FCC Test Report

Equipment	:	**Wireless Digital Flat Panel Detector**
Brand Name	:	**Mars1417V**
Model No.	:	**Mars1417V-PSI, Mars1417V-TSI** (Mars1417V-PSI (Gadolinium oxysulfide), Mars1417V-TSI (Cesium iodide) The detail description please refer to section 1.1.1)
FCC ID	:	**2ACHK-02112031**
Standard	:	**47 CFR FCC Part 15.407**
Operating Band	:	**5150 MHz – 5250 MHz** **5725 MHz – 5850 MHz**
FCC Classification	:	**NII**
Applicant / Manufacturer	:	**iRay Technology (Shanghai) Ltd.** RM 202, Building 7, No. 590, Ruiqing RD., Pudong, Shanghai, China
Function	:	☐ **Outdoor AP;** ☐ **Indoor AP;** ☐ **Fixed P2P AP** ☒ **Client**

The product sample received on Jun. 18, 2014 and completely tested on Jul. 26, 2016. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

Reviewed by:

Kevin Liang / Assistant Manager

Testing Laboratory
1190

Table of Contents

Summary of Test Result

Conformance Test Specifications			
Report Clause	**Ref. Std. Clause**	**Description**	**Result**
1.1.3	15.203	Antenna Requirement	Complied
3.1	15.207	AC Power-line Conducted Emissions	Complied
3.2	15.407(a)	Emission Bandwidth	Complied
3.3	15.407(a)	RF Output Power (Maximum Conducted Output Power)	Complied
3.4	15.407(a)	Peak Power Spectral Density	Complied
3.5	15.407(b)	Transmitter Bandedge Emissions	Complied
3.6	15.407(b)	Transmitter Unwanted Emissions	Complied
3.7	15.407(g)	Frequency Stability	Complied

Revision History

Report No.	Version	Description	Issued Date
FR462628AN	Rev. 02	Initial issue of report	Oct. 24, 2014
FR462628-02AN	Rev. 01	1. Update Standard from ANSI C63.10-2009 to ANSI C63.10-2013. 2. Add model name. 3. Revise test result.	Aug. 22, 2016

1 General Description

1.1 Information

1.1.1 Differences between Model

Models Mars1417V-PSI and Mars1417V-TSI are the same only except the scintillator material, which is not influence basic safety essential performance. The Mars1417V-PSI use Gadolinium oxysulfide scintillator screen, the Mars1417V-TSI use Cesium iodide scintillator screen.

1.1.2 RF General Information

RF General Information					
Frequency Range (MHz)	**IEEE Std. 802.11**	**Ch. Freq. (MHz)**	**Channel Number**	**Transmit Chains (N_{TX})**	**RF Output Power (dBm)**
5150-5250	a	5180-5240	36-48 [4]	2	17.16
5725-5850		5745-5825	149-165 [5]	2	17.26
5150-5250	n (HT20)	5180-5240	36-48 [4]	2	16.85
5725-5850		5745-5825	149-165 [5]	2	17.23
5150-5250	n (HT40)	5190-5230	38-46 [2]	2	16.31
5725-5850		5755-5795	151-159 [2]	2	14.36
Note 1: RF output power specifies that Maximum Conducted Output Power. Note 2: 802.11a/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.					

1.1.3 Antenna Information

Antenna Category	
☒	Integral antenna (antenna permanently attached)
	☒ Temporary RF connector provided
	☐ No temporary RF connector provided Transmit chains bypass antenna and soldered temporary RF connector provided for connected measurement. In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator and correct for all losses in the RF path.

Antenna General Information				
No.	**Ant. Cat.**	**Ant. Type**	**Model No.**	**Gain (dBi)**
1	Integral	PIFA	venus1417	-9.20
Remark: This EUT only suppots 2TX and CDD function in modulation mode: 11a, 11n.				

1.1.4 Type of EUT

Identify EUT	
EUT Serial Number	N/A
Presentation of Equipment	☒ Production ; ☐ Pre-Production ; ☐ Prototype
Type of EUT	
☒	Stand-alone
☐	Combined (EUT where the radio part is fully integrated within another device) Combined Equipment – Brand Name / Model No.: …
☐	Plug-in radio (EUT intended for a variety of host systems) Host System – Brand Name / Model No.: …
☐	Other:

1.1.5 Test Signal Duty Cycle

Operated Mode for Worst Duty Cycle	
☐ Operated normally mode for worst duty cycle	
☒ Operated test mode for worst duty cycle	
Test Signal Duty Cycle (x)	**Power Duty Factor [dB] – (10 log 1/x)**
☒ 100.00% - IEEE 802.11a	0.00
☒ 100.00% - IEEE 802.11n (HT20)	0.00
☒ 100.00% - IEEE 802.11n (HT40)	0.00

1.1.6 EUT Operational Condition

Supply Voltage	☒ AC mains	☒ DC	
Type of DC Source	☒ From adapter	☐ From PoE	☒ From Battery
Test Voltage	☒ Vnom (120 V)	☒ Vmax (138 V)	☒ Vmin (102 V)
Test Climatic	☒ Tnom (20°C)	☒ Tmax (50°C)	☒ Tmin (-20°C)

1.2 Accessories and Support Equipment

Accessories				
AC Adapter	Brand Name	-	Model Name	MENB1121A2449F02
	Power Rating	I/P: 100-240V⎓2.5A ; O/P: 24V⎓5A		
	Power Cord	1.45 meter, non-shielded cable, with two ferrite cores		
	DC Power Cable	1.7 meter, non-shielded cable, w/o ferrite core		
Extension Cable	Brand Name	-	Model Name	RD032_FPD_PWR_INT_1.0
	Signal Cable	3.5 meter, non-shielded cable, w/o ferrite core		
LAN Cable	Brand Name	-	Model Name	RD032_FPD_ETH_INT_1.0
	Signal Cable	3.5 meter, shielded cable, w/o ferrite core		
Battery	Brand Name	Gushine	Model Name	MZ573LI
	Power Rating	10.8 Vdc, 4180 mAh		

Reminder: Regarding to more detail and other information, please refer to user manual.

Support Equipment - RF Conducted				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	E5500	-

Support Equipment - AC Conduction & Radiated Emission				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	E5530	DoC

1.3 Testing Applied Standards

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

- 47 CFR FCC Part 15
- ANSI C63.10-2013
- FCC KDB 789033 D02 v01r02
- FCC KDB 644545 D03 v01
- FCC KDB 662911 D01 v02r01
- FCC-16-24-UNII

1.4 Testing Location Information

Testing Location					
☒	**HWA YA**	**ADD : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.** **TEL : 886-3-327-3456 FAX : 886-3-327-6973**			
Test Condition		**Test Site No.**	**Test Engineer**	**Test Environment**	**Test Date**
AC Conduction		CO01-HY	Ray	24°C / 56%	26/07/2016
RF Conducted		TH01-HY	Ian	22.7°C / 63%	25/08/2014
Radiated		03CH02-HY	Streak	24.5°C / 61%	25/07/2016

Test site registered number [553509] with FCC

1.5 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Measurement Uncertainty		
Test Item		**Uncertainty**
AC power-line conducted emissions		±2.26 dB
Emission bandwidth, 26dB bandwidth		±1.42 %
RF output power, conducted		±0.63 dB
Power density, conducted		±0.81 dB
Unwanted emissions, conducted	9 – 150 kHz	±0.38 dB
	0.15 – 30 MHz	±0.42 dB
	30 – 1000 MHz	±0.51 dB
	1 – 18 GHz	±0.67 dB
	18 – 40 GHz	±0.83 dB
	40 – 200 GHz	N/A
All emissions, radiated	9 – 150 kHz	±2.49 dB
	0.15 – 30 MHz	±2.28 dB
	30 – 1000 MHz	±2.56 dB
	1 – 18 GHz	±3.59 dB
	18 – 40 GHz	±3.82 dB
	40 – 200 GHz	N/A
Temperature		±0.8 °C
Humidity		±3 %
DC and low frequency voltages		±3 %
Time		±1.42 %
Duty Cycle		±1.42 %

2 Test Configuration of EUT

2.1 The Worst Case Modulation Configuration

Worst Modulation Used for Conformance Testing			
Modulation Mode	**Transmit Chains (N_{TX})**	**Data Rate / MCS**	**Worst Data Rate / MCS**
11a	2	6-54Mbps	6 Mbps
HT20	2	MCS 0-15	MCS 0
HT40	2	MCS 0-15	MCS 0

2.2 The Worst Case Power Setting Parameter

The Worst Case Power Setting Parameter (5150-5250MHz band)						
Test Software Version	ART2-GUI_V2.3					
Modulation Mode	**N_{TX}**	**Test Frequency (MHz)**				
		NCB: 20MHz			**NCB: 40MHz**	
		5180	**5200**	**5240**	**5190**	**5230**
11a	2	15	15	15	-	-
HT20	2	14.5	15	15	-	-
HT40	2	-	-	-	13.5	14

The Worst Case Power Setting Parameter (5725-5850MHz band)						
Test Software Version	ART2-GUI_V2.3					
Modulation Mode	**N_{TX}**	**Test Frequency (MHz)**				
		NCB: 20MHz			**NCB: 40MHz**	
		5745	**5785**	**5825**	**5755**	**5795**
11a	2	16	16	16	-	-
HT20	2	16	16	16	-	-
HT40	2	-	-	-	12.5	14

2.3 The Worst Case Measurement Configuration

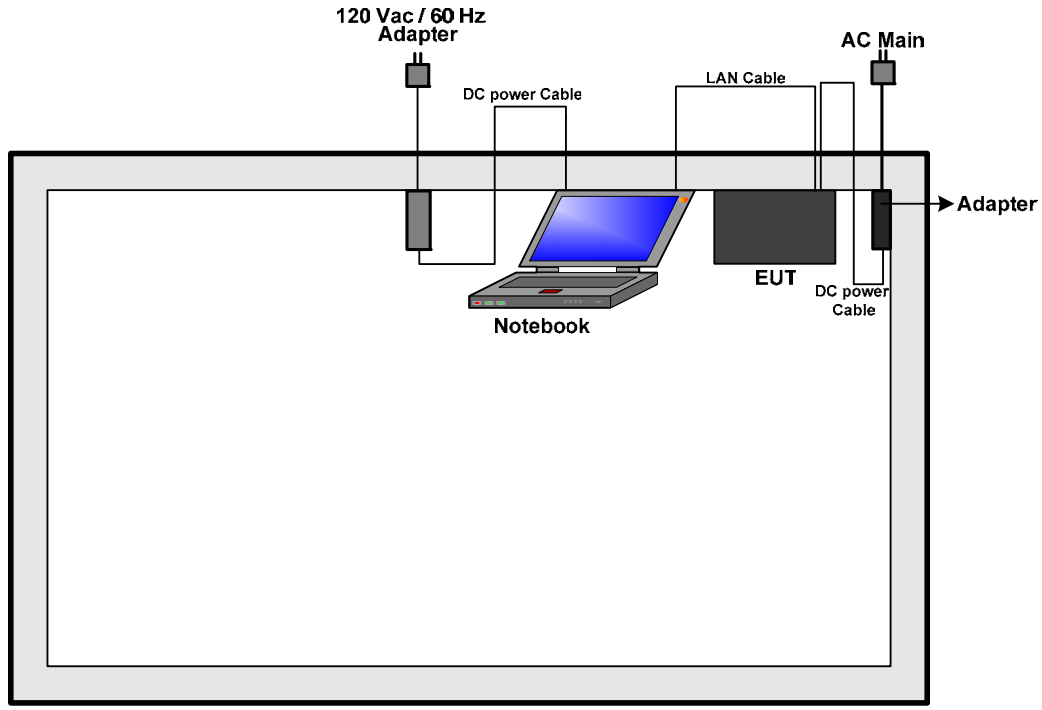
The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
Operating Mode	Operating Mode Description
1	Adapter Mode

The Worst Case Mode for Following Conformance Tests	
Tests Item	RF Output Power, Peak Power Spectral Density, Emission Bandwidth, Peak Excursion, Transmitter Conducted Unwanted Emissions Transmitter Conducted Bandedge Emissions
Test Condition	Conducted measurement at transmit chains
Modulation Mode	11a, HT20, HT40

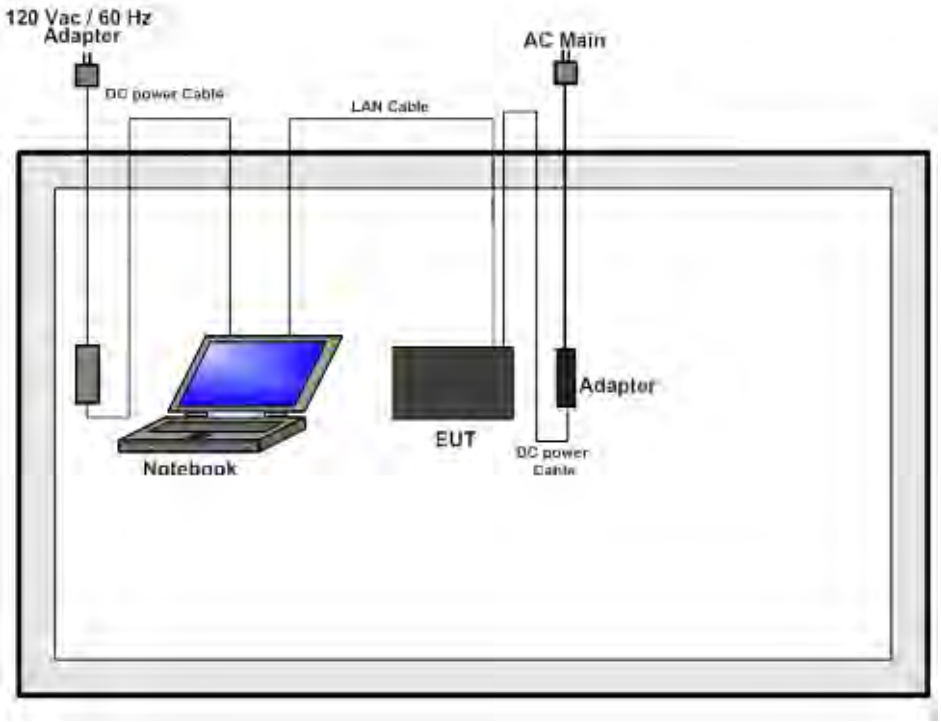
The Worst Case Mode for Following Conformance Tests			
Tests Item	Transmitter Radiated Unwanted Emissions Transmitter Radiated Bandedge Emissions		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.		
User Position	☐ EUT will be placed in fixed position.		
	☒ EUT will be placed in mobile position and operating multiple positions. EUT shall be performed three orthogonal planes.		
	☐ EUT will be a hand-held or body-worn battery-powered devices and operating multiple positions.		
Operating Mode	Operating Mode Description		
1	Adapter Mode		
Modulation Mode	11a, HT20, HT40		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			
Worst Planes of EUT		V	

2.4 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Test Setup Diagram - Radiated Test



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

3.1.2 Measuring Instruments

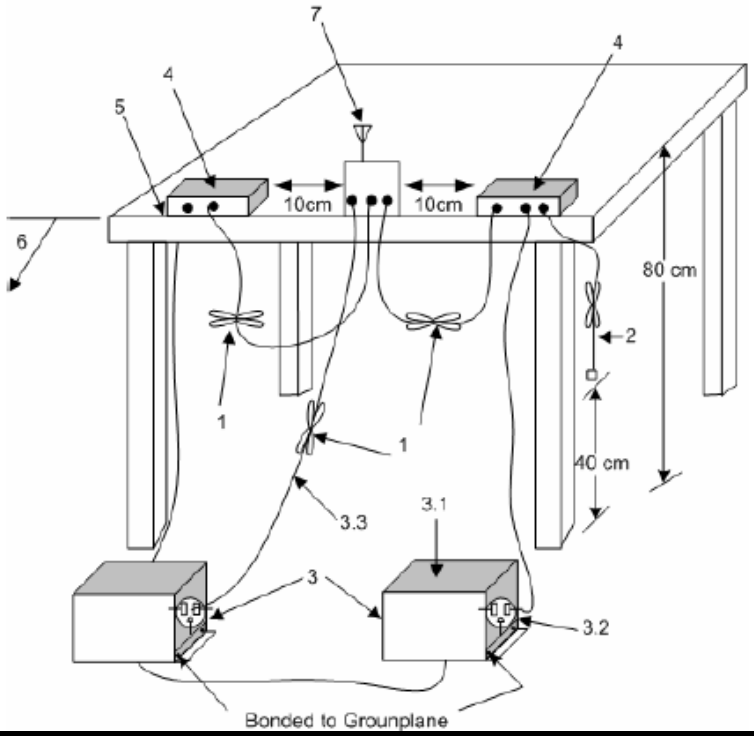
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

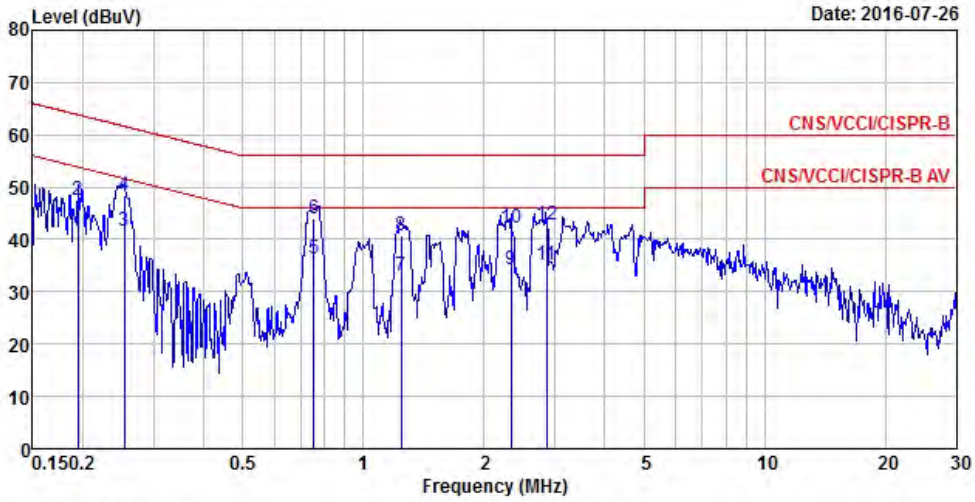
3.1.4 Test Setup

AC Power-line Conducted Emissions



3.1.5 Test Result of AC Power-line Conducted Emissions

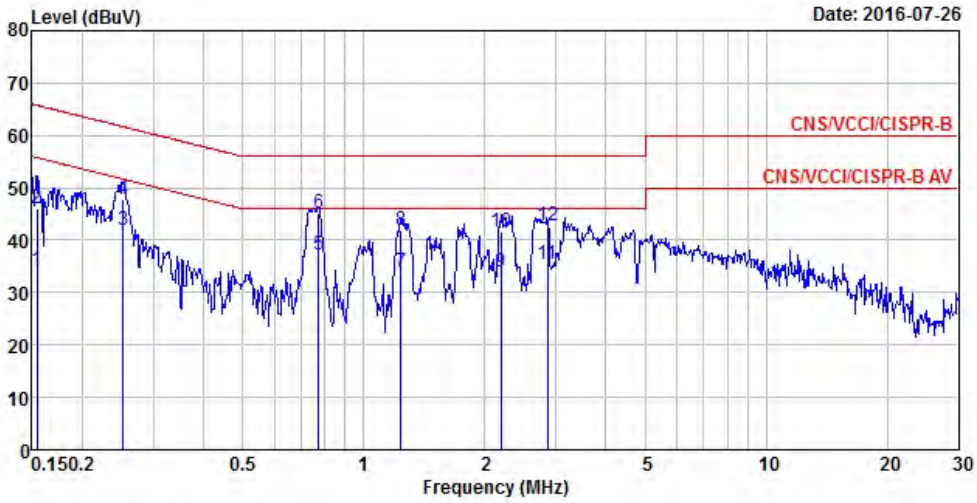
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	Adapter Mode		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Aux Factor	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	dB	
1	0.19	40.98	-12.86	53.84	30.93	0.09	0.10	9.86	Average
2	0.19	47.48	-16.36	63.84	37.43	0.09	0.10	9.86	QP
3	0.25	41.73	-9.91	51.64	31.68	0.09	0.10	9.86	Average
4	0.25	48.28	-13.36	61.64	38.23	0.09	0.10	9.86	QP
5	0.75	36.40	-9.60	46.00	26.33	0.11	0.10	9.86	Average
6	0.75	44.08	-11.92	56.00	34.01	0.11	0.10	9.86	QP
7	1.24	33.10	-12.90	46.00	23.01	0.13	0.10	9.86	Average
8	1.24	40.82	-15.18	56.00	30.73	0.13	0.10	9.86	QP
9	2.34	34.25	-11.75	46.00	24.12	0.16	0.10	9.87	Average
10	2.34	42.35	-13.65	56.00	32.22	0.16	0.10	9.87	QP
11	2.86	35.25	-10.75	46.00	25.09	0.18	0.10	9.88	Average
12	2.86	42.80	-13.20	56.00	32.64	0.18	0.10	9.88	QP

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	Adapter Mode		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Aux Factor	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	dB	
1	0.15	34.16	-21.62	55.78	24.08	0.12	0.10	9.86	Average
2	0.15	46.11	-19.67	65.78	36.03	0.12	0.10	9.86	QP
3	0.25	41.83	-9.86	51.69	31.75	0.12	0.10	9.86	Average
4	0.25	47.79	-13.90	61.69	37.71	0.12	0.10	9.86	QP
5	0.77	37.32	-8.68	46.00	27.21	0.15	0.10	9.86	Average
6	0.77	45.09	-10.91	56.00	34.98	0.15	0.10	9.86	QP
7	1.24	33.95	-12.05	46.00	23.82	0.17	0.10	9.86	Average
8	1.24	41.77	-14.23	56.00	31.64	0.17	0.10	9.86	QP
9	2.19	33.96	-12.04	46.00	23.79	0.20	0.10	9.87	Average
10	2.19	41.71	-14.29	56.00	31.54	0.20	0.10	9.87	QP
11	2.86	35.29	-10.71	46.00	25.09	0.22	0.10	9.88	Average
12	2.86	42.68	-13.32	56.00	32.48	0.22	0.10	9.88	QP

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band, N/A
☐	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☐	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☒	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.

