TEST REPORT

Product Name : Moble Transceiver
Model Number : GT-5R

Prepared for	:	PO FUNG ELECTRONIC(HK) INTERNATIOANL GROUP COMPANY
Address	:	3/F FULOK BLDG 131-133 WING LOK ST SHEUNG WAN, Hong Kong
Prepared by	:	EMTEK(DONGGUAN) CO., LTD.
Address	:	-1&2/F.,Building 2, Zone A, Zhongda Marine Biotechnology Reserch and Development Base, No.9, Xincheng Avenue, Songshanhu High-technology Industrial Development Zone, Dongguan, Guangdong, China TEL: 86-769-22807078 FAX: 86-769-22807079

Report Number	:	ED201127023W
Date(s) of Tests	:	November 27, 2020 to December 16, 2020
Date of issue	:	December 16, 2020

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1 TEST RESULT CERTIFICATION

Applicant	:	PO FUNG ELECTRONIC(HK) INTERNATIOANL GROUP COMPANY
Address:		3/F FULOK BLDG 131-133 WING LOK ST SHEUNG WAN, Hong Kong
Applicant	:	PO FUNG ELECTRONIC(HK) INTERNATIOANL GROUP COMPANY
Address:		3/F FULOK BLDG 131-133 WING LOK ST SHEUNG WAN, Hong Kong
EUT	:	Moble Transceiver
Model Name	:	GT-5R
Trademark	:	BAOFENG

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	**TEST RESULT**
FCC 47 CFR Part 2 and 90	**PASS**

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and ANSI/TIA-603-D: 2010 the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of Part 2 and Part 90

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

Date of Test : November 27, 2020 to December 16, 2020

Prepared by : Loren Luo

Loren Luo /Editor

Reviewer : Tim Dong

Tim Dong /Supervisor

Approve & Authorized Signer :

Sam Lv / Manager

2 SUMMARY OF TEST RESULT

FCC Part Clause	Test Parameter	Verdict	Remark
§2.1051; §22.861; §74.462; §80.211;§90.210	Spurious Emission at Antenna Terminal	PASS	
§2.1053;§22.861; §74.462;§80.211;§90.210	Spurious Radiated Emissions	PASS	
NOTE1: N/A (Not Applicable)			

3 TEST METHODOLOGY

3.1 GENERAL DESCRIPTION OF APPLIED STANDARDS

All tests and measurements indicated in this document were performed in accordance with the Code of federal Regulations Title 47 Part 2, Sub-part J as well as the following individual parts:

Part 90 – Private Land Mobile Radio Service

Applicable Standards: TIA 603-D.

3.2 MEASUREMENT EQUIPMENT USED

3.2.1 Radiated Emission Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Test Receiver	Rohde & Schwarz	ESCI	101415	May 22, 2020	1 Year
2.	Bilog Antenna	Schwarzbeck	VULB9163	9163-143	May 22, 2020	1 Year
3.	Power Amplifier	HP	8447F	EED184	May 22, 2020	1 Year
4.	Cable	N/A	CBL-26	N/A	May 22, 2020	1 Year
5.	Cable	N/A	CBL-26	N/A	May 22, 2020	1 Year
6.	Cable	N/A	CBL-26	N/A	May 22, 2020	1 Year
7.	Signal Analyzer	R&S	FSV30	103040	May 22, 2020	1 Year
8.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1272	May 22, 2020	1 Year
9.	Power Amplifier	LUNAR EM	LNA1G18-40	J10100000081	May 22, 2020	1 Year
10.	Cable	H+S	RG 233/U	525178	May 22, 2020	1 Year
11.	Cable	H+S	RG 233/U	528948 WP	May 22, 2020	1 Year
12.	Cable	H+S	RG 233/U	525179	May 22, 2020	1 Year

Remark: *Each piece of equipment is scheduled for calibration once a year.*

3.3 DESCRIPTION OF TEST MODES

The EUT has been tested under its typical operating condition.
The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Test Frequency :

VHF:

Lowest Frequency	Middle Frequency	Highest Frequency
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)
144.00	145.98	147.98

UHF:

Lowest Frequency	Middle Frequency	Highest Frequency
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)
420.00	434.98	449.98

4 TEST SYSTEM UNCERTAINTY

The following measurement uncertainty levels have been estimated for tests performed on the apparatus:

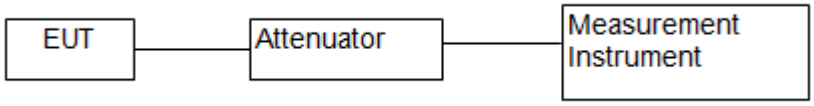
Parameter	Uncertainty
Radiated Emission Test	±2.0dB
All emission, radiated	±3dB
Antenna Port Emission	±3dB
Temperature	±0.5℃
Humidity	±3%

Measurement Uncertainty for a level of Confidence of 95%

5 SETUP OF EQUIPMENT UNDER TEST

5.1 RADIO FREQUENCY TEST SETUP 1

The component's antenna ports(s) of the EUT are connected to the measurement instrument per an appropriate attenuator. The EUT is controlled by PC/software to emit the specified signals for the purpose of measurements.



5.2 RADIO FREQUENCY TEST SETUP 2

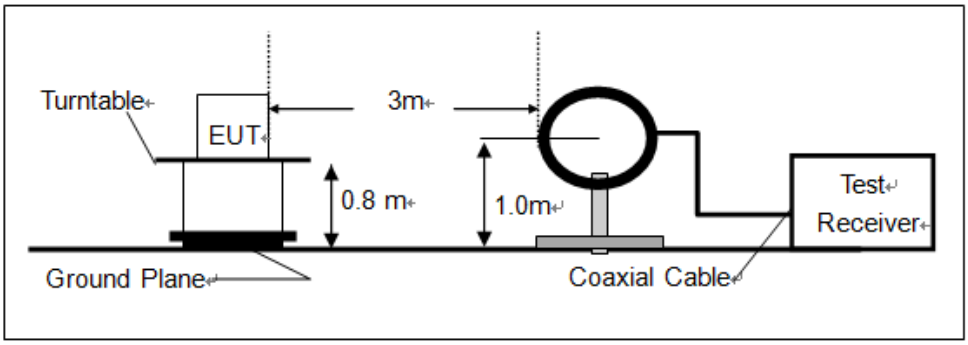
The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10. The test distance is 3m.The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 and CAN/CSA-CEI/IEC CISPR 22.

Below 30MHz：
The EUT is placed on a turntable 0.8meters above the ground in the chamber, 3 meter away from the antenna (loop antenna). The Antenna should be positioned with its plane vertical at the specified distance from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. The center of the loop shall be 1 m above the ground. For certain applications, the loop antenna plane may also need to be positioned horizontally at the specified distance from the EUT.

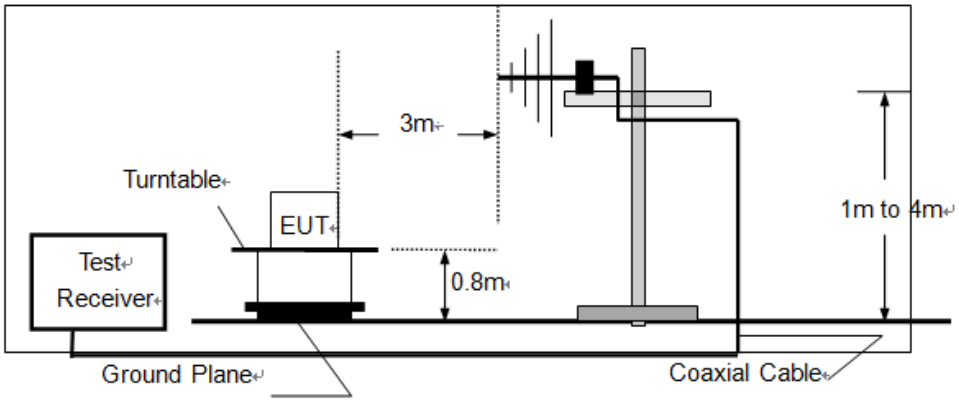
Above 30MHz：
The EUT is placed on a turntable 1.5meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

Above 1GHz:
(Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.)
The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

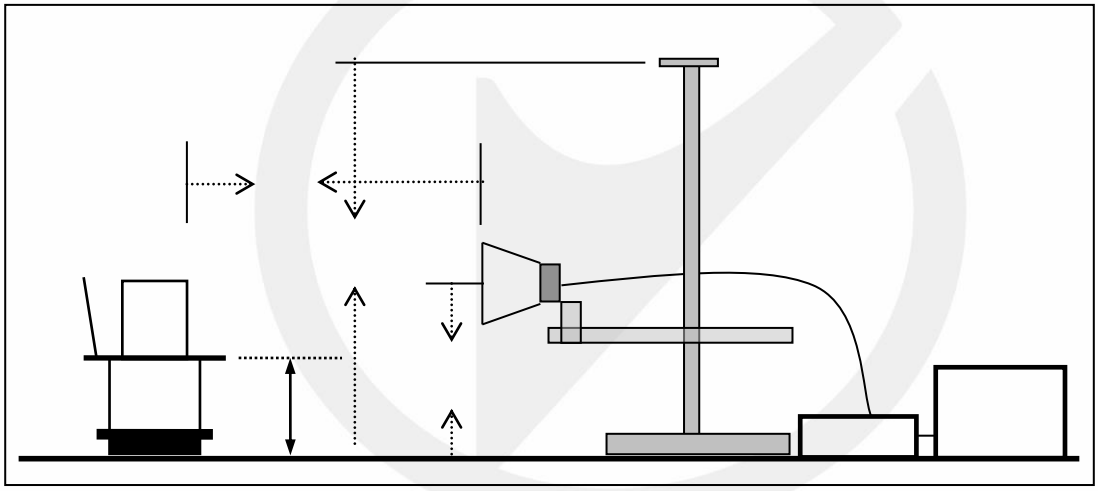
(a) Radiated Emission Test Set-Up, Frequency Below 30MHz



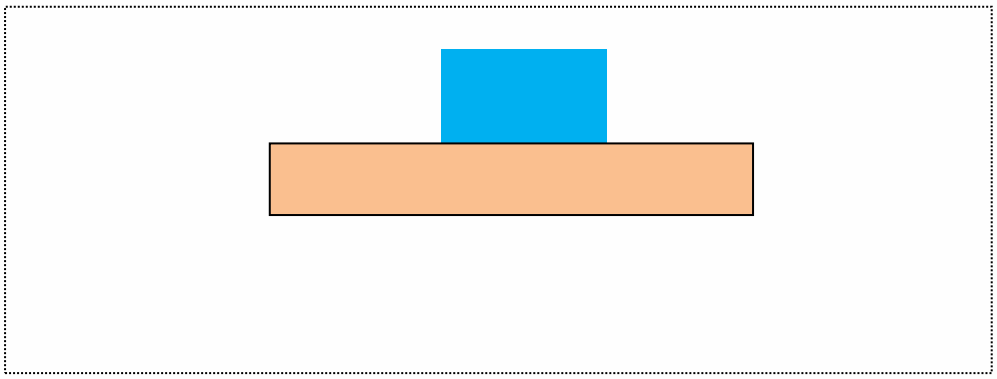
(b) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(c) Radiated Emission Test Set-Up, Frequency above 1000MHz



5.3 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM



5.4 SUPPORT EQUIPMENT

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
Adapter cable	1.5	Unshielded	Without Ferrite

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

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
/	load	100W/50Ohm	/

Notes:

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

6 TEST REQUIREMENTS

6.1 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

6.1.1 Applicable Standard

According to FCC §2.1051 and §90.210

6.1.2 Conformance Limit

(d) Emission Mask D—12.5 kHz channel bandwidth equipment. For transmitters designed to operate with a 12.5 kHz channel bandwidth, any emission must be attenuated below the power (P) of the highest emission contained within the authorized bandwidth as follows:
(1) On any frequency from the center of the authorized bandwidth f0 to 5.625 kHz removed from f0: Zero dB.
(2) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz) of more than 5.625 kHz but no more than 12.5 kHz: At least 7.27(fd−2.88 kHz) dB.
(3) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz) of more than 12.5 kHz: At least 50 + 10 log (P) dB or 70 dB, whichever is the lesser attenuation.

6.1.3 Test Configuration

Test according to clause 7.1 radio frequency test setup 1

6.1.4 Test Procedure

The setup of EUT is according with per TIA/EIA Standard 603 and ANSI C63.4-2014 measurement procedure.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to tenth harmonic of the fundamental frequency was investigated.

