## **CETECOM Inc.**

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www.cetecomusa.com



Issued test report consists of 52 Pages

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## **RECOGNIZED BY**

FCC registration # 101450

IC - 3925

Test report no.:141FCC/2001/A FCC Part 15.247 HP OmniBook 6100 - FCC ID: B946000WLAN



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- 1 General information
- 1.1 Notes

The test results of this test report relate exclusively to the test item specified in 1.5. The CETECOM Inc. USA does not assume responsibility for any conclusions and generalisations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of the CETECOM Inc. USA.



## 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.cetecomusa.com

## 1.3 Details of applicant

Name : Hewlett Packard Co.; Mobile Computing Division

Street : 1000 NE Circle Blvd. City : Corvallis, OR 97330

Country : USA

Telephone : +1 541 715 2171
Telefax : +1 541 715 3607
Contact : Kathy Warnock

e-mail : Kathy\_warnock@hp.com

## 1.4 Application details

Date of receipt of application : 2001-04-01 Date of receipt of test item : 2001-04-15

Date of test : 2001-04-18/19/20

#### 1.5 Test item

Manufacturer : Hewlett Packard.

Address : See above

Name of EUT : HP OmniBook 6100 Series (with Mini PCI 802.11b wireless card - built in)

Type Designation : HP OmniBook 6100 Series

Model : 802MIP(W)

#### **Additional informations:**

Frequency : 2.412 - 2.472 GHz

Type of modulation : DBPSK at 1Mb/s; DQPSK at 2Mb/s; CCK at 5.5.and 11Mb/s

Number of channels : 13 Channels Antenna : Integral Power supply : 5.0V

Type of equipment : Temperature range :  $0^{\circ}\text{C} - +35^{\circ}\text{C}$ 



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:

Date	Section	Name	Signature		
	Radio	Schmidt	lehmi de		
2001-05-10	EMC&	Lothar			



2.2 Testreport

**TEST REPORT** 

Testreport no.: 141FCC/2001/A HP OmniBook 6100



#### 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)	<b>Emission limitations</b>	16	
§ 15.247 (d)	<b>Power Spectral Density</b>	33	
§ 15.247 (e)	<b>Processing Gain of DSSS System</b>	37	
	Receiver parameters		
§ 15.209	Spurious radiations - Radiated	39	
	Test equipment listing	47	
	Test Site		48
	Photographs of the equipment	50	

ANNEX: Details about processing gain.

NOTE: Conducted Emissions as per § 15.107 are not applicable for the EUT since it is a built in a laptop computer. The Laptop was measured in accordance with FCC part 15 B including the Wireless LAN

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## SPECTRUM BANDWITH OF DSSS-SYSTEM

**SUBCLAUSE § 15.247 (a)(2)** 

TEST CONDITIONS		6 dB BANDWIDTH ( kHz )				
Frequency (MHz)		2412 2442		2472		
T <sub>nom</sub> (20)°C V <sub>nom</sub> (5.0)V		10220	95190	96192		
Measurement uncertainty			±3dB	ı		

**LIMIT** 

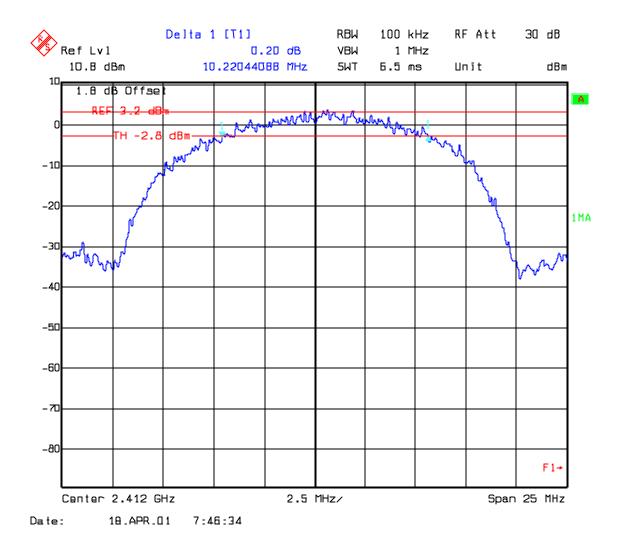
**SUBCLAUSE §15.247(a) (2)** 

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



# SPECTRUM BANDWITH OF DSSS-SYSTEM 2412 MHz

SUBCLAUSE § 15.247 (a)(2)



**LIMIT** 

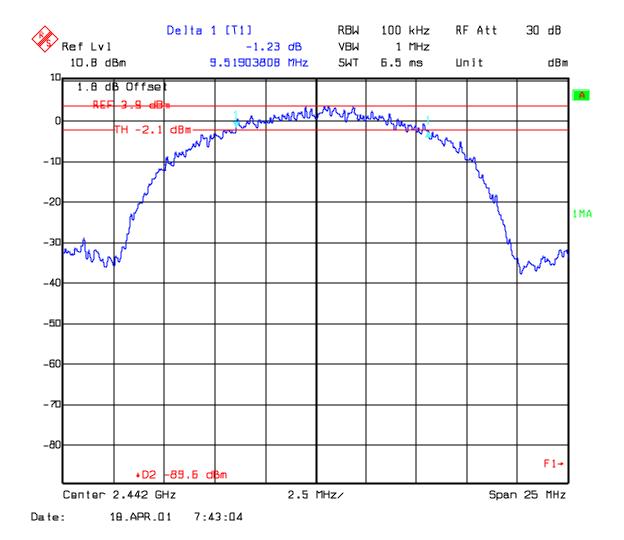
SUBCLAUSE §15.247(a) (2)

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



# SPECTRUM BANDWITH OF DSSS-SYSTEM 2442 MHz

SUBCLAUSE § 15.247 (a)(2)



LIMIT

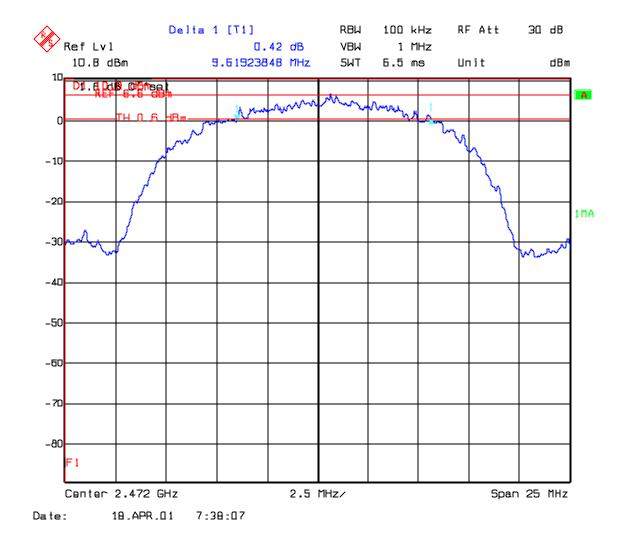
SUBCLAUSE §15.247(a) (2)

