

CETECOM Inc.



CETECOM Inc.

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Issued test report consists of 59 Pages

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| <p>FCC LISTED, REG. NO.: 101450 & RECOGNIZED BY INDUSTRY CANADA IC – 3925</p> |
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Test report no.:155 FCC/2001
FCC Part 15.247
PCMCIA Card - LW1100N
(FCC ID: FFMLW1100N)

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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.**

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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****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 :

2001-06-01**EMC&
Radio****Lothar
Schmidt**

Date**Section****Name****Signature**

2.2 Testreport

TEST REPORT

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

TEST REPORT REFERENCE**LIST OF MEASUREMENTS**

| Paragraph | PARAMETER TO BE MEASURED | PAGE |
|------------------|------------------------------------|-------------|
| | Transmitter parameters | |
| § 15.247 (a)(2) | Spectrum Bandwith of a DSSS System | 7 |
| § 15.247 (b)(1) | Maximum peak output power | 11 |
| § 15.247 (c)(1) | Emission limitations | 16 |
| § 15.247 (d) | Power Spectral Density | 35 |
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| | Receiver parameters | |
| § 15.209 | Receiver Spurious Radiation | 44 |
| | Test equipment listing | 52 |
| | Test Site | 53 |
| | Photographs of the equipment | 56 |

ANNEX: Details about processing gain.

SPECTRUM BANDWIDTH OF DSSS-SYSTEM**SUBCLAUSE § 15.247 (a)(2)**

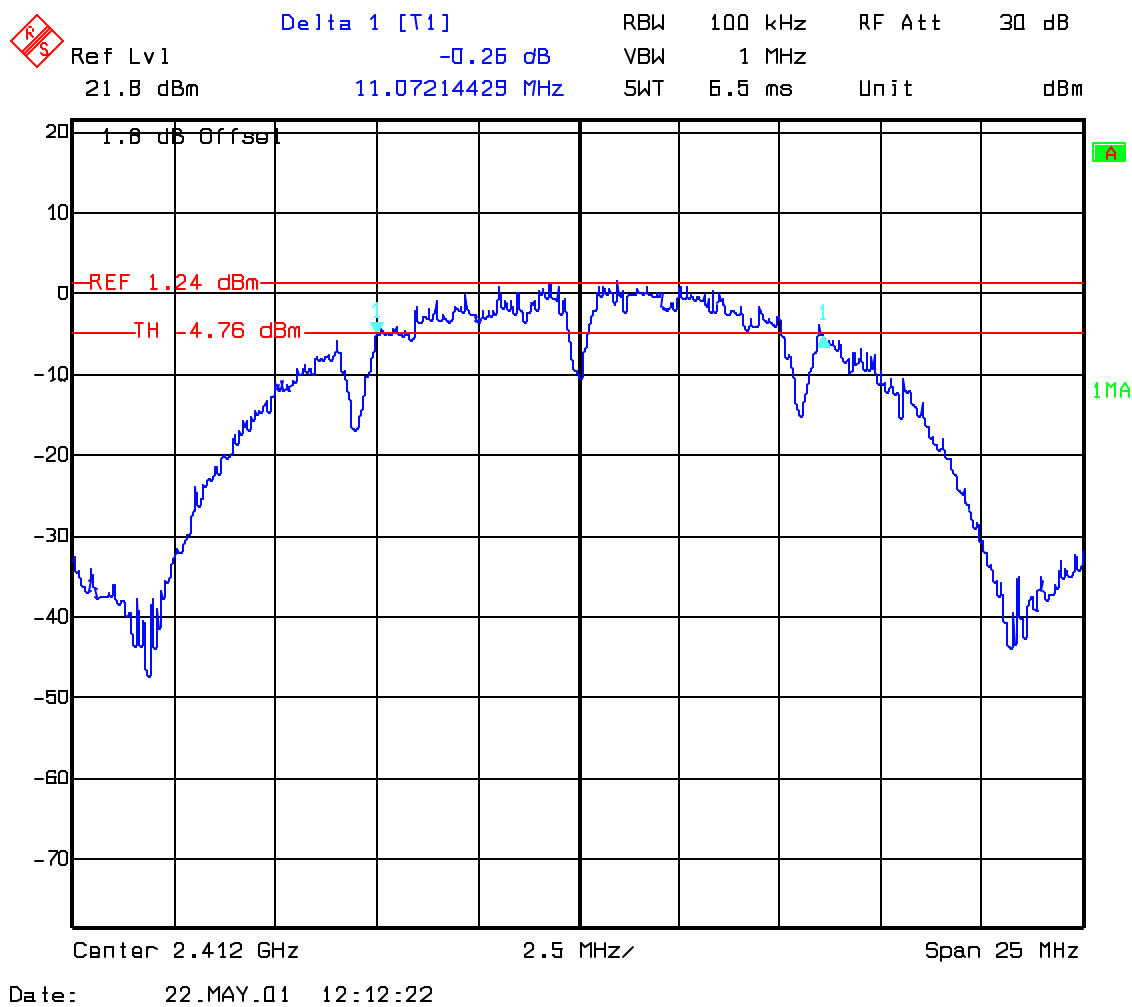
| TEST CONDITIONS | | 6 dB BANDWIDTH (kHz) | | |
|-------------------------|-----------------|------------------------|-------|-------|
| Frequency (MHz) | | 2412 | 2437 | 2462 |
| $T_{nom}(23)^{\circ}C$ | $V_{nom}(3.0)V$ | 11072 | 11422 | 11322 |
| Measurement uncertainty | | $\pm 3dB$ | | |

LIMIT**SUBCLAUSE §15.247(a) (2)**

The minimum 6dB bandwidth shall be at least 500 KHz

SPECTRUM BANDWITH OF DSSS-SYSTEM
Lowest Channel: 2412 MHz

SUBCLAUSE § 15.247 (a)(2)



LIMIT

SUBCLAUSE §15.247(a) (2)

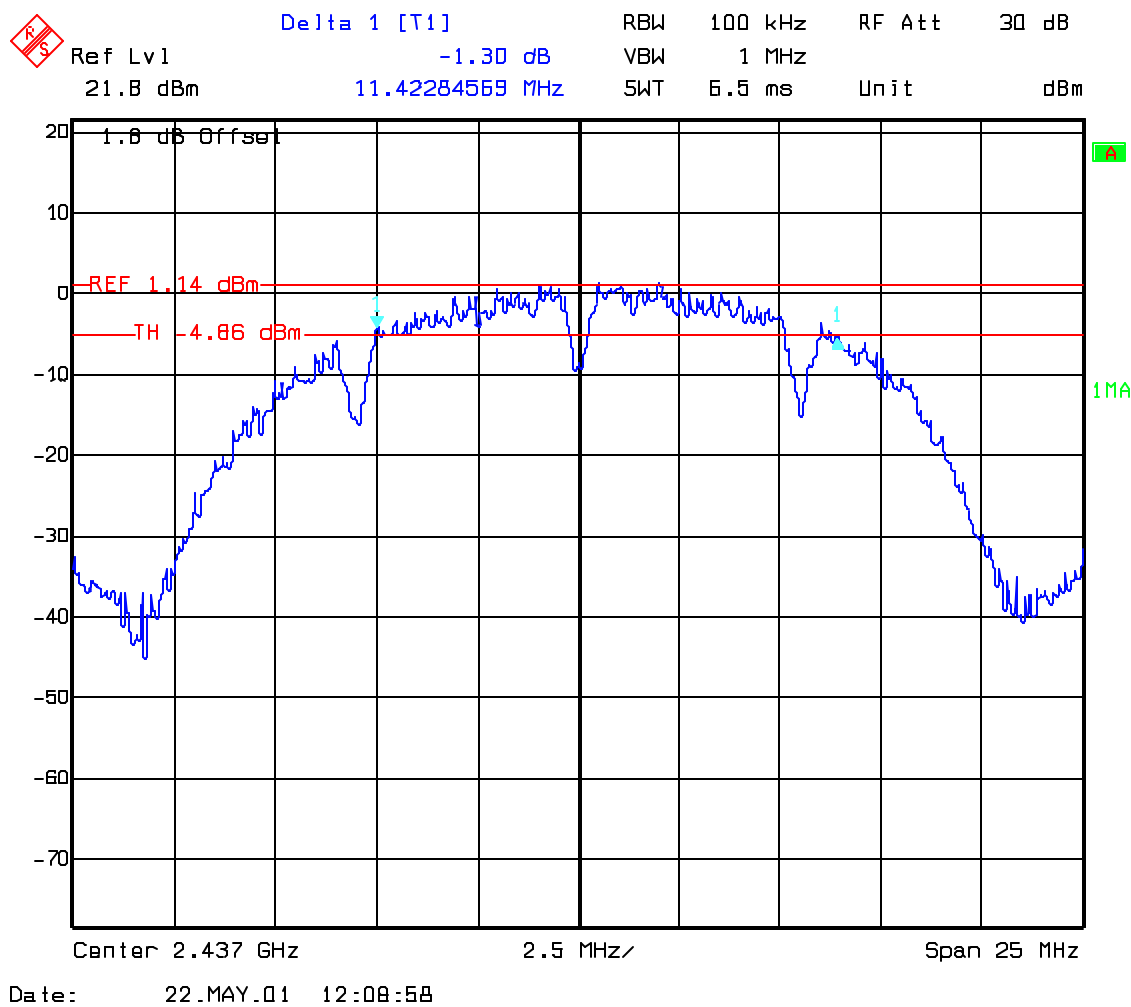
The minimum 6dB bandwidth shall be at least 500 KHz , here 10.02 MHz

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

SPECTRUM BANDWITH OF DSSS-SYSTEM

SUBCLAUSE § 15.247 (a)(2)

Mid Channel: 2437 MHz



LIMIT

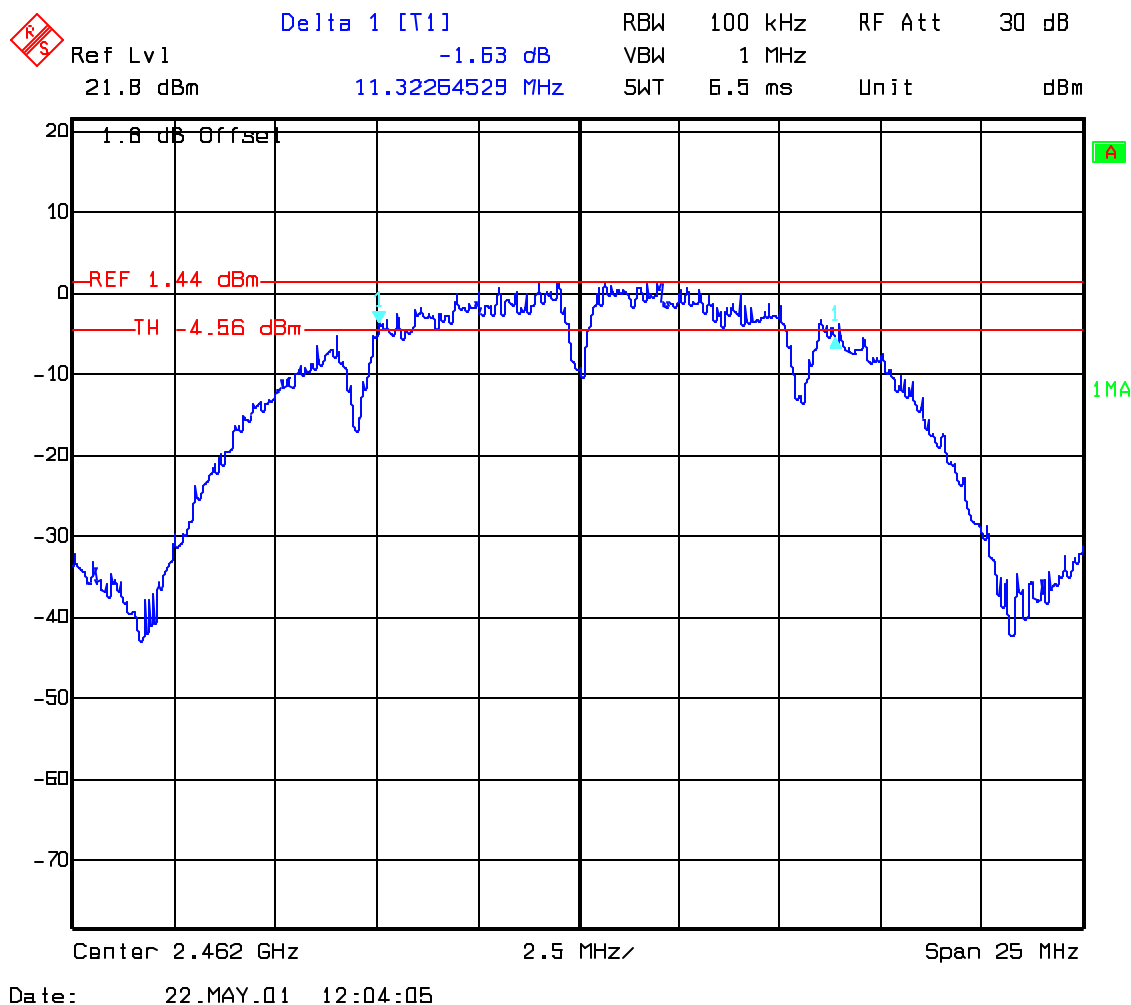
SUBCLAUSE §15.247(a) (2)

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
Highest Channel: 2462 MHz

SUBCLAUSE § 15.247 (a)(2)



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) | | | | | |
|----------------------------|-------------------------|---------------------------------|-------|------|-------|------|-------|
| Frequency (MHz) | | 2412 | | 2437 | | 2462 | |
| T _{nom} (23)° C | V _{nom} (3.0)V | Pk | 13.03 | Pk | 12.40 | Pk | 12.20 |
| | | 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) | | | | | |
|----------------------------|-------------------------|---------------------------------|-------|------|-------|------|-------|
| Frequency (MHz) | | 2412 | | 2437 | | 2462 | |
| T _{nom} (23)° C | V _{nom} (3.0)V | Pk | 20.07 | Pk | 18.72 | Pk | 19.18 |
| | | Av | 14.88 | Av | 13.61 | Av | 13.99 |
| Measurement uncertainty | | ±3dB | | | | | |

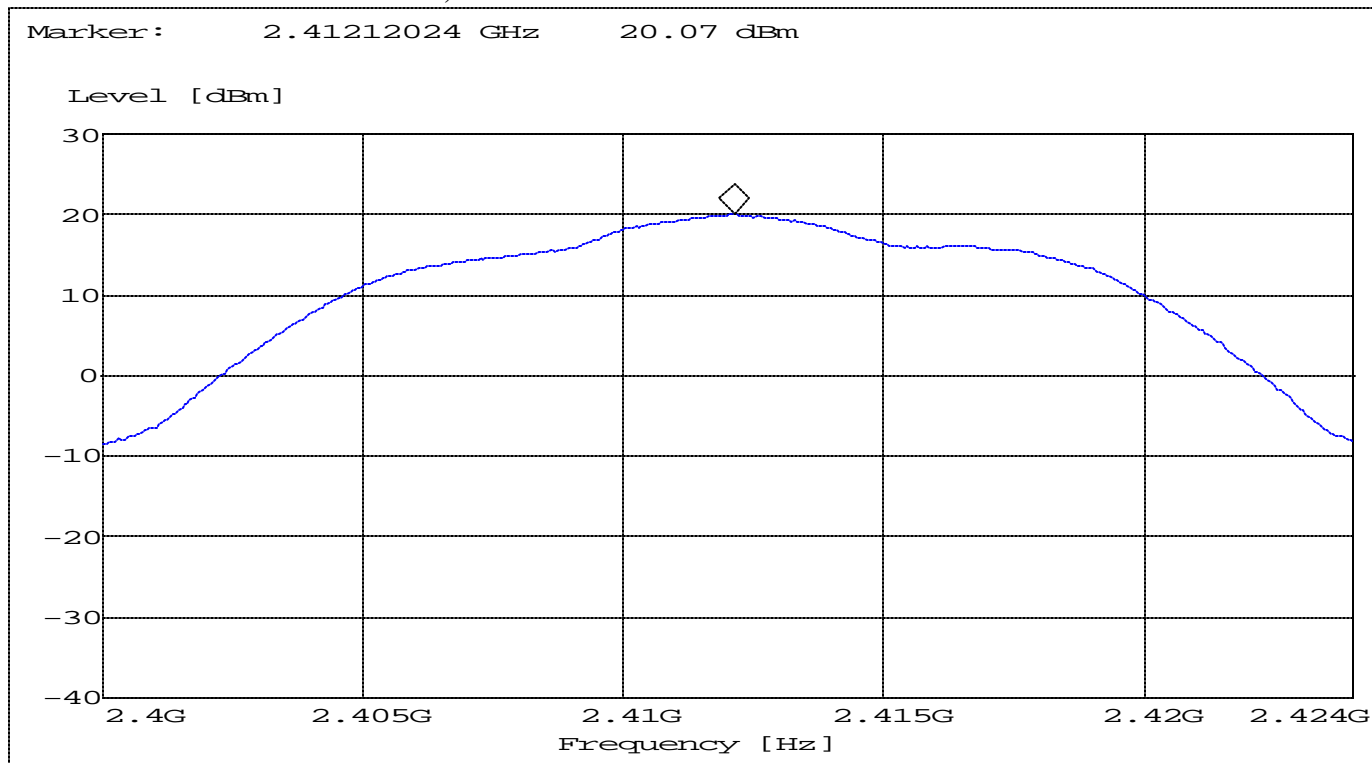
LIMIT
SUBCLAUSE § 15.247 (b) (1)

