

FCC Part 15C Measurement and Test Report

For

MXT INDUSTRIAL LTDA

RODOVIA BR 381, KM 490, JARDIM DAS ALTEROSAS, BETIM,

MINAS GERAIS, BRASIL

FCC ID: O4NMXTBRCN

FCC Rules: FCC Part 15.247

Product Description: Vehicle Tracker

Tested Model: MXT-141

Report No.: STR12068084I-2

Tested Date: 2012-07-14 to 2012-08-09

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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by SEM.Test Compliance Service Co., Ltd

TABLE OF CONTENTS

1. GENERAL INFORMATION.....	3
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT).....	3
1.2 TEST STANDARDS.....	4
1.3 TEST METHODOLOGY.....	4
1.4 TEST FACILITY.....	4
1.5 EUT SETUP AND TEST MODE.....	5
2. SUMMARY OF TEST RESULTS	6
3. ANTENNA REQUIREMENT	7
3.1 STANDARD APPLICABLE.....	7
3.2 EVALUATION INFORMATION	7
4. POWER SPECTRAL DENSITY	8
4.1 STANDARD APPLICABLE.....	8
4.2 TEST EQUIPMENT LIST AND DETAILS	8
4.3 TEST PROCEDURE.....	8
4.4 ENVIRONMENTAL CONDITIONS	8
4.5 SUMMARY OF TEST RESULTS/PLOTS	9
5. 6DB BANDWIDTH	12
5.1 STANDARD APPLICABLE.....	12
5.2 TEST EQUIPMENT LIST AND DETAILS	12
5.3 TEST PROCEDURE.....	12
5.4 ENVIRONMENTAL CONDITIONS	12
5.5 SUMMARY OF TEST RESULTS/PLOTS	13
6. RF OUTPUT POWER.....	15
6.1 STANDARD APPLICABLE.....	15
6.2 TEST EQUIPMENT LIST AND DETAILS	15
6.3 TEST PROCEDURE.....	15
6.4 ENVIRONMENTAL CONDITIONS	15
6.5 SUMMARY OF TEST RESULTS/PLOTS	16
7. FIELD STRENGTH OF SPURIOUS EMISSIONS	18
7.1 MEASUREMENT UNCERTAINTY	18
7.2 STANDARD APPLICABLE.....	18
7.3 TEST EQUIPMENT LIST AND DETAILS	18
7.4 TEST PROCEDURE.....	19
7.5 CORRECTED AMPLITUDE & MARGIN CALCULATION.....	19
7.6 ENVIRONMENTAL CONDITIONS	19
7.7 SUMMARY OF TEST RESULTS/PLOTS	20
8. OUT OF BAND EMISSIONS.....	30
8.1 STANDARD APPLICABLE.....	30
8.2 TEST EQUIPMENT LIST AND DETAILS	30
8.3 TEST PROCEDURE.....	30
8.4 ENVIRONMENTAL CONDITIONS	31
8.5 SUMMARY OF TEST RESULTS/PLOTS	31

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: MXT INDUSTRIAL LTDA
Address of applicant: RODOVIA BR 381, KM 490, JARDIM DAS
ALTEROSAS, BETIM, MINAS GERAIS, BRASIL
Manufacturer: MXT INDUSTRIAL LTDA
Address of manufacturer: RODOVIA BR 381, KM 490, JARDIM DAS
ALTEROSAS, BETIM, MINAS GERAIS, BRASIL

General Description of EUT	
Product Name:	Vehicle Tracker
Trade Name:	MXT INDUSTRIAL LTDA
Model No.:	MXT-141
Adding Model(s):	MXT-140
Rated Voltage:	DC 3.7 Lithium Battery
Power Supply:	Input DC 9V-48V
<i>Note: The test data is gathered from a production sample, provided by the manufacturer. The other model listed in the report has different appearance only of MXT-141 without circuit and electronic construction changed, declared by the manufacturer.</i>	

Technical Characteristics of EUT	
Support Standards:	IEEE802.15.4 (Zigbee)
Frequency Range:	2405-2480MHz
RF Output Power:	-2.34 dBm (Conducted)
Data Rate:	250 Kbps
Modulation:	O-QPSK
Quantity of Channels:	16
Channel Separation:	5MHz
Antenna Type:	PCB Antenna
Antenna Gain:	-4 dBi
Lowest Internal Frequency of EUT:	16MHz
Device Category:	Mobile Device

1.2 Test Standards

The following report is prepared on behalf of the MXT INDUSTRIAL LTDA in accordance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz. The public notice KDB 558074 for digital transmission systems shall be performed also.

1.4 Test Facility

- **FCC – Registration No.: 994117**

SEM.Test Compliance Services Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files and the Registration is 994117.

- **Industry Canada (IC) Registration No.: 7673A**

The 3m Semi-anechoic chamber of SEM.Test Compliance Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 7673A.

- **CNAS Registration No.: L4062**

Shenzhen SEM.Test Electronics Service Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 3/F, Jinbao Commerce Building, Xin'an Fanshen Road, Bao'an District, Shenzhen, P.R.C (518101)

1.5 EUT Setup and Test Mode

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. All testing shall be performed under maximum output power condition, and to measure its highest possible emissions level, more detailed description as follows:

Test Mode List		
Test Mode	Description	Remark
TM1	Low Channel	2405MHz
TM2	Middle Channel	2445MHz
TM3	High Channel	2480MHz

Special Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
/	/	/	/

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§ 15.203; § 15.247(b)(4)(i)	Antenna Requirement	Compliant
§ 15.207(a)	Conducted Emission	Compliant
§ 15.247(e)	Power Spectral Density	Compliant
§ 15.247(a)(2)	6 dB Bandwidth	Compliant
§ 15.247(b)(3)	RF Output Power	Compliant
§ 15.209(a)(d)	Radiated Emission	Compliant
§ 15.247(d)	Band Edge (Out of Band Emissions)	Compliant

N/A: not applicable

3. Antenna Requirement

3.1 Standard Applicable

According to FCC Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

3.2 Evaluation Information

This product has a permanent antenna, fulfill the requirement of this section.

4. Power Spectral Density

4.1 Standard Applicable

According to 15.247(a)(1)(iii), For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

4.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2012-03-28	2013-03-27
Attenuator	ATTEN	ATS100-4-20	/	2012-03-28	2013-03-27

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

4.3 Test Procedure

According to the KDB 558074, the test method of power spectral density as below:

1. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set center frequency of spectrum analyzer = operating frequency.
3. Set the spectrum analyzer as RBW=100 kHz, VBW=300 kHz, Span 5-30 % greater than the EBW.
4. Repeat above procedures until all frequency measured was complete.
5. (BWCF) where $BWCF = 10\log(3\text{ kHz}/100\text{ kHz}) = -15.2\text{ dB}$.

4.4 Environmental Conditions

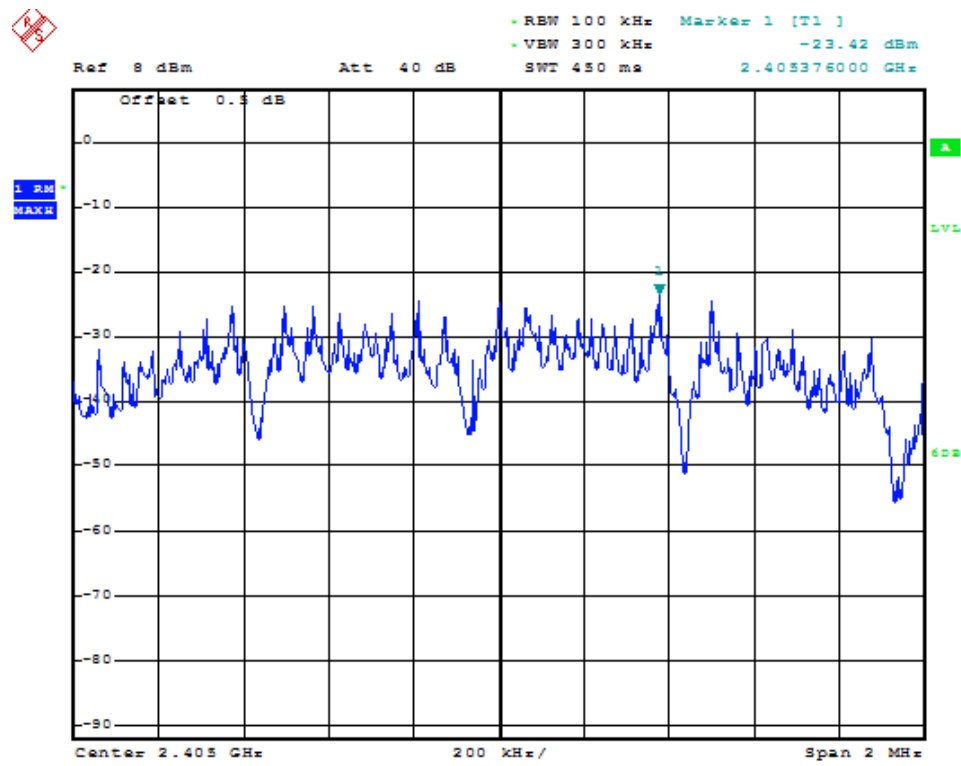
Temperature:	20° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