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



# SPECTRUM BANDWITH OF DSSS-SYSTEM 2472 MHz

## **SUBCLAUSE § 15.247 (a)(2)**



**LIMIT** 

**SUBCLAUSE §15.247(a) (2)** 

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



# MAXIMUM PEAK OUTPUT POWER (CONDUCTED)

**SUBCLAUSE § 15.247 (b) (1)** 

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER (dBm)					
Frequenc	cy (MHz)	2412		2442		2472	
T (22) % C	TI (FO)TI	Pk	13.94	Pk	14.50	Pk	13.05
T <sub>nom</sub> (23)°C	$V_{nom}(5.0)V$	Av	8.29	Av	8.29	Av	7.28
T <sub>nom</sub> (0)°C	V <sub>nom</sub> (5.0)V	Pk	13.14	Pk	12.60	Pk	12.09
		Av	7.85	Av	7.16	Av	6.59
T <sub>nom</sub> (35)°C	V <sub>nom</sub> (5.0)V	Pk	12.43	Pk	11.09	Pk	10.33
		Av	6.46	Av	5.93	Av	5.12
Measure ment uncertainty					±3dB		

## **LIMIT**

**SUBCLAUSE § 15.247 (b) (1)** 

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



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MAXIMUM PEAK OUTPUT POWER (EIRP) SUBCLAUSE § 15.247 (b) (1) (RADIATED)

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER (dBm)						
Frequency (MHz)		2412		2442			2472	
T <sub>nom</sub> (23)°C	V <sub>nom</sub> (5.0)V	Pk	11.75	Pk	10.45	Pk	10.46	
		Av	5.85	Av	4.28	Av	3.18	
Maximum deviation from output power under extreme test conditions (dBc)		pe	not not not performed performed			not erformed		
Measurement uncertainty		±3dB						

