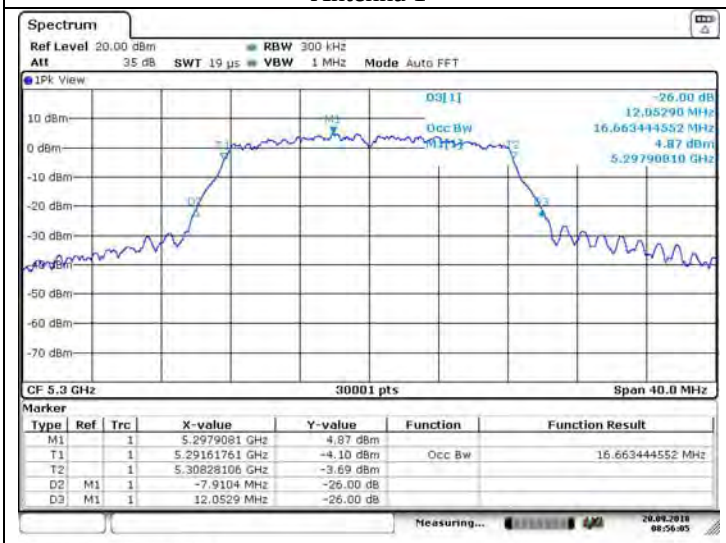


UNII Band II IEEE 802.11a 5300MHz

Antenna 1



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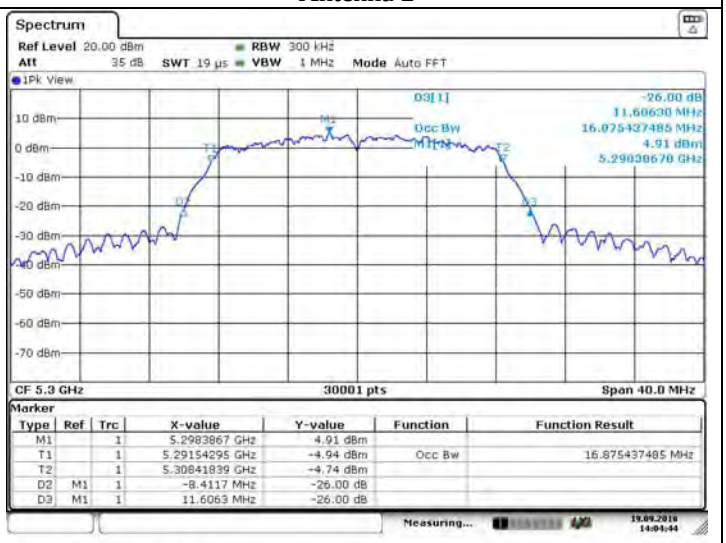
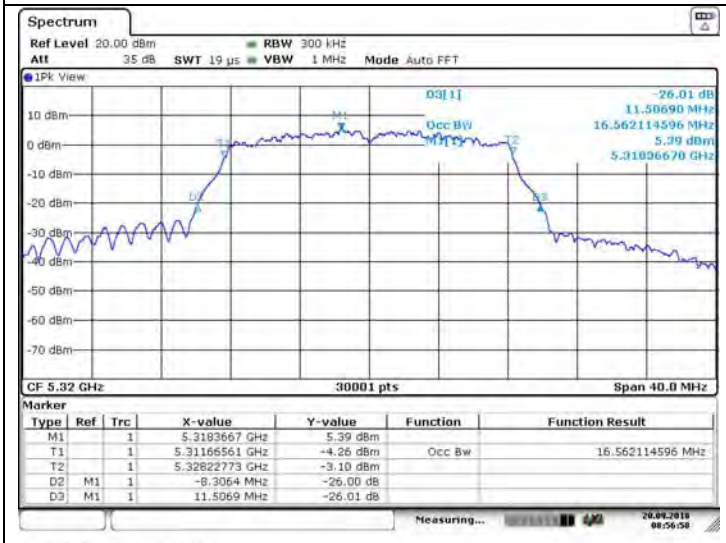


UNII Band II IEEE 802.11a 5320MHz

Antenna 1



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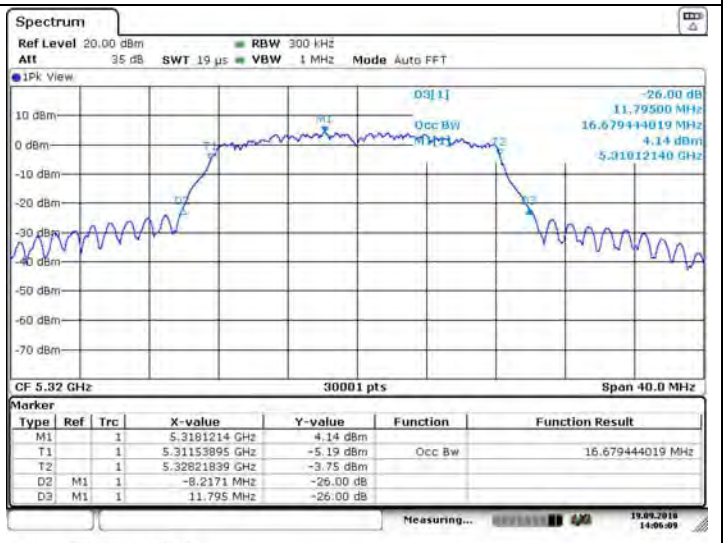
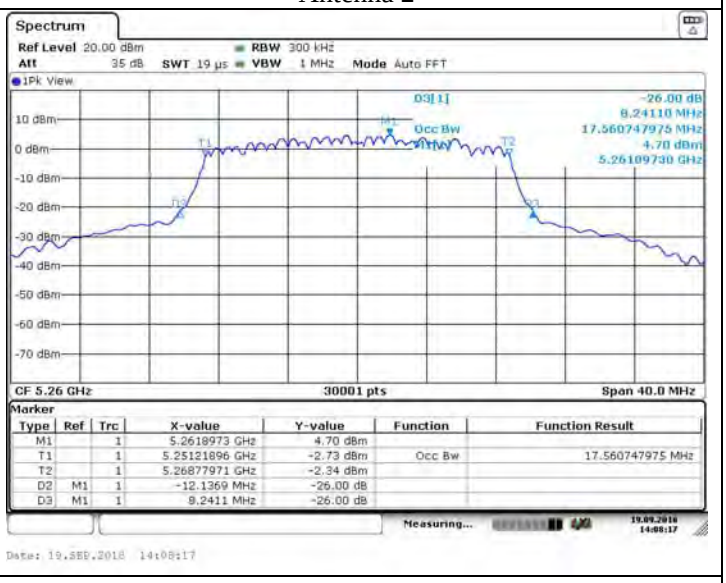


UNII Band II IEEE 802.11n HT20 5260MHz

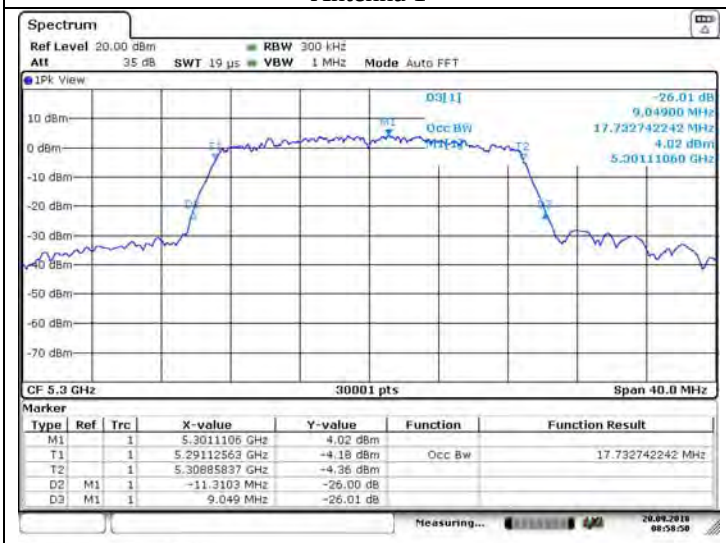
Antenna 1

Antenna 2



UNII Band II IEEE 802.11n HT20 5300MHz

Antenna 1



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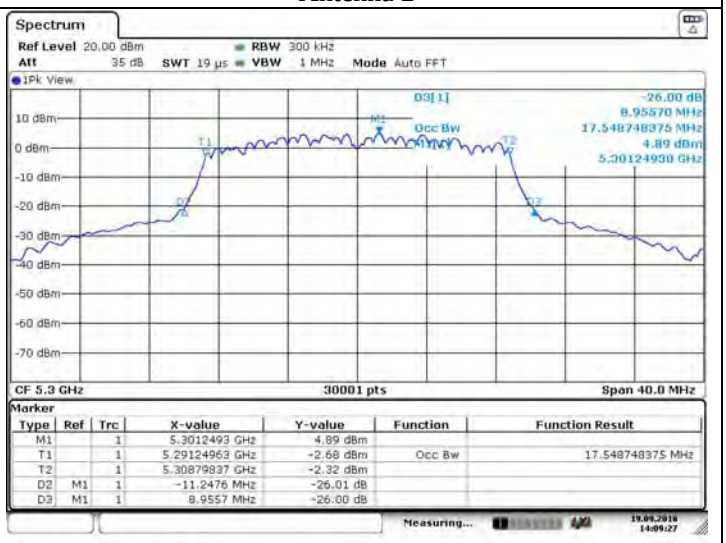
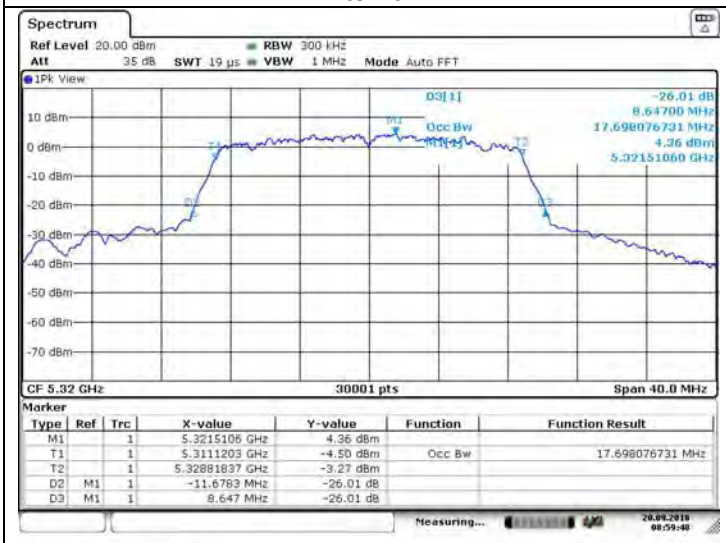


UNII Band II IEEE 802.11n HT20 5320MHz

Antenna 1



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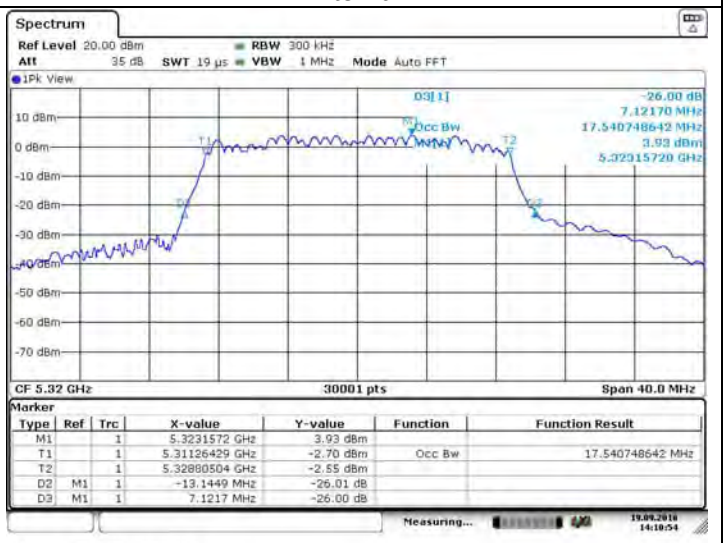
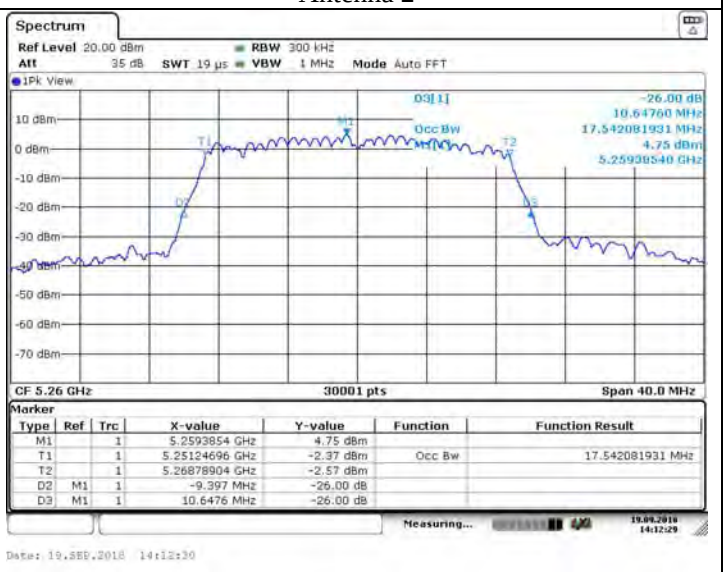


UNII Band II IEEE 802.11ac VHT20 5260MHz

Antenna 1

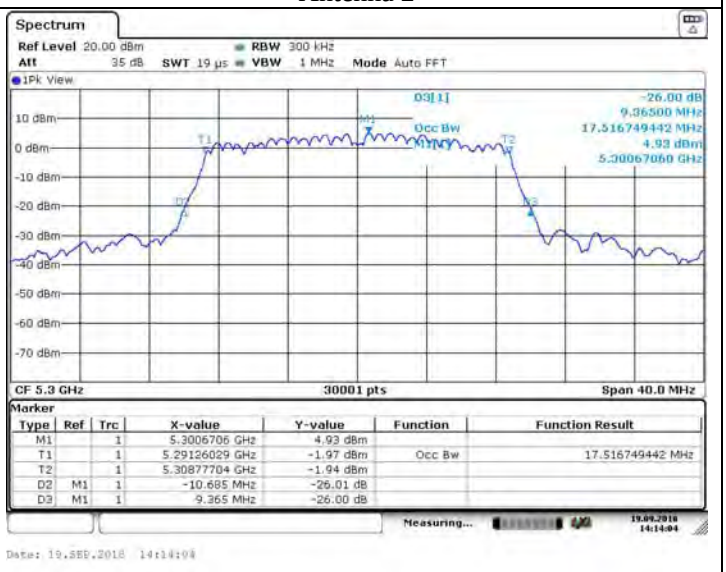
Antenna 2



UNII Band II IEEE 802.11ac VHT20 5300MHz

Antenna 1

Antenna 2



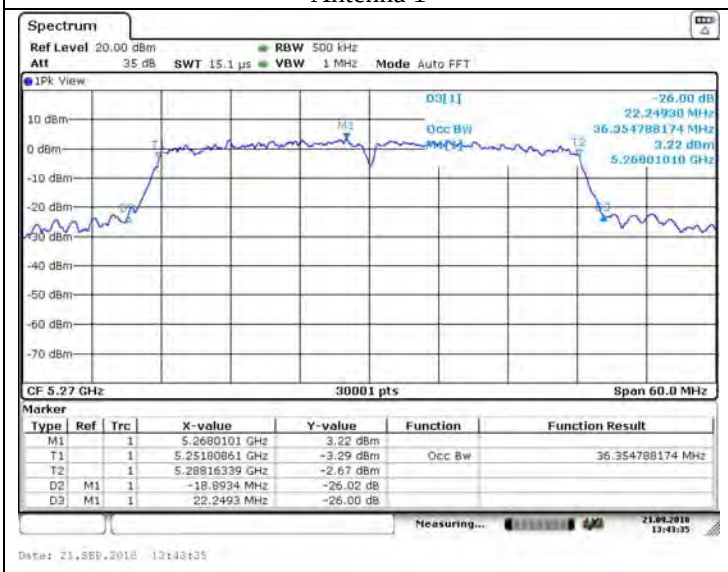
UNII Band II IEEE 802.11ac VHT20 5320MHz

Antenna 1

Antenna 2

UNII Band II IEEE 802.11n HT40 5270MHz

Antenna 1



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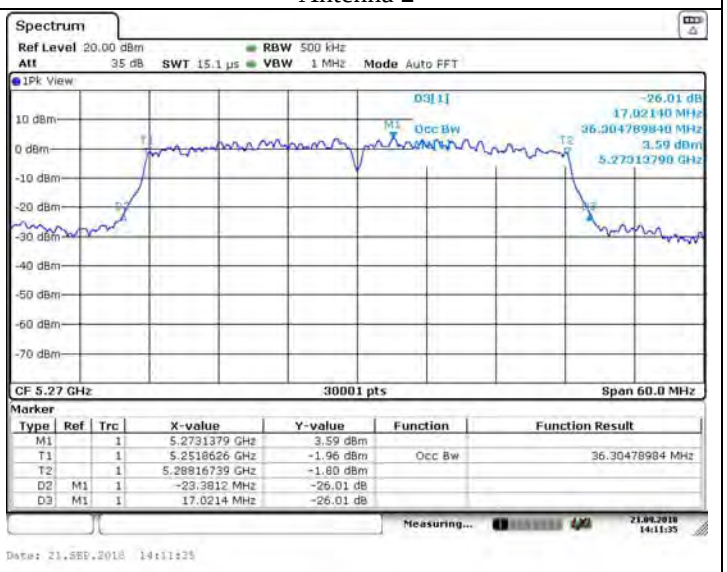
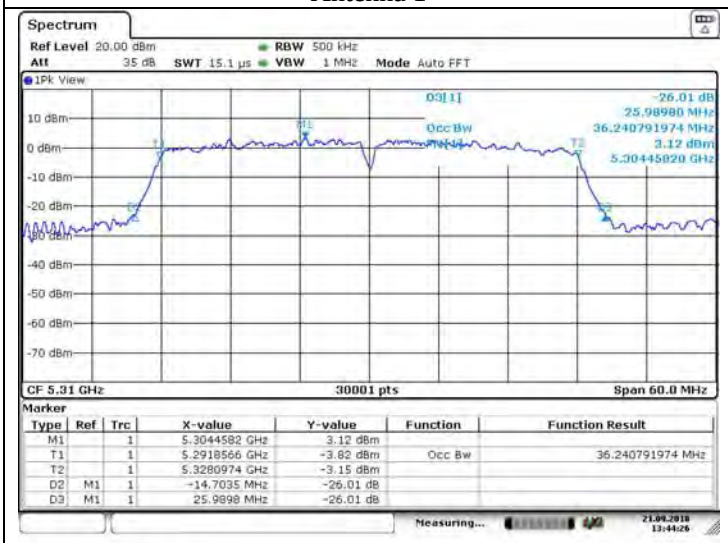
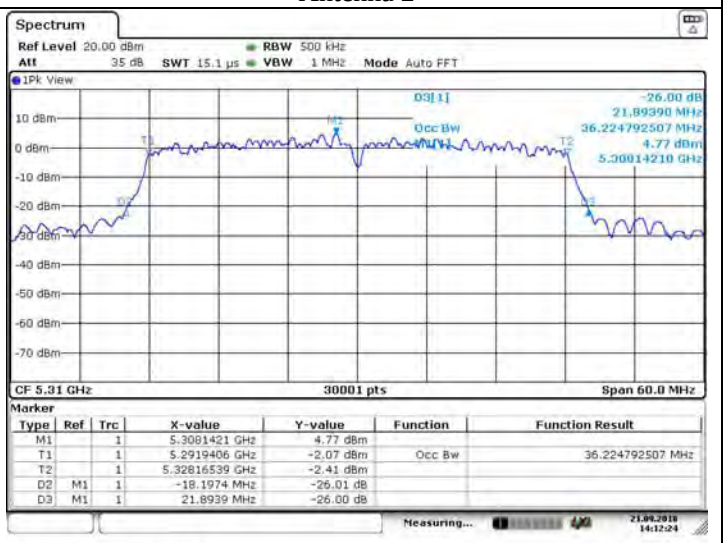


UNII Band II IEEE 802.11n HT40 5310MHz

Antenna 1

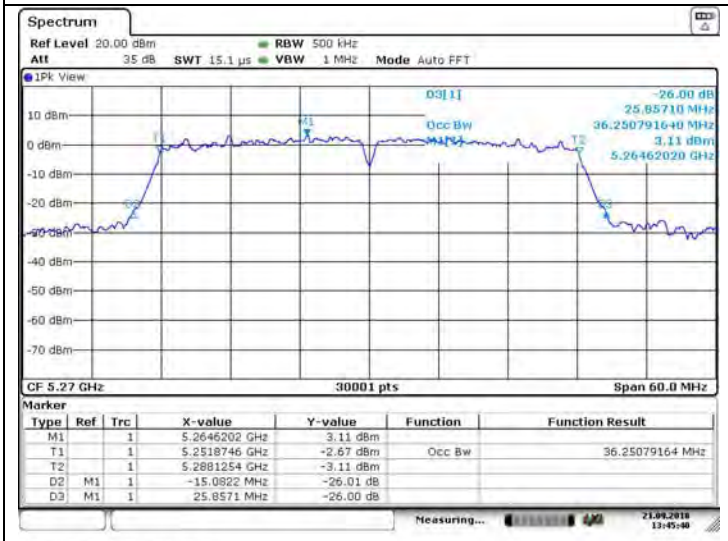


Antenna 2



UNII Band II IEEE 802.11ac VHT40 5270MHz

Antenna 1



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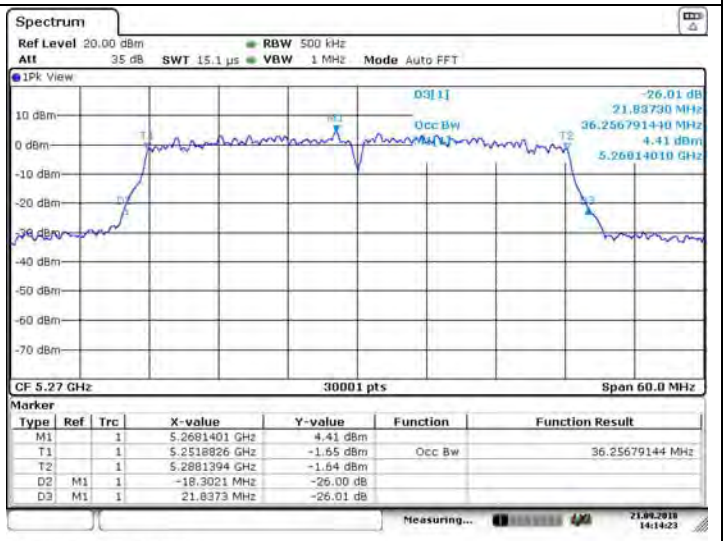
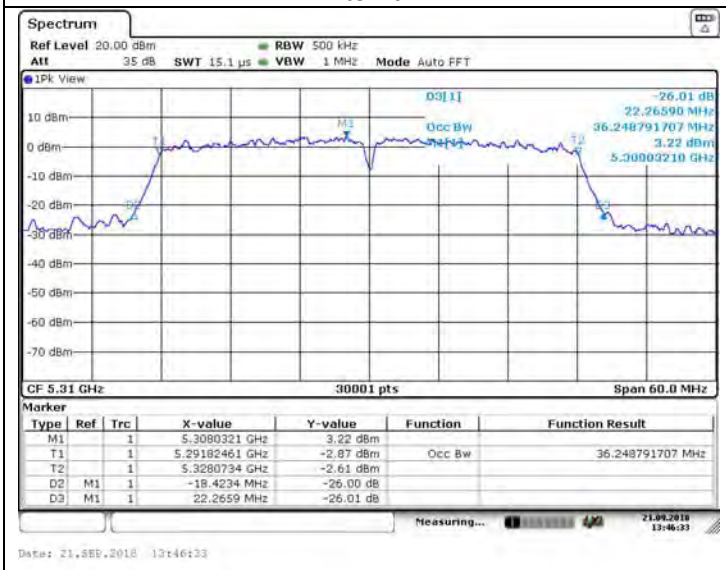
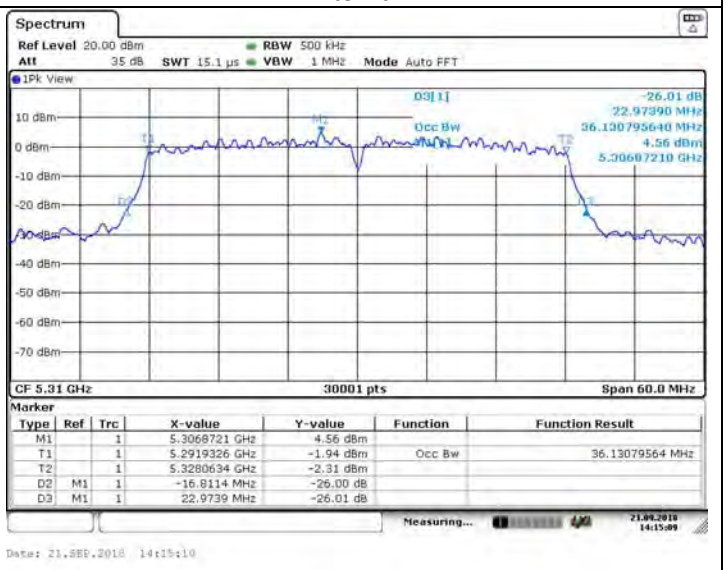


UNII Band II IEEE 802.11ac VHT40 5310MHz	
Antenna 1	Antenna 2
	

UNII Band II IEEE 802.11ac VHT80 5290MHz	
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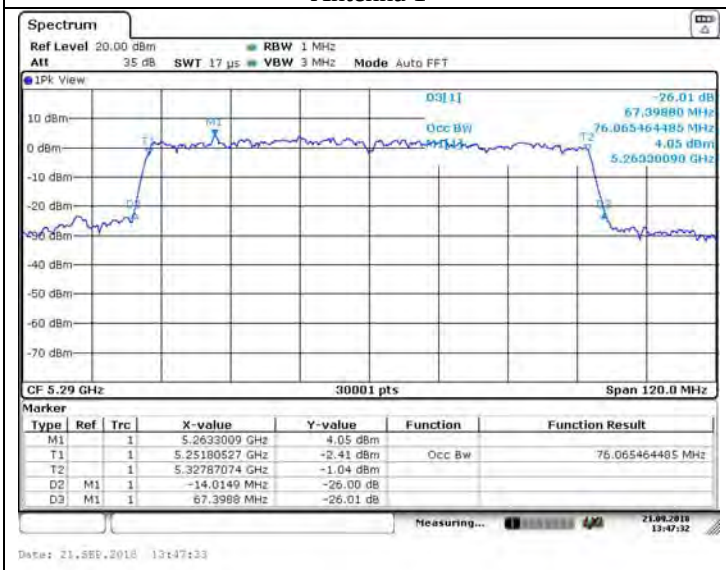
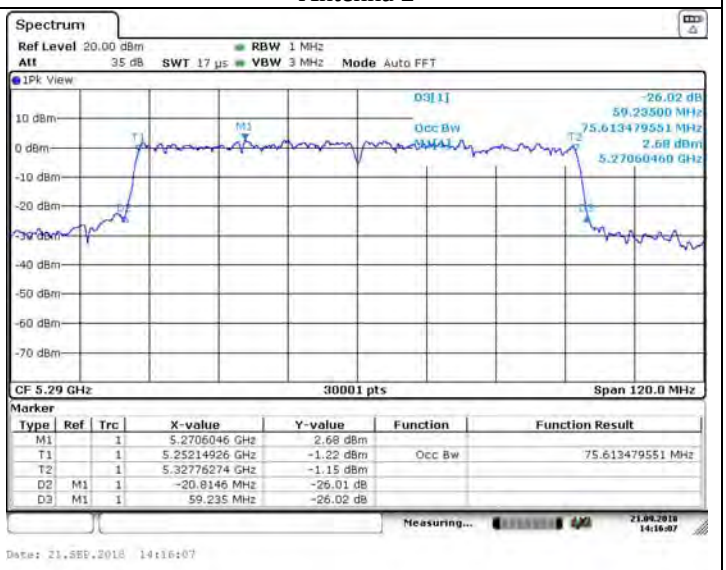
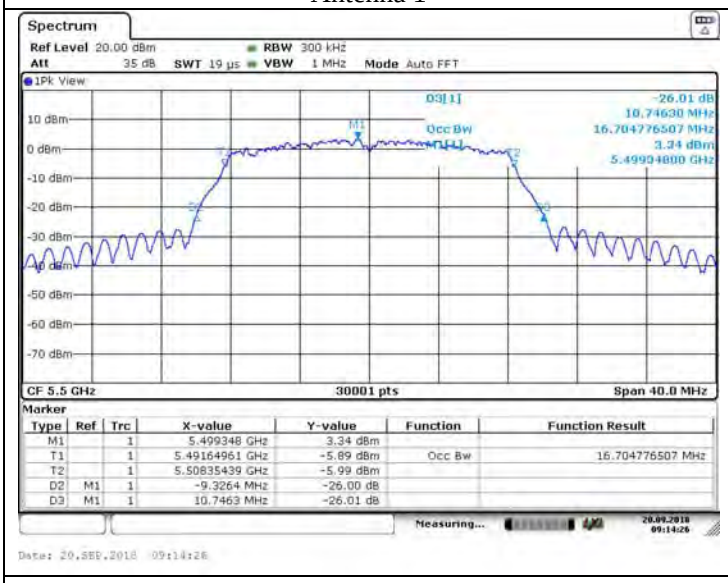
	

UNII Band III IEEE 802.11a 5500MHz

Antenna 1



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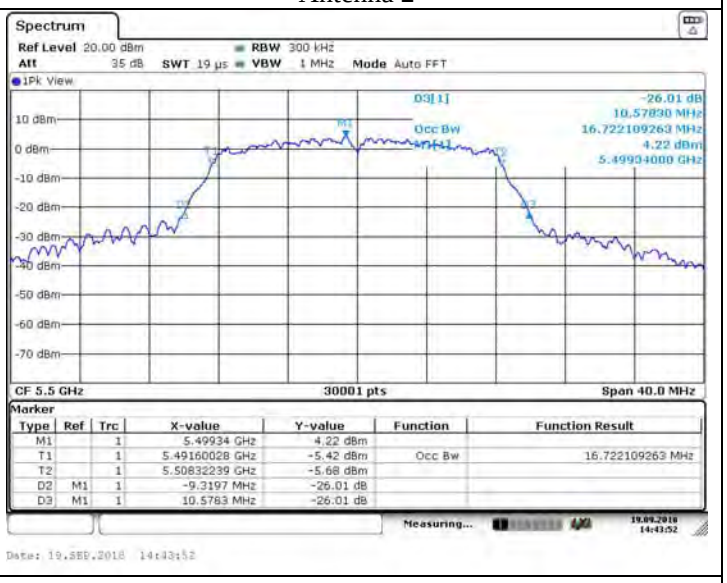
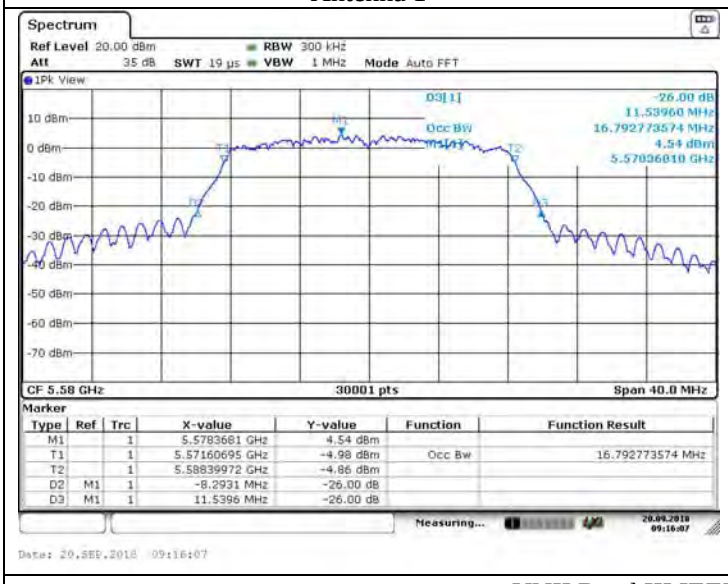


UNII Band III IEEE 802.11a 5580MHz

Antenna 1



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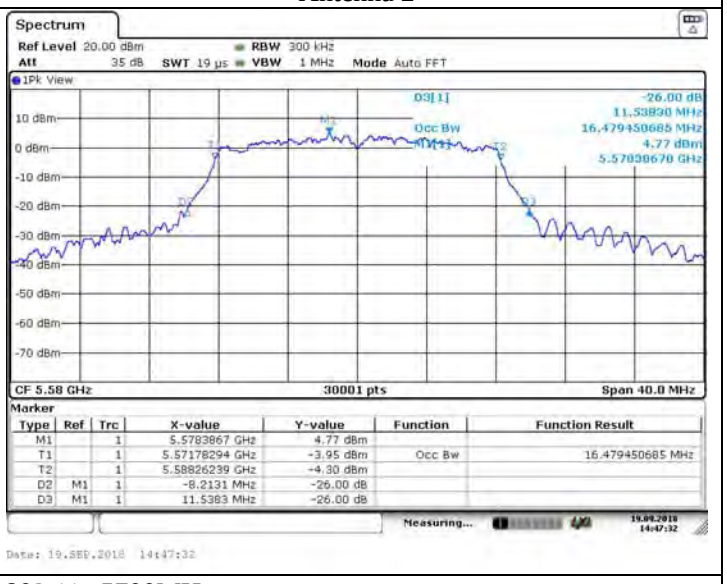
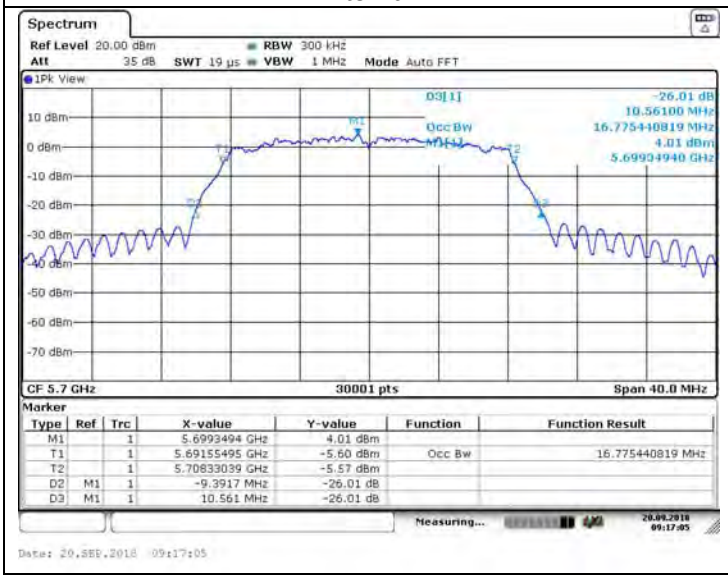


UNII Band III IEEE 802.11a 5700MHz

Antenna 1



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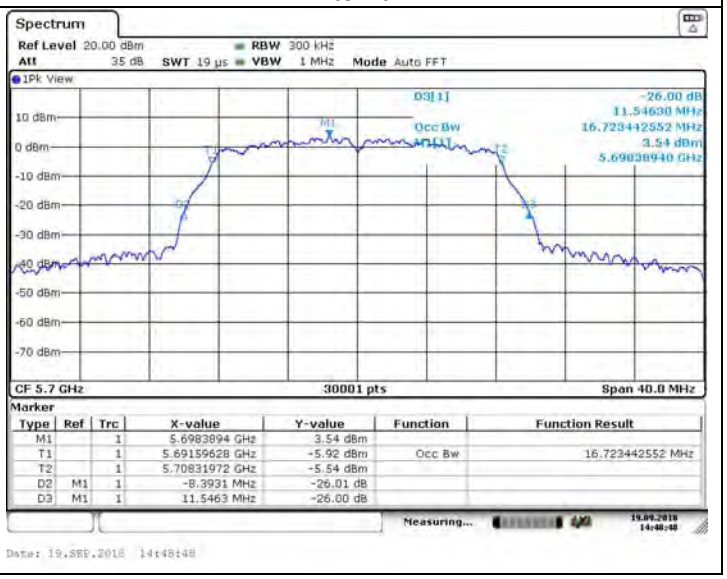
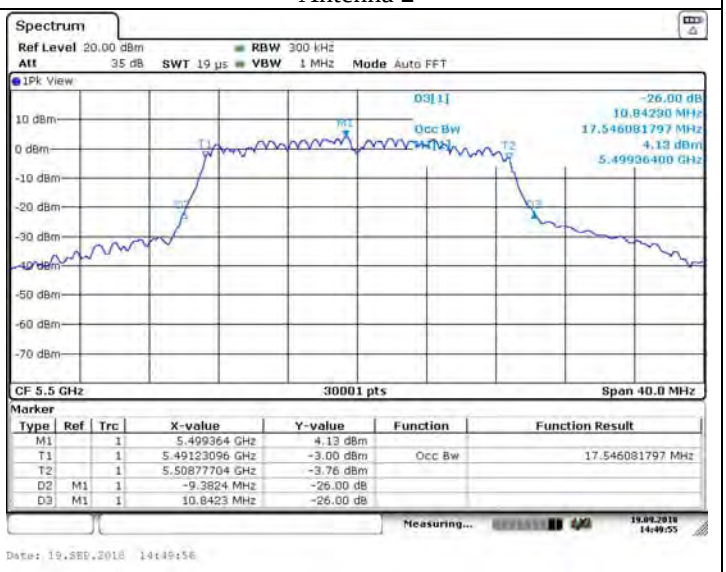


UNII Band III IEEE 802.11n HT20 5500MHz

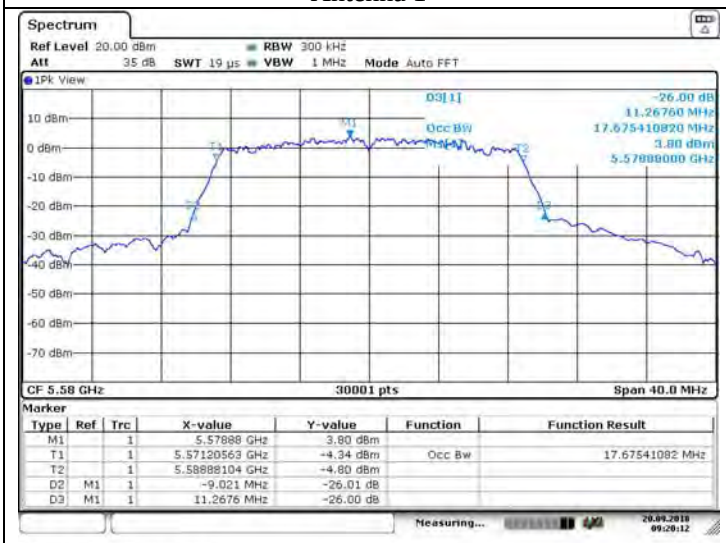
Antenna 1

Antenna 2



UNII Band III IEEE 802.11n HT20 5580MHz

Antenna 1



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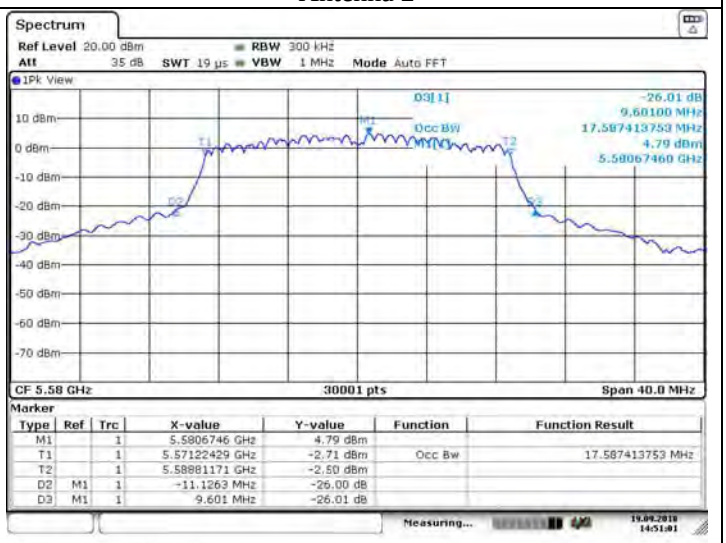
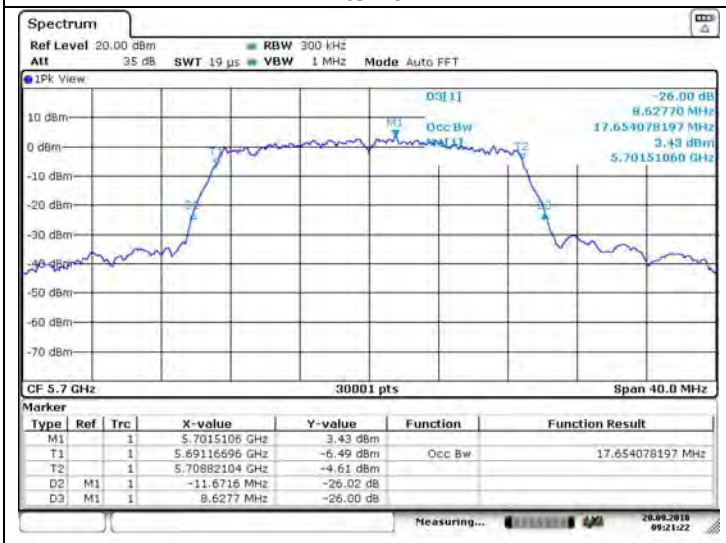


UNII Band III IEEE 802.11n HT20 5700MHz

Antenna 1



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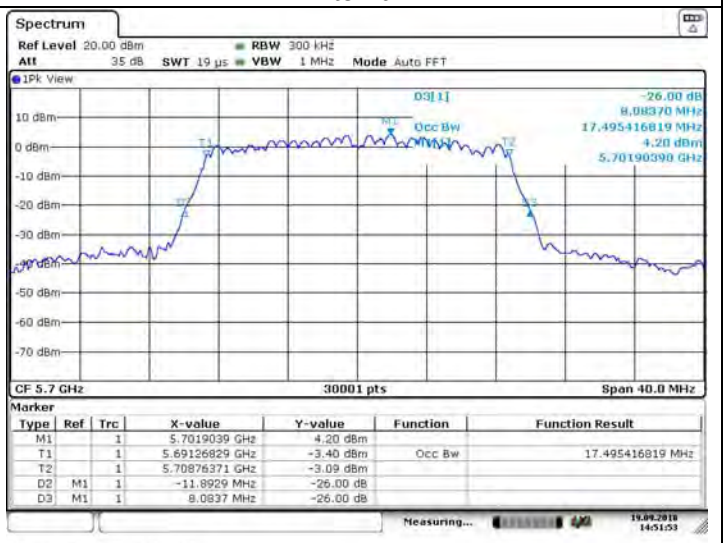
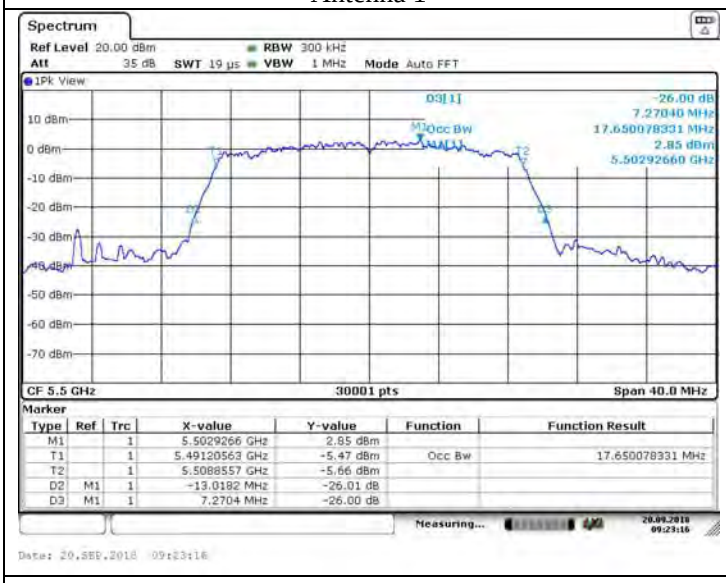


