#### **CETECOM Inc.**

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www.cetecom.com



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\_331\_FCC15.247\_2002 FCC Part 15.247 for DSSS systems / CANADA RSS-210 (WL-306B)



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- 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.** 

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E-mail: lothar.schmidt@cetecomusa.com

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#### 1.3 Details of applicant

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Street : 5400 Bayfront Plaza
City / Zip Code : Santa Clara, CA 95052

Country : USA

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 :
 Collin Smith

 Telephone
 :
 +1 408 326 5274

 Tele-fax
 :
 +1 408 326 5854

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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.

2002-10-14 EMC & Radio

**Section** 

Date



**Signature** 

CETE	COM Inc.				THE PARTY OF THE P	Military a specie
Test report r	10.:EMC_331_FCC15.24	7_2002	Issue date:2002-	10-14	Page 4 (59)	
2	Technical test					
2.1	Summary of test res	ults				
No dev	viations from the techn	ical spe	ecification(s) were Performed	e ascertained	in the course of the	tests
(only "pass	Final Verdic sed" if all single measu		ts are "passed")		Passed	
13 with PC The device during testi The High b compliance • 11 c	tests were done for charles and elements will limit the output properties (PC=80). (see page and edge measurements for both combination channel with high powerhannel with lower powers.)	ower for 20).  ats were ser (See	or the channels 12 done with the di	2 and 13 according to the power (2)	rding the values eva	luted
Technical	responsibility for are	a of te	sting:		1.	
2002-11-21	EMC & Radio		Lothar Schmidt echnical Manage		lelumi e	h
Date	Section		Name		Signature	
Responsib	le for test report and	projec	t leader:		1 M	

**Harpreet Sidhu (EMC Engineer)** 

Name



Test report no.:EMC\_331\_FCC15.247\_2002 Issue date:2002-10-14 Page 5 (59)

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	7
SPECTRUM BANDWIDTH OF DSSS SYSTEM	§15.247(a) (2)	8
MAXIMUM PEAK OUTPUT POWER	§ 15.247 (b) (1)	12
POWER SPECTRAL DENSITY	§15.247 (d)	22
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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 6 dB bandwidth

§15.247(a) (2)

TEST CON	NDITIONS	6 dB BANDWIDTH (MHz)			
Frequenc	Trequency (MHz)         2412         2437         24		2462	2472	
T <sub>nom</sub> (23)°C	$\mathbf{V}_{nom}$	10.07	10.07	10.07	9.699

LIMIT

**SUBCLAUSE §15.247(a) (2)** 

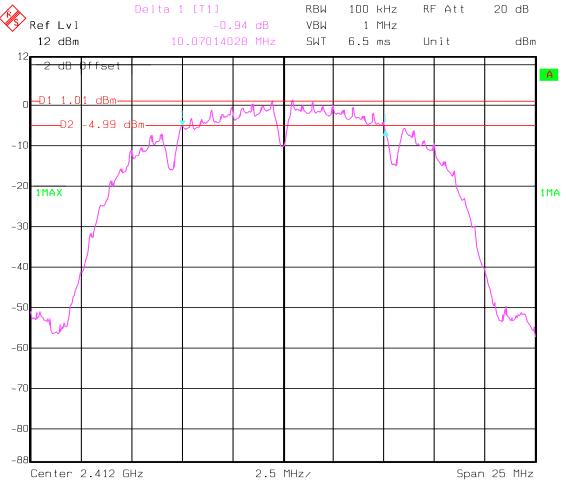
The minimum 6dB bandwith shall shall be at least 500 KHz



# SPECTRUM BANDWIDTH OF DSSS SYSTEM 6 dB bandwidth

§15.247(a) (2)

**Lowest Channel: 2412MHz** 



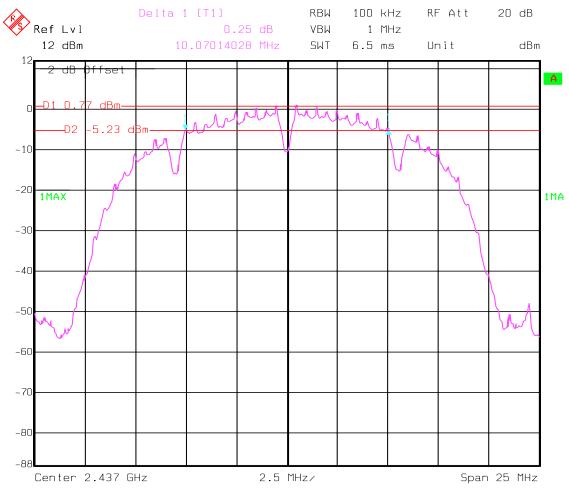
Date: 07.SEP.2002 13:49:43



# SPECTRUM BANDWIDTH OF DSSSS SYSTEM 6 dB bandwidth

§15.247(a) (2)

Mid Channel: 2437MHz



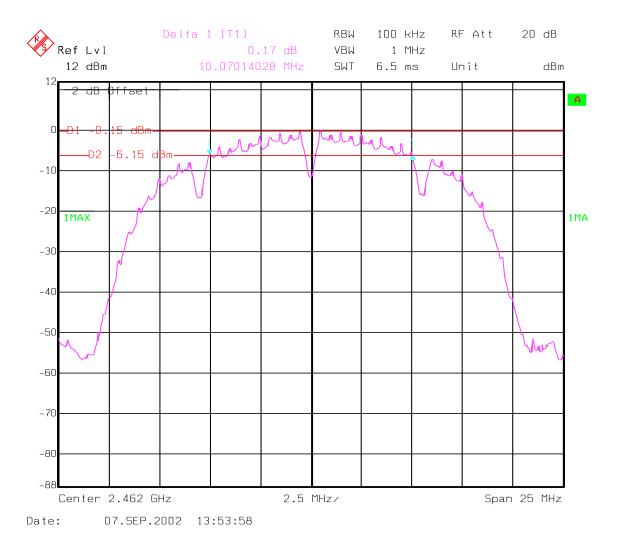
Date: 07.SEP.2002 13:51:52



# SPECTRUM BANDWIDTH OF DSSS SYSTEM 6 dB bandwidth

§15.247(a) (2)

