

EMISSION - TEST REPORT

Report Number : **64.830.6.346.01 – (E)** Date of Issue: 21 December 2006

Model / Serial No. : **UHF-101 / NIL**

Product Type : Wireless microphone/Handheld Transmitter

Applicant : Enping Ding Li Acoustics Technological Co., Ltd.

Manufacturer : Enping Ding Li Acoustics Technological Co., Ltd.

License holder : Enping Ding Li Acoustics Technological Co., Ltd.

Address : No.1, Lane 3, Dongfeng Road, Pingshi,
: Enping, Guangdong, China.

Test Result : ☒ **Positive** ☐ **Negative**

Total pages including Appendices : 57

The test result only responds to the tested sample.

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TEST REGULATIONS :

The tests were performed according to the following regulations:

■ - 47 CFR Part 74 Subpart H (74.861)

☐ - EN 61000-6-3:2001+A11:2004

☐ - EN61000-6-4: 2001

☐ - EN 55011:1998+A1:1999+A2:2002

☐ - Group 1

☐ - Group 2

☐ - Class A

☐ - Class B

☐ - EN 55013:2001+A1:2003

☐ - EN 55014-1:2000+A1:2001+A2:2002

☐ - Household appliances and similar

☐ - Portable tools

☐ - Semiconductor devices

☐ - EN 55015:2000+A1:2001+A2:2002

☐ - EN 55022:1998+A1:2000+A2:2003

☐ - Class A

☐ - Class B

☐ - EN 61000-3-2:2000+A2:2005

☐ - EN 61000-3-3:1995+A1:200

Test Facilities

- - Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory.

Add: Bldg, of Shenzhen Metrology & Quality Inspection Institute, Longzhu Road,
Nanshan, Shenzhen 518055 P.R.C.

Environmental Conditions

Temperature:	: 20-26 °C
Relative Humidity:	: 53-58 %
Atmospheric Pressure:	: 860-1060 mBar

Power Supply System Utilized:

Power supply system	: DC3V (2×AA size battery)
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STATEMENT OF MEASUREMENT UNCERTAINTY

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities that can account for a nominal measurement error of $\pm 4\text{dB}$. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Short Description of the Equipment under Test(EUT)

The UH-101 is a 16 channels handheld wireless transmitter and operates in the frequency range of 730.05 to 805.95MHz in 3 frequency-bands.

Communication type:	Voice/Tone only
RF output power:	Fixed can be changed
Type of antenna:	Integral antenna
FCC ID:	RW5UH101
Power supply:	DC3V by battery
Audio Frequency Response:	30Hz-15KHz
Frequency Stability:	0.005%
Emission Designator:	108KF3E
Ports:	None
Protection Class:	III

Definitions For Symbols Used In This Test Report

- - Black box indicates that the listed condition, standard or equipment is applicable for this report
- - Blank box indicates that the listed condition, standard or equipment was not applicable for this report.

Status of Facility Used for Testing

Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory located at Bldg, of Shenzhen Metrology & Quality Inspection Institute, Longzhu Road, Nanshan, Shenzhen, Guangdong, China is listed in the US Federal Communications Commission list of facilities approved to perform measurements.

Discovery of Worst Case Measurement Condition:

The model UH-101 consists of 3 different versions

- Band I: 730.05-759.95MHz
- Band II: 760.05-789.95MHz
- Band III: 790.05-805.95MHz

All the 3 versions are technically identical except the following items:

- 3 different programmed frequency ranges
- PCB. The boards are similar. On the PCB, the values of some capacitors are different.

To find out the worst case channel, the radiated field strength and the spurious emissions have been tested. All other remaining tests have been performed on the worst case channel. The reason for this was, that there was no influence recognizable measurement of frequency error and channel bandwidth over each band.

Summarizing:

The complete measurement have been performed on the following 3 versions:

- Band I: 730.05MHz
- Band II: 775MHz
- Band III: 805.95MHz

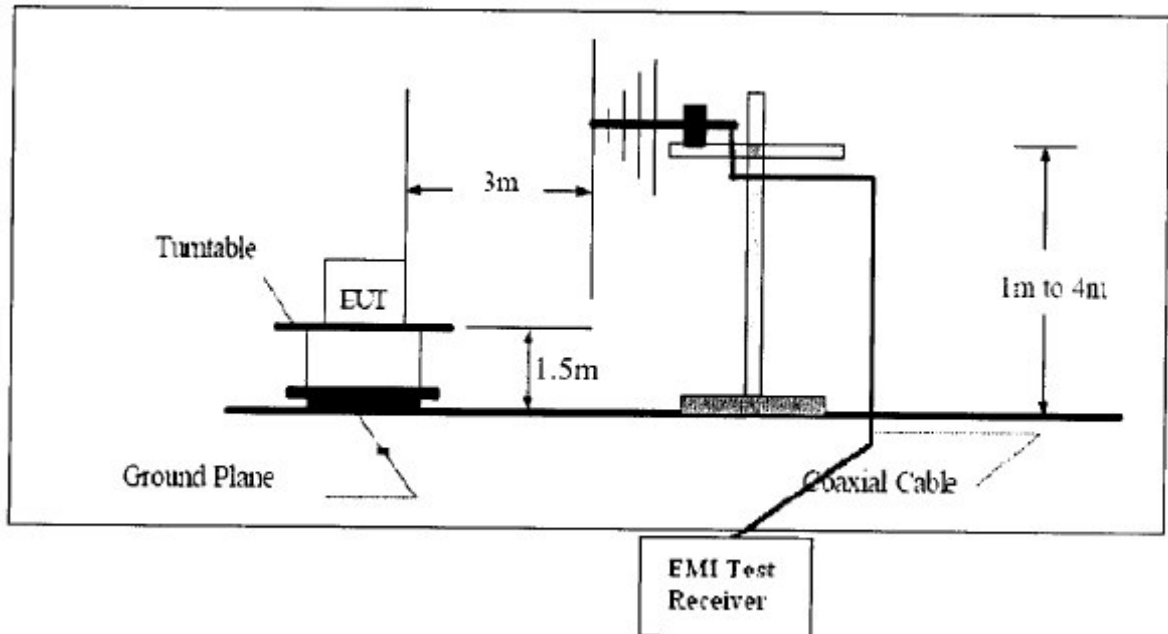
Test Equipment Used:

No.	Equipment	Manufacturer	Model No.	Last Cal.	Cal. Interval
SB3612	Audio generator	KENWOOD	AD-203D	Jun.20, 2006	1 Year
SB3436	EMI Test Receiver	Rohde & Schwarz	ESI26	Jan.26, 2006	1 Year
SB3440	Bilog Antenna	Chase	CBL6112B	Jan.26, 2006	1 Year
SB3435	Horn Antenna	Rohde & Schwarz	HF906	Jan.26, 2006	1 Year
SB3434	Horn Antenna	Rohde & Schwarz	HF906	Jan.26, 2006	1 Year
SB3435/01	Amplifier(1-18GHz)	Rohde & Schwarz	---	Jan.26, 2006	1 Year
SB3450/01	3m Semi-anechoic chamber	Albatross Projects	9X6X6	Jan 26,2006	1 Year
SB2541	RF Communication Tester	HP	8920A	May 23,2006	1 Year
SB3732	Tem Chamber	Qingsheng	THS-C7C±100	Sep 24,2006	1Year
SB2599	Spectrum Analyzer	Anritsu	MS2661C	Jan 26,2006	1 Year
SB2597/01	Dipole Antenna	Schwarzbeck	VHAP	Jan 30, 2005	3 Years
SB2597/02	Dipole Antenna	Schwarzbeck	UHAP	Jan 30, 2005	3 Years
SB3438	Signal generator	Rohde & Schwarz	SMR20	Jan 26, 2006	1 Year

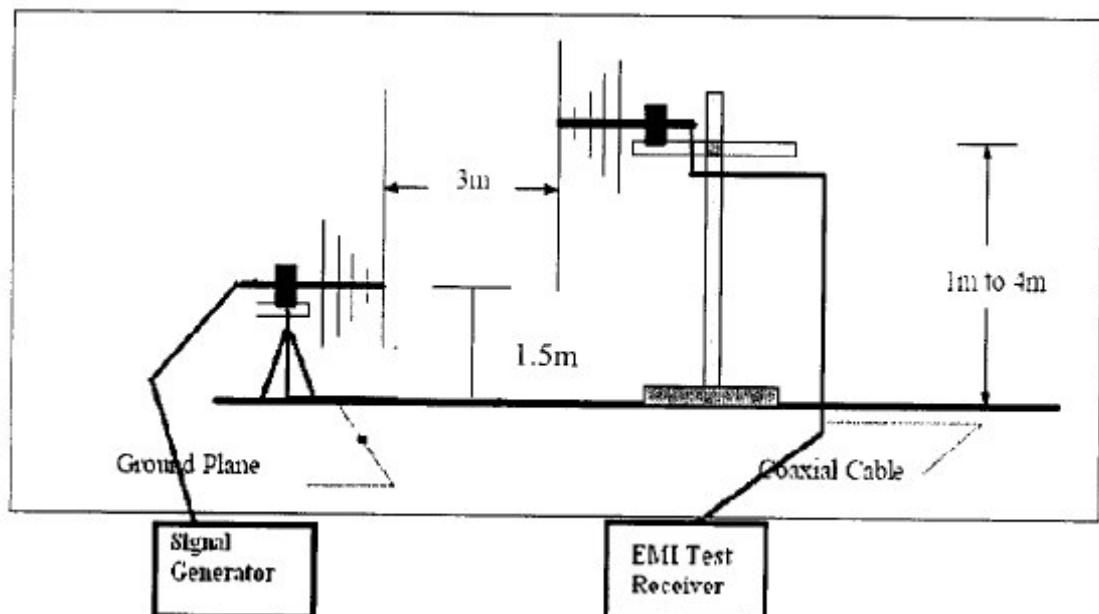
MAXIMUM TRANSMITTER POWER

TEST SETUP

Radiated test setup



Substitution Method test setup



TEST PROCEDURE

- 1) On a test site, the EUT shall be placed on a turntable, and in the XYZ three position.
- 2) The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.
- 3) The output of the antenna shall be connected to the EMI test receiver (R&S ESIB26).
The setup of test receiver:
Detector: Peak
RBW: 120KHz for 30-1000MHz
1MHz for above 1 GHz
VBW: 300kHz for 30-1000MHz
3MHz for above 3 GHz
- 4) The transmitter shall be switched on. If possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
- 5) The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.
- 6) The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- 7) The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.
- 8) The maximum signal level detected by the measuring receiver shall be noted.
- 9) The measurement shall be repeated with the test antenna set to horizontal polarization.
- 10) Replace the antenna with a proper antenna (substitution antenna).
- 11) The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.
- 12) The substitution antenna shall be connected to a calibrated signal generator.
- 13) If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- 14) The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
- 15) The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
- 16) The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
- 17) The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.

TEST Result:

Test specification	:	FCC Part 2 Per Section 2.1046(a)
Limits	:	FCC Part 74 Per Section 74.861(e)(1)
Deviations from Standard Test Procedures	:	None
Test Procedure	:	Procedure specified in TIA/EIA 603 were followed
Kind of test site	:	3m Semi-anechoic chamber
Operation mode	:	Transmitting (unmodulated)

Description of Measurement:

The final level is arrived by taking the reading from the EMI receiver (30MHz-1000MHz) or spectrum analyzer and adding the correction factors of the test setup incl. cables. This is done automatically in the test system, where the correction factors are stored.

Transmit Power (dBm) = Reading(SG)(dBm) + Antenna Gain(dBm) - Cable Loss(dB)

Note: Antenna Gain is for dipole antenna.

Transmit Power(dBm) = 10Log(Transmit Power(mW) / 1mW)

Test data

Test conditions	Fundamental Frequency					
	Bottom		Middle		Top	
	730.05		775		805.95	
	dBm	mW	dBm	mW	dBm	mW
Tnom (25 °C)	11.4	13.5	13.0	20.0	8.8	7.6
Limit	23.98	250	23.98	250	23.98	250

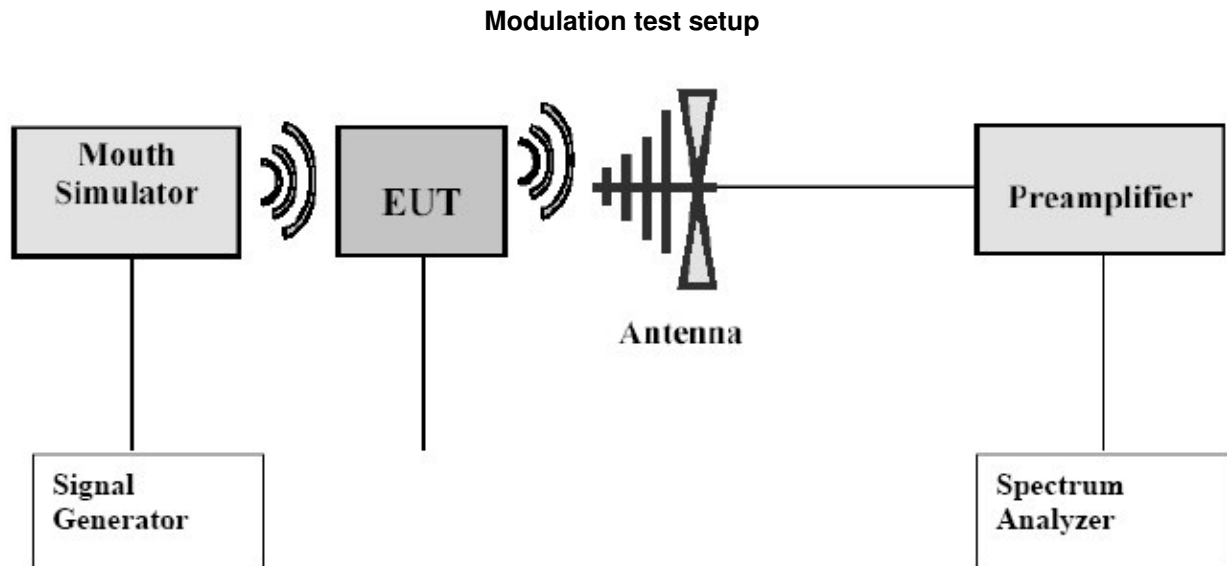
Remark: Test was performed with unmodulated signal;

Polarization of the measurement for the larger power level: Horizontal

Frequency (MHz)	Reading (SG) (dBmW)	Antenna Gain (dBm)	Cable Loss (dB)	Level (dBmW)	Polarity (V/H)	Limit (dBmW)
730.05	16.0	-0.1	4.5	11.4	H	23.98
775	18.4	-0.72	4.7	13.0	H	23.98
805.95	14.6	-0.96	4.8	8.8	H	23.98

MODULATION CHARACTERISTICS

TEST SETUP



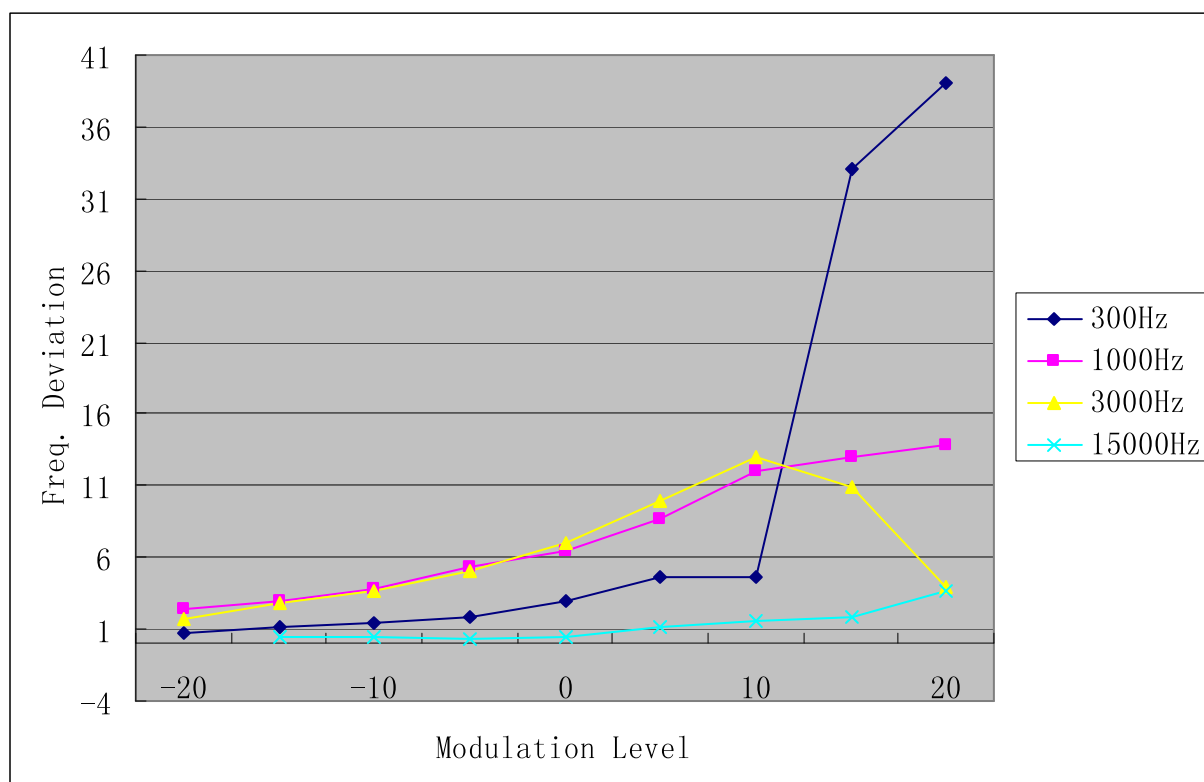
TEST Result:

Test specification	:	FCC Part 2 Per Section 2.1047(a)
Limits	:	FCC Part 74 Per Section 74.861(e)(3)
Deviations from Standard Test Procedures	:	None
Test Procedure	:	Procedure specified in TIA/EIA 603 were followed
Operation mode	:	Transmitting

