Radio Test Report

Report No.: STS2404115W02

Issued for

Litum bilgi teknolojileri san. Ve dis tic. A.S

Sevket Ozcelik sok. No29 Alsancak izmir Turkey

Product Name:	430 Collision Warning System
Brand Name:	Litum
Model Name:	430
Series Model(s):	4300000004, 4300000005, 4300000006
FCC ID:	2AW7W-430
IC:	26820-430A
Test Standards:	FCC Part 15 Subpart C

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Shenzhen STS Test Services Co., Ltd.

TEST REPORT

Applicant's Name ..... :	Litum bilgi teknolojileri san. Ve dis tic. A.S
Address ..... :	Sevket Ozcelik sok. No29 Alsancak izmir Turkey
Manufacturer's Name ..... :	Litum bilgi teknolojileri san. Ve dis tic. A.S
Address ..... :	Sevket Ozcelik sok. No29 Alsancak izmir Turkey

Product Description

Product Name ..... :	430 Collision Warning System
Brand ..... :	Litum
Model Number..... :	430
Series Model(s) ..... :	4300000004, 4300000005, 4300000006
Test Standards..... :	Title 47 of the CFR, Part 15. Subpart F RSS 220 Issue 1, amendment 1 July 2018 RSS-Gen Issue 5, Amendment 1, March 2019
Test Procedure ..... :	ANSI C63.10-2020

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC/IC requirements. And it is applicable only to the tested sample identified in the report.
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Shenzhen STS Test Services Co., Ltd.

Date of Test.....:

Date of receipt of test item .....:	22 Feb. 2022
Date (s) of performance of tests.:	22 Feb. 2022 ~14 June 2024
Date of Issue.....:	14 June 2024
Test Result .....:	**Pass**

Testing Engineer : Aaron Bu

(Aaron Bu)

Technical Manager : Chris Chen

(Chris Chen)

Authorized Signatory : Bovey Yang

(Bovey Yang)

SHENZHEN STS TEST SERVICES CO., LTD. TESTING APPROVAL

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Revision History

Rev.	Issue Date	Report No.	Effect Page	Contents
00	21 Oct. 2023	STS2310306W04	ALL	Initial Issue
00	14 June 2024	STS2404115W02	ALL	Add two UWB frequency points: 3494.4MHz and 4492.8MHz

1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD
Add. : 101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai Sub-District, Bao'an District, Shenzhen, Guang Dong, China
FCC test Firm Registration Number: 625569
IC test Firm Registration Number: 12108A
A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y ± U**, where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95** %.

No.	Item	Uncertainty
1	RF output power, conducted	±0.755dB
2	Unwanted Emissions, conducted	±2.874dB
3	All emissions, radiated 9K-30MHz	±3.80dB
4	All emissions, radiated 30M-1GHz	±4.18dB
5	All emissions, radiated 1G-6GHz	±4.90dB
6	All emissions, radiated>6G	±5.24dB
7	Conducted Emission (9KHz-150KHz)	±2.19dB
8	Conducted Emission (150KHz-30MHz)	±2.53dB
9	Occupied Channel Bandwidth	±3.5%
10	Power Spectral Density, conducted	±1.245dB
11	Duty Cycle	±3.2%

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name/PMN	430 Collision Warning System
Trade Name	Litum
Model Name	430
HVIN	430A
Series Model	4300000004, 4300000005, 4300000006
Model Difference	Only difference in model name.
Product Description	430 Collision Warning System belongs to FCC Part15.517 indoor UWB systems. Operation Frequency: 6489.6MHz, 3494.4MHz,4492.8MHz Modulation Type: BPM with BPSK Antenna Designation: Please refer to the Note 3. Antenna Gain(Peak): Ceramic antenna Based on the application, features, or specification exhibited in User Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User Manual.
Channel List	Please refer to the Note 2.
Rating	Input: 9-30V
Hardware version number	AFA01-01-02
Software version number/FVIN	1.15.15.0
Serial Numbers	4300000003
Connecting I/O Port(s)	Please refer to the Note 1.

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.
2.

Test channel	Frequency(MHz)	Test channel	Frequency(MHz)
1	3494.4	2	4492.8
3	6489.6	-	-

3. Table for Filed Antenna

Ant	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	Litum	430	Ceramic	N/A	3.3	Antenna

Note: The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.

2.2 DESCRIPTION OF THE TEST MODES

For Radiated spurious emissions

Each of these EUT operation mode(s) or test configuration mode(s) mentioned below was evaluated respectively.

Pretest Mode	Description	Modulation
Mode 1	TX	BPM with BPSK

Note:

(1) All above mode have been measurement, only worst data was reported.

2.3 TEST SOFTWARE AND POWER LEVEL

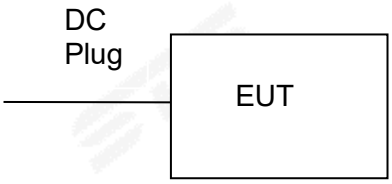
During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

RF Function	Type	Mode Or Modulation type	Ant Gain(dBi)	Power Class	Software For Testing
UWB	6849.6MHz	BPM with BPSK	3.3	14	Tera Term
	3494.4MHz			Default	The EUT has signal transmission when it is powered on
	4492.8MHz				

2.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters.

Radiated Spurious Emission Test



2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Serial No.	Note
N/A	N/A	N/A	N/A	N/A	N/A

Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Serial No.	Note
	DC Supply	HONGSHENGFENC	QJ6005E	N/A	N/A

Note:

(1) The support equipment was authorized by Declaration of Confirmation.

(2) For detachable type I/O cable should be specified the length in cm in『Length』column.

2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS

RF Radiation Test Equipment					
Kind of Equipment	**Manufacturer**	**Type No.**	**Serial No.**	**Last Calibration**	**Calibrated Until**
Temperature & Humidity	SW-108	SuWei	N/A	2024.03.15	2025.03.14
Pre-Amplifier(0.1M-3GHz)	EM	EM330	060665	2024.02.23	2025.02.22
Pre-Amplifier(1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2023.09.26	2024.09.25
Pre-Amplifier(18G-40GHz)	SKET	LNPA_1840-50	SK2018101801	2024.02.23	2025.02.22
Active loop Antenna	ZHINAN	ZN30900C	16035	2023.02.28	2025.02.27
Bilog Antenna	TESEQ	CBL6111D	34678	2022.09.30	2024.09.29
Horn Antenna	SCHWARZBECK	BBHA 9120D	02014	2023.09.24	2025.09.23
Horn Antenna	A-INFOMW	LB-180400-KF	J211020657	2023.10.10	2025.10.09
Positioning Controller	MF	MF-7802	MF-780208587	N/A	N/A
Signal Analyzer	R&S	FSV 40-N	101823	2023.09.26	2024.09.25
Switch Control Box	N/A	N/A	N/A	N/A	N/A
Filter Box	BALUN Technology	SU319E	BL-SZ1530051	N/A	N/A
Antenna Mast	MF	MFA-440H	N/A	N/A	N/A
Turn Table	MF	SC100_1	60531	N/A	N/A
AC Power Source	APC	KDF-11010G	F214050035	N/A	N/A
DC power supply	HONGSHENGFENG	DPS-305AF	17064939	2023.09.26	2024.09.25
Test SW	EZ-EMC	Ver.STSLAB-03A1 RE			
RF Connected Test					
Kind of Equipment	**Manufacturer**	**Type No.**	**Serial No.**	**Last calibration**	**Calibrated until**
Signal Analyzer	Agilent	N9020A	MY51510623	2024.02.23	2025.02.22
Power Sensor	Keysight	U2021XA	MY55520005	2023.09.26	2024.09.25
Temperature & Humidity	SW-108	SuWei	N/A	2024.03.15	2025.03.14
Test SW	MW	MTS 8310_2.0.0.0			

3. EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

Operating frequency band. In case the emission fall within the restricted band specified on Part 15.207&RSS-Gen (8.8) limit in the table below has to be followed.

FREQUENCY (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

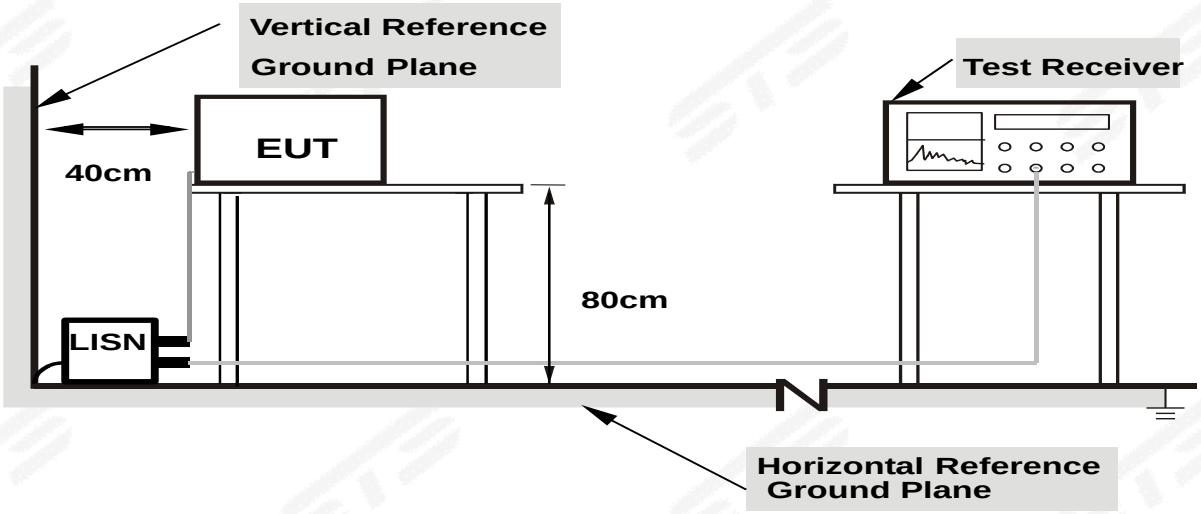
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2 TEST PROCEDURE

a. The EUT was 0.8 meters from the horizontal ground plane and 0.4 meters from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.1.5 TEST RESULT

Temperature:	N/A	Relative Humidity:	N/A
Test Voltage:	N/A	Phase:	L/N
Test Mode:	N/A		

Note: EUT is only power by DC Power, So it is not applicable for this test.

3.2 RADIATED EMISSION MEASUREMENT (FOR 15.517(c)&RSS 220 5.2.1(d))

3.2.1 RADIATED EMISSION LIMITS

The radiated emissions at or below 960MHz from a device operating under the provisions of this section shall not exceed the emission levels in Section 15.209&RSS 220(3.4).

Frequencies (MHz)	Field Strength (micorvolts/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

Note: 1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).

For FCC:

The radiated emissions above 960MHz from a device operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of 1MHz:

Frequency of Emission (MHz)	**EIRP (dBm)**	**Field Strength (dBuV/m@3m)**	**Field Strength (dBuV/m@1m)**
960~1610	-75.3	19.9	29.44
1610~1990	-53.3	41.9	51.44
1990~3100	-51.3	43.9	53.44
3100~10600	-41.3	53.9	63.44
Above 10600	-51.3	43.9	53.44

Notes: 1. Transfer rules follow 15.521(g),15.31(f)(1).
2. 15.521(c) Emissions from digital circuitry used to enable the operation of the UWB transmitter shall comply with the limits in Section 15.209 of this chapter, rather than the limits specified in this subpart.
3. E(dBuV/m)@3m = P(dBm EIRP) + 95.2;
E(dBuV/m)@1m= E(dBuV/m)@3m+20*log(3/1)

For IC:
The radiated emissions above 960MHz from a device operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of 1MHz:

Frequency of Emission (MHz)	EIRP (dBm)	Field Strength (dBuV/m@3m)	Field Strength (dBuV/m@1m)
960~1610	-75.3	19.9	29.44
1610~4750	-70.0	25.2	34.74
4750~10600	-41.3	53.9	63.44
Above 10600	-51.3	43.9	53.44

Notes: 1. Transfer rules follow section 2 of the RSS 220 Annex.
2. The Emissions from digital circuitry used to enable the operation of the UWB transmitter shall comply with the limits in Section RSS 220(3.4) of this chapter, rather than the limits specified in this subpart.
3. E(dBuV/m)@3m = P(dBm EIRP) + 95.2;
E(dBuV/m)@1m= E(dBuV/m)@3m+20*log(3/1)

Spectrum Parameter	Setting
Detector	RMS
Attenuation	Auto
Start Frequency	960 MHz
Stop Frequency	10th of the highest fundamental frequency or to 40 GHz, whichever is lower
RB	1MHz
VB	3MHz
Sweep Point	1001
SweepTime	1s

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
	90kHz~110kHz / RB 200Hz for QP
	110kHz~490kHz / RB 200Hz for PK & AV
	490kHz~30MHz / RB 9kHz for QP
	30MHz~960MHz / RB 120kHz for QP

3.2.2 TEST PROCEDURE

a. The measuring distance of 1m shall be used for measurements. The EUT was placed on the top of arotating table 0.8meter (above 1GHz is 1.5 m) above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The height of the test antenna shall vary between 1m to 4m.Both horizontal and vertical polarization Of the antenna are set to make the measurement.

c. The initial step in collecting radiated emission data is a receive peak detector mode. Pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

d. All readings are peak unless otherwise stated QP in column of Note. Peak denoted that the Peak reading compliance with the QP limits and then QP Mode measurement didn't perform (Below 960MHz)

e. All readings are RMS mode value , for each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading . (Above 960MHz)

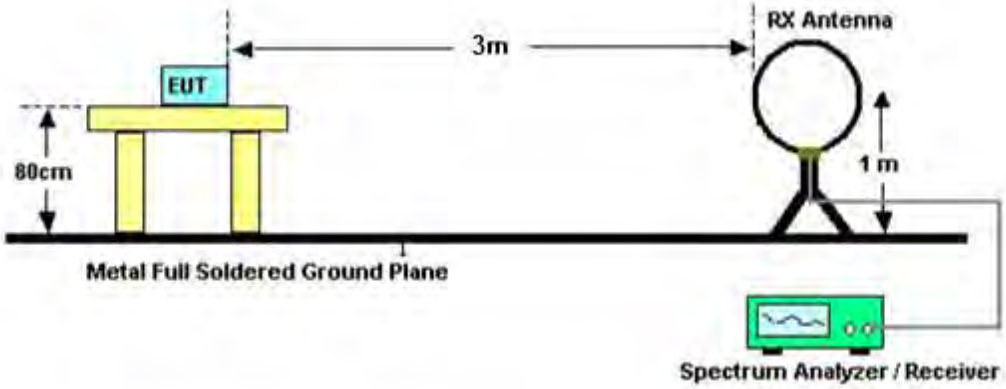
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.
Note: Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

3.2.3 DEVIATION FROM TEST STANDARD

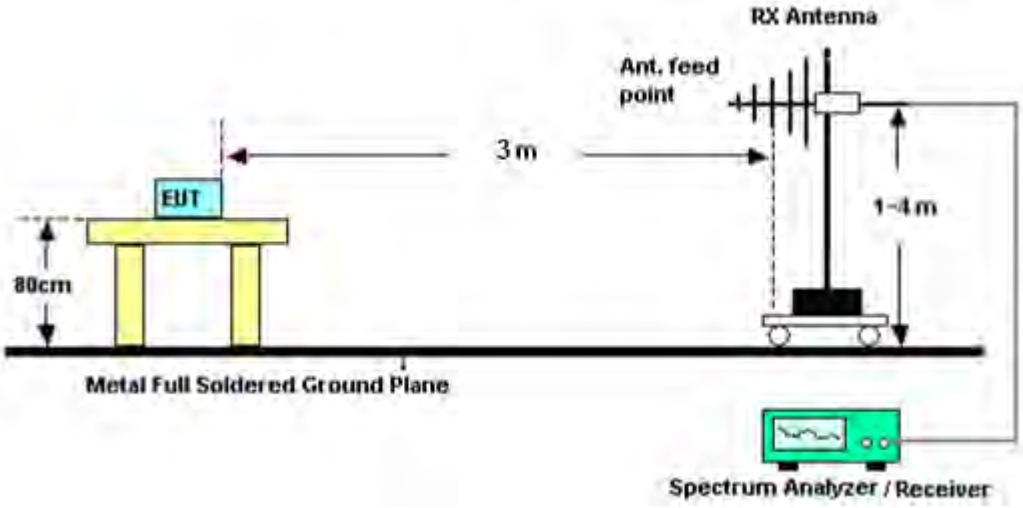
No deviation

3.2.4 TEST SETUP

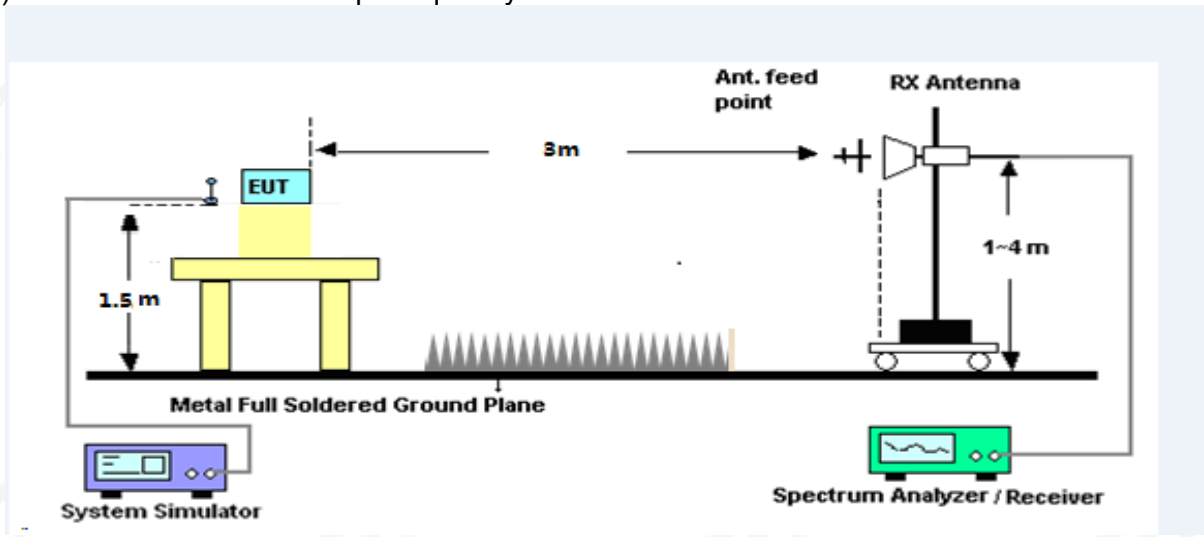
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



3.2.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:
Margin=PL-PK L or AL- AV L; Margin only shown the worst case.
Where
PR = Peak Reading
AR = Average Reading
PL = Peak Level
AL = Average Level
AF = Antenna Factor
PK L = Peak Limit
AV L = AV Limit
For example

Frequency	PR	AR	AF	PL	AL	PK L	AV L	Margin
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV/m)	(dBμV/m)	(dBμV/m)	(dB)
2178	40.23	30.31	9.83	50.06	40.14	74.00	54.00	-13.86

3.2.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

3.2.7 TEST RESULTS

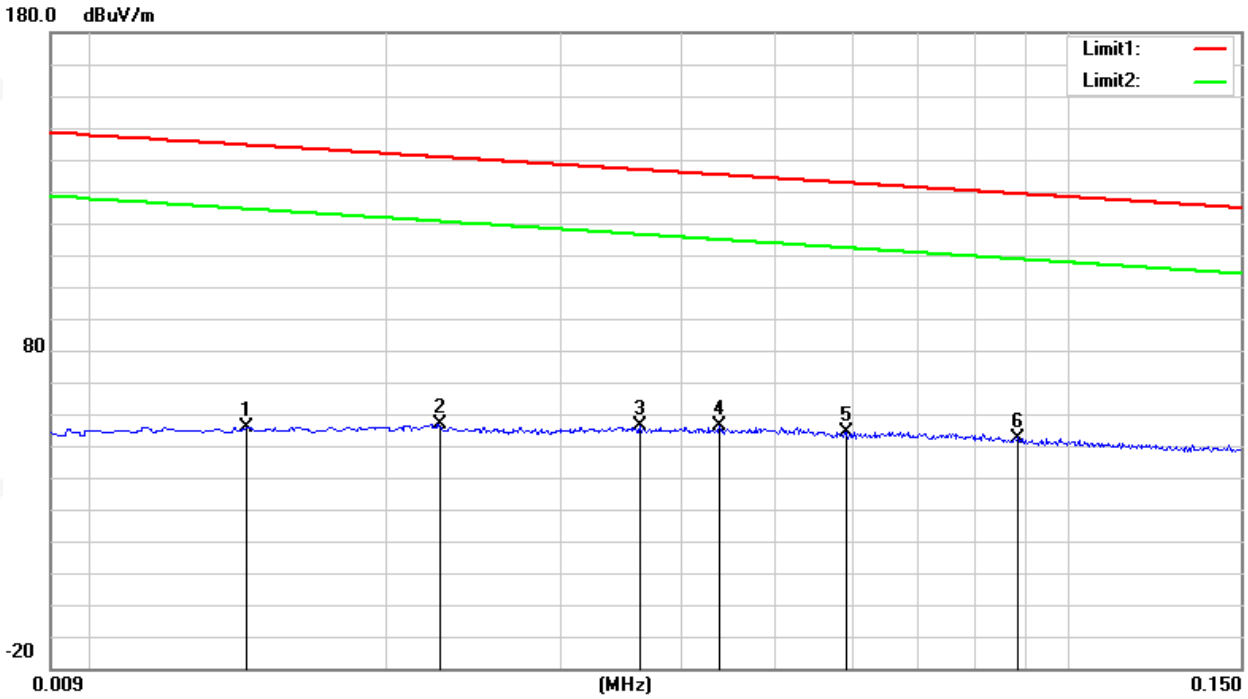
Below 30MHz

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Test Mode:	CH 1(9KHz - 150KHz)
Test distance:	3m		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0143	36.15	19.69	55.84	124.62	-68.78	AVG
2	0.0225	36.61	20.05	56.66	120.79	-64.13	AVG
3	0.0362	36.42	19.78	56.20	116.79	-60.59	AVG
4	0.0437	36.41	19.63	56.04	115.20	-59.16	AVG
5	0.0592	35.09	19.24	54.33	112.64	-58.31	AVG
6	0.0887	34.36	18.14	52.50	109.23	-56.73	AVG

Remark:

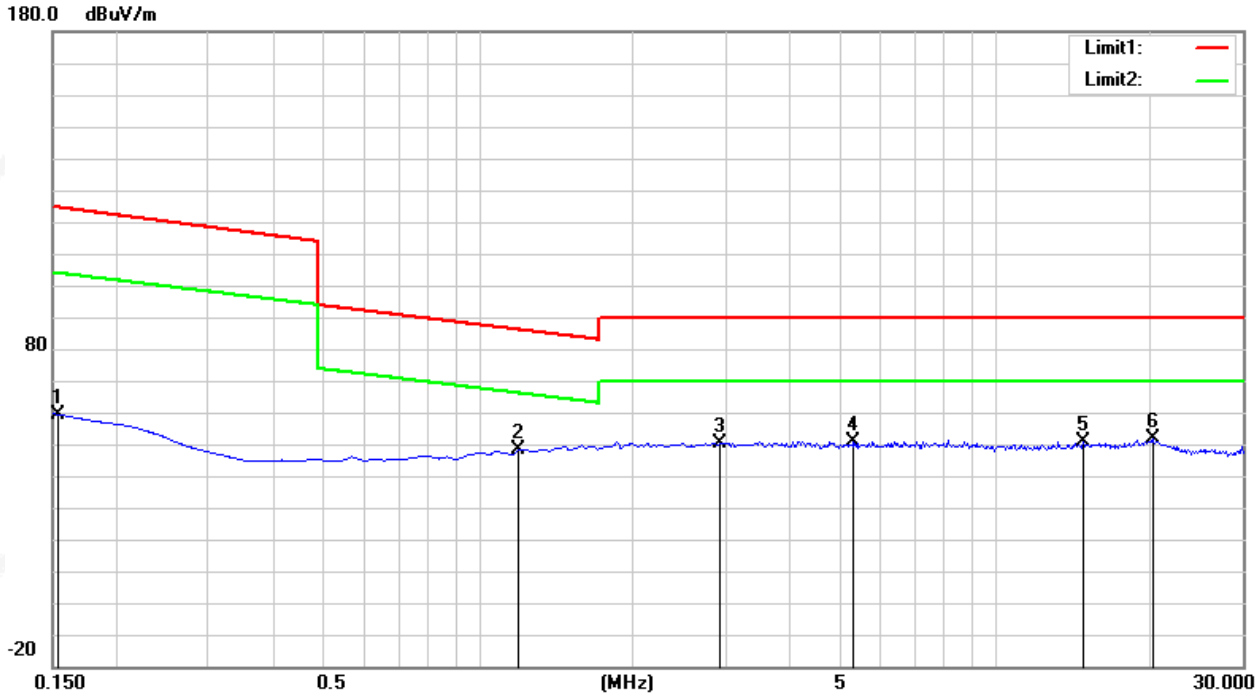
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Test Mode:	CH 1(150KHz – 30MHz)
Test distance:	3m		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1540	41.75	17.60	59.35	104.56	-45.21	AVG
2	1.1947	28.13	20.24	48.37	66.06	-17.69	QP
3	2.9261	30.29	20.12	50.41	69.54	-19.13	QP
4	5.3140	30.16	20.48	50.64	69.54	-18.90	QP
5	14.7765	29.69	21.25	50.94	69.54	-18.60	QP
6	20.1197	29.35	22.45	51.80	69.54	-17.74	QP

Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



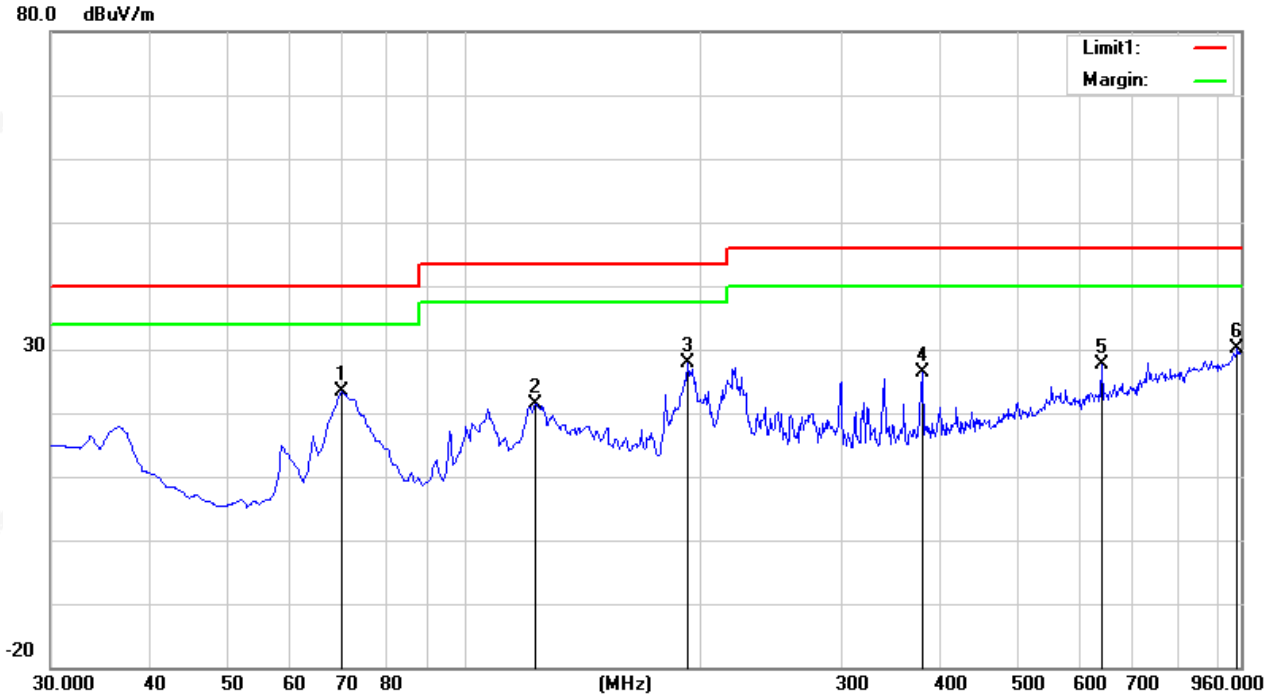
Note: The position of the measurement polarization (Horizontal / Face-on / Face-off) all has been tested, only shown the worst mode of Horizontal position.

30MHz – 960MHz Radiation Spurious

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1	Test distance:	3m

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	69.9900	48.29	-24.87	23.42	40.00	-16.58	peak
2	123.0000	39.69	-18.27	21.42	43.50	-22.08	peak
3	191.8200	48.99	-21.03	27.96	43.50	-15.54	peak
4	380.6100	38.57	-12.23	26.34	46.00	-19.66	peak
5	640.0800	32.55*	-4.84	27.71	46.00	-18.29	peak
6	951.6300	28.47	1.62	30.09	46.00	-15.91	peak

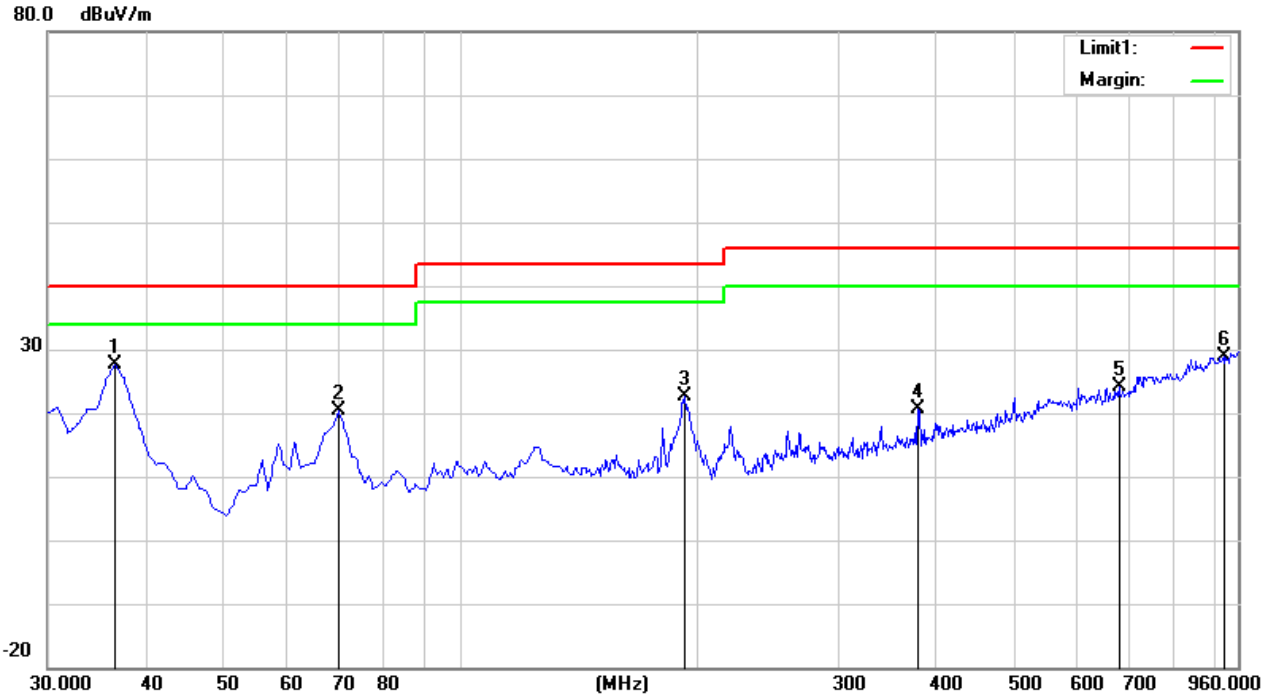
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1	Test distance:	3m

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	36.5100	43.87	-16.25	27.62	40.00	-12.38	peak
2	69.9900	45.32	-24.87	20.45	40.00	-19.55	peak
3	191.8200	43.54	-21.03	22.51	43.50	-20.99	peak
4	378.7500	32.80	-12.29	20.51	46.00	-25.49	peak
5	681.0000	28.32	-4.28	24.04	46.00	-21.96	peak
6	923.7300	28.77	0.19	28.96	46.00	-17.04	peak

Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

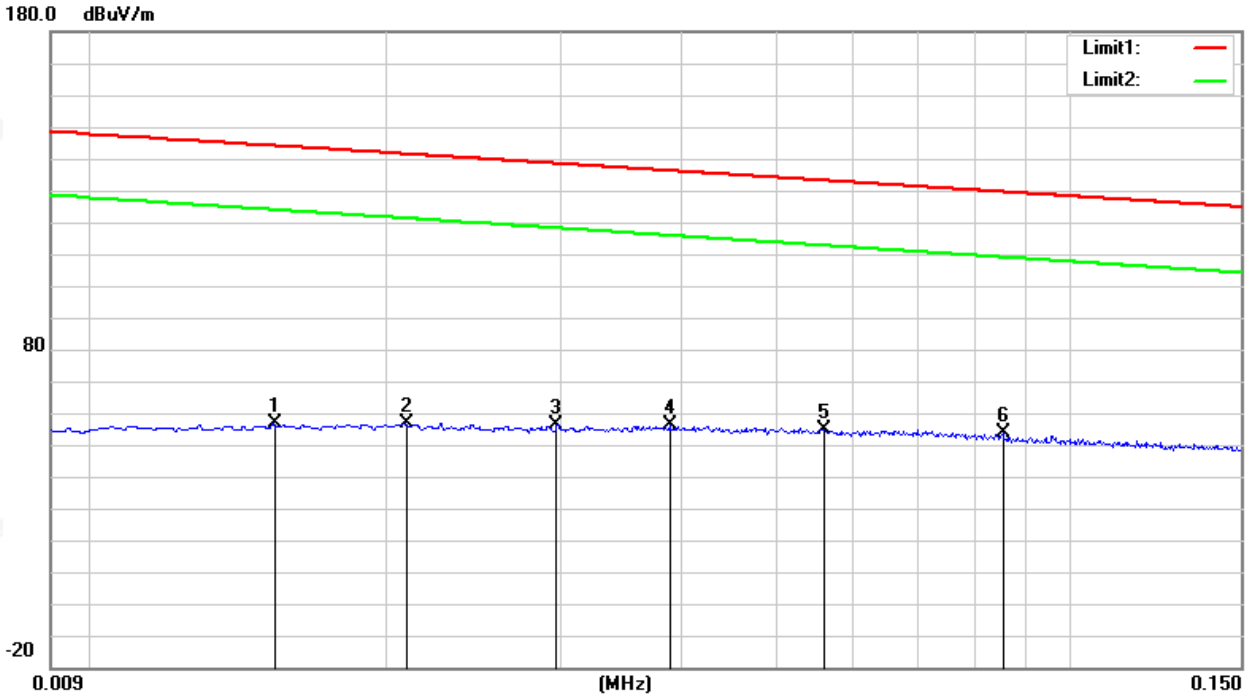


Below 30MHz

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Test Mode:	CH 2(9KHz - 150KHz)
Test distance:	3m		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0152	36.77	19.75	56.52	124.10	-67.58	AVG
2	0.0208	36.79	20.08	56.87	121.46	-64.59	AVG
3	0.0298	36.17	19.90	56.07	118.43	-62.36	AVG
4	0.0390	36.45	19.72	56.17	116.16	-59.99	AVG
5	0.0560	35.66	19.33	54.99	113.11	-58.12	AVG
6	0.0856	35.38	18.29	53.67	109.53	-55.86	AVG

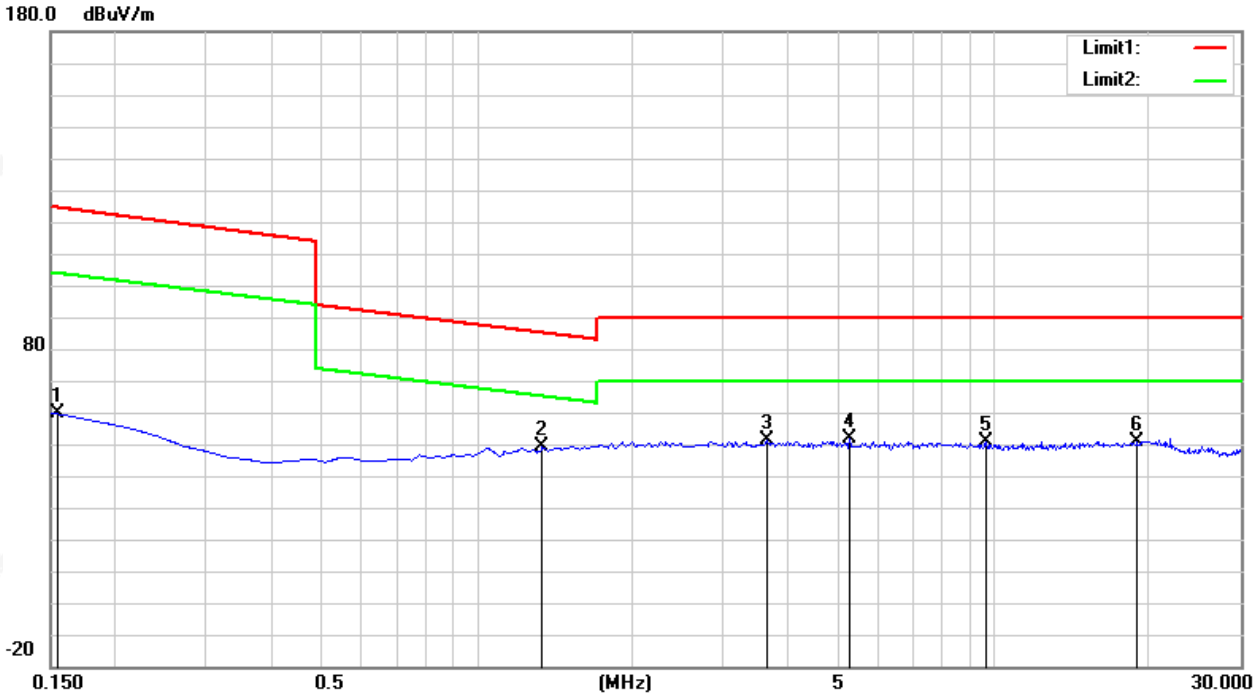
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Test Mode:	CH 2(150KHz – 30MHz)
Test distance:	3m		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1548	41.94	17.62	59.56	104.51	-44.95	AVG
2	1.3440	28.75	20.27	49.02	65.04	-16.02	QP
3	3.6425	31.10	20.29	51.39	69.54	-18.15	QP
4	5.2543	31.24	20.48	51.72	69.54	-17.82	QP
5	9.6722	30.60	20.22	50.82	69.54	-18.72	QP
6	18.9555	28.70	22.25	50.95	69.54	-18.59	QP

Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



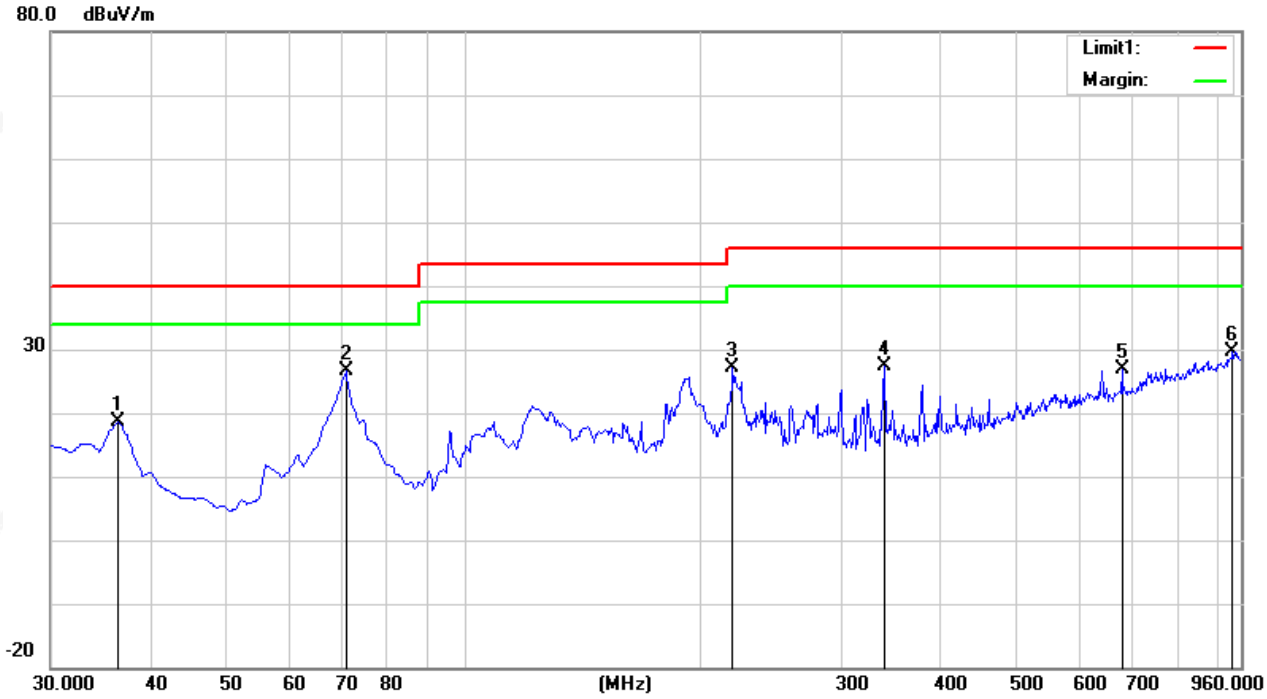
Note: The position of the measurement polarization (Horizontal / Face-on / Face-off) all has been tested, only shown the worst mode of Horizontal position.

30MHz – 960MHz Radiation Spurious

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2	Test distance:	3m

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	36.5100	34.90	-16.25	18.65	40.00	-21.35	peak
2	70.9200	51.27	-24.70	26.57	40.00	-13.43	peak
3	218.7900	46.76	-19.74	27.02	46.00	-18.98	peak
4	339.6900	40.69	-13.42	27.27	46.00	-18.73	peak
5	680.0700	31.08	-4.28	26.80	46.00	-19.20	peak
6	937.6800	28.35	1.18	29.53	46.00	-16.47	peak

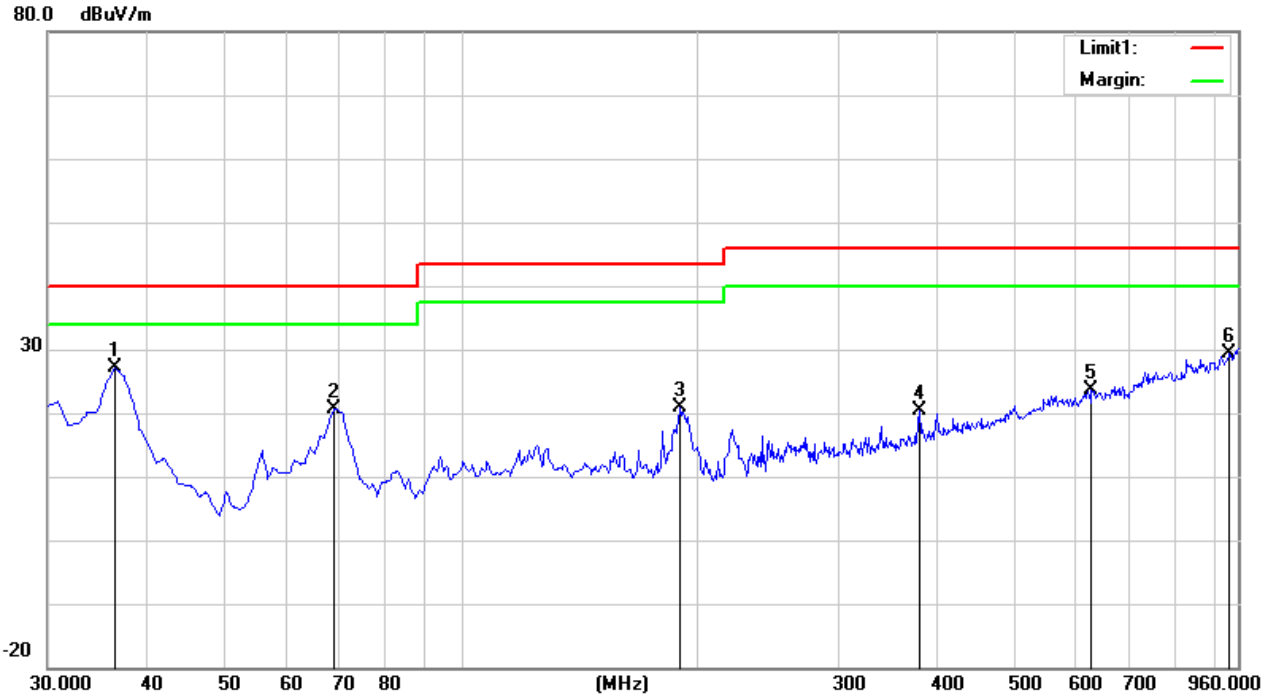
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2	Test distance:	3m

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	36.5100	43.37	-16.25	27.12	40.00	-12.88	peak
2	69.0600	45.73	-25.04	20.69	40.00	-19.31	peak
3	189.0300	41.82	-20.86	20.96	43.50	-22.54	peak
4	380.6100	32.73	-12.23	20.50	46.00	-25.50	peak
5	627.0600	28.81	-5.17	23.64	46.00	-22.36	peak
6	938.6100	28.03	1.26	29.29	46.00	-16.71	peak

Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

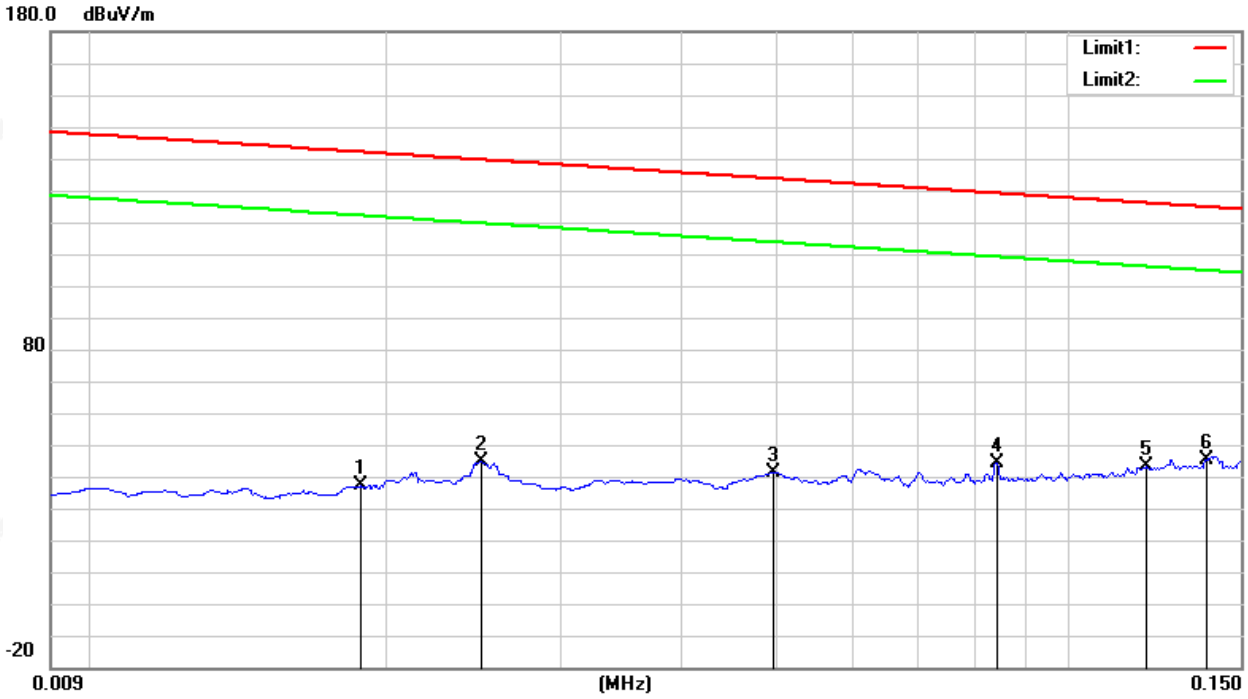


Below 30MHz

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Test Mode:	CH 3(9KHz - 150KHz)
Test distance:	3m		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0188	17.32	20.01	37.33	122.12	-84.79	AVG
2	0.0247	24.74	20.01	44.75	119.75	-75.00	AVG
3	0.0497	21.76	19.51	41.27	113.68	-72.41	AVG
4	0.0841	25.93	18.36	44.29	109.11	-64.82	AVG
5	0.1202	25.79	17.56	43.35	106.00	-62.65	AVG
6	0.1381	27.74	17.52	45.26	104.80	-59.54	AVG

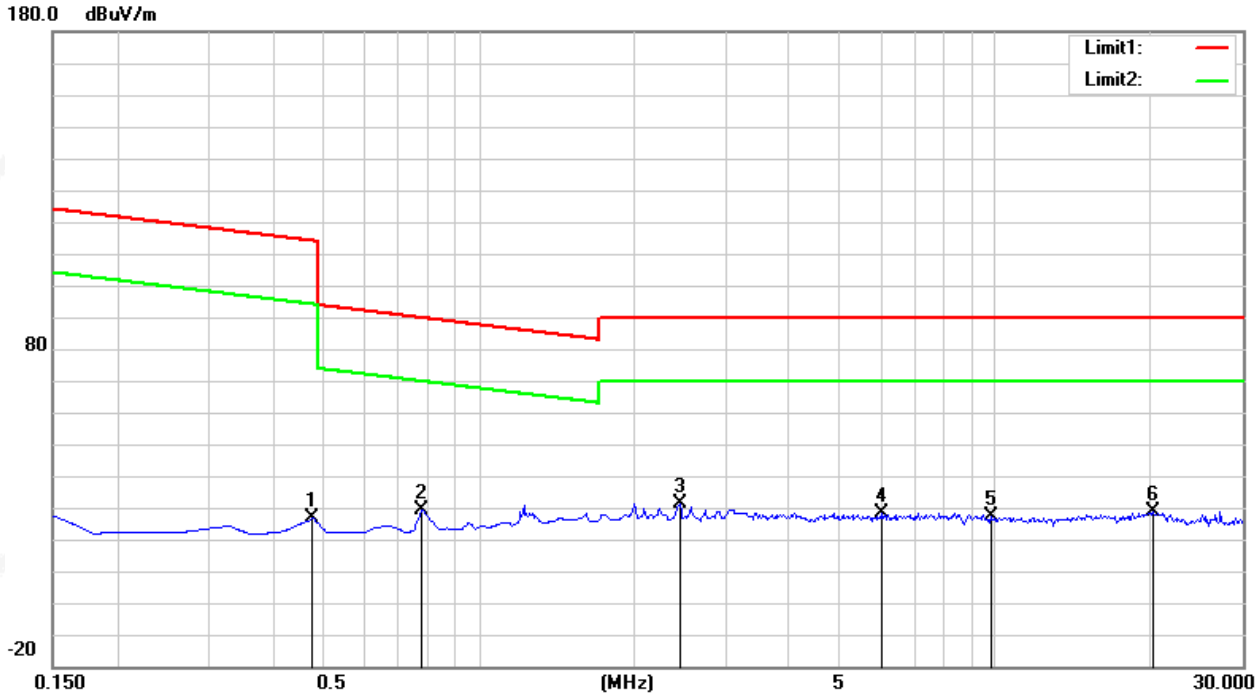
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Test Mode:	CH 3(150KHz – 30MHz)
Test distance:	3m		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.4783	6.38	20.19	26.57	94.01	-67.44	AVG
2	0.7770	9.01	20.29	29.30	69.80	-40.50	QP
3	2.4483	11.14	20.27	31.41	69.54	-38.13	QP
4	6.0006	7.92	20.44	28.36	69.54	-41.18	QP
5	9.7615	7.10	20.21	27.31	69.54	-42.23	QP
6	20.0600	6.09	22.48	28.57	69.54	-40.97	QP

Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



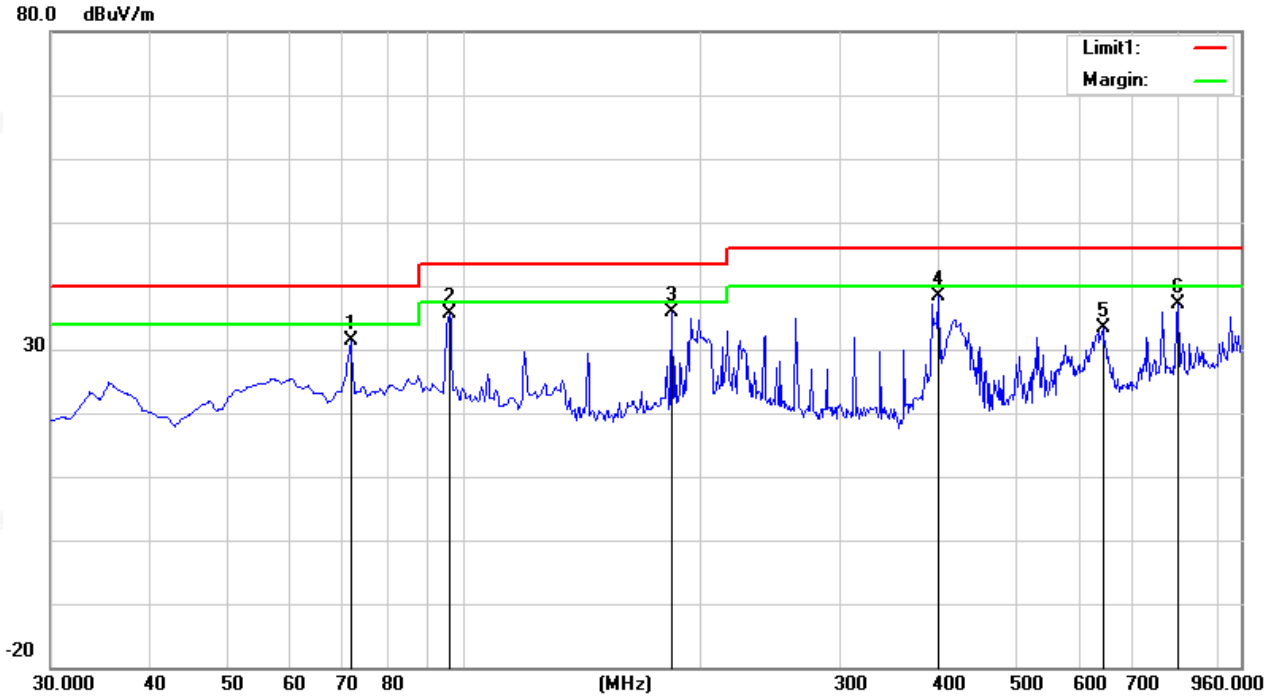
Note: The position of the measurement polarization (Horizontal / Face-on / Face-off) all has been tested, only shown the worst mode of Horizontal position.