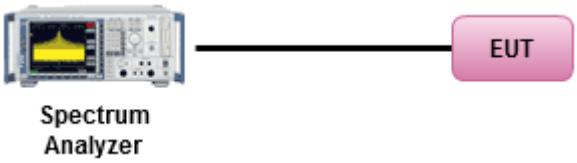
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method			
☒	For the emission bandwidth shall be measured using one of the options below:		
	☒	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.	
	☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.	
	☐	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.	
☒	For conducted measurement.		
	☐	The EUT supports single transmit chain and measurements performed on this transmit chain.	
	☐	The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.	
	☒	The EUT supports multiple transmit chains using options given below:	
		☐	Option 1: Multiple transmit chains measurements need to be performed on one of the active transmit chains (antenna outputs). All measurement had be performed on transmit chains 1.
		☒	Option 2: Multiple transmit chains measurements need to be performed on each transmit chains individually (antenna outputs). All measurement had be performed on all transmit chains.

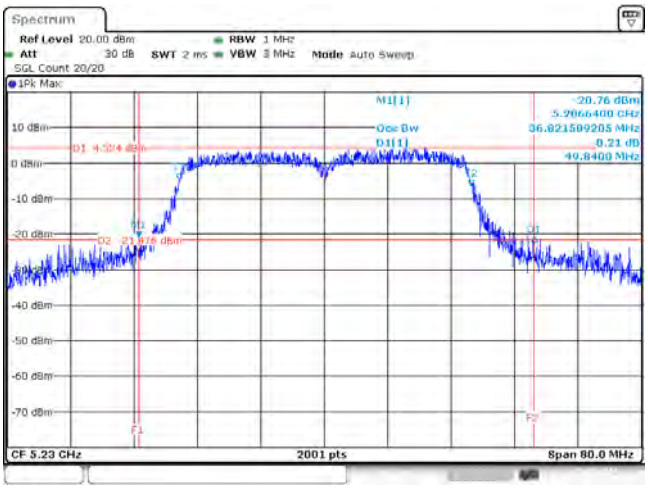
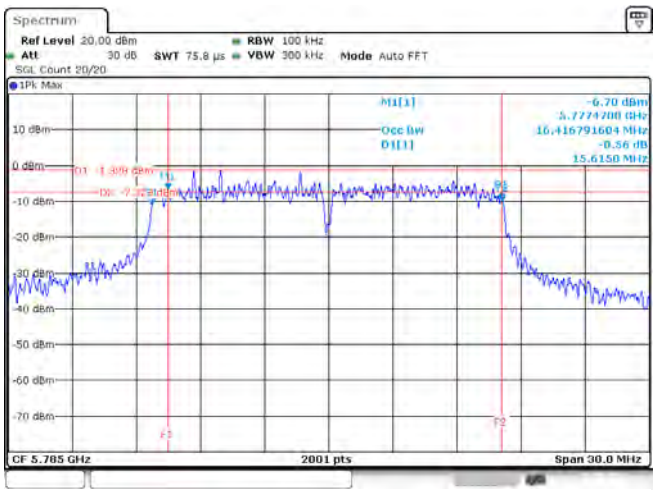
3.2.4 Test Setup

Emission Bandwidth


3.2.5 Test Result of Emission Bandwidth

UNII Emission Bandwidth Result (5150-5250MHz band)						
Condition			Emission Bandwidth (MHz)			
Modulation Mode	N_{TX}	Freq. (MHz)	99% Bandwidth		26dB Bandwidth	
			Chain Port 1	Chain Port 2	Chain Port 1	Chain Port 2
11a	2	5180	16.74	16.51	21.52	20.75
11a	2	5200	17.01	16.69	20.92	20.92
11a	2	5240	16.79	16.66	20.10	19.85
HT20	2	5180	17.79	17.66	21.90	22.80
HT20	2	5200	18.01	17.81	22.42	22.40
HT20	2	5240	17.71	17.89	21.72	22.30
HT40	2	5190	36.90	36.82	48.68	47.80
HT40	2	5230	36.82	36.86	49.84	49.20
Result			Complied			
Note 1: NTX = Number of Transmit Chains						

UNII Emission Bandwidth Result (5725-5850MHz band)						
Condition			Emission Bandwidth (MHz)			
Modulation Mode	N_{TX}	Freq. (MHz)	99% Bandwidth		6dB Bandwidth	
			Chain Port 1	Chain Port 2	Chain Port 1	Chain Port 2
11a	2	5745	16.41	16.44	16.48	16.47
11a	2	5785	16.41	16.43	15.61	16.38
11a	2	5825	16.41	16.41	16.39	16.35
HT20	2	5745	17.57	17.61	16.05	17.53
HT20	2	5785	17.66	17.58	17.64	17.56
HT20	2	5825	17.64	17.72	17.64	17.56
HT40	2	5755	36.02	36.14	34.36	35.32
HT40	2	5795	36.18	36.10	35.68	31.64
Limit			N/A		≥500 kHz	
Result			Complied			
Note 1: N_{TX} = Number of Transmit Chains						

5150-5250MHz - Worst Emission 26Bandwidth Plots

5725-5850MHz - Worst Emission 6Bandwidth Plots


3.3 RF Output Power

3.3.1 RF Output Power Limit

Maximum Conducted Output Power Limit		
UNII Devices		
☒	For the 5.15-5.25 GHz band:	
	☐	Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6). e.i.r.p. at any elevation angle above 30 degrees ≤ 125mW [21dBm]
	☐	Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)
	☐	Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W If G_{TX} > 23 dBi, then P_{Out} = 30 – (G_{TX} – 23).
	☒	Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).
☐	For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).	
☐	For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).	
☒	For the 5.725-5.85 GHz band:	
	☒	Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6).
	☐	Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
P_{Out} = maximum conducted output power in dBm, **G_{TX}** = the maximum transmitting antenna directional gain in dBi.		

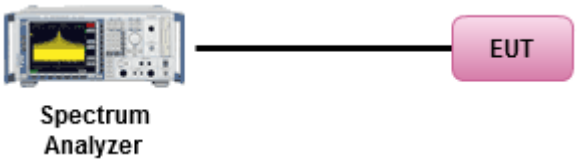
3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method	
☒	Maximum Conducted Output Power
	[duty cycle ≥ 98% or external video / power trigger]
	☒ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	☐ Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	duty cycle < 98% and average over on/off periods with duty factor
	☐ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	☐ Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
	☐ Refer as FCC KDB 789033, clause E Method PM (using an RF average power meter).
☒	For conducted measurement.
	☐ The EUT supports single transmit chain and measurements performed on this transmit chain.
	☐ The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.
	☒ The EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	☒ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

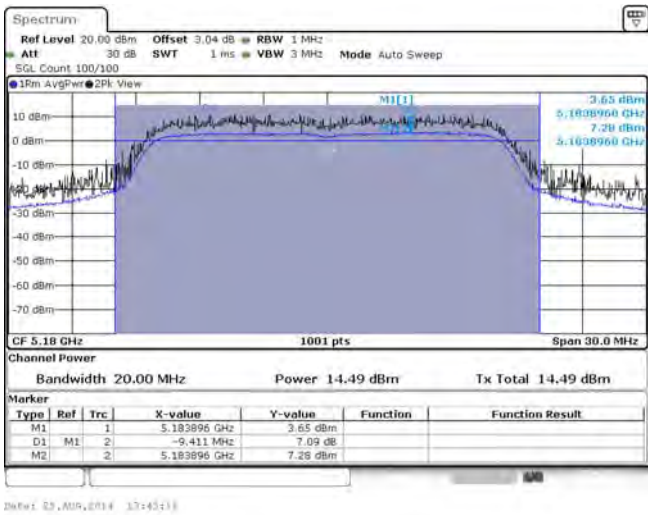
RF Output Power (Spectrum Analyzer)
 Spectrum Analyzer

3.3.5 Test Result of Maximum Conducted Output Power

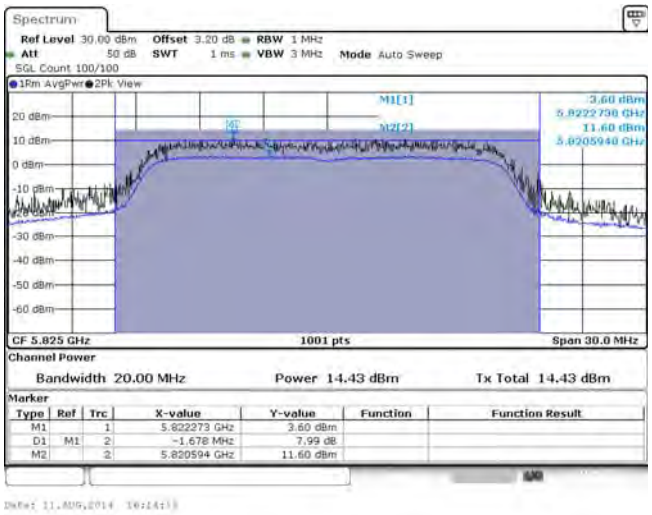
Maximum Conducted Output Power (5150-5250MHz band)								
Modulation Mode	NTX	Freq. (MHz)	RF Output Power (dBm)			Power Limit	DG (dBi)	EIRP Power
			Chain Port 1	Chain Port 2	Sum Chain			
11a	2	5180	14.49	13.78	17.16	24.00	-9.20	7.96
11a	2	5200	14.00	13.51	16.77	24.00	-9.20	7.57
11a	2	5240	13.73	13.46	16.61	24.00	-9.20	7.41
HT20	2	5180	14.10	13.54	16.84	24.00	-9.20	7.64
HT20	2	5200	14.18	13.48	16.85	24.00	-9.20	7.65
HT20	2	5240	13.56	13.14	16.37	24.00	-9.20	7.17
HT40	2	5190	13.61	12.96	16.31	24.00	-9.20	7.11
HT40	2	5230	13.26	12.90	16.09	24.00	-9.20	6.89
Result			Complied					

Maximum Conducted Output Power (5725-5850MHz band)							
Modulation Mode	N_{TX}	Freq. (MHz)	RF Output Power (dBm)			Power Limit	DG (dBi)
			Chain Port 1	Chain Port 2	Sum Chain		
11a	2	5745	13.14	13.38	16.27	30.00	-9.20
11a	2	5785	13.47	14.01	16.76	30.00	-9.20
11a	2	5825	14.07	14.43	17.26	30.00	-9.20
HT20	2	5745	13.26	13.67	16.48	30.00	-9.20
HT20	2	5785	13.27	14.15	16.74	30.00	-9.20
HT20	2	5825	14.05	14.38	17.23	30.00	-9.20
HT40	2	5755	9.32	10.09	12.73	30.00	-9.20
HT40	2	5795	10.95	11.72	14.36	30.00	-9.20
Result			Complied				

5150-5250MHz - Worst RF Output Power Plots



5725-5850MHz - Worst RF Output Power Plots



3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit		
UNII Devices		
☒	For the 5.15-5.25 GHz band:	
	☐	Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 6 dBi, then P_{Out} = 17 – (G_{TX} – 6).
	☐	Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 6 dBi, then P_{Out} = 17 – (G_{TX} – 6).
	☐	Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 23 dBi, then P_{Out} = 17 – (G_{TX} – 23).
	☒	Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6)..
☐	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6).	
☐	For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6).	
☒	For the 5.725-5.85 GHz band:	
	☒	Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If G_{TX} > 6 dBi, then PPSD= 30 – (G_{TX} – 6).
	☐	Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz **G_{TX}** = the maximum transmitting antenna directional gain in dBi.		

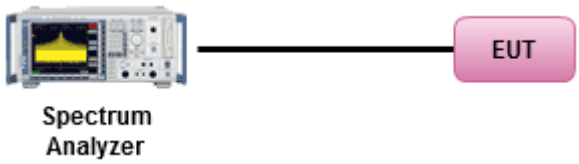
3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method		
☒	Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:	
	☐	Refer as FCC KDB 789033, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
	[duty cycle ≥ 98% or external video / power trigger]	
	☒	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	☐	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	duty cycle < 98% and average over on/off periods with duty factor	
	☐	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	☐	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
☒	For conducted measurement.	
	☐	The EUT supports single transmit chain and measurements performed on this transmit chain.
	☐	The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.
	☒	The EUT supports multiple transmit chains using options given below:
		☒ Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
		☐ Option 2: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
	☒	If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \ldots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$
	☐	Each individually PPSD plots refer as test report clause 3.3.5 with each individually PPSD plots.

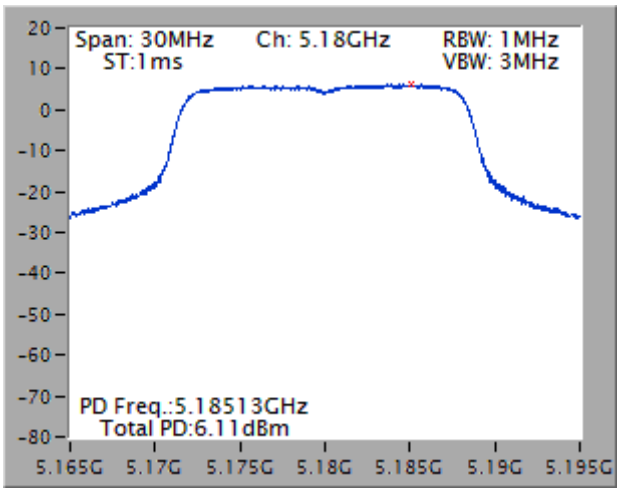
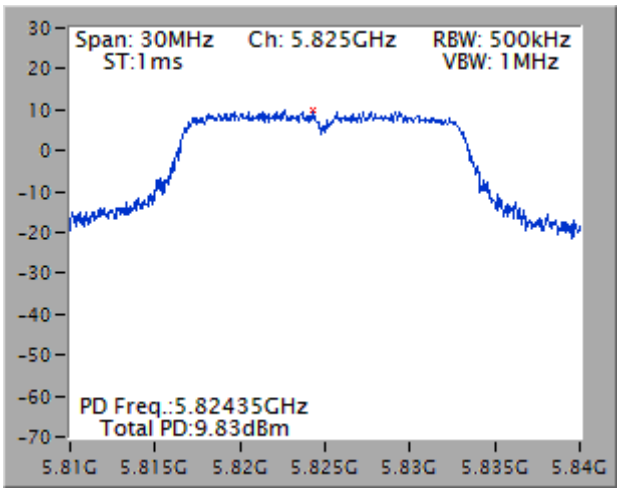
3.4.4 Test Setup

Power Spectral Density


3.4.5 Test Result of Peak Power Spectral Density

Peak Power Spectral Density Result (5150-5250MHz band)					
Modulation Mode	**N_{TX}**	**Freq. (MHz)**	**Peak Power Spectral Density (dBm/MHz)**	**PSD Limit**	**PSD-DG (dBi)**
11a	2	5180	6.11	11.00	-6.19
11a	2	5200	5.77	11.00	-6.19
11a	2	5240	5.60	11.00	-6.19
HT20	2	5180	5.62	11.00	-6.19
HT20	2	5200	5.60	11.00	-6.19
HT20	2	5240	5.09	11.00	-6.19
HT40	2	5190	2.23	11.00	-6.19
HT40	2	5230	1.95	11.00	-6.19
Result			**Complied**		

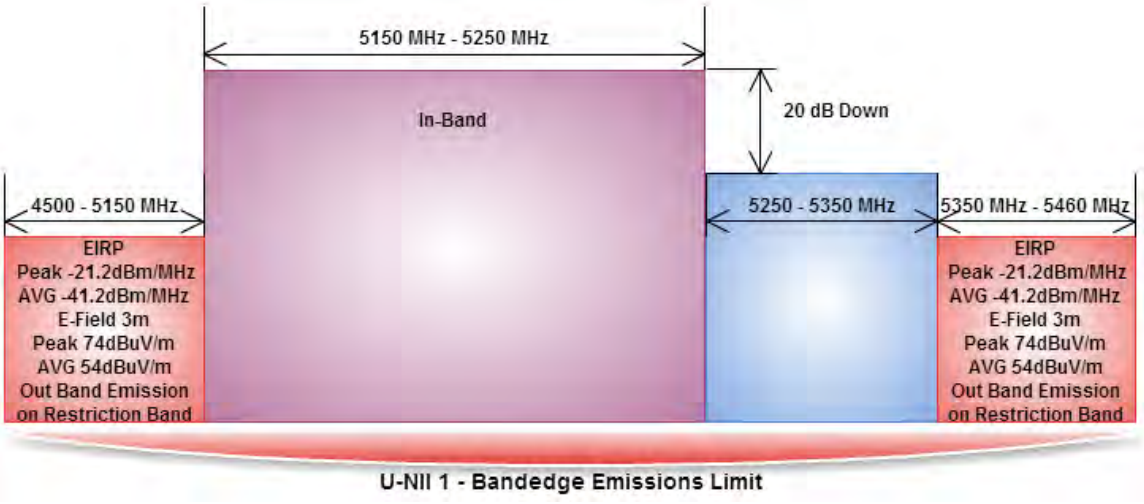
Peak Power Spectral Density Result (5725-5850MHz band)					
Modulation Mode	**N_{TX}**	**Freq. (MHz)**	**Peak Power Spectral Density (dBm/500kHz)**	**PSD Limit**	**PSD-DG (dBi)**
11a	2	5745	9.11	30.00	-6.19
11a	2	5785	9.17	30.00	-6.19
11a	2	5825	9.83	30.00	-6.19
HT20	2	5745	9.12	30.00	-6.19
HT20	2	5785	8.98	30.00	-6.19
HT20	2	5825	9.37	30.00	-6.19
HT40	2	5755	2.52	30.00	-6.19
HT40	2	5795	3.82	30.00	-6.19
Result			**Complied**		

5150-5250MHz - Worst Power Spectral Density Plots

5725-5850MHz - Worst Power Spectral Density Plots


3.5 Transmitter Bandedge Emissions

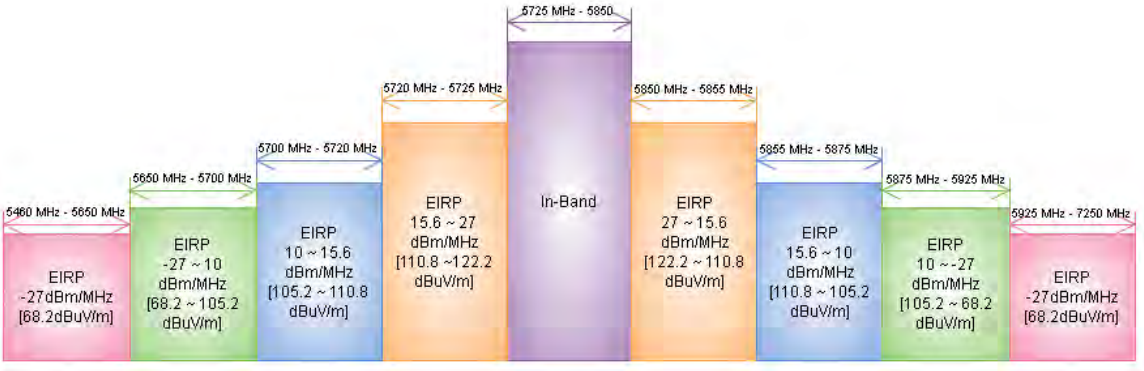
3.5.1 Transmitter Radiated Bandedge Emissions Limit

Transmitter Radiated Bandedge Emissions Limit: 5.15-5.25 GHz band



Refer as FCC KDB 789033, G)2)c) specifying that if a non-restricted-band out-of-band emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm or -17 dBm peak emission limit. Reason for change: to ensure that emission requirements in the non-restricted bands are not more stringent than those in the restricted bands.

Transmitter Radiated Bandedge Emissions Limit for 5.8GHz band: 5.725-5.85 GHz band



Refer as FCC KDB 789033, G)2)c) specifying that if a non-restricted-band out-of-band emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the FCC 16-24 peak emission limit. Reason for change: to ensure that emission requirements in the non-restricted bands are not more stringent than those in the restricted bands.