Modulation Test Results

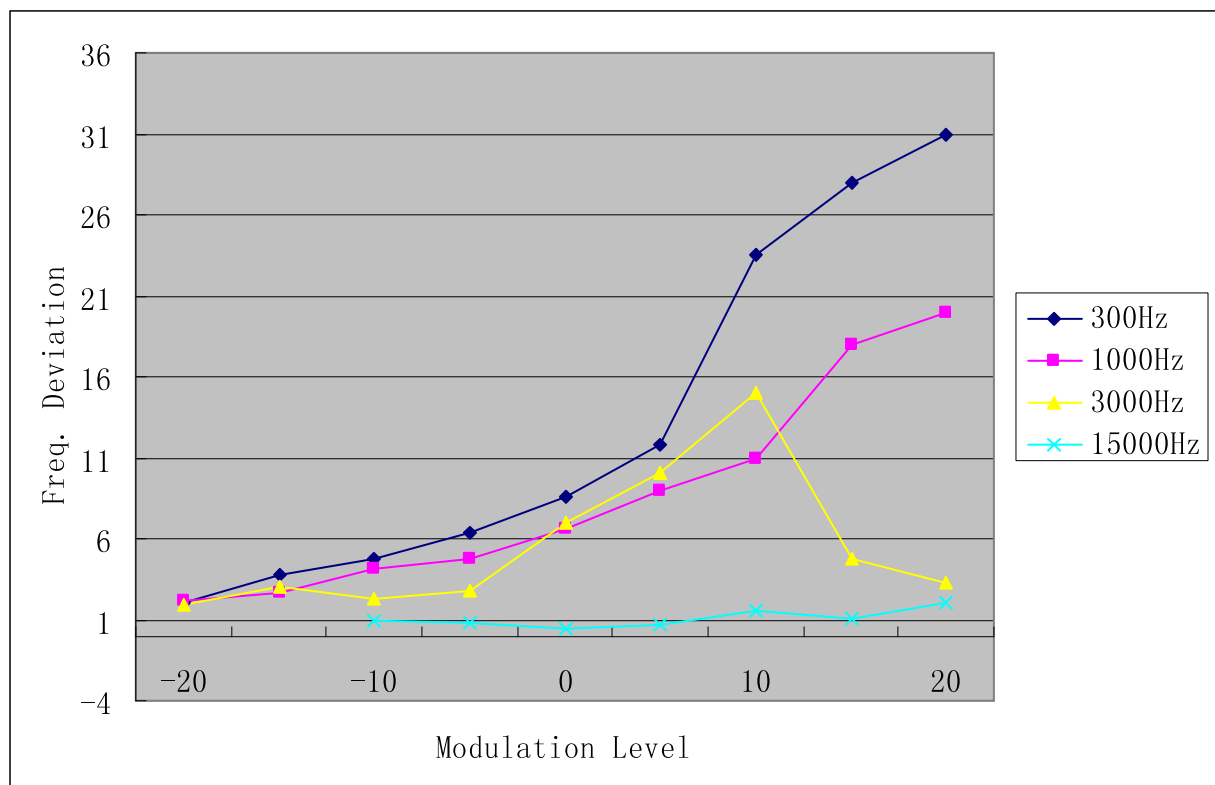
Test Mode: 730.05MHz

Modulation Level (dB)	Peak Freq Deviation At 300Hz	Peak Freq Deviation At 1000Hz	Peak Freq Deviation At 3000Hz	Peak Freq Deviation At 15000Hz
-20	0.8	2.4	1.7	--
-15	1.1	3.0	2.8	0.4
-10	1.4	3.8	3.7	0.4
-5	1.9	5.3	5.0	0.3
0	2.9	6.4	7.0	0.5
5	4.7	8.7	10.0	1.1
10	4.6	12.0	13.0	1.6
15	33.0	13.0	10.9	1.8
20	39.0	13.8	4.0	3.7



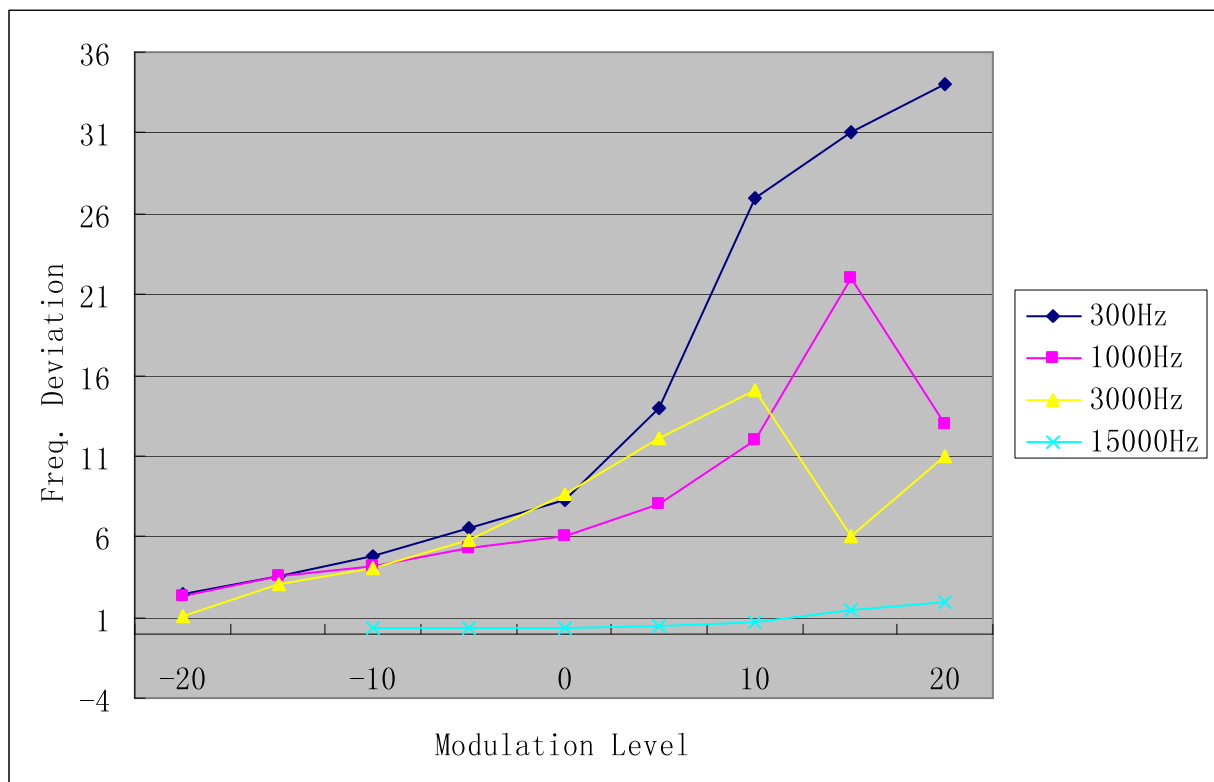
Test Mode:775MHz

Modulation Level (dB)	Peak Freq Deviation At 300Hz (kHz)	Peak Freq Deviation At 1000Hz (kHz)	Peak Freq Deviation At 3000Hz (kHz)	Peak Freq Deviation At 15000Hz (kHz)
-20	2.0	2.2	1.9	--
-15	3.8	2.7	3.0	--
-10	4.8	4.1	2.3	1
-5	6.4	4.8	2.8	0.8
0	8.6	6.6	7.0	0.5
5	11.8	9	10.1	0.7
10	23.5	11	15	1.5
15	28.0	18.0	4.8	1.1
20	31.0	20.0	3.3	2.1



Test Mode: 805.95MHz

Modulation Level (dB)	Peak Freq Deviation At 300Hz (kHz)	Peak Freq Deviation At 1000Hz (kHz)	Peak Freq Deviation At 3000Hz (kHz)	Peak Freq Deviation At 15000Hz (kHz)
-20	2.5	2.3	1.1	--
-15	3.6	3.5	3.1	--
-10	4.8	4.2	4.0	0.3
-5	6.5	5.3	5.8	0.3
0	8.3	6.0	8.6	0.3
5	14.0	8.0	12.1	0.5
10	27.0	12.0	15.1	0.7
15	31.0	22.0	6.0	1.4
20	34.0	13.0	11.0	2.0



Audio Frequency Response:

Modulation Test Results

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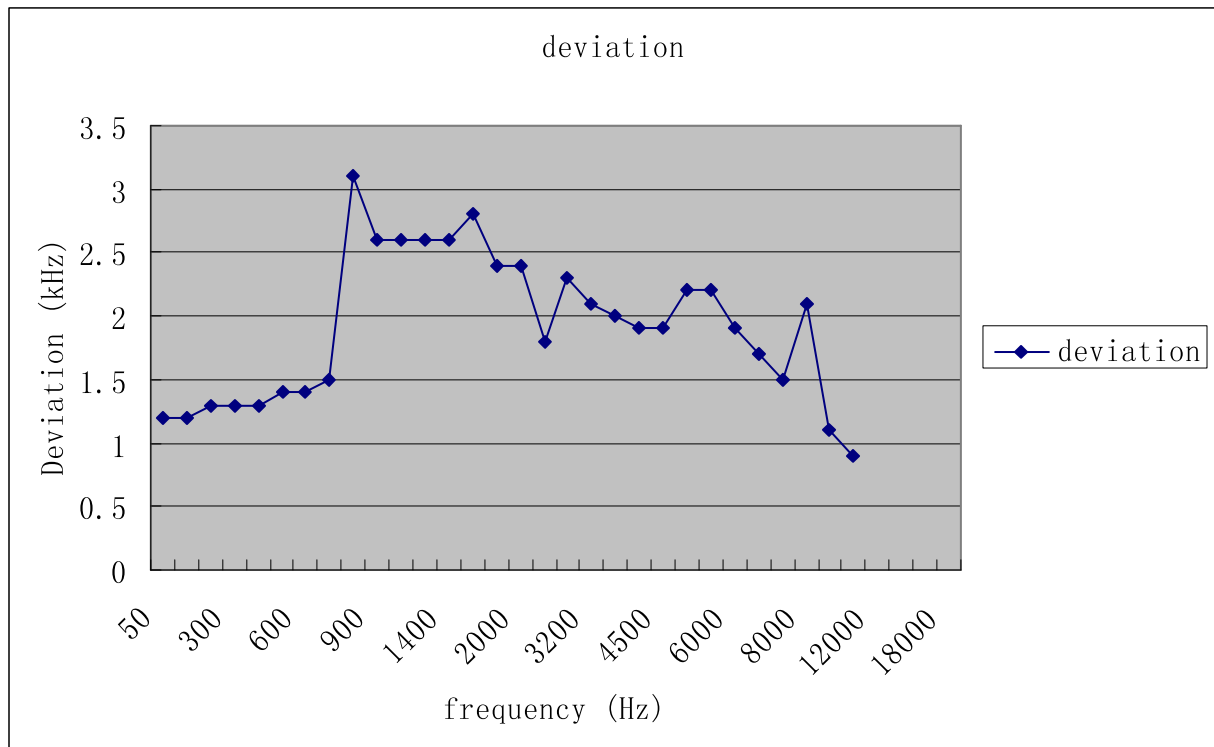
Rev.No 1.7

TÜV SÜD Group China Guangzhou Branch

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Test Mode: 730.05MHz

Frequency (Hz)	Deviation (KHz)
50	1.2
100	1.2
200	1.3
300	1.3
400	1.3
500	1.4
600	1.4
700	1.5
800	3.1
900	2.6
1000	2.6
1200	2.6
1400	2.6
1600	2.8
1800	2.4
2000	2.4
2400	1.8
2800	2.3
3200	2.1
3600	2.0
4000	1.9
4500	1.9
5000	2.2
5500	2.2
6000	1.9
6500	1.7
7000	1.5
8000	2.1
9000	1.1
10000	0.9
12000	--
14000	--
16000	--
18000	--



Modulation Test Results

Report Number: 64.830.6.346.01 – (E)

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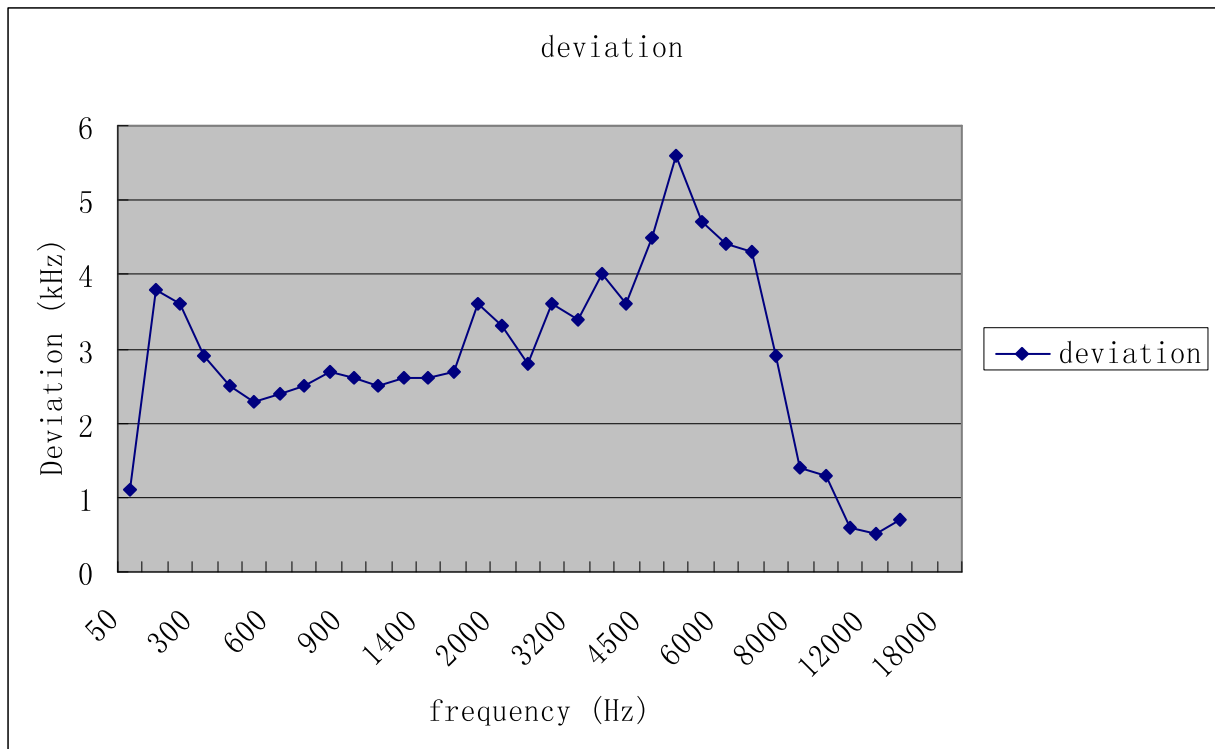
Rev.No 1.7

TÜV SÜD Group China Guangzhou Branch

26/F, Dongbao Tower, #767 Dongfeng Road East. (510600) Guangzhou, P.R.China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Test Mode: 775MHz

Frequency (Hz)	Deviation (KHz)
50	1.1
100	3.8
200	3.6
300	2.9
400	2.5
500	2.3
600	2.4
700	2.5
800	2.7
900	2.6
1000	2.5
1200	2.6
1400	2.6
1600	2.7
1800	3.6
2000	3.3
2400	2.8
2800	3.6
3200	3.4
3600	4.0
4000	3.6
4500	4.5
5000	5.6
5500	4.7
6000	4.4
6500	4.3
7000	2.9
8000	1.4
9000	1.3
10000	0.6
12000	0.5
14000	0.7
16000	--
18000	--



Modulation Test Results

Report Number: 64.830.6.346.01 – (E)

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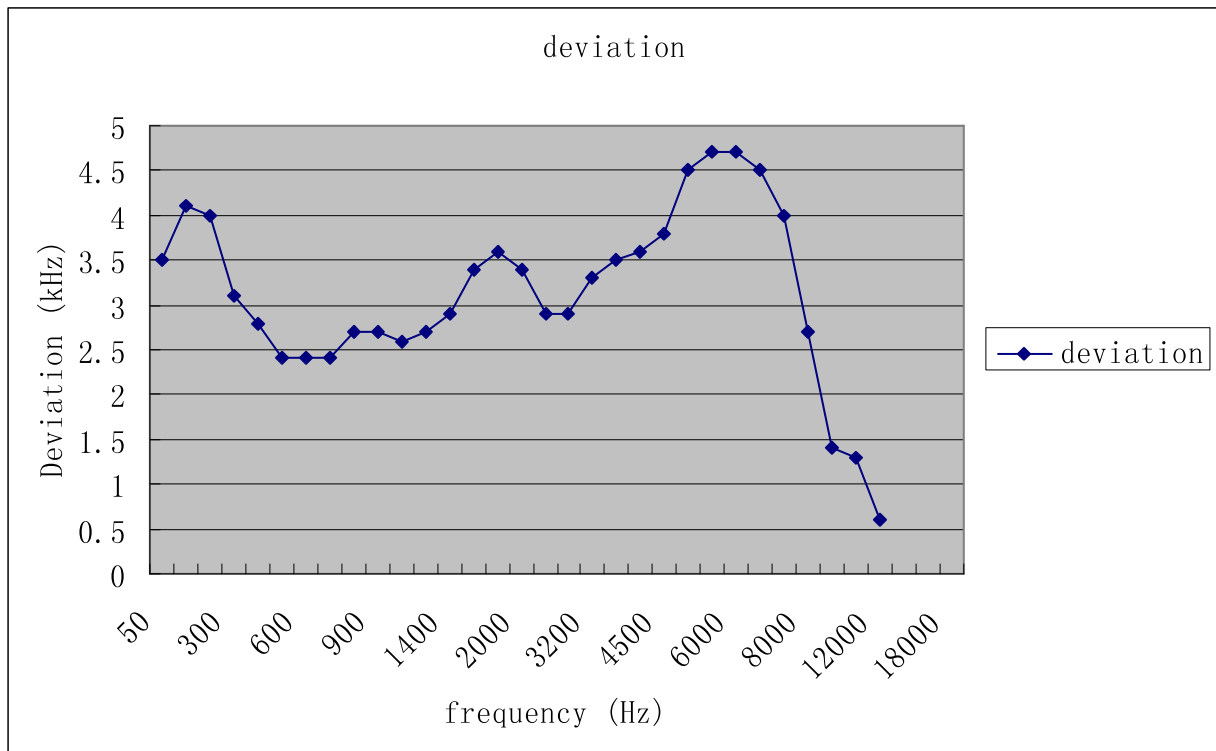
Rev.No 1.7

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26/F, Dongbao Tower, #767 Dongfeng Road East. (510600) Guangzhou, P.R.China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

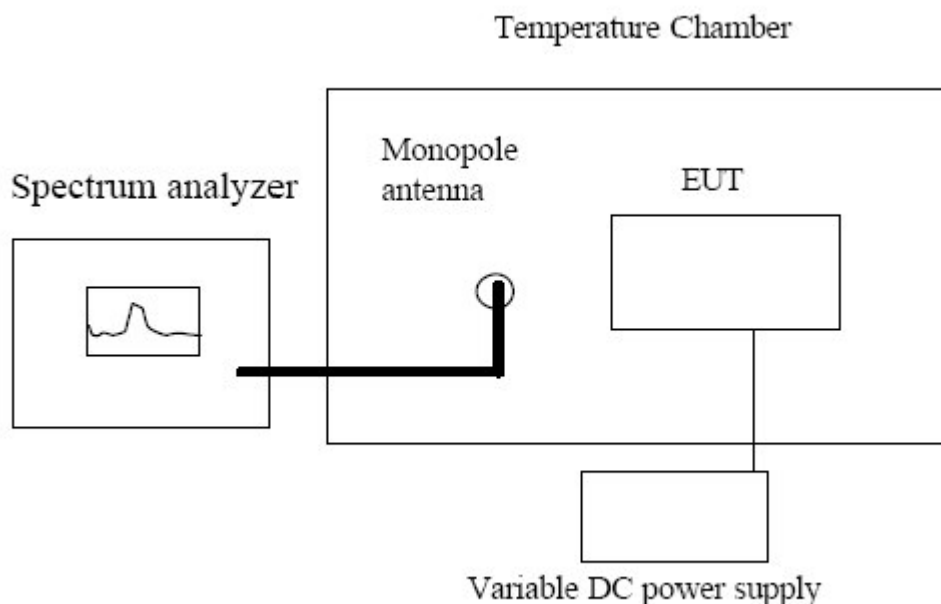
Test Mode: 805.95MHz

Frequency (Hz)	Deviation (KHz)
50	3.5
100	4.1
200	4.0
300	3.1
400	2.8
500	2.4
600	2.4
700	2.4
800	2.7
900	2.7
1000	2.6
1200	2.7
1400	2.9
1600	3.4
1800	3.6
2000	3.4
2400	2.9
2800	2.9
3200	3.3
3600	3.5
4000	3.6
4500	3.8
5000	4.5
5500	4.7
6000	4.7
6500	4.5
7000	4.0
8000	2.7
9000	1.4
10000	1.3
12000	0.6
14000	--
16000	--
18000	--



