

# FCC Part 15C Measurement and Test Report

For

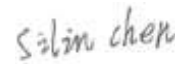
**Freeman Intelligent Power Limited**

**2nd Bldg, Gangbei Industrial Park, Baohe Rd, Longcheng Street,**

**Longgang District, Shenzhen**

**FCC ID: 2APBB-D1**

<b>FCC Rule(s):</b>	<u>FCC Part 15.249</u>
<b>Product Description:</b>	<u>Electric drifting board</u>
<b>Tested Model:</b>	<u>D1</u>
<b>Report No.:</b>	<u>STR18038190I</u>
<b>Sample Receipt Date:</b>	<u>2018-03-20</u>
<b>Tested Date:</b>	<u>2018-03-20 to 2018-03-29</u>
<b>Issued Date:</b>	<u>2018-03-29</u>
<b>Tested By:</b>	<u>Ray Yang / Engineer</u>
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<b>Prepared By:</b>	



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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 Shenzhen SEM Test Technology Co., Ltd.

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## 1. GENERAL INFORMATION

### 1.1 Product Description for Equipment Under Test (EUT)

#### Client Information

Applicant: Freeman Intelligent Power Limited  
Address of applicant: 2nd Bldg, Gangbei Industrial Park, Baohe Rd, Longcheng Street, Longgang District, Shenzhen

Manufacturer: Freeman IT Limited  
Address of manufacturer: 2nd Bldg, Gangbei Industrial Park, Baohe Rd, Longcheng Street, Longgang District, Shenzhen

General Description of EUT	
Product Name:	Electric drifting board
Trade Name:	/
Model No.:	D1
Adding Model(s):	D2, D3, D4, D5, D6, D7, D8, D9, D10
Rated Voltage:	DC 3.3V
Power Adapter Model:	/
Battery Capacity:	200mAh
<i>Note: The test data is gathered from a production sample, provided by the manufacturer. The appearance of others models listed in the report is different from main-test model D1, but the circuit and the electronic construction do not change, declared by the manufacturer.</i>	

Technical Characteristics of EUT	
Frequency Range:	2420MHz-2480MHz
Max. Field Strength:	103.66dBuV/m (3m)
Data Rate:	1Mbps
Modulation:	GFSK
Antenna Type:	PCB Antenna
Antenna Gain:	0dBi
Lowest Internal Frequency of EUT:	16MHz

## 1.2 Test Standards

The following report is prepared on behalf of the Freeman Intelligent Power Limited in accordance with FCC Part 15, Subpart B, Subpart C, and section 15.107, 15.203, 15.205, 15.207, 15.209 and 15.249 of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart C, and section 15.107,15.203, 15.205, 15.207, 15.209 and 15.249 of the Federal Communication Commissions rules.

**Maintenance of compliance** is the responsibility of the manufacturer. Any modification of the product, which results 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 C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices, and ANSI C63.4-2014, 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.

## 1.4 Test Facility

### **FCC – Registration No.: 125990**

Shenzhen SEM Test Technology Co., Ltd. Laboratory has been recognized to perform compliance testing on equipment subject to the Commissions Declaration Of Conformity (DOC). The Designation Number is CN5010, and Test Firm Registration Number is 125990.

### **Industry Canada (IC) Registration No.: 11464A**

The 3m Semi-anechoic chamber of Shenzhen SEM.Test Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

## 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:

<b>Test Mode List</b>		
Test Mode	Description	Remark
TM1	Low Channel	2420MHz
TM2	Middle Channel	2450MHz
TM3	High Channel	2480MHz

<b>Accessories Cable List and Details</b>			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
USB Cable	0.8	Unshielded	Without Core

<b>Auxiliary Equipment List and Details</b>			
Description	Manufacturer	Model	Serial Number
Adapter	Dell Inc.	PSAI10R-050Q	

## 1.6 Measurement Uncertainty

<b>Measurement uncertainty</b>		
Parameter	Conditions	Uncertainty
RF Output Power	Conducted	$\pm 0.42\text{dB}$
Occupied Bandwidth	Conducted	$\pm 1.5\%$
Conducted Spurious Emission	Conducted	$\pm 2.17\text{dB}$
Conducted Emissions	Conducted	9-150kHz $\pm 3.74\text{dB}$
		0.15-30MHz $\pm 3.34\text{dB}$
Transmitter Spurious Emissions	Radiated	30-200MHz $\pm 4.52\text{dB}$
		0.2-1GHz $\pm 5.56\text{dB}$
		1-6GHz $\pm 3.84\text{dB}$
		6-18GHz $\pm 3.92\text{dB}$

## 1.7 Test Equipment List and Details

No.	Description	Manufacturer	Model	Serial No.	Cal Date	Due Date
SEMT-1072	Spectrum Analyzer	Agilent	E4407B	MY41440400	2017-06-12	2018-06-11
SEMT-1031	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2017-06-12	2018-06-11
SEMT-1007	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2017-06-12	2018-06-11
SEMT-1008	Amplifier	Agilent	8447F	3113A06717	2017-06-12	2018-06-11
SEMT-1043	Amplifier	C&D	PAP-1G18	2002	2017-06-12	2018-06-11
SEMT-1011	Broadband Antenna	Schwarz beck	VULB9163	9163-333	2017-06-08	2018-06-07
SEMT-1042	Horn Antenna	ETS	3117	00086197	2017-06-08	2018-06-07
SEMT-1121	Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170582	2017-06-08	2018-06-07
SEMT-1069	Loop Antenna	Schwarz beck	FMZB 1516	9773	2017-06-08	2018-06-07
SEMT-1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2017-06-12	2018-06-11
SEMT-1003	L.I.S.N	Schwarz beck	NSLK8126	8126-224	2017-06-12	2018-06-11
SEMT-1002	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2017-06-12	2018-06-11
SEMT-1168	Pre-amplifier	Direction Systems Inc.	PAP-0126	14141-12838	2017-08-15	2018-08-14
SEMT-1169	Pre-amplifier	Direction Systems Inc.	PAP-2640	14145-14153	2017-08-15	2018-08-14
SEMT-1163	Spectrum Analyzer	Rohde & Schwarz	FSP40	100612	2017-06-12	2018-06-11
SEMT-1170	DRG Horn Antenna	A.H. SYSTEMS	SAS-574	571	2018-03-19	2021-03-18

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## 2. SUMMARY OF TEST RESULTS

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<b>FCC Rules</b>	<b>Description of Test Item</b>	<b>Result</b>
§ 15.203	Antenna Requirement	Compliant
§15.205	Restricted Band of Operation	Compliant
§ 15.207(a)	Conducted Emission	Compliant
§ 15.209(a)(f)	Radiated Spurious Emissions	Compliant
§15.249(a)	Field Strength of Emissions	Compliant
§15.249(d)	Out of Band Emission	Compliant
§15.215 (c)	Emission Bandwidth	Compliant

### **3. Antenna Requirements**

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#### **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 Test Result**

This product has an integral antenna, fulfill the requirement of this section.



