

**CETECOM Inc.**



**CETECOM Inc.**

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Issued test report consists of 55 Pages

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

**Test report no.: EMC\_318\_FCC15.247\_2002  
FCC Part 15.247 for DSSS systems / CANADA RSS-210  
(BCM94301CB)**

**SPECIAL NOTE:**

**This test report represents following three versions of EUT;**

<b><u>Model</u></b>	<b><u>Description</u></b>
<b>BCM94301CB</b>	<b>32-bit cardbus</b>
<b>BCM94301PC3</b>	<b>16-bit PCMCIA card</b>
<b>BCM94301PC5</b>	<b>16-bit PCMCIA card with power regulator</b>

**The difference between these three versions is only related to the digital interface between the card and the Laptop PC. The device with the higher bit rate (BCM94301CB) was used for the test measurements documented in this test report, considering worst case scenario. Please refer to photographs to see physical difference between three models.**

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- 1 General information**
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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 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](mailto:lothar.schmidt@cetecomusa.com)**

**Internet: [www.cetecom.com](http://www.cetecom.com)**

**1.3 Details of applicant**

**Name** : **Broadcom Corporation**  
**Street** : **400 East Caribbean Drive**  
**City / Zip Code** : **Sunnyvale, CA 94089**  
**Country** : **USA**  
**Contact** : **Chris McGough**  
**Telephone** : **+1 408 922 5810**  
**Tele-fax** : **+1 408 543 3399**  
**e-mail** : [cmcgough@broadcom.com](mailto:cmcgough@broadcom.com)

**1.4 Application details**

Date of receipt of application : 2002-07-15  
Date of receipt test item : 2002-07-24  
Date of test : 2002-07-24/25

**1.5 Test item**

**Manufacturer** : **Askey Computer Corp.**  
**Street** : **10F, No. 119, ChienKang Road**  
**City / Zip code** : **Chung-ho 235, Taipei**  
**Country** : **Taiwan, R.O.C**  
**Marketing Name** : **BCM94301CB**  
**Model No.** : **Broadcom 802.11b Wireless LAN Card**  
**Description** : [802.11b Wireless LAN 32-Bit Cardbus](#)  
**FCC-ID** : **QDS-BRCM1003**

**Additional information**

**Frequency** : **2412 – 2472 MHz**  
**Type of modulation** : **DSSS**  
**Number of channels** : **13**  
**Antenna** : **Chip antenna**  
**Power supply** : **3.3 VDC via host PC**  
**Output power** : **18.14dBm (65.16mW)**  
**Extreme temp. Tolerance** : **0 C - +55 C**

**1.6 Test standards:** **FCC Part 15 §15.247 / CANADA RSS-210**


**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 Performed	
Final Verdict: (only "passed" if all single measurements are "passed")	<b>Passed</b>

**Technical responsibility for area of testing:**

2002-08-21	EMC & Radio	Lothar Schmidt (Manager)	
<b>Date</b>	<b>Section</b>	<b>Name</b>	<b>Signature</b>

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

2002-08-21	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\_318\_FCC15.247\_2002  
(BCM94301CB)**

**TEST REPORT REFERENCE**

<b>LIST OF MEASUREMENTS</b>		<b>PAGE</b>
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**Note: All measurements are valid with following test software setting  
Radio power level = 7**

**ANTENNA GAIN****§ 15.204**

The antenna gain of the complete system is calculated by the difference of conducted power of the module and the radiated power in EIRP.

	<b>Low channel</b>	<b>Mid channel</b>	<b>High channel</b>
<b>Conducted Power</b>	<b>15.64dBm</b>	<b>13.89dBm</b>	<b>13.13dBm</b>
<b>Raidated Power (EIRP)</b>	<b>17.74dBm</b>	<b>18.14dBm</b>	<b>17.33dBm</b>
<b>Antenna Gain</b>	<b>2.1dBi</b>	<b>4.25dBi</b>	<b>4.2dBi</b>

The calculated antenna gain is between 2.1dBi and 4.25dBi.



**SPECTRUM BANDWIDTH OF DSSS SYSTEM**  
**6 dB bandwidth**

§15.247(a) (2)

<b>TEST CONDITIONS</b>		<b>6 dB BANDWIDTH (kHz)</b>		
<b>Frequency (MHz)</b>		<b>2412</b>	<b>2442</b>	<b>2472</b>
<b>T<sub>nom</sub>(23)°C</b>	<b>V<sub>nom</sub>(3.3)VDC</b>	<b>11.12</b>	<b>11.12</b>	<b>11.17</b>

**LIMIT**

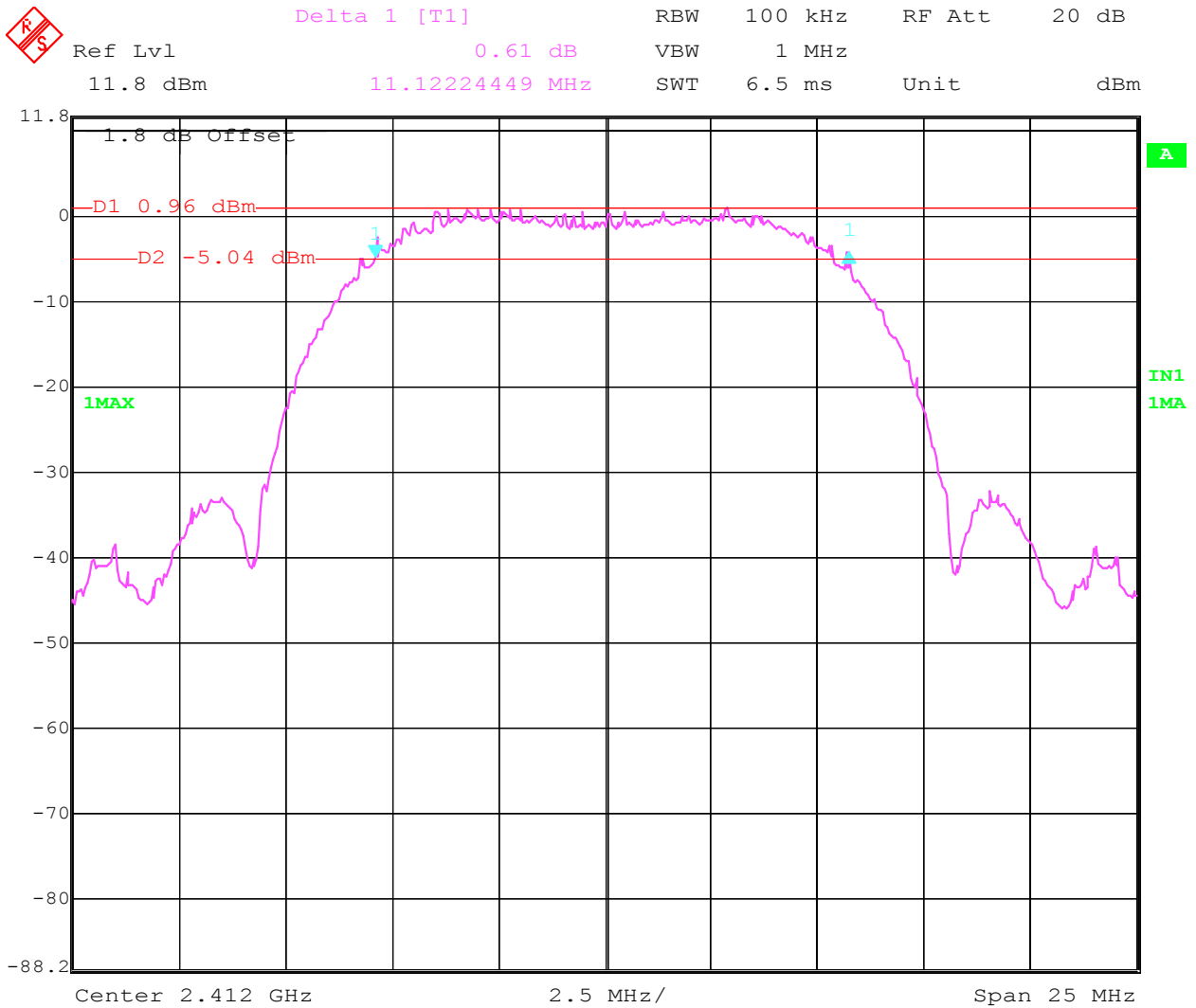
**SUBCLAUSE §15.247(a) (2)**

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

SPECTRUM BANDWIDTH OF DSSS SYSTEM  
6 dB bandwidth

§15.247(a) (2)

Lowest Channel: 2412MHz



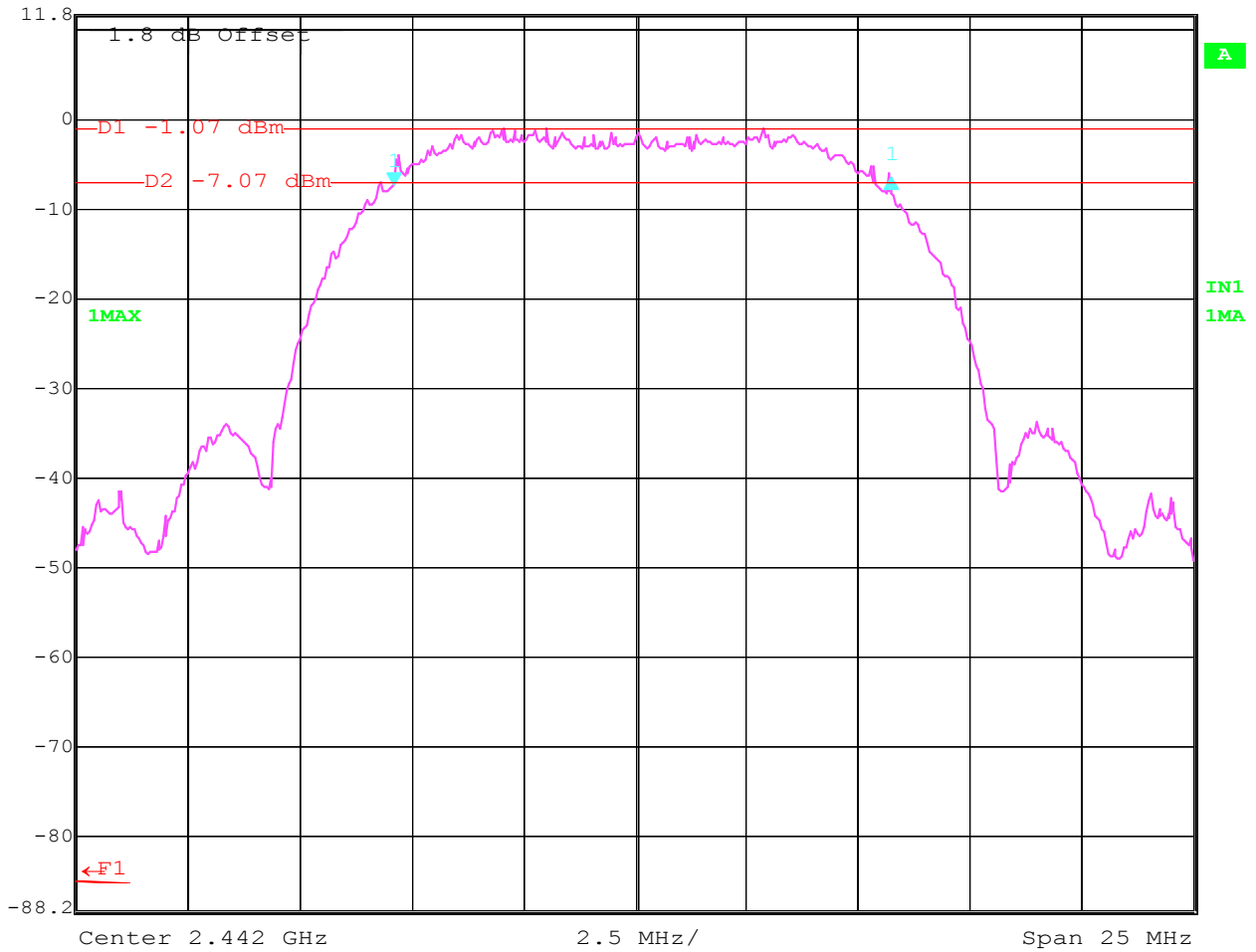
Date: 25.JUL.2002 12:29:50

SPECTRUM BANDWIDTH OF DSSSS SYSTEM  
6 dB bandwidth

§15.247(a) (2)

Mid Channel: 2442MHz

	Delta 1 [T1]	RBW	100 kHz	RF Att	20 dB
	Ref Lvl	0.73 dB	VBW	1 MHz	
	11.8 dBm	11.12224449 MHz	SWT	6.5 ms	Unit dBm

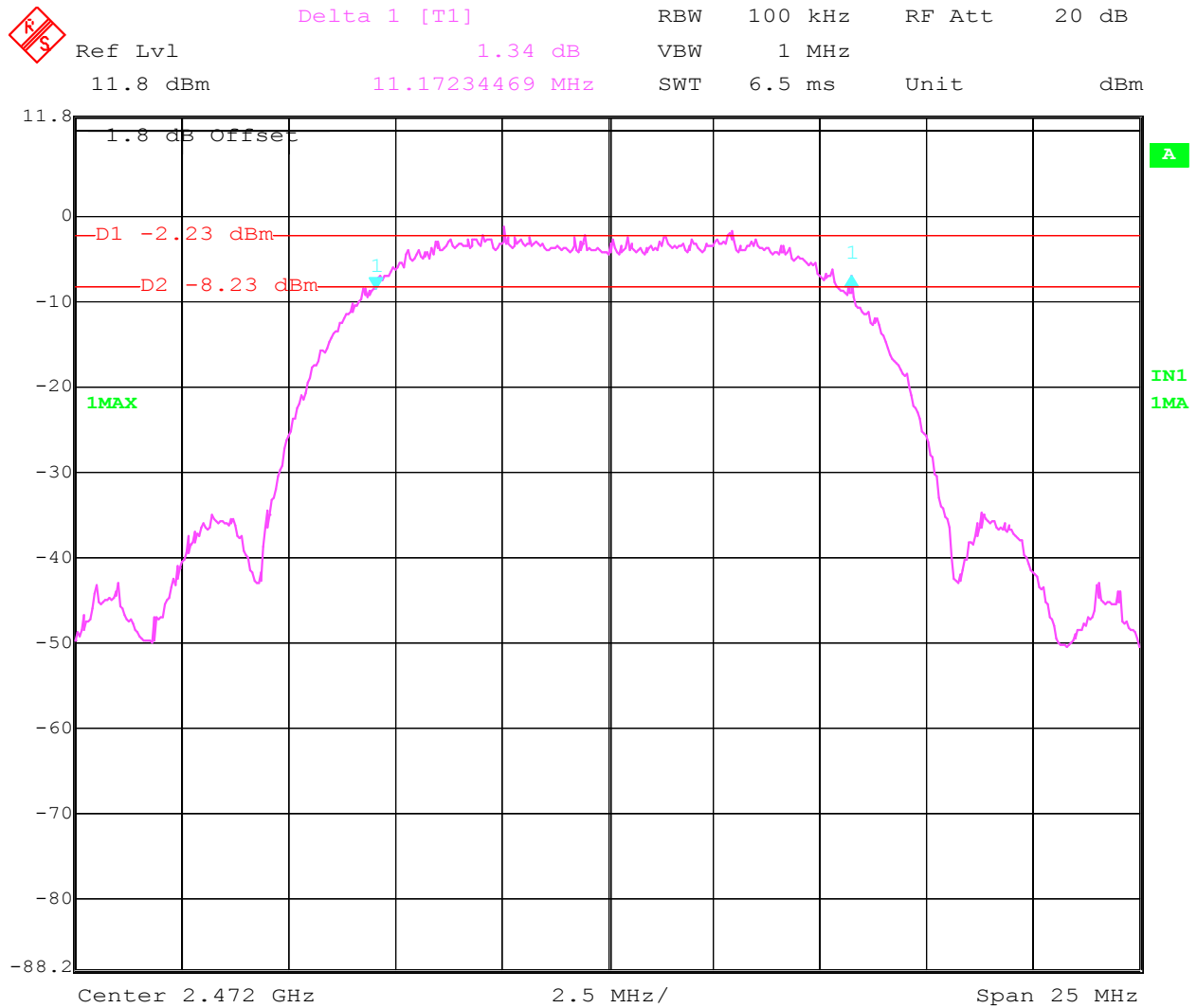


Date: 25.JUL.2002 10:15:31

**SPECTRUM BANDWIDTH OF DSSS SYSTEM**  
**6 dB bandwidth**

§15.247(a) (2)

**Highest Channel: 2472MHz**



Date: 25.JUL.2002 10:48:27

**MAXIMUM PEAK OUTPUT POWER  
(conducted)**

§ 15.247 (b) (1)

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER (dBm)			
Frequency (MHz)		2412	2442	2472	
T <sub>nom</sub> (23)°C	V <sub>nom</sub> (3.3)VDC	Pk	15.64	13.89	13.13
		Av	10.8	9.4	8.85
Measurement uncertainty		±0.5dBm			

RBW / VBW : 10MHz

To comply with following;

RBW / VBW should be equal to or greater than the 6dB BW

All mesured values are corrected by **10log 6dB BW / used BW**

(Therefore correction factor of 0.46 is added to low & mid channel measurements and 0.48 is added to high channel measurements)

