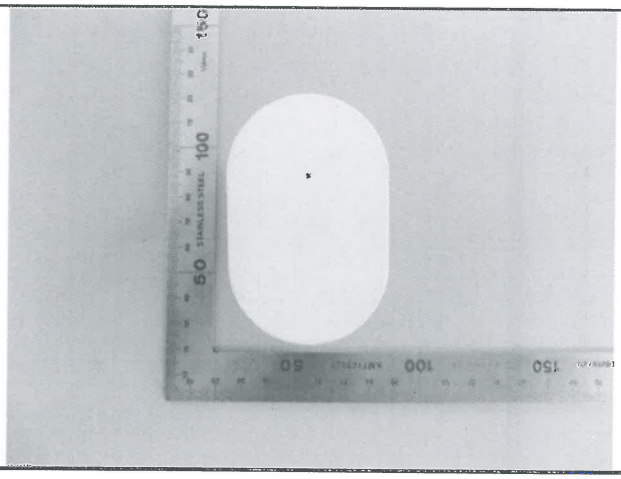
Prüfbericht-Nr.: *Test Report No.:*	**50068241 001**	**Auftrags-Nr.:** *Order No.:*	**154186596**	**Seite 1 von 54** *Page 1 of 54*
Kunden-Referenz-Nr.: *Client Reference No.:*	**60052183**	**Auftragsdatum:** *Order date:*	**06.28.2016**	
Auftraggeber: *Client:*	**Glue AB** c/o Epicenter, Malmskillnadsgatan 32, Stockholm, Sweden			
Prüfgegenstand: *Test item:*	**GLUE WI-FI HUB**			
Bezeichnung / Typ-Nr.: *Identification / Type No.:*	**GH01A.CL** **FCC ID: 2AJLEHUBV1** **IC: 21878-HUBV1**			
Auftrags-Inhalt: *Order content:*	**Complete test**			
Prüfgrundlage: *Test specification:*	**FCC CFR47 Part 15, Subpart C Section 15.247** **RSS-Gen Issue 4, November 2014** **RSS-247 Issue 2, February 2017** **ANSI C63.10: 2013** **KDB 558074 D01 DTS Meas Guidance v03r05**			
Wareneingangsdatum: *Date of receipt:*	**10.14.2016**			
Prüfmuster-Nr.: *Test sample No.:*	**A000392452-028**			
Prüfzeitraum: *Testing period:*	**10.25.2016 to 12.05.2016**			
Ort der Prüfung: *Place of testing:*	**MRT Technology(Suzhou) Co., Ltd.**			
Prüflaboratorium: *Testing laboratory:*	**TÜV Rheinland (Shanghai) Co., Ltd.**			
Prüfergebnis*: *Test result*:*	**Pass**			



geprüft von / *tested by:*			**kontrolliert von** / *reviewed by:*		
03.04.2017	Elliot Zhang / Senior Project Engineer		03.04.2017	Shi Li / Section Manager	
Datum *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*	**Datum** *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*

Sonstiges / *Other*

Zustand des Prüfgegenstandes bei Anlieferung: Prüfmuster vollständig und unbeschädigt
Condition of the test item at delivery: *Test item complete and undamaged*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
Legend:	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specification(s)		*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

TEST SUMMARY

5.1.1 ANTENNA REQUIREMENT
RESULT: Pass

5.1.2 PEAK OUTPUT POWER
RESULT: Pass

5.1.3 6DB & 99% BANDWIDTH
RESULT: Pass

5.1.4 CONDUCTED SPURIOUS EMISSIONS
RESULT: Pass

5.1.5 POWER SPECTRAL DENSITY
RESULT: Pass

5.2.1 CONDUCTED EMISSION
RESULT: Pass

5.3.1 RADIATED SPURIOUS EMISSION
RESULT: Pass

Contents

1. General Remarks

1.1 Complementary Materials

Null.

2. Test Sites

2.1 Test Facilities

MRT Technology (Suzhou) Co., Ltd.

D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China

The used test equipment is in accordance with CISPR 16 for measurement of radio interference.

The Federal Communications Commission has reviewed the technical characteristics of the radiated and conducted emission facility, and has found these test facilities to be in compliance with the requirements of section 2.948 of the FCC rules. The description of the test facility is listed under FCC registration number 809388.

The Industry Canada has reviewed the technical characteristics of the radiated and conducted emission facility, and has found these test facilities to be in compliance. The description of the test facility is listed under chambers filing number 11384A.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radiated Test Equipments

Instrument	Manufacturer	Type No.	Asset No.	Cali. Due Date
Spectrum Analyzer	Agilent	E4447A	MY45300136	12.08.2017
EMI Test Receiver	R&S	ESR7	101209	11.03.2017
Preamplifier	Schwarzbeck	BBV 9721	9721-008	04.16.2017
Preamplifier	Agilent	83017A	MY53270040	03.29.2017
Loop Antenna	Schwarzbeck	FMZB1519	1519-041	12.14.2017
TRILOG Antenna	Schwarzbeck	VULB9162	9162-047	11.07.2017
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1167	11.07.2017
Broadband Horn Antenna	Schwarzbeck	BBHA9170	BBHA9170549	01.04.2018
Digital Thermometer & Hygrometer	Minggao	N/A	N/A	11.30.2017

Conducted Test Equipment

Instrument	Manufacturer	Type No.	Asset No.	Cali. Due Date
Spectrum Analyzer	Agilent	N9020A	MY52090106	05.08.2017
USB Wideband Power Sensor	Boonton	55006	8911	05.08.2017
Temperature/Humidity Meter	Yuhuaze	N/A	N/A	12.20.2017

Conducted Emission Test Equipment

Instrument	Manufacturer	Type No.	Asset No.	Cali. Due Date
EMI Test Receiver	R&S	ESR7	101209	11.03.2017
Two-Line V-Network	R&S	ENV216	101683	11.03.2017
Two-Line V-Network	R&S	ENV216	101684	11.03.2017
Temperature/Humidity Meter	Yuhuaze	N/A	N/A	12.20.2017

2.3 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basics using in house standards or comparisons.

2.5 Measurement Uncertainty

Table 2: Measurement Uncertainty

Measurement Type	Frequency	Uncertainty
Antenna Port Conducted Emission	< 1GHz	±0.39dB
	> 1GHz	±0.68dB
Radiated Emission	30MHz - 1GHz	±5.34dB
	> 1GHz	±5.40dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT (Equipment Under Test) is a Glue Wi-Fi Hub which support Bluetooth Low Energy and Wi-Fi 802.11b/g/n-HT20, and it should be used in conjunction with the Glue Smart Lock to ensure that the Glue Wi-Fi Hub will perform as designed, with maximum security and functionality.

The aim of this report is to evalute the RF characteristic of the Wi-Fi of Glue Wi-Fi Hub.

For details refer to the User Manual and Circuit Diagram.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Description of EUT	
Product Name:	GLUE WI-FI HUB
Brand Name:	GLUE
Model No.:	GH01A.CL
Rated Voltage:	AC 120V/60Hz
Technical Specification of BLE	
Frequency Range:	2402 – 2480MHz
Modulation Type:	GFSK
Antenna Type:	PCB
Antenna Gain:	1.95 dBi
Technical Specification of Wi-Fi	
Frequency Range:	2412 – 2462MHz
Modulation Type:	DSSS, OFDM
Antenna Type:	PCB
Antenna Gain:	4.15 dBi

3.3 Independent Operation Modes

Table 4: Independent Operation Modes

Test Mode	Operating Mode	Channel Number	Channel Frequency [MHz]
TM1	11b	1	2412
TM2		6	2437
TM3		11	2462
TM4	11g	1	2412
TM5		6	2437
TM6		11	2462
TM7	11n-HT20	1	2412
TM8		6	2437
TM9		11	2462

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.5 Submitted Documents

- Bill of Material
- PCB Layout
- Photo Document
- Circuit Diagram
- Instruction Manual
- Rating Label

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10: 2013.

4.3 Special Accessories and Auxiliary Equipment

Null.

4.4 Countermeasures to achieve EMC Compliance

Null.

5. Test Results

5.1 Conducted Testing at Antenna Port

5.1.1 Antenna Requirement

RESULT: **Pass**

According to the manufacturer declared, the EUT has one PCB antenna, the directional gain of antenna is 4.15dBi and the PCB antenna is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Table 5: Antenna Requirement

FCC 15.203 – Antenna Requirement 1		
Requirement:	No antenna other than that furnished by the responsible party shall be used with the device	
Results:	Antenna type:	PCB Antenna
Verdict:	PASS	

FCC 15.204 – Antenna Requirement 2	
Requirement:	An intentional radiator may be operated only with the antenna with which it is authorized. If an antenna is marketed with the intentional radiator, it shall be of a type which is authorized with the intentional radiator.
Results:	Only one integral antenna can be used
Verdict:	PASS

RSS-Gen 6.3 – External Control	
Requirement:	The device shall not have any external controls accessible to the user that enable it to be adjusted, selected or programmed to operate in violation of the limits prescribed in the applicable RSS.
Results:	The device does not have any transmitter external controls accessible to the user that can be adjusted and operated in violation of the limits of this standard.
Verdict:	PASS

RSS-Gen 8.3 – Antenna Requirement		
Requirement:	When a measurement at the antenna connector is used to determine RF output power, the effective gain of the device's antenna shall be stated, based on measurement or on data from the antenna manufacture.	
Results:	a) Aennta type:	PCB Antenna
	b) Manufacture:	N/A
	c) Model No.:	N/A
	d) Gain with reference to an isotropic radiator:	4.15 dBi
Verdict:	PASS	

5.1.2 Peak Output Power

RESULT: **Pass**

Date of testing	:	10.29.2016
Test standard	:	FCC Part 15.247(b)(3) Clause 5.4(d) of RSS-247 Issue 2 February 2017
Test procedure	:	ANSI C63.10: 2013 Clause 9.1 of KDB 558074 D01 v03r05
Limit	:	FCC Part 15.247(b)(3) Clause 5.4(d) of RSS-247 Issue 2 February 2017
Kind of test site	:	Shielded room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	TM1 to TM9
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 6: Peak Output Power

Mode	Antenna Gain [dBi]	CH.	Freq. [MHz]	Maximum Peak Conducted Output Power [dBm]	Peak Conducted Output Power Limit [dBm]	Maximum EIRP [dBm]	RSS-247 EIRP Limit [dBm]
TM1	4.15	1	2412	17.04	30	21.19	36
TM2		6	2437	15.59	30	19.74	36
TM3		11	2462	15.27	30	19.42	36
TM4		**1**	**2412**	**19.74**	**30**	**23.89**	**36**
TM5		6	2437	19.07	30	23.22	36
TM6		11	2462	19.11	30	23.26	36
TM7		1	2412	19.33	30	23.48	36
TM8		6	2437	18.90	30	23.05	36
TM9		11	2462	18.71	30	22.86	36

Note: All the date rates were measured, only the worst cases (1Mbps for 802.11b, 6Mbps for 802.11g, 6.5Mbps for 802.11g-HT20) were shown on the table above and executed for all other tests below.

5.1.3 6dB & 99% Bandwidth

RESULT: **Pass**

Date of testing	:	10.29.2016
Test standard	:	FCC Part 15.247(a)(2) Clause 5.2(a) of RSS-247 Issue 2 February 2017
Test procedure	:	ANSI C63.10: 2013 Clause 8 of KDB 558074 D01 v03r05
Limit	:	FCC Part 15.247(a)(2) Clause 5.2(a) of RSS-247 Issue 2 February 2017
Kind of test site	:	Shielded room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	TM1 to TM9
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 7: 6dB & 99% Bandwidth

Mode	Frequency [MHz]	6dB Bandwidht [MHz]	99% Bandwidth [MHz]	Limit [kHz]
TM1	2412	7.757	12.4421	≥500
TM2	2437	7.823	12.4443	≥500
TM3	2462	7.576	12.4009	≥500
TM4	2412	15.781	16.3351	≥500
TM5	2437	16.300	16.3398	≥500
TM6	2462	16.125	16.3314	≥500
TM7	2412	16.905	17.5173	≥500
TM8	2437	17.308	17.5235	≥500
TM9	2462	17.269	17.5178	≥500