UNII Band III IEEE 802.11ac VHT20 5500MHz

Antenna 1



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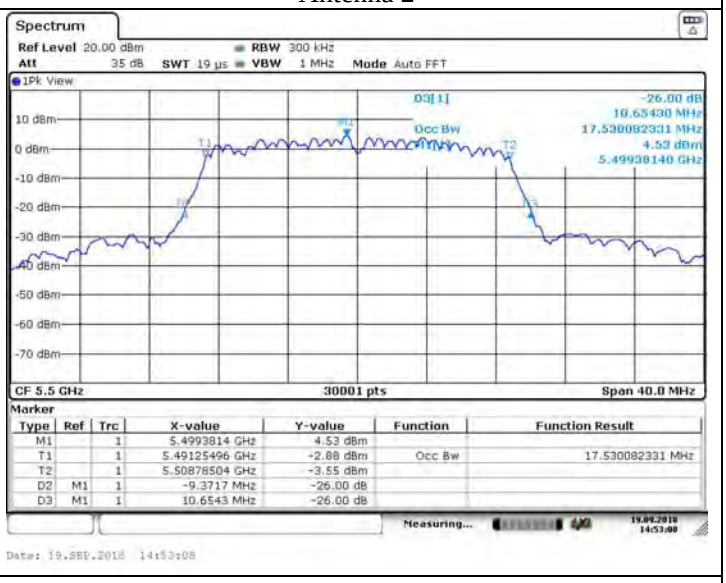
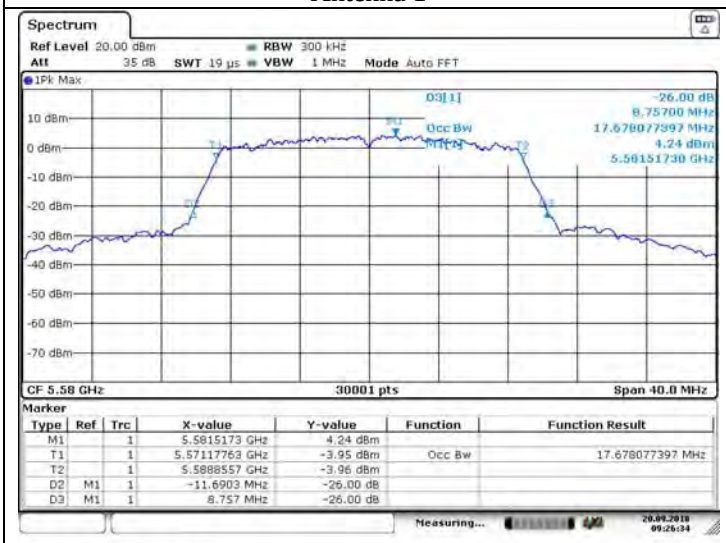


UNII Band III IEEE 802.11ac VHT20 5580MHz

Antenna 1



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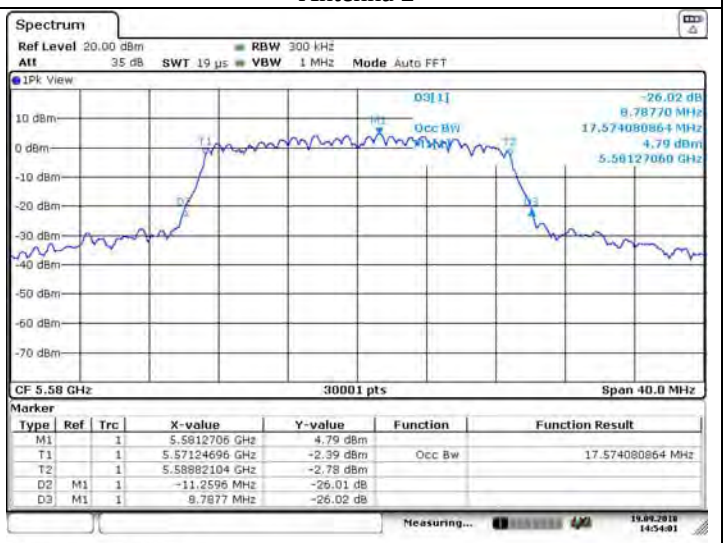
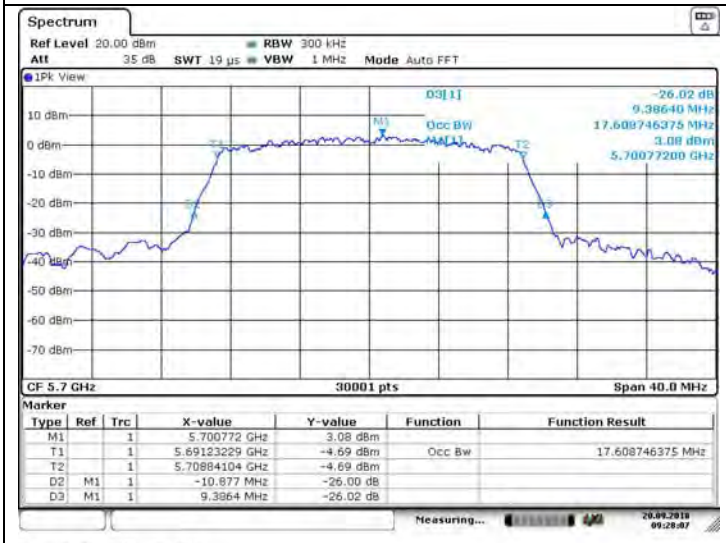


UNII Band III IEEE 802.11ac VHT20 5700MHz

Antenna 1



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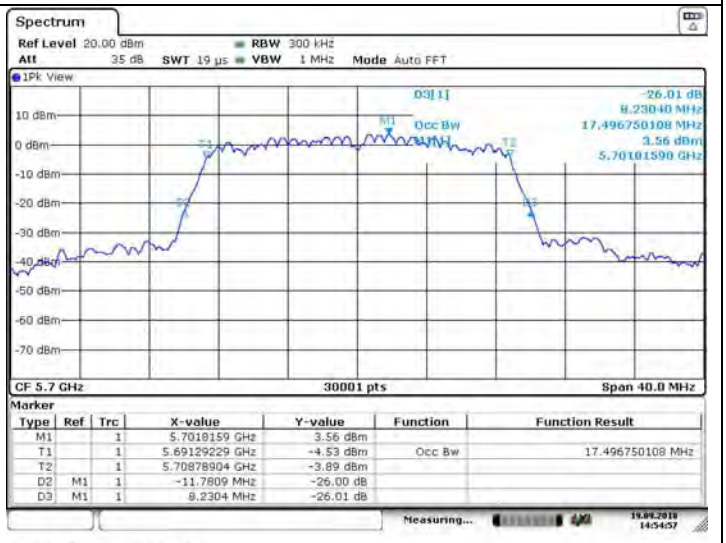
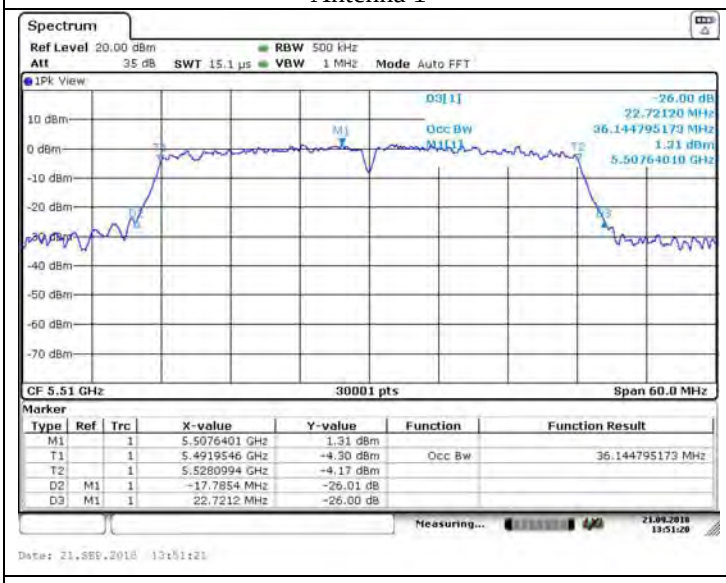


UNII Band III IEEE 802.11n HT40 5510MHz

Antenna 1



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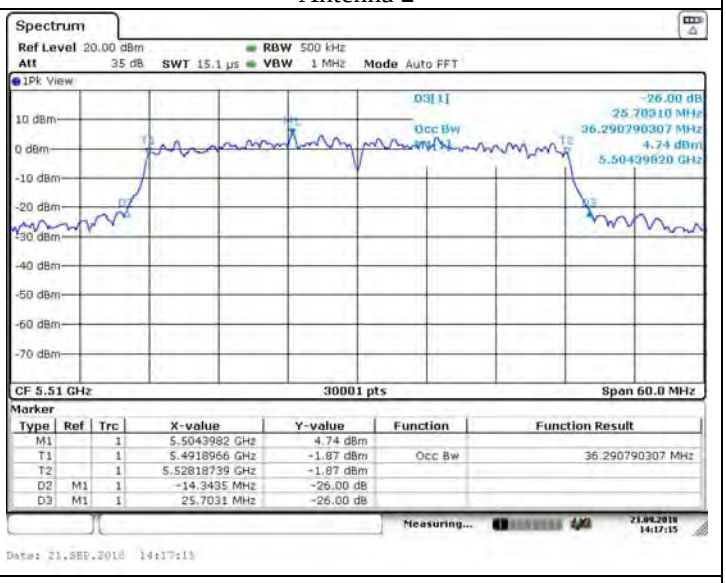
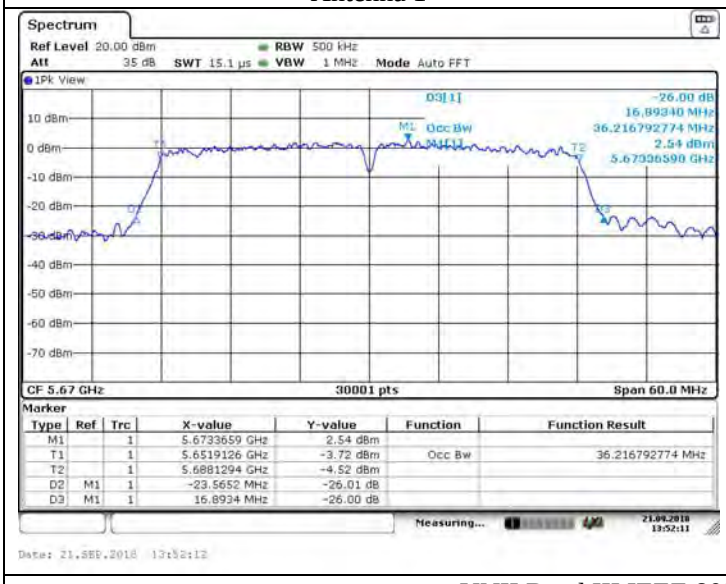


UNII Band III IEEE 802.11n HT40 5670MHz

Antenna 1



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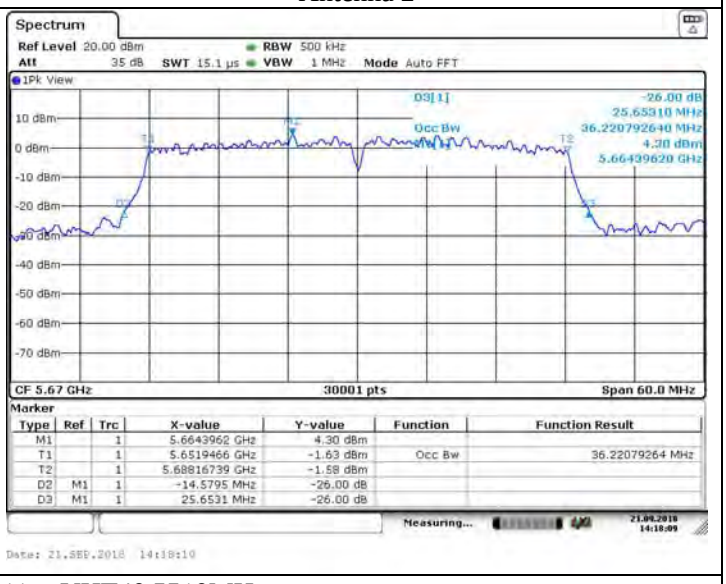
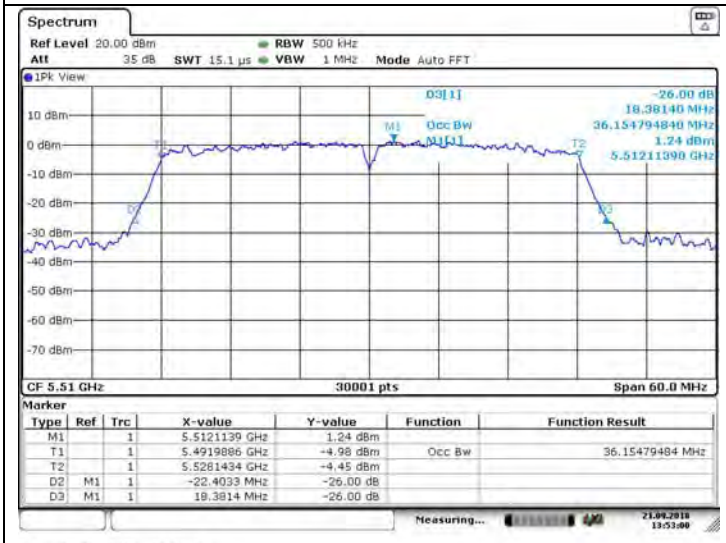


UNII Band III IEEE 802.11ac VHT40 5510MHz

Antenna 1



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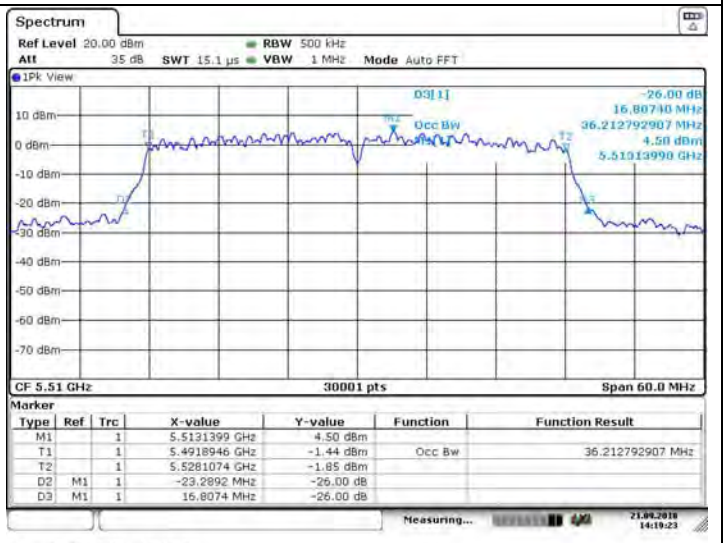
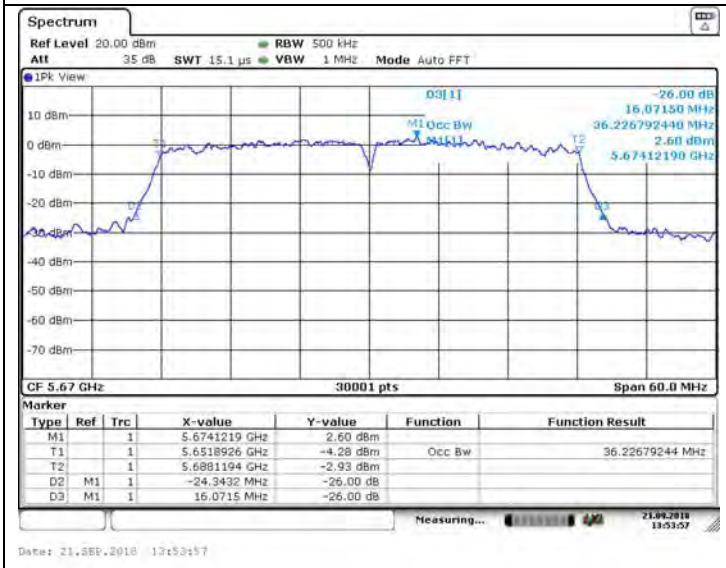
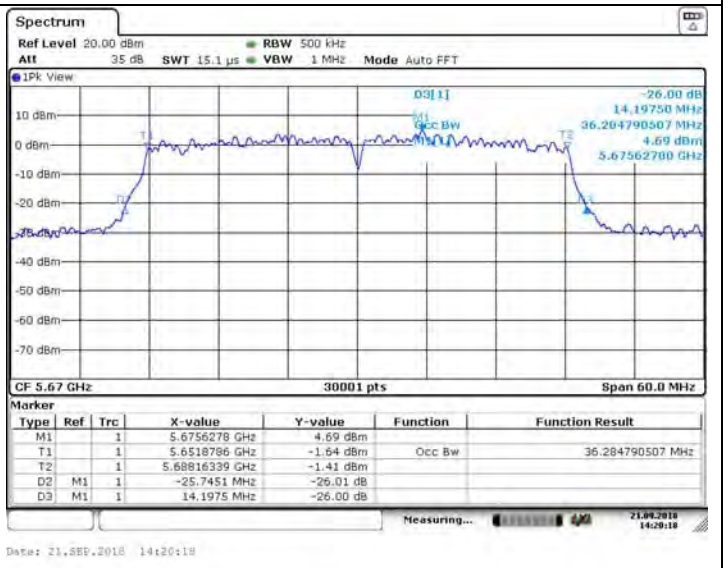
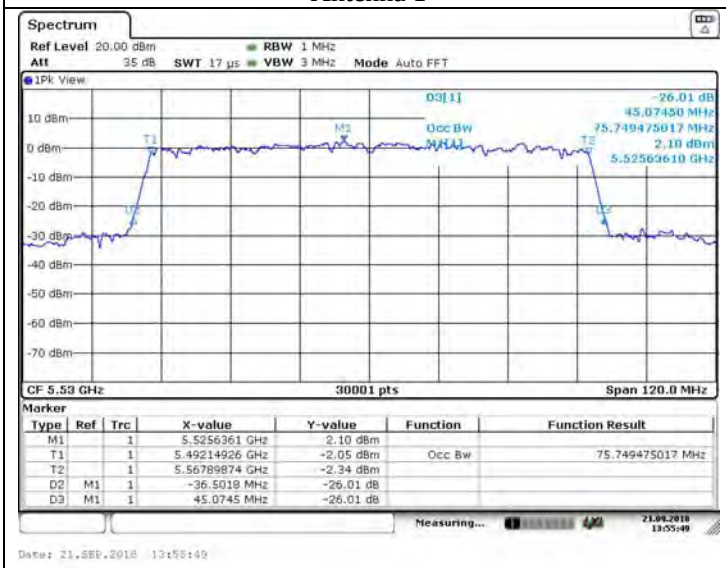
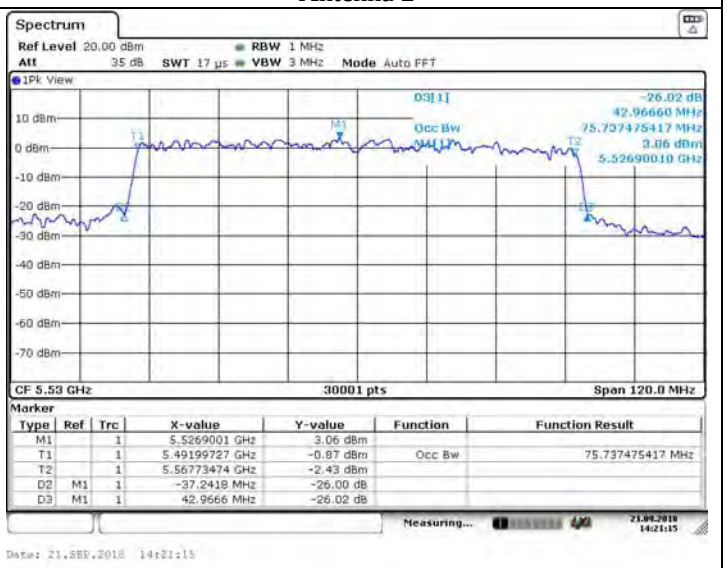
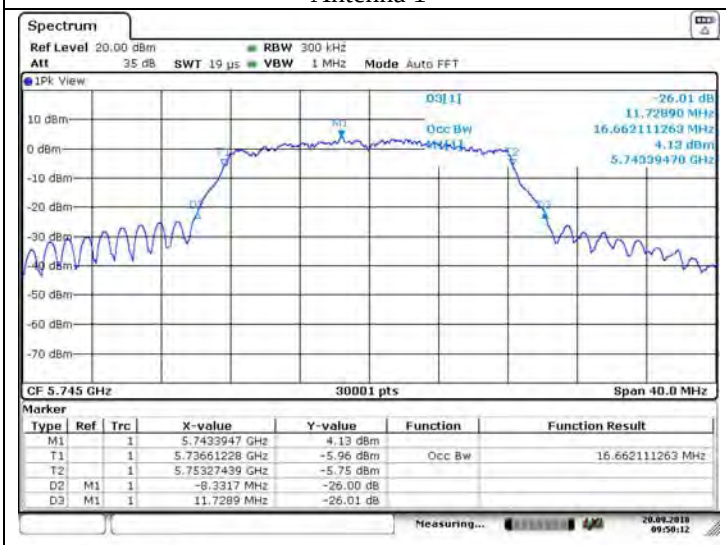


UNII Band III IEEE 802.11ac VHT40 5670MHz	
Antenna 1	Antenna 2
	

UNII Band III IEEE 802.11ac VHT80 5530MHz	
Antenna 1	Antenna 2
	

UNII Band IV IEEE 802.11a 5745MHz

Antenna 1



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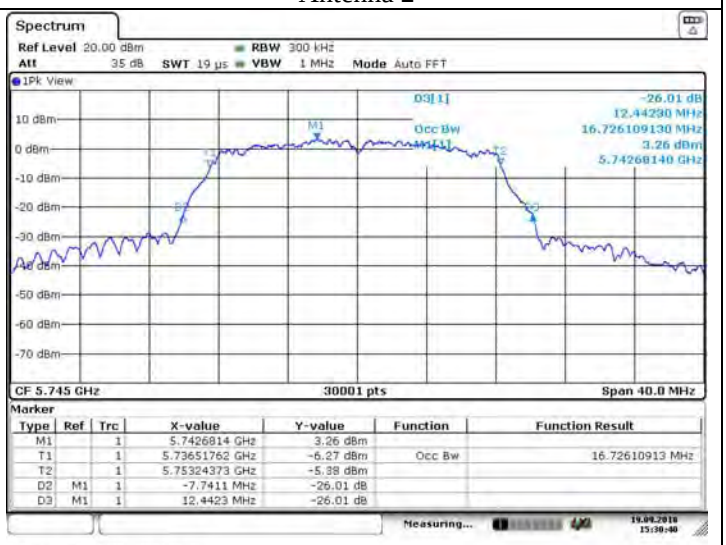
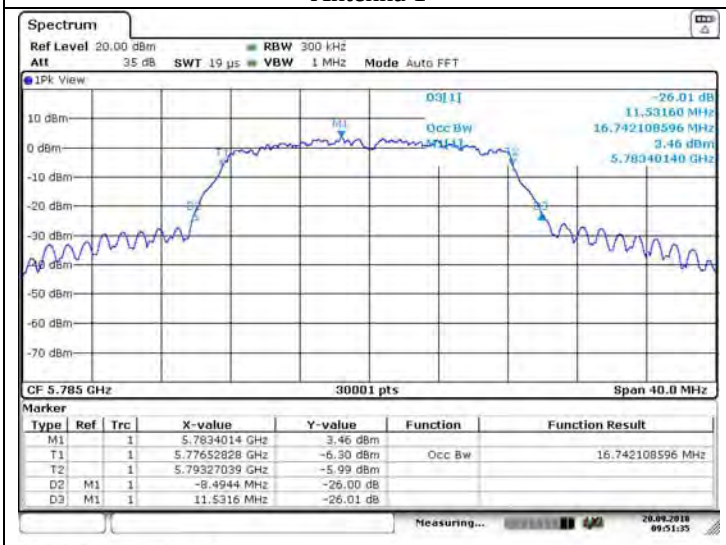


UNII Band IV IEEE 802.11a 5785MHz

Antenna 1



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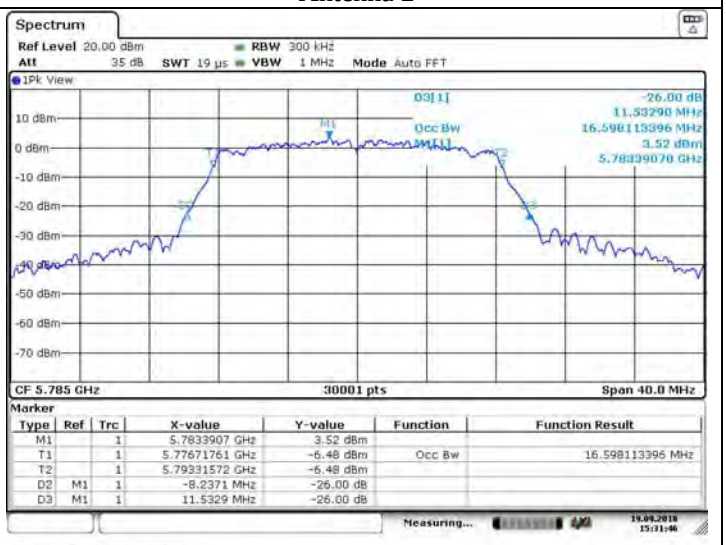
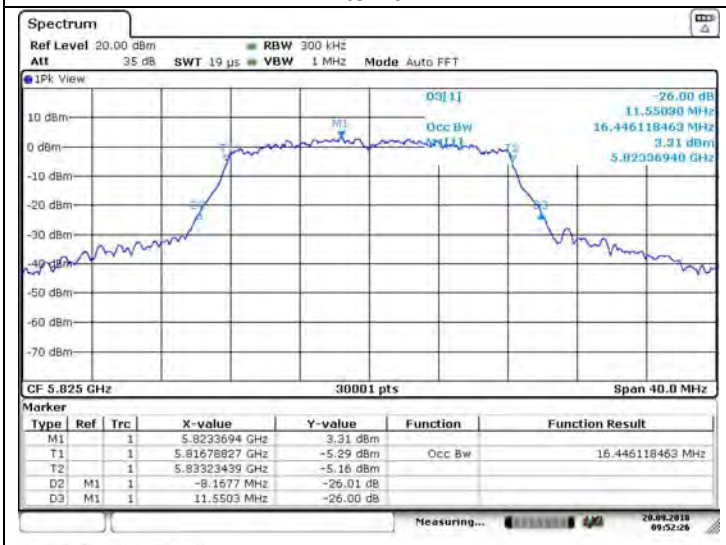


UNII Band IV IEEE 802.11a 5825MHz

Antenna 1



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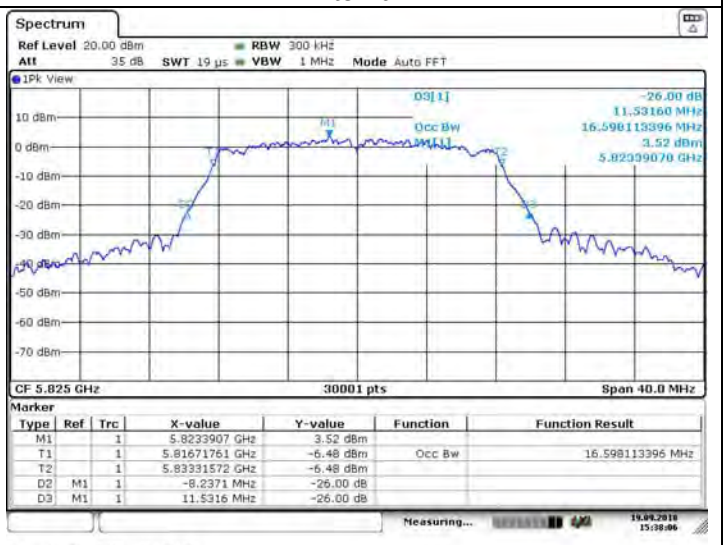
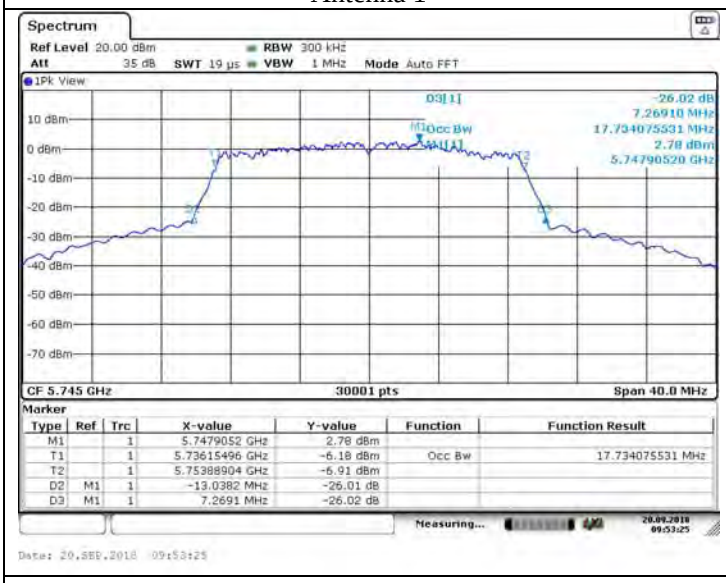


UNII Band IV IEEE 802.11n HT20 5745MHz

Antenna 1



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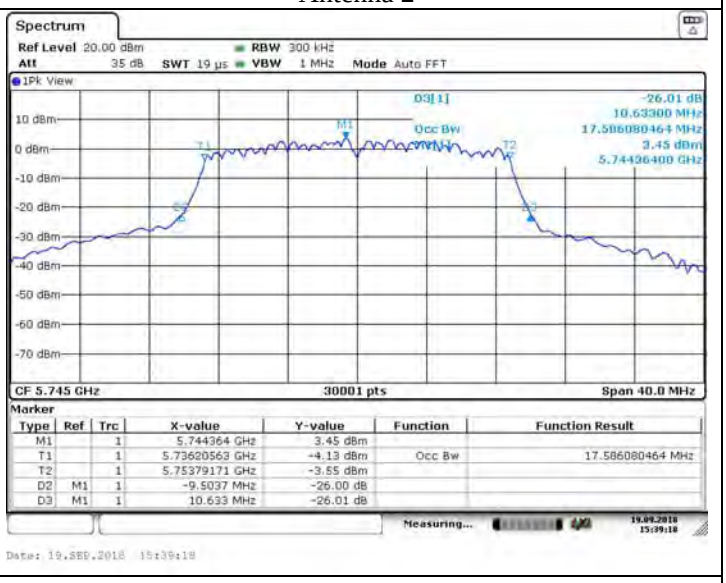
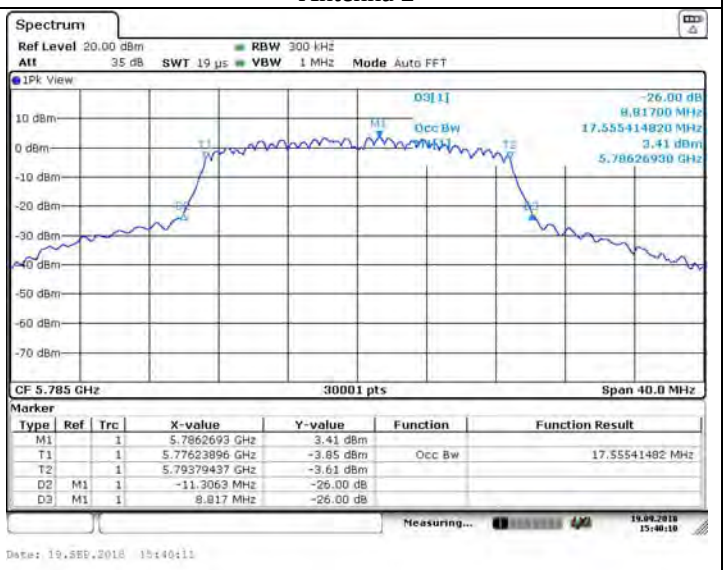


UNII Band IV IEEE 802.11n HT20 5785MHz

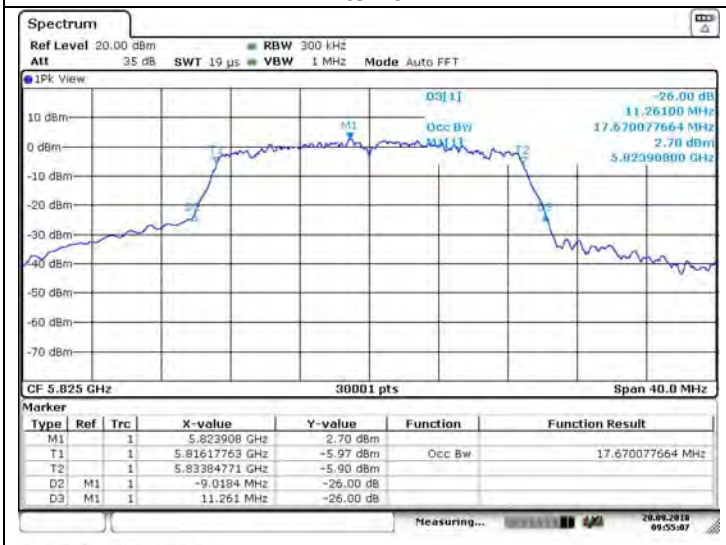
Antenna 1

Antenna 2



UNII Band IV IEEE 802.11n HT20 5825MHz

Antenna 1



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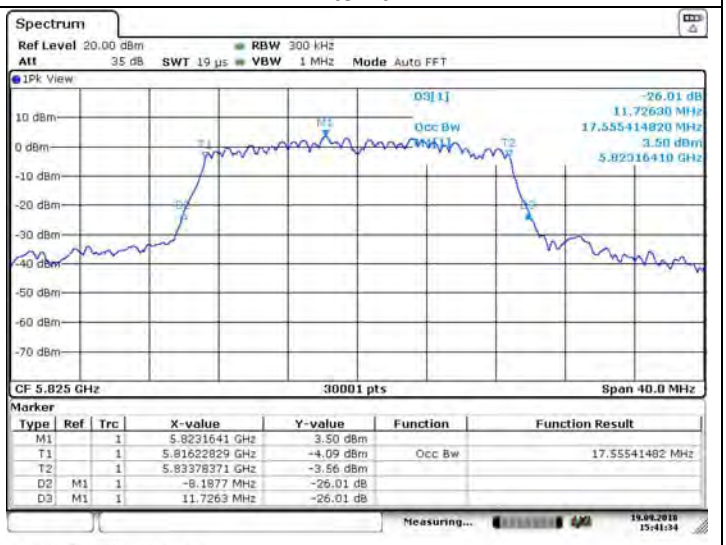
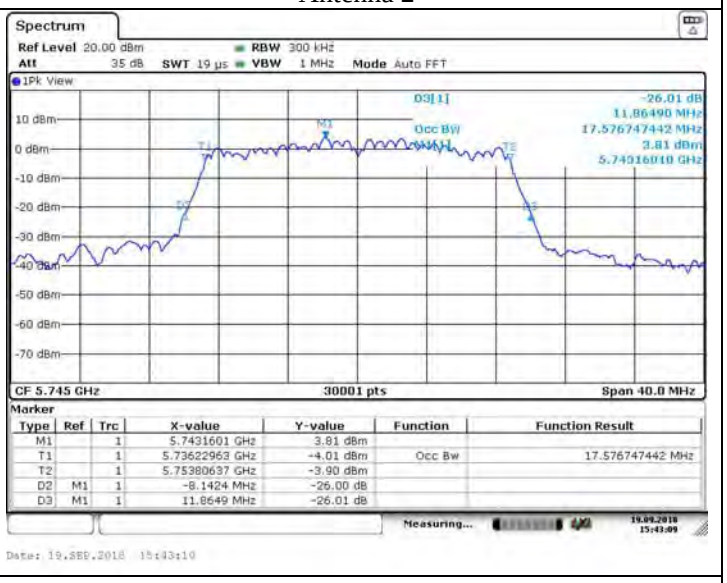


UNII Band IV IEEE 802.11ac VHT20 5745MHz

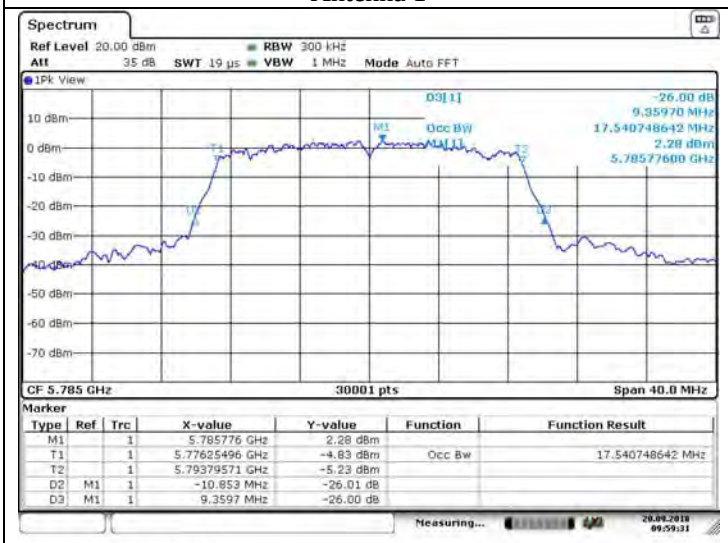
Antenna 1

Antenna 2



UNII Band IV IEEE 802.11ac VHT20 5785MHz

Antenna 1



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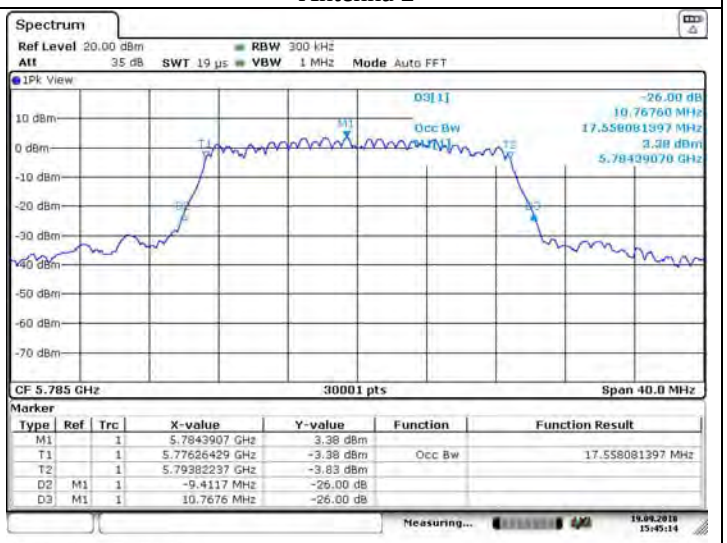
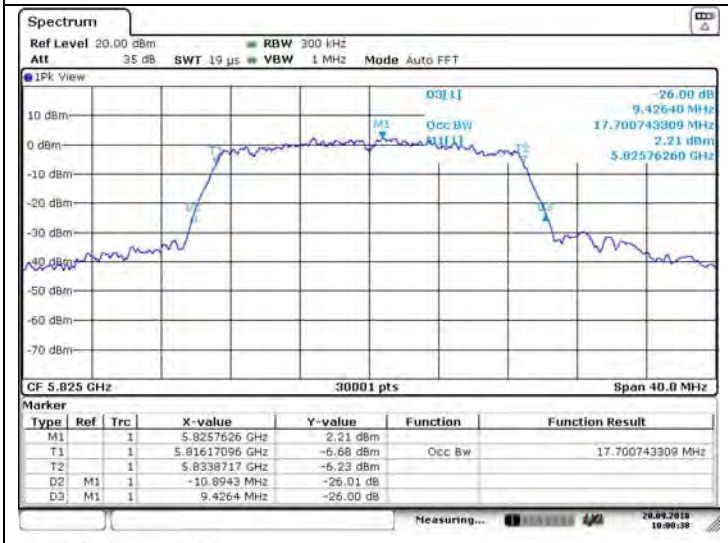
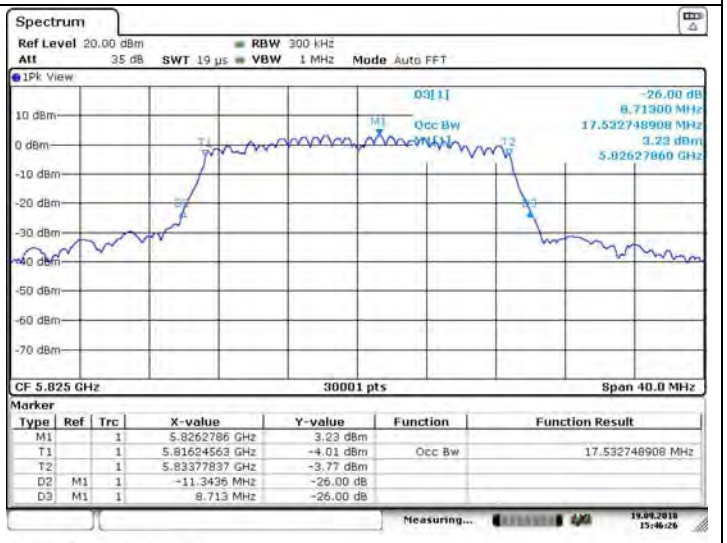


UNII Band IV IEEE 802.11ac VHT20 5825MHz

Antenna 1

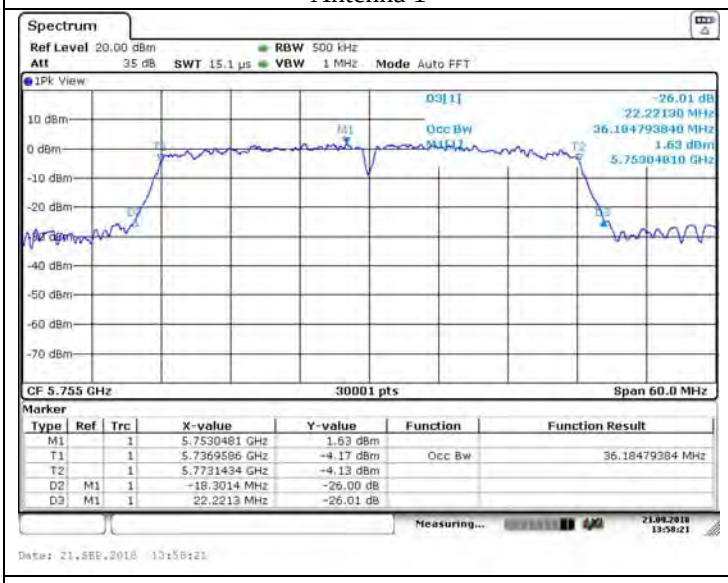


Antenna 2

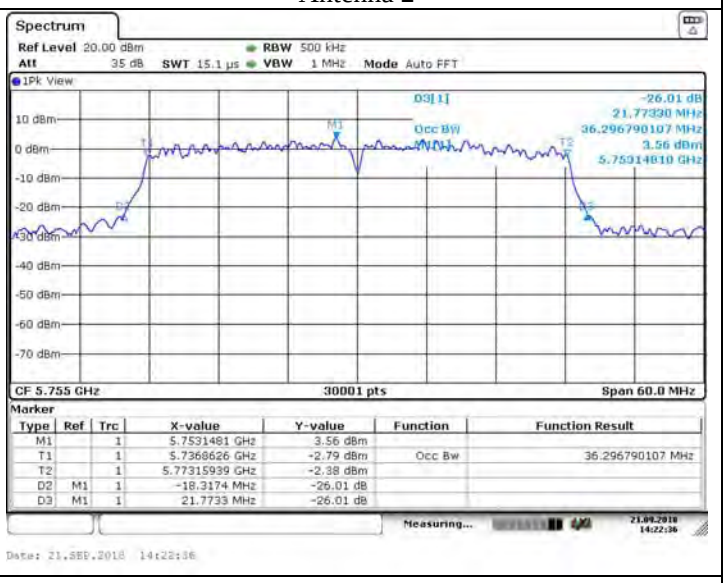


UNII Band IV IEEE 802.11n HT40 5755MHz

Antenna 1

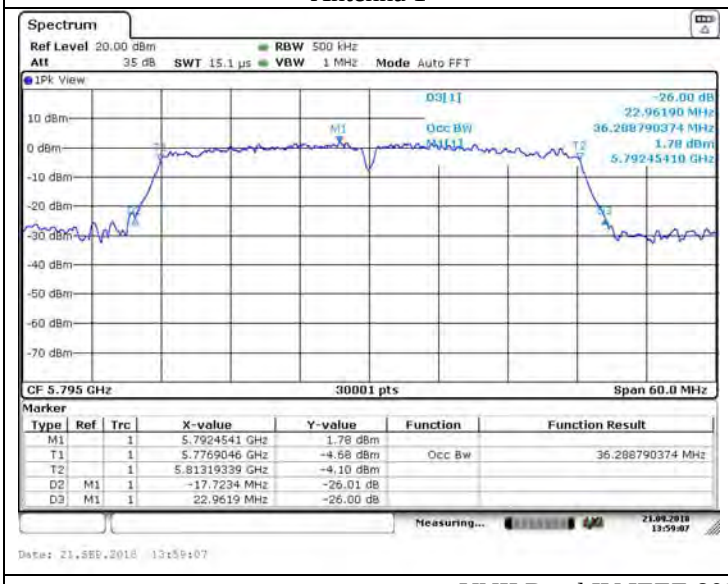


Antenna 2



UNII Band IV IEEE 802.11n HT40 5795MHz

Antenna 1



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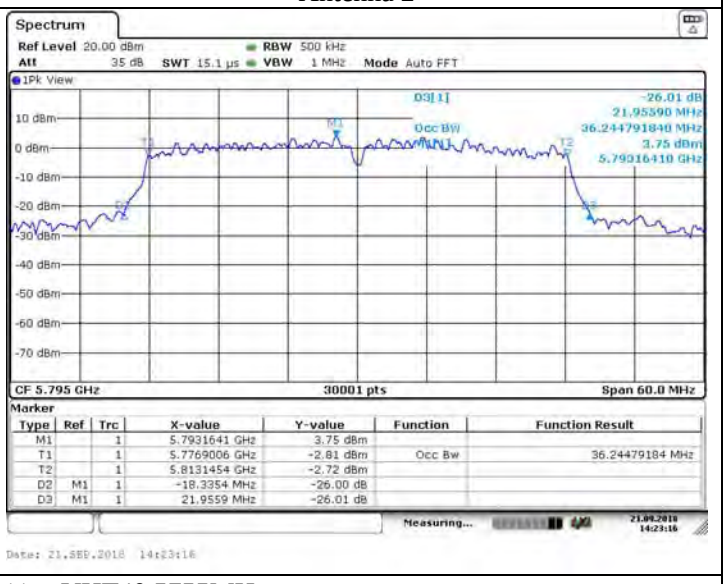