4.5 Summary of Test Results/Plots

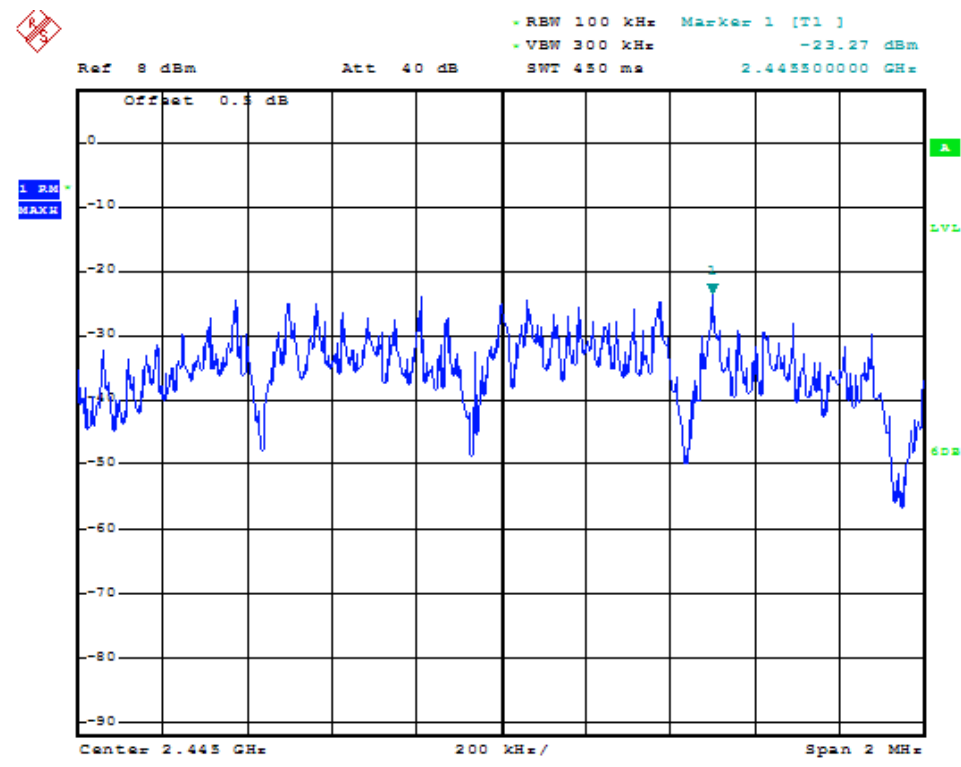
Test Channel MHz	Power Spectral Density dBm/100kHz	BWCF	Power Spectral Density dBm/3kHz	Limit dBm/3kHz
2405	-23.42	-15.2	-38.62	8
2445	-23.27	-15.2	-38.47	8
2480	-22.52	-15.2	-37.72	8

Please refer to the following test plots:

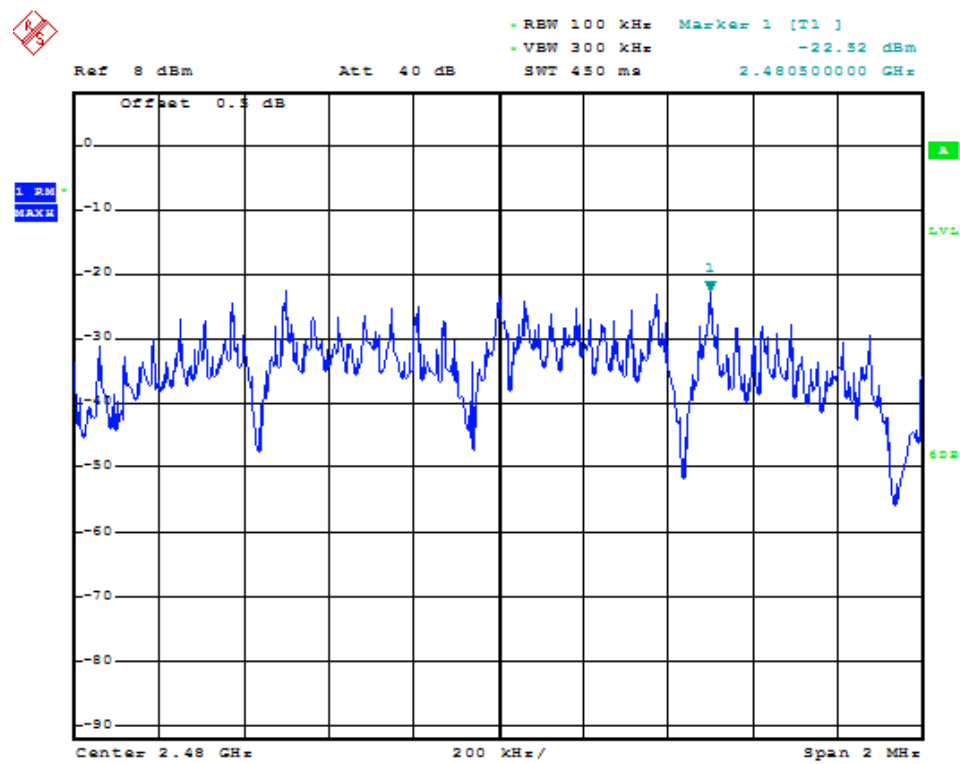
Low Channel



Middle Channel



High Channel



5. 6dB Bandwidth

5.1 Standard Applicable

According to 15.247(a)(2). Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

5.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2012-03-28	2013-03-27
Attenuator	ATTEN	ATS100-4-20	/	2012-03-28	2013-03-27

5.3 Test Procedure

1. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set center frequency of spectrum analyzer = operating frequency.
3. The spectrum analyzer as RBW=30kHz (1 % of Bandwidth.), Sweep=auto
4. Mark the peak frequency and –6dB (upper and lower) frequency.

5.4 Environmental Conditions

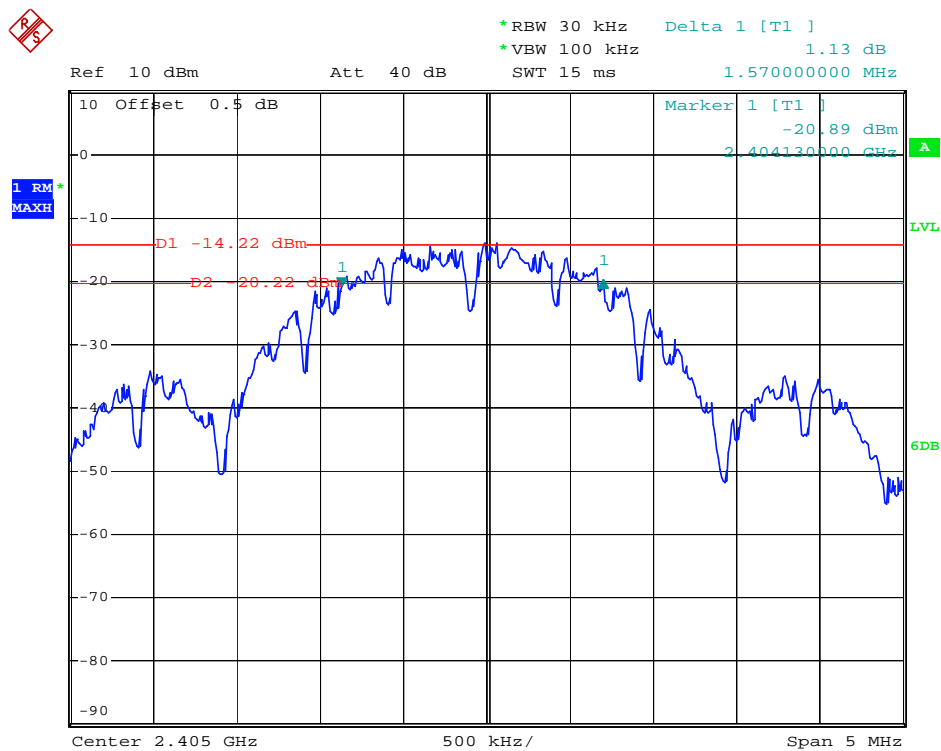
Temperature:	24° C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