30MHz – 960MHz Radiation Spurious

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 3		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	71.8500	55.82	-24.53	31.29	40.00	-8.71	peak
2	96.0300	56.41	-20.67	35.74	43.50	-7.76	peak
3	183.4500	56.22	-20.28	35.94	43.50	-7.56	peak
4	398.2800	49.49	-11.21	38.28	46.00	-7.72	peak
5	642.8700	38.22	-4.85	33.37	46.00	-12.63	peak
6	799.1100	39.20	-2.04	37.16	46.00	-8.84	peak

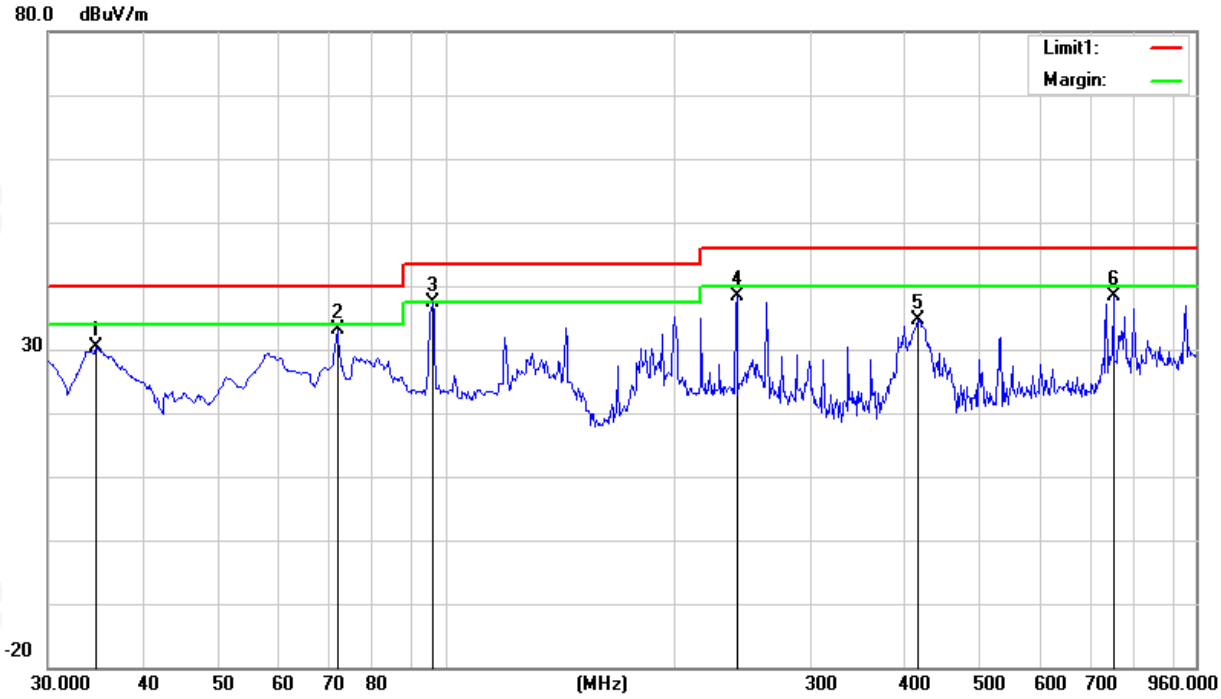
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 3		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	34.7006	45.62	-15.27	30.35	40.00	-9.65	peak
2	71.8500	57.64	-24.53	33.11	40.00	-6.89	peak
3	96.0300	58.04	-20.67	37.37	43.50	-6.13	peak
4	240.1800	56.36	-17.99	38.37	46.00	-7.63	peak
5	415.9500	44.86	-10.28	34.58	46.00	-11.42	peak
6	749.8200	40.62	-2.16	38.46	46.00	-7.54	peak

Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



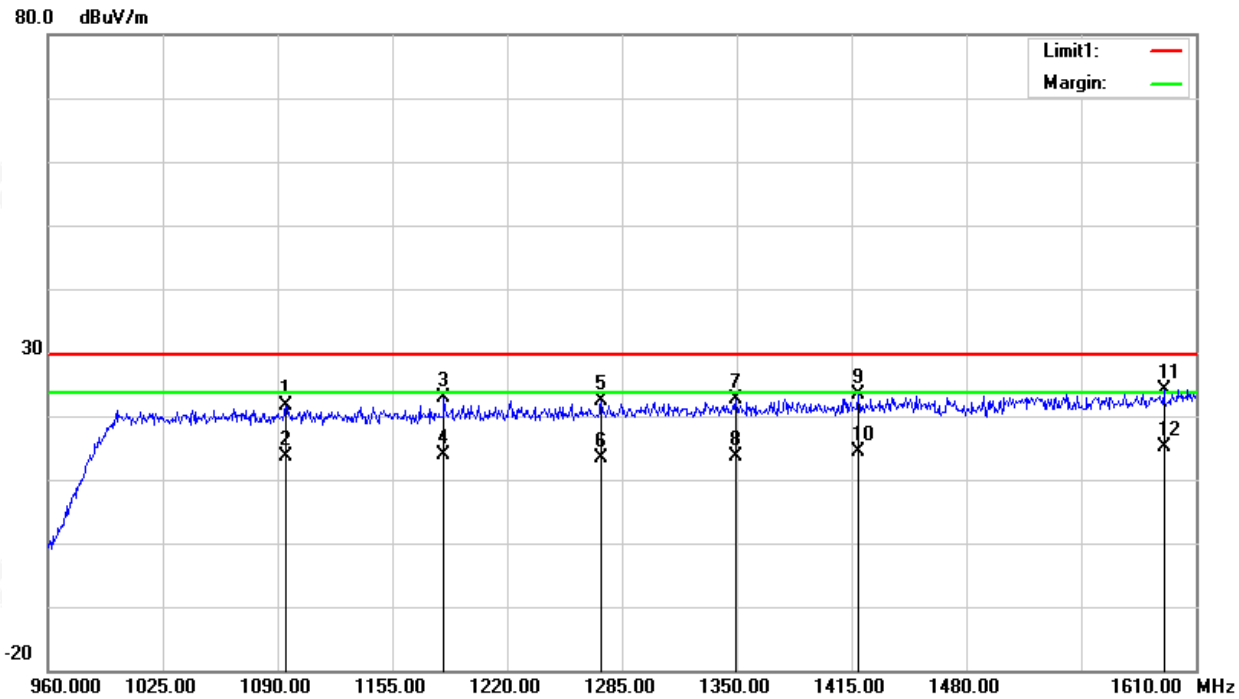
Above 960MHz Radiation Spurious

FCC:

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1(960MHz -1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1094.550	22.81	-1.10	21.71	29.54	-7.83	peak
2	1094.550	14.81	-1.10	13.71	29.54	-15.83	RMS
3	1184.250	23.47	-0.58	22.89	29.54	-6.65	peak
4	1184.250	14.47	-0.58	13.89	29.54	-15.65	RMS
5	1273.300	22.79	-0.33	22.46	29.54	-7.08	peak
6	1273.300	13.79	-0.33	13.46	29.54	-16.08	RMS
7	1349.350	22.59	0.06	22.65	29.54	-6.89	peak
8	1349.350	13.59	0.06	13.65	29.54	-15.89	RMS
9	1418.900	22.79	0.50	23.29	29.54	-6.25	peak
10	1418.900	13.79	0.50	14.29	29.54	-15.25	RMS
11	1591.800	20.13	3.98	24.11	29.54	-5.43	peak
12	1591.800	11.13	3.98	15.11	29.54	-14.43	RMS

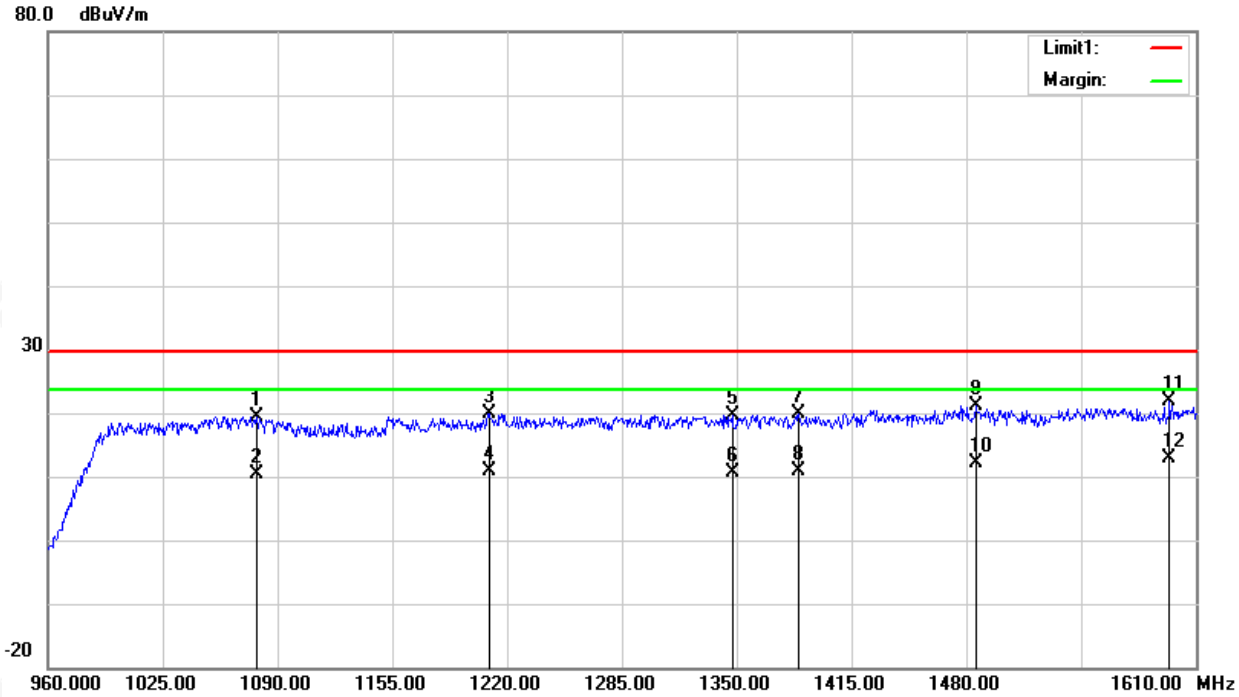
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1(960MHz -1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1078.300	20.58	-1.20	19.38	29.54	-10.16	peak
2	1078.300	11.58	-1.20	10.38	29.54	-19.16	RMS
3	1209.600	20.43	-0.43	20.00	29.54	-9.54	peak
4	1209.600	11.43	-0.43	11.00	29.54	-18.54	RMS
5	1347.400	19.69	0.05	19.74	29.54	-9.80	peak
6	1347.400	10.69	0.05	10.74	29.54	-18.80	RMS
7	1385.100	19.59	0.20	19.79	29.54	-9.75	peak
8	1385.100	10.59	0.20	10.79	29.54	-18.75	RMS
9	1485.200	19.81	1.30	21.11	29.54	-8.43	peak
10	1485.200	10.81	1.30	12.11	29.54	-17.43	RMS
11	1595.050	17.86	4.08	21.94	29.54	-7.60	peak
12	1595.050	8.86	4.08	12.94	29.54	-16.60	RMS

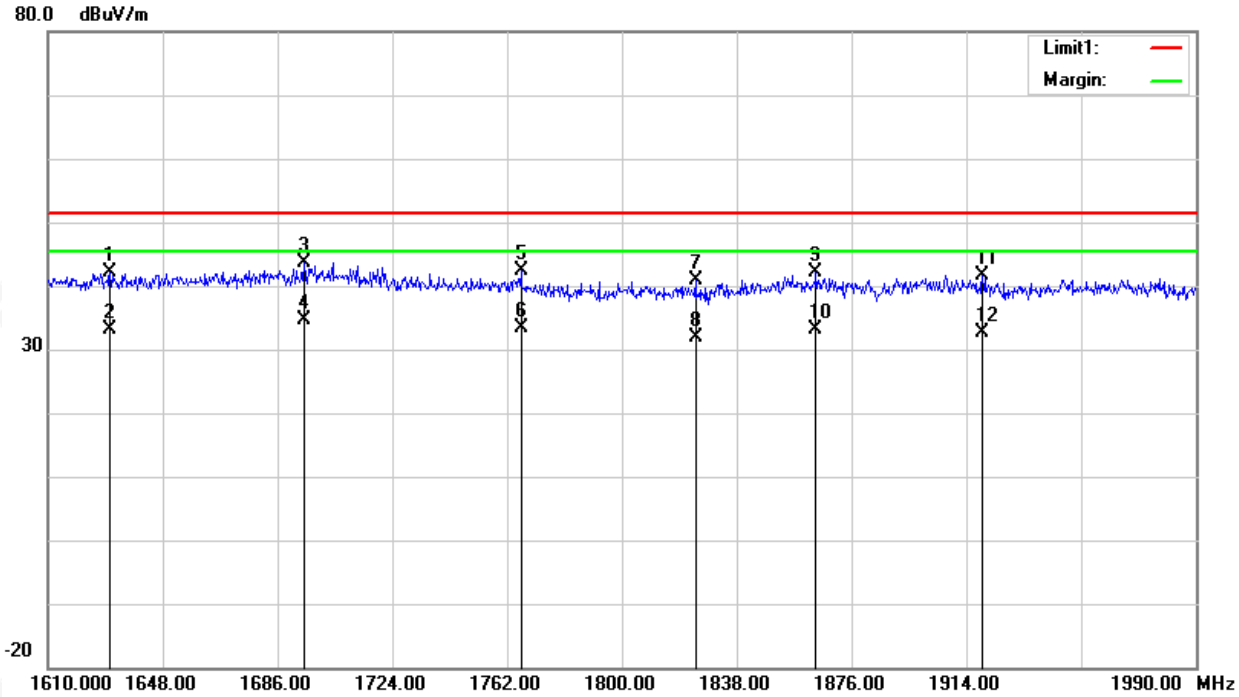
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1(1610MHz – 1990MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1630.520	37.93	4.24	42.17	51.44	-9.27	peak
2	1630.520	28.93	4.24	33.17	51.44	-18.27	RMS
3	1694.740	38.59	5.12	43.71	51.44	-7.73	peak
4	1694.740	29.59	5.12	34.71	51.44	-16.73	RMS
5	1766.560	39.31	3.03	42.34	51.44	-9.10	peak
6	1766.560	30.31	3.03	33.34	51.44	-18.10	RMS
7	1824.320	38.82	2.06	40.88	51.44	-10.56	peak
8	1824.320	29.82	2.06	31.88	51.44	-19.56	RMS
9	1864.220	39.99	2.10	42.09	51.44	-9.35	peak
10	1864.220	30.99	2.10	33.09	51.44	-18.35	RMS
11	1919.320	40.26	1.49	41.75	51.44	-9.69	peak
12	1919.320	31.26	1.49	32.75	51.44	-18.69	RMS

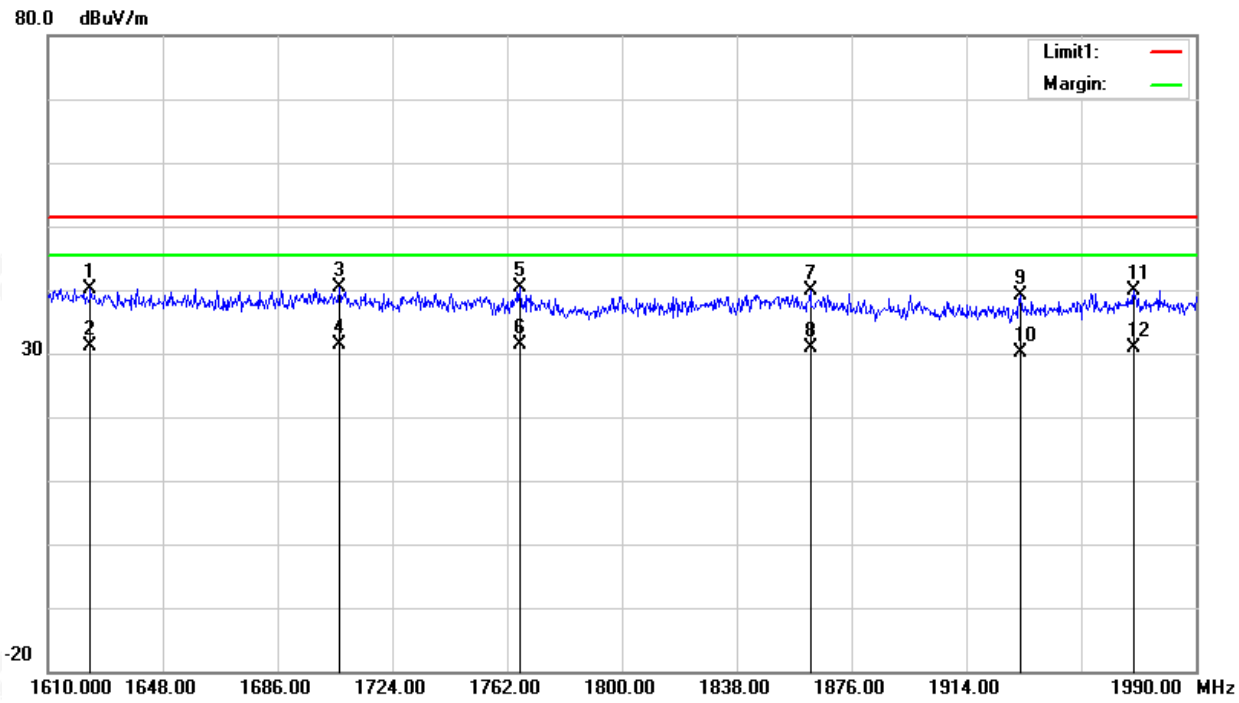
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1(1610MHz – 1990MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1624.060	35.86	4.24	40.10	51.44	-11.34	peak
2	1624.060	26.86	4.24	31.10	51.44	-20.34	RMS
3	1706.520	35.47	5.01	40.48	51.44	-10.96	peak
4	1706.520	26.47	5.01	31.48	51.44	-19.96	RMS
5	1766.180	37.27	3.05	40.32	51.44	-11.12	peak
6	1766.180	28.27	3.05	31.32	51.44	-20.12	RMS
7	1862.320	37.79	2.13	39.92	51.44	-11.52	peak
8	1862.320	28.79	2.13	30.92	51.44	-20.52	RMS
9	1931.860	37.52	1.50	39.02	51.44	-12.42	peak
10	1931.860	28.52	1.50	30.02	51.44	-21.42	RMS
11	1969.480	38.11	1.71	39.82	51.44	-11.62	peak
12	1969.480	29.11	1.71	30.82	51.44	-20.62	RMS

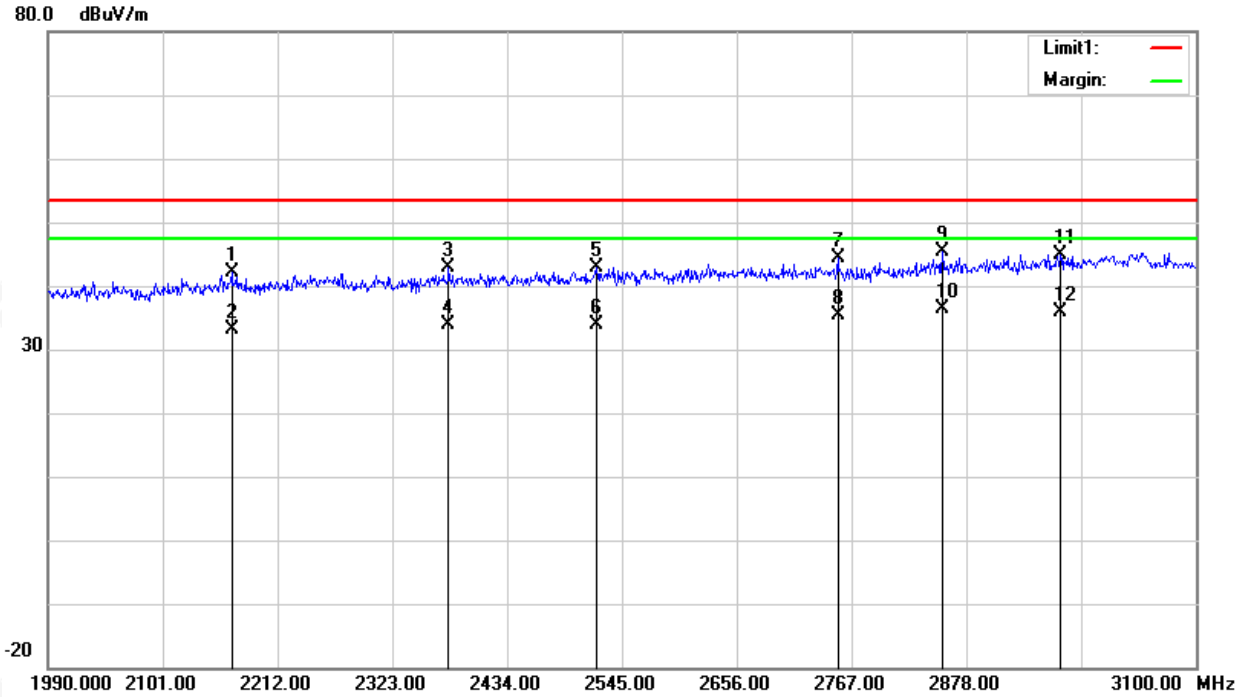
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1(1990MHz – 3100MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2167.600	38.89	3.16	42.05	53.44	-11.39	peak
2	2167.600	29.89	3.16	33.05	53.44	-20.39	RMS
3	2377.390	38.66	4.15	42.81	53.44	-10.63	peak
4	2377.390	29.66	4.15	33.81	53.44	-19.63	RMS
5	2520.580	38.19	4.78	42.97	53.44	-10.47	peak
6	2520.580	29.19	4.78	33.97	53.44	-19.47	RMS
7	2753.680	38.25	6.08	44.33	53.44	-9.11	peak
8	2753.680	29.25	6.08	35.33	53.44	-18.11	RMS
9	2854.690	38.81	6.58	45.39	53.44	-8.05	peak
10	2854.690	29.81	6.58	36.39	53.44	-17.05	RMS
11	2969.020	37.92	7.00	44.92	53.44	-8.52	peak
12	2969.020	28.92	7.00	35.92	53.44	-17.52	RMS

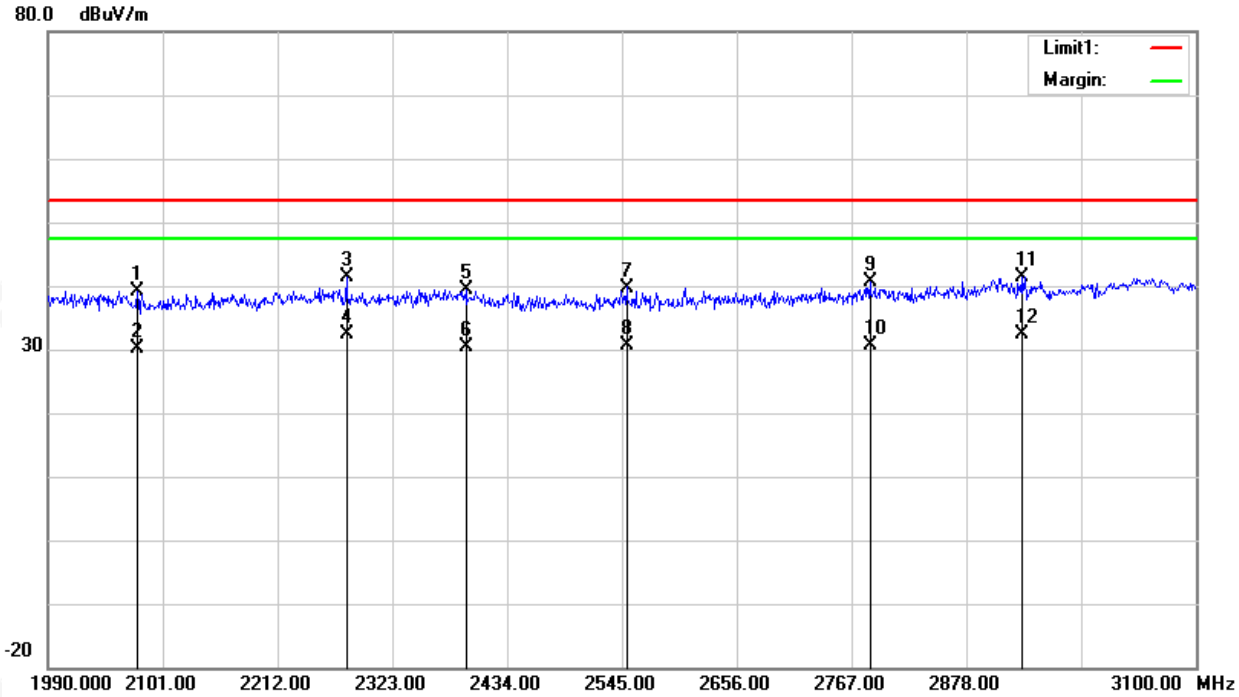
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1(1990MHz – 3100MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2076.580	36.85	2.27	39.12	53.44	-14.32	peak
2	2076.580	27.85	2.27	30.12	53.44	-23.32	RMS
3	2278.600	37.88	3.60	41.48	53.44	-11.96	peak
4	2278.600	28.88	3.60	32.48	53.44	-20.96	RMS
5	2394.040	35.00	4.40	39.40	53.44	-14.04	peak
6	2394.040	26.00	4.40	30.40	53.44	-23.04	RMS
7	2549.440	34.77	4.98	39.75	53.44	-13.69	peak
8	2549.440	25.77	4.98	30.75	53.44	-22.69	RMS
9	2784.760	34.36	6.18	40.54	53.44	-12.90	peak
10	2784.760	24.36	6.18	30.54	53.44	-22.90	RMS
11	2931.280	34.50	6.89	41.39	53.44	-12.05	peak
12	2931.280	25.50	6.89	32.39	53.44	-21.05	RMS

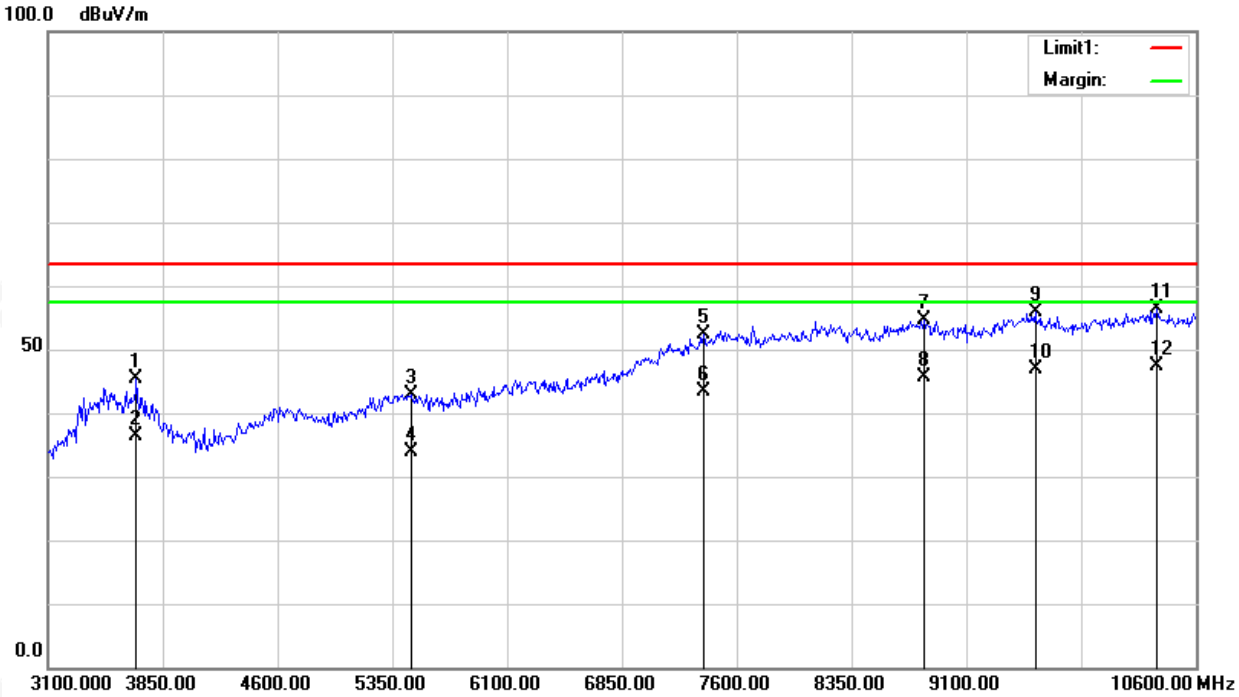
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1(3100MHz – 10600MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3677.500	55.90	-10.61	45.29	63.44	-18.15	peak
2	3677.500	46.90	-10.61	36.29	63.44	-27.15	RMS
3	5477.500	47.89	-5.07	42.82	63.44	-20.62	peak
4	5477.500	38.89	-5.07	33.82	63.44	-29.62	RMS
5	7382.500	51.14	1.20	52.34	63.44	-11.10	peak
6	7382.500	42.14	1.20	43.34	63.44	-20.10	RMS
7	8822.500	52.16	2.55	54.71	63.44	-8.73	peak
8	8822.500	43.16	2.55	45.71	63.44	-17.73	RMS
9	9550.000	52.62	3.16	55.78	63.44	-7.66	peak
10	9550.000	43.62	3.16	46.78	63.44	-16.66	RMS
11	10345.000	51.85	4.47	56.32	63.44	-7.12	peak
12	10345.000	42.85	4.47	47.32	63.44	-16.12	RMS

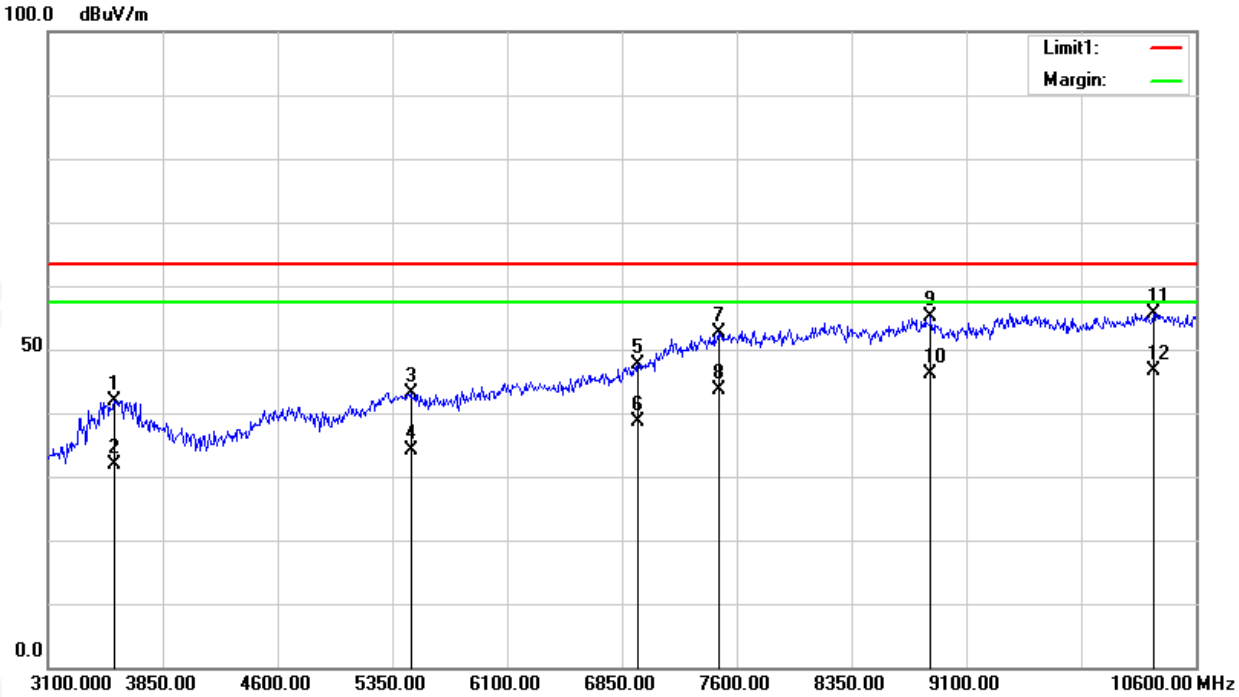
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1(3100MHz – 10600MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3535.000	53.23	-11.26	41.97	63.44	-21.47	peak
2	3535.000	43.23	-11.26	31.97	63.44	-31.47	RMS
3	5470.000	48.23	-5.09	43.14	63.44	-20.30	peak
4	5470.000	39.23	-5.09	34.14	63.44	-29.30	RMS
5	6955.000	47.85	-0.19	47.66	63.44	-15.78	peak
6	6955.000	38.85	-0.19	38.66	63.44	-24.78	RMS
7	7480.000	50.98	1.56	52.54	63.44	-10.90	peak
8	7480.000	41.98	1.56	43.54	63.44	-19.90	RMS
9	8867.500	52.53	2.53	55.06	63.44	-8.38	peak
10	8867.500	43.53	2.53	46.06	63.44	-17.38	RMS
11	10322.500	51.35	4.40	55.75	63.44	-7.69	peak
12	10322.500	42.35	4.40	46.75	63.44	-16.69	RMS

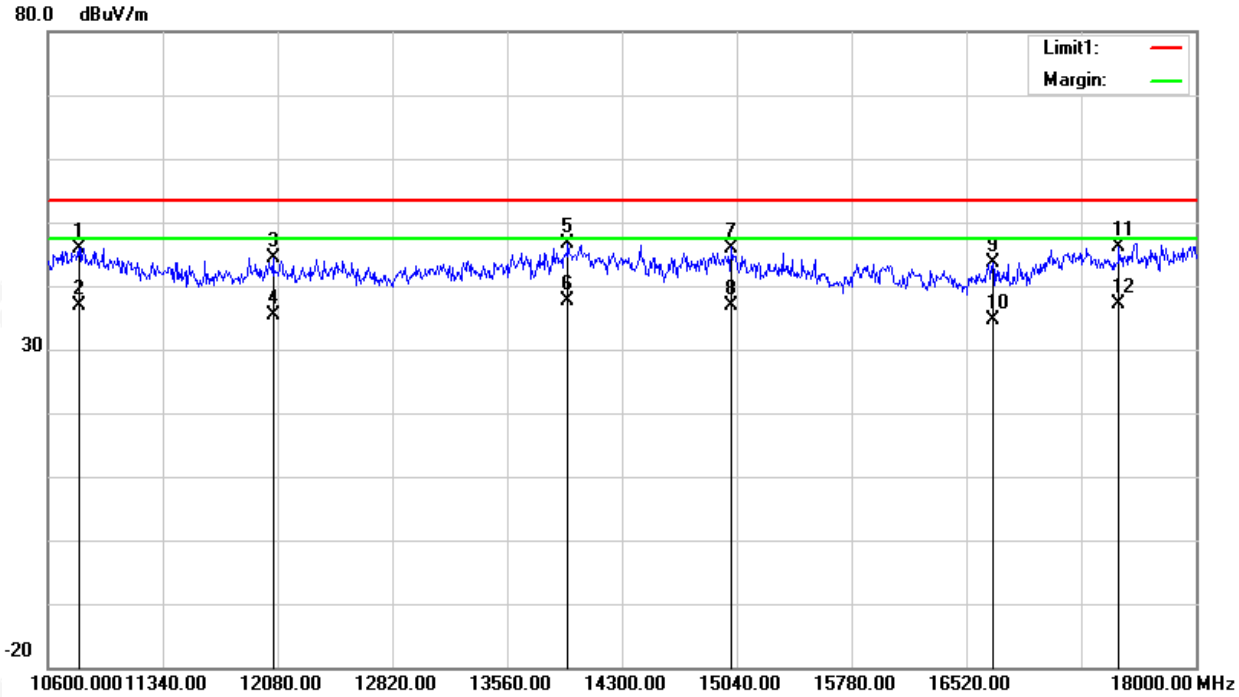
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1(10600MHz – 18000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10799.800	40.24	5.76	46.00	53.44	-7.44	peak
2	10799.800	31.24	5.76	37.00	53.44	-16.44	RMS
3	12050.400	38.57	5.81	44.38	53.44	-9.06	peak
4	12050.400	29.57	5.81	35.38	53.44	-18.06	RMS
5	13952.200	34.68	12.06	46.74	53.44	-6.70	peak
6	13952.200	25.68	12.06	37.74	53.44	-15.70	RMS
7	15003.000	35.94	10.06	46.00	53.44	-7.44	peak
8	15003.000	26.94	10.06	37.00	53.44	-16.44	RMS
9	16690.200	34.02	9.49	43.51	53.44	-9.93	peak
10	16690.200	25.02	9.49	34.51	53.44	-18.93	RMS
11	17504.200	35.59	10.65	46.24	53.44	-7.20	peak
12	17504.200	26.59	10.65	37.24	53.44	-16.20	RMS

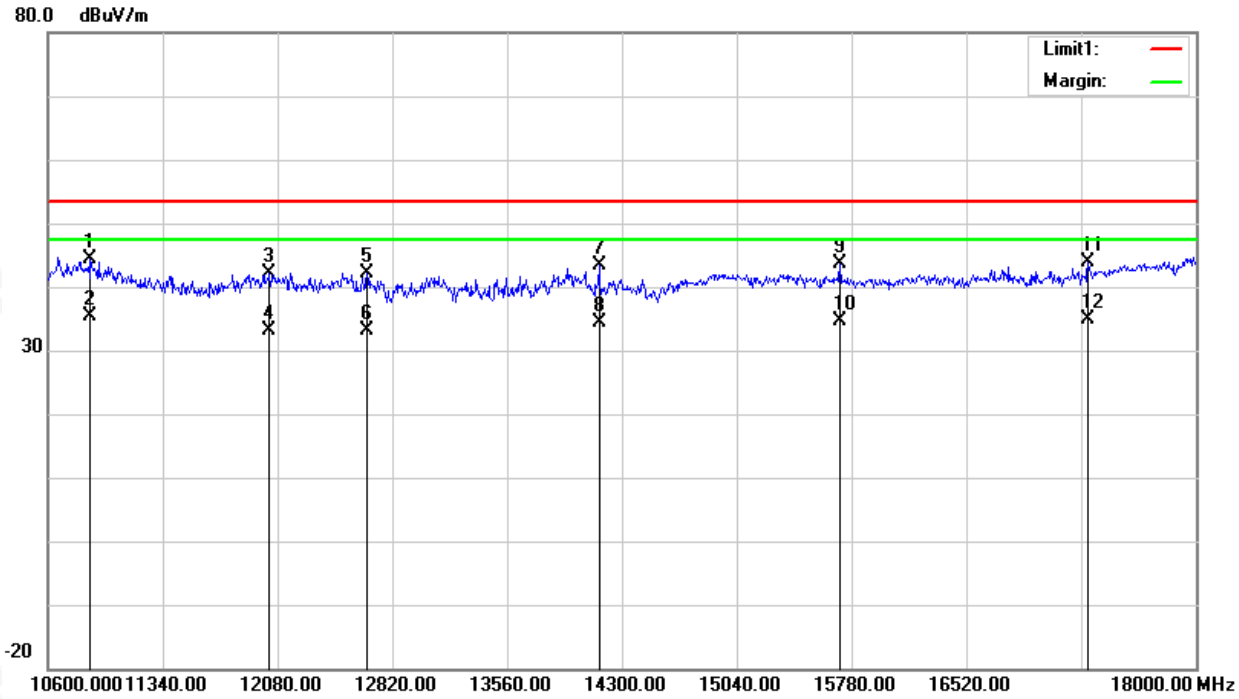
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1(10600MHz – 18000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10873.800	38.31	5.95	44.26	53.44	-9.18	peak
2	10873.800	29.31	5.95	35.26	53.44	-18.18	RMS
3	12028.200	36.43	5.80	42.23	53.44	-11.21	peak
4	12028.200	27.43	5.80	33.23	53.44	-20.21	RMS
5	12657.200	36.16	6.07	42.23	53.44	-11.21	peak
6	12657.200	27.16	6.07	33.23	53.44	-20.21	RMS
7	14152.000	31.34	12.04	43.38	53.44	-10.06	peak
8	14152.000	22.34	12.04	34.38	53.44	-19.06	RMS
9	15706.000	35.27	8.45	43.72	53.44	-9.72	peak
10	15706.000	26.27	8.45	34.72	53.44	-18.72	RMS
11	17304.400	33.62	10.32	43.94	53.44	-9.50	peak
12	17304.400	24.62	10.32	34.94	53.44	-18.50	RMS

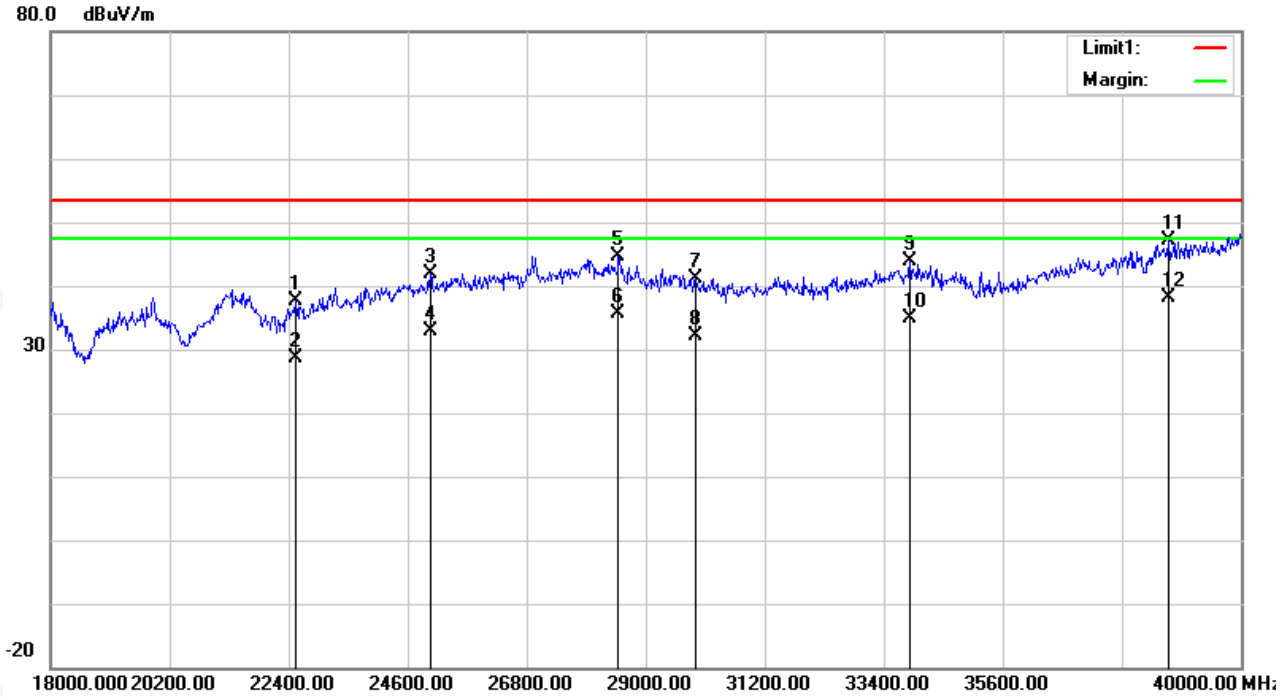
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1(18000MHz – 40000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	22532.000	25.64	12.03	37.67	53.44	-15.77	peak
2	22532.000	16.64	12.03	28.67	53.44	-24.77	RMS
3	25018.000	24.94	17.00	41.94	53.44	-11.50	peak
4	25018.000	15.94	17.00	32.94	53.44	-20.50	RMS
5	28494.000	25.79	18.73	44.52	53.44	-8.92	peak
6	28494.000	16.79	18.73	35.52	53.44	-17.92	RMS
7	29924.000	25.15	16.07	41.22	53.44	-12.22	peak
8	29924.000	16.15	16.07	32.22	53.44	-21.22	RMS
9	33884.000	28.03	15.78	43.81	53.44	-9.63	peak
10	33884.000	19.03	15.78	34.81	53.44	-18.63	RMS
11	38658.000	28.99	18.03	47.02	53.44	-6.42	peak
12	38658.000	19.99	18.03	38.02	53.44	-15.42	RMS

