



# FCC Test Report

Test report no.: EMC\_544FCC22-24\_2003\_AC555

FCC Part 22,24 / RSS 133  
EUT: Tablet PC      Model: iX104-CDMA  
with CDMA Module   Model: AC555  
FCC ID: Q2GIX104-118  
IC ID: 4596A-iX104-CDMA



TTI-P-G 081/94-A0

Accredited according to ISO/IEC 17025



Bluetooth Qualification  
Test Facility  
(BQTF)



Authorized Testing Laboratory

FCC listed # 101450

IC recognized # 3925

## CETECOM Inc.

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| <b>1</b>   | <b>General information</b>     |
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The test results of this test report relate exclusively to the test item specified in 1.5. The CETECOM Inc. does not assume responsibility for any conclusions and generalisations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of the CETECOM Inc.

**TEST REPORT PREPARED BY:****EMC Engineer: Harpreet Sidhu****1.2 Testing laboratory**

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**1.3 Details of applicant**

**Name** : Xplore Technologies  
**Street** : 14000 Summit Road, Suite 900  
**City / Zip Code** : Autin, TX 78728  
**Country** : USA  
**Contact** : Douglas L. Fowler  
**Telephone** : +1 512 336 7797  
**Tele-fax** : +1 512 336 7791  
**e-mail** : [dfowler@xploretech.com](mailto:dfowler@xploretech.com)

**1.4 Application details**

Date of receipt test item : 2003-09-02  
Date of test : 2003-09-04/08

**1.5 Test item**

**Manufacturer** : Applicant  
**CDMA Module Mfg'er** : Sierra Wireless, Inc.  
**Street** : 13811 Wireless Way  
**City / Zip Code** : Richmond, BC V6V 3A4  
**Country** : Canada  
**Model No. (EUT)** : iX104-CDMA  
**Model No. (CDMA)** : AC555  
**Description** : CDMA module in Tablet PC  
**FCC ID** : Q2GIX104-118  
**IC-ID** : 4596A-iX104-CDMA

**Additional information**

**Frequency** : 825.25MHz – 847.75MHz for Cellular 850,  
1851.25MHz – 1908.75MHz for PCS 1900  
**Type of modulation** : OQPSK  
**Number of channels** : 833(Cellular)/1199 (PCS)  
**Antenna** : Embedded  
**Power supply** : 5.0VDC from Host  
**Output power** : 27.07dBm (509.33mW) max. ERP measured in Cellular 850  
26.97dBm (497.73mW) max. EIRP measured in PCS 1900  
**Extreme temp. Tolerance** : Lower:-30°C Upper: +50°C

**1.6 Test standards**

FCC Part 22,24 / RSS133 r1


**Note:** All radiated measurements were made in all three orthogonal planes. The values reported are the maximum values.

**2 Technical test****2.1 Summary of test results**


|  |               |
|--|---------------|
| No deviations from the technical specification(s) were ascertained in the course of the tests<br>Performed |               |
| Final Verdict:<br>(only "passed" if all single measurements are "passed")                                  | <b>Passed</b> |

**NOTE: This test report covers only radiated testing done on Tablet PC model# iX104 with CDMA module model# AC555. For all RF Conducted measurements on CDMA module please refer to test report# 2054479**

**Technical responsibility for area of testing:**

|             |                |  |   |
|-------------|----------------|--|---|
| 2003-10-10  | EMC & Radio    | Siegfried Lehmann<br>(Technical Manager) |  |
| <b>Date</b> | <b>Section</b> | <b>Name</b>                              | <b>Signature</b>  |

**Responsible for test report and project leader:**

|             |                |                               |   |
|-------------|----------------|-------------------------------|---|
| 2003-10-10  | EMC & Radio    | Harpreet Sidhu (EMC Engineer) |  |
| <b>Date</b> | <b>Section</b> | <b>Name</b>                   | <b>Signature</b>  |

## **2.2 Test report**

**TEST REPORT**

**Test report no.: EMC\_544FCC22-24\_2003\_AC555**

**TEST REPORT REFERENCE**

| <b>PARAMETER TO BE MEASURED</b>                      | <b>PARAGRAPH</b>                  | <b>PAGE</b> |
|--|-----------------------------------|-------------|
| <b>POWER OUTPUT</b>                                  | <b>§ 22.913(a) / § 24.232 (b)</b> | <b>7</b>    |
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**POWER OUTPUT****§ 22.913(a) / § 24.232 (b)****Summary:**

During the process of testing, the EUT was set to transmit on low, mid & high channels.

This paragraph contains average output power, peak output power, EIRP & ERP measurements for the EUT. In all cases, the peak output power is within the specified limits.

**Method of Measurements:**

The EUT was set up for the max. Output power with pseudo random data modulation.

The power was measured with R&S Spectrum Analyzer ESIB 40 (peak)

These measurements were done at 3 frequencies,

825.25 MHz, 836.5 MHz and 847.75 MHz (bottom, middle and top of operational frequency range) for Cellular-850

1851.25 MHz, 1880.0 MHz and 1908.75 MHz (bottom, middle and top of operational frequency range) for PCS-1900

ERP (Cellular-850)

§22.913(a)

**Limits:**

|                       |
|-----------------------|
| <b>Burst Peak ERP</b> |
| <b>≤38.45dBm (7W)</b> |

**EIRP**

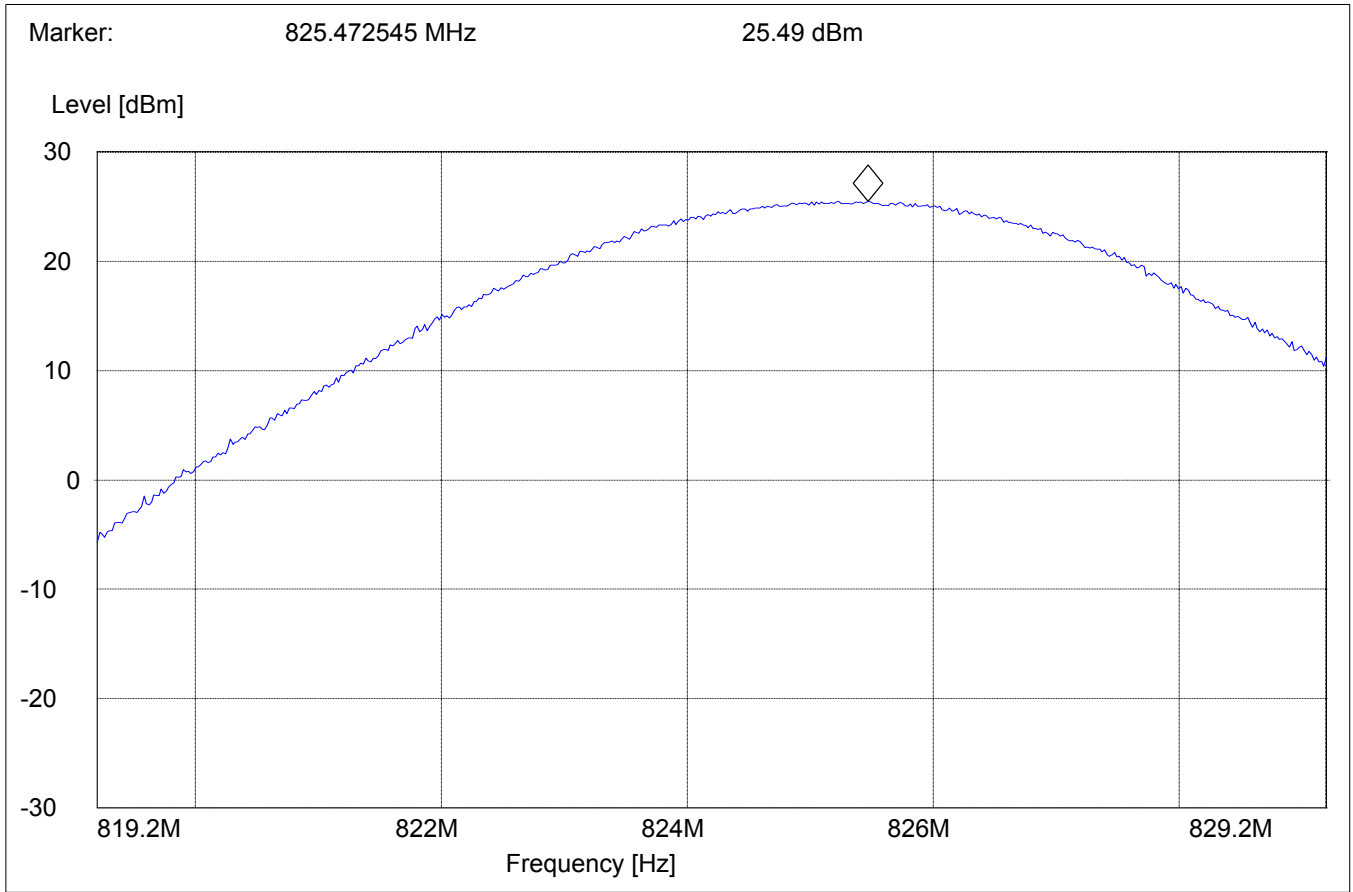
| Frequency<br>(MHz)      | Burst Peak<br>(dBm) |       |
|-------------------------|---------------------|-------|
|                         | EIRP                | ERP   |
| 825.25                  | 25.49               | 23.39 |
| 836.5                   | 26.65               | 24.55 |
| 847.75                  | 29.17               | 27.07 |
| Measurement uncertainty | ±0.5 dB             |       |

ANALYZER SETTINGS: RBW = VBW = 3MHz



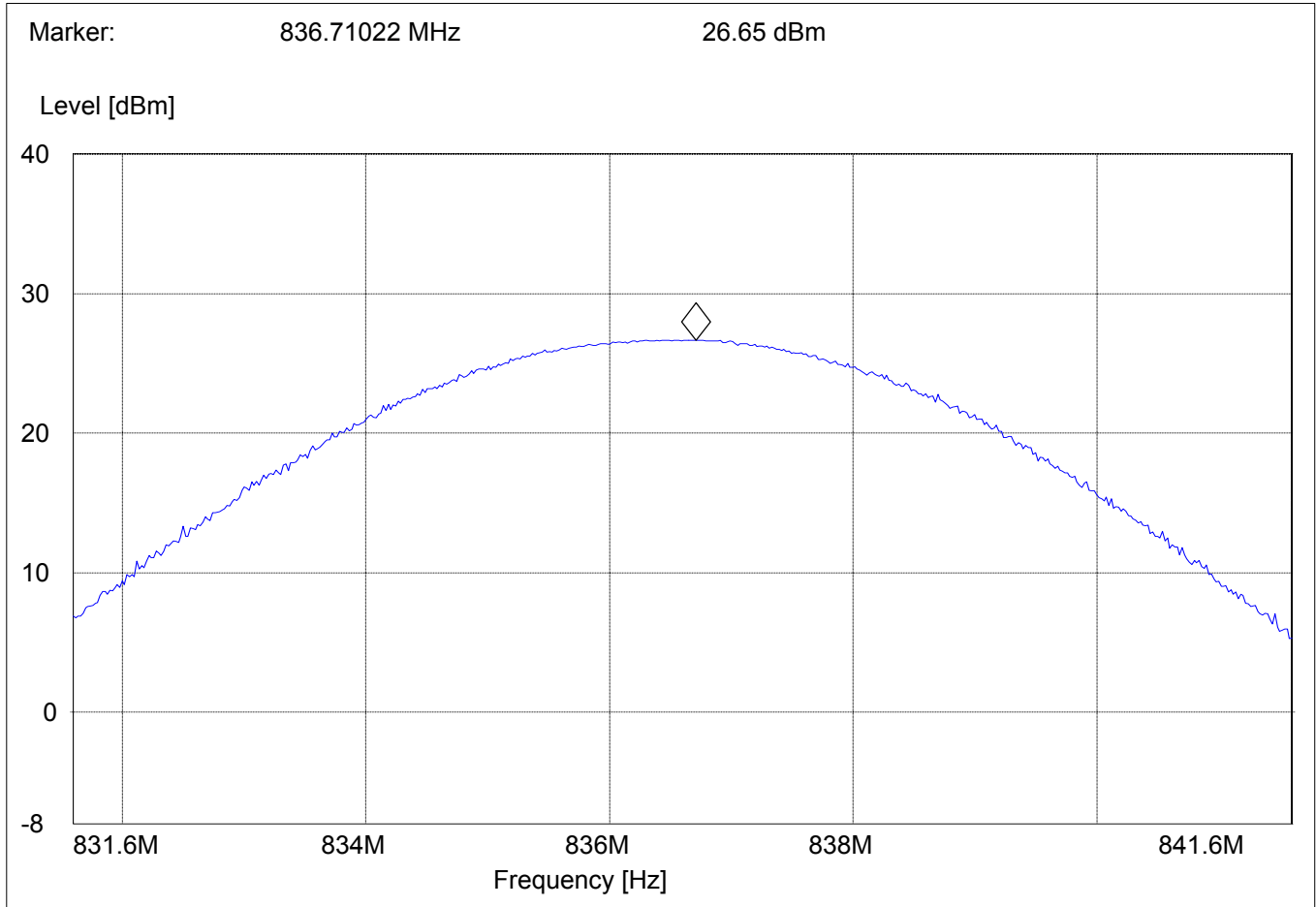
**EIRP (Cellular-850)**  
**CHANNEL: Low**

**§22.913(a)**



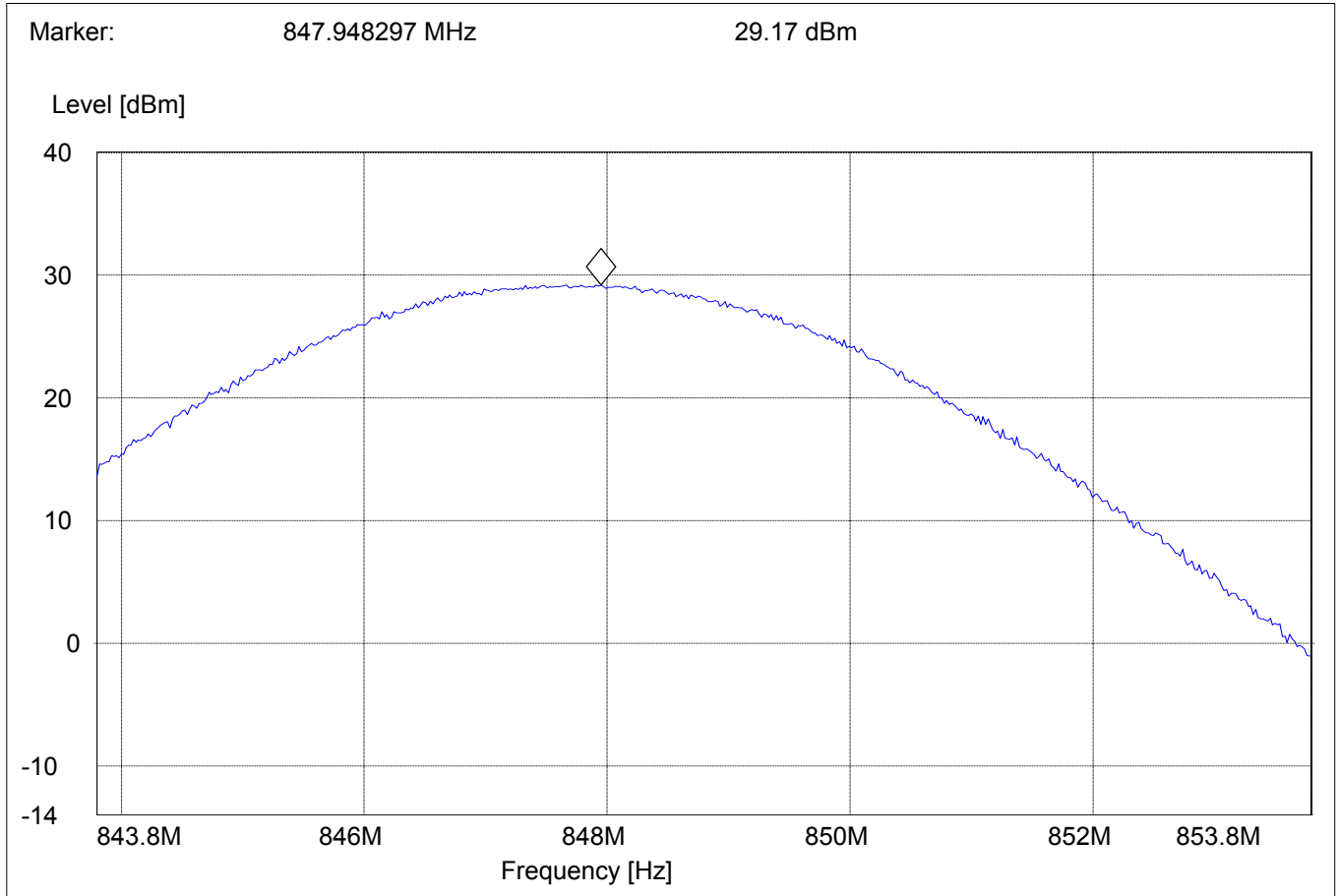
**EIRP (Cellular-850)**  
**CHANNEL: Mid**

**§22.913(a)**



**EIRP (Cellular-850)**  
**CHANNEL: High**

**§22.913(a)**



**EIRP (PCS-1900)****§24.232(b)****Limits:**

|                        |
|------------------------|
| <b>Burst Peak EIRP</b> |
| <b>≤33dBm (1W)</b>     |