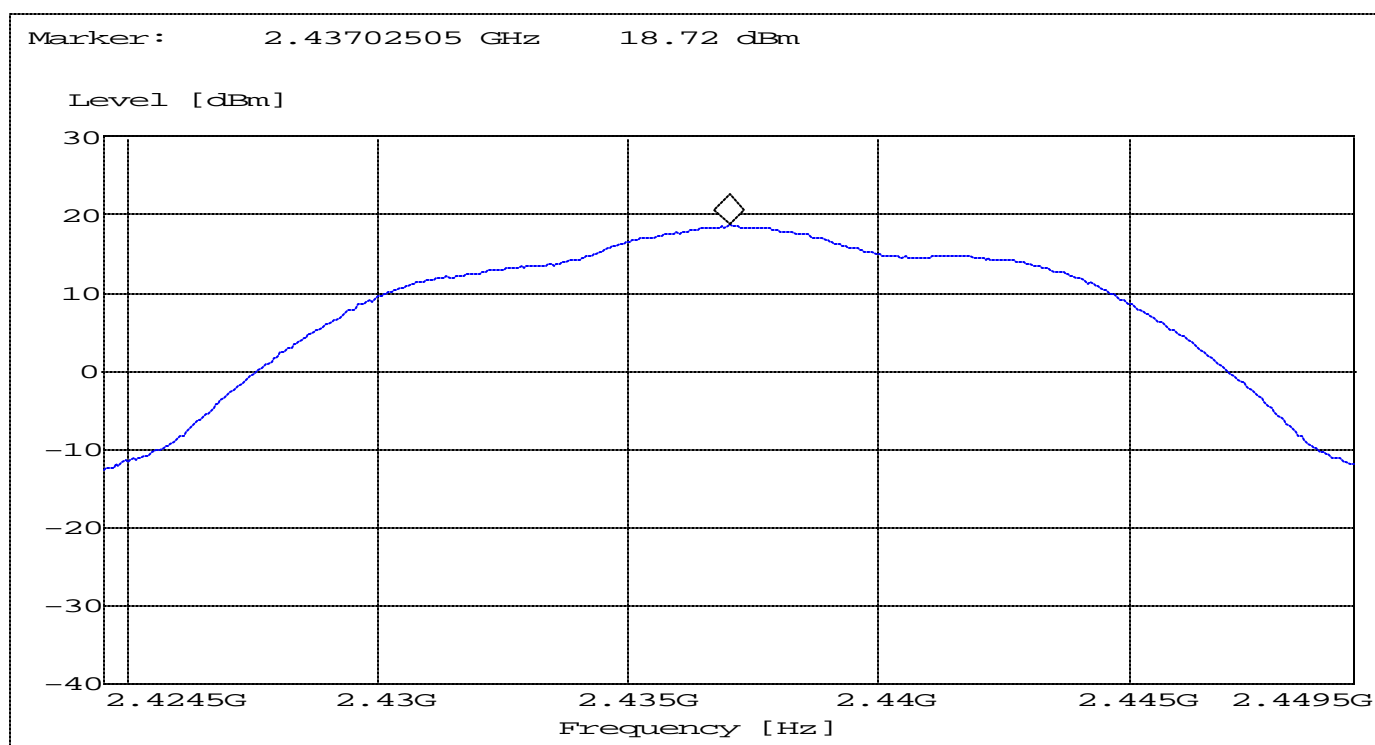
| Frequency range | RF power output |
|-----------------------------------|-----------------|
| 2400-2483.5 MHz / 5725 – 5850 MHz | 1.0 Watt |

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

EIRP - Lowest Channel: 2412 MHz

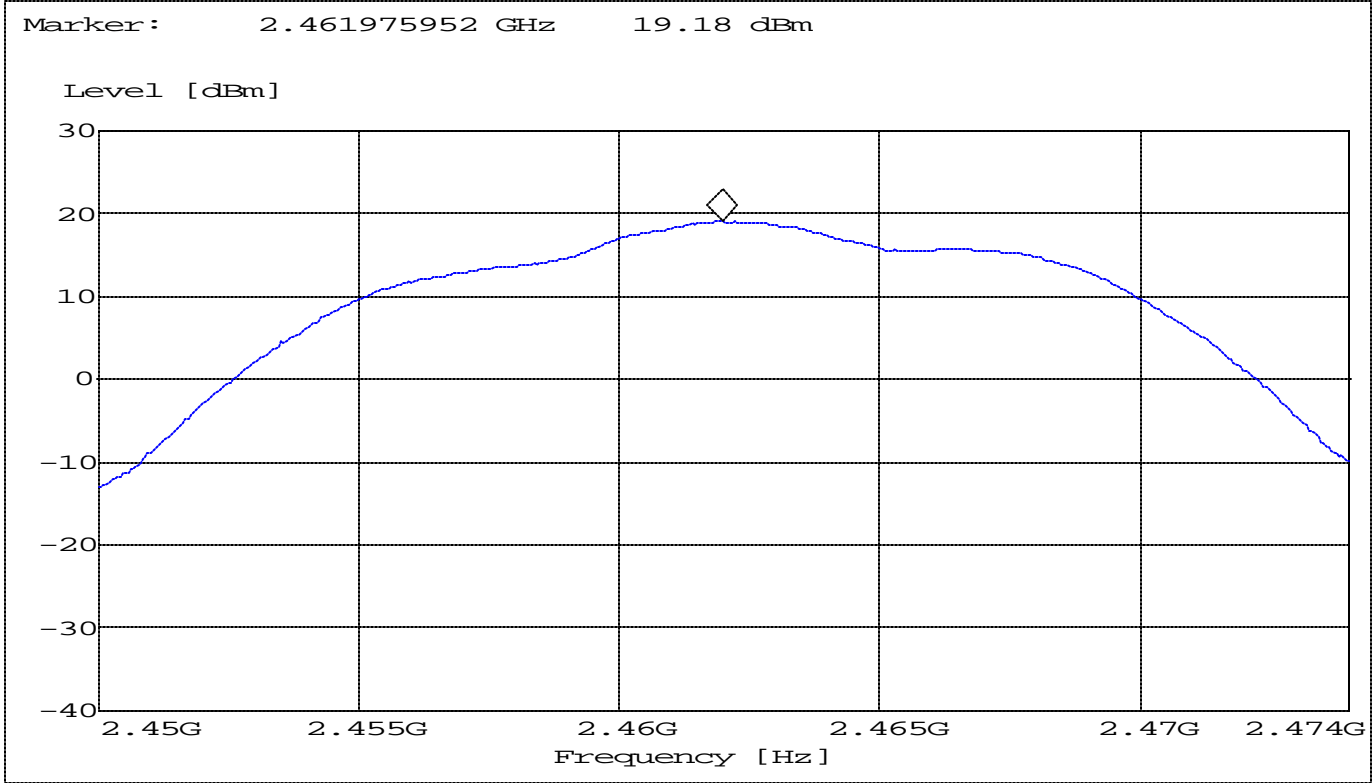
ANALYZER SETTINGS: RBW=3MHz, VBW=3MHz



EIRP – Mid Channel: 2437 MHz**ANALYZER SETTINGS: RBW=3MHz, VBW=3MHz**

EIRP – Highest Channel: 2462 MHz

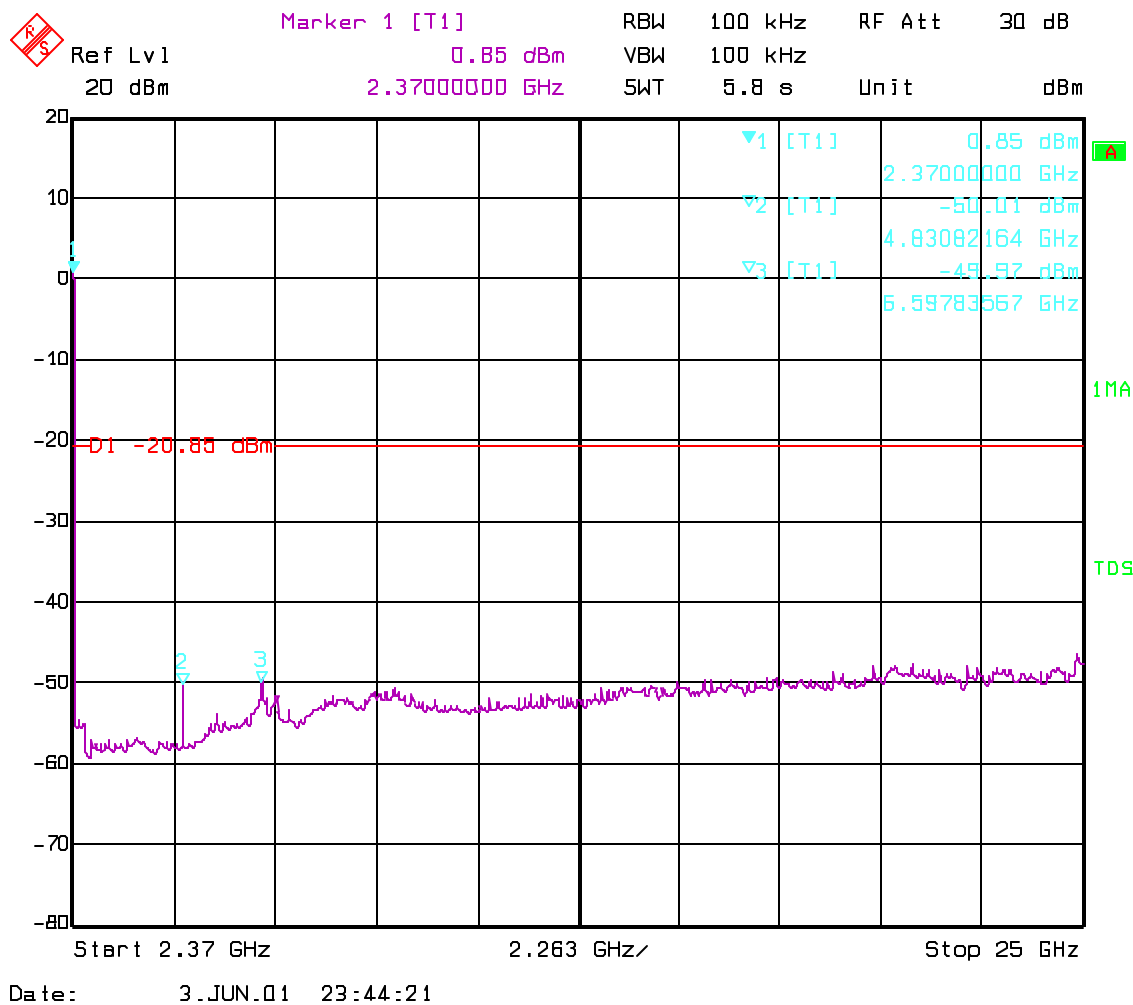
ANALYZER SETTINGS: RBW=3MHz , VBW=3MHz



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)).

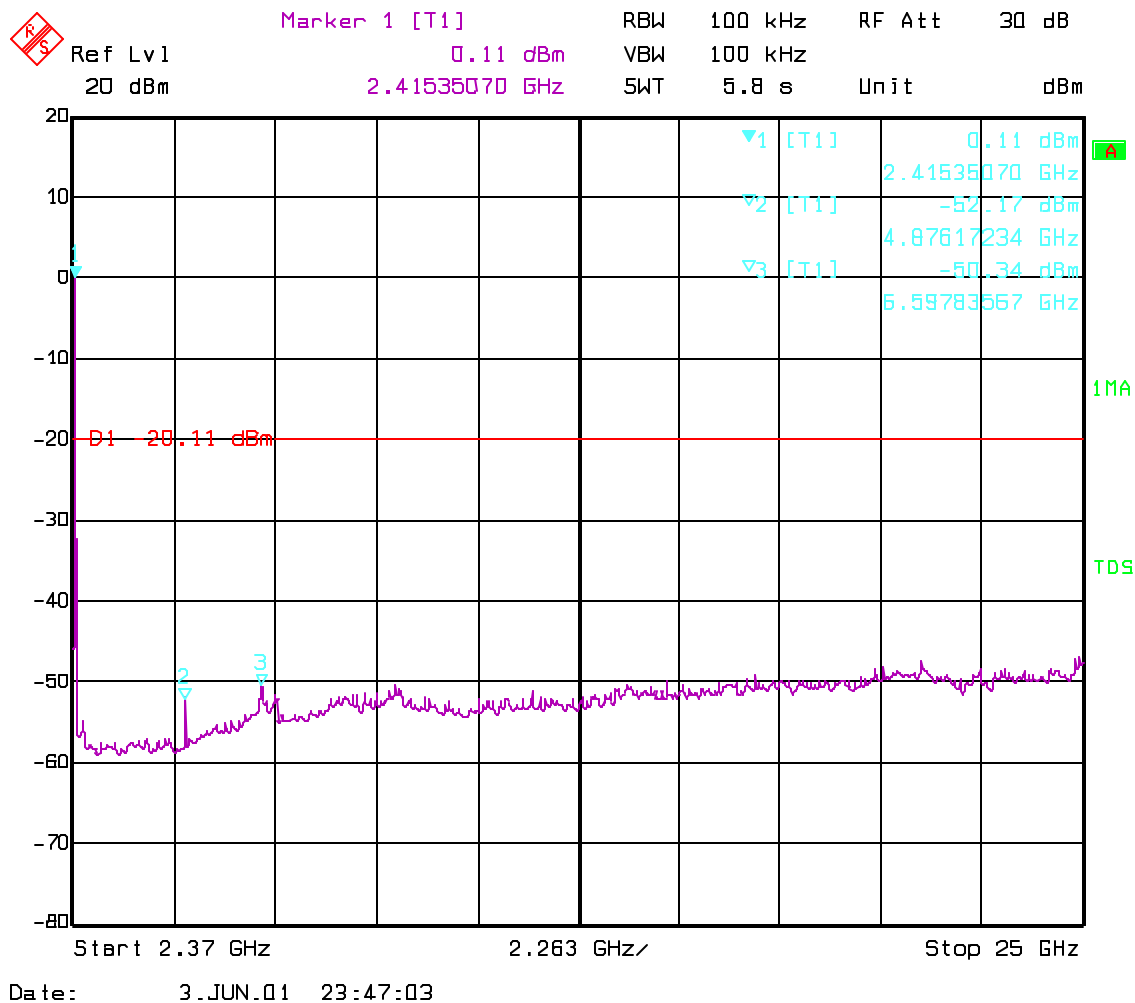
ANALYZER SETTINGS: RBW=100KHz , VBW=1MHz
NOTE: The marked peak is the carrier frequency. Frequency resolution is not fine enough to show the exact frequency of the carrier, refer to plots under EIRP.

EMISSION LIMITATIONS (Transmitter)

SUBCLAUSE § 15.247 (c) (1)

conducted

2437 MHz up to 25 GHz



LIMITS

SUBCLAUSE § 15.247 (c)

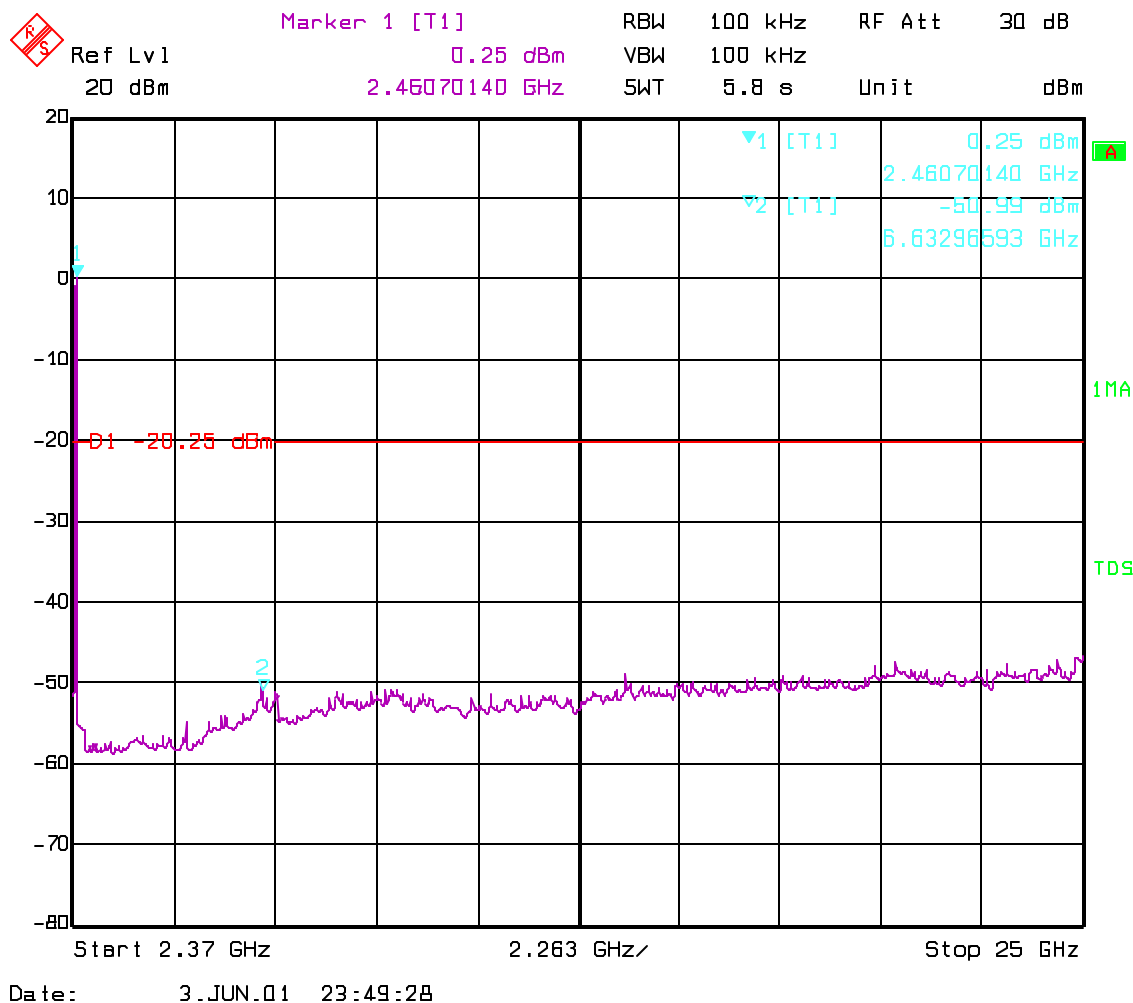
In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

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) (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

