# FCC PART 22/24 TEST REPORT

**for**

**EDGE Modem**
**FCC ID: NIT-SEGM520**
**Model No.: SEGM-520**

of

Applicant: **SOLOMON Technology Corporation.**
Address: **No.42, Sing Zhong Rd., Nei Hu Dist., Taipei, Taiwan, R.O.C.**

Tested and Prepared

by


**ETS DR. GENZ TAIWAN PS CO., LTD**

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU
TAIPEI 114, TAIWAN, R.O.C.

TEL: 886-2-66068877
FAX: 886-2-66068879

E-mail: ets@ets-bzt.com.tw

Report Number: W6M20612-7664-P-2224
FCC ID: NIT-SEGM520

# Certification of Test Report

Applicant : SOLOMON Technology Corporation

Manufacturer : SOLOMON Technology Corporation

Tested Equipment :

| | |
|---|---|
| Type Description | : EDGE Modem |
| Model Number | : SEGM-520 |
| Series Number | : N/A |
| Brand Name | : N/A |
| Operation Frequency | : 824.2-848.8MHz / 1850.2 - 1909.8 MHz |
| RF Output Power | 1)824.2-848.8 MHz: 31.61 dBm |
| | 2)1850.2-1909.8 MHz: 28.16 dBm |
| Power Supply | : 5 VDC ( power on PC ) |

Regulation Applied : 47CFR Part 22 (2005-10) and Part 24 (2005-10)

Test Method : 47CFR Part 2 (2005), TIA/EIA-603B (2002) and ANSI C63.4(2003)

I HEREBY CERTIFY THAT: The test results written in this report were derived conscientiously in accordance with the requirements and procedures of 47CFR Part 2(2005) and TIA-603-B(2002), and it was found that the device described above is in compliance with the applicable limits specified in 47CFR Part 22 and Part 24.

Note:

1. The result of this test report is valid only in connection to the sample has been tested at the laboratory of ETS Product Service (Taiwan).
2. This test report shall always be duplicated in full pages unless the written approval of the testing laboratory is obtained.

Test Engineer:

| Date | ETS-Lab. | Name | Signature |
|---|---|---|---|
| January 8, 2007 | | Jay Chaing | Jay Chaing |

Technical responsibility for area of testing:

| Date | ETS | Name | Signature |
|---|---|---|---|
| January 8, 2007 | | Steven Chuang | Steven Chuang |

# TABLE OF CONTENTS

# 1. Summary

## 1.1 Description of tested equipment

The equipment tested is a double-band operation GSM850 and PCS 1900 USB EDGE Modem. The operation frequency bands and rated RF output power are listed as follows:

824.2-848.8MHz (Cellular, Part 22), 0.8831 W ( ERP )
1850.2-1909.8MHz (Cellular, Part 24), 0.6547 W ( EIRP )

This test report only contains test requirements specified in 47CFR Part 22 and Part 24 for Cellular function, for other functions, please refer to separate test report with respect to the relevant test standard and specification.

## 1.2 Date of testing processing

Test sample received: December 14, 2006

Test finished: January 05, 2007

Other Information: None

## 1.3 Modification Information

No modification was made during the all test items been performed.

## 1.4 Test standards

Technical standard : FCC Part 2(2005), TIA-603-B(2002), ANSI C63.4(2003)

Deviation from test standard: None

Additional information : None

## 1.5 Summary of test result

Band: 850MHz

| Section in this Report | Test Item | Relevant Section | Verdict |
|---|---|---|---|
| 3.2 | RF power output | 2.1046(a), 22.913(a) | Pass |
| 4.2 | Modulation characteristics | 2.1047 | N/A |
| 5.2 | Occupied bandwidth | 2.1049(h) | Pass |
| 6.2 | Spurious emissions at antenna terminals | 22.917(a), 2.1051 | Pass |
| 7.2 | Field strength of spurious radiation | 22.917(a), 2.1053 | Pass |
| 8.2 | Frequency stability | 2.1055(a) 2.1055(d) | Pass |

Band: 1900MHz

| Section in this Report | Test Item | Relevant Section | Verdict |
|---|---|---|---|
| 3.2 | RF power output | 2.1046(a), 24.232(b) | Pass |
| 4.2 | Modulation characteristics | 2.1047 | N/A |
| 5.2 | Occupied bandwidth | 2.1049(h) | Pass |
| 6.2 | Spurious emissions at antenna terminals | 24.238(a), 2.1051 | Pass |
| 7.2 | Field strength of spurious radiation | 24.238(a), 2.1053 | Pass |
| 8.2 | Frequency stability | 2.1055(a) 2.1055(d) | Pass |

# 2. General Information

## 2.1 Testing laboratory

### 2.1.1 Location

OATS
No.5-1, Shuang Sing Village,
LiShuei Rd., Wanli Township,
Taipei County 207, Taiwan (R.O.C.)

Company
ETS DR. GENZ TAIWAN PS CO., LTD.
6F, NO. 58, LANE 188, RUEY-KUANG RD.
NEIHU, TAIPEI 114, TAIWAN R.O.C.
Tel : 886-2-66068877
Fax : 886-2-66068879

### 2.1.2 Details of accreditation status

Accredited testing laboratory
A2LA-registration number: 2300.01
FCC filed test laboratory Reg. No. 930600
Industry Canada filed test laboratory Reg. No. IC 5679
PTCRB Accredited Type Certification Test House

## 2.2 Details of approval holder

| | |
|---|---|
| Name | : SOLOMON Technology Corporation |
| Street | : No.42, Sing Zhong Rd., Nei Hu Dist., |
| Town | : Taipei |
| Country | : Taiwan, R.O.C. |
| Telephone | : +886-2-8791-8989 |
| Fax | : +886-2-8791-9677 |

**Manufacturer:**
(if applicable)

| | |
|---|---|
| Name | : ./. |
| Street | : ./. |
| Town | : ./. |
| Country | : ./. |

## 2.3 Description of Tested System

| Equipment | Model No. | Series No. | Software | Cable information | Note |
|---|---|---|---|---|---|
| Notebook | S6130 | FPC04078DK | Windows XP | There's no cable between this equipment and EUT. | -- |

Frequency Range:

**Band: 850MHz**

**Band: 1900MHz**

Frequencies Selected to be investigated:

**Band: 850MHz**
Low Frequency ( ch 128) : 824.2 MHz
Mid Frequency ( ch 188) : 836.2 MHz
High Frequency ( ch 251) : 848.8 MHz

**Band: 1900MHz**
Low Frequency ( ch 512) : 1850.2 MHz
Mid Frequency ( ch 661) : 1880 MHz
High Frequency ( ch 810) : 1909.8 MHz

Antenna Type : Helix Antenna

Antenna Gain : 3.5 dBi

Power supply : 5 VDC ( power on PC )

## 2.4 Test environment

| | | |
|---|---|---|
| Temperature | : | 27 °C |
| Relative humidity content | : | 54 % |
| Air pressure | : | 86-103 Kpa |

## 2.5 General Test Requirement

**Radiated Emission:** For investigated frequency is equal to or below 1GHz, the RBW and VBW of the spectrum analyzer was 100 kHz and 100kHz respectively with an appropriate sweep speed. For investigated frequency is above 1GHz, both of RBW and VBW of the spectrum analyzer were 1 MHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna.

The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to the frequency specified as follows:

(1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
(2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
(3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.

For hand-held devices, a exploratory test was performed with three (3) orthogonal planes to determine the highest emissions.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

## 2.6 Test Equipment List

| No. | Test equipment | Model/SN | Manufacturer | Next Cal. Date |
|---|---|---|---|---|
| ETSTW-CE 001 | EMI TEST RECEIVER | ESHS10<br>842121/013 | R&S | 2007/10/15 |
| ETSTW-CE 004 | ZWEILEITER-V-NETZNACHBILDUNG TWO-LINE V-NETWORK | ESH3-Z5<br>840731/011 | R&S | 2007/10/15 |
| ETSTW-CE 005 | Line-Impedance Stabilisation Network | NNBM 8126D<br>137 | Schwarzbeck | 2007/10/15 |
| ETSTW-CE 006 | IMPULS-BEGRENZER PULSE LIMITER | ESH3-Z2<br>100226 | R&S | In House Certificate |
| ETSTW-CE 009 | TEMP.&HUMIDITY CHAMBER | GTH-225-40-1P-U<br>MAA0305-009 | GIANT FORCE | 2007/8/16 |
| ETSTW-CE 012 | Dual-Phase-V-Network | NNB-2/16Z<br>03/10201 | Telemeter | 2007/6/12 |
| ETSTW-RE 002 | Function Generator | 33220A<br>MY43004982 | Agilent | 2007/10/13 |
| ETSTW-RE 003 | EMI TEST RECEIVER | ESI<br>831438/001 | R&S | 2007/10/19 |
| ETSTW-RE 004 | EMI TEST RECEIVER | ESI<br>831459/012 | R&S | 2007/10/29 |
| ETSTW-RE 005 | EMI TEST RECEIVER | ESVS10<br>843207/020 | R&S | 2007/10/11 |
| ETSTW-RE 017 | ANTENNA | HL025<br>352886/001 | R&S | 2008/5/3 |
| ETSTW-RE 021 | SWEEP GENERATOR | SWM05<br>835130/010 | R&S | 2007/10/10 |
| ETSTW-RE 027 | Passive Loop Antenna | 6512<br>34563 | EMCO | 2007/6/29 |
| ETSTW-RE 028 | Log-Periodic DipoleArray Antenna | 3148<br>34429 | EMCO | 2008/5/25 |
| ETSTW-RE 029 | Biconical Antenna | 3109<br>33524 | EMCO | 2008/5/25 |
| ETSTW-RE 030 | Double-Ridged Waveguide Horm Antenna | 3117<br>35224 | EMCO | 2008/5/2 |
| ETSTW-RE 032 | Millivoltmeter | URV 55<br>849086/013 | R&S | 2007/10/10 |
| ETSTW-RE 034 | Power Sensor | URV5-Z4<br>839313/006 | R&S | 2007/10/10 |
| ETSTW-RE 042 | ANTENNA | HK116<br>100172 | R&S | 2007/1/13 |
| ETSTW-RE 043 | ANTENNA | HL223<br>100166 | R&S | 2008/5/7 |
| ETSTW-RE 044 | ANTENNA | HL050<br>100094 | R&S | 2008/5/28 |
| ETSTW-RE 049 | TRILOG Super Broadband test Antenna | VULB 9160<br>9160-3185 | Schwarzbeck | 2007/5/18 |
| ETSTW-RE 055 | SPECTRUM ANALYZER | FSU-26<br>200074 | R&S | 2007/7/27 |
| ETSTW-GSM 02 | Universal Radio Communication Tester | CMU 200<br>103489 | R&S | 2007/10/17 |
| ETSTW-GSM 11 | GSM 850,900,1800,1900 Test system | TS8950G | R&S | 2007/4/30 |
| ETSTW-GSM 16 | TEMP.&HUMIDITY CHAMBER | GTH-120-40-1P-U<br>MAA0501002 | GIANT FORCE | 2007/12/27 |
| ETSTW-GSM 18 | AUDIO ANALYZER | UPL16<br>100173 | R&S | 2007/10/27 |
| ETSTW-GSM 23 | SPLITTER | 4901.19.A<br>None | SUHNER | Function Test |

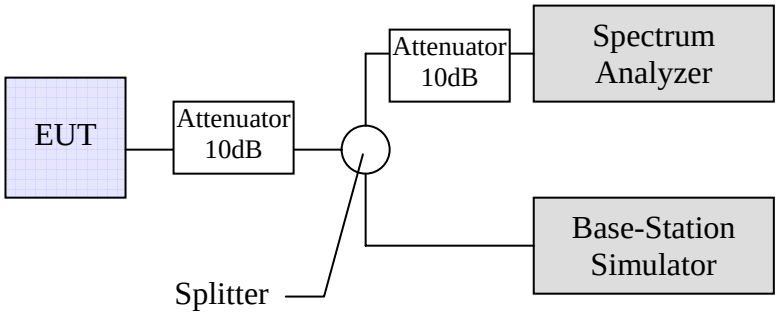
# 3. RF Power Output

## 3.1 Test procedure

### 3.1.1 Conducted Method

Per 47CFR Part 2.1046, the RF power output shall be measured at the RF output terminals and following procedure is employed:

The transmitter output was connected as the following figure:




The whole connection system is calibrated with a standard signal generator. Power on and make a link form simulator to EUT and then set the EUT to maximum output power.
Measure the RF power with the spectrum analyzer in accordance the following settings:

RBW: 300kHz for Frequency below 1GHz and 1MHz for Frequency equal to and above 1GHz.
VBW: 300kHz for Frequency below 1GHz and 1MHz for Frequency equal to and above 1GHz.
Span: 2MHz
Sweep: 3s

The power output at the transmitter antenna terminal is then determined by assign the value of the corrected factor to the spectrum analyzer reading.

Tests were performed at three frequencies (low , middle and high channels ) and operation mode selected.

### 3.1.2 Radiated Method

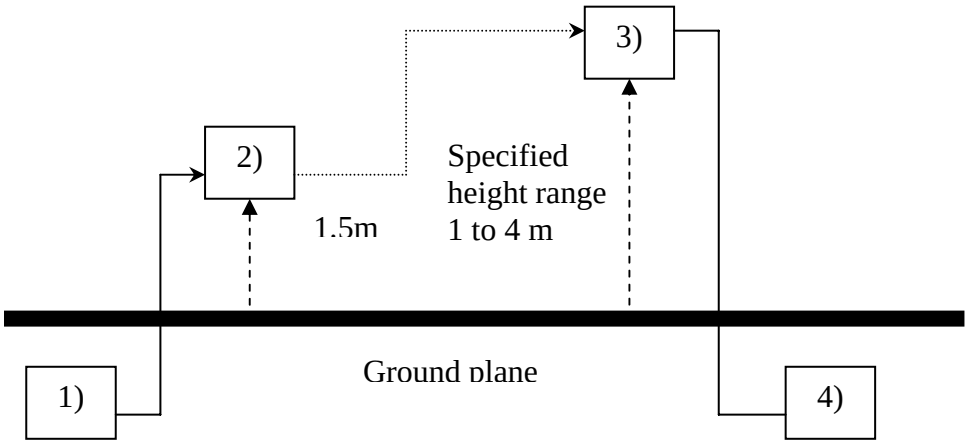
If the conducted measurement is not practical due to the integral antenna, the radiated measurement will be performed in accordance the following procedure:

The EUT was positioned on a non-conductive turntable, 0.8mabove the ground on an open test site.
The radiated emission at the fundamental frequency was measured at 3m distance with a test antenna and spectrum analyzer.

Worst case emission was recorded with the rotation of the turntable and the raising and lowering of the test antenna.

Substitution RF power Measurement at ETS Taiwan
General :

The applied substitution method follows ANSI/TIA/EIA-603,ANSI/TIA/EIA-102.CAAA or the appropriate ETSI rules respectively.
The actual signal generated by the EUT can be determined by means of a substitution measurement in which a known signal source replaces the device to be measured.




1) Signal generator ;
2) Substitution antenna ;
3) Test antenna ;
4) Spectrum analyzer or selective voltmeter.

The substitution antenna replaces the transmitter antenna at the same position and in vertical polarization. The frequency of the signal generator shall be adjusted to the measurement frequency.
The test antenna shall be raised or lowered, if necessary, to ensure that the maximum signal is still received. The input signal to the substitution antenna shall be adjusted in level until an equal or a known related level to that detected from the transmitter is obtained in the measurement receiver.
If a fully anechoic chamber is used as test site in order to provide free space conditions there is no need to change the height of the antenna.
The measurement will be repeated in horizontal position.
Calibration :
In order to make this kind of measurement more effective and to avoid subjective measurement faults ETS has installed automatic computer controlled measurement procedures.
With the above described substitution method a test site is calibrated over the full frequency range which is used in suitable frequency steps. For a certain power level on the substitution antenna the received power over the whole frequency range is documented. All necessary antenna gains, cable losses, filter losses and amplifications of preamplifiers are taken in consideration. The summary of this calibration measurement performs a transducer factor that

is related to the considered test site and a certain measurement distance. Differences of the radiated power levels of different test samples are determined by internal attenuation of measurement receiver . The proper function of such test site will be maintained by short term plausibility checks and periodical re-calibration.

Testing :
The test sample will be putted on the table at the defined position and the radiated power will be receiver and documented by the measurement receiver.
On test sites with ground plane the measurement antenna will be lowered and raised to maximum values at significant frequencies.
For peak power measurements the sample is turned by the turntable over 360 degree in order to find the direction with the maximum radiation or to document the max reading with the MAXHOLD function during the rotation.

## 3.2 Test Results

☐ Conducted Measurement
☑ Radiated Measurement

| Frequency (MHz) | ERP (dBm) | EIRP (dBm) | Limit (dBm) | Result |
|---|---|---|---|---|
| 824.098 | 29.32 | 31.47 | 38.45 | Pass |
| 836.020 | 28.93 | 31.08 | 38.45 | Pass |
| 848.727 | 29.46 | 31.61 | 38.45 | Pass |
| 1850 | 21.97 | 24.12 | 33 | Pass |
| 1880 | 22.95 | 25.10 | 33 | Pass |
| 1910 | 26.01 | 28.16 | 33 | Pass |

Note: Please refer to appendix A for plot data.

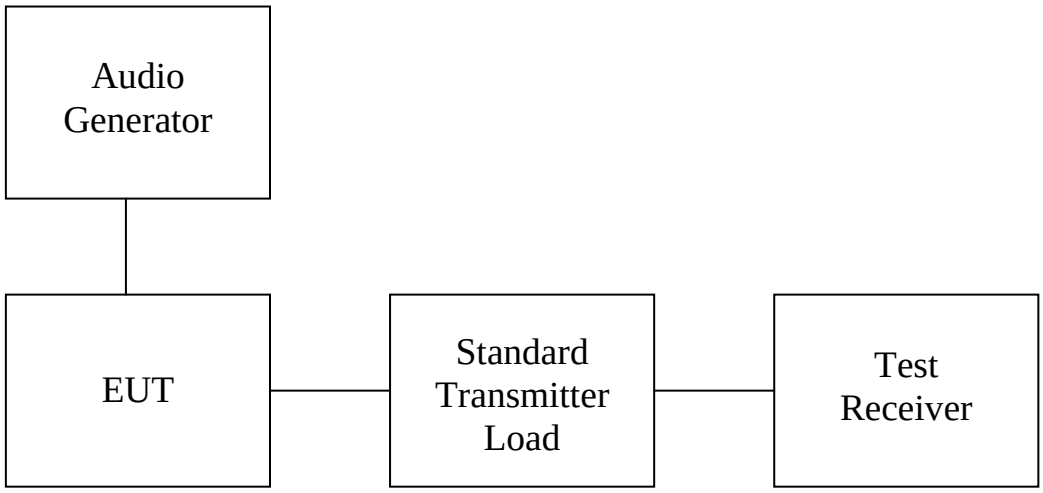
Test equipment: ETSTW-RE 003, ETSTW-RE 043, ETSTW-GSM 02

## 4. Modulation Characteristics

### 4.1 Test procedure

☐ A curve or equivalent data showing the frequency response of the audio modulating circuit over a range of 100 to 5000 Hz shall be submitted.
The audio signal generator is connected to the audio input of the EUT with its full rating. The modulation response is measured at certain modulation frequencies, related to 1000Hz reference signal. Tests are performed for positive and negative modulation.

☐ Equipment which employs modulation Limiting: A curve or family of curves showing the percentage of modulation versus the modulation input voltage shall be supplied. The audio signal generator is connected to the audio input of the EUT with its full rating. The modulation limiting is measured at certain modulation frequencies from 100Hz to 15kHz.




### 4.2 Test Results

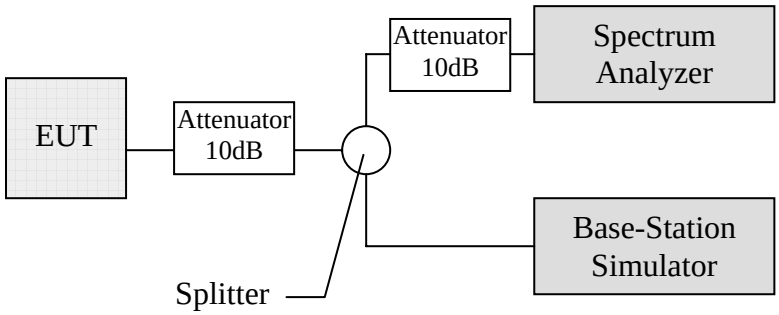
For digital modulation employed, this test item is not applicable.

## 5. Occupied Bandwidth

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power. Near the carrier an Emission Mask is defined by the standard.

### 5.1 Test procedure

The RF output of the transceiver was connected as the following figure.
Occupied Bandwidth was measured with a occupied bandwidth function of the analyzer at 99% power was occupied. Then set the spectrum analyzer to cover the upper and lower band edges to measure emission mask.




### 5.2 Test Results

| Occupied Channel Bandwidth ( kHz ) | |
|---|---|
| Channel 128 | 246.49299 |
| Channel 188 | 246.49299 |
| Channel 251 | 246.49299 |
| Channel 512 | 246.49299 |
| Channel 661 | 244.48898 |
| Channel 810 | 246.49299 |
| **-26dB Channel Bandwidth ( kHz )** | |
| Channel 128 | 330.12821 |
| Channel 188 | 328.52564 |
| Channel 251 | 330.12821 |
| Channel 512 | 326.92308 |
| Channel 661 | 331.73077 |
| Channel 810 | 328.52564 |

Note: Please refer to appendix B for plot data.

Test equipment: ETSTW-RE 003, ETSTW-RE 043, ETSTW-GSM 02

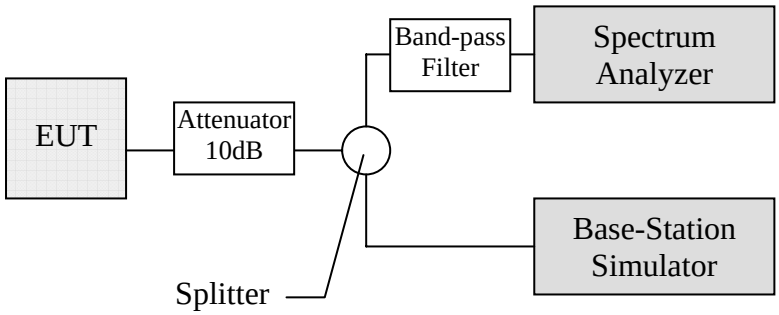
## 6. Spurious Emissions at Antenna Terminals

### 6.1 Test procedure

This transmitter output was connected to a calibrated coaxial attenuator, the other end of which was connected to a spectrum analyzer via a three-port splitter. Please refer to the following figure. Transmitter output was derived with the spectrum analyzer in dBm.

The Spurious Emissions at Antenna Terminals was measured by the spectrum analyzer with a suitable notch filter and/or Band-pass filter.

Tests were performed with an unmodulated carrier at three frequencies (low , middle and high channels ) and on all power levels , which can be set-up on the transmitters.




### 6.2 Test Results

CH 128

| Frequency (MHz) | Power Measured (dBm) | Compliance Limit (dBm) | Margin (dB) |
|---|---|---|---|
| 70.865 | -39.33 | -13 | 26.33 |
| 958.974 | -39.17 | -13 | 26.17 |
| 1649.038 | -25.10 | -13 | 12.10 |
| 5006.41 | -39.00 | -13 | 26.00 |
| 9332.131 | -38.83 | -13 | 25.83 |
| 13860.577 | -38.76 | -13 | 25.76 |
| 24565.705 | -38.03 | -13 | 25.03 |

CH 188

| Frequency (MHz) | Power Measured (dBm) | Compliance Limit (dBm) | Margin (dB) |
|---|---|---|---|
| 101.106 | -39.31 | -13 | 26.31 |
| 946.154 | -38.74 | -13 | 25.74 |
| 1673.077 | -23.65 | -13 | 10.65 |
| 6948.718 | -39.11 | -13 | 26.11 |
| 9294.071 | -38.37 | -13 | 25.37 |
| 13667.067 | -39.04 | -13 | 26.04 |
| 25737.179 | -37.51 | -13 | 24.51 |

CH 251

| Frequency (MHz) | Power Measured (dBm) | Compliance Limit (dBm) | Margin (dB) |
|---|---|---|---|
| 111.458 | -39.38 | -13 | 26.38 |
| 917.949 | -39.22 | -13 | 26.22 |
| 1697.115 | -26.81 | -13 | 13.81 |
| 7237.179 | -38.89 | -13 | 25.89 |
| 11227.564 | -38.32 | -13 | 25.32 |
| 16334.135 | -38.86 | -13 | 25.86 |
| 25818.910 | -37.95 | -13 | 24.95 |

CH 512

| Frequency (MHz) | Power Measured (dBm) | Compliance Limit (dBm) | Margin (dB) |
|---|---|---|---|
| 176.843 | -40.73 | -13 | 27.73 |
| 546.154 | -40.63 | -13 | 27.63 |
| 3355.769 | -37.60 | -13 | 24.60 |
| 6384.615 | -39.81 | -13 | 26.81 |
| 10626.202 | -39.12 | -13 | 26.12 |
| 14617.788 | -38.98 | -13 | 25.98 |
| 25982.372 | -36.86 | -13 | 23.86 |

CH 661

| Frequency (MHz) | Power Measured (dBm) | Compliance Limit (dBm) | Margin (dB) |
|---|---|---|---|
| 194.551 | -41.39 | -13 | 28.39 |
| 410.256 | -40.46 | -13 | 27.46 |
| 3591.346 | -38.59 | -13 | 25.59 |
| 4743.590 | -40.41 | -13 | 27.41 |
| 11478.766 | -39.18 | -13 | 26.18 |
| 17949.519 | -38.71 | -13 | 25.71 |
| 25587.340 | -36.12 | -13 | 23.12 |

CH 810

| Frequency (MHz) | Power Measured (dBm) | Compliance Limit (dBm) | Margin (dB) |
|---|---|---|---|
| 187.196 | -41.24 | -13 | 28.24 |
| 503.846 | -40.03 | -13 | 27.03 |
| 2168.269 | -38.85 | -13 | 25.85 |
| 7012.821 | -40.66 | -13 | 27.66 |
| 11082.933 | -39.53 | -13 | 26.53 |
| 17512.019 | -38.51 | -13 | 25.51 |
| 24974.359 | -36.73 | -13 | 23.73 |

Note: Please refer to appendix C for plot data.
Test equipment: ETSTW-RE 003, ETSTW-GSM 02, ETSTW-GSM 23

## 6.3 Explanation of test result

All factors like cable loss and external attenuation etc. are already included in the provided measurement results. This is done by using validated test software and calibrated test system according the accreditation requirements.

## 6.4 Calculation of Limit for Spurious at Antenna Terminals

Compliance with § 22.917(a) requires that any emission be attenuated below the transmitter power at least 43 + 10 log10 P ( P = transmitter power in Watts ).

The compliance limit was calculated as an example per the following:

Maximum transmitter output power: P=1.4488 Watts
Required attenuation: A=43 + 10 log10 P
Limit for Spurious Emissions at Antenna Terminals: L=P-A=-13dBm

## 7. Field Strength of Spurious Radiation

### 7.1 Test procedure

The test procedure for filed strength measurement is same as radiated power except for a notch filter or band pass filter is used to avoid the influence of fundamental to the pre-amplifier.

The measurements below 1GHz were performed with a measurement bandwidth of 100kHz, above 1GHz with a bandwidth of 1 MHz.

### 7.2 Test Results

The measurements of the spurious emission at the upper, center and lower channel.

CH 128

| Frequency (MHz) | Polarization (H/V) | Reading Level (dBm) | Corrected Factor (dB) | Result Level (dBm) | Limit (dBm) | Margin |
|---|---|---|---|---|---|---|
| 1649.2985 | H | -38.89 | -6.80 | -45.69 | -13.00 | 32.69 |
| 2472.9458 | H | -55.33 | -0.78 | -56.11 | -13.00 | 43.11 |
| 3296.5931 | H | -56.12 | 0.22 | -55.90 | -13.00 | 42.90 |
| 1649.2985 | V | -40.86 | -6.80 | -47.66 | -13.00 | 34.66 |
| 2472.9458 | V | -49.10 | -0.78 | -49.88 | -13.00 | 36.88 |
| 3296.5931 | V | -53.34 | 0.22 | -53.12 | -13.00 | 40.12 |

CH 188

| Frequency (MHz) | Polarization (H/V) | Reading Level (dBm) | Corrected Factor (dB) | Result Level (dBm) | Limit (dBm) | Margin |
|---|---|---|---|---|---|---|
| 1673.3466 | H | -40.38 | -6.70 | -47.08 | -13.00 | 34.08 |
| 2509.0180 | H | -55.59 | -1.74 | -57.33 | -13.00 | 44.33 |
| 3344.6893 | H | -53.99 | 0.24 | -53.75 | -13.00 | 40.75 |
| 1673.3466 | V | -40.22 | -6.70 | -46.92 | -13.00 | 33.92 |
| 2509.0180 | V | -53.29 | -1.74 | -55.03 | -13.00 | 42.03 |
| 3344.6893 | V | -54.11 | 0.24 | -53.87 | -13.00 | 40.87 |

CH 251

| Frequency (MHz) | Polarization (H/V) | Reading Level (dBm) | Corrected Factor (dB) | Result Level (dBm) | Limit (dBm) | Margin |
|---|---|---|---|---|---|---|
| 1697.3947 | H | -42.98 | -6.56 | -49.54 | -13.00 | 36.54 |
| 2545.0901 | H | -53.55 | -1.34 | -54.89 | -13.00 | 41.89 |
| 3398.7975 | H | -53.57 | 0.32 | -53.25 | -13.00 | 40.25 |
| 1697.3947 | V | -40.47 | -6.56 | -47.03 | -13.00 | 34.03 |
| 2545.0901 | V | -54.47 | -1.34 | -55.81 | -13.00 | 42.81 |
| 3398.7975 | V | -52.61 | 0.32 | -52.29 | -13.00 | 39.29 |

CH 512

| Frequency (MHz) | Polarization (H/V) | Reading Level (dBm) | Corrected Factor (dB) | Result Level (dBm) | Limit (dBm) | Margin |
|---|---|---|---|---|---|---|
| 3703.142 | H | -80.04 | 49.90 | -30.14 | -13.00 | 17.14 |
| 5554.978 | H | -53.56 | 9.21 | -44.35 | -13.00 | 31.35 |
| 7406.819 | H | -53.28 | 11.14 | -42.14 | -13.00 | 29.14 |
| 9250.498 | H | -73.16 | 31.22 | -41.94 | -13.00 | 28.94 |
| 3703.142 | V | -71.13 | 50.01 | -21.12 | -13.00 | 8.12 |
| 5554.978 | V | -54.86 | 8.76 | -46.10 | -13.00 | 33.10 |
| 7406.819 | V | -52.96 | 11.04 | -41.92 | -13.00 | 28.92 |
| 9250.498 | V | -72.23 | 33.31 | -38.92 | -13.00 | 25.92 |

CH 661

| Frequency (MHz) | Polarization (H/V) | Reading Level (dBm) | Corrected Factor (dB) | Result Level (dBm) | Limit (dBm) | Margin |
|---|---|---|---|---|---|---|
| 3761.425 | H | -79.02 | 50.01 | -29.01 | -13.00 | 16.01 |
| 5641.425 | H | -58.14 | 9.62 | -48.52 | -13.00 | 35.52 |
| 7524.989 | H | -53.08 | 11.66 | -41.42 | -13.00 | 28.42 |
| 11278.141 | H | -71.36 | 34.20 | -37.16 | -13.00 | 24.16 |
| 3761.425 | V | -72.95 | 49.81 | -23.14 | -13.00 | 10.14 |
| 7524.989 | V | -49.11 | 11.20 | -37.91 | -13.00 | 24.91 |
| 5641.425 | V | -57.16 | 9.24 | -47.92 | -13.00 | 34.92 |
| 11278.141 | V | -70.43 | 34.51 | -35.92 | -13.00 | 22.92 |

CH 810

| Frequency (MHz) | Polarization (H/V) | Reading Level (dBm) | Corrected Factor (dB) | Result Level (dBm) | Limit (dBm) | Margin |
|---|---|---|---|---|---|---|
| 3820.519 | H | -79.61 | 50.20 | -29.41 | -13.00 | 16.41 |
| 5730.912 | H | -60.05 | 9.93 | -50.12 | -13.00 | 37.12 |
| 7639.987 | H | -49.03 | 11.11 | -37.92 | -13.00 | 24.92 |
| 11462.911 | H | -68.97 | 34.05 | -34.92 | -13.00 | 21.92 |
| 3820.519 | V | -72.84 | 49.70 | -23.14 | -13.00 | 10.14 |
| 5730.912 | V | -59.67 | 9.66 | -50.01 | -13.00 | 37.01 |
| 7639.987 | V | -45.81 | 10.66 | -35.15 | -13.00 | 22.15 |
| 11462.911 | V | -65.42 | 34.27 | -31.15 | -13.00 | 18.15 |

Note: Please refer to appendix D for plot data.

## 7.3 Explanation of test result

Result Level = Reading Level + Corrected Factor

Corrected Factor = SG level – Received level-Cable loss + substitution antenna gain

## 7.4 Calculation of Limit for Field Strength of Spurious

Compliance with § 22.917(a) requires that any emission be attenuated below the transmitter power at least 43 + 10 log10 P ( P = transmitter power in Watts ).

The compliance limit was calculated as an example per the following:

Maximum transmitter radiated power: P=1.4488 watt

Required attenuation: A=43 + 10 log10 P

Limit for Spurious Emissions at Antenna Terminals: L=P-A=-13dBm

Test equipment: ETSTW-RE 003, ETSTW-RE 017, ETSTW-RE 042, ETSTW-RE 043, ETSTW-RE 044, ETSTW-GSM 02

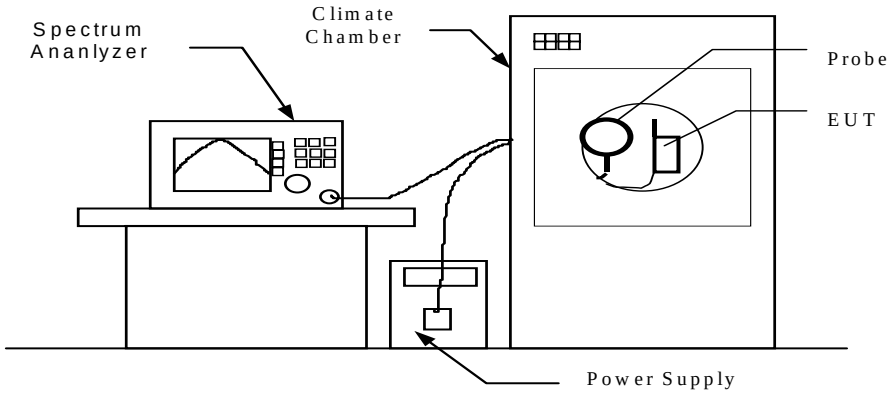
## 8. Frequency Stability

### 8.1 Test procedure

☑ The equipment under test was supplied with rated power supply and the RF output was connected to a frequency counter via feed through attenuators. The EUT was placed inside the temperature chamber. The DC leads and RF output cable, exited the chamber through an opening made for that purpose.
After the temperature stabilized the frequency output was recorded from the counter.

☐ An external variable power supply was used to supply nominal voltage and 85% to 115% of nominal voltage to the EUT under room temperature. Record the frequencies measured from the counter.

☑ End point voltage: For hand carried, battery powered equipment, reduce primary supply voltage to the battery operating end point which shall be specified by the manufacturer. Then record the frequencies measured from the counter.



## 8.2 Test Results

### 8.2.1 Frequency Stability vs. Temperature

CH 128 824.195192 MHz ( It is the based frequency point that measured at nominal temperature and nominal voltage.)

| Supplied Voltage | Temperature (°C) | Frequency Drift (Hz) | Frequency Drift (ppm) | Limit (ppm) |
|---|---|---|---|---|
| 5 VDC | 50 | 19 | 0.023 | ±2.5 |
| | 40 | 23 | 0.027 | |
| | 30 | 31 | 0.037 | |
| | 20 | 20 | 0.024 | |
| | 10 | 17 | 0.020 | |
| | 0 | 28 | 0.033 | |
| | -10 | 10 | 0.012 | |
| | -20 | 18 | 0.021 | |
| | -30 | 14 | 0.016 | |

CH 188 836.183173 MHz ( It is the based frequency point that measured at nominal temperature and nominal voltage.)

| Supplied Voltage | Temperature (°C) | Frequency Drift (Hz) | Frequency Drift (ppm) | Limit (ppm) |
|---|---|---|---|---|
| 5 VDC | 50 | 15 | 0.017 | ±2.5 |
| | 40 | 36 | 0.043 | |
| | 30 | 10 | 0.011 | |
| | 20 | 25 | 0.029 | |
| | 10 | 20 | 0.023 | |
| | 0 | 34 | 0.040 | |
| | -10 | 29 | 0.034 | |
| | -20 | 21 | 0.025 | |
| | -30 | 15 | 0.017 | |

CH 251 848.782371 MHz ( It is the based frequency point that measured at nominal temperature and nominal voltage.)

| Supplied Voltage | Temperature (°C) | Frequency Drift (Hz) | Frequency Drift (ppm) | Limit (ppm) |
|---|---|---|---|---|
| 5 VDC | 50 | 21 | 0.024 | ±2.5 |
| | 40 | 48 | 0.056 | |
| | 30 | 25 | 0.029 | |
| | 20 | 36 | 0.042 | |
| | 10 | 13 | 0.015 | |
| | 0 | 38 | 0.044 | |
| | -10 | 30 | 0.035 | |
| | -20 | 27 | 0.031 | |
| | -30 | 12 | 0.014 | |

CH 512 1850.267308 MHz ( It is the based frequency point that measured at nominal temperature and nominal voltage.)

| Supplied Voltage | Temperature (°C) | Frequency Drift (Hz) | Frequency Drift (ppm) | Limit (ppm) |
|---|---|---|---|---|
| 5 VDC | 50 | 37 | 0.019 | ±2.5 |
| | 40 | 29 | 0.015 | |
| | 30 | 17 | 0.009 | |
| | 20 | 28 | 0.015 | |
| | 10 | 32 | 0.017 | |
| | 0 | 19 | 0.010 | |
| | -10 | 21 | 0.011 | |
| | -20 | 35 | 0.018 | |
| | -30 | 26 | 0.014 | |

CH 661 1879.931891 MHz ( It is the based frequency point that measured at nominal temperature and nominal voltage.)

| Supplied Voltage | Temperature (°C) | Frequency Drift (Hz) | Frequency Drift (ppm) | Limit (ppm) |
|---|---|---|---|---|
| 5 VDC | 50 | 39 | 0.020 | ±2.5 |
| | 40 | 21 | 0.011 | |
| | 30 | 17 | 0.009 | |
| | 20 | 30 | 0.015 | |
| | 10 | 26 | 0.013 | |
| | 0 | 35 | 0.018 | |
| | -10 | 20 | 0.010 | |
| | -20 | 27 | 0.014 | |
| | -30 | 32 | 0.017 | |

CH 810 1909.735897 MHz ( It is the based frequency point that measured at nominal temperature and nominal voltage.)

| Supplied Voltage | Temperature (°C) | Frequency Drift (Hz) | Frequency Drift (ppm) | Limit (ppm) |
|---|---|---|---|---|
| 5 VDC | 50 | 27 | 0.014 | ±2.5 |
| | 40 | 34 | 0.017 | |
| | 30 | 45 | 0.023 | |
| | 20 | 30 | 0.015 | |
| | 10 | 35 | 0.018 | |
| | 0 | 48 | 0.025 | |
| | -10 | 21 | 0.010 | |
| | -20 | 14 | 0.007 | |
| | -30 | 31 | 0.016 | |

### 8.2.2 Frequency Stability vs. Voltage

CH 128

| Supplied Voltage | Temperature (°C) | Frequency Drift (Hz) | Frequency Drift (ppm) | Limit (ppm) |
|---|---|---|---|---|
| End Point Voltage 5 VDC | 25 | 17 | 0.020 | ±2.5 |

CH 188

| Supplied Voltage | Temperature (°C) | Frequency Drift (Hz) | Frequency Drift (ppm) | Limit (ppm) |
|---|---|---|---|---|
| End Point Voltage 5 VDC | 25 | 16 | 0.019 | ±2.5 |

CH 251

| Supplied Voltage | Temperature (°C) | Frequency Drift (Hz) | Frequency Drift (ppm) | Limit (ppm) |
|---|---|---|---|---|
| End Point Voltage 5 VDC | 25 | 16 | 0.019 | ±2.5 |

CH 512

| Supplied Voltage | Temperature (°C) | Frequency Drift (Hz) | Frequency Drift (ppm) | Limit (ppm) |
|---|---|---|---|---|
| End Point Voltage 5 VDC | 25 | 31 | 0.016 | ±2.5 |

CH 661

| Supplied Voltage | Temperature (°C) | Frequency Drift (Hz) | Frequency Drift (ppm) | Limit (ppm) |
|---|---|---|---|---|
| End Point Voltage 5 VDC | 25 | 35 | 0.018 | ±2.5 |

CH 810

| Supplied Voltage | Temperature (°C) | Frequency Drift (Hz) | Frequency Drift (ppm) | Limit (ppm) |
|---|---|---|---|---|
| End Point Voltage 5 VDC | 25 | 29 | 0.015 | ±2.5 |

Test equipment: ETSTW-CE009, ETSTW-RE 003, ETSTW-RE055, ETSTW-GSM 02

# Appendix

A RF Power Output
B Occupied Bandwidth / Emission Mask
C Spurious Emissions at Antenna Terminals
D Filed Strength of Spurious Emission

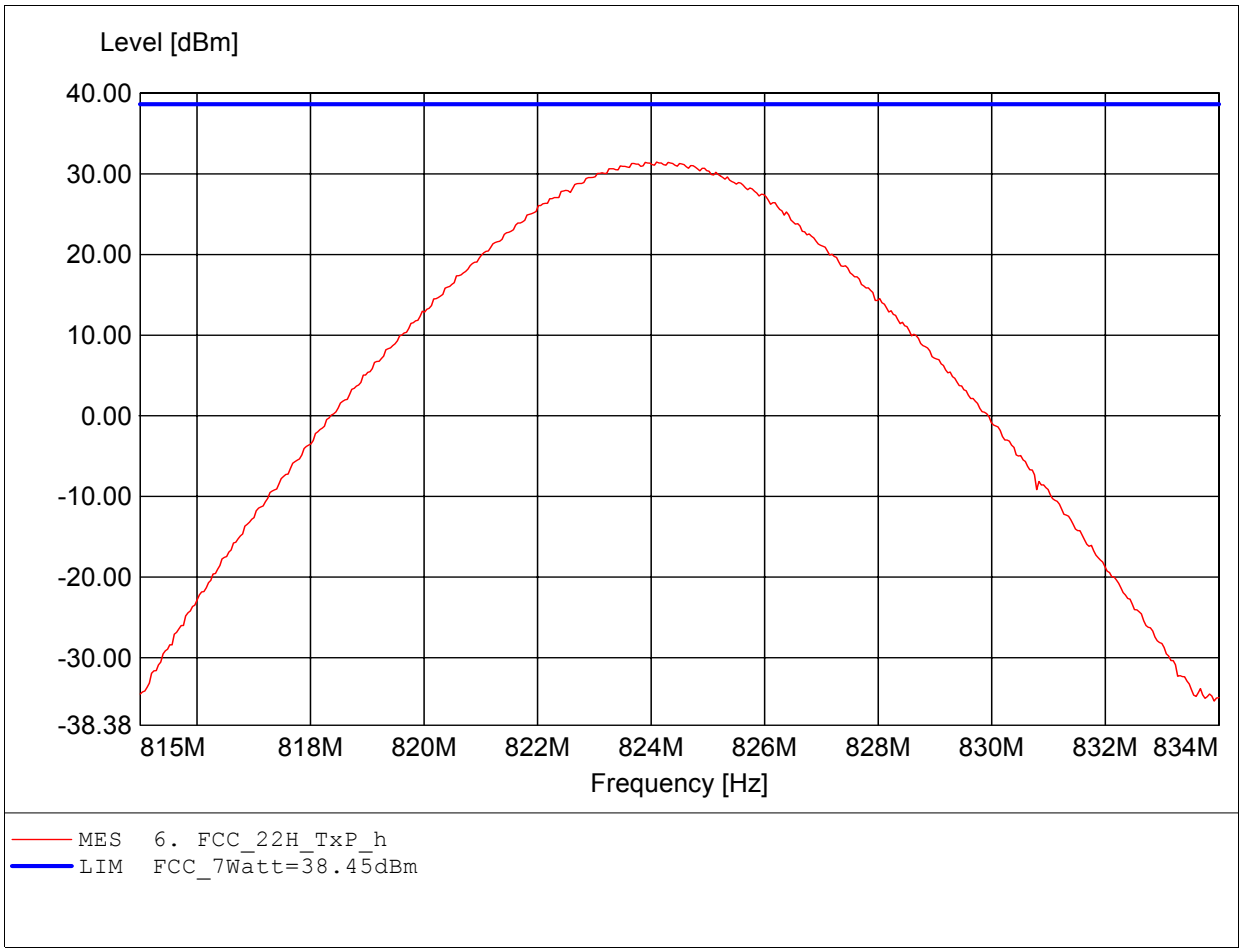
# Appendix A

RF Power Output

***Effective Radiated Power***

***FCC RULES PART 22 SUBPART H***

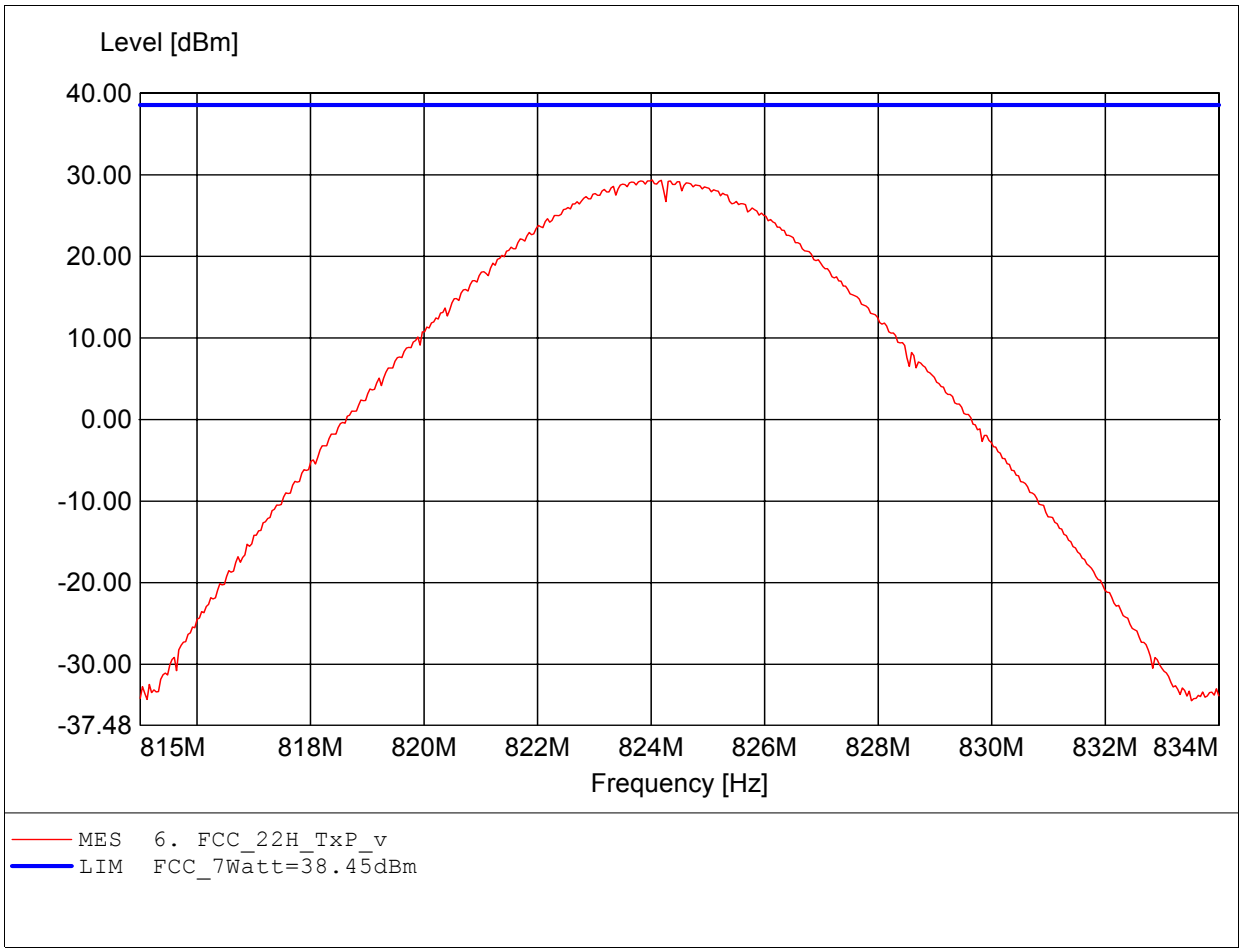
Order Number : W6M20612-7664 850Band CH128
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to §22.913
Comment 1: Dist.: 3m, Ant.: HL223
Freq: 824.098MHz, Pmax: 31.47dBm, RBW: 3MHz



***Effective Radiated Power***

***FCC RULES PART 22 SUBPART H***

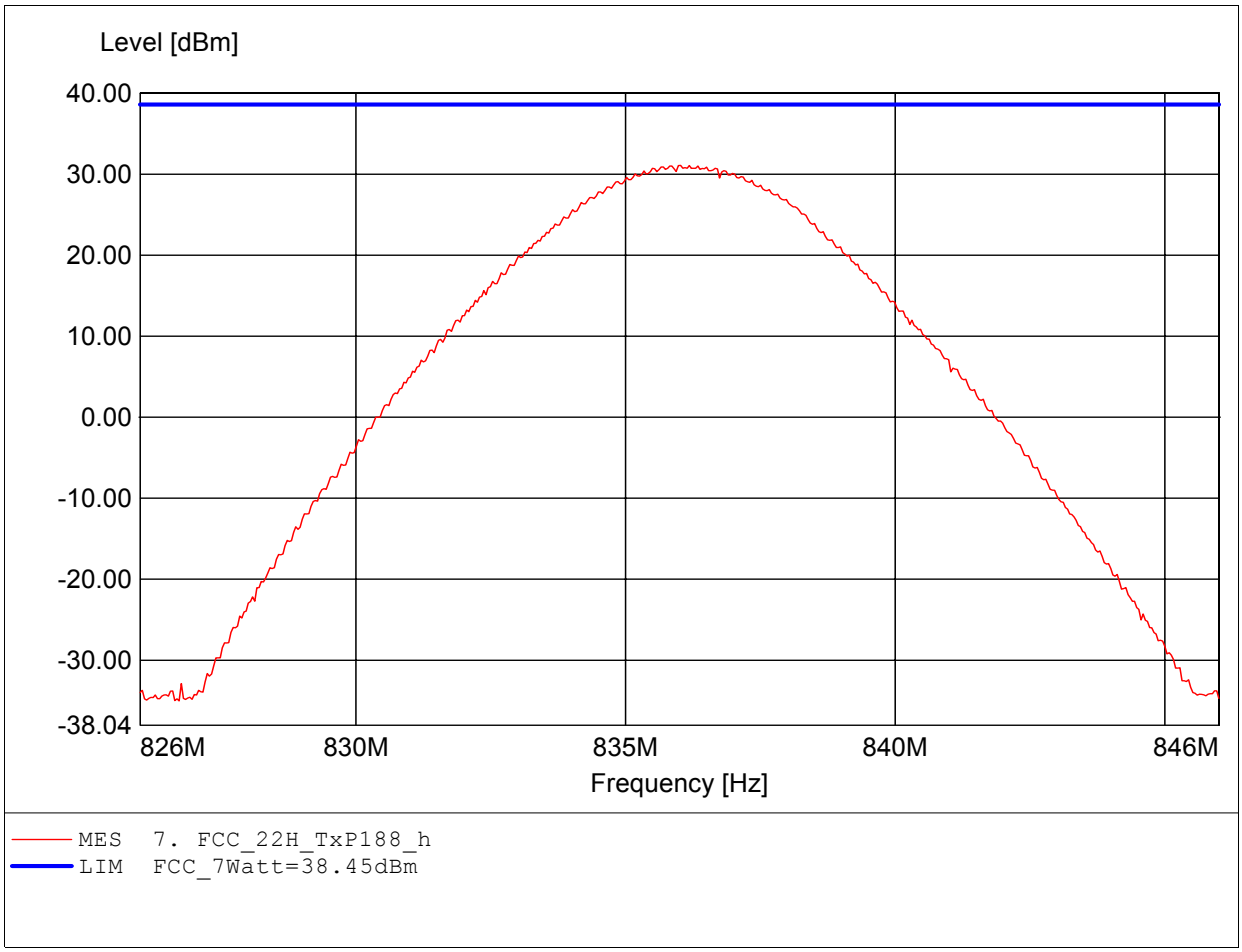
| | |
|---|---|
| Order Number : | W6M20612-7664 850Band CH128 |
| Test Site / Operator: | ETS / Derek |
| Temperature:: | Temp.: 23.9°C |
| | according to §22.913 |
| Comment 1: | Dist.: 3m, Ant.: HL223 |
| | Freq: 824.018MHz, Pmax: 29.36dBm, RBW: 3MHz |



***Effective Radiated Power***

***FCC RULES PART 22 SUBPART H***

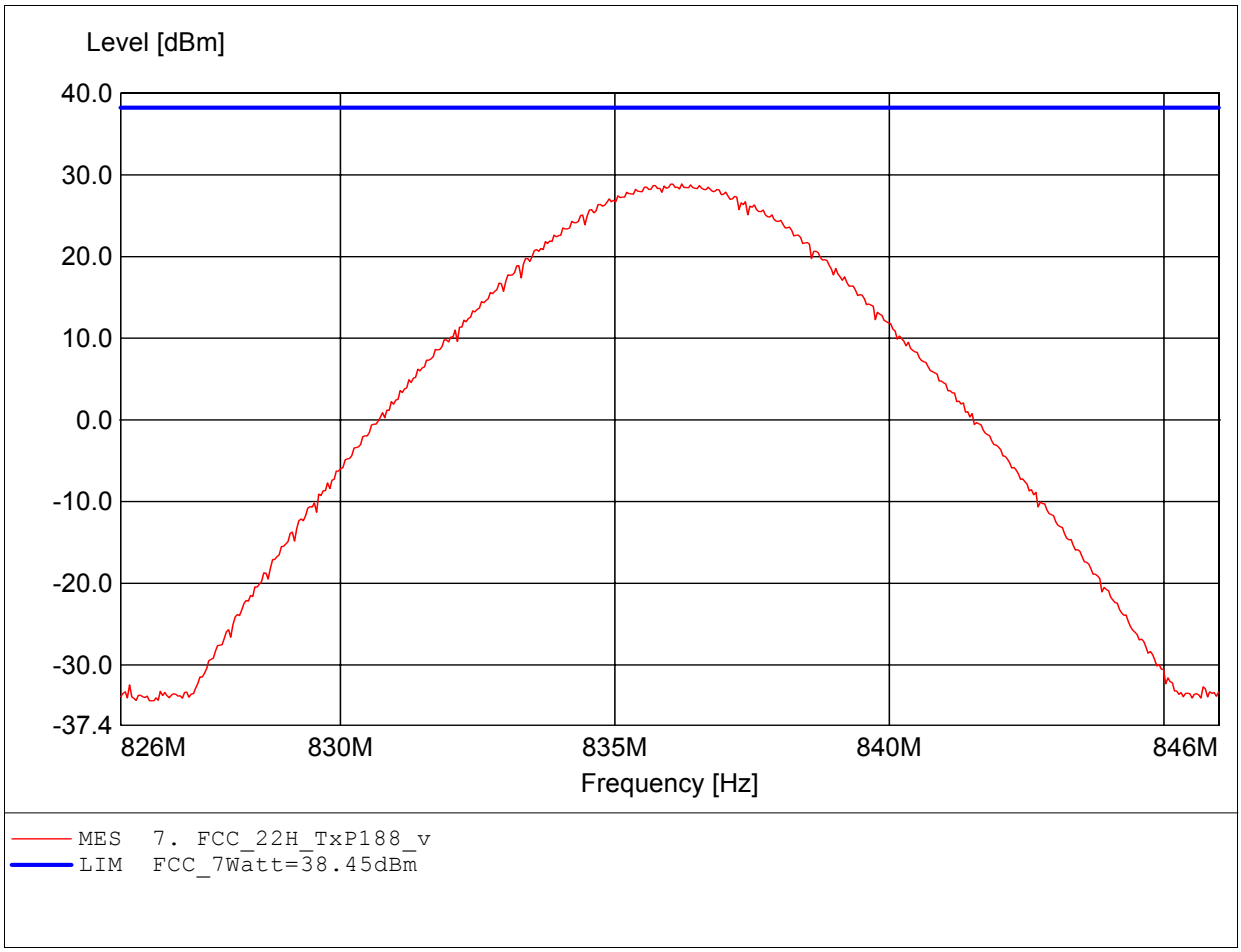
```
Order Number :          W6M20612-7664     850Band CH188
Test Site / Operator:   ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.913
Comment 1:              Dist.: 3m, Ant.: HL223
                        Freq: 836.020MHz, Pmax: 31.08dBm, RBW: 3MHz
```



***Effective Radiated Power***

***FCC RULES PART 22 SUBPART H***

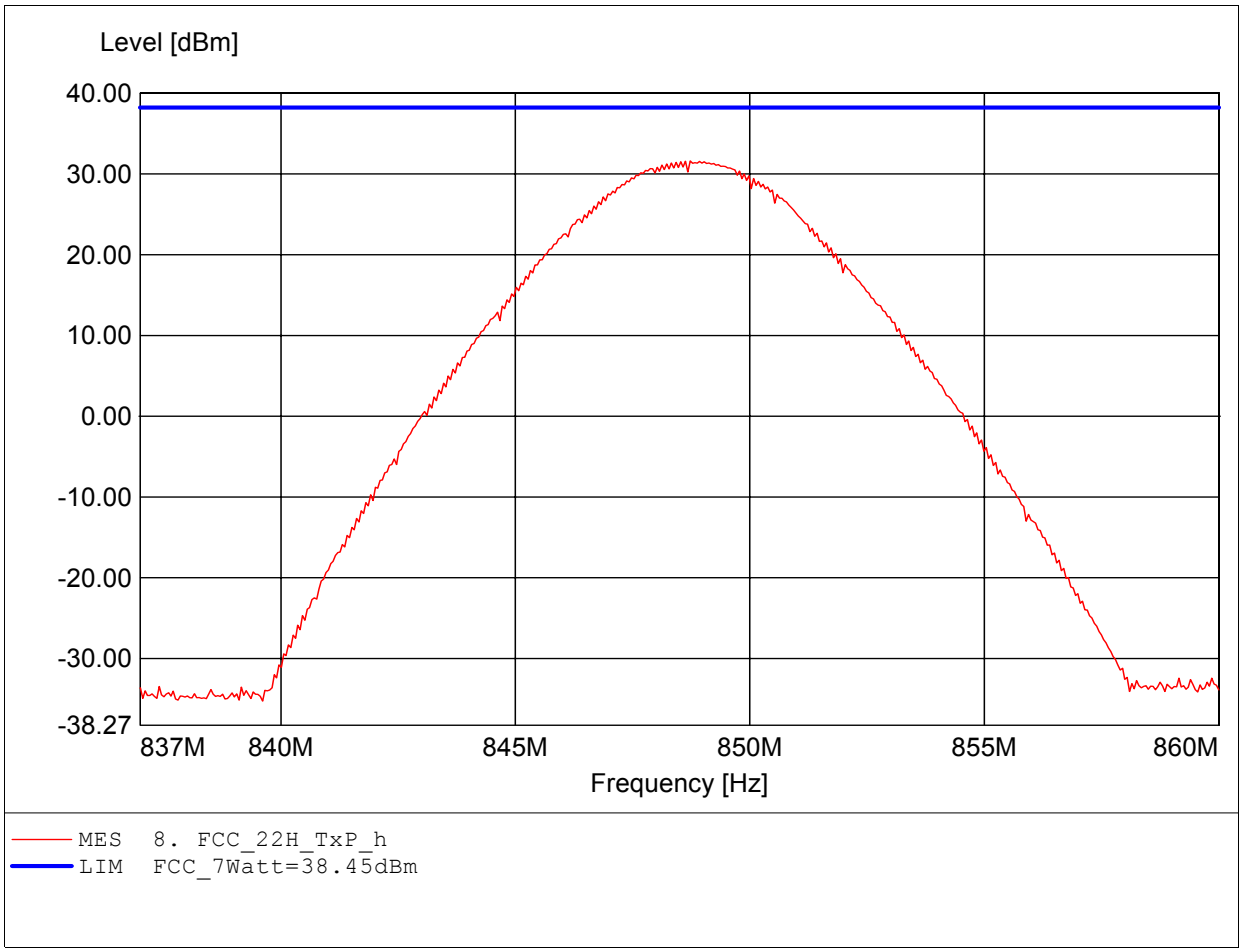
```
Order Number :          W6M20612-7664     850Band CH188
Test Site / Operator:   ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.913
Comment 1:              Dist.: 3m, Ant.: HL223
                        Freq: 836.020MHz, Pmax: 28.88dBm, RBW: 3MHz
```



***Effective Radiated Power***

***FCC RULES PART 22 SUBPART H***

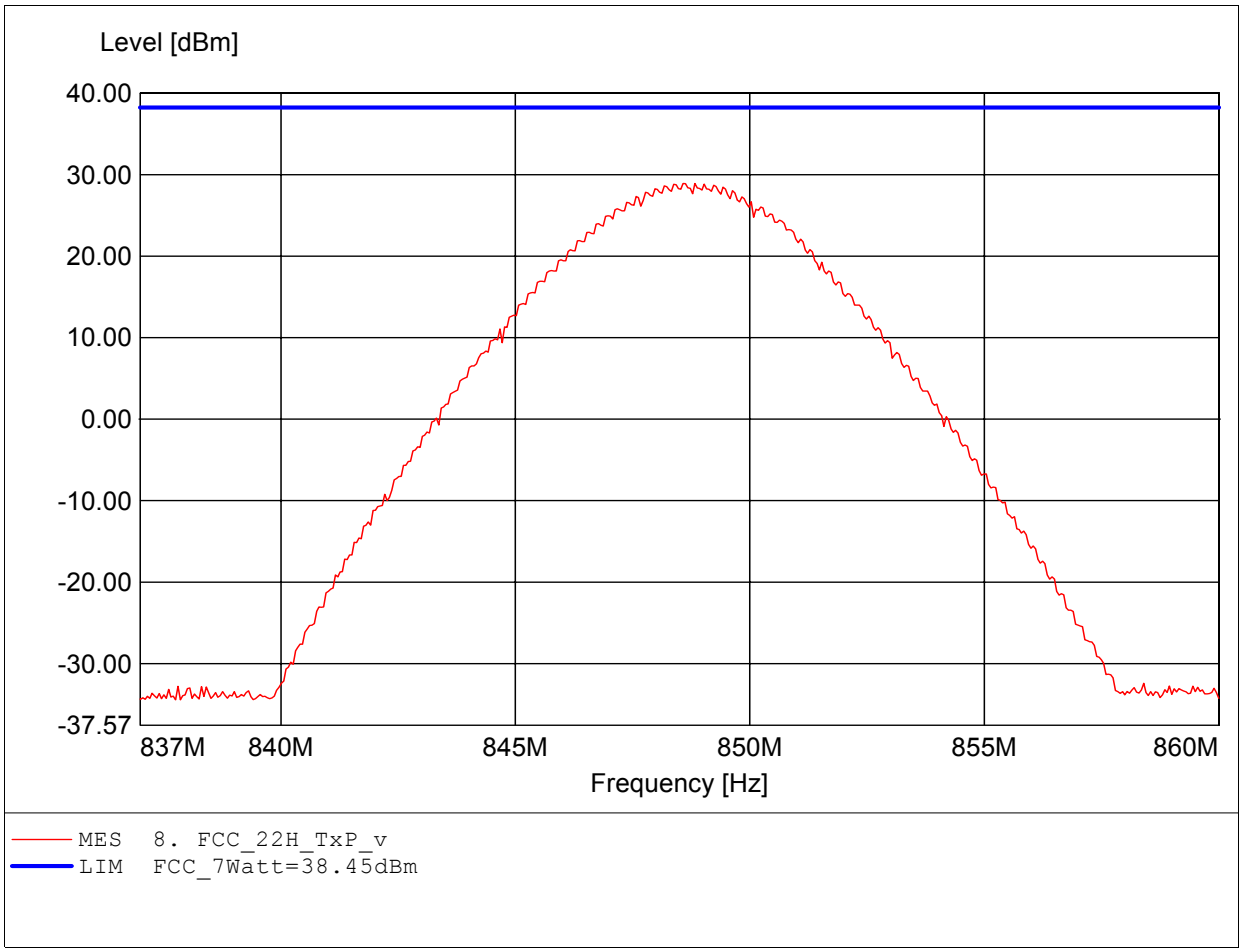
```
Order Number :          W6M20612-7664     850Band CH251
Test Site / Operator:   ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.913
Comment 1:              Dist.: 3m, Ant.: HL223
                        Freq: 848.727MHz, Pmax: 31.61dBm, RBW: 3MHz
```



***Effective Radiated Power***

***FCC RULES PART 22 SUBPART H***

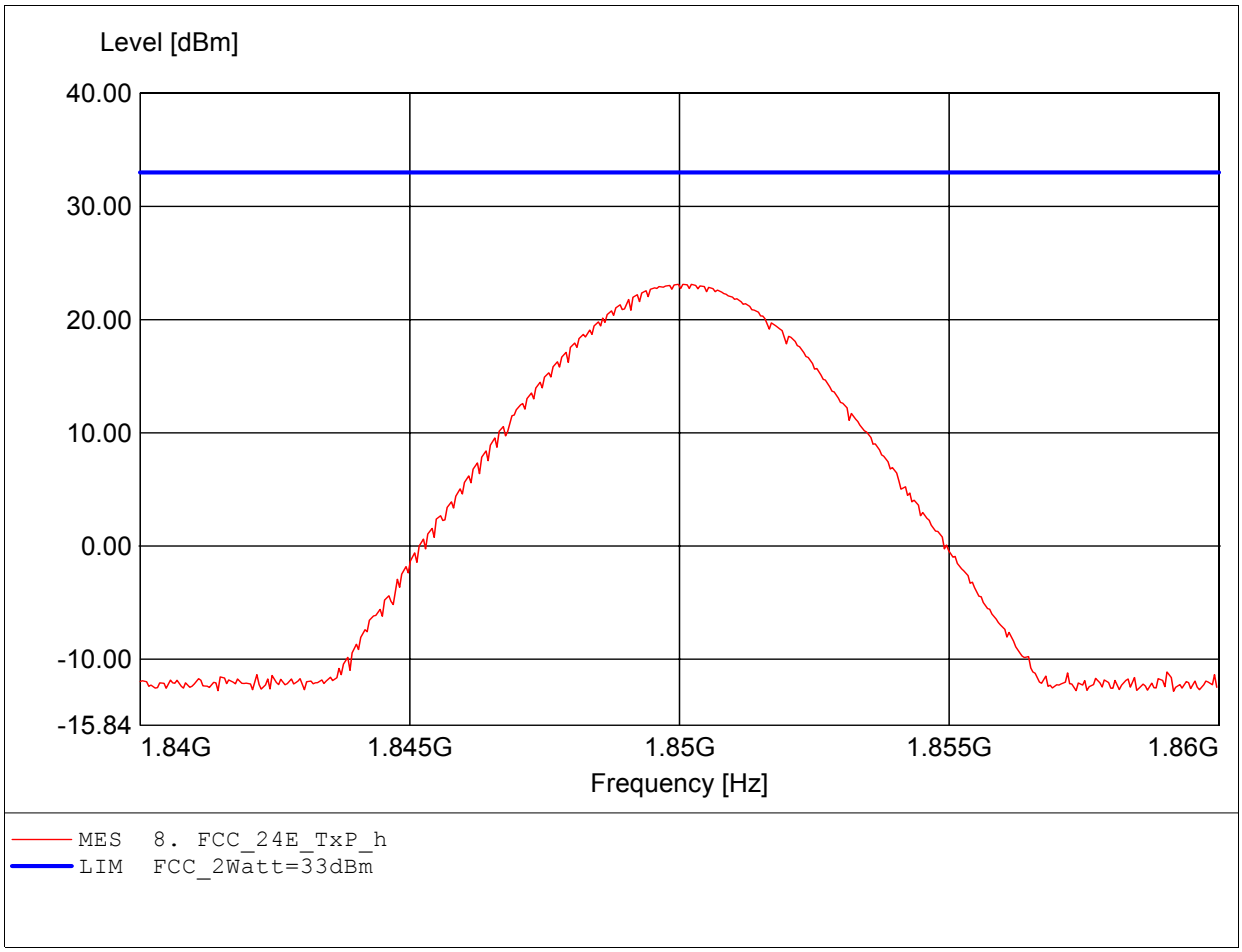
```
Order Number :          W6M20612-7664     850Band CH251
Test Site / Operator:   ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.913
Comment 1:              Dist.: 3m, Ant.: HL223
                        Freq: 848.828MHz, Pmax: 28.92dBm, RBW: 3MHz
```



***Equivalent Isotropically Radiated Power***

***FCC RULES PART 24 SUBPART E***

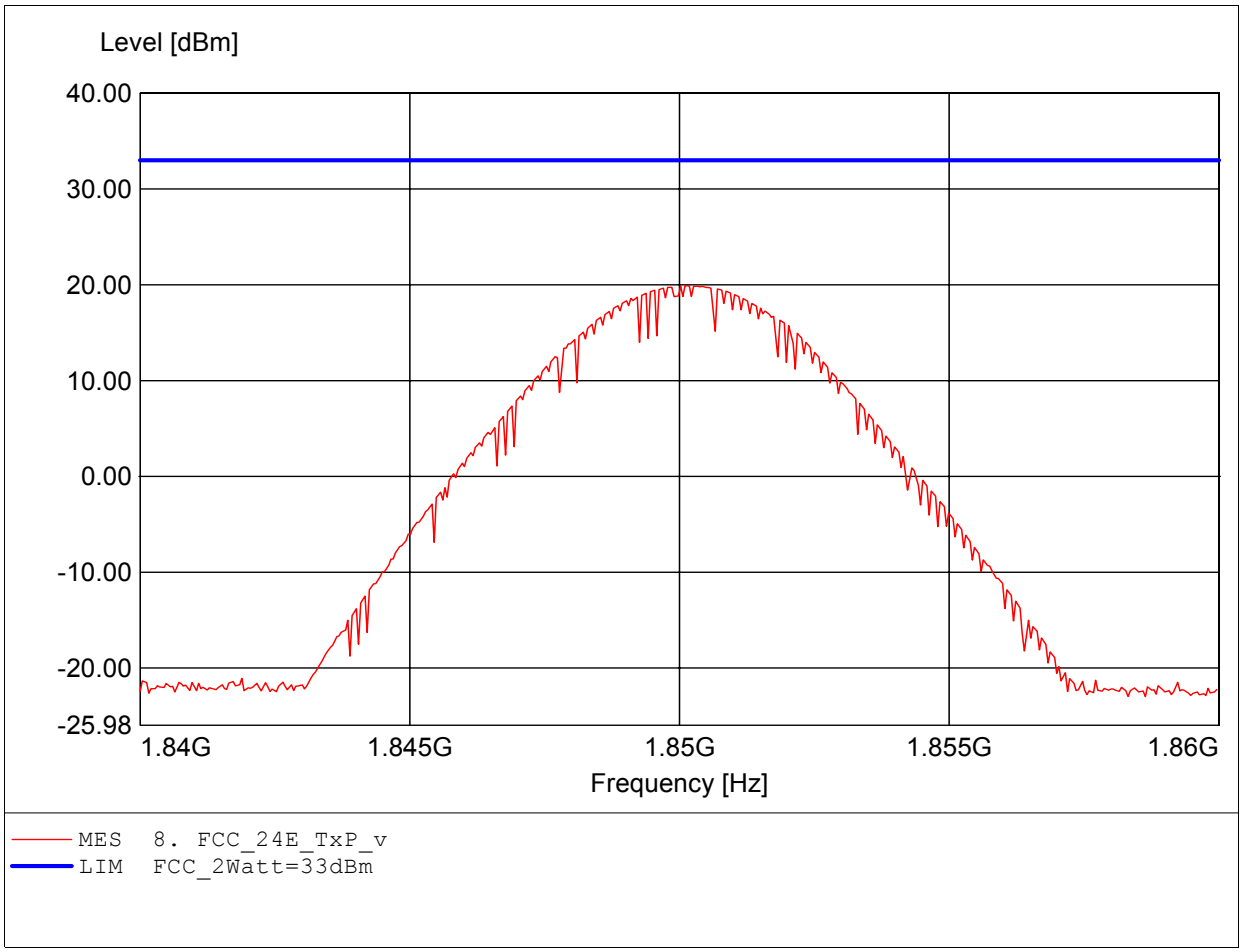
Order Number : W6M20612-7664 1900 band ch512
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to §24.232
Comment 1: Dist.: 3m, Ant.: HL025,PCL 0
Freq: 1.850GHz, Pmax: 24.12dBm, RBW: 3MHz



