

CETECOM Inc.



CETECOM Inc.

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

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

www.cetecom.com

Issued test report consists of 55 Pages

Page 1 (55)

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

Test report no.: EMC_331_FCC15.247_2002
FCC Part 15.247 for DSSS systems / CANADA RSS-210
(WL-306B)

Table of Contents

1	General information
1.1	Notes
1.2	Testing laboratory
1.3	Details of applicant
1.4	Application details
1.5	Test item
1.6	Test standards
2	Technical test
2.1	Summary of test results
2.2	Test report
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 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 : **3COM Corporation**
Street : **5400 Bayfront Plaza**
City / Zip Code : **Santa Clara, CA 95052**
Country : **USA**
Contact : **Collin Smith**
Telephone : **+1 408 326 5274**
Tele-fax : **+1 408 326 5854**
e-mail : col_smith@3com.com

1.4 Application details

Date of receipt of application : 2002-08-21
Date of receipt test item : 2002-08-27
Date of test : 2002-09-07/14

1.5 Test item

Manufacturer : Applicant
Marketing Name : 3COM building to building bridge
Model No. : WL-306B
[Description](#) : [802.11b WLAN Access point](#)
FCC-ID : DF6-WL306B
IC-ID :

Additional information

Frequency : 2412MHz – 2472MHz
Type of modulation : DSSS
Number of channels : 13 with power limitation for channel 12 and 13
Antenna : 18dBi Directional gain antenna
Power supply : Powered by external power supply (100-240VAC)
Output power : 35.88dBm (3.87W) max. EIRP
Extreme temp. Tolerance : -30°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”)

Passed

Note: The tests were done for channel 1-11 with a power setting PC=120 and for the channels 12 and 13 with PC=80.

The device will limit the output power for the channels 12 and 13 according the values evaluted during testing (PC=80). (see page 20).

The High band edge measurements were done with the different power settings in order to show compliance for both combinations

- 11 channel with high power (See results page 31/32)
- 13 channel with lower power setting (See results page 33/34).

Technical responsibility for area of testing:

2002-11-21 EMC & Radio

Lothar Schmidt
(Technical Manager)



Date

Section

Name

Signature

Responsible for test report and project leader:

2002-10-14 EMC & Radio

Harpreet Sidhu (EMC Engineer)



Date

Section

Name

Signature

2.2 Test report

TEST REPORT

**Test report no. : EMC_331_FCC15.247_2002
(WL-306B)**

TEST REPORT REFERENCE

LIST OF MEASUREMENTS	PAGE
ANTENNA GAIN	§ 15.204
SPECTRUM BANDWIDTH OF DSSS SYSTEM	§15.247(a) (2)
MAXIMUM PEAK OUTPUT POWER	§ 15.247 (b) (1)
POWER SPECTRAL DENSITY	§15.247 (d)
BAND EDGE COMPLIANCE	§15.247 (c)
EMISSION LIMITATIONS	§ 15.247 (c) (1)
CONDUCTED EMISSIONS	§ 15.107/207
RECEIVER SPURIOUS RADIATION	§ 15.209
TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS	57
BLOCK DIAGRAMS	58

NOTE: (18dBi Antenna is directional gain antenna and is an Integral part of EUT)

All measurements are valid with following power control value only;

PC=120

For channel 12 and 13 power control settings are PC=80

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.

	Low channel (2412MHz)	Mid channel (2437MHz)	High channel (2462MHz)
Conducted Power	16.82dBm	16.48dBm	15.48dBm
Raidated Power (EIRP)	35.62dBm	35.88dBm	34.19dBm
Antenna Gain	18.8dBi	19.4dBi	18.71dBi

The calculated antenna gain is between 18.71dBi and 19.4dBi.

SPECTRUM BANDWIDTH OF DSSS SYSTEM**§15.247(a) (2)****6 dB bandwidth**

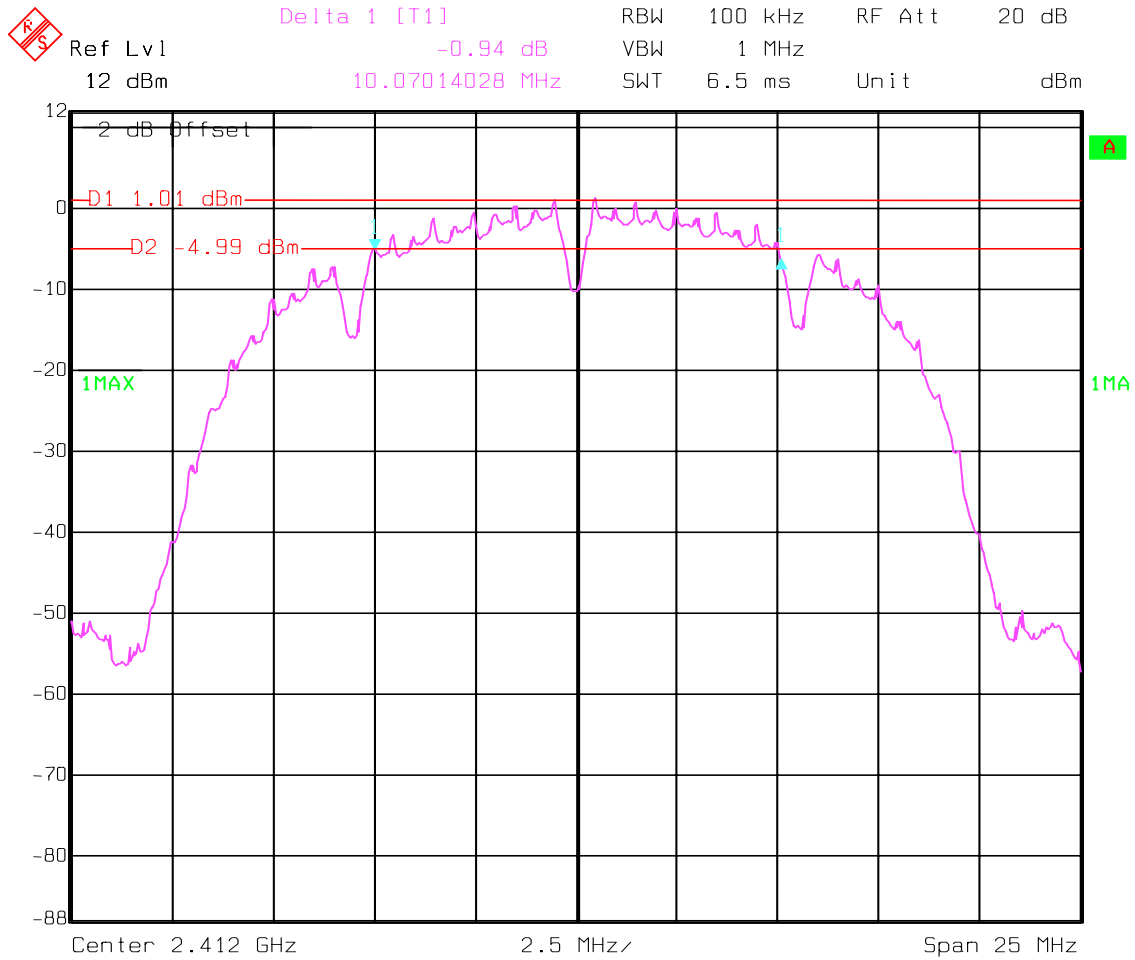
TEST CONDITIONS		6 dB BANDWIDTH (MHz)			
Frequency (MHz)		2412	2437	2462	2472
T _{nom} (23)°C	V _{nom}	10.07	10.07	10.07	9.699

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

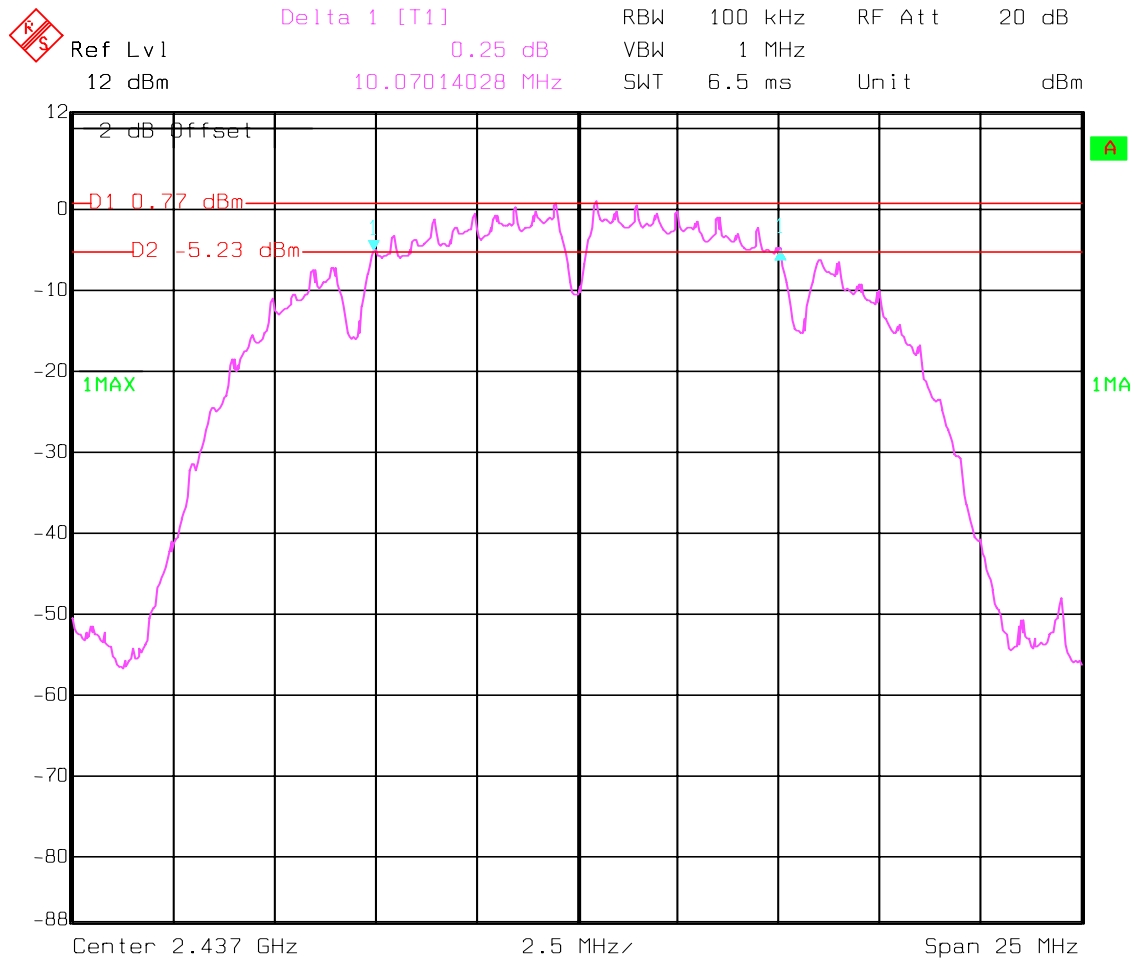


Date: 07.SEP.2002 13:49:43

SPECTRUM BANDWIDTH OF DSSSS SYSTEM 6 dB bandwidth

§15.247(a) (2)

Mid Channel: 2437MHz

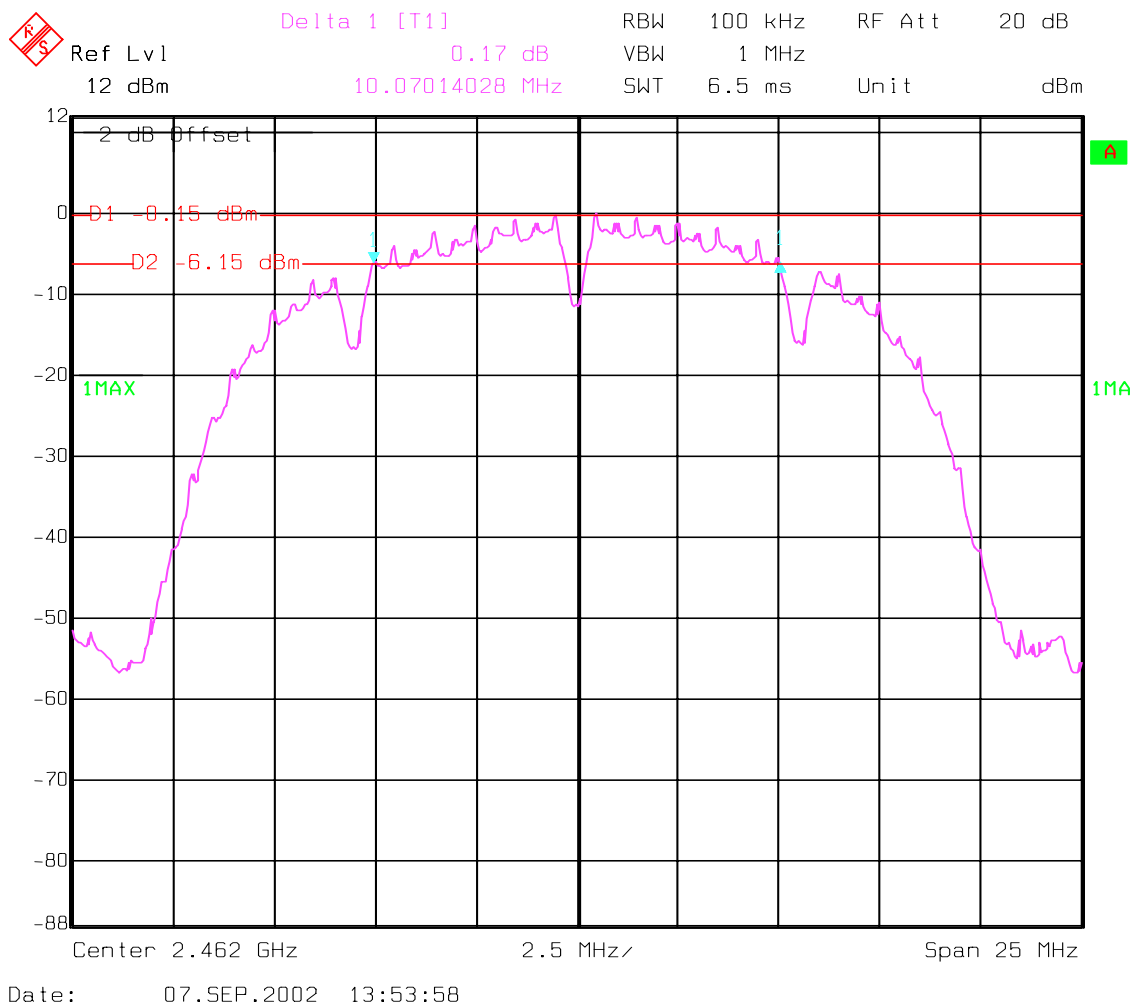


Date: 07.SEP.2002 13:51:52

SPECTRUM BANDWIDTH OF DSSS SYSTEM 6 dB bandwidth

§15.247(a) (2)

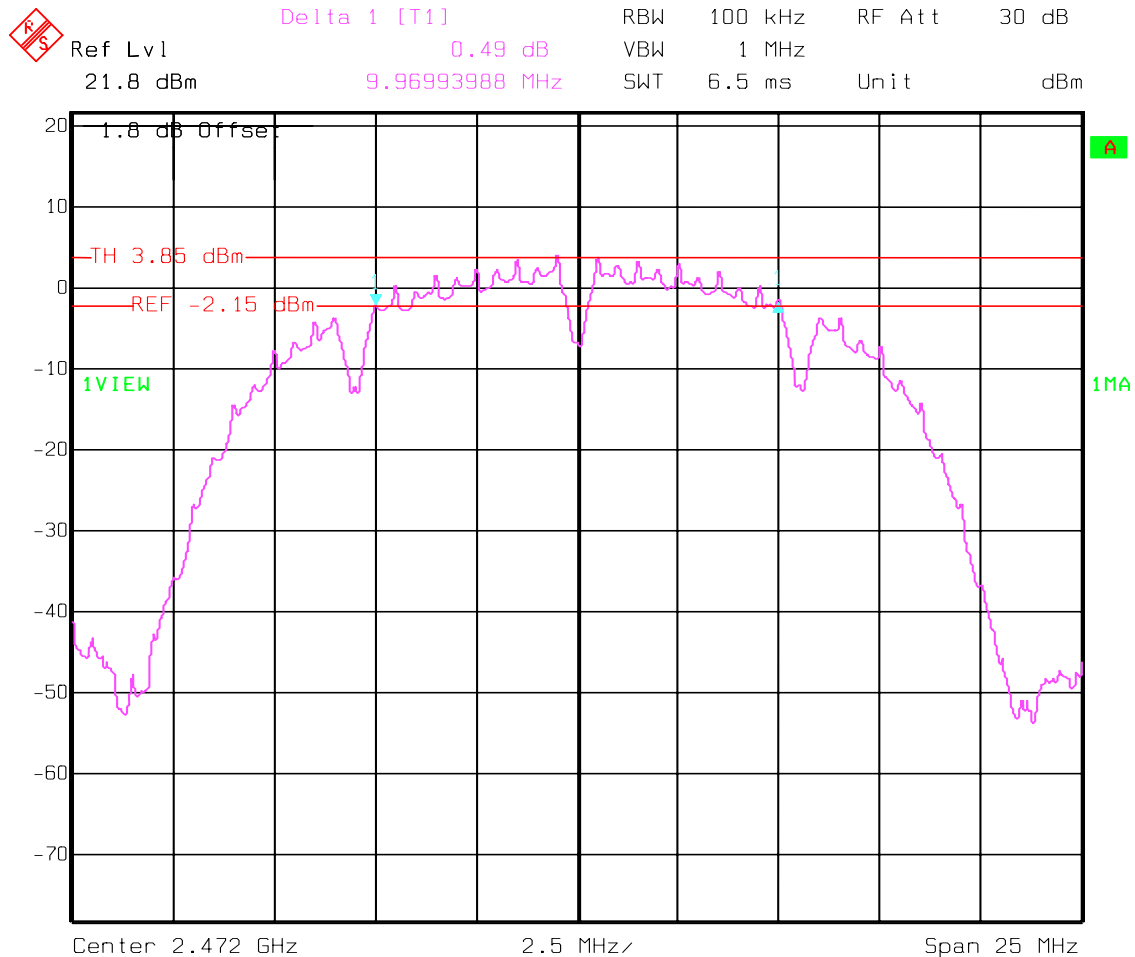
Highest Channel: 2462MHz



SPECTRUM BANDWIDTH OF DSSS-SYSTEM

High Channel: 2472 MHz

SUBCLAUSE § 15.247 (a)(2)



LIMIT

SUBCLAUSE §15.247(a) (2)

The minimum 6dB bandwidth shall be at least 500 KHz

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

**MAXIMUM PEAK OUTPUT POWER
(conducted)**

§ 15.247 (b) (1)

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER (dBm)				
Frequency (MHz)		2412		2437	2462	2472
T _{nom} (23)°C	V _{nom}	Pk	16.82	16.48	15.48	6.17*)
Measurement uncertainty		±0.5dBm				

RBW / VBW : 10MHz

*) No plot provided.