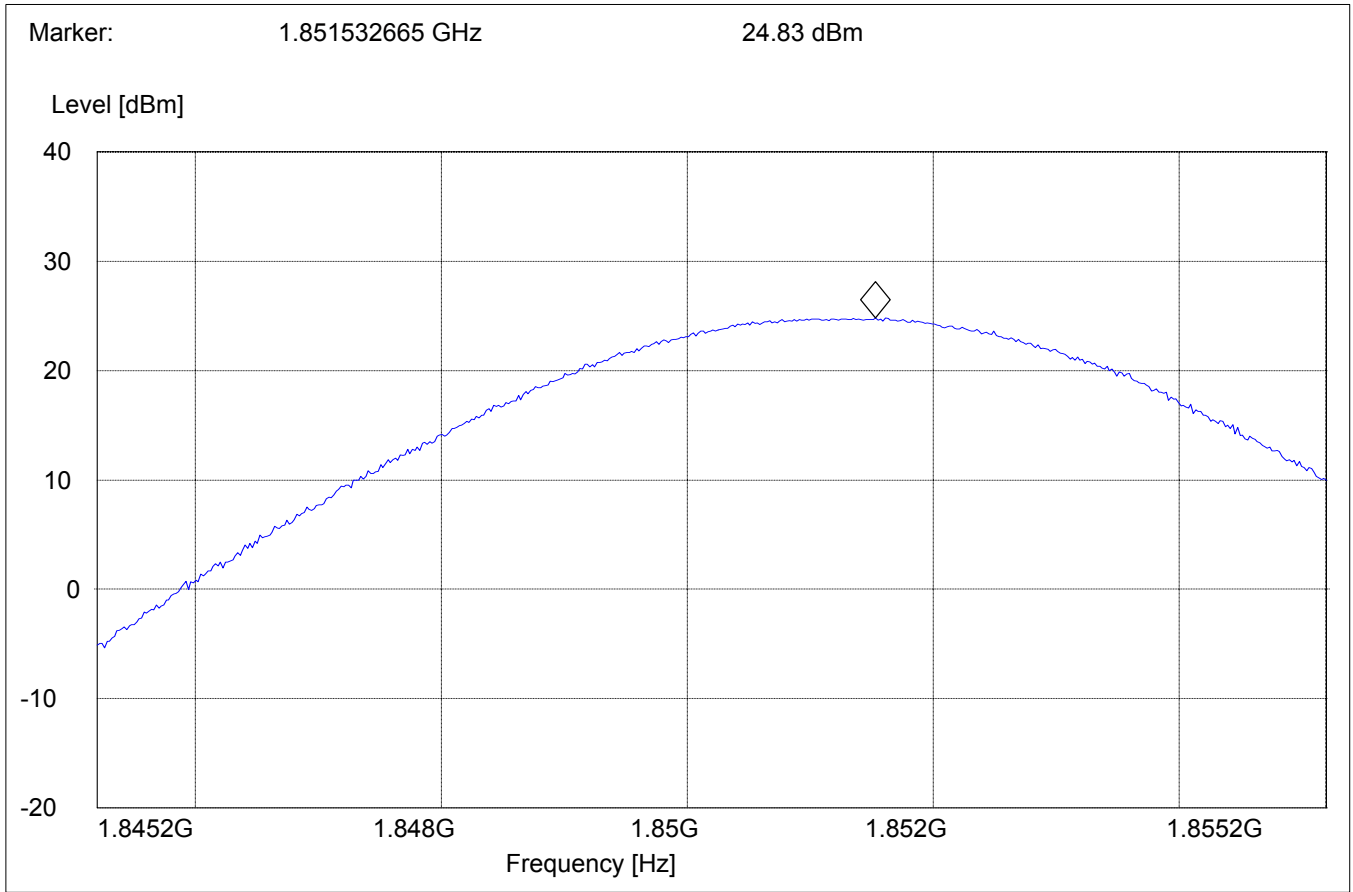
**EIRP**

| <b>Frequency<br/>(MHz)</b>     | <b>Burst Peak<br/>(dBm)</b> |
|--------------------------------|-----------------------------|
|                                | <b>EIRP</b>                 |
| <b>1851.25</b>                 | <b>24.83</b>                |
| <b>1880</b>                    | <b>26.97</b>                |
| <b>1908.75</b>                 | <b>26.33</b>                |
| <b>Measurement uncertainty</b> | <b>±0.5 dB</b>              |

ANALYZER SETTINGS: RBW = VBW = 3MHz

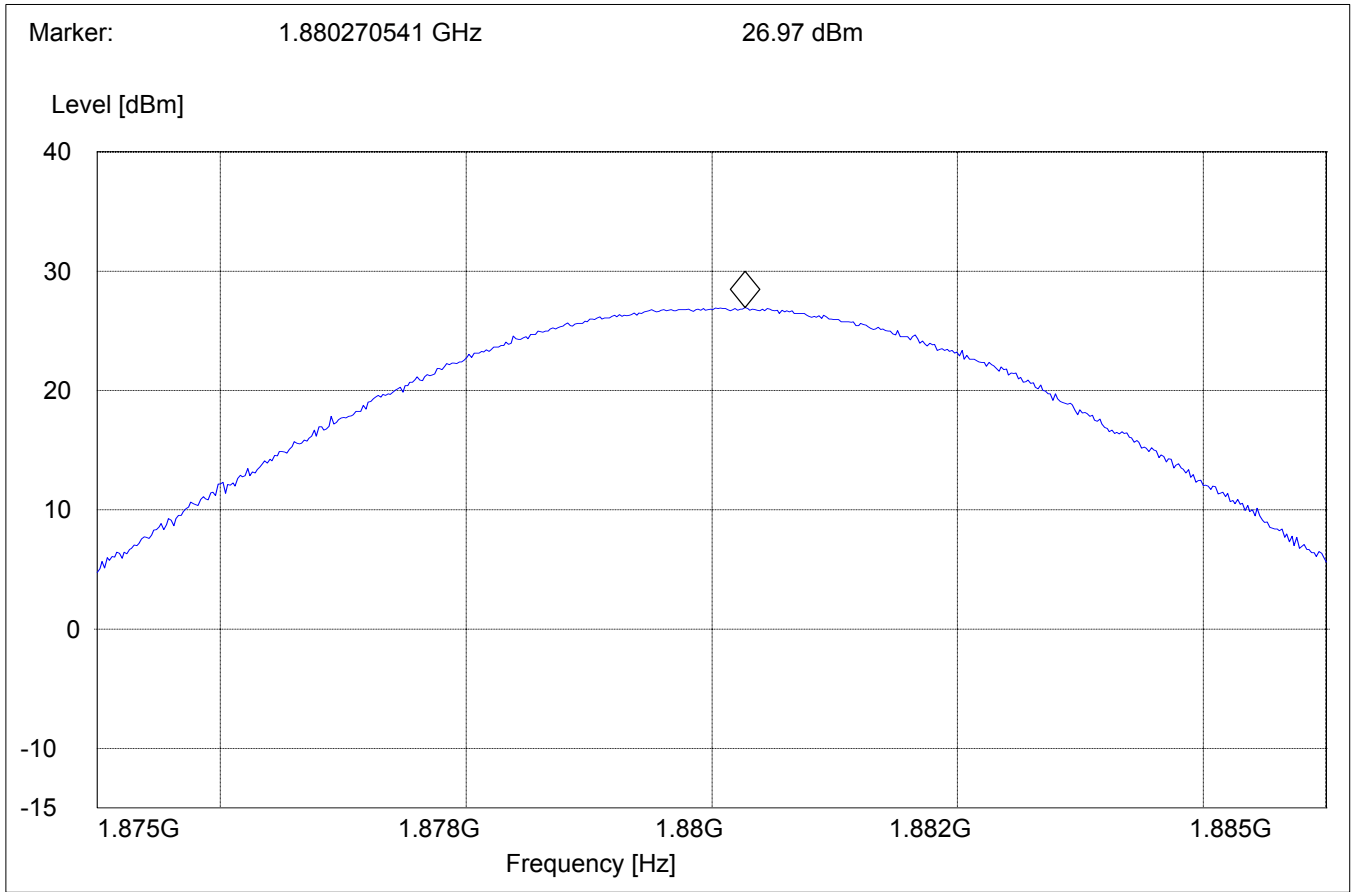
**EIRP (PCS-1900)**  
CHANNEL Low

§24.232(b)



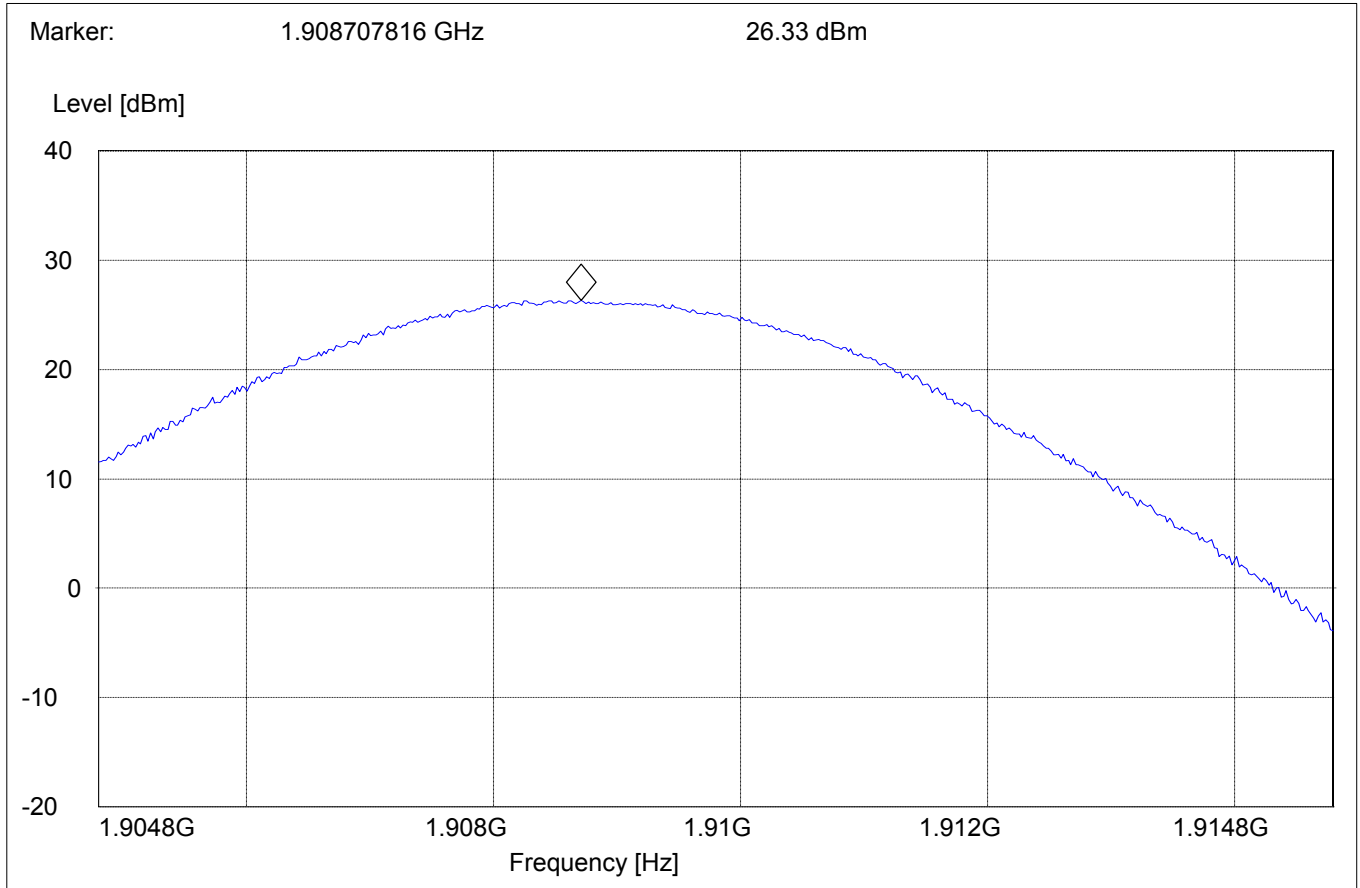
**EIRP (PCS-1900)**  
**CHANNEL Mid**

**§24.232(b)**



**EIRP (PCS-1900)**  
**CHANNEL High**

**§24.232(b)**



**EMISSION LIMITS TRANSMITTER****§2.1051 / §24.238****Measurement Procedure:**

The following steps outline the procedure used to measure the radiated emissions from the EUT. The site is constructed in accordance with ANSI C63.4 – 1992 requirements and is recognised by the FCC. The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment, which is the transmitted carrier that can be as high as 847.75MHz for Cellular-850 & 1908.75 MHz for PCS-1900. The resolution bandwidth is set as outlined in Part 24.238. The spectrum was scanned with the mobile station transmitting at carrier frequencies that pertain to low, mid and high channels of the Cellular-850 & PCS-1900 bands.

**The final Radiated emission test procedure is as follows:**

- a) The test item was placed on a 0.8 meter high non-conductive stand at a 3 meter test distance from the receive antenna.
- b) The antenna output was terminated in a 50-ohm load.
- c) A double-ridged wave guide antenna was placed on an adjustable height antenna mast 3 meters from the test item for emission measurements.
- d) Detected emissions were maximized at each frequency by rotating the test item and adjusting the receive antenna height and polarization. The maximum meter reading was recorded. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic were measured with peak detector and 1MHz bandwidth. If the harmonic could not be detected above the noise floor, the ambient level was recorded. The equivalent power into a dipole antenna was determined by the substitution method described for ERP measurements.

**Measurement Limit:**

Sec. 24.238 Emission Limits.

(a) On any frequency outside a licensee's frequency block (e.g. A, D, B, etc.) within the USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least  $43 + 10 \log(P)$  dB. The specification that emissions shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

**Measurement Results:**

Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of the Cellular-850 & PCS-1900 bands. It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of the Cellular-850 & PCS-1900 band into any of the other blocks respectively. The equipment must still, however, meet emissions requirements with the carrier at all frequencies over which it is capable of operating and it is the manufacturer's responsibility to verify this.



**RADIATED SPURIOUS EMISSIONS (Cellualr-850)****Tx @ 825.25MHz: 30MHz - 1GHz**

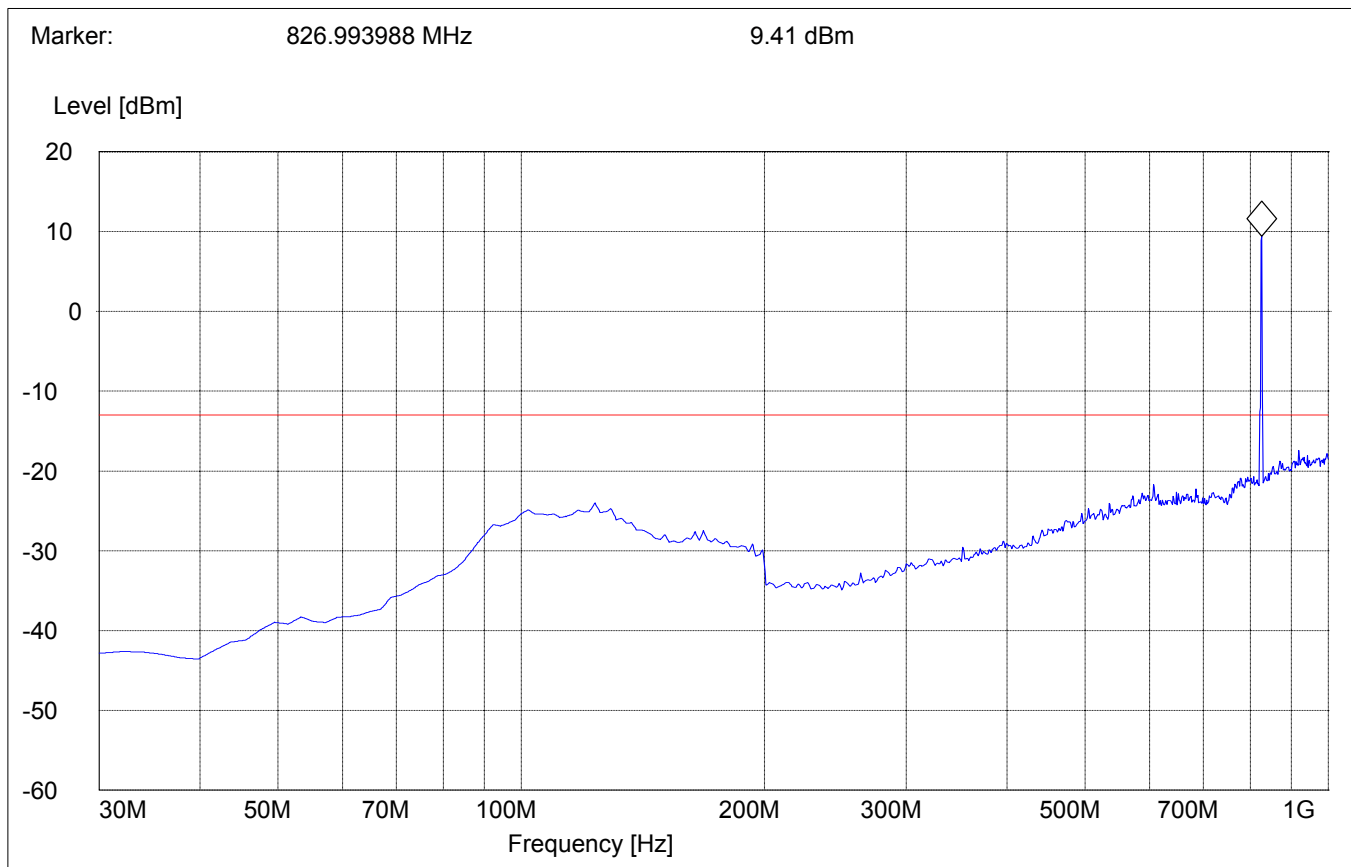
Spurious emission limit -13dBm

***SWEEP TABLE: "FCC 22 Spur 30M-1G"***

| <i>Start</i>     | <i>Stop</i>      | <i>Detector</i> | <i>Meas.</i> | <i>RBW/VBW</i> |
|------------------|------------------|-----------------|--------------|----------------|
| <i>Frequency</i> | <i>Frequency</i> | <i>Time</i>     |              |                |
| 30MHz            | 1GHz             | Max Peak        | Coupled      | 1 MHz          |

**Note:**

- 1.The peak above the limit line is the carrier freq.**
- 2.This plot is valid for low, mid & high channels (worst-case plot)**

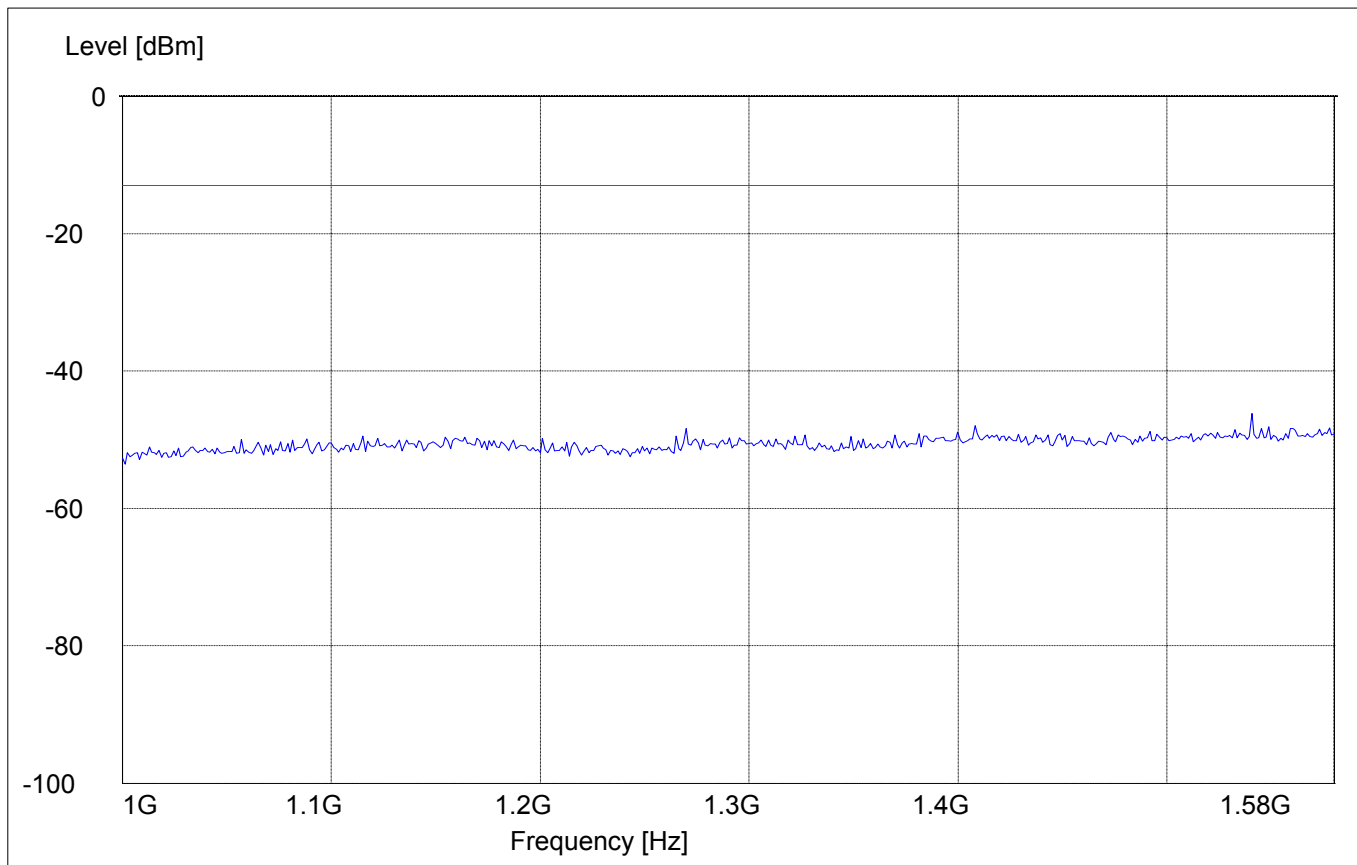


**RADIATED SPURIOUS EMISSIONS (GSM-850)****Tx @ 825.25MHz: 1GHz – 1.58GHz**

Spurious emission limit -13dBm

***SWEEP TABLE: "FCC 22 Spur 1-1.58G"***

| <i>Start</i>     | <i>Stop</i>      | <i>Detector</i> | <i>Meas.</i> | <i>RBW/VBW</i> |
|------------------|------------------|-----------------|--------------|----------------|
| <i>Frequency</i> | <i>Frequency</i> |                 | <i>Time</i>  |                |
| 1GHz             | 1.58GHz          | Max Peak        | Coupled      | 1 MHz          |