## 4. Radiated Emissions

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### 4.1 Standard Applicable

According to §15.249(a), the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency	Field strength of fundamental (milli-volts/meter)	Field strength of Harmonics (micro-volts/meter)
902-928 MHz	50	500
2400-2483.5 MHz	50	500
5725-5875 MHz	50	500
24.0-24.25 GHz	250	2500

(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

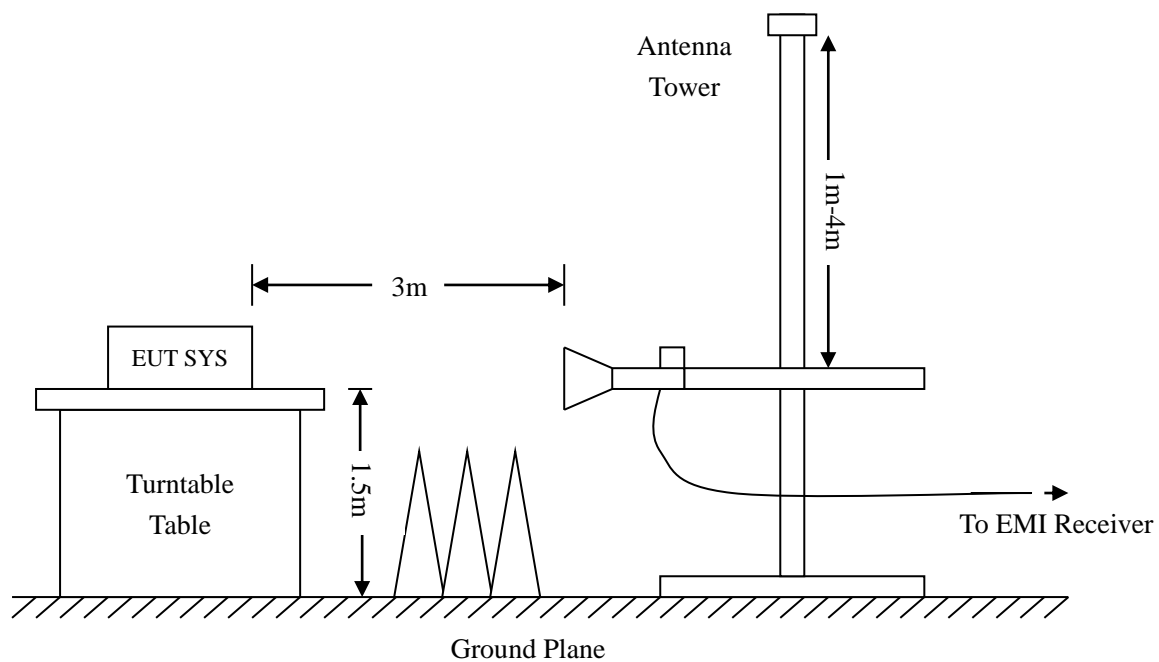
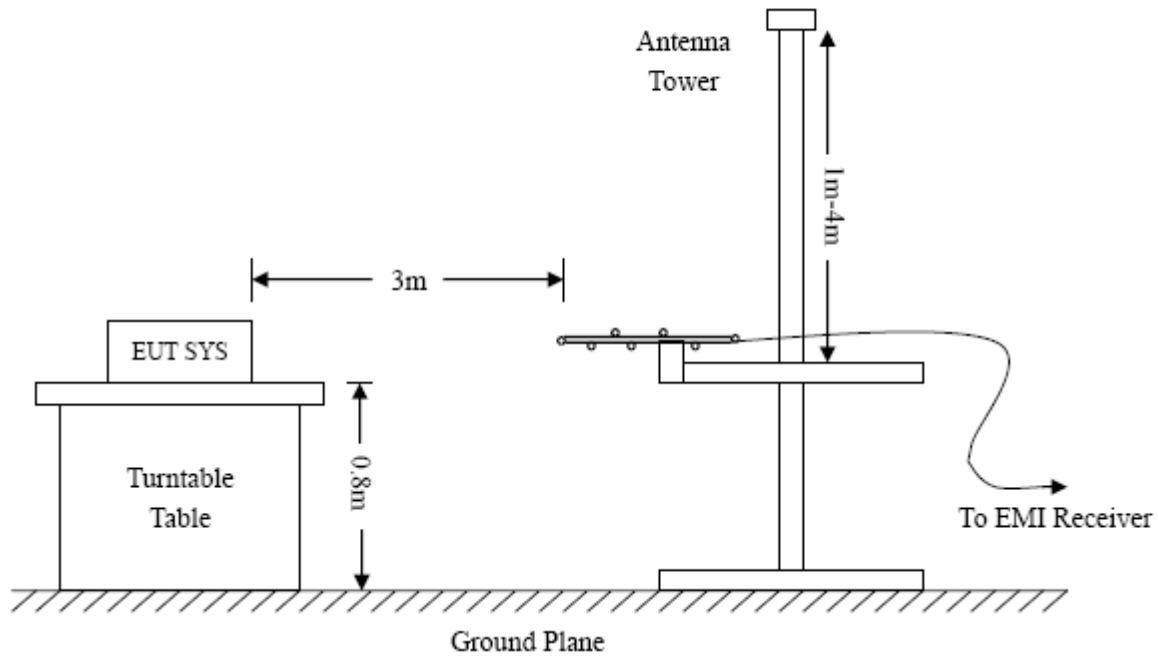
The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply. Spurious Radiated Emissions measurements starting below or at the lowest crystal frequency.

### 4.2 Test Procedure

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.205 15.249(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.



Frequency :9kHz-30MHz  
 RBW=10KHz,  
 VBW =30KHz  
 Sweep time= Auto  
 Trace = max hold  
 Detector function = peak

Frequency :30MHz-1GHz  
 RBW=120KHz,  
 VBW=300KHz  
 Sweep time= Auto  
 Trace = max hold  
 Detector function = peak, QP

Frequency :Above 1GHz  
 RBW=1MHz,  
 VBW=3MHz(Peak), 10Hz(AV)  
 Sweep time= Auto  
 Trace = max hold  
 Detector function = peak, AV

### 4.3 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  $-6\text{dB}\mu\text{V}$  means the emission is  $6\text{dB}\mu\text{V}$  below the maximum limit. The equation for margin calculation is as follows:

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

### 4.4 Environmental Conditions

Temperature:	24 °C
Relative Humidity:	60 %
ATM Pressure:	1012 mbar

### 4.5 Summary of Test Results/Plots

According to the data below, the FCC Part 15.205, 15.209 and 15.249 standards, and had the worst margin of:

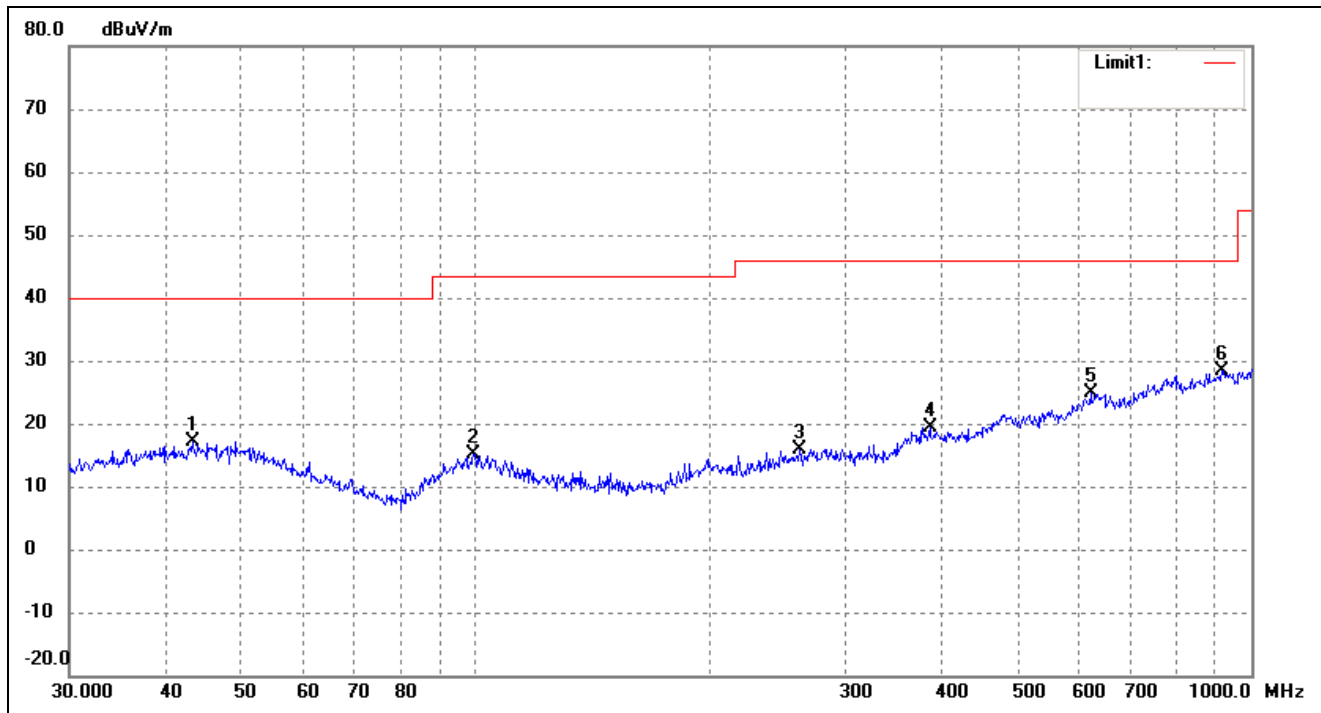
**-3.89 dB at 93.70 MHz in the Horizontal polarization, Low Channel, 9 kHz to 25 GHz, 3Meters**