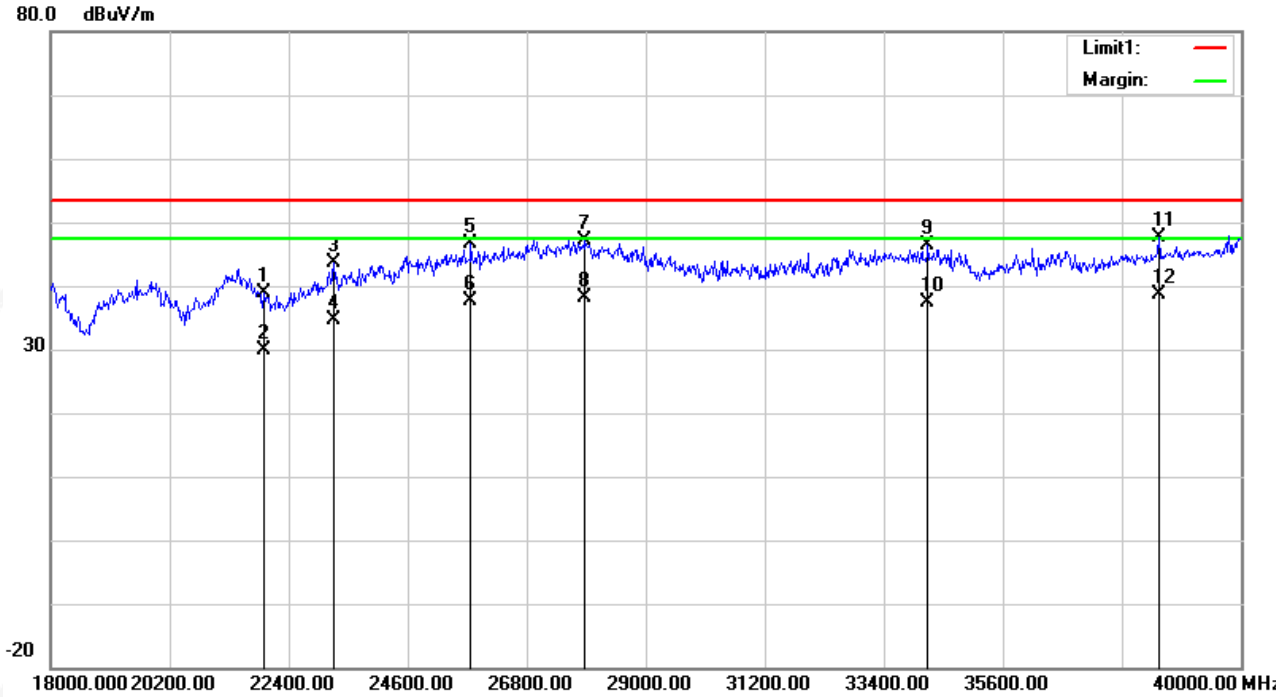
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1(18000MHz – 40000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	21938.000	27.41	11.40	38.81	53.44	-14.63	peak
2	21938.000	18.41	11.40	29.81	53.44	-23.63	RMS
3	23236.000	28.44	15.20	43.64	53.44	-9.80	peak
4	23236.000	19.44	15.20	34.64	53.44	-18.80	RMS
5	25766.000	29.05	17.64	46.69	53.44	-6.75	peak
6	25766.000	20.05	17.64	37.69	53.44	-15.75	RMS
7	27878.000	27.63	19.54	47.17	53.44	-6.27	peak
8	27878.000	18.63	19.54	38.17	53.44	-15.27	RMS
9	34214.000	30.55	15.90	46.45	53.44	-6.99	peak
10	34214.000	21.55	15.90	37.45	53.44	-15.99	RMS
11	38482.000	29.75	17.92	47.67	53.44	-5.77	peak
12	38482.000	20.75	17.92	38.67	53.44	-14.77	RMS

Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

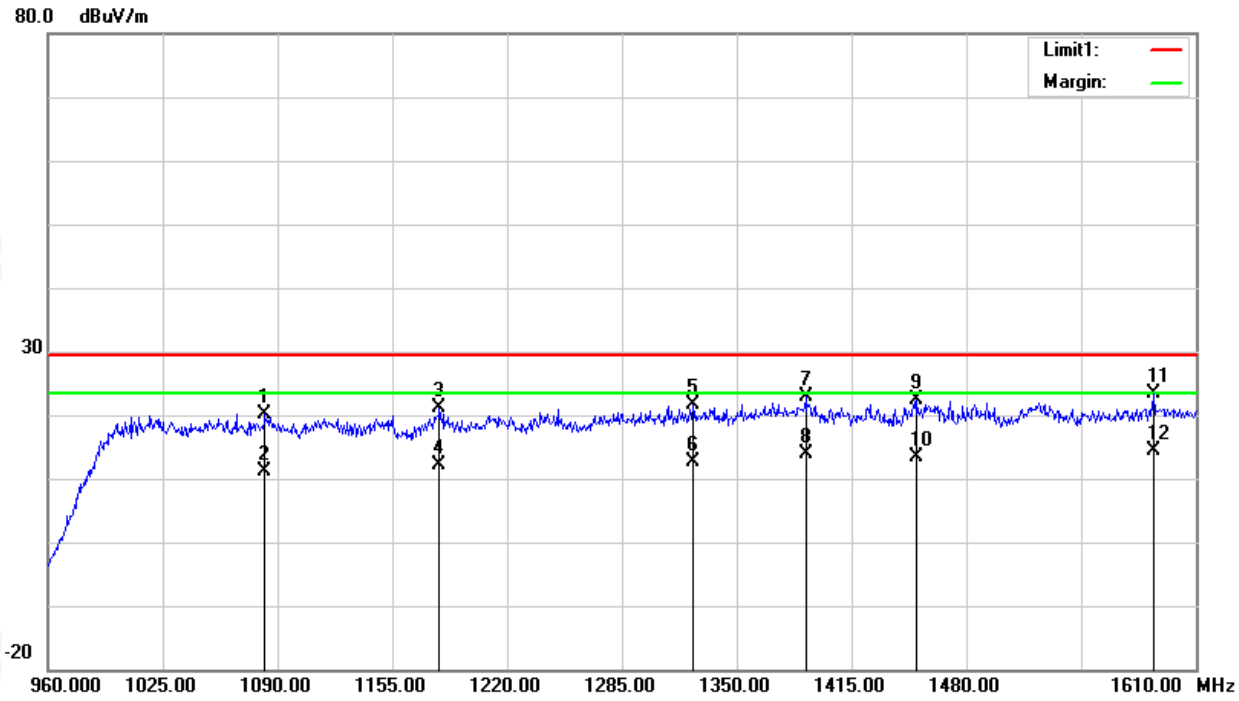


IC:

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1(960MHz -1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1082.850	21.25	-1.18	20.07	29.44	-9.37	peak
2	1082.850	12.25	-1.18	11.07	29.44	-18.37	RMS
3	1181.650	21.69	-0.60	21.09	29.44	-8.35	peak
4	1181.650	12.69	-0.60	12.09	29.44	-17.35	RMS
5	1325.300	21.73	-0.03	21.70	29.44	-7.74	peak
6	1325.300	12.73	-0.03	12.70	29.44	-16.74	RMS
7	1389.000	22.72	0.22	22.94	29.44	-6.50	peak
8	1389.000	13.72	0.22	13.94	29.44	-15.50	RMS
9	1452.050	21.36	0.92	22.28	29.44	-7.16	peak
10	1452.050	12.36	0.92	13.28	29.44	-16.16	RMS
11	1585.950	19.47	3.79	23.26	29.44	-6.18	peak
12	1585.950	10.47	3.79	14.26	29.44	-15.18	RMS

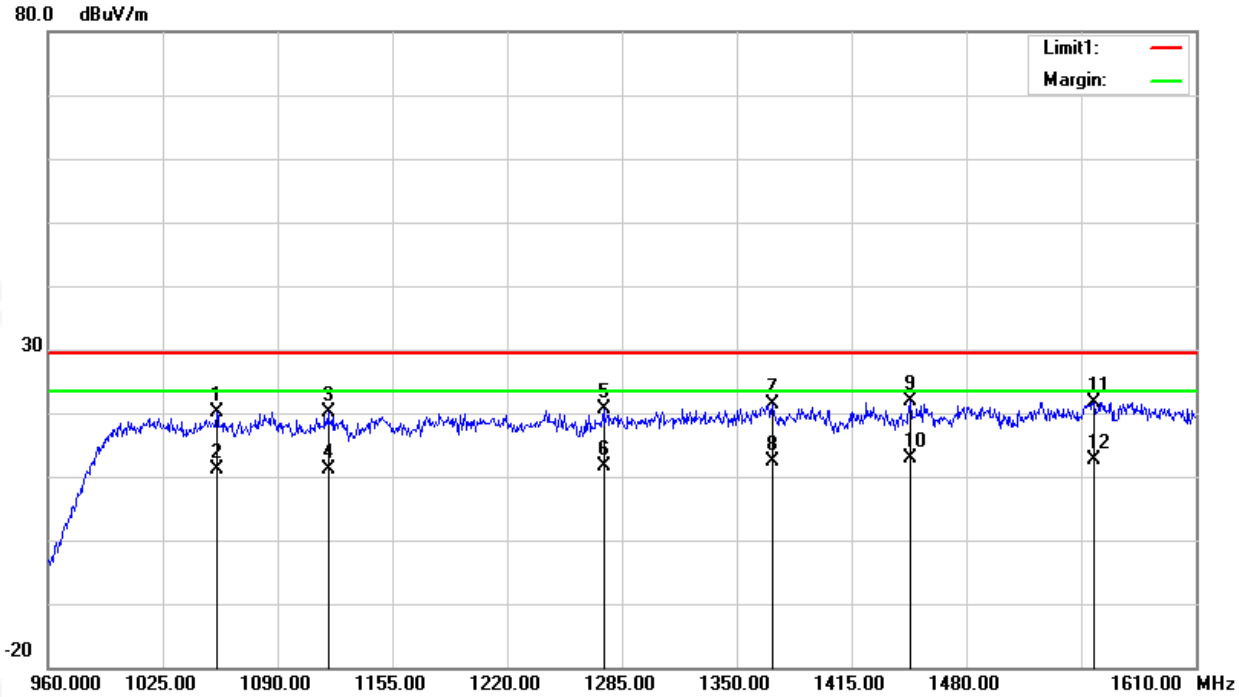
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1(960MHz -1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1055.550	21.49	-1.34	20.15	29.44	-9.29	peak
2	1055.550	12.49	-1.34	11.15	29.44	-18.29	RMS
3	1118.600	21.09	-1.01	20.08	29.44	-9.36	peak
4	1118.600	12.09	-1.01	11.08	29.44	-18.36	RMS
5	1274.600	20.99	-0.33	20.66	29.44	-8.78	peak
6	1274.600	11.99	-0.33	11.66	29.44	-17.78	RMS
7	1370.150	21.13	0.15	21.28	29.44	-8.16	peak
8	1370.150	12.13	0.15	12.28	29.44	-17.16	RMS
9	1448.150	20.92	0.87	21.79	29.44	-7.65	peak
10	1448.150	11.92	0.87	12.79	29.44	-16.65	RMS
11	1552.150	19.01	2.74	21.75	29.44	-7.69	peak
12	1552.150	10.01	2.74	12.75	29.44	-16.69	RMS

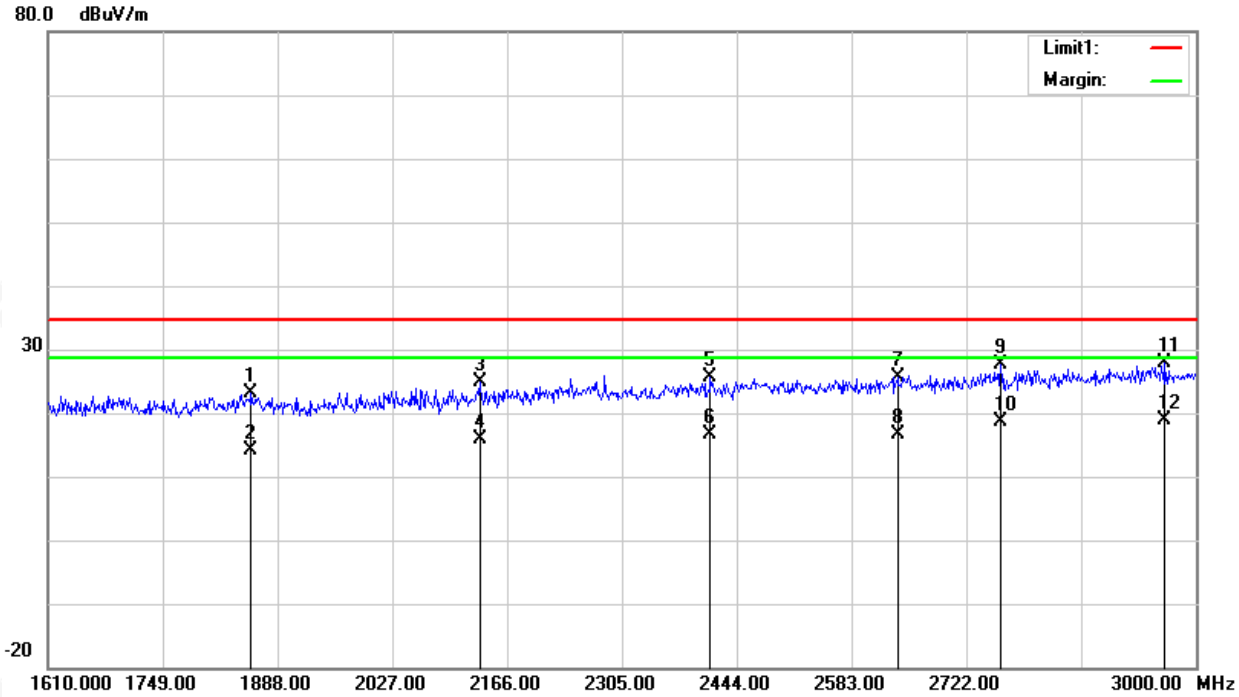
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1(1610MHz – 3000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1856.030	20.81	2.24	23.05	34.74	-11.69	peak
2	1856.030	11.81	2.24	14.05	34.74	-20.69	RMS
3	2132.640	21.79	2.99	24.78	34.74	-9.96	peak
4	2132.640	12.79	2.99	15.78	34.74	-18.96	RMS
5	2412.030	21.11	4.50	25.61	34.74	-9.13	peak
6	2412.030	12.11	4.50	16.61	34.74	-18.13	RMS
7	2638.600	20.10	5.44	25.54	34.74	-9.20	peak
8	2638.600	11.10	5.44	16.54	34.74	-18.20	RMS
9	2763.700	21.44	6.12	27.56	34.74	-7.18	peak
10	2763.700	12.44	6.12	18.56	34.74	-16.18	RMS
11	2962.470	20.77	6.99	27.76	34.74	-6.98	peak
12	2962.470	11.77	6.99	18.76	34.74	-15.98	RMS

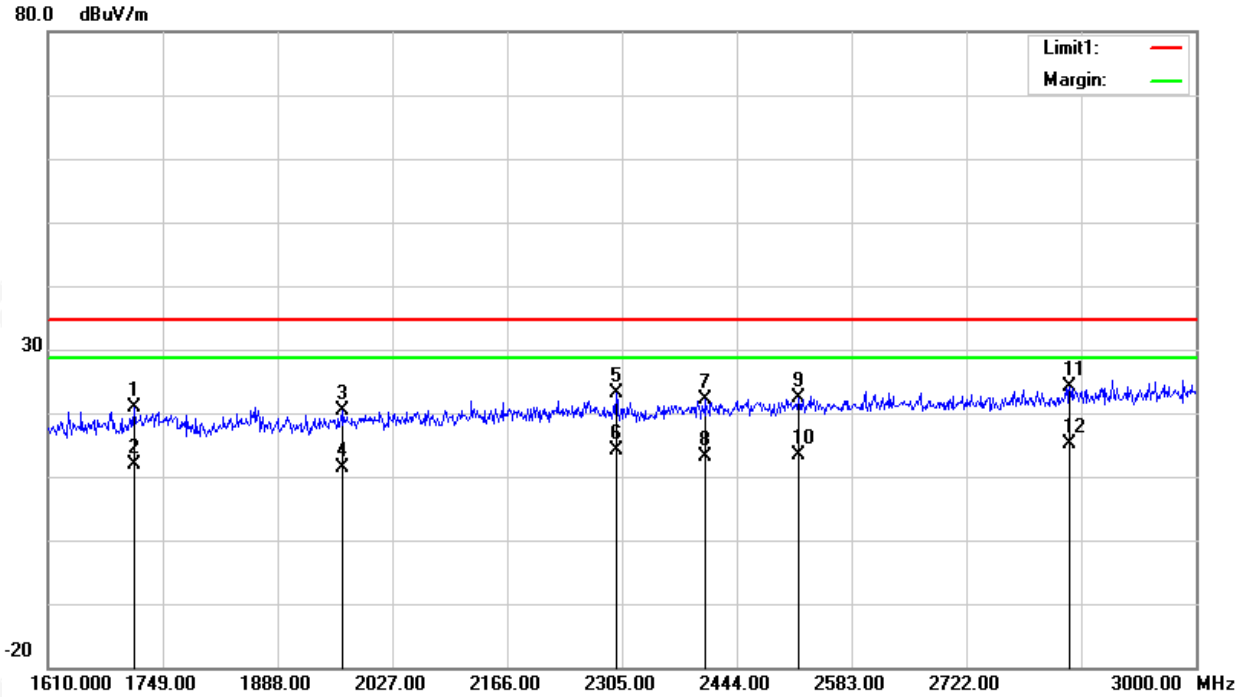
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1(1610MHz – 3000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1714.250	16.13	4.78	20.91	34.74	-13.83	peak
2	1714.250	7.13	4.78	11.91	34.74	-22.83	RMS
3	1967.230	18.72	1.69	20.41	34.74	-14.33	peak
4	1967.230	9.72	1.69	11.41	34.74	-23.33	RMS
5	2298.050	19.71	3.48	23.19	34.74	-11.55	peak
6	2298.050	10.71	3.48	14.19	34.74	-20.55	RMS
7	2406.470	17.54	4.49	22.03	34.74	-12.71	peak
8	2406.470	8.54	4.49	13.03	34.74	-21.71	RMS
9	2519.060	17.53	4.77	22.30	34.74	-12.44	peak
10	2519.060	8.53	4.77	13.30	34.74	-21.44	RMS
11	2847.100	17.47	6.54	24.01	34.74	-10.73	peak
12	2847.100	8.47	6.54	15.01	34.74	-19.73	RMS

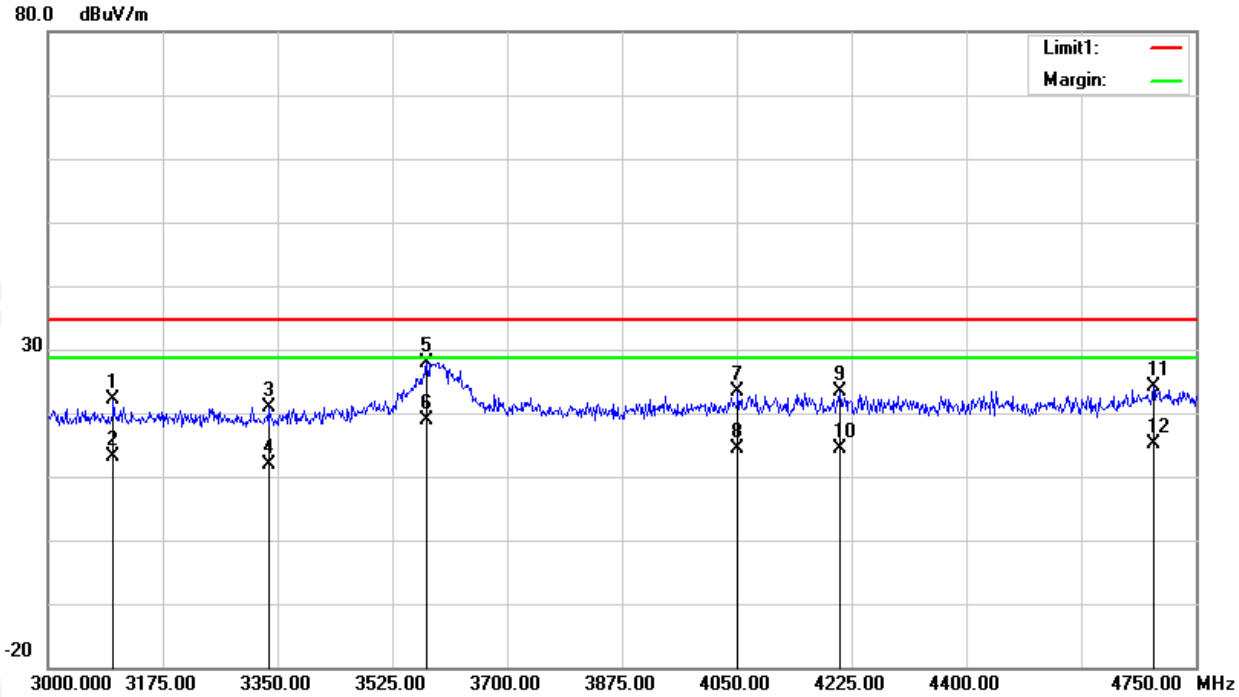
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1(3000MHz –4750MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3099.750	34.60	-12.41	22.19	34.74	-12.55	peak
2	3099.750	25.60	-12.41	13.19	34.74	-21.55	RMS
3	3337.750	32.79	-11.89	20.90	34.74	-13.84	peak
4	3337.750	23.79	-11.89	11.90	34.74	-22.84	RMS
5	3577.500	38.99	-10.99	28.00	34.74	-6.74	peak
6	3577.500	29.99	-10.99	19.00	34.74	-15.74	RMS
7	4051.750	32.67	-9.36	23.31	34.74	-11.43	peak
8	4051.750	23.67	-9.36	14.31	34.74	-20.43	RMS
9	4207.500	31.93	-8.46	23.47	34.74	-11.27	peak
10	4207.500	22.93	-8.46	14.47	34.74	-20.27	RMS
11	4685.250	31.63	-7.44	24.19	34.74	-10.55	peak
12	4685.250	22.63	-7.44	15.19	34.74	-19.55	RMS

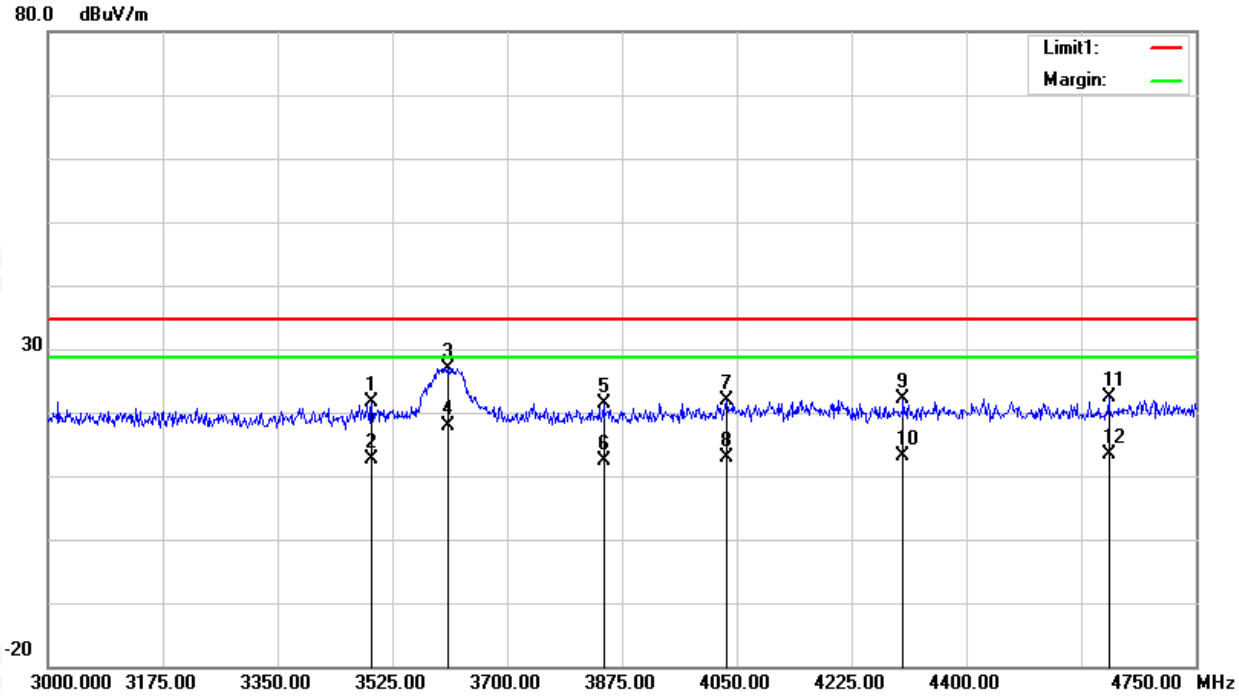
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1(3000MHz –4750MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3493.500	33.12	-11.48	21.64	34.74	-13.10	peak
2	3493.500	24.12	-11.48	12.64	34.74	-22.10	RMS
3	3609.000	37.81	-10.82	26.99	34.74	-7.75	peak
4	3609.000	28.81	-10.82	17.99	34.74	-16.75	RMS
5	3847.000	31.73	-10.42	21.31	34.74	-13.43	peak
6	3847.000	22.73	-10.42	12.31	34.74	-22.43	RMS
7	4034.250	31.44	-9.46	21.98	34.74	-12.76	peak
8	4034.250	22.44	-9.46	12.98	34.74	-21.76	RMS
9	4303.750	30.49	-8.27	22.22	34.74	-12.52	peak
10	4303.750	21.49	-8.27	13.22	34.74	-21.52	RMS
11	4617.000	30.22	-7.79	22.43	34.74	-12.31	peak
12	4617.000	21.22	-7.79	13.43	34.74	-21.31	RMS

Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



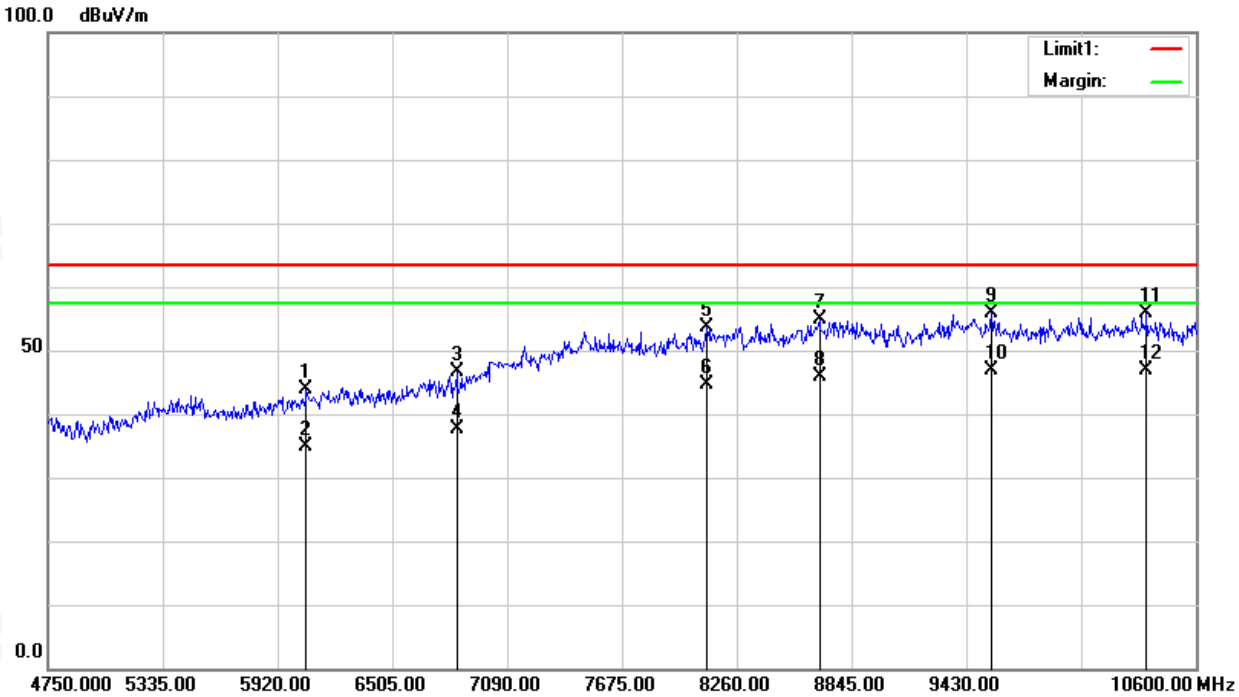
Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1(4750MHz –10600MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	6066.250	47.47	-3.59	43.88	63.44	-19.56	peak
2	6066.250	38.47	-3.59	34.88	63.44	-28.56	RMS
3	6832.600	47.25	-0.62	46.63	63.44	-16.81	peak
4	6832.600	38.25	-0.62	37.63	63.44	-25.81	RMS
5	8107.900	51.43	2.29	53.72	63.44	-9.72	peak
6	8107.900	42.43	2.29	44.72	63.44	-18.72	RMS
7	8681.200	52.33	2.62	54.95	63.44	-8.49	peak
8	8681.200	43.33	2.62	45.95	63.44	-17.49	RMS
9	9558.700	52.63	3.16	55.79	63.44	-7.65	peak
10	9558.700	43.63	3.16	46.79	63.44	-16.65	RMS
11	10348.450	51.33	4.48	55.81	63.44	-7.63	peak
12	10348.450	42.33	4.48	46.81	63.44	-16.63	RMS

Remark:

Margin = Result (Result =Reading + Factor)–Limit

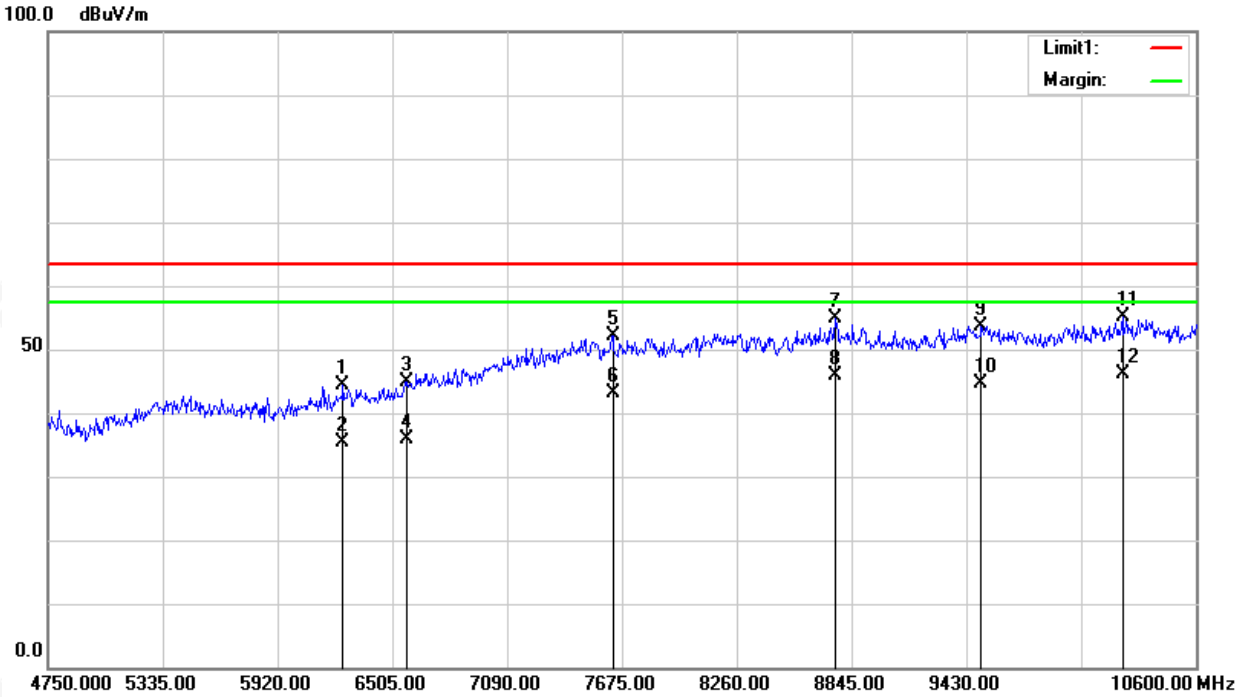
Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1(4750MHz –10600MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	6253.450	47.13	-2.81	44.32	63.44	-19.12	peak
2	6253.450	38.13	-2.81	35.32	63.44	-28.12	RMS
3	6581.050	46.69	-1.79	44.90	63.44	-18.54	peak
4	6581.050	37.69	-1.79	35.90	63.44	-27.54	RMS
5	7628.200	50.43	1.77	52.20	63.44	-11.24	peak
6	7628.200	41.43	1.77	43.20	63.44	-20.24	RMS
7	8763.100	52.33	2.59	54.92	63.44	-8.52	peak
8	8763.100	43.33	2.59	45.92	63.44	-17.52	RMS
9	9506.050	50.53	3.14	53.67	63.44	-9.77	peak
10	9506.050	41.53	3.14	44.67	63.44	-18.77	RMS
11	10225.600	51.08	4.09	55.17	63.44	-8.27	peak
12	10225.600	42.08	4.09	46.17	63.44	-17.27	RMS

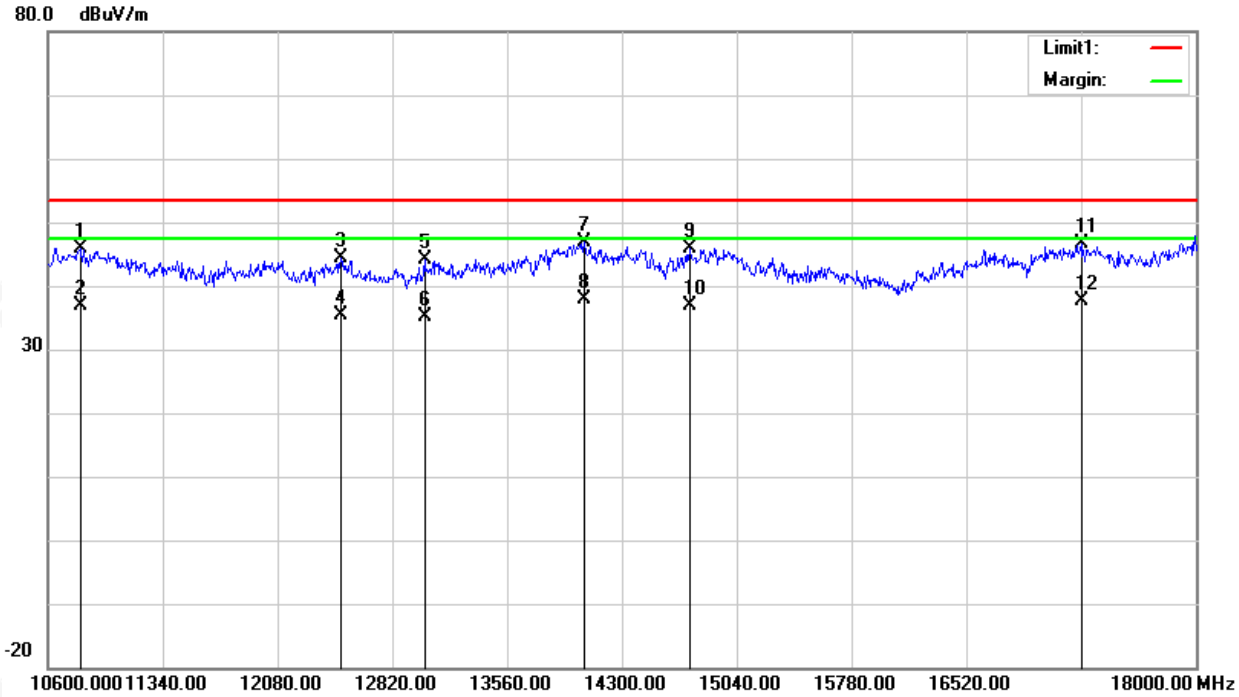
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1(10600MHz –18000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10807.200	40.21	5.78	45.99	53.44	-7.45	peak
2	10807.200	31.21	5.78	36.99	53.44	-16.45	RMS
3	12487.000	38.46	5.83	44.29	53.44	-9.15	peak
4	12487.000	29.46	5.83	35.29	53.44	-18.15	RMS
5	13027.200	37.30	6.73	44.03	53.44	-9.41	peak
6	13027.200	28.30	6.73	35.03	53.44	-18.41	RMS
7	14055.800	34.59	12.22	46.81	53.44	-6.63	peak
8	14055.800	25.59	12.22	37.81	53.44	-15.63	RMS
9	14736.600	35.18	10.77	45.95	53.44	-7.49	peak
10	14736.600	26.18	10.77	36.95	53.44	-16.49	RMS
11	17260.000	36.29	10.24	46.53	53.44	-6.91	peak
12	17260.000	27.29	10.24	37.53	53.44	-15.91	RMS

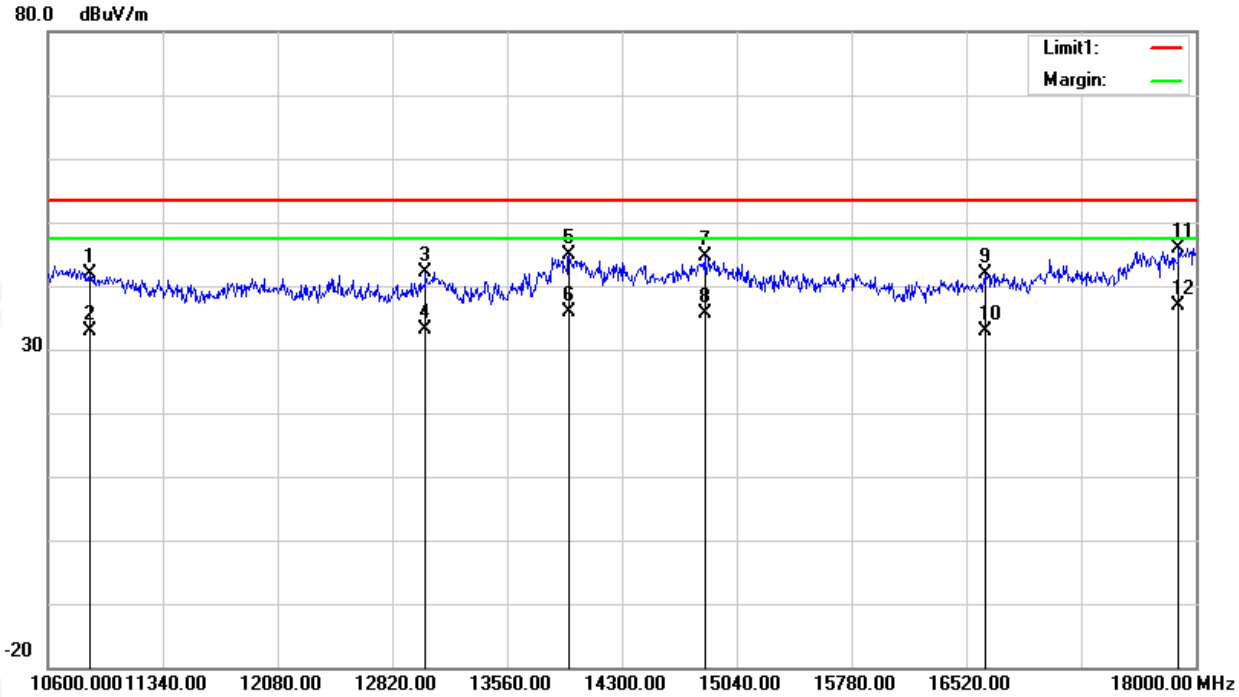
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1(10600MHz –18000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10866.400	35.92	5.93	41.85	53.44	-11.59	peak
2	10866.400	26.92	5.93	32.85	53.44	-20.59	RMS
3	13034.600	35.38	6.78	42.16	53.44	-11.28	peak
4	13034.600	26.38	6.78	33.16	53.44	-20.28	RMS
5	13959.600	32.87	12.10	44.97	53.44	-8.47	peak
6	13959.600	23.87	12.10	35.97	53.44	-17.47	RMS
7	14832.800	34.11	10.51	44.62	53.44	-8.82	peak
8	14832.800	25.11	10.51	35.62	53.44	-17.82	RMS
9	16645.800	32.42	9.44	41.86	53.44	-11.58	peak
10	16645.800	23.42	9.44	32.86	53.44	-20.58	RMS
11	17889.000	34.04	11.74	45.78	53.44	-7.66	peak
12	17889.000	25.04	11.74	36.78	53.44	-16.66	RMS

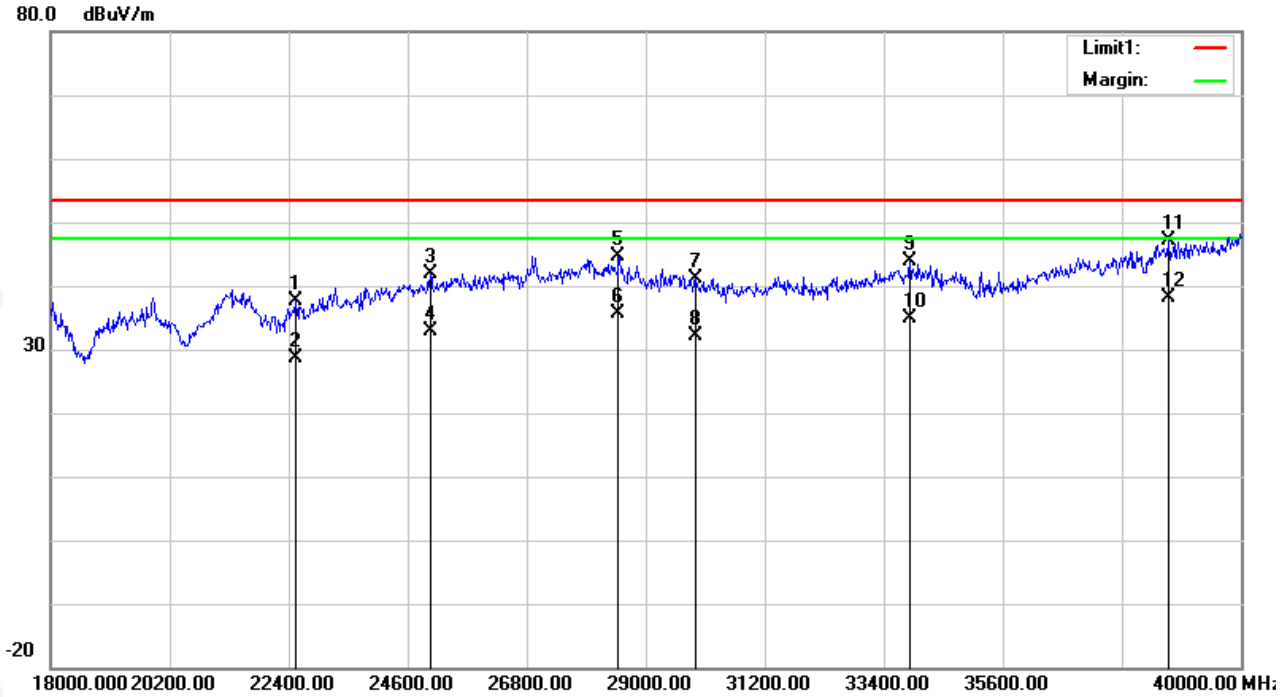
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1(18000MHz –40000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	22532.000	25.64	12.03	37.67	53.44	-15.77	peak
2	22532.000	16.64	12.03	28.67	53.44	-24.77	RMS
3	25018.000	24.94	17.00	41.94	53.44	-11.50	peak
4	25018.000	15.94	17.00	32.94	53.44	-20.50	RMS
5	28494.000	25.79	18.73	44.52	53.44	-8.92	peak
6	28494.000	16.79	18.73	35.52	53.44	-17.92	RMS
7	29924.000	25.15	16.07	41.22	53.44	-12.22	peak
8	29924.000	16.15	16.07	32.22	53.44	-21.22	RMS
9	33884.000	28.03	15.78	43.81	53.44	-9.63	peak
10	33884.000	19.03	15.78	34.81	53.44	-18.63	RMS
11	38658.000	28.99	18.03	47.02	53.44	-6.42	peak
12	38658.000	19.99	18.03	38.02	53.44	-15.42	RMS

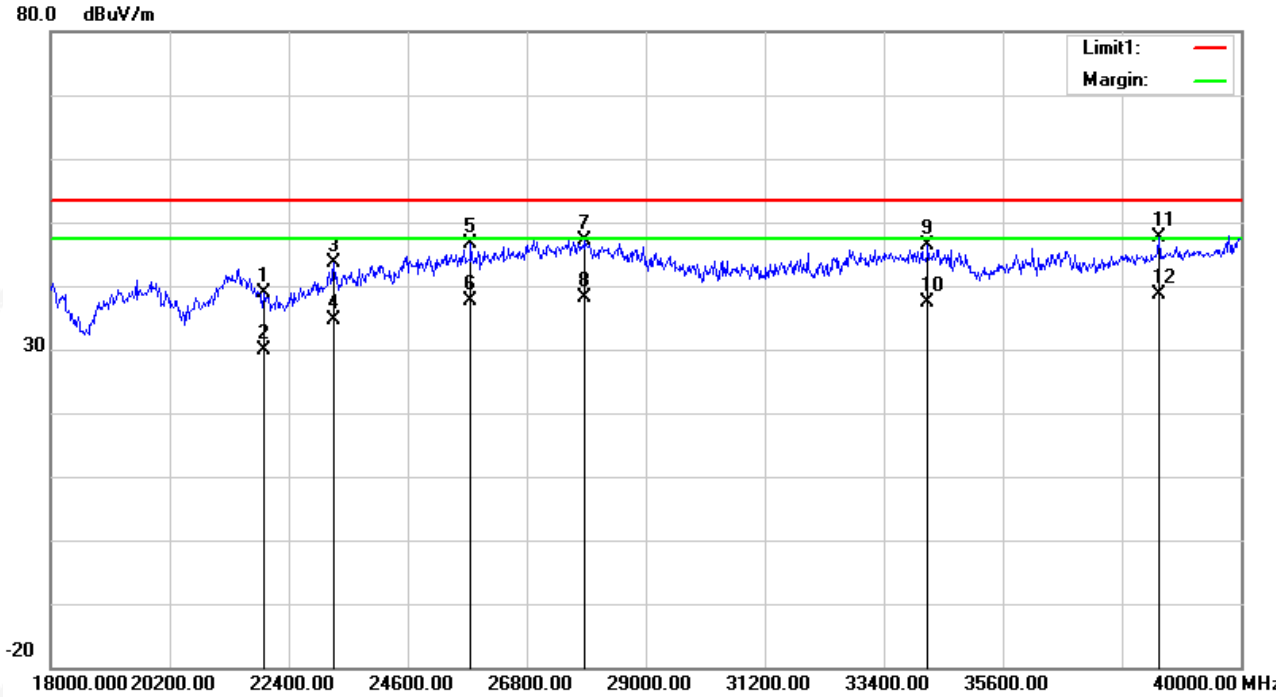
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1(18000MHz –40000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	21938.000	27.41	11.40	38.81	53.44	-14.63	peak
2	21938.000	18.41	11.40	29.81	53.44	-23.63	RMS
3	23236.000	28.44	15.20	43.64	53.44	-9.80	peak
4	23236.000	19.44	15.20	34.64	53.44	-18.80	RMS
5	25766.000	29.05	17.64	46.69	53.44	-6.75	peak
6	25766.000	20.05	17.64	37.69	53.44	-15.75	RMS
7	27878.000	27.63	19.54	47.17	53.44	-6.27	peak
8	27878.000	18.63	19.54	38.17	53.44	-15.27	RMS
9	34214.000	30.55	15.90	46.45	53.44	-6.99	peak
10	34214.000	21.55	15.90	37.45	53.44	-15.99	RMS
11	21938.000	27.41	11.40	38.81	53.44	-14.63	peak
12	21938.000	18.41	11.40	29.81	53.44	-23.63	RMS

Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

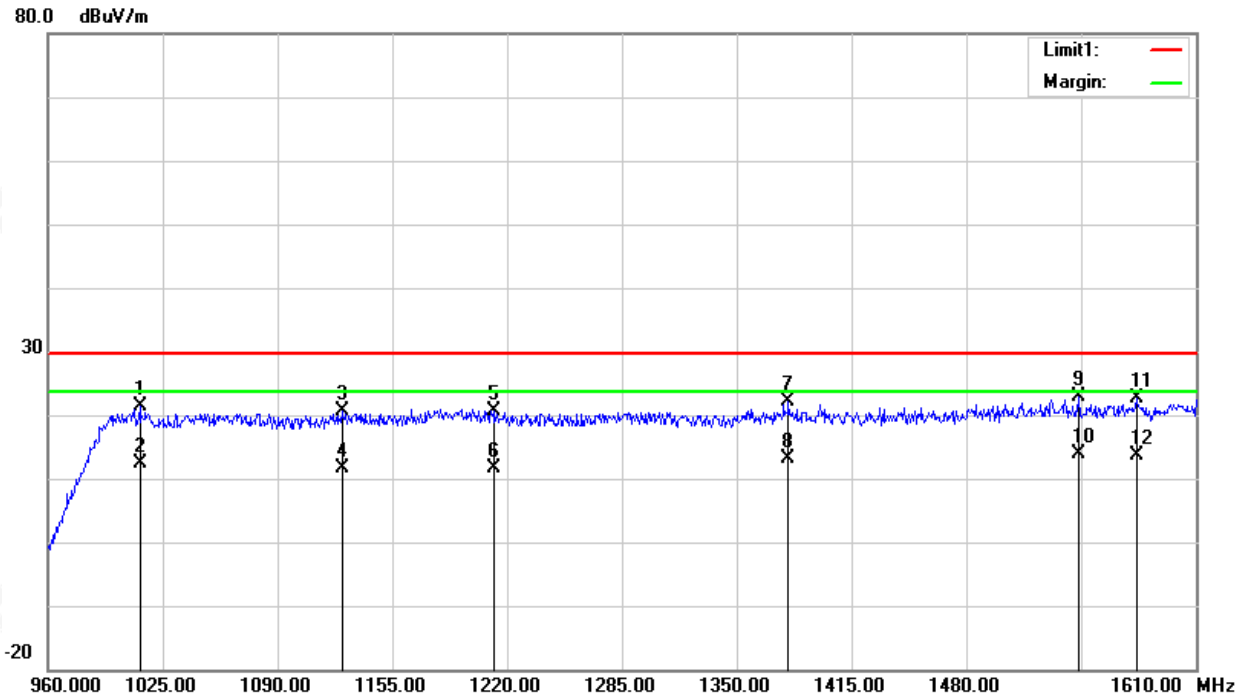


FCC:

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2(960MHz -1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1012.000	22.97	-1.55	21.42	29.54	-8.12	peak
2	1012.000	13.97	-1.55	12.42	29.54	-17.12	RMS
3	1126.400	21.67	-0.99	20.68	29.54	-8.86	peak
4	1126.400	12.67	-0.99	11.68	29.54	-17.86	RMS
5	1212.200	21.14	-0.44	20.70	29.54	-8.84	peak
6	1212.200	12.14	-0.44	11.70	29.54	-17.84	RMS
7	1379.250	22.04	0.18	22.22	29.54	-7.32	peak
8	1379.250	13.04	0.18	13.22	29.54	-16.32	RMS
9	1543.700	20.24	2.52	22.76	29.54	-6.78	peak
10	1543.700	11.24	2.52	13.76	29.54	-15.78	RMS
11	1576.200	19.16	3.49	22.65	29.54	-6.89	peak
12	1576.200	10.16	3.49	13.65	29.54	-15.89	RMS

