FCC 47 CFR PART 15 SUBPART C

TEST REPORT

For

Product Name: 4G Smartphone
Brand Name: Mobiwire, Altice
Model No.: MobiWire Huritt, Altice S61
Series Model: N/A
FCC ID: QPN-S61
Test Report Number:
C180816R01 -RPW

Issued for

Mobiwire SAS
79 avenue Francois Arago, 92000 NANTERRE France

Issued by

Compliance Certification Services Inc.
Kun shan Laboratory
No.10 Weiye Rd., Innovation park, Eco&Tec,
Development Zone, Kunshan City, Jiangsu, China
TEL: 86-512-57355888
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TESTING CERT #2541.01

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Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	August 22, 2018	C180816R01-RPW	ALL	N/A
01	September 17, 2018	C180816R01-RPW	P5	Add the information of EUT antenna.

1. TEST RESULT CERTIFICATION

Product Name:	4G Smartphone
Trade Name:	Mobiwire, Altice
Model Name.:	MobiWire Huritt, Altice S61
Series Model:	N/A
Applicant Discrepancy:	Initial
Device Category:	Portable unit
Date of Test:	August 17, 2018~August 22, 2018
Applicant:	**Mobiwire SAS** 79 avenue Francois Arago, 92000 NANTERRE France
Manufacturer:	**Mobiwire SAS** 79 avenue Francois Arago, 92000 NANTERRE France
Application Type:	Certification

APPLICABLE STANDARDS	
STANDARD	**TEST RESULT**
FCC 47 CFR Part 15 Subpart C	No non-compliance noted

We hereby certify that:

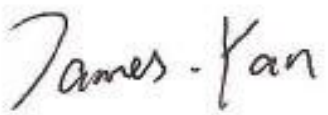
The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10: 2013 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.247.

The test results of this report relate only to the tested sample EUT identified in this report.

Approved by:

Jeff.Fang
RF Manager
Compliance Certification Service Inc.

Tested by:



James.Yan
Test Engineer
Compliance Certification Service Inc.

2. EUT DESCRIPTION

Product Name:	4G Smartphone
Brand Name:	Mobiwire, Altice
Model Name:	MobiWire Huritt, Altice S61
Series Model:	N/A
Model Discrepancy:	N/A
Power Adapter Power Rating :	Adapter Brand Name: MobiWire Model : A88-502000 Output: 5.0V⎓2000mA Input: 100-240V~ 50-60Hz 0.35A
Frequency Range:	IEEE 802.11b/g: 2412MHz to 2472 MHz IEEE 802.11n HT20: 2412MHz to 2472 MHz IEEE 802.11n HT40: 2422MHz to 2462 MHz Bluetooth:2402~2480MHz
Modulation Technique:	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20/40:OFDM (64QAM, 16QAM, QPSK, BPSK) Bluetooth 2.1+EDR:GFSK for 1Mbps;π/4-DQPSK for 2Mbps； 8DPSK for 3Mbps Bluetooth 4.2 :GFSK
Number of Channels:	IEEE 802.11b /g :13 Channels IEEE 802.11n HT20 :13 Channels IEEE 802.11n HT40: 9 Channels Bluetooth 2.1+EDR :79Channels Bluetooth 4.2 :40Channels(37hopping+3advertising Channel)
Antenna Type:	PIFA antenna
Antenna Specification:	BT/2.4G wifi : -0.5dBi

Remark:

1.The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.

2.This submittal(s) (test report) is intended for ***FCC ID: QPN-S61*** filing to comply with Section 15.207, 15.209 and 15.247 of the FCC Part 15, Subpart C Rules.

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10 2013 and FCC CFR 47 15.207, 15.209, 15.247 and KDB 558074.

3.1. EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

3.2. EUT EXERCISE

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.247 under the FCC Rules Part 15 Subpart C.

3.3. GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 6.2 of ANSI C63.10 2013 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

Under 1GHz

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 6.4 & 6.5 of ANSI C63.10:2013.

Above 1GHz

The EUT is placed on a turn table, which is 1.5 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 6.6 of ANSI C63.10:2013.

3.4.FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])
13.36 - 13.41			

[1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2] Above 38.6

Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

3.5.DESCRIPTION OF TEST MODES

The EUT transmitting and receiving with one antenna working at b/g/n mode, so 1x1 configuration was used for all testing in this report.

Software used to control the EUT for staying in continuous transmitting mode was programmed.

After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz, which worst case was in normal link mode only.

IEEE802.11b mode:

Channel Low (2412MHz)

Channel Mid (2437MHz)

Channel High (2462MHz) with 11Mbps data rate was chosen for full testing.

IEEE802.11g mode:

Channel Low (2412MHz)

Channel Mid (2437MHz)

Channel High (2462MHz) with 54Mbps data rate was chosen for full testing.

IEEE 802.11n HT20 MHz Channel mode:

Channel Low (2412MHz)

Channel Mid (2437MHz)

Channel High (2462MHz) with MCS5 data rate was chosen for full testing.

IEEE 802.11n HT40 MHz Channel mode:

Channel Low (2422MHz)

Channel Mid (2437MHz)

Channel High (2452MHz) with MCS4 data rate was chosen for full testing.

GFSK mode:

Channel Low (2402MHz)

Channel Mid (2441MHz)

Channel High (2480MHz) with 1Mbps data rate was chosen for full testing.

8DPSK mode:

Channel Low (2402MHz)

Channel Mid (2441MHz)

Channel High (2480MHz) with 3Mbps data rate was chosen for full testing.

BLE4.2 mode:

Channel Low (2402MHz)

Channel Mid (2440MHz)

Channel High (2480MHz) with 1Mbps data rate was chosen for full testing.

3.6.POWER SETTING

WIFI:

Mode	Channel	Setting
IEEE802.11b mode	2412	19
	2437	19
	2462	19
IEEE802.11g mode	2412	16.5
	2437	16.5
	2462	16.5
IEEE 802.11n HT20 mode	2412	16
	2437	16
	2462	16
IEEE 802.11n HT40 mode	2422	16.5
	2437	16.5
	2452	16.5

BR/EDR:

Mode	Channel	Setting
GFSK	2402	-
	2441	-
	2480	-
π/4 DQPSK	2402	-
	2441	-
	2480	-
8DPSK	2402	-
	2441	-
	2480	-

BLE4.2:

Mode	Channel	Setting
GFSK	2402	-
	2440	-
	2480	-

Note: “-” is default.

4. INSTRUMENT CALIBRATION

4.1.MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

977 Chamber					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Data**	**Calibration Due**
Spectrum Analyzer	Agilent	E4446A	MY44020154	2017-9-4	2018-9-3
Spectrum Analyzer	RS	FSU26	200789	2018-7-13	2019-7-12
EMI Test Receiver	R&S	ESCI	101378	2017-12-26	2018-12-25
Amplifier	COM-POWER	PAM-840A	461332	2017-11-29	2018-11-28
Amplifier	MITEQ	JS41-00101800-32-10P	1675713	2018-7-13	2019-7-12
Broad-Band Horn Antenna	SCHWARZBECK	BBHA 9170	9170-515	2018-2-27	2019-2-26
Bilog Antenna	Teseq	CBL 6112D	36996	2018-7-7	2019-7-6
Loop Antenna	COM-POWER	AL-130R	10160008	2018-5-8	2019-5-7
Horn-antenna	SCHWARZBECK	9120D	D:266	2018-2-26	2019-2-25
Horn-antenna	SCHWARZBECK	9120D	D:267	2017-11-5	2018-11-4
Turn Table	CT	CT123	4165	N.C.R	N.C.R
Antenna Tower	CT	CTERG23	3256	N.C.R	N.C.R
Controller	CT	CT1OO	95637	N.C.R	N.C.R
Cable	REBES MICROWAVE	Cable-93	N/A	2017-10-29	2018-10-28
Cable	REBES MICROWAVE	Cable-94	N/A	2017-10-29	2018-10-28
Cable	REBES MICROWAVE	Cable-95	N/A	2017-10-29	2018-10-28
Cable	N/A	Cable-03	N/A	2018-4-24	2019-4-23
Cable	N/A	Cable-04	N/A	2018-4-24	2019-4-23
2.4G Filter	N/A	N/A	N/A	2018-4-24	2019-4-23
Test Software			EZ-EMC		

Remark: *The measurement uncertainty is less than +/- 2.81dB, which is evaluated as per the NAMAS NIS 81 and CISPR/A/291/CDV.*

Expanded Uncertainty (95% CONFIDENCE INTERVAL): K=2

4.2.MEASUREMENT UNCERTAINTY

For the test methods, according to the present document, the measurement uncertainty figures shall be calculated in accordance with TR 100 028-1 [2] and shall correspond to an expansion factor (coverage factor) k = 1,96 or k = 2 (which provide confidence levels of respectively 95 % and 95,45 % in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)). Table 6 is based on such expansion factors.

Table 6: Maximum measurement uncertainty

Parameter	Uncertainty
RF output power, conducted	±1.129dB
Unwanted Emissions, conducted	±2.406dB
RF Power density, conducted	±2.379dB
Conducted emissions	±2.582dB
All emissions, radiated (Below 1GHz)	±4.725dB
All emissions, radiated (Above 1GHz)	± 4.818dB
Temperature	±0.3dB
Supply voltages	±0.2%

5. FACILITIES AND ACCREDITATIONS

5.1.FACILITIES

All measurement facilities used to collect the measurement data are located at
CCS China Kunshan Lab at 10#Weiye Rd, Innovation Park Eco. & Tec. Development Zone

Kunshan city JiangSu, (215300), CHINA.

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 2013 and CISPR Publication 22.

5.2.EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, “Radio Interference Measuring Apparatus and Measurement Methods.”

5.3.LABORATORY ACCREDITATIONS AND LISTING

FCC –Designation Number: CN1172.

Compliance Certification Services Inc. Kun shan 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 Designation Number: CN1172.

5.4.TABLE OF ACCREDITATIONS AND LISTINGS

Country	Agency	Scope of Accreditation	Logo
USA	A2LA	47 CFR FCC, Part 15,Subpart B (using ANSI 63.4 :2009 and ANSI C63.4:2014);ICES-003; 47 CFR FCC, Part 18(using MP-5:1986);ICES-001;VCCI - V3; VCCI-CISPR-32(up to 6GHz);VCCI 32-1;CNS 13438(up to 6GHz); CNS 13439; CNS 13803; CISPR 11; EN 55011; CISPR 13; EN 55013; CISPR 22; EN 55022; AS/NZS CISPR 22;CISPR32;EN55032; AS/NZS CISPR 32;EN55014-1(excluding clicks);CISPR 14-1(excluding clicks);EN55015;CISPR 15; IEC 61000-3-2; EN 61000-3-2; AS/NZS 61000.3.2 IEC 61000-3-3; EN 61000-3-3; AS/NZS 61000.3.3 IEC 61000-4-2; EN 61000-4-2; AS/NZS 61000.4.2 IEC 61000-4-3; EN 61000-4-3; AS/NZS 61000.4.3 IEC 61000-4-4; EN 61000-4-4; AS/NZS 61000.4.4 IEC 61000-4-5; EN 61000-4-5; AS/NZS 61000.4.5 IEC 61000-4-6; EN 61000-4-6; AS/NZS 61000.4.6 IEC 61000-4-8; EN 61000-4-8; AS/NZS 61000.4.8 IEC 61000-4-11; EN 61000-4-11; AS/NZS 61000.4.11 EN 61000-6-1; EN 61000-6-2; EN 61000-6-3 (excluding discontinuous interference); EN 61000-6-4; IEC 61000-6-1; IEC 61000-6-2; IEC 61000-6-3 (excluding discontinuous interference); IEC 61000-6-4; AS/NZS 61000.6.1; AS/NZS 61000.6.2; AS/NZS 61000.6.3 (excluding discontinuous interference); AS/NZS 61000.6.4; EN 55024; CISPR 24; AS/NZS CISPR 24; EN 61547; IEC 61547; EN 60601-1-2; IEC 60601-1-2; EN 50130-4; EN 55014-2; CISPR 14-2; EN 62040-2; IEC 62040-2; EN 61204-3; IEC 61204-3; EN 50121-1; EN 50121-3-2; EN 50121-4; EN 50121-5; EN 50155 (clauses 5.4 and 5.5); EN 61326-1; IEC 61326-1; EN 50083-2; EN 300 386; EN 301 489-1 (excluding Section 9.6); EN 301 489-3; EN 301 489-7; EN 301 489-17; EN 301 489-19; EN 301 489-24; EN 301 489-25; EN 301 489-34 FCC Part 15, Subparts 15C, 15E (KDB 905462 D03 (v01r02))(using ANSI C63.4:2009, ANSI C63.4:2014 and ANSI C63.10:2013) FCC Parts 22E, 24E (using ANSI/TIA-603-D) RSS-132; RSS-133; RSS-210; RSS-247 (excluding DFS testing) EN 300 220-1; EN 300 220-2; EN 300 328; EN 300 330-1; EN 300 330-2; EN 300 440-1; EN 300 440-2; EN 301 893 (excluding DFS testing); EN 301 511(clauses 4.2.12 to 4.2.19, and 5.2.12 to 5.2.19); EN 301 908-1 (clauses 4.2.2, 4.2.3, 5.3.1, and 5.3.2); EN 301 908-2 (clauses 4.2.4, 4.2.10, 5.3.3, and 5.3.9)	

		AS/NZS 4268 IEEE Std 1528:2013; EN 50360; EN 50566; EN 62479; EN 50383; EN 50385; EN 62311; IEC 62209-1; EN 62209-1; IEC 62209-2; EN 62209-2; CNS 14958-1; CNS 14959; RSS-102; ACMA Radio Communications (Electromagnetic Radiation – Human Exposure) Standard 2014	
USA	FCC	3/10 meter Sites to perform FCC Part 15/18 measurements	CN1172
Japan	VCCI	3/10 meter Sites and conducted test sites to perform radiated/conducted measurements	R-1600 C-1707 G-216

** No part of this report may be used to claim or imply product endorsement by A2LA or any agency of the US Government.*

6. SETUP OF EQUIPMENT UNDER TEST

6.1.SUPPORT EQUIPMENT

No.	Device Type	Brand	Model	Series No.	FCC ID
1.	N/A	N/A	N/A	N/A	N/A

Remark:

1. *All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.*
2. *Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.*

7. FCC PART 15.247 REQUIREMENTS

7.1.RADIATED BAND EDGES AND SPURIOUS EMISSIONS

LIMIT

Radiated emissions from 9 kHz to 25 GHz were measured according to the methods defines in ANSI C63.10-2013. The EUT was placed above the ground plane, 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions

1. According to §15.209(a), except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

FREQUENCIES(MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE(meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

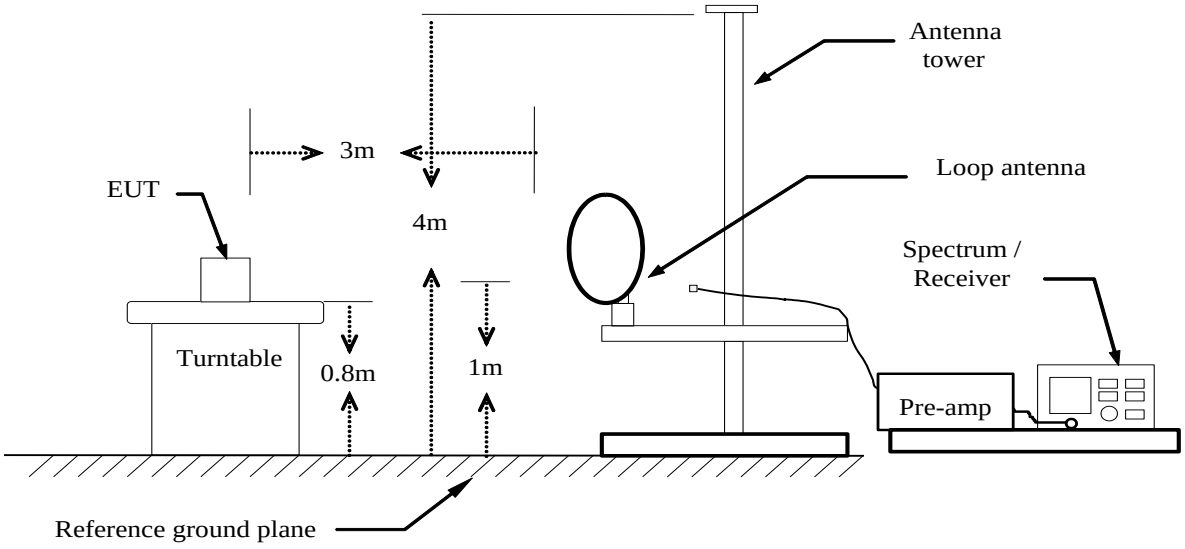
Remark: *Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.*

2.In the emission table above, the tighter limit applies at the band edges.

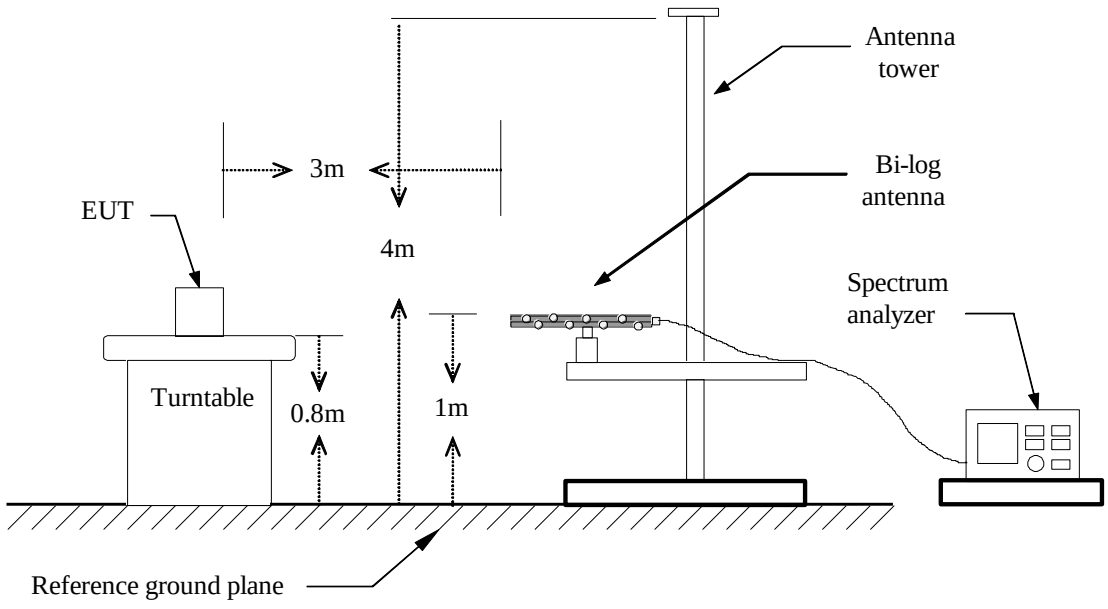
Frequency (MHz)	Field Strength (μV/m at 3-meter)	Field Strength (dBμV/m at 3-meter)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Test Configuration

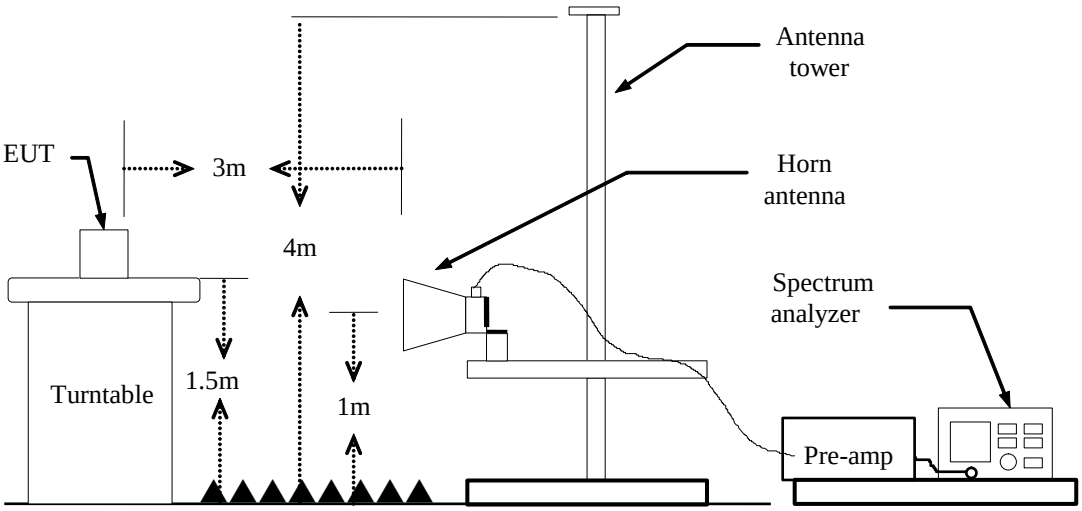
Below 30MHz



Below 1 GHz



Above 1 GHz



TEST PROCEDURE

1. The EUT is placed on a turntable above ground plane, which is 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Set the spectrum analyzer in the following setting as:

   Below 1GHz:

   RBW=100kHz / VBW=300kHz / Sweep=AUTO

   Above 1GHz:

   PEAK: RBW=VBW=1MHz / Sweep=AUTO

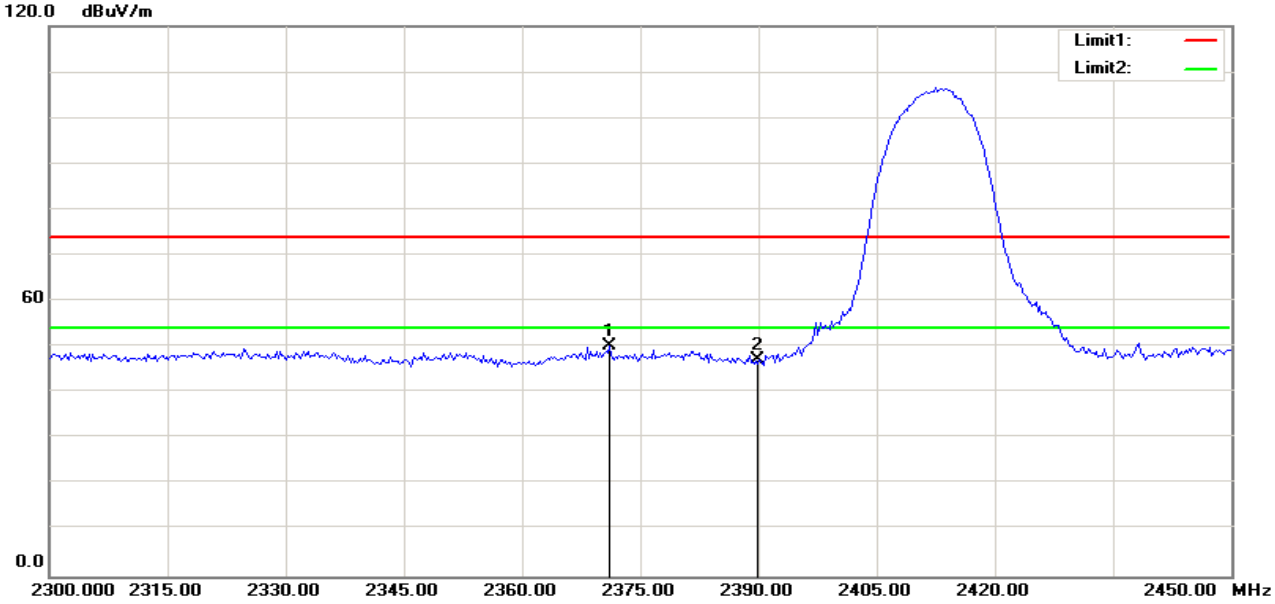
   AVERAGE: RBW=1MHz / Sweep=AUTO

   VBW=10Hz,when duty cycle is no less than 98 percent.

   VBW≧1/T,when duty cycle is less than 98 percent,where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximun power control level for the tested mode of operation.
7. Repeat above procedures until the measurements for all frequencies are complete.

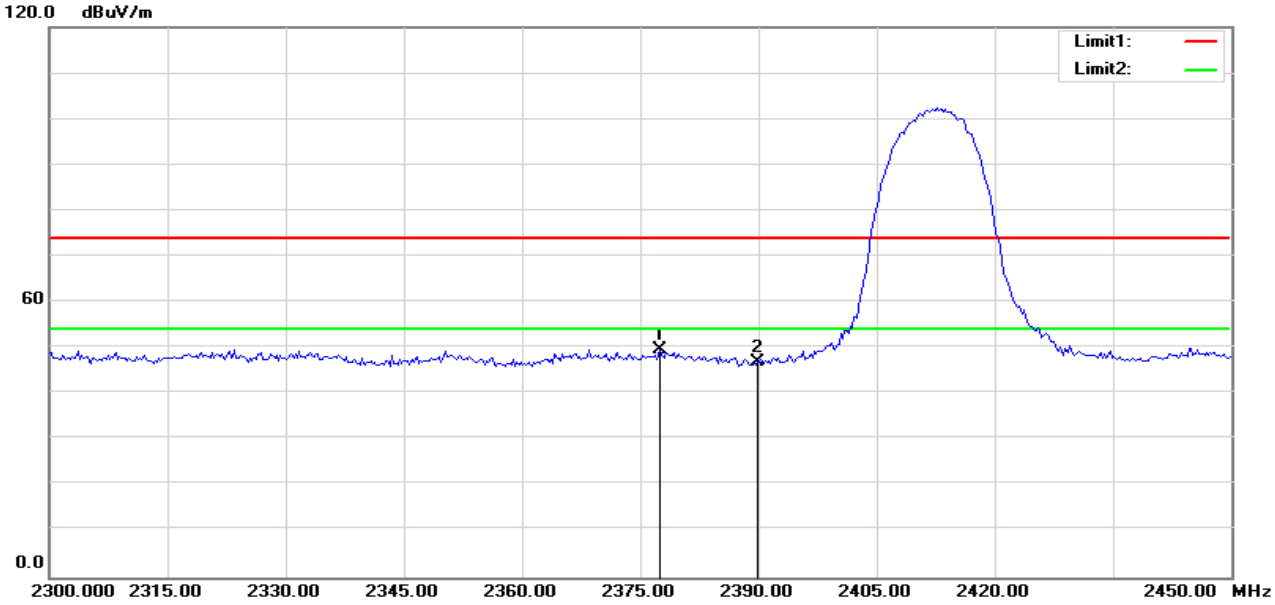
TEST RESULTS(The Worse Test Data)

RESTRICTED BANDEDGE (b Mode, Low Channel, Horizontal)



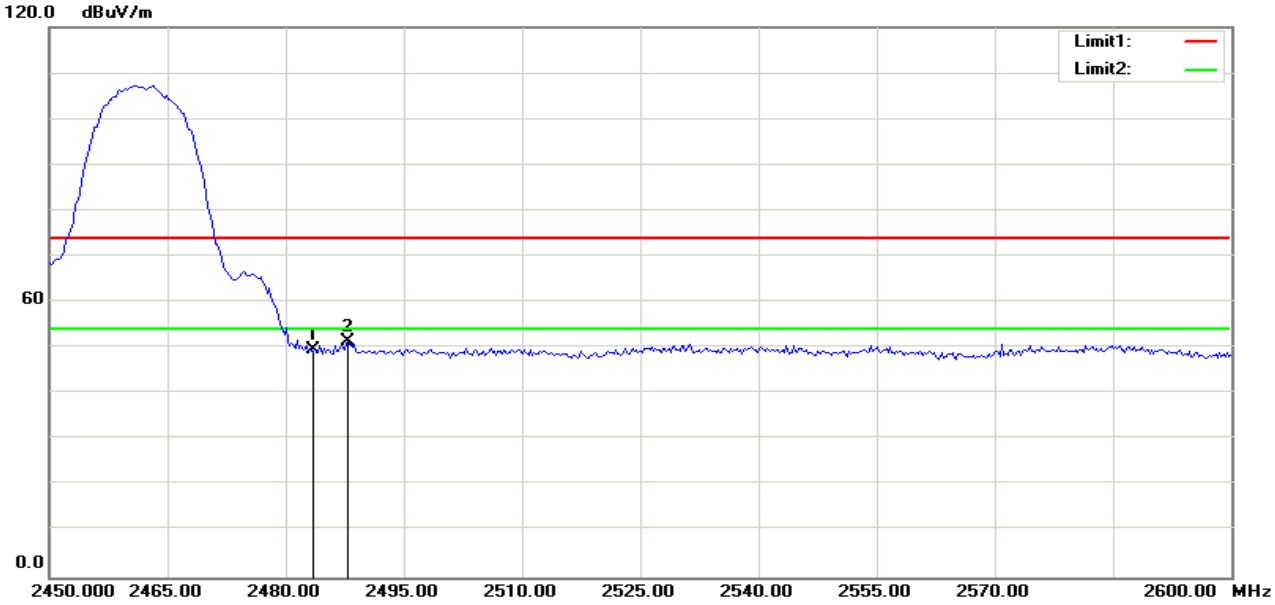
No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2371.154	59.41	-9.07	50.34	74.00	-23.66	100	186	peak
2	2390.000	56.07	-8.95	47.12	74.00	-26.88	200	105	peak