Figure 1: 6dB & 99% Bandwidth, TM1

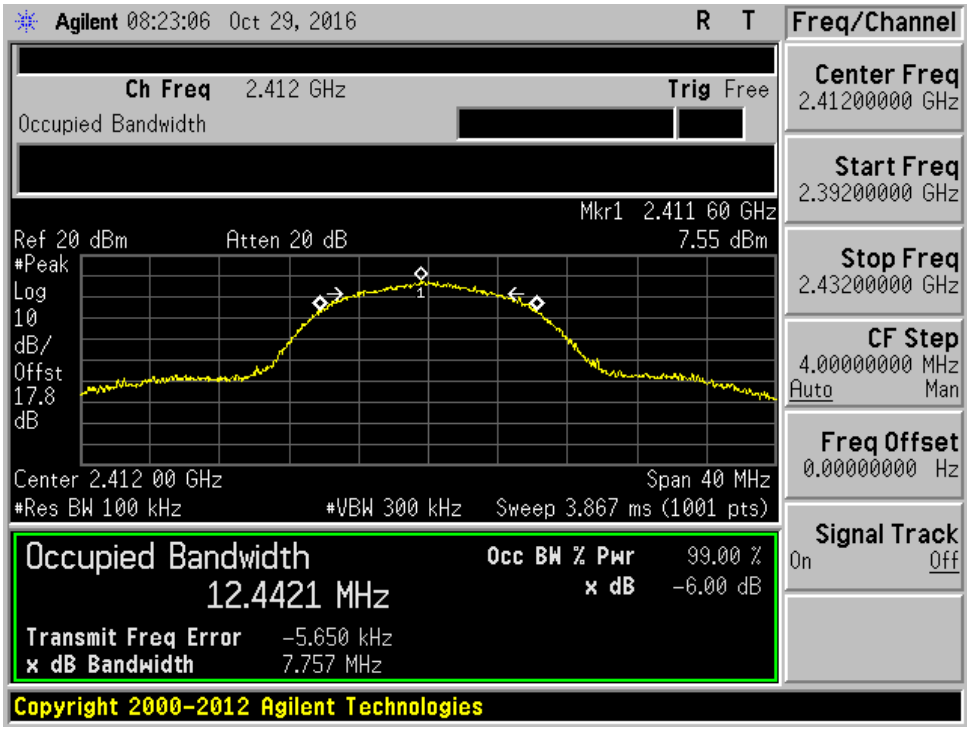


Figure 2: 6dB & 99% Bandwidth, TM2

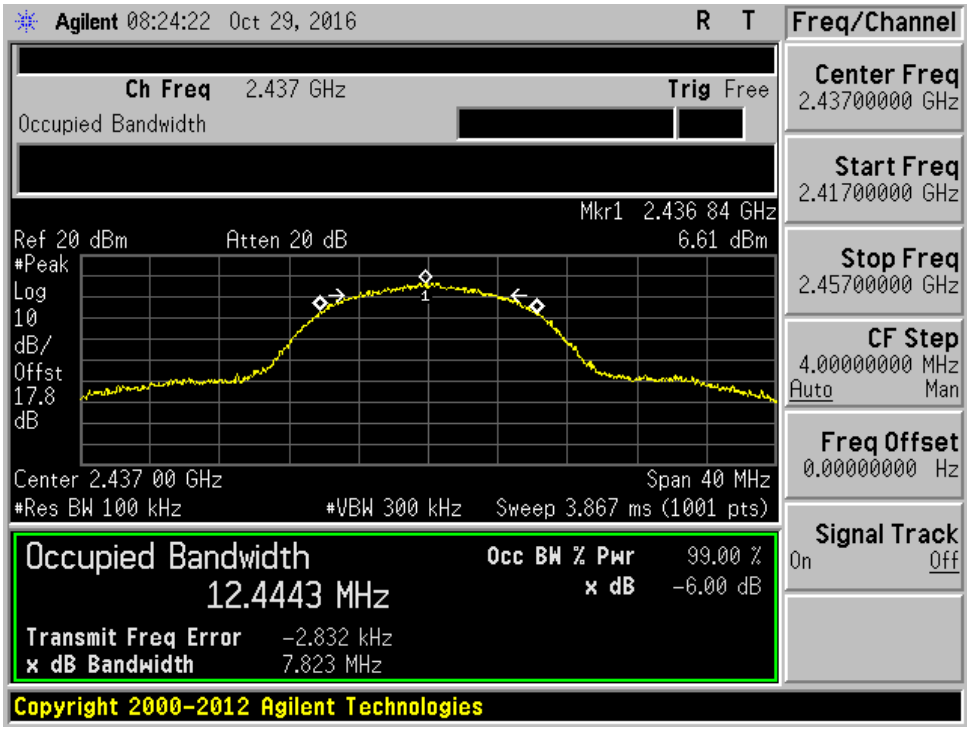


Figure 3: 6dB & 99% Bandwidth, TM3

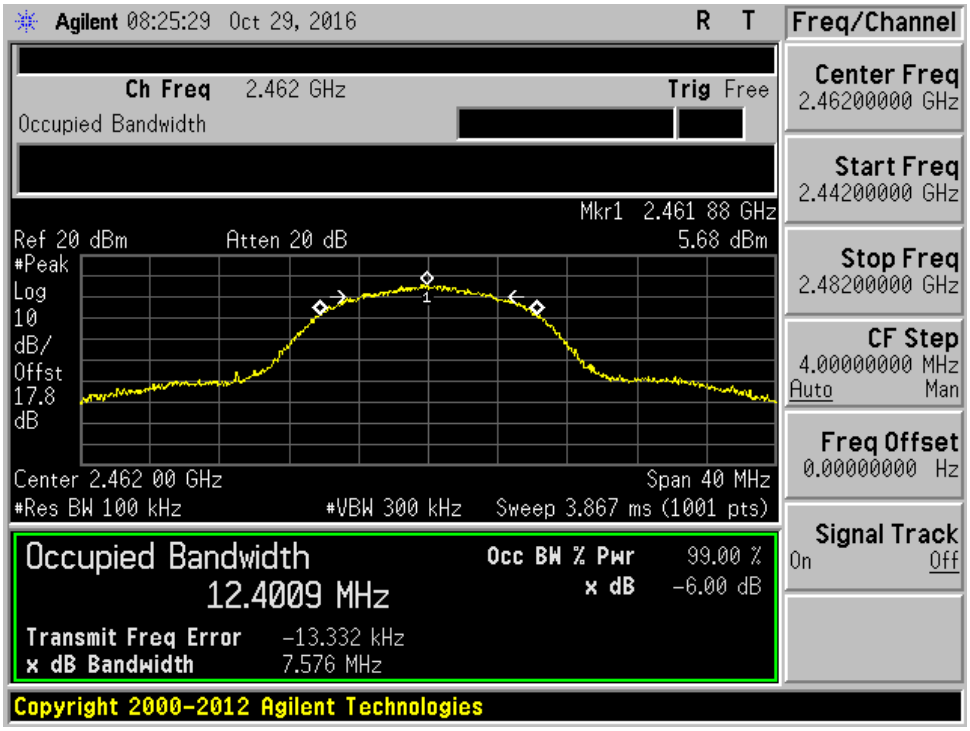


Figure 4: 6dB & 99% Bandwidth, TM1

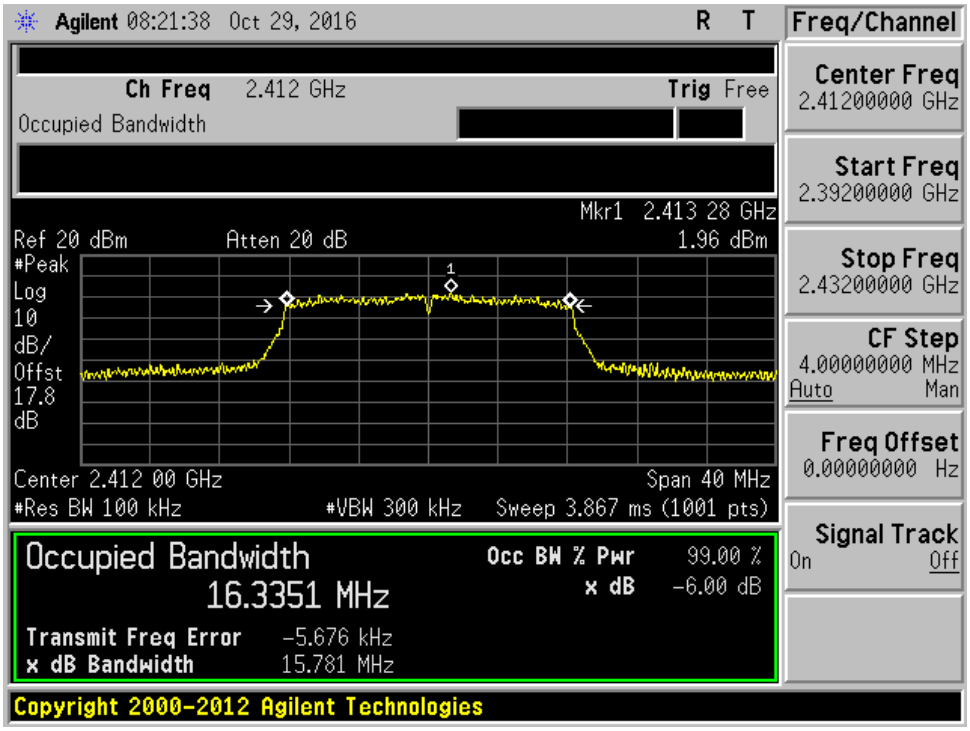


Figure 5: 6dB & 99% Bandwidth, TM2

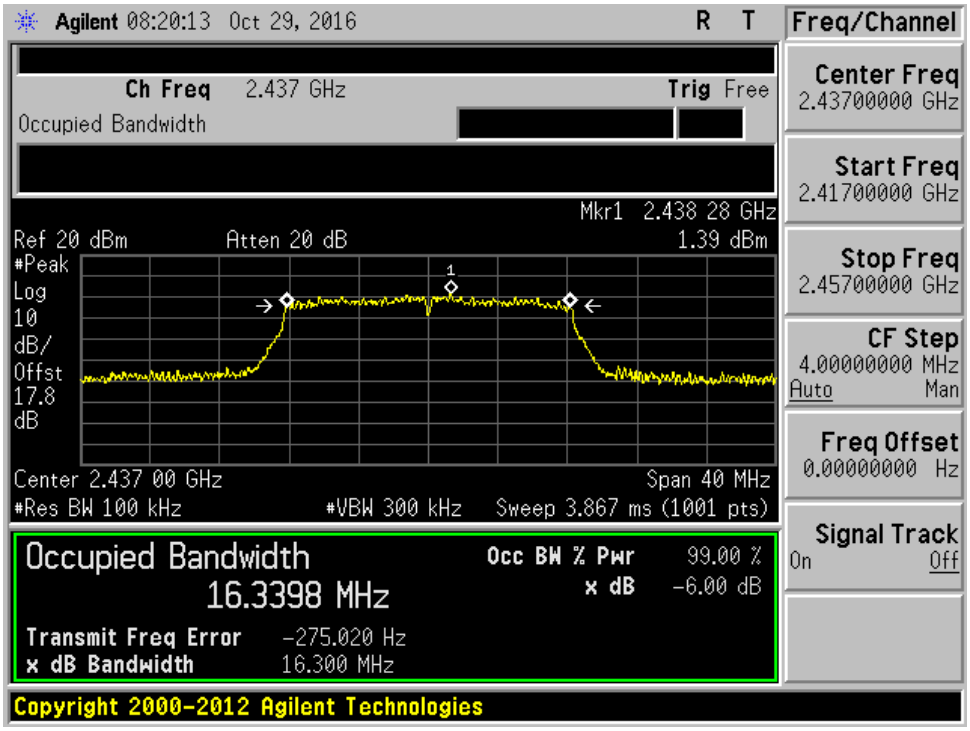


Figure 6: 6dB & 99% Bandwidth, TM3

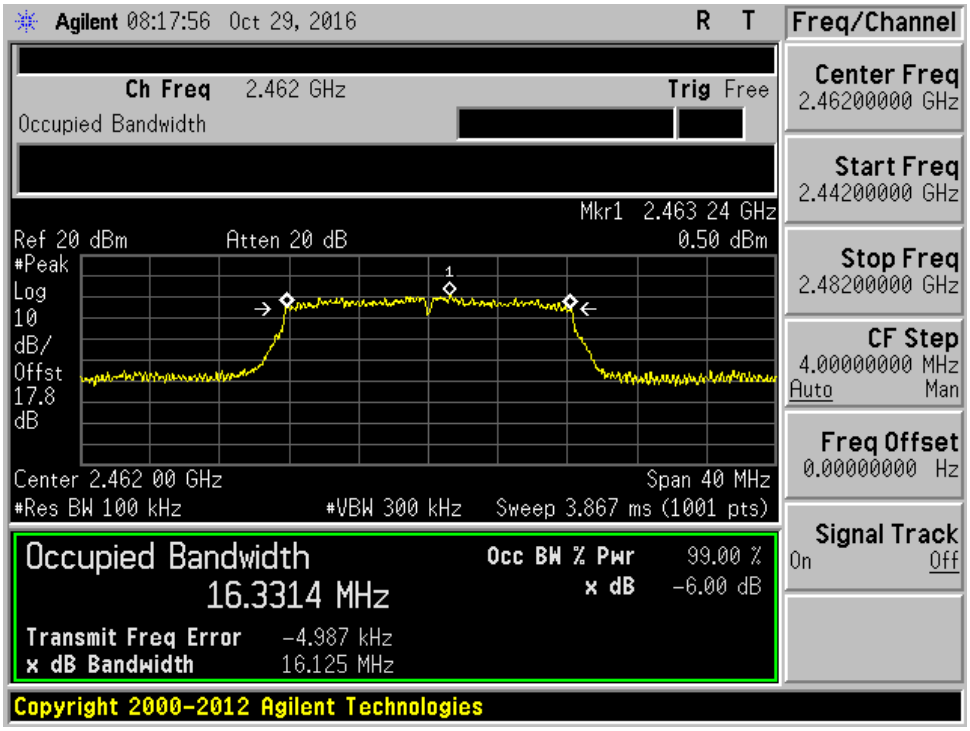


Figure 7: 6dB & 99% Bandwidth, TM1

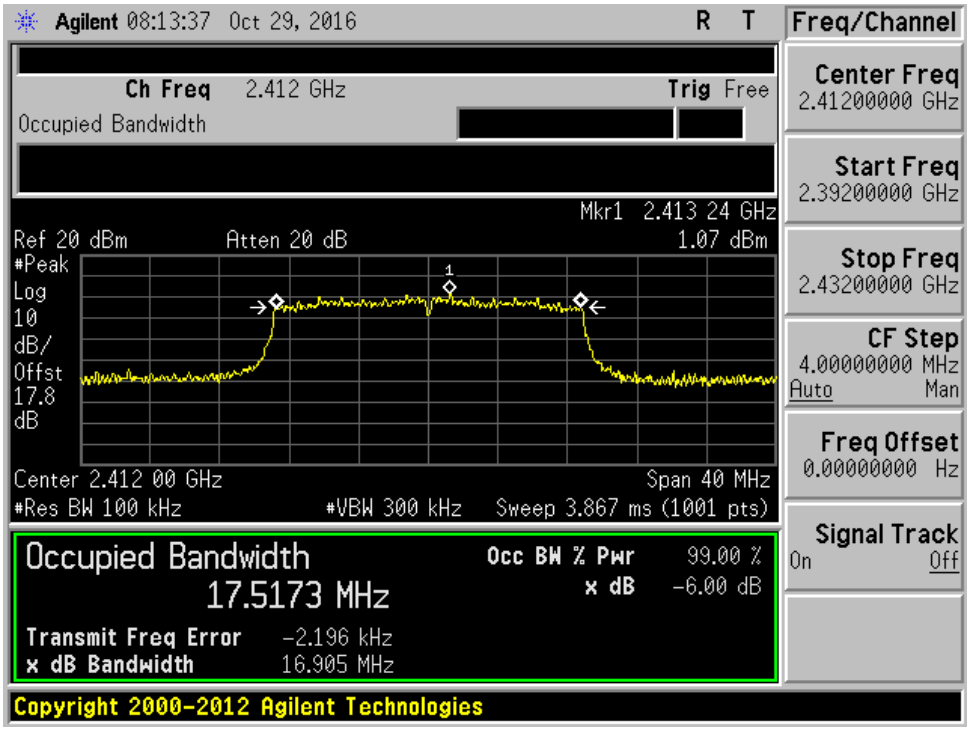


Figure 8: 6dB & 99% Bandwidth, TM2

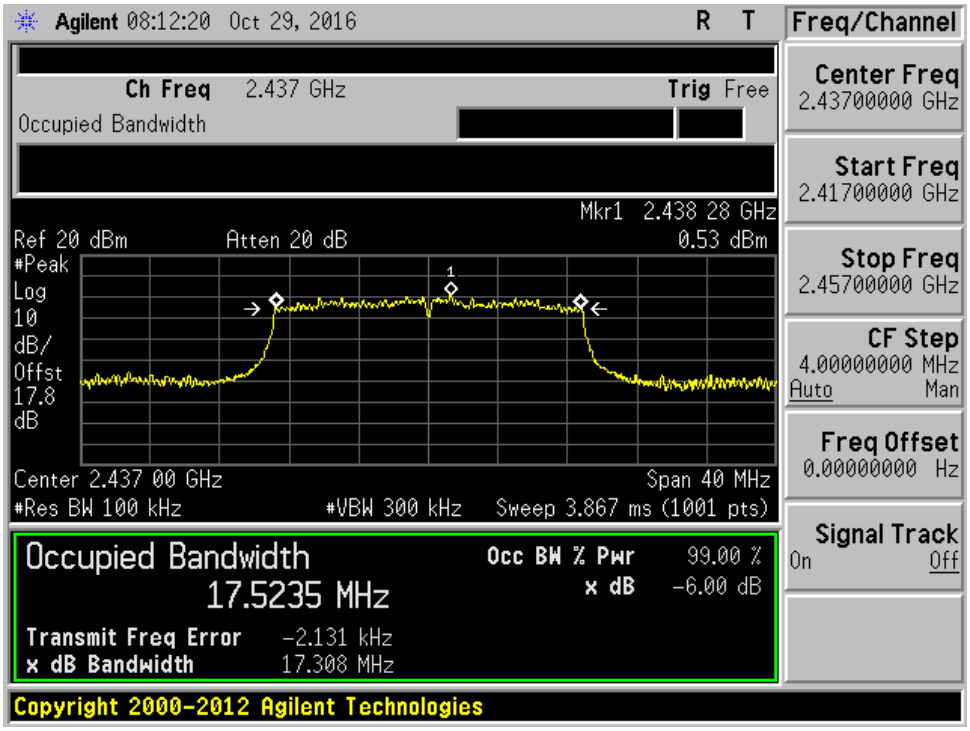
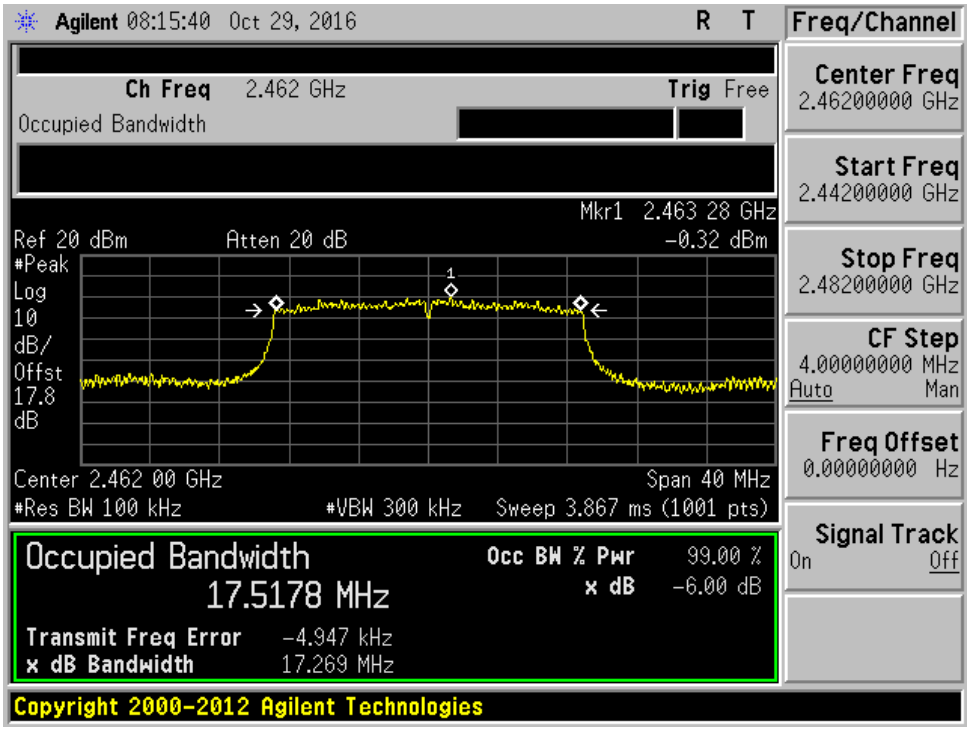


Figure 9: 6dB & 99% Bandwidth, TM3



5.1.4 Conducted Spurious Emissions

RESULT: **Pass**

Date of testing	:	10.29.2016
Test standard	:	FCC Part 15.247(d) Clause 5.5 of RSS-247 Issue 2 February 2017
Test procedure	:	ANSI C63.10: 2013 Clause 11&12 of KDB 558074 D01 v03r05
Limit	:	FCC Part 15.247(d) Clause 5.5 of RSS-247 Issue 2 February 2017
Kind of test site	:	Shielded room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	TM1 to TM9
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Figure 10: Conducted Spurious Emission, TM1