**LIMIT**

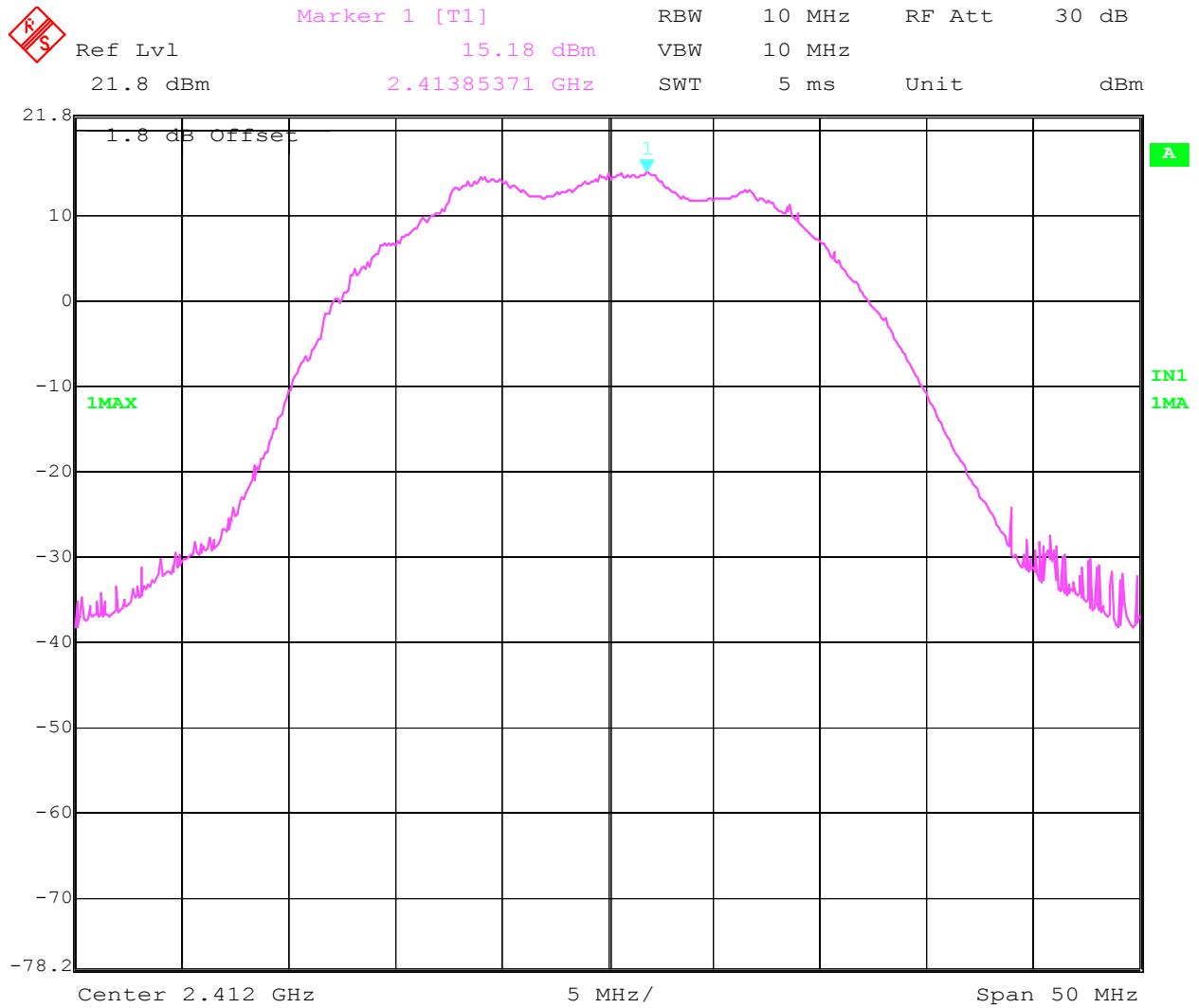
**SUBCLAUSE § 15.247 (b) (1)**

Frequency range	RF power output
2400-2483.5 MHz	1.0 Watt / 30dBm

PEAK OUTPUT POWER (CONDUCTED)

§15.247 (b) (1)

Lowest Channel: 2412MHz

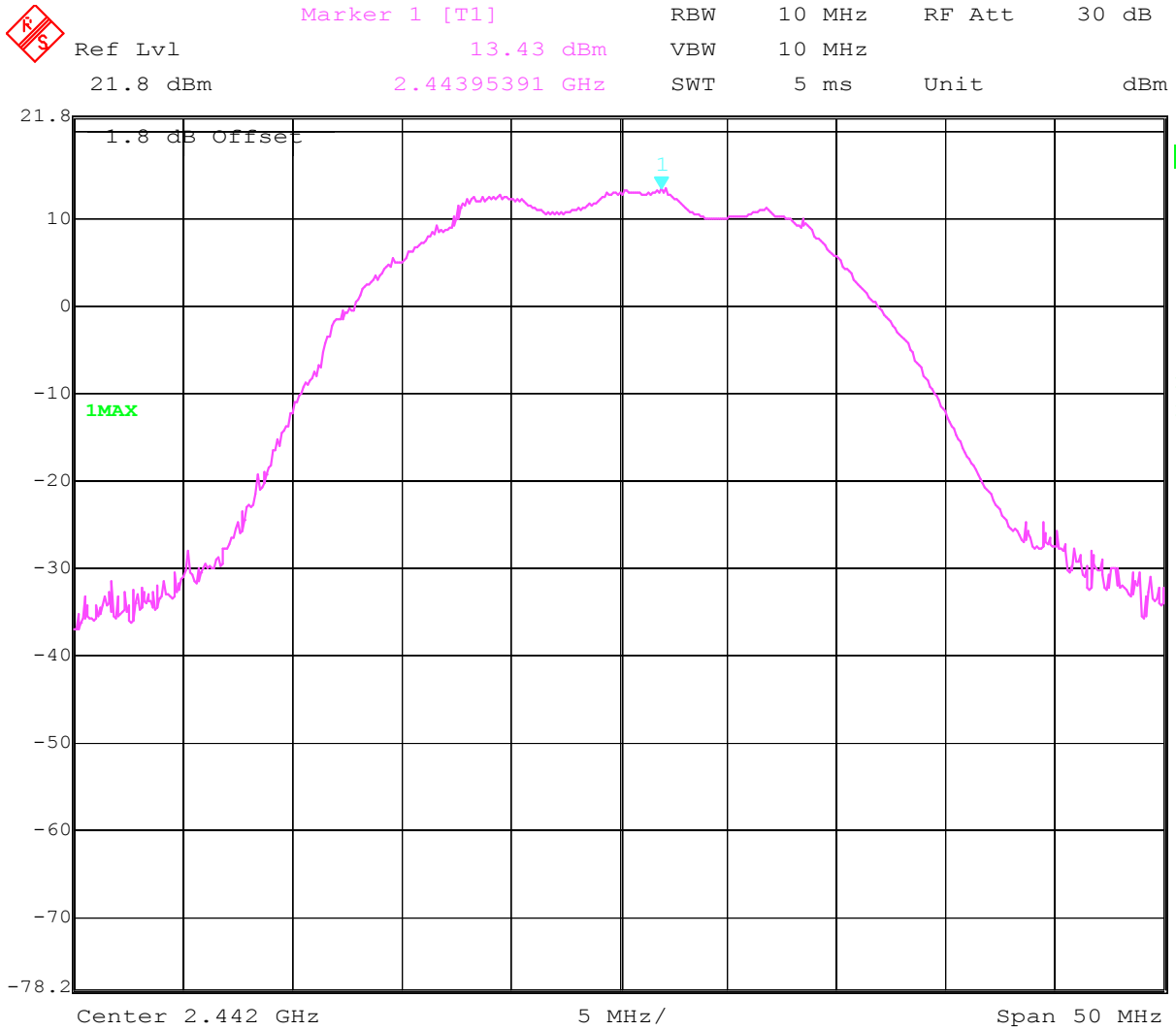


Date: 25.JUL.2002 08:29:50

PEAK OUTPUT POWER (CONDUCTED)

§15.247 (b)

Mid Channel: 2442MHz

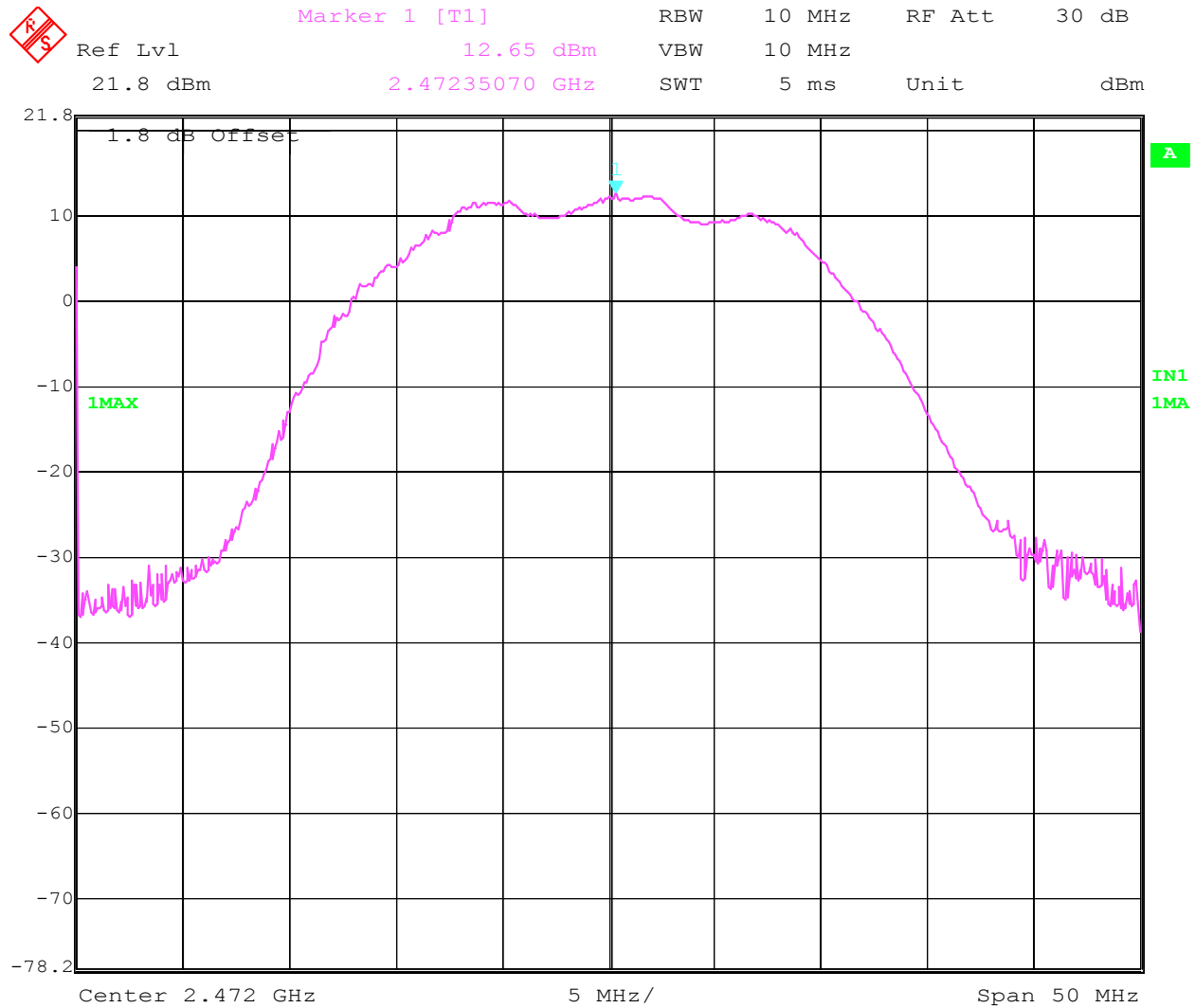


Date: 25.JUL.2002 10:20:58

PEAK OUTPUT POWER (CONDUCTED)

§15.247 (b)

Highest Channel: 2472MHz



Date: 25.JUL.2002 10:50:11



**MAXIMUM PEAK OUTPUT POWER  
(RADIATED)**

§ 15.247 (b) (1)

**EIRP:**

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER (dBm)		
		2412	2442	2472
Frequency (MHz)				
T <sub>nom</sub> (23)°C	V <sub>nom</sub> (3.3)VDC	17.74	18.14	17.33
Measurement uncertainty		±0.5dBm		

RBW/VBW : 10MHz

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

**To comply with following;**

**RBW / VBW should be equal to or greater than the 6dB BW**

**All mesured values are corrected by  $10\log 6dB BW / used BW$**

**(Therefore correction factor of 0.46 is added to low & mid channel measurements and 0.48 is added to high channel measurements)**

**LIMIT**

**SUBCLAUSE § 15.247 (b) (1)**

Frequency range	RF power output
2400-2483.5 MHz	1.0 Watt / 30dBm

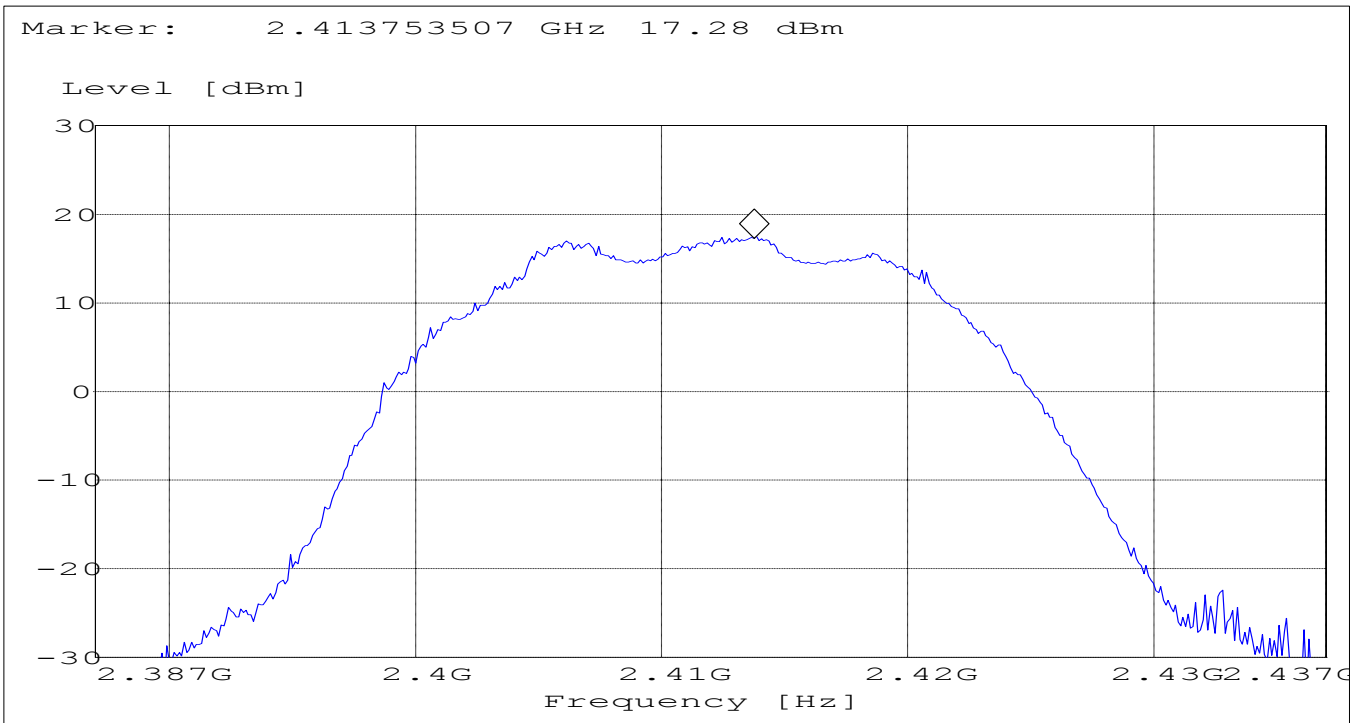
PEAK OUTPUT POWER (RADIATED)

§15.247 (b) (1)

Lowest Channel: 2412MHz

SWEEP TABLE: "EIRP RLAN ch-1"

Short Description:		EIRP RLAN channel-2412MHz		
Start	Stop	Detector	Meas.	IF
Frequency	Frequency		Time	BW
2.387GHz	2.437GHz	MaxPeak	Coupled	10 MHz



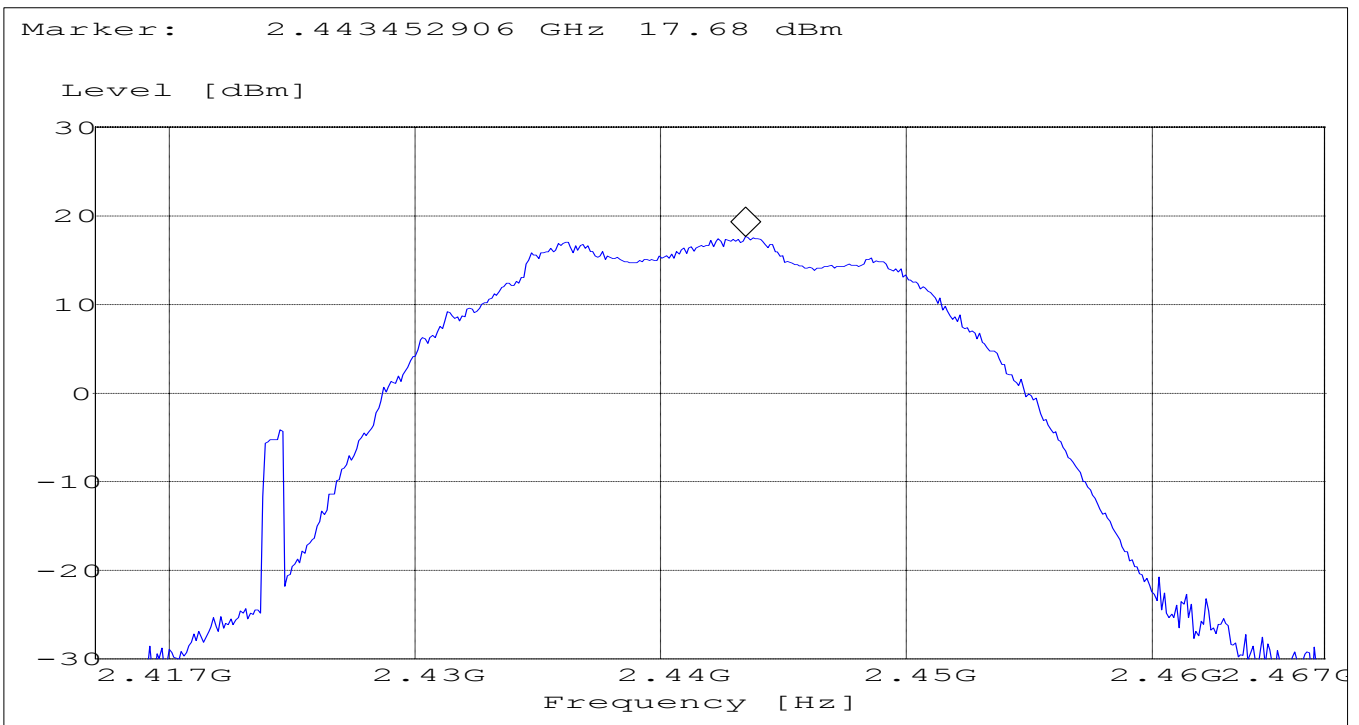
PEAK OUTPUT POWER (RADIATED)