**Highest Channel: 2462MHz** 

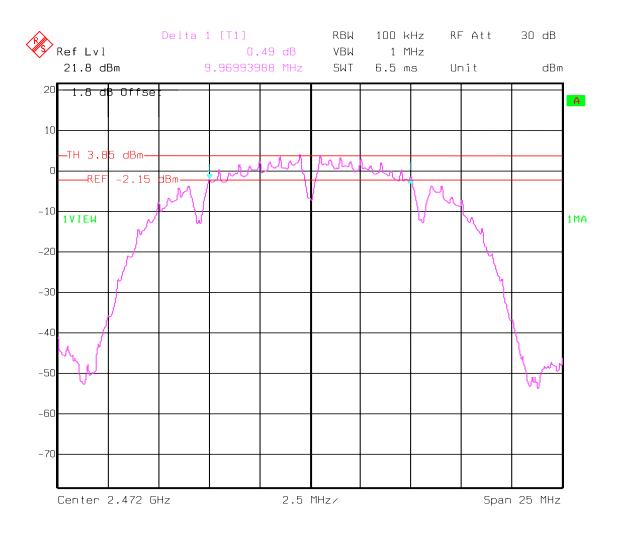




### SPECTRUM BANDWITH OF DSSS-SYSTEM

**SUBCLAUSE § 15.247 (a)(2)** 

**High Channel: 2472 MHz** 



LIMIT

**SUBCLAUSE §15.247(a) (2)** 

The minimum 6dB bandwith shall 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 2		2472	
T <sub>nom</sub> (23)°C	$\mathbf{V}_{nom}$	Pk	16.82	16.48	15.48	6.17*)
Measurement uncertainity				±0.5d	Bm	

RBW / VBW : 10MHz
\*) No plot provided.

### LIMIT

**SUBCLAUSE § 15.247 (b) (1)** 

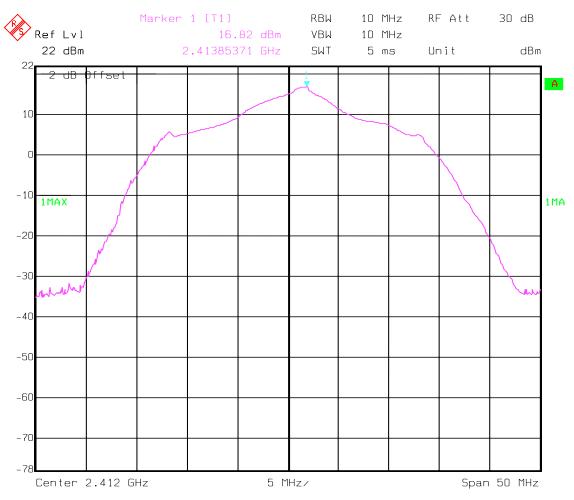
Frequency range	RF power output
2400-2483.5 MHz	1.0 Watt / 30dBm



### PEAK OUTPUT POWER (CONDUCTED)

§15.247 (b) (1)

**Lowest Channel: 2412MHz** 



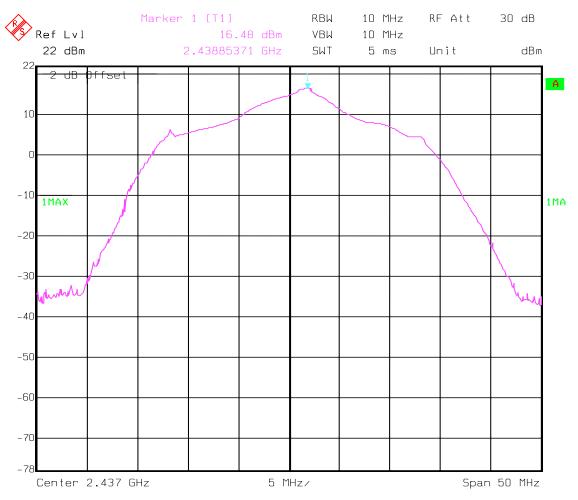
Date: 07.SEP.2002 13:58:32



### PEAK OUTPUT POWER (CONDUCTED)

§15.247 (b)

Mid Channel: 2437MHz



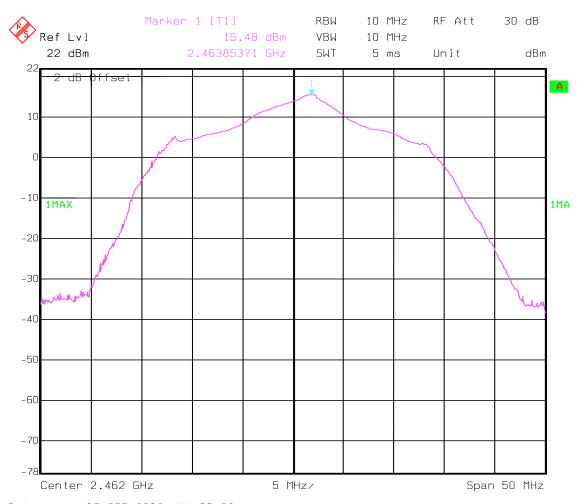
Date: 07.SEP.2002 13:59:40



### PEAK OUTPUT POWER (CONDUCTED)

§15.247 (b)

**Highest Channel: 2462MHz** 



Date: 07.SEP.2002 14:00:33



MAXIMUM PEAK OUTPUT POWER (RADIATED)

§ 15.247 (b) (3)

### **EIRP**:

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER (dBm)			
Frequency (MHz)		2412	2437	2462	2472
T <sub>nom</sub> (23)°C	$\mathbf{V}_{nom}$	35.62	35.88	34.19	24.88
Measurement uncertainty			±0.5d	Bm	П

RBW/VBW: 10MHz

### LIMIT

### **SUBCLAUSE § 15.247 (b) (3)**

Frequency range	RF power output
2400-2483.5 MHz	36dBm



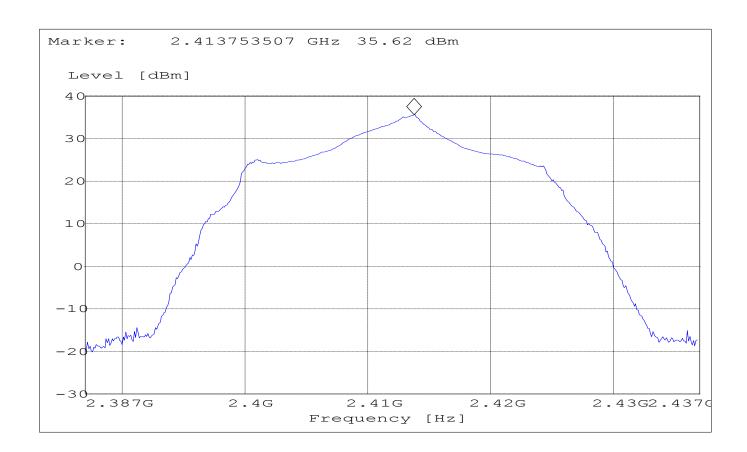
### PEAK OUTPUT POWER (RADIATED)