RESTRICTED BANDEDGE (b Mode, Low Channel, Vertical)



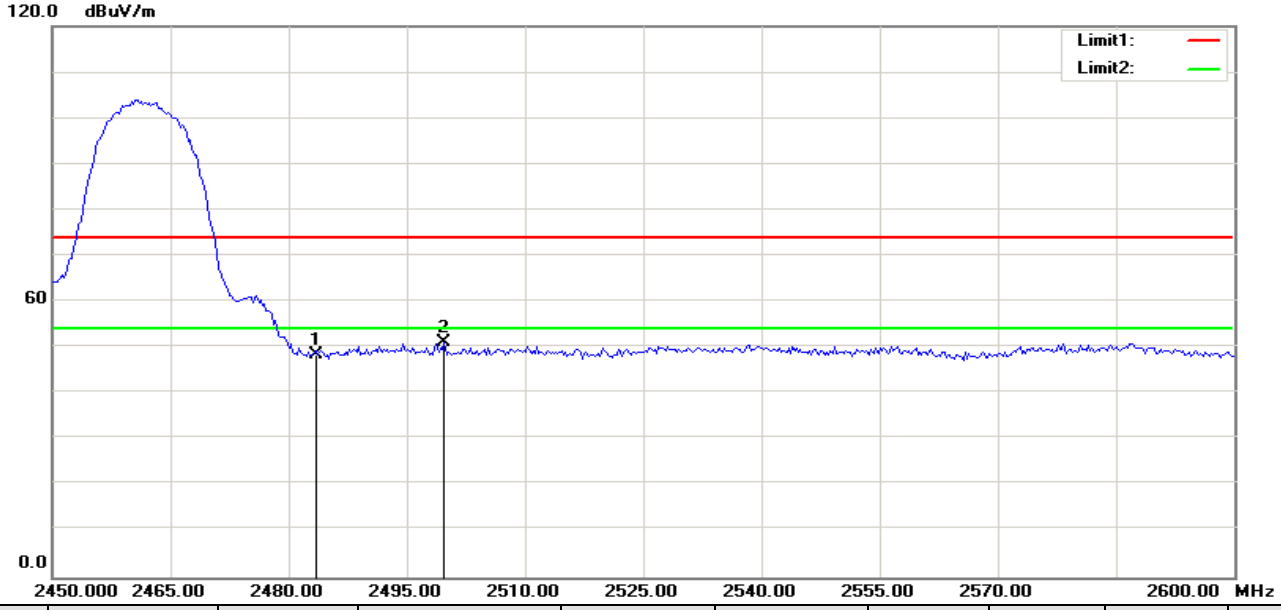
No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2377.404	58.75	-9.03	49.72	74.00	-24.28	200	30	peak
2	2390.000	55.94	-8.95	46.99	74.00	-27.01	200	148	peak

RESTRICTED BANDEDGE (b Mode, High Channel, Horizontal)



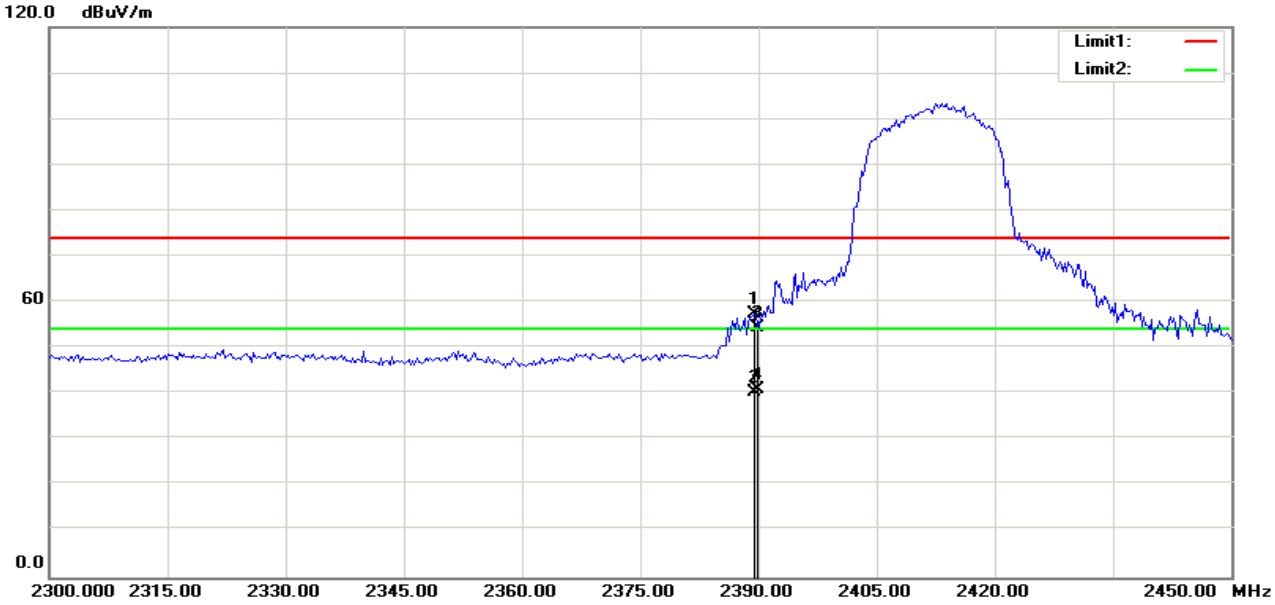
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	58.01	-8.35	49.66	74.00	-24.34	200	200	peak
2	2487.981	59.87	-8.32	51.55	74.00	-22.45	100	230	peak

RESTRICTED BANDEDGE (b Mode, High Channel, Vertical)



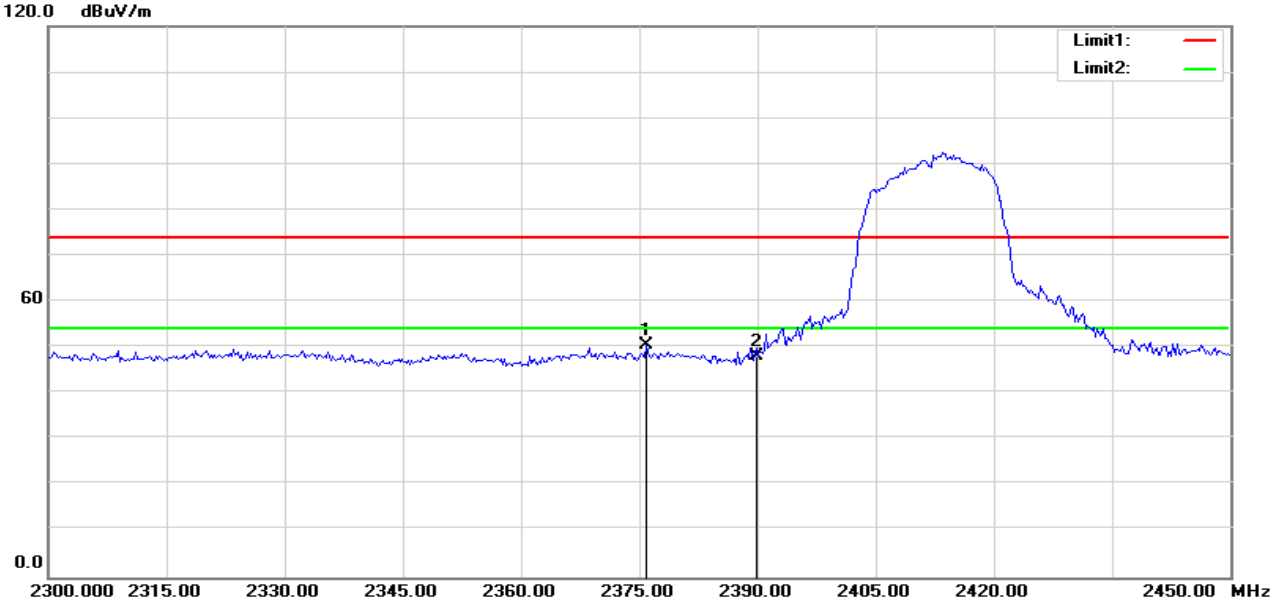
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	56.77	-8.35	48.42	74.00	-25.58	200	360	peak
2	2499.760	59.30	-8.24	51.06	74.00	-22.94	200	171	peak

RESTRICTED BANDEDGE (g Mode, Low Channel, Horizontal)



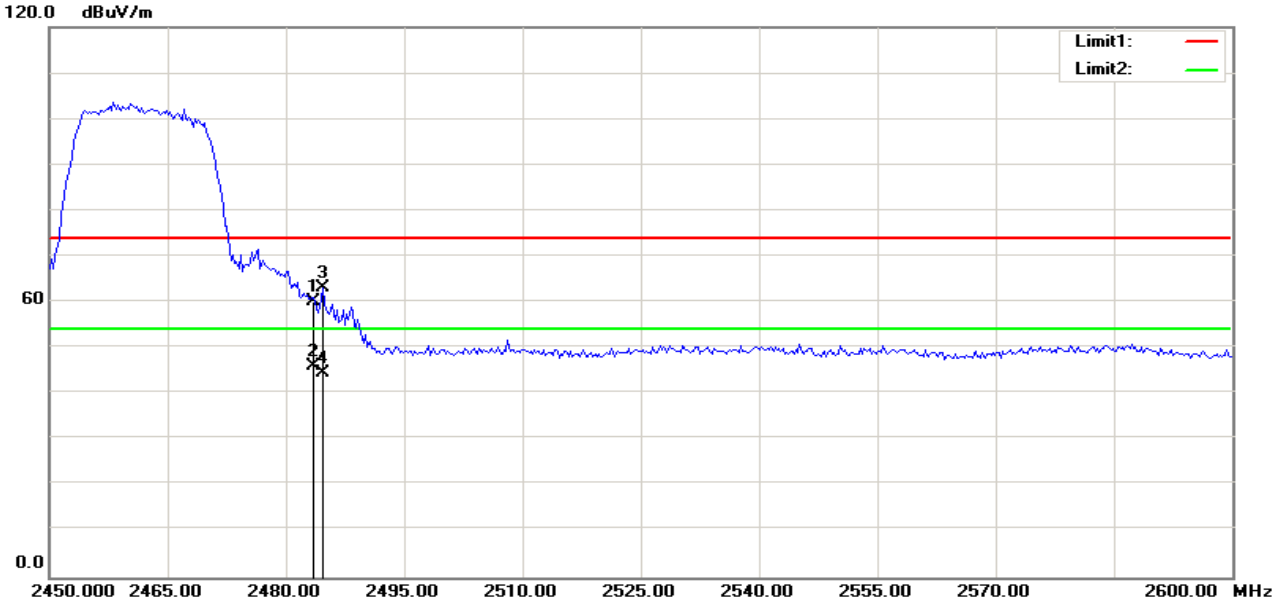
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2389.423	66.37	-8.95	57.42	74.00	-16.58	200	181	peak
2	2389.423	49.37	-8.95	40.42	54.00	-13.58	200	179	AVG
3	2390.000	63.45	-8.95	54.50	74.00	-19.50	200	228	peak
4	2390.000	50.02	-8.95	41.07	54.00	-12.93	200	230	AVG

RESTRICTED BANDEDGE (g Mode, Low Channel, Vertical)



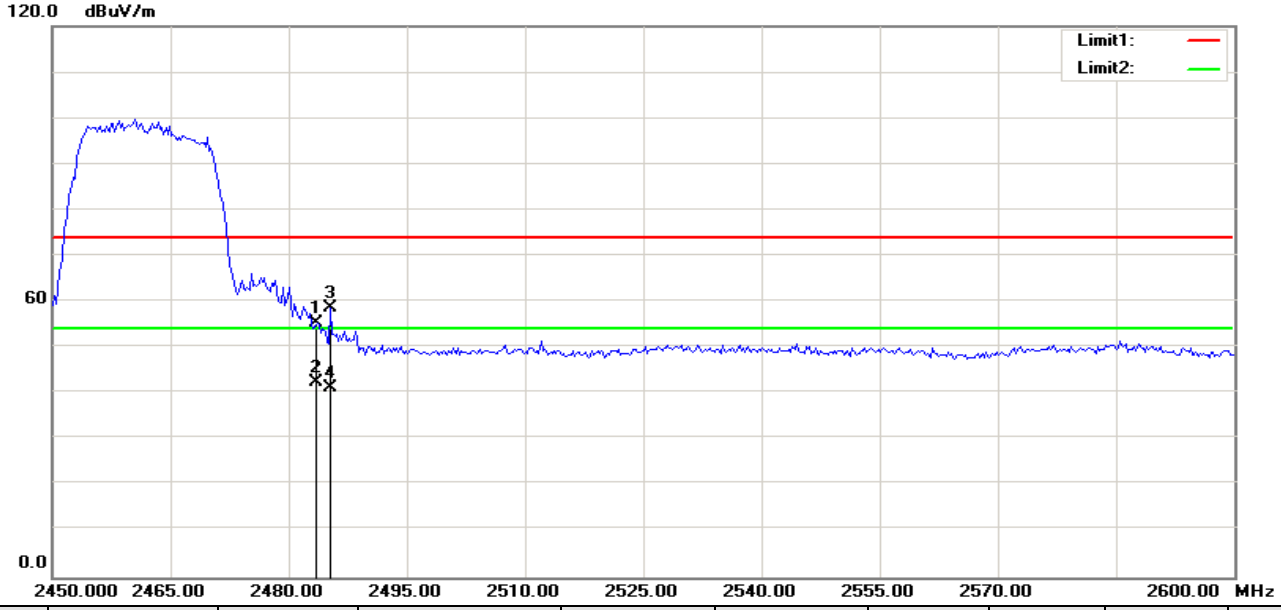
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2375.961	59.47	-9.04	50.43	74.00	-23.57	100	76	peak
2	2390.000	57.19	-8.95	48.24	74.00	-25.76	100	231	peak

RESTRICTED BANDEDGE (g Mode, High Channel, Horizontal)



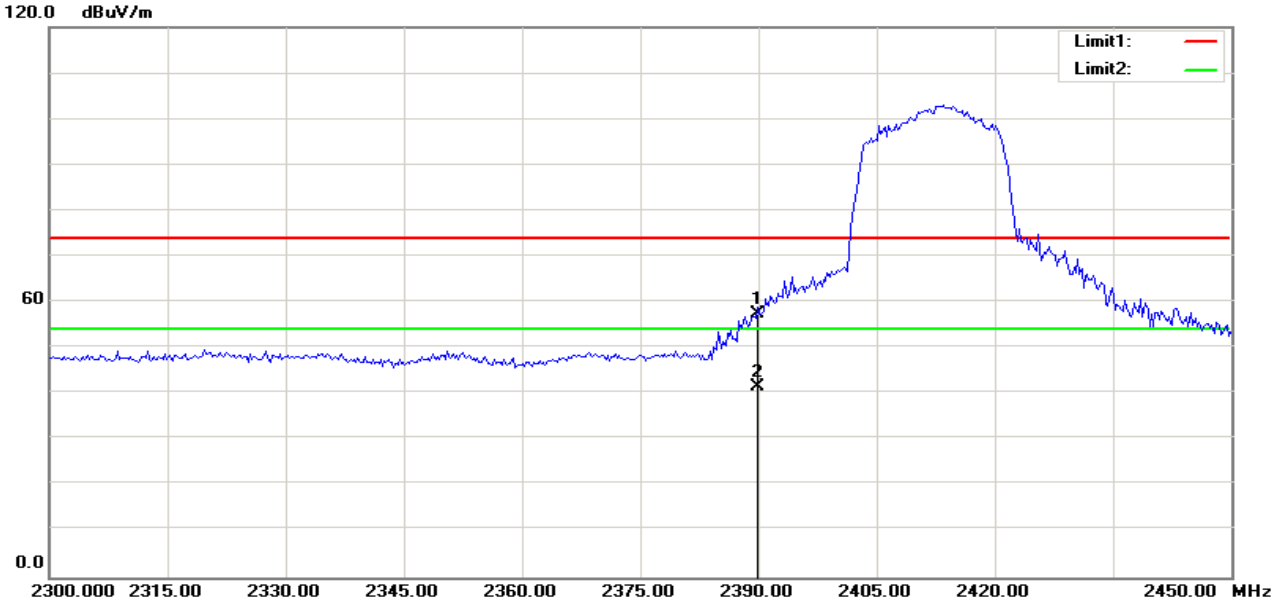
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	68.51	-8.35	60.16	74.00	-13.84	200	183	peak
2	2483.500	54.27	-8.35	45.92	54.00	-8.08	100	200	AVG
3	2484.615	71.54	-8.34	63.20	74.00	-10.80	100	241	peak
4	2484.615	52.83	-8.34	44.49	54.00	-9.51	100	222	AVG

RESTRICTED BANDEDGE (g Mode, High Channel, Vertical)



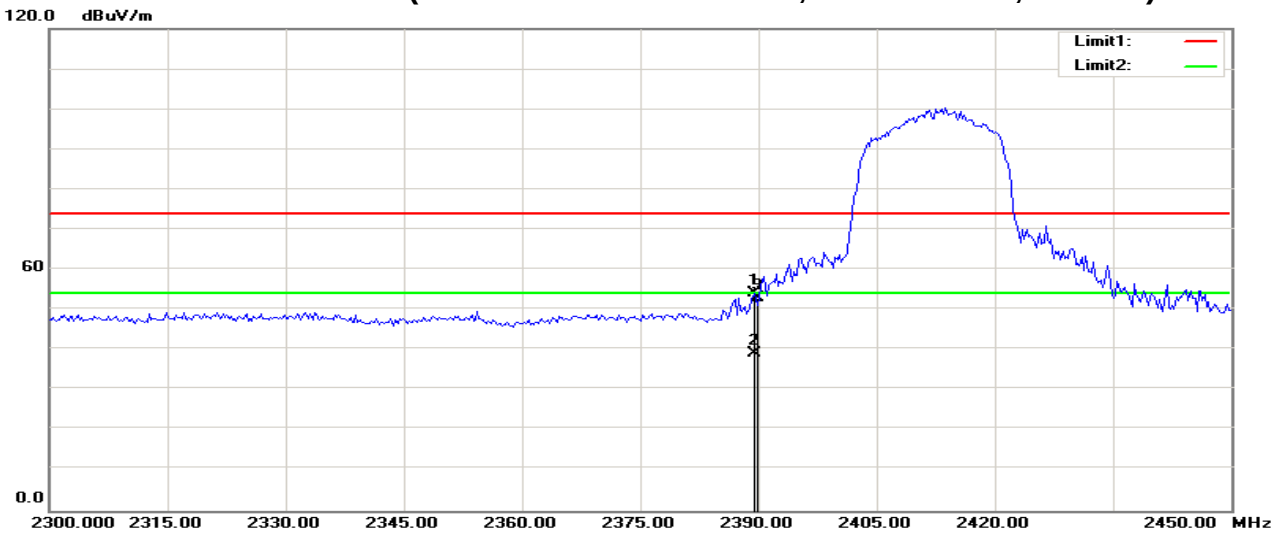
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	63.79	-8.35	55.44	74.00	-18.56	200	161	peak
2	2483.500	50.94	-8.35	42.59	54.00	-11.41	200	137	AVG
3	2485.336	66.84	-8.33	58.51	74.00	-15.49	200	144	peak
4	2485.336	49.57	-8.33	41.24	54.00	-12.76	200	160	AVG

RESTRICTED BANDEDGE (IEEE 802.11n HT20 mode, Low Channel, Horizontal)



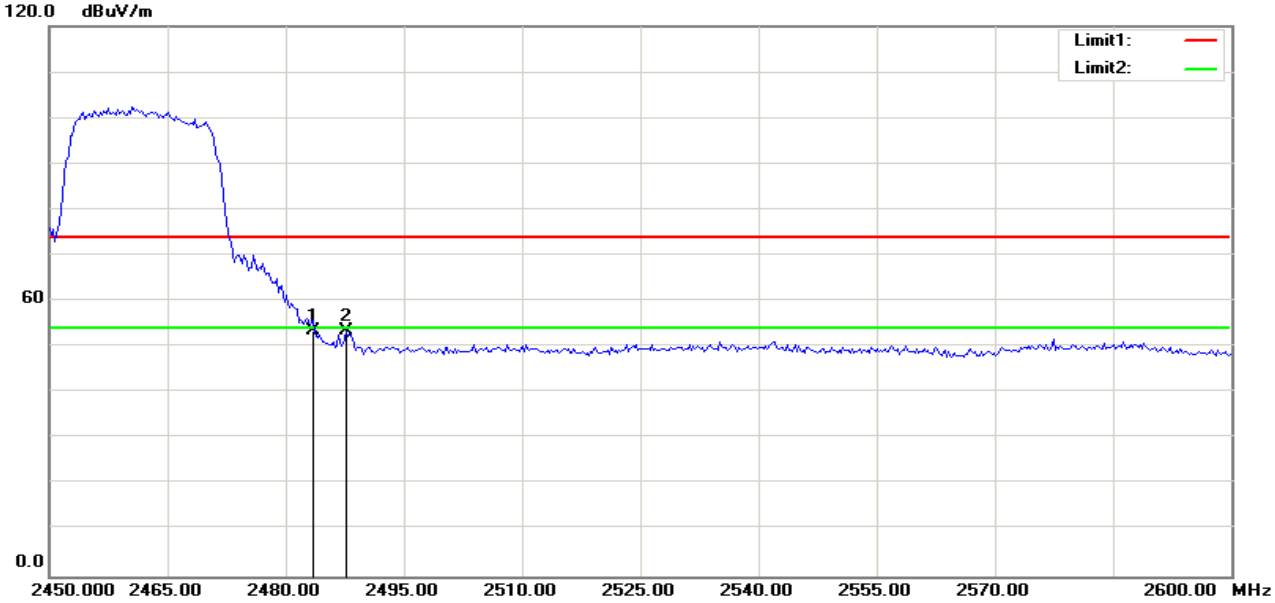
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2390.000	66.40	-8.95	57.45	74.00	-16.55	200	232	peak
2	2390.000	50.50	-8.95	41.55	54.00	-12.45	200	232	AVG

RESTRICTED BANDEDGE (IEEE 802.11n HT20 mode, Low Channel, Vertical)



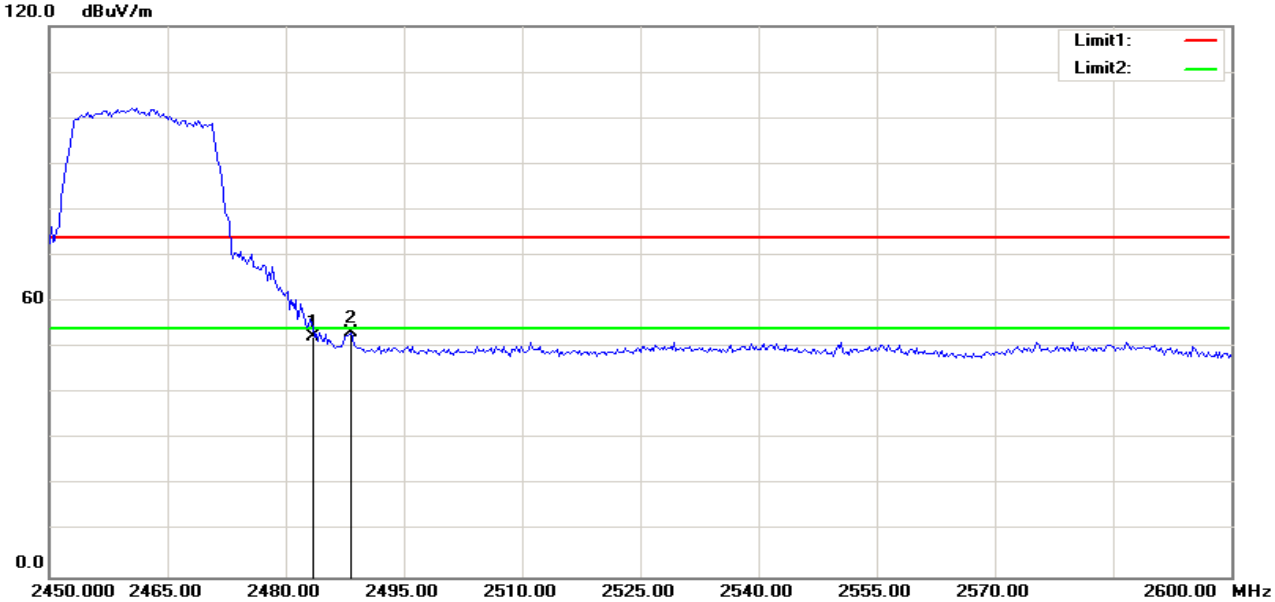
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2389.423	63.14	-8.95	54.19	74.00	-19.81	200	146	peak
2	2389.423	48.01	-8.95	39.06	54.00	-14.94	200	165	AVG
3	2390.000	61.98	-8.95	53.03	74.00	-20.97	200	146	peak

RESTRICTED BANDEDGE (IEEE 802.11n HT20 mode, High Channel, Horizontal)



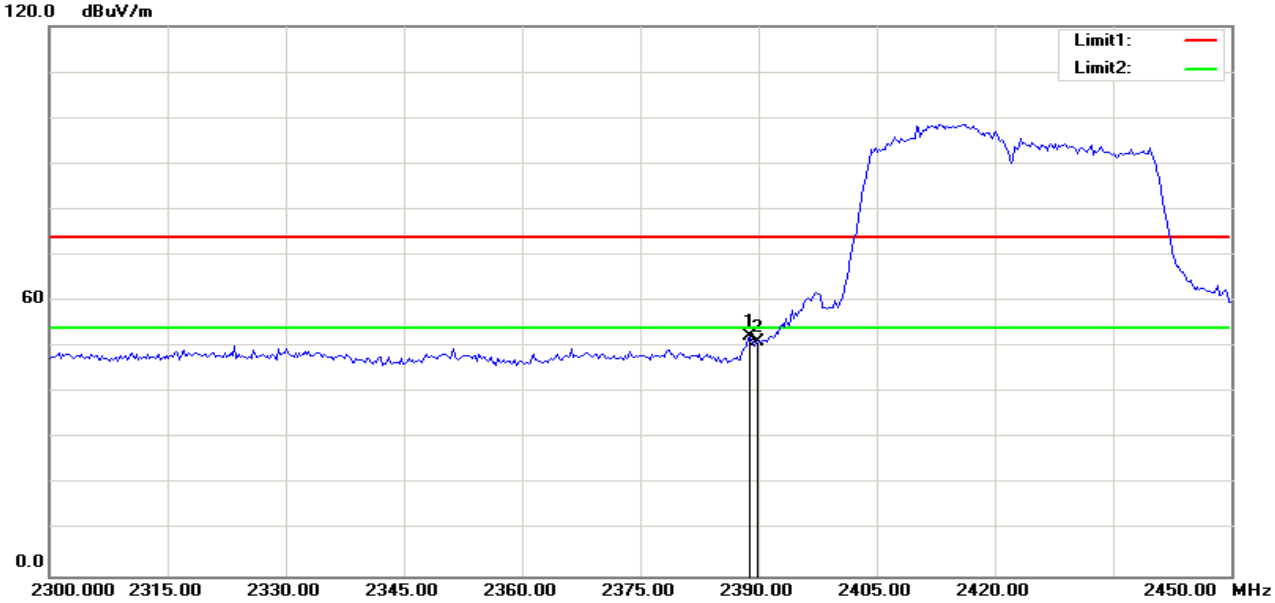
No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	62.03	-8.35	53.68	74.00	-20.32	100	230	peak
2	2487.740	61.87	-8.32	53.55	74.00	-20.45	100	230	peak

RESTRICTED BANDEDGE (IEEE 802.11n HT20 mode, High Channel, Vertical)