§15.247 (b) (1)

Mid Channel: 2442MHz

SWEEP TABLE: "EIRP RLAN CH7"

Short Description:		EIRP RLAN channel-2442MHz		
Start	Stop	Detector	Meas.	IF
Frequency	Frequency		Time	BW
2.417GHz	2.467GHz	MaxPeak	Coupled	10 MHz



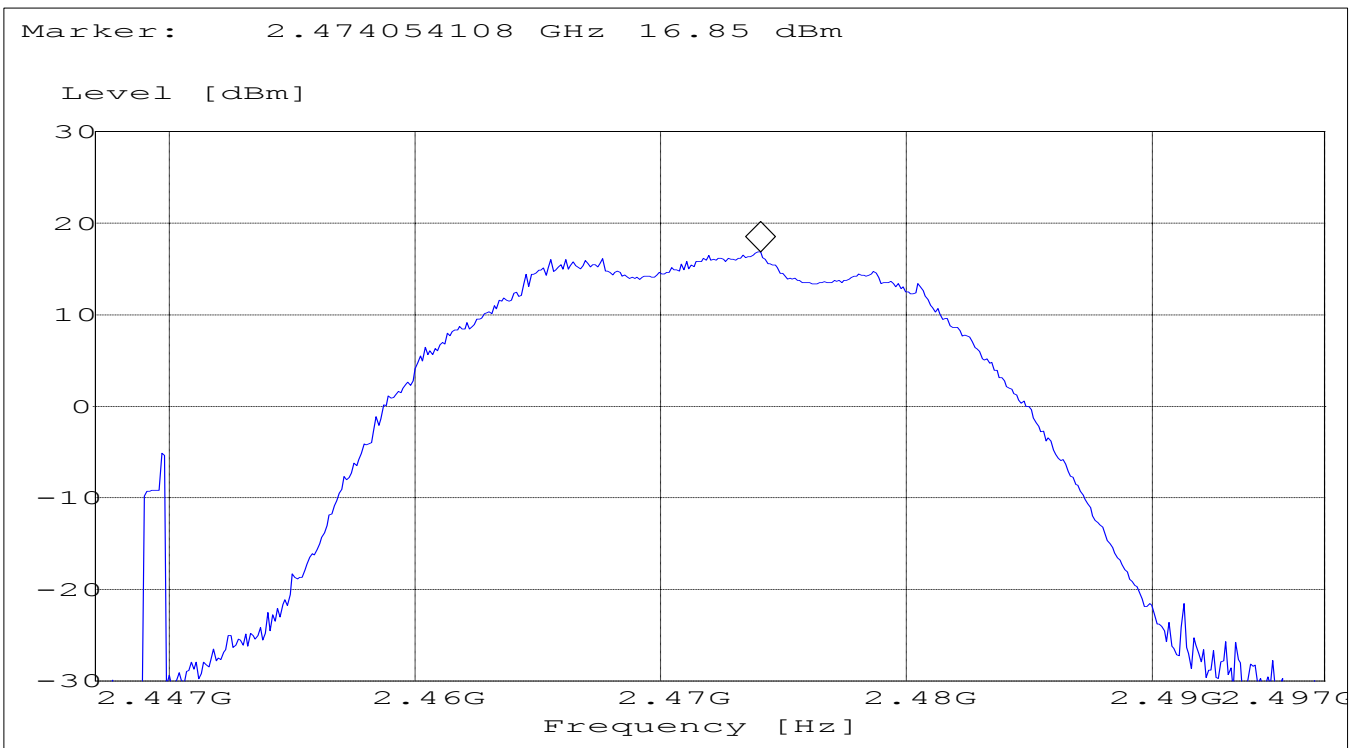
PEAK OUTPUT POWER (RADIATED)

§15.247 (b) (1)

Highest Channel: 2472MHz

SWEEP TABLE: "EIRP RLAN CH13"

Short Description:		EIRP RLAN channel-2472MHz		
Start	Stop	Detector	Meas.	IF
Frequency	Frequency		Time	BW
2.447GHz	2.497GHz	MaxPeak	Coupled	10 MHz



**POWER SPECTRAL DENSITY**

**§15.247 (d)**

TEST CONDITIONS		POWER SPECTRAL DENSITY (dBm)		
		2412	2442	2472
Frequency (MHz)				
T <sub>nom</sub> (23)°C	V <sub>nom</sub> (3.3)VDC	-14.83	-16.15	-18.43

**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

§15.247(d)

Lowest Channel: 2412MHz



Marker 1 [T1]

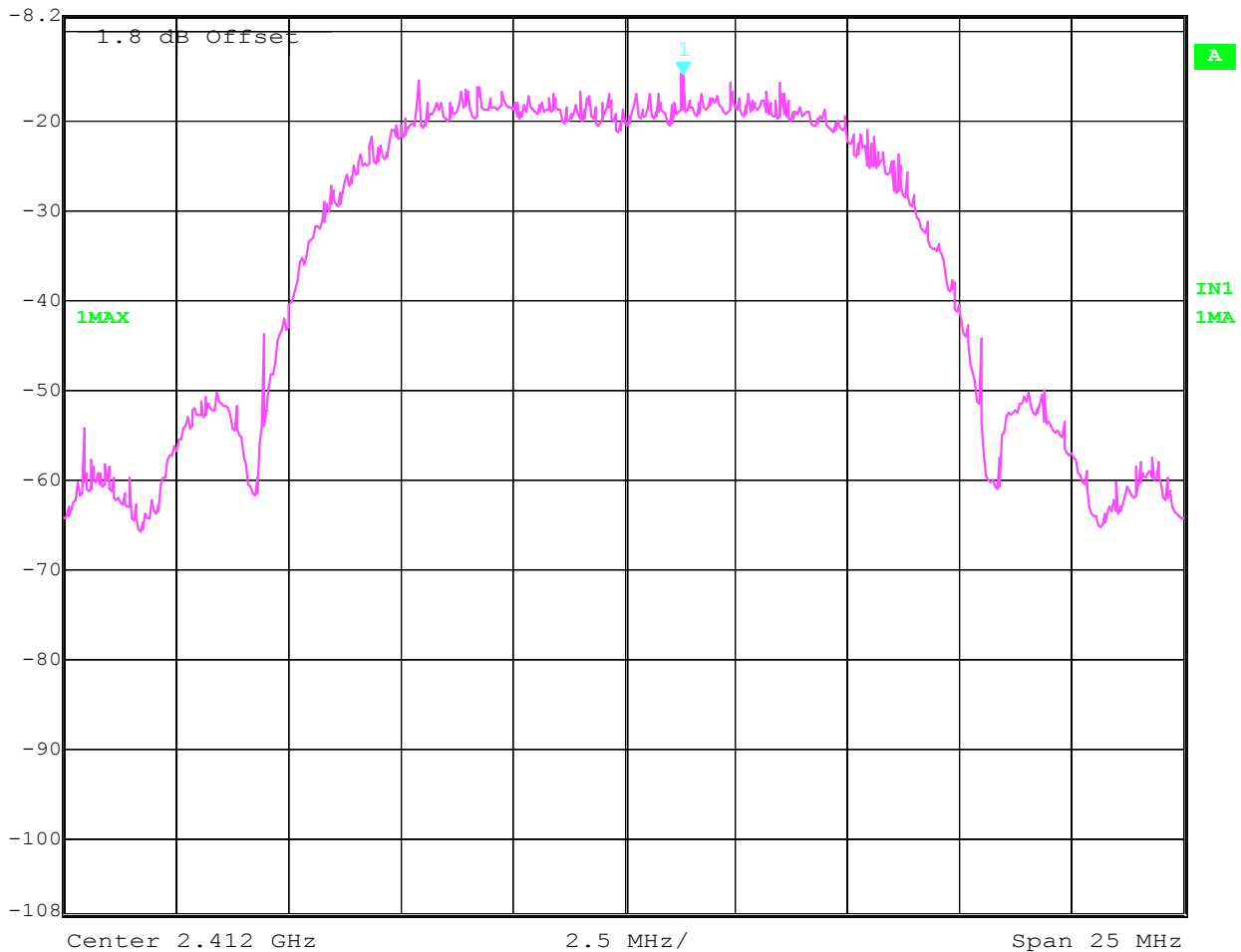
RBW 3 kHz RF Att 10 dB

Ref Lvl -14.83 dBm

VBW 3 kHz

-8.2 dBm 2.41332766 GHz

SWT 7 s Unit dBm



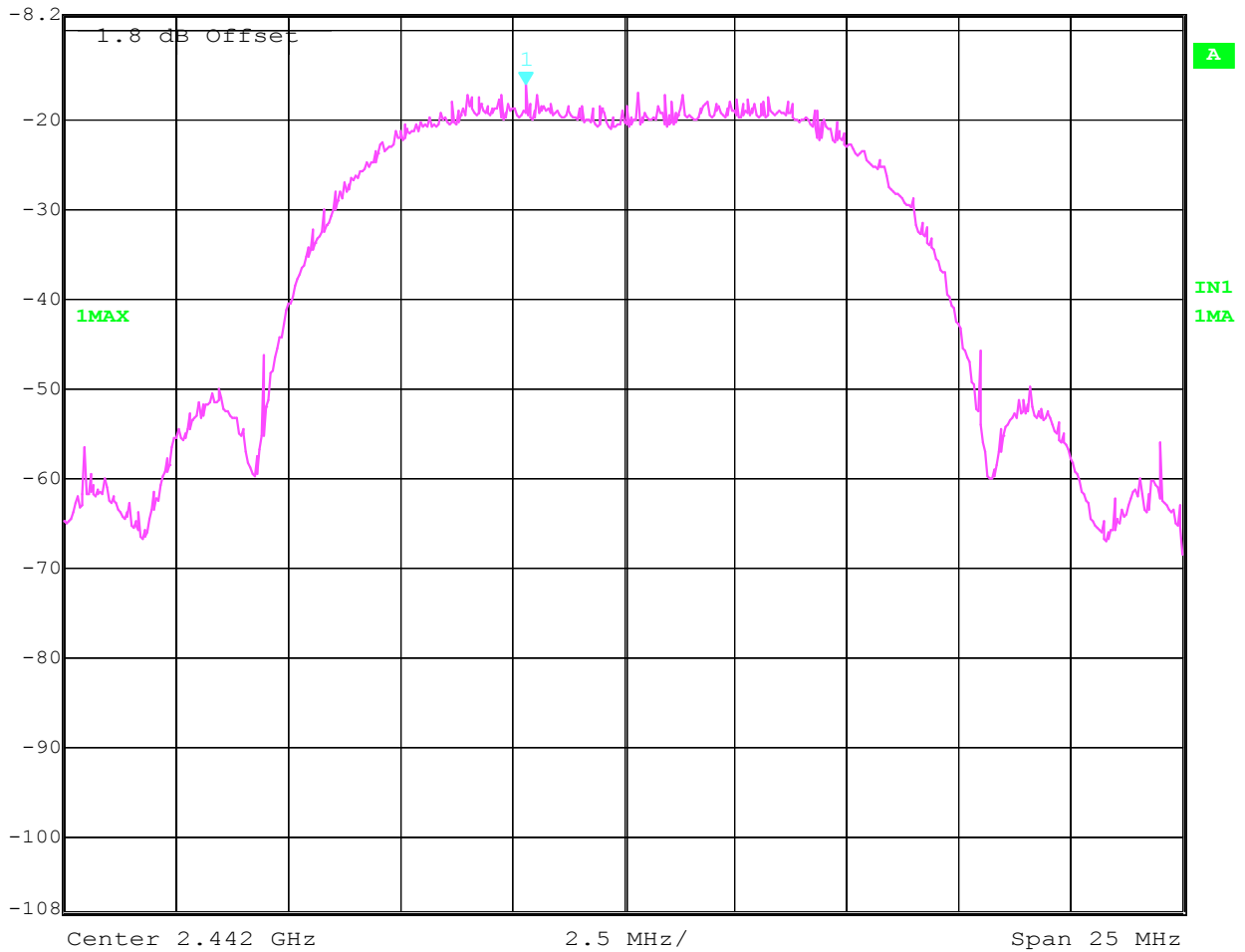
Date: 25.JUL.2002 08:41:21

POWER SPECTRAL DENSITY

§15.247(d)

Mid Channel: 2442MHz

	Marker 1 [T1]	RBW	3 kHz	RF Att	10 dB
	Ref Lvl	-16.15 dBm	VBW	3 kHz	
	-8.2 dBm	2.43982064 GHz	SWT	7 s	Unit dBm

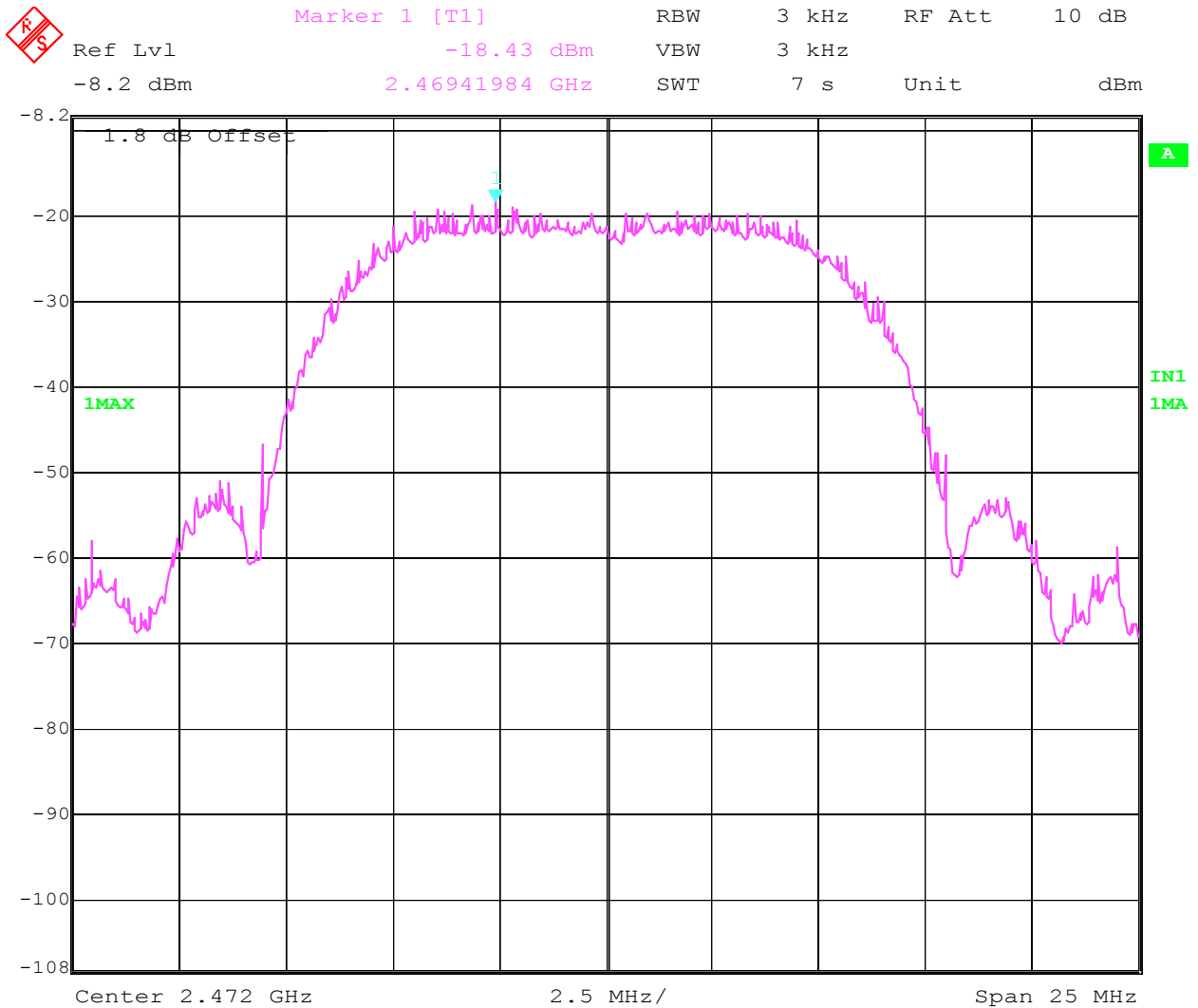


Date: 25.JUL.2002 10:33:56

POWER SPECTRAL DENSITY

§15.247(d)

Highest Channel: 2472MHz



Date: 25.JUL.2002 10:58:51



**POWER SPECTRAL DENSITY**

**RSS-210**

TEST CONDITIONS		POWER SPECTRAL DENSITY (dBm/MHz)		
		2412	2442	2472
T <sub>nom</sub> (23)°C	V <sub>nom</sub> (3.3)VDC	7.7	5.89	5.69

Correction factor of 60dBm is added to convert measured values from dBm/Hz to dBm/MHz