*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)**

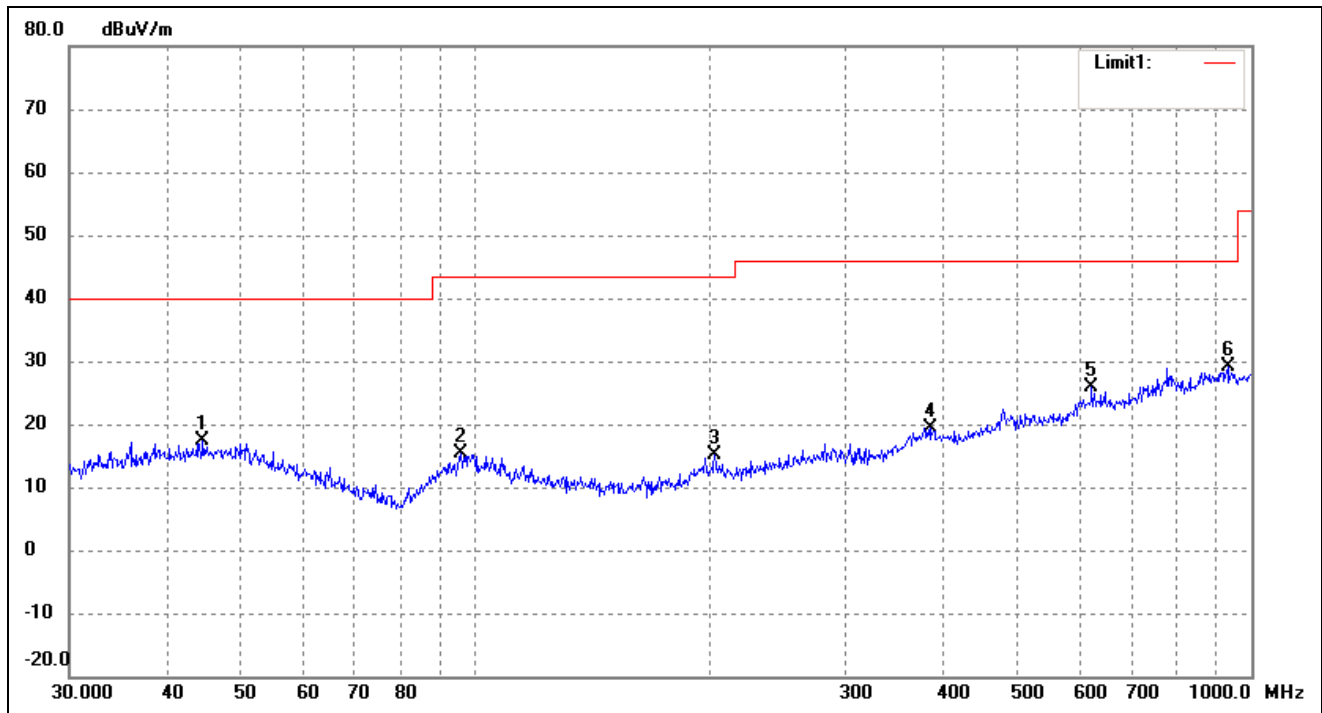
EUT: *Electric drifting board*  
 Tested Model: *D1*  
 Operating Condition: *Transmitting Low Channel (2420MHz)*  
 Comment: *DC 3.3V*

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	43.2017	27.67	-10.53	17.14	40.00	-22.86	100	100	QP
2	99.5281	26.59	-11.50	15.09	43.50	-28.41	114	100	QP
3	261.9753	25.96	-10.02	15.94	46.00	-30.06	138	100	QP
4	385.2805	26.55	-7.16	19.39	46.00	-26.61	91	100	QP
5	620.7096	27.59	-2.82	24.77	46.00	-21.23	208	100	QP
6	916.0687	26.80	1.68	28.48	46.00	-17.52	100	100	QP

Test Specification: Vertical

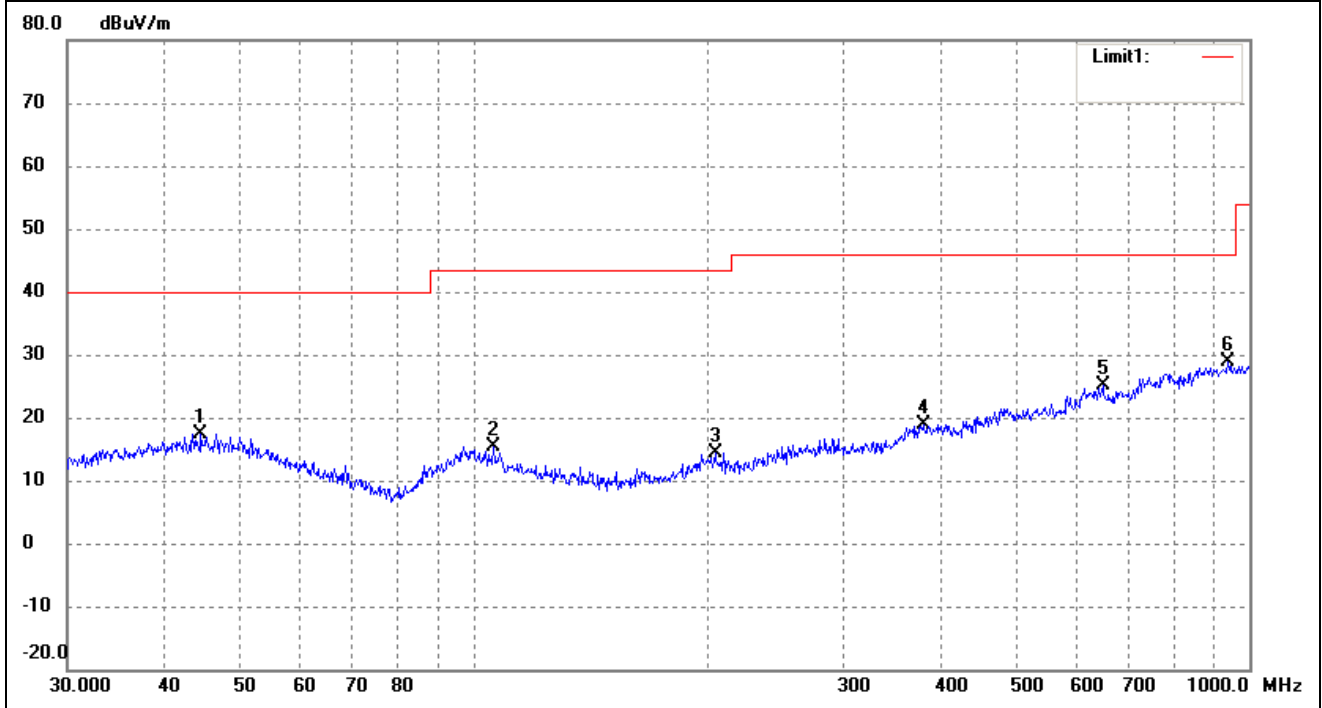


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	44.5868	27.84	-10.45	17.39	40.00	-22.61	332	100	QP
2	95.7622	27.79	-12.34	15.45	43.50	-28.05	91	100	QP
3	203.5228	26.85	-11.76	15.09	43.50	-28.41	332	100	QP
4	386.6338	26.69	-7.20	19.49	46.00	-26.51	99	100	QP
5	622.8900	28.63	-2.85	25.78	46.00	-20.22	56	100	QP
6	932.2715	26.98	2.09	29.07	46.00	-16.93	249	100	QP