§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





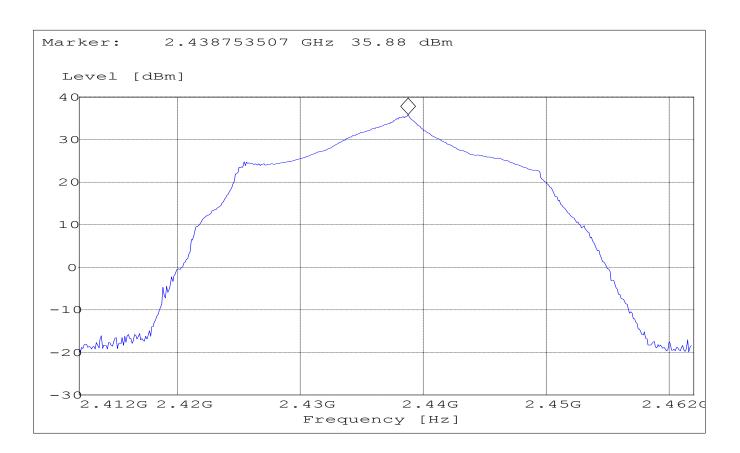
### PEAK OUTPUT POWER (RADIATED)

§15.247 (b) (3)

Mid Channel: 2437MHz

SWEEP TABLE: "EIRP RLAN CH6"

EIRP RLAN channel-2437MHz Short Description: Start Stop Detector Meas. IF BWFrequency Frequency Time 2.412GHz 2.462GHz MaxPeak Coupled  $10~\mathrm{MHz}$ 





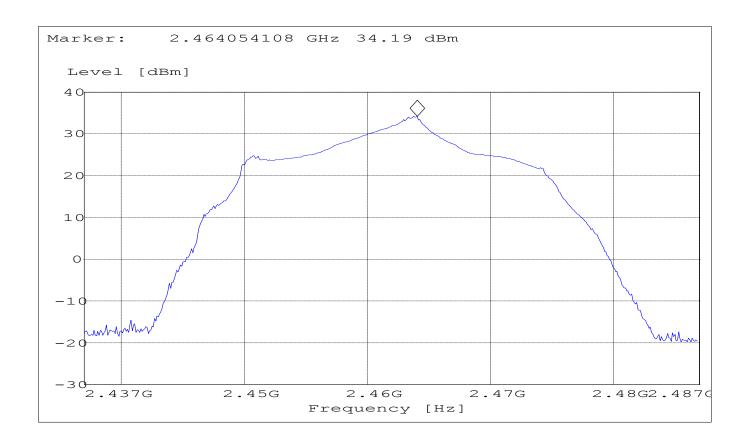
### PEAK OUTPUT POWER (RADIATED)

§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 Stop Detector Meas. IF Frequency Frequency Time BW2.437GHz 2.487GHz Coupled 10 MHz MaxPeak





PEAK OUTPUT POWER (RADIATED)

§15.247 (b) (3)

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

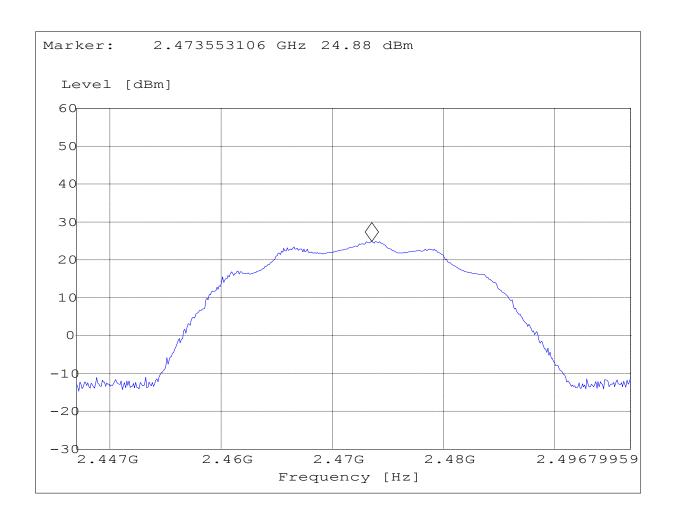
SWEEP TABLE: "EIRP RLAN CH13"

Short Description: EIRP RLAN channel-2472 MHz

Start Stop Detector Meas. IF Transducer

Frequency Frequency Time Bandw.

2.4 GHz 2.5 GHz MaxPeak Coupled 10 MHz DUMMY-DBM





POWER SPECTRAL DENSITY

§15.247 (d)

TEST CONDITIONS		POWER SPECTRAL DENSITY (dBm)			
Frequency (MHz)		2412	2437	2462	
T <sub>nom</sub> (23)°C	V <sub>nom</sub>	-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

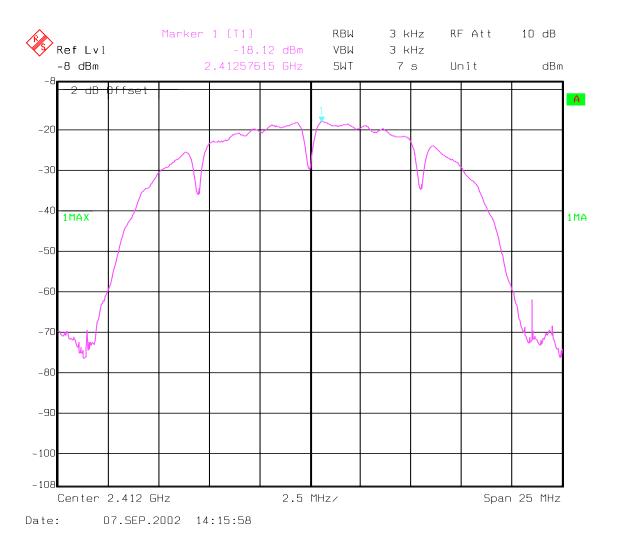
ANALYZER SETTINGS: RBW=3KHz, VBW=3KHz



### **POWER SPECTRAL DENSITY**

§15.247(d)

**Lowest Channel: 2412MHz** 

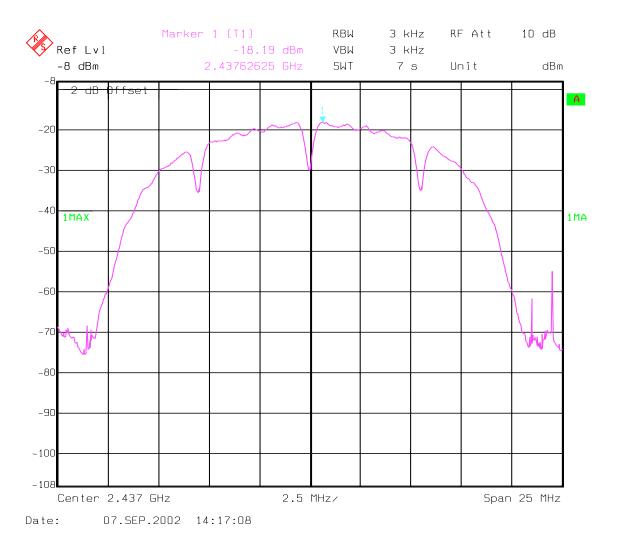




### **POWER SPECTRAL DENSITY**

§15.247(d)