FREQUENCY TOLERANCE

TEST SETUP



TEST Result:

Test specification	:	FCC Part 2 Per Section 2.1055
Limits	:	FCC Part 74 Per Section 74.861(e)(4)
Deviations from Standard Test Procedures	:	None
Test Procedure	:	Procedure specified in TIA/EIA 603 were followed
Operation mode	:	Transmitting (unmodulated)
Temperature	:	-30°C to 50°C

a. Frequency stability versus input voltage (battery operation end point voltage is 3.0V)

Frequency Tolerance Test Results

Channel	Reference Frequency (MHz)	Frequency measured (MHz)	Frequency Error (%)	Limit
Low	730.05	730.047	-0.00041	0.005%
mid	775	775.004	0.00052	0.005%
high	805.95	805.952	0.00025	0.005%

b. Frequency stability versus ambient temperature

Frequency Tolerance Test Results

730.05MHz			
Temperature (°C)	Power Supply	Frequency deviation measured with time Elapse (30 minutes)	
		MHz	%
50	New Battery	730.0551	0.00070
40	New Battery	730.0534	0.00047
30	New Battery	730.0528	0.00038
20	New Battery	730.0526	0.00036
10	New Battery	730.0520	0.00027
0	New Battery	730.0511	0.00015
-10	New Battery	730.0520	0.00027
-20	New Battery	730.0511	0.00015
-30	New Battery	730.0520	0.00027

Frequency Tolerance Test Results

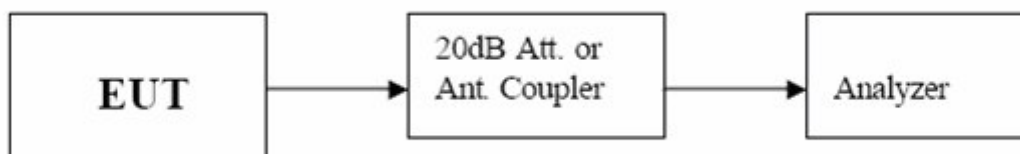
775MHz			
Temperature (°C)	Power Supply	Frequency deviation measured with time Elapse (30 minutes)	
		MHz	%
50	New Battery	775.0048	0.00062
40	New Battery	775.0050	0.00065
30	New Battery	775.0052	0.00067
20	New Battery	775.0047	0.00061
10	New Battery	775.0047	0.00061
0	New Battery	775.0041	0.00053
-10	New Battery	775.0040	0.00052
-20	New Battery	775.0031	0.00040
-30	New Battery	775.0058	0.00075

Frequency Tolerance Test Results

805.95MHz			
Temperature (°C)	Power Supply	Frequency deviation measured with time Elapse (30 minutes)	
		MHz	%
50	New Battery	805.9559	0.00073
40	New Battery	805.9552	0.00065
30	New Battery	805.9546	0.00057
20	New Battery	805.9548	0.00060
10	New Battery	805.9540	0.00050
0	New Battery	805.9536	0.00045
-10	New Battery	805.9520	0.00025
-20	New Battery	805.9536	0.00045
-30	New Battery	805.9543	0.00053

EMISSION BANDWIDTH

TEST SETUP



TEST Result:

Test specification	:	FCC Part 2 Per Section 2.1049(C)1
Limits	:	FCC Part 74 Per Section 74.861(e)(3), 74.861(e)(5) and 74.861(e)(6)
Deviations from Standard Test Procedures	:	None
Test Procedure	:	Procedure specified in TIA/EIA 603 were followed
Operation mode	:	Transmitting (modulated)

Maximum deviation

Reading	39kHz
Limit	±75kHz

Operation bandwidth (Bn)

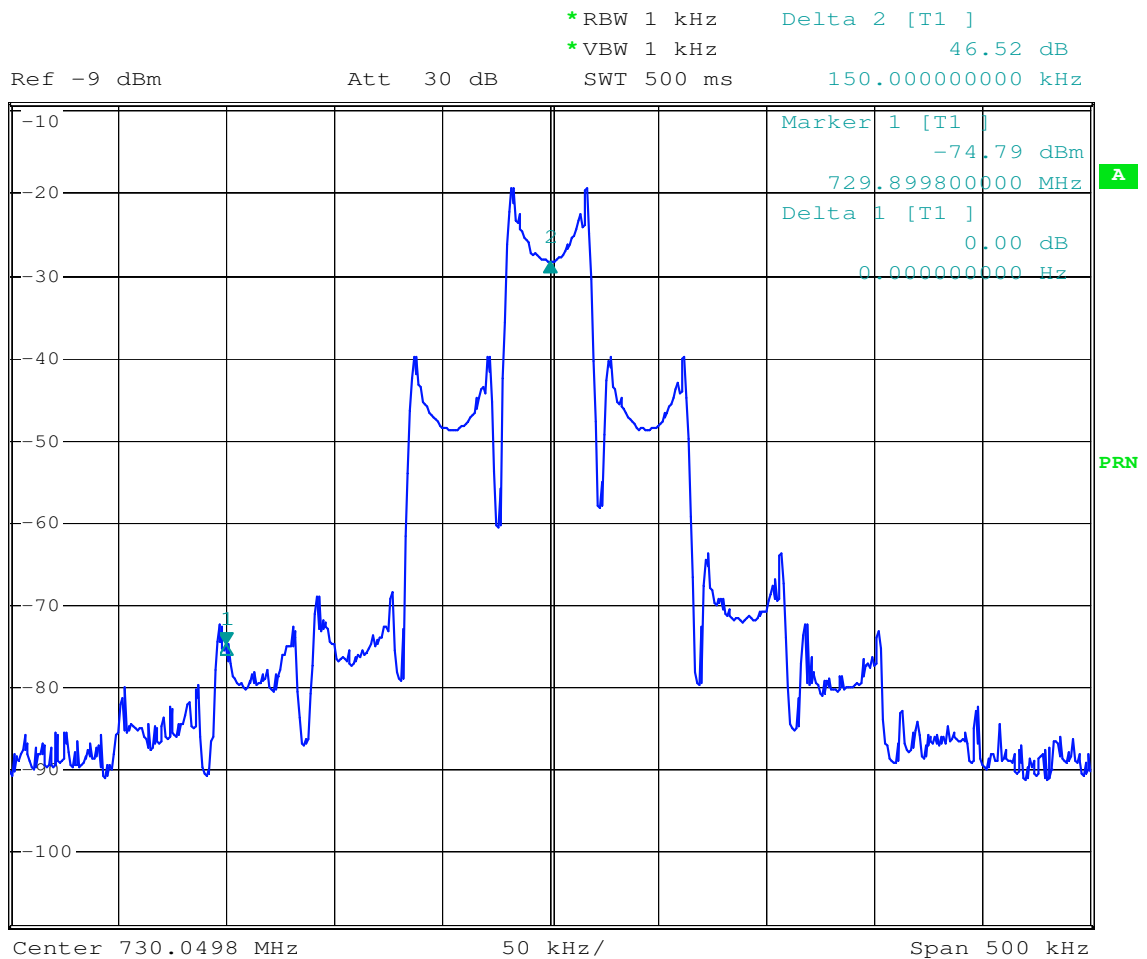
Parameter:	M	D
Reading	15KHz	39kHz
Bn:	96kHz	
Limit:	200kHz	
Emission designator:	108KF3E	
Bn=2M+2D*K Bn: operation bandwidth M: Max. Modulation Frequency D: Peak Frequency Deviation K=1		

Refer to attached data chart.

Without modulation:

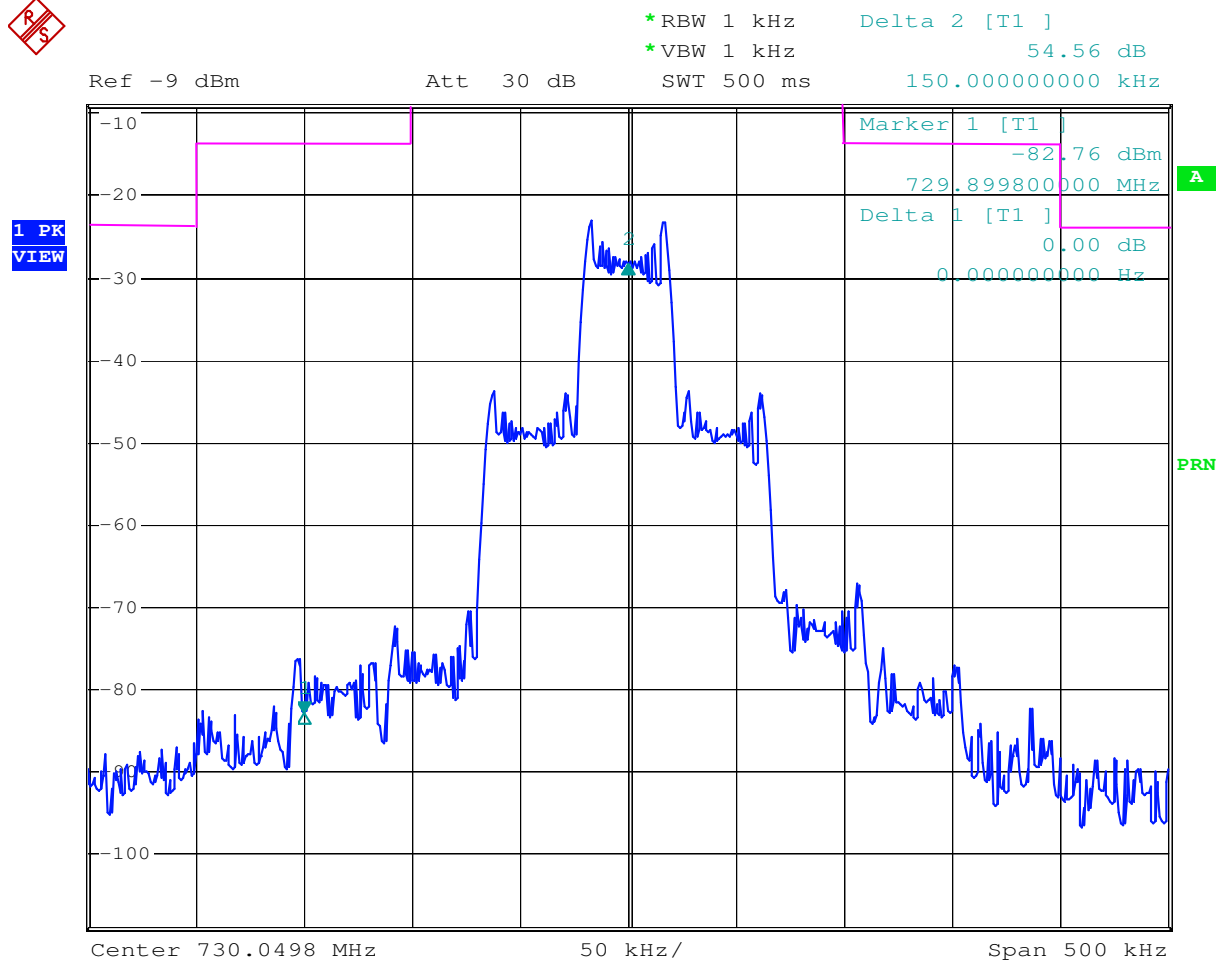


1 PK
VIEW



Comment: Conducted Disturbance
Date: 20.SEP.2006 16:46:40

300Hz Modulation:



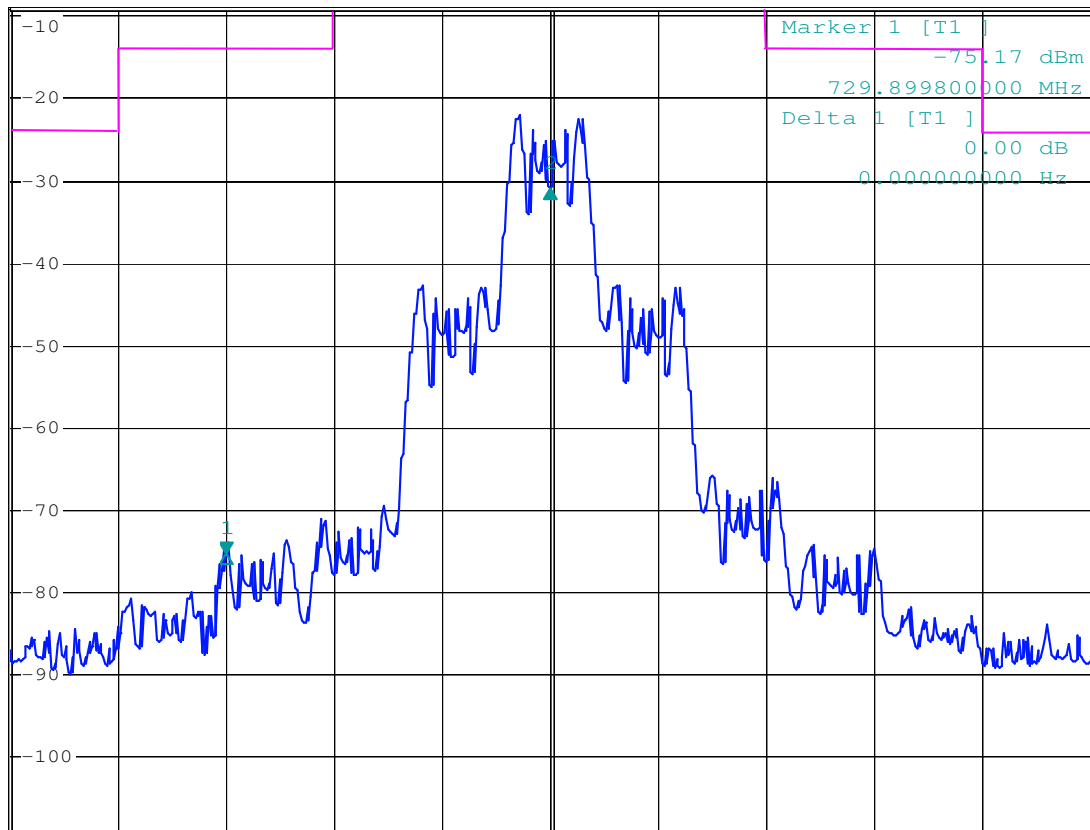
Comment: Conducted Disturbance
Date: 20.SEP.2006 16:45:11

365Hz Modulation:



*RBW 1 kHz Delta 2 [T1]
 *VBW 1 kHz 44.35 dB
 Ref -9 dBm Att 30 dB SWT 500 ms 150.000000000 kHz

1 PK
 MAXH



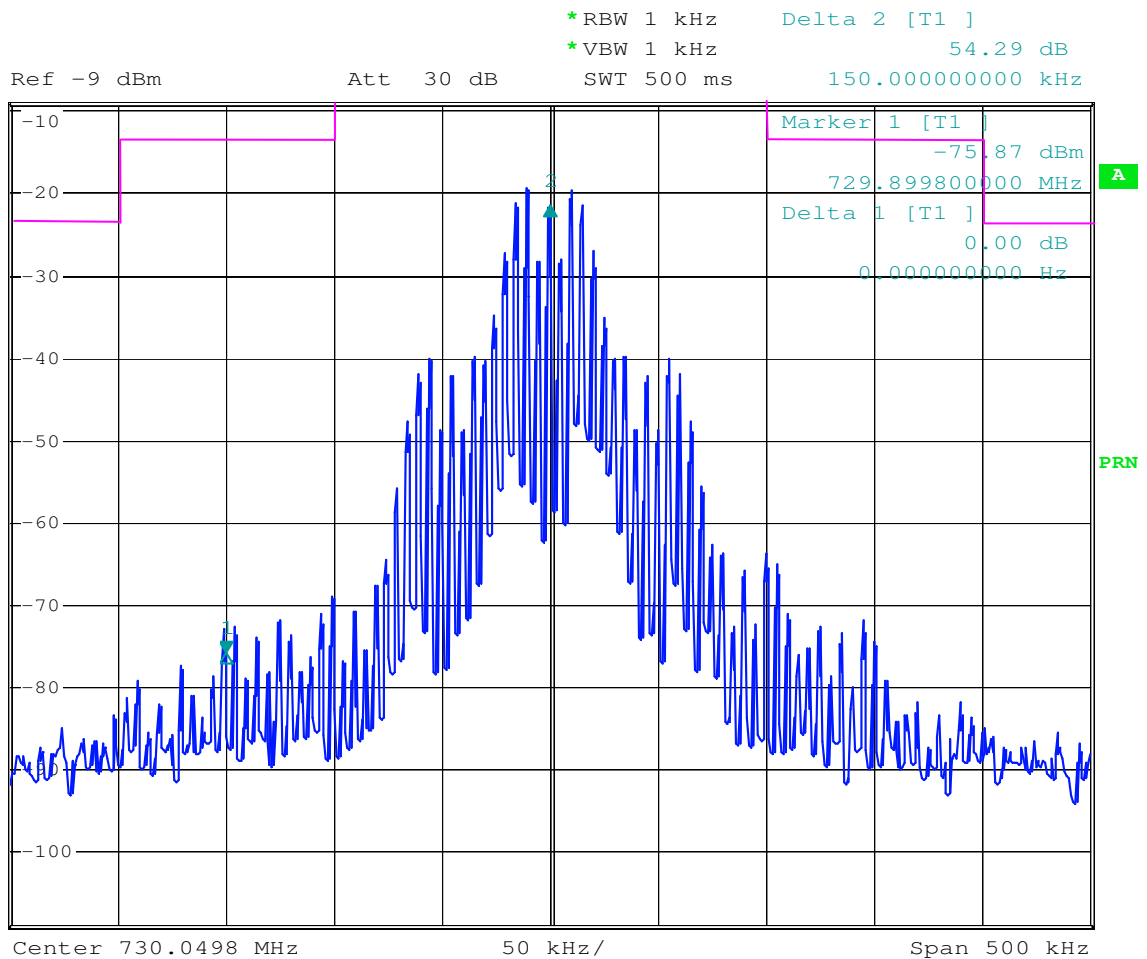
Center 730.0498 MHz 50 kHz/ Span 500 kHz

Comment: Conducted Disturbance
 Date: 20.SEP.2006 16:47:56

1kHz Modulation:



1 PK
VIEW

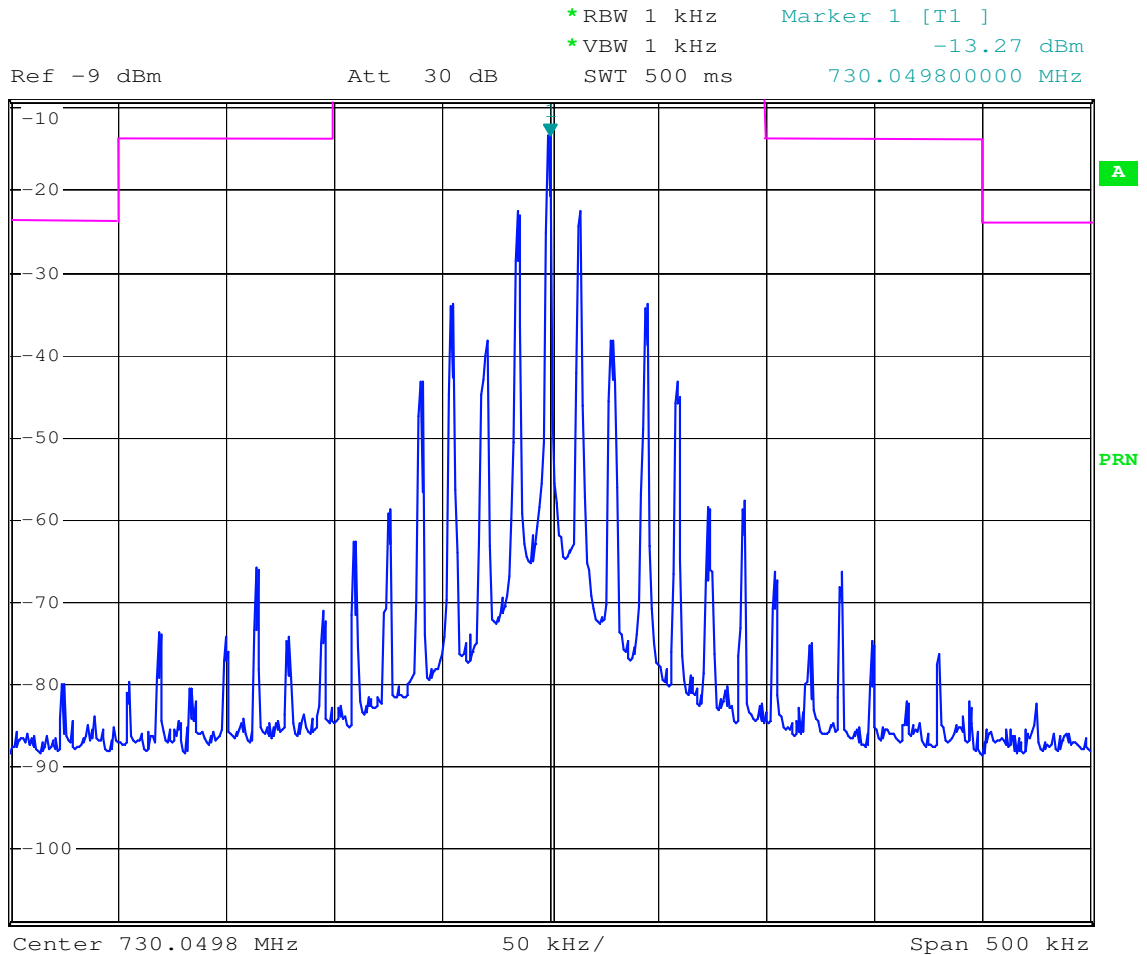


Comment: Conducted Disturbance
Date: 20.SEP.2006 16:47:15

15kHz Modulation:



1 PK
MAXH



Comment: Conducted Disturbance
Date: 20.SEP.2006 16:49:20

Without modulation:



*RBW 1 kHz

Marker 1 [T1]

*VBW 1 kHz

-89.01 dBm

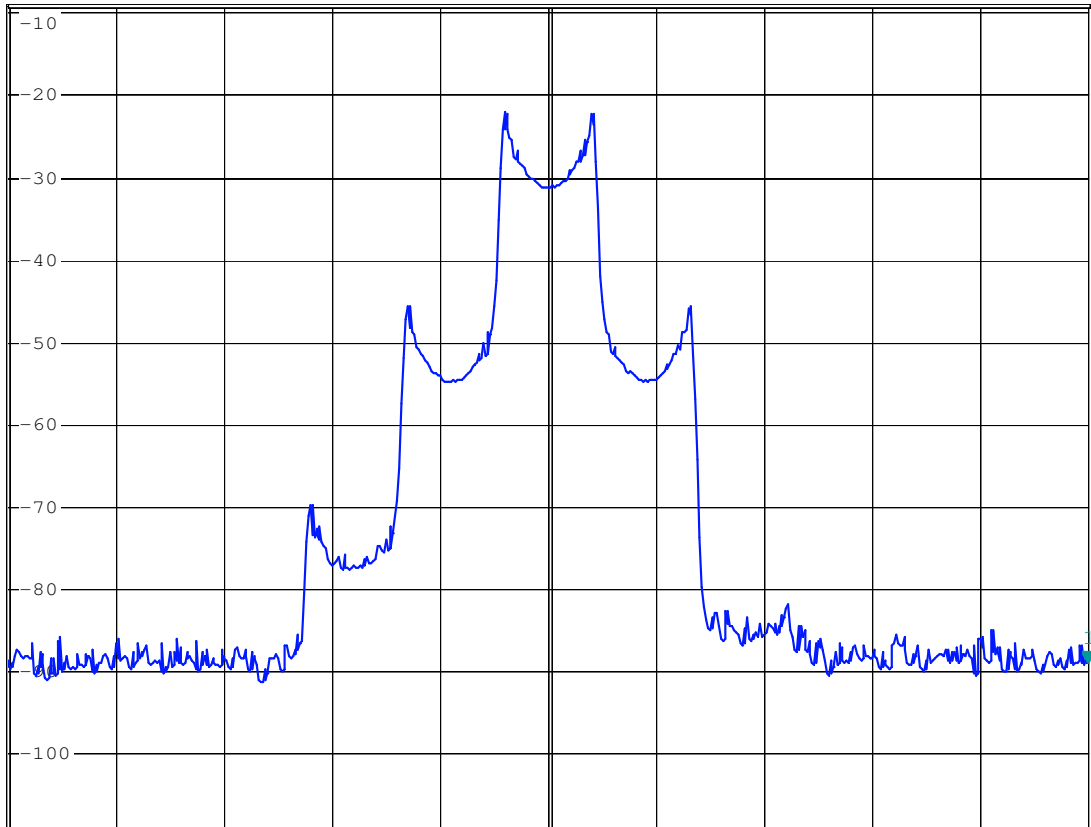
SWT 500 ms

775.25000000 MHz

Ref -9 dBm

Att 30 dB

1 PK
VIEW



Center 775 MHz

50 kHz/

Span 500 kHz

Comment: Conducted Disturbance

Date: 20.SEP.2006 16:55:26

300Hz Modulation:



*RBW 1 kHz

Marker 1 [T1]

*VBW 1 kHz

-88.83 dBm

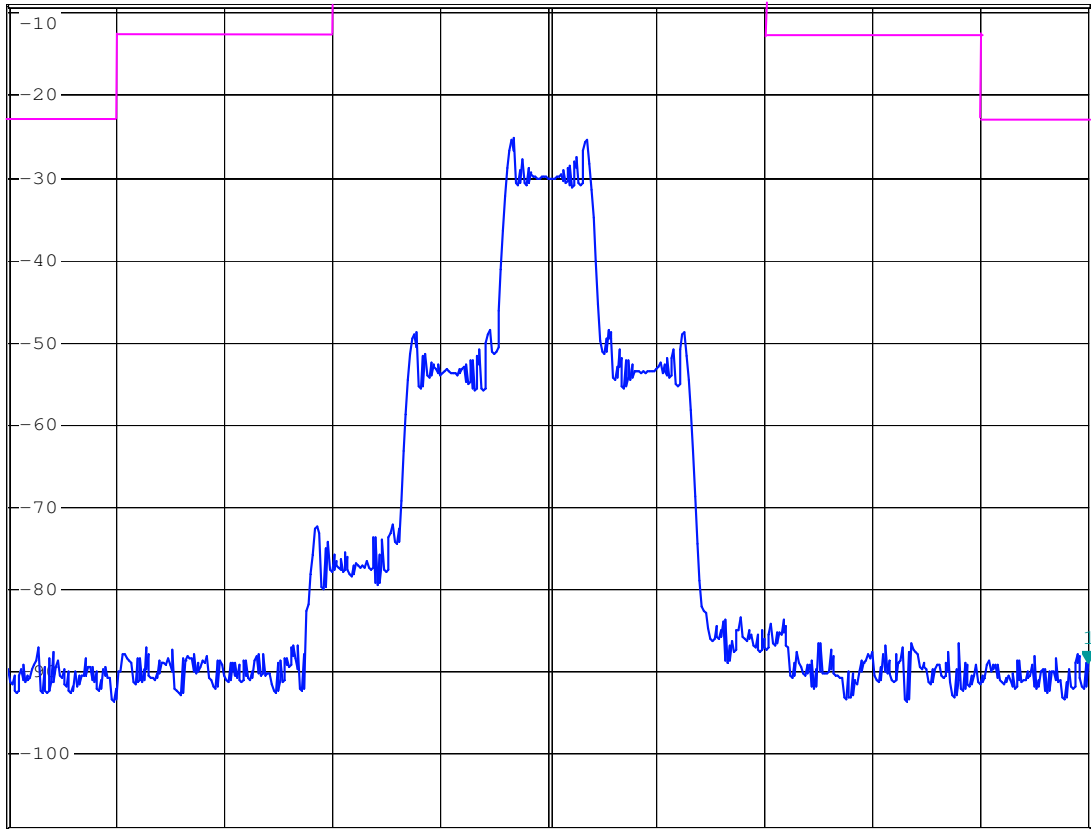
SWT 500 ms

775.25000000 MHz

Ref -9 dBm

Att 30 dB

1 PK
VIEW



Center 775 MHz

50 kHz/

Span 500 kHz

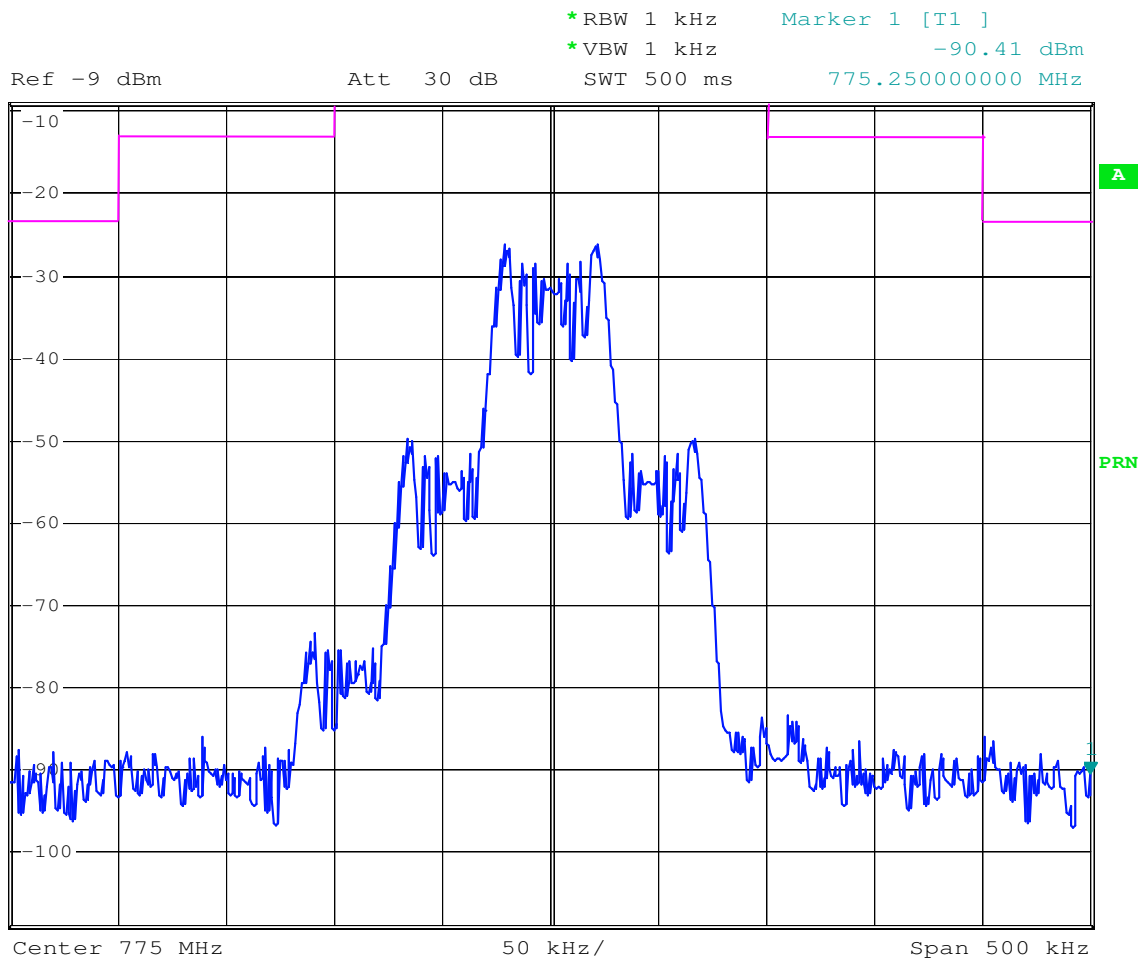
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Date: 20.SEP.2006 16:55:46

365Hz Modulation:



1 PK
VIEW



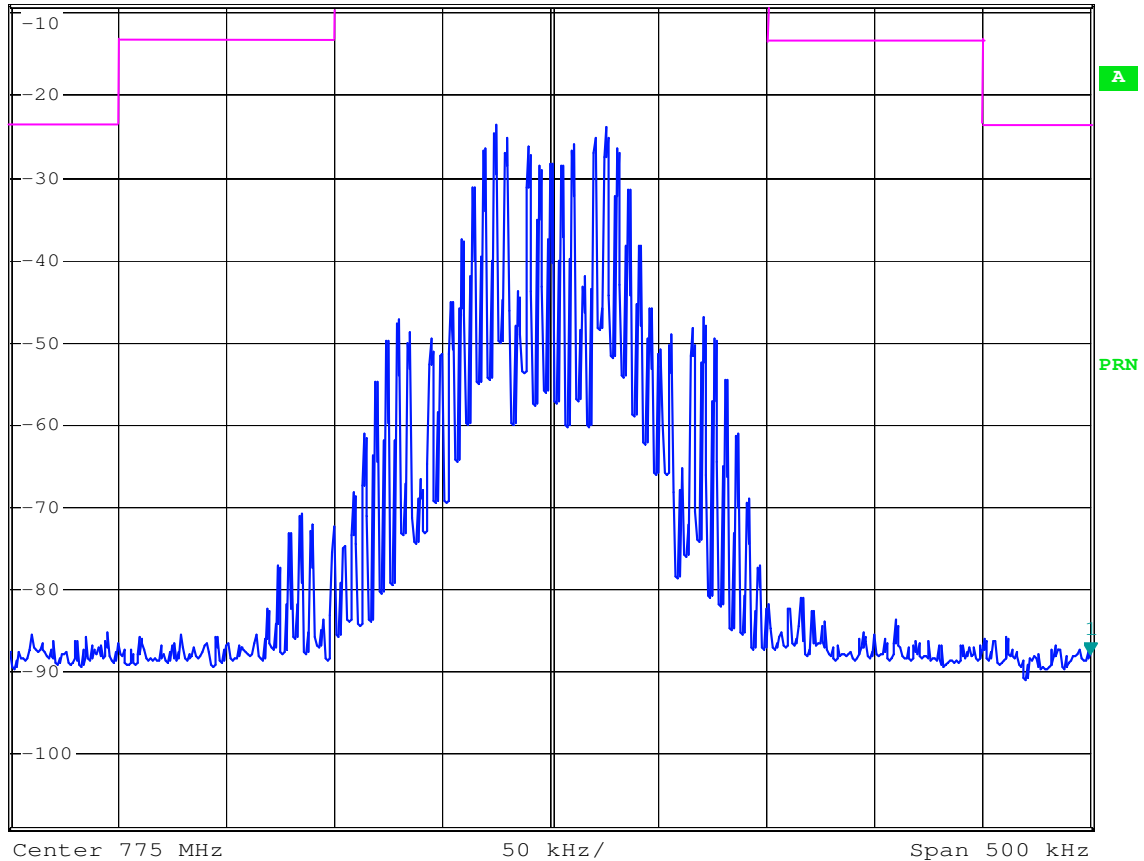
Comment: Conducted Disturbance
Date: 20.SEP.2006 16:56:29

1kHz Modulation:



Ref -9 dBm Att 30 dB *RBW 1 kHz Marker 1 [T1]
*VBW 1 kHz -87.81 dBm
SWT 500 ms 775.25000000 MHz

1 PK
VIEW

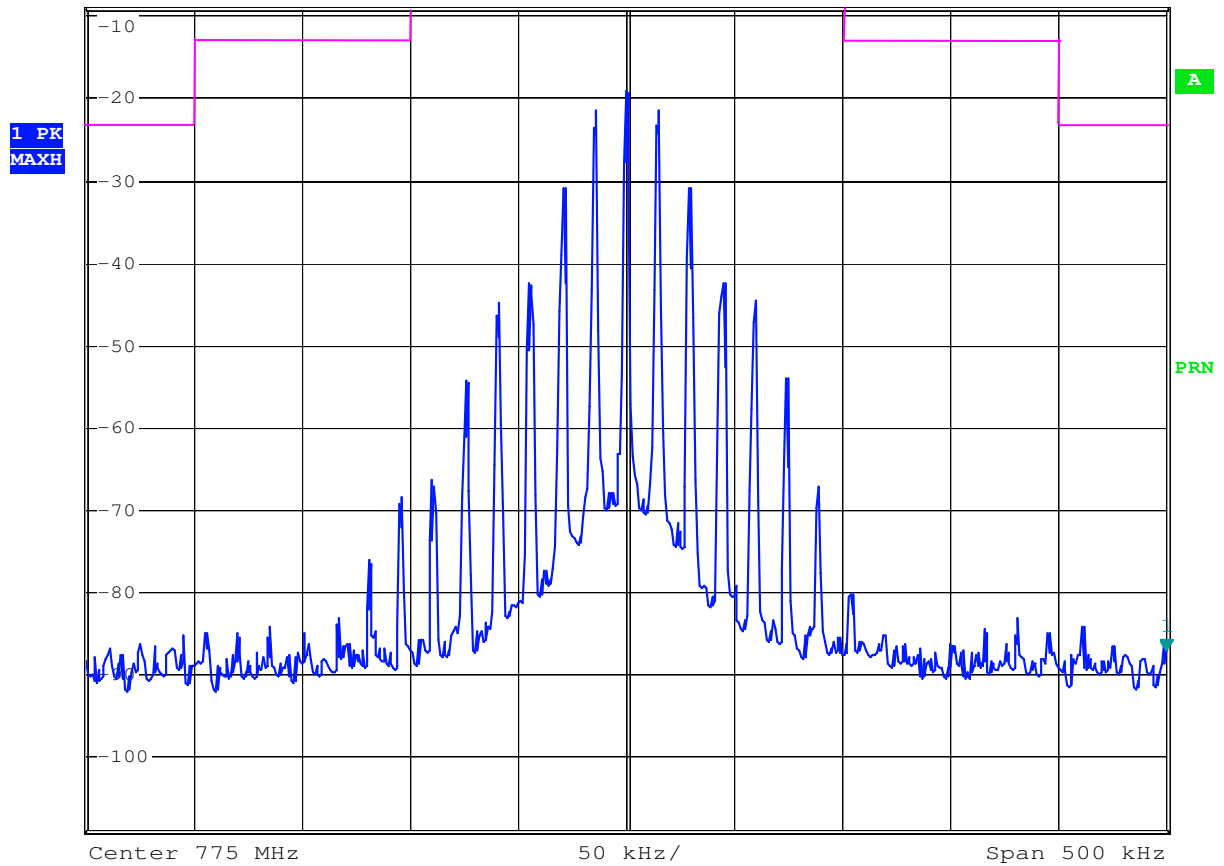


Comment: Conducted Disturbance
Date: 20.SEP.2006 16:57:20

15kHz Modulation:



Ref -9 dBm Att 30 dB *RBW 1 kHz Marker 1 [T1]
*VBW 1 kHz -87.17 dBm
SWT 500 ms 775.25000000 MHz

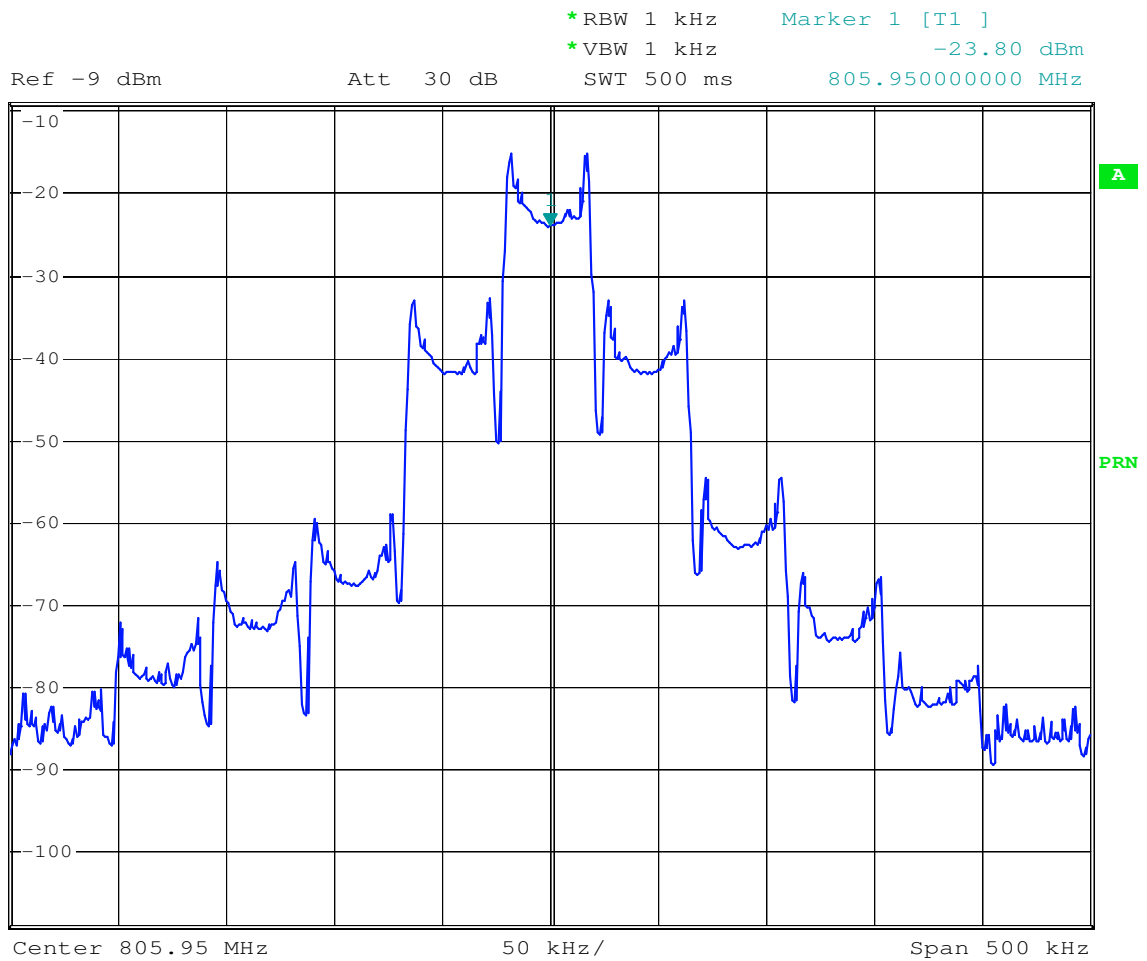


Comment: Conducted Disturbance
Date: 20.SEP.2006 16:58:29

Without modulation:



1 PK
VIEW

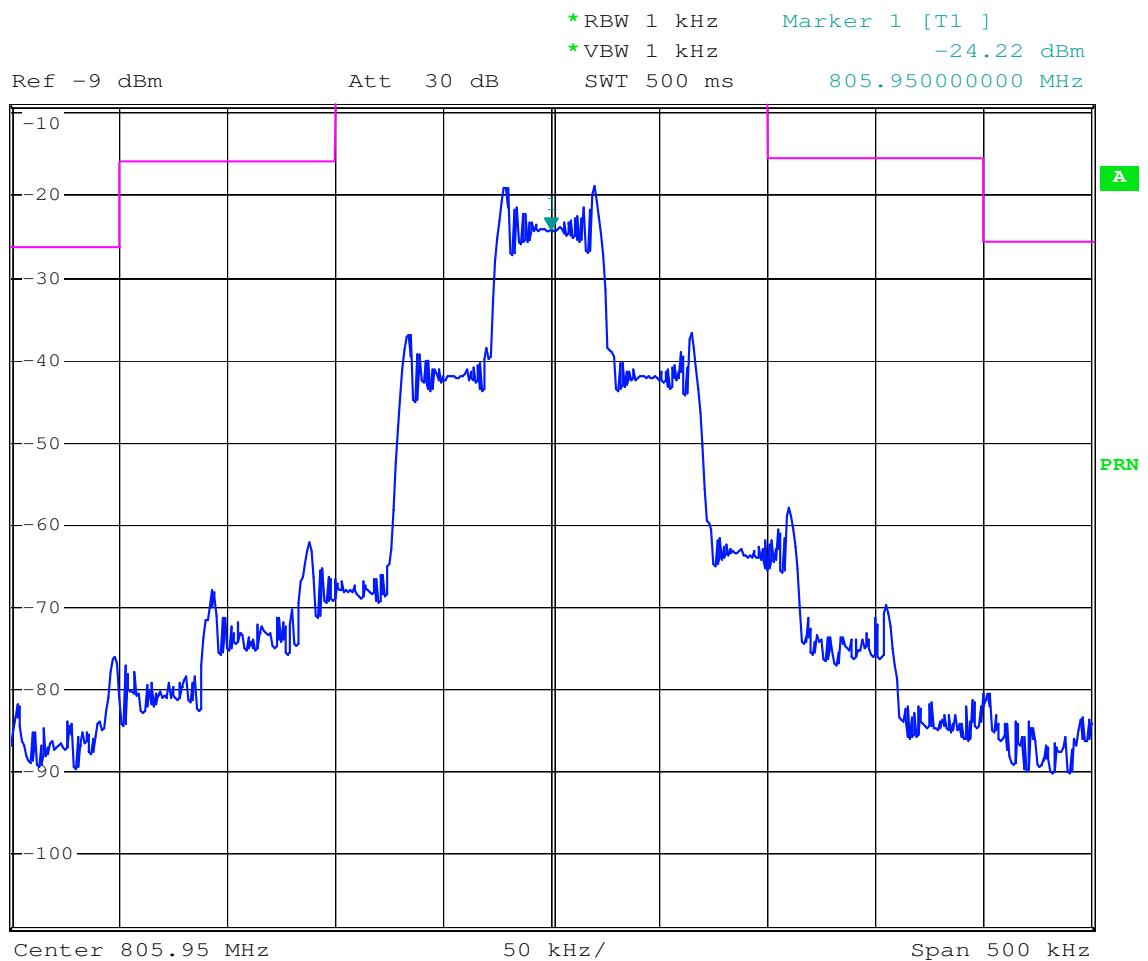


Comment: Conducted Disturbance
Date: 20.SEP.2006 16:51:04

300Hz Modulation:



1 PK
VIEW

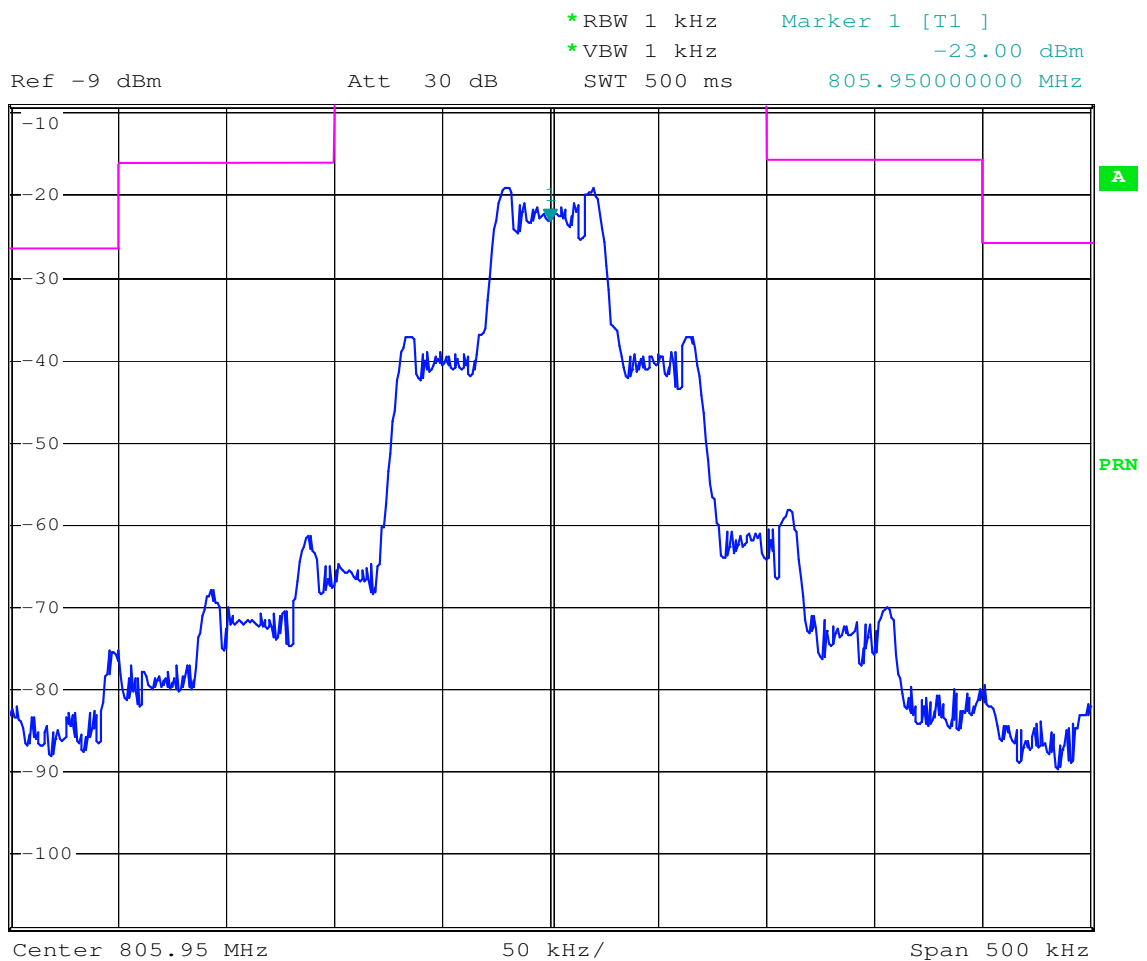


Comment: Conducted Disturbance
Date: 20.SEP.2006 16:51:57

365Hz Modulation:



1 PK
VIEW

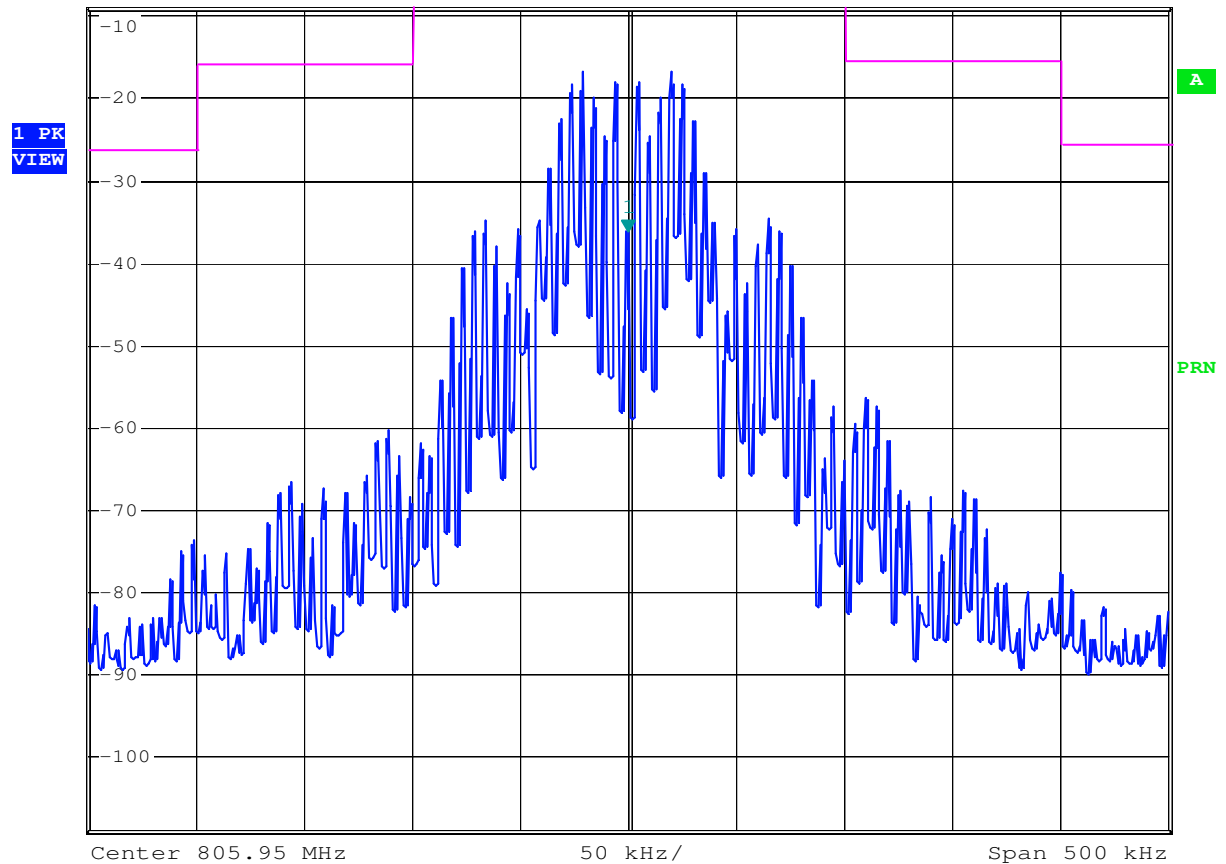


Comment: Conducted Disturbance
 Date: 20.SEP.2006 16:52:25

1kHz Modulation:



*RBW 1 kHz Marker 1 [T1]
*VBW 1 kHz -36.04 dBm
SWT 500 ms 805.95000000 MHz

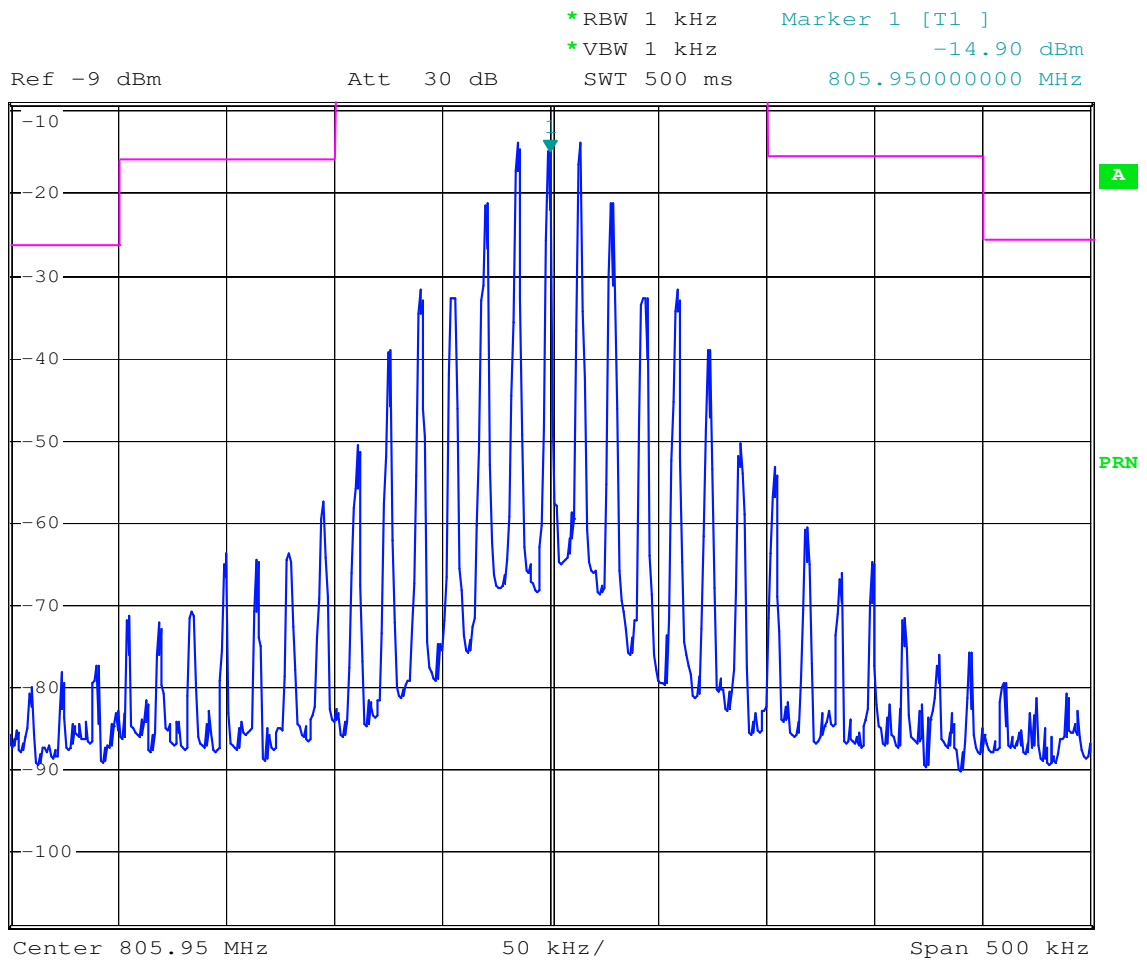


Comment: Conducted Disturbance
Date: 20.SEP.2006 16:52:52

15kHz Modulation:



1 PK
VIEW

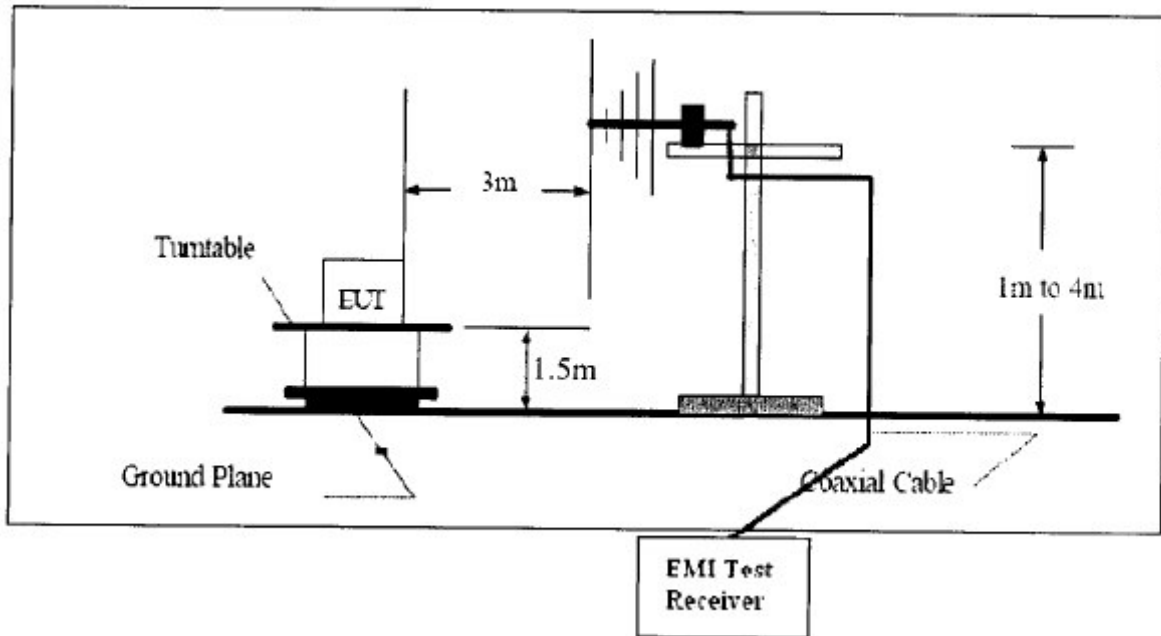


Comment: Conducted Disturbance
Date: 20.SEP.2006 16:54:01

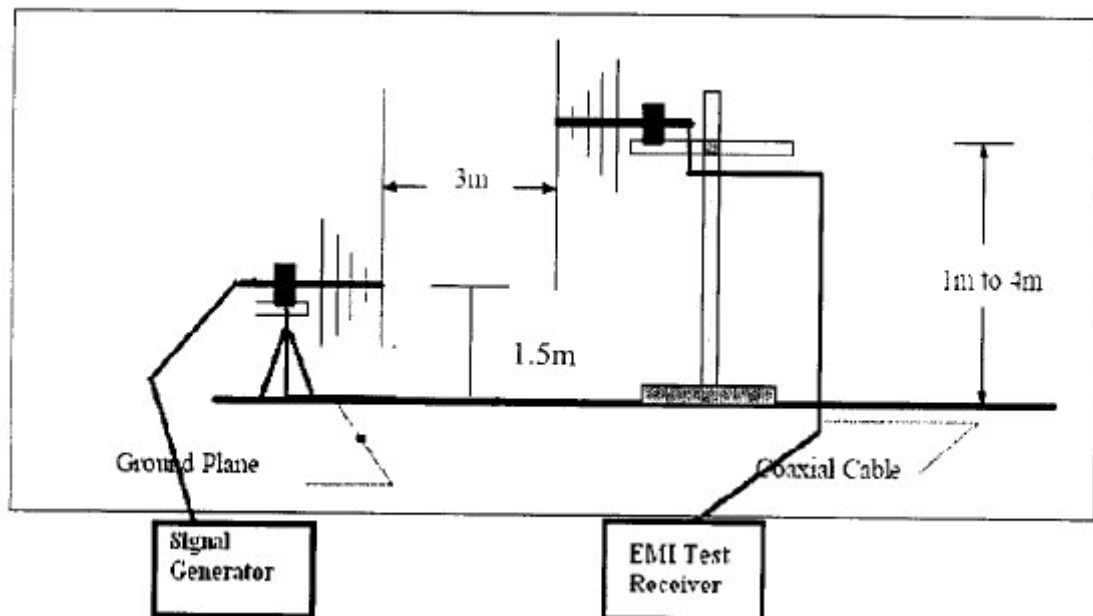
FIELD STRENGTH OF SPURIOUS RADIATION

TEST SETUP

Radiated test setup



Substitution Method test setup



TEST PROCEDURE

- 18) On a test site, the EUT shall be placed on a turntable, and in the XYZ three position.
- 19) The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.
- 20) The output of the antenna shall be connected to the EMI test receiver (R&S ESIB26).
The setup of test receiver:
Detector: Peak
RBW: 120KHz for 30-1000MHz
1MHz for above 1 GHz
VBW: 300kHz for 30-1000MHz
3MHz for above 3 GHz
- 21) The transmitter shall be switched on. If possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
- 22) The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.
- 23) The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- 24) The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.
- 25) The maximum signal level detected by the measuring receiver shall be noted.
- 26) The measurement shall be repeated with the test antenna set to horizontal polarization.
- 27) Replace the antenna with a proper antenna (substitution antenna).
- 28) The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.
- 29) The substitution antenna shall be connected to a calibrated signal generator.
- 30) If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- 31) The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
- 32) The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
- 33) The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
- 34) The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.

TEST Result:

Test specification	:	FCC Part 2 Per Section 2.1053(a) and 2.1057
Limits	:	FCC Part 74 Per Section 74.861(e)(6)(iii)
Deviations from Standard Test Procedures	:	None
Test Procedure	:	Procedure specified in TIA/EIA 603 were followed
Kind of test site	:	3m Semi-anechoic chamber
Operation mode	:	Transmitting (modulated)

To determine the Limit for Spurious Emissions the following method was used:

Maximum output power in Watt: **0.02W**

The emission must be reduced by:

$$43+10*\text{Log}(0.02)=\mathbf{26.0dB}$$

Therefore, the Limit would equals:

$$10*\text{Log}(20\text{mW})-26.0\text{dB}=\mathbf{-13\text{dBmW (Spurious emission limit)}}$$

Description of Measurement:

The final level is arrived by taking the reading from the EMI receiver (30MHz-1000MHz) or spectrum analyzer and adding the correction factors of the test setup incl. cables. This is done automatically in the test system, where the correction factors are stored.

Transmit Power (dBm) = Reading(SG)(dBm) + Antenna Gain(dBm) - Cable Loss(dB)

Transmit Power(dBm) = 10Log(Transmit Power(mW) / 1mW)

Spurious Emission: 730.05MHz

Frequency (MHz)	Reading (SG) (dBmW)	Antenna Gain (dBm)	Cable Loss (dB)	Level (dBmW)	Polarity (V/H)	Limit (dBmW)
1490.000	-34.3	6.55	3.3	-31.1	H	-13
1490.000	-33.8	6.55	3.3	-30.6	V	-13

Disturbances other than those mentioned are small or not detectable.

Spurious Emission: 775MHz

Frequency (MHz)	Reading (SG) (dBmW)	Antenna Gain (dBm)	Cable Loss (dB)	Level (dBmW)	Polarity (V/H)	Limit (dBmW)
1550.000	-44.6	7.05	3.5	-41.1	V	-13
1550.000	-33.1	7.05	3.5	-29.6	H	-13

Disturbances other than those mentioned are small or not detectable.

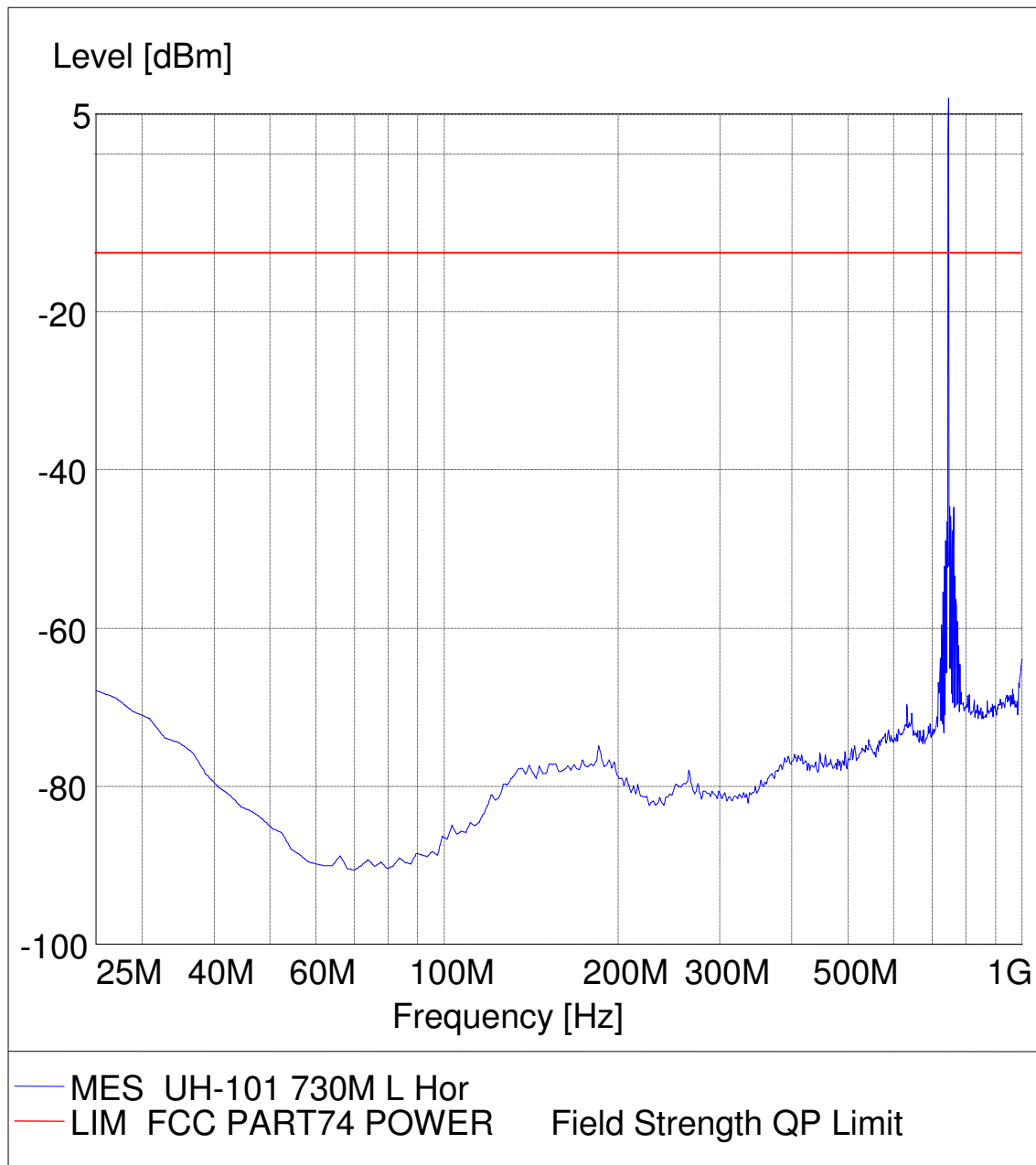
Spurious Emission: 805.95MHz

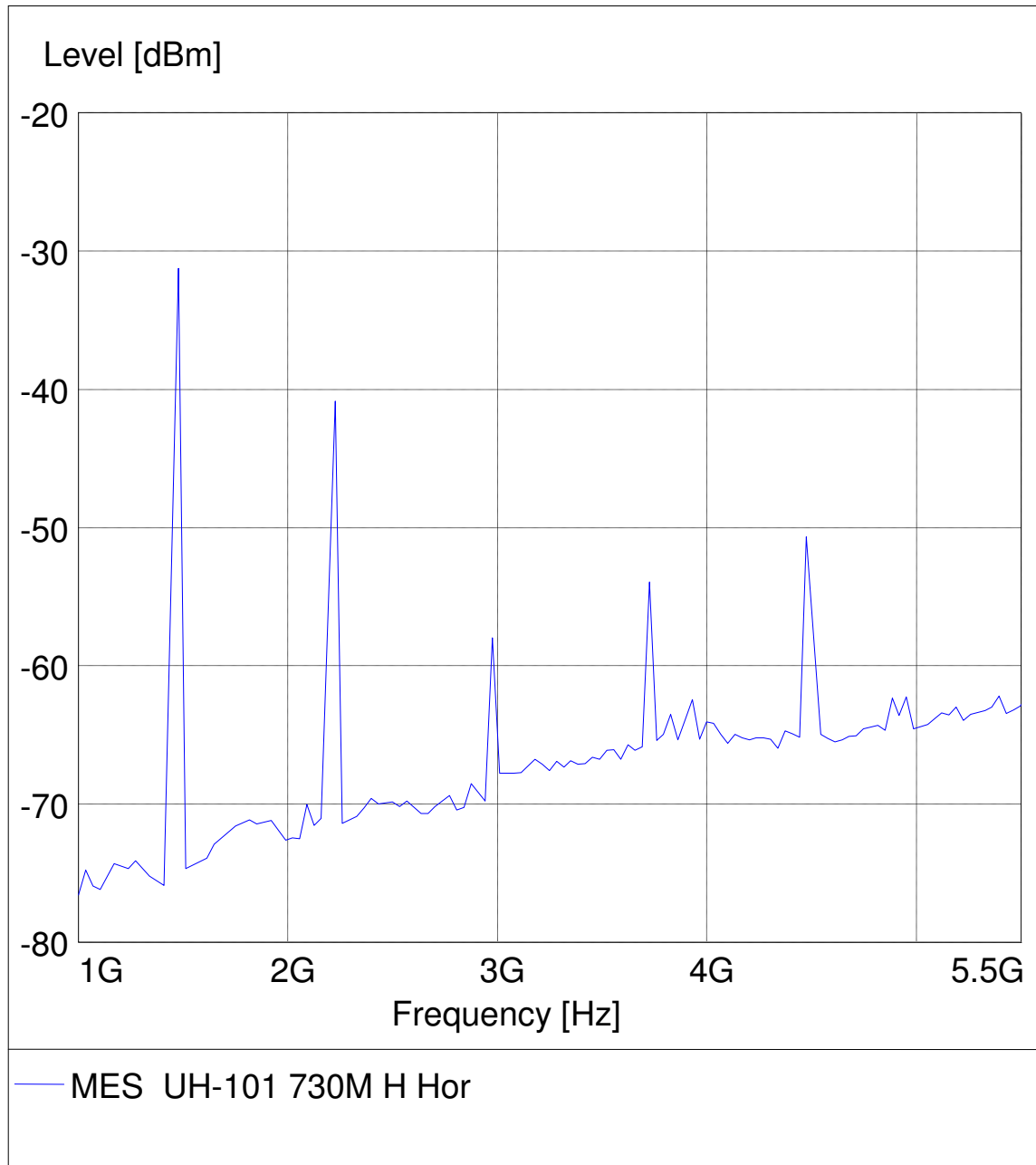
Frequency (MHz)	Reading (SG) (dBmW)	Antenna Gain (dBm)	Cable Loss (dB)	Level (dBmW)	Polarity (V/H)	Limit (dBmW)
1611.884	-46.8	7.05	3.5	-43.3	H	-13
2417.826	-50.5	7.95	3.7	-46.3	V	-13

Disturbances other than those mentioned are small or not detectable.