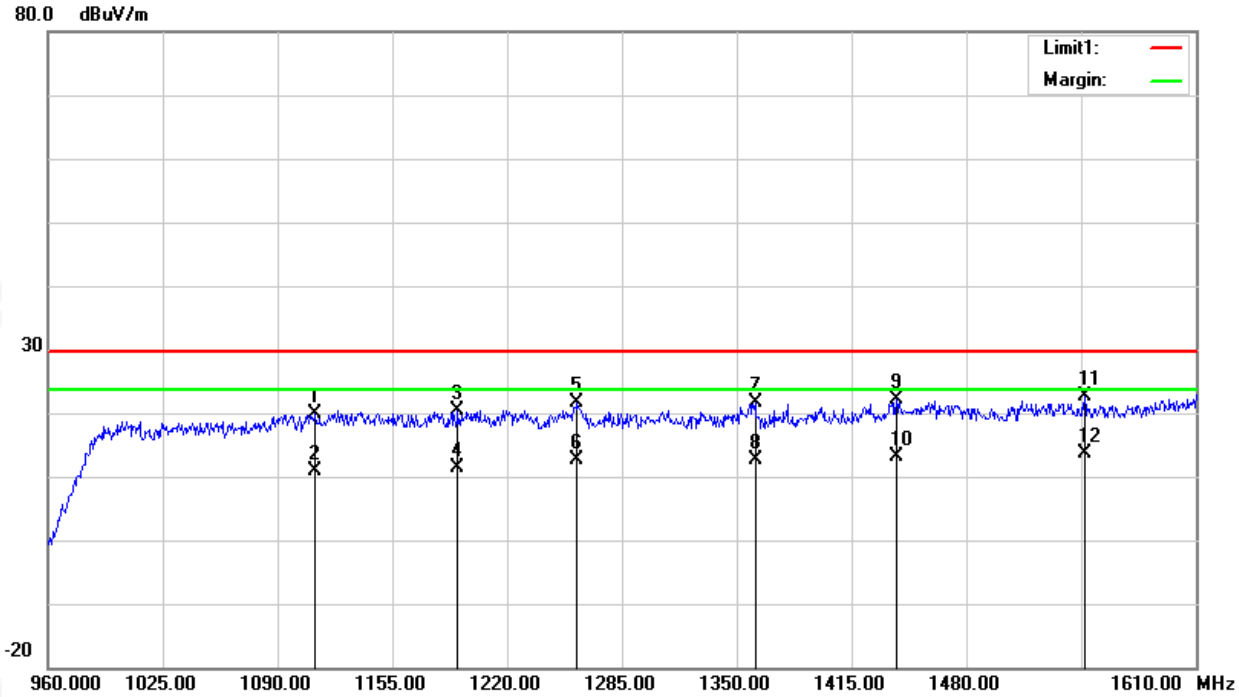
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2(960MHz -1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1111.450	20.89	-1.03	19.86	29.54	-9.68	peak
2	1111.450	11.89	-1.03	10.86	29.54	-18.68	RMS
3	1192.050	20.91	-0.50	20.41	29.54	-9.13	peak
4	1192.050	11.91	-0.50	11.41	29.54	-18.13	RMS
5	1259.650	22.04	-0.44	21.60	29.54	-7.94	peak
6	1259.650	13.04	-0.44	12.60	29.54	-16.94	RMS
7	1360.400	21.65	0.10	21.75	29.54	-7.79	peak
8	1360.400	12.65	0.10	12.75	29.54	-16.79	RMS
9	1440.350	21.36	0.77	22.13	29.54	-7.41	peak
10	1440.350	12.36	0.77	13.13	29.54	-16.41	RMS
11	1546.950	19.93	2.59	22.52	29.54	-7.02	peak
12	1546.950	10.93	2.59	13.52	29.54	-16.02	RMS

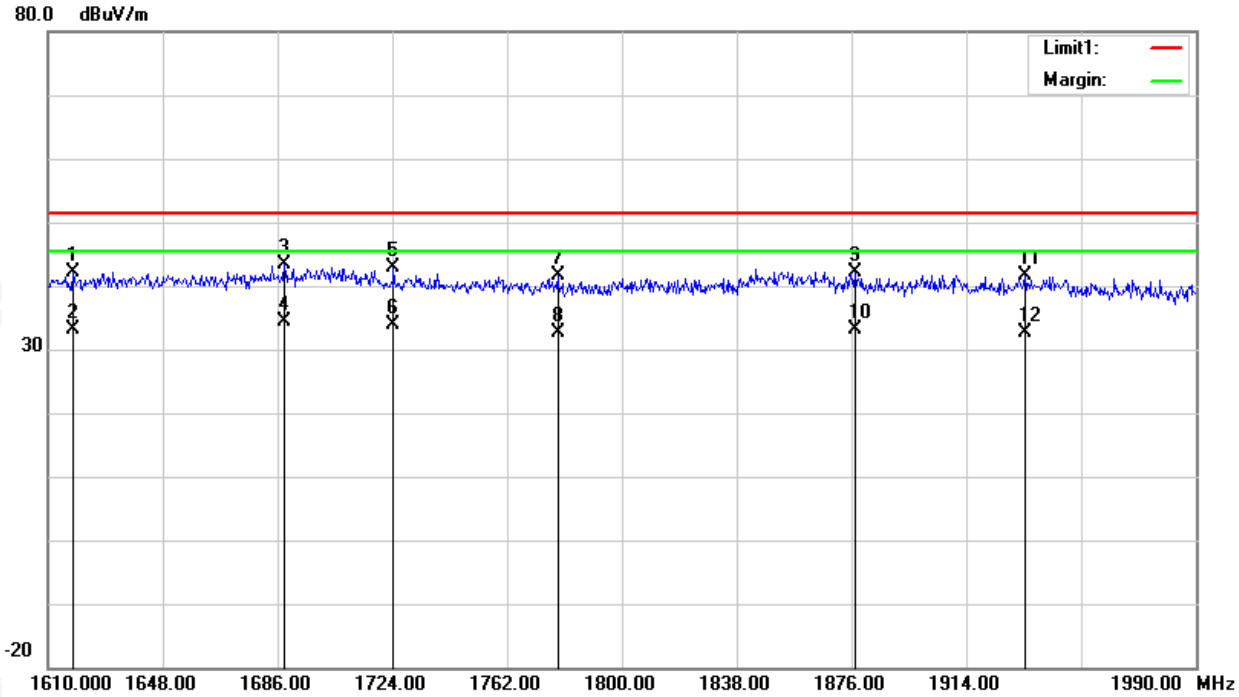
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2(1610MHz – 1990MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1618.360	37.80	4.24	42.04	51.44	-9.40	peak
2	1618.360	28.80	4.24	33.04	51.44	-18.40	RMS
3	1688.280	38.43	4.98	43.41	51.44	-8.03	peak
4	1688.280	29.43	4.98	34.41	51.44	-17.03	RMS
5	1724.380	38.31	4.46	42.77	51.44	-8.67	peak
6	1724.380	29.31	4.46	33.77	51.44	-17.67	RMS
7	1778.720	39.07	2.58	41.65	51.44	-9.79	peak
8	1778.720	30.07	2.58	32.65	51.44	-18.79	RMS
9	1877.140	40.37	1.87	42.24	51.44	-9.20	peak
10	1877.140	31.37	1.87	33.24	51.44	-18.20	RMS
11	1933.380	40.01	1.50	41.51	51.44	-9.93	peak
12	1933.380	31.01	1.50	32.51	51.44	-18.93	RMS

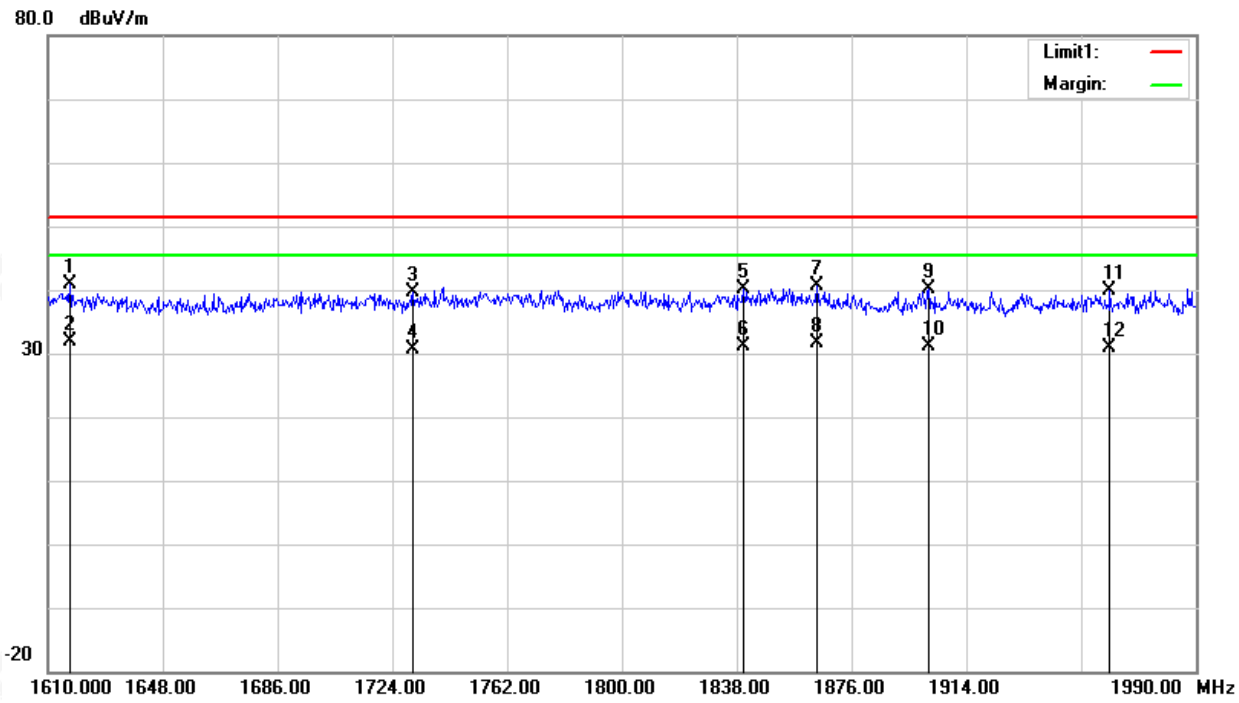
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2(1610MHz – 1990MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1617.220	36.74	4.24	40.98	51.44	-10.46	peak
2	1617.220	27.74	4.24	31.98	51.44	-19.46	RMS
3	1730.840	35.48	4.27	39.75	51.44	-11.69	peak
4	1730.840	26.48	4.27	30.75	51.44	-20.69	RMS
5	1840.280	37.99	2.24	40.23	51.44	-11.21	peak
6	1840.280	28.99	2.24	31.23	51.44	-20.21	RMS
7	1864.600	38.60	2.09	40.69	51.44	-10.75	peak
8	1864.600	29.60	2.09	31.69	51.44	-19.75	RMS
9	1901.460	38.67	1.47	40.14	51.44	-11.30	peak
10	1901.460	29.67	1.47	31.14	51.44	-20.30	RMS
11	1961.500	38.33	1.64	39.97	51.44	-11.47	peak
12	1961.500	29.33	1.64	30.97	51.44	-20.47	RMS

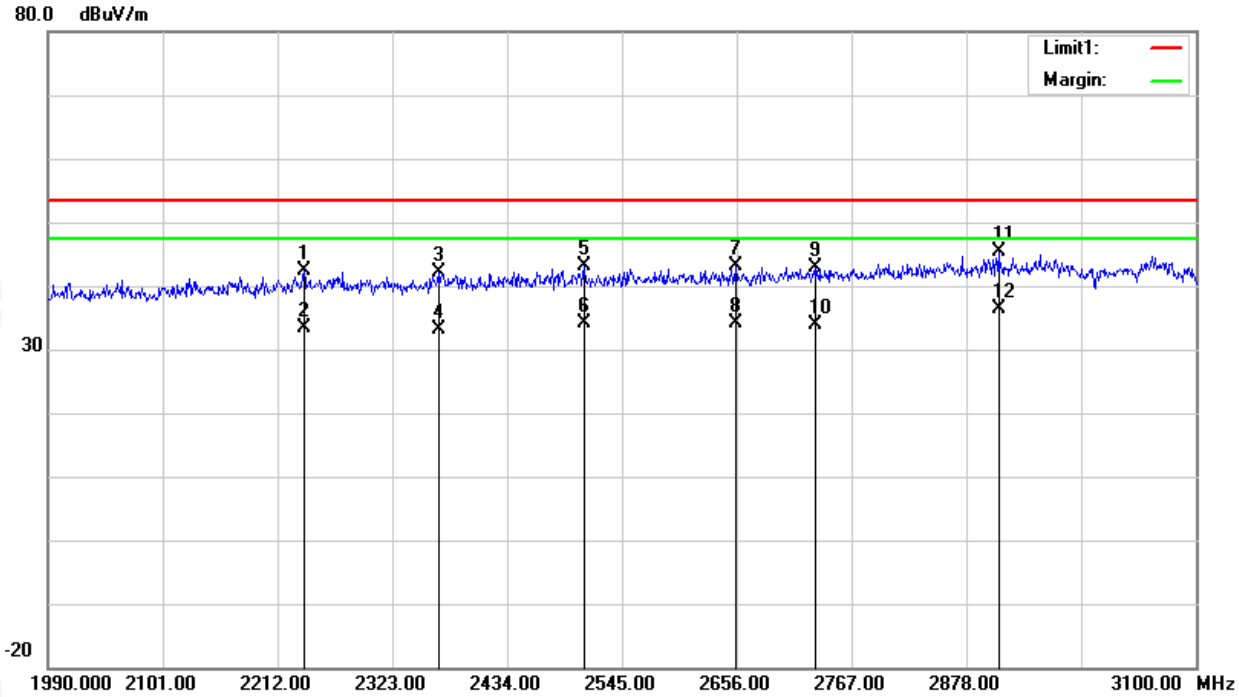
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2(1990MHz – 3100MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2237.530	38.74	3.56	42.30	53.44	-11.14	peak
2	2237.530	29.74	3.56	33.30	53.44	-20.14	RMS
3	2367.400	38.07	4.00	42.07	53.44	-11.37	peak
4	2367.400	29.07	4.00	33.07	53.44	-20.37	RMS
5	2508.370	38.30	4.71	43.01	53.44	-10.43	peak
6	2508.370	29.30	4.71	34.01	53.44	-19.43	RMS
7	2654.890	37.46	5.56	43.02	53.44	-10.42	peak
8	2654.890	28.46	5.56	34.02	53.44	-19.42	RMS
9	2732.590	36.97	5.91	42.88	53.44	-10.56	peak
10	2732.590	27.97	5.91	33.88	53.44	-19.56	RMS
11	2909.080	38.53	6.77	45.30	53.44	-8.14	peak
12	2909.080	29.53	6.77	36.30	53.44	-17.14	RMS

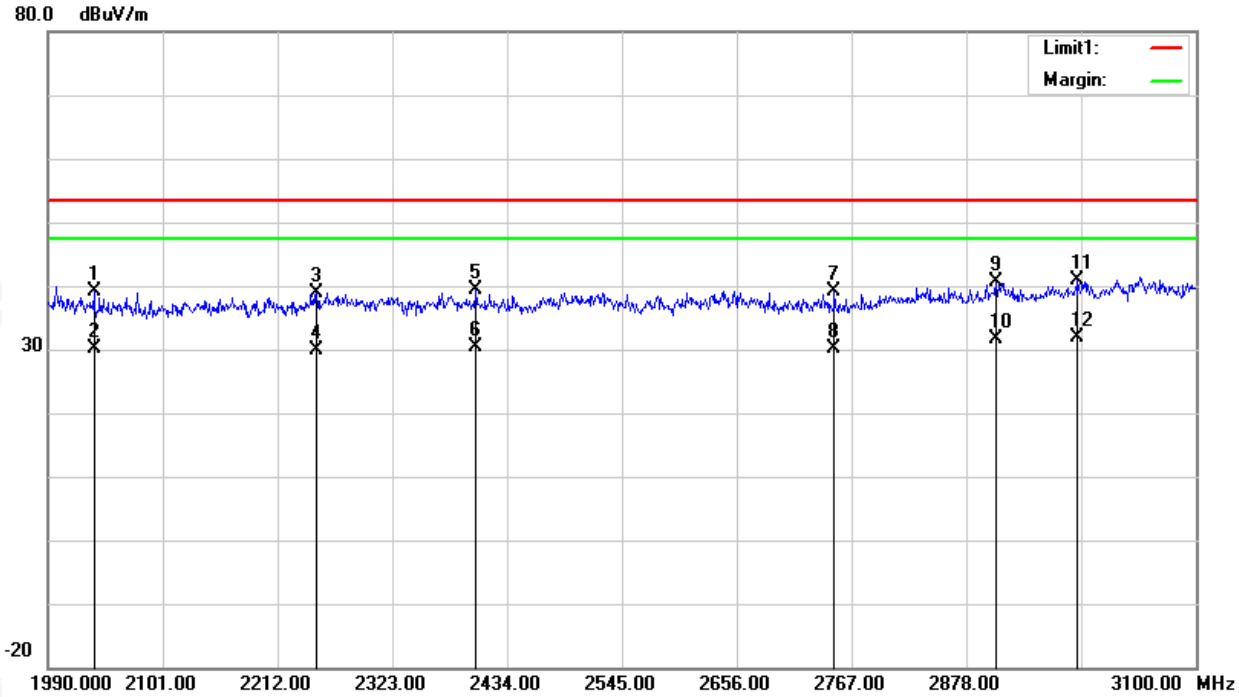
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2(1990MHz – 3100MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2034.400	36.99	2.07	39.06	53.44	-14.38	peak
2	2034.400	27.99	2.07	30.06	53.44	-23.38	RMS
3	2249.740	35.11	3.77	38.88	53.44	-14.56	peak
4	2249.740	26.11	3.77	29.88	53.44	-23.56	RMS
5	2404.030	34.92	4.49	39.41	53.44	-14.03	peak
6	2404.030	25.92	4.49	30.41	53.44	-23.03	RMS
7	2750.350	33.17	6.07	39.24	53.44	-14.20	peak
8	2750.350	24.17	6.07	30.24	53.44	-23.20	RMS
9	2906.860	33.83	6.76	40.59	53.44	-12.85	peak
10	2906.860	24.83	6.76	31.59	53.44	-21.85	RMS
11	2985.670	33.87	7.02	40.89	53.44	-12.55	peak
12	2985.670	24.87	7.02	31.89	53.44	-21.55	RMS

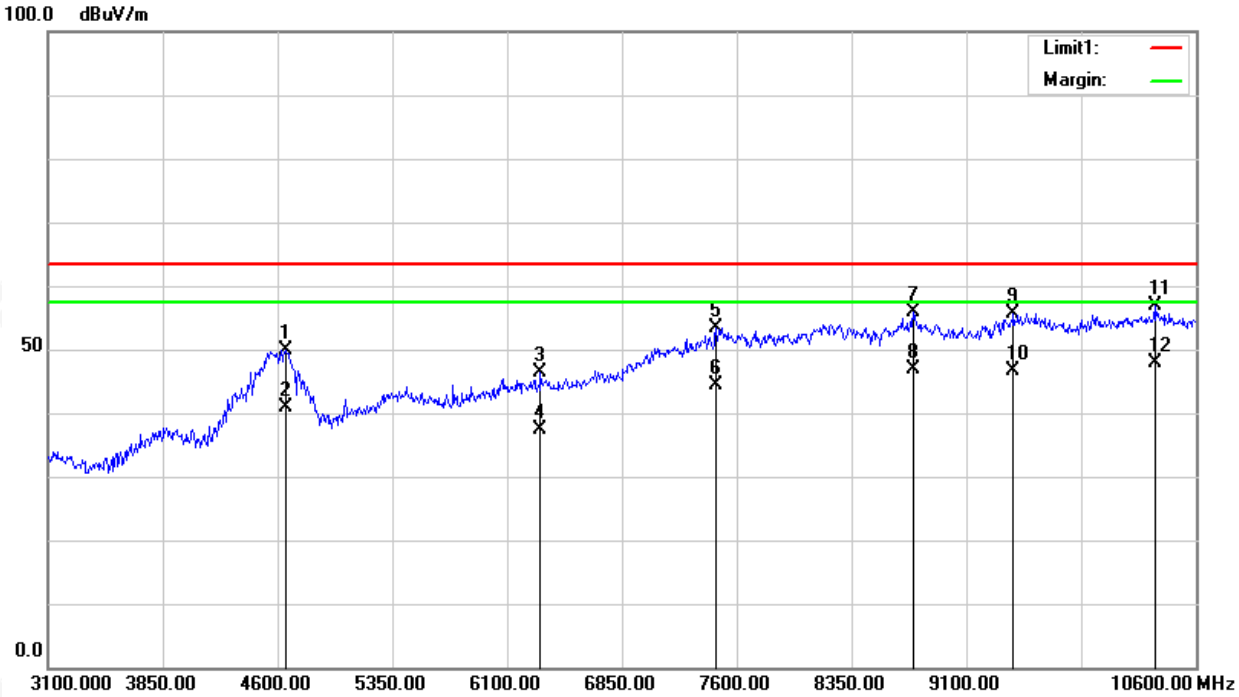
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2(3100MHz – 10600MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4652.500	57.55	-7.60	49.95	63.44	-13.49	peak
2	4652.500	48.48	-7.60	40.88	63.44	-22.56	RMS
3	6317.500	48.65	-2.39	46.26	63.44	-17.18	peak
4	6317.500	39.65	-2.39	37.26	63.44	-26.18	RMS
5	7465.000	51.84	1.50	53.34	63.44	-10.10	peak
6	7465.000	42.84	1.50	44.34	63.44	-19.10	RMS
7	8755.000	53.40	2.59	55.99	63.44	-7.45	peak
8	8755.000	44.40	2.59	46.99	63.44	-16.45	RMS
9	9407.500	52.59	3.02	55.61	63.44	-7.83	peak
10	9407.500	43.59	3.02	46.61	63.44	-16.83	RMS
11	10330.000	52.50	4.42	56.92	63.44	-6.52	peak
12	10330.000	43.50	4.42	47.92	63.44	-15.52	RMS

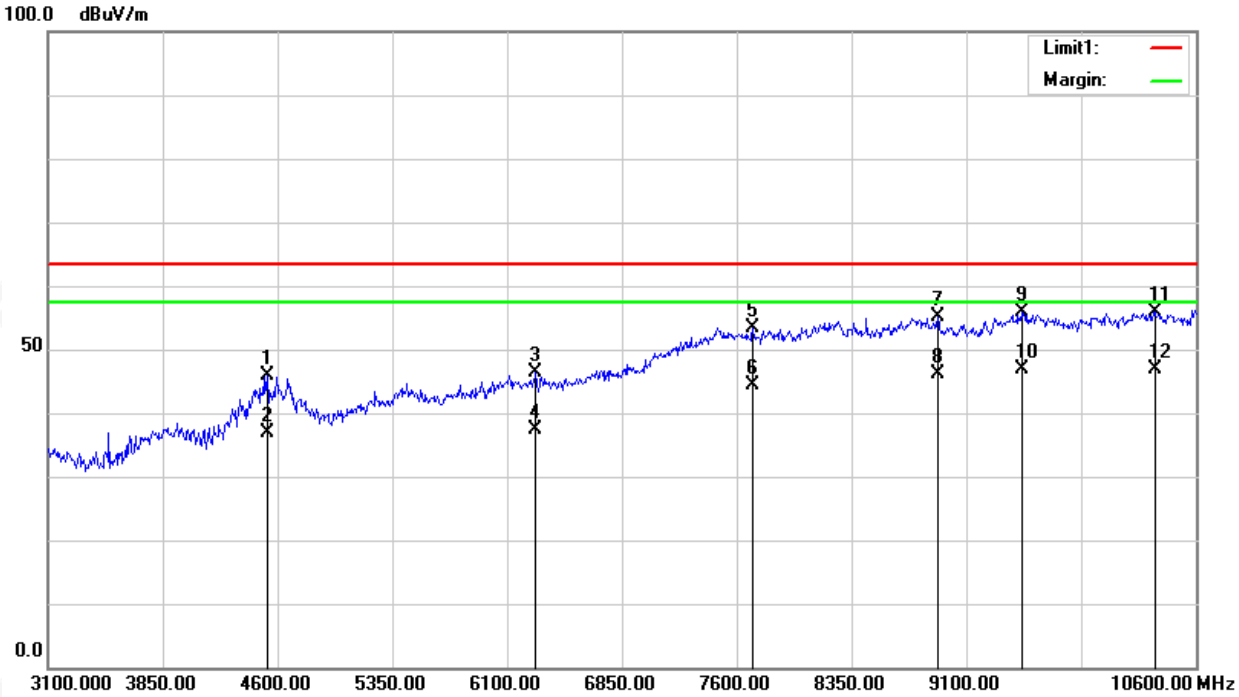
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2(3100MHz – 10600MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4532.500	53.68	-7.92	45.76	63.44	-17.68	peak
2	4532.500	44.68	-7.92	36.76	63.44	-26.68	RMS
3	6287.500	48.94	-2.53	46.41	63.44	-17.03	peak
4	6287.500	39.94	-2.53	37.41	63.44	-26.03	RMS
5	7705.000	51.50	1.85	53.35	63.44	-10.09	peak
6	7705.000	42.50	1.85	44.35	63.44	-19.09	RMS
7	8912.500	52.56	2.51	55.07	63.44	-8.37	peak
8	8912.500	43.56	2.51	46.07	63.44	-17.37	RMS
9	9460.000	52.74	3.08	55.82	63.44	-7.62	peak
10	9460.000	43.74	3.08	46.82	63.44	-16.62	RMS
11	10330.000	51.38	4.42	55.80	63.44	-7.64	peak
12	10330.000	42.38	4.42	46.80	63.44	-16.64	RMS

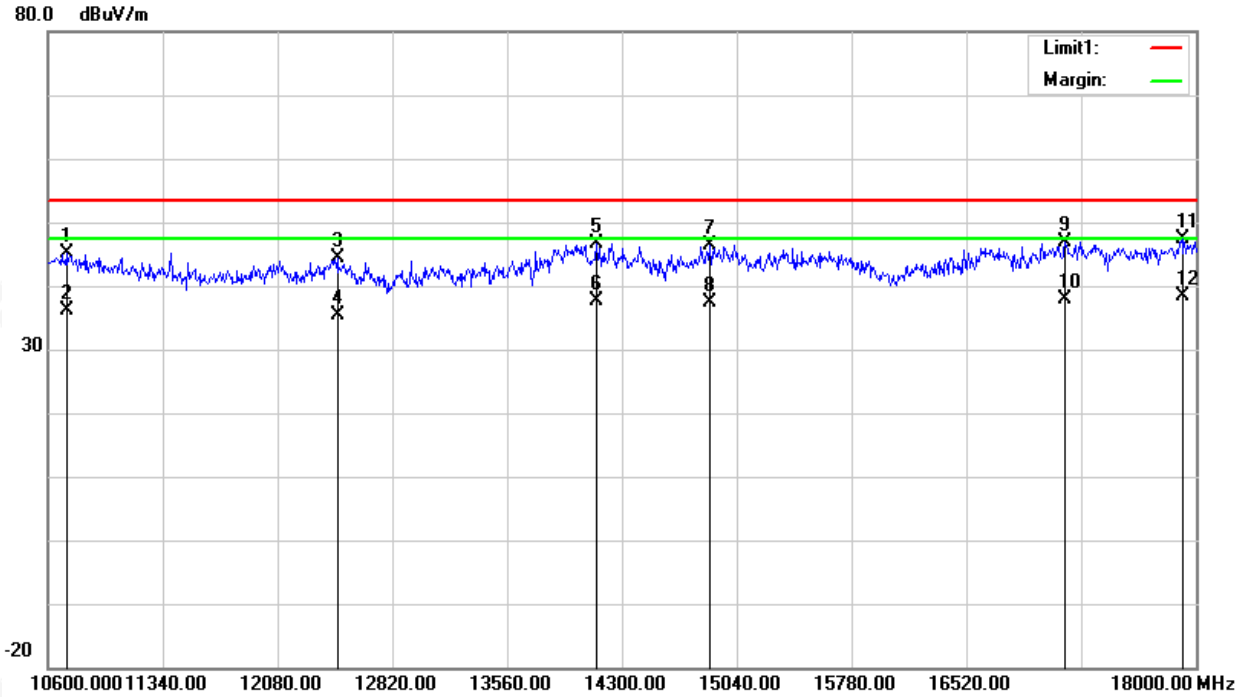
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2(10600MHz – 18000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10718.400	39.58	5.55	45.13	53.44	-8.31	peak
2	10718.400	30.58	5.55	36.13	53.44	-17.31	RMS
3	12464.800	38.46	5.83	44.29	53.44	-9.15	peak
4	12464.800	29.46	5.83	35.29	53.44	-18.15	RMS
5	14137.200	34.52	12.07	46.59	53.44	-6.85	peak
6	14137.200	25.52	12.07	37.59	53.44	-15.85	RMS
7	14869.800	36.03	10.41	46.44	53.44	-7.00	peak
8	14869.800	27.03	10.41	37.44	53.44	-16.00	RMS
9	17156.400	36.85	10.08	46.93	53.44	-6.51	peak
10	17156.400	27.85	10.08	37.93	53.44	-15.51	RMS
11	17911.200	35.63	11.81	47.44	53.44	-6.00	peak
12	17911.200	26.63	11.81	38.44	53.44	-15.00	RMS

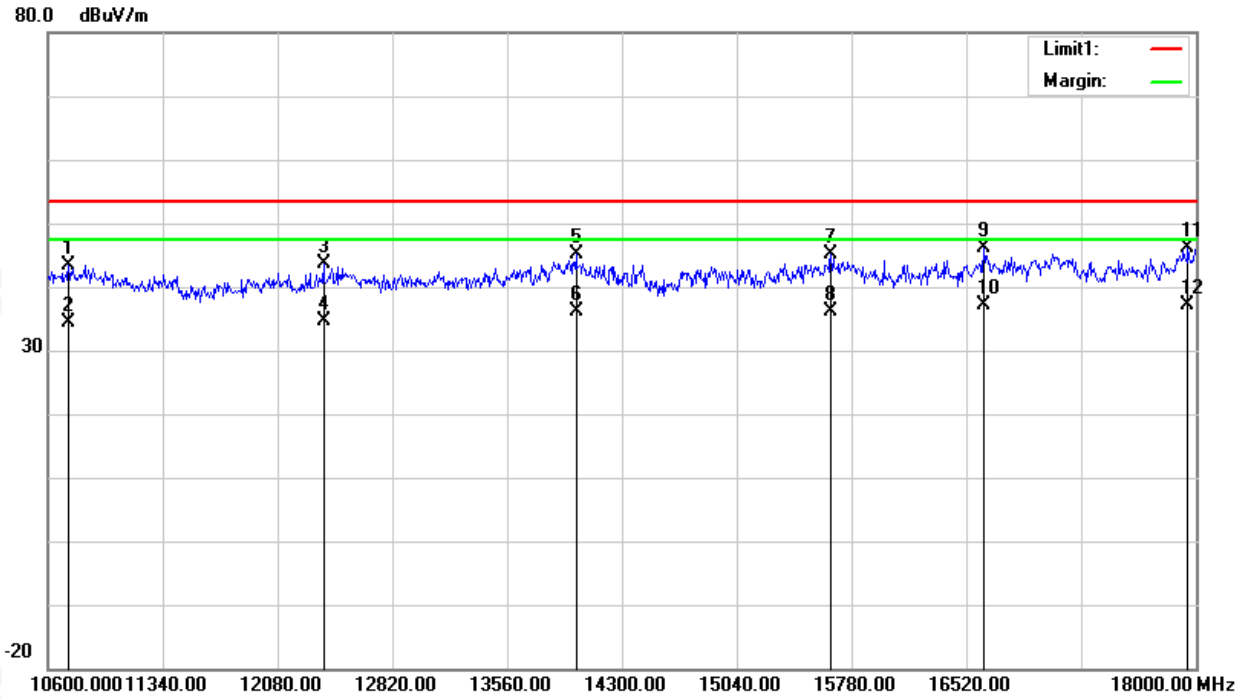
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2(10600MHz – 18000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10733.200	37.76	5.59	43.35	53.44	-10.09	peak
2	10733.200	28.76	5.59	34.35	53.44	-19.09	RMS
3	12376.000	37.74	5.82	43.56	53.44	-9.88	peak
4	12376.000	28.74	5.82	34.56	53.44	-18.88	RMS
5	14004.000	32.79	12.31	45.10	53.44	-8.34	peak
6	14004.000	23.79	12.31	36.10	53.44	-17.34	RMS
7	15646.800	36.30	8.81	45.11	53.44	-8.33	peak
8	15646.800	27.30	8.81	36.11	53.44	-17.33	RMS
9	16631.000	36.70	9.43	46.13	53.44	-7.31	peak
10	16631.000	27.70	9.43	37.13	53.44	-16.31	RMS
11	17948.200	34.27	11.91	46.18	53.44	-7.26	peak
12	17948.200	25.27	11.91	37.18	53.44	-16.26	RMS

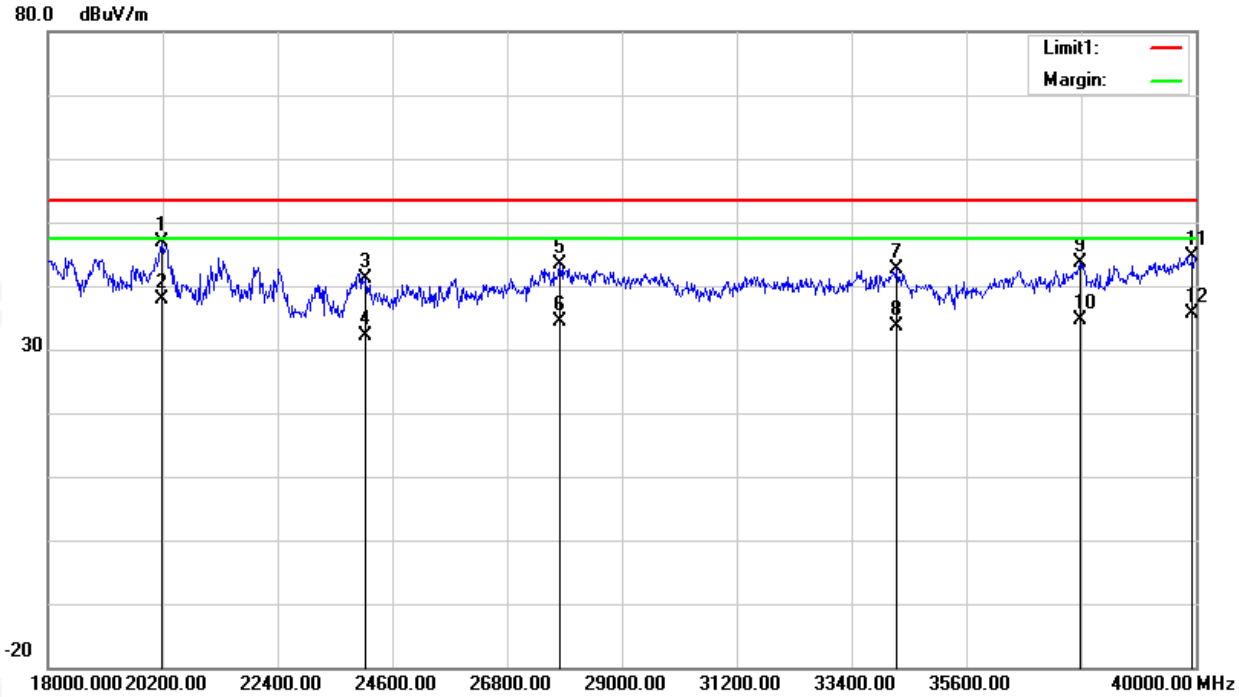
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2(18000MHz – 40000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	20178.000	33.70	13.28	46.98	53.44	-6.46	peak
2	20178.000	24.70	13.28	37.98	53.44	-15.46	RMS
3	24094.000	24.98	16.20	41.18	53.44	-12.26	peak
4	24094.000	15.98	16.20	32.18	53.44	-21.26	RMS
5	27812.000	23.79	19.48	43.27	53.44	-10.17	peak
6	27812.000	14.79	19.48	34.27	53.44	-19.17	RMS
7	34258.000	26.61	15.91	42.52	53.44	-10.92	peak
8	34258.000	17.61	15.91	33.52	53.44	-19.92	RMS
9	37778.000	26.01	17.55	43.56	53.44	-9.88	peak
10	37778.000	17.01	17.55	34.56	53.44	-18.88	RMS
11	39934.000	25.94	18.72	44.66	53.44	-8.78	peak
12	39934.000	16.94	18.72	35.66	53.44	-17.78	RMS

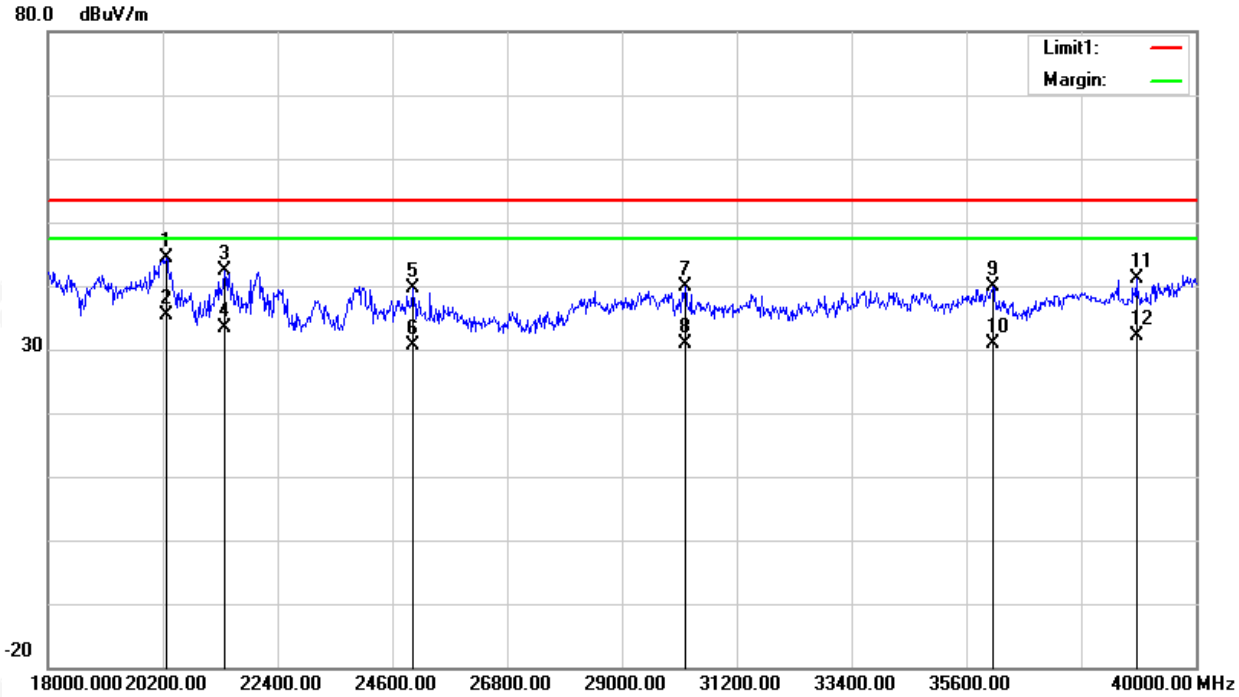
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2(18000MHz – 40000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	20266.000	31.81	12.47	44.28	53.44	-9.16	peak
2	20266.000	22.81	12.47	35.28	53.44	-18.16	RMS
3	21388.000	26.00	16.27	42.27	53.44	-11.17	peak
4	21388.000	17.00	16.27	33.27	53.44	-20.17	RMS
5	24996.000	22.55	16.98	39.53	53.44	-13.91	peak
6	24996.000	13.55	16.98	30.53	53.44	-22.91	RMS
7	30210.000	24.03	15.88	39.91	53.44	-13.53	peak
8	30210.000	15.03	15.88	30.91	53.44	-22.53	RMS
9	36106.000	23.15	16.71	39.86	53.44	-13.58	peak
10	36106.000	14.15	16.71	30.86	53.44	-22.58	RMS
11	38856.000	23.04	18.13	41.17	53.44	-12.27	peak
12	38856.000	14.04	18.13	32.17	53.44	-21.27	RMS

Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

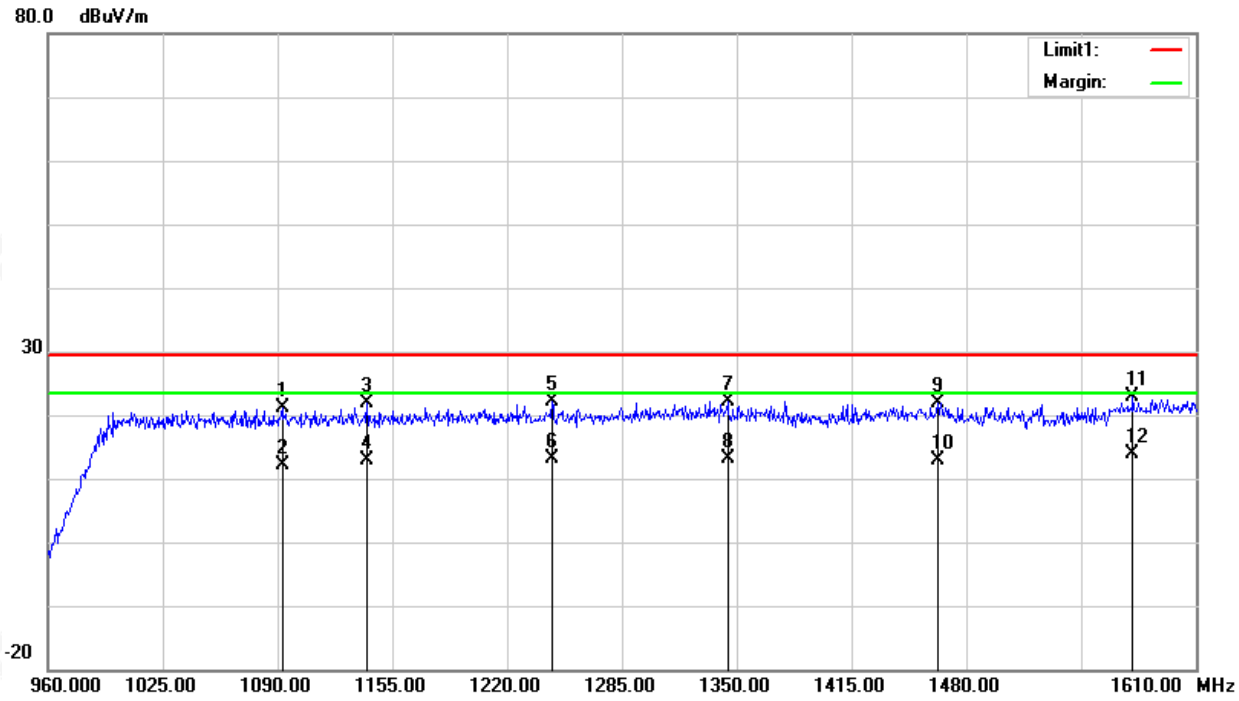


IC:

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2(960MHz -1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1092.600	22.32	-1.12	21.20	29.44	-8.24	peak
2	1092.600	13.32	-1.12	12.20	29.44	-17.24	RMS
3	1140.700	22.73	-0.94	21.79	29.44	-7.65	peak
4	1140.700	13.73	-0.94	12.79	29.44	-16.65	RMS
5	1245.350	22.57	-0.50	22.07	29.44	-7.37	peak
6	1245.350	13.57	-0.50	13.07	29.44	-16.37	RMS
7	1344.800	22.05	0.04	22.09	29.44	-7.35	peak
8	1344.800	13.05	0.04	13.09	29.44	-16.35	RMS
9	1463.750	20.93	1.06	21.99	29.44	-7.45	peak
10	1463.750	11.93	1.06	12.99	29.44	-16.45	RMS
11	1574.250	19.32	3.44	22.76	29.44	-6.68	peak
12	1574.250	10.32	3.44	13.76	29.44	-15.68	RMS

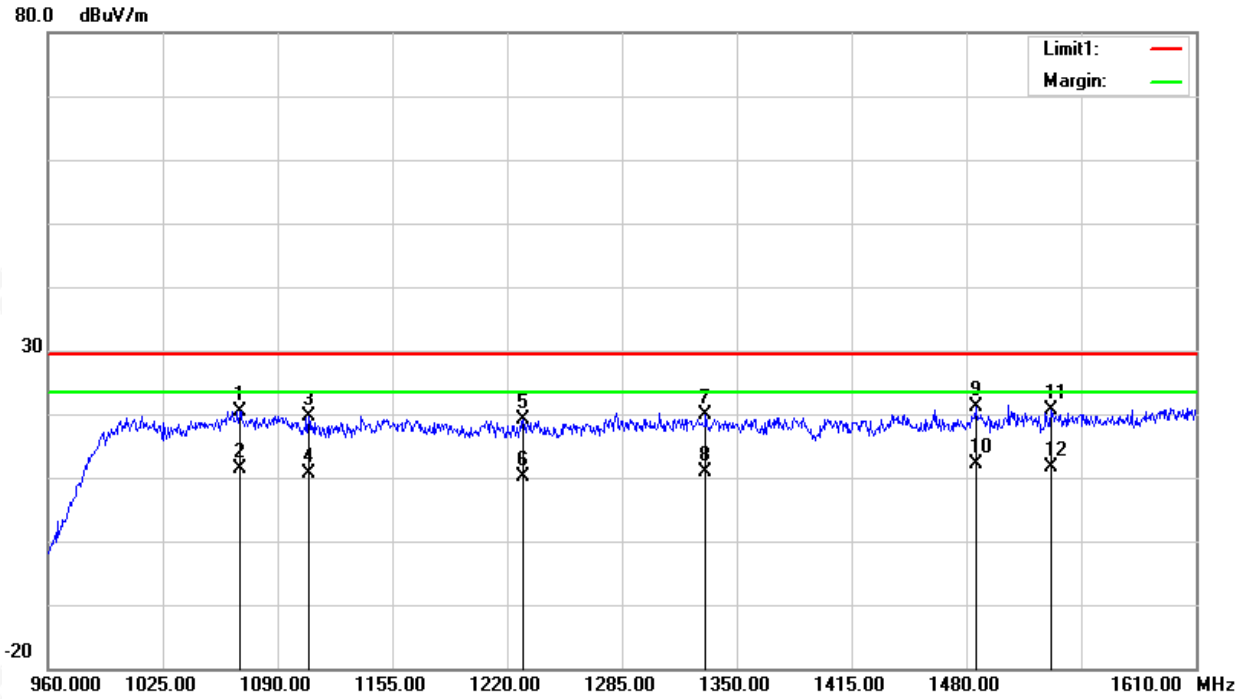
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2(960MHz -1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1068.550	21.72	-1.26	20.46	29.44	-8.98	peak
2	1068.550	12.72	-1.26	11.46	29.44	-17.98	RMS
3	1107.550	20.76	-1.05	19.71	29.44	-9.73	peak
4	1107.550	11.76	-1.05	10.71	29.44	-18.73	RMS
5	1229.100	19.55	-0.47	19.08	29.44	-10.36	peak
6	1229.100	10.55	-0.47	10.08	29.44	-19.36	RMS
7	1332.450	19.79	-0.01	19.78	29.44	-9.66	peak
8	1332.450	10.79	-0.01	10.78	29.44	-18.66	RMS
9	1485.200	19.90	1.30	21.20	29.44	-8.24	peak
10	1485.200	10.90	1.30	12.20	29.44	-17.24	RMS
11	1528.100	18.56	2.15	20.71	29.44	-8.73	peak
12	1528.100	9.56	2.15	11.71	29.44	-17.73	RMS

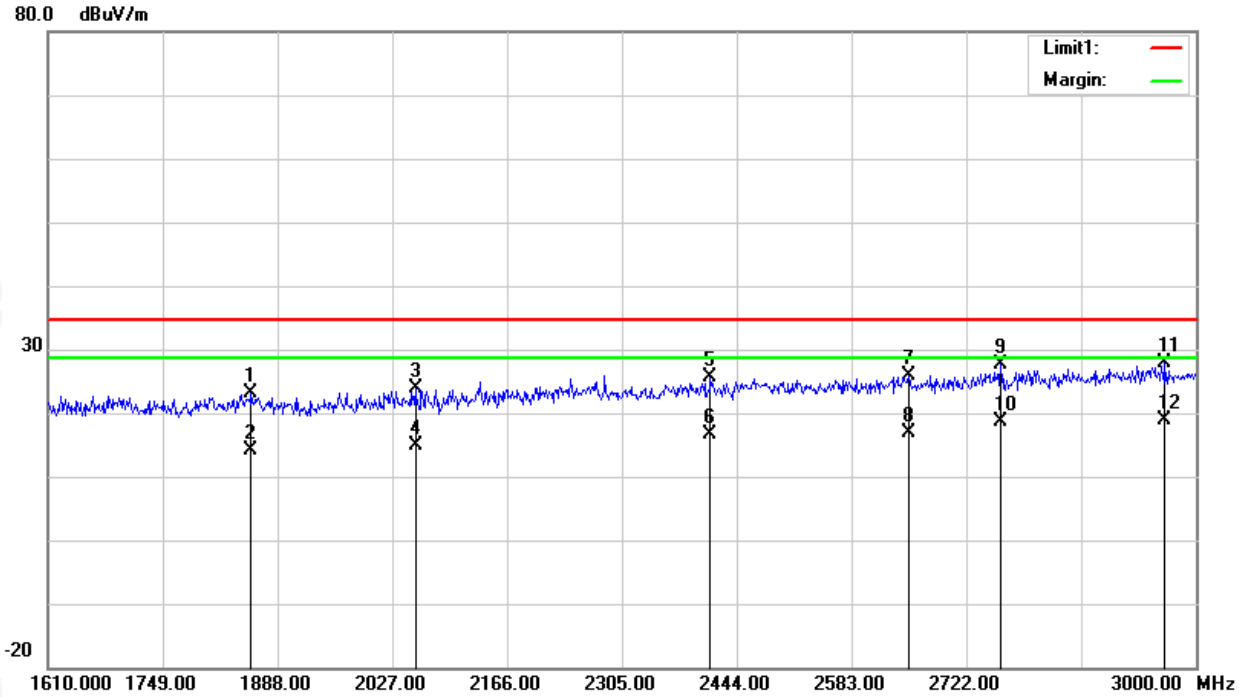
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2(1610MHz – 3000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1856.030	20.81	2.24	23.05	34.74	-11.69	peak
2	1856.030	11.81	2.24	14.05	34.74	-20.69	RMS
3	2054.800	21.83	2.13	23.96	34.74	-10.78	peak
4	2054.800	12.83	2.13	14.96	34.74	-19.78	RMS
5	2412.030	21.11	4.50	25.61	34.74	-9.13	peak
6	2412.030	12.11	4.50	16.61	34.74	-18.13	RMS
7	2652.500	20.30	5.55	25.85	34.74	-8.89	peak
8	2652.500	11.30	5.55	16.85	34.74	-17.89	RMS
9	2763.700	21.44	6.12	27.56	34.74	-7.18	peak
10	2763.700	12.44	6.12	18.56	34.74	-16.18	RMS
11	2962.470	20.77	6.99	27.76	34.74	-6.98	peak
12	2962.470	11.77	6.99	18.76	34.74	-15.98	RMS