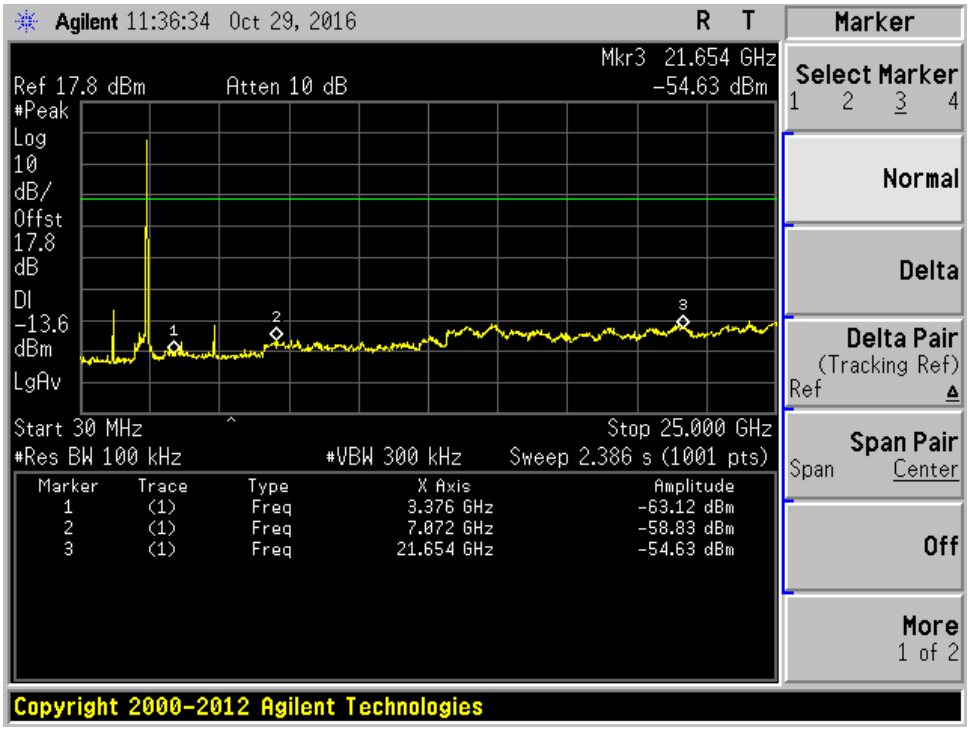


Figure 11: Conducted Spurious Emission, TM2

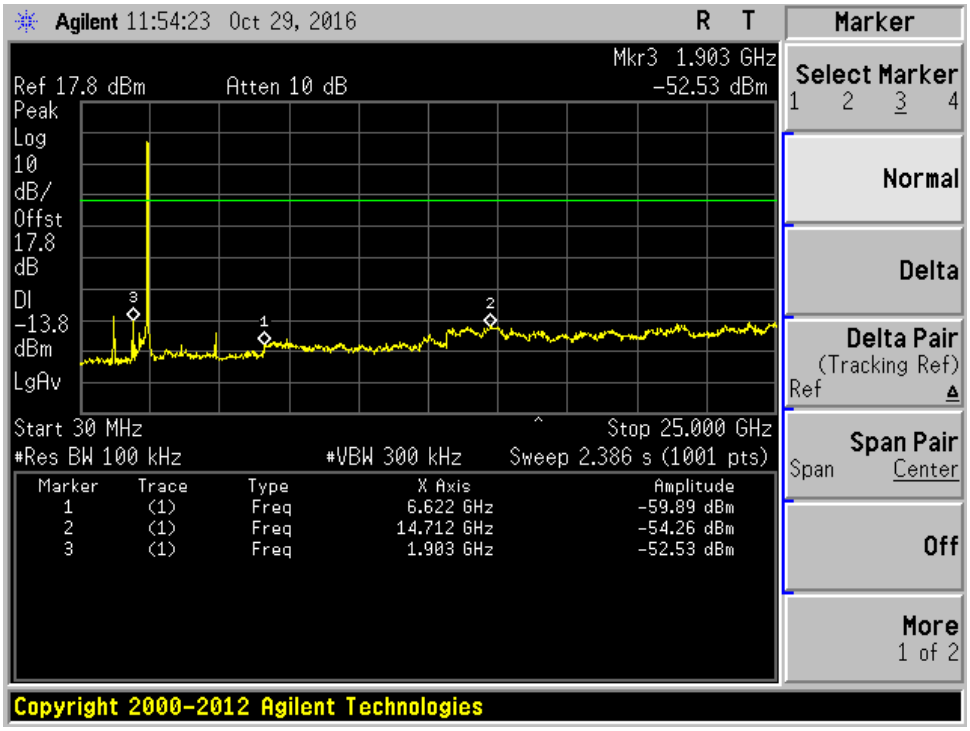


Figure 12: Conducted Spurious Emission, TM3

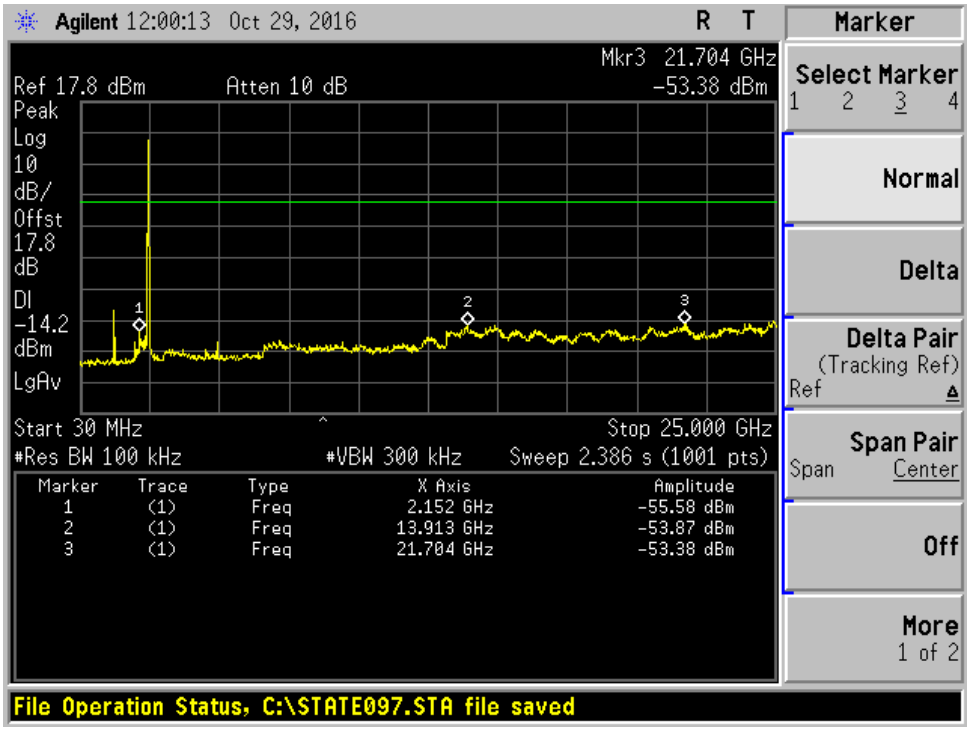


Figure 13: Conducted Spurious Emission, TM4

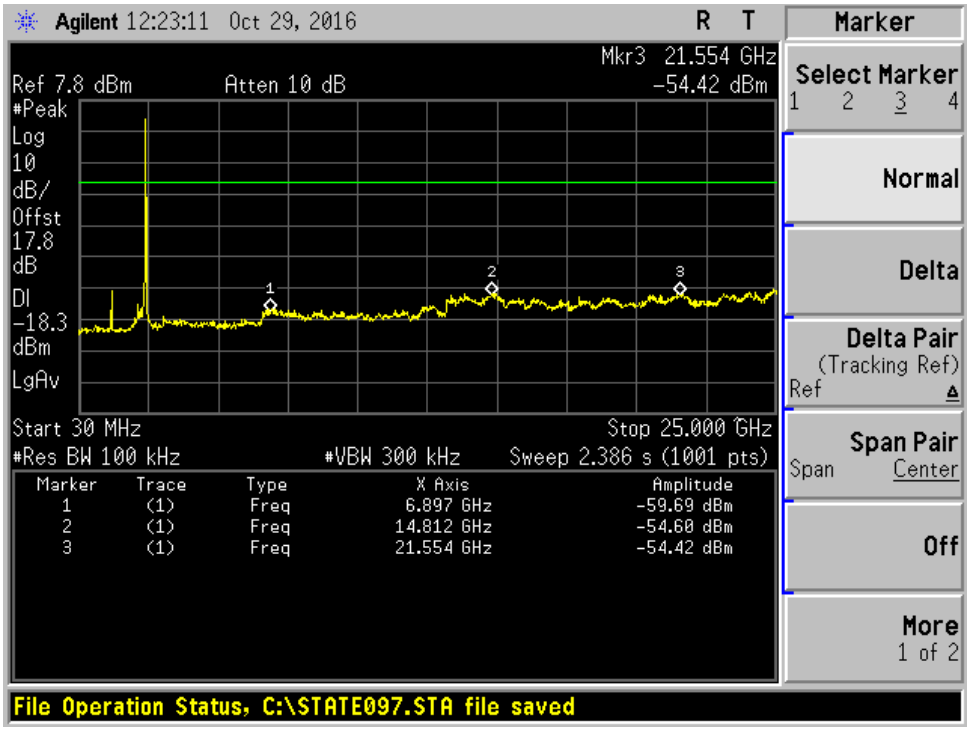


Figure 14: Conducted Spurious Emission, TM5

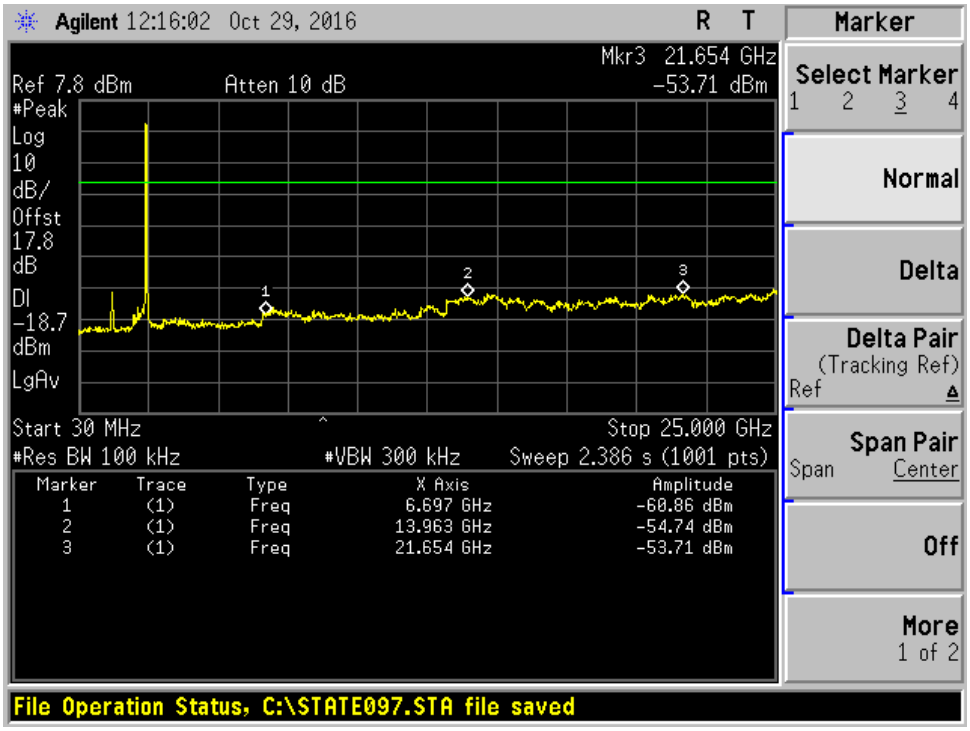


Figure 15: Conducted Spurious Emission, TM6

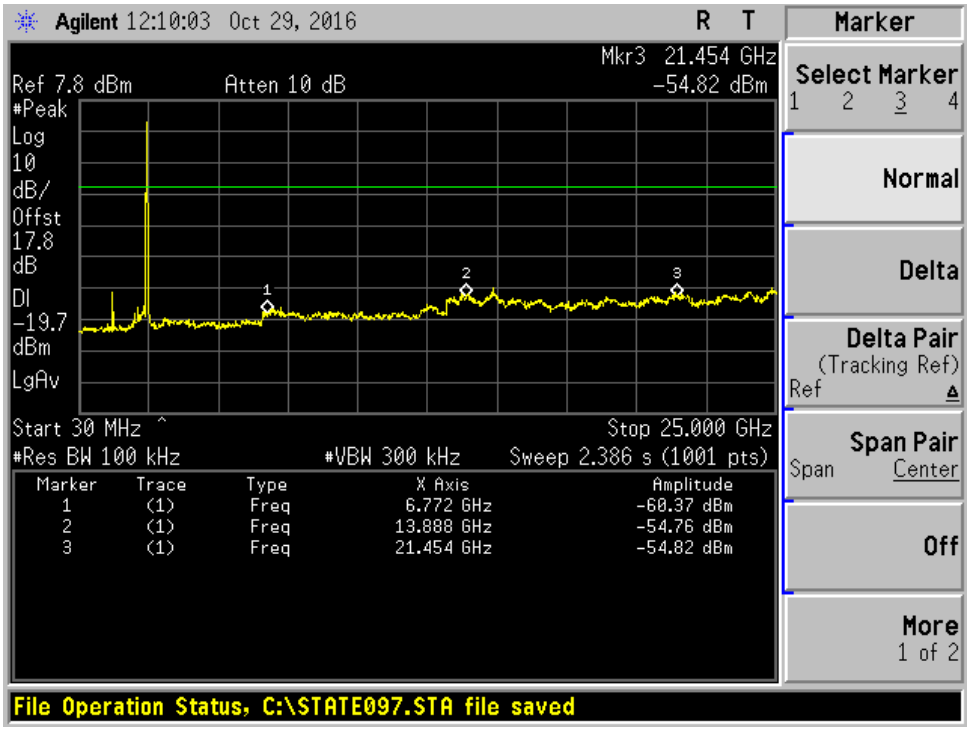


Figure 16: Conducted Spurious Emission, TM7

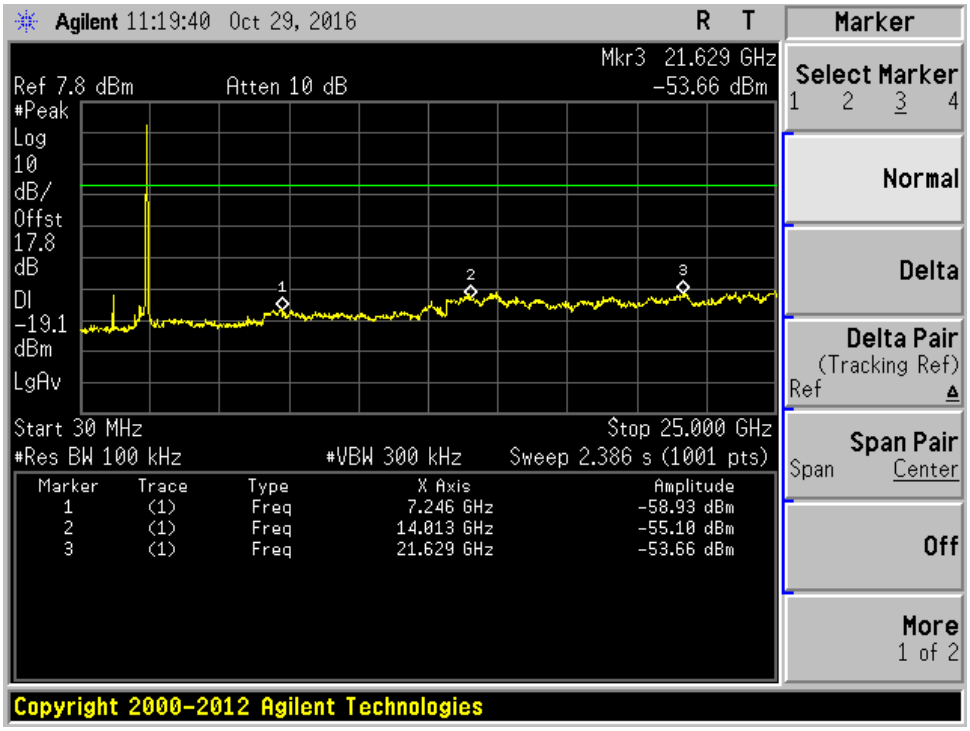


Figure 17: Conducted Spurious Emission, TM8

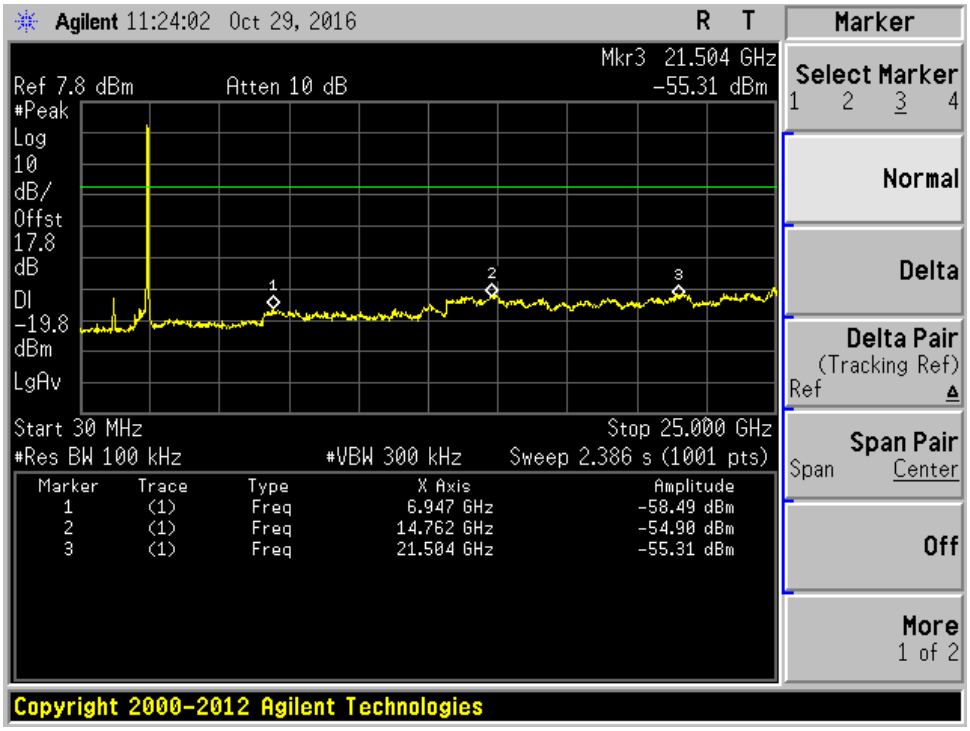


Figure 18: Conducted Spurious Emission, TM9

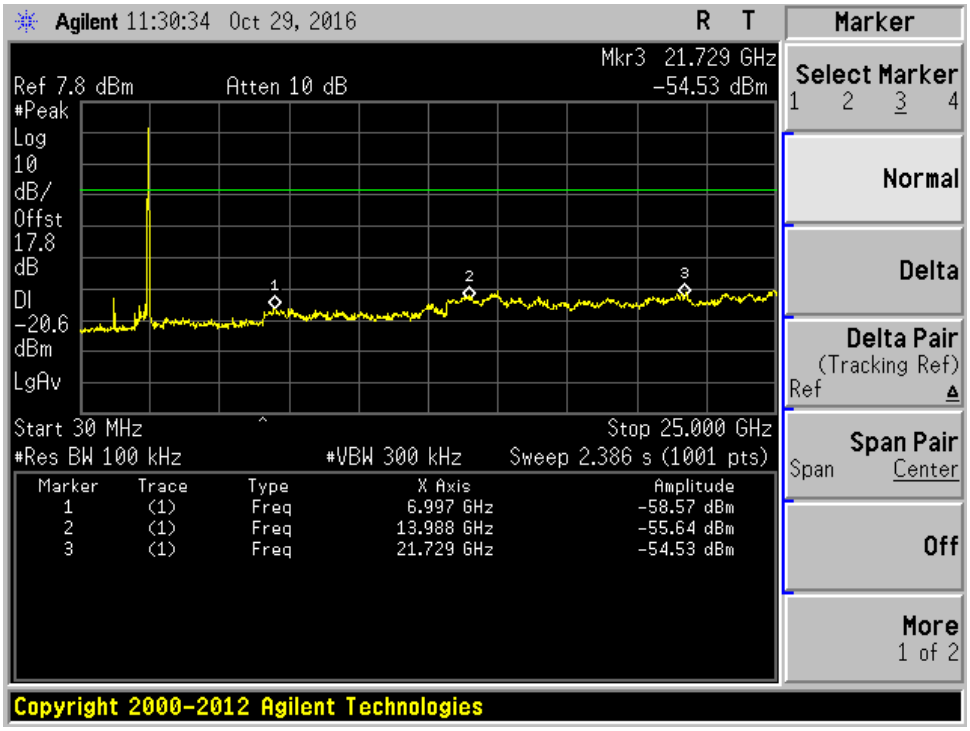


Figure 19: Conducted Bandedge, TM1

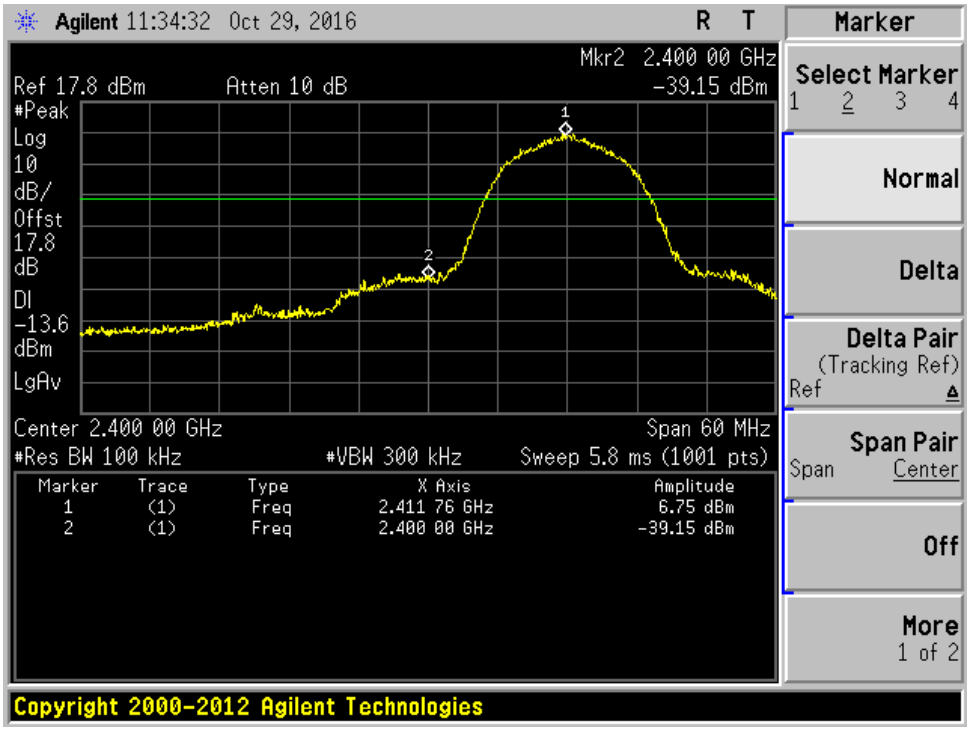


Figure 20: Conducted Bandedge, TM3

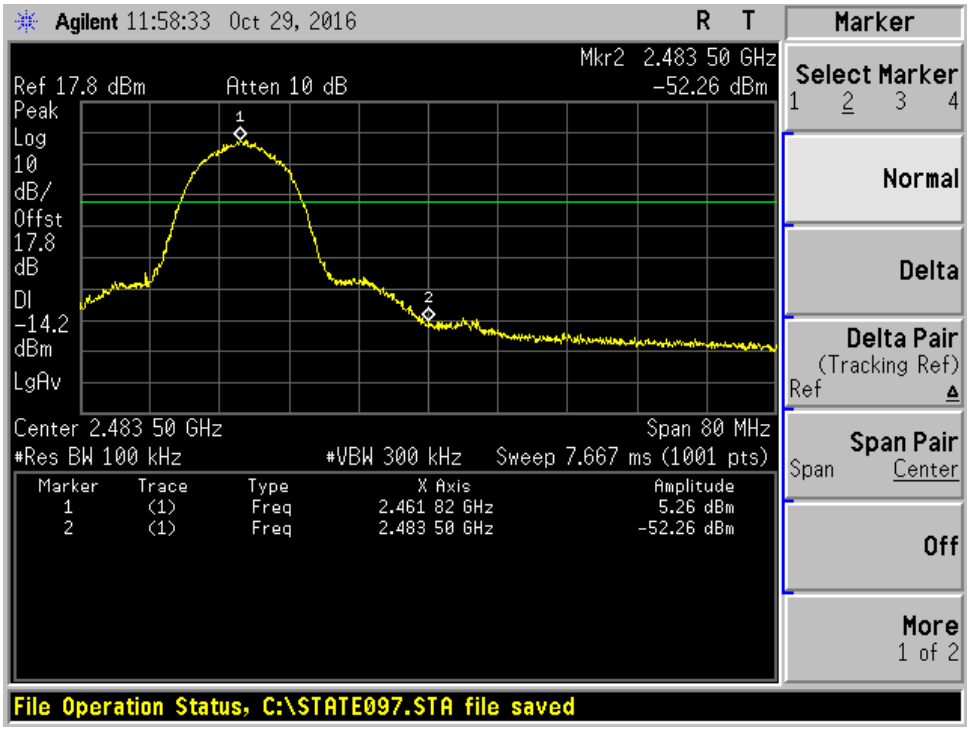


Figure 21: Conducted Bandedge, TM4

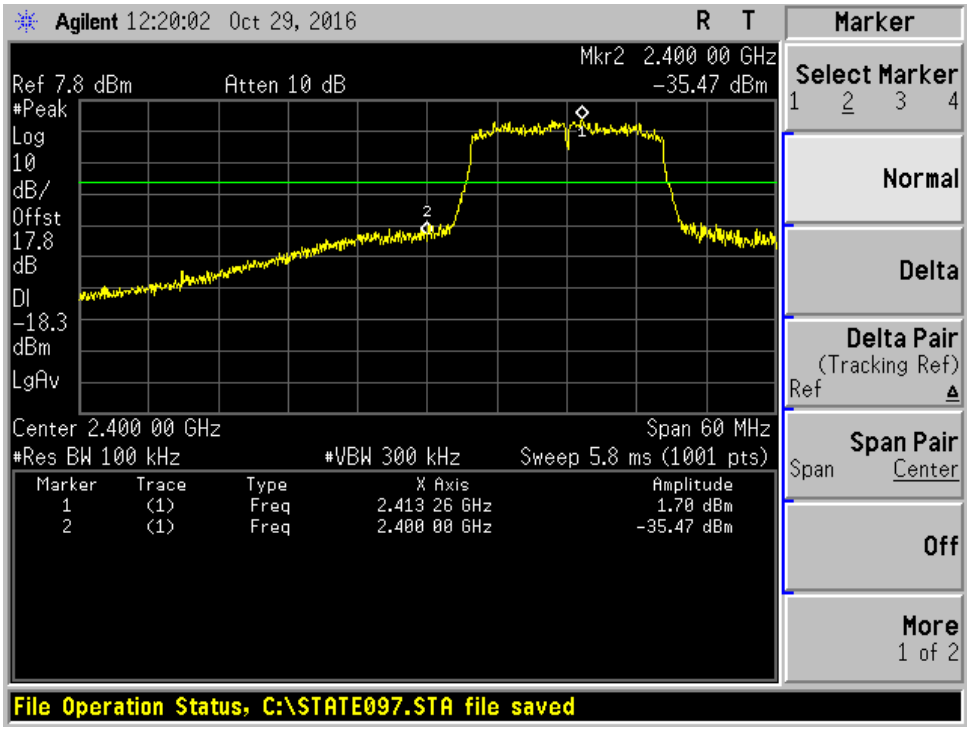