Spurious Emission

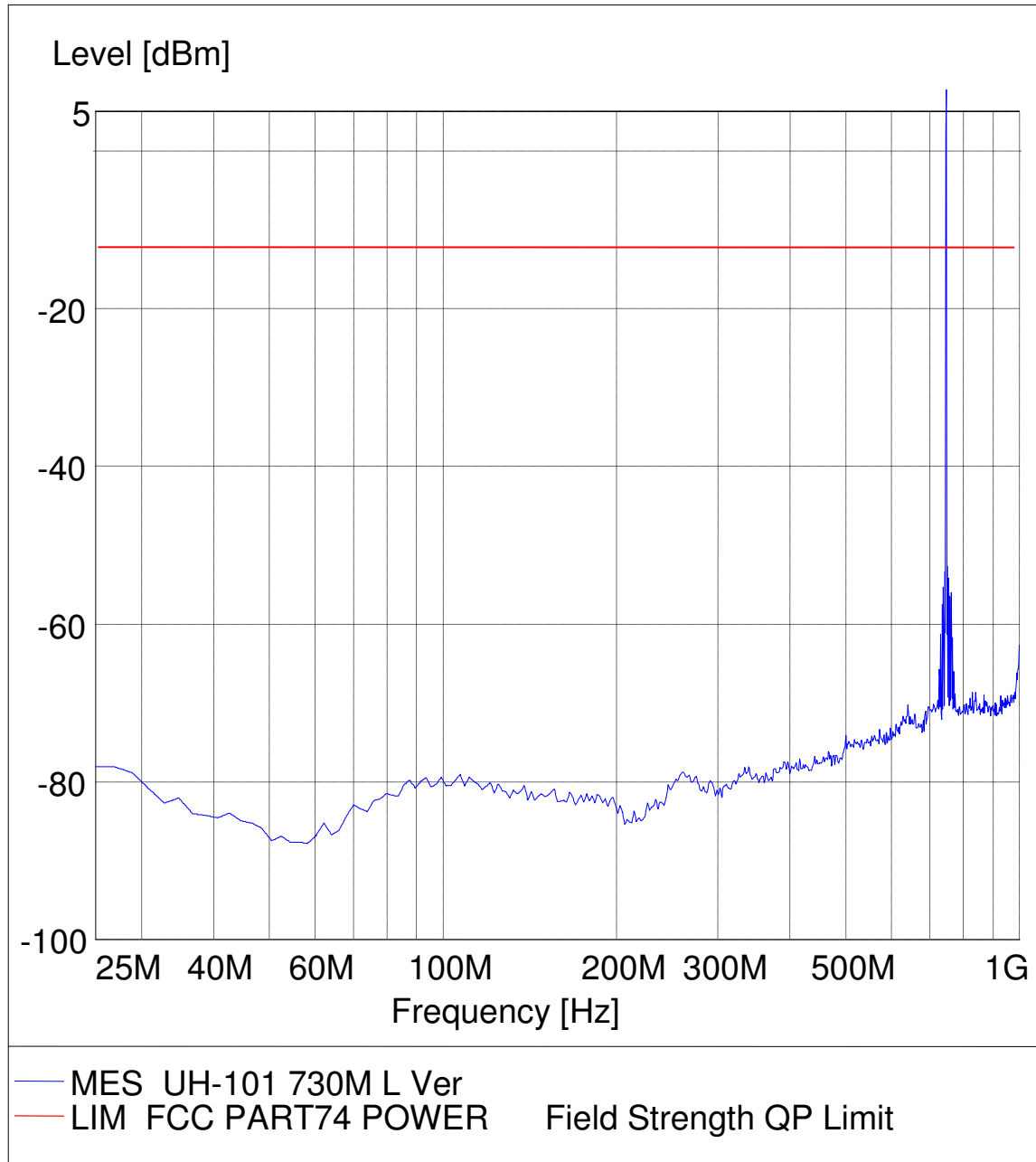
EUT: M/N:UH-101
 Operating Condition: on (730.05MHz)
 Test Site: SMQ EMC Lab.SAC
 Test Specification: Horizontal
 Comment: DC 3V

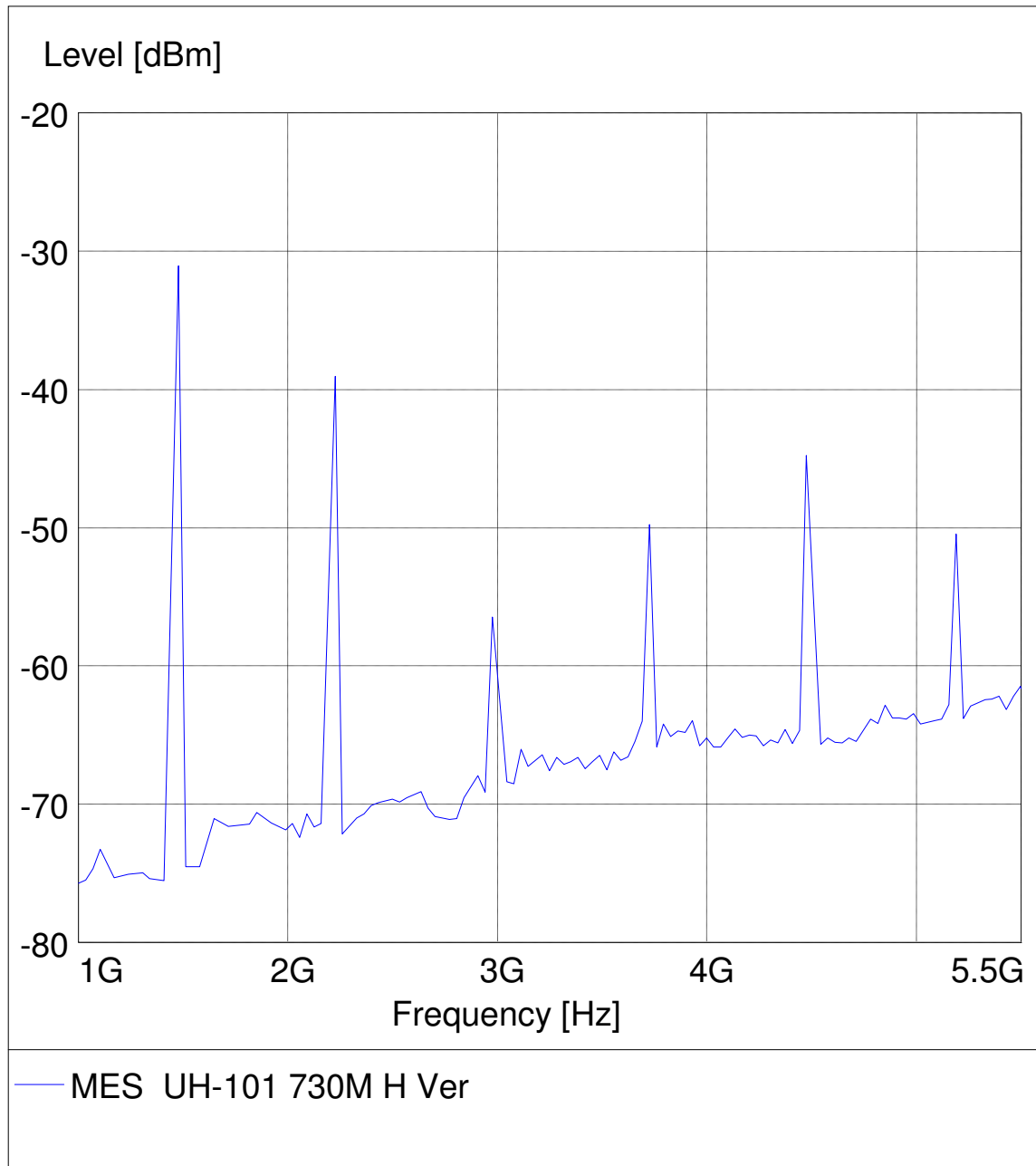




Spurious Emission

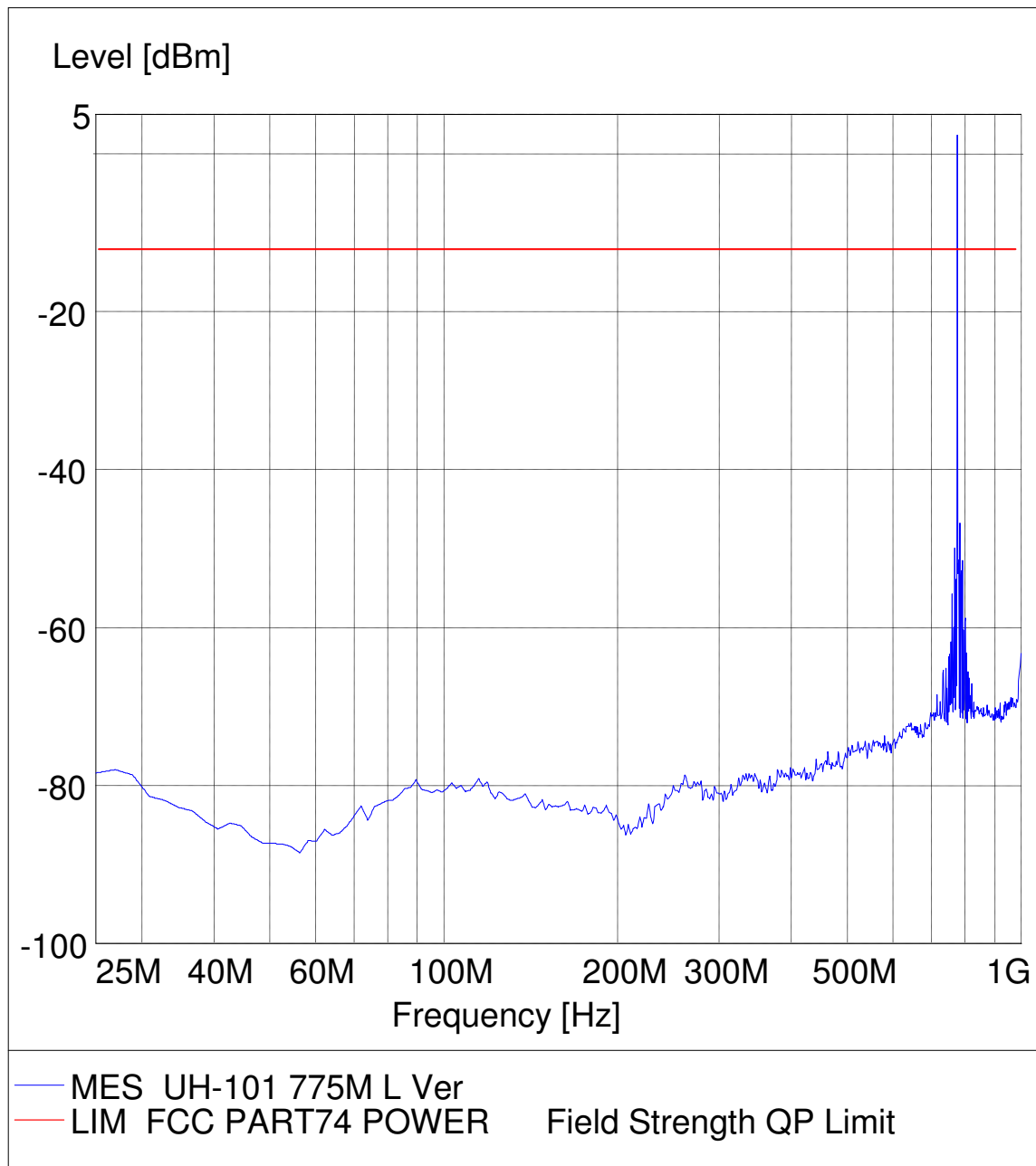
EUT: M/N:UH-101
 Operating Condition: on (730.05MHz)
 Test Site: SMQ EMC Lab.SAC
 Test Specification: Vertical
 Comment: DC 3V

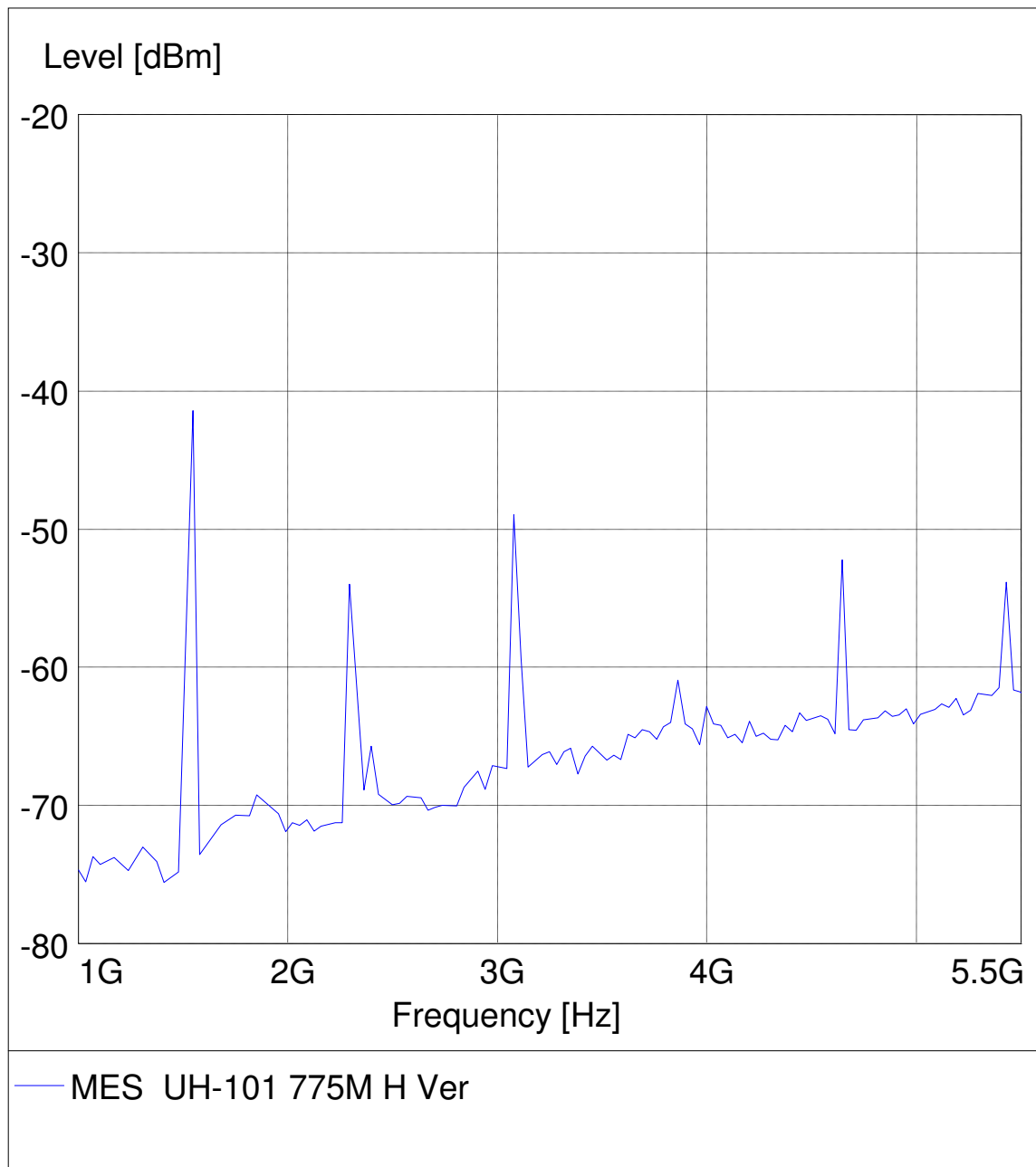




Spurious Emission

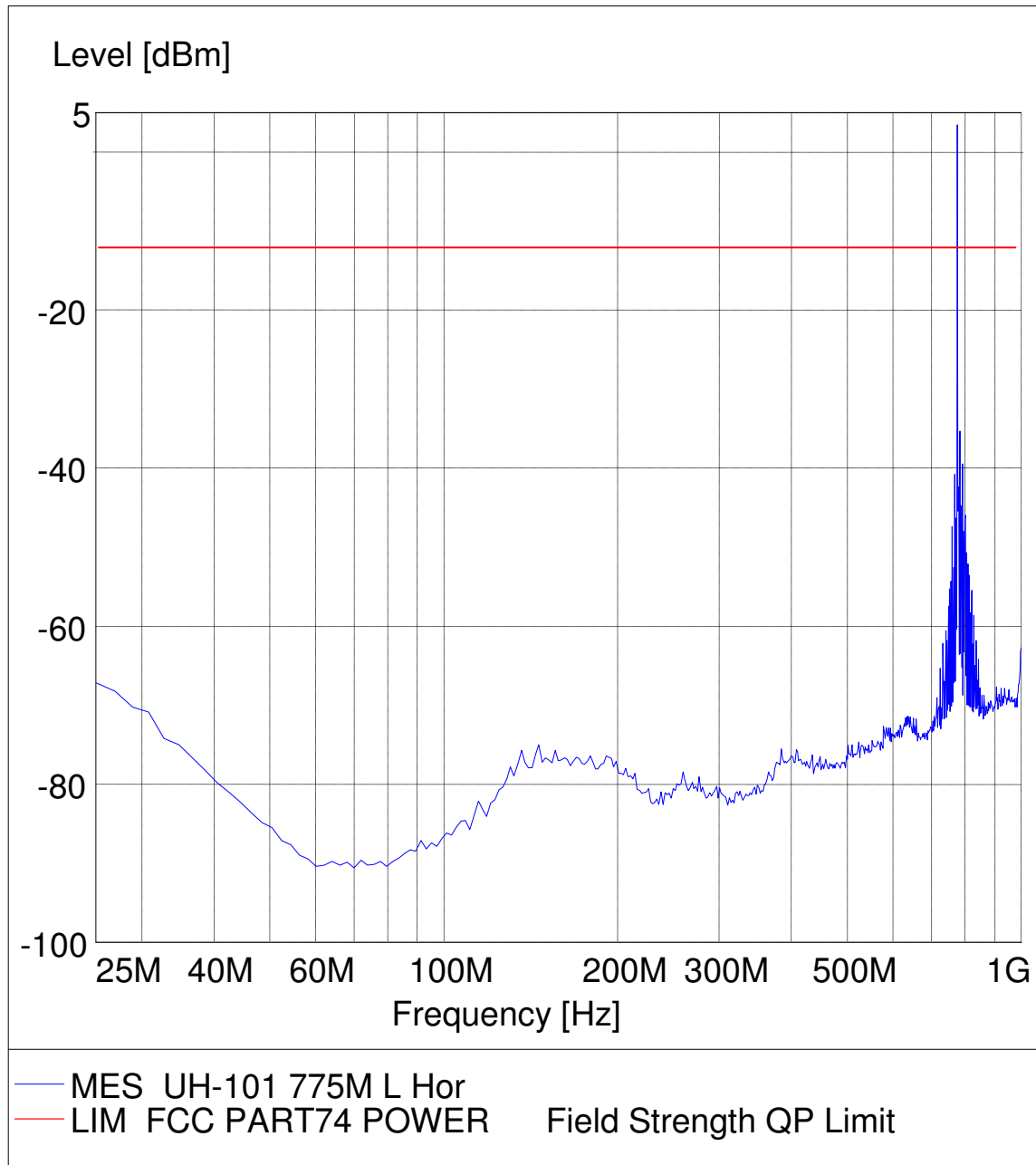
EUT: M/N:UH-101
 Operating Condition: on (775MHz)
 Test Site: SMQ EMC Lab.SAC
 Test Specification: Vertical
 Comment: DC 3V