***Equivalent Isotropically Radiated Power***

***FCC RULES PART 24 SUBPART E***

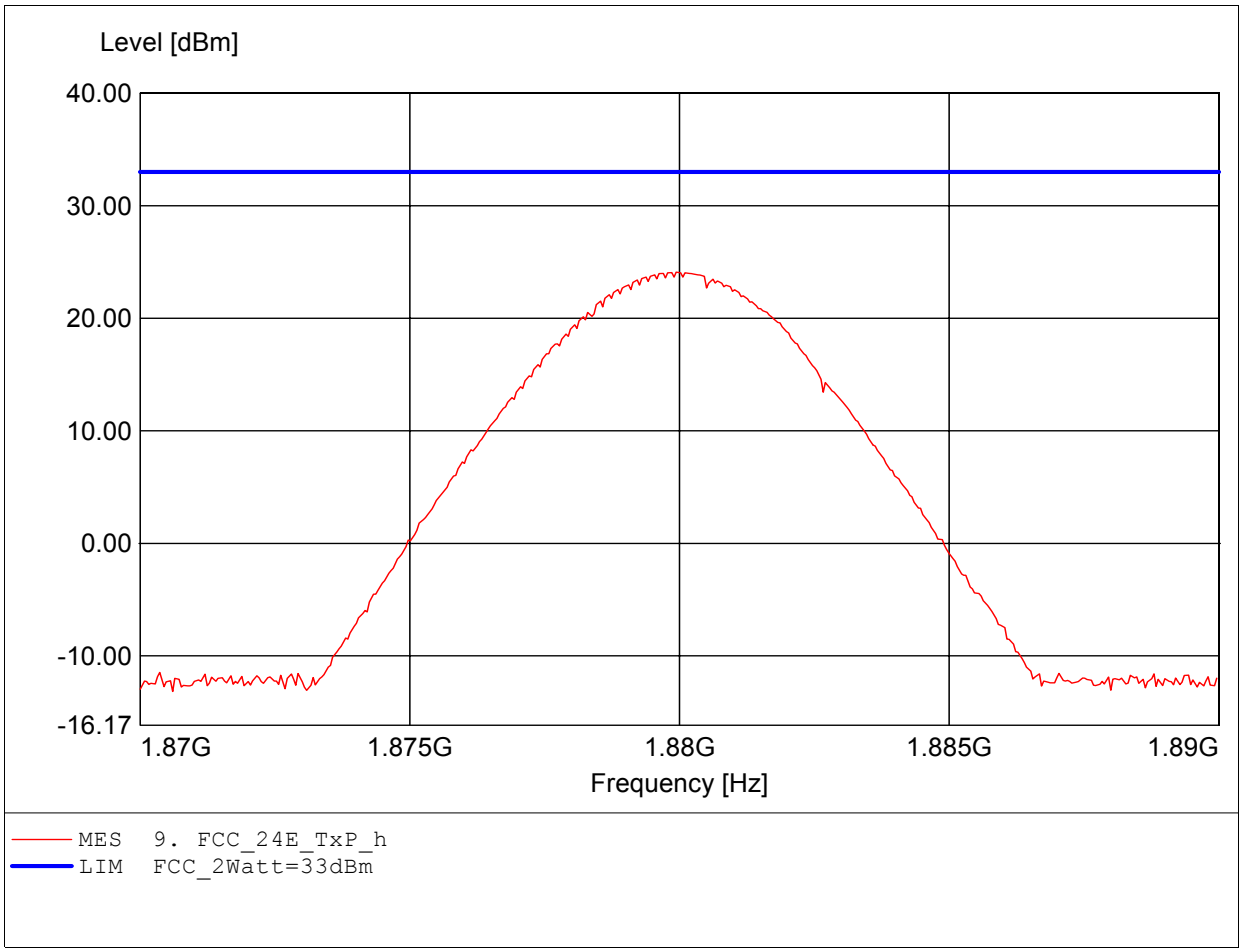
```
Order Number :          W6M20612-7664     1900 band  ch512
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §24.232
Comment 1:              Dist.: 3m, Ant.: HL025,PCL 0
                        Freq: 1.850GHz, Pmax: 19.90dBm, RBW: 3MHz
```



***Equivalent Isotropically Radiated Power***

***FCC RULES PART 24 SUBPART E***

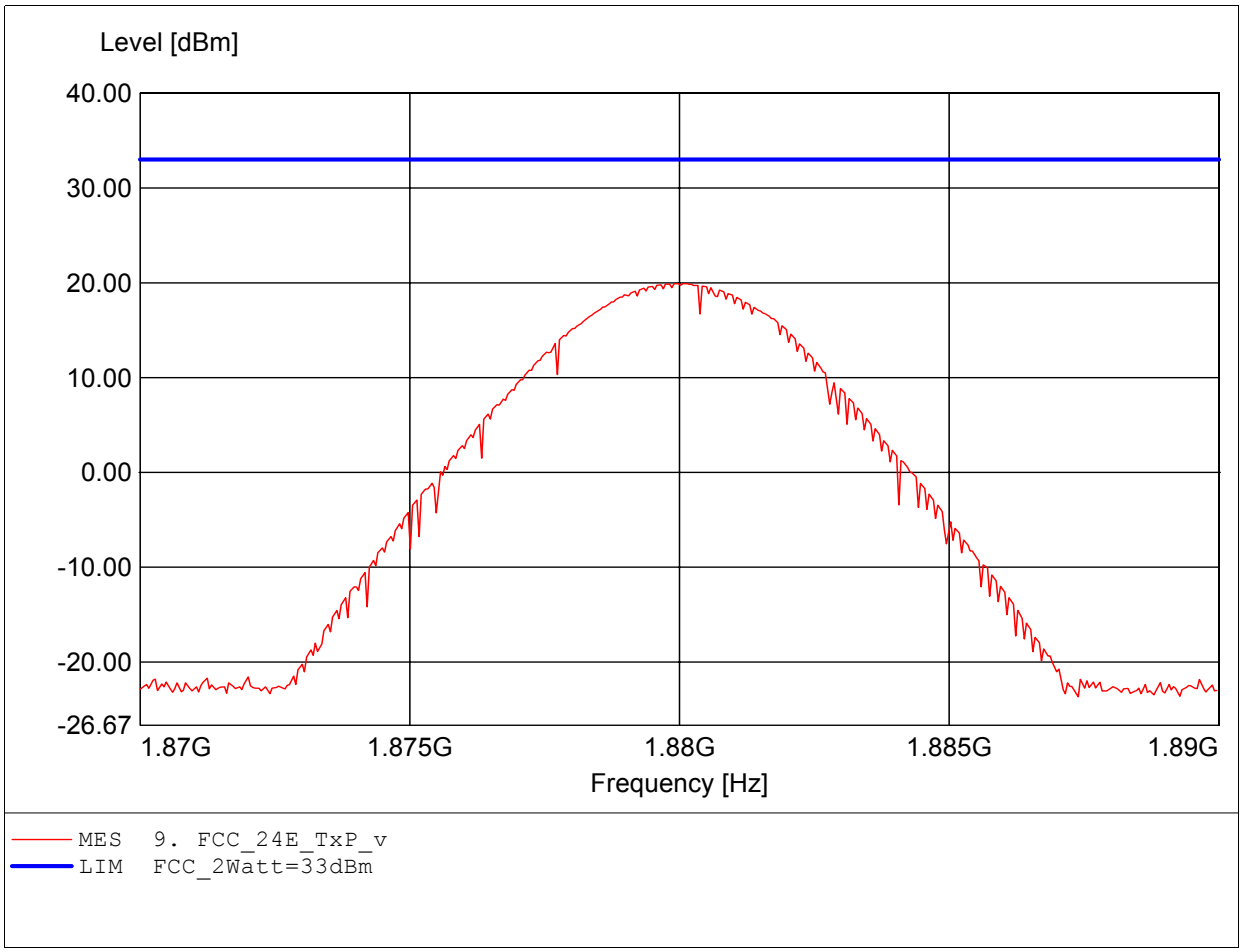
| | |
|---|---|
| Order Number : | W6M20612-7664 1900 band ch661 |
| Test Site / Operator: | ETS / Derek |
| Temperature:: | Temp.: 23.9°C |
| | according to §24.232 |
| Comment 1: | Dist.: 3m, Ant.: HL025,PCL 0 |
| | Freq: 1.880GHz, Pmax: 25.10dBm, RBW: 3MHz |



***Equivalent Isotropically Radiated Power***

***FCC RULES PART 24 SUBPART E***

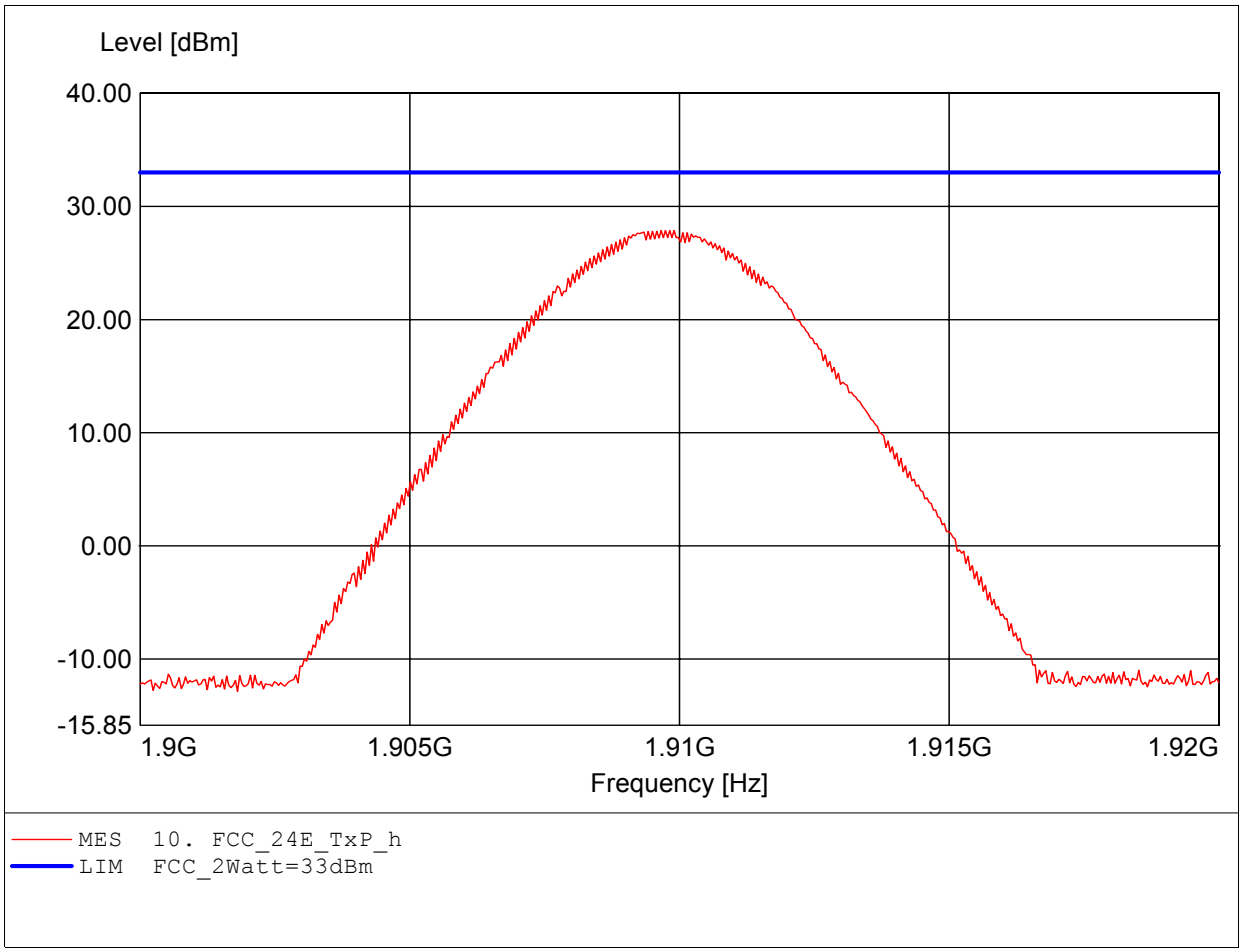
Order Number : W6M20612-7664 1900 band ch661
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to §24.232
Comment 1: Dist.: 3m, Ant.: HL025,PCL 0
Freq: 1.880GHz, Pmax: 19.92dBm, RBW: 3MHz



***Equivalent Isotropically Radiated Power***

***FCC RULES PART 24 SUBPART E***

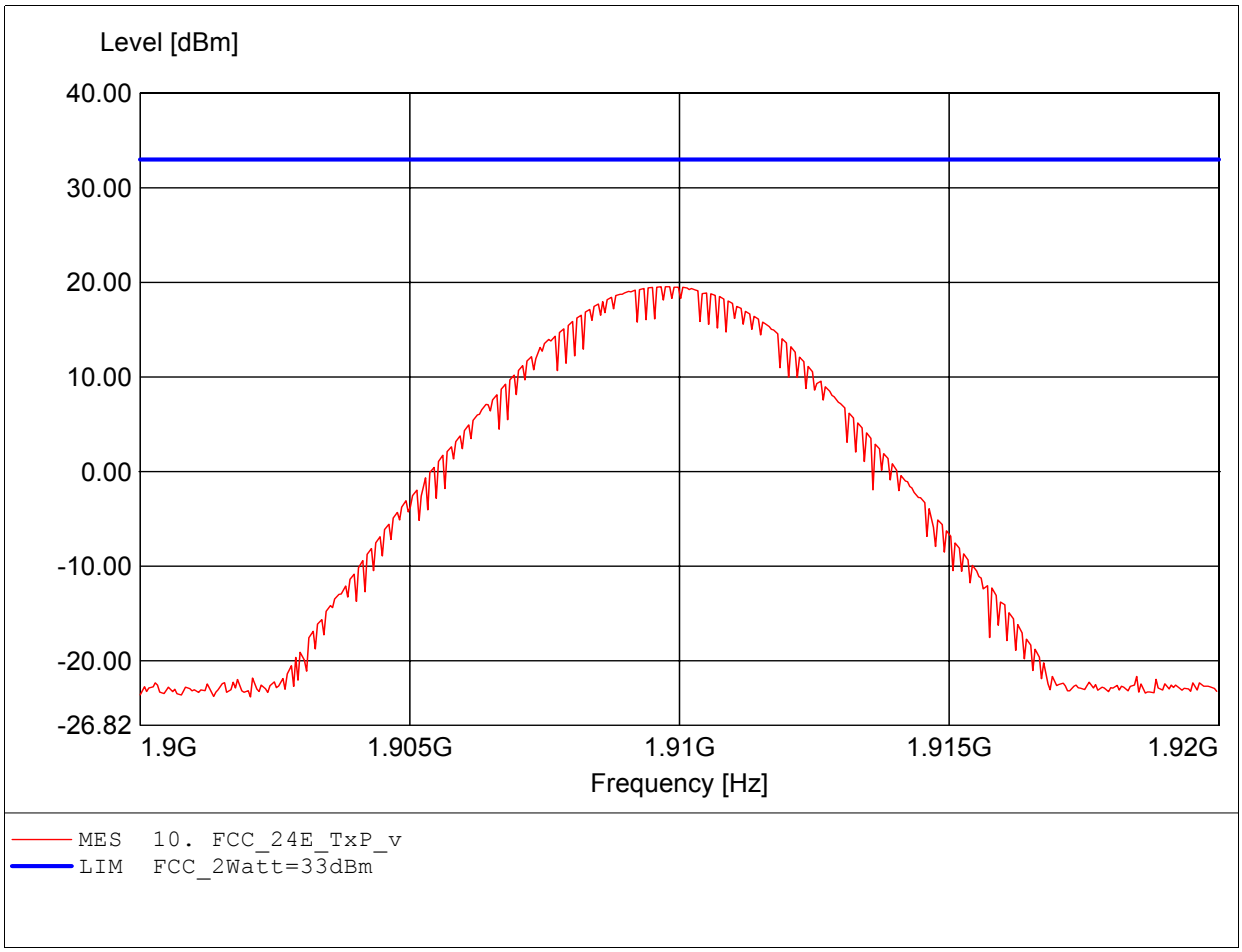
Order Number : W6M20612-7664 1900 band ch810
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to §24.232
Comment 1: Dist.: 3m, Ant.: HL025,PCL 0
Freq: 1.910GHz, Pmax: 28.16dBm, RBW: 3MHz



***Equivalent Isotropically Radiated Power***

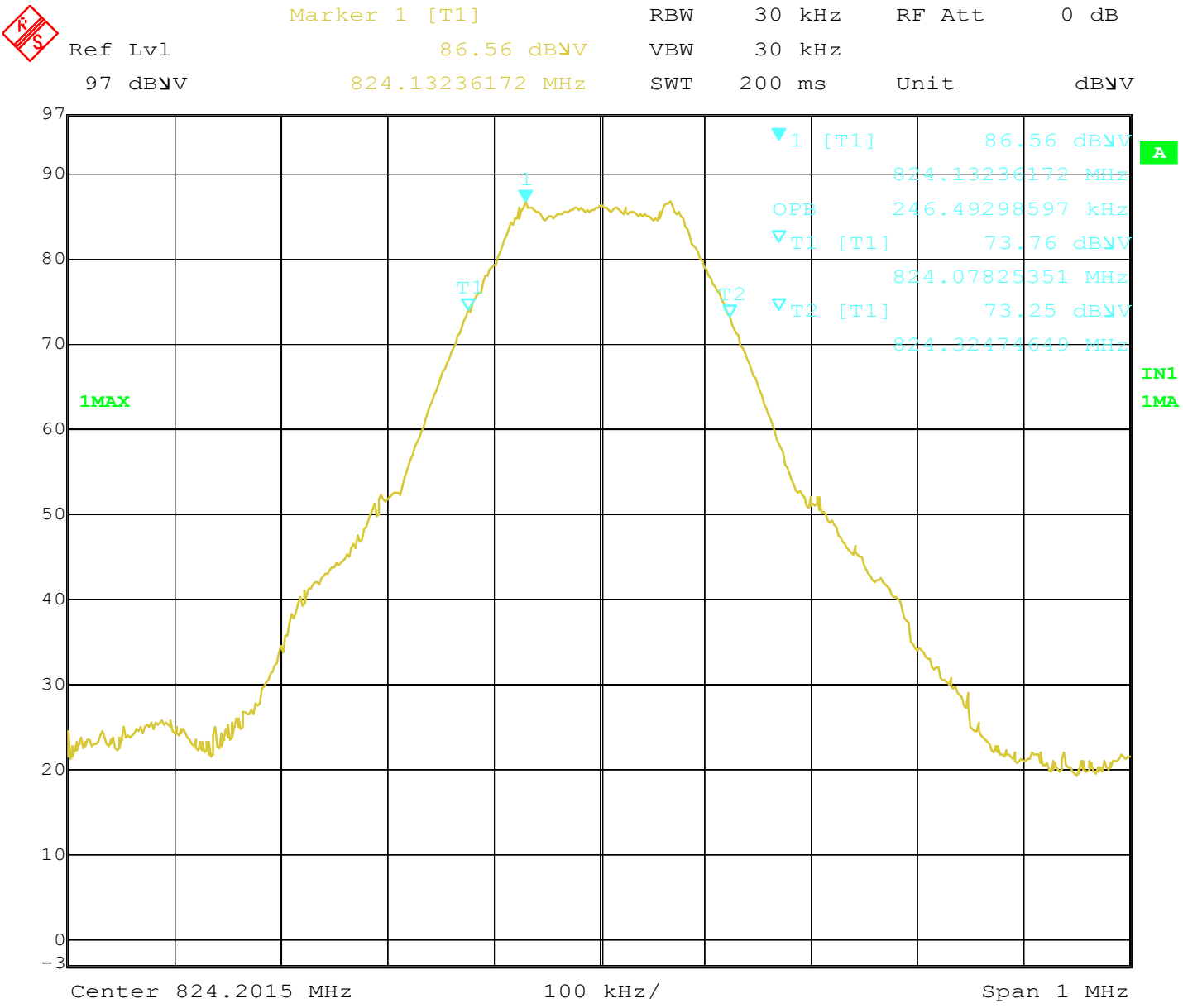
***FCC RULES PART 24 SUBPART E***

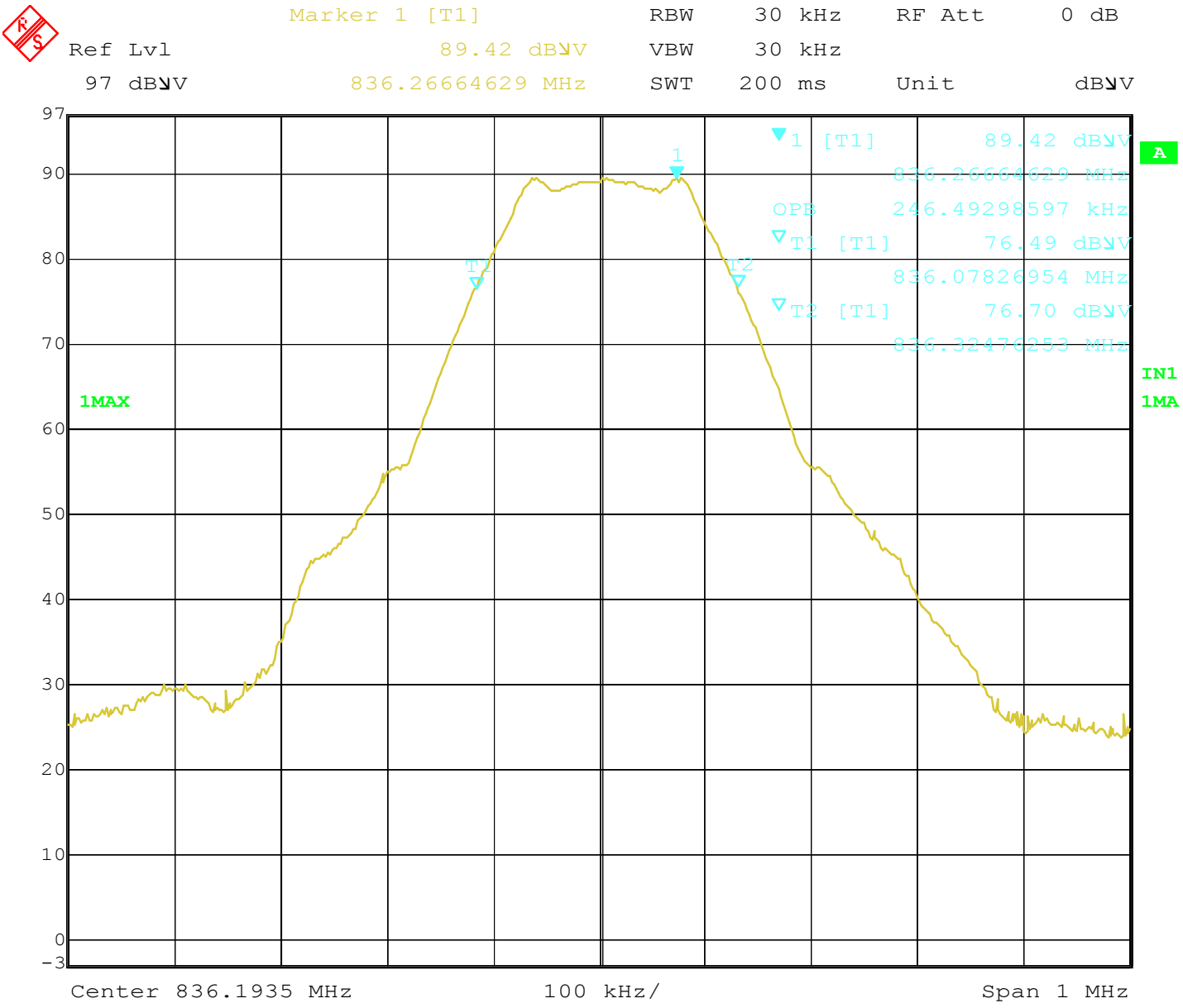
Order Number : W6M20612-7664 1900 band ch810
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to §24.232
Comment 1: Dist.: 3m, Ant.: HL025,PCL 0
Freq: 1.910GHz, Pmax: 19.55dBm, RBW: 3MHz

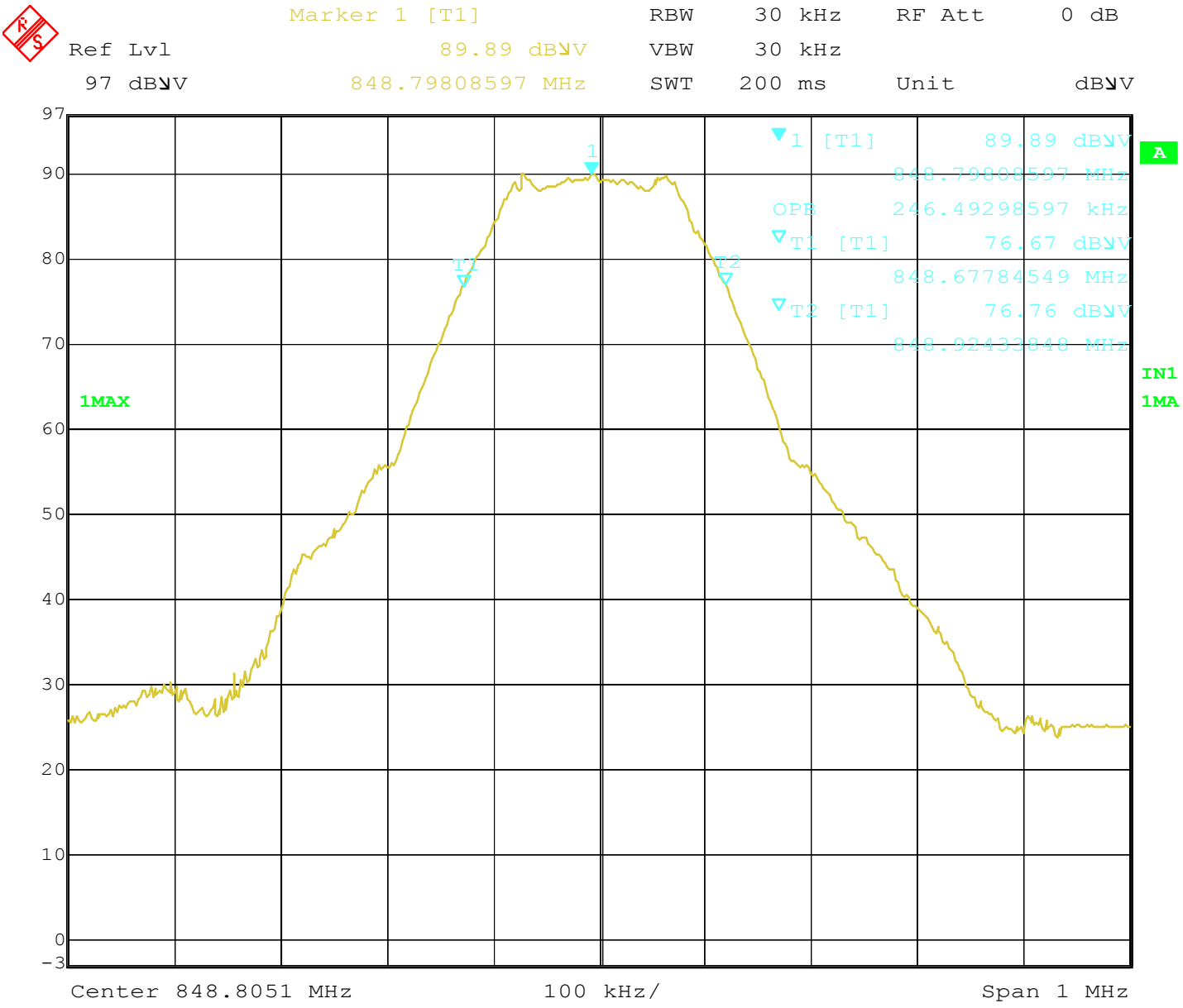


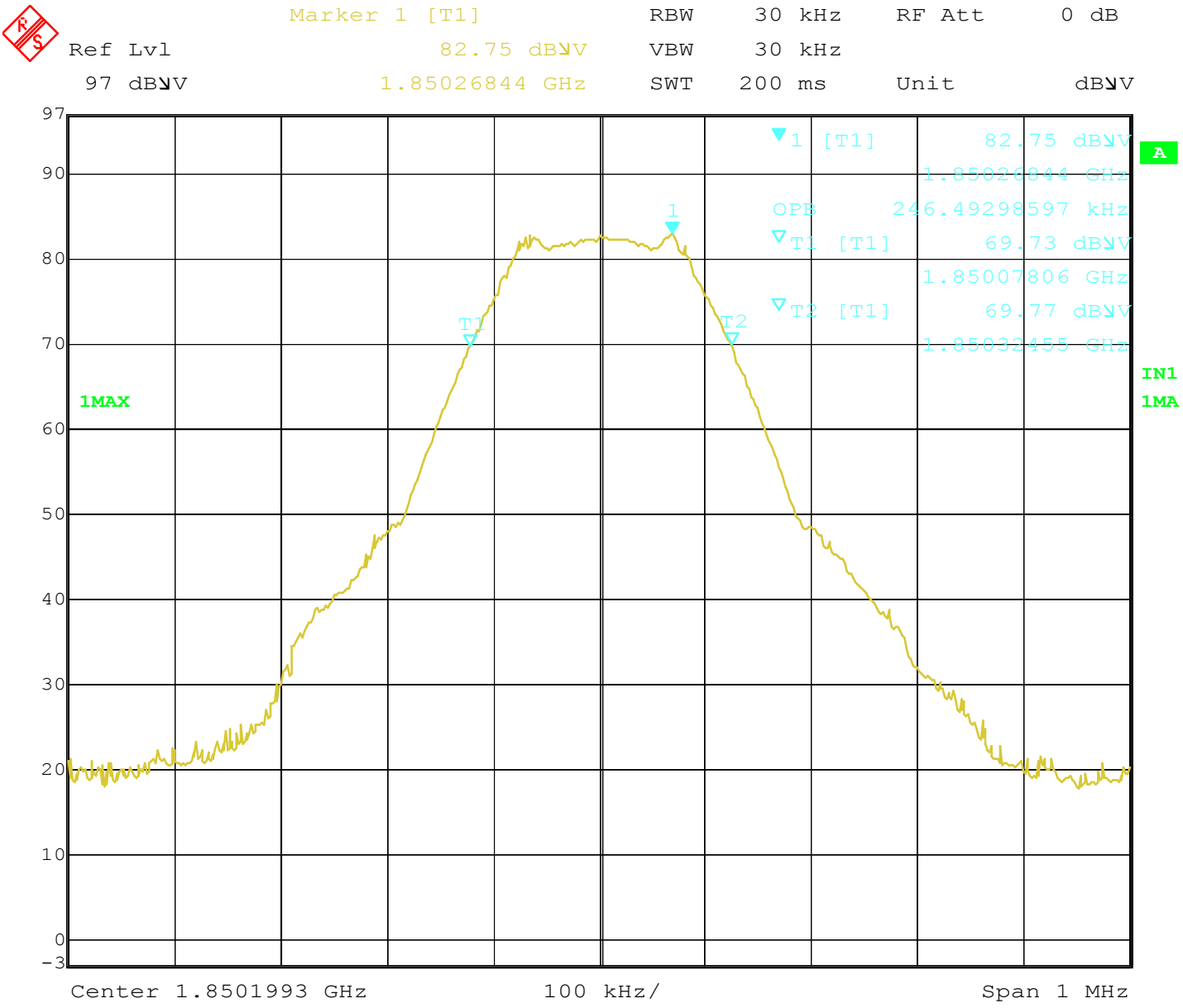
# Appendix B

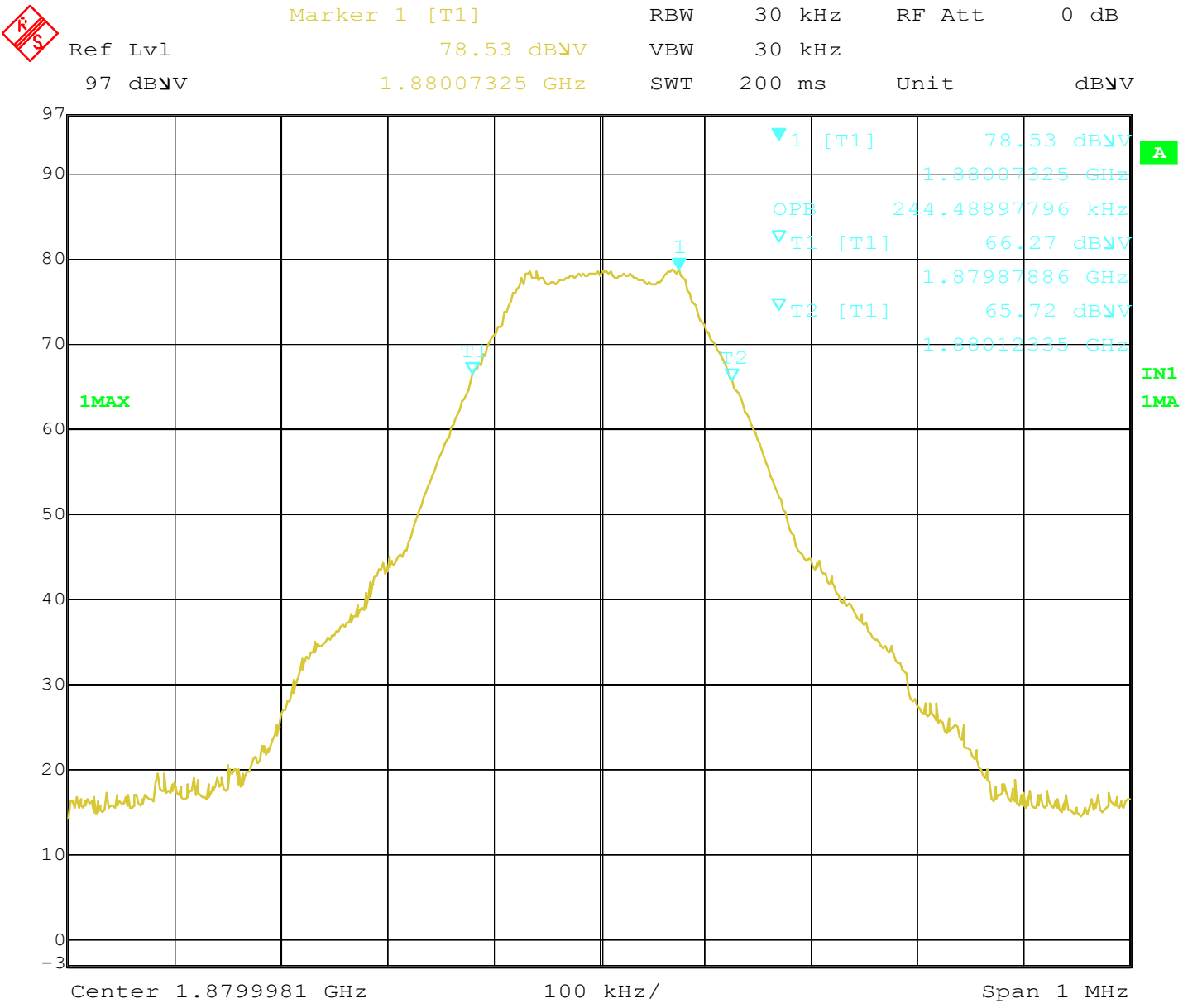
Occupied Bandwidth / Emission Mask

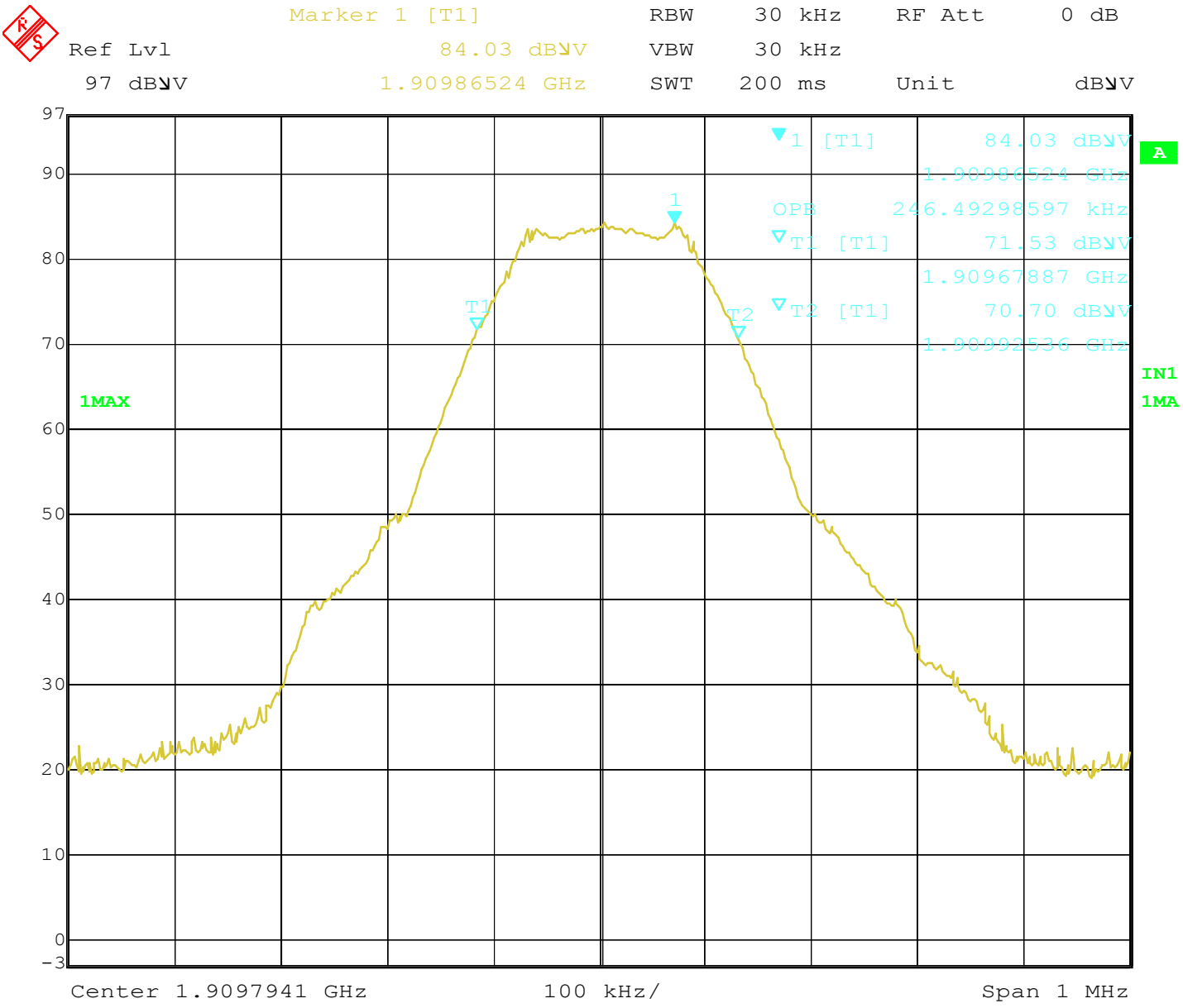

Marker 1 [T1]
RBW 30 kHz
RF Att 0 dB
Ref Lvl
86.56 dBµV
VBW 30 kHz
97 dBµV
824.13236172 MHz
SWT 200 ms
Unit dBµV
1 [T1] 86.56 dBµV
824.13236172 MHz
OPB 246.49298597 kHz
T1 [T1] 73.76 dBµV
824.07825351 MHz
T2 [T1] 73.25 dBµV
824.32478649 MHz
A
IN1
1MA
1MAX
97
90
80
70
60
50
40
30
20
10
0
-3
Center 824.2015 MHz
100 kHz/
Span 1 MHz
Date: 29.DEC.2006 15:04:32

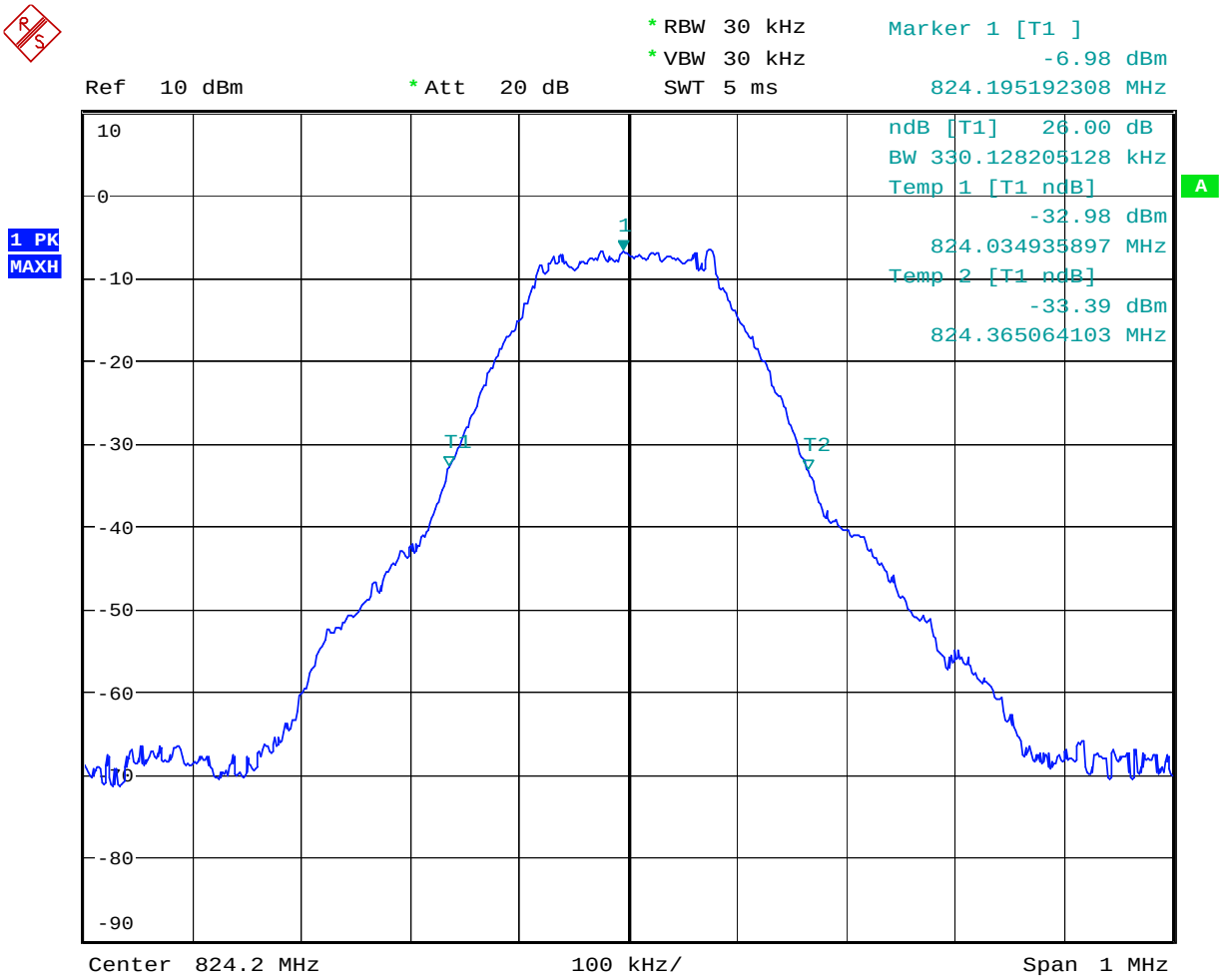

Marker 1 [T1]
RBW 30 kHz
RF Att 0 dB
Ref Lvl
89.42 dBµV
VBW 30 kHz
97 dBµV
836.26664629 MHz
SWT 200 ms
Unit dBµV
1 [T1] 89.42 dBµV
836.26664629 MHz
OPB 246.49298597 kHz
T1 [T1] 76.49 dBµV
836.07826954 MHz
T2 [T1] 76.70 dBµV
836.32476253 MHz
A
IN1
1MA
1MAX
97
90
80
70
60
50
40
30
20
10
0
-3
Center 836.1935 MHz
100 kHz/
Span 1 MHz
Date: 29.DEC.2006 15:02:34


Marker 1 [T1]
RBW 30 kHz
RF Att 0 dB
Ref Lvl
89.89 dBµV
VBW 30 kHz
97 dBµV
848.79808597 MHz
SWT 200 ms
Unit dBµV
1 [T1] 89.89 dBµV
848.79808597 MHz
OPB 246.49298597 kHz
T1 [T1] 76.67 dBµV
848.67784549 MHz
T2 [T1] 76.76 dBµV
848.92432848 MHz
A
IN1
1MA
1MAX
97
90
80
70
60
50
40
30
20
10
0
-3
Center 848.8051 MHz
100 kHz/
Span 1 MHz
Date: 29.DEC.2006 15:06:07


Marker 1 [T1]
RBW 30 kHz
RF Att 0 dB
Ref Lvl
82.75 dBµV
VBW 30 kHz
97 dBµV
1.85026844 GHz
SWT 200 ms
Unit dBµV
1 [T1] 82.75 dBµV
1.85026844 GHz
OPB 246.49298597 kHz
T1 [T1] 69.73 dBµV
1.85007806 GHz
T2 [T1] 69.77 dBµV
1.85032455 GHz
A
IN1
1MA
1MAX
T1
T2
97
90
80
70
60
50
40
30
20
10
0
-3
Center 1.8501993 GHz
100 kHz/
Span 1 MHz
Date: 29.DEC.2006 15:17:40

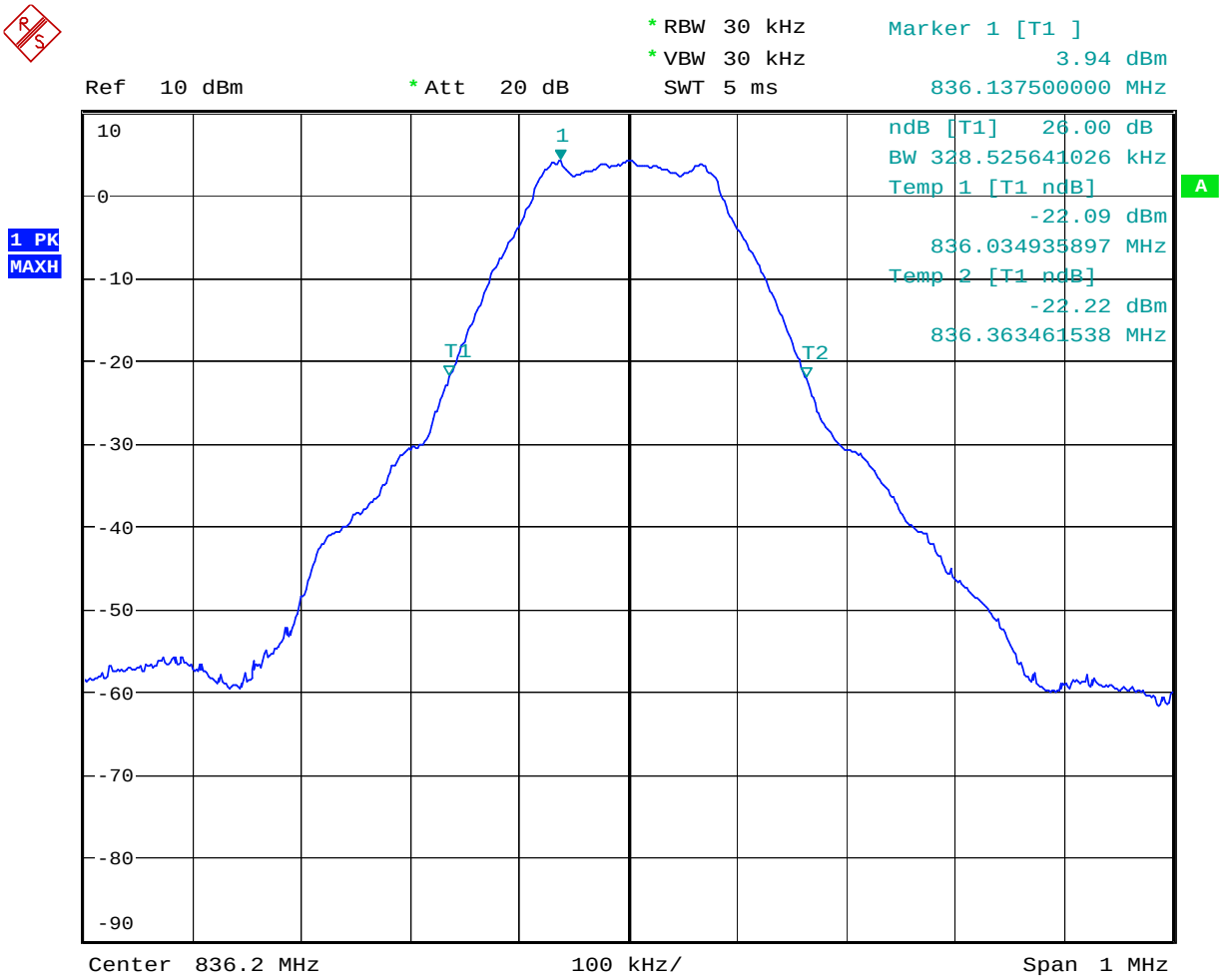

Marker 1 [T1]
RBW 30 kHz
RF Att 0 dB
Ref Lvl
78.53 dBµV
VBW 30 kHz
97 dBµV
1.88007325 GHz
SWT 200 ms
Unit dBµV
1 [T1] 78.53 dBµV
1.88007325 GHz
OPB 244.48897796 kHz
T1 [T1] 66.27 dBµV
1.87987886 GHz
T2 [T1] 65.72 dBµV
1.88012335 GHz
A
IN1
1MA
1MAX
T1
T2
1
97
90
80
70
60
50
40
30
20
10
0
-3
Center 1.8799981 GHz
100 kHz/
Span 1 MHz
Date: 29.DEC.2006 15:16:17


Marker 1 [T1]
RBW 30 kHz
RF Att 0 dB
Ref Lvl
84.03 dBµV
VBW 30 kHz
97 dBµV
1.90986524 GHz
SWT 200 ms
Unit dBµV
1 [T1] 84.03 dBµV
1.90986524 GHz
OPB 246.49298597 kHz
T1 [T1] 71.53 dBµV
1.90967887 GHz
T2 [T1] 70.70 dBµV
1.90992536 GHz
A
IN1
1MA
1MAX
97
90
80
70
60
50
40
30
20
10
0
-3
Center 1.9097941 GHz
100 kHz/
Span 1 MHz
Date: 29.DEC.2006 15:19:02