UNII Band IV IEEE 802.11ac VHT40 5755MHz

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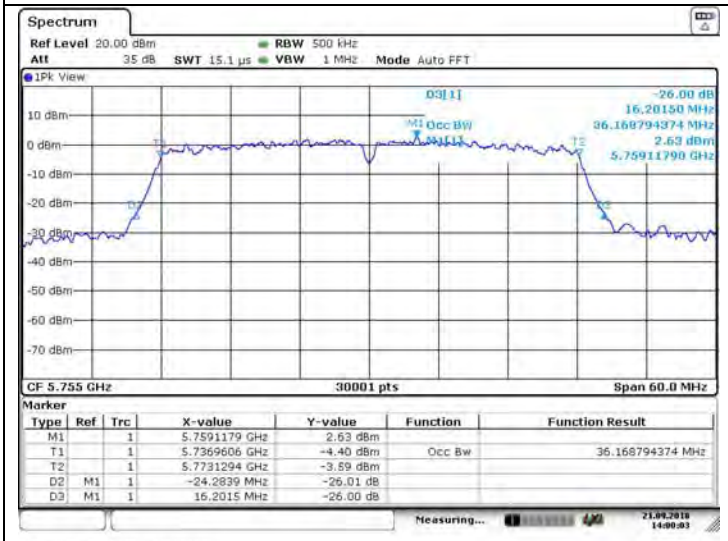

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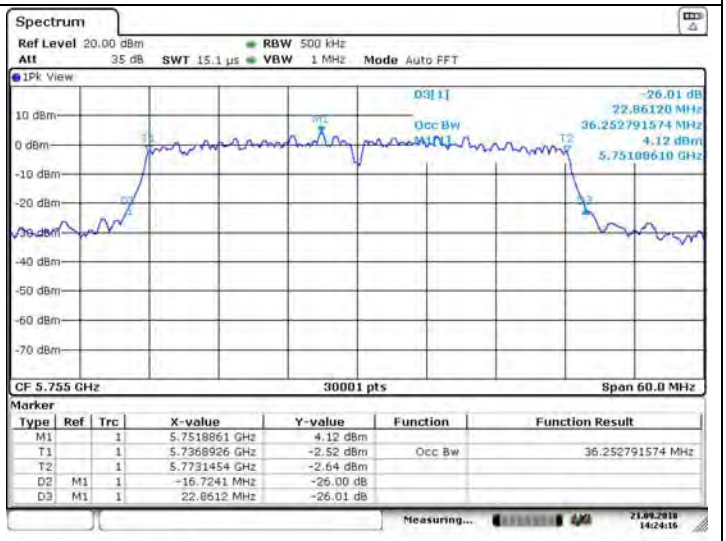

UNII Band IV IEEE 802.11ac VHT40 5795MHz	
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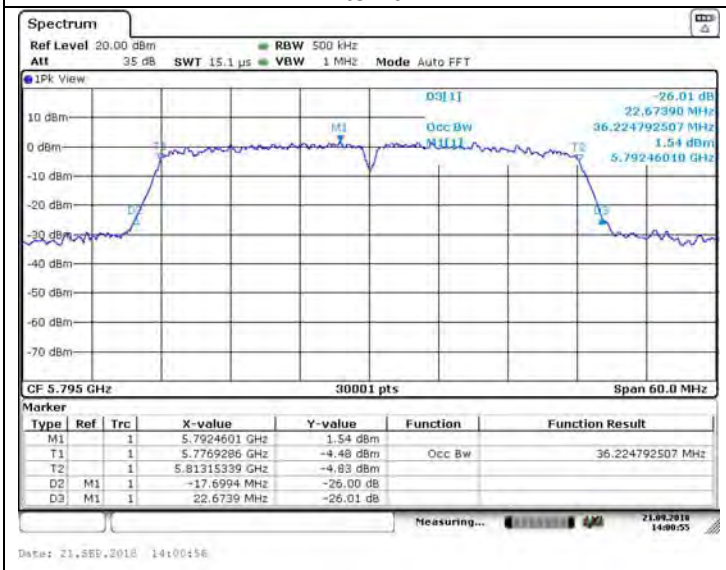	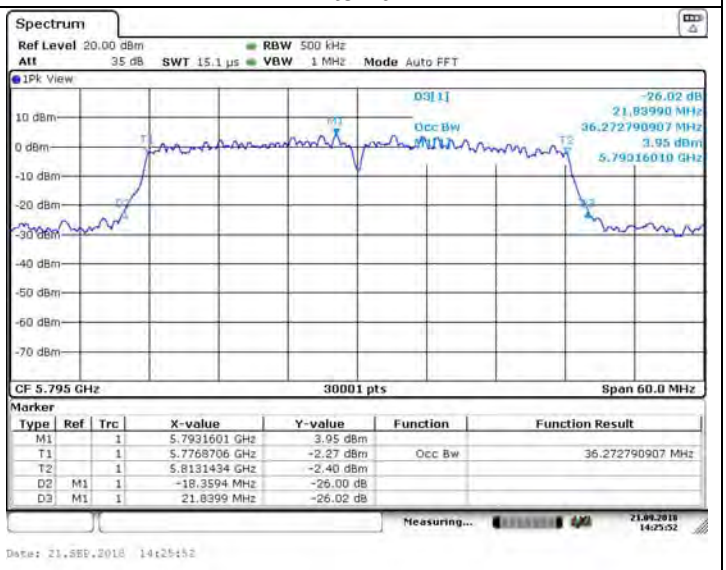

UNII Band IV IEEE 802.11ac VHT80 5775MHz	
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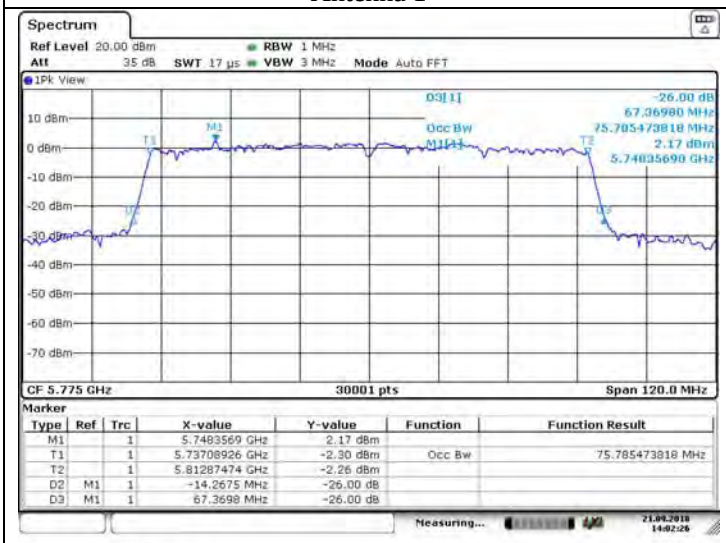
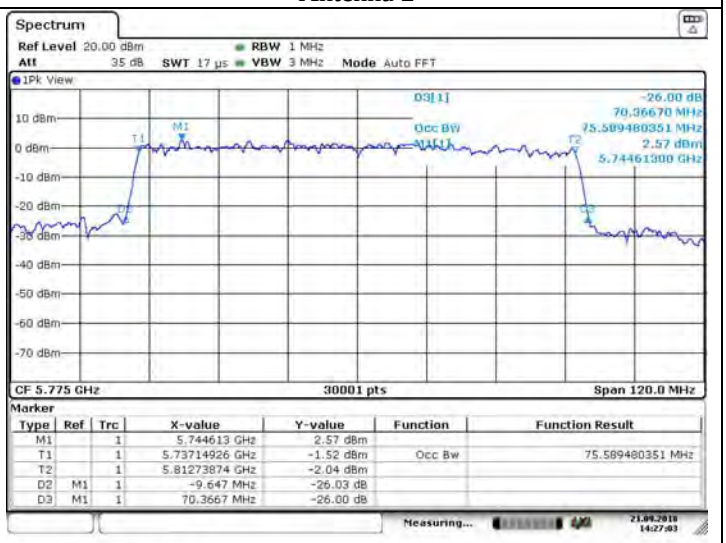
	

5. 6 DB BANDWIDTH

5.1. Limit

According to §15.407(e), Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

5.2. Test Procedure

a, The transmitter output (antenna port) was connected to the spectrum analyzer. Connect EUT antenna terminal to the spectrum analyzer with a low loss SMA cable.
b, Place the EUT on the table and set it in the transmitting mode.
c, Set resolution bandwidth (RBW) = 100 kHz
d, Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
e, Set the Trace mode = Max hold.
f, Set the Detector = Peak.
g, Set the Sweep = Auto.
h, Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

5.3. Test Information

EUT: JMDD Module	
M/N: JMDD	
Test date: 2018-09-20	Test site: RF sit Tested by: Tony

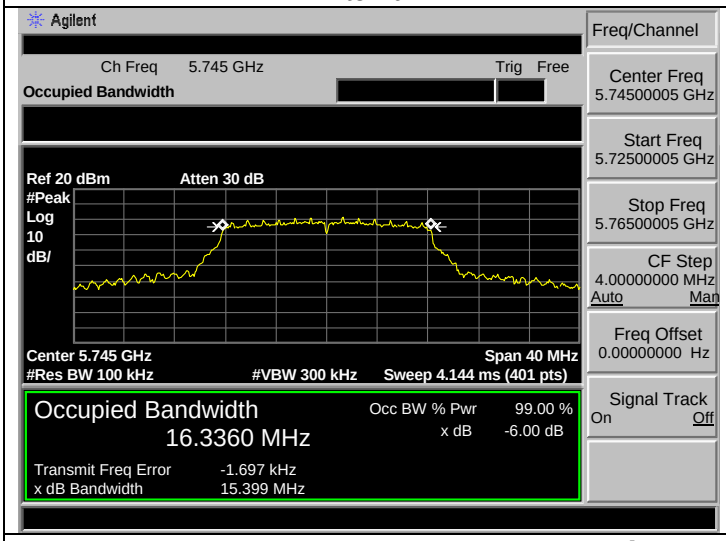
5.4. Test Result

Band	Mode	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Limit (kHz)
				Ant 1	Ant 2	
UNII Band IV	IEEE 802.11a	Low	5745	15.399	15.005	500
		Middle	5785	15.699	15.130	500
		High	5825	15.889	15.753	500
	IEEE 802.11n HT20	Low	5745	14.709	15.087	500
		Middle	5785	15.272	15.204	500
		High	5825	15.525	16.129	500
	IEEE 802.11ac VHT20	Low	5745	15.123	16.244	500
		Middle	5785	15.133	15.089	500
		High	5825	15.368	15.746	500
	IEEE 802.11n HT40	Low	5755	35.067	35.365	500
		High	5795	35.133	35.754	500
	IEEE 802.11ac VHT40	Low	5755	35.291	35.774	500
		High	5795	35.122	35.590	500
	IEEE 802.11ac VHT80	/	5775	75.474	75.876	500

5.5. Test Data

UNII Band IV IEEE 802.11a 5745MHz

Antenna 1



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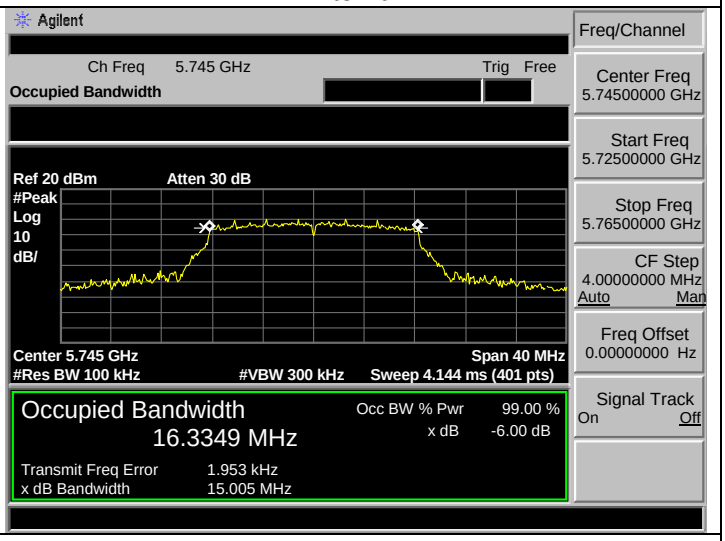
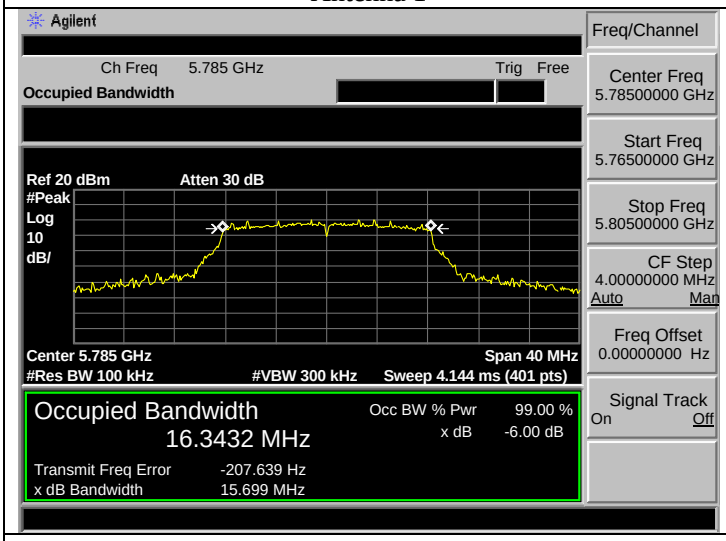


UNII Band IV IEEE 802.11a 5785MHz

Antenna 1



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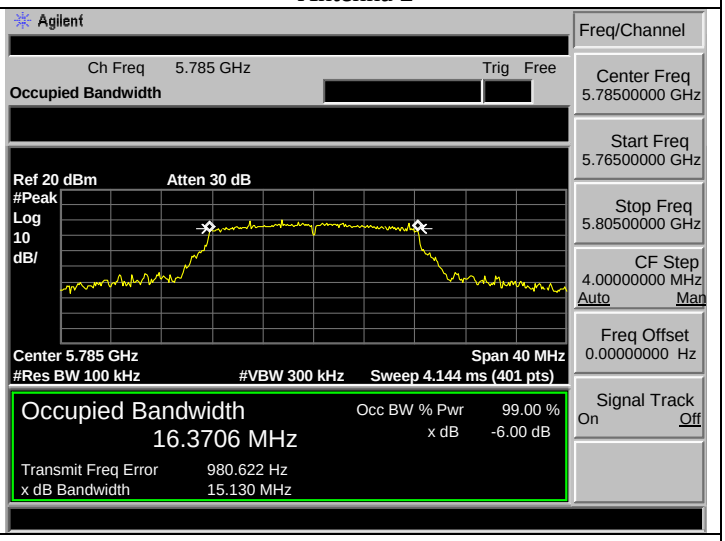
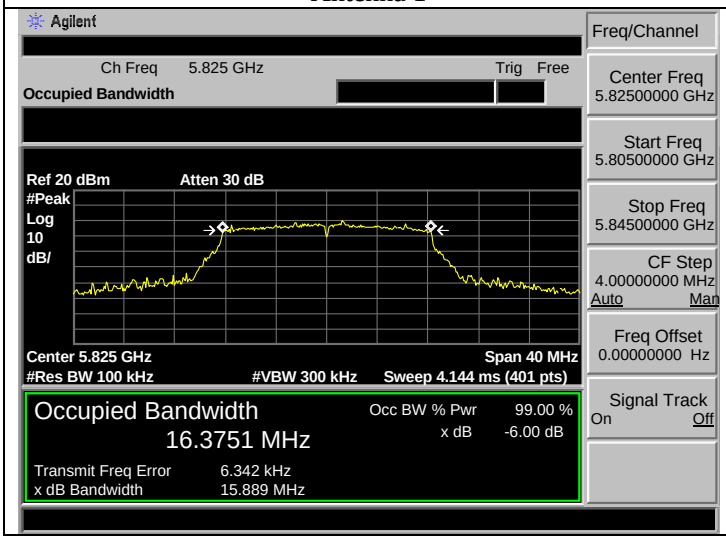


UNII Band IV IEEE 802.11a 5825MHz

Antenna 1



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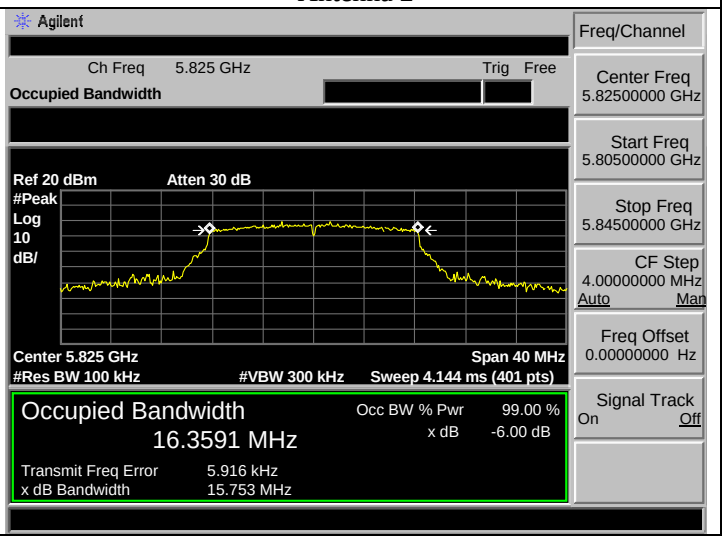
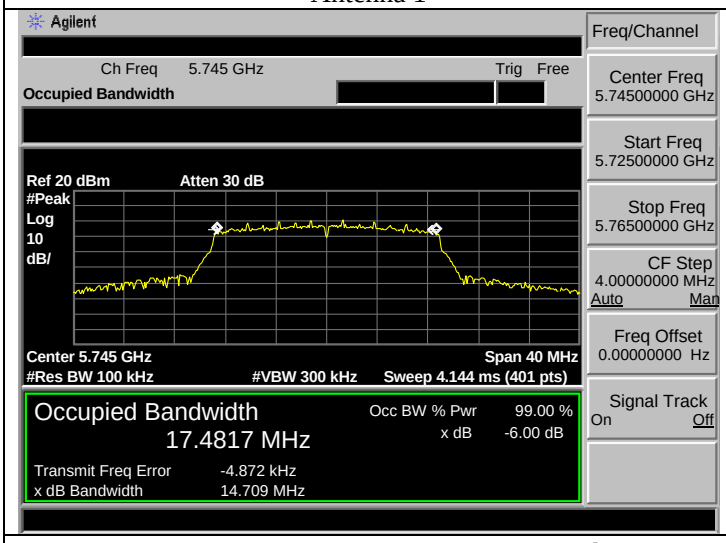


UNII Band IV IEEE 802.11n HT20 5745MHz

Antenna 1



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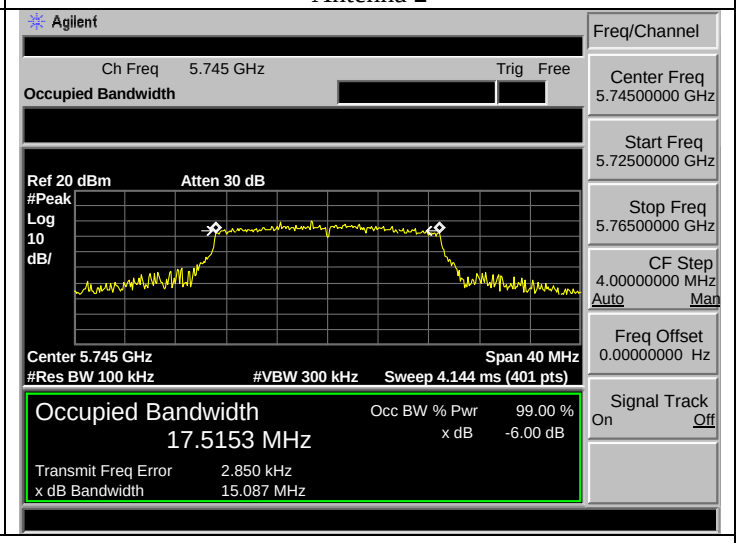

UNII Band IV IEEE 802.11n HT20 5785MHz

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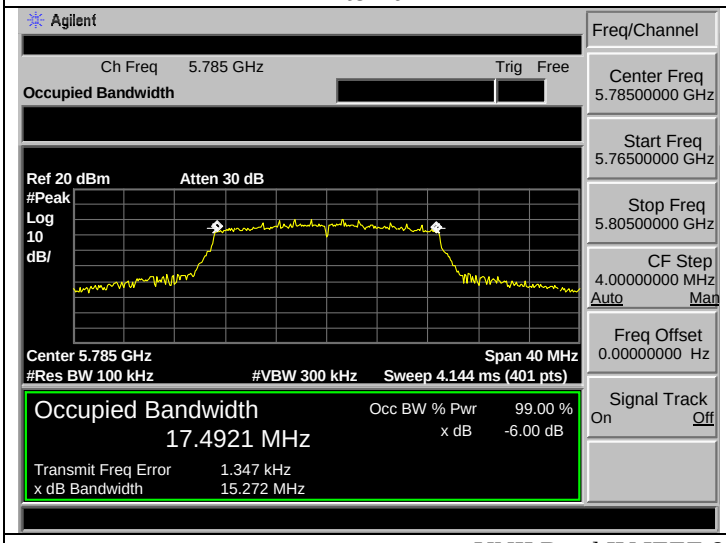

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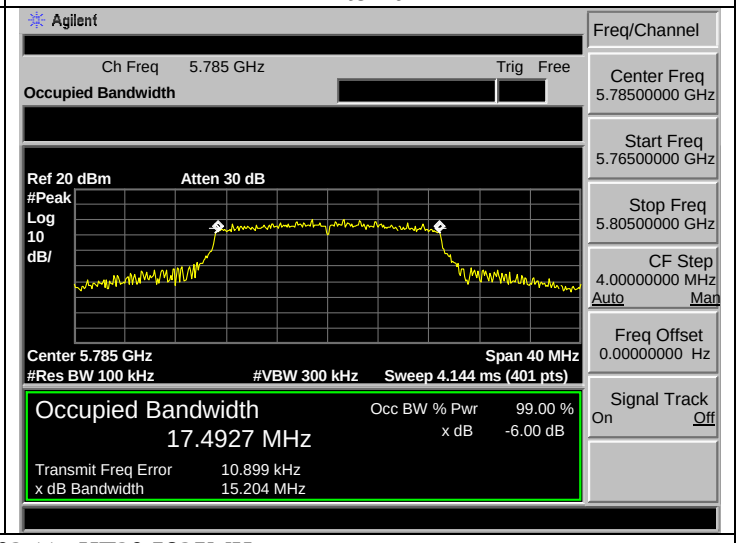

UNII Band IV IEEE 802.11n HT20 5825MHz

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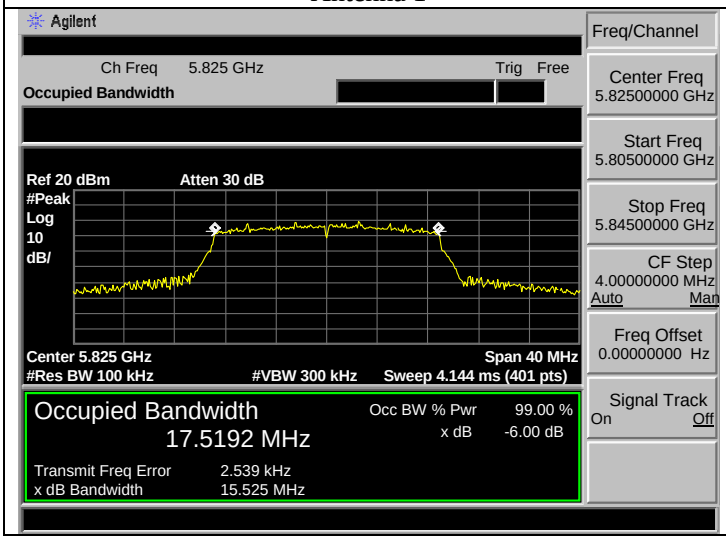

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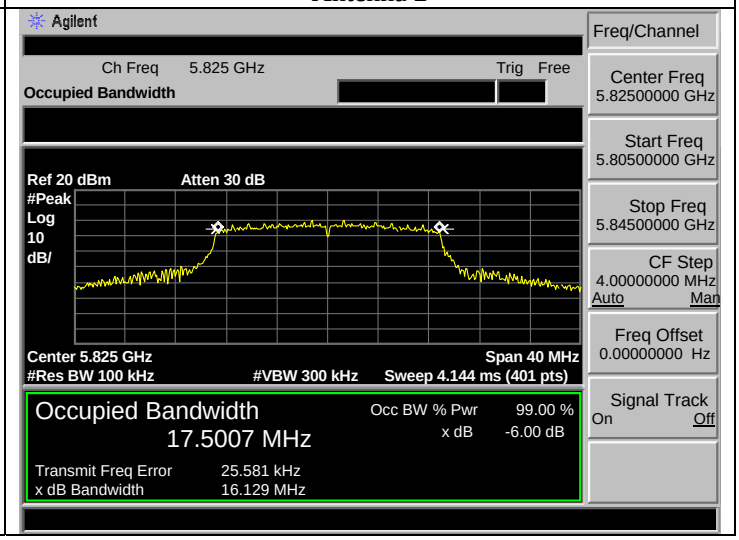
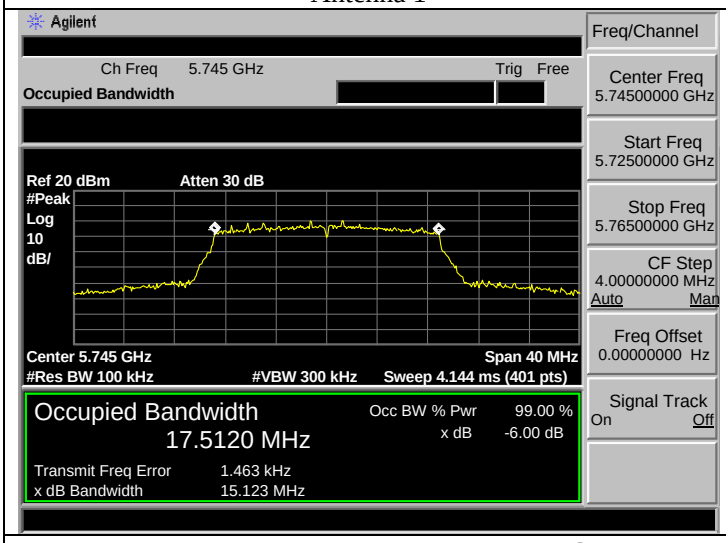


UNII Band IV IEEE 802.11ac VHT20 5745MHz

Antenna 1



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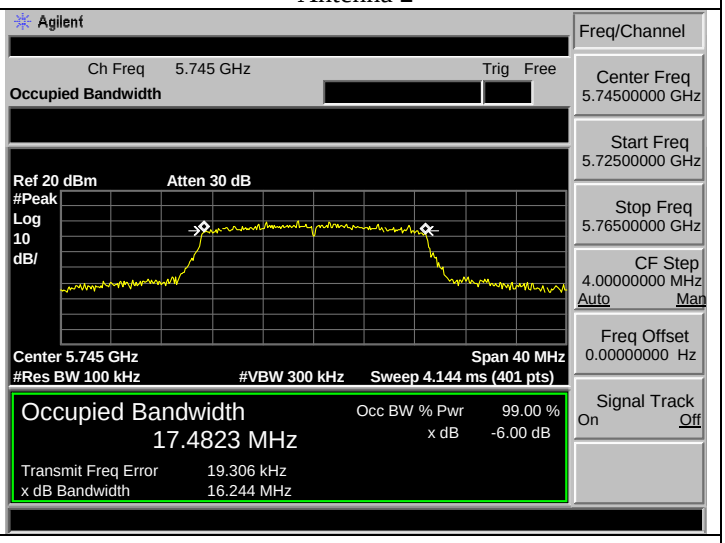

UNII Band IV IEEE 802.11ac VHT20 5785MHz

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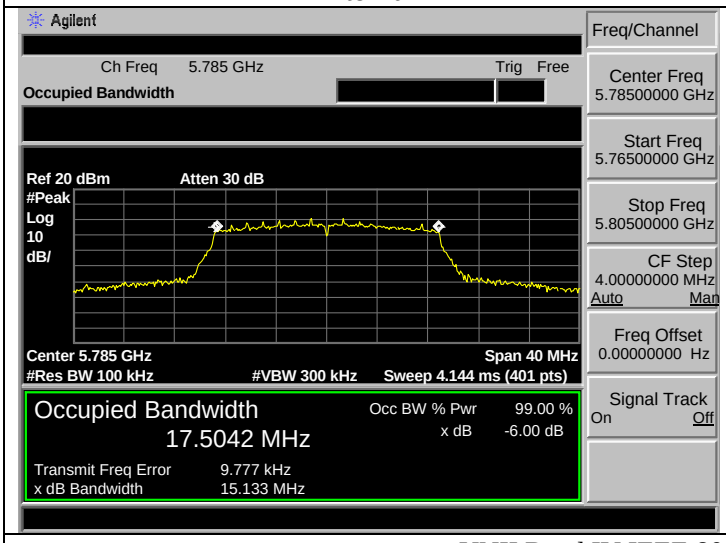

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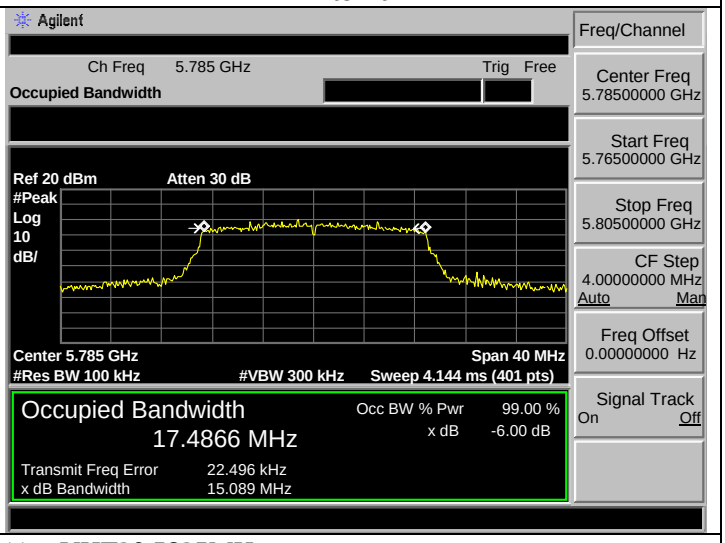

UNII Band IV IEEE 802.11ac VHT20 5825MHz

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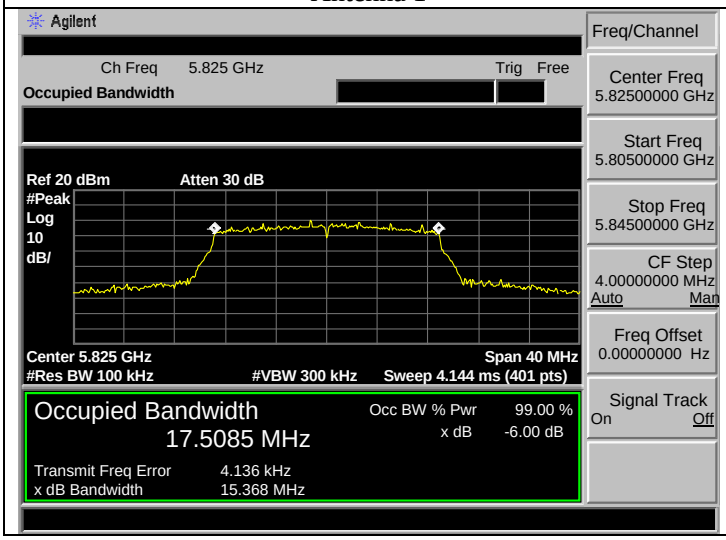

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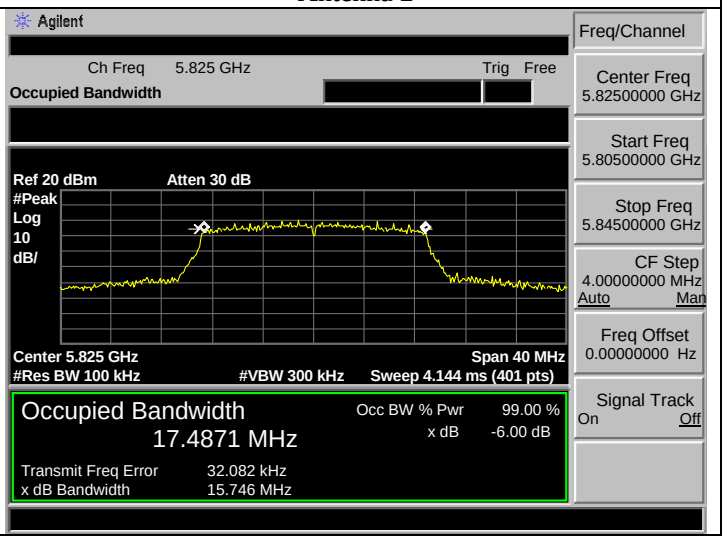

UNII Band IV IEEE 802.11n HT40 5755MHz

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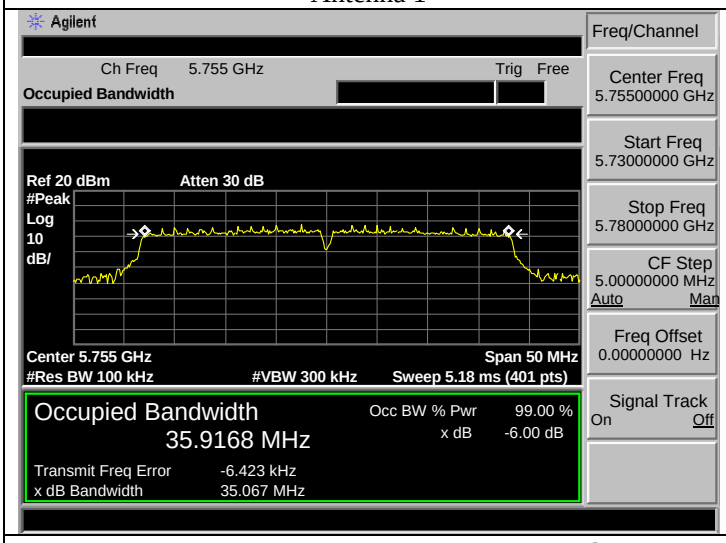

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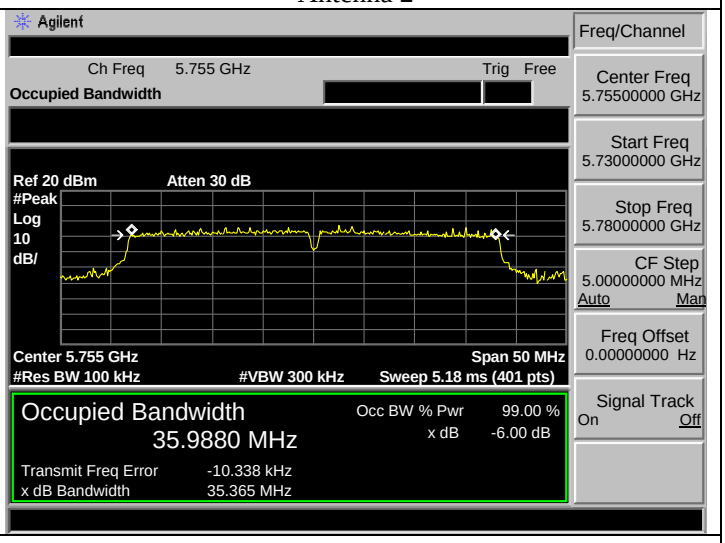

UNII Band IV IEEE 802.11n HT40 5795MHz

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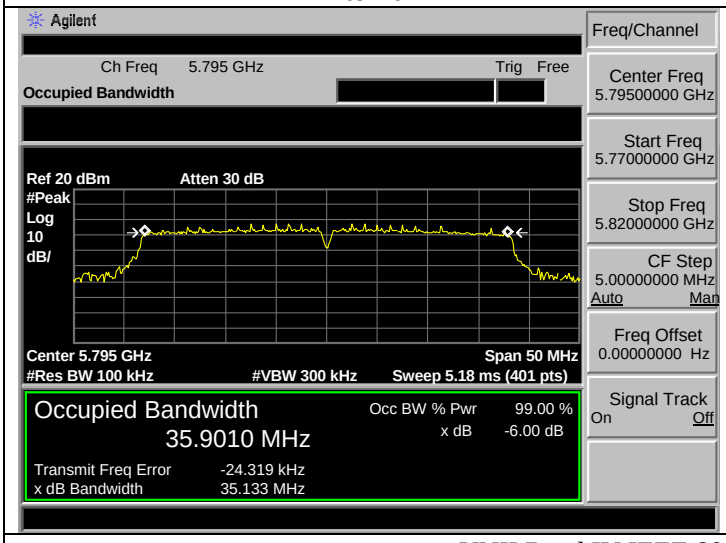

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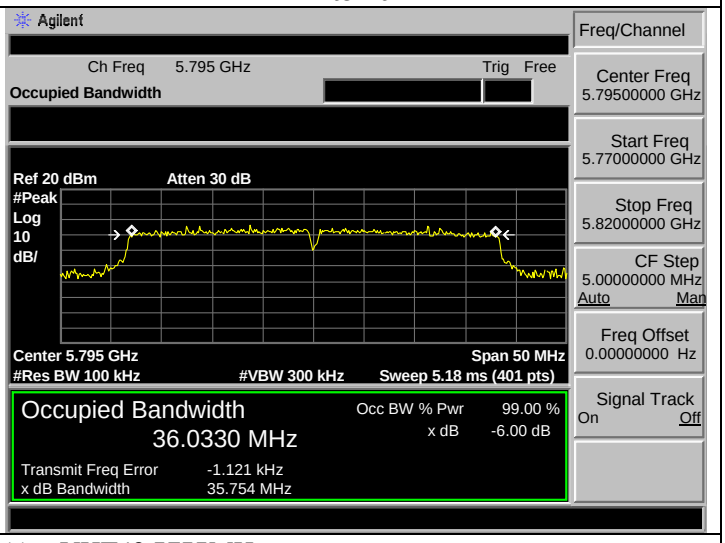

UNII Band IV IEEE 802.11ac VHT40 5755MHz

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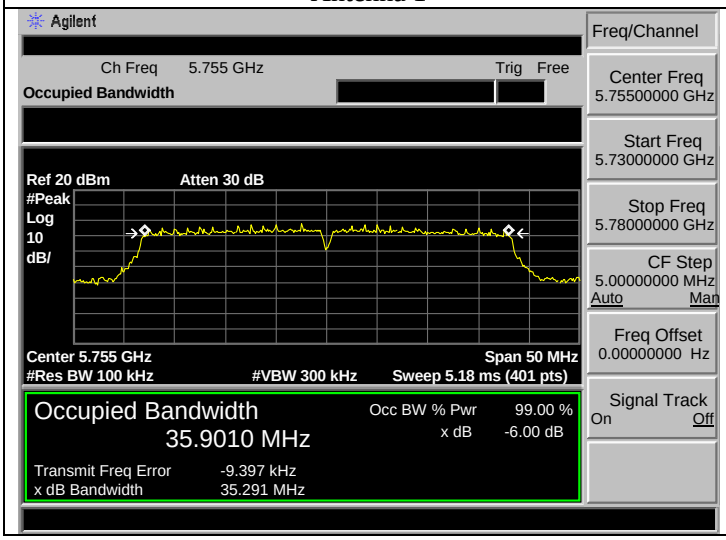

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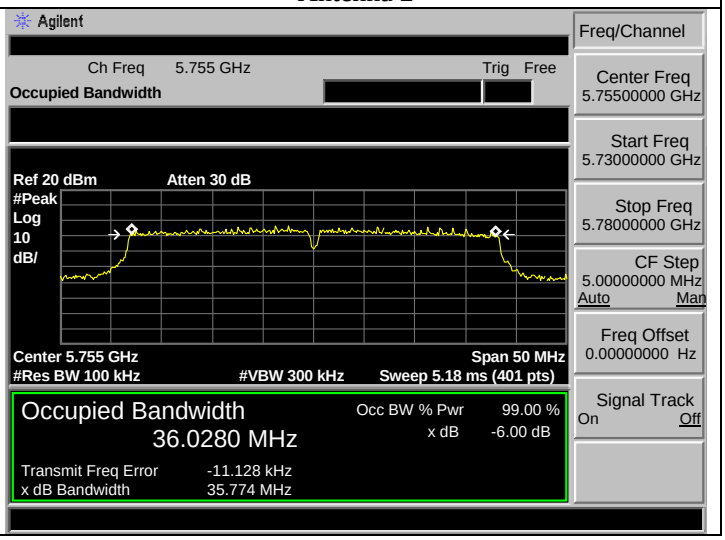
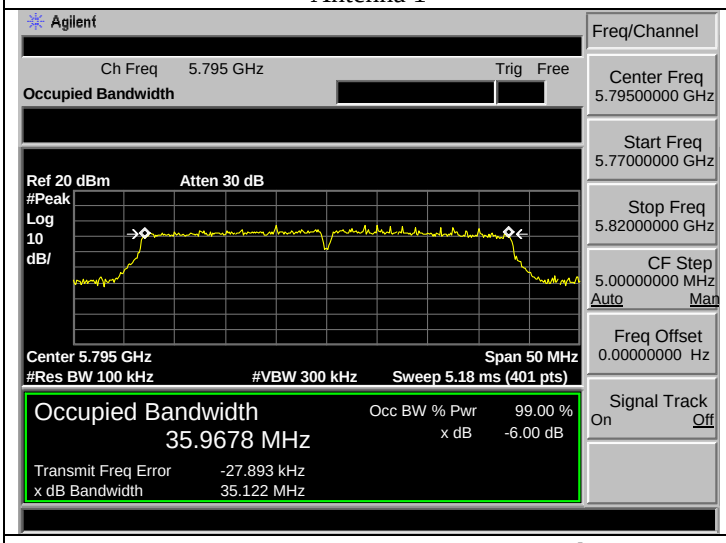


UNII Band IV IEEE 802.11ac VHT40 5795MHz

Antenna 1



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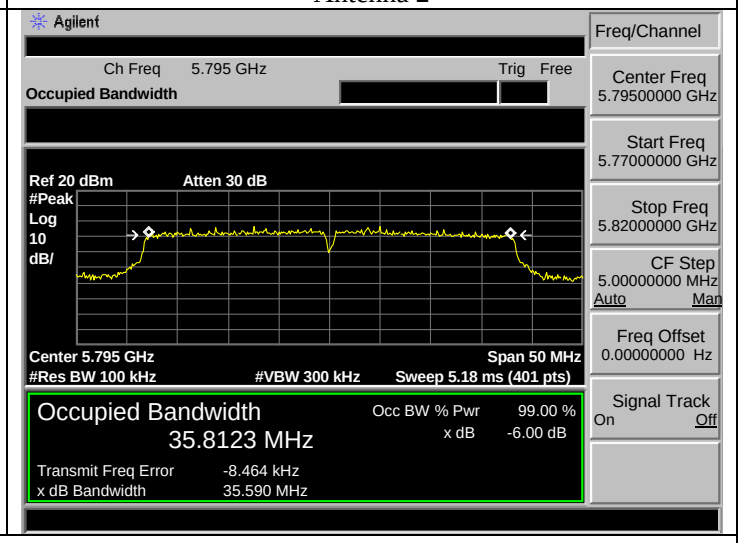
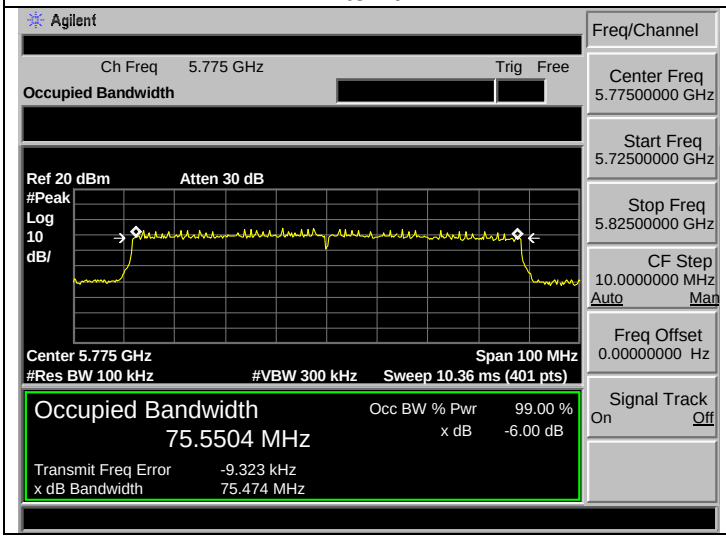


UNII Band IV IEEE 802.11ac VHT80 5775MHz

Antenna 1



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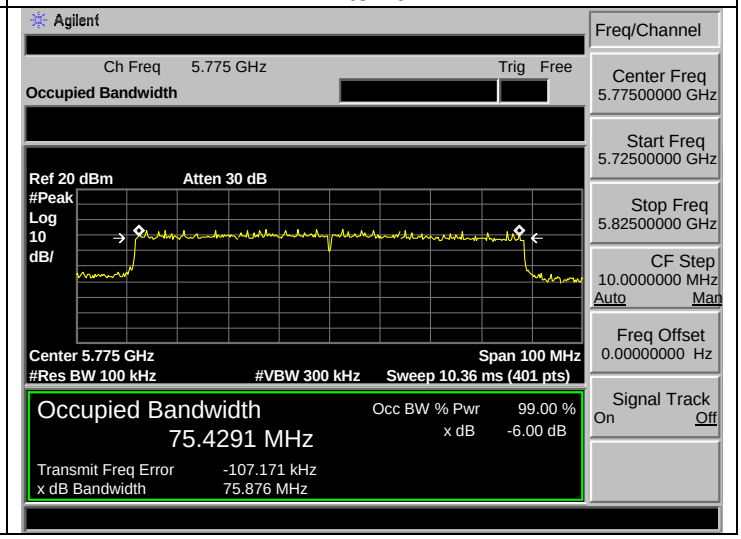


6. OUTPUT POWER

6.1. Limit

According to §15.407(a)& FCC R&O FCC 14 - 30,

(1) For the band 5.15-5.25 GHz.