**LIMIT** 

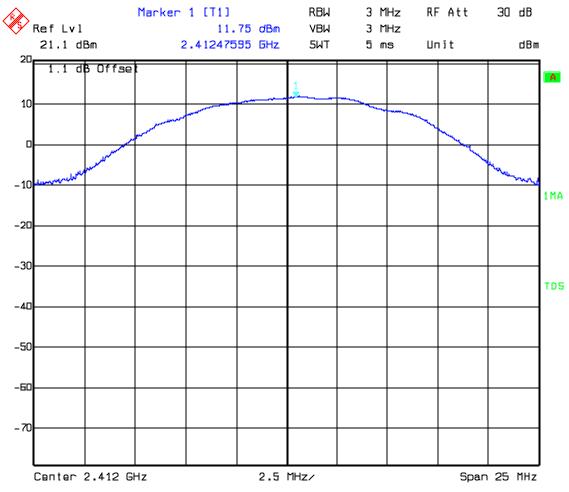
**SUBCLAUSE § 15.247 (b) (1)** 

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

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



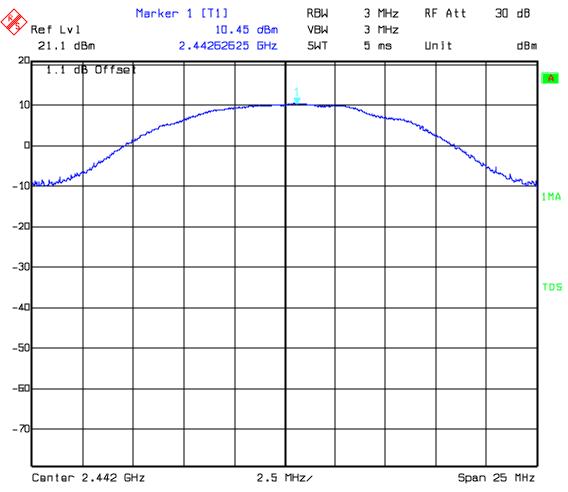
## EIRP:2412MHz



Date: 18\_APR\_01 11:28:10



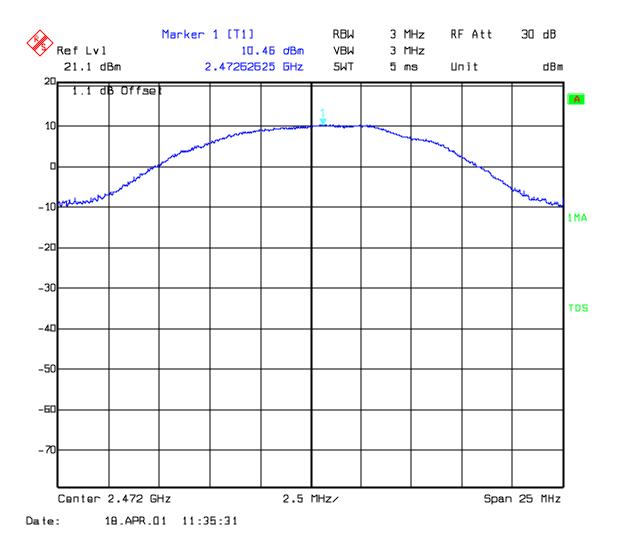
## EIRP:2442MHz



Date: 18\_APR\_01 11:33:48



## EIRP:2472MHz



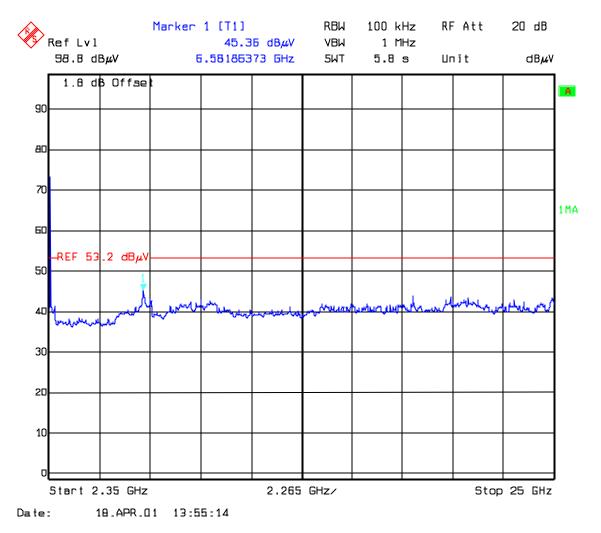


**EMISSION LIMITATIONS (Transmitter)** 

**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)).

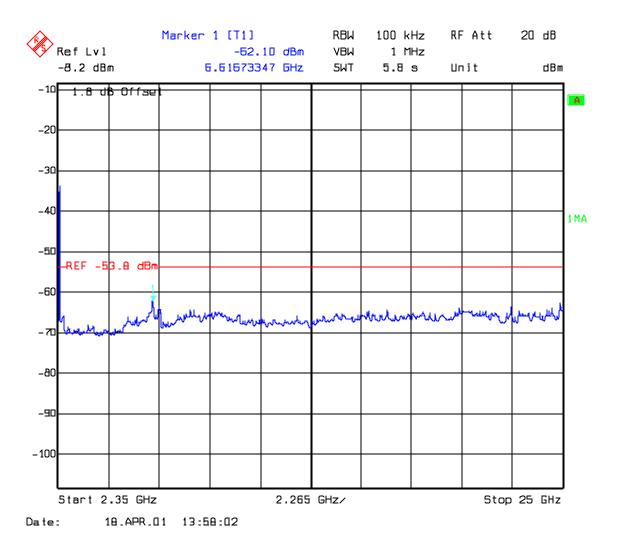


**EMISSION LIMITATIONS (Transmitter)** 

**SUBCLAUSE § 15.247 (c) (1)** 

## conducted

## 2442 MHz up to 25 GHz



#### **LIMITS**

## **SUBCLAUSE § 15.247 (c)**

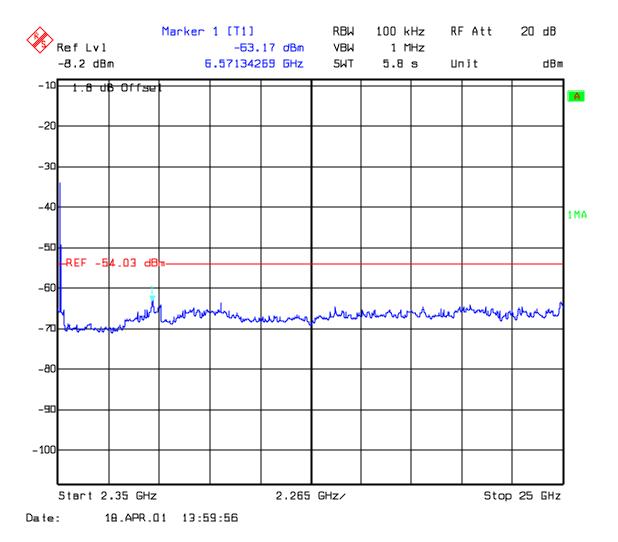
In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).



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

## conducted

2472 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)).

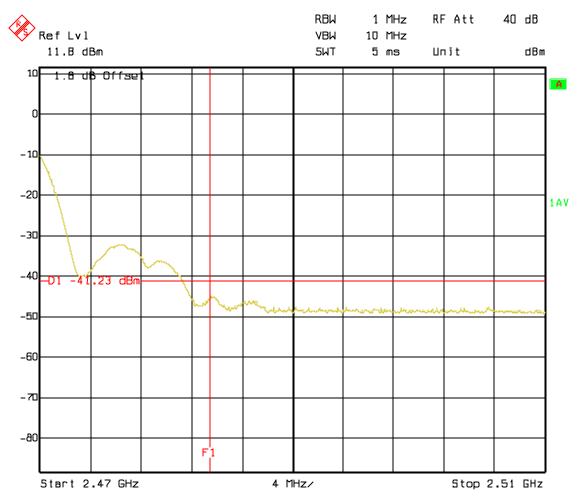


## **EMISSION LIMITATIONS (Transmitter)**

**SUBCLAUSE § 15.247 (c) (2)** 

## conducted

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



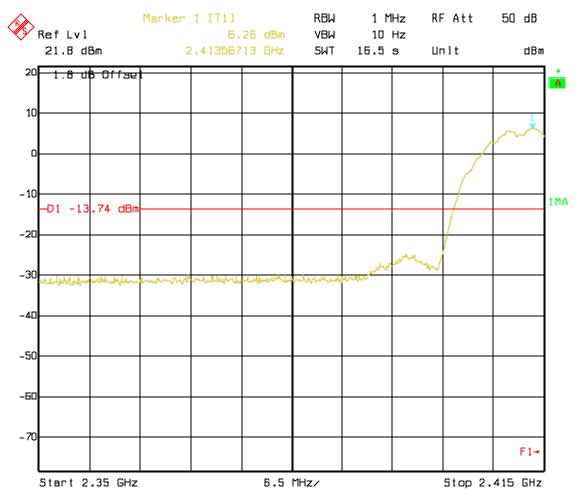
Date: 24\_APR\_01 10:58:45

**CETECOM** 



## **Lower Band Edge**

## conducted



Date: 24.APR.01 11:02:13

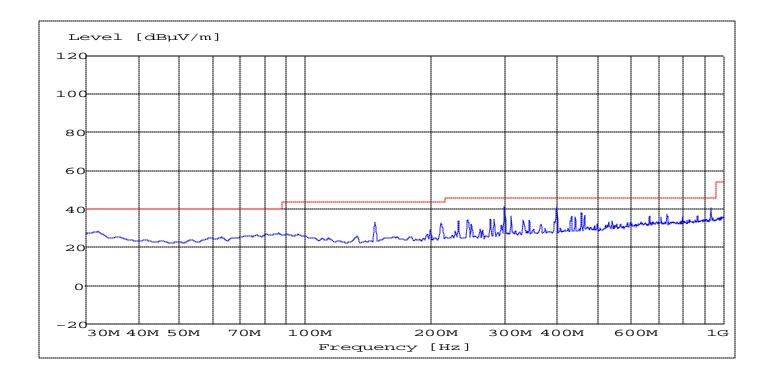


## EMISSION LIMITATIONS (Transmitter) SUBCLAUSE § 15.247 (c) (1)

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: 2442 MHz; Channel 3: 2472 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 ar 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

#### Channel 1: 30MHz-1GHz



#### **LIMITS**

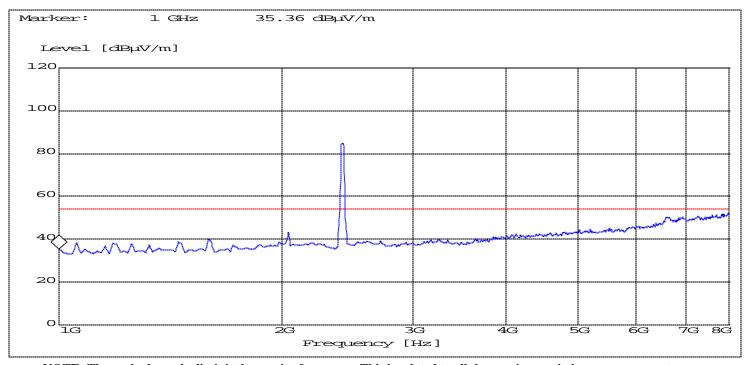
## **SUBCLAUSE § 15.247 (c)**

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)).