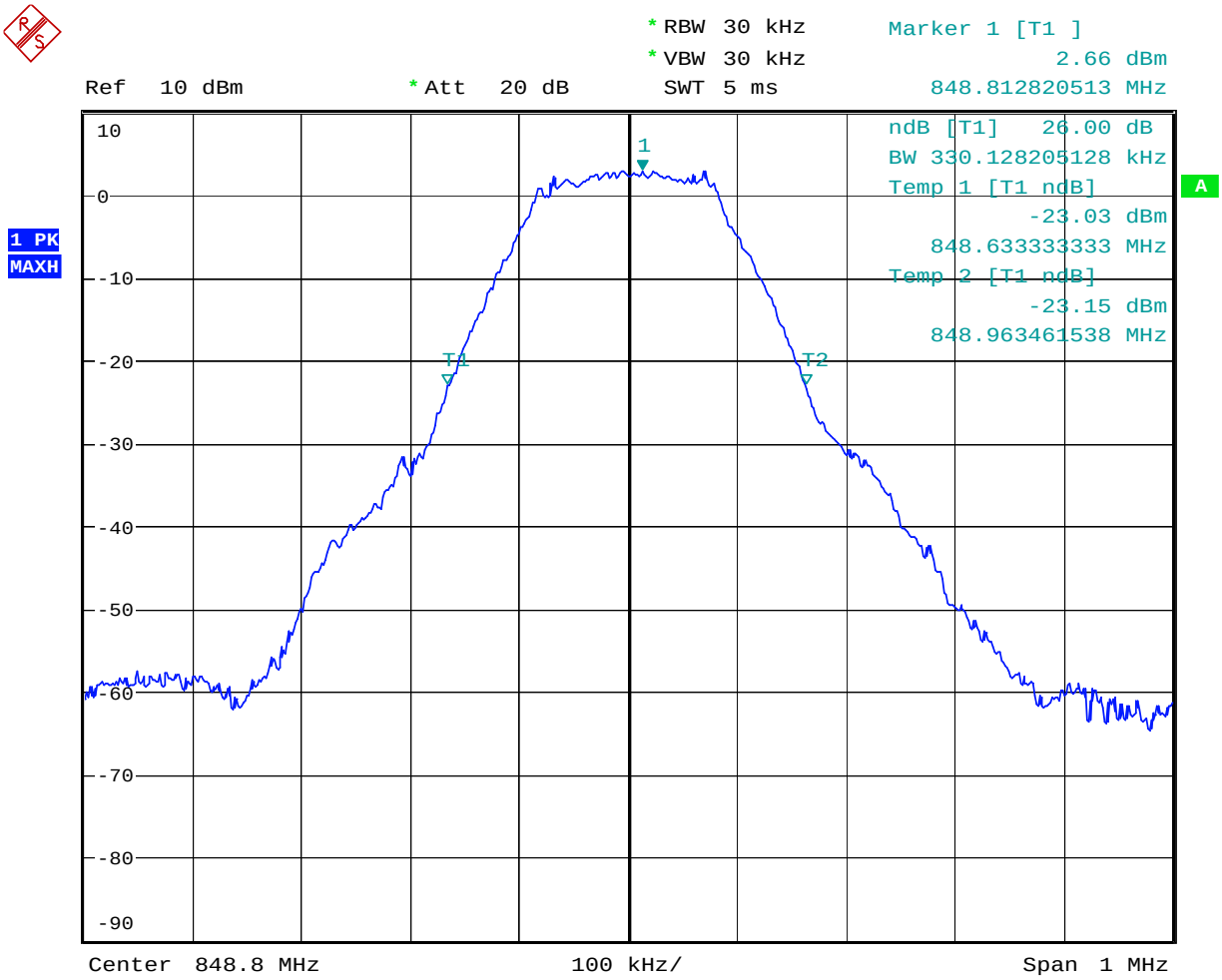

26dB BANDWIDTH GSM 850 CH128

Date: 2.JAN.2007 14:54:09



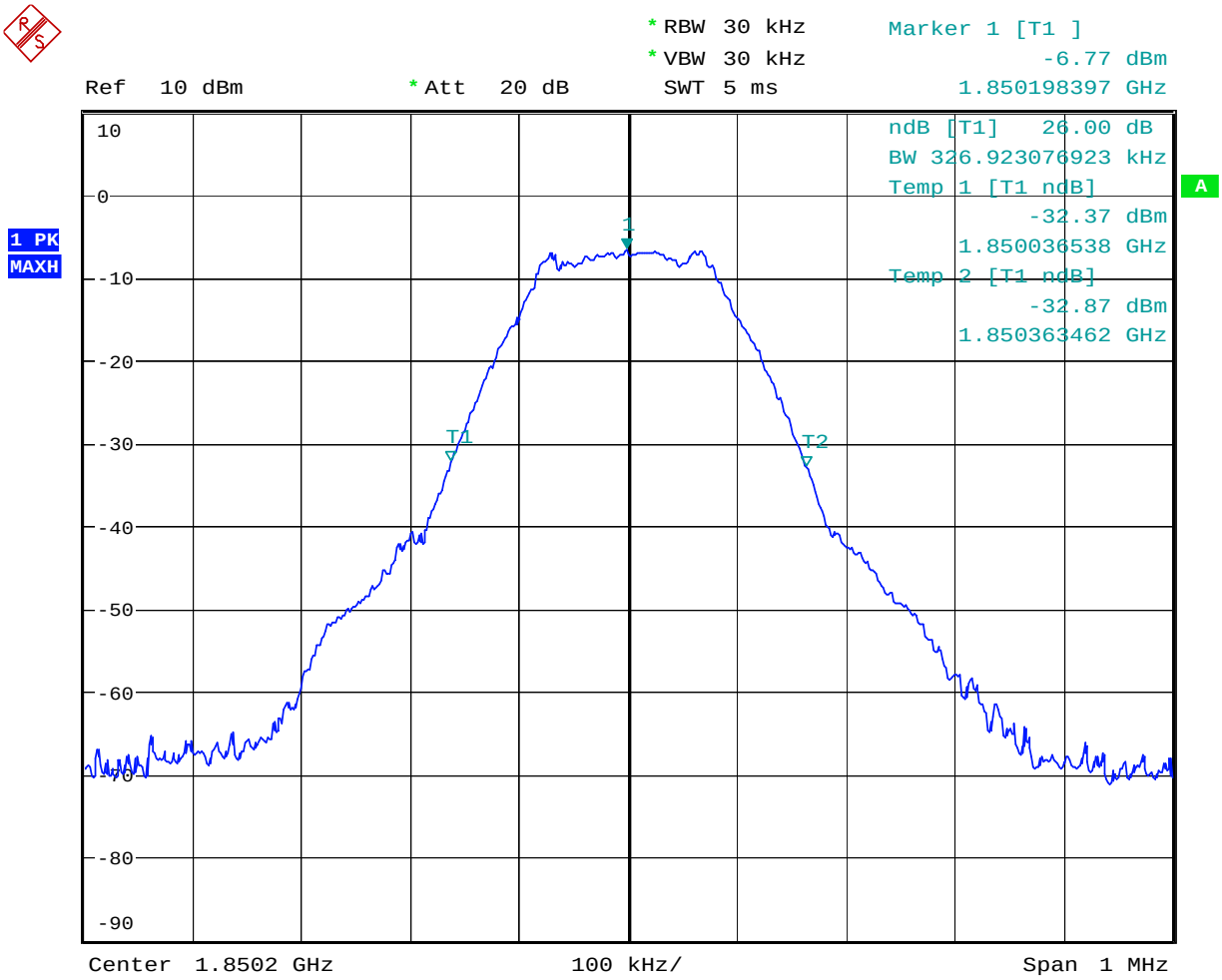

26dB BANDWIDTH GSM 850 CH188

Date: 2.JAN.2007 14:53:21



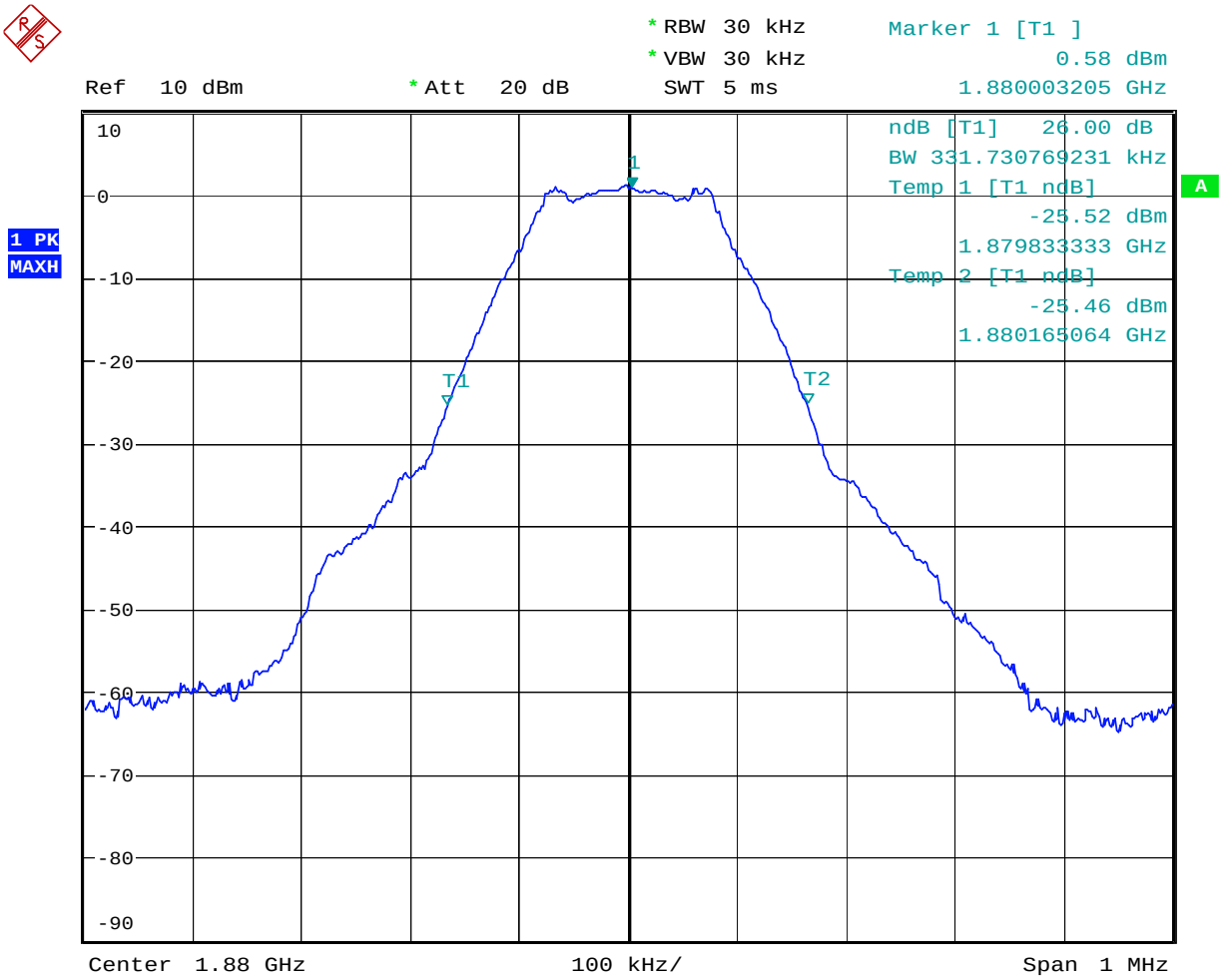

26dB BANDWIDTH GSM 850 CH251

Date: 2.JAN.2007 14:54:47



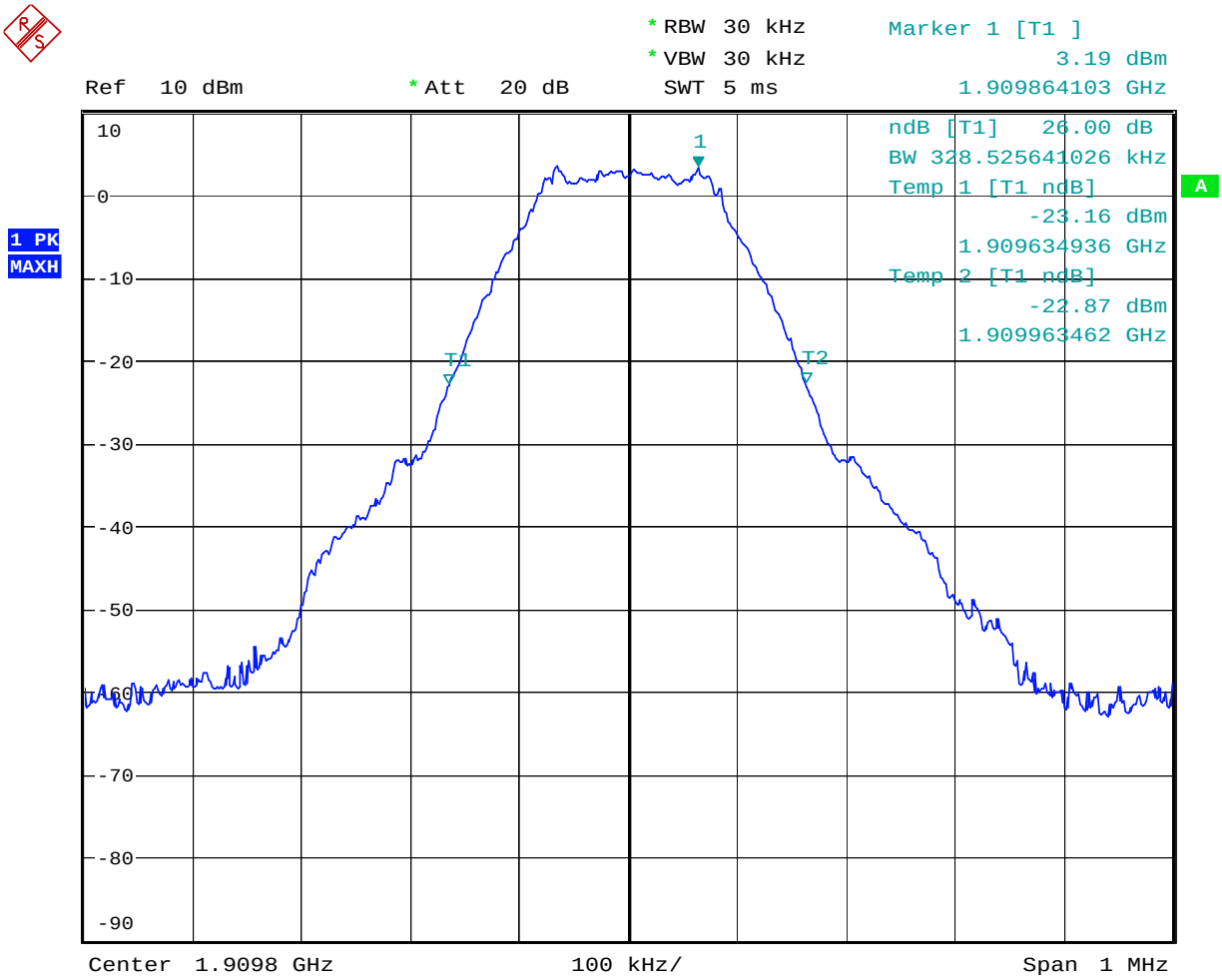

26dB BANDWIDTH GSM 1900 CH512

Date: 2.JAN.2007 14:57:52




26dB BANDWIDTH GSM 1900 CH661

Date: 2.JAN.2007 14:57:10

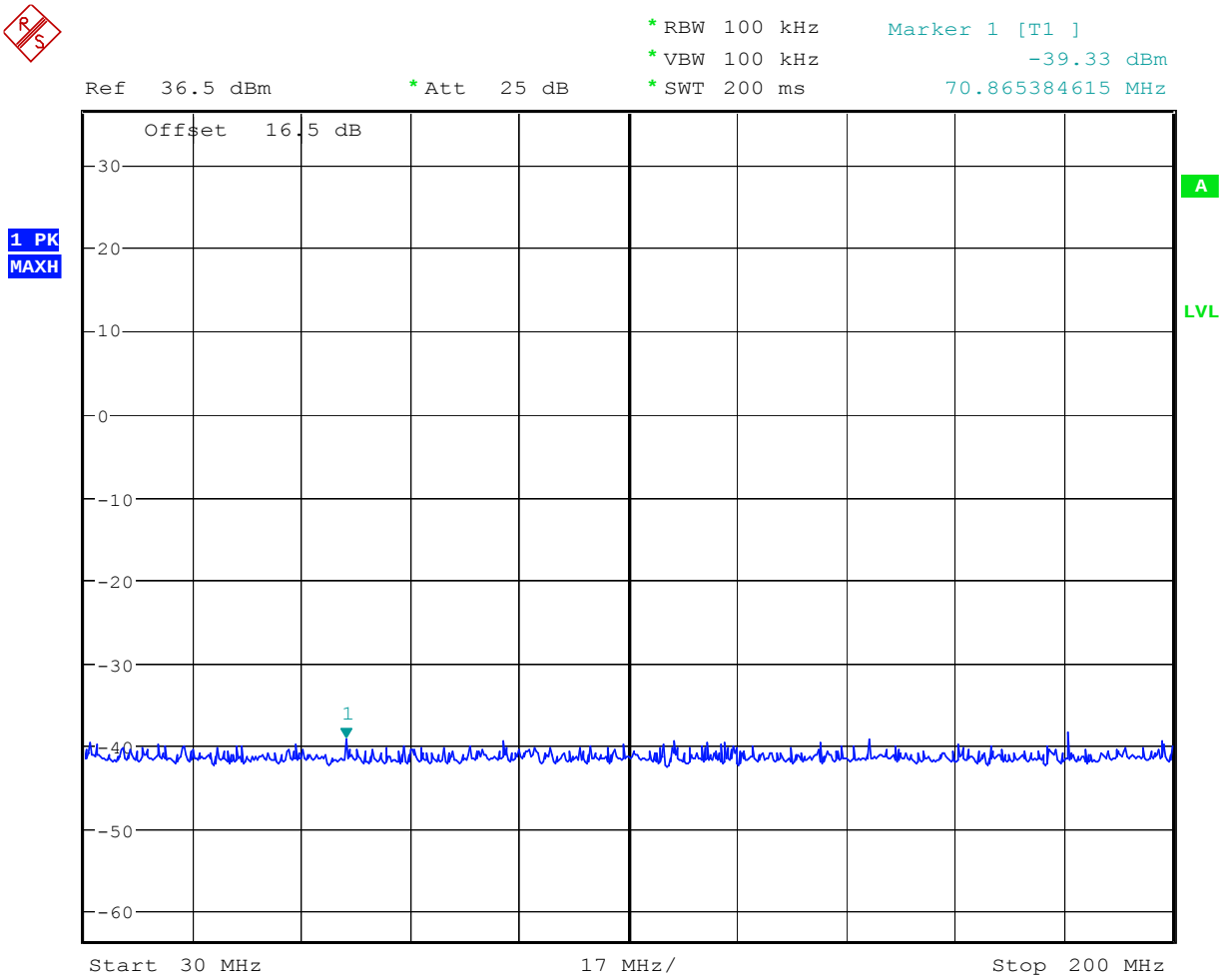



26dB BANDWIDTH GSM 1900 CH810

Date: 2.JAN.2007 14:58:50

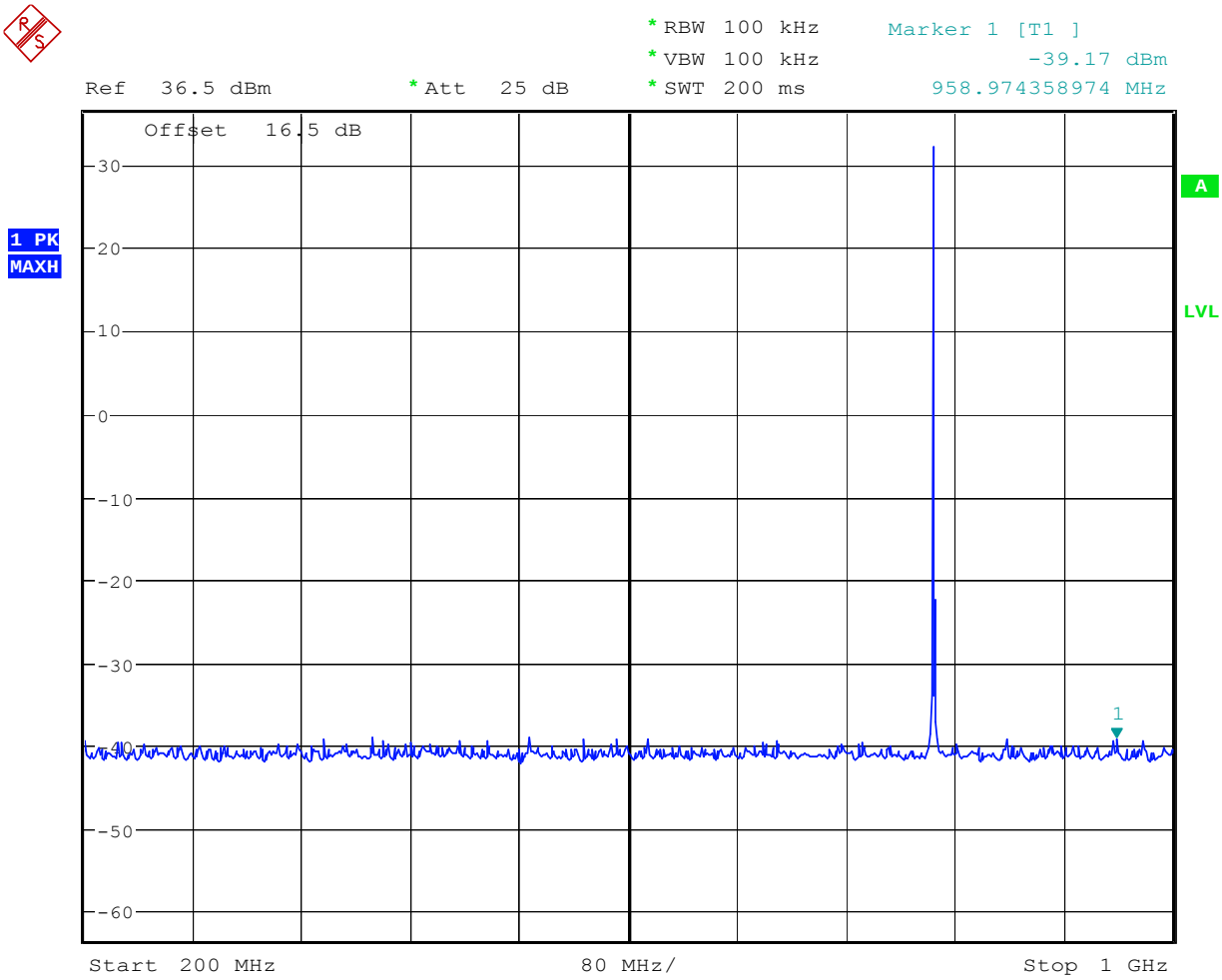
# Appendix C

Spurious Emissions at Antenna Terminals



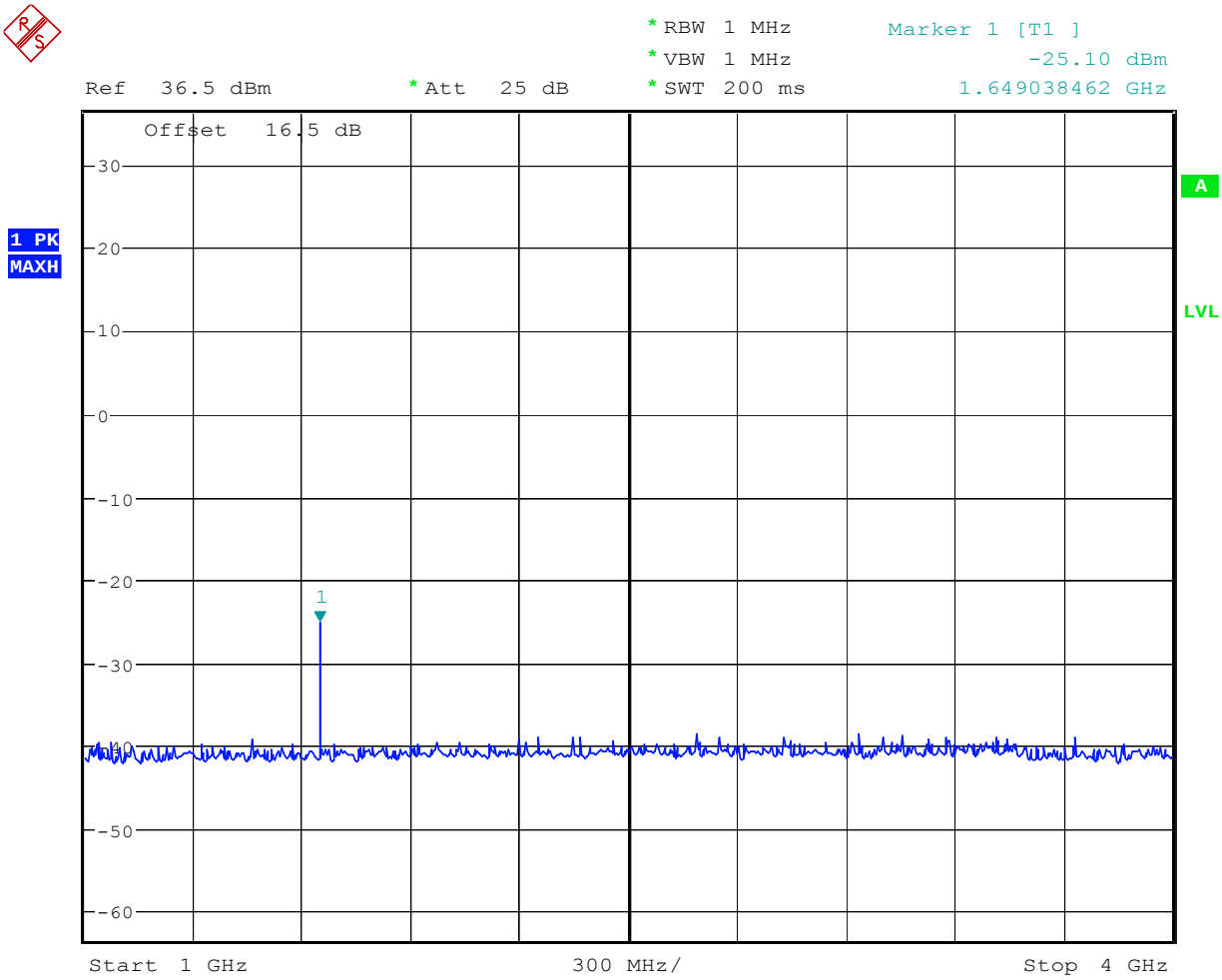

CONDUCED SPURIOUS EMISSION GSM 850 CH128

Date: 5.JAN.2007 09:43:07



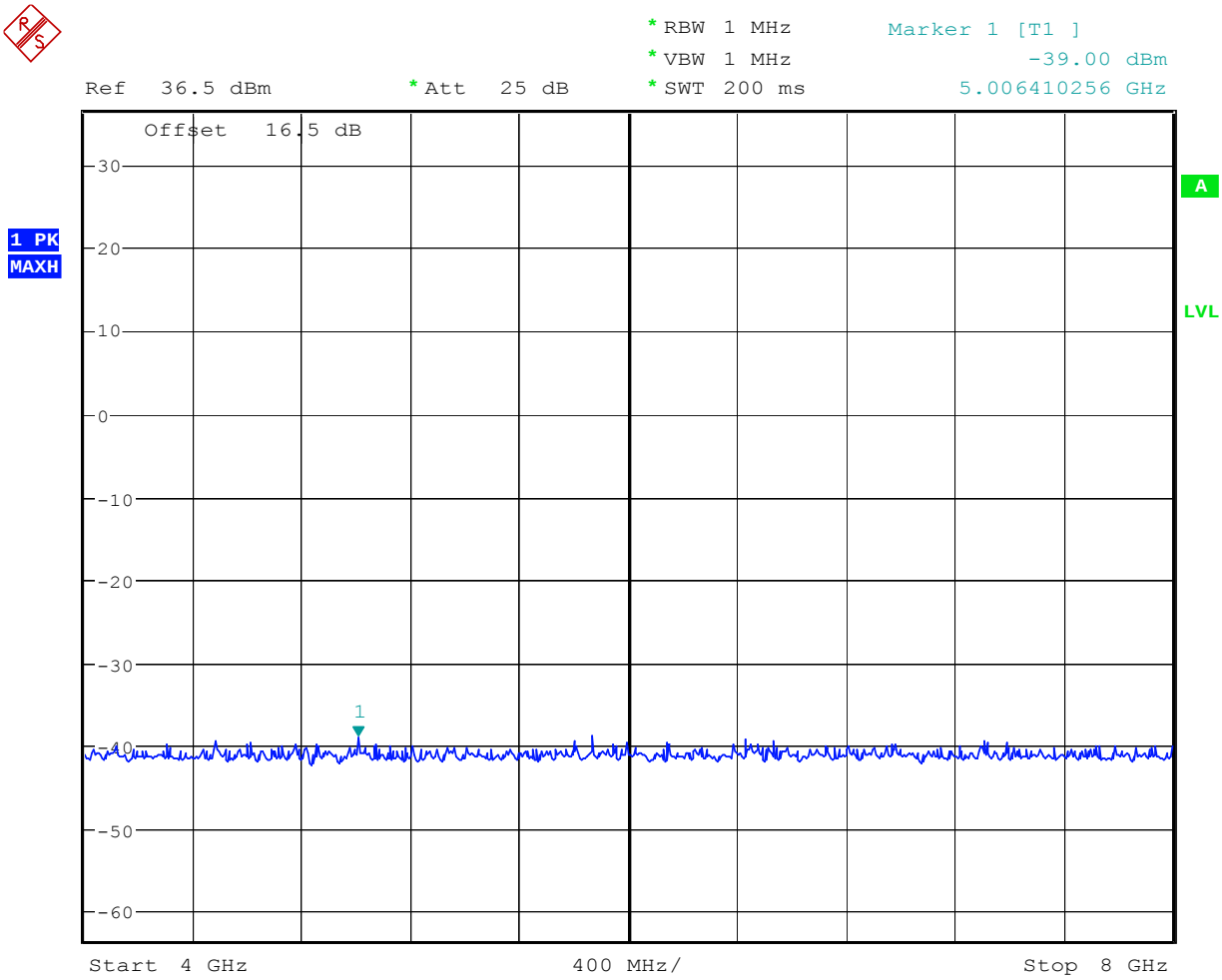

CONDUCED SPURIOUS EMISSION GSM 850 CH128

Date: 5.JAN.2007 09:46:14



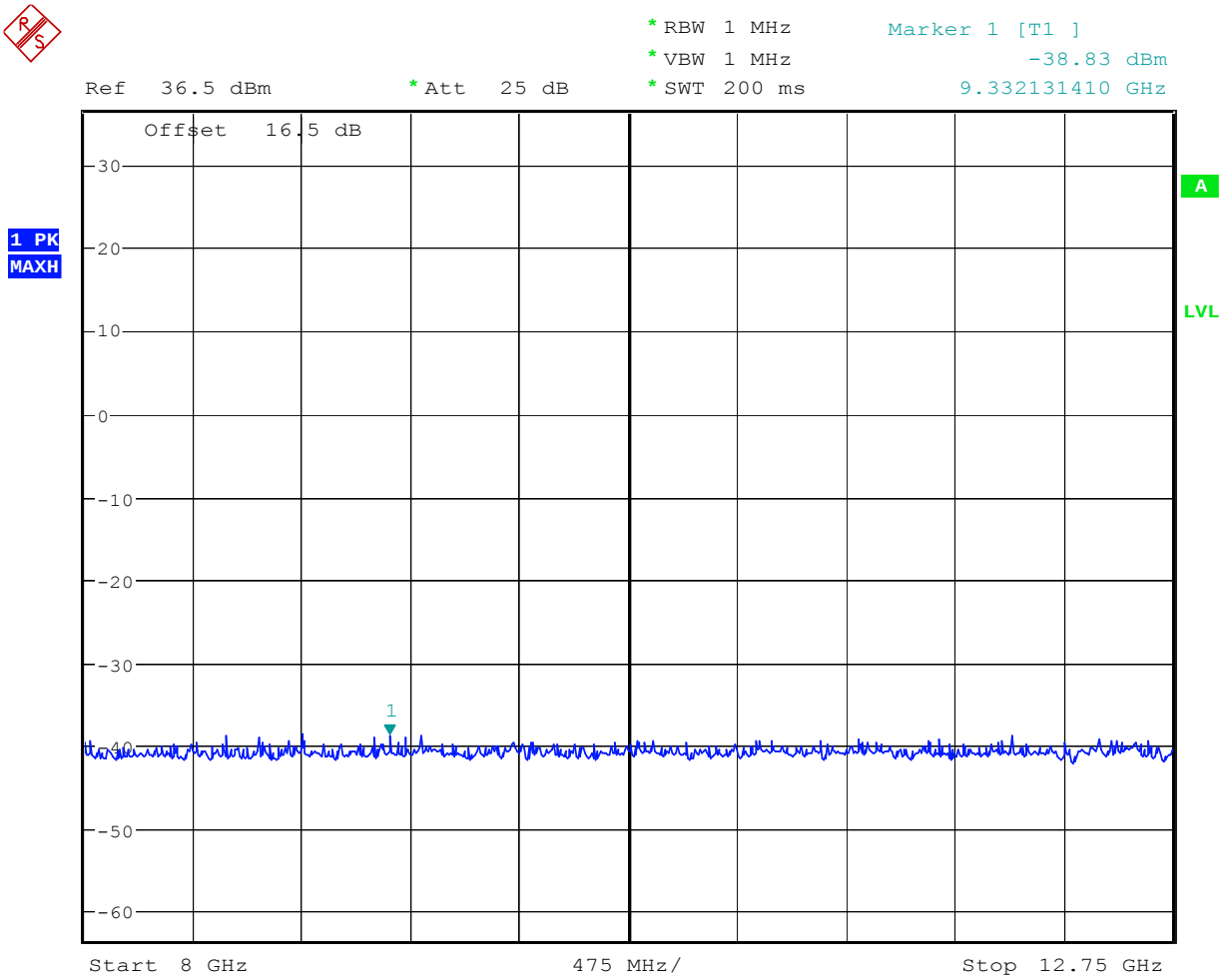

CONDUCED SPURIOUS EMISSION GSM 850 CH128

Date: 5.JAN.2007 09:46:40



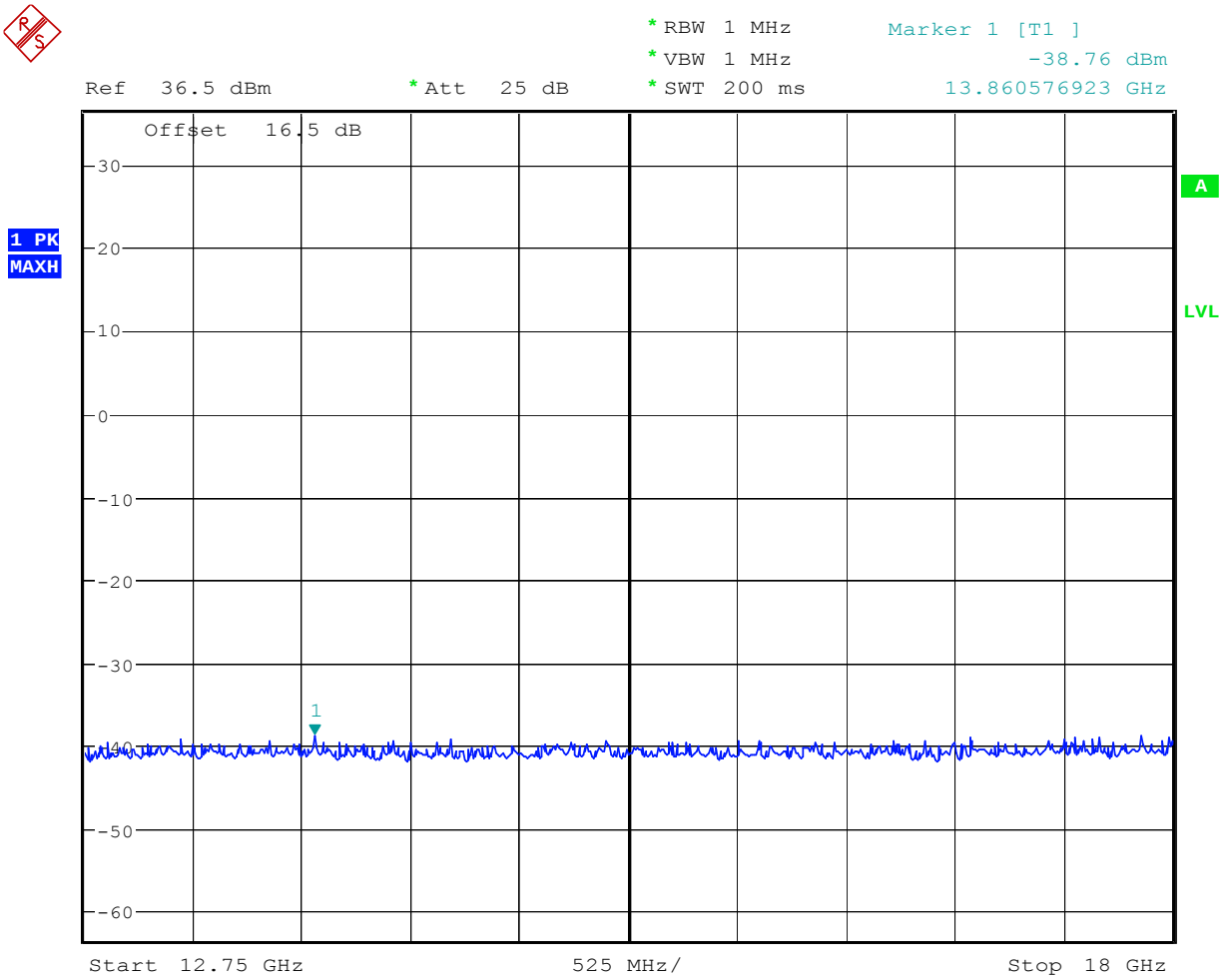

CONDUCED SPURIOUS EMISSION GSM 850 CH128

Date: 5.JAN.2007 09:48:54



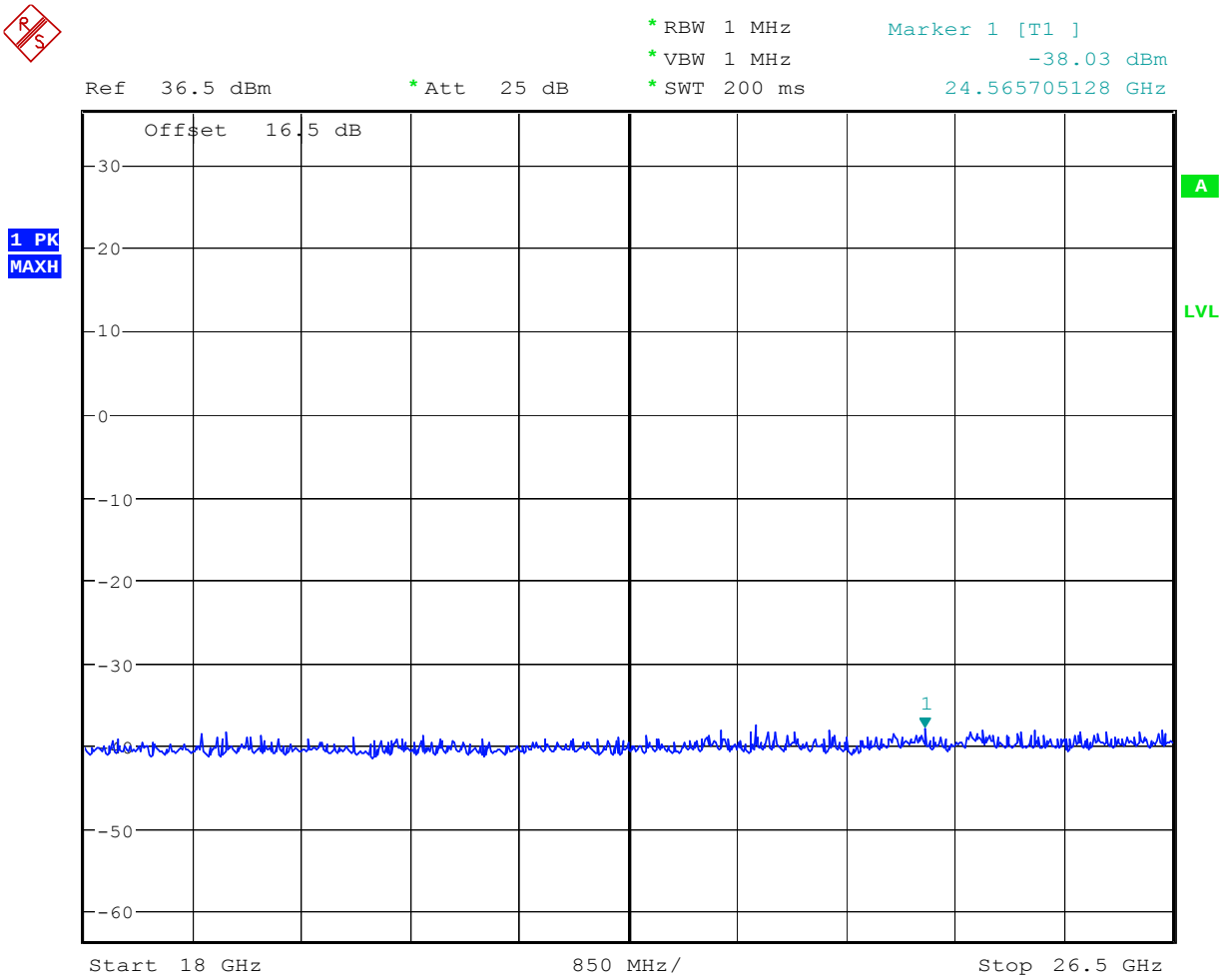

CONDUCED SPURIOUS EMISSION GSM 850 CH128

Date: 5.JAN.2007 09:49:25



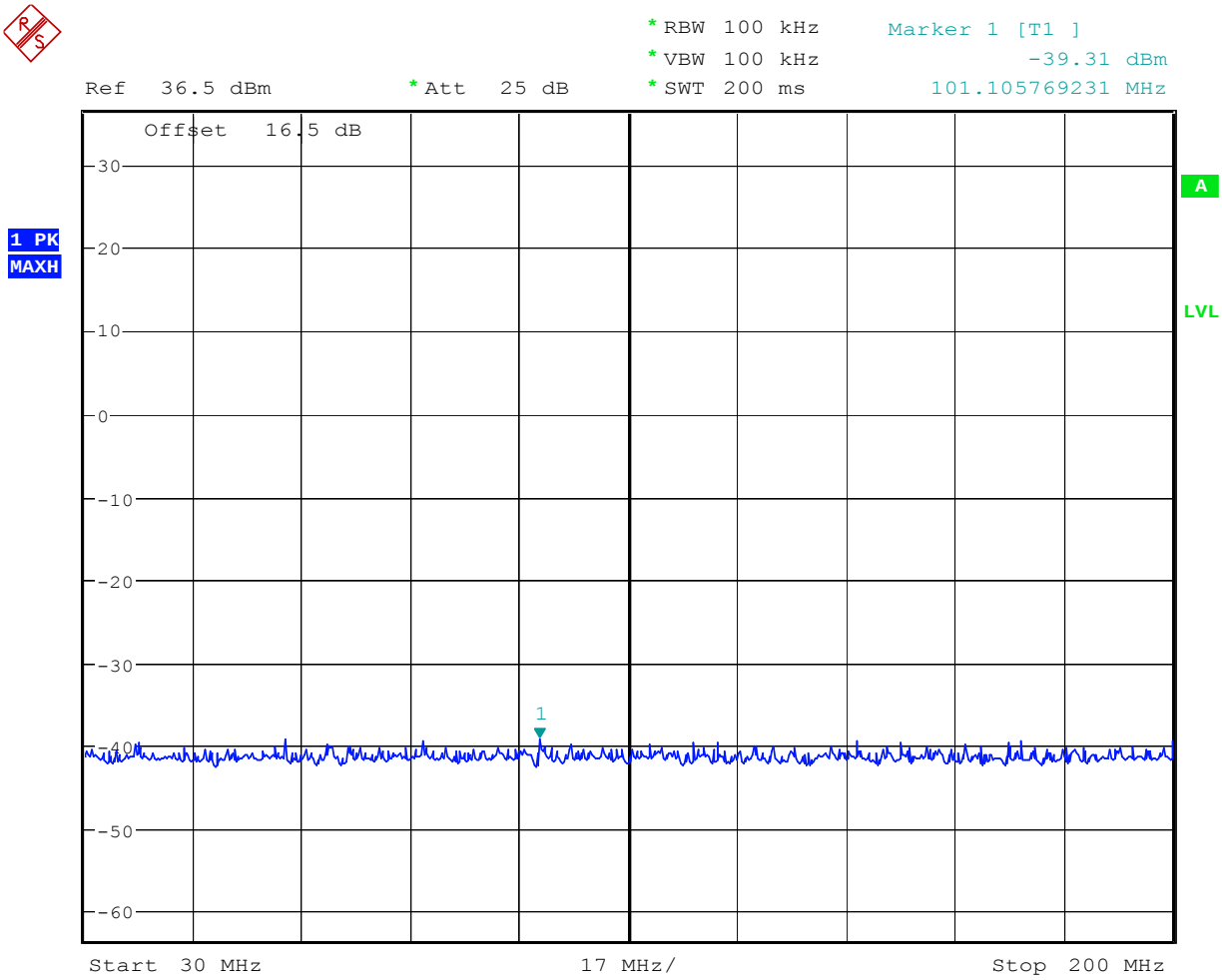

CONDUCED SPURIOUS EMISSION GSM 850 CH128

Date: 5.JAN.2007 09:51:49



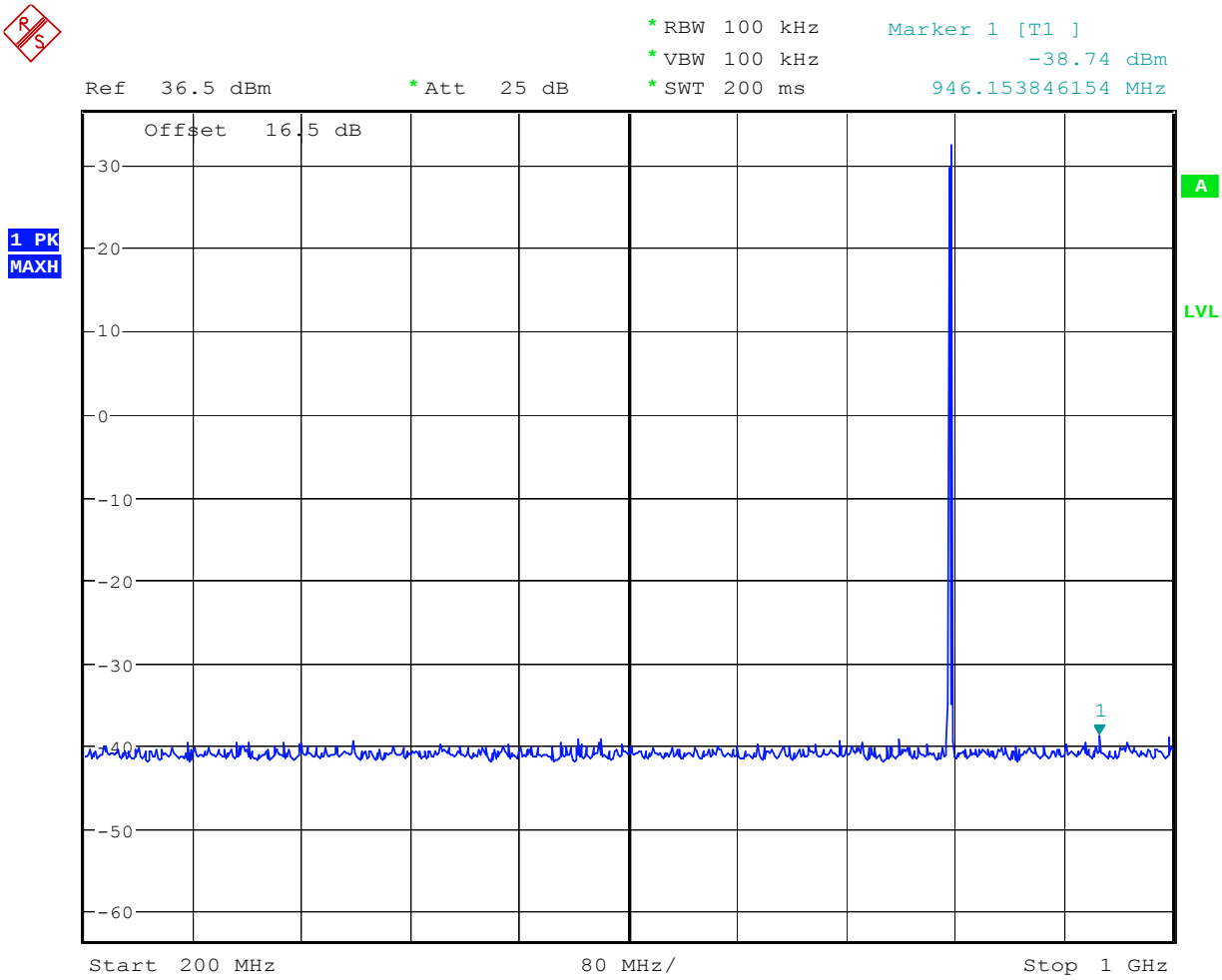

CONDUCED SPURIOUS EMISSION GSM 850 CH128

Date: 5.JAN.2007 09:53:20



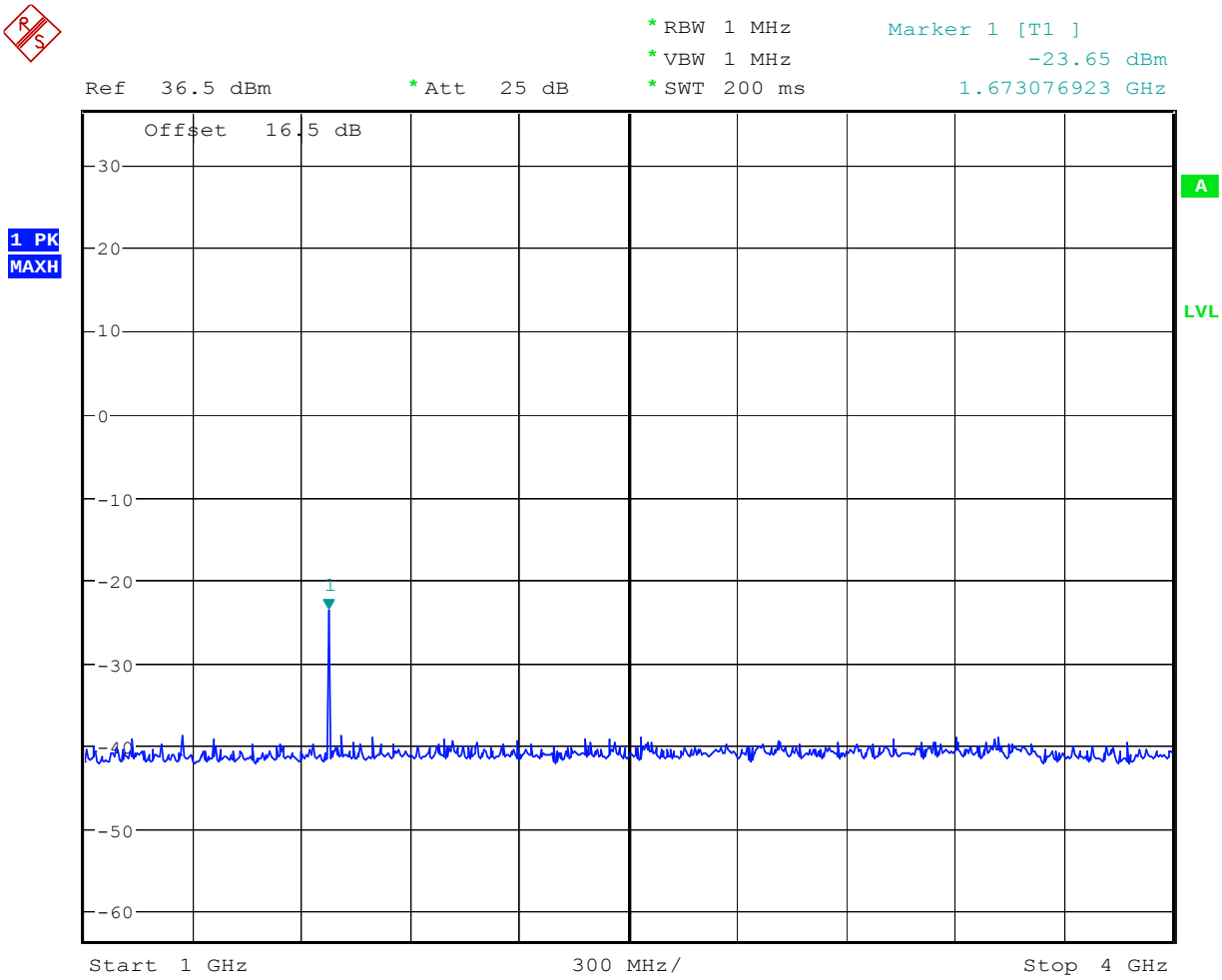

CONDUCED SPURIOUS EMISSION GSM 850 CH188

Date: 5.JAN.2007 09:43:47



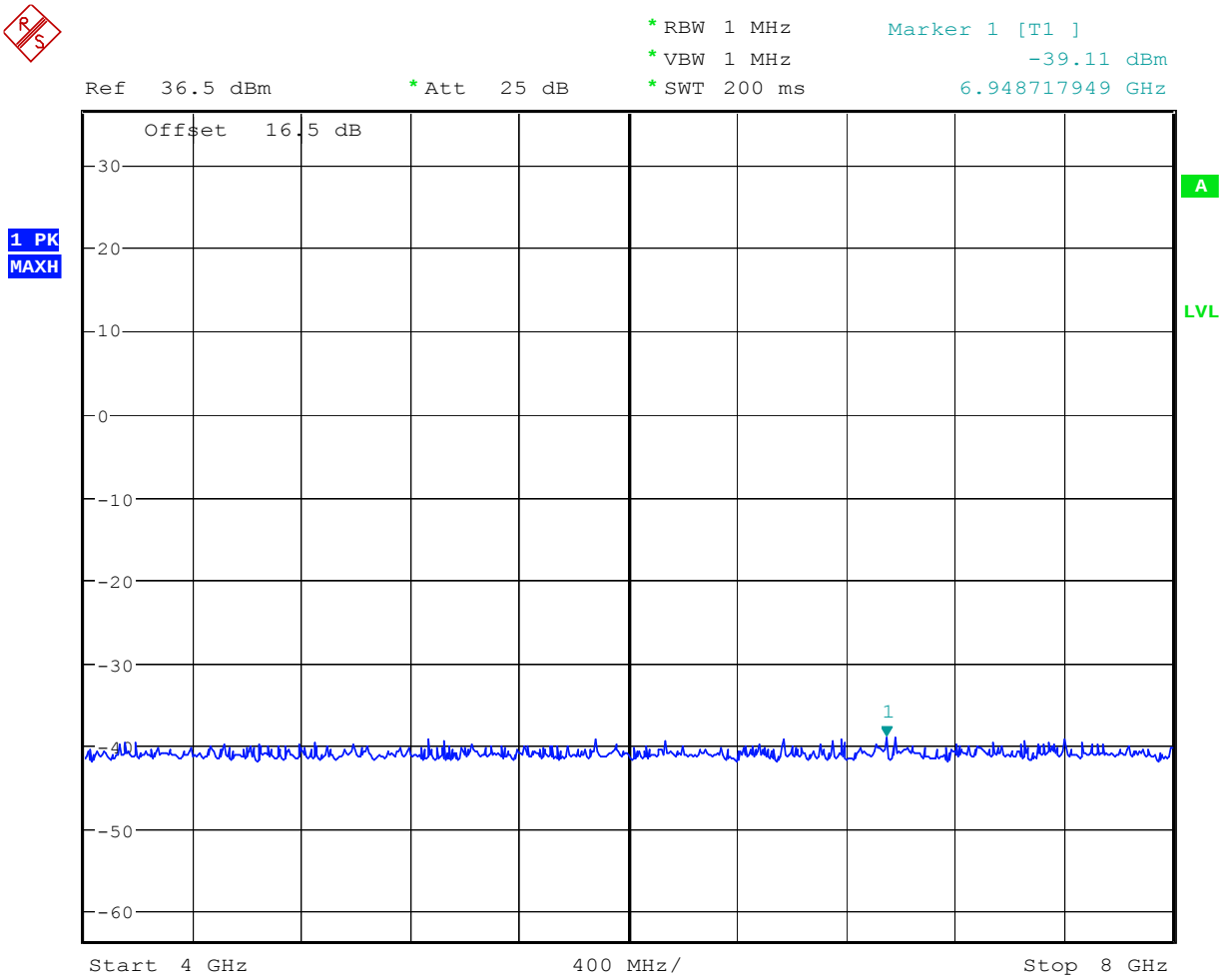

CONDUCED SPURIOUS EMISSION GSM 850 CH188

Date: 5.JAN.2007 09:45:32



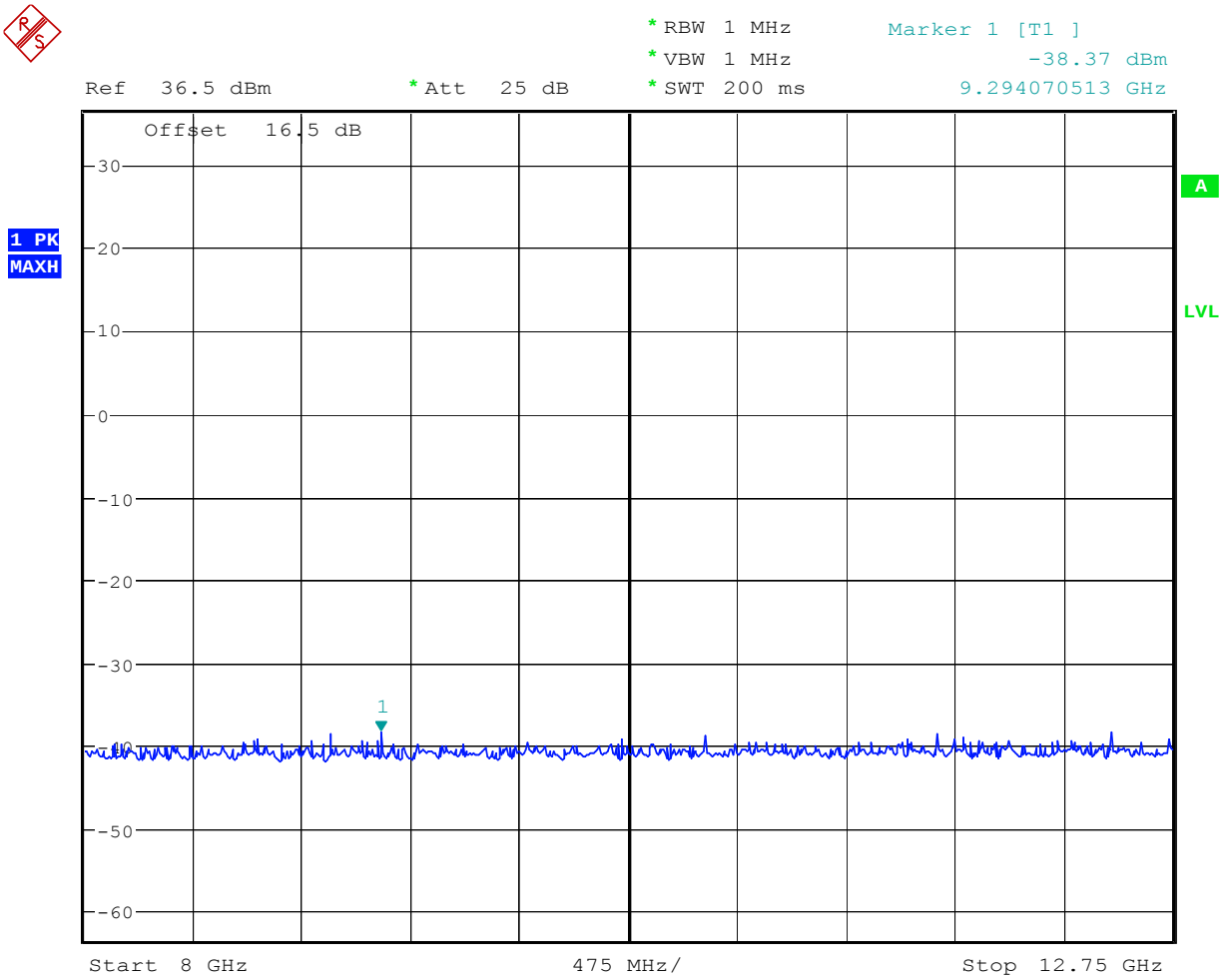

CONDUCED SPURIOUS EMISSION GSM 850 CH188

Date: 5.JAN.2007 09:47:01



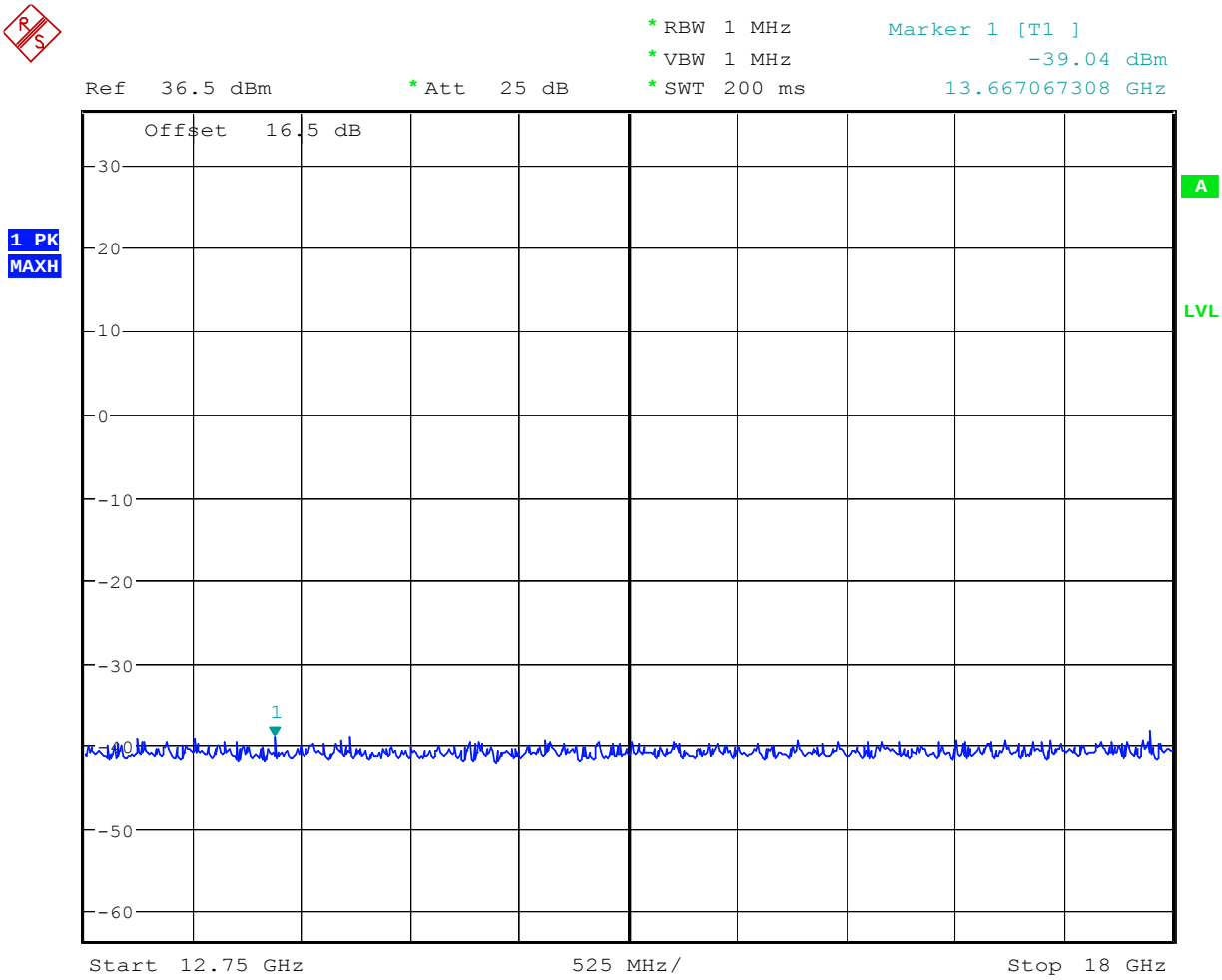

CONDUCED SPURIOUS EMISSION GSM 850 CH188

Date: 5.JAN.2007 09:48:29



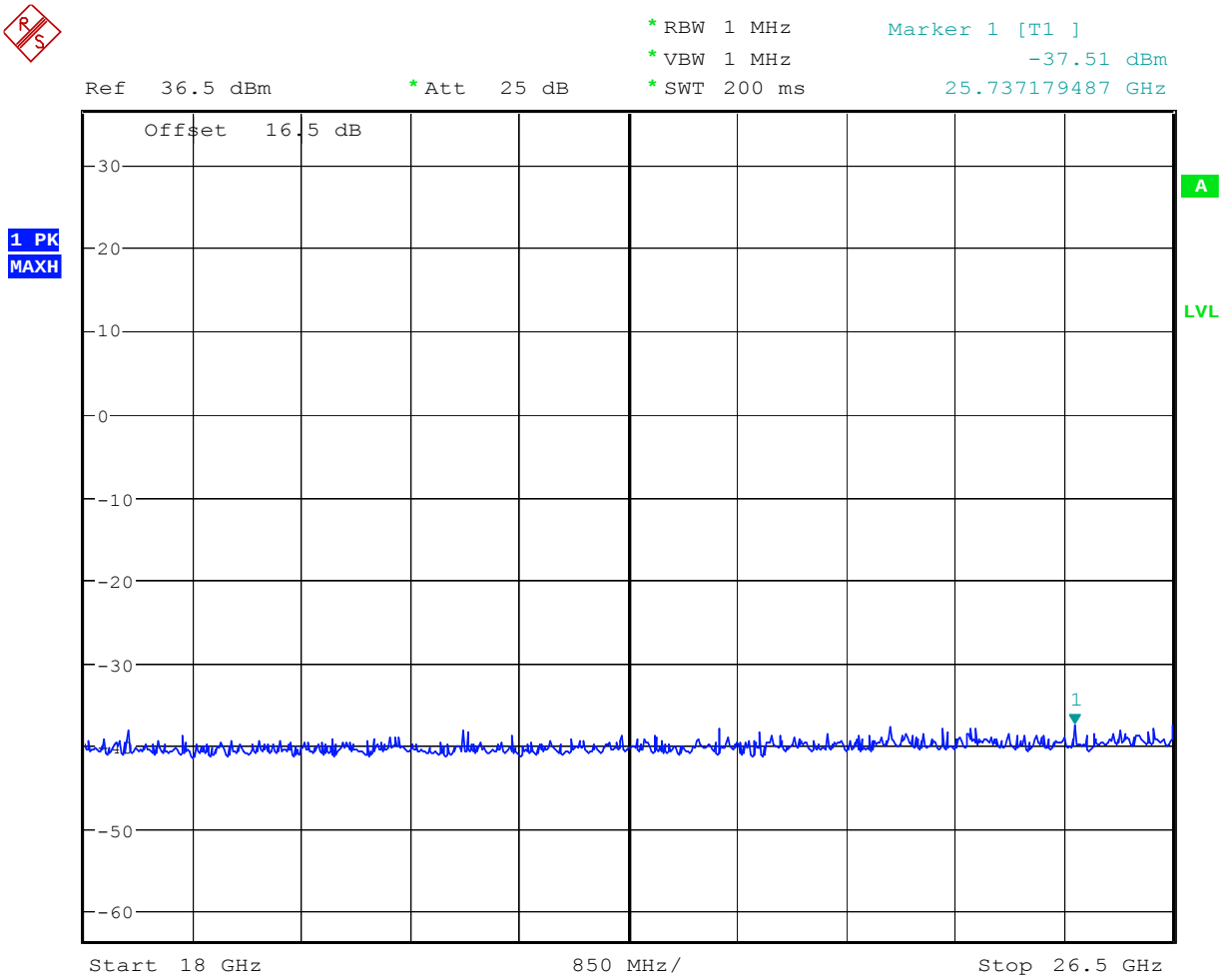

CONDUCED SPURIOUS EMISSION GSM 850 CH188

Date: 5.JAN.2007 09:49:57



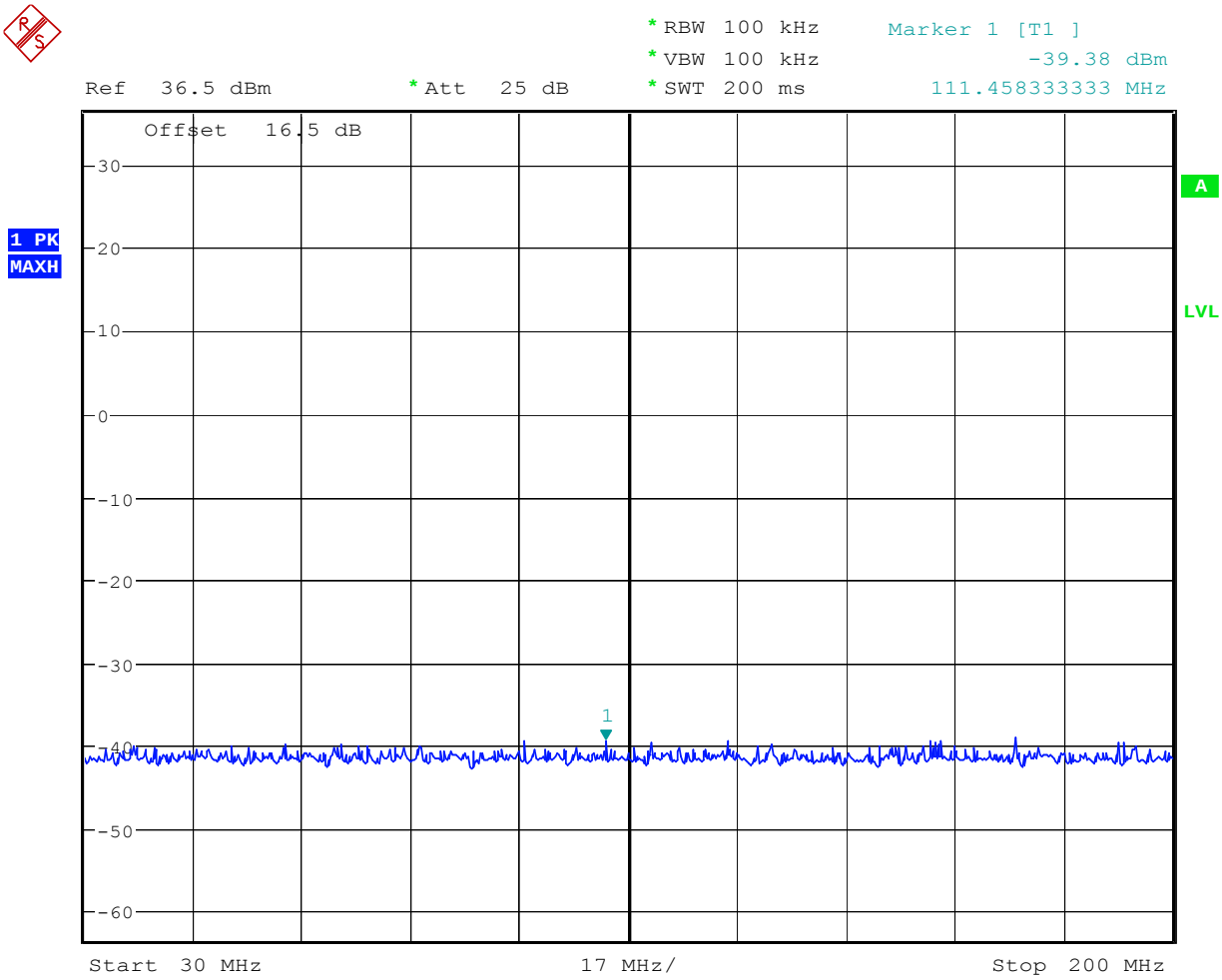

CONDUCED SPURIOUS EMISSION GSM 850 CH188

Date: 5.JAN.2007 09:51:16



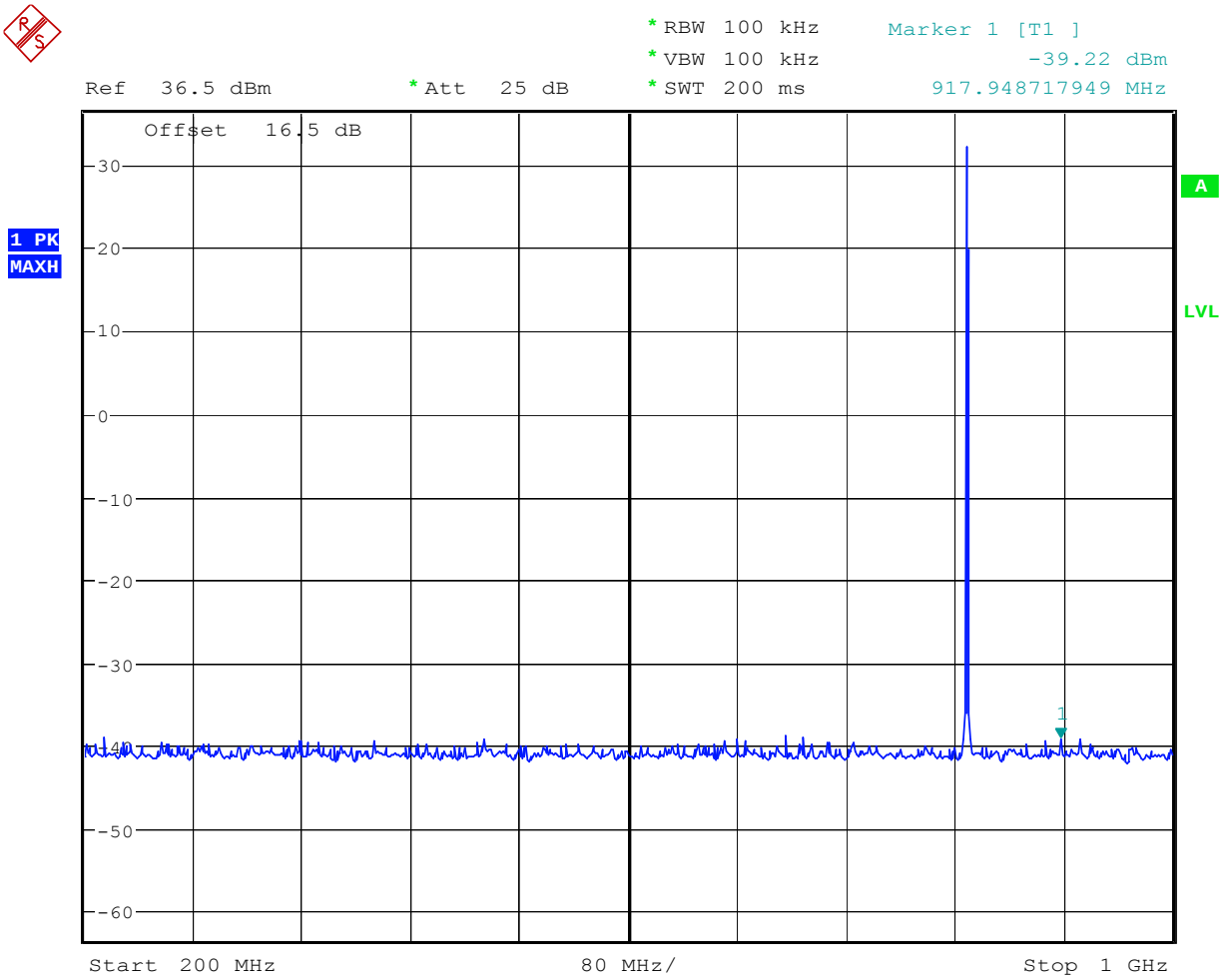

CONDUCED SPURIOUS EMISSION GSM 850 CH188

Date: 5.JAN.2007 09:53:44



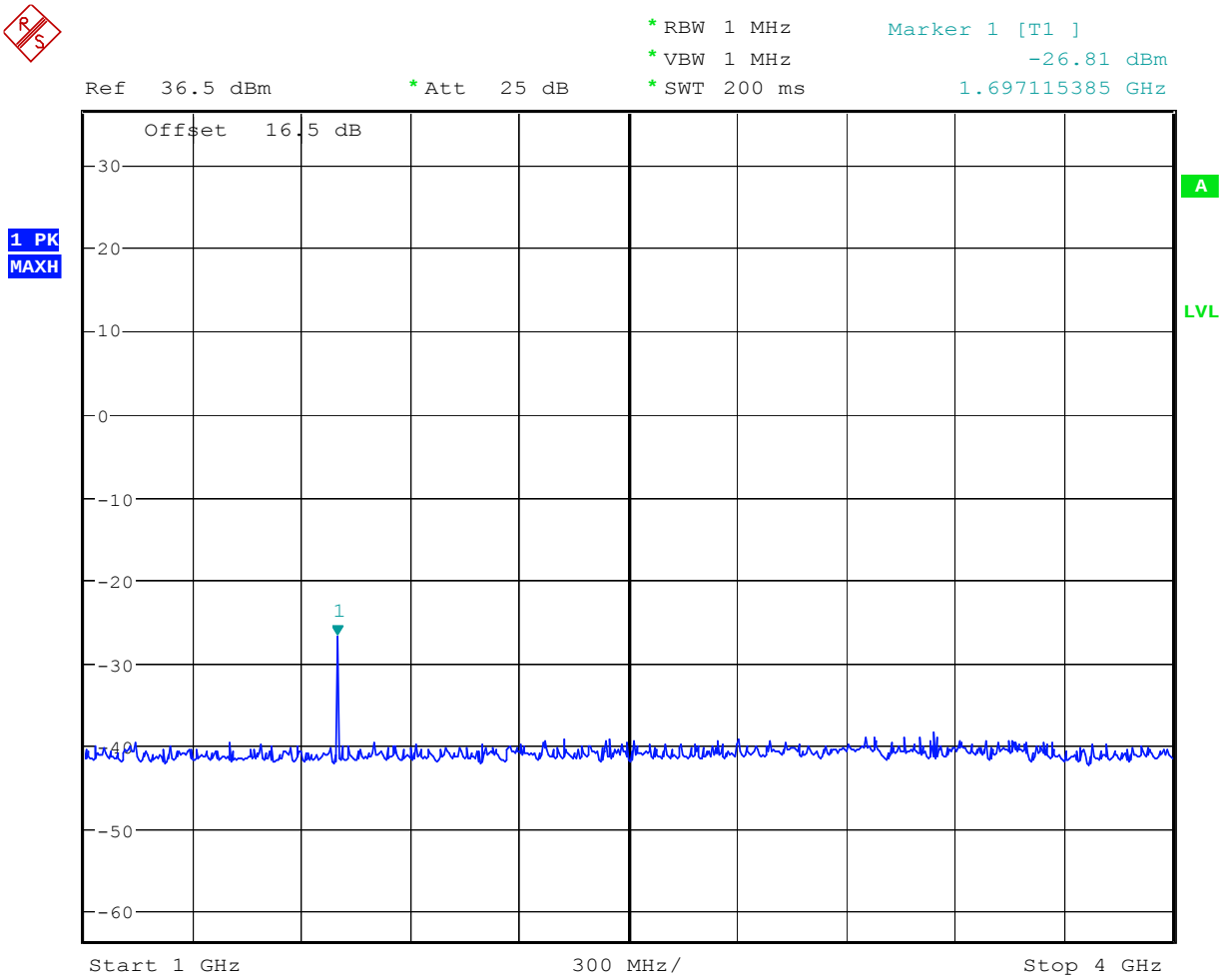

CONDUCED SPURIOUS EMISSION GSM 850 CH251

Date: 5.JAN.2007 09:44:15



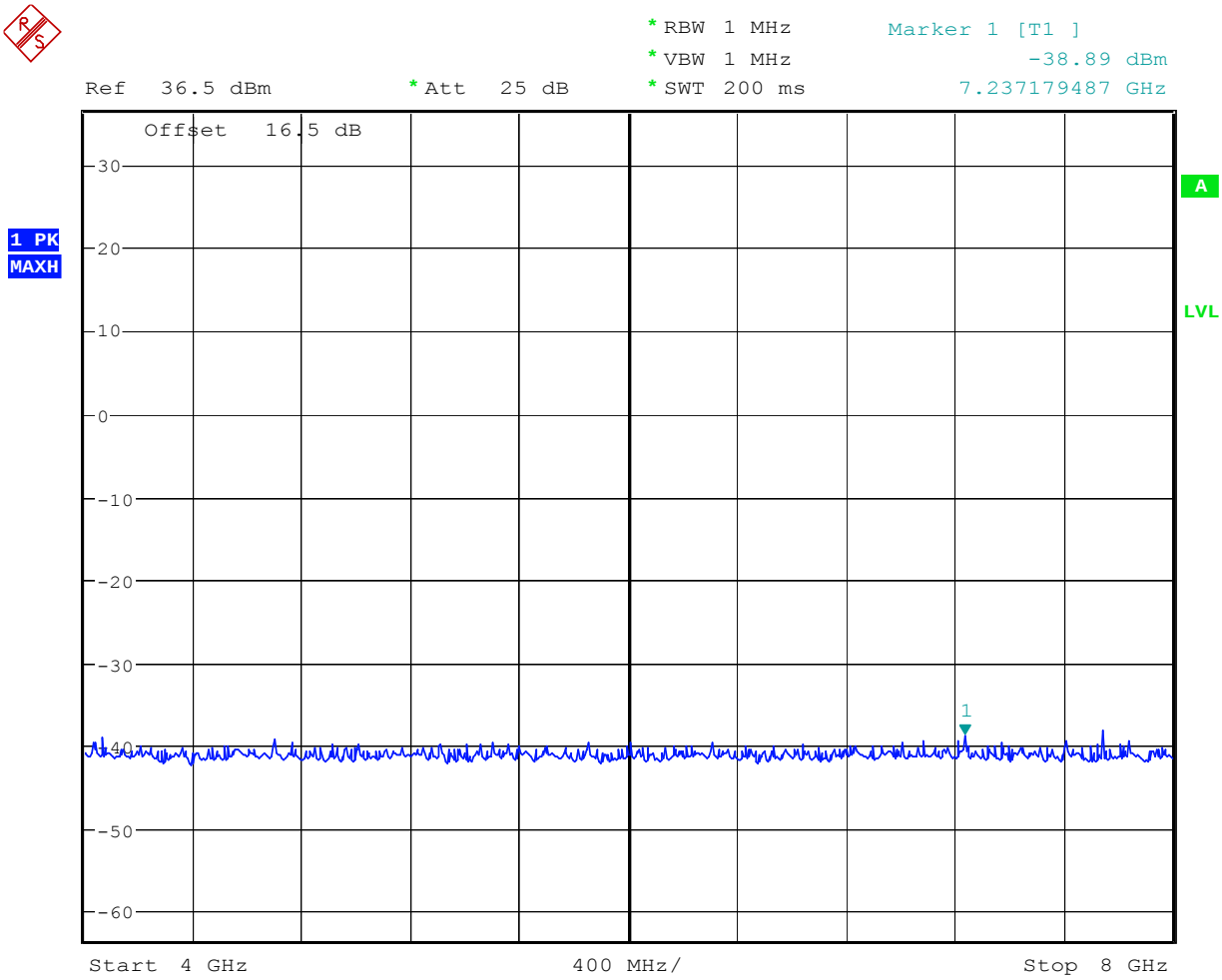

CONDUCED SPURIOUS EMISSION GSM 850 CH251

Date: 5.JAN.2007 09:44:50



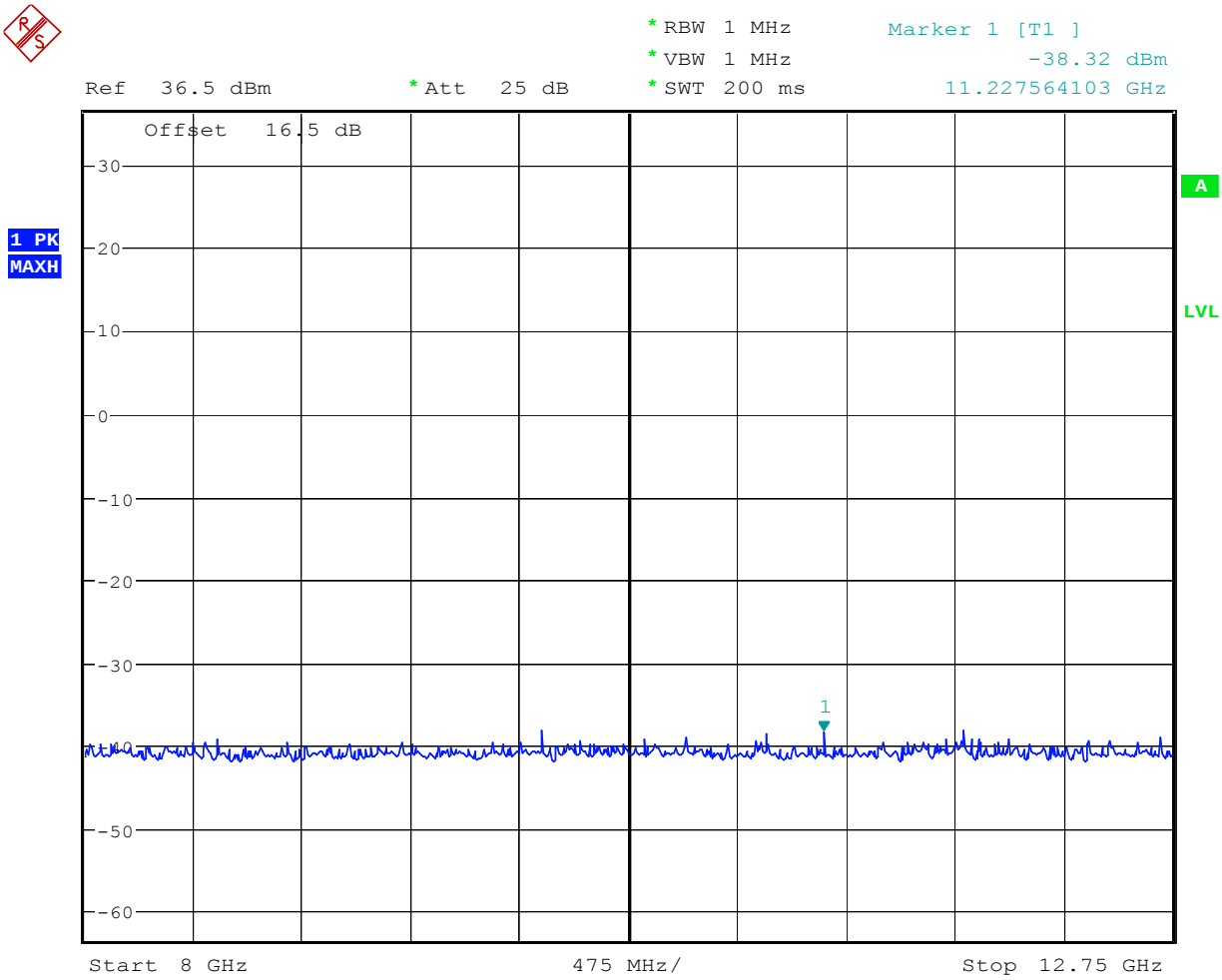

CONDUCED SPURIOUS EMISSION GSM 850 CH251

Date: 5.JAN.2007 09:47:27



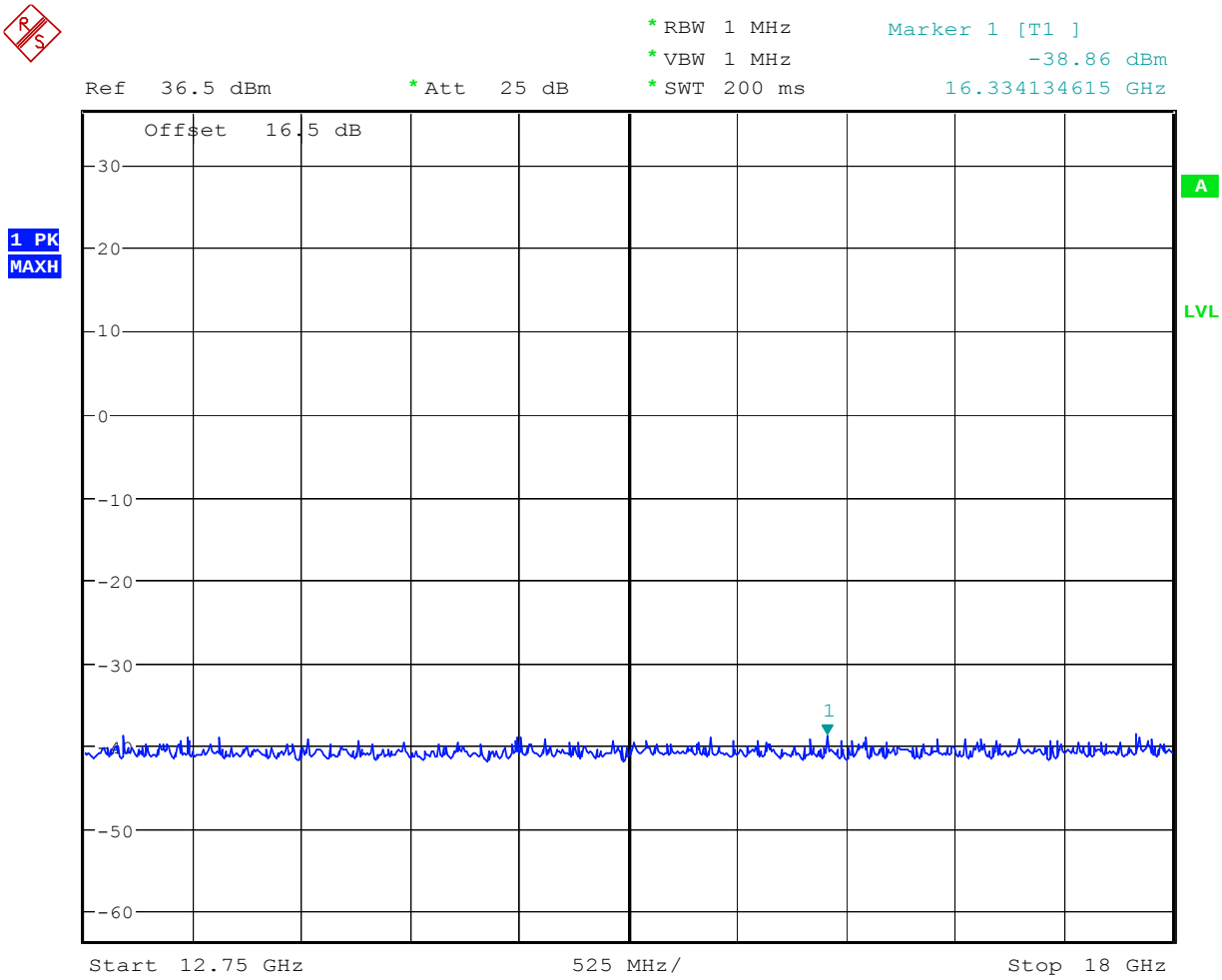

CONDUCED SPURIOUS EMISSION GSM 850 CH251

Date: 5.JAN.2007 09:47:54



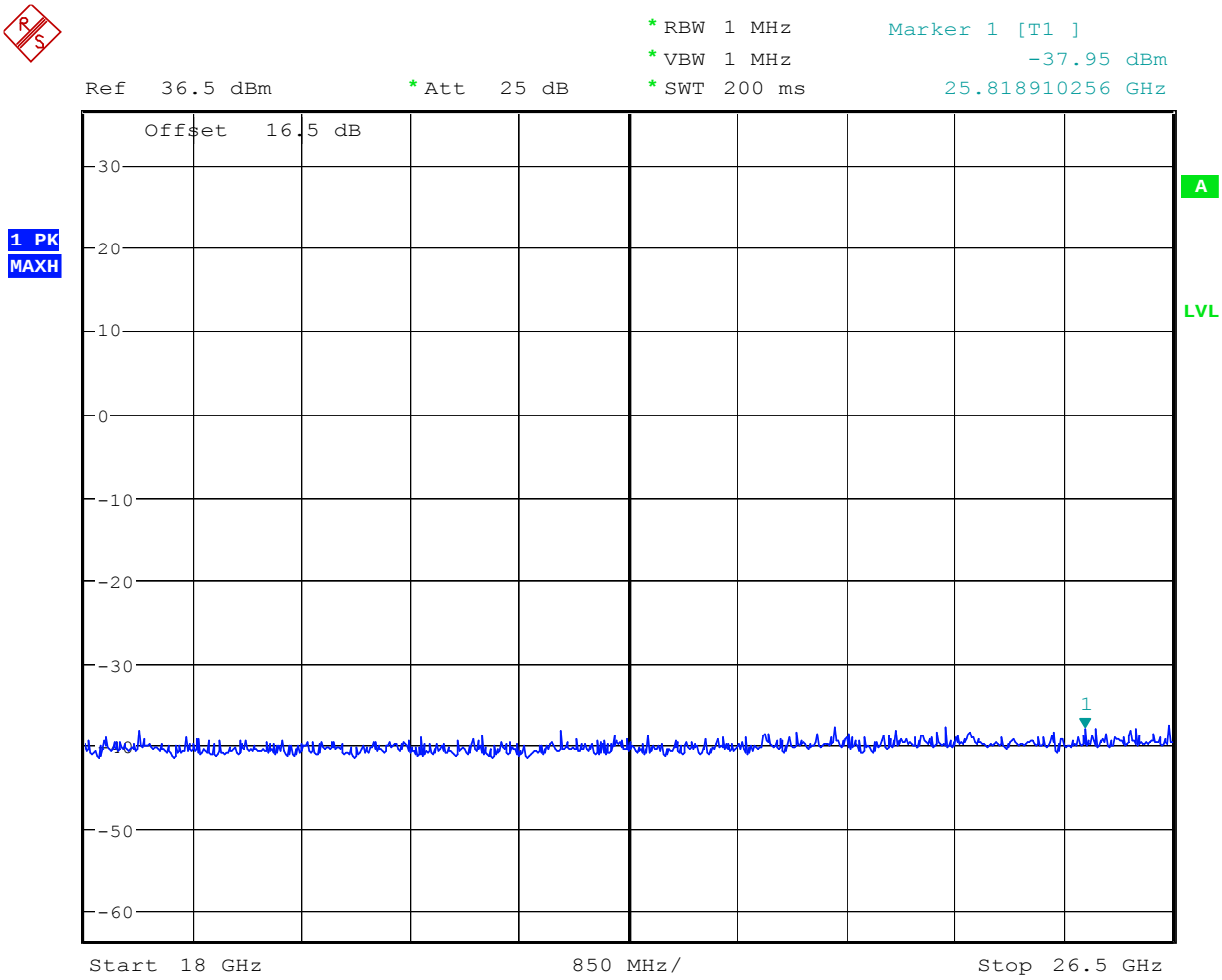

CONDUCED SPURIOUS EMISSION GSM 850 CH251

Date: 5.JAN.2007 09:50:27



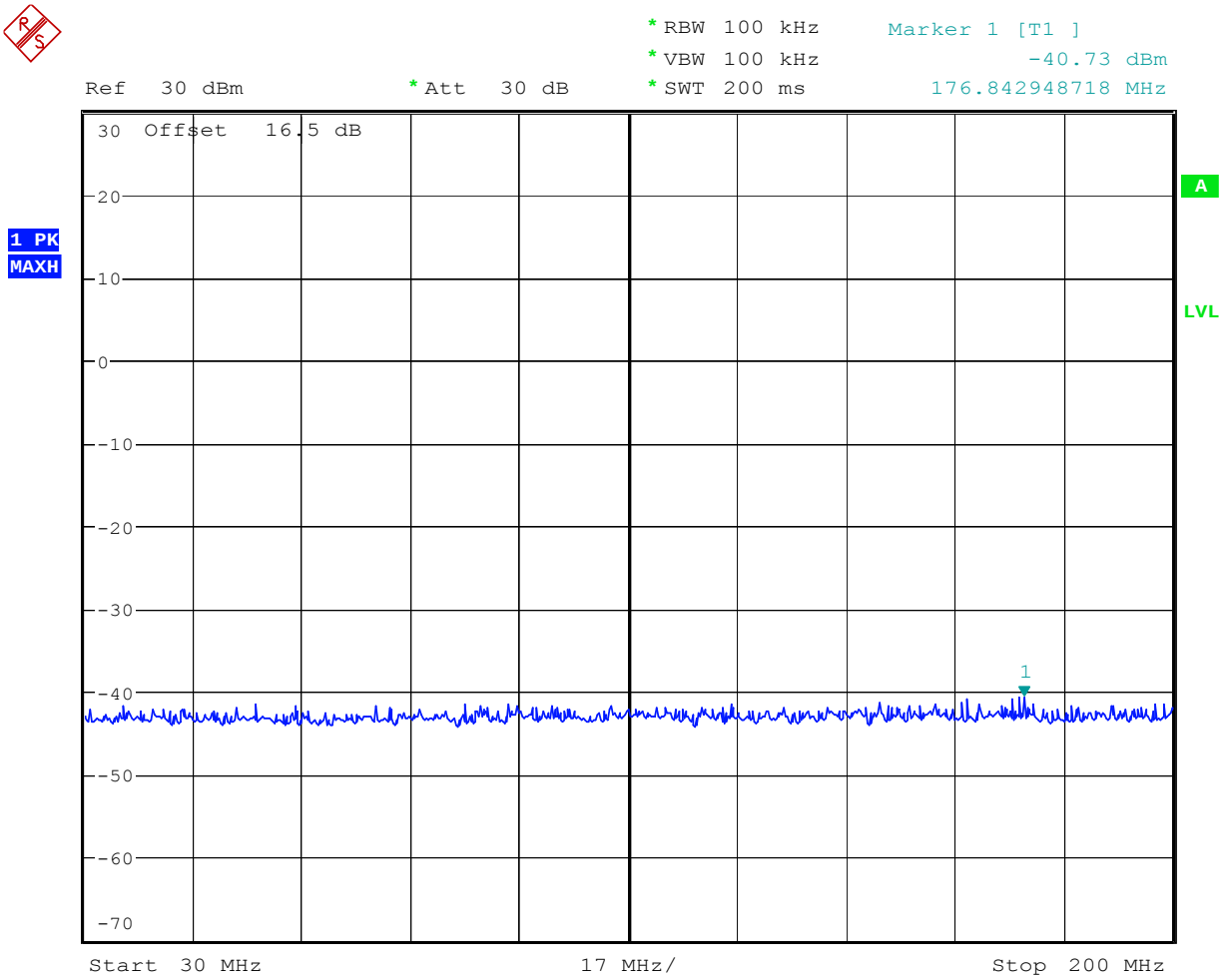

CONDUCED SPURIOUS EMISSION GSM 850 CH251

Date: 5.JAN.2007 09:50:54



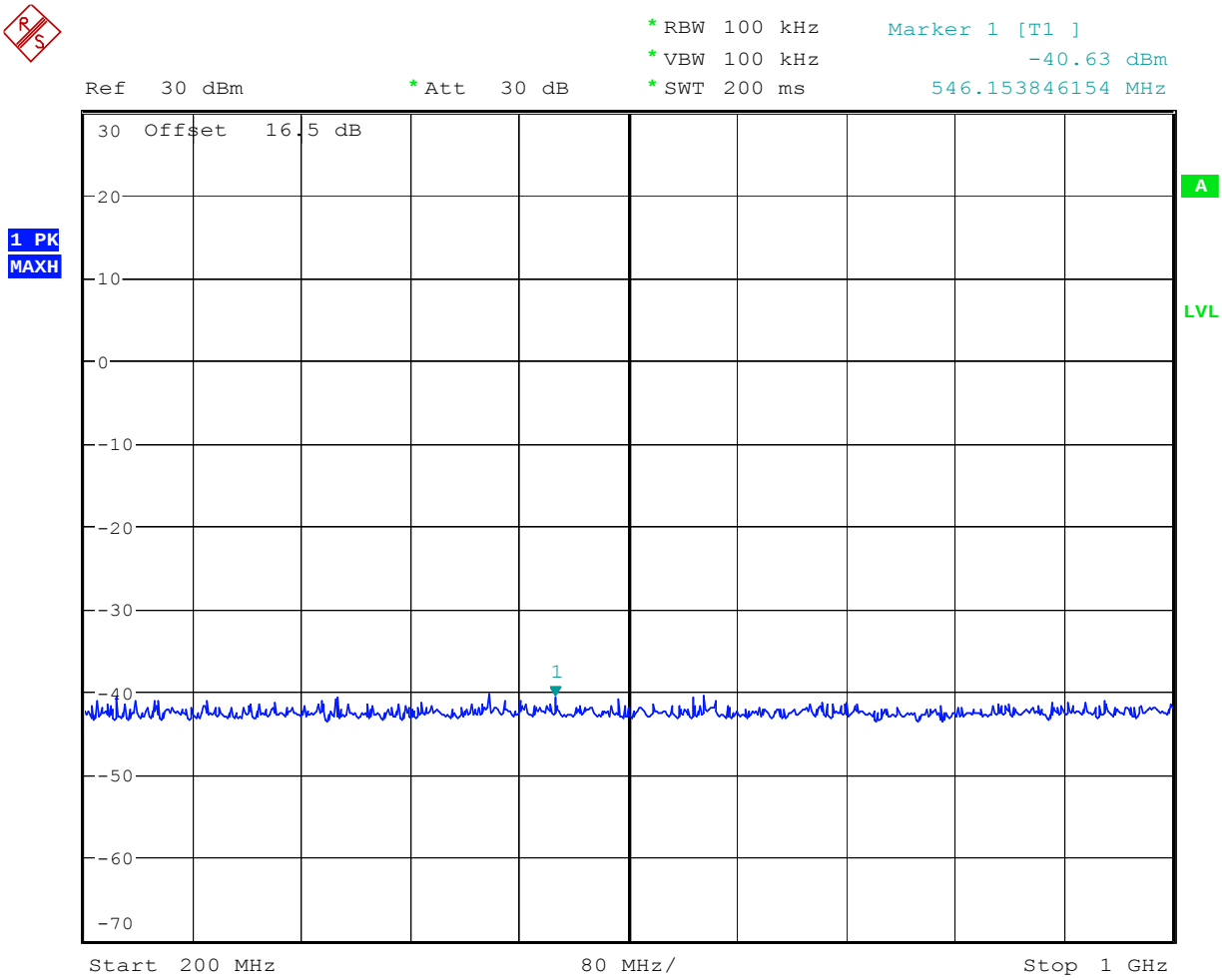

CONDUCED SPURIOUS EMISSION GSM 850 CH251

Date: 5.JAN.2007 09:54:07



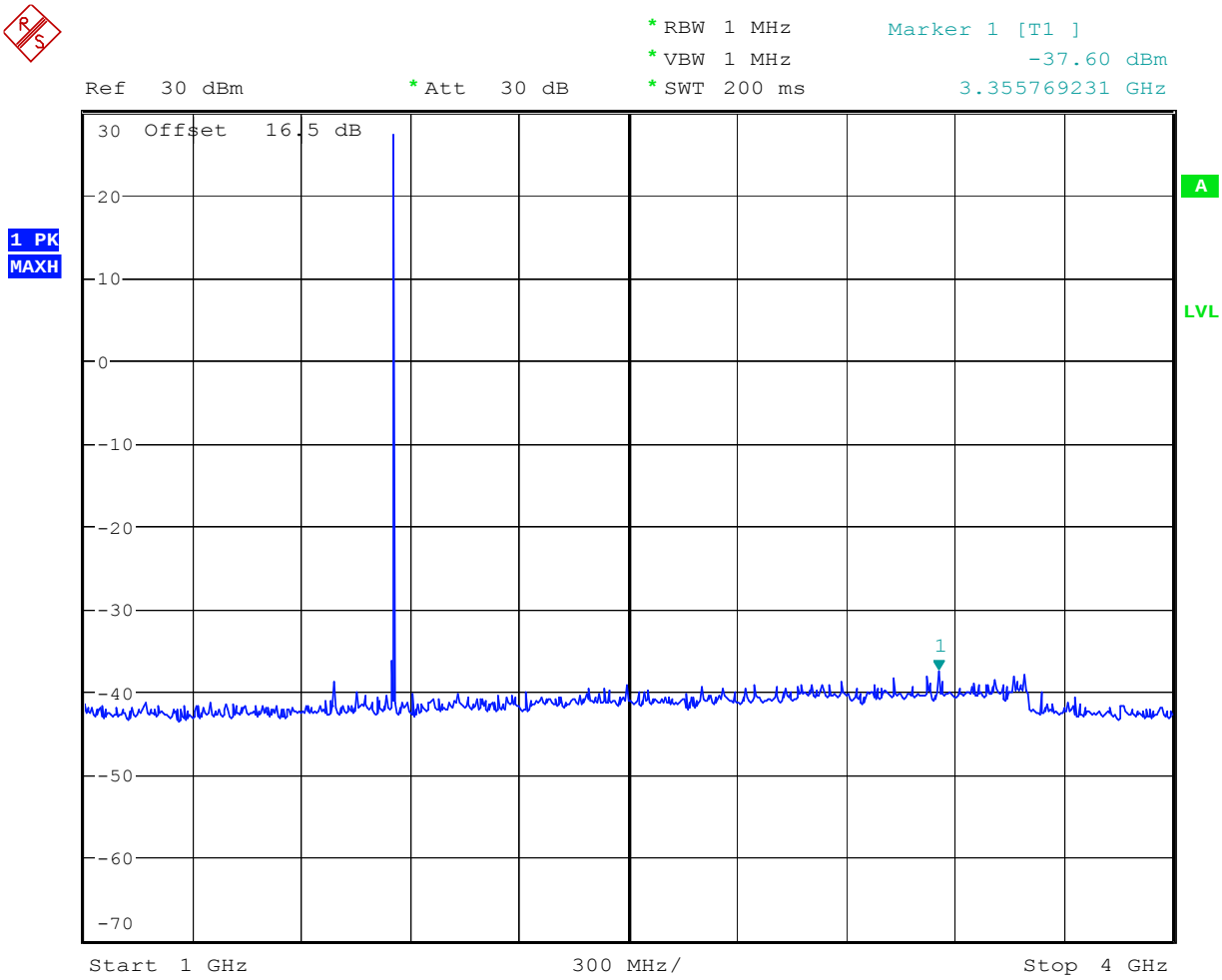

CONDUCED SPURIOUS EMISSION GSM 1900 CH512

Date: 5.JAN.2007 11:18:21



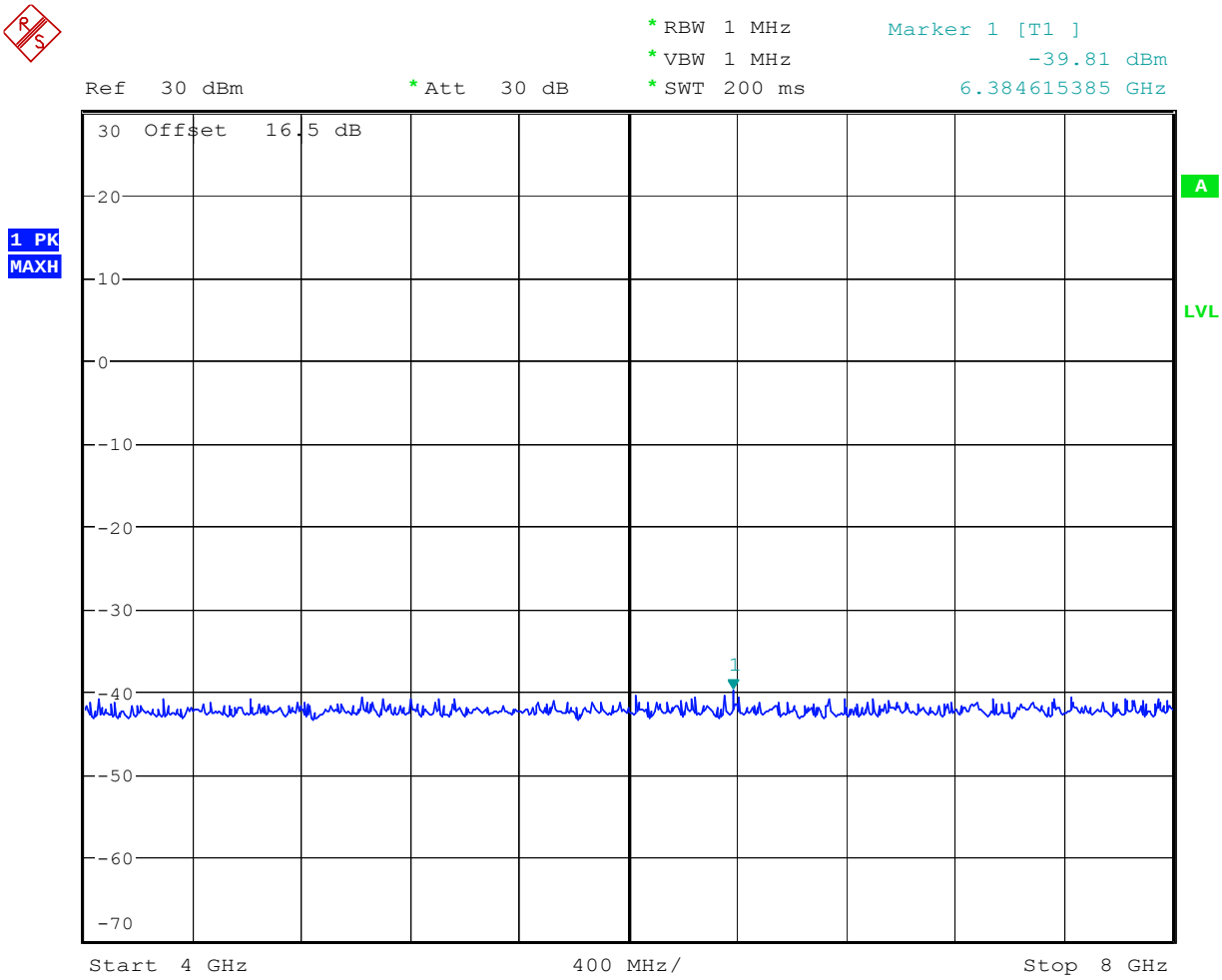