5.5 Summary of Test Results/Plots

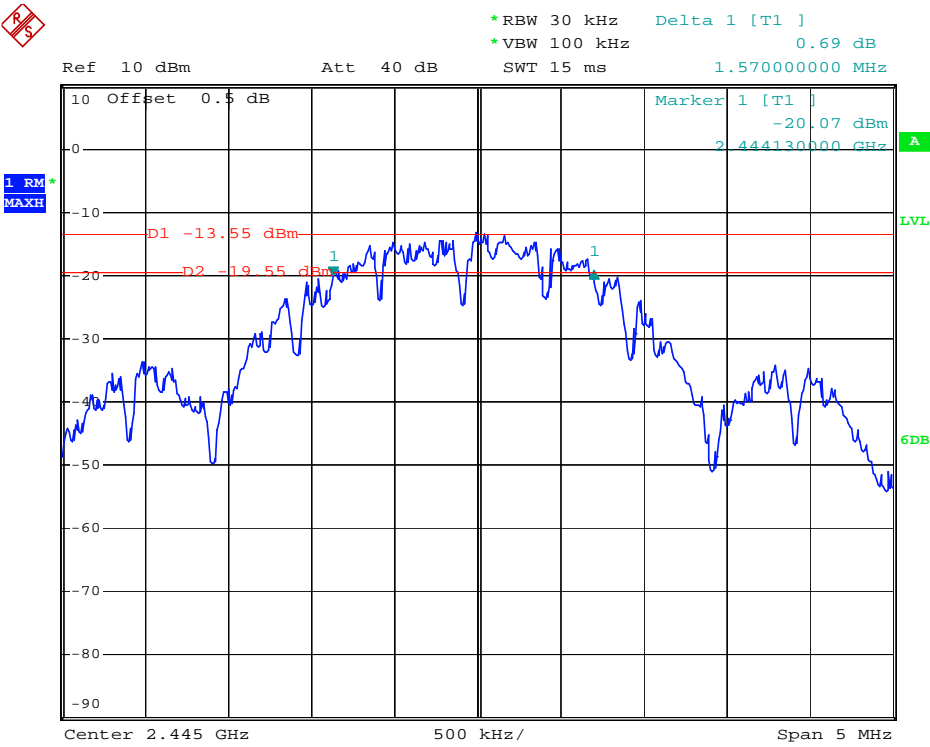
Test Channel MHz	6 dB Bandwidth kHz	Limit kHz
2405	1570	500
2445	1570	500
2480	1570	500

Please refer to the following test plots:

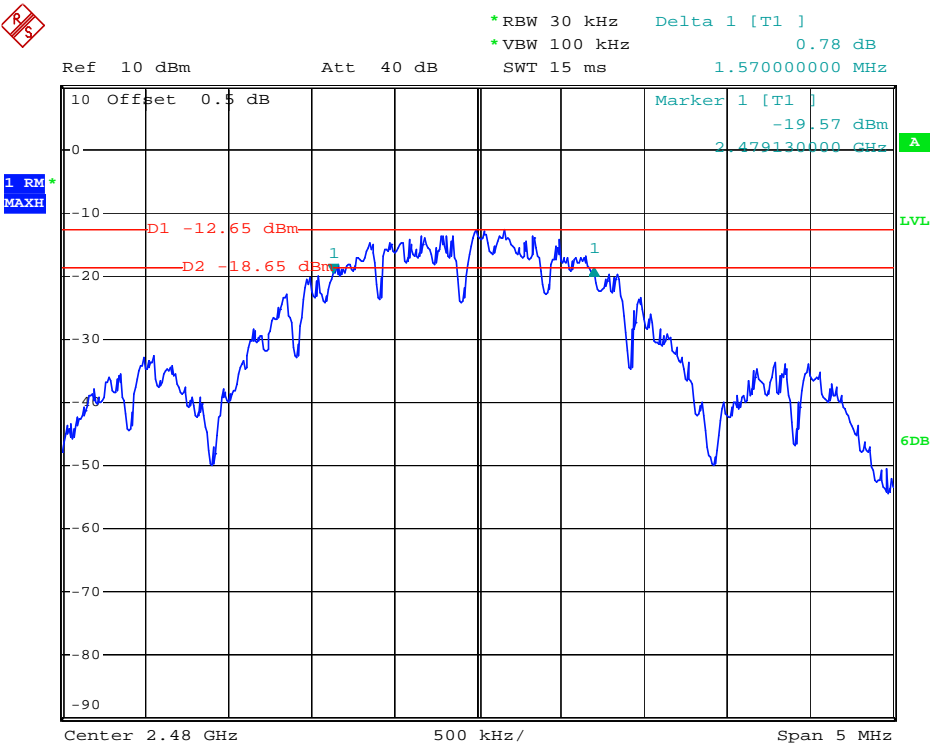
Low Channel



Middle Channel



High Channel



6. RF Output Power

6.1 Standard Applicable

According to 15.247(b)(3). For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

6.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2012-03-28	2013-03-27
Attenuator	ATTEN	ATS100-4-20	/	2012-03-28	2013-03-27

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

6.3 Test Procedure

According to section 15.247(b)-power output of the KDB-558074 (2012),

1. This procedure provides an integrated measurement alternative when the maximum available RBW < EBW.
2. Set the RBW = 1 MHz.
3. Set the VBW = 3 MHz.
4. Set the span to a value that is 5-30 % greater than the EBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the spectrum analyzer's integrated band power measurement function with band limits set equal to the EBW band edges (for some analyzers, this may require a manual override to ensure use of peak detector). If the spectrum analyzer does not have a band power function, sum the spectrum levels (in linear power units) at 1 MHz intervals extending across the EBW of the spectrum.

6.4 Environmental Conditions

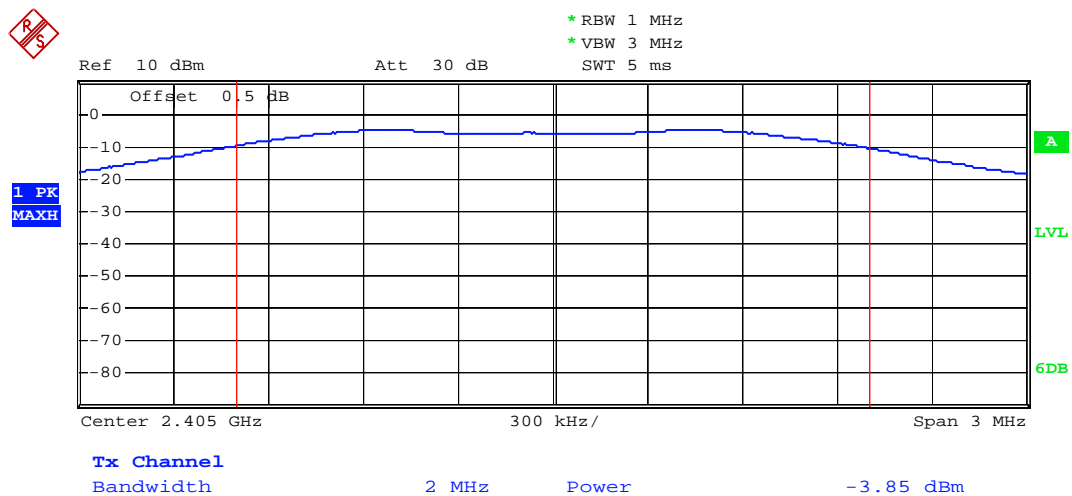
Temperature:	21° C
Relative Humidity:	55%
ATM Pressure:	1011 mbar

6.5 Summary of Test Results/Plots

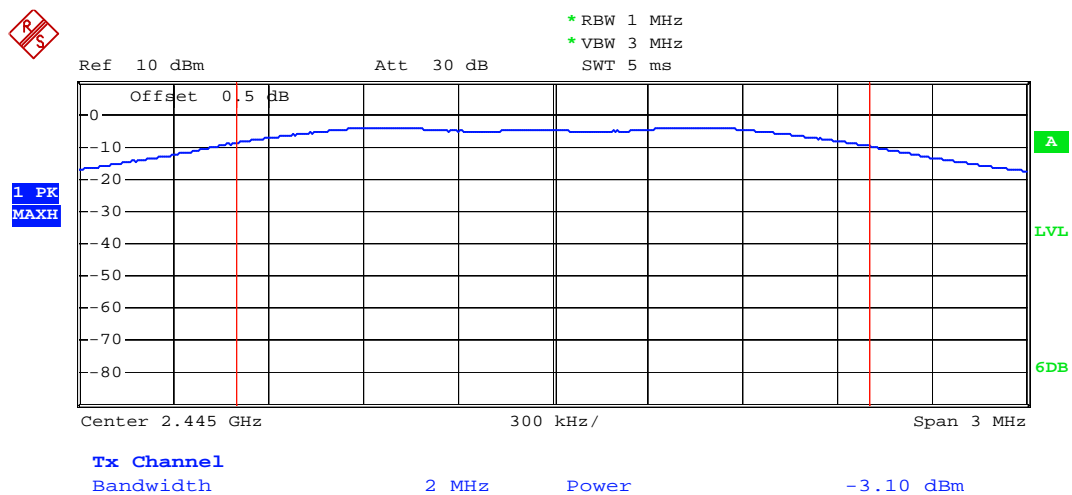
Frequency MHz	Reading dBm	Output Power mW	Limit mW
2405	-7.85	0.16	1000
2445	-7.10	0.20	1000
2480	-6.34	0.23	1000

Please refer to the following test plots:

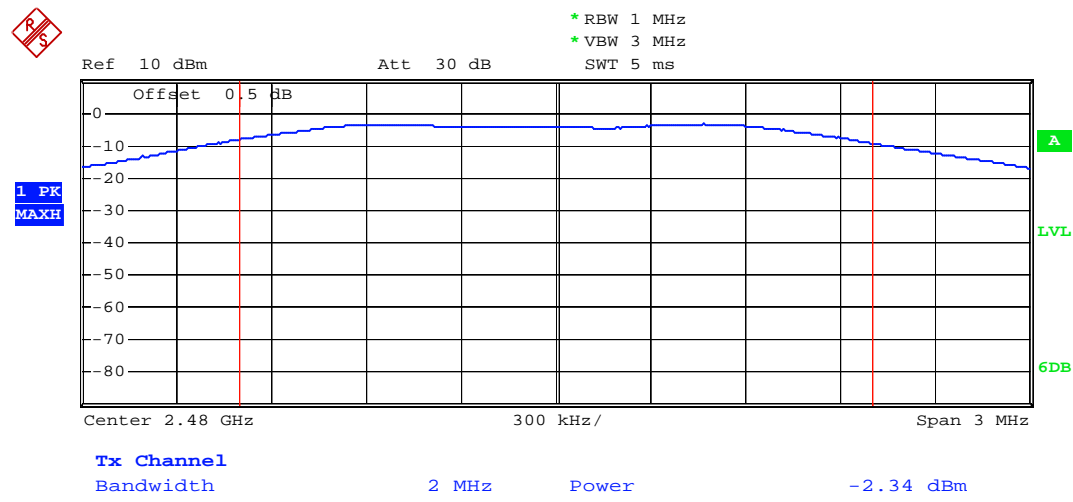
Low Channel



Middle Channel



High Channel



7. Field Strength of Spurious Emissions

7.1 Measurement Uncertainty

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement is ± 5.10 dB.

7.2 Standard Applicable

According to §15.247(d), in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply. Spurious Radiated Emissions measurements starting below or at the lowest crystal frequency.

7.3 Test Equipment List and Details

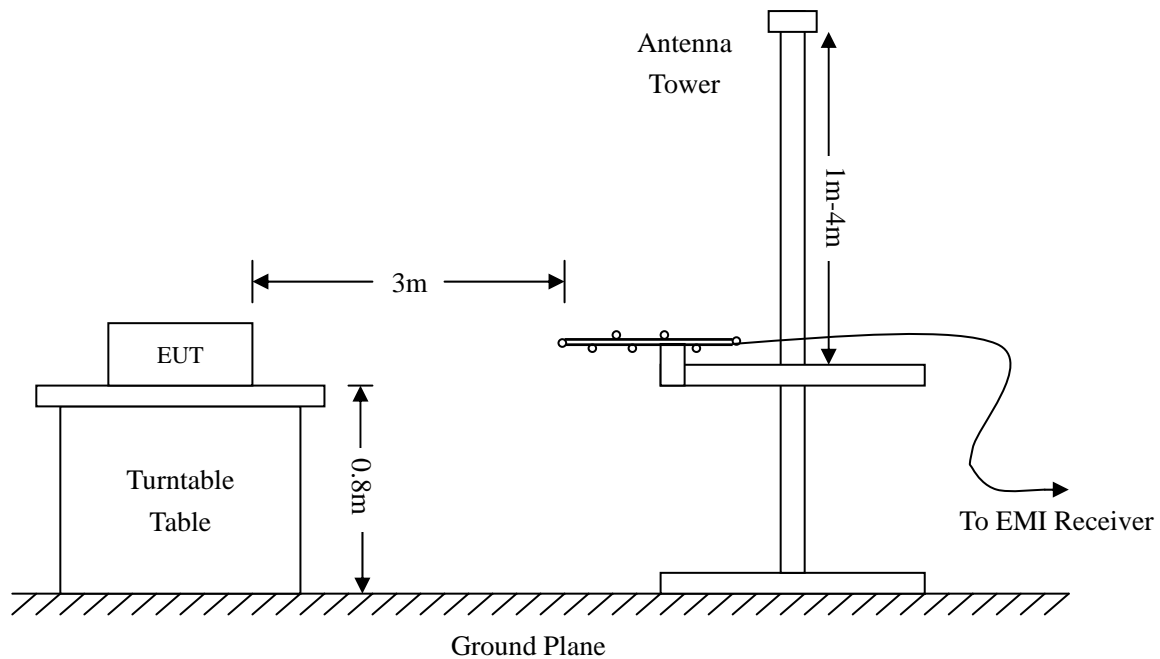
Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2012-03-28	2013-03-27
EMI Test Receiver	R&S	ESVB	825471/005	2012-03-28	2013-03-27
Pre-amplifier	Agilent	8447F	3113A06717	2012-03-28	2013-03-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2012-03-28	2013-03-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2012-02-25	2013-02-24
Horn Antenna	ETS	3117	00086197	2012-02-25	2013-02-24
Horn Antenna	ETS	3116B	00088203	2012-02-25	2013-02-24
Loop Antenna	SCHWARZECK	HFRA 5165	9365	2012-02-25	2013-02-24

7.4 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.205 15.247(a) and FCC Part 15.209 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.



7.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Ant. Factor} + \text{Cable Loss} - \text{Ampl. Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB μ V means the emission is 6dB μ V below the maximum limit for Class B. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15 Limit}$$

7.6 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

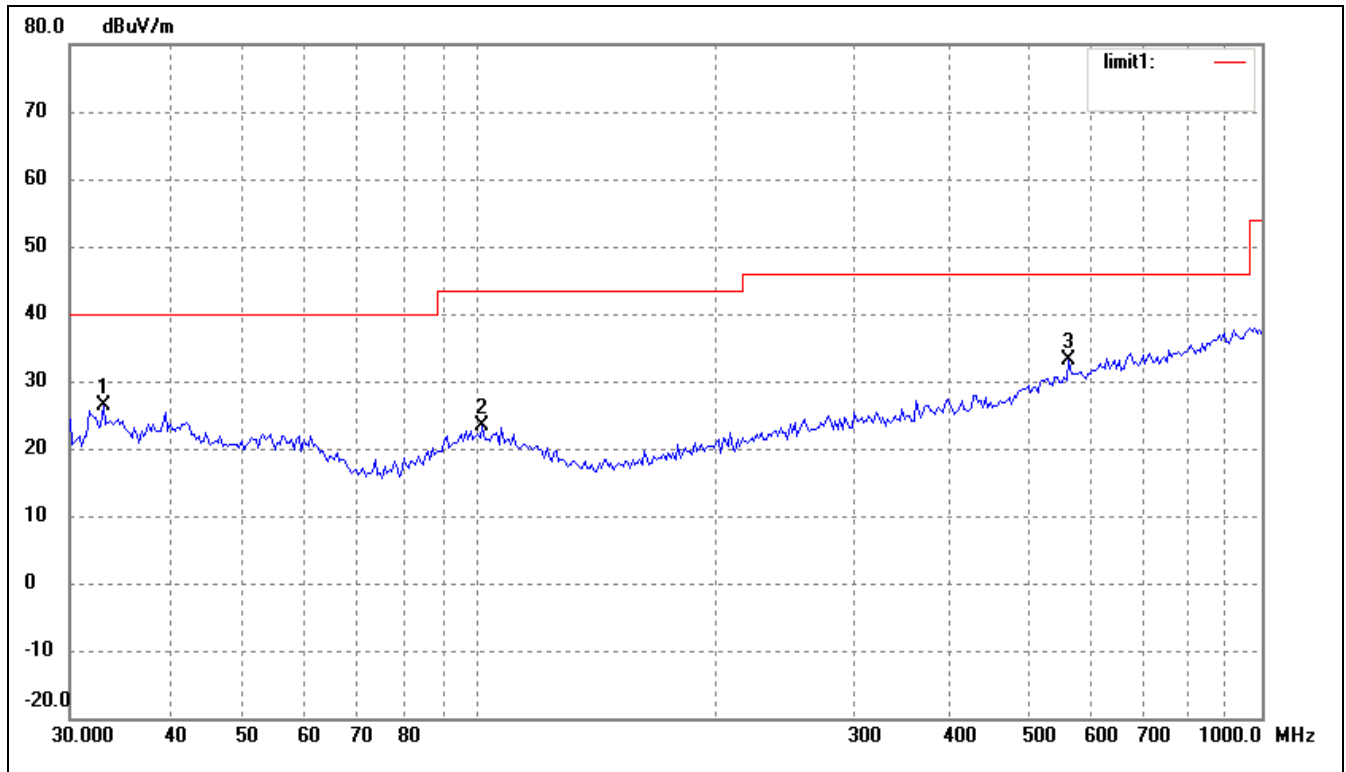
7.7 Summary of Test Results/Plots

According to the data below, the FCC Part 15.205, 15.209 and 15.247 standards, and had the worst margin of:

-8.50 dB μ V at 804.6028 MHz in the Vertical polarization for Charging Mode, 9kHz to 1 GHz, 3 Meters