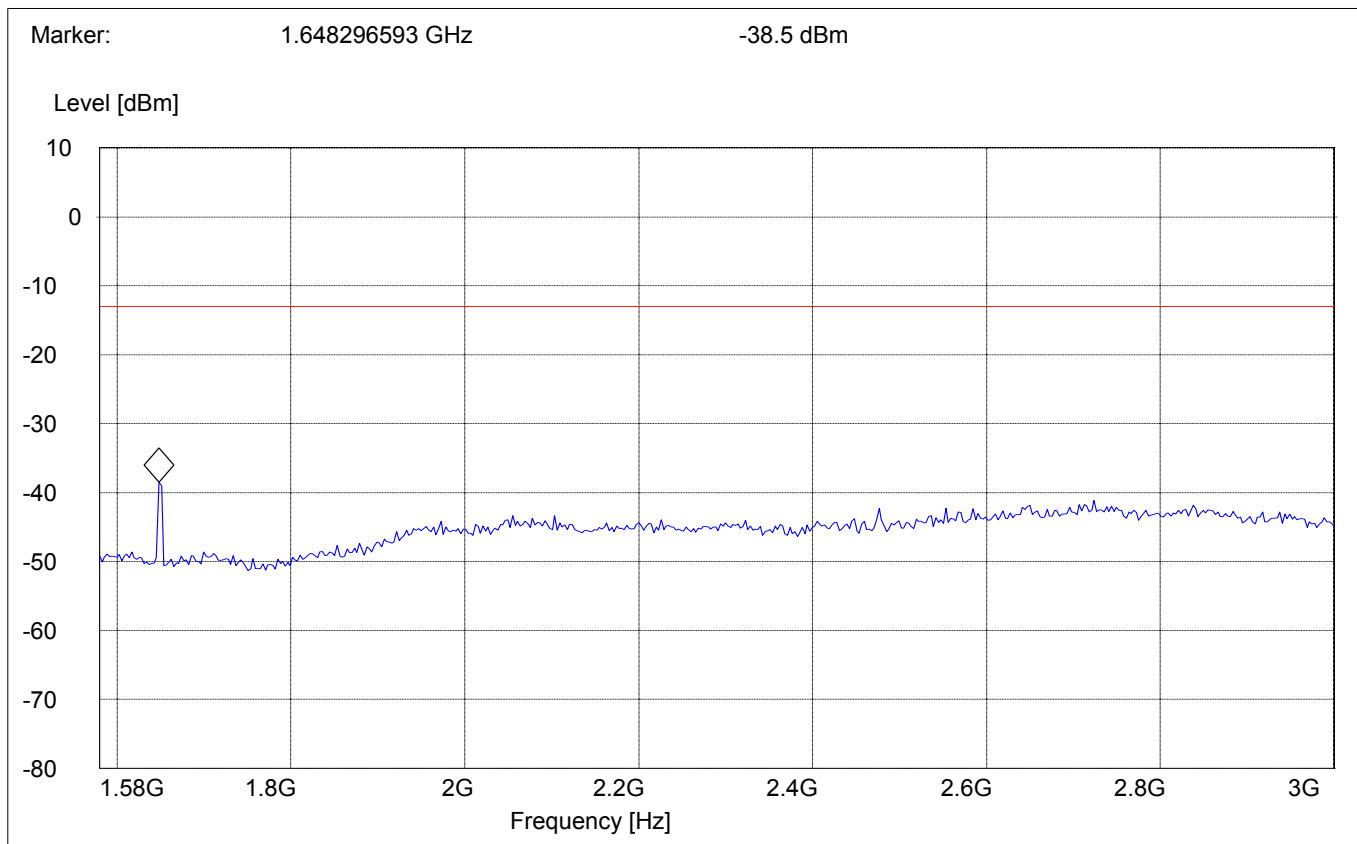


**RADIATED SPURIOUS EMISSIONS (GSM-850)****Tx @ 825.25MHz: 1.58GHz – 3GHz**

Spurious emission limit -13dBm

**SWEEP TABLE: "FCC 22 Spur 1.58-3G"**

| Start Frequency | Stop Frequency | Detector | Meas. Time | RBW/VBW |
|-----------------|----------------|----------|------------|---------|
| 1.58GHz         | 3GHz           | Max Peak | Coupled    | 1 MHz   |

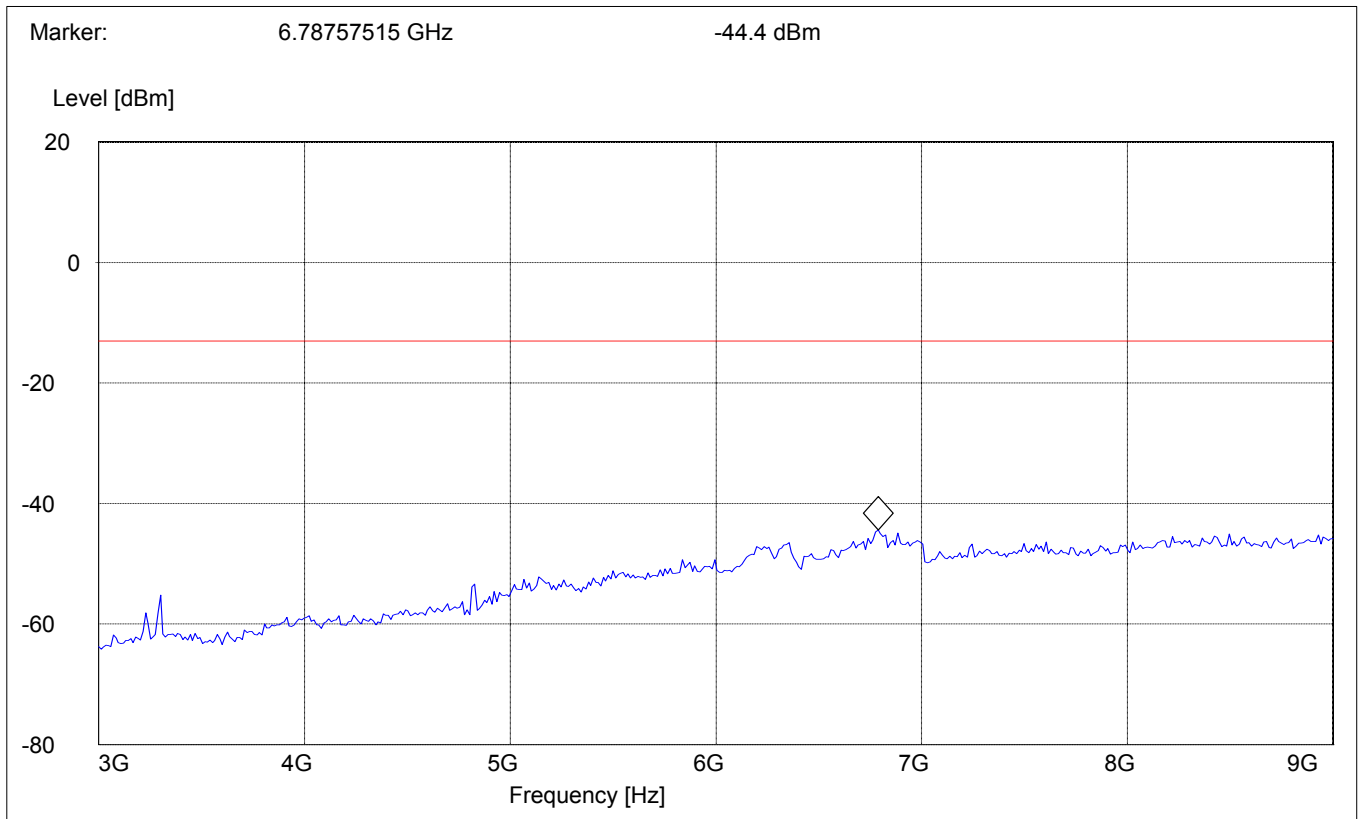


**RADIATED SPURIOUS EMISSIONS (GSM-850)****Tx @ 825.25MHz: 3GHz – 9GHz**

Spurious emission limit –13dBm

**SWEEP TABLE: "FCC 22 Spur 3-9G"**

| Start Frequency | Stop Frequency | Detector | Meas. Time | RBW/VBW |
|-----------------|----------------|----------|------------|---------|
| 3GHz            | 9GHz           | Max Peak | Coupled    | 1 MHz   |

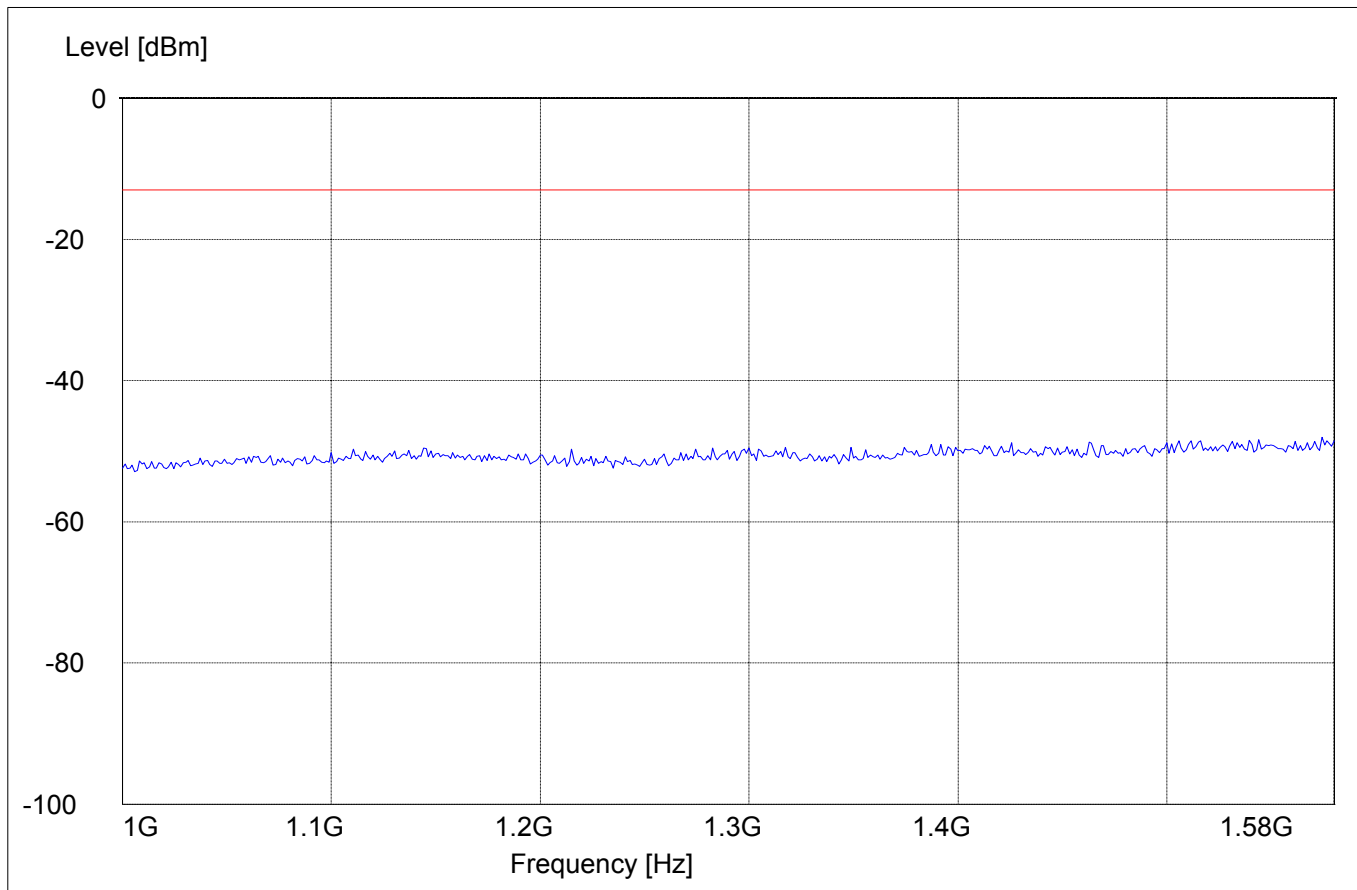


**RADIATED SPURIOUS EMISSIONS (GSM-850)****Tx @ 836.5MHz: 1GHz – 1.58GHz**

Spurious emission limit -13dBm

***SWEEP TABLE: "FCC 22 Spur 1-1.58G"***

| <i>Start</i>     | <i>Stop</i>      | <i>Detector</i> | <i>Meas.</i> | <i>RBW/VBW</i> |
|------------------|------------------|-----------------|--------------|----------------|
| <i>Frequency</i> | <i>Frequency</i> |                 | <i>Time</i>  |                |
| 1GHz             | 1.58GHz          | Max Peak        | Coupled      | 1 MHz          |

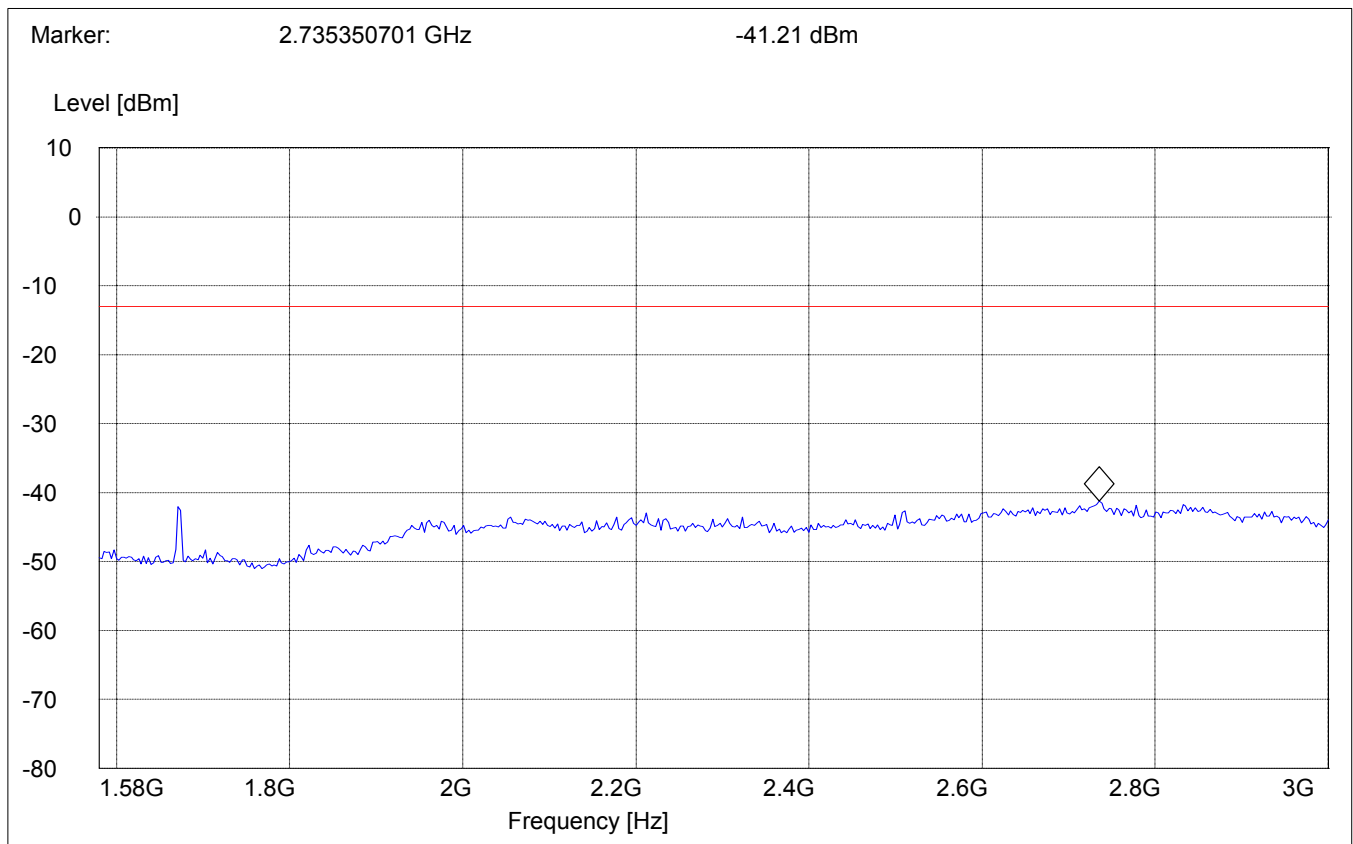


**RADIATED SPURIOUS EMISSIONS (GSM-850)****Tx @ 836.5MHz: 1.58GHz – 3GHz**

Spurious emission limit -13dBm

**SWEEP TABLE: "FCC 22 Spur 1.58-3G"**

| Start     | Stop      | Detector | Meas.   | RBW/VBW |
|-----------|-----------|----------|---------|---------|
| Frequency | Frequency |          | Time    |         |
| 1.58GHz   | 3GHz      | Max Peak | Coupled | 1 MHz   |

