



Flom Test Labs  
EMI, EMC, RF Testing Experts Since 1963

toll-free: (866) 311-3268  
fax: (480) 926-3598  
<http://www.flomlabs.com>  
[info@flomlabs.com](mailto:info@flomlabs.com)

Date: April 3, 2007

Federal Communications Commission  
Via: Electronic Filing

Attention: Authorization & Evaluation Division

Applicant: Nucomm Incorporated  
Equipment: GoPac Amplifier  
FCC ID: I4U23GP2-L5  
FCC Rules: 74F

Gentlemen:

On behalf of the Applicant, enclosed please find Application Form 731, Engineering Test Report and all pertinent documentation, the whole for approval of the referenced equipment as shown.

We trust the same is in order. Should you need any further information, kindly contact the writer who is authorized to act as agent.

Sincerely yours,

Hoosamuddin S. Bandukwala, Lab Director

enclosure(s)  
cc: Applicant  
HSB/mdw

Flom Test Labs  
3356 N. San Marcos Place, Suite 107  
Chandler, Arizona 85225-7176  
(866) 311-3268 phone, (480) 926-3598 fax

MFA p0730020, d0740003



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## Transmitter Certification

Of

GoPac Amplifier

Model: M13-0002-0A

to

**Federal Communications Commission**

Rule Part(s) 74F

Date of report: April 3, 2007

### On the Behalf of the Applicant:

Nucomm Incorporated

### At the Request of:

Nucomm Incorporated  
101 Bilby Road, Bldg. 2  
Hackettstown, NJ 07840

### Attention of:

George Williamson  
Ph: (908)852-3700  
Fax:  
Email: [gwilliamson@nucomm.com](mailto:gwilliamson@nucomm.com)

### Supervised by:

Flom Test Labs  
3356 N. San Marcos Place, Suite 107  
Chandler, Arizona 85225-7176  
(866) 311-3268 phone, (480) 926-3598 fax

Hoosamuddin S. Bandukwala, Lab Director

MFA p0730020, d0740003

## List of Exhibits

(FCC **Certification** (Transmitters) - Revised 9/28/98)

Applicant: Nucomm Incorporated

FCC ID: I4U23GP2-L5

### By Applicant:

1. Letter of Authorization
2. Confidentiality Request: 0.457 And 0.459
3. Part 90.203(e) & (g) Attestation
4. Identification Drawings, 2.1033(c)(11)
  - Label
  - Location of Label
  - Compliance Statement
  - Location of Compliance Statement
5. Photographs, 2.1033(c)(12)
6. Documentation: 2.1033(c)
  - (3) User Manual
  - (9) Tune Up Info
  - (10) Schematic Diagram
  - (10) Circuit Description
  - Block Diagram
  - Parts List
  - Active Devices
7. MPE/SAR Report

### By M.F.A. Inc.:

- A. Testimonial & Statement of Certification

## The Applicant has been cautioned as to the following:

### 15.21 Information to the User.

The users manual or instruction manual for an intentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### 15.27(a) Special Accessories.

Equipment marketed to a consumer must be capable of complying with the necessary regulations in the configuration in which the equipment is marketed. Where special accessories, such as shielded cables and/or special connectors are required to enable an unintentional or intentional radiator to comply with the emission limits in this part, the equipment must be marketed with, i.e. shipped and sold with, those special accessories. However, in lieu of shipping or packaging the special accessories with the unintentional or intentional radiator, the responsible party may employ other methods of ensuring that the special accessories are provided to the consumer, without additional charge.

Information detailing any alternative method used to supply the special accessories for a grant of equipment authorization or retained in the verification records, as appropriate. The party responsible for the equipment, as detailed in § 2.909 of this chapter, shall ensure that these special accessories are provided with the equipment. The instruction manual for such devices shall include appropriate instructions on the first page of text concerned with the installation of the device that these special accessories must be used with the device. It is the responsibility of the user to use the needed special accessories supplied with the equipment.

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2.202(g)	Necessary Bandwidth and Emission Bandwidth	145

Required information per ISO 17025-2005, paragraph 5.0:

a) **Test Report**

b) Laboratory: Flom Test Lab  
(FCC: 31040/SIT) 3356 N. San Marcos Place, Suite 107  
(Canada: IC 2044) Chandler, AZ 85225

c) Report Number: d0740003

d) Client: Nucomm Incorporated  
101 Bilby Road, Bldg. 2  
Hackettstown, NJ 07840

e) Identification: GoPac Amplifier

EUT Description: Video Booster Amplifier

f) EUT Condition: Not required unless specified in individual tests.

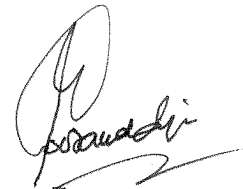
g) Report Date: April 3, 2007  
EUT Received:

h, j, k): As indicated in individual tests.

i) Sampling method: No sampling procedure used.

l) Uncertainty: In accordance with FTL internal quality manual.

m) Supervised by:



Hoosamuddin S. Bandukwala, Lab Director

n) Results: The results presented in this report relate only to the item tested.

o) Reproduction: This report must not be reproduced, except in full, without written permission from this laboratory.

Accessories used during testing:

Type	Quantity	Manufacturer	Model	Serial No.	FCC ID
------	----------	--------------	-------	------------	--------

Sub-part

2.1033(c)(14):

## Test and Measurement Data

All tests and measurement data shown were performed in accordance with FCC Rules and Regulations, Volume II; Part 2, Sub-part J, Sections 2.947, 2.1033(c), 2.1041, 2.1046, 2.1047, 2.1079, 2.1051, 2.1053, 2.1055, 2.1057 and the following individual Parts:

- 15 - Radio Frequency Devices (unlicensed)
- 21 - Domestic Public Fixed Radio Services
- 22 - Public Mobile Services
- 22 Subpart H - Cellular Radiotelephone Service
- 22.901(d) - Alternative technologies and auxiliary services
- 23 - International Fixed Public Radiocommunication services
- 24 - Personal Communications Services
- 74 Subpart F - Television Broadcast Auxiliary Stations
- 80 - Stations in the Maritime Services
- 80 Subpart E - General Technical Standards
- 80 Subpart F - Equipment Authorization for Compulsory Ships
- 80 Subpart K - Private Coast Stations and Marine Utility Stations
- 80 Subpart S - Compulsory Radiotelephone Installations for Small Passenger Boats
- 80 Subpart T - Radiotelephone Installation Required for Vessels on the Great Lakes
- 80 Subpart U - Radiotelephone Installations Required by the Bridge-to-Bridge Act
- 80 Subpart V - Emergency Position Indicating Radio Beacons (EPIRB'S)
- 80 Subpart W - Global Maritime Distress and Safety System (GMDSS)
- 80 Subpart X - Voluntary Radio Installations
- 87 - Aviation Services
- 90 - Private Land Mobile Radio Services
- 94 - Private Operational-Fixed Microwave Service
- 95 Subpart A - General Mobile Radio Service (GMRS)
- 95 Subpart C - Radio Control (R/C) Radio Service
- 95 Subpart D - Citizens Band (CB) Radio Service
- 95 Subpart E - Family Radio Service
- 95 Subpart F - Interactive Video and Data Service (IVDS)
- 97 - Amateur Radio Service
- 101 - Fixed Microwave Services

## Standard Test Conditions and Engineering Practices

### A2LA

“A2LA has accredited Flom Test Labs, Inc. Chandler, AZ for technical competence in the field of Electrical testing. The accreditation covers the specific tests and types of tests listed on the agreed scope of accreditation. This laboratory meets the requirements of ISO 17025:2005 ‘General Requirements for the Competence of Testing and Calibration Laboratories’ and any additional program requirements in the identified field of testing.”

Please refer to [www.a2la.org](http://www.a2la.org) for current scope of accreditation.

Certificate number: 2152.01



## List of General Information Required for Certification

In Accordance with FCC Rules and Regulations,  
Volume II, Part 2 and to

Sub-part 2.1033

(c)(1): **Name and Address of Applicant:**

Nucomm Incorporated  
101 Bilby Road, Bldg. 2  
Hackettstown, NJ 07840

**Manufacturer:**

Nucomm Incorporated  
101 Bilby Road, Bldg. 2  
Hackettstown, NJ 07840

(c)(2): **FCC ID:** I4U23GP2-L5

**Model Number:** M13-0002-0A

(c)(3): **Instruction Manual(s):**

Please see attached exhibits

(c)(4): **Type of Emission:** 17M0F8W, 17MOD9W, 12M0F8W,  
12MOD9W

(c)(5): **Frequency Range, MHz:** 1990 to 2500

(c)(6): **Power Rating, Watts:**  
 Switchable                       Variable                       N/A

**FCC Grant Note:**

(c)(7): **Maximum Power Rating, Watts:**

**DUT Results:** Passes     x     Fails

Subpart 2.1033 (continued)

(c)(8): Voltages & currents in all elements in final RF stage, including final transistor or solid-state device:

Collector Current, A	=	4.8
Collector Voltage, Vdc	=	11.7
Supply Voltage, Vdc	=	12.0

(c)(9): **Tune-Up Procedure:**

Please see attached exhibits

(c)(10): **Circuit Diagram/Circuit Description:**

Including description of circuitry & devices provided for determining and stabilizing frequency, for suppression of spurious radiation, for limiting modulation and limiting power.

Please see attached exhibits

(c)(11): **Label Information:**

Please see attached exhibits

(c)(12): **Photographs:**

Please see attached exhibits

(c)(13): **Digital Modulation Description:**

     Attached Exhibits  
  x   N/A

(c)(14): **Test and Measurement Data:**

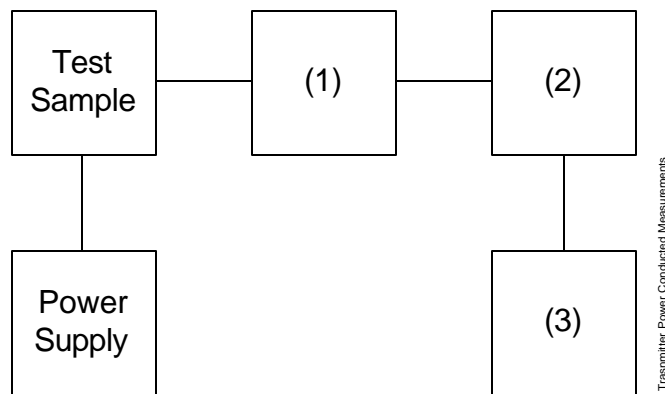
Follows

**Name of Test:** Carrier Output Power (Conducted)  
**Specification:** 47 CFR 2.1046(a)  
**Guide:** ANSI/TIA/EIA-603-1992, Paragraph 2.2.1

**Measurement Procedure**

- A) The EUT was connected to a resistive coaxial attenuator of normal load impedance, and the unmodulated output power was measured by means of an RF Power Meter.
- B) Measurement accuracy is  $\pm 3\%$ .

**Transmitter Test Set-Up: RF Power Output**



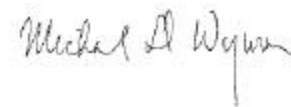
Asset	Description	s/n	Cycle	Last Cal
(1)	<b>Coaxial Attenuator</b>			
X	i00231/2 PASTERNAK PE7021-30 (30 dB)	231 or 232	N/A	NCR
	i00122/3 NARDA 766 (10 dB)	7802 or 7802A	N/A	NCR
(2)	<b>Power Meters</b>			
X	i00321 HP 8901A Power Mode	2239A02170	12 mo.	Sep-06
(3)	<b>Frequency Counter</b>			
X	i00321 HP 8901A Frequency Mode	2239A02170	12 mo.	Sep-06

**Name of Test:** Carrier Output Power (Conducted)

**Measurement Results**  
(Worst case)

Frequency of Carrier, MHz =  
 Ambient Temperature = 23°C ± 3°C

Power Setting	Frequency, MHz	RF Power, dBm
Low Power	1999	21.43
	2110	21.33
	2450	24.76
	2500	25.31
Medium Power	1999	28.19
	2110	27.90
	2450	27.23
	2500	28.01
High Power	1999	35.06
	2110	34.87
	2450	34.05
	2500	34.79



Performed by:

Michael Wyman

**Name of Test:** RF Power Output (Radiated)

**Specification:** 47 CFR 2.1046(a)

**Test Equipment:** As per attached page

### Measurement Procedure (Radiated)

1. The EUT was placed on an open-field site and its radiated field strength at a known distance was measured by means of a spectrum analyzer. Equivalent loading was calculated from the equation  $P_t = ((E \times R)^2 / 49.2)$  watts, where  $R = 3m$ .
2. Measurement accuracy is  $\pm 1.5$  dB.

### Measurement Results

State: Ambient Temperature: 23°C  $\pm$  3°C

Amps Mode:

High Power				
Frequency Tuned, MHz	Frequency Emission, MHz	Meter, dBuV/m	CF, dB	EIRP, dBm
1999.000000	1997.233333	53.67	33.79	-9.9
2110.000000	2111.100000	56.17	34.28	-6.9
2450.000000	2451.100000	53.5	35.6	-8.3
2500.000000	2498.866667	54.17	35.78	-7.4
Low Power				
Frequency Tuned, MHz	Frequency Emission, MHz	Meter, dBuV/m	CF, dB	EIRP, dBm
1999.000000	1999.833333	49.17	33.8	-14.4
2110.000000	2110.833333	46.67	34.28	-16.4
2450.000000	2450.933333	45.5	35.6	-16.3
2500.000000	2500.933333	47.83	35.78	-13.8

**Name of Test:** Field Strength of Spurious Radiation  
**Specification:** 47 CFR 2.1053(a)  
**Guide:** ANSI/TIA/EIA-603-1992/2001, Paragraph 1.2.12 and Table 16, 47 CFR 22.917

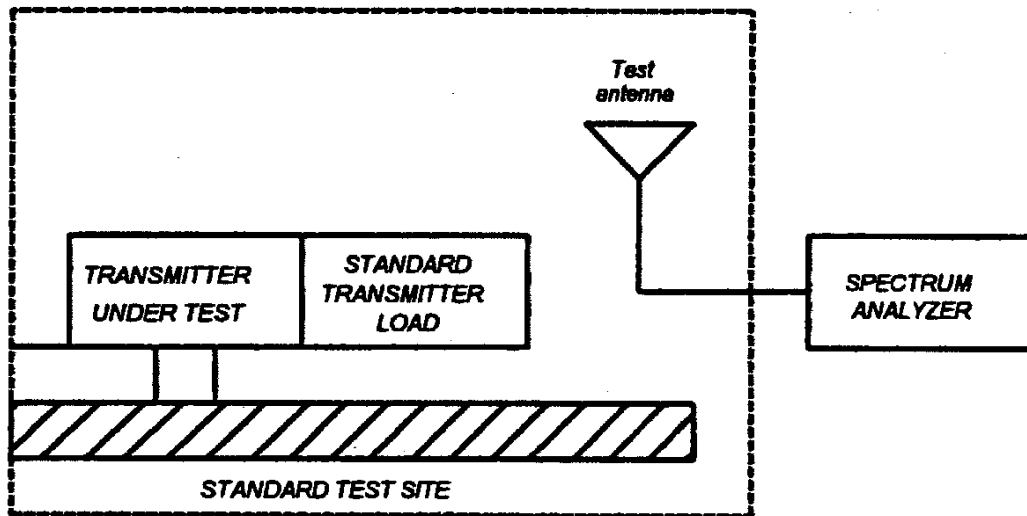
**Measurement Procedure**

**Definition:**

Radiated spurious emissions are emissions from the equipment when transmitting into a non-radiating load on a frequency or frequencies which are outside an occupied band sufficient to ensure transmission of information of required quality for the class of communications desired.

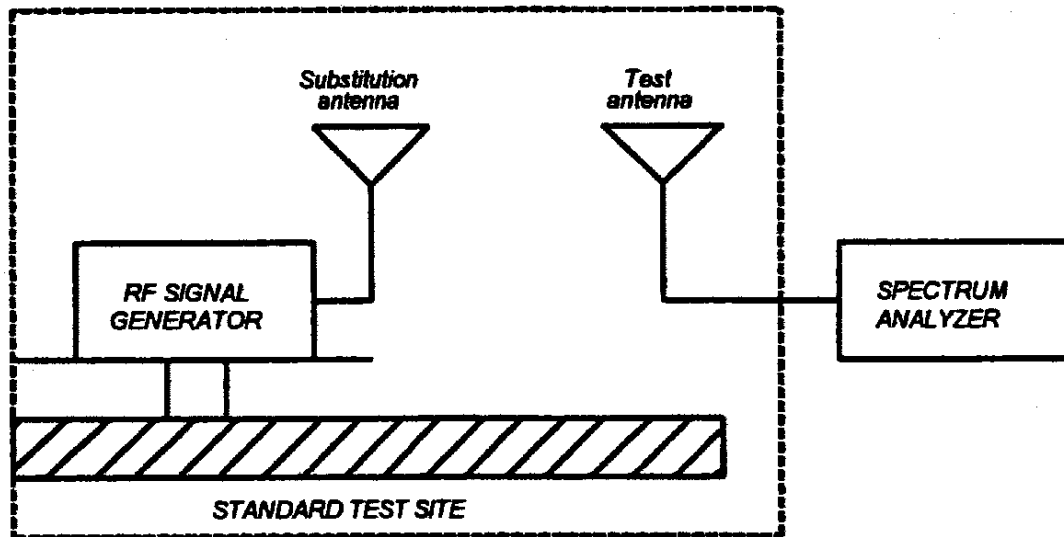
**Method of Measurement:**

- A) Connect the equipment as illustrated
- B) Adjust the spectrum analyzer for the following settings:
  - 1) Resolution Bandwidth 100 kHz (<1 GHz), 1 MHz (> 1GHz).
  - 2) Video Bandwidth = 3 times Resolution Bandwidth, or 30 kHz (22.917)
  - 3) Sweep Speed  $\leq 2000$  Hz/second
  - 4) Detector Mode = Mean or Average Power
- C) Place the transmitter to be tested on the turntable in the standard test site. The transmitter is transmitting into a non-radiating load that is placed on the turntable. The RF cable to this load should be of minimum length.



**Name of Test:** Field Strength of Spurious Radiation (Cont.)

- D) For each spurious measurement the test antenna should be adjusted to the correct length for the frequency involved. This length may be determined from a calibration ruler supplied with the equipment. Measurements shall be made from the lowest radio frequency generated in the equipment to the tenth harmonic of the carrier, except for the region close to the carrier equal to  $\pm$  the test bandwidth (see section 1.3.4.4).
- E) For each spurious frequency, raise and lower the test antenna from 1 m to 4 m to obtain a maximum reading on the spectrum analyzer with the test antenna at horizontal polarity. Repeat this procedure to obtain the highest possible reading. Record this maximum reading.
- F) Repeat step E) for each spurious frequency with the test antenna polarized vertically.



- G) Reconnect the equipment as illustrated.
- H) Keep the spectrum analyzer adjusted as in step B).
- I) Remove the transmitter and replace it with a substitution antenna (the antenna should be half-wavelength for each frequency involved). The center of the substitution antenna should be approximately at the same location as the center of the transmitter. At lower frequencies, where the substitution antenna is very long, this will be impossible to achieve when the antenna is polarized vertically. In such case the lower end of the antenna should be 0.3 m above the ground.

**Name of Test:** Field Strength of Spurious Radiation (Cont.)

- J) Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a non-radiating cable. With the antennas at both ends horizontally polarized and with the signal generator tuned to a particular spurious frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output.
- K) Repeat step J) with both antennas vertically polarized for each spurious frequency.
- L) Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps J) and K) by the power loss in the cable between the generator and the antenna and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna.
- M) The levels recorded in step L) are absolute levels of radiated spurious emissions in dBm. The radiated spurious emissions in dB can be calculated by the following:

Radiated spurious emissions dB =

$$10\log_{10}(\text{TX power in watts}/0.001) - \text{the levels in step I)}$$

*NOTE: It is permissible that other antennas provided can be referenced to a dipole.*

### Test Equipment

Asset	Description	s/n	Cycle	Last Cal
<b>Transducer</b>				
	i00088	EMCO 3109-B 25MHz-300MHz	2336	12 mo. Oct-05
X	i00089	Apriel 2001 200MHz-1GHz	001500	12 mo. Oct-05
X	i00103	EMCO 3115 1GHz-18GHz	9208-3925	12 mo. Sep-06
<b>Amplifier</b>				
X	i00028	HP 8449A	2749A00121	12 mo. Jun-06
<b>Spectrum Analyzer</b>				
X	i00029	HP 8563E	3213A00104	12 mo. Jan-06
X	i00033	HP 85462A	3625A00357	12 mo. Oct-05
<b>Substitution Generator</b>				
X	i00067	HP 8920A Communication TS	3345U01242	12 mo. Jun-06
	i00207	HP 8753D Network Analyzer	3410A08514	12 mo. May-06

**Microphone, Antenna Port, and Cabling**

Microphone \_\_\_\_\_ Cable Length \_\_\_\_\_ Meters  
 Antenna Port Terminated \_\_\_\_\_ Load \_\_\_\_\_ Antenna Gain \_\_\_\_\_  
 All Ports Terminated by Load \_\_\_\_\_ Peripheral \_\_\_\_\_



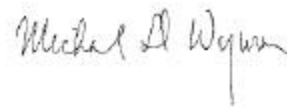
**Name of Test:** Field Strength of Spurious Radiation

**Measurement Results**

STATE: Ambient Temperature: 23°C ± 3°C

Frequency Tuned, MHz	Frequency Emission, MHz	ERP, dBm
1999.000000	3998.000000	-50.9
1999.000000	5997.000000	-45.9
1999.000000	7996.000000	-41.1
Frequency Tuned, MHz	Frequency Emission, MHz	ERP, dBm
2110.000000	4220.000000	-52.2
2110.000000	6345.833333	-45.8
2110.000000	8455.833333	-42.8
Frequency Tuned, MHz	Frequency Emission, MHz	ERP, dBm
2450.000000	4899.500000	-47.9
2450.000000	7349.500000	-44.5
2450.000000	9799.500000	-41.4
Frequency Tuned, MHz	Frequency Emission, MHz	ERP, dBm
2500.000000	4999.500000	-50.5
2500.000000	7464.333333	-40.9
2500.000000	9999.833333	-37.1

All frequencies were checked to the 10<sup>th</sup> harmonic. No observable spurious signals were seen throughout the spectrum.