Operating Condition: Transmitting Middle Channel (2450MHz)

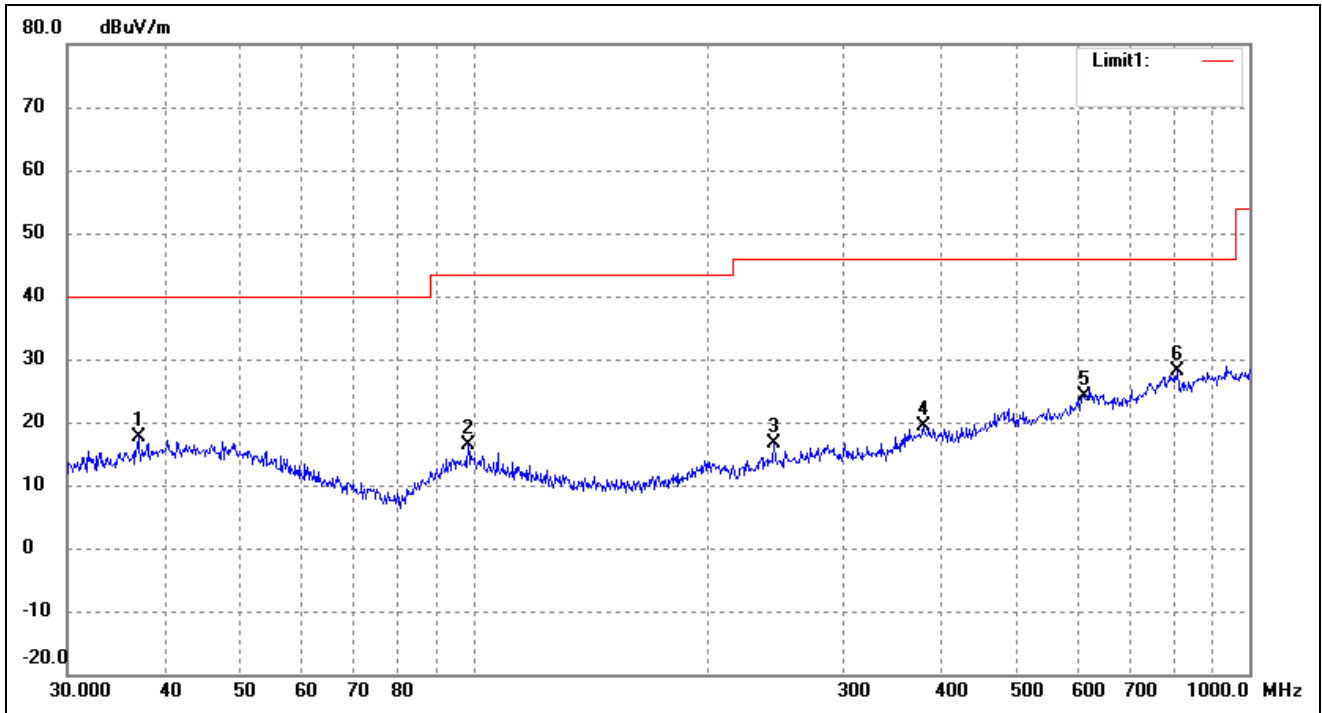
Comment: DC 3.3V

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	44.5868	28.08	-10.58	17.50	40.00	-22.50	115	100	QP
2	106.3850	27.63	-12.14	15.49	43.50	-28.01	319	100	QP
3	204.9551	26.12	-11.82	14.30	43.50	-29.20	55	100	QP
4	379.9141	25.80	-7.00	18.80	46.00	-27.20	184	100	QP
5	647.3856	28.48	-3.39	25.09	46.00	-20.91	109	100	QP
6	938.8326	26.73	2.27	29.00	46.00	-17.00	115	100	QP

Test Specification: Vertical

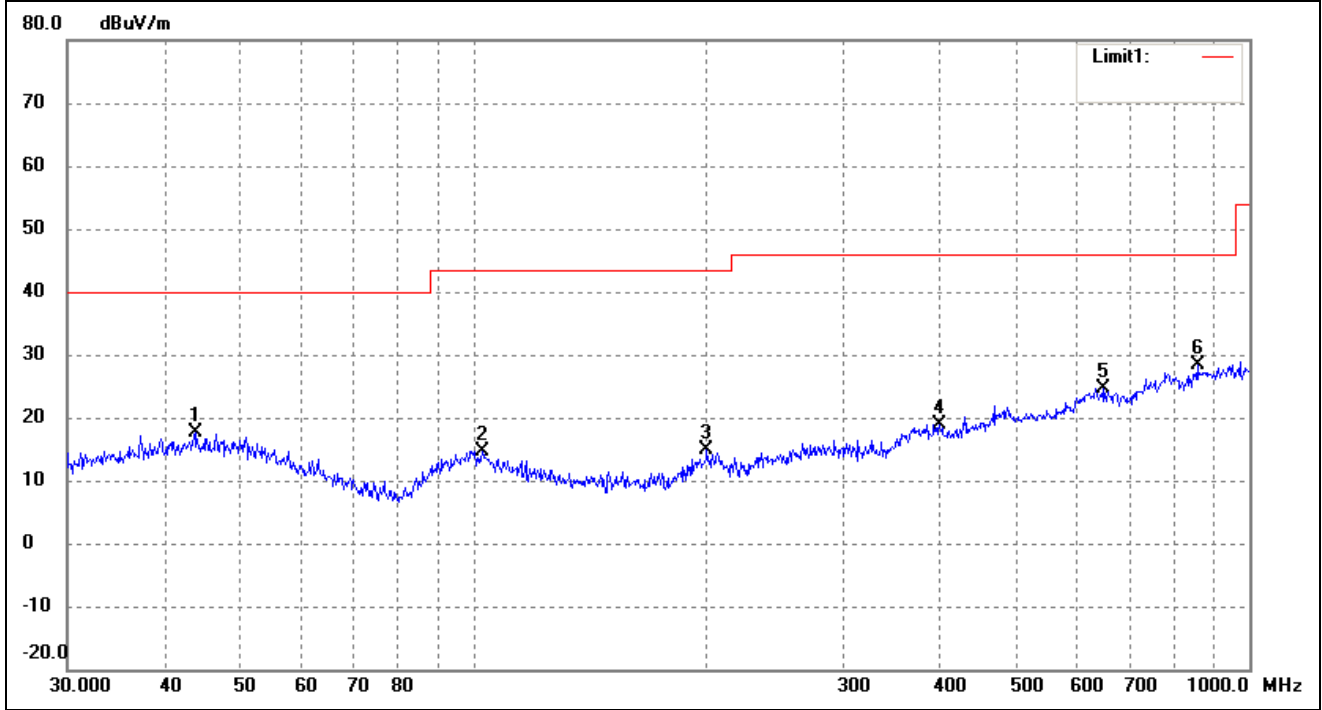


No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	37.0249	28.73	-11.09	17.64	40.00	-22.36	171	100	QP
2	98.4866	28.19	-11.73	16.46	43.50	-27.04	241	100	QP
3	244.2321	27.46	-10.76	16.70	46.00	-29.30	92	100	QP
4	379.9141	26.40	-7.00	19.40	46.00	-26.60	249	100	QP
5	614.2142	27.47	-3.24	24.23	46.00	-21.77	355	100	QP
6	807.4291	28.34	-0.25	28.09	46.00	-17.91	171	100	QP