3.5.2 Measuring Instruments

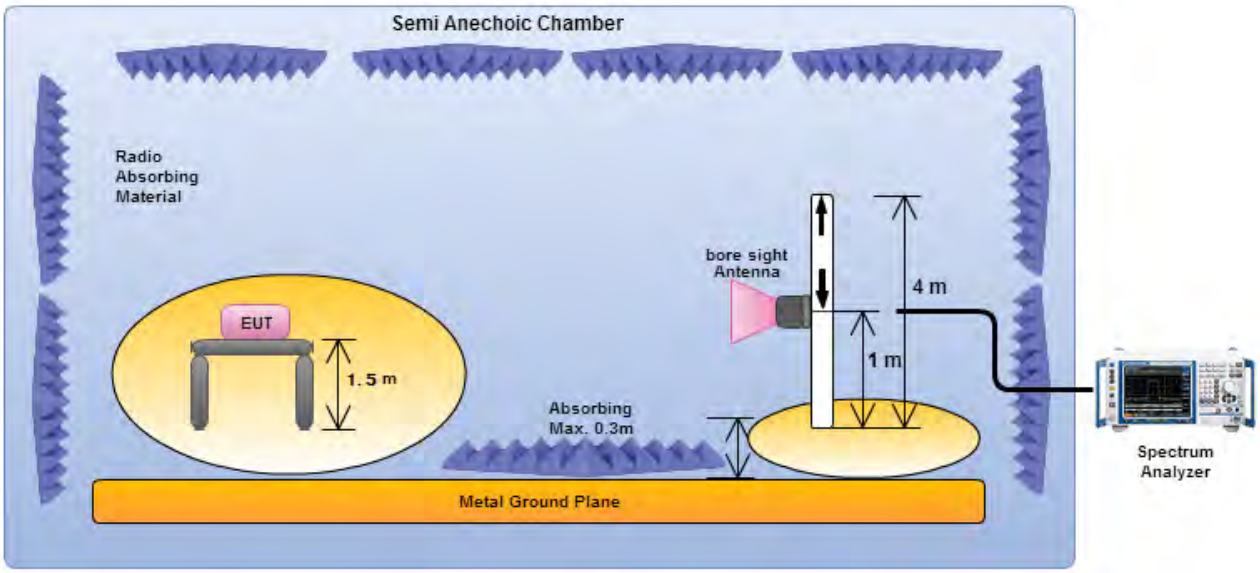
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method	
☒	The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].
☒	Refer as ANSI C63.10, clause 6.9.2.2 bandedge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
☐	If EUT operate in adjacent contiguous bands, bandedge testing performed at the lowest frequency channel at lower-band and highest frequency channel at higher-band. Transmitter in-band emissions will consist of adjacent contiguous bands (e.g., IEEE 802.11ac VHT160 The lowest frequency channel at lower-band and highest frequency channel at higher-band in-band emissions will consist of two adjacent contiguous bands.)
	☐ Operating in 5.15-5.25 GHz band (lower-band) and 5.25-5.35 GHz band (higher-band).
	☐ Operating in 5.47-5.725 GHz band (lower-band) and 5.725-5.85 GHz band (higher-band).
☐	If EUT operate in individual non-contiguous bands, bandedge testing performed at the lowest frequency channel and highest frequency channel within lower-band and higher-band. (e.g., (e.g., IEEE 802.11ac VHT160)
	☐ Operating in 5.25-5.35 GHz band (lower-band) and 5.47-5.725 GHz band (higher-band).
	☐ Operating in 5.15-5.25 GHz band (lower-band) and 5.725-5.85 GHz band (higher-band).
☒	For the transmitter unwanted emissions shall be measured using following options below:
	☒ Refer as FCC KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.
	☒ Refer as FCC KDB 789033, clause G)1) for unwanted emissions into restricted bands.
	☐ Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging).
	☐ Refer as FCC KDB 789033, G)6) Method VB (Reduced VBW).
	☒ Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
	☐ Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
	☒ Refer as FCC KDB 789033, clause G)5) measurement procedure peak limit.
	☐ Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
☒	For the transmitter bandedge emissions shall be measured using following options below:
	☐ Refer as FCC KDB 789033, clause G)3)d) for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
	☒ Refer as ANSI C63.10, clause 6.9.2 for band-edge testing.
	☐ Refer as ANSI C63.10, clause 6.9.3 for marker-delta method for band-edge measurements.
☒	For radiated measurement, refer as ANSI C63.10, clause 6.6. Test distance is 3m.
☒	Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements). Measurements in the bandedge are typically made at a closer distance 3m, because the instrumentation noise floor is typically close to the radiated emission limit.

3.5.4 Test Setup

Transmitter Radiated Bandedge Emissions



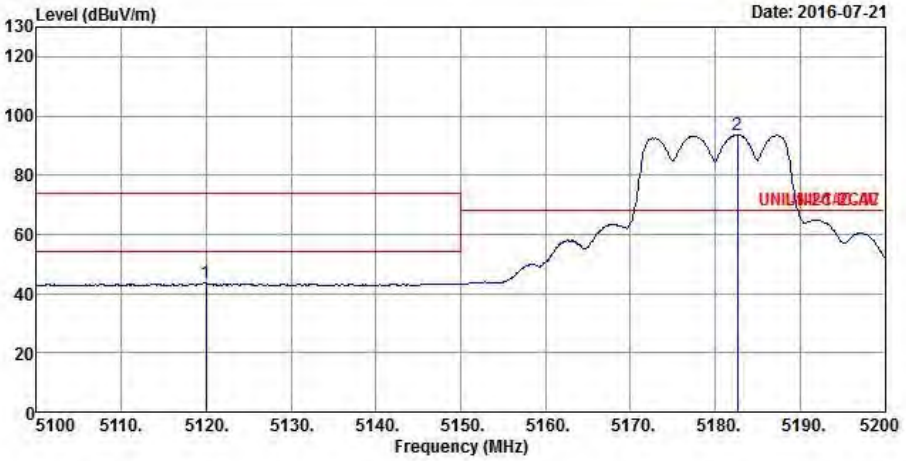
Electric field tests shall be performed in transmitter bandedge emissions using a calibrated horn antenna.

3.5.5 Transmitter Radiated Bandedge Emissions (with Antenna)

U-NII 5150-5250MHz Transmitter Radiated Bandedge (with Antenna)										
Modulation Mode	**N_{TX}**	**Freq. (MHz)**	**Measure Distance (m)**	**Freq. (MHz) PK**	**Level (dBuV/m) PK**	**Limit (dBuV/m) PK**	**Freq. (MHz) AV**	**Level (dBuV/m) AV**	**Limit (dBuV/m) AV**	**Pol.**
11a	2	5180	3	5104.800	57.48	74	5120.000	43.49	54	H
11a	2	5240	3	5101.200	56.67	74	5400.000	44.56	54	H
HT20	2	5180	3	5131.600	57.00	74	5119.800	42.89	54	H
HT20	2	5240	3	5385.000	56.74	74	5400.000	44.44	54	H
HT40	2	5190	3	5149.500	66.20	74	5149.940	48.96	54	H
HT40	2	5230	3	5372.400	56.91	74	5400.000	44.23	54	H
Note 1: Measurement worst emissions of receive antenna polarization.										

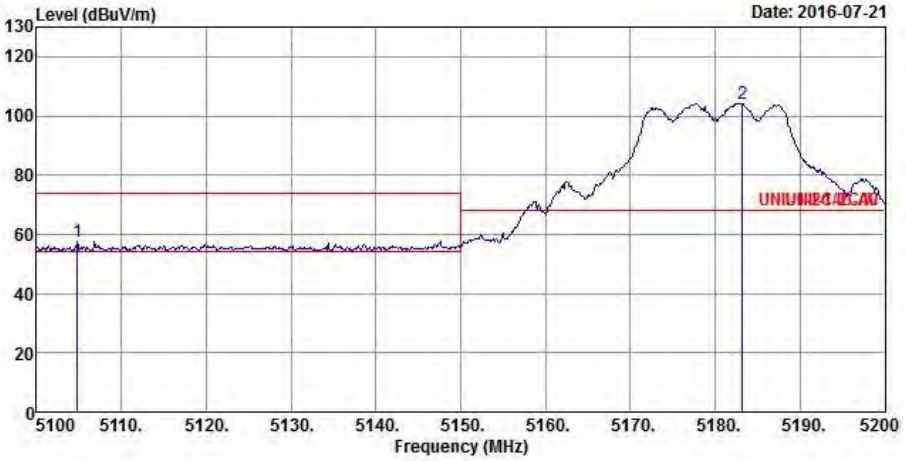
U-NII 5725-5850MHz Transmitter Radiated Bandedge (with Antenna)							
Modulation Mode	**N_{TX}**	**Freq. (MHz)**	**Measure Distance (m)**	**Freq. (MHz) PK**	**Level (dBuV/m) PK**	**Limit (dBuV/m) PK**	**Pol.**
11a	2	5745	3	5628.640	56.94	68.2	H
11a	2	5825	3	5935.960	56.80	68.2	H
HT20	2	5745	3	5629.160	57.09	68.2	H
HT20	2	5825	3	5930.830	56.48	68.2	H
HT40	2	5755	3	5649.490	62.88	68.2	H
HT40	2	5795	3	5927.320	57.52	68.2	H
Note 1: Measurement worst emissions of receive antenna polarization.							

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5180
N_{TX}	2	**Remark**	Average



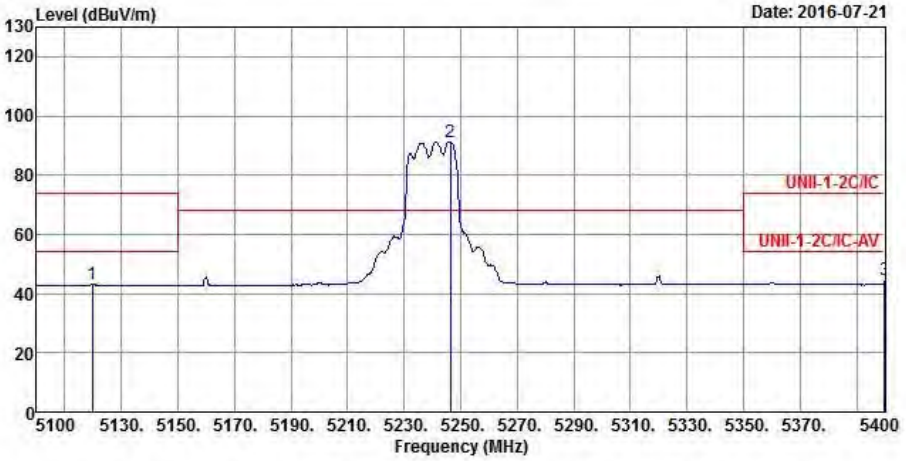
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5120.0000	43.49	-10.51	54.00	42.25	31.52	4.49	34.77	Average
2	*5182.6000	93.74			92.41	31.58	4.52	34.77	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5180
N_{TX}	2	**Remark**	Peak



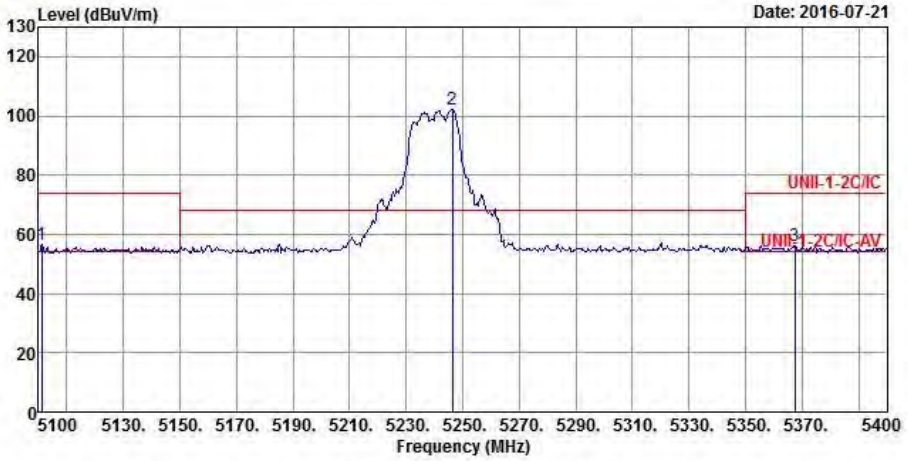
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5104.8000	57.48	-16.52	74.00	56.27	31.50	4.48	34.77	Peak
2	*5183.2000	104.31			102.98	31.58	4.52	34.77	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5240
N_{TX}	2	**Remark**	Average



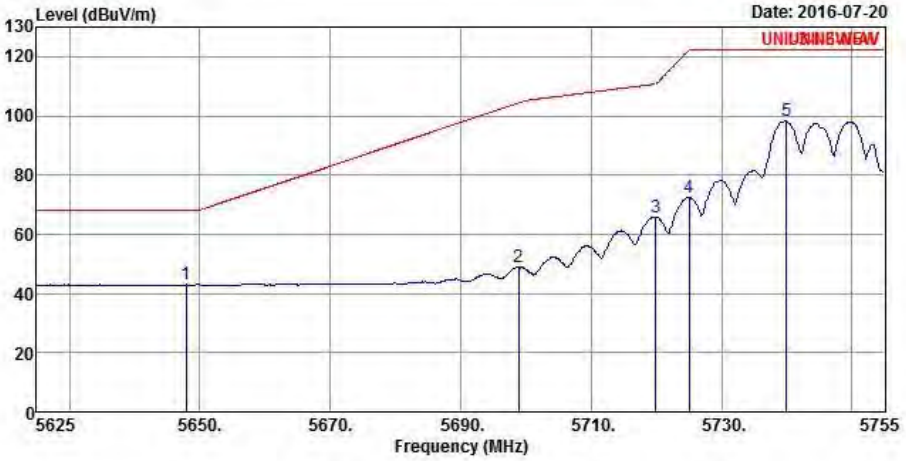
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5119.8000	43.21	-10.79	54.00	41.97	31.52	4.49	34.77	Average
2	*5246.4000	91.36			89.92	31.65	4.56	34.77	Average
3	5400.0000	44.56	-9.44	54.00	42.88	31.80	4.64	34.76	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5240
N_{TX}	2	**Remark**	Peak



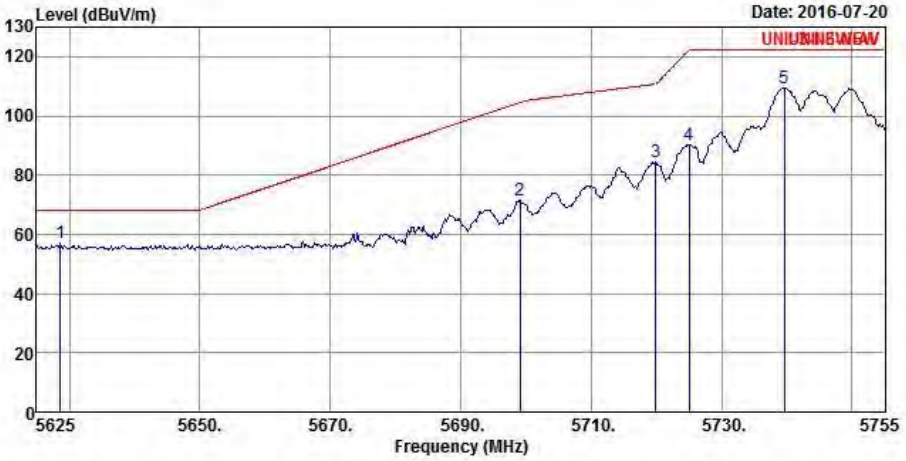
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5101.2000	56.67	-17.33	74.00	55.46	31.50	4.48	34.77	Peak
2	*5246.4000	102.14			100.70	31.65	4.56	34.77	Peak
3	5367.6000	56.26	-17.74	74.00	54.62	31.77	4.63	34.76	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5745
N_{TX}	2	**Remark**	Average



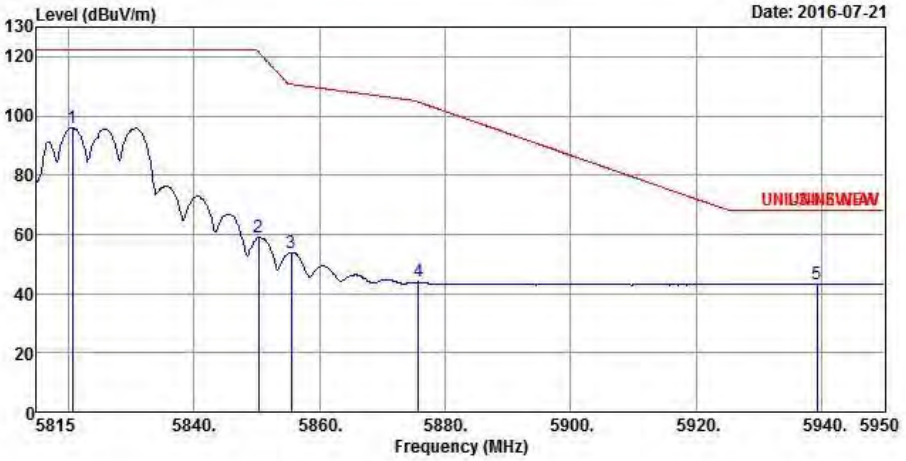
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5647.8800	42.98	-25.22	68.20	40.87	32.11	4.77	34.77	Average
2	5698.8400	48.91	-55.44	104.35	46.70	32.18	4.80	34.77	Average
3	5719.9000	65.94	-44.83	110.77	63.69	32.21	4.81	34.77	Average
4	5724.9700	72.56	-49.57	122.13	70.31	32.21	4.81	34.77	Average
5	5739.9200	98.18	-24.02	122.20	95.89	32.24	4.82	34.77	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5745
N_{TX}	2	**Remark**	Peak



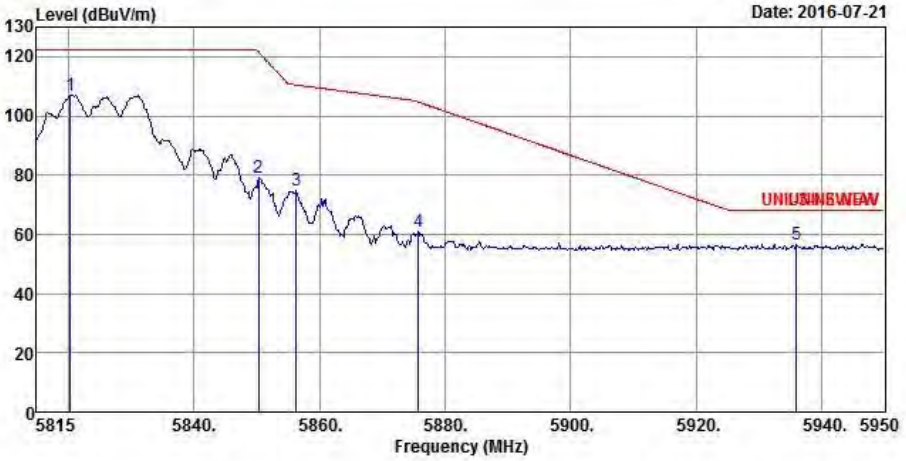
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5628.6400	56.94	-11.26	68.20	54.87	32.08	4.76	34.77	Peak
2	5699.1000	71.42	-33.12	104.54	69.21	32.18	4.80	34.77	Peak
3	5719.9000	84.49	-26.28	110.77	82.24	32.21	4.81	34.77	Peak
4	5724.9700	90.22	-31.91	122.13	87.97	32.21	4.81	34.77	Peak
5	5739.6600	109.32	-12.88	122.20	107.03	32.24	4.82	34.77	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5825
N_{TX}	2	**Remark**	Average



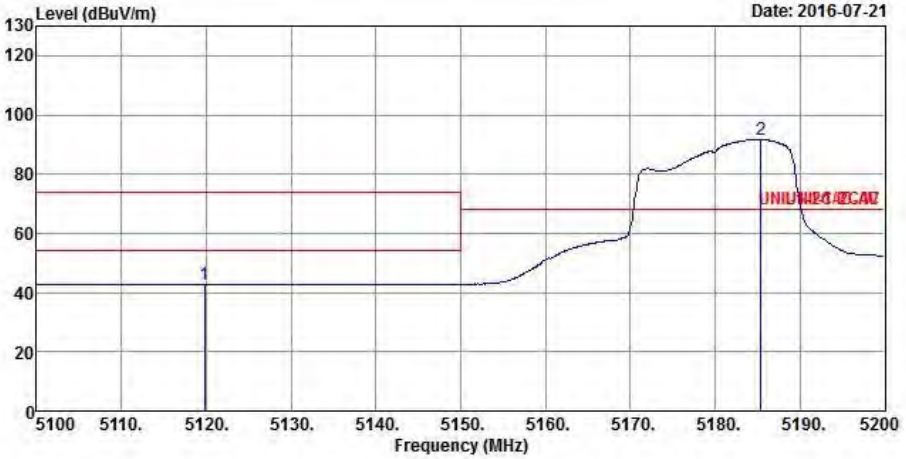
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5820.6700	95.99	-26.21	122.20	93.57	32.35	4.85	34.78	Average
2	5850.3700	58.91	-62.45	121.36	56.43	32.39	4.87	34.78	Average
3	5855.5000	53.72	-56.94	110.66	51.23	32.40	4.87	34.78	Average
4	5875.7500	43.91	-60.73	104.64	41.38	32.43	4.88	34.78	Average
5	5939.2000	43.28	-24.92	68.20	40.65	32.51	4.91	34.79	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	11a	**Test Freq. (MHz)**	5825
N_{TX}	2	**Remark**	Peak