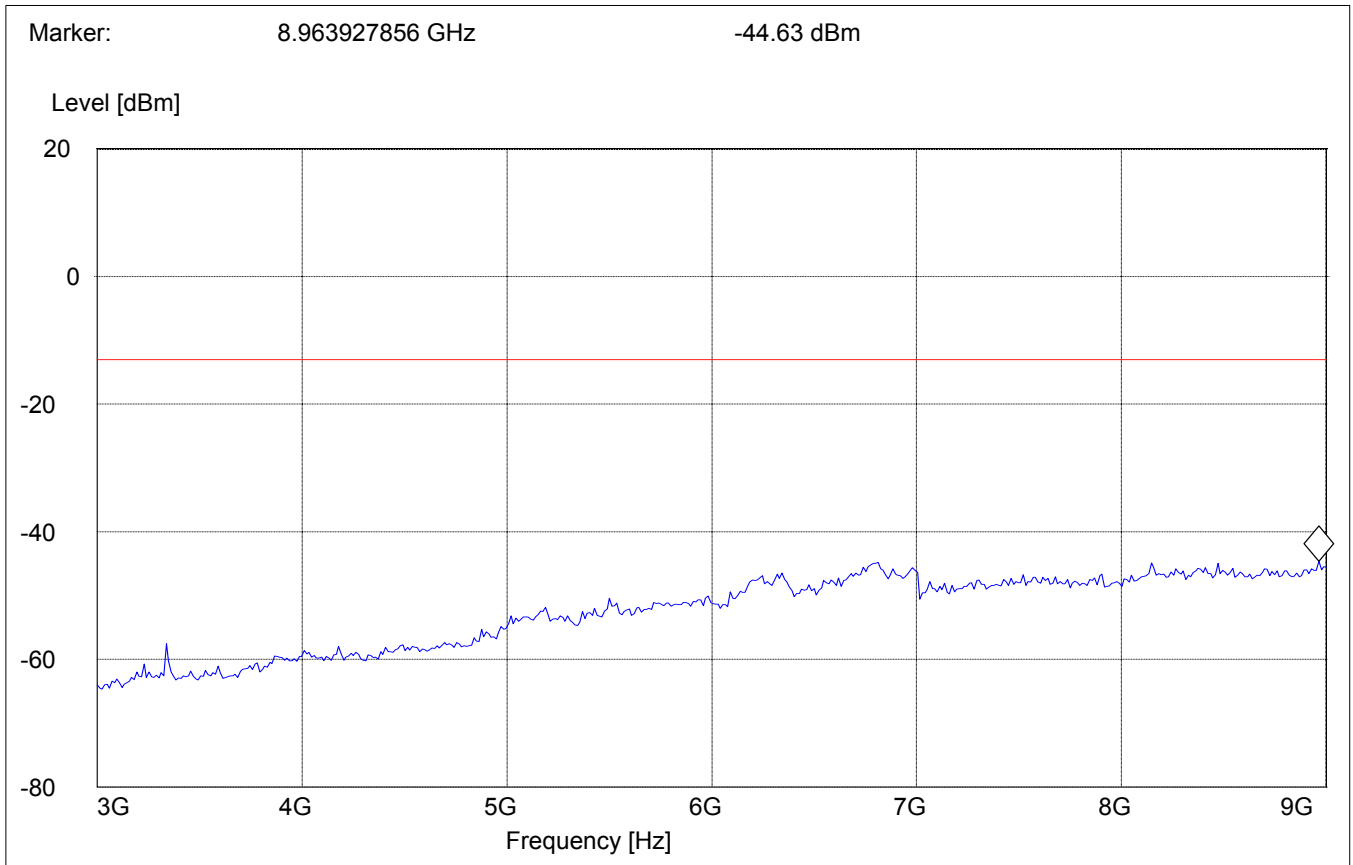


**RADIATED SPURIOUS EMISSIONS (GSM-850)****Tx @ 836.5MHz: 3GHz – 9GHz**

Spurious emission limit –13dBm

***SWEEP TABLE: "FCC 22 Spur 3-9G"***

| <i>Start</i>     | <i>Stop</i>      | <i>Detector</i> | <i>Meas.</i> | <i>RBW/VBW</i> |
|------------------|------------------|-----------------|--------------|----------------|
| <i>Frequency</i> | <i>Frequency</i> |                 | <i>Time</i>  |                |
| 3GHz             | 9GHz             | Max Peak        | Coupled      | 1 MHz          |

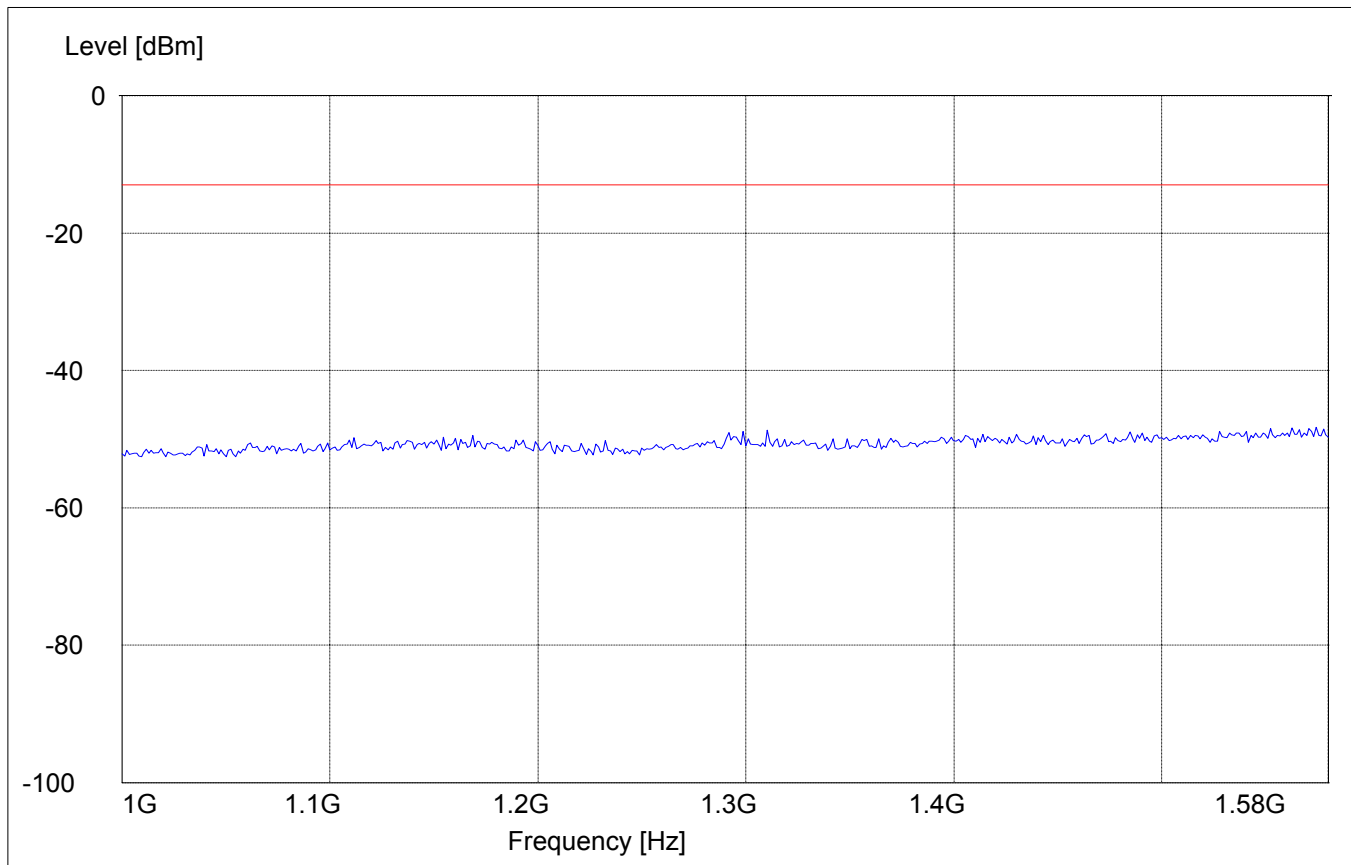


**RADIATED SPURIOUS EMISSIONS (GSM-850)****Tx @ 847.75MHz: 1GHz – 1.58GHz**

Spurious emission limit –13dBm

**SWEEP TABLE: "FCC 22 Spur 1-1.58G"**

| <i>Start</i>     | <i>Stop</i>      | <i>Detector</i> | <i>Meas.</i> | <i>RBW/VBW</i> |
|------------------|------------------|-----------------|--------------|----------------|
| <i>Frequency</i> | <i>Frequency</i> | <i>Time</i>     |              |                |
| 1GHz             | 1.58GHz          | Max Peak        | Coupled      | 1 MHz          |



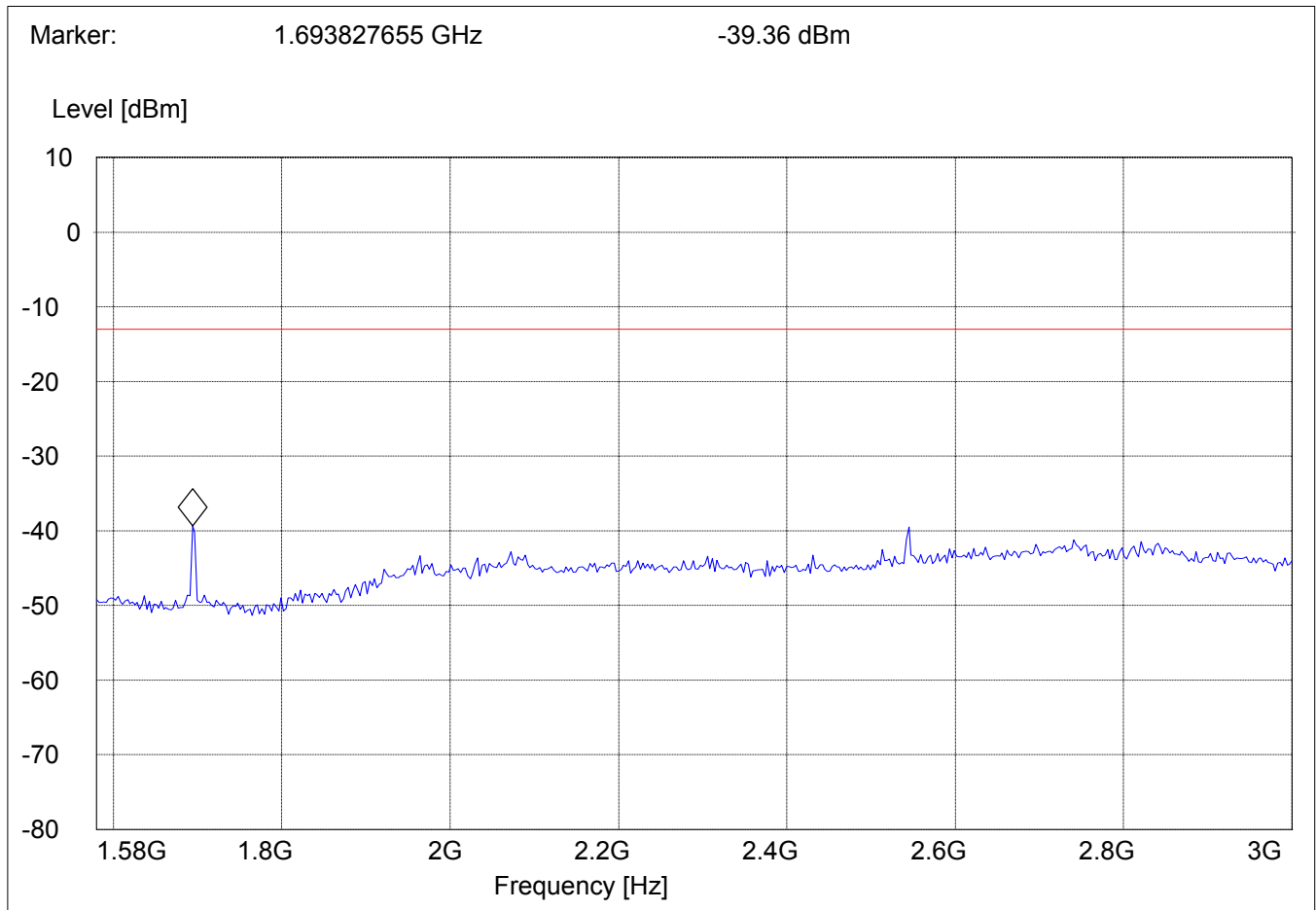


**RADIATED SPURIOUS EMISSIONS (GSM-850)****Tx @ 847.75MHz: 1.58GHz – 3GHz**

Spurious emission limit -13dBm

**SWEEP TABLE: "FCC 22 Spur 1.58-3G"**

| Start<br>Frequency | Stop<br>Frequency | Detector | Meas.<br>Time | RBW/VBW |
|--------------------|-------------------|----------|---------------|---------|
| 1.58GHz            | 3GHz              | Max Peak | Coupled       | 1 MHz   |

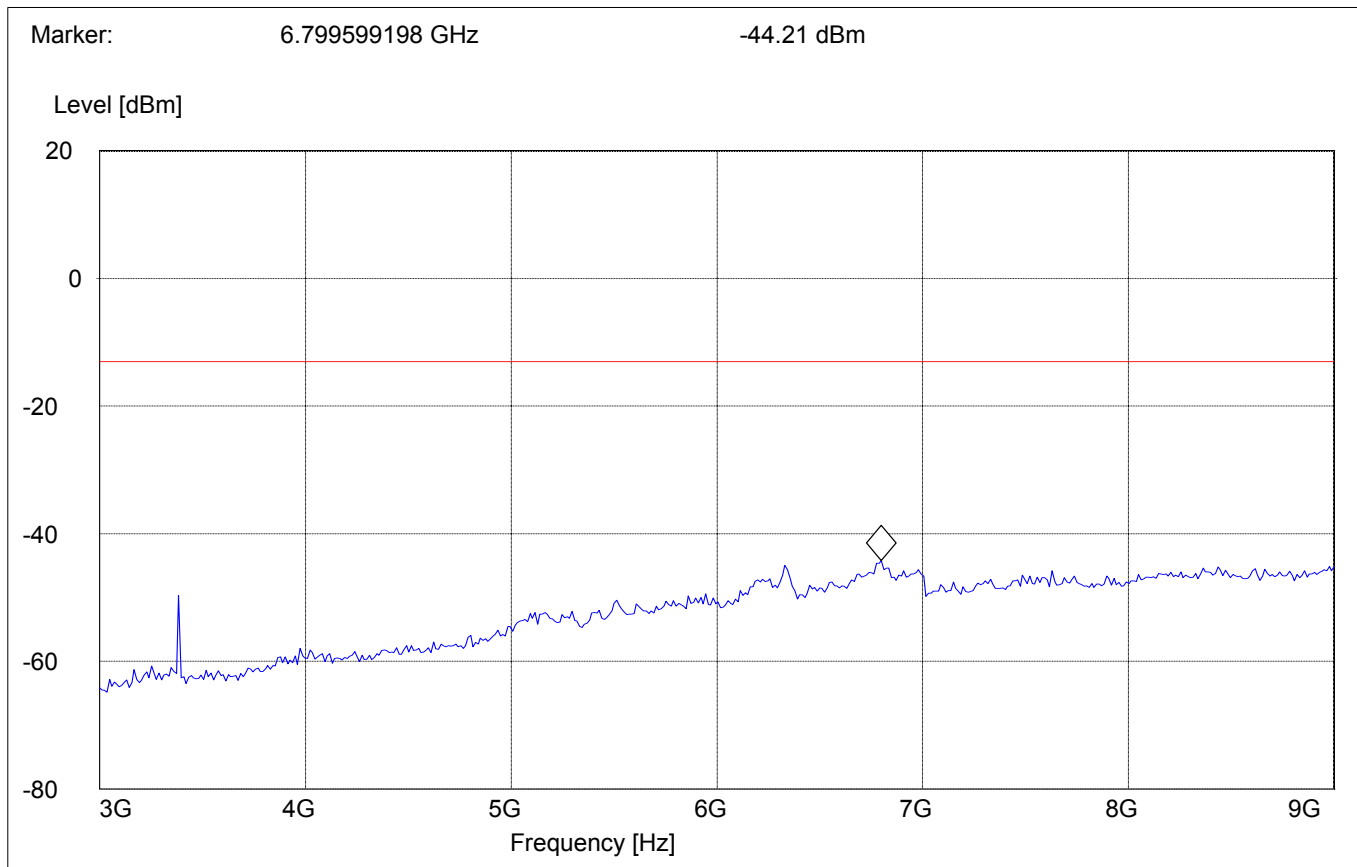


**RADIATED SPURIOUS EMISSIONS (GSM-850)****Tx @ 847.75MHz: 3GHz – 9GHz**

Spurious emission limit -13dBm

**SWEEP TABLE: "FCC 22 Spur 3-9G"**

| Start     | Stop      | Detector | Meas.   | RBW/VBW |
|-----------|-----------|----------|---------|---------|
| Frequency | Frequency |          | Time    |         |
| 3GHz      | 9GHz      | Max Peak | Coupled | 1 MHz   |

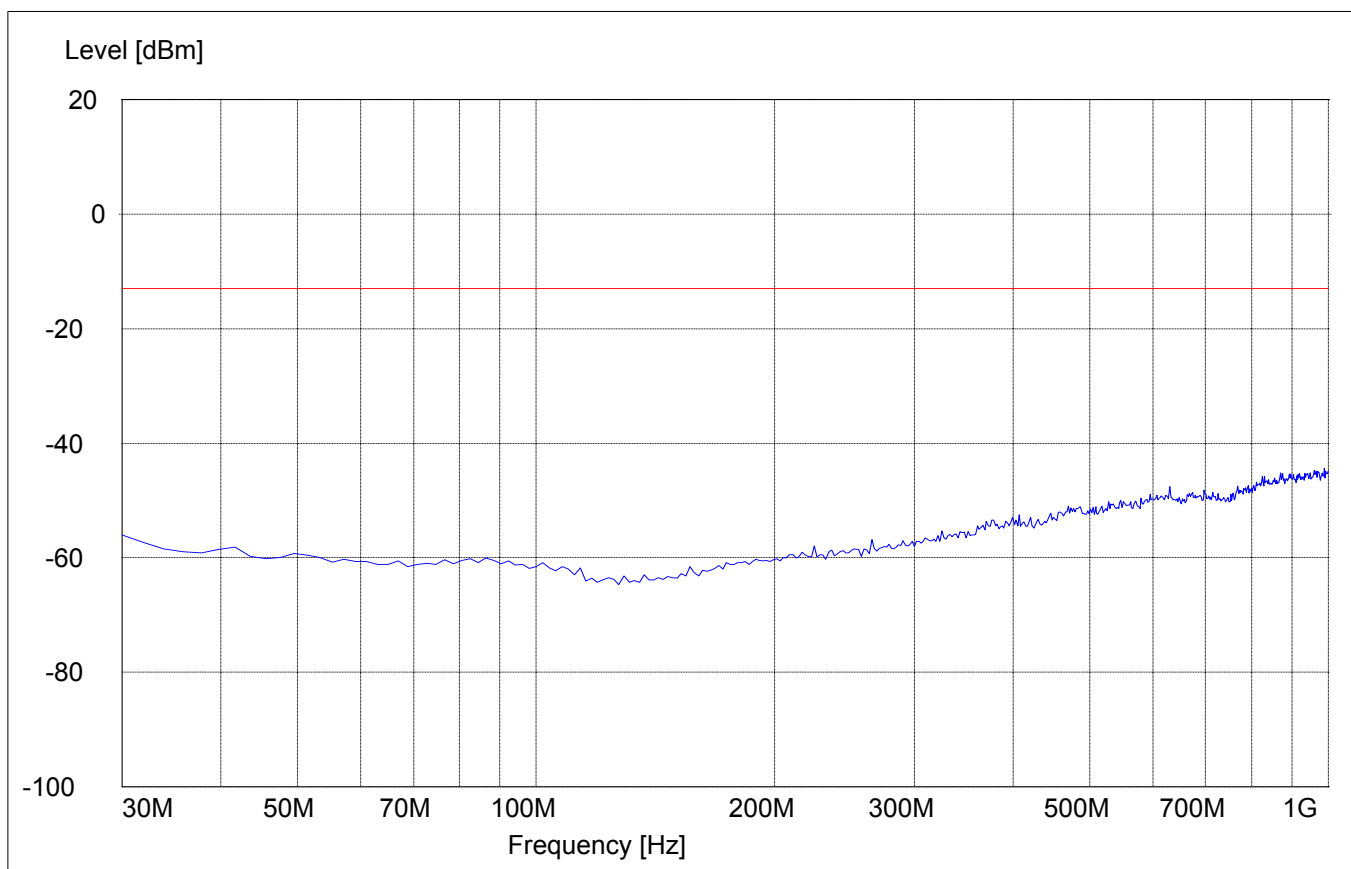


**RESULTS OF RADIATED TESTS PCS-1900:  
RADIATED SPURIOUS EMISSIONS****Tx @ 1851.25MHz: 30MHz - 1GHz**

Spurious emission limit -13dBm

***SWEEP TABLE: "FCC 24 Spur 30M-1G"***

| <i>Start</i>     | <i>Stop</i>      | <i>Detector</i> | <i>Meas.</i> | <i>RBW/VBW</i> |
|------------------|------------------|-----------------|--------------|----------------|
| <i>Frequency</i> | <i>Frequency</i> |                 | <i>Time</i>  |                |
| 30MHz            | 1GHz             | Max Peak        | Coupled      | 1 MHz          |

