

**CETECOM Inc.**



**CETECOM Inc.**

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Issued test report consists of 59 Pages

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**FCC LISTED, REG. NO.: 101450  
&  
RECOGNIZED BY INDUSTRY CANADA  
IC – 3925**

**Test report no.:155 FCC/2001  
FCC Part 15.247  
PCMCIA Card - LW1100N  
(FCC ID: FFMLW1100N)**

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**1 General information**

**1.1 Notes**

**The test results of this test report relate exclusively to the test item specified in 1.5. The CETECOM Inc. USA 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. USA.**

**TEST REPORT PREPARED BY:**

EMC & Radio Engineer: Harpreet Sidhu

**1.2 Testing laboratory****CETECOM Inc.**

411 Dixon Landing Road, Milpitas, CA-95035, USA

Phone: +1 408 586 6200 Fax: +1 408 586 6299

E-mail: lothar.schmidt@cetecomusa.com

Internet: www.cetecom.com

**1.3 Details of applicant****Name : LG Electronics Inc.****Street : 60-39 Kasan-dong, Kumchon-gu****City : Seoul 153-023****Country : Korea****Telephone : +82 2 3289 3117****Telefax : +82 2 3289 3200****Contact : Mr. William KS. Oh****e-mail : [ksoh@lge.com](mailto:ksoh@lge.com)****1.4 Application details**

Date of receipt of application : 2001-05-15

Date of receipt of test item : 2001-05-21

Date of test : 2001-05-22/23/29

**1.5 Test item**

Manufacturer : LG Electronics Inc.

Address : See above

Name of EUT : PCMCIA Card

Descriptin : PCMCIA Card for laptop computer

Model No. : LW1100N

FCC ID : FFMLW1100N

**Additional informations:**

Frequency : 2412 – 2483.5 MHz

Type of modulation : DSSS

Number of channels : 11 Channels in US

Antenna : Internal

Power supply : +3VDC

Temperature range : -10°C - +50°C

**1.6 Test standards**      FCC Part 15 §15.247

The tests were done following the public notice DA 00-705 released March 30, 2000

**2 Technical test**

**2.1 Summary of test results**

**No deviations from the technical specification(s) were ascertained in the course of the tests performed.**

**Technical responsibility for area of testing :**

<b>2001-06-01</b>	<b>EMC&amp; Radio</b>	<b>Lothar Schmidt</b>
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<b>Date</b>	<b>Section</b>	<b>Name</b>	<b>Signature</b>
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**2.2 Testreport**

**TEST REPORT**

**Testreport no. : 155 FCC/2001**  
**PCMCIA Card - LW1100N**  
**FCC ID: FFMLW1100N**

**TEST REPORT REFERENCE****LIST OF MEASUREMENTS**

<b>Paragraph</b>	<b>PARAMETER TO BE MEASURED</b>	<b>PAGE</b>
	<b>Transmitter parameters</b>	
§ 15.247 (a)(2)	<b>Spectrum Bandwith of a DSSS System</b>	<b>7</b>
§ 15.247 (b)(1)	<b>Maximum peak output power</b>	<b>11</b>
§ 15.247 (c)(1)	<b>Emission limitations</b>	<b>16</b>
§ 15.247 (d)	<b>Power Spectral Density</b>	<b>35</b>
§ 15.247 (e)	<b>Processing Gain of DSSS System</b>	<b>39</b>
§ 15.107	<b>Conducted emissions</b>	<b>42</b>
	<b>Receiver parameters</b>	
§ 15.209	<b>Receiver Spurious Radiation</b>	<b>44</b>
	<b>Test equipment listing</b>	<b>52</b>
	<b>Test Site</b>	<b>53</b>
	<b>Photographs of the equipment</b>	<b>56</b>

**ANNEX: Details about processing gain.**

**SPECTRUM BANDWITH OF DSSS-SYSTEM**

**SUBCLAUSE § 15.247 (a)(2)**

TEST CONDITIONS		6 dB BANDWIDTH ( kHz )		
Frequency (MHz)		2412	2437	2462
T <sub>nom</sub> ( 23 )°C	V <sub>nom</sub> (3.0)V	11072	11422	11322
Measurement uncertainty		±3dB		

**LIMIT**

**SUBCLAUSE §15.247(a) (2)**

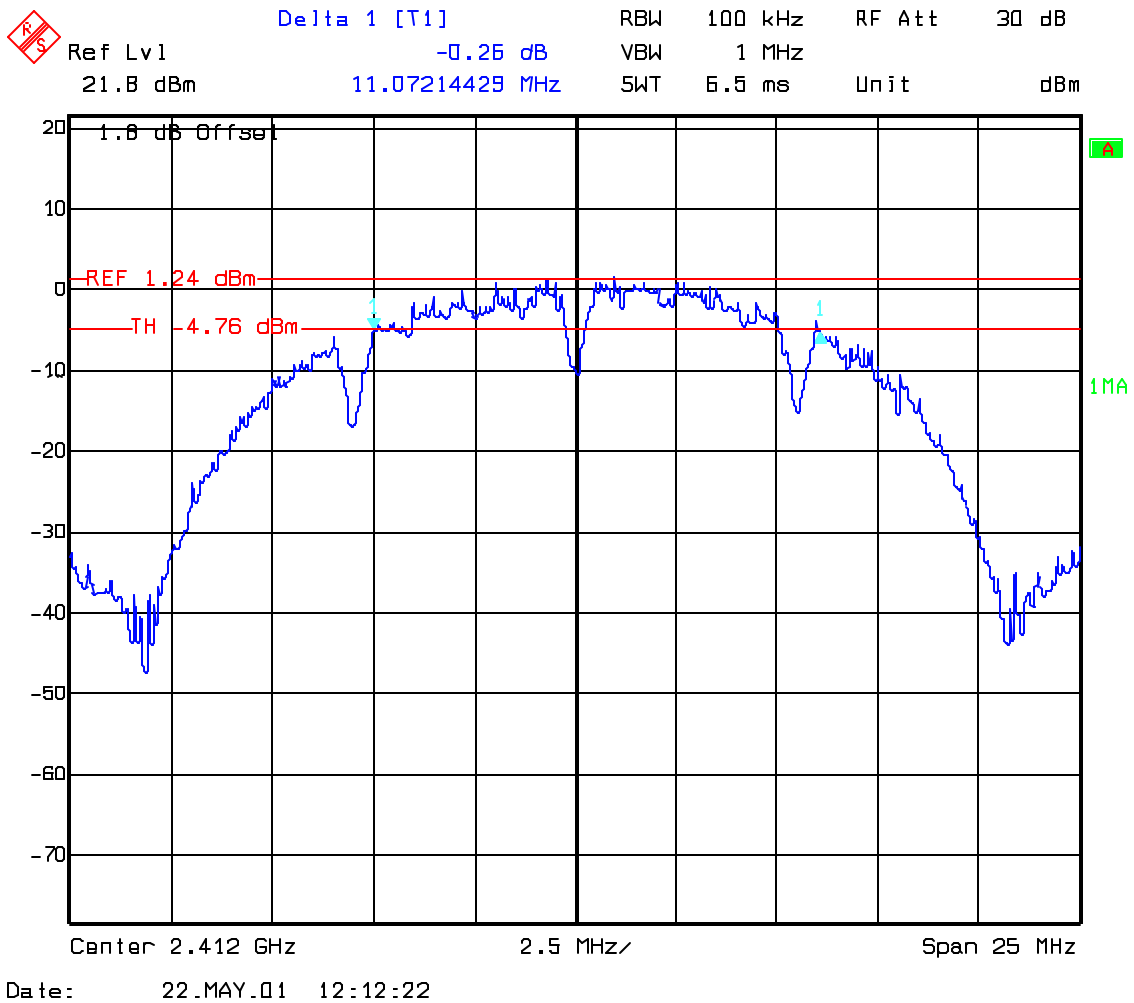
**The minimum 6dB bandwidth shall shall be at least 500 KHz**



SPECTRUM BANDWITH OF DSSS-SYSTEM

SUBCLAUSE § 15.247 (a)(2)

Lowest Channel: 2412 MHz



LIMIT

SUBCLAUSE §15.247(a) (2)

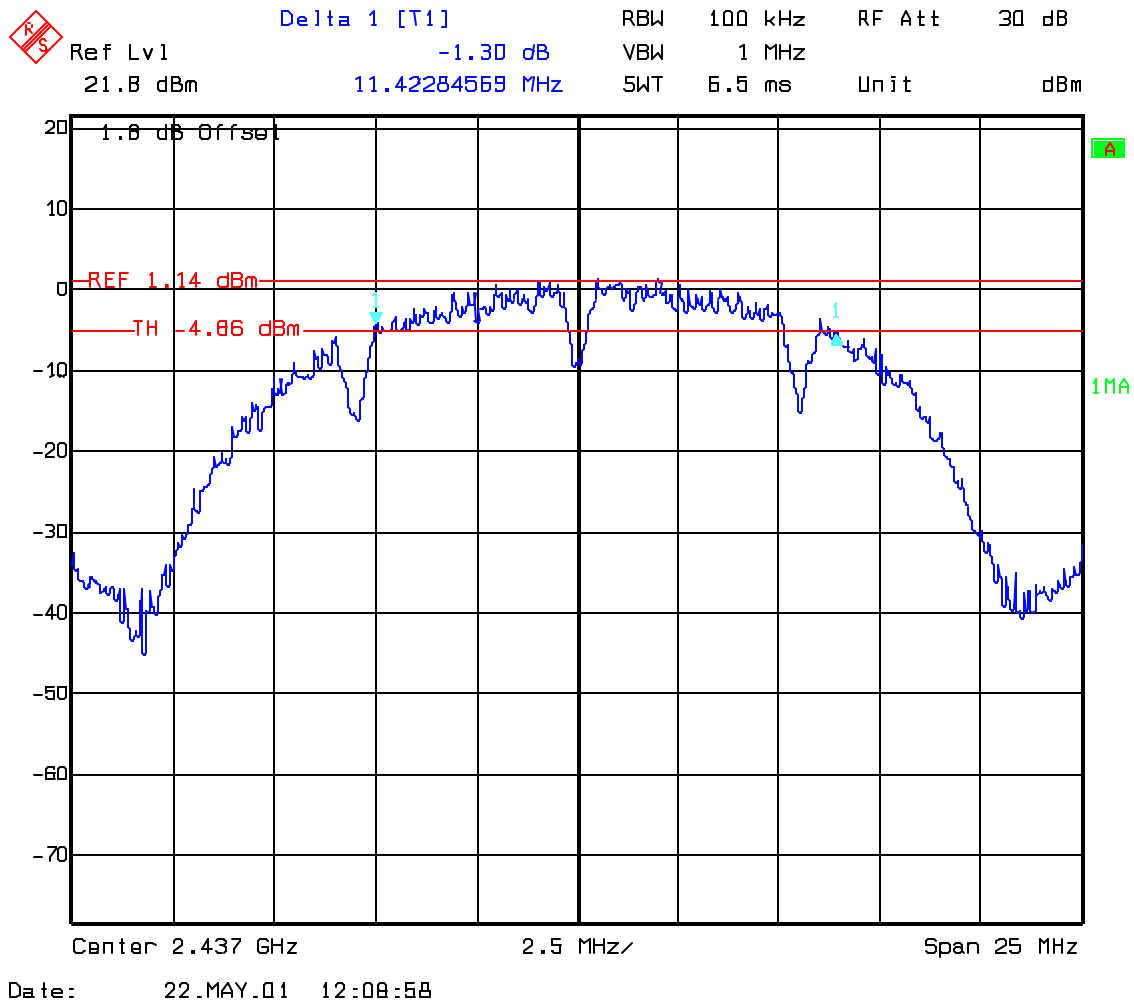
<p>The minimum 6dB bandwidth shall be at least 500 KHz , here 10.02 MHz</p>
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**ANALYZER SETTINGS: RBW=100KHz , VBW=1MHz**

SPECTRUM BANDWITH OF DSSS-SYSTEM

SUBCLAUSE § 15.247 (a)(2)

Mid Channel: 2437 MHz



LIMIT

SUBCLAUSE §15.247(a) (2)

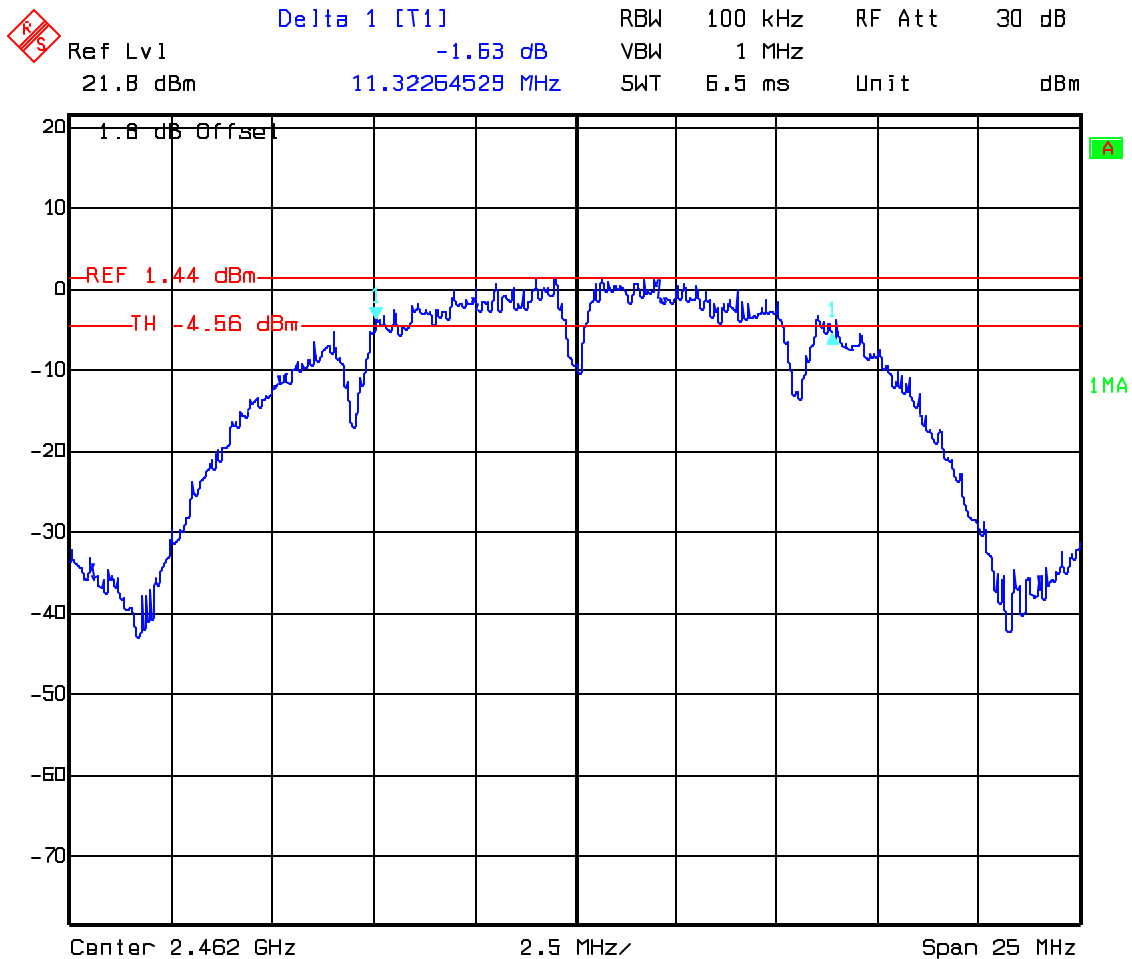
The minimum 6dB bandwidth shall be at least 500 KHz , here 11.42 MHz

**ANALYZER SETTINGS: RBW=100KHz , VBW=1MHz**

SPECTRUM BANDWITH OF DSSS-SYSTEM

SUBCLAUSE § 15.247 (a)(2)

Highest Channel: 2462 MHz



Date: 22.MAY.01 12:04:05

LIMIT

SUBCLAUSE §15.247(a) (2)

The minimum 6dB bandwidth shall be at least 500 KHz , here 10.02 MHz

**ANALYZER SETTINGS: RBW=100KHz, VBW=1MHz**

**MAXIMUM PEAK OUTPUT POWER  
(CONDUCTED)**

**SUBCLAUSE § 15.247 (b) (1)**

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER (dBm)					
		2412		2437		2462	
Frequency (MHz)		Pk	13.03	Pk	12.40	Pk	12.20
T <sub>nom</sub> ( 23 )°C	V <sub>nom</sub> (3.0)V	Av	7.84	Av	7.29	Av	7.13
Measurement uncertainty		±3dB					

**LIMIT**

**SUBCLAUSE § 15.247 (b) (1)**

Frequency range	RF power output
2400-2483.5 MHz / 5725 – 5850 MHz	1.0 Watt

**MAXIMUM PEAK OUTPUT POWER (EIRP)  
(RADIATED)**

**SUBCLAUSE § 15.247 (b) (1)**

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER (dBm)					
		2412		2437		2462	
Frequency (MHz)		Pk	20.07	Pk	18.72	Pk	19.18
T <sub>nom</sub> ( 23 )°C	V <sub>nom</sub> (3.0)V	Av	14.88	Av	13.61	Av	13.99
Measurement uncertainty		±3dB					

**LIMIT**

**SUBCLAUSE § 15.247 (b) (1)**

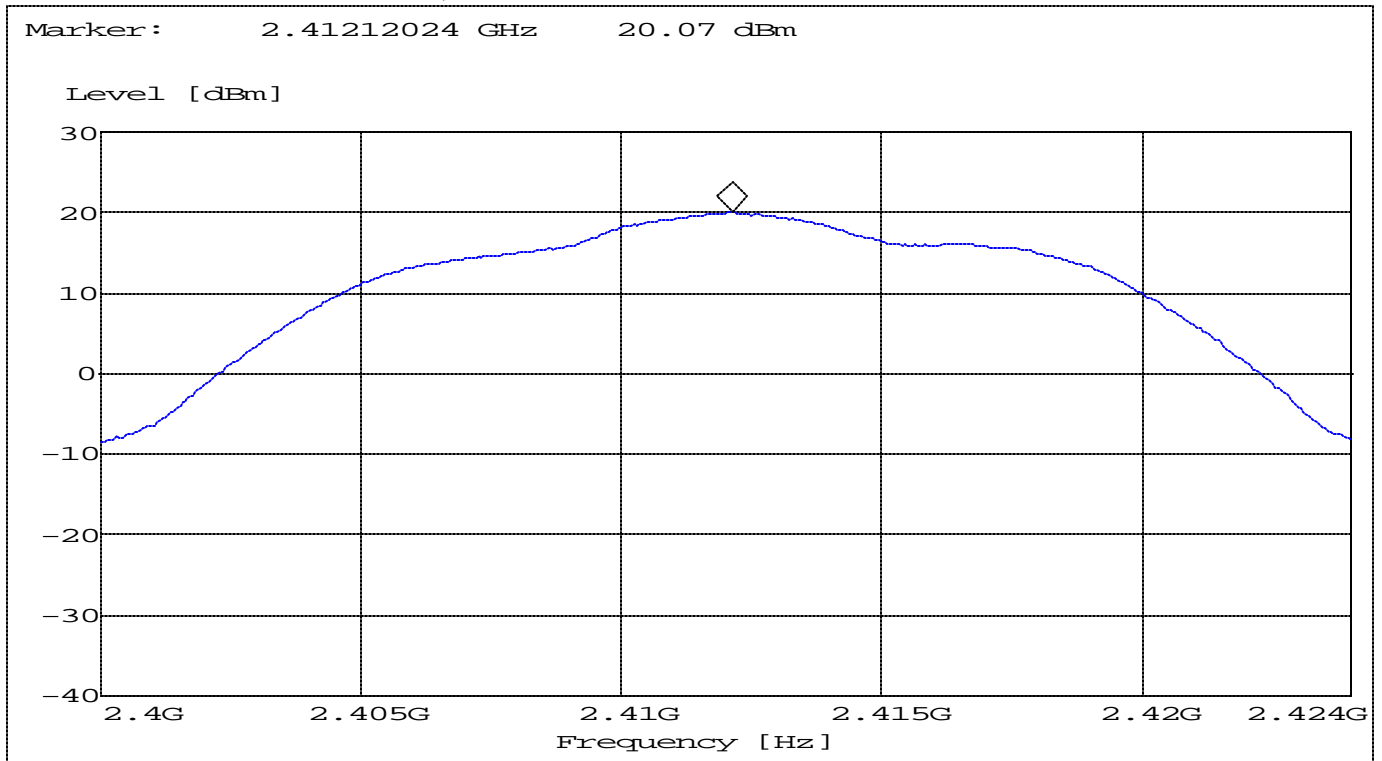
Frequency range	RF power output
2400-2483.5 MHz / 5725 – 5850 MHz	1.0 Watt