Mid Channel: 2437MHz

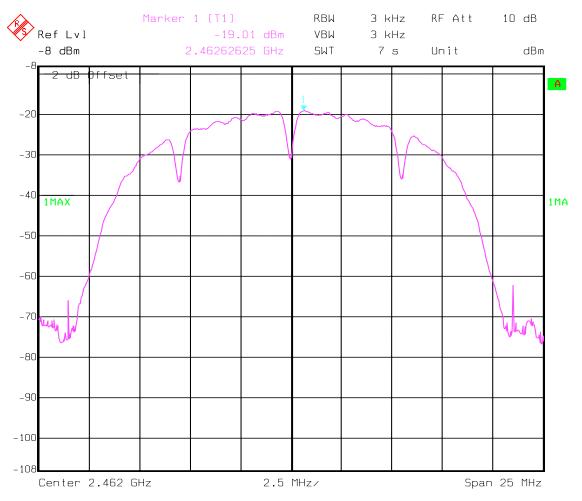




### **POWER SPECTRAL DENSITY**

§15.247(d)

**Highest Channel: 2462MHz** 



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



### **POWER SPECTRAL DENSITY**

**RSS-210** 

TEST CO	NDITIONS	POWER SPE	CTRAL DENSITY (dBm/MHz)	
Frequency (MHz) 241		2412	2437	2462
T <sub>nom</sub> (23)°C	V <sub>nom</sub>	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)

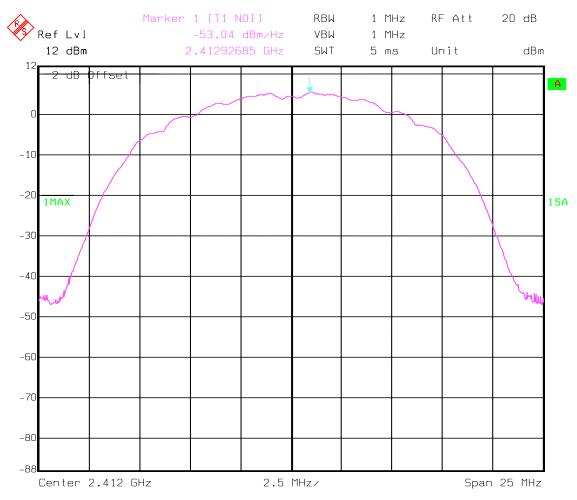
ANALYZER SETTINGS: RBW=1MHz, VBW=1MHz



### **POWER SPECTRAL DENSITY**

**RSS-210** 

**Lowest Channel: 2412MHz** 



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



### **POWER SPECTRAL DENSITY**

**RSS-210** 

Mid Channel: 2437MHz



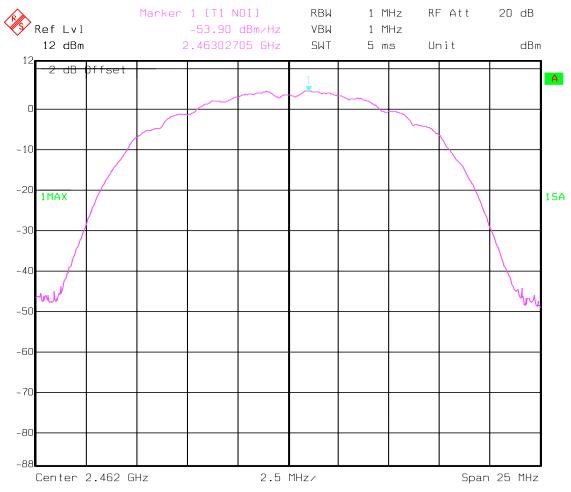
Date: 07.SEP.2002 14:21:16



### **POWER SPECTRAL DENSITY**

**RSS-210** 

**Highest Channel: 2462MHz** 



Date: 07.SEP.2002 14:22:01



#### **BAND EDGE COMPLIANCE**

§15.247 (c)

# Low frequency section (spurious in the restricted band 2310 - 2390 MHz) (Average meaurement)

Operating condition : Tx at 2412MHz

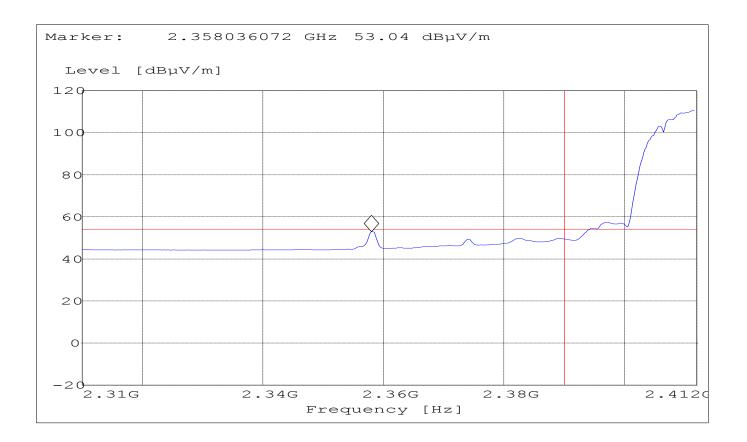
SWEEP TABLE : "FCC15.247 LBE AVG"

Limit Line : 54dBµV

Start Stop Detector Meas. RBW VBW Transducer

Frequency Frequency Time Bandw.

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 meaurement)

Operating condition : Tx at 2412MHz

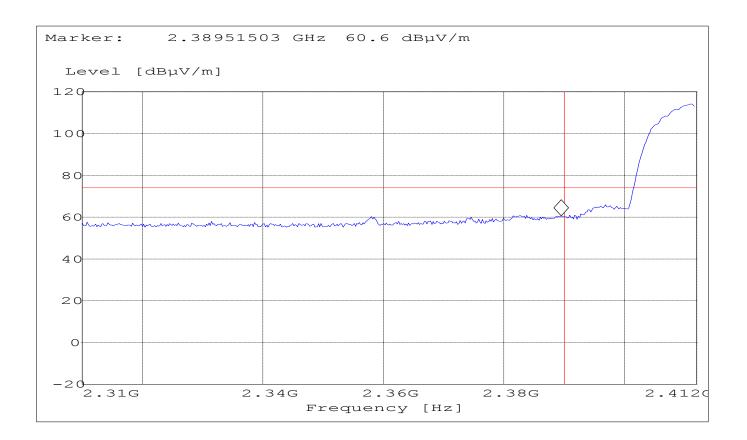
SWEEP TABLE : "FCC15.247 LBE\_Pk"

Limit Line :  $74dB\mu V$ 

Start Stop Detector Meas. RBW VBW Transducer

Frequency Frequency Time Bandw.