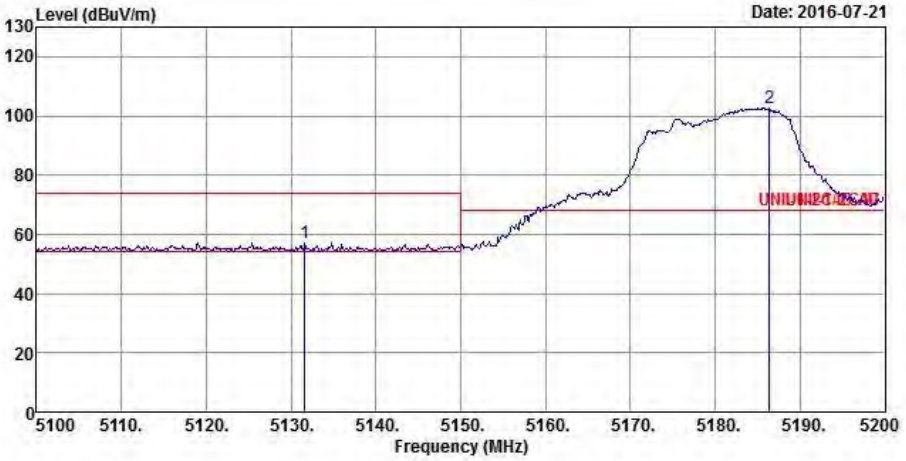
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5820.4000	107.06	-15.14	122.20	104.64	32.35	4.85	34.78	Peak
2	5850.3700	78.94	-42.42	121.36	76.46	32.39	4.87	34.78	Peak
3	5856.3100	74.71	-35.72	110.43	72.22	32.40	4.87	34.78	Peak
4	5875.7500	61.11	-43.53	104.64	58.58	32.43	4.88	34.78	Peak
5	5935.9600	56.80	-11.40	68.20	54.17	32.51	4.91	34.79	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT20	**Test Freq. (MHz)**	5180
N_{TX}	2	**Remark**	Average



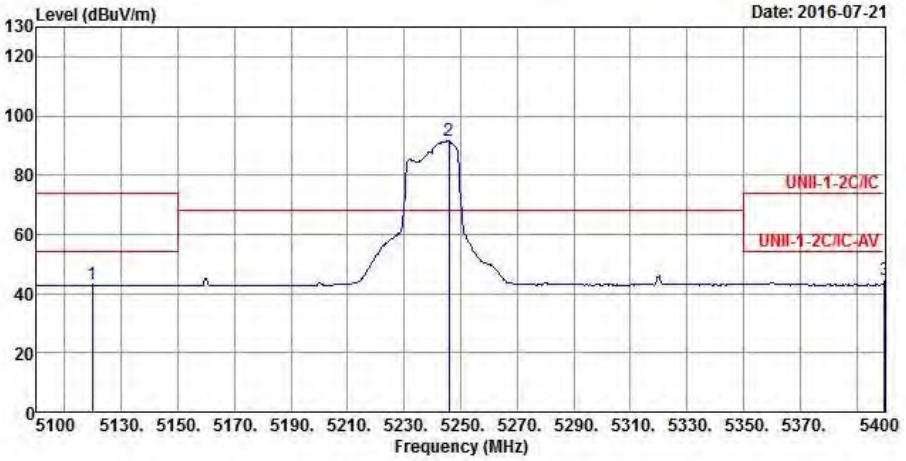
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5119.8000	42.89	-11.11	54.00	41.65	31.52	4.49	34.77	Average
2	*5185.4000	91.71			90.37	31.59	4.52	34.77	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT20	**Test Freq. (MHz)**	5180
N_{TX}	2	**Remark**	Peak



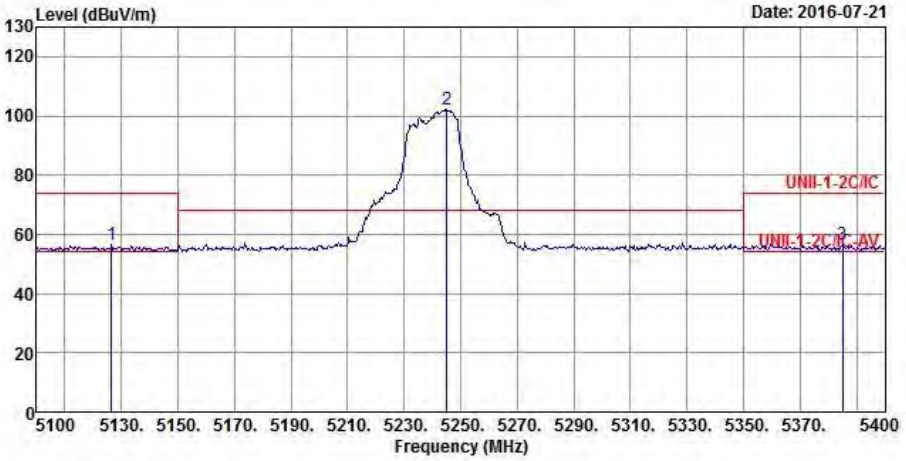
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5131.6000	57.00	-17.00	74.00	55.75	31.53	4.49	34.77	Peak
2	*5186.4000	102.78			101.44	31.59	4.52	34.77	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT20	**Test Freq. (MHz)**	5240
N_{TX}	2	**Remark**	Average



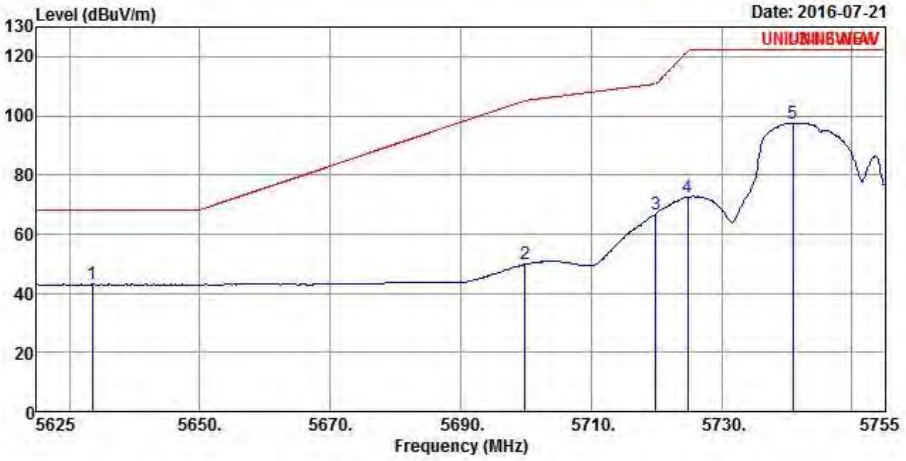
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5119.8000	43.00	-11.00	54.00	41.76	31.52	4.49	34.77	Average
2	*5245.8000	91.47			90.03	31.65	4.56	34.77	Average
3	5400.0000	44.44	-9.56	54.00	42.76	31.80	4.64	34.76	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT20	**Test Freq. (MHz)**	5240
N_{TX}	2	**Remark**	Peak



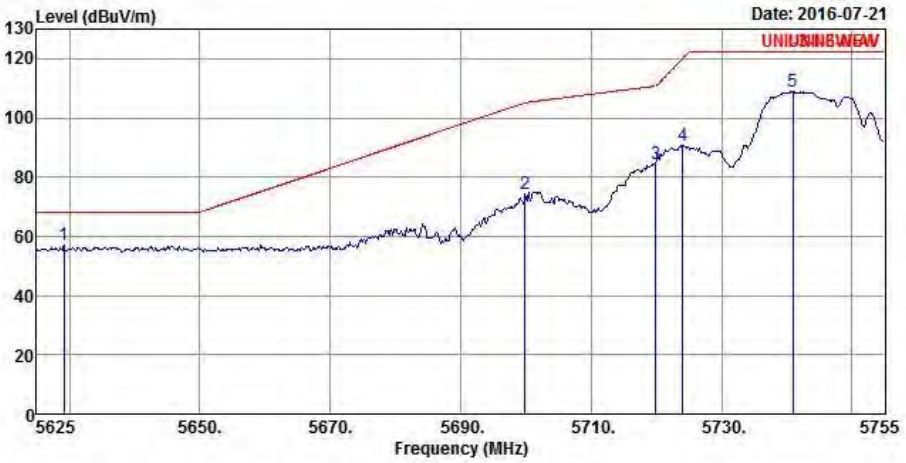
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5126.4000	56.42	-17.58	74.00	55.17	31.53	4.49	34.77	Peak
2	*5245.2000	102.14			100.70	31.65	4.56	34.77	Peak
3	5385.0000	56.74	-17.26	74.00	55.08	31.78	4.64	34.76	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT20	**Test Freq. (MHz)**	5745
N_{TX}	2	**Remark**	Average



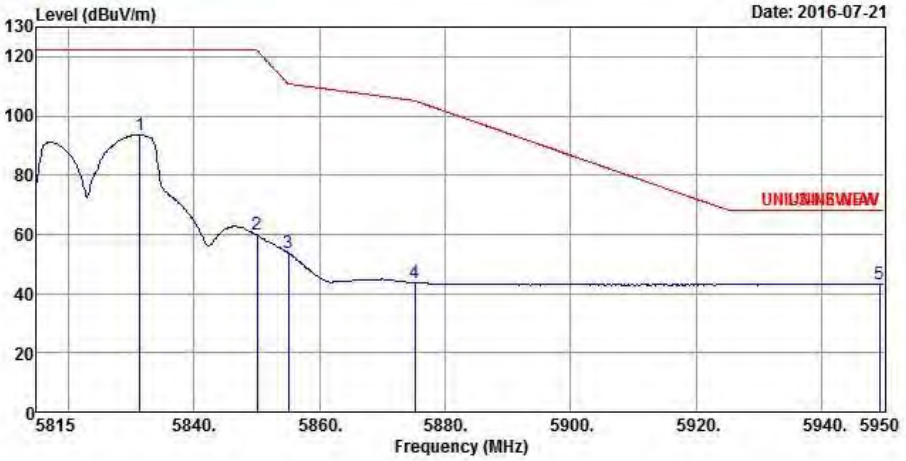
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5633.5800	43.13	-25.07	68.20	41.05	32.09	4.76	34.77	Average
2	5699.8800	49.91	-55.20	105.11	47.70	32.18	4.80	34.77	Average
3	5719.9000	66.82	-43.95	110.77	64.57	32.21	4.81	34.77	Average
4	5724.8400	72.52	-49.31	121.83	70.27	32.21	4.81	34.77	Average
5	5740.9600	97.54	-24.66	122.20	95.25	32.24	4.82	34.77	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT20	**Test Freq. (MHz)**	5745
N_{TX}	2	**Remark**	Peak



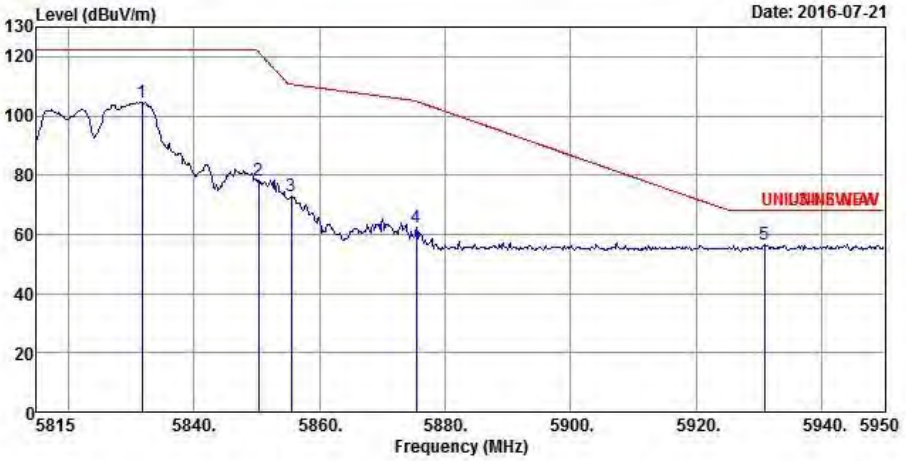
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5629.1600	57.09	-11.11	68.20	55.02	32.08	4.76	34.77	Peak
2	5699.8800	74.44	-30.67	105.11	72.23	32.18	4.80	34.77	Peak
3	5719.9000	84.42	-26.35	110.77	82.17	32.21	4.81	34.77	Peak
4	5724.0600	90.67	-29.39	120.06	88.42	32.21	4.81	34.77	Peak
5	5740.9600	108.88	-13.32	122.20	106.59	32.24	4.82	34.77	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT20	**Test Freq. (MHz)**	5825
N_{TX}	2	**Remark**	Average



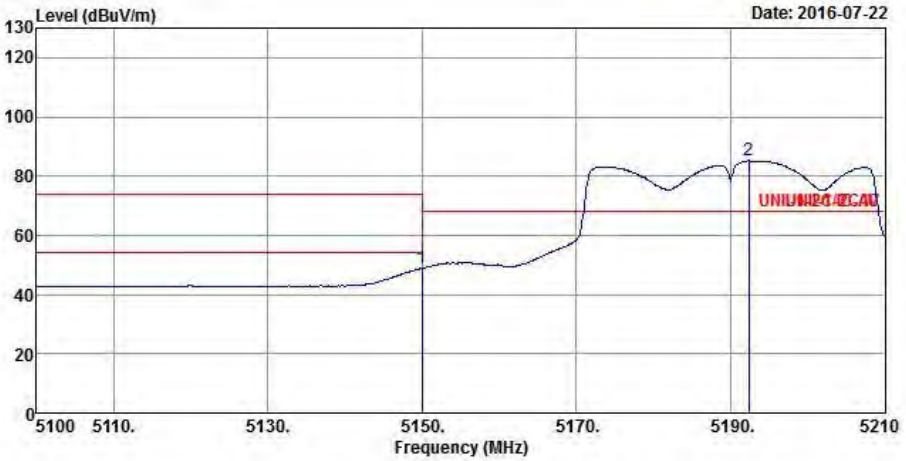
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5831.4700	93.67	-28.53	122.20	91.23	32.36	4.86	34.78	Average
2	5850.1000	59.77	-62.20	121.97	57.29	32.39	4.87	34.78	Average
3	5855.0950	53.61	-57.16	110.77	51.12	32.40	4.87	34.78	Average
4	5875.2100	43.78	-61.26	105.04	41.25	32.43	4.88	34.78	Average
5	5949.1900	43.25	-24.95	68.20	40.59	32.53	4.92	34.79	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT20	**Test Freq. (MHz)**	5825
N_{TX}	2	**Remark**	Peak



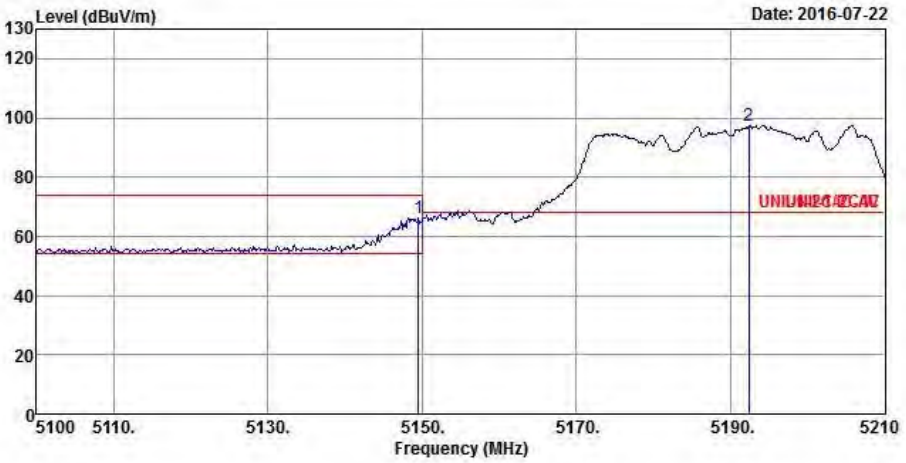
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5831.7400	104.67	-17.53	122.20	102.23	32.36	4.86	34.78	Peak
2	5850.3700	78.22	-43.14	121.36	75.74	32.39	4.87	34.78	Peak
3	5855.5000	72.74	-37.92	110.66	70.25	32.40	4.87	34.78	Peak
4	5875.4800	62.24	-42.60	104.84	59.71	32.43	4.88	34.78	Peak
5	5930.8300	56.48	-11.72	68.20	53.86	32.50	4.91	34.79	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT40	**Test Freq. (MHz)**	5190
N_{TX}	2	**Remark**	Average



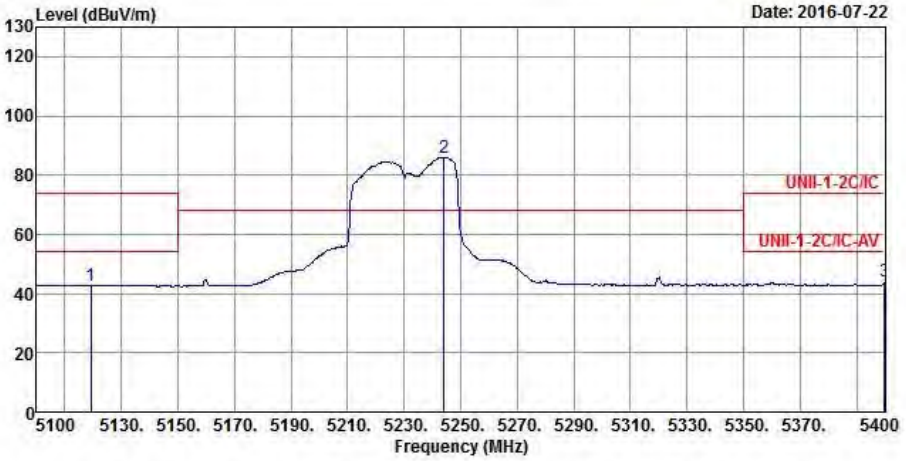
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5149.9400	48.96	-5.04	54.00	47.68	31.55	4.50	34.77	Average
2	*5192.4000	85.15			83.80	31.59	4.53	34.77	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT40	**Test Freq. (MHz)**	5190
N_{TX}	2	**Remark**	Peak



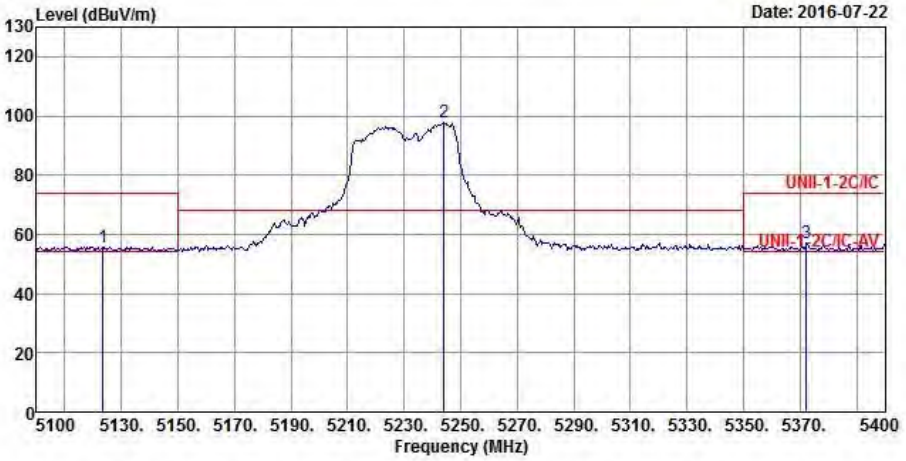
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5149.5000	66.20	-7.80	74.00	64.92	31.55	4.50	34.77	Peak
2	*5192.4000	97.34			95.99	31.59	4.53	34.77	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT40	**Test Freq. (MHz)**	5230
N_{TX}	2	**Remark**	Average



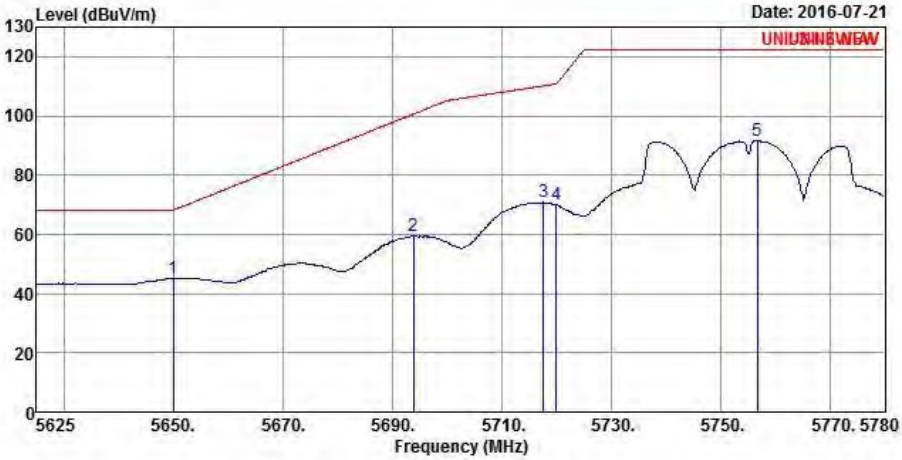
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5119.2000	42.89	-11.11	54.00	41.65	31.52	4.49	34.77	Average
2	*5244.0000	86.05			84.62	31.64	4.56	34.77	Average
3	5400.0000	44.23	-9.77	54.00	42.55	31.80	4.64	34.76	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT40	**Test Freq. (MHz)**	5230
N_{TX}	2	**Remark**	Peak