ANALYZER SETTINGS: RBW=3MHz , VBW=3MHz



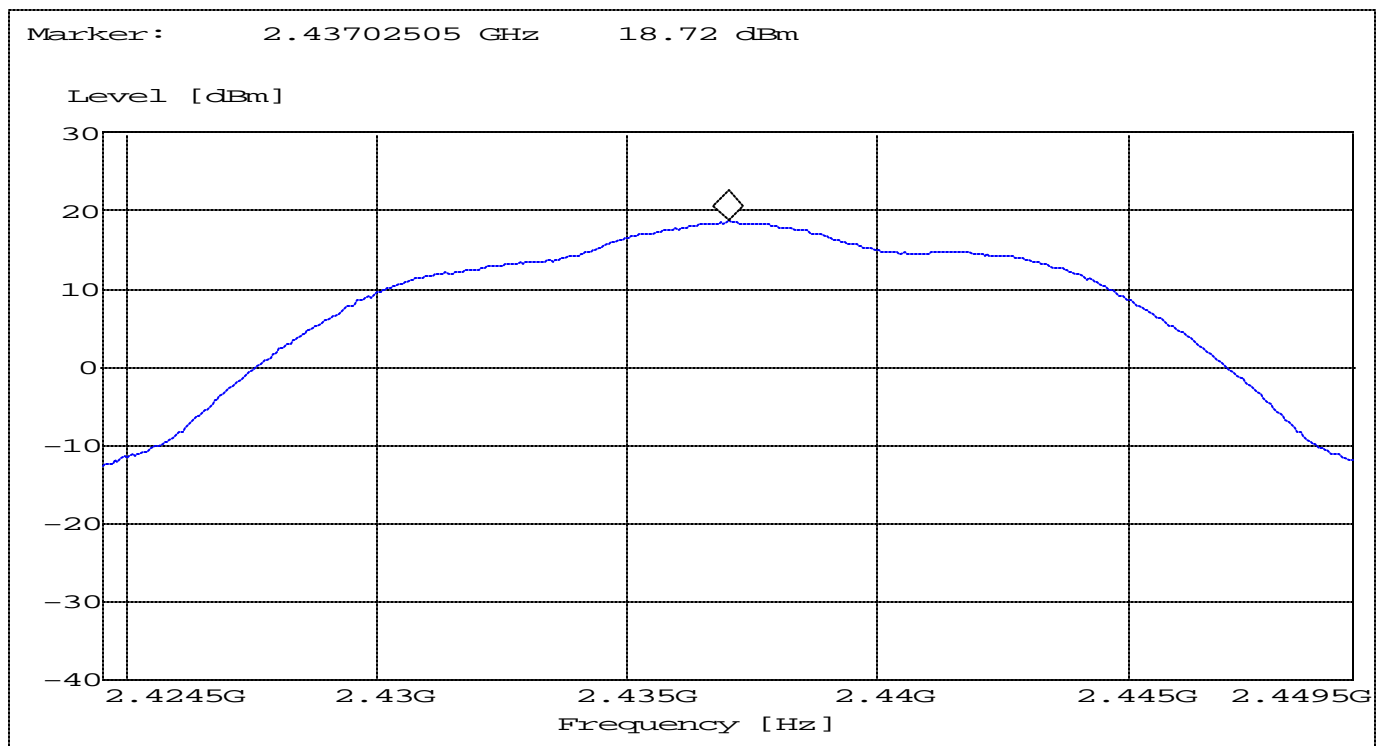
EIRP - Lowest Channel: 2412 MHz

ANALYZER SETTINGS: RBW=3MHz, VBW=3MHz



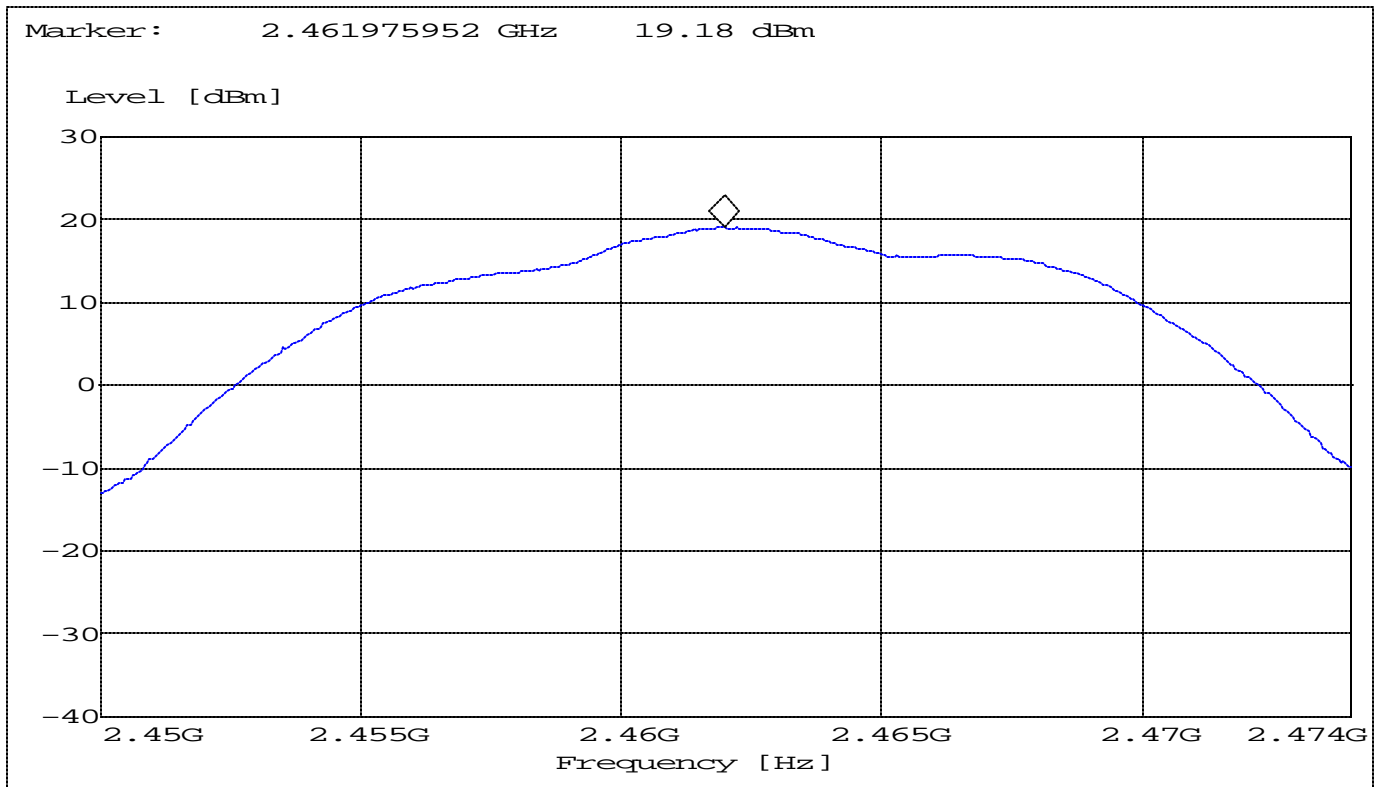
EIRP – Mid Channel: 2437 MHz

ANALYZER SETTINGS: RBW=3MHz, VBW=3MHz



EIRP – Highest Channel: 2462 MHz

ANALYZER SETTINGS: RBW=3MHz , VBW=3MHz

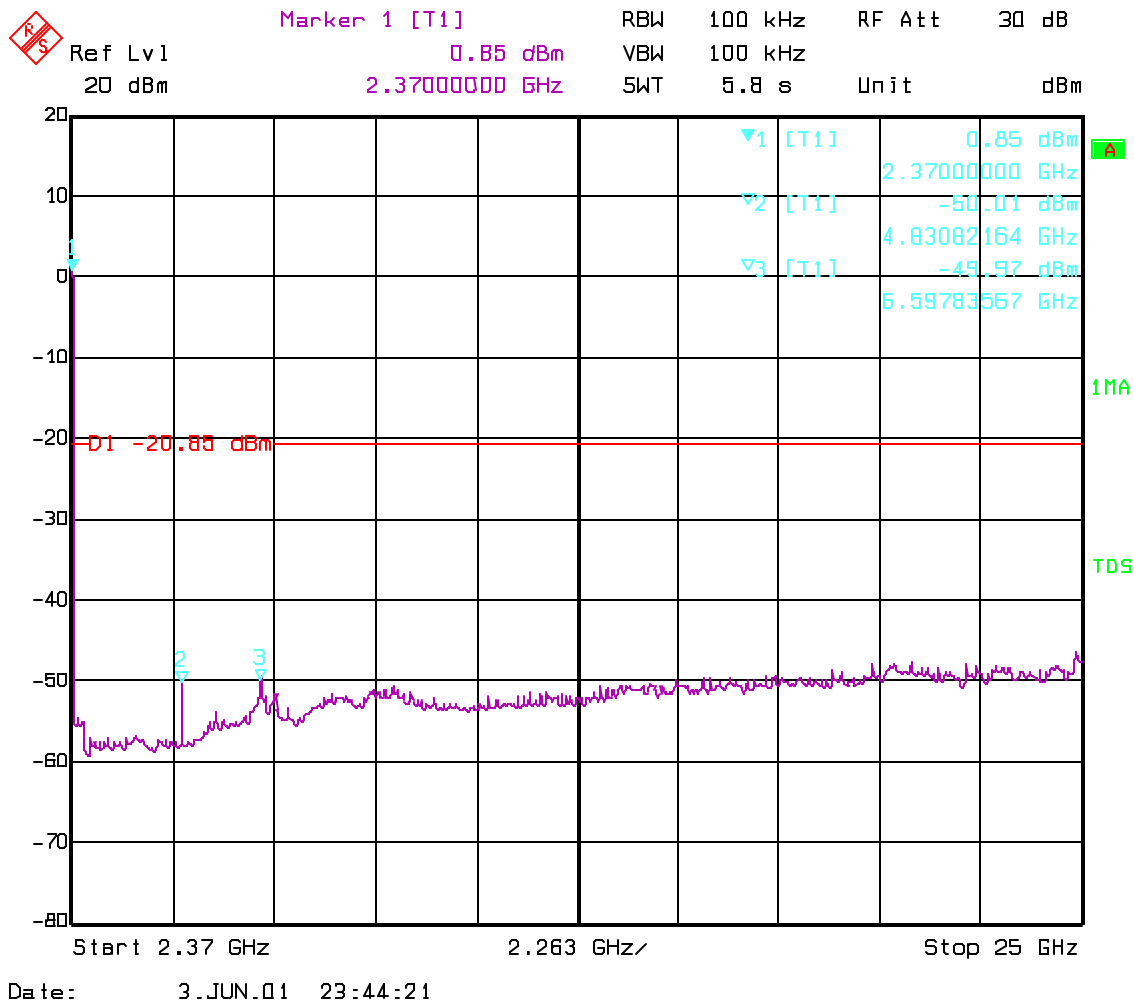


EMISSION LIMITATIONS (Transmitter)

SUBCLAUSE § 15.247 (c) (1)

conducted

2412 MHz up to 25 GHz



LIMITS

SUBCLAUSE § 15.247 (c)

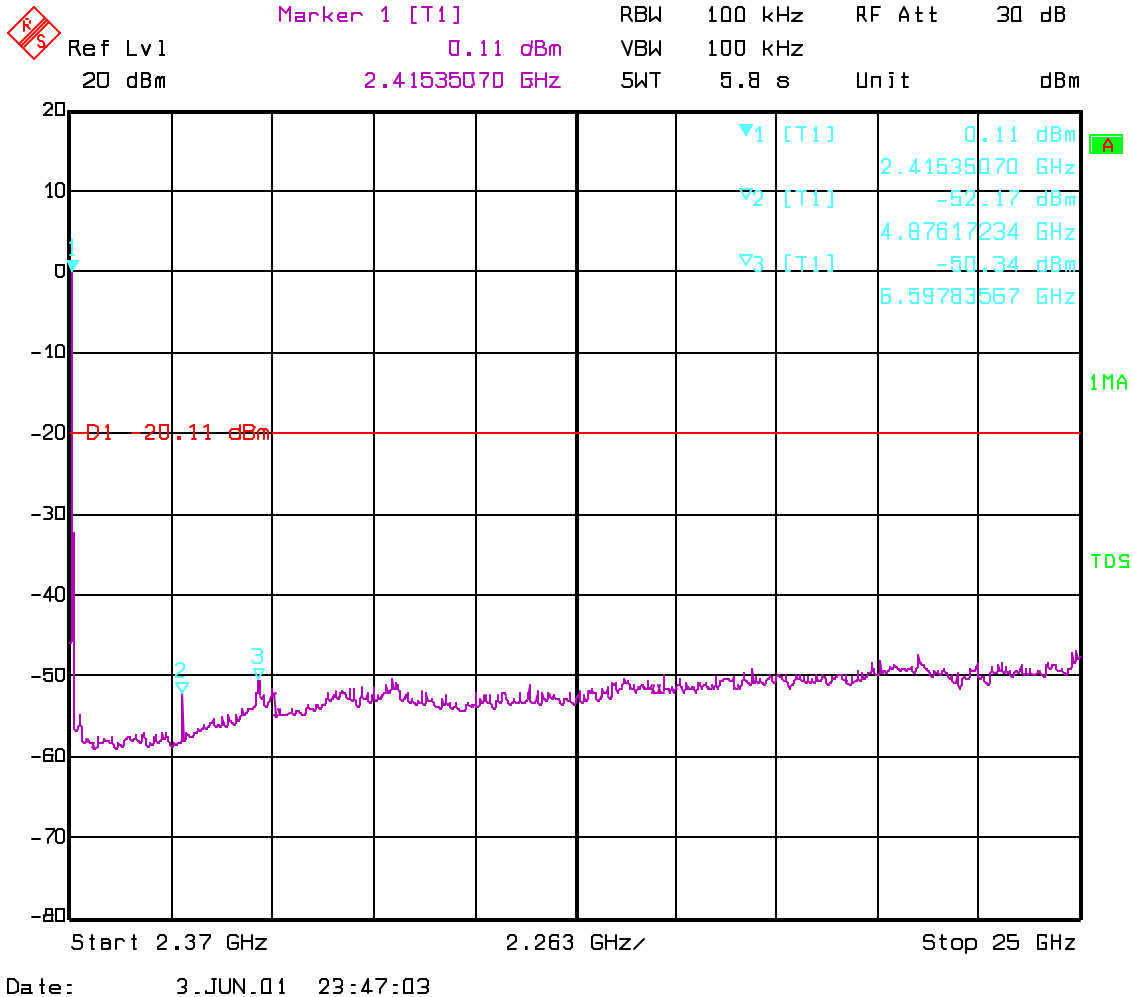
In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

ANALYZER SETTINGS: RBW=100KHz, VBW=1MHz

NOTE: The marked peak is the carrier frequency. Frequency resolution is not fine enough to show the exact frequency of the carrier, refer to plots under EIRP.

**EMISSION LIMITATIONS (Transmitter)**  
conducted  
 2437 MHz up to 25 GHz

**SUBCLAUSE § 15.247 (c) (1)**



**LIMITS**

**SUBCLAUSE § 15.247 (c)**

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

ANALYZER SETTINGS: RBW=100KHz, VBW=1MHz

NOTE: The marked peak is the carrier frequency. Frequency resolution is not fine enough to show the exact

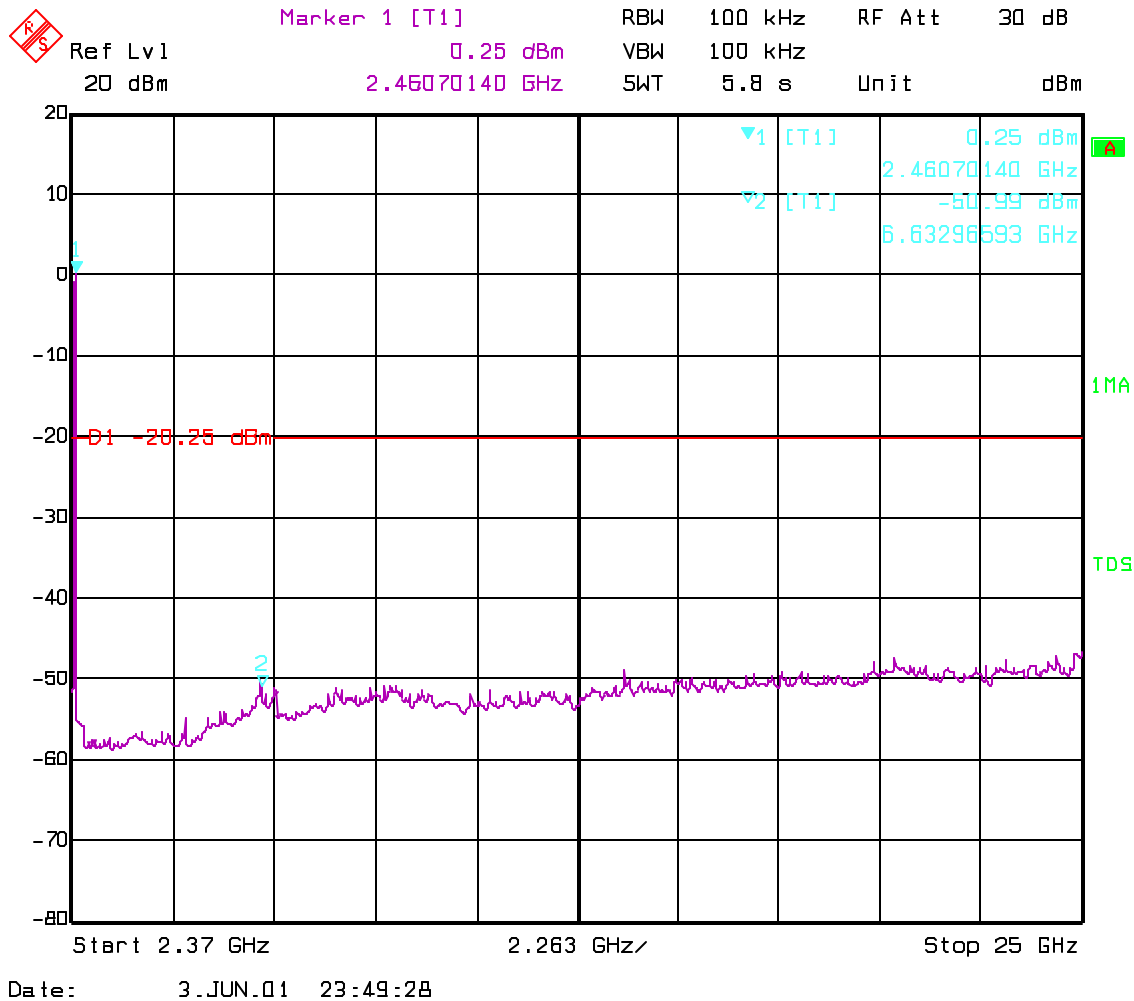
frequency of the carrier, refer to plots under EIRP.