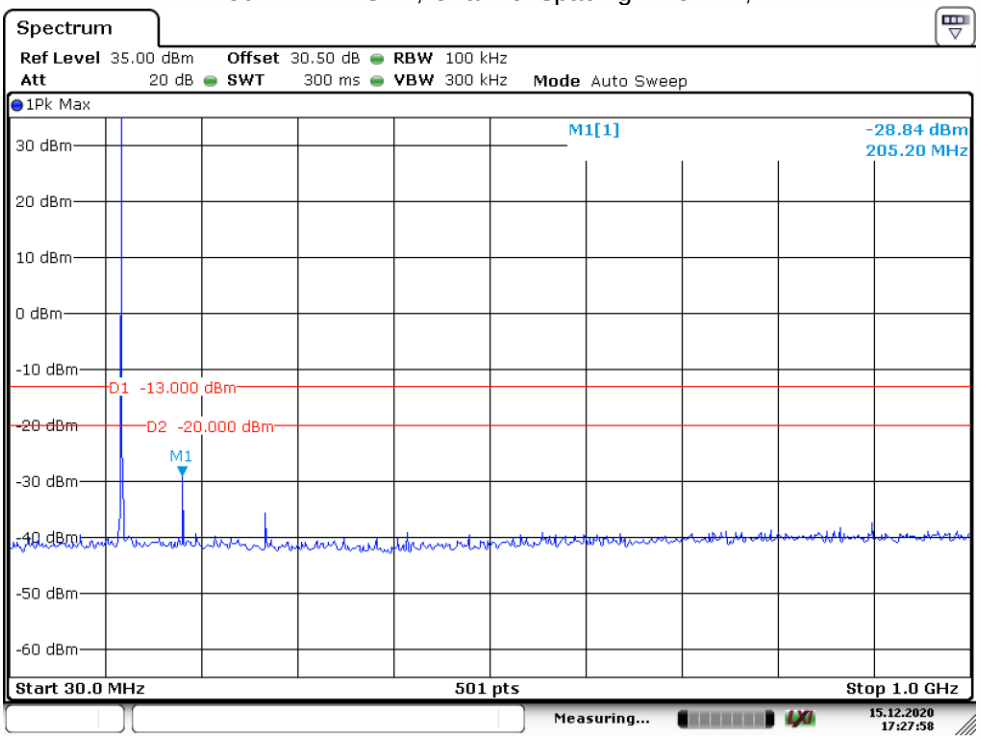
Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

6.1.5 Test Results

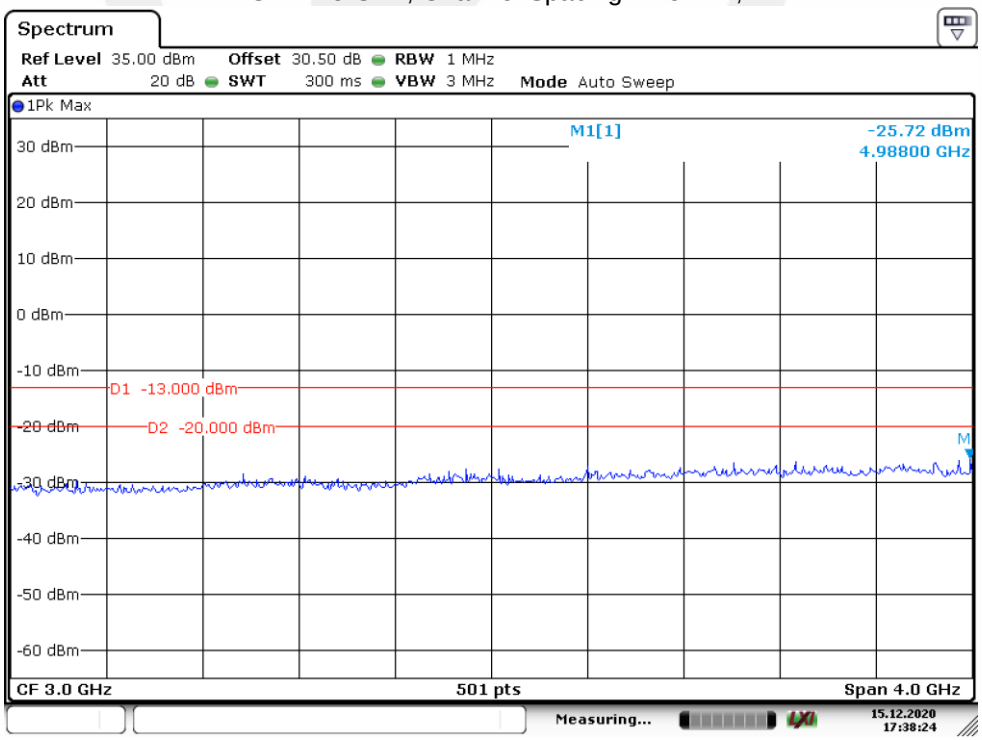
Temperature:	26° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

VHF:
144MHz:

30MHz – 1 GHz, Channel Spacing 12.5 kHz,

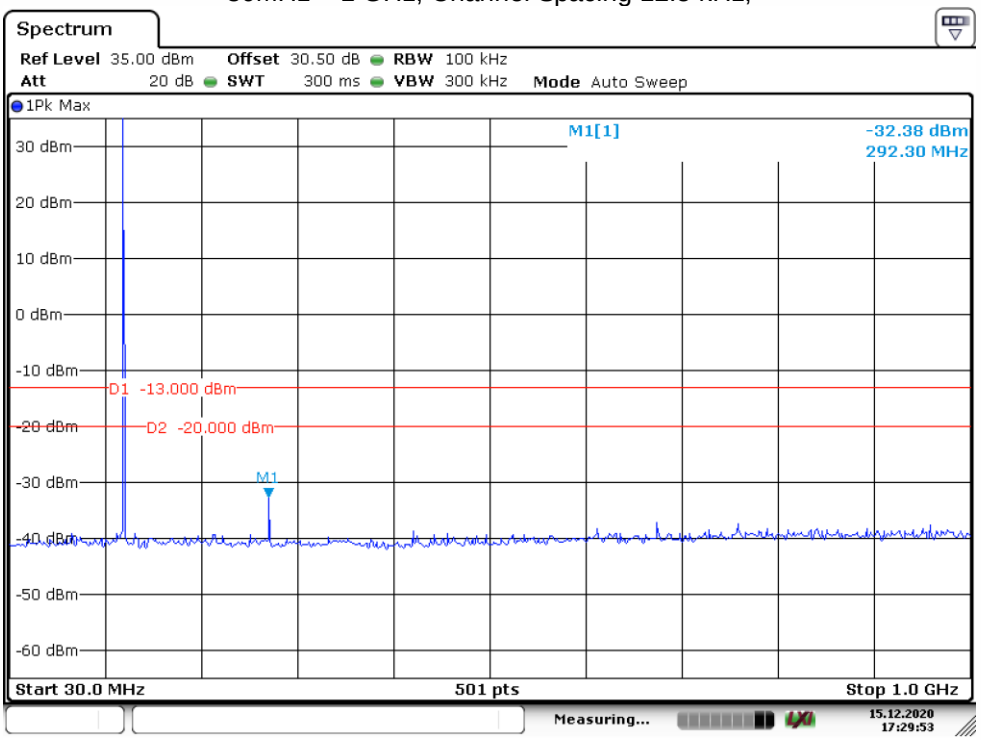


1 GHz – 5 GHz, Channel Spacing 12.5 kHz,

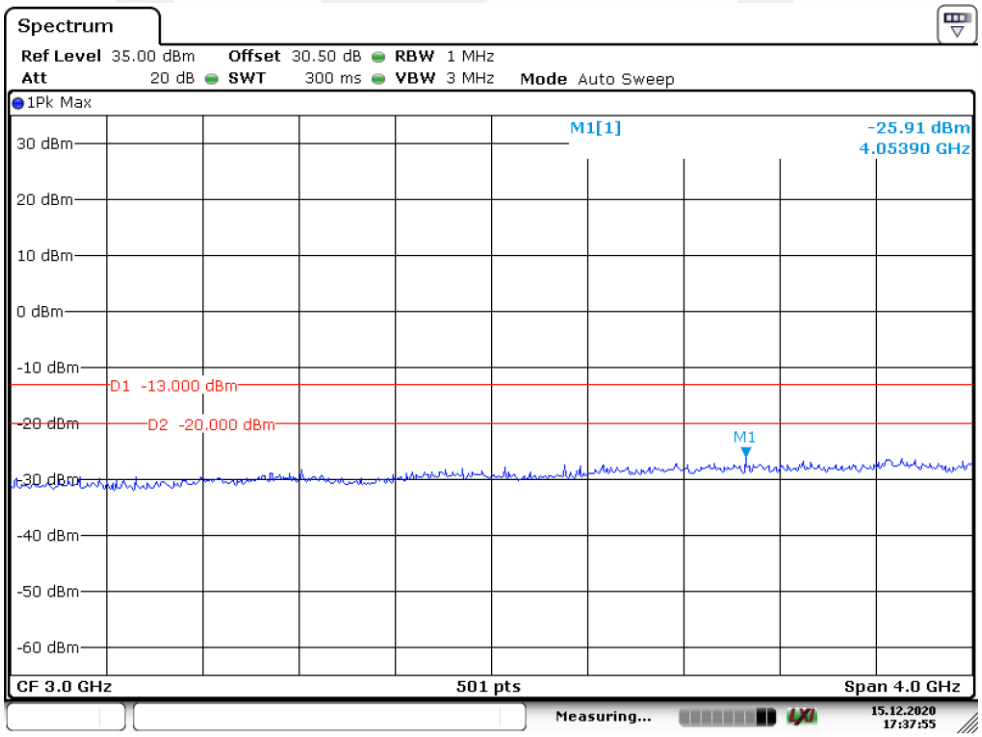


145.98MHz:

30MHz – 1 GHz, Channel Spacing 12.5 kHz,

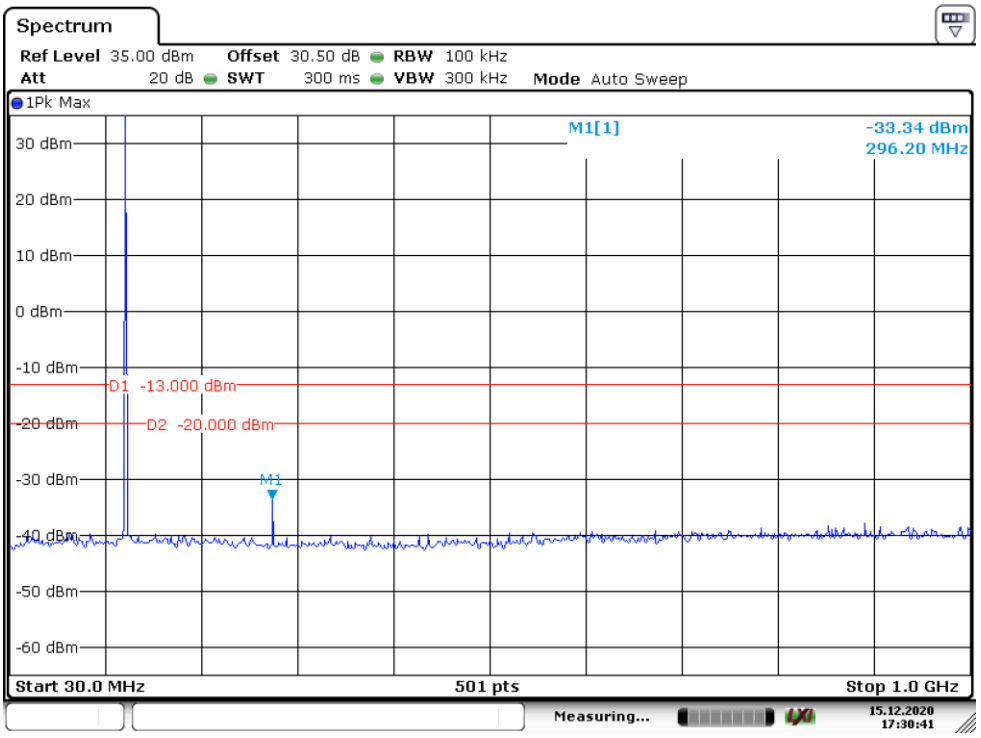


1 GHz – 5 GHz, Channel Spacing 12.5 kHz,

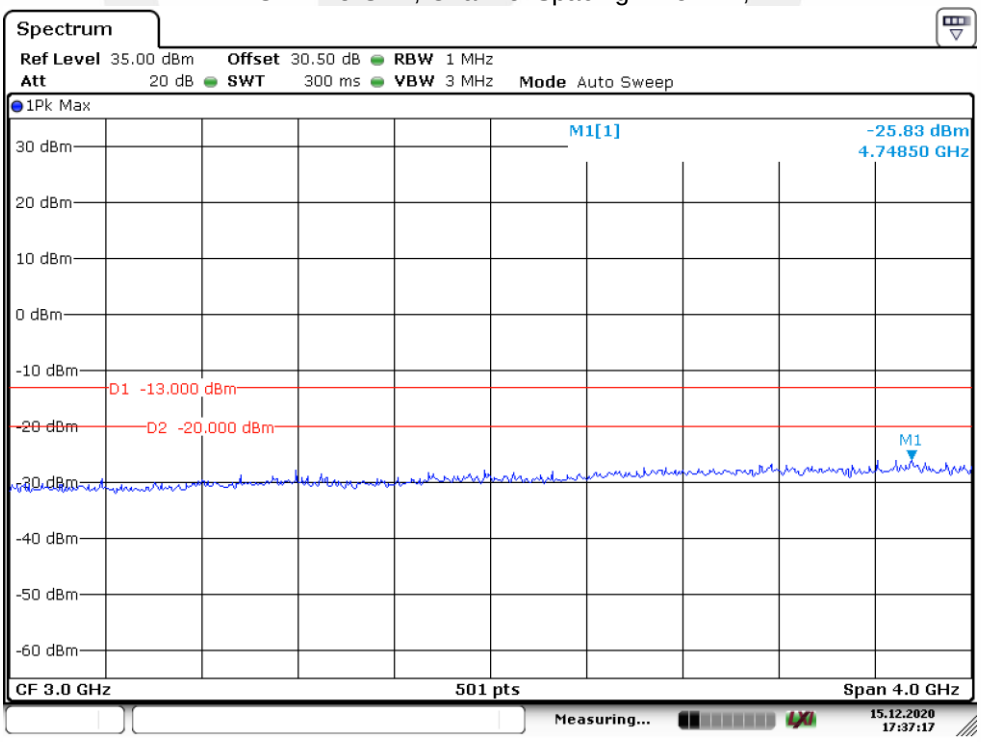


147.98MHz:

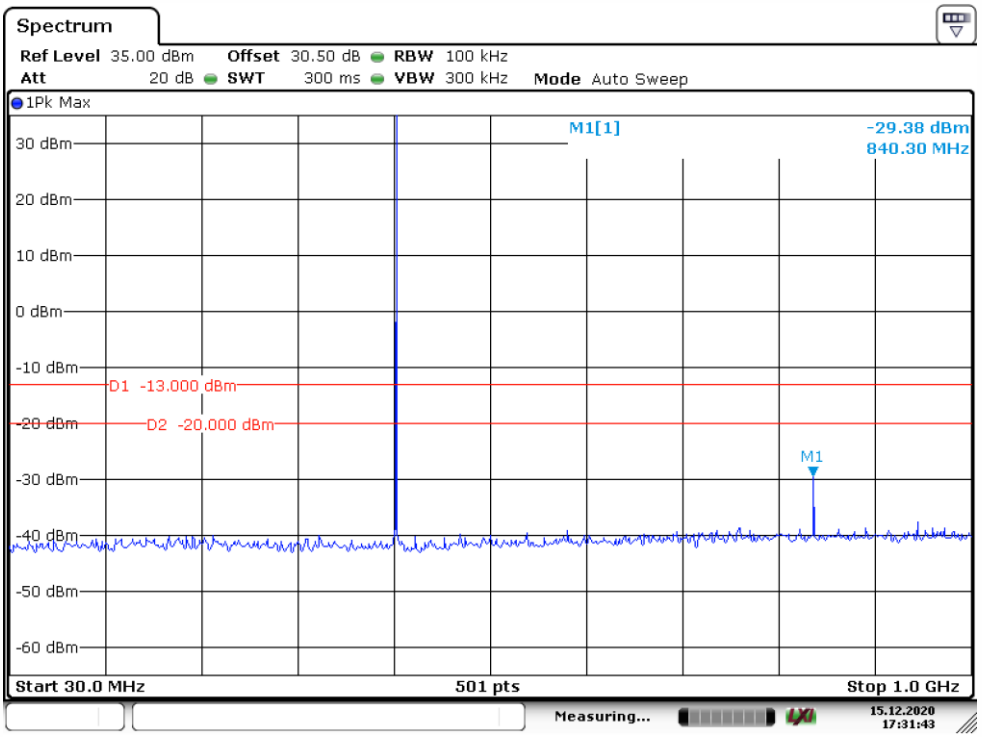
30MHz – 1 GHz, Channel Spacing 12.5 kHz,

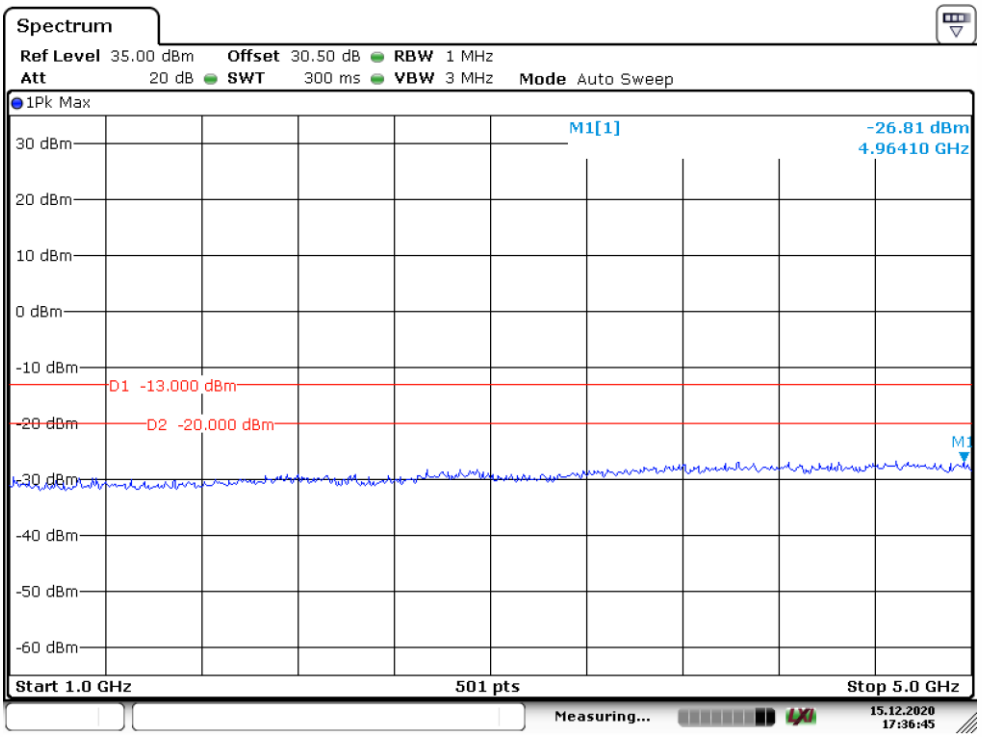


1 GHz – 5 GHz, Channel Spacing 12.5 kHz,

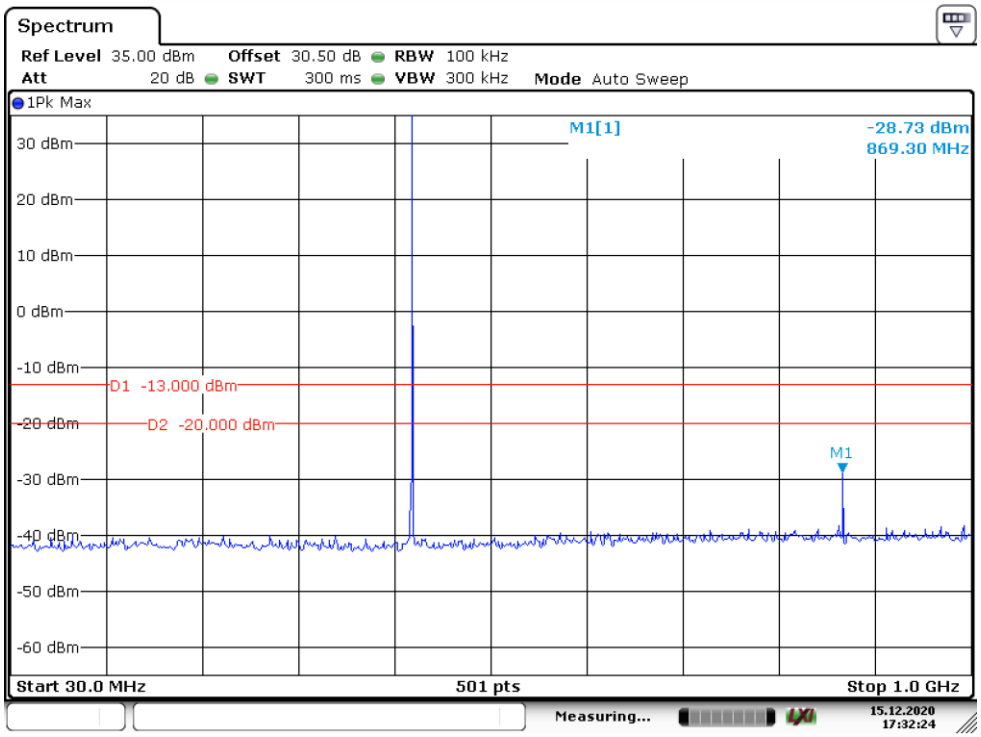


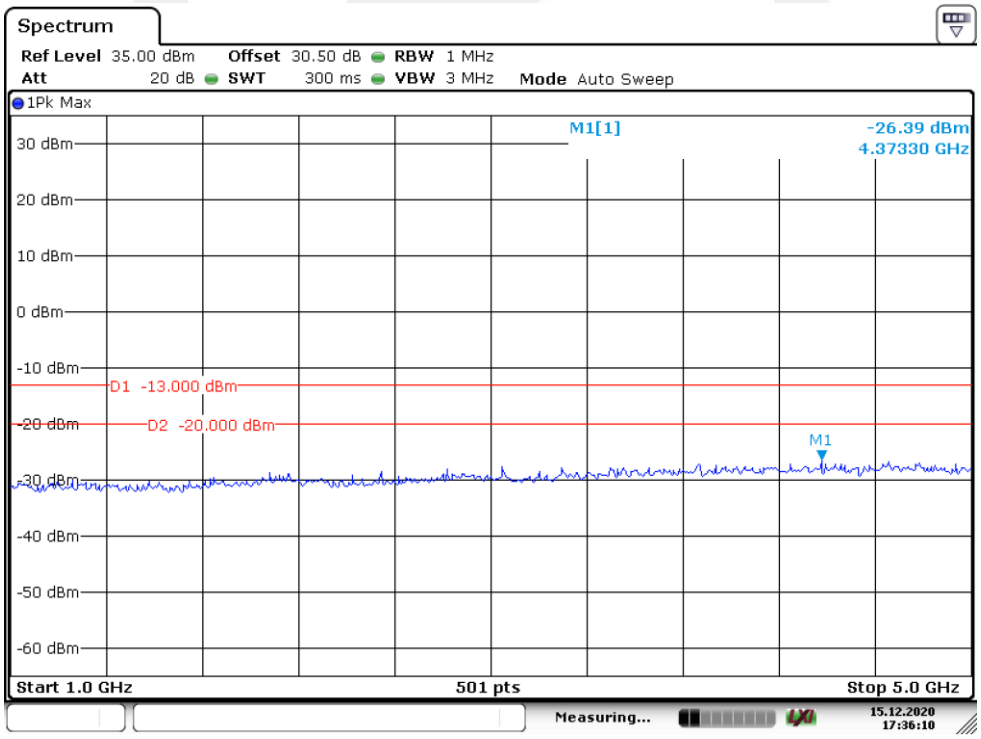
UHF:
420MHz:


Spectrum
Ref Level 35.00 dBm Offset 30.50 dB RBW 100 kHz
Att 20 dB SWT 300 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
M1[1] -29.38 dBm
840.30 MHz
30 dBm
20 dBm
10 dBm
0 dBm
-10 dBm
D1 -13.000 dBm
-20 dBm
D2 -20.000 dBm
M1
-30 dBm
-40 dBm
-50 dBm
-60 dBm
Start 30.0 MHz
501 pts
Stop 1.0 GHz
Measuring...
15.12.2020
17:31:43

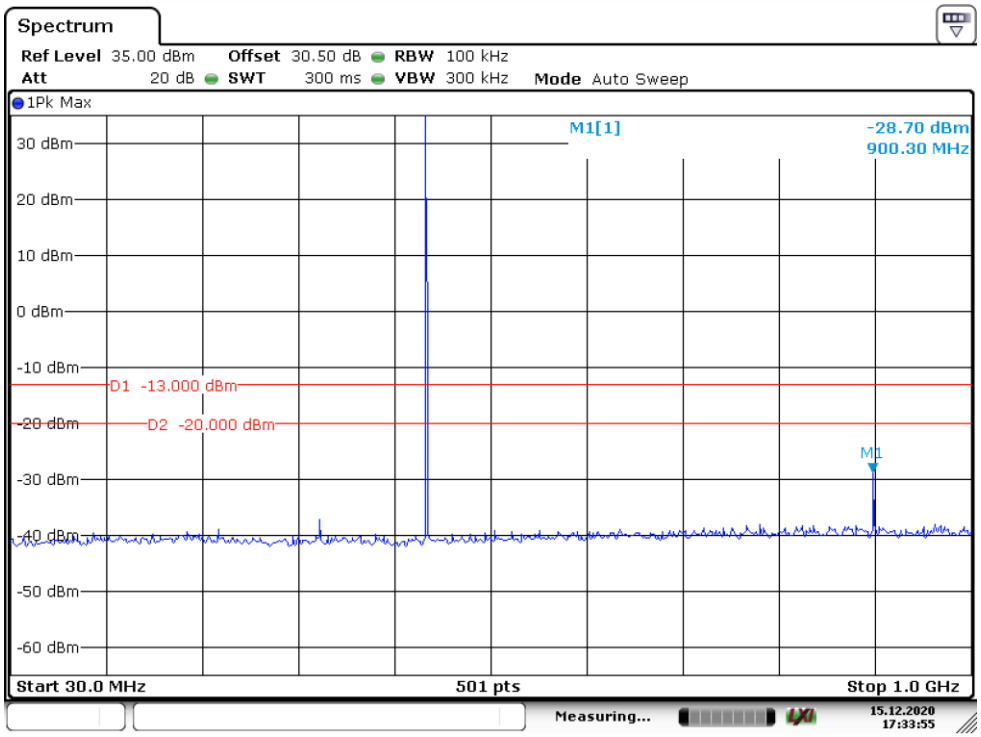

Spectrum
Ref Level 35.00 dBm Offset 30.50 dB RBW 1 MHz
Att 20 dB SWT 300 ms VBW 3 MHz Mode Auto Sweep
1Pk Max
M1[1] -26.81 dBm
4.96410 GHz
30 dBm
20 dBm
10 dBm
0 dBm
-10 dBm
D1 -13.000 dBm
-20 dBm
D2 -20.000 dBm
M1
-30 dBm
-40 dBm
-50 dBm
-60 dBm
Start 1.0 GHz
501 pts
Stop 5.0 GHz
Measuring...
15.12.2020
17:36:45

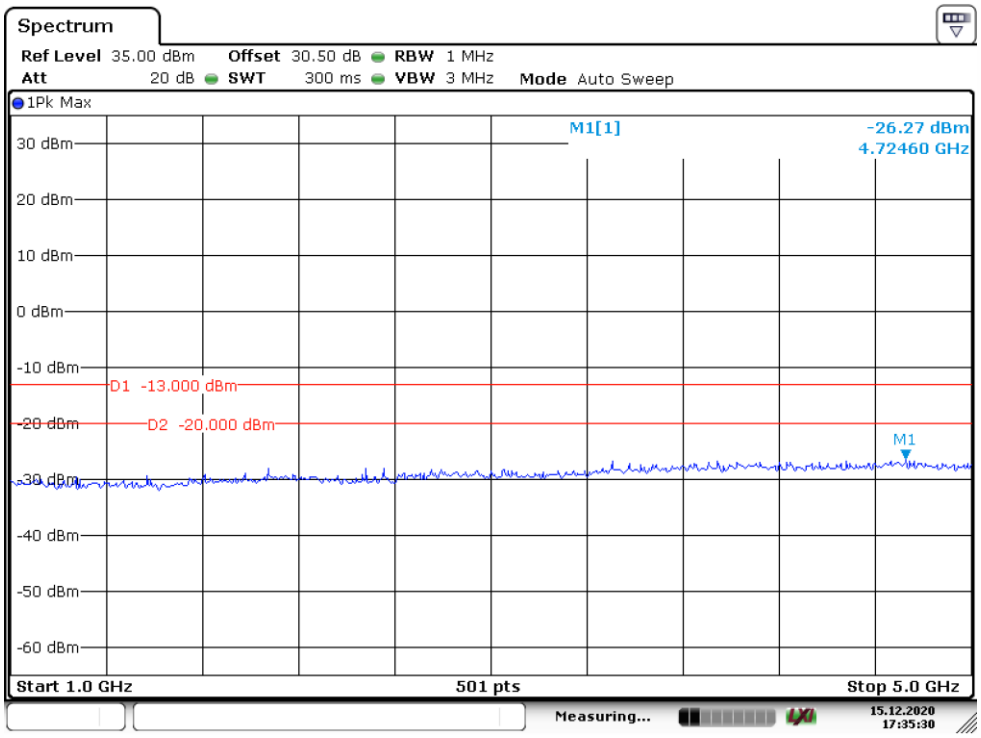
434.98MHz:


Spectrum
Ref Level 35.00 dBm Offset 30.50 dB RBW 100 kHz
Att 20 dB SWT 300 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
M1[1] -28.73 dBm
869.30 MHz
30 dBm
20 dBm
10 dBm
0 dBm
-10 dBm
D1 -13.000 dBm
-20 dBm
D2 -20.000 dBm
M1
-30 dBm
-40 dBm
-50 dBm
-60 dBm
Start 30.0 MHz
501 pts
Stop 1.0 GHz
Measuring...
15.12.2020
17:32:24


Spectrum
Ref Level 35.00 dBm Offset 30.50 dB RBW 1 MHz
Att 20 dB SWT 300 ms VBW 3 MHz Mode Auto Sweep
1Pk Max
M1[1] -26.39 dBm
4.37330 GHz
30 dBm
20 dBm
10 dBm
0 dBm
-10 dBm
D1 -13.000 dBm
-20 dBm
D2 -20.000 dBm
M1
-30 dBm
-40 dBm
-50 dBm
-60 dBm
Start 1.0 GHz
501 pts
Stop 5.0 GHz
Measuring...
15.12.2020
17:36:10

449.98MHz:


Spectrum
Ref Level 35.00 dBm Offset 30.50 dB RBW 100 kHz
Att 20 dB SWT 300 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
M1[1] -28.70 dBm
900.30 MHz
30 dBm
20 dBm
10 dBm
0 dBm
-10 dBm
D1 -13.000 dBm
-20 dBm
D2 -20.000 dBm
M1
-30 dBm
-40 dBm
-50 dBm
-60 dBm
Start 30.0 MHz
501 pts
Stop 1.0 GHz
Measuring...
15.12.2020
17:33:55


Spectrum
Ref Level 35.00 dBm Offset 30.50 dB RBW 1 MHz
Att 20 dB SWT 300 ms VBW 3 MHz Mode Auto Sweep
1Pk Max
M1[1] -26.27 dBm
4.72460 GHz
30 dBm
20 dBm
10 dBm
0 dBm
-10 dBm
D1 -13.000 dBm
-20 dBm
D2 -20.000 dBm
M1
-30 dBm
-40 dBm
-50 dBm
-60 dBm
Start 1.0 GHz
501 pts
Stop 5.0 GHz
Measuring...
15.12.2020
17:35:30

6.2 RADIATED SPURIOUS EMISSIONS

6.2.1 Applicable Standard

According to FCC §2.1053, §90.210

6.2.2 Conformance Limit

(d) Emission Mask D—12.5 kHz channel bandwidth equipment. For transmitters designed to operate with a 12.5 kHz channel bandwidth, any emission must be attenuated below the power (P) of the highest emission contained within the authorized bandwidth as follows:
(1) On any frequency from the center of the authorized bandwidth f0 to 5.625 kHz removed from f0: Zero dB.
(2) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz) of more than 5.625 kHz but no more than 12.5 kHz: At least 7.27(fd−2.88 kHz) dB.
(3) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz) of more than 12.5 kHz: At least 50 + 10 log (P) dB or 70 dB, whichever is the lesser attenuation.

6.2.3 Test Configuration

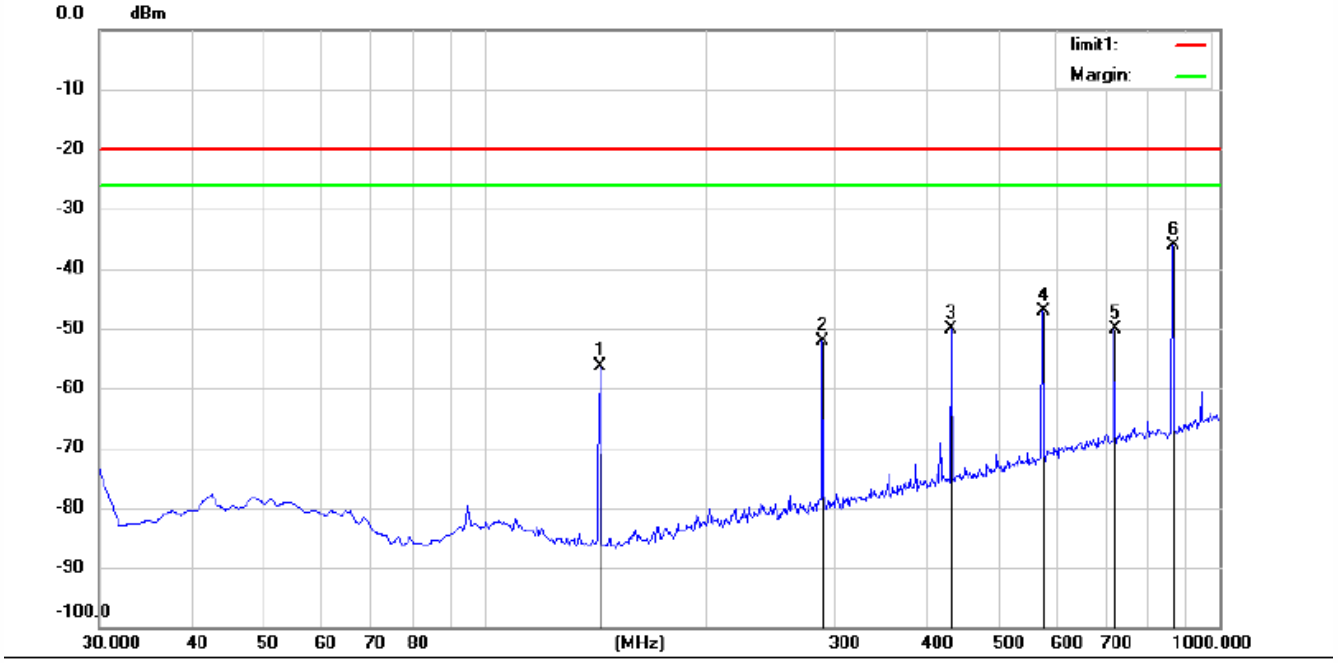
Test according to clause 7.1 radio frequency test setup 2

6.2.4 Test Procedure

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load, which was also placed on the turntable.
The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT .The test was performed by placing the EUT on 3-orthogonal axis.
The frequency range up to teeth harmonic of the fundamental frequency was investigated.
Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.
Spurious emissions in dB =10 1g (TXpwr in Watts/0.001)-the absolute level
Spurious attenuation limit in dB =50+10 Log10 (power out in Watts) for EUT with a 12.5 kHz channel bandwidth.

6.2.5 Test Results

VHF:
Below 1GHz



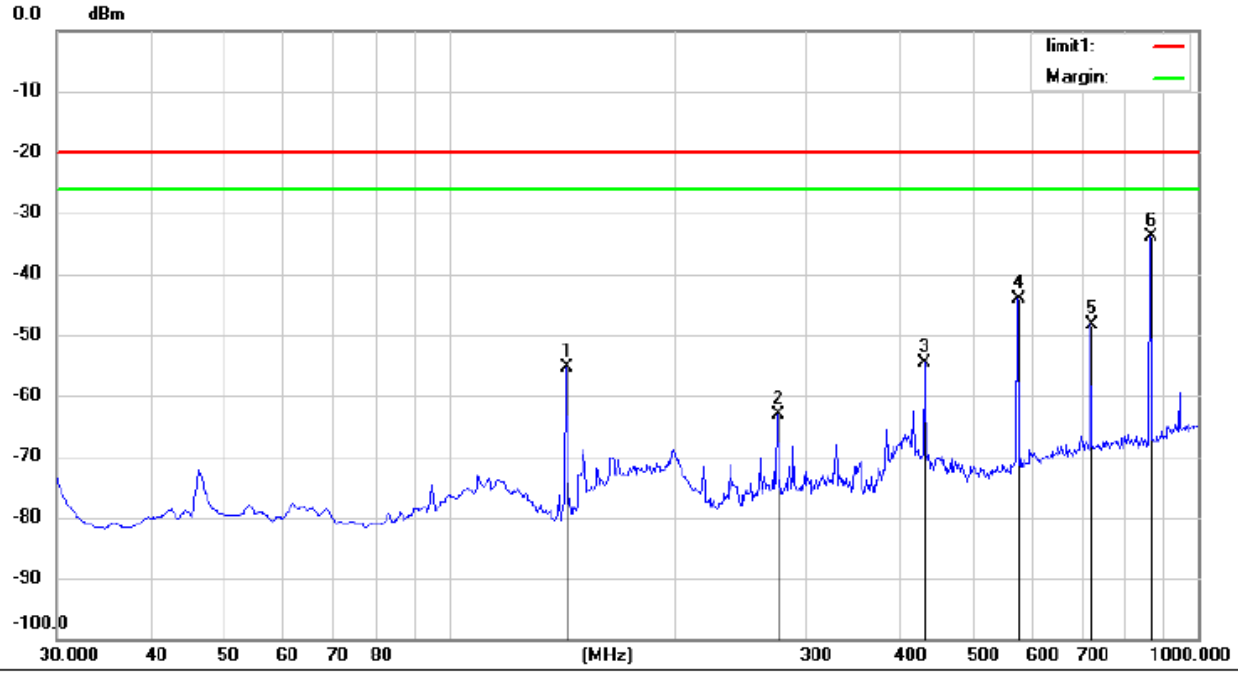
Site Chamber #1 Polarization: *Horizontal* Temperature: 24.1

Mode: 144MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		143.8291	-47.31	-9.16	-56.47	-20.00	-36.47	peak			
2		288.0200	-50.34	-1.71	-52.05	-20.00	-32.05	peak			
3		431.5800	-52.36	2.21	-50.15	-20.00	-30.15	peak			
4		576.1100	-52.49	5.42	-47.07	-20.00	-27.07	peak			
5		720.6400	-58.46	8.35	-50.11	-20.00	-30.11	peak			
6	*	864.2000	-46.01	9.87	-36.14	-20.00	-16.14	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason



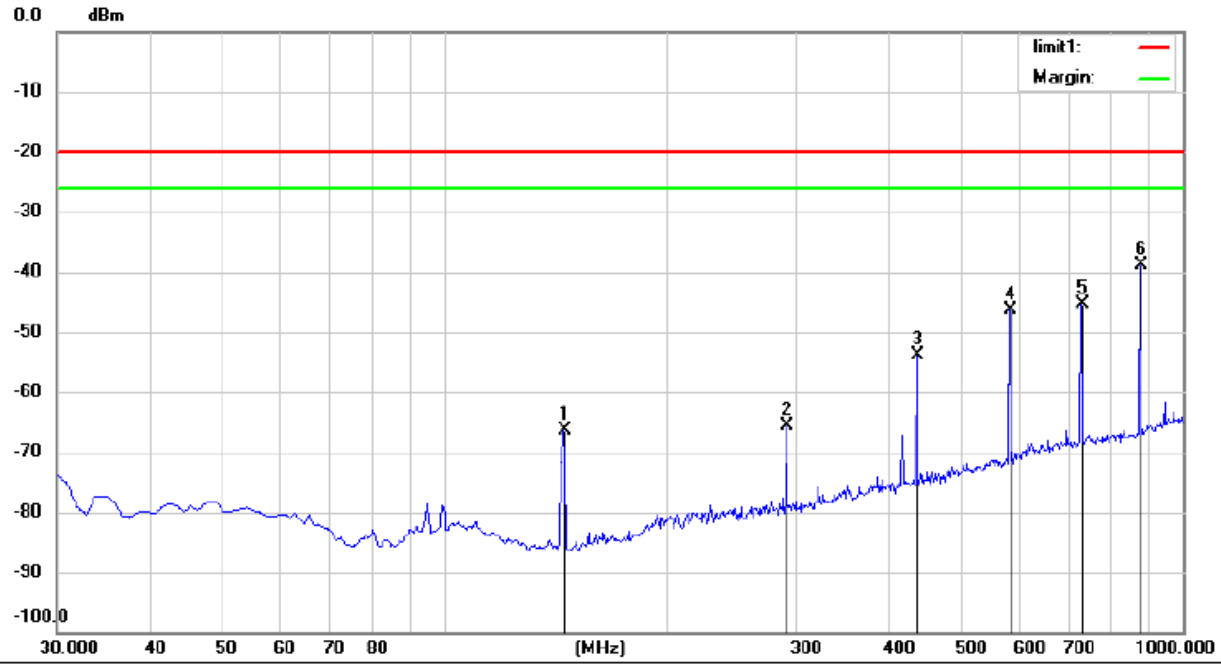
Site Chamber #1 Polarization: ***Vertical*** Temperature: 24.1

Mode: 144MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		143.4900	-46.16	-9.15	-55.31	-20.00	-35.31	peak			
2		274.4400	-60.96	-2.22	-63.18	-20.00	-43.18	peak			
3		431.5800	-56.89	2.21	-54.68	-20.00	-34.68	peak			
4		576.1100	-49.44	5.42	-44.02	-20.00	-24.02	peak			
5		720.6400	-56.60	8.35	-48.25	-20.00	-28.25	peak			
6	*	864.2000	-43.85	9.87	-33.98	-20.00	-13.98	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason



Site Chamber #1 Polarization: ***Horizontal*** Temperature: 24.1

Mode: 145.98MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		145.4300	-57.28	-9.20	-66.48	-20.00	-46.48	peak			
2		291.9000	-64.02	-1.51	-65.53	-20.00	-45.53	peak			
3		438.3700	-56.20	2.33	-53.87	-20.00	-33.87	peak			
4		583.8700	-51.99	5.65	-46.34	-20.00	-26.34	peak			
5		730.3400	-53.96	8.55	-45.41	-20.00	-25.41	peak			
6	*	875.8400	-49.06	10.09	-38.97	-20.00	-18.97	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason

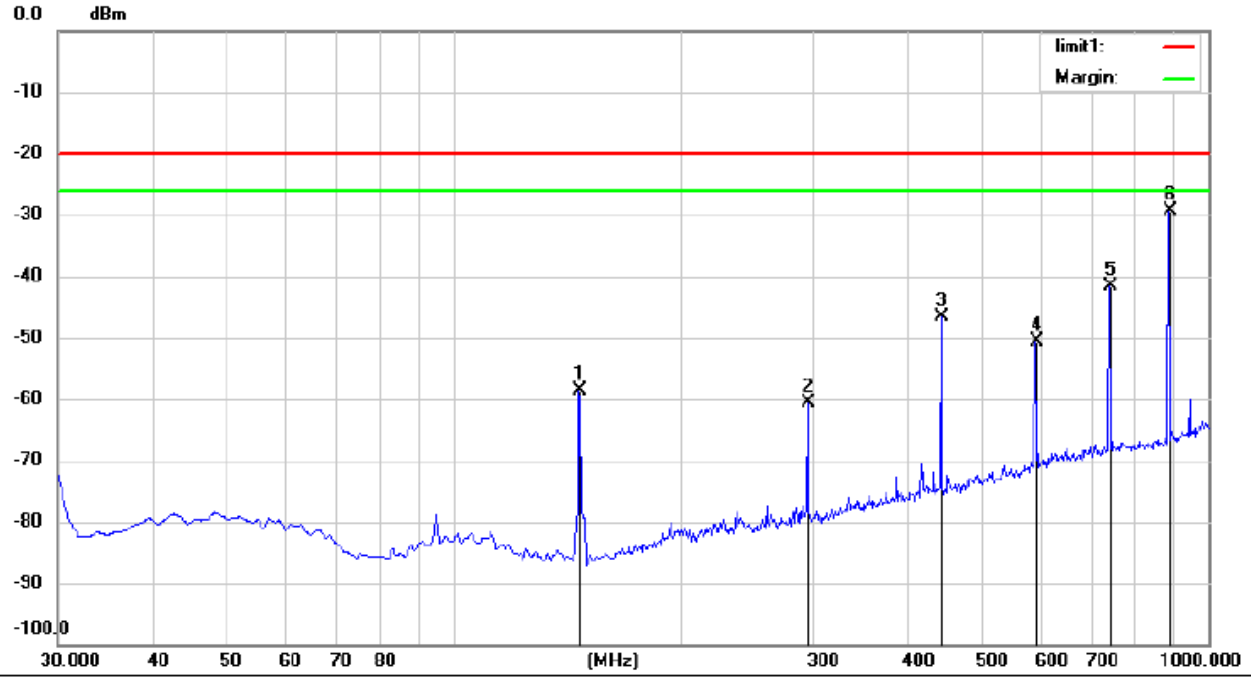
Site Chamber #1 Polarization: *Vertical* Temperature: 24.1

Mode: 145.98MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		145.4300	-50.55	-9.20	-59.75	-20.00	-39.75	peak			
2		418.0000	-64.17	1.94	-62.23	-20.00	-42.23	peak			
3		438.3700	-50.50	2.33	-48.17	-20.00	-28.17	peak			
4		583.8700	-43.54	5.65	-37.89	-20.00	-17.89	peak			
5		730.3400	-48.53	8.55	-39.98	-20.00	-19.98	peak			
6	*	875.8400	-42.98	10.09	-32.89	-20.00	-12.89	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason



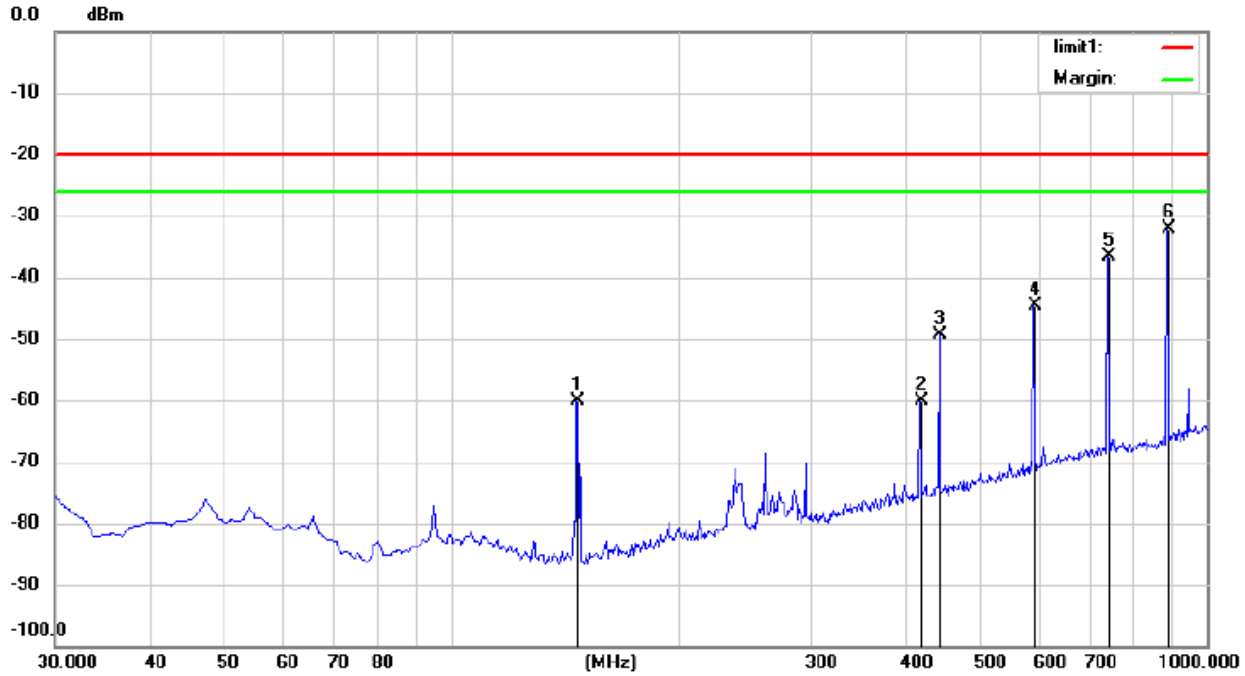
Site Chamber #1 Polarization: ***Horizontal*** Temperature: 24.1

Mode: 147.98MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		147.3700	-49.55	-9.13	-58.68	-20.00	-38.68	peak			
2		295.7800	-59.24	-1.31	-60.55	-20.00	-40.55	peak			
3		444.1900	-49.03	2.44	-46.59	-20.00	-26.59	peak			
4		591.6300	-56.64	5.94	-50.70	-20.00	-30.70	peak			
5		740.0400	-50.38	8.75	-41.63	-20.00	-21.63	peak			
6	*	888.4500	-39.75	10.43	-29.32	-20.00	-9.32	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason



Site Chamber #1 Polarization: ***Vertical*** Temperature: 24.1

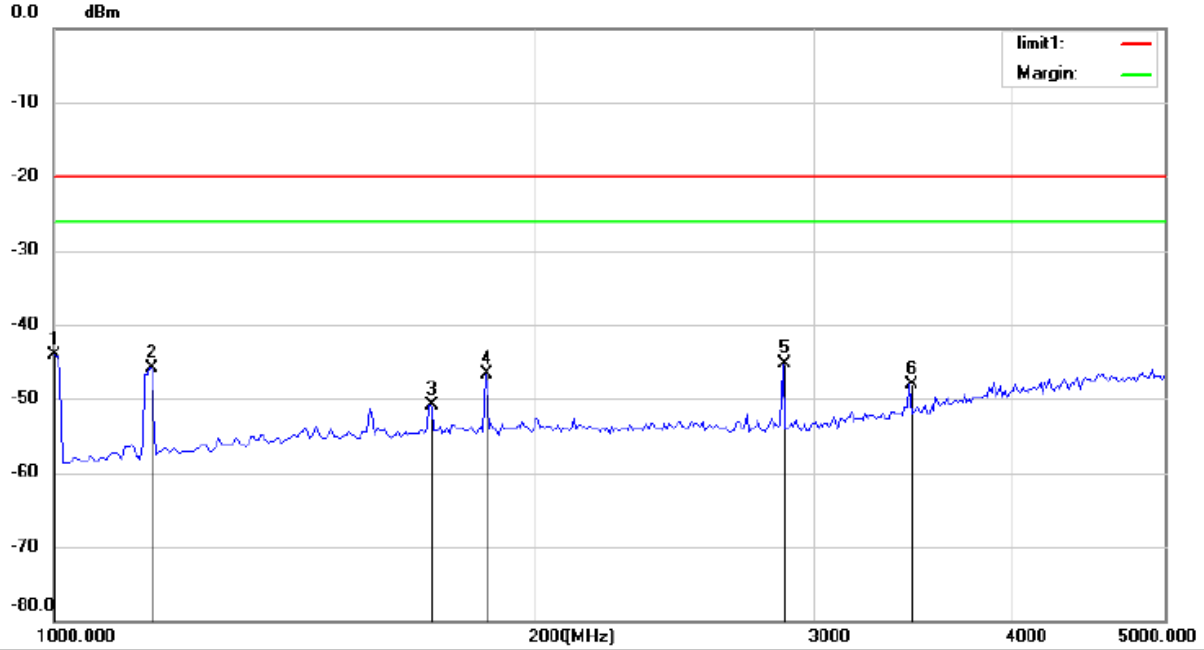
Mode: 147.98MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		147.3700	-50.92	-9.13	-60.05	-20.00	-40.05	peak			
2		418.0000	-62.04	1.94	-60.10	-20.00	-40.10	peak			
3		444.1900	-51.74	2.44	-49.30	-20.00	-29.30	peak			
4		591.6300	-50.54	5.94	-44.60	-20.00	-24.60	peak			
5		740.0400	-45.30	8.75	-36.55	-20.00	-16.55	peak			
6	*	888.4500	-42.56	10.43	-32.13	-20.00	-12.13	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason

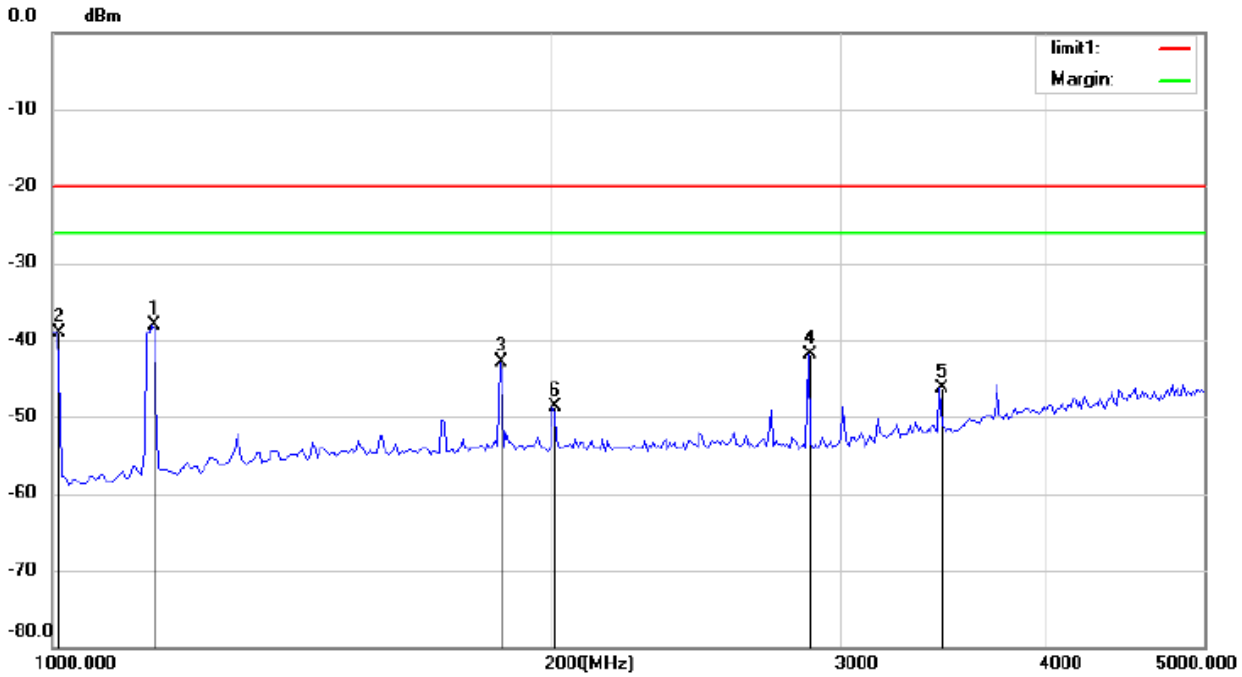
VHF:
Above 1GHz



Site Chamber #1 Polarization: *Horizontal* Temperature: 24.1
Mode: 144MHz
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1000.000	-42.71	-1.43	-44.14	-20.00	-24.14	peak			
2		1152.000	-44.55	-1.29	-45.84	-20.00	-25.84	peak			
3		1728.000	-50.67	-0.24	-50.91	-20.00	-30.91	peak			
4		1872.000	-46.87	0.17	-46.70	-20.00	-26.70	peak			
5		2880.000	-48.05	2.81	-45.24	-20.00	-25.24	peak			
6		3456.000	-53.22	5.19	-48.03	-20.00	-28.03	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason



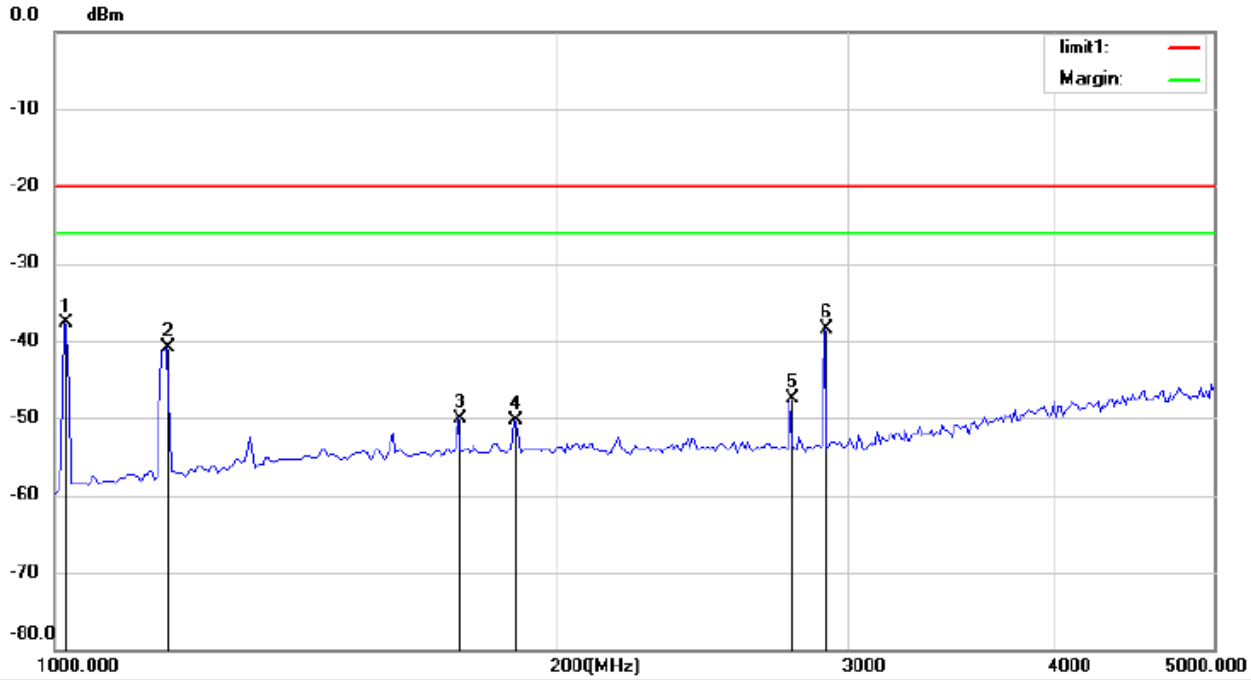
Site Chamber #1 Polarization: *Vertical* Temperature: 24.1

Mode: 144MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1152.000	-36.76	-1.29	-38.05	-20.00	-18.05	peak			
2		1008.000	-37.63	-1.42	-39.05	-20.00	-19.05	peak			
3		1872.000	-43.09	0.17	-42.92	-20.00	-22.92	peak			
4		2880.000	-44.64	2.81	-41.83	-20.00	-21.83	peak			
5		3456.000	-51.57	5.19	-46.38	-20.00	-26.38	peak			
6		2016.000	-49.30	0.54	-48.76	-20.00	-28.76	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason



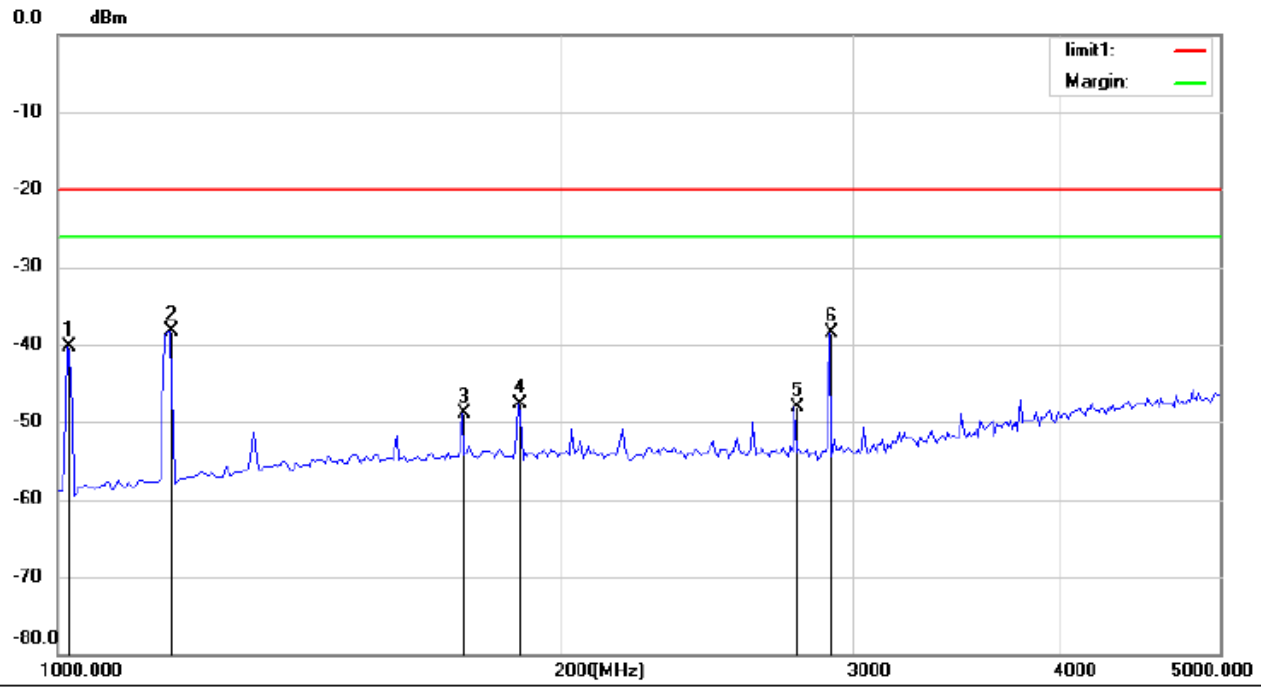
Site Chamber #1 Polarization: ***Horizontal*** Temperature: 24.1

Mode: 145.98MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1016.000	-36.26	-1.41	-37.67	-20.00	-17.67	peak			
2		1168.000	-39.62	-1.27	-40.89	-20.00	-20.89	peak			
3		1752.000	-50.03	-0.16	-50.19	-20.00	-30.19	peak			
4		1896.000	-50.43	0.22	-50.21	-20.00	-30.21	peak			
5		2776.000	-50.09	2.55	-47.54	-20.00	-27.54	peak			
6		2920.000	-41.49	2.92	-38.57	-20.00	-18.57	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason



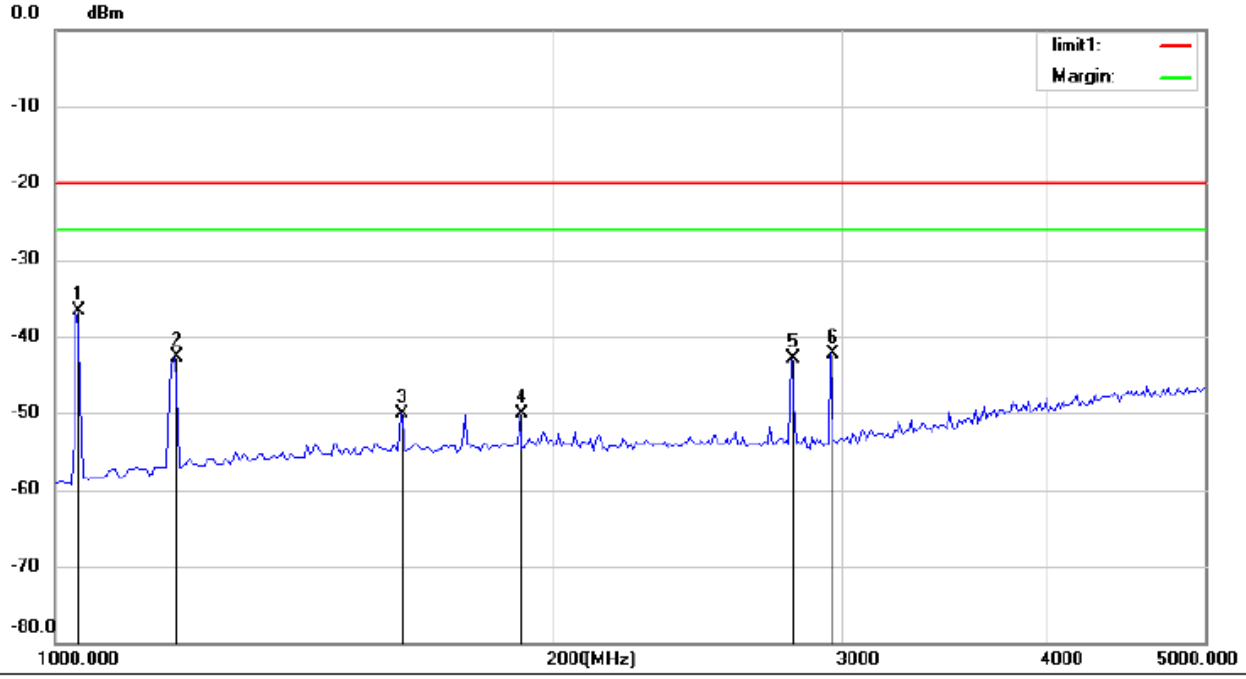
Site Chamber #1 Polarization: ***Vertical*** Temperature: 24.1

Mode: 145.98MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		1016.000	-38.98	-1.41	-40.39	-20.00	-20.39	peak			
2	*	1168.000	-36.98	-1.27	-38.25	-20.00	-18.25	peak			
3		1752.000	-48.77	-0.16	-48.93	-20.00	-28.93	peak			
4		1896.000	-47.99	0.22	-47.77	-20.00	-27.77	peak			
5		2776.000	-50.65	2.55	-48.10	-20.00	-28.10	peak			
6		2920.000	-41.36	2.92	-38.44	-20.00	-18.44	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason



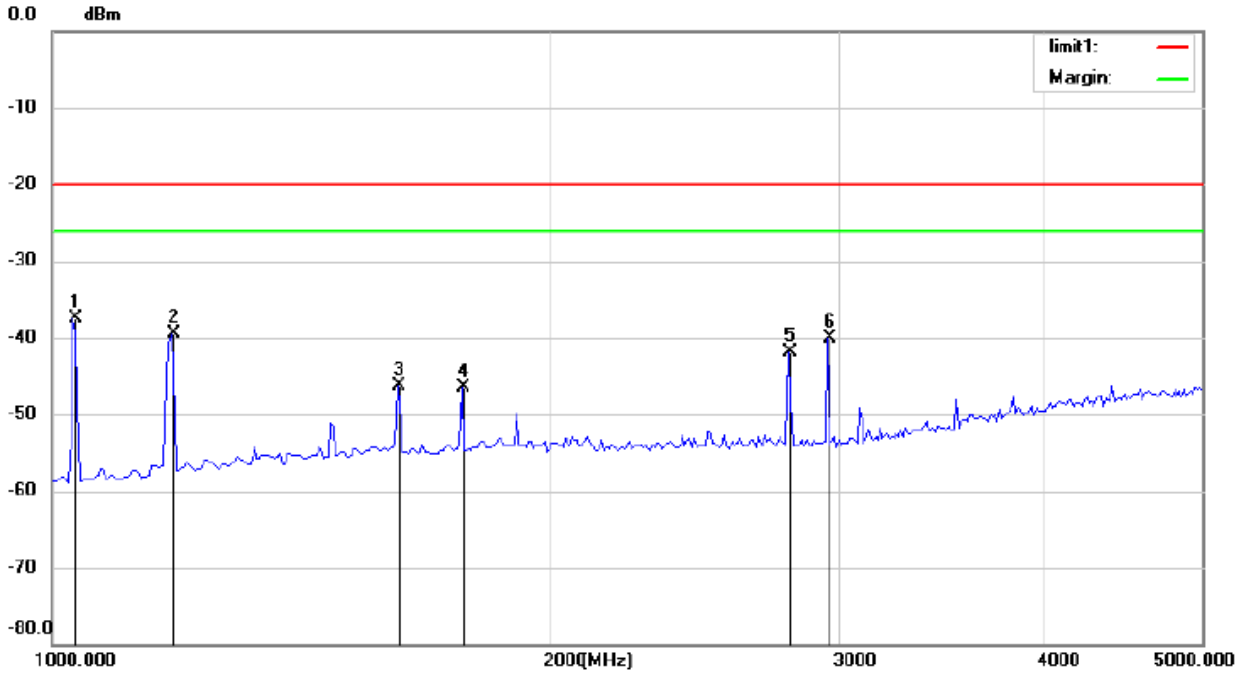
Site Chamber #1 Polarization: ***Horizontal*** Temperature: 24.1

Mode: 147.98MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1032.000	-35.36	-1.40	-36.76	-20.00	-16.76	peak			
2		1184.000	-41.53	-1.26	-42.79	-20.00	-22.79	peak			
3		1624.000	-49.50	-0.54	-50.04	-20.00	-30.04	peak			
4		1920.000	-50.36	0.29	-50.07	-20.00	-30.07	peak			
5		2808.000	-45.62	2.63	-42.99	-20.00	-22.99	peak			
6		2960.000	-45.24	3.02	-42.22	-20.00	-22.22	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason



Site Chamber #1 Polarization: ***Vertical*** Temperature: 24.1

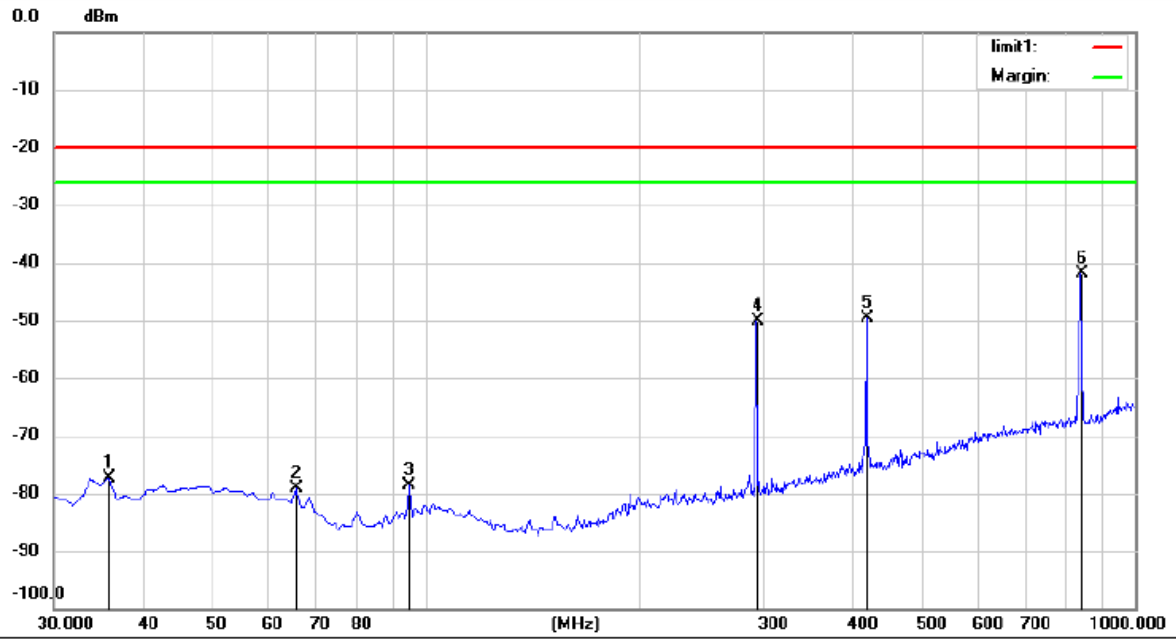
Mode: 147.98MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1032.000	-36.10	-1.40	-37.50	-20.00	-17.50	peak			
2		1184.000	-38.33	-1.26	-39.59	-20.00	-19.59	peak			
3		1624.000	-45.66	-0.54	-46.20	-20.00	-26.20	peak			
4		1776.000	-46.46	-0.10	-46.56	-20.00	-26.56	peak			
5		2808.000	-44.47	2.63	-41.84	-20.00	-21.84	peak			
6		2960.000	-43.17	3.02	-40.15	-20.00	-20.15	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason

UHF:
Below 1GHz



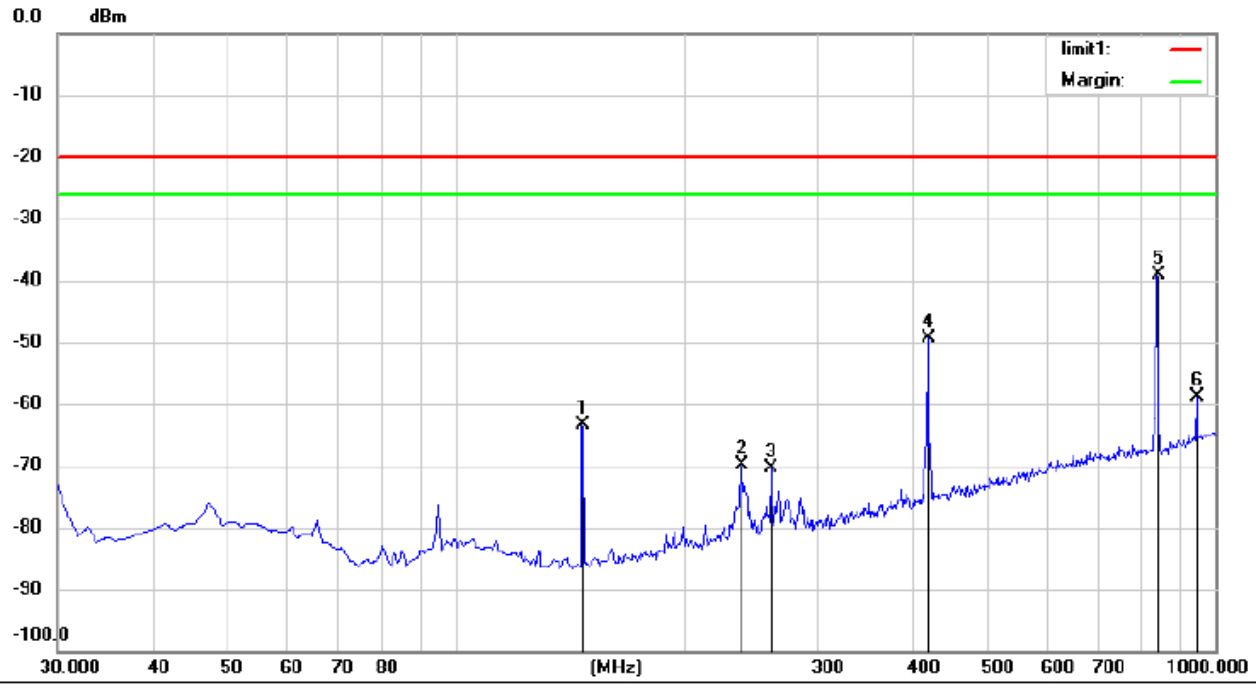
Site Chamber #1 Polarization: ***Horizontal*** Temperature: 24.1

Mode:420MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		35.8200	-71.52	-5.76	-77.28	-20.00	-57.28	peak			
2		65.8900	-73.65	-5.59	-79.24	-20.00	-59.24	peak			
3		94.9900	-72.11	-6.48	-78.59	-20.00	-58.59	peak			
4		293.8400	-48.73	-1.37	-50.10	-20.00	-30.10	peak			
5		419.9400	-51.62	2.00	-49.62	-20.00	-29.62	peak			
6	*	839.9500	-51.51	9.52	-41.99	-20.00	-21.99	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason



Site Chamber #1 Polarization: *Vertical* Temperature: 24.1

Mode:420MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		147.3700	-54.32	-9.13	-63.45	-20.00	-43.45	peak			
2		237.5800	-66.36	-3.42	-69.78	-20.00	-49.78	peak			
3		260.8600	-67.88	-2.51	-70.39	-20.00	-50.39	peak			
4		419.9400	-51.47	2.00	-49.47	-20.00	-29.47	peak			
5	*	839.9500	-48.60	9.52	-39.08	-20.00	-19.08	peak			
6		945.6800	-70.79	11.89	-58.90	-20.00	-38.90	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason

Site Chamber #1 Polarization: ***Horizontal*** Temperature: 24.1

Mode:434.98MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		269.5900	-72.16	-2.43	-74.59	-20.00	-54.59	peak			
2		387.9300	-73.70	1.26	-72.44	-20.00	-52.44	peak			
3		418.0000	-70.91	1.94	-68.97	-20.00	-48.97	peak			
4		434.4900	-58.14	2.26	-55.88	-20.00	-35.88	peak			
5	*	869.0500	-53.97	9.96	-44.01	-20.00	-24.01	peak			
6		945.6800	-72.27	11.89	-60.38	-20.00	-40.38	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason

Site Chamber #1 Polarization: ***Horizontal*** Temperature: 24.1

Mode:449.98MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		30.0000	-62.83	-6.26	-69.09	-20.00	-49.09	peak			
2		387.9300	-73.81	1.26	-72.55	-20.00	-52.55	peak			
3		418.0000	-70.23	1.94	-68.29	-20.00	-48.29	peak			
4		450.0100	-55.64	2.55	-53.09	-20.00	-33.09	peak			
5	*	900.0900	-50.60	10.80	-39.80	-20.00	-19.80	peak			
6		945.6800	-73.24	11.89	-61.35	-20.00	-41.35	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason

Site Chamber #1 Polarization: *Vertical* Temperature: 24.1

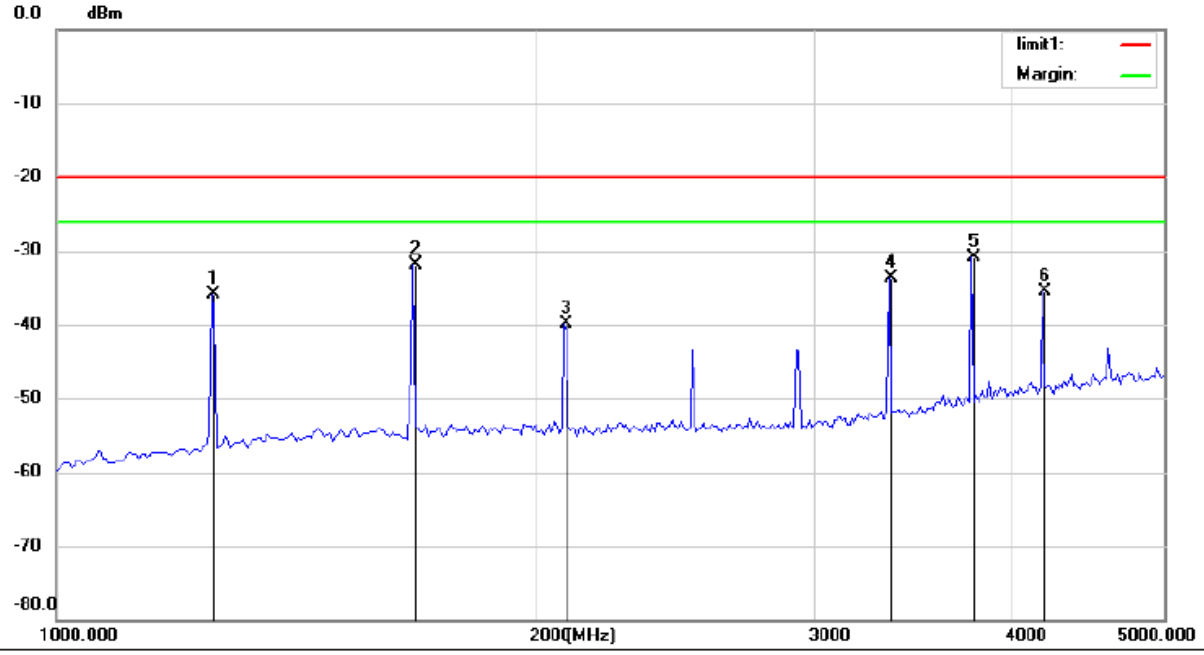
Mode:449.98MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		237.5800	-66.11	-3.42	-69.53	-20.00	-49.53	peak			
2		260.8600	-67.09	-2.51	-69.60	-20.00	-49.60	peak			
3		418.0000	-67.75	1.94	-65.81	-20.00	-45.81	peak			
4		450.0100	-53.38	2.55	-50.83	-20.00	-30.83	peak			
5	*	900.0900	-50.35	10.80	-39.55	-20.00	-19.55	peak			
6		945.6800	-71.17	11.89	-59.28	-20.00	-39.28	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason

UHF:
Above 1GHz



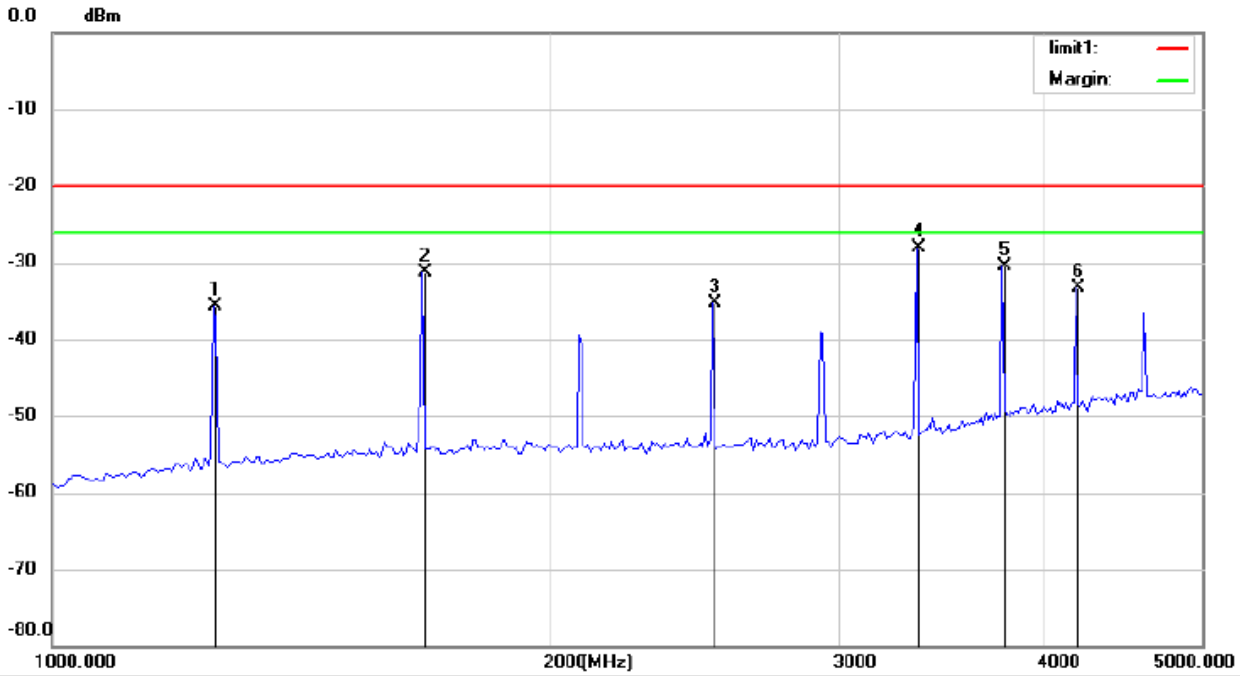
Site Chamber #1 Polarization: ***Horizontal*** Temperature: 24.1

Mode:420MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		1256.000	-34.81	-1.17	-35.98	-20.00	-15.98	peak			
2		1680.000	-31.48	-0.38	-31.86	-20.00	-11.86	peak			
3		2096.000	-40.64	0.78	-39.86	-20.00	-19.86	peak			
4		3360.000	-38.37	4.65	-33.72	-20.00	-13.72	peak			
5	*	3784.000	-37.27	6.39	-30.88	-20.00	-10.88	peak			
6		4200.000	-43.47	8.00	-35.47	-20.00	-15.47	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason