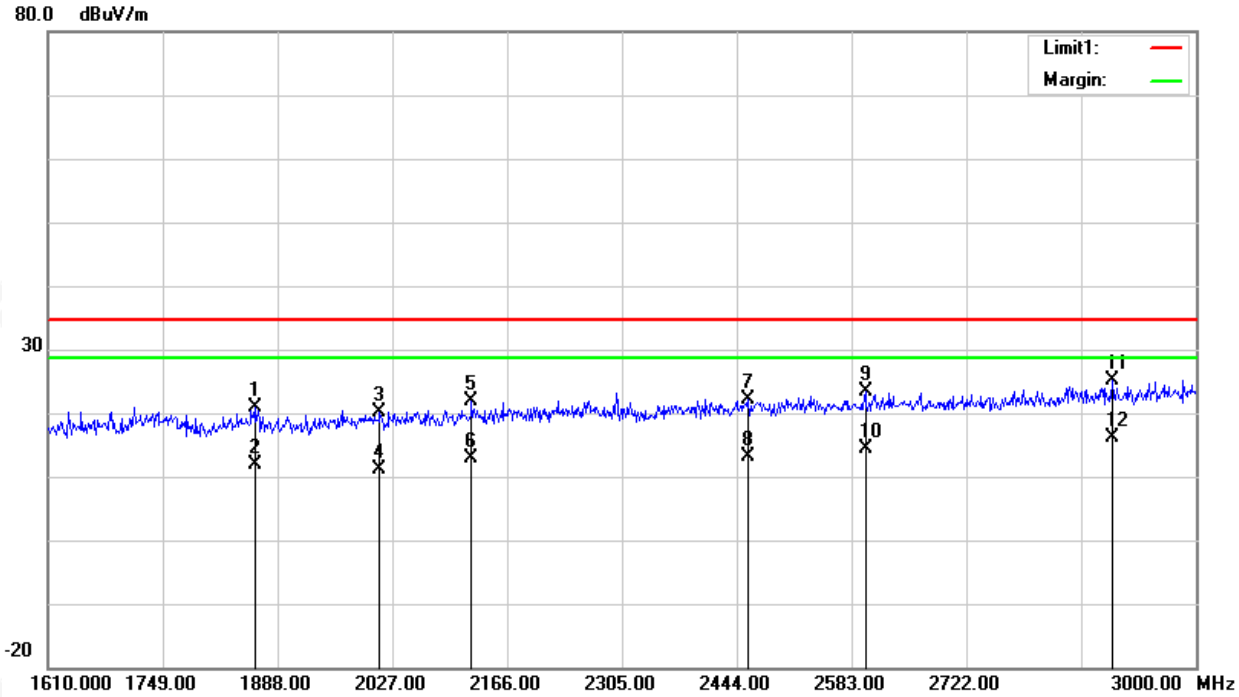
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2(1610MHz – 3000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1861.590	18.73	2.15	20.88	34.74	-13.86	peak
2	1861.590	9.73	2.15	11.88	34.74	-22.86	RMS
3	2011.710	18.15	2.03	20.18	34.74	-14.56	peak
4	2011.710	9.15	2.03	11.18	34.74	-23.56	RMS
5	2122.910	19.01	2.82	21.83	34.74	-12.91	peak
6	2122.910	10.01	2.82	12.83	34.74	-21.91	RMS
7	2457.900	17.58	4.54	22.12	34.74	-12.62	peak
8	2457.900	8.58	4.54	13.12	34.74	-21.62	RMS
9	2599.680	18.23	5.03	23.26	34.74	-11.48	peak
10	2599.680	9.23	5.03	14.26	34.74	-20.48	RMS
11	2898.530	18.42	6.72	25.14	34.74	-9.60	peak
12	2898.530	9.42	6.72	16.14	34.74	-18.60	RMS

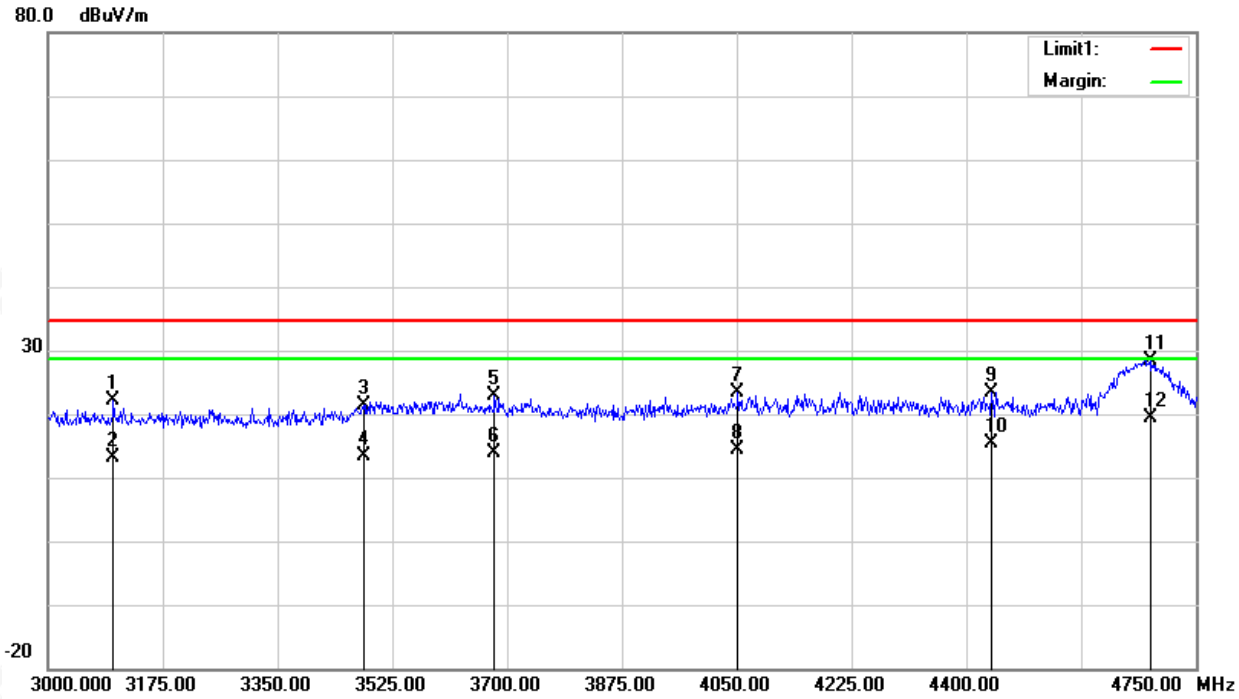
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2(3000MHz –4750MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3099.750	34.59	-12.41	22.18	34.74	-12.56	peak
2	3099.750	25.59	-12.41	13.18	34.74	-21.56	RMS
3	3481.250	32.94	-11.50	21.44	34.74	-13.30	peak
4	3481.250	24.94	-11.50	13.44	34.74	-21.30	RMS
5	3680.750	33.53	-10.61	22.92	34.74	-11.82	peak
6	3680.750	24.53	-10.61	13.92	34.74	-20.82	RMS
7	4051.750	32.67	-9.36	23.31	34.74	-11.43	peak
8	4051.750	23.67	-9.36	14.31	34.74	-20.43	RMS
9	4438.500	31.43	-8.01	23.42	34.74	-11.32	peak
10	4438.500	23.43	-8.01	15.42	34.74	-19.32	RMS
11	4680.000	35.91	-7.46	28.45	34.74	-6.29	peak
12	4680.000	26.91	-7.46	19.45	34.74	-15.29	RMS

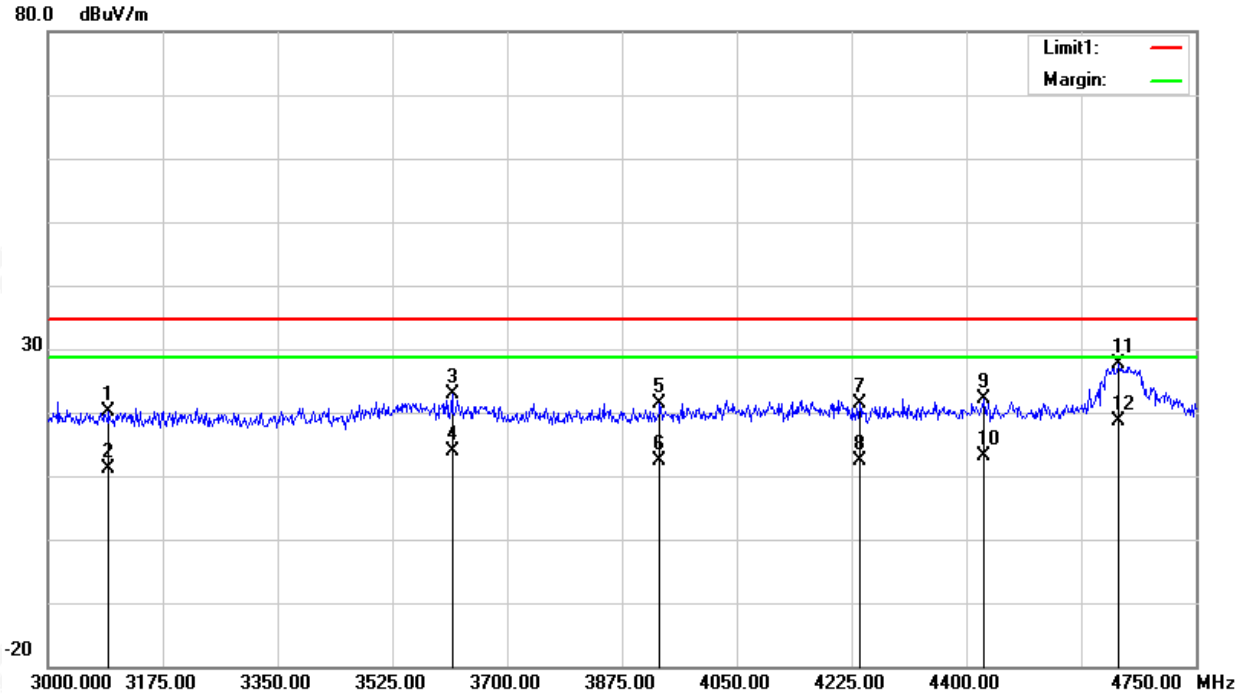
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2(3000MHz –4750MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3092.750	32.44	-12.42	20.02	34.74	-14.72	peak
2	3092.750	23.44	-12.42	11.02	34.74	-23.72	RMS
3	3616.000	33.67	-10.80	22.87	34.74	-11.87	peak
4	3616.000	24.67	-10.80	13.87	34.74	-20.87	RMS
5	3932.750	31.34	-9.99	21.35	34.74	-13.39	peak
6	3932.750	22.34	-9.99	12.35	34.74	-22.39	RMS
7	4237.250	29.89	-8.40	21.49	34.74	-13.25	peak
8	4237.250	20.89	-8.40	12.49	34.74	-22.25	RMS
9	4426.250	30.13	-8.02	22.11	34.74	-12.63	peak
10	4426.250	21.13	-8.02	13.11	34.74	-21.63	RMS
11	4631.000	35.40	-7.71	27.69	34.74	-7.05	peak
12	4631.000	26.40	-7.71	18.69	34.74	-16.05	RMS

Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



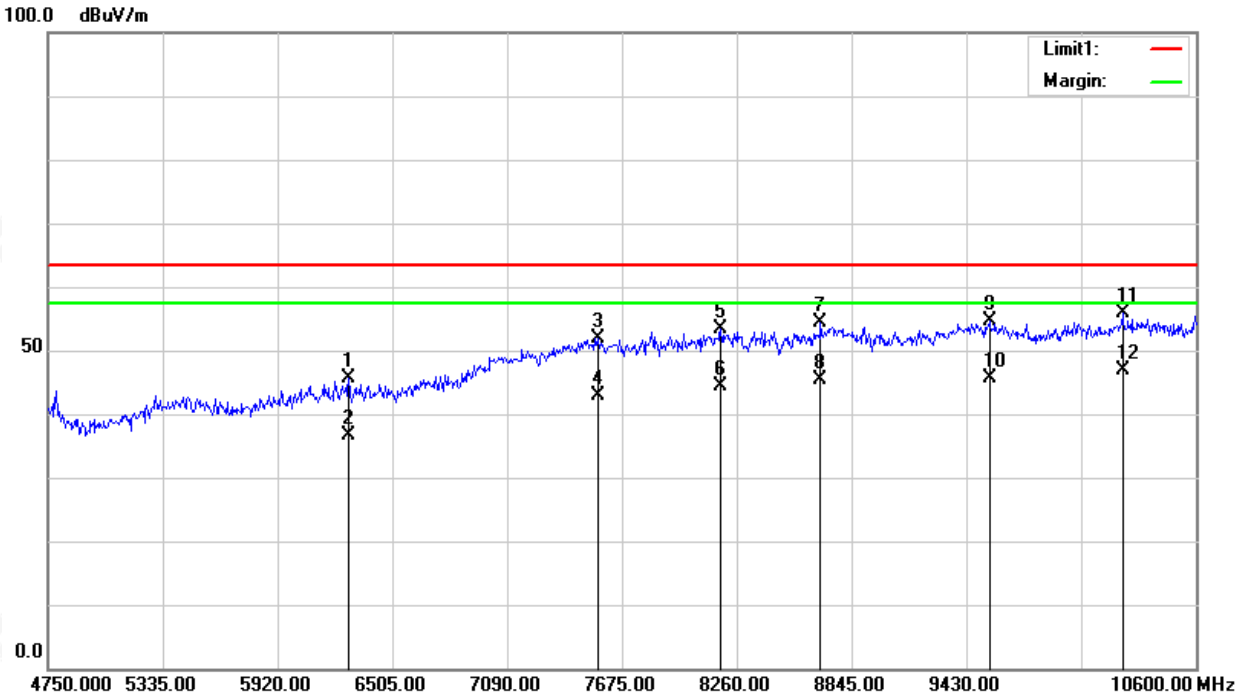
Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2(4750MHz –10600MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	6282.700	48.23	-2.57	45.66	63.44	-17.78	peak
2	6282.700	39.23	-2.57	36.66	63.44	-26.78	RMS
3	7552.150	50.10	1.69	51.79	63.44	-11.65	peak
4	7552.150	41.10	1.69	42.79	63.44	-20.65	RMS
5	8178.100	50.95	2.36	53.31	63.44	-10.13	peak
6	8178.100	41.95	2.36	44.31	63.44	-19.13	RMS
7	8687.050	51.87	2.62	54.49	63.44	-8.95	peak
8	8687.050	42.87	2.62	45.49	63.44	-17.95	RMS
9	9547.000	51.58	3.16	54.74	63.44	-8.70	peak
10	9547.000	42.58	3.16	45.74	63.44	-17.70	RMS
11	10225.600	51.84	4.09	55.93	63.44	-7.51	peak
12	10225.600	42.84	4.09	46.93	63.44	-16.51	RMS

Remark:

Margin = Result (Result =Reading + Factor)–Limit

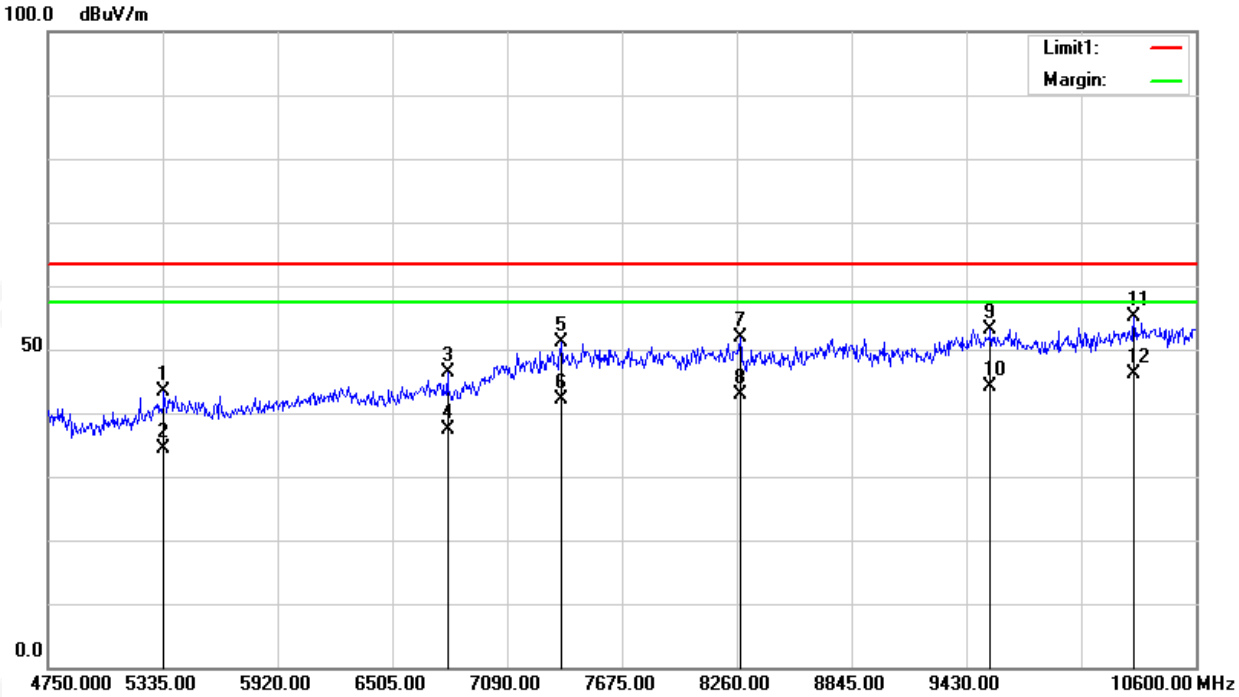
Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2(4750MHz –10600MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5340.850	48.54	-5.23	43.31	63.44	-20.13	peak
2	5340.850	39.54	-5.23	34.31	63.44	-29.13	RMS
3	6785.800	47.19	-0.86	46.33	63.44	-17.11	peak
4	6785.800	38.19	-0.86	37.33	63.44	-26.11	RMS
5	7364.950	50.06	1.14	51.20	63.44	-12.24	peak
6	7364.950	41.06	1.14	42.20	63.44	-21.24	RMS
7	8277.550	49.30	2.47	51.77	63.44	-11.67	peak
8	8277.550	40.30	2.47	42.77	63.44	-20.67	RMS
9	9552.850	50.05	3.17	53.22	63.44	-10.22	peak
10	9552.850	41.05	3.17	44.22	63.44	-19.22	RMS
11	10284.100	50.93	4.28	55.21	63.44	-8.23	peak
12	10284.100	41.93	4.28	46.21	63.44	-17.23	RMS

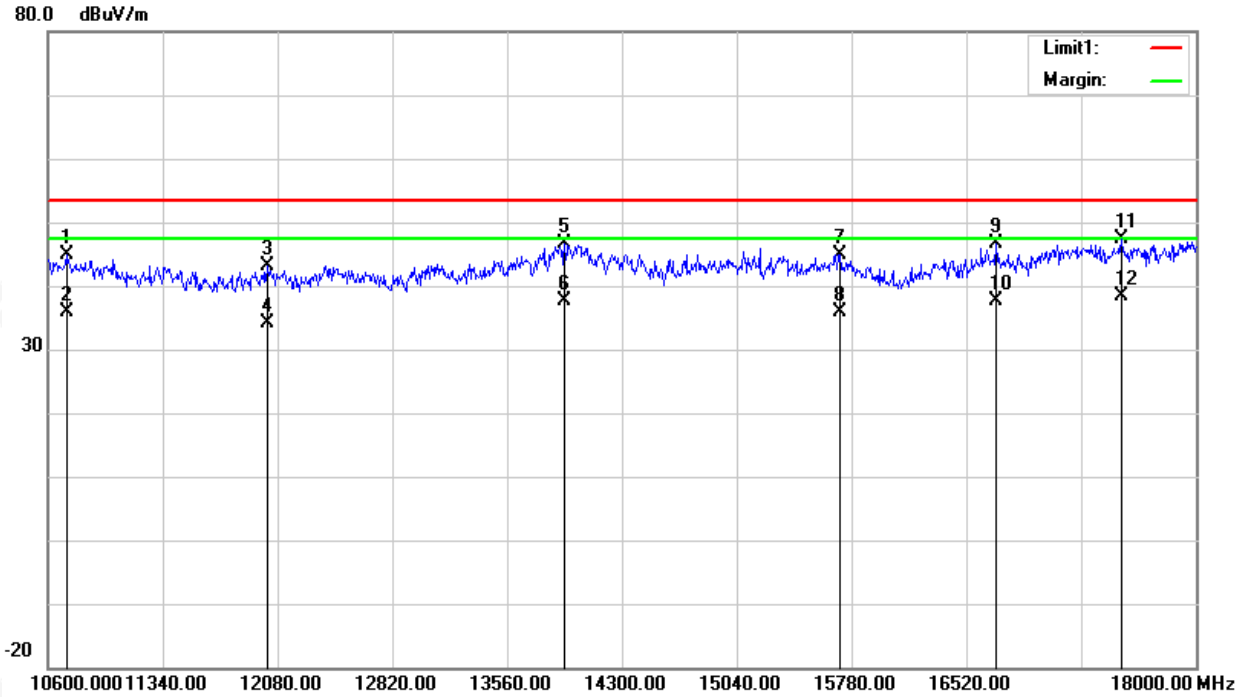
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2(10600MHz –18000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10718.400	39.42	5.55	44.97	53.44	-8.47	peak
2	10718.400	30.42	5.55	35.97	53.44	-17.47	RMS
3	12013.400	37.44	5.80	43.24	53.44	-10.20	peak
4	12013.400	28.44	5.80	34.24	53.44	-19.20	RMS
5	13930.000	34.75	11.94	46.69	53.44	-6.75	peak
6	13930.000	25.75	11.94	37.69	53.44	-15.75	RMS
7	15706.000	36.45	8.45	44.90	53.44	-8.54	peak
8	15706.000	27.45	8.45	35.90	53.44	-17.54	RMS
9	16712.400	37.11	9.51	46.62	53.44	-6.82	peak
10	16712.400	28.11	9.51	37.62	53.44	-15.82	RMS
11	17519.000	36.66	10.69	47.35	53.44	-6.09	peak
12	17519.000	27.66	10.69	38.35	53.44	-15.09	RMS

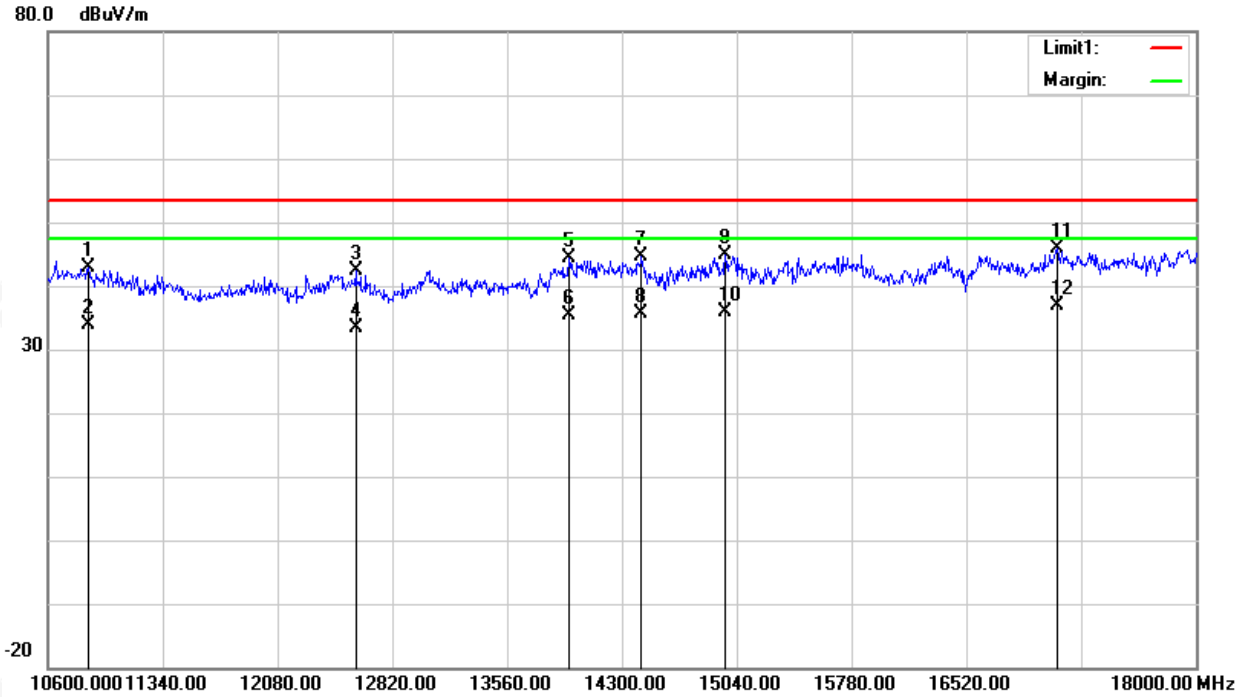
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2(10600MHz –18000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10859.000	37.02	5.92	42.94	53.44	-10.50	peak
2	10859.000	28.02	5.92	33.94	53.44	-19.50	RMS
3	12583.200	36.39	5.95	42.34	53.44	-11.10	peak
4	12583.200	27.39	5.95	33.34	53.44	-20.10	RMS
5	13959.600	32.22	12.10	44.32	53.44	-9.12	peak
6	13959.600	23.22	12.10	35.32	53.44	-18.12	RMS
7	14425.800	33.09	11.55	44.64	53.44	-8.80	peak
8	14425.800	24.09	11.55	35.64	53.44	-17.80	RMS
9	14966.000	34.79	10.15	44.94	53.44	-8.50	peak
10	14966.000	25.79	10.15	35.94	53.44	-17.50	RMS
11	17104.600	35.80	9.99	45.79	53.44	-7.65	peak
12	17104.600	26.80	9.99	36.79	53.44	-16.65	RMS

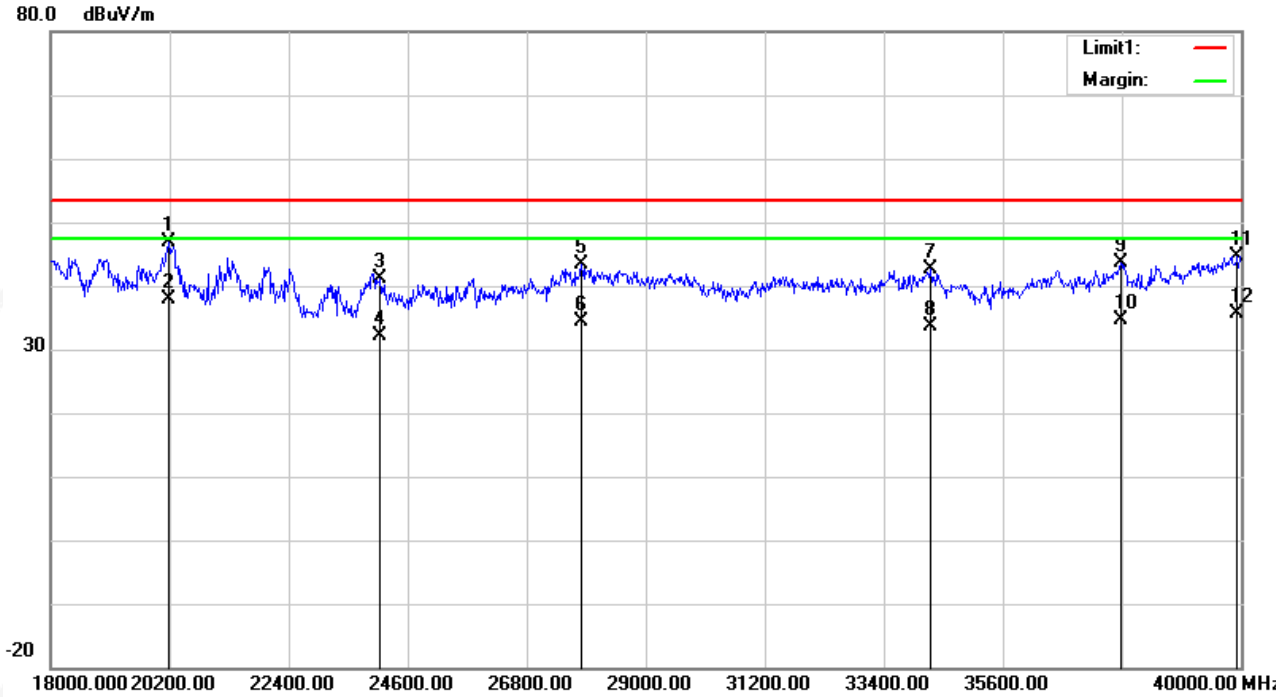
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2(18000MHz –40000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	20178.000	33.70	13.28	46.98	53.44	-6.46	peak
2	20178.000	24.70	13.28	37.98	53.44	-15.46	RMS
3	24094.000	24.98	16.20	41.18	53.44	-12.26	peak
4	24094.000	15.98	16.20	32.18	53.44	-21.26	RMS
5	27812.000	23.79	19.48	43.27	53.44	-10.17	peak
6	27812.000	14.79	19.48	34.27	53.44	-19.17	RMS
7	34258.000	26.61	15.91	42.52	53.44	-10.92	peak
8	34258.000	17.61	15.91	33.52	53.44	-19.92	RMS
9	37778.000	26.01	17.55	43.56	53.44	-9.88	peak
10	37778.000	17.01	17.55	34.56	53.44	-18.88	RMS
11	39934.000	25.94	18.72	44.66	53.44	-8.78	peak
12	39934.000	16.94	18.72	35.66	53.44	-17.78	RMS

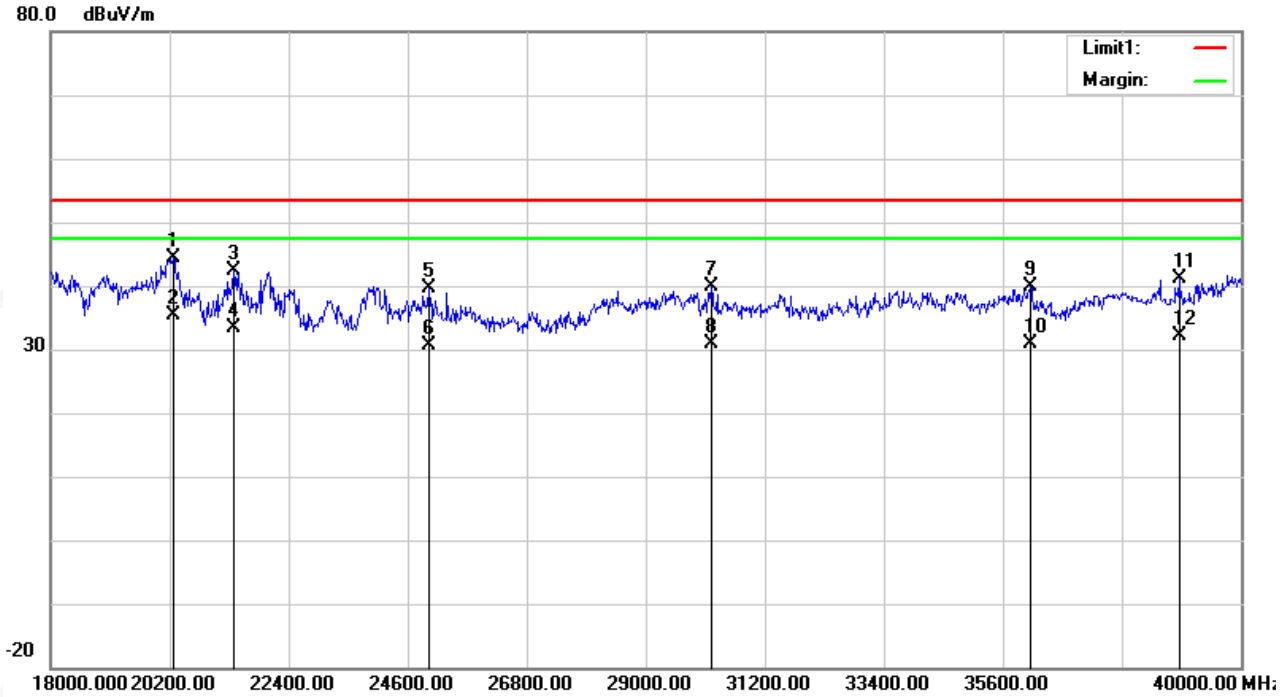
Remark:
7. Margin = Result (Result =Reading + Factor)–Limit
8. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2(18000MHz –40000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	20266.000	31.81	12.47	44.28	53.44	-9.16	peak
2	20266.000	22.81	12.47	35.28	53.44	-18.16	RMS
3	21388.000	26.00	16.27	42.27	53.44	-11.17	peak
4	21388.000	17.00	16.27	33.27	53.44	-20.17	RMS
5	24996.000	22.55	16.98	39.53	53.44	-13.91	peak
6	24996.000	13.55	16.98	30.53	53.44	-22.91	RMS
7	30210.000	24.03	15.88	39.91	53.44	-13.53	peak
8	30210.000	15.03	15.88	30.91	53.44	-22.53	RMS
9	36106.000	23.15	16.71	39.86	53.44	-13.58	peak
10	36106.000	14.15	16.71	30.86	53.44	-22.58	RMS
11	38856.000	23.04	18.13	41.17	53.44	-12.27	peak
12	38856.000	14.04	18.13	32.17	53.44	-21.27	RMS

Remark:
7. Margin = Result (Result =Reading + Factor)–Limit
8. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

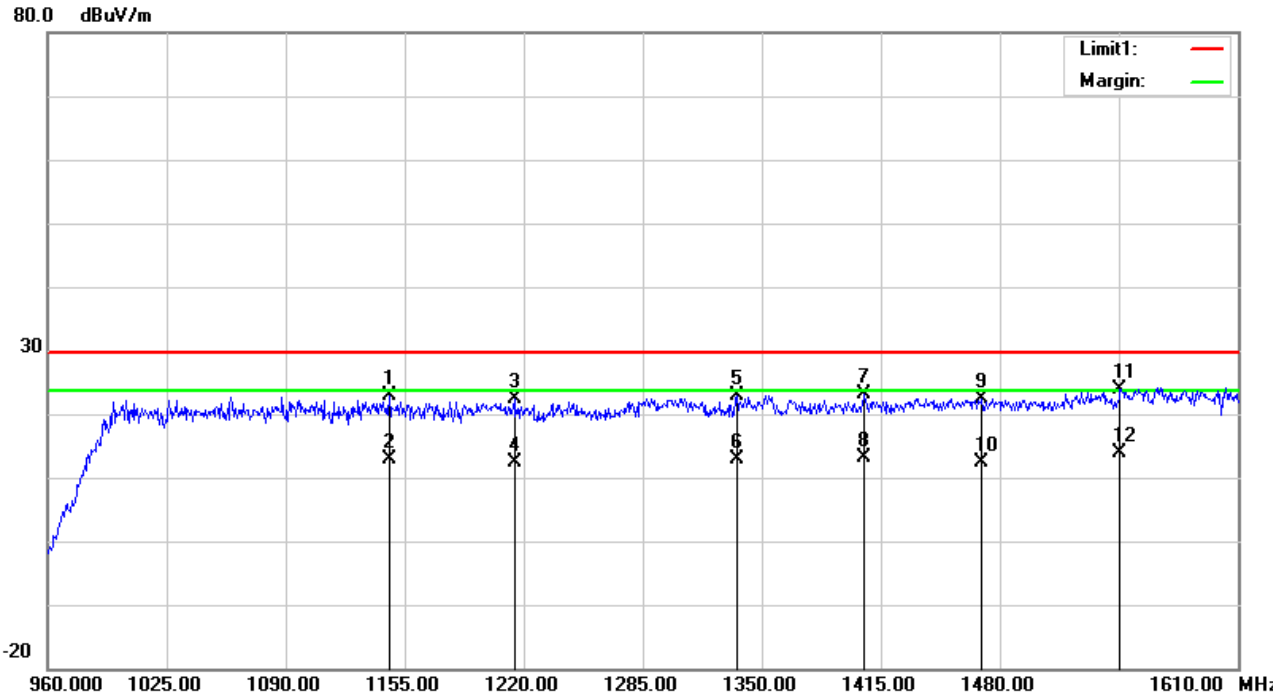


FCC:

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 3(960MHz -1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1146.550	23.89	-0.92	22.97	29.54	-6.57	peak
2	1146.550	13.89	-0.92	12.97	29.54	-16.57	RMS
3	1214.800	22.94	-0.44	22.50	29.54	-7.04	peak
4	1214.800	12.94	-0.44	12.50	29.54	-17.04	RMS
5	1336.350	22.98	0.01	22.99	29.54	-6.55	peak
6	1336.350	12.98	0.01	12.99	29.54	-16.55	RMS
7	1405.900	22.84	0.34	23.18	29.54	-6.36	peak
8	1405.900	12.84	0.34	13.18	29.54	-16.36	RMS
9	1470.250	21.36	1.13	22.49	29.54	-7.05	peak
10	1470.250	11.36	1.13	12.49	29.54	-17.05	RMS
11	1545.650	21.44	2.56	24.00	29.54	-5.54	peak
12	1545.650	11.44	2.56	14.00	29.54	-15.54	RMS

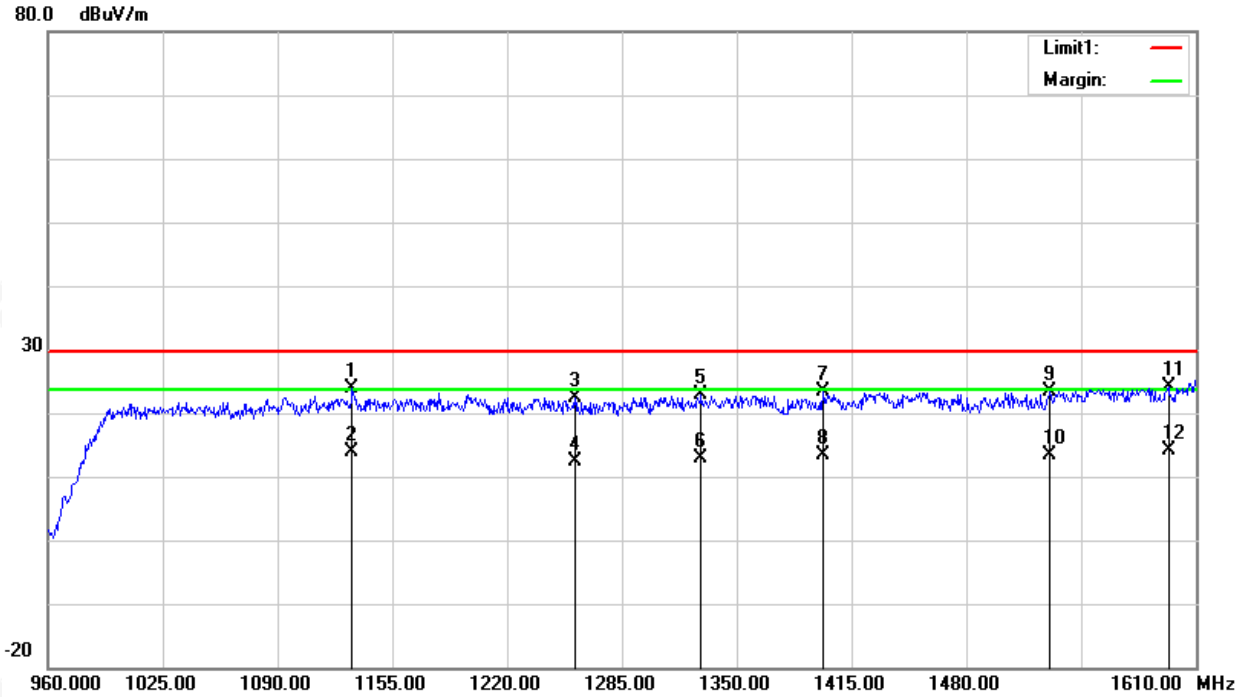
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 3(960MHz -1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1132.250	24.73	-0.97	23.76	29.54	-5.78	peak
2	1132.250	14.73	-0.97	13.76	29.54	-15.78	RMS
3	1258.350	22.94	-0.45	22.49	29.54	-7.05	peak
4	1258.350	12.94	-0.45	12.49	29.54	-17.05	RMS
5	1329.850	22.91	-0.01	22.90	29.54	-6.64	peak
6	1329.850	12.91	-0.01	12.90	29.54	-16.64	RMS
7	1398.750	23.14	0.27	23.41	29.54	-6.13	peak
8	1398.750	13.14	0.27	13.41	29.54	-16.13	RMS
9	1527.450	21.36	2.13	23.49	29.54	-6.05	peak
10	1527.450	11.36	2.13	13.49	29.54	-16.05	RMS
11	1594.400	20.16	4.07	24.23	29.54	-5.31	peak
12	1594.400	10.16	4.07	14.23	29.54	-15.31	RMS

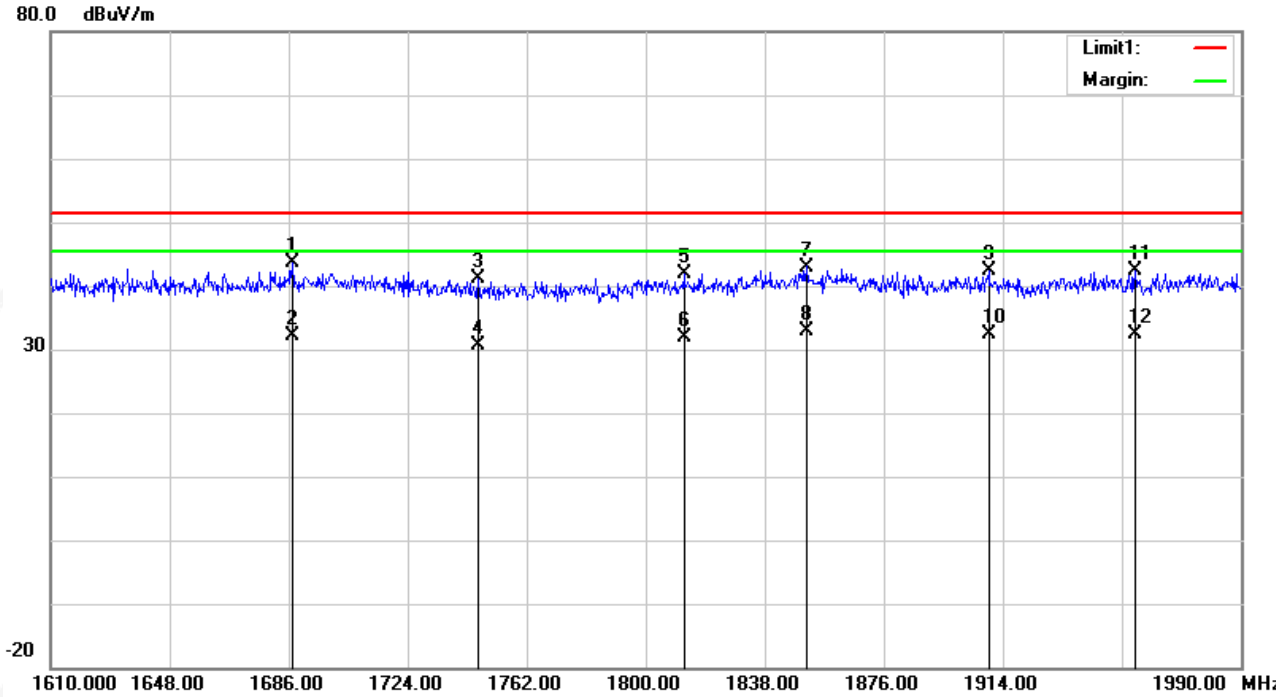
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 3(1610MHz – 1990MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1687.140	38.67	4.96	43.63	51.44	-7.81	peak
2	1687.140	27.22	4.96	32.18	51.44	-19.26	RMS
3	1746.420	37.42	3.77	41.19	51.44	-10.25	peak
4	1746.420	26.75	3.77	30.52	51.44	-20.92	RMS
5	1812.160	39.97	1.91	41.88	51.44	-9.56	peak
6	1812.160	29.97	1.91	31.88	51.44	-19.56	RMS
7	1851.300	40.67	2.33	43.00	51.44	-8.44	peak
8	1851.300	30.67	2.33	33.00	51.44	-18.44	RMS
9	1909.440	40.84	1.47	42.31	51.44	-9.13	peak
10	1909.440	30.84	1.47	32.31	51.44	-19.13	RMS
11	1956.180	40.90	1.58	42.48	51.44	-8.96	peak
12	1956.180	30.90	1.58	32.48	51.44	-18.96	RMS

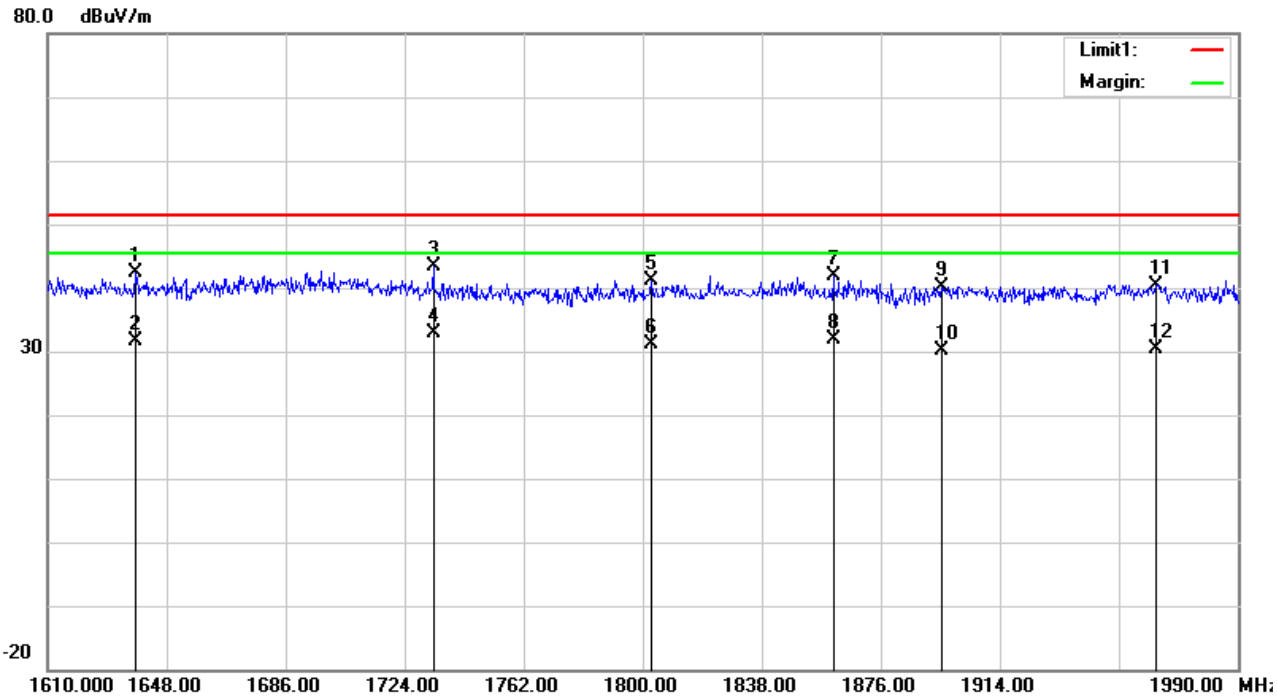
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 3(1610MHz – 1990MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1638.120	38.03	4.24	42.27	51.44	-9.17	peak
2	1638.120	27.34	4.24	31.58	51.44	-19.86	RMS
3	1733.120	39.12	4.19	43.31	51.44	-8.13	peak
4	1733.120	28.59	4.19	32.78	51.44	-18.66	RMS
5	1802.660	39.43	1.80	41.23	51.44	-10.21	peak
6	1802.660	29.43	1.80	31.23	51.44	-20.21	RMS
7	1860.800	39.63	2.16	41.79	51.44	-9.65	peak
8	1860.800	29.63	2.16	31.79	51.44	-19.65	RMS
9	1895.380	38.68	1.54	40.22	51.44	-11.22	peak
10	1895.380	28.68	1.54	30.22	51.44	-21.22	RMS
11	1963.780	38.83	1.66	40.49	51.44	-10.95	peak
12	1963.780	28.83	1.66	30.49	51.44	-20.95	RMS