EMISSION LIMITATIONS (Transmitter)

SUBCLAUSE § 15.247 (c) (1)

conducted

2462 MHz up to 25 GHz



LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

ANALYZER SETTINGS: RBW=100KHz, VBW=1MHz

NOTE: The marked peak is the carrier frequency. Frequency resolution is not fine enough to show the exact

frequency of the carrier, refer to plots under EIRP.

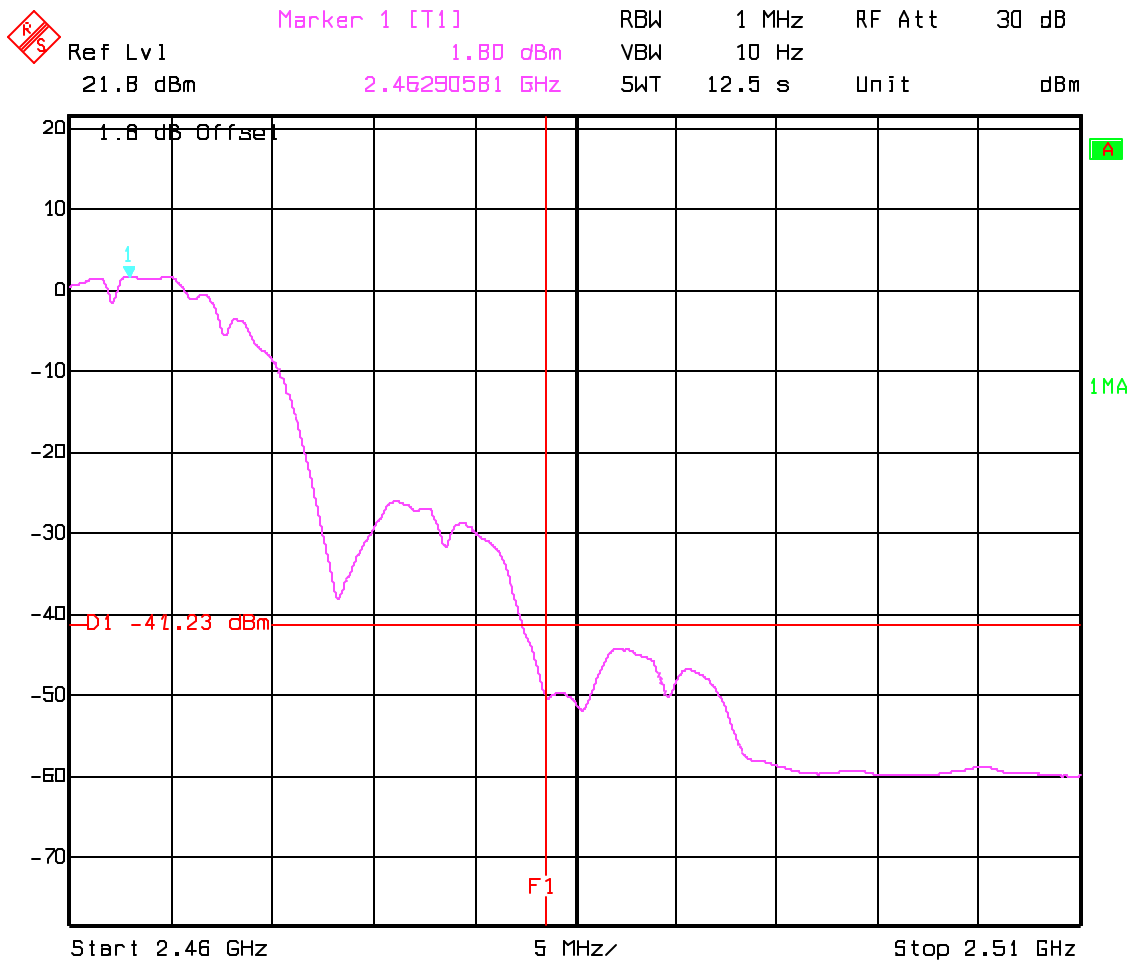




EMISSION LIMITATIONS (Transmitter)

SUBCLAUSE § 15.247 (c) (2)

conducted  
spurious in the restricted band 2483.5 – 2500 MHz  
(Higher Band Edge)



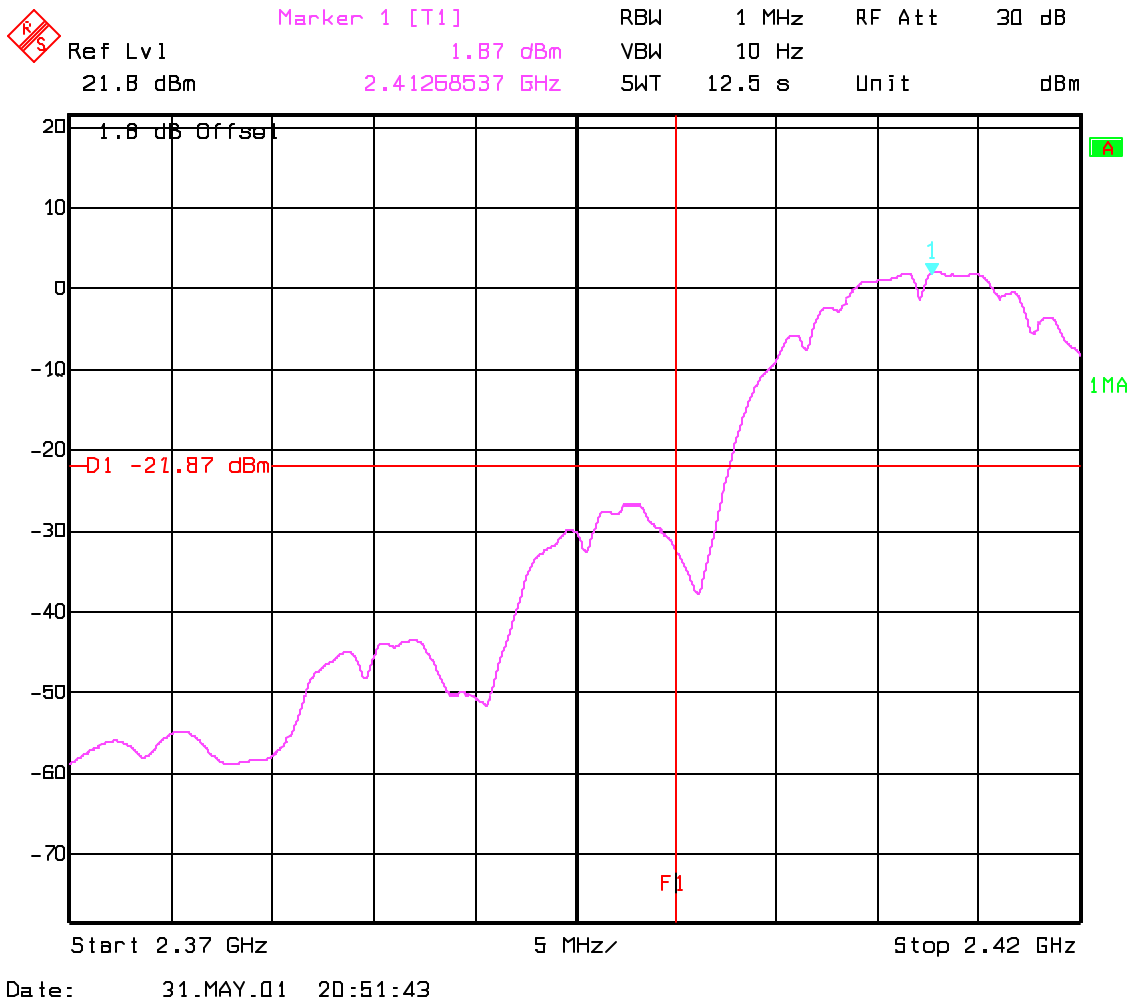
Date: 31.MAY.01 20:46:19

ANALYZER SETTINGS: RBW=1MHz, VBW=10Hz



Lower Band Edge

conducted



ANALYZER SETTINGS: RBW=1MHz, VBW=10Hz



**EMISSION LIMITATIONS (Transmitter)**

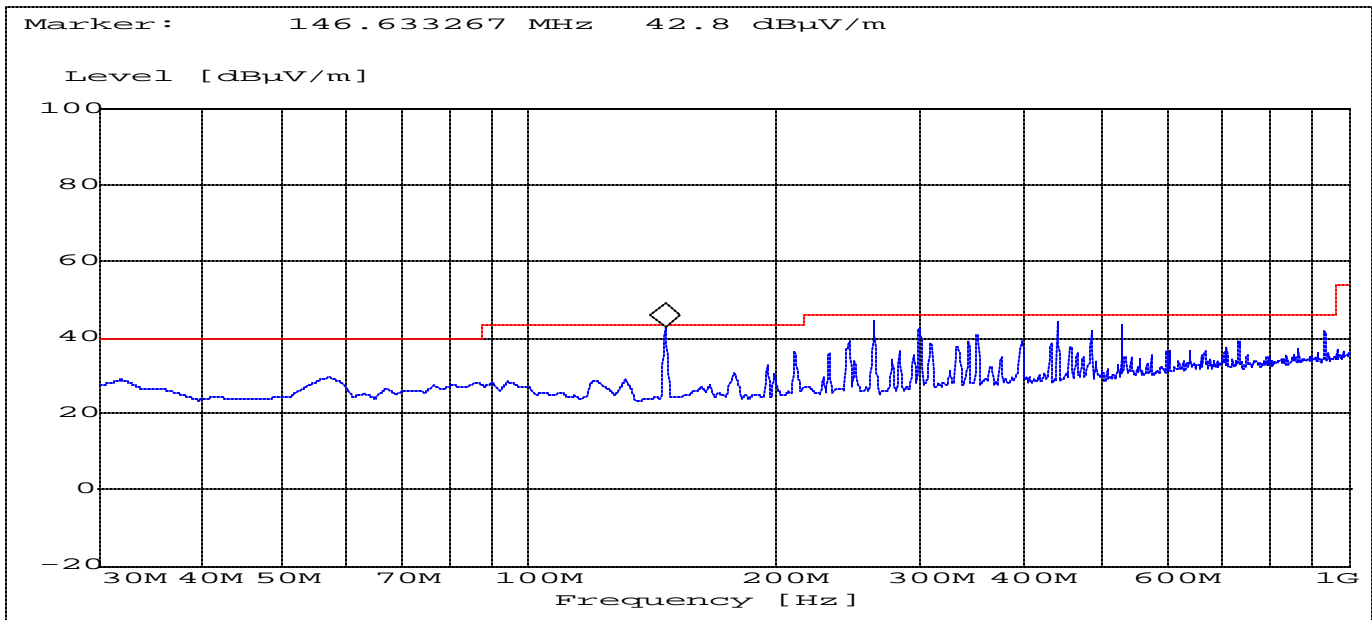
**SUBCLAUSE § 15.247 (c) (1)**

The spurious 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 18 and 26 GHz very short cable connections to the antenna was used to minimize the noise level. Channel 1: 2412 MHz; Channel 2: 2437 MHz; Channel 3: 2462 MHz.

**All emission measurements were done in Peak mode to reduce measurement time. In case limits are exceeded the measurements will be repeated and documented in the test report either with Quasi Peak or average detector depending on the frequency range specified in FCC 15 and/or DA00-705. Bandwidth, sweeptime etc. were set according DA00-705 and recorded**

**Lowest Channel(2412MHz): 30MHz-1GHz**

NOTE: The peaks closer to limit are coming from laptop, for confirmation see page no. 34



**LIMITS**

**SUBCLAUSE § 15.247 (c)**

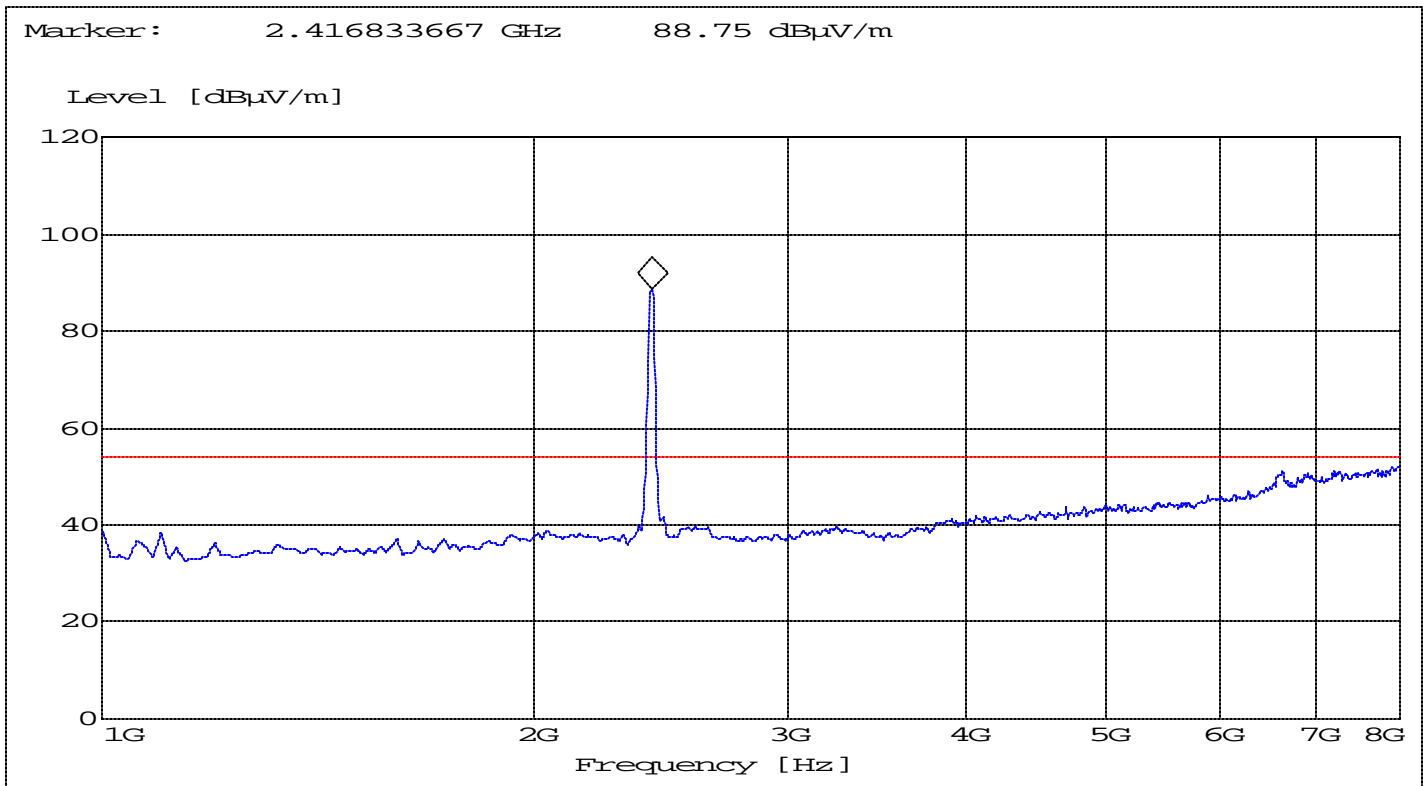
**In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).**

ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz

f ≥ 1GHz : RBW/VBW: 1 MHz

**EMISSION LIMITATIONS (Transmitter) SUBCLAUSE § 15.247 (c) (1)**

**Lowest Channel(2412MHz): 1GHz-8GHz**



**NOTE:** The marked peak is the carrier frequency. Frequency resolution is not fine enough to show the exact frequency of the carrier, refer to plots under EIRP.