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

Channel 1: 1GHz-8GHz



NOTE: The peak above the limit is the carrier frequency. This is related to all the spurious emissions measurements.

The measurements were done using a high pass filter to eliminate the influence from the carrier frequency to the ampilifier used for the measurement. Due to this filter the carrier doesn't represent the real value. For the real value refer to the EIRP measurements.

The limit line 54 dBuV/m at 3m represents a power level of -41.23dBm and is calculated using the formula:

ERP (dBm) =  $10 \text{ Log}_{10} (((r(mV/m)/1 \times 10^6)^2 \times /49.2/1 \times ^{10-3}))$ 

#### **LIMITS**

**SUBCLAUSE § 15.247 (c)** 

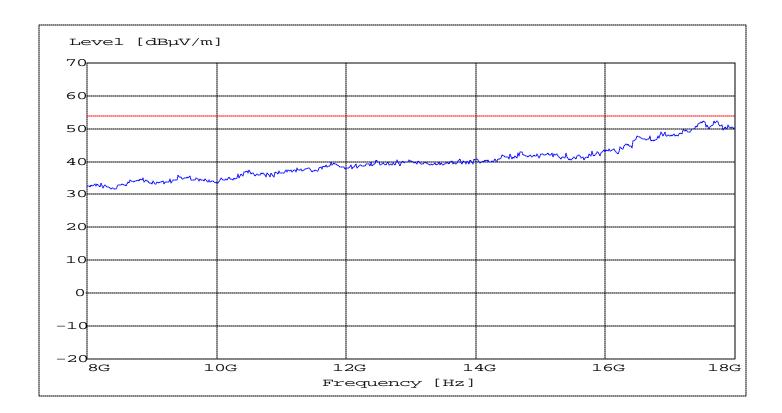
In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

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



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

Channel 1: 8GHz -18GHz



## **LIMITS**

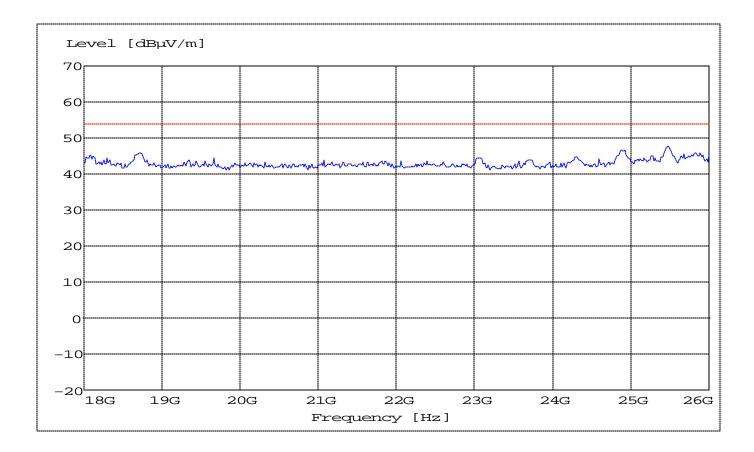
## **SUBCLAUSE § 15.247 (c)**

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)).



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

Channel 1: 18GHz -26GHz



## **LIMITS**

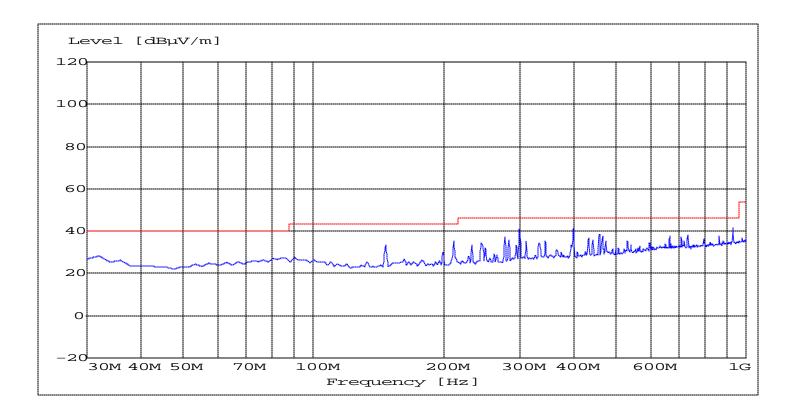
## **SUBCLAUSE § 15.247 (c)**

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)).



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

Channel 2: 30MHz -1GHz



#### **LIMITS**

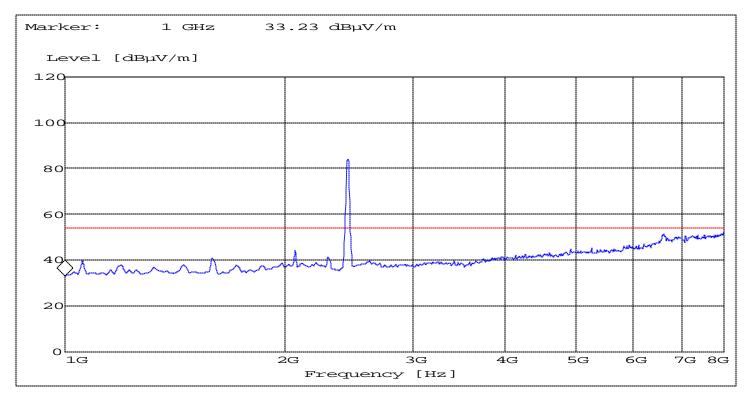
## **SUBCLAUSE § 15.247 (c)**

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)).



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

Channel 2: 1GHz -8GHz



NOTE: The peak above the limit is the carrier frequency. This is related to all the spurious emissions measurements.