**LIMIT**

**RSS-210**

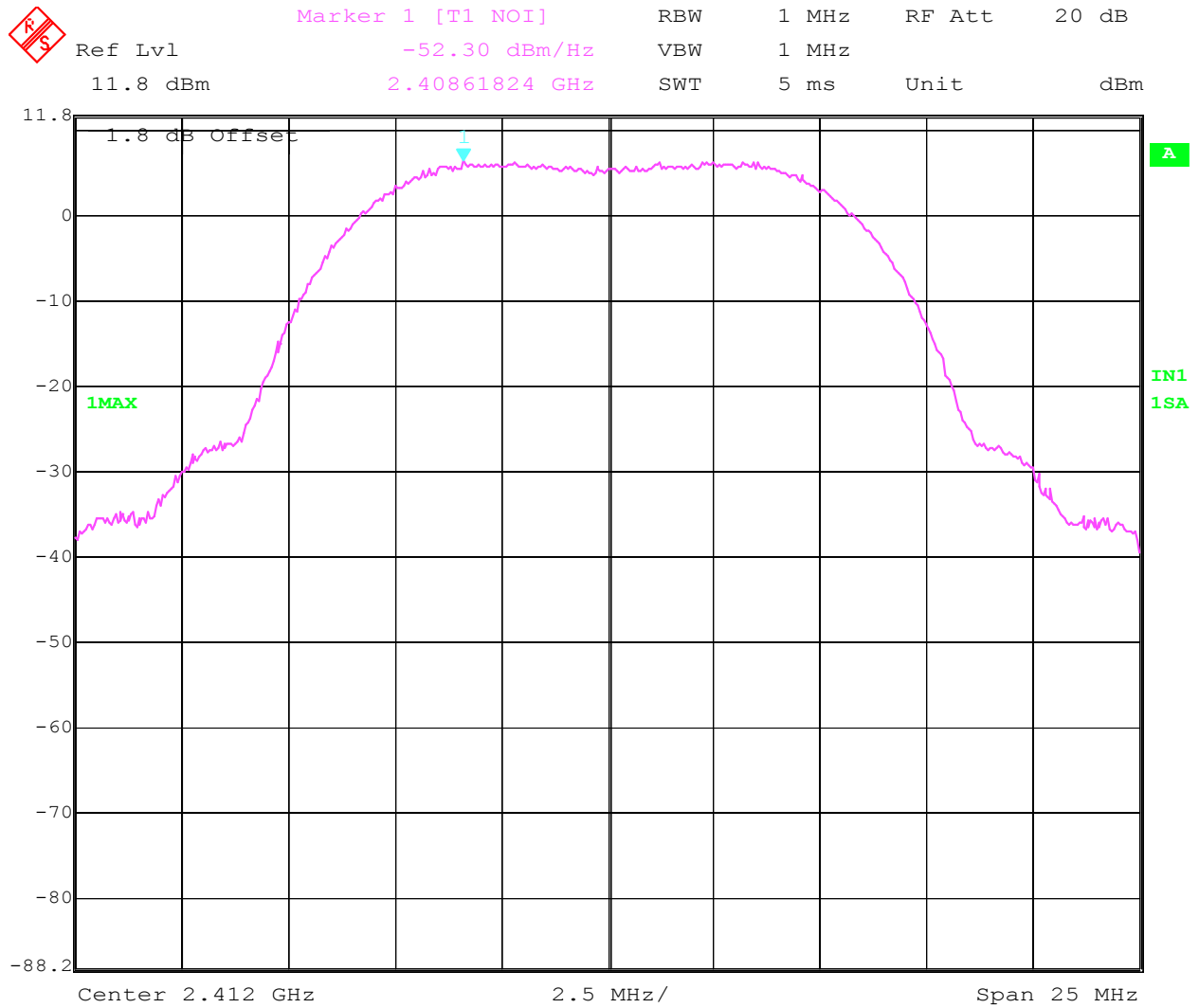
**The peak power spectral density shall be  $\leq 50\text{mW/MHz}$  (17dBm/MHz)**

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

POWER SPECTRAL DENSITY

RSS-210

Lowest Channel: 2412MHz

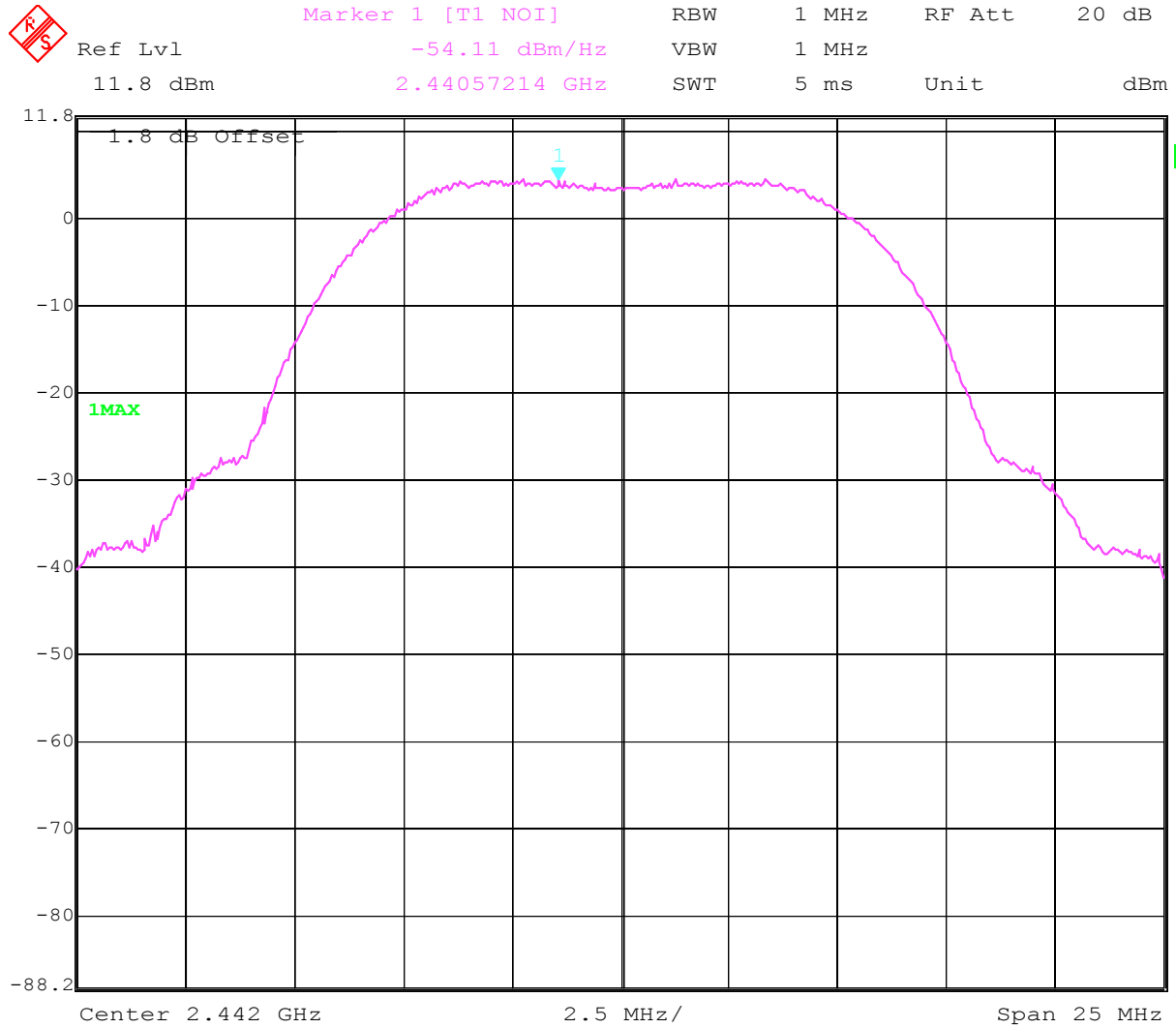


Date:      25.JUL.2002    08:42:45

POWER SPECTRAL DENSITY

RSS-210

Mid Channel: 2442MHz



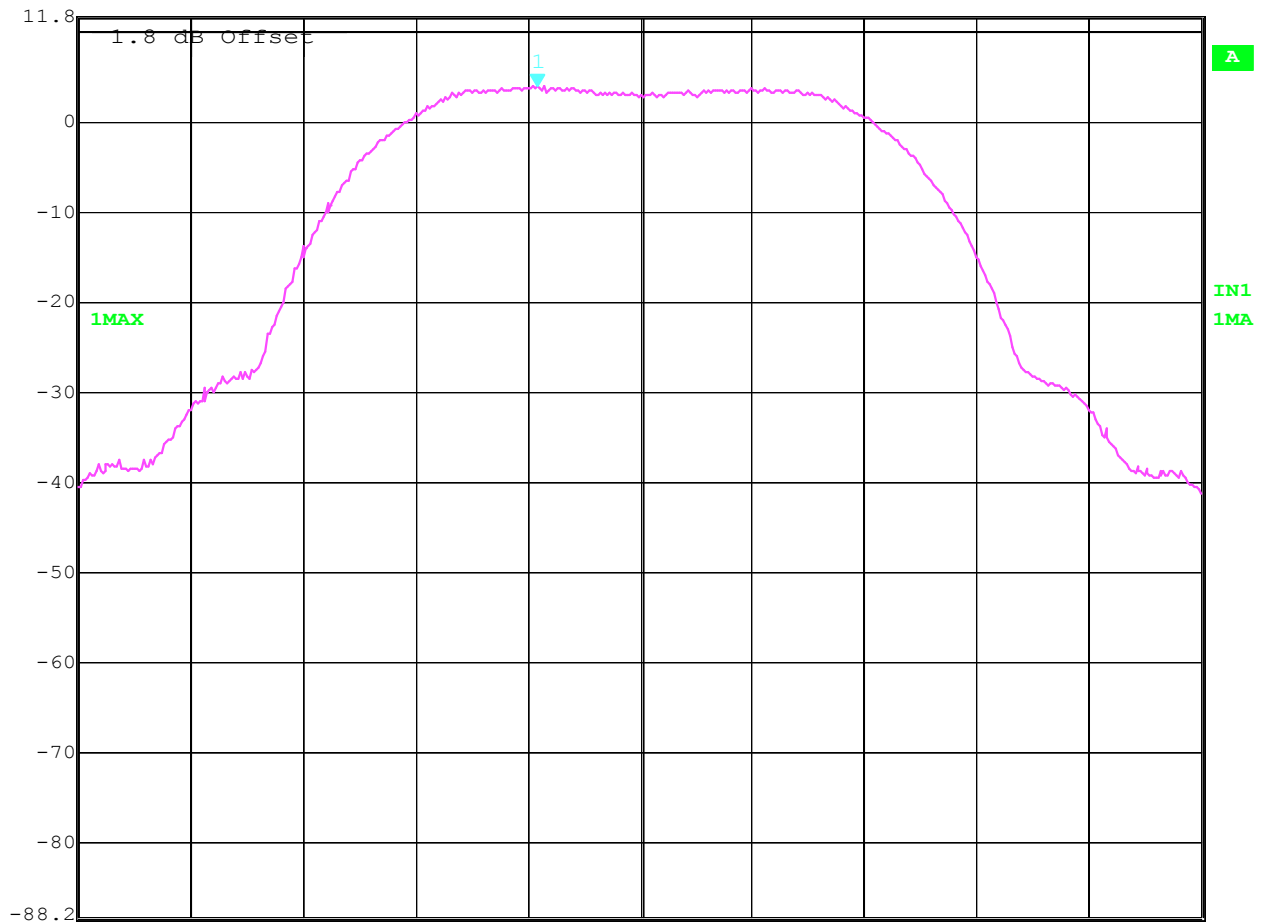
Date: 25.JUL.2002 10:36:12

POWER SPECTRAL DENSITY

RSS-210

Highest Channel: 2472MHz

	Ref Lvl	Marker 1 [T1 NOI]	RBW	1 MHz	RF Att	20 dB
	11.8 dBm	-54.31 dBm/Hz	VBW	1 MHz		
		2.46972044 GHz	SWT	5 ms	Unit	dBm



Center 2.472 GHz

2.5 MHz/

Span 25 MHz

Date: 25.JUL.2002 10:59:48

**BAND EDGE COMPLIANCE**

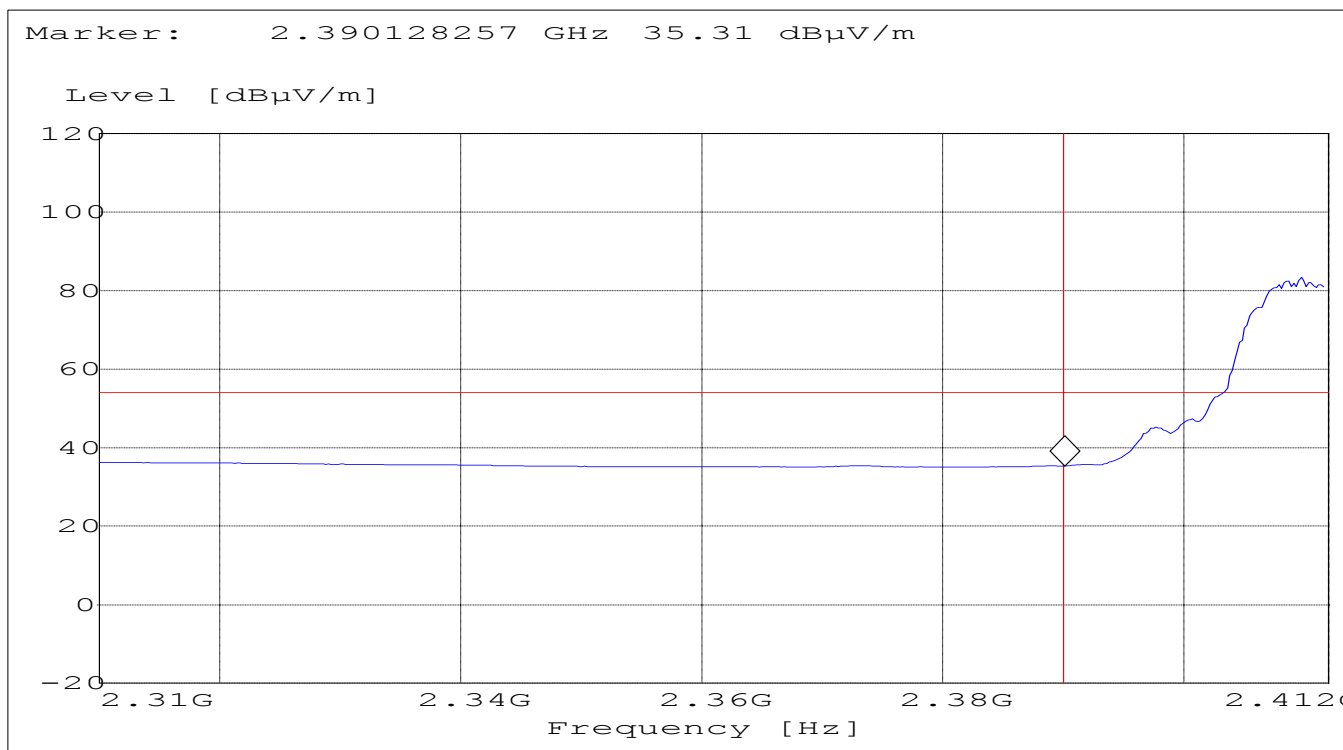
§15.247 (c)

**Low frequency section (spurious in the restricted band 2310 – 2390 MHz)**

**(Average measurement)**

Operating condition : Tx at 2412MHz  
 SWEEP TABLE : "FCC15.247 LBE\_AVG"  
 Limit Line : 54dB $\mu$ V

Start Frequency	Stop Frequency	Detector	Meas. Bandw.	RBW	VBW	Transducer
2.31 GHz	2.412 GHz	MaxPeak	Coupled	1 MHz	10Hz	#326 horn (dBi)



**BAND EDGE COMPLIANCE**

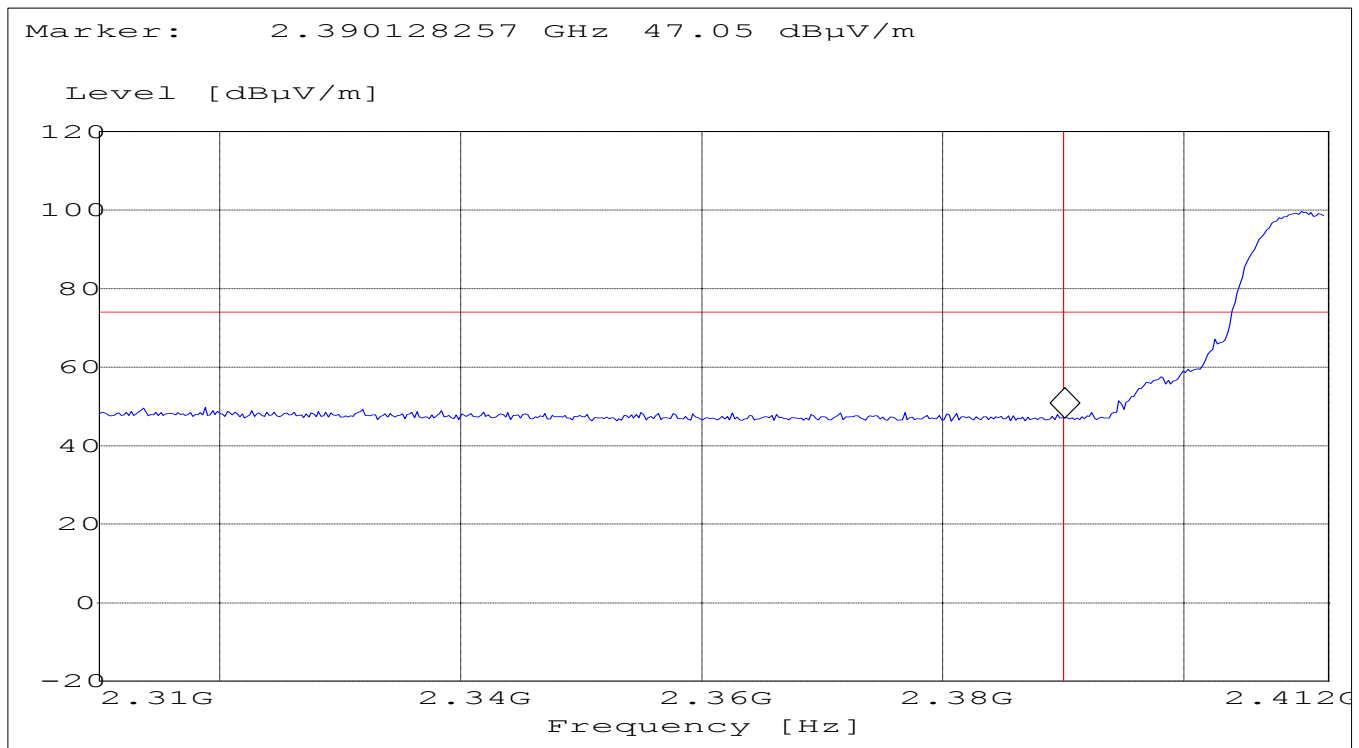
§15.247 (c)