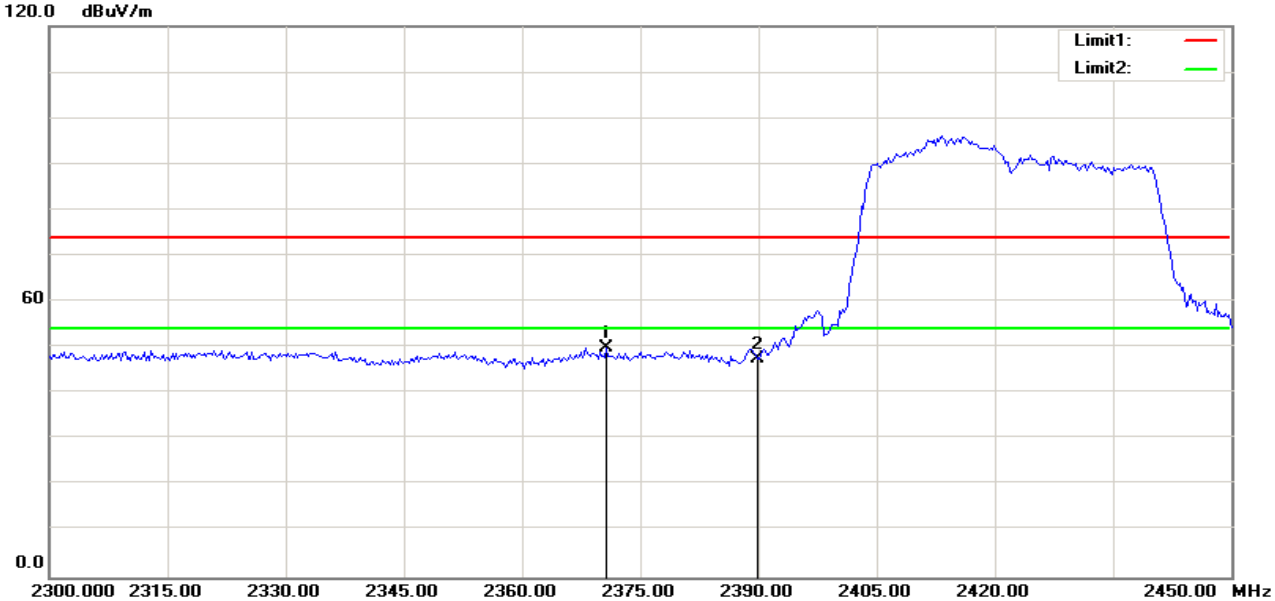
No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	60.84	-8.35	52.49	74.00	-21.51	100	182	peak
2	2488.221	61.68	-8.32	53.36	74.00	-20.64	100	192	peak

RESTRICTED BANDEDGE (IEEE 802.11n HT40 mode, Low Channel, Horizontal)



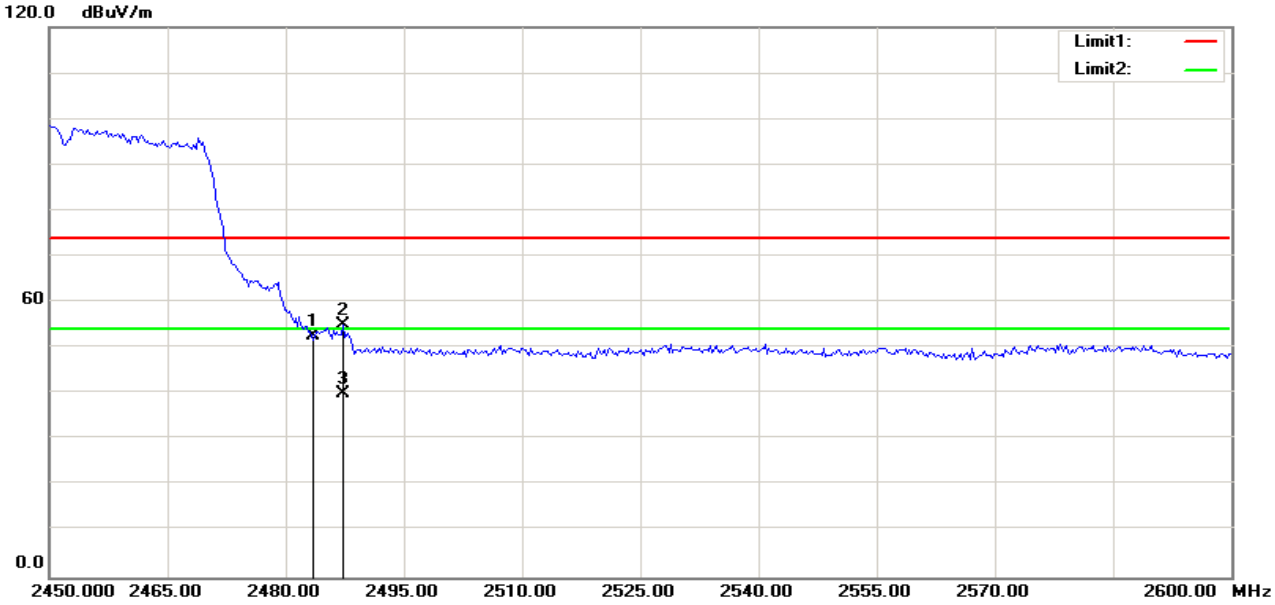
No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2388.942	61.43	-8.95	52.48	74.00	-21.52	200	226	peak
2	2390.000	60.14	-8.95	51.19	74.00	-22.81	200	203	peak

RESTRICTED BANDEDGE (IEEE 802.11n HT40 mode, Low Channel, Vertical)



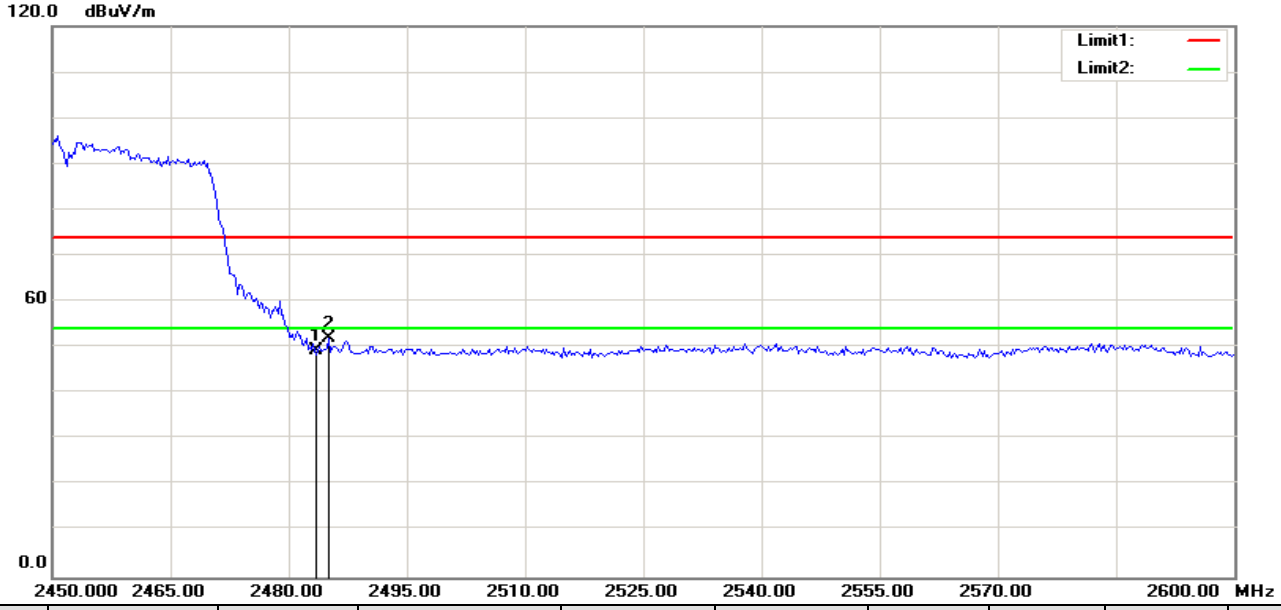
No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2370.673	59.17	-9.07	50.10	74.00	-23.90	200	5	peak
2	2390.000	56.38	-8.95	47.43	74.00	-26.57	200	151	peak

RESTRICTED BANDEDGE (IEEE 802.11n HT40 mode, High Channel, Horizontal)



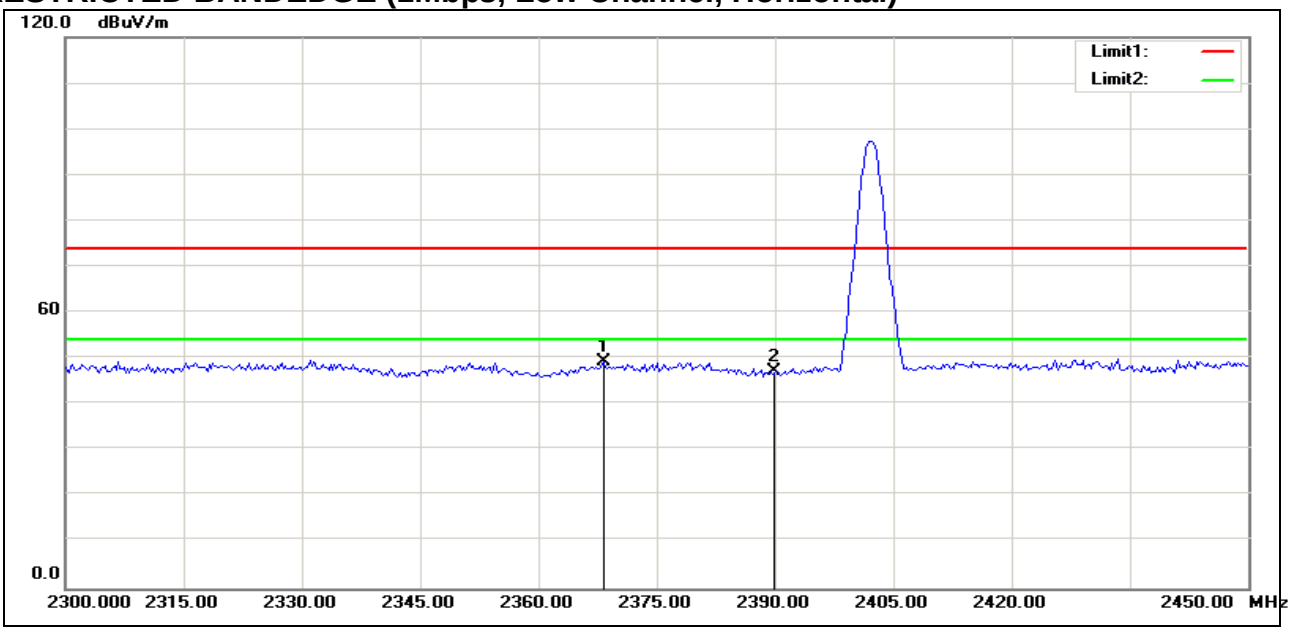
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	60.90	-8.35	52.55	74.00	-21.45	200	194	peak
2	2487.260	63.35	-8.32	55.03	74.00	-18.97	100	187	peak
3	2487.260	48.33	-8.32	40.01	54.00	-13.99	100	167	AVG

RESTRICTED BANDEDGE (IEEE 802.11n HT40 mode, High Channel, Vertical)



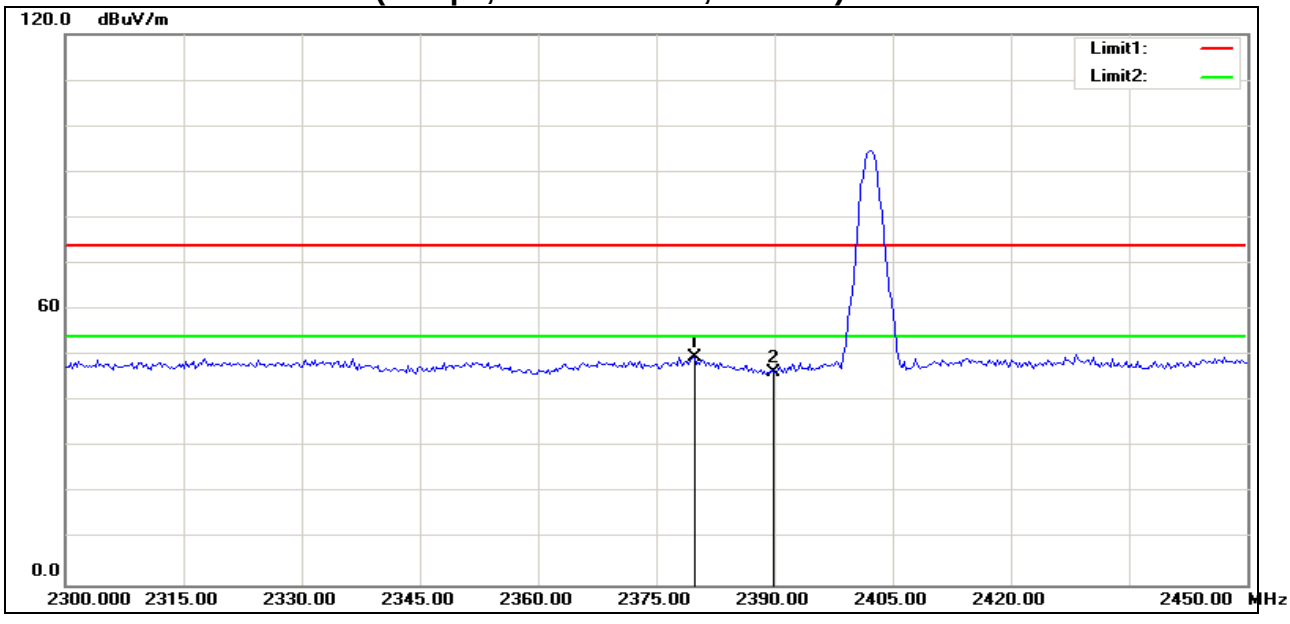
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	57.68	-8.35	49.33	74.00	-24.67	100	360	peak
2	2485.096	60.35	-8.34	52.01	74.00	-21.99	100	149	peak

RESTRICTED BANDEDGE (1Mbps, Low Channel, Horizontal)



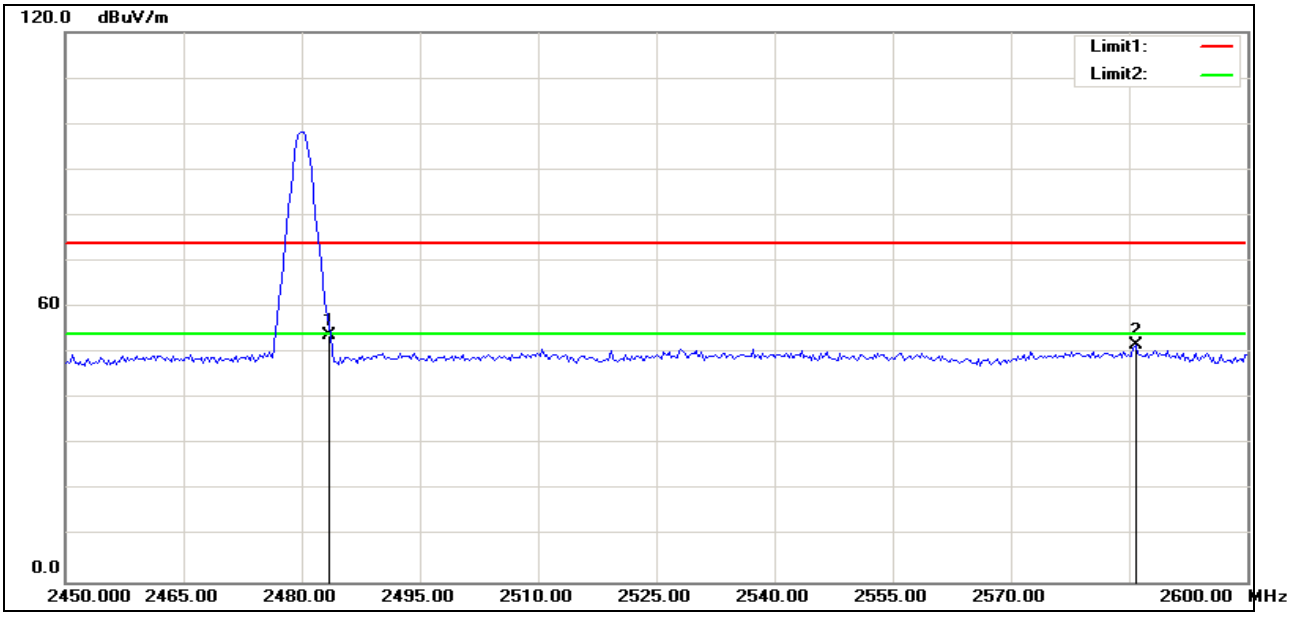
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2368.269	58.44	-9.09	49.35	74.00	-24.65	100	360	peak
2	2390.000	56.27	-8.95	47.32	74.00	-26.68	100	104	peak

RESTRICTED BANDEDGE (1Mbps, Low Channel, Vertical)



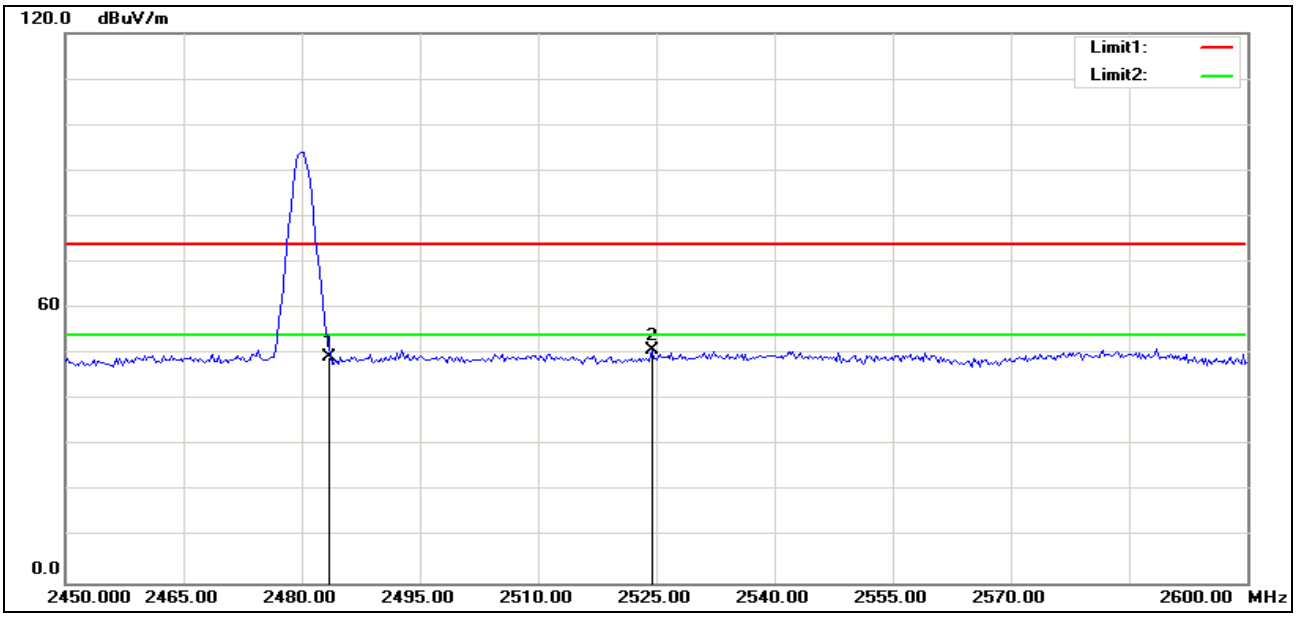
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2379.808	58.62	-9.01	49.61	74.00	-24.39	100	360	peak
2	2390.000	55.40	-8.95	46.45	74.00	-27.55	200	223	peak

RESTRICTED BANDEDGE (1Mbps Mode, High Channel, Horizontal)



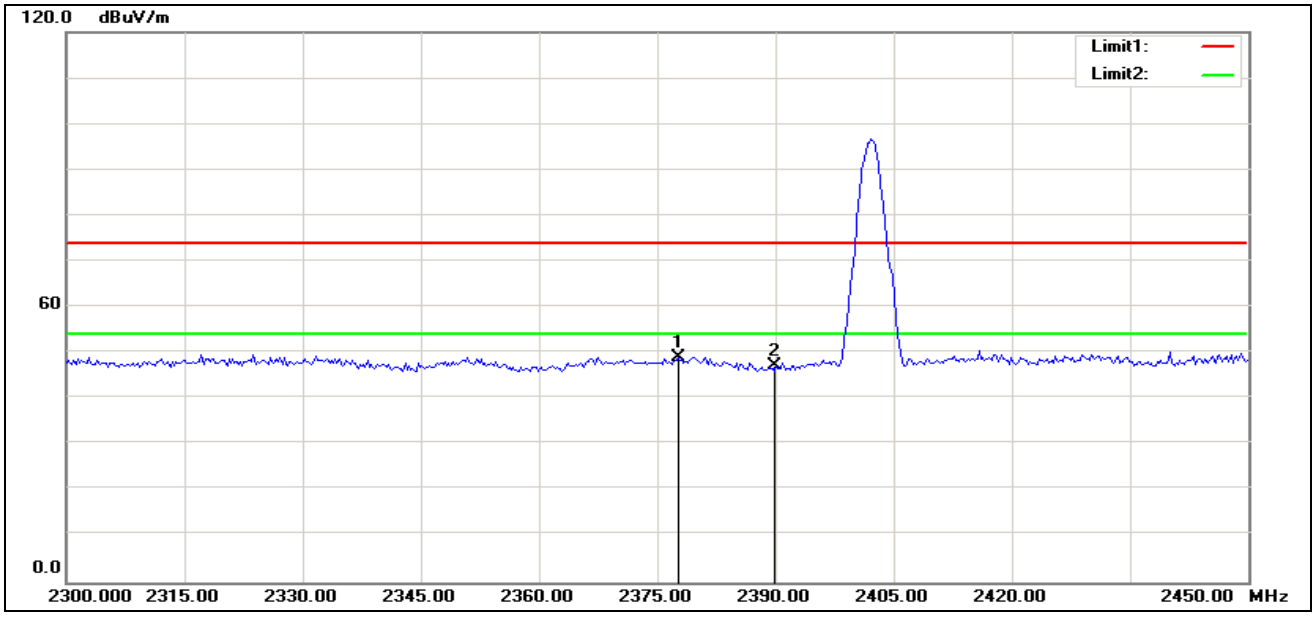
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	62.24	-8.35	53.89	74.00	-20.11	200	194	peak
2	2585.817	59.45	-7.81	51.64	74.00	-22.36	200	66	peak

RESTRICTED BANDEDGE (1Mbps, High Channel, Vertical)



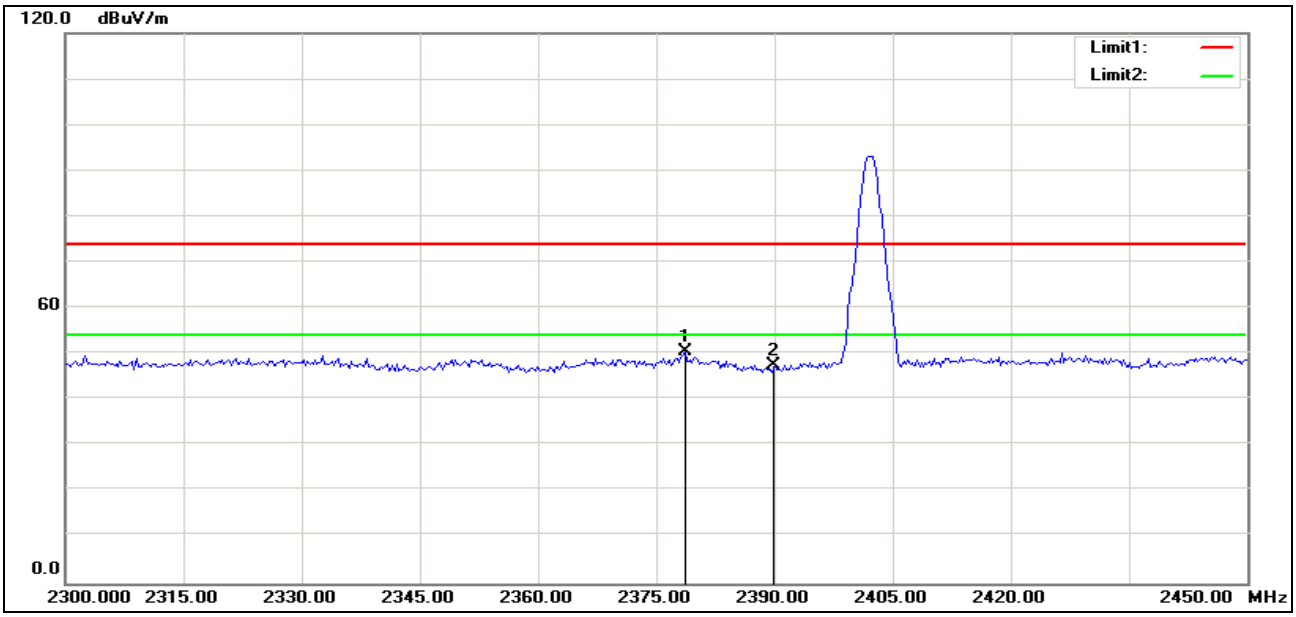
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	57.84	-8.35	49.49	74.00	-24.51	200	148	peak
2	2524.519	59.06	-8.12	50.94	74.00	-23.06	100	72	peak

RESTRICTED BANDEDGE (3Mbps, Low Channel, Horizontal)



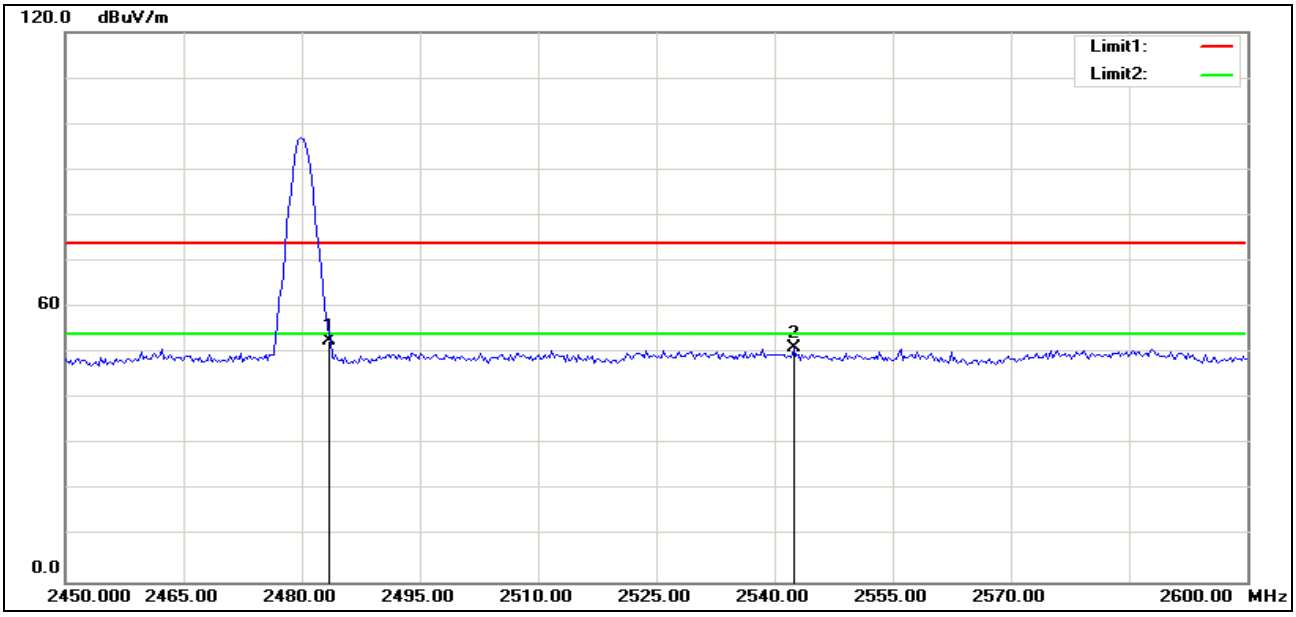
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2377.644	58.20	-9.03	49.17	74.00	-24.83	200	268	peak
2	2390.000	56.12	-8.95	47.17	74.00	-26.83	200	360	peak

RESTRICTED BANDEDGE (3Mbps, Low Channel, Vertical)



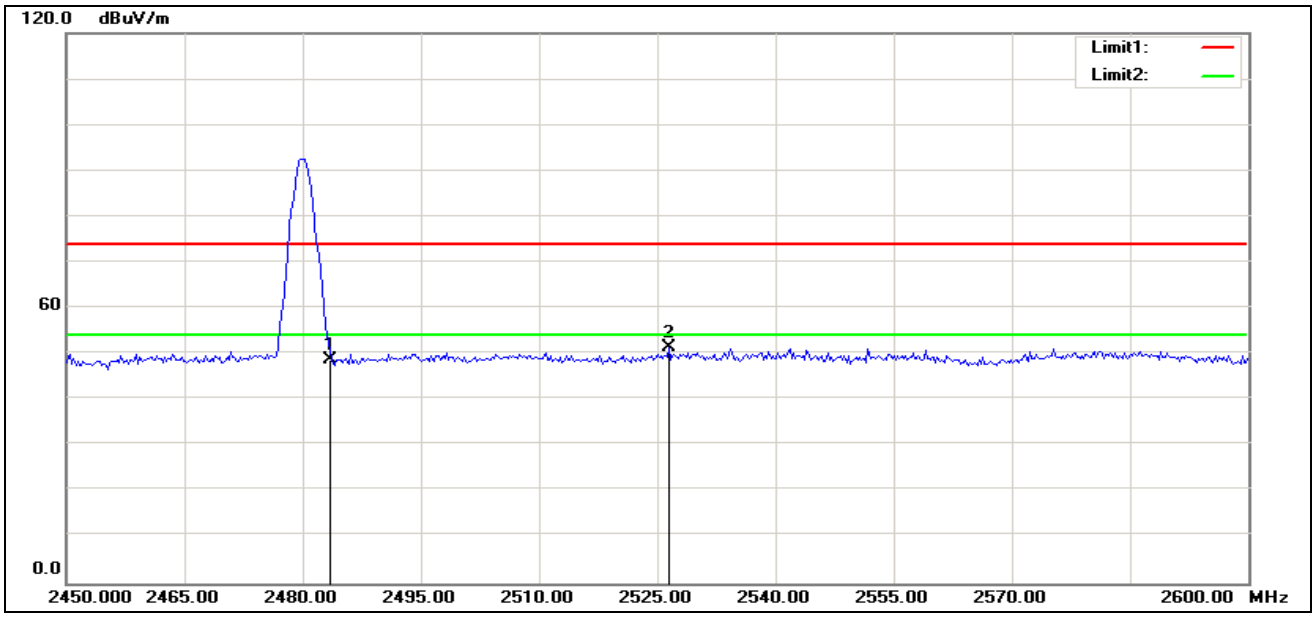
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2378.606	59.43	-9.02	50.41	74.00	-23.59	100	8	peak
2	2390.000	56.47	-8.95	47.52	74.00	-26.48	100	120	peak