LIMIT

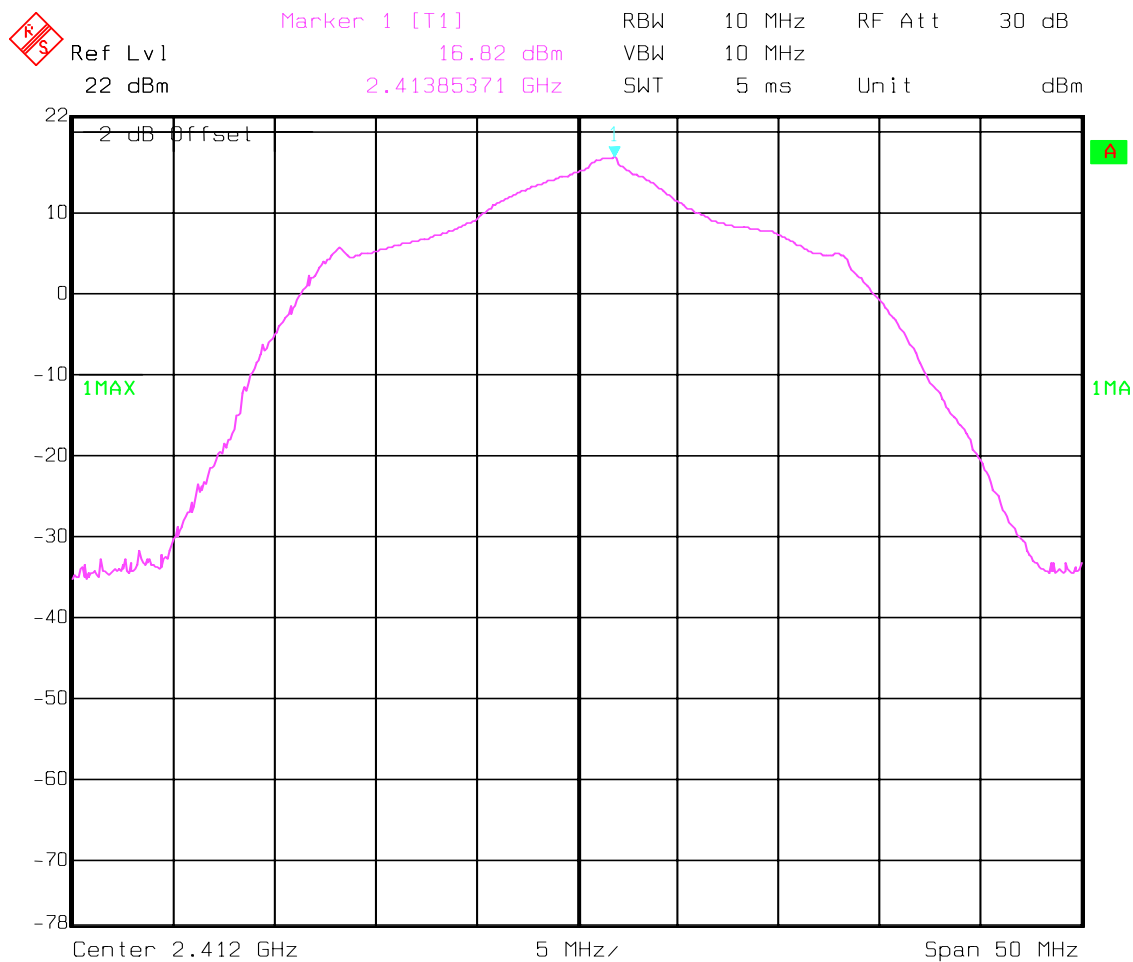
SUBCLAUSE § 15.247 (b) (1)

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

PEAK OUTPUT POWER (CONDUCTED)

§15.247 (b) (1)

Lowest Channel: 2412MHz

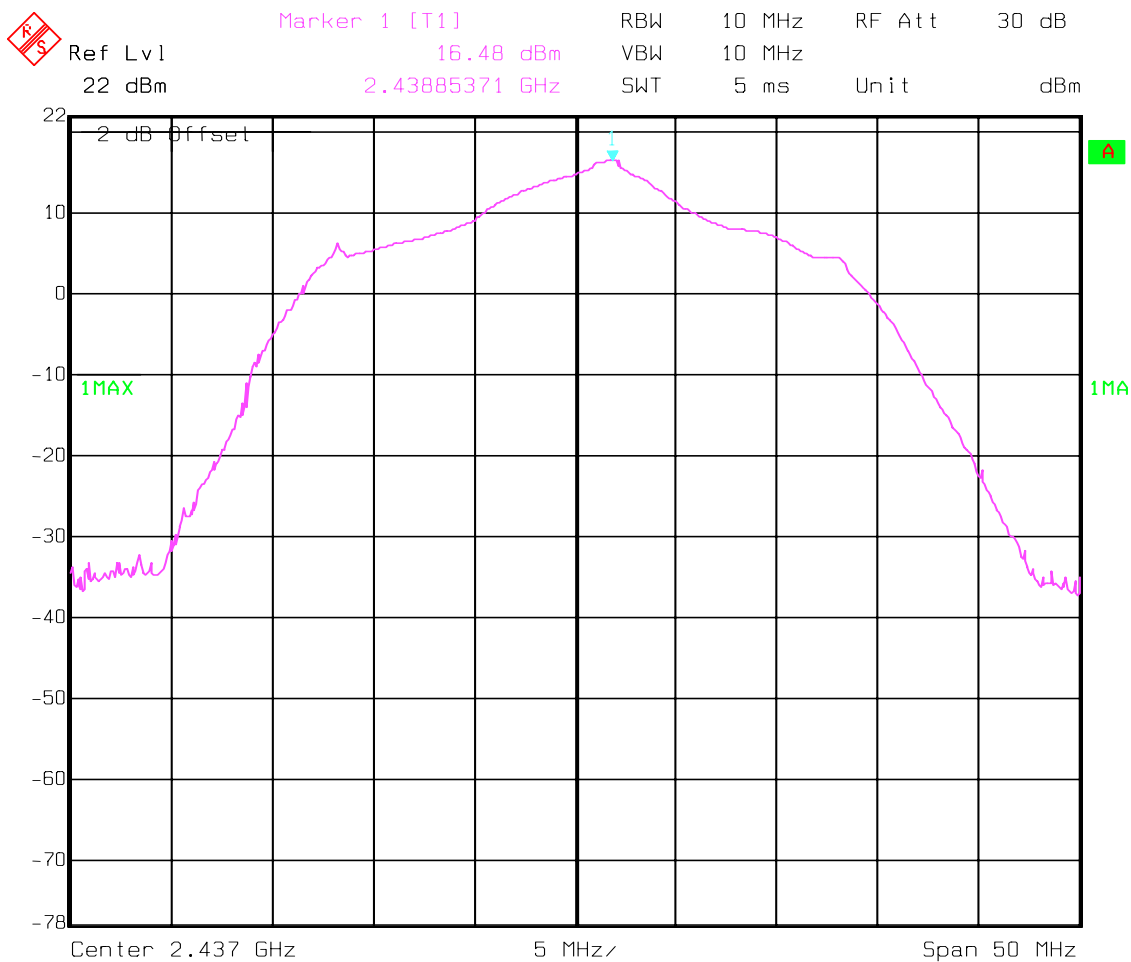


Date: 07.SEP.2002 13:58:32

PEAK OUTPUT POWER (CONDUCTED)

§15.247 (b)

Mid Channel: 2437MHz

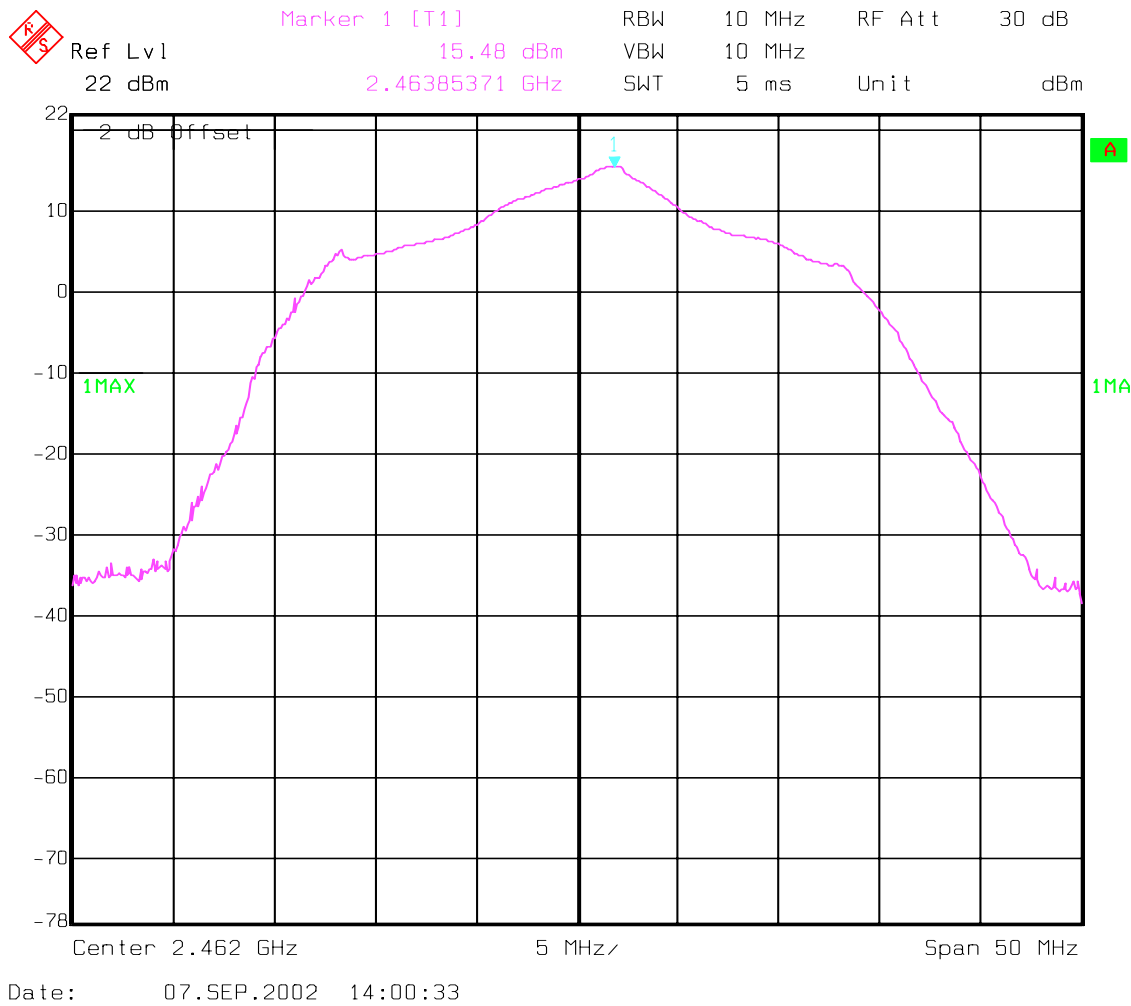


Date: 07.SEP.2002 13:59:40

PEAK OUTPUT POWER (CONDUCTED)

§15.247 (b)

Highest Channel: 2462MHz



**MAXIMUM PEAK OUTPUT POWER
(RADIATED)**

§ 15.247 (b) (3)

EIRP:

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER (dBm)			
Frequency (MHz)		2412	2437	2462	2472
T _{nom} (23)°C	V _{nom}	35.62	35.88	34.19	24.88
Measurement uncertainty		±0.5dBm			

RBW/VBW : 10MHz

LIMIT

SUBCLAUSE § 15.247 (b) (3)

Frequency range	RF power output
2400-2483.5 MHz	36dBm

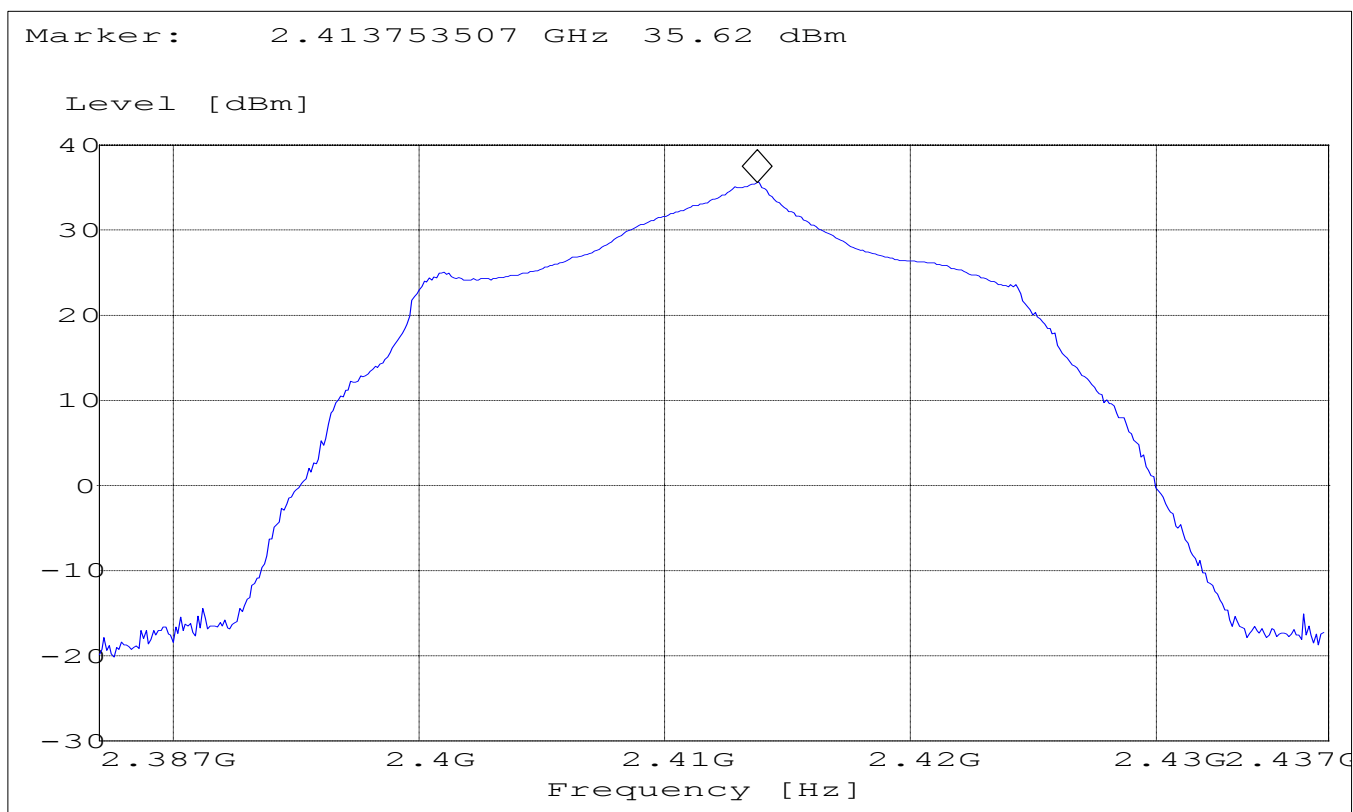
PEAK OUTPUT POWER (RADIATED)

§15.247 (b) (3)

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)

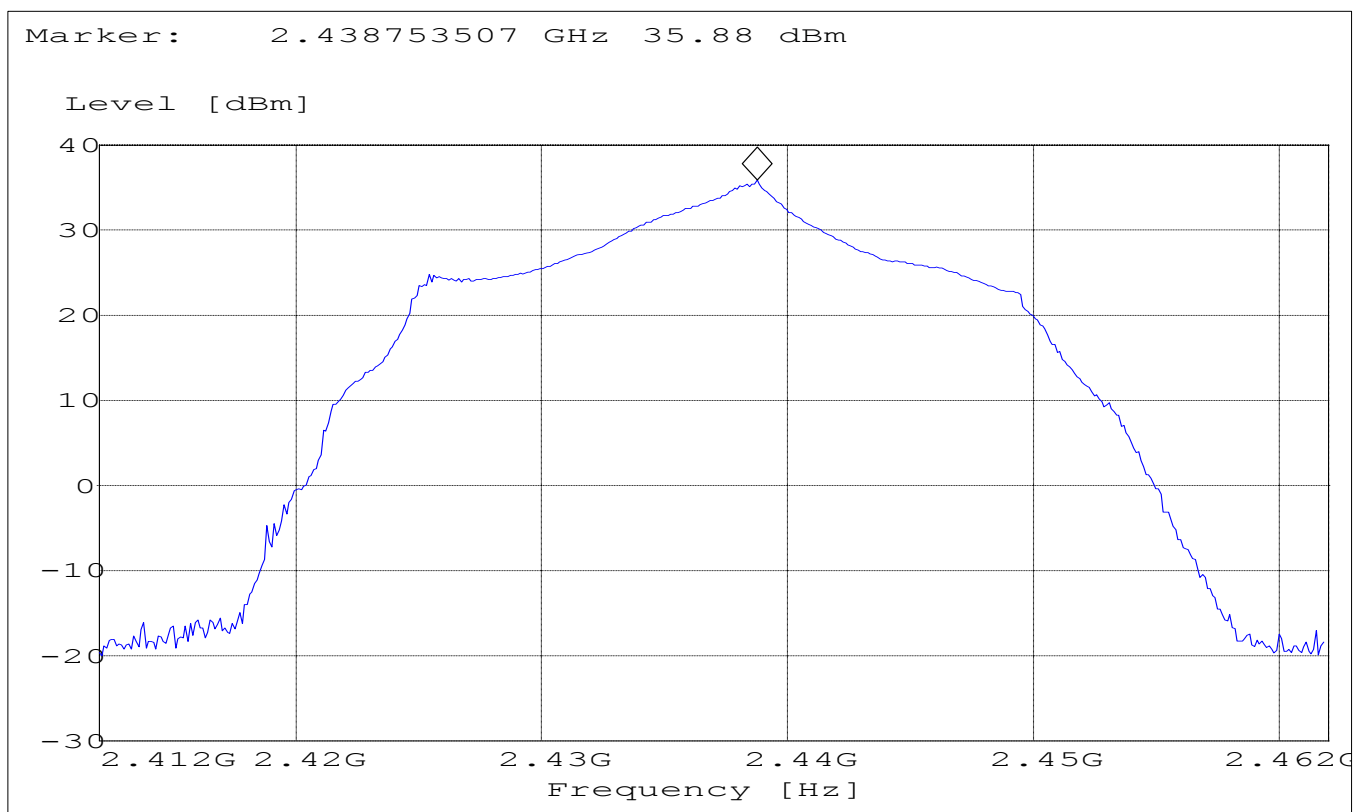
§15.247 (b) (3)

Mid Channel: 2437MHz

SWEEP TABLE: "EIRP RLAN CH6"