### **LIMITS**

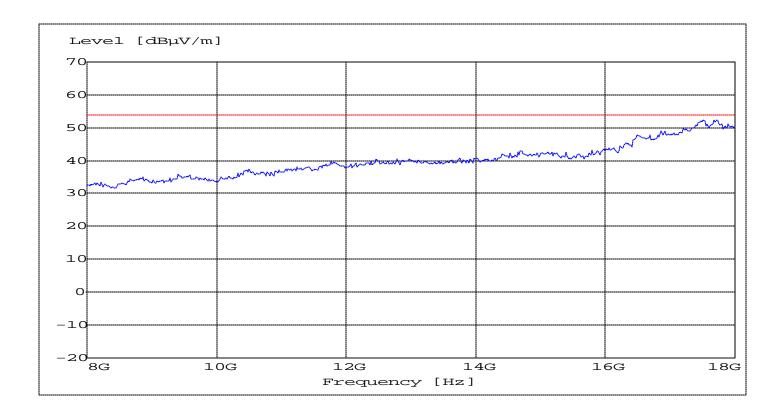
## **SUBCLAUSE § 15.247 (c)**

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)).



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

Channel 2: 8GHz -18GHz



#### **LIMITS**

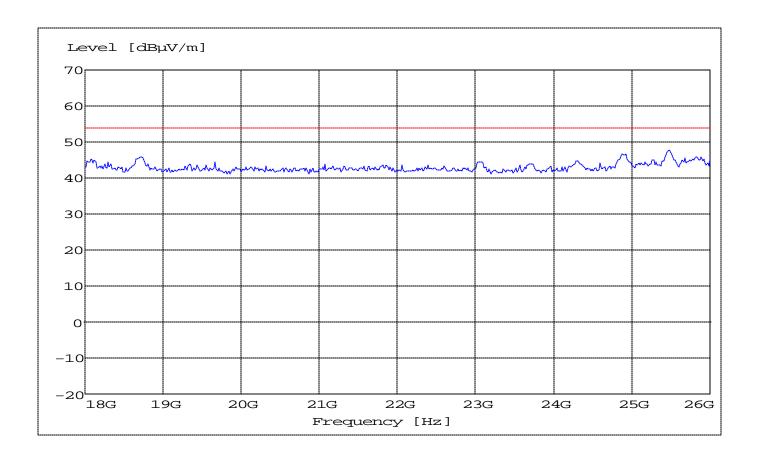
## **SUBCLAUSE § 15.247 (c)**

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)).



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

Channel 2: 18GHz -26GHz



## **LIMITS**

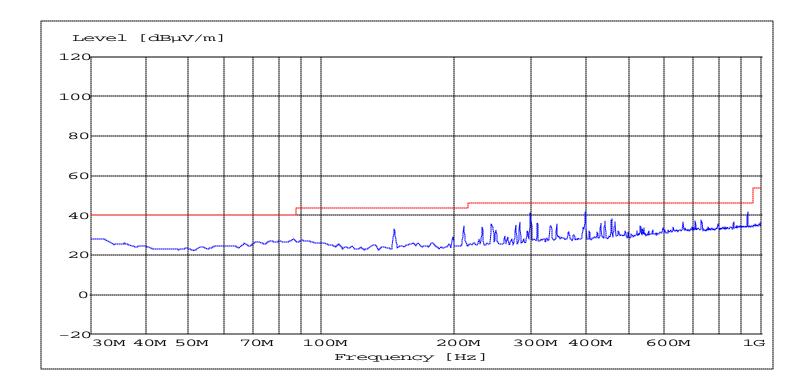
## **SUBCLAUSE § 15.247 (c)**

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)).



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

Channel 3: 30MHz -1GHz



#### **LIMITS**

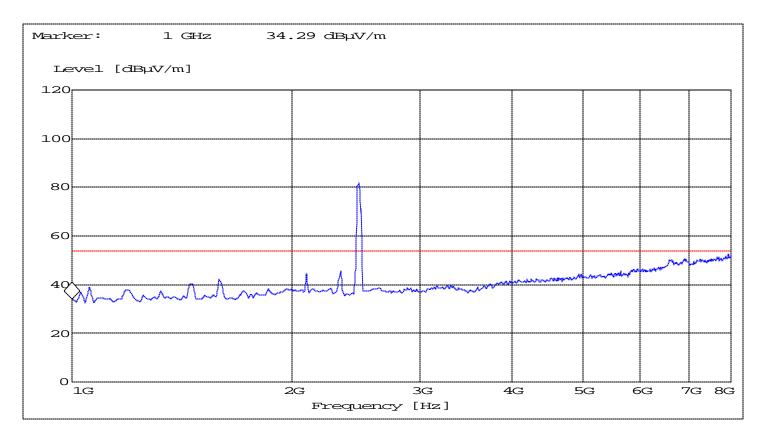
## **SUBCLAUSE § 15.247 (c)**

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)).



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

Channel 3: 1GHz -8GHz



NOTE: The peak above the limit is the carrier frequency. This is related to all the spurious emissions measurements.

#### **LIMITS**

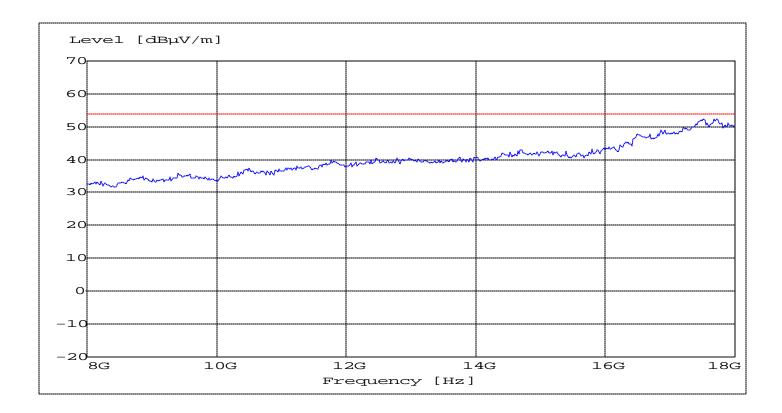
**SUBCLAUSE § 15.247 (c)** 

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)).



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

Channel 3: 8GHz -18GHz



## **LIMITS**

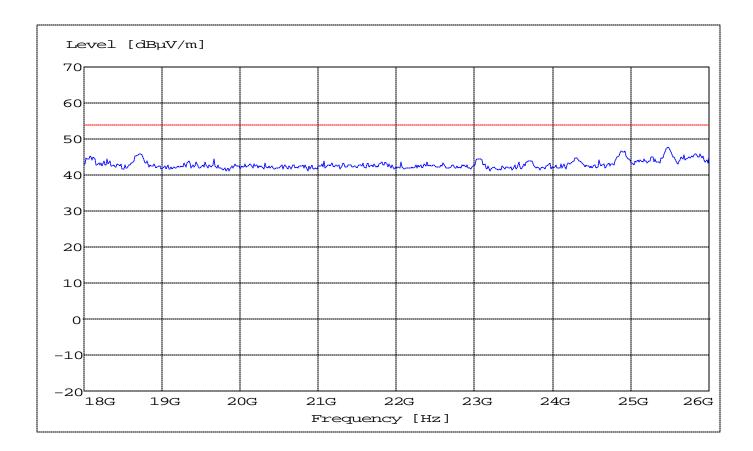
**SUBCLAUSE § 15.247 (c)** 

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)).