RESTRICTED BANDEDGE (3Mbps, High Channel, Horizontal)



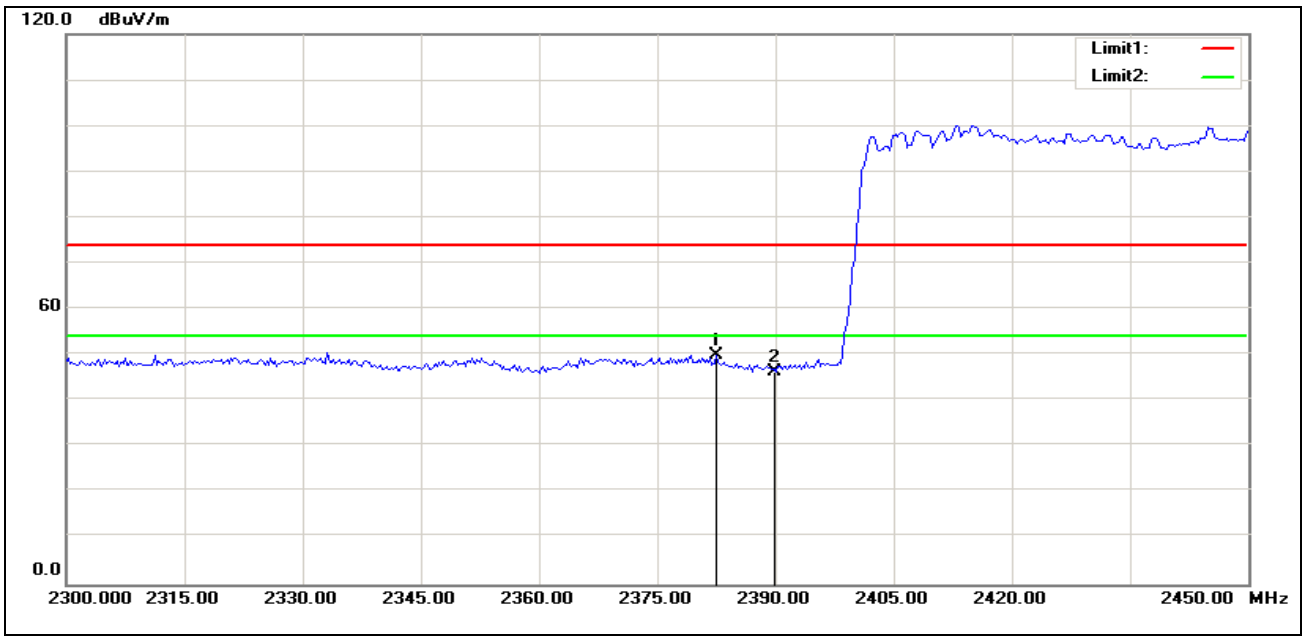
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	61.09	-8.35	52.74	74.00	-21.26	100	232	peak
2	2542.548	59.10	-8.03	51.07	74.00	-22.93	100	41	peak

RESTRICTED BANDEDGE (3Mbps, High Channel, Vertical)



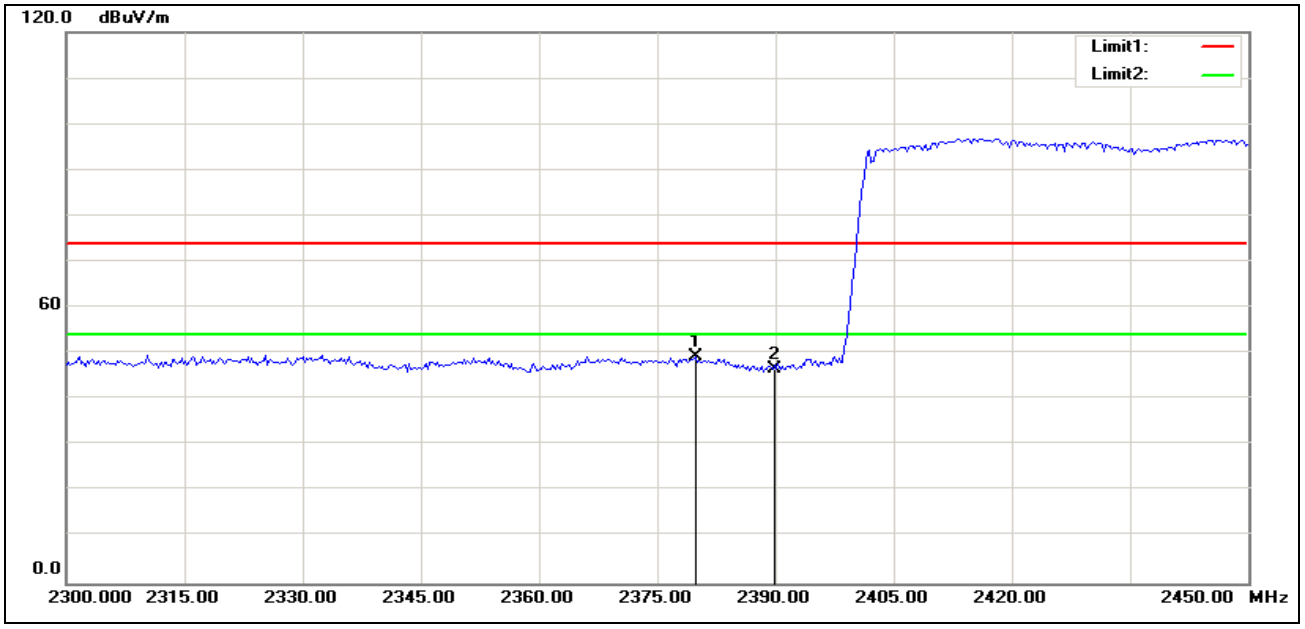
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	57.21	-8.35	48.86	74.00	-25.14	100	331	peak
2	2526.442	59.52	-8.11	51.41	74.00	-22.59	100	1	peak

RESTRICTED BANDEDGE (1Mbps, Low Channel, Horizontal, hopping)



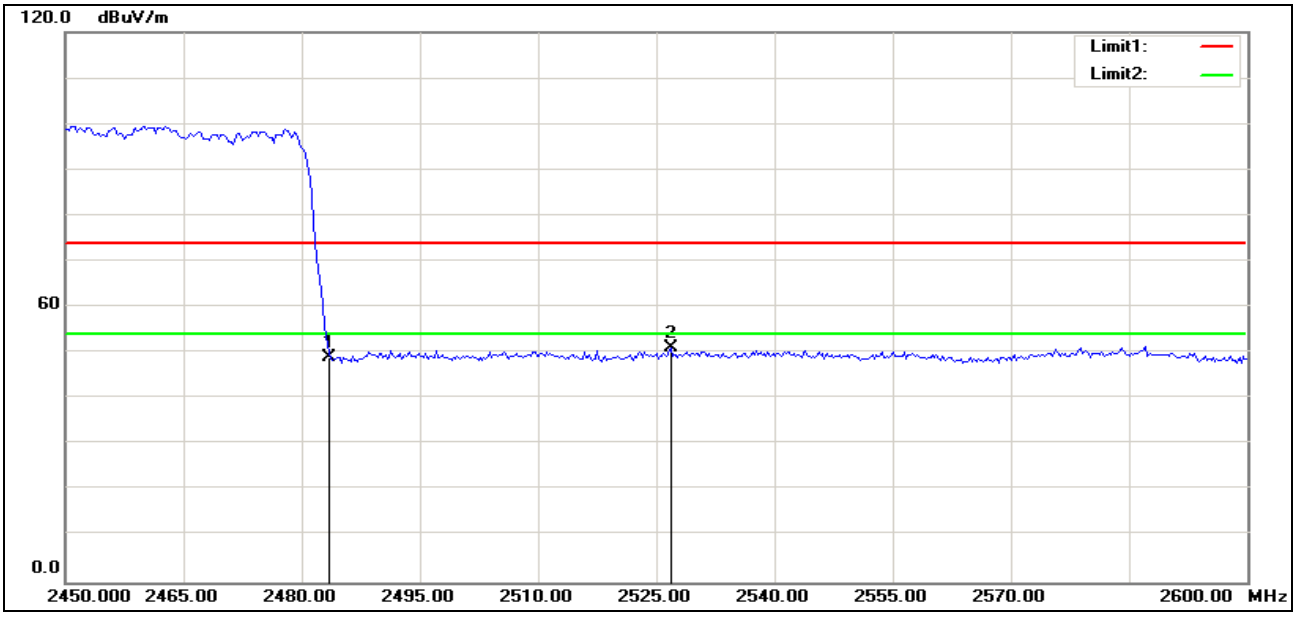
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2382.452	59.01	-8.99	50.02	74.00	-23.98	200	224	peak
2	2390.000	55.40	-8.95	46.45	74.00	-27.55	200	167	peak

RESTRICTED BANDEDGE (1Mbps, Low Channel, Vertical, hopping)



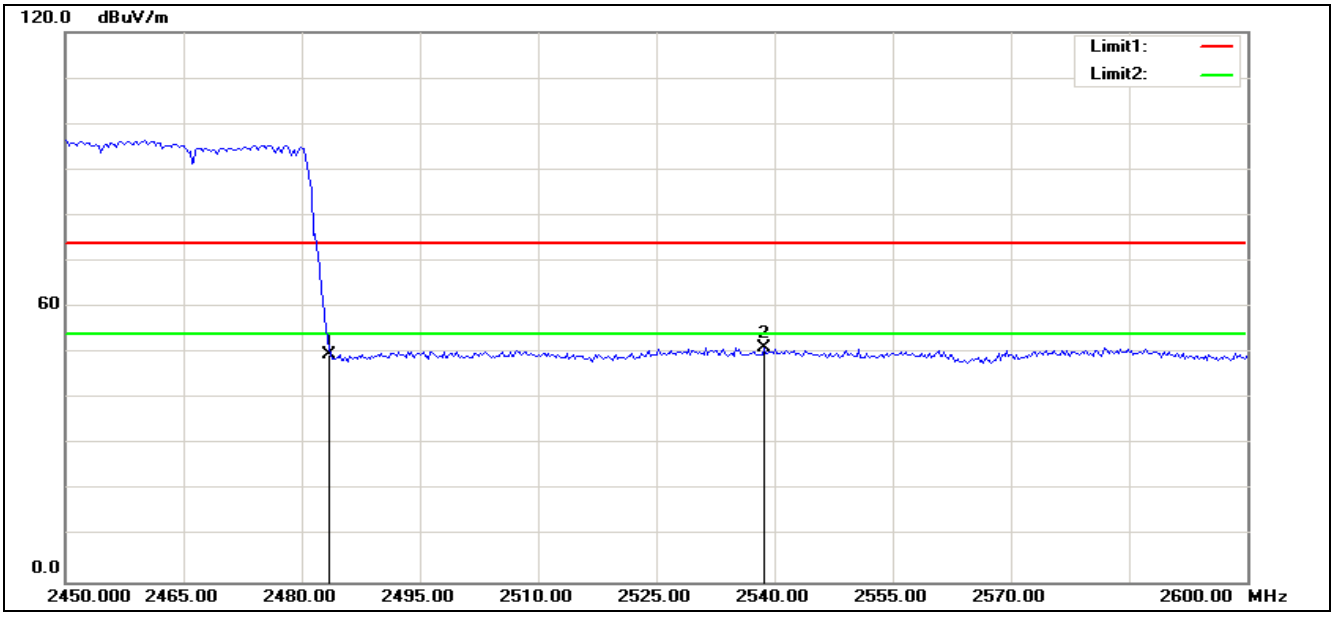
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2379.808	58.47	-9.01	49.46	74.00	-24.54	200	220	peak
2	2390.000	55.54	-8.95	46.59	74.00	-27.41	100	222	peak

RESTRICTED BANDEDGE (1Mbps Mode, High Channel, Horizontal, hopping)



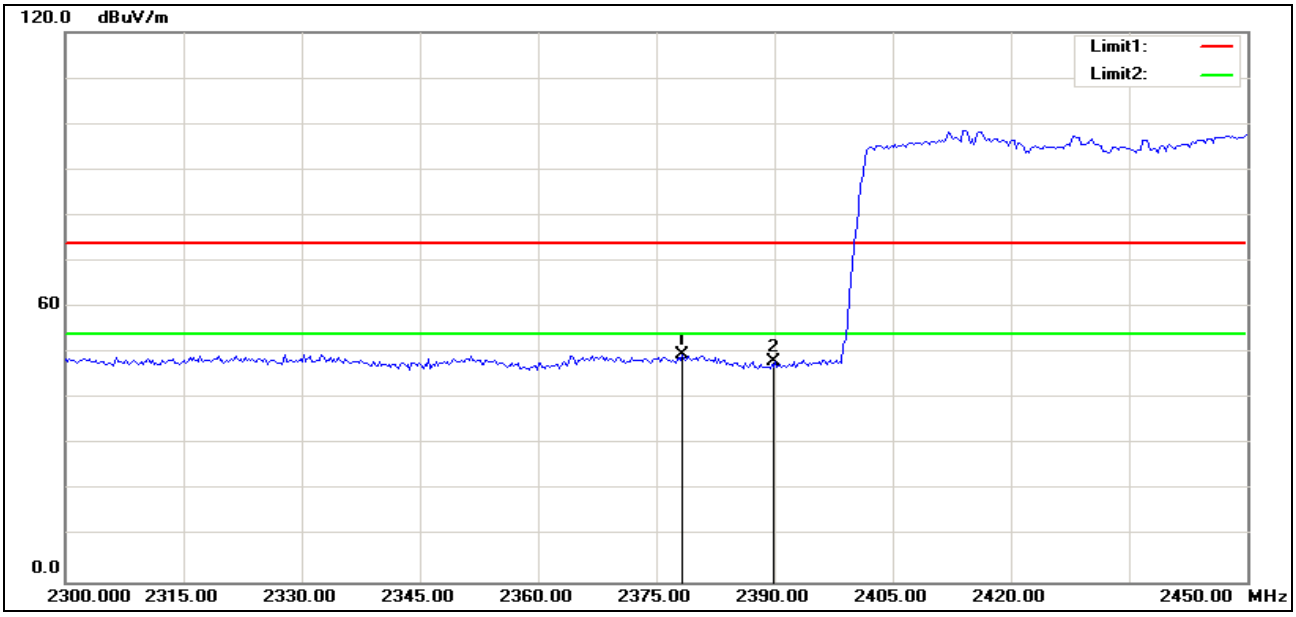
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	57.27	-8.35	48.92	74.00	-25.08	200	197	peak
2	2526.923	59.33	-8.11	51.22	74.00	-22.78	200	183	peak

RESTRICTED BANDEDGE (1Mbps, High Channel, Vertical, hopping)



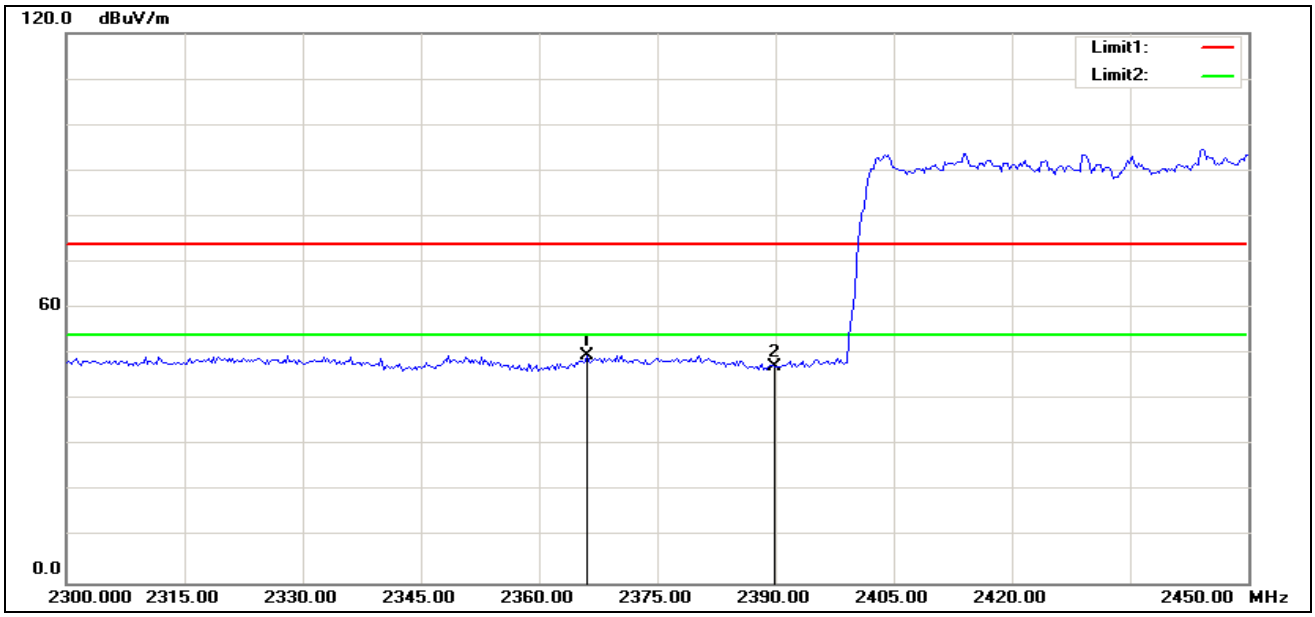
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	58.15	-8.35	49.80	74.00	-24.20	100	153	peak
2	2538.702	59.31	-8.05	51.26	74.00	-22.74	100	169	peak

RESTRICTED BANDEDGE (3Mbps, Low Channel, Horizontal, hopping)



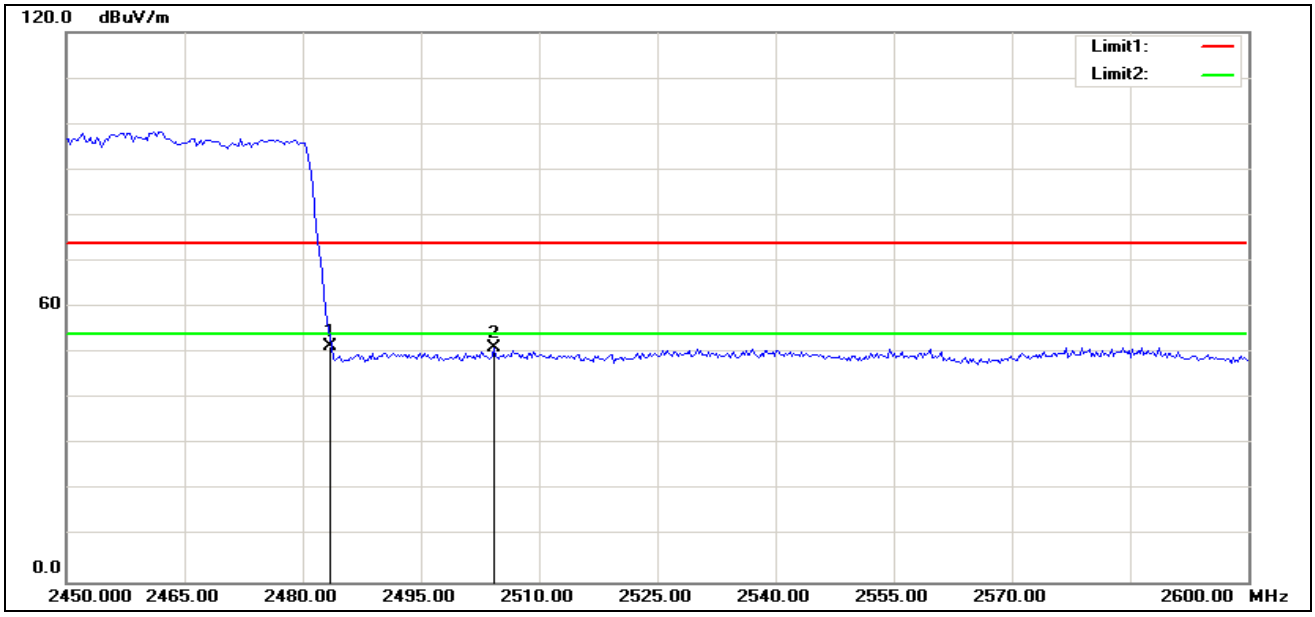
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2378.365	58.67	-9.02	49.65	74.00	-24.35	200	341	peak
2	2390.000	57.16	-8.95	48.21	74.00	-25.79	200	199	peak

RESTRICTED BANDEDGE (3Mbps, Low Channel, Vertical, hopping)



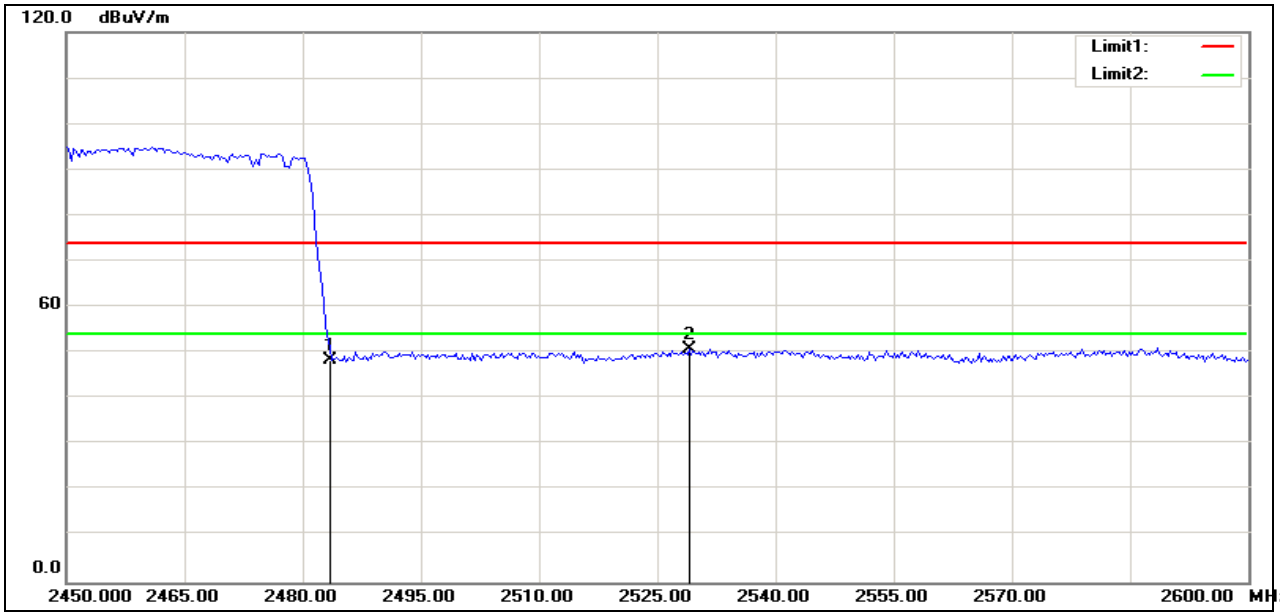
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2366.106	58.84	-9.10	49.74	74.00	-24.26	200	178	peak
2	2390.000	56.15	-8.95	47.20	74.00	-26.80	200	168	peak

RESTRICTED BANDEDGE (3Mbps, High Channel, Horizontal, hopping)



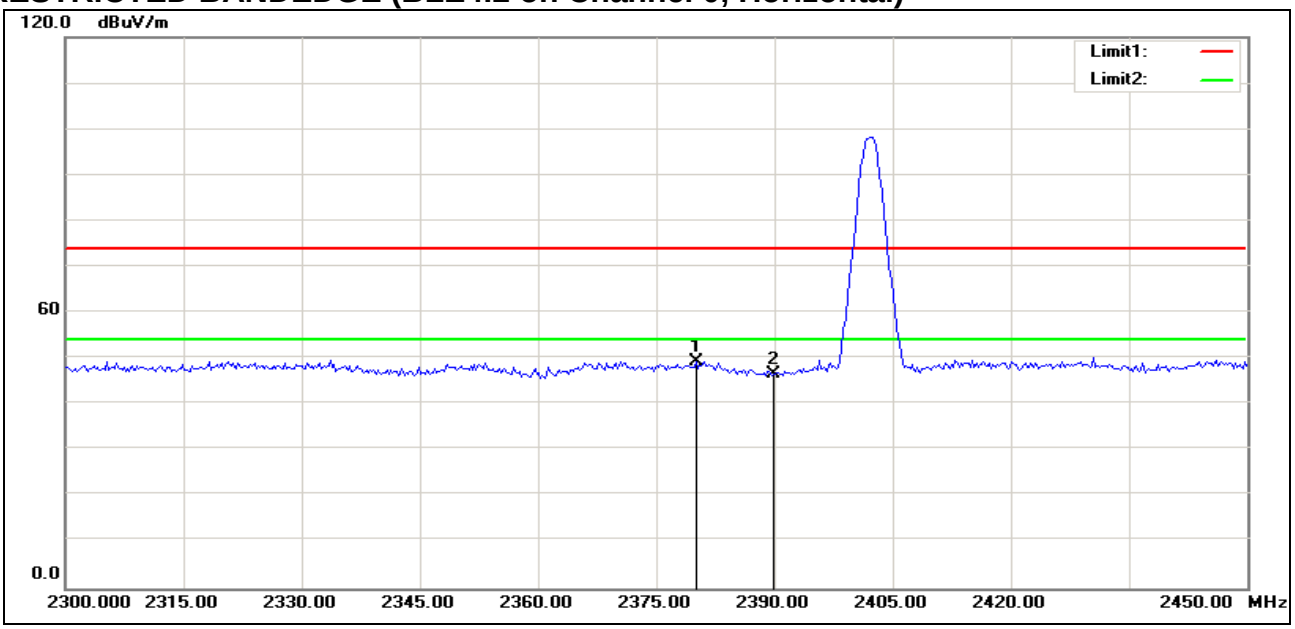
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	59.81	-8.35	51.46	74.00	-22.54	200	202	peak
2	2504.327	59.40	-8.22	51.18	74.00	-22.82	200	200	peak

RESTRICTED BANDEDGE (3Mbps, High Channel, Vertical, hopping)



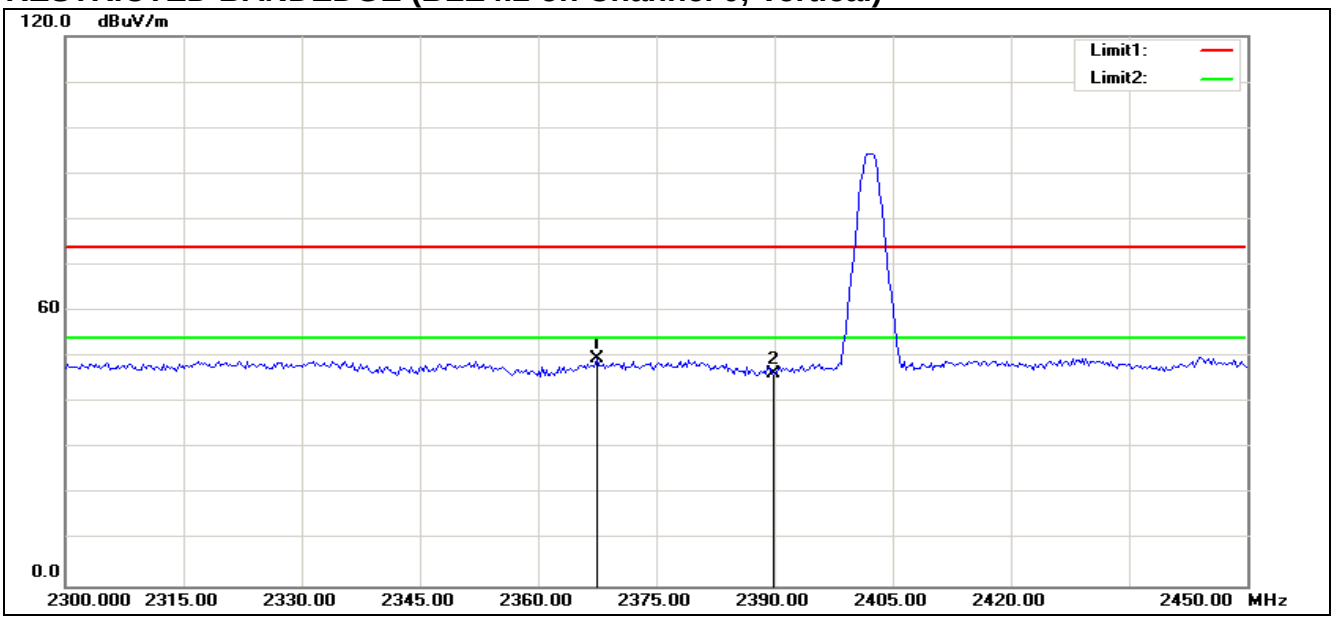
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	56.87	-8.35	48.52	74.00	-25.48	200	142	peak
2	2529.086	59.08	-8.10	50.98	74.00	-23.02	200	139	peak