**Note: This plot is valid for low, mid & high channels (worst-case plot)**

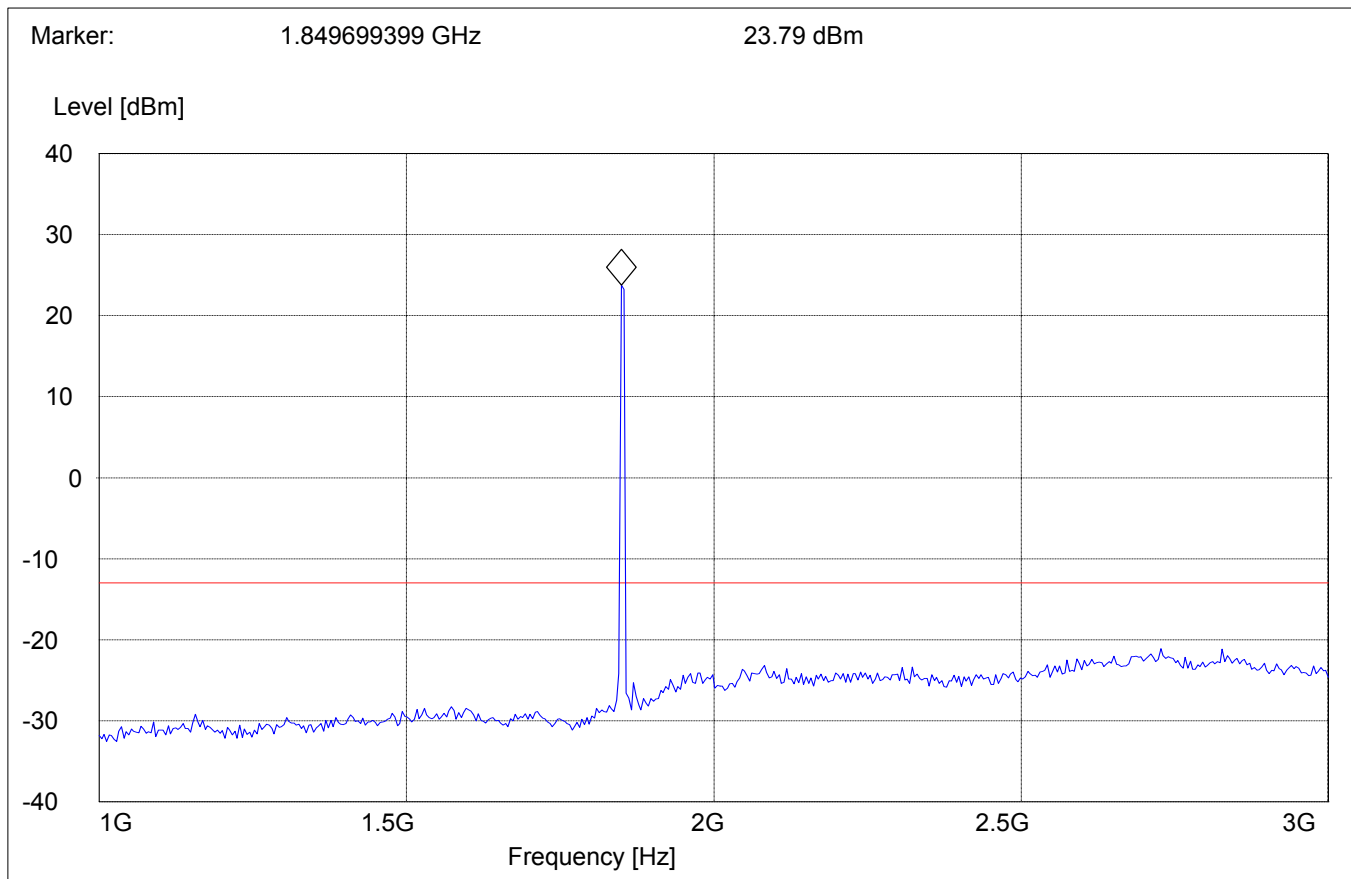
**RADIATED SPURIOUS EMISSIONS****Tx @ 1851.25MHz: 1GHz – 3GHz**

Spurious emission limit -13dBm

**SWEEP TABLE: "FCC Spuri 1-3G"**

| Start<br>Frequency | Stop<br>Frequency | Detector | Meas.<br>Time | RBW/VBW |
|--------------------|-------------------|----------|---------------|---------|
| 1GHz               | 3GHz              | Max Peak | Coupled       | 1 MHz   |

Note: The peak above the limit line is the carrier freq.

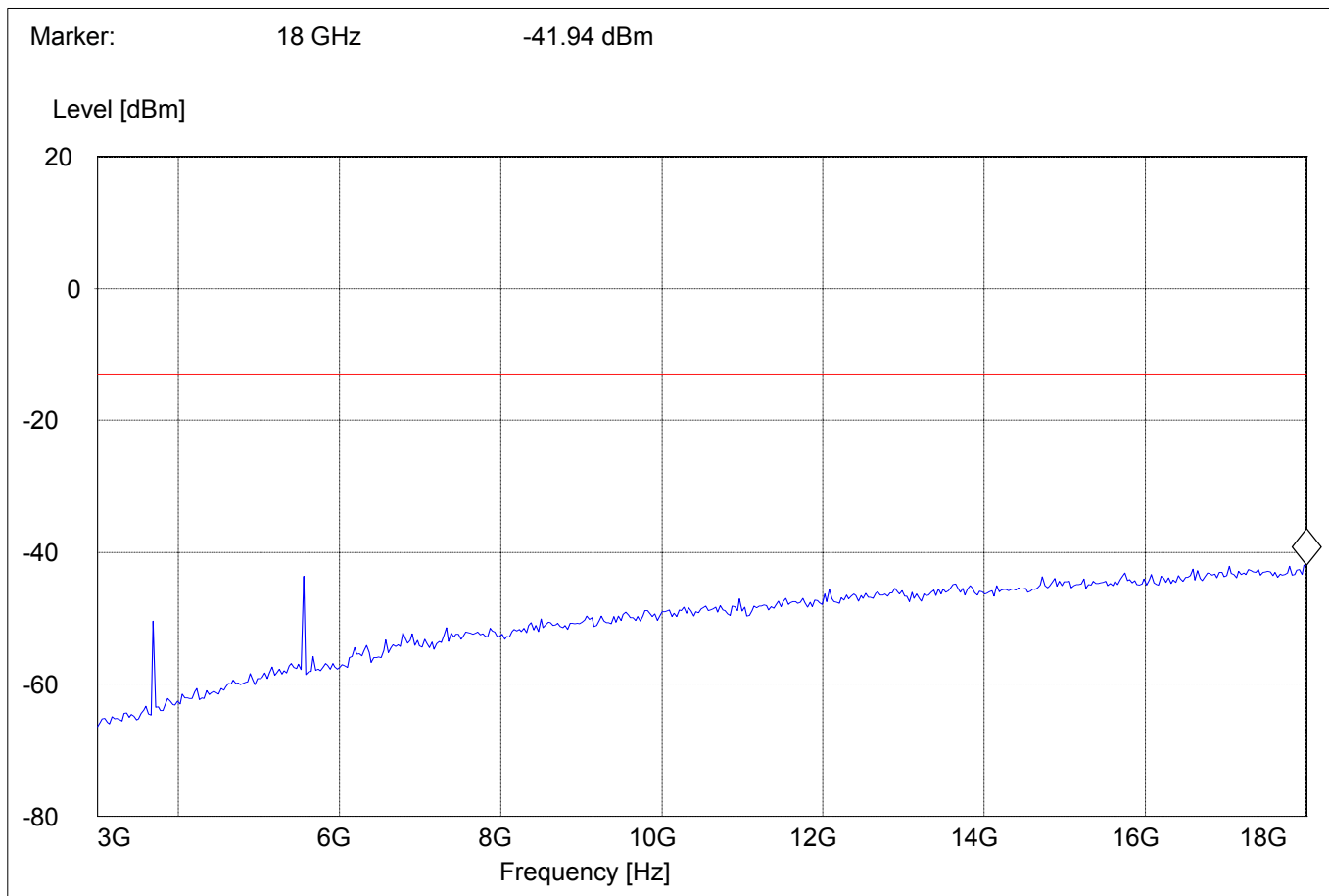


**RADIATED SPURIOUS EMISSIONS****Tx @ 1851.25MHz: 3GHz – 18GHz**

Spurious emission limit -13dBm

***SWEEP TABLE: "FCC Spuri 3-18G"***

| <i>Start</i>     | <i>Stop</i>      | <i>Detector</i> | <i>Meas.</i> | <i>RBW/VBW</i> |
|------------------|------------------|-----------------|--------------|----------------|
| <i>Frequency</i> | <i>Frequency</i> |                 | <i>Time</i>  |                |
| 3GHz             | 18GHz            | Max Peak        | Coupled      | 1 MHz          |



**RADIATED SPURIOUS EMISSIONS**

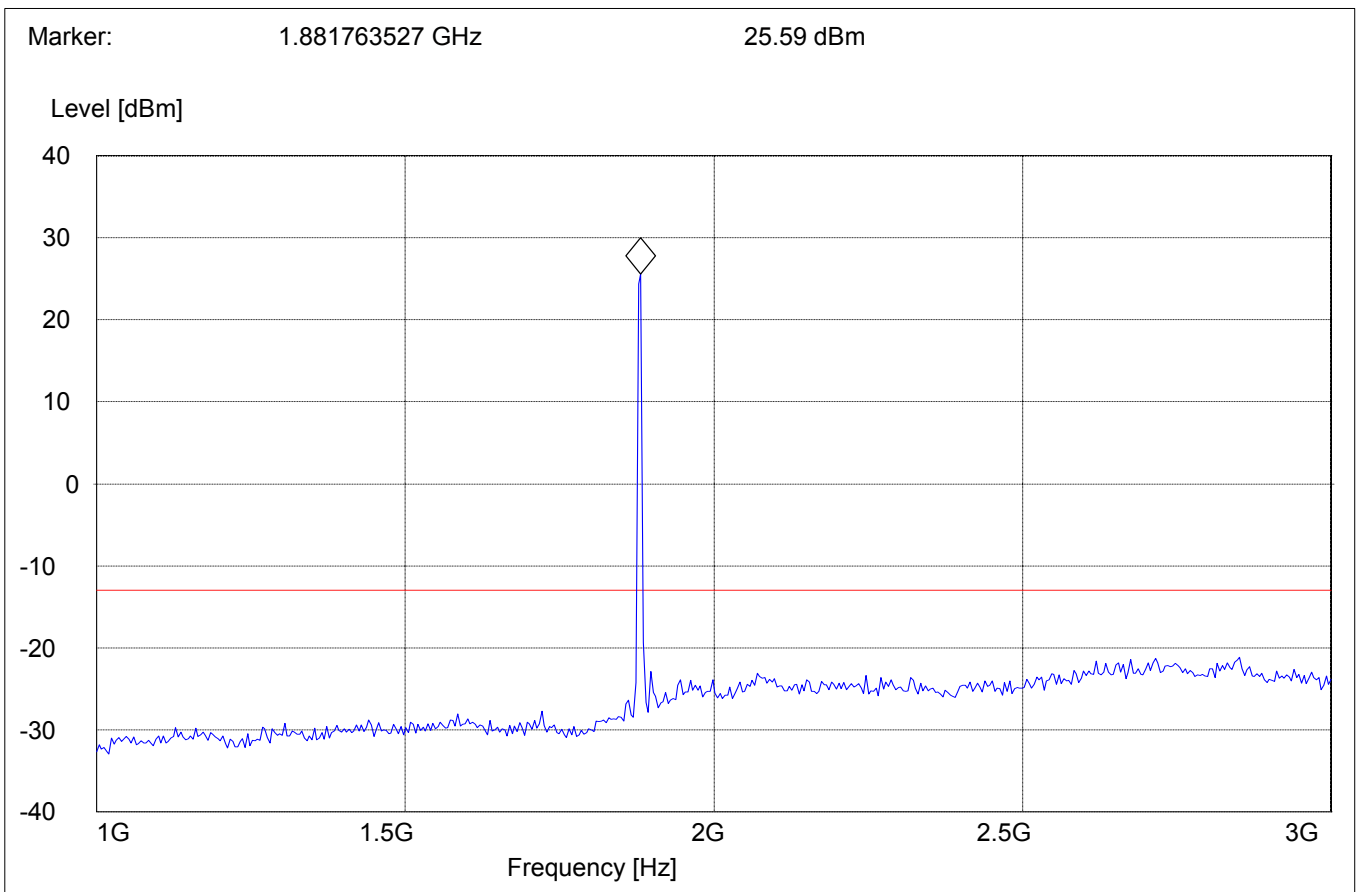
**Tx @ 1880MHz: 1GHz – 3GHz**

Spurious emission limit -13dBm

**SWEEP TABLE: "FCC Spuri 1-3G"**

| Start Frequency | Stop Frequency | Detector | Meas. Time | RBW/VBW |
|-----------------|----------------|----------|------------|---------|
| 1GHz            | 3GHz           | Max Peak | Coupled    | 1 MHz   |

Note: The peak above the limit line is the carrier freq.

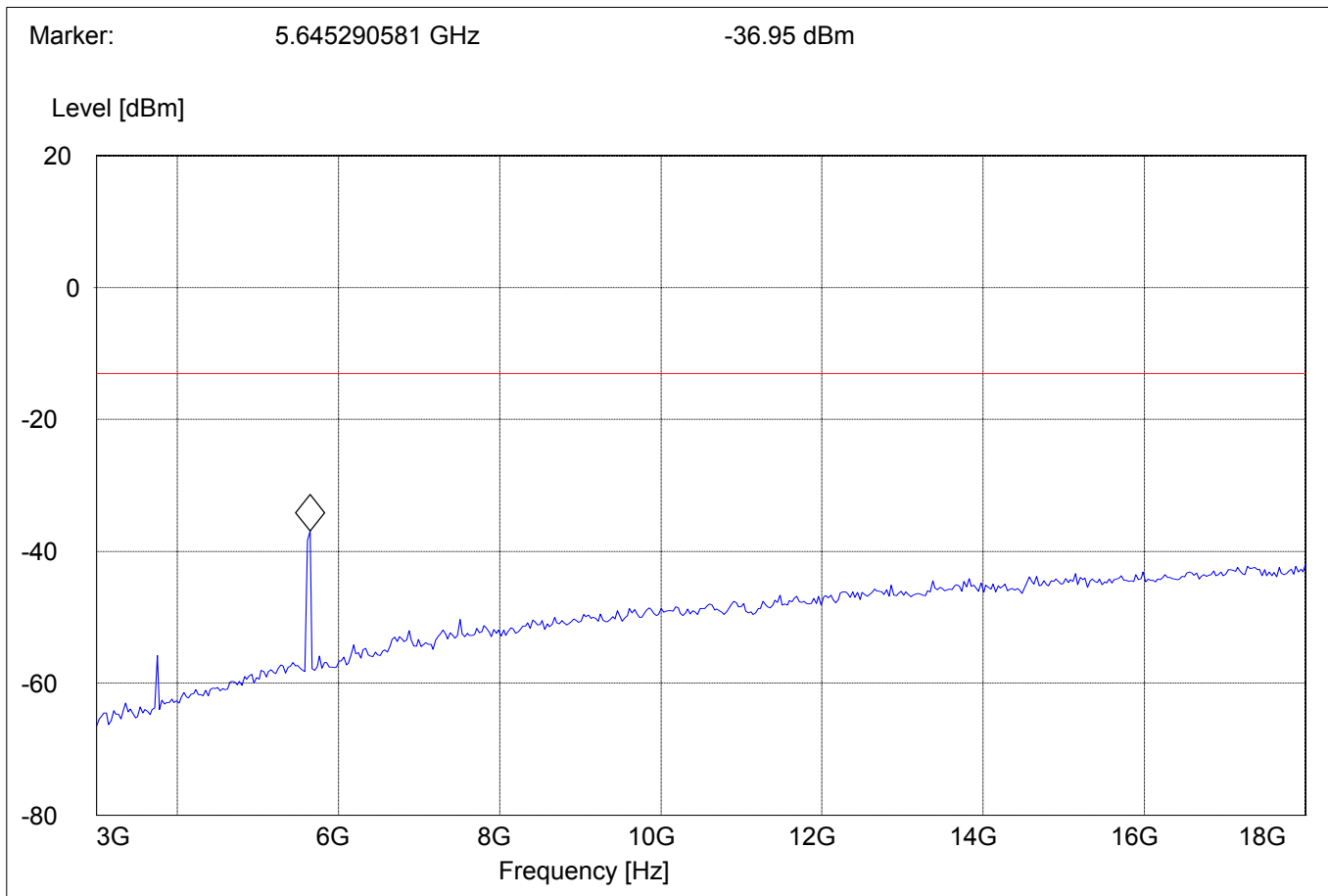


**RADIATED SPURIOUS EMISSIONS****Tx @ 1880MHz: 3GHz – 18GHz**

Spurious emission limit –13dBm

**SWEEP TABLE: "FCC Spuri 3-18G"**

| Start<br>Frequency | Stop<br>Frequency | Detector | Meas.<br>Time | RBW/VBW |
|--------------------|-------------------|----------|---------------|---------|
| 3GHz               | 18GHz             | Max Peak | Coupled       | 1 MHz   |