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 meaurement)

Operating condition : Tx at 2462MHz

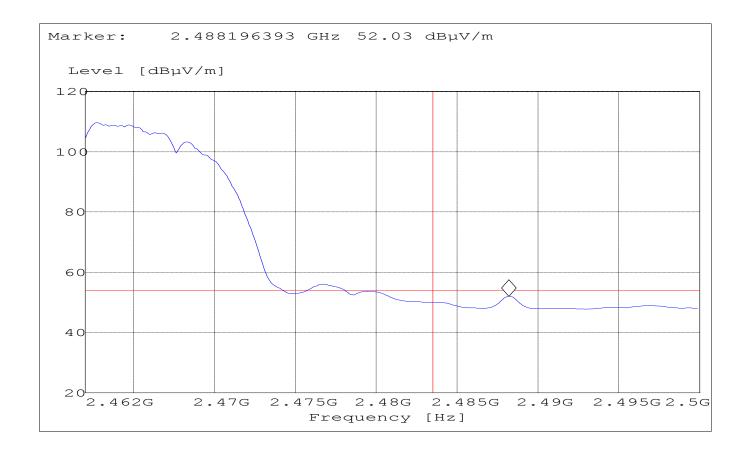
SWEEP TABLE : "FCC15.247 HBE\_AVG"

Limit Line : 54dBµV

Start Stop Detector Meas. RBW VBW Transducer

Frequency Frequency Time Bandw.

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 meaurement)

Operating condition : Tx at 2462MHz

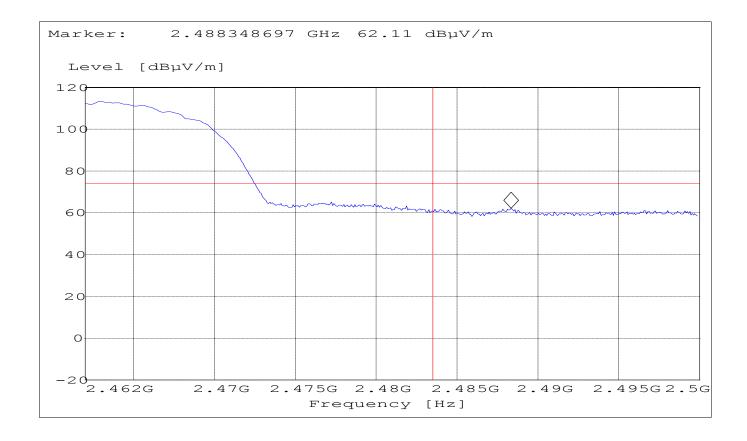
SWEEP TABLE : "FCC15.247 HBE\_PK"

Limit Line : 74dBµV

Start Stop Detector Meas. RBW VBW Transducer

Frequency Frequency Time Bandw.

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

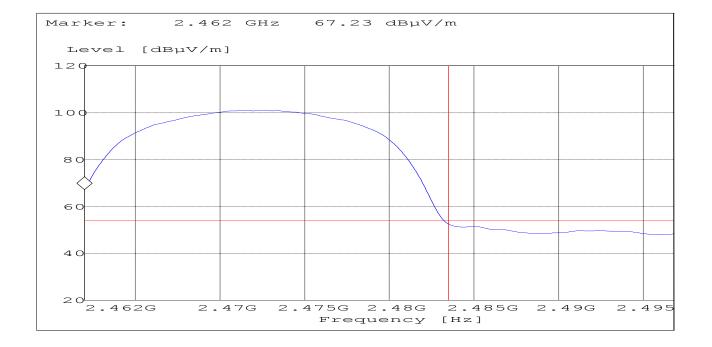
SWEEP TABLE: "FCC15.247 HBE AVG"

Short Description: FCC15.247 BT high-band-edge

Start Stop Detector Meas. IF Transducer

Frequency Frequency Time Bandw.

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 meaurement) Channel 13 with lower power setting PC=80

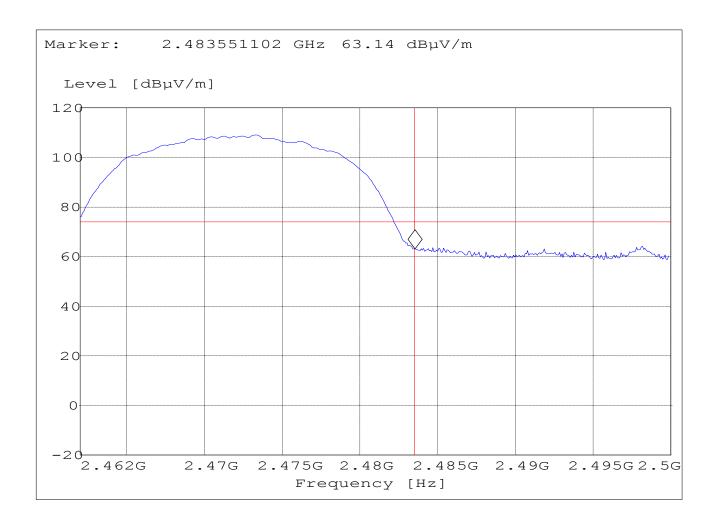
SWEEP TABLE: "FCC15.247 HBE PK"

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





**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)).

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

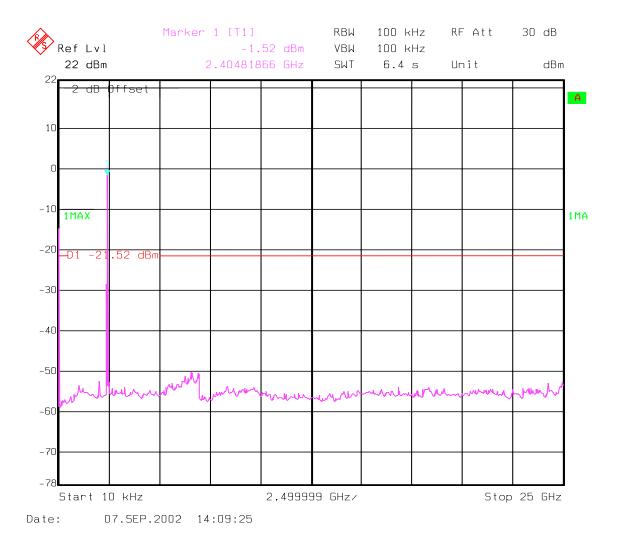


#### **EMISSION LIMITATIONS - Conducted (Transmitter)**

§ 15.247 (c) (1)