**LIMITS**

**SUBCLAUSE § 15.247 (c)**

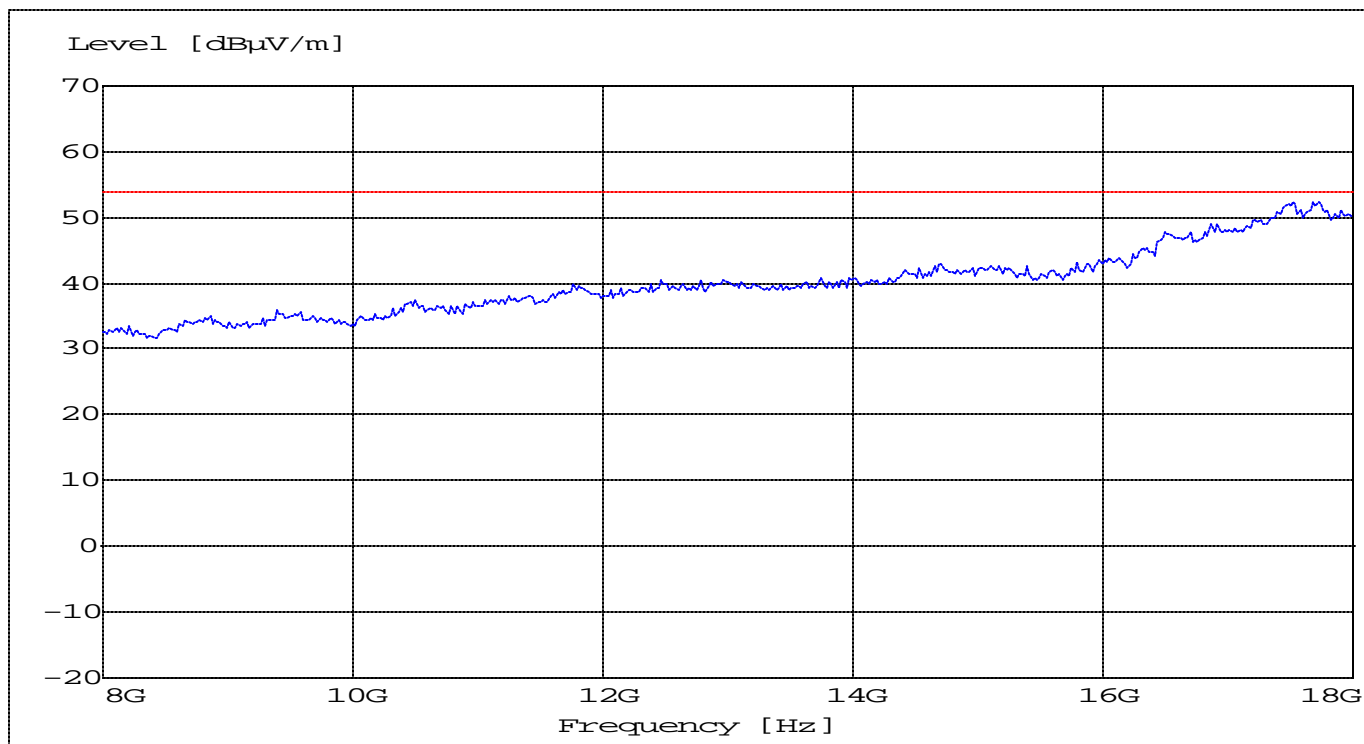
**In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).**

**ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz**

**f ≥ 1GHz : RBW/VBW: 1 MHz**

**EMISSION LIMITATIONS (Transmitter) SUBCLAUSE § 15.247 (c) (1)**

**Lowest Channel(2412MHz): 8GHz -18GHz**



**LIMITS**

**SUBCLAUSE § 15.247 (c)**

**In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).**

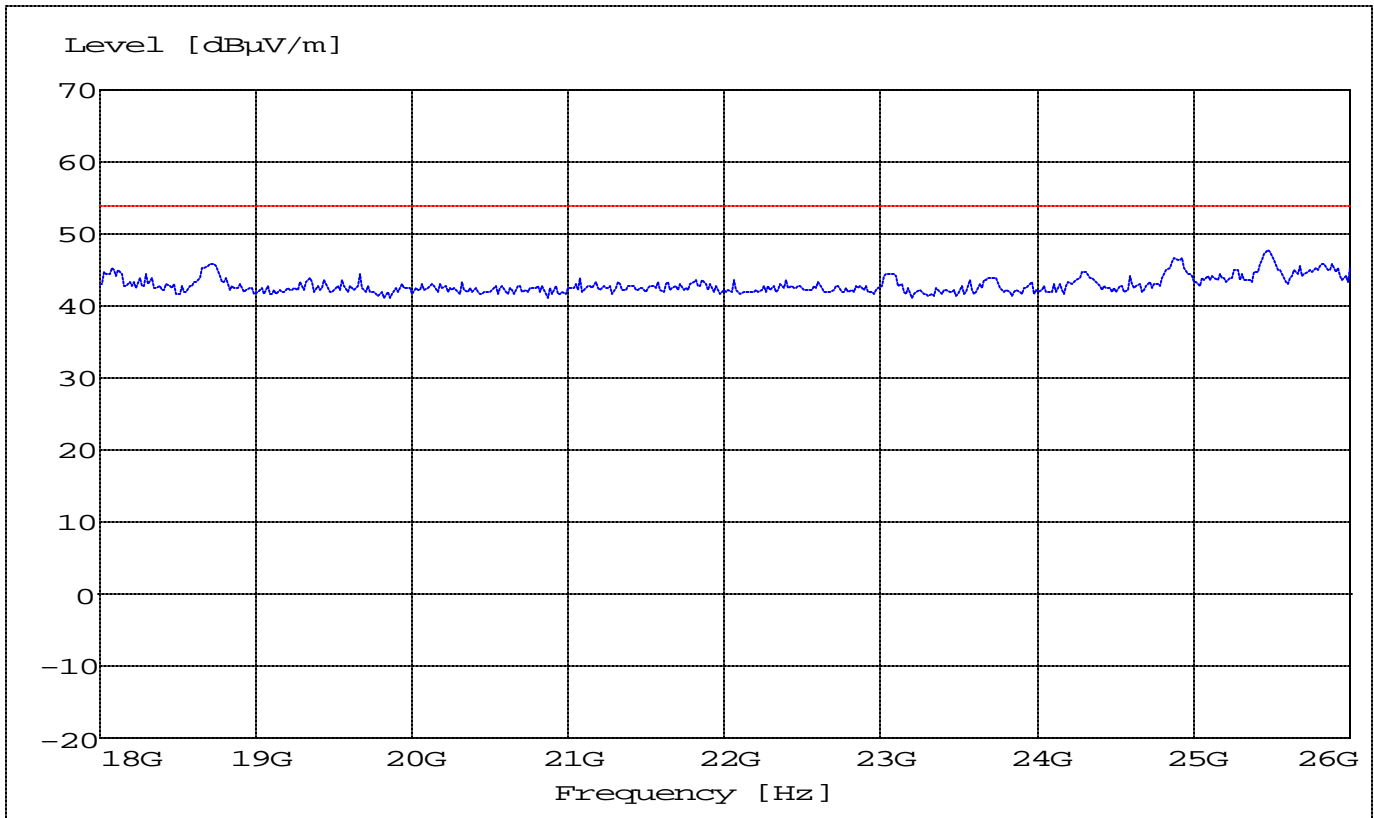
**ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz**

**f ≥ 1GHz : RBW/VBW: 1 MHz**



**EMISSION LIMITATIONS (Transmitter) SUBCLAUSE § 15.247 (c) (1)**

**Lowest Channel(2412MHz): 18GHz -26GHz**



**LIMITS**

**SUBCLAUSE § 15.247 (c)**

**In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).**

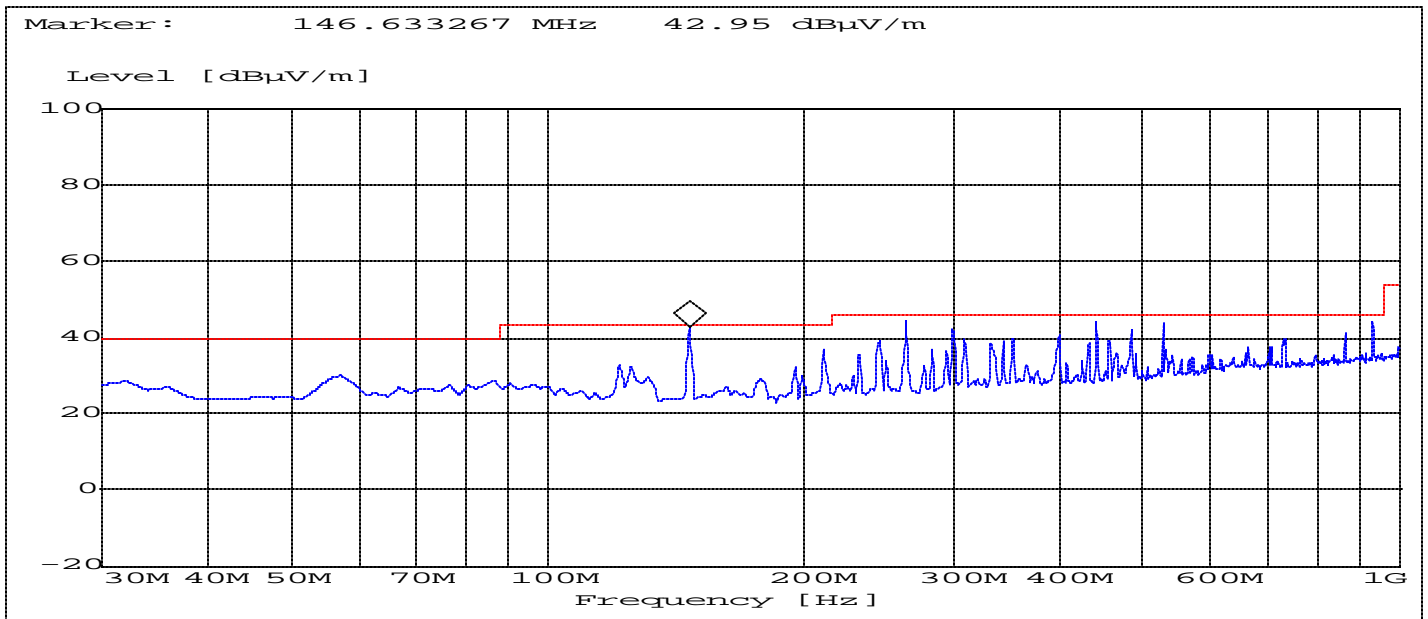
**ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz**

**f ≥ 1GHz : RBW/VBW: 1 MHz**

**EMISSION LIMITATIONS (Transmitter) SUBCLAUSE § 15.247 (c) (1)**

**Mid Channel(2437MHz): 30MHz -1GHz**

**NOTE: The peaks closer to limit are coming from laptop, for confirmation see page no. 34**



**LIMITS**

**SUBCLAUSE § 15.247 (c)**

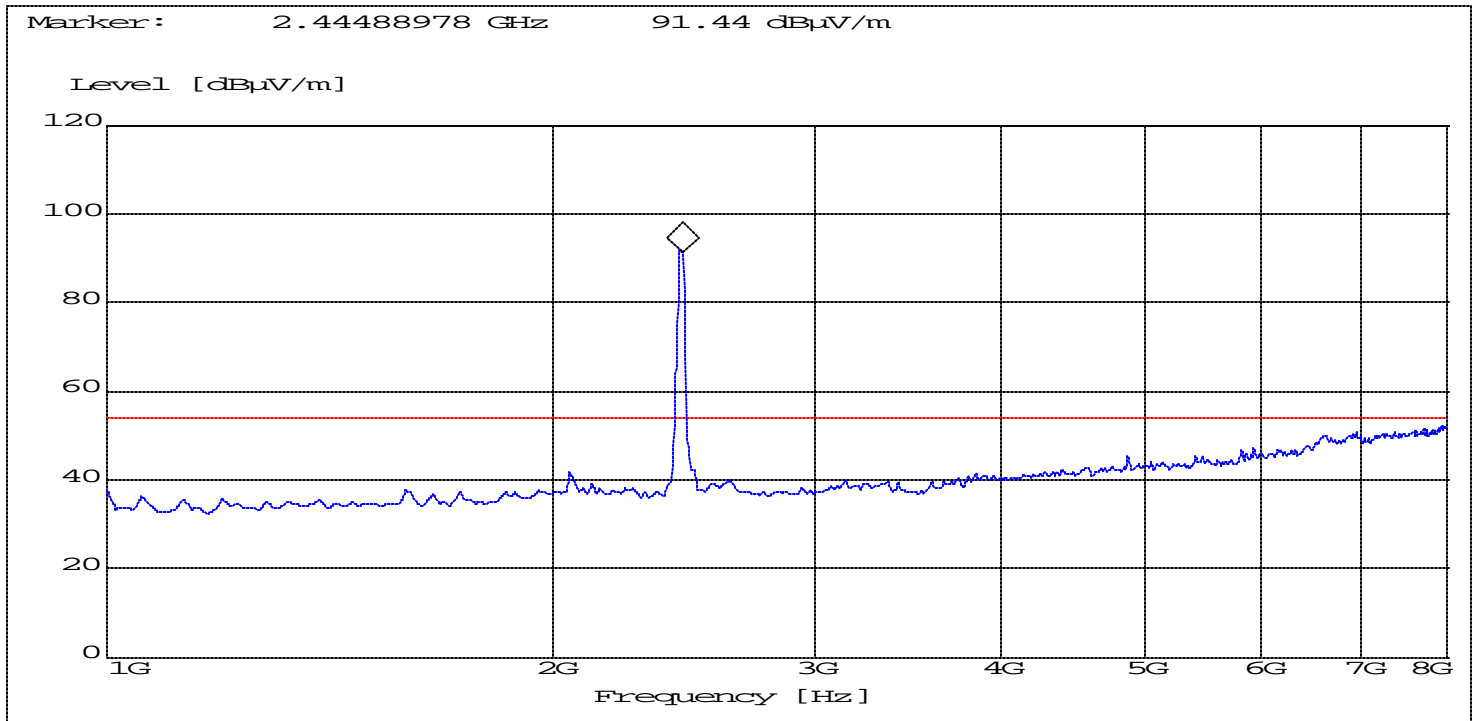
**In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).**

**ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz**

**f  $\geq$  1GHz : RBW/VBW: 1 MHz**

**EMISSION LIMITATIONS (Transmitter) SUBCLAUSE § 15.247 (c) (1)**

**Mid Channel(2437MHz): 1GHz -8GHz**



**NOTE:** The marked peak is the carrier frequency. Frequency resolution is not fine enough to show the exact frequency of the carrier, refer to plots under EIRP.

**LIMITS**

**SUBCLAUSE § 15.247 (c)**

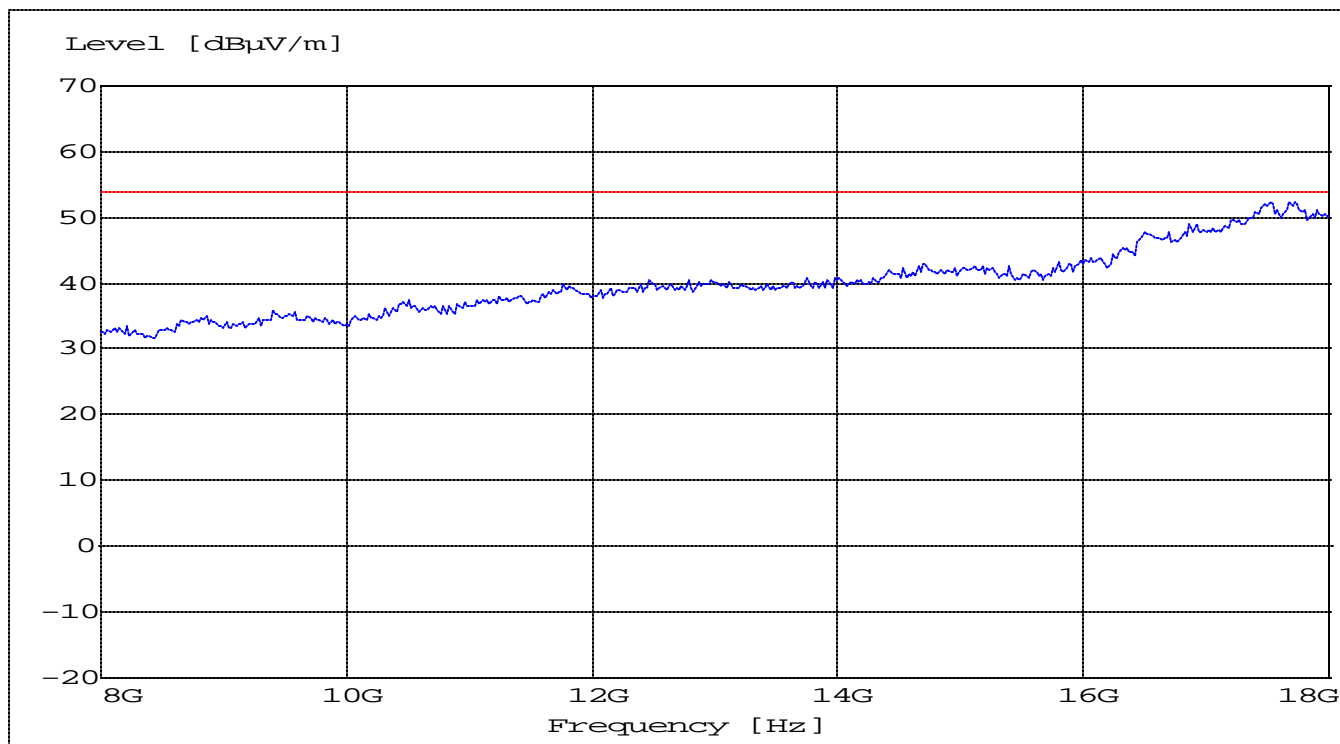
**In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).**

**ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz**

**f ≥ 1GHz : RBW/VBW: 1 MHz**

**EMISSION LIMITATIONS (Transmitter) SUBCLAUSE § 15.247 (c) (1)**

**Mid Channel(2437MHz): 8GHz -18GHz**



**LIMITS**

**SUBCLAUSE § 15.247 (c)**

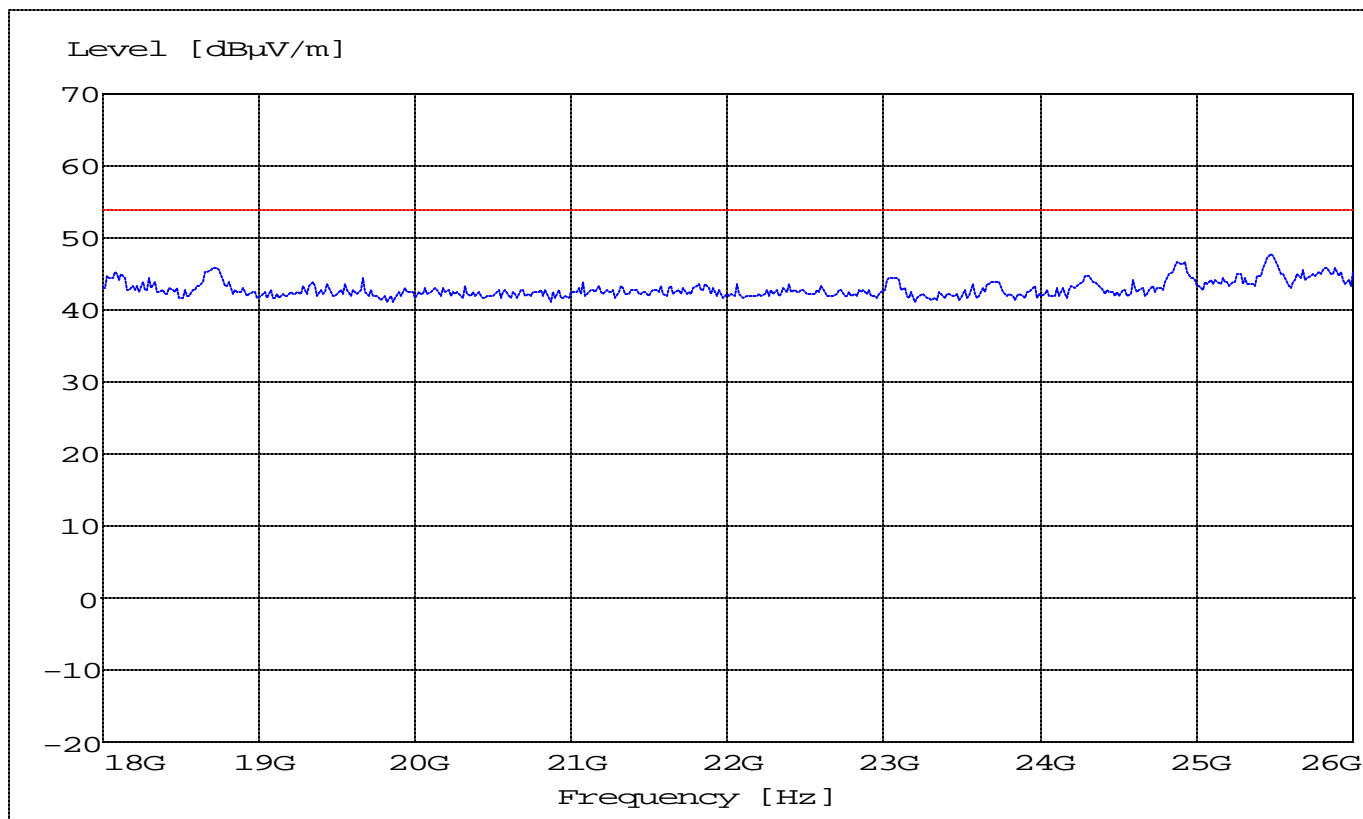
**In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).**

**ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz**

**f ≥ 1GHz : RBW/VBW: 1 MHz**

**EMISSION LIMITATIONS (Transmitter) SUBCLAUSE § 15.247 (c) (1)**

**Mid Channel(2437MHz): 18GHz -26GHz**



**LIMITS**

**SUBCLAUSE § 15.247 (c)**

**In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).**

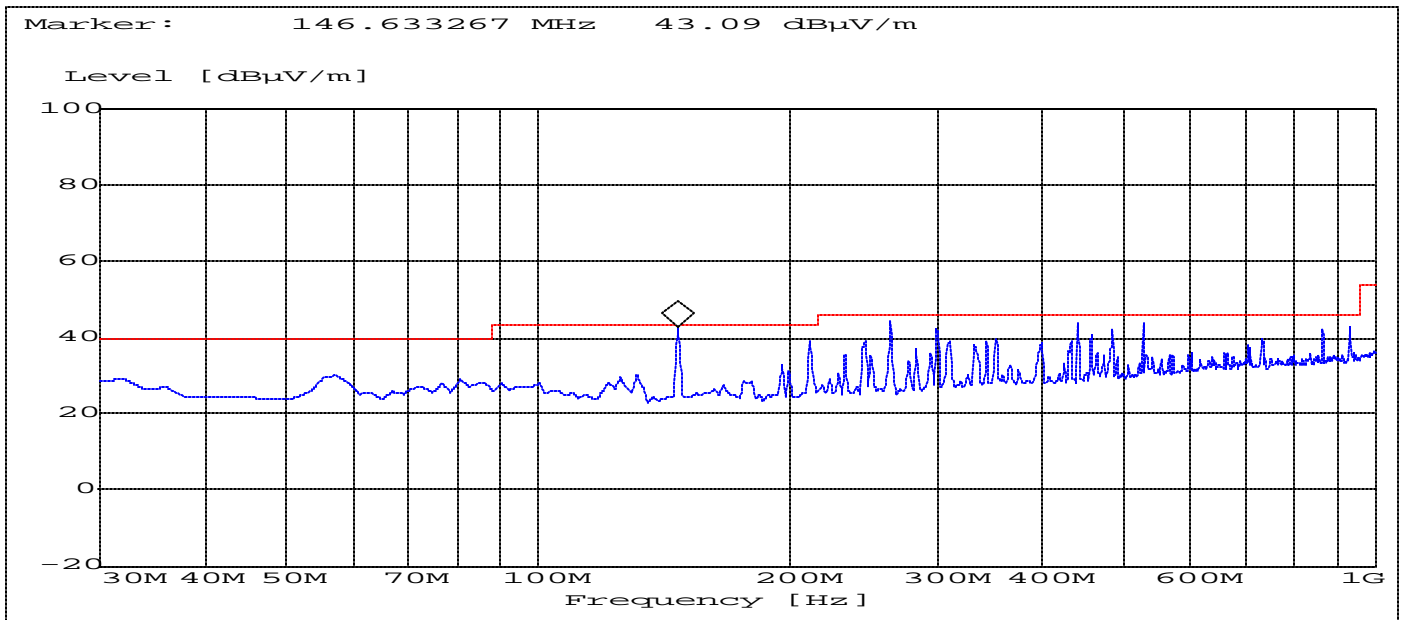
**ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz**

**f ≥ 1GHz : RBW/VBW: 1 MHz**

**EMISSION LIMITATIONS (Transmitter) SUBCLAUSE § 15.247 (c) (1)**

**Highest Channel(2462MHz): 30MHz -1GHz**

**NOTE: The peaks closer to limit are coming from laptop, for confirmation see page no. 34**



**LIMITS**

**SUBCLAUSE § 15.247 (c)**

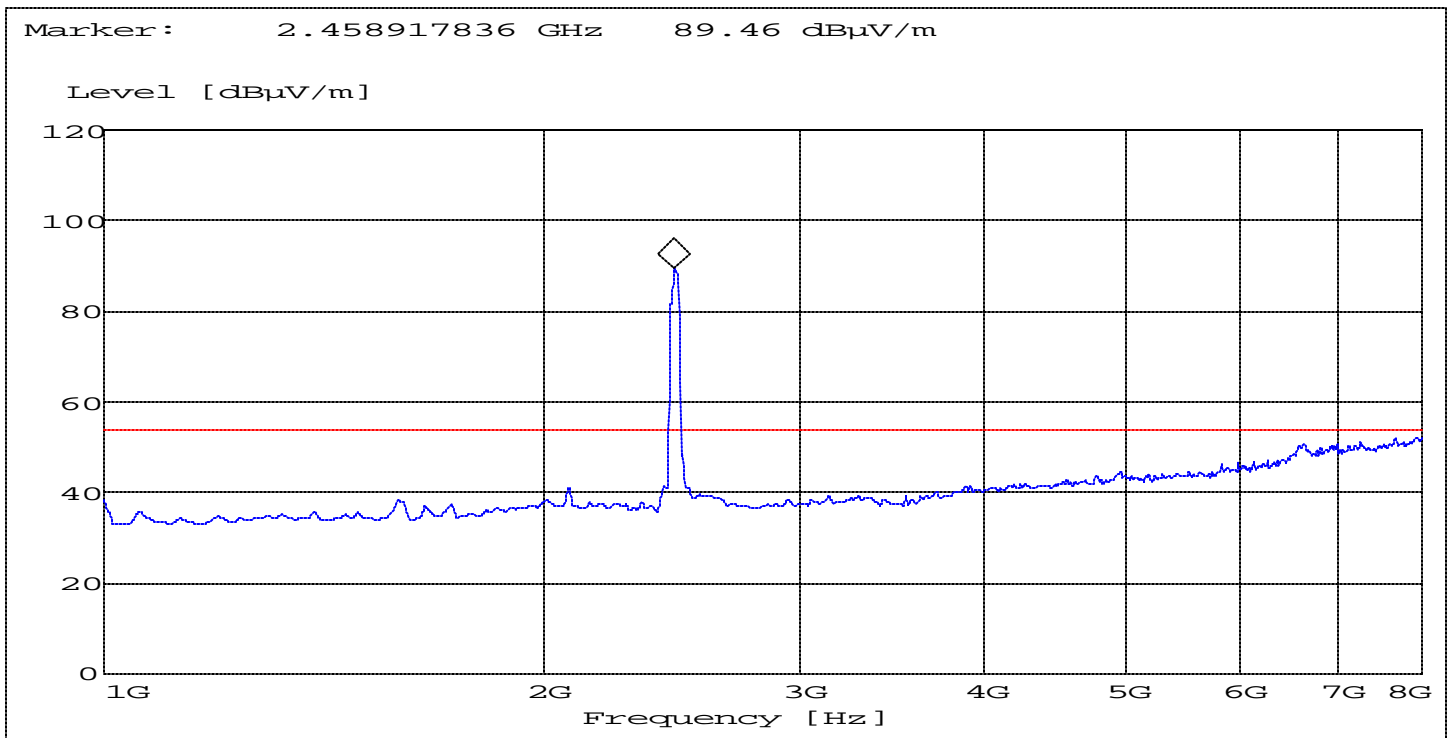
**In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).**

**ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz**

**f ≥ 1GHz : RBW/VBW: 1 MHz**

**EMISSION LIMITATIONS (Transmitter) SUBCLAUSE § 15.247 (c) (1)**

**Highest Channel(2462MHz): 1GHz -8GHz**



**NOTE: The marked peak is the carrier frequency. Frequency resolution is not fine enough to show the exact frequency of the carrier, refer to plots under EIRP.**

**LIMITS**

**SUBCLAUSE § 15.247 (c)**

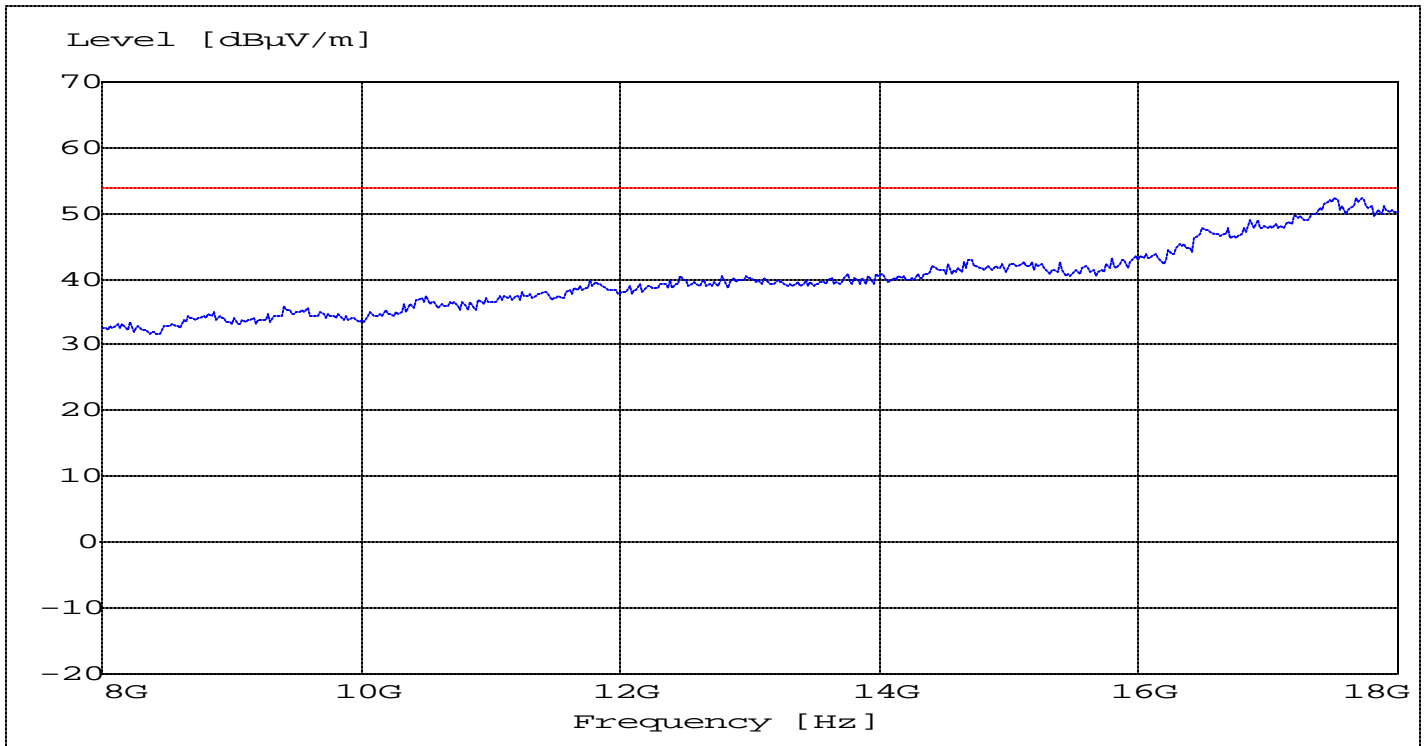
**In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).**

**ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz**

**f ≥ 1GHz : RBW/VBW: 1 MHz**

**EMISSION LIMITATIONS (Transmitter) SUBCLAUSE § 15.247 (c) (1)**

**Highest Channel(2462MHz): 8GHz -18GHz**



**LIMITS**

**SUBCLAUSE § 15.247 (c)**

**In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).**

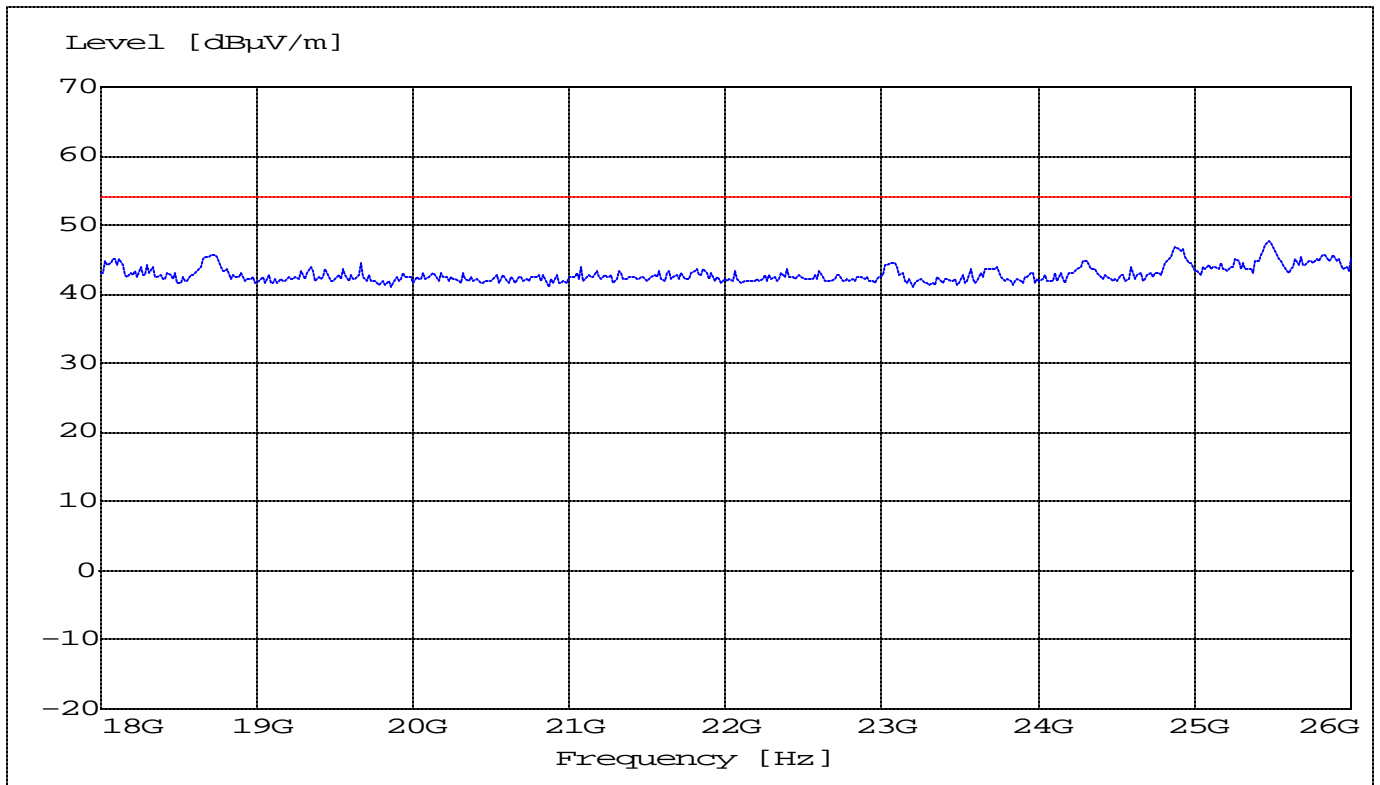
**ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz**

**f ≥ 1GHz : RBW/VBW: 1 MHz**



**EMISSION LIMITATIONS (Transmitter) SUBCLAUSE § 15.247 (c) (1)**

**Highest Channel(2462MHz): 18GHz -26GHz**



**LIMITS**

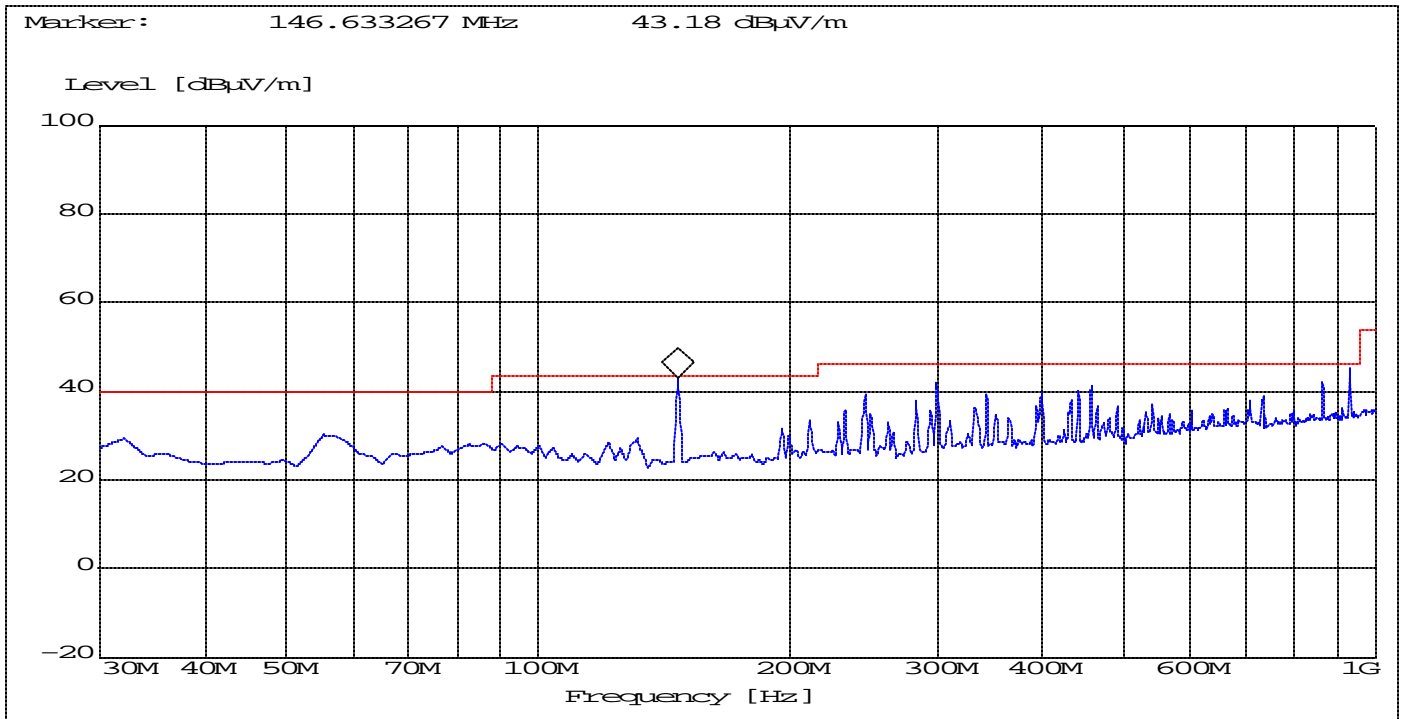
**SUBCLAUSE § 15.247 (c)**

**In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).**

**ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz**

**f ≥ 1GHz : RBW/VBW: 1 MHz**

Emissions from Laptop : 30MHz – 1GHz



**POWER SPECTRAL DENSITY**

**SUBCLAUSE § 15.247 (d)**

TEST CONDITIONS		RF POWER LEVEL IN 3 kHz BW		
		2412	2437	2462
Frequency (MHz)				
T <sub>nom</sub> ( 23 )° C	V <sub>nom</sub> (3.0)V	-10.14 dBm	-10.70dBm	-10.92 dBm
Measurement uncertainty		±3dB		