RESTRICTED BANDEDGE (BLE4.2 on Channel 0, Horizontal)



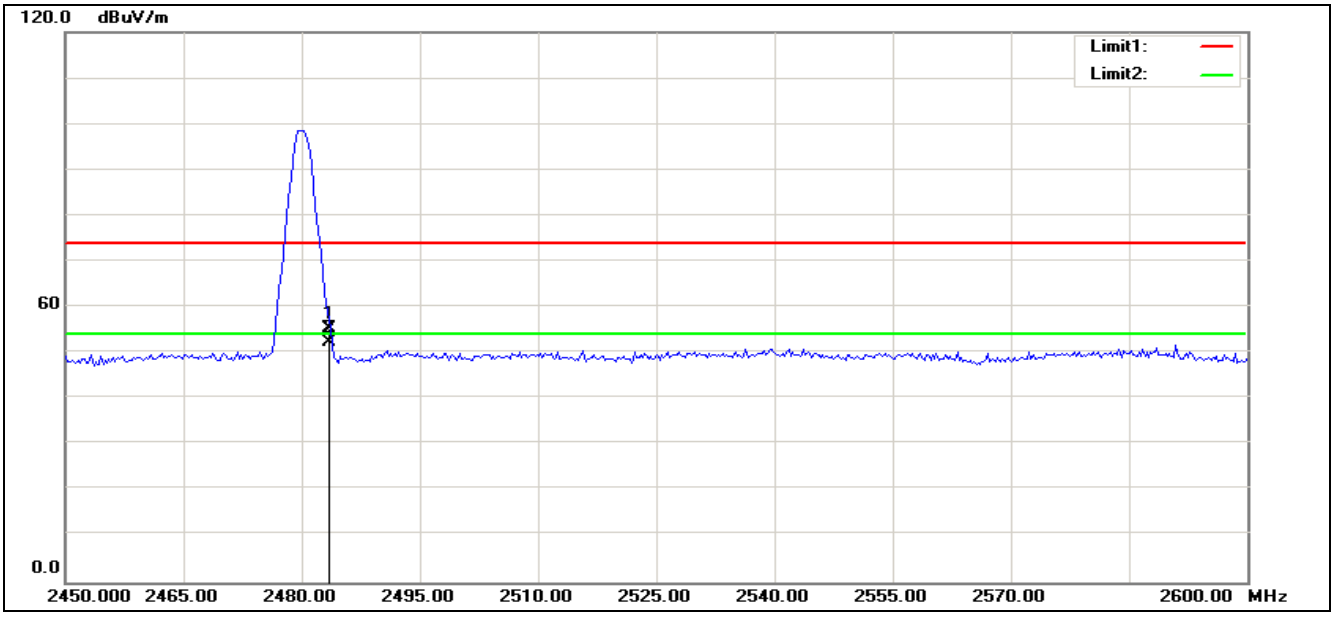
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2380.048	58.41	-9.01	49.40	74.00	-24.60	200	321	peak
2	2390.000	55.48	-8.95	46.53	74.00	-27.47	200	207	peak

RESTRICTED BANDEDGE (BLE4.2 on Channel 0, Vertical)



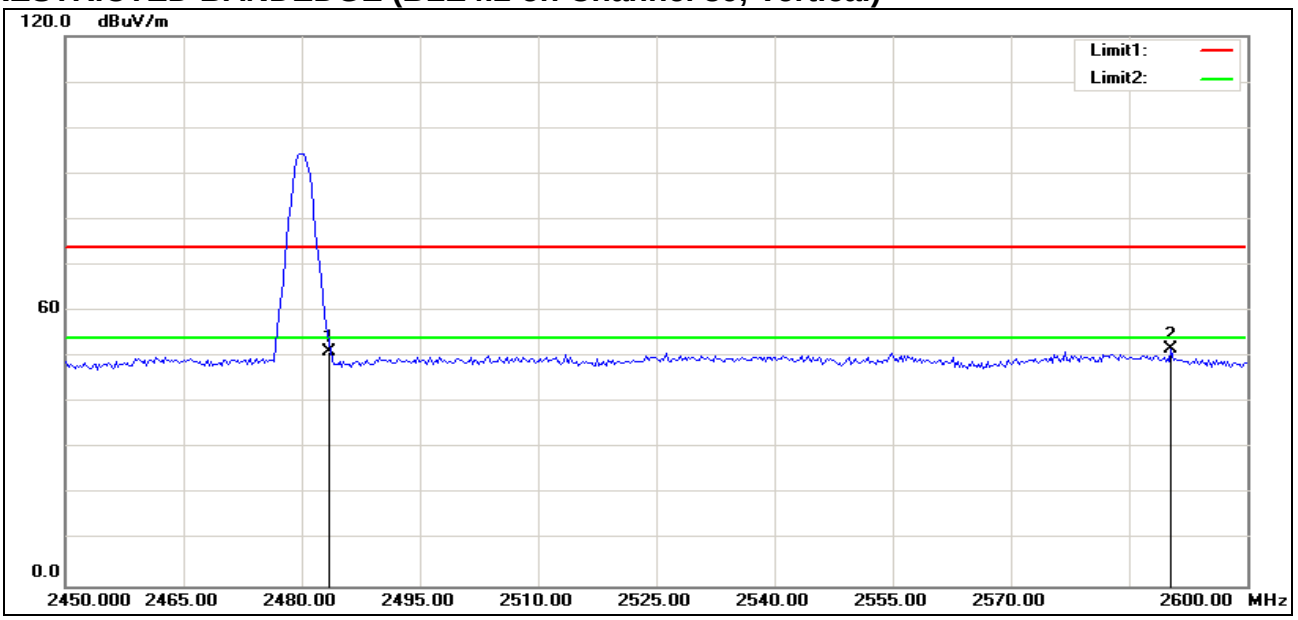
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2367.548	58.62	-9.09	49.53	74.00	-24.47	200	228	peak
2	2390.000	55.40	-8.95	46.45	74.00	-27.55	200	342	peak

RESTRICTED BANDEDGE (BLE4.2 on Channel 39, Horizontal)



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	63.68	-8.35	55.33	74.00	-18.67	200	241	peak
2	2483.500	60.81	-8.35	52.46	54.00	-1.54	100	231	AVG

RESTRICTED BANDEDGE (BLE4.2 on Channel 39, Vertical)



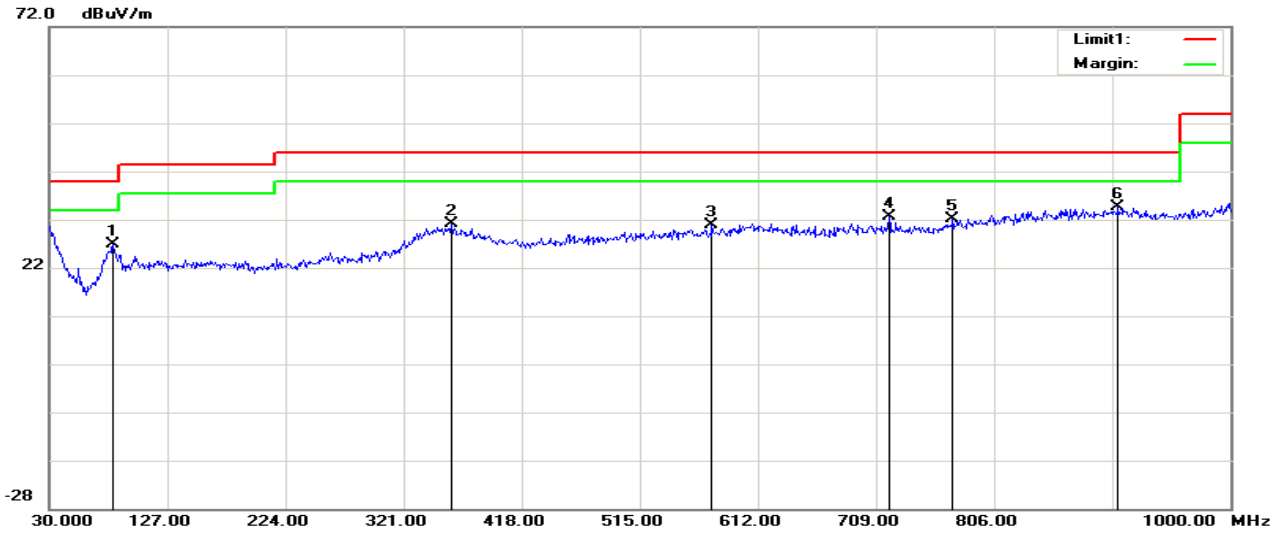
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	59.51	-8.35	51.16	74.00	-22.84	200	140	peak
2	2590.385	59.66	-7.79	51.87	74.00	-22.13	200	299	peak

TEST RESULTS

Below 30MHz and above 18GHz. The measured value have enough margin over 20dB than the limit, therefore they are not reported.

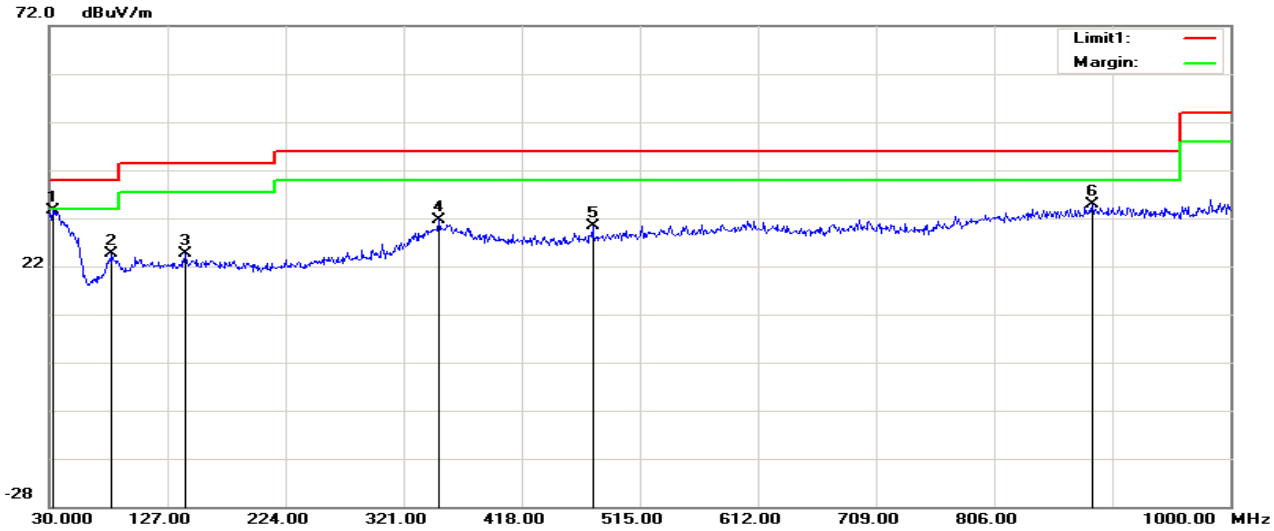
30MHz-1GHz

Operation Mode:	Normal Link	**Test Date:**	2018-8-22
Temperature:	27°C	**Tested by:**	Lily.Wang
Humidity:	52% RH	**Polarity:**	Hor.



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	82.3800	11.72	15.17	26.89	40.00	-13.11	200	23	peak
2	360.7700	5.42	25.79	31.21	46.00	-14.79	100	244	peak
3	574.1700	5.38	25.58	30.96	46.00	-15.04	200	0	peak
4	719.6700	6.92	25.63	32.55	46.00	-13.45	200	135	peak
5	772.0500	5.91	26.34	32.25	46.00	-13.75	100	360	peak
6	907.8500	5.64	28.92	34.56	46.00	-11.44	100	153	peak

Operation Mode:	Normal Link	Test Date:	2018-8-22
Temperature:	27°C	Tested by:	Lily.Wang
Humidity:	52% RH	Polarity:	Ver.



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	32.9100	9.84	23.75	33.59	40.00	-6.41	200	121	peak
2	81.4100	9.56	15.07	24.63	40.00	-15.37	200	0	peak
3	141.5500	6.67	17.86	24.53	43.50	-18.97	200	236	peak
4	350.1000	5.33	26.30	31.63	46.00	-14.37	100	305	peak
5	476.2000	6.42	24.03	30.45	46.00	-15.55	300	91	peak
6	886.5100	6.04	28.84	34.88	46.00	-11.12	300	93	peak

Remark:

1. Measuring frequencies from 30 MHz to the 1GHz.(no emission found from the lowest internal used/generated frequency to 30MHz)
2. Radiated emissions measured were made with an instrument using peak/quasi-peak detector mode.
3. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit or as required by the applicant.
4. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
5. Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).

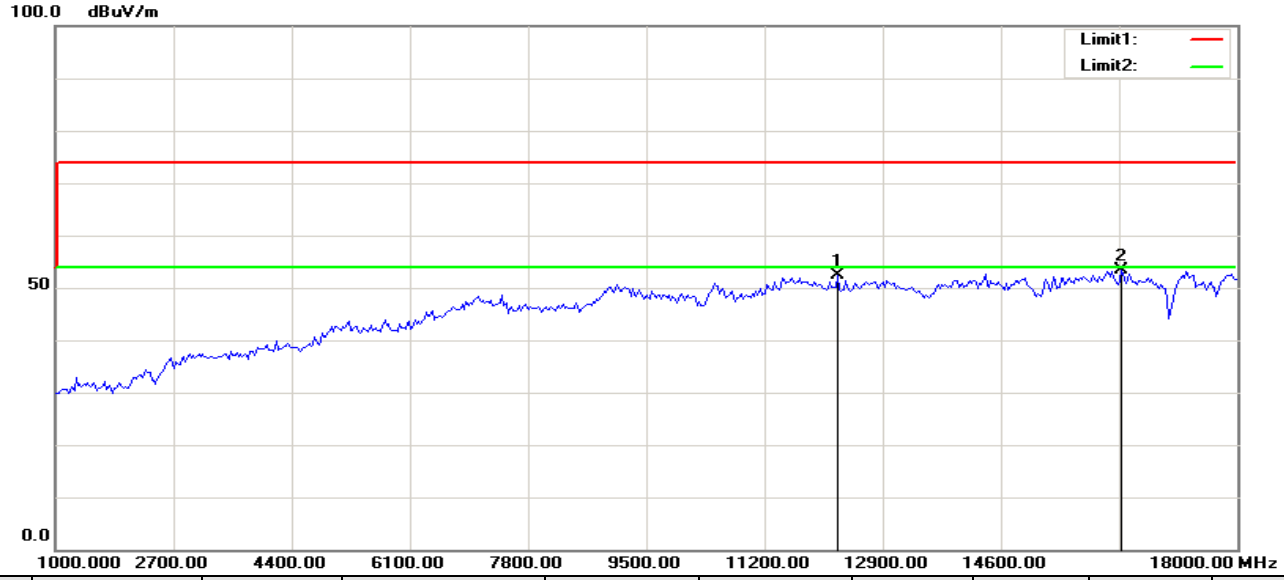
Above 1 GHz

Operation Mode: IEEE802.11b / TX (CH Low) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

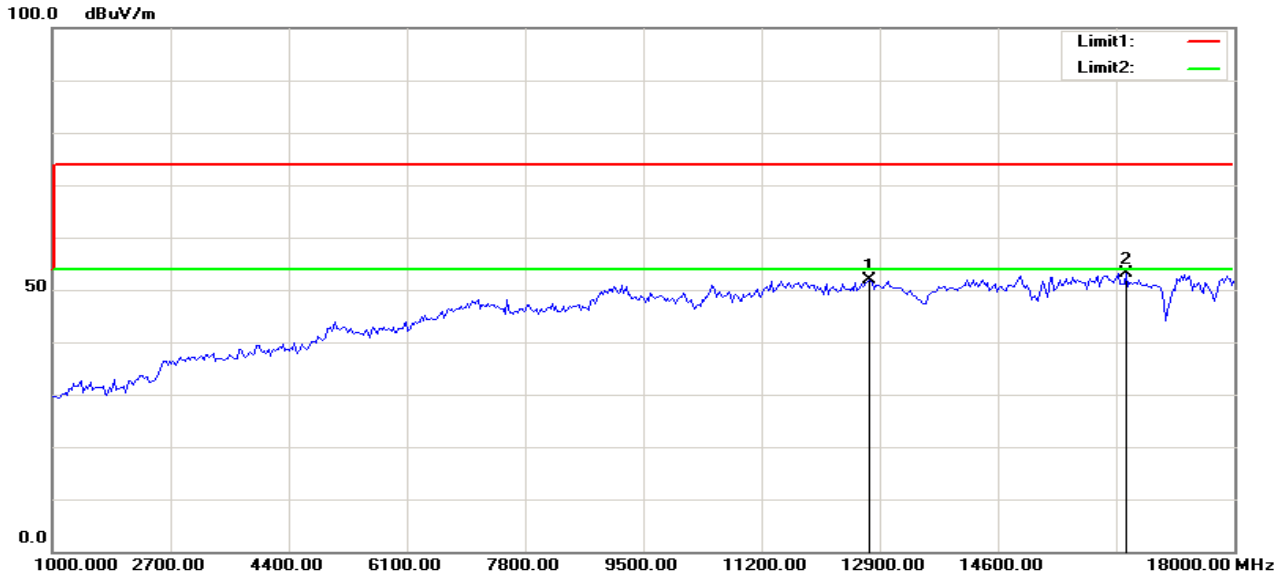
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	12251.603	40.44	11.96	52.40	74.00	-21.60	200	76	peak
2	16338.141	38.93	14.41	53.34	74.00	-20.66	100	345	peak

Vertical



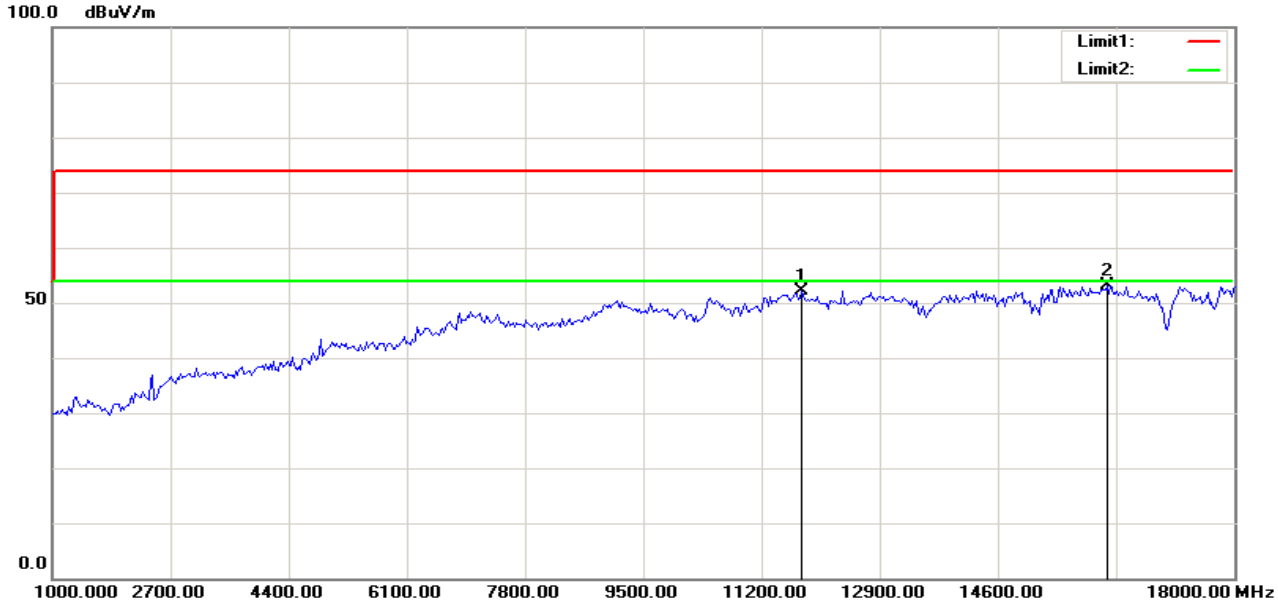
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	12741.987	39.73	12.15	51.88	74.00	-22.12	100	78	peak
2	16447.115	38.71	14.45	53.16	74.00	-20.84	200	320	peak

Operation Mode: IEEE802.11b / TX (CH Mid) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

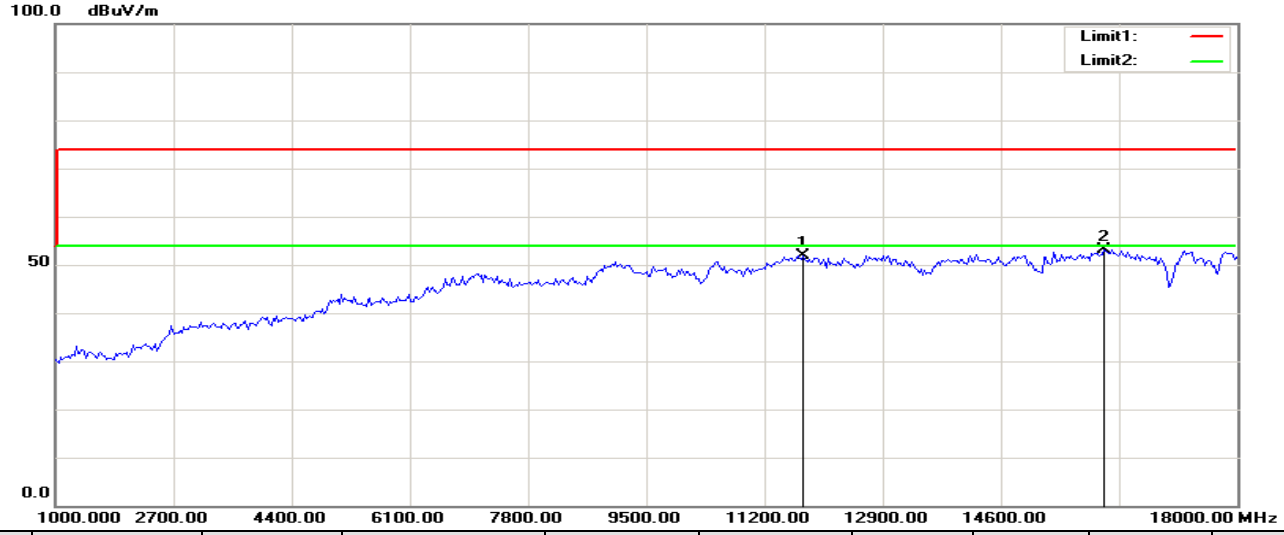
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11788.461	40.38	11.78	52.16	74.00	-21.84	200	89	peak
2	16174.680	38.77	14.36	53.13	74.00	-20.87	100	360	peak

Vertical



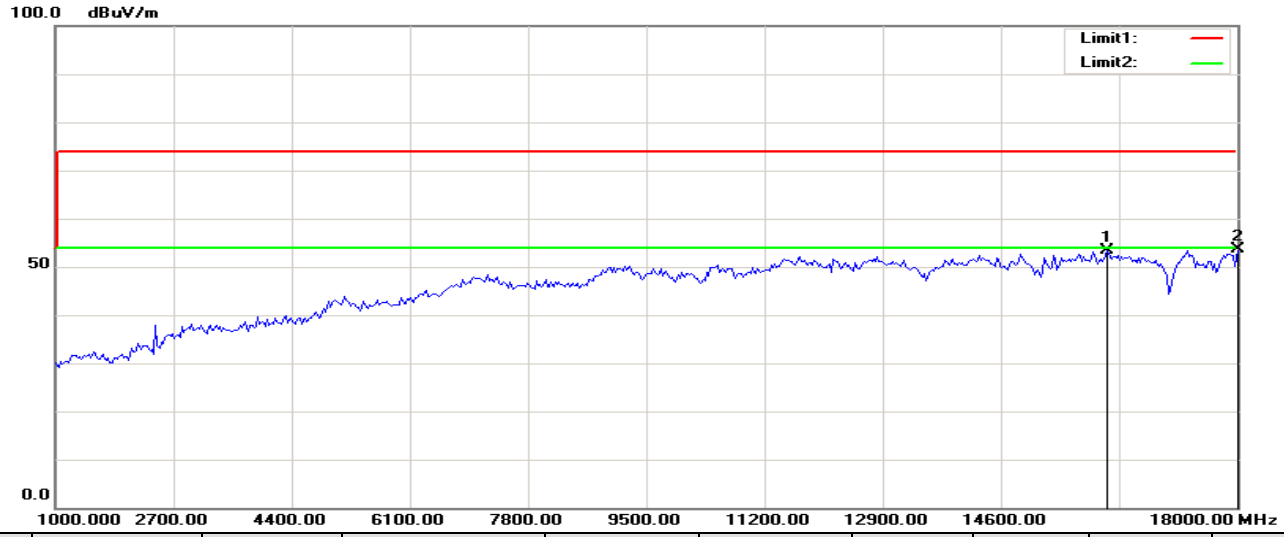
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11761.218	40.16	11.73	51.89	74.00	-22.11	200	241	peak
2	16092.949	38.82	14.33	53.15	74.00	-20.85	100	359	peak

Operation Mode: IEEE802.11b / TX (CH High) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

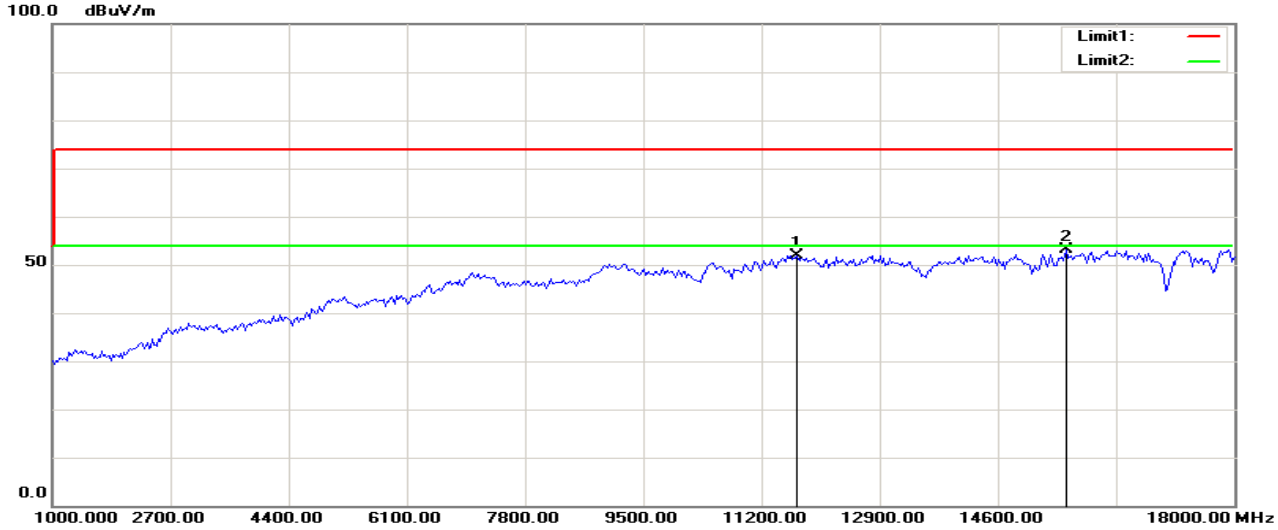
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	16120.192	39.11	14.34	53.45	74.00	-20.55	100	223	peak
2	18000.000	35.40	18.13	53.53	74.00	-20.47	100	321	peak