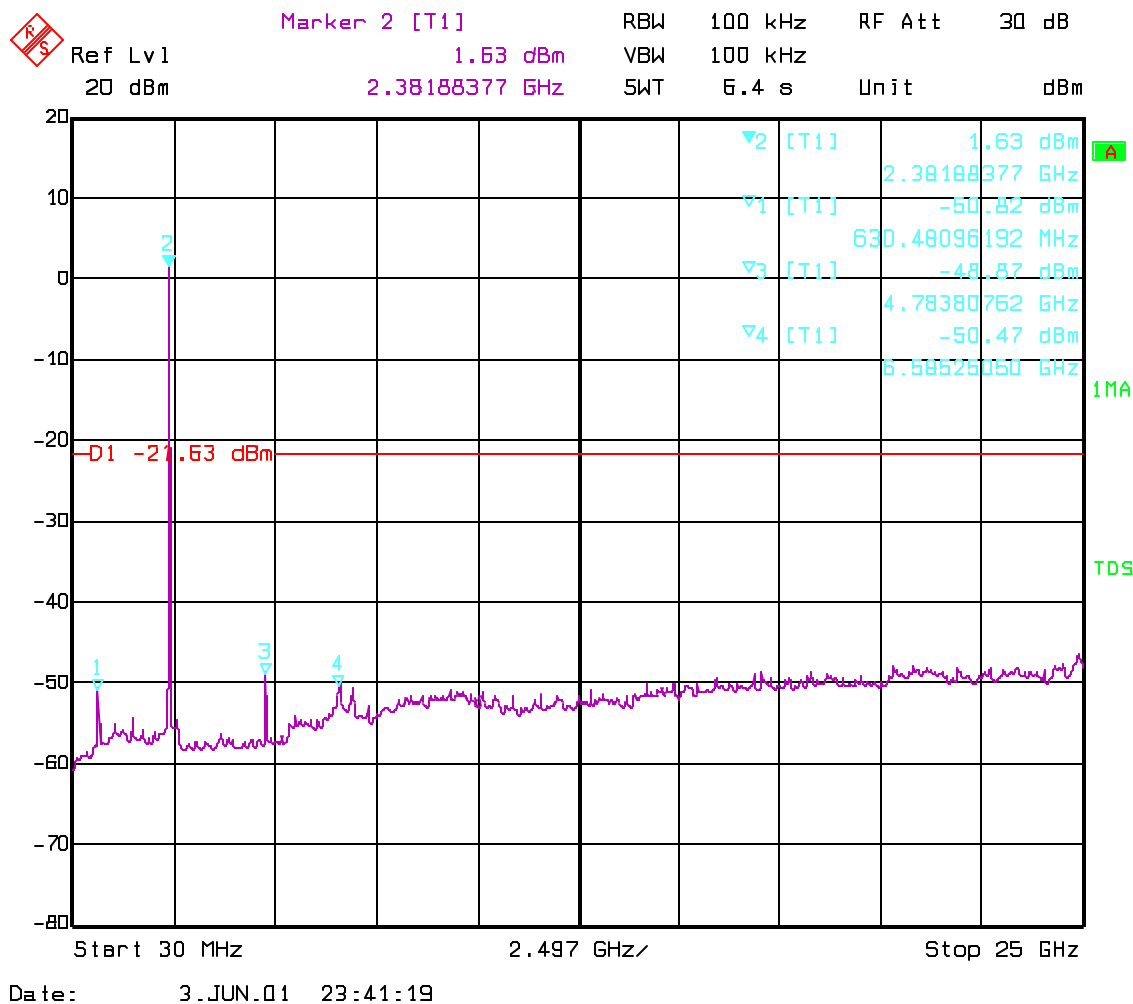
frequency of the carrier, refer to plots under EIRP.

EMISSION LIMITATIONS (Transmitter)

SUBCLAUSE § 15.247 (c) (1)

Conducted

30 MHz up to 25 GHz (This plot is valid for all three channels)



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

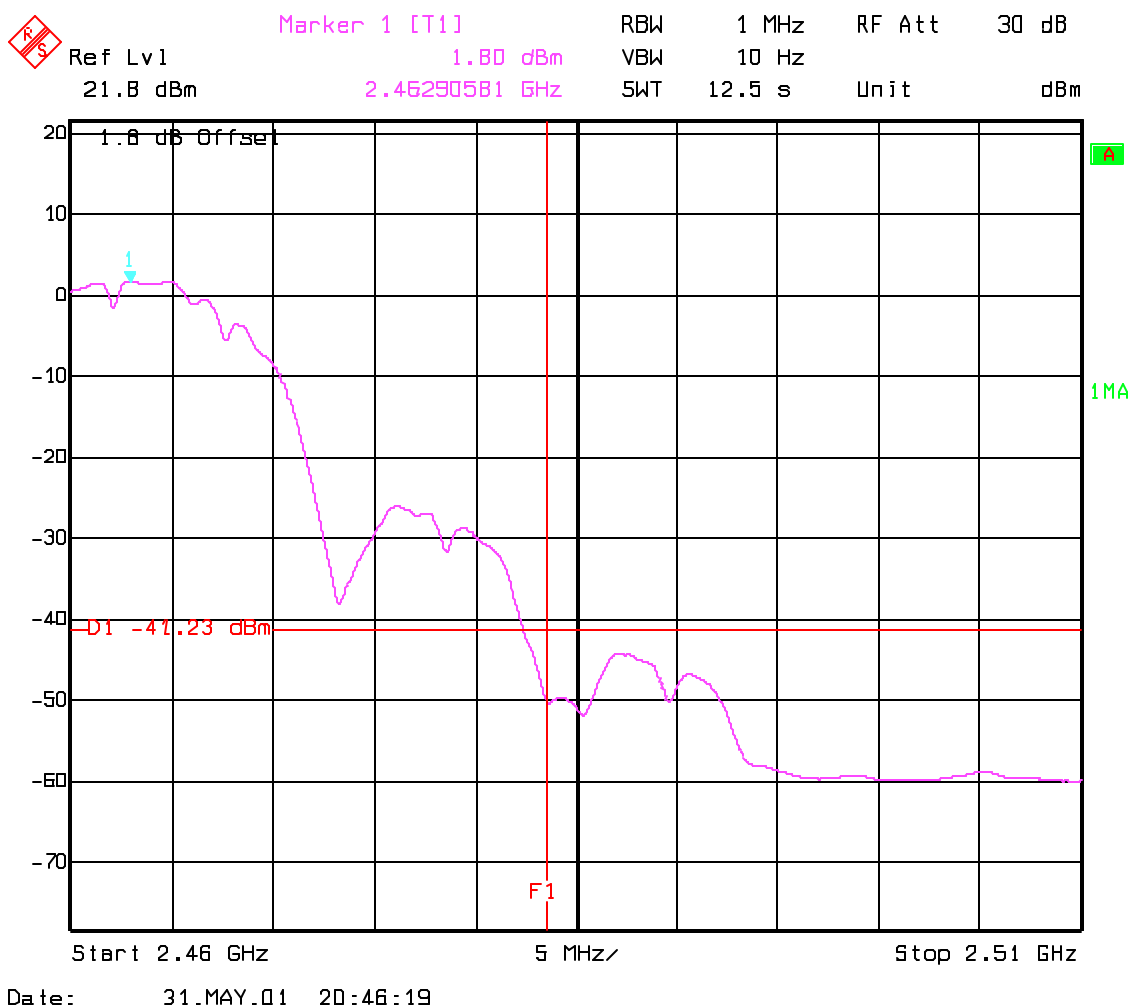
NOTE: The marked peak is the carrier frequency. Frequency resolution is not fine enough to show the exact frequency of the carrier, refer to plots under EIRP.

EMISSION LIMITATIONS (Transmitter)

SUBCLAUSE § 15.247 (c) (2)

conducted

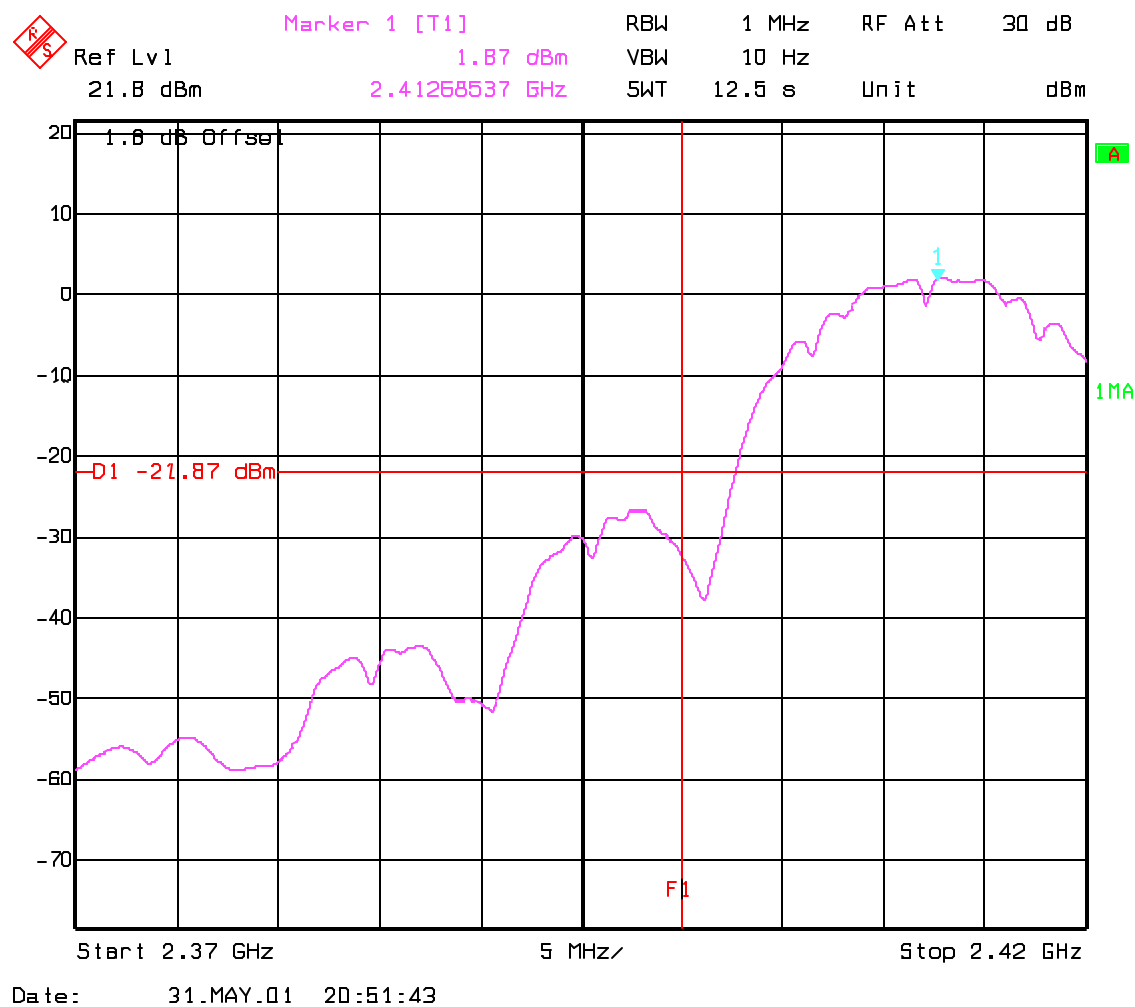
spurious in the restricted band 2483.5 – 2500 MHz
(Higher Band Edge)



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

Lower Band Edge

conducted



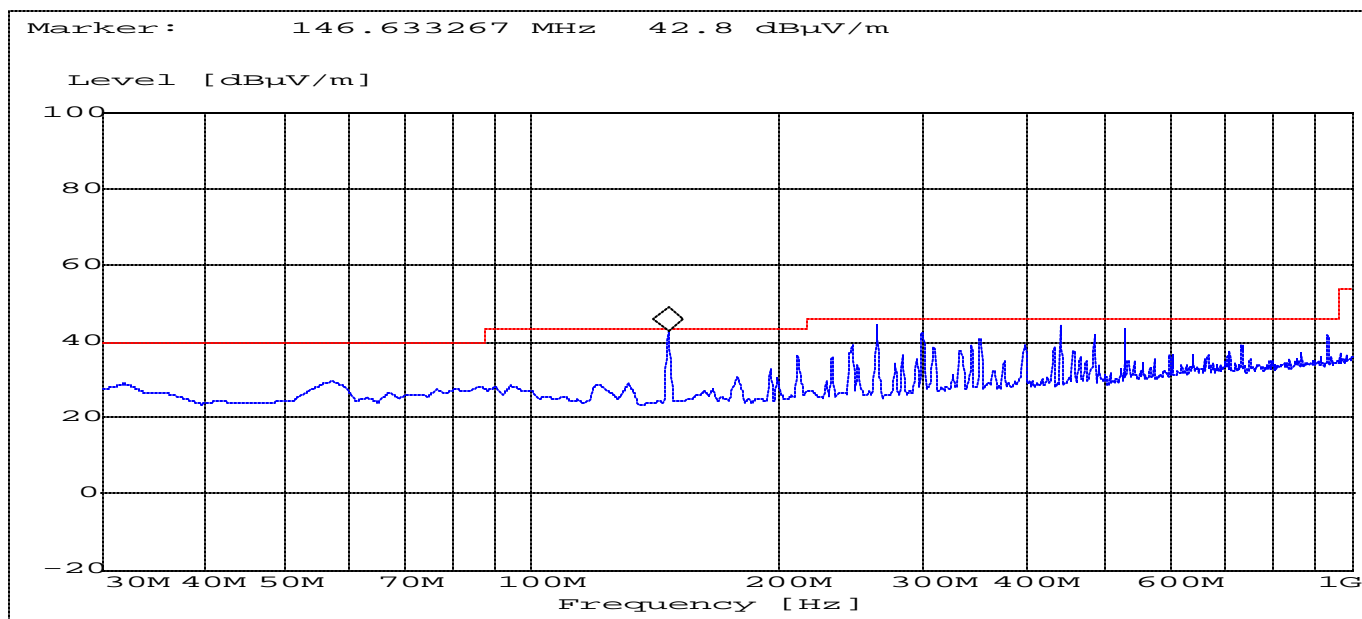
EMISSION LIMITATIONS (Transmitter)**SUBCLAUSE § 15.247 (c) (1)**

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)**

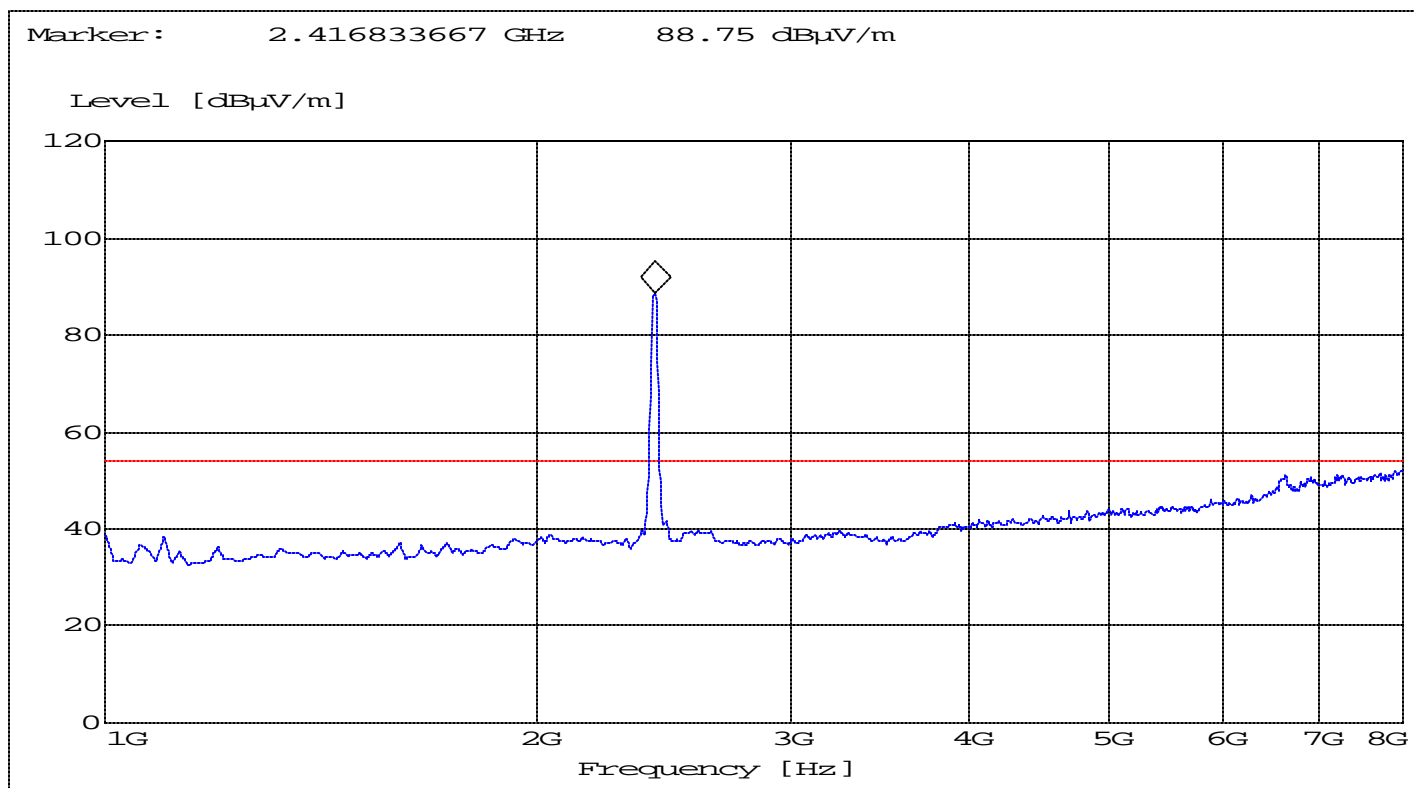
In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

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)