Figure 22: Conducted Bandedge, TM6

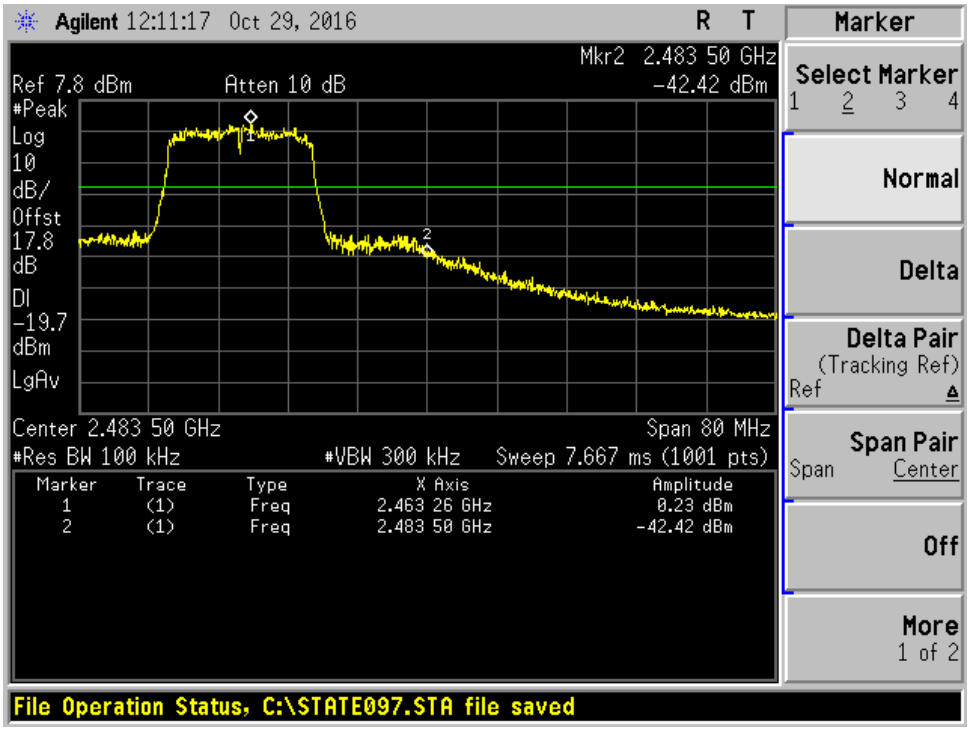


Figure 23: Conducted Bandedge, TM7

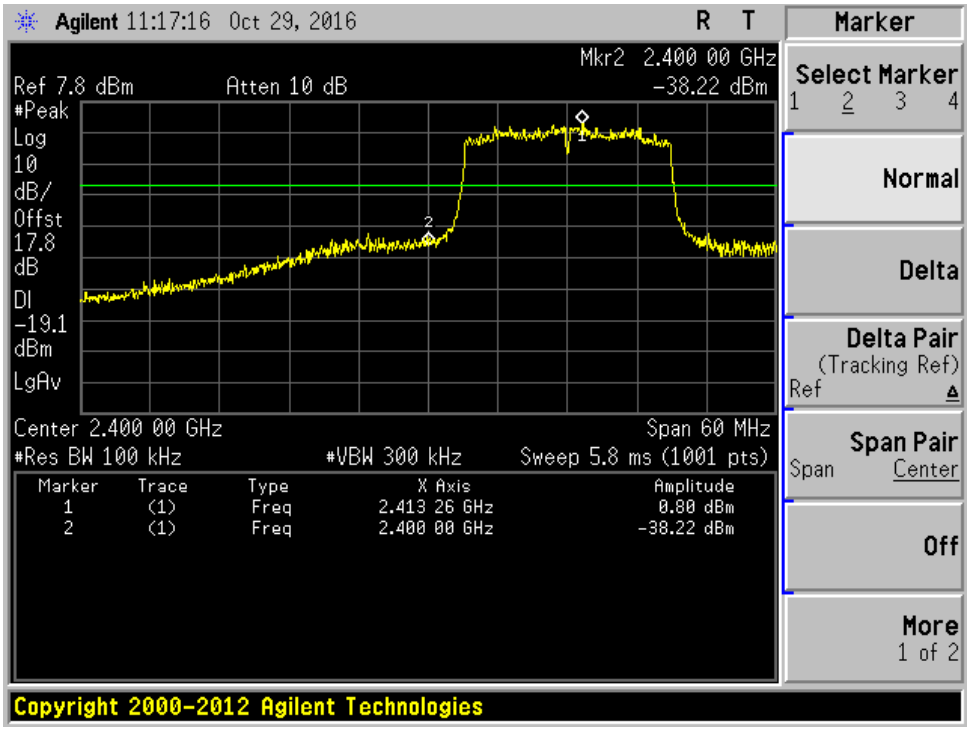
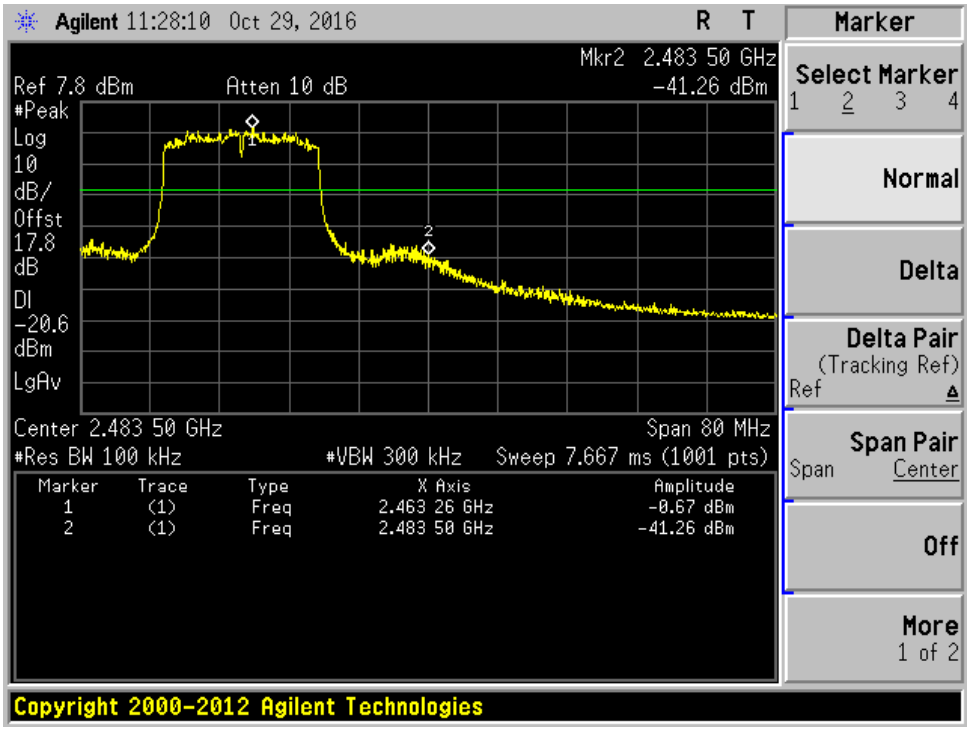


Figure 24: Conducted Bandedge, TM9



5.1.5 Power Spectral Density

RESULT: **Pass**

Date of testing	:	10.29.2016
Test standard	:	FCC Part 15.247(e) Clause 5.2(b) of RSS-247 Issue 2 February 2017
Test procedure	:	ANSI C63.10: 2013 Clause 10 of KDB 558074 D01 v03r05
Limit	:	FCC Part 15.247(e) Clause 5.2(b) of RSS-247 Issue 2 February 2017
Kind of test site	:	Shielded room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	TM1 to TM9
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 8: Power Spectral Density

Mode	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]
TM1	2412	-7.83	≥8
TM2	2437	-7.79	≥8
TM3	2462	-8.61	≥8
TM4	2412	-12.44	≥8
TM5	2437	-12.30	≥8
TM6	2462	-13.62	≥8
TM7	2412	-13.46	≥8
TM8	2437	-14.27	≥8
TM9	2462	-14.42	≥8