CONDUCED SPURIOUS EMISSION GSM 1900 CH512

Date: 5.JAN.2007 11:20:32



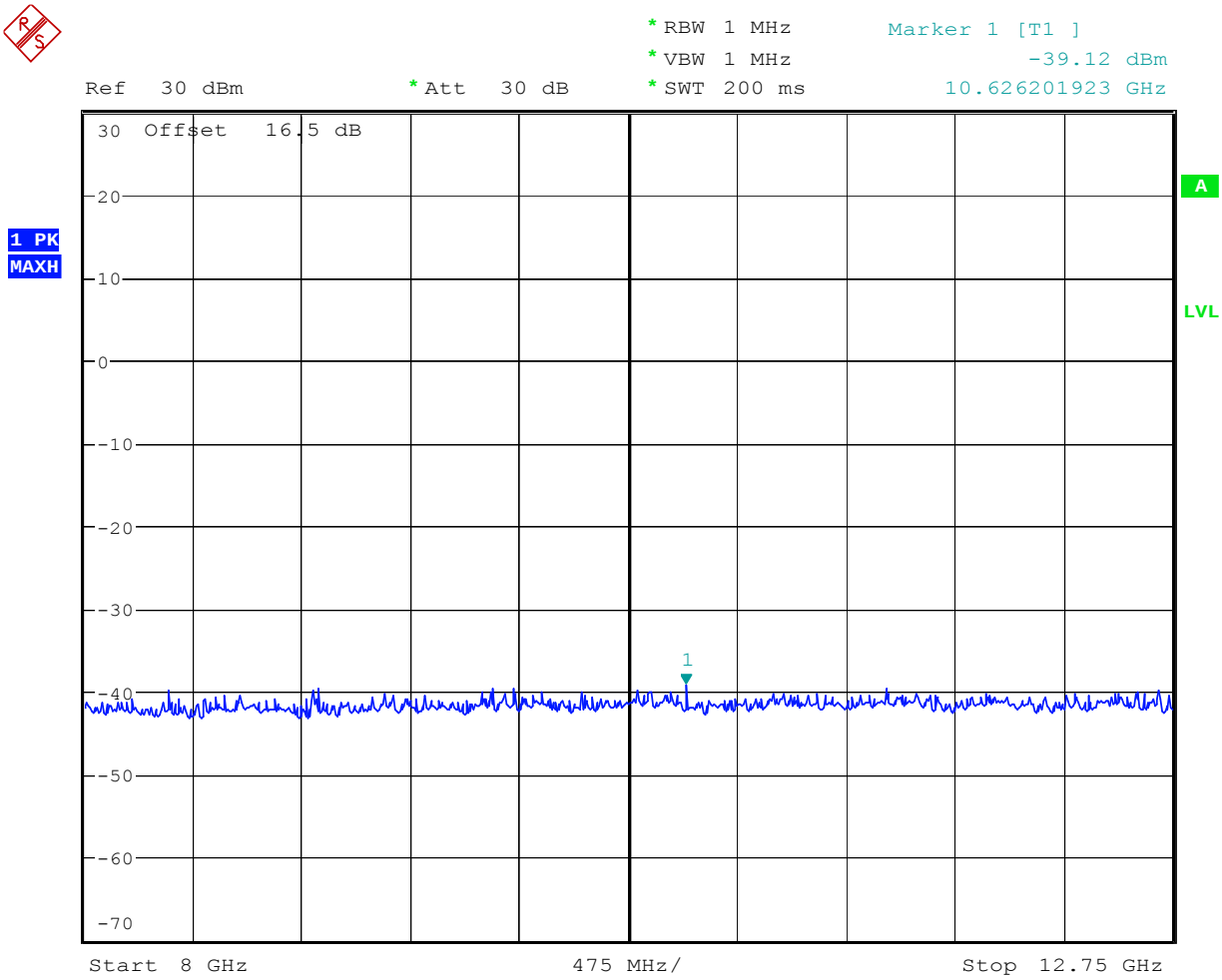

CONDUCED SPURIOUS EMISSION GSM 1900 CH512

Date: 5.JAN.2007 11:20:55



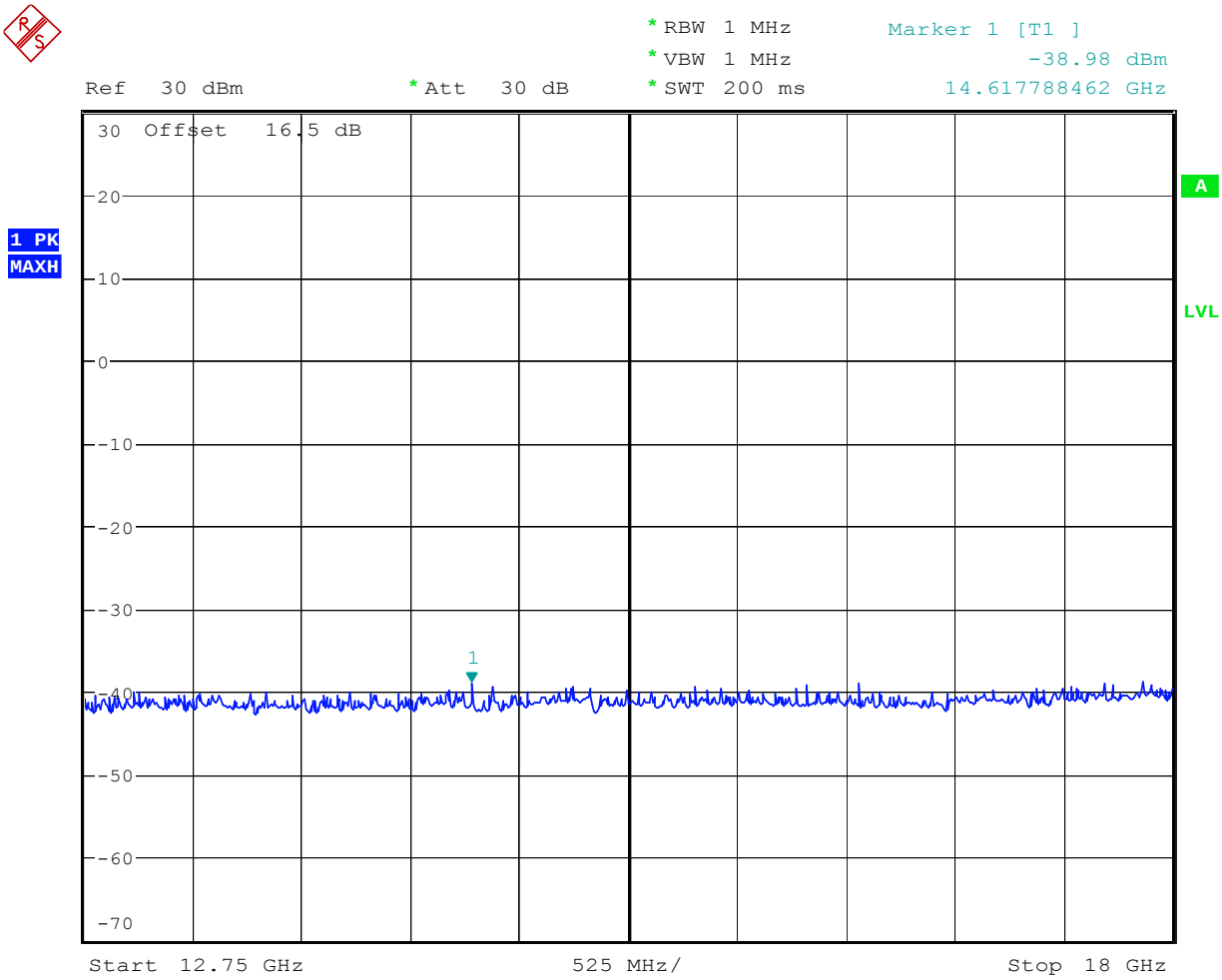

CONDUCED SPURIOUS EMISSION GSM 1900 CH512

Date: 5.JAN.2007 11:41:55



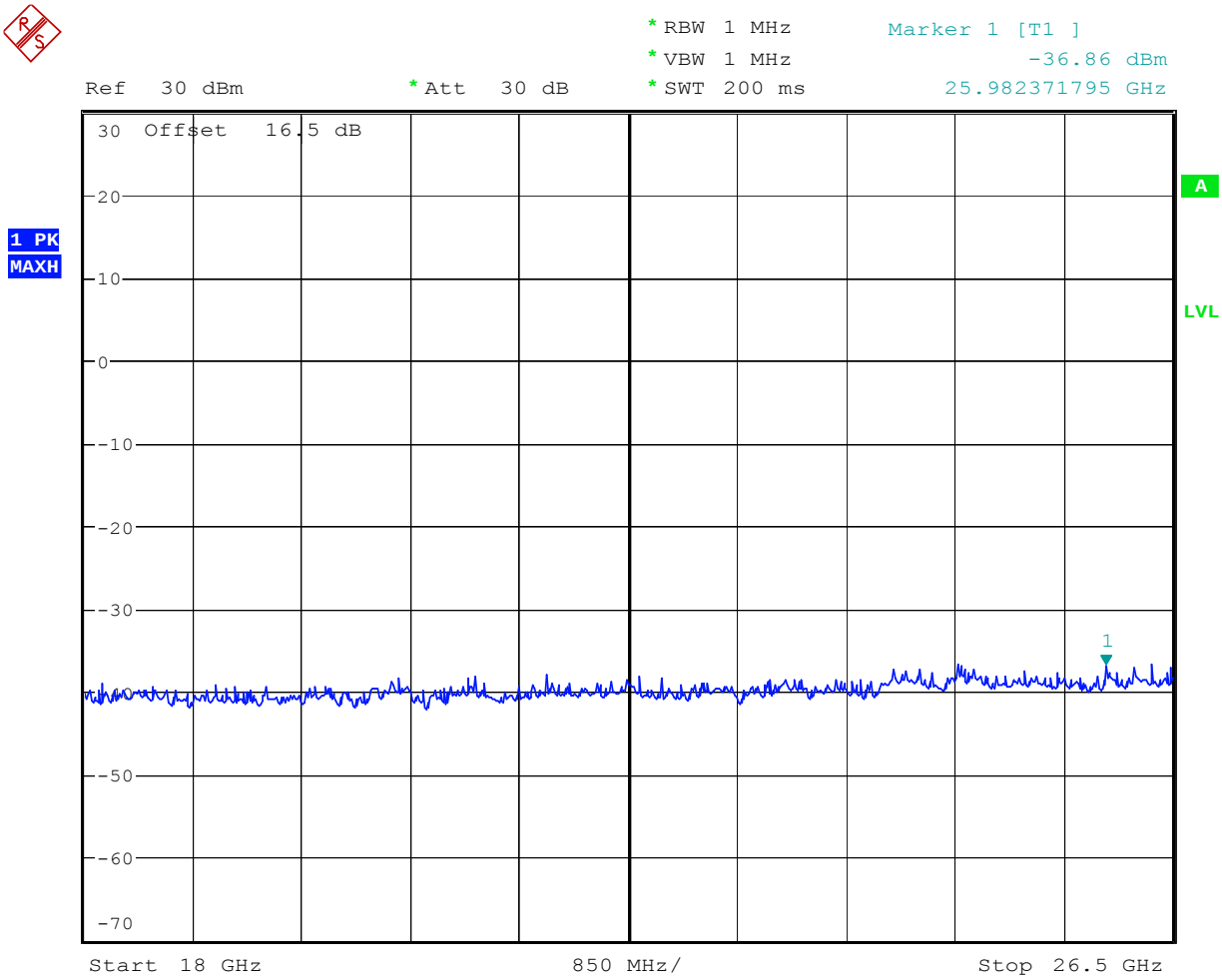

CONDUCED SPURIOUS EMISSION GSM 1900 CH512

Date: 5.JAN.2007 11:35:28



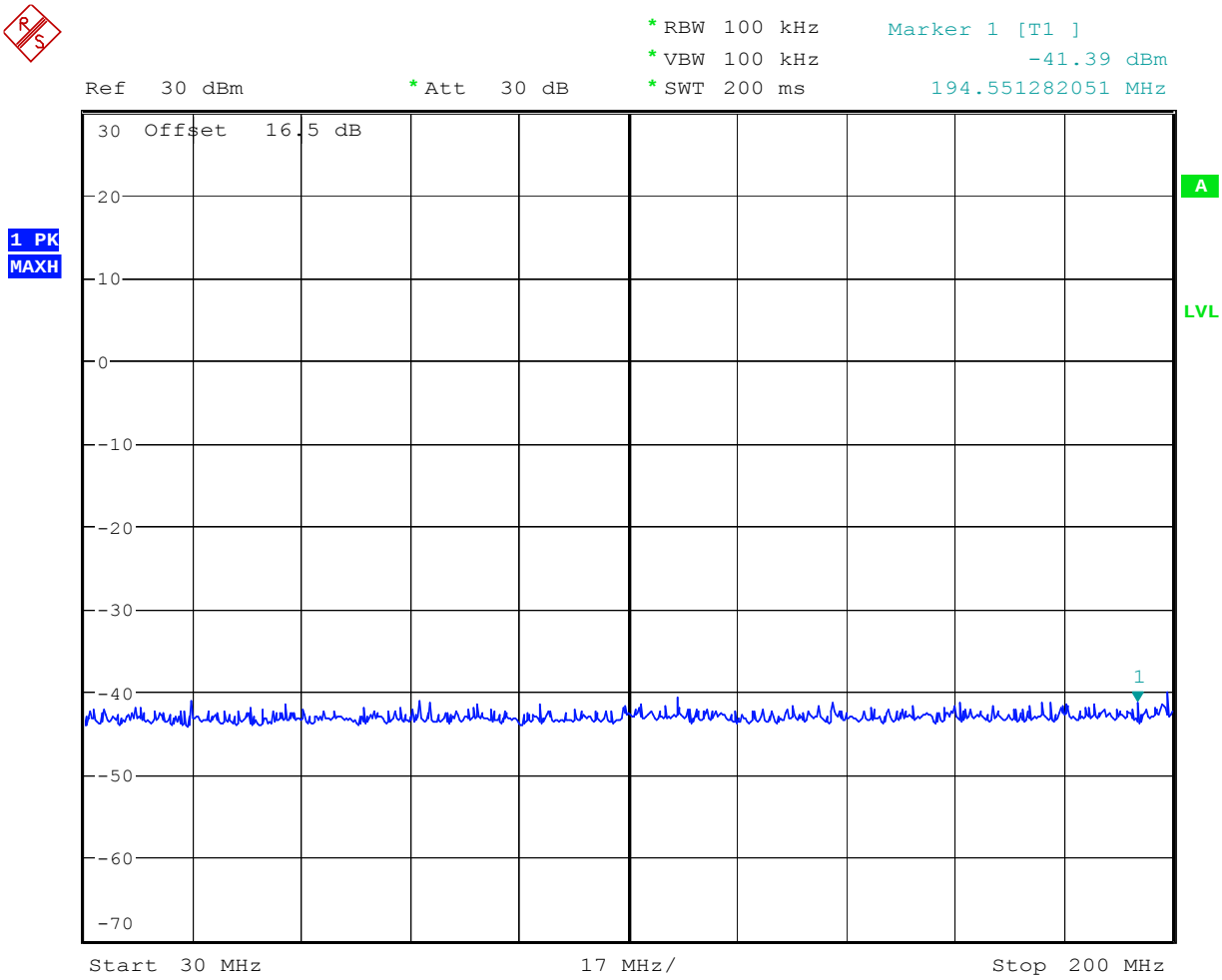

CONDUCED SPURIOUS EMISSION GSM 1900 CH512

Date: 5.JAN.2007 11:38:35



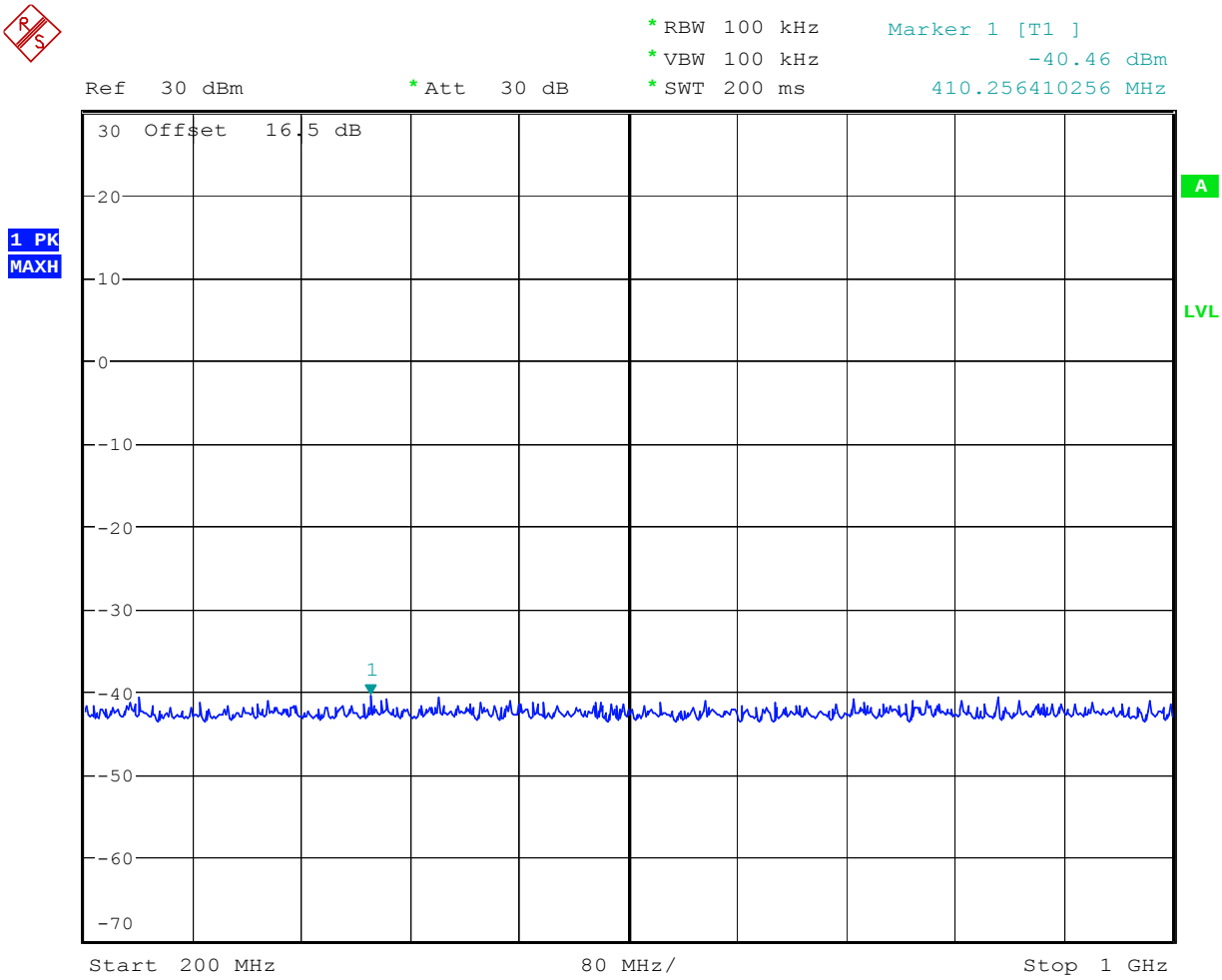

CONDUCED SPURIOUS EMISSION GSM 1900 CH512

Date: 5.JAN.2007 11:38:57



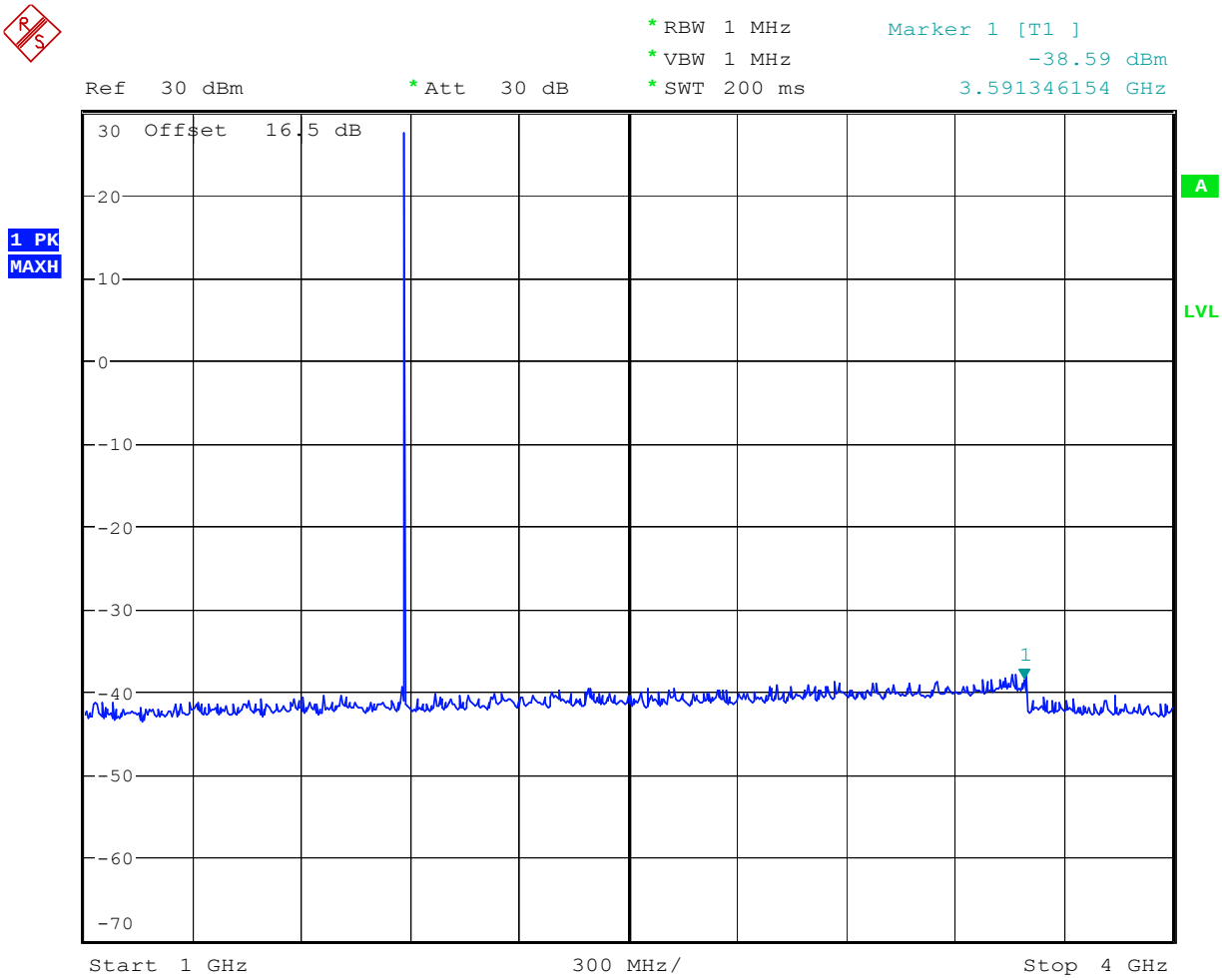

CONDUCED SPURIOUS EMISSION GSM 1900 CH661

Date: 5.JAN.2007 11:18:48



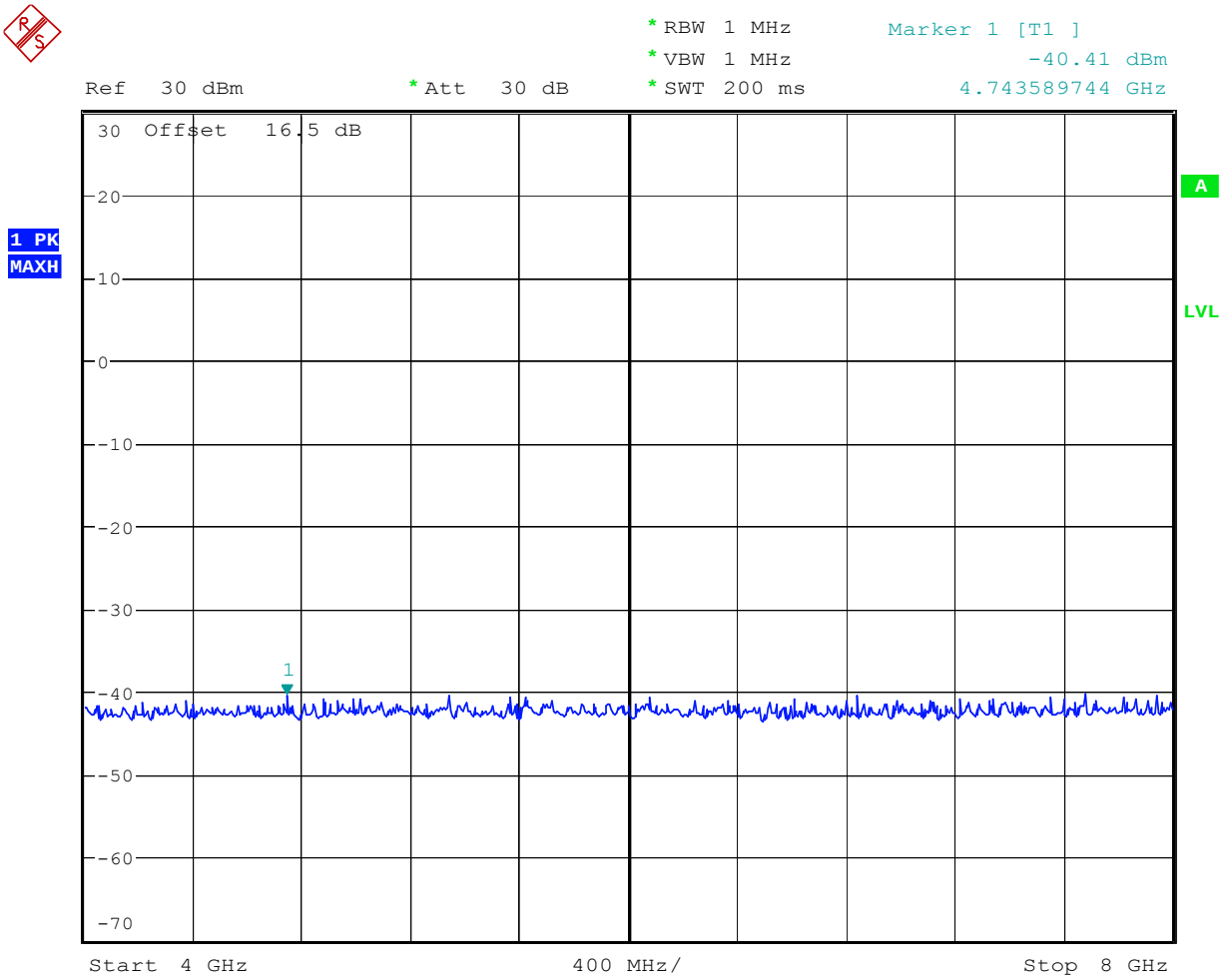

CONDUCED SPURIOUS EMISSION GSM 1900 CH661

Date: 5.JAN.2007 11:20:03



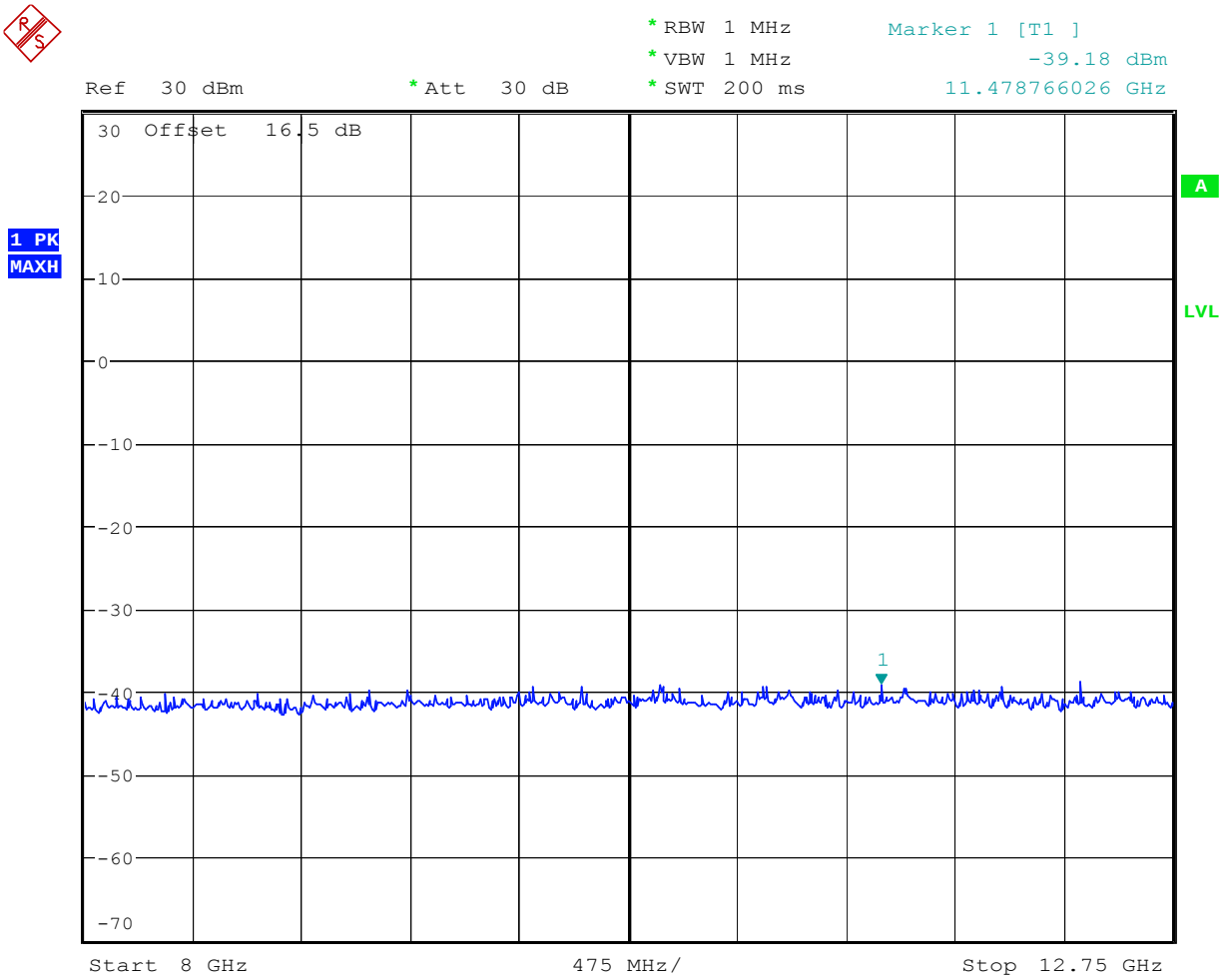

CONDUCED SPURIOUS EMISSION GSM 1900 CH661

Date: 5.JAN.2007 11:21:28



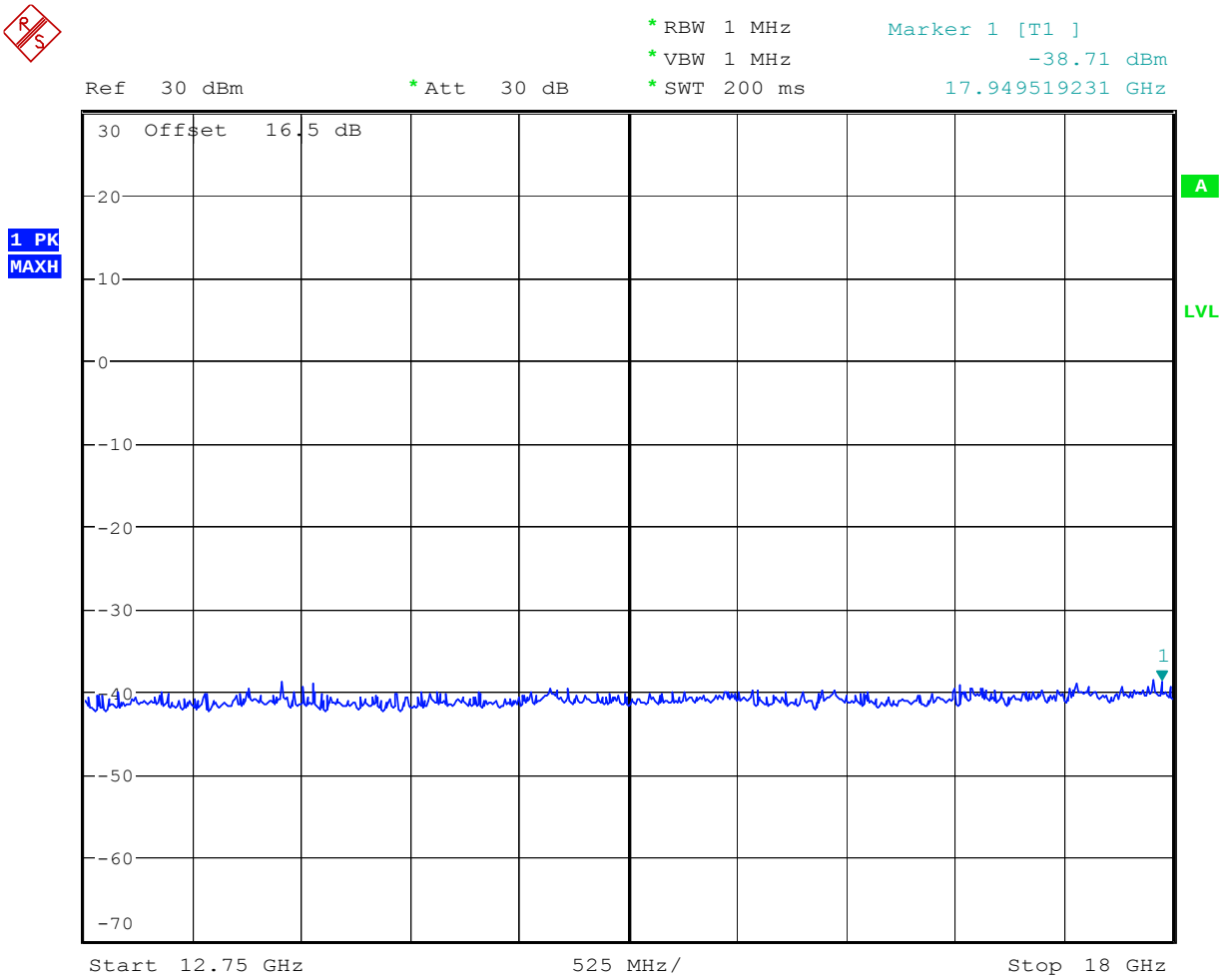

CONDUCED SPURIOUS EMISSION GSM 1900 CH661

Date: 5.JAN.2007 11:23:21



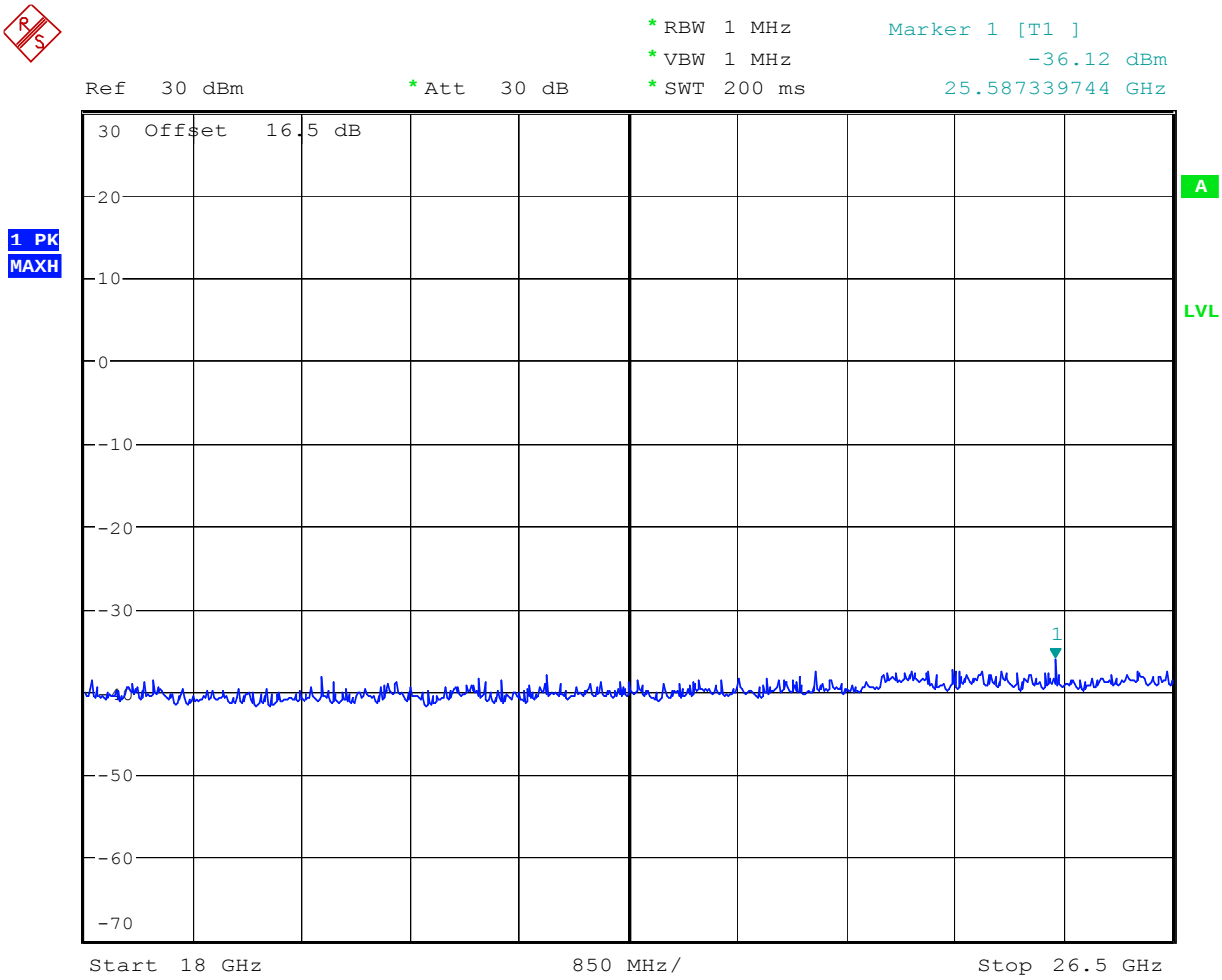

CONDUCED SPURIOUS EMISSION GSM 1900 CH661

Date: 5.JAN.2007 11:36:10



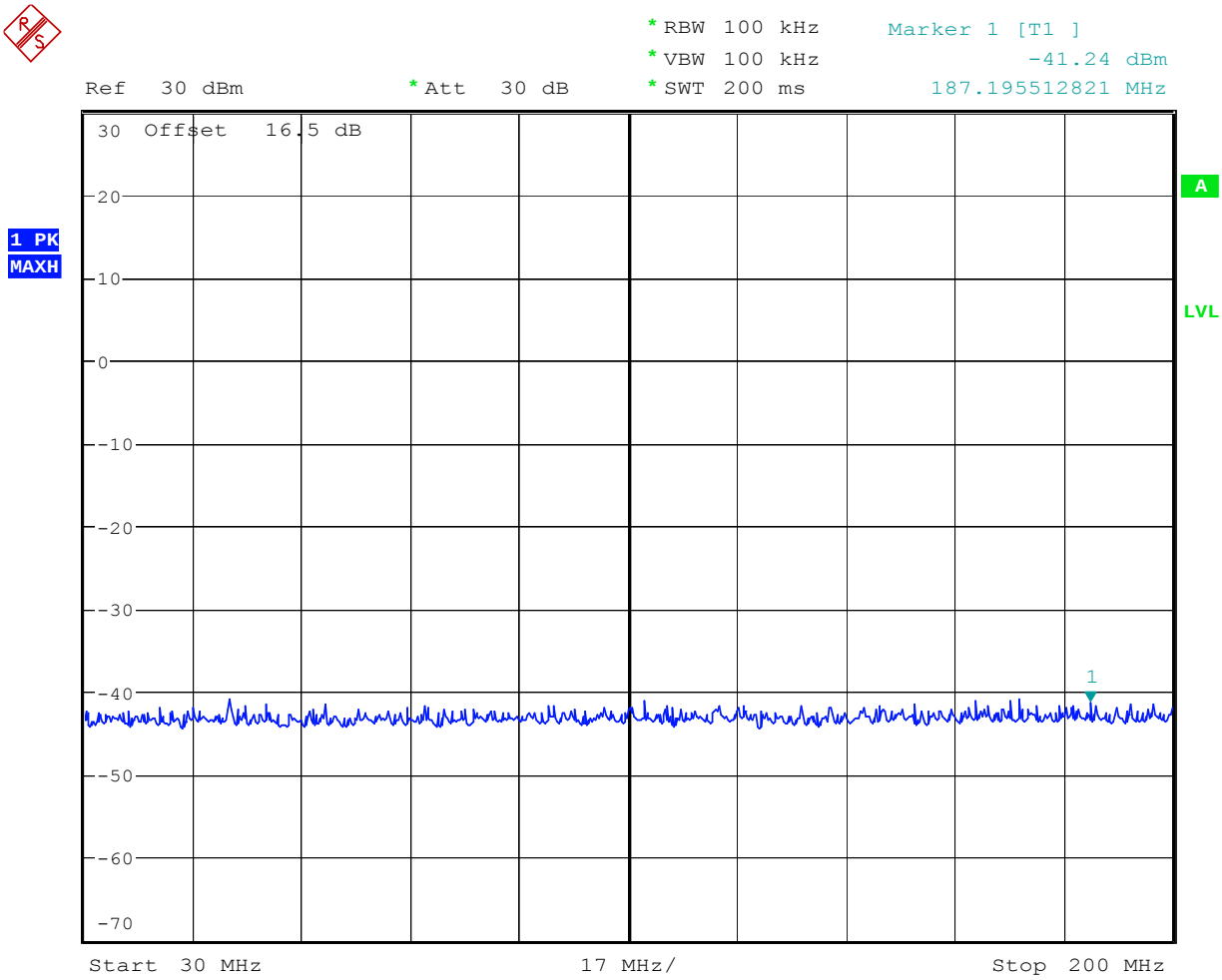

CONDUCED SPURIOUS EMISSION GSM 1900 CH661

Date: 5.JAN.2007 11:38:10



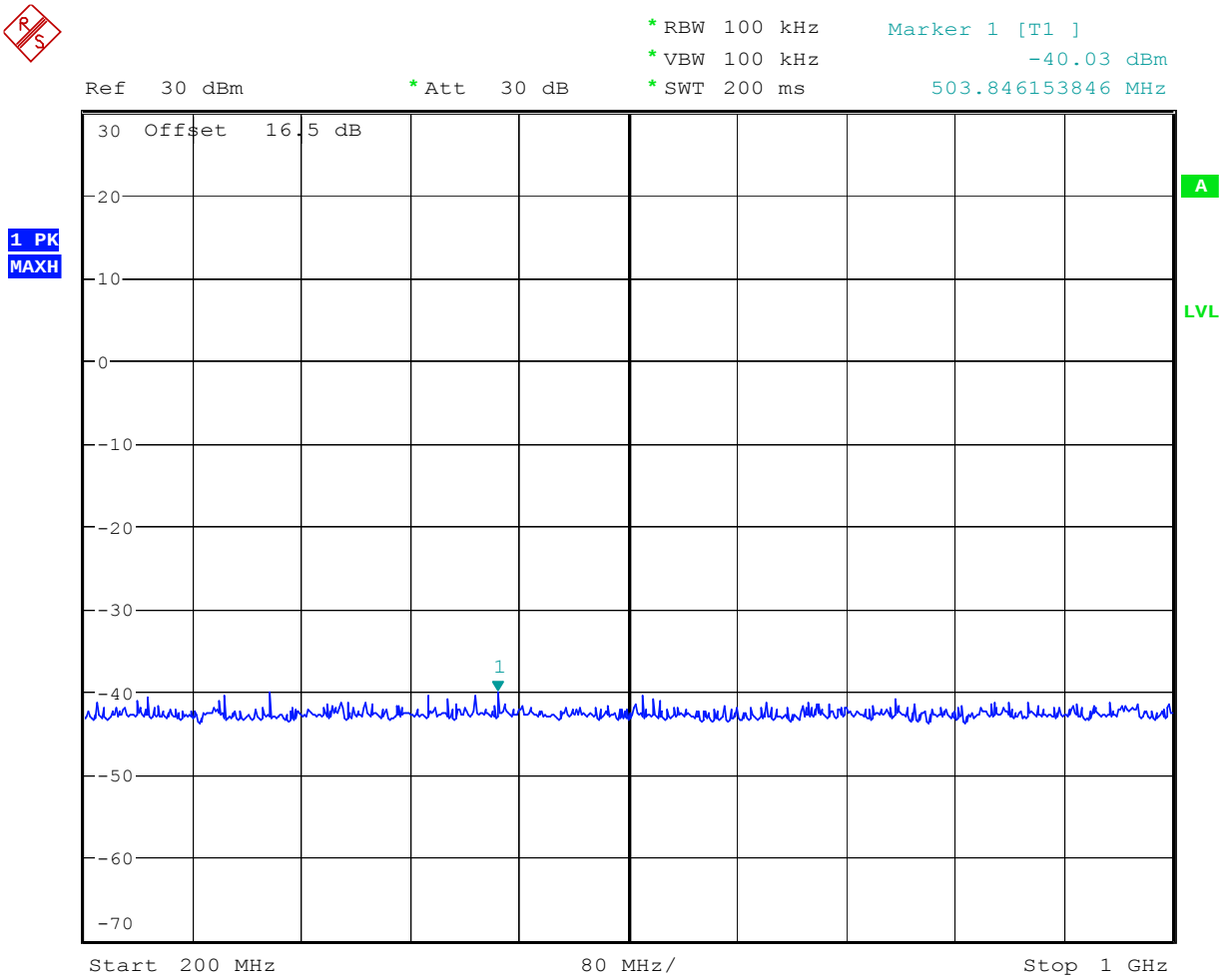

CONDUCED SPURIOUS EMISSION GSM 1900 CH661

Date: 5.JAN.2007 11:39:22



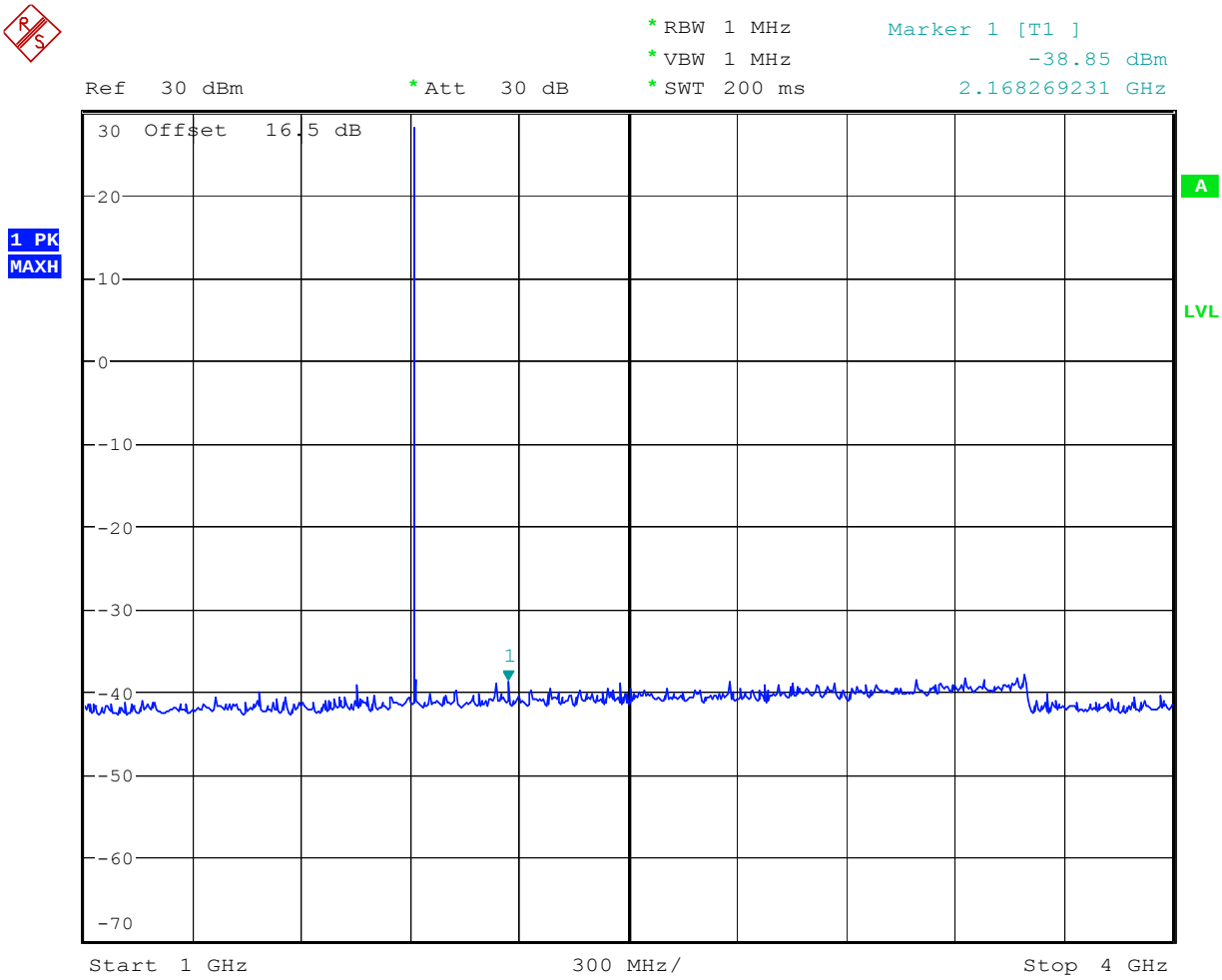

CONDUCED SPURIOUS EMISSION GSM 1900 CH810

Date: 5.JAN.2007 11:19:12



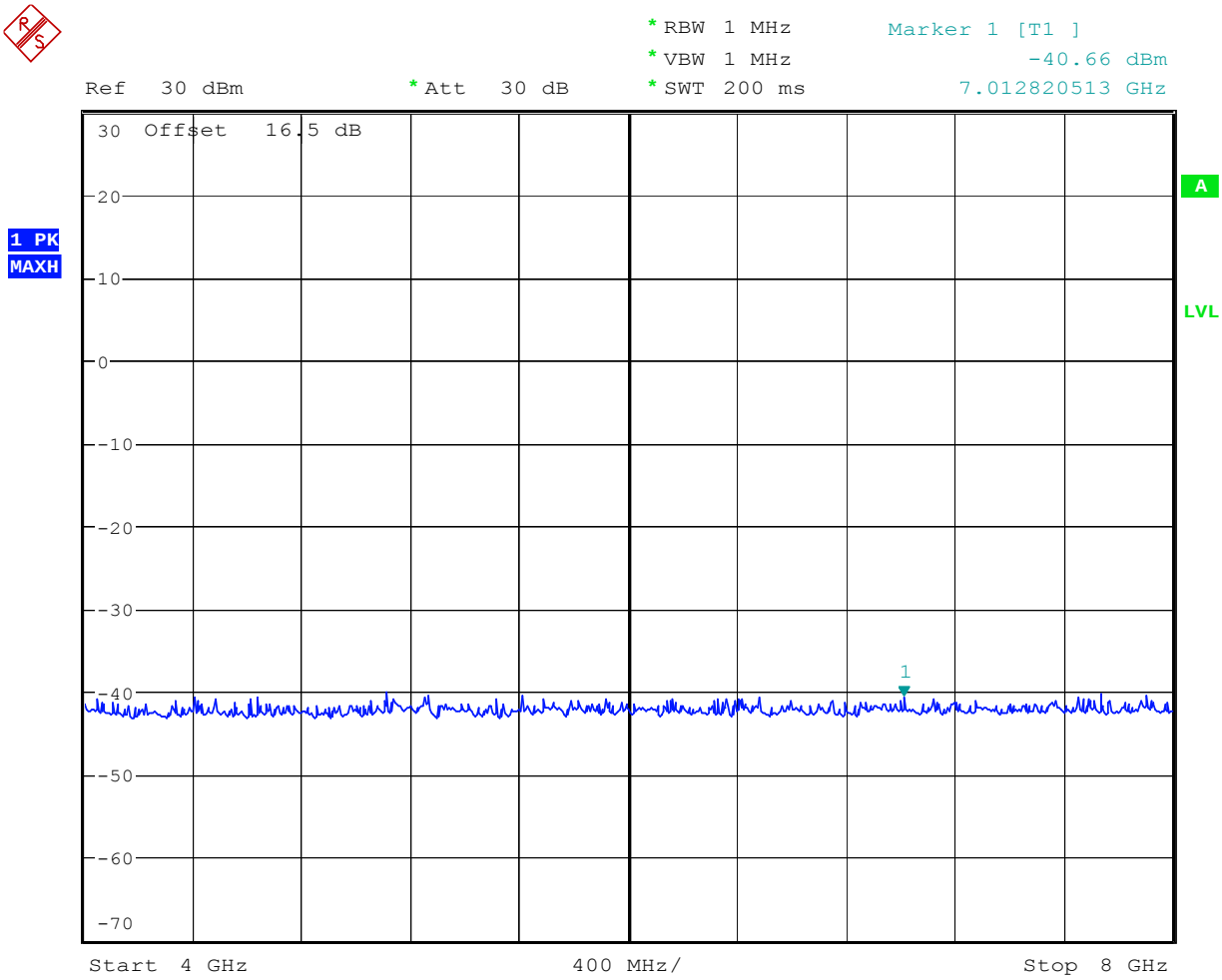

CONDUCED SPURIOUS EMISSION GSM 1900 CH810

Date: 5.JAN.2007 11:19:36



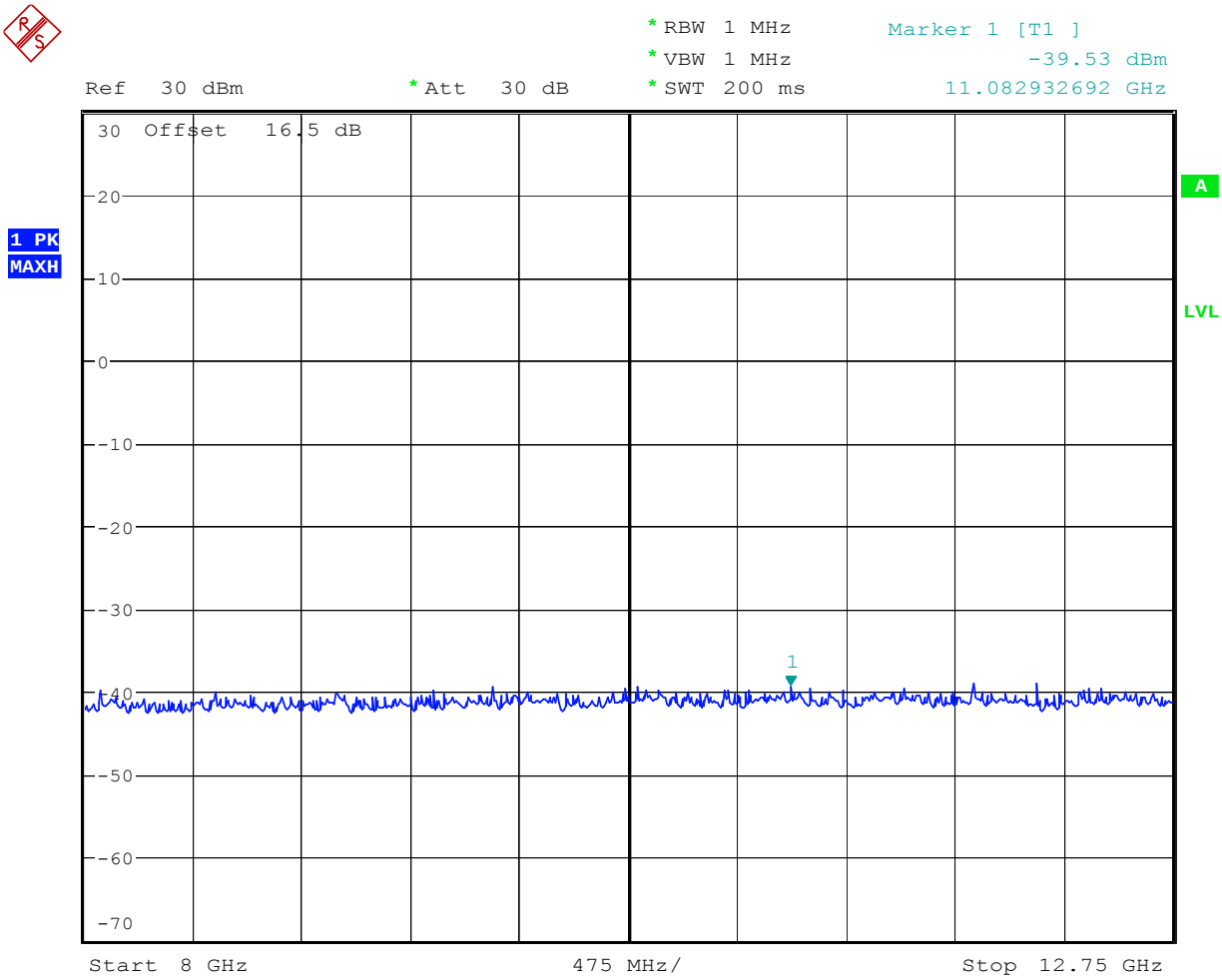

CONDUCED SPURIOUS EMISSION GSM 1900 CH810

Date: 5.JAN.2007 11:22:23



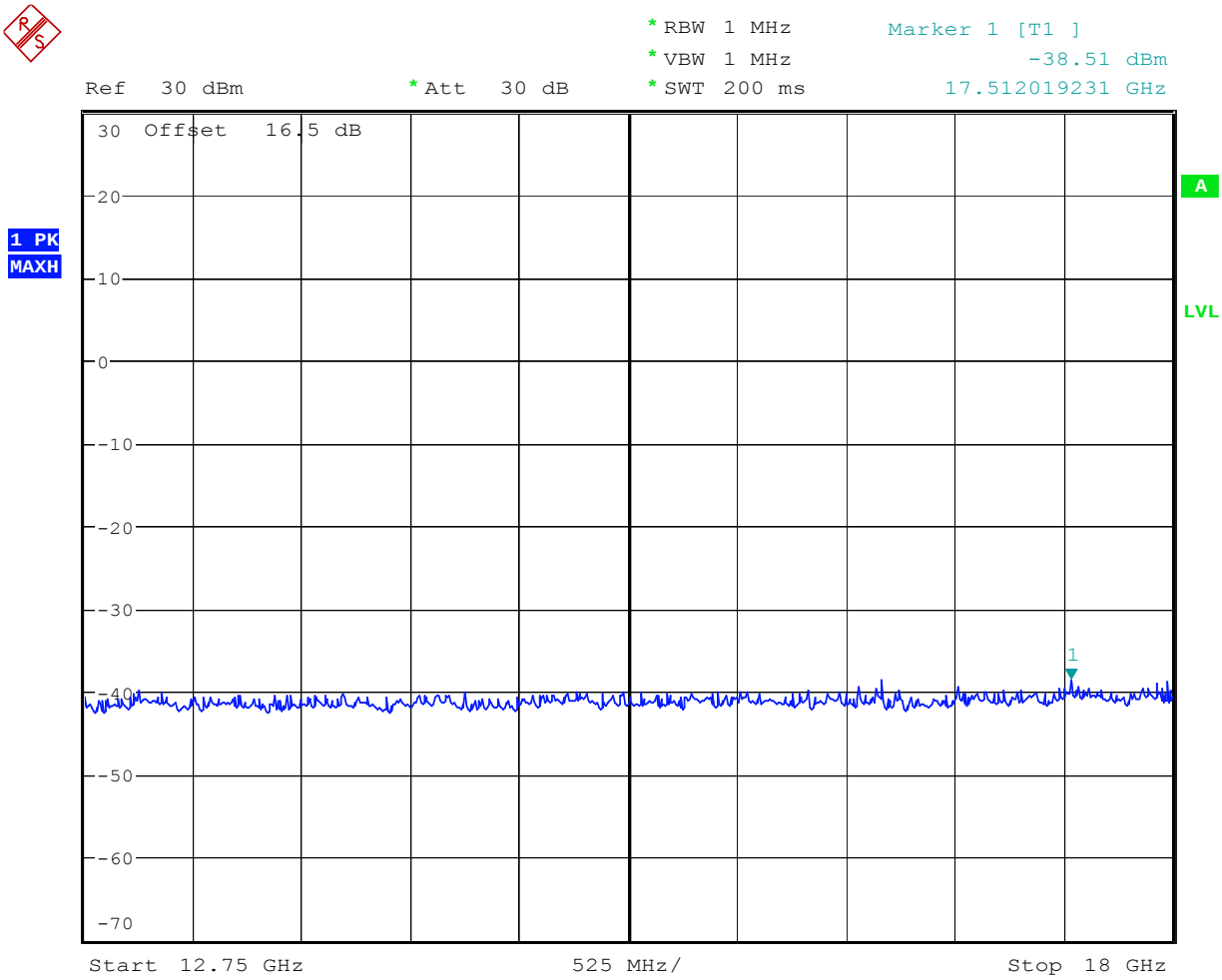

CONDUCED SPURIOUS EMISSION GSM 1900 CH810

Date: 5.JAN.2007 11:22:56



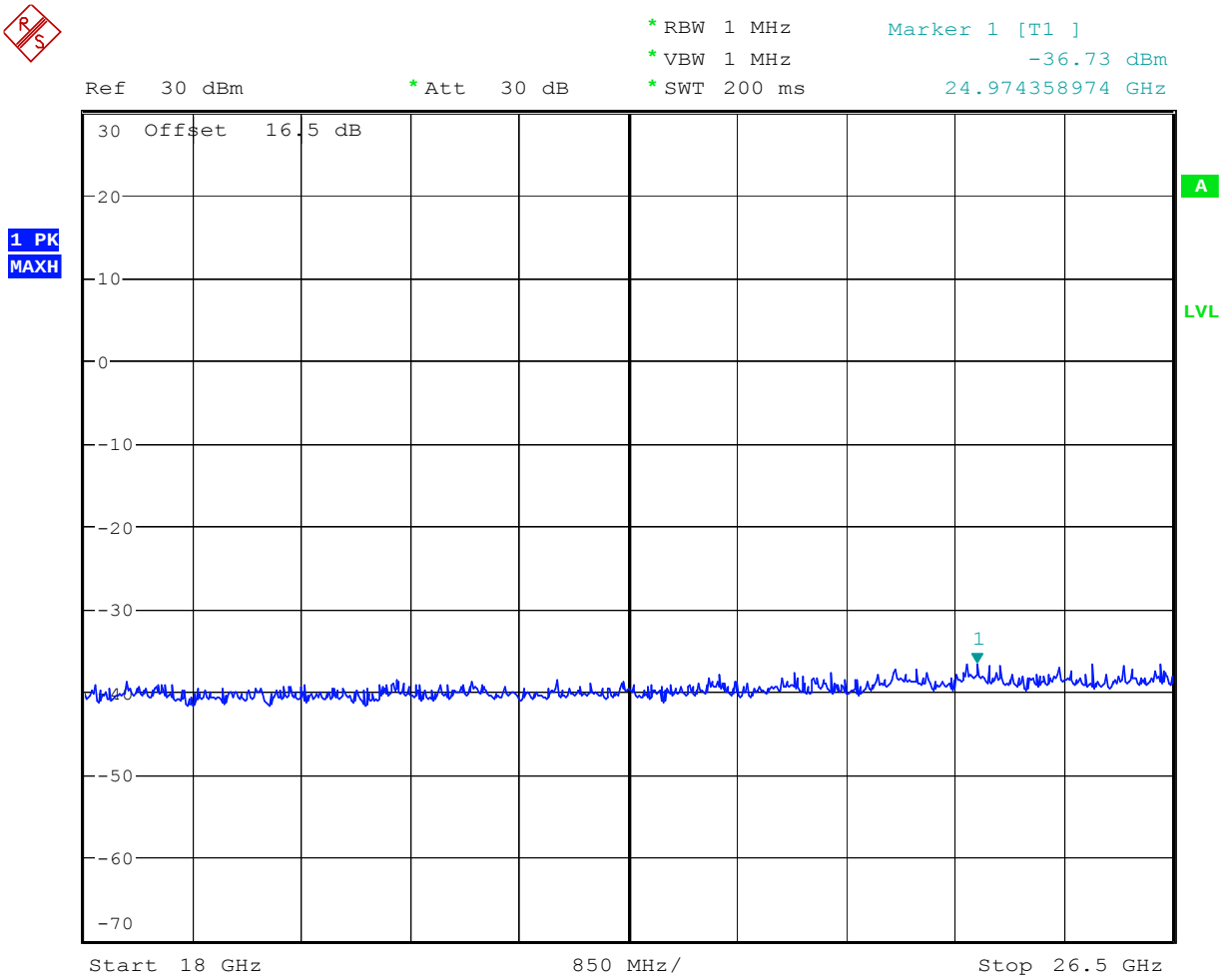

CONDUCED SPURIOUS EMISSION GSM 1900 CH810

Date: 5.JAN.2007 11:37:02




CONDUCED SPURIOUS EMISSION GSM 1900 CH810

Date: 5.JAN.2007 11:37:33




CONDUCED SPURIOUS EMISSION GSM 1900 CH810

Date: 5.JAN.2007 11:39:50

# Appendix D

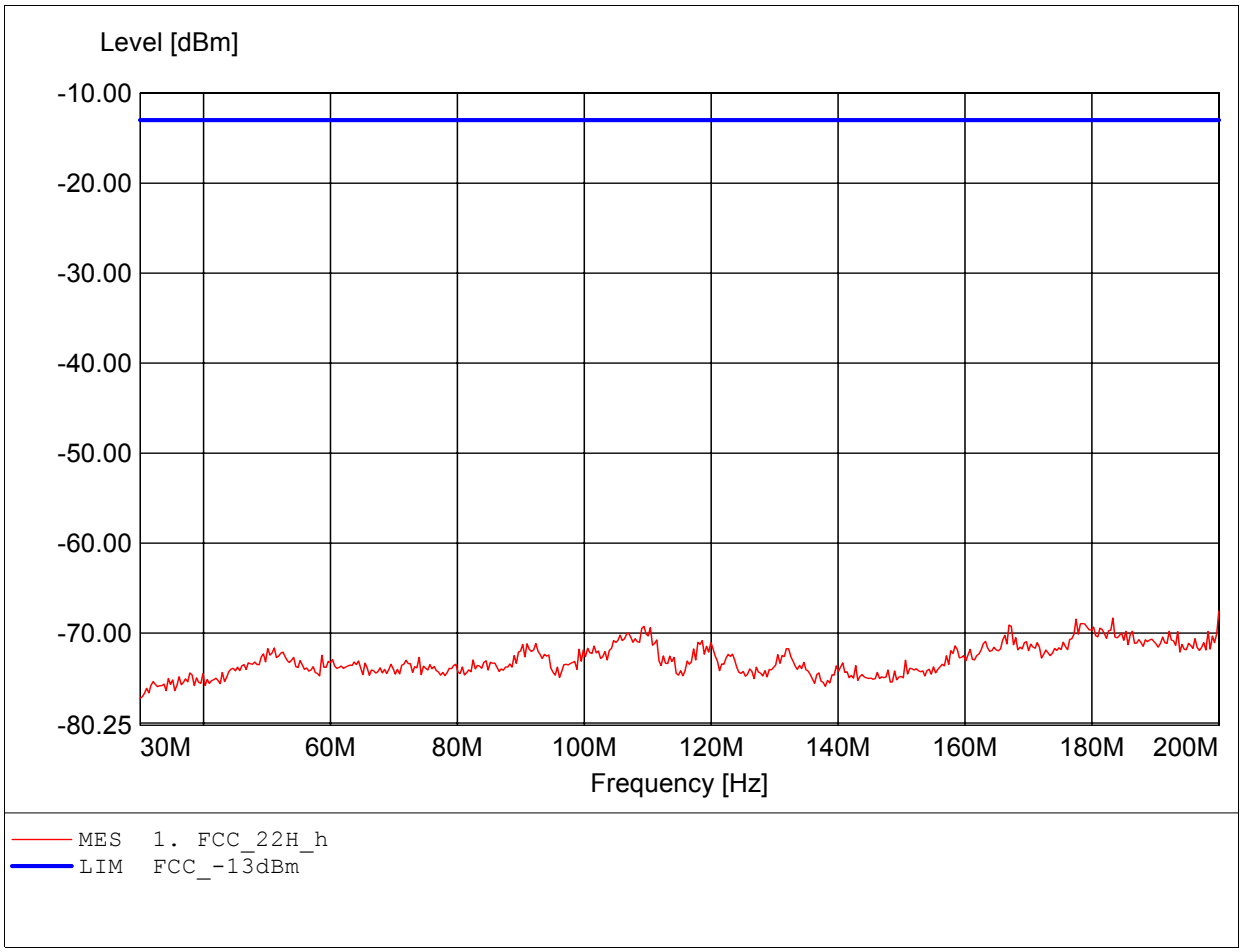
Filed Strength of Spurious Emission

**The measurement diagrams plots attached below are preliminary wideband scan with a peak detector and for reference only. The final test results are listed on page section 7.2.**

***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

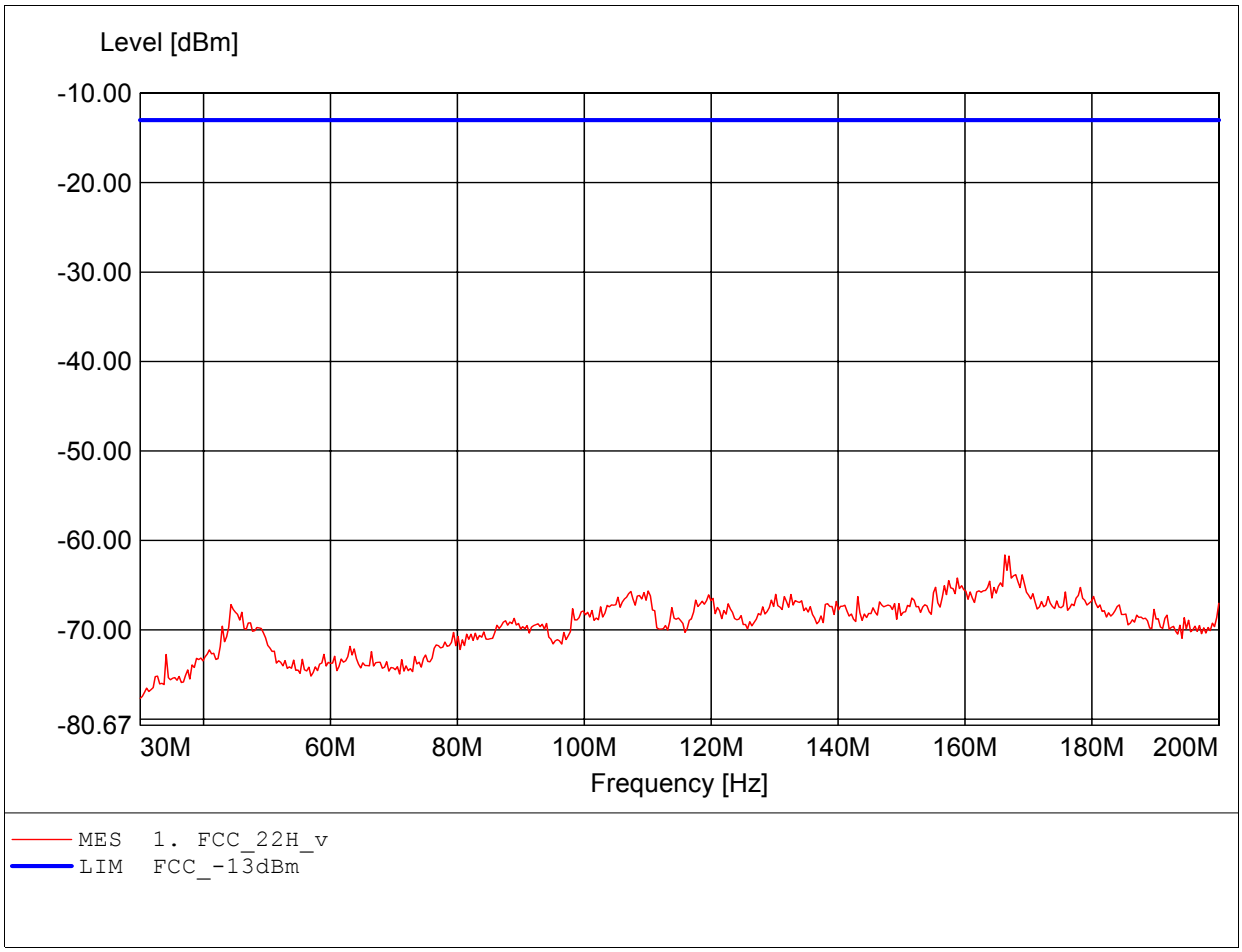
Order Number : W6M20612-7664 850Band CH128
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to §22.917
Comment 1: Dist.: 3m, Ant.: HK 116
Freq: 200.000MHz, Pmax: -67.57dBm, RBW: 1MHz



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

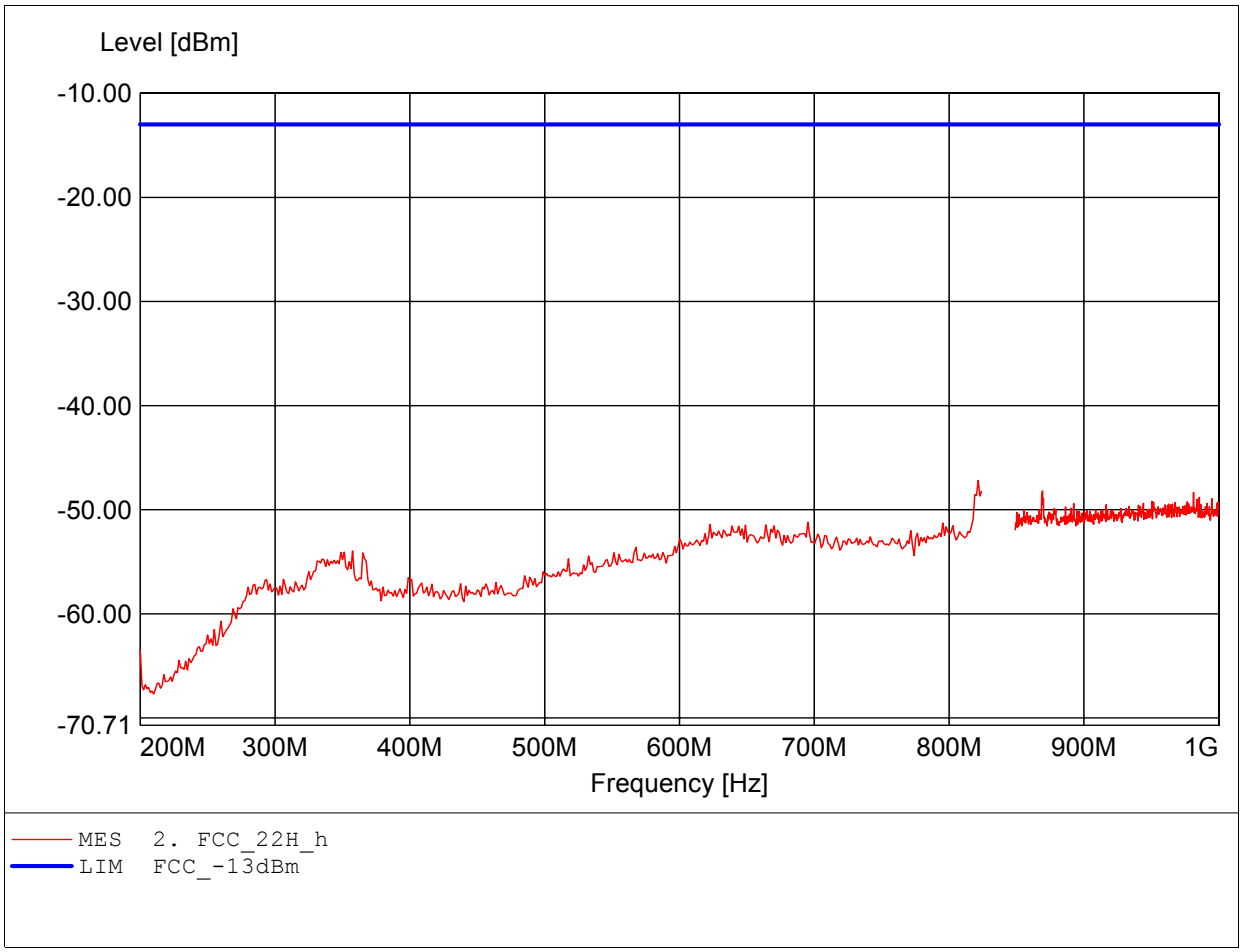
Order Number : W6M20612-7664 850Band CH128
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to §22.917
Comment 1: Dist.: 3m, Ant.: HK 116
Freq: 166.273MHz, Pmax: -61.63dBm, RBW: 1MHz



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

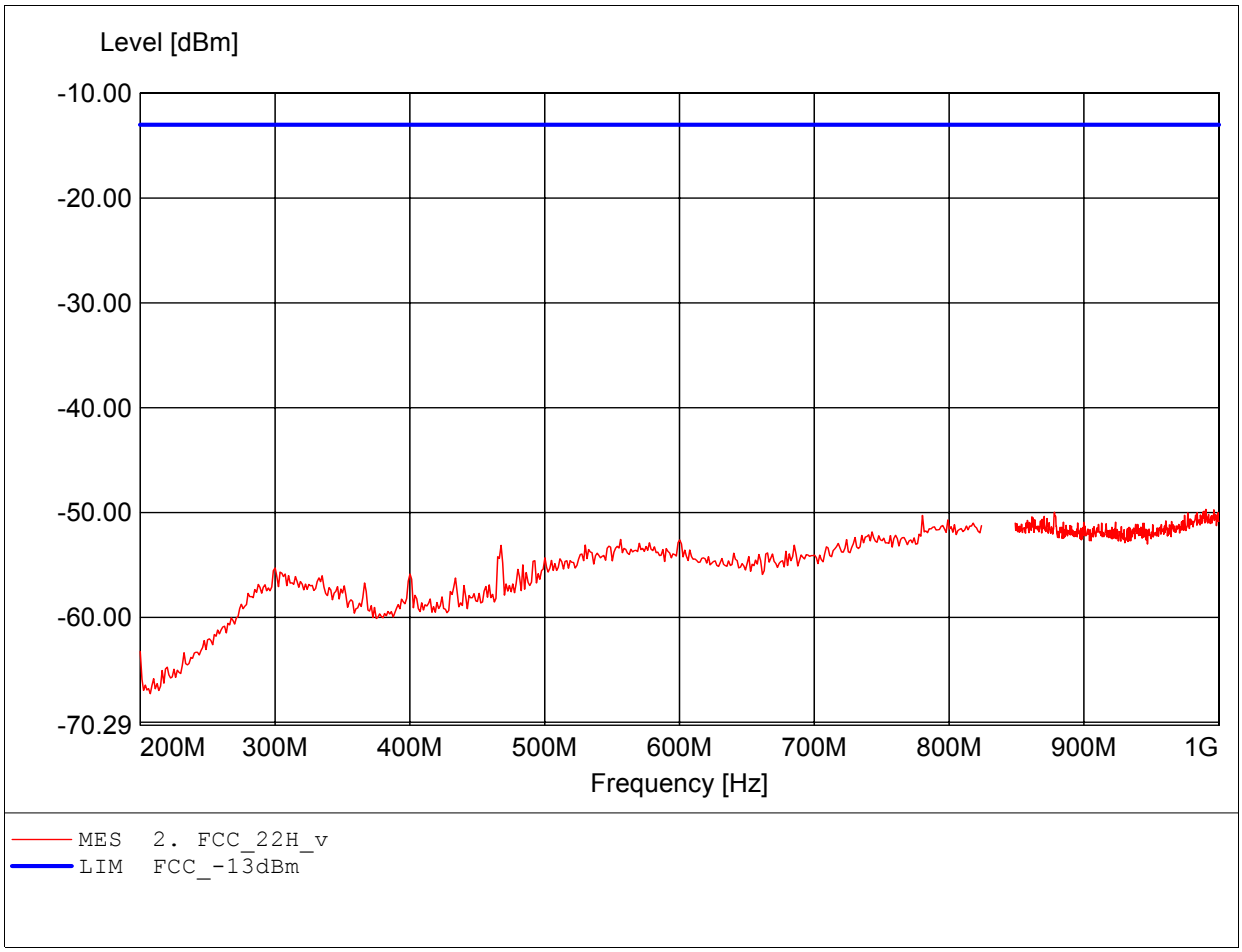
```
Order Number :          W6M20612-7664     850Band CH128
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL 223+notch