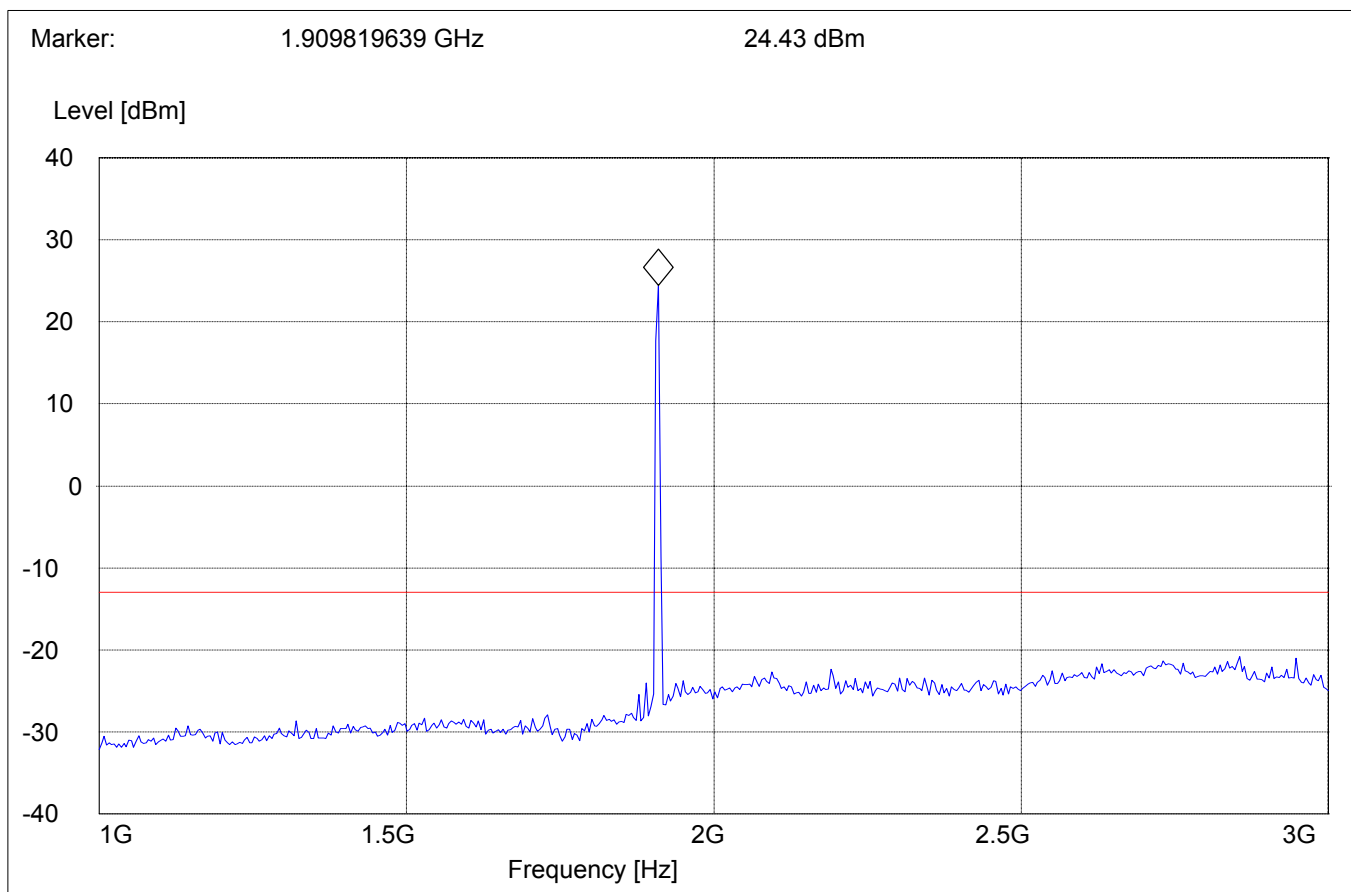
**RADIATED SPURIOUS EMISSIONS****Tx @ 1908.75MHz: 1GHz – 3GHz**

Spurious emission limit –13dBm

***SWEEP TABLE: "FCC Spuri 1-3G"***

| <i>Start</i>     | <i>Stop</i>      | <i>Detector</i> | <i>Meas.</i> | <i>RBW/VBW</i> |
|------------------|------------------|-----------------|--------------|----------------|
| <i>Frequency</i> | <i>Frequency</i> |                 | <i>Time</i>  |                |
| 1GHz             | 3GHz             | Max Peak        | Coupled      | 1 MHz          |

Note: The peak above the limit line is the carrier freq.



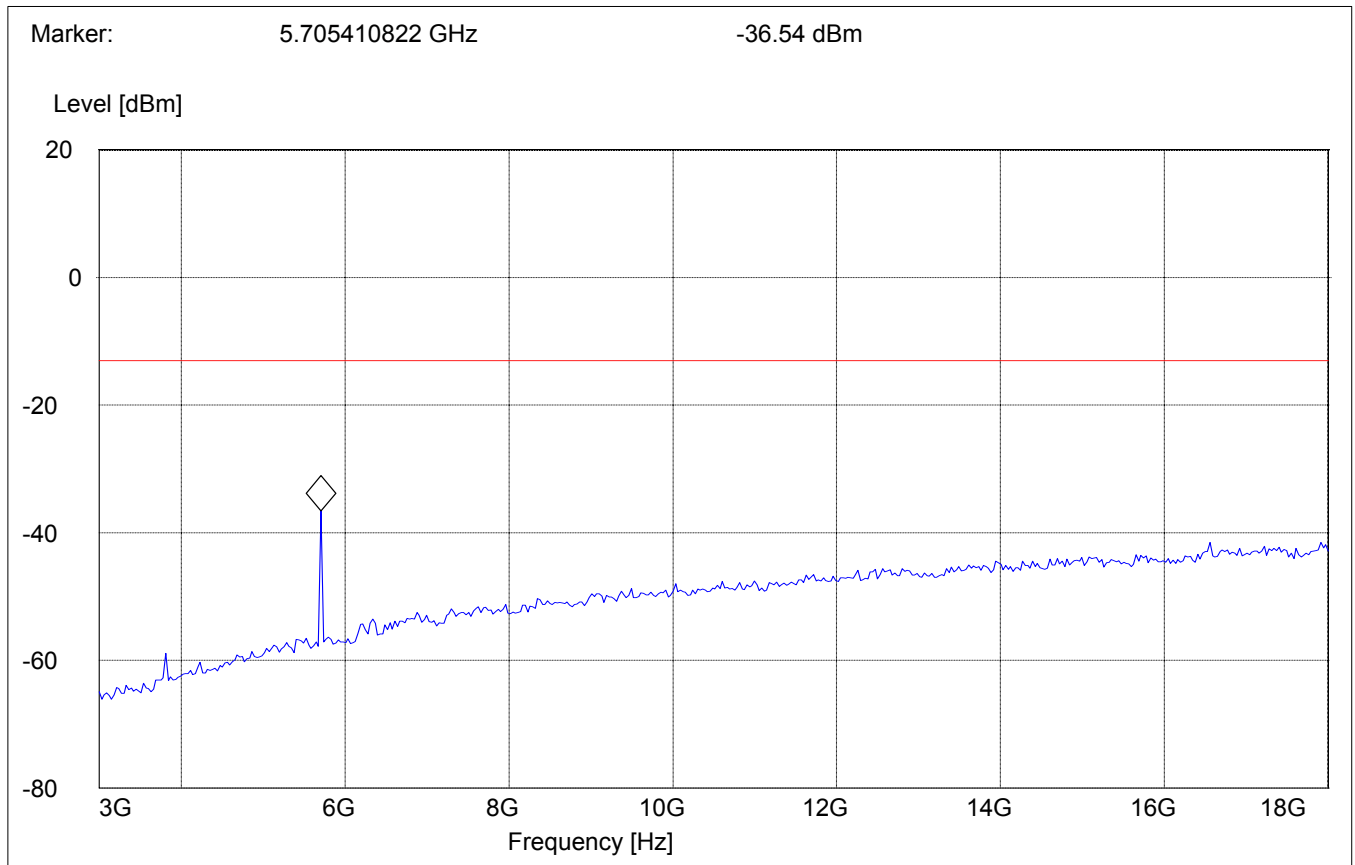


**RADIATED SPURIOUS EMISSIONS****Tx @ 1908.75MHz: 3GHz – 18GHz**

Spurious emission limit -13dBm

***SWEEP TABLE: "FCC Spuri 3-18G"***

| <i>Start</i>     | <i>Stop</i>      | <i>Detector</i> | <i>Meas.</i> | <i>RBW/VBW</i> |
|------------------|------------------|-----------------|--------------|----------------|
| <i>Frequency</i> | <i>Frequency</i> |                 | <i>Time</i>  |                |
| 3GHz             | 18GHz            | Max Peak        | Coupled      | 1 MHz          |

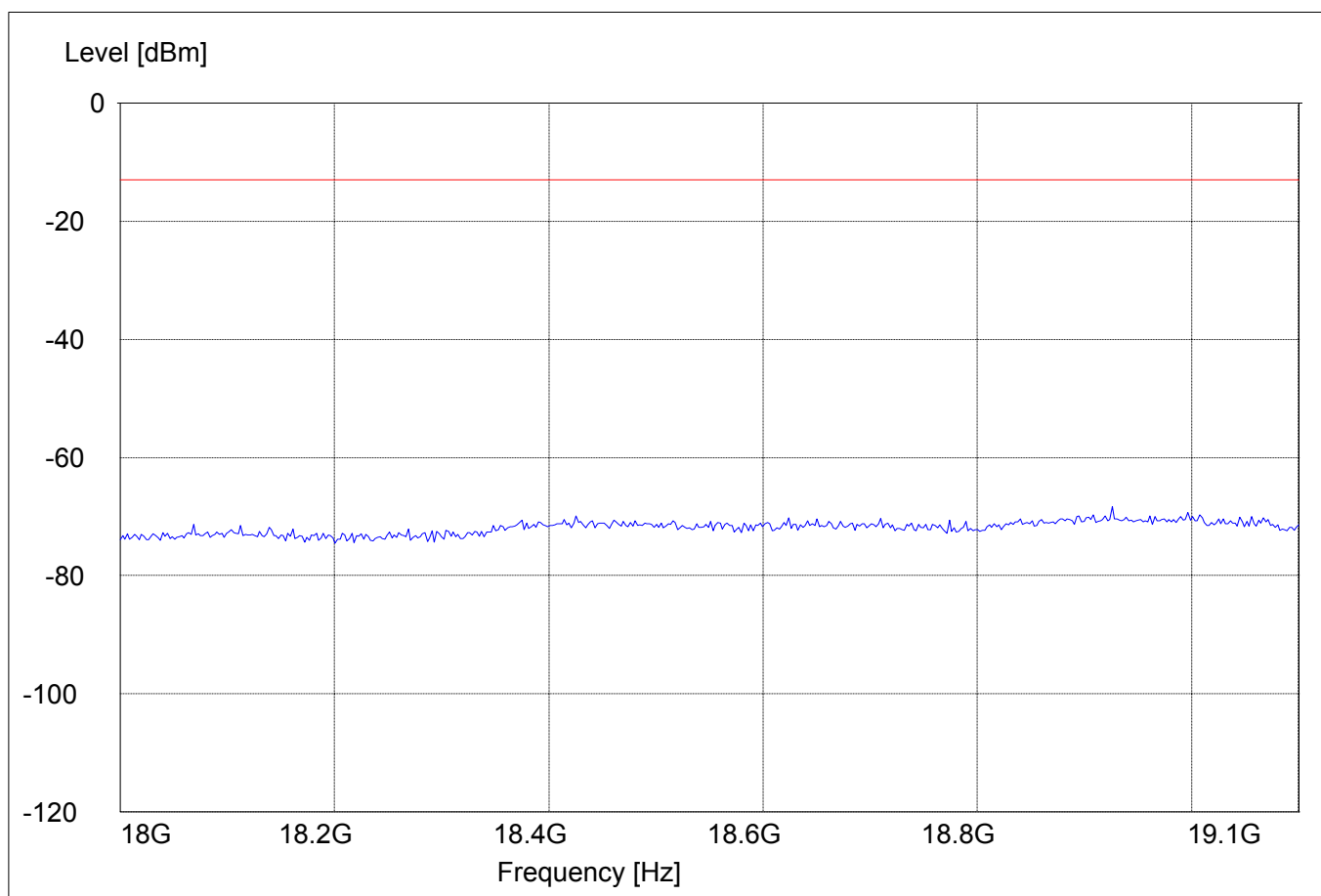


**RADIATED SPURIOUS EMISSIONS****18GHz – 19.1GHz**

Spurious emission limit –13dBm

***SWEEP TABLE: "FCC 24 spuri 18-19.1G"***

| <i>Start</i>     | <i>Stop</i>      | <i>Detector</i> | <i>Meas.</i> | <i>RBW/VBW</i> |
|------------------|------------------|-----------------|--------------|----------------|
| <i>Frequency</i> | <i>Frequency</i> |                 | <i>Time</i>  |                |
| 18GHz            | 19.1GHz          | Max Peak        | Coupled      | 1 MHz          |

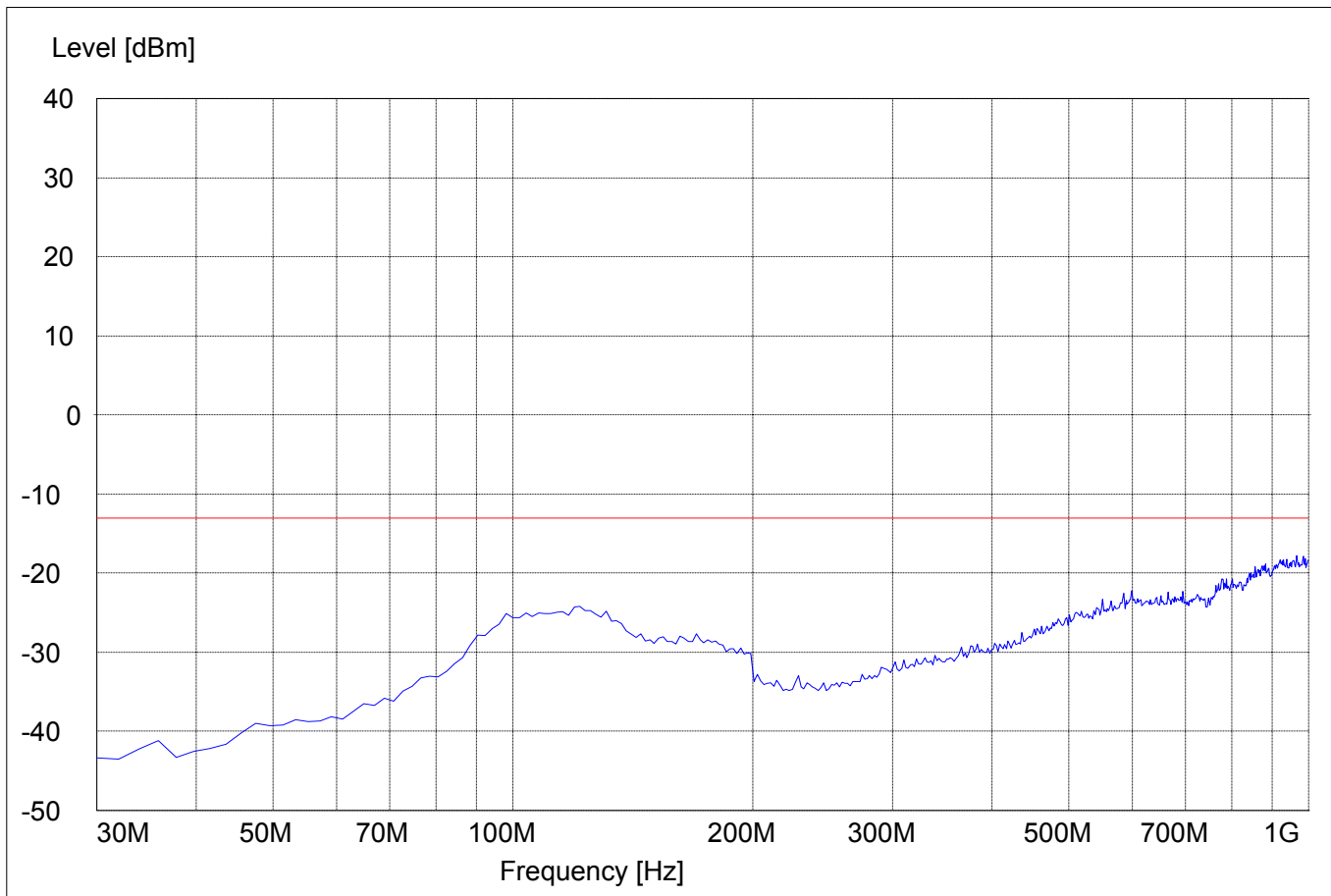
**Note: This plot is valid for low, mid & high channels (worst-case plot)**

**RADIATED SPURIOUS EMISSIONS (IDLE MODE)****EUT in Idle Mode: 30MHz – 1GHz**

Spurious emission limit –13dBm

**SWEEP TABLE: "FCC 24 Spur 30M-1G"**

| Start Frequency | Stop Frequency | Detector | Meas. Time | RBW/VBW |
|-----------------|----------------|----------|------------|---------|
| 30MHz           | 1GHz           | Max Peak | Coupled    | 1 MHz   |

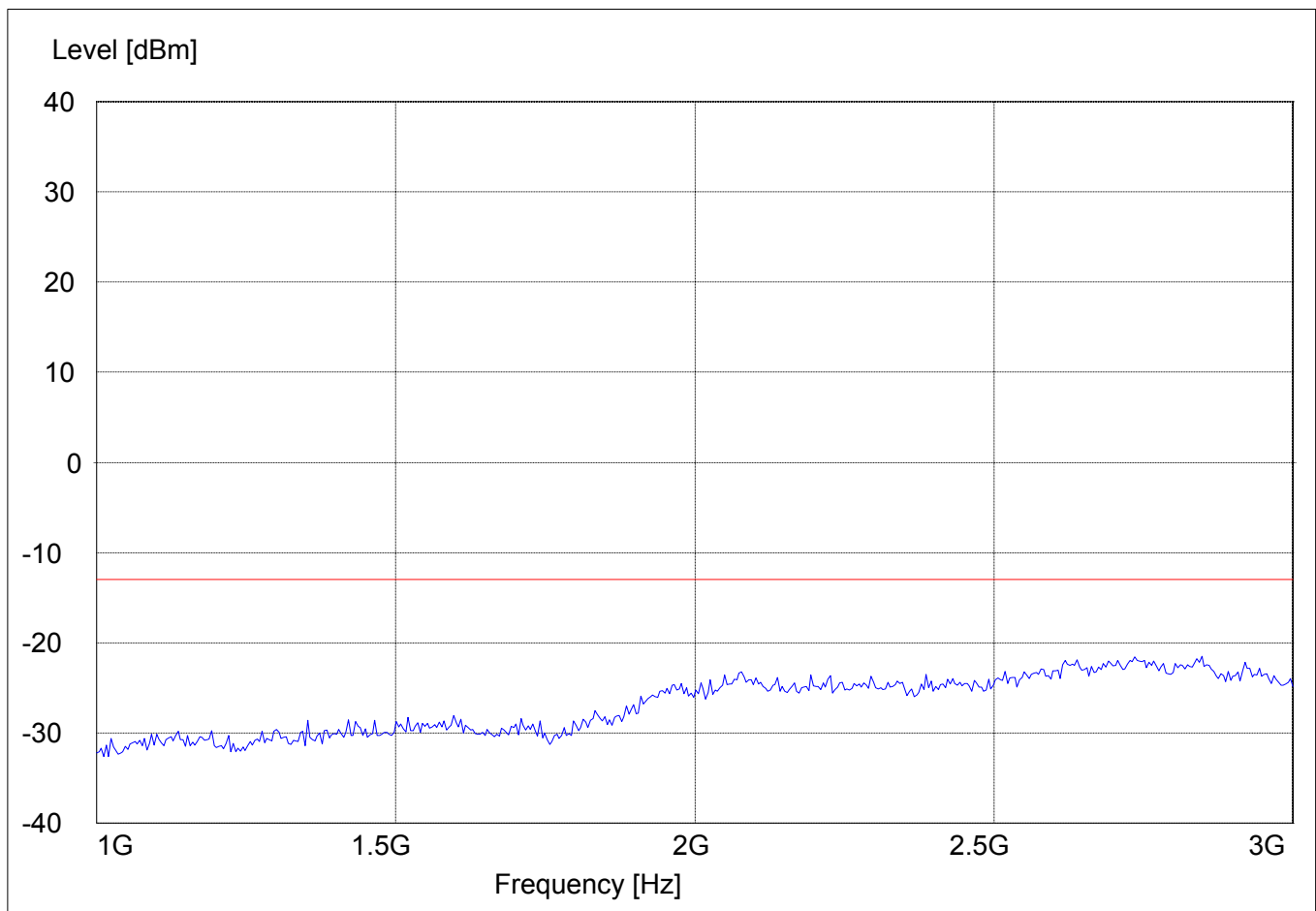


**RADIATED SPURIOUS EMISSIONS****EUT in Idle Mode: 1GHz – 3GHz**

Spurious emission limit –13dBm

**SWEEP TABLE: "FCC Spuri 1-3G"**

| <i>Start</i>     | <i>Stop</i>      | <i>Detector</i> | <i>Meas.</i> | <i>RBW/VBW</i> |
|------------------|------------------|-----------------|--------------|----------------|
| <i>Frequency</i> | <i>Frequency</i> |                 | <i>Time</i>  |                |
| 1GHz             | 3GHz             | Max Peak        | Coupled      | 1 MHz          |