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral

density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Note to paragraph (a)(3): The Commission strongly recommends that parties employing U-NII devices to provide critical communications services should determine if there are any nearby Government radar systems that could affect their operation.

Specified Limit of the Output Power

Band	Mode	Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	11 + 10*Log(B) (dBm)	Maximum Conducted Output Power Limit(dBm)
UNII Band II	IEEE 802.11a	Low	5260	19.925	23.99	23.99
		Middle	5300	19.963	24.00	24.00
		High	5320	19.813	23.97	23.97
	IEEE 802.11n HT20	Low	5260	20.378	24.09	24.00
		Middle	5300	20.203	24.05	24.00
		High	5320	20.267	24.07	24.00
	IEEE 802.11ac VHT20	Low	5260	20.045	24.02	24.00
		Middle	5300	20.050	24.02	24.00
		High	5320	20.078	24.03	24.00
	IEEE 802.11n HT40	Low	5270	40.403	27.06	24.00
		High	5310	40.091	27.03	24.00
	IEEE 802.11ac VHT40	Low	5270	40.139	27.04	24.00
		High	5310	39.785	27.00	24.00
	IEEE 802.11ac VHT80	/	5290	80.050	30.03	24.00
UNII Band III	IEEE 802.11a	Low	5500	19.898	23.99	23.99
		Middle	5580	19.751	23.96	23.96
		High	5700	19.939	24.00	24.00
	IEEE 802.11n HT20	Low	5500	20.225	24.06	24.00
		Middle	5580	20.289	24.07	24.00
		High	5700	19.977	24.01	24.00
	IEEE 802.11ac VHT20	Low	5500	20.026	24.02	24.00
		Middle	5580	20.047	24.02	24.00
		High	5700	20.011	24.01	24.00
	IEEE 802.11n HT40	Low	5510	40.047	27.03	24.00
		High	5670	40.233	27.05	24.00
	IEEE 802.11ac VHT40	Low	5510	40.097	27.03	24.00
		High	5670	39.943	27.01	24.00
	IEEE 802.11ac VHT80	/	5530	80.208	30.04	24.00

6.2. Test Procedure

The transmitter output (antenna port) was connected to the OSP-B157WB. Connect EUT antenna terminal to the spectrum analyzer with a low loss SMA cable.

6.3. Test Information

EUT: JMDD Module	
M/N: JMDD	
Test date: 2018-11-12	Test site: RF sit Tested by: Tony

6.4. Test Result

UNII Band I												
Mode	Frequency (MHz)	Output Power										Maximum Conducted Output Power Limit (dBm)
		Ant 1				Ant 2				Total		
		Output Power (dBm)	Duty Fac. (dB)	Final Output Power		Output Power (dBm)	Duty Fac. (dB)	Final Output Power		Final Output Power		
				dBm	mW			dBm	mW	dBm	mW	
IEEE 802.11a	5180	14.49	0.29	14.78	30.06	14.74	0.29	15.03	31.84	N/A	N/A	24.00
	5200	14.24	0.29	14.53	28.38	14.13	0.29	14.42	27.67	N/A	N/A	24.00
	5240	14.13	0.29	14.42	27.67	14.10	0.29	14.39	27.48	N/A	N/A	24.00
IEEE 802.11n HT20	5180	12.48	0.31	12.79	19.01	12.84	0.31	13.15	20.65	15.98	39.66	24.00
	5200	12.30	0.31	12.61	18.24	12.40	0.31	12.71	18.66	15.67	36.90	24.00
	5240	12.25	0.31	12.56	18.03	12.42	0.31	12.73	18.75	15.66	36.78	24.00
IEEE 802.11ac VHT20	5180	12.64	0.31	12.95	19.72	12.91	0.31	13.22	20.99	16.10	40.71	24.00
	5200	12.37	0.31	12.68	18.54	12.49	0.31	12.80	19.05	15.75	37.59	24.00
	5240	12.32	0.31	12.63	18.32	12.58	0.31	12.89	19.45	15.77	37.78	24.00
IEEE 802.11n HT40	5190	11.96	0.60	12.56	18.03	11.73	0.60	12.33	17.10	15.46	35.13	24.00
	5230	11.43	0.60	12.03	15.96	11.20	0.60	11.80	15.14	14.93	31.09	24.00
IEEE 802.11ac VHT40	5190	11.97	0.60	12.57	18.07	11.75	0.60	12.35	17.18	15.47	35.25	24.00
	5230	11.38	0.60	11.98	15.78	11.10	0.60	11.70	14.79	14.85	30.57	24.00
IEEE 802.11ac VHT80	5210	10.49	1.13	11.62	14.52	10.38	1.07	11.45	13.96	14.55	28.48	24.00

Conclusion: Pass
Note:
1, Final Output Power= Output Power + Duty Factor(Duty Factor refer to 3.4);
2, For 802.11n and 802.11ac, the EUT incorporates a MIMO function. The Antenna directional gain as follow:
5G(Band I) Directional gain: 5.64dBi
5G(Band II) Directional gain: 5.43dBi
5G(Band III) Directional gain: 6.78dBi
5G(Band IV) Directional gain: 6.74dBi
When the directional gain is greater than 6 dBi, Then the final output power limit is: -(directional gain-6).

UNII Band II												
Mode	Frequency (MHz)	Output Power										Maximum Conducted Output Power Limit (dBm)
		Ant 1				Ant 2				Total		
		Output Power (dBm)	Duty Fac. (dB)	Final Output Power		Output Power (dBm)	Duty Fac. (dB)	Final Output Power		Final Output Power		
				dBm	mW			dBm	mW	dBm	mW	
IEEE 802.11a	5260	14.14	0.29	14.43	27.73	13.72	0.29	14.01	25.18	N/A	N/A	23.99
	5300	14.33	0.29	14.62	28.97	13.30	0.29	13.59	22.86	N/A	N/A	24.00
	5320	14.20	0.29	14.49	28.12	13.31	0.29	13.60	22.91	N/A	N/A	23.97
IEEE 802.11n HT20	5260	11.14	0.31	11.45	13.96	11.86	0.31	12.17	16.48	14.84	30.45	24.00
	5300	11.60	0.31	11.91	15.52	11.90	0.31	12.21	16.63	15.07	32.16	24.00
	5320	11.66	0.31	11.97	15.74	11.72	0.31	12.03	15.96	15.01	31.70	24.00
IEEE 802.11ac VHT20	5260	11.41	0.31	11.72	14.86	11.94	0.31	12.25	16.79	15.00	31.65	24.00
	5300	11.19	0.31	11.50	14.13	11.66	0.31	11.97	15.74	14.75	29.87	24.00
	5320	11.28	0.31	11.59	14.42	11.73	0.31	12.04	16.00	14.83	30.42	24.00
IEEE 802.11n HT40	5270	11.07	0.60	11.67	14.69	11.91	0.60	12.51	17.82	15.12	32.51	24.00
	5310	11.10	0.60	11.70	14.79	12.35	0.60	12.95	19.72	15.38	34.52	24.00
IEEE 802.11ac VHT40	5270	10.92	0.60	11.52	14.19	12.17	0.60	12.77	18.92	15.20	33.11	24.00
	5310	11.02	0.60	11.62	14.52	11.94	0.60	12.54	17.95	15.11	32.47	24.00
IEEE 802.11ac VHT80	5290	10.30	1.13	10.43	11.04	11.37	1.07	12.44	17.54	14.56	28.58	24.00

Conclusion: Pass
Note:
1, Final Output Power= Output Power + Duty Factor(Duty Factor refer to 3.4);
2, For 802.11n and 802.11ac, the EUT incorporates a MIMO function. The Antenna directional gain as follow:
5G(Band I) Directional gain: 5.64dBi
5G(Band II) Directional gain: 5.43dBi
5G(Band III) Directional gain: 6.78dBi
5G(Band IV) Directional gain: 6.74dBi
When the directional gain is greater than 6 dBi, Then the final output power limit is: -(directional gain-6).

UNII Band III												
Mode	Frequency (MHz)	Output Power										Maximum Conducted Output Power Limit (dBm)
		Ant 1				Ant 2				Total		
		Output Power (dBm)	Duty Fac. (dB)	Final Output Power		Output Power (dBm)	Duty Fac. (dB)	Final Output Power		Final Output Power		
				dBm	mW			dBm	mW	dBm	mW	
IEEE 802.11a	5500	13.44	0.29	13.73	23.60	14.50	0.29	14.79	30.13	N/A	N/A	23.21
	5580	14.55	0.29	14.84	30.48	14.07	0.29	14.36	27.29	N/A	N/A	23.18
	5700	14.20	0.29	14.49	28.12	14.25	0.29	14.54	28.44	N/A	N/A	23.22
IEEE 802.11n HT20	5500	11.33	0.31	11.64	14.59	11.81	0.31	12.12	16.29	14.90	30.88	23.22
	5580	11.69	0.31	12.00	15.85	11.14	0.31	11.45	13.96	14.74	29.81	23.22
	5700	11.52	0.31	11.83	15.24	11.15	0.31	11.46	14.00	14.66	29.24	23.22
IEEE 802.11ac VHT20	5500	11.68	0.31	11.99	15.81	11.40	0.31	11.71	14.83	14.86	30.64	23.22
	5580	11.17	0.31	11.48	14.06	11.74	0.31	12.05	16.03	14.78	30.09	23.22
	5700	11.40	0.31	11.71	14.83	11.66	0.31	11.97	15.74	14.85	30.57	23.22
IEEE 802.11n HT40	5510	11.64	0.60	11.24	13.30	11.28	0.60	11.88	15.42	14.58	28.72	23.22
	5670	11.15	0.60	11.75	14.96	11.74	0.60	12.34	17.14	15.07	32.10	23.22
IEEE 802.11ac VHT40	5510	11.43	0.60	11.03	12.68	11.61	0.60	12.21	16.63	14.67	29.31	23.22
	5670	11.04	0.60	11.64	14.59	11.50	0.60	12.10	16.22	14.89	30.81	23.22
IEEE 802.11ac VHT80	5530	10.43	1.13	11.56	14.32	10.97	1.07	12.04	16.00	14.82	30.32	23.22

Conclusion: Pass
Note:
1, Final Output Power= Output Power + Duty Factor(Duty Factor refer to 3.4);
2, For 802.11n and 802.11ac, the EUT incorporates a MIMO function. The Antenna directional gain as follow:
5G(Band I) Directional gain: 5.64dBi
5G(Band II) Directional gain: 5.43dBi
5G(Band III) Directional gain: 6.78dBi
5G(Band IV) Directional gain: 6.74dBi
When the directional gain is greater than 6 dBi, Then the final output power limit is: -(directional gain-6).

UNII Band IV												
Mode	Frequency (MHz)	Output Power										Maximum Conducted Output Power Limit (dBm)
		Ant 1				Ant 2				Total		
		Output Power (dBm)	Duty Fac. (dB)	Final Output Power		Output Power (dBm)	Duty Fac. (dB)	Final Output Power		Final Output Power		
				dBm	mW			dBm	mW	dBm	mW	
IEEE 802.11a	5745	13.97	0.29	14.26	26.67	13.18	0.29	13.47	22.23	N/A	N/A	29.26
	5785	13.86	0.29	14.15	26.00	13.12	0.29	13.41	21.93	N/A	N/A	29.26
	5825	13.95	0.29	14.24	26.55	13.04	0.29	13.33	21.53	N/A	N/A	29.26
IEEE 802.11n HT20	5745	12.56	0.31	12.87	19.36	12.12	0.31	12.43	17.50	15.67	36.86	29.26
	5785	12.60	0.31	12.91	19.54	12.03	0.31	12.34	17.14	15.64	36.68	29.26
	5825	12.54	0.31	12.85	19.28	12.11	0.31	12.42	17.46	15.65	36.73	29.26
IEEE 802.11ac VHT20	5745	12.68	0.31	12.99	19.91	12.14	0.31	12.45	17.58	15.74	37.49	29.26
	5785	12.21	0.31	12.52	17.86	12.09	0.31	12.40	17.38	15.47	35.24	29.26
	5825	12.55	0.31	12.86	19.32	12.12	0.31	12.43	17.50	15.66	36.82	29.26
IEEE 802.11n HT40	5755	11.37	0.60	11.97	15.74	11.12	0.60	11.72	14.86	14.86	30.60	29.26
	5795	11.58	0.60	12.18	16.52	11.13	0.60	12.73	18.75	15.47	35.27	29.26
IEEE 802.11ac VHT40	5755	11.86	0.60	12.46	17.62	11.41	0.60	12.01	15.89	15.25	33.51	29.26
	5795	11.49	0.60	12.09	16.18	11.97	0.60	12.57	18.07	15.35	34.25	29.26
IEEE 802.11ac VHT80	5775	10.53	1.13	11.66	14.66	10.17	1.07	11.24	13.30	14.47	27.96	29.26

Conclusion: Pass
Note:
1, Final Output Power= Output Power + Duty Factor(Duty Factor refer to 3.4);
2, For 802.11n and 802.11ac, the EUT incorporates a MIMO function. The Antenna directional gain as follow:
5G(Band I) Directional gain: 5.64dBi
5G(Band II) Directional gain: 5.43dBi
5G(Band III) Directional gain: 6.78dBi
5G(Band IV) Directional gain: 6.74dBi
When the directional gain is greater than 6 dBi, Then the final output power limit is: -(directional gain-6).

7. PEAK POWER SPECTRAL DENSITY

7.1. Limit

According to §15.407(a) & FCC R&O FCC 14-30

(1) For the band 5.15-5.25 GHz.

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Note to paragraph (a)(3): The Commission strongly recommends that parties employing U-NII devices to provide critical communications services should determine if there are any nearby Government radar systems that could affect their operation.

7.2. Test Procedure

a, The transmitter output (antenna port) was connected to the spectrum analyzer. Connect EUT antenna terminal to the spectrum analyzer with a low loss SMA cable.
b, Place the EUT on the table and set it in the transmitting mode.
c, For devices operating in the bands 5.15-5.25 GHz,Set the spectrum analyzer as RBW = 1MHz, VBW = 3MHz, Span > 26dB bandwidth, Sweep=1ms
d, For devices operating in the bands 5.725-5.85 GHz,Set the spectrum analyzer as RBW = 500kHz, VBW = 2 MHz, Span > 26dB bandwidth, Sweep=1ms
e, Record the max. reading.
f, Repeat the above procedure until the measurements for all frequencies are completed

7.3. Test Information

EUT: JMDD Module	
M/N: JMDD	
Test date: 2018-11-09~12	Test site: RF sit Tested by: Tony

7.4. Test Result

UNII Band I									
Mode	Frequency (MHz)	Peak Power Spectral Density							Peak Power Spectral Density Limit (dBm/MHz)
		Ant 1			Ant 2			Total	
		Peak Power Spectral Density (dBm/MHz)	Duty Fac. (dB)	Final Peak Power Spectral Density (dBm/MHz)	Peak Power Spectral Density (dBm/MHz)	Duty Fac. (dB)	Final Peak Power Spectral Density (dBm/MHz)	Peak Power Spectral Density (dBm/MHz)	
IEEE 802.11a	5180	0.81	0.29	1.10	1.04	0.29	1.33	N/A	11.00
	5200	1.07	0.29	1.36	1.38	0.29	1.67	N/A	11.00
	5240	1.74	0.29	2.03	1.58	0.29	1.87	N/A	11.00
IEEE 802.11n HT20	5180	0.19	0.31	0.50	0.06	0.31	0.37	3.45	11.00
	5200	0.30	0.31	0.61	0.32	0.31	0.63	3.63	11.00
	5240	0.93	0.31	1.24	0.48	0.31	0.79	4.03	11.00
IEEE 802.11ac VHT20	5180	0.28	0.31	0.59	0.08	0.31	0.39	3.50	11.00
	5200	0.49	0.31	0.80	0.27	0.31	0.58	3.70	11.00
	5240	1.14	0.31	1.45	0.69	0.31	1.00	4.24	11.00
IEEE 802.11n HT40	5190	-3.35	0.60	-2.75	-3.44	0.60	-2.84	0.22	11.00
	5230	-2.40	0.60	-1.80	-2.94	0.60	-2.34	0.95	11.00
IEEE 802.11ac VHT40	5190	-2.84	0.60	-2.24	-3.72	0.60	-3.12	0.35	11.00
	5230	-2.17	0.60	-1.57	-3.54	0.60	-2.94	0.81	11.00
IEEE 802.11ac VHT80	5210	-5.75	1.13	-4.62	-6.43	1.07	-5.36	-1.96	11.00

Conclusion: Pass
Note:
1, Final Peak Power Spectral Density = Peak Power Spectral Density + Duty Factor(Duty Factor refer to 3.4);
2, For 802.11n and 802.11ac, the EUT incorporates a MIMO function. The Antenna directional gain as follow:
5G(Band I) Directional gain: 5.64dBi
5G(Band II) Directional gain: 5.43dBi
5G(Band III) Directional gain: 6.78dBi
5G(Band IV) Directional gain: 6.74dBi
When the directional gain is greater than 6 dBi, Then the Peak Power Spectral Density limit is: -(directional gain-6).

UNII Band II									
Mode	Frequency (MHz)	Peak Power Spectral Density							Peak Power Spectral Density Limit (dBm/ MHz)
		Ant 1			Ant 2			Total	
		Peak Power Spectral Density (dBm/ MHz)	Duty Fac. (dB)	Final Peak Power Spectral Density (dBm/ MHz)	Peak Power Spectral Density (dBm/ MHz)	Duty Fac. (dB)	Final Peak Power Spectral Density (dBm/ MHz)	Peak Power Spectral Density (dBm/ MHz)	
IEEE 802.11a	5260	1.61	0.29	1.90	1.14	0.29	1.43	N/A	11.00
	5300	1.73	0.29	2.02	1.21	0.29	1.50	N/A	11.00
	5320	1.91	0.29	2.20	1.29	0.29	1.58	N/A	11.00
IEEE 802.11n HT20	5260	1.08	0.31	1.39	0.31	0.31	0.62	4.03	11.00
	5300	1.04	0.31	1.35	0.35	0.31	0.66	4.03	11.00
	5320	1.33	0.31	1.64	0.43	0.31	0.74	4.22	11.00
IEEE 802.11ac VHT20	5260	1.14	0.31	1.45	0.21	0.31	0.52	4.02	11.00
	5300	1.10	0.31	1.41	0.52	0.31	0.83	4.14	11.00
	5320	1.26	0.31	1.57	0.35	0.31	0.66	4.15	11.00
IEEE 802.11n HT40	5270	-2.13	0.60	-1.53	-3.21	0.60	-2.61	0.97	11.00
	5310	-2.11	0.60	-1.51	-3.21	0.60	-2.61	0.99	11.00
IEEE 802.11ac VHT40	5270	-2.08	0.60	-1.48	-3.40	0.60	-2.80	0.92	11.00
	5310	-1.88	0.60	-1.28	-3.63	0.60	-3.03	0.94	11.00
IEEE 802.11ac VHT80	5290	-5.47	1.13	-4.34	-6.33	1.07	-5.26	-1.77	11.00

Conclusion: Pass
Note:
1, Final Peak Power Spectral Density = Peak Power Spectral Density + Duty Factor(Duty Factor refer to 3.4);
2, For 802.11n and 802.11ac, the EUT incorporates a MIMO function. The Antenna directional gain as follow:
5G(Band I) Directional gain: 5.64dBi
5G(Band II) Directional gain: 5.43dBi
5G(Band III) Directional gain: 6.78dBi
5G(Band IV) Directional gain: 6.74dBi
When the directional gain is greater than 6 dBi, Then the Peak Power Spectral Density limit is: -(directional gain-6).

UNII Band III									
Mode	Frequency (MHz)	Peak Power Spectral Density							Peak Power Spectral Density Limit (dBm/ MHz)
		Ant 1			Ant 2			Total	
		Peak Power Spectral Density (dBm/ MHz)	Duty Fac. (dB)	Final Peak Power Spectral Density (dBm/ MHz)	Peak Power Spectral Density (dBm/ MHz)	Duty Fac. (dB)	Final Peak Power Spectral Density (dBm/ MHz)	Peak Power Spectral Density (dBm/ MHz)	
IEEE 802.11a	5500	0.57	0.29	0.86	0.96	0.29	1.25	N/A	10.22
	5580	1.22	0.29	1.51	1.26	0.29	1.55	N/A	10.22
	5700	0.56	0.29	0.85	0.48	0.29	0.77	N/A	10.22
IEEE 802.11n HT20	5500	0.11	0.31	0.42	1.08	0.31	1.39	3.94	10.22
	5580	0.73	0.31	1.04	1.08	0.31	1.39	4.23	10.22
	5700	0.32	0.31	0.63	0.23	0.31	0.54	3.60	10.22
IEEE 802.11ac VHT20	5500	0.12	0.31	0.43	0.86	0.31	1.17	3.83	10.22
	5580	0.79	0.31	1.10	1.07	0.31	1.38	4.25	10.22
	5700	0.13	0.31	0.44	0.34	0.31	0.65	3.56	10.22
IEEE 802.11n HT40	5510	-3.08	0.60	-2.48	-2.46	0.60	-1.86	0.85	10.22
	5670	-3.13	0.60	-2.53	-2.79	0.60	-2.19	0.65	10.22
IEEE 802.11ac VHT40	5510	-3.17	0.60	-2.57	-2.88	0.60	-2.28	0.59	10.22
	5670	-3.02	0.60	-2.42	-3.07	0.60	-2.47	0.57	10.22
IEEE 802.11ac VHT80	5530	-6.47	1.13	-5.34	-5.62	1.07	-4.55	-1.92	10.22

Conclusion: Pass
Note:
1, Final Peak Power Spectral Density = Peak Power Spectral Density + Duty Factor(Duty Factor refer to 3.4);
2, For 802.11n and 802.11ac, the EUT incorporates a MIMO function. The Antenna directional gain as follow:
5G(Band I) Directional gain: 5.64dBi
5G(Band II) Directional gain: 5.43dBi
5G(Band III) Directional gain: 6.78dBi
5G(Band IV) Directional gain: 6.74dBi
When the directional gain is greater than 6 dBi, Then the Peak Power Spectral Density limit is: -(directional gain-6).

UNII Band IV									
Mode	Frequency (MHz)	Peak Power Spectral Density							Peak Power Spectral Density Limit (dBm/ 500kHz)
		Ant 1			Ant 2			Total	
		Peak Power Spectral Density (dBm/ 500kHz)	Duty Fac. (dB)	Final Peak Power Spectral Density (dBm/ 500kHz)	Peak Power Spectral Density (dBm/ 500kHz)	Duty Fac. (dB)	Final Peak Power Spectral Density (dBm/ 500kHz)	Peak Power Spectral Density (dBm/ 500kHz)	
IEEE 802.11a	5745	-2.40	0.29	-2.11	-2.51	0.29	-2.22	N/A	29.26
	5785	-2.62	0.29	-2.33	-2.73	0.29	-2.44	N/A	29.26
	5825	-2.67	0.29	-2.38	-2.74	0.29	-2.45	N/A	29.26
IEEE 802.11n HT20	5745	-2.95	0.31	-2.64	-2.92	0.31	-2.61	0.39	29.26
	5785	-3.07	0.31	-2.76	-2.99	0.31	-2.68	0.29	29.26
	5825	-2.95	0.31	-2.64	-2.96	0.31	-2.65	0.37	29.26
IEEE 802.11ac VHT20	5745	-1.17	0.31	-0.86	-1.03	0.31	-0.72	2.22	29.26
	5785	-1.27	0.31	-0.96	-1.24	0.31	-0.93	2.07	29.26
	5825	-1.38	0.31	-1.07	-1.05	0.31	-0.74	2.11	29.26
IEEE 802.11n HT40	5755	-4.90	0.60	-4.30	-6.69	0.60	-6.09	-2.09	29.26
	5795	-4.91	0.60	-4.31	-6.75	0.60	-6.15	-2.12	29.26
IEEE 802.11ac VHT40	5755	-4.85	0.60	-4.25	-4.89	0.60	-4.29	-1.26	29.26
	5795	-4.95	0.60	-4.35	-5.03	0.60	-4.43	-1.38	29.26
IEEE 802.11ac VHT80	5775	-8.00	1.13	-6.87	-8.16	1.07	-7.09	-3.97	29.26

Conclusion: Pass
Note:
1, Final Peak Power Spectral Density = Peak Power Spectral Density + Duty Factor(Duty Factor refer to 3.4);
2, For 802.11n and 802.11ac, the EUT incorporates a MIMO function. The Antenna directional gain as follow:
5G(Band I) Directional gain: 5.64dBi
5G(Band II) Directional gain: 5.43dBi
5G(Band III) Directional gain: 6.78dBi
5G(Band IV) Directional gain: 6.74dBi
When the directional gain is greater than 6 dBi, Then the Peak Power Spectral Density limit is: -(directional gain-6).

7.5. Test Data

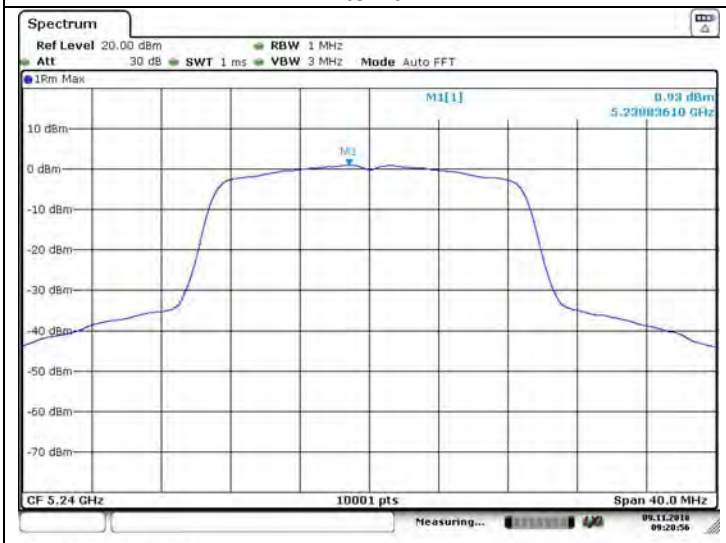
UNII Band I IEEE 802.11a 5180MHz	
Antenna 1	Antenna 2

UNII Band I IEEE 802.11a 5200MHz	
Antenna 1	Antenna 2

UNII Band I IEEE 802.11a 5240MHz	
Antenna 1	Antenna 2

UNII Band I IEEE 802.11n HT20 5180MHz	
Antenna 1	Antenna 2

UNII Band I IEEE 802.11n HT20 5200MHz	
Antenna 1	Antenna 2

UNII Band I IEEE 802.11n HT20 5240MHz	
Antenna 1	Antenna 2
	

UNII Band I IEEE 802.11ac VHT20 5180MHz	
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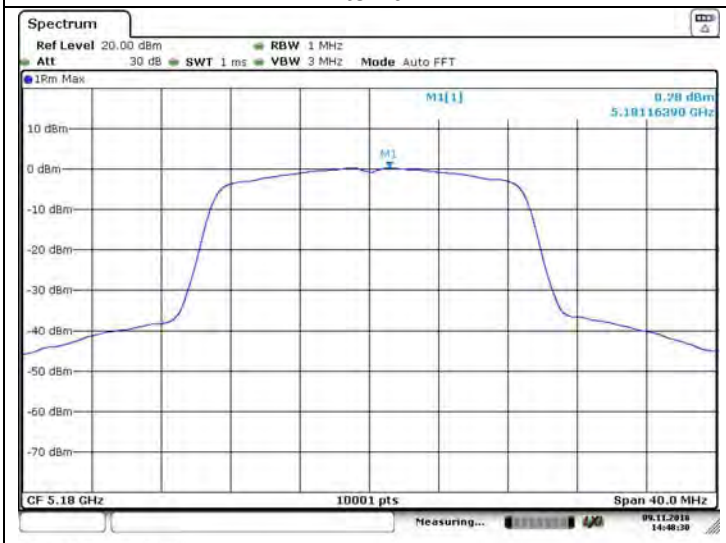	

UNII Band I IEEE 802.11ac VHT20 5200MHz	
Antenna 1	Antenna 2

UNII Band I IEEE 802.11ac VHT20 5240MHz	
Antenna 1	Antenna 2

UNII Band I IEEE 802.11n HT40 5190MHz	
Antenna 1	Antenna 2

UNII Band I IEEE 802.11n HT40 5230MHz	
Antenna 1	Antenna 2

UNII Band I IEEE 802.11ac VHT40 5190MHz	
Antenna 1	Antenna 2

UNII Band I IEEE 802.11ac VHT40 5240MHz	
Antenna 1	Antenna 2

UNII Band I IEEE 802.11ac VHT80 5210MHz	
Antenna 1	Antenna 2

UNII Band II IEEE 802.11a 5260MHz	
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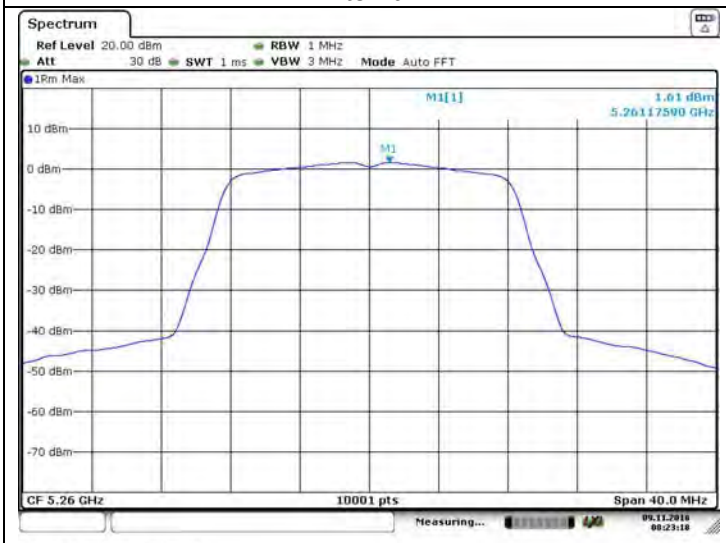
	

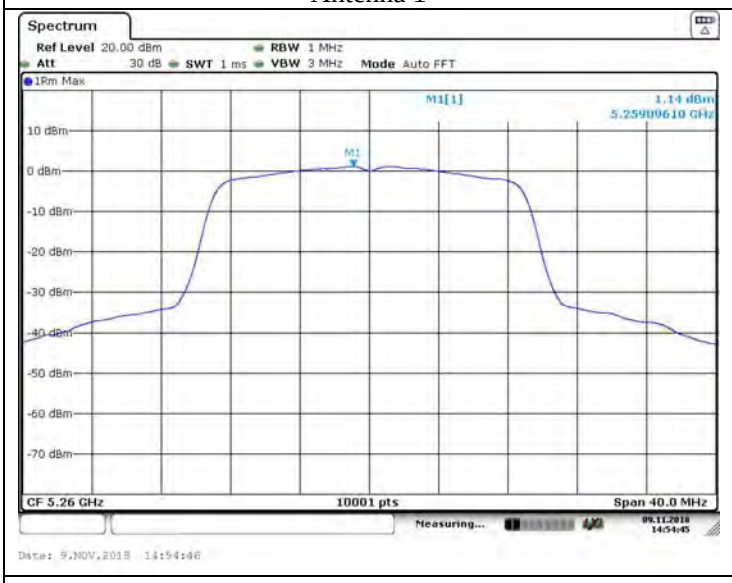
UNII Band II IEEE 802.11a 5300MHz	
Antenna 1	Antenna 2

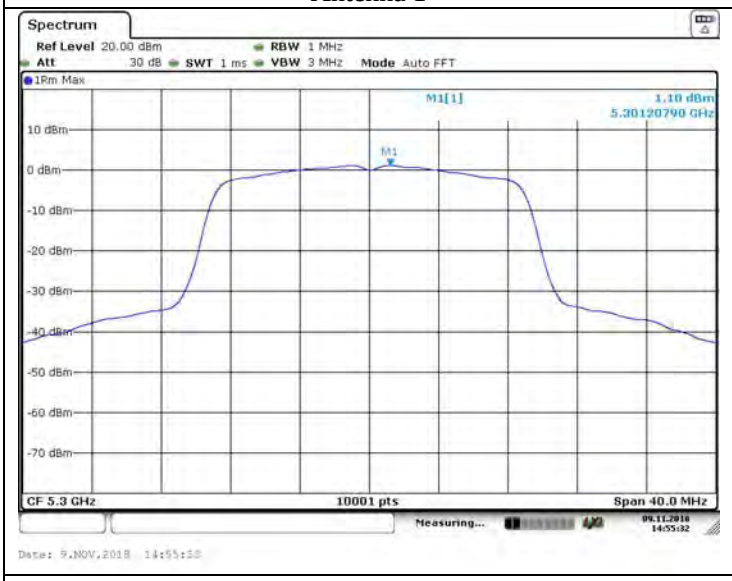
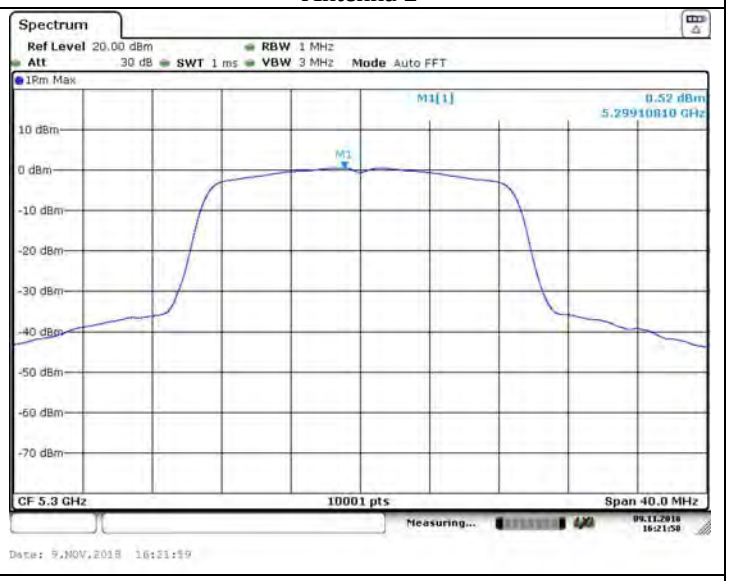
UNII Band II IEEE 802.11a 5320MHz	
Antenna 1	Antenna 2

UNII Band II IEEE 802.11n HT20 5260MHz	
Antenna 1	Antenna 2

UNII Band II IEEE 802.11n HT20 5300MHz	
Antenna 1	Antenna 2

UNII Band II IEEE 802.11n HT20 5320MHz	
Antenna 1	Antenna 2

UNII Band II IEEE 802.11ac VHT20 5260MHz	
Antenna 1	Antenna 2
	

UNII Band II IEEE 802.11ac VHT20 5300MHz	
Antenna 1	Antenna 2
	

UNII Band II IEEE 802.11ac VHT20 5320MHz	
Antenna 1	Antenna 2

UNII Band II IEEE 802.11n HT40 5270MHz	
Antenna 1	Antenna 2

UNII Band II IEEE 802.11n HT40 5310MHz	
Antenna 1	Antenna 2

UNII Band II IEEE 802.11ac VHT40 5270MHz	
Antenna 1	Antenna 2

UNII Band II IEEE 802.11ac VHT40 5310MHz	
Antenna 1	Antenna 2

UNII Band II IEEE 802.11ac VHT80 5290MHz	
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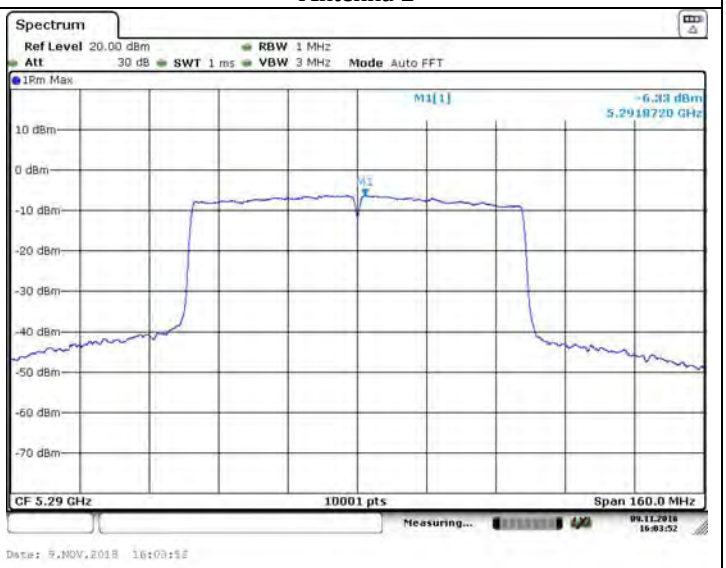
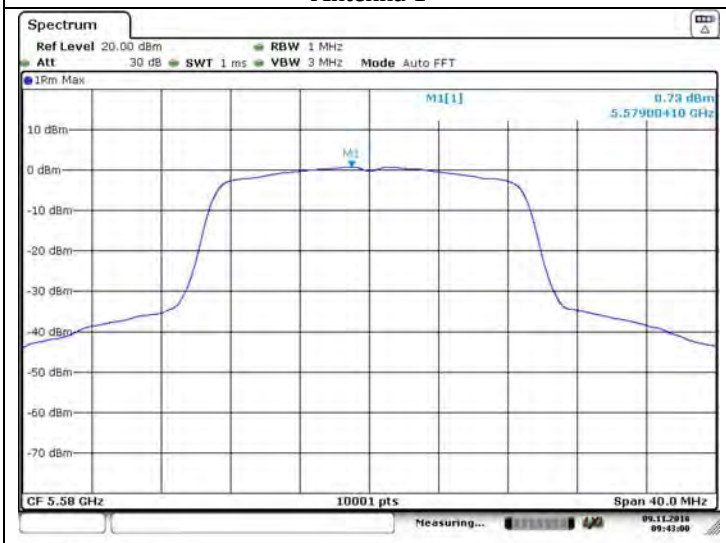
	

UNII Band III IEEE 802.11a 5500MHz	
Antenna 1	Antenna 2

UNII Band III IEEE 802.11a 5580MHz	
Antenna 1	Antenna 2

UNII Band III IEEE 802.11a 5700MHz	
Antenna 1	Antenna 2

UNII Band III IEEE 802.11n HT20 5500MHz	
Antenna 1	Antenna 2

UNII Band III IEEE 802.11n HT20 5580MHz	
Antenna 1	Antenna 2
	

UNII Band III IEEE 802.11n HT20 5700MHz	
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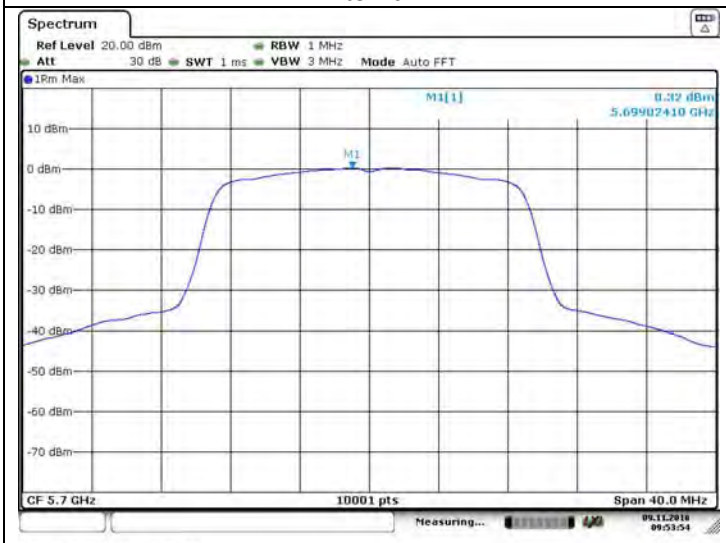	

UNII Band III IEEE 802.11ac VHT20 5500MHz	
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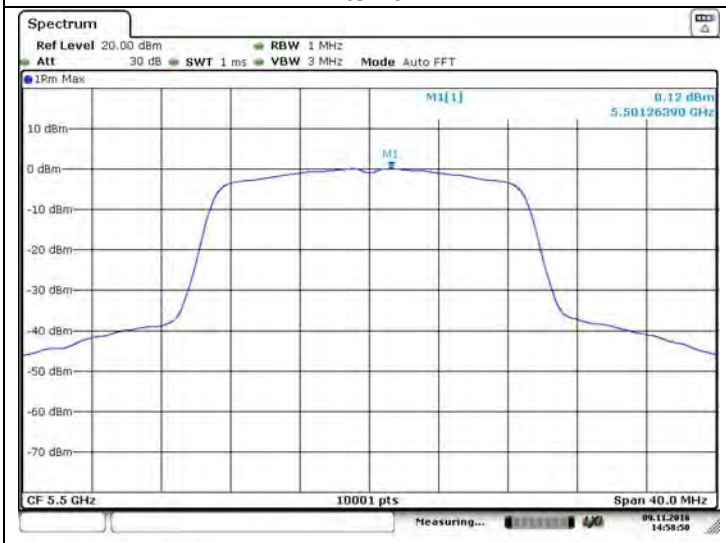	

UNII Band III IEEE 802.11ac VHT20 5580MHz	
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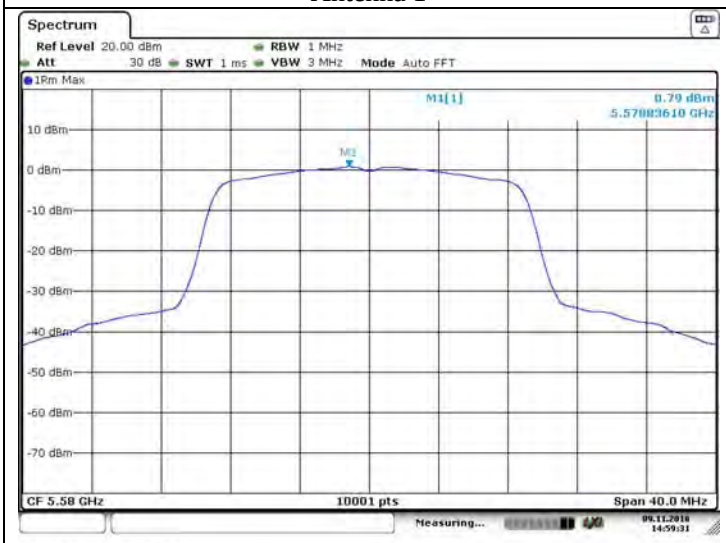
	