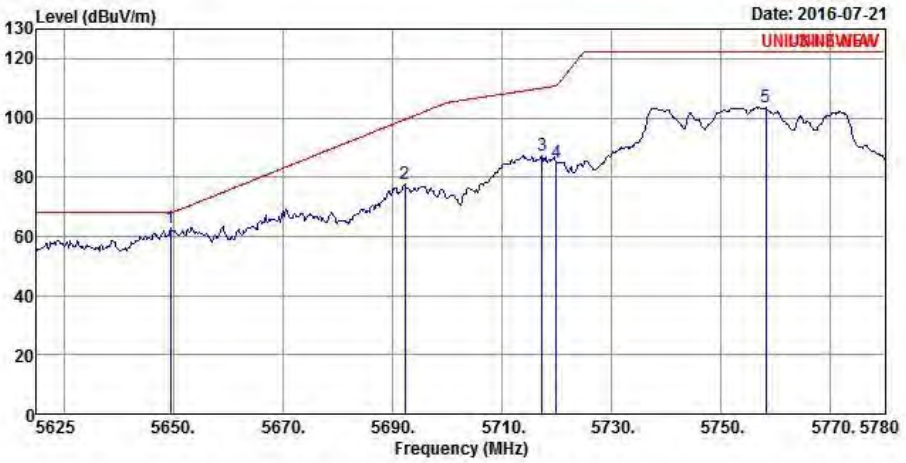
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5123.4000	55.77	-18.23	74.00	54.53	31.52	4.49	34.77	Peak
2	*5244.0000	97.74			96.31	31.64	4.56	34.77	Peak
3	5372.4000	56.91	-17.09	74.00	55.27	31.77	4.63	34.76	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT40	**Test Freq. (MHz)**	5755
N_{TX}	2	**Remark**	Average



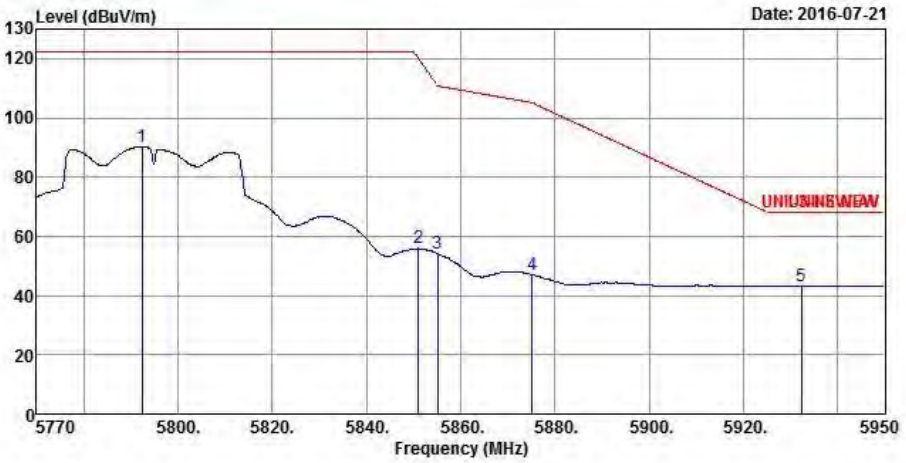
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5649.9550	45.15	-23.05	68.20	43.04	32.11	4.77	34.77	Average
2	5693.8200	59.52	-41.12	100.64	57.33	32.17	4.79	34.77	Average
3	5717.6900	70.77	-39.38	110.15	68.54	32.20	4.80	34.77	Average
4	5720.0150	69.88	-40.95	110.83	67.63	32.21	4.81	34.77	Average
5	5756.7500	91.58	-30.62	122.20	89.28	32.26	4.82	34.78	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT40	**Test Freq. (MHz)**	5755
N_{TX}	2	**Remark**	Peak



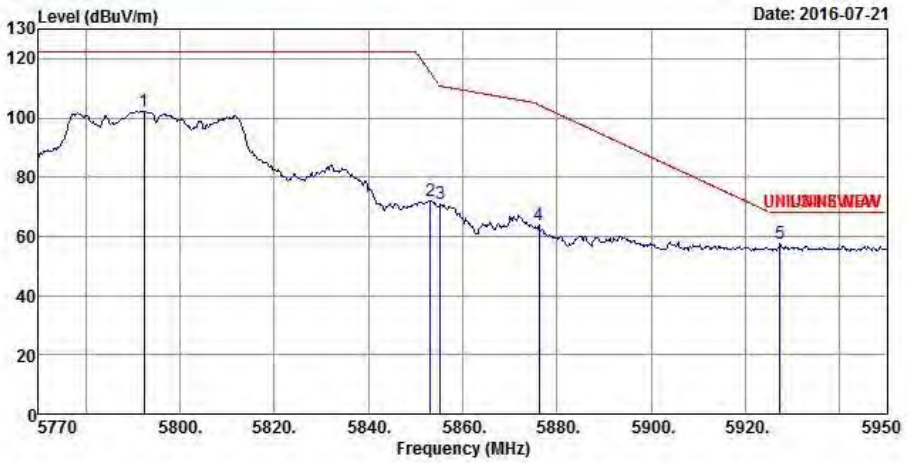
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5649.4900	62.88	-5.32	68.20	60.77	32.11	4.77	34.77	Peak
2	5692.2700	77.67	-21.83	99.50	75.48	32.17	4.79	34.77	Peak
3	5717.3800	87.33	-22.74	110.07	85.10	32.20	4.80	34.77	Peak
4	5720.0150	85.06	-25.77	110.83	82.81	32.21	4.81	34.77	Peak
5	5758.3000	103.55	-18.65	122.20	101.25	32.26	4.82	34.78	Peak

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT40	**Test Freq. (MHz)**	5795
N_{TX}	2	**Remark**	Average



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5792.3200	90.21	-31.99	122.20	87.84	32.31	4.84	34.78	Average
2	5851.0000	55.94	-63.98	119.92	53.46	32.39	4.87	34.78	Average
3	5855.1400	54.18	-56.58	110.76	51.69	32.40	4.87	34.78	Average
4	5875.1200	47.09	-58.02	105.11	44.56	32.43	4.88	34.78	Average
5	5932.3600	43.32	-24.88	68.20	40.69	32.51	4.91	34.79	Average

Transmitter Radiated Bandedge Emissions			
Modulation Mode	HT40	**Test Freq. (MHz)**	5795
N_{TX}	2	**Remark**	Peak



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5792.3200	102.41	-19.79	122.20	100.04	32.31	4.84	34.78	Peak
2	5853.1600	72.14	-42.85	114.99	69.66	32.39	4.87	34.78	Peak
3	5855.3200	70.79	-39.92	110.71	68.30	32.40	4.87	34.78	Peak
4	5876.2000	63.71	-40.60	104.31	61.18	32.43	4.88	34.78	Peak
5	5927.3200	57.52	-10.68	68.20	54.90	32.50	4.91	34.79	Peak

3.6 Transmitter Unwanted Emissions

3.6.1 Transmitter Radiated Unwanted Emissions Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz limit			
Frequency Range (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m)**	**Measure Distance (m)**
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Un-restricted band emissions above 1GHz Limit	
Operating Band	**Limit**
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.85 GHz	5.650-5700 GHz: e.i.r.p. -27 ~ 10 dBm [68.2 ~ 105.2 dBuV/m@3m] 5.700-5720 GHz: e.i.r.p. 10 ~ 15.6 dBm [105.2 ~ 110.8 dBuV/m@3m] 5.720-5725 GHz: e.i.r.p. 15.6 ~ 27 dBm [110.8 ~ 122.2 dBuV/m@3m] 5.850-5.855 GHz: e.i.r.p. 27 ~ 15.6 dBm [122.2 ~ 110.8 dBuV/m@3m] 5.855-5.875 GHz: e.i.r.p. 15.6 ~ 10 dBm [110.8 ~ 105.2 dBuV/m@3m] 5.875-5.925 GHz: e.i.r.p. 10 ~ -27 dBm [105.2 ~ 68.2dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m]

Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

3.6.2 Measuring Instruments

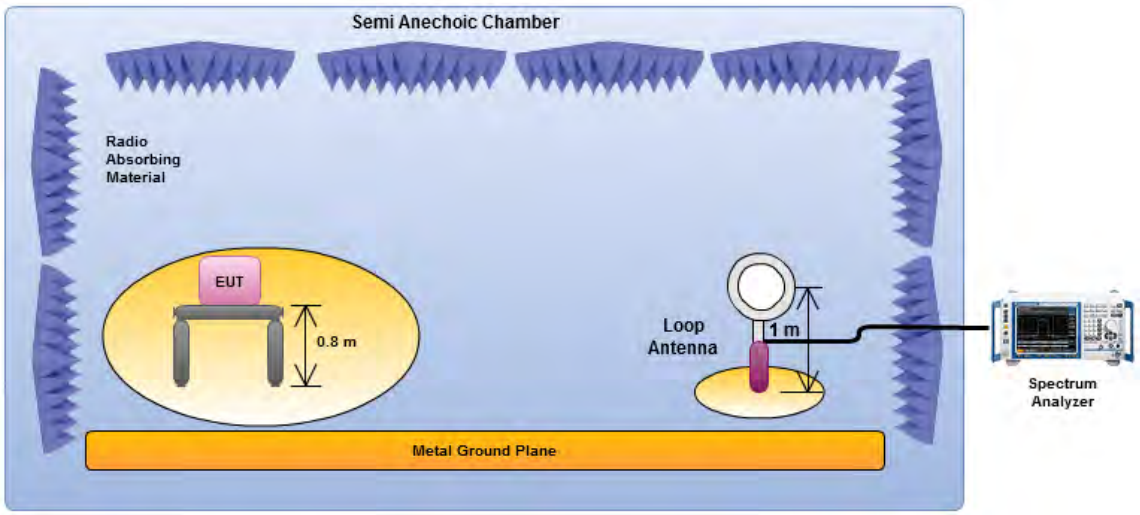
Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

Test Method		
☒	Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).	
☒	The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].	
☒	For the transmitter unwanted emissions shall be measured using following options below:	
	☒	Refer as FCC KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.
	☒	Refer as FCC KDB 789033, clause G)1) for unwanted emissions into restricted bands.
		☐ Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging).
		☐ Refer as FCC KDB 789033, G)6) Method VB (Reduced VBW).
		☒ Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐ Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
		☒ Refer as FCC KDB 789033, clause G)5) measurement procedure peak limit.
		☐ Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
☒	For radiated measurement.	
	☒	Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	☒	Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	☒	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. For 1 GHz to 5 GHz, test distance is 3m; For 5 GHz to 40 GHz, test distance is 3m.
☒	The any unwanted emissions level shall not exceed the fundamental emission level.	
☒	All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.	

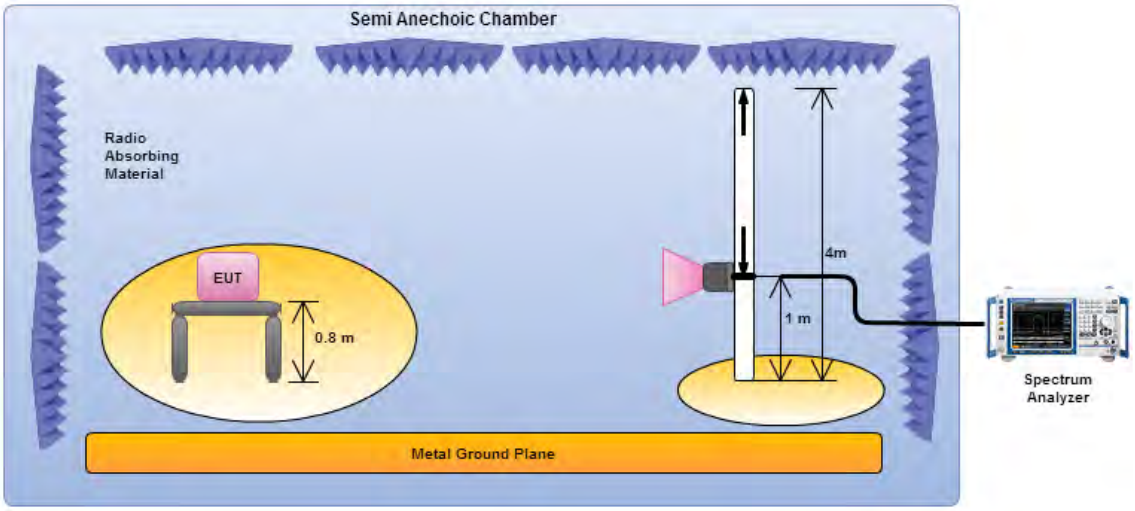
3.6.4 Test Setup

Transmitter Spurious and Out of Band Emissions (9 kHz - 30 MHz)



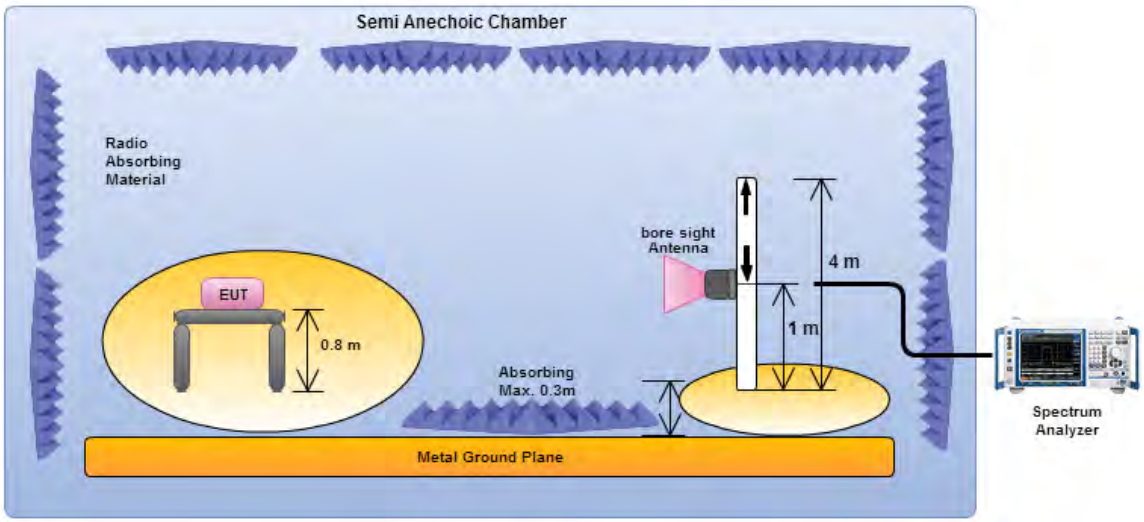
Magnetic field tests shall be performed in the frequency range of 9 kHz to 30 MHz using a calibrated loop antenna.

Transmitter Radiated Unwanted Emissions Below 1GHz



Electric field tests shall be performed in the frequency range of 30 MHz to 1000 MHz using a calibrated bi-log antenna.

Transmitter Radiated Unwanted Emissions Above 1GHz



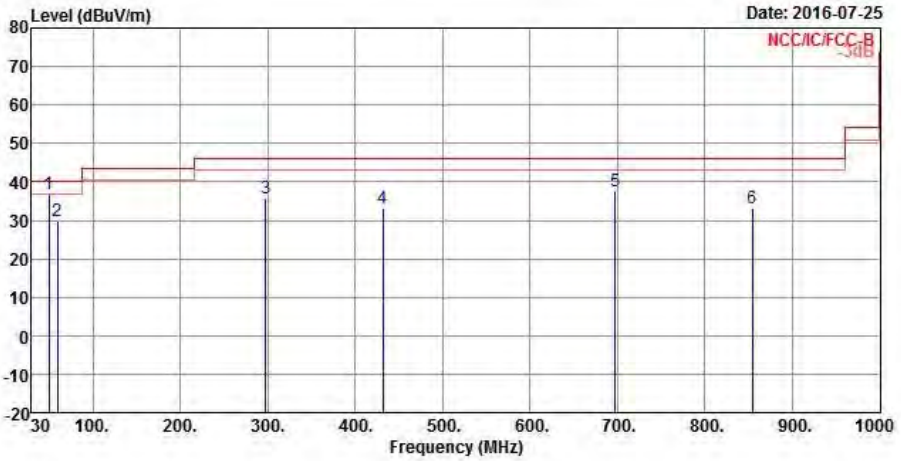
Electric field tests shall be performed in the frequency range of 1 GHz to 10th harmonic of highest fundamental frequency or 40 GHz using a calibrated horn antenna.

3.6.5 Transmitter Radiated Unwanted Emissions-with Antenna (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported. Any spurious which has more than 20 dB of margin compared to the applicable limit is not necessarily reported.

3.6.6 Transmitter Radiated Unwanted Emissions (Below 1GHz)

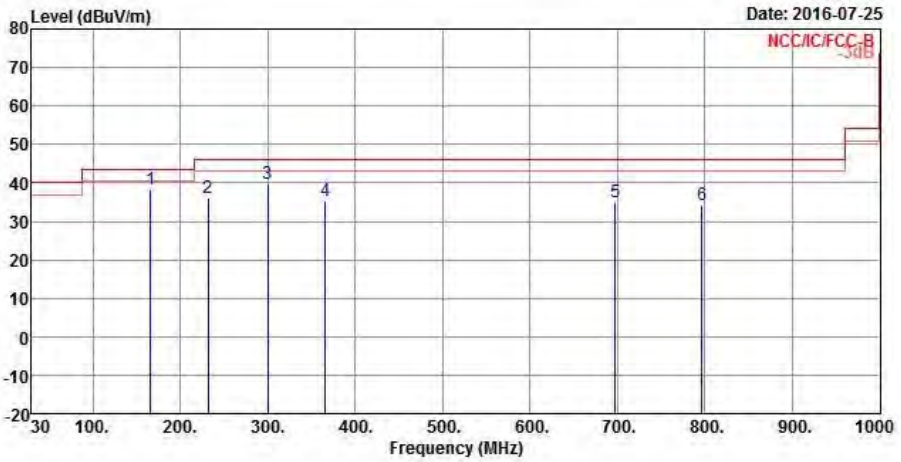
Transmitter Radiated Unwanted Emissions (Below 1GHz)			
Operating Mode	1	**Polarization**	V
Operating Function	Adapter Mode		



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	49.4000	36.82	-3.18	40.00	49.23	14.34	0.94	27.69	QP
2	59.1000	29.89	-10.11	40.00	44.64	12.03	1.19	27.97	QP
3	297.7200	35.57	-10.43	46.00	41.29	18.95	2.51	27.18	Peak
4	431.5800	32.95	-13.05	46.00	35.75	22.07	3.16	28.03	Peak
5	697.3600	37.52	-8.48	46.00	36.98	24.86	4.08	28.40	Peak
6	854.5000	33.21	-12.79	46.00	29.73	26.49	4.76	27.77	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical).
Note 4: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Below 1GHz)			
Operating Mode	1	**Polarization**	H
Operating Function	Adapter Mode		

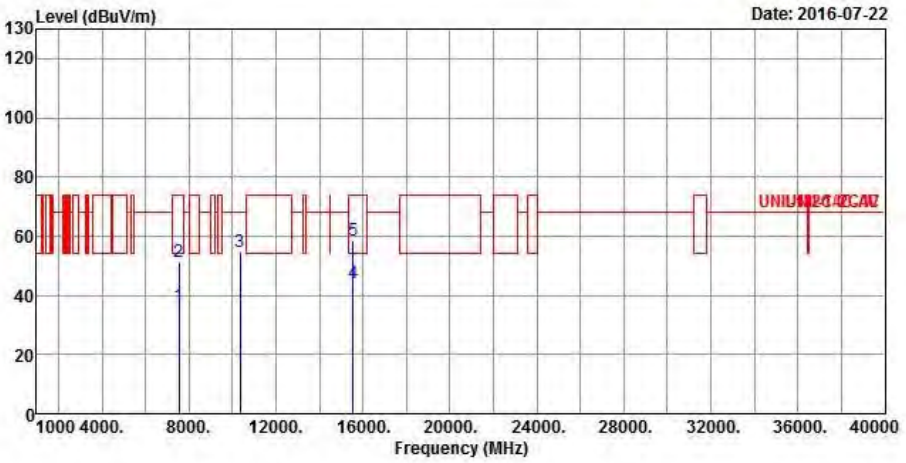


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	165.8000	38.32	-5.18	43.50	48.44	15.45	1.95	27.52	Peak
2	231.7600	35.91	-10.09	46.00	44.46	16.46	2.21	27.22	Peak
3	299.6600	39.87	-6.13	46.00	45.53	18.99	2.53	27.18	Peak
4	365.6200	35.25	-10.75	46.00	39.27	20.84	2.72	27.58	Peak
5	697.3600	34.82	-11.18	46.00	34.28	24.86	4.08	28.40	Peak
6	796.3000	34.42	-11.58	46.00	32.32	25.83	4.36	28.09	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical).
Note 4: No level of unwanted emissions exceeds the level of the fundamental emission.