Figure 25: Power Spectral Density, TM1

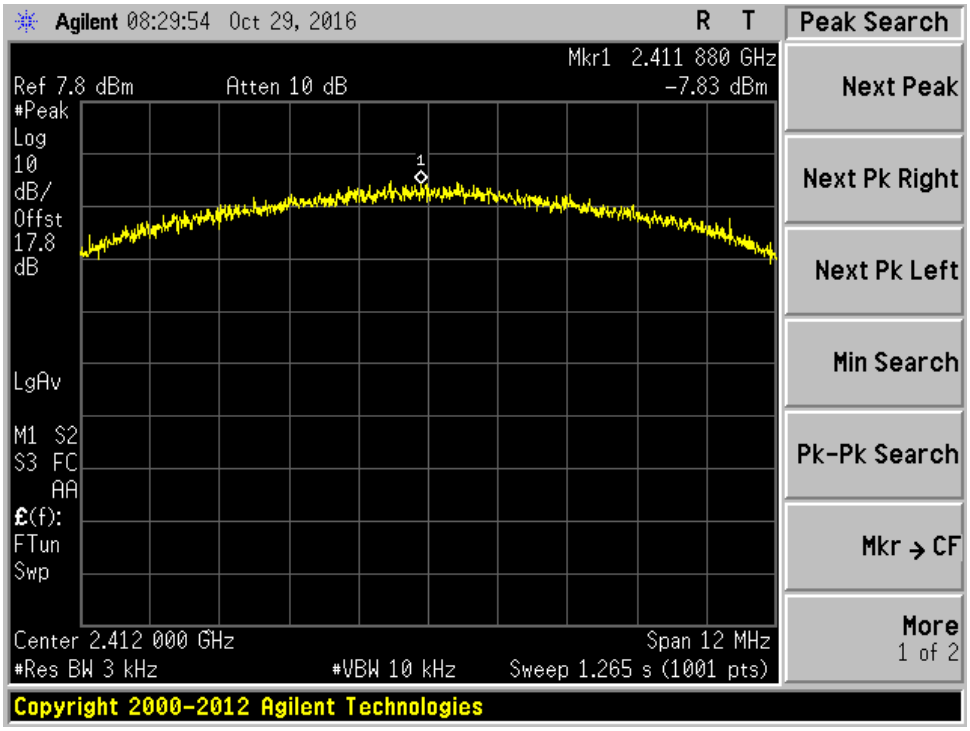


Figure 26: Power Spectral Density, TM2

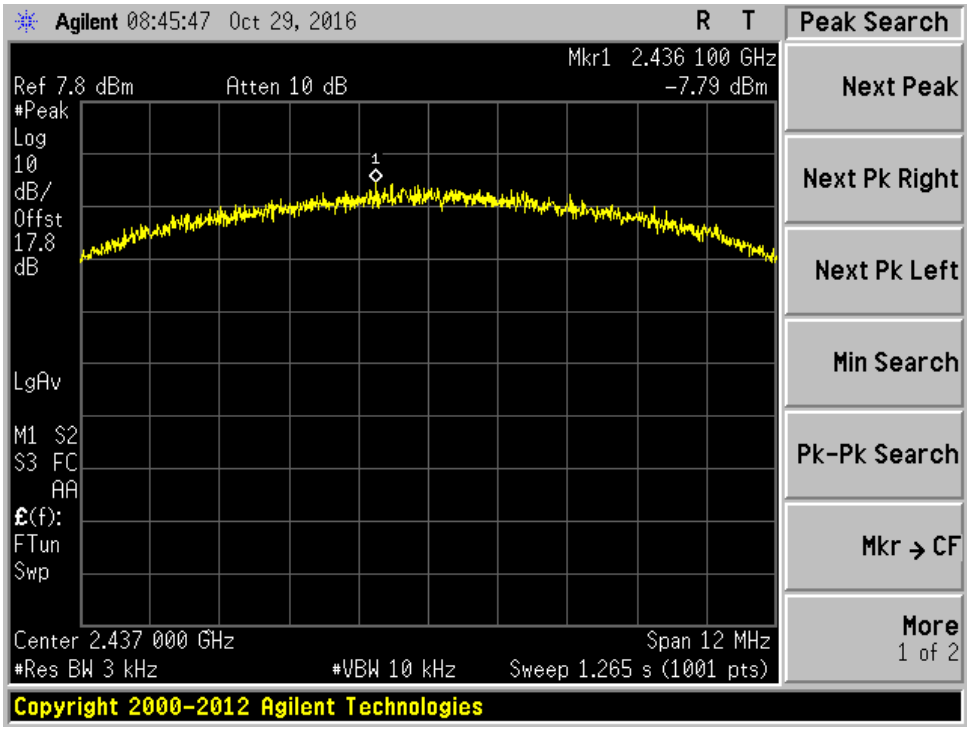


Figure 27: Power Spectral Density, TM3

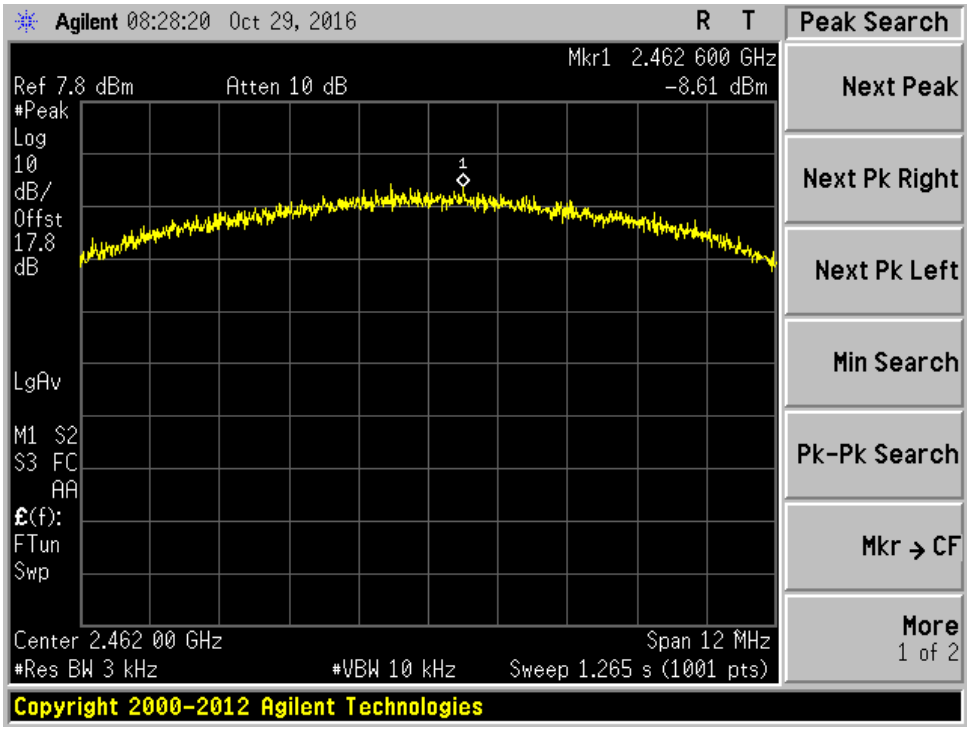


Figure 28: Power Spectral Density, TM4

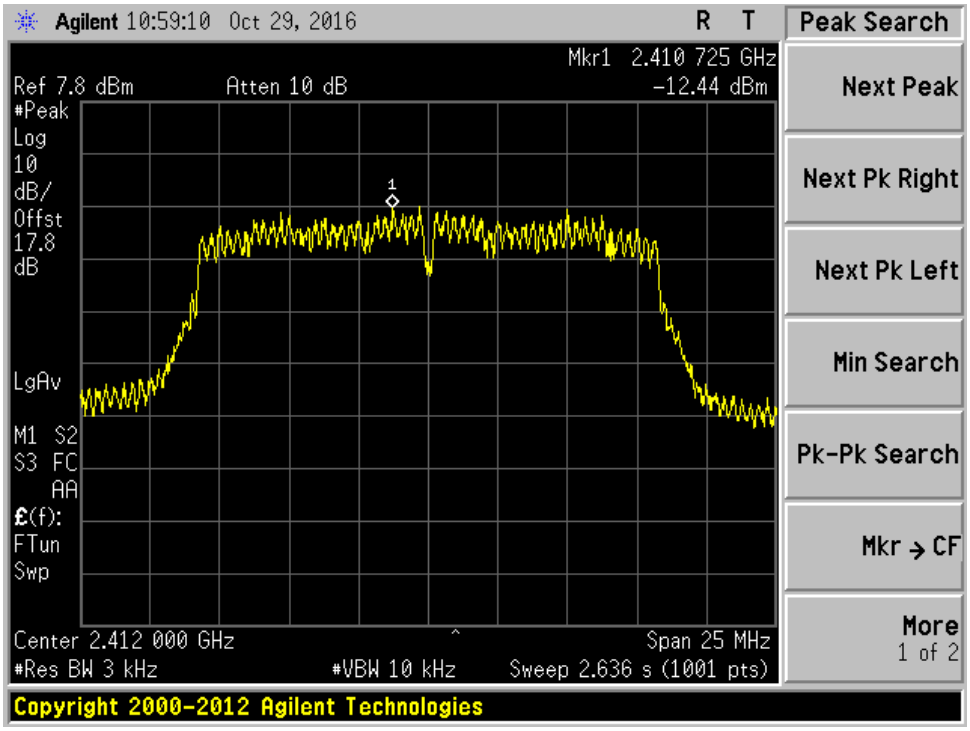


Figure 29: Power Spectral Density, TM5

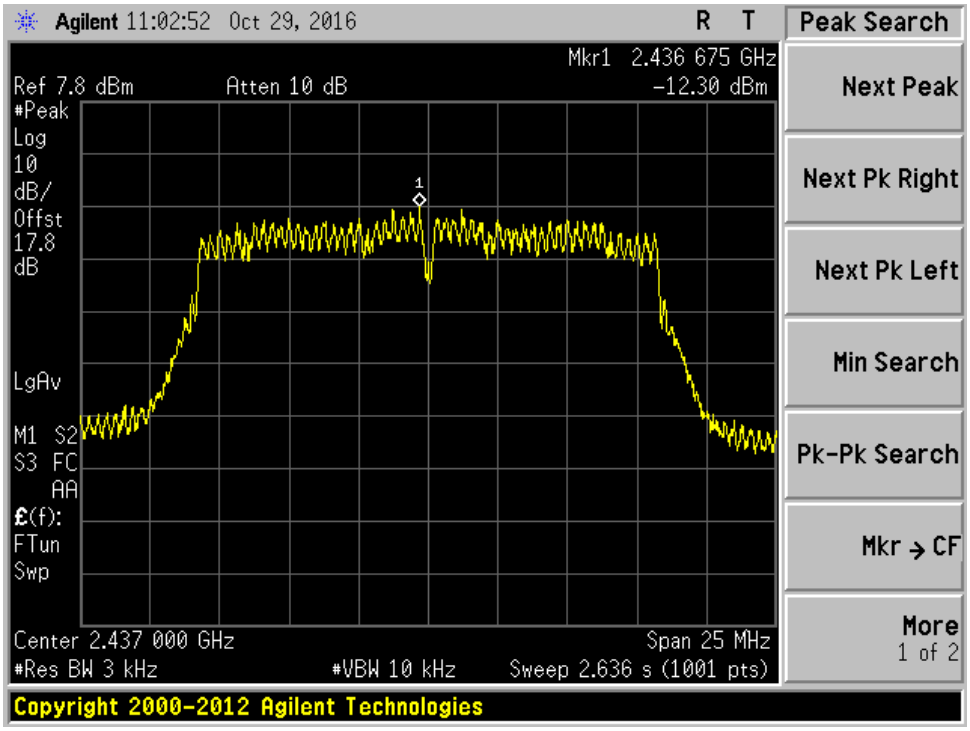


Figure 30: Power Spectral Density, TM6

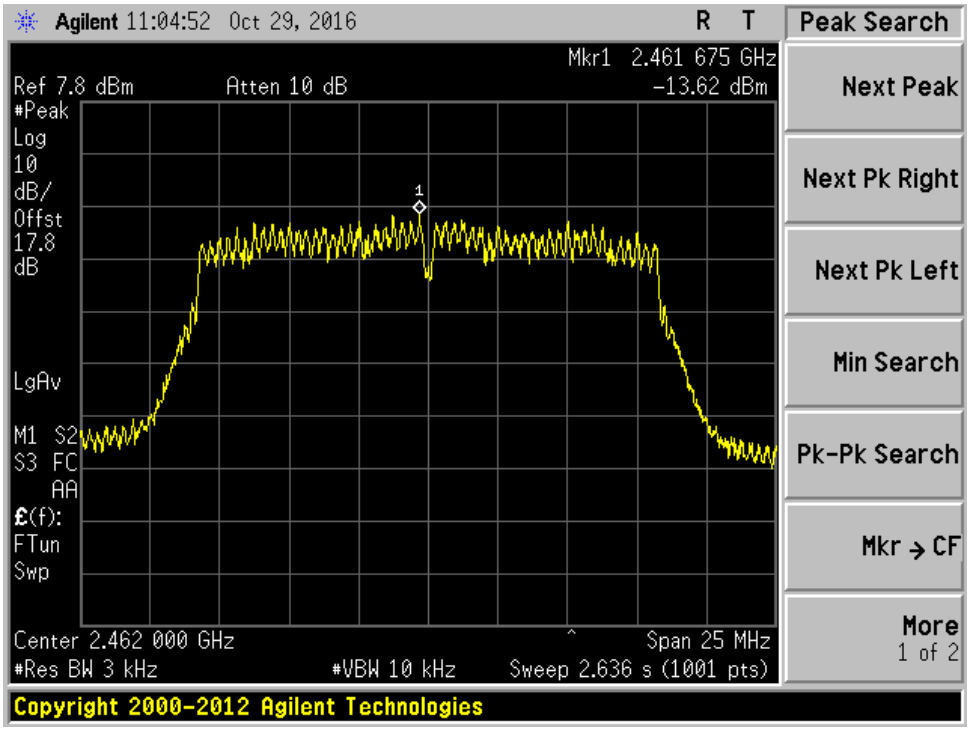


Figure 31: Power Spectral Density, TM7

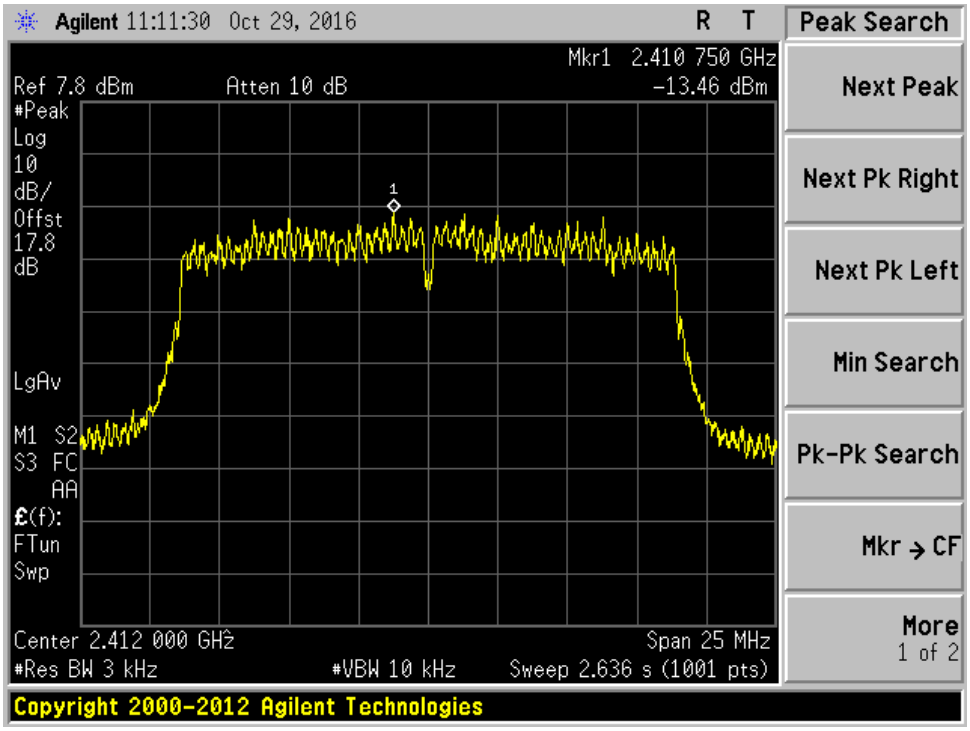


Figure 32: Power Spectral Density, TM8

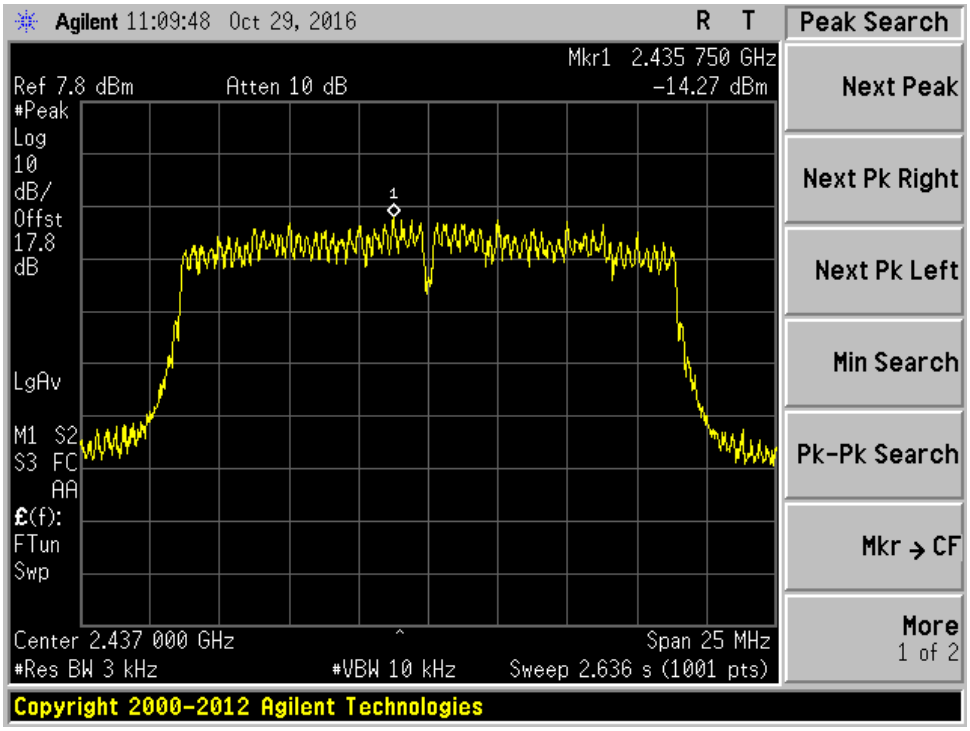
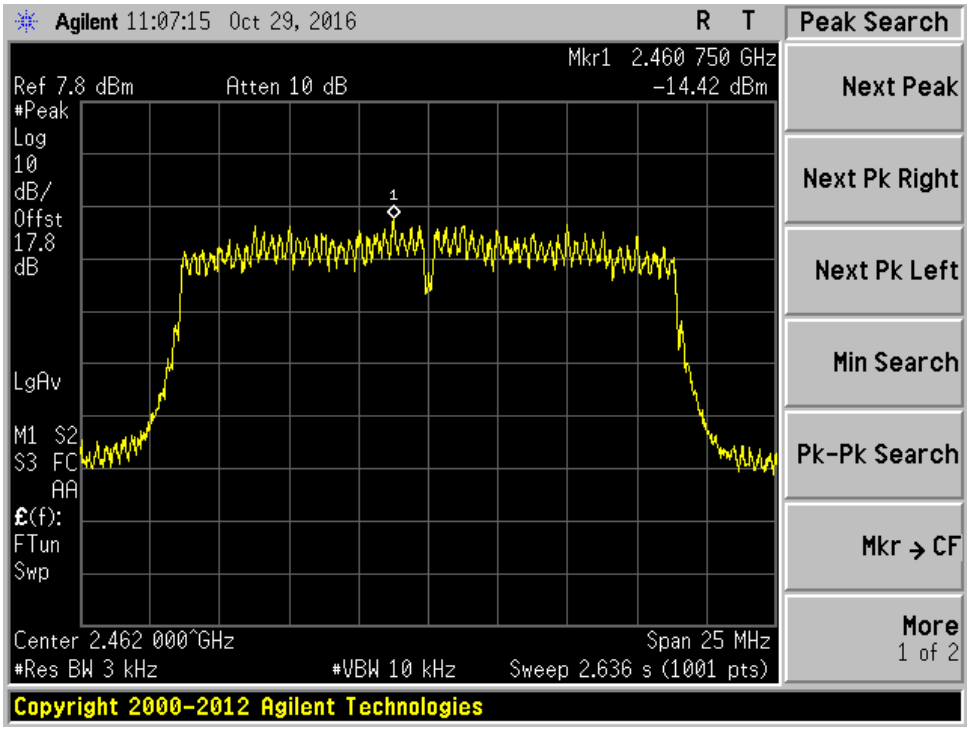


Figure 33: Power Spectral Density, TM9



5.2 Emission in the Frequency Range up to 30MHz

5.2.1 Conducted Emission

RESULT: **Pass**

Date of testing	:	12.05.2016
Test standard	:	FCC Part 15.207 (a) Clause 8.8 of RSS-Gen Issue 4, November 2014
Test procedure	:	ANSI C63.10: 2013
Limit	:	FCC Part 15.207(a) Clause 8.8 of RSS-Gen Issue 4, November 2014
Kind of test site	:	Shielded room

Figure 34: Conducted Emission, L

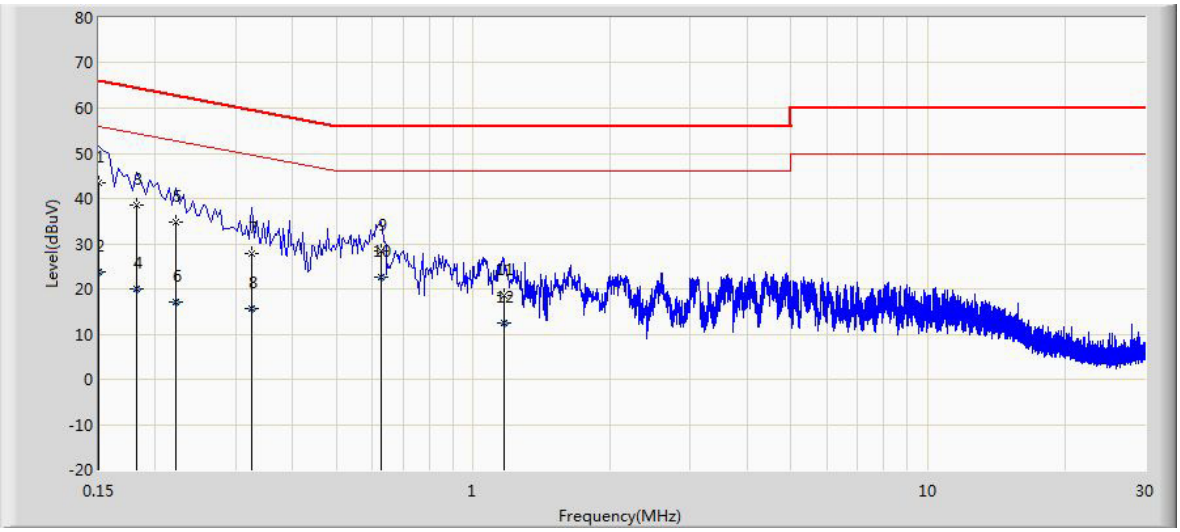


Table 9: Conducted Emission, L

Frequency [MHz]	Measure Level [dBuV]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV]	Factor [dB]	Type
0.150	43.563	32.395	-22.437	66.000	11.168	QP
0.150	23.868	12.700	-32.132	56.000	11.168	AV
0.182	38.485	28.437	-25.909	64.394	10.048	QP
0.182	20.095	10.047	-34.299	54.394	10.048	AV
0.222	34.841	24.900	-27.903	62.744	9.941	QP
0.222	17.116	7.175	-35.628	52.744	9.941	AV
0.326	27.722	17.697	-31.831	59.552	10.025	QP
0.326	15.701	5.676	-33.852	49.552	10.025	AV
0.626	28.433	18.331	-27.567	56.000	10.101	QP
0.626	22.536	12.435	-23.464	46.000	10.101	AV
1.166	18.619	8.717	-37.381	56.000	9.903	QP
1.166	12.605	2.702	-33.395	46.000	9.903	AV

Figure 35: Conducted Emission, N

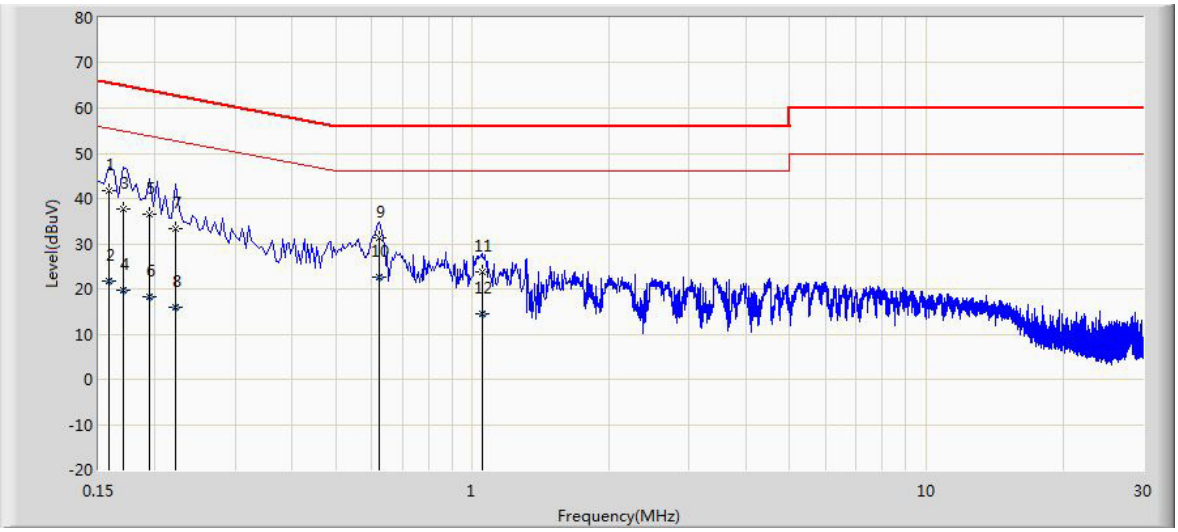


Table 10: Conducted Emission, N

Frequency [MHz]	Measure Level [dBuV]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV]	Factor [dB]	Type
0.158	41.834	31.545	-23.734	65.568	10.290	QP
0.158	21.715	11.425	-33.854	55.568	10.290	AV
0.170	37.557	27.493	-27.403	64.960	10.064	QP
0.170	19.576	9.512	-35.384	54.960	10.064	AV
0.194	36.484	26.463	-27.380	63.864	10.021	QP
0.194	18.281	8.259	-35.583	53.864	10.021	AV
0.222	33.189	23.210	-29.555	62.744	9.980	QP
0.222	16.025	6.045	-36.719	52.744	9.980	AV
0.622	31.413	21.294	-24.587	56.000	10.119	QP
0.622	22.530	12.411	-23.470	46.000	10.119	AV
1.050	23.821	13.914	-32.179	56.000	9.907	QP
1.050	14.493	4.585	-31.507	46.000	9.907	AV

5.3 Emission in the Frequency Range above 30MHz

5.3.1 Radiated Spurious Emission

RESULT: **Pass**

Date of testing	:	10.25.2016
Test standard	:	FCC Part 15.247(d) Clause 5.5 of RSS-247 Issue 2 February 2017
Test procedure	:	ANSI C63.10: 2013 Clause 11&12 of KDB 558074 D01 v03r05
Limit	:	FCC Part 15.247(d) FCC Part 15.209(a) Clause 5.5 of RSS-247 Issue 2 February 2017 Clause 8.9 of RSS-Gen Issue 4 November 2014
Kind of test site	:	3m Semi-Anechoic Chamber

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	TM1 to TM9
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 11: Radiated Spurious Emission, below 1GHz

Mode	Freq. [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type	Ant. Pol.
TM1	52.795	18.352	3.485	-21.648	40.000	14.867	PK	H
	432.065	29.240	12.054	-16.760	46.000	17.187	PK	H
	191.990	30.940	19.023	-12.560	43.500	11.918	PK	V
	451.950	30.270	12.799	-15.730	46.000	17.471	PK	V
TM2	210.420	22.399	9.946	-21.101	43.500	12.454	PK	H
	432.065	28.869	11.683	-17.131	46.000	17.187	PK	H
	176.955	29.568	18.866	-13.932	43.500	10.703	PK	V
	554.285	32.251	12.998	-13.749	46.000	19.252	PK	V
TM3	205.570	21.865	9.490	-21.635	43.500	12.375	PK	H
	432.065	28.733	11.547	-17.267	46.000	17.187	PK	H
	181.805	29.452	18.372	-14.048	43.500	11.080	PK	V
	553.800	31.122	11.881	-14.878	46.000	19.242	PK	V
TM4	216.240	23.537	10.967	-22.463	46.000	12.570	PK	H
	517.425	29.998	11.413	-16.002	46.000	18.585	PK	H
	167.255	28.711	18.568	-14.789	43.500	10.143	PK	V
	536.825	29.035	10.149	-16.965	46.000	18.885	PK	V
TM5	210.420	21.943	9.490	-21.557	43.500	12.454	PK	H
	432.065	28.867	11.681	-17.133	46.000	17.187	PK	H
	191.990	29.719	17.802	-13.781	43.500	11.918	PK	V
	537.310	34.973	16.078	-11.027	46.000	18.894	PK	V
TM6	215.270	21.013	8.468	-22.487	43.500	12.545	PK	H
	432.065	29.344	12.158	-16.656	46.000	17.187	PK	H
	167.740	29.276	19.110	-14.224	43.500	10.166	PK	V
	537.795	33.302	14.399	-12.698	46.000	18.903	PK	V
TM7	210.420	21.638	9.185	-21.862	43.500	12.454	PK	H
	432.065	27.644	10.458	-18.356	46.000	17.187	PK	H
	166.770	29.295	19.175	-14.205	43.500	10.120	PK	V
	553.800	30.850	11.609	-15.150	46.000	19.242	PK	V
TM8	209.450	21.295	8.858	-22.205	43.500	12.437	PK	H
	432.065	28.847	11.661	-17.153	46.000	17.187	PK	H
	175.985	29.624	18.994	-13.876	43.500	10.630	PK	V
	537.795	33.838	14.935	-12.162	46.000	18.903	PK	V
TM9	214.300	21.329	8.808	-22.171	43.500	12.522	PK	H
	434.490	27.884	10.680	-18.116	46.000	17.204	PK	H
	166.770	28.724	18.604	-14.776	43.500	10.120	PK	V
	521.305	30.468	11.824	-15.532	46.000	18.644	PK	V

Note:
The radiated emission below 30MHz are very low, so they are not shown in this report.