Short Description: EIRP RLAN channel-2437MHz

Start	Stop	Detector	Meas.	IF
Frequency	Frequency		Time	BW
2.412GHz	2.462GHz	MaxPeak	Coupled	10 MHz



PEAK OUTPUT POWER (RADIATED)

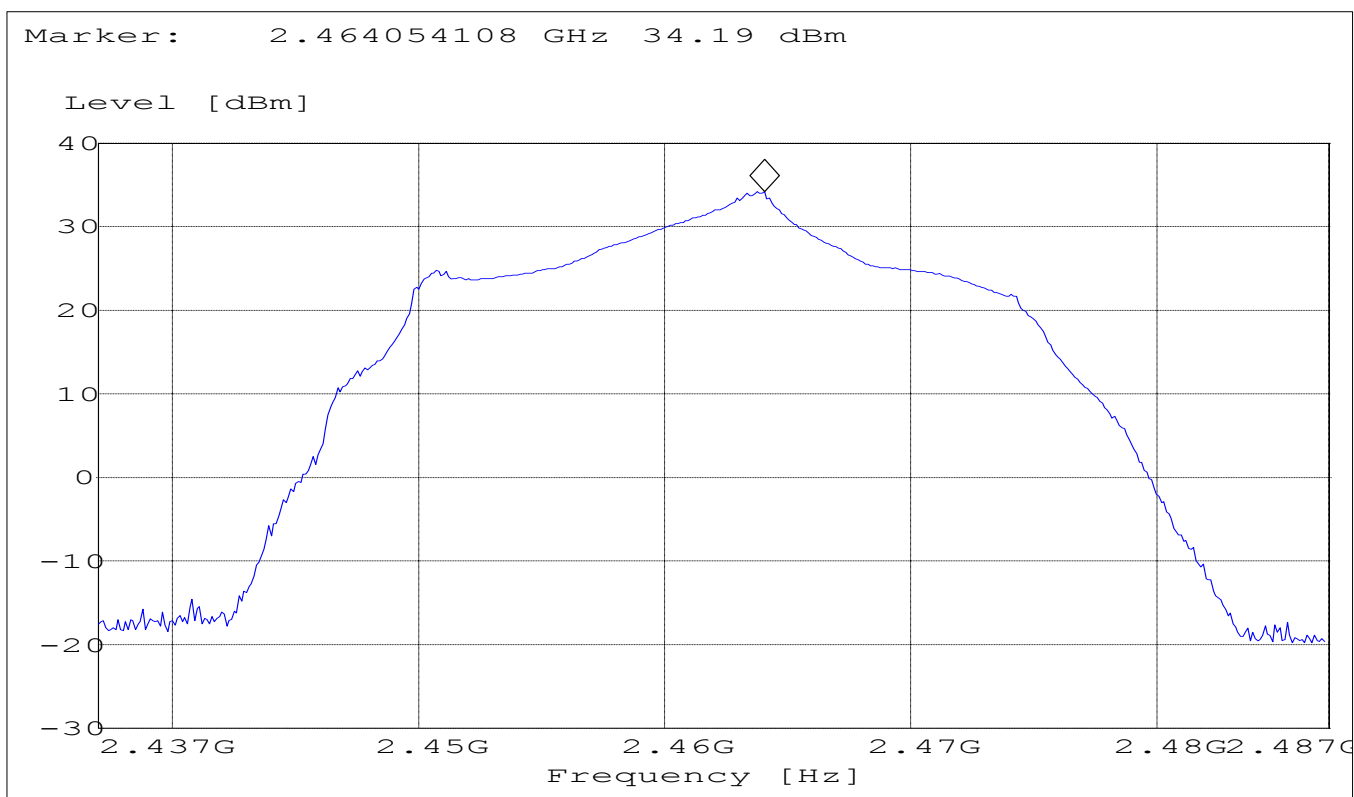
§15.247 (b) (3)

Highest Channel: 2462MHz with high power settings PC=120

SWEEP TABLE: "EIRP RLAN CH11"

Short Description: EIRP RLAN channel-2462MHz

Start Frequency	Stop Frequency	Detector	Meas. Time	IF BW
2.437GHz	2.487GHz	MaxPeak	Coupled	10 MHz



PEAK OUTPUT POWER (RADIATED)

§15.247 (b) (3)

Highest Channel: 2472MHz with high power settings PC=80

SWEEP TABLE: "EIRP RLAN CH13"

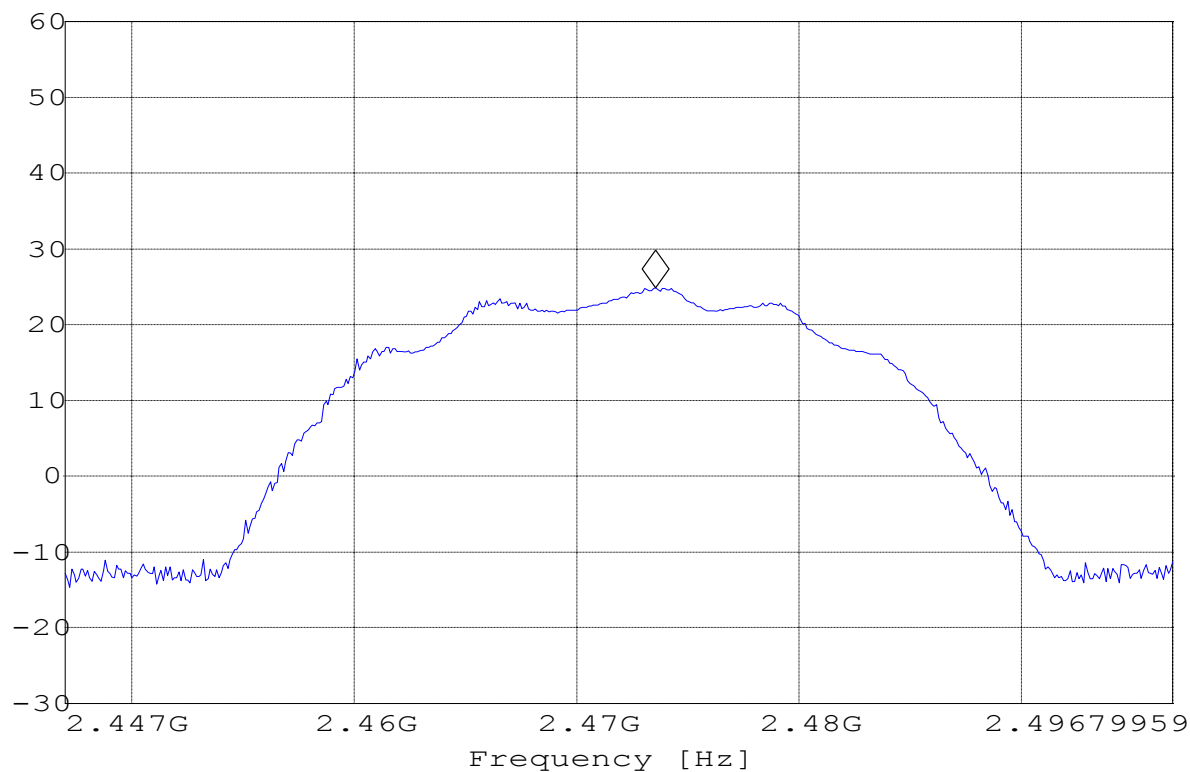
Short Description:

EIRP RLAN channel-2472 MHz

<i>Start</i>	<i>Stop</i>	<i>Detector</i>	<i>Meas.</i>	<i>IF</i>	<i>Transducer</i>
<i>Frequency</i>	<i>Frequency</i>		<i>Time</i>	<i>Bandw.</i>	
<i>2.4 GHz</i>	<i>2.5 GHz</i>	<i>MaxPeak</i>	<i>Coupled</i>	<i>10 MHz</i>	<i>DUMMY-DBM</i>

Marker: 2.473553106 GHz 24.88 dBm

Level [dBm]



POWER SPECTRAL DENSITY**§15.247 (d)**

TEST CONDITIONS		POWER SPECTRAL DENSITY (dBm)		
Frequency (MHz)		2412	2437	2462
T _{nom} (23)°C	V _{nom}	-18.12	-18.19	-19.01

The spectral density test for the channel 13 wasn't recorded, since the conducted power was about 9.3 dBm lower than channel 11 (see note at the test summary at the beginning of the report).

LIMIT**SUBCLAUSE §15.247(d)**

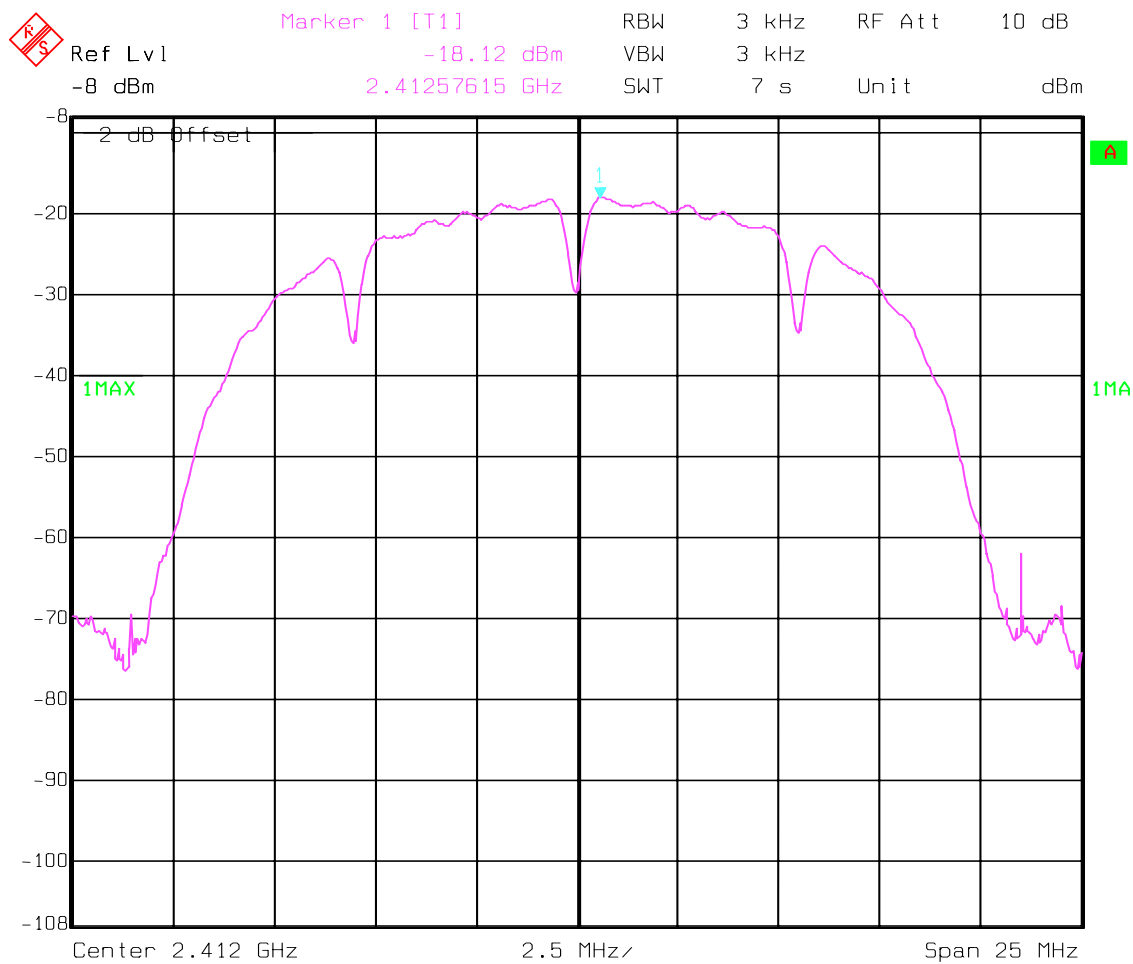
The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band

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

POWER SPECTRAL DENSITY

§15.247(d)

Lowest Channel: 2412MHz

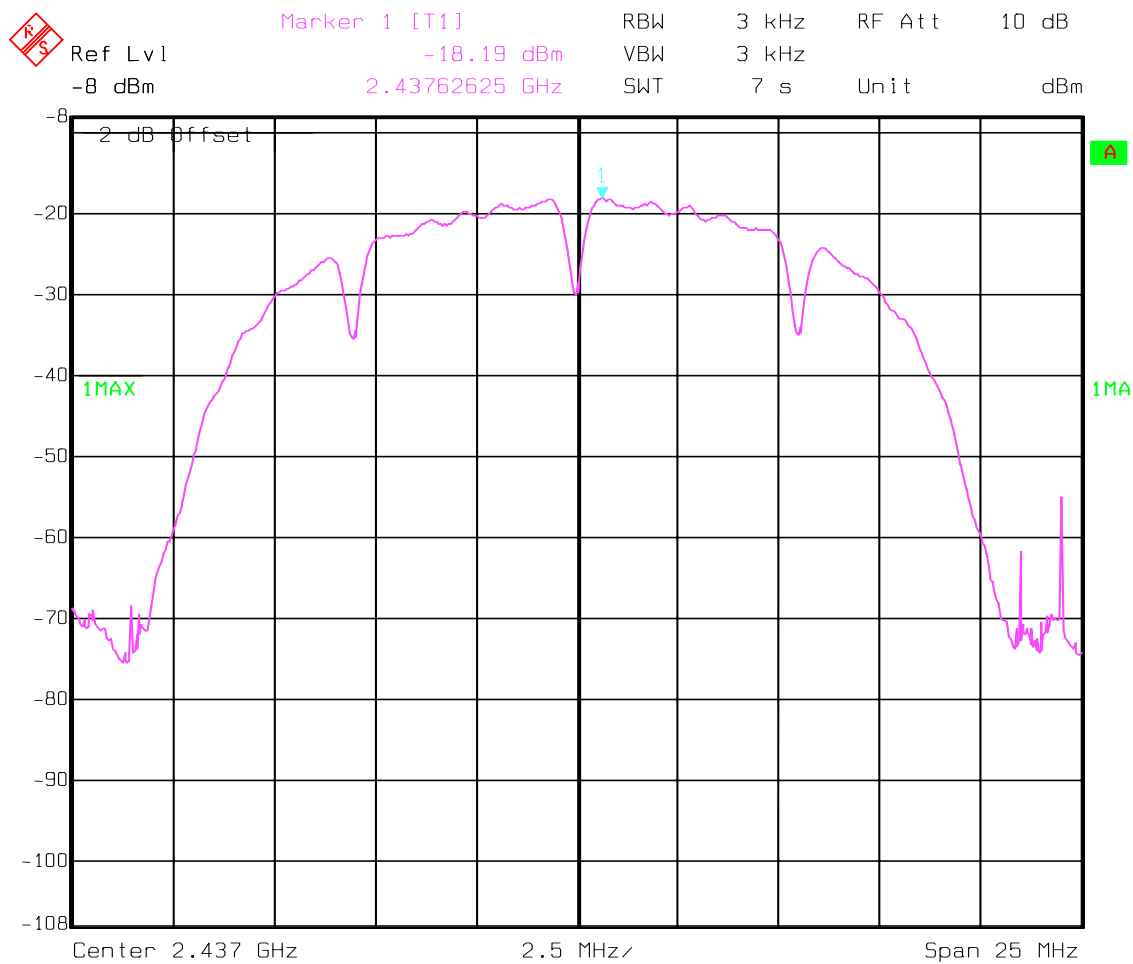


Date: 07.SEP.2002 14:15:58

POWER SPECTRAL DENSITY

§15.247(d)

Mid Channel: 2437MHz

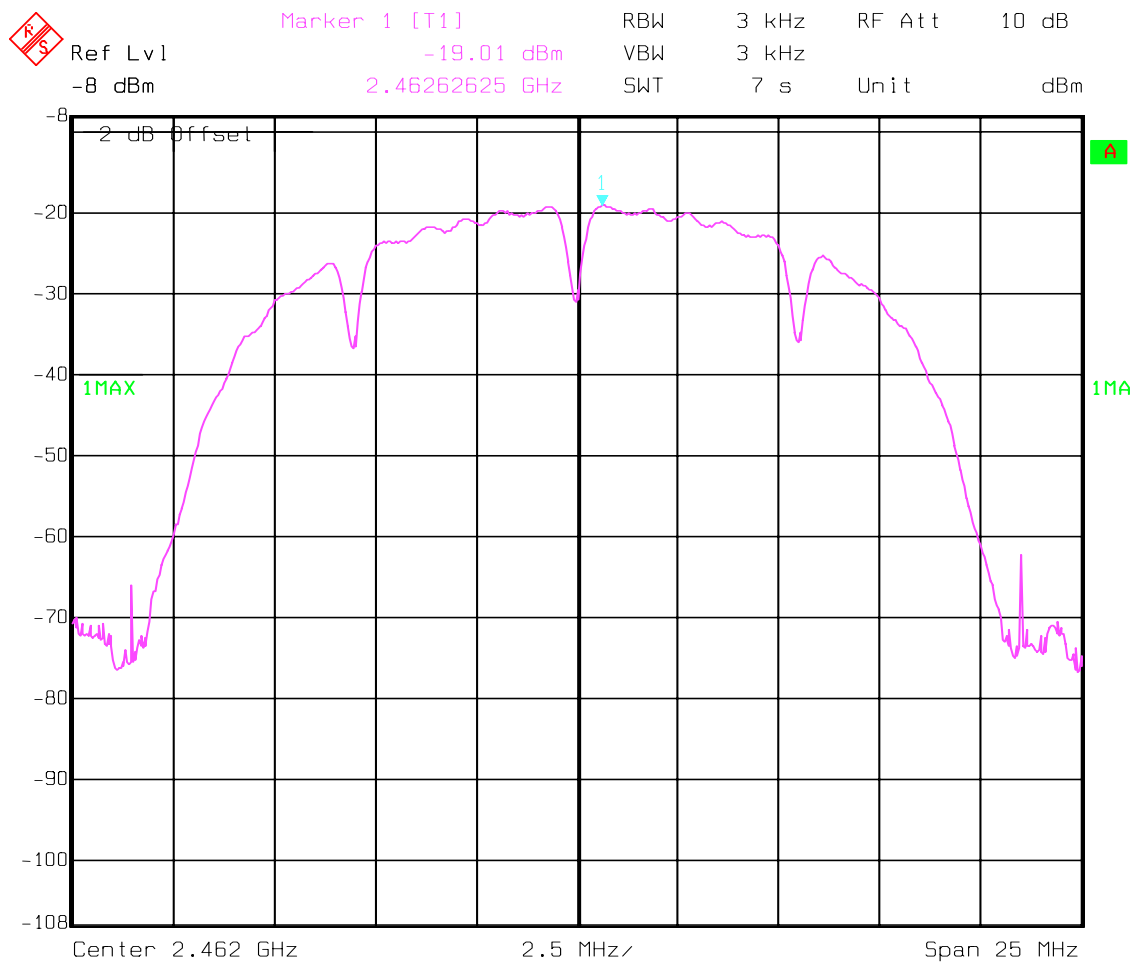


Date: 07.SEP.2002 14:17:08

POWER SPECTRAL DENSITY

§15.247(d)