**Low frequency section (spurious in the restricted band 2310 – 2390 MHz)**

**(Peak measurement)**

Operating condition : Tx at 2412MHz  
 SWEEP TABLE : "FCC15.247 LBE\_Pk"  
 Limit Line : 74dB $\mu$ V

Start Frequency	Stop Frequency	Detector	Meas. Bandw.	RBW	VBW	Transducer
2.31 GHz	2.412 GHz	MaxPeak	Coupled	1 MHz	1MHz	#326 horn (dBi)



**BAND EDGE COMPLIANCE**

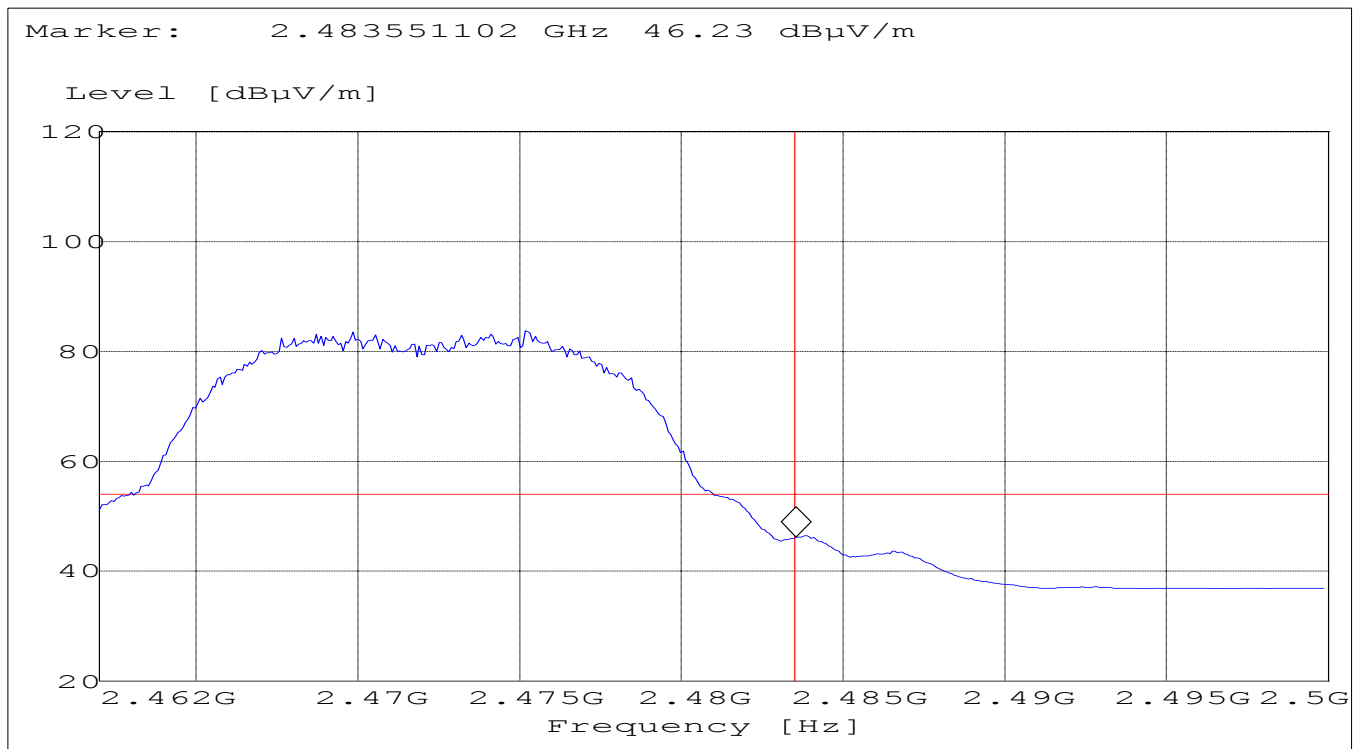
§15.247 (c)

**High frequency section (spurious in the restricted band 2483.5 – 2500 MHz)**

**(Average measurement)**

Operating condition : Tx at 2472MHz  
 SWEEP TABLE : "FCC15.247 HBE\_AVG"  
 Limit Line : 54dB $\mu$ V

Start Frequency	Stop Frequency	Detector	Meas. Bandw.	RBW	VBW	Transducer
2.462 GHz	2.5 GHz	MaxPeak	Coupled	1 MHz	10Hz	#326 horn (dBi)



**BAND EDGE COMPLIANCE**

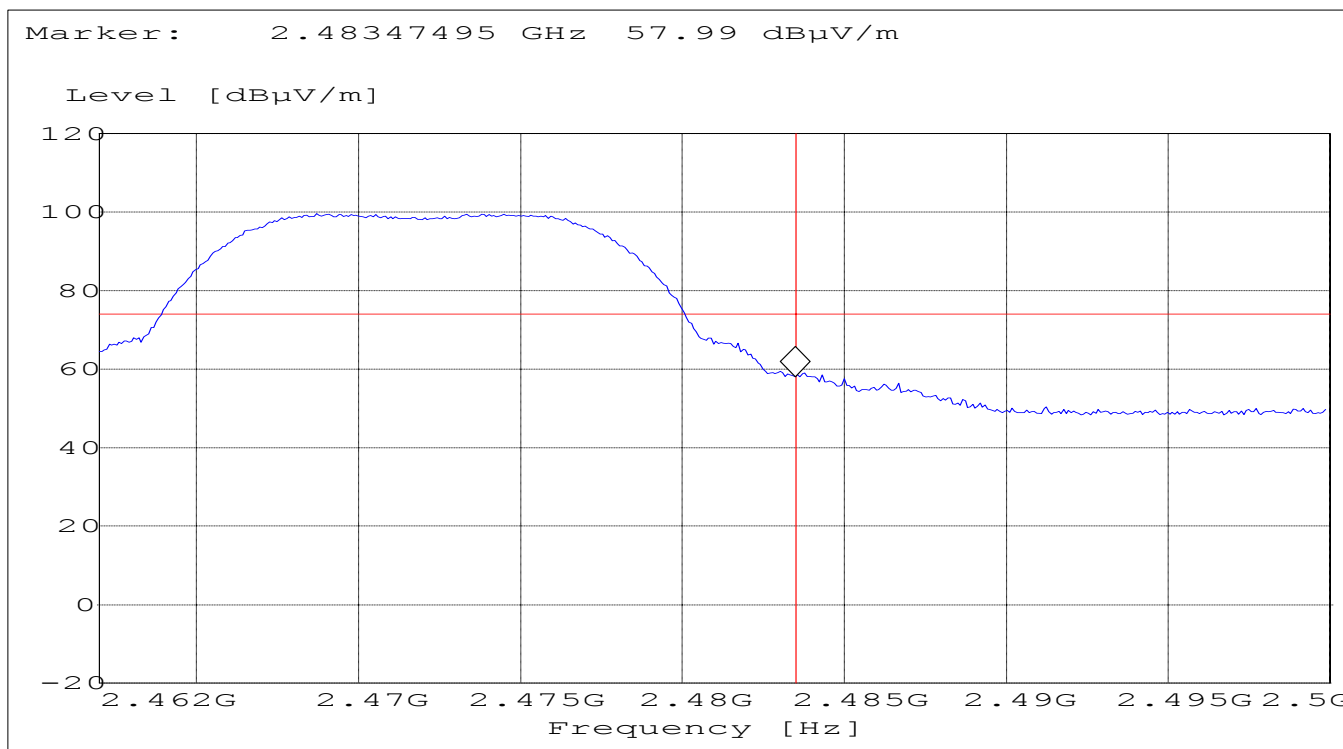
§15.247 (c)

**High frequency section (spurious in the restricted band 2483.5 – 2500 MHz)**

**(Peak measurement)**

Operating condition : Tx at 2472MHz  
 SWEEP TABLE : "FCC15.247 HBE\_PK"  
 Limit Line : 74dB $\mu$ V

Start Frequency	Stop Frequency	Detector	Meas. Bandw.	RBW	VBW	Transducer
2.462 GHz	2.5 GHz	MaxPeak	Coupled	1 MHz	1MHz	#326 horn (dBi)





**EMISSION LIMITATIONS  
Transmitter (Conducted)  
LIMITS**

**§ 15.247 (c) (1)**

**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)).**

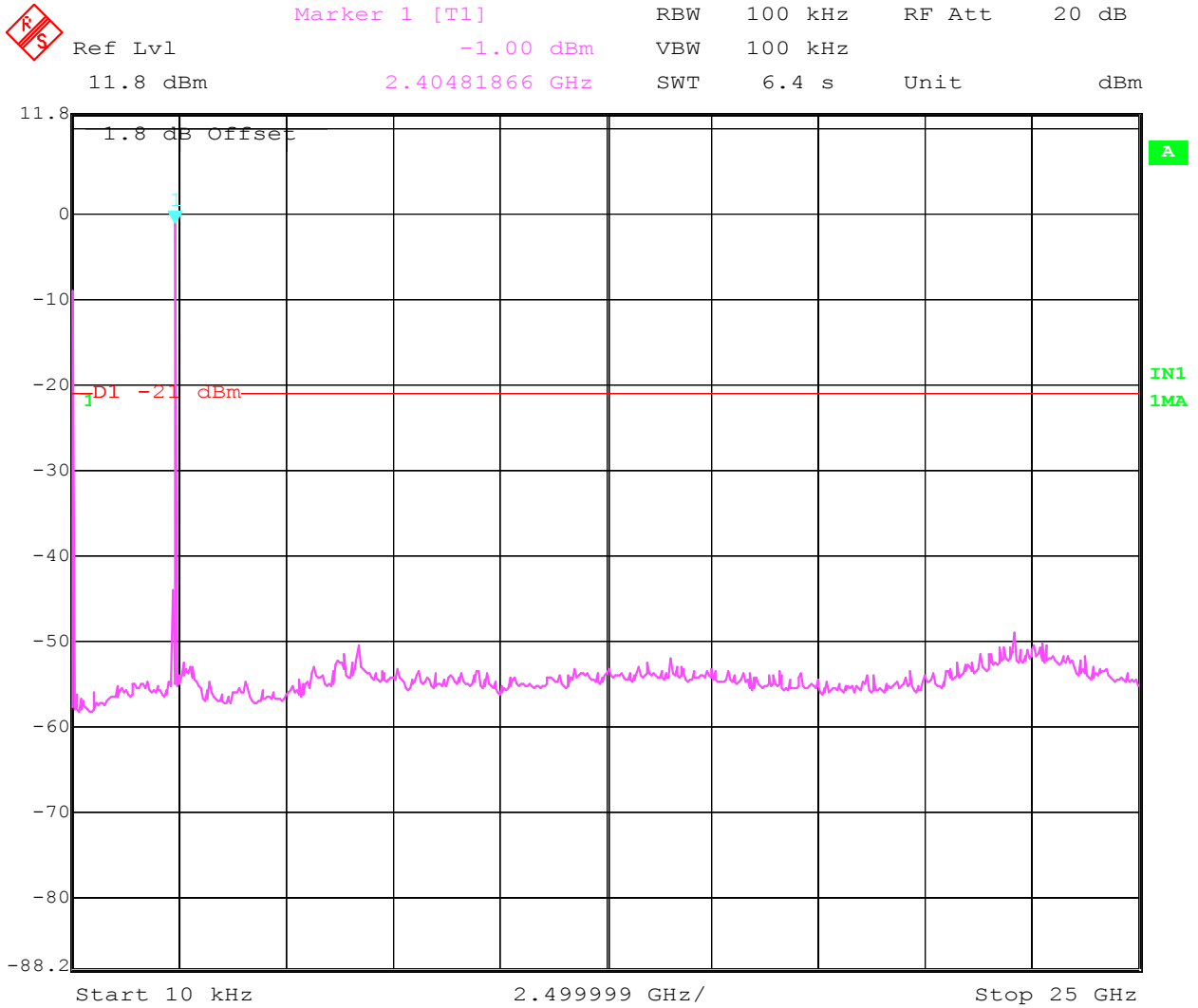
**NOTE: Frequency resolution is not fine enough to show the exact frequency of the carrier, refer to plots under EIRP.**

EMISSION LIMITATIONS - Conducted (Transmitter)

§ 15.247 (c) (1)

Lowest Channel(2412MHz): 10KHz - 25GHz

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



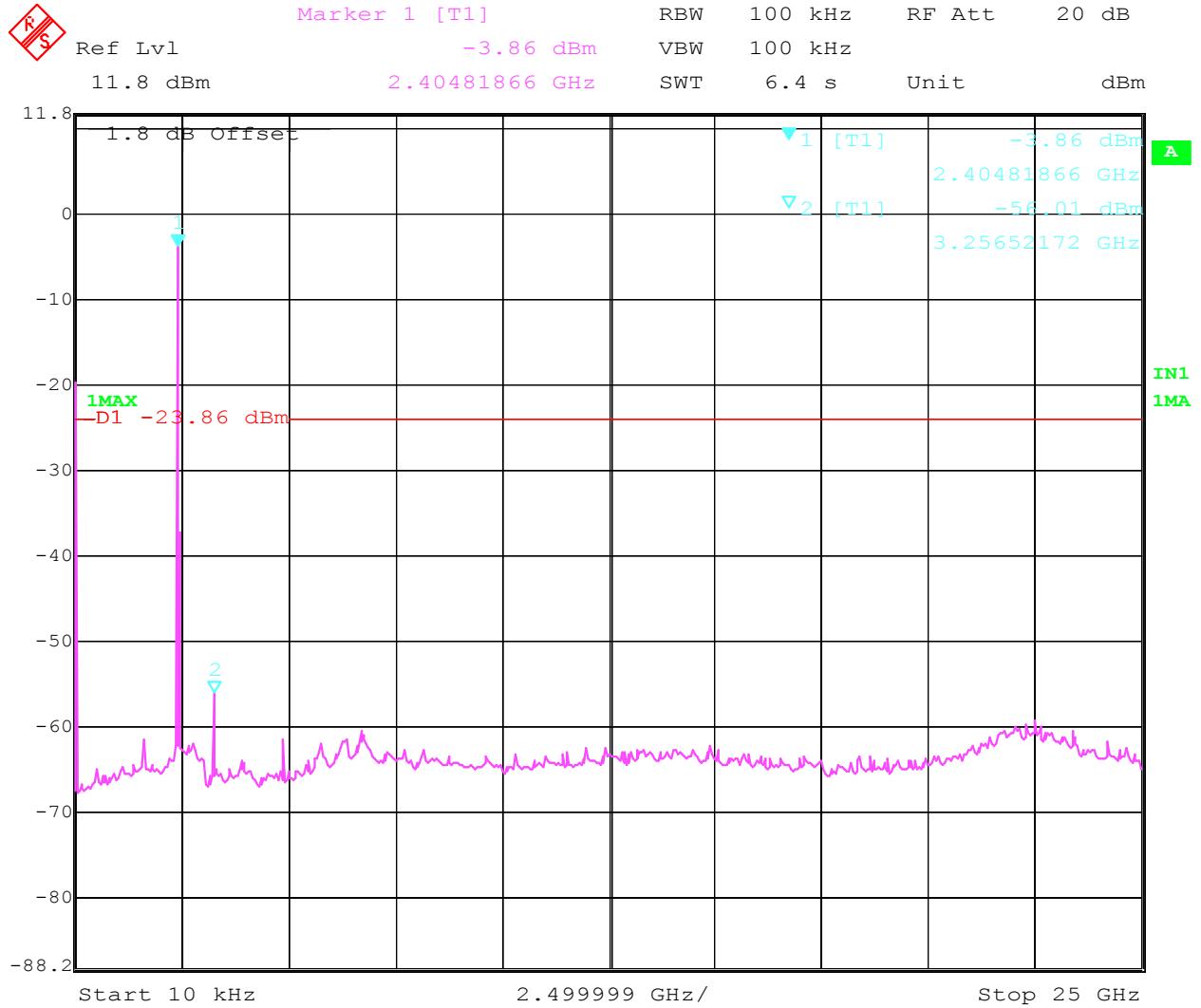
Date: 25.JUL.2002 08:37:04

EMISSION LIMITATIONS - Conducted (Transmitter)

§ 15.247 (c) (1)