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

Channel 3: 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)).



POWER SPECTRAL DENSITY

**SUBCLAUSE § 15.247 (d)** 

TEST CONDITIONS		RF POWER LEVEL IN 3 kHz BW				
Frequency (MHz)		2412	2442	2472		
T <sub>nom</sub> (23)°C	$V_{nom}(5.0)V$	-9.8 dBm	-9.9dBm	-10.5 dBm		
Maximum deviation from output power under extreme test conditions (dBc)		not performed	not performed	not performed		
Measurement uncertainty		±3dB				

**LIMIT** 

**SUBCLAUSE §15.247(d)** 

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

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

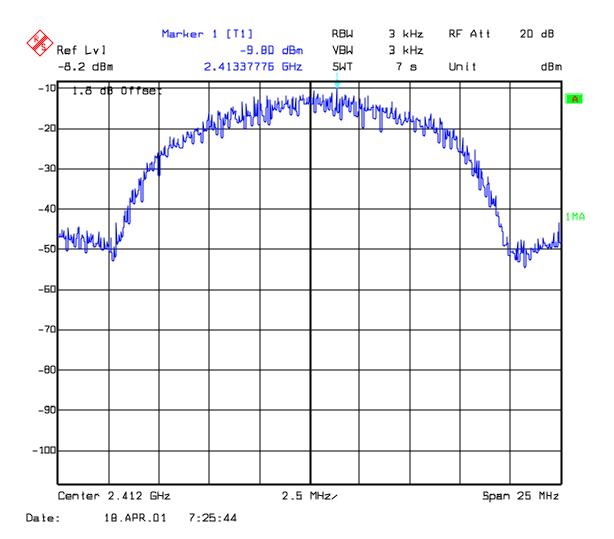


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# POWER SPECTRAL DENSITY 2412 MHz

## **SUBCLAUSE § 15.247 (d)**



**LIMIT** 

**SUBCLAUSE §15.247(d)** 



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



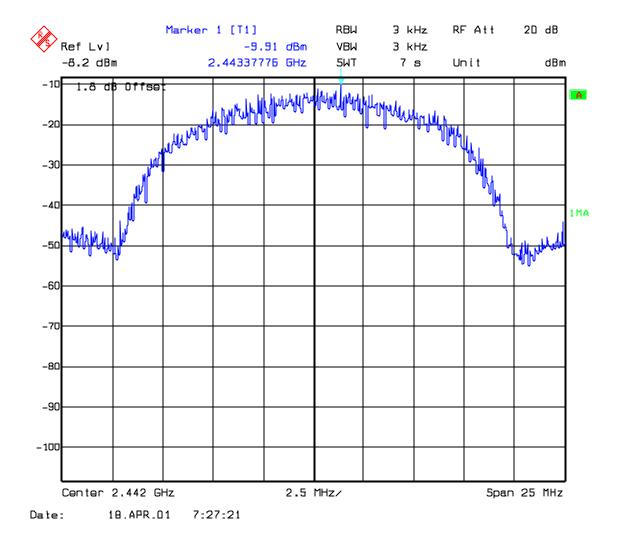
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### POWER SPECTRAL DENSITY

**SUBCLAUSE § 15.247 (d)** 

2442 MHz



**LIMIT** 

**SUBCLAUSE §15.247(d)** 

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

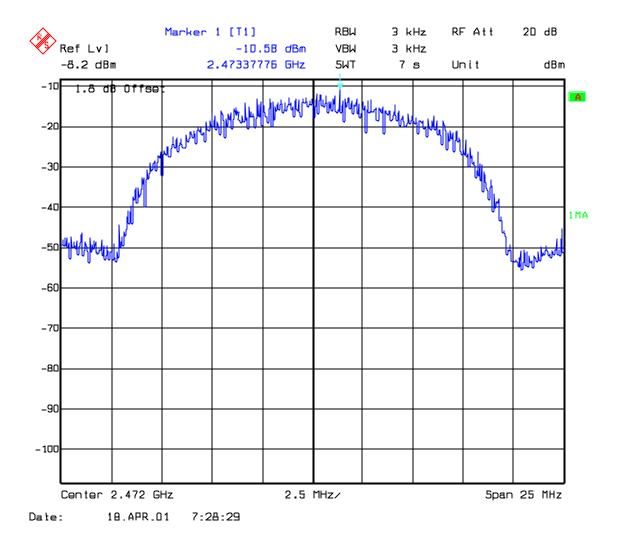


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# POWER SPECTRAL DENSITY 2472 MHz

## **SUBCLAUSE § 15.247 (d)**



**LIMIT** 

**SUBCLAUSE §15.247(d)** 

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



## PROCESSING GAIN OF DSSS SYSTEMS SUBCLAUSE §15.247 (e)

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

## Chip/symbol rate, the symbol/bit rate and the Chip/bit

Bit rate	Chip/symbol rate	Bit/symbol	Chip/bit rate	Gp (dB)	Spec
		rate			(dB)
1 Mbit/sec	11	1, DBPSK	11	13.2	10
2 Mbit/sec	11	2, DQPSK	5.5	12.6	10
5.5 Mbit/sec	8	4, CCK	2	13.4	10
11 Mbit/sec	8	8, CCK	1	12.9	10

Note: 1. Gp is Processing Gain;