3.6.7 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 5150-5250MHz

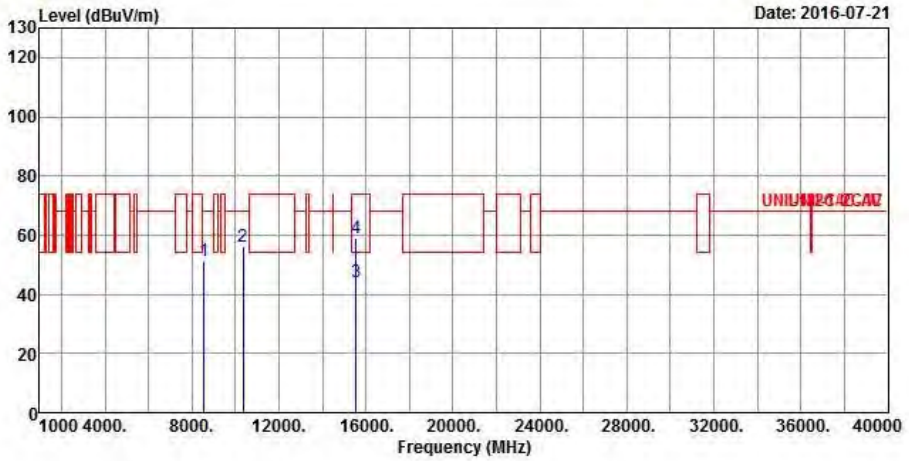
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (MHz)**	5180
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7552.0000	36.63	-17.37	54.00	29.86	36.38	5.49	35.10	Average
2	7552.0000	51.23	-22.77	74.00	44.46	36.38	5.49	35.10	Peak
3	10360.000	54.85	-13.35	68.20	44.37	39.33	6.23	35.08	Peak
4	15540.000	44.06	-9.94	54.00	32.57	38.30	7.98	34.79	Average
5	15540.000	58.31	-15.69	74.00	46.82	38.30	7.98	34.79	Peak

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

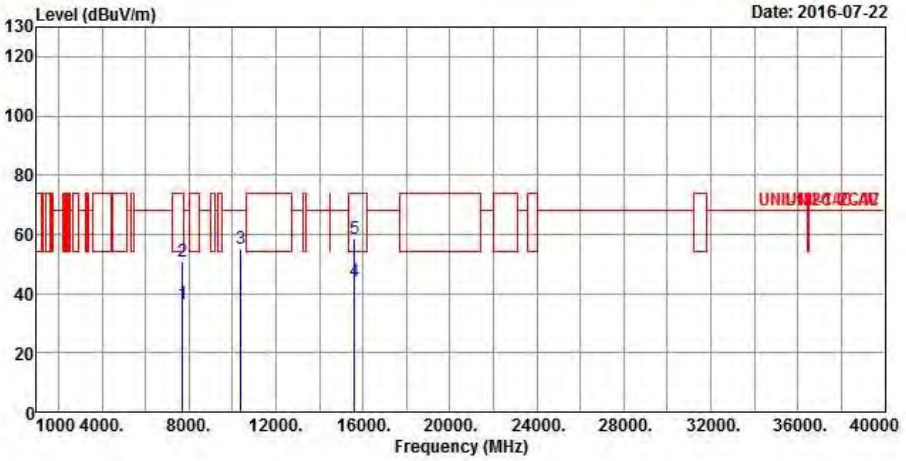
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (MHz)**	5180
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8572.0000	51.20	-17.00	68.20	43.67	36.79	5.85	35.11	Peak
2	10360.000	55.98	-12.22	68.20	45.50	39.33	6.23	35.08	Peak
3	15540.000	44.25	-9.75	54.00	32.76	38.30	7.98	34.79	Average
4	15540.000	58.94	-15.06	74.00	47.45	38.30	7.98	34.79	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

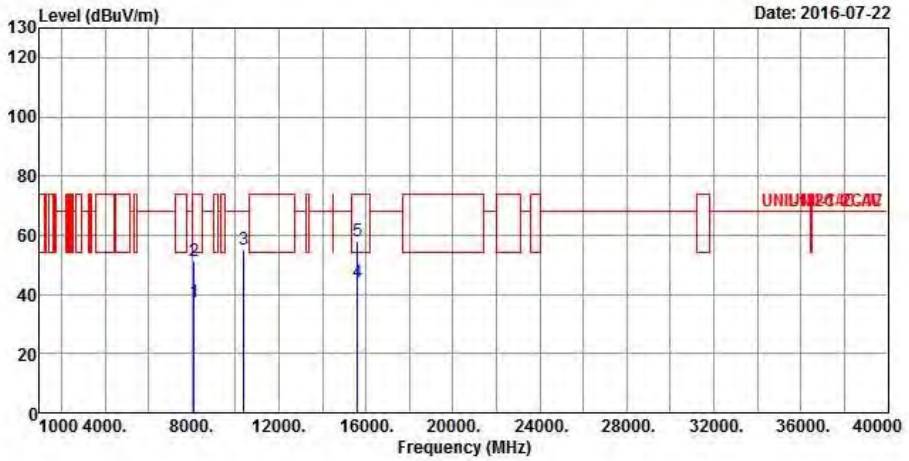
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (MHz)**	5200
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7708.0000	36.67	-17.33	54.00	29.61	36.63	5.54	35.11	Average
2	7708.0000	50.74	-23.26	74.00	43.68	36.63	5.54	35.11	Peak
3	10400.000	55.10	-13.10	68.20	44.54	39.38	6.22	35.04	Peak
4	15600.000	44.07	-9.93	54.00	32.75	38.16	8.00	34.84	Average
5	15600.000	58.50	-15.50	74.00	47.18	38.16	8.00	34.84	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

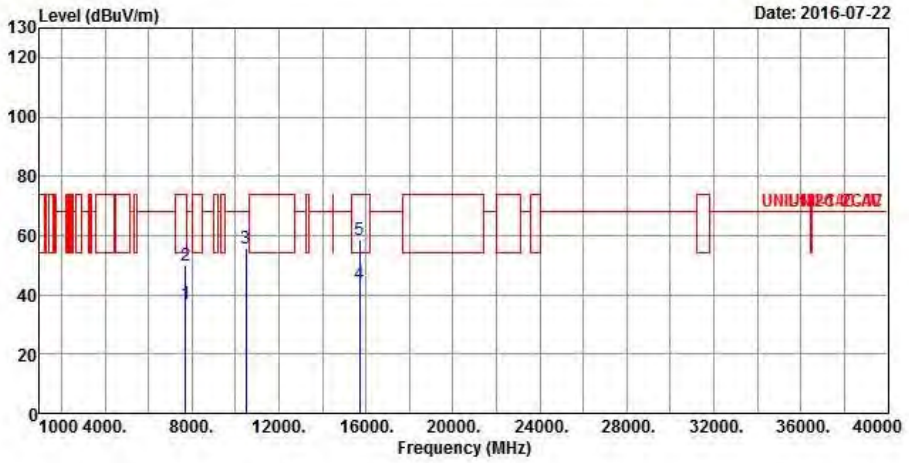
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (MHz)**	5200
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8108.0000	37.39	-16.61	54.00	29.81	37.01	5.68	35.11	Average
2	8108.0000	51.36	-22.64	74.00	43.78	37.01	5.68	35.11	Peak
3	10400.000	55.15	-13.05	68.20	44.59	39.38	6.22	35.04	Peak
4	15600.000	43.90	-10.10	54.00	32.58	38.16	8.00	34.84	Average
5	15600.000	58.00	-16.00	74.00	46.68	38.16	8.00	34.84	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

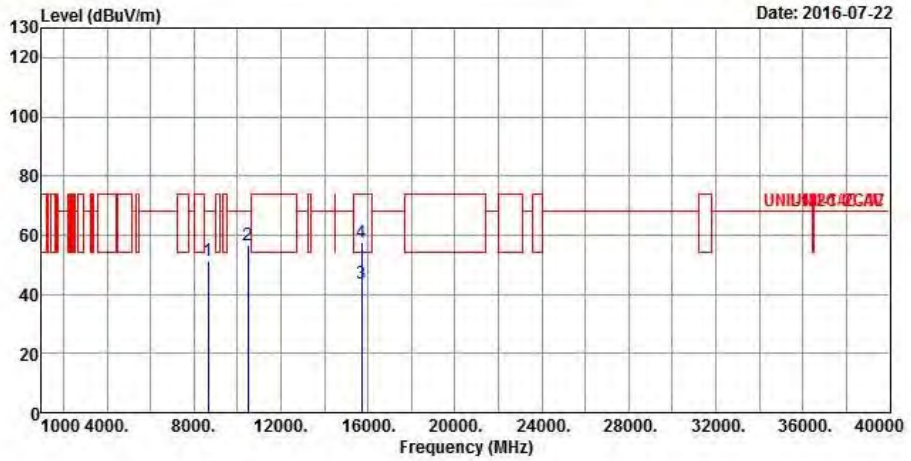
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (MHz)**	5240
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7700.0000	36.71	-17.29	54.00	29.66	36.62	5.54	35.11	Average
2	7700.0000	50.09	-23.91	74.00	43.04	36.62	5.54	35.11	Peak
3	10480.000	55.72	-12.48	68.20	44.99	39.48	6.22	34.97	Peak
4	15720.000	43.63	-10.37	54.00	32.65	37.87	8.04	34.93	Average
5	15720.000	58.32	-15.68	74.00	47.34	37.87	8.04	34.93	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

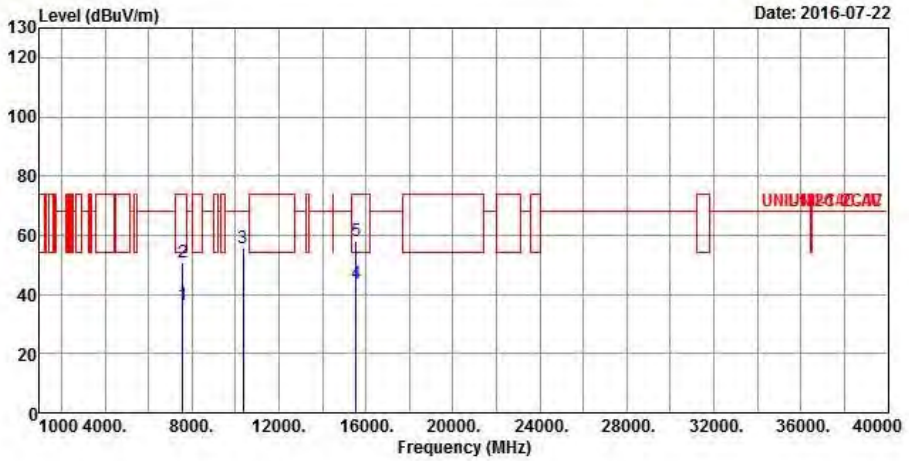
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (MHz)**	5240
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8672.0000	51.11	-17.09	68.20	43.46	36.91	5.89	35.15	Peak
2	10480.000	56.65	-11.55	68.20	45.92	39.48	6.22	34.97	Peak
3	15720.000	43.65	-10.35	54.00	32.67	37.87	8.04	34.93	Average
4	15720.000	57.79	-16.21	74.00	46.81	37.87	8.04	34.93	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

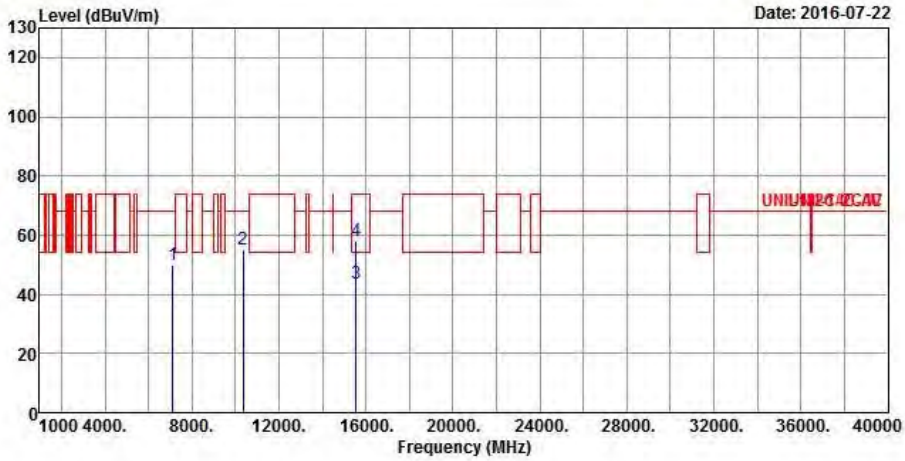
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (MHz)**	5180
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7564.0000	36.52	-17.48	54.00	29.73	36.40	5.49	35.10	Average
2	7564.0000	50.65	-23.35	74.00	43.86	36.40	5.49	35.10	Peak
3	10360.000	55.49	-12.71	68.20	45.01	39.33	6.23	35.08	Peak
4	15540.000	43.78	-10.22	54.00	32.29	38.30	7.98	34.79	Average
5	15540.000	57.99	-16.01	74.00	46.50	38.30	7.98	34.79	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

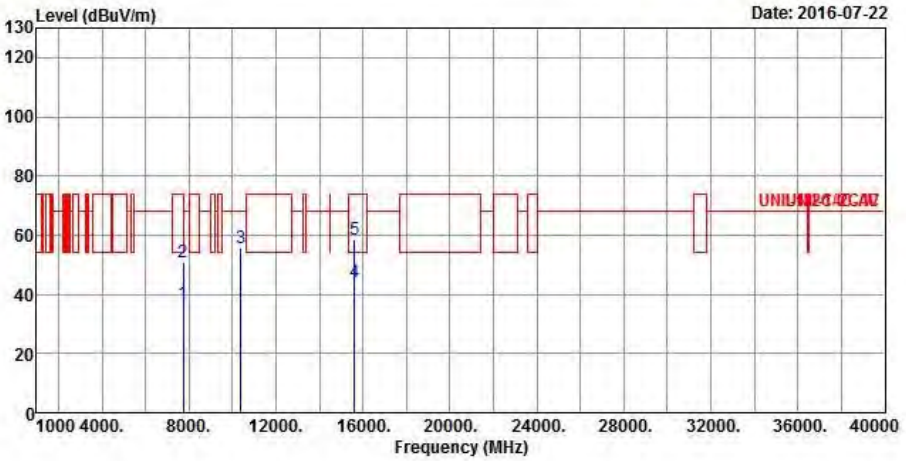
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (MHz)**	5180
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7124.0000	49.99	-18.21	68.20	44.24	35.47	5.33	35.05	Peak
2	10360.000	55.04	-13.16	68.20	44.56	39.33	6.23	35.08	Peak
3	15540.000	43.89	-10.11	54.00	32.40	38.30	7.98	34.79	Average
4	15540.000	57.96	-16.04	74.00	46.47	38.30	7.98	34.79	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

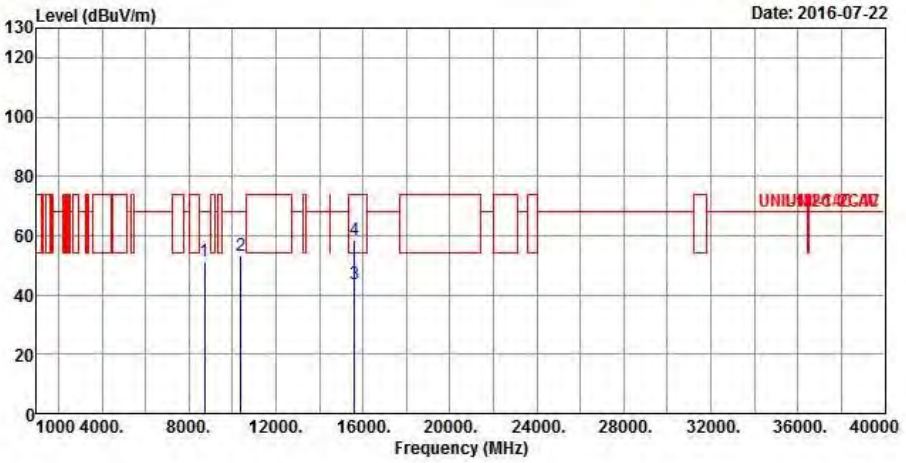
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (MHz)**	5200
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7744.0000	36.84	-17.16	54.00	29.71	36.69	5.55	35.11	Average
2	7744.0000	50.96	-23.04	74.00	43.83	36.69	5.55	35.11	Peak
3	10400.000	55.88	-12.32	68.20	45.32	39.38	6.22	35.04	Peak
4	15600.000	44.01	-9.99	54.00	32.69	38.16	8.00	34.84	Average
5	15600.000	58.40	-15.60	74.00	47.08	38.16	8.00	34.84	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

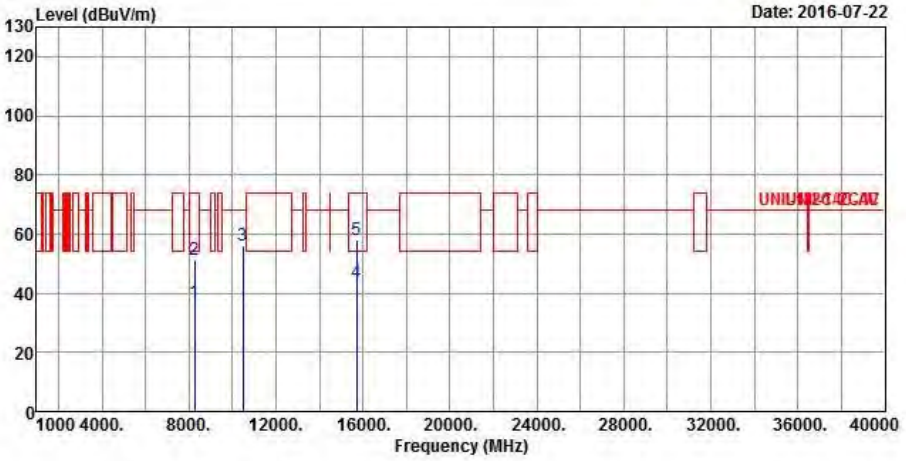
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (MHz)**	5200
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8724.0000	51.57	-16.63	68.20	43.86	36.97	5.91	35.17	Peak
2	10400.000	53.37	-14.83	68.20	42.81	39.38	6.22	35.04	Peak
3	15600.000	43.71	-10.29	54.00	32.39	38.16	8.00	34.84	Average
4	15600.000	58.46	-15.54	74.00	47.14	38.16	8.00	34.84	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

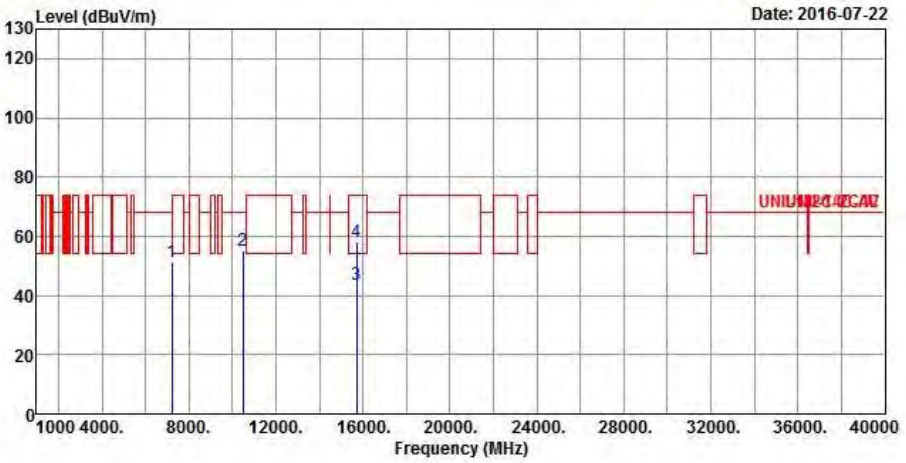
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (MHz)**	5240
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8276.0000	37.18	-16.82	54.00	29.66	36.88	5.74	35.10	Average
2	8276.0000	51.38	-22.62	74.00	43.86	36.88	5.74	35.10	Peak
3	10480.000	56.29	-11.91	68.20	45.56	39.48	6.22	34.97	Peak
4	15720.000	43.73	-10.27	54.00	32.75	37.87	8.04	34.93	Average
5	15720.000	58.05	-15.95	74.00	47.07	37.87	8.04	34.93	Peak