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

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



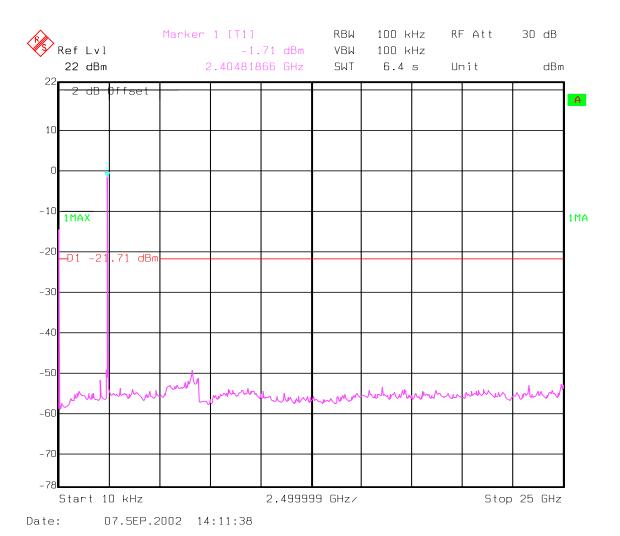


#### **EMISSION LIMITATIONS - Conducted (Transmitter)**

§ 15.247 (c) (1)

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

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



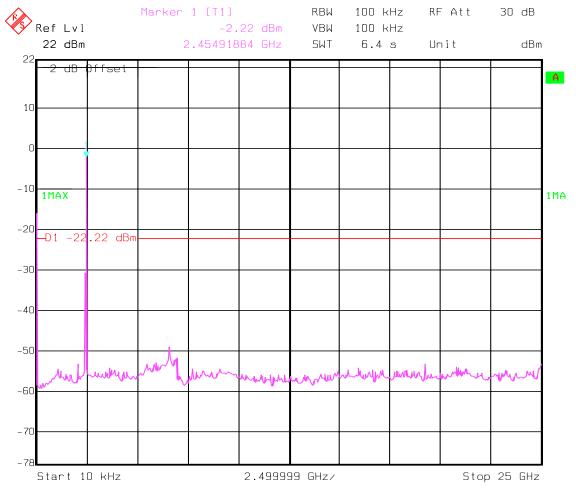


#### **EMISSION LIMITATIONS - Conducted (Transmitter)**

§ 15.247 (c) (1)

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

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



Date: 07.SEP.2002 14:12:55



**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.

Emisssion 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	



**EMISSION LIMITATIONS - Radiated (Transmitter)** 

§ 15.247 (c) (1)

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

Tx ch-Low 2412 MHz		Tx ch-Mid 2437 MHz		Tx ch-High 2462 MHz	
Freq.(MHz)	Level (dBμV/m)	Freq.(MHz)	Level (dBµV/m)	Freq.(MHz)	Level (dBµV/m)
	See plots				



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

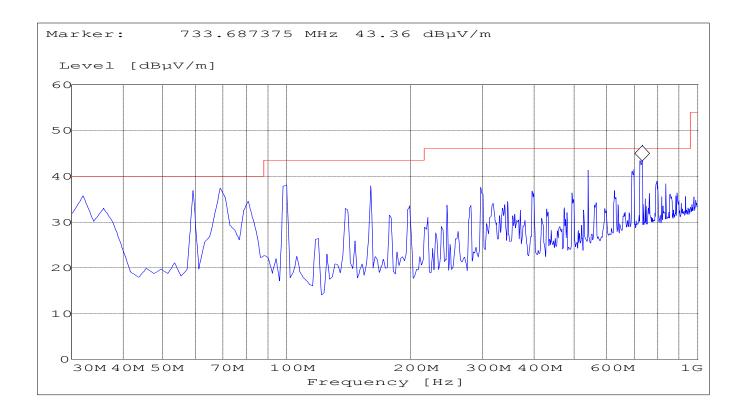
§ 15.247 (c) (1)

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

Start Stop Detector Meas. RBW Transducer

Frequency Frequency Time **VBW** 

30.0 MHz 1.0 GHz MaxPeak Coupled 100 kHz 3141-#1186





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**EMISSION LIMITATIONS - Radiated (Transmitter)** 

§ 15.247 (c) (1)

Lowest Channel(2412MHz): 1GHz - 3GHz

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

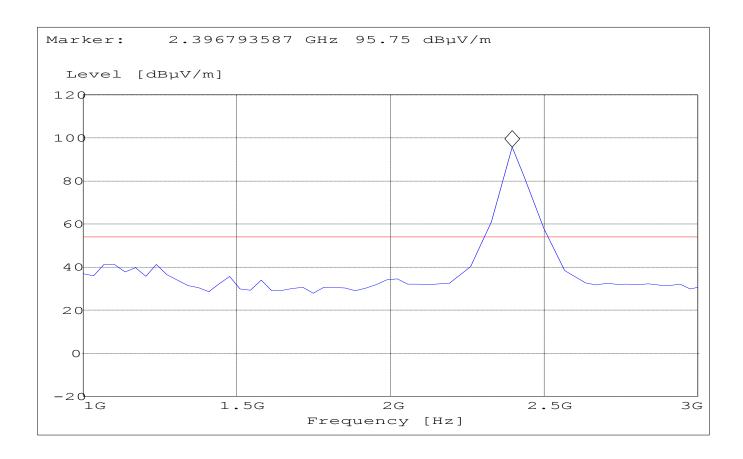
SWEEP TABLE: "BT Spuri hi 1-3G"

Short Description: FCC 15.247 Spurious1-3 GHz

Start Stop Detector Meas. RBW Transducer

Frequency Frequency Time Bandw. VBW

3.0 GHz #326 horn (dBi) 1.0 GHz MaxPeak Coupled 1 MHz





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

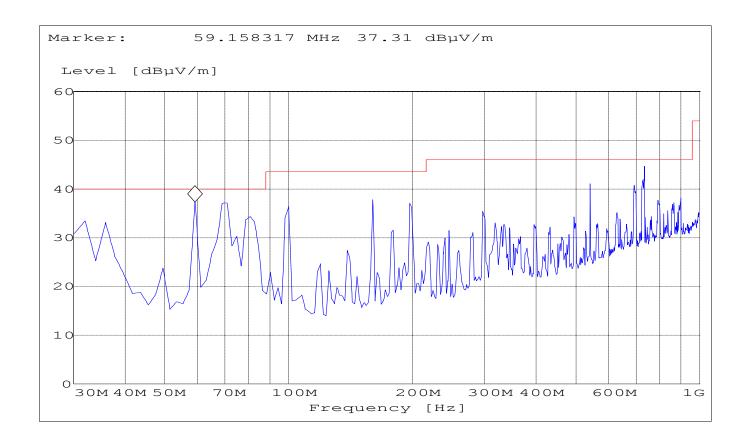
§ 15.247 (c) (1)

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

Start Stop Detector Meas. RBW Transducer

Frequency Frequency Time **VBW** 

30.0 MHz 1.0 GHz MaxPeak Coupled 100 kHz 3141-#1186





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**EMISSION LIMITATIONS - Radiated (Transmitter)** 

§ 15.247 (c) (1)