**LIMIT**

**SUBCLAUSE §15.247(d)**

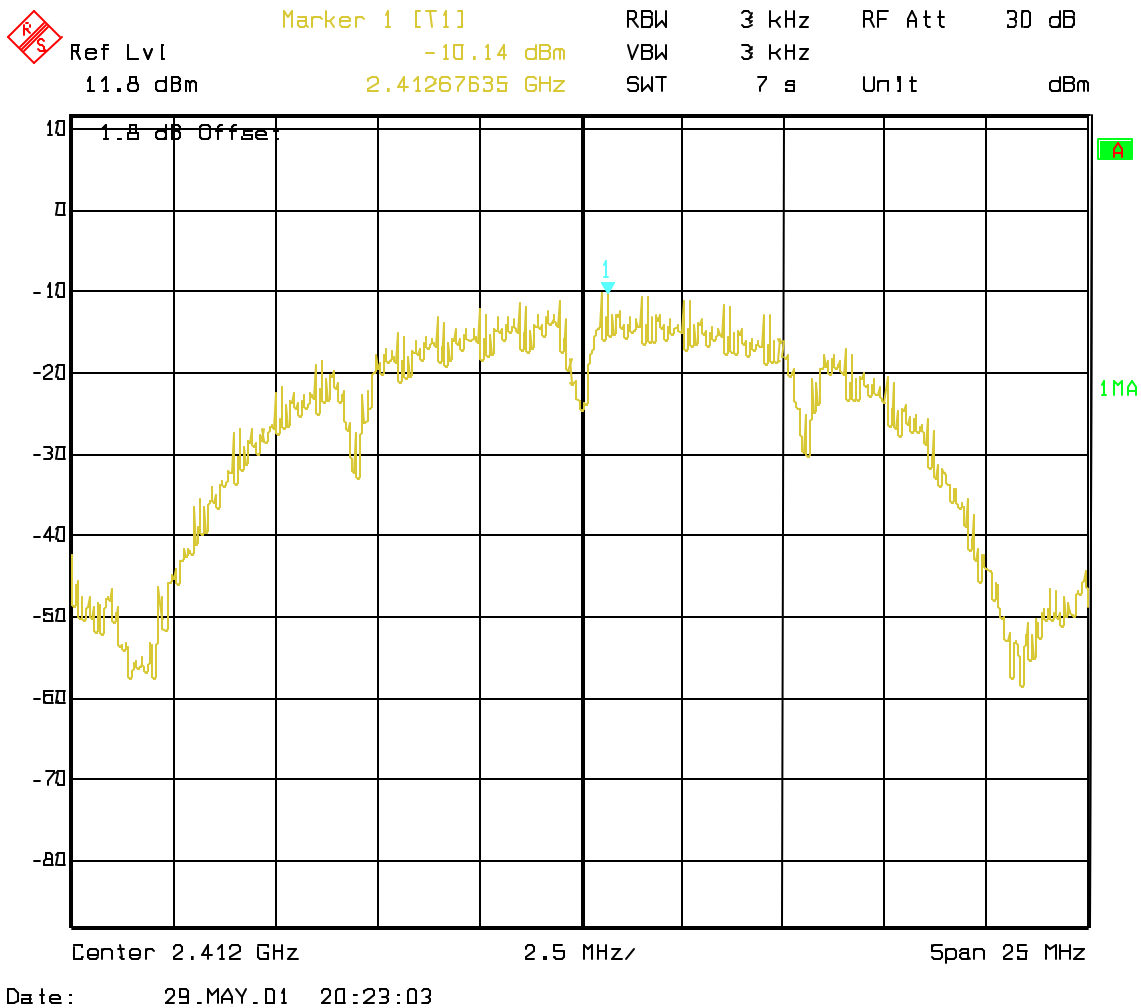
**The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band**

**ANALYZER SETTINGS: RBW=3KHz , VBW=3KHz**

POWER SPECTRAL DENSITY

SUBCLAUSE § 15.247 (d)

Lowest Channel: 2412 MHz



LIMIT

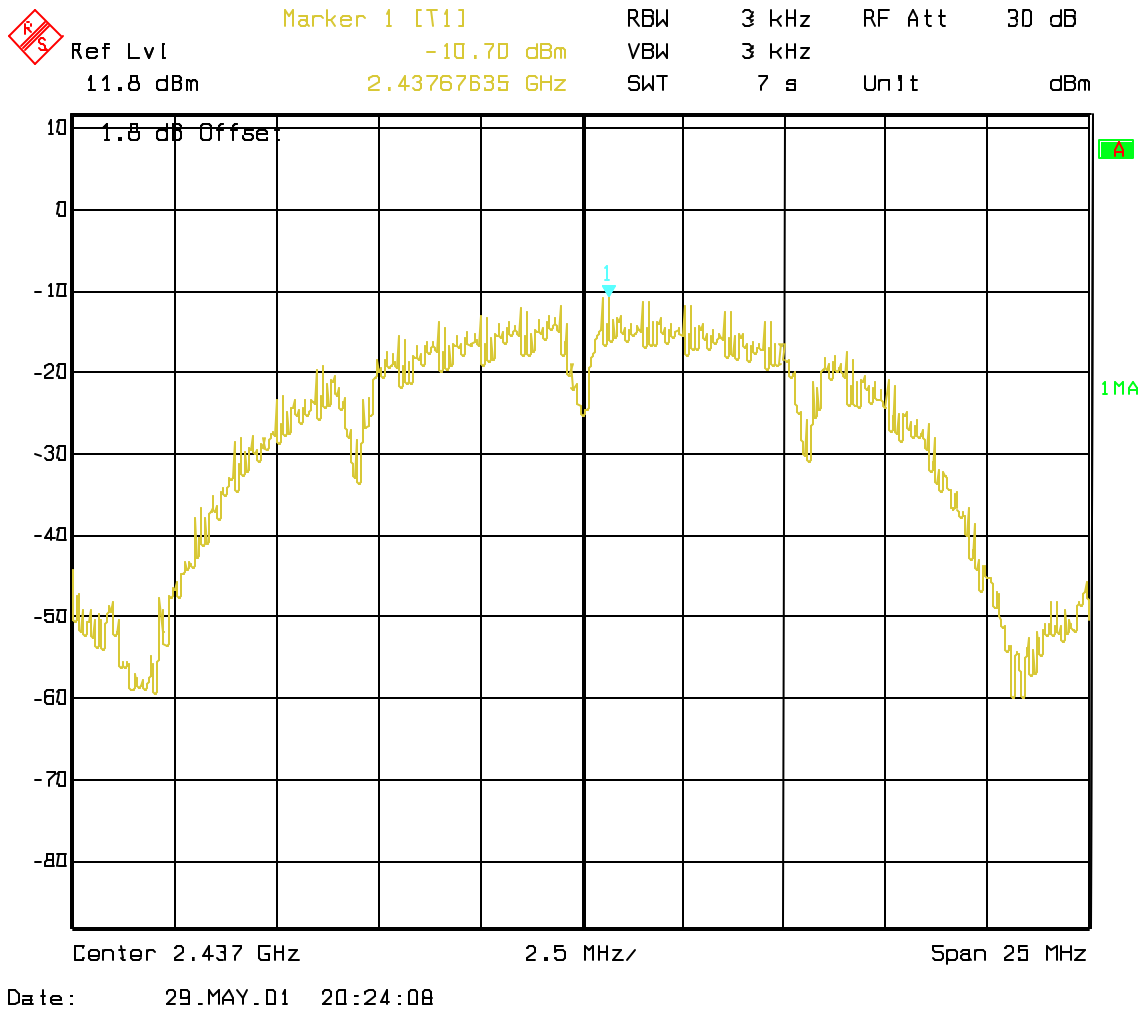
SUBCLAUSE §15.247(d)

**The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band**

POWER SPECTRAL DENSITY

SUBCLAUSE § 15.247 (d)

Mid Channel: 2437 MHz



LIMIT

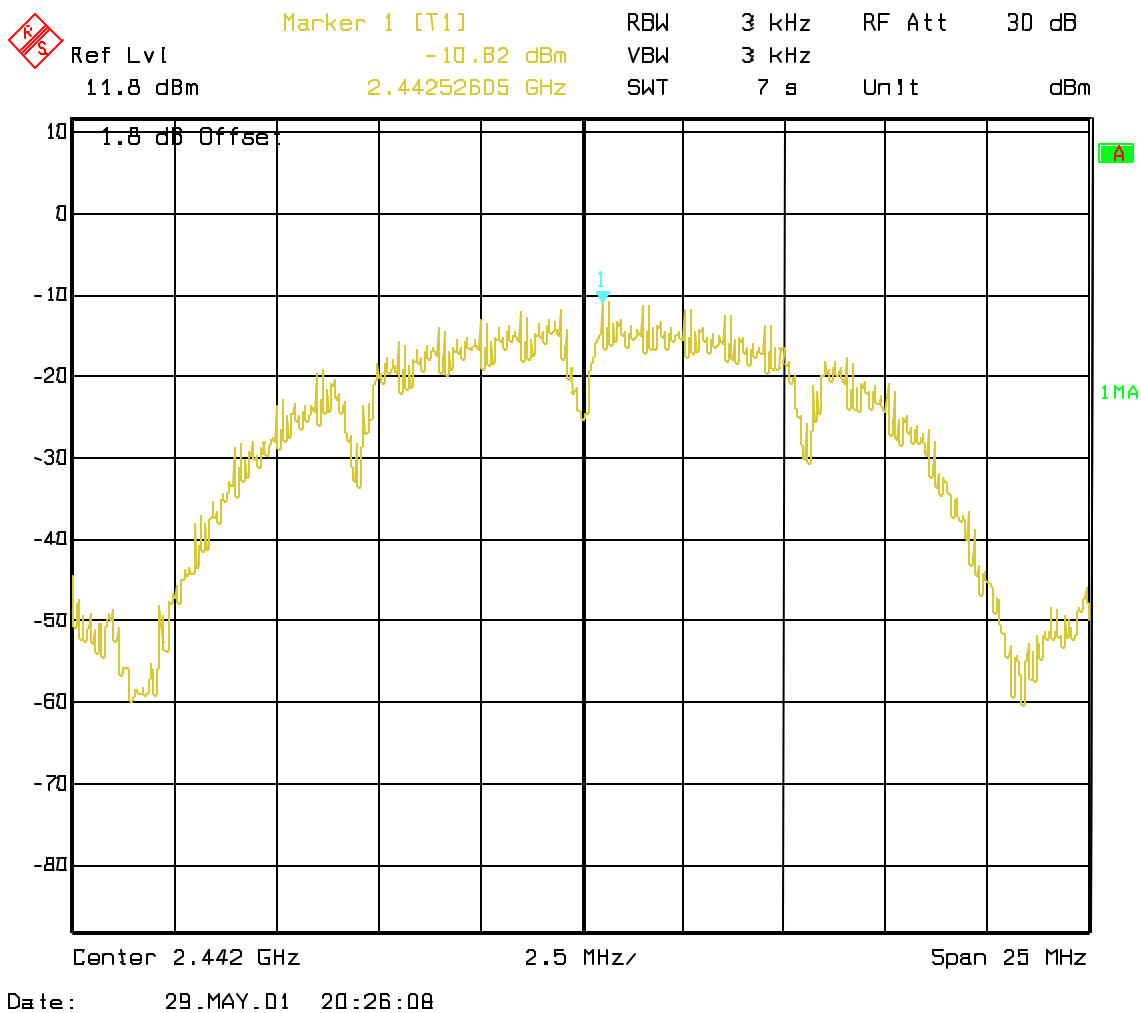
SUBCLAUSE §15.247(d)

The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band

POWER SPECTRAL DENSITY

SUBCLAUSE § 15.247 (d)

Highest Channel: 2462 MHz



LIMIT

SUBCLAUSE §15.247(d)

The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band







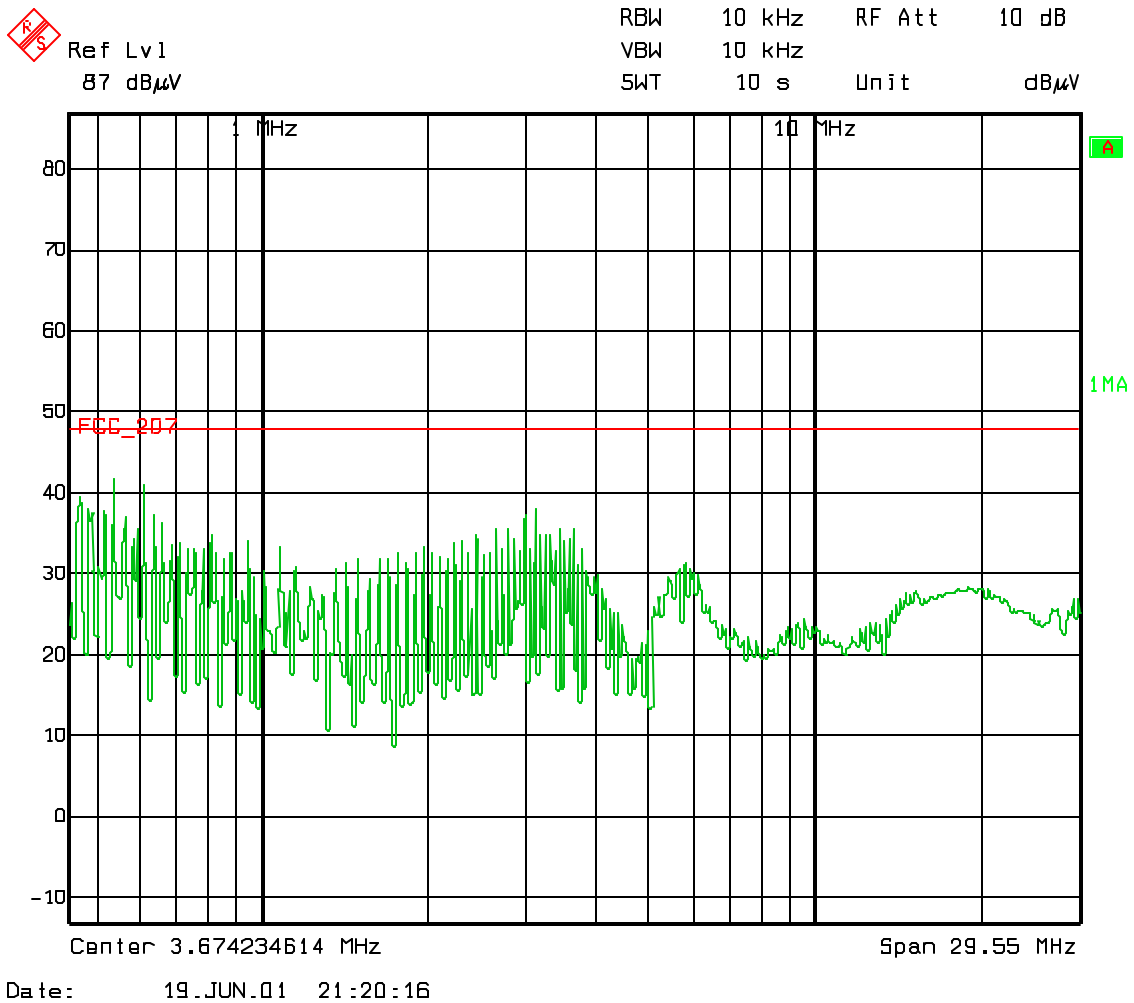


**CONDUCTED EMISSIONS**

§ 15.107/207

Measured with AC/DC power adapter plugged in LISN

Phase: Line

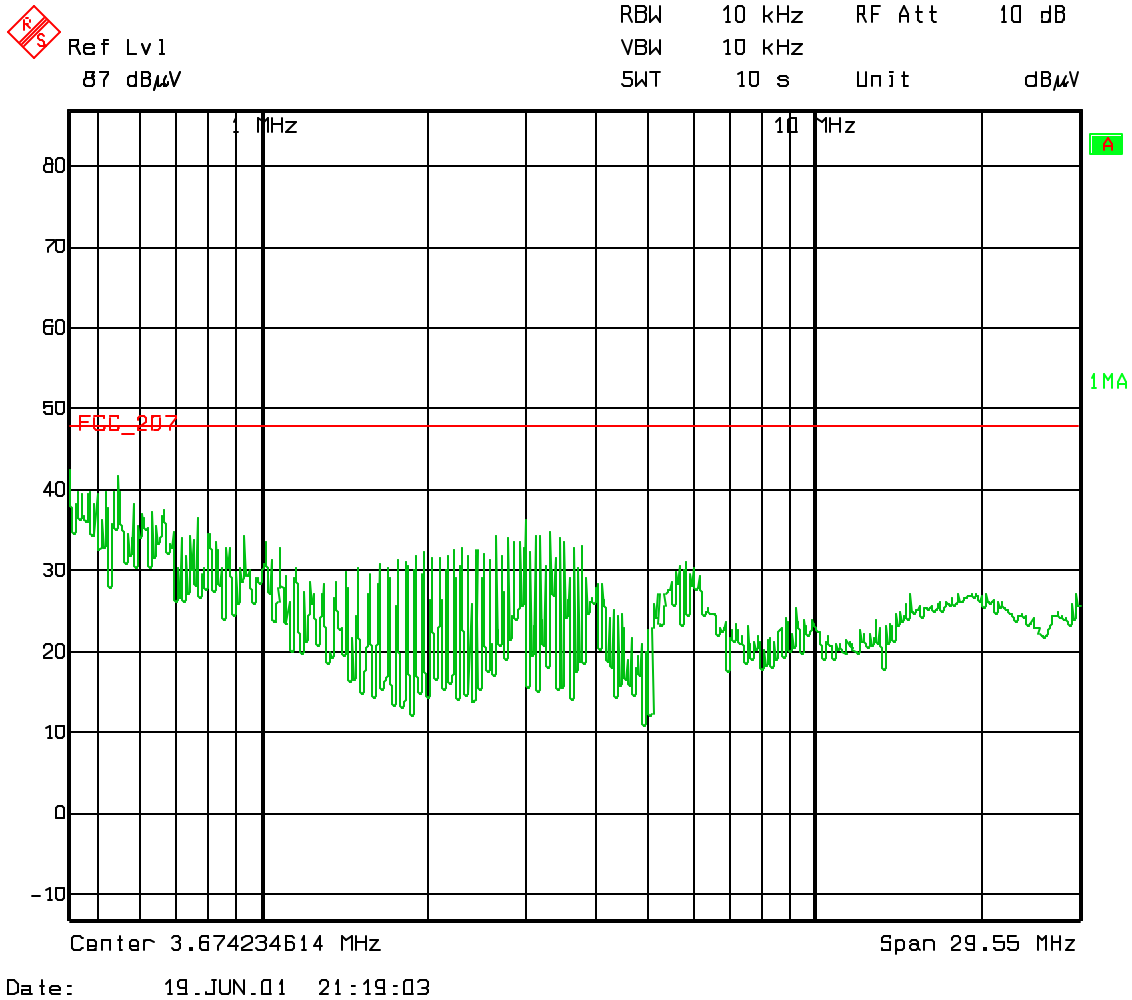


Technical specification : 15.107 / 15.207 (Revised as of October 1, 1991 )