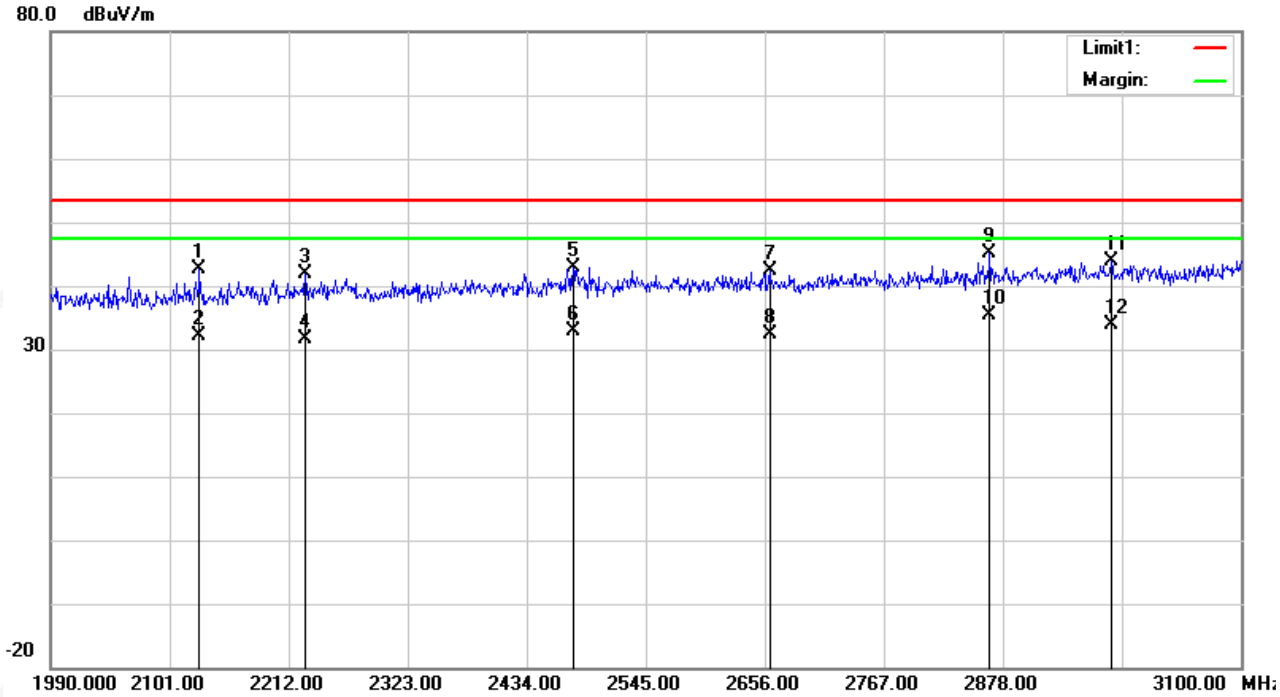
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 3(1990MHz – 3100MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2128.750	39.78	2.92	42.70	53.44	-10.74	peak
2	2128.750	29.23	2.92	32.15	53.44	-21.29	RMS
3	2227.540	38.38	3.39	41.77	53.44	-11.67	peak
4	2227.540	28.19	3.39	31.58	53.44	-21.86	RMS
5	2477.290	38.18	4.59	42.77	53.44	-10.67	peak
6	2477.290	28.18	4.59	32.77	53.44	-20.67	RMS
7	2660.440	36.83	5.56	42.39	53.44	-11.05	peak
8	2660.440	26.89	5.56	32.45	53.44	-20.99	RMS
9	2865.790	38.43	6.61	45.04	53.44	-8.40	peak
10	2865.790	28.81	6.61	35.42	53.44	-18.02	RMS
11	2979.010	36.90	7.01	43.91	53.44	-9.53	peak
12	2979.010	26.90	7.01	33.91	53.44	-19.53	RMS

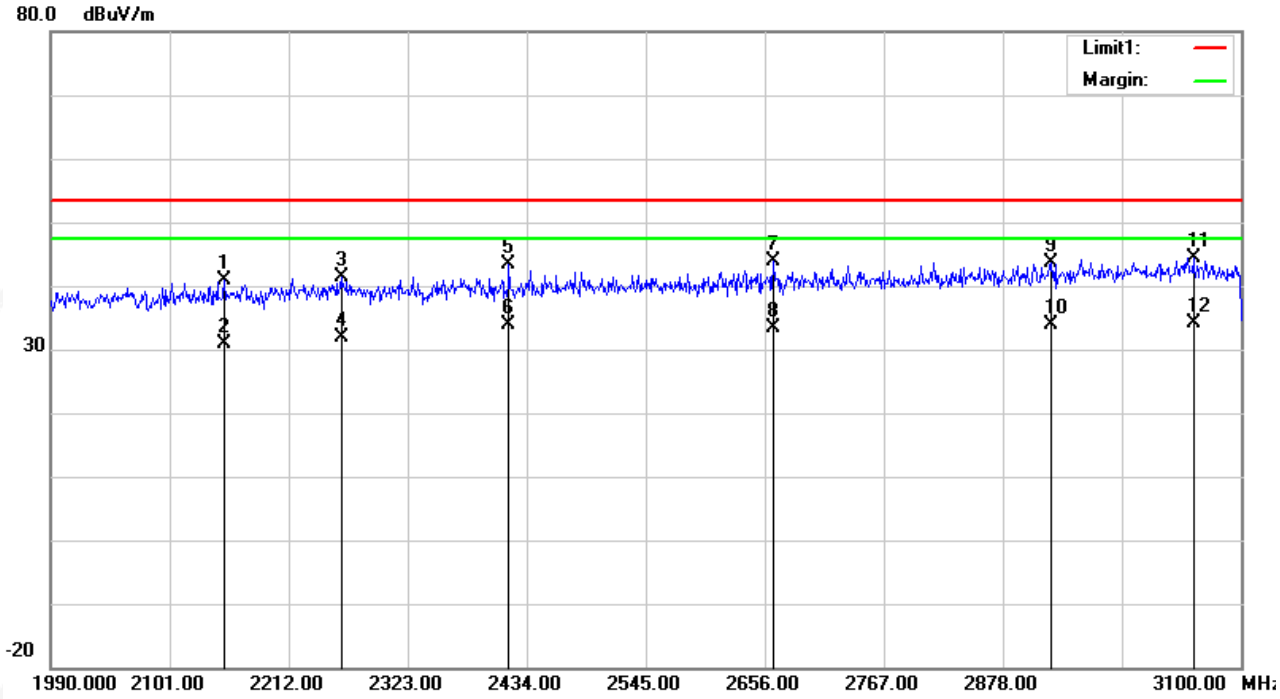
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 3(1990MHz – 3100MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2152.060	37.49	3.28	40.77	53.44	-12.67	peak
2	2152.060	27.49	3.28	30.77	53.44	-22.67	RMS
3	2260.840	37.55	3.71	41.26	53.44	-12.18	peak
4	2260.840	28.14	3.71	31.85	53.44	-21.59	RMS
5	2417.350	38.91	4.50	43.41	53.44	-10.03	peak
6	2417.350	29.46	4.50	33.96	53.44	-19.48	RMS
7	2663.770	38.42	5.57	43.99	53.44	-9.45	peak
8	2663.770	27.92	5.57	33.49	53.44	-19.95	RMS
9	2923.510	36.84	6.84	43.68	53.44	-9.76	peak
10	2923.510	27.01	6.84	33.85	53.44	-19.59	RMS
11	3055.600	16.14	28.23	44.37	53.44	-9.07	peak
12	3055.600	5.95	28.23	34.18	53.44	-19.26	RMS

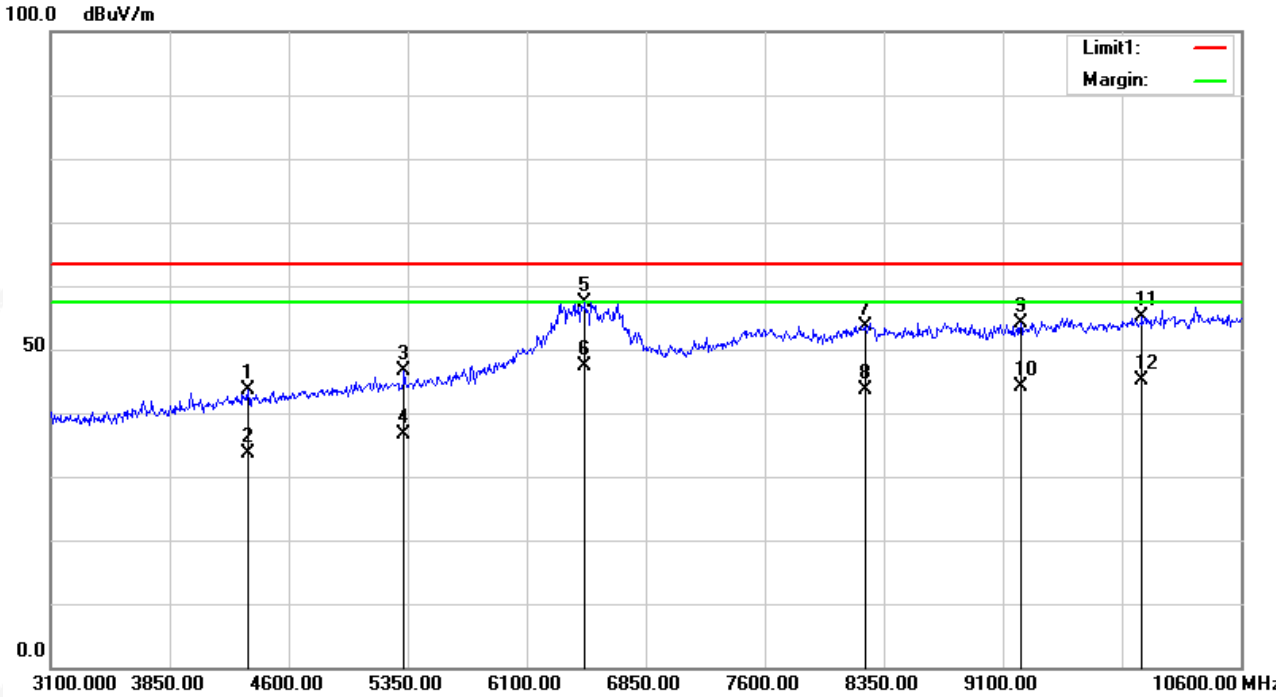
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 3(3100MHz – 10600MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4345.000	51.79	-8.18	43.61	63.44	-19.83	peak
2	4345.000	41.79	-8.18	33.61	63.44	-29.83	RMS
3	5327.500	51.97	-5.22	46.75	63.44	-16.69	peak
4	5327.500	41.97	-5.22	36.75	63.44	-26.69	RMS
5	6467.500	59.47	-2.04	57.43	63.44	-6.01	peak
6	6467.500	49.47	-2.04	47.43	63.44	-16.01	RMS
7	8237.500	51.31	2.43	53.74	63.44	-9.70	peak
8	8237.500	41.31	2.43	43.74	63.44	-19.70	RMS
9	9212.500	51.45	2.75	54.20	63.44	-9.24	peak
10	9212.500	41.45	2.75	44.20	63.44	-19.24	RMS
11	9977.500	51.72	3.35	55.07	63.44	-8.37	peak
12	9977.500	41.72	3.35	45.07	63.44	-18.37	RMS

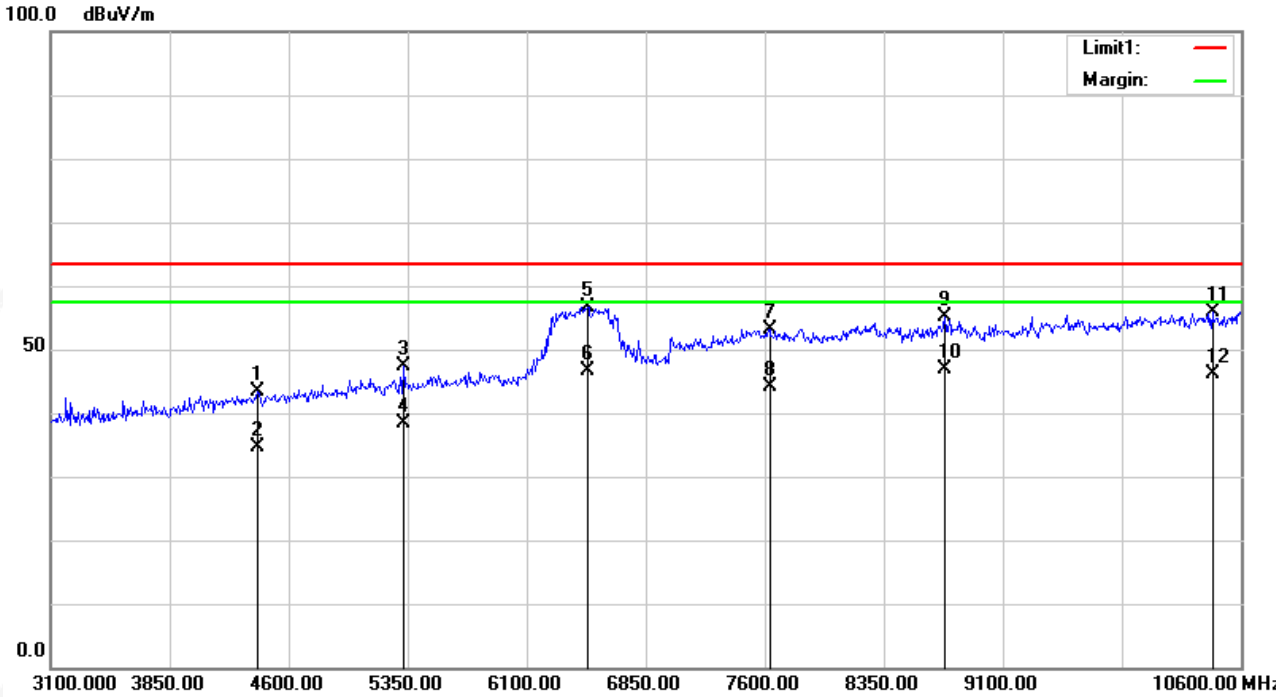
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 3(3100MHz – 10600MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4405.000	51.39	-8.04	43.35	63.44	-20.09	peak
2	4405.000	42.56	-8.04	34.52	63.44	-28.92	RMS
3	5320.000	52.62	-5.21	47.41	63.44	-16.03	peak
4	5320.000	43.68	-5.21	38.47	63.44	-24.97	RMS
5	6482.500	58.72	-1.99	56.73	63.44	-6.71	peak
6	6482.500	48.72	-1.99	46.73	63.44	-16.71	RMS
7	7630.000	51.47	1.78	53.25	63.44	-10.19	peak
8	7630.000	42.47	1.78	44.25	63.44	-19.19	RMS
9	8732.500	52.42	2.60	55.02	63.44	-8.42	peak
10	8732.500	44.29	2.60	46.89	63.44	-16.55	RMS
11	10420.000	51.06	4.71	55.77	63.44	-7.67	peak
12	10420.000	41.54	4.71	46.25	63.44	-17.19	RMS

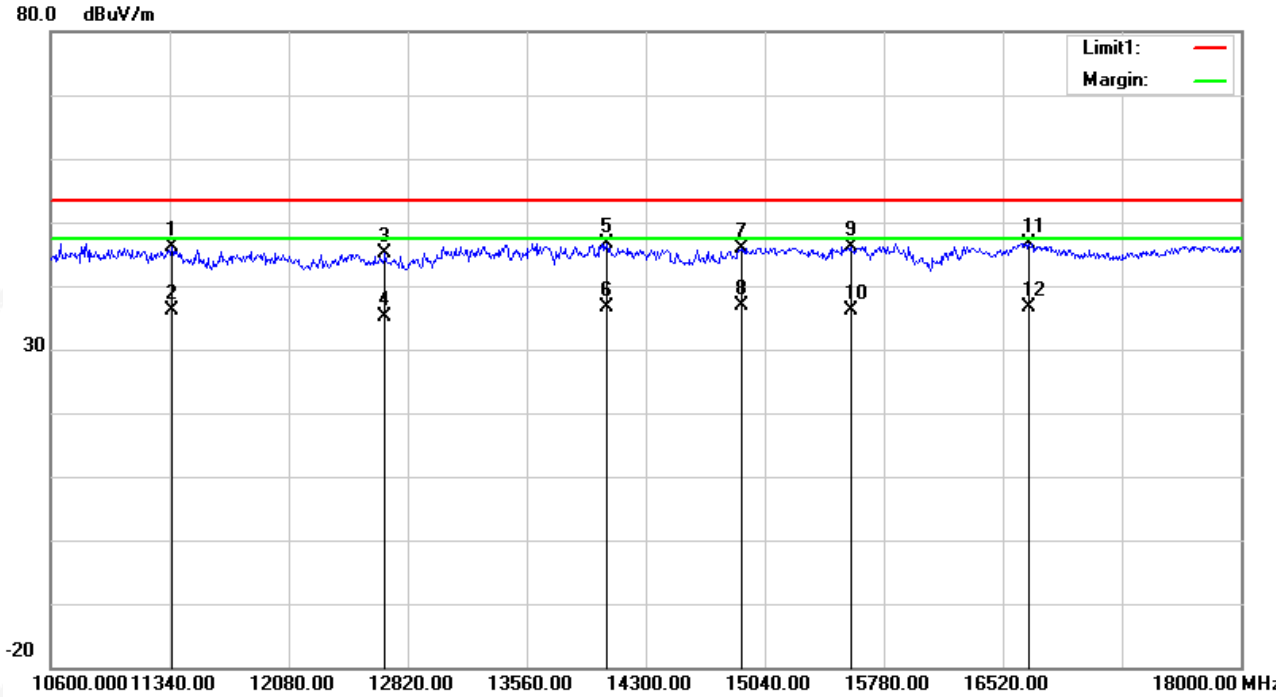
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 3(10600MHz – 18000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11354.800	39.76	6.37	46.13	53.44	-7.31	peak
2	11354.800	29.76	6.37	36.13	53.44	-17.31	RMS
3	12679.400	39.14	6.09	45.23	53.44	-8.21	peak
4	12679.400	29.14	6.09	35.23	53.44	-18.21	RMS
5	14055.800	34.49	12.22	46.71	53.44	-6.73	peak
6	14055.800	24.49	12.22	36.71	53.44	-16.73	RMS
7	14892.000	35.54	10.35	45.89	53.44	-7.55	peak
8	14892.000	26.54	10.35	36.89	53.44	-16.55	RMS
9	15572.800	36.93	9.27	46.20	53.44	-7.24	peak
10	15572.800	26.93	9.27	36.20	53.44	-17.24	RMS
11	16682.800	37.25	9.48	46.73	53.44	-6.71	peak
12	16682.800	27.25	9.48	36.73	53.44	-16.71	RMS

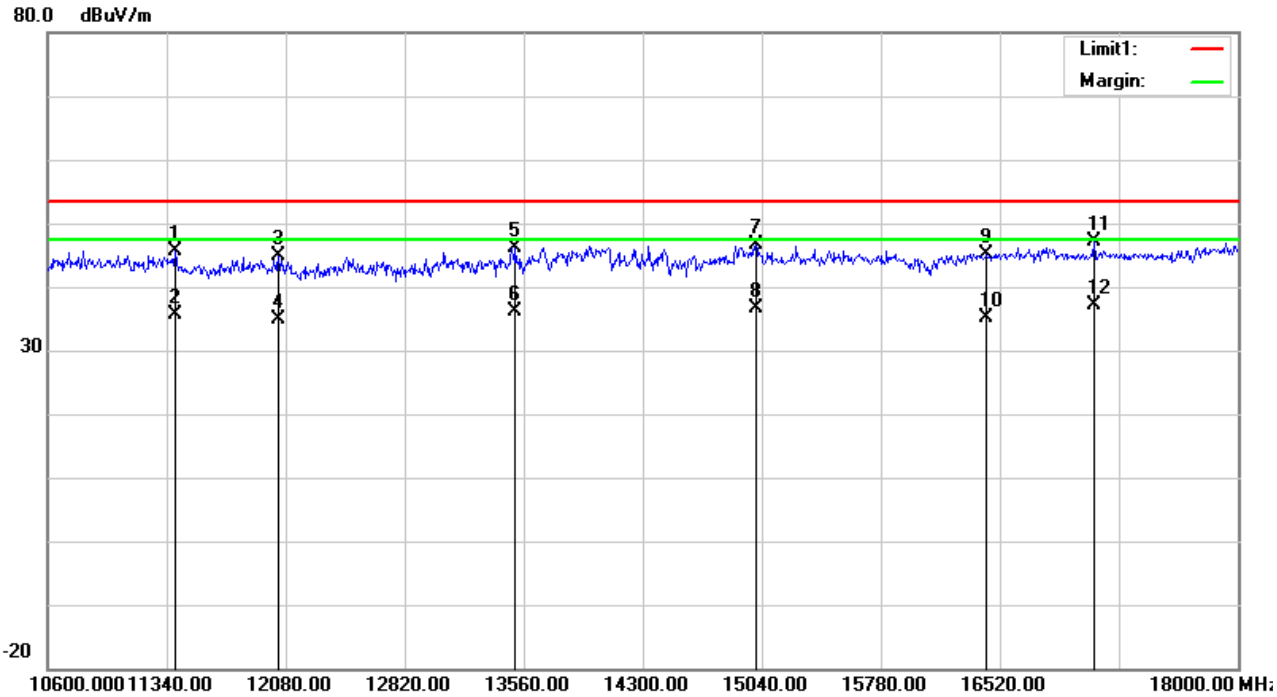
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 3(10600MHz – 18000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11391.800	39.23	6.39	45.62	53.44	-7.82	peak
2	11391.800	29.23	6.39	35.62	53.44	-17.82	RMS
3	12035.600	39.04	5.80	44.84	53.44	-8.60	peak
4	12035.600	29.04	5.80	34.84	53.44	-18.60	RMS
5	13508.200	36.52	9.64	46.16	53.44	-7.28	peak
6	13508.200	26.52	9.64	36.16	53.44	-17.28	RMS
7	15003.000	36.61	10.06	46.67	53.44	-6.77	peak
8	15003.000	26.61	10.06	36.67	53.44	-16.77	RMS
9	16438.600	36.24	8.96	45.20	53.44	-8.24	peak
10	16438.600	26.24	8.96	35.20	53.44	-18.24	RMS
11	17104.600	37.25	9.99	47.24	53.44	-6.20	peak
12	17104.600	27.25	9.99	37.24	53.44	-16.20	RMS

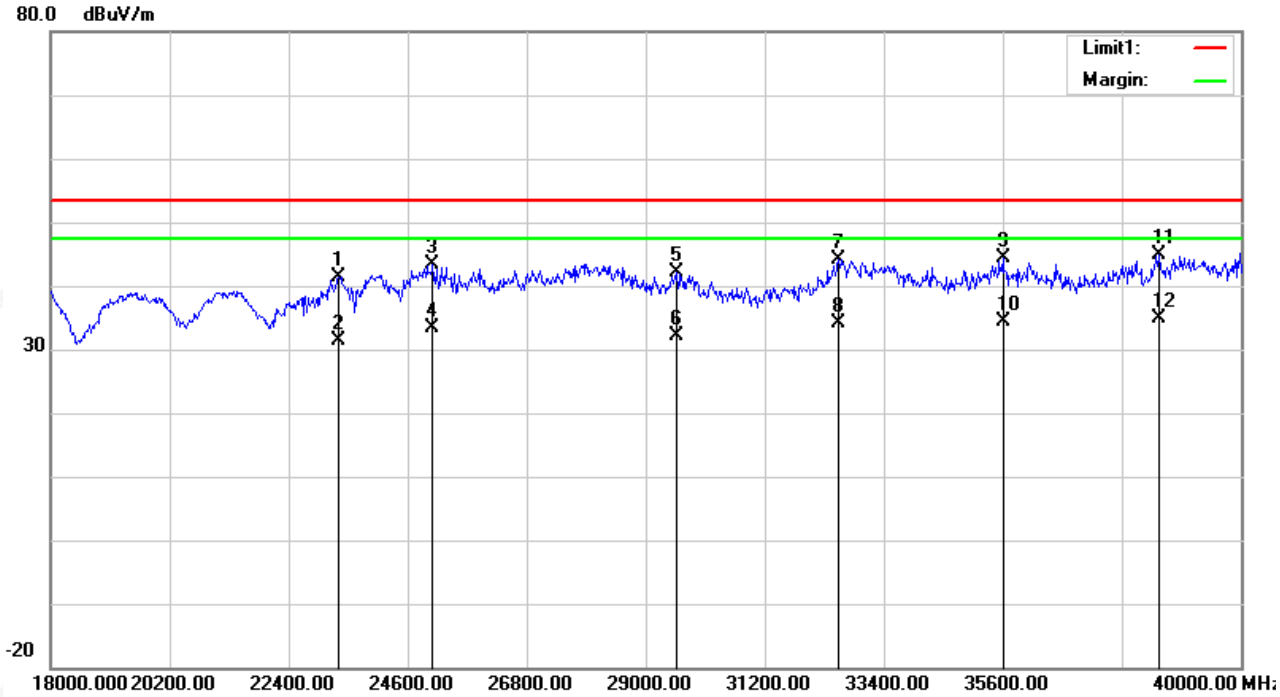
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 3(18000MHz – 40000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	23324.000	26.14	15.30	41.44	53.44	-12.00	peak
2	23324.000	16.14	15.30	31.44	53.44	-22.00	RMS
3	25062.000	26.31	17.03	43.34	53.44	-10.10	peak
4	25062.000	16.31	17.03	33.34	53.44	-20.10	RMS
5	29572.000	25.47	16.72	42.19	53.44	-11.25	peak
6	29572.000	15.47	16.72	32.19	53.44	-21.25	RMS
7	32564.000	28.45	15.57	44.02	53.44	-9.42	peak
8	32564.000	18.45	15.57	34.02	53.44	-19.42	RMS
9	35600.000	27.87	16.49	44.36	53.44	-9.08	peak
10	35600.000	17.87	16.49	34.36	53.44	-19.08	RMS
11	38482.000	26.97	17.92	44.89	53.44	-8.55	peak
12	38482.000	16.97	17.92	34.89	53.44	-18.55	RMS

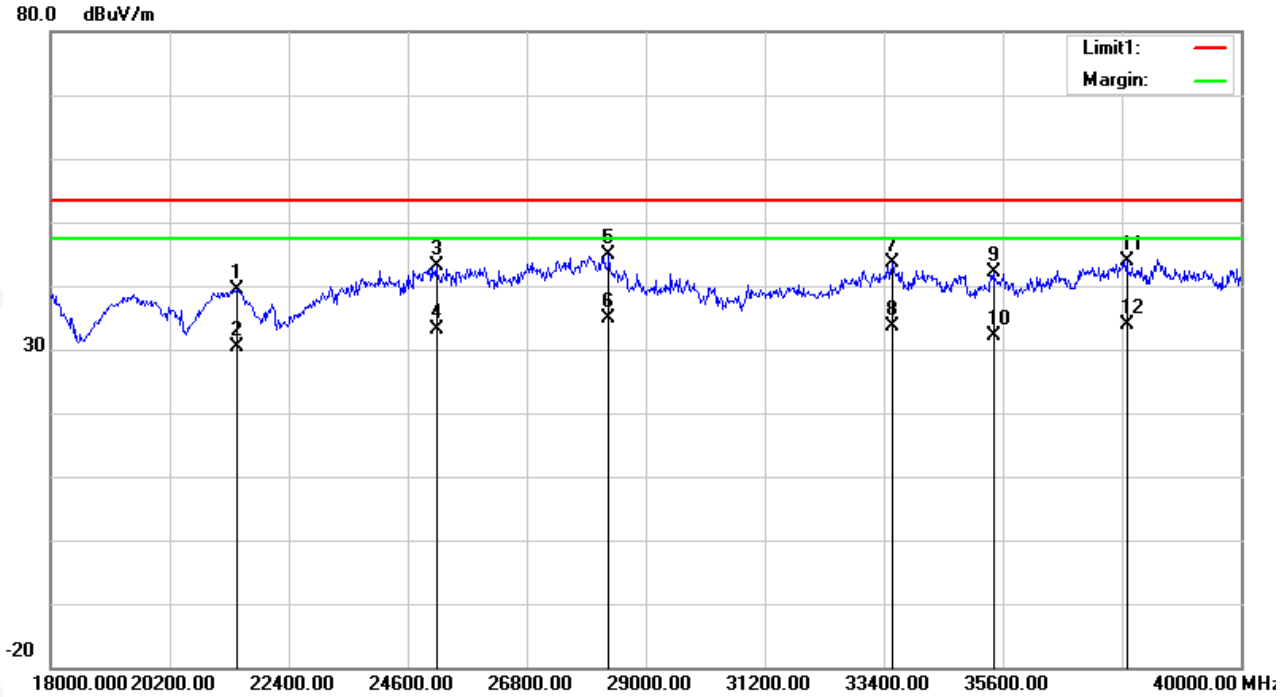
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 3(18000MHz – 40000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	21432.000	23.02	16.38	39.40	53.44	-14.04	peak
2	21432.000	14.02	16.38	30.40	53.44	-23.04	RMS
3	25128.000	25.97	17.09	43.06	53.44	-10.38	peak
4	25128.000	15.97	17.09	33.06	53.44	-20.38	RMS
5	28318.000	25.75	19.06	44.81	53.44	-8.63	peak
6	28318.000	15.75	19.06	34.81	53.44	-18.63	RMS
7	33554.000	27.85	15.73	43.58	53.44	-9.86	peak
8	33554.000	17.85	15.73	33.58	53.44	-19.86	RMS
9	35424.000	25.70	16.41	42.11	53.44	-11.33	peak
10	35424.000	15.70	16.41	32.11	53.44	-21.33	RMS
11	37888.000	26.29	17.61	43.90	53.44	-9.54	peak
12	37888.000	16.29	17.61	33.90	53.44	-19.54	RMS

Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

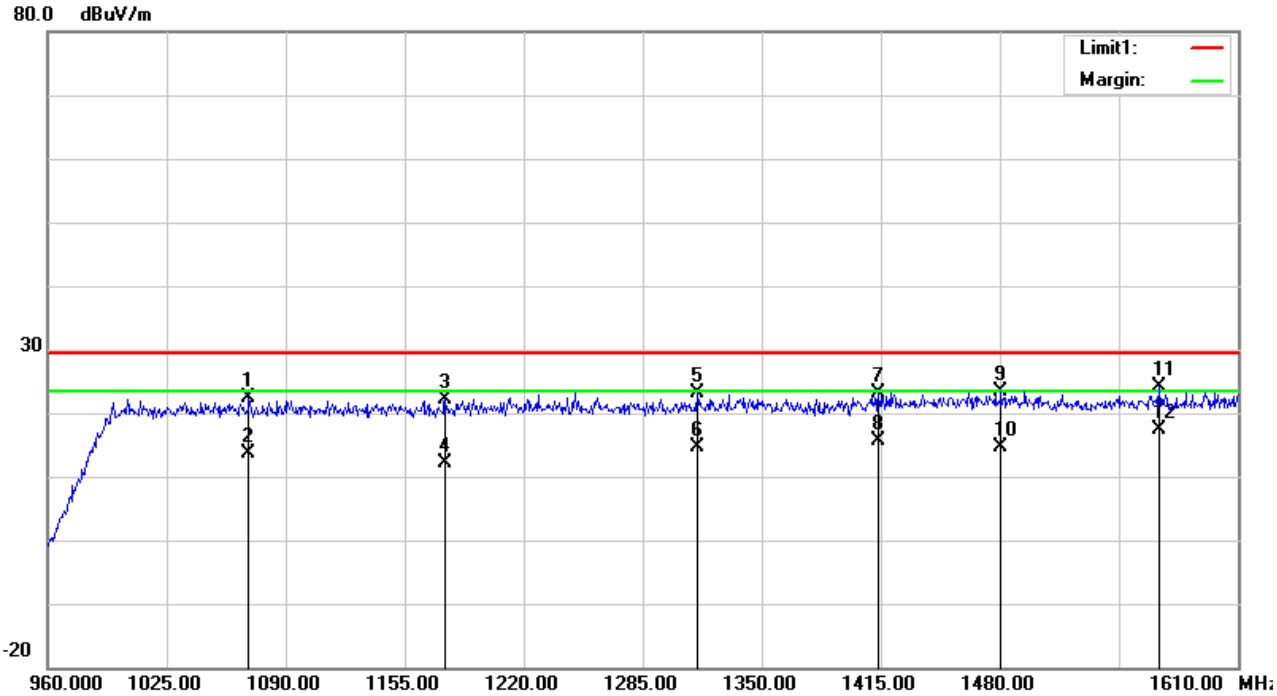


IC:

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 3(960MHz -1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1069.850	23.64	-1.26	22.38	29.44	-7.06	peak
2	1069.850	14.85	-1.26	13.59	29.44	-15.85	RMS
3	1177.100	22.83	-0.65	22.18	29.44	-7.26	peak
4	1177.100	12.83	-0.65	12.18	29.44	-17.26	RMS
5	1314.900	23.33	-0.08	23.25	29.44	-6.19	peak
6	1314.900	14.62	-0.08	14.54	29.44	-14.90	RMS
7	1413.700	22.71	0.44	23.15	29.44	-6.29	peak
8	1413.700	15.19	0.44	15.63	29.44	-13.81	RMS
9	1480.650	22.09	1.25	23.34	29.44	-6.10	peak
10	1480.650	13.46	1.25	14.71	29.44	-14.73	RMS
11	1567.100	20.81	3.20	24.01	29.44	-5.43	peak
12	1567.100	14.16	3.20	17.36	29.44	-12.08	RMS

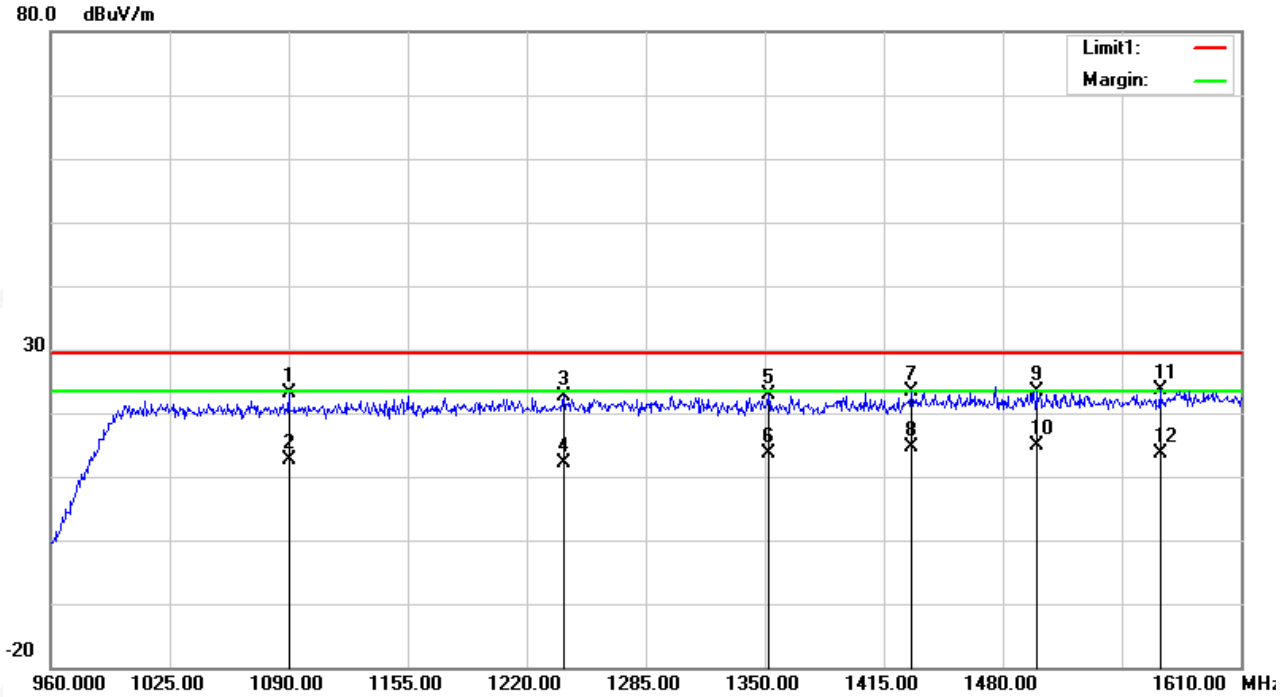
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 3(960MHz -1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1090.000	24.24	-1.13	23.11	29.44	-6.33	peak
2	1090.000	13.64	-1.13	12.51	29.44	-16.93	RMS
3	1240.150	23.05	-0.49	22.56	29.44	-6.88	peak
4	1240.150	12.63	-0.49	12.14	29.44	-17.30	RMS
5	1351.950	22.81	0.07	22.88	29.44	-6.56	peak
6	1351.950	13.46	0.07	13.53	29.44	-15.91	RMS
7	1429.950	22.84	0.64	23.48	29.44	-5.96	peak
8	1429.950	13.98	0.64	14.62	29.44	-14.82	RMS
9	1498.850	22.01	1.47	23.48	29.44	-5.96	peak
10	1498.850	13.34	1.47	14.81	29.44	-14.63	RMS
11	1565.800	20.50	3.16	23.66	29.44	-5.78	peak
12	1565.800	10.54	3.16	13.70	29.44	-15.74	RMS

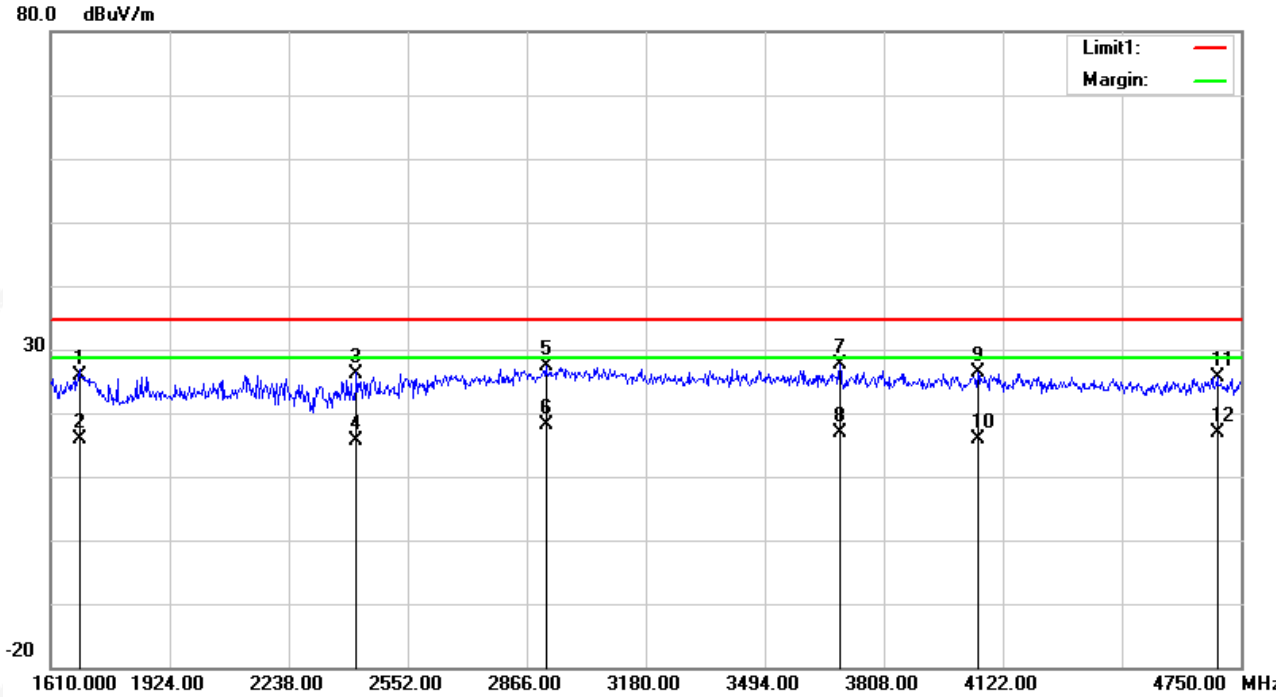
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 3(1610MHz – 4750MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1688.500	20.81	4.99	25.80	34.74	-8.94	peak
2	1688.500	10.81	4.99	15.80	34.74	-18.94	RMS
3	2416.980	21.75	4.50	26.25	34.74	-8.49	peak
4	2416.980	11.15	4.50	15.65	34.74	-19.09	RMS
5	2916.240	20.69	6.80	27.49	34.74	-7.25	peak
6	2916.240	11.35	6.80	18.15	34.74	-16.59	RMS
7	3691.820	-1.22	28.96	27.74	34.74	-7.00	peak
8	3691.820	-12.11	28.96	16.85	34.74	-17.89	RMS
9	4056.060	-3.38	29.80	26.42	34.74	-8.32	peak
10	4056.060	-13.86	29.80	15.94	34.74	-18.80	RMS
11	4687.200	-5.33	30.97	25.64	34.74	-9.10	peak
12	4687.200	-14.13	30.97	16.84	34.74	-17.90	RMS

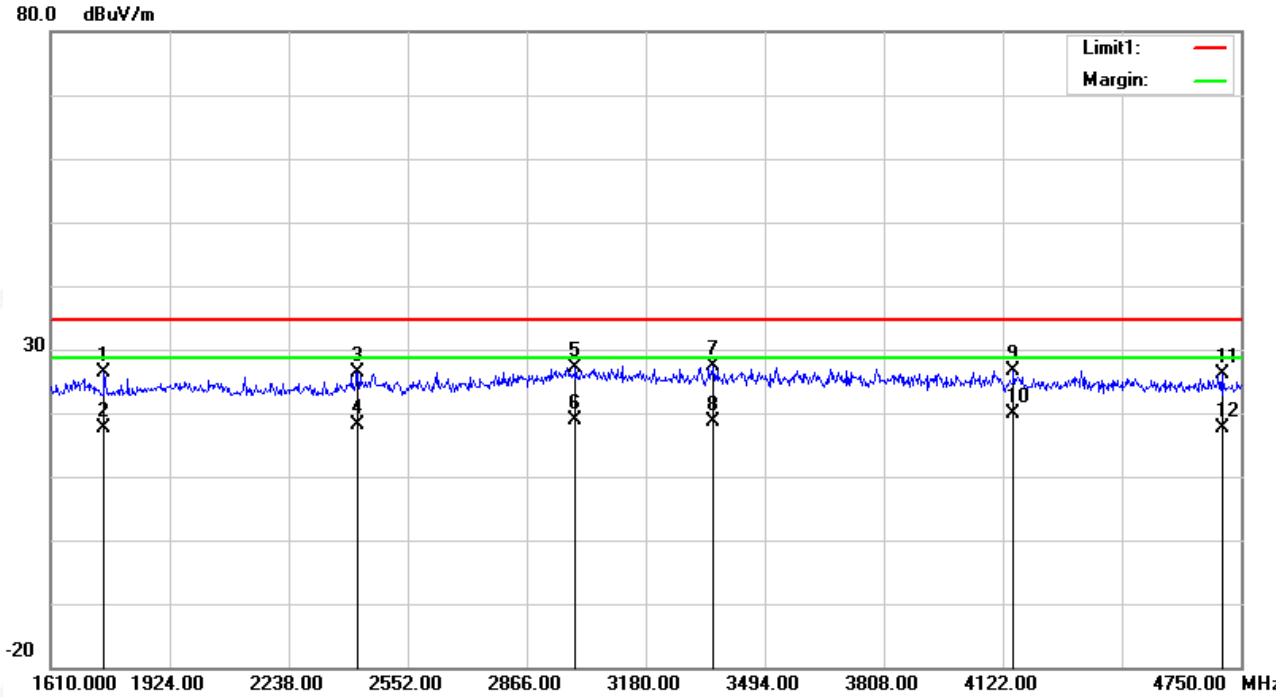
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 3(1610MHz – 4750MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1751.300	22.69	3.62	26.31	34.74	-8.43	peak
2	1751.300	13.92	3.62	17.54	34.74	-17.20	RMS
3	2420.120	21.86	4.50	26.36	34.74	-8.38	peak
4	2420.120	13.75	4.50	18.25	34.74	-16.49	RMS
5	2994.740	20.10	7.03	27.13	34.74	-7.61	peak
6	2994.740	11.86	7.03	18.89	34.74	-15.85	RMS
7	3358.980	-1.13	28.42	27.29	34.74	-7.45	peak
8	3358.980	-9.84	28.42	18.58	34.74	-16.16	RMS
9	4150.260	-3.30	29.97	26.67	34.74	-8.07	peak
10	4150.260	-10.13	29.97	19.84	34.74	-14.90	RMS
11	4699.760	-4.81	31.00	26.19	34.74	-8.55	peak
12	4699.760	-13.44	31.00	17.56	34.74	-17.18	RMS

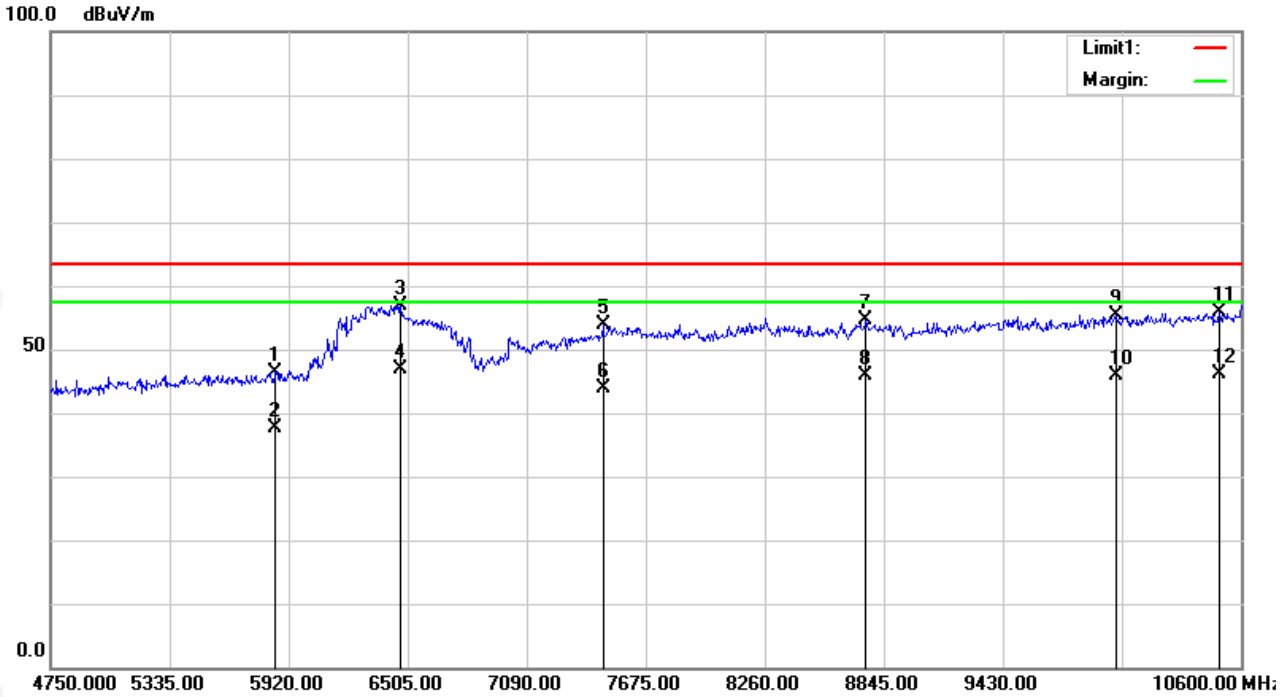
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 3(4750MHz – 10600MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5855.650	50.55	-4.07	46.48	63.44	-16.96	peak
2	5855.650	41.61	-4.07	37.54	63.44	-25.90	RMS
3	6469.900	58.99	-2.03	56.96	63.44	-6.48	peak
4	6469.900	48.99	-2.03	46.96	63.44	-16.48	RMS
5	7464.400	52.27	1.50	53.77	63.44	-9.67	peak
6	7464.400	42.27	1.50	43.77	63.44	-19.67	RMS
7	8757.250	51.97	2.58	54.55	63.44	-8.89	peak
8	8757.250	43.26	2.58	45.84	63.44	-17.60	RMS
9	9985.750	52.12	3.35	55.47	63.44	-7.97	peak
10	9985.750	42.49	3.35	45.84	63.44	-17.60	RMS
11	10494.700	50.86	4.95	55.81	63.44	-7.63	peak
12	10494.700	41.30	4.95	46.25	63.44	-17.19	RMS

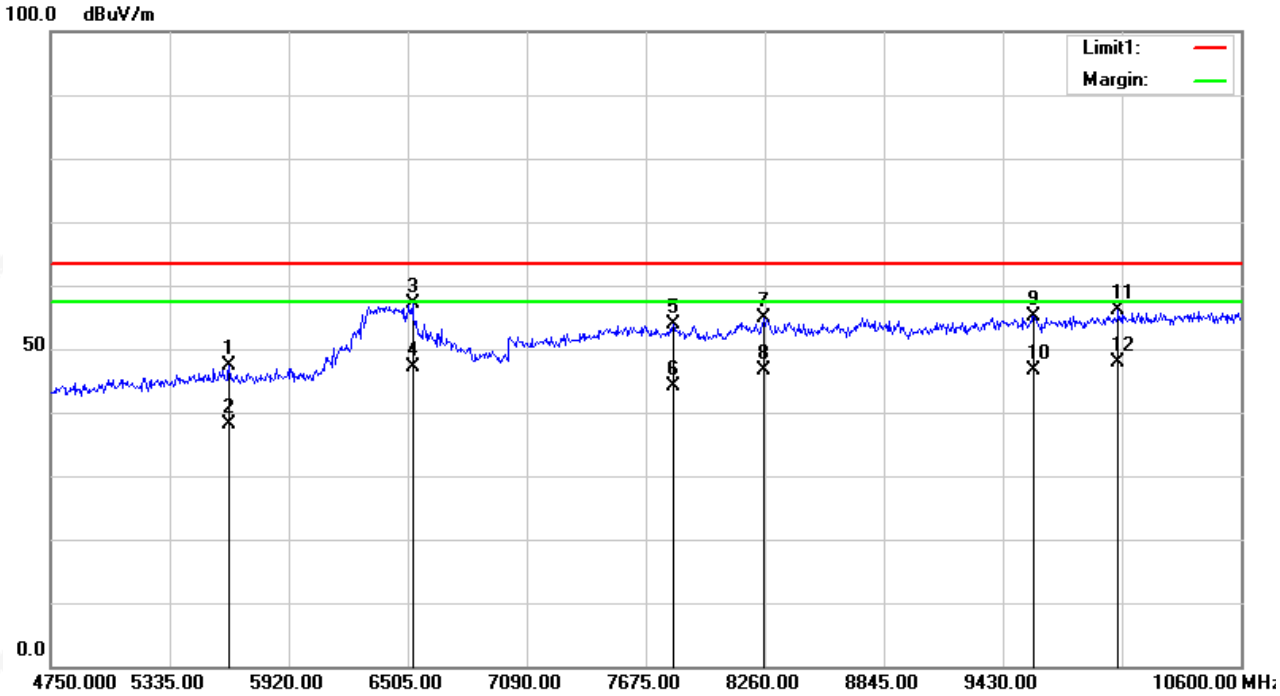
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 3(4750MHz – 10600MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5627.500	51.95	-4.69	47.26	63.44	-16.18	peak
2	5627.500	42.84	-4.69	38.15	63.44	-25.29	RMS
3	6528.400	59.12	-1.89	57.23	63.44	-6.21	peak
4	6528.400	49.12	-1.89	47.23	63.44	-16.21	RMS
5	7809.550	51.98	1.96	53.94	63.44	-9.50	peak
6	7809.550	42.29	1.96	44.25	63.44	-19.19	RMS
7	8254.150	52.38	2.45	54.83	63.44	-8.61	peak
8	8254.150	44.19	2.45	46.64	63.44	-16.80	RMS
9	9582.100	51.84	3.18	55.02	63.44	-8.42	peak
10	9582.100	43.54	3.18	46.72	63.44	-16.72	RMS
11	9997.450	52.67	3.36	56.03	63.44	-7.41	peak
12	9997.450	44.59	3.36	47.95	63.44	-15.49	RMS