Mid Channel(2442MHz): 10KHz - 25GHz

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



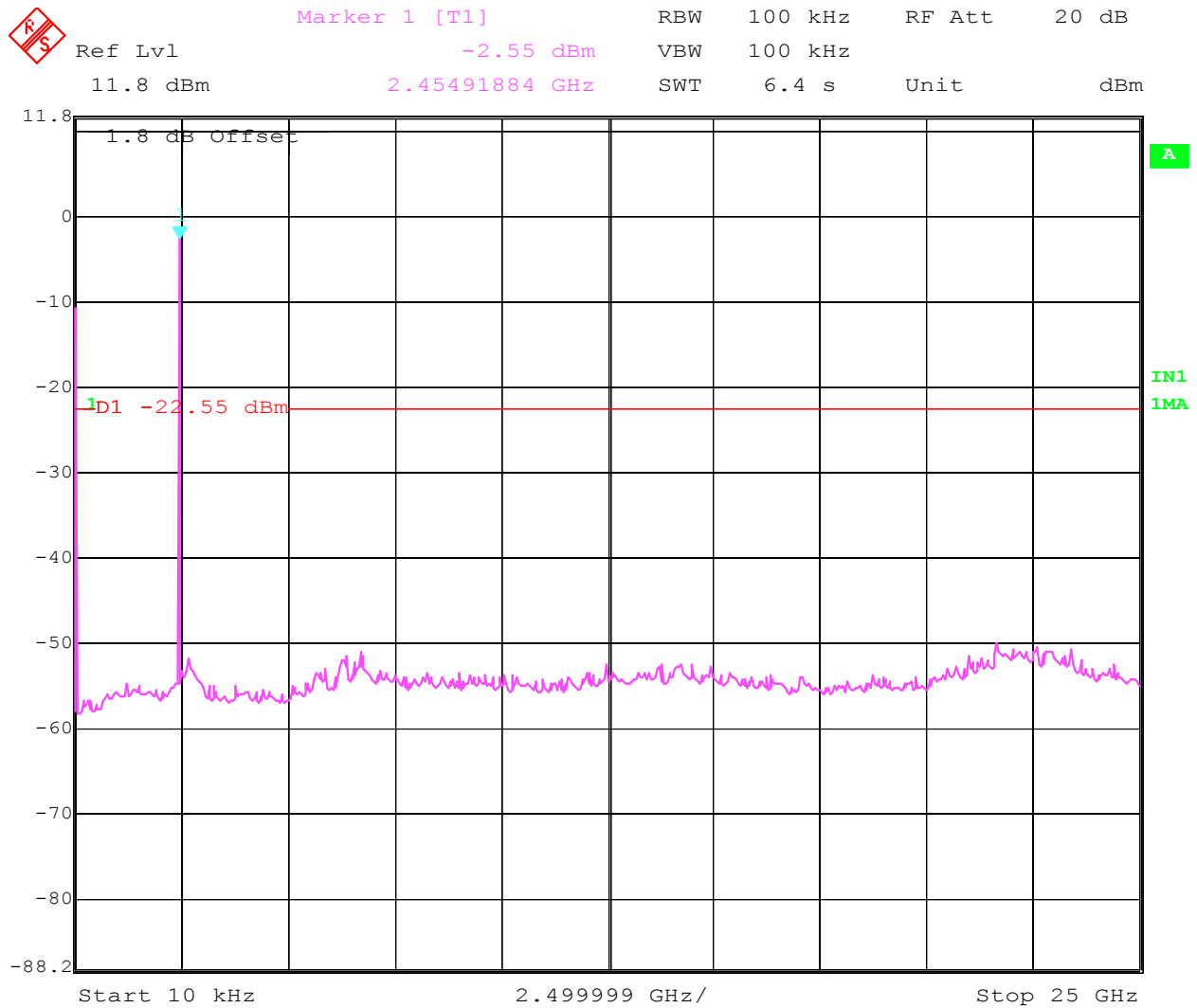
Date: 25.JUL.2002 10:27:23

## EMISSION LIMITATIONS - Conducted (Transmitter)

§ 15.247 (c) (1)

Highest Channel(2472MHz): 10KHz - 25GHz

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



Date: 25.JUL.2002 10:53:01

**EMISSION LIMITATIONS  
Transmitter (Radiated)**

**§ 15.247 (c) (1)**

**LIMITS**

**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)).**

**NOTE:**

1. 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 18 and 25 GHz very short cable connections to the antenna was used to minimize the noise level.
2. Frequency resolution is not fine enough to show the exact frequency of the carrier, refer to plots under EIRP.

**Results for the radiated measurements below 30MHz according § 15.33**

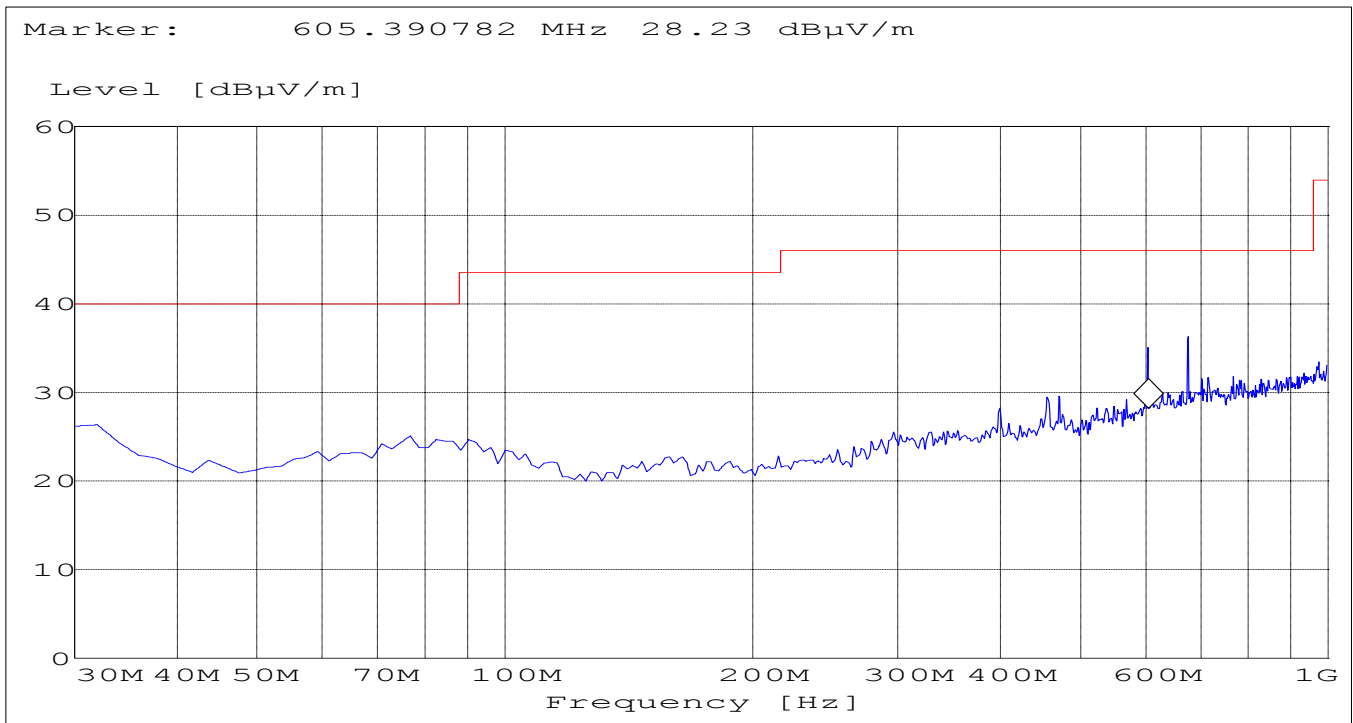
<b>Frequency</b>	<b>Measured values</b>	<b>Remarks</b>
9KHz – 30MHz	No emissions found, caused by the EUT	This is valid for all the tested channels



**EMISSION LIMITATIONS - Radiated (Transmitter)**  
**Lowest Channel(2412MHz): 30MHz – 1GHz**

§ 15.247 (c) (1)

SWEEP TABLE:		"BT Spuri hi 30-1G"			
Short Description:		Bluetooth 30MHz-1GHz			
Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency		Time	VBW	
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	3141-#1186



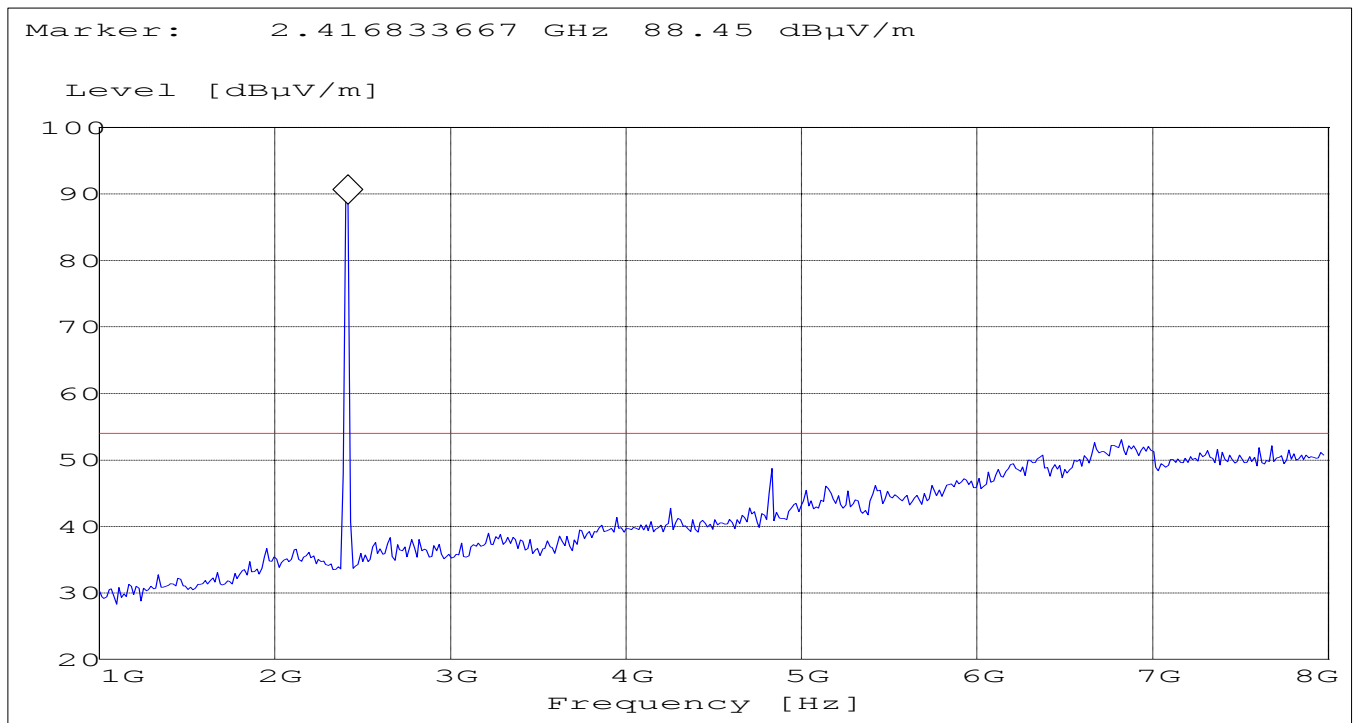
**EMISSION LIMITATIONS - Radiated (Transmitter)**  
**Lowest Channel(2412MHz): 1GHz – 8GHz**

§ 15.247 (c) (1)

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

SWEEP TABLE:		"BT Spuri hi 1-8G"			
Short Description:		Bluetooth Spurious 1-8 GHz			
Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency	Time	Bandw.	VBW	
1.0 GHz	8.0 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)

**Note: due to the high noise floor measurement between 6GHz – 8GHz was repeated with different pre-amp and the emissions were found more than 6dB below the limit line.**

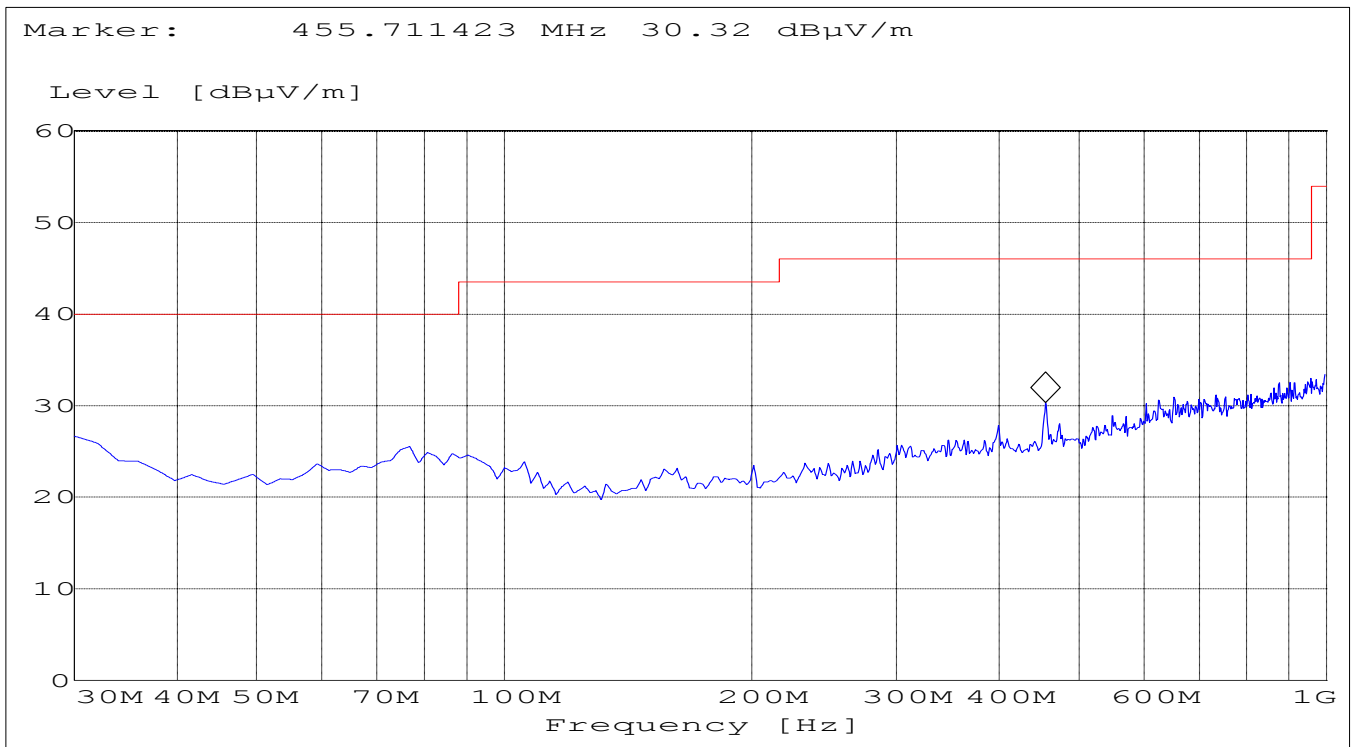




**EMISSION LIMITATIONS - Radiated (Transmitter)**  
**Middle Channel(2442MHz): 30MHz – 1GHz**

§ 15.247 (c) (1)

SWEEP TABLE:		"BT Spuri hi 30-1G"			
Short Description:		Bluetooth 30MHz-1GHz			
Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency		Time	VBW	
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	3141-#1186



**EMISSION LIMITATIONS - Radiated (Transmitter)**

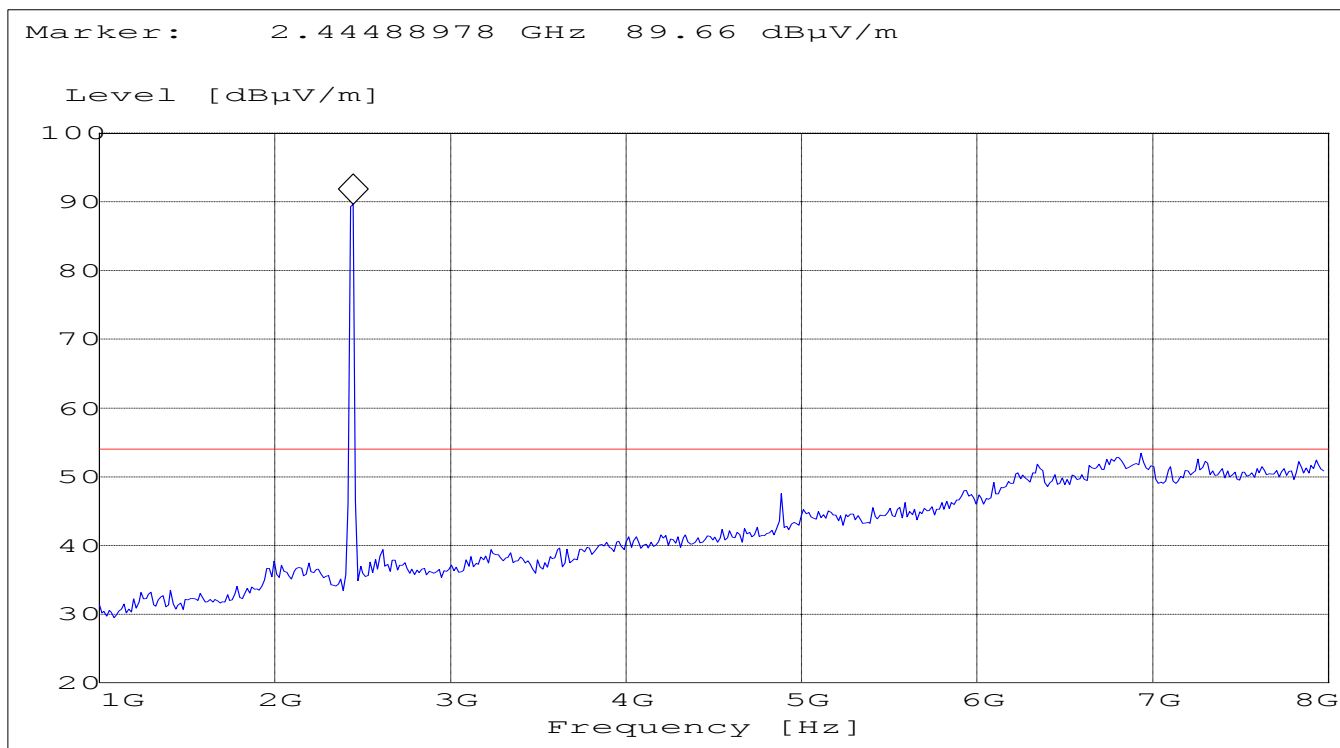
**§ 15.247 (c) (1)**

**Middle Channel(2442MHz): 1GHz – 8GHz**

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

SWEEP TABLE:		"BT Spuri hi 1-8G"			
Short Description:		Bluetooth Spurious 1-8GHz			
Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency	Time	Bandw.	VBW	
1.0 GHz	8.0 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)

**Note: due to the high noise floor measurement between 6GHz – 8GHz was repeated with different pre-amp and the emissions were found more than 6dB below the limit line.**