Performed by:

Michael Wyman

**Name of Test:** Spurious Emissions (Transmitter Conducted)

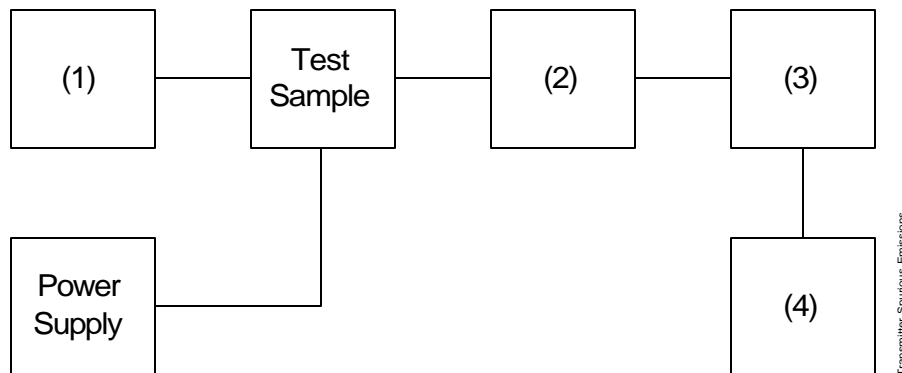
**Specification:** 47 CFR 2.1051

**Guide:** ANSI/TIA/EIA-603-1992, Paragraph 2.2.13

**Measurement Procedure**

- A) The emissions were measured for the worst case as follows:
- 1). within a band of frequencies defined by the carrier frequency plus and minus one channel.
  - 2). from the lowest frequency generated in the EUT and to at least the 10th harmonic of the carrier frequency, or 40 GHz, whichever is lower.
- B) The magnitude of spurious emissions that are attenuated more than 20 dB below the permissible value need not be specified.

**Transmitter Test Set-Up: Spurious Emission**



Asset	Description	s/n		
<b>(1) Audio Oscillator/Generator</b>				
i00324	HP 8903B Audio Analyzer	3011A09079	12 mo.	Oct-06
i00002	HP 3336B Synthesizer / Level Gen.	1931A01465	N/A	NCR
<b>(2) Coaxial Attenuator</b>				
X i00231/2	PASTERNAK PE7021-30 (30 dB)	231 or 232	N/A	NCR
i0012/3	NARDA 766 (10 dB)	7802 or 7802A	N/A	NCR
<b>(3) Filters; Notch, HP, LP, BP</b>				
			N/A	NCR
<b>(4) Spectrum Analyzer</b>				
X i00048	HP 8566B Spectrum Analyzer	2511A01467	12 mo.	Aug-06
i00029	HP 8563E Spectrum Analyzer	3213A00104	12 mo.	

Name of Test: Spurious Emissions (Transmitter Conducted)

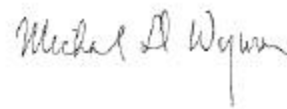
**Measurement Results**  
(Worst Case)

Summary:

Frequency of carrier, MHz	=	
Spectrum Searched, GHz	=	0 to 10 x F <sub>c</sub>
Maximum Response, Hz	=	
All Other Emissions	=	= 80 dB Below Limit
Limit(s), dBc		

Plots Results follow:

**Measurement Results**



Performed by:

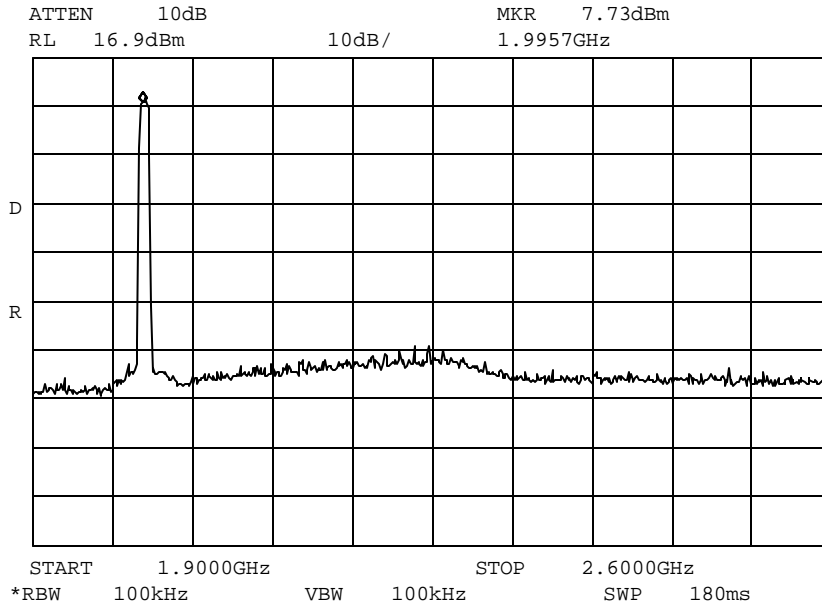
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740150: 2007-Apr-05 Thu 10:29:00  
 State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
 Modulation: QAM64  
 TX Frequency: 1999MHz

*Michael D Wyman*

Performed by:

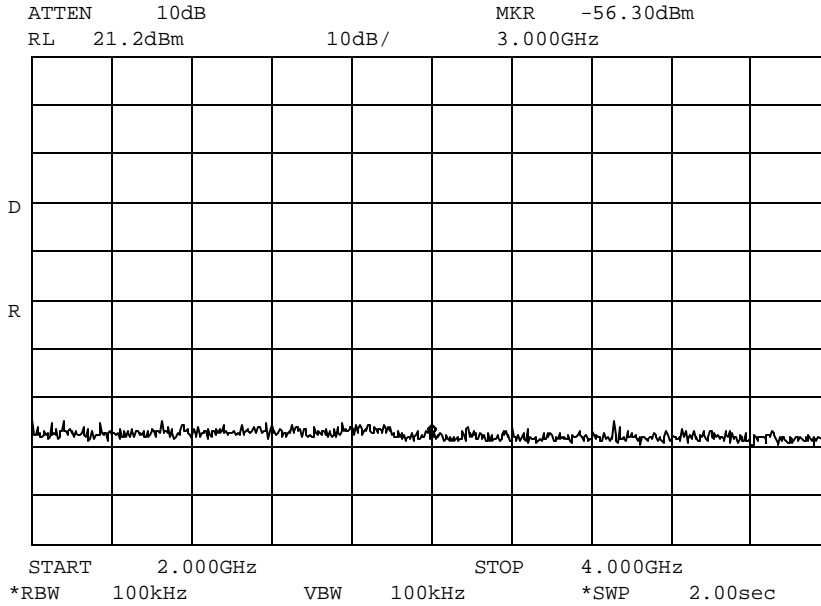
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740002: 2007-Apr-02 Mon 15:34:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

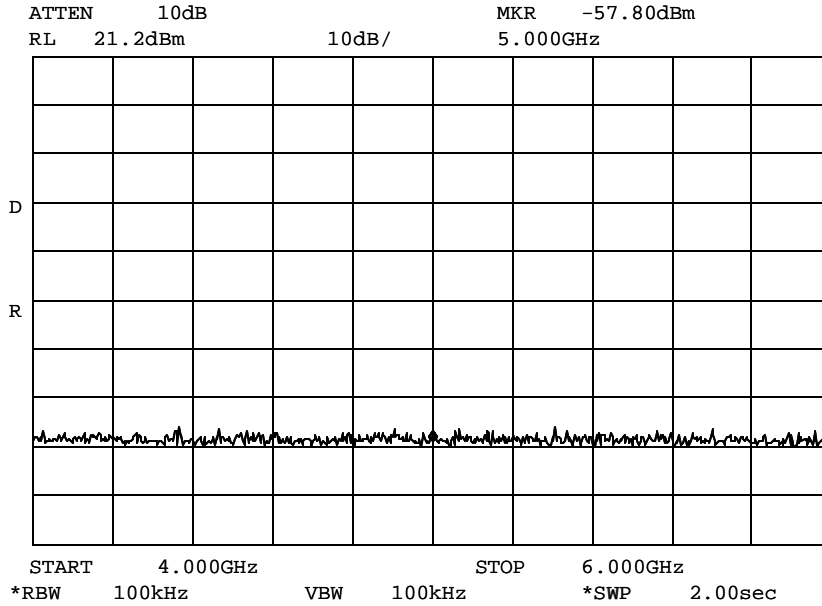
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740003: 2007-Apr-02 Mon 15:36:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power:  
Modulation:

LOW  
QAM64

Performed by:

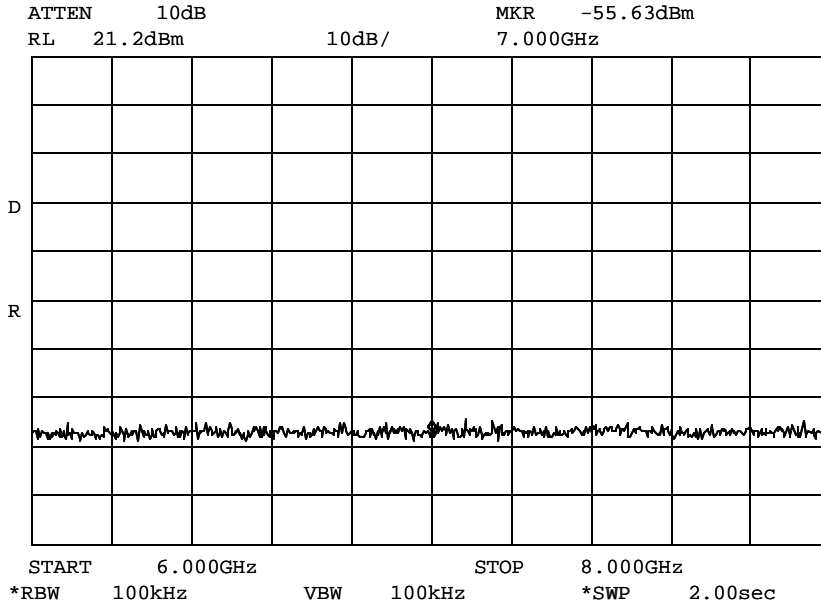
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740004: 2007-Apr-02 Mon 15:37:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

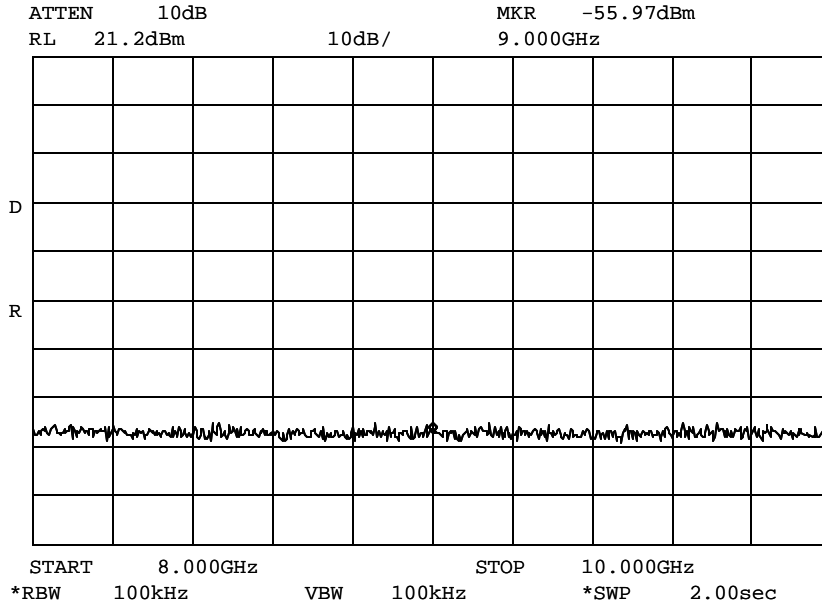
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740005: 2007-Apr-02 Mon 15:38:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

Michael Wyman

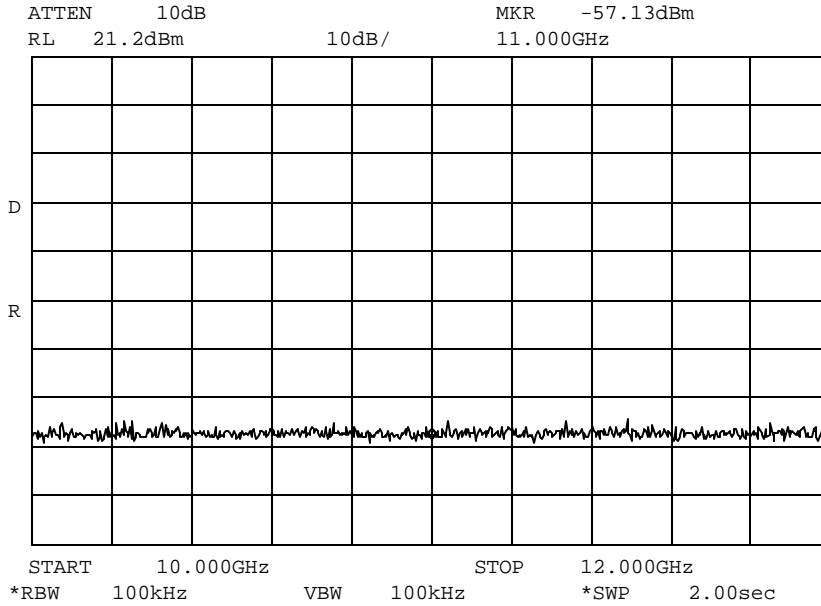


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740006: 2007-Apr-02 Mon 15:40:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

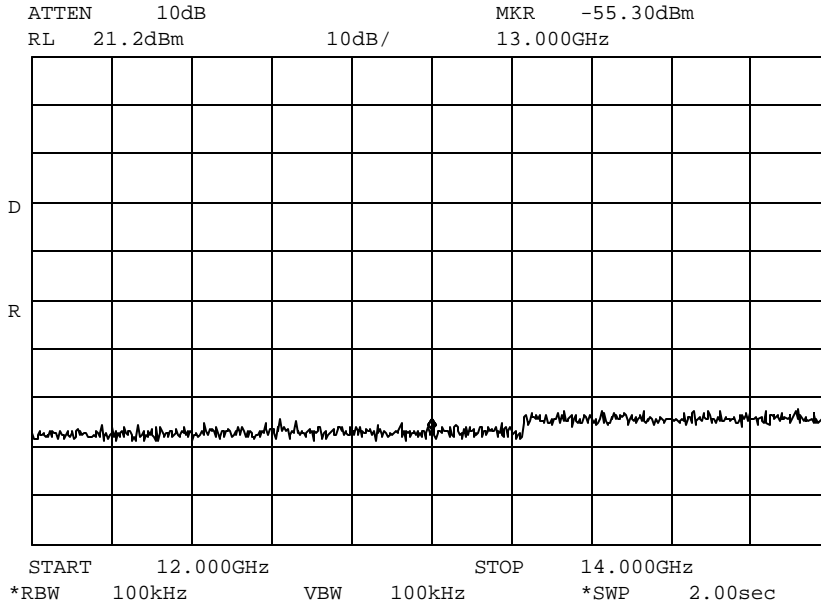
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740007: 2007-Apr-02 Mon 15:50:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

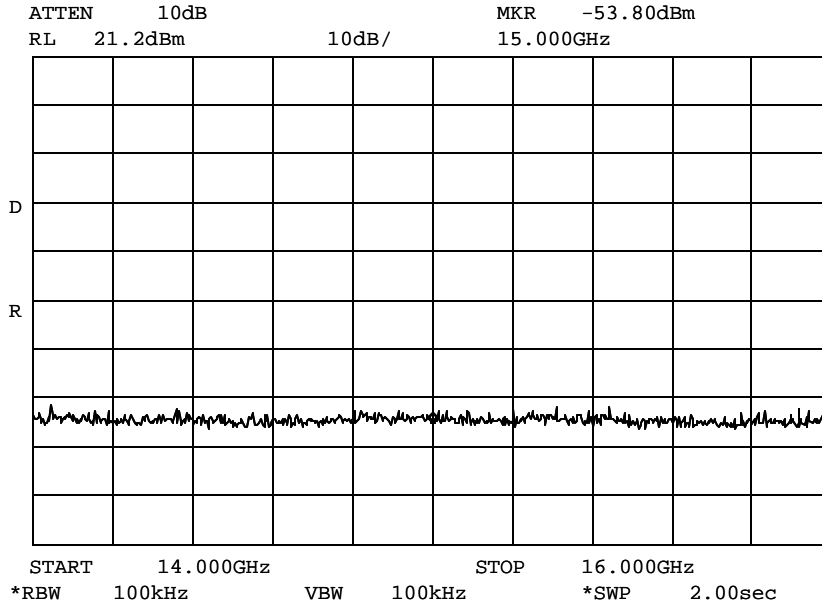
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740008: 2007-Apr-02 Mon 15:51:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

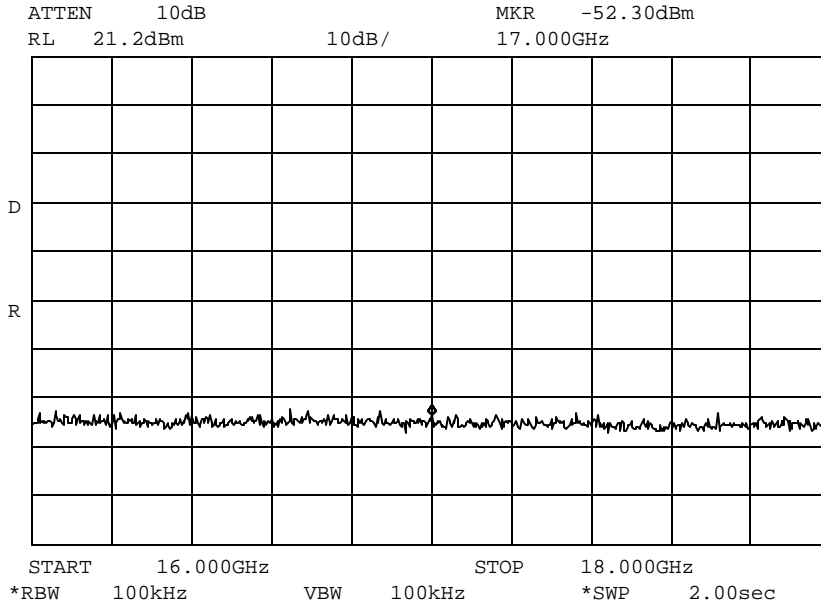
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740009: 2007-Apr-02 Mon 15:51:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

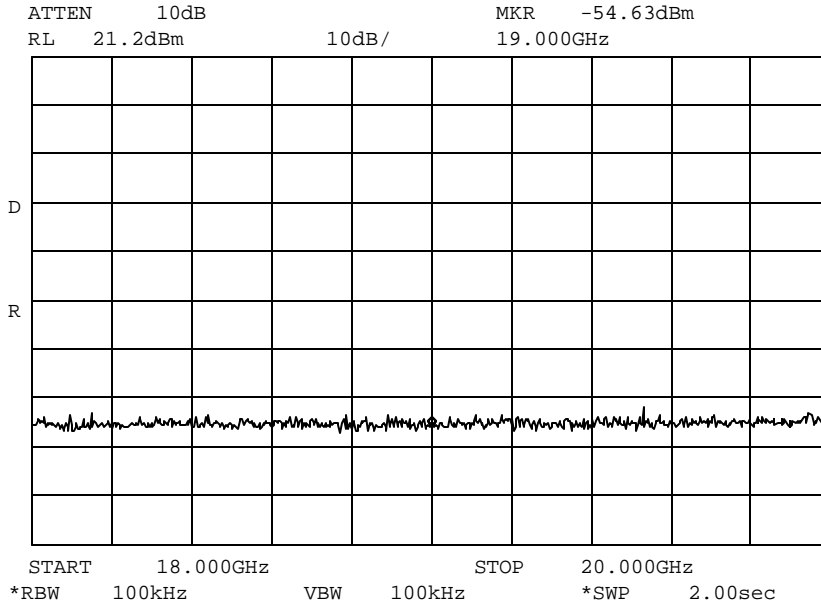
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740010: 2007-Apr-02 Mon 15:52:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