UNII Band III IEEE 802.11ac VHT20 5700MHz	
Antenna 1	Antenna 2

UNII Band III IEEE 802.11n HT40 5510MHz	
Antenna 1	Antenna 2

UNII Band III IEEE 802.11n HT40 5670MHz	
Antenna 1	Antenna 2

UNII Band III IEEE 802.11ac VHT40 5510MHz	
Antenna 1	Antenna 2

UNII Band III IEEE 802.11ac VHT40 5670MHz	
Antenna 1	Antenna 2

UNII Band III IEEE 802.11ac VHT80 5530MHz	
Antenna 1	Antenna 2

UNII Band IV IEEE 802.11a 5745MHz	
Antenna 1	Antenna 2

UNII Band IV IEEE 802.11a 5785MHz	
Antenna 1	Antenna 2

UNII Band IV IEEE 802.11a 5825MHz	
Antenna 1	Antenna 2

UNII Band IV IEEE 802.11n HT20 5745MHz	
Antenna 1	Antenna 2

UNII Band IV IEEE 802.11n HT20 5785MHz	
Antenna 1	Antenna 2

UNII Band IV IEEE 802.11n HT20 5825MHz	
Antenna 1	Antenna 2

UNII Band IV IEEE 802.11ac VHT20 5745MHz	
Antenna 1	Antenna 2

UNII Band IV IEEE 802.11ac VHT20 5785MHz	
Antenna 1	Antenna 2

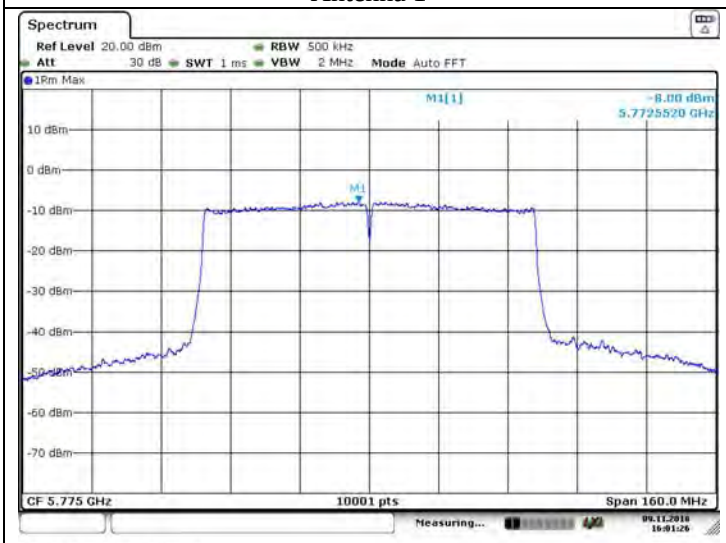
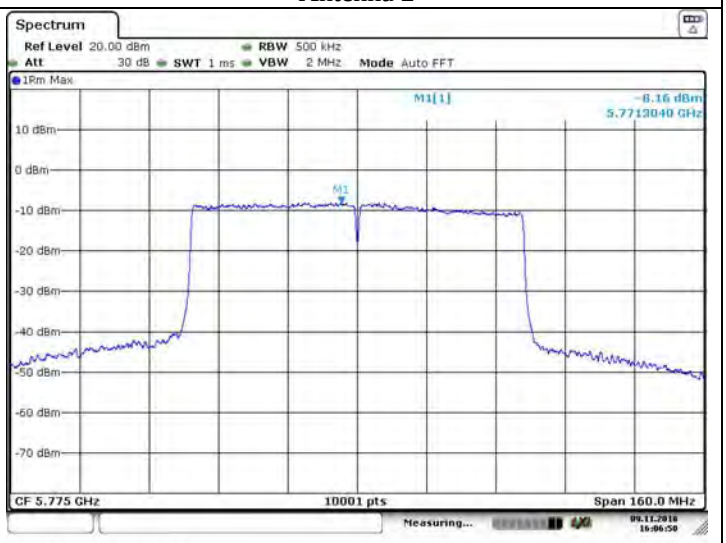
UNII Band IV IEEE 802.11ac VHT20 5825MHz	
Antenna 1	Antenna 2

UNII Band IV IEEE 802.11n HT40 5755MHz	
Antenna 1	Antenna 2

UNII Band IV IEEE 802.11n HT40 5795MHz	
Antenna 1	Antenna 2

UNII Band IV IEEE 802.11ac VHT40 5755MHz	
Antenna 1	Antenna 2

UNII Band IV IEEE 802.11ac VHT40 5795MHz	
Antenna 1	Antenna 2

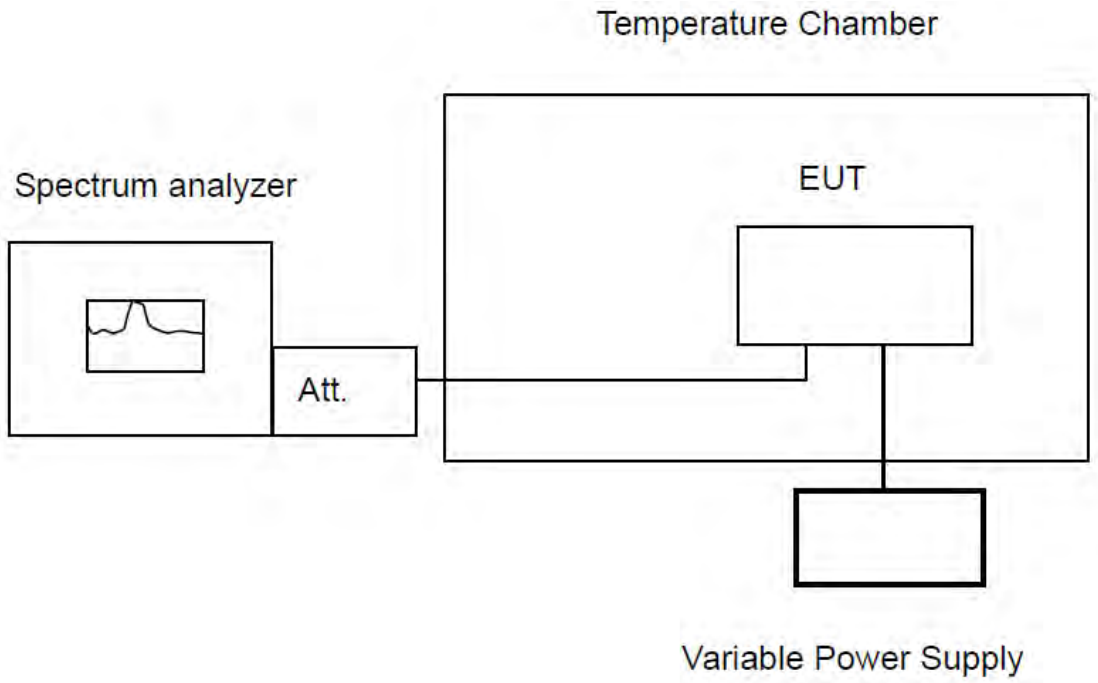
UNII Band IV IEEE 802.11ac VHT80 5775MHz	
Antenna 1	Antenna 2
	

8. FREQUENCY STABILITY

8.1. Limit

According to §15.407(g), manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the operational description.

8.2. Test Procedure



Remark :

a, The transmitter output (antenna port) was connected to the spectrum analyzer. Connect EUT antenna terminal to the spectrum analyzer with a low loss SMA cable.
b, Place the EUT on the table and set it in the un-modulation transmitting mode.
c, The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20℃ operating frequency as reference frequency. Turn EUT off and set the chamber temperature to –20℃. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ reached.

8.3. Test Information

EUT: JMDD Module	
M/N: JMDD	
Test date: 2018-09-26~29	Test site: RF sit Tested by: Tony

8.4. Test Result

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band I	IEEE 802.11a 5180MHz	50	120	5180.129517	5180.125412	5150-5250	Pass
		40	120	5180.125842	5180.124125	5150-5250	Pass
		30	120	5180.115245	5180.112141	5150-5250	Pass
		20	120	5180.115482	5180.102141	5150-5250	Pass
		10	120	5180.105412	5180.112541	5150-5250	Pass
		0	120	5180.101125	5180.115412	5150-5250	Pass
		-10	120	5180.115428	5180.102141	5150-5250	Pass
		-20	120	5180.124780	5180.122142	5150-5250	Pass
		20	108	5180.114514	5180.112412	5150-5250	Pass
		20	120	5180.120124	5180.102142	5150-5250	Pass
		20	132	5180.124510	5180.112142	5150-5250	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band I	IEEE 802.11a 5200MHz	50	120	5200.122517	5200.115214	5150-5250	Pass
		40	120	5200.121415	5200.101241	5150-5250	Pass
		30	120	5200.121415	5200.112521	5150-5250	Pass
		20	120	5200.114512	5200.115214	5150-5250	Pass
		10	120	5200.114254	5200.112141	5150-5250	Pass
		0	120	5200.104715	5200.121418	5150-5250	Pass
		-10	120	5200.121541	5200.112215	5150-5250	Pass
		-20	120	5200.132412	5200.102141	5150-5250	Pass
		20	108	5200.121415	5200.102141	5150-5250	Pass
		20	120	5200.112145	5200.102189	5150-5250	Pass
		20	132	5200.127154	5200.112151	5150-5250	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band I	IEEE 802.11a 5240MHz	50	120	5240.127988	5240.112154	5150-5250	Pass
		40	120	5240.112141	5240.102145	5150-5250	Pass
		30	120	5240.112154	5240.115247	5150-5250	Pass
		20	120	5240.125214	5240.121451	5150-5250	Pass
		10	120	5240.102154	5240.121021	5150-5250	Pass
		0	120	5240.121415	5240.121551	5150-5250	Pass
		-10	120	5240.112157	5240.121254	5150-5250	Pass
		-20	120	5240.112154	5240.110215	5150-5250	Pass
		20	108	5240.121415	5240.102151	5150-5250	Pass
		20	120	5240.112141	5240.102151	5150-5250	Pass
		20	132	5240.102145	5240.121541	5150-5250	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band II	IEEE 802.11a 5260MHz	50	120	5260.119517	5260.102141	5250-5350	Pass
		40	120	5260.121012	5260.121412	5250-5350	Pass
		30	120	5260.125141	5260.101252	5250-5350	Pass
		20	120	5260.112101	5260.121411	5250-5350	Pass
		10	120	5260.102141	5260.112145	5250-5350	Pass
		0	120	5260.112154	5260.102141	5250-5350	Pass
		-10	120	5260.102145	5260.121412	5250-5350	Pass
		-20	120	5260.121412	5260.112141	5250-5350	Pass
		20	108	5260.121412	5260.102141	5250-5350	Pass
		20	120	5260.121412	5260.121021	5250-5350	Pass
		20	132	5260.121412	5260.112141	5250-5350	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band II	IEEE 802.11a 5300MHz	50	120	5300.120518	5300.121541	5250-5350	Pass
		40	120	5300.121015	5300.112141	5250-5350	Pass
		30	120	5300.101214	5300.102141	5250-5350	Pass
		20	120	5300.121012	5300.121521	5250-5350	Pass
		10	120	5300.112514	5300.125141	5250-5350	Pass
		0	120	5300.121415	5300.112145	5250-5350	Pass
		-10	120	5300.112141	5300.115748	5250-5350	Pass
		-20	120	5300.121548	5300.111214	5250-5350	Pass
		20	108	5300.125148	5300.112141	5250-5350	Pass
		20	120	5300.112514	5300.112148	5250-5350	Pass
		20	132	5300.102145	5300.112148	5250-5350	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band II	IEEE 802.11a 5320MHz	50	120	5320.128517	5320.112151	5250-5350	Pass
		40	120	5320.112154	5320.121415	5250-5350	Pass
		30	120	5320.121415	5320.126152	5250-5350	Pass
		20	120	5320.112145	5320.112154	5250-5350	Pass
		10	120	5320.112154	5320.121415	5250-5350	Pass
		0	120	5320.115415	5320.114514	5250-5350	Pass
		-10	120	5320.115412	5320.114125	5250-5350	Pass
		-20	120	5320.114517	5320.111410	5250-5350	Pass
		20	108	5320.115415	5320.111415	5250-5350	Pass
		20	120	5320.115478	5320.121010	5250-5350	Pass
		20	132	5320.114554	5320.121021	5250-5350	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band III	IEEE 802.11a 5500MHz	50	120	5500.113516	5500.112141	5475-5725	Pass
		40	120	5500.112151	5500.112149	5475-5725	Pass
		30	120	5500.115418	5500.121415	5475-5725	Pass
		20	120	5500.121415	5500.112141	5475-5725	Pass
		10	120	5500.112415	5500.112415	5475-5725	Pass
		0	120	5500.125145	5500.112014	5475-5725	Pass
		-10	120	5500.112145	5500.121415	5475-5725	Pass
		-20	120	5500.121415	5500.121415	5475-5725	Pass
		20	108	5500.115145	5500.141254	5475-5725	Pass
		20	120	5500.112154	5500.121414	5475-5725	Pass
		20	132	5500.112141	5500.121411	5475-5725	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band III	IEEE 802.11a 5580MHz	50	120	5580.123988	5580.112154	5475-5725	Pass
		40	120	5580.125141	5580.101252	5475-5725	Pass
		30	120	5580.112101	5580.121411	5475-5725	Pass
		20	120	5580.102141	5580.112145	5475-5725	Pass
		10	120	5580.112154	5580.102141	5475-5725	Pass
		0	120	5580.102145	5580.121412	5475-5725	Pass
		-10	120	5580.121412	5580.112141	5475-5725	Pass
		-20	120	5580.125141	5580.101252	5475-5725	Pass
		20	108	5580.112145	5580.123988	5475-5725	Pass
		20	120	5580.102141	5580.102145	5475-5725	Pass
		20	132	5580.112154	5580.112154	5475-5725	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band III	IEEE 802.11a 5700MHz	50	120	5700.133516	5700.126152	5475-5725	Pass
		40	120	5700.112154	5700.112154	5475-5725	Pass
		30	120	5700.113524	5700.121415	5475-5725	Pass
		20	120	5700.111254	5700.113349	5475-5725	Pass
		10	120	5700.111214	5700.126152	5475-5725	Pass
		0	120	5700.125141	5700.112154	5475-5725	Pass
		-10	120	5700.112145	5700.112154	5475-5725	Pass
		-20	120	5700.115748	5700.111210	5475-5725	Pass
		20	108	5700.126152	5700.111214	5475-5725	Pass
		20	120	5700.111544	5700.112154	5475-5725	Pass
		20	132	5700.121415	5700.111210	5475-5725	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band IV	IEEE 802.11a 5745MHz	50	120	5745.129517	5745.101215	5725-5850	Pass
		40	120	5745.125410	5745.101121	5725-5850	Pass
		30	120	5745.101524	5745.112154	5725-5850	Pass
		20	120	5745.101251	5745.115415	5725-5850	Pass
		10	120	5745.102151	5745.121411	5725-5850	Pass
		0	120	5745.112151	5745.112141	5725-5850	Pass
		-10	120	5745.102151	5745.115241	5725-5850	Pass
		-20	120	5745.112154	5745.112015	5725-5850	Pass
		20	108	5745.101214	5745.102145	5725-5850	Pass
		20	120	5745.110215	5745.112145	5725-5850	Pass
		20	132	5745.102159	5745.112141	5725-5850	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band IV	IEEE 802.11a 5785MHz	50	120	5785.124516	5785.114125	5725-5850	Pass
		40	120	5785.124151	5785.115142	5725-5850	Pass
		30	120	5785.115412	5785.112141	5725-5850	Pass
		20	120	5785.112151	5785.115248	5725-5850	Pass
		10	120	5785.112511	5785.111259	5725-5850	Pass
		0	120	5785.112154	5785.112159	5725-5850	Pass
		-10	120	5785.113526	5785.105955	5725-5850	Pass
		-20	120	5785.112154	5785.112158	5725-5850	Pass
		20	108	5785.112145	5785.112148	5725-5850	Pass
		20	120	5785.112145	5785.115481	5725-5850	Pass
		20	132	5785.112154	5785.102145	5725-5850	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band IV	IEEE 802.11a 5825MHz	50	120	5785.134516	5785.112141	5725-5850	Pass
		40	120	5785.112145	5785.121415	5725-5850	Pass
		30	120	5785.112151	5785.121411	5725-5850	Pass
		20	120	5785.112141	5785.112141	5725-5850	Pass
		10	120	5785.114125	5785.111251	5725-5850	Pass
		0	120	5785.111255	5785.121451	5725-5850	Pass
		-10	120	5785.125221	5785.112514	5725-5850	Pass
		-20	120	5785.111215	5785.112145	5725-5850	Pass
		20	108	5785.121141	5785.112145	5725-5850	Pass
		20	120	5785.121141	5785.112145	5725-5850	Pass
		20	132	5785.112151	5785.121415	5725-5850	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band I	IEEE 802.11n HT20 5180MHz	50	120	5180.132516	5180.121415	5150-5250	Pass
		40	120	5180.111410	5180.112115	5150-5250	Pass
		30	120	5180.125214	5180.121415	5150-5250	Pass
		20	120	5180.112510	5180.112141	5150-5250	Pass
		10	120	5180.112141	5180.112145	5150-5250	Pass
		0	120	5180.121415	5180.111450	5150-5250	Pass
		-10	120	5180.101215	5180.111525	5150-5250	Pass
		-20	120	5180.111517	5180.112152	5150-5250	Pass
		20	108	5180.121415	5180.112854	5150-5250	Pass
		20	120	5180.112145	5180.121590	5150-5250	Pass
		20	132	5180.121415	5180.112151	5150-5250	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band I	IEEE 802.11n HT20 5200MHz	50	120	5200.117518	5200.112141	5150-5250	Pass
		40	120	5200.112510	5200.121412	5150-5250	Pass
		30	120	5200.112514	5200.112141	5150-5250	Pass
		20	120	5200.112510	5200.112418	5150-5250	Pass
		10	120	5200.112514	5200.121411	5150-5250	Pass
		0	120	5200.125214	5200.110214	5150-5250	Pass
		-10	120	5200.111259	5200.112141	5150-5250	Pass
		-20	120	5200.121411	5200.112412	5150-5250	Pass
		20	108	5200.121151	5200.121411	5150-5250	Pass
		20	120	5200.112141	5200.122141	5150-5250	Pass
		20	132	5200.112140	5200.116141	5150-5250	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band I	IEEE 802.11n HT20 5240MHz	50	120	5240.116048	5240.112154	5150-5250	Pass
		40	120	5240.112525	5240.112141	5150-5250	Pass
		30	120	5240.125251	5240.112521	5150-5250	Pass
		20	120	5240.119583	5240.121415	5150-5250	Pass
		10	120	5240.112547	5240.121415	5150-5250	Pass
		0	120	5240.114578	5240.112141	5150-5250	Pass
		-10	120	5240.119586	5240.112141	5150-5250	Pass
		-20	120	5240.111658	5240.125214	5150-5250	Pass
		20	108	5240.125480	5240.115420	5150-5250	Pass
		20	120	5240.112524	5240.115240	5150-5250	Pass
		20	132	5240.112154	5240.112499	5150-5250	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band II	IEEE 802.11n HT20 5260MHz	50	120	5260.121988	5260.121014	5250-5350	Pass
		40	120	5260.121410	5260.112141	5250-5350	Pass
		30	120	5260.121520	5260.113259	5250-5350	Pass
		20	120	5260.115248	5260.114589	5250-5350	Pass
		10	120	5260.112521	5260.114585	5250-5350	Pass
		0	120	5260.112418	5260.121448	5250-5350	Pass
		-10	120	5260.111359	5260.121458	5250-5350	Pass
		-20	120	5260.114790	5260.115899	5250-5350	Pass
		20	108	5260.111528	5260.114585	5250-5350	Pass
		20	120	5260.111355	5260.114588	5250-5350	Pass
		20	132	5260.121019	5260.114589	5250-5350	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band II	IEEE 802.11n HT20 5300MHz	50	120	5300.114989	5300.112141	5250-5350	Pass
		40	120	5300.125219	5300.111252	5250-5350	Pass
		30	120	5300.112145	5300.112521	5250-5350	Pass
		20	120	5300.112529	5300.112521	5250-5350	Pass
		10	120	5300.112548	5300.112518	5250-5350	Pass
		0	120	5300.111215	5300.112521	5250-5350	Pass
		-10	120	5300.125258	5300.121418	5250-5350	Pass
		-20	120	5300.112548	5300.121458	5250-5350	Pass
		20	108	5300.112524	5300.114152	5250-5350	Pass
		20	120	5300.112521	5300.125148	5250-5350	Pass
		20	132	5300.114258	5300.121259	5250-5350	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band II	IEEE 802.11n HT20 5320MHz	50	120	5320.114519	5320.115248	5250-5350	Pass
		40	120	5320.112152	5320.112528	5250-5350	Pass
		30	120	5320.121415	5320.115258	5250-5350	Pass
		20	120	5320.112521	5320.125258	5250-5350	Pass
		10	120	5320.112521	5320.112521	5250-5350	Pass
		0	120	5320.112525	5320.125214	5250-5350	Pass
		-10	120	5320.112528	5320.121415	5250-5350	Pass
		-20	120	5320.111528	5320.115248	5250-5350	Pass
		20	108	5320.115288	5320.115215	5250-5350	Pass
		20	120	5320.115289	5320.112521	5250-5350	Pass
		20	132	5320.110215	5320.111521	5250-5350	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band III	IEEE 802.11n HT20 5500MHz	50	120	5500.129047	5500.114125	5475-5725	Pass
		40	120	5500.112145	5500.121418	5475-5725	Pass
		30	120	5500.112145	5500.112145	5475-5725	Pass
		20	120	5500.112521	5500.112141	5475-5725	Pass
		10	120	5500.112511	5500.121415	5475-5725	Pass
		0	120	5500.112141	5500.112141	5475-5725	Pass
		-10	120	5500.112521	5500.121519	5475-5725	Pass
		-20	120	5500.112528	5500.114258	5475-5725	Pass
		20	108	5500.112521	5500.112145	5475-5725	Pass
		20	120	5500.120145	5500.112149	5475-5725	Pass
		20	132	5500.112541	5500.111325	5475-5725	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band III	IEEE 802.11n HT20 5580MHz	50	120	5580.126987	5580.112415	5475-5725	Pass
		40	120	5580.112425	5580.112595	5475-5725	Pass
		30	120	5580.102105	5580.112141	5475-5725	Pass
		20	120	5580.112521	5580.121415	5475-5725	Pass
		10	120	5580.110215	5580.112145	5475-5725	Pass
		0	120	5580.114158	5580.122145	5475-5725	Pass
		-10	120	5580.121450	5580.112415	5475-5725	Pass
		-20	120	5580.114528	5580.113589	5475-5725	Pass
		20	108	5580.114158	5580.112521	5475-5725	Pass
		20	120	5580.141571	5580.112145	5475-5725	Pass
		20	132	5580.112415	5580.112140	5475-5725	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band III	IEEE 802.11n HT20 5700MHz	50	120	5700.126518	5700.115241	5475-5725	Pass
		40	120	5700.114152	5700.111252	5475-5725	Pass
		30	120	5700.122215	5700.122141	5475-5725	Pass
		20	120	5700.112141	5700.141252	5475-5725	Pass
		10	120	5700.121415	5700.114125	5475-5725	Pass
		0	120	5700.111415	5700.114125	5475-5725	Pass
		-10	120	5700.112141	5700.114151	5475-5725	Pass
		-20	120	5700.112159	5700.114152	5475-5725	Pass
		20	108	5700.112141	5700.112150	5475-5725	Pass
		20	120	5700.112141	5700.112150	5475-5725	Pass
		20	132	5700.111215	5700.112158	5475-5725	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band IV	IEEE 802.11n HT20 5745MHz	50	120	5745.124517	5745.121241	5725-5850	Pass
		40	120	5745.112141	5745.112521	5725-5850	Pass
		30	120	5745.125215	5745.141125	5725-5850	Pass
		20	120	5745.112154	5745.112521	5725-5850	Pass
		10	120	5745.112521	5745.112521	5725-5850	Pass
		0	120	5745.111526	5745.112528	5725-5850	Pass
		-10	120	5745.102599	5745.112521	5725-5850	Pass
		-20	120	5745.112528	5745.114125	5725-5850	Pass
		20	108	5745.121109	5745.112521	5725-5850	Pass
		20	120	5745.112521	5745.112521	5725-5850	Pass
		20	132	5745.112588	5745.122552	5725-5850	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band IV	IEEE 802.11n HT20 5785MHz	50	120	5785.177988	5785.112521	5725-5850	Pass
		40	120	5785.112511	5785.154158	5725-5850	Pass
		30	120	5785.115215	5785.152114	5725-5850	Pass
		20	120	5785.115215	5785.114528	5725-5850	Pass
		10	120	5785.114152	5785.125289	5725-5850	Pass
		0	120	5785.111252	5785.112441	5725-5850	Pass
		-10	120	5785.121250	5785.111141	5725-5850	Pass
		-20	120	5785.111251	5785.112521	5725-5850	Pass
		20	108	5785.122140	5785.112511	5725-5850	Pass
		20	120	5785.114125	5785.112524	5725-5850	Pass
		20	132	5785.112521	5785.112521	5725-5850	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band IV	IEEE 802.11n HT20 5825MHz	50	120	5825.135516	5825.121415	5725-5850	Pass
		40	120	5825.111252	5825.112151	5725-5850	Pass
		30	120	5825.125214	5825.125215	5725-5850	Pass
		20	120	5825.112148	5825.114585	5725-5850	Pass
		10	120	5825.112521	5825.113259	5725-5850	Pass
		0	120	5825.112521	5825.113256	5725-5850	Pass
		-10	120	5825.125215	5825.114852	5725-5850	Pass
		-20	120	5825.112145	5825.117488	5725-5850	Pass
		20	108	5825.112521	5825.114859	5725-5850	Pass
		20	120	5825.120125	5825.114185	5725-5850	Pass
		20	132	5825.121459	5825.115281	5725-5850	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band I	IEEE 802.11ac VHT20 5180MHz	50	120	5180.123518	5180.112141	5150-5250	Pass
		40	120	5180.115482	5180.102141	5150-5250	Pass
		30	120	5180.105412	5180.112541	5150-5250	Pass
		20	120	5180.101125	5180.115412	5150-5250	Pass
		10	120	5180.115428	5180.102141	5150-5250	Pass
		0	120	5180.124780	5180.122142	5150-5250	Pass
		-10	120	5180.112141	5180.114125	5150-5250	Pass
		-20	120	5180.112521	5180.114189	5150-5250	Pass
		20	108	5180.112521	5180.112528	5150-5250	Pass
		20	120	5180.112528	5180.112525	5150-5250	Pass
		20	132	5180.112953	5180.112536	5150-5250	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band I	IEEE 802.11ac VHT20 5200MHz	50	120	5200.113939	5200.112522	5150-5250	Pass
		40	120	5200.112148	5200.113963	5150-5250	Pass
		30	120	5200.112150	5200.111969	5150-5250	Pass
		20	120	5200.112520	5200.115899	5150-5250	Pass
		10	120	5200.114152	5200.114989	5150-5250	Pass
		0	120	5200.112520	5200.114793	5150-5250	Pass
		-10	120	5200.112589	5200.114528	5150-5250	Pass
		-20	120	5200.112599	5200.115259	5150-5250	Pass
		20	108	5200.115259	5200.114528	5150-5250	Pass
		20	120	5200.122482	5200.114125	5150-5250	Pass
		20	132	5200.115893	5200.114589	5150-5250	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band I	IEEE 802.11ac VHT20 5240MHz	50	120	5240.135987	5240.115929	5150-5250	Pass
		40	120	5240.121415	5240.112528	5150-5250	Pass
		30	120	5240.112152	5240.112520	5150-5250	Pass
		20	120	5240.112521	5240.112150	5150-5250	Pass
		10	120	5240.115215	5240.112521	5150-5250	Pass
		0	120	5240.112529	5240.111251	5150-5250	Pass
		-10	120	5240.115820	5240.112511	5150-5250	Pass
		-20	120	5240.114152	5240.112511	5150-5250	Pass
		20	108	5240.115218	5240.121225	5150-5250	Pass
		20	120	5240.115290	5240.112521	5150-5250	Pass
		20	132	5240.112521	5240.112521	5150-5250	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band II	IEEE 802.11ac VHT20 5260MHz	50	120	5260.129517	5260.112515	5250-5350	Pass
		40	120	5260.126599	5260.112145	5250-5350	Pass
		30	120	5260.113595	5260.121458	5250-5350	Pass
		20	120	5260.113256	5260.112521	5250-5350	Pass
		10	120	5260.114854	5260.118547	5250-5350	Pass
		0	120	5260.114785	5260.125478	5250-5350	Pass
		-10	120	5260.113256	5260.114879	5250-5350	Pass
		-20	120	5260.114854	5260.114589	5250-5350	Pass
		20	108	5260.115248	5260.114528	5250-5350	Pass
		20	120	5260.115265	5260.115489	5250-5350	Pass
		20	132	5260.114585	5260.115489	5250-5350	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band II	IEEE 802.11ac VHT20 5300MHz	50	120	5300.106519	5300.112159	5250-5350	Pass
		40	120	5300.115215	5300.112518	5250-5350	Pass
		30	120	5300.115215	5300.114155	5250-5350	Pass
		20	120	5300.112145	5300.125217	5250-5350	Pass
		10	120	5300.112521	5300.125149	5250-5350	Pass
		0	120	5300.112141	5300.112144	5250-5350	Pass
		-10	120	5300.111428	5300.112237	5250-5350	Pass
		-20	120	5300.111252	5300.114851	5250-5350	Pass
		20	108	5300.111252	5300.115215	5250-5350	Pass
		20	120	5300.121415	5300.112157	5250-5350	Pass
		20	132	5300.115899	5300.114152	5250-5350	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band II	IEEE 802.11ac VHT20 5320MHz	50	120	5320.122956	5320.130359	5250-5350	Pass
		40	120	5320.122658	5320.138006	5250-5350	Pass
		30	120	5320.121986	5320.126255	5250-5350	Pass
		20	120	5320.122988	5320.139516	5250-5350	Pass
		10	120	5320.120992	5320.128303	5250-5350	Pass
		0	120	5320.122517	5320.132110	5250-5350	Pass
		-10	120	5320.121469	5320.138439	5250-5350	Pass
		-20	120	5320.122928	5320.128955	5250-5350	Pass
		20	108	5320.121935	5320.139080	5250-5350	Pass
		20	120	5320.122952	5320.128633	5250-5350	Pass
		20	132	5320.121987	5320.130359	5250-5350	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band III	IEEE 802.11ac VHT20 5500MHz	50	120	5500.132529	5500.131900	5475-5725	Pass
		40	120	5500.132305	5500.132965	5475-5725	Pass
		30	120	5500.131289	5500.132748	5475-5725	Pass
		20	120	5500.133517	5500.131987	5475-5725	Pass
		10	120	5500.131939	5500.131503	5475-5725	Pass
		0	120	5500.131341	5500.132531	5475-5725	Pass
		-10	120	5500.131941	5500.132111	5475-5725	Pass
		-20	120	5500.132387	5500.131995	5475-5725	Pass
		20	108	5500.132405	5500.132105	5475-5725	Pass
		20	120	5500.131791	5500.131406	5475-5725	Pass
		20	132	5500.132529	5500.131900	5475-5725	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band III	IEEE 802.11ac VHT20 5580MHz	50	120	5580.132317	5580.132618	5475-5725	Pass
		40	120	5580.132282	5580.132656	5475-5725	Pass
		30	120	5580.131677	5580.131319	5475-5725	Pass
		20	120	5580.134517	5580.127517	5475-5725	Pass
		10	120	5580.132704	5580.131625	5475-5725	Pass
		0	120	5580.132310	5580.131577	5475-5725	Pass
		-10	120	5580.131467	5580.131663	5475-5725	Pass
		-20	120	5580.132633	5580.131244	5475-5725	Pass
		20	108	5580.131401	5580.132671	5475-5725	Pass
		20	120	5580.132080	5580.132711	5475-5725	Pass
		20	132	5580.132425	5580.132376	5475-5725	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band III	IEEE 802.11ac VHT20 5700MHz	50	120	5700.132485	5700.132161	5475-5725	Pass
		40	120	5700.132063	5700.132027	5475-5725	Pass
		30	120	5700.132109	5700.131489	5475-5725	Pass
		20	120	5700.127517	5700.144516	5475-5725	Pass
		10	120	5700.131789	5700.131856	5475-5725	Pass
		0	120	5700.131818	5700.131584	5475-5725	Pass
		-10	120	5700.132828	5700.131778	5475-5725	Pass
		-20	120	5700.132151	5700.132087	5475-5725	Pass
		20	108	5700.132135	5700.132184	5475-5725	Pass
		20	120	5700.131439	5700.132491	5475-5725	Pass
		20	132	5700.132581	5700.131309	5475-5725	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band IV	IEEE 802.11ac VHT20 5745MHz	50	120	5745.132374	5745.132492	5725-5850	Pass
		40	120	5745.131317	5745.132382	5725-5850	Pass
		30	120	5745.131277	5745.132346	5725-5850	Pass
		20	120	5745.133987	5745.144515	5725-5850	Pass
		10	120	5745.132479	5745.131361	5725-5850	Pass
		0	120	5745.131246	5745.132589	5725-5850	Pass
		-10	120	5745.132881	5745.132290	5725-5850	Pass
		-20	120	5745.131921	5745.131714	5725-5850	Pass
		20	108	5745.132597	5745.132360	5725-5850	Pass
		20	120	5745.132794	5745.131396	5725-5850	Pass
		20	132	5745.132301	5745.131333	5725-5850	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band IV	IEEE 802.11ac VHT20 5785MHz	50	120	5785.132556	5785.131772	5725-5850	Pass
		40	120	5785.132308	5785.132179	5725-5850	Pass
		30	120	5785.131351	5785.131375	5725-5850	Pass
		20	120	5785.130517	5785.126518	5725-5850	Pass
		10	120	5785.131371	5785.131810	5725-5850	Pass
		0	120	5785.131733	5785.131971	5725-5850	Pass
		-10	120	5785.132436	5785.131976	5725-5850	Pass
		-20	120	5785.131273	5785.131999	5725-5850	Pass
		20	108	5785.131944	5785.131629	5725-5850	Pass
		20	120	5785.131879	5785.132564	5725-5850	Pass
		20	132	5785.132851	5785.131735	5725-5850	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band IV	IEEE 802.11ac VHT20 5825MHz	50	120	5825.131254	5825.132210	5725-5850	Pass
		40	120	5825.131503	5825.131905	5725-5850	Pass
		30	120	5825.132713	5825.132091	5725-5850	Pass
		20	120	5825.136517	5825.140986	5725-5850	Pass
		10	120	5825.131578	5825.132853	5725-5850	Pass
		0	120	5825.132134	5825.131588	5725-5850	Pass
		-10	120	5825.132144	5825.132398	5725-5850	Pass
		-20	120	5825.131872	5825.132747	5725-5850	Pass
		20	108	5825.131699	5825.132169	5725-5850	Pass
		20	120	5825.132254	5825.131522	5725-5850	Pass
		20	132	5825.131985	5825.132347	5725-5850	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band I	IEEE 802.11n HT40 5190MHz	50	120	5190.132074	5190.132291	5150-5250	Pass
		40	120	5190.132326	5190.132506	5150-5250	Pass
		30	120	5190.132610	5190.132718	5150-5250	Pass
		20	120	5190.125988	5190.109989	5150-5250	Pass
		10	120	5190.131397	5190.132530	5150-5250	Pass
		0	120	5190.132799	5190.131943	5150-5250	Pass
		-10	120	5190.132549	5190.131778	5150-5250	Pass
		-20	120	5190.131656	5190.132767	5150-5250	Pass
		20	108	5190.131999	5190.132333	5150-5250	Pass
		20	120	5190.132537	5190.131672	5150-5250	Pass
		20	132	5190.132027	5190.131781	5150-5250	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band I	IEEE 802.11n HT40 5230MHz	50	120	5230.131419	5230.132380	5150-5250	Pass
		40	120	5230.132204	5230.132562	5150-5250	Pass
		30	120	5230.131661	5230.132191	5150-5250	Pass
		20	120	5230.131264	5230.132677	5150-5250	Pass
		10	120	5230.132582	5230.132151	5150-5250	Pass
		0	120	5230.132003	5230.131344	5150-5250	Pass
		-10	120	5230.131999	5230.132162	5150-5250	Pass
		-20	120	5230.131733	5230.131993	5150-5250	Pass
		20	108	5230.132388	5230.131830	5150-5250	Pass
		20	120	5230.131833	5230.131987	5150-5250	Pass
		20	132	5230.131260	5230.132851	5150-5250	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band II	IEEE 802.11n HT40 5270MHz	50	120	5270.131539	5270.132295	5250-5350	Pass
		40	120	5270.132750	5270.131578	5250-5350	Pass
		30	120	5270.132478	5270.131990	5250-5350	Pass
		20	120	5270.117988	5270.091991	5250-5350	Pass
		10	120	5270.132179	5270.132027	5250-5350	Pass
		0	120	5270.132029	5270.132312	5250-5350	Pass
		-10	120	5270.132229	5270.132497	5250-5350	Pass
		-20	120	5270.131321	5270.132584	5250-5350	Pass
		20	108	5270.131284	5270.131942	5250-5350	Pass
		20	120	5270.131412	5270.131766	5250-5350	Pass
		20	132	5270.131686	5270.131359	5250-5350	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band II	IEEE 802.11n HT40 5310MHz	50	120	5310.131904	5310.131390	5250-5350	Pass
		40	120	5310.131289	5310.131311	5250-5350	Pass
		30	120	5310.132713	5310.131969	5250-5350	Pass
		20	120	5310.125987	5310.123988	5250-5350	Pass
		10	120	5310.131695	5310.131672	5250-5350	Pass
		0	120	5310.131548	5310.132065	5250-5350	Pass
		-10	120	5310.131508	5310.131762	5250-5350	Pass
		-20	120	5310.132364	5310.131778	5250-5350	Pass
		20	108	5310.132610	5310.132830	5250-5350	Pass
		20	120	5310.131983	5310.132482	5250-5350	Pass
		20	132	5310.131790	5310.131935	5250-5350	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band III	IEEE 802.11n HT40 5510MHz	50	120	5510.121400	5510.122098	5475-5725	Pass
		40	120	5510.122755	5510.122508	5475-5725	Pass
		30	120	5510.121994	5510.122497	5475-5725	Pass
		20	120	5510.131987	5510.125988	5475-5725	Pass
		10	120	5510.121381	5510.122865	5475-5725	Pass
		0	120	5510.121595	5510.121258	5475-5725	Pass
		-10	120	5510.121699	5510.122455	5475-5725	Pass
		-20	120	5510.121359	5510.121516	5475-5725	Pass
		20	108	5510.121441	5510.121640	5475-5725	Pass
		20	120	5510.121360	5510.122602	5475-5725	Pass
		20	132	5510.121925	5510.121330	5475-5725	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band III	IEEE 802.11n HT40 5670MHz	50	120	5670.122467	5670.122485	5475-5725	Pass
		40	120	5670.121726	5670.121606	5475-5725	Pass
		30	120	5670.122103	5670.122046	5475-5725	Pass
		20	120	5670.133987	5670.137986	5475-5725	Pass
		10	120	5670.122856	5670.121260	5475-5725	Pass
		0	120	5670.122825	5670.121840	5475-5725	Pass
		-10	120	5670.122651	5670.121787	5475-5725	Pass
		-20	120	5670.122065	5670.121513	5475-5725	Pass
		20	108	5670.121524	5670.122638	5475-5725	Pass
		20	120	5670.122570	5670.121357	5475-5725	Pass
		20	132	5670.122186	5670.122772	5475-5725	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band IV	IEEE 802.11n HT40 5755MHz	50	120	5755.121465	5755.121759	5725-5850	Pass
		40	120	5755.121736	5755.122168	5725-5850	Pass
		30	120	5755.122556	5755.121351	5725-5850	Pass
		20	120	5755.135987	5755.137987	5725-5850	Pass
		10	120	5755.122303	5755.121465	5725-5850	Pass
		0	120	5755.122070	5755.121689	5725-5850	Pass
		-10	120	5755.121272	5755.121311	5725-5850	Pass
		-20	120	5755.122224	5755.121676	5725-5850	Pass
		20	108	5755.122657	5755.121801	5725-5850	Pass
		20	120	5755.122809	5755.121450	5725-5850	Pass
		20	132	5755.122057	5755.122693	5725-5850	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band IV	IEEE 802.11n HT40 5795MHz	50	120	5795.121338	5795.122681	5725-5850	Pass
		40	120	5795.122768	5795.120801	5725-5850	Pass
		30	120	5795.120266	5795.121173	5725-5850	Pass
		20	120	5795.133987	5795.119988	5725-5850	Pass
		10	120	5795.122511	5795.122671	5725-5850	Pass
		0	120	5795.121752	5795.121727	5725-5850	Pass
		-10	120	5795.122396	5795.122573	5725-5850	Pass
		-20	120	5795.121987	5795.121571	5725-5850	Pass
		20	108	5795.122351	5795.122006	5725-5850	Pass
		20	120	5795.120515	5795.121071	5725-5850	Pass
		20	132	5795.120839	5795.120468	5725-5850	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band I	IEEE 802.11ac VHT40 5190MHz	50	120	5190.122346	5190.122292	5150-5250	Pass
		40	120	5190.121317	5190.120883	5150-5250	Pass
		30	120	5190.122174	5190.122617	5150-5250	Pass
		20	120	5190.113989	5190.115989	5150-5250	Pass
		10	120	5190.121178	5190.120278	5150-5250	Pass
		0	120	5190.121180	5190.122069	5150-5250	Pass
		-10	120	5190.121671	5190.120987	5150-5250	Pass
		-20	120	5190.120626	5190.122416	5150-5250	Pass
		20	108	5190.121438	5190.121186	5150-5250	Pass
		20	120	5190.120698	5190.122532	5150-5250	Pass
		20	132	5190.122262	5190.122772	5150-5250	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band I	IEEE 802.11ac VHT40 5230MHz	50	120	5230.121115	5230.122197	5150-5250	Pass
		40	120	5230.122462	5230.120421	5150-5250	Pass
		30	120	5230.121987	5230.121665	5150-5250	Pass
		20	120	5230.117989	5230.121988	5150-5250	Pass
		10	120	5230.122053	5230.122040	5150-5250	Pass
		0	120	5230.121676	5230.121303	5150-5250	Pass
		-10	120	5230.121891	5230.120663	5150-5250	Pass
		-20	120	5230.120918	5230.122602	5150-5250	Pass
		20	108	5230.120766	5230.121388	5150-5250	Pass
		20	120	5230.120589	5230.121319	5150-5250	Pass
		20	132	5230.120361	5230.120606	5150-5250	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band II	IEEE 802.11ac VHT40 5270MHz	50	120	5270.121160	5270.121984	5250-5350	Pass
		40	120	5270.122213	5270.120441	5250-5350	Pass
		30	120	5270.121583	5270.121834	5250-5350	Pass
		20	120	5270.121988	5270.113989	5250-5350	Pass
		10	120	5270.121560	5270.121333	5250-5350	Pass
		0	120	5270.122477	5270.122539	5250-5350	Pass
		-10	120	5270.120859	5270.121361	5250-5350	Pass
		-20	120	5270.122883	5270.121329	5250-5350	Pass
		20	108	5270.121725	5270.122268	5250-5350	Pass
		20	120	5270.121376	5270.122263	5250-5350	Pass
		20	132	5270.122408	5270.121588	5250-5350	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band II	IEEE 802.11ac VHT40 5310MHz	50	120	5310.122166	5310.120830	5250-5350	Pass
		40	120	5310.121242	5310.122794	5250-5350	Pass
		30	120	5310.121900	5310.121029	5250-5350	Pass
		20	120	5310.119988	5310.147985	5250-5350	Pass
		10	120	5310.121513	5310.121145	5250-5350	Pass
		0	120	5310.120255	5310.122318	5250-5350	Pass
		-10	120	5310.120927	5310.121730	5250-5350	Pass
		-20	120	5310.120639	5310.121617	5250-5350	Pass
		20	108	5310.120974	5310.122383	5250-5350	Pass
		20	120	5310.120923	5310.122452	5250-5350	Pass
		20	132	5310.122509	5310.122292	5250-5350	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band III	IEEE 802.11ac VHT40 5510MHz	50	120	5510.121078	5510.121416	5475-5725	Pass
		40	120	5510.111509	5510.110320	5475-5725	Pass
		30	120	5510.114534	5510.110651	5475-5725	Pass
		20	120	5510.127988	5510.127987	5475-5725	Pass
		10	120	5510.118190	5510.113555	5475-5725	Pass
		0	120	5510.122590	5510.120369	5475-5725	Pass
		-10	120	5510.114330	5510.111795	5475-5725	Pass
		-20	120	5510.115708	5510.115343	5475-5725	Pass
		20	108	5510.120211	5510.110321	5475-5725	Pass
		20	120	5510.112156	5510.120738	5475-5725	Pass
		20	132	5510.122519	5510.120150	5475-5725	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band III	IEEE 802.11ac VHT40 5670MHz	50	120	5670.119299	5670.118291	5475-5725	Pass
		40	120	5670.121690	5670.111868	5475-5725	Pass
		30	120	5670.117480	5670.122097	5475-5725	Pass
		20	120	5670.123988	5670.133987	5475-5725	Pass
		10	120	5670.121840	5670.110609	5475-5725	Pass
		0	120	5670.119617	5670.120834	5475-5725	Pass
		-10	120	5670.110911	5670.111704	5475-5725	Pass
		-20	120	5670.115679	5670.117792	5475-5725	Pass
		20	108	5670.121892	5670.113769	5475-5725	Pass
		20	120	5670.112312	5670.122663	5475-5725	Pass
		20	132	5670.112057	5670.116452	5475-5725	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band IV	IEEE 802.11ac VHT40 5755MHz	50	120	5755.119520	5755.121458	5725-5850	Pass
		40	120	5755.118584	5755.113214	5725-5850	Pass
		30	120	5755.119624	5755.115420	5725-5850	Pass
		20	120	5755.129987	5755.129987	5725-5850	Pass
		10	120	5755.114227	5755.119610	5725-5850	Pass
		0	120	5755.116895	5755.114669	5725-5850	Pass
		-10	120	5755.116068	5755.120747	5725-5850	Pass
		-20	120	5755.114526	5755.110433	5725-5850	Pass
		20	108	5755.116640	5755.114922	5725-5850	Pass
		20	120	5755.117228	5755.115699	5725-5850	Pass
		20	132	5755.114519	5755.115255	5725-5850	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band IV	IEEE 802.11ac VHT40 5795MHz	50	120	5795.122220	5795.117901	5725-5850	Pass
		40	120	5795.111725	5795.111619	5725-5850	Pass
		30	120	5795.111530	5795.114885	5725-5850	Pass
		20	120	5795.133987	5795.095991	5725-5850	Pass
		10	120	5795.122493	5795.121511	5725-5850	Pass
		0	120	5795.116696	5795.111966	5725-5850	Pass
		-10	120	5795.118491	5795.115014	5725-5850	Pass
		-20	120	5795.118132	5795.122843	5725-5850	Pass
		20	108	5795.121911	5795.122498	5725-5850	Pass
		20	120	5795.117569	5795.121510	5725-5850	Pass
		20	132	5795.111651	5795.115361	5725-5850	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band I	IEEE 802.11ac VHT80 5210MHz	50	120	5210.121253	5210.119567	5150-5250	Pass
		40	120	5210.119693	5210.118854	5150-5250	Pass
		30	120	5210.118698	5210.122702	5150-5250	Pass
		20	120	5210.119988	5210.119988	5150-5250	Pass
		10	120	5210.122347	5210.122368	5150-5250	Pass
		0	120	5210.121770	5210.121517	5150-5250	Pass
		-10	120	5210.122642	5210.120486	5150-5250	Pass
		-20	120	5210.121020	5210.121108	5150-5250	Pass
		20	108	5210.121133	5210.120099	5150-5250	Pass
		20	120	5210.122259	5210.118663	5150-5250	Pass
		20	132	5210.119483	5210.119850	5150-5250	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band II	IEEE 802.11ac VHT80 5290MHz	50	120	5290.120003	5290.121505	5250-5350	Pass
		40	120	5290.122625	5290.119807	5250-5350	Pass
		30	120	5290.122005	5290.120161	5250-5350	Pass
		20	120	5290.110108	5290.115989	5250-5350	Pass
		10	120	5290.121357	5290.121767	5250-5350	Pass
		0	120	5290.120919	5290.122429	5250-5350	Pass
		-10	120	5290.120057	5290.122977	5250-5350	Pass
		-20	120	5290.120964	5290.118721	5250-5350	Pass
		20	108	5290.119344	5290.119304	5250-5350	Pass
		20	120	5290.120313	5290.120867	5250-5350	Pass
		20	132	5290.120945	5290.121446	5250-5350	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band III	IEEE 802.11ac VHT80 5530MHz	50	120	5530.119740	5530.122653	5475-5725	Pass
		40	120	5530.120808	5530.121034	5475-5725	Pass
		30	120	5530.121789	5530.122441	5475-5725	Pass
		20	120	5530.131987	5530.123988	5475-5725	Pass
		10	120	5530.118808	5530.121179	5475-5725	Pass
		0	120	5530.120861	5530.121313	5475-5725	Pass
		-10	120	5530.121632	5530.121078	5475-5725	Pass
		-20	120	5530.120730	5530.122351	5475-5725	Pass
		20	108	5530.119347	5530.118399	5475-5725	Pass
		20	120	5530.119864	5530.118254	5475-5725	Pass
		20	132	5530.119269	5530.120373	5475-5725	Pass