2. Spec is Processing Gain specifications defined by FCC for DSSS systems

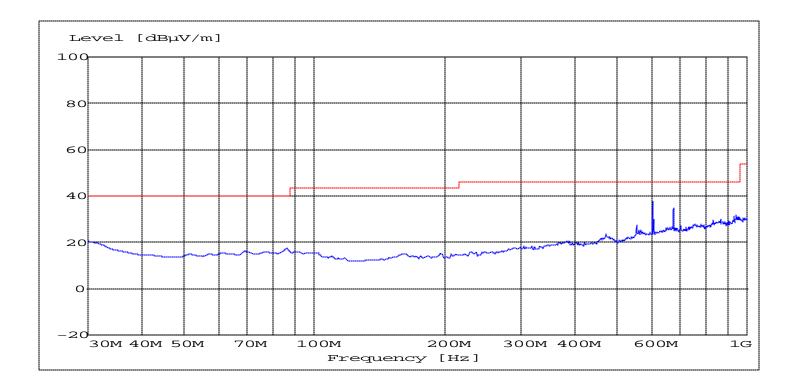




### RECEIVER SPURIOUS RADIATION

§ 15.209

Channel 1: 30MHz – 1GHz



### 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)

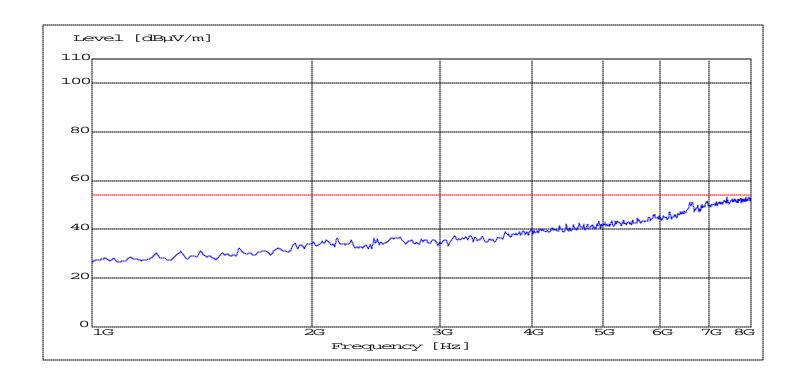
ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz f = 3 1GHz : RBW/VBW: 1 MHz



### RECEIVER SPURIOUS RADIATION

§ 15.209

Channel 1: 1GHz – 8GHz



### 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)

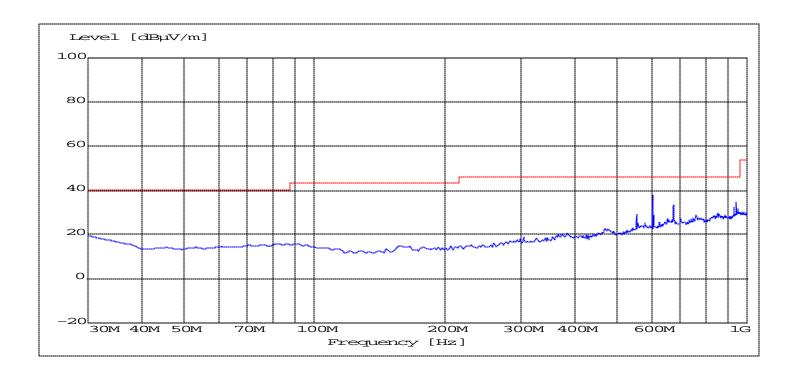
ANALYZER SETTINGS: f < 1 GHz: RBW/VBW: 100 kHz  $f^{-3}$  1GHz: RBW/VBW: 1 MHz



### RECEIVER SPURIOUS RADIATION

§ 15.209

Channel 2: 30MHz – 1GHz



#### 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 3 1GHz : RBW/VBW: 1 MHz

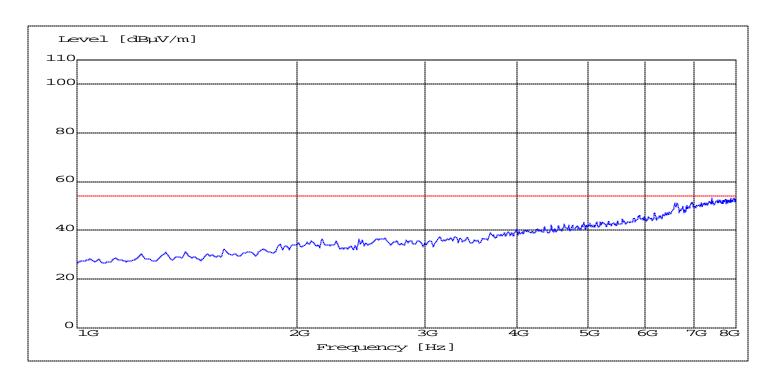


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### RECEIVER SPURIOUS RADIATION

§ 15.209

Channel 2: 1GHz - 8GHz



### 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)

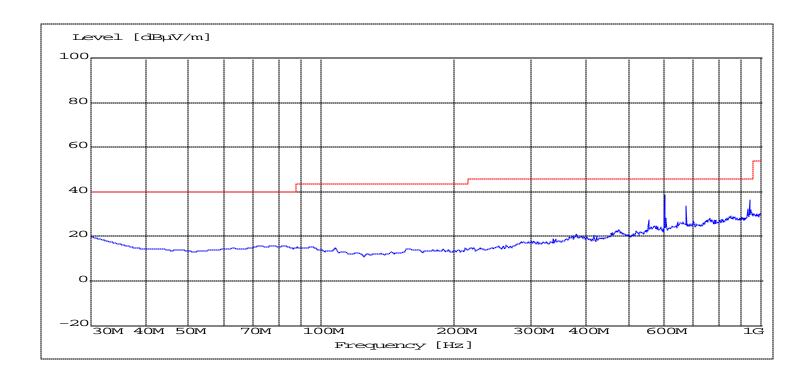
ANALYZER SETTINGS: f < 1 GHz: RBW/VBW: 100 kHz f 3 1GHz: RBW/VBW: 1 MHz



### RECEIVER SPURIOUS RADIATION

§ 15.209

Channel 3: 30MHz - 1GHz



### 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)

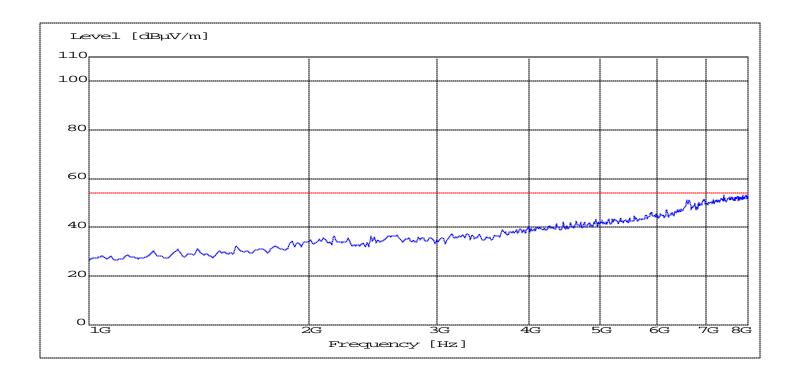
ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz f 3 1GHz : RBW/VBW: 1 MHz