Highest Channel: 2462MHz



Date: 07.SEP.2002 14:18:12

POWER SPECTRAL DENSITY**RSS-210**

TEST CONDITIONS		POWER SPECTRAL DENSITY (dBm/MHz)		
Frequency (MHz)		2412	2437	2462
T _{nom} (23)°C	V _{nom}	6.96	6.82	6.10

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

LIMIT**RSS-210**

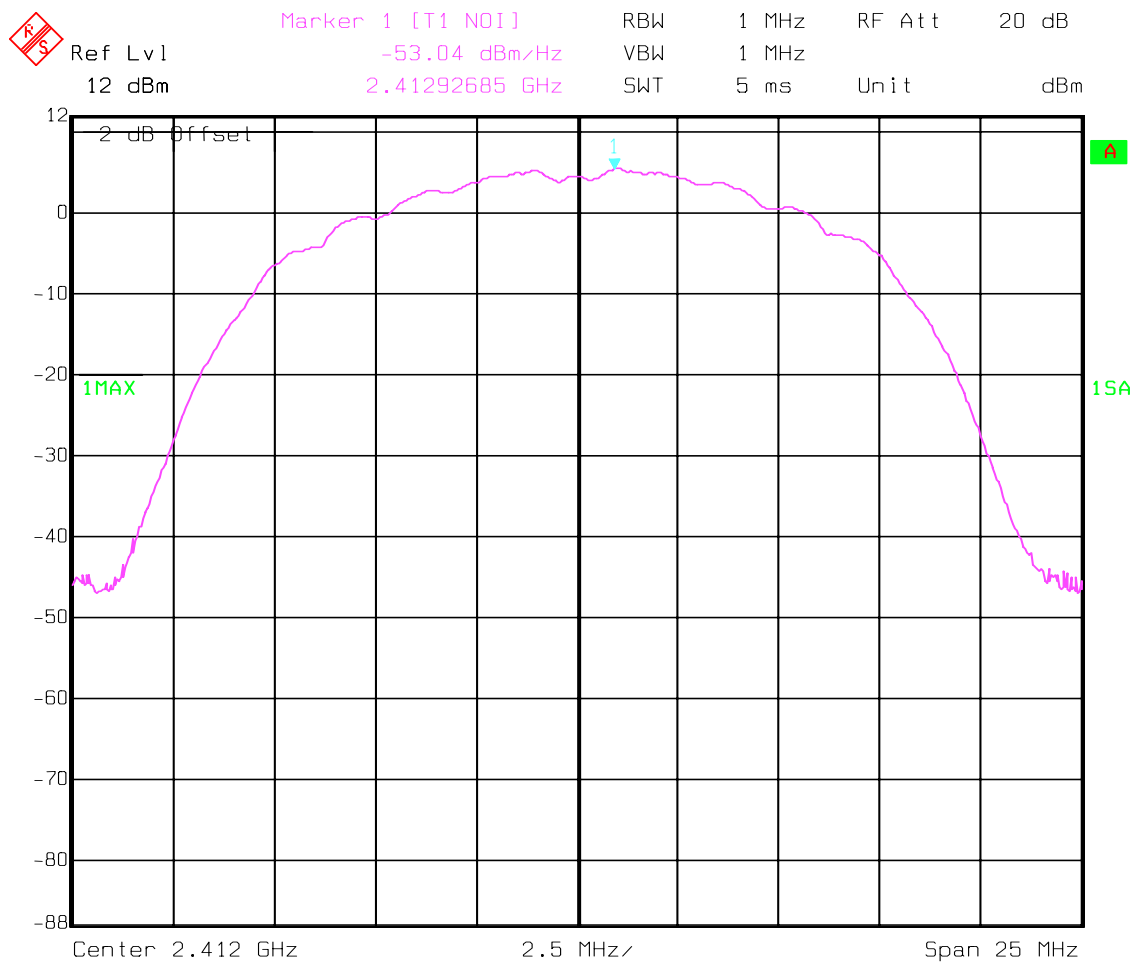
The peak power spectral density shall be $\leq 50\text{mW/MHz}$ (17dBm/MHz)

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

POWER SPECTRAL DENSITY

RSS-210

Lowest Channel: 2412MHz

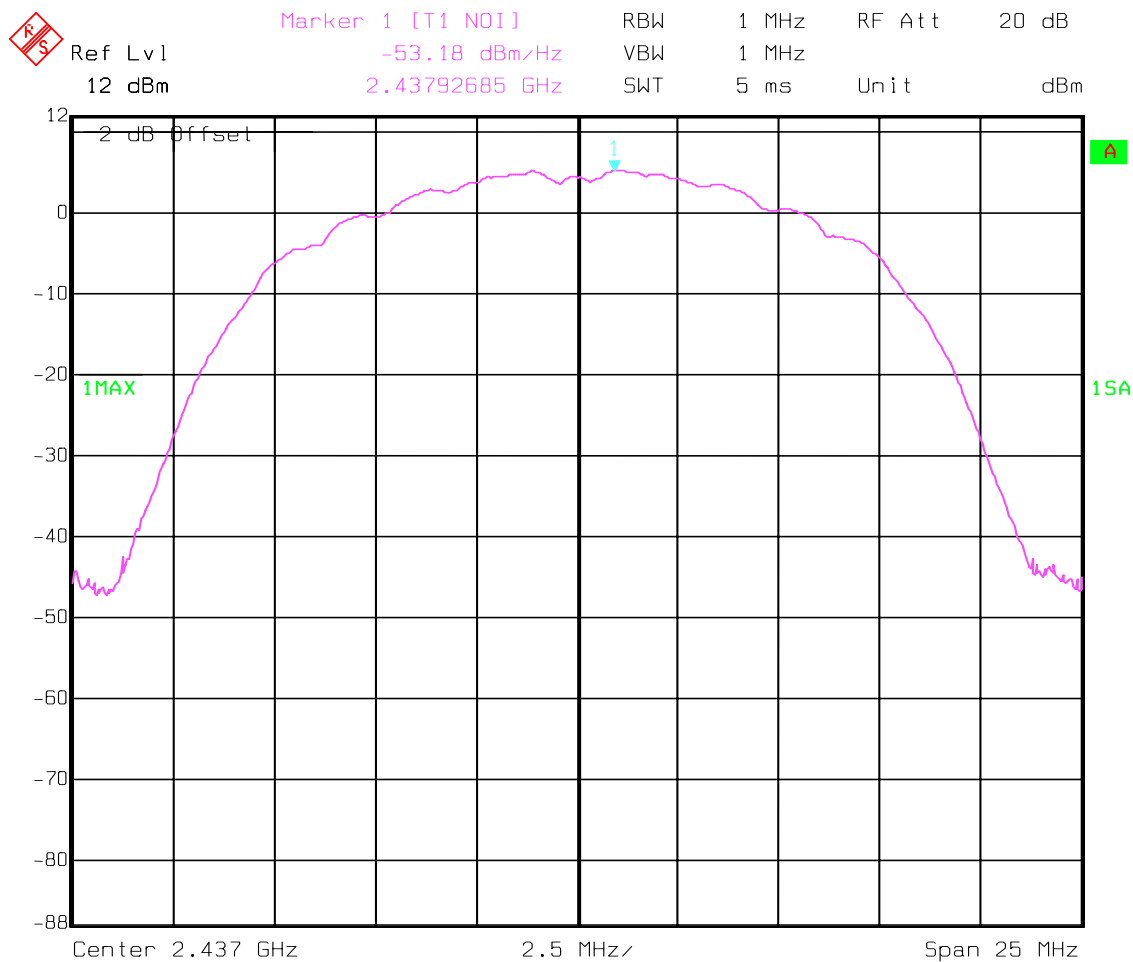


Date: 07.SEP.2002 14:20:16

POWER SPECTRAL DENSITY

RSS-210

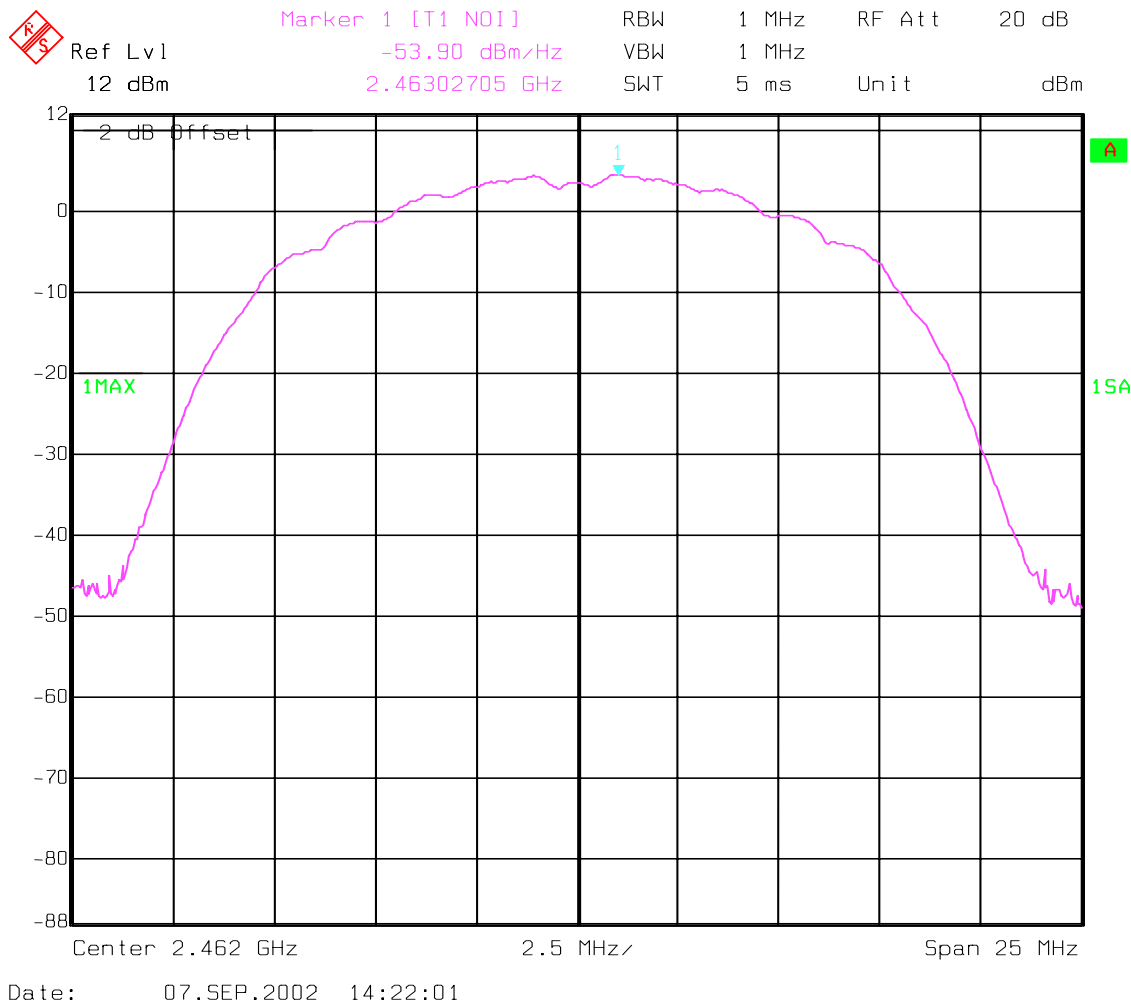
Mid Channel: 2437MHz



Date: 07.SEP.2002 14:21:16

POWER SPECTRAL DENSITY RSS-210

Highest Channel: 2462MHz



BAND EDGE COMPLIANCE

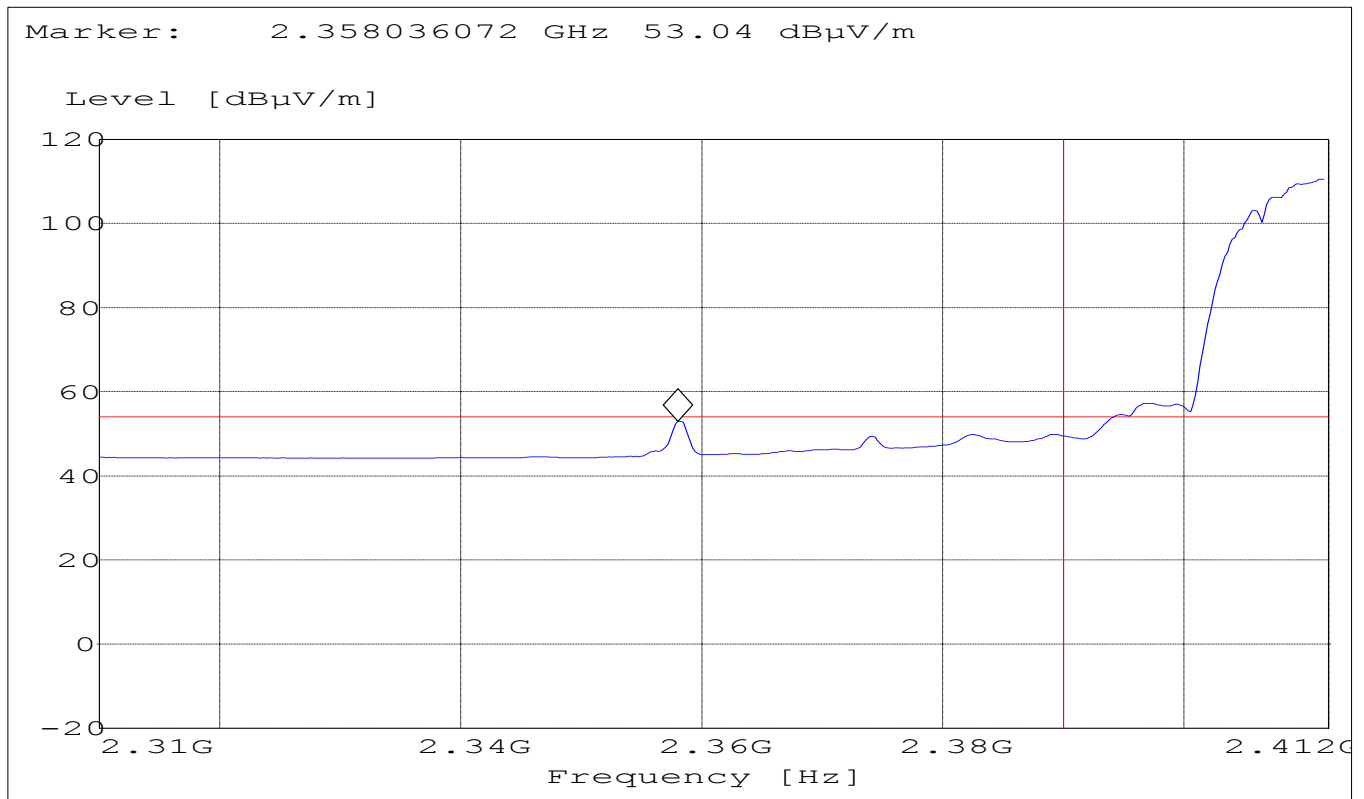
§15.247 (c)

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 : 54dBμV

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

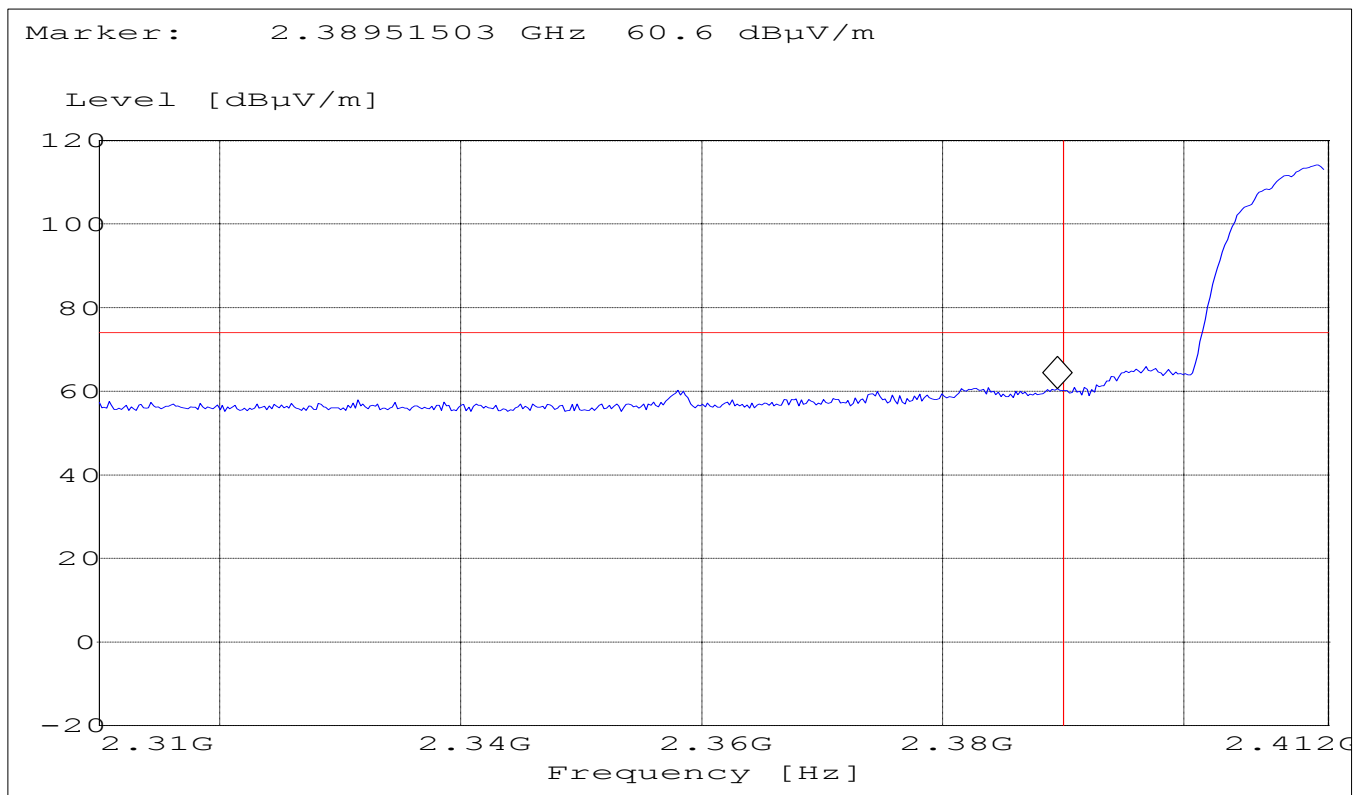
§15.247 (c)

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 μ 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