Band	Mode	Temperature (℃)	Voltage (V)	Measured Frequency (MHz)		Limit Range (MHz)	Result
				Ant 1	Ant 2		
UNII Band IV	IEEE 802.11ac VHT80 5775MHz	50	120	5775.120448	5775.121642	5725-5850	Pass
		40	120	5775.121770	5775.122189	5725-5850	Pass
		30	120	5775.122634	5775.122890	5725-5850	Pass
		20	120	5775.114108	5775.087991	5725-5850	Pass
		10	120	5775.118432	5775.121541	5725-5850	Pass
		0	120	5775.119387	5775.120427	5725-5850	Pass
		-10	120	5775.118858	5775.119124	5725-5850	Pass
		-20	120	5775.120947	5775.118628	5725-5850	Pass
		20	108	5775.118438	5775.119092	5725-5850	Pass
		20	120	5775.122943	5775.118542	5725-5850	Pass
		20	132	5775.122770	5775.121268	5725-5850	Pass

9. RADIATED SPURIOUS EMISSIONS

9.1. Limit

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])

15.209 Limit

Frequency (MHz)	Field Strength(μV/m)	Distance(m)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

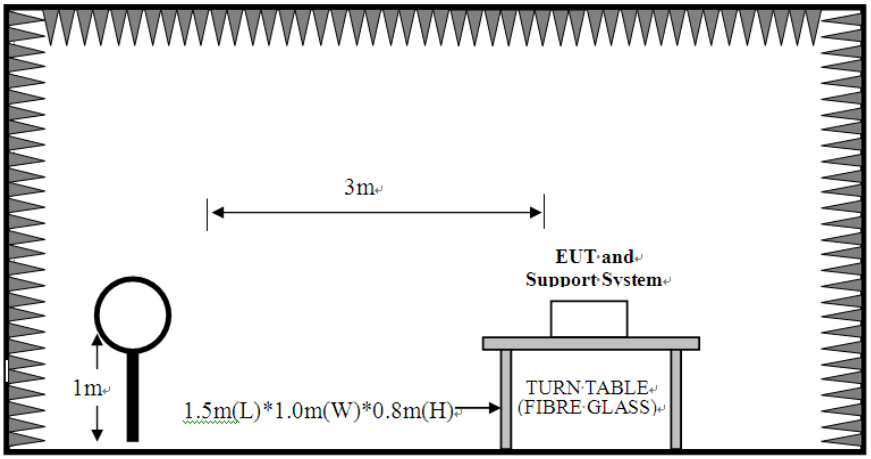
Remark：(1) Emission level dBμV = 20 log Emission level μV/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

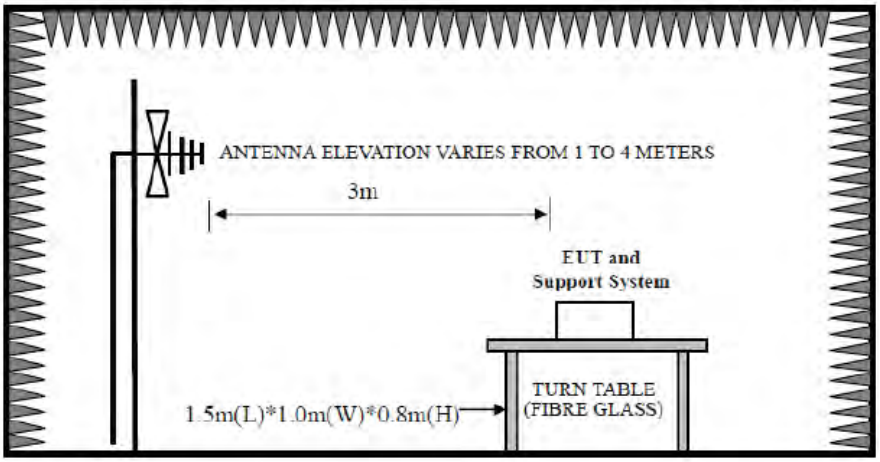
(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

9.2. Block Diagram of Test setup

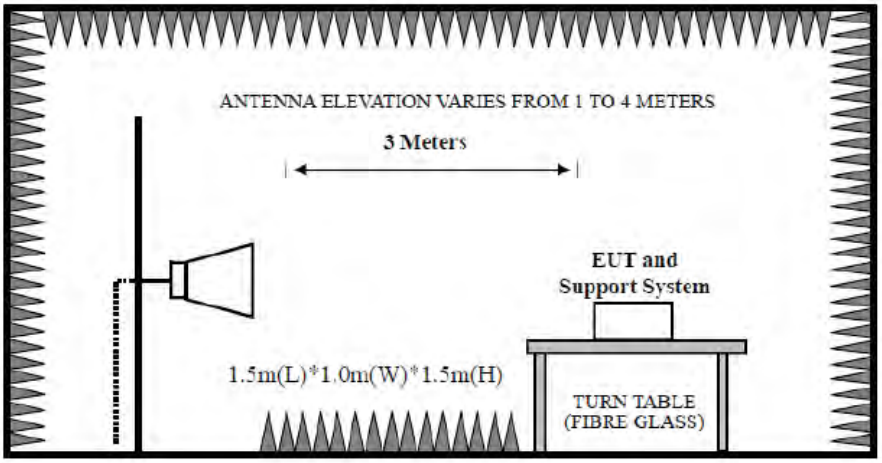
9kHz~30MHz



30~1000MHz



Above 1GHz



9.3. Test Procedure

EUT was placed on a turn table, which is 0.8 meter high above ground for 9kHz~1000MHz test, and which is 1.5 meter high above ground for above 1GHz test. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

The test frequency analyzer system was set to Peak Detect (300Hz RBW in 9kHz to 150kHz and 10kHz RBW in 150kHz to 30MHz) Function and Specified Bandwidth with Maximum Hold Mode.

The bandwidth of the EMI test receiver is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 1MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

PEAK detector, 1MHz/1MHz for PAEK measurement,

PEAK detector, 1MHz/10Hz for Average measurement

The frequency range from 9 kHz to 10th harmonic (or 40GHz) are checked.

9.4. Test Result

Pass

Note: 1、For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

2、 The frequency 5180MHz 、5190MHz、5200MHz、5230 MHz、5240 MHz、5260 MHz、5270 MHz、5300 MHz、5310 MHz、5320 MHz、5500 MHz、5510 MHz、5580 MHz、5670 MHz、5700 MHz、5745 MHz、5755 MHz、5785 MHz、5795 MHz、5825MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.

9.5. Test Data

9 kHz – 30 MHz
Pass
Note: The amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

30 MHz – 1000 MHz

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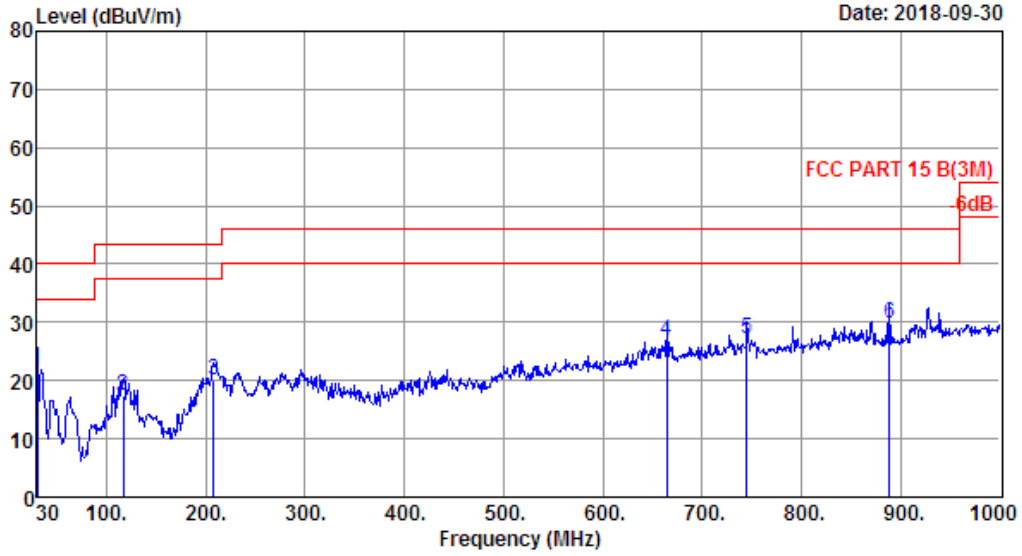
Data: 354 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli.EM6 (359)




```
Site no      : site                                  Data no.    : 354
Env. / Ins.  : Temp:26.9';Humi:53.4%;Press:101.52kPaLINE Phase : VERTICAL
Limit        : FCC PART 15 B(3M)
Engineer     : Viking
EUT          : JMDD Module
Power        : AC 120V/50Hz
M/N          : JMDD
Test Mode    : TX Mode
```

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.000	18.10	0.31	3.85	22.26	40.00	17.74	QP
2	117.300	11.42	1.13	4.84	17.39	43.50	26.11	QP
3	207.510	8.65	1.53	9.87	20.05	43.50	23.45	QP
4	664.380	21.10	3.44	2.35	26.89	46.00	19.11	QP
5	744.890	22.10	3.85	1.14	27.09	46.00	18.91	QP
6	888.450	23.66	4.07	2.22	29.95	46.00	16.05	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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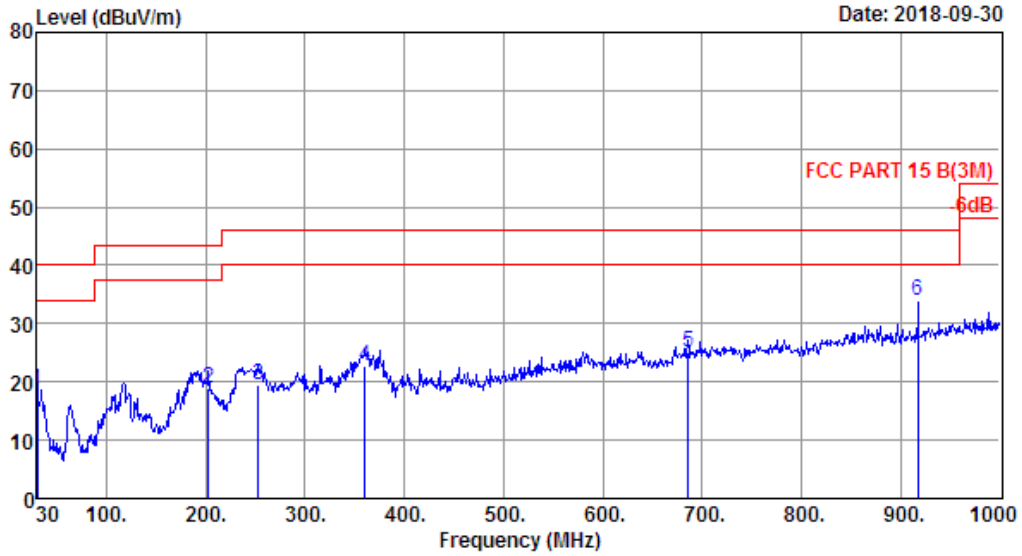
Data: 355 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli.EM6 (359)



Site no : 1# 966 Chamber Data no. : 355
Env. / Ins. : Temp:26.9';Humi:53.4%;Press:101.52kPaLINE Phase : HORIZONTAL
Limit : FCC PART 15 B(3M)
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/50Hz
M/N : JMDD
Test Mode : TX Mode

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.000	18.10	0.31	0.31	18.72	40.00	21.28	QP
2	202.660	8.32	1.50	9.05	18.87	43.50	24.63	QP
3	253.100	12.78	1.85	4.98	19.61	46.00	26.39	QP
4	360.770	15.21	2.38	5.07	22.66	46.00	23.34	QP
5	685.720	21.26	3.40	0.46	25.12	46.00	20.88	QP
6	917.550	24.17	4.15	5.52	33.84	46.00	12.16	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

1000-18000 MHz

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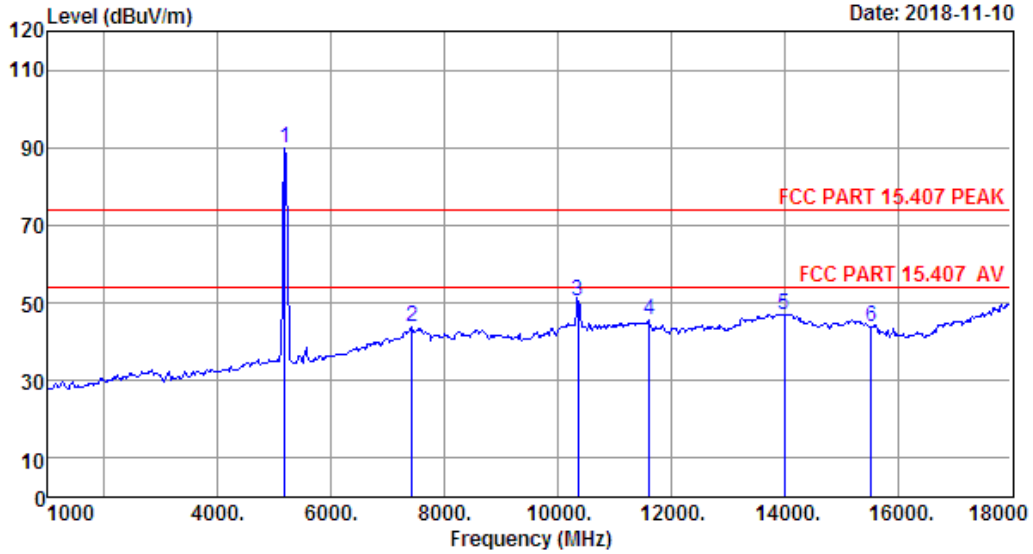
Data: 57 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)




```
Site no.      : 1# 966 Chamber              Data no.  : 57
Dis. / Ant.   : 3m   ANT9120D 1-18G         Ant. pol. : HORIZONTAL
Limit         : FCC PART 15.407 PEAK
Env. / Ins.   : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer      : Viking
EUT           : JMDD Module
Power         : AC 120V/60Hz
M/N           : JMDD
Test Mode     : IEEE 802.11a CH36 5180TX
                Antenna 1
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5180.00	32.62	4.89	35.48	87.70	89.73	74.00	-15.73	Peak
2	7426.00	37.05	6.13	33.11	33.74	43.81	74.00	30.19	Peak
3	10360.00	39.25	10.05	34.28	35.34	50.36	74.00	23.64	Peak
4	11625.00	39.93	8.25	32.37	29.68	45.49	74.00	28.51	Peak
5	14005.00	41.70	10.13	32.88	28.19	47.14	74.00	26.86	Peak
6	15540.00	39.38	10.84	32.34	25.76	43.64	74.00	30.36	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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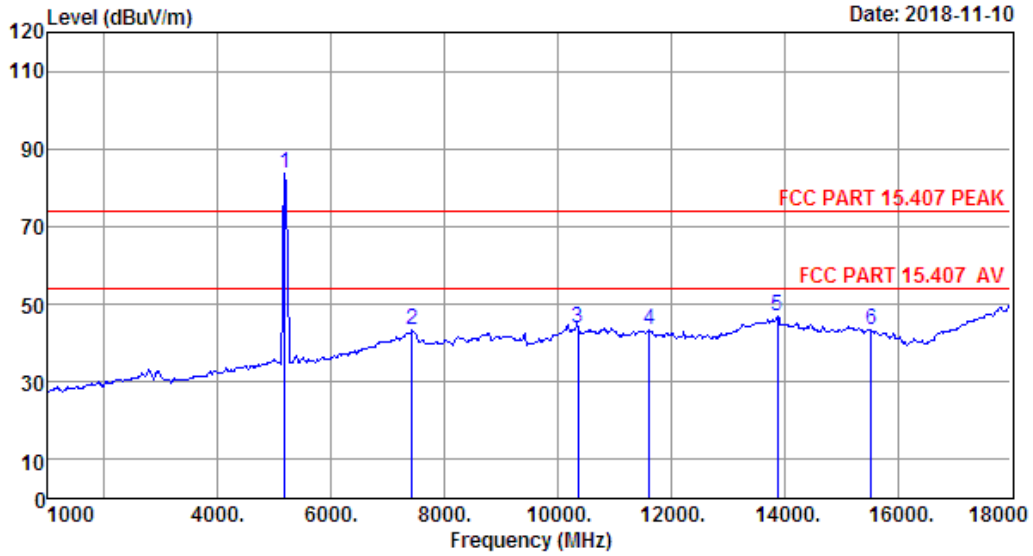
Data: 58 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 58
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH36 5180TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5180.00	32.62	4.89	35.48	81.86	83.89	74.00	-9.89	Peak
2	7426.00	37.05	6.13	33.11	33.15	43.22	74.00	30.78	Peak
3	10360.00	39.25	10.05	34.28	28.92	43.94	74.00	30.06	Peak
4	11625.00	39.93	8.25	32.37	27.57	43.38	74.00	30.62	Peak
5	13886.00	41.61	10.11	32.80	27.85	46.77	74.00	27.23	Peak
6	15540.00	39.38	10.84	32.34	25.35	43.23	74.00	30.77	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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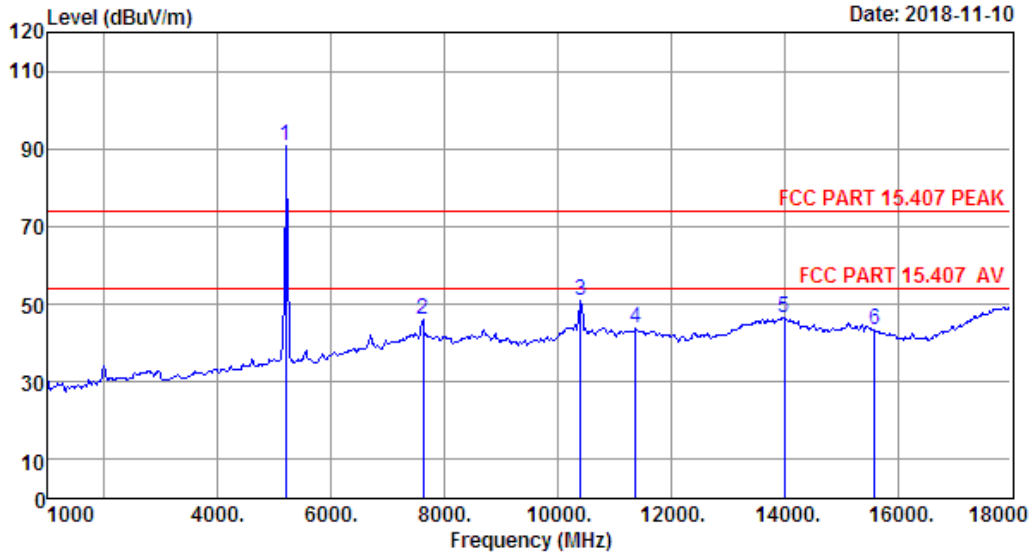
Data: 59 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 59
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Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH40 5200TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5200.00	32.64	4.90	35.50	88.54	90.58	74.00	-16.58	Peak
2	7630.00	37.33	6.18	33.20	35.65	45.96	74.00	28.04	Peak
3	10400.00	39.26	9.95	34.24	36.16	51.13	74.00	22.87	Peak
4	11370.00	40.05	8.30	32.78	28.08	43.65	74.00	30.35	Peak
5	14005.00	41.70	10.13	32.88	27.69	46.64	74.00	27.36	Peak
6	15600.00	39.15	10.80	32.30	25.54	43.19	74.00	30.81	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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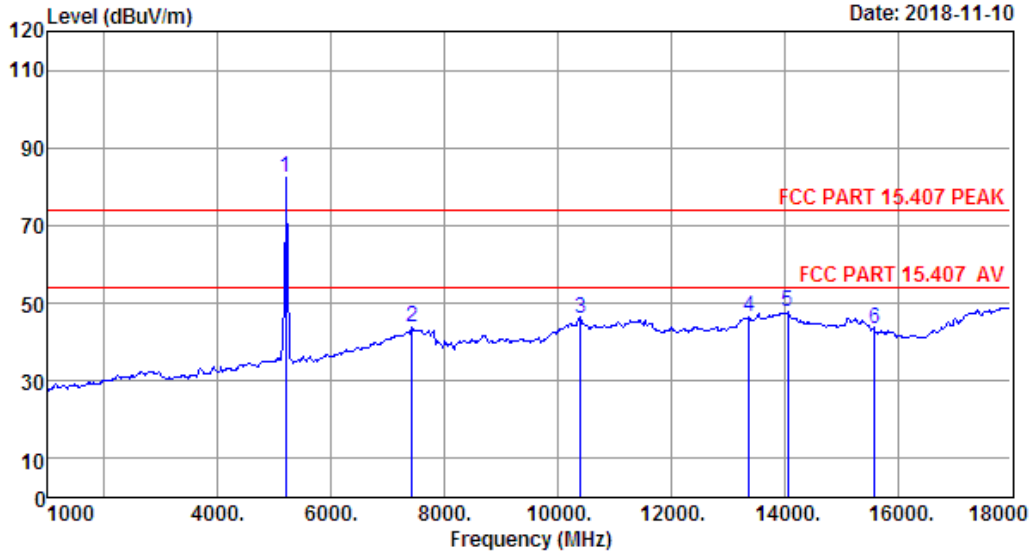
Data: 60 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



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Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH40 5200TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5200.00	32.64	4.90	35.50	80.53	82.57	74.00	-8.57	Peak
2	7426.00	37.05	6.13	33.11	33.83	43.90	74.00	30.10	Peak
3	10400.00	39.26	9.95	34.24	31.01	45.98	74.00	28.02	Peak
4	13376.00	41.01	9.50	32.62	28.59	46.48	74.00	27.52	Peak
5	14056.00	41.65	10.13	32.95	28.94	47.77	74.00	26.23	Peak
6	15600.00	39.15	10.80	32.30	25.56	43.21	74.00	30.79	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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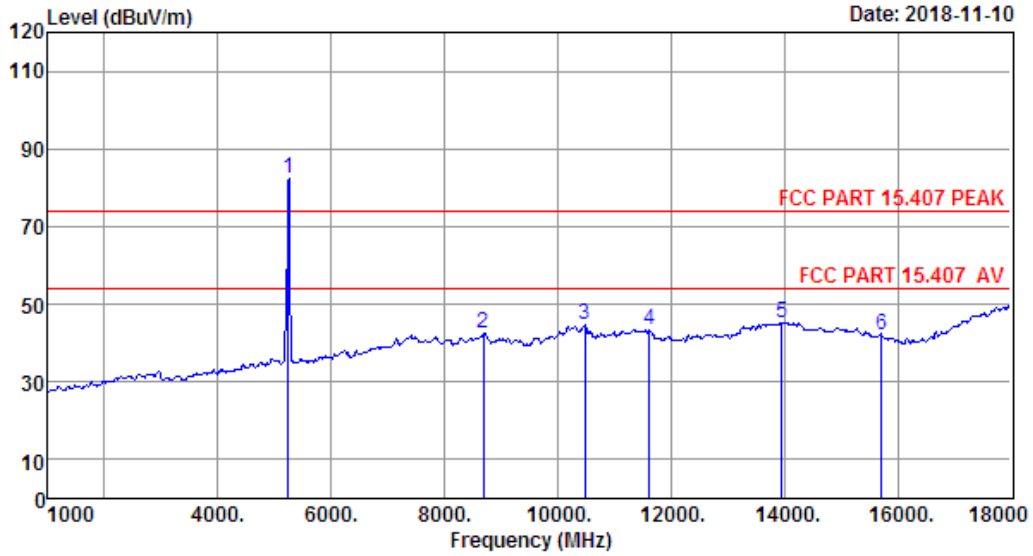
Data: 61 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 61
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH48 5240TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5240.00	32.68	4.93	35.54	80.38	82.45	74.00	-8.45	Peak
2	8684.00	37.46	6.90	33.06	31.33	42.63	74.00	31.37	Peak
3	10480.00	39.29	9.70	34.16	29.80	44.63	74.00	29.37	Peak
4	11625.00	39.93	8.25	32.37	27.74	43.55	74.00	30.45	Peak
5	13954.00	41.66	10.12	32.84	26.41	45.35	74.00	28.65	Peak
6	15720.00	38.74	10.74	32.22	24.77	42.03	74.00	31.97	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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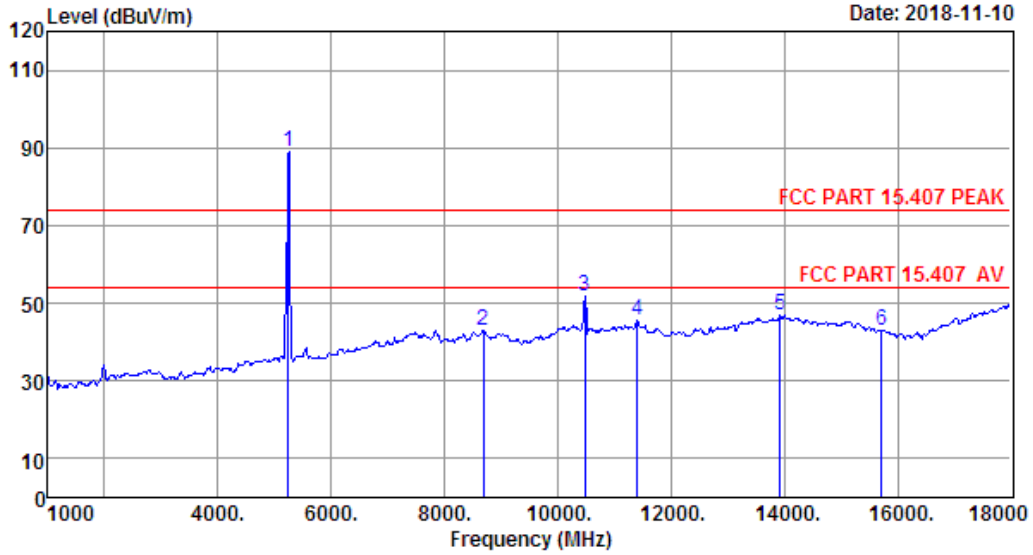
Data: 62 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 62
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH48 5240TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5240.00	32.68	4.93	35.54	86.78	88.85	74.00	-14.85	Peak
2	8684.00	37.46	6.90	33.06	31.76	43.06	74.00	30.94	Peak
3	10480.00	39.29	9.70	34.16	37.18	52.01	74.00	21.99	Peak
4	11404.00	40.06	8.29	32.71	30.17	45.81	74.00	28.19	Peak
5	13920.00	41.63	10.11	32.83	27.99	46.90	74.00	27.10	Peak
6	15720.00	38.74	10.74	32.22	25.79	43.05	74.00	30.95	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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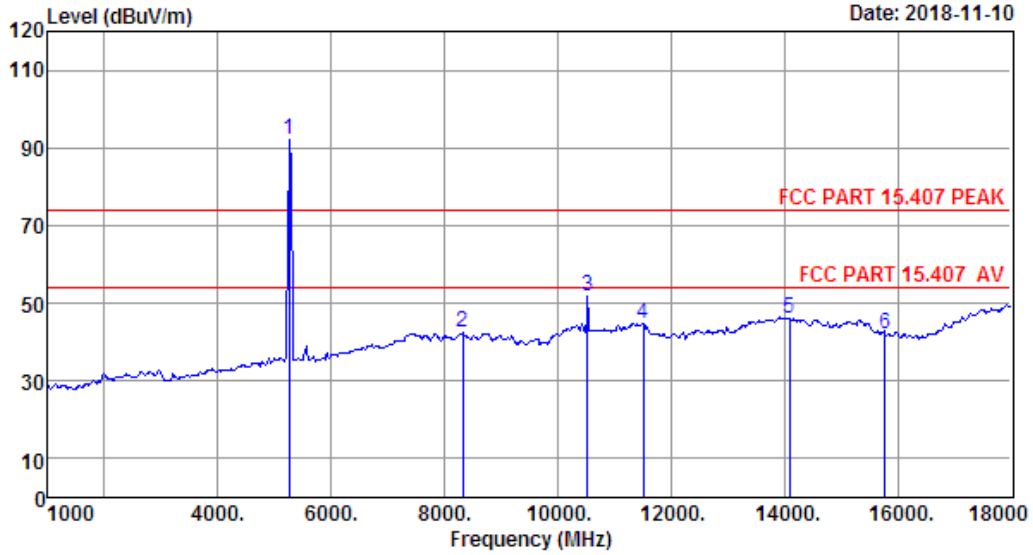
Data: 63 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 63
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH52 5260TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5260.00	32.72	4.95	35.56	89.78	91.89	74.00	-17.89	Peak
2	8327.00	37.37	6.71	34.17	32.61	42.52	74.00	31.48	Peak
3	10520.00	39.32	9.60	34.10	37.10	51.92	74.00	22.08	Peak
4	11506.00	40.10	8.28	32.55	28.98	44.81	74.00	29.19	Peak
5	14090.00	41.61	10.14	32.99	27.45	46.21	74.00	27.79	Peak
6	15780.00	38.56	10.72	32.18	25.11	42.21	74.00	31.79	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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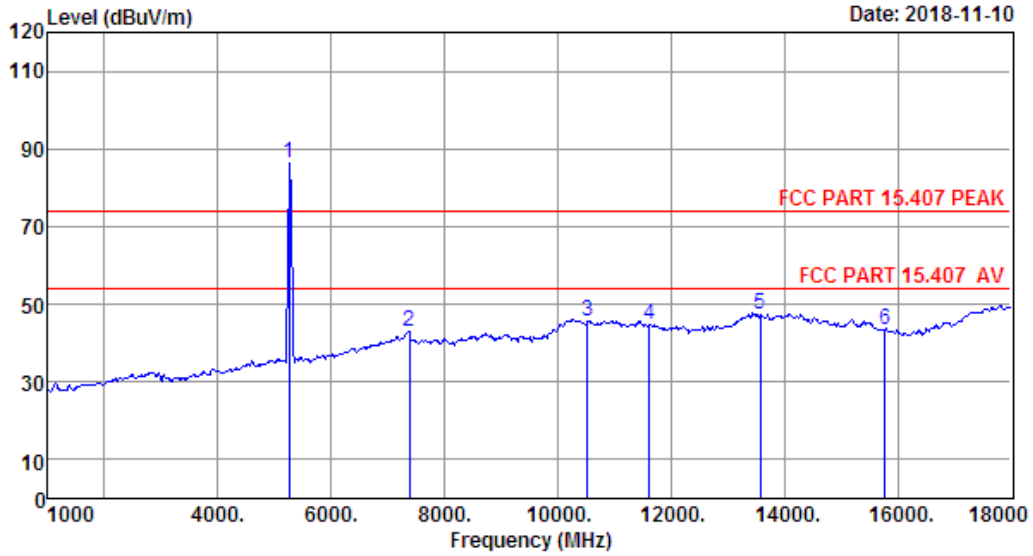
Data: 64 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)