Limit

0.45 to 30 MHz	250 $\mu$ V / 47.96 dB $\mu$ V
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Phase: Neutral



Technical specification : 15.107 / 15.207 (Revised as of October 1, 1991 )

Limit

0.45 to 30 MHz	250 μV / 47.96 dBμV
----------------	---------------------

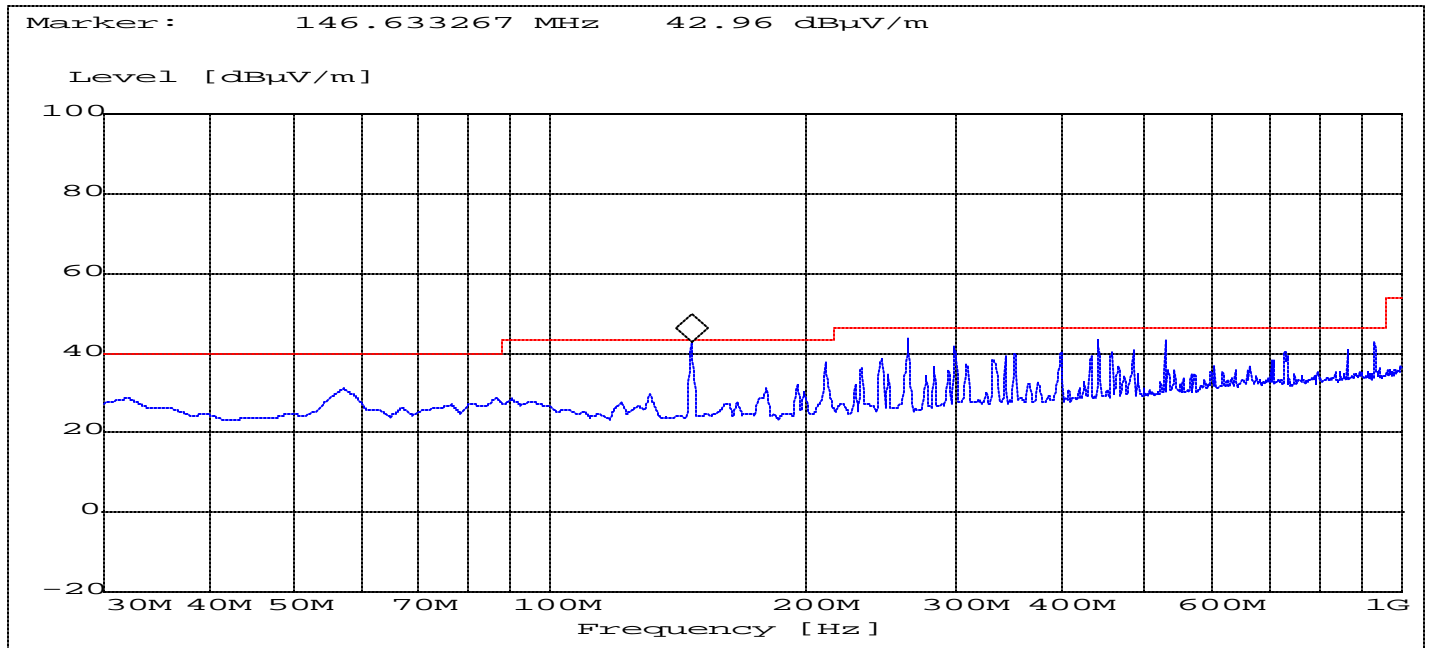


RECEIVER SPURIOUS RADIATION

§ 15.209

Lowest Channel(2412MHz): 30MHz – 1GHz

NOTE: The peaks closer to limit are coming from laptop, for confirmation see page no.



Limits

SUBCLAUSE § 15.209

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

(NOTE: All measurements were done in peak mode)

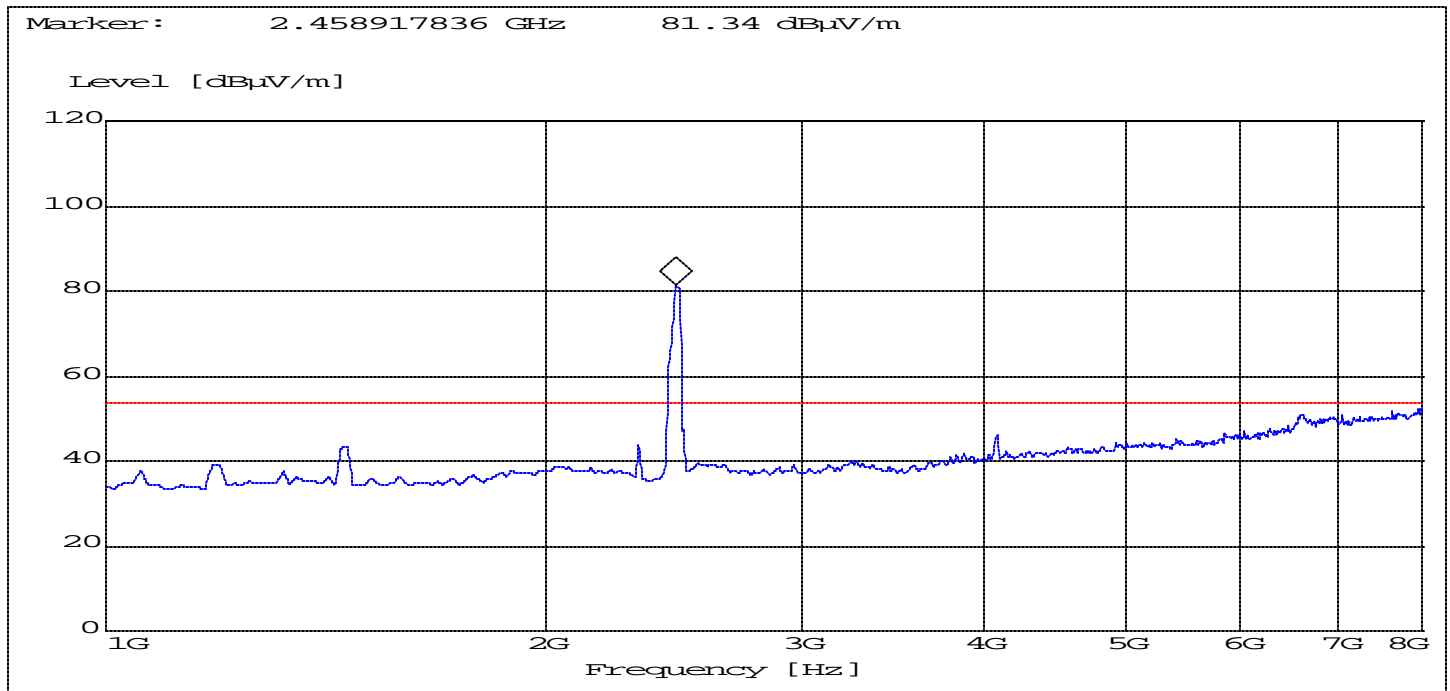
ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz f ≥ 1GHz : RBW/VBW: 1 MHz

RECEIVER SPURIOUS RADIATION

§ 15.209

Lowest Channel(2412MHz): 1GHz – 8GHz

NOTE: The peak above the limit is the carrier frequency.



Limits

SUBCLAUSE § 15.209

Frequency (MHz)	Field strength ( $\mu$ V/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

(NOTE: All measurements were done in peak mode)

ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz

f  $\geq$  1GHz : RBW/VBW: 1 MHz

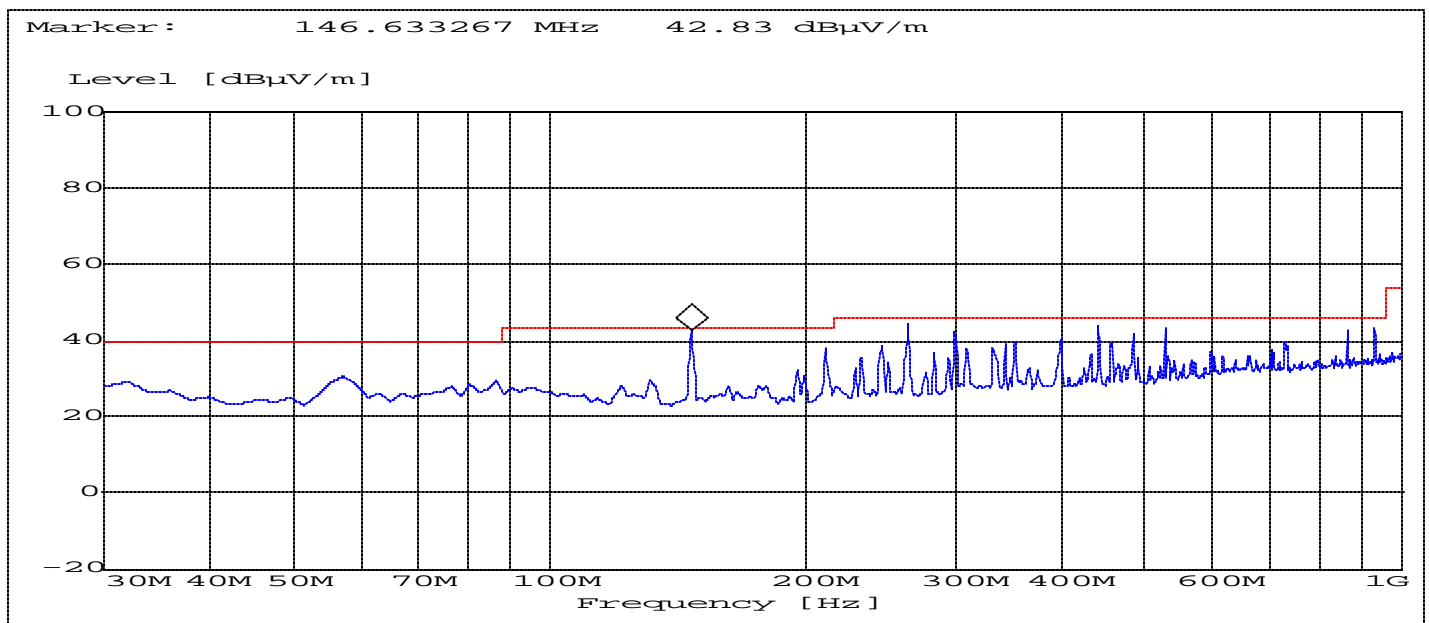


**RECEIVER SPURIOUS RADIATION**

**§ 15.209**

**Mid Channel(2437MHz): 30MHz – 1GHz**

NOTE: The peaks closer to limit are coming from laptop, for confirmation see page no.



**Limits**

**SUBCLAUSE § 15.209**

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

(NOTE: All measurements were done in peak mode)

ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz

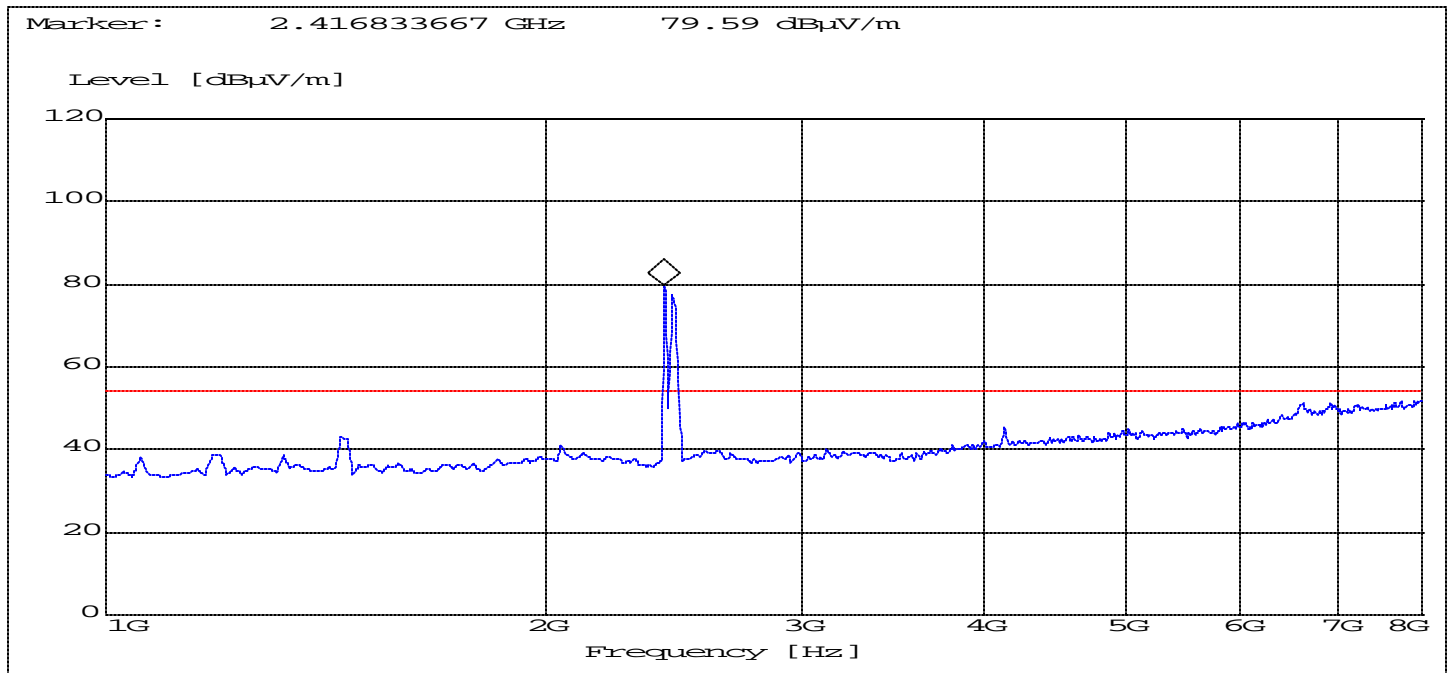
f ≥ 1GHz : RBW/VBW: 1 MHz

RECEIVER SPURIOUS RADIATION

§ 15.209

Mid Channel(2437MHz): 1GHz – 8GHz

NOTE: The peak above the limit is the carrier frequency.



Limits

SUBCLAUSE § 15.209

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

(NOTE: All measurements were done in peak mode)

ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz

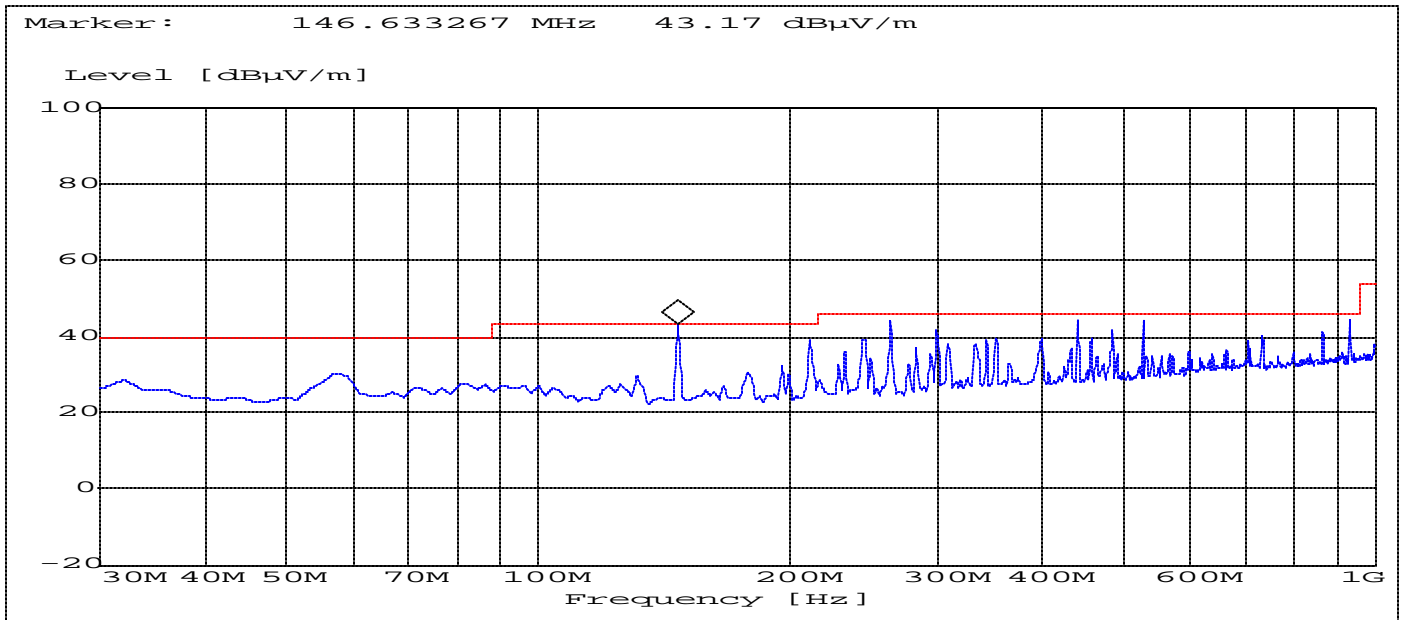
f ≥ 1GHz : RBW/VBW: 1 MHz

**RECEIVER SPURIOUS RADIATION**

§ 15.209

**Highest Channel(2462MHz): 30MHz – 1GHz**

NOTE: The peaks closer to limit are coming from laptop, for confirmation see page no.



**Limits**

SUBCLAUSE § 15.209

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

(NOTE: All measurements were done in peak mode)

ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz

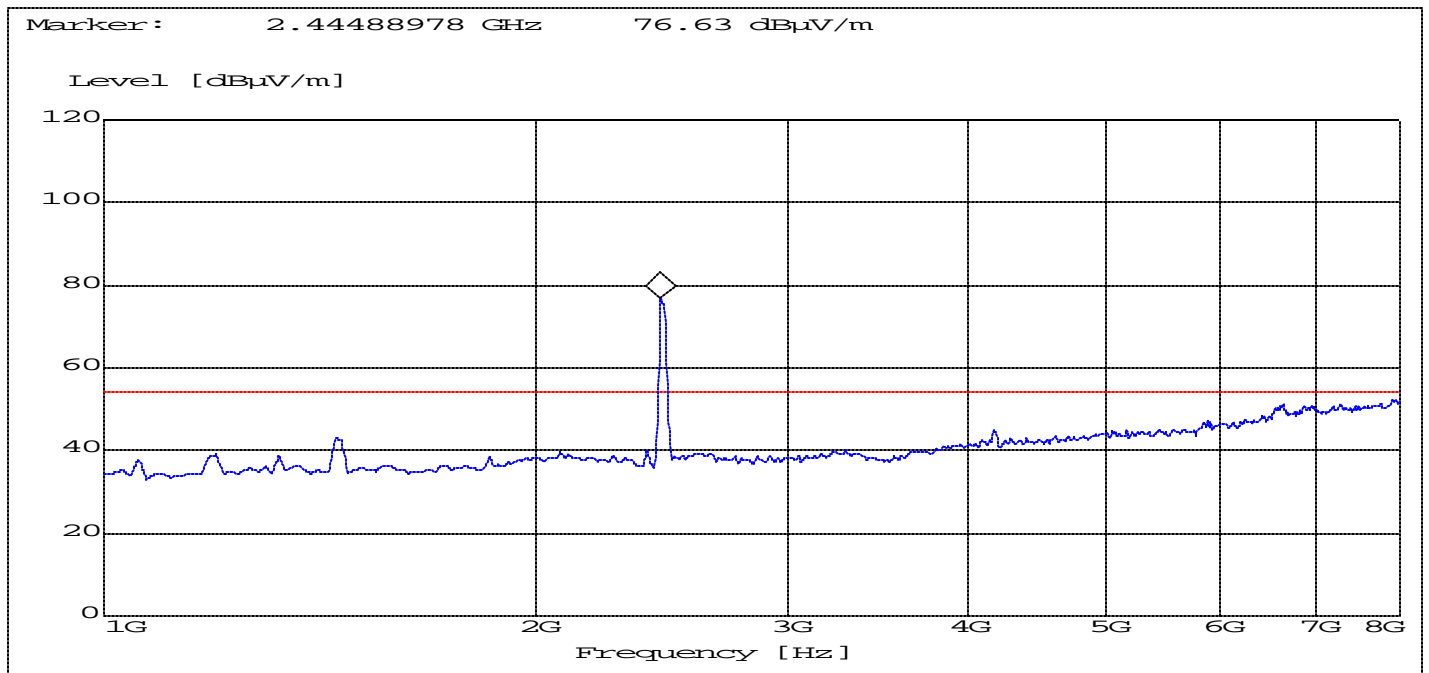
f ≥ 1GHz : RBW/VBW: 1 MHz

**RECEIVER SPURIOUS RADIATION**

§ 15.209

**Highest Channel(2462MHz): 1GHz – 8GHz**

NOTE: The peak above the limit is the carrier frequency.