Table 12: Radiated Spurious Emission, above 1GHz

Mode	Freq. [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type	Ant. Pol.
TM1	4825.000	41.076	38.812	-32.924	74.000	2.264	PK	H
	7460.000	46.363	35.460	-27.637	74.000	10.903	PK	H
	4825.000	39.316	37.052	-34.684	74.000	2.264	PK	V
	7630.000	46.567	36.082	-27.433	74.000	10.485	PK	V
TM2	4876.000	44.227	41.947	-29.773	74.000	2.280	PK	H
	7392.000	45.896	35.125	-28.104	74.000	10.771	PK	H
	4867.500	40.189	37.962	-33.811	74.000	2.226	PK	V
	7698.000	46.476	36.075	-27.524	74.000	10.401	PK	V
TM3	4918.500	42.414	40.178	-31.586	74.000	2.235	PK	H
	7230.500	46.222	35.586	-27.778	74.000	10.637	PK	H
	4918.500	40.163	37.927	-33.837	74.000	2.235	PK	V
	7536.500	46.484	35.458	-27.516	74.000	11.026	PK	V
TM4	5173.500	39.870	37.257	-34.130	74.000	2.613	PK	H
	7468.500	46.121	35.227	-27.879	74.000	10.895	PK	H
	4332.000	39.320	38.655	-34.680	74.000	0.665	PK	V
	7579.000	48.011	37.234	-25.989	74.000	10.777	PK	V
TM5	4765.500	39.245	36.893	-34.755	74.000	2.352	PK	H
	7409.000	46.386	35.593	-27.614	74.000	10.792	PK	H
	4629.500	38.603	36.690	-35.397	74.000	1.912	PK	V
	7528.000	46.764	35.778	-27.236	74.000	10.985	PK	V
TM6	4791.000	39.644	37.201	-34.356	74.000	2.443	PK	H
	7511.000	46.724	35.824	-27.276	74.000	10.900	PK	H
	4646.500	39.948	37.829	-34.052	74.000	2.120	PK	V
	7494.000	46.081	35.081	-27.919	74.000	11.000	PK	V
TM7	4825.000	39.563	37.299	-34.437	74.000	2.264	PK	H
	7655.500	47.061	36.453	-26.939	74.000	10.608	PK	H
	4655.000	38.619	36.453	-35.381	74.000	2.166	PK	V
	7451.500	46.153	35.251	-27.847	74.000	10.903	PK	V
TM8	4655.000	38.980	36.814	-35.020	74.000	2.166	PK	H
	7647.000	46.592	36.048	-27.408	74.000	10.544	PK	H
	4587.000	38.689	36.918	-35.311	74.000	1.771	PK	V
	7468.500	46.563	35.669	-27.437	74.000	10.895	PK	V
TM9	4655.000	38.967	36.801	-35.033	74.000	2.166	PK	H
	7630.000	46.757	36.272	-27.243	74.000	10.485	PK	H
	4595.500	38.817	36.992	-35.183	74.000	1.824	PK	V
	7587.500	46.108	35.280	-27.892	74.000	10.828	PK	V

Figure 36: Radiated Restricted Band Edge, TM1, Horizontal, PK

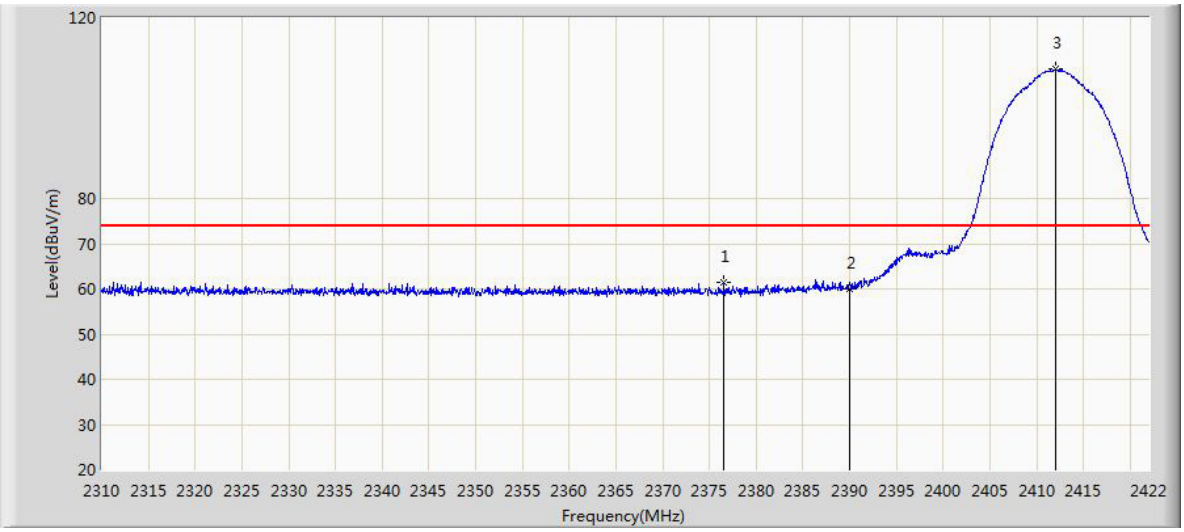


Table 13: Radiated Restricted Band Edge, TM1, Horizontal, PK,

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2376.528	61.480	29.566	-12.520	74.000	31.914	PK
2390.000	60.040	28.117	-13.960	74.000	31.923	PK
2412.088	108.644	76.780	N/A	N/A	31.864	PK

Figure 37: Radiated Restricted Band Edge, TM1, Horizontal, AV

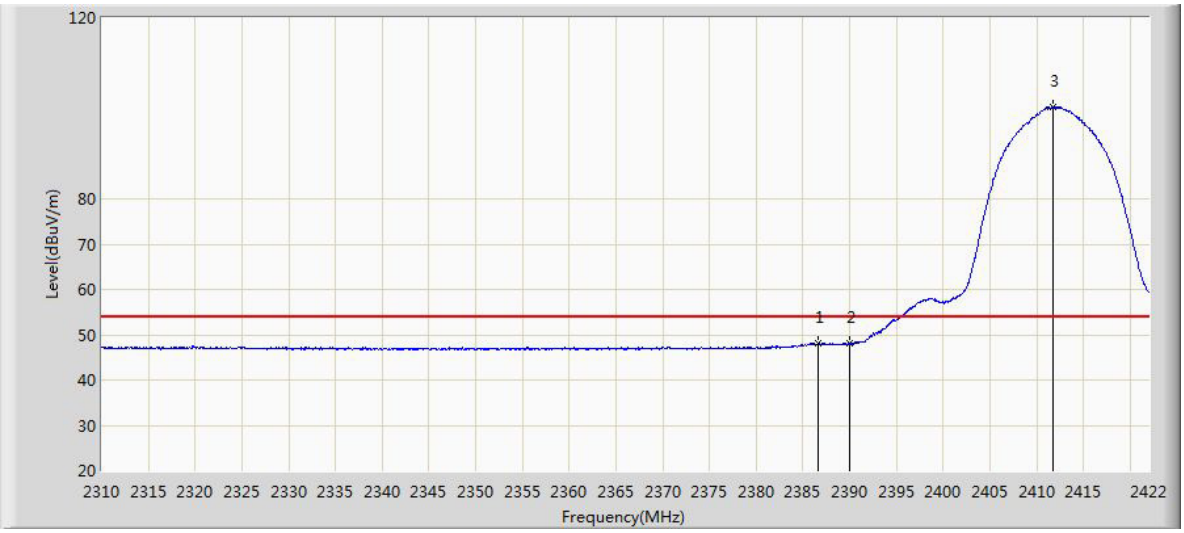


Table 14: Radiated Restricted Band Edge, TM1, Horizontal, AV,

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2386.664	48.190	16.270	-5.810	54.000	31.920	AV
2390.000	47.984	16.061	-6.016	54.000	31.923	AV
2411.808	100.384	68.520	N/A	N/A	31.864	AV

Figure 38: Radiated Restricted Band Edge, TM1, Vertical, PK

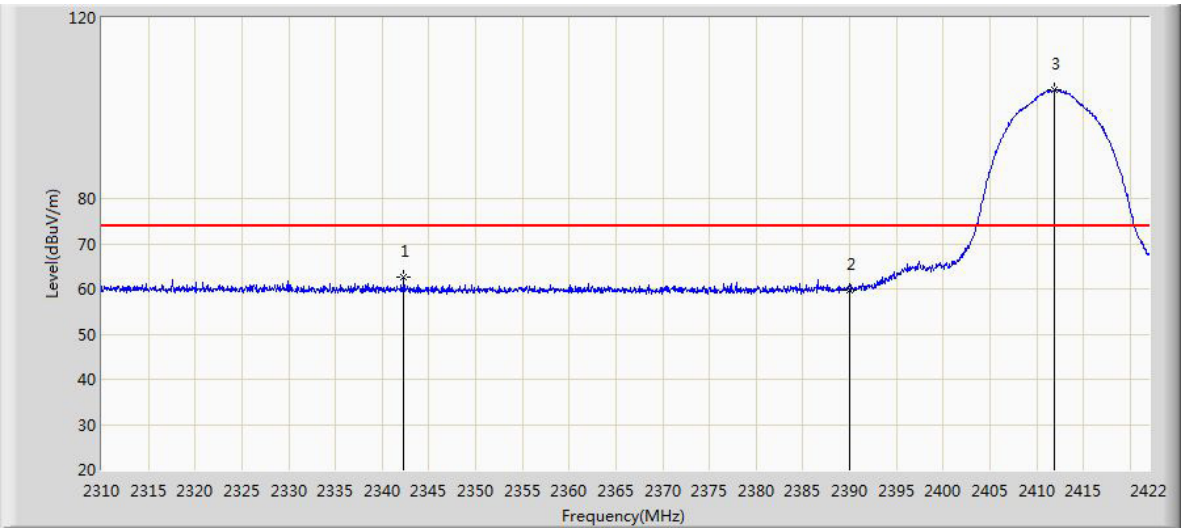


Table 15: Radiated Restricted Band Edge, TM1, Vertical, PK

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2342.312	62.517	30.506	-11.483	74.000	32.011	PK
2390.000	59.654	27.731	-14.346	74.000	31.923	PK
2411.920	104.186	72.322	N/A	N/A	31.864	PK

Figure 39: Radiated Restricted Band Edge, TM1, Vertical, AV

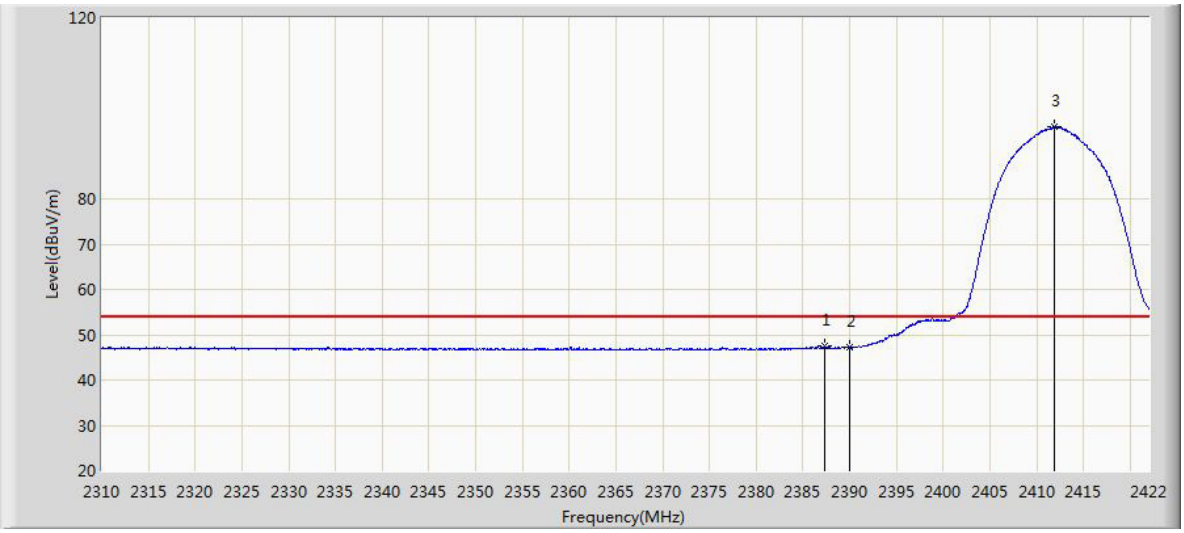


Table 16: Radiated Restricted Band Edge, TM1, Vertical, AV

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2387.392	47.400	15.479	-6.600	54.000	31.921	AV
2390.000	47.115	15.192	-6.885	54.000	31.923	AV
2411.864	95.982	64.118	N/A	N/A	31.864	AV

Figure 40: Radiated Restricted Band Edge, TM3, Horizontal, PK

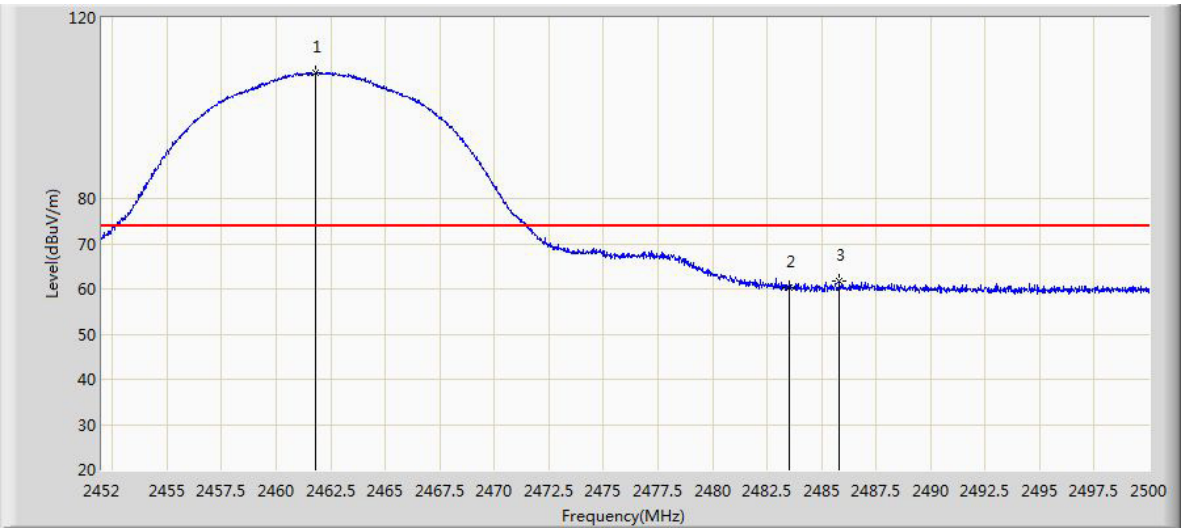


Table 17: Radiated Restricted Band Edge, TM3, Horizontal, PK

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2461.792	107.872	76.029	N/A	N/A	31.843	PK
2483.500	60.399	28.485	-13.601	74.000	31.914	PK
2485.816	61.622	29.702	-12.378	74.000	31.921	PK

Figure 41: Radiated Restricted Band Edge, TM3, Horizontal, AV

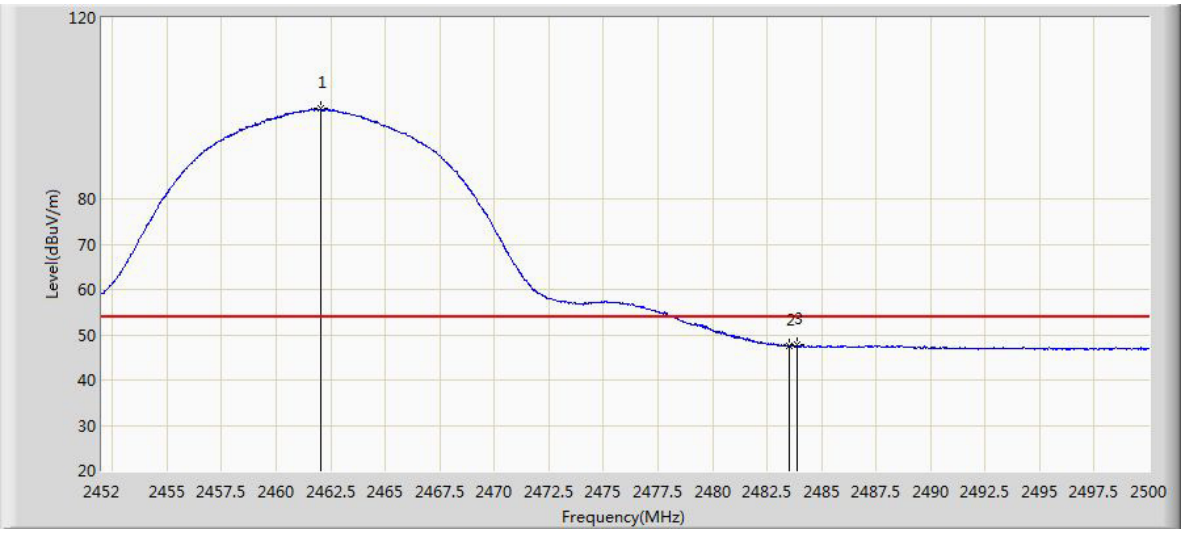


Table 18: Radiated Restricted Band Edge, TM3, Horizontal, AV

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2462.032	99.937	68.094	N/A	N/A	31.843	AV
2483.500	47.489	15.575	-6.511	54.000	31.914	AV
2483.896	47.762	15.847	-6.238	54.000	31.914	AV

Figure 42: Radiated Restricted Band Edge, TM3, Vertical, PK

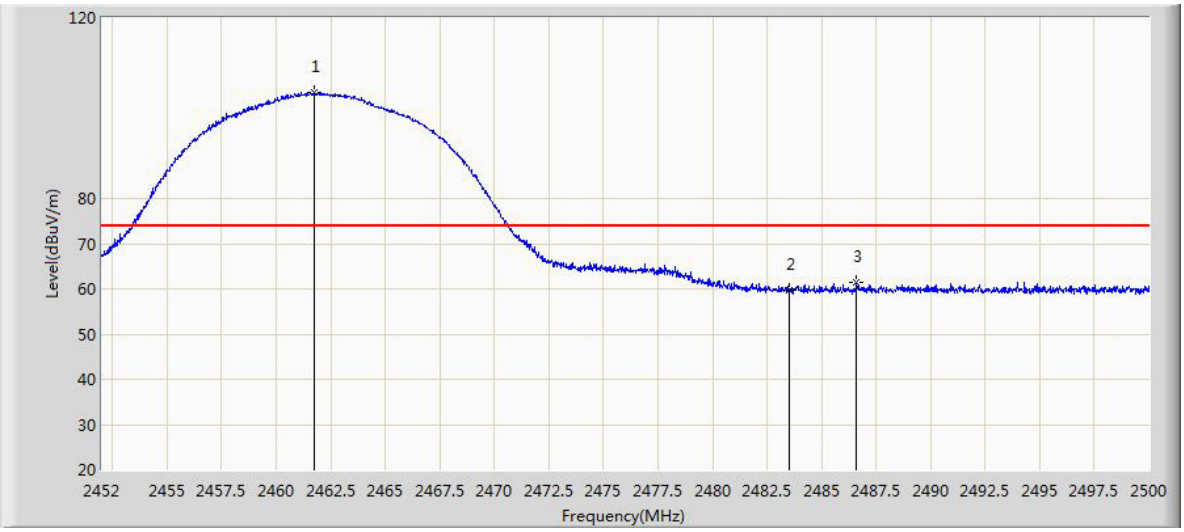


Table 19: Radiated Restricted Band Edge, TM3, Vertical, PK

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2461.720	103.399	71.556	N/A	N/A	31.843	PK
2483.500	59.824	27.910	-14.176	74.000	31.914	PK
2486.608	61.479	29.556	-12.521	74.000	31.923	PK