                        Freq: 821.499MHz, Pmax: -47.19dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

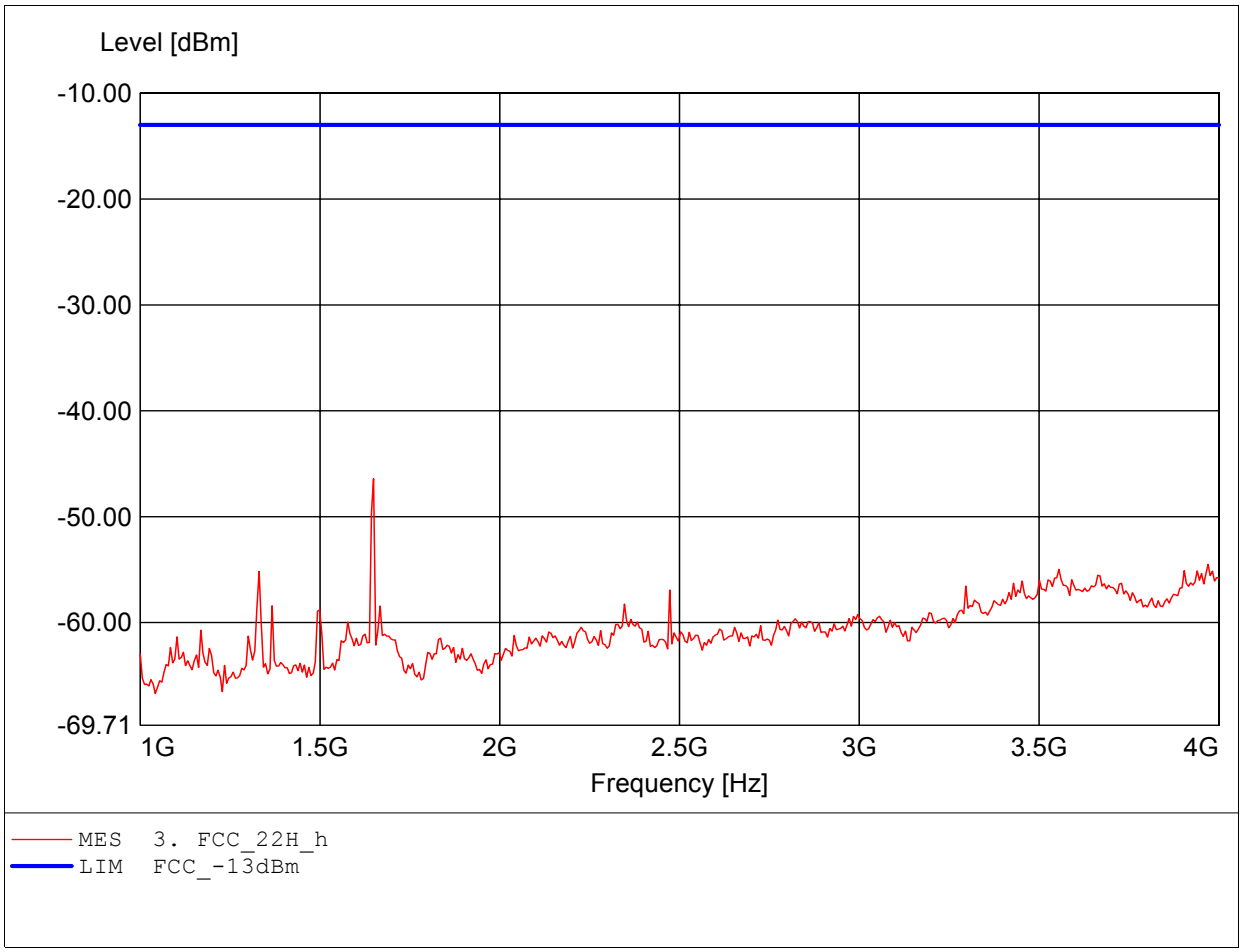
Order Number : W6M20612-7664 850Band CH128
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to §22.917
Comment 1: Dist.: 3m, Ant.: HL 223+notch
Freq: 990.317MHz, Pmax: -49.68dBm, RBW: 1MHz



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

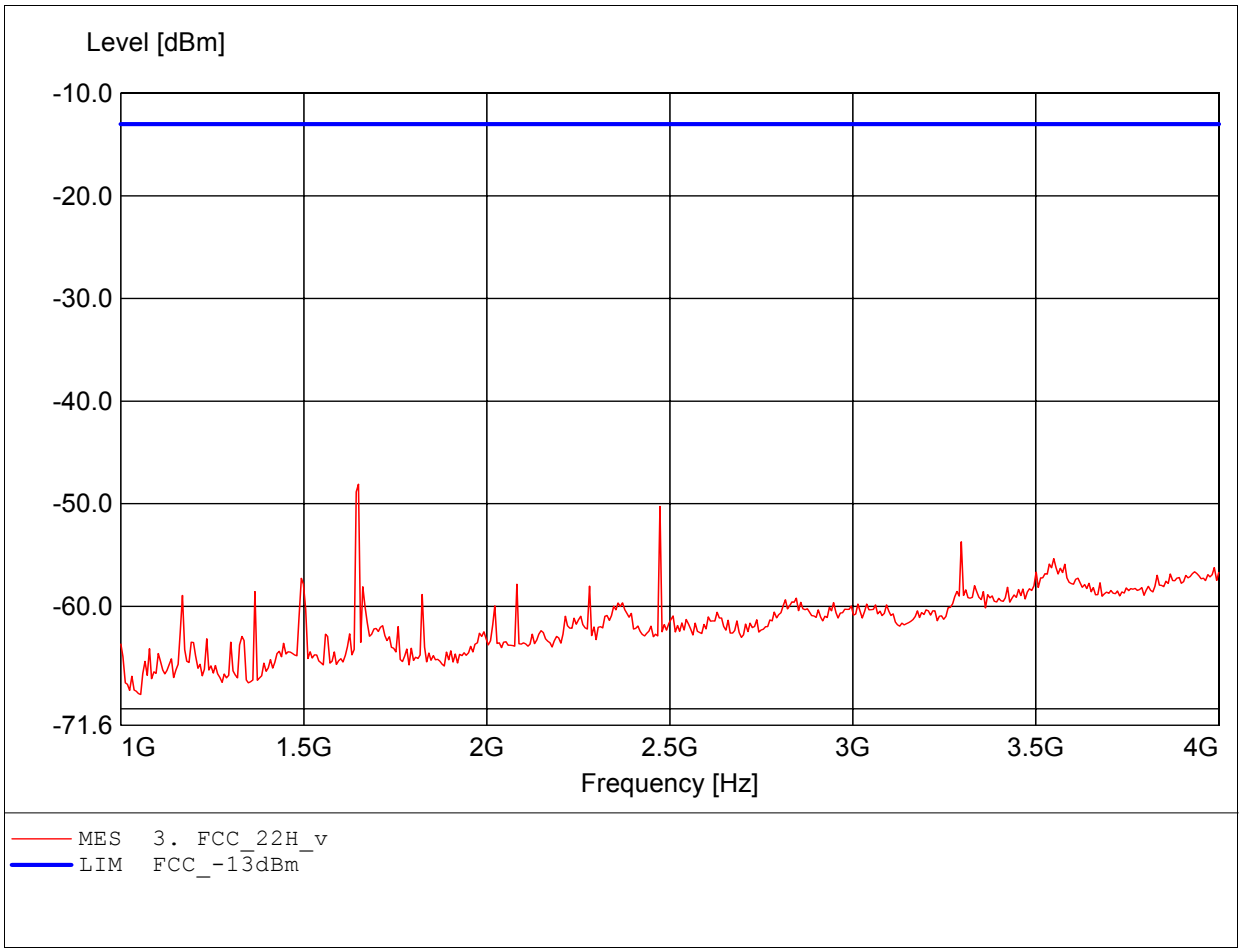
```
Order Number :          W6M20612-7664     850Band CH128
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025
                        Freq: 1.649GHz, Pmax: -46.43dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

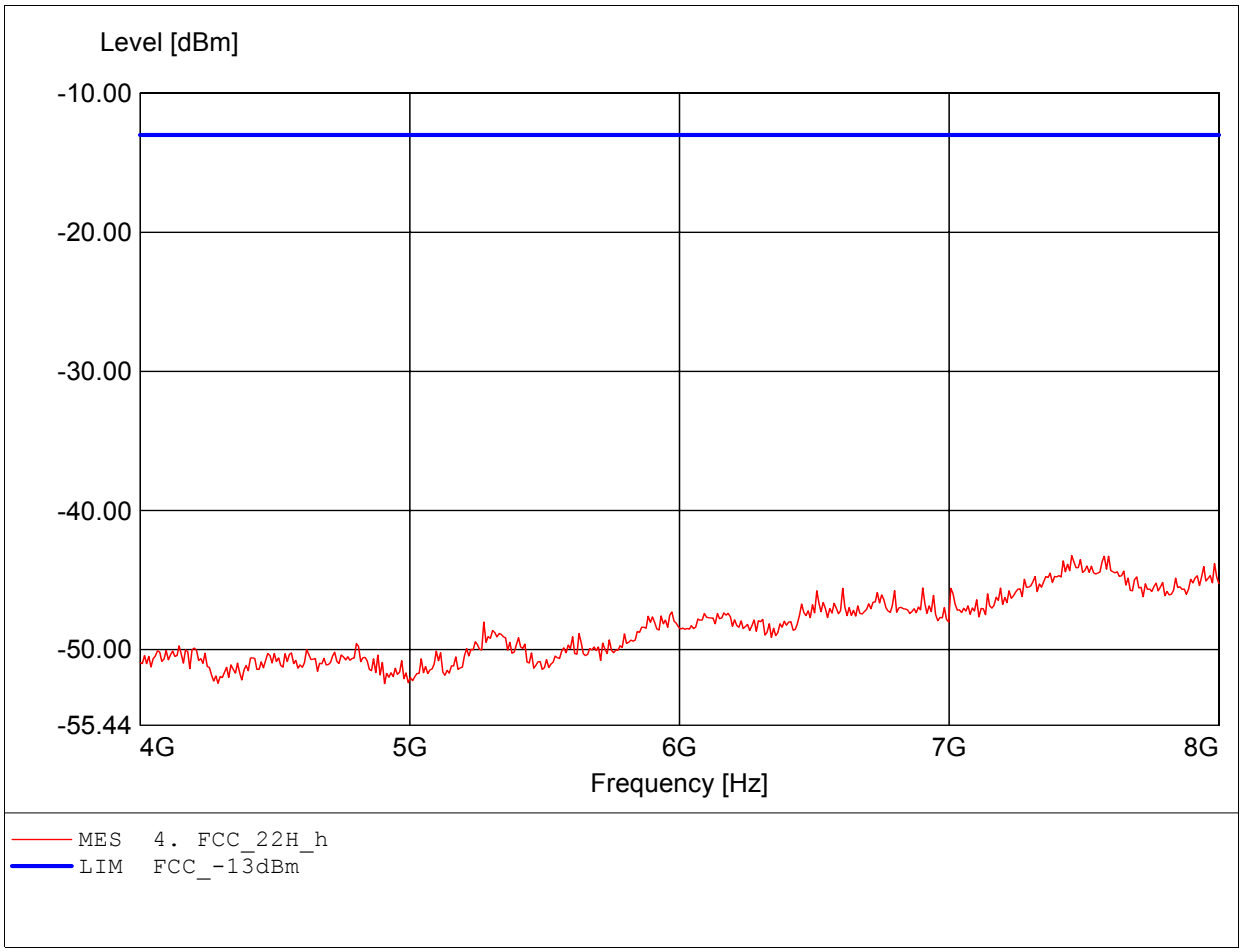
```
Order Number :          W6M20612-7664     850Band CH128
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025
                        Freq: 1.649GHz, Pmax: -48.10dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

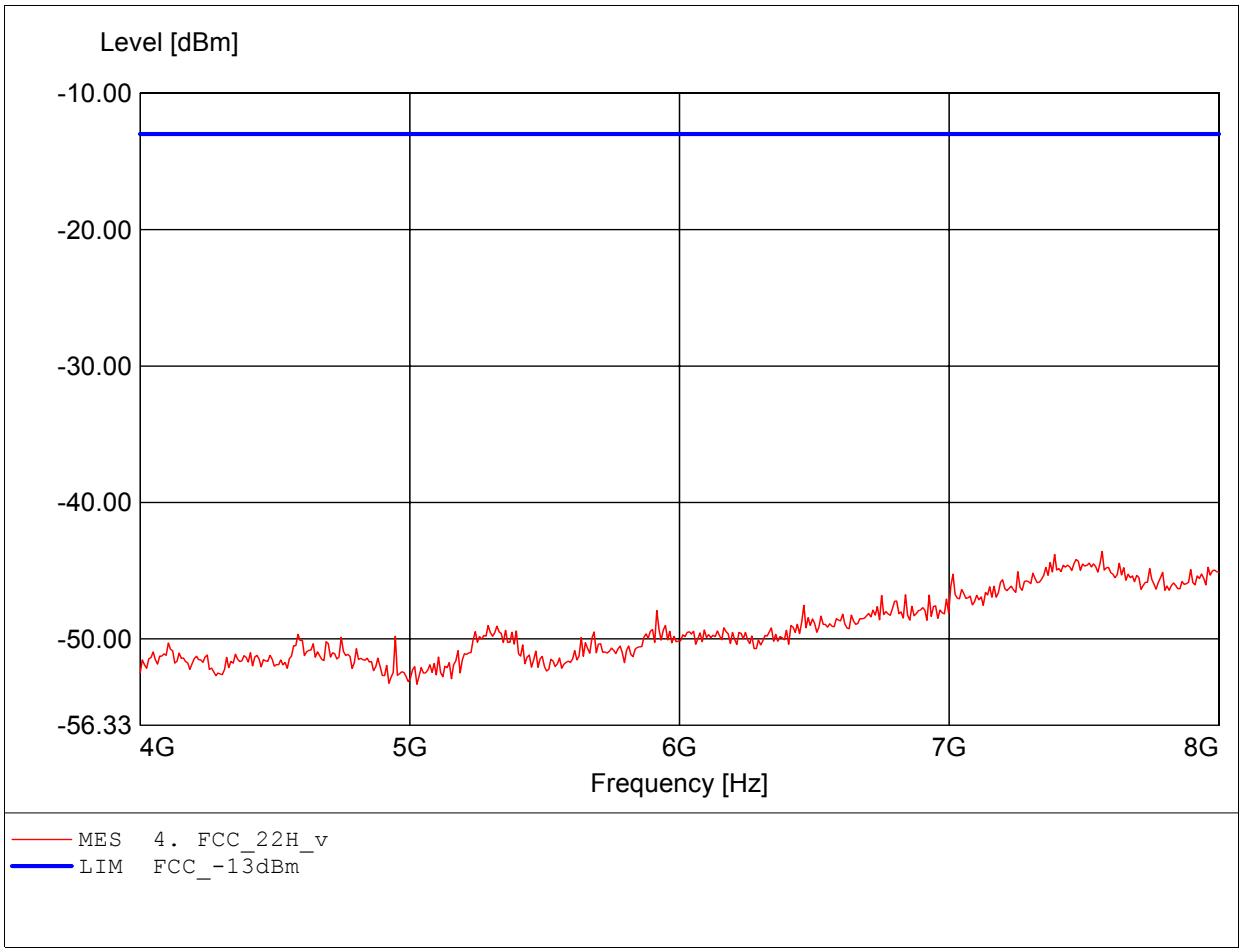
```
Order Number :          W6M20612-7664     850Band CH128
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 7.455GHz, Pmax: -43.24dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

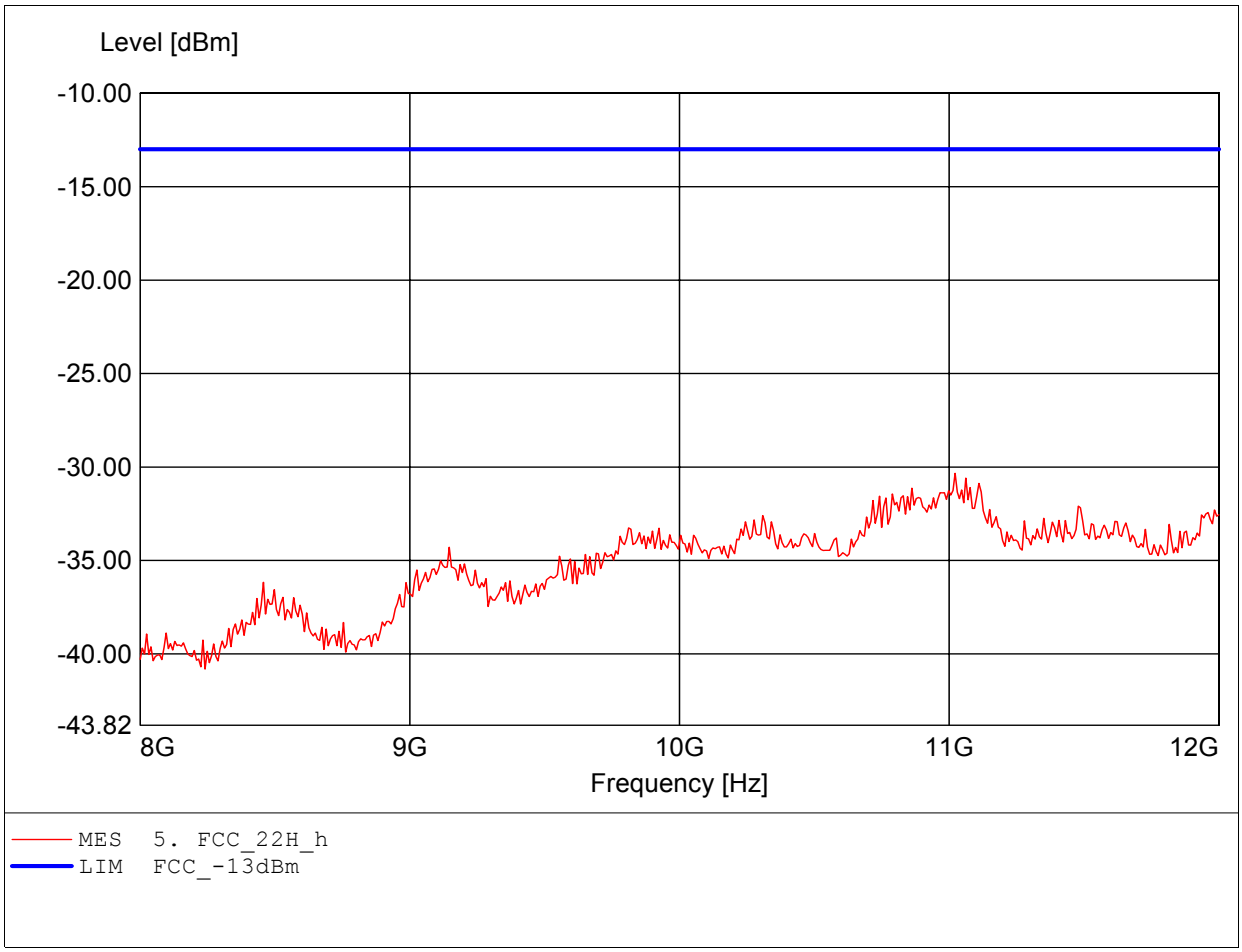
```
Order Number :          W6M20612-7664     850Band CH128
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 7.567GHz, Pmax: -43.60dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

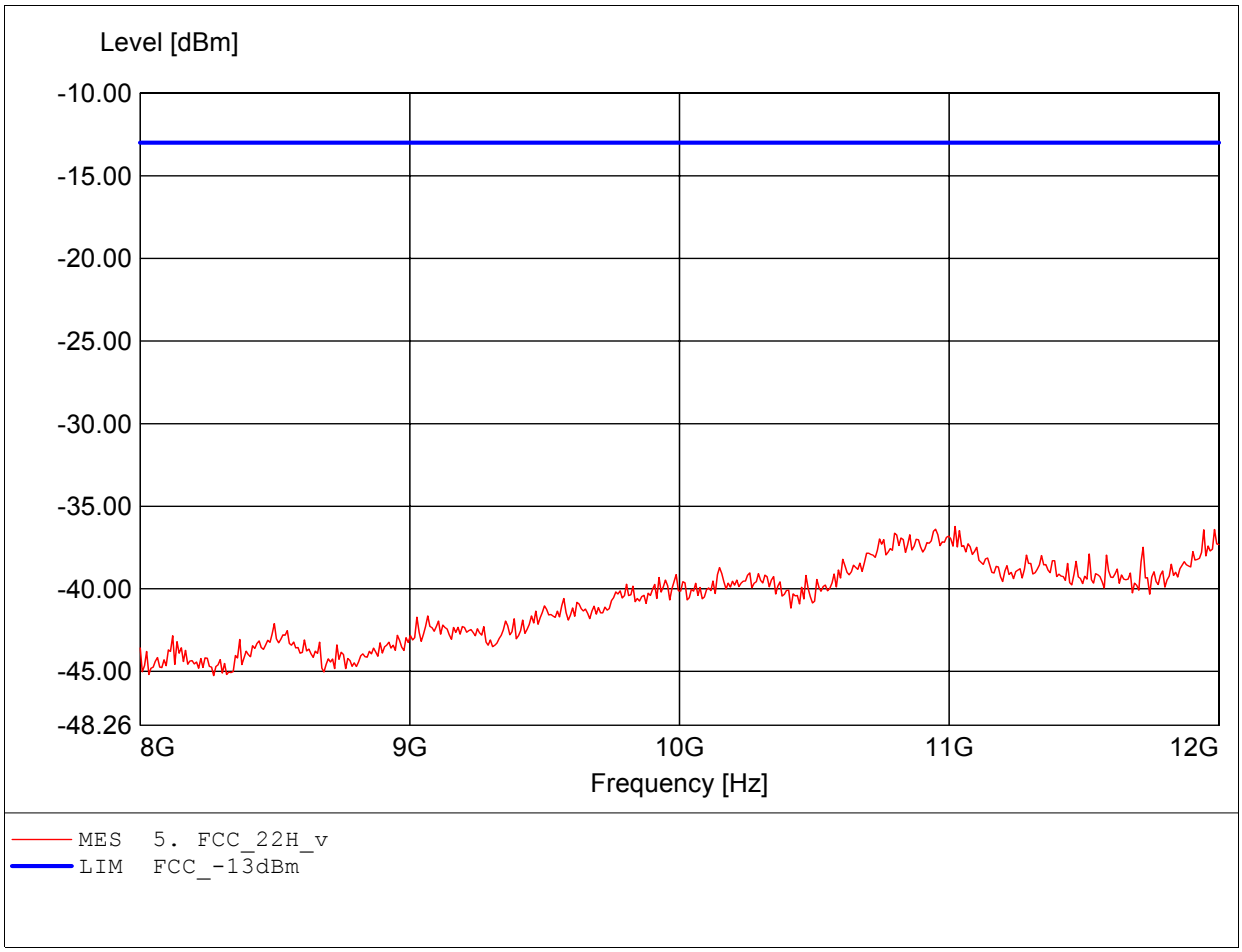
```
Order Number :          W6M20612-7664     850Band CH128
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 11.022GHz, Pmax: -30.34dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

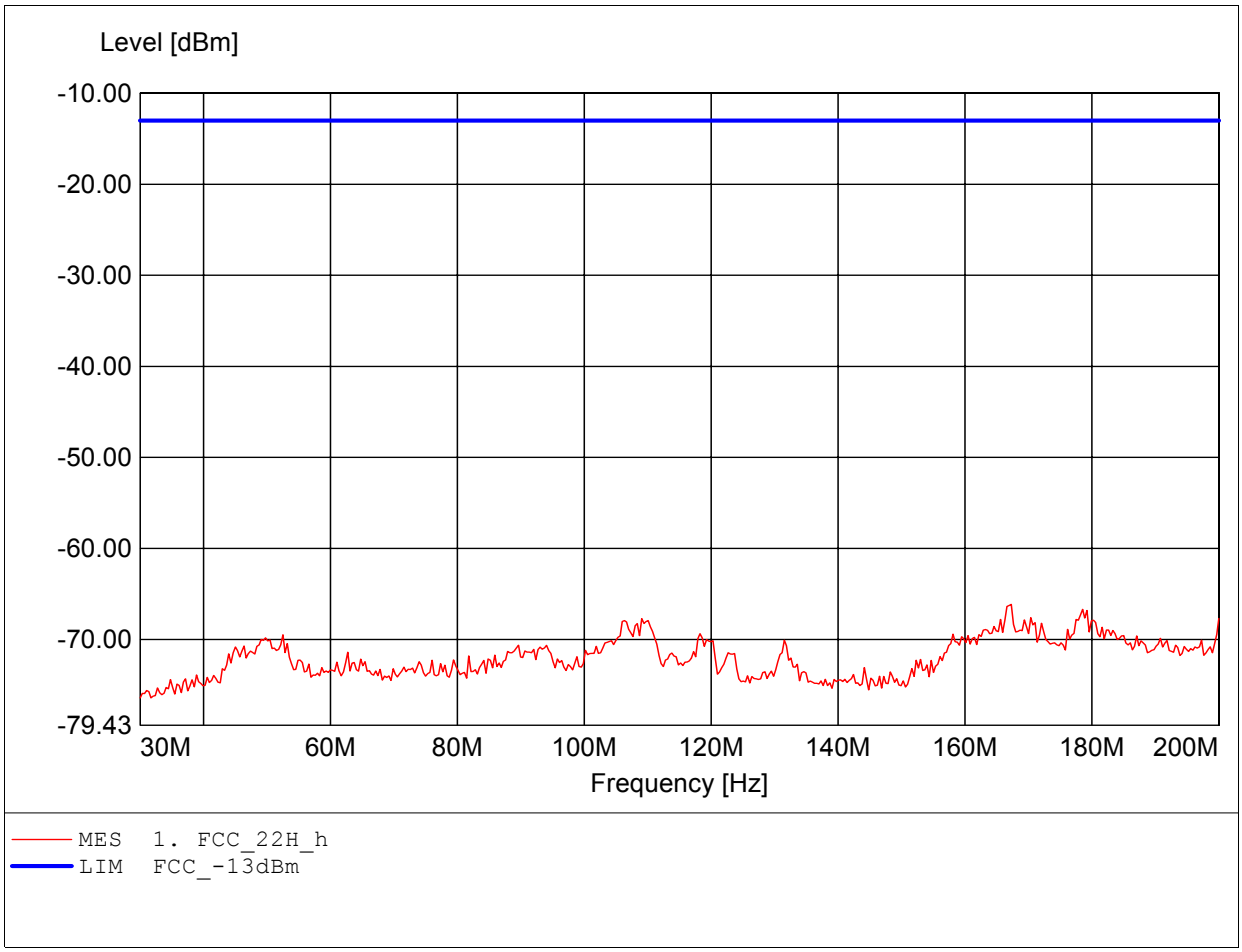
```
Order Number :          W6M20612-7664     850Band CH128
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 11.022GHz, Pmax: -36.22dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

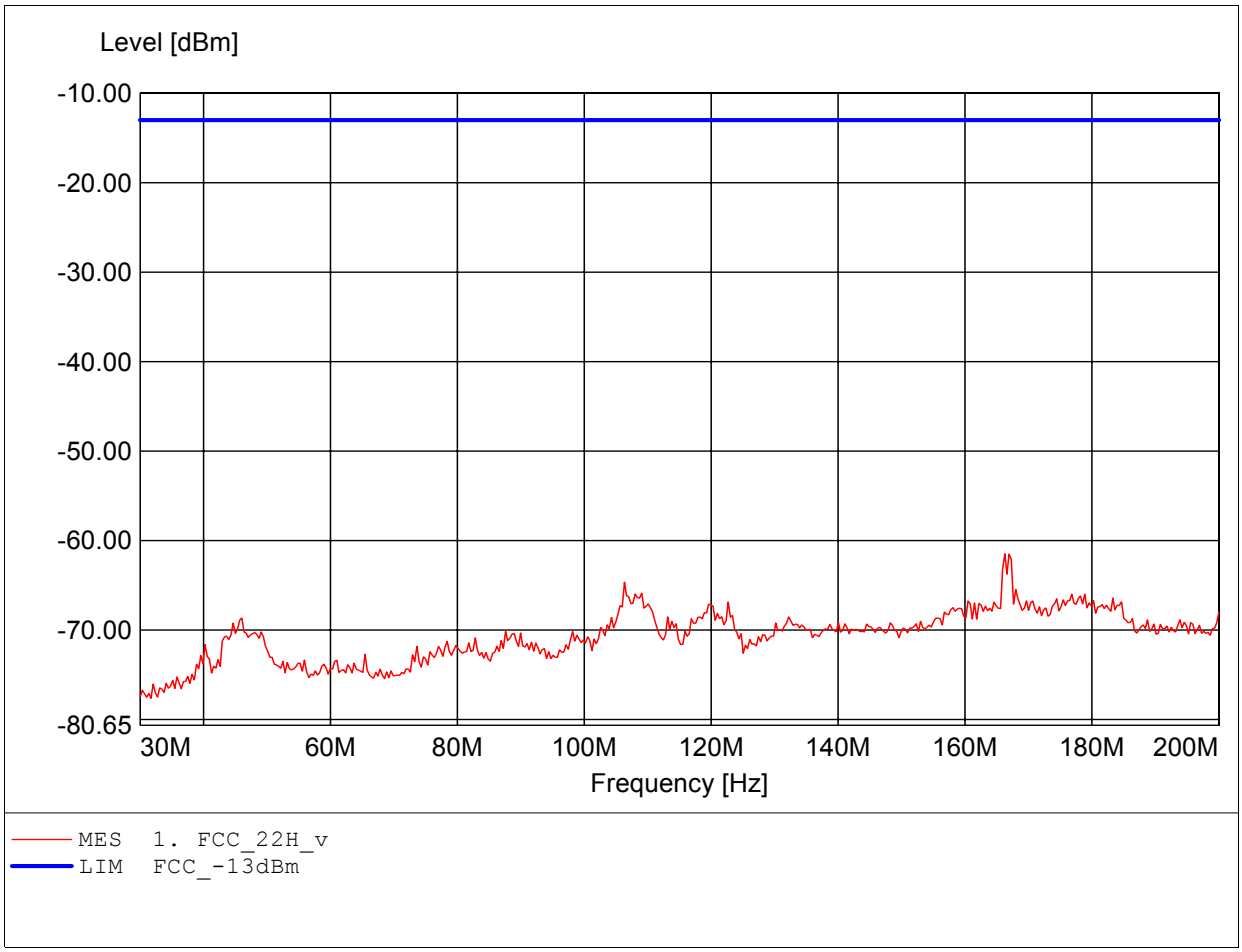
```
Order Number :          W6M20612-7664     850Band CH188
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq: 167.295MHz, Pmax: -66.15dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

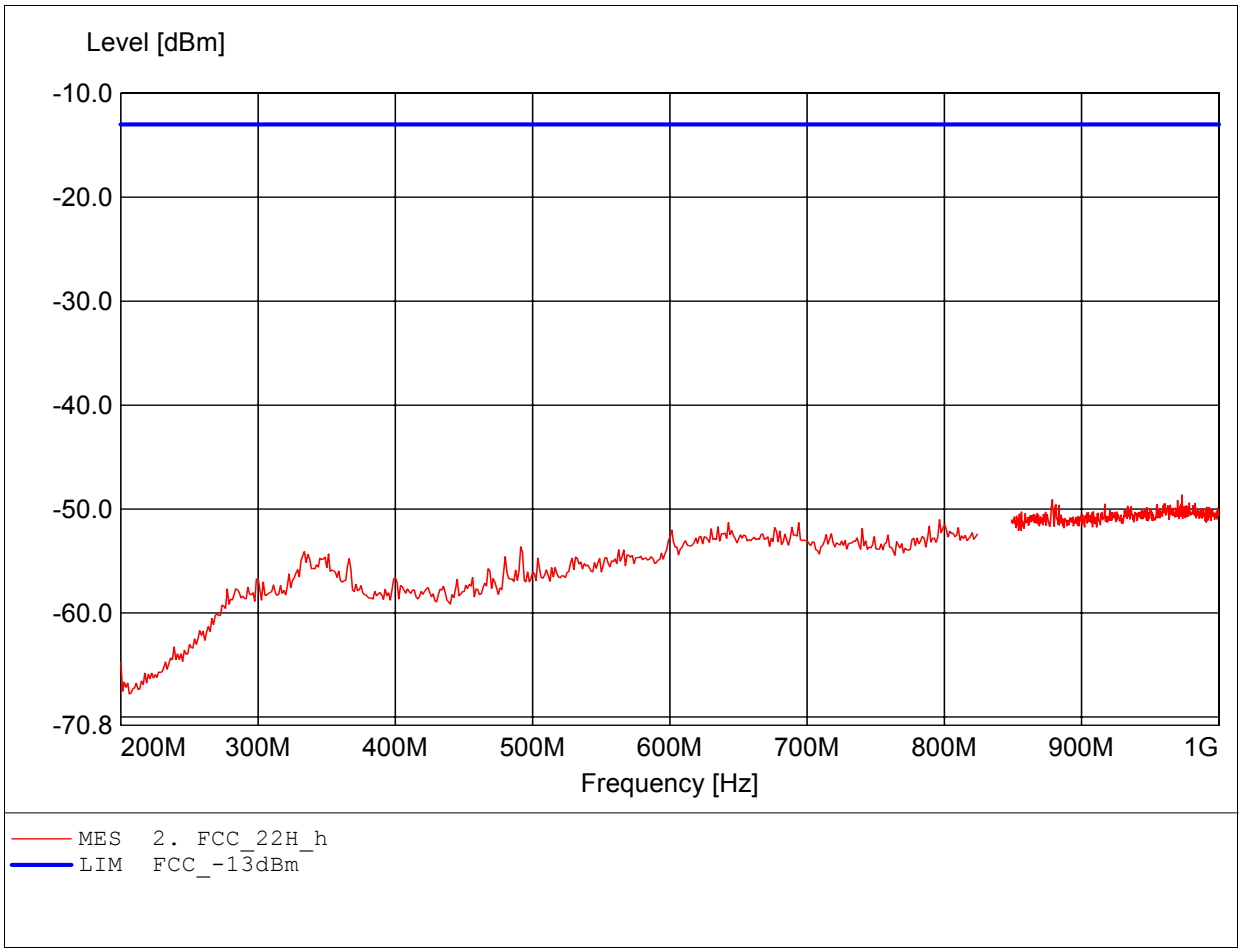
```
Order Number :          W6M20612-7664     850Band CH188
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq: 166.273MHz, Pmax: -61.48dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

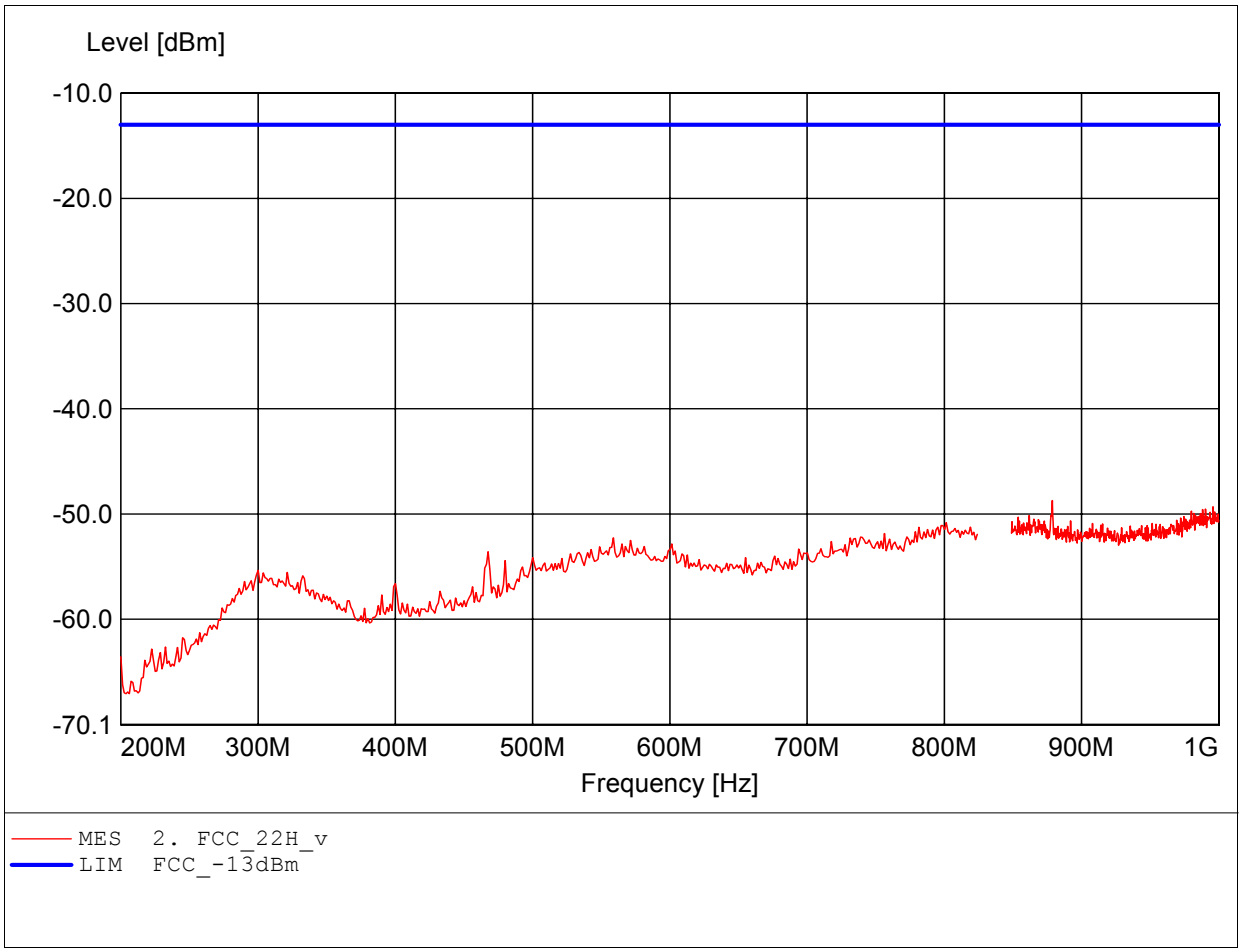
```
Order Number :          W6M20612-7664     850Band CH188
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL 223+notch
                        Freq: 973.371MHz, Pmax: -48.64dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

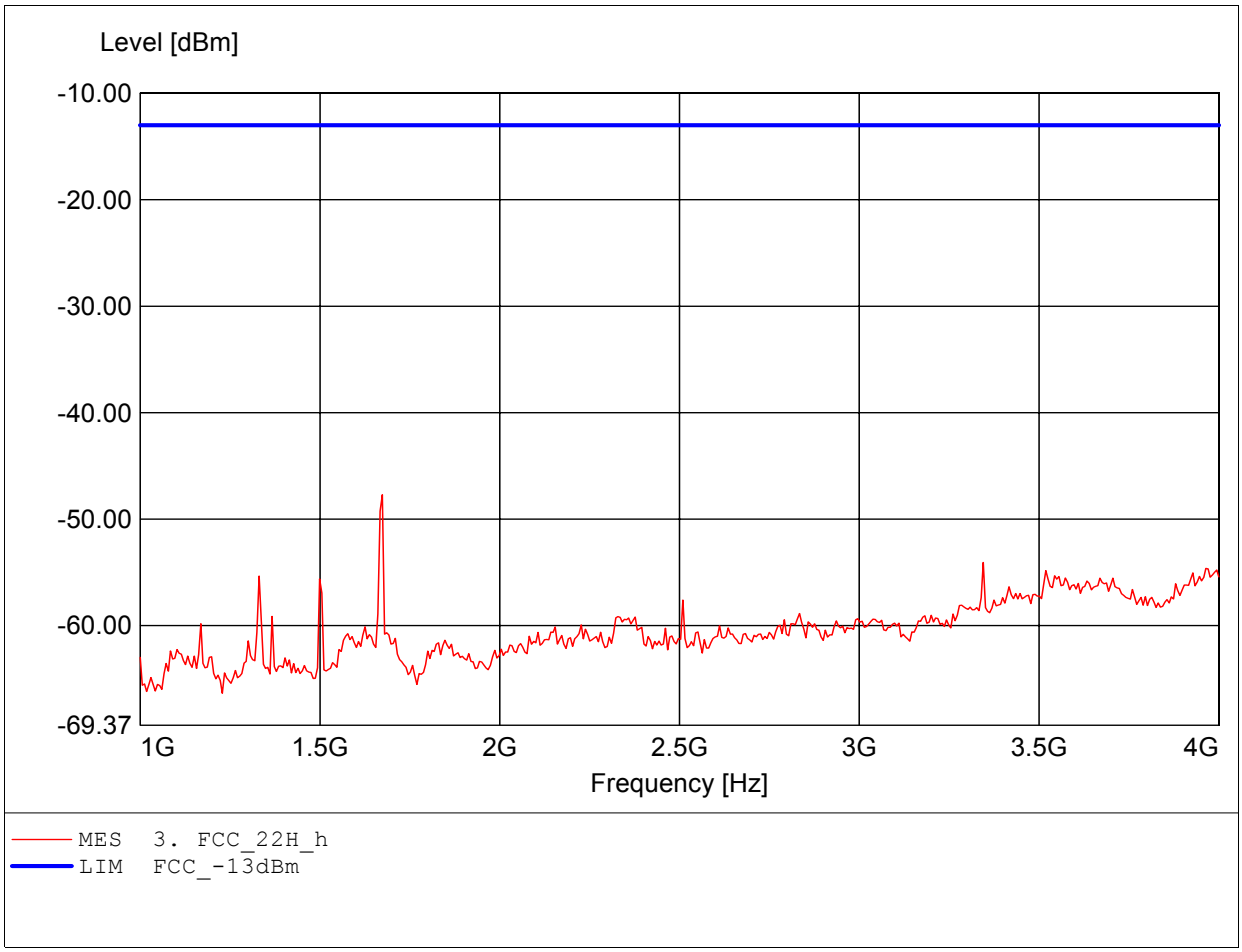
```
Order Number :          W6M20612-7664     850Band CH188
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL 223+notch
                        Freq: 878.655MHz, Pmax: -48.73dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

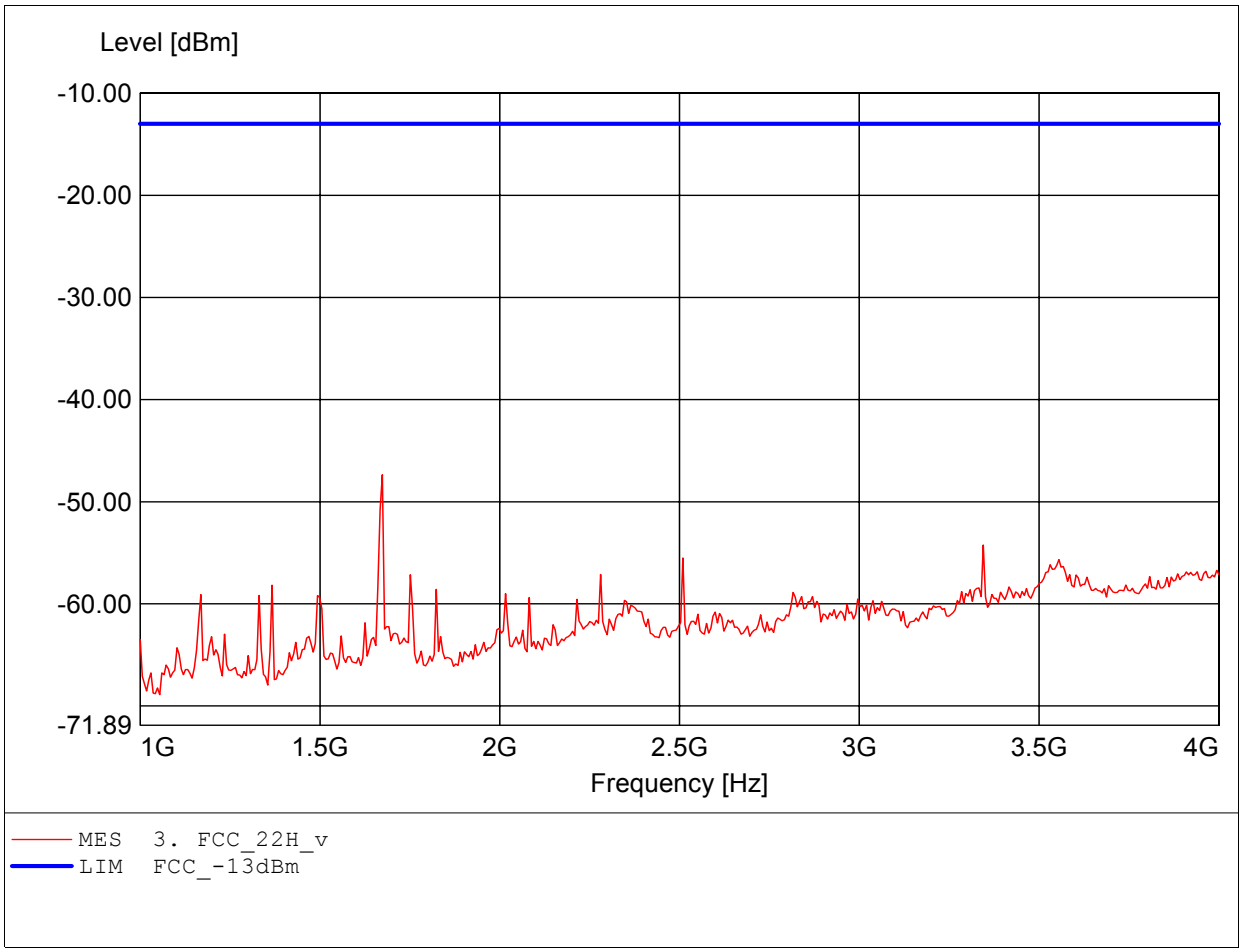
```
Order Number :          W6M20612-7664     850Band CH188
Test Site / Operator:   ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025
                        Freq: 1.673GHz, Pmax: -47.71dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