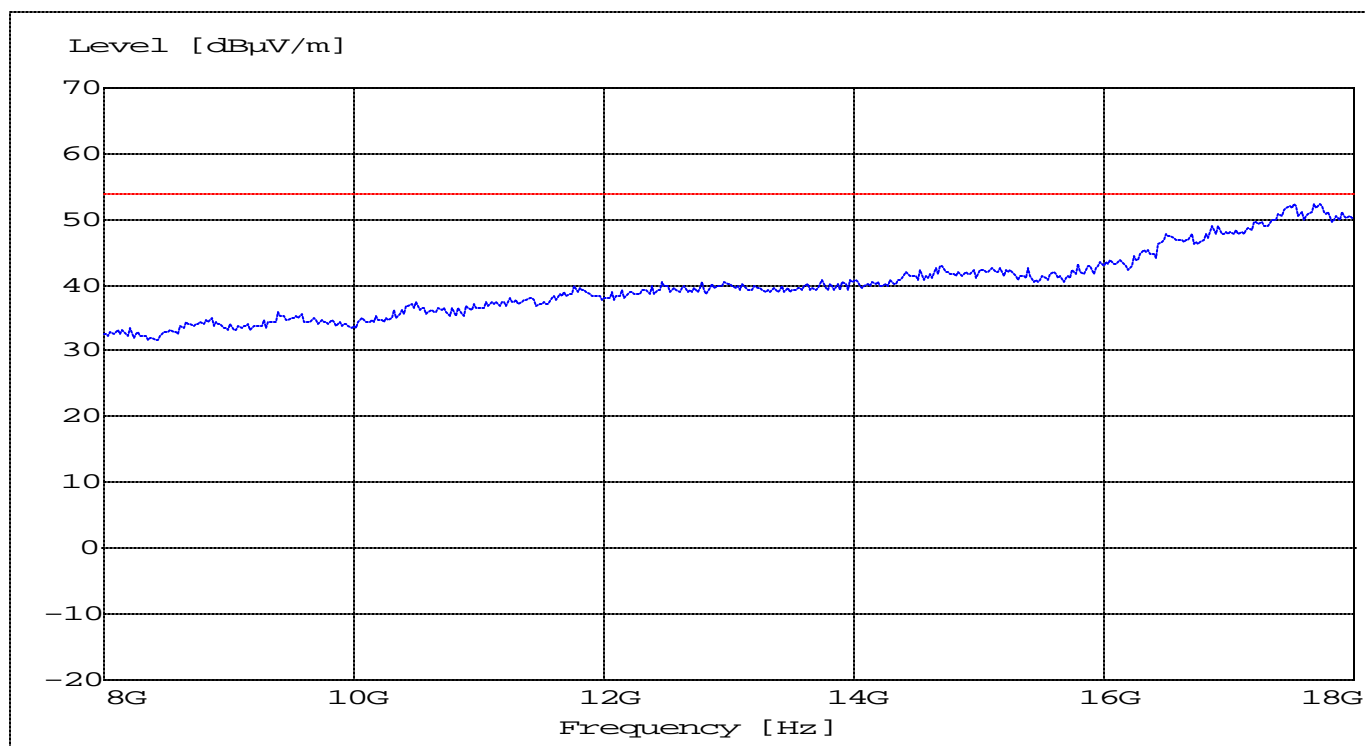
In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

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)

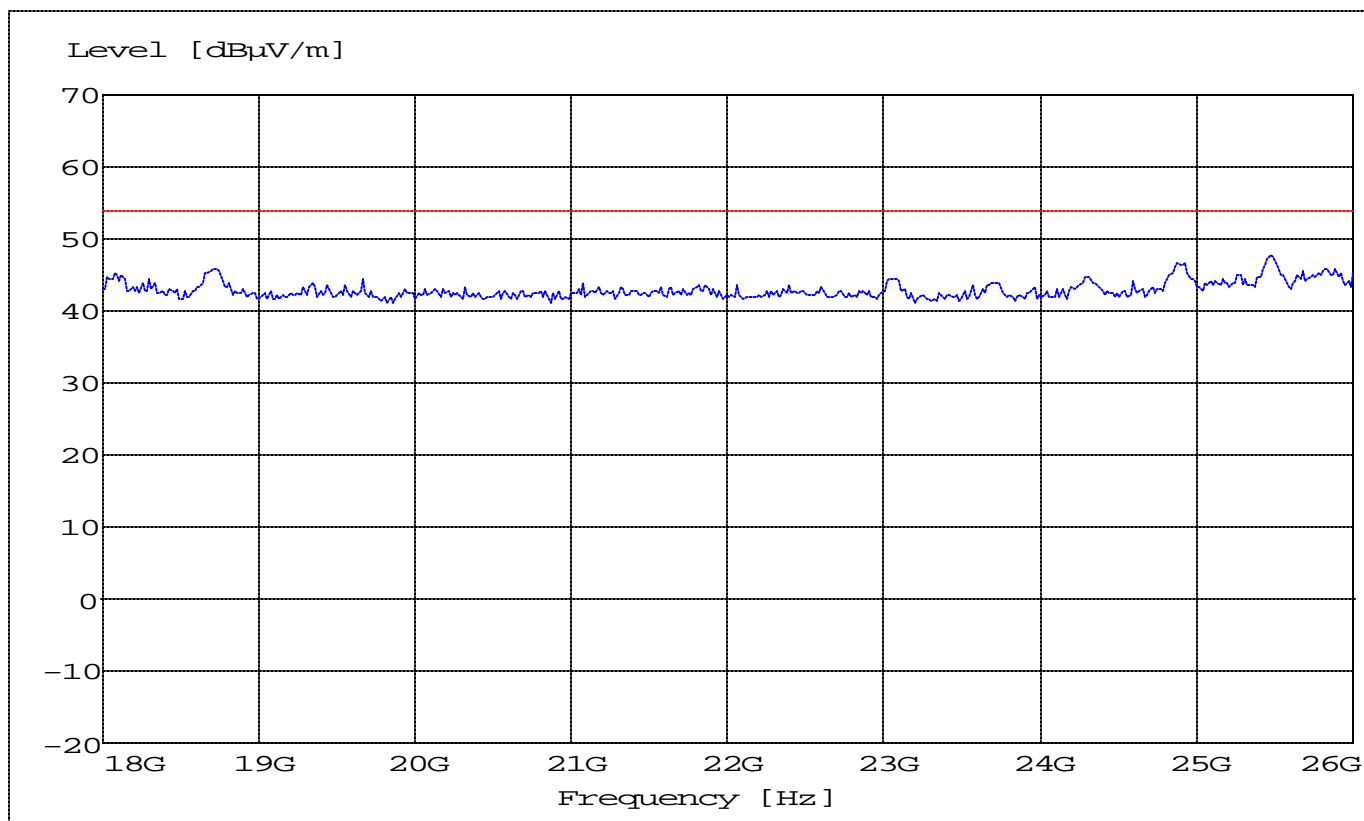
In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

ANALYZER SETTINGS: $f < 1\text{ GHz}$: RBW/VBW: 100 kHz

$f \geq 1\text{ GHz}$: 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)).

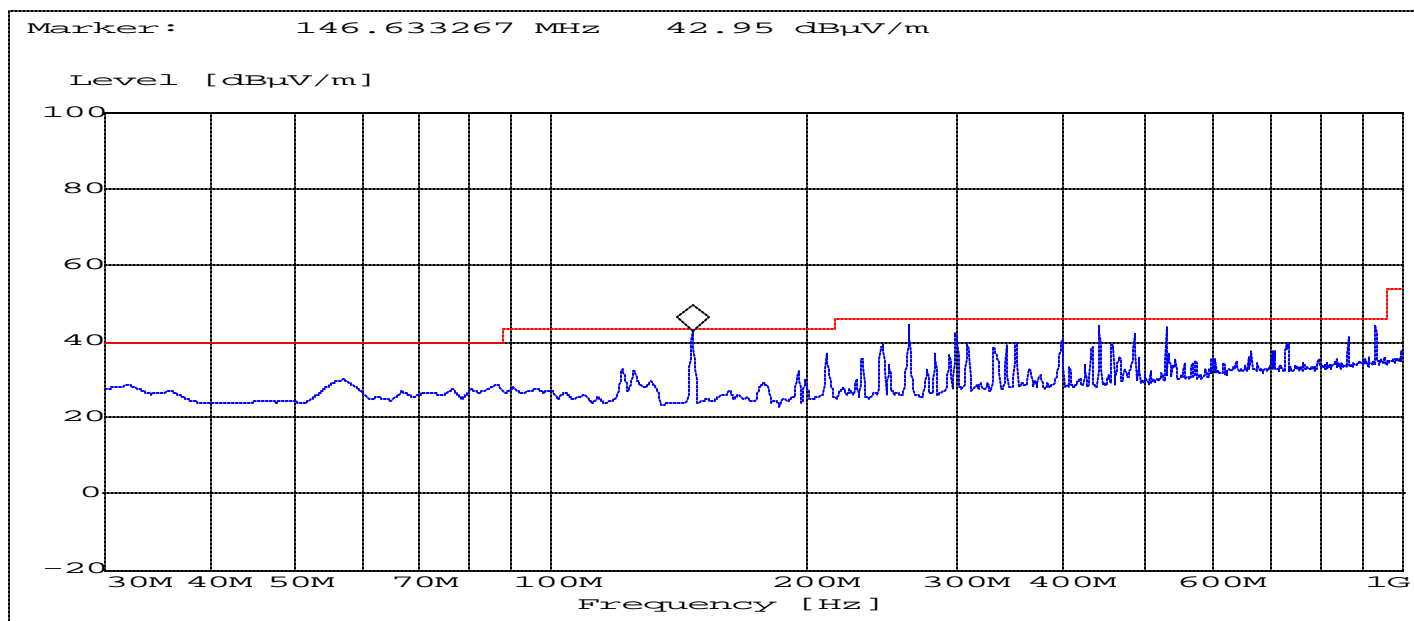
ANALYZER SETTINGS: $f < 1 \text{ GHz}$: RBW/VBW: 100 kHz

$f \geq 1 \text{ GHz}$: 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)

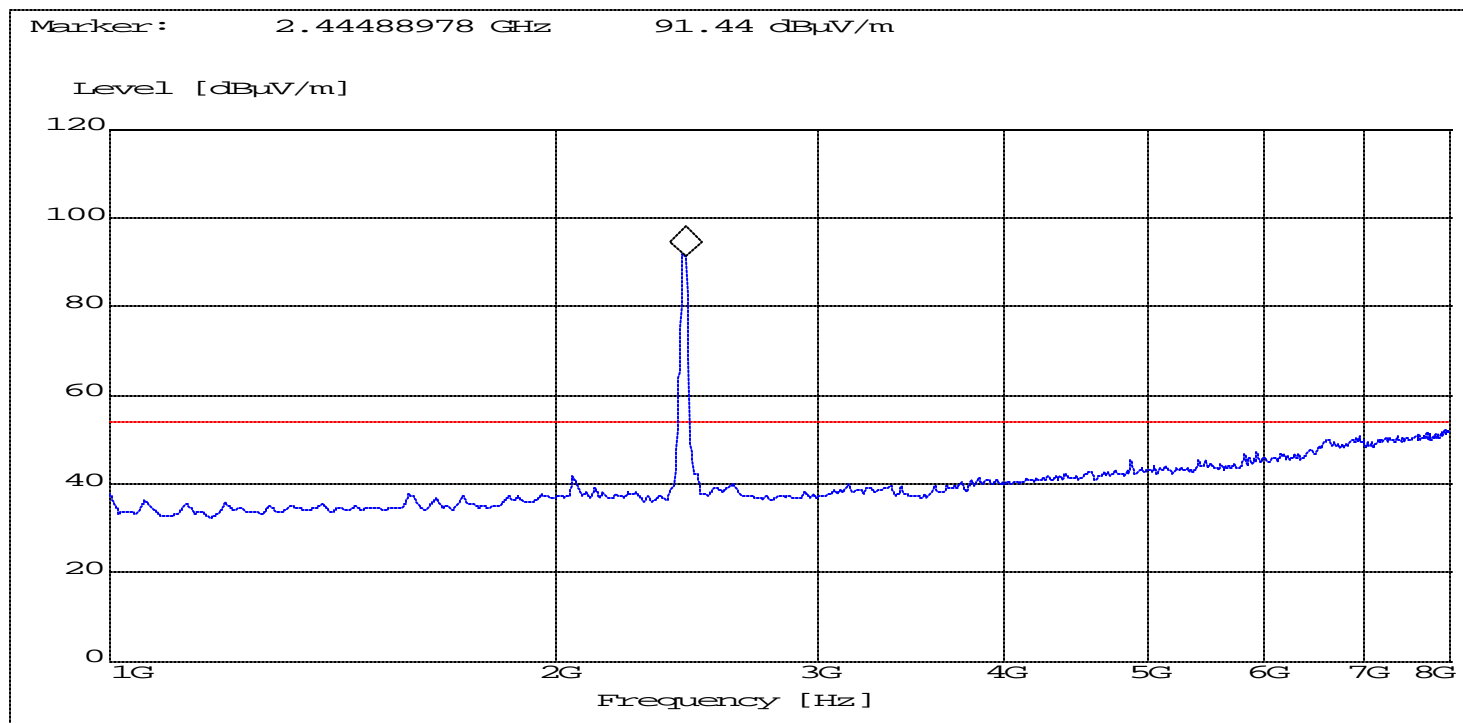
In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

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

f ≥ 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)

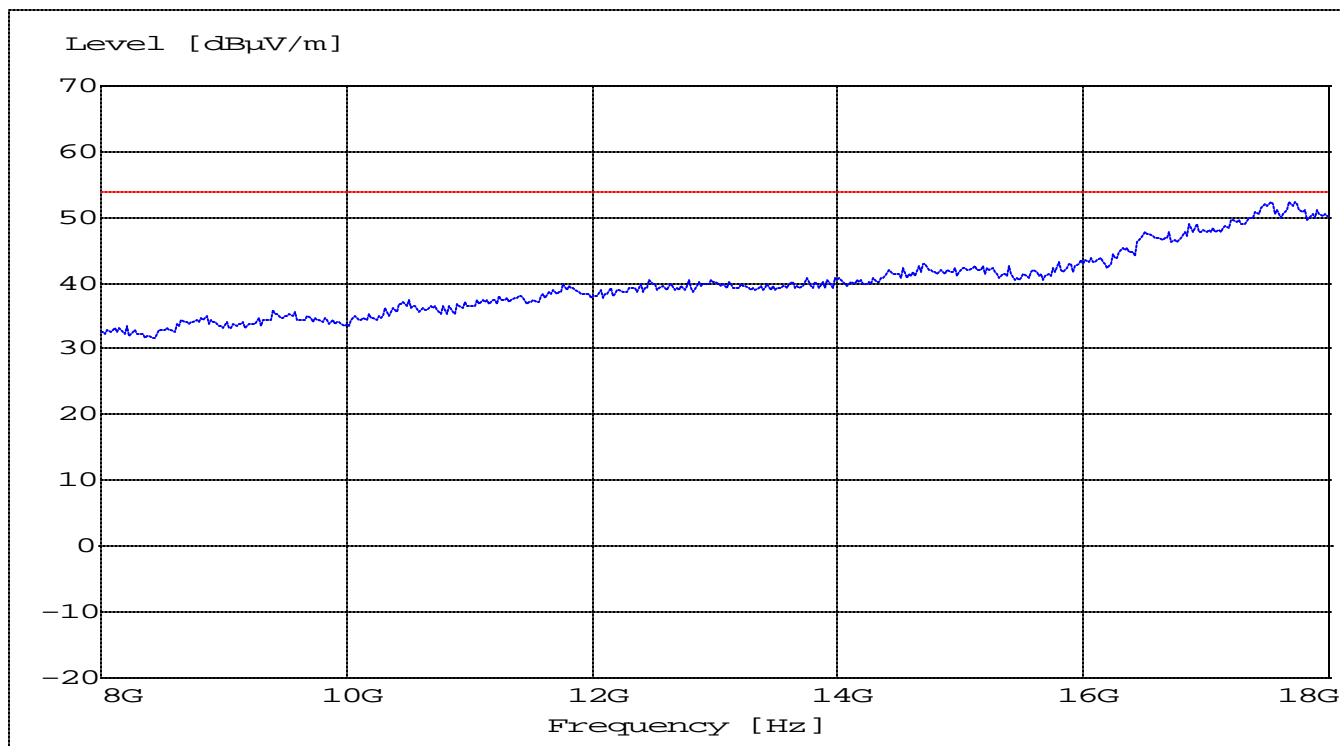
In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

ANALYZER SETTINGS: $f < 1 \text{ GHz}$: RBW/VBW: 100 kHz

$f \geq 1 \text{ GHz}$: RBW/VBW: 1 MHz

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

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



LIMITS

SUBCLAUSE § 15.247 (c)

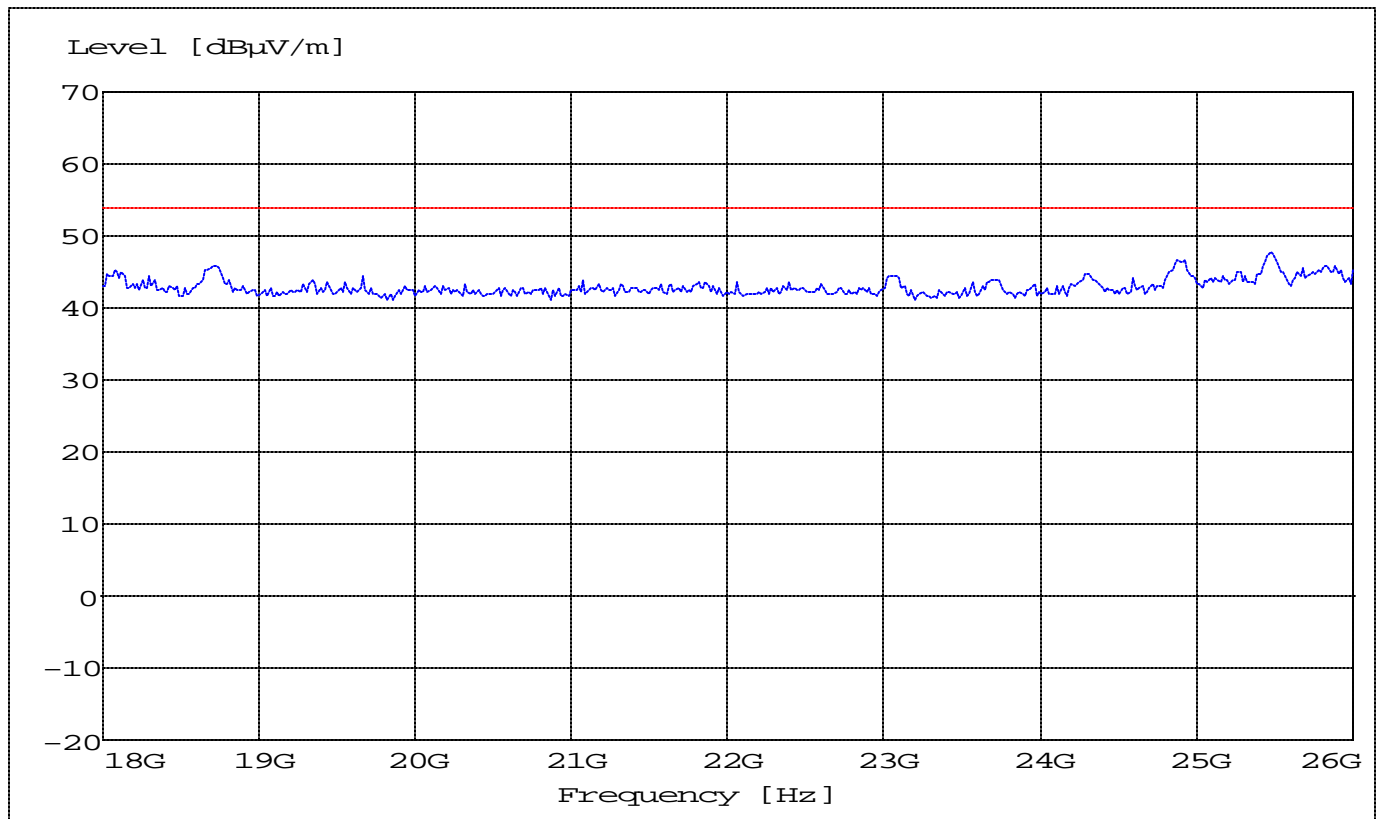
In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

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

$f \geq 1$ GHz : 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)).