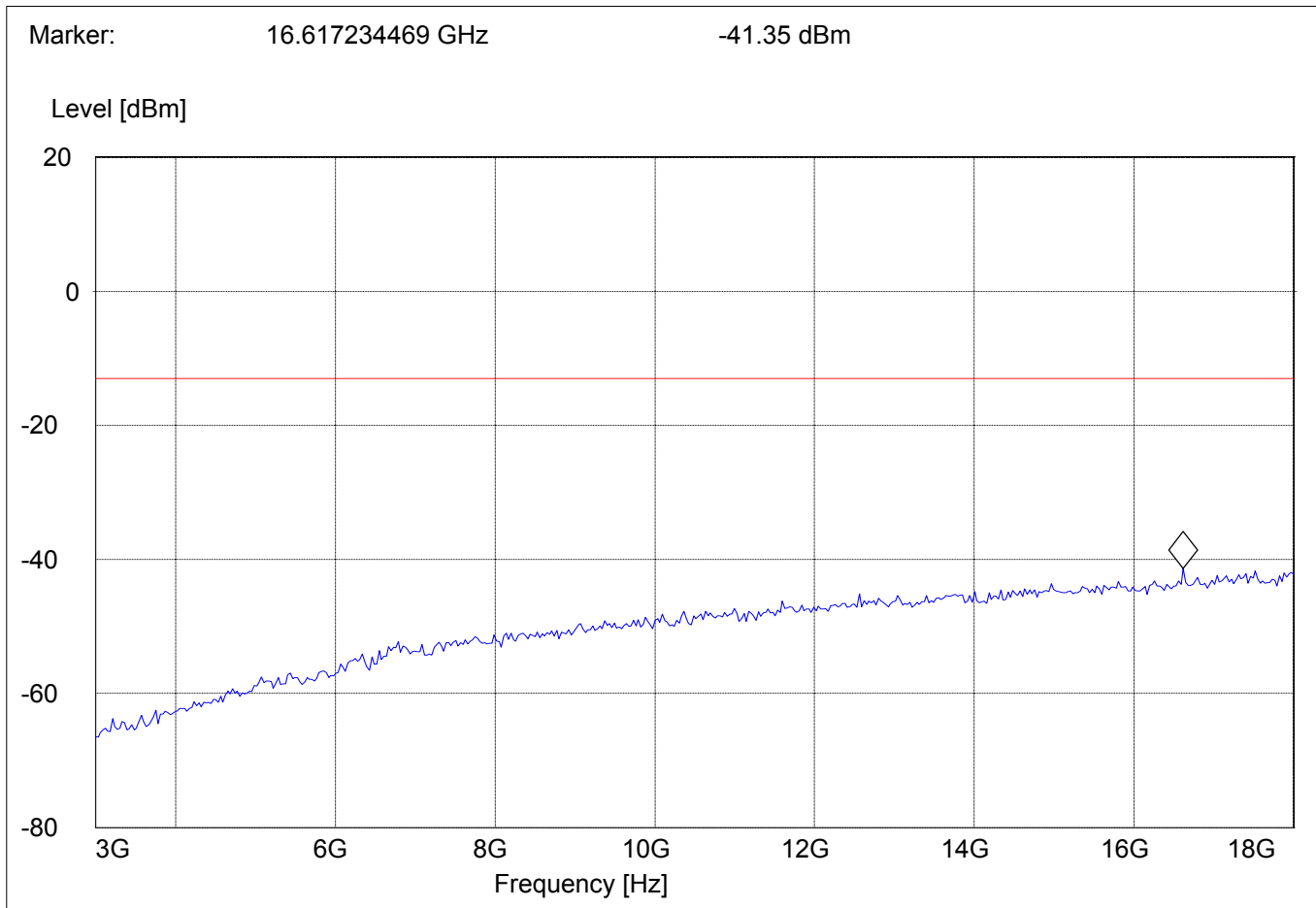


**RADIATED SPURIOUS EMISSIONS****EUT in Idle Mode: 3GHz – 18GHz**

Spurious emission limit -13dBm

**SWEEP TABLE: "FCC 24 spuri 3-18G"**

| Start<br>Frequency | Stop<br>Frequency | Detector | Meas.<br>Time | RBW/VBW |
|--------------------|-------------------|----------|---------------|---------|
| 3GHz               | 18GHz             | Max Peak | Coupled       | 1 MHz   |

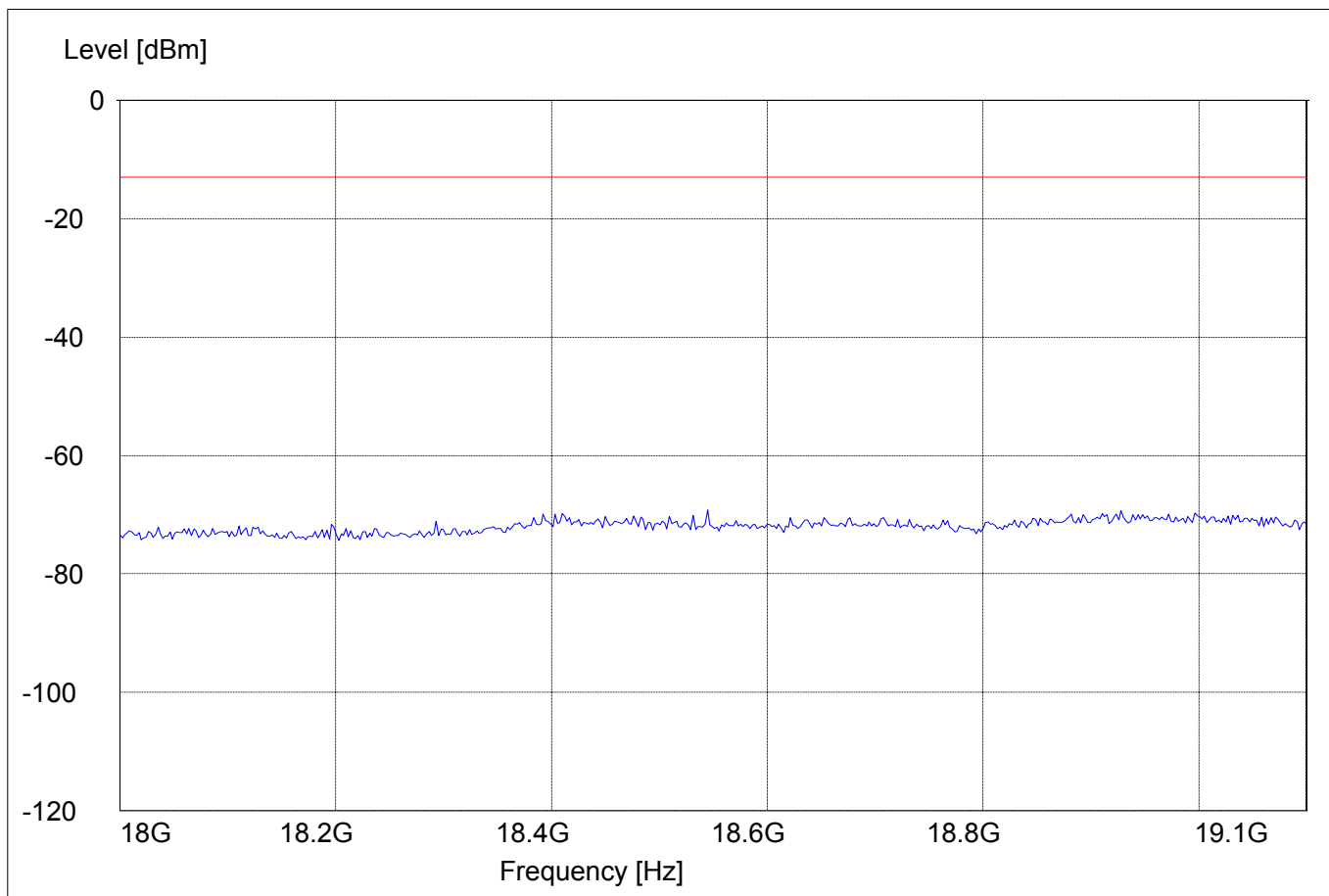


**RADIATED SPURIOUS EMISSIONS****EUT in Idle Mode: 18GHz – 19.1GHz**

Spurious emission limit –13dBm

***SWEEP TABLE: "FCC 24 spuri 18-19.1G"***

| <i>Start</i>     | <i>Stop</i>      | <i>Detector</i> | <i>Meas.</i> | <i>RBW/VBW</i> |
|------------------|------------------|-----------------|--------------|----------------|
| <i>Frequency</i> | <i>Frequency</i> |                 | <i>Time</i>  |                |
| 18GHz            | 19.1GHz          | Max Peak        | Coupled      | 1 MHz          |



**RECEIVER RADIATED EMISSIONS****§ 2.1053 / RSS-133**

**NOTE:** The radiated emissions were done with different settings, using the relevant pre-amplifiers for the relevant frequency ranges. This is the reason that the graphs show different noise levels. In the range between 18GHz and 19.1GHz very short cable connections to the antenna was used to minimize the noise level.

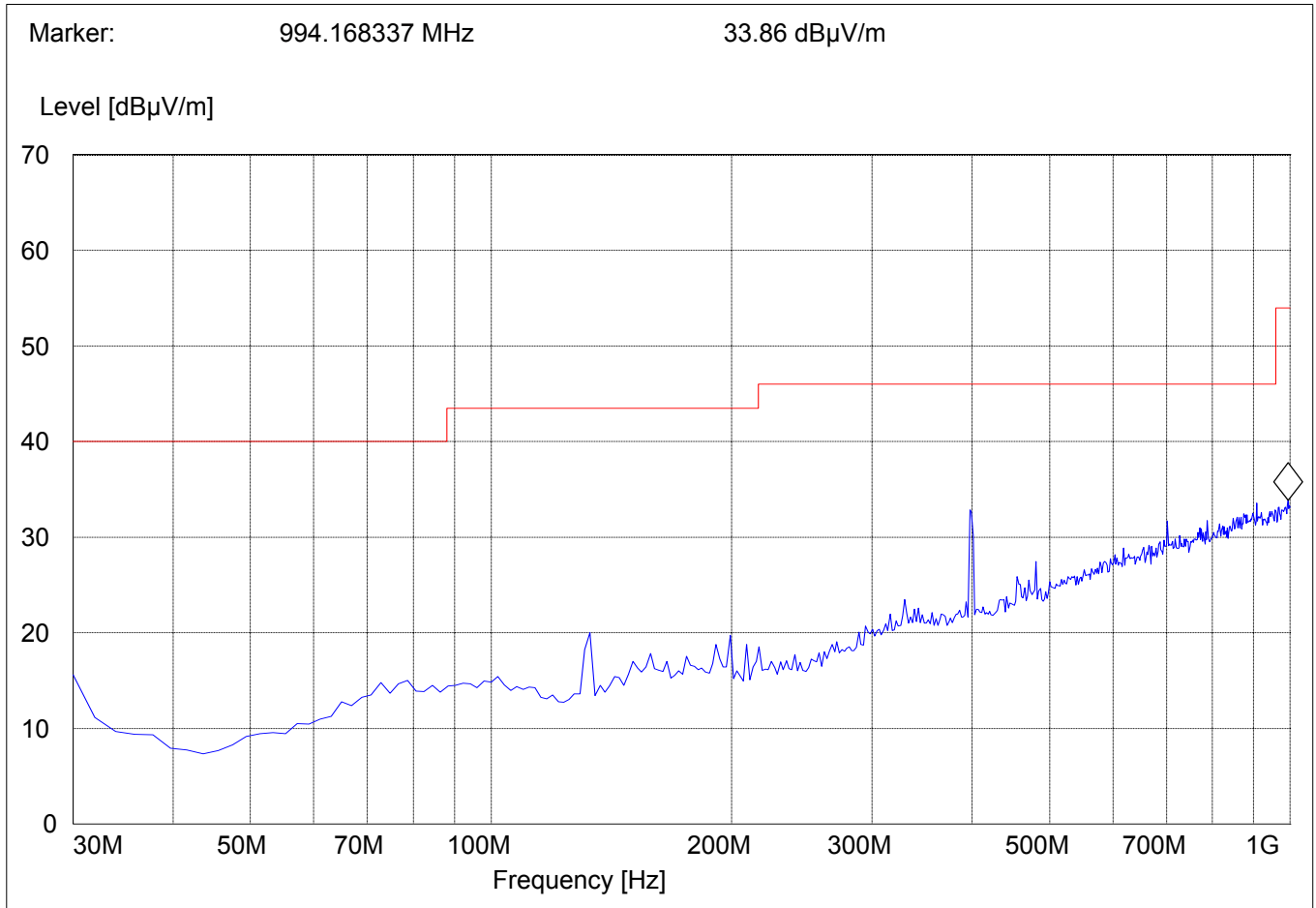
**Limits****SUBCLAUSE § 15.209**

| <b>Frequency (MHz)</b> | <b>Field strength (<math>\mu\text{V}/\text{m}</math>)</b> | <b>Measurement distance (m)</b> |
|------------------------|---|---------------------------------|
| <b>0.009 - 0.490</b>   | <b>2400/F (kHz)</b>                                       | <b>300</b>                      |
| <b>0.490 - 1.705</b>   | <b>24000/F (kHz)</b>                                      | <b>30</b>                       |
| <b>1.705 - 30.0</b>    | <b>30</b>   | <b>30</b>                       |
| <b>30 - 88</b>         | <b>100</b>  | <b>3</b>                        |
| <b>88 - 216</b>        | <b>150</b>  | <b>3</b>                        |
| <b>216 - 960</b>       | <b>200</b>  | <b>3</b>                        |
| <b>Above 960</b>       | <b>500</b>  | <b>3</b>                        |

**RECEIVER RADIATED EMISSIONS**  
**EUT in Idle Mode: 30MHz – 1GHz**

**SWEEP TABLE: "FCC 24 Spur 30M-1G"**

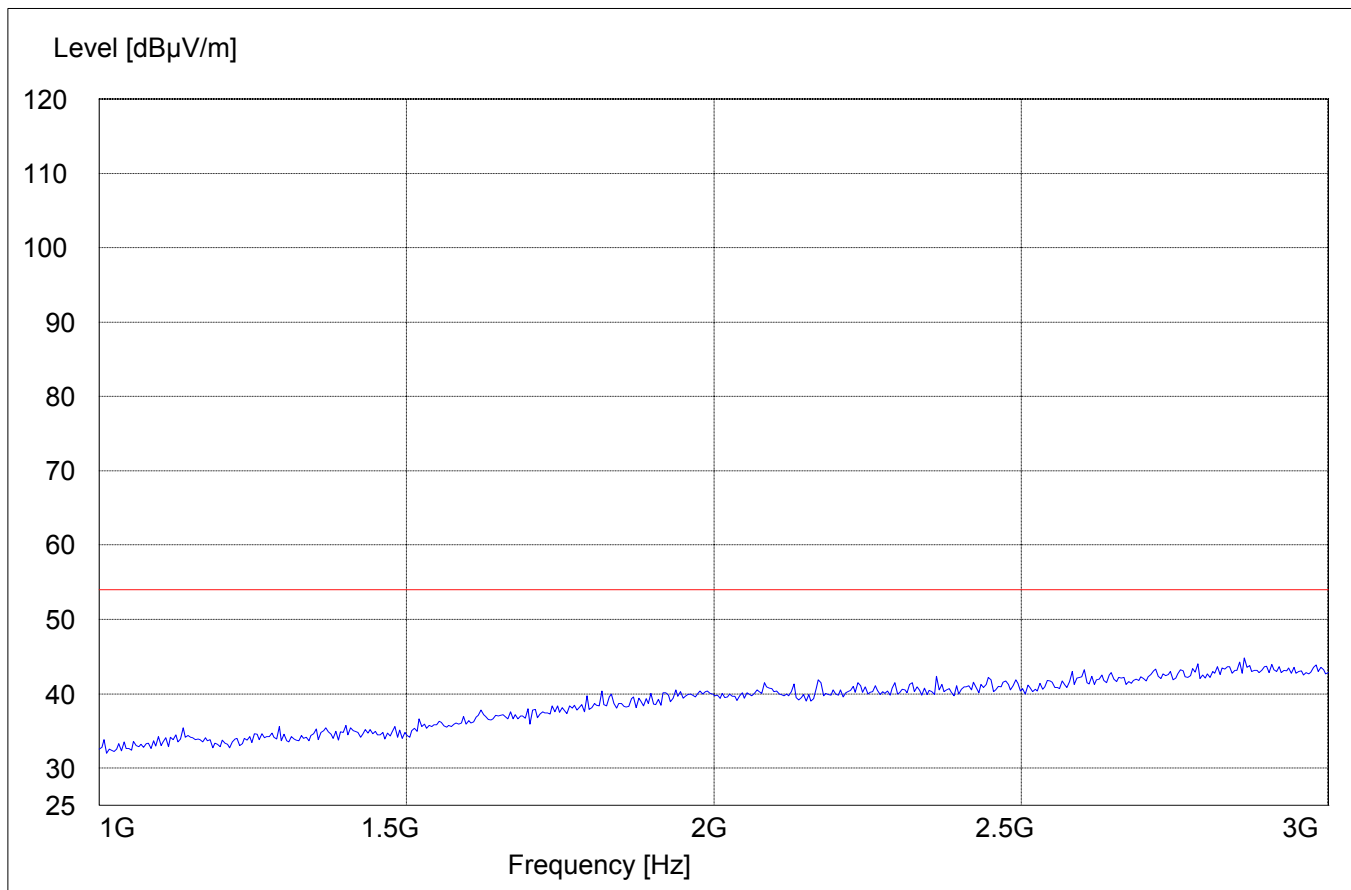
| Start Frequency | Stop Frequency | Detector | Meas. Time | RBW/VBW |
|-----------------|----------------|----------|------------|---------|
| 30MHz           | 1GHz           | Max Peak | Coupled    | 100KHz  |