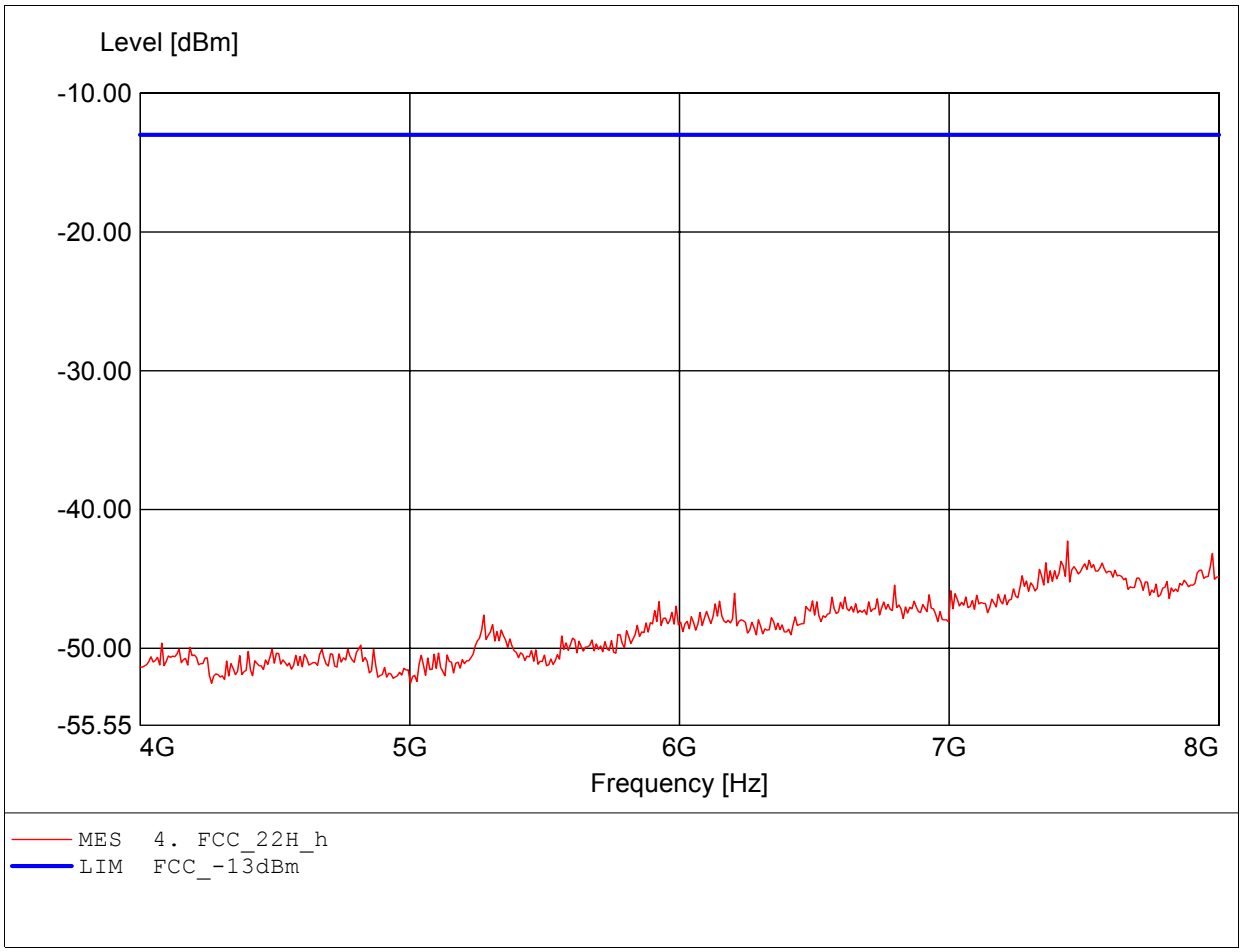
```
Order Number :          W6M20612-7664     850Band CH188
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025
                        Freq: 1.673GHz, Pmax: -47.36dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

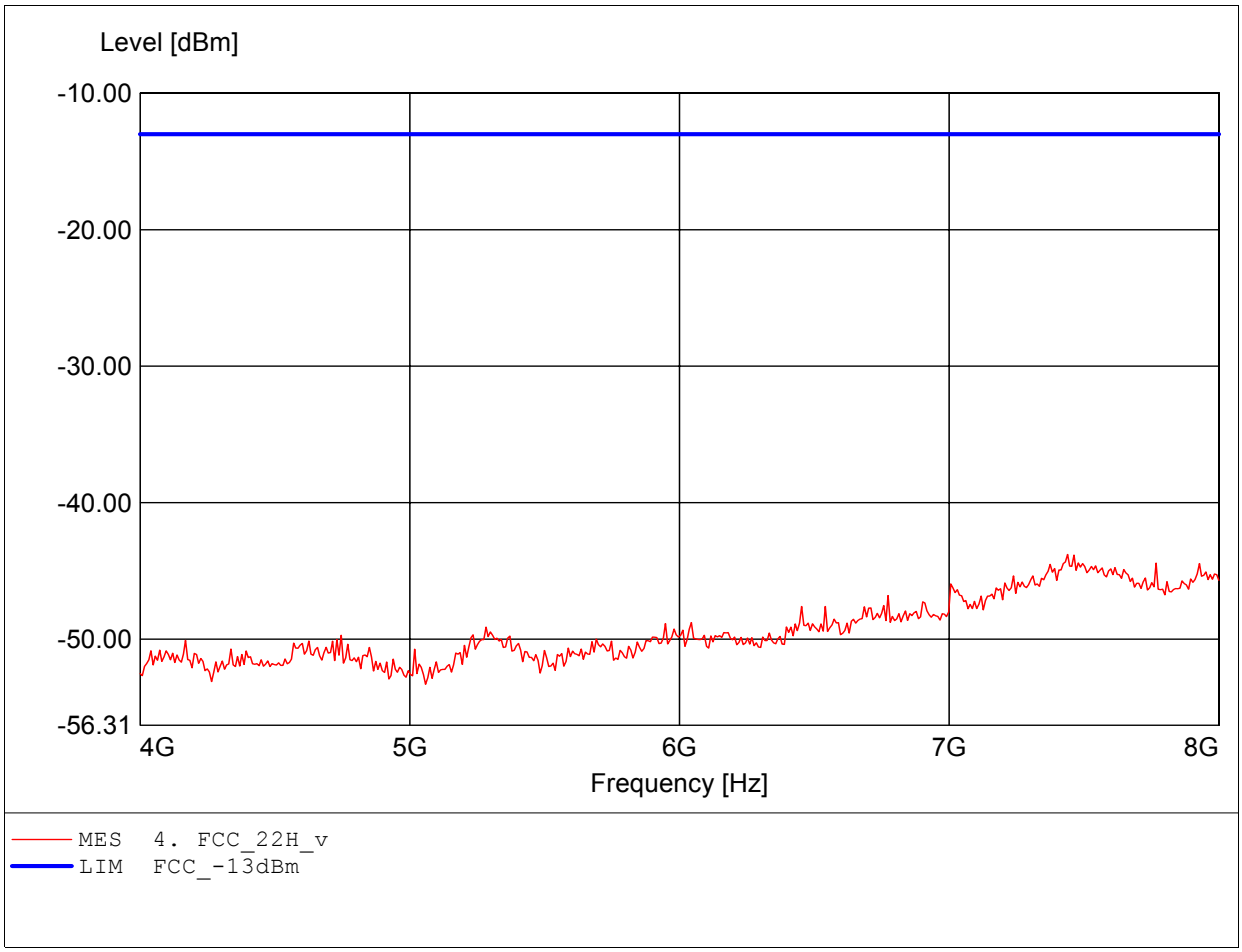
```
Order Number :          W6M20612-7664     850Band CH188
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 7.439GHz, Pmax: -42.27dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

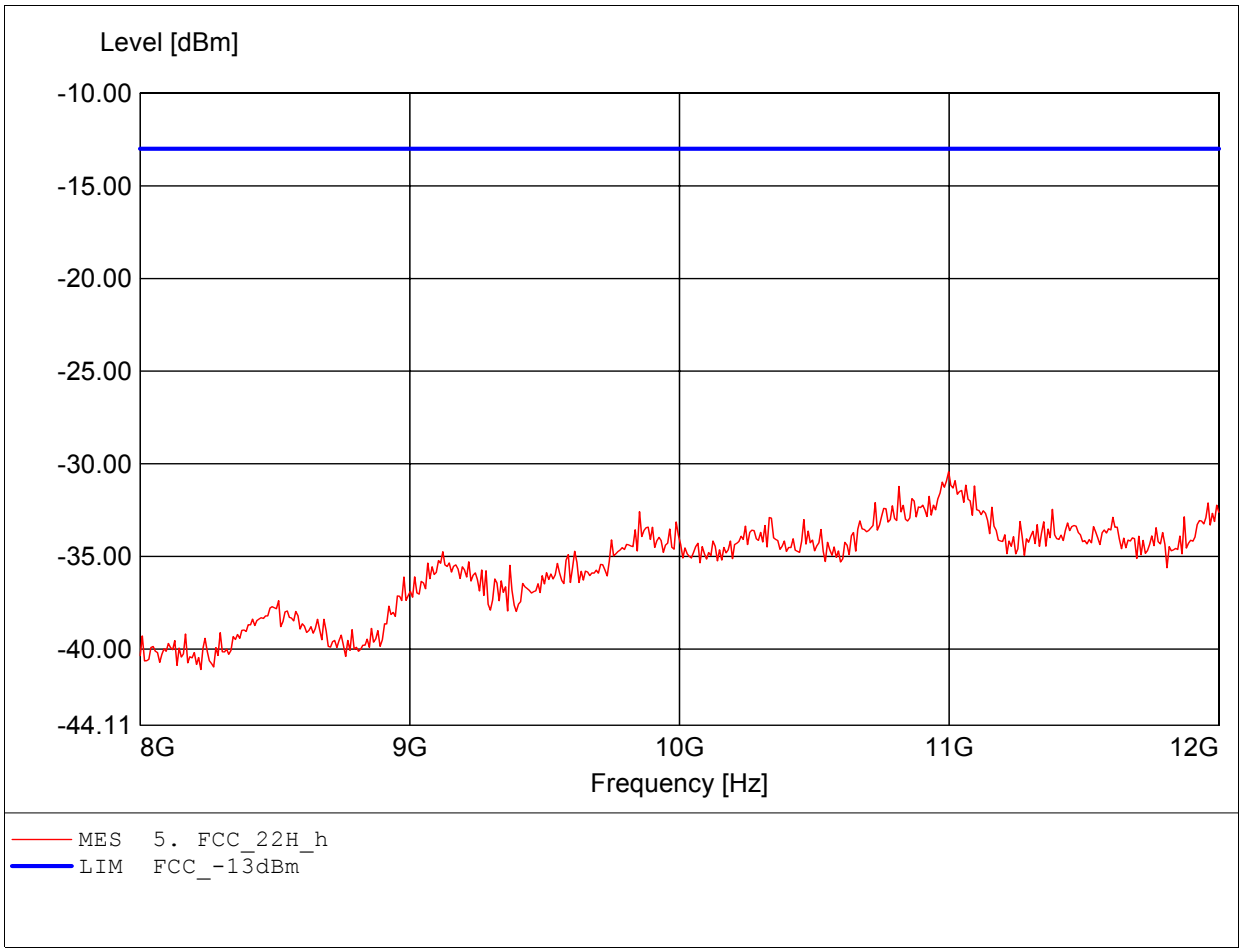
```
Order Number :          W6M20612-7664     850Band CH188
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 7.439GHz, Pmax: -43.79dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

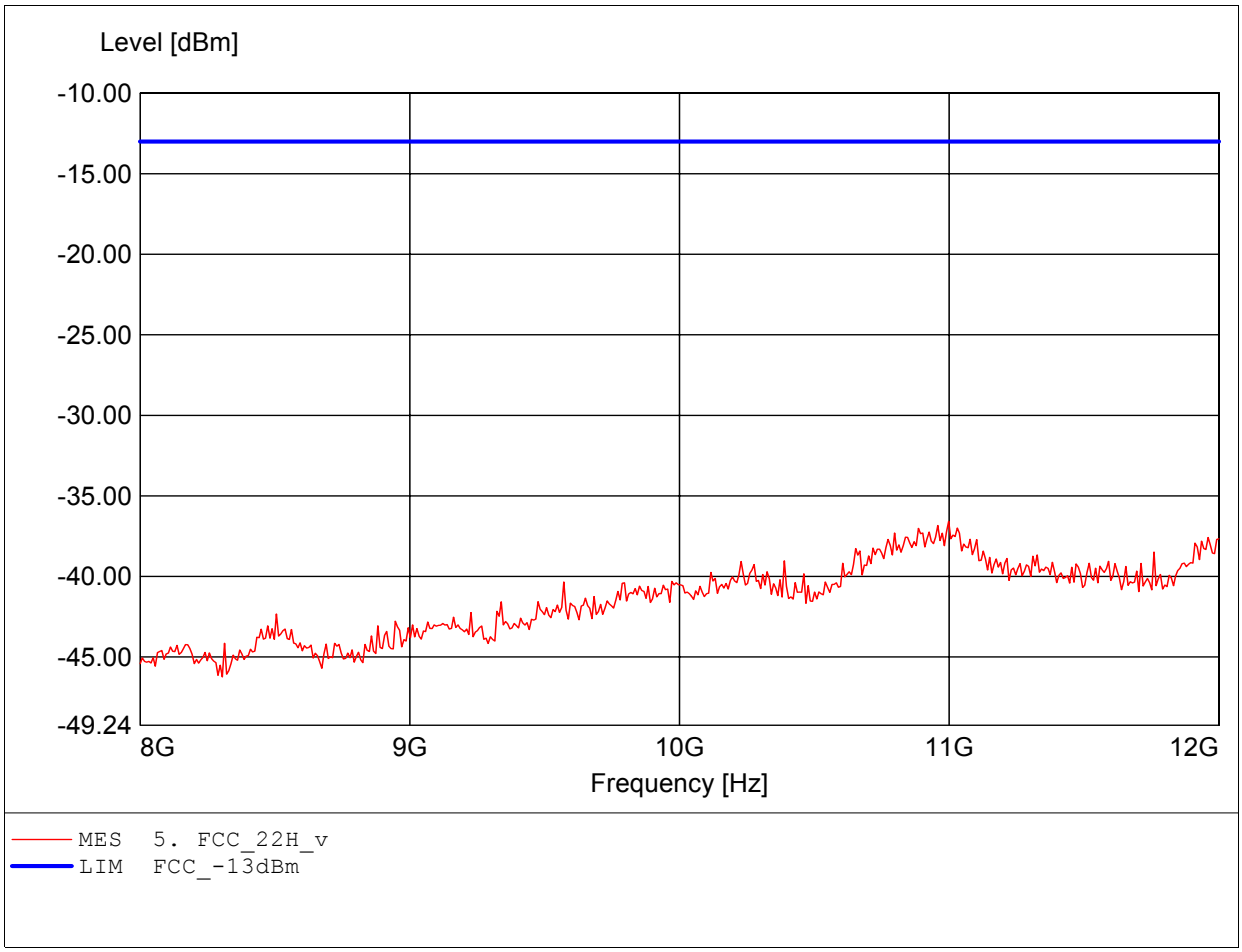
```
Order Number :          W6M20612-7664     850Band CH188
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 10.998GHz, Pmax: -30.43dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

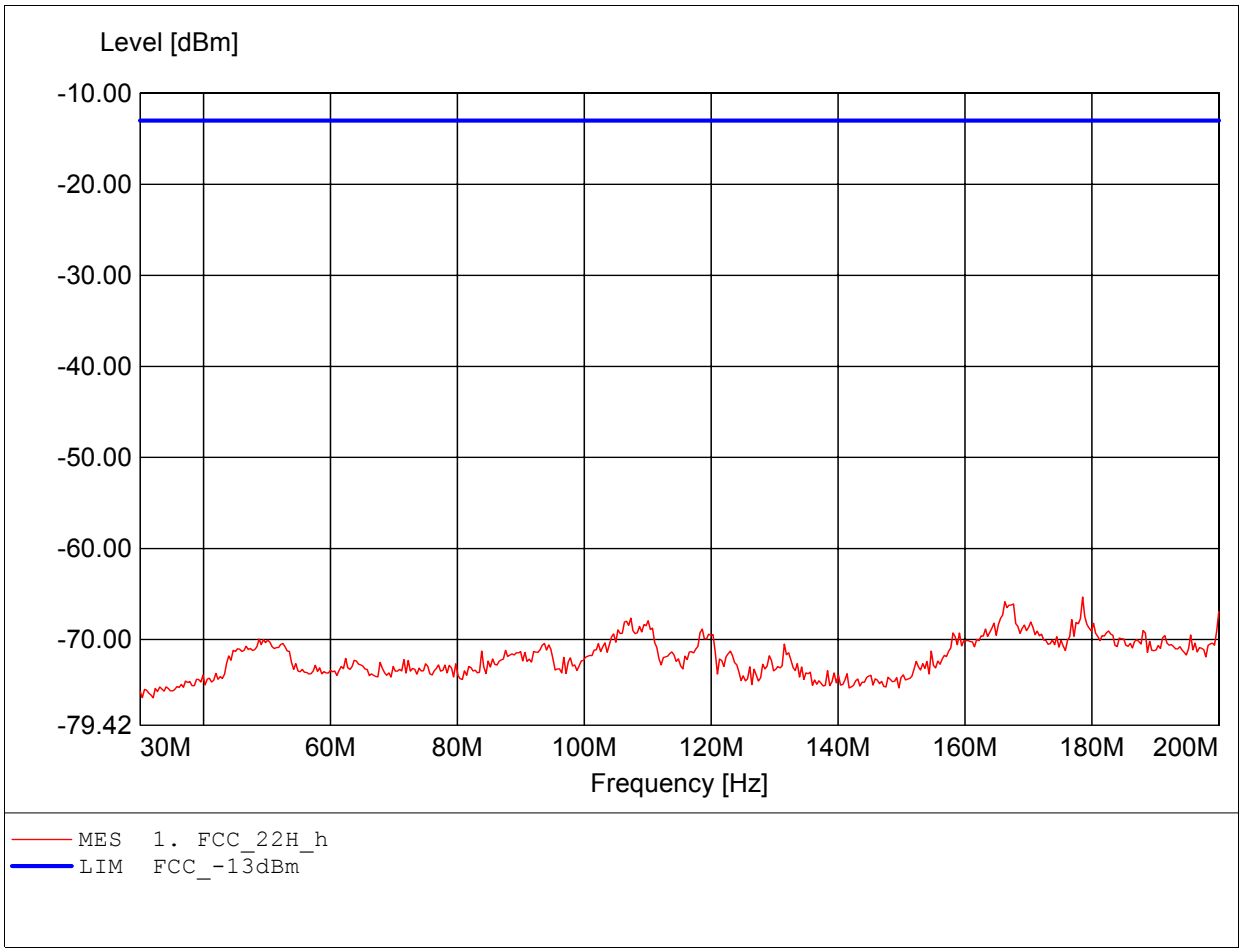
```
Order Number :          W6M20612-7664     850Band CH188
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 10.998GHz, Pmax: -36.58dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

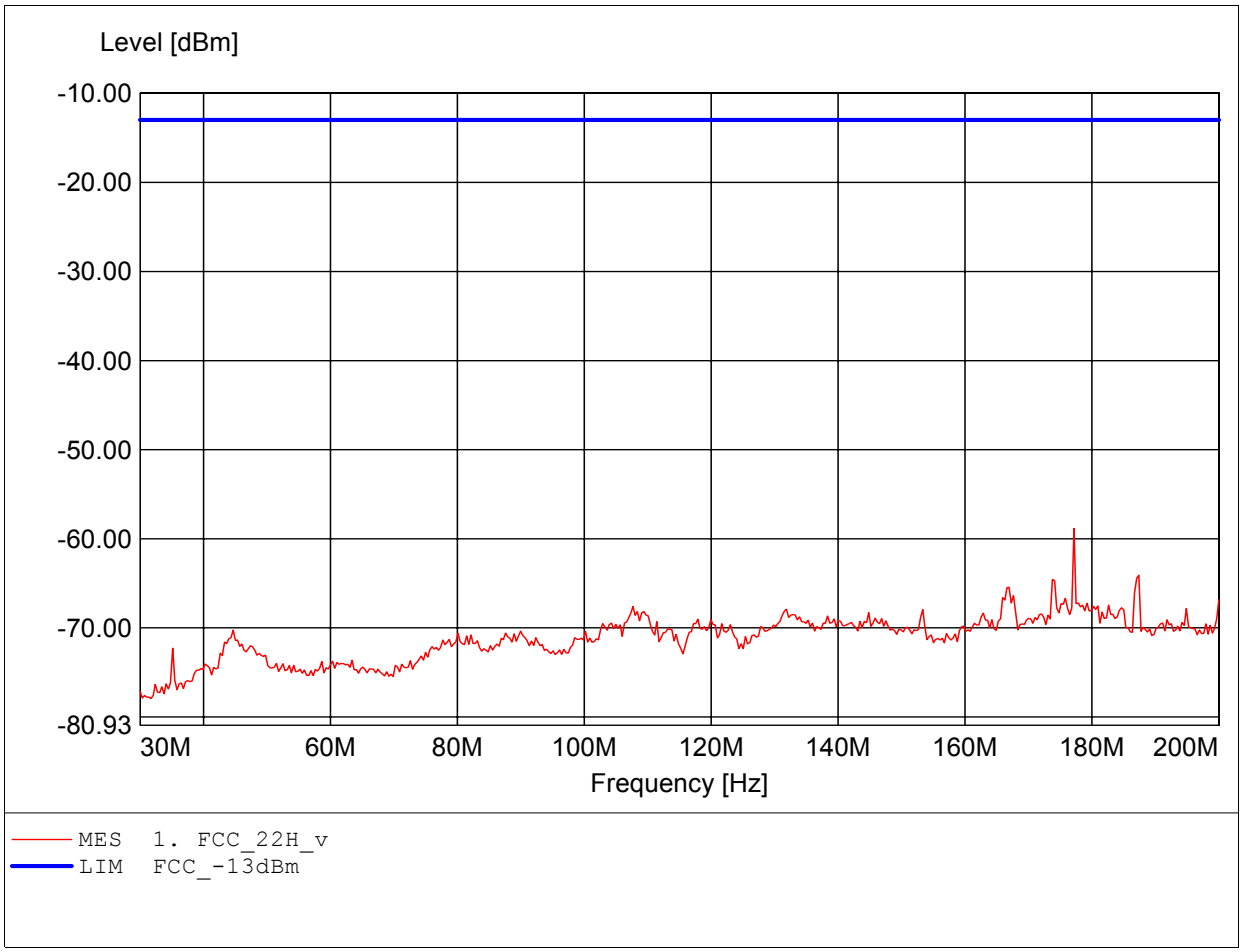
```
Order Number :          W6M20612-7664     850Band CH251
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq: 178.537MHz, Pmax: -65.34dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

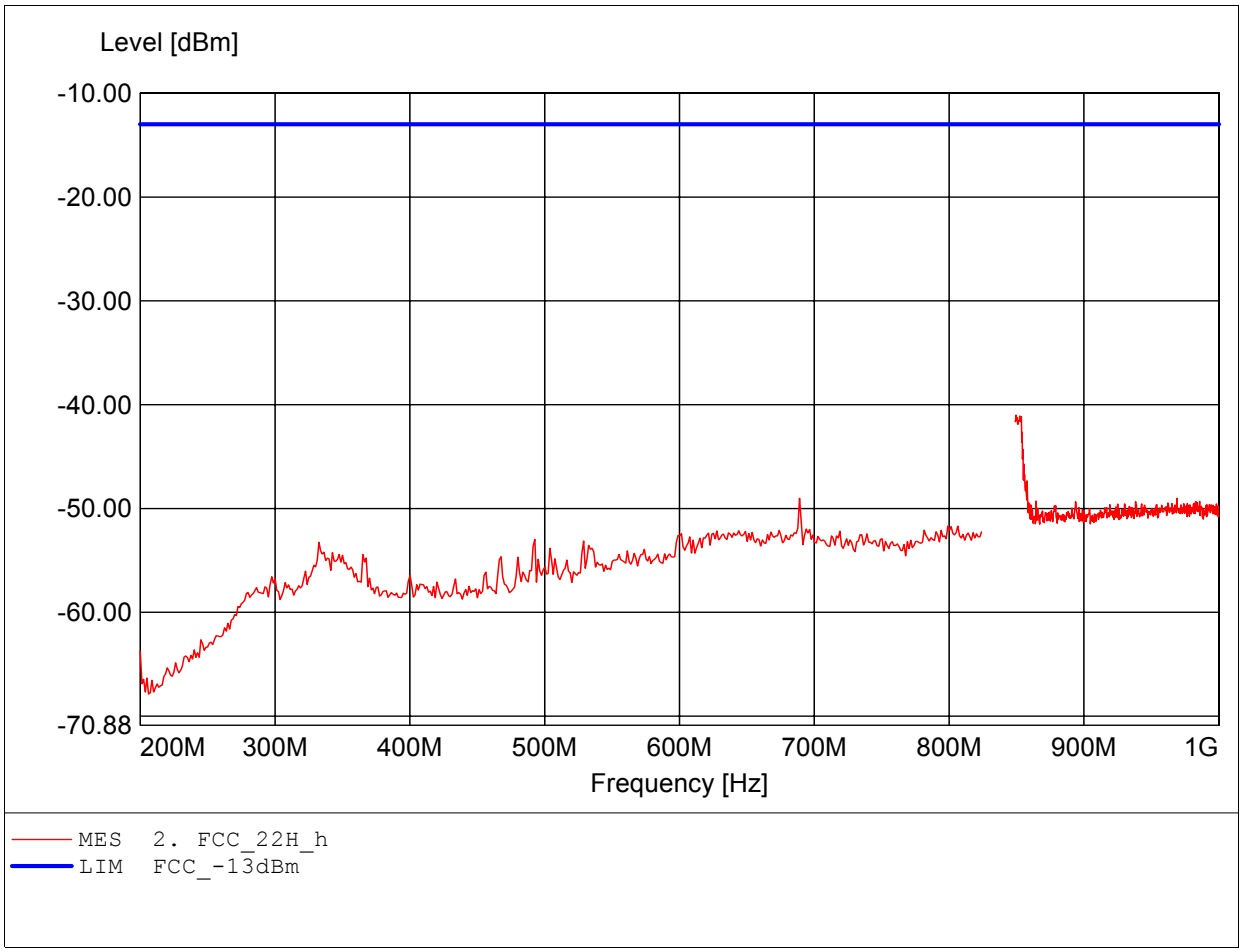
Order Number : W6M20612-7664 850Band CH251
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to §22.917
Comment 1: Dist.: 3m, Ant.: HK 116
Freq: 177.174MHz, Pmax: -58.85dBm, RBW: 1MHz



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

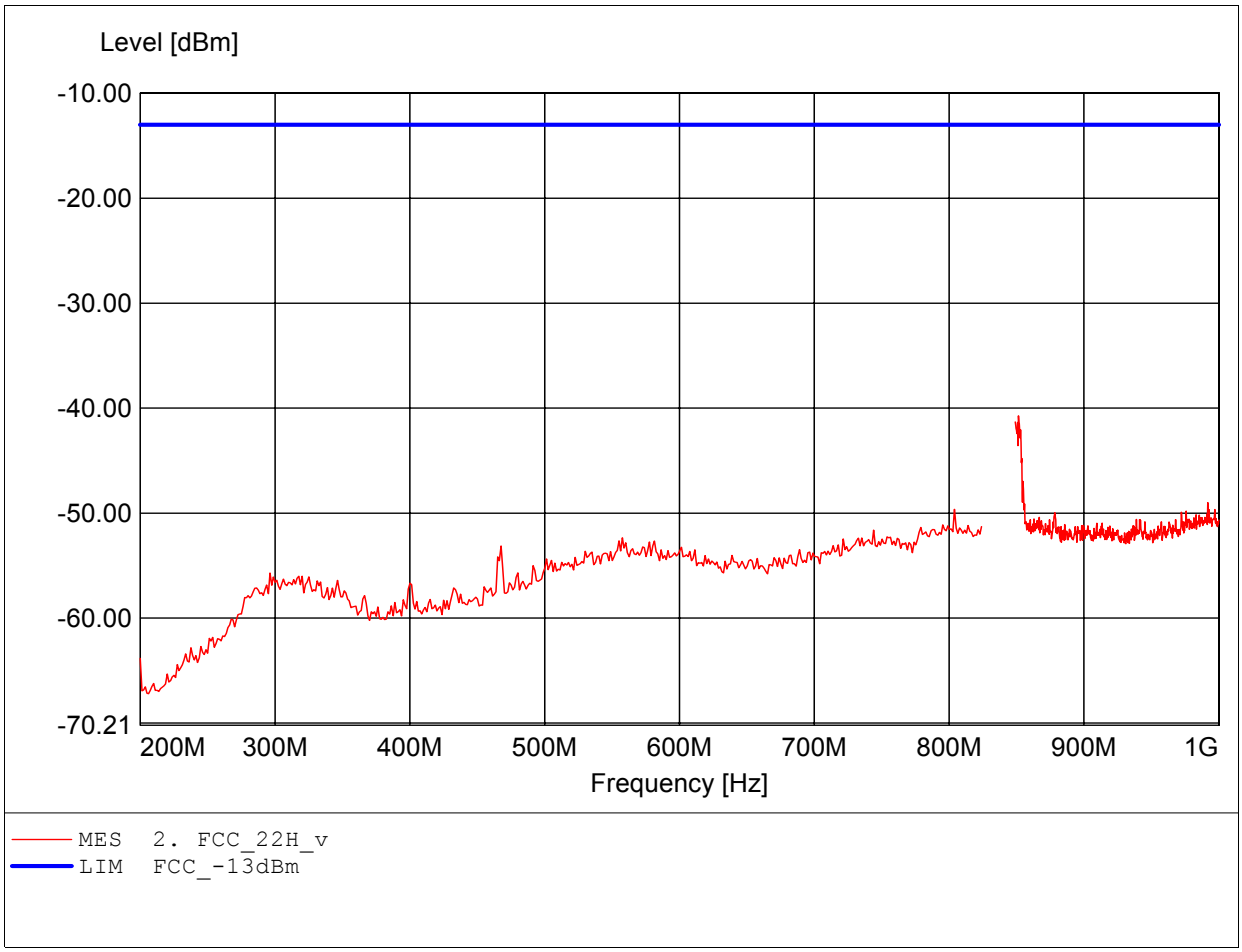
```
Order Number :          W6M20612-7664     850Band CH251
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL 223+notch
                        Freq: 849.605MHz, Pmax: -41.65dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

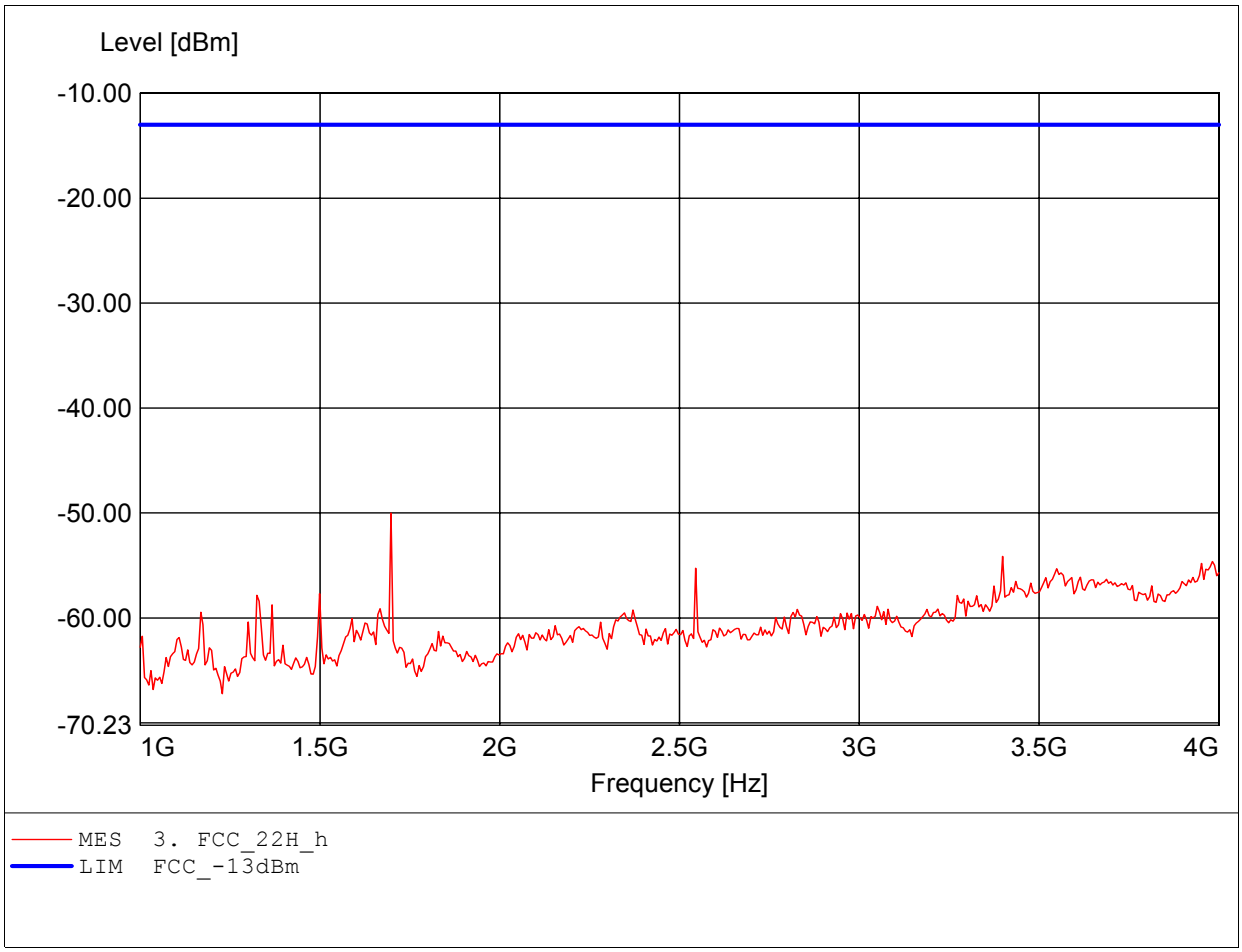
```
Order Number :          W6M20612-7664     850Band CH251
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL 223+notch
                        Freq: 851.420MHz, Pmax: -40.74dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

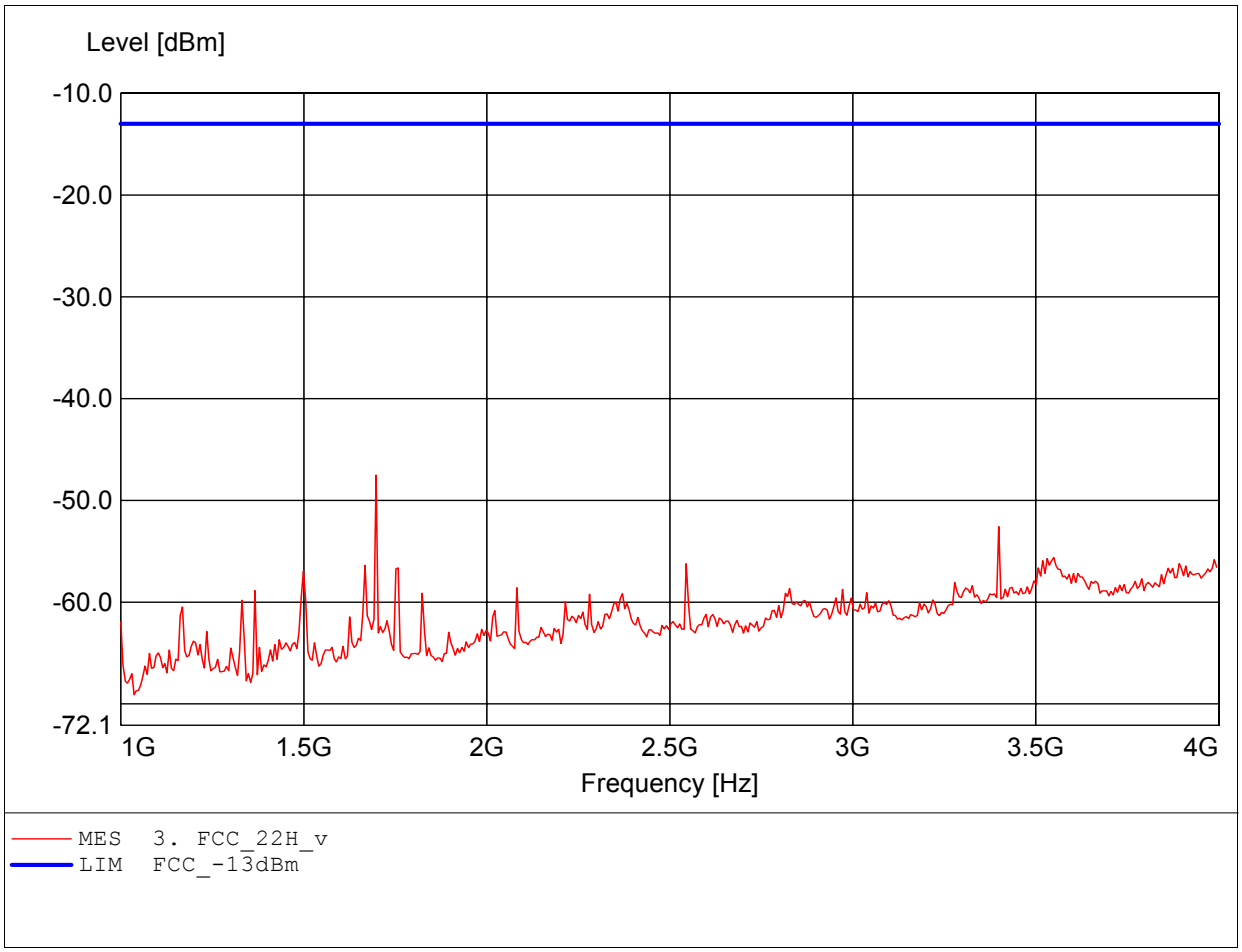
```
Order Number :          W6M20612-7664     850Band CH251
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025
                        Freq: 1.697GHz, Pmax: -50.00dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

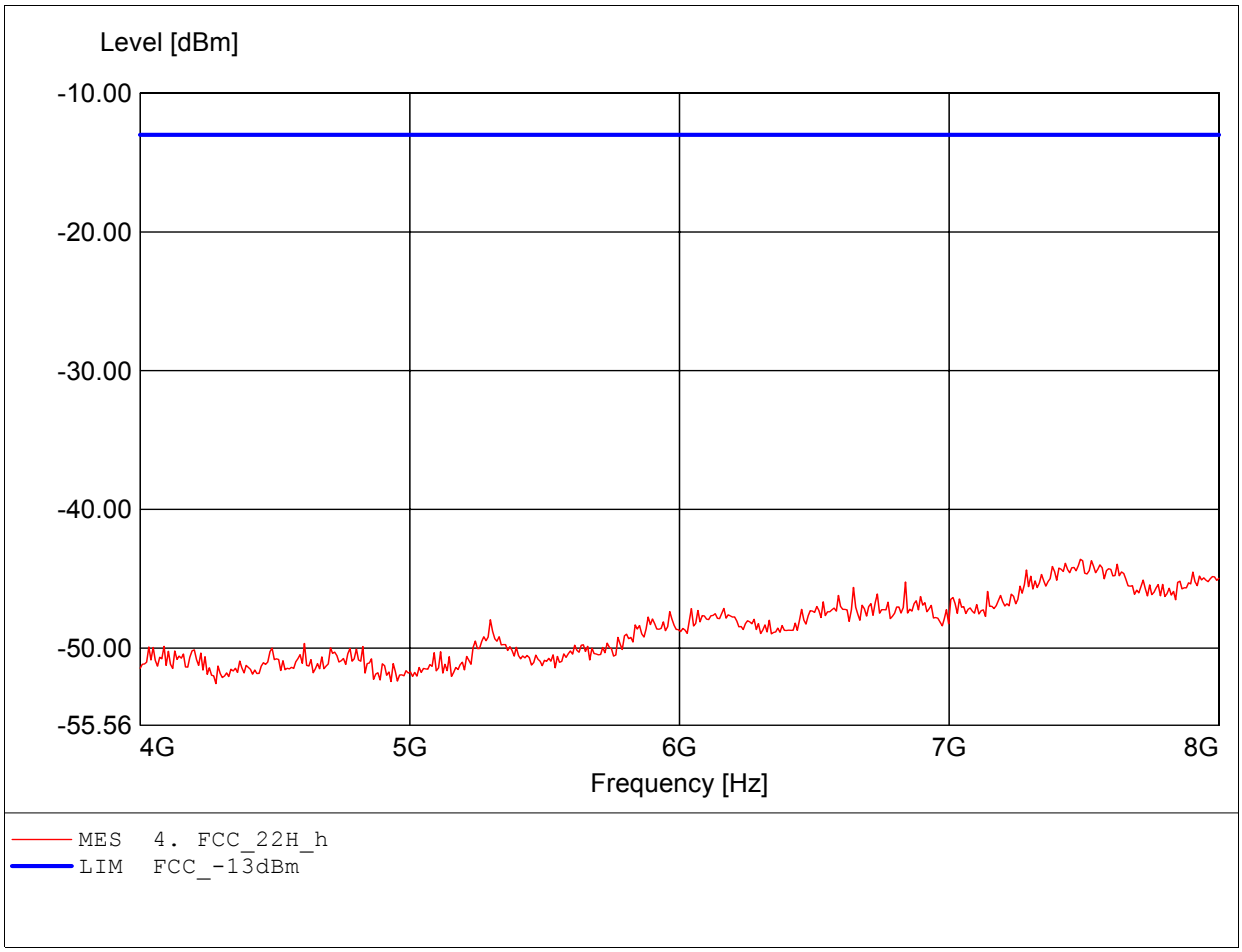
```
Order Number :          W6M20612-7664     850Band CH251
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025
                        Freq: 1.697GHz, Pmax: -47.51dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

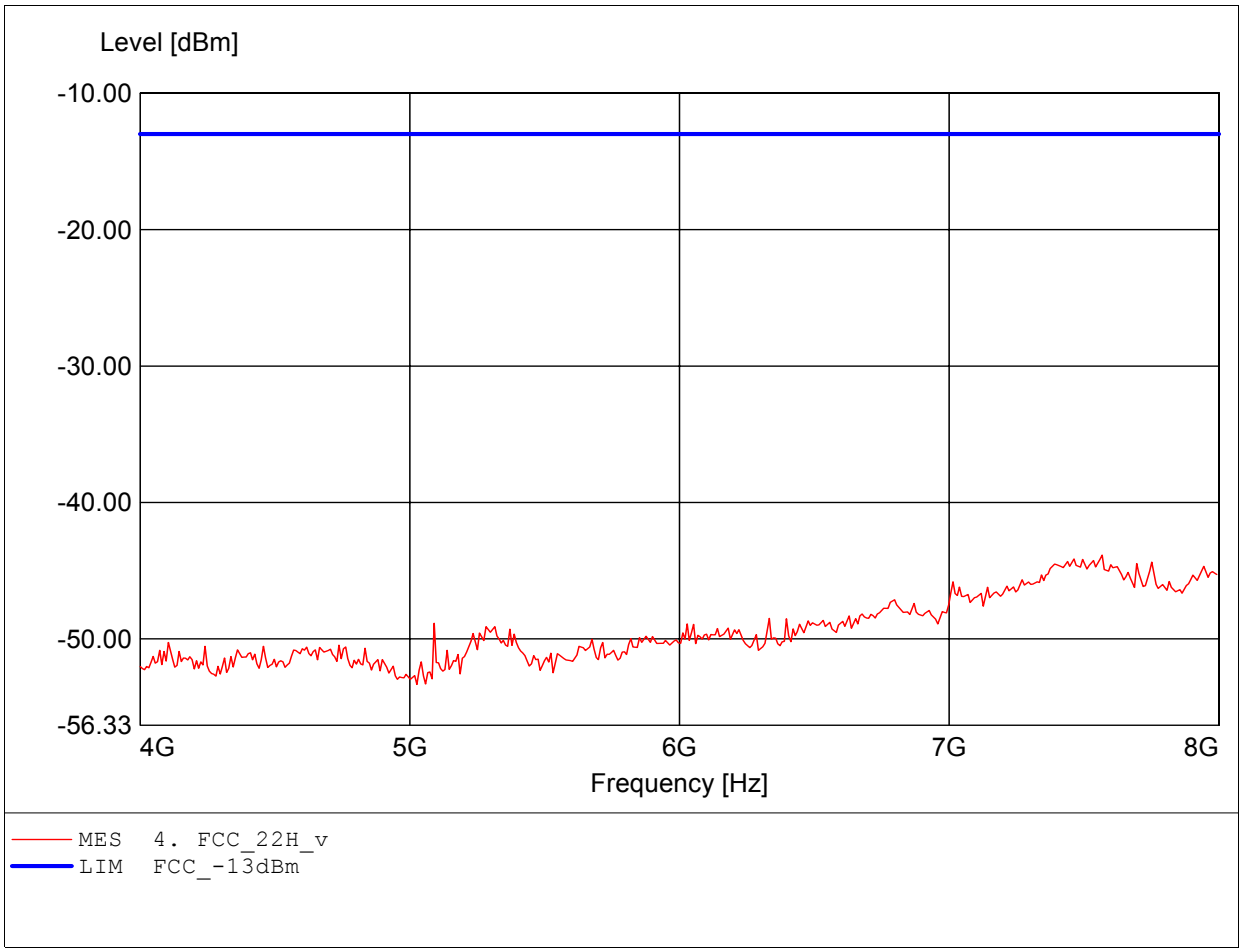
```
Order Number :          W6M20612-7664     850Band CH251
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 7.487GHz, Pmax: -43.60dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

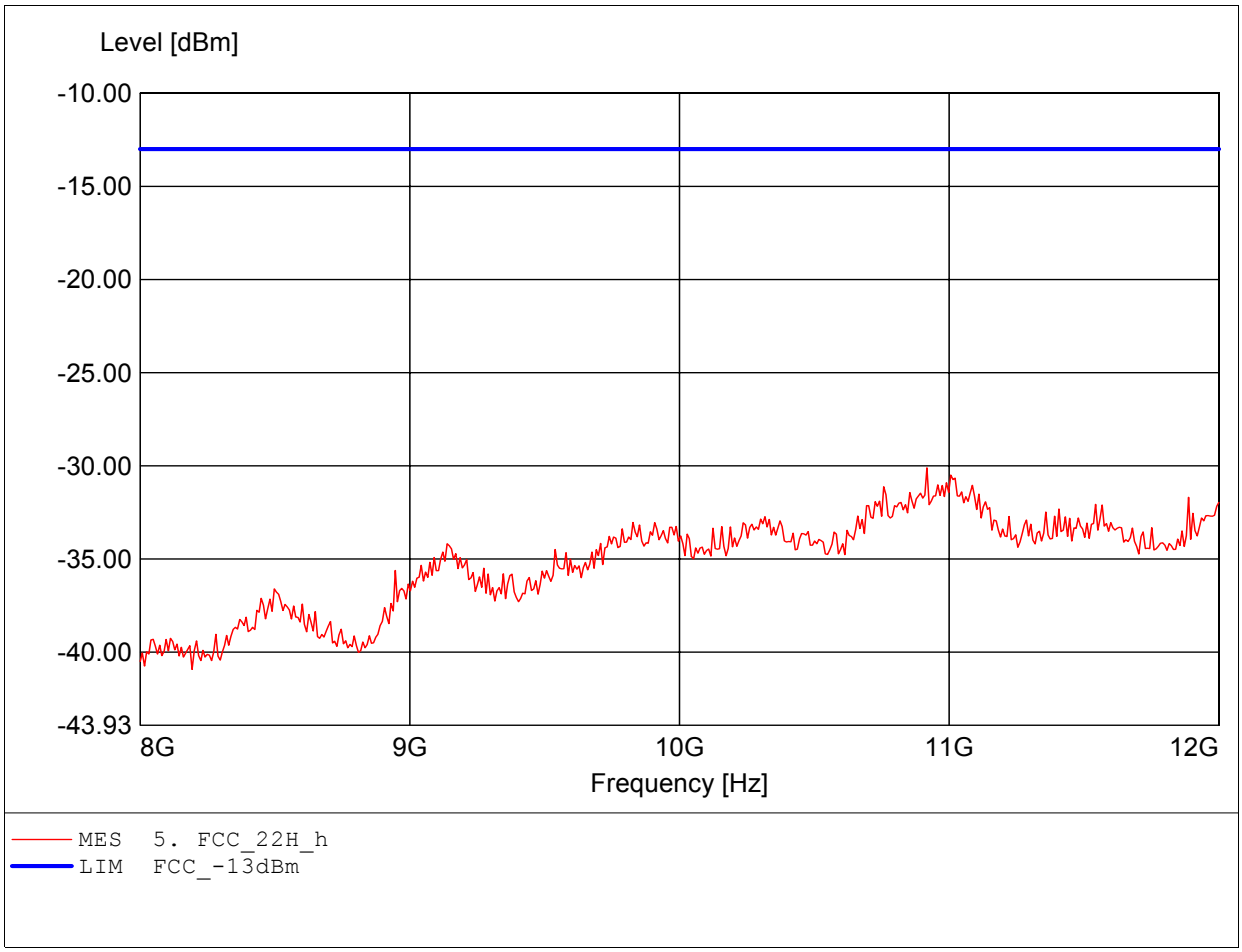
```
Order Number :          W6M20612-7664     850Band CH251
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 7.567GHz, Pmax: -43.86dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

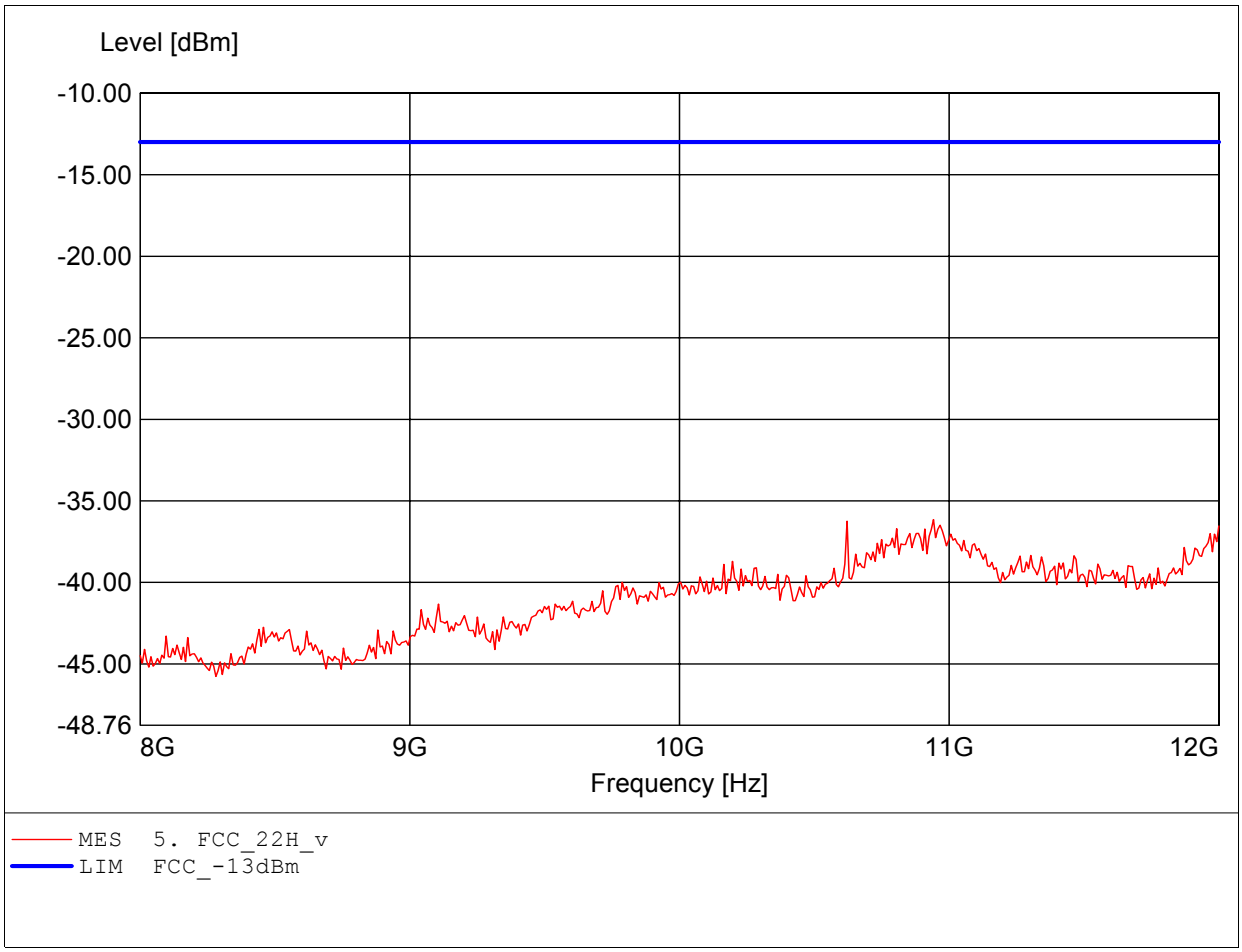
```
Order Number :          W6M20612-7664     850Band CH251
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 10.918GHz, Pmax: -30.11dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 22 SUBPART H***

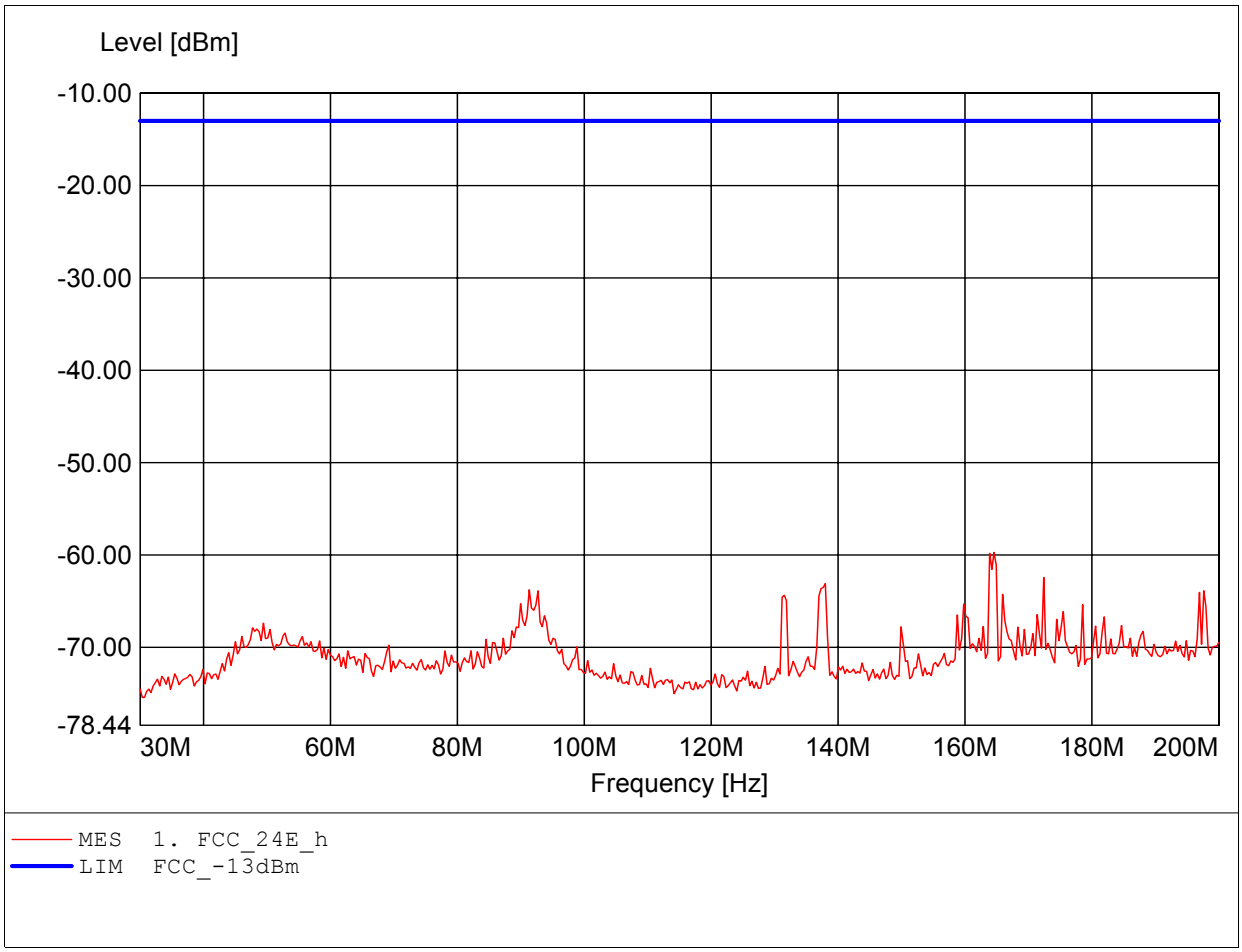
```
Order Number :          W6M20612-7664     850Band CH251
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to §22.917
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 10.942GHz, Pmax: -36.15dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

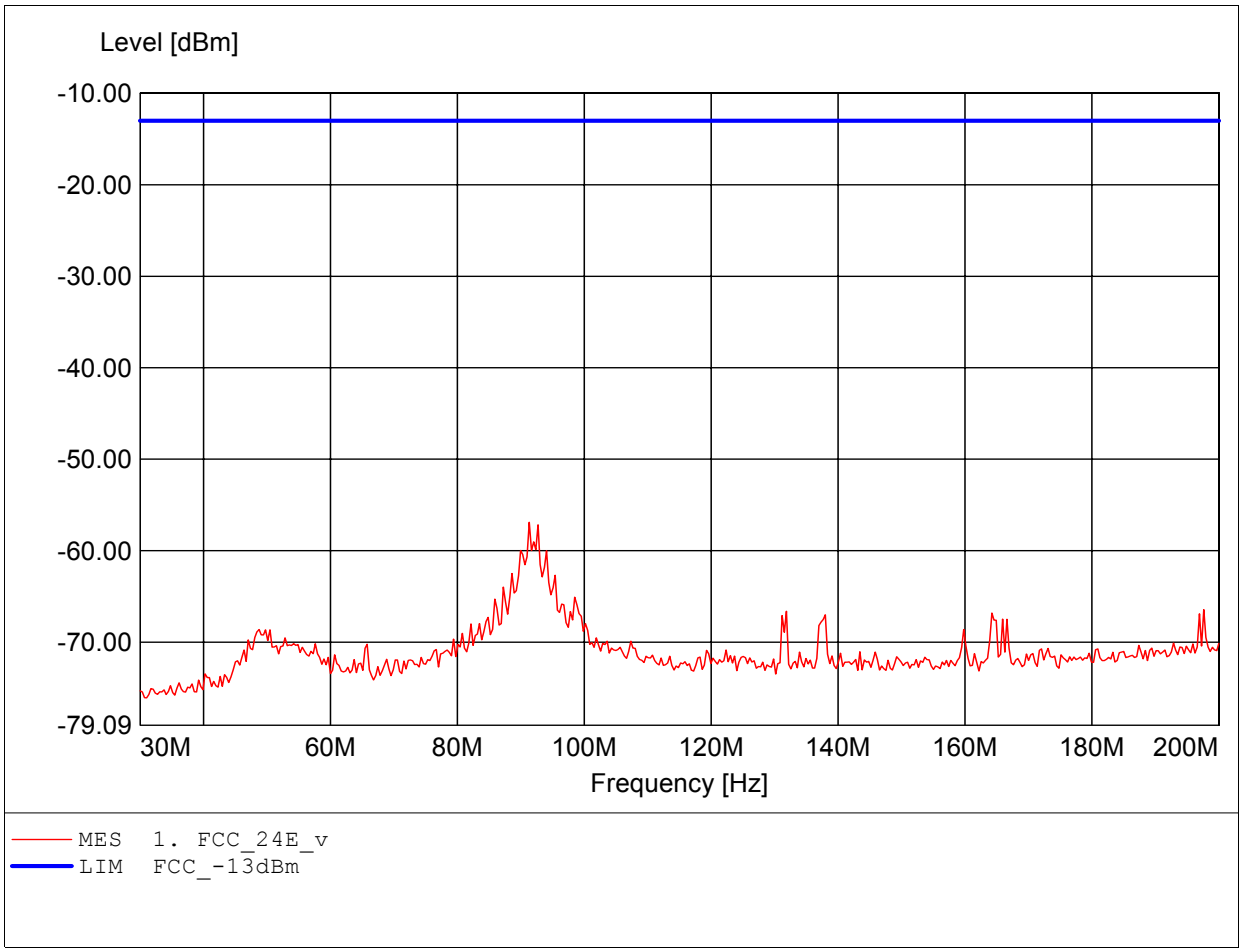
```
Order Number :          W6M20612-7664     1900 band  ch512
Test Site / Operator:   ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq: 164.569MHz, Pmax: -59.73dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

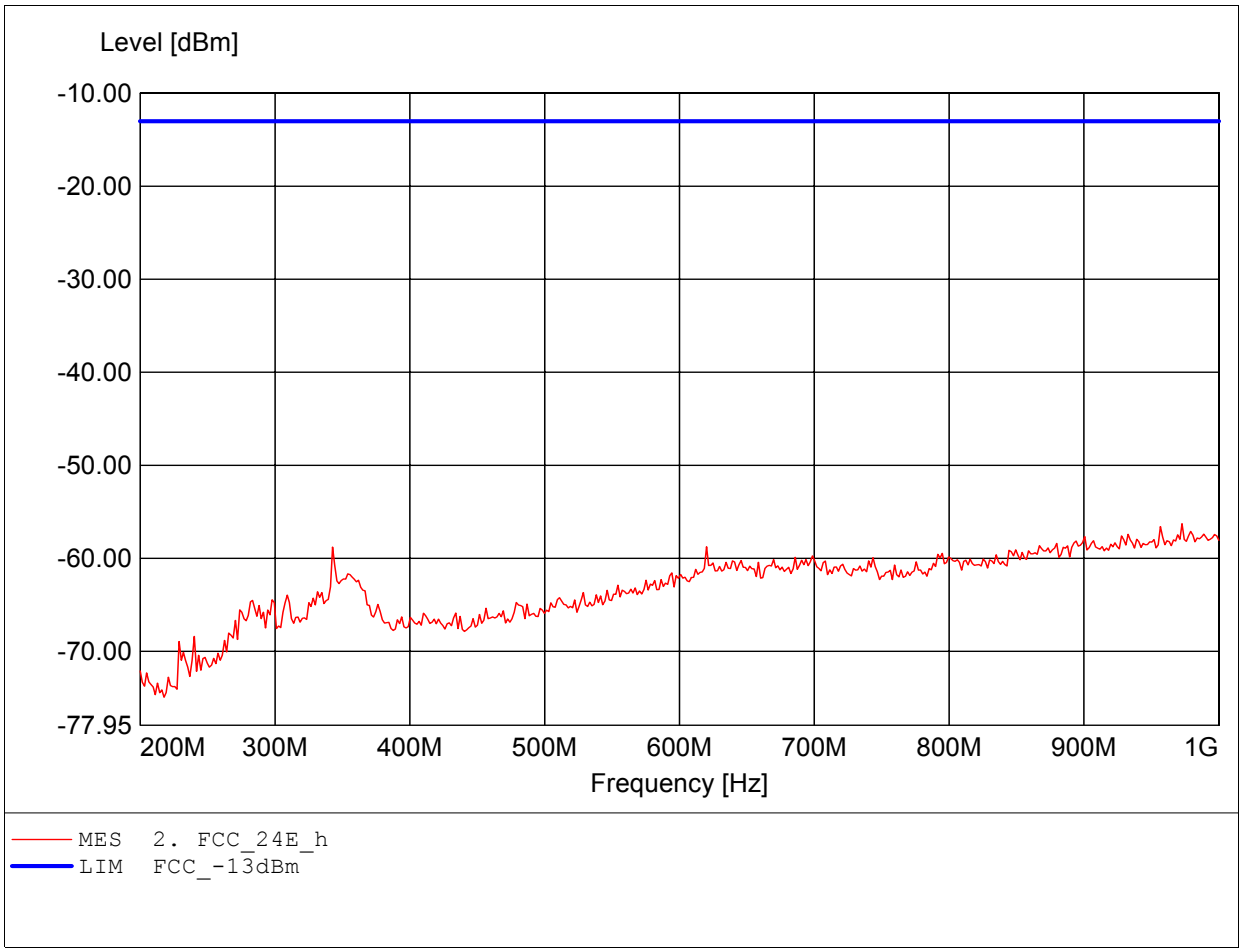
```
Order Number :          W6M20612-7664     1900 band  ch512
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq: 91.323MHz, Pmax: -56.90dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

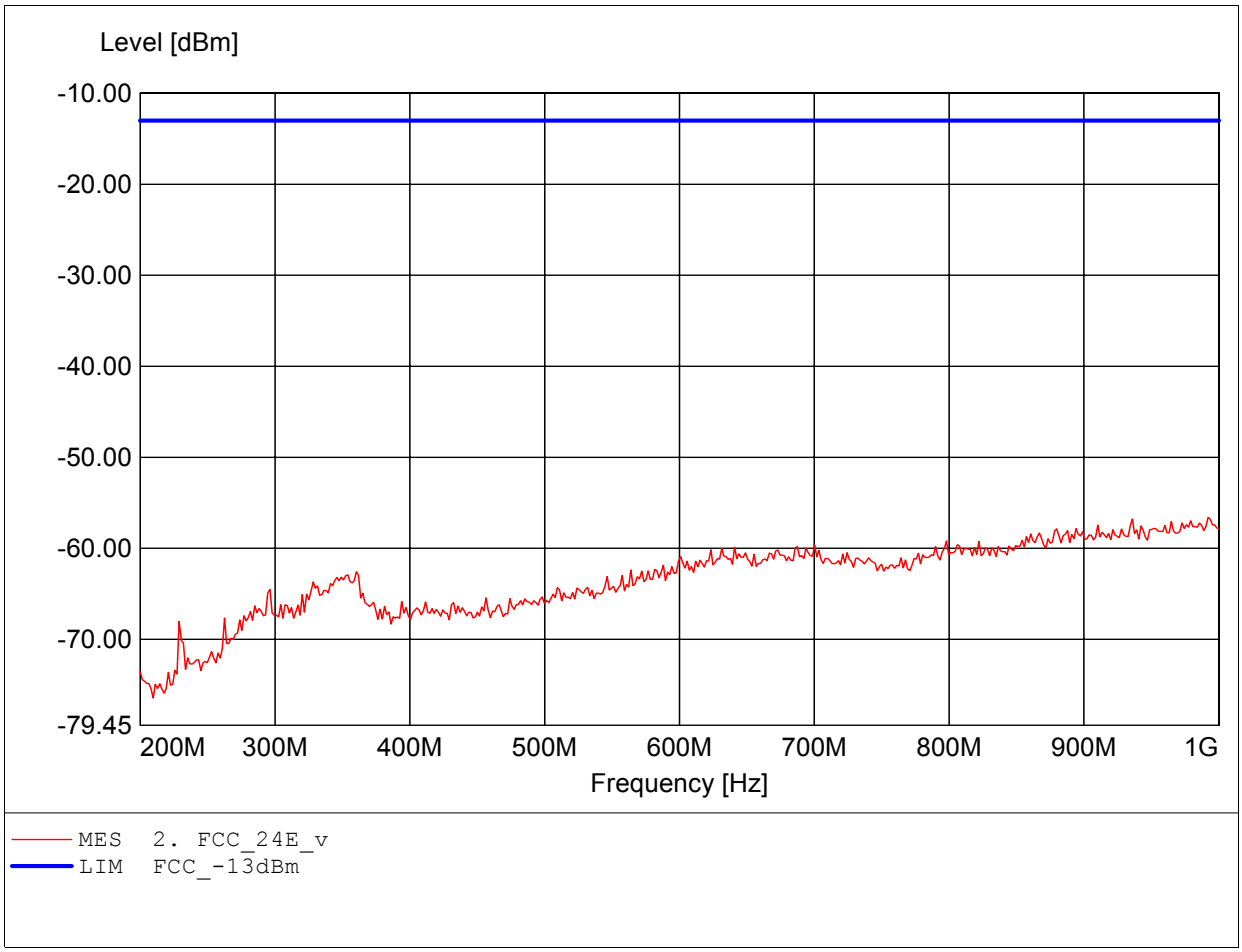
Order Number : W6M20612-7664 1900 band ch512
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to $24.238
Comment 1: Dist.: 3m, Ant.: HL 223
Freq: 972.745MHz, Pmax: -56.28dBm, RBW: 1MHz