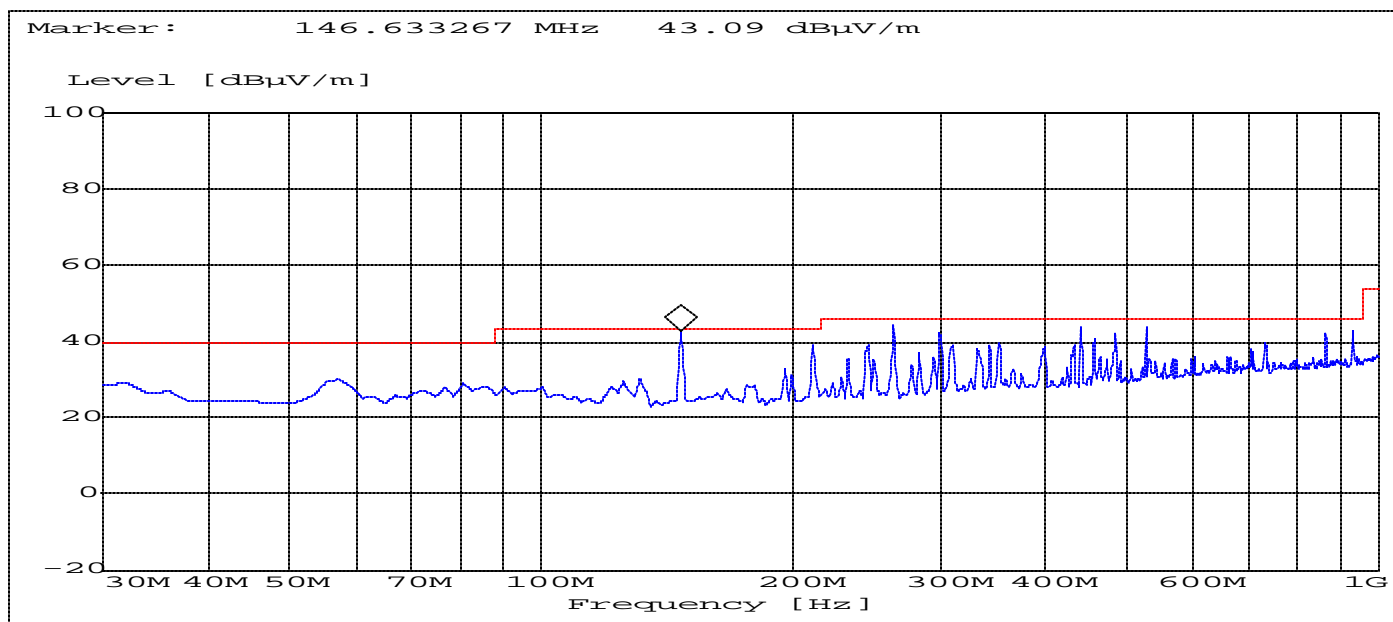
ANALYZER SETTINGS: $f < 1 \text{ GHz}$: RBW/VBW: 100 kHz

$f \geq 1 \text{ GHz}$: 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



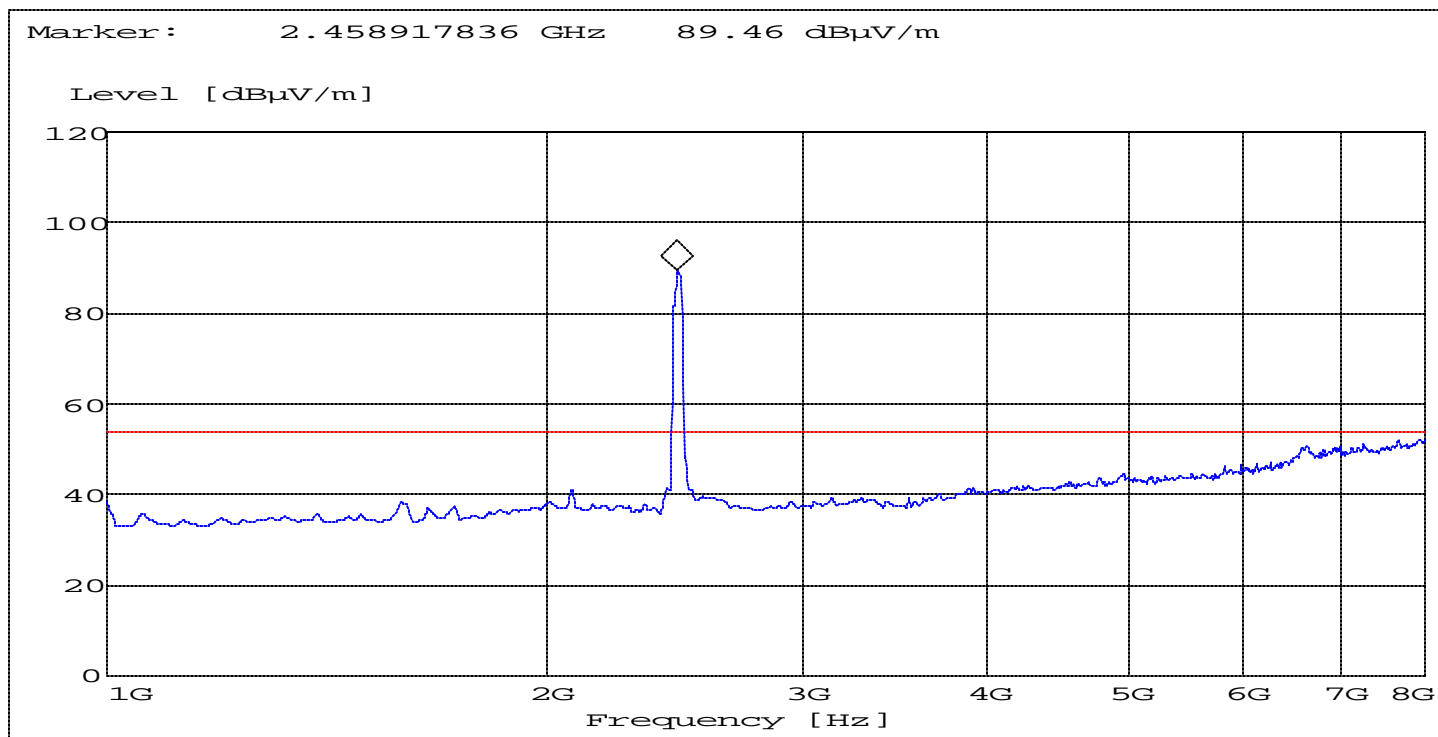
LIMITS

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: $f < 1 \text{ GHz}$: RBW/VBW: 100 kHz

$f \geq 1 \text{ GHz}$: 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.

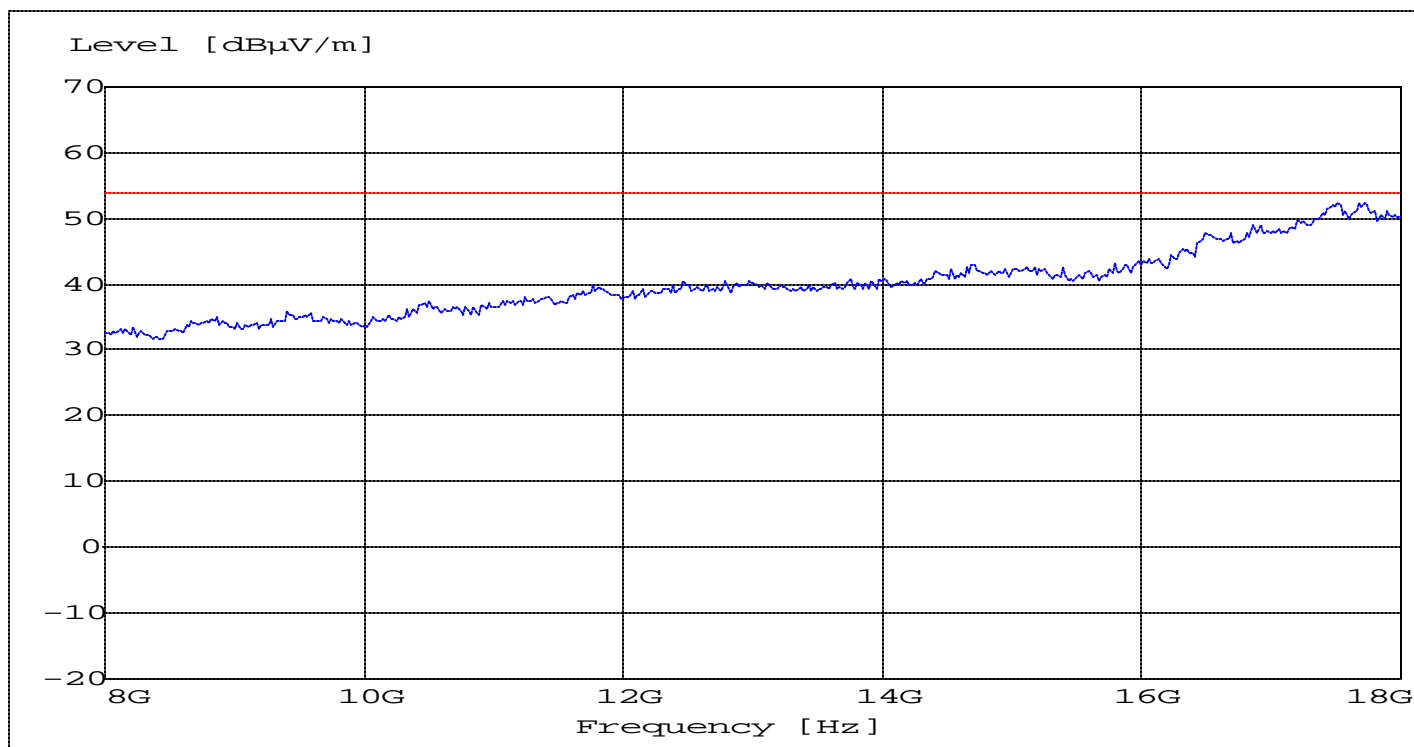
LIMITS**SUBCLAUSE § 15.247 (c)**

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: $f < 1 \text{ GHz}$: RBW/VBW: 100 kHz $f \geq 1 \text{ GHz}$: RBW/VBW: 1 MHz

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

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



LIMITS

SUBCLAUSE § 15.247 (c)

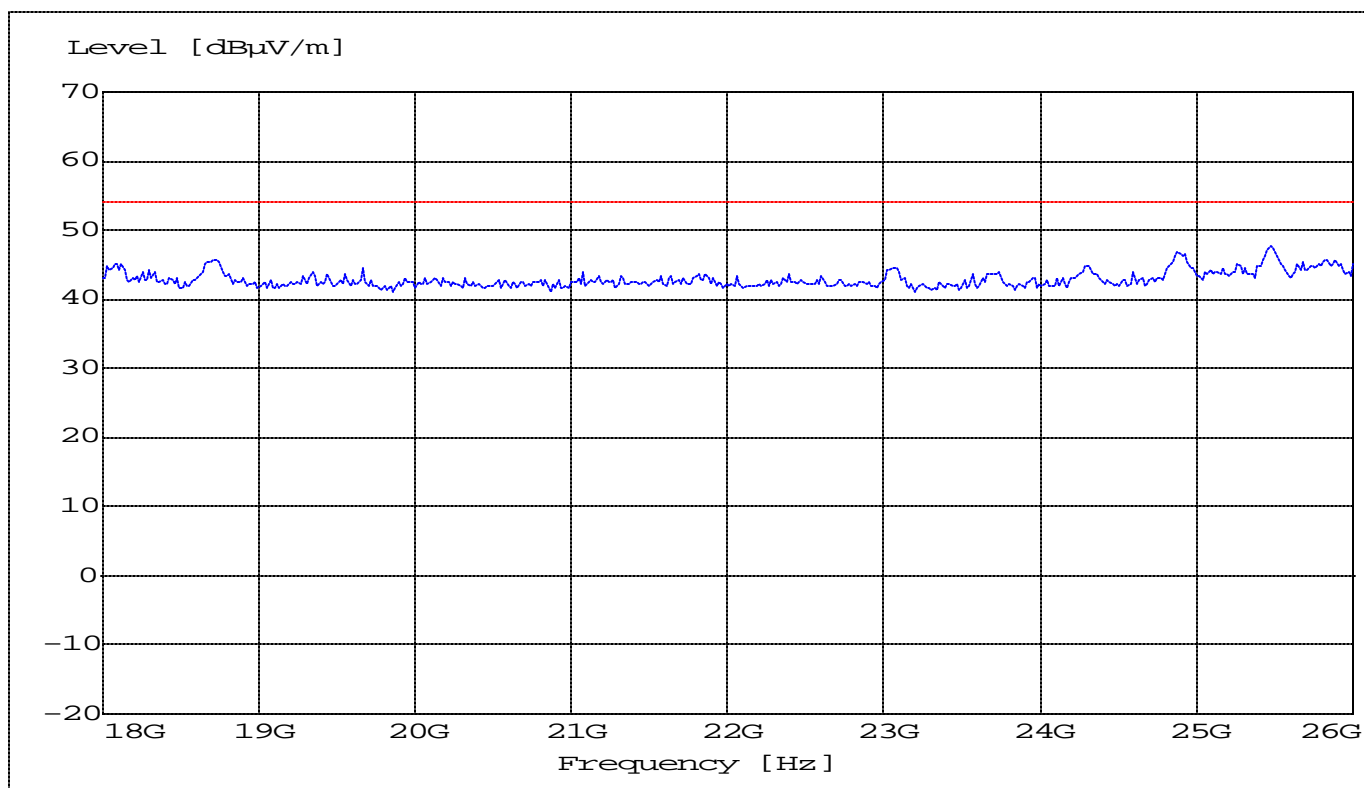
In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

ANALYZER SETTINGS: $f < 1 \text{ GHz}$: RBW/VBW: 100 kHz

$f \geq 1 \text{ GHz}$: RBW/VBW: 1 MHz

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

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



LIMITS

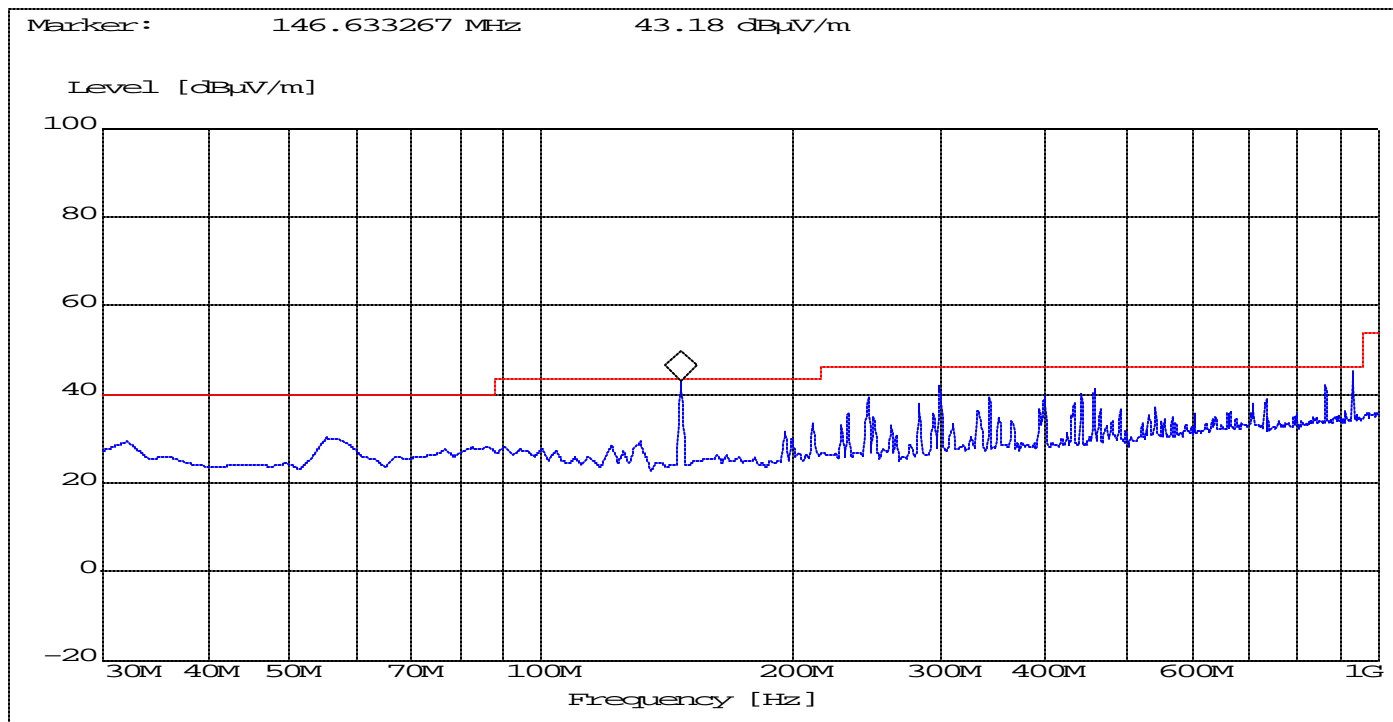
SUBCLAUSE § 15.247 (c)