Figure 43: Radiated Restricted Band Edge, TM3, Vertical, AV

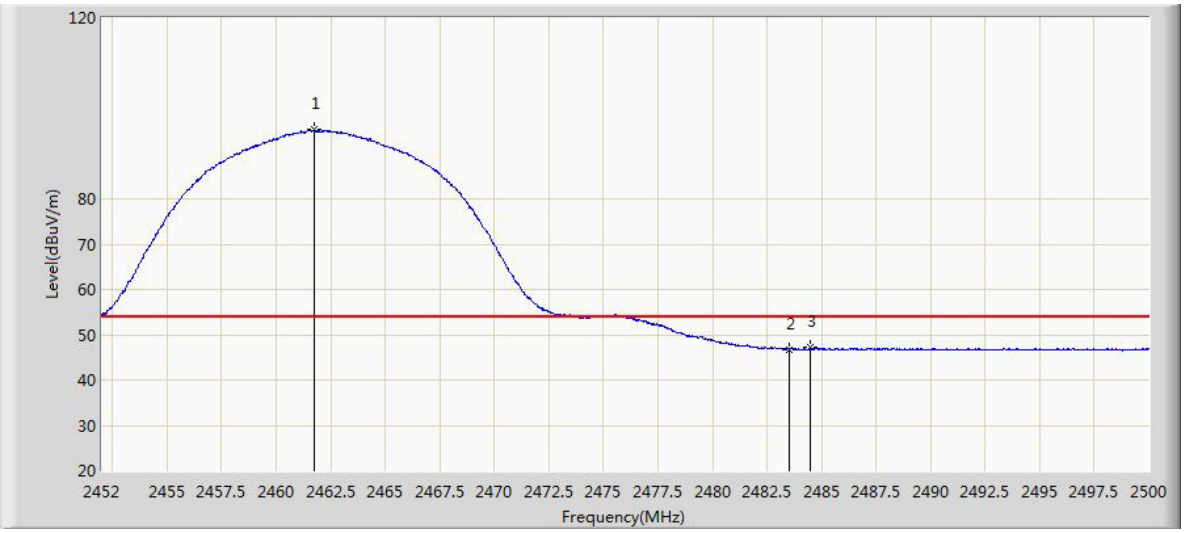


Table 20: Radiated Restricted Band Edge, TM3, Vertical, AV

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2461.744	95.307	63.464	N/A	N/A	31.843	AV
2483.500	46.782	14.868	-7.218	54.000	31.914	AV
2484.496	47.106	15.189	-6.894	54.000	31.916	AV

Figure 44: Radiated Restricted Band Edge, TM4, Horizontal, PK

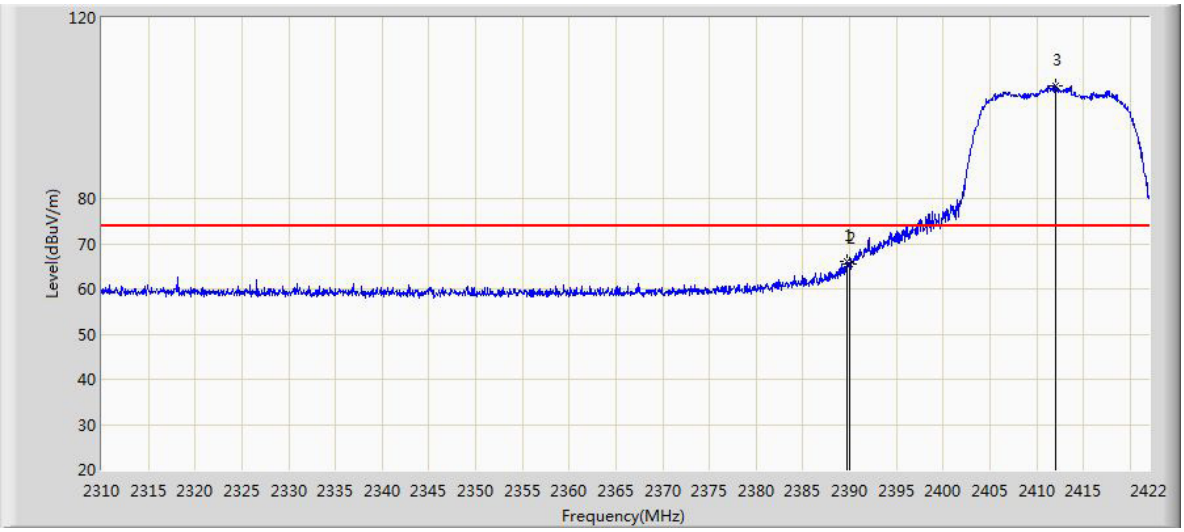


Table 21: Radiated Restricted Band Edge, TM4, Horizontal, PK,

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2389.744	65.969	34.046	-8.031	74.000	31.922	PK
2390.000	65.400	33.477	-8.600	74.000	31.923	PK
2412.032	105.052	73.188	N/A	N/A	31.864	PK

Figure 45: Radiated Restricted Band Edge, TM4, Horizontal, AV

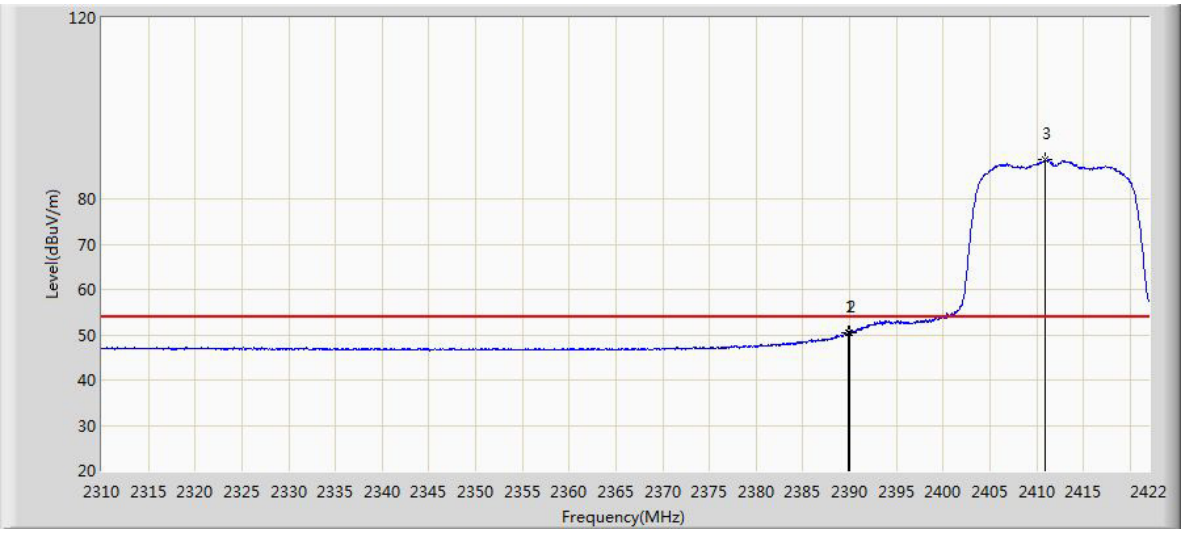


Table 22: Radiated Restricted Band Edge, TM4, Horizontal, AV,

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2389.856	50.466	18.543	-3.534	54.000	31.923	AV
2390.000	50.290	18.367	-3.710	54.000	31.923	AV
2410.968	88.729	56.864	N/A	N/A	31.865	AV

Figure 46: Radiated Restricted Band Edge, TM4, Vertical, PK

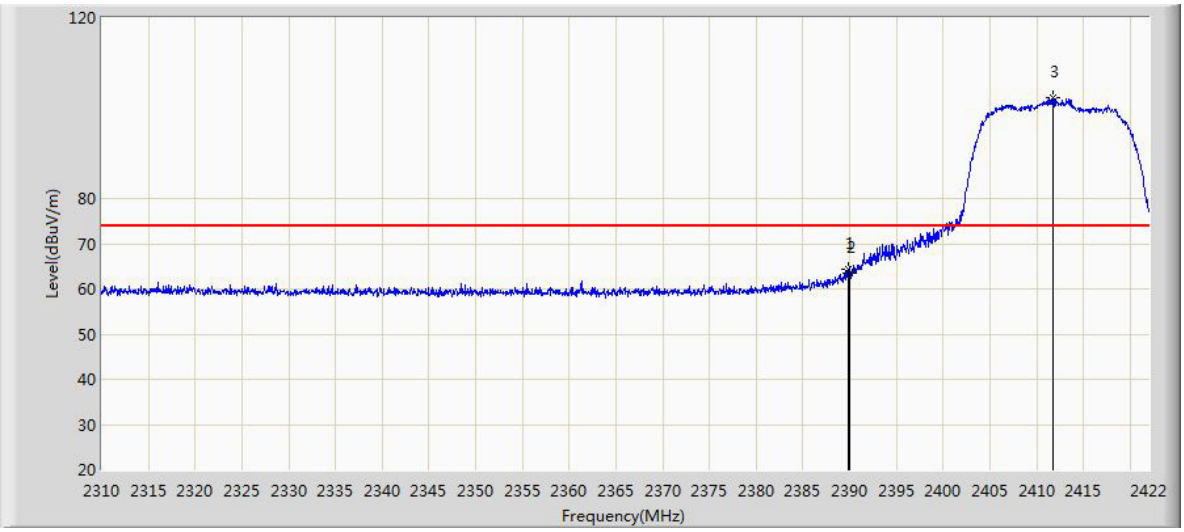


Table 23: Radiated Restricted Band Edge, TM4, Vertical, PK

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2389.856	64.207	32.284	-9.793	74.000	31.923	PK
2390.000	63.482	31.559	-10.518	74.000	31.923	PK
2411.808	102.254	70.390	N/A	N/A	31.864	PK

Figure 47: Radiated Restricted Band Edge, TM4, Vertical, AV

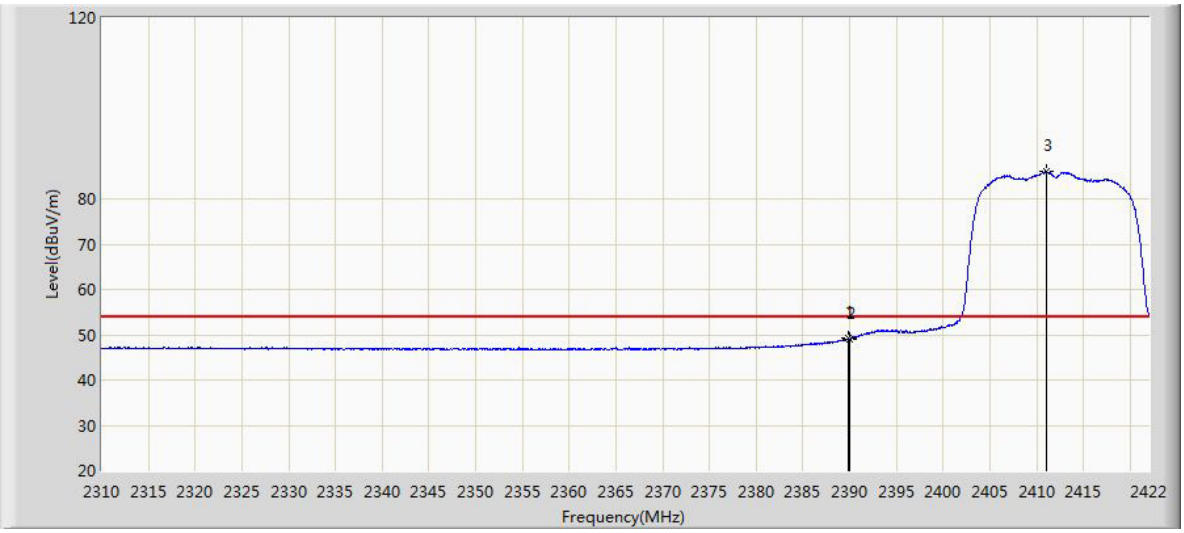


Table 24: Radiated Restricted Band Edge, TM4, Vertical, AV

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2389.856	49.188	17.265	-4.812	54.000	31.923	AV
2390.000	49.067	17.144	-4.933	54.000	31.923	AV
2411.024	86.078	54.213	N/A	N/A	31.865	AV

Figure 48: Radiated Restricted Band Edge, TM6, Horizontal, PK

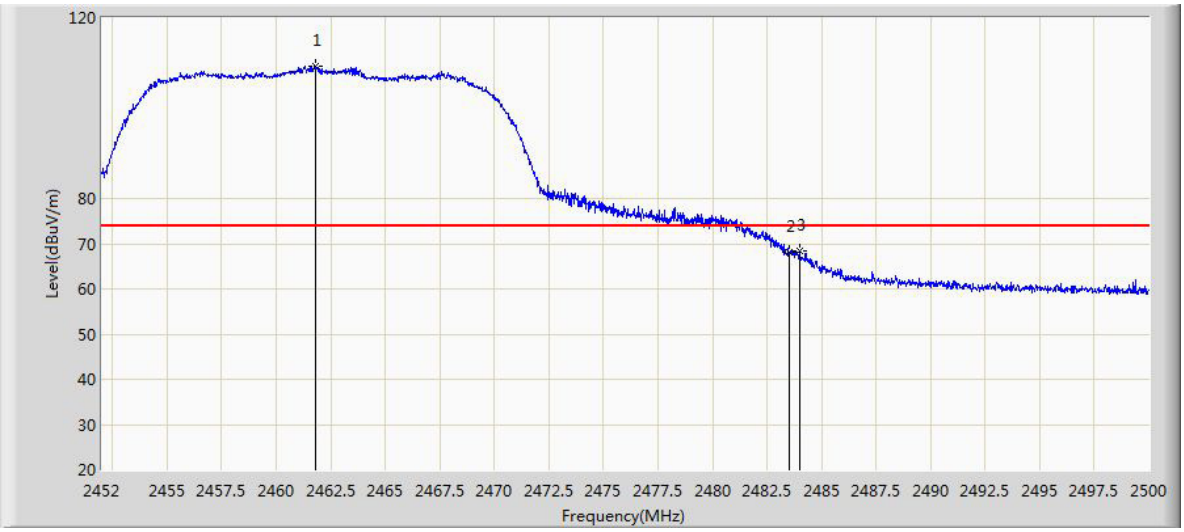


Table 25: Radiated Restricted Band Edge, TM6, Horizontal, PK

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2461.792	109.243	77.400	N/A	N/A	31.843	PK
2483.500	68.066	36.152	-5.934	74.000	31.914	PK
2483.992	68.528	36.613	-5.472	74.000	31.916	PK

Figure 49: Radiated Restricted Band Edge, TM6, Horizontal, AV

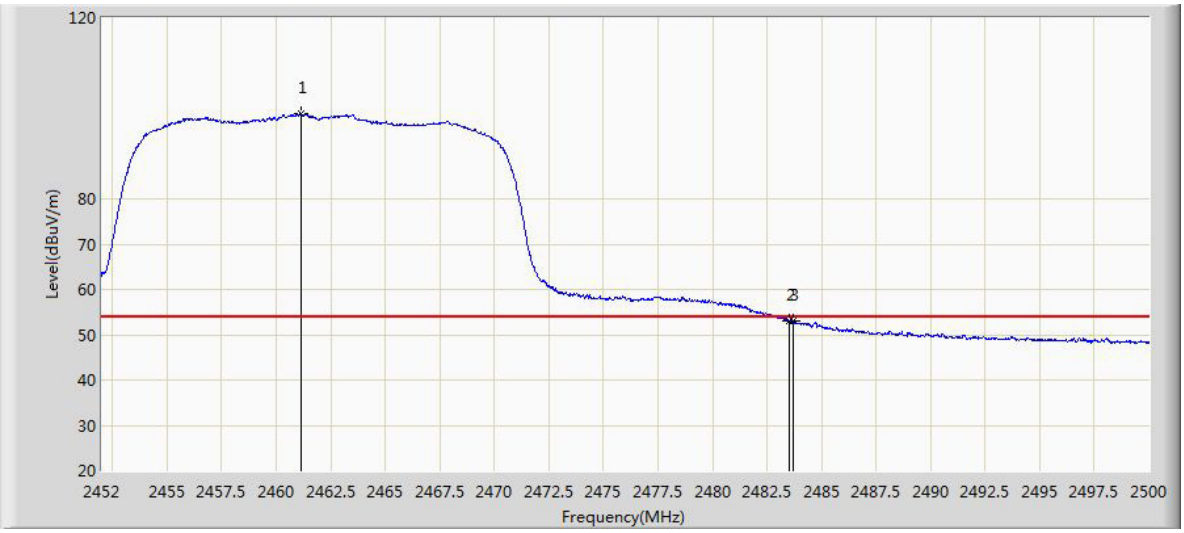


Table 26: Radiated Restricted Band Edge, TM6, Horizontal, AV

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2461.120	98.885	67.043	N/A	N/A	31.842	AV
2483.500	52.944	21.030	-1.056	54.000	31.914	AV
2483.704	53.059	21.145	-0.941	54.000	31.914	AV

Figure 50: Radiated Restricted Band Edge, TM6, Vertical, PK

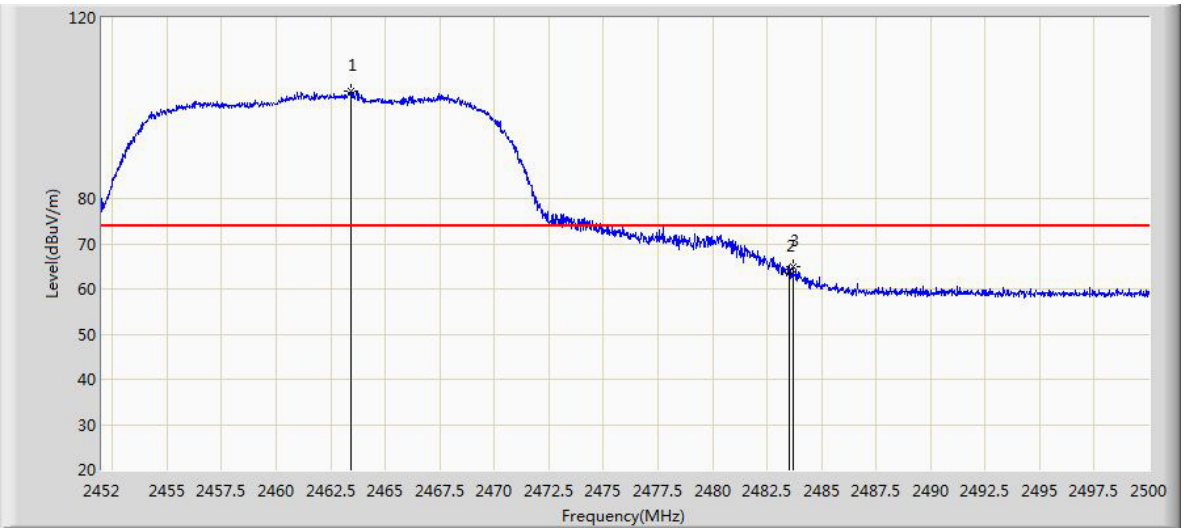


Table 27: Radiated Restricted Band Edge, TM6, Vertical, AV

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2463.448	103.649	71.802	N/A	N/A	31.847	PK
2483.500	63.678	31.764	-10.322	74.000	31.914	PK
2483.704	64.815	32.901	-9.185	74.000	31.914	PK

Figure 51: Radiated Restricted Band Edge, TM6, Vertical, AV

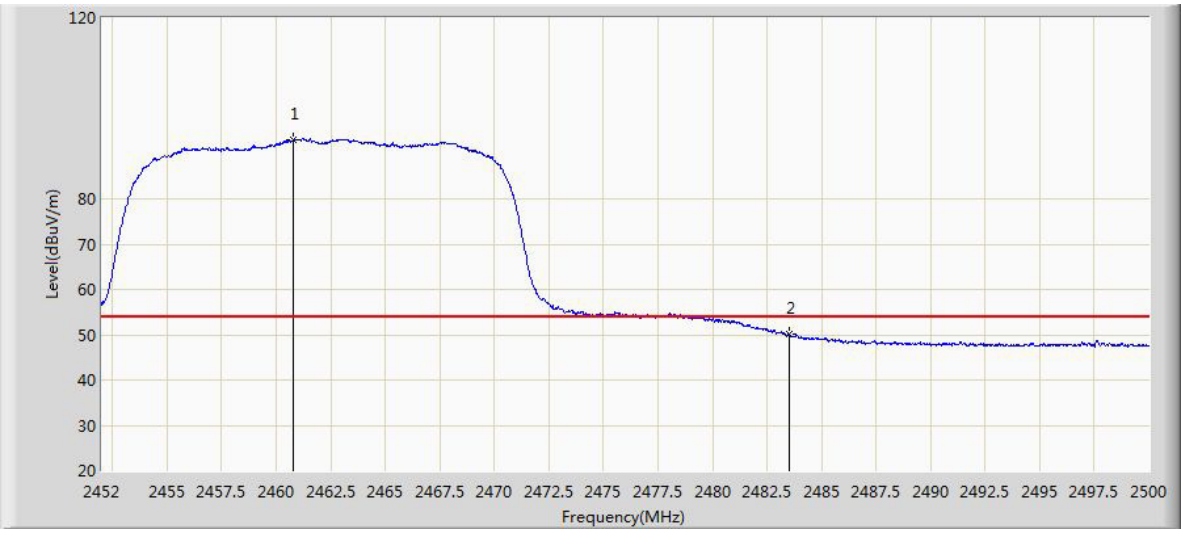


Table 28: Radiated Restricted Band Edge, TM6, Vertical, AV

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2460.808	93.180	61.339	N/A	N/A	31.841	AV
2483.500	50.043	18.129	-3.957	54.000	31.914	AV