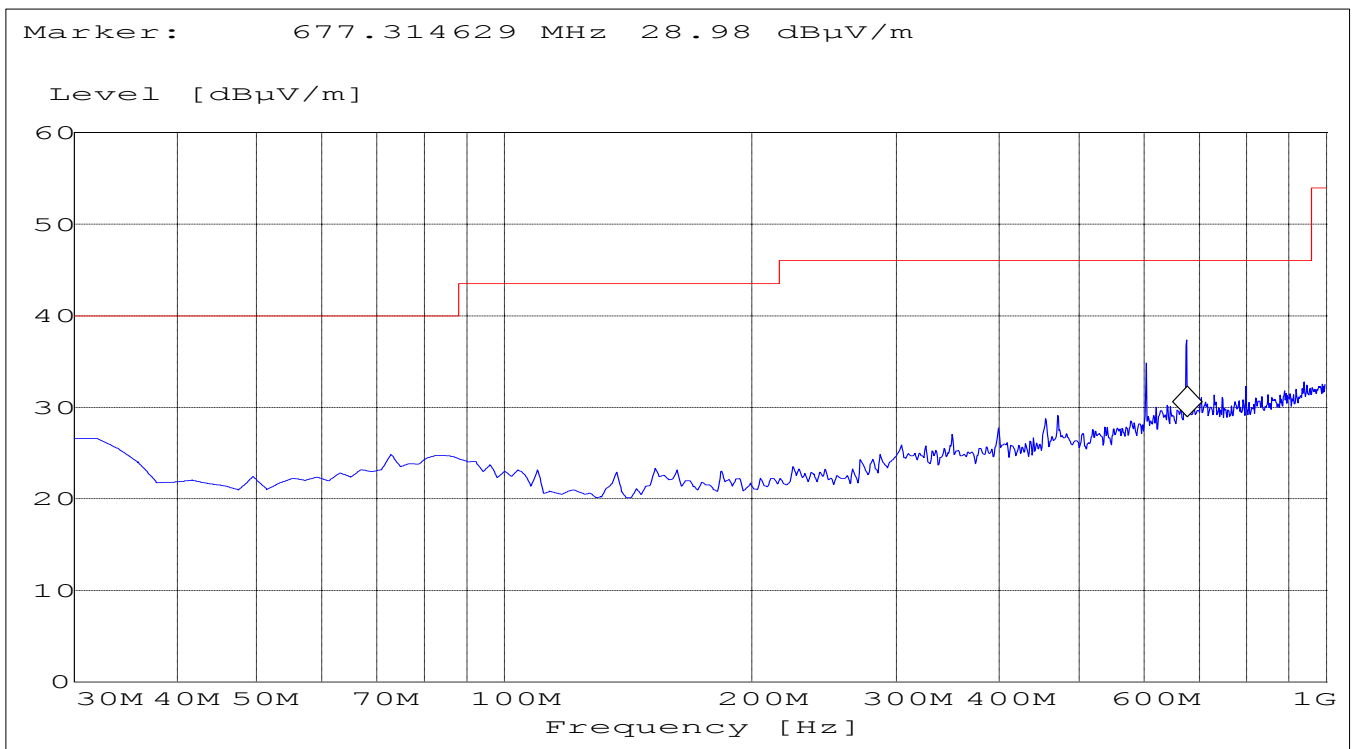


**EMISSION LIMITATIONS - Radiated (Transmitter)**

**§ 15.247 (c) (1)**

**Highest Channel(2472MHz): 30MHz – 1GHz**

SWEEP TABLE:		"BT Spuri hi 30-1G"			
Short Description:		Bluetooth 30MHz-1GHz			
Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency		Time	VBW	
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	3141-#1186



**EMISSION LIMITATIONS - Radiated (Transmitter)**

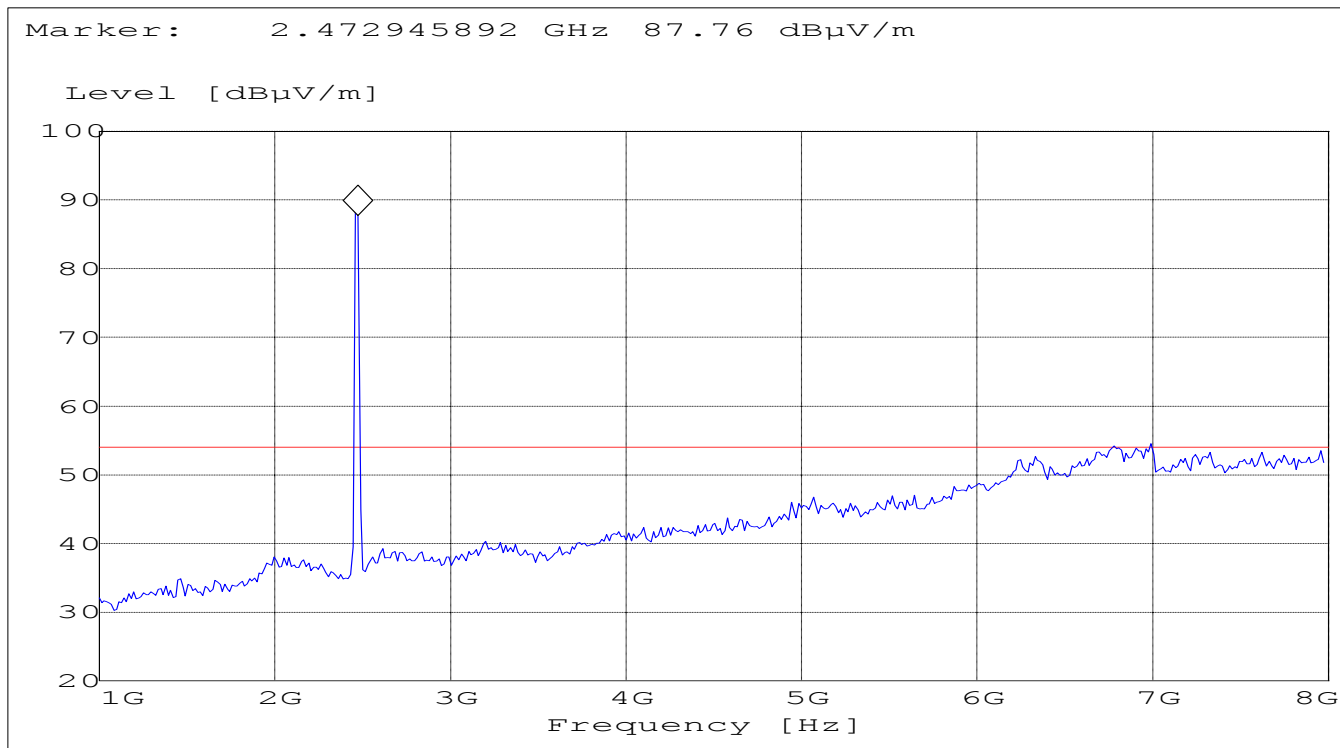
**§ 15.247 (c) (1)**

**Highest Channel(2472MHz): 1GHz – 8GHz**

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

SWEEP TABLE:		"BT Spuri hi 1-8G"			
Short Description:		Bluetooth Spurious 1-8GHz			
Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency	Time	Bandw.	VBW	
1.0 GHz	8.0 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)

**Note: due to the high noise floor measurement between 6GHz – 8GHz was repeated with different pre-amp and the emissions were found more than 6dB below the limit line.**



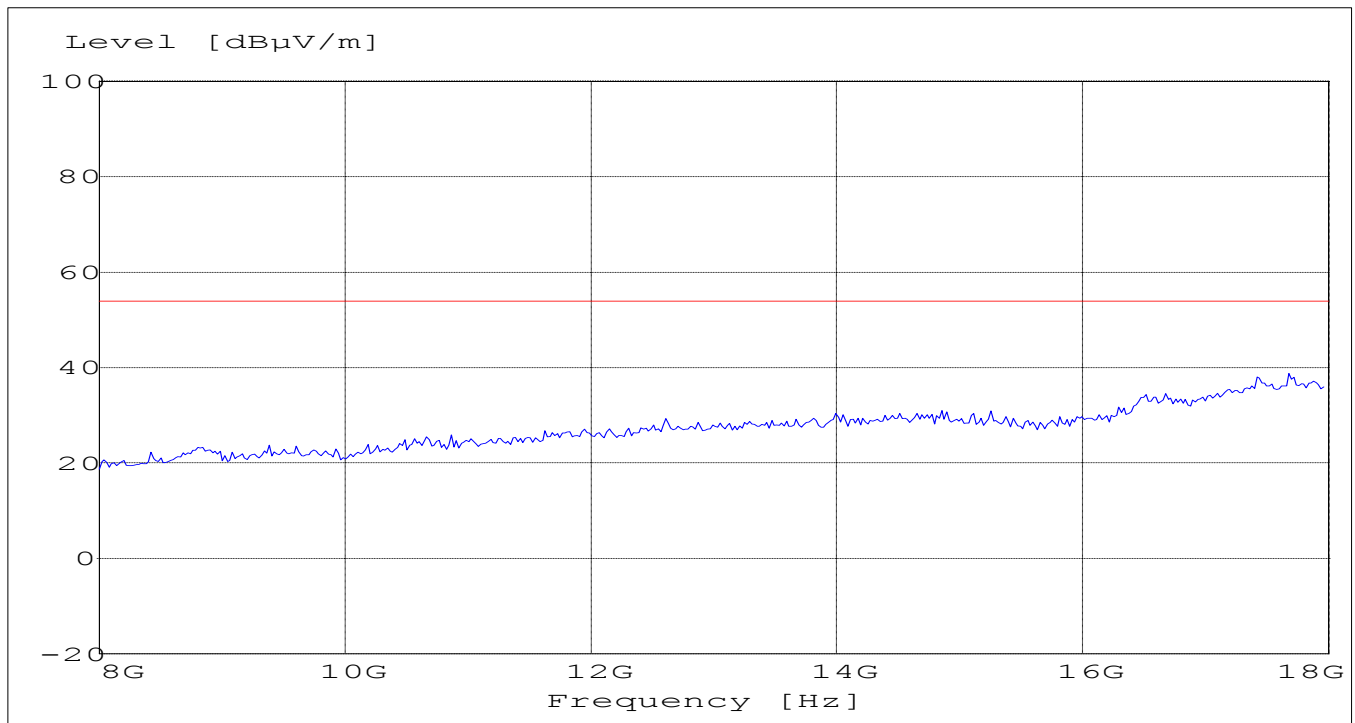
## EMISSION LIMITATIONS - Radiated (Transmitter)

§ 15.247 (c) (1)

8GHz – 18GHz

(This plot is valid for all three channels)

SWEEP TABLE:		"BT Spuri hi 8-18G"			
Short Description:		Bluetooth Spurious 8-18GHz			
Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency	Time	Bandw.	VBW	
8.0 GHz	18 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)



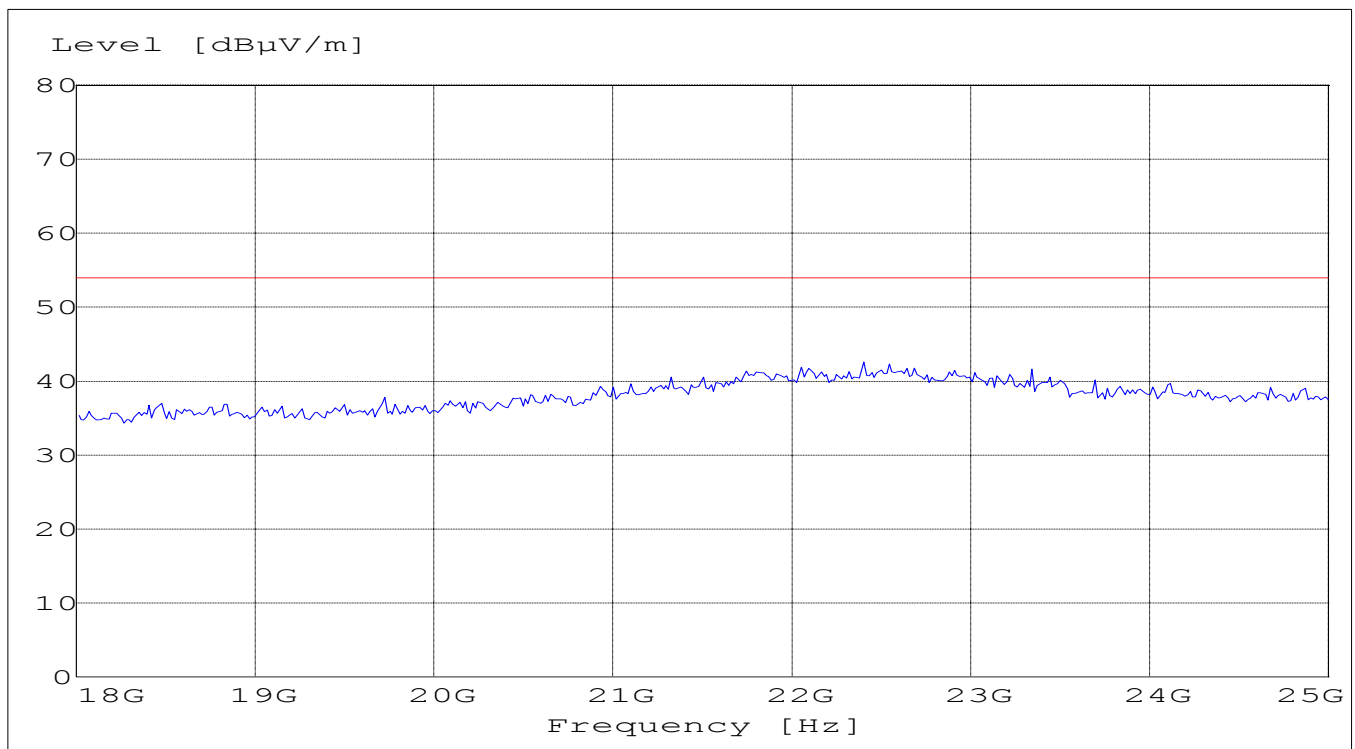
**EMISSION LIMITATIONS - Radiated (Transmitter)**

**§ 15.247 (c) (1)**

**18GHz – 25GHz**

**(This plot is valid for all three channels)**

SWEEP TABLE:		"BT Spuri hi 18-25G"			
Short Description:		Bluetooth Spurious 18-25GHz			
Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency	Time	Bandw.	VBW	
18 GHz	25 GHz	MaxPeak	Coupled	1 MHz	#141 horn (dBi)



**CONDUCTED EMISSIONS**

§ 15.107/207

Measured with AC/DC power adapter

(Limit: CISPR 22 class-B)

Note: This measurement is carried out according to guidelines of FCC 02-157

**SWEEP TABLE: "55022 cond"**

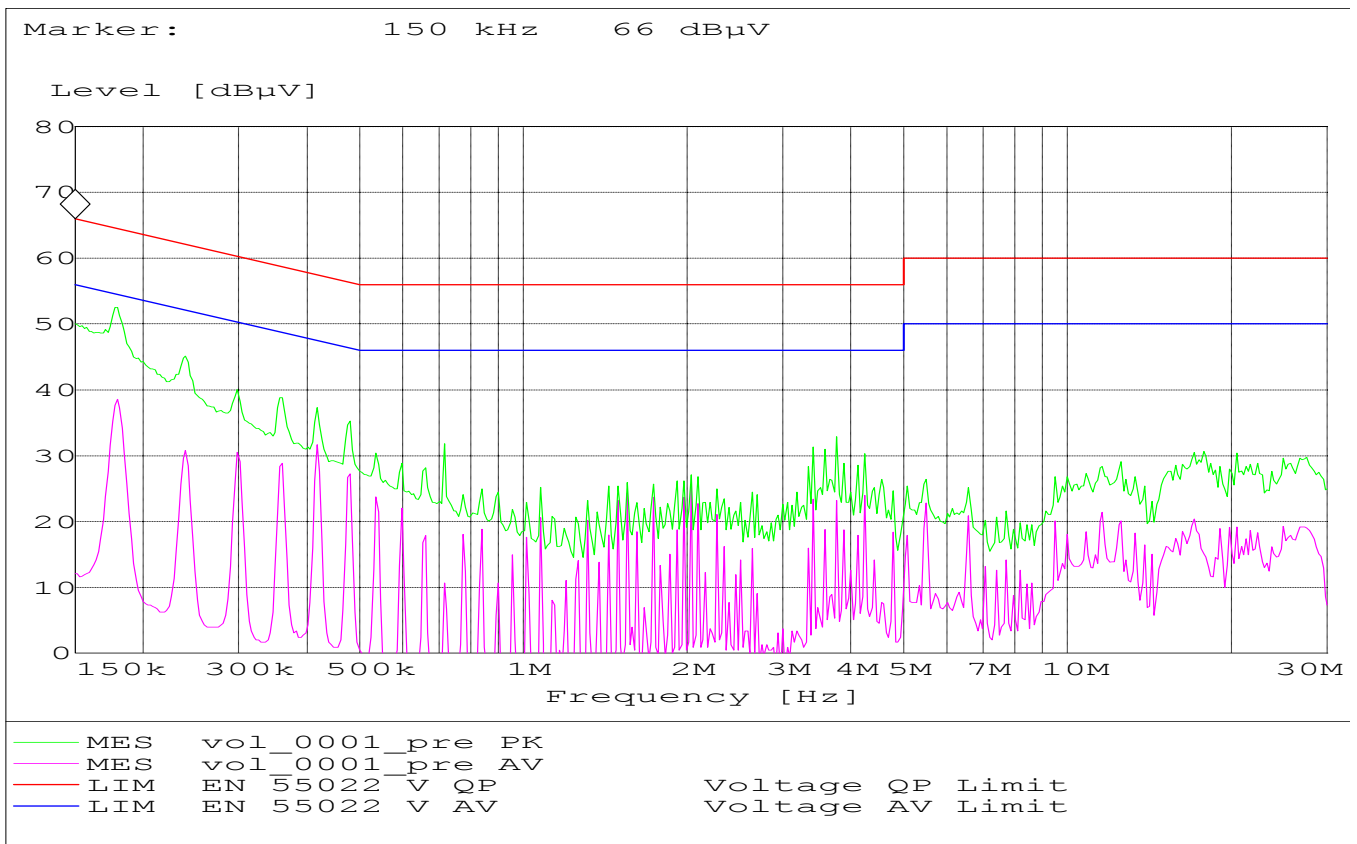
Short Description:		EN 55022 for 150KHz-30MHz			
Start	Stop	Detector	Meas	IF	Transducer
Frequency	Frequency		Time	Bandw.	
150.0 kHz	30.0 MHz	MaxPeak	Coupled	10 kHz	None

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

**Limit**

0.45 to 30 MHz	250 µV / 47.96 dBµV
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ANALYZER SETTINGS: RBW = 10KHz VBW = 10KHz



**RECEIVER SPURIOUS RADIATION**

§ 15.209

**Limits**

Frequency (MHz)	Field strength ( $\mu\text{V/m}$ )	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:**

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 18 and 25 GHz very short cable connections to the antenna was used to minimize the noise level.