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: $f < 1 \text{ GHz}$: RBW/VBW: 100 kHz

$f \geq 1 \text{ GHz}$: 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 | | |
|-------------------------|-----------------|----------------------------|-----------|------------|
| Frequency (MHz) | | 2412 | 2437 | 2462 |
| $T_{nom}(23)^{\circ}C$ | $V_{nom}(3.0)V$ | -10.14 dBm | -10.70dBm | -10.92 dBm |
| Measurement uncertainty | | $\pm 3dB$ | | |

LIMIT**SUBCLAUSE §15.247(d)**

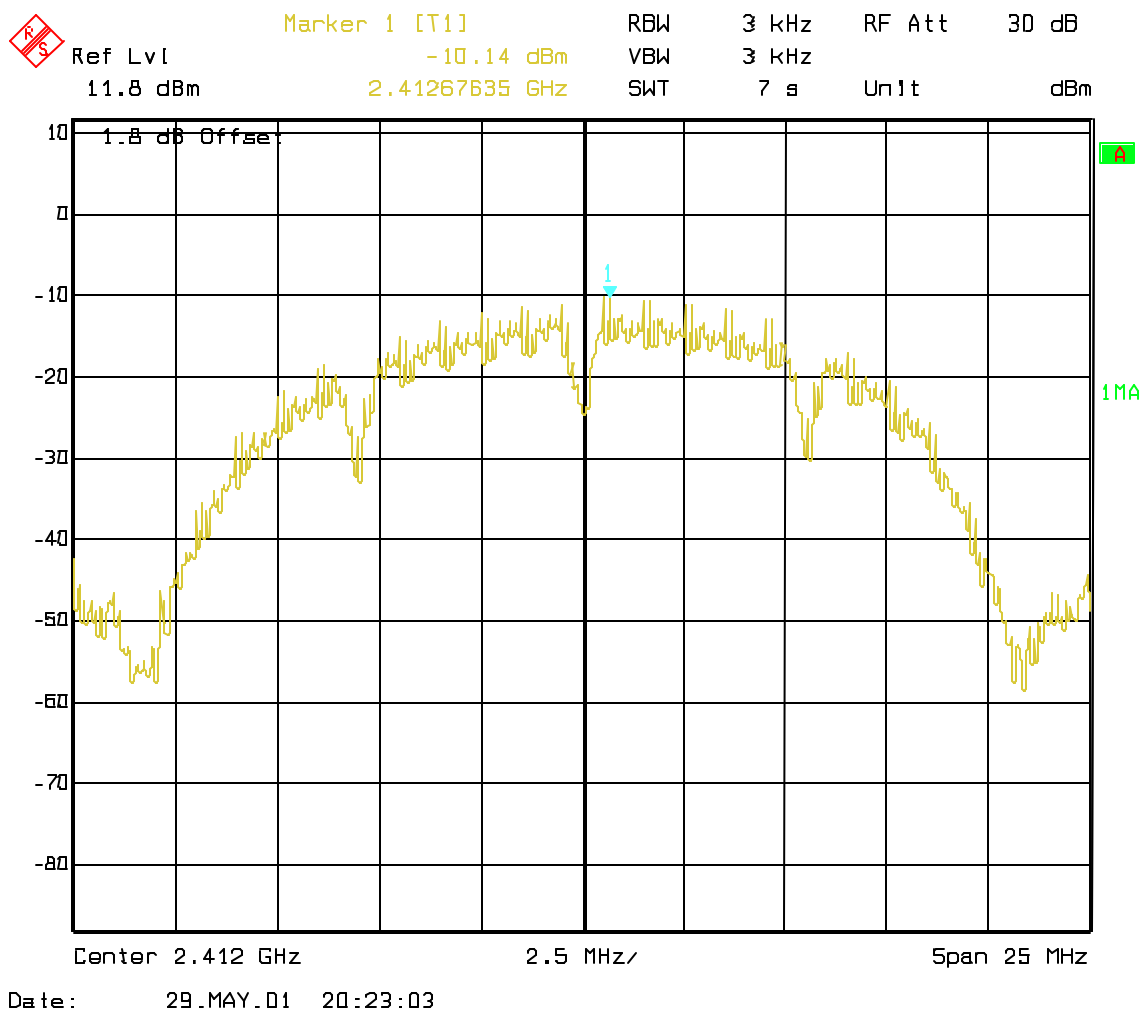
The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band

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

POWER SPECTRAL DENSITY

SUBCLAUSE § 15.247 (d)

Lowest Channel: 2412 MHz



LIMIT

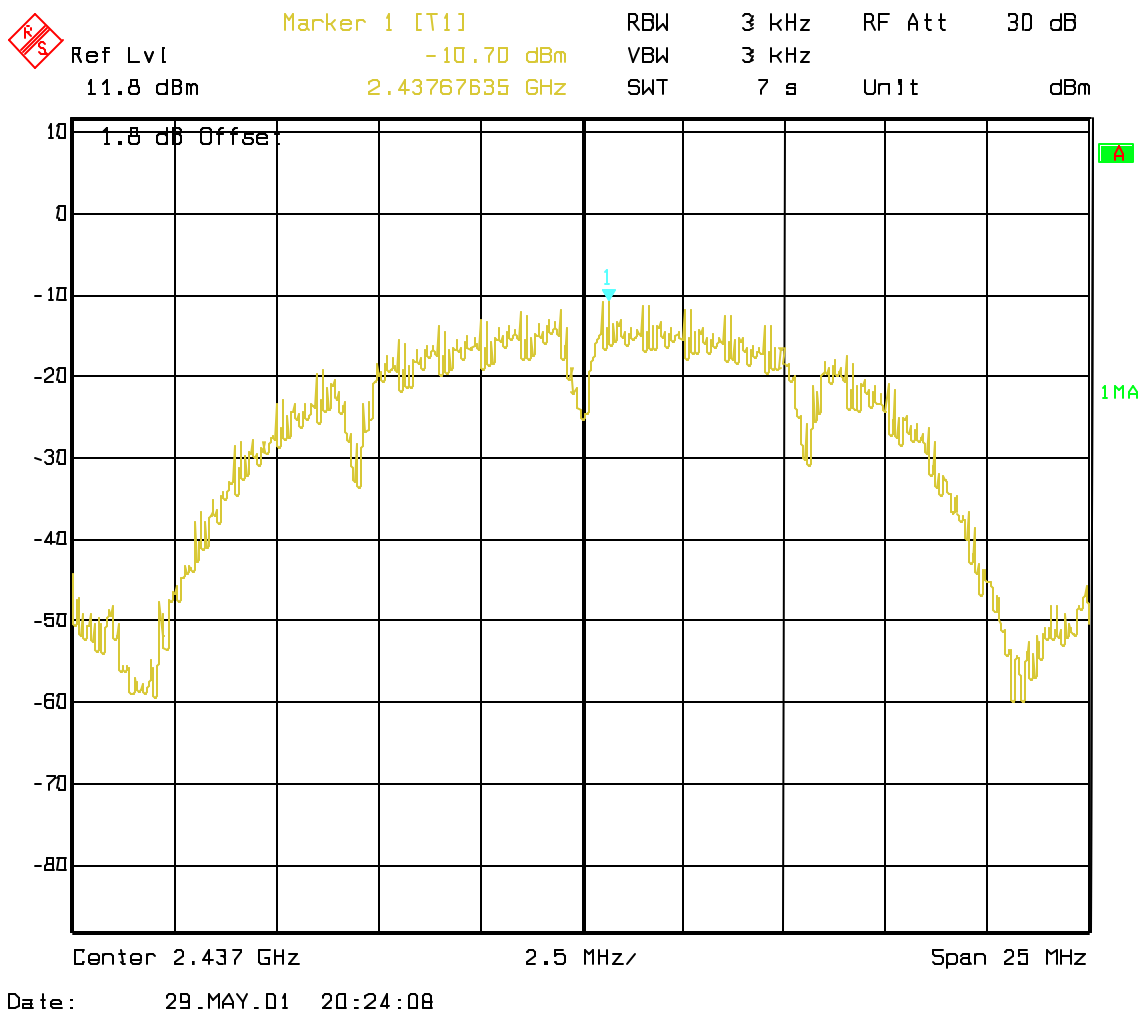
SUBCLAUSE §15.247(d)

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

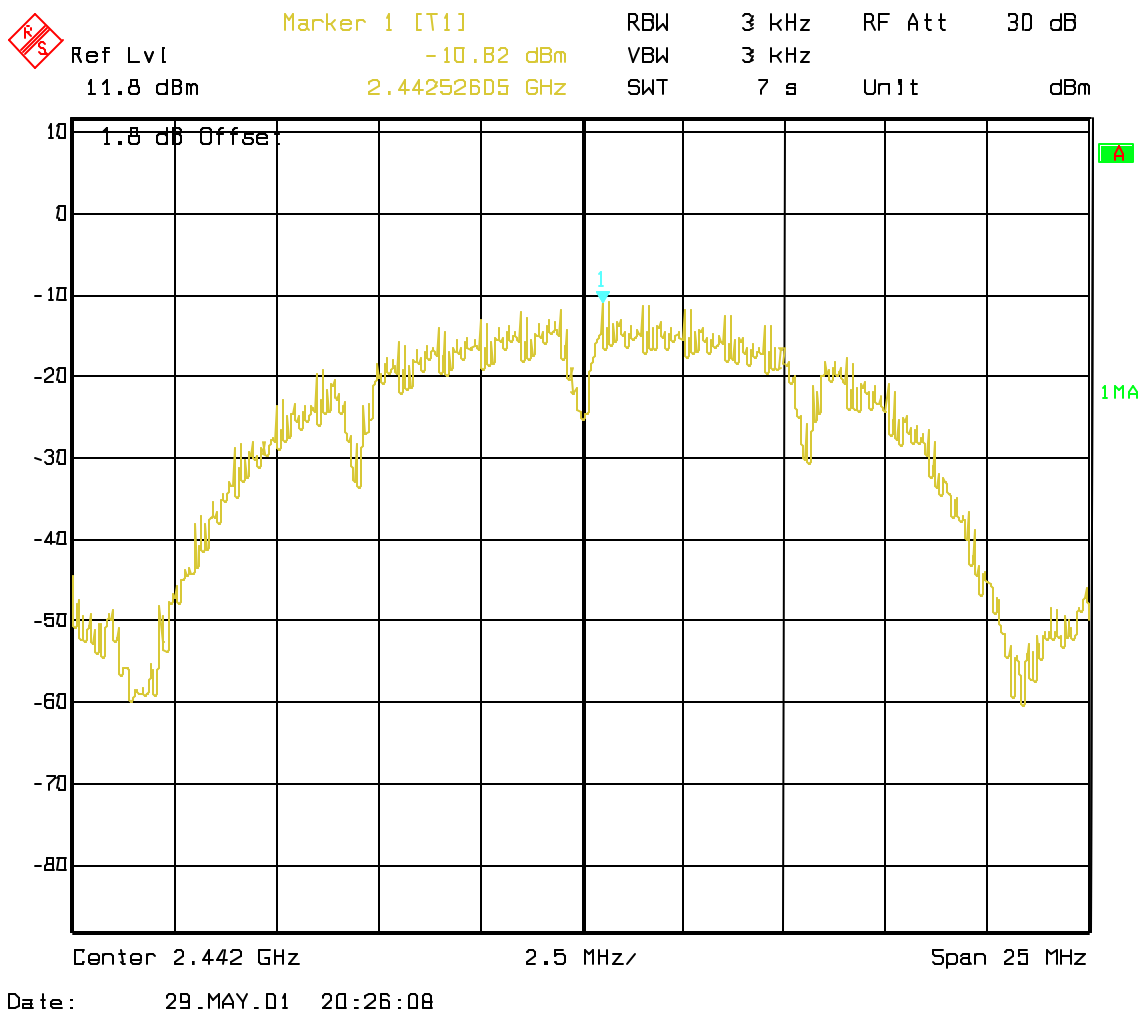
SUBCLAUSE §15.247(d)

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

(NOTE: The processing gain data is provided by Chip Set Manufacturer)

[illegible]

[illegible]

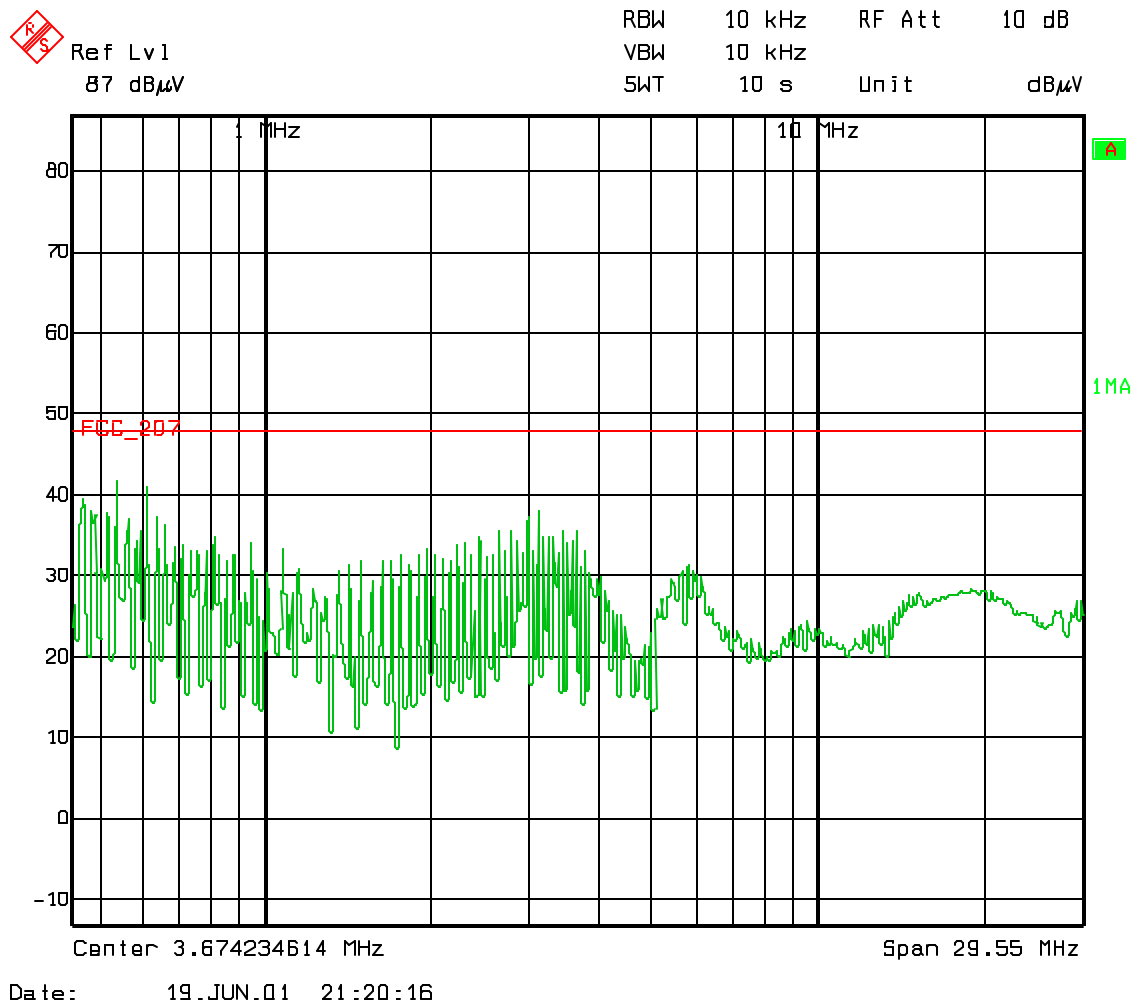
[illegible]

CONDUCTED EMISSIONS

§ 15.107/207

Measured with AC/DC power adapter plugged in LISN

Phase: Line



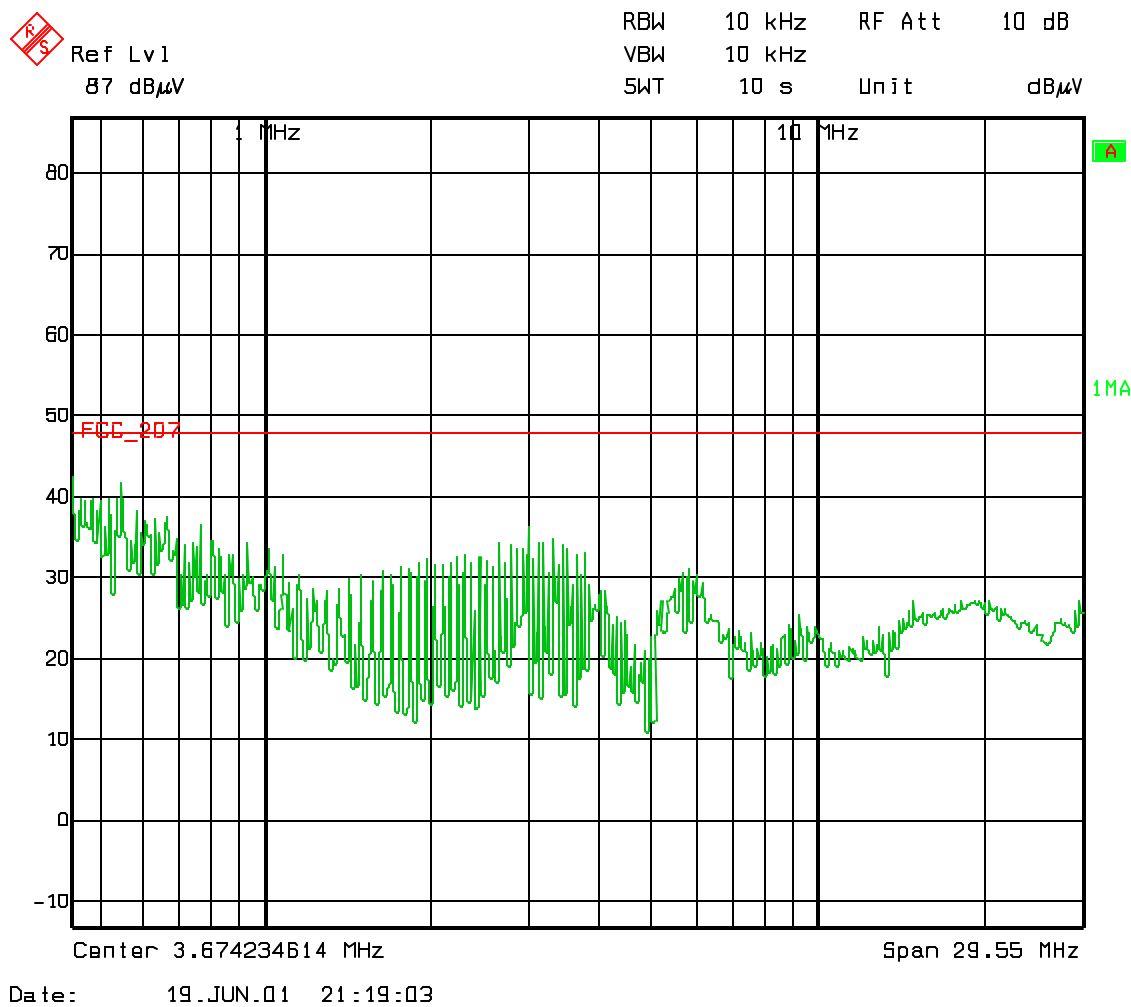
Technical specification : 15.107 / 15.207 (Revised as of October 1, 1991)