```
Site no.       : 1# 966 Chamber              Data no.  : 64
Dis. / Ant.    : 3m   ANT9120D 1-18G         Ant. pol. : VERTICAL
Limit          : FCC PART 15.407 PEAK
Env. / Ins.    : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer       : Viking
EUT            : JMDD Module
Power          : AC 120V/60Hz
M/N            : JMDD
Test Mode      : IEEE 802.11a CH52 5260TX
                 Antenna 1
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5260.00	32.72	4.95	35.56	84.10	86.21	74.00	-12.21	Peak
2	7375.00	36.93	6.11	33.19	33.02	42.87	74.00	31.13	Peak
3	10520.00	39.32	9.60	34.10	30.94	45.76	74.00	28.24	Peak
4	11625.00	39.93	8.25	32.37	28.87	44.68	74.00	29.32	Peak
5	13580.00	41.37	9.78	32.57	28.99	47.57	74.00	26.43	Peak
6	15780.00	38.56	10.72	32.18	26.45	43.55	74.00	30.45	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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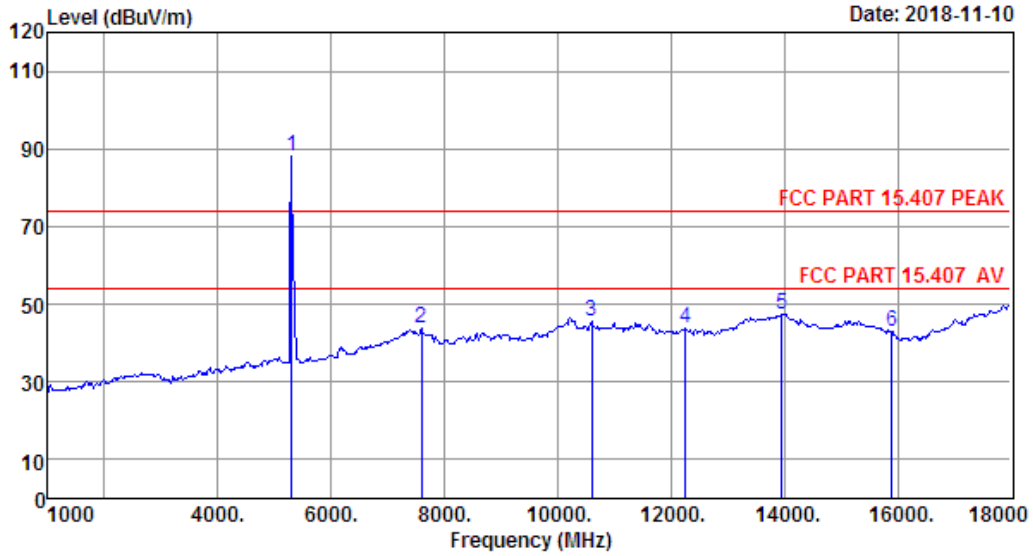
Data: 65 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 65
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH60 5300TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5300.00	32.76	4.97	35.62	86.06	88.17	74.00	-14.17	Peak
2	7596.00	37.30	6.17	33.06	33.22	43.63	74.00	30.37	Peak
3	10600.00	39.42	9.35	34.00	30.72	45.49	74.00	28.51	Peak
4	12254.00	39.35	8.42	32.62	28.71	43.86	74.00	30.14	Peak
5	13954.00	41.66	10.12	32.84	28.44	47.38	74.00	26.62	Peak
6	15900.00	38.15	10.65	32.10	26.24	42.94	74.00	31.06	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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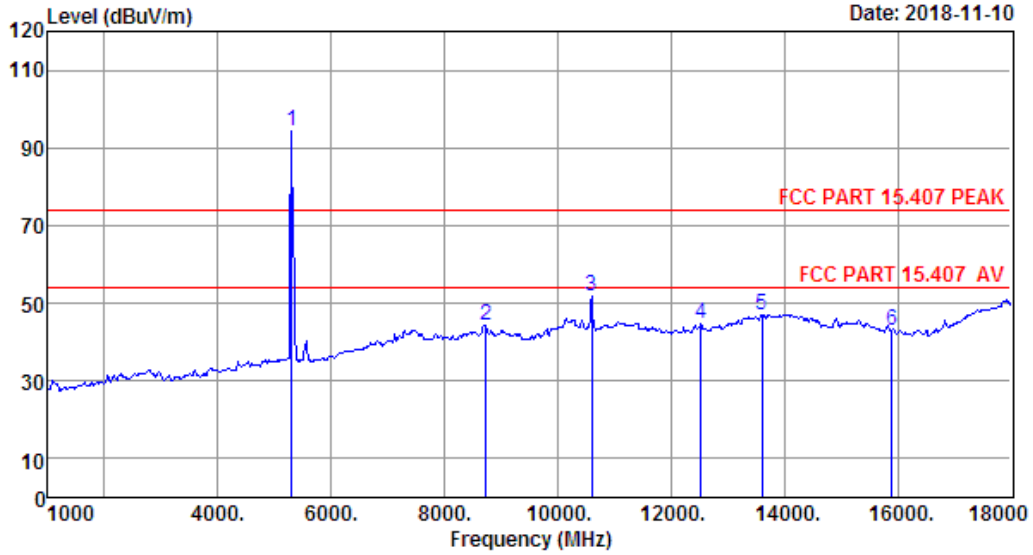
Data: 66 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 66
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH60 5300TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5300.00	32.76	4.97	35.62	92.31	94.42	74.00	-20.42	Peak
2	8735.00	37.53	6.90	32.88	32.56	44.11	74.00	29.89	Peak
3	10600.00	39.42	9.35	34.00	37.01	51.78	74.00	22.22	Peak
4	12526.00	39.35	8.60	32.74	29.44	44.65	74.00	29.35	Peak
5	13614.00	41.39	9.82	32.59	28.53	47.15	74.00	26.85	Peak
6	15900.00	38.15	10.65	32.10	26.42	43.12	74.00	30.88	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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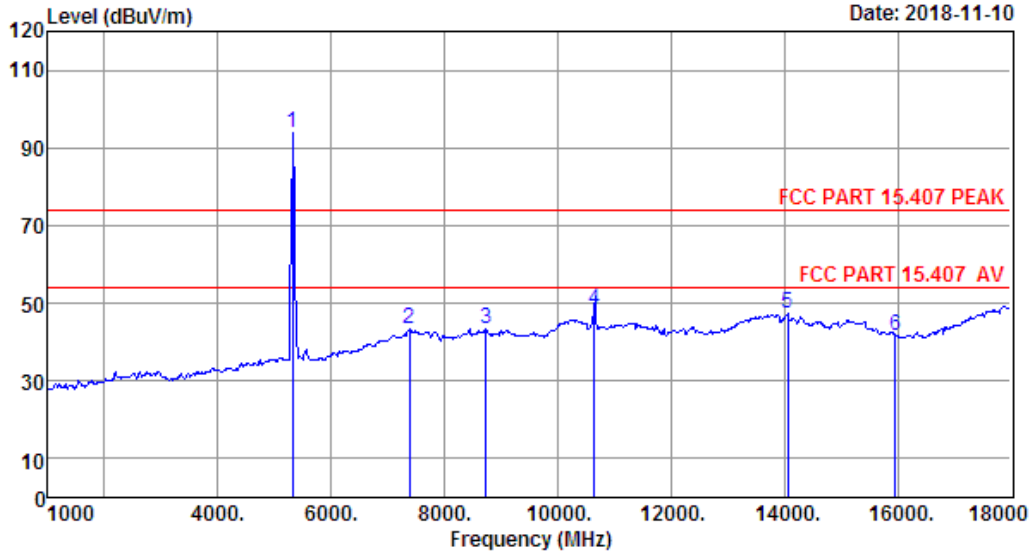
Data: 67 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 67
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH64 5320TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5320.00	32.78	4.99	35.64	91.63	93.76	74.00	-19.76	Peak
2	7375.00	36.93	6.11	33.19	33.55	43.40	74.00	30.60	Peak
3	8735.00	37.53	6.90	32.88	31.64	43.19	74.00	30.81	Peak
4	10640.00	39.47	9.25	33.95	33.48	48.25	74.00	25.75	Peak
5	14056.00	41.65	10.13	32.95	28.58	47.41	74.00	26.59	Peak
6	15960.00	37.92	10.62	32.09	25.17	41.62	74.00	32.38	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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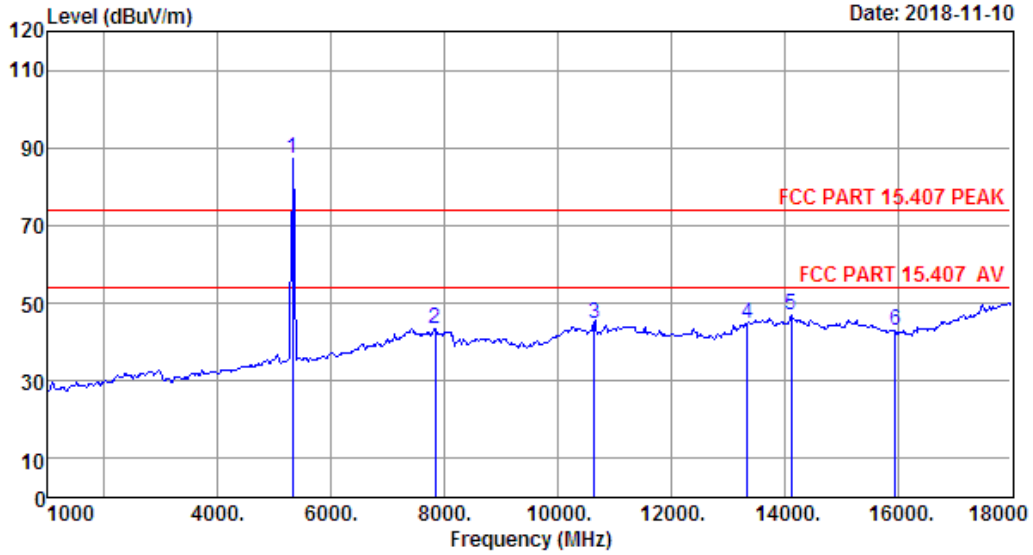
Data: 68 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 68
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH64 5320TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5320.00	32.78	4.99	35.64	85.03	87.16	74.00	-13.16	Peak
2	7834.00	37.53	6.27	34.01	33.77	43.56	74.00	30.44	Peak
3	10640.00	39.47	9.25	33.95	29.85	44.62	74.00	29.38	Peak
4	13342.00	40.93	9.45	32.64	27.17	44.91	74.00	29.09	Peak
5	14124.00	41.58	10.14	33.04	28.06	46.74	74.00	27.26	Peak
6	15960.00	37.92	10.62	32.09	26.46	42.91	74.00	31.09	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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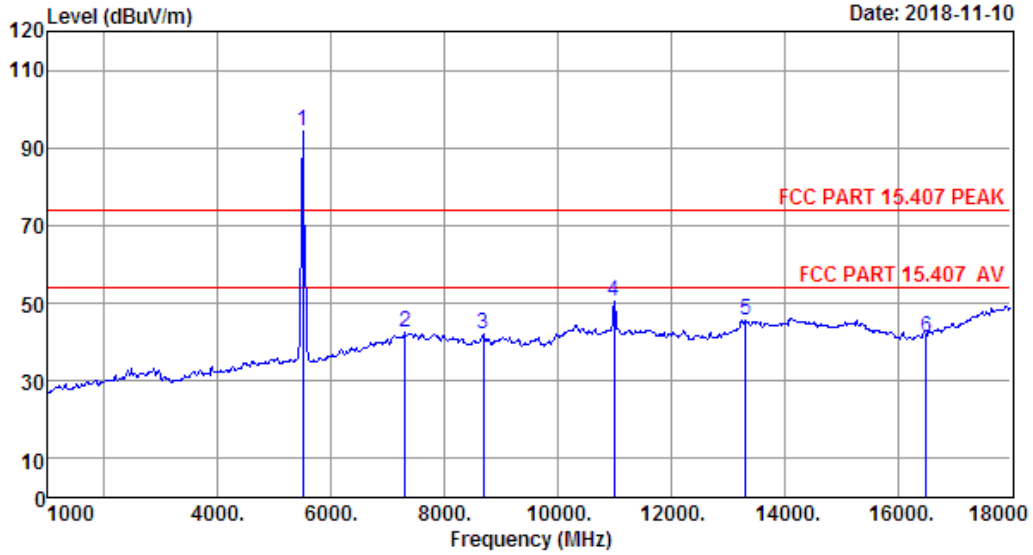
Data: 69 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 69
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH100 5500TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5500.00	33.00	5.11	35.84	92.11	94.38	74.00	-20.38	Peak
2	7307.00	36.78	6.09	33.31	32.81	42.37	74.00	31.63	Peak
3	8684.00	37.46	6.90	33.06	30.67	41.97	74.00	32.03	Peak
4	11000.00	39.90	8.57	33.45	35.39	50.41	74.00	23.59	Peak
5	13325.00	40.89	9.43	32.65	28.04	45.71	74.00	28.29	Peak
6	16500.00	37.80	10.54	31.83	24.79	41.30	74.00	32.70	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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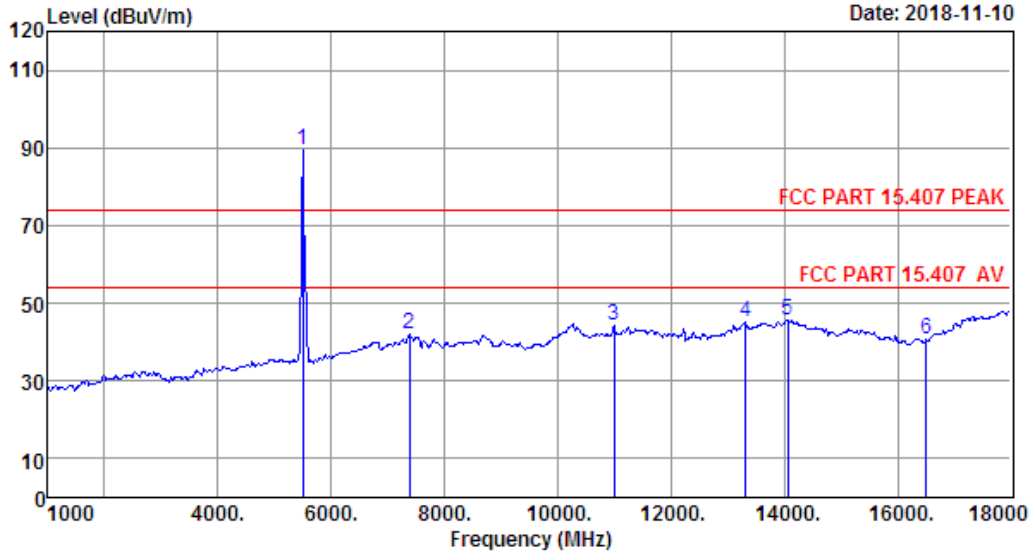
Data: 70 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 70
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH100 5500TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5500.00	33.00	5.11	35.84	87.18	89.45	74.00	-15.45	Peak
2	7375.00	36.93	6.11	33.19	32.02	41.87	74.00	32.13	Peak
3	11000.00	39.90	8.57	33.45	29.22	44.24	74.00	29.76	Peak
4	13325.00	40.89	9.43	32.65	27.64	45.31	74.00	28.69	Peak
5	14056.00	41.65	10.13	32.95	26.91	45.74	74.00	28.26	Peak
6	16500.00	37.80	10.54	31.83	24.01	40.52	74.00	33.48	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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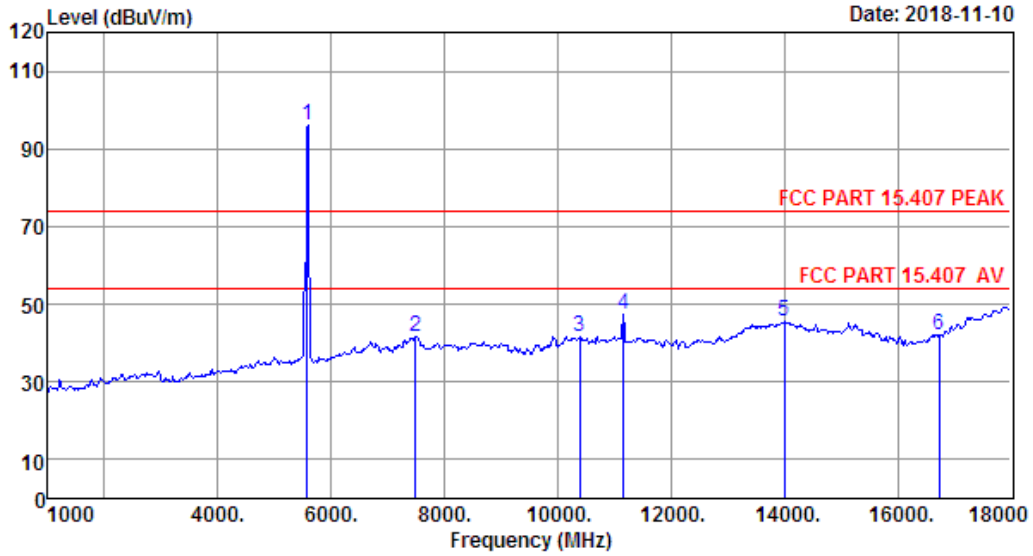
Data: 71 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 71
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH116 5580TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5580.00	33.07	5.14	35.92	94.00	96.29	74.00	-22.29	Peak
2	7494.00	37.20	6.15	33.00	31.42	41.77	74.00	32.23	Peak
3	10384.00	39.25	10.00	34.26	26.53	41.52	74.00	32.48	Peak
4	11160.00	39.97	8.45	33.16	32.29	47.55	74.00	26.45	Peak
5	14005.00	41.70	10.13	32.88	26.52	45.47	74.00	28.53	Peak
6	16740.00	39.59	10.51	31.49	23.36	41.97	74.00	32.03	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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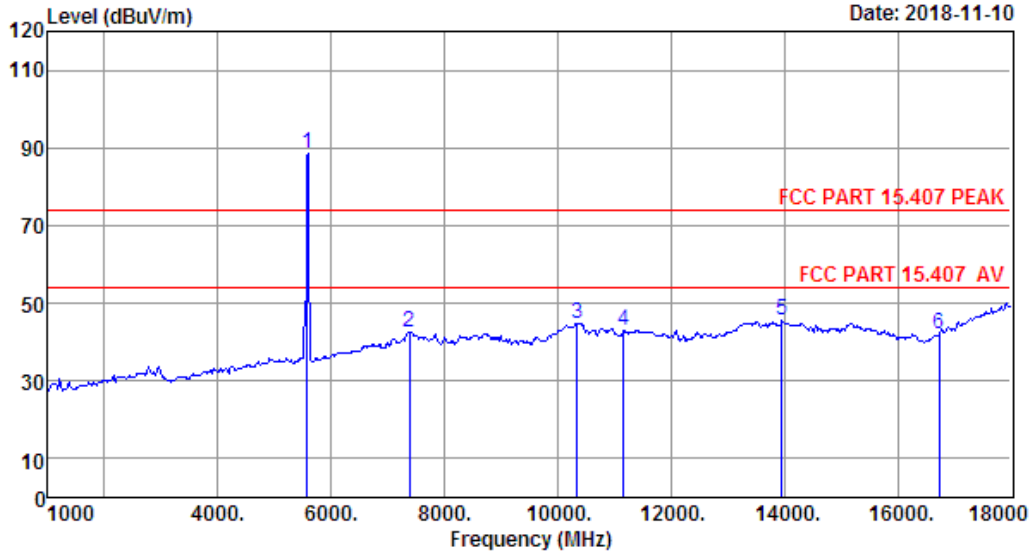
Data: 72 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 72
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH116 5580TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5580.00	33.07	5.14	35.92	86.28	88.57	74.00	-14.57	Peak
2	7375.00	36.93	6.11	33.19	32.86	42.71	74.00	31.29	Peak
3	10350.00	39.24	10.10	34.30	29.86	44.90	74.00	29.10	Peak
4	11160.00	39.97	8.45	33.16	27.64	42.90	74.00	31.10	Peak
5	13954.00	41.66	10.12	32.84	26.47	45.41	74.00	28.59	Peak
6	16740.00	39.59	10.51	31.49	23.54	42.15	74.00	31.85	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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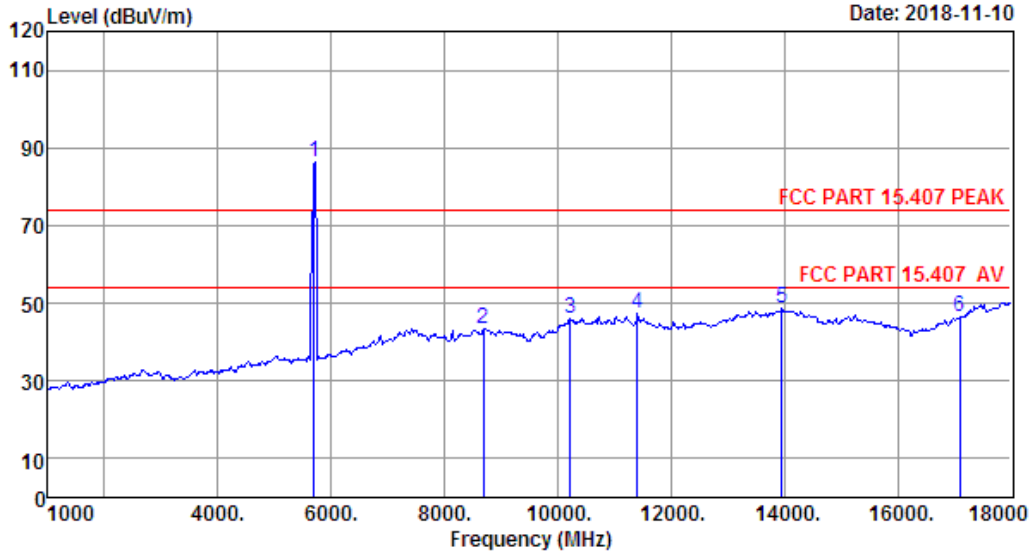
Data: 73 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 73
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH140 5700TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5700.00	33.19	5.18	35.95	83.77	86.19	74.00	-12.19	Peak
2	8684.00	37.46	6.90	33.06	32.13	43.43	74.00	30.57	Peak
3	10214.00	39.19	9.77	34.43	31.33	45.86	74.00	28.14	Peak
4	11400.00	40.06	8.29	32.71	31.52	47.16	74.00	26.84	Peak
5	13954.00	41.66	10.12	32.84	29.59	48.53	74.00	25.47	Peak
6	17100.00	41.88	10.63	31.22	25.05	46.34	74.00	27.66	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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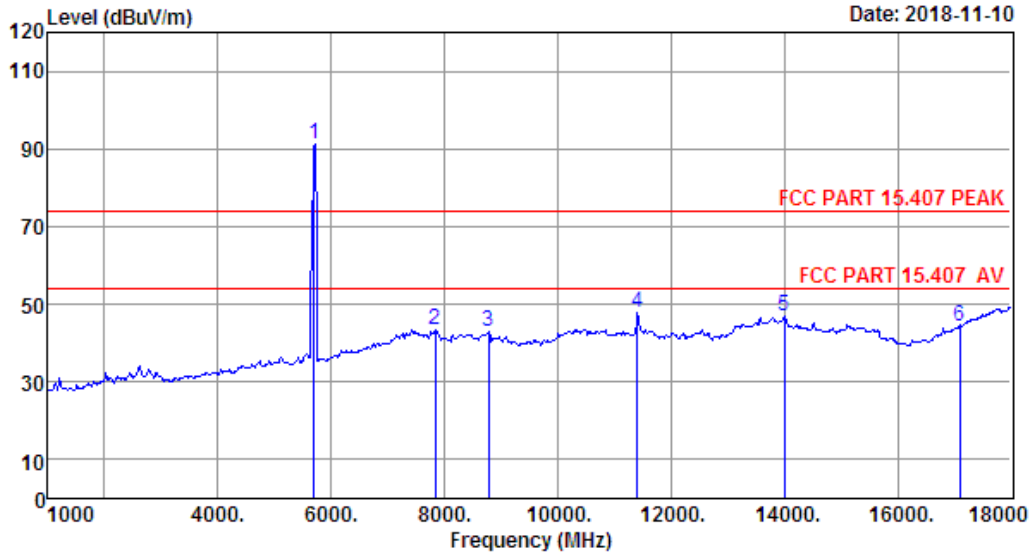
Data: 74 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 74
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH140 5700TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5700.00	33.19	5.18	35.95	88.86	91.28	74.00	-17.28	Peak
2	7834.00	37.53	6.27	34.01	33.67	43.46	74.00	30.54	Peak
3	8786.00	37.60	6.90	32.99	31.43	42.94	74.00	31.06	Peak
4	11400.00	40.06	8.29	32.71	31.98	47.62	74.00	26.38	Peak
5	14005.00	41.70	10.13	32.88	27.86	46.81	74.00	27.19	Peak
6	17100.00	41.88	10.63	31.22	23.05	44.34	74.00	29.66	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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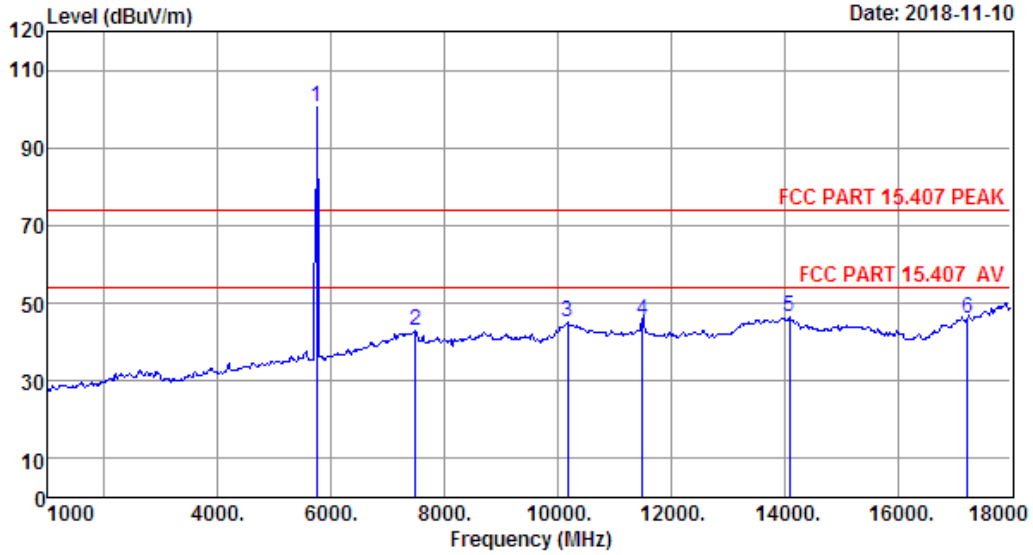
Data: 75 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 75
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH149 5745TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5745.00	33.24	5.20	35.91	98.15	100.68	74.00	-26.68	Peak
2	7494.00	37.20	6.15	33.00	32.62	42.97	74.00	31.03	Peak
3	10180.00	39.17	9.62	34.47	30.70	45.02	74.00	28.98	Peak
4	11490.00	40.09	8.28	32.55	29.75	45.57	74.00	28.43	Peak
5	14090.00	41.61	10.14	32.99	27.73	46.49	74.00	27.51	Peak
6	17235.00	42.39	10.94	31.21	23.88	46.00	74.00	28.00	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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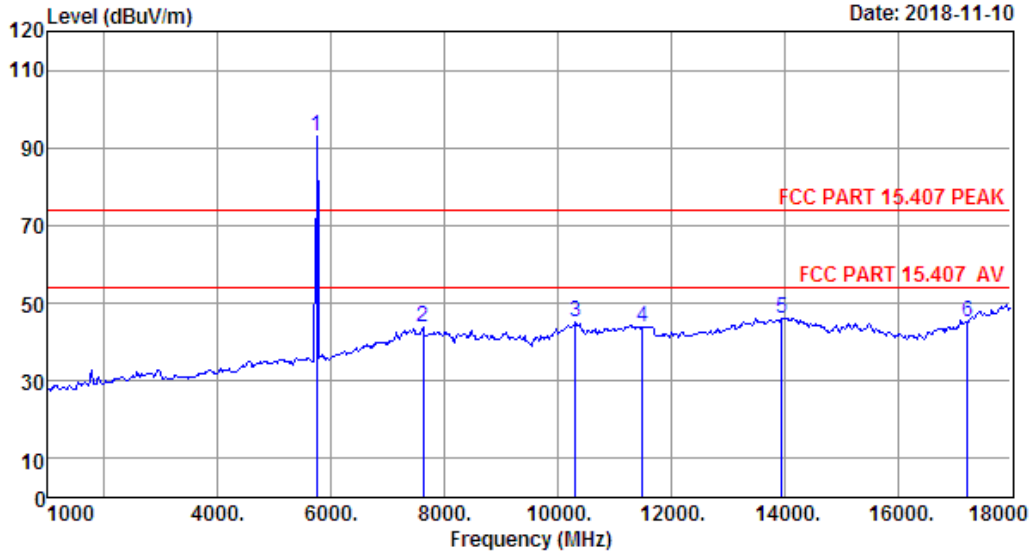
Data: 76 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 76
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH149 5745TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5745.00	33.24	5.20	35.91	90.63	93.16	74.00	-19.16	Peak
2	7630.00	37.33	6.18	33.20	33.39	43.70	74.00	30.30	Peak
3	10316.00	39.23	10.20	34.34	30.15	45.24	74.00	28.76	Peak
4	11490.00	40.09	8.28	32.55	28.01	43.83	74.00	30.17	Peak
5	13954.00	41.66	10.12	32.84	27.28	46.22	74.00	27.78	Peak
6	17235.00	42.39	10.94	31.21	22.92	45.04	74.00	28.96	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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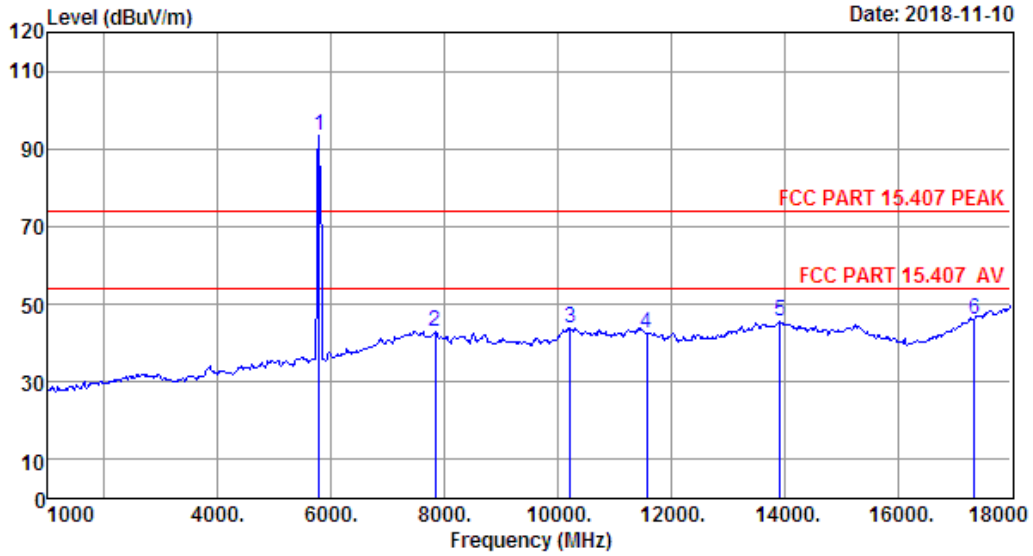
Data: 77 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 77
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH157 5785TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5785.00	33.28	5.26	35.86	90.60	93.28	74.00	-19.28	Peak
2	7834.00	37.53	6.27	34.01	33.18	42.97	74.00	31.03	Peak
3	10214.00	39.19	9.77	34.43	29.39	43.92	74.00	30.08	Peak
4	11570.00	40.00	8.26	32.42	26.70	42.54	74.00	31.46	Peak
5	13920.00	41.63	10.11	32.83	26.65	45.56	74.00	28.44	Peak
6	17355.00	42.83	11.21	31.04	23.19	46.19	74.00	27.81	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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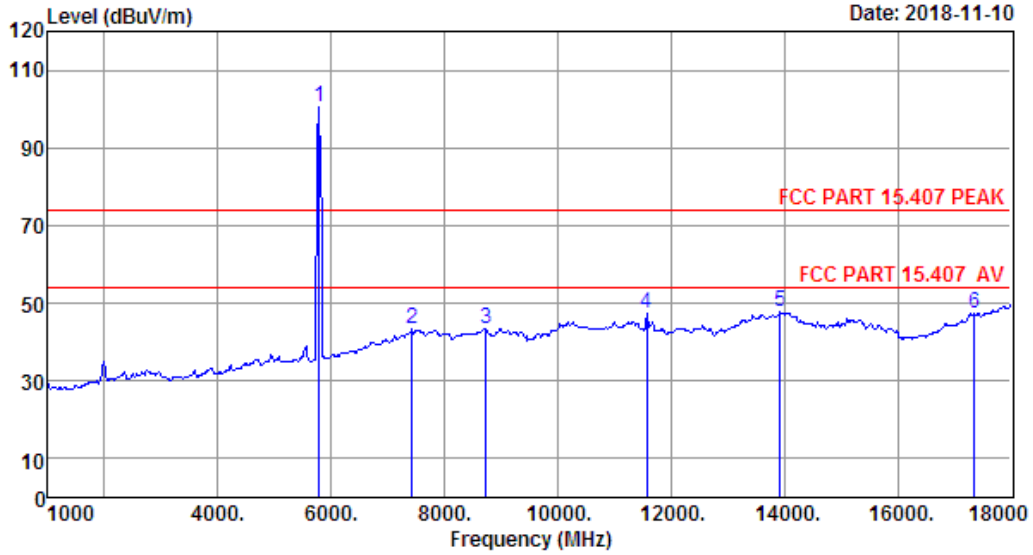
Data: 78 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 78
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH157 5785TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5785.00	33.28	5.26	35.86	97.81	100.49	74.00	-26.49	Peak
2	7426.00	37.05	6.13	33.11	33.18	43.25	74.00	30.75	Peak
3	8735.00	37.53	6.90	32.88	31.99	43.54	74.00	30.46	Peak
4	11570.00	40.00	8.26	32.42	31.37	47.21	74.00	26.79	Peak
5	13920.00	41.63	10.11	32.83	28.99	47.90	74.00	26.10	Peak
6	17355.00	42.83	11.21	31.04	24.21	47.21	74.00	26.79	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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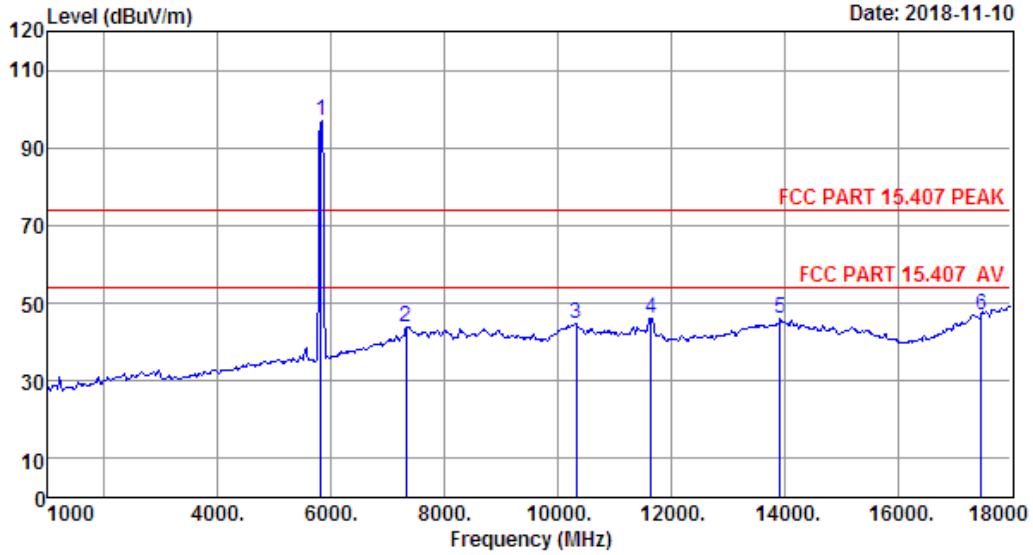
Data: 79 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 79
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH165 5825TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5825.00	33.33	5.35	35.83	94.00	96.85	74.00	-22.85	Peak
2	7324.00	36.82	6.10	33.28	34.41	44.05	74.00	29.95	Peak
3	10333.00	39.23	10.15	34.32	29.58	44.64	74.00	29.36	Peak
4	11650.00	39.91	8.25	32.37	30.16	45.95	74.00	28.05	Peak
5	13920.00	41.63	10.11	32.83	26.94	45.85	74.00	28.15	Peak
6	17475.00	43.27	11.48	31.08	23.12	46.79	74.00	27.21	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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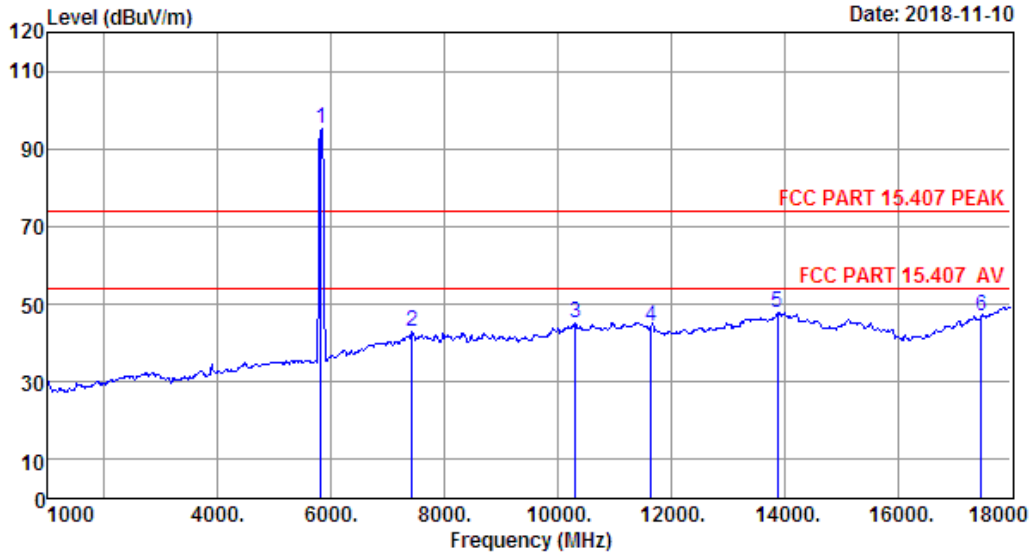
Data: 80 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 80
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH165 5825TX
Antenna 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5825.00	33.33	5.35	35.83	92.42	95.27	74.00	-21.27	Peak
2	7426.00	37.05	6.13	33.11	32.94	43.01	74.00	30.99	Peak
3	10316.00	39.23	10.20	34.34	30.27	45.36	74.00	28.64	Peak
4	11650.00	39.91	8.25	32.37	28.28	44.07	74.00	29.93	Peak
5	13886.00	41.61	10.11	32.80	29.02	47.94	74.00	26.06	Peak
6	17475.00	43.27	11.48	31.08	23.07	46.74	74.00	27.26	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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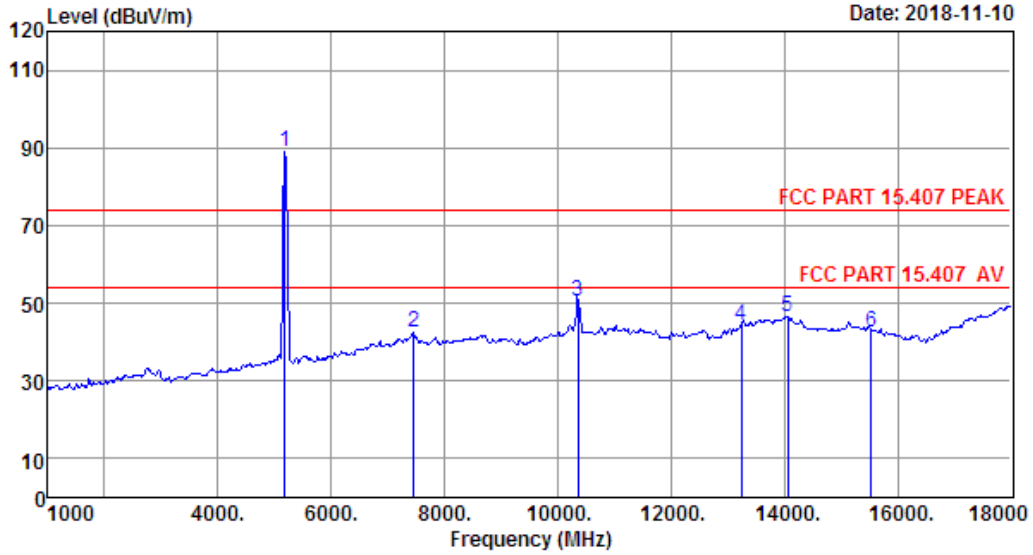
Data: 81 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 81
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH36 5180TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5180.00	32.62	4.89	35.48	86.78	88.81	74.00	-14.81	Peak
2	7460.00	37.12	6.14	33.05	32.25	42.46	74.00	31.54	Peak
3	10360.00	39.25	10.05	34.28	35.66	50.68	74.00	23.32	Peak
4	13240.00	40.68	9.32	32.68	26.84	44.16	74.00	29.84	Peak
5	14056.00	41.65	10.13	32.95	27.59	46.42	74.00	27.58	Peak
6	15540.00	39.38	10.84	32.34	24.85	42.73	74.00	31.27	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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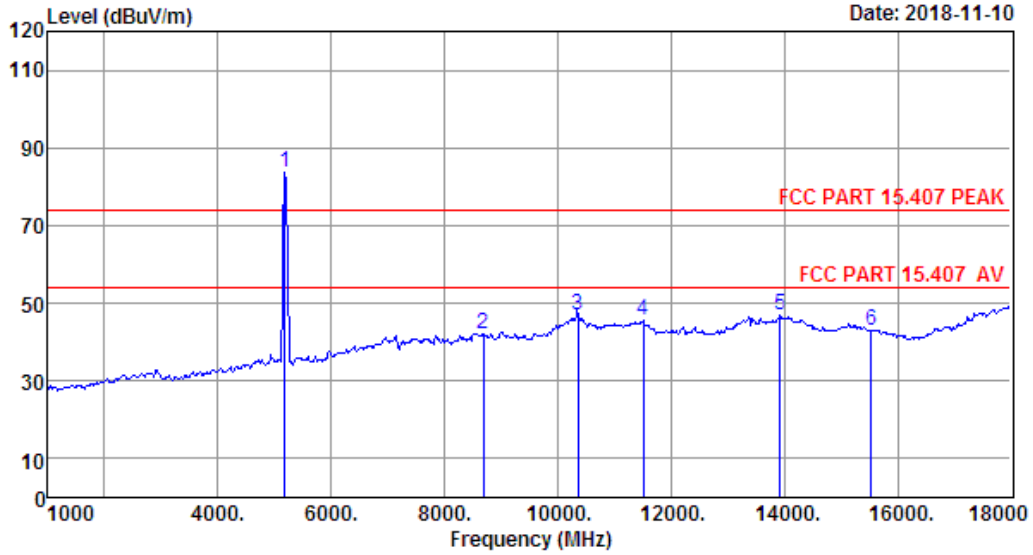
Data: 82 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 82
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH36 5180TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5180.00	32.62	4.89	35.48	81.52	83.55	74.00	-9.55	Peak
2	8684.00	37.46	6.90	33.06	30.79	42.09	74.00	31.91	Peak
3	10360.00	39.25	10.05	34.28	31.97	46.99	74.00	27.01	Peak
4	11506.00	40.10	8.28	32.55	29.66	45.49	74.00	28.51	Peak
5	13920.00	41.63	10.11	32.83	27.87	46.78	74.00	27.22	Peak
6	15540.00	39.38	10.84	32.34	25.11	42.99	74.00	31.01	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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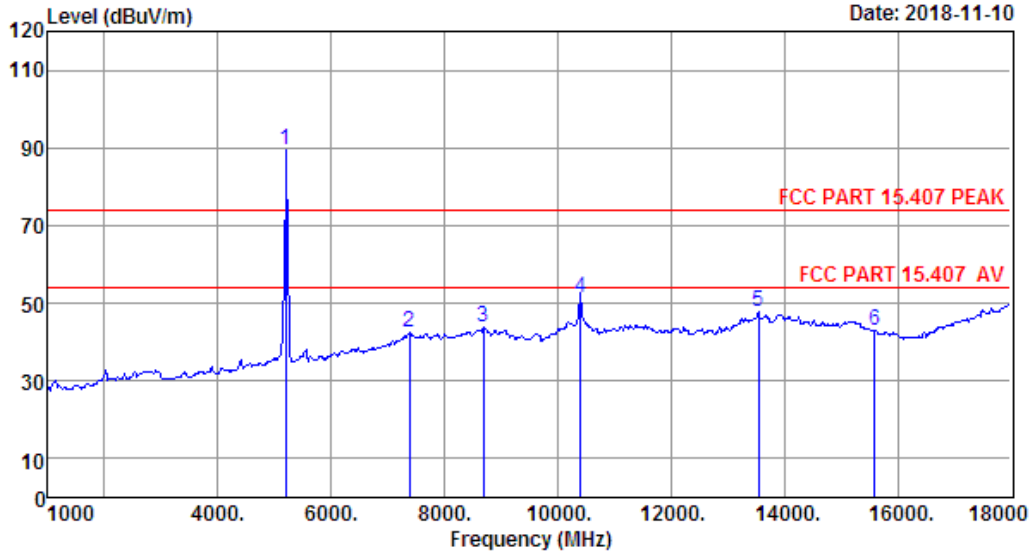
Data: 83 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 83
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH40 5200TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5200.00	32.64	4.90	35.50	87.61	89.65	74.00	-15.65	Peak
2	7375.00	36.93	6.11	33.19	32.53	42.38	74.00	31.62	Peak
3	8684.00	37.46	6.90	33.06	32.70	44.00	74.00	30.00	Peak
4	10400.00	39.26	9.95	34.24	36.33	51.30	74.00	22.70	Peak
5	13546.00	41.34	9.73	32.54	29.11	47.64	74.00	26.36	Peak
6	15600.00	39.15	10.80	32.30	25.32	42.97	74.00	31.03	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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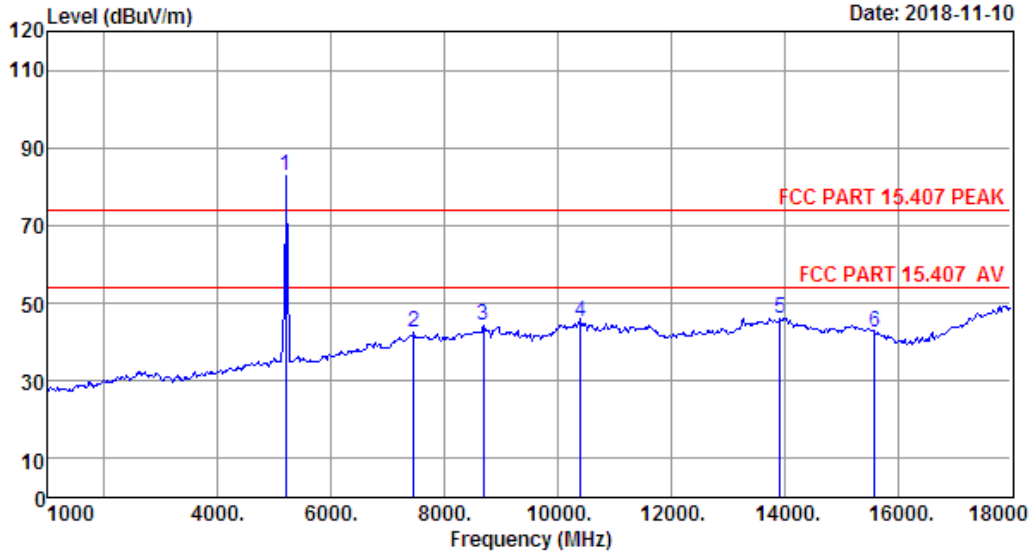
Data: 84 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 84
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH40 5200TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5200.00	32.64	4.90	35.50	80.57	82.61	74.00	-8.61	Peak
2	7460.00	37.12	6.14	33.05	32.19	42.40	74.00	31.60	Peak
3	8684.00	37.46	6.90	33.06	32.77	44.07	74.00	29.93	Peak
4	10400.00	39.26	9.95	34.24	30.38	45.35	74.00	28.65	Peak
5	13920.00	41.63	10.11	32.83	27.29	46.20	74.00	27.80	Peak
6	15600.00	39.15	10.80	32.30	24.73	42.38	74.00	31.62	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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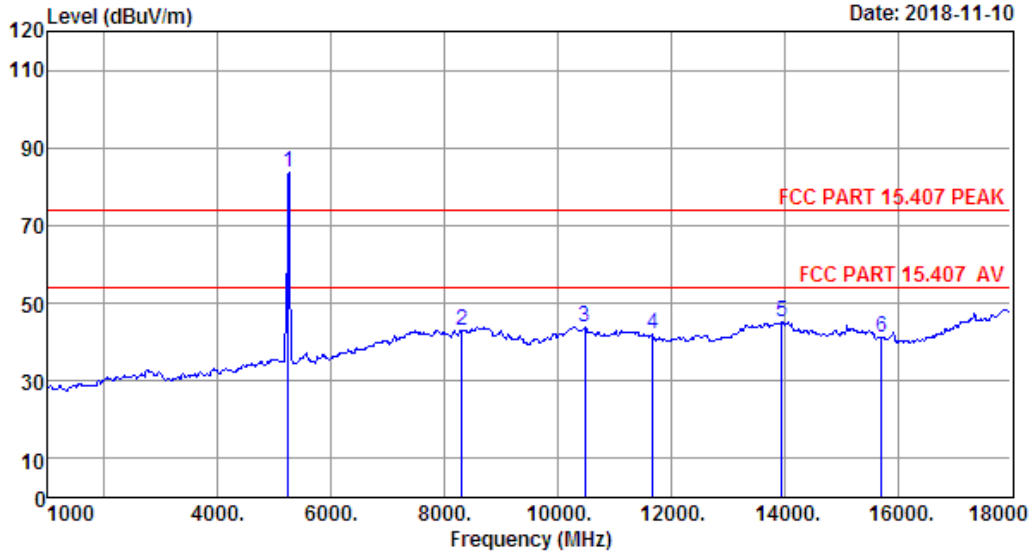
Data: 85 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 85
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH48 5240TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5240.00	32.68	4.93	35.54	81.52	83.59	74.00	-9.59	Peak
2	8310.00	37.39	6.69	34.22	33.19	43.05	74.00	30.95	Peak
3	10480.00	39.29	9.70	34.16	28.90	43.73	74.00	30.27	Peak
4	11676.00	39.86	8.25	32.39	26.28	42.00	74.00	32.00	Peak
5	13954.00	41.66	10.12	32.84	26.36	45.30	74.00	28.70	Peak
6	15720.00	38.74	10.74	32.22	23.97	41.23	74.00	32.77	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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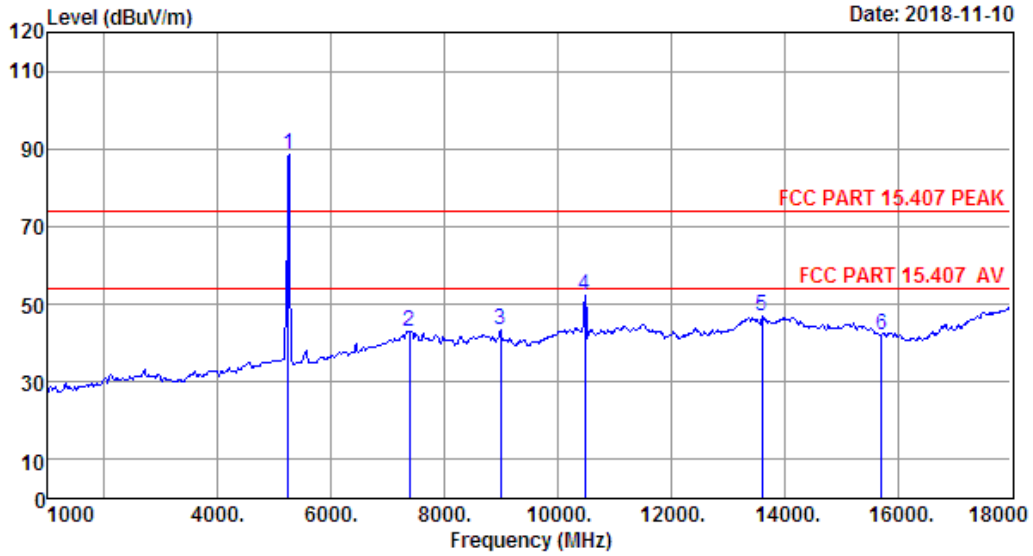
Data: 86 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 86
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH48 5240TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5240.00	32.68	4.93	35.54	86.63	88.70	74.00	-14.70	Peak
2	7375.00	36.93	6.11	33.19	33.30	43.15	74.00	30.85	Peak
3	8990.00	37.88	6.94	33.62	32.28	43.48	74.00	30.52	Peak
4	10480.00	39.29	9.70	34.16	37.52	52.35	74.00	21.65	Peak
5	13614.00	41.39	9.82	32.59	28.12	46.74	74.00	27.26	Peak
6	15720.00	38.74	10.74	32.22	24.84	42.10	74.00	31.90	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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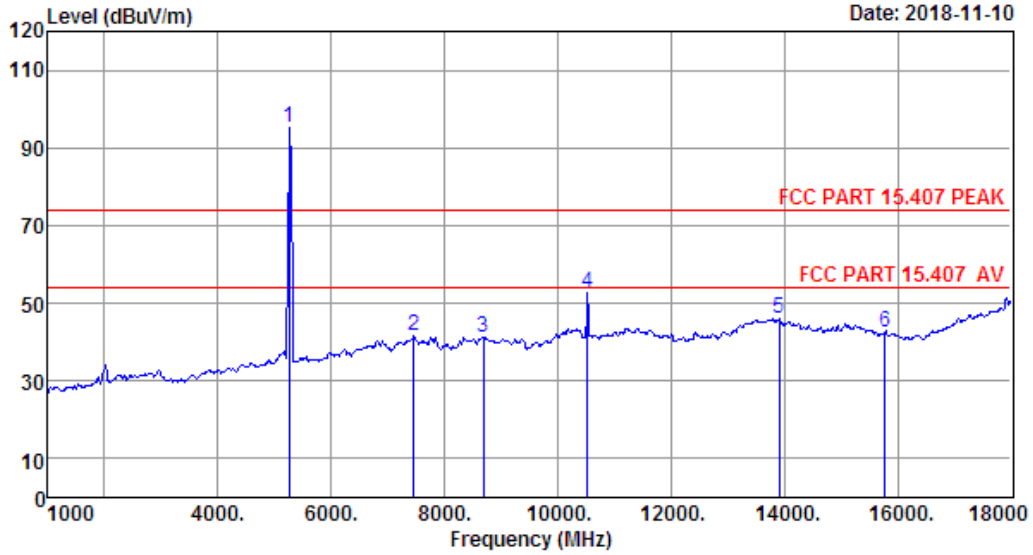
Data: 87 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 87
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH52 5260TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5260.00	32.72	4.95	35.56	92.90	95.01	74.00	-21.01	Peak
2	7460.00	37.12	6.14	33.05	31.53	41.74	74.00	32.26	Peak
3	8684.00	37.46	6.90	33.06	30.07	41.37	74.00	32.63	Peak
4	10520.00	39.32	9.60	34.10	37.79	52.61	74.00	21.39	Peak
5	13903.00	41.62	10.11	32.81	27.17	46.09	74.00	27.91	Peak
6	15780.00	38.56	10.72	32.18	25.43	42.53	74.00	31.47	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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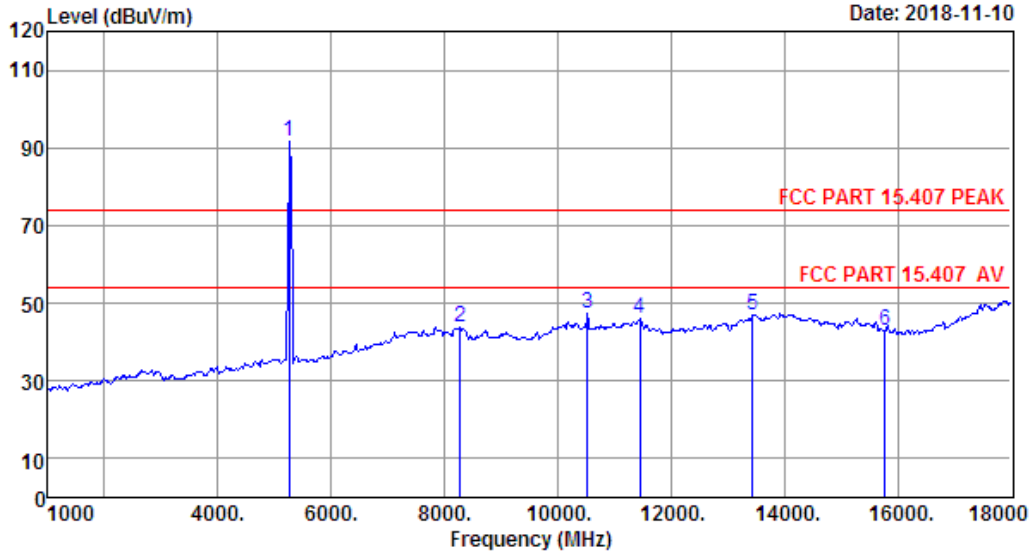
Data: 88 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 88
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH52 5260TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5260.00	32.72	4.95	35.56	89.73	91.84	74.00	-17.84	Peak
2	8276.00	37.42	6.65	34.31	34.12	43.88	74.00	30.12	Peak
3	10520.00	39.32	9.60	34.10	32.54	47.36	74.00	26.64	Peak
4	11455.00	40.08	8.28	32.62	30.29	46.03	74.00	27.97	Peak
5	13444.00	41.18	9.59	32.59	28.95	47.13	74.00	26.87	Peak
6	15780.00	38.56	10.72	32.18	25.96	43.06	74.00	30.94	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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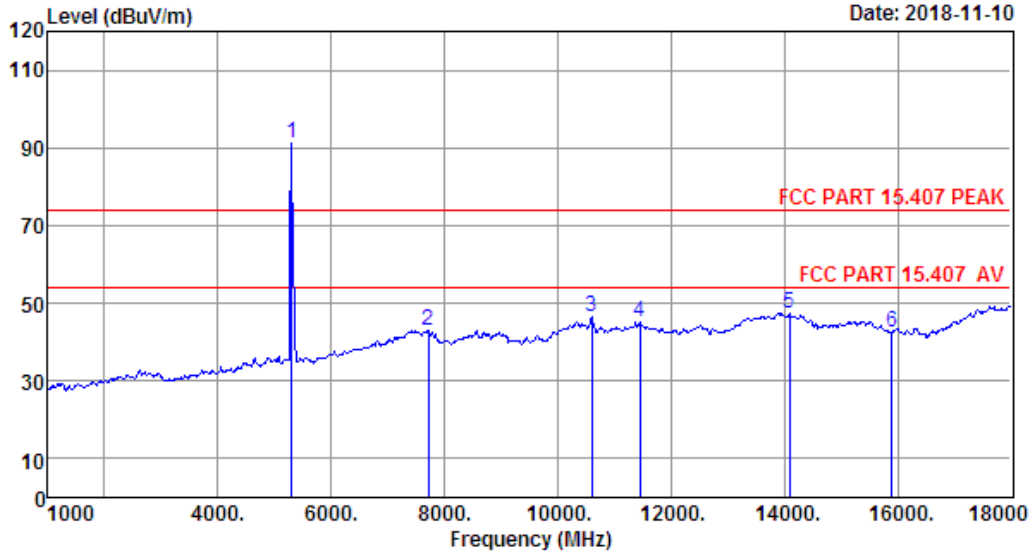
Data: 89 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 89
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH60 5300TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5300.00	32.76	4.97	35.62	89.01	91.12	74.00	-17.12	Peak
2	7715.00	37.42	6.21	33.57	33.02	43.08	74.00	30.92	Peak
3	10600.00	39.42	9.35	34.00	31.92	46.69	74.00	27.31	Peak
4	11455.00	40.08	8.28	32.62	29.40	45.14	74.00	28.86	Peak
5	14090.00	41.61	10.14	32.99	28.84	47.60	74.00	26.40	Peak
6	15900.00	38.15	10.65	32.10	25.81	42.51	74.00	31.49	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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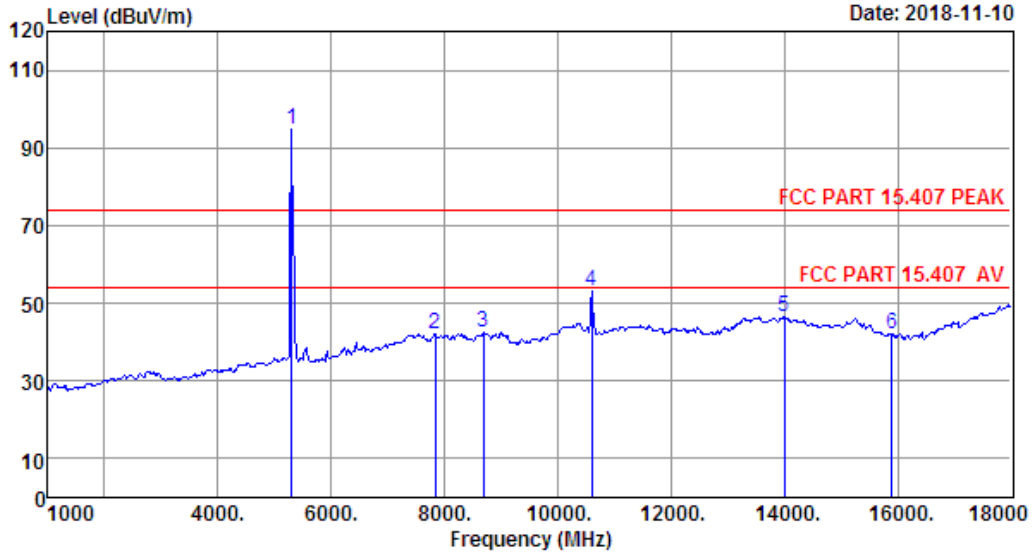
Data: 90 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 90
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH60 5300TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5300.00	32.76	4.97	35.62	92.71	94.82	74.00	-20.82	Peak
2	7834.00	37.53	6.27	34.01	32.40	42.19	74.00	31.81	Peak
3	8684.00	37.46	6.90	33.06	31.15	42.45	74.00	31.55	Peak
4	10600.00	39.42	9.35	34.00	38.18	52.95	74.00	21.05	Peak
5	14005.00	41.70	10.13	32.88	27.67	46.62	74.00	27.38	Peak
6	15900.00	38.15	10.65	32.10	25.39	42.09	74.00	31.91	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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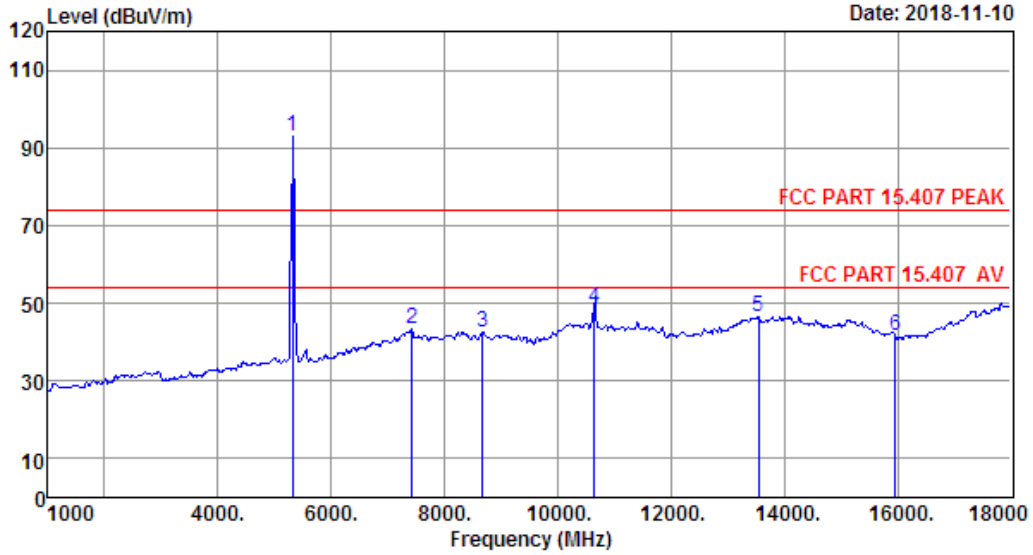
Data: 91 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 91
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH64 5320TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5320.00	32.78	4.99	35.64	90.74	92.87	74.00	-18.87	Peak
2	7426.00	37.05	6.13	33.11	33.16	43.23	74.00	30.77	Peak
3	8667.00	37.43	6.90	33.12	31.22	42.43	74.00	31.57	Peak
4	10640.00	39.47	9.25	33.95	34.13	48.90	74.00	25.10	Peak
5	13546.00	41.34	9.73	32.54	28.00	46.53	74.00	27.47	Peak
6	15960.00	37.92	10.62	32.09	24.96	41.41	74.00	32.59	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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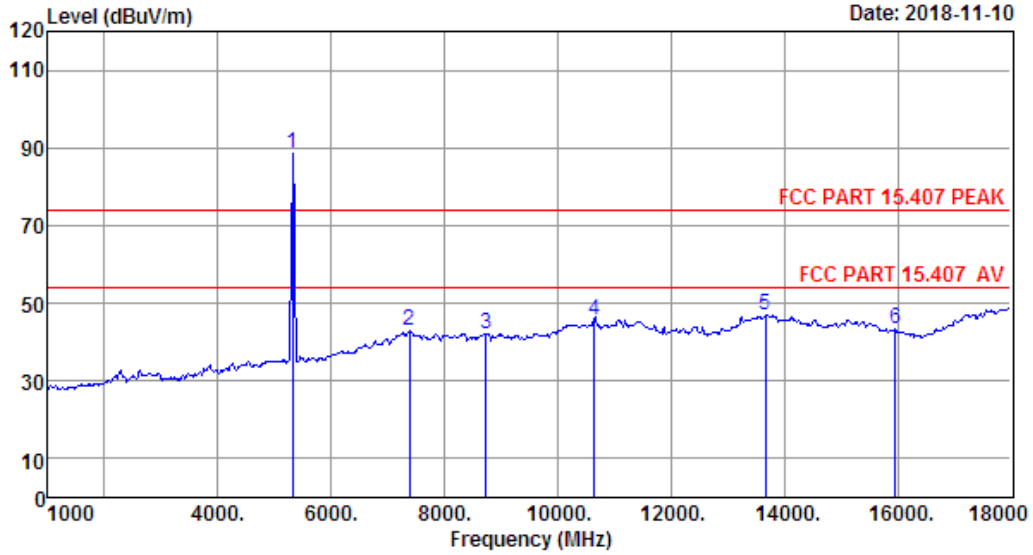
Data: 92 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 92
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH64 5320TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5320.00	32.78	4.99	35.64	86.47	88.60	74.00	-14.60	Peak
2	7375.00	36.93	6.11	33.19	33.06	42.91	74.00	31.09	Peak
3	8735.00	37.53	6.90	32.88	30.72	42.27	74.00	31.73	Peak
4	10640.00	39.47	9.25	33.95	30.99	45.76	74.00	28.24	Peak
5	13665.00	41.43	9.89	32.62	28.39	47.09	74.00	26.91	Peak
6	15960.00	37.92	10.62	32.09	27.09	43.54	74.00	30.46	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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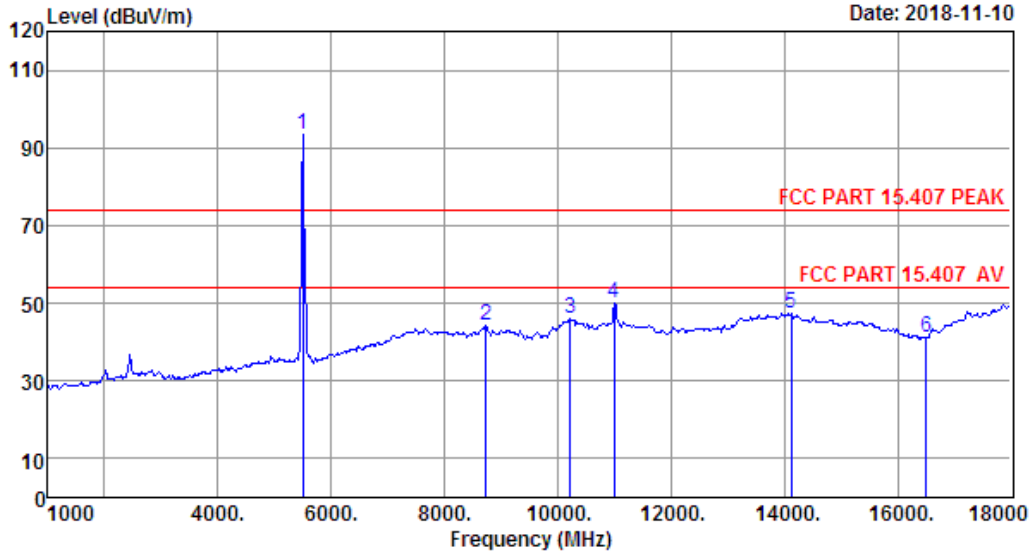
Data: 93 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 93
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH100 5500TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5500.00	33.00	5.11	35.84	91.20	93.47	74.00	-19.47	Peak
2	8735.00	37.53	6.90	32.88	32.59	44.14	74.00	29.86	Peak
3	10214.00	39.19	9.77	34.43	31.33	45.86	74.00	28.14	Peak
4	11000.00	39.90	8.57	33.45	35.21	50.23	74.00	23.77	Peak
5	14124.00	41.58	10.14	33.04	28.89	47.57	74.00	26.43	Peak
6	16500.00	37.80	10.54	31.83	24.50	41.01	74.00	32.99	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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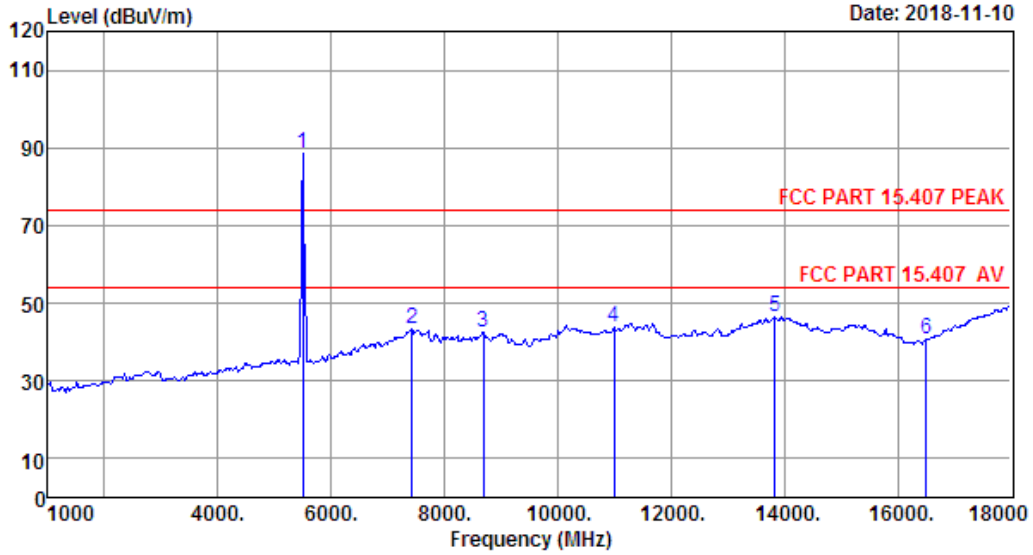
Data: 94 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)




```
Site no.      : 1# 966 Chamber              Data no.  : 94
Dis. / Ant.   : 3m   ANT9120D 1-18G         Ant. pol. : VERTICAL
Limit         : FCC PART 15.407 PEAK
Env. / Ins.   : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer      : Viking
EUT           : JMDD Module
Power         : AC 120V/60Hz
M/N           : JMDD
Test Mode     : IEEE 802.11a CH100 5500TX
                Antenna 2
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5500.00	33.00	5.11	35.84	86.29	88.56	74.00	-14.56	Peak
2	7426.00	37.05	6.13	33.11	33.51	43.58	74.00	30.42	Peak
3	8684.00	37.46	6.90	33.06	31.01	42.31	74.00	31.69	Peak
4	11000.00	39.90	8.57	33.45	28.94	43.96	74.00	30.04	Peak
5	13835.00	41.57	10.10	32.76	27.52	46.43	74.00	27.57	Peak
6	16500.00	37.80	10.54	31.83	24.18	40.69	74.00	33.31	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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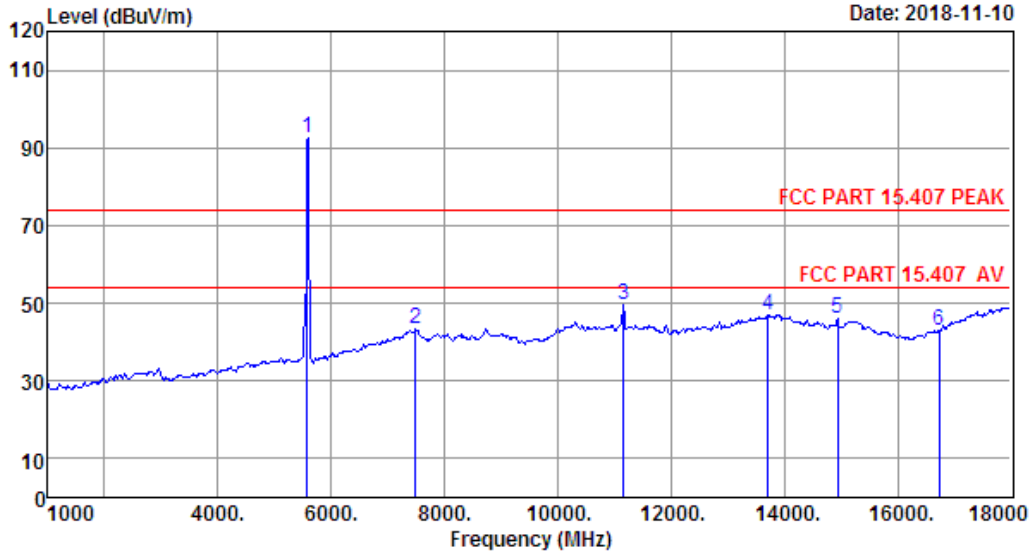
Data: 95 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 95
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH116 5580TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5580.00	33.07	5.14	35.92	90.35	92.64	74.00	-18.64	Peak
2	7494.00	37.20	6.15	33.00	32.85	43.20	74.00	30.80	Peak
3	11160.00	39.97	8.45	33.16	34.21	49.47	74.00	24.53	Peak
4	13716.00	41.47	9.96	32.66	28.12	46.89	74.00	27.11	Peak
5	14940.00	40.42	10.68	33.48	28.42	46.04	74.00	27.96	Peak
6	16740.00	39.59	10.51	31.49	24.34	42.95	74.00	31.05	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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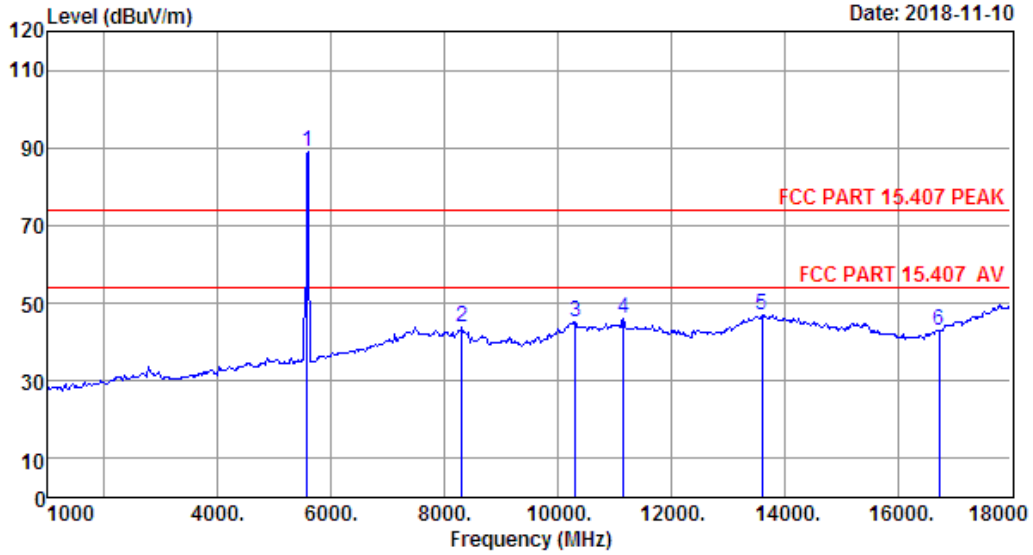
Data: 96 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)