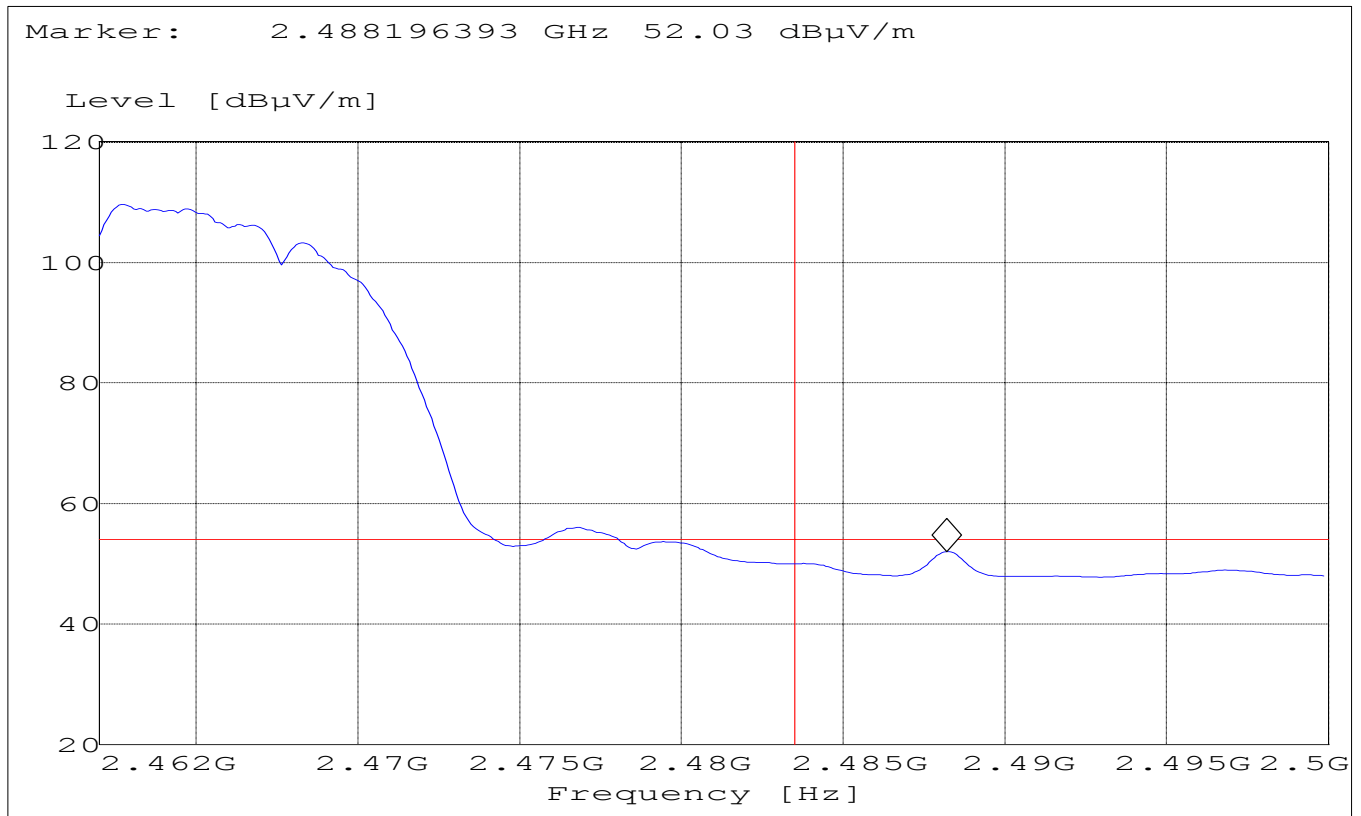
§15.247 (c)

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

(Average measurement)

Operating condition : Tx at 2462MHz
 SWEEP TABLE : "FCC15.247 HBE_AVG"
 Limit Line : 54dBμV

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



BAND EDGE COMPLIANCE

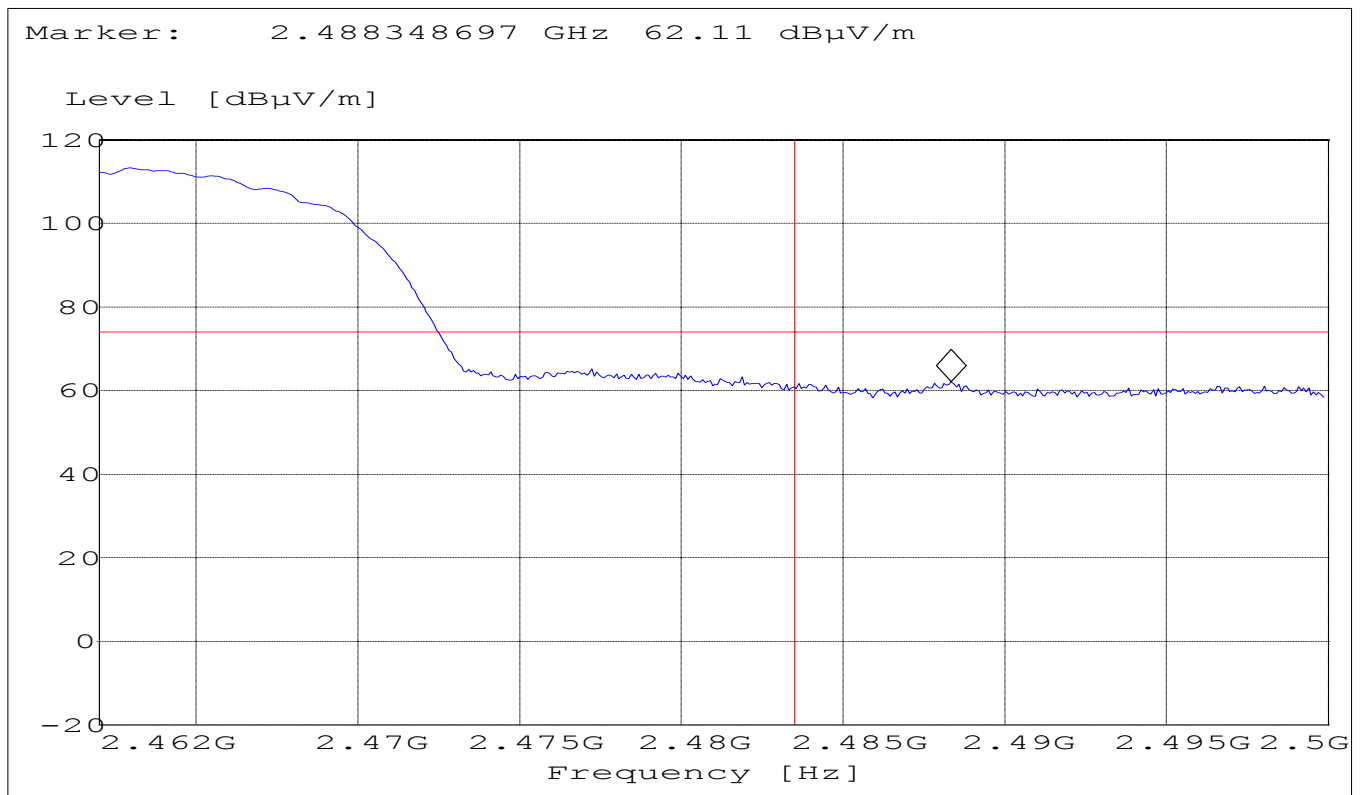
§15.247 (c)

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

(Peak measurement)

Operating condition : Tx at 2462MHz
 SWEEP TABLE : "FCC15.247 HBE_PK"
 Limit Line : 74dB μ 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)



BAND EDGE COMPLIANCE

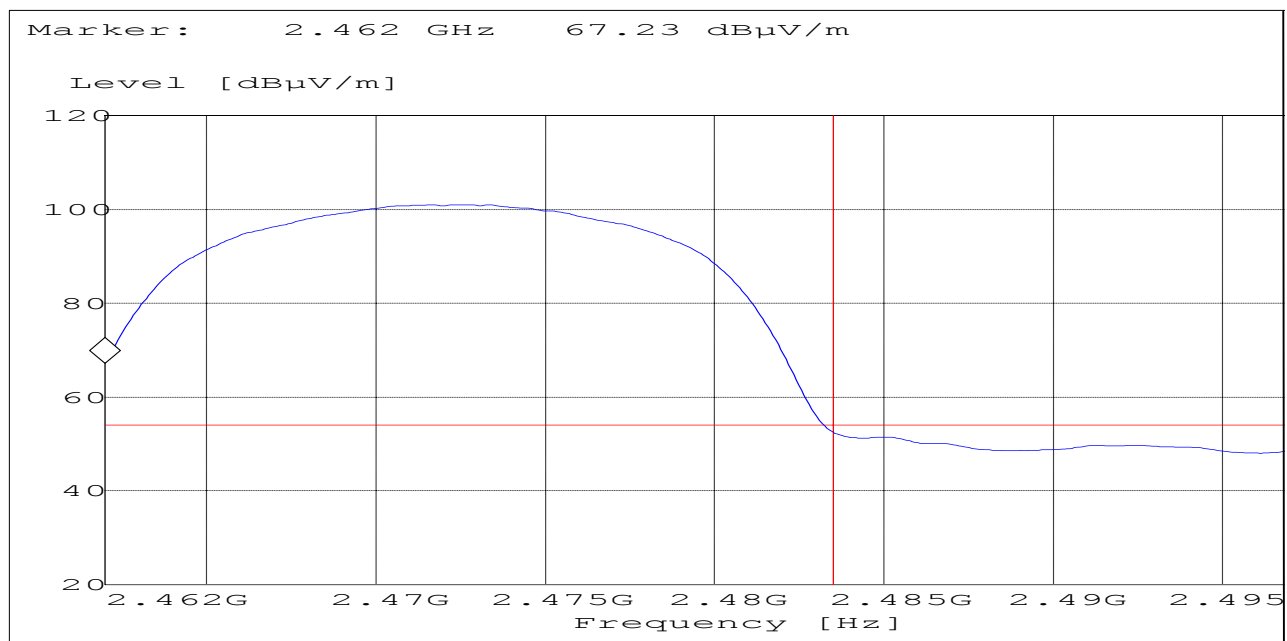
§15.247 (c)

High frequency section (spurious in the restricted band 2483.5 – 2500 MHz)
(Average measurement) Channel 13 with lower power setting PC=80

EUT / Description: WLAN Bridge
Manufacturer: 3COM
Operating mode: TX @2472MHz
Test Engineer: Philip Kim
Test specification: FCC 15.247 DSSS
Notes: PC=80

SWEEP TABLE: "FCC15.247 HBE_AVG"

Short Description:		FCC15.247 BT high-band-edge			
Start	Stop	Detector	Meas. Time	IF Bandw.	Transducer
2.5 GHz	2.5 GHz	MaxPeak	Coupled	1 MHz	#326 horn AF



BAND EDGE COMPLIANCE

§15.247 (c)

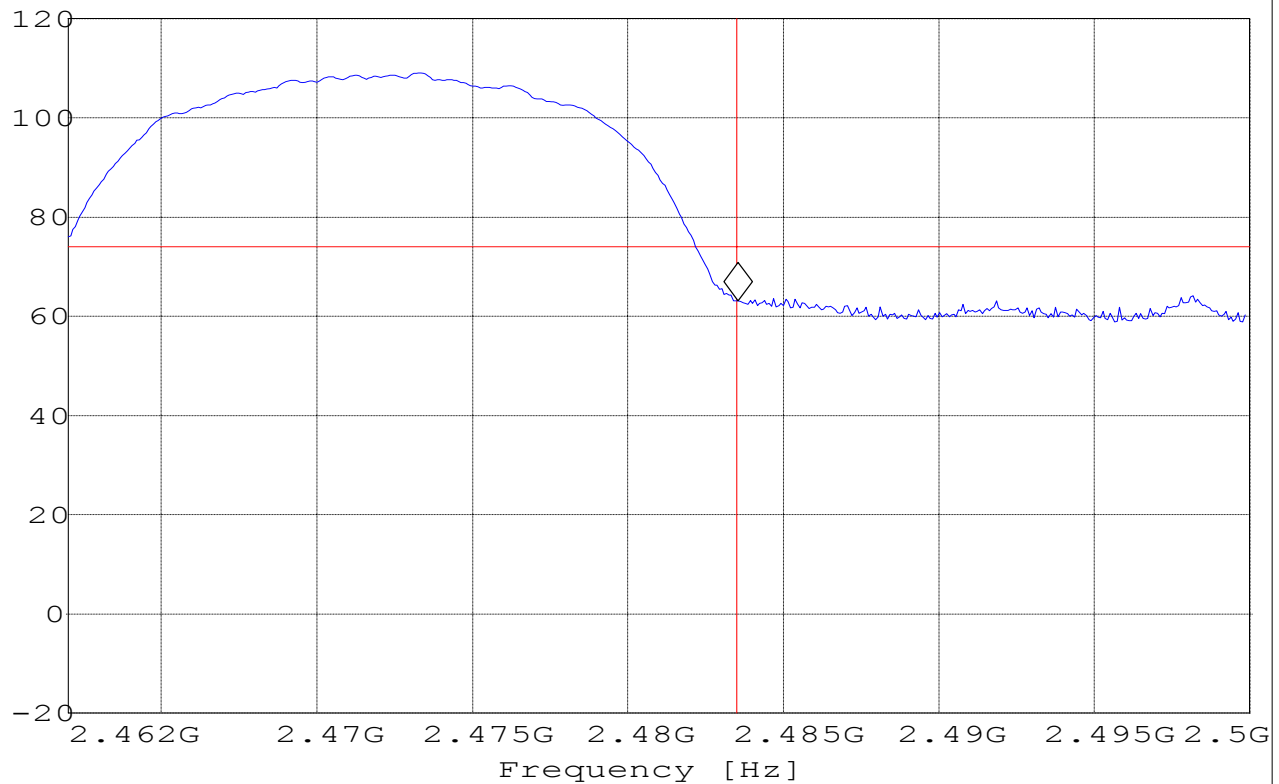
High frequency section (spurious in the restricted band 2483.5 – 2500 MHz)
(Peak measurement) Channel 13 with lower power setting PC=80

SWEEP TABLE: "FCC15.247 HBE_PK"

Short Description:		FCC15.247 BT high-band-edge			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
2.5 GHz	2.5 GHz	MaxPeak	Coupled	1 MHz	#326 horn AF

Marker: 2.483551102 GHz 63.14 dBµV/m

Level [dBµV/m]



EMISSION LIMITATIONS**§ 15.247 (c) (1)****Transmitter (Conducted)****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)).

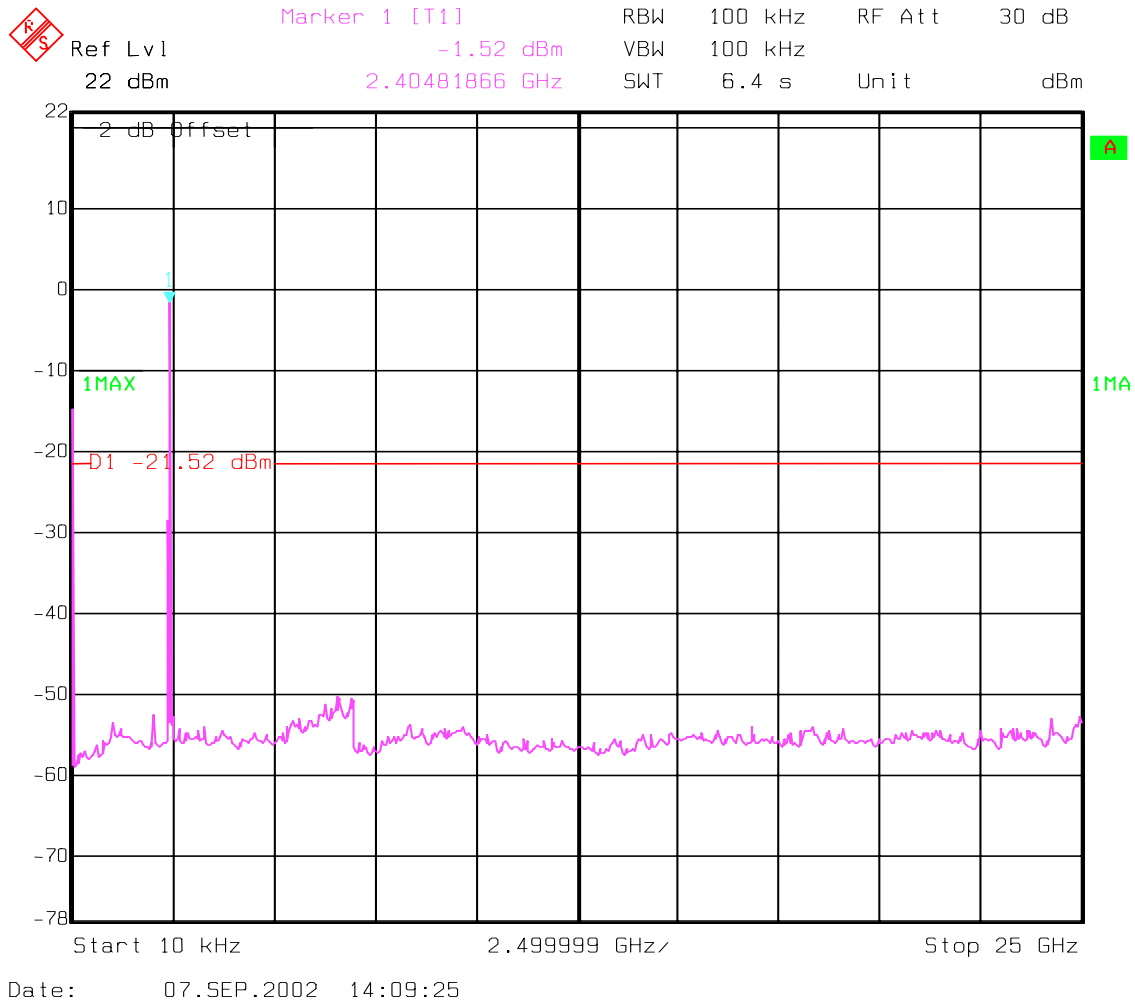
NOTE: Frequency resolution is not fine enough to show the exact frequency of the carrier, refer to plots under EIRP.