Middle Channel(2432MHz): 1GHz - 3GHz

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

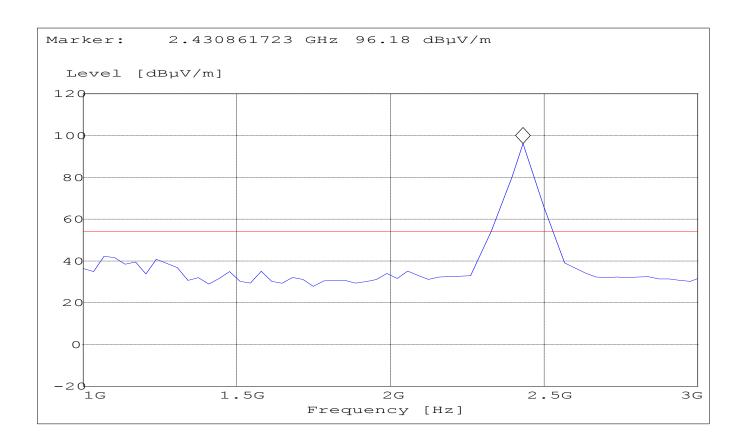
SWEEP TABLE: "BT Spuri hi 1-3G"

Short Description: FCC 15.247 Spurious1-3GHz

Start Detector Meas. RBW Transducer Stop

Bandw. **VBW** Frequency Frequency Time

1.0 GHz 3.0 GHz MaxPeak Coupled 1 MHz #326 horn (dBi)





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#### **EMISSION LIMITATIONS - Radiated (Transmitter)** Highest Channel(2462MHz): 30MHz - 1GHz

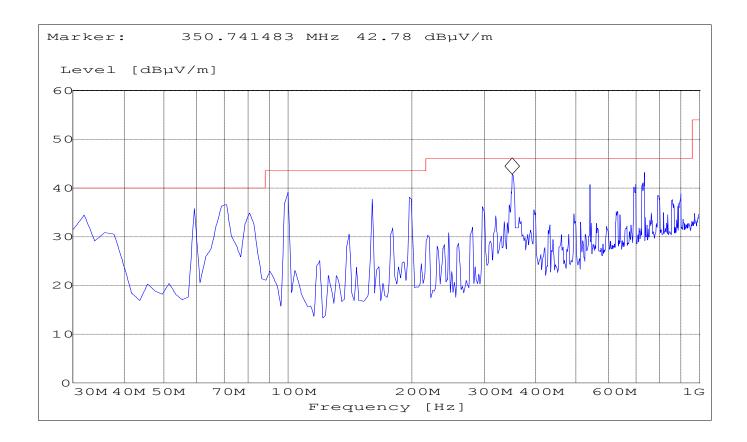
§ 15.247 (c) (1)

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

Detector Meas. RBW Transducer Start Stop

Frequency Frequency Time **VBW** 

30.0 MHz 1.0 GHz MaxPeak Coupled 100 kHz3141-#1186





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**EMISSION LIMITATIONS - Radiated (Transmitter)** Highest Channel(2462MHz): 1GHz – 3GHz

§ 15.247 (c) (1)

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

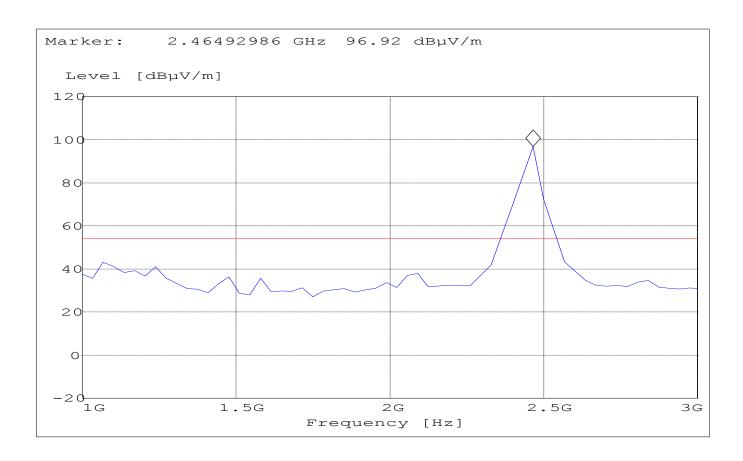
SWEEP TABLE: "BT Spuri hi 1-3G"

Short Description: FCC 15.247 Spurious1-3GHz

RBW Transducer Start Stop Detector Meas.

Frequency Frequency Time Bandw. VBW

3.0 GHz Coupled #326 horn (dBi) 1.0 GHz MaxPeak 1 MHz





 ${\bf EMISSION\ LIMITATIONS\ -\ Radiated\ (Transmitter)}$ 

§ 15.247 (c) (1)

**3GHz - 18GHz** 

(This plot is valid for all three channels)

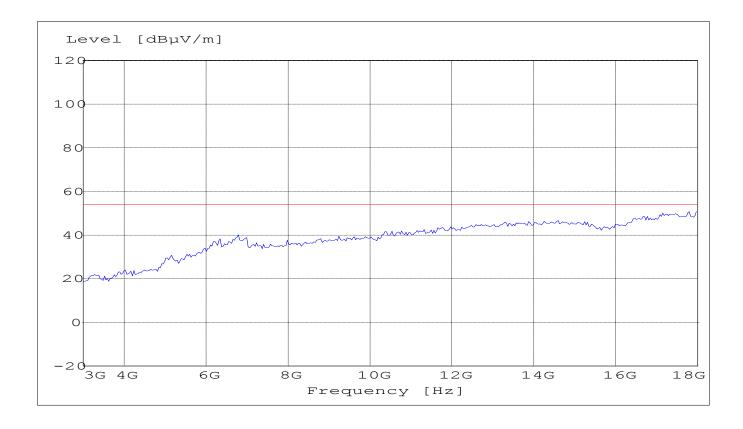
SWEEP TABLE: "BT Spuri hi 3-18G"

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)

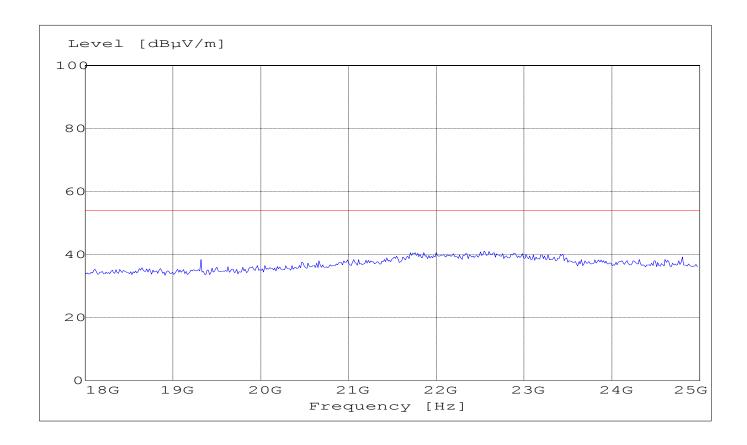
SWEEP TABLE: "BT Spuri hi 18-25G"