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

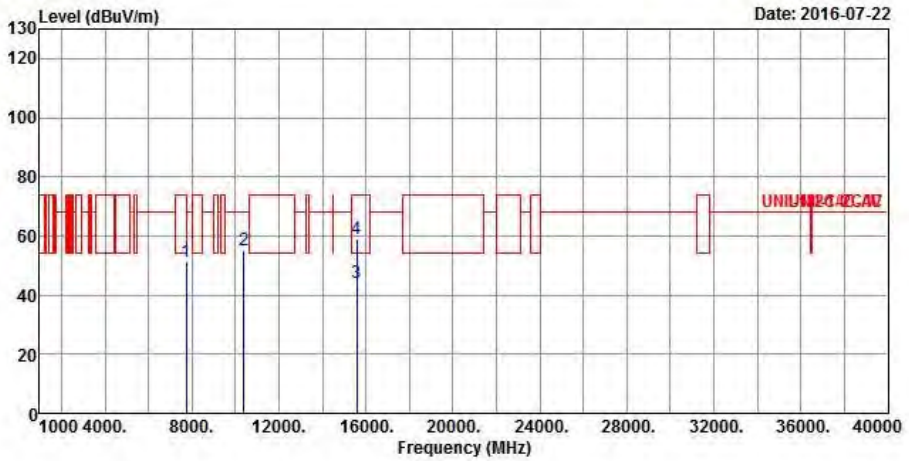
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (MHz)**	5240
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7228.0000	51.48	-16.72	68.20	45.47	35.70	5.37	35.06	Peak
2	10480.000	55.35	-12.85	68.20	44.62	39.48	6.22	34.97	Peak
3	15720.000	43.67	-10.33	54.00	32.69	37.87	8.04	34.93	Average
4	15720.000	58.10	-15.90	74.00	47.12	37.87	8.04	34.93	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

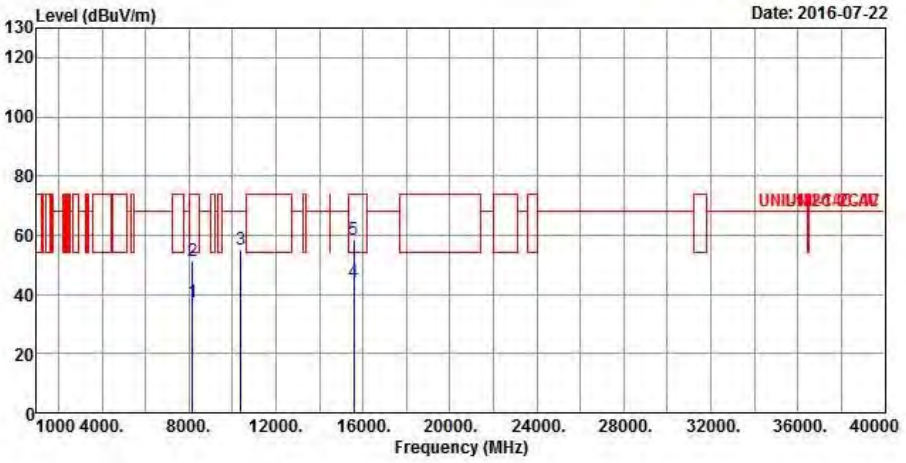
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT40	**Test Freq. (MHz)**	5190
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7756.0000	51.43	-16.77	68.20	44.27	36.71	5.56	35.11	Peak
2	10380.000	55.04	-13.16	68.20	44.52	39.36	6.22	35.06	Peak
3	15570.000	44.19	-9.81	54.00	32.78	38.23	7.99	34.81	Average
4	15570.000	58.79	-15.21	74.00	47.38	38.23	7.99	34.81	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

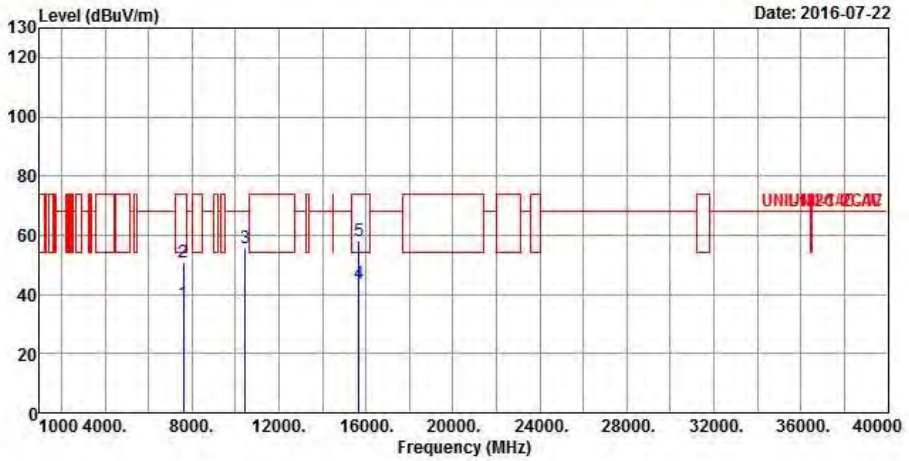
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT40	**Test Freq. (MHz)**	5190
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8152.0000	37.41	-16.59	54.00	29.84	36.98	5.70	35.11	Average
2	8152.0000	51.48	-22.52	74.00	43.91	36.98	5.70	35.11	Peak
3	10380.000	55.16	-13.04	68.20	44.64	39.36	6.22	35.06	Peak
4	15570.000	44.11	-9.89	54.00	32.70	38.23	7.99	34.81	Average
5	15570.000	58.73	-15.27	74.00	47.32	38.23	7.99	34.81	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

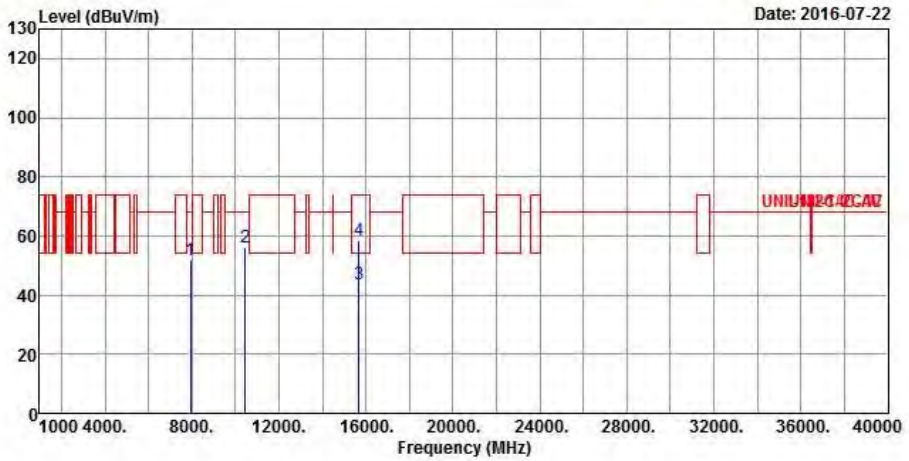
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT40	**Test Freq. (MHz)**	5230
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7620.0000	36.82	-17.18	54.00	29.92	36.49	5.51	35.10	Average
2	7620.0000	50.88	-23.12	74.00	43.98	36.49	5.51	35.10	Peak
3	10460.000	55.88	-12.32	68.20	45.20	39.45	6.22	34.99	Peak
4	15690.000	43.85	-10.15	54.00	32.79	37.94	8.03	34.91	Average
5	15690.000	58.10	-15.90	74.00	47.04	37.94	8.03	34.91	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT40	**Test Freq. (MHz)**	5230
N_{TX}	2	**Polarization**	H

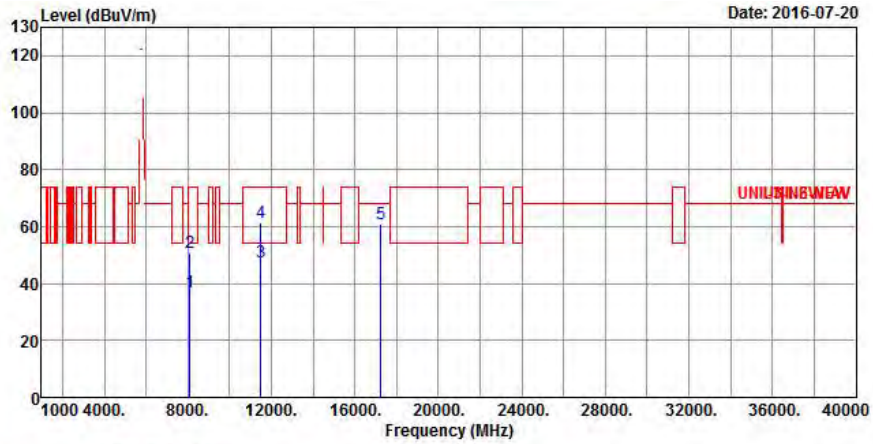


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7924.0000	52.01	-16.19	68.20	44.54	36.98	5.61	35.12	Peak
2	10460.000	56.15	-12.05	68.20	45.47	39.45	6.22	34.99	Peak
3	15690.000	43.82	-10.18	54.00	32.76	37.94	8.03	34.91	Average
4	15690.000	58.75	-15.25	74.00	47.69	37.94	8.03	34.91	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

3.6.8 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 5725-5850MHz

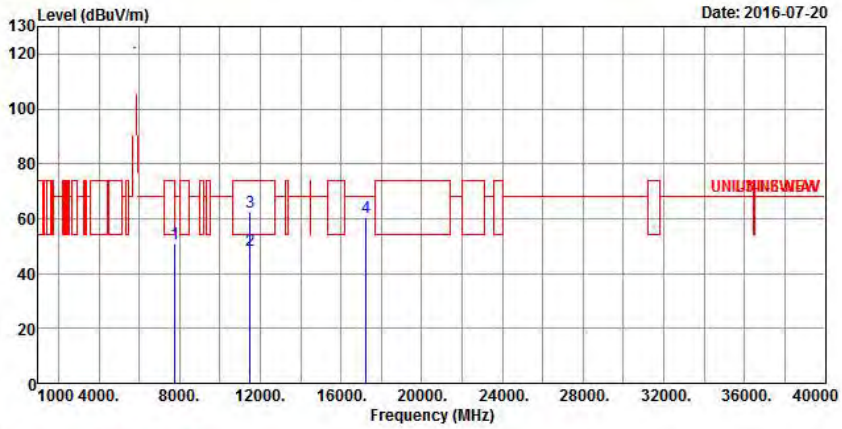
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (MHz)**	5745
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8112.0000	37.16	-16.84	54.00	29.58	37.01	5.68	35.11	Average
2	8112.0000	50.78	-23.22	74.00	43.20	37.01	5.68	35.11	Peak
3	11490.000	47.72	-6.28	54.00	35.41	40.10	6.81	34.60	Average
4	11490.000	61.53	-12.47	74.00	49.22	40.10	6.81	34.60	Peak
5	17235.000	61.10	-7.10	68.20	45.88	40.79	8.45	34.02	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

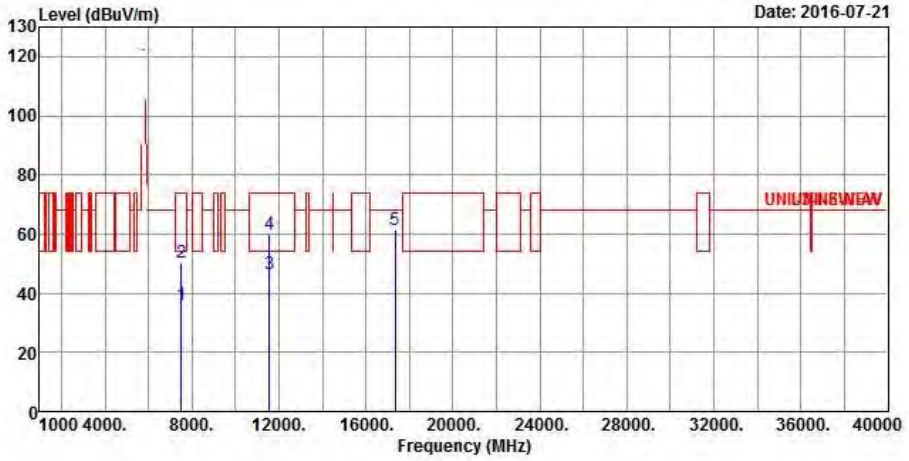
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (MHz)**	5745
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7776.0000	50.96	-17.24	68.20	43.77	36.74	5.56	35.11	Peak
2	11490.000	48.39	-5.61	54.00	36.08	40.10	6.81	34.60	Average
3	11490.000	62.58	-11.42	74.00	50.27	40.10	6.81	34.60	Peak
4	17235.000	60.40	-7.80	68.20	45.18	40.79	8.45	34.02	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

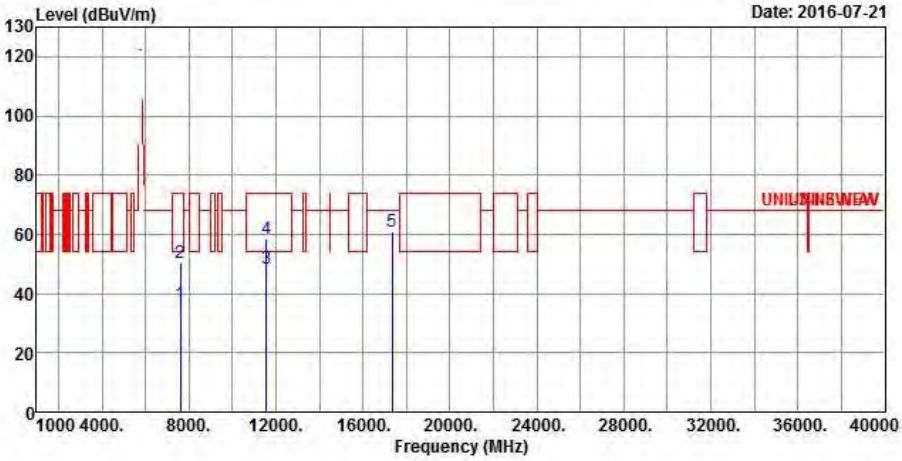
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (MHz)**	5785
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7524.0000	35.95	-18.05	54.00	29.23	36.34	5.48	35.10	Average
2	7524.0000	50.13	-23.87	74.00	43.41	36.34	5.48	35.10	Peak
3	11570.000	46.76	-7.24	54.00	34.61	39.93	6.84	34.62	Average
4	11570.000	60.02	-13.98	74.00	47.87	39.93	6.84	34.62	Peak
5	17355.000	61.42	-6.78	68.20	45.68	41.25	8.48	33.99	Peak

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

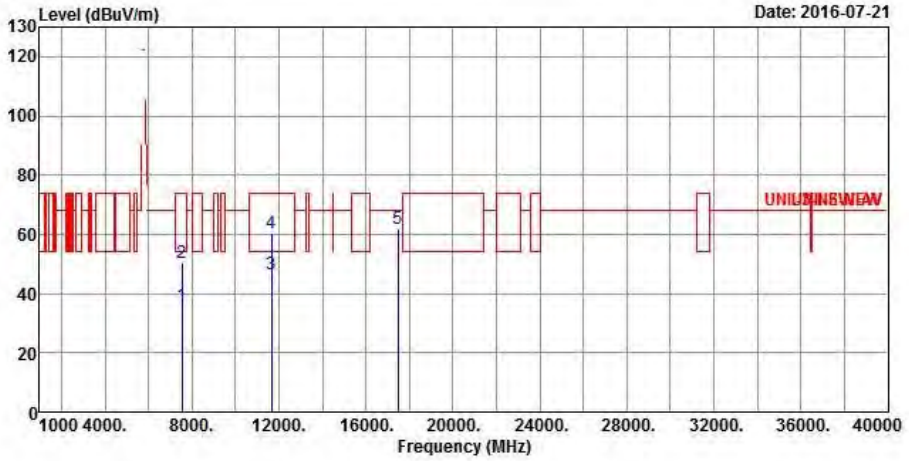
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (MHz)**	5785
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7600.0000	36.31	-17.69	54.00	29.45	36.46	5.50	35.10	Average
2	7600.0000	50.51	-23.49	74.00	43.65	36.46	5.50	35.10	Peak
3	11570.000	48.41	-5.59	54.00	36.26	39.93	6.84	34.62	Average
4	11570.000	58.56	-15.44	74.00	46.41	39.93	6.84	34.62	Peak
5	17355.000	60.83	-7.37	68.20	45.09	41.25	8.48	33.99	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

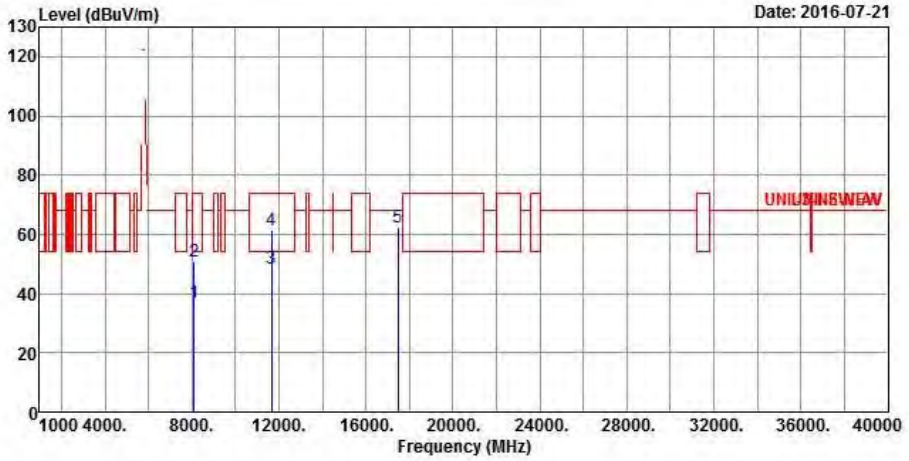
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (MHz)**	5825
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7548.0000	36.11	-17.89	54.00	29.34	36.38	5.49	35.10	Average
2	7548.0000	50.30	-23.70	74.00	43.53	36.38	5.49	35.10	Peak
3	11650.000	46.42	-7.58	54.00	34.46	39.74	6.87	34.65	Average
4	11650.000	60.36	-13.64	74.00	48.40	39.74	6.87	34.65	Peak
5	17475.000	61.78	-6.42	68.20	45.53	41.70	8.50	33.95	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

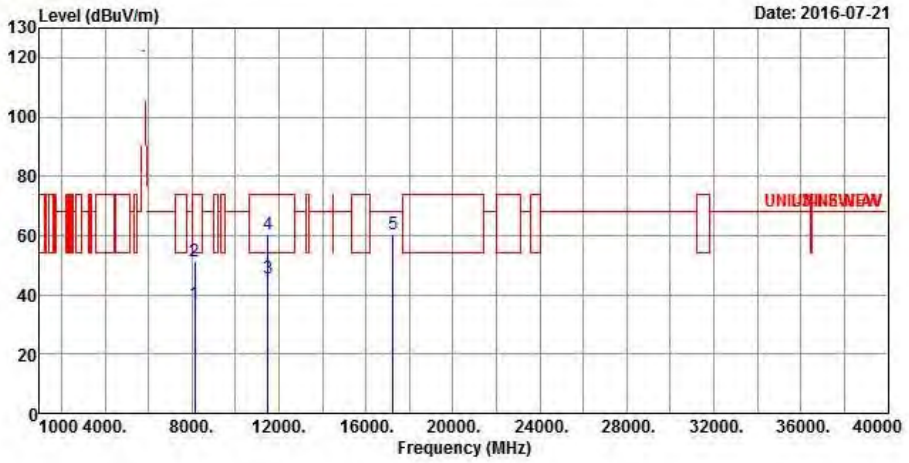
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (MHz)**	5825
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8084.0000	37.14	-16.86	54.00	29.55	37.03	5.67	35.11	Average
2	8084.0000	50.91	-23.09	74.00	43.32	37.03	5.67	35.11	Peak
3	11650.000	48.30	-5.70	54.00	36.34	39.74	6.87	34.65	Average
4	11650.000	61.52	-12.48	74.00	49.56	39.74	6.87	34.65	Peak
5	17475.000	62.56	-5.64	68.20	46.31	41.70	8.50	33.95	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

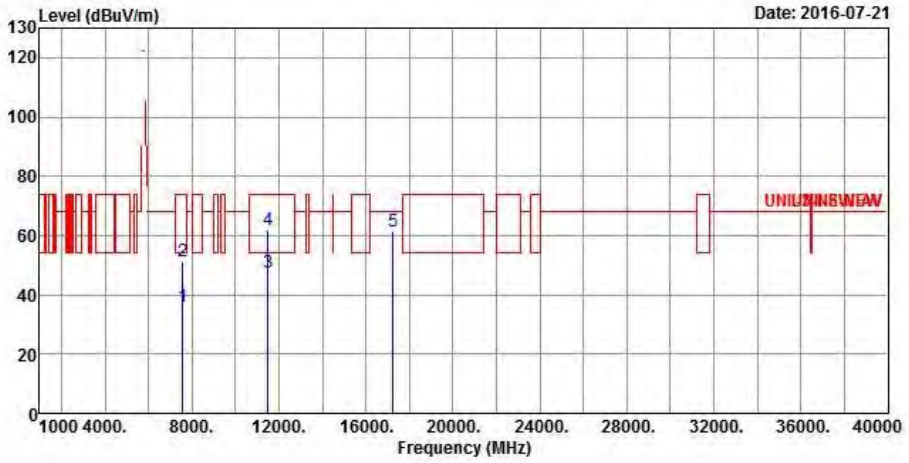
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (MHz)**	5745
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8124.0000	37.13	-16.87	54.00	29.55	37.00	5.69	35.11	Average
2	8124.0000	51.53	-22.47	74.00	43.95	37.00	5.69	35.11	Peak
3	11490.000	45.50	-8.50	54.00	33.19	40.10	6.81	34.60	Average
4	11490.000	60.25	-13.75	74.00	47.94	40.10	6.81	34.60	Peak
5	17235.000	60.28	-7.92	68.20	45.06	40.79	8.45	34.02	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