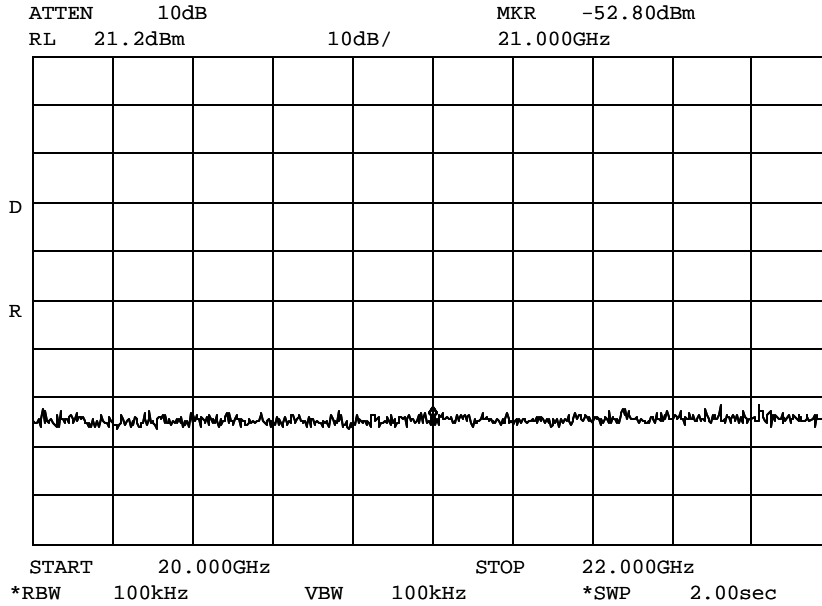
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740011: 2007-Apr-02 Mon 15:53:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

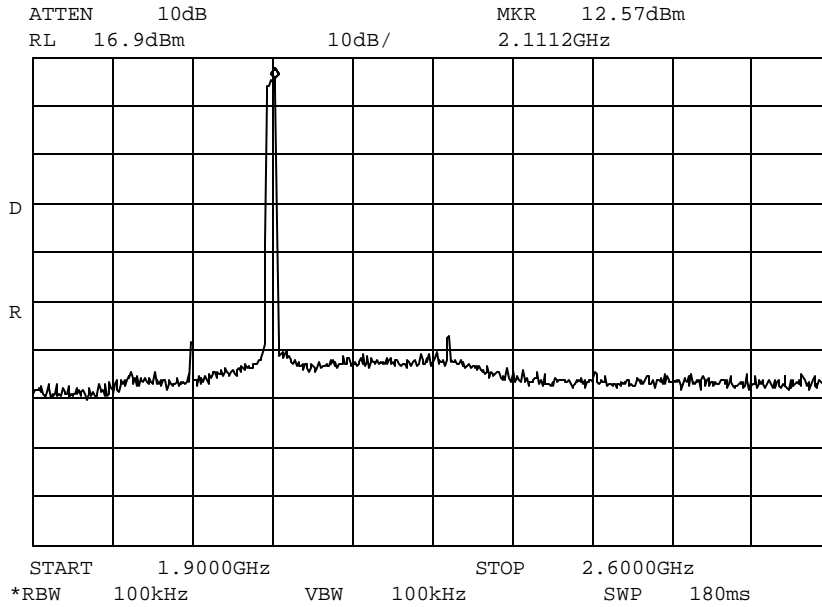
Michael Wyman

Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0740151: 2007-Apr-05 Thu 10:30:00  
 State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
 Modulation: QAM64  
 TX Frequency: 2110

*Michael D Wyman*

Performed by:

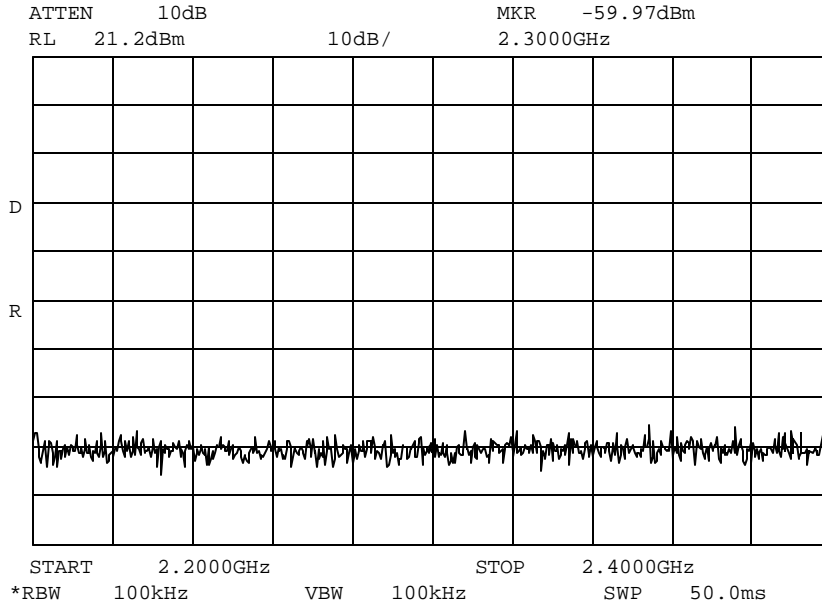
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740035: 2007-Apr-03 Tue 09:06:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

Michael Wyman

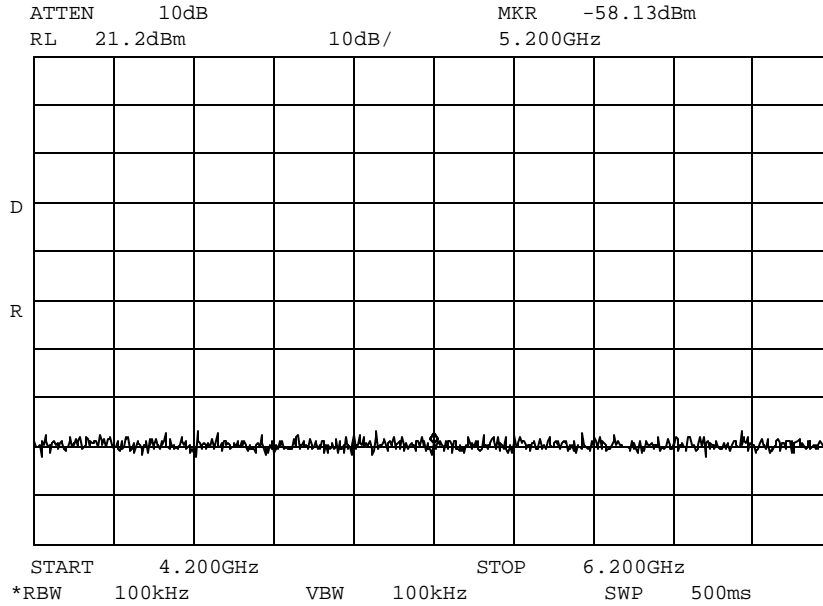


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740036: 2007-Apr-03 Tue 09:07:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

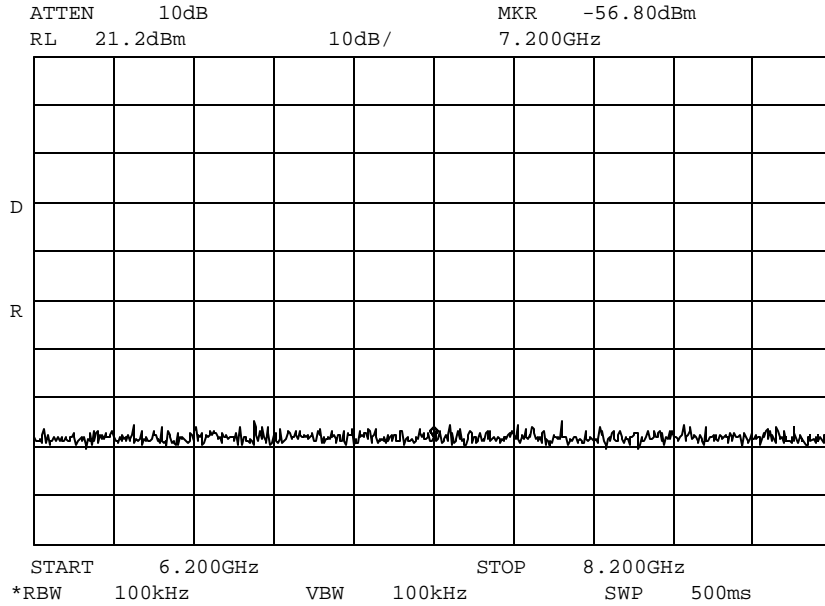
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740037: 2007-Apr-03 Tue 09:07:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

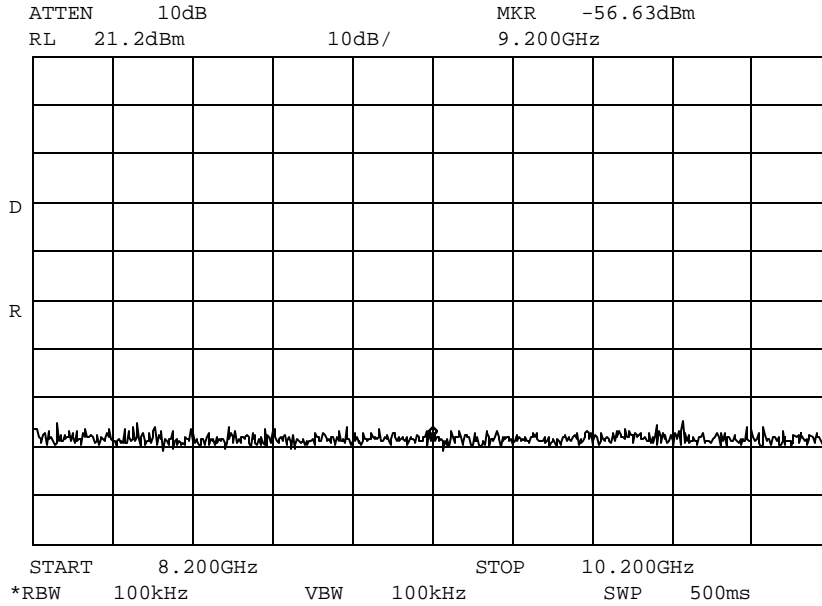
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740038: 2007-Apr-03 Tue 09:08:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

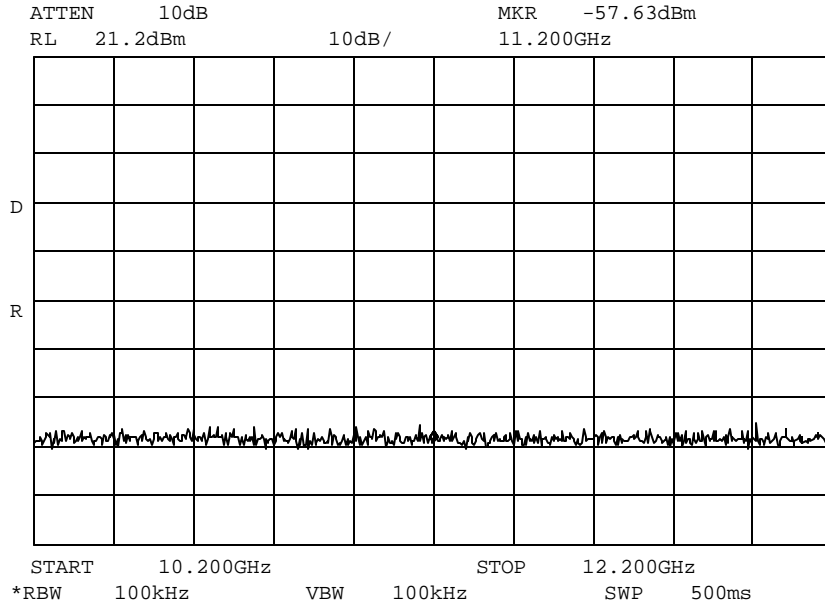
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740039: 2007-Apr-03 Tue 09:10:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

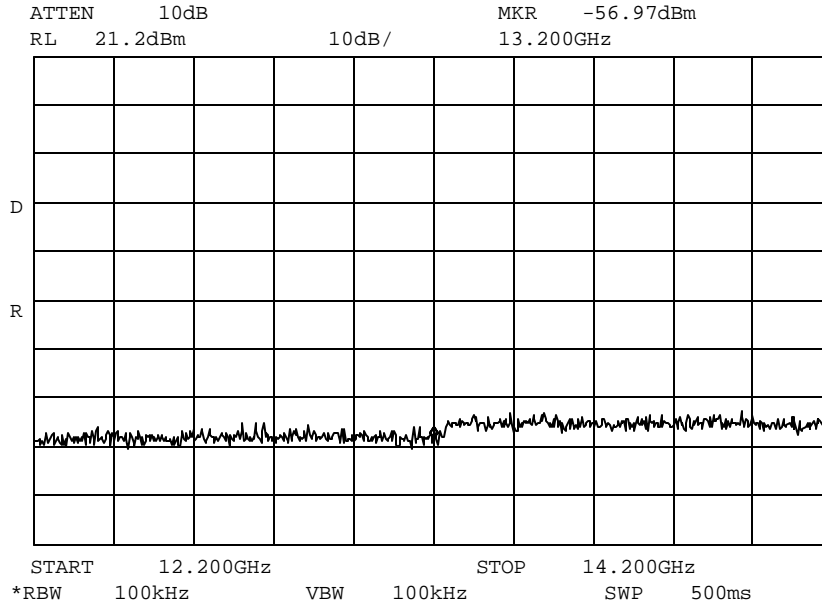
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740040: 2007-Apr-03 Tue 09:18:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

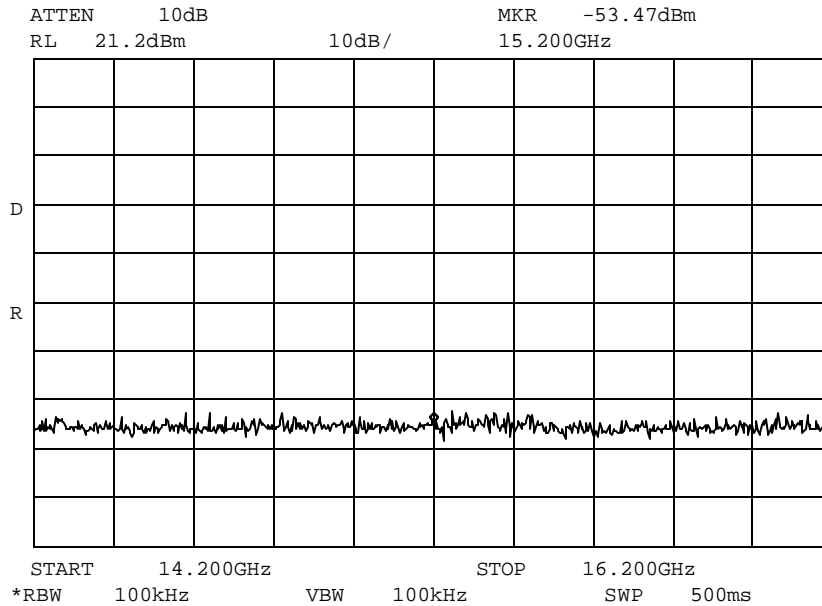
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740041: 2007-Apr-03 Tue 09:19:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

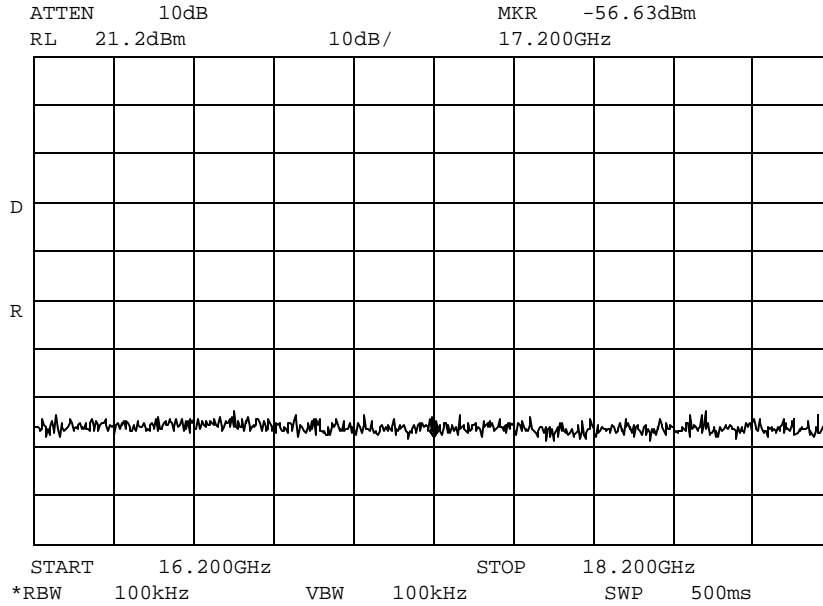
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740042: 2007-Apr-03 Tue 09:20:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

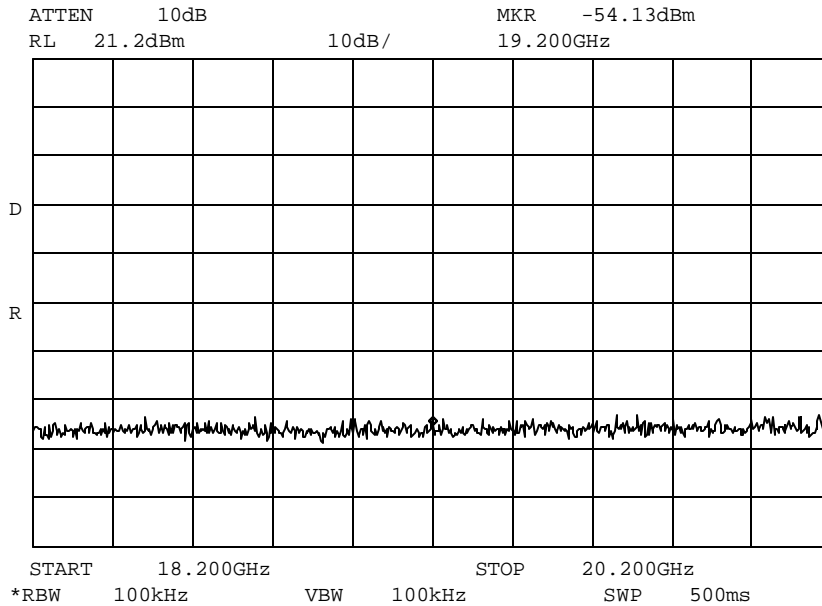
Michael Wyman

**Name of Test:** Spurious Emission (Transmitter Conducted)

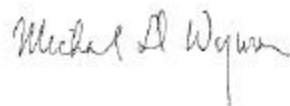
**Measurement Results**

g0740043: 2007-Apr-03 Tue 09:20:00  
 State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
 Modulation: QAM64



Performed by:

Michael Wyman

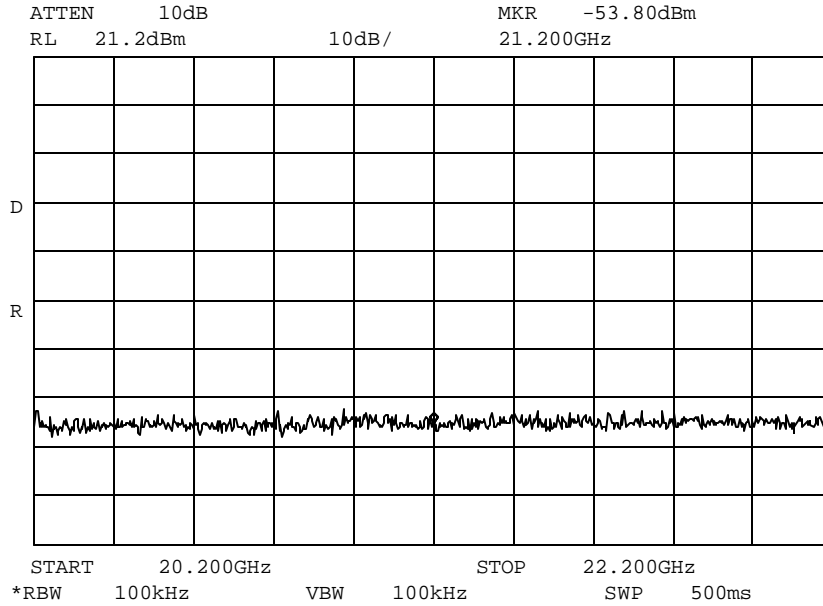


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740044: 2007-Apr-03 Tue 09:21:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

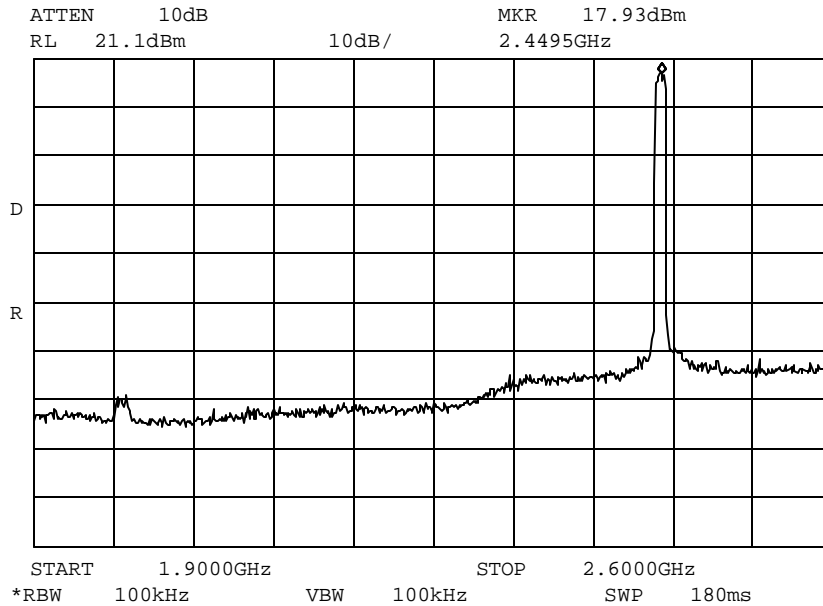
Michael Wyman

Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0740152: 2007-Apr-05 Thu 10:32:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64  
TX Frequency: 2450MHz

*Michael D Wyman*

Performed by:

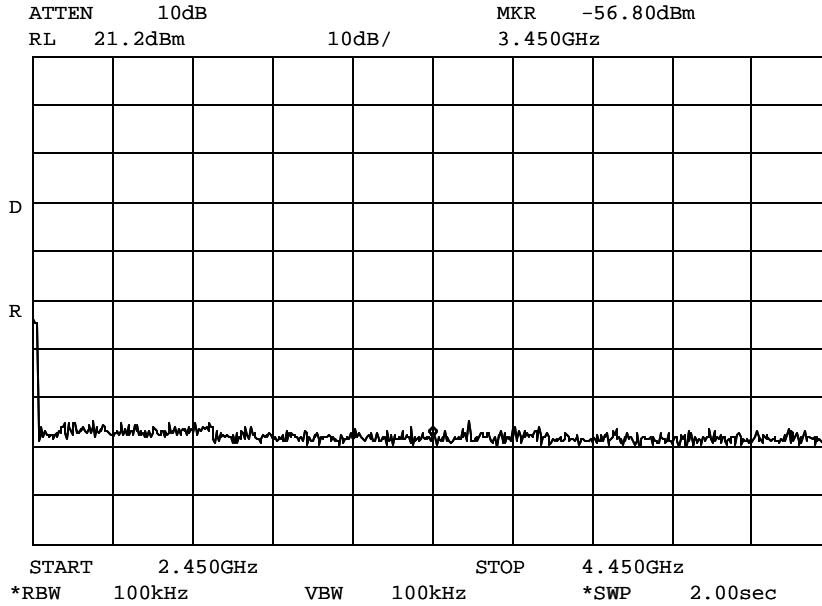
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740012: 2007-Apr-02 Mon 15:56:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64  
TX Frequency: 2450MHz

*Michael D Wyman*

Performed by:

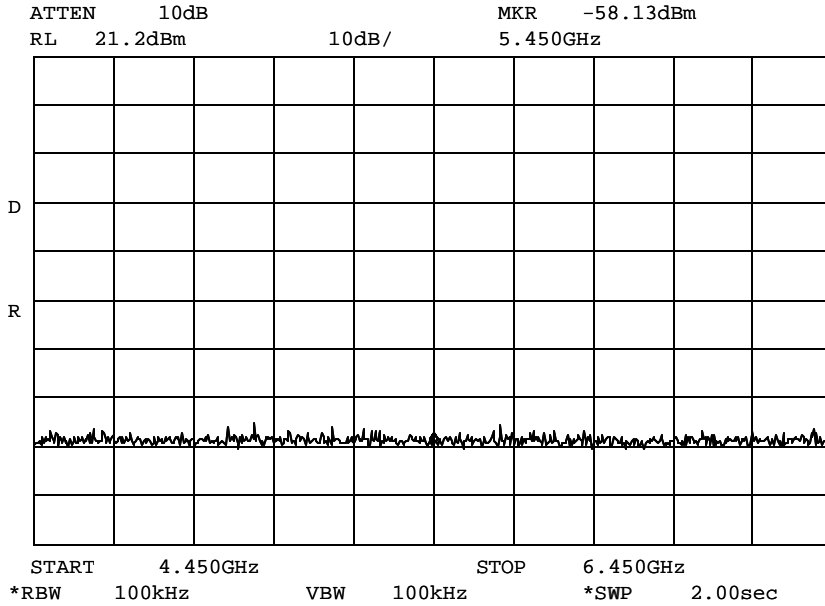
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740013: 2007-Apr-02 Mon 15:57:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

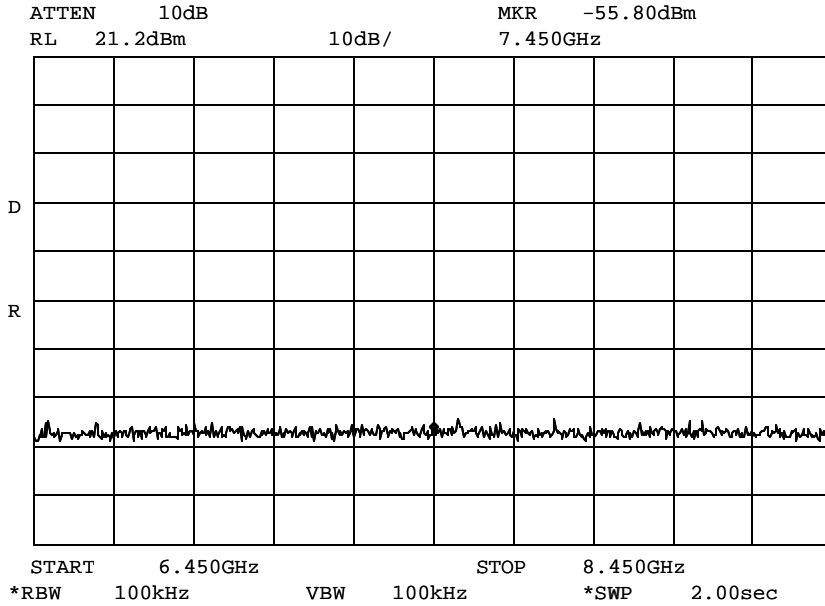
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740014: 2007-Apr-02 Mon 15:58:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

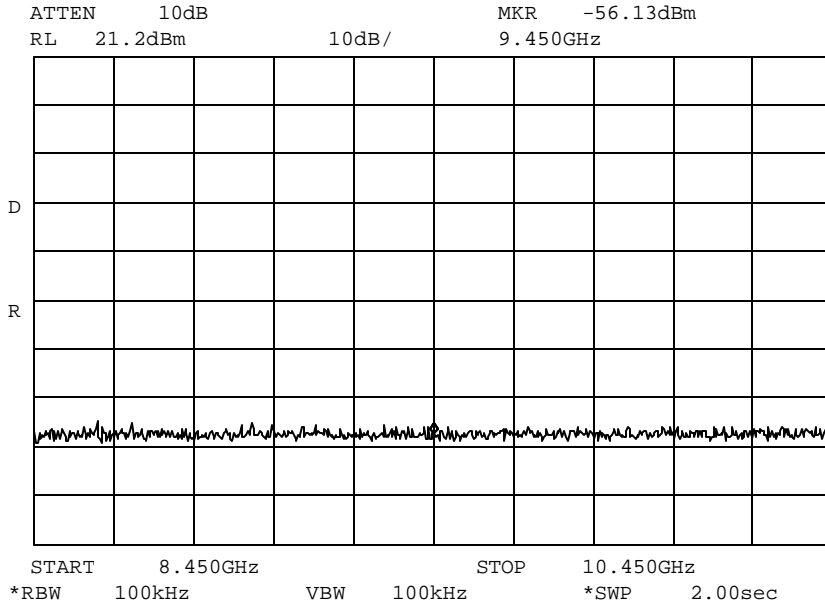
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740015: 2007-Apr-02 Mon 15:58:00  
 State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
 Modulation: QAM64

Performed by:

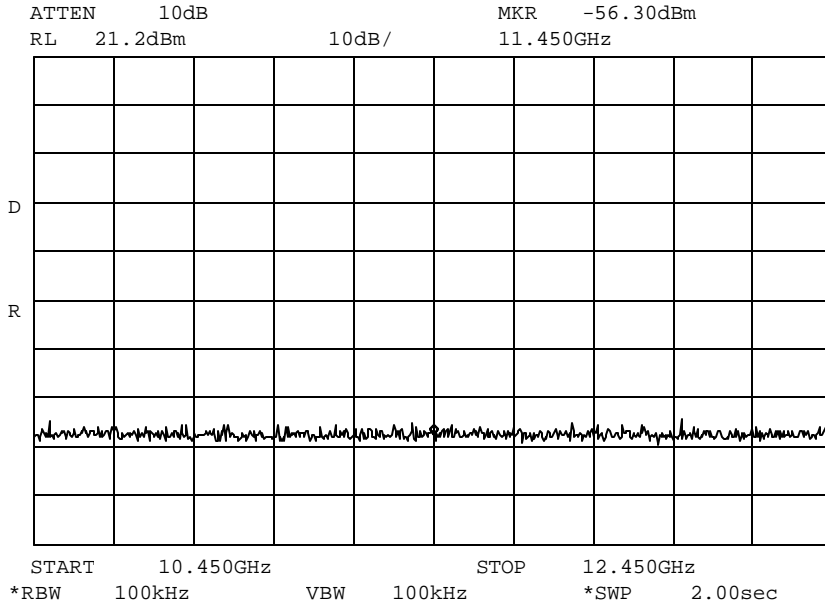
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740016: 2007-Apr-02 Mon 15:59:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

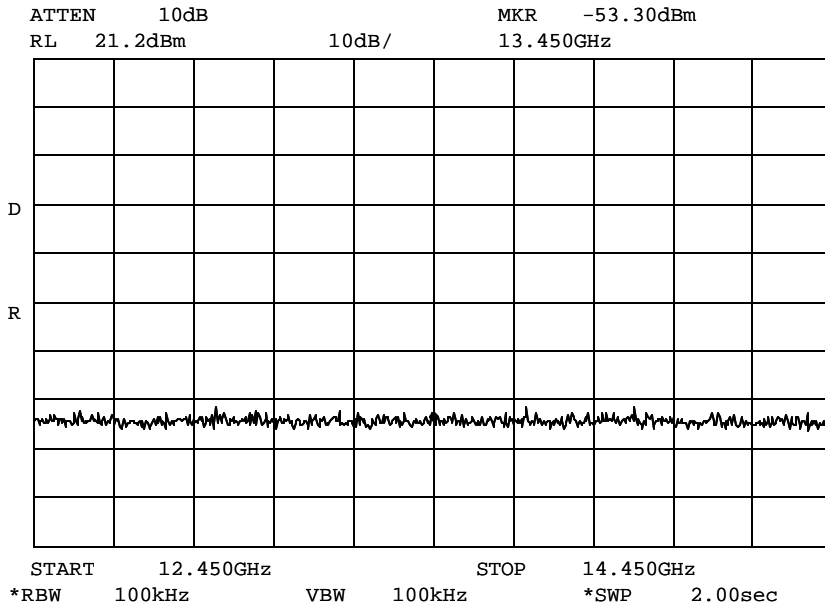
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740017: 2007-Apr-02 Mon 16:00:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

Michael Wyman

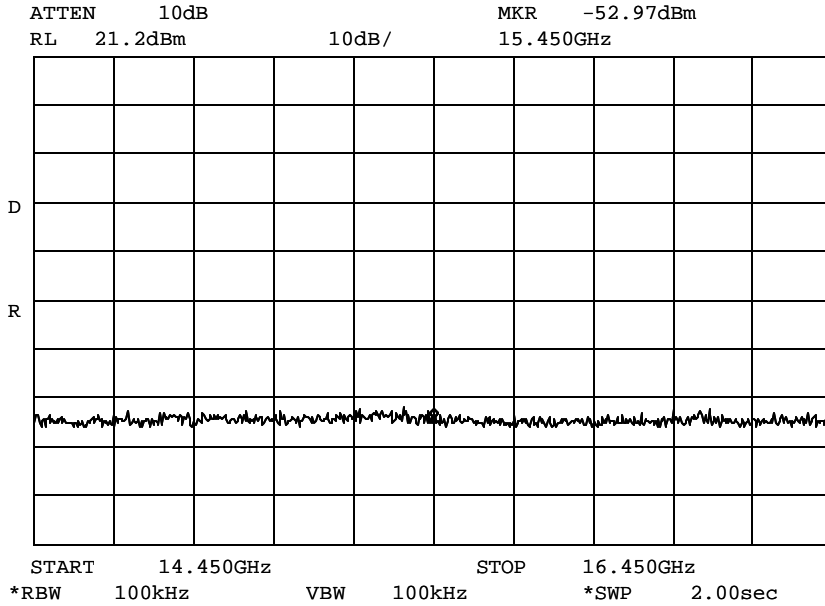


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740018: 2007-Apr-02 Mon 16:01:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

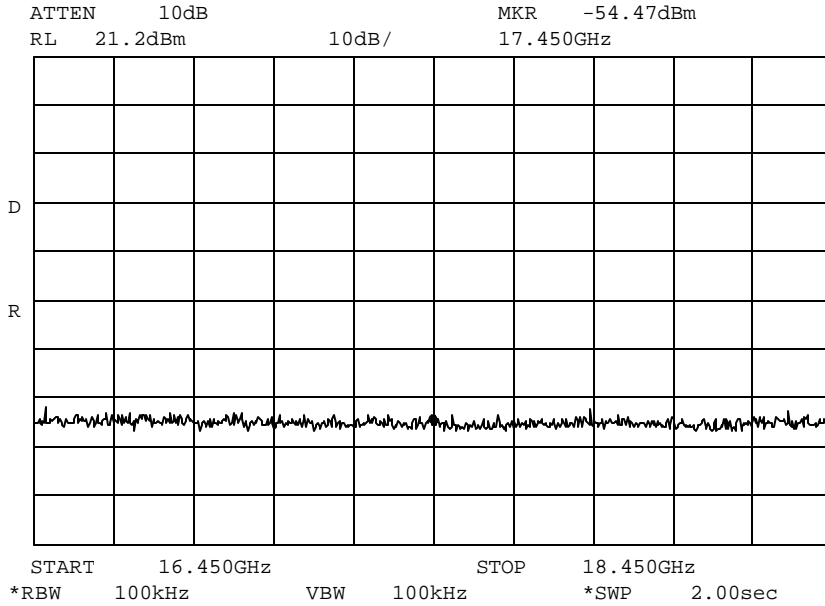
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740019: 2007-Apr-02 Mon 16:01:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

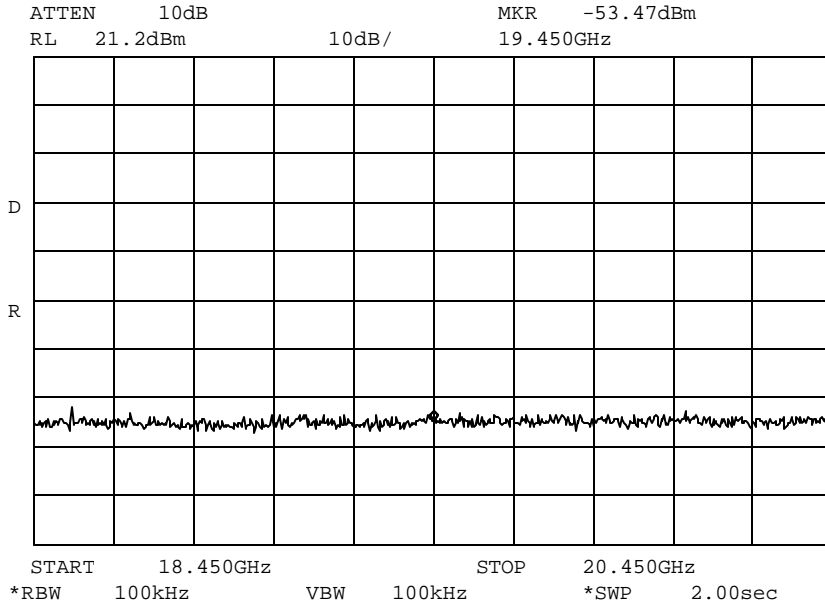
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740020: 2007-Apr-02 Mon 16:02:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

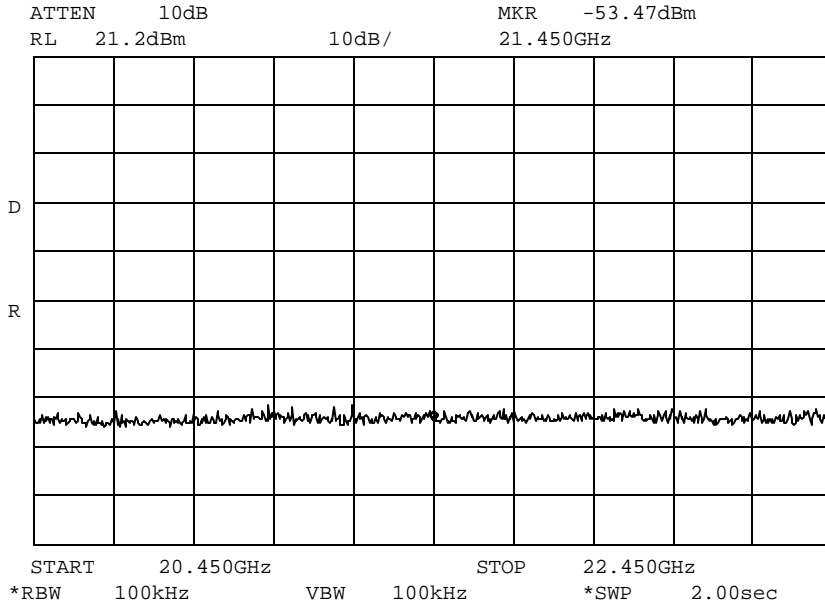
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740021: 2007-Apr-02 Mon 16:03:00  
 State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
 Modulation: QAM64

Performed by:

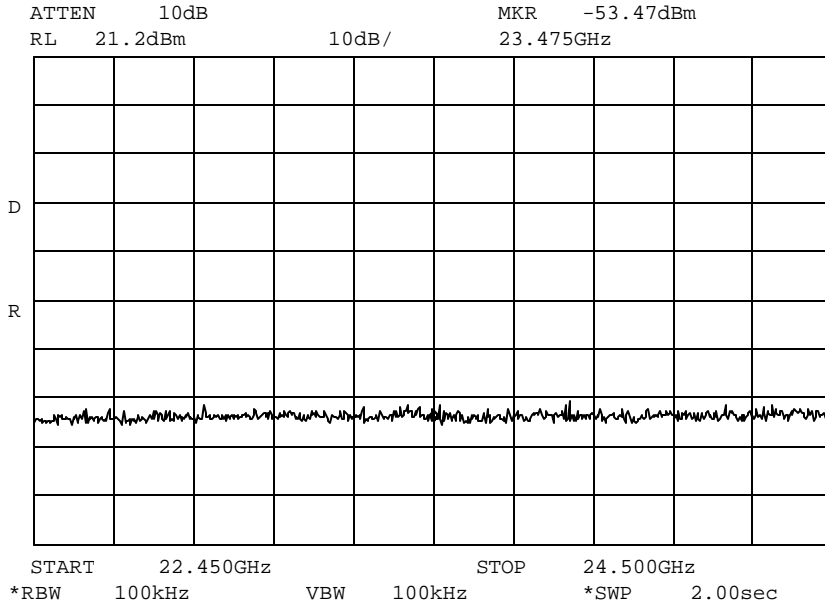
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740022: 2007-Apr-02 Mon 16:05:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

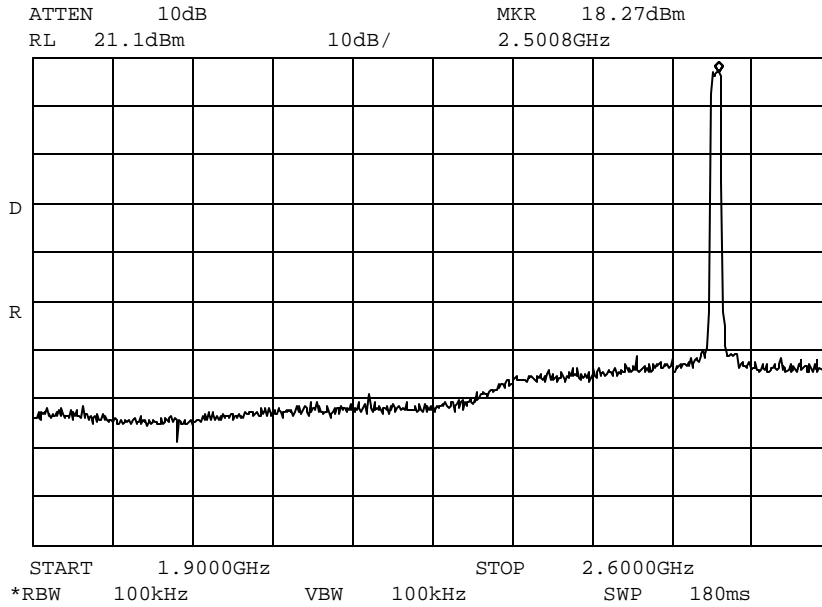
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740153: 2007-Apr-05 Thu 10:35:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power:	LOW 2500
Modulation:	QAM64
TX Frequency	2500MHz

Performed by:

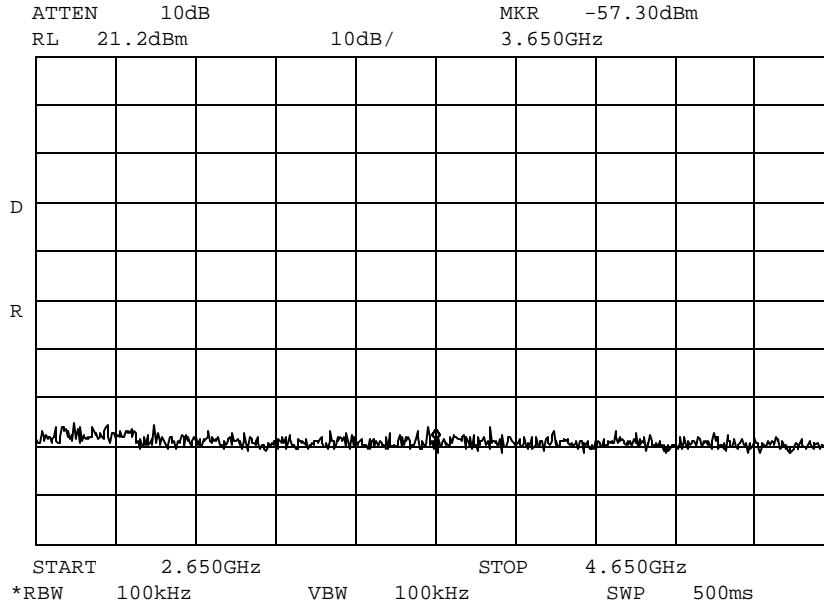
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