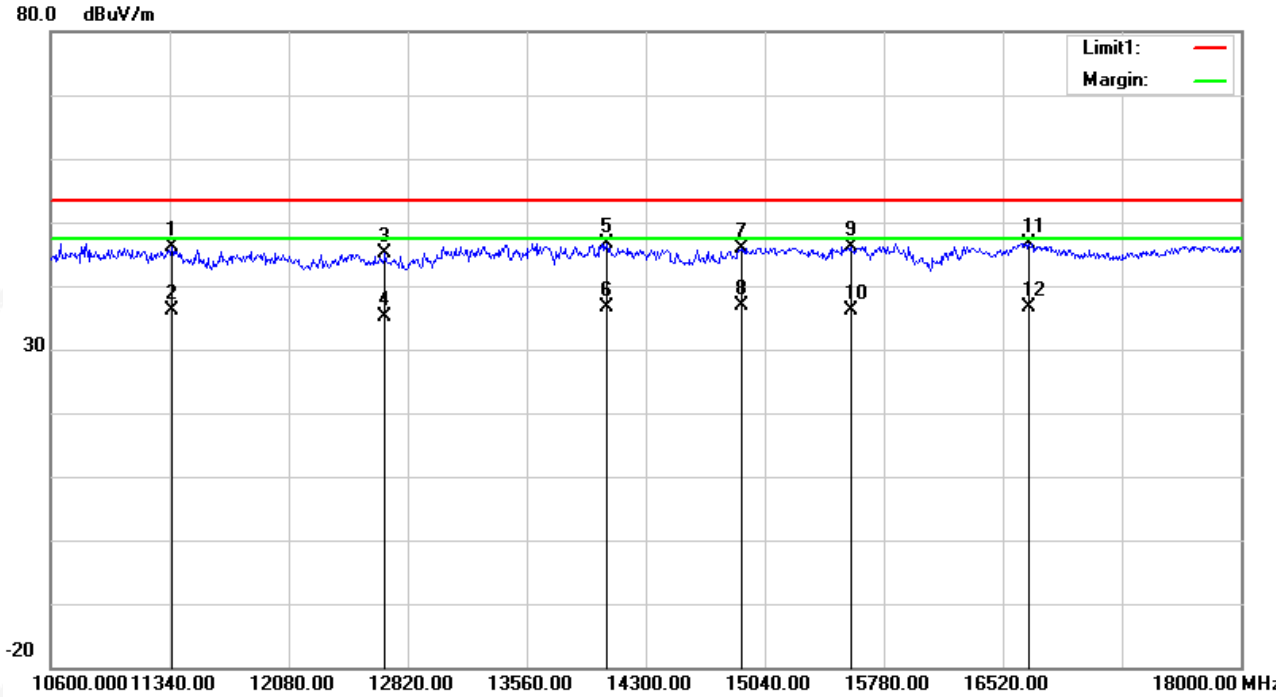
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 3(10600MHz – 18000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11354.800	39.76	6.37	46.13	53.44	-7.31	peak
2	11354.800	29.76	6.37	36.13	53.44	-17.31	RMS
3	12679.400	39.14	6.09	45.23	53.44	-8.21	peak
4	12679.400	29.14	6.09	35.23	53.44	-18.21	RMS
5	14055.800	34.49	12.22	46.71	53.44	-6.73	peak
6	14055.800	24.49	12.22	36.71	53.44	-16.73	RMS
7	14892.000	35.54	10.35	45.89	53.44	-7.55	peak
8	14892.000	26.54	10.35	36.89	53.44	-16.55	RMS
9	15572.800	36.93	9.27	46.20	53.44	-7.24	peak
10	15572.800	26.93	9.27	36.20	53.44	-17.24	RMS
11	16682.800	37.25	9.48	46.73	53.44	-6.71	peak
12	16682.800	27.25	9.48	36.73	53.44	-16.71	RMS

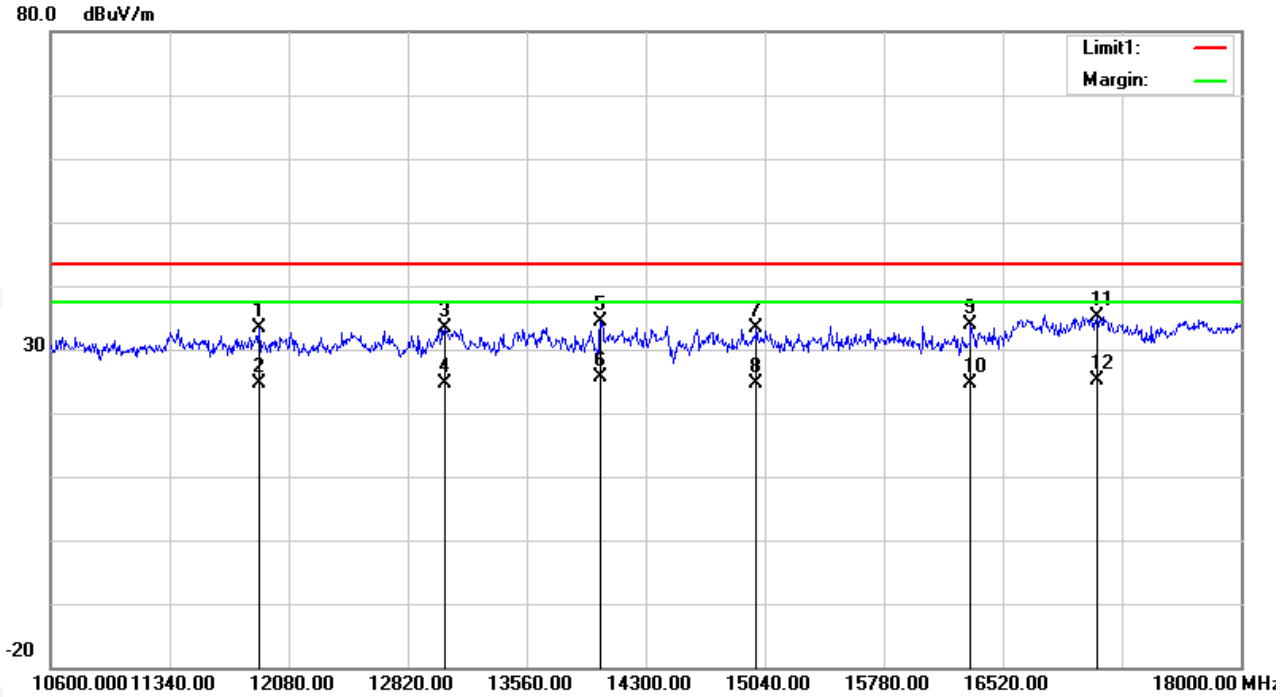
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 3(10600MHz – 18000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11391.800	39.23	6.39	45.62	53.44	-7.82	peak
2	11391.800	29.23	6.39	35.62	53.44	-17.82	RMS
3	12035.600	39.04	5.80	44.84	53.44	-8.60	peak
4	12035.600	29.04	5.80	34.84	53.44	-18.60	RMS
5	13508.200	36.52	9.64	46.16	53.44	-7.28	peak
6	13508.200	26.52	9.64	36.16	53.44	-17.28	RMS
7	15003.000	36.61	10.06	46.67	53.44	-6.77	peak
8	15003.000	26.61	10.06	36.67	53.44	-16.77	RMS
9	16438.600	36.24	8.96	45.20	53.44	-8.24	peak
10	16438.600	26.24	8.96	35.20	53.44	-18.24	RMS
11	17104.600	37.25	9.99	47.24	53.44	-6.20	peak
12	17104.600	27.25	9.99	37.24	53.44	-16.20	RMS

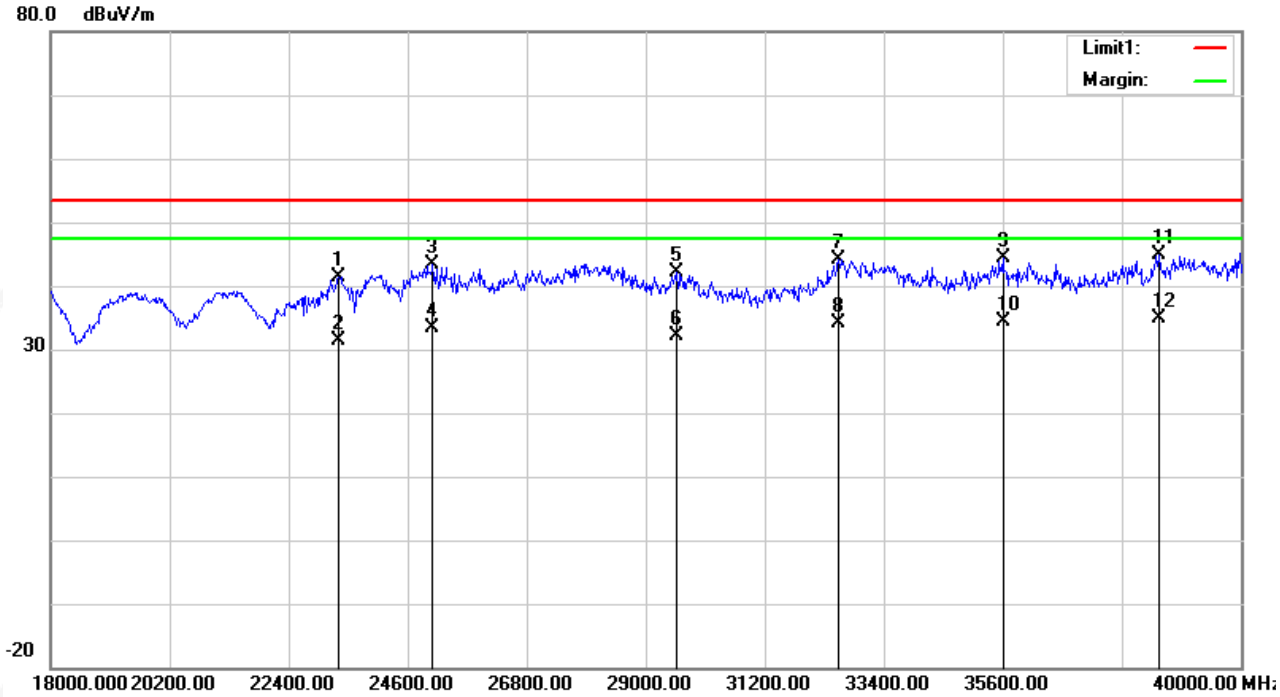
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 3(18000MHz – 40000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	23324.000	26.14	15.30	41.44	53.44	-12.00	peak
2	23324.000	16.14	15.30	31.44	53.44	-22.00	RMS
3	25062.000	26.31	17.03	43.34	53.44	-10.10	peak
4	25062.000	16.31	17.03	33.34	53.44	-20.10	RMS
5	29572.000	25.47	16.72	42.19	53.44	-11.25	peak
6	29572.000	15.47	16.72	32.19	53.44	-21.25	RMS
7	32564.000	28.45	15.57	44.02	53.44	-9.42	peak
8	32564.000	18.45	15.57	34.02	53.44	-19.42	RMS
9	35600.000	27.87	16.49	44.36	53.44	-9.08	peak
10	35600.000	17.87	16.49	34.36	53.44	-19.08	RMS
11	38482.000	26.97	17.92	44.89	53.44	-8.55	peak
12	38482.000	16.97	17.92	34.89	53.44	-18.55	RMS

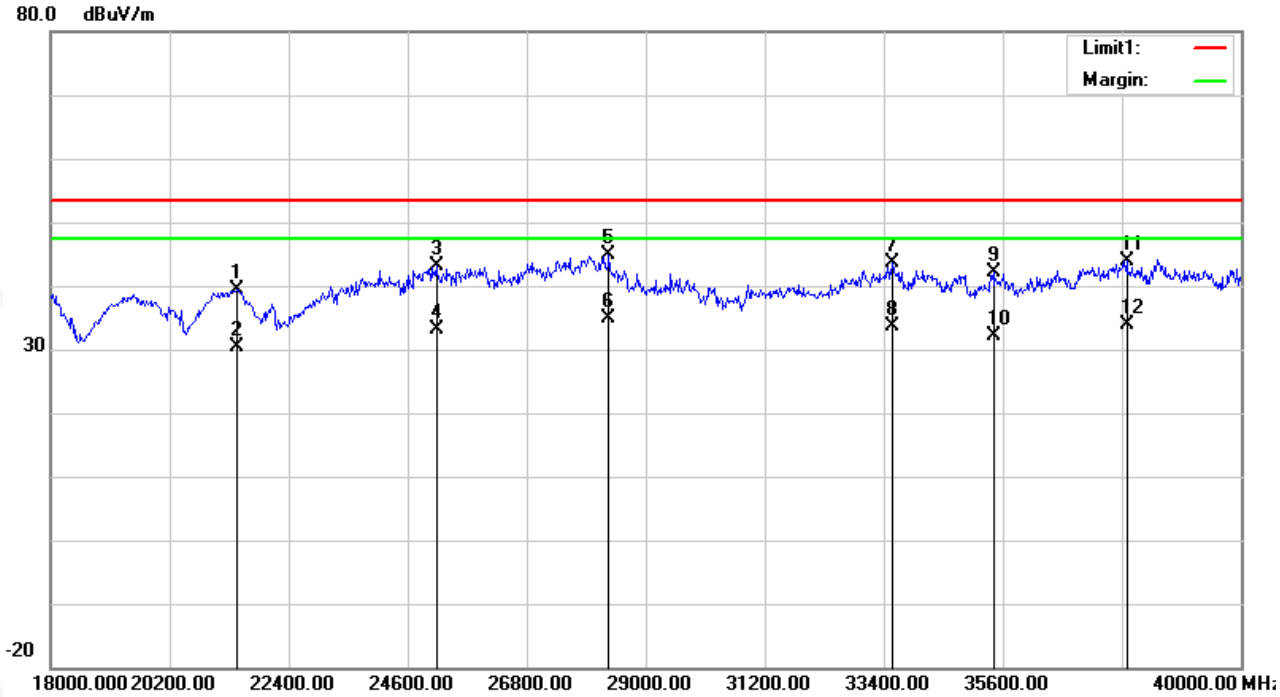
Remark:
9. Margin = Result (Result =Reading + Factor)–Limit
10. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 3(18000MHz – 40000MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	21432.000	23.02	16.38	39.40	53.44	-14.04	peak
2	21432.000	14.02	16.38	30.40	53.44	-23.04	RMS
3	25128.000	25.97	17.09	43.06	53.44	-10.38	peak
4	25128.000	15.97	17.09	33.06	53.44	-20.38	RMS
5	28318.000	25.75	19.06	44.81	53.44	-8.63	peak
6	28318.000	15.75	19.06	34.81	53.44	-18.63	RMS
7	33554.000	27.85	15.73	43.58	53.44	-9.86	peak
8	33554.000	17.85	15.73	33.58	53.44	-19.86	RMS
9	35424.000	25.70	16.41	42.11	53.44	-11.33	peak
10	35424.000	15.70	16.41	32.11	53.44	-21.33	RMS
11	21432.000	23.02	16.38	39.40	53.44	-14.04	peak
12	21432.000	14.02	16.38	30.40	53.44	-23.04	RMS

Remark:
9. Margin = Result (Result =Reading + Factor)–Limit
10. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



3.3 RADIATED EMISSION MEASUREMENT (FOR 15.517(d)&RSS 220 5.2.1(e))

3.3.1 RADIATED EMISSION LIMITS

Frequency of Emission (MHz)	**EIRP (dBm)**	**Field Strength (dBuV/m@3m)**	**Field Strength (dBuV/m@1m)**
1164~1240	-85.3	10	19.54
1559~1610	-85.3	10	19.54

Notes: 1. Transfer rules follow 15.521(g),15.31(f)(1).
2. 15.521(g) converted to a peak field strength level at 3 meters using E(dBuV/m) = P(dBmEIRP) + 95.2.
3. dBuV/m@1m= dBuV/m@3m+20*log(3/1)

UWB transmitters operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of no less than 1 kHz:

Frequency Range	RBW	VBW	Detector	Measurement Distance
1164~1240	1kHz	3kHz	RMS	1 Meter
1559~1610	1kHz	3kHz	RMS	1 Meter

3.3.2 TEST PROCEDURE

a. The measuring distance of 1m shall be used for measurements. The EUT was placed on the top of arotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The height of the test antenna shall vary between 1m to 4m.Both horizontal and vertical polarization of the antenna are set to make the measurement.

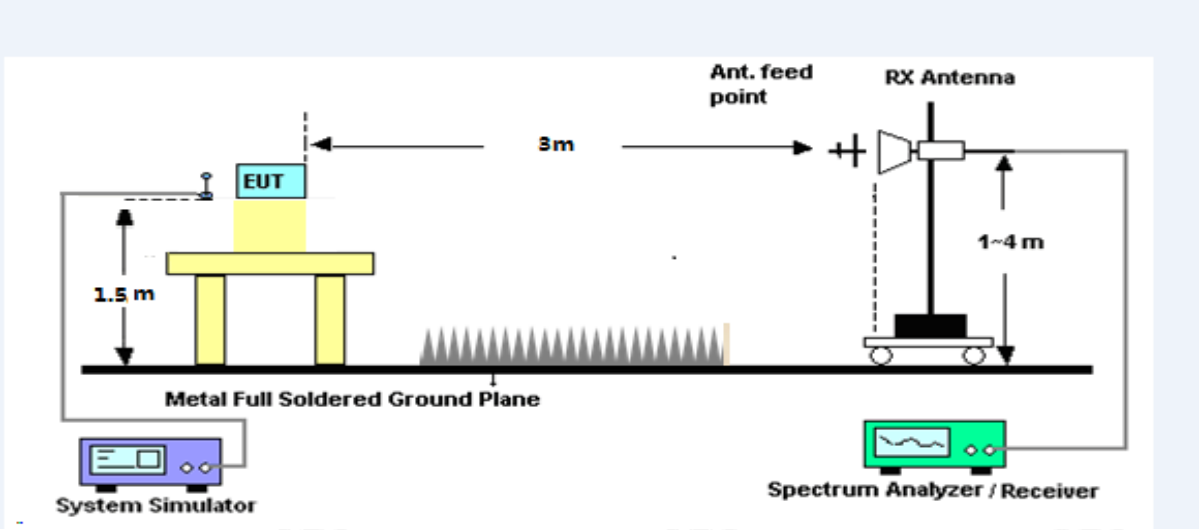
c. All readings are RMS mode value , for each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading . (Above 960MHz)

d. For the actual test configuration, please refer to the related Item –EUT Test Photos.
Note: Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

3.3.3 DEVIATION FROM TEST STANDARD

No deviation

3.3.4 TEST SETUP



3.3.5 FIELD STRENGTH CALCULATION

Same as 3.2.5

3.3.6 EUT OPERATING CONDITIONS

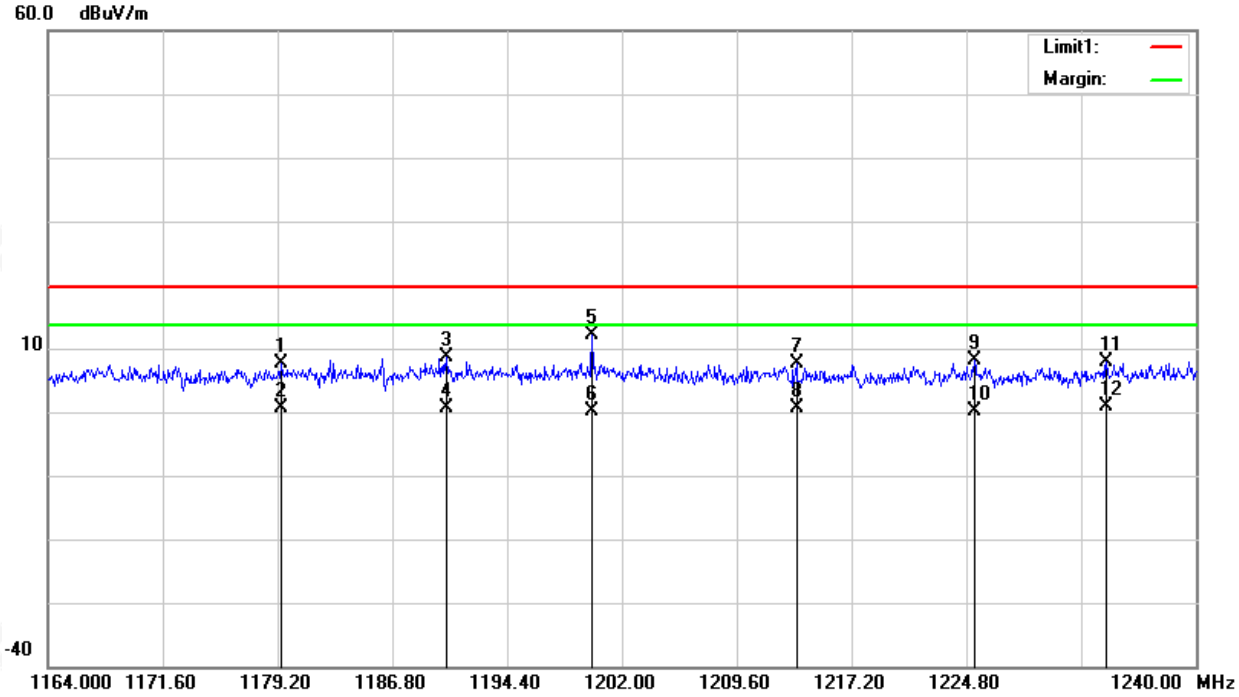
Same as 3.2.6

3.3.7 TEST RESULTS

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1(1164Hz – 1240MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1179.428	8.15	-0.63	7.52	19.54	-12.02	peak
2	1179.428	1.15	-0.63	0.52	19.54	-19.02	RMS
3	1190.372	9.25	-0.52	8.73	19.54	-10.81	peak
4	1190.372	1.25	-0.52	0.73	19.54	-18.81	RMS
5	1200.024	12.66	-0.42	12.24	19.54	-7.30	peak
6	1200.024	0.66	-0.42	0.24	19.54	-19.30	RMS
7	1213.552	8.03	-0.45	7.58	19.54	-11.96	peak
8	1213.552	1.03	-0.45	0.58	19.54	-18.96	RMS
9	1225.332	8.60	-0.47	8.13	19.54	-11.41	peak
10	1225.332	0.60	-0.47	0.13	19.54	-19.41	RMS
11	1234.072	8.25	-0.48	7.77	19.54	-11.77	peak
12	1234.072	1.25	-0.48	0.77	19.54	-18.77	RMS

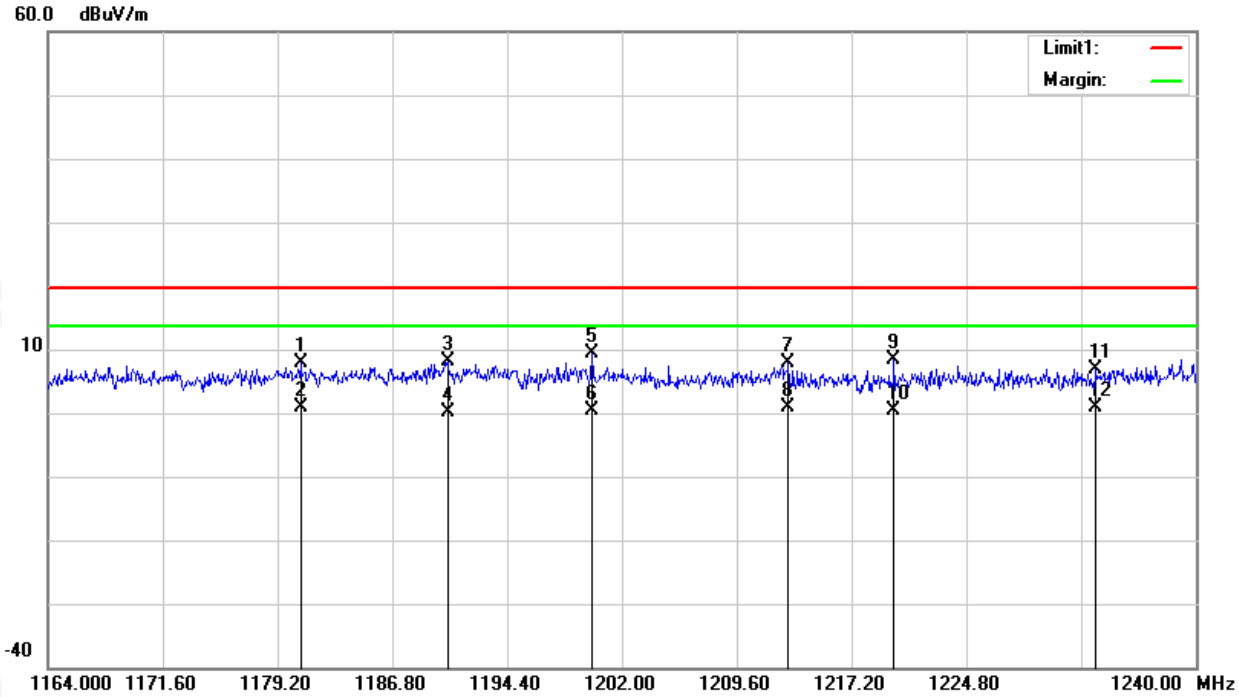
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1(1164Hz – 1240MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1180.720	8.40	-0.61	7.79	19.54	-11.75	peak
2	1180.720	1.40	-0.61	0.79	19.54	-18.75	RMS
3	1190.448	8.72	-0.52	8.20	19.54	-11.34	peak
4	1190.448	0.72	-0.52	0.20	19.54	-19.34	RMS
5	1200.024	9.68	-0.42	9.26	19.54	-10.28	peak
6	1200.024	0.68	-0.42	0.26	19.54	-19.28	RMS
7	1213.020	8.26	-0.45	7.81	19.54	-11.73	peak
8	1213.020	1.26	-0.45	0.81	19.54	-18.73	RMS
9	1220.012	8.86	-0.45	8.41	19.54	-11.13	peak
10	1220.012	0.86	-0.45	0.41	19.54	-19.13	RMS
11	1233.388	7.38	-0.48	6.90	19.54	-12.64	peak
12	1233.388	1.38	-0.48	0.90	19.54	-18.64	RMS

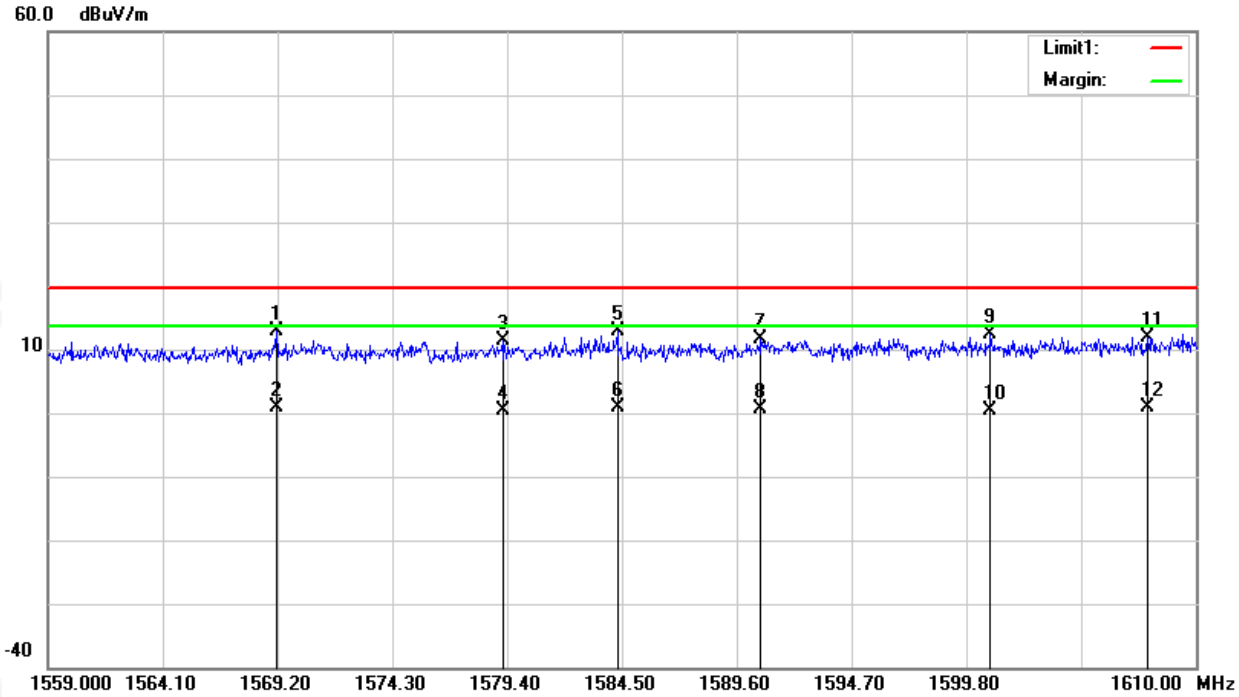
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1(1559Hz – 1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1569.149	9.54	3.27	12.81	19.54	-6.73	peak
2	1569.149	-2.46	3.27	0.81	19.54	-18.73	RMS
3	1579.196	7.77	3.59	11.36	19.54	-8.18	peak
4	1579.196	-3.23	3.59	0.36	19.54	-19.18	RMS
5	1584.296	9.16	3.75	12.91	19.54	-6.63	peak
6	1584.296	-2.84	3.75	0.91	19.54	-18.63	RMS
7	1590.671	7.74	3.95	11.69	19.54	-7.85	peak
8	1590.671	-3.26	3.95	0.69	19.54	-18.85	RMS
9	1600.871	8.09	4.24	12.33	19.54	-7.21	peak
10	1600.871	-3.91	4.24	0.33	19.54	-19.21	RMS
11	1607.858	7.67	4.24	11.91	19.54	-7.63	peak
12	1607.858	-3.33	4.24	0.91	19.54	-18.63	RMS

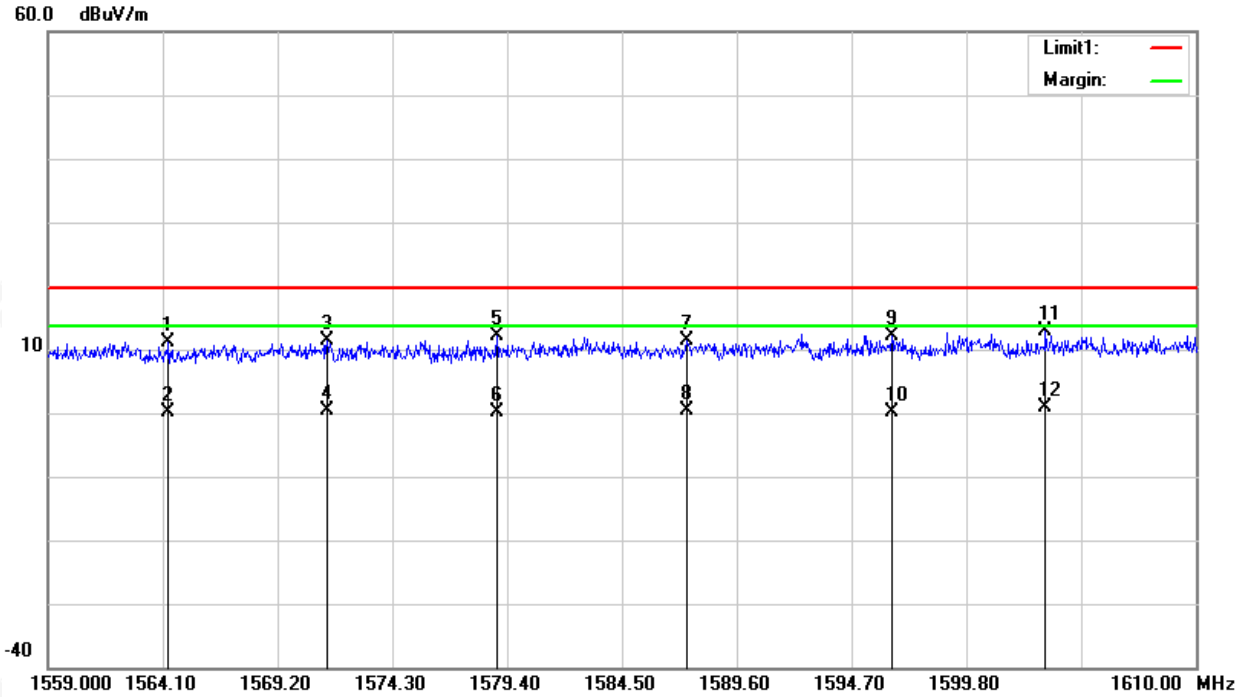
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1(1559Hz – 1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1564.355	7.96	3.13	11.09	19.54	-8.45	peak
2	1564.355	-3.04	3.13	0.09	19.54	-19.45	RMS
3	1571.393	8.05	3.34	11.39	19.54	-8.15	peak
4	1571.393	-2.95	3.34	0.39	19.54	-19.15	RMS
5	1578.941	8.46	3.58	12.04	19.54	-7.50	peak
6	1578.941	-3.54	3.58	0.04	19.54	-19.50	RMS
7	1587.407	7.61	3.84	11.45	19.54	-8.09	peak
8	1587.407	-3.39	3.84	0.45	19.54	-19.09	RMS
9	1596.485	8.10	4.13	12.23	19.54	-7.31	peak
10	1596.485	-3.90	4.13	0.23	19.54	-19.31	RMS
11	1603.319	8.52	4.24	12.76	19.54	-6.78	peak
12	1603.319	-3.48	4.24	0.76	19.54	-18.78	RMS

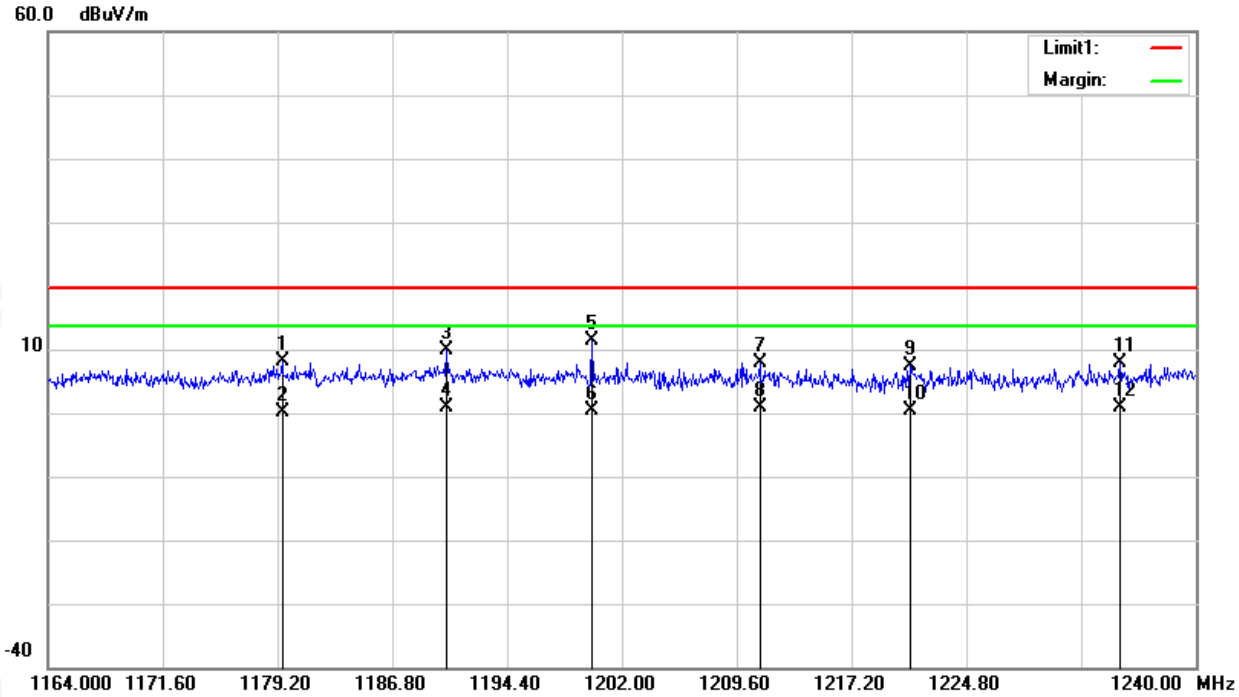
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2(1164Hz – 1240MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1179.504	8.80	-0.63	8.17	19.54	-11.37	peak
2	1179.504	0.80	-0.63	0.17	19.54	-19.37	RMS
3	1190.372	10.28	-0.52	9.76	19.54	-9.78	peak
4	1190.372	1.28	-0.52	0.76	19.54	-18.78	RMS
5	1200.024	11.84	-0.42	11.42	19.54	-8.12	peak
6	1200.024	0.84	-0.42	0.42	19.54	-19.12	RMS
7	1211.120	8.31	-0.44	7.87	19.54	-11.67	peak
8	1211.120	1.31	-0.44	0.87	19.54	-18.67	RMS
9	1221.076	7.86	-0.46	7.40	19.54	-12.14	peak
10	1221.076	0.86	-0.46	0.40	19.54	-19.14	RMS
11	1234.984	8.28	-0.49	7.79	19.54	-11.75	peak
12	1234.984	1.28	-0.49	0.79	19.54	-18.75	RMS

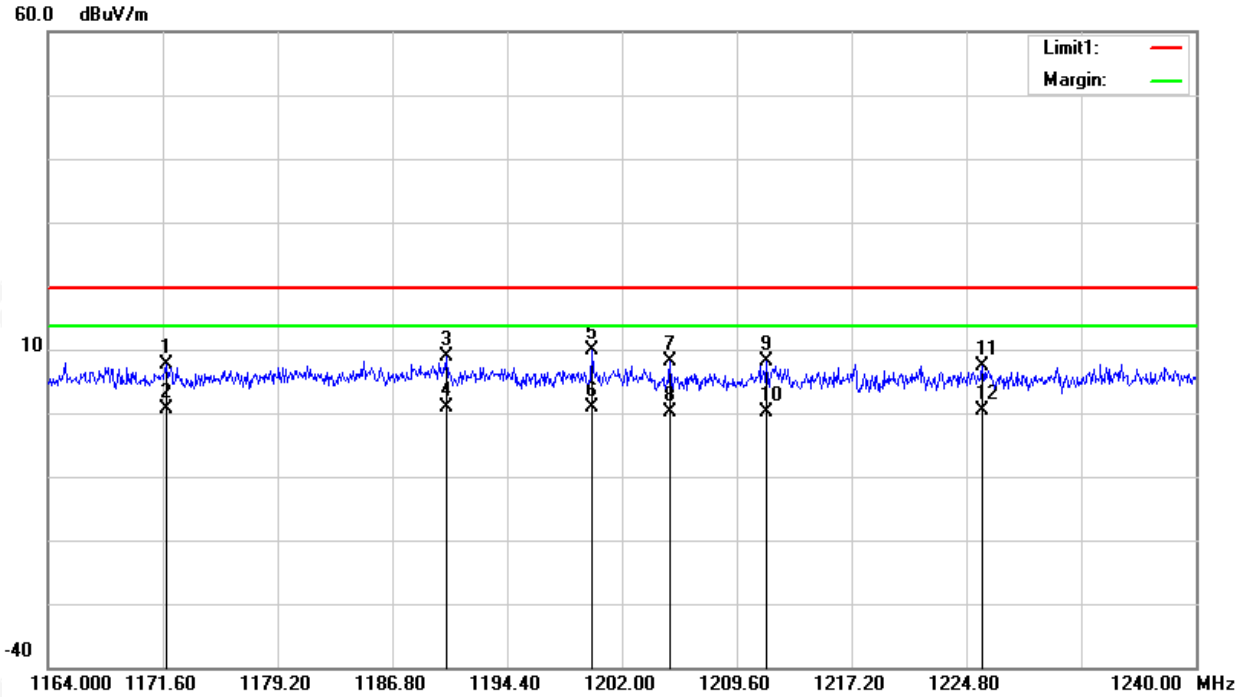
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2(1164Hz – 1240MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1171.828	8.25	-0.70	7.55	19.54	-11.99	peak
2	1171.828	1.25	-0.70	0.55	19.54	-18.99	RMS
3	1190.372	9.48	-0.52	8.96	19.54	-10.58	peak
4	1190.372	1.48	-0.52	0.96	19.54	-18.58	RMS
5	1200.024	10.33	-0.42	9.91	19.54	-9.63	peak
6	1200.024	1.33	-0.42	0.91	19.54	-18.63	RMS
7	1205.192	8.67	-0.43	8.24	19.54	-11.30	peak
8	1205.192	0.67	-0.43	0.24	19.54	-19.30	RMS
9	1211.576	8.46	-0.44	8.02	19.54	-11.52	peak
10	1211.576	0.46	-0.44	0.02	19.54	-19.52	RMS
11	1225.864	7.76	-0.46	7.30	19.54	-12.24	peak
12	1225.864	0.76	-0.46	0.30	19.54	-19.24	RMS

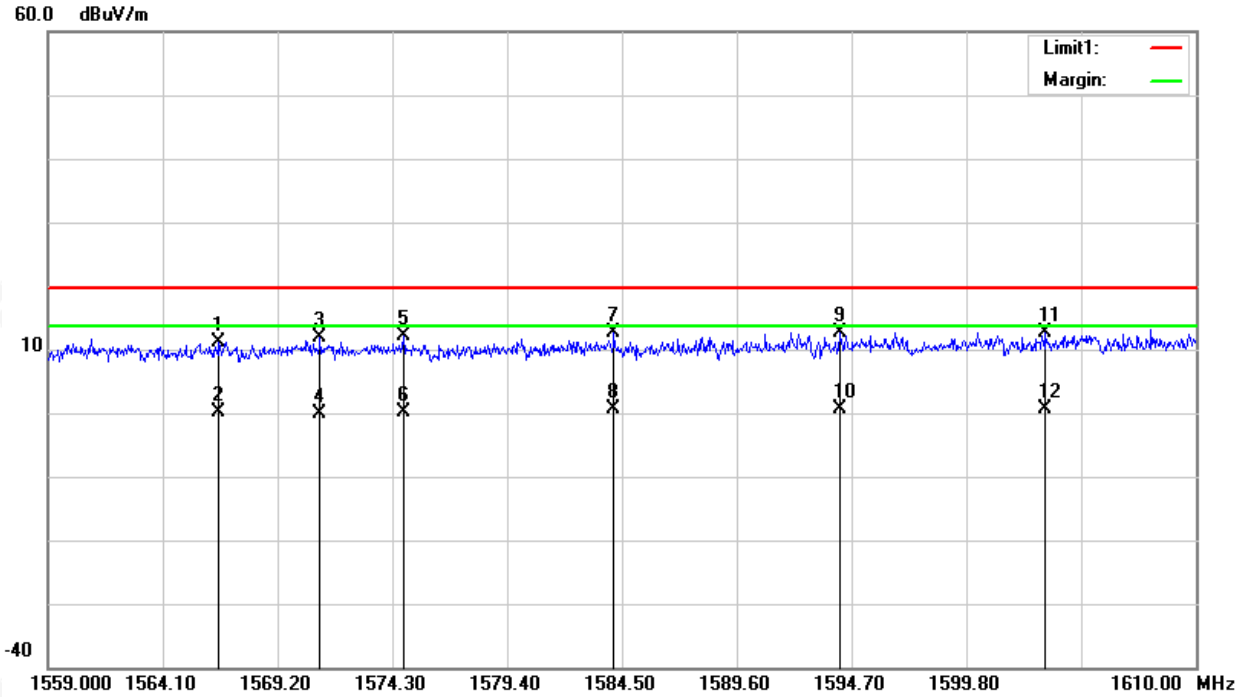
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2(1559Hz – 1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1566.599	7.94	3.19	11.13	19.54	-8.41	peak
2	1566.599	-3.06	3.19	0.13	19.54	-19.41	RMS
3	1571.087	8.67	3.33	12.00	19.54	-7.54	peak
4	1571.087	-3.33	3.33	0.00	19.54	-19.54	RMS
5	1574.810	8.58	3.45	12.03	19.54	-7.51	peak
6	1574.810	-3.42	3.45	0.03	19.54	-19.51	RMS
7	1584.143	8.84	3.75	12.59	19.54	-6.95	peak
8	1584.143	-3.16	3.75	0.59	19.54	-18.95	RMS
9	1594.190	8.60	4.06	12.66	19.54	-6.88	peak
10	1594.190	-3.40	4.06	0.66	19.54	-18.88	RMS
11	1603.319	8.33	4.24	12.57	19.54	-6.97	peak
12	1603.319	-3.67	4.24	0.57	19.54	-18.97	RMS

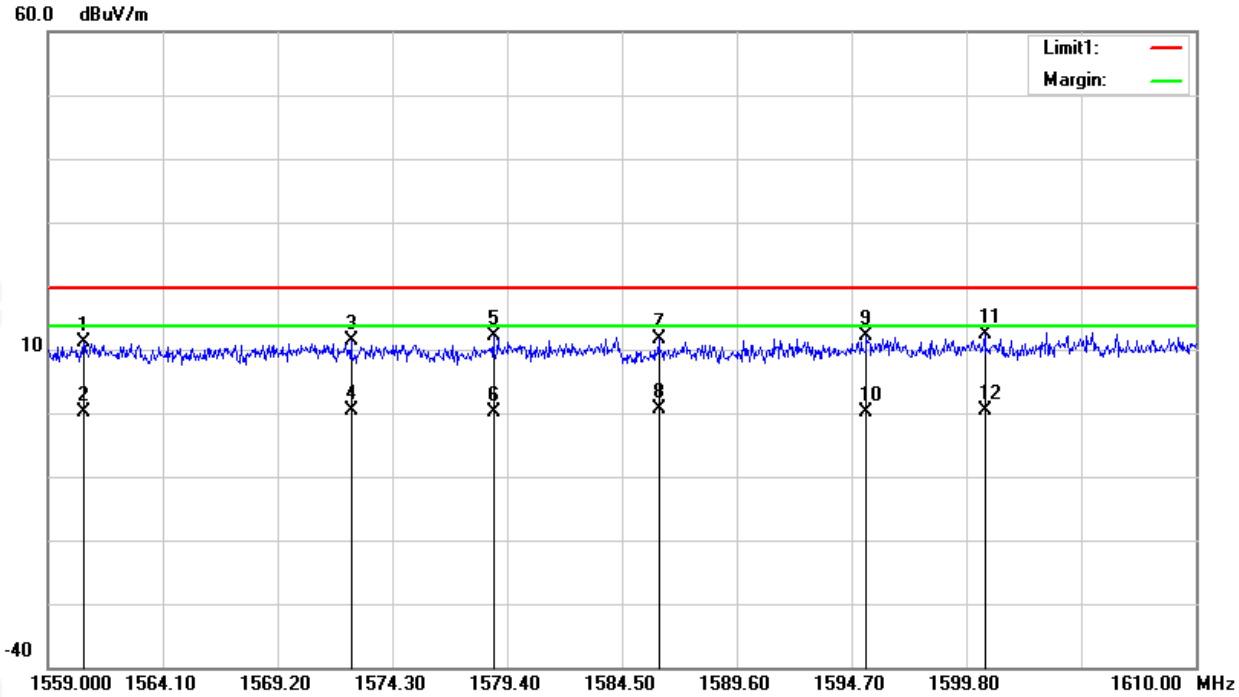
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2(1559Hz – 1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1560.581	8.24	3.00	11.24	19.54	-8.30	peak
2	1560.581	-2.76	3.00	0.24	19.54	-19.30	RMS
3	1572.464	7.97	3.38	11.35	19.54	-8.19	peak
4	1572.464	-3.03	3.38	0.35	19.54	-19.19	RMS
5	1578.788	8.68	3.57	12.25	19.54	-7.29	peak
6	1578.788	-3.32	3.57	0.25	19.54	-19.29	RMS
7	1586.132	7.93	3.80	11.73	19.54	-7.81	peak
8	1586.132	-3.07	3.80	0.73	19.54	-18.81	RMS
9	1595.363	8.03	4.09	12.12	19.54	-7.42	peak
10	1595.363	-3.97	4.09	0.12	19.54	-19.42	RMS
11	1600.616	8.09	4.24	12.33	19.54	-7.21	peak
12	1600.616	-3.91	4.24	0.33	19.54	-19.21	RMS