EMISSION LIMITATIONS - Conducted (Transmitter)

§ 15.247 (c) (1)

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

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

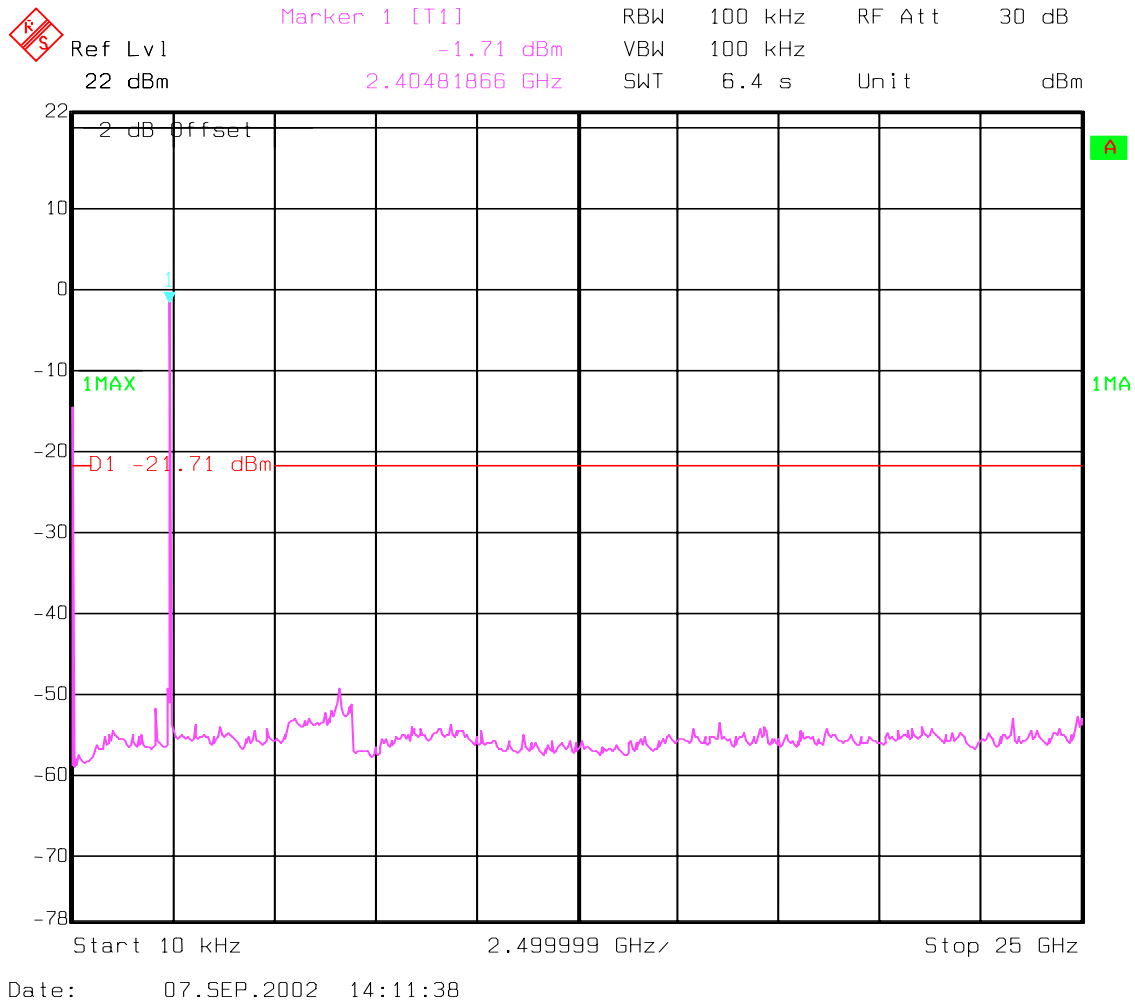


EMISSION LIMITATIONS - Conducted (Transmitter)

§ 15.247 (c) (1)

Mid Channel(2437MHz): 10KHz - 25GHz

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

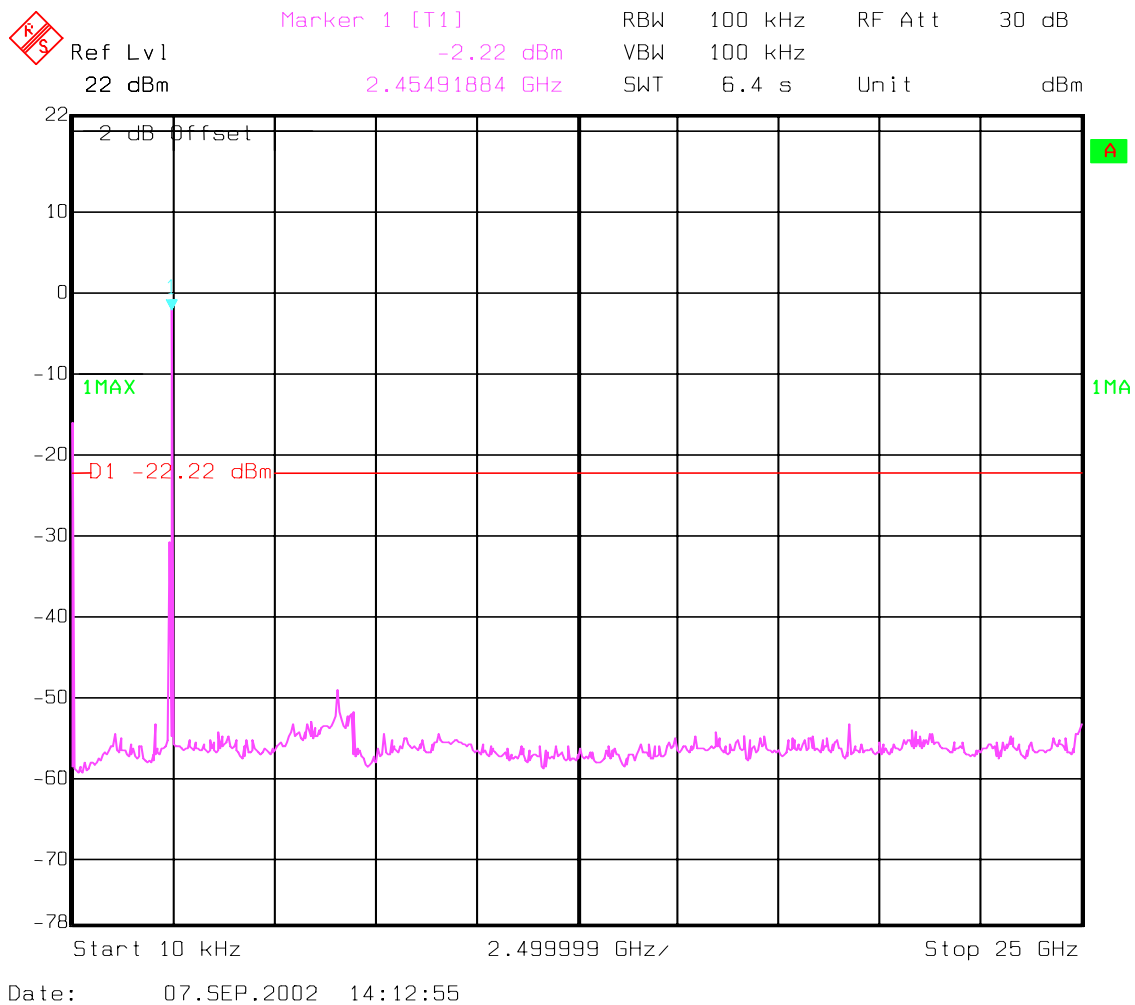


EMISSION LIMITATIONS - Conducted (Transmitter)

§ 15.247 (c) (1)

Highest Channel(2462MHz): 10KHz - 25GHz

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



EMISSION LIMITATIONS**§ 15.247 (c) (1)****Transmitter (Radiated)****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.

Emission below 1GHz were made according ANSI C63.4

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

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

§ 15.247 (c) (1)

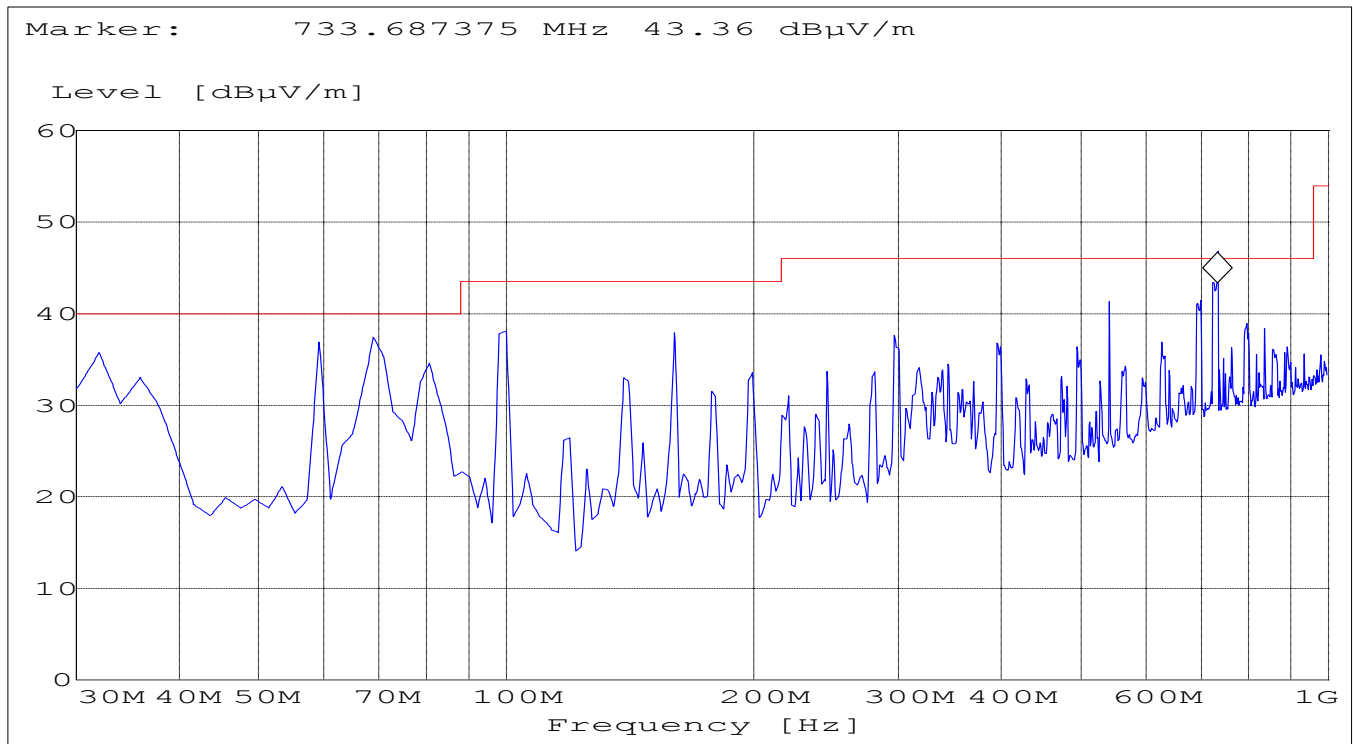
[illegible]

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. Time	RBW	Transducer
Frequency	Frequency			VBW	
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	3141-#1186

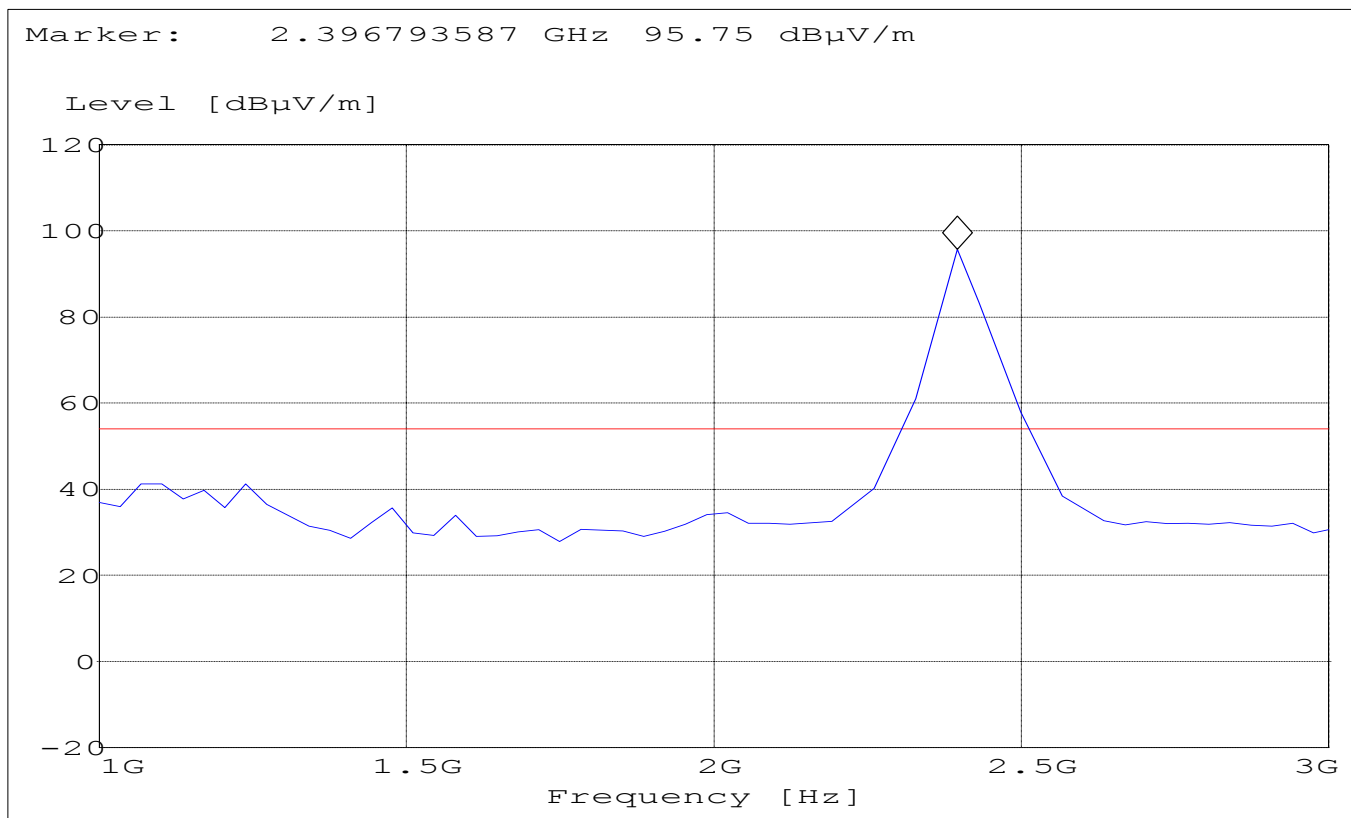


EMISSION LIMITATIONS - Radiated (Transmitter) Lowest Channel(2412MHz): 1GHz – 3GHz

§ 15.247 (c) (1)

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

SWEEP TABLE:		"BT Spuri hi 1-3G"			
Short Description:		FCC 15.247 Spurious1-3 GHz			
Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency	Time	Bandw.	VBW	
1.0 GHz	3.0 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)

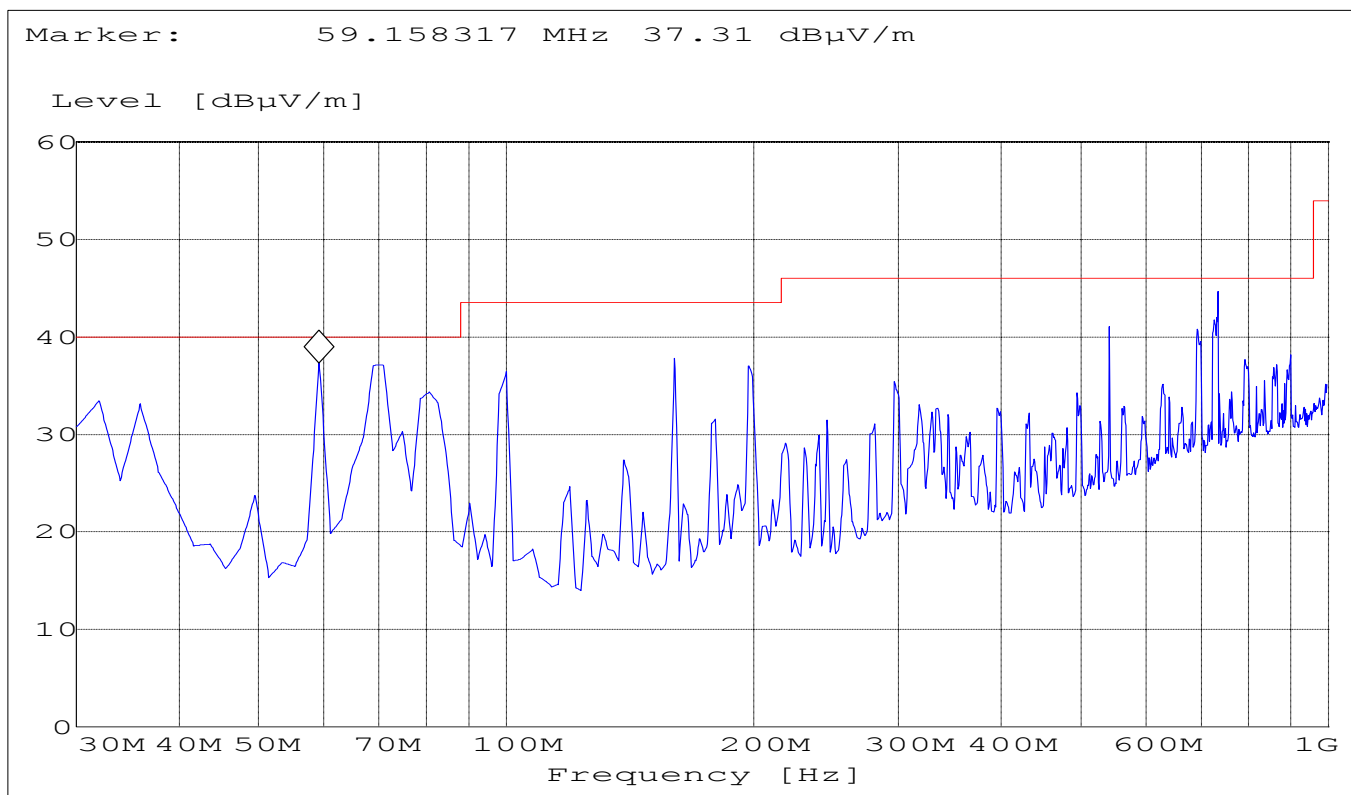


EMISSION LIMITATIONS - Radiated (Transmitter) Middle Channel(2437MHz): 30MHz – 1GHz

§ 15.247 (c) (1)

SWEEP TABLE: "BT Spuri hi 30-1G"
Short Description: Bluetooth 30MHz-1GHz

Start	Stop	Detector	Meas. Time	RBW	Transducer
Frequency	Frequency			VBW	
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	3141-#1186



EMISSION LIMITATIONS - Radiated (Transmitter)

§ 15.247 (c) (1)