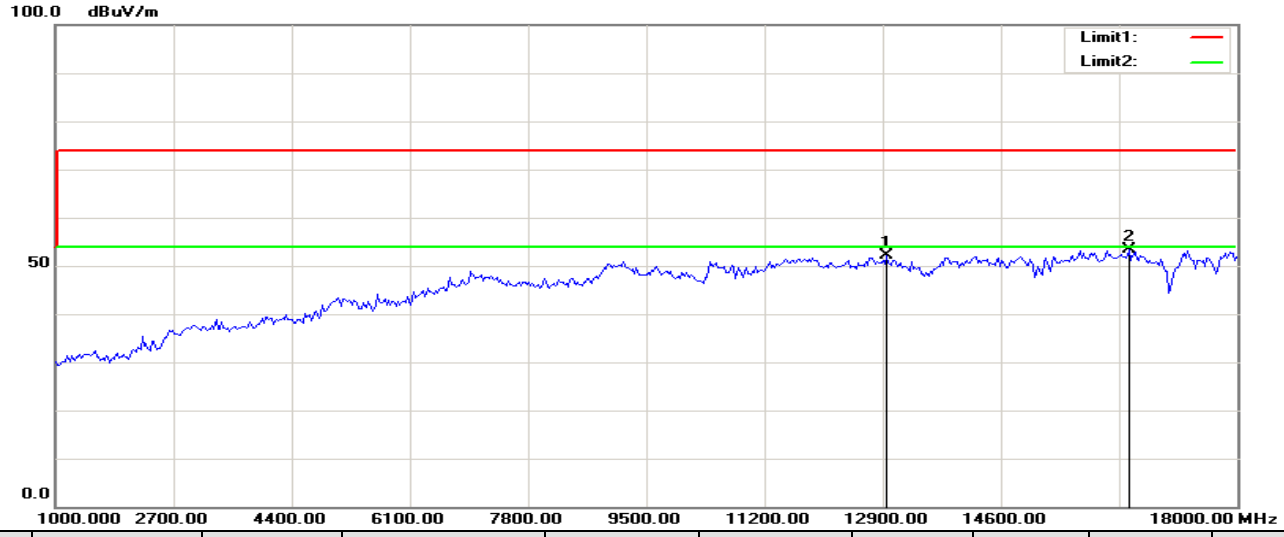
Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	11706.731	40.36	11.64	52.00	74.00	-22.00	200	49	peak
2	15575.320	39.32	13.84	53.16	74.00	-20.84	200	360	peak

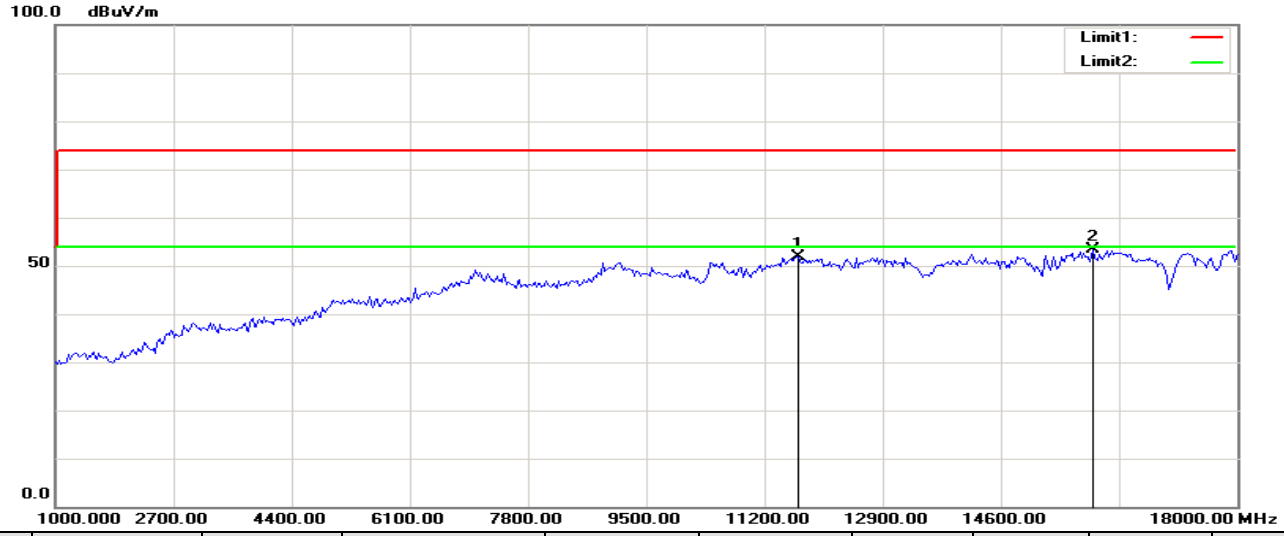
Operation Mode:	IEEE802.11g / TX (CH Low)	**Test Date:**	2018-8-18
Temperature:	27°C	**Tested by:**	James.Yan
Humidity:	52 % RH	**Polarity:**	Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	12959.936	39.58	12.48	52.06	74.00	-21.94	100	359	peak
2	16447.115	39.02	14.45	53.47	74.00	-20.53	200	209	peak

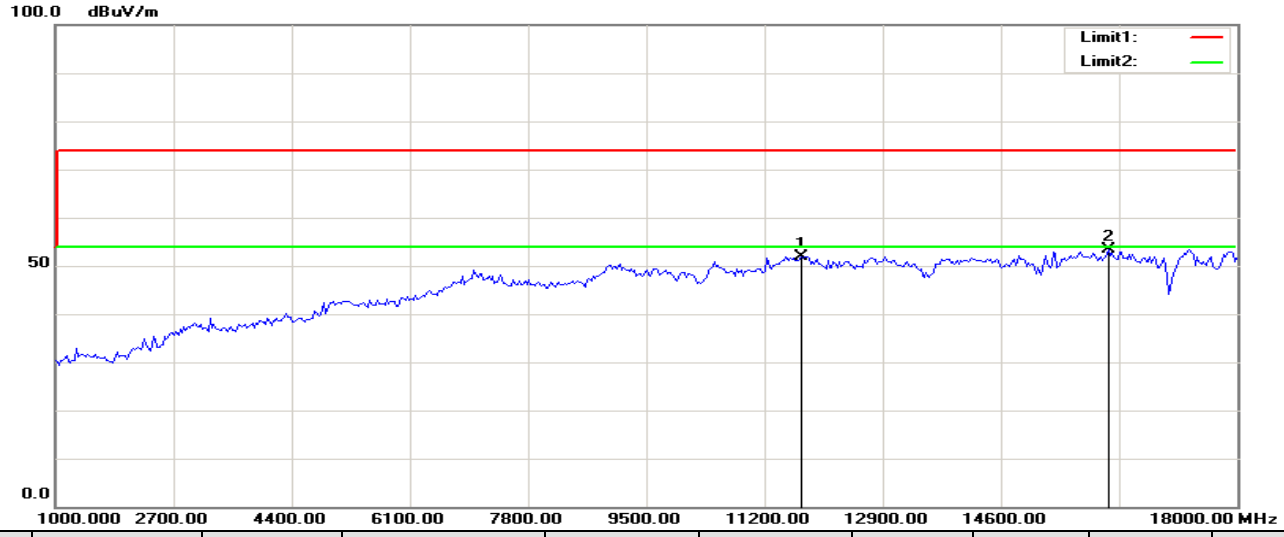
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11679.487	40.28	11.60	51.88	74.00	-22.12	200	0	peak
2	15929.487	39.19	14.22	53.41	74.00	-20.59	200	360	peak

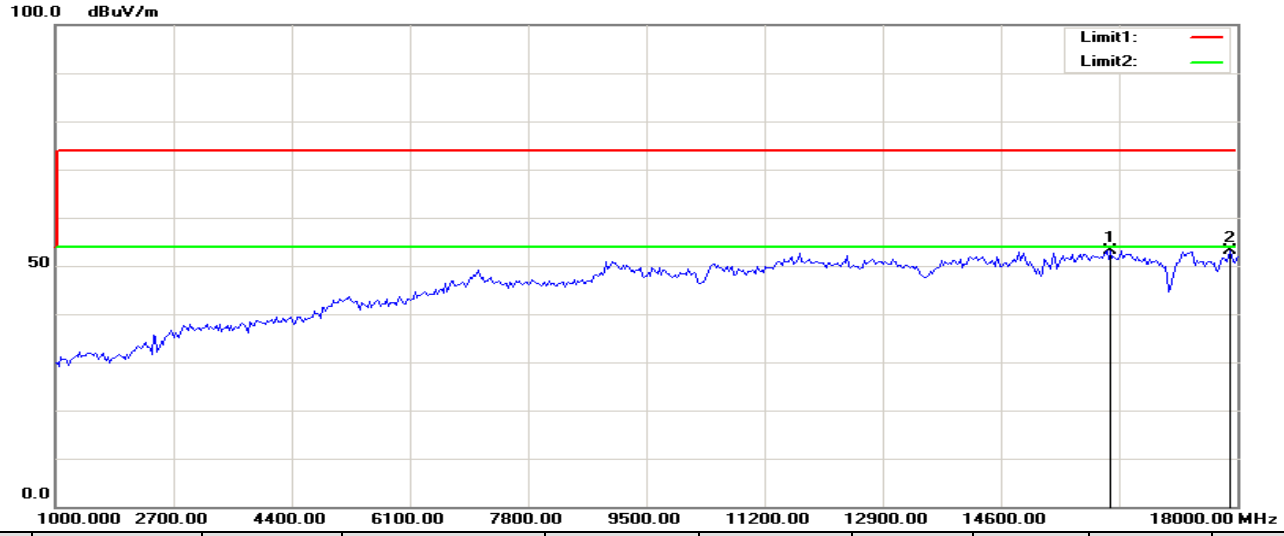
Operation Mode: IEEE802.11g / TX (CH Mid)
Test Date: 2018-8-18
Temperature: 27°C
Tested by: James.Yan
Humidity: 52 % RH
Polarity: Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11733.974	40.30	11.69	51.99	74.00	-22.01	200	81	peak
2	16147.436	39.13	14.35	53.48	74.00	-20.52	100	44	peak

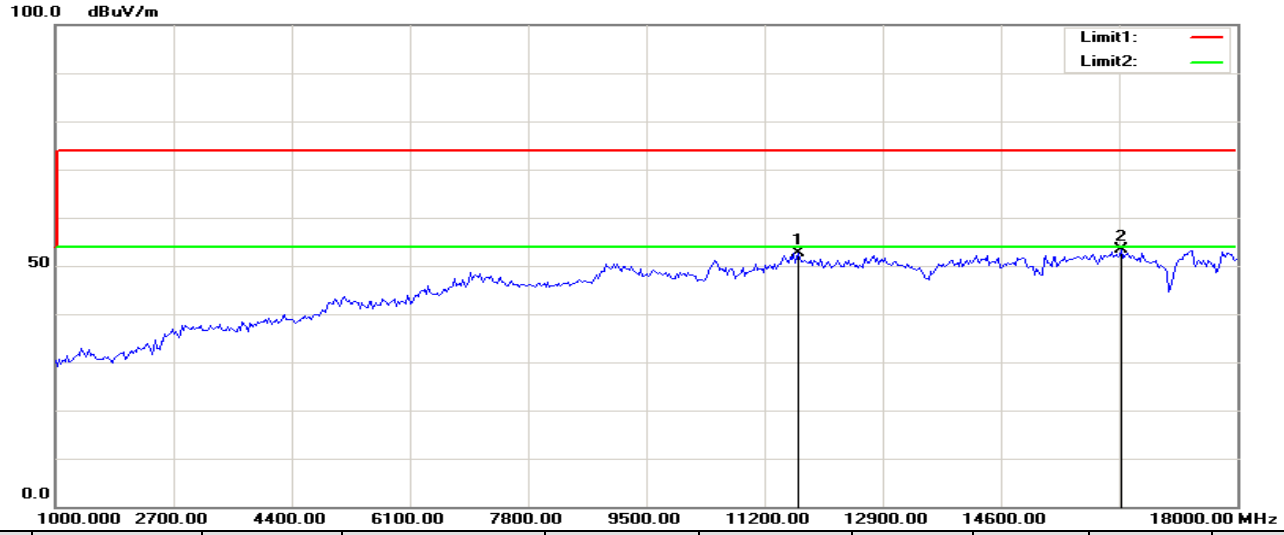
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	16174.680	38.81	14.36	53.17	74.00	-20.83	200	278	peak
2	17891.026	35.21	18.02	53.23	74.00	-20.77	200	320	peak

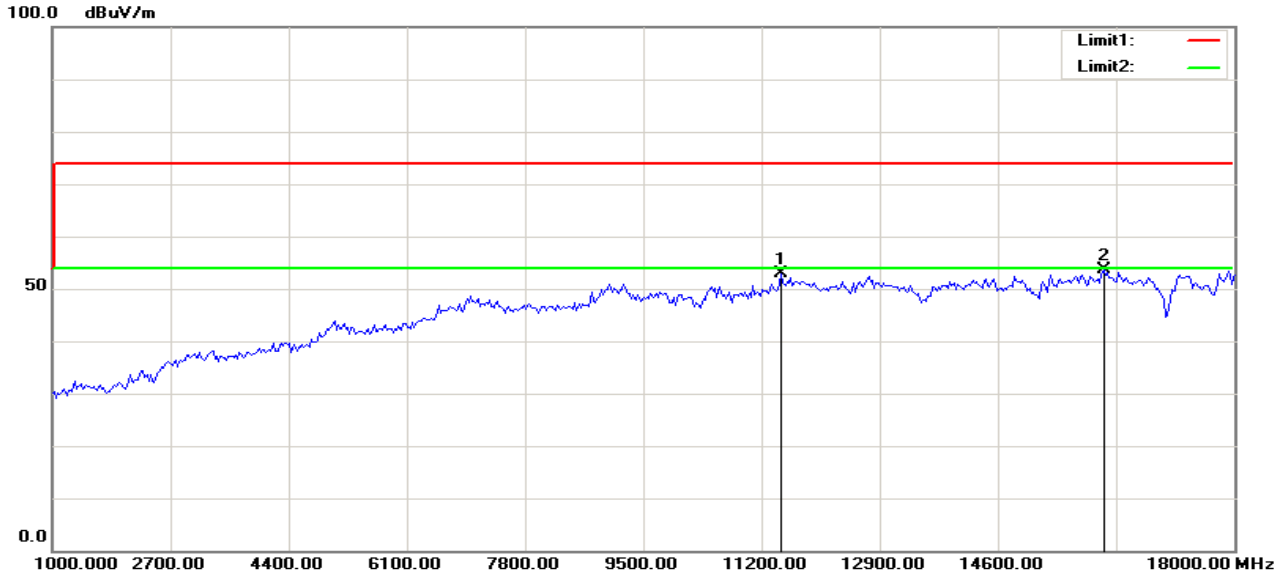
Operation Mode: IEEE802.11g / TX (CH High)
Test Date: 2018-8-18
Temperature: 27°C
Tested by: James.Yan
Humidity: 52 % RH
Polarity: Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11679.487	41.03	11.60	52.63	74.00	-21.37	200	360	peak
2	16338.141	38.86	14.41	53.27	74.00	-20.73	100	2	peak

Vertical



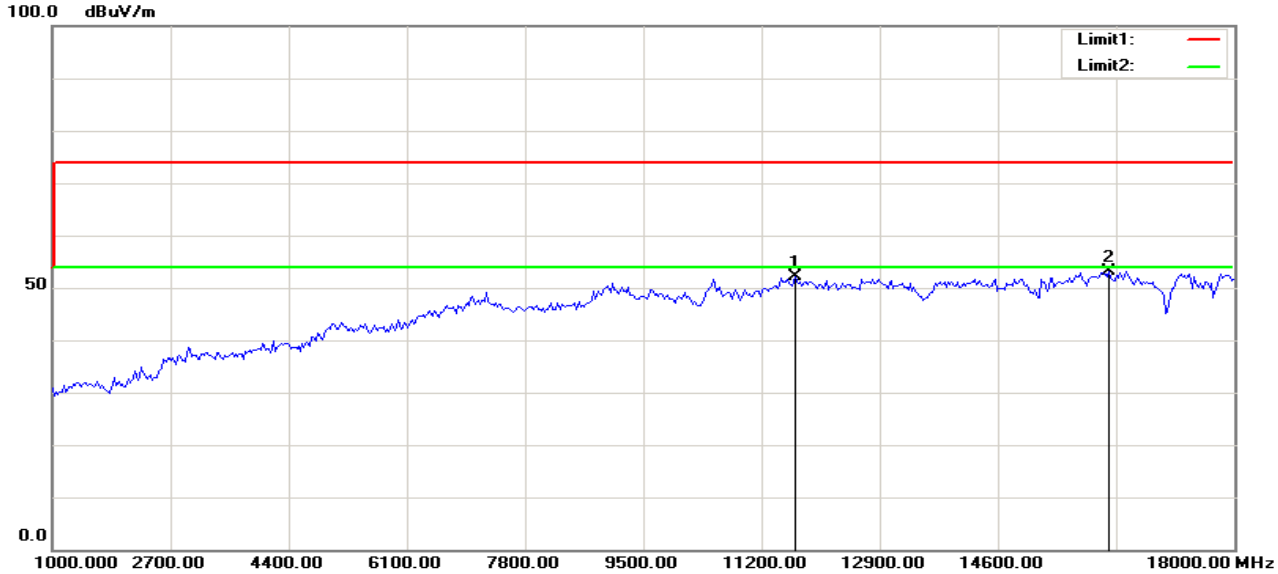
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11488.782	41.56	11.26	52.82	74.00	-21.18	200	26	peak
2	16120.192	39.19	14.34	53.53	74.00	-20.47	200	360	peak

Operation Mode: IEEE802.11n HT20 / TX (CH Low) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

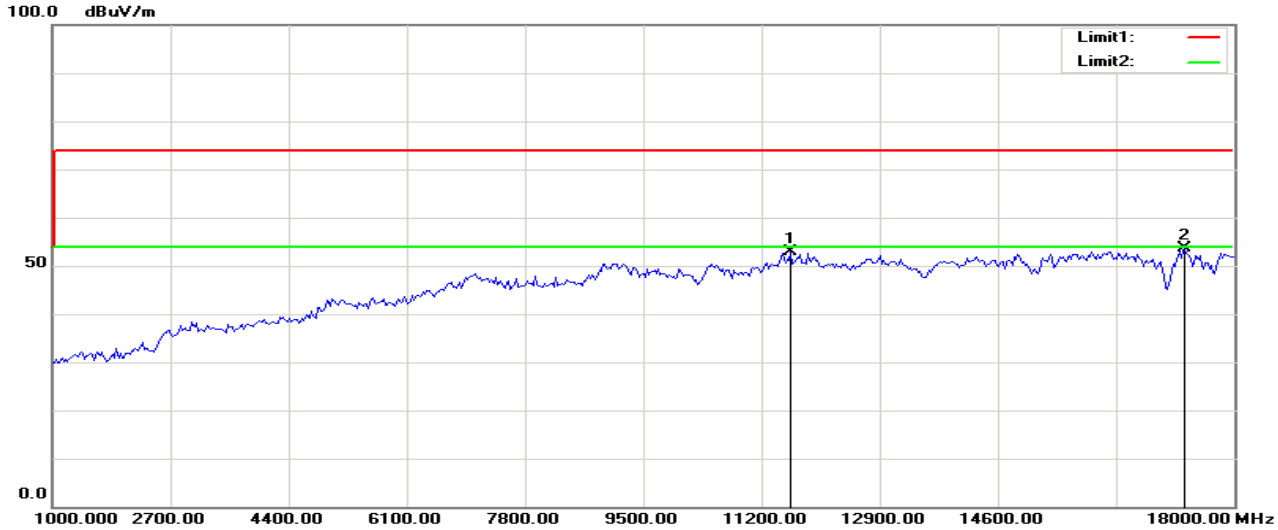
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11679.487	40.45	11.60	52.05	74.00	-21.95	200	0	peak
2	16201.923	38.79	14.37	53.16	74.00	-20.84	100	162	peak

Vertical



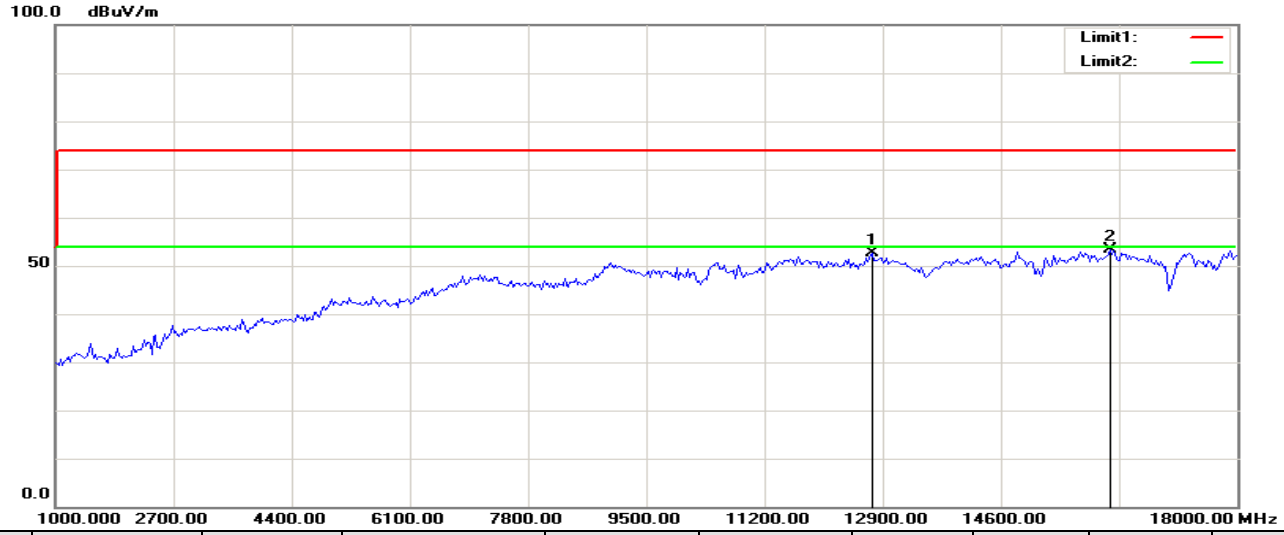
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11625.000	41.27	11.50	52.77	74.00	-21.23	200	43	peak
2	17291.667	36.76	16.78	53.54	74.00	-20.46	100	135	peak

Operation Mode: IEEE802.11n HT20 / TX (CH Mid) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

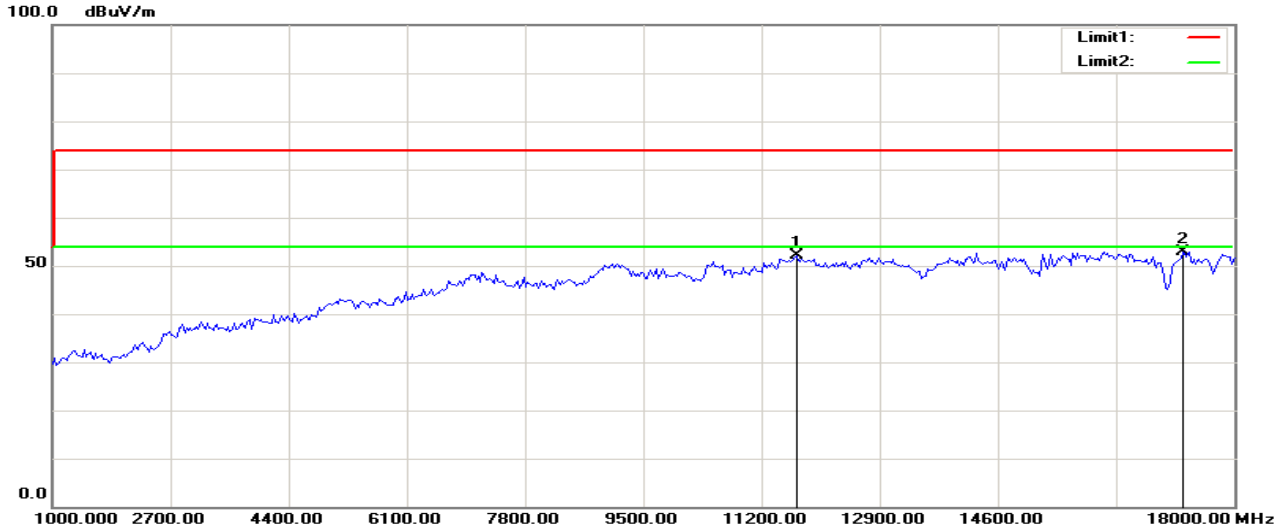
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	12741.987	40.36	12.15	52.51	74.00	-21.49	100	360	peak
2	16174.680	38.96	14.36	53.32	74.00	-20.68	200	186	peak

Vertical



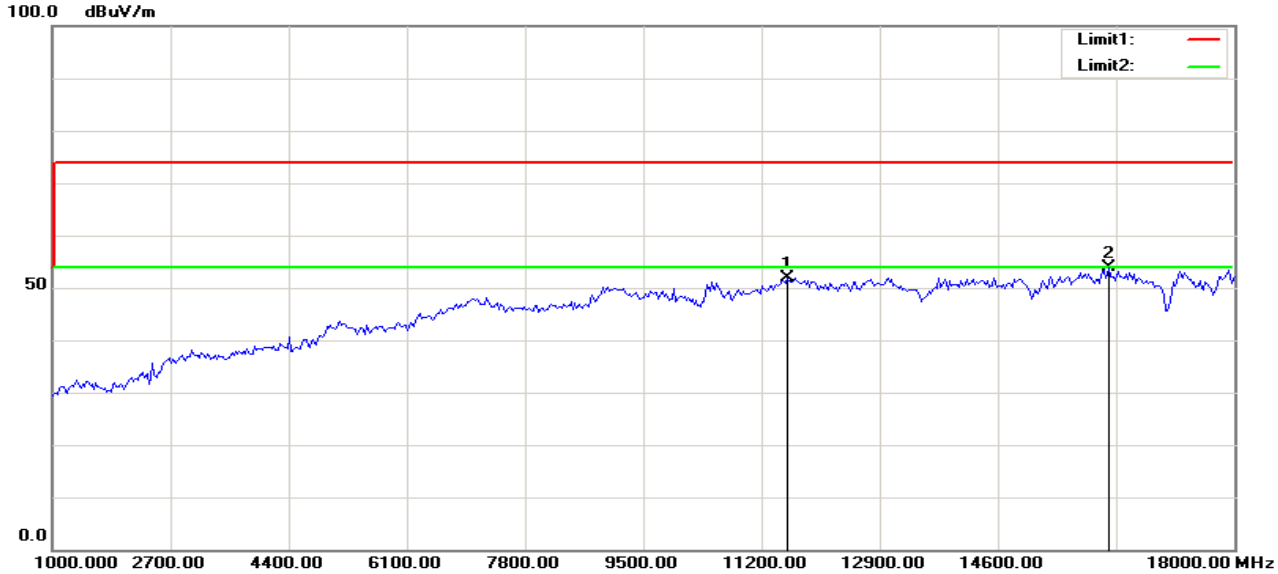
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11706.731	40.44	11.64	52.08	74.00	-21.92	100	0	peak
2	17264.423	36.28	16.67	52.95	74.00	-21.05	200	270	peak

Operation Mode: IEEE802.11n HT20 / TX (CH High) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

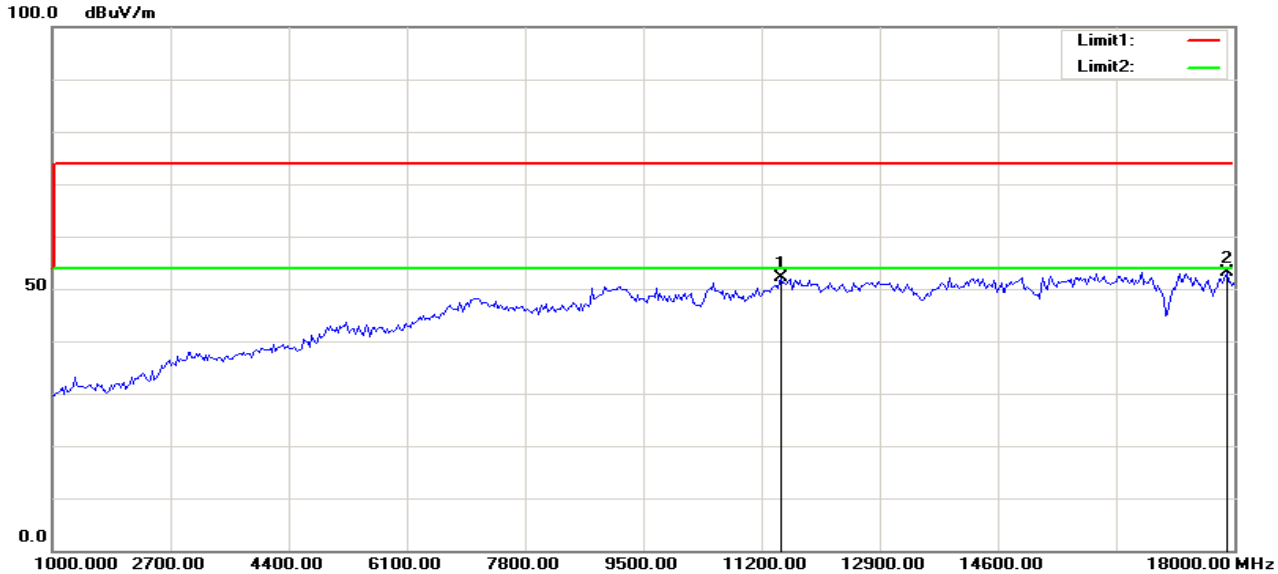
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11570.513	40.54	11.41	51.95	74.00	-22.05	200	324	peak
2	16201.923	39.46	14.37	53.83	74.00	-20.17	200	360	peak