Limit



| | |
|----------------|--------------------------------|
| 0.45 to 30 MHz | 250 μ V / 47.96 dB μ V |
|----------------|--------------------------------|

Phase: Neutral



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

Limit

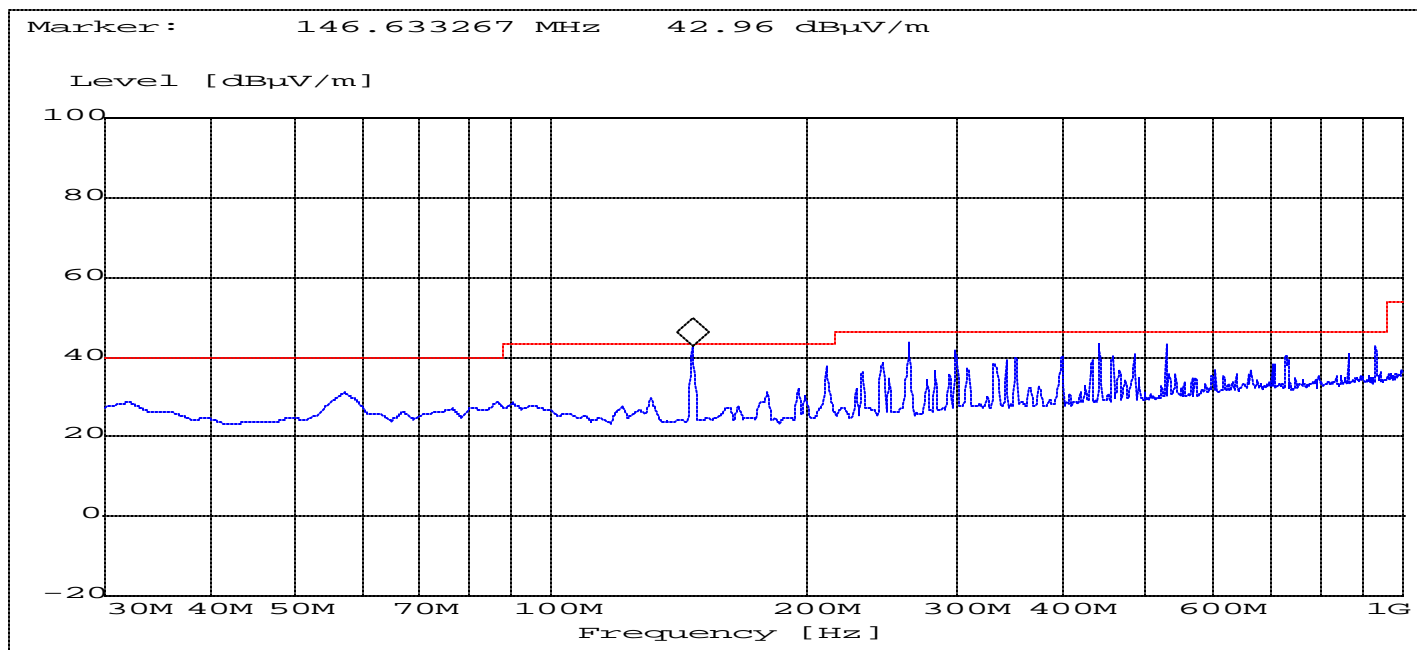
| | |
|----------------|---------------------|
| 0.45 to 30 MHz | 250 μV / 47.96 dBμV |
|----------------|---------------------|

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)

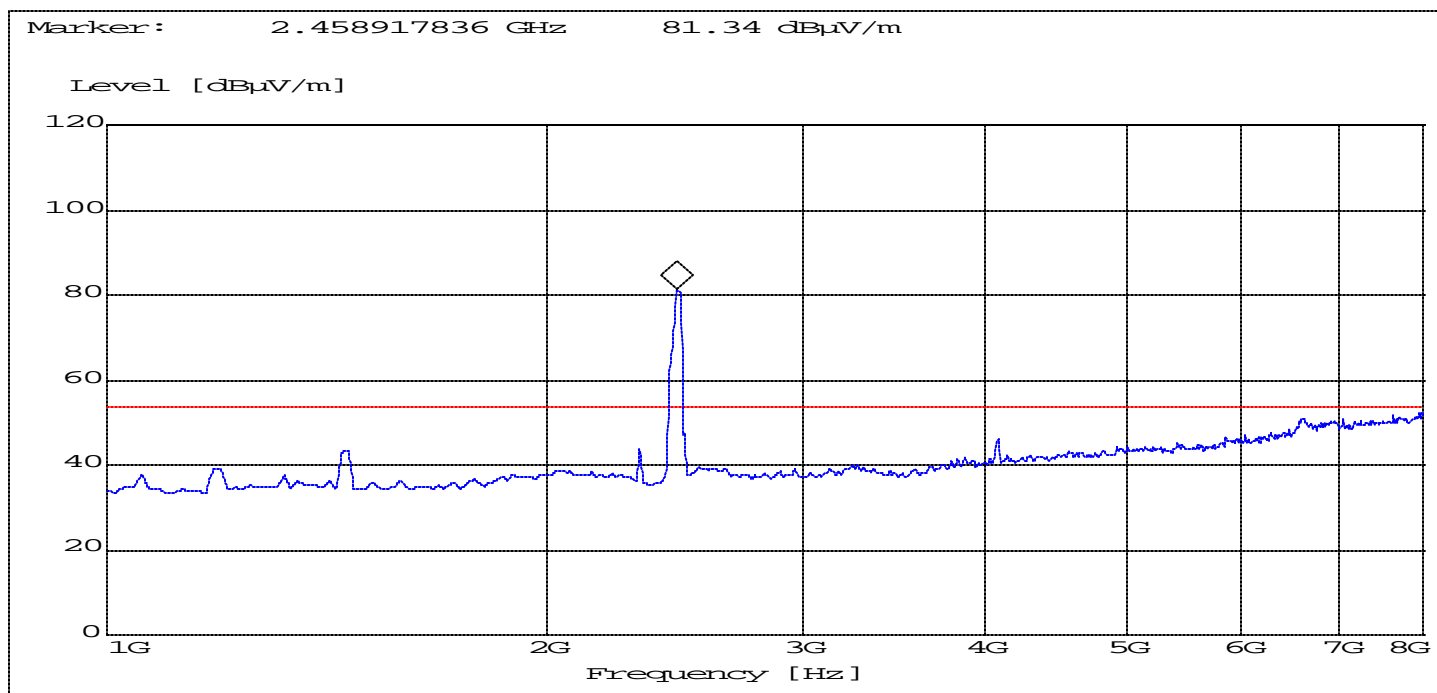
ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz f ≥ 1GHz : RBW/VBW: 1 MHz

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 (μ 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

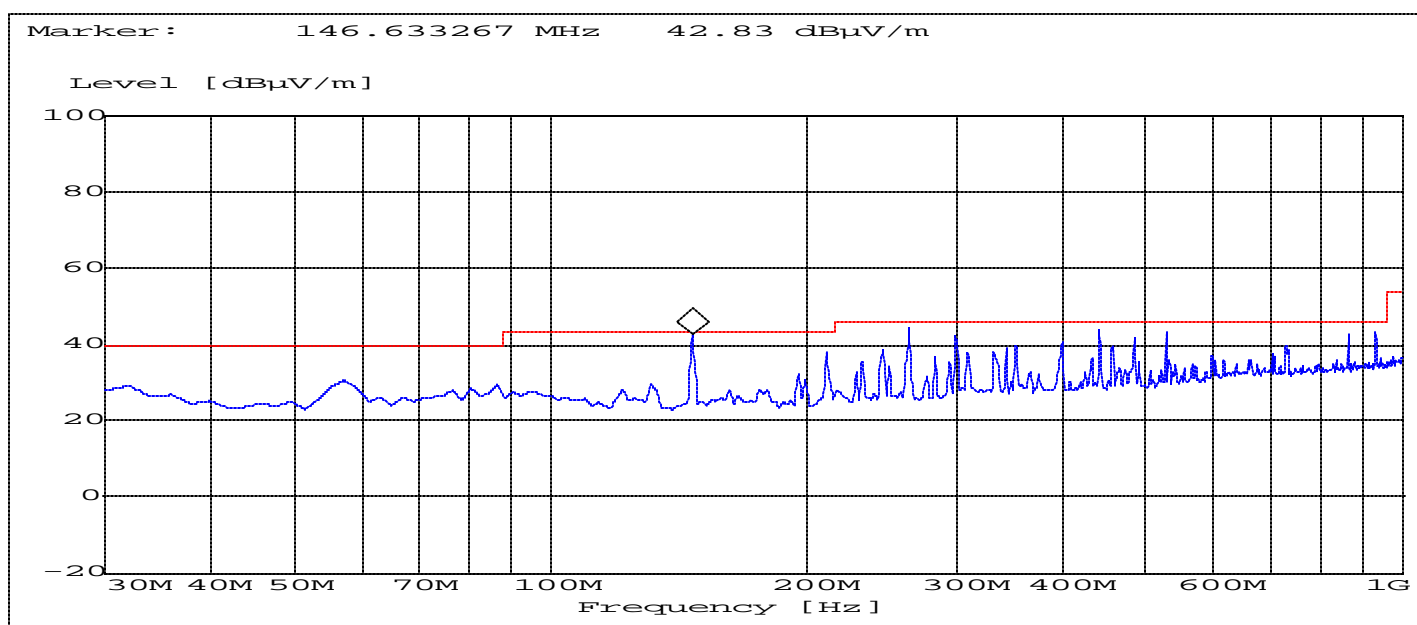
f \geq 1GHz : RBW/VBW: 1 MHz

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

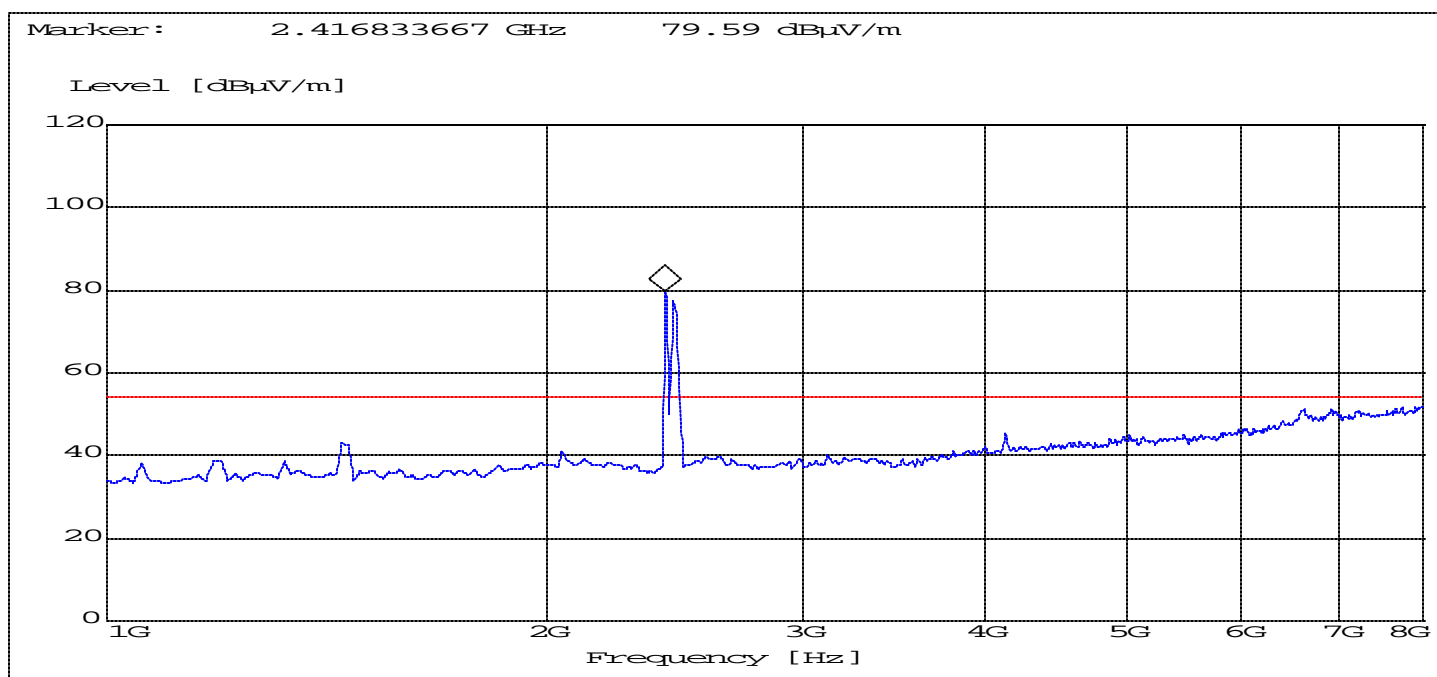
f ≥ 1GHz : RBW/VBW: 1 MHz

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

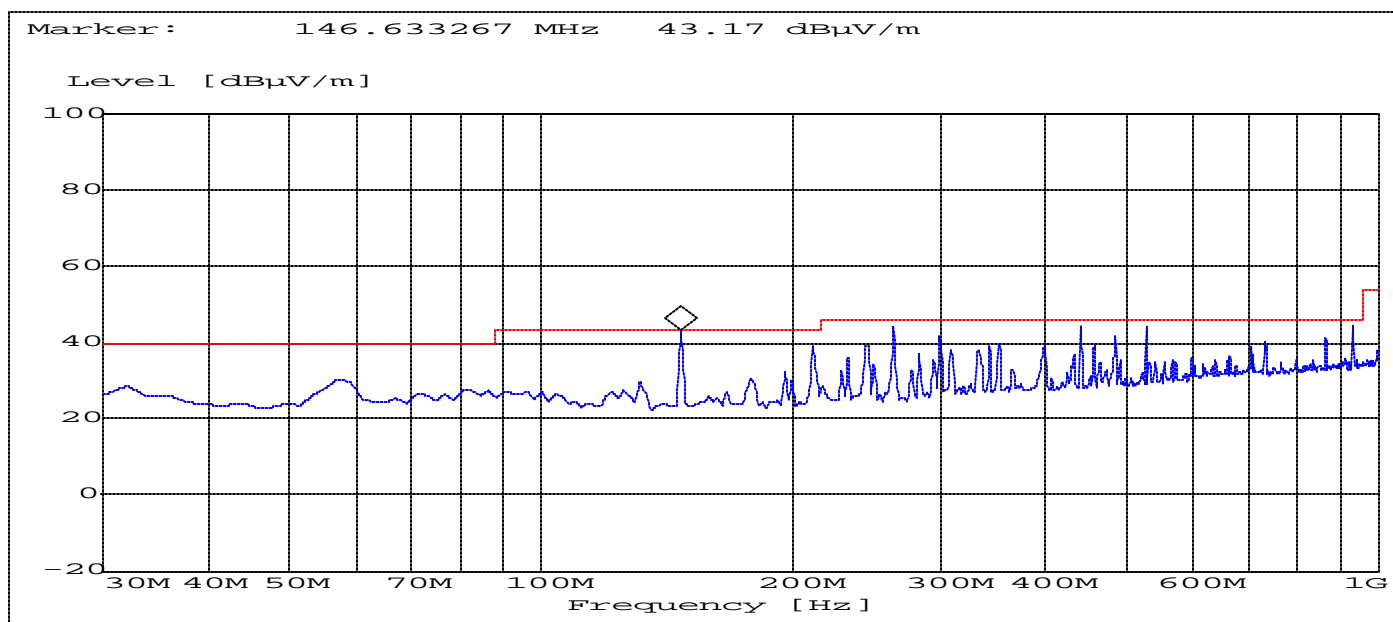
f ≥ 1GHz : RBW/VBW: 1 MHz

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)