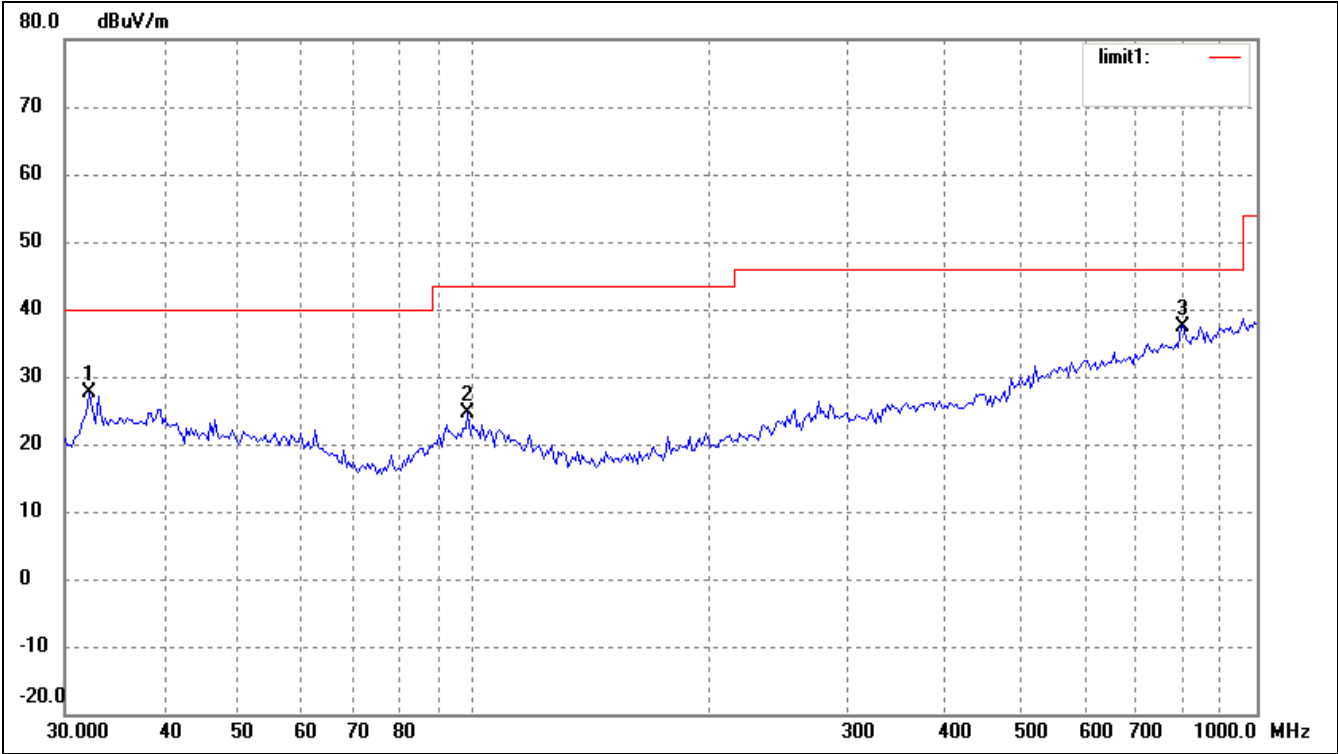
-11.26 dB μ V at 44.4308 MHz in the Vertical polarization for High Channel, 9kHz to 25 GHz, 3 Meters

Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported.

Plot of Radiated Emissions Test Data (30MHz to 1GHz)*EUT:* Vehicle Tracker*Tested Model:* MXT-141*Operating Condition:* Charging*Comment:* DC 12V Input*Test Specification:* Horizontal

No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	33.0950	19.67	6.77	26.44	40.00	-13.56	360	100	peak
2	100.9340	14.95	8.34	23.29	43.50	-20.21	360	100	peak
3	566.6223	17.16	15.91	33.07	46.00	-12.93	360	100	peak

Test Specification: Vertical

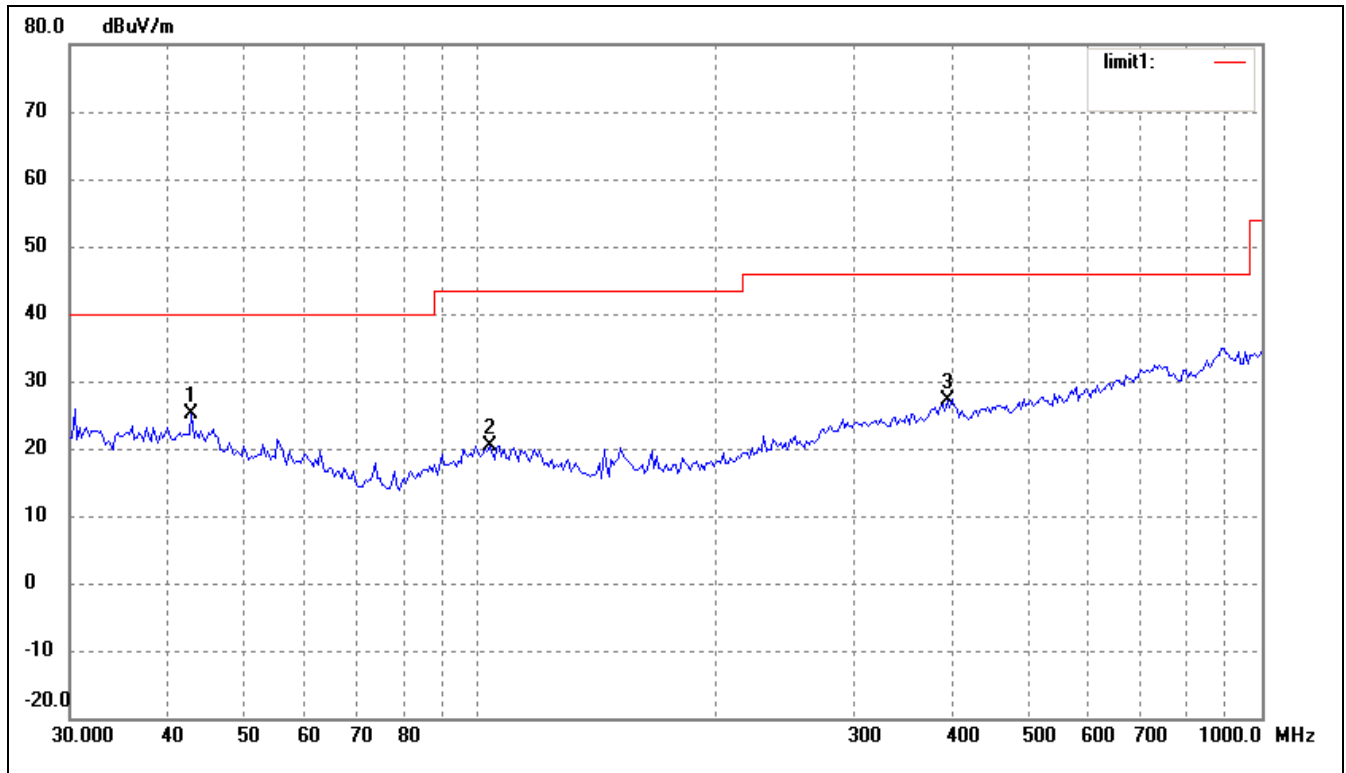


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	32.1795	20.84	6.77	27.61	40.00	-12.39	360	100	peak
2	98.1419	16.21	8.30	24.51	43.50	-18.99	360	100	peak
3	804.6028	18.40	19.10	37.50	46.00	-8.50	360	100	peak

Operating Condition: Transmitting Low Channel-2405MHz

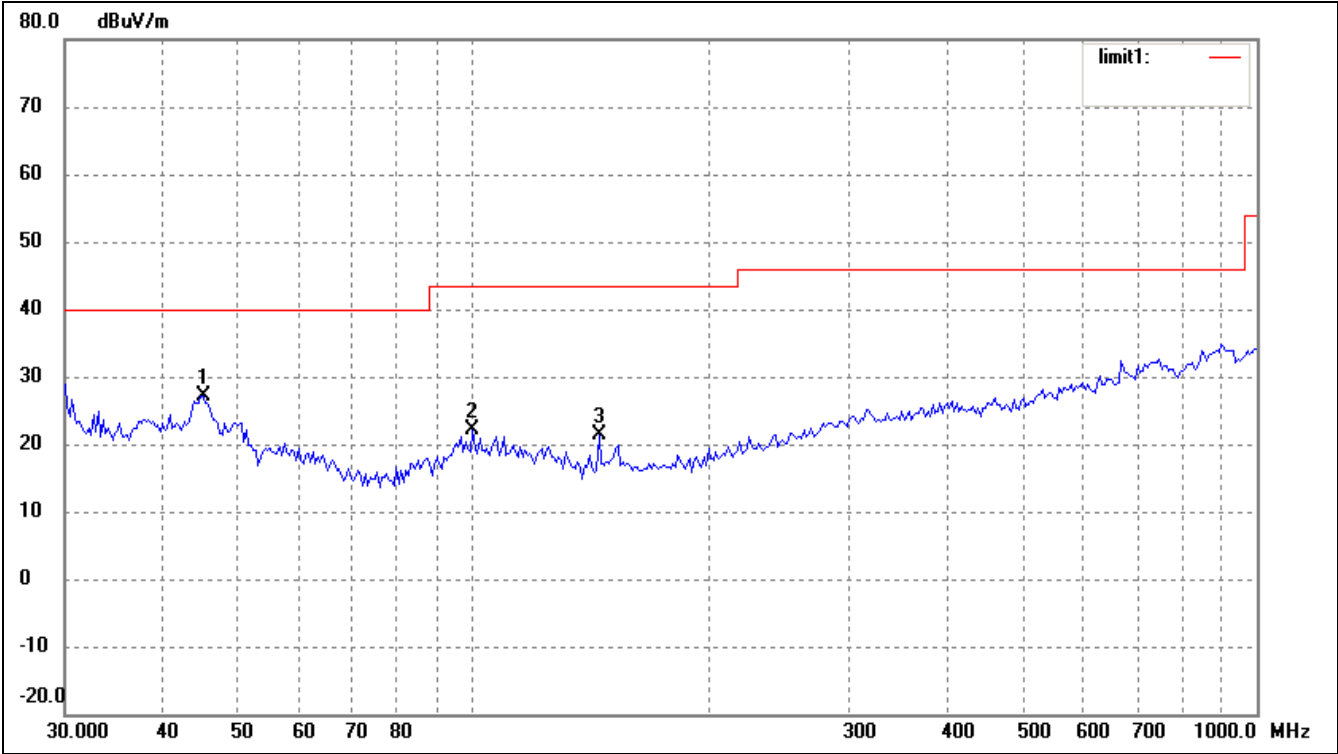
Comment:

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	42.8998	16.41	8.79	25.20	40.00	-14.80	360	100	peak
2	103.0800	13.91	6.54	20.45	43.50	-23.05	360	100	peak
3	396.2415	15.72	11.37	27.09	46.00	-18.91	360	100	peak

Test Specification: Vertical

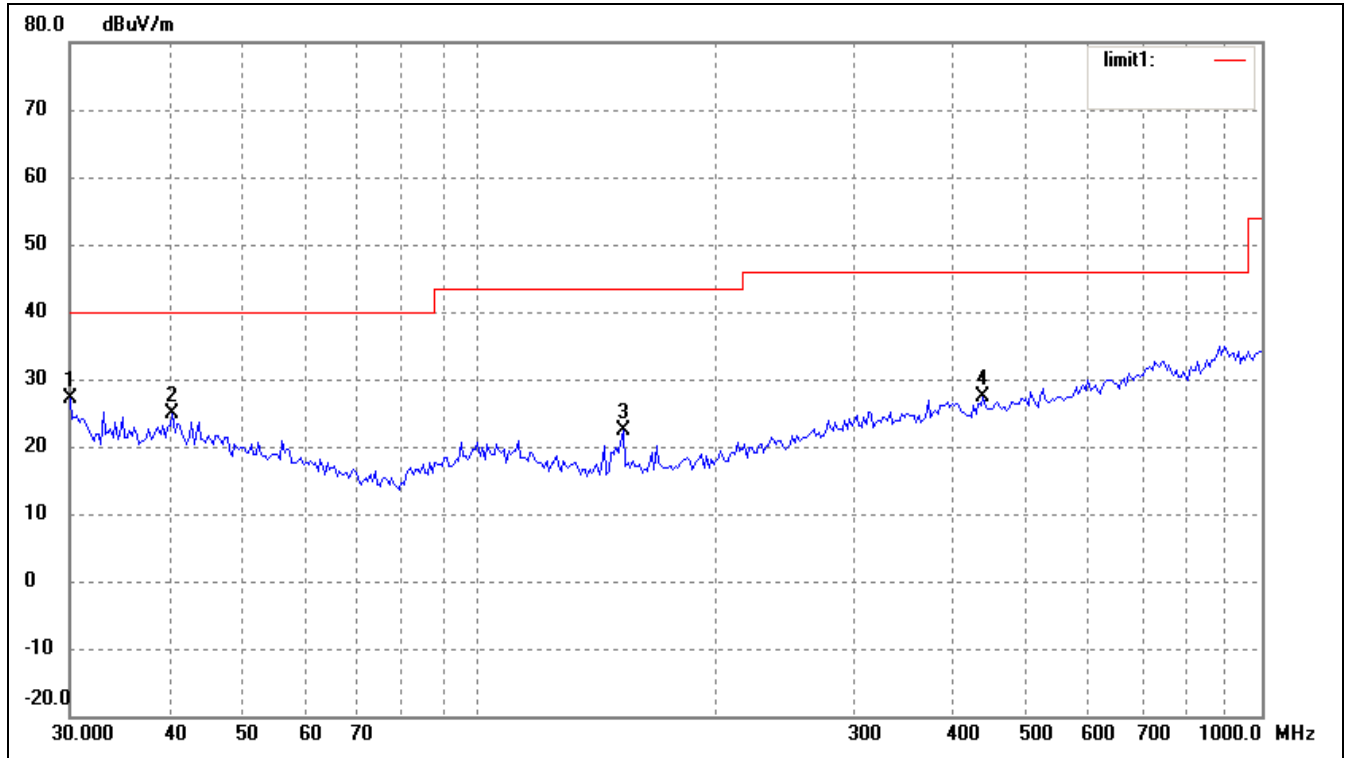


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	45.0583	18.96	8.14	27.10	40.00	-12.90	360	100	peak
2	99.5281	15.50	6.72	22.22	43.50	-21.28	360	100	peak
3	144.3348	17.91	3.46	21.37	43.50	-22.13	360	100	peak

Operating Condition: Transmitting Middle Channel-2445MHz

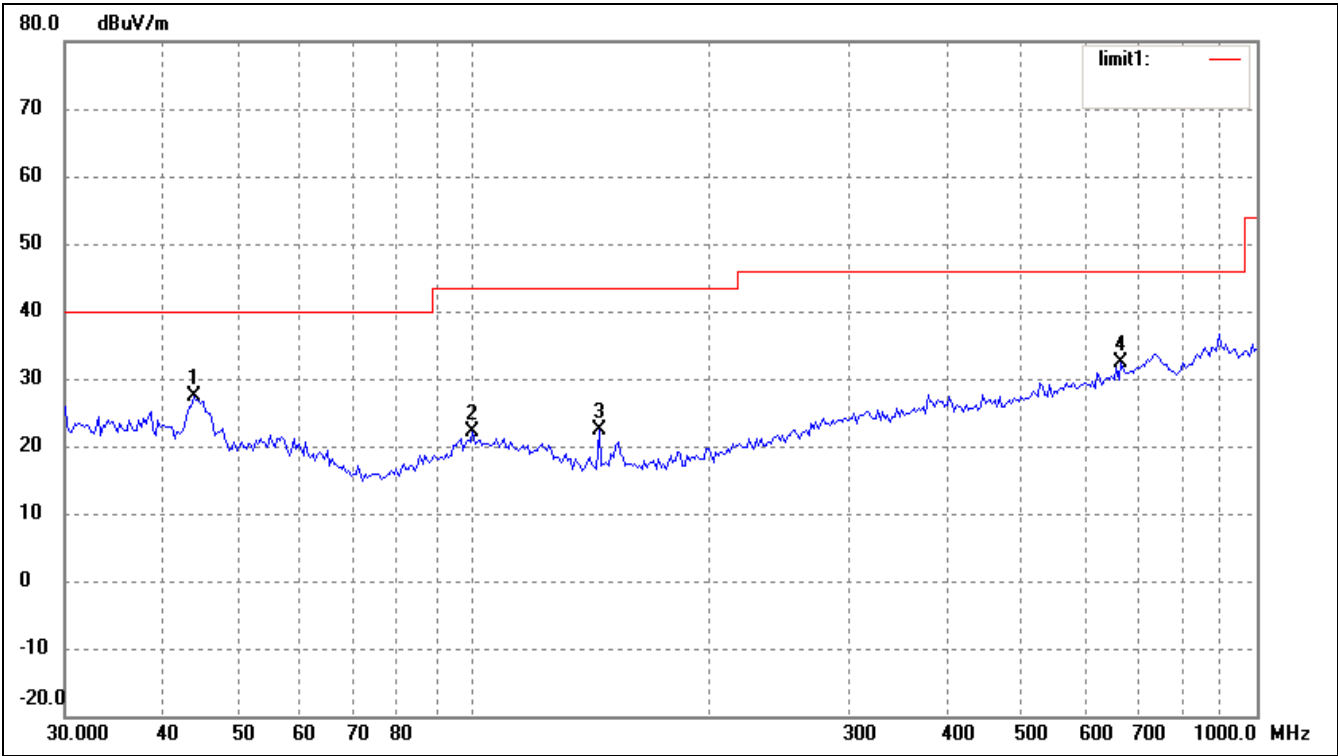
Comment:

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	30.0000	19.09	8.04	27.13	40.00	-12.87	360	100	peak
2	40.5591	15.43	9.51	24.94	40.00	-15.06	360	100	peak
3	152.6641	18.78	3.58	22.36	43.50	-21.14	360	100	peak
4	440.1963	16.07	11.27	27.34	46.00	-18.66	360	100	peak