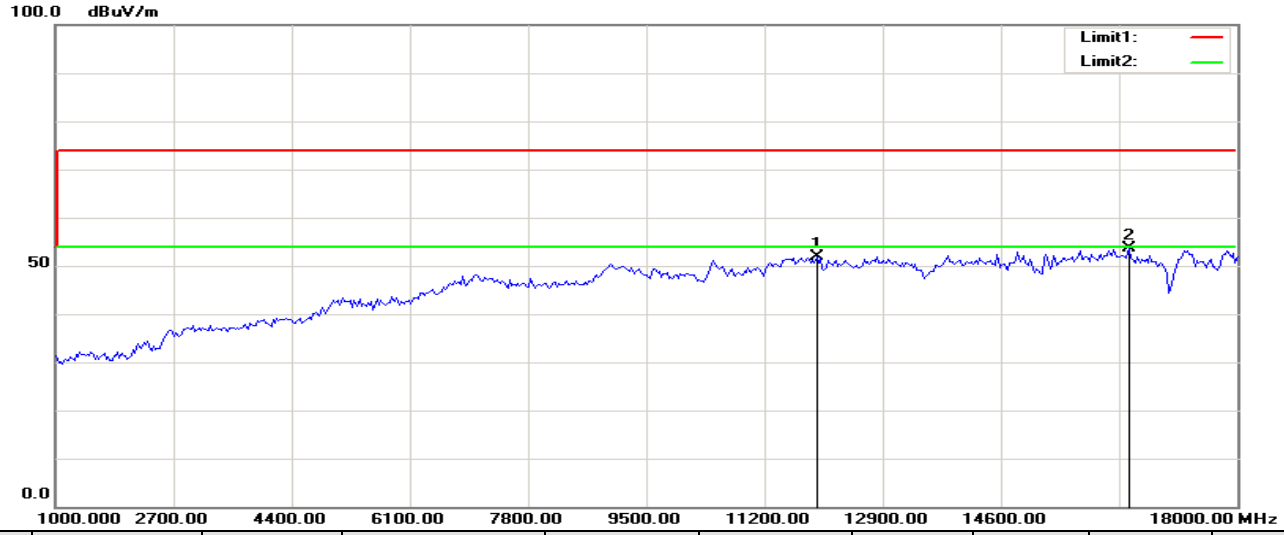
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11488.782	40.96	11.26	52.22	74.00	-21.78	200	232	peak
2	17891.026	35.02	18.02	53.04	74.00	-20.96	200	360	peak

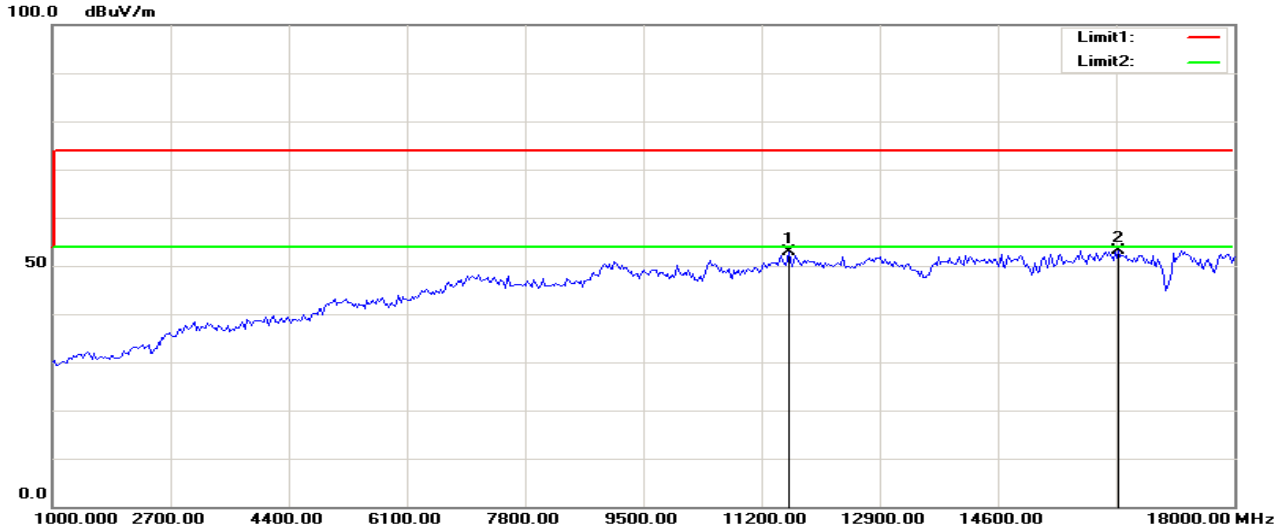
Operation Mode:	IEEE802.11n HT40 / TX (CH Low)	**Test Date:**	2018-8-18
Temperature:	27°C	**Tested by:**	James.Yan
Humidity:	52 % RH	**Polarity:**	Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11951.923	39.90	12.06	51.96	74.00	-22.04	200	360	peak
2	16447.115	39.09	14.45	53.54	74.00	-20.46	200	360	peak

Vertical



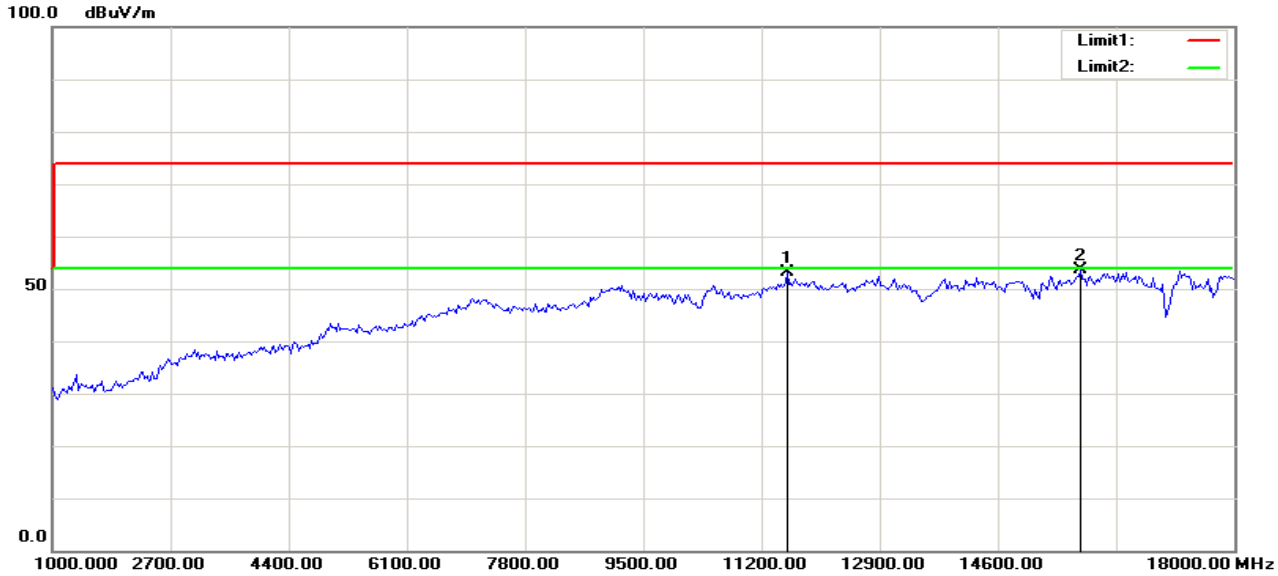
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11597.756	41.46	11.46	52.92	74.00	-21.08	200	318	peak
2	16338.141	38.71	14.41	53.12	74.00	-20.88	200	0	peak

Operation Mode: IEEE802.11n HT40 / TX (CH Mid) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

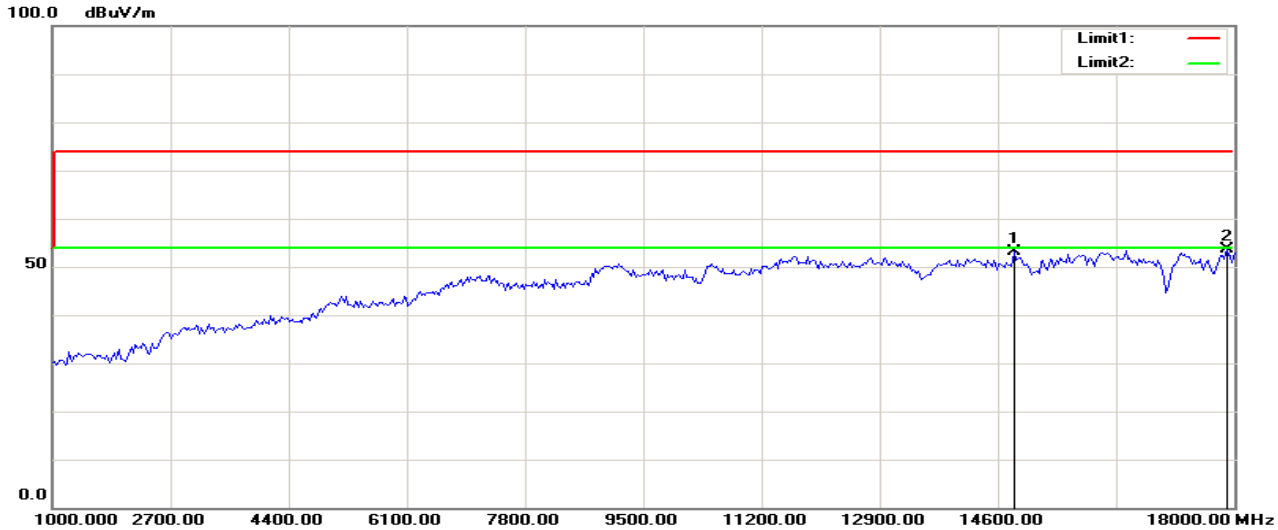
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	11570.513	41.65	11.41	53.06	74.00	-20.94	200	0	peak
2	15793.269	39.56	14.08	53.64	74.00	-20.36	200	360	peak

Vertical



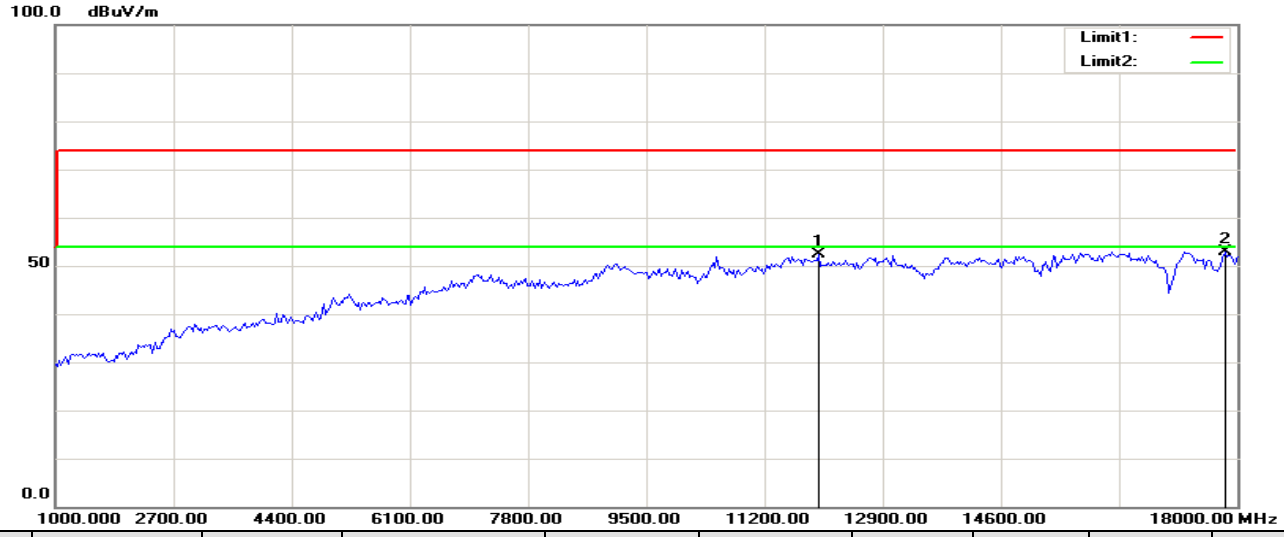
No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	14839.744	39.84	13.39	53.23	74.00	-20.77	200	360	peak
2	17891.026	35.57	18.02	53.59	74.00	-20.41	100	29	peak

Operation Mode: IEEE802.11n HT40 / TX (CH High) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

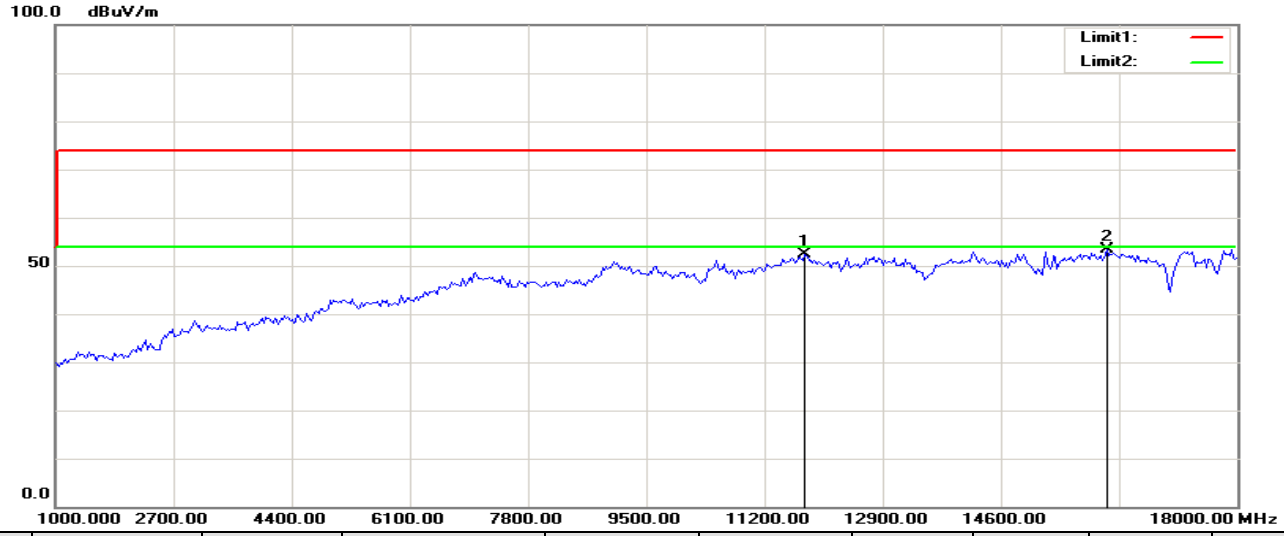
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11979.167	40.28	12.10	52.38	74.00	-21.62	200	360	peak
2	17836.538	34.99	17.96	52.95	74.00	-21.05	200	127	peak

Vertical



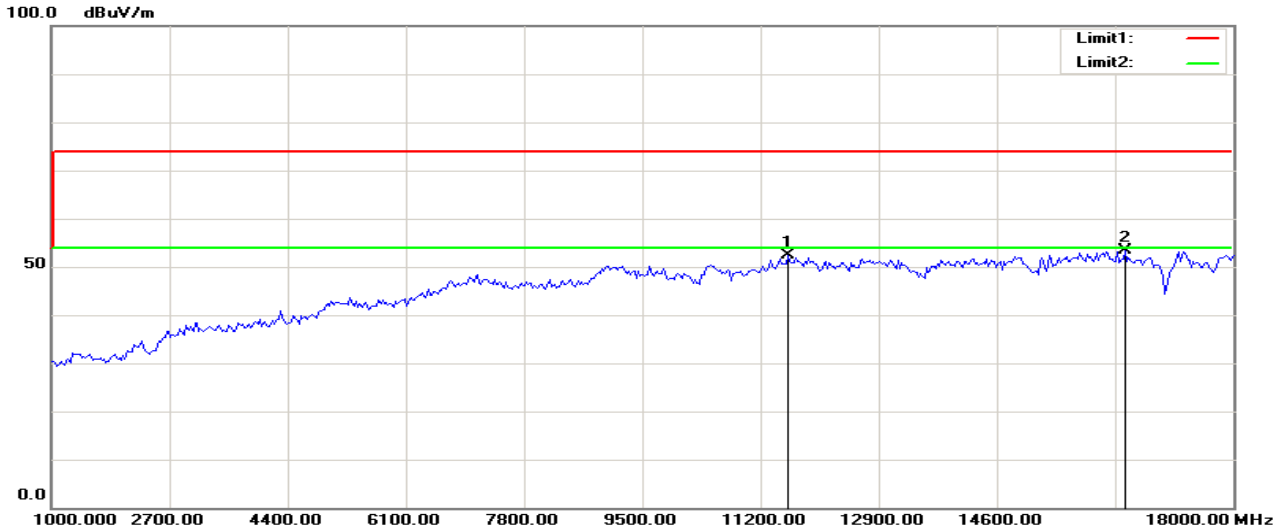
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11788.461	40.57	11.78	52.35	74.00	-21.65	100	360	peak
2	16120.192	39.16	14.34	53.50	74.00	-20.50	200	0	peak

Operation Mode: BT For GFSK / TX (CH Low) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

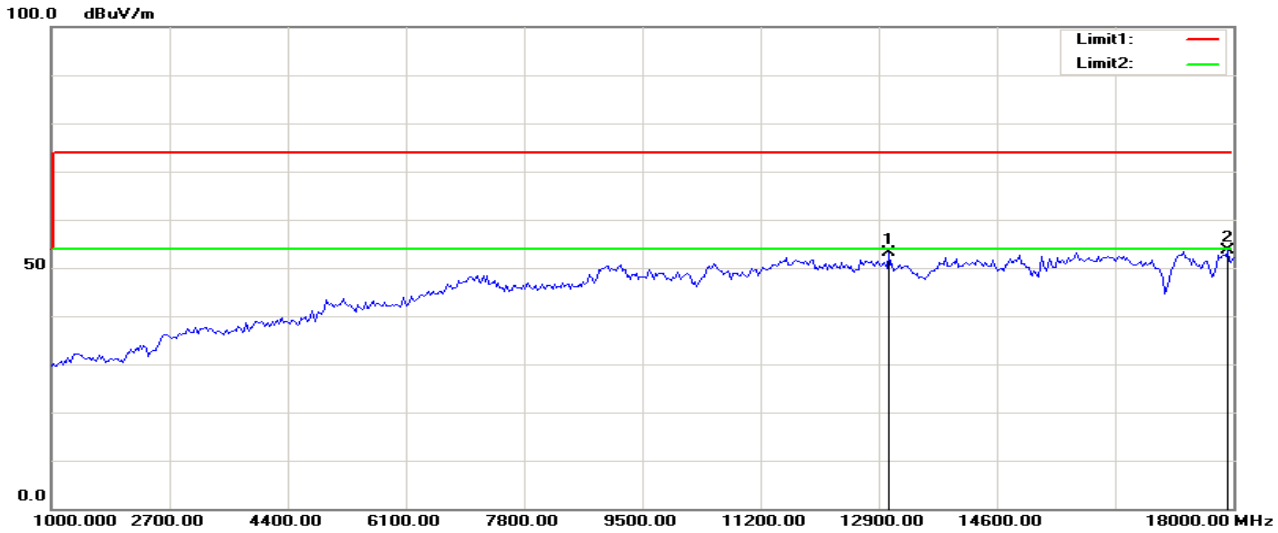
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11597.756	40.80	11.46	52.26	74.00	-21.74	100	360	peak
2	16447.115	38.90	14.45	53.35	74.00	-20.65	100	204	peak

Vertical



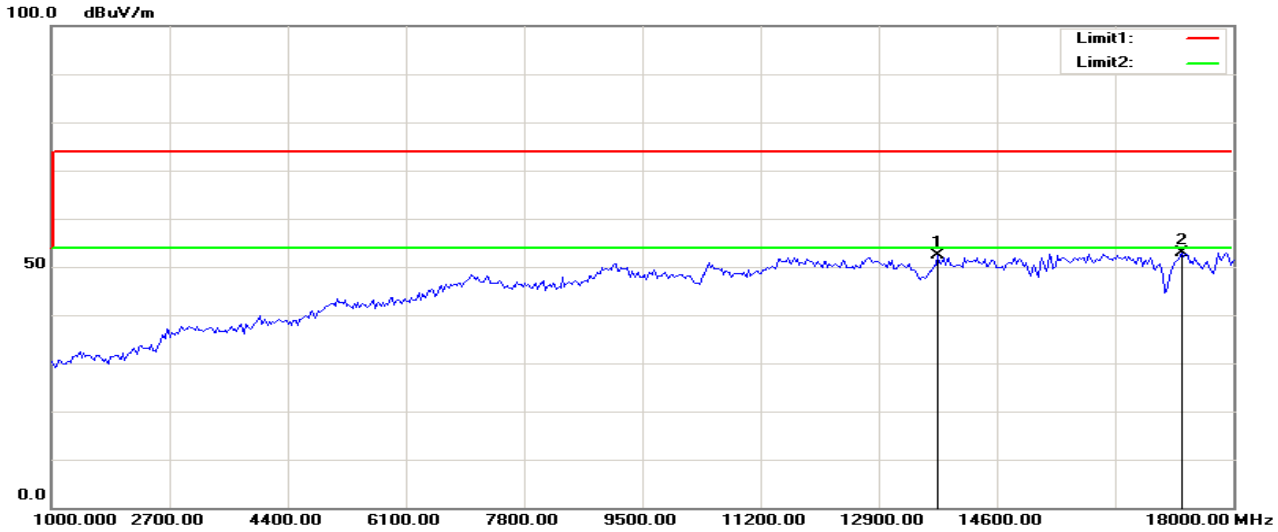
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	13041.667	40.87	12.34	53.21	74.00	-20.79	200	240	peak
2	17918.269	35.65	18.04	53.69	74.00	-20.31	200	360	peak

Operation Mode: BT For GFSK / TX (CH Mid) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

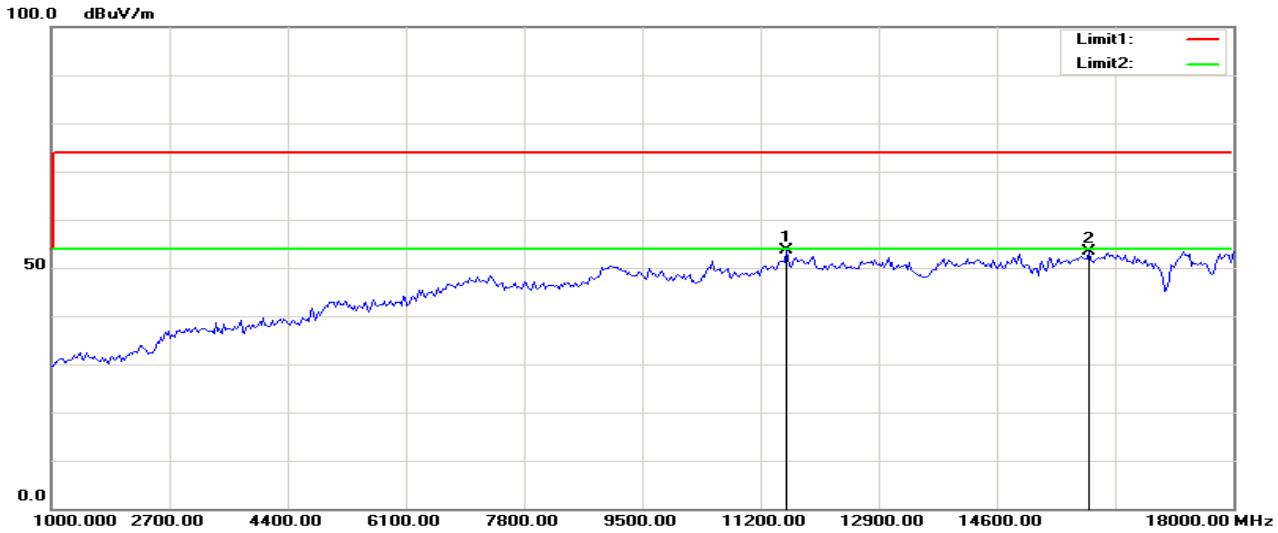
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	13750.000	40.80	11.66	52.46	74.00	-21.54	100	71	peak
2	17264.423	36.21	16.67	52.88	74.00	-21.12	100	286	peak

Vertical



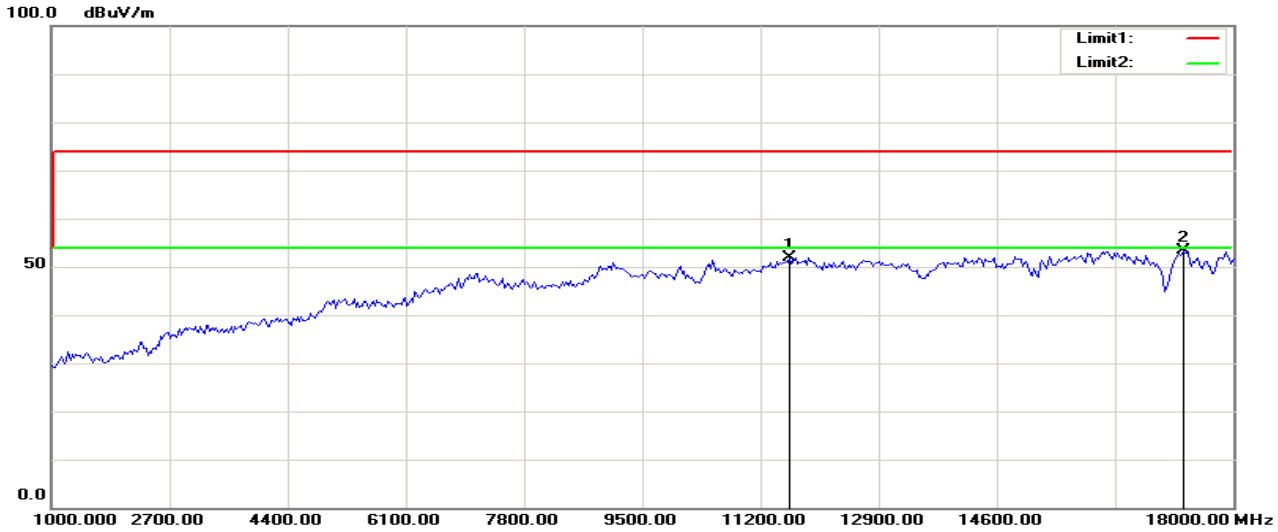
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11570.513	42.30	11.41	53.71	74.00	-20.29	200	282	peak
2	15929.487	39.15	14.22	53.37	74.00	-20.63	200	360	peak

Operation Mode: BT For GFSK / TX (CH High) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

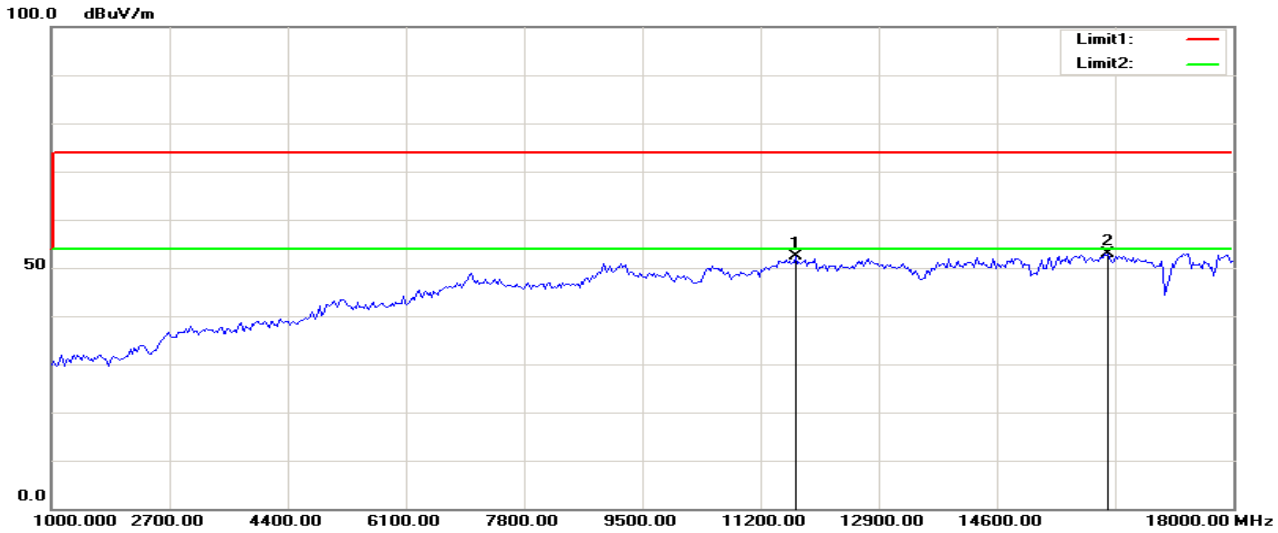
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11625.000	40.48	11.50	51.98	74.00	-22.02	200	360	peak
2	17291.667	36.53	16.78	53.31	74.00	-20.69	100	360	peak