**Measurement Results**

g0740023: 2007-Apr-03 Tue 08:55:00  
 State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power:	LOW
Modulation:	QAM64
TX Frequency	2500MHz

*Michael D Wyman*

Performed by:

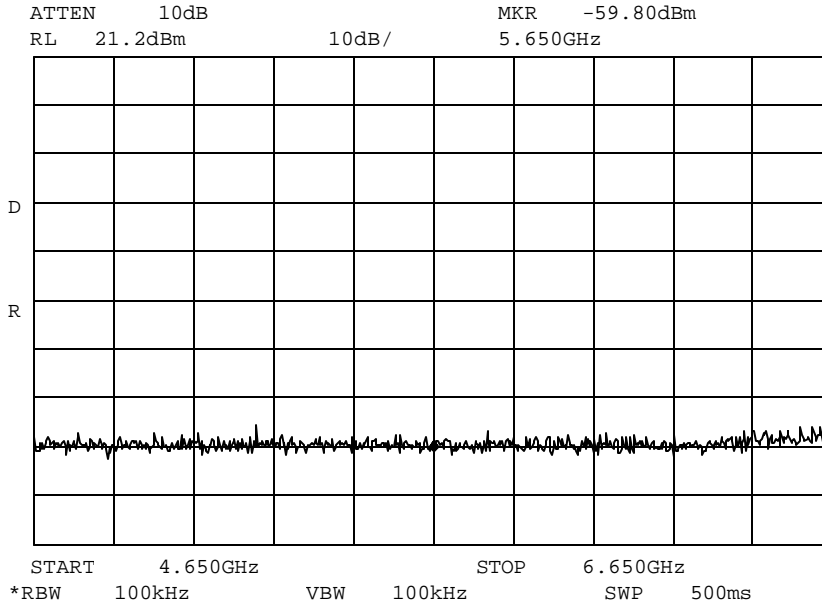
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740024: 2007-Apr-03 Tue 08:56:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

Michael Wyman

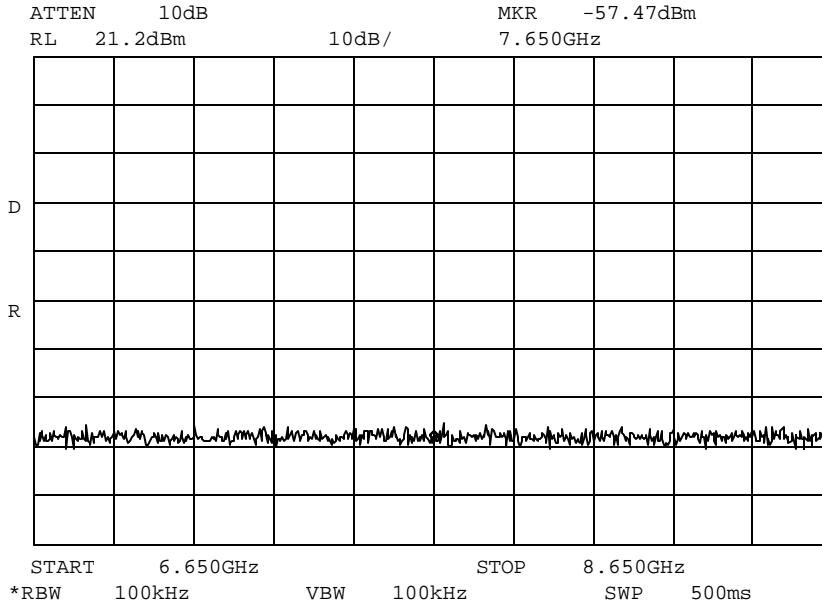


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740025: 2007-Apr-03 Tue 08:56:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

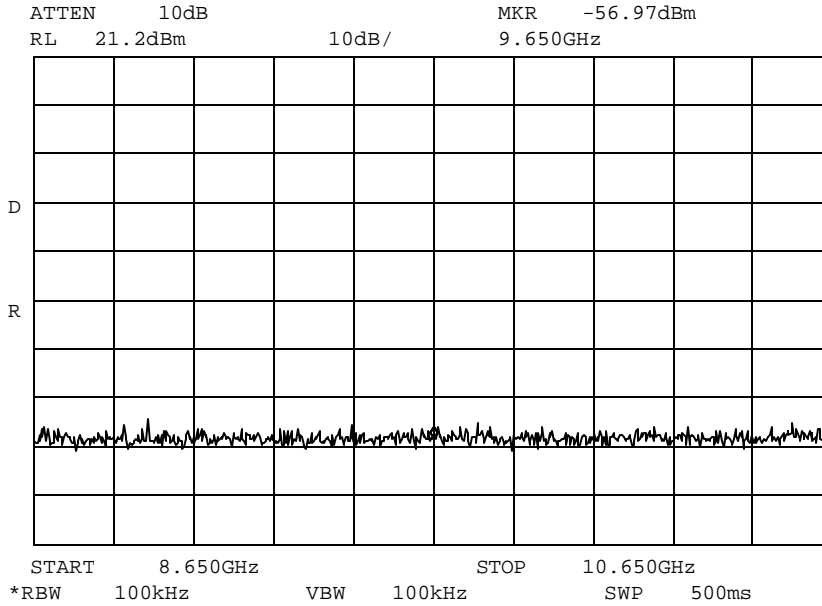
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740026: 2007-Apr-03 Tue 08:57:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

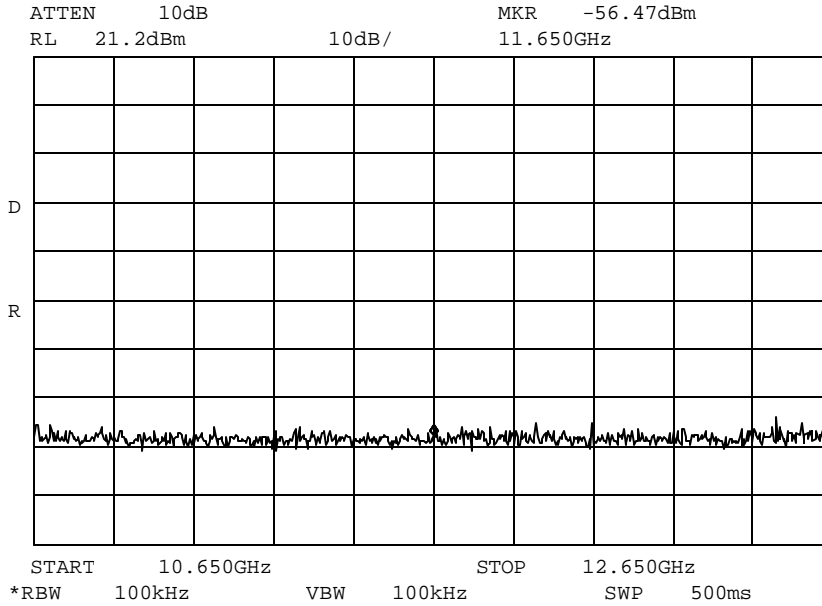
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740027: 2007-Apr-03 Tue 08:58:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

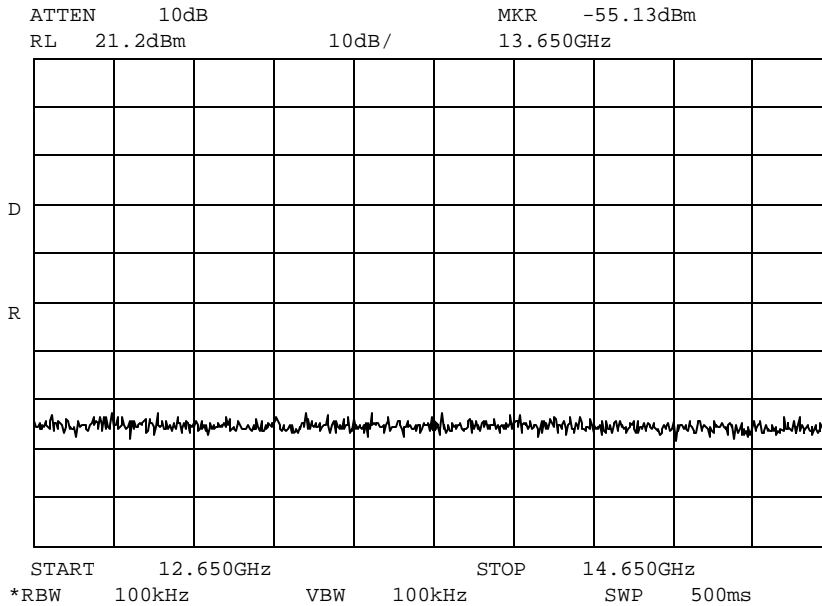
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

### Measurement Results

g0740028: 2007-Apr-03 Tue 08:59:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

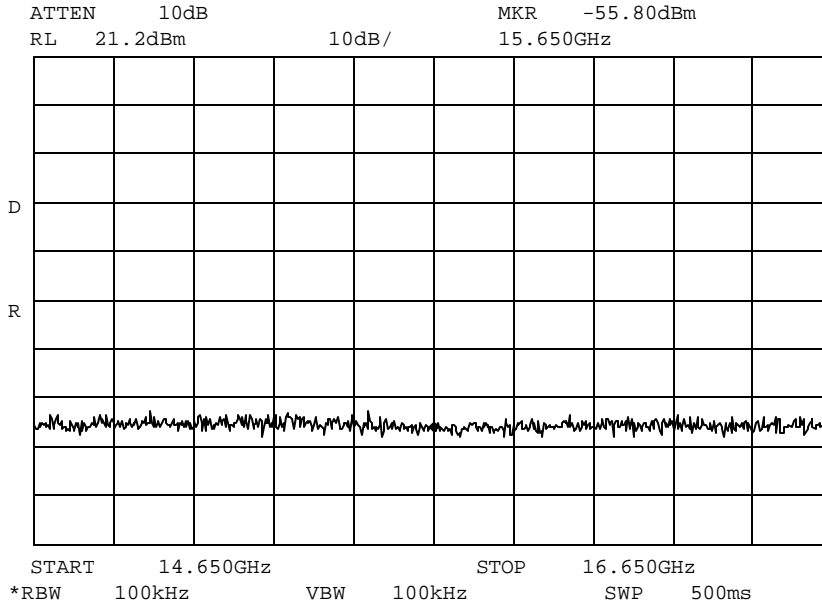
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740029: 2007-Apr-03 Tue 09:00:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

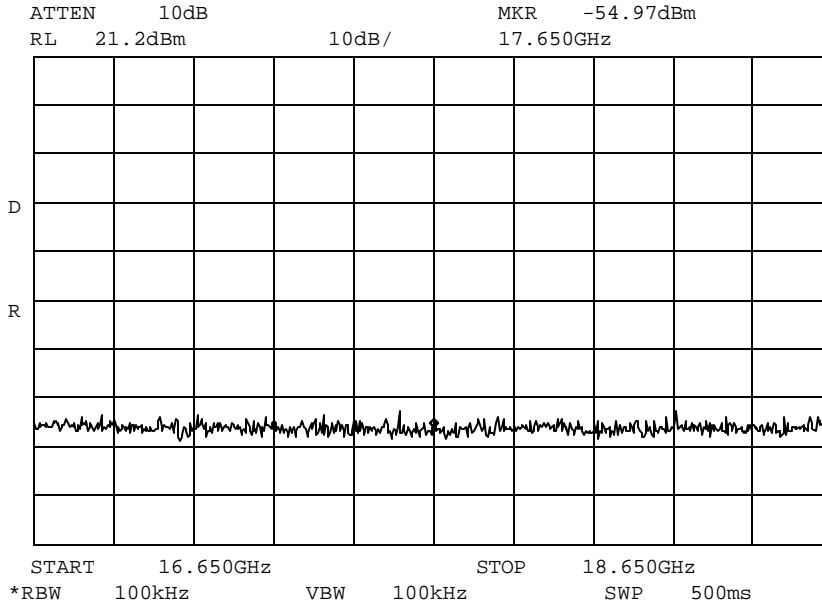
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740030: 2007-Apr-03 Tue 09:00:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

*Michael D Wyman*

Performed by:

Michael Wyman

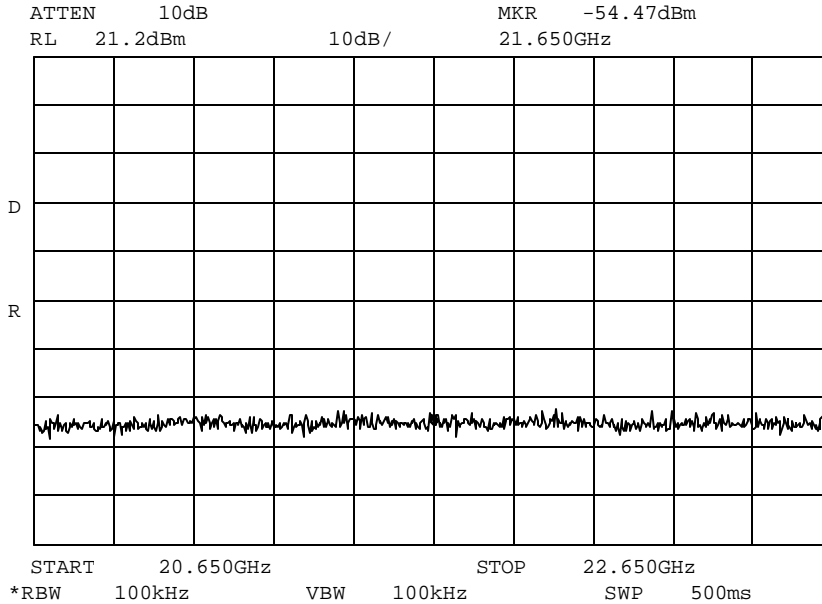


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740032: 2007-Apr-03 Tue 09:02:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

Michael Wyman

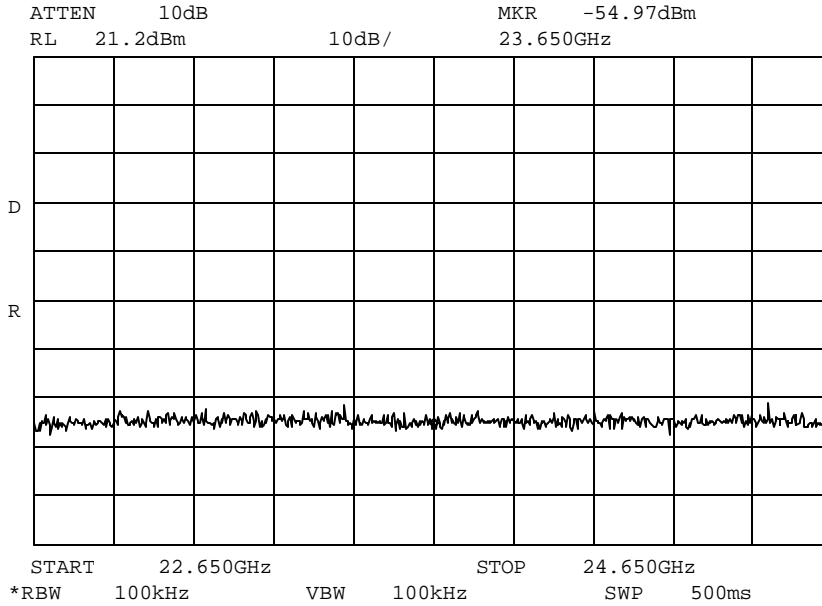


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740033: 2007-Apr-03 Tue 09:02:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

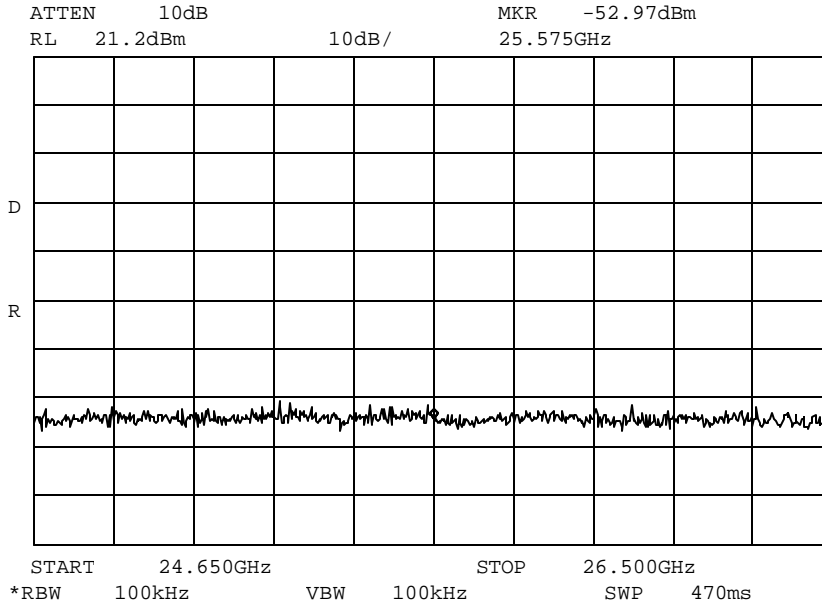
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740034: 2007-Apr-03 Tue 09:03:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: LOW  
Modulation: QAM64

Performed by:

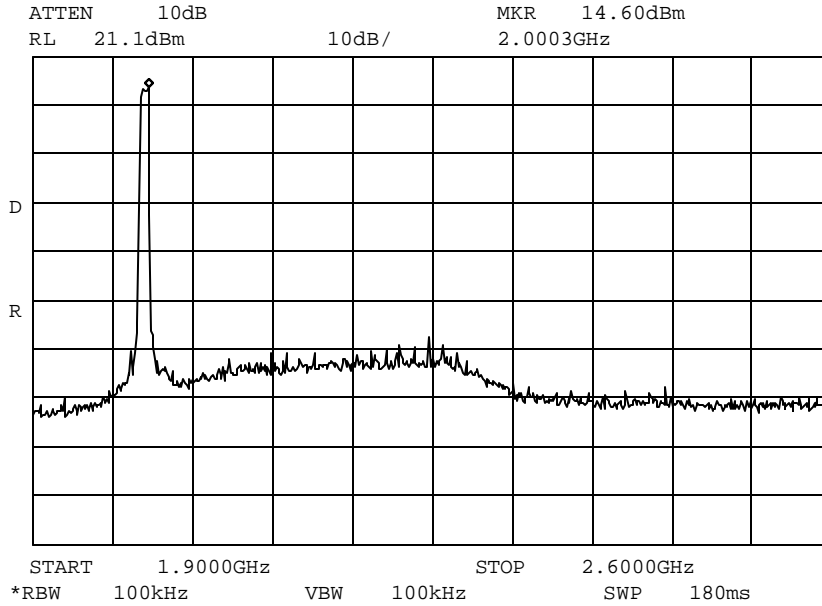
Michael Wyman

Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0740154: 2007-Apr-05 Thu 10:36:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64  
TX Frequency: 1999MHz

*Michael D Wyman*

Performed by:

Michael Wyman





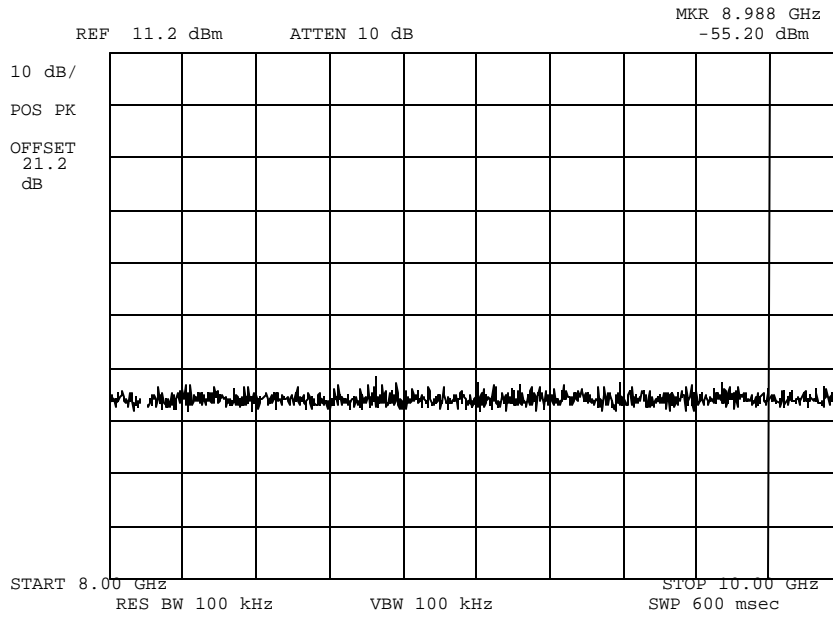


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740048: 2007-Apr-03 Tue 09:44:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

Performed by:

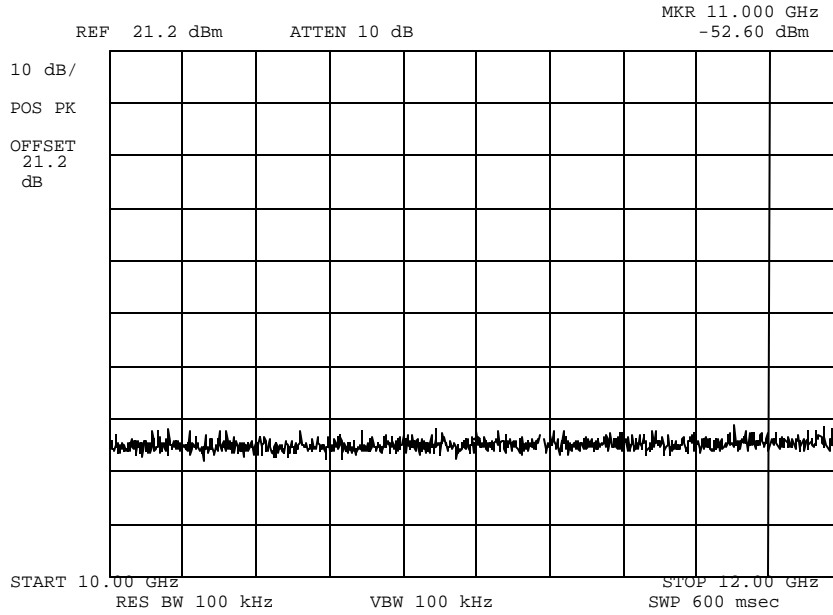
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