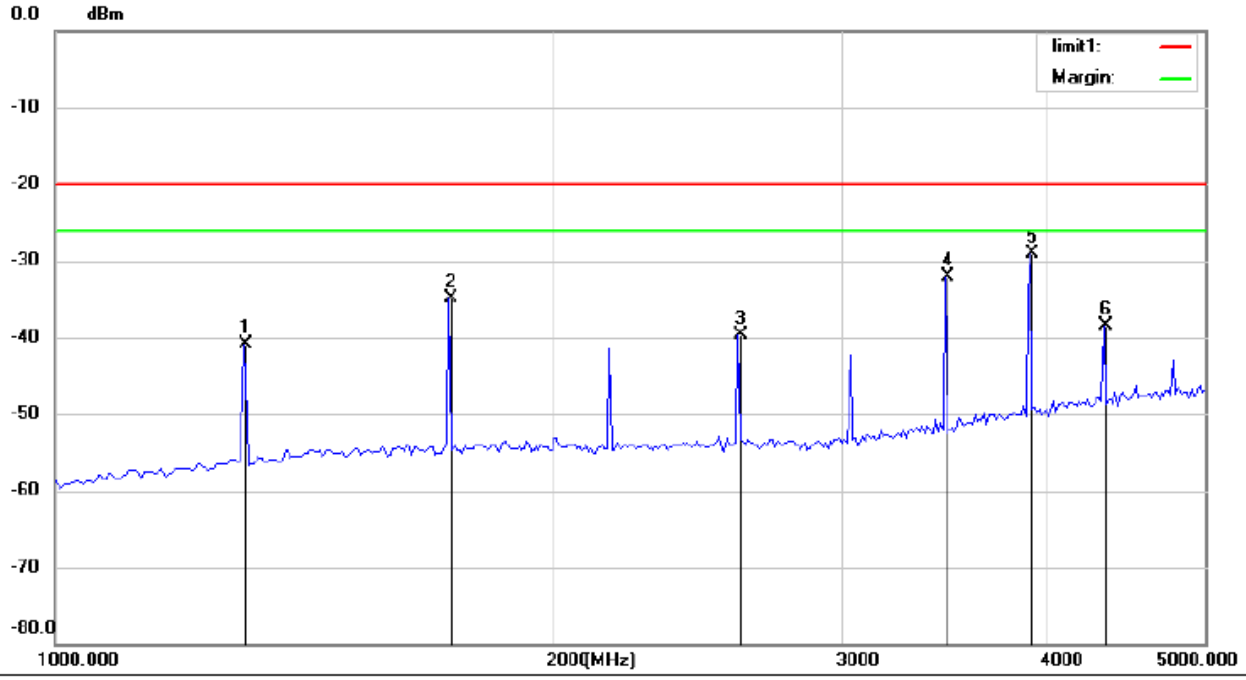
Site Chamber #1 Polarization: ***Vertical*** Temperature: 24.1

Mode:420MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		1256.000	-34.53	-1.17	-35.70	-20.00	-15.70	peak			
2		1680.000	-30.99	-0.38	-31.37	-20.00	-11.37	peak			
3		2520.000	-37.31	1.95	-35.36	-20.00	-15.36	peak			
4	*	3360.000	-32.83	4.65	-28.18	-20.00	-8.18	peak			
5		3784.000	-36.90	6.39	-30.51	-20.00	-10.51	peak			
6		4200.000	-41.36	8.00	-33.36	-20.00	-13.36	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason



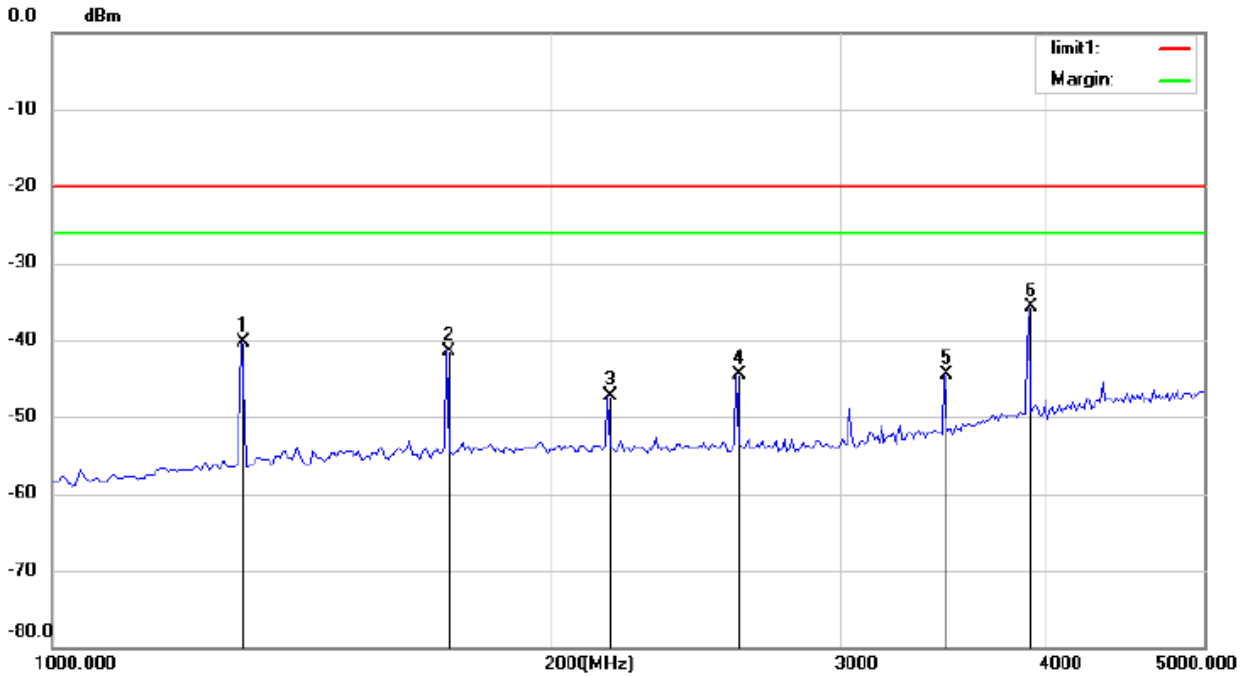
Site Chamber #1 Polarization: ***Horizontal*** Temperature: 24.1

Mode:434.98MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		1304.000	-39.77	-1.10	-40.87	-20.00	-20.87	peak			
2		1736.000	-34.76	-0.21	-34.97	-20.00	-14.97	peak			
3		2608.000	-41.83	2.14	-39.69	-20.00	-19.69	peak			
4		3480.000	-37.39	5.34	-32.05	-20.00	-12.05	peak			
5	*	3920.000	-35.86	6.83	-29.03	-20.00	-9.03	peak			
6		4352.000	-47.01	8.49	-38.52	-20.00	-18.52	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason



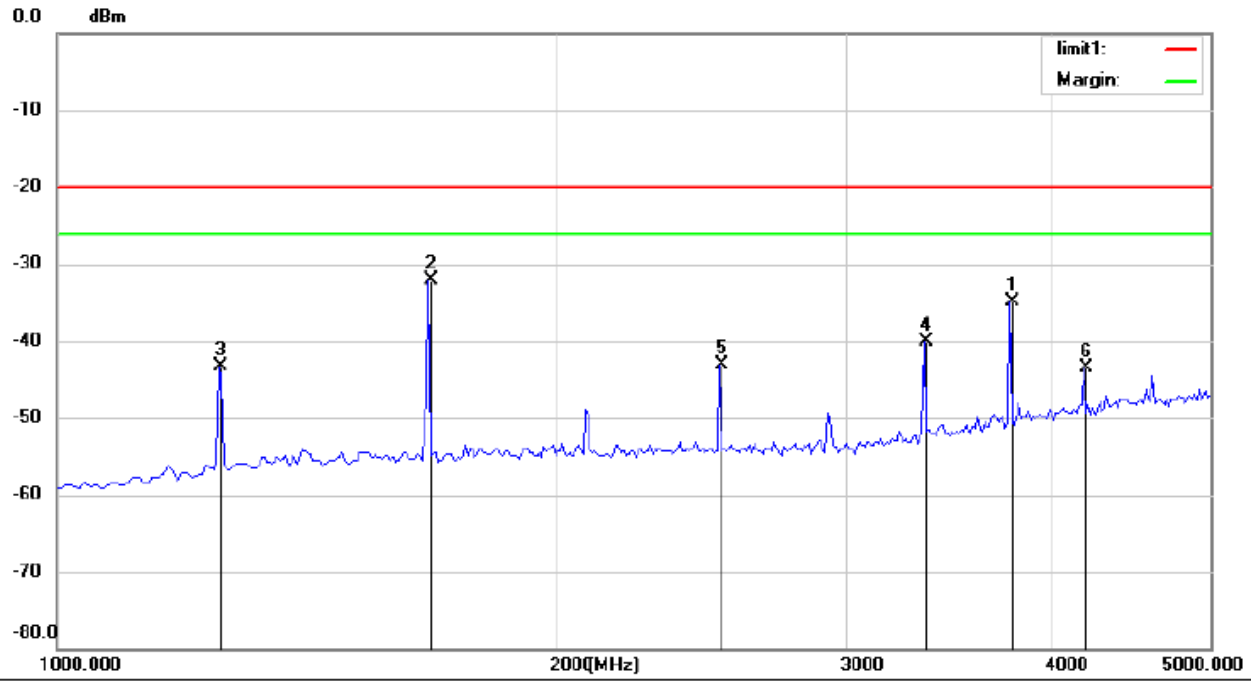
Site Chamber #1 Polarization: *Vertical* Temperature: 24.1

Mode:434.98MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		1304.000	-39.11	-1.10	-40.21	-20.00	-20.21	peak			
2		1736.000	-41.33	-0.21	-41.54	-20.00	-21.54	peak			
3		2176.000	-48.33	1.02	-47.31	-20.00	-27.31	peak			
4		2608.000	-46.55	2.14	-44.41	-20.00	-24.41	peak			
5		3480.000	-49.75	5.34	-44.41	-20.00	-24.41	peak			
6	*	3920.000	-42.57	6.83	-35.74	-20.00	-15.74	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason



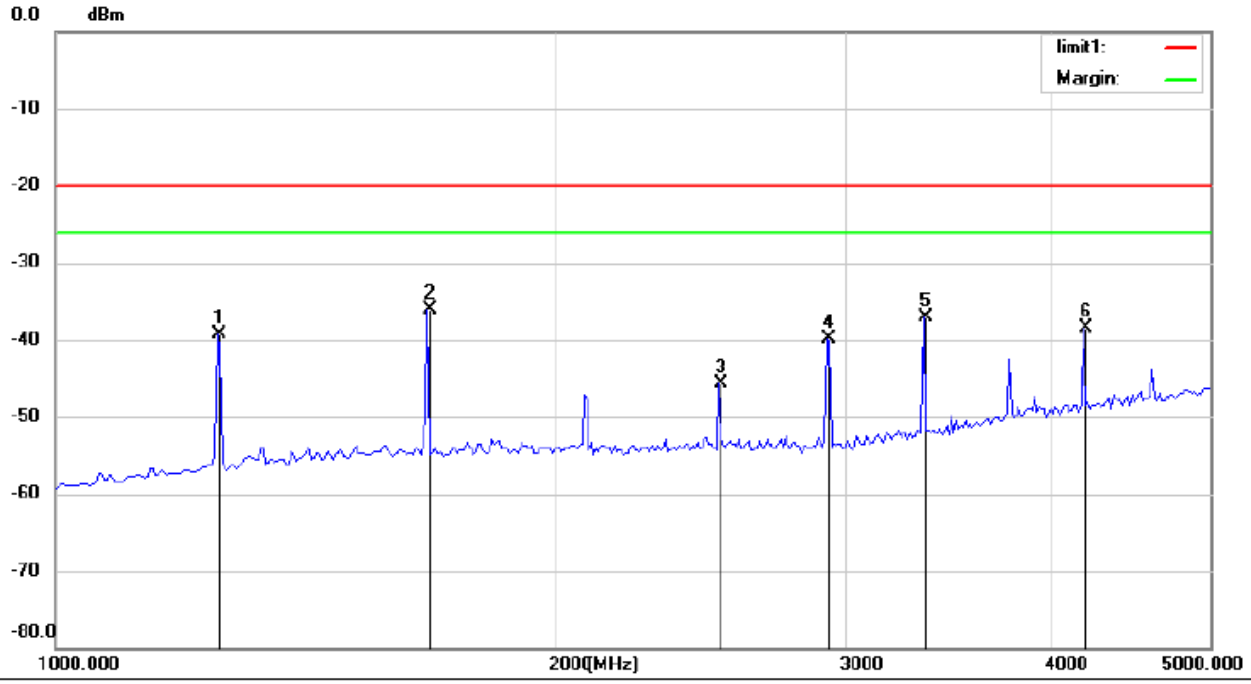
Site Chamber #1 Polarization: ***Horizontal*** Temperature: 24.1

Mode:449.98MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		3784.000	-41.34	6.39	-34.95	-20.00	-14.95	peak			
2	*	1680.000	-31.76	-0.38	-32.14	-20.00	-12.14	peak			
3		1256.000	-42.14	-1.17	-43.31	-20.00	-23.31	peak			
4		3360.000	-44.74	4.65	-40.09	-20.00	-20.09	peak			
5		2520.000	-45.02	1.95	-43.07	-20.00	-23.07	peak			
6		4200.000	-51.43	8.00	-43.43	-20.00	-23.43	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason



Site Chamber #1 Polarization: ***Vertical*** Temperature: 24.1

Mode:449.98MHz

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		1256.000	-38.21	-1.17	-39.38	-20.00	-19.38	peak			
2	*	1680.000	-35.78	-0.38	-36.16	-20.00	-16.16	peak			
3		2520.000	-47.57	1.95	-45.62	-20.00	-25.62	peak			
4		2936.000	-42.79	2.96	-39.83	-20.00	-19.83	peak			
5		3360.000	-41.67	4.65	-37.02	-20.00	-17.02	peak			
6		4200.000	-46.45	8.00	-38.45	-20.00	-18.45	peak			

*:Maximum data x:Over limit !:over margin Operator:Jason

6.3 RF EXPOSURE

6.3.1 Applicable Standard

According to FCC §1.1307(b) and §2.1093, protable device operates Part 90 should be subjected to rountine environmental evaluation for RF exposure prior or equipment authorization or use.

Result: Compliance.

--------- END OF REPORT --------