Operating Condition: Transmitting High Channel (2480MHz)

Comment: DC 3.3V

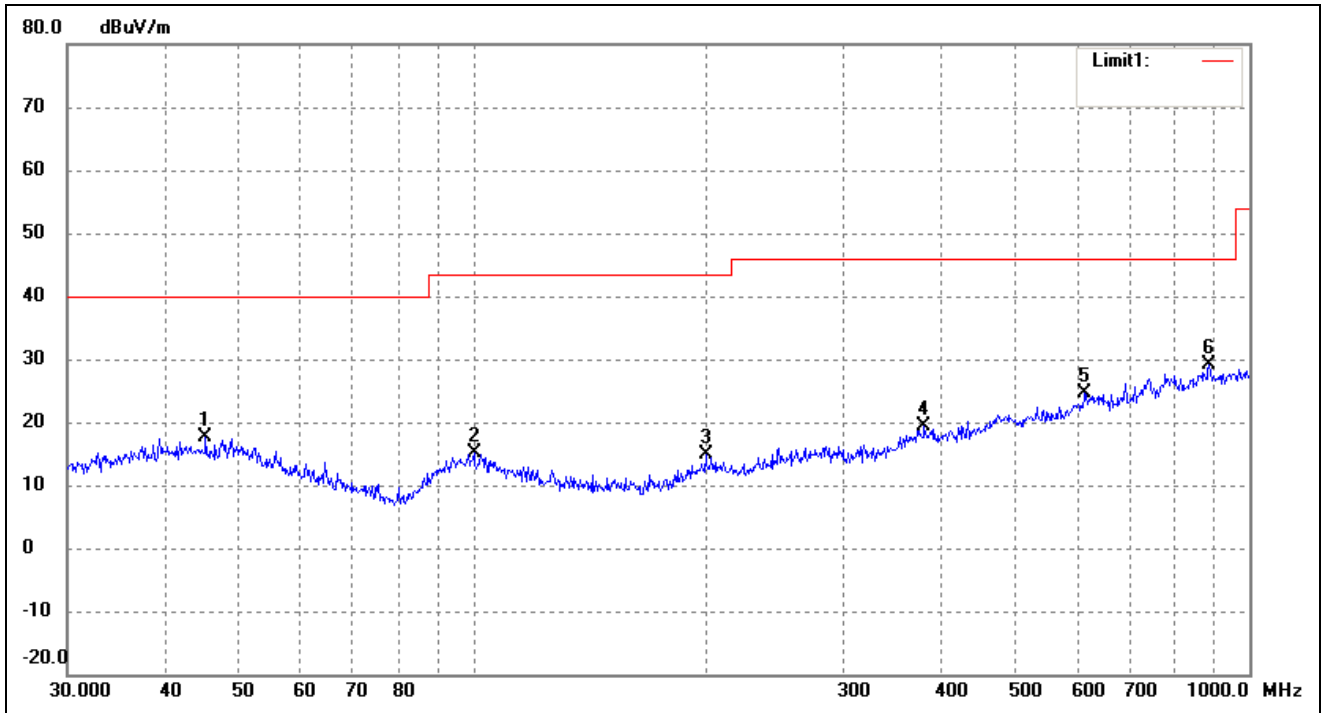
Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	43.8119	28.22	-10.55	17.67	40.00	-22.33	305	100	QP
2	102.7192	26.42	-11.71	14.71	43.50	-28.79	100	100	QP
3	199.9856	26.42	-11.60	14.82	43.50	-28.68	159	100	QP
4	399.0302	26.58	-7.58	19.00	46.00	-27.00	96	100	QP
5	649.6597	28.11	-3.44	24.67	46.00	-21.33	274	100	QP
6	857.0247	27.38	0.91	28.29	46.00	-17.71	305	100	QP



Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	45.2166	28.18	-10.45	17.73	40.00	-22.27	332	100	QP
2	100.2286	26.48	-11.43	15.05	43.50	-28.45	91	100	QP
3	199.2855	26.55	-11.69	14.86	43.50	-28.64	332	100	QP
4	381.2487	26.49	-7.04	19.45	46.00	-26.55	99	100	QP
5	614.2142	27.89	-3.24	24.65	46.00	-21.35	56	100	QP
6	887.6099	27.58	1.45	29.03	46.00	-16.97	249	100	QP

*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-2420MHz							
2420	107.00	-3.59	103.41	114	-10.59	H	PK
2420	93.70	-3.59	90.11	94	-3.89	H	AV
4840	49.02	-3.59	45.43	74	-28.57	H	PK
4840	35.83	-3.59	32.24	54	-21.76	H	AV
7280	43.73	-0.52	43.21	74	-30.79	H	PK
7280	33.52	-0.52	33.00	54	-21.00	H	AV
2420	102.31	-3.59	98.72	114	-15.28	V	PK
2420	78.18	-3.59	74.59	94	-19.41	V	AV
4840	49.59	-3.59	46.00	74	-28.00	V	PK
4840	36.62	-3.59	33.03	54	-20.97	V	AV
7280	44.31	-0.52	43.79	74	-30.21	V	PK
7280	32.50	-0.52	31.98	54	-22.02	V	AV
Middle Channel-2450MHz							
2450	107.25	-3.59	103.66	114	-10.34	H	PK
2450	93.19	-3.59	89.60	94	-4.40	H	AV
4900	52.17	-3.49	48.68	74	-25.32	H	PK
4900	40.77	-3.49	37.28	54	-16.72	H	AV
7350	44.46	-0.47	43.99	74	-30.01	H	PK
7350	31.51	-0.47	31.04	54	-22.96	H	AV
2450	102.90	-3.59	99.31	114	-14.69	V	PK
2450	78.60	-3.59	75.01	94	-18.99	V	AV
4900	51.15	-3.49	47.66	74	-26.34	V	PK
4900	39.11	-3.49	35.62	54	-18.38	V	AV
7350	44.47	-0.47	44.00	74	-30.00	V	PK
7350	32.05	-0.47	31.58	54	-22.42	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	H/V	
High Channel-2480MHz							
2480	107.10	-3.59	103.51	114	-10.49	H	PK
2480	90.61	-3.59	87.02	94	-6.98	H	AV
4960	51.10	-3.41	47.69	74	-26.31	H	PK
4960	37.67	-3.41	34.26	54	-19.74	H	AV
7440	44.30	-0.42	43.88	74	-30.12	H	PK
7440	32.04	-0.42	31.62	54	-22.38	H	AV
2480	102.39	-3.59	98.80	114	-15.2	V	PK
2480	75.96	-3.59	72.37	94	-21.63	V	AV
4960	47.50	-3.41	44.09	74	-29.91	V	PK
4960	35.70	-3.41	32.29	54	-21.71	V	AV
7440	42.40	-0.42	41.98	74	-32.02	V	PK
7440	32.51	-0.42	32.09	54	-21.91	V	AV

*Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, which above 5<sup>th</sup> 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..*

## 5. Out of Band Emissions

### 5.1 Standard Applicable

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

### 5.2 Test Procedure

As the radiation test, set the Lowest and Highest Transmitting Channel, observed the outside band of 2400MHz to 2483.5MHz, than mark the higher-level emission for comparing with the FCC rules.