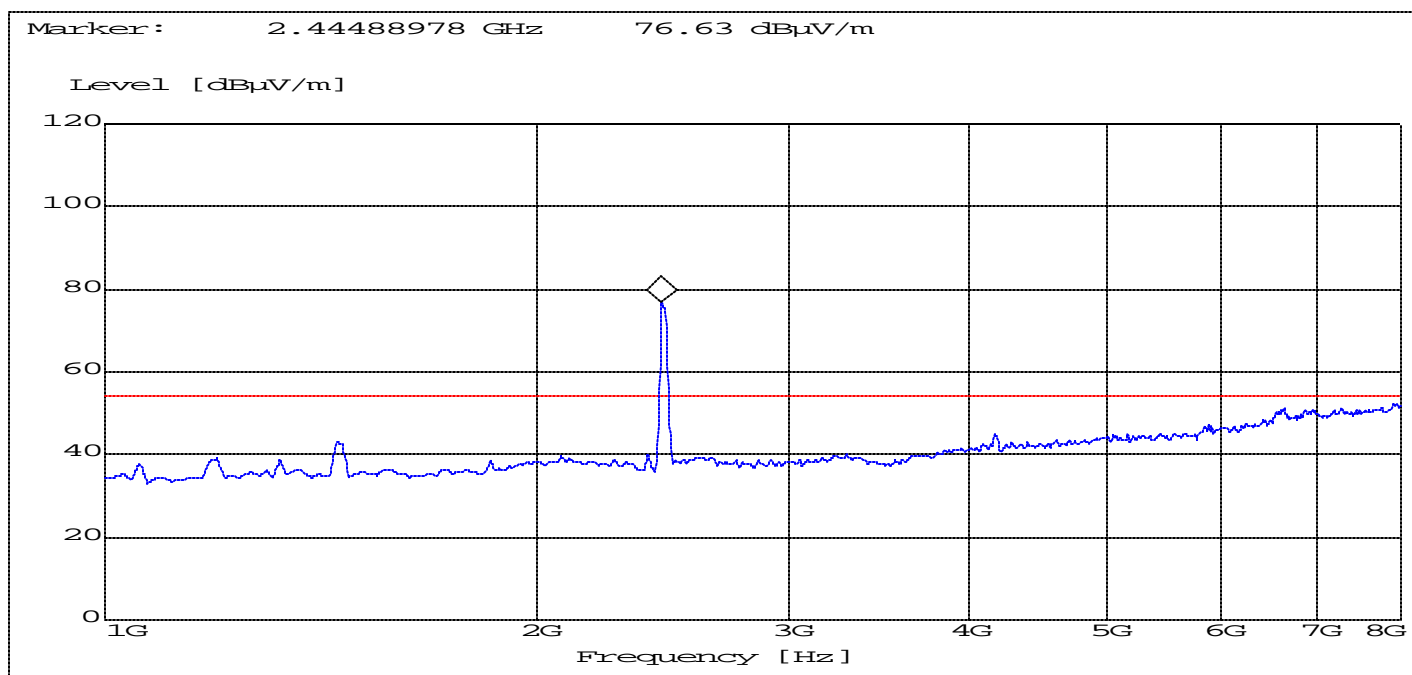
ANALYZER SETTINGS: $f < 1\text{ GHz}$: RBW/VBW: 100 kHz $f \geq 1\text{ GHz}$: RBW/VBW: 1 MHz

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

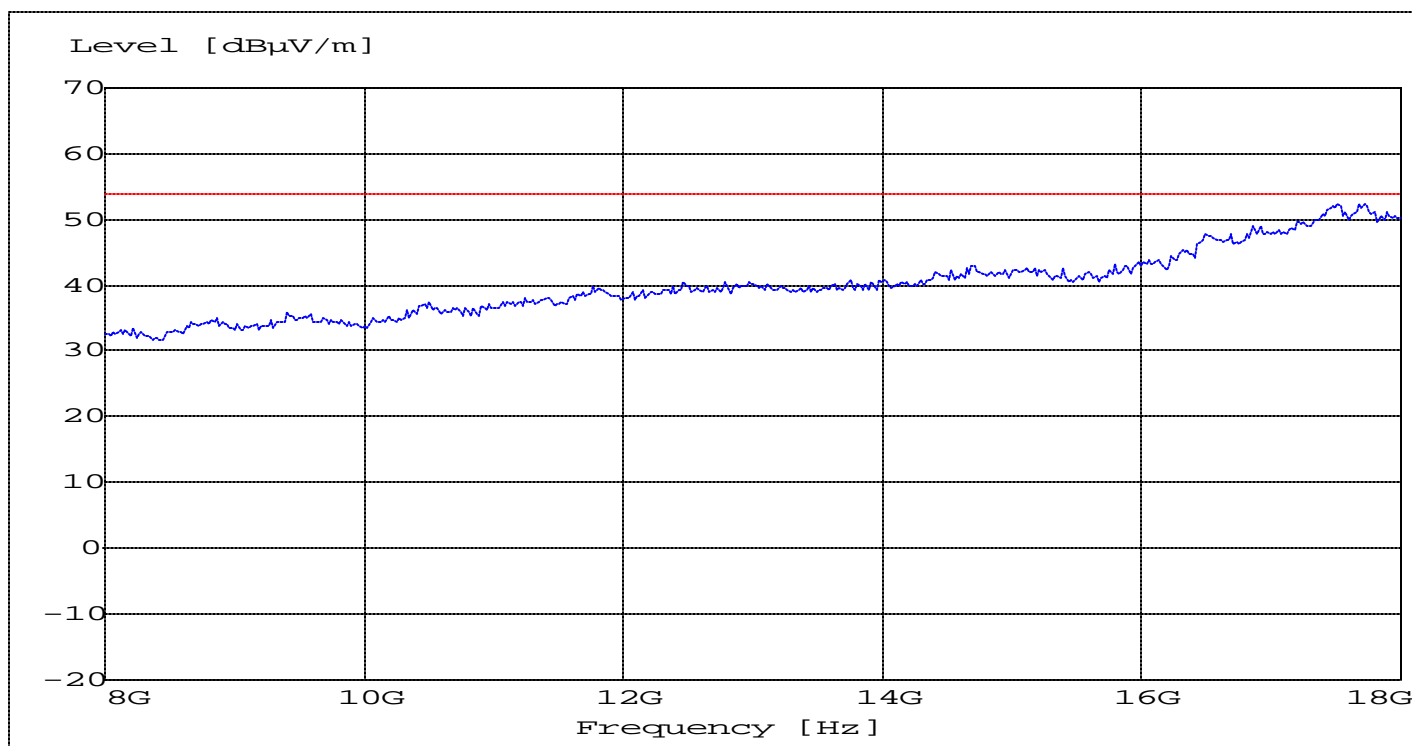
f ≥ 1GHz : RBW/VBW: 1 MHz

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

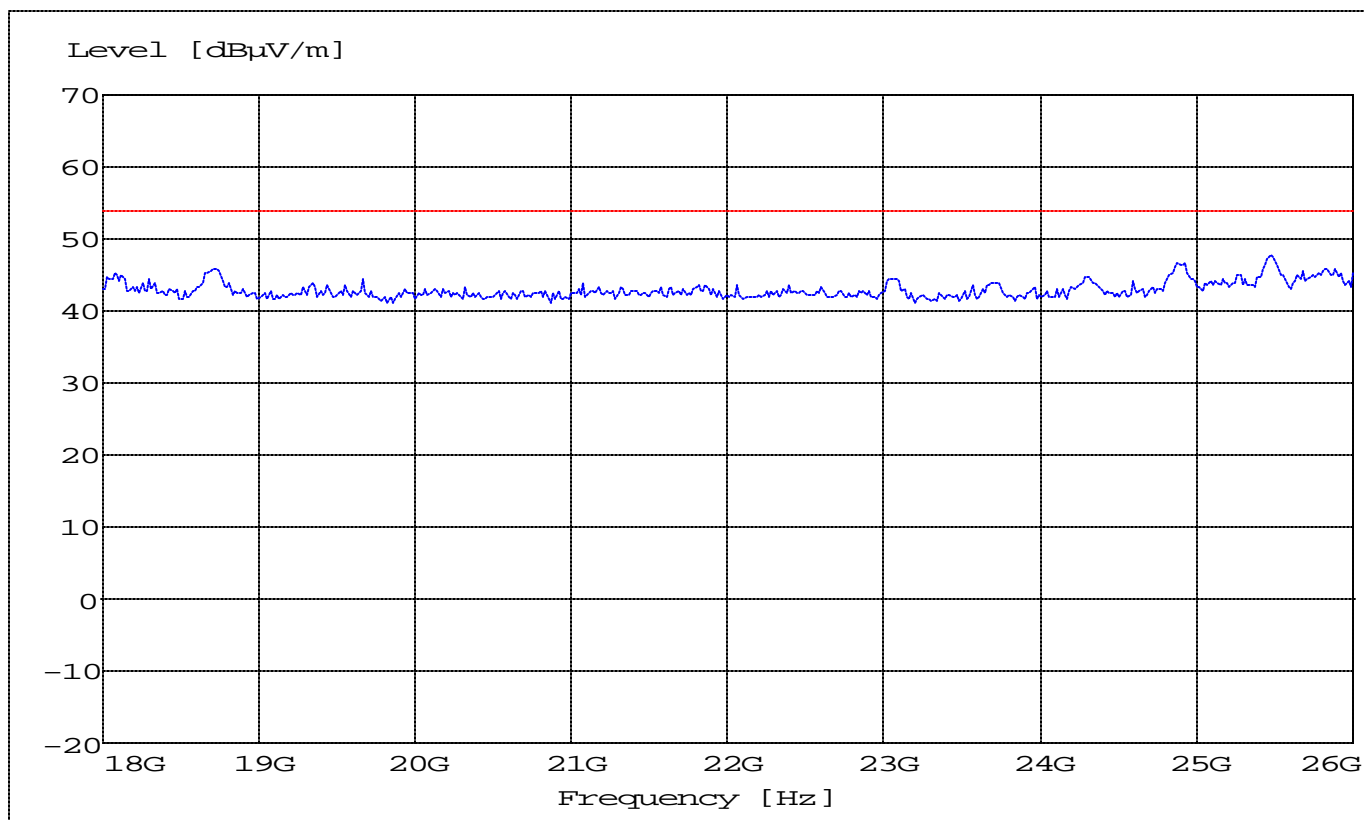
f ≥ 1GHz : RBW/VBW: 1 MHz

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)

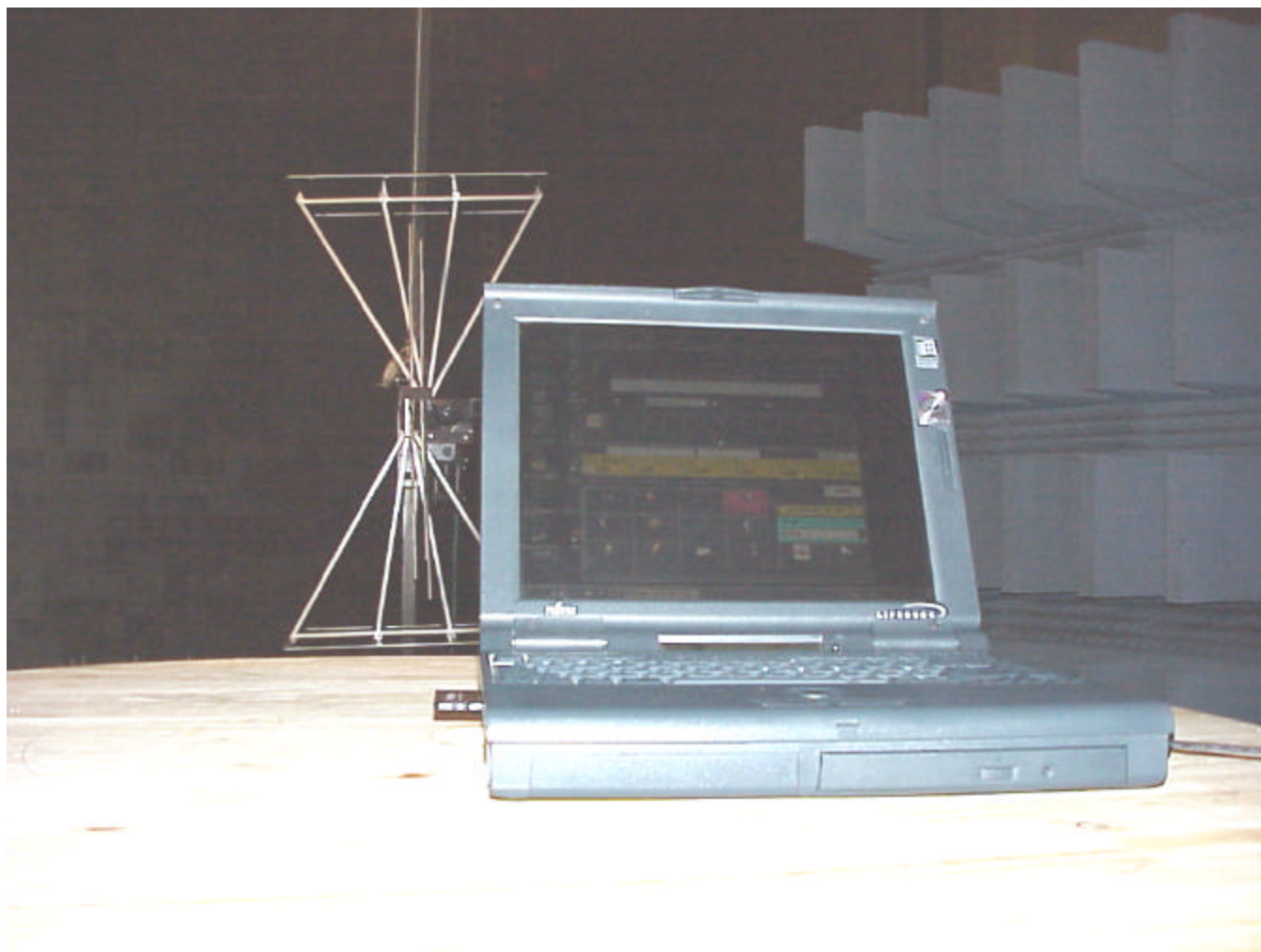
ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz

f ≥ 1GHz : RBW/VBW: 1 MHz

[illegible]

TEST SITE

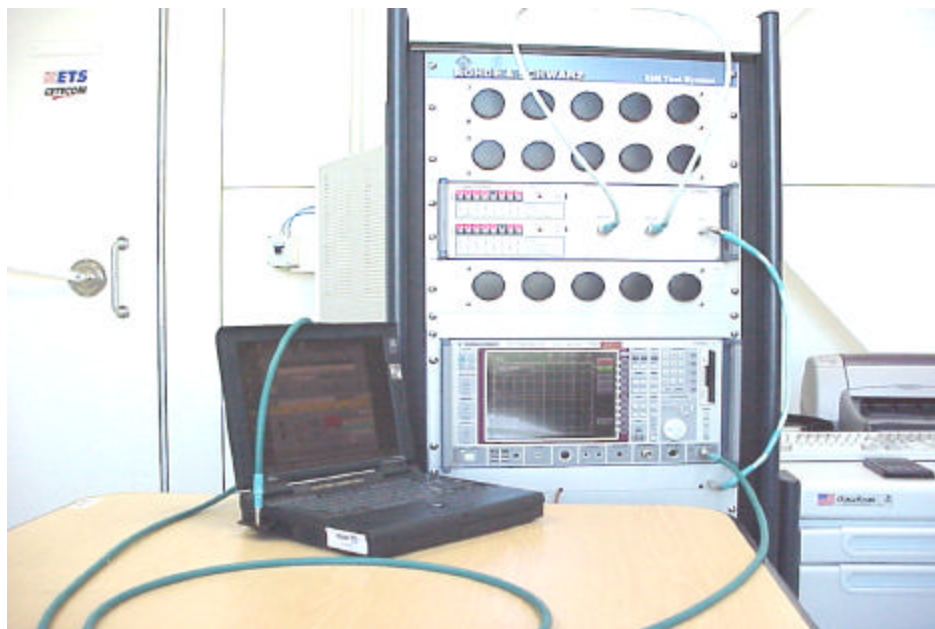
Radiated Emissions



Test set up for radiated emissions:



Conducted Emissions



PHOTOGRAPHS OF THE EQUIPMENT

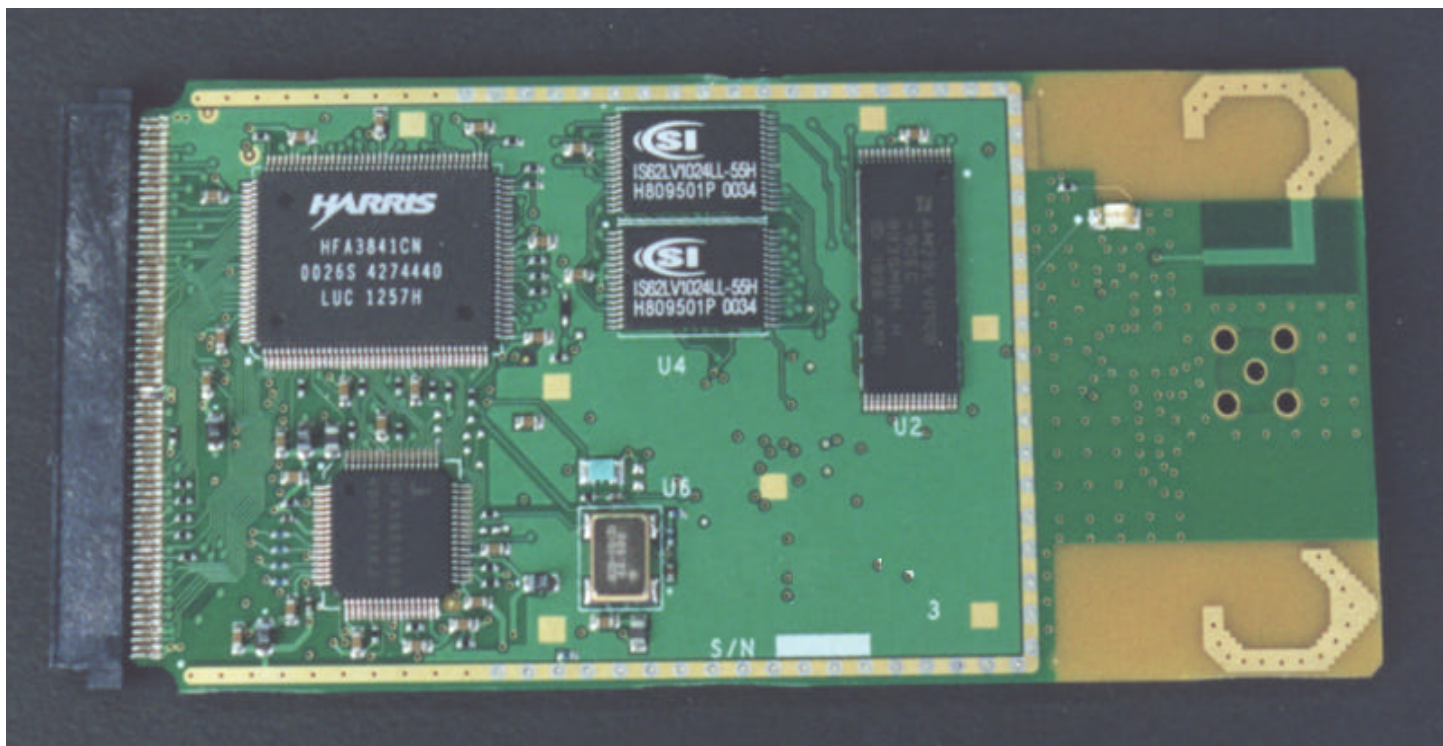
Photograph No.1: PCMCIA Card with shielding



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



Photograph No.3: PCMCIA Card (Top view)



Photograph No.4: PCMCIA Card (Bottom view)