### Measurement Results

g0740049: 2007-Apr-03 Tue 09:47:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

Performed by:

Michael Wyman



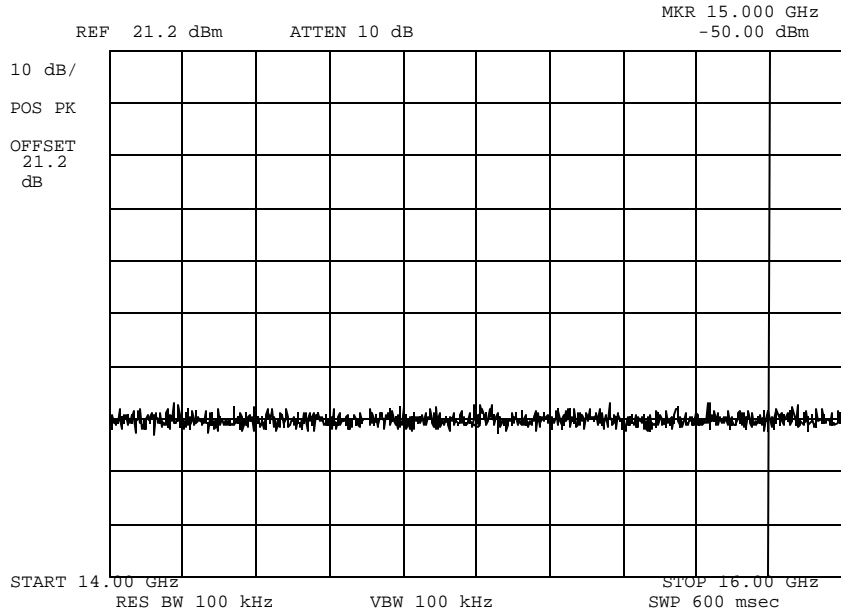


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740051: 2007-Apr-03 Tue 09:48:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

Performed by:

Michael Wyman

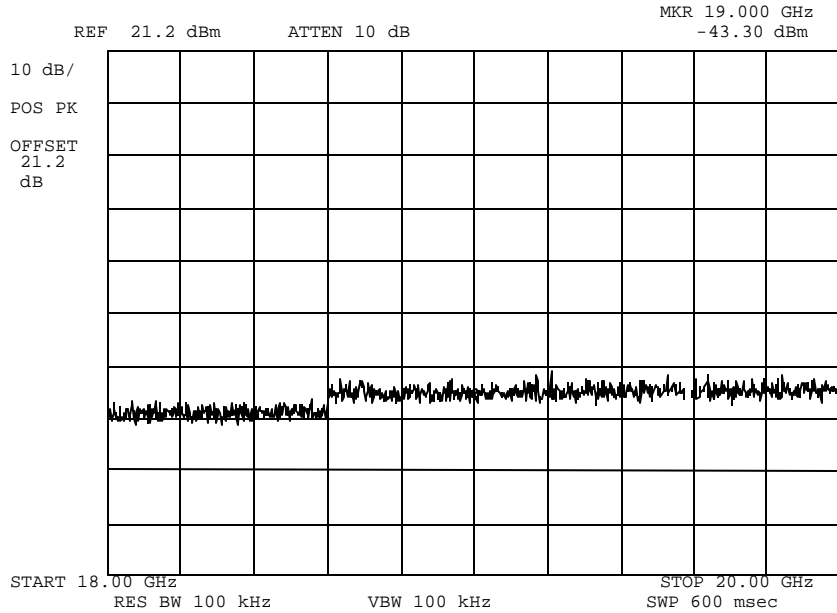


**Name of Test:** Spurious Emission (Transmitter Conducted)

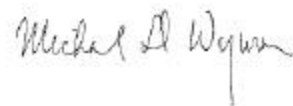
**Measurement Results**

g0740053: 2007-Apr-03 Tue 10:03:00  
 State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
 Modulation: QAM64



Performed by:

Michael Wyman

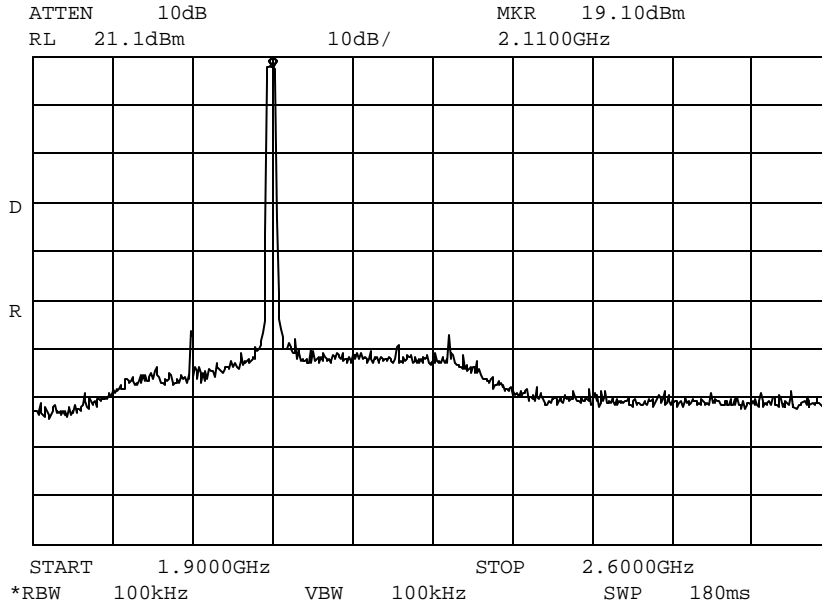


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740155: 2007-Apr-05 Thu 10:37:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64  
TX Frequency: 2110

*Michael D Wyman*

Performed by:

Michael Wyman

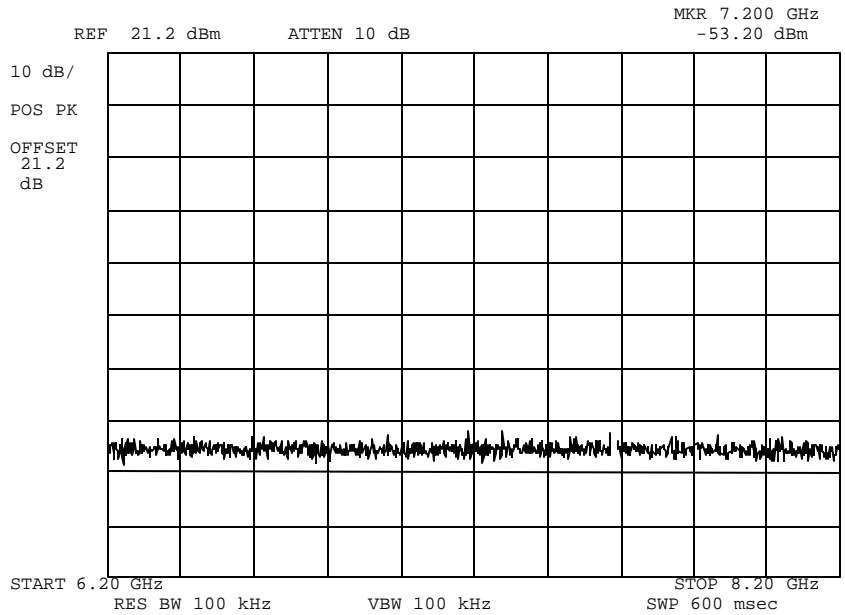


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740056: 2007-Apr-03 Tue 10:36:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

*Michael D Wyman*

Performed by:

Michael Wyman

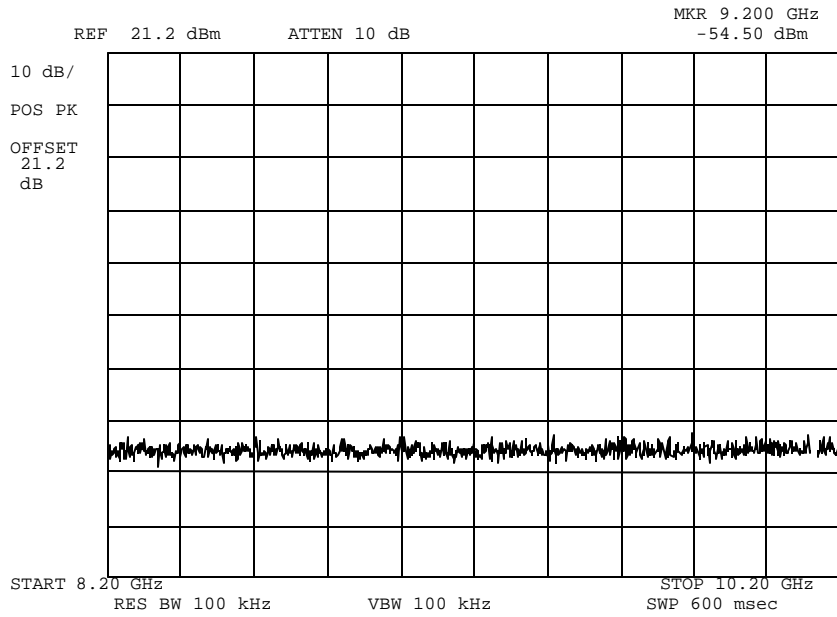


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740057: 2007-Apr-03 Tue 10:36:00  
 State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
 Modulation: QAM64

Performed by:

Michael Wyman









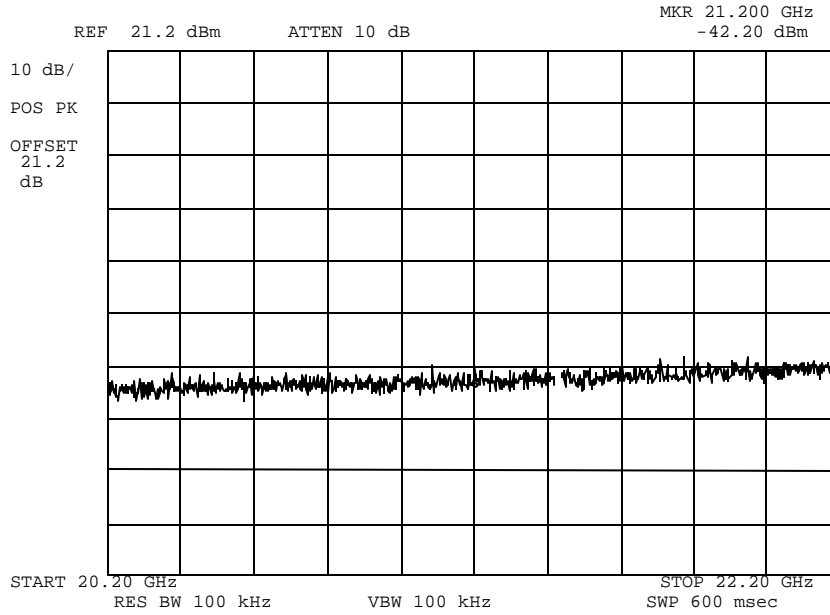


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740063: 2007-Apr-03 Tue 10:46:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power:  
Modulation:

MEDIUM  
QAM64

Performed by:

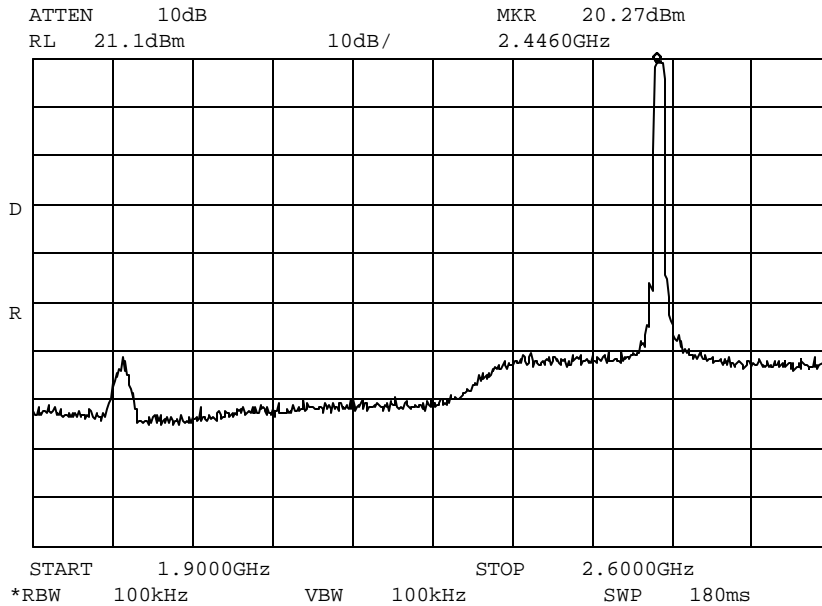
Michael Wyman

Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0740156: 2007-Apr-05 Thu 10:39:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64  
TX Frequency: 2450MHz

*Michael D Wyman*

Performed by:

Michael Wyman



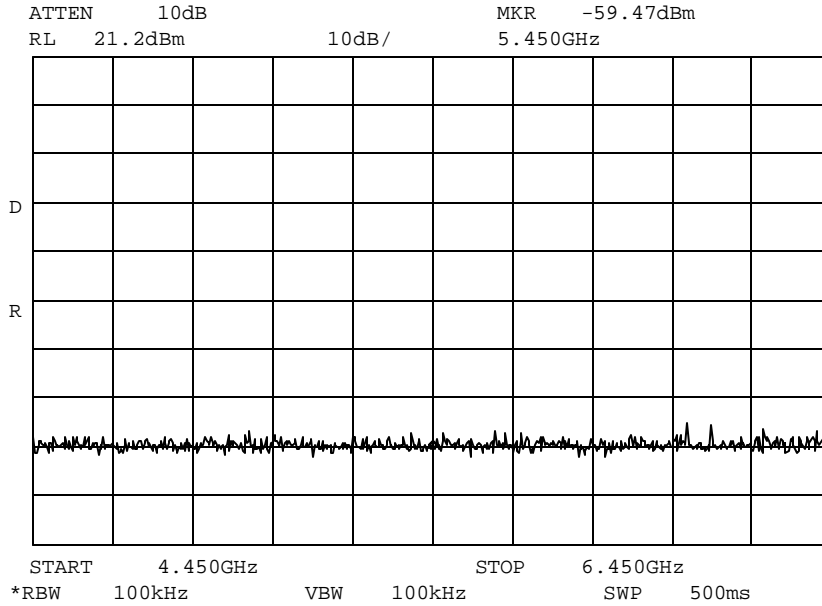


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740065: 2007-Apr-03 Tue 13:19:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

*Michael D Wyman*

Performed by:

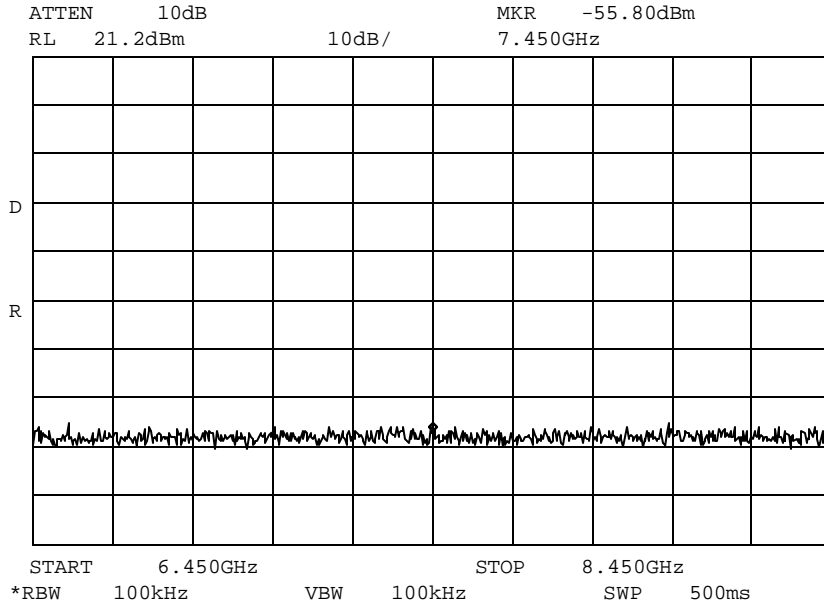
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740066: 2007-Apr-03 Tue 13:19:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

Performed by:

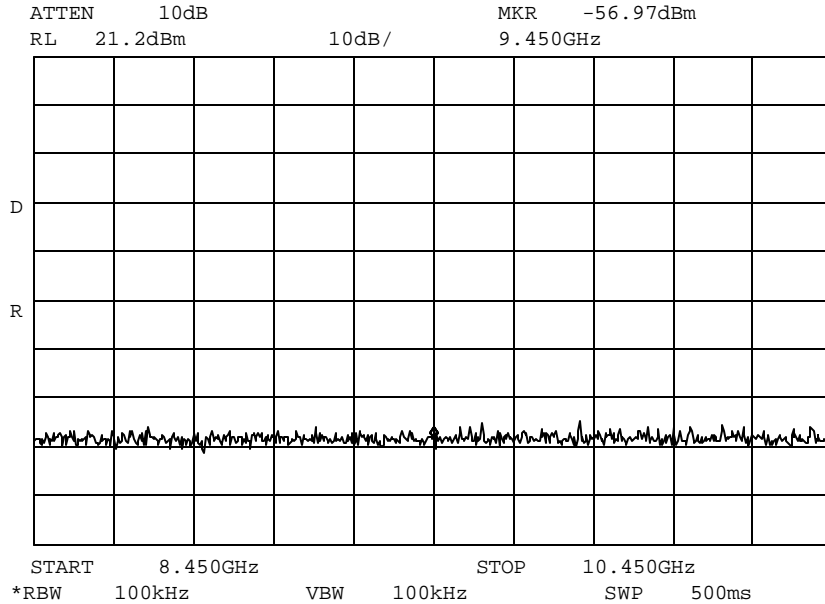
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740067: 2007-Apr-03 Tue 13:20:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

Performed by:

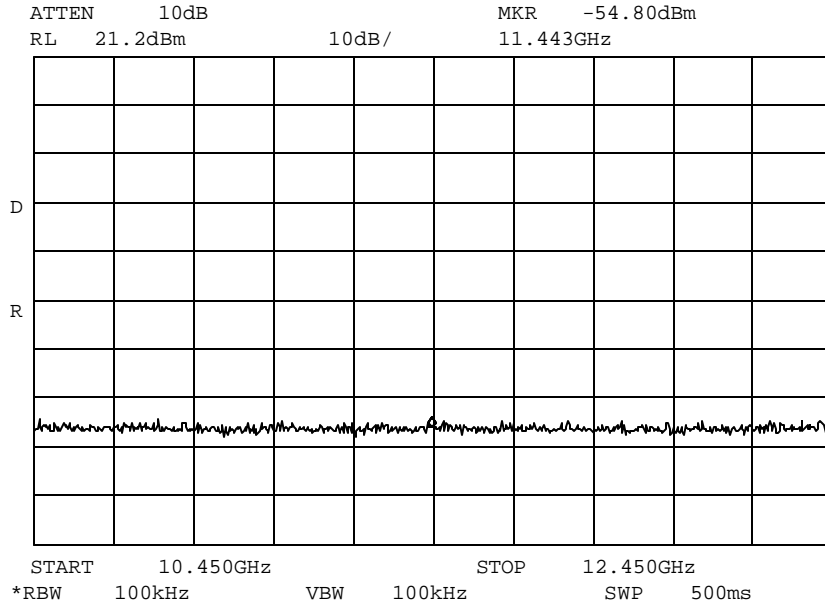
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740068: 2007-Apr-03 Tue 13:24:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

*Michael D Wyman*

Performed by:

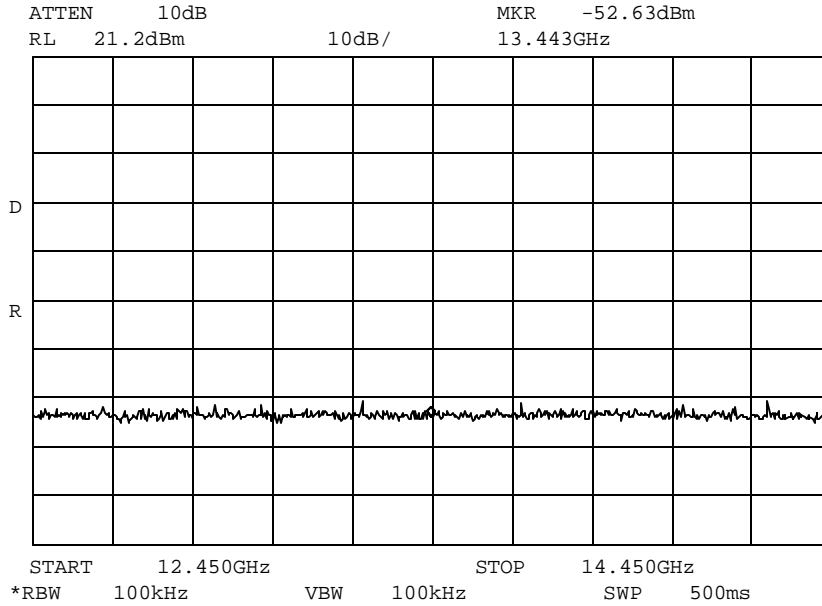
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740069: 2007-Apr-03 Tue 13:25:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