### 5.3 Environmental Conditions

Temperature:	24 °C
Relative Humidity:	60 %
ATM Pressure:	1012 mbar

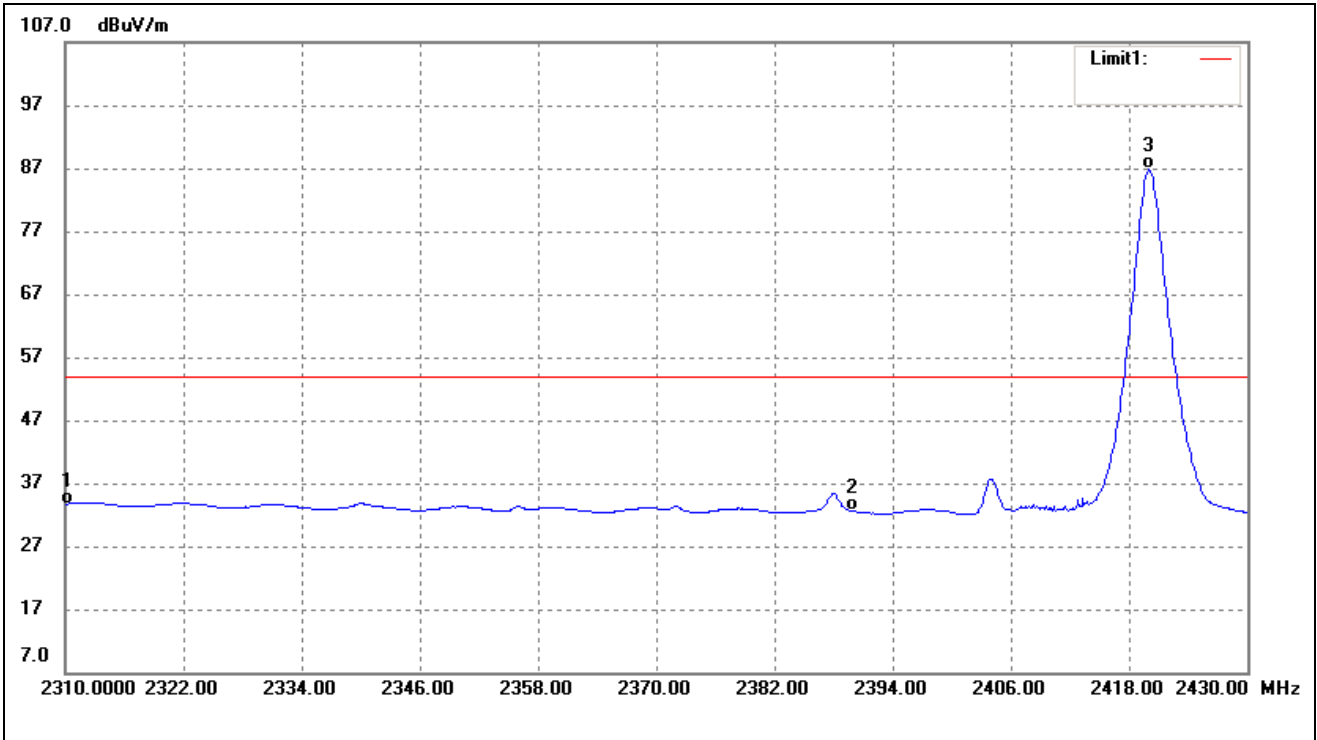
### 5.4 Summary of Test Results/Plots

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 15.249 requirements.

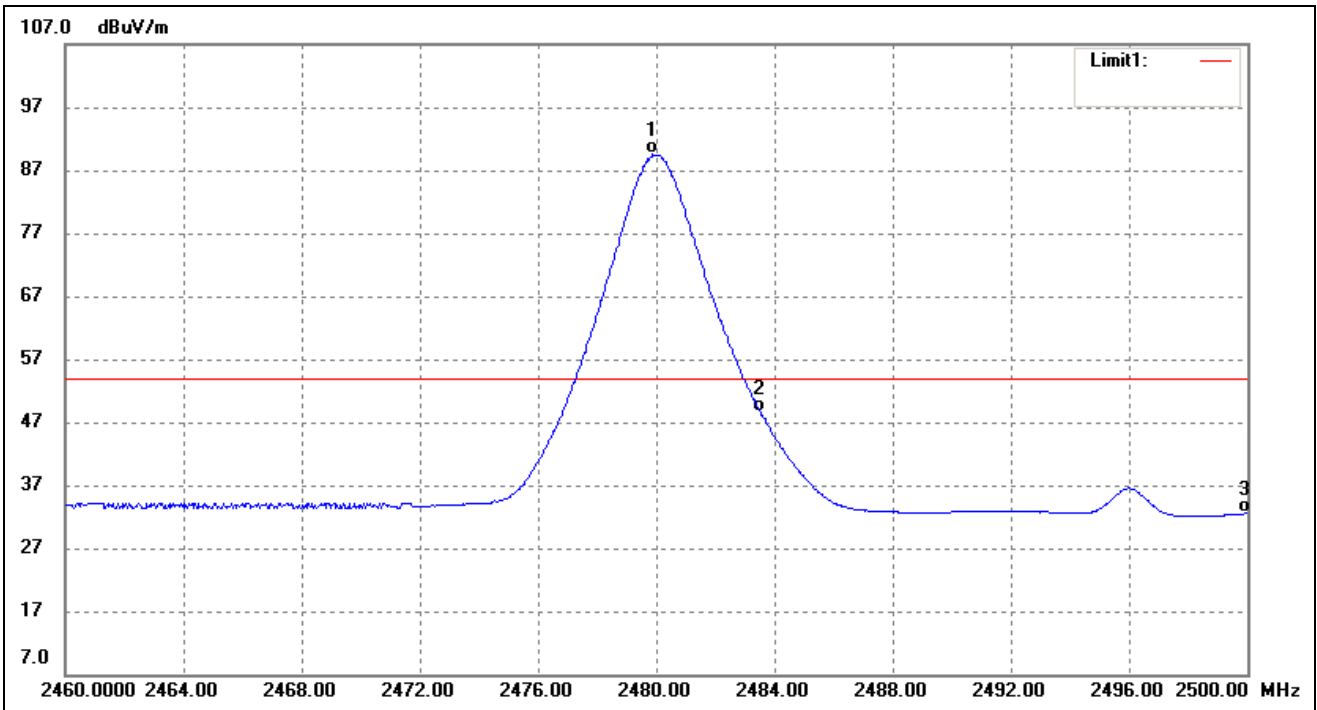
Please refer to the test plots as below.

Lowest Bandedge  
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2310.000	40.06	-6.38	33.68	54.00	-20.32	Ave Detector
	2310.000	51.49	-6.38	45.11	74.00	-28.89	Peak Detector
2	2390.000	39.85	-7.26	32.59	54.00	-21.41	Ave Detector
	2390.000	65.54	-7.26	58.28	74.00	-15.72	Peak Detector
3	2419.920	94.38	-7.39	86.99	/	/	Ave Detector
	2419.680	110.96	-7.39	103.57	/	/	Peak Detector

Highest Bandedge  
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2479.880	96.86	-7.28	89.58	/	/	Ave Detector
	2480.240	110.94	-7.28	103.66	/	/	Peak Detector
2	2483.500	55.97	-7.28	48.69	54.00	-5.31	Ave Detector
	2483.500	70.62	-7.28	63.34	74.00	-10.66	Peak Detector
3	2500.000	39.77	-7.25	32.52	54.00	-21.48	Ave Detector
	2500.000	69.42	-7.25	62.17	74.00	-11.83	Peak Detector

## 6. Emission Bandwidth

### 6.1 Standard Applicable

According to 15.215 (c), intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

### 6.2 Test Procedure

According to the ANSI 63.10-2013, the emission bandwidth test method as follows.

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

Set span = 1MHz, centered on a transmitting channel

RBW  $\geq$ 1% 20dB Bandwidth, VBW  $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

All the trace to stabilize, use the marker-to-peak function to set the marker to the peak of the emission, use the marker-delta function to measure and record the 20dB down and 99% bandwidth of the emission.