### RECEIVER SPURIOUS RADIATION

§ 15.209

Channel 3: 1GHz - 8GHz



### 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 3 1GHz: RBW/VBW: 1 MHz

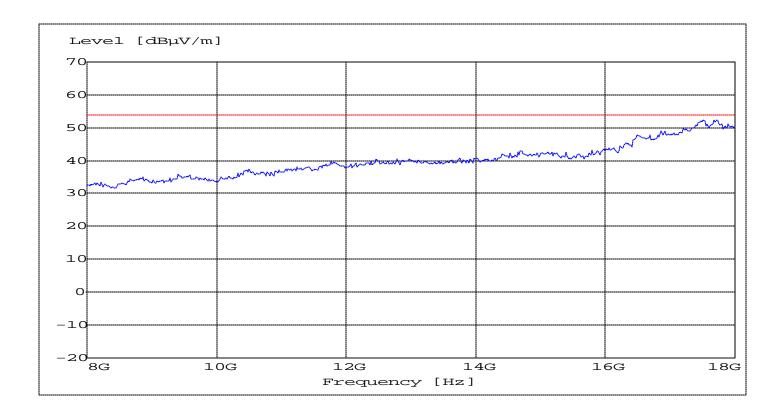


### RECEIVER SPURIOUS RADIATION

§ 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 3 1GHz : RBW/VBW: 1 MHz

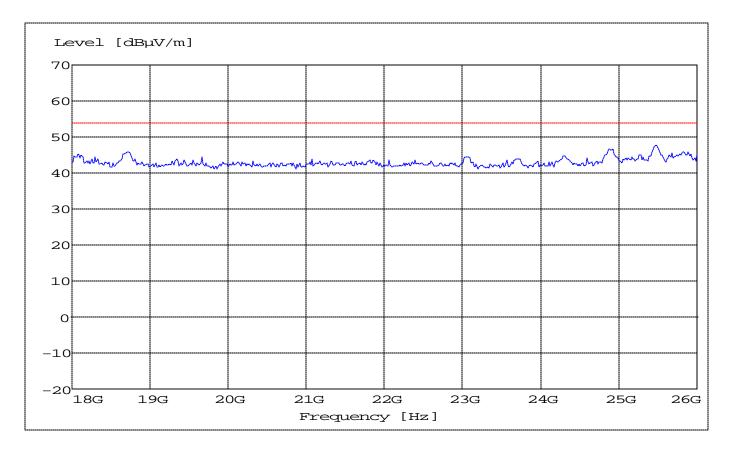


### RECEIVER SPURIOUS RADIATION

§ 15.209

18GHz - 26GHz

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



### Limits

### **SUBCLAUSE § 15.209**

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

(NOTE: All measurements were done in peak mode)



ANALYZER SETTINGS: f < 1 GHz : RBW/VBW: 100 kHz f 3 1GHz : RBW/VBW: 1 MHz

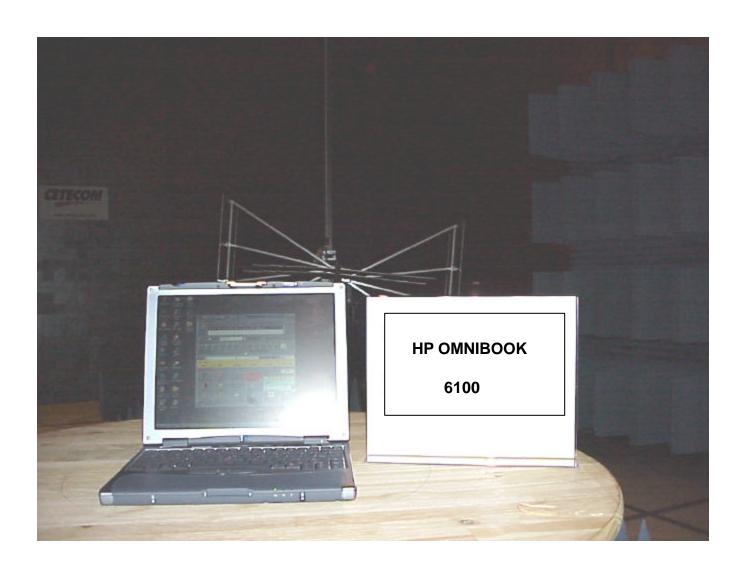


## TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

No	Instrument/Ancillary	Туре	Manufacturer	Serial No.
01	Spectrum Analyzer	FSEM 30	Rohde & Schwarz	826880/010
02	Signal Generator	SMY0	Rohde & Schwarz	836878/011
03	Power-Meter	NRVD	Rohde & Schwarz	0857.8008.02
04	Power Amlifier	250W1000	Amplifier Research	300031
05	Biconilog Antenna	3141	EMCO	0005-1186
06	Horn Antenna	SAS-200/571	AH Systems	325
07	Power Splitter	11667B	Hewlett Packard	645348
08	Climatic Chamber	VT4004	Votch	G1115
09	Pre-Amplifier	JS4-00102600	Miteq	00616
10	Power Sensor	URV5-Z2	Rohde & Schwarz	DE30807
11	Power Sensor	URV5-Z2	Rohde & Schwarz	DE30808

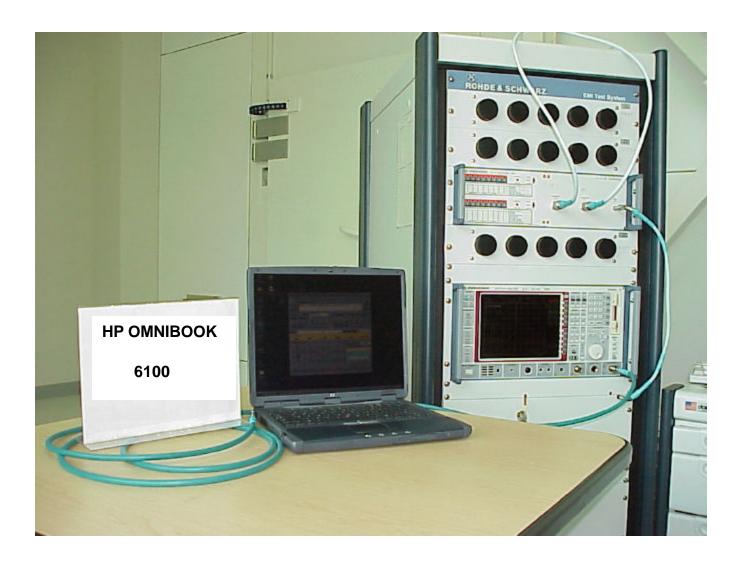


**TEST SITE Radiated Emissions** 





## **Conducted Emissions**





## PHOTOGRAPHS OF THE EQUIPMENT

Photograph No.1





## Photograph No.2





Photograph No.3