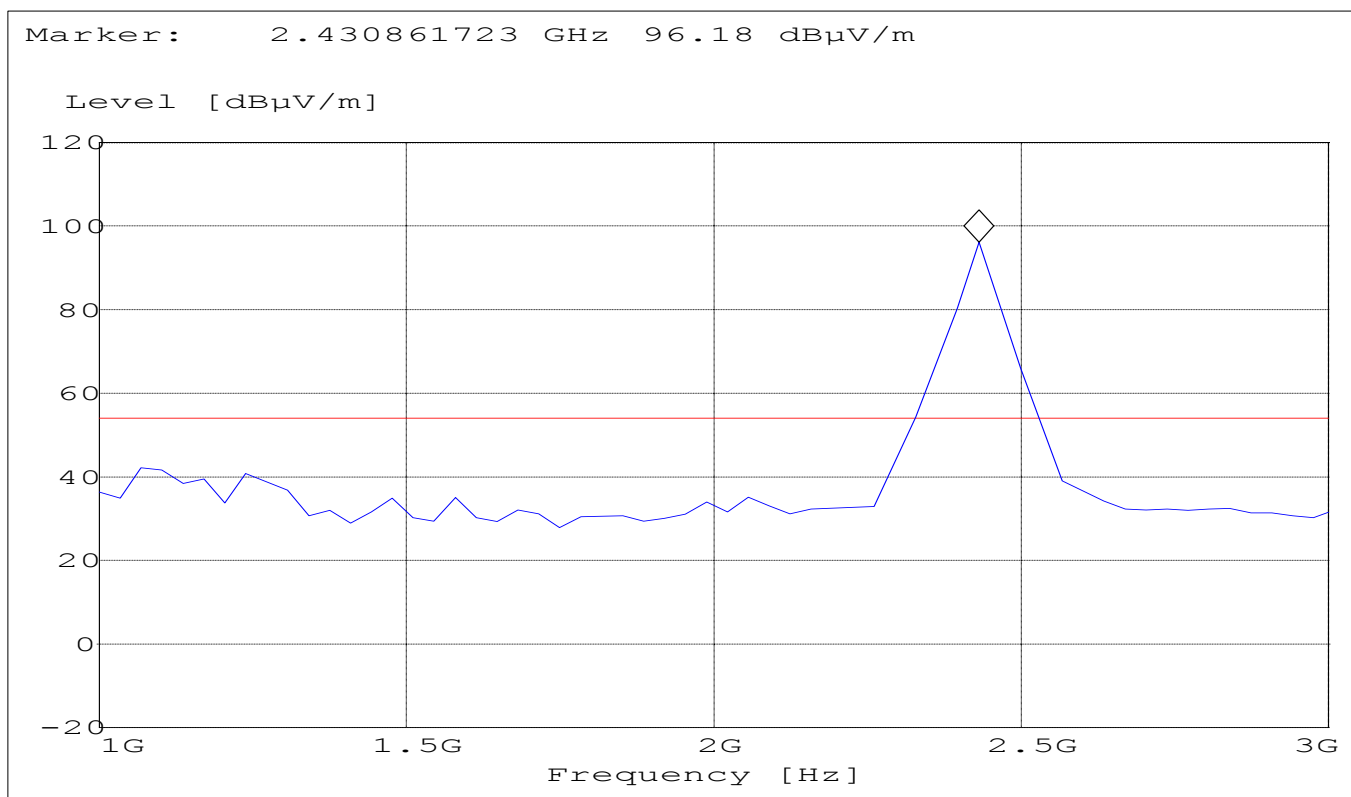
Middle Channel(2432MHz): 1GHz – 3GHz

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

SWEEP TABLE: "BT Spuri hi 1-3G"

Short Description: FCC 15.247 Spurious1-3GHz

Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency	Time	Bandw.	VBW	
1.0 GHz	3.0 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)

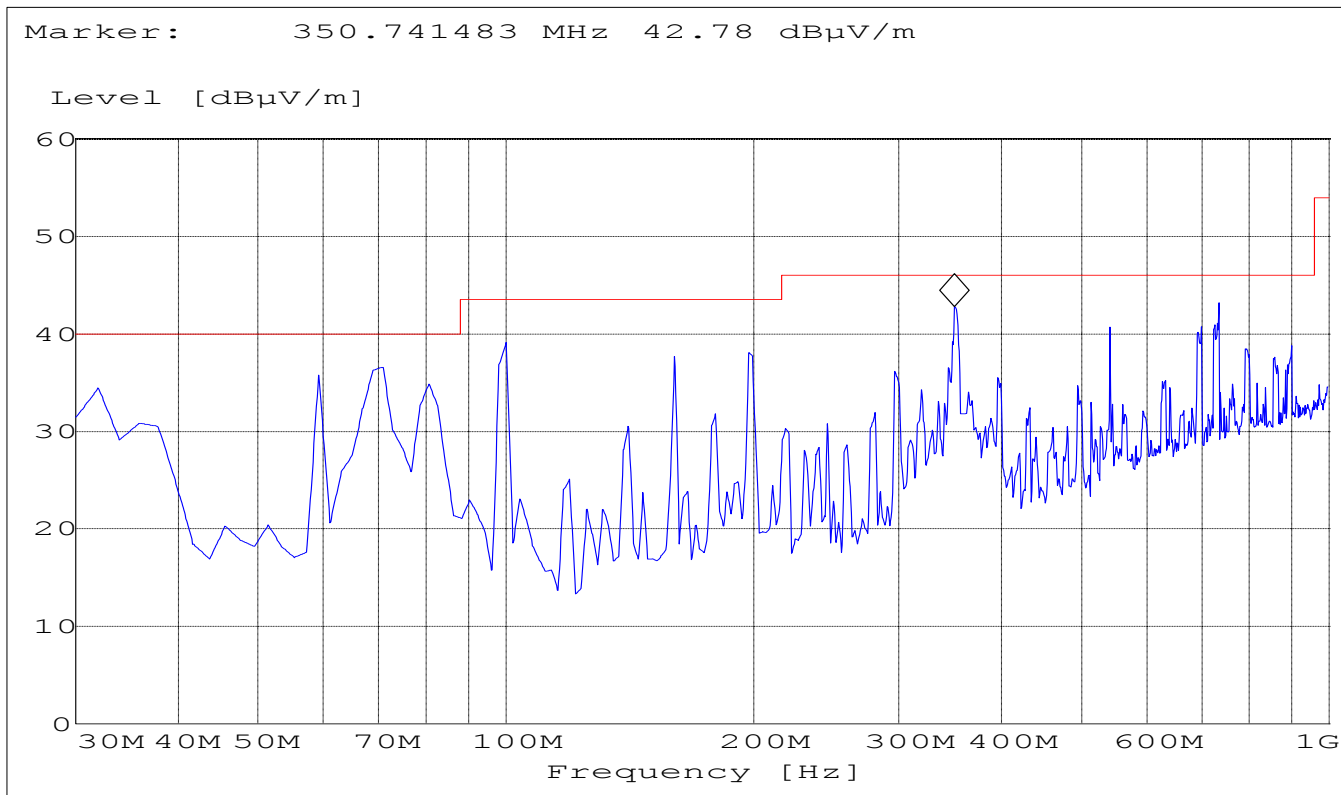


EMISSION LIMITATIONS - Radiated (Transmitter)

§ 15.247 (c) (1)

Highest Channel(2462MHz): 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)

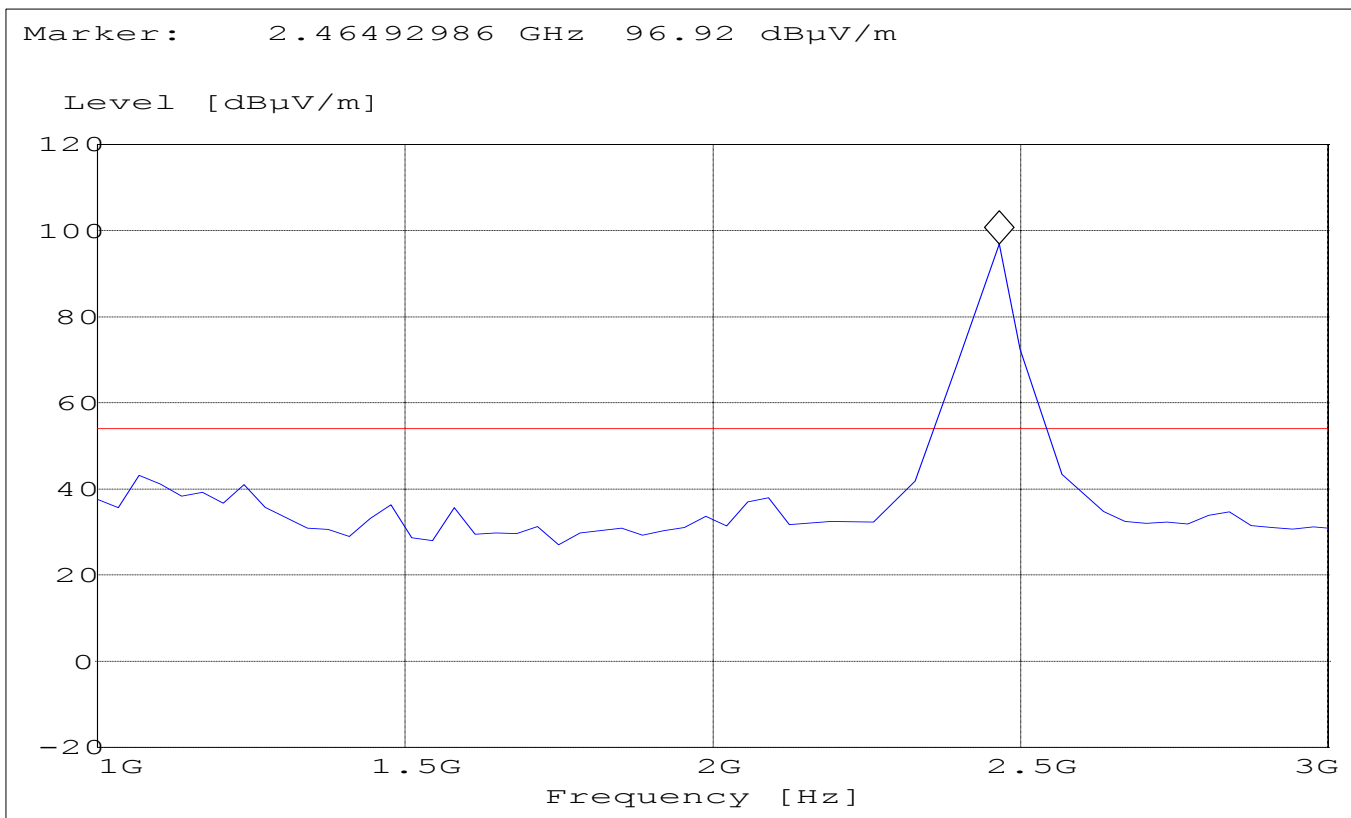
Highest Channel(2462MHz): 1GHz – 3GHz

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

SWEEP TABLE: "BT Spuri hi 1-3G"

Short Description: FCC 15.247 Spurious1-3GHz

Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency	Time	Bandw.	VBW	
1.0 GHz	3.0 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)



EMISSION LIMITATIONS - Radiated (Transmitter)

§ 15.247 (c) (1)

3GHz – 18GHz

(This plot is valid for all three channels)

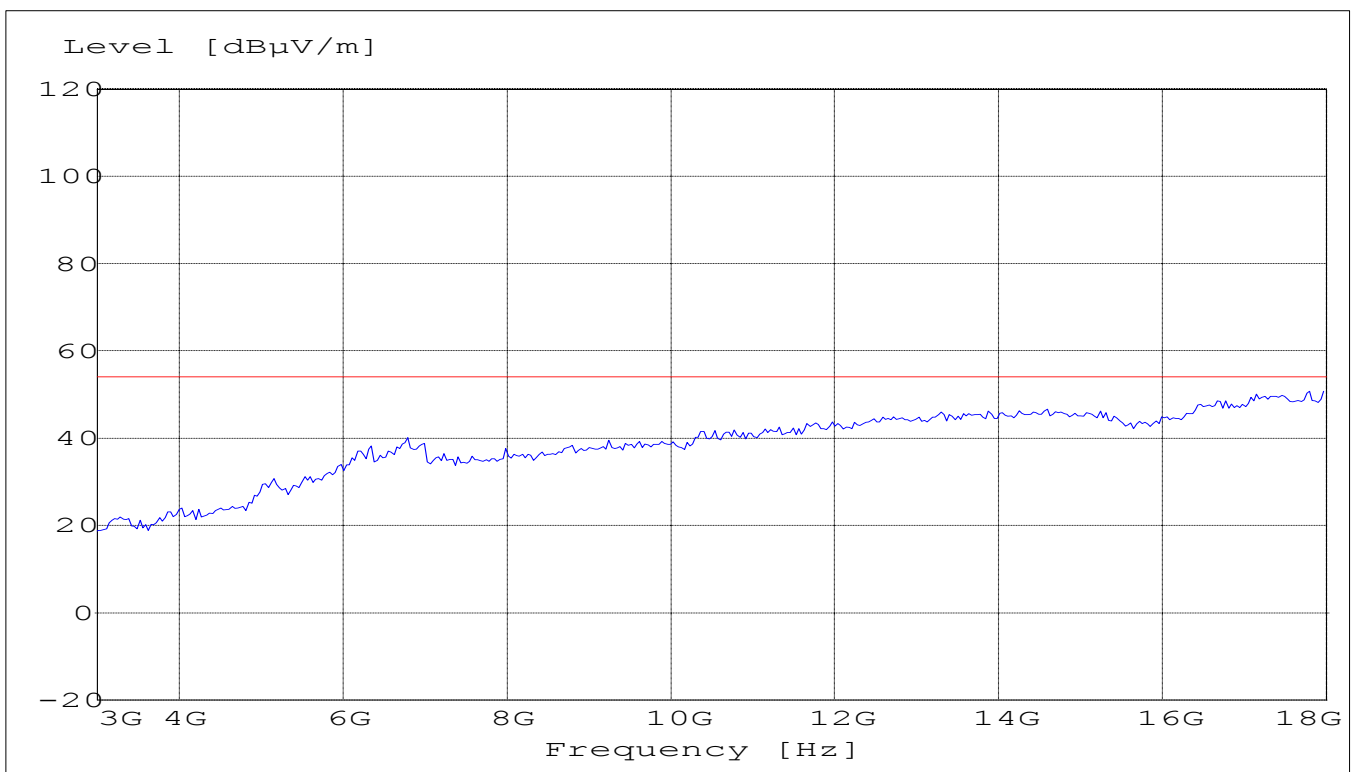
SWEEP TABLE:

"BT Spuri hi 3-18G"

Short Description:

FCC 15.247 Spurious3-18GHz

Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency	Time	Bandw.	VBW	
3.0 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)

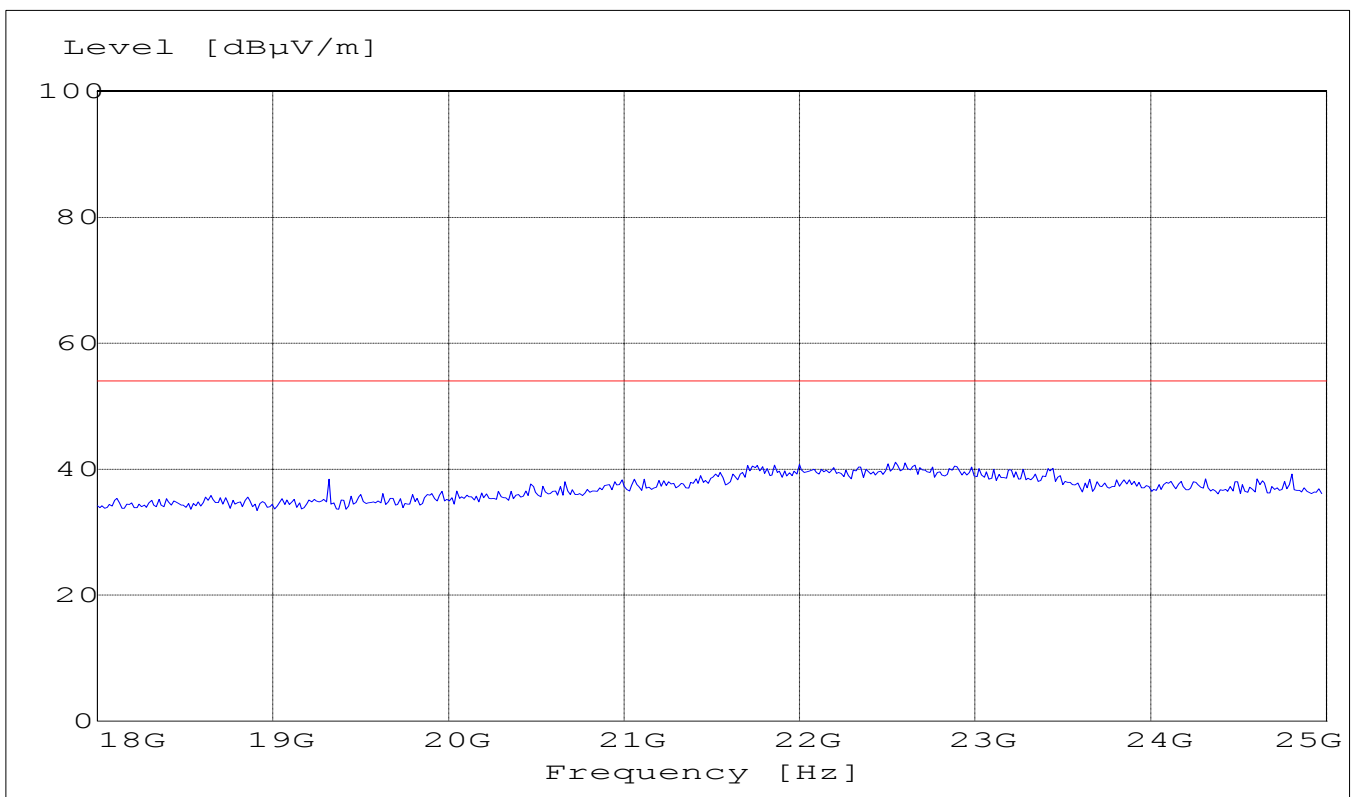
SWEEP TABLE:

"BT Spuri hi 18-25G"

Short Description:

FCC 15.247 Spurious18-25GHz

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

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 August 20, 2002)