### 6.3 Environmental Conditions

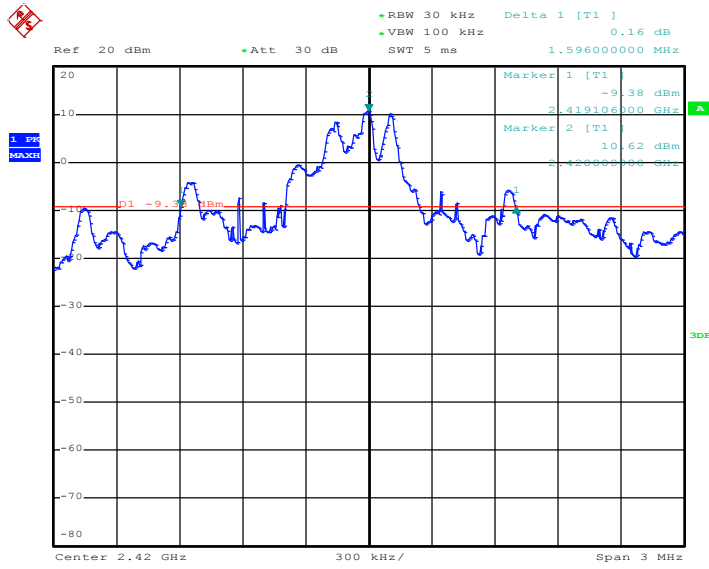
Temperature:	25 °C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

### 6.4 Summary of Test Results/Plots

Channel	Frequency MHz	20dB Bandwidth kHz	99% Bandwidth kHz
Low Channel	2420	1596	/
Middle Channel	2450	1278	/
High Channel	2480	1470	/

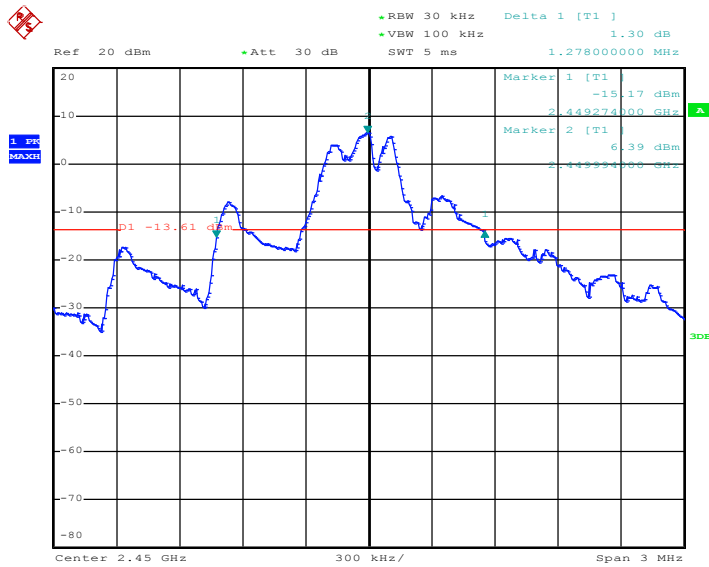
Please refer to the following test plots

Low Channel:



Date: 28.MAR.2018 12:42:02

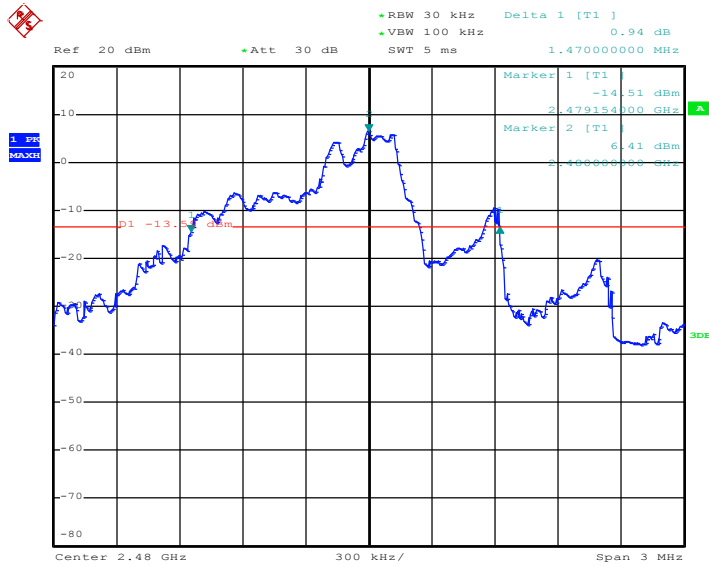
Middle Channel:



Date: 28.MAR.2018 12:38:02



High Channel:



Date: 28.MAR.2018 12:39:21

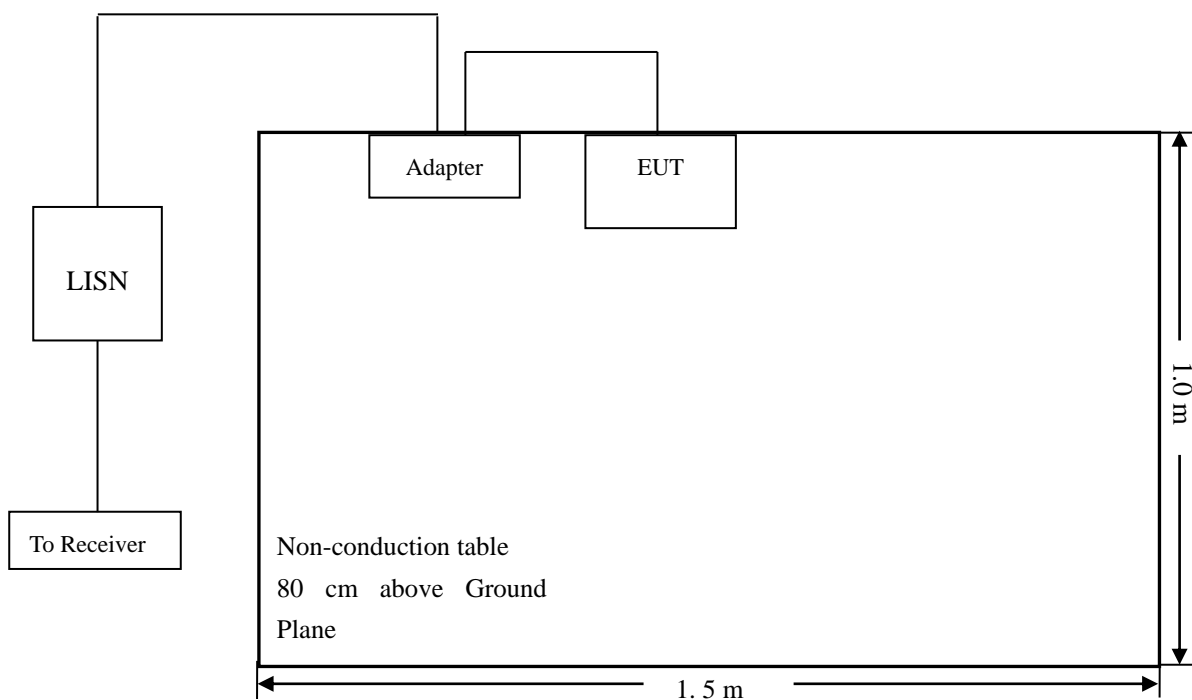
## 7. Conducted Emissions

### 7.1 Test Procedure

The setup of EUT is according with per ANSI C63.4-2014 measurement procedure. The specification used was with the FCC Part 15.207 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.