Figure 52: Radiated Restricted Band Edge, TM7, Horizontal, PK

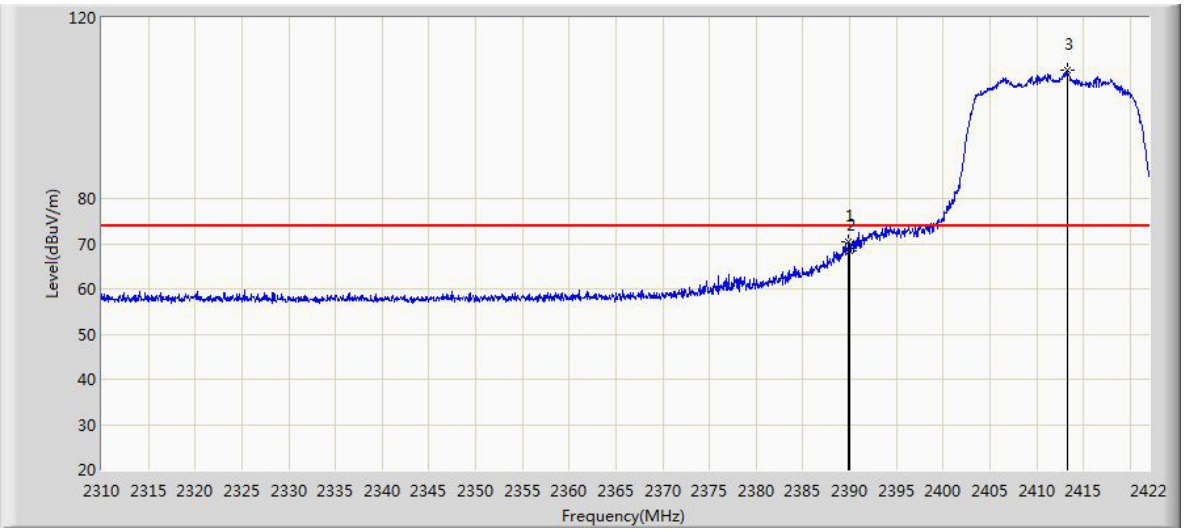


Table 29: Radiated Restricted Band Edge, TM7, Horizontal, PK,

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2389.912	70.573	38.650	-3.427	74.000	31.923	PK
2390.000	68.500	36.577	-5.500	74.000	31.923	PK
2413.264	108.301	76.438	N/A	N/A	31.863	PK

Figure 53: Radiated Restricted Band Edge, TM7, Horizontal, AV

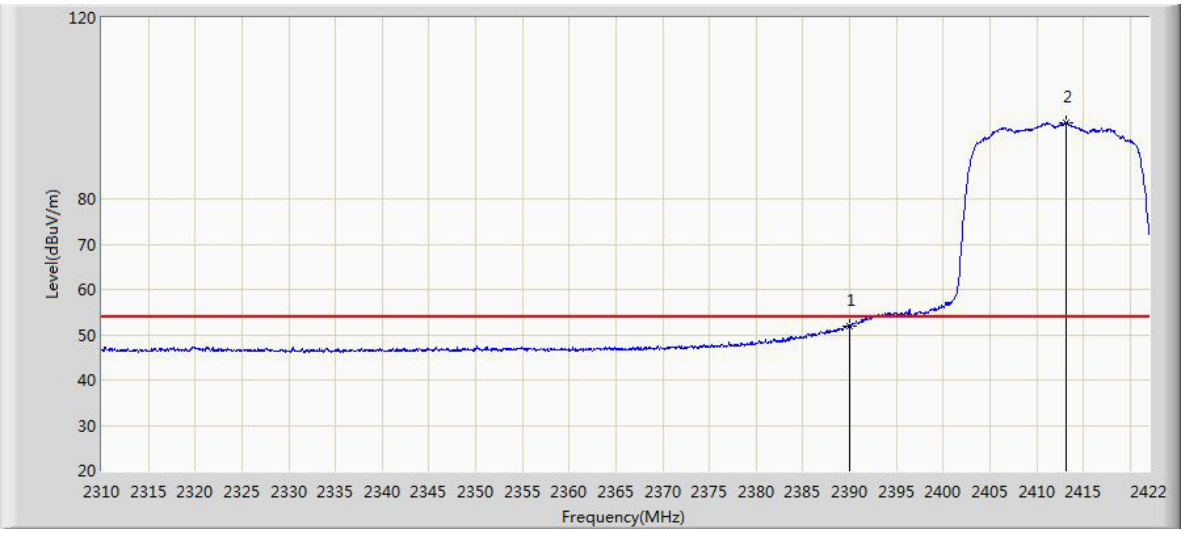


Table 30: Radiated Restricted Band Edge, TM7, Horizontal, AV,

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2390.000	52.000	20.077	-2.000	54.000	31.923	AV
2413.208	96.861	64.998	N/A	N/A	31.863	AV

Figure 54: Radiated Restricted Band Edge, TM7, Vertical, PK

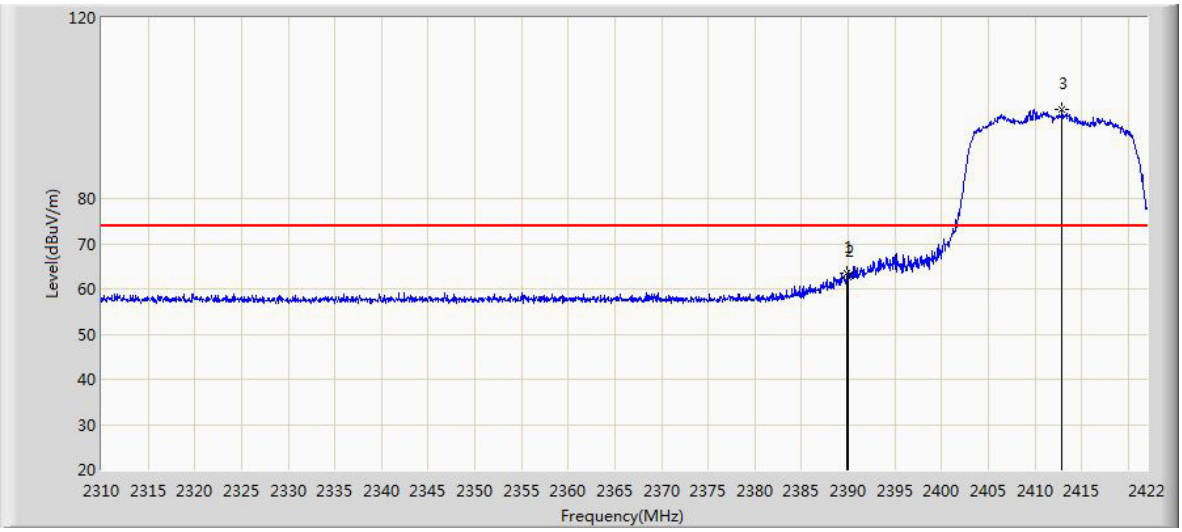


Table 31: Radiated Restricted Band Edge, TM7, Vertical, PK

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2389.856	63.547	31.624	-10.453	74.000	31.923	PK
2390.000	62.623	30.700	-11.377	74.000	31.923	PK
2412.928	99.799	67.936	N/A	N/A	31.863	PK

Figure 55: Radiated Restricted Band Edge, TM7, Vertical, AV

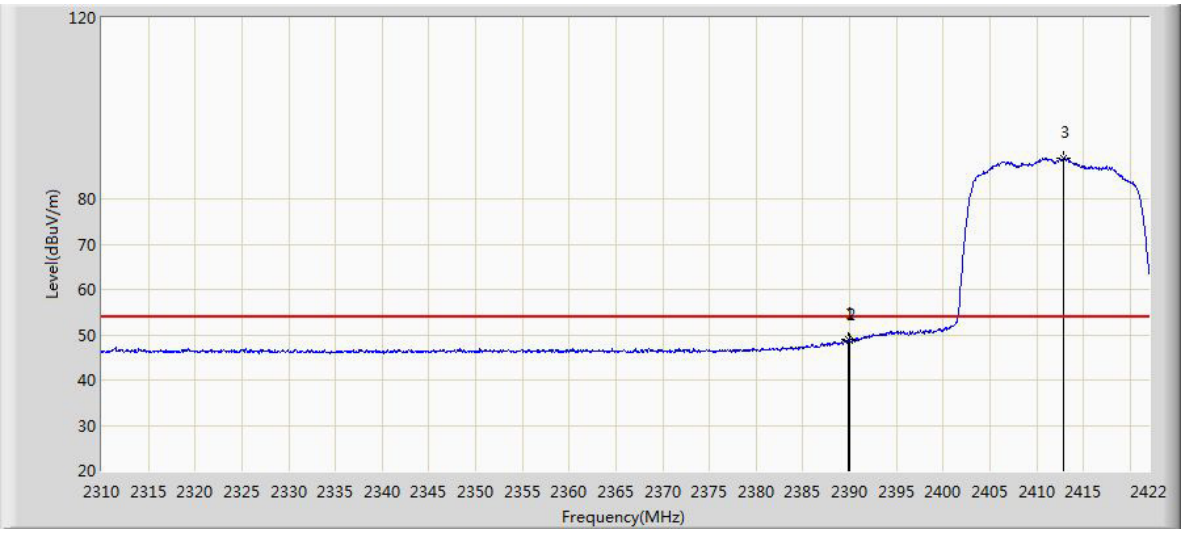


Table 32: Radiated Restricted Band Edge, TM7, Vertical, AV

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2389.912	49.083	17.160	-4.917	54.000	31.923	AV
2390.000	48.716	16.793	-5.284	54.000	31.923	AV
2412.872	89.070	57.207	N/A	N/A	31.863	AV

Figure 56: Radiated Restricted Band Edge, TM9, Horizontal, PK

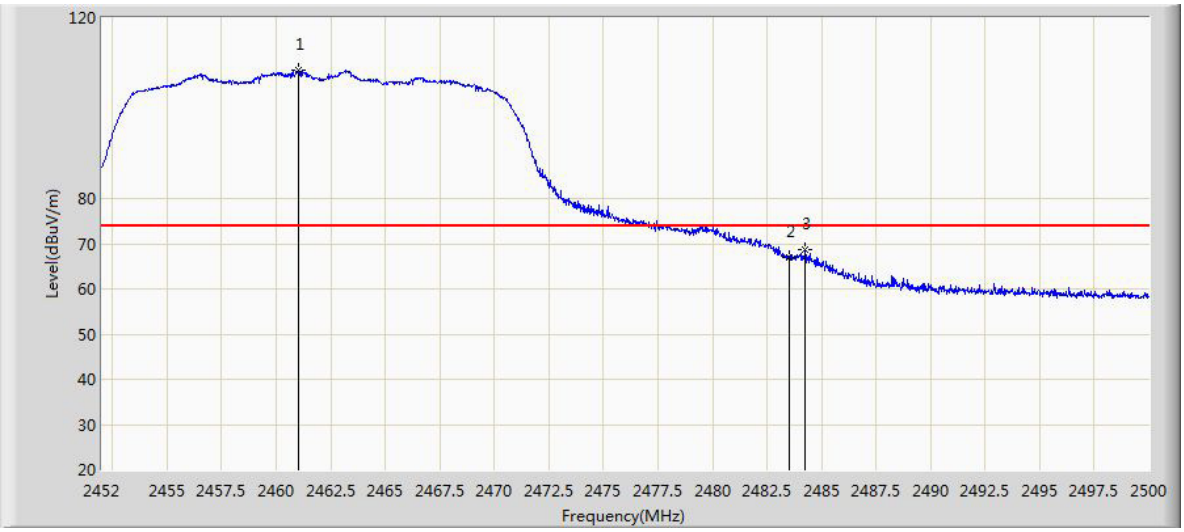


Table 33: Radiated Restricted Band Edge, TM9, Horizontal, PK

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2461.048	108.360	76.518	N/A	N/A	31.842	PK
2483.500	66.945	35.031	-7.055	74.000	31.914	PK
2484.256	68.581	36.665	-5.419	74.000	31.916	PK

Figure 57: Radiated Restricted Band Edge, TM9, Horizontal, AV

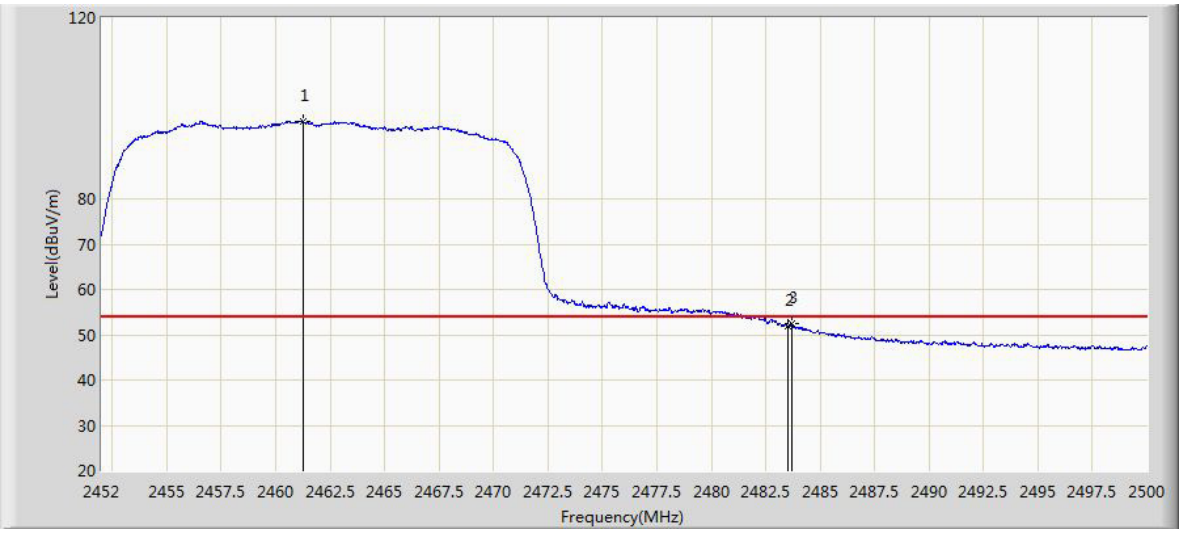


Table 34: Radiated Restricted Band Edge, TM9, Horizontal, AV

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2461.240	97.233	65.391	N/A	N/A	31.842	AV
2483.500	51.918	20.004	-2.082	54.000	31.914	AV
2483.704	52.413	20.499	-1.587	54.000	31.914	AV

Figure 58: Radiated Restricted Band Edge, TM9, Vertical, PK

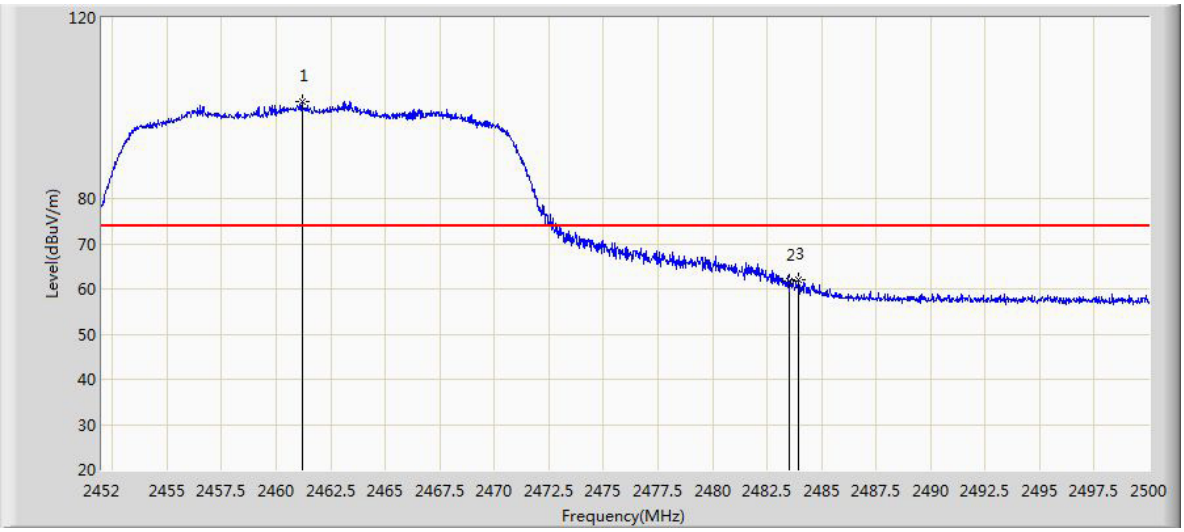


Table 35: Radiated Restricted Band Edge, TM9, Vertical, PK

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2461.192	101.446	69.604	N/A	N/A	31.842	PK
2483.500	61.761	29.847	-12.239	74.000	31.914	PK
2483.968	61.955	30.040	-12.045	74.000	31.915	PK

Figure 59: Radiated Restricted Band Edge, TM9, Vertical, AV

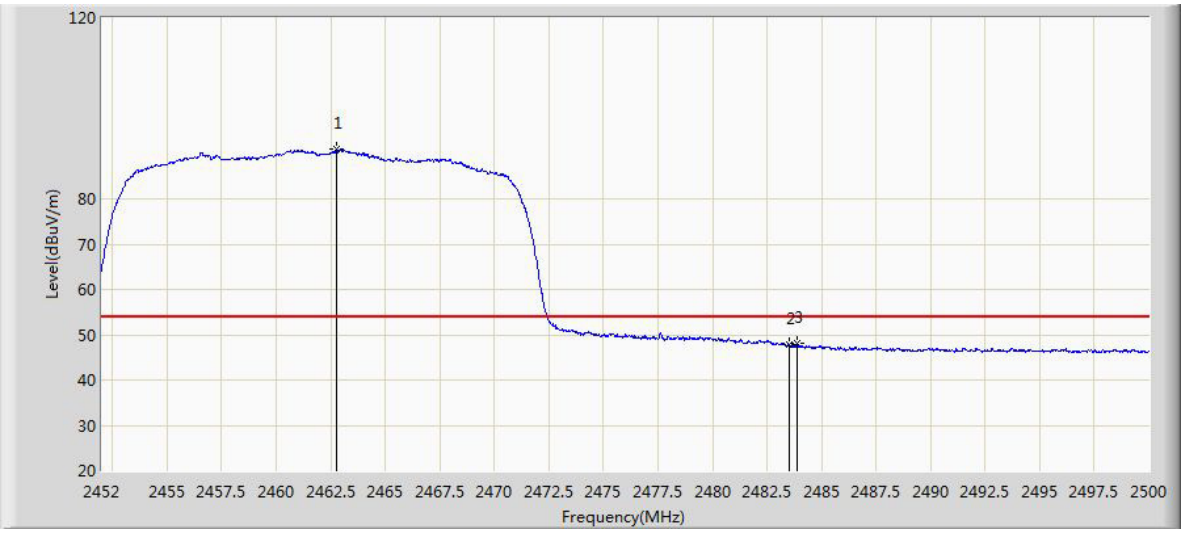


Table 36: Radiated Restricted Band Edge, TM9, Vertical, AV

Frequency [MHz]	Measure Level [dBuV/m]	Reading Level [dBuV]	Over Limit [dB]	Limit [dBuV/m]	Factor [dB]	Type
2462.776	90.882	59.037	N/A	N/A	31.845	AV
2483.500	47.748	15.834	-6.252	54.000	31.914	AV
2483.896	48.081	16.166	-5.919	54.000	31.914	AV

6. List of Tables

7. List of Figures