Test Specification: Vertical

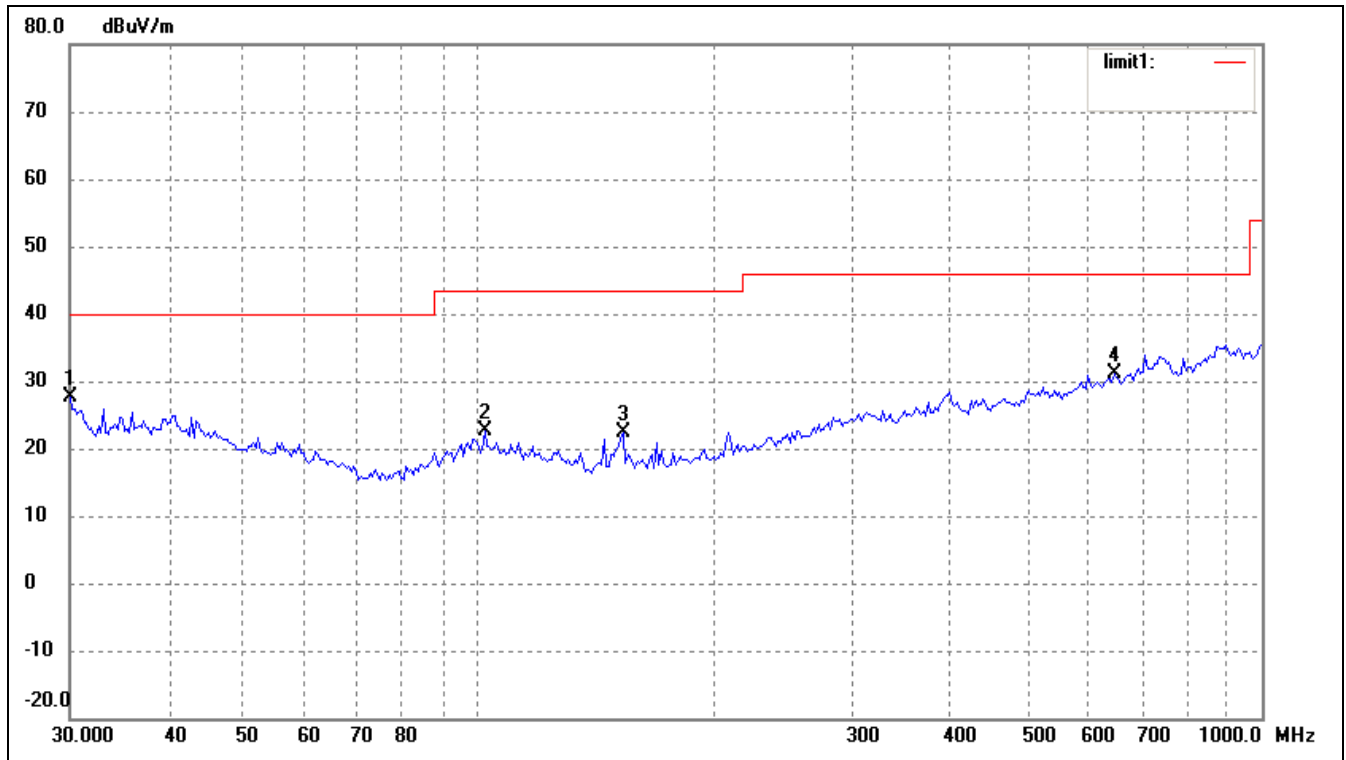


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	43.8119	18.73	8.53	27.26	40.00	-12.74	360	100	peak
2	99.5281	15.50	6.72	22.22	43.50	-21.28	360	100	peak
3	144.3348	18.88	3.46	22.34	43.50	-21.16	360	100	peak
4	670.4893	17.17	15.17	32.34	46.00	-13.66	360	100	peak

Operating Condition: Transmitting High Channel-2480MHz

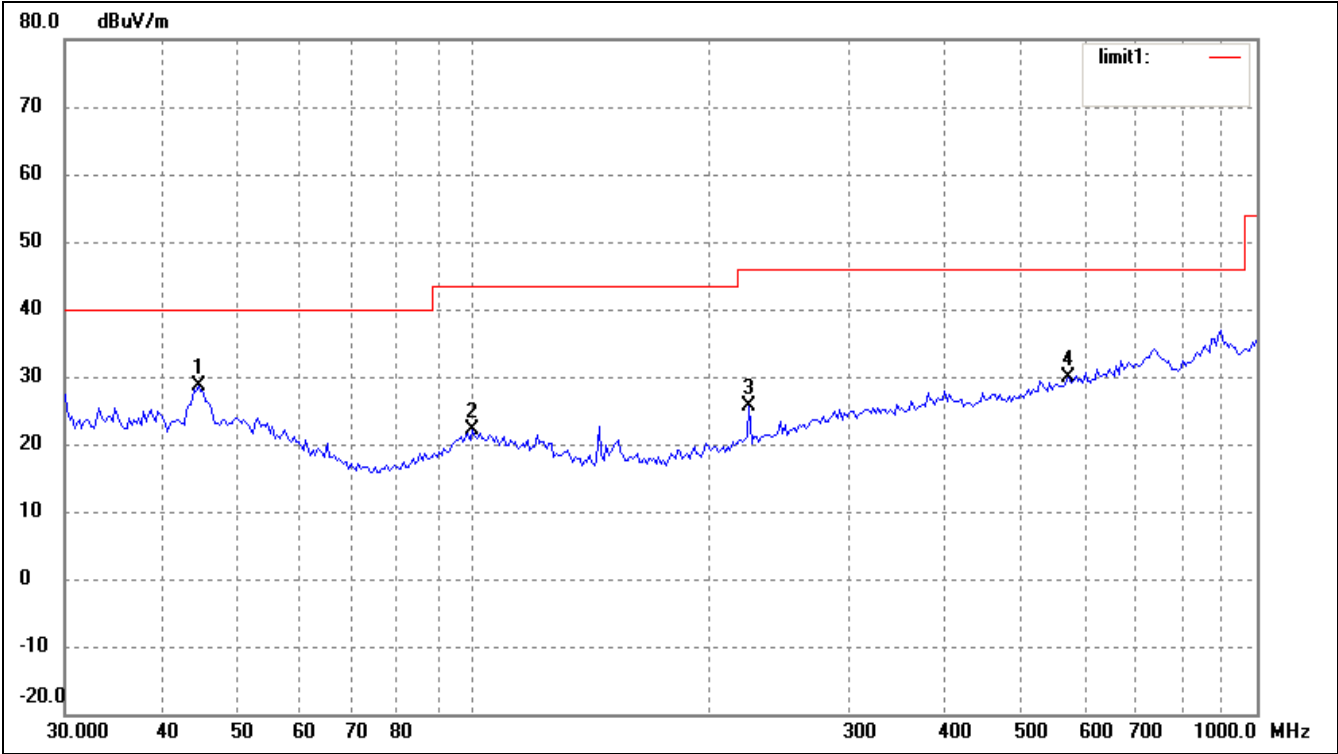
Comment:

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	30.0000	19.59	8.04	27.63	40.00	-12.37	360	100	peak
2	101.6443	16.00	6.67	22.67	43.50	-20.83	360	100	peak
3	152.6641	18.78	3.58	22.36	43.50	-21.14	360	100	peak
4	647.3856	15.88	15.16	31.04	46.00	-14.96	360	100	peak

Test Specification: Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	44.4308	20.41	8.33	28.74	40.00	-11.26	360	100	peak
2	99.5281	15.50	6.72	22.22	43.50	-21.28	360	100	peak
3	224.5193	19.49	6.17	25.66	46.00	-20.34	360	100	peak
4	574.6258	15.84	13.95	29.79	46.00	-16.21	360	100	peak

Spurious Emissions Above 1GHz

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2405MHz							
4810	48.28	-3.48	44.80	74.00	-29.20	H	PK
4810	35.44	-2.71	32.73	54.00	-21.27	H	AV
7215	47.45	2.29	49.74	74.00	-24.26	H	PK
7215	35.53	2.24	37.77	54.00	-16.23	H	AV
4810	47.39	-3.68	43.71	74.00	-30.29	V	PK
4810	35.73	-3.55	32.18	54.00	-21.82	V	AV
7215	47.76	1.49	49.25	74.00	-24.75	V	PK
7215	35.35	1.58	36.93	54.00	-17.07	V	AV
Middle Channel-2445MHz							
4890	47.19	-3.68	43.51	74.00	-30.49	H	PK
4890	35.47	-3.68	31.79	54.00	-22.21	H	AV
7335	46.46	1.00	47.46	74.00	-26.54	H	PK
7335	35.26	2.25	37.51	54.00	-16.49	H	AV
4890	47.27	-3.74	43.53	74.00	-30.47	V	PK
4890	34.97	-3.74	31.23	54.00	-22.77	V	AV
7335	47.43	0.91	48.34	74.00	-25.66	V	PK
7335	34.69	1.09	35.78	54.00	-18.22	V	AV
High Channel-2480MHz							
4960	50.18	-3.48	46.70	74.00	-27.30	H	PK
4960	36.65	-3.48	33.17	54.00	-20.83	H	AV
7440	34.92	1.87	36.79	54.00	-17.21	H	PK
7440	47.28	1.97	49.25	74.00	-24.75	H	AV
4960	46.94	-3.27	43.67	74.00	-30.33	V	PK
4960	35.15	-3.11	32.04	54.00	-21.96	V	AV
7440	48.49	0.12	48.61	74.00	-25.39	V	PK
7440	34.63	0.42	35.05	54.00	-18.95	V	AV

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, which above 5th Harmonics are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

The measurements greater than 20dB below the limit from 9kHz to 30MHz..