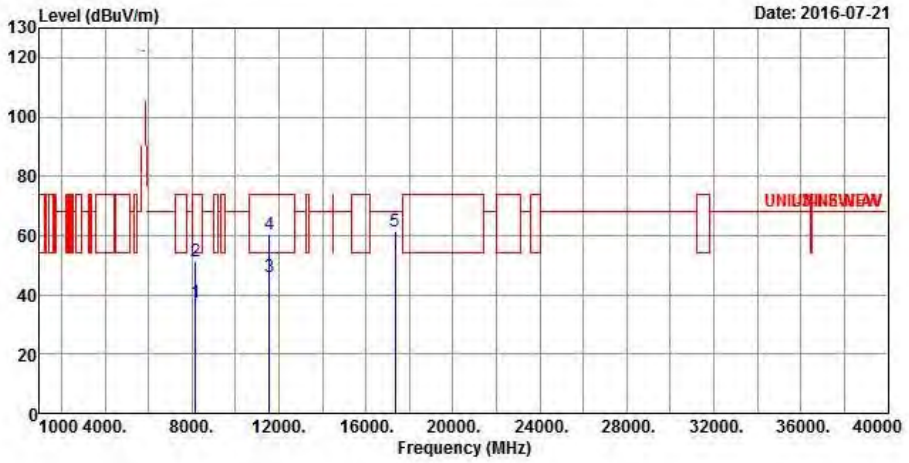
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (MHz)**	5745
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7567.0000	36.02	-17.98	54.00	29.22	36.41	5.49	35.10	Average
2	7567.0000	51.44	-22.56	74.00	44.64	36.41	5.49	35.10	Peak
3	11490.000	47.27	-6.73	54.00	34.96	40.10	6.81	34.60	Average
4	11490.000	61.90	-12.10	74.00	49.59	40.10	6.81	34.60	Peak
5	17235.000	61.60	-6.60	68.20	46.38	40.79	8.45	34.02	Peak

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

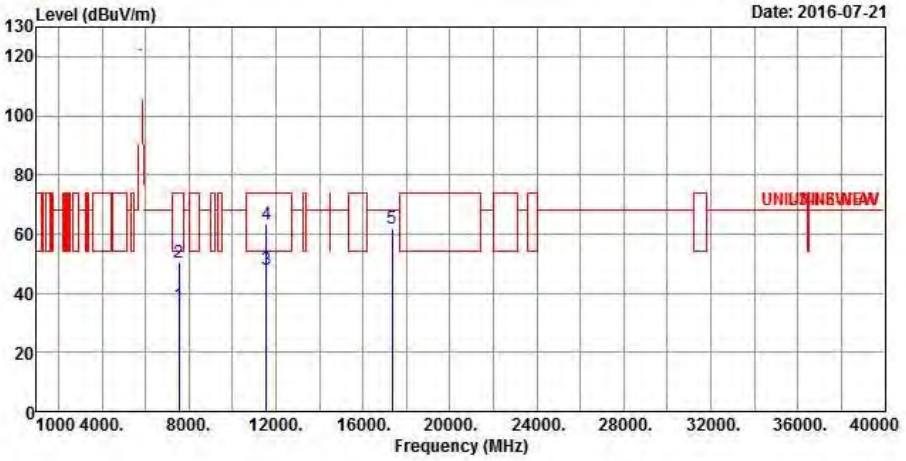
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (MHz)**	5785
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8160.0000	37.20	-16.80	54.00	29.64	36.97	5.70	35.11	Average
2	8160.0000	51.56	-22.44	74.00	44.00	36.97	5.70	35.11	Peak
3	11570.000	46.13	-7.87	54.00	33.98	39.93	6.84	34.62	Average
4	11570.000	60.59	-13.41	74.00	48.44	39.93	6.84	34.62	Peak
5	17355.000	61.32	-6.88	68.20	45.58	41.25	8.48	33.99	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

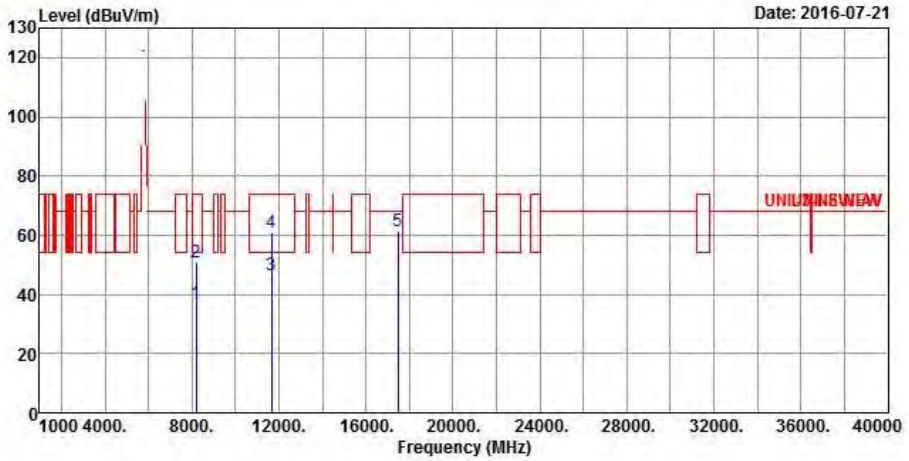
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (MHz)**	5785
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7544.0000	35.91	-18.09	54.00	29.16	36.37	5.48	35.10	Average
2	7544.0000	50.16	-23.84	74.00	43.41	36.37	5.48	35.10	Peak
3	11570.000	48.16	-5.84	54.00	36.01	39.93	6.84	34.62	Average
4	11570.000	63.10	-10.90	74.00	50.95	39.93	6.84	34.62	Peak
5	17355.000	61.85	-6.35	68.20	46.11	41.25	8.48	33.99	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

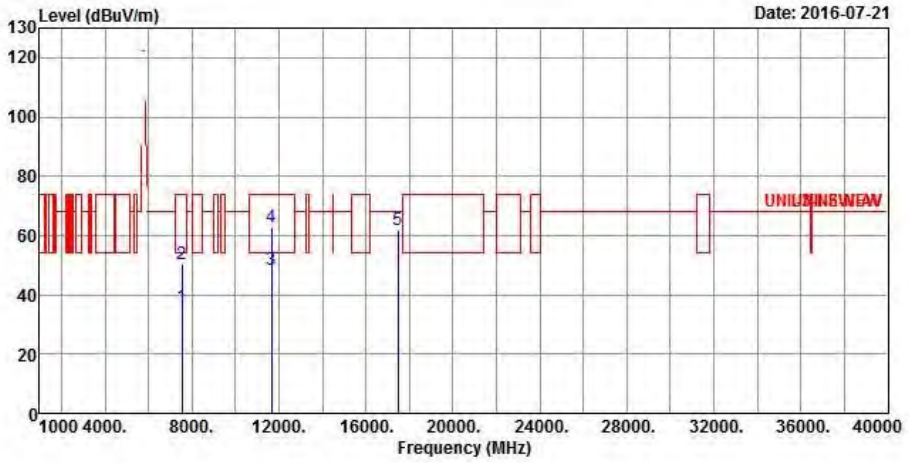
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (MHz)**	5825
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8208.0000	37.03	-16.97	54.00	29.48	36.93	5.72	35.10	Average
2	8208.0000	50.75	-23.25	74.00	43.20	36.93	5.72	35.10	Peak
3	11650.000	46.62	-7.38	54.00	34.66	39.74	6.87	34.65	Average
4	11650.000	61.14	-12.86	74.00	49.18	39.74	6.87	34.65	Peak
5	17475.000	61.62	-6.58	68.20	45.37	41.70	8.50	33.95	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

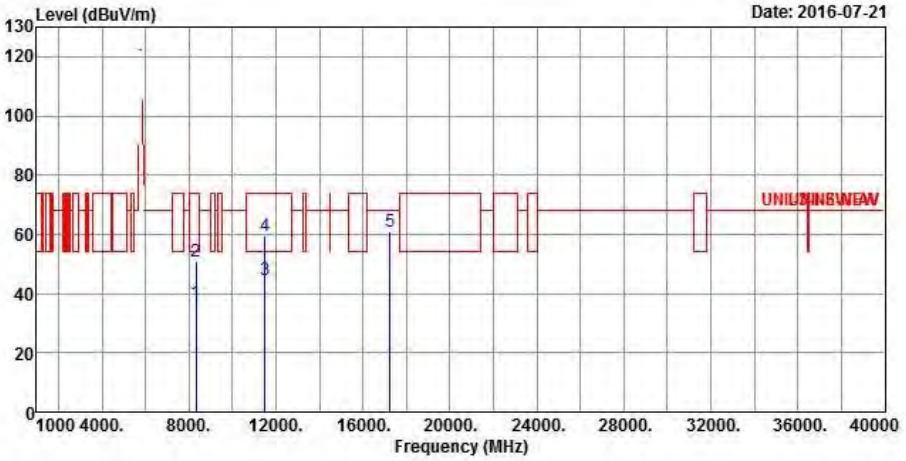
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (MHz)**	5825
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7540.0000	36.06	-17.94	54.00	29.32	36.36	5.48	35.10	Average
2	7540.0000	50.19	-23.81	74.00	43.45	36.36	5.48	35.10	Peak
3	11650.000	48.34	-5.66	54.00	36.38	39.74	6.87	34.65	Average
4	11650.000	63.01	-10.99	74.00	51.05	39.74	6.87	34.65	Peak
5	17475.000	61.68	-6.52	68.20	45.43	41.70	8.50	33.95	Peak

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

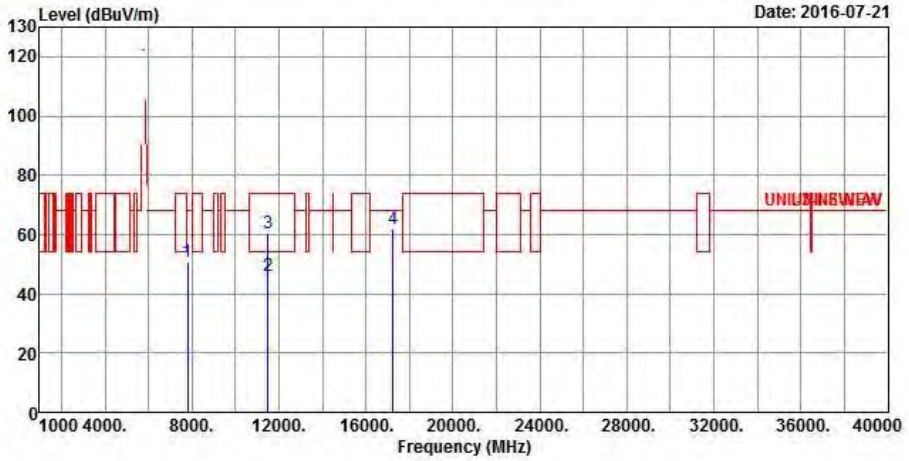
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT40	**Test Freq. (MHz)**	5755
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8324.0000	36.84	-17.16	54.00	29.33	36.84	5.76	35.09	Average
2	8324.0000	51.07	-22.93	74.00	43.56	36.84	5.76	35.09	Peak
3	11510.000	44.82	-9.18	54.00	32.52	40.08	6.82	34.60	Average
4	11510.000	59.25	-14.75	74.00	46.95	40.08	6.82	34.60	Peak
5	17265.000	60.80	-7.40	68.20	45.46	40.91	8.45	34.02	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

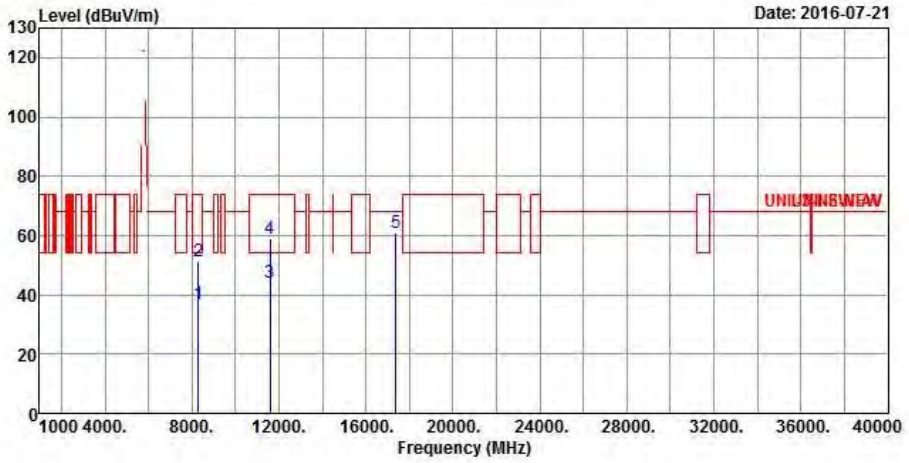
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT40	**Test Freq. (MHz)**	5755
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7800.0000	50.78	-17.42	68.20	43.54	36.78	5.57	35.11	Peak
2	11510.000	46.12	-7.88	54.00	33.82	40.08	6.82	34.60	Average
3	11510.000	60.44	-13.56	74.00	48.14	40.08	6.82	34.60	Peak
4	17265.000	62.01	-6.19	68.20	46.67	40.91	8.45	34.02	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

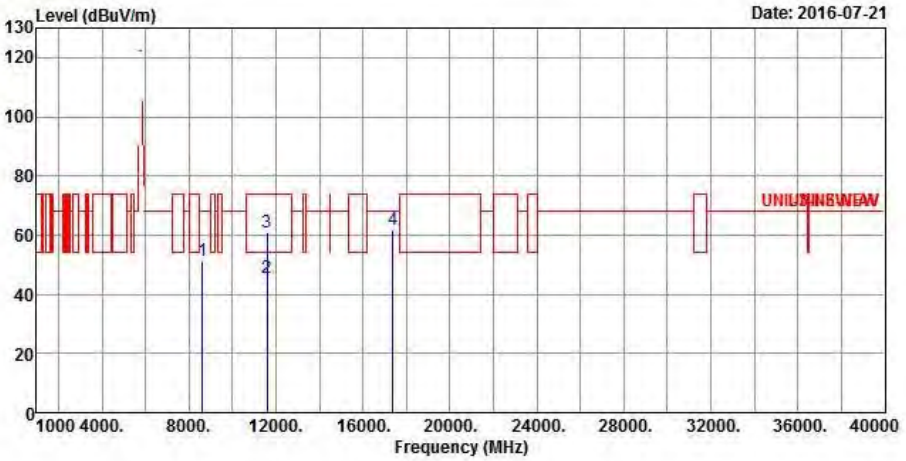
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT40	**Test Freq. (MHz)**	5795
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8292.0000	36.76	-17.24	54.00	29.24	36.87	5.75	35.10	Average
2	8292.0000	51.23	-22.77	74.00	43.71	36.87	5.75	35.10	Peak
3	11590.000	44.13	-9.87	54.00	32.03	39.88	6.85	34.63	Average
4	11590.000	58.82	-15.18	74.00	46.72	39.88	6.85	34.63	Peak
5	17385.000	60.77	-7.43	68.20	44.91	41.36	8.48	33.98	45.68

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT40	**Test Freq. (MHz)**	5795
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8620.0000	51.33	-16.87	68.20	43.75	36.84	5.87	35.13	Peak
2	11590.000	45.51	-8.49	54.00	33.41	39.88	6.85	34.63	Average
3	11590.000	60.74	-13.26	74.00	48.64	39.88	6.85	34.63	Peak
4	17385.000	61.65	-6.55	68.20	45.79	41.36	8.48	33.98	Peak

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

3.7 Frequency Stability

3.7.1 Frequency Stability Limit

Frequency Stability Limit
UNII Devices
☒ In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.
IEEE Std. 802.11n-2009
☒ The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band.

3.7.2 Measuring Instruments

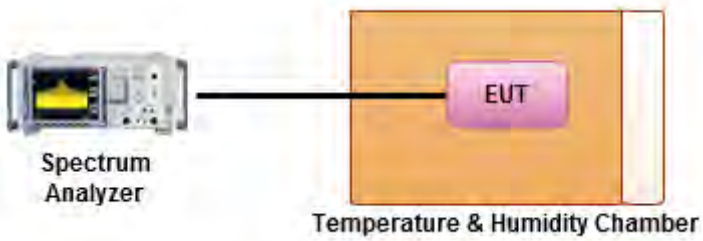
Refer a test equipment and calibration data table in this test report.

3.7.3 Test Procedures

Test Method	
☒	Refer as ANSI C63.10, clause 6.8 for frequency stability tests
	☒ Frequency stability with respect to ambient temperature
	☒ Frequency stability when varying supply voltage
☒	For conducted measurement.
	☒ For conducted measurements on devices with multiple transmit chains: Measurements need only to be performed on one of the active transmit chains (antenna outputs)
☐	For radiated measurement. The equipment to be measured and the test antenna shall be oriented to obtain the maximum emitted power level.

3.7.4 Test Setup

Frequency Stability



3.7.5 Test Result of Frequency Stability

Frequency Stability Result									
Mode		Frequency Stability (ppm)							
		Test Frequency (MHz)				Frequency Stability (ppm)			
Condition	Freq. (MHz)	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min
$T_{20°C}$Vmax	5745	5744.95051	5744.94877	5744.94530	5744.94399	-8.6144	-8.9173	-9.5213	-9.7493
$T_{20°C}$Vmin	5745	5744.95311	5744.95268	5744.95051	5744.94877	-8.1619	-8.2367	-8.6144	-8.9173
$T_{50°C}$Vnom	5745	5744.94052	5744.94356	5744.94573	5744.94877	-10.3534	-9.8242	-9.4465	-8.9173
$T_{40°C}$Vnom	5745	5744.93835	5744.93965	5744.94139	5744.93965	-10.7311	-10.5048	-10.2019	-10.5048
$T_{30°C}$Vnom	5745	5744.94182	5744.94009	5744.94052	5744.93922	-10.1271	-10.4282	-10.3534	-10.5796
$T_{20°C}$Vnom	5745	5744.95268	5744.95051	5744.94877	5744.94530	-8.2367	-8.6144	-8.9173	-9.5213
$T_{10°C}$Vnom	5745	5744.98003	5744.97048	5744.96483	5744.95441	-3.4761	-5.1384	-6.1218	-7.9356
$T_{0°C}$Vnom	5745	5744.99088	5744.98220	5744.97656	5744.96614	-1.5875	-3.0983	-4.0801	-5.8938
$T_{-10°C}$Vnom	5745	5744.99653	5744.99088	5744.98307	5744.97742	-0.6040	-1.5875	-2.9469	-3.9304
$T_{-20°C}$Vnom	5745	5744.99479	5744.99088	5744.98611	5744.98177	-0.9069	-1.5875	-2.4178	-3.1732
Limit (ppm)		20							
Result		Complied							
Note 1: Measure at 85 % [Vmin] and 115 % [Vmax] of the nominal voltage [Vnom]. Note 2: The nominal voltage refer test report clause 1.1.6 for EUT operational condition.									

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Last Cal.	Calibration Due Date
EMC Receiver	KEYSIGHT	N9038A	MY54130031	20Hz ~ 8.4GHz	14/04/2016	13/04/2017
LISN	MessTec	NNB-2/16Z	2001/009	9kHz ~ 30MHz	21/10/2015	20/10/2016
LISN (Support Unit)	MessTec	NNB-2/16Z	99079	9kHz ~ 30MHz	21/09/2015	20/09/2016
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832010001	9kHz ~ 30MHz	NCR	NCR

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Last Cal.	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	9KHz~40GHz	25/01/2014	24/01/2015
AC Power Source	G.W	APS-9102	EL920581	AC 0V ~ 300V	15/07/2014	14/07/2015
Temp. and Humidity Chamber	Giant Force	GTH-225-20-SP-SD	MAA1112-007	-20 ~ 100℃	20/11/2013	19/11/2014
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	26/06/2014	25/06/2015
RF Cable-2m	HUBER+SUHNER	SUCOFLEX_104	SN 345675/4	30MHz ~ 26.5GHz	02/12/2013	01/12/2014

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Last Cal.	Calibration Due Date
Spectrum Analyzer	R&S	FSP 40	100593	9KHz~40GHz	19/10/2015	18/10/2016
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	*03CH02-HY*	*30MHz ~ 1GHz 3m*	03/06/2016	02/06/2017
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz ~ 18GHz 3m	03/06/2016	02/06/2017
Amplifier	Agilent	8447D	2944A11149	100kHz ~ 1.3GHz	01/07/2016	30/06/2017
Amplifier	Agilent	8449B	3008A02602	1GHz ~ 26.5GHz	04/11/2015	03/11/2016
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 01543	1GHz ~ 18GHz	22/04/2016	21/04/2017
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	18GHz ~ 40GHz	29/01/2016	28/01/2017
Bilog Antenna	SCHAFFNER	CBL 6112B	2723	30MHz ~ 1GHz	05/10/2015	04/10/2016
Amplifier	MITEQ	JS44-18004000-33-8P	1840917	18GHz ~ 40GHz	01/06/2015	31/05/2017
Loop Antenna	R&S	HFH2-Z2	100330	9 kHz~30 MHz	16/11/2015	15/11/2017