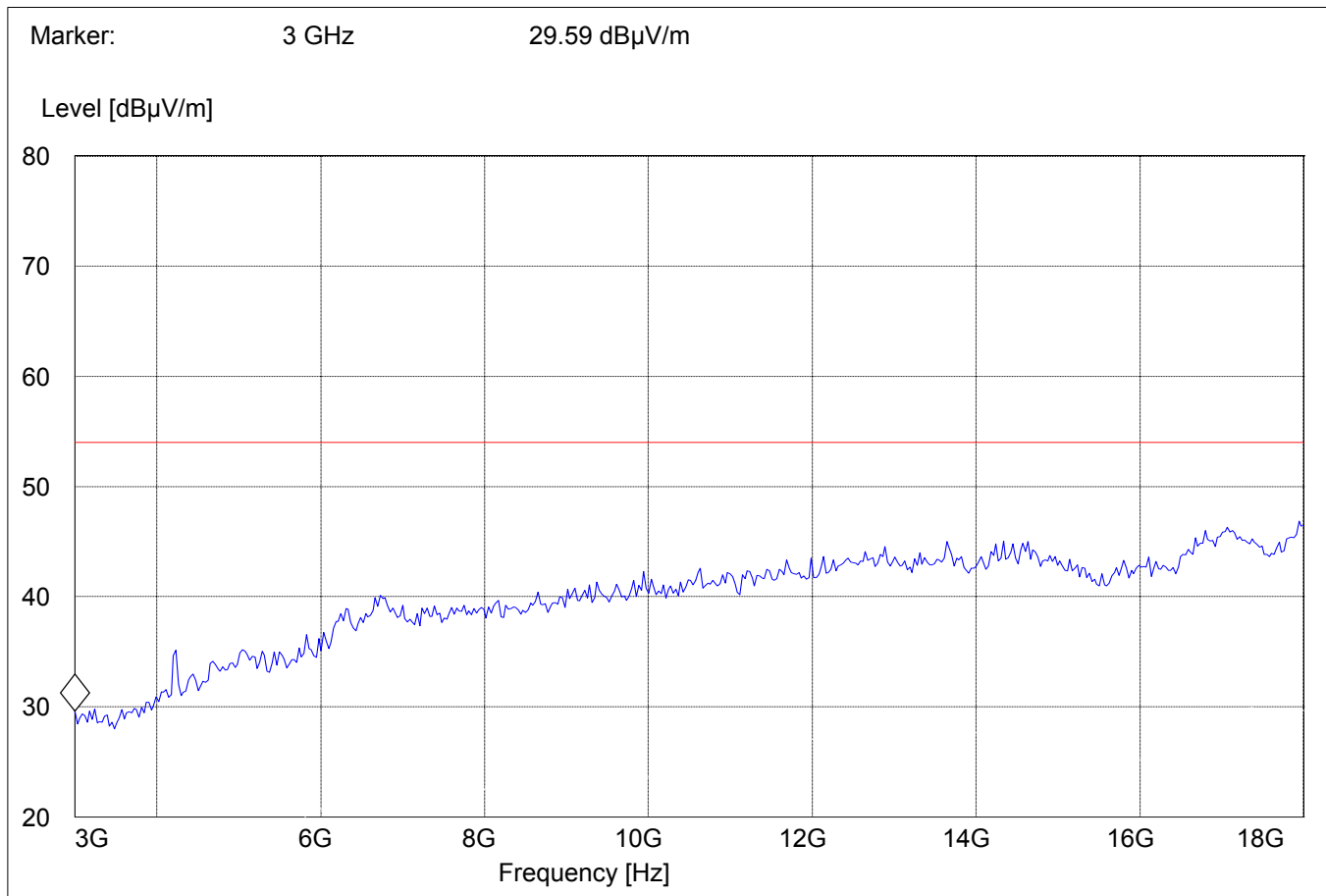
**RECEIVER RADIATED EMISSIONS**  
**EUT in Idle Mode: 1GHz – 3GHz*****SWEEP TABLE: "FCC Spuri 1-3G"***

| <i>Start</i>     | <i>Stop</i>      | <i>Detector</i> | <i>Meas.</i> | <i>RBW/VBW</i> |
|------------------|------------------|-----------------|--------------|----------------|
| <i>Frequency</i> | <i>Frequency</i> |                 | <i>Time</i>  |                |
| 1GHz             | 3GHz             | Max Peak        | Coupled      | 1 MHz          |



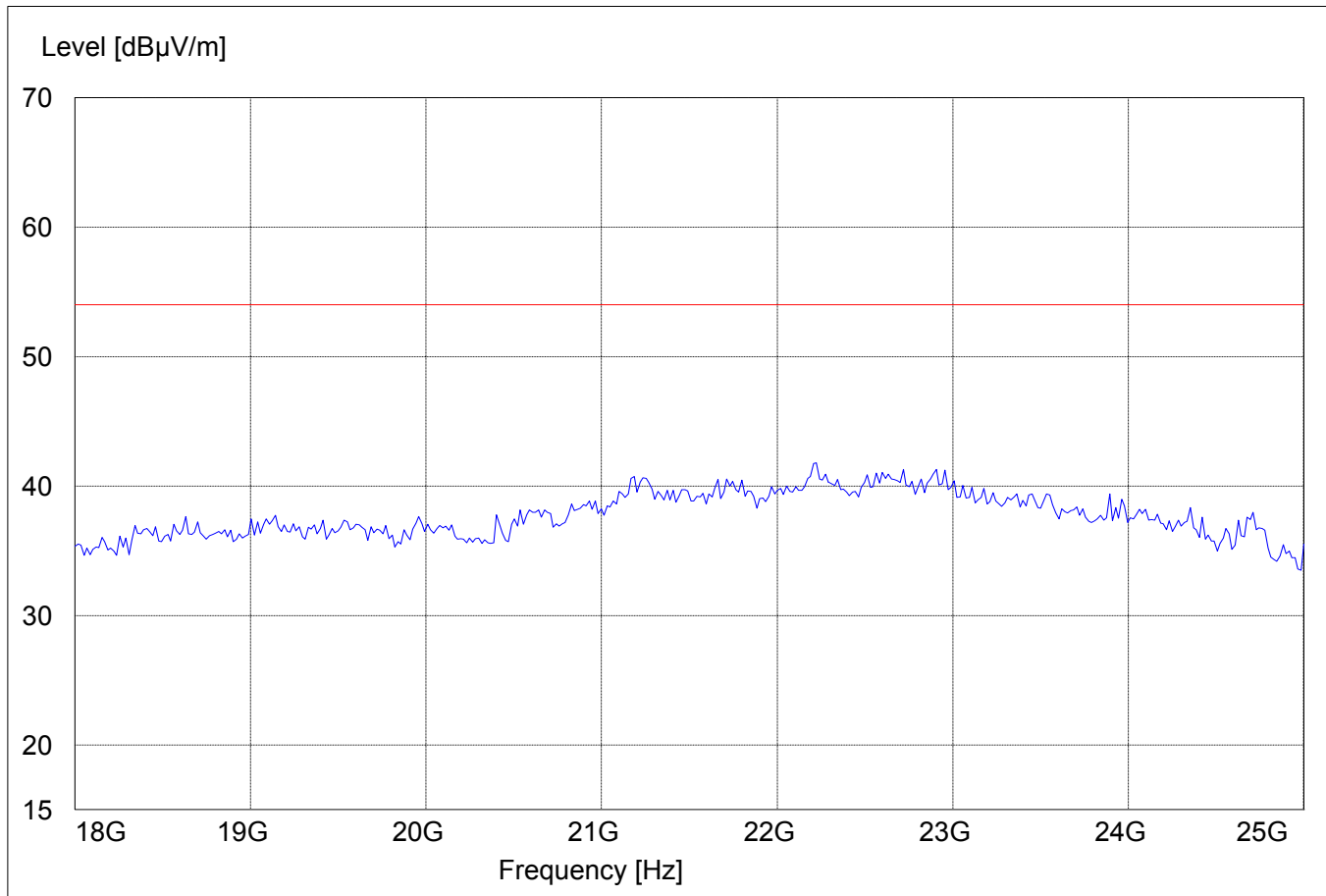
**RECEIVER RADIATED EMISSIONS**  
**EUT in Idle Mode: 3GHz – 18GHz****SWEEP TABLE: "FCC 24 spuri 3-18G"**

| <i>Start</i>     | <i>Stop</i>      | <i>Detector</i> | <i>Meas.</i> | <i>RBW/VBW</i> |
|------------------|------------------|-----------------|--------------|----------------|
| <i>Frequency</i> | <i>Frequency</i> |                 | <i>Time</i>  |                |
| 3GHz             | 18GHz            | Max Peak        | Coupled      | 1 MHz          |



**RECEIVER RADIATED EMISSIONS**  
**EUT in Idle Mode: 18GHz – 19.1GHz****SWEEP TABLE: "FCC 24 spuri 18-19.1G"**

| <i>Start</i>     | <i>Stop</i>      | <i>Detector</i> | <i>Meas.</i> | <i>RBW/VBW</i> |
|------------------|------------------|-----------------|--------------|----------------|
| <i>Frequency</i> | <i>Frequency</i> |                 | <i>Time</i>  |                |
| 18GHz            | 19.1GHz          | Max Peak        | Coupled      | 1 MHz          |



**CONDUCTED EMISSIONS**

§ 15.107/207

Measured with AC/DC power adapter plugged in LISN

Technical specification: 15.107 / 15.207 (Revised as of August 20, 2002)

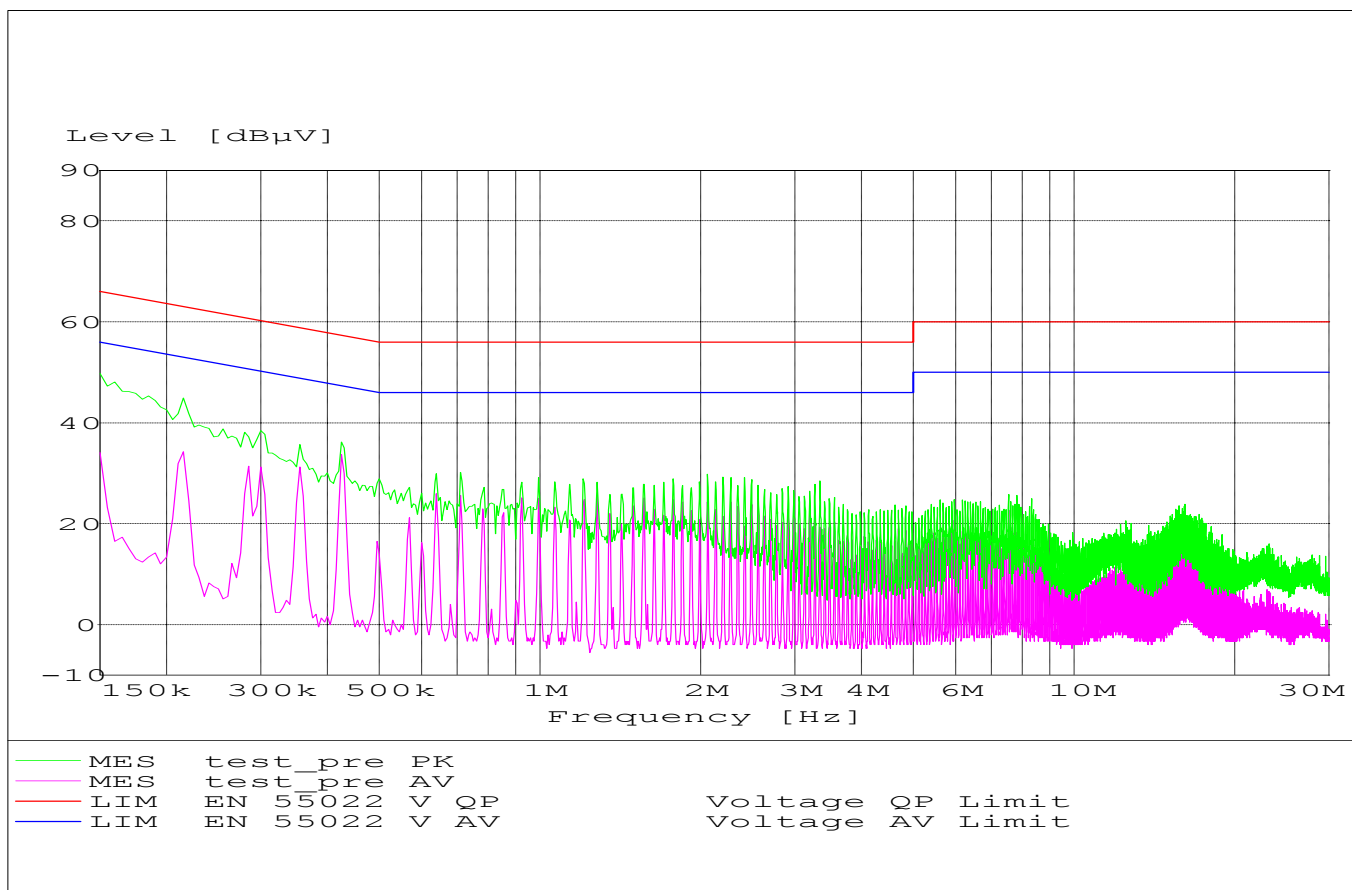
**Limit**

| Frequency of Emission (MHz) | Conducted Limit (dB $\mu$ V) |           |
|-----------------------------|------------------------------|-----------|
|                             | Quasi-Peak                   | Average   |
| 0.15 – 0.5                  | 66 to 56*                    | 56 to 46* |
| 0.5 – 5                     | 56                           | 46        |
| 5 – 30                      | 60                           | 50        |

\* Decreases with logarithm of the frequency

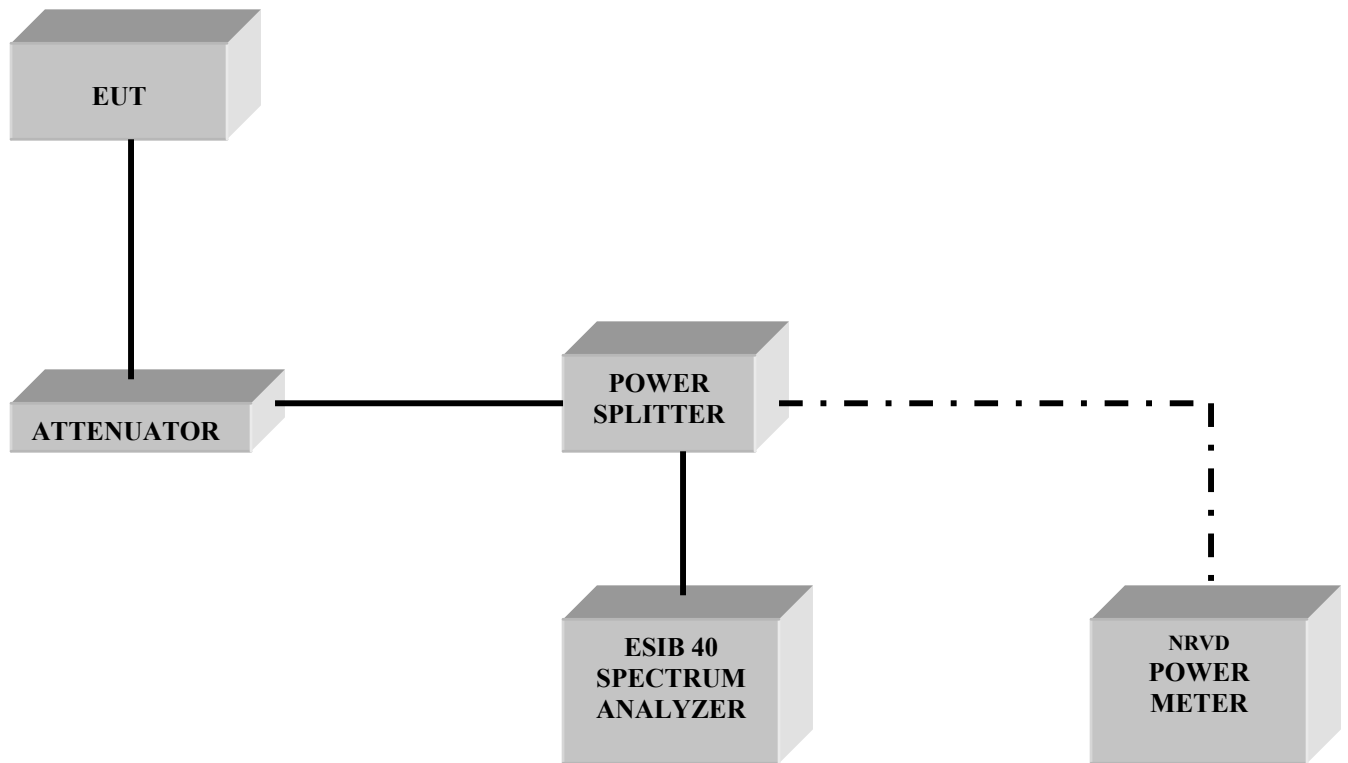
ANALYZER SETTINGS: RBW = 10KHz

VBW = 10KHz



**TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS**

| No | Instrument/Ancillary         | Type         | Manufacturer    | Serial No.   |
|----|------------------------------|--------------|-----------------|--------------|
| 01 | Spectrum Analyzer            | ESIB 40      | Rohde & Schwarz | 100107       |
| 02 | Spectrum Analyzer            | FSEM 30      | Rohde & Schwarz | 826880/010   |
| 03 | Signal Generator             | SMY02        | Rohde & Schwarz | 836878/011   |
| 04 | Power-Meter                  | NRVD         | Rohde & Schwarz | 0857.8008.02 |
| 05 | Biconilog Antenna            | 3141         | EMCO            | 0005-1186    |
| 06 | Horn Antenna (1-18GHz)       | SAS-200/571  | AH Systems      | 325          |
| 07 | Horn Antenna (18-26.5GHz)    | 3160-09      | EMCO            | 1240         |
| 08 | Power Splitter               | 11667B       | Hewlett Packard | 645348       |
| 09 | Climatic Chamber             | VT4004       | Voltsch         | G1115        |
| 10 | High Pass Filter             | 5HC2700      | Trilithic Inc.  | 9926013      |
| 11 | High Pass Filter             | 4HC1600      | Trilithic Inc.  | 9922307      |
| 12 | Pre-Amplifier                | JS4-00102600 | Miteq           | 00616        |
| 13 | Power Sensor                 | URV5-Z2      | Rohde & Schwarz | DE30807      |
| 14 | Digital Radio Comm. Tester   | CMD-55       | Rohde & Schwarz | 847958/008   |
| 15 | Universal Radio Comm. Tester | CMU 200      | Rohde & Schwarz | 832221/06    |

**BLOCK DIAGRAMS**  
**Conducted Testing**

**Radiated Testing**

**ANECHOIC CHAMBER**