8. Out of Band Emissions

8.1 Standard Applicable

According to §15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

8.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2012-03-28	2013-03-27
EMI Test Receiver	R&S	ESVB	825471/005	2012-03-28	2013-03-27
Pre-amplifier	Agilent	8447F	3113A06717	2012-03-28	2013-03-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2012-03-28	2013-03-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2012-02-25	2013-02-24
Horn Antenna	ETS	3117	00086197	2012-02-25	2013-02-24

8.3 Test Procedure

According to the KDB 558074, the band-edge radiated test method as follows:

Set span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation (2310MHz to 2420MHz for low bandedge, 2460MHz to 2500MHz for the high bandedge)

RBW = 1MHz, VBW = 1MHz for peak value measured

RBW = 1MHz, VBW = 10Hz for average value measured

Sweep = auto; Detector function = peak/average; Trace = max hold

All the trace to stabilize, set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge. Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. Those emission must comply with the 15.209 limit for fall in the restricted bands listed in section 15.205.

8.4 Environmental Conditions

Temperature:	23°C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

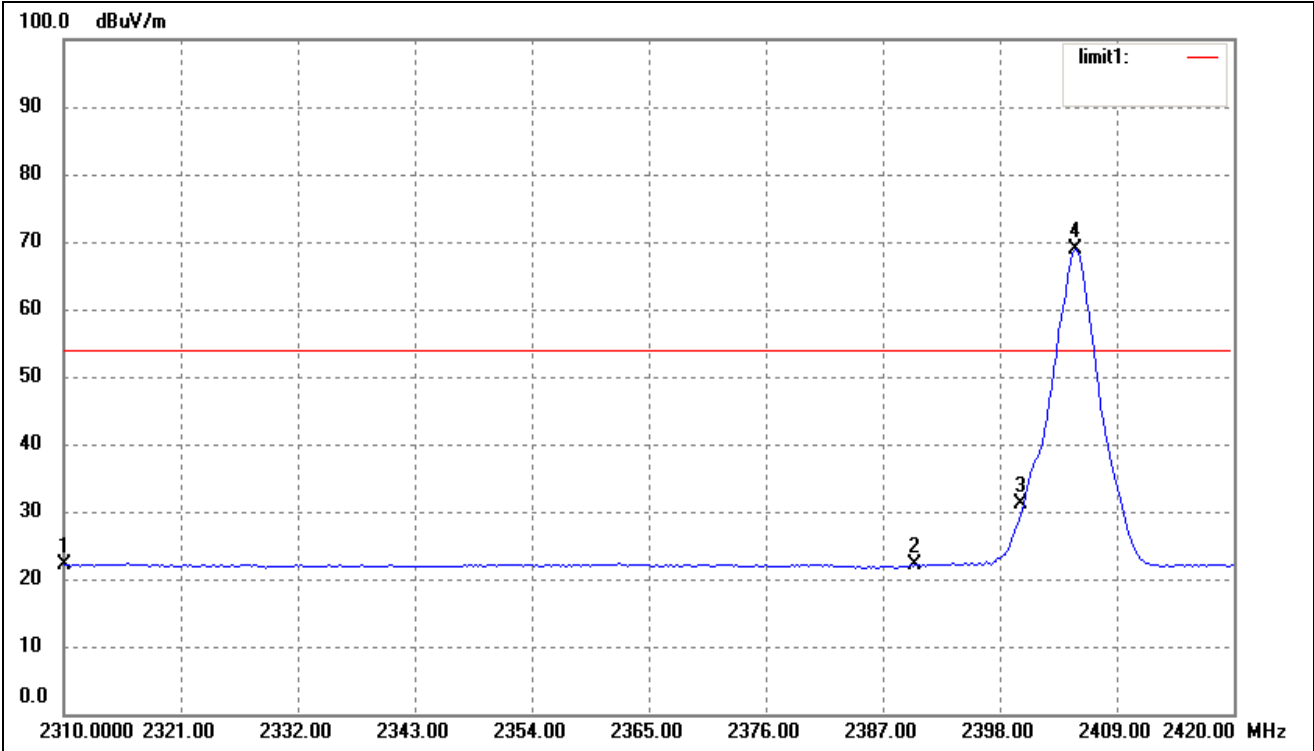
8.5 Summary of Test Results/Plots

Test mode	Frequency	Limit	Result
	MHz	dBuV / dBc	
Lowest	2310.00	<54 dBuV	Pass
	2390.00	<54 dBuV	Pass
	2400.00	<54 dBuV	Pass
Highest	2483.50	<54 dBuV	Pass
	2500.00	<54 dBuV	Pass

The edge emissions are below the FCC 15.209 Limits or complies with the 15.247(d) requirements.

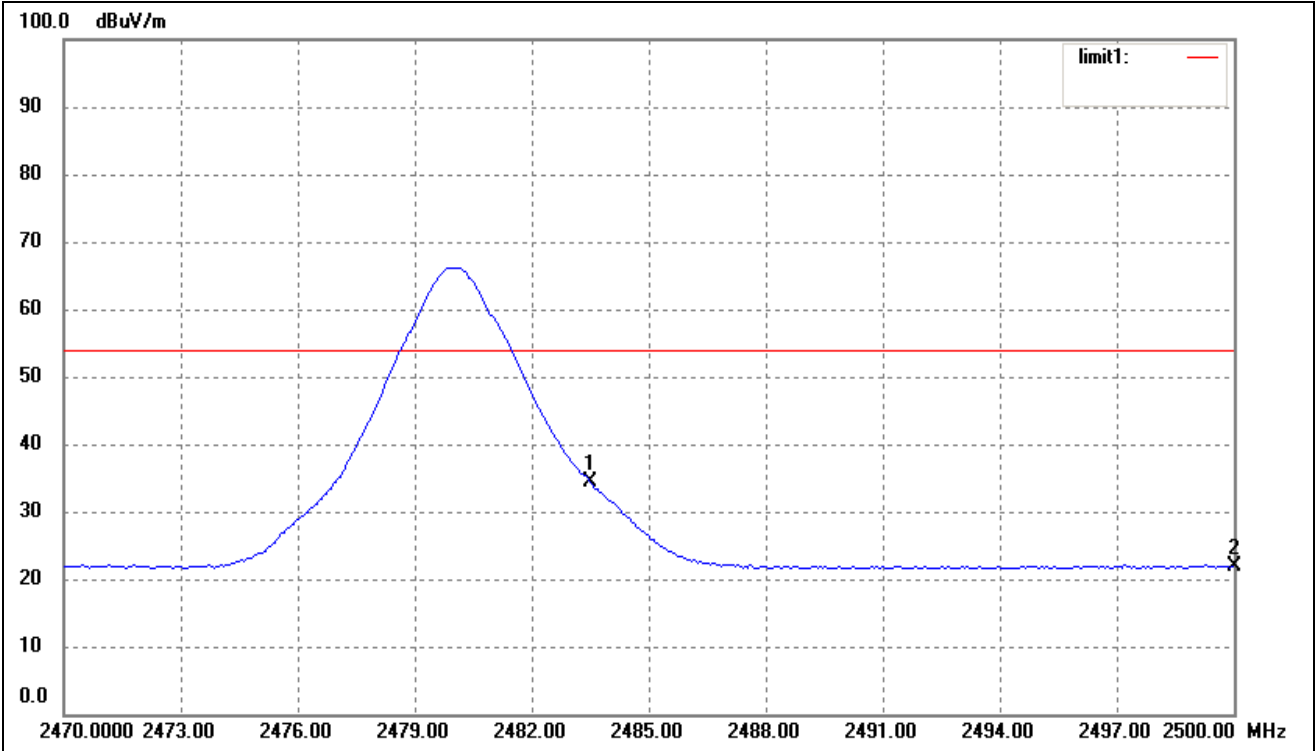
Please refer to the test plots as below.

Lowest Bandedge



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	2310.000	33.74	-11.72	22.02	54.00	-31.98	336	100	Ave
	2310.000	46.71	-11.72	34.99	74.00	-39.01	336	100	peak
2	2390.000	33.83	-11.75	22.08	54.00	-31.92	336	100	Ave
	2390.000	61.07	-11.75	49.32	74.00	-24.68	336	100	peak
3	2400.000	42.97	-11.75	31.22	54.00	-22.78	336	100	Ave
	2400.000	72.35	-11.75	60.60	74.00	-13.40	336	100	peak

Highest Bandedge



***** END OF REPORT *****