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

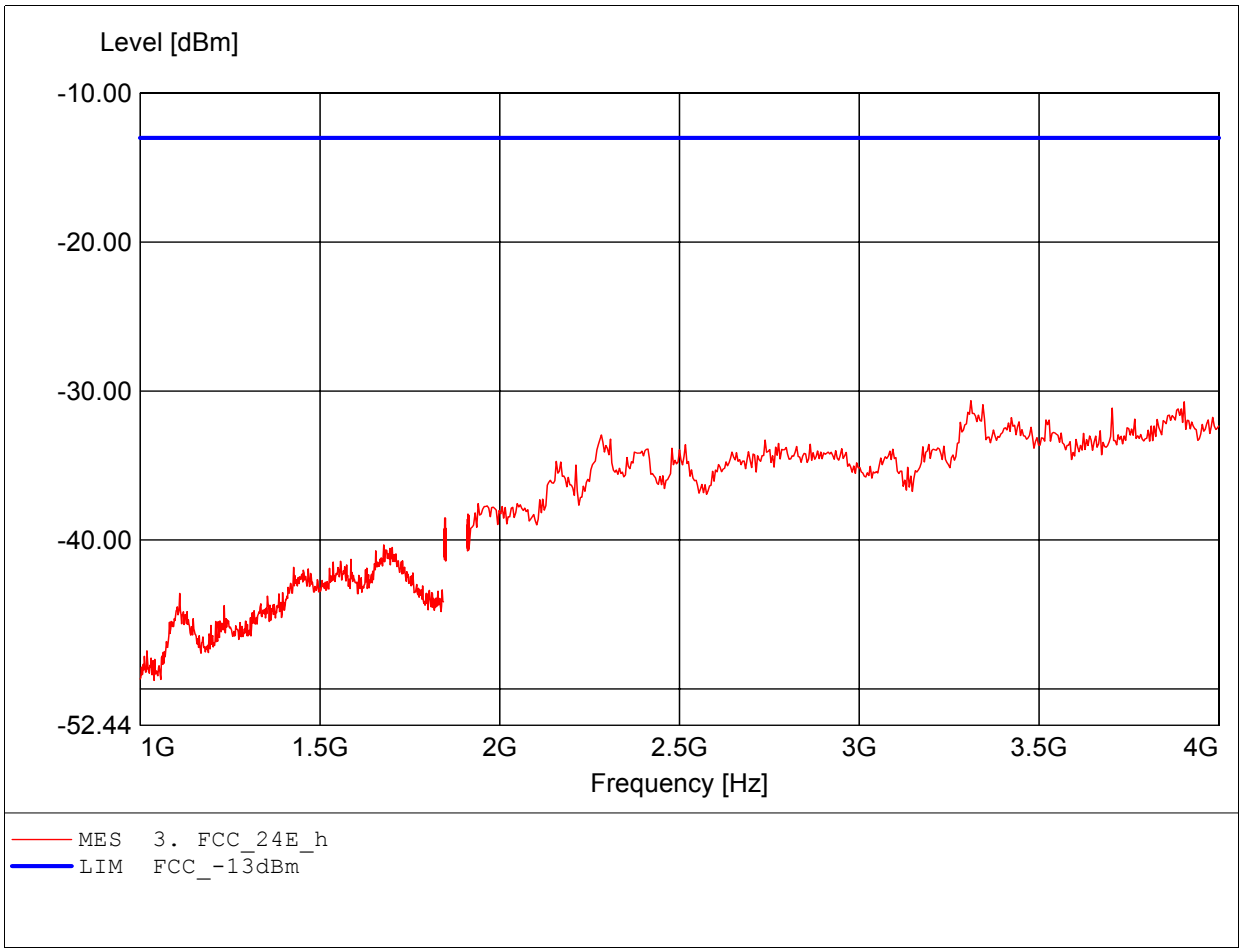
```
Order Number :          W6M20612-7664     1900 band  ch512
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL 223
                        Freq: 991.984MHz, Pmax: -56.59dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

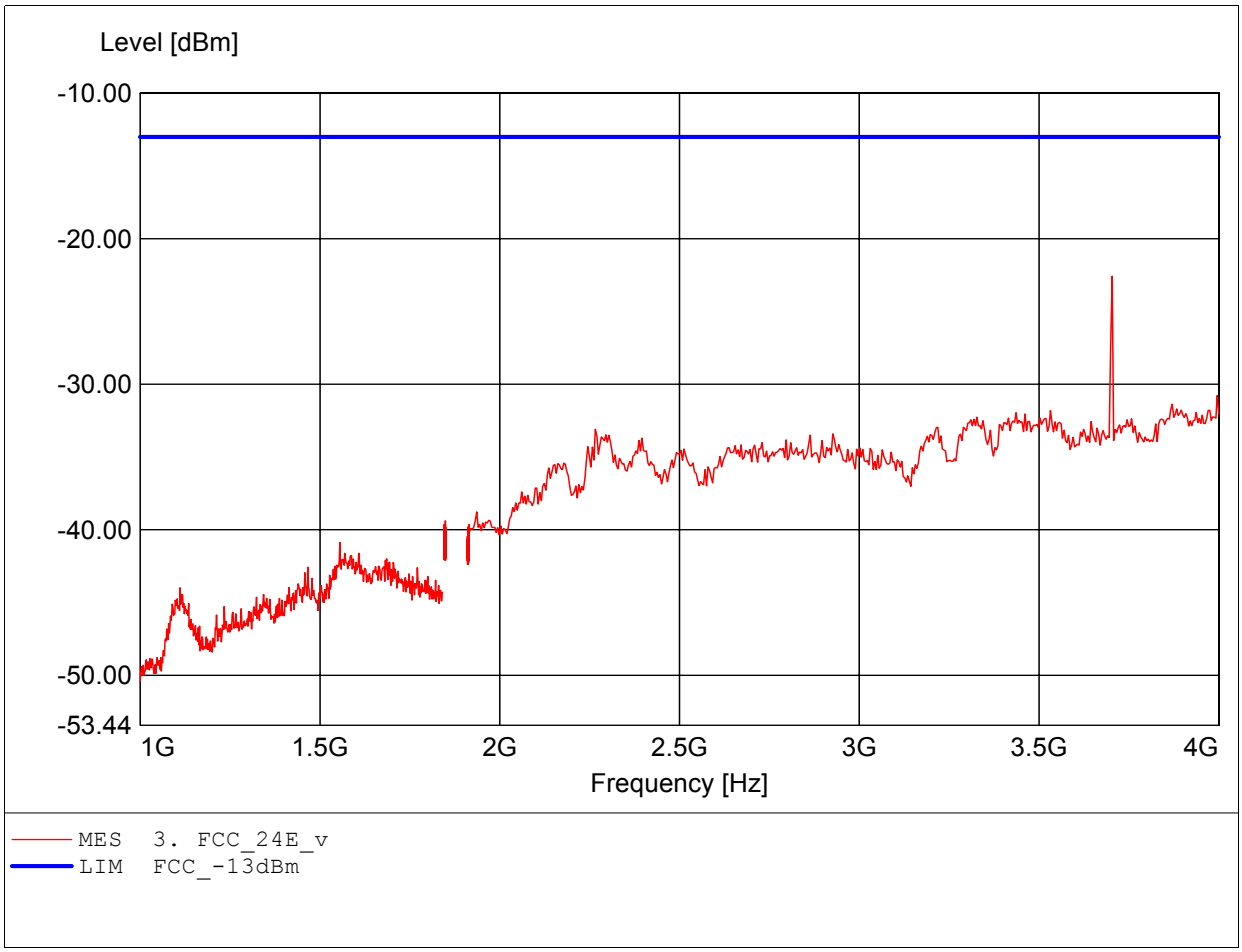
```
Order Number :          W6M20612-7664     1900 band  ch512
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025
                        Freq: 3.311GHz, Pmax: -30.65dBm, RBW: 1MHz/3kHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

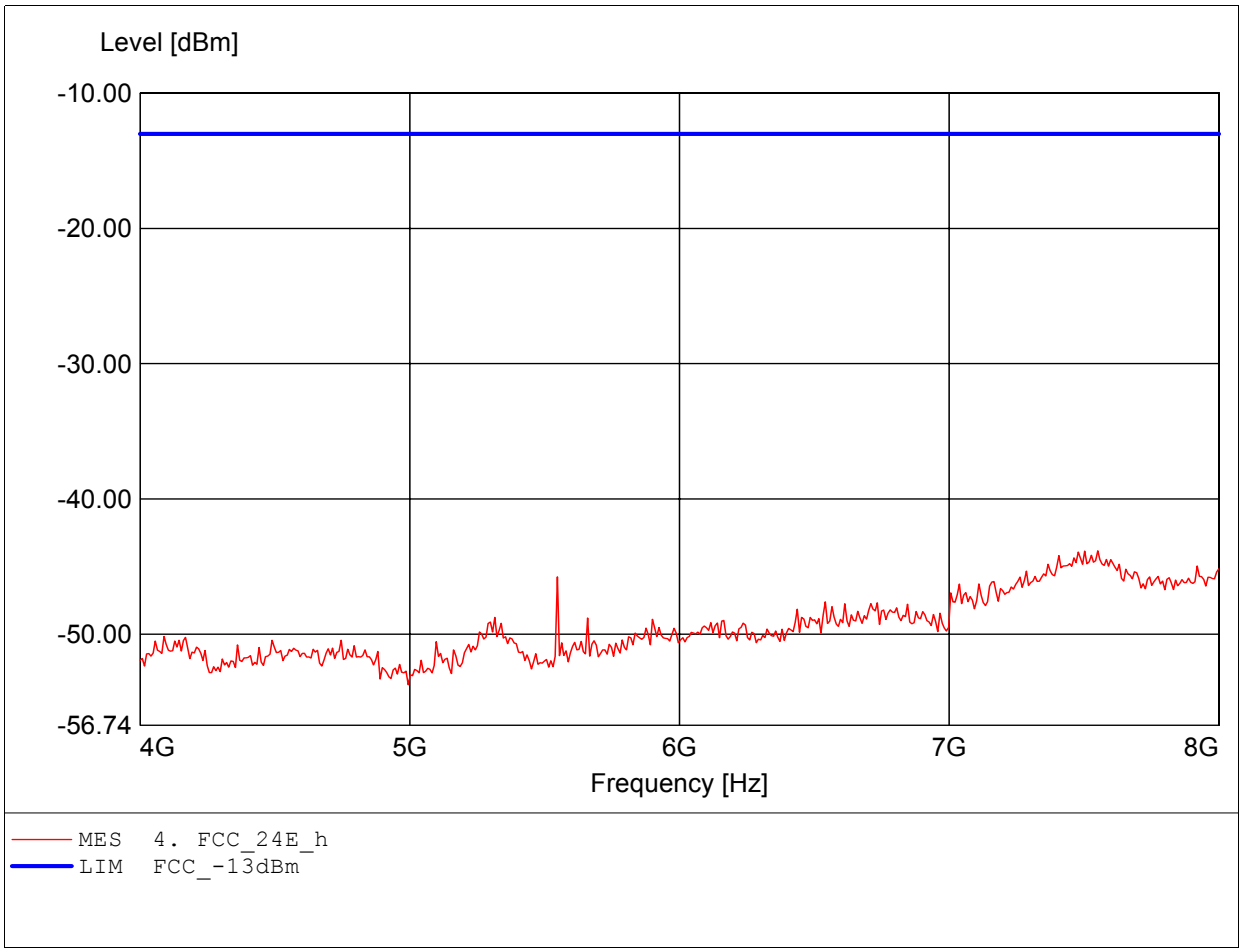
Order Number : W6M20612-7664 1900 band ch512
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to $24.238
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 3.703GHz, Pmax: -22.57dBm, RBW: 1MHz/3kHz



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

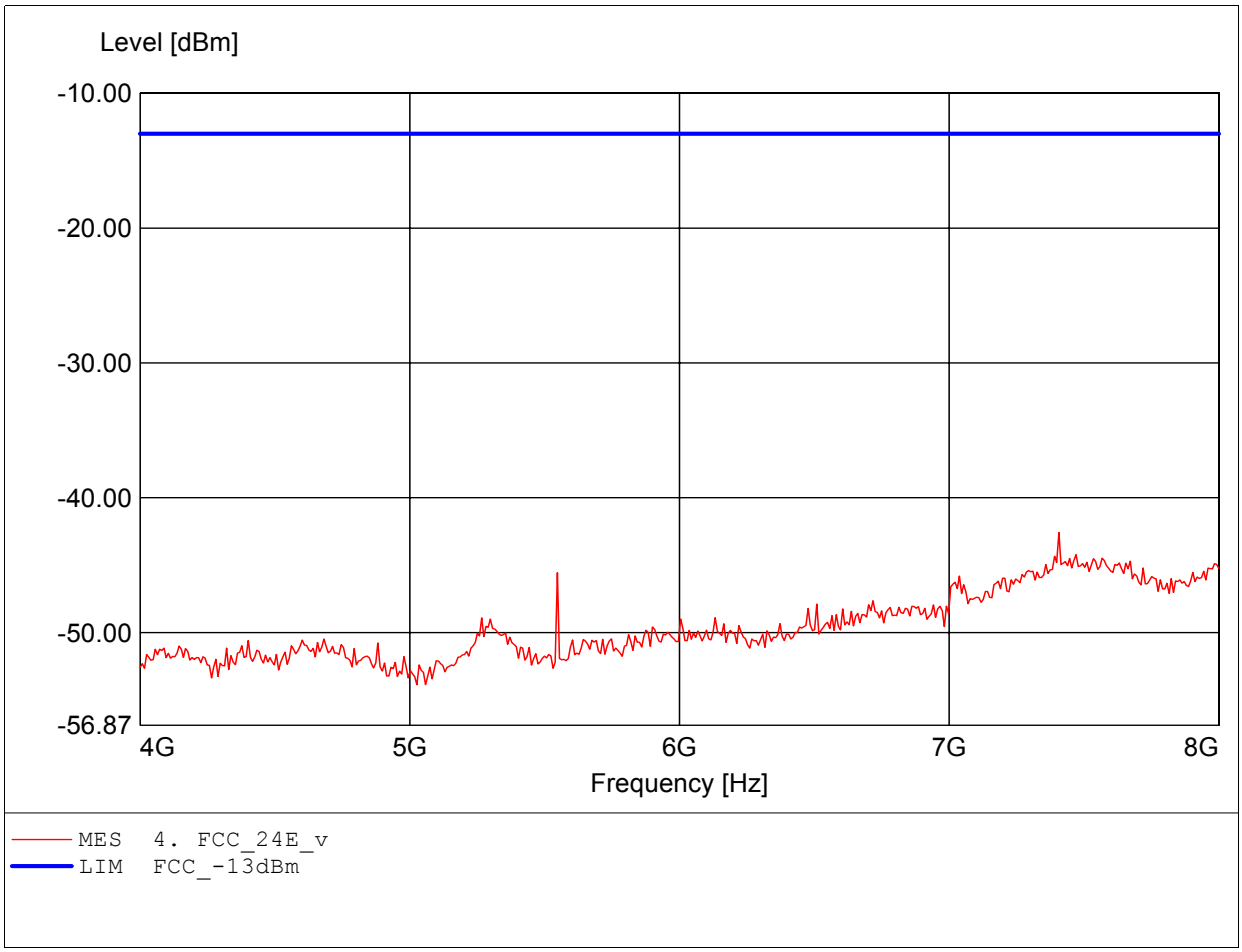
```
Order Number :          W6M20612-7664     1900 band  ch512
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 7.551GHz, Pmax: -43.84dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

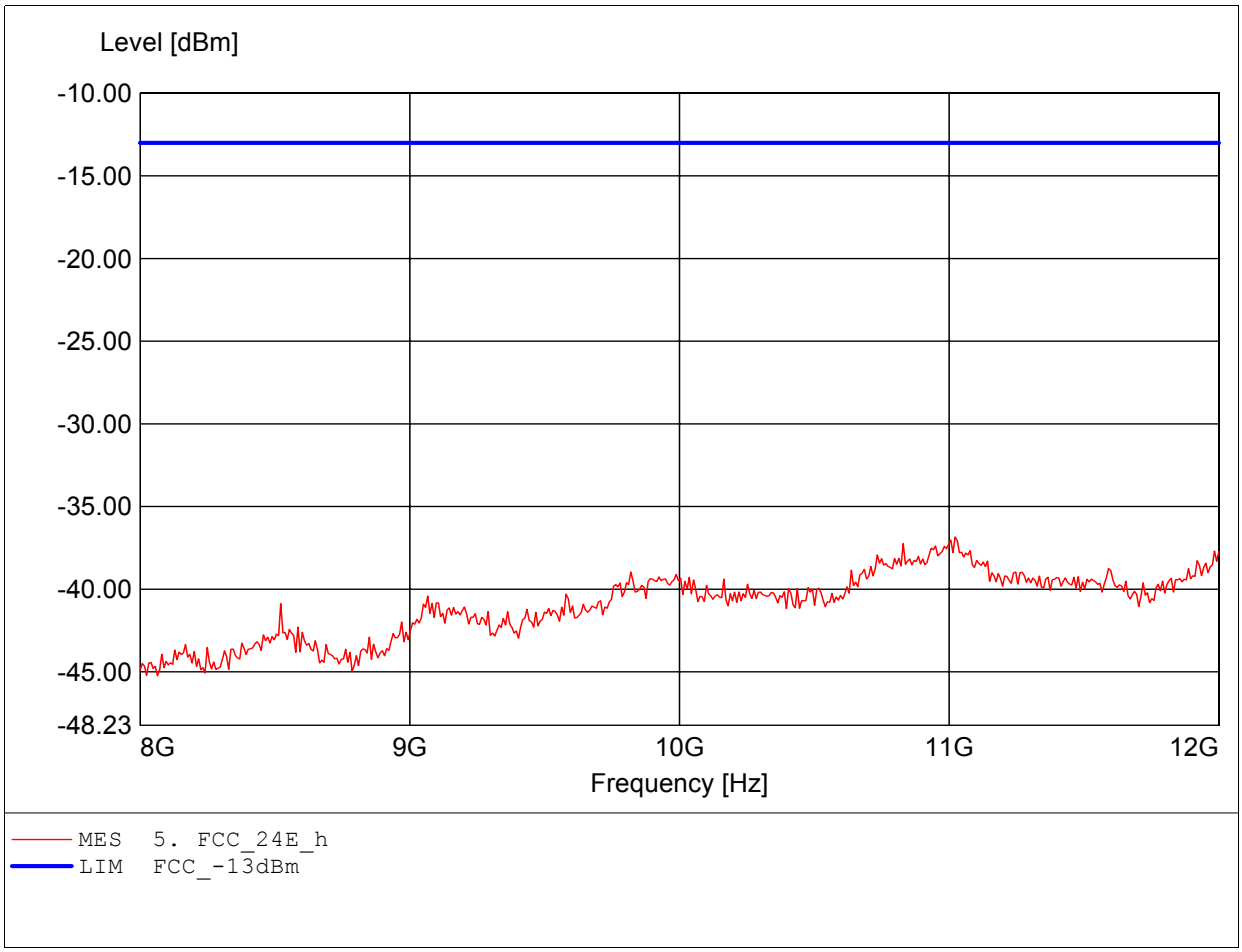
```
Order Number :          W6M20612-7664     1900 band  ch512
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 7.407GHz, Pmax: -42.58dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

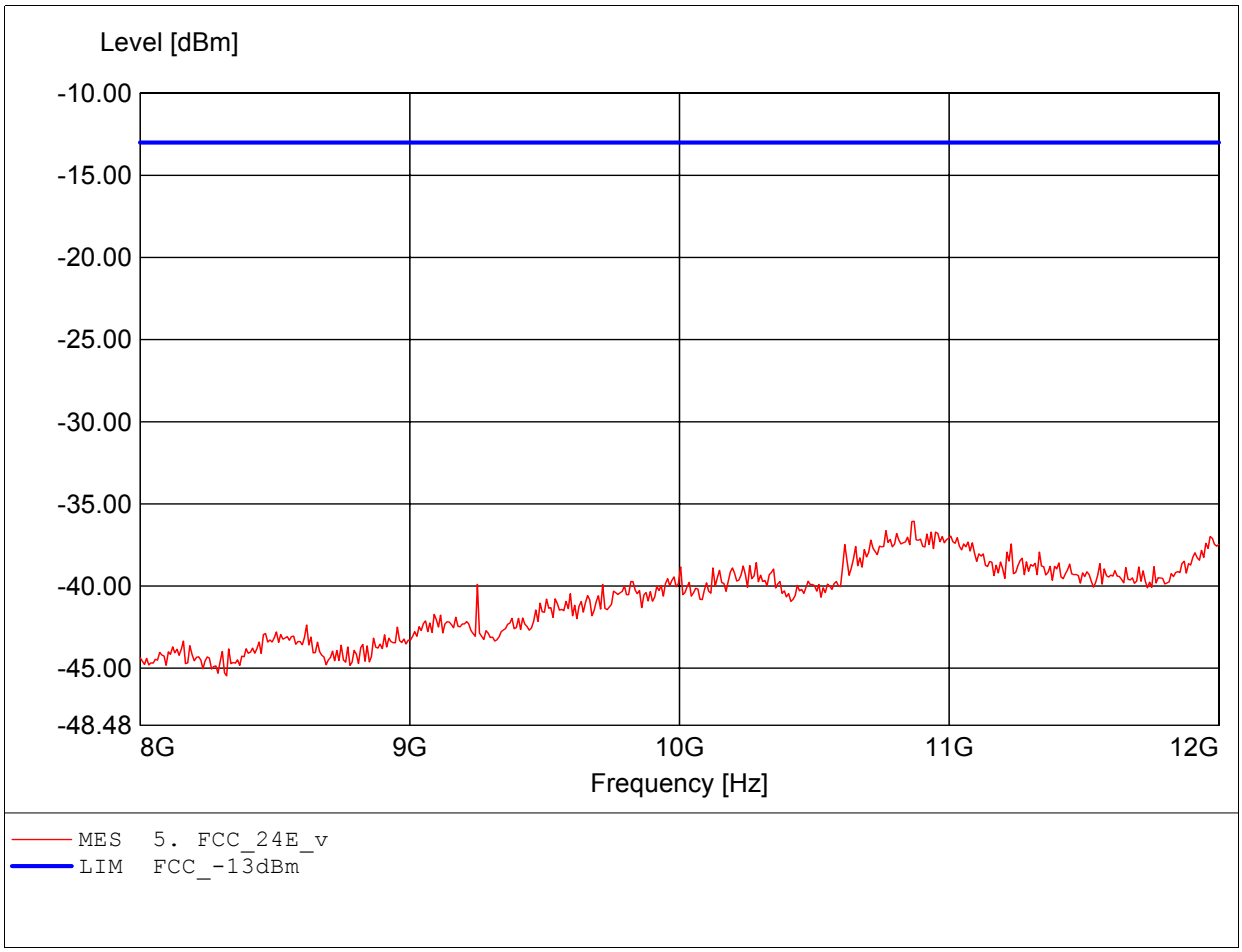
```
Order Number :          W6M20612-7664     1900 band  ch512
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 11.022GHz, Pmax: -36.85dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

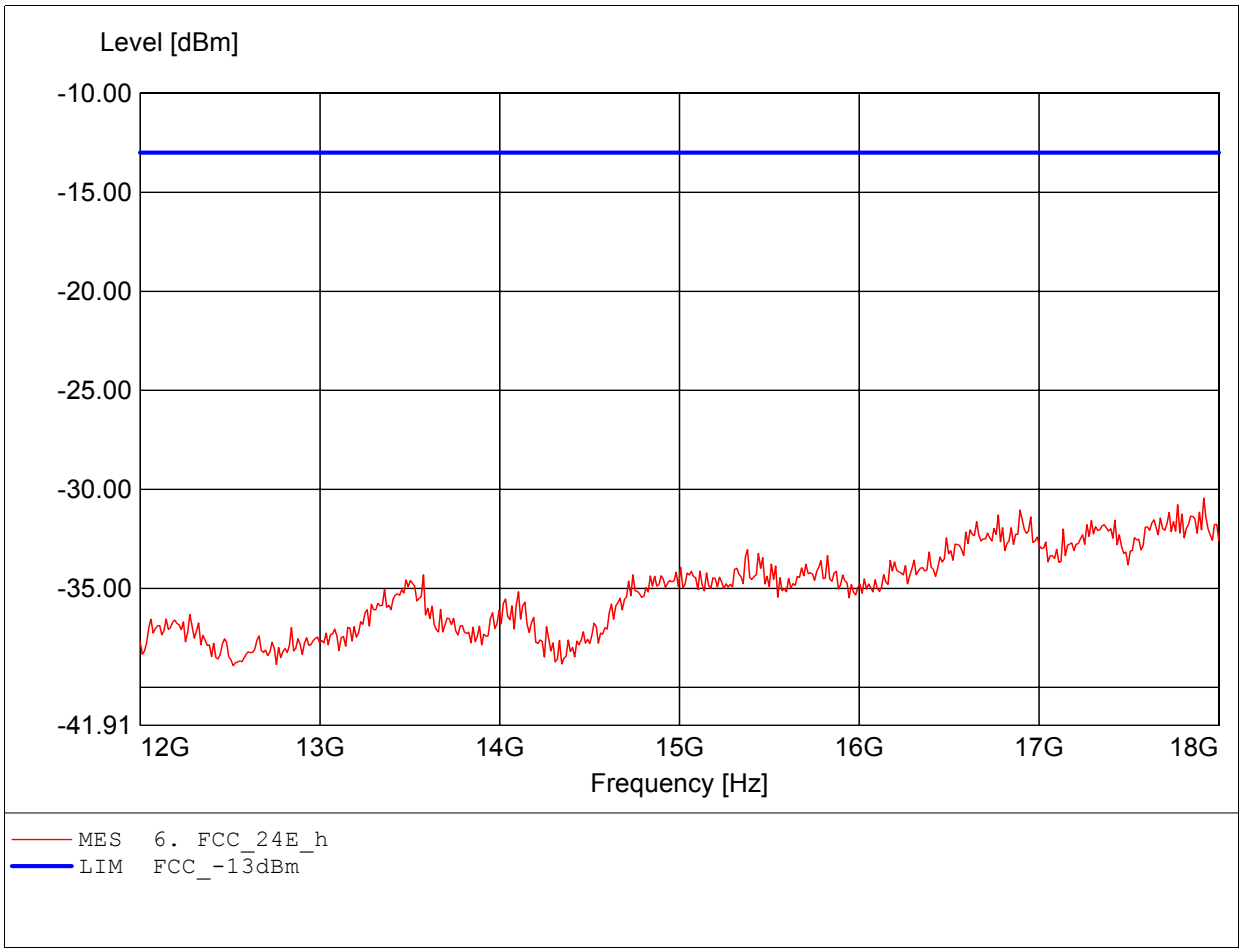
```
Order Number :          W6M20612-7664     1900 band  ch512
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 10.870GHz, Pmax: -36.05dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

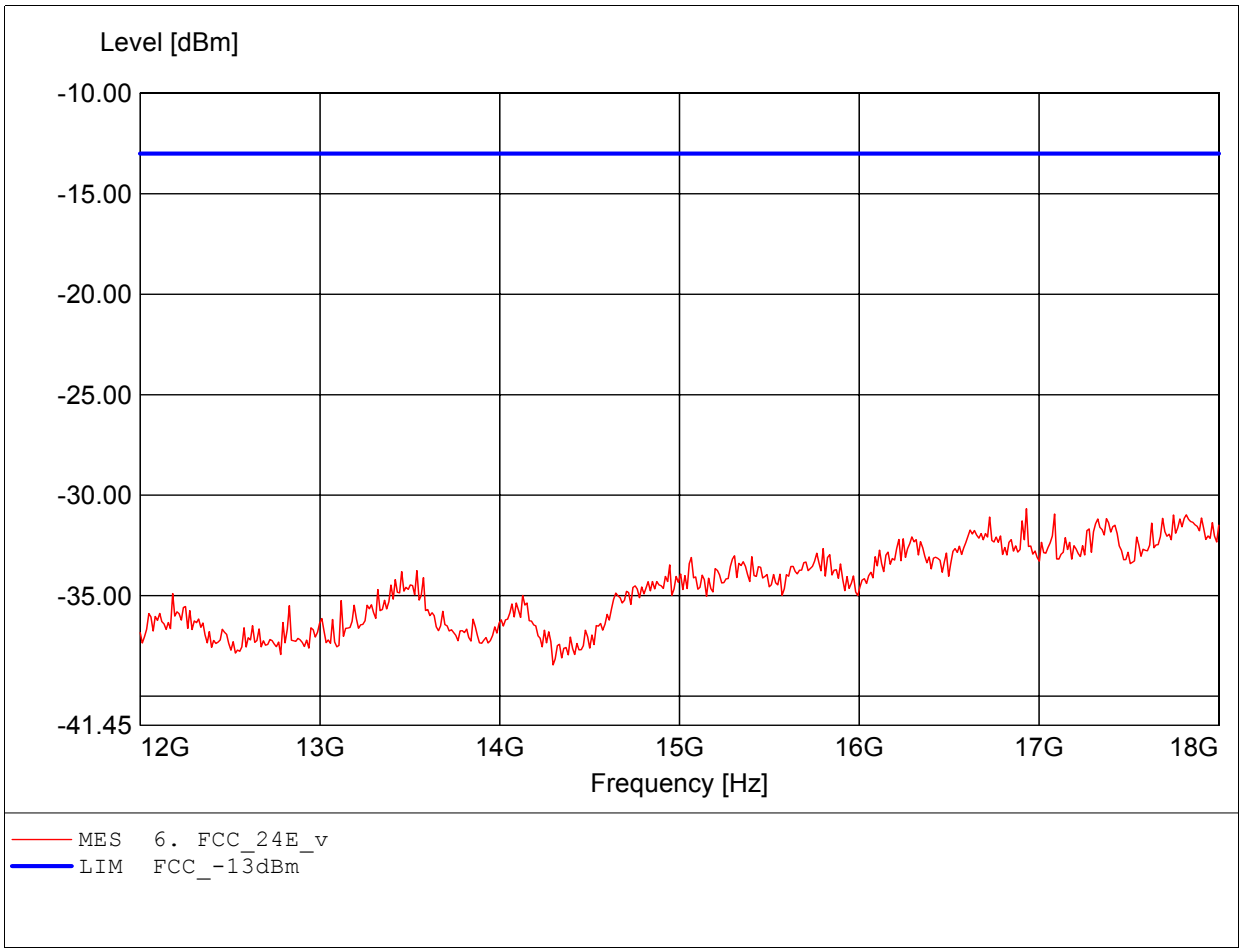
```
Order Number :          W6M20612-7664     1900 band  ch512
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 17.916GHz, Pmax: -30.44dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

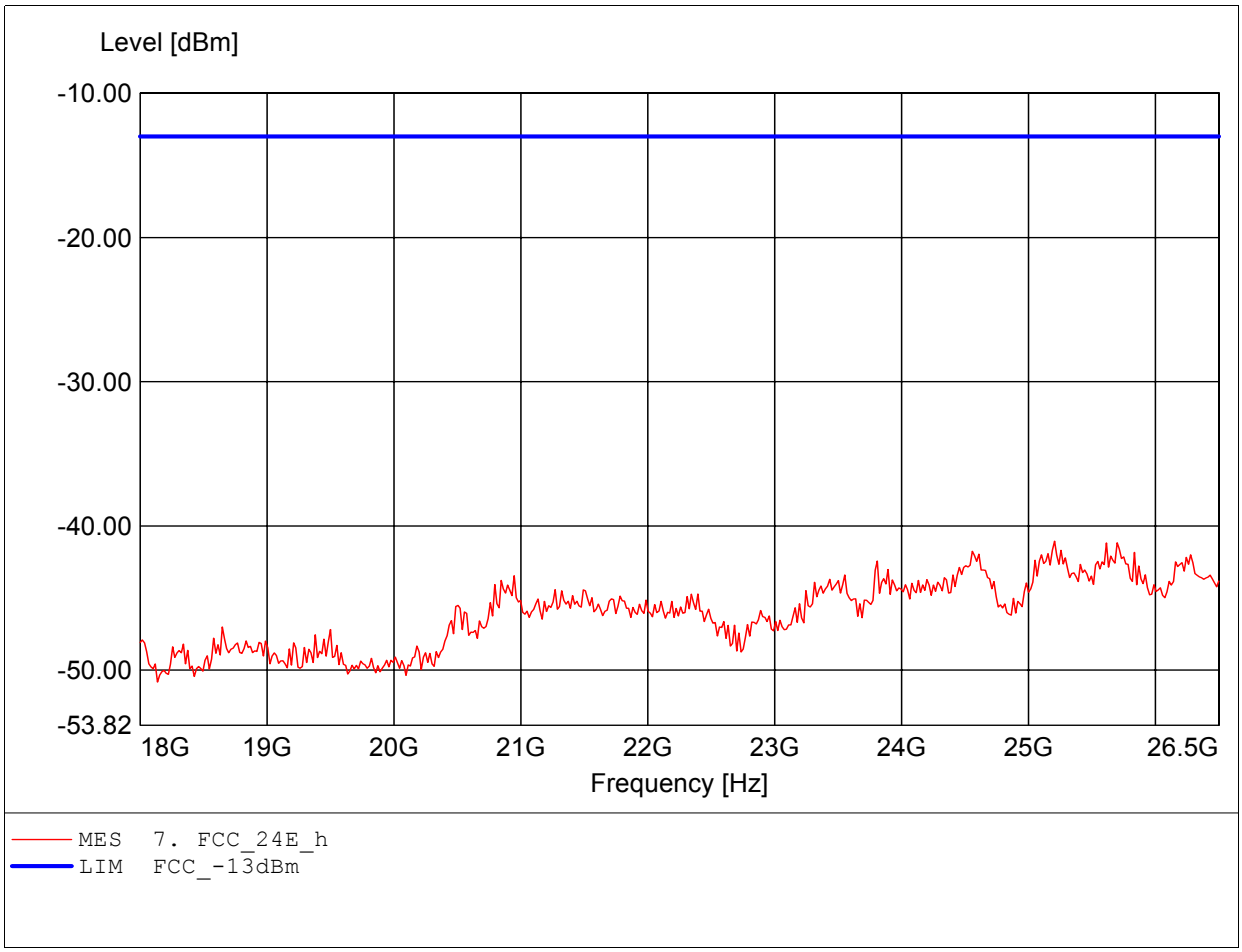
```
Order Number :          W6M20612-7664     1900 band  ch512
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 16.930GHz, Pmax: -30.67dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

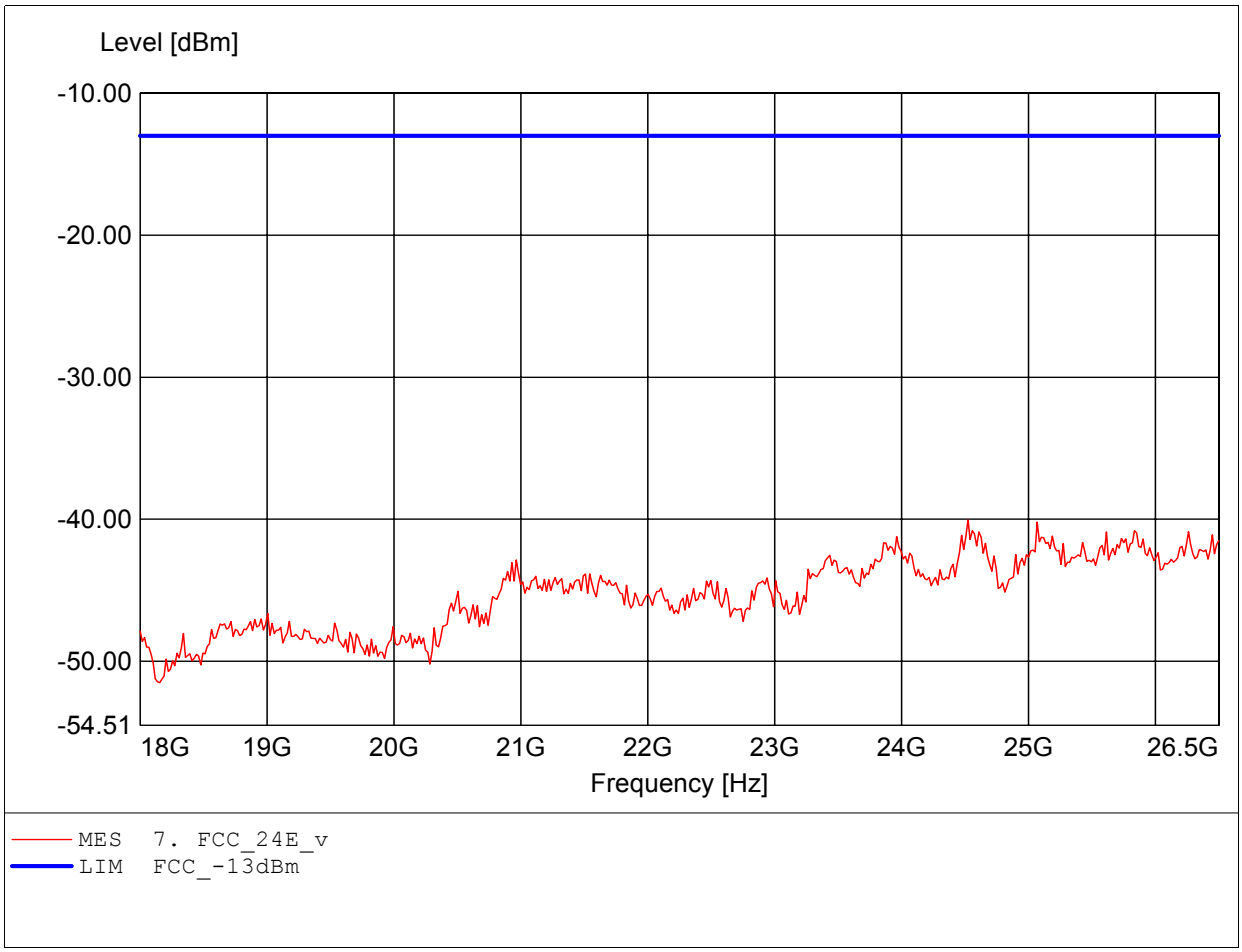
```
Order Number :          W6M20612-7664     1900 band  ch512
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, amplif.
                        Freq: 25.205GHz, Pmax: -41.06dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

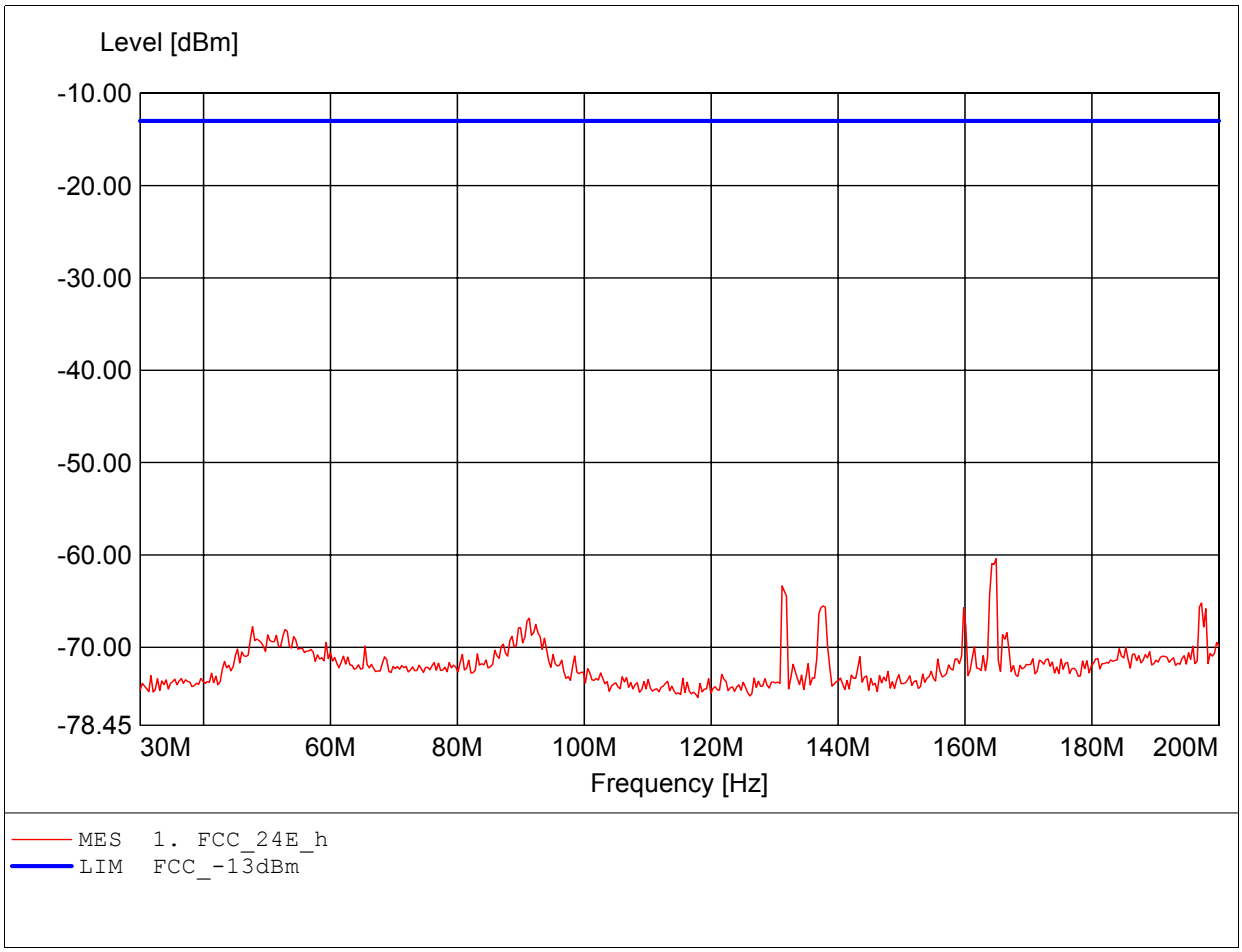
```
Order Number :          W6M20612-7664     1900 band  ch512
Test Site / Operator:   ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, amplif.
                        Freq: 24.524GHz, Pmax: -40.05dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

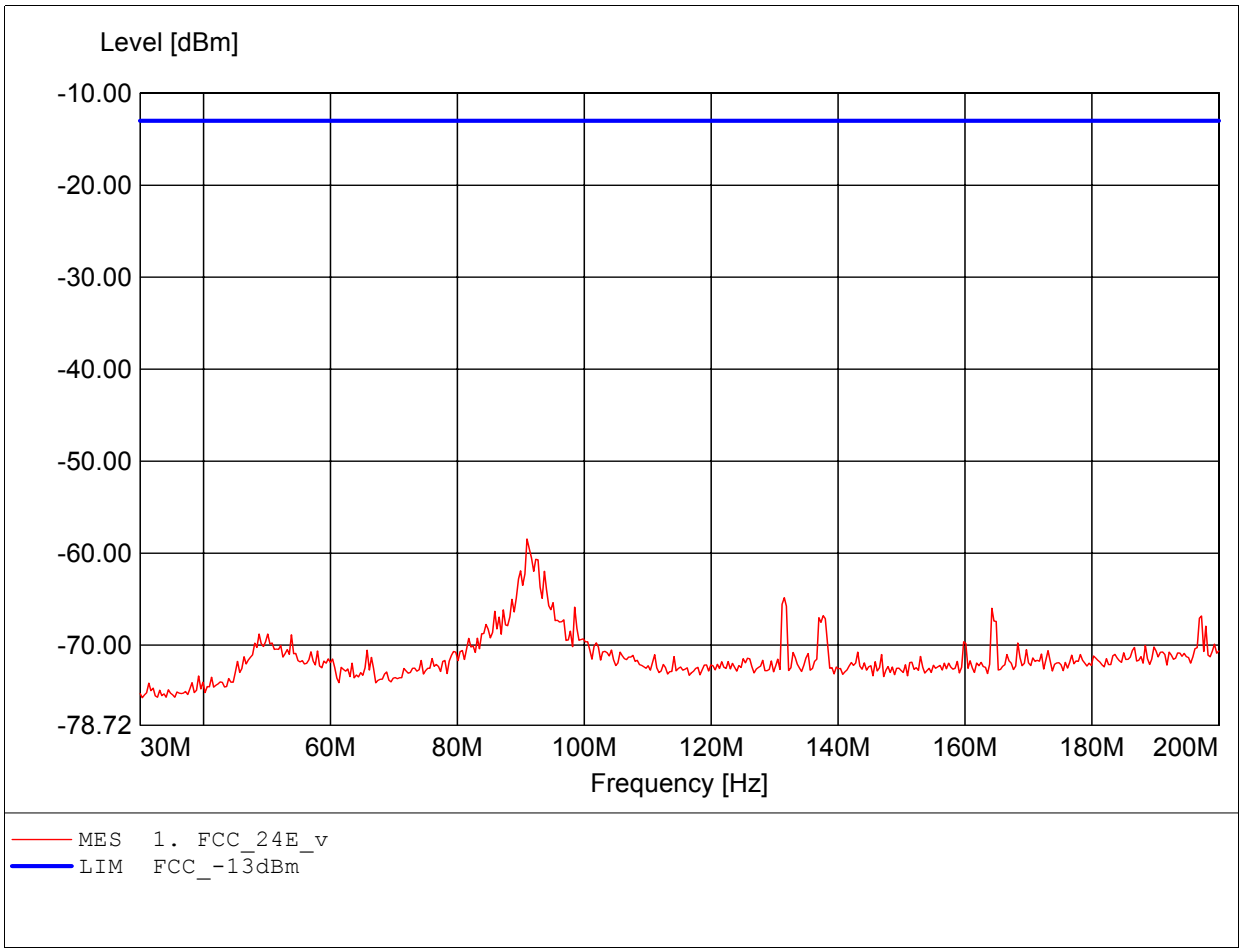
Order Number : W6M20612-7664 1900 band ch661
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to $24.238
Comment 1: Dist.: 3m, Ant.: HK 116
Freq: 164.910MHz, Pmax: -60.41dBm, RBW: 1MHz



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

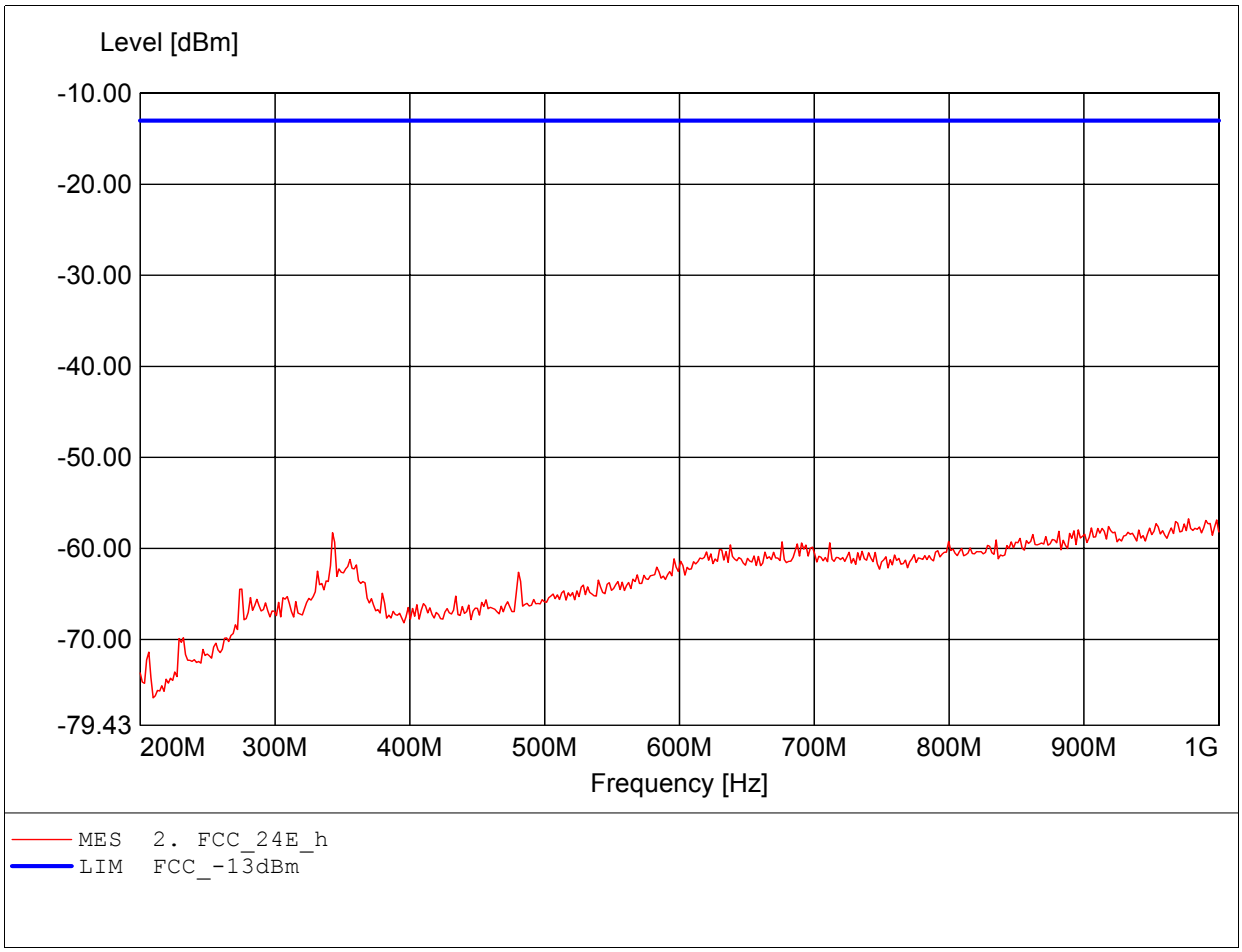
```
Order Number :          W6M20612-7664     1900 band  ch661
Test Site / Operator:   ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq: 90.982MHz, Pmax: -58.47dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

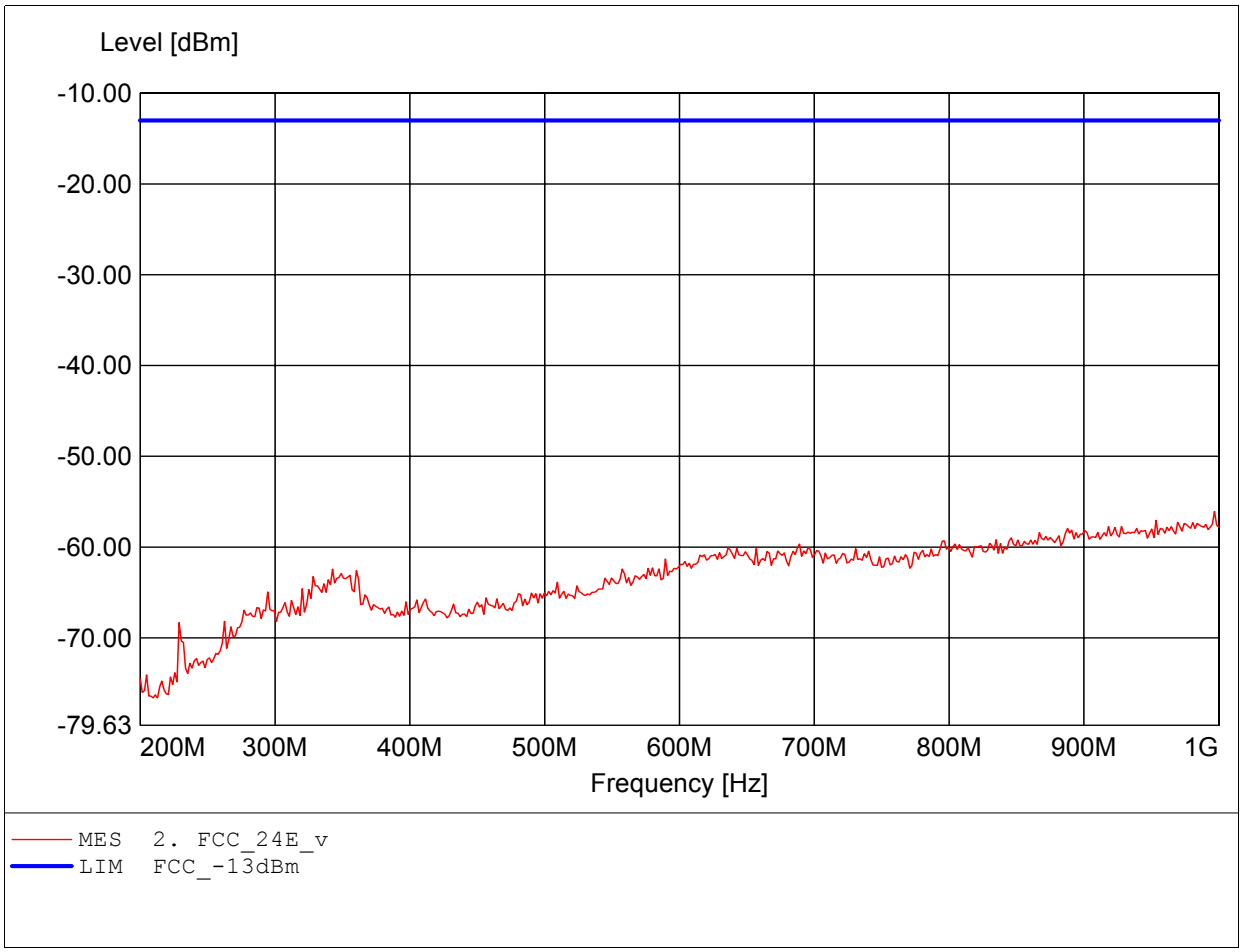
Order Number : W6M20612-7664 1900 band ch661
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to $24.238
Comment 1: Dist.: 3m, Ant.: HL 223
Freq: 977.555MHz, Pmax: -56.75dBm, RBW: 1MHz



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

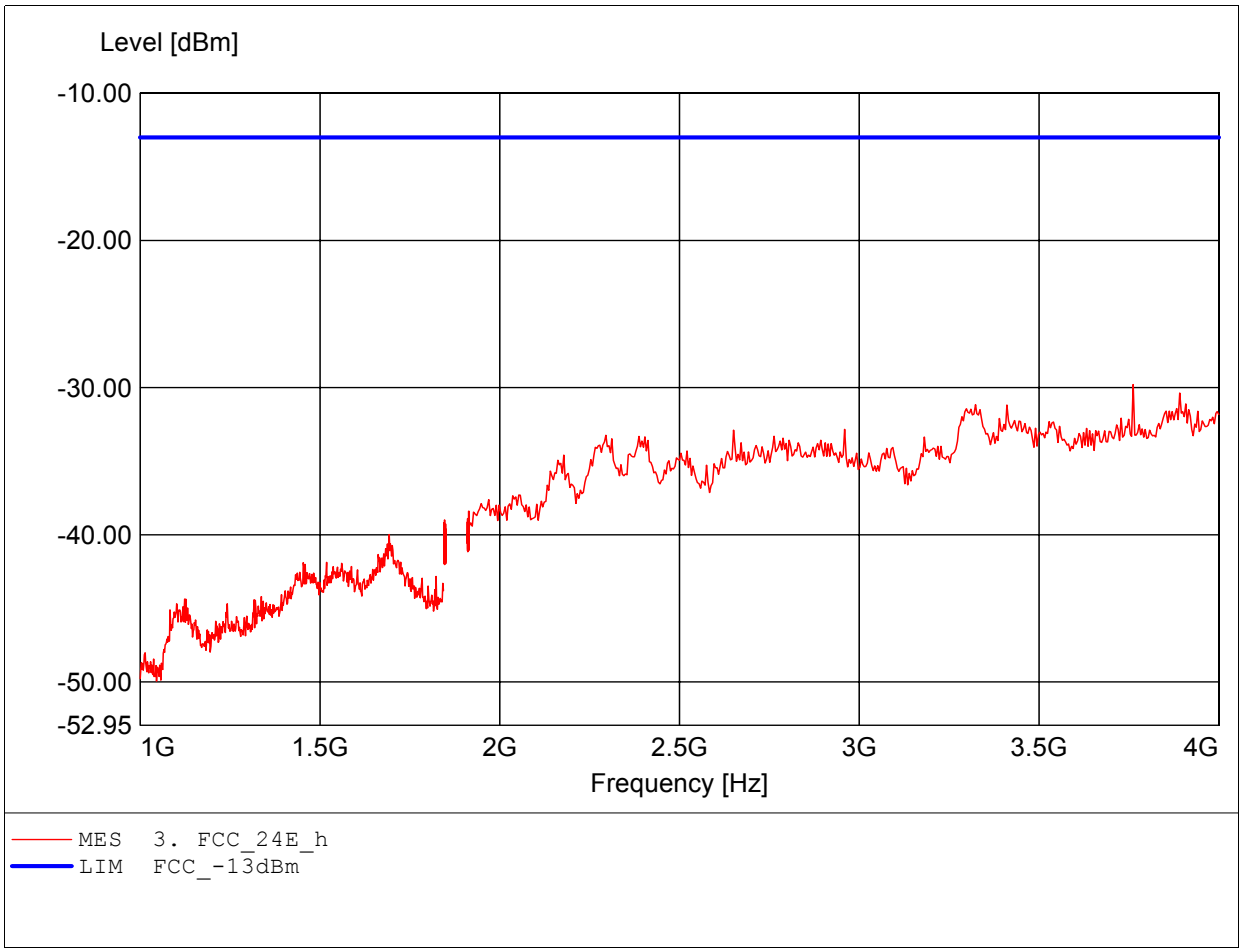
```
Order Number :          W6M20612-7664     1900 band  ch661
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL 223
                        Freq: 996.794MHz, Pmax: -56.08dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

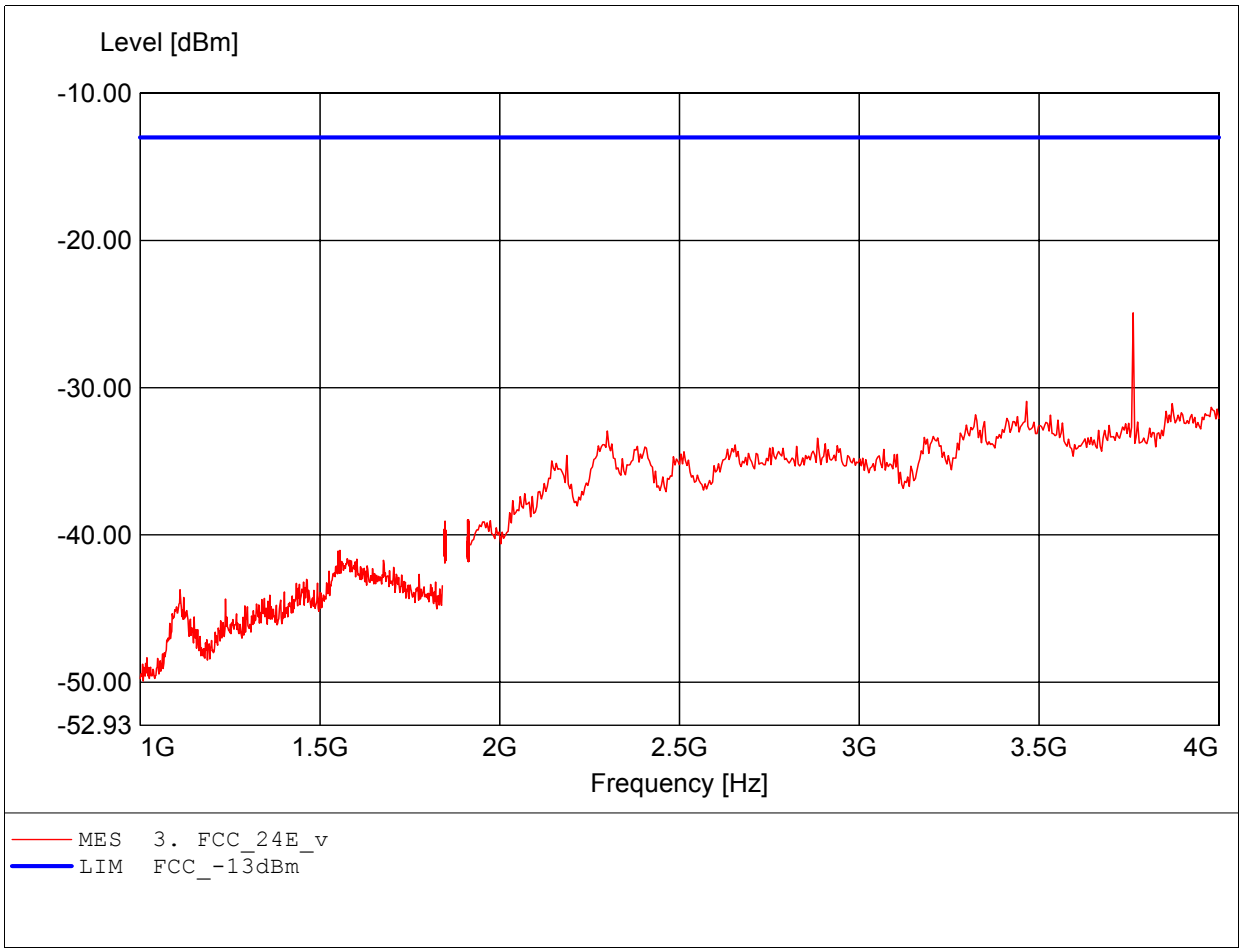
Order Number : W6M20612-7664 1900 band ch661
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to $24.238
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 3.762GHz, Pmax: -29.80dBm, RBW: 1MHz/3kHz



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

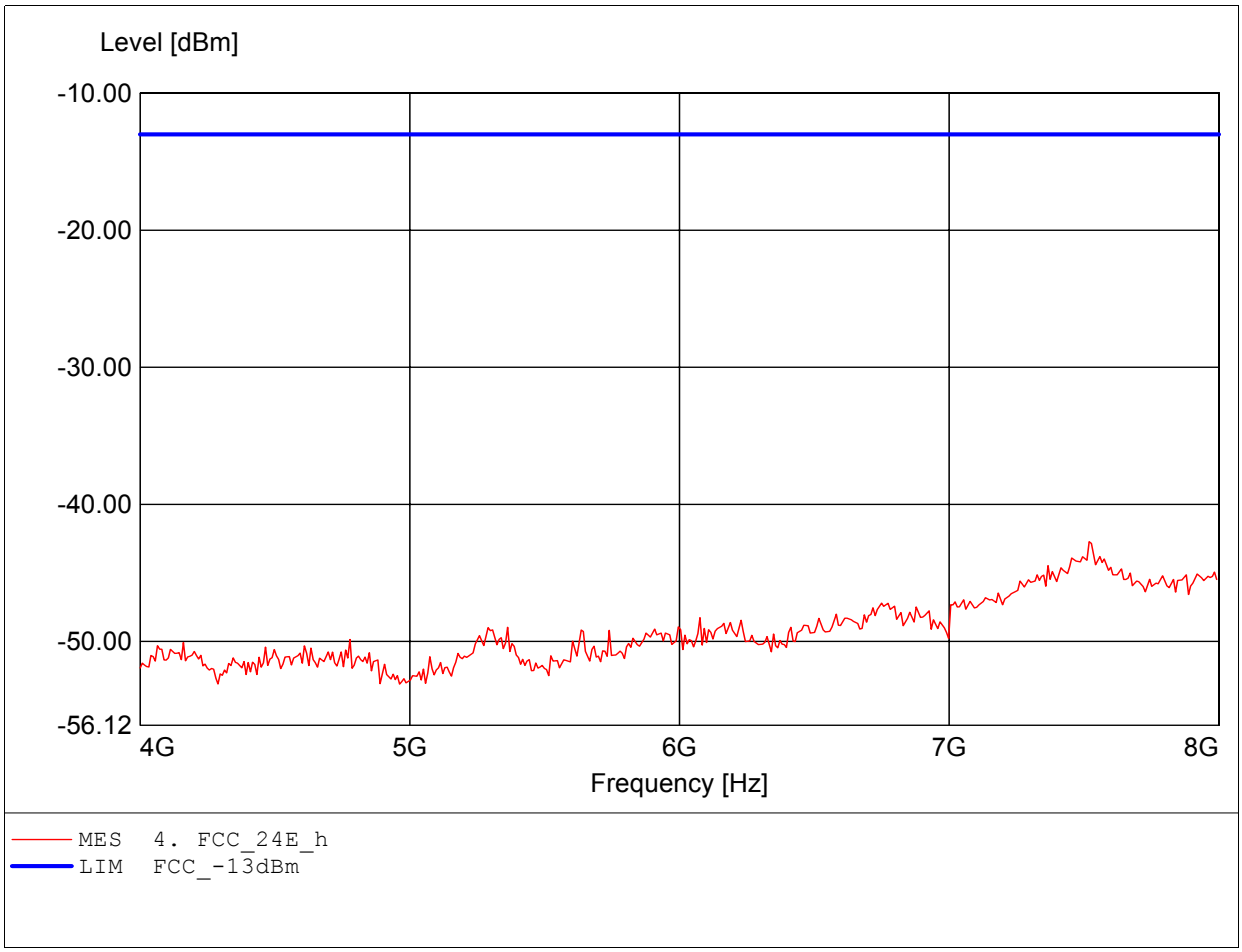
Order Number : W6M20612-7664 1900 band ch661
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to $24.238
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 3.762GHz, Pmax: -24.92dBm, RBW: 1MHz/3kHz



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

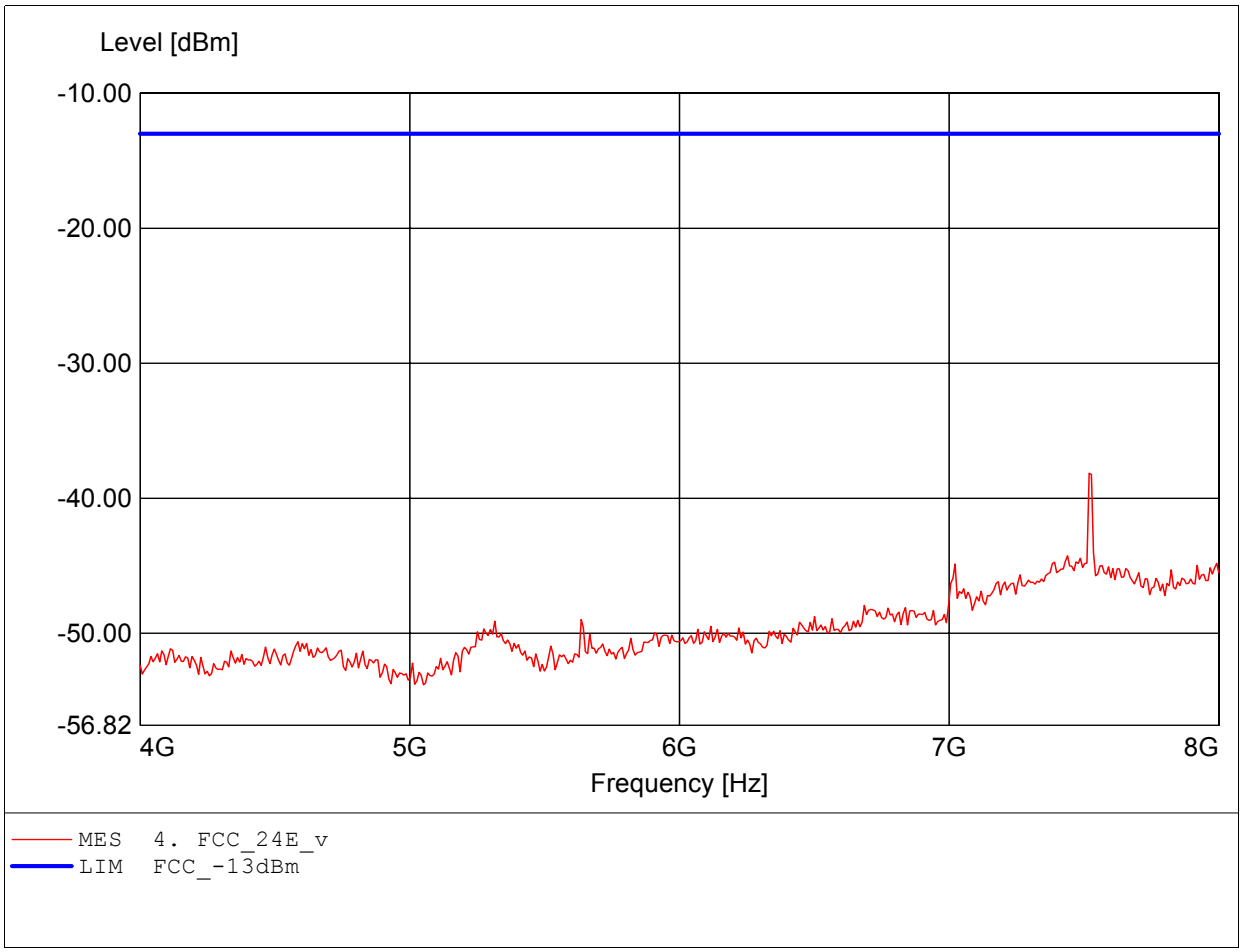
```
Order Number :          W6M20612-7664     1900 band  ch661
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 7.519GHz, Pmax: -42.73dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

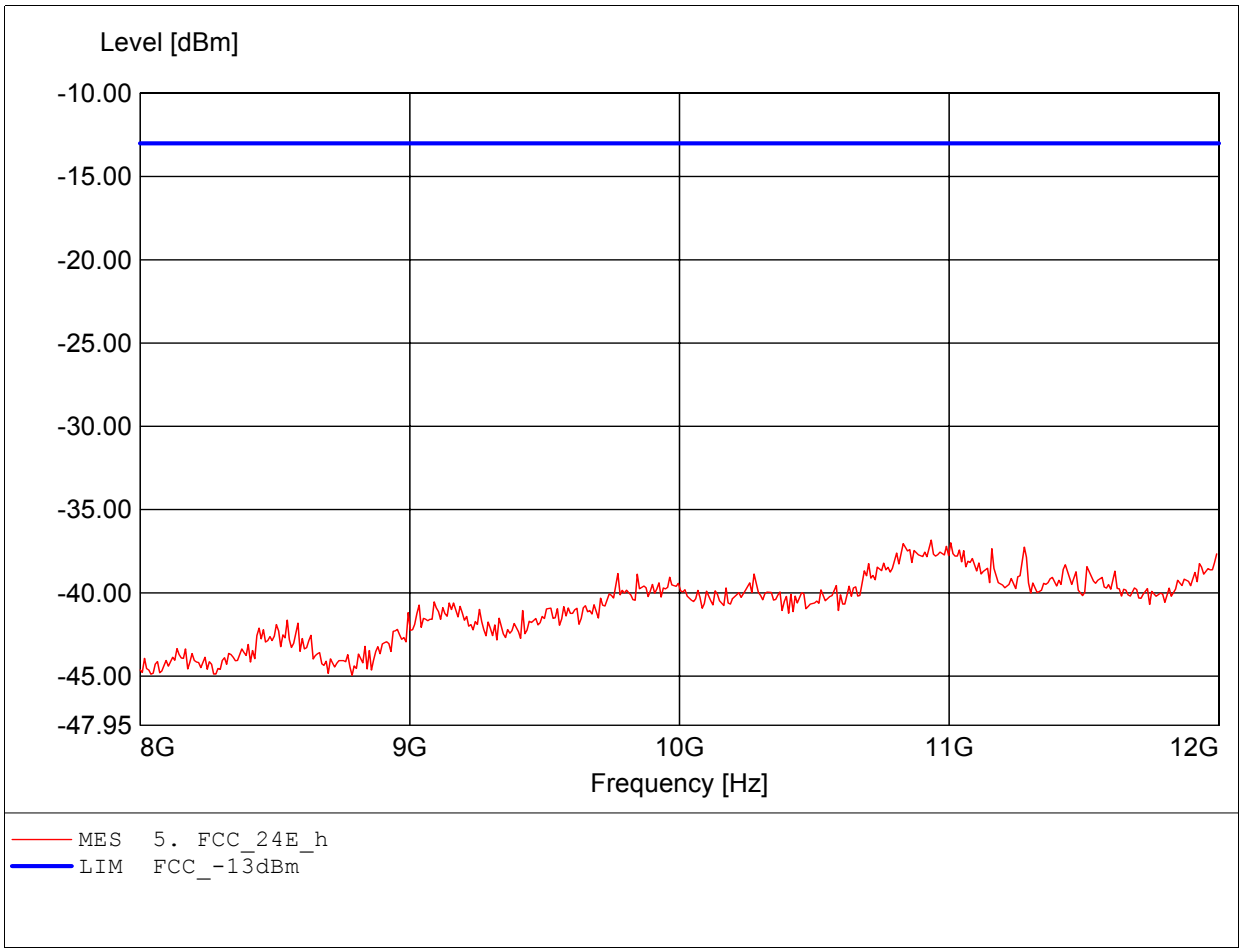
```
Order Number :          W6M20612-7664     1900 band  ch661
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 7.519GHz, Pmax: -38.14dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