Vertical



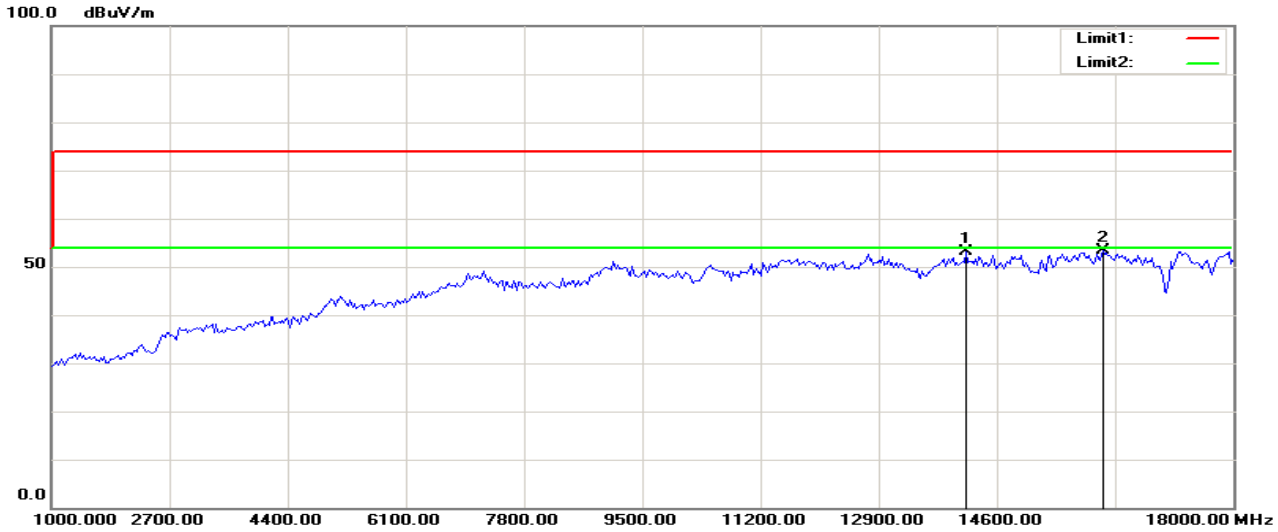
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11706.731	40.71	11.64	52.35	74.00	-21.65	200	360	peak
2	16201.923	38.61	14.37	52.98	74.00	-21.02	200	287	peak

Operation Mode: BT For 8DPSK / TX (CH Low) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

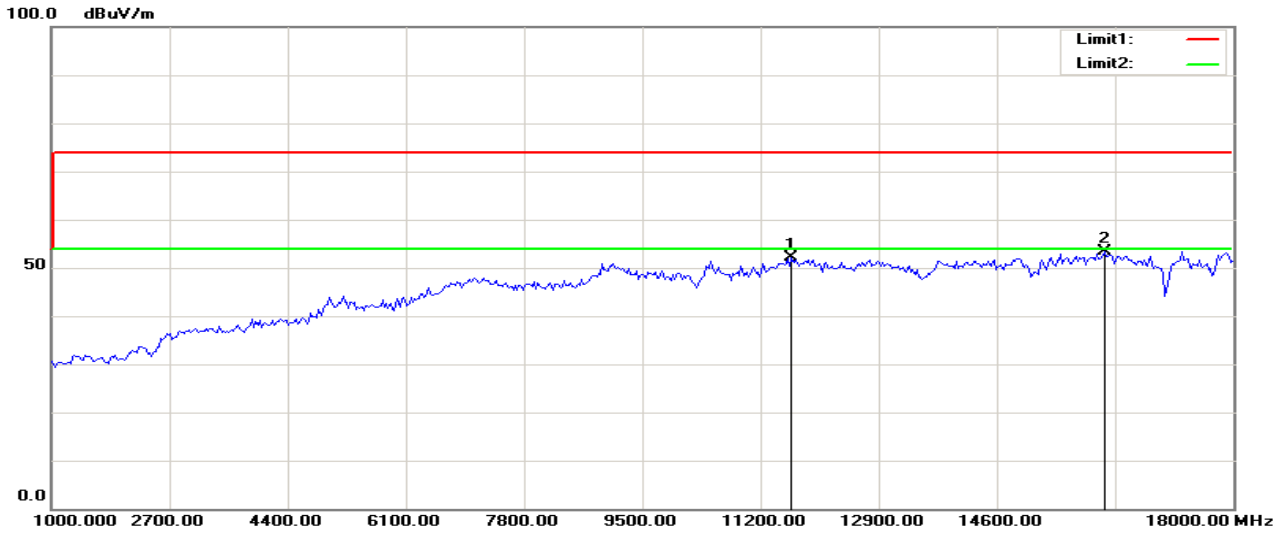
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	14158.654	40.08	13.14	53.22	74.00	-20.78	200	49	peak
2	16120.192	38.99	14.34	53.33	74.00	-20.67	200	188	peak

Vertical



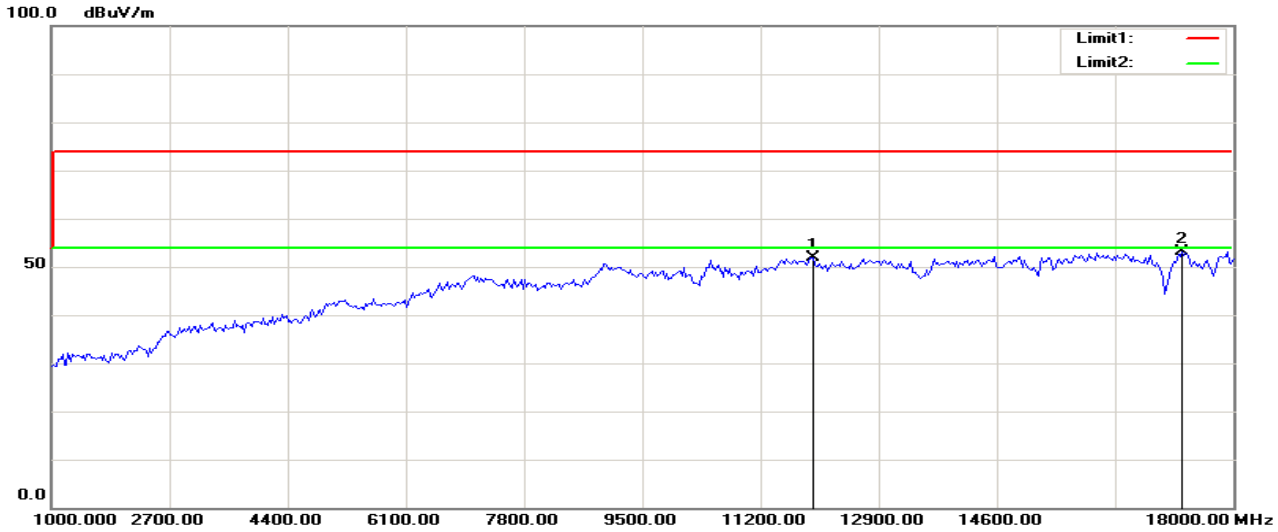
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11652.244	40.59	11.55	52.14	74.00	-21.86	200	83	peak
2	16147.436	39.13	14.35	53.48	74.00	-20.52	100	252	peak

Operation Mode: BT For 8DPSK / TX (CH Mid) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

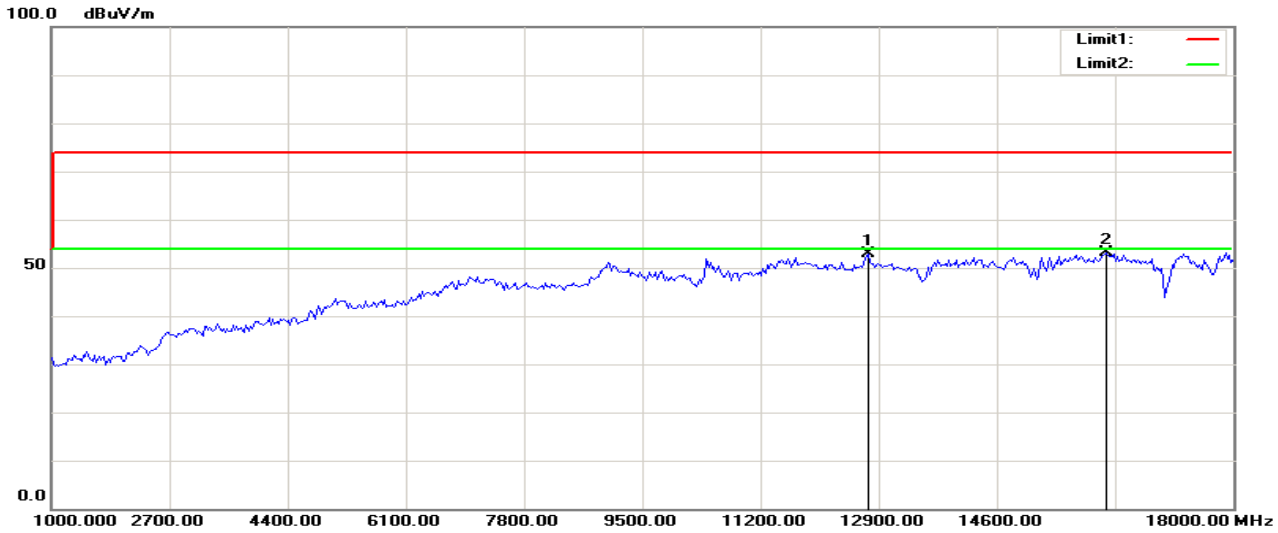
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11951.923	39.85	12.06	51.91	74.00	-22.09	100	42	peak
2	17264.423	36.57	16.67	53.24	74.00	-20.76	200	360	peak

Vertical



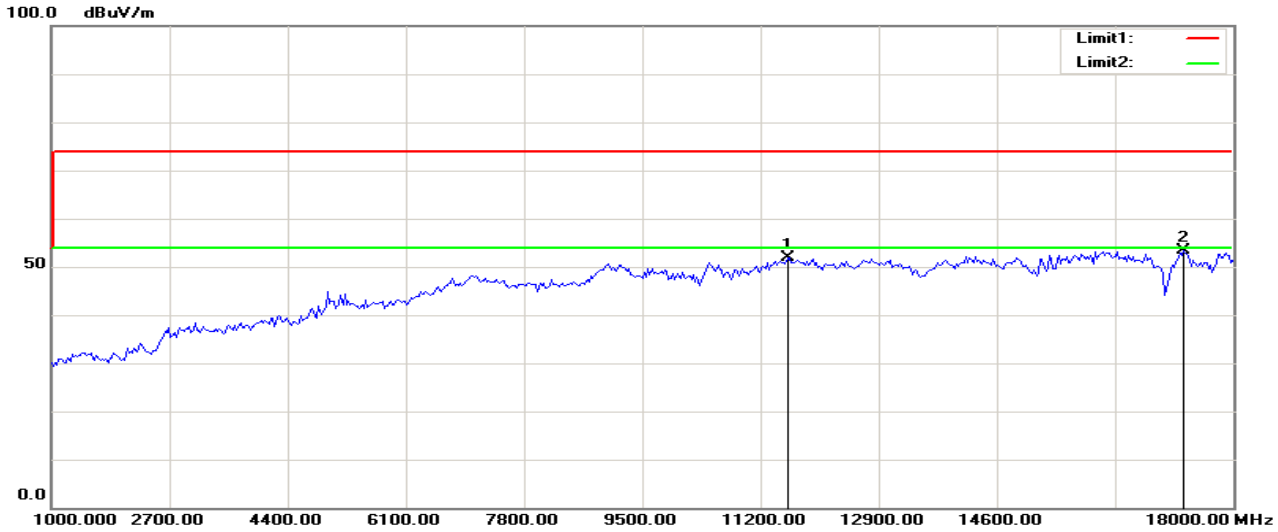
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	12741.987	40.82	12.15	52.97	74.00	-21.03	200	291	peak
2	16174.680	38.66	14.36	53.02	74.00	-20.98	100	130	peak

Operation Mode: BT For 8DPSK / TX (CH High) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

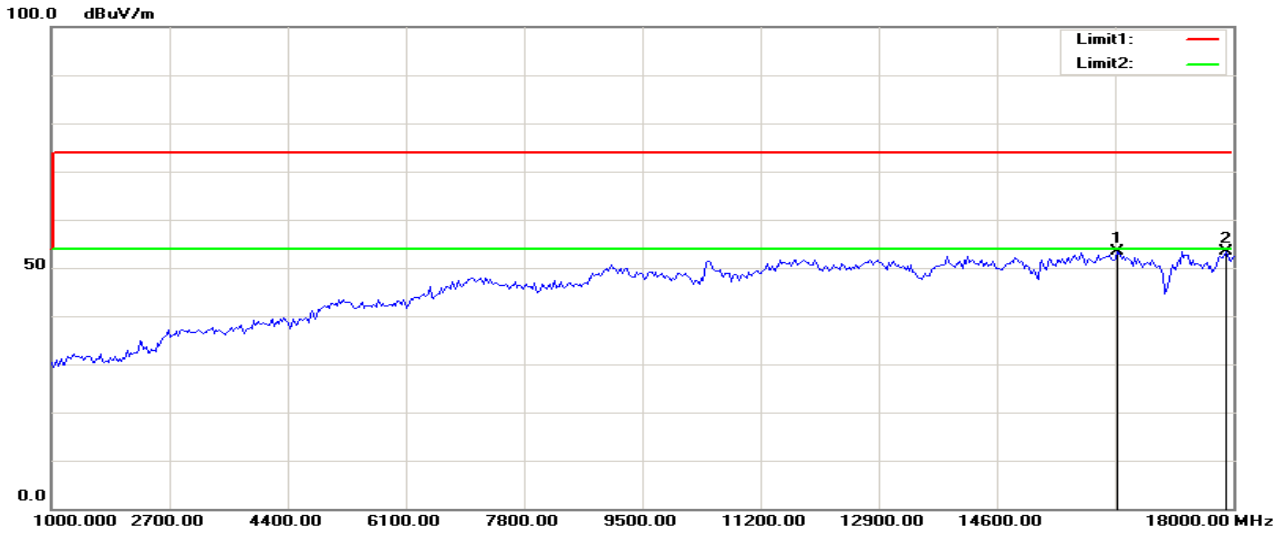
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11597.756	40.44	11.46	51.90	74.00	-22.10	100	69	peak
2	17291.667	36.57	16.78	53.35	74.00	-20.65	200	297	peak

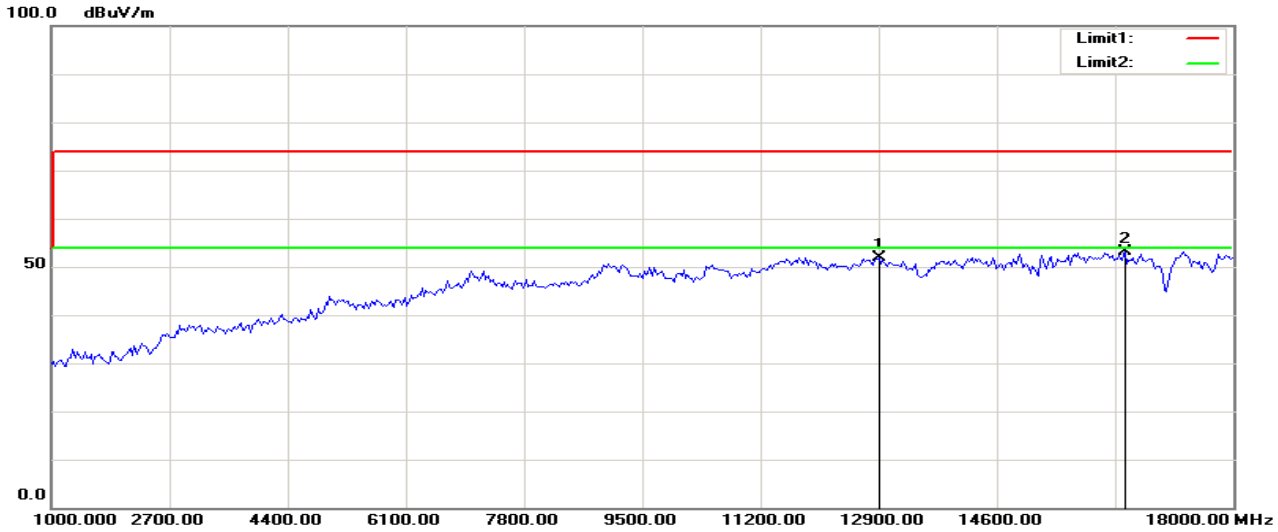
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	16338.141	38.85	14.41	53.26	74.00	-20.74	100	25	peak
2	17891.026	35.35	18.02	53.37	74.00	-20.63	200	360	peak

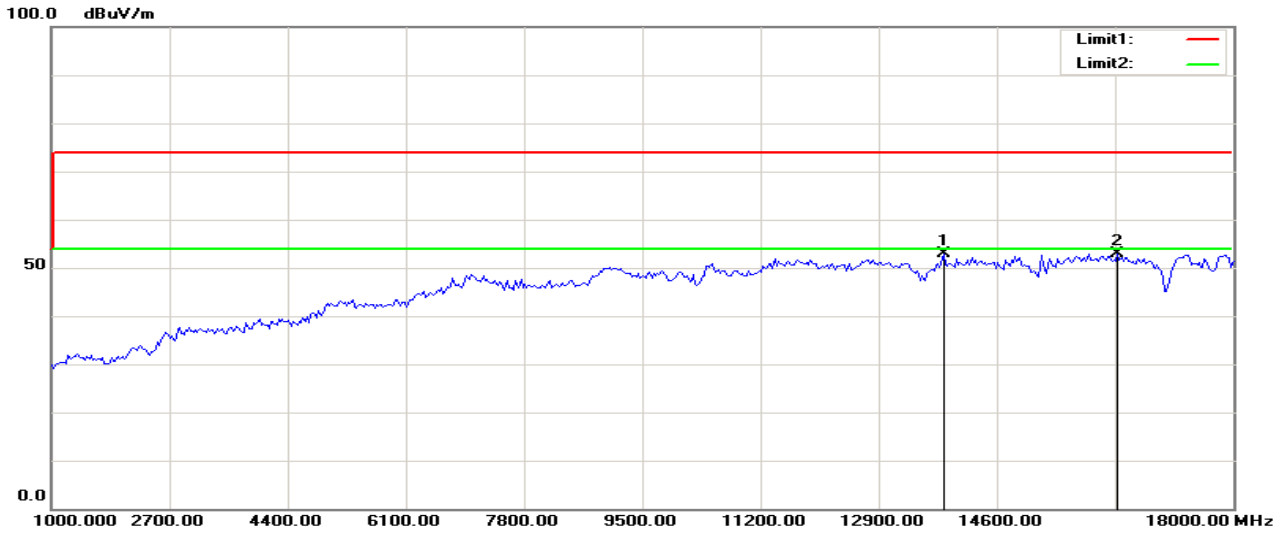
Operation Mode:	BT For 4.2 / TX (CH Low)	**Test Date:**	2018-8-18
Temperature:	27°C	**Tested by:**	James.Yan
Humidity:	52 % RH	**Polarity:**	Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	12905.449	39.59	12.40	51.99	74.00	-22.01	100	61	peak
2	16447.115	38.69	14.45	53.14	74.00	-20.86	100	360	peak

Vertical



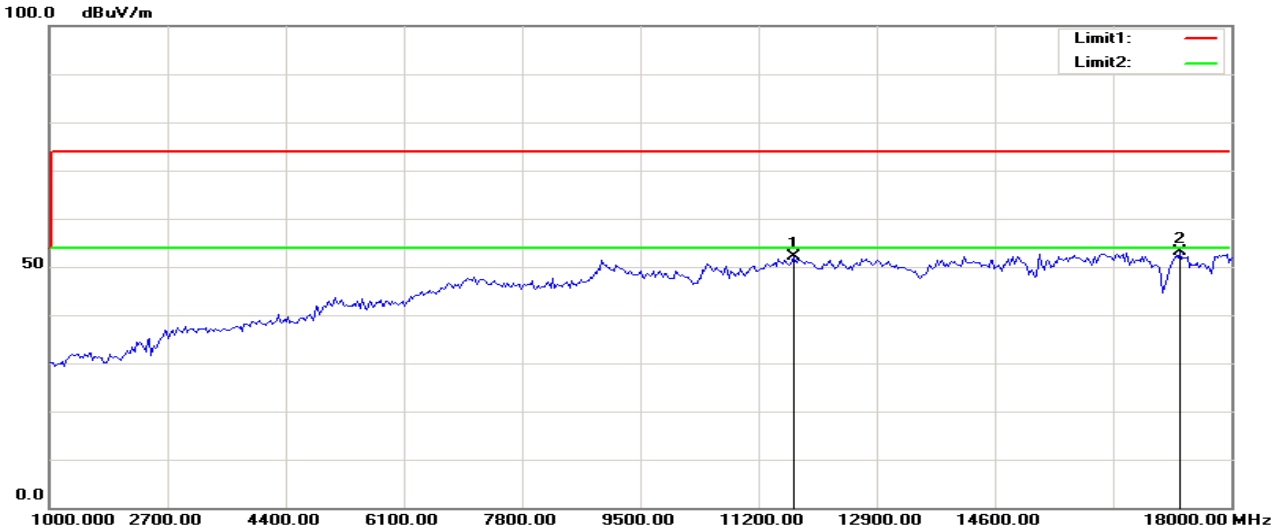
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	13831.731	40.63	12.16	52.79	74.00	-21.21	200	360	peak
2	16338.141	38.57	14.41	52.98	74.00	-21.02	100	196	peak

Operation Mode: BT For 4.2 / TX (CH Mid) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

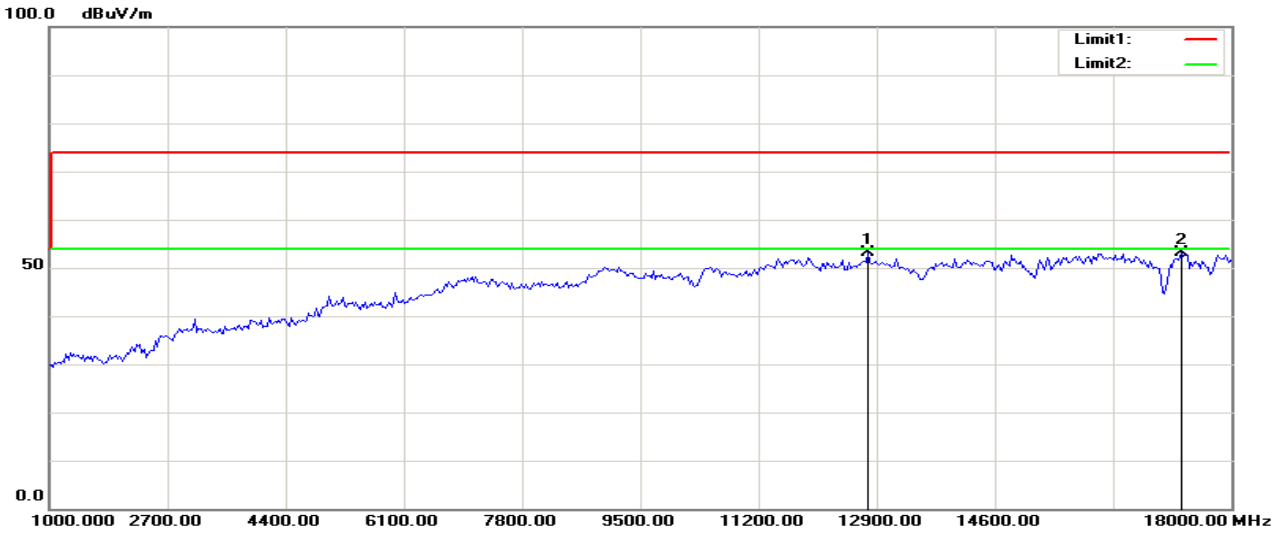
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11706.731	40.44	11.64	52.08	74.00	-21.92	100	82	peak
2	17264.423	36.54	16.67	53.21	74.00	-20.79	100	200	peak

Vertical



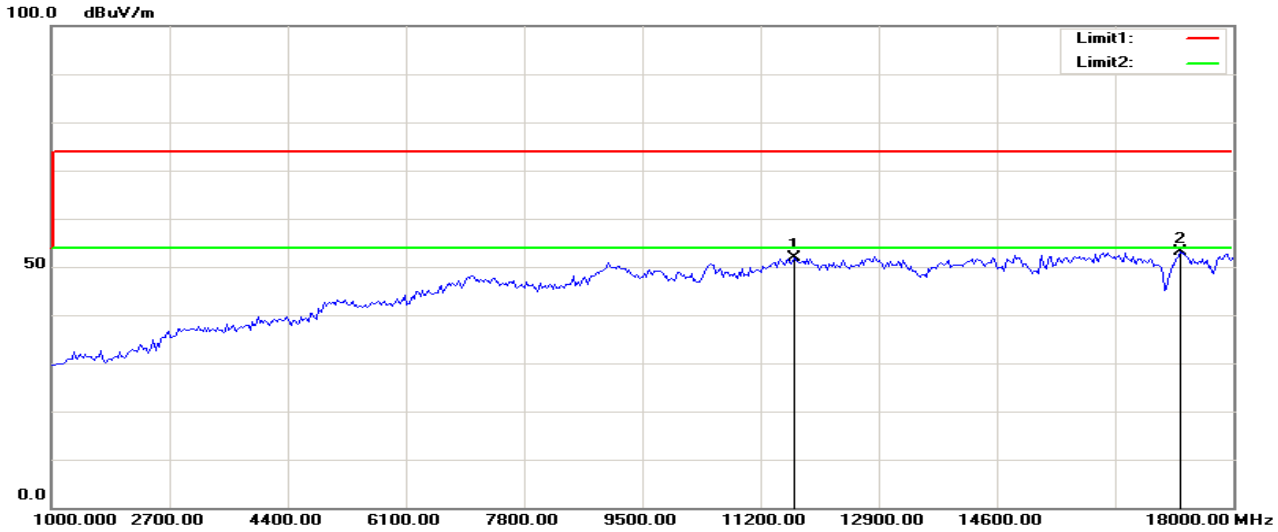
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	12769.231	40.85	12.19	53.04	74.00	-20.96	200	0	peak
2	17291.667	36.24	16.78	53.02	74.00	-20.98	200	138	peak

Operation Mode: BT For 4.2 / TX (CH High) **Test Date:** 2018-8-18

Temperature: 27°C **Tested by:** James.Yan

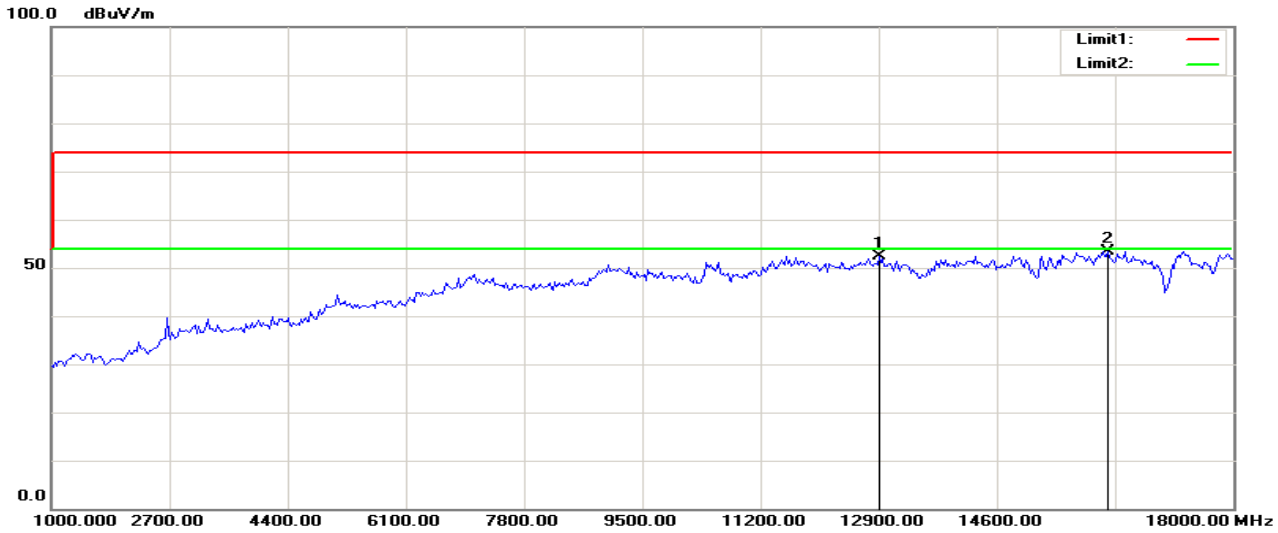
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11679.487	40.29	11.60	51.89	74.00	-22.11	200	247	peak
2	17237.179	36.55	16.56	53.11	74.00	-20.89	200	0	peak

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	12905.449	39.95	12.40	52.35	74.00	-21.65	100	183	peak
2	16201.923	39.00	14.37	53.37	74.00	-20.63	100	0	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 3 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

END OF REPORT