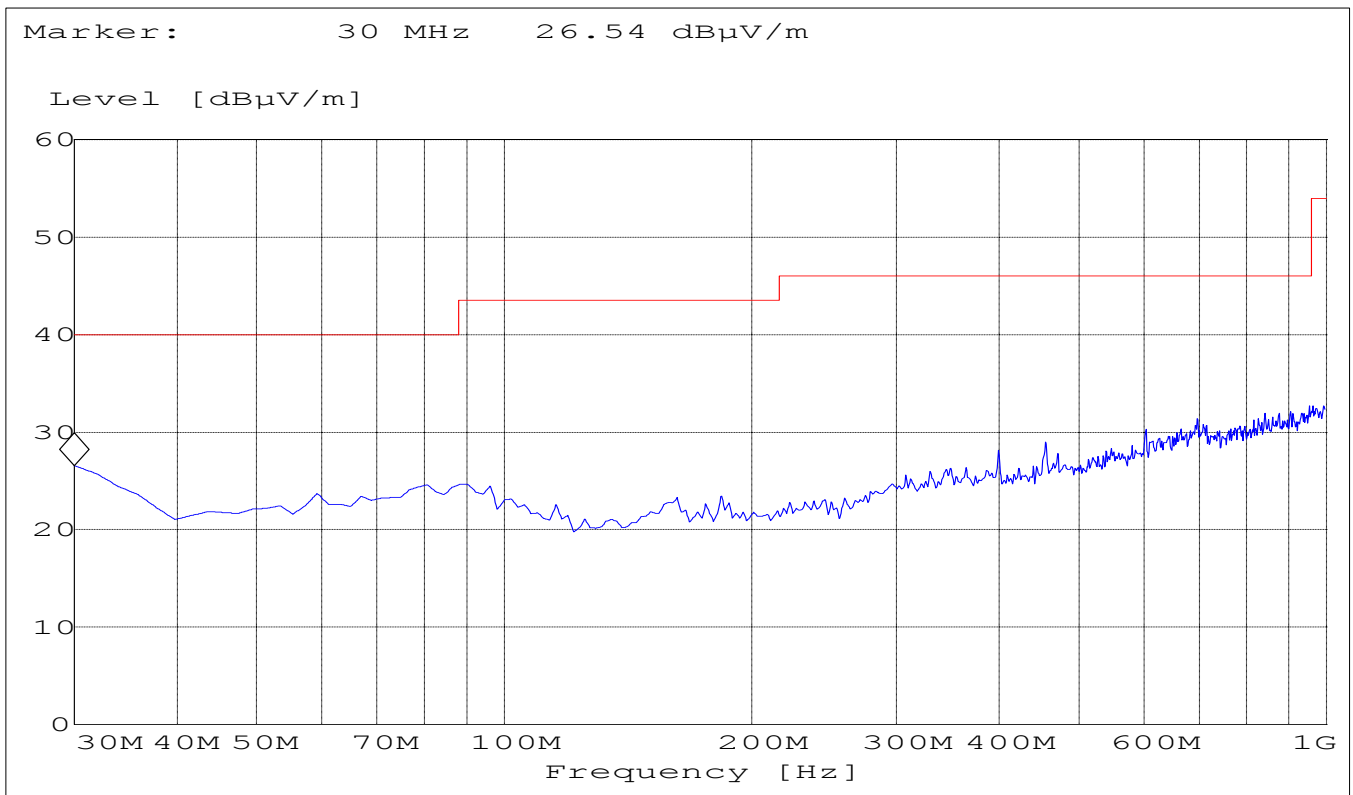


**RECEIVER SPURIOUS RADIATION**

**§ 15.209**

**30MHz – 1GHz**

SWEEP TABLE:		"BT Spuri hi 30-1G"			
Short Description:		Bluetooth 30MHz-1GHz			
Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency		Time	VBW	
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	3141-#1186



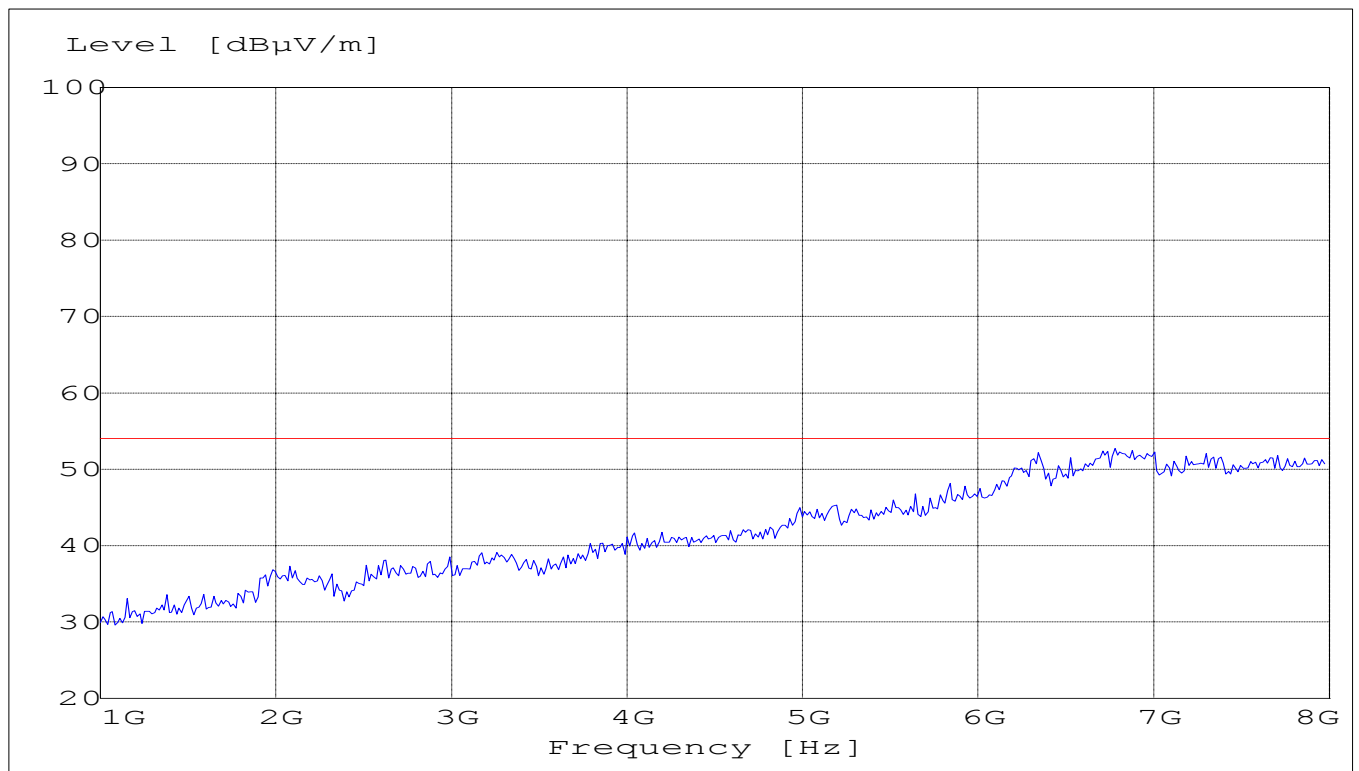
RECEIVER SPURIOUS RADIATION

§ 15.209

1GHz – 8GHz

SWEEP TABLE:		"BT Spuri hi 1-8G"			
Short Description:		Bluetooth Spurious 1-8 GHz			
Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency	Time	Bandw.	VBW	
1.0 GHz	8.0 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)

Note: due to the high noise floor measurement between 6GHz – 8GHz was repeated with different pre-amp and the emissions were found more than 6dB below the limit line.

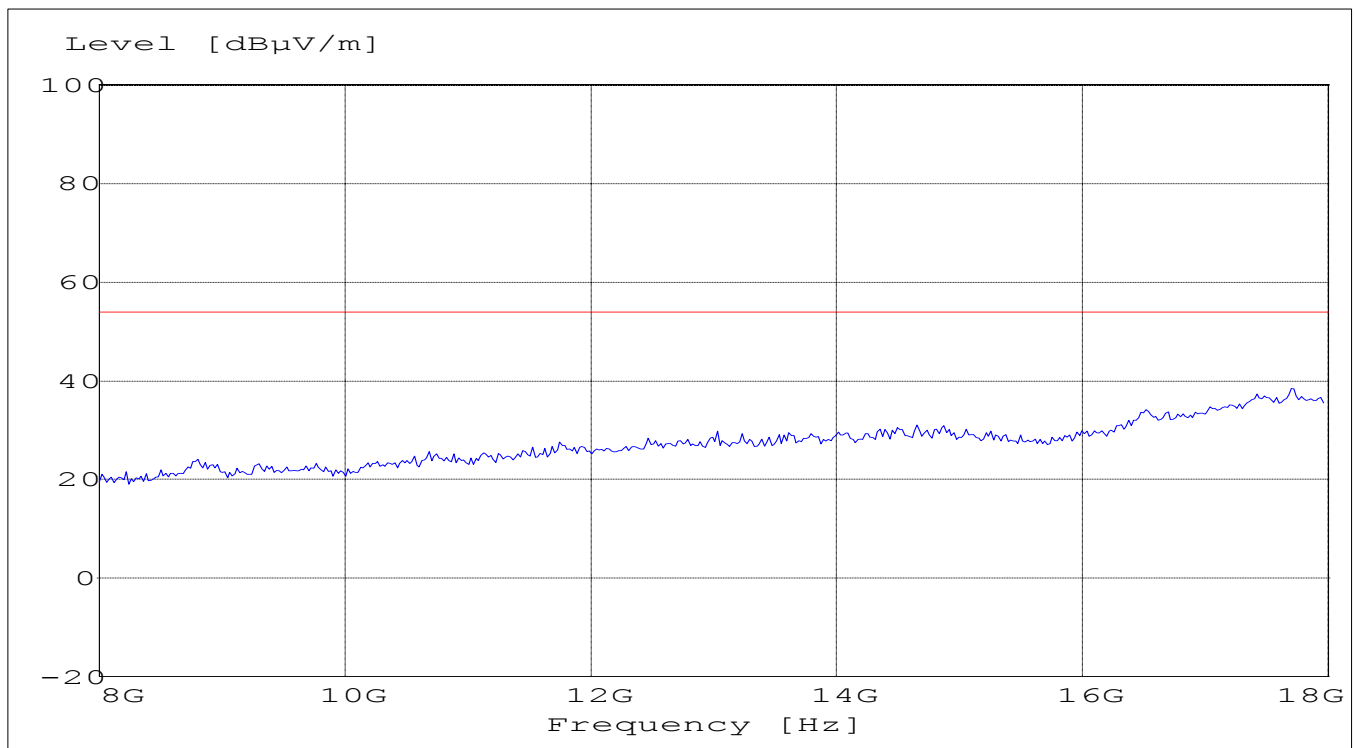


RECEIVER SPURIOUS RADIATION

§ 15.209

8GHz – 18GHz

SWEEP TABLE:		"BT Spuri hi 8-18G"			
Short Description:		Bluetooth Spurious 8-18GHz			
Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency	Time	Bandw.	VBW	
8.0 GHz	18 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)

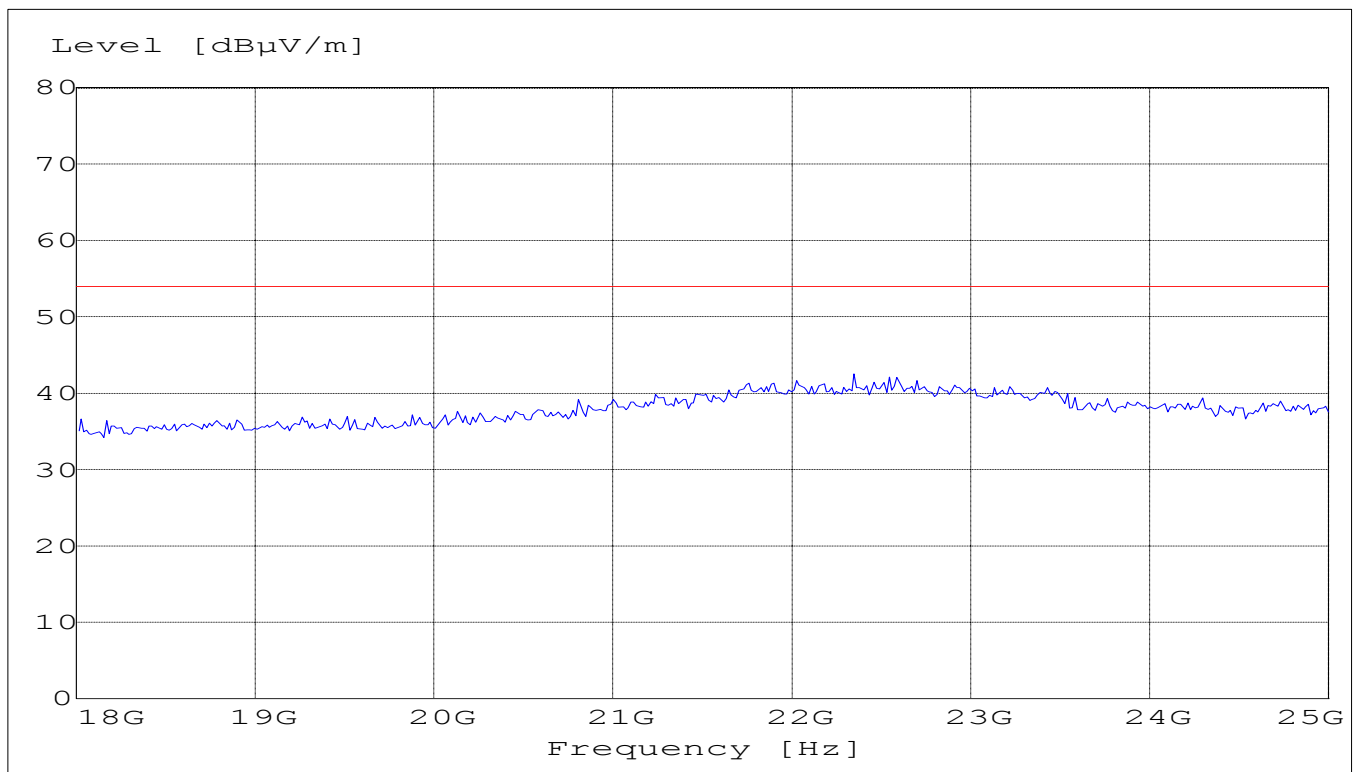


**RECEIVER SPURIOUS RADIATION**

§ 15.209

**18GHz – 25GHz**

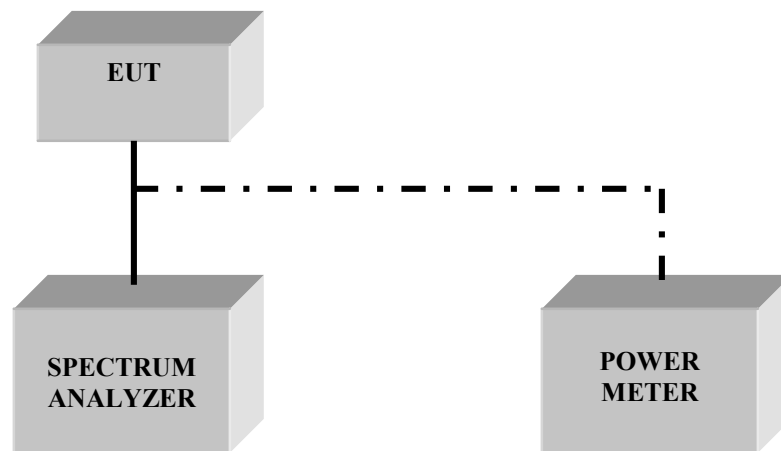
SWEEP TABLE:		"BT Spuri hi 18-25G"			
Short Description:		Bluetooth Spurious 18-25GHz			
Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency	Time	Bandw.	VBW	
18 GHz	25 GHz	MaxPeak	Coupled	1 MHz	#141 horn (dBi)



**TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS**

<b>No</b>	<b>Instrument/Ancillary</b>	<b>Type</b>	<b>Manufacturer</b>	<b>Serial No.</b>
<b>01</b>	Spectrum Analyzer	ESIB 40	Rohde & Schwarz	100107
<b>02</b>	Spectrum Analyzer	FSEM 30	Rohde & Schwarz	826880/010
<b>03</b>	Signal Generator	SMY02	Rohde & Schwarz	836878/011
<b>04</b>	Power-Meter	NRVD	Rohde & Schwarz	0857.8008.02
<b>05</b>	Power Amplifier	250W1000	Amplifier Research	300031
<b>06</b>	Biconilog Antenna	3141	EMCO	0005-1186
<b>07</b>	Horn Antenna	SAS-200/571	AH Systems	325
<b>08</b>	Power Splitter	11667B	Hewlett Packard	645348
<b>09</b>	Climatic Chamber	VT4004	Votch	G1115
<b>10</b>	Pre-Amplifier	JS4-00102600	Miteq	00616
<b>11</b>	Power Sensor	URV5-Z2	Rohde & Schwarz	DE30807
<b>12</b>	Digital Radio Comm. Tester	CMD-55	Rohde & Schwarz	847958/008

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



**Radiated Testing**

**ANECHOIC CHAMBER**