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 Measured with AC/DC power ada

§ 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

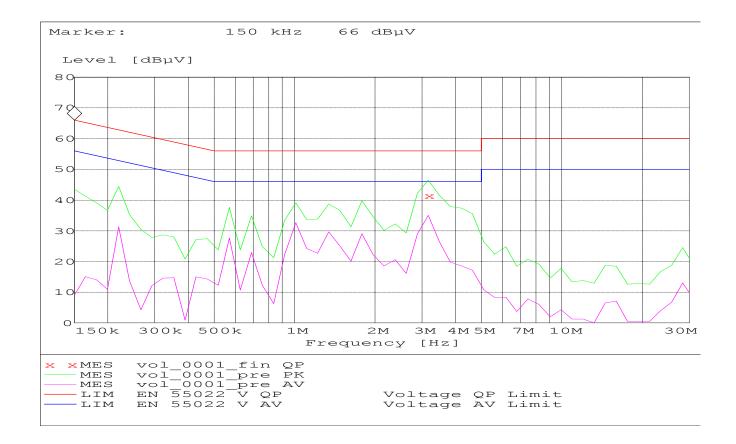
Technical specification: 15.107 / 15.207 (Revised as of August 20, 2002)

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 Level Transd Limit Margin Line PE MHz dB $\mu$ V dB dB $\mu$ V dB

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 forthe 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

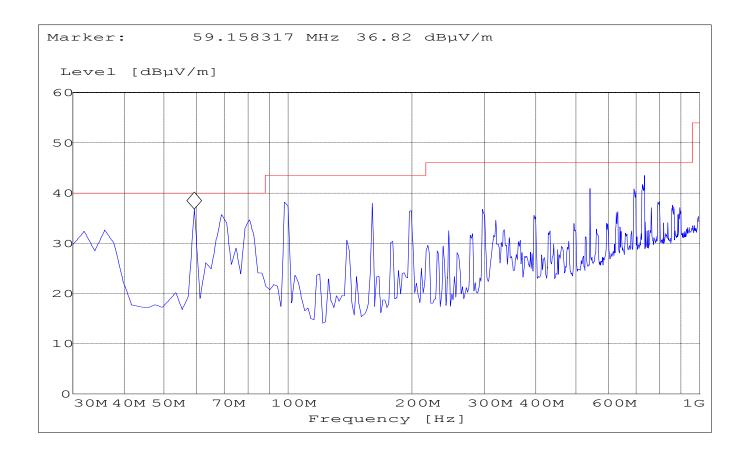
30MHz – 1GHz

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

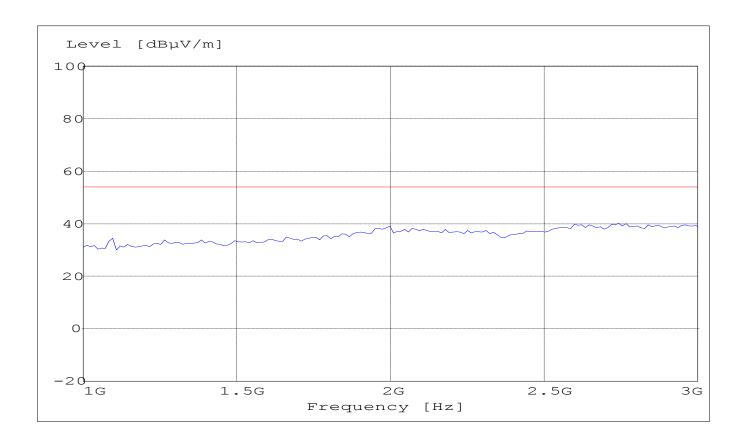
SWEEP TABLE: "BT Spuri hi 1-3G"

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)





§ 15.209

#### RECEIVER SPURIOUS RADIATION

**3GHz – 18GHz** 

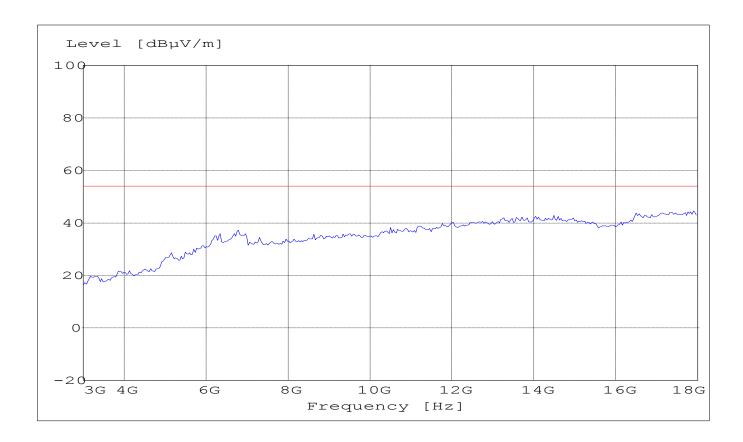
SWEEP TABLE: "BT Spuri hi 3-18G"

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)





§ 15.209

#### RECEIVER SPURIOUS RADIATION

18GHz - 25GHz

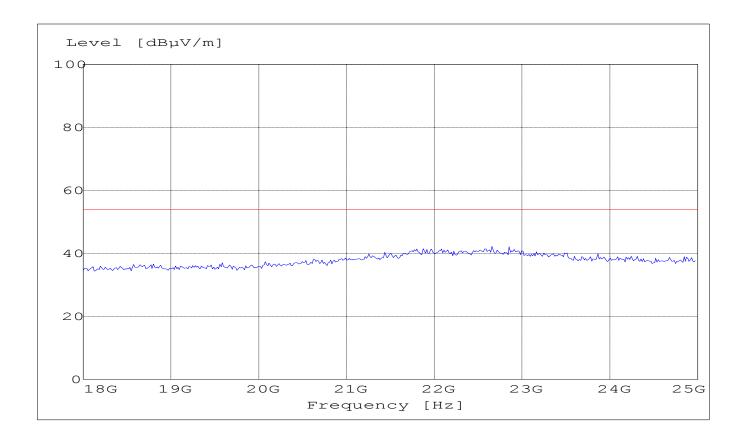
SWEEP TABLE: "BT Spuri hi 18-25G"

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)





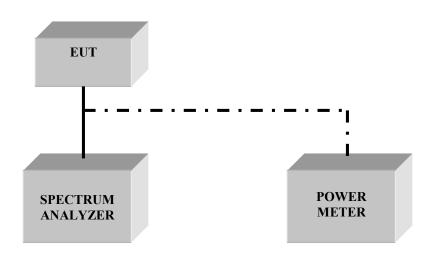
#### TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

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 Amlifier	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



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**BLOCK DIAGRAMS Conducted Testing** 





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#### **Radiated Testing**

#### ANECHOIC CHAMBER