### 7.2 Basic Test Setup Block Diagram



### 7.3 Environmental Conditions

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

## 7.4 Test Receiver Setup

During the conducted emission test, the test receiver was set with the following configurations:

Start Frequency ..... 150 kHz  
Stop Frequency ..... 30 MHz  
Sweep Speed ..... Auto  
IF Bandwidth..... 10 kHz  
Quasi-Peak Adapter Bandwidth ..... 9 kHz  
Quasi-Peak Adapter Mode ..... Normal

## 7.5 Summary of Test Results/Plots

According to the data in section 7.7, the EUT complied with the FCC Part 15.207 Conducted margin for this device, with the *worst* margin reading of:

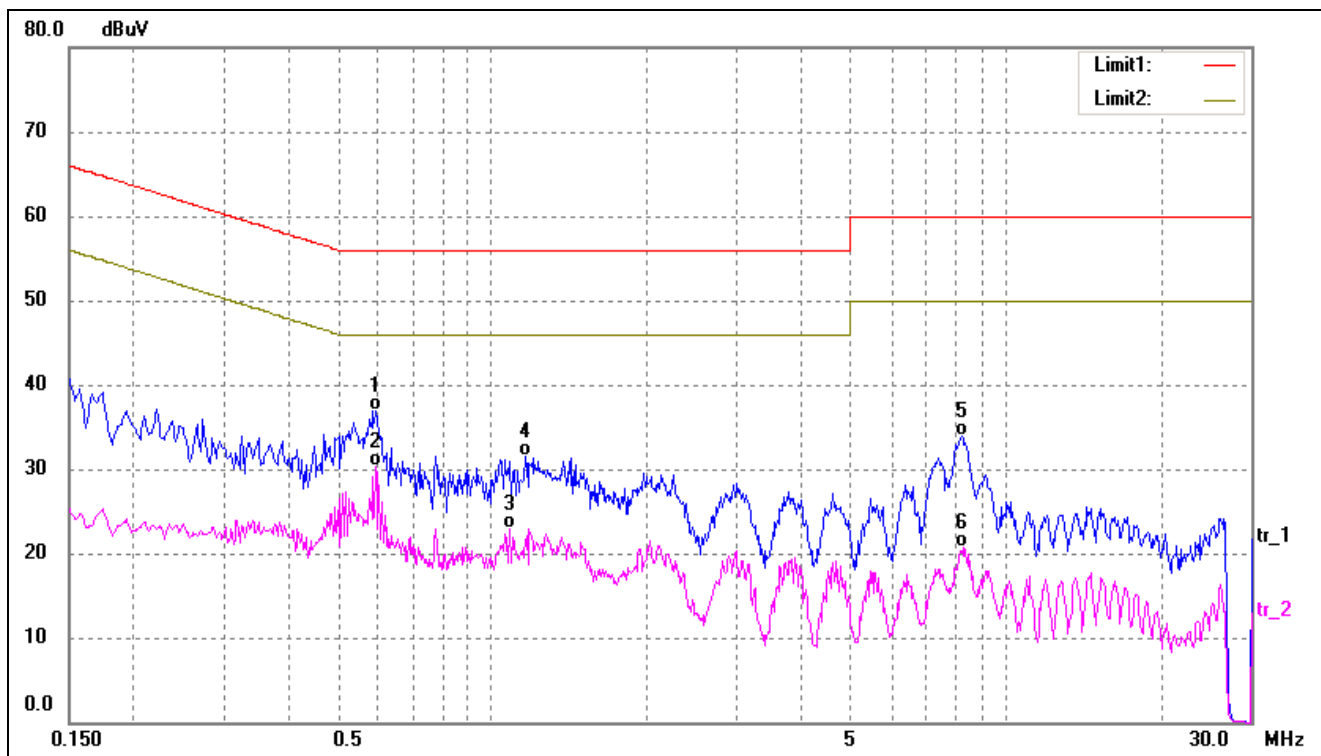
**-10.12 dB at 0.5941 MHz in the Line mode, AVG detector, 0.15-30MHz**

## 7.6 Conducted Emissions Test Data

**Plot of Conducted Emissions Test Data**

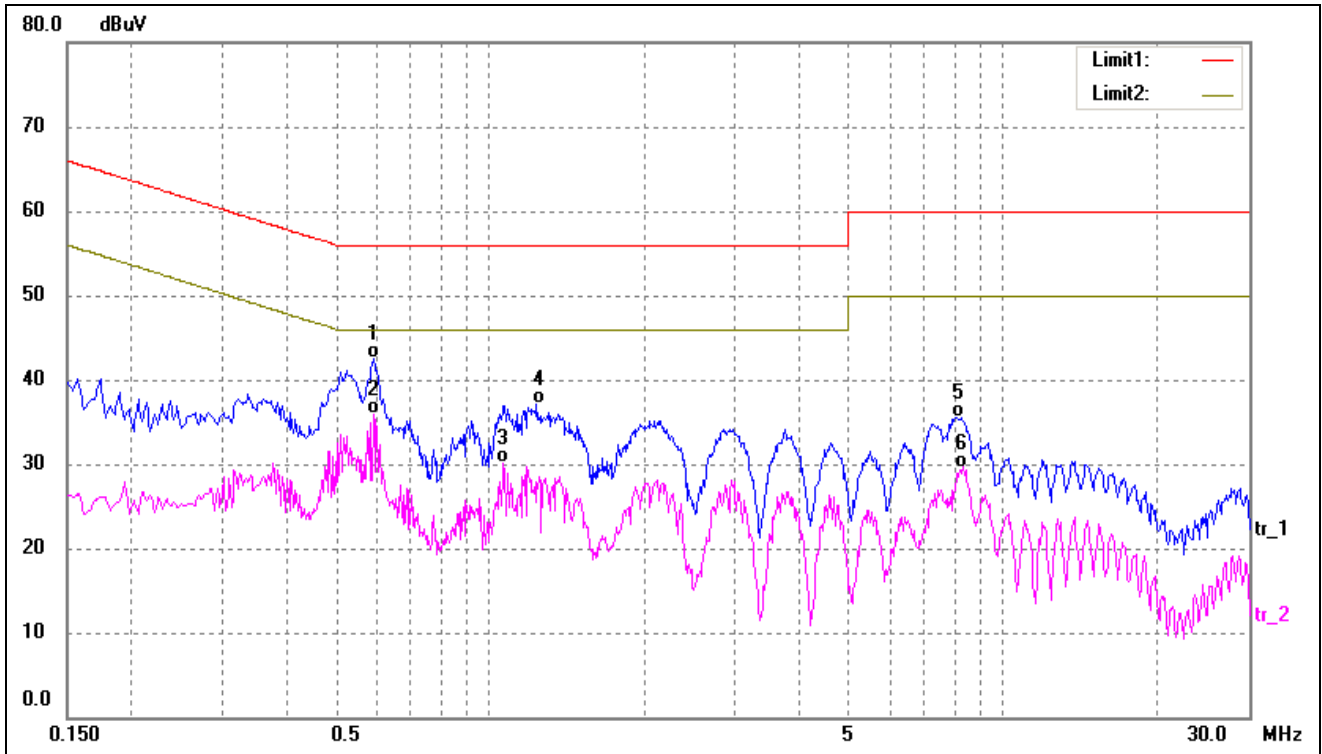
EUT: *Electric drifting board*  
 Tested Model: *D1*  
 Operating Condition: *Transmitting*  
 Comment: *AC120V 60Hz*

Test Specification: *Neutral*



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.5941	27.15	9.79	36.94	56.00	-19.06	QP
2*	0.5941	20.56	9.79	30.35	46.00	-15.65	AVG
3	1.0781	13.24	9.76	23.00	46.00	-23.00	AVG
4	1.1620	21.70	9.76	31.46	56.00	-24.54	QP
5	8.2261	24.40	9.57	33.97	60.00	-26.03	QP
6	8.2501	11.17	9.57	20.74	50.00	-29.26	AVG

Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.5941	32.72	9.79	42.51	56.00	-13.49	QP
2*	0.5941	26.09	9.79	35.88	46.00	-10.12	AVG
3	1.0621	20.26	9.76	30.02	46.00	-15.98	AVG
4	1.2300	27.34	9.75	37.09	56.00	-18.91	QP
5	8.1340	25.96	9.57	35.53	60.00	-24.47	QP
6	8.3261	20.03	9.57	29.60	50.00	-20.40	AVG

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