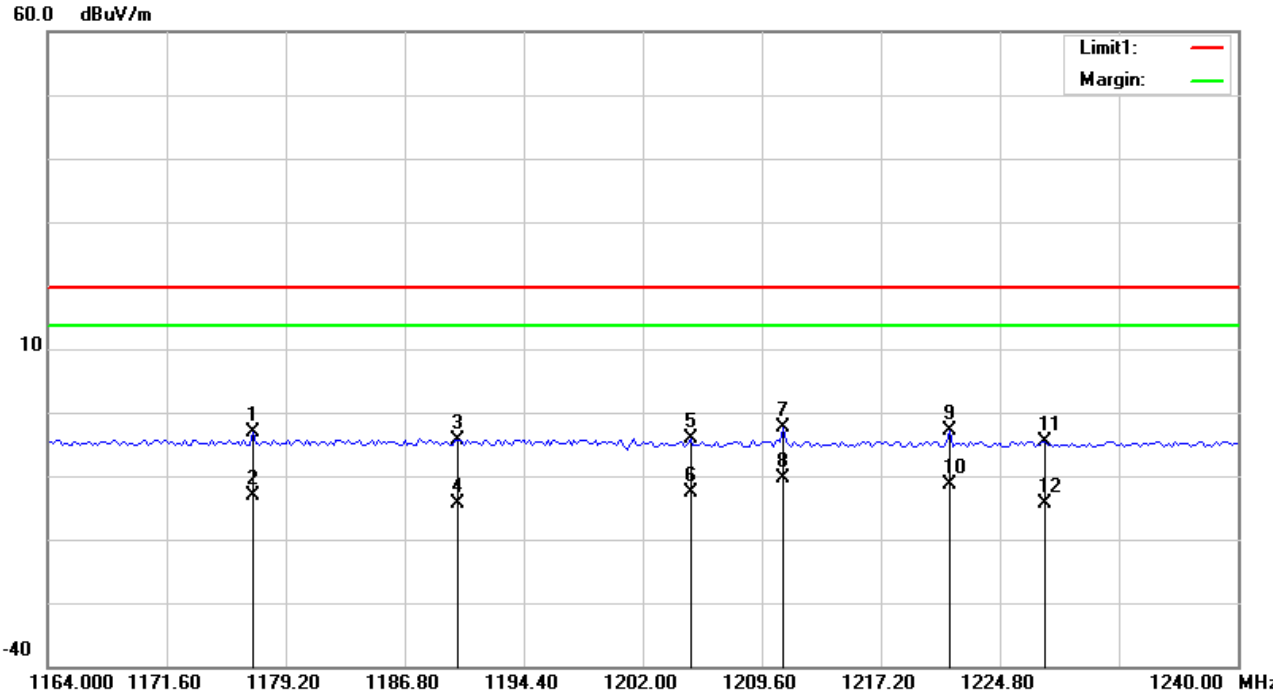
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 3(1164Hz – 1240MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1177.110	-2.49	-0.65	-3.14	19.54	-22.68	peak
2	1177.110	-12.59	-0.65	-13.24	19.54	-32.78	RMS
3	1190.220	-3.74	-0.52	-4.26	19.54	-23.80	peak
4	1190.220	-13.74	-0.52	-14.26	19.54	-33.80	RMS
5	1205.040	-3.57	-0.43	-4.00	19.54	-23.54	peak
6	1205.040	-12.10	-0.43	-12.53	19.54	-32.07	RMS
7	1210.930	-1.95	-0.44	-2.39	19.54	-21.93	peak
8	1210.930	-9.99	-0.44	-10.43	19.54	-29.97	RMS
9	1221.570	-2.37	-0.46	-2.83	19.54	-22.37	peak
10	1221.570	-10.80	-0.46	-11.26	19.54	-30.80	RMS
11	1227.650	-4.05	-0.47	-4.52	19.54	-24.06	peak
12	1227.650	-13.81	-0.47	-14.28	19.54	-33.82	RMS

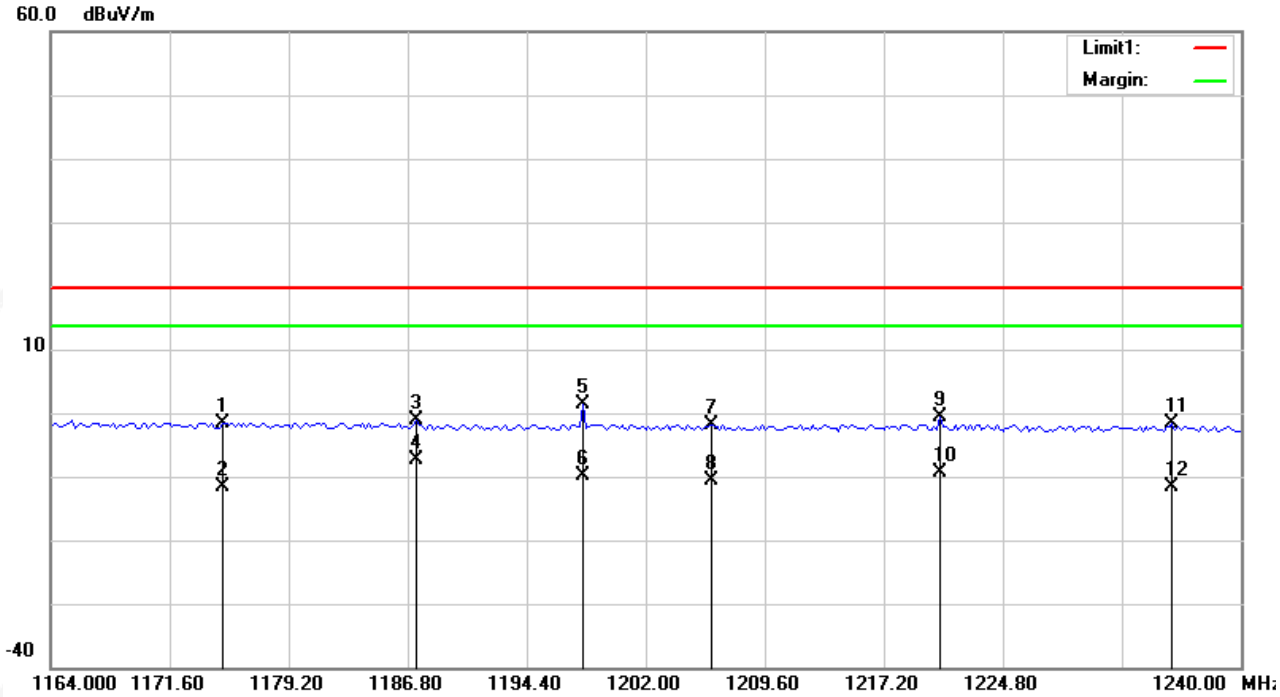
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 3(1164Hz – 1240MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1175.020	-0.84	-0.66	-1.50	19.54	-21.04	peak
2	1175.020	-10.84	-0.66	-11.50	19.54	-31.04	RMS
3	1187.370	-0.49	-0.54	-1.03	19.54	-20.57	peak
4	1187.370	-6.77	-0.54	-7.31	19.54	-26.85	RMS
5	1198.010	1.78	-0.44	1.34	19.54	-18.20	peak
6	1198.010	-9.31	-0.44	-9.75	19.54	-29.29	RMS
7	1206.180	-1.33	-0.43	-1.76	19.54	-21.30	peak
8	1206.180	-10.08	-0.43	-10.51	19.54	-30.05	RMS
9	1220.810	-0.26	-0.45	-0.71	19.54	-20.25	peak
10	1220.810	-8.97	-0.45	-9.42	19.54	-28.96	RMS
11	1235.630	-1.08	-0.49	-1.57	19.54	-21.11	peak
12	1235.630	-11.09	-0.49	-11.58	19.54	-31.12	RMS

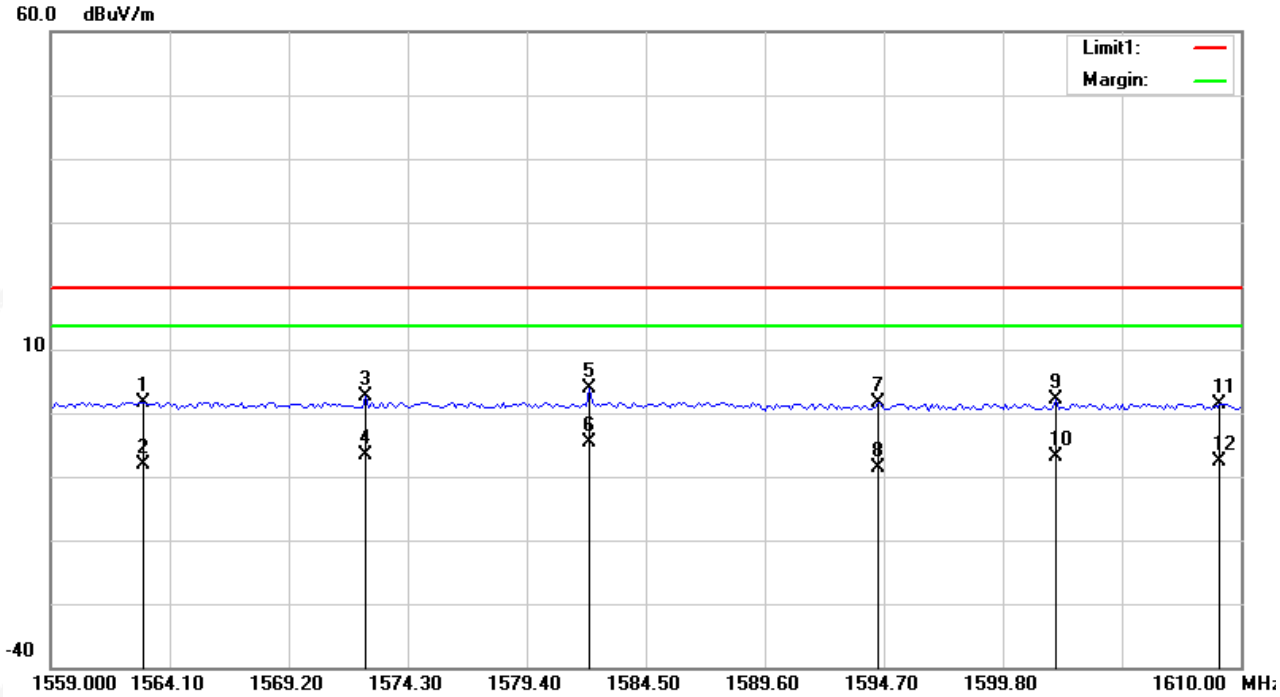
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 3(1559Hz – 1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1562.953	-1.33	3.08	1.75	19.54	-17.79	peak
2	1562.953	-11.25	3.08	-8.17	19.54	-27.71	RMS
3	1572.515	-0.75	3.38	2.63	19.54	-16.91	peak
4	1572.515	-9.90	3.38	-6.52	19.54	-26.06	RMS
5	1582.078	0.20	3.68	3.88	19.54	-15.66	peak
6	1582.078	-8.36	3.68	-4.68	19.54	-24.22	RMS
7	1594.445	-2.36	4.07	1.71	19.54	-17.83	peak
8	1594.445	-12.80	4.07	-8.73	19.54	-28.27	RMS
9	1602.095	-2.09	4.24	2.15	19.54	-17.39	peak
10	1602.095	-11.06	4.24	-6.82	19.54	-26.36	RMS
11	1609.108	-2.75	4.23	1.48	19.54	-18.06	peak
12	1609.108	-11.75	4.23	-7.52	19.54	-27.06	RMS

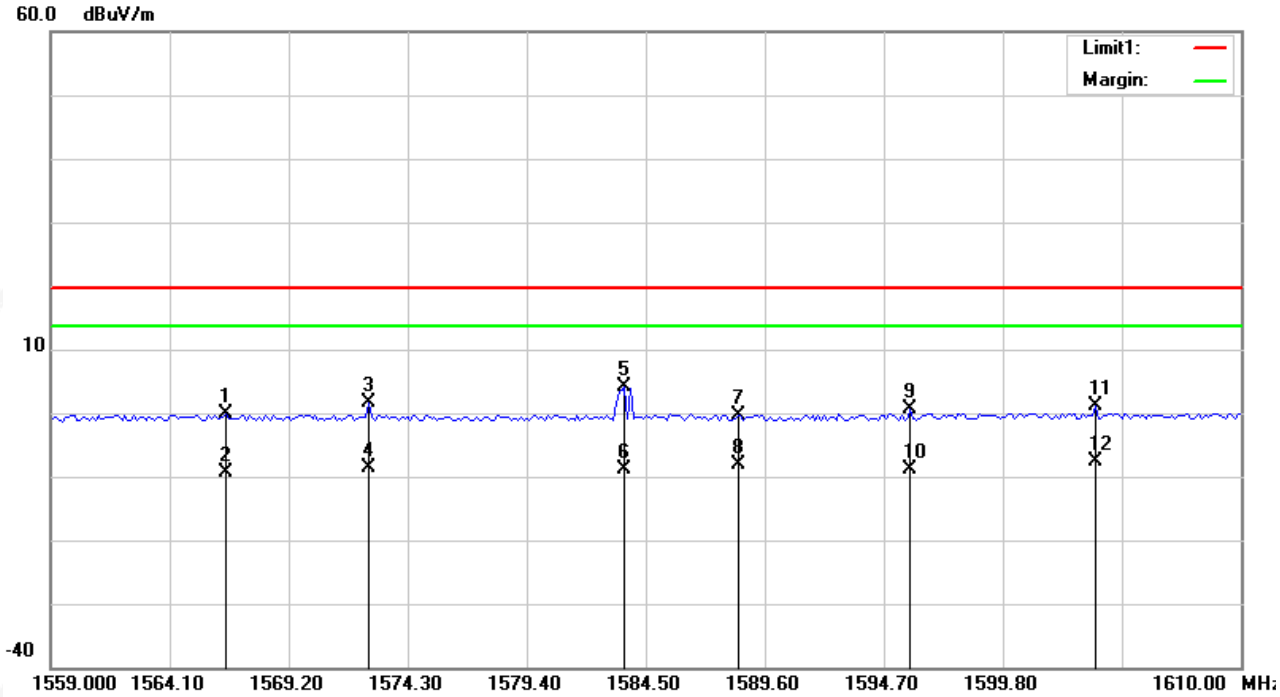
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 3(1559Hz – 1610MHz)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1566.523	-3.25	3.19	-0.06	19.54	-19.60	peak
2	1566.523	-12.55	3.19	-9.36	19.54	-28.90	RMS
3	1572.642	-1.75	3.38	1.63	19.54	-17.91	peak
4	1572.642	-12.01	3.38	-8.63	19.54	-28.17	RMS
5	1583.608	0.49	3.73	4.22	19.54	-15.32	peak
6	1583.608	-12.60	3.73	-8.87	19.54	-28.41	RMS
7	1588.453	-4.18	3.88	-0.30	19.54	-19.84	peak
8	1588.453	-12.02	3.88	-8.14	19.54	-27.68	RMS
9	1595.848	-3.54	4.11	0.57	19.54	-18.97	peak
10	1595.848	-12.86	4.11	-8.75	19.54	-28.29	RMS
11	1603.753	-3.18	4.24	1.06	19.54	-18.48	peak
12	1603.753	-11.88	4.24	-7.64	19.54	-27.18	RMS

Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



4. UWB BANDWIDTH AND 99% BANDWIDTH

4.1 LIMITS OF UWB BANDWIDTH MEASUREMENT

The UWB bandwidth of a UWB system operating under the provisions of this section must be contained between 3100 MHz and 10,600 MHz.

At any point in time, has a fractional bandwidth equal to or greater than 0.20 or has a UWB bandwidth equal to or greater than 500 MHz, regardless of the fractional bandwidth.

The 99% bandwidth for reporting purposes only.

4.2 INSTRUMENT SETUP VALUE AND MEASUREMENT DISTANCE

Frequency Range	RBW	VBW	Detector	Measurement Distance
3100~10600	3MHz	10MHz	PEAK	1 Meter

4.3 TEST PROCEDURE

a. The measuring distance of 1m shall be used for measurements. The EUT was placed on the top of arotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The height of the test antenna shall vary between 1m to 4m.Both horizontal and vertical polarization of the antenna are set to make the measurement.

c. All readings are RMS mode value , for each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading .

d. For the actual test configuration, please refer to the related Item –EUT Test Photos.

e. The Spectrum Analyzer system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. The UWB Bandwidth is measured at the 10 dB point (FL, FH).

Note: Both horizontal and vertical antenna polarities were tested. The worst case emissions were reported.

99% Bandwidth connect the UUT to the spectrum analyser and use the following settings:

Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	1% to 5% of the occupied bandwidth
VBW	approximately 3×RBW
Trace	Max hold
Sweep	Auto

Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB and 99% relative to the maximum level measured in the fundamental emission.

4.4 TEST SETUP

Same as 3.3.4

4.5 EUT OPERATION CONDITIONS

Same as 3.2.6

4.6 TEST RESULTS

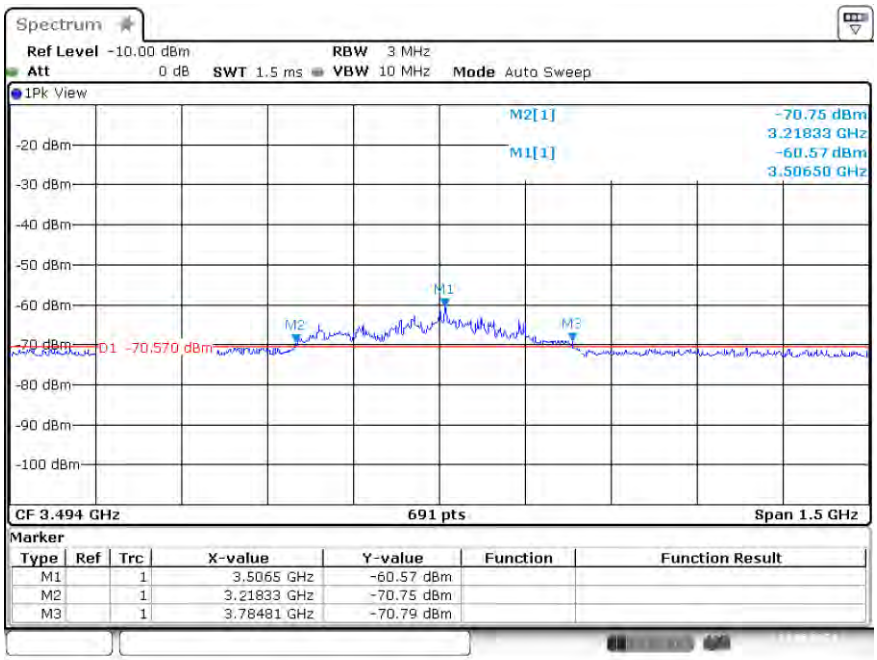
Temperature:	25 ℃	Relative Humidity:	50%
Test Voltage:	DC 12V		

Test Channel	fM (MHz)	fL (MHz)	fH (MHz)	-10dB Bandwidth (MHz)	Fractional Bandwidth (MHz)	Limit	Result
CH1	3506.5	3218.3	3784.8	566.48	0.16	-10dB Bandwidth⩾ 500MHz or Fractional Bandwidth⩾0.2	Pass

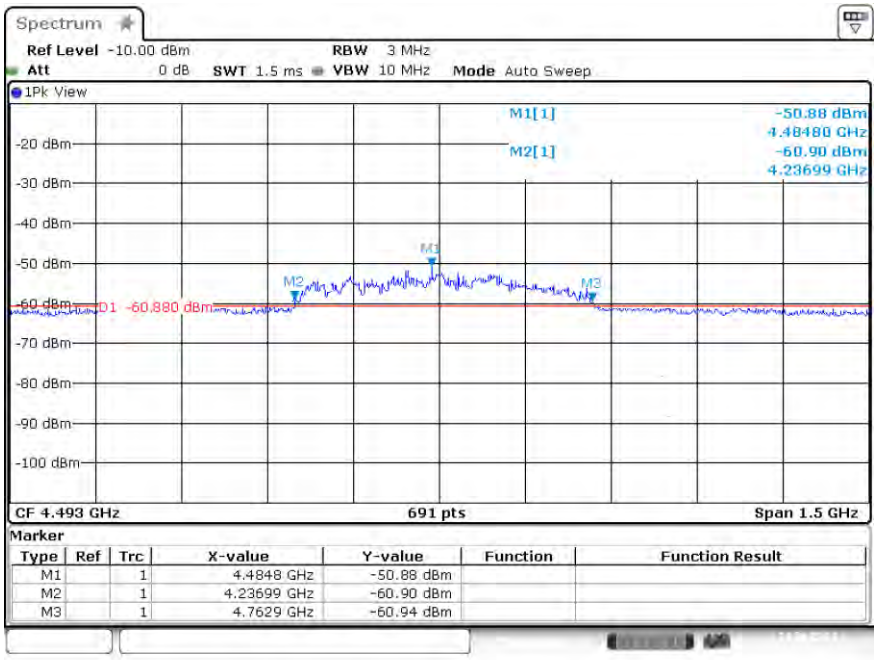
Test Channel	fM (MHz)	fL (MHz)	fH (MHz)	-10dB Bandwidth (MHz)	Fractional Bandwidth (MHz)	Limit	Result
CH2	4484.8	4237	4762.9	525.91	0.12	-10dB Bandwidth⩾ 500MHz or Fractional Bandwidth⩾0.2	Pass

Test Channel	f_M (MHz)	f_L (MHz)	f_H (MHz)	-10dB Bandwidth (MHz)	Fractional Bandwidth (MHz)	Limit	Result
CH3	6329	6085.8	6821	735.2	0.11	-10dB Bandwidth⩾500MHz or Fractional Bandwidth⩾0.2	Pass

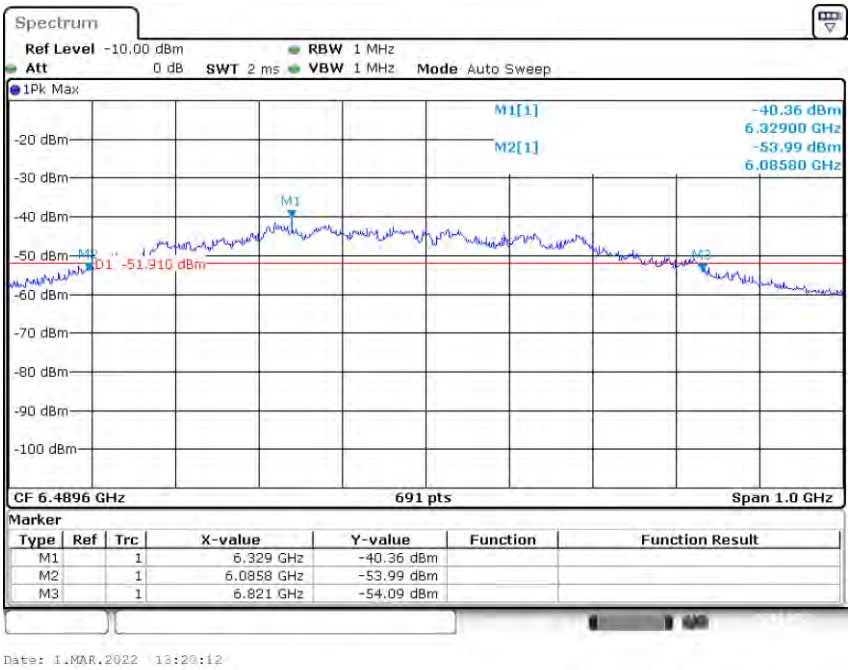
CH 1


Spectrum
Ref Level -10.00 dBm RBW 3 MHz
Att 0 dB SWT 1.5 ms VBW 10 MHz Mode Auto Sweep
1Pk View
M2[1] -70.75 dBm 3.21833 GHz
M1[1] -60.57 dBm 3.50650 GHz
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
-100 dBm
D1 -70.570 dBm
CF 3.494 GHz 691 pts Span 1.5 GHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 3.5065 GHz -60.57 dBm
M2 1 3.21833 GHz -70.75 dBm
M3 1 3.78481 GHz -70.79 dBm

CH 2


Spectrum
Ref Level -10.00 dBm RBW 3 MHz
Att 0 dB SWT 1.5 ms VBW 10 MHz Mode Auto Sweep
1Pk View
M1[1] -50.88 dBm 4.48480 GHz
M2[1] -60.90 dBm 4.23699 GHz
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
-100 dBm
D1 -60.880 dBm
CF 4.493 GHz 691 pts Span 1.5 GHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 4.4848 GHz -50.88 dBm
M2 1 4.23699 GHz -60.90 dBm
M3 1 4.7629 GHz -60.94 dBm

CH 3


Spectrum
Ref Level -10.00 dBm
RBW 1 MHz
Att 0 dB
SWT 2 ms
VBW 1 MHz
Mode Auto Sweep
1Pk Max
M1[1] -40.36 dBm 6.32900 GHz
M2[1] -53.99 dBm 6.08580 GHz
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
-100 dBm
D1 -51.910 dBm
CF 6.4896 GHz
691 pts
Span 1.0 GHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 6.329 GHz -40.36 dBm
M2 1 6.0858 GHz -53.99 dBm
M3 1 6.821 GHz -54.09 dBm
Date: 1.MAR.2022 13:29:12

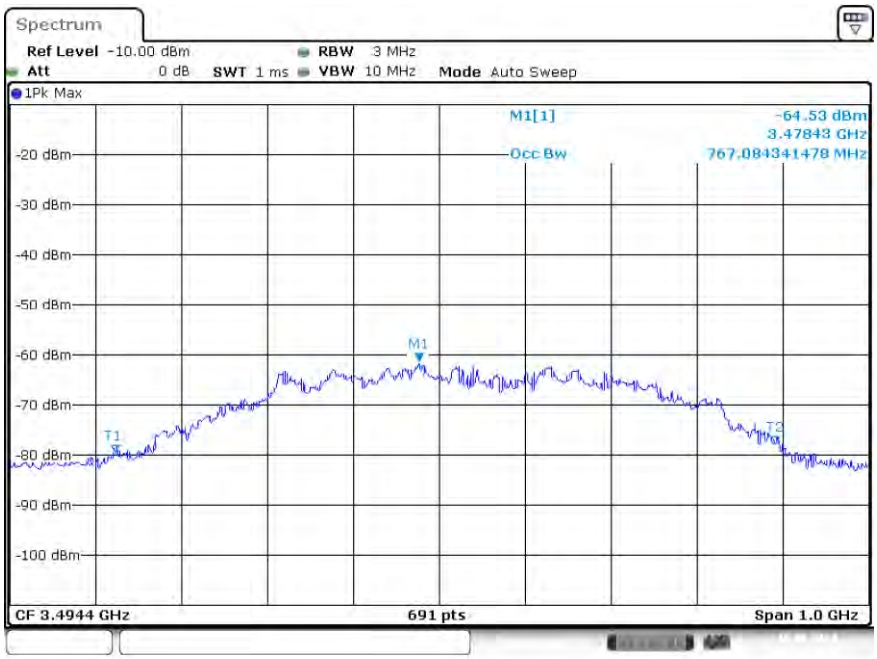
Temperature:	25 ℃	Relative Humidity:	50%
Test Voltage:	DC 12V		

Frequency (MHz)	99% Bandwidth (MHz)	Result
3494.4	767.084	PASS

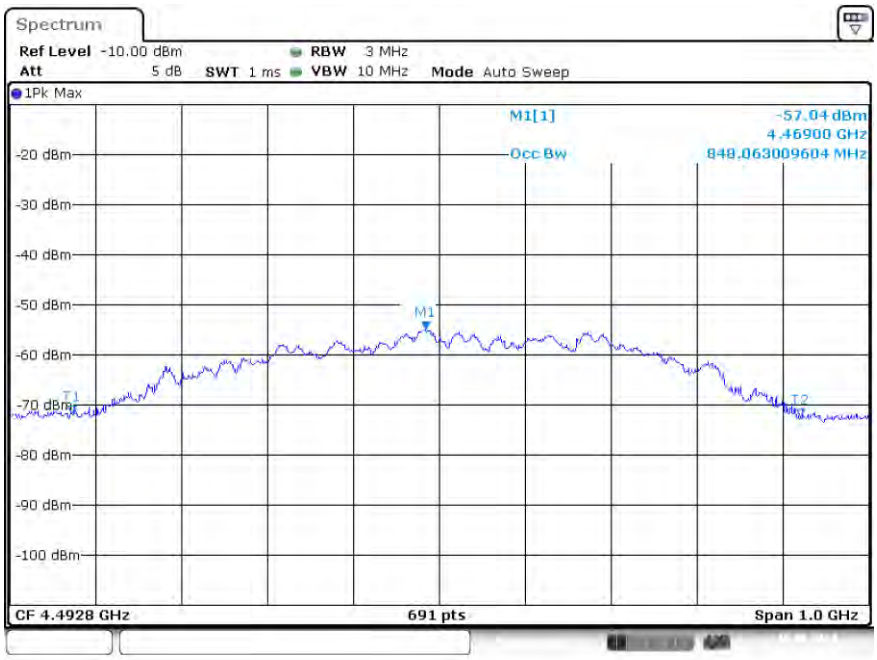
Frequency (MHz)	99% Bandwidth (MHz)	Result
4492.8	848.063	PASS

Frequency (MHz)	99% Bandwidth (MHz)	Result
6489.6	848.05	PASS

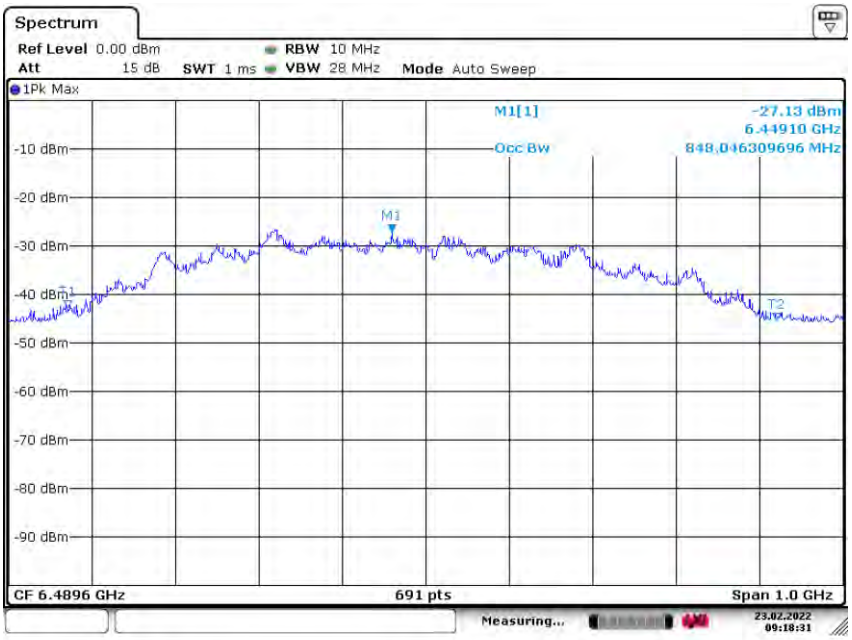
CH 1



CH 2


Spectrum
Ref Level -10.00 dBm
RBW 3 MHz
Att 5 dB
SWT 1 ms
VBW 10 MHz
Mode Auto Sweep
1Pk Max
M1[1]
-57.04 dBm
4.46900 GHz
Occ Bw
848.063009604 MHz
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
-100 dBm
M1
T1
T2
CF 4.4928 GHz
691 pts
Span 1.0 GHz

CH 3


Spectrum
Ref Level 0.00 dBm
RBW 10 MHz
Att 15 dB
SWT 1 ms
VBW 28 MHz
Mode Auto Sweep
1Pk Max
M1[1]
-27.13 dBm
6.44910 GHz
Occ Bw
848.046309696 MHz
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
M1
T1
T2
CF 6.4896 GHz
691 pts
Span 1.0 GHz
Measuring...
23.02.2022
09:18:31
Date: 23.FEB.2022 09:18:31

5 PEAK EMISSION WITHIN A 50MHZ BANDWIDTH (FOR 15.517(e) & RSS-220 5.2.1(g))

5.1 LIMITS OF PEAK EMISSION

The Maximum Peak Output Power Measurement is 0dBm(RBW=50MHz).
If a resolution bandwidth other than 50 MHz is Employed, the peak EIRP limit shall be 20 log (RBW/50) dBm where RBW is the resolution bandwidth in megahertz that is employed. The resolution bandwidth used to make the peak measurement was 1MHz, resulting in a limit of –34dBm.

This may be converted to a peak field strength level at 3 meters using
E(dBuV/m) = P(dBm EIRP) + 95.2 = -34 + 95.2 = 61.2 dBuV/m
Note: $EIRP_{1MHz}=EIRP_{50MHz}+20\log(1MHz/50\ MHz) = 0\ dBm + -34\ dB = -34\ dBm$

5.2 INSTRUMENT SETUP VALUE AND MEASUREMENT DISTANCE

Frequency Range	RBW	VBW	Detector	Measurement Distance
3100~10600	1MHz	3MHz	PEAK	3 Meter

5.3 TEST PROCEDURE

Same as 3.3.2

5.4 DEVIATION FROM TEST STANDARD

No deviation

5.5 TEST SETUP

Same as 3.3.4

5.6 FIELD STRENGTH CALCULATION

Same as 3.2.5

5.7 EUT OPERATING CONDITIONS

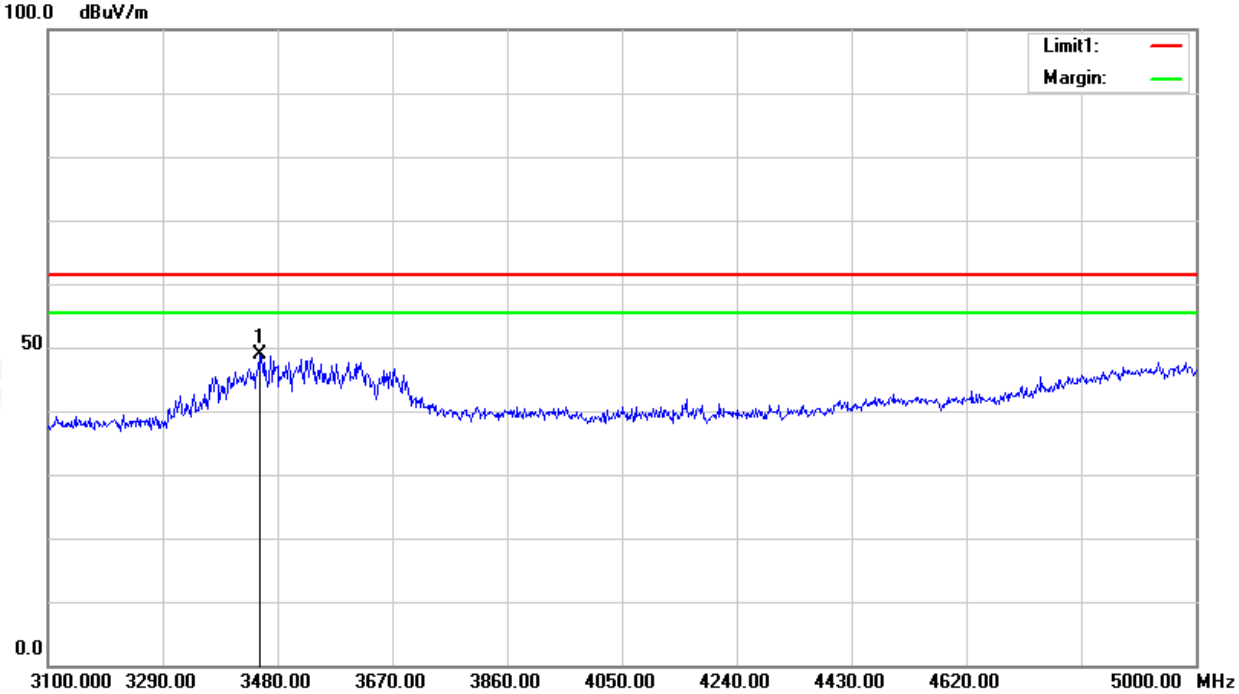
Same as 3.2.5

5.8 TEST RESULTS

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 1		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3449.600	60.38	-11.54	48.84	61.30	-12.46	peak

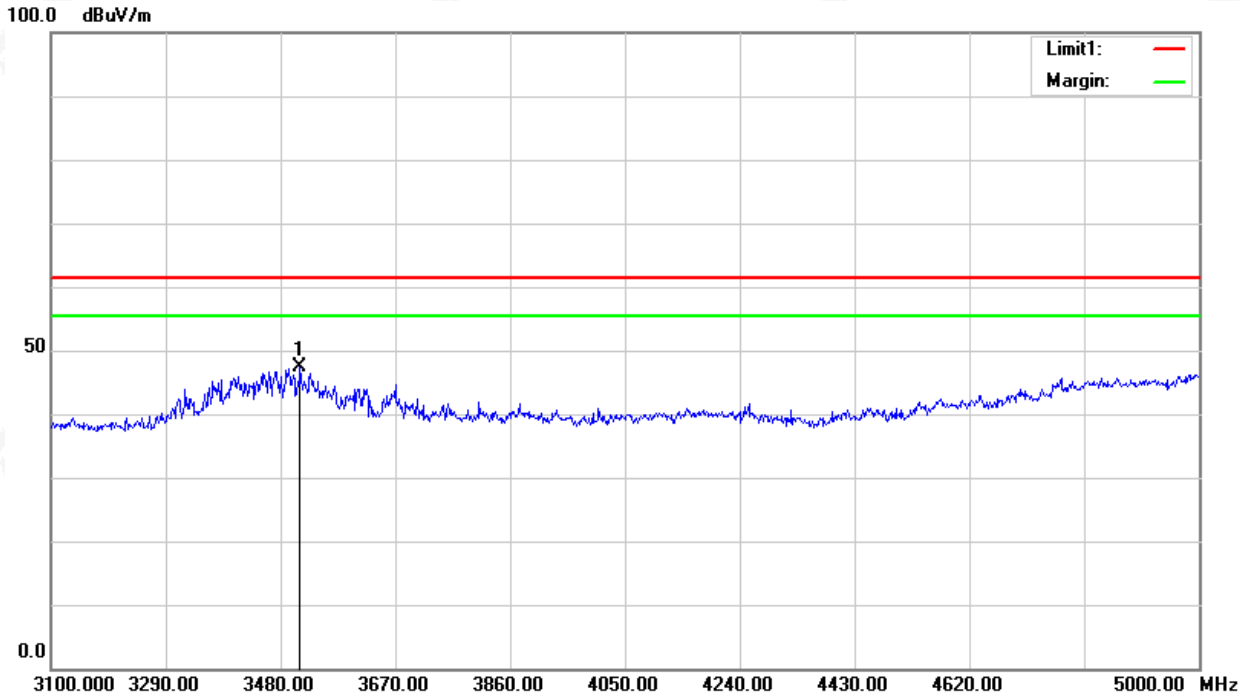
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 1		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3512.300	58.85	-11.40	47.45	61.30	-13.85	peak

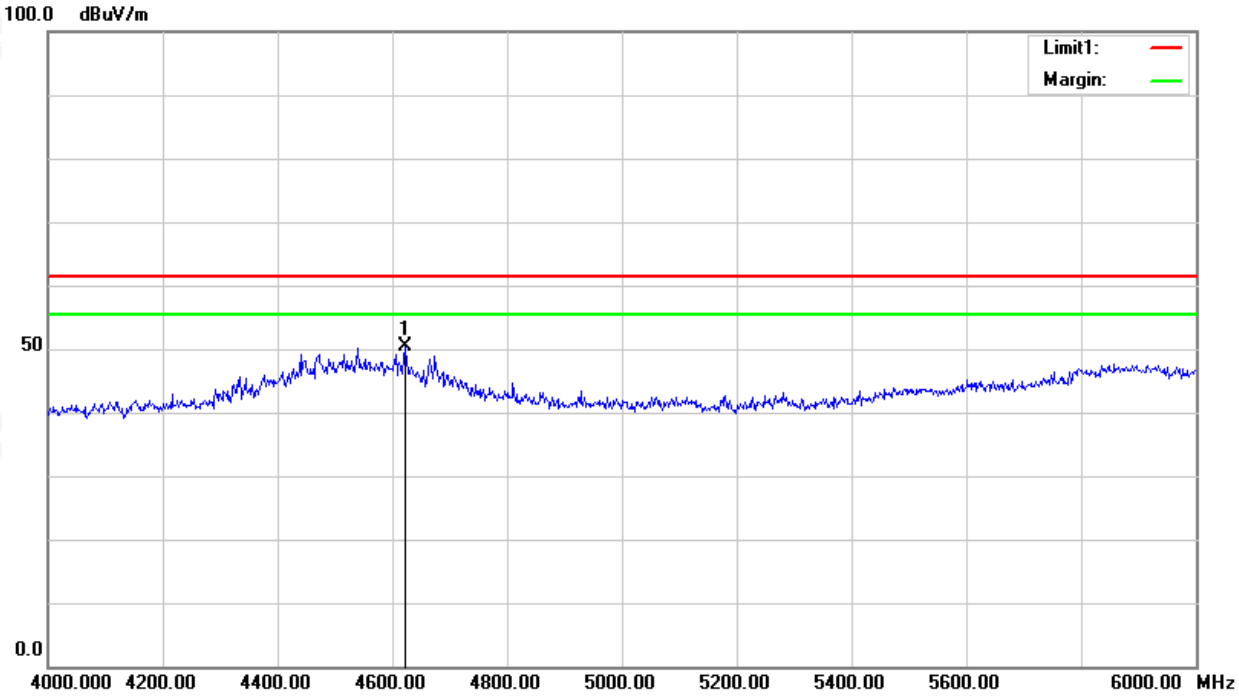
Remark:
1. Margin = Result (Result =Reading + Factor)–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 2		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4622.000	58.15	-7.76	50.39	61.30	-10.91	peak

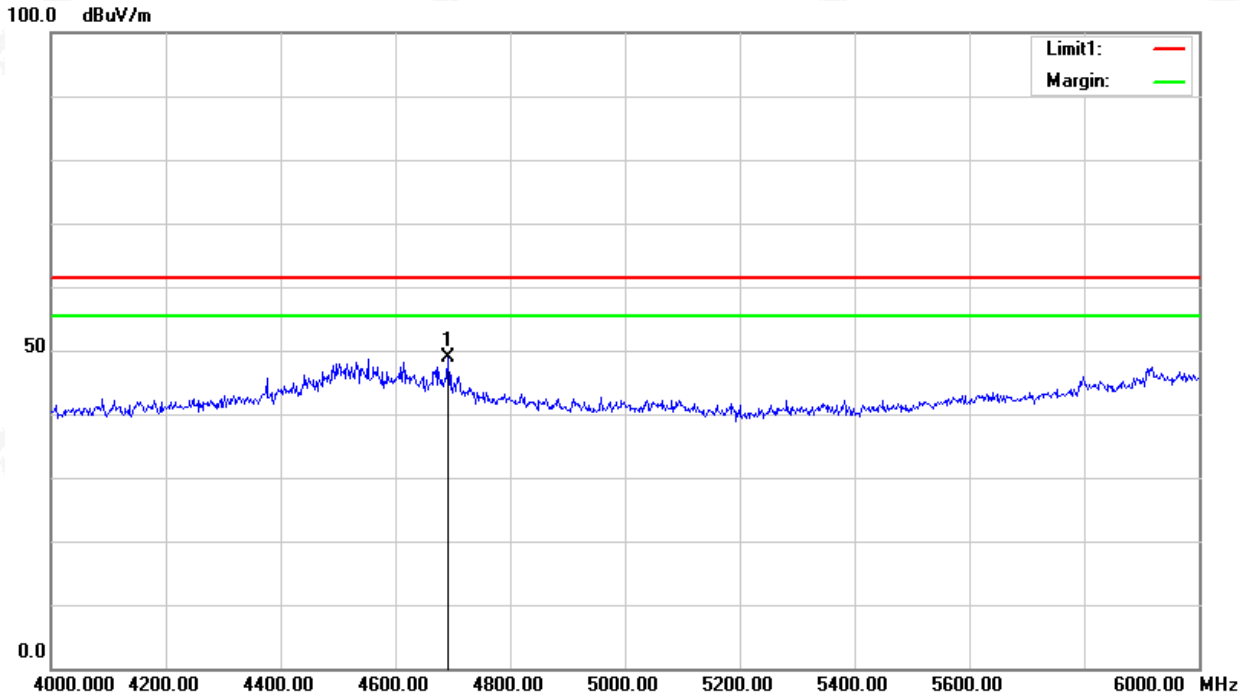
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 2		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4692.000	56.16	-7.40	48.76	61.30	-12.54	peak

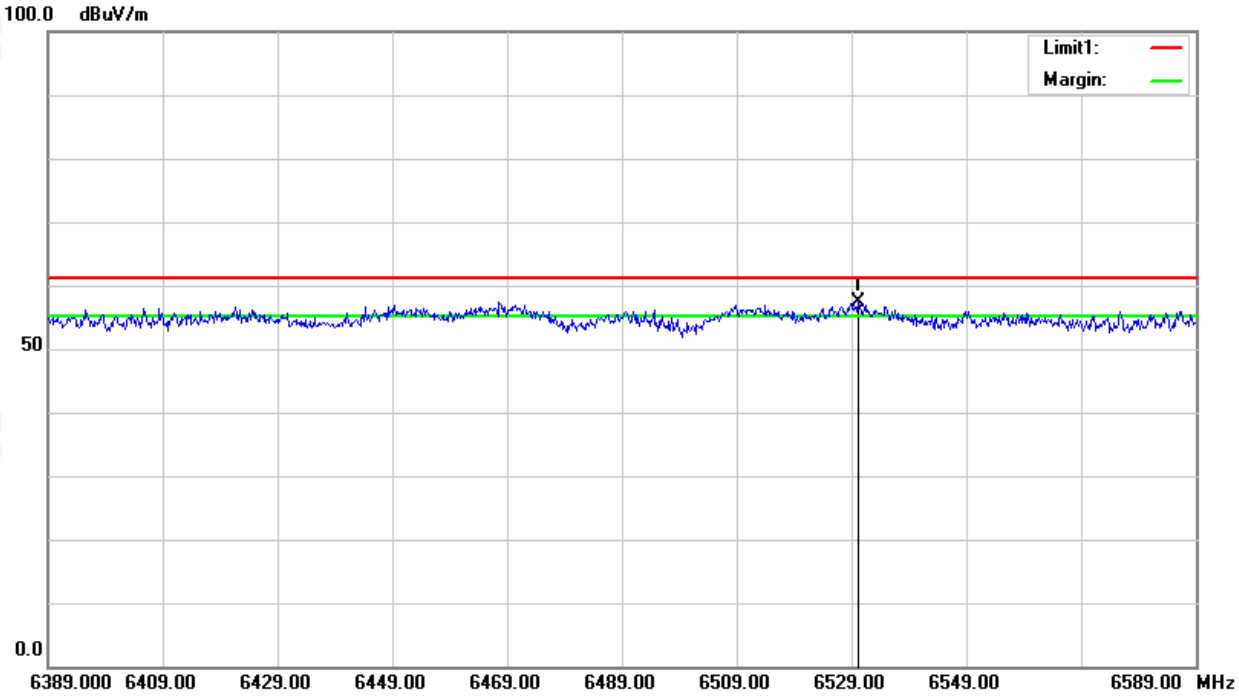
Remark:
3. Margin = Result (Result =Reading + Factor)–Limit
4. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.5(C)	Relative Humidity:	62%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	CH 3		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	6530.200	59.37	-1.89	57.48	61.20	-3.72	peak

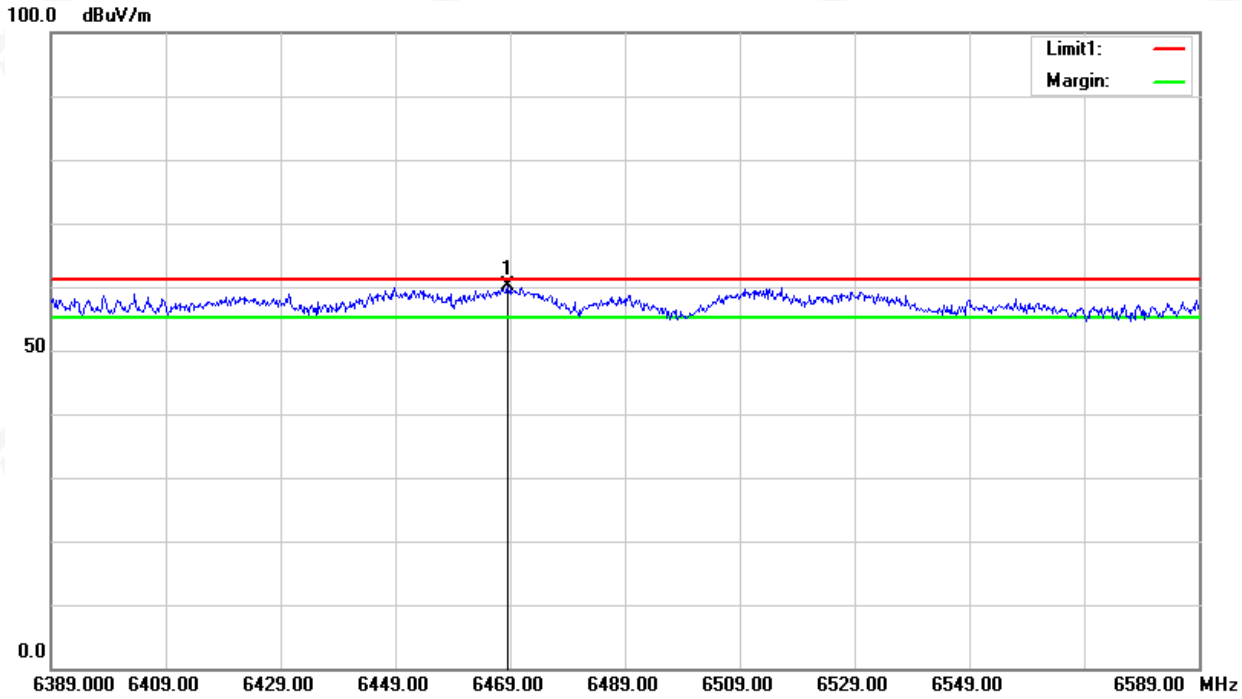
Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



Temperature:	23.5(C)	Relative Humidity:	62%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	CH 3		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	6468.600	62.08	-2.03	60.05	61.20	-1.15	peak

Remark:
5. Margin = Result (Result =Reading + Factor)–Limit
6. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



6. ANTENNA REQUIREMENT

6.1 STANDARD REQUIREMENT

According to the FCC Part 15 Paragraph 15.203&RSS-Gen(6.8), 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.

6.2 EUT ANTENNA

The EUT antenna is Ceramic Antenna.It conforms to the standard requirements.

APPENDIX- PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

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