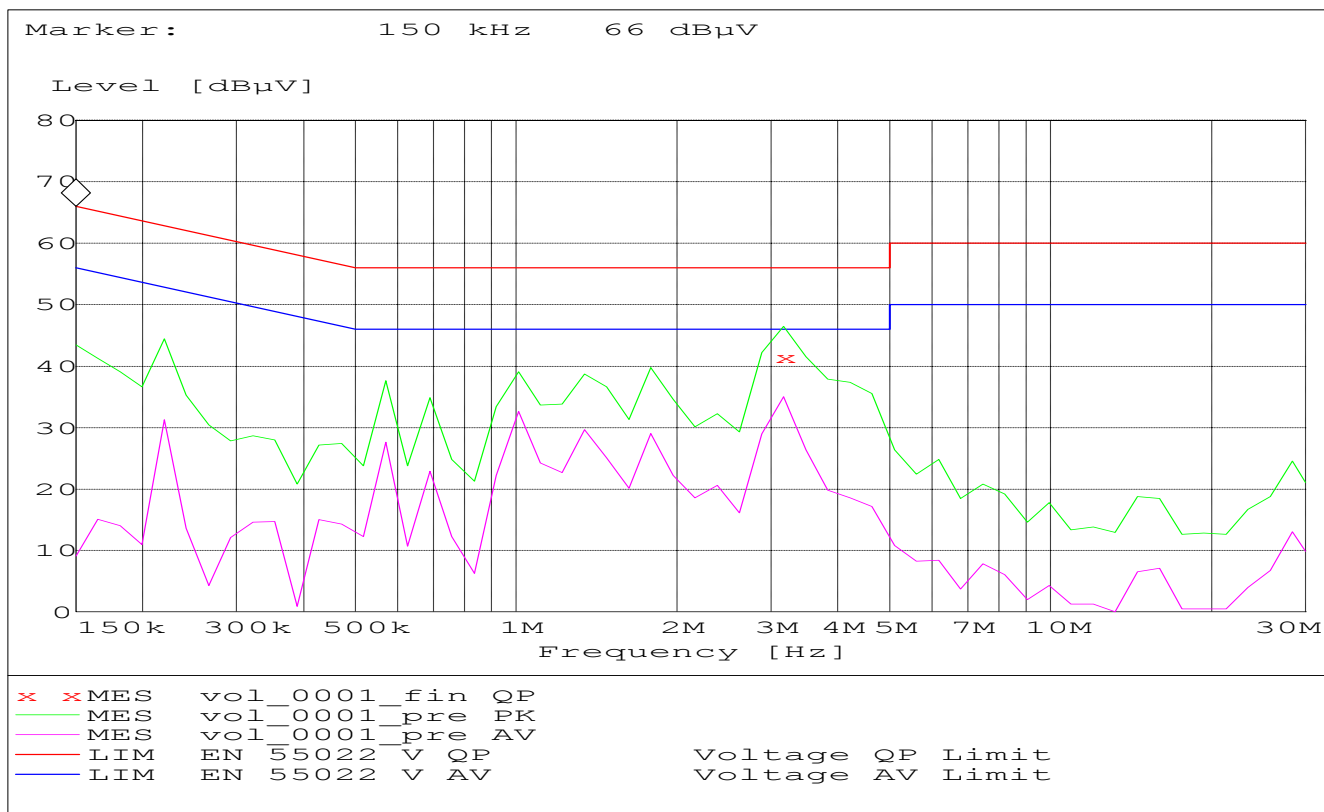
Limit

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	Quasi-Peak	Average
0.15 – 0.5	66 to 56*	56 to 46*
0.5 – 5	56	46
5 – 30	60	50

* Decreases with logarithm of the frequency

ANALYZER SETTINGS: RBW = 10KHz

VBW = 10KHz



MEASUREMENT RESULT: "vol_0001_fin QP"

9/7/02 1:13PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
3.167066	41.40	0.0	56	14.6	2	---

RECEIVER SPURIOUS RADIATION**§ 15.209****Limits**

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:

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

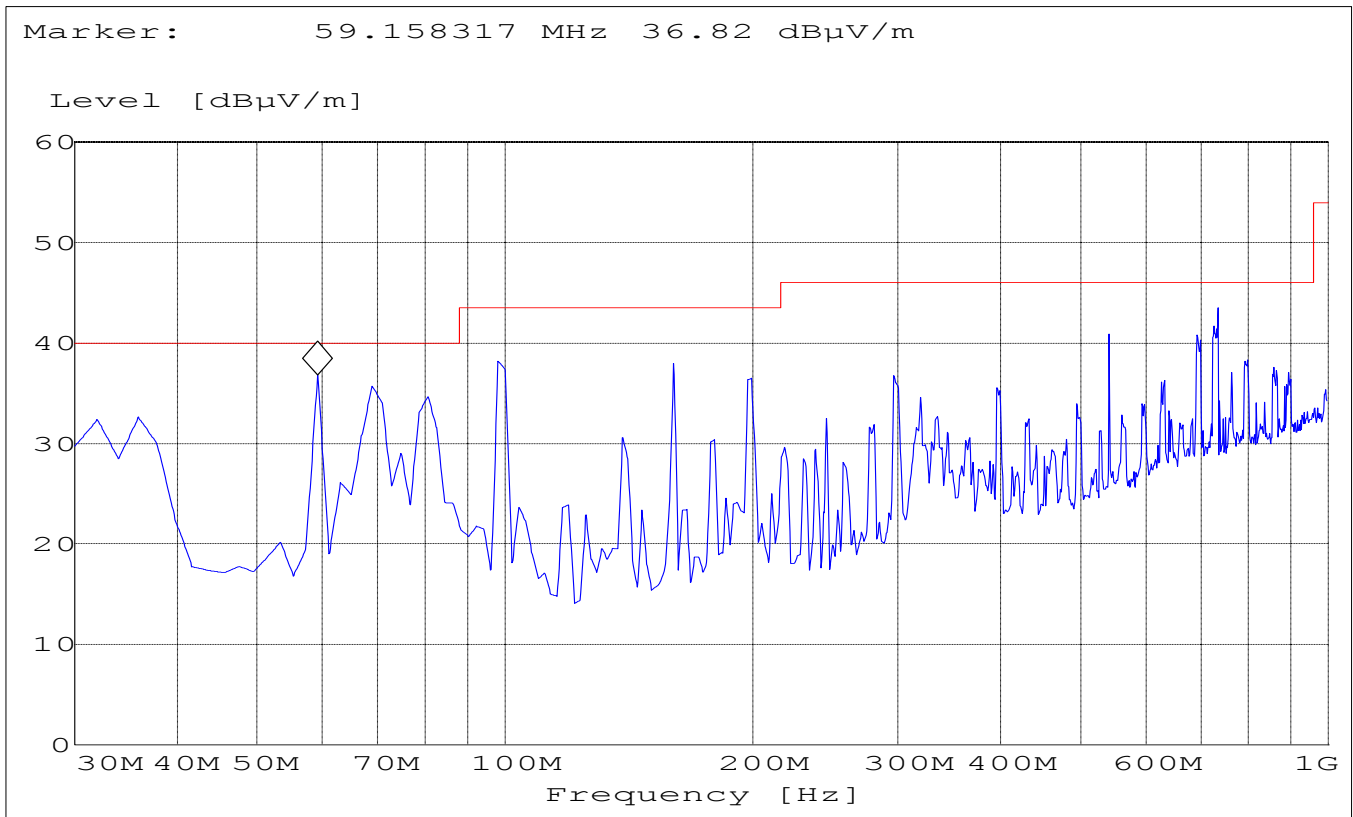
30.0 MHz 1.0 GHz

MaxPeak

Coupled

100 kHz

3141-#1186



RECEIVER SPURIOUS RADIATION

§ 15.209

1GHz – 3GHz

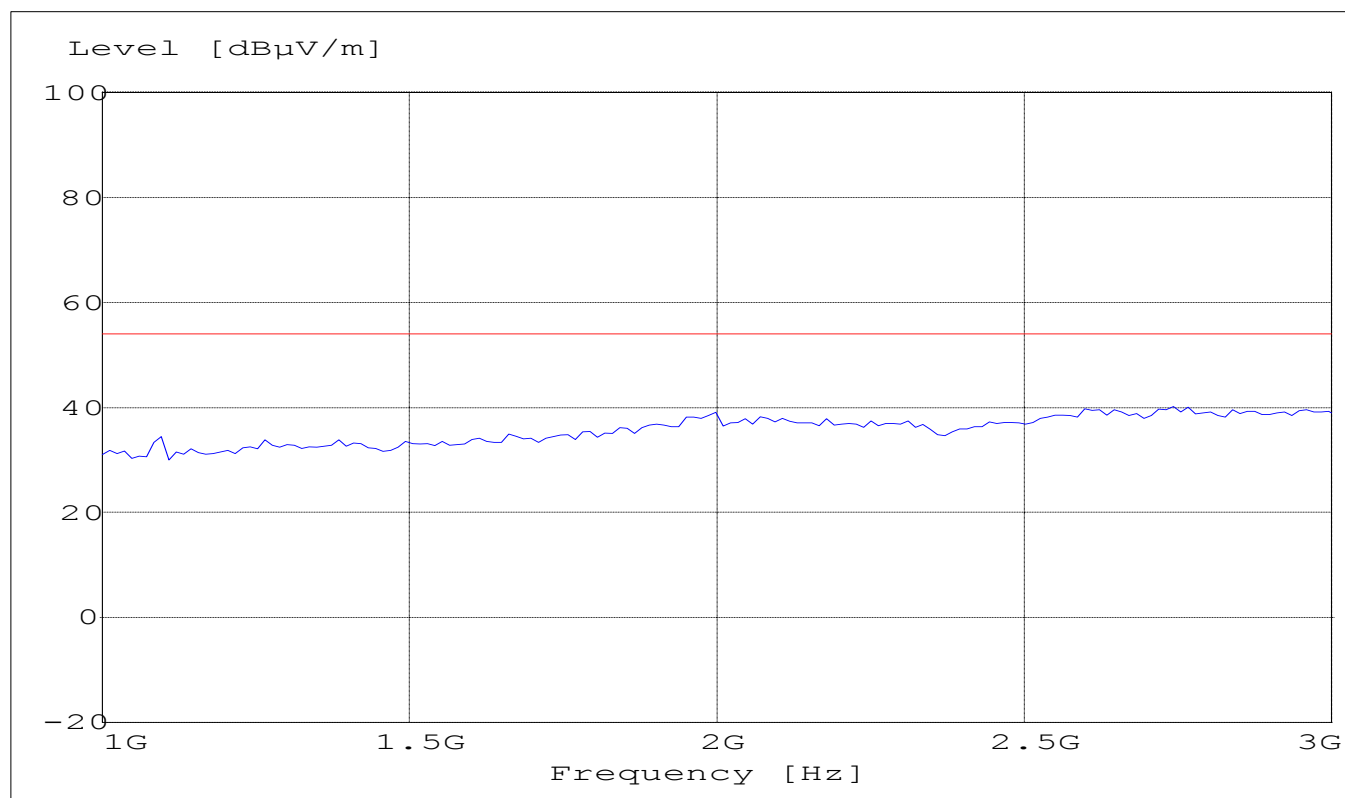
SWEEP TABLE:

"BT Spuri hi 1-3G"

Short Description:

FCC 15.247 Spurious1-3GHz

Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency	Time	Bandw.	VBW	
1.0 GHz	3.0 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)



RECEIVER SPURIOUS RADIATION

§ 15.209

3GHz – 18GHz

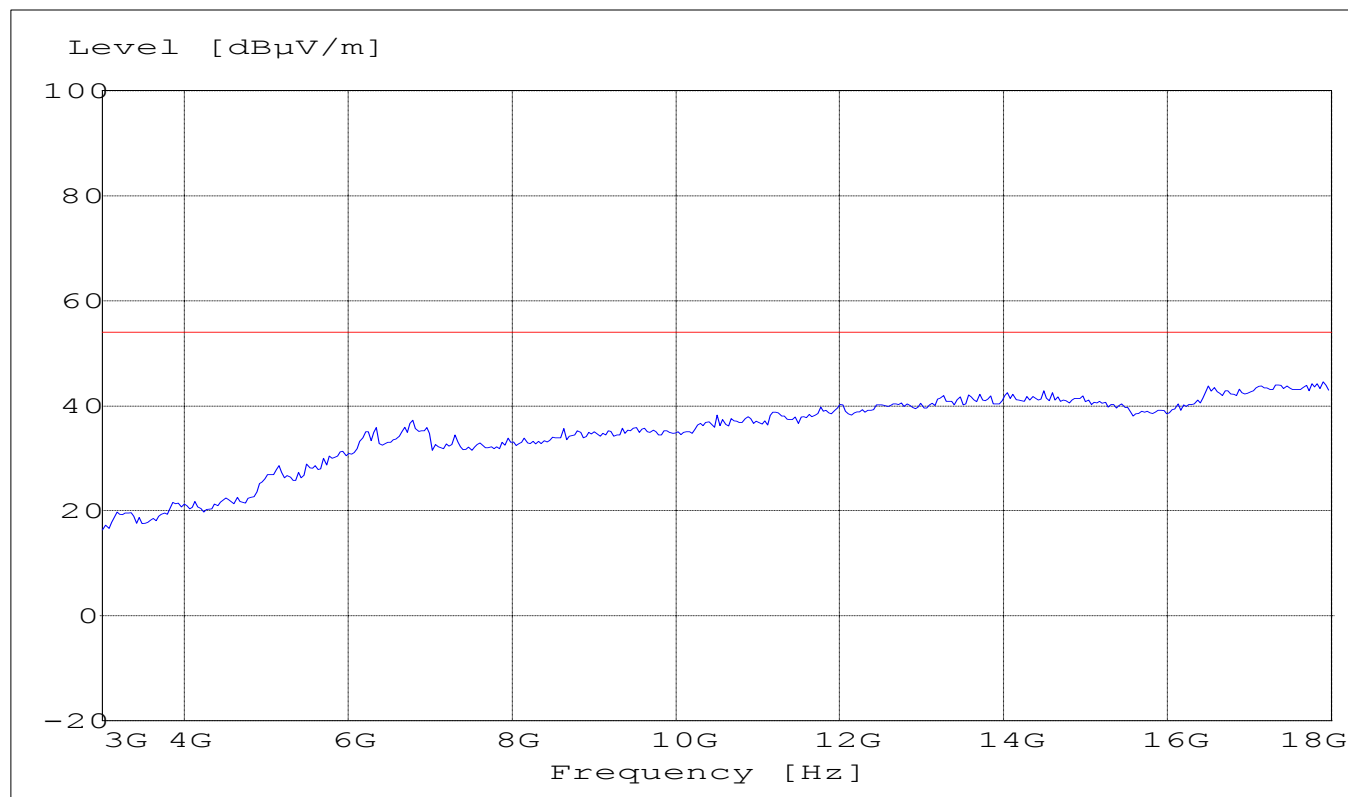
SWEEP TABLE:

"BT Spuri hi 3-18G"

Short Description:

FCC 15.247 Spurious3-18GHz

Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency	Time	Bandw.	VBW	
3.0 GHz	18 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)



RECEIVER SPURIOUS RADIATION

§ 15.209

18GHz – 25GHz

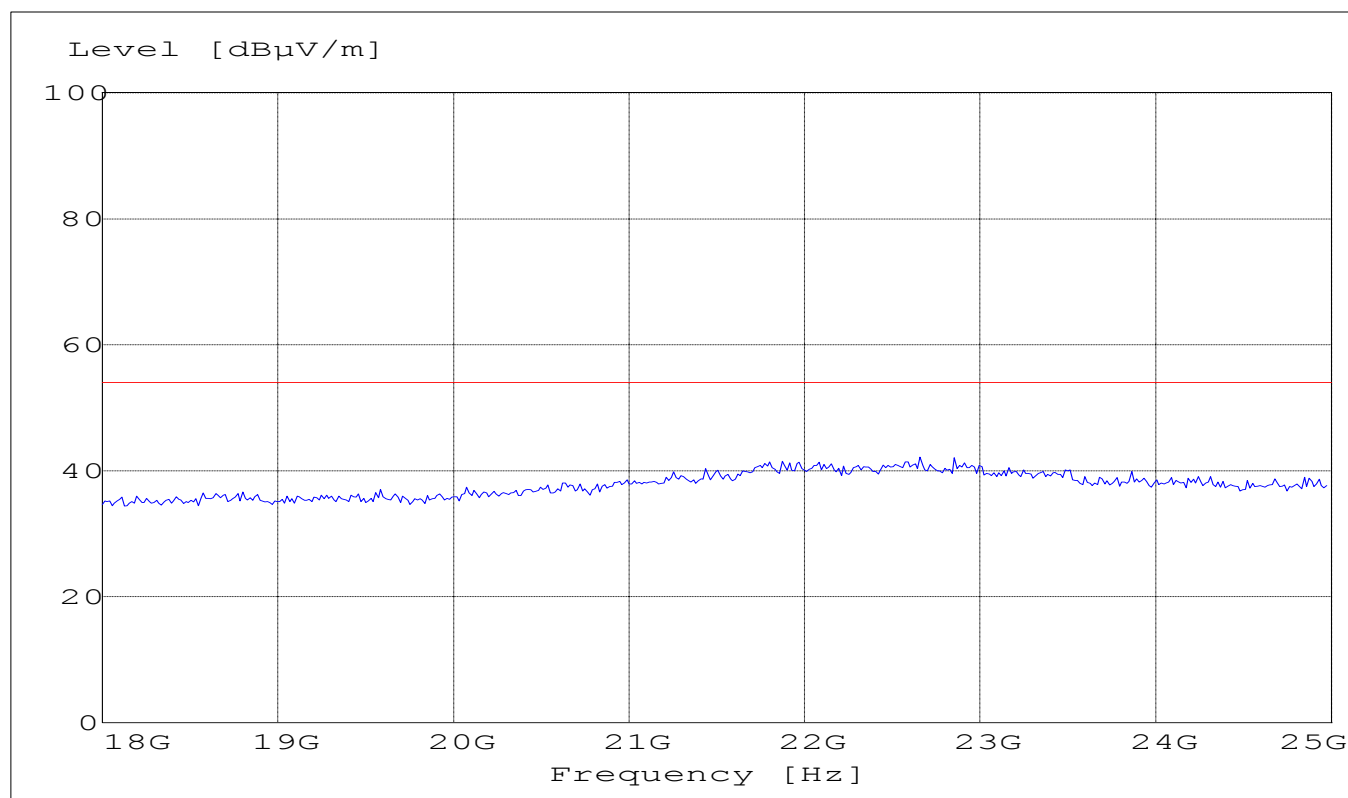
SWEEP TABLE:

"BT Spuri hi 18-25G"

Short Description:

FCC 15.247 Spurious18-25GHz

Start	Stop	Detector	Meas.	RBW	Transducer
Frequency	Frequency	Time	Bandw.	VBW	
18 GHz	25 GHz	MaxPeak	Coupled	1 MHz	#141 horn (dBi)

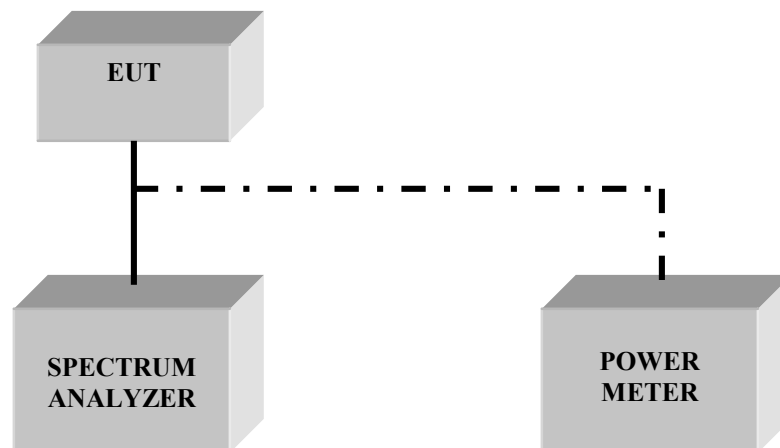


TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

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

BLOCK DIAGRAMS

Conducted Testing



Radiated Testing

ANECHOIC CHAMBER