**Limits**

**SUBCLAUSE § 15.209**

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

(NOTE: All measurements were done in peak mode)

ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz

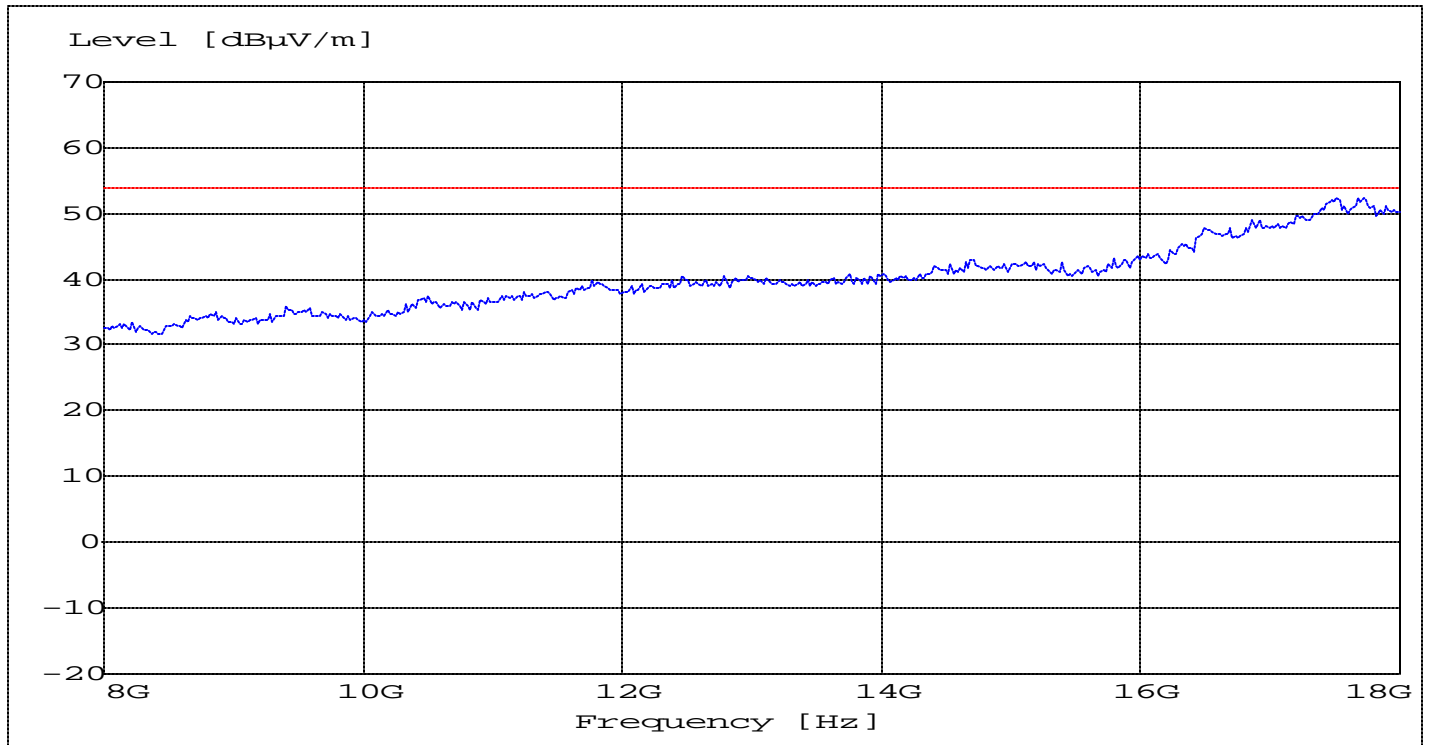
f ≥ 1GHz : RBW/VBW: 1 MHz

**RECEIVER SPURIOUS RADIATION**

**§ 15.209**

**8GHz – 18GHz**

(NOTE: This plot is applicable for all three channels)



**Limits**

**SUBCLAUSE § 15.209**

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

(NOTE: All measurements were done in peak mode)

**ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz**

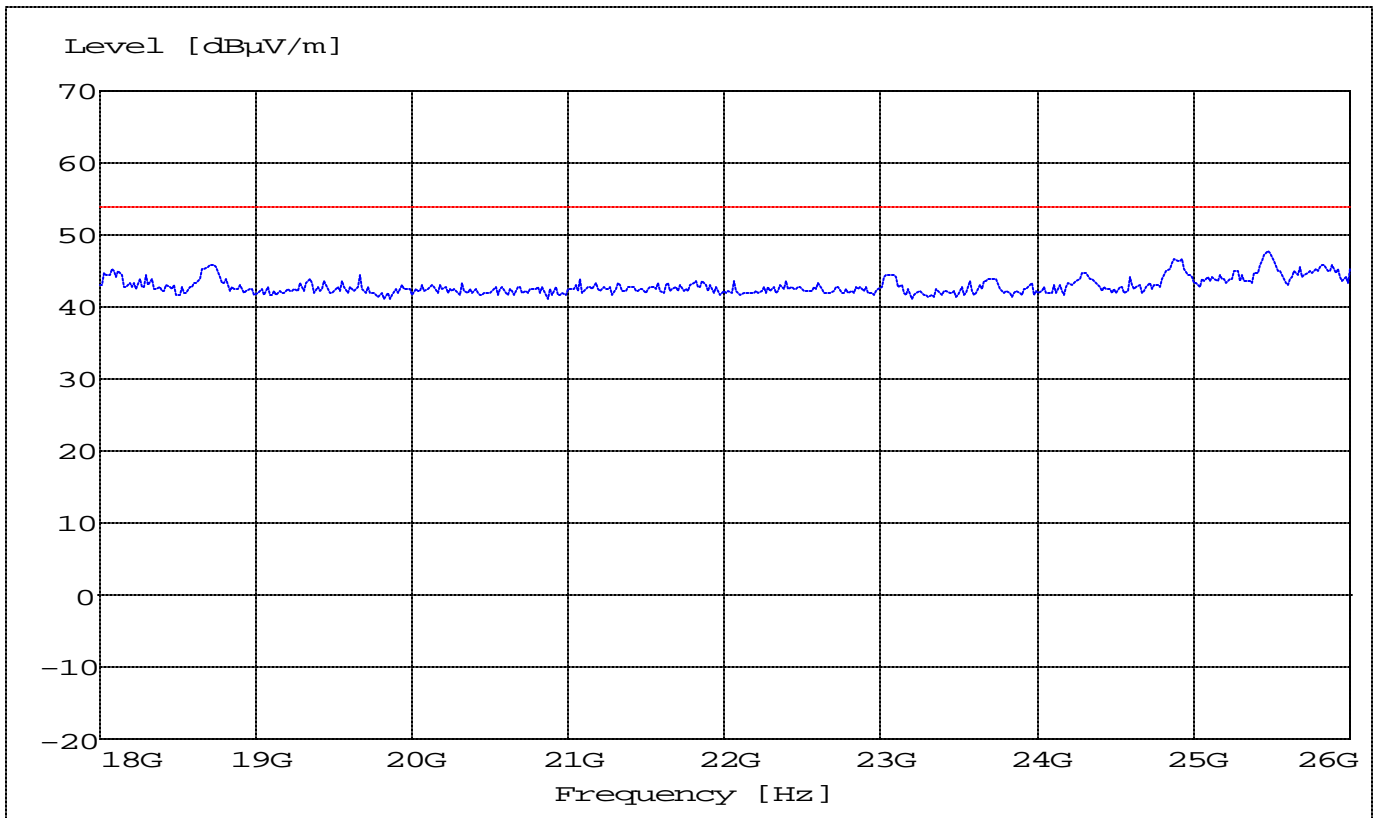
**f ≥ 1GHz : RBW/VBW: 1 MHz**

**RECEIVER SPURIOUS RADIATION**

§ 15.209

**18GHz – 26GHz**

(NOTE: This plot is applicable for all three channels)



**Limits**

**SUBCLAUSE § 15.209**

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

(NOTE: All measurements were done in peak mode)

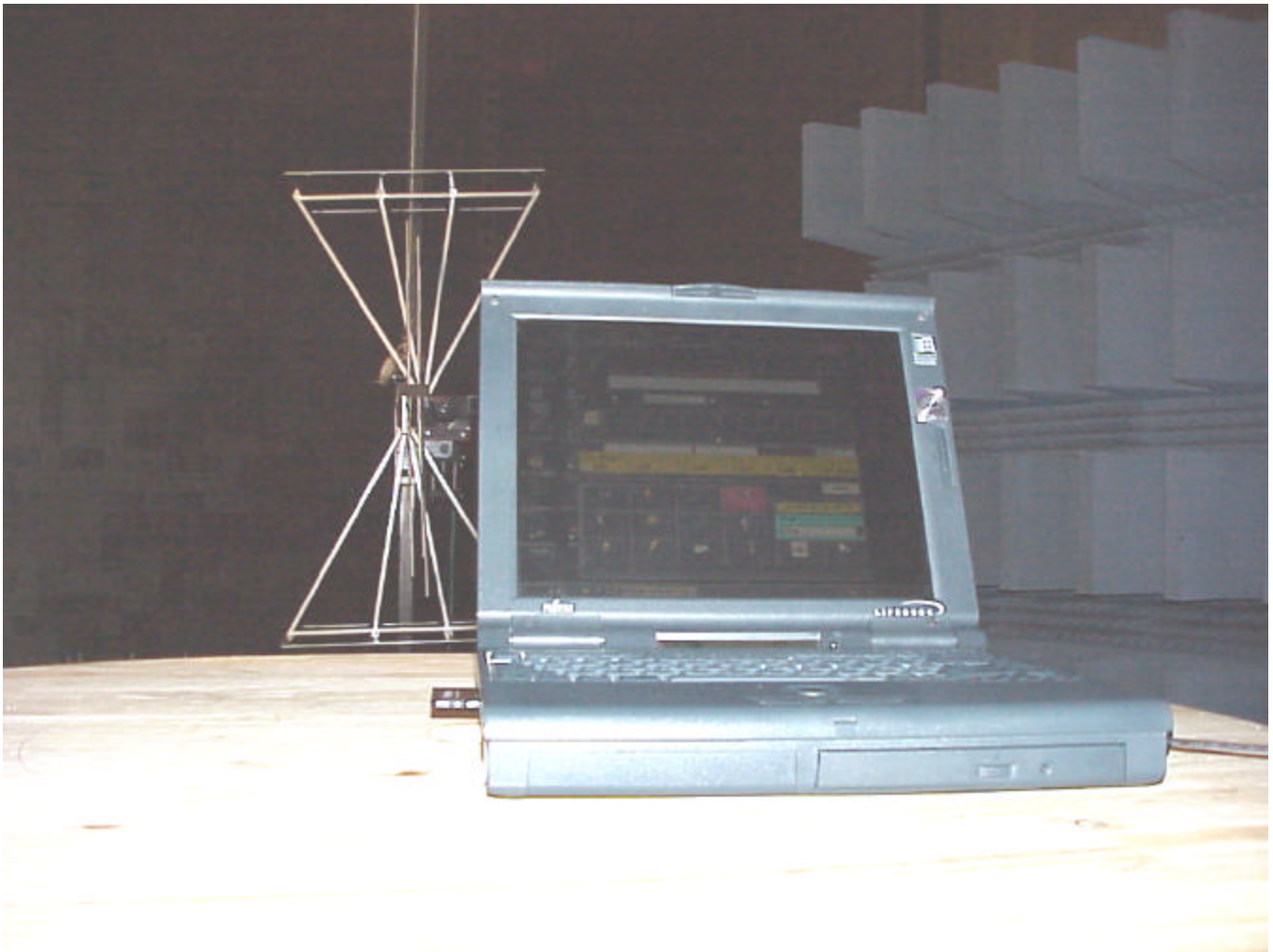
**ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz**

**f ≥ 1GHz : RBW/VBW: 1 MHz**





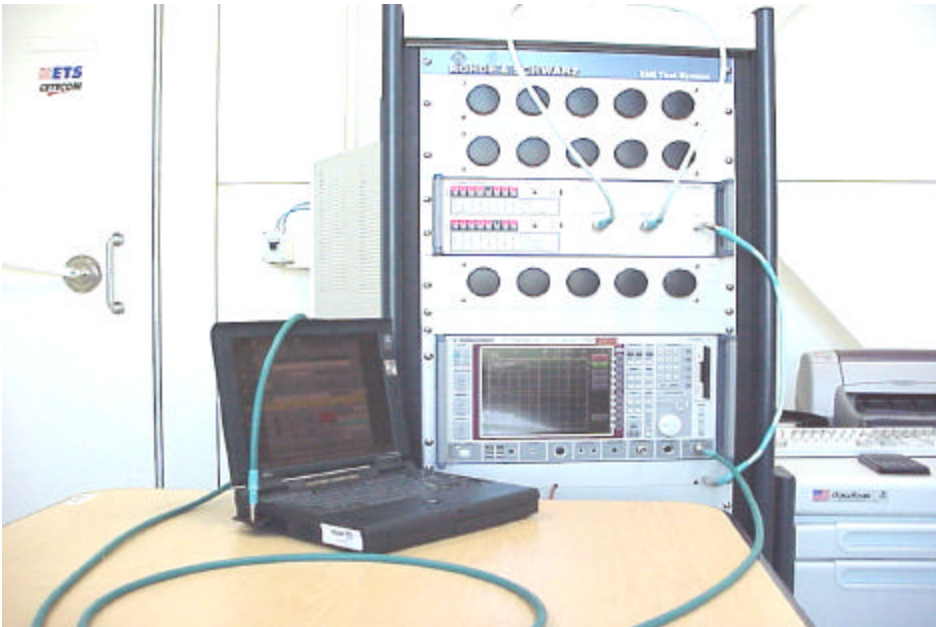
**TEST SITE**  
**Radiated Emissions**



Test set up for radiated emissions:



Conducted Emissions



**PHOTOGRAPHS OF THE EQUIPMENT**

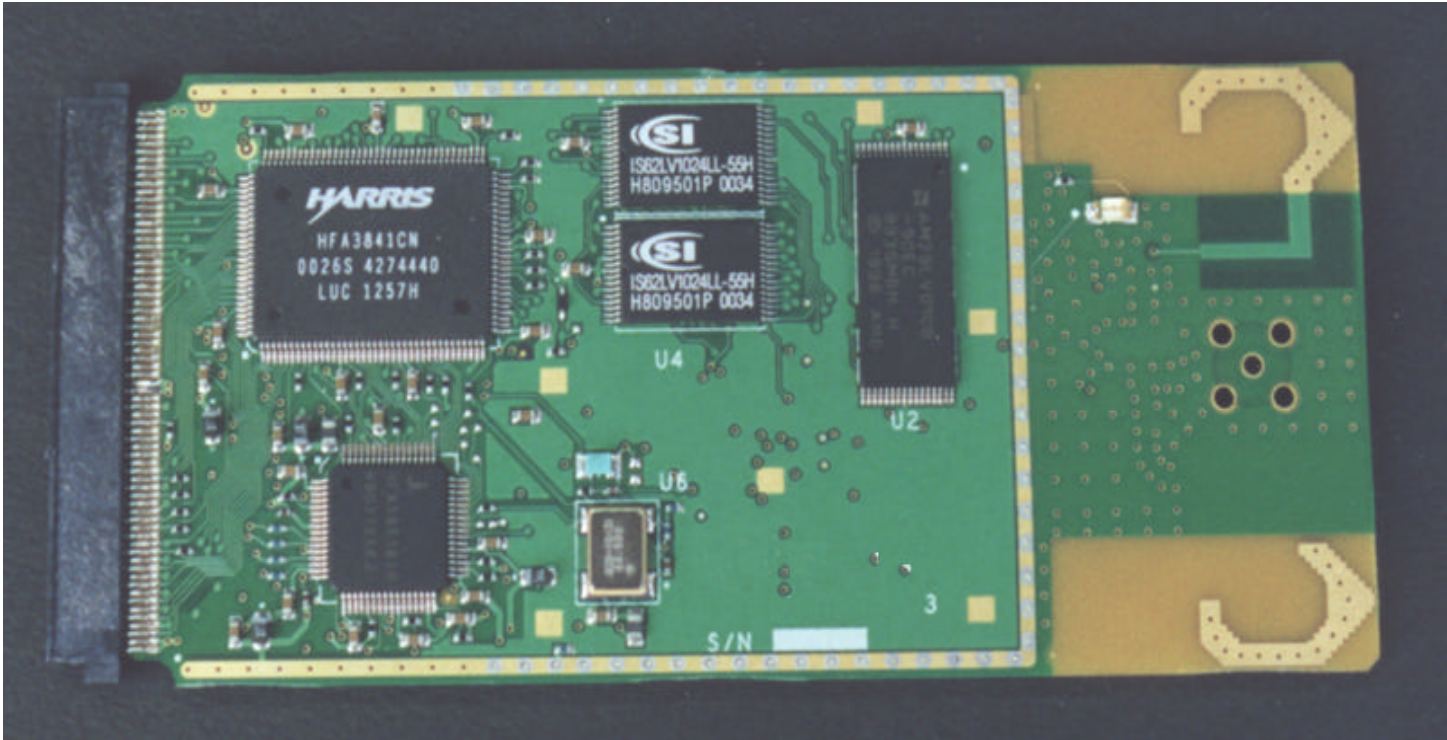
**Photograph No.1: PCMCIA Card with shielding**



**Photograph No.2: PCMCIA Card with RF connector & shielding**



Photograph No.3: PCMCIA Card (Top view)



Photograph No.4: PCMCIA Card (Bottom view)