```
Site no.       : 1# 966 Chamber              Data no.  : 96
Dis. / Ant.    : 3m   ANT9120D 1-18G         Ant. pol. : VERTICAL
Limit          : FCC PART 15.407 PEAK
Env. / Ins.    : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer       : Viking
EUT            : JMDD Module
Power          : AC 120V/60Hz
M/N            : JMDD
Test Mode      : IEEE 802.11a CH116 5580TX
                 Antenna 2
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5580.00	33.07	5.14	35.92	86.90	89.19	74.00	-15.19	Peak
2	8310.00	37.39	6.69	34.22	33.78	43.64	74.00	30.36	Peak
3	10316.00	39.23	10.20	34.34	30.06	45.15	74.00	28.85	Peak
4	11160.00	39.97	8.45	33.16	30.64	45.90	74.00	28.10	Peak
5	13614.00	41.39	9.82	32.59	28.30	46.92	74.00	27.08	Peak
6	16740.00	39.59	10.51	31.49	24.29	42.90	74.00	31.10	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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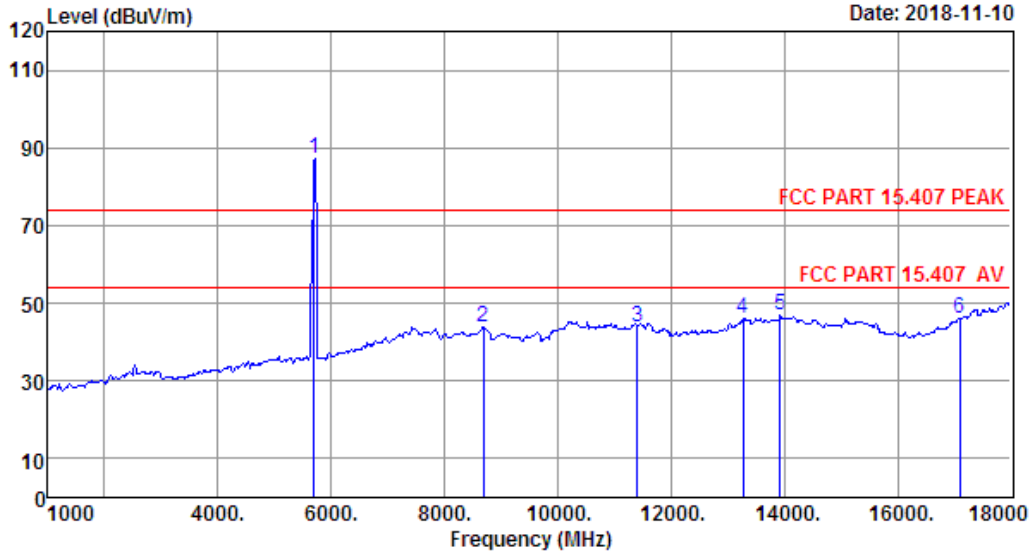
Data: 97 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 97
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH140 5700TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5700.00	33.19	5.18	35.95	84.99	87.41	74.00	-13.41	Peak
2	8684.00	37.46	6.90	33.06	32.66	43.96	74.00	30.04	Peak
3	11400.00	40.06	8.29	32.71	28.32	43.96	74.00	30.04	Peak
4	13274.00	40.76	9.36	32.66	28.79	46.25	74.00	27.75	Peak
5	13920.00	41.63	10.11	32.83	27.81	46.72	74.00	27.28	Peak
6	17100.00	41.88	10.63	31.22	24.56	45.85	74.00	28.15	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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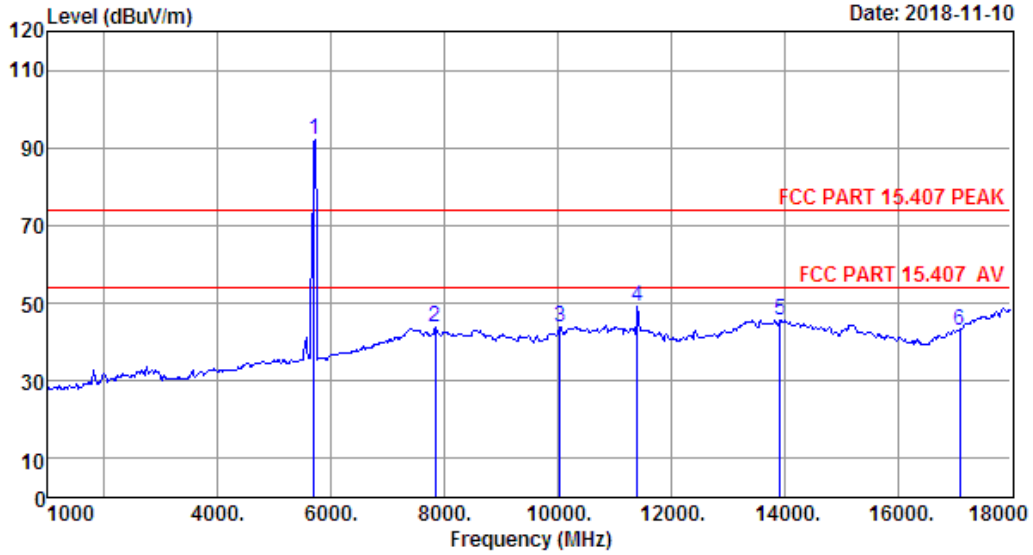
Data: 98 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 98
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH140 5700TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5700.00	33.19	5.18	35.95	89.58	92.00	74.00	-18.00	Peak
2	7834.00	37.53	6.27	34.01	33.87	43.66	74.00	30.34	Peak
3	10044.00	39.12	9.04	34.63	30.52	44.05	74.00	29.95	Peak
4	11400.00	40.06	8.29	32.71	33.30	48.94	74.00	25.06	Peak
5	13920.00	41.63	10.11	32.83	26.81	45.72	74.00	28.28	Peak
6	17100.00	41.88	10.63	31.22	21.82	43.11	74.00	30.89	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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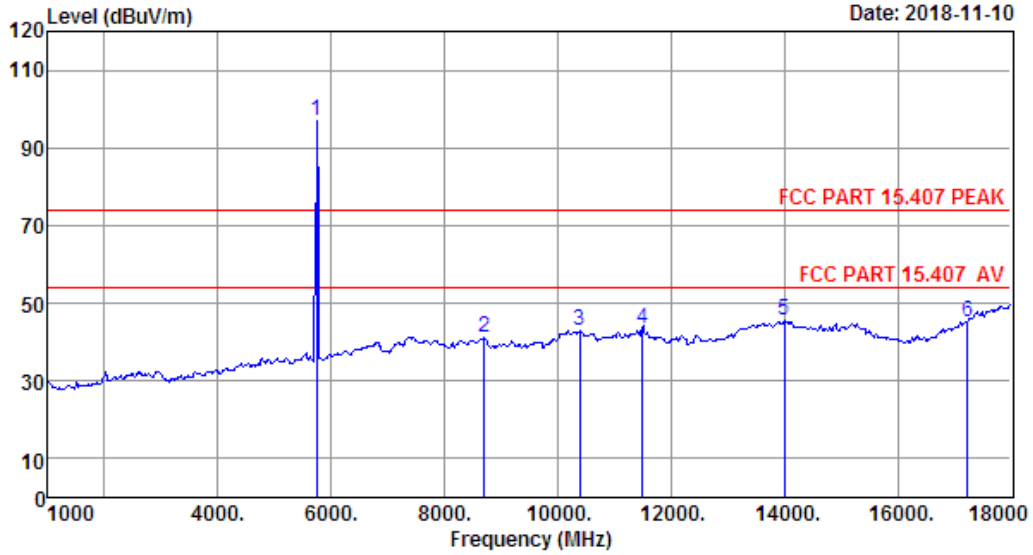
Data: 99 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 99
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH149 5745TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5745.00	33.24	5.20	35.91	94.36	96.89	74.00	-22.89	Peak
2	8701.00	37.48	6.90	33.00	29.89	41.27	74.00	32.73	Peak
3	10384.00	39.25	10.00	34.26	27.92	42.91	74.00	31.09	Peak
4	11490.00	40.09	8.28	32.55	27.72	43.54	74.00	30.46	Peak
5	14005.00	41.70	10.13	32.88	26.56	45.51	74.00	28.49	Peak
6	17235.00	42.39	10.94	31.21	22.93	45.05	74.00	28.95	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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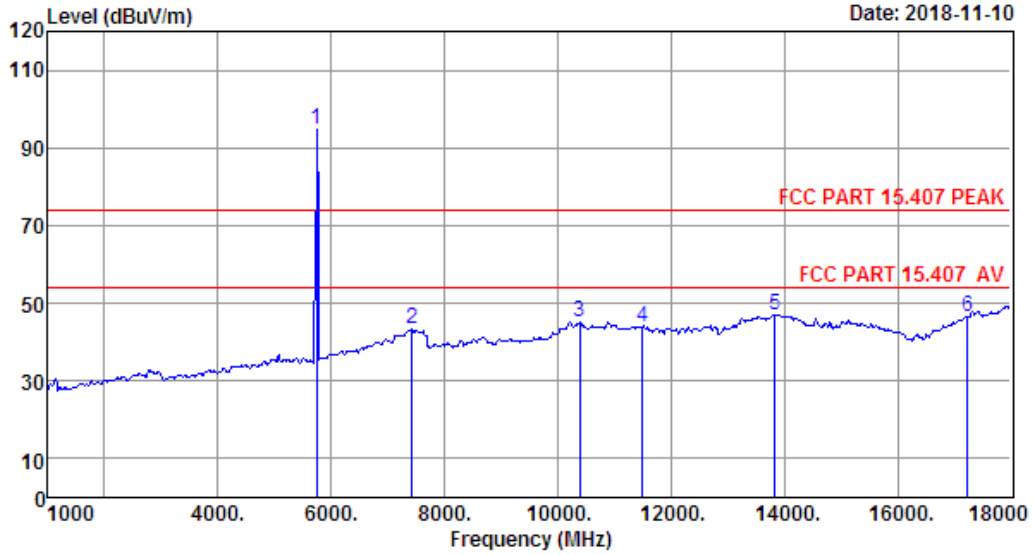
Data: 100 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 100
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH149 5745TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5745.00	33.24	5.20	35.91	92.16	94.69	74.00	-20.69	Peak
2	7426.00	37.05	6.13	33.11	33.22	43.29	74.00	30.71	Peak
3	10384.00	39.25	10.00	34.26	30.14	45.13	74.00	28.87	Peak
4	11490.00	40.09	8.28	32.55	28.19	44.01	74.00	29.99	Peak
5	13835.00	41.57	10.10	32.76	28.14	47.05	74.00	26.95	Peak
6	17235.00	42.39	10.94	31.21	24.56	46.68	74.00	27.32	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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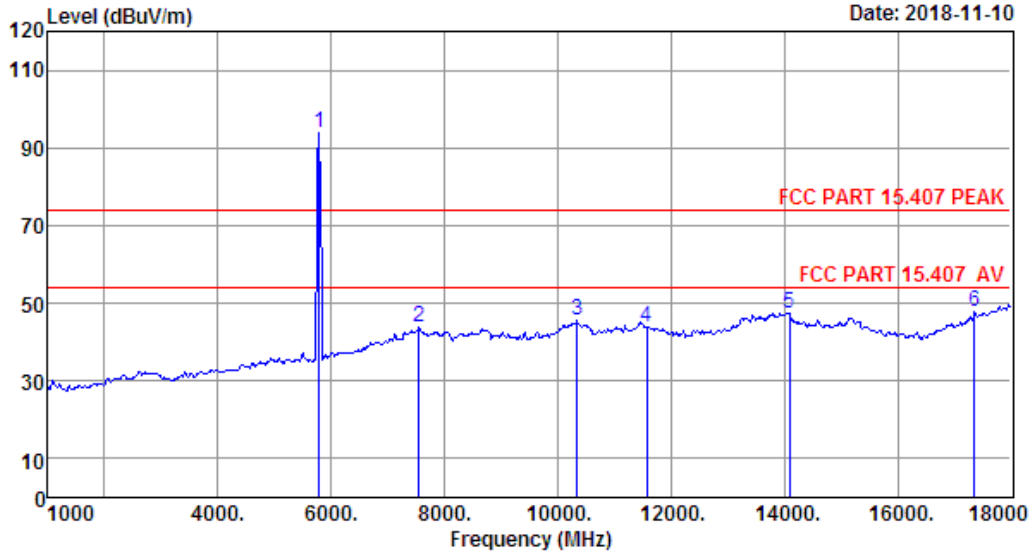
Data: 101 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 101
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH157 5785TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5794.00	33.29	5.29	35.86	91.11	93.83	74.00	-19.83	Peak
2	7545.00	37.25	6.16	32.94	33.39	43.86	74.00	30.14	Peak
3	10350.00	39.24	10.10	34.30	30.49	45.53	74.00	28.47	Peak
4	11570.00	40.00	8.26	32.42	27.78	43.62	74.00	30.38	Peak
5	14090.00	41.61	10.14	32.99	28.72	47.48	74.00	26.52	Peak
6	17355.00	42.83	11.21	31.04	24.68	47.68	74.00	26.32	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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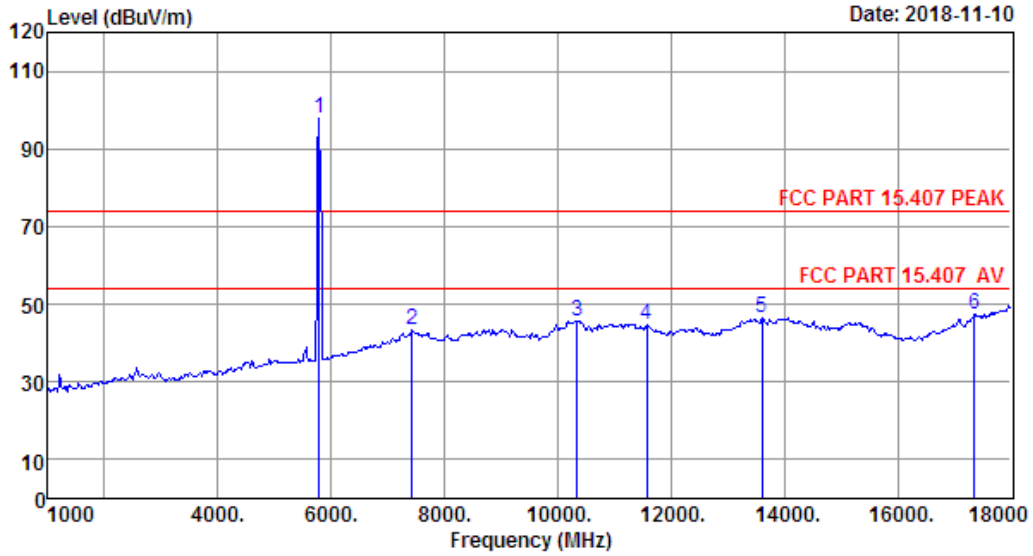
Data: 102 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 102
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH157 5785TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5785.00	33.28	5.26	35.86	95.01	97.69	74.00	-23.69	Peak
2	7426.00	37.05	6.13	33.11	33.50	43.57	74.00	30.43	Peak
3	10350.00	39.24	10.10	34.30	30.59	45.63	74.00	28.37	Peak
4	11570.00	40.00	8.26	32.42	28.74	44.58	74.00	29.42	Peak
5	13614.00	41.39	9.82	32.59	27.87	46.49	74.00	27.51	Peak
6	17355.00	42.83	11.21	31.04	24.40	47.40	74.00	26.60	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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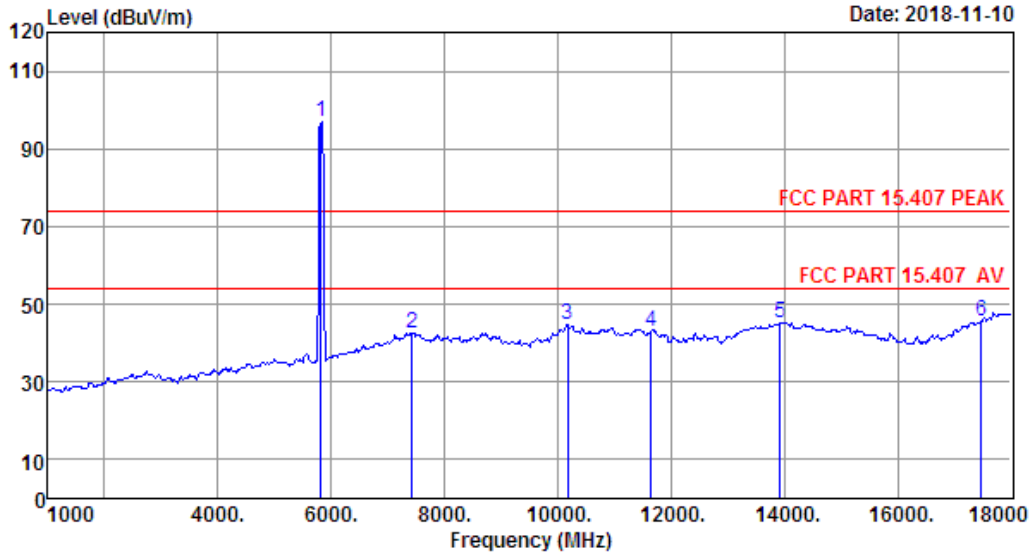
Data: 103 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 103
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH165 5825TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5825.00	33.33	5.35	35.83	93.94	96.79	74.00	-22.79	Peak
2	7426.00	37.05	6.13	33.11	32.46	42.53	74.00	31.47	Peak
3	10180.00	39.17	9.62	34.47	30.45	44.77	74.00	29.23	Peak
4	11650.00	39.91	8.25	32.37	27.21	43.00	74.00	31.00	Peak
5	13920.00	41.63	10.11	32.83	26.43	45.34	74.00	28.66	Peak
6	17475.00	43.27	11.48	31.08	21.77	45.44	74.00	28.56	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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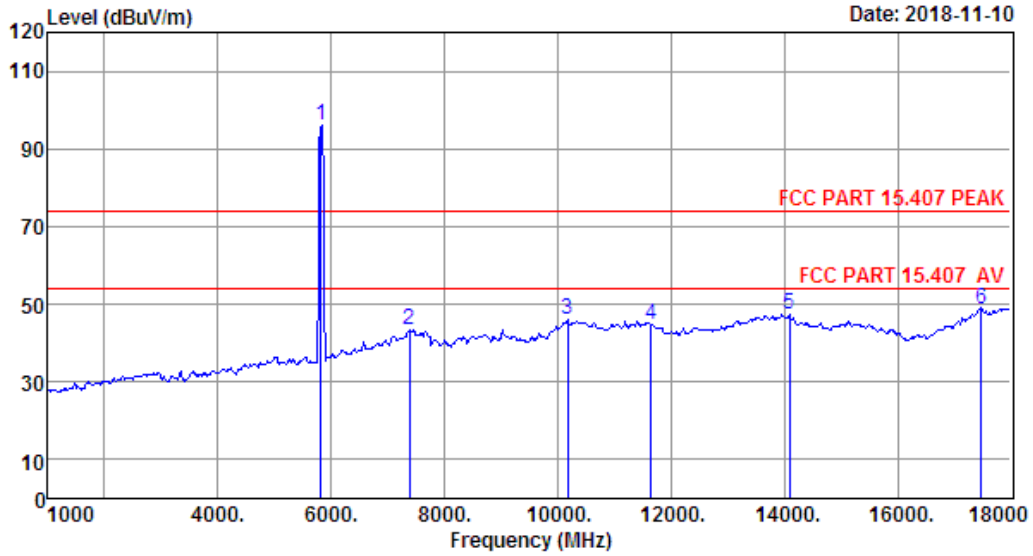
Data: 104 File: \\Emc-966-1\test data\2018\RF\T\TCL-Tongli data.EM6 (332)



Site no. : 1# 966 Chamber Data no. : 104
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15.407 PEAK
Env. / Ins. : Temp:24.5';Humi:58%;Press:101.52kPa
Engineer : Viking
EUT : JMDD Module
Power : AC 120V/60Hz
M/N : JMDD
Test Mode : IEEE 802.11a CH165 5825TX
Antenna 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5825.00	33.33	5.35	35.83	93.08	95.93	74.00	-21.93	Peak
2	7375.00	36.93	6.11	33.19	33.67	43.52	74.00	30.48	Peak
3	10180.00	39.17	9.62	34.47	31.53	45.85	74.00	28.15	Peak
4	11650.00	39.91	8.25	32.37	29.11	44.90	74.00	29.10	Peak
5	14090.00	41.61	10.14	32.99	28.72	47.48	74.00	26.52	Peak
6	17475.00	43.27	11.48	31.08	25.22	48.89	74.00	25.11	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.