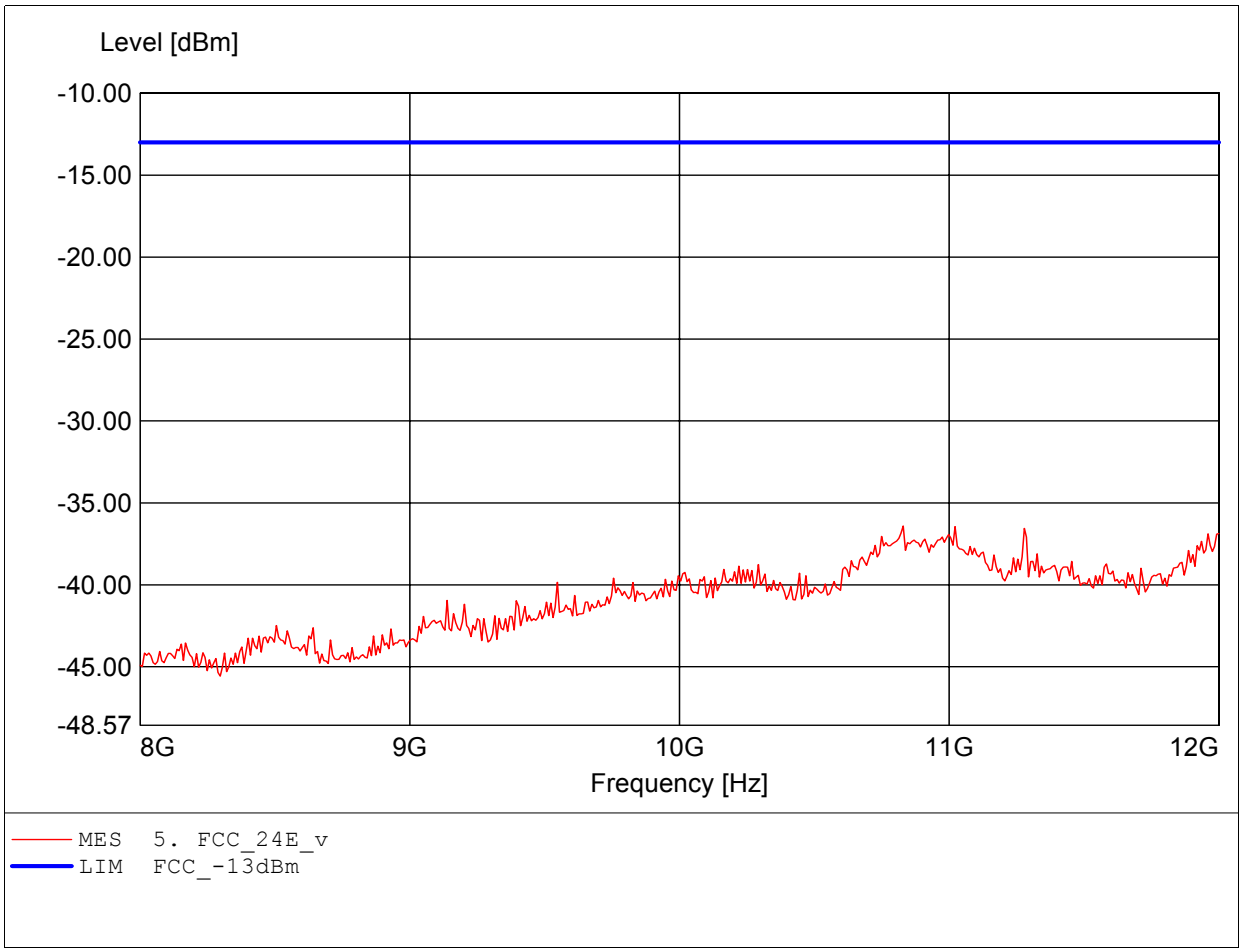
```
Order Number :          W6M20612-7664     1900 band  ch661
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 10.934GHz, Pmax: -36.83dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

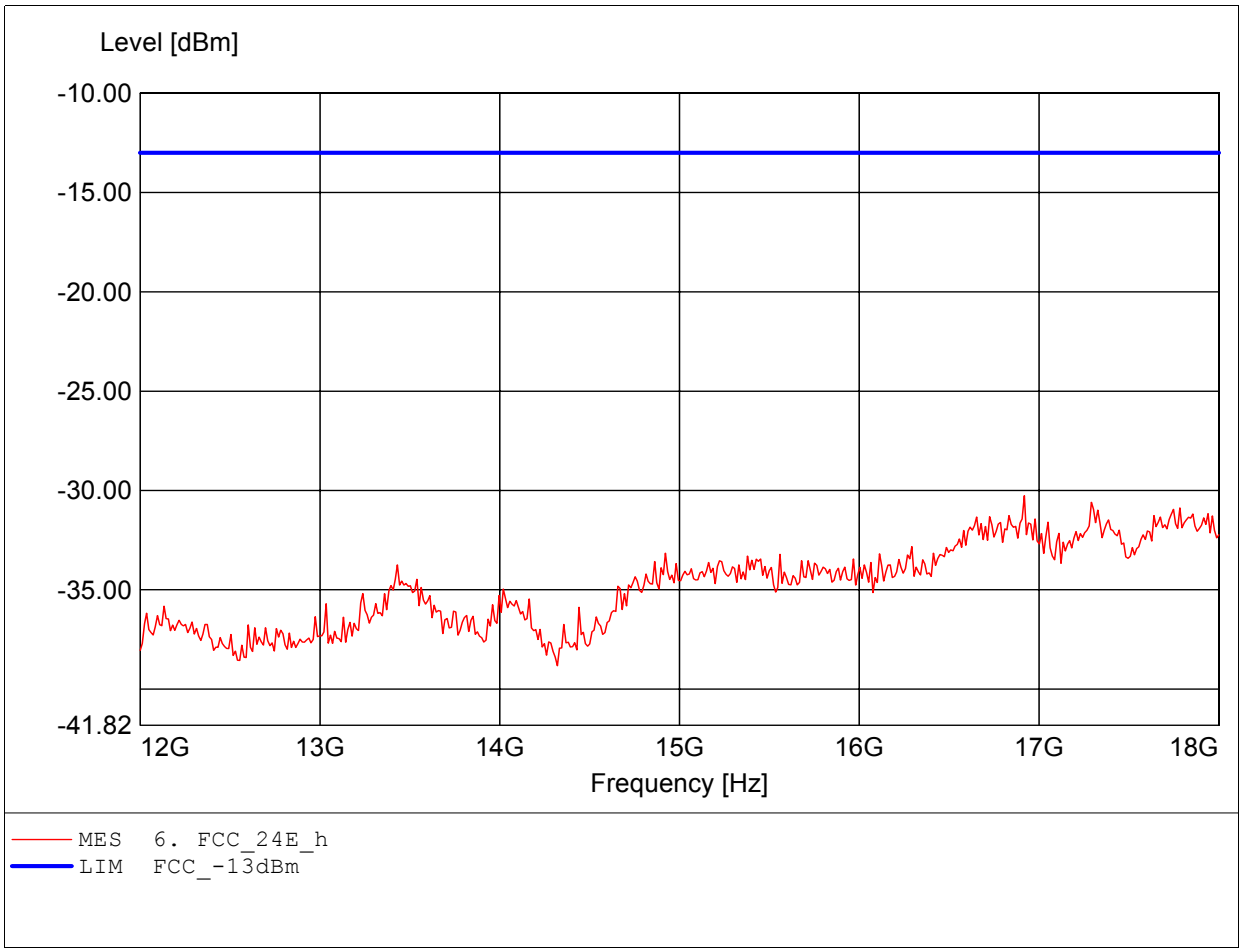
```
Order Number :          W6M20612-7664     1900 band  ch661
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 10.830GHz, Pmax: -36.42dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

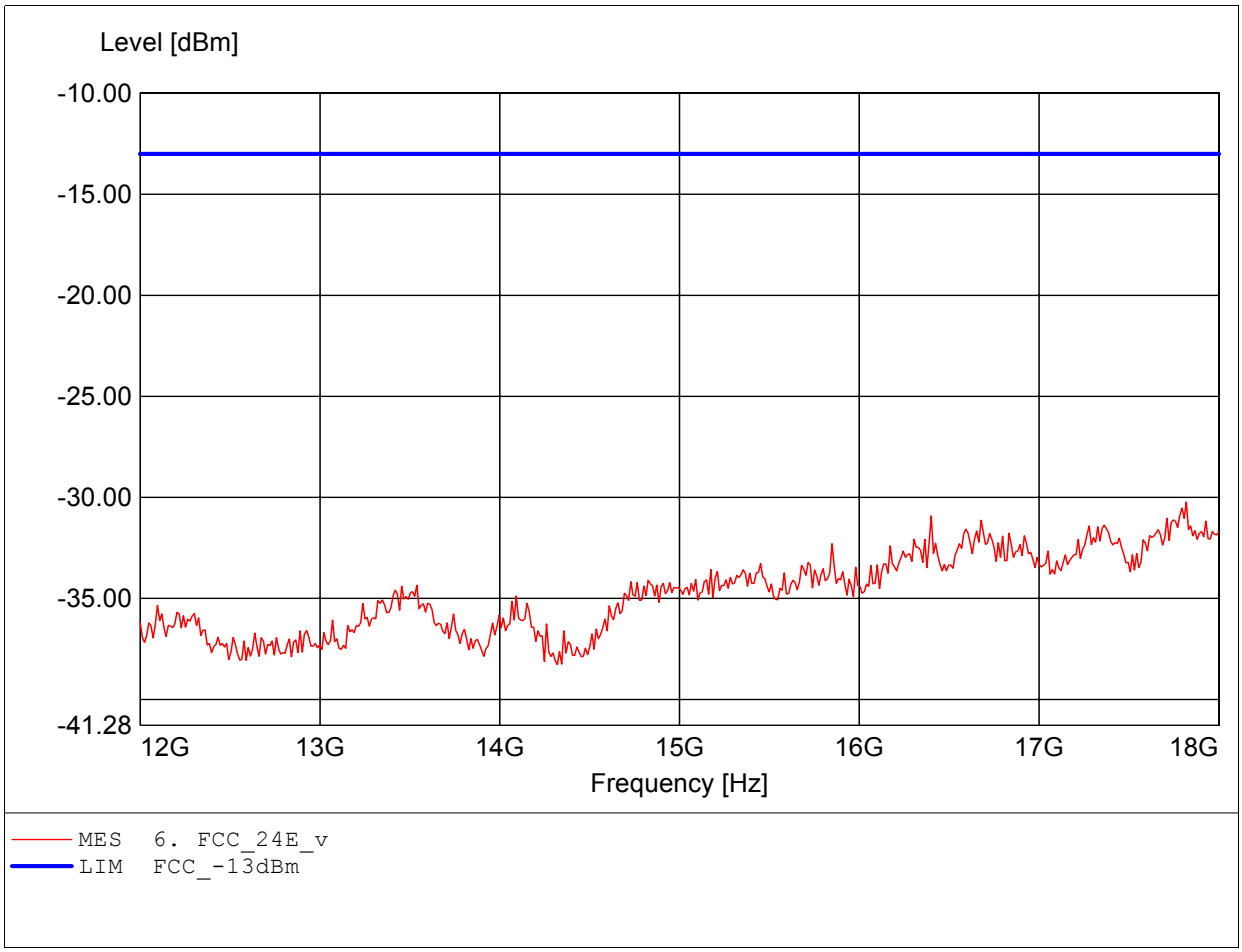
Order Number : W6M20612-7664 1900 band ch661
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to $24.238
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 16.918GHz, Pmax: -30.26dBm, RBW: 1MHz



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

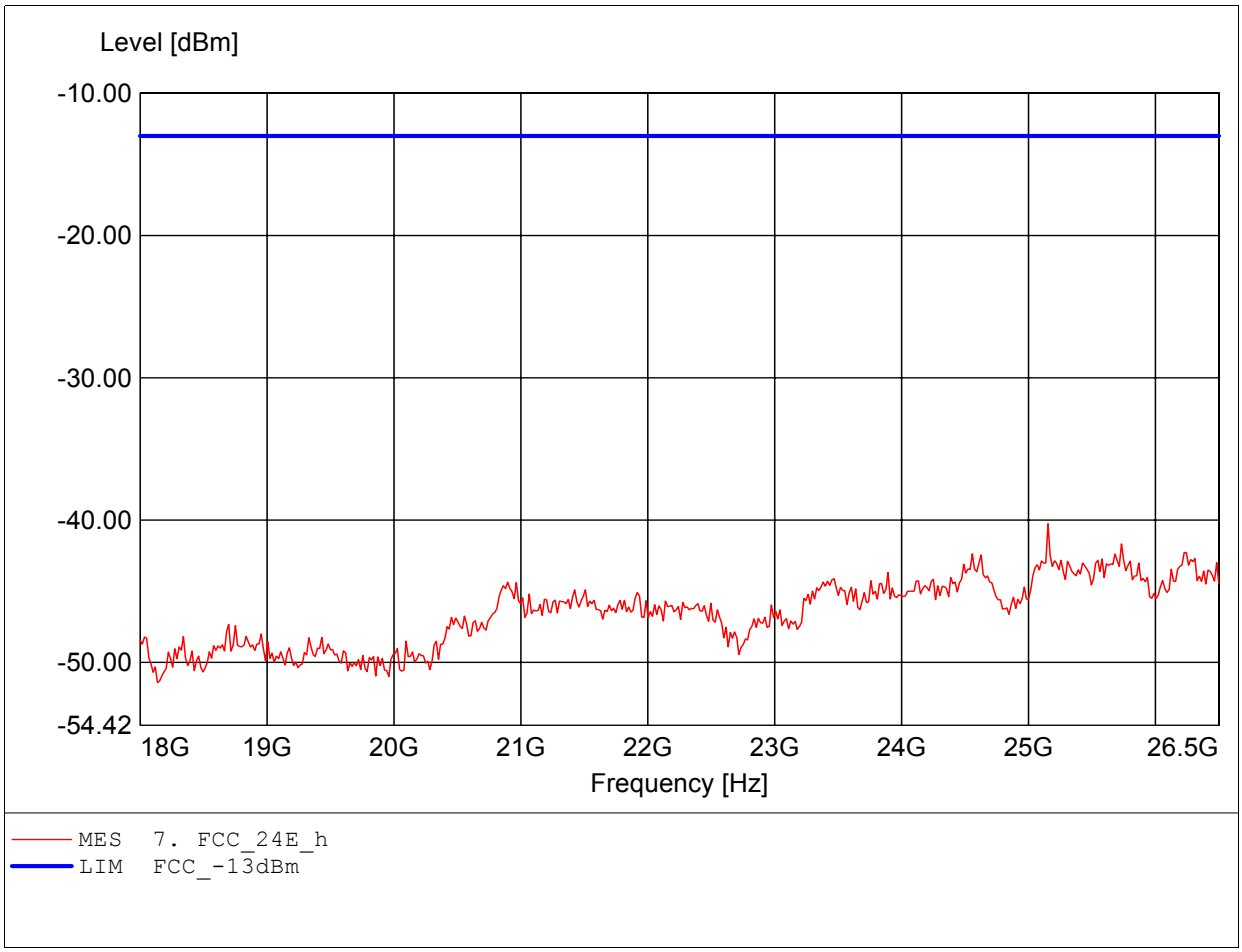
```
Order Number :          W6M20612-7664     1900 band  ch661
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 17.820GHz, Pmax: -30.23dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

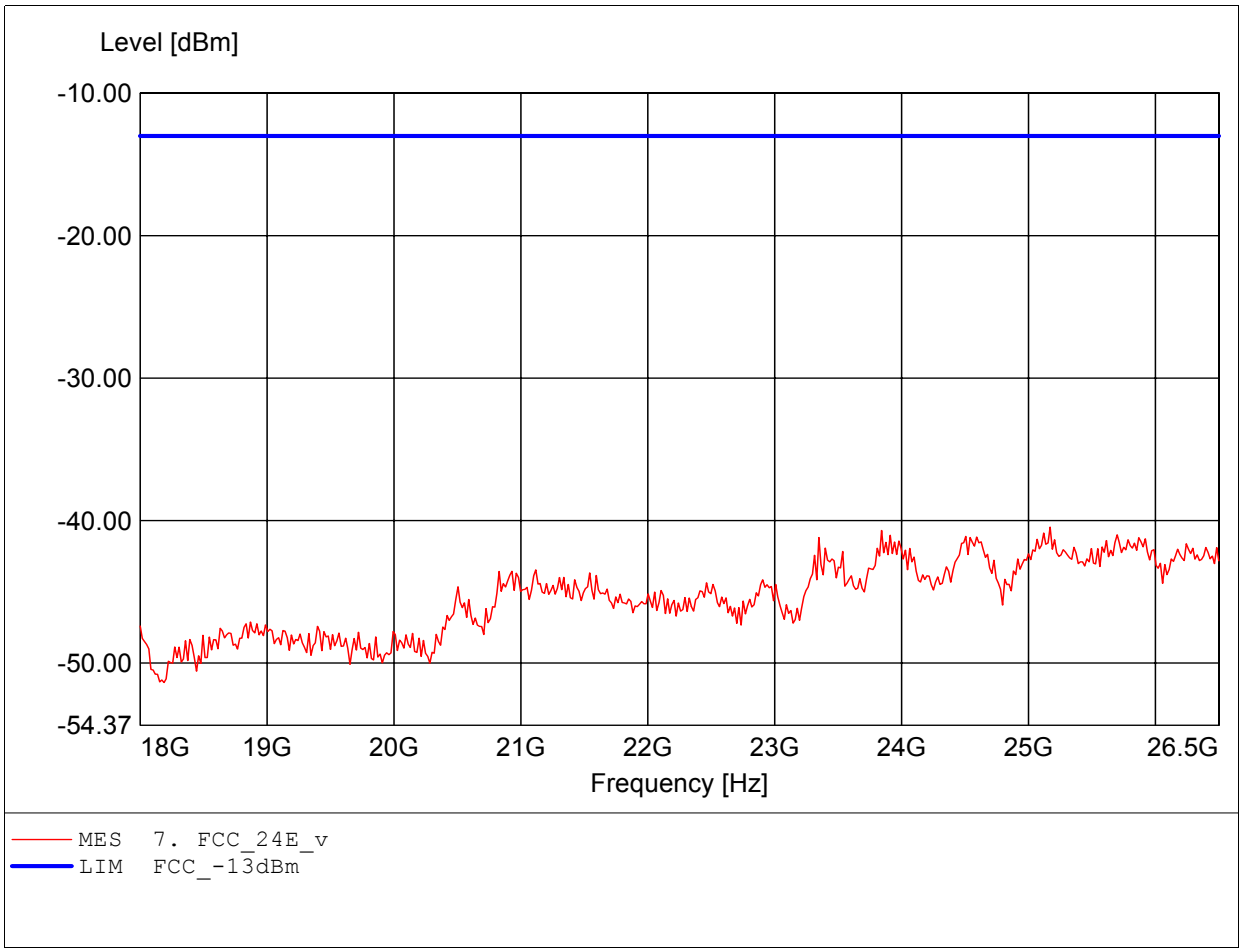
```
Order Number :          W6M20612-7664     1900 band  ch661
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, amplif.
                        Freq: 25.154GHz, Pmax: -40.26dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

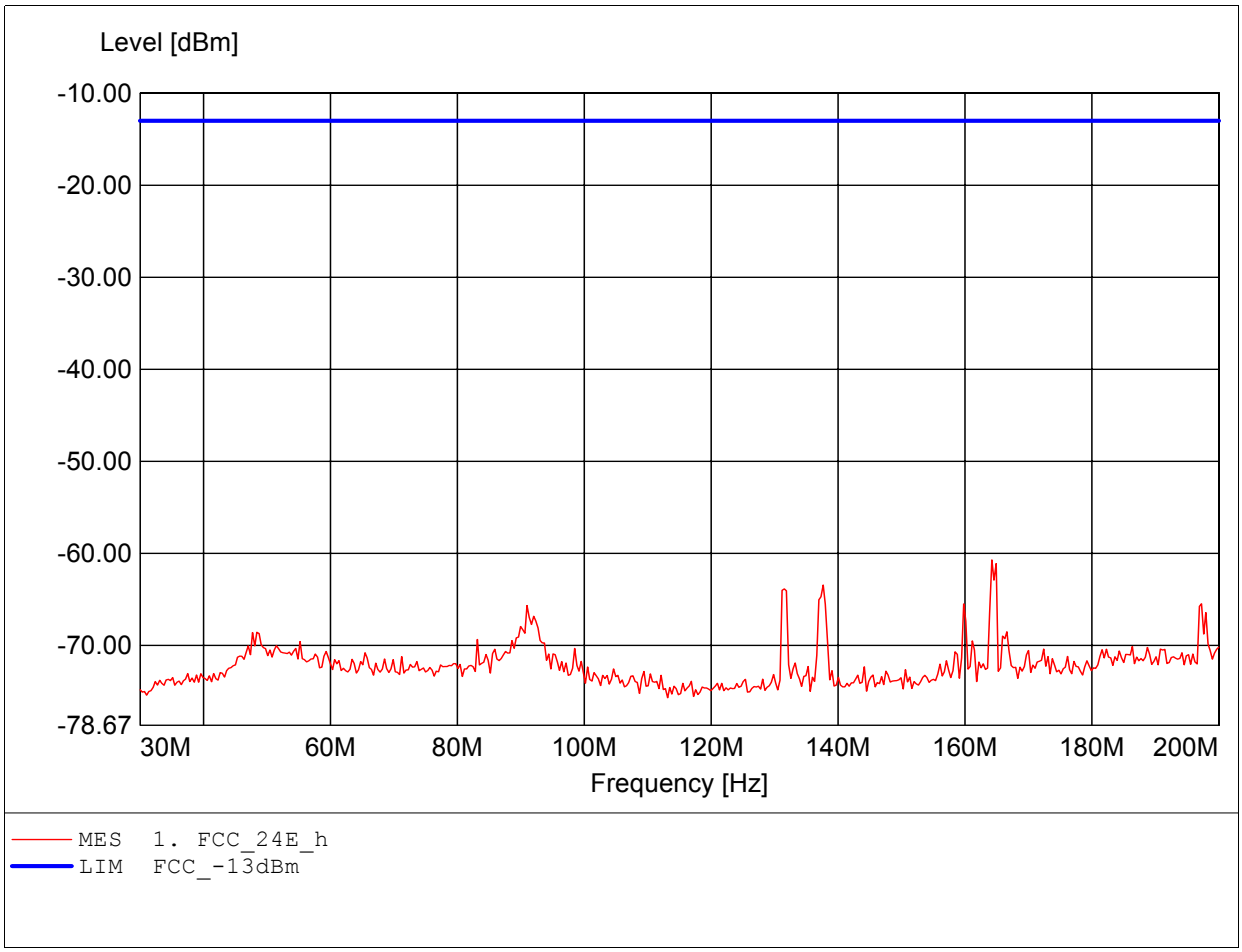
```
Order Number :          W6M20612-7664     1900 band  ch661
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, amplif.
                        Freq: 25.171GHz, Pmax: -40.45dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

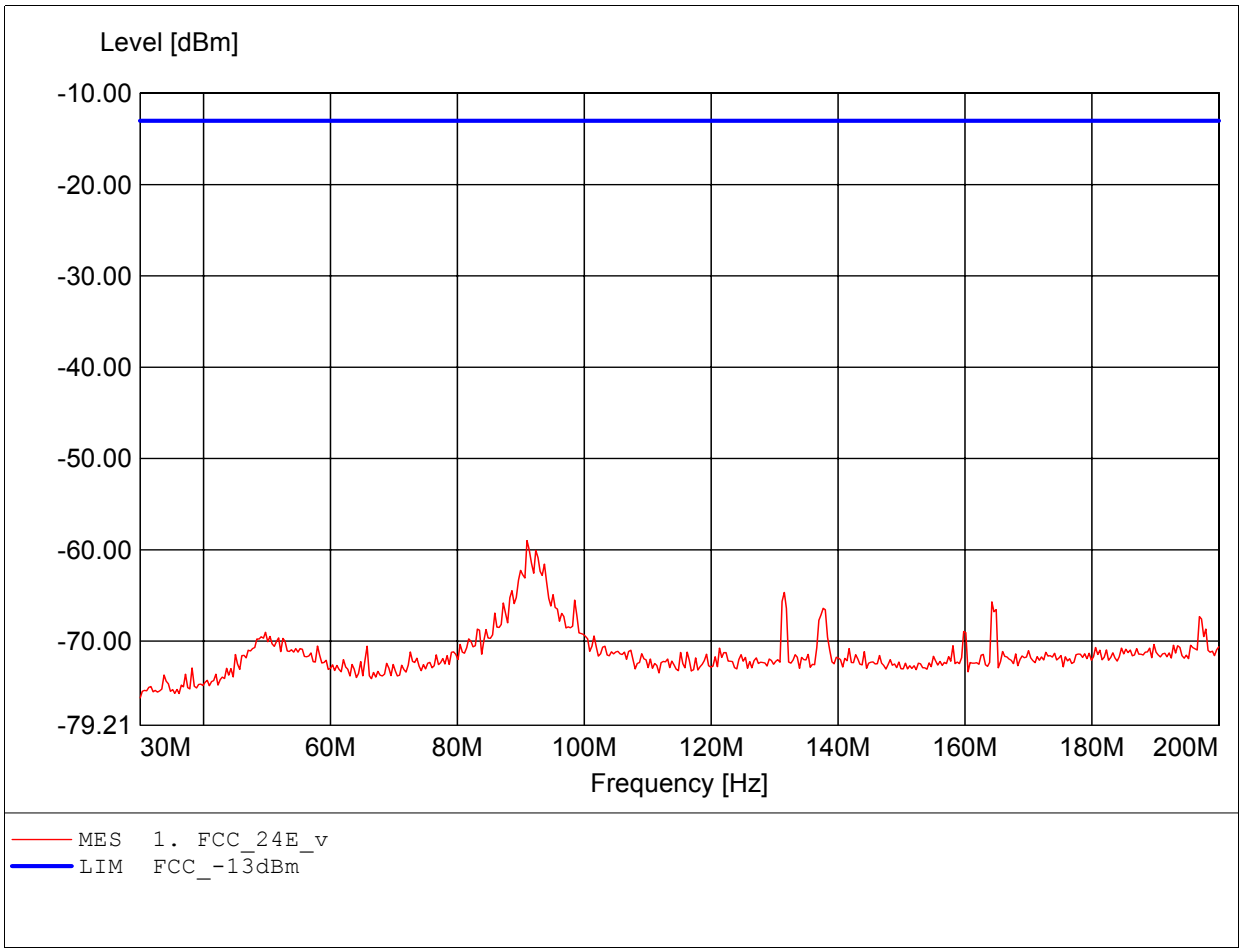
```
Order Number :          W6M20612-7664     1900 band  ch810
Test Site / Operator:   ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq: 164.228MHz, Pmax: -60.71dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

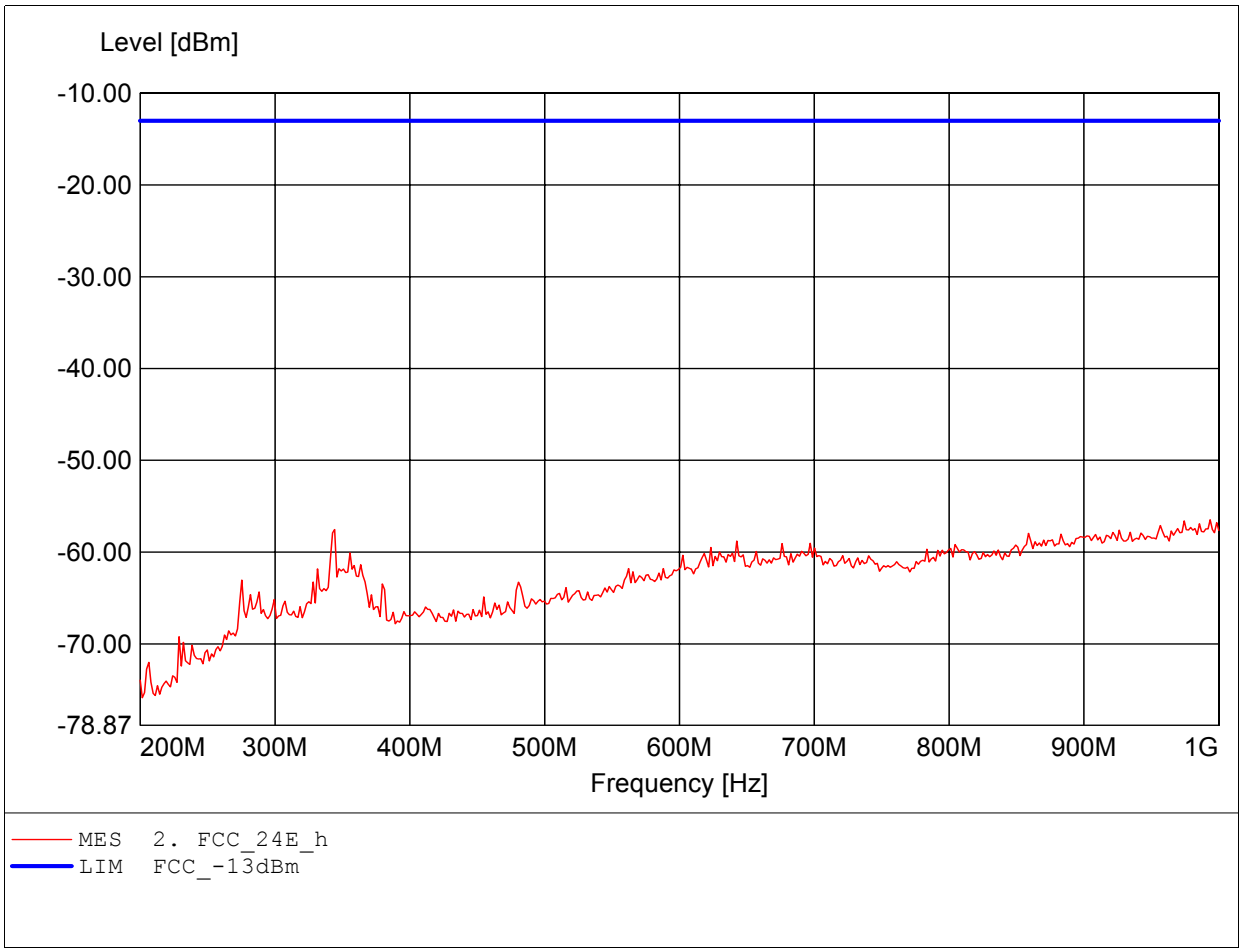
```
Order Number :          W6M20612-7664     1900 band  ch810
Test Site / Operator:   ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq: 90.982MHz, Pmax: -58.99dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

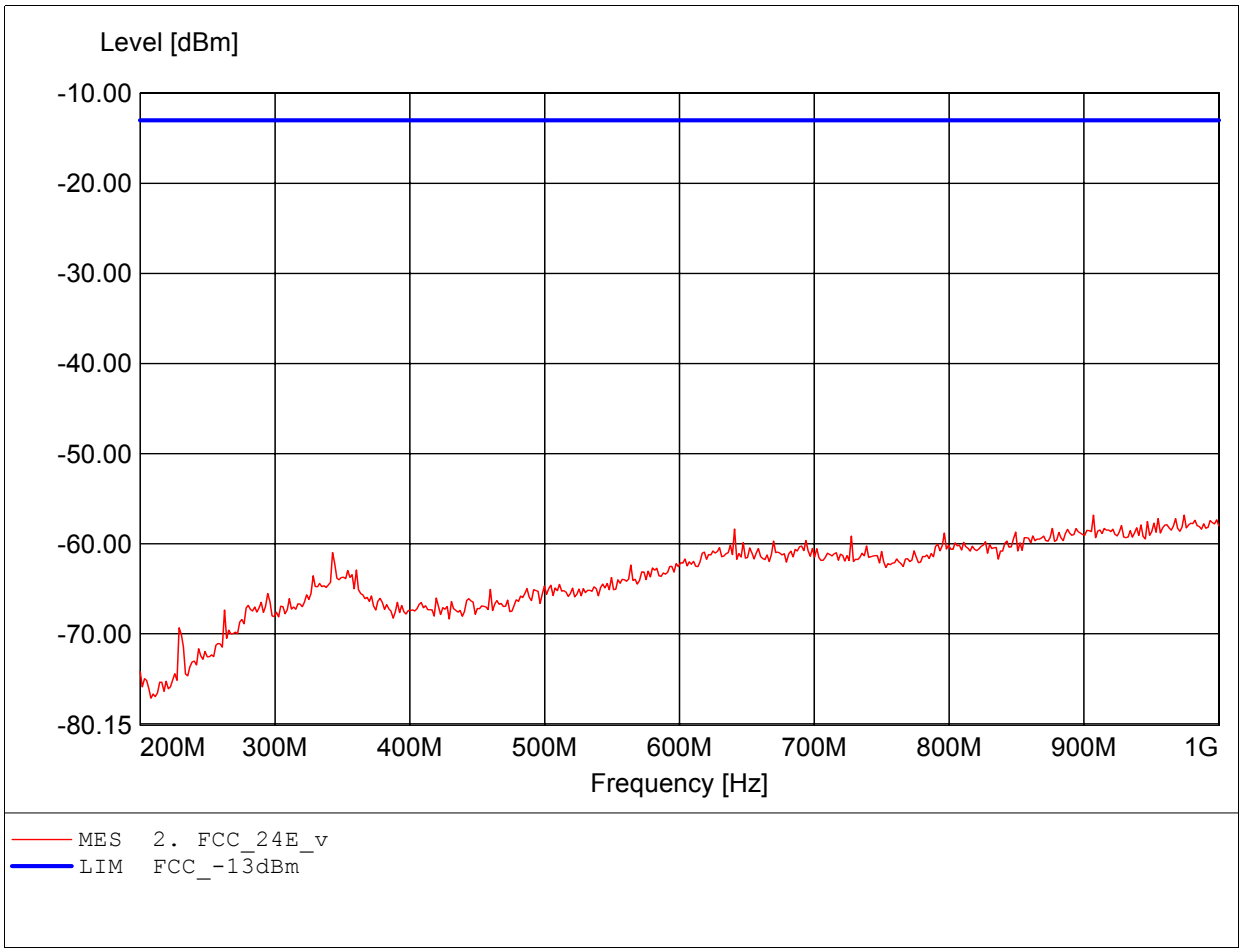
```
Order Number :          W6M20612-7664     1900 band  ch810
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL 223
                        Freq: 993.587MHz, Pmax: -56.48dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

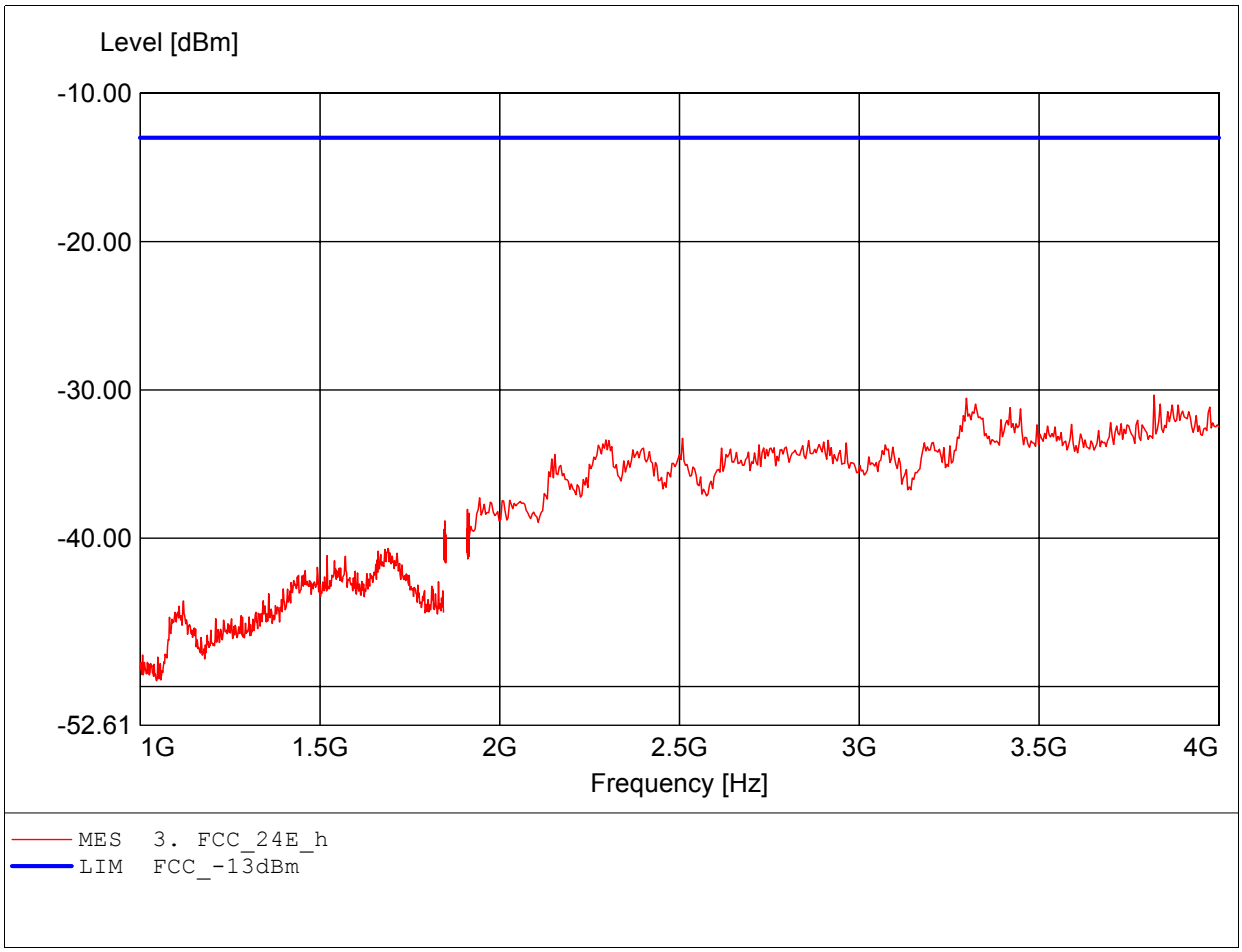
```
Order Number :          W6M20612-7664     1900 band  ch810
Test Site / Operator:   ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL 223
                        Freq: 907.014MHz, Pmax: -56.81dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

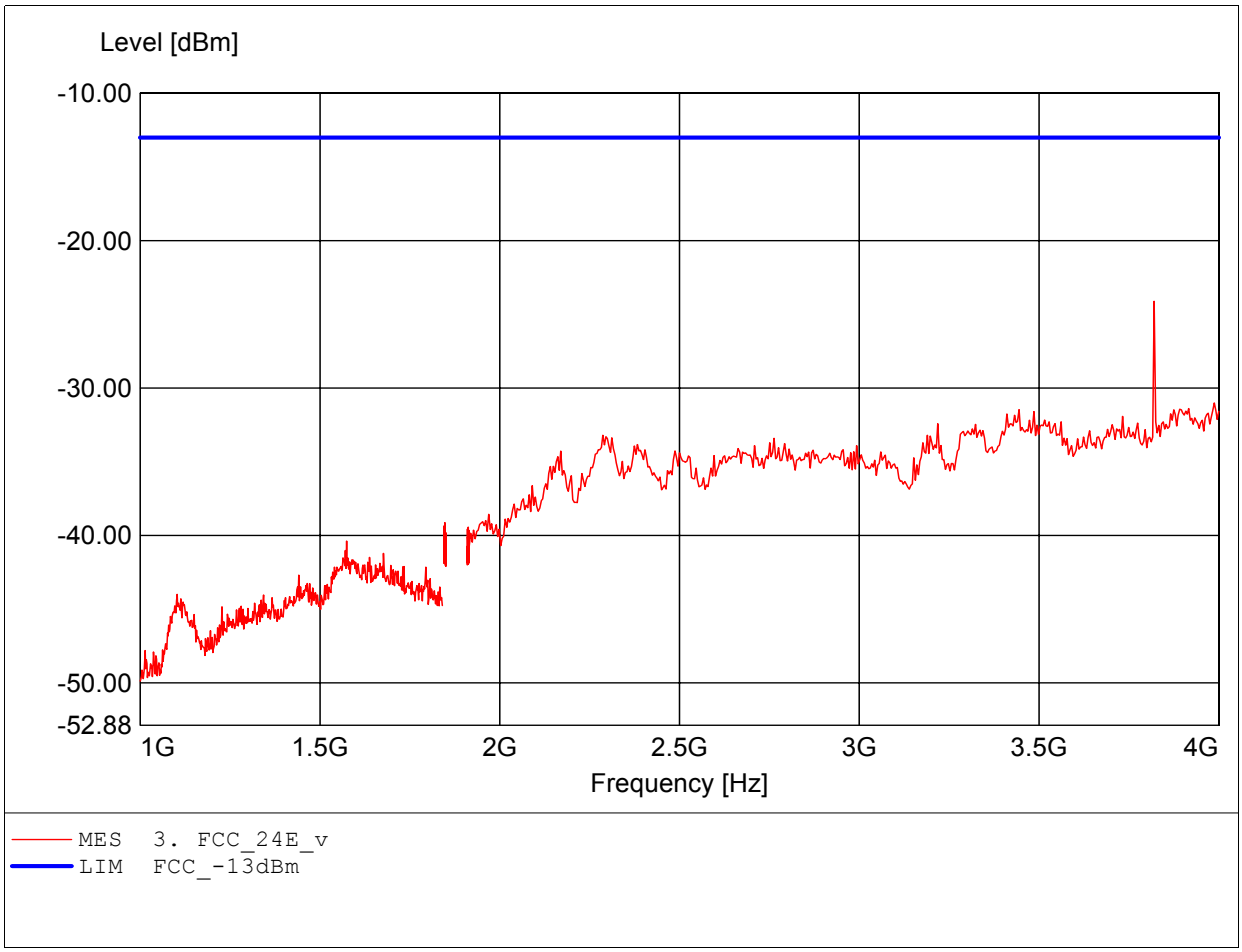
Order Number : W6M20612-7664 1900 band ch810
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to $24.238
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 3.820GHz, Pmax: -30.35dBm, RBW: 1MHz/3kHz



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

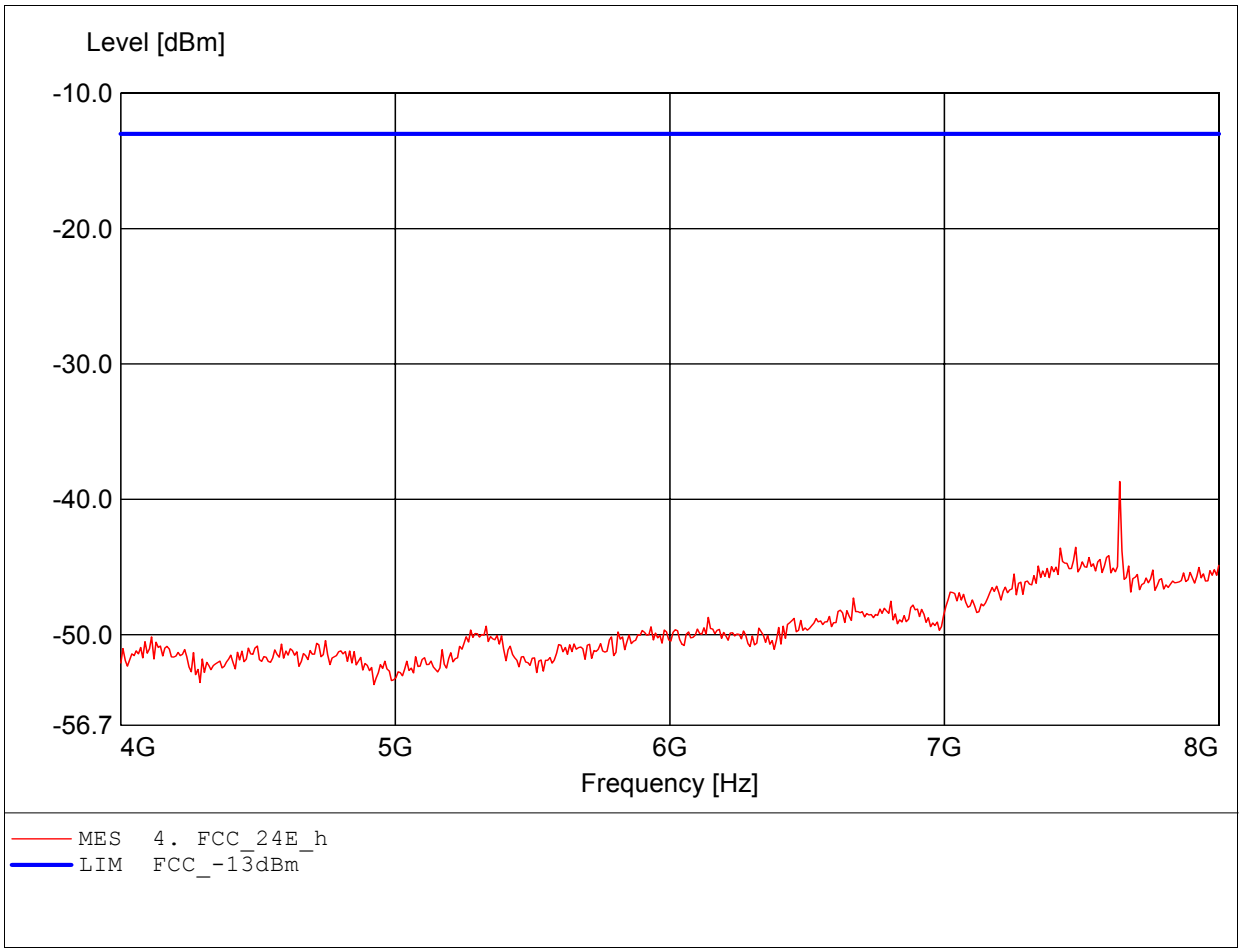
Order Number : W6M20612-7664 1900 band ch810
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to $24.238
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 3.820GHz, Pmax: -24.12dBm, RBW: 1MHz/3kHz



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

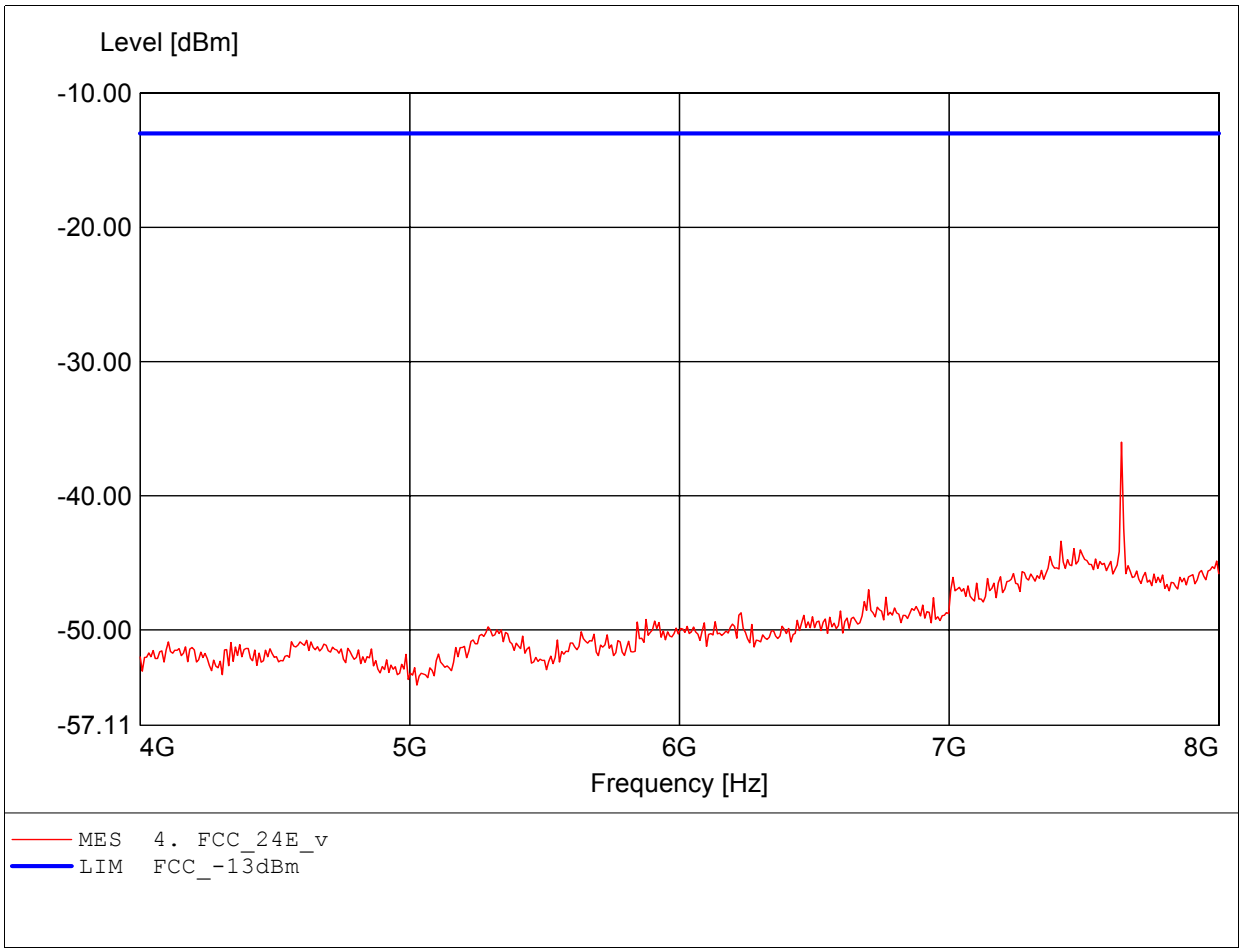
```
Order Number :          W6M20612-7664     1900 band  ch810
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 7.639GHz, Pmax: -38.69dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

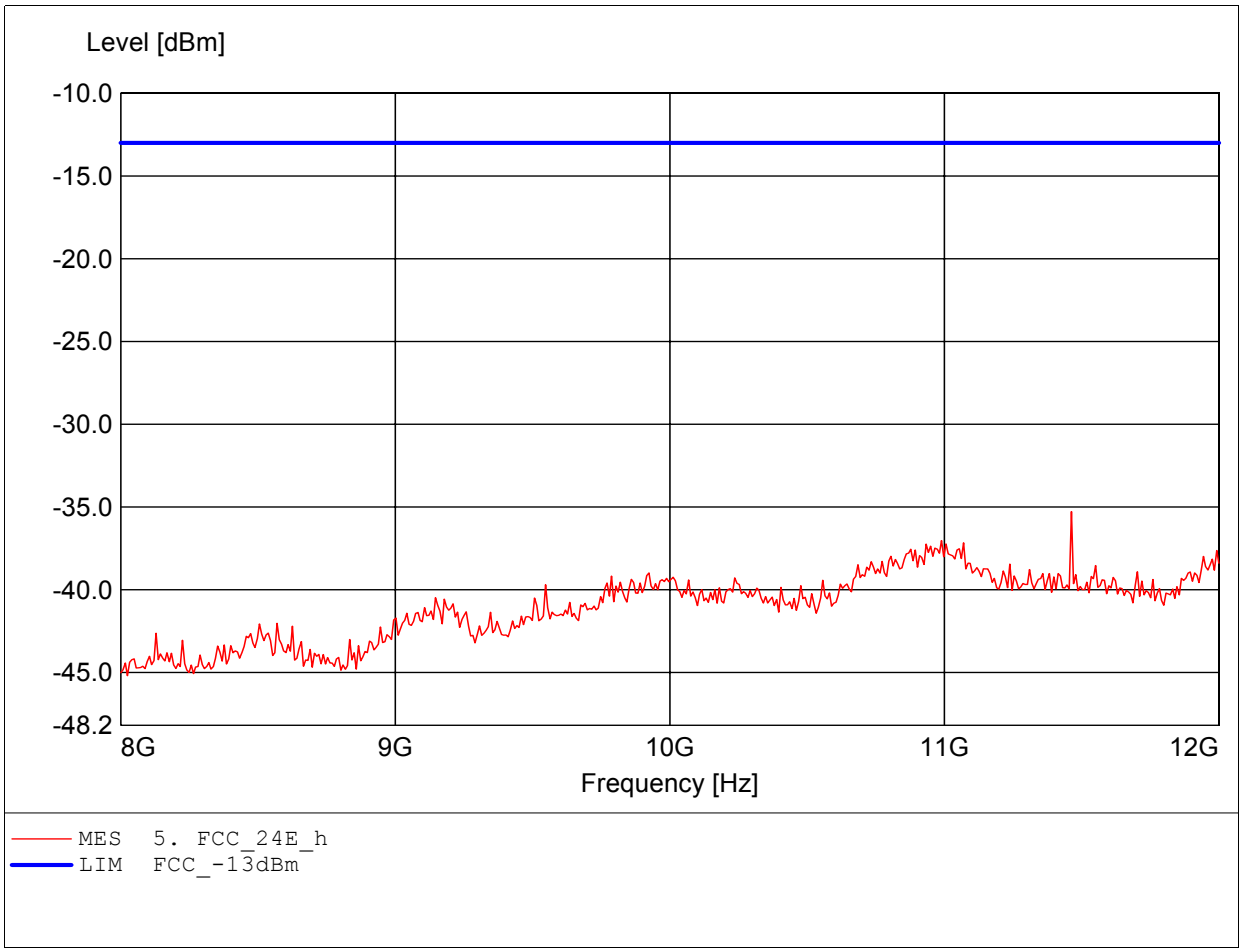
```
Order Number :          W6M20612-7664     1900 band  ch810
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 7.639GHz, Pmax: -36.01dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

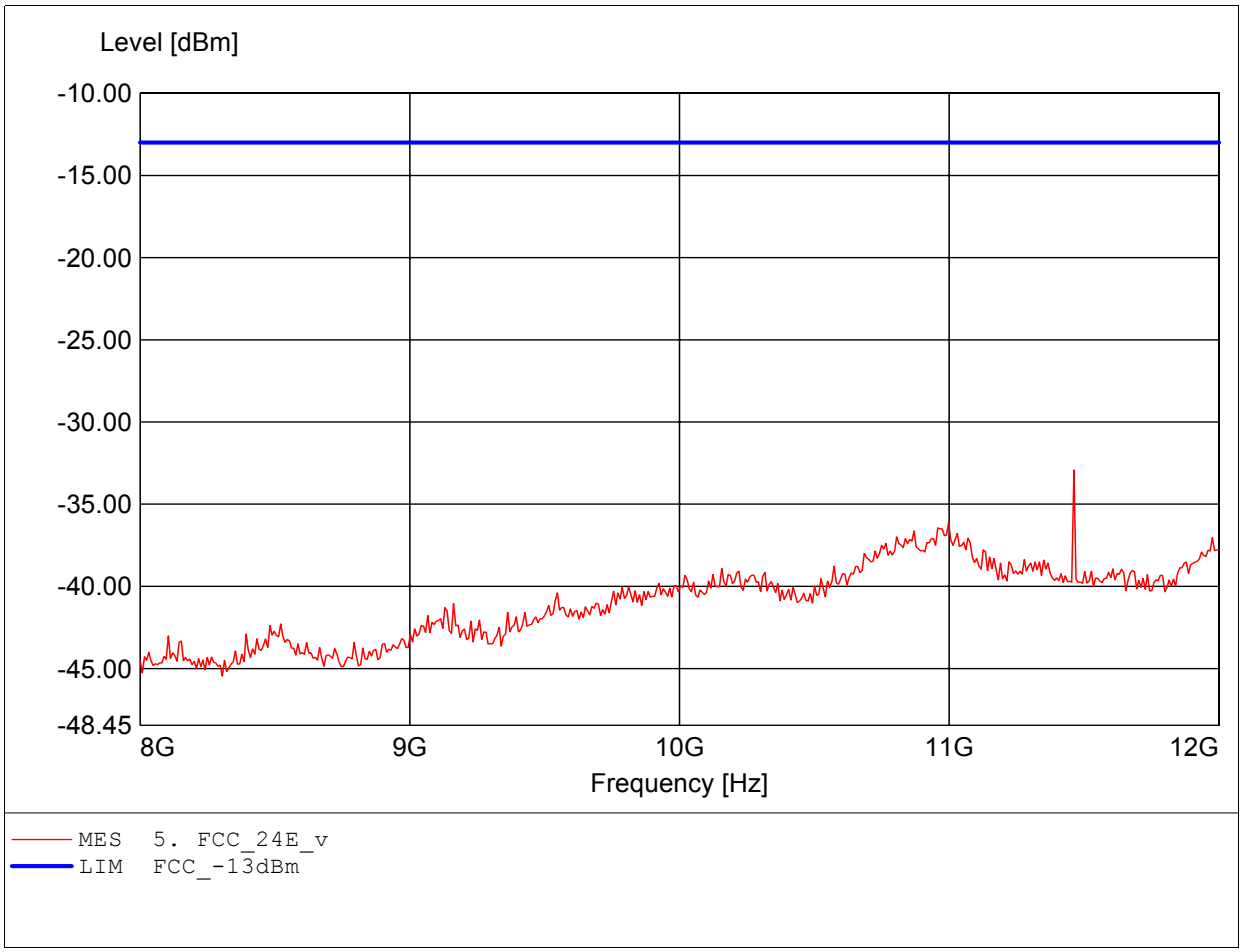
```
Order Number :          W6M20612-7664     1900 band  ch810
Test Site / Operator:   ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 11.463GHz, Pmax: -35.29dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

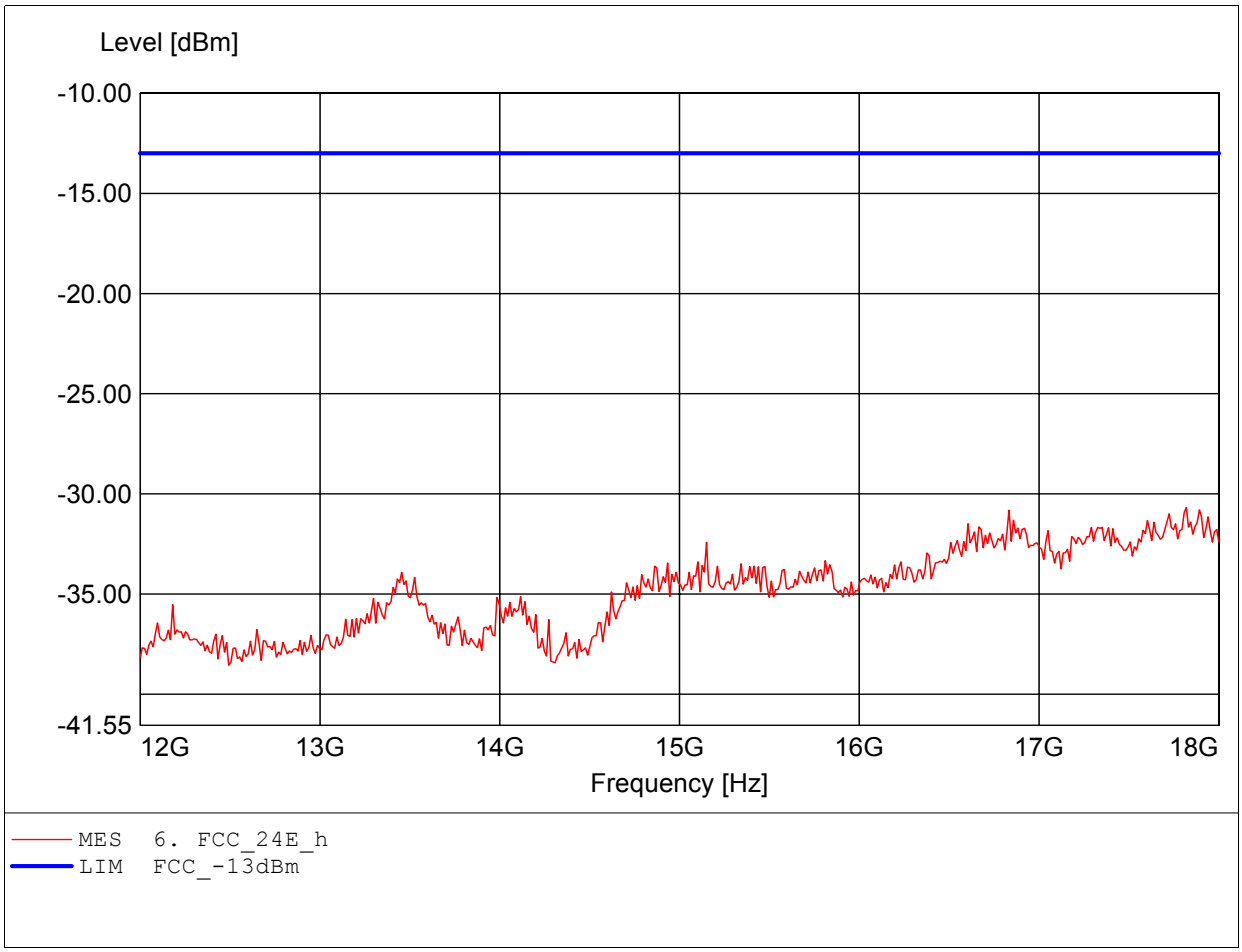
```
Order Number :          W6M20612-7664     1900 band  ch810
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 11.463GHz, Pmax: -32.92dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

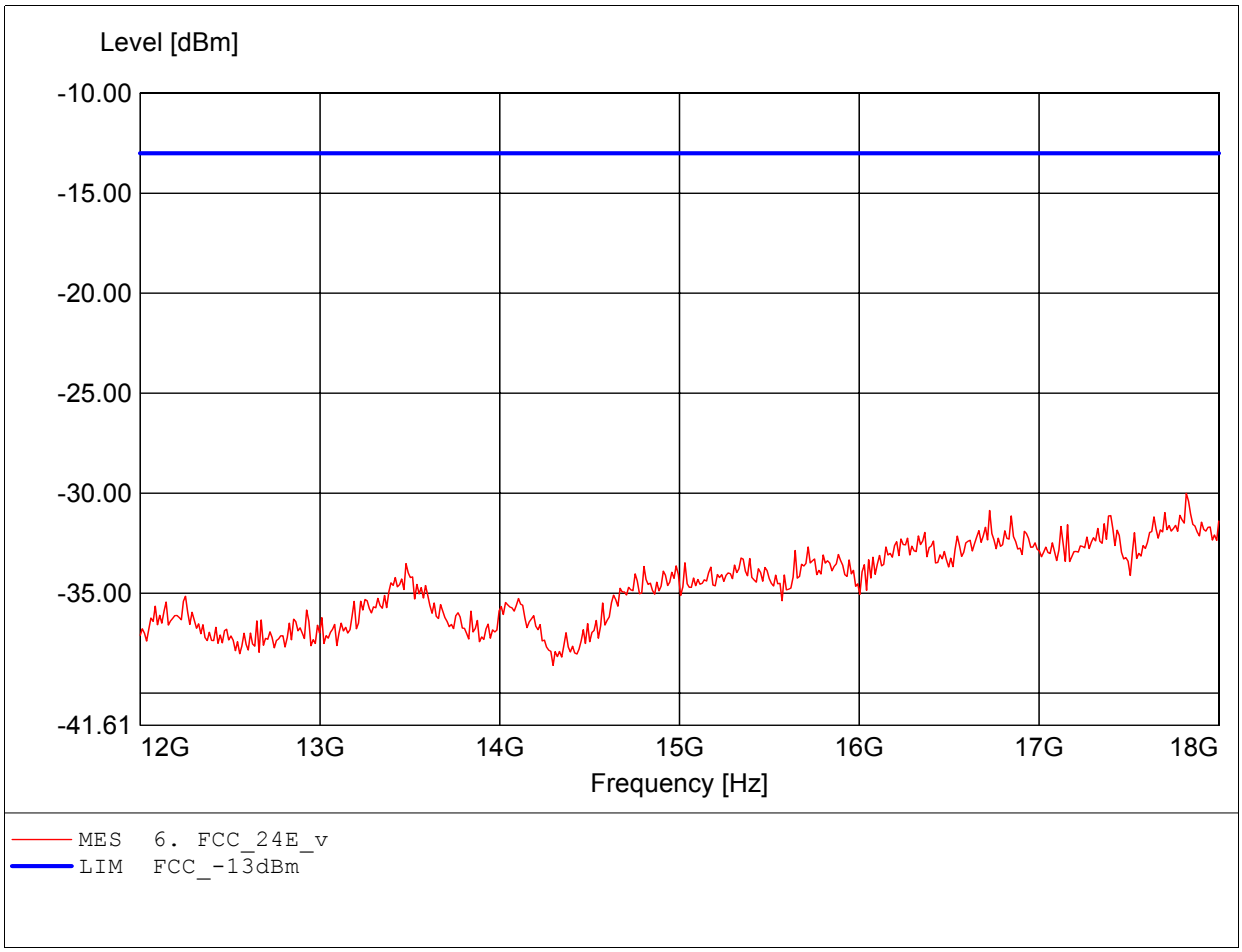
Order Number : W6M20612-7664 1900 band ch810
Test Site / Operator: ETS / Derek
Temperature:: Temp.: 23.9°C
according to $24.238
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 17.820GHz, Pmax: -30.69dBm, RBW: 1MHz



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

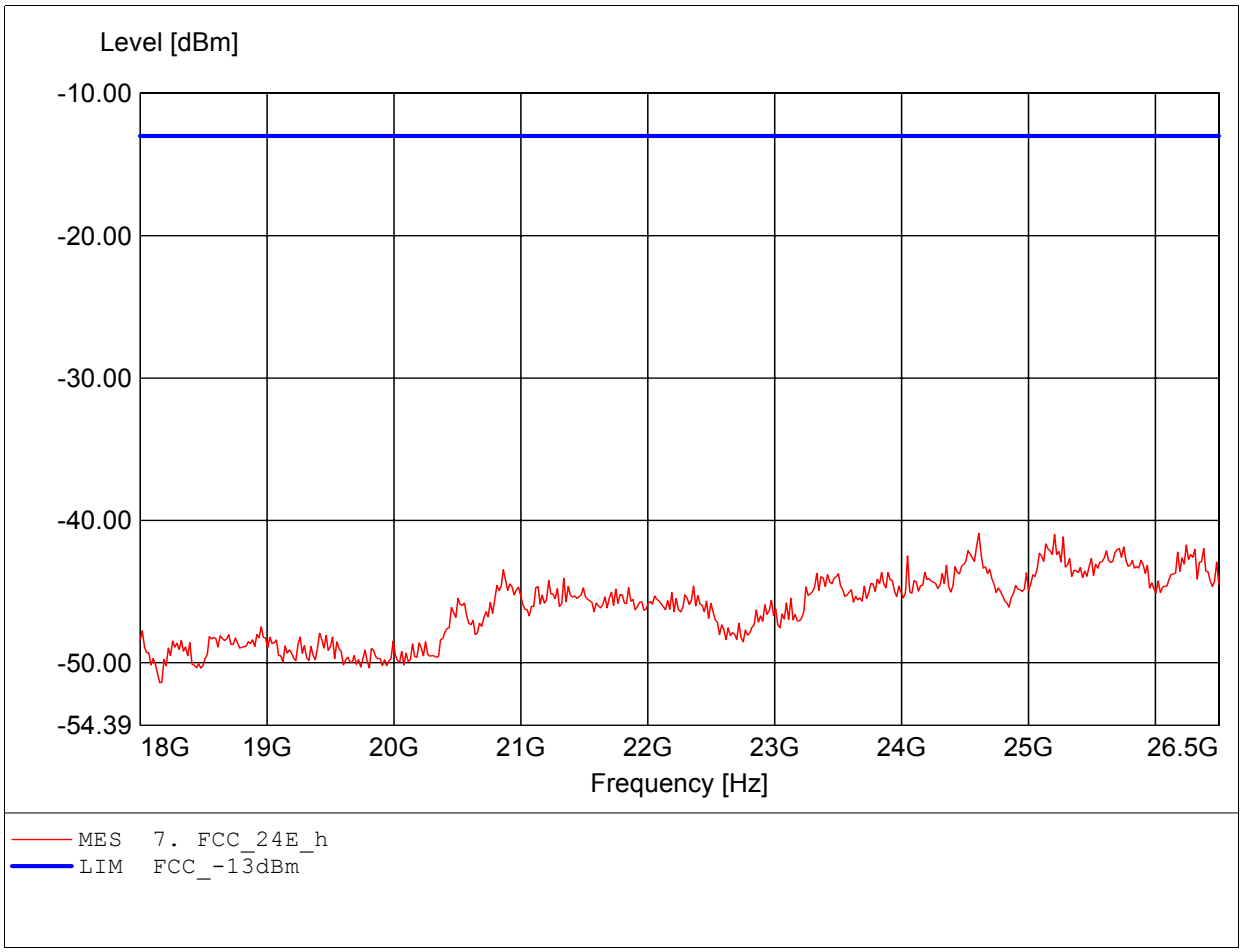
```
Order Number :          W6M20612-7664     1900 band  ch810
Test Site / Operator: ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 17.820GHz, Pmax: -30.01dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

```
Order Number :          W6M20612-7664     1900 band  ch810
Test Site / Operator:   ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, amplif.
                        Freq: 24.609GHz, Pmax: -40.91dBm, RBW: 1MHz
```



***Radiated Emissions Tx***

***FCC RULES PART 24 SUBPART E***

```
Order Number :          W6M20612-7664     1900 band  ch810
Test Site / Operator:   ETS / Derek
Temperature::           Temp.: 23.9°C
                        according to $24.238
Comment 1:              Dist.: 3m, Ant.: HL025, amplif.
                        Freq: 25.154GHz, Pmax: -40.97dBm, RBW: 1MHz
```