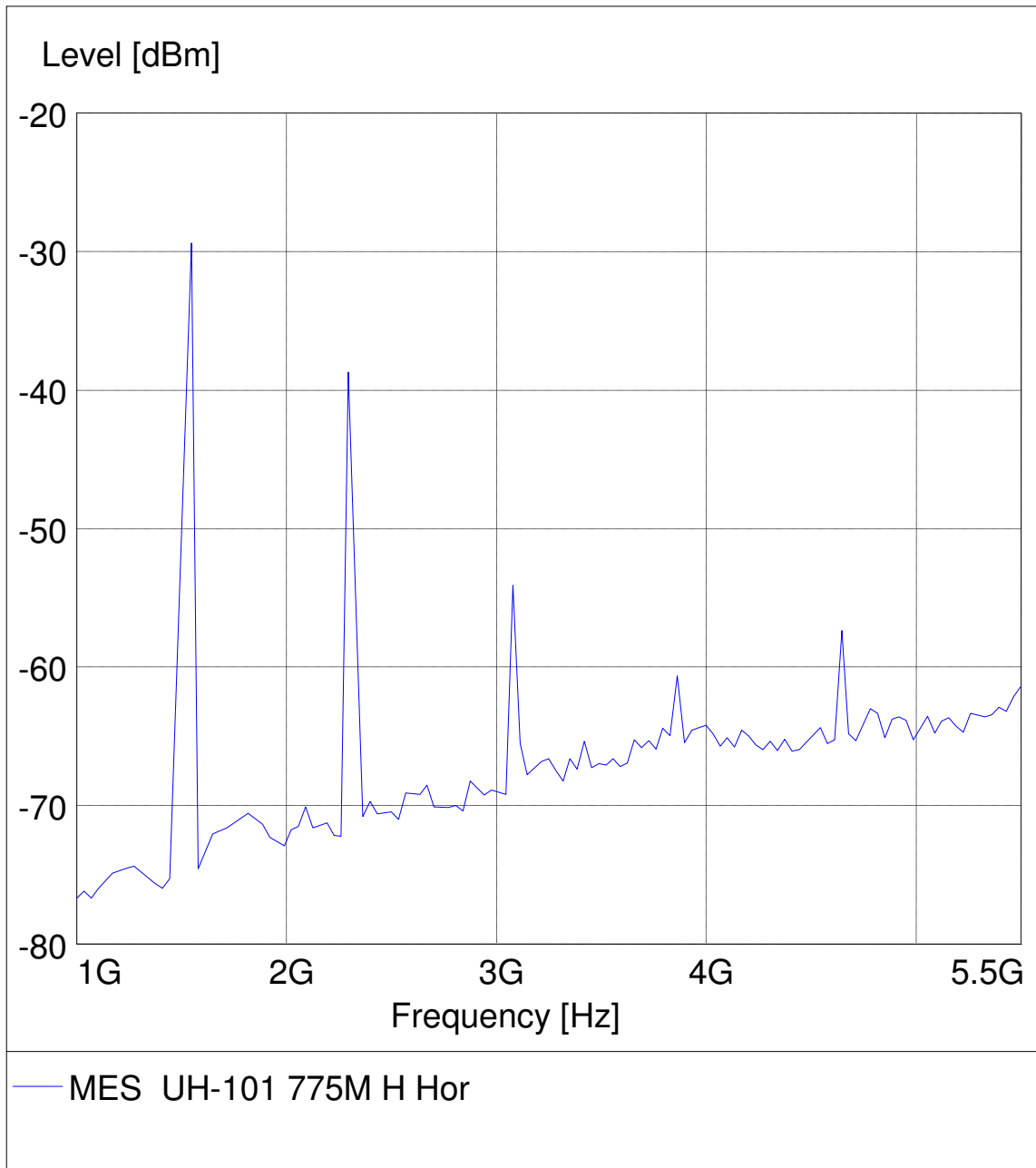




Spurious Emission

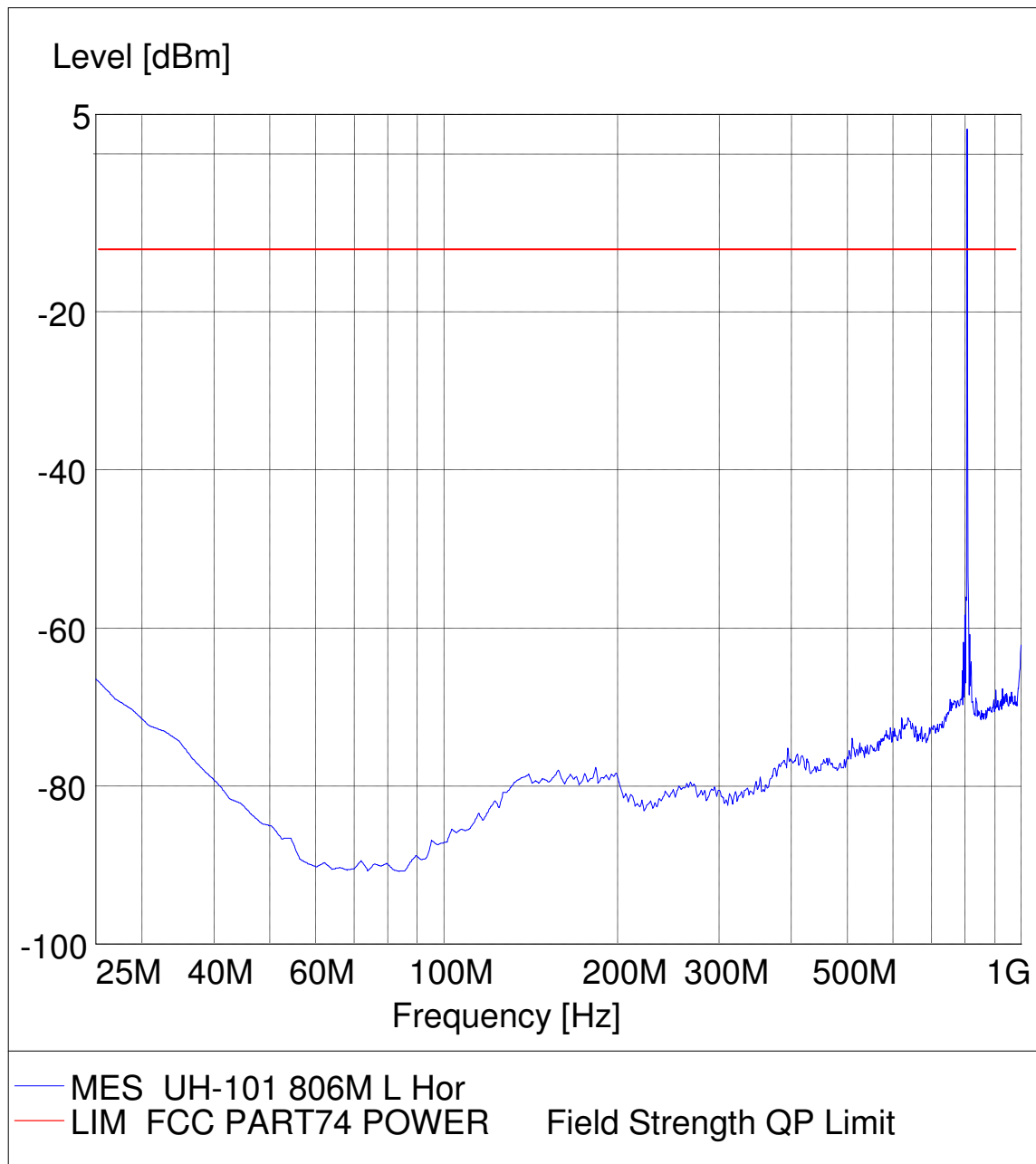
EUT: M/N:UH-101
 Operating Condition: on (775MHz)
 Test Site: SMQ EMC Lab.SAC
 Test Specification: Horizontal
 Comment: DC 3V

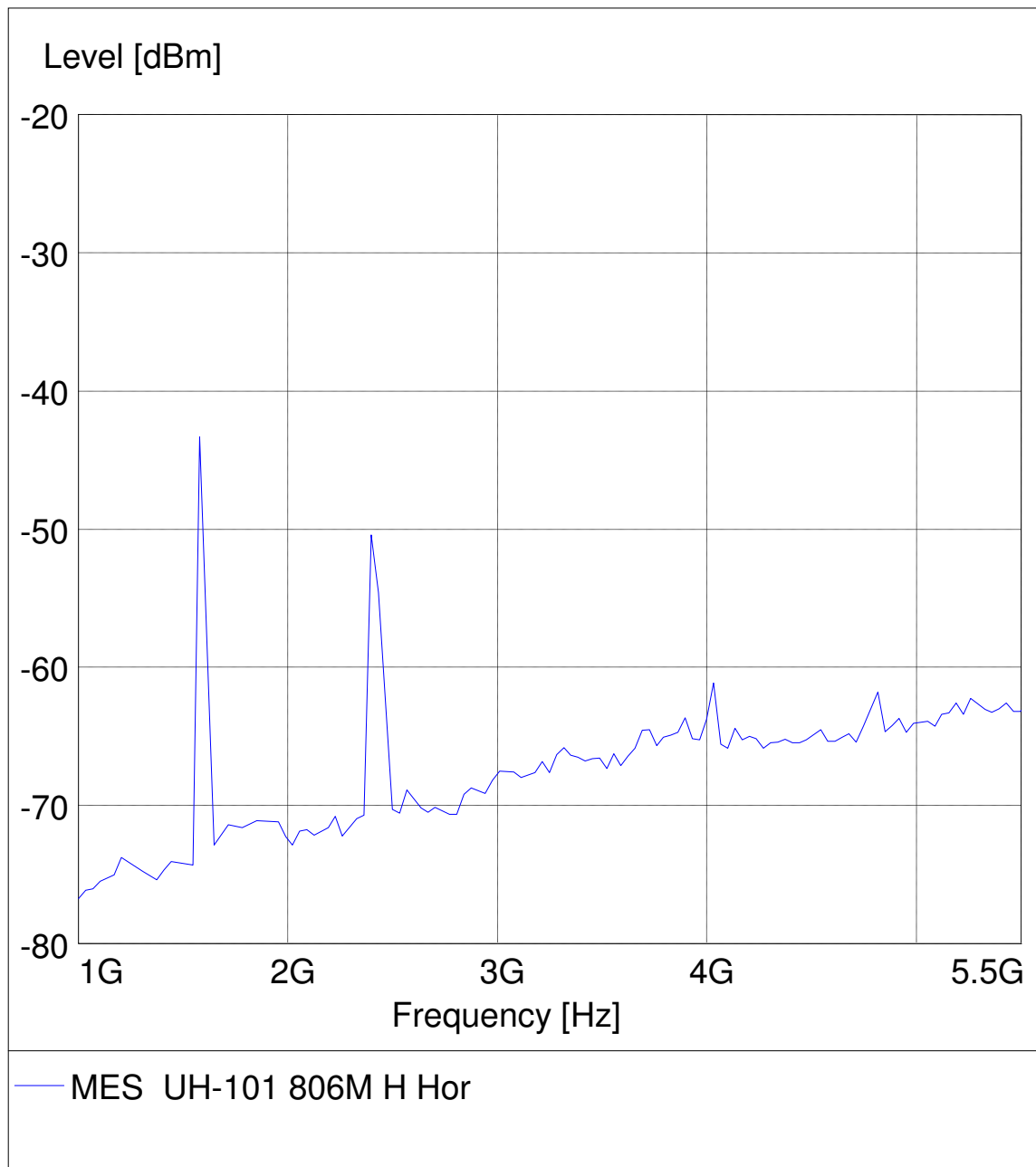




Spurious Emission

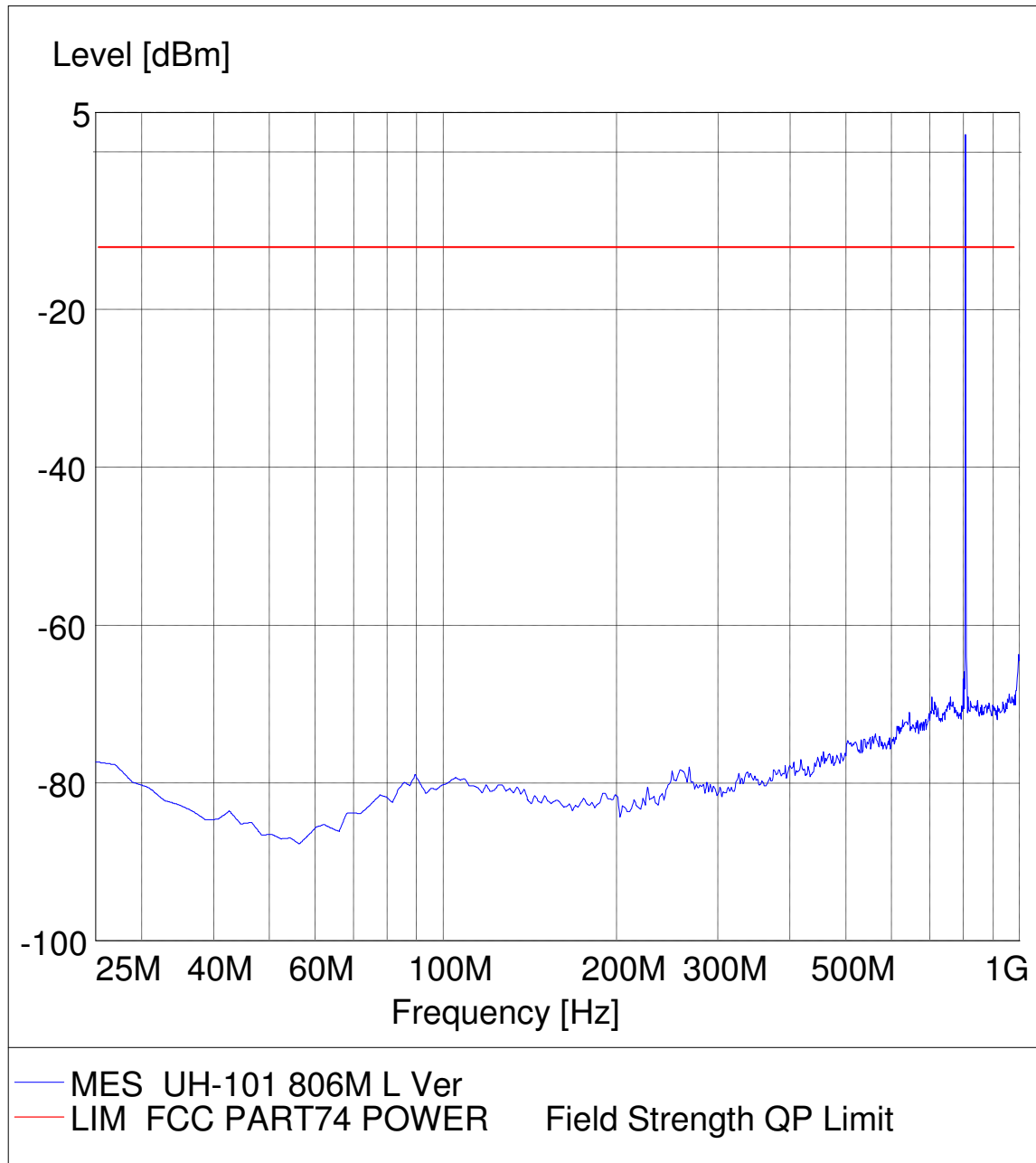
EUT: M/N:UH-101
 Operating Condition: on (805.95MHz)
 Test Site: SMQ EMC Lab.SAC
 Test Specification: Horizontal
 Comment: DC 3V

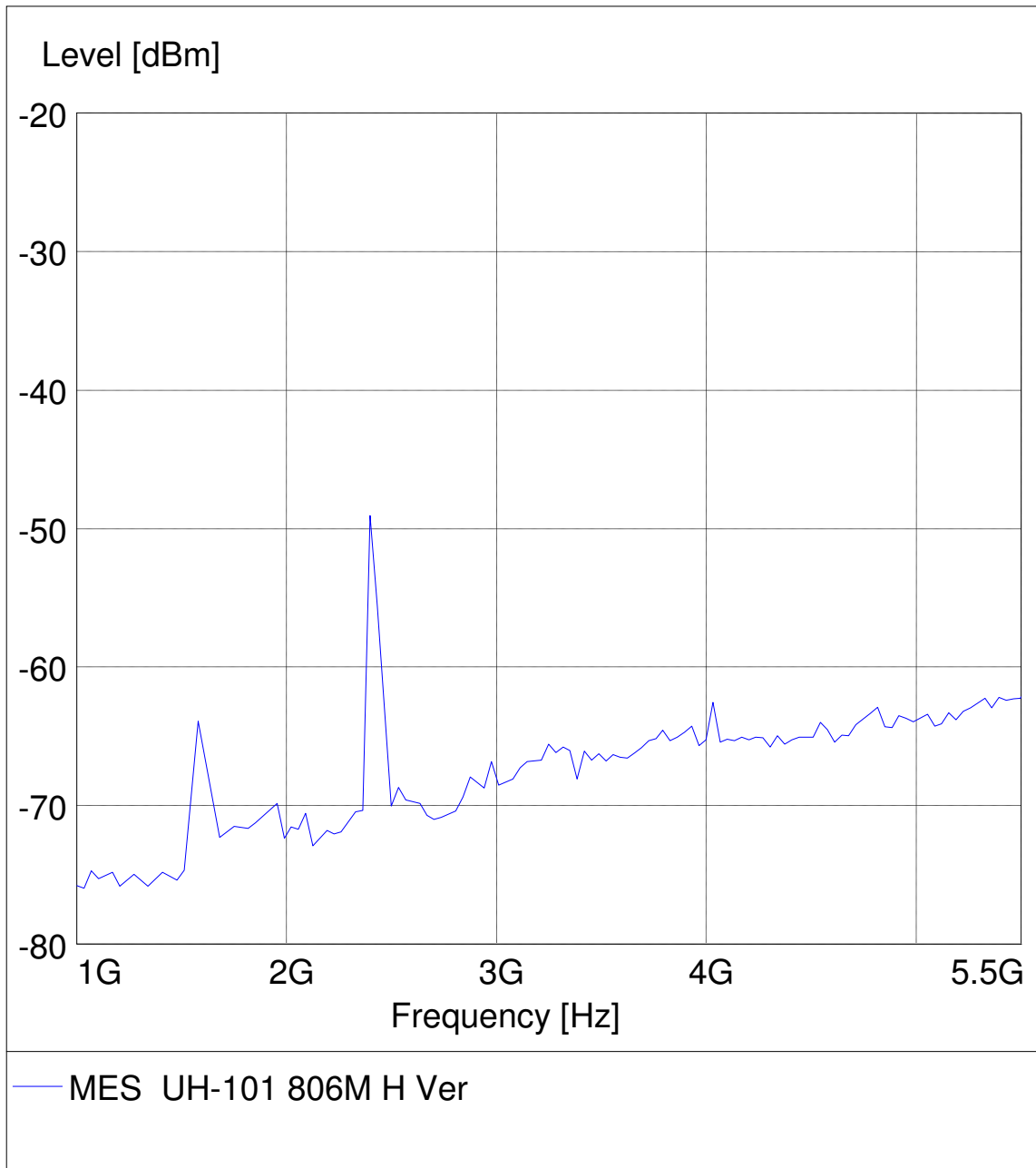




Spurious Emission

EUT: M/N:UH-101
 Operating Condition: on (805.95MHz)
 Test Site: SMQ EMC Lab.SAC
 Test Specification: Vertical
 Comment: DC 3V





Equipment Under Test

The equipment under test was operated under the following conditions during emissions testing:

- ☐ - Standby
- ☐ - Test Program (H - Pattern)
- ☐ - Test Program (Color Bar)
- ☐ - Test Program (Customer Specified)

■ - Transmit (unmodulated)

☐ - Transmit (modulated)

Configuration of the equipment under test:

■ - See Constructional Data Form in Appendix B

■ - See Product Information Form(s) in Appendix B

The following peripheral devices and interface cables were connected during the testing:

- | | |
|----------------------------------|--------------|
| ☐ - _____ | Type : _____ |
| ☐ - _____ | Type : _____ |
| ☐ - _____ | Type : _____ |
| ☐ - _____ | Type : _____ |
| ☐ - _____ | Type : _____ |
| ☐ - _____ | Type : _____ |
| ☐ - _____ | Type : _____ |
| ☐ - _____ | Type : _____ |

☐ - unshielded power cable

☐ - unshielded cables

☐ - shielded cables

TUVPS.No.: _____

■ - customer specific cables (wireless microphone)

- ☐ - _____
- ☐ - _____

GENERAL REMARKS:

FIANL JUDGEMENT:

The requirements according to the technical regulations and tested operation modes are

■ - Met

□ - **Not** Met

The Equipment Under Test

■ - **Fulfills** the general approval requirements cited on page 3.

□ - **Does not** fulfill the general approval requirements cited on page 3.

Testing Start Date: 01 September 2006

Testing End Date: 22 September 2006

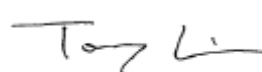
- TÜV PRODUCT SERVICE ASIA LTD. -

Reviewed by:



Kitty Xu

Prepared by:



Tony Liu

Report Number: 64.830.6.346.01 – (E)

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TÜV SÜD Group China Guangzhou Branch

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Photographs of the Test Set-Up

Set-up for radiation measurement below 1GHz



Set-up for radiation measurement above 1GHz