*Michael D Wyman*

Performed by:

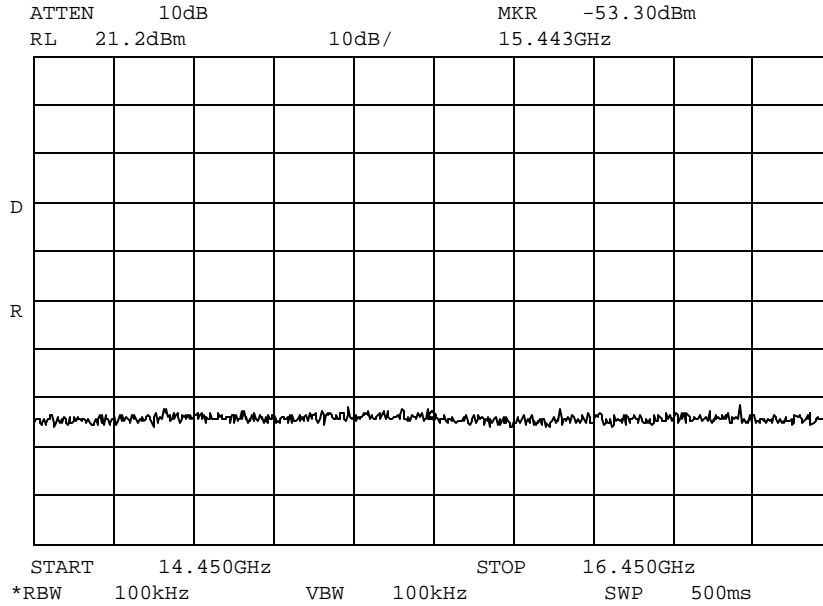
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740070: 2007-Apr-03 Tue 13:26:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

Performed by:

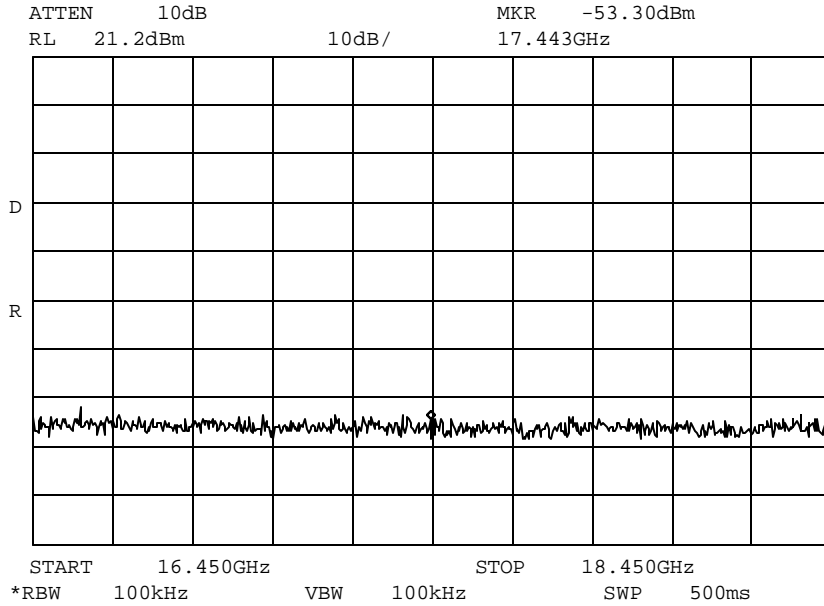
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740071: 2007-Apr-03 Tue 13:27:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

*Michael D Wyman*

Performed by:

Michael Wyman

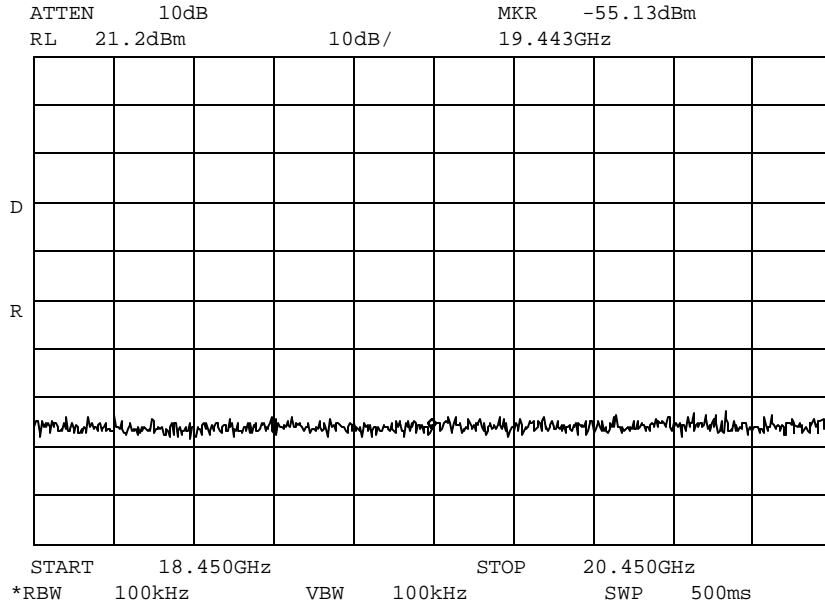


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740072: 2007-Apr-03 Tue 13:48:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

Performed by:

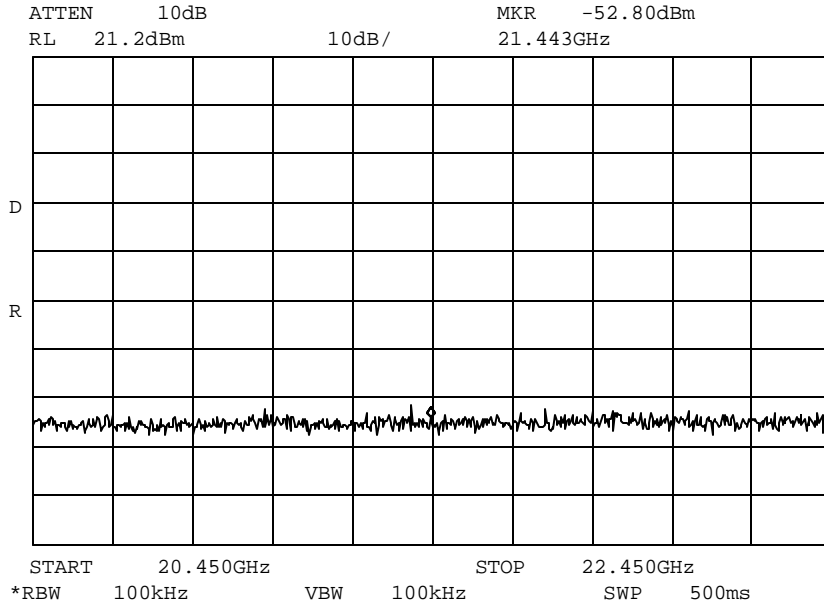
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740073: 2007-Apr-03 Tue 13:49:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

*Michael D Wyman*

Performed by:

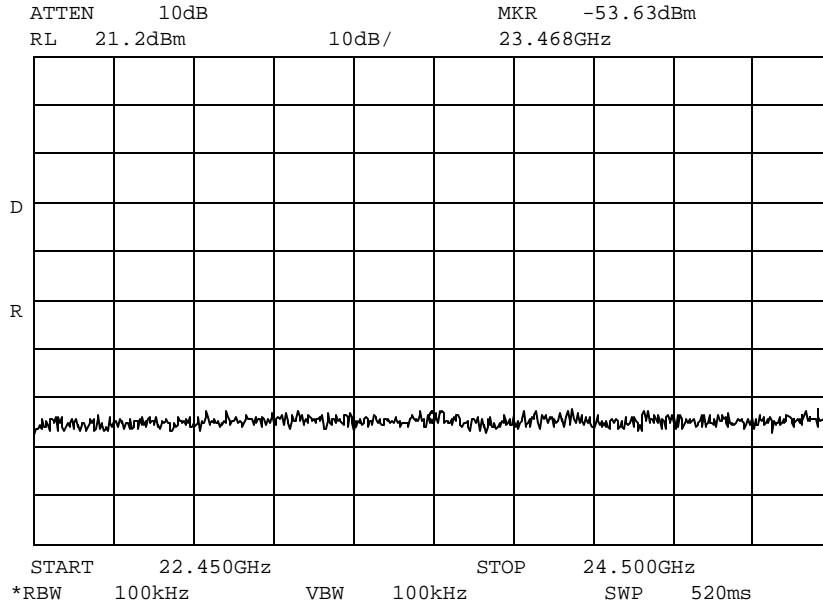
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740074: 2007-Apr-03 Tue 14:00:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

Performed by:

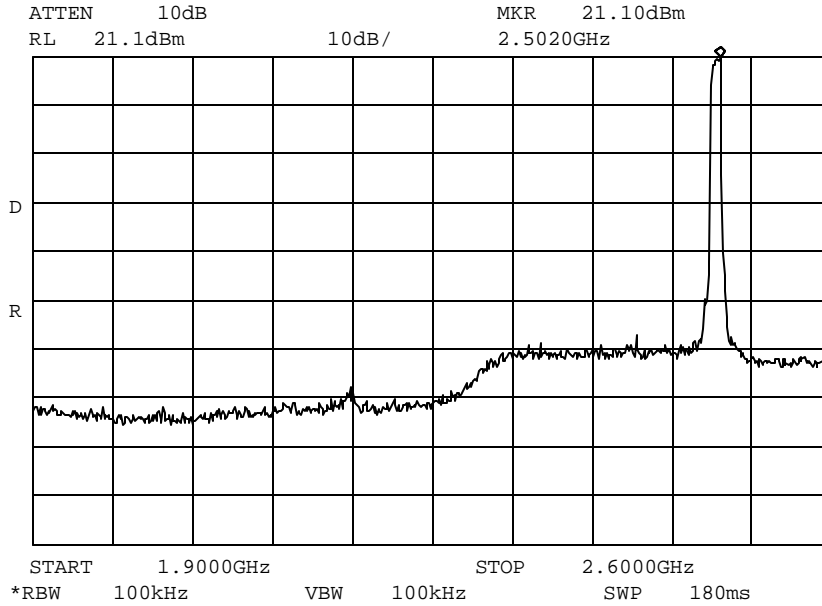
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740157: 2007-Apr-05 Thu 10:40:00  
State: 1:Low Power

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM 2500  
Modulation: QAM64  
TX Frequency: 2500MHz

*Michael D Wyman*

Performed by:

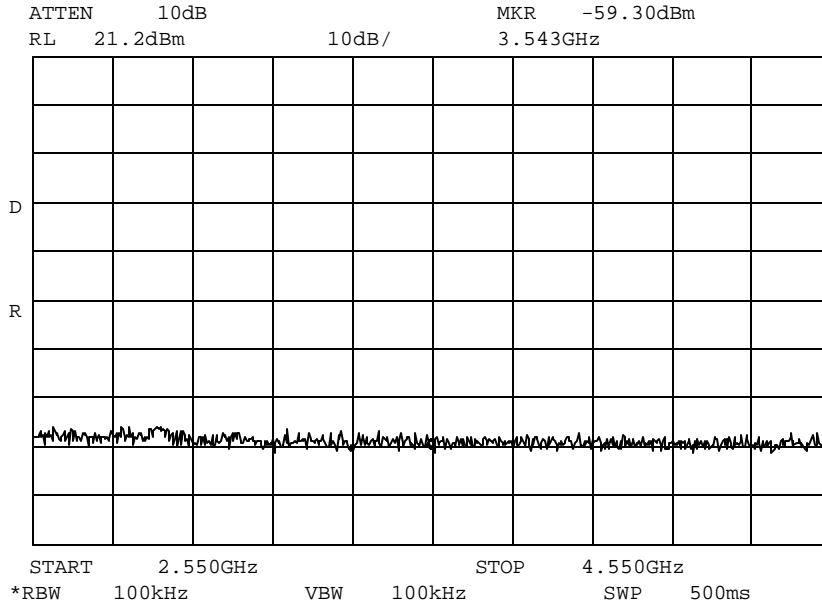
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740075: 2007-Apr-03 Tue 14:05:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
 Modulation: QAM64  
 TX Frequency: 2500MHz

*Michael D Wyman*

Performed by:

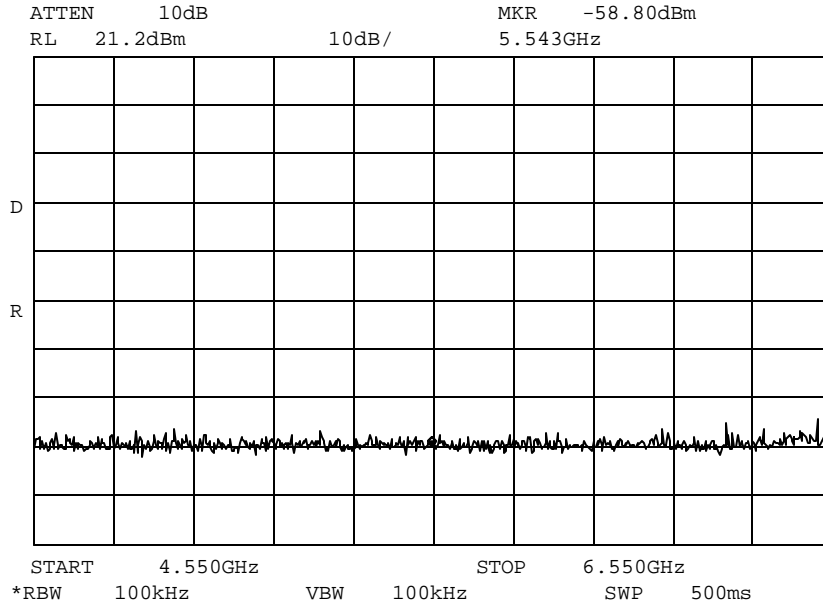
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740076: 2007-Apr-03 Tue 14:06:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

Performed by:

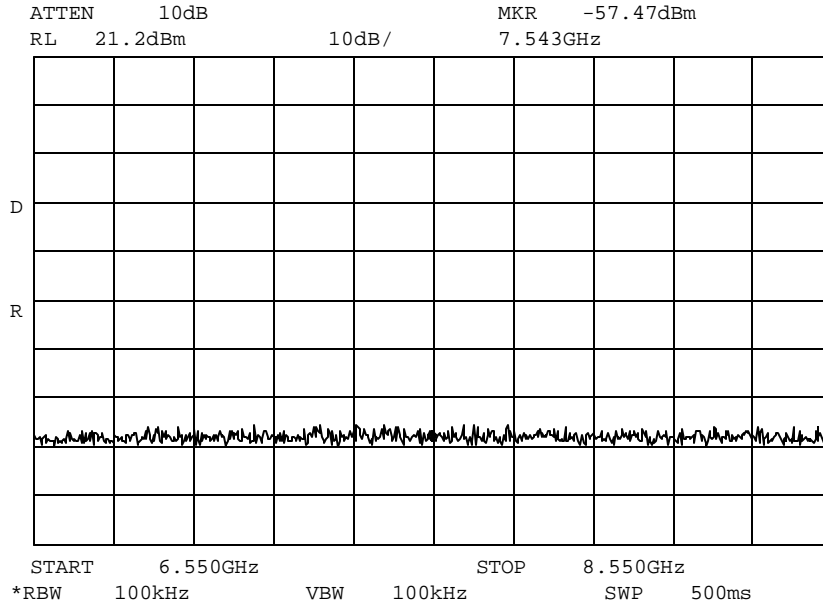
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740077: 2007-Apr-03 Tue 14:06:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

Performed by:

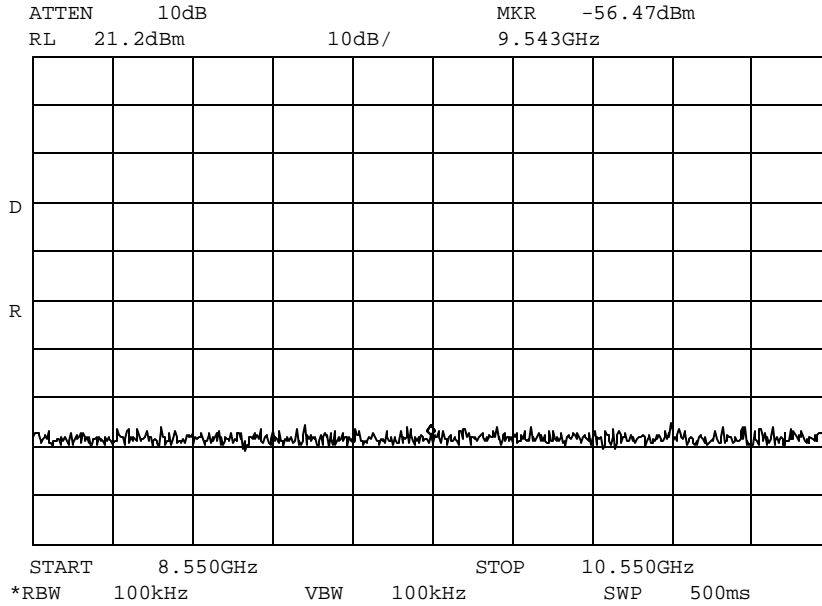
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740078: 2007-Apr-03 Tue 14:07:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

*Michael D Wyman*

Performed by:

Michael Wyman

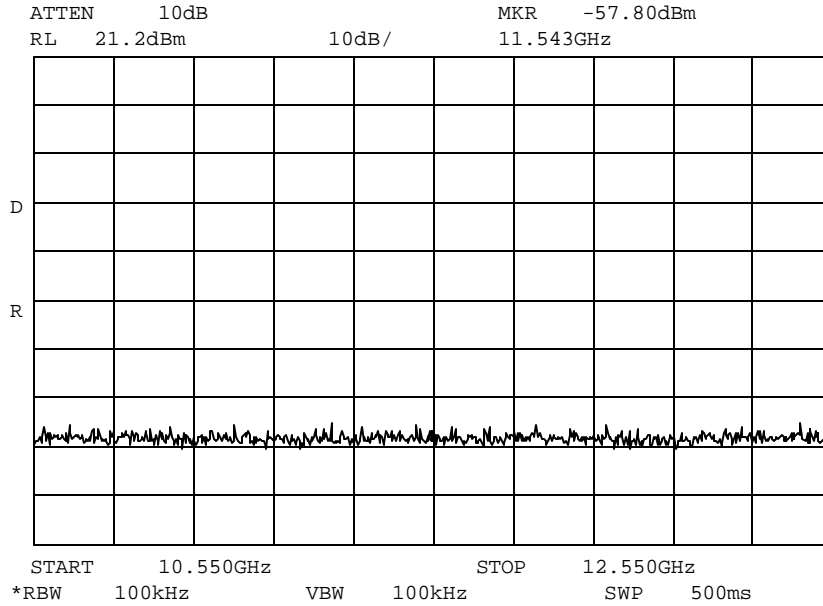


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740079: 2007-Apr-03 Tue 14:07:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

Performed by:

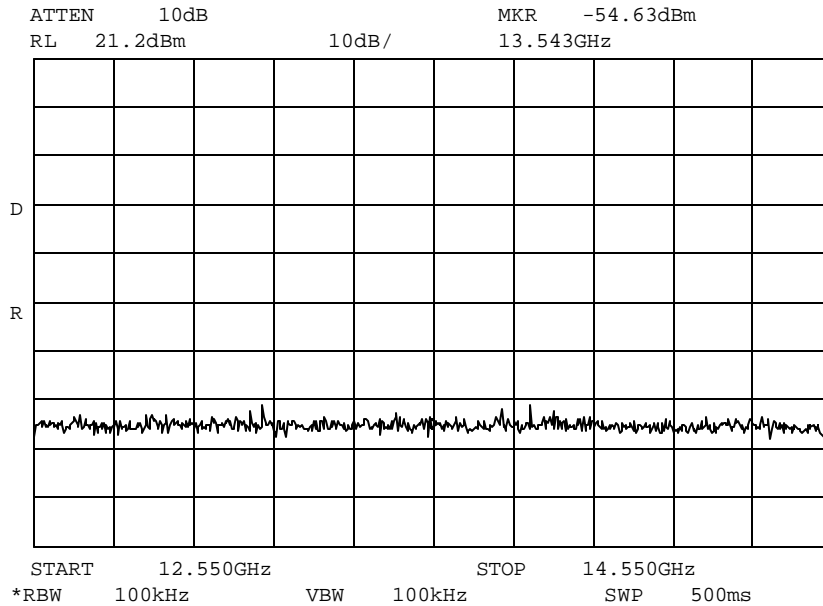
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740080: 2007-Apr-03 Tue 14:08:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

Performed by:

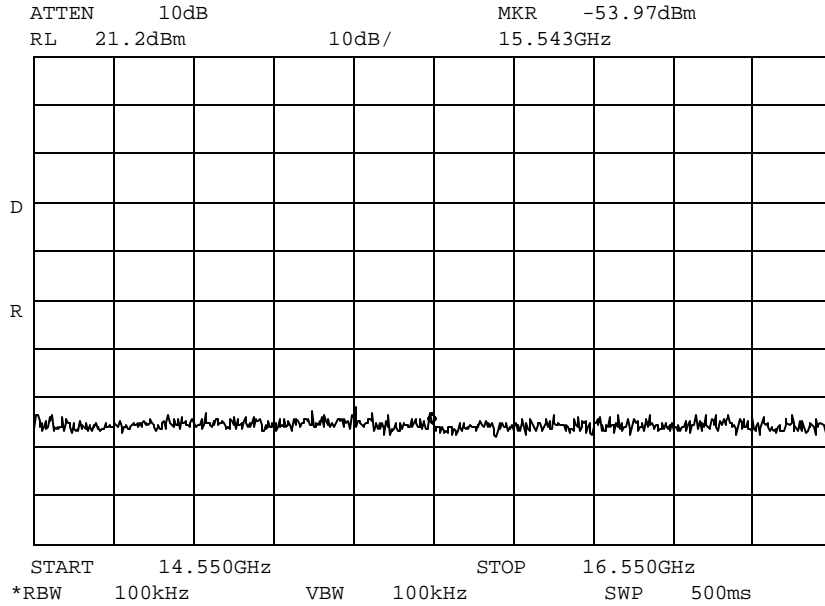
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740081: 2007-Apr-03 Tue 14:10:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

Performed by:

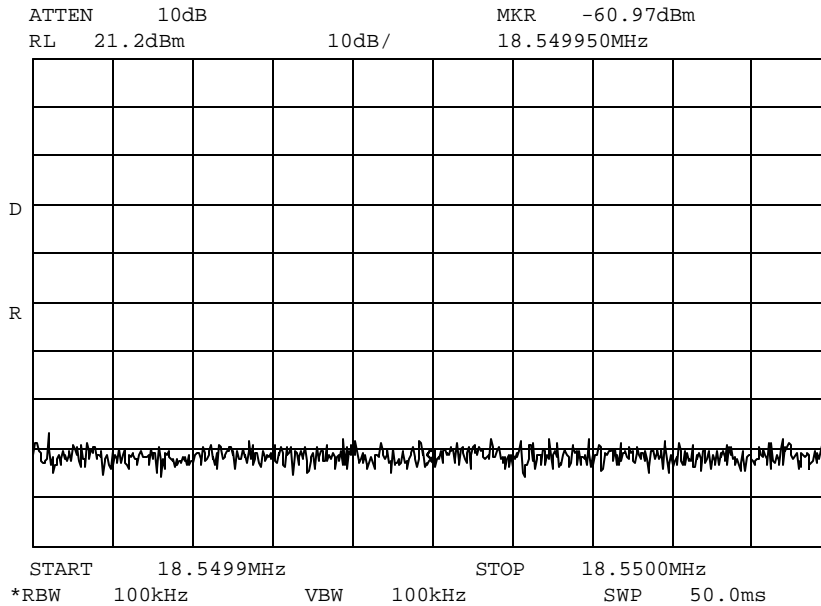
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740082: 2007-Apr-03 Tue 14:11:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

*Michael D Wyman*

Performed by:

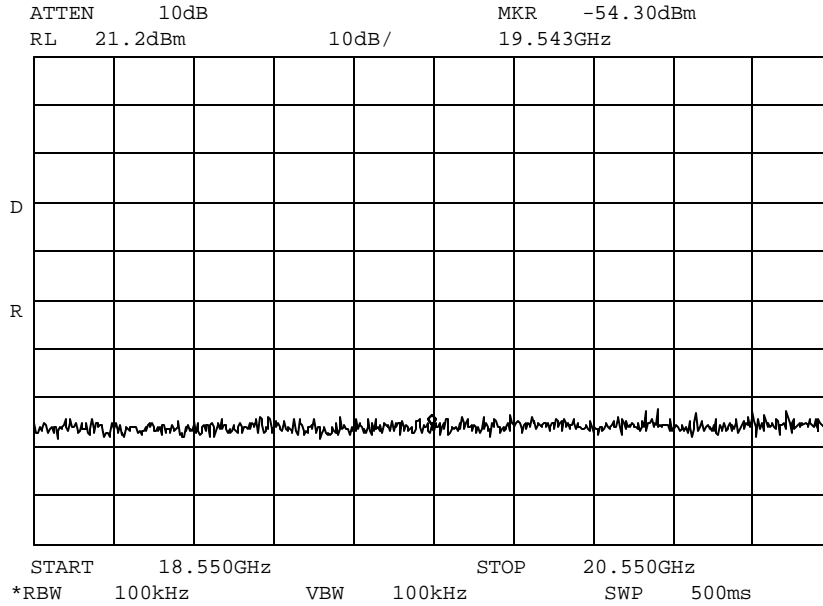
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740083: 2007-Apr-03 Tue 14:11:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

*Michael D Wyman*

Performed by:

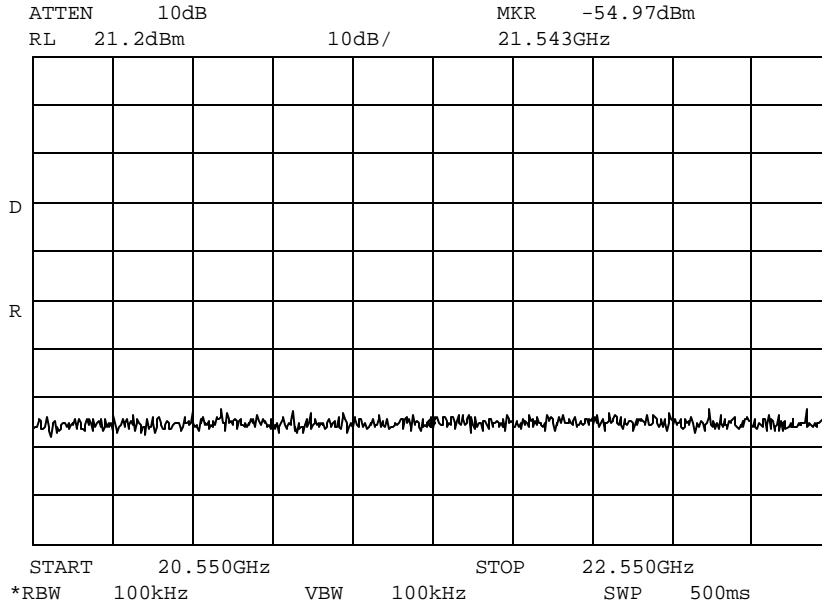
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740084: 2007-Apr-03 Tue 14:13:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

*Michael D Wyman*

Performed by:

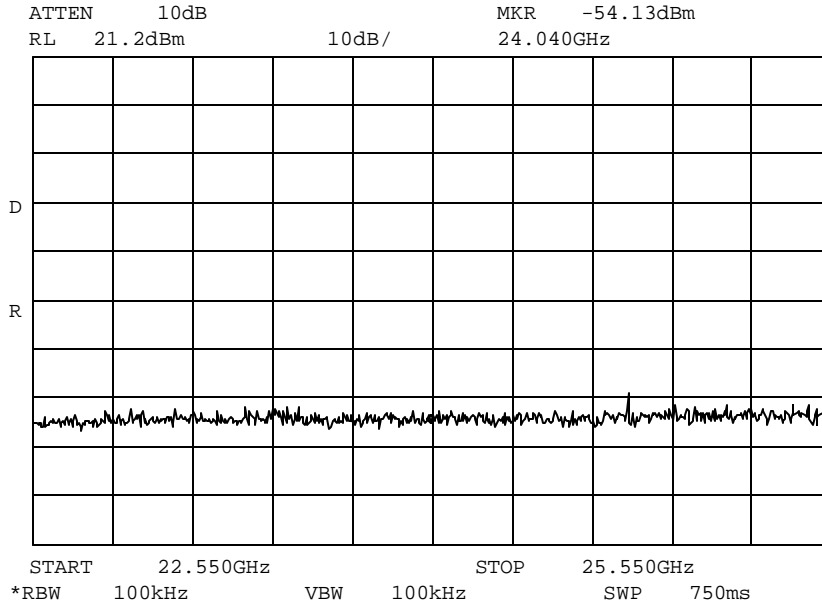
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740085: 2007-Apr-03 Tue 14:15:00  
State: 0:General

Ambient Temperature: 23°C ± 3°C



Power: MEDIUM  
Modulation: QAM64

Performed by:

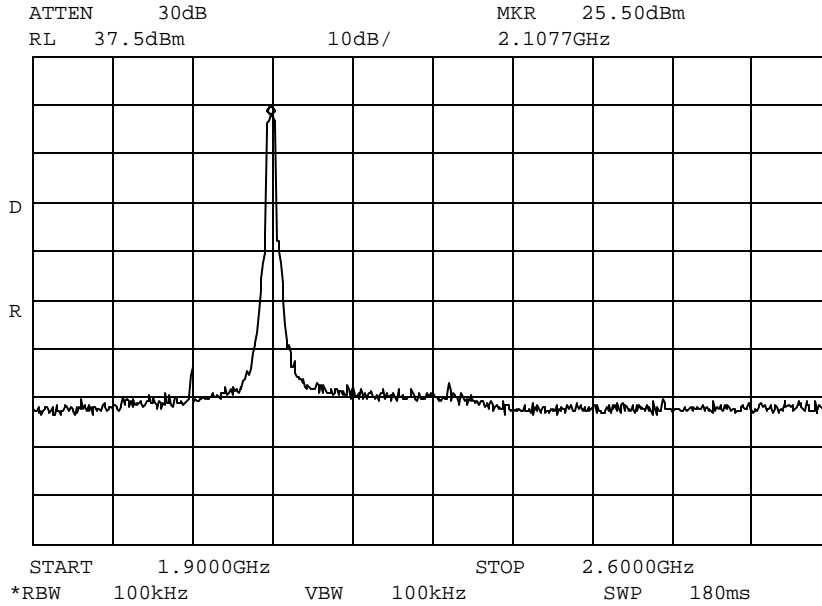
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740147: 2007-Apr-05 Thu 10:09:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64  
TX Frequency: 2110MHz

*Michael D Wyman*

Performed by:

Michael Wyman

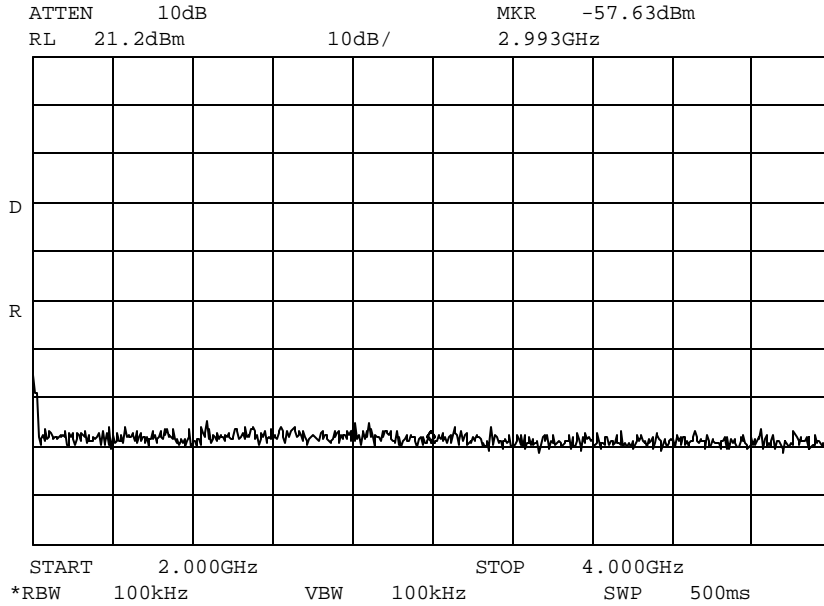


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740086: 2007-Apr-03 Tue 14:18:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

*Michael D Wyman*

Performed by:

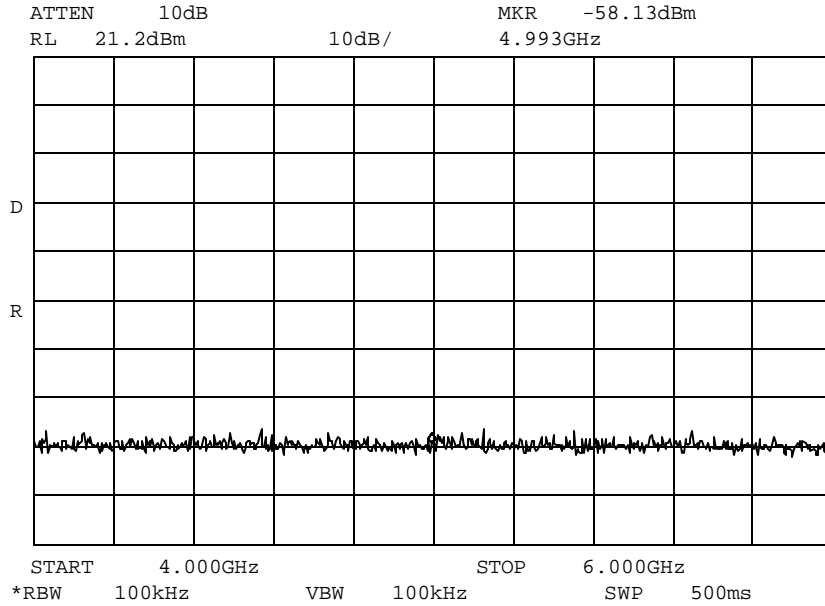
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740087: 2007-Apr-03 Tue 14:19:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

*Michael D Wyman*

Performed by:

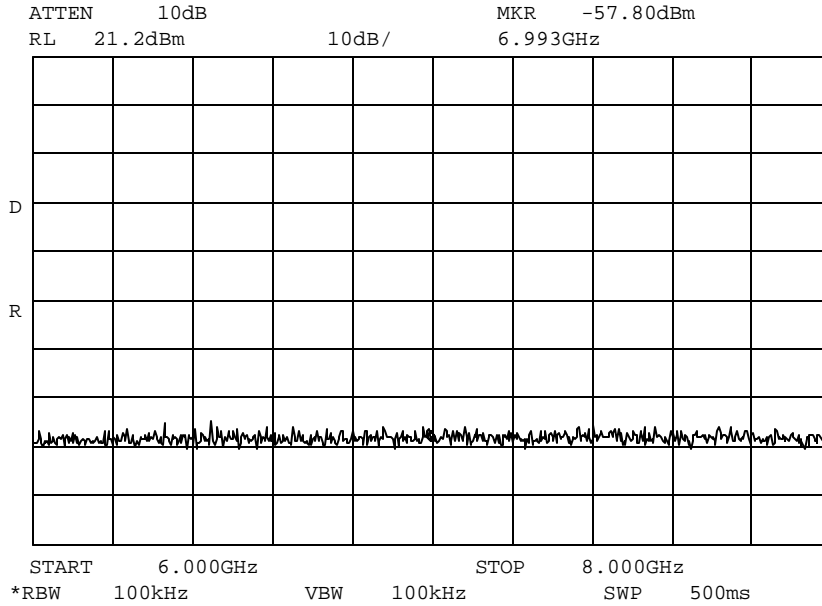
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740088: 2007-Apr-03 Tue 14:19:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

*Michael D Wyman*

Performed by:

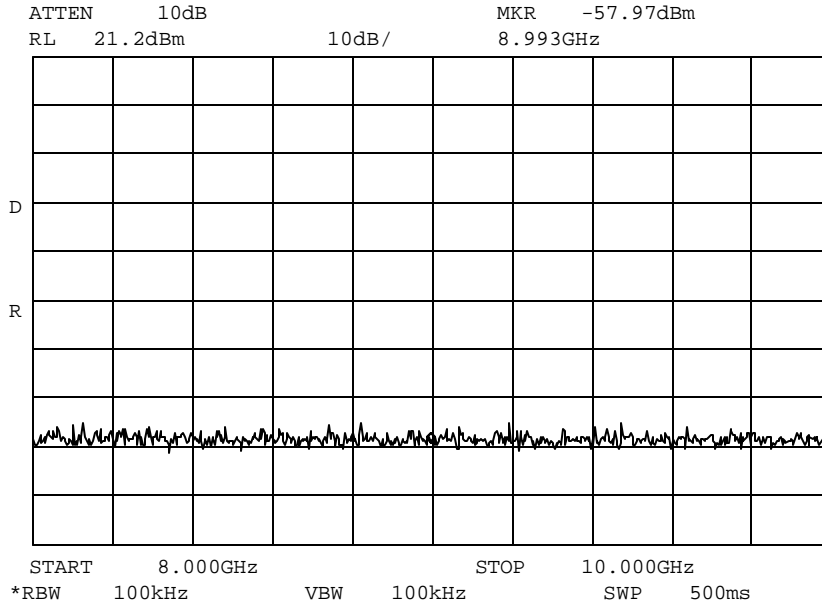
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740089: 2007-Apr-03 Tue 14:20:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

*Michael D Wyman*

Performed by:

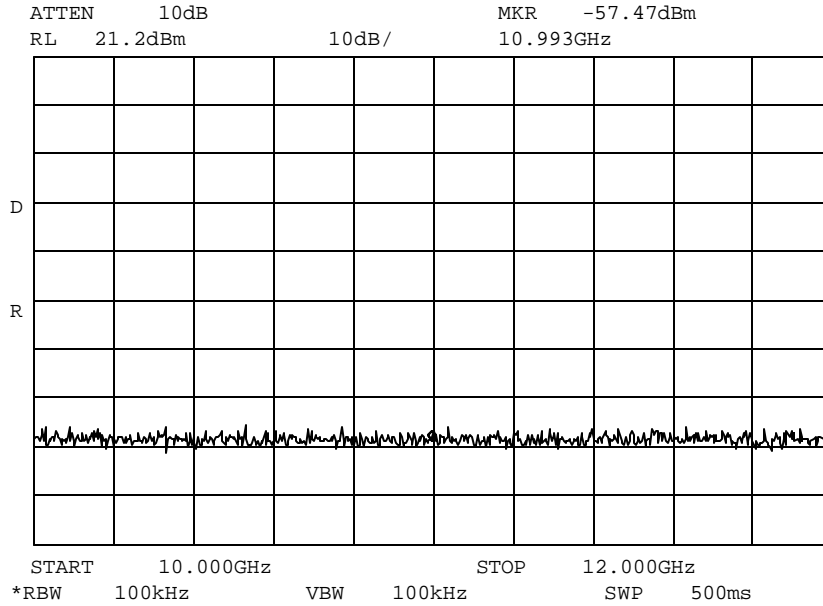
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740090: 2007-Apr-03 Tue 14:21:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

*Michael D Wyman*

Performed by:

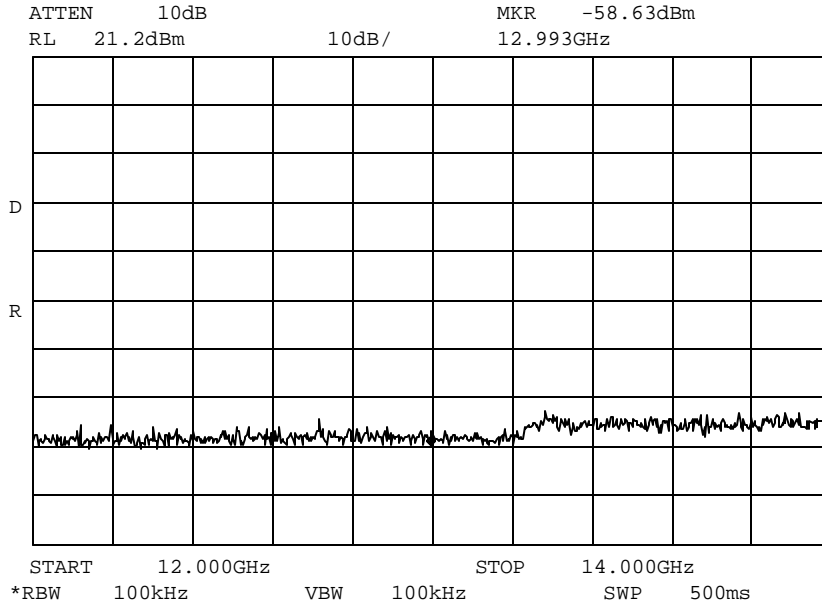
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740091: 2007-Apr-03 Tue 14:22:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

*Michael D Wyman*

Performed by:

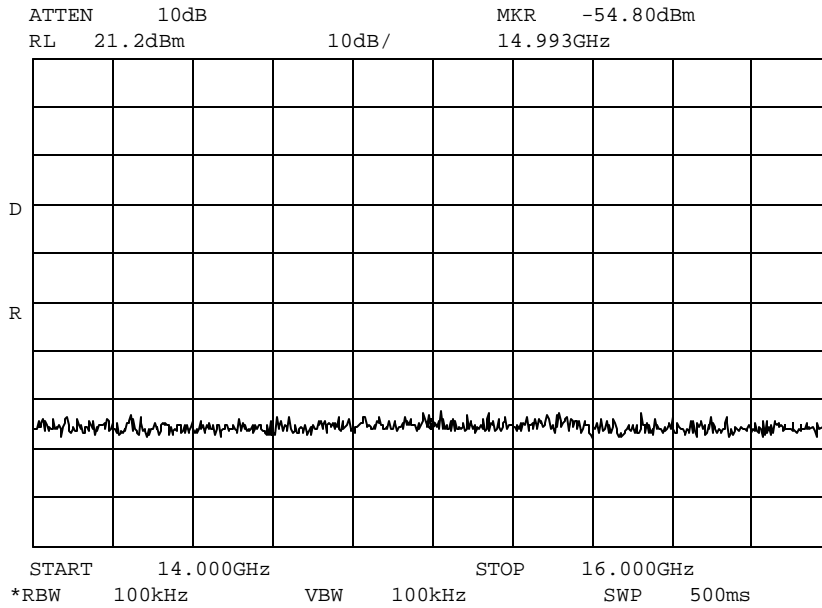
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740092: 2007-Apr-03 Tue 14:23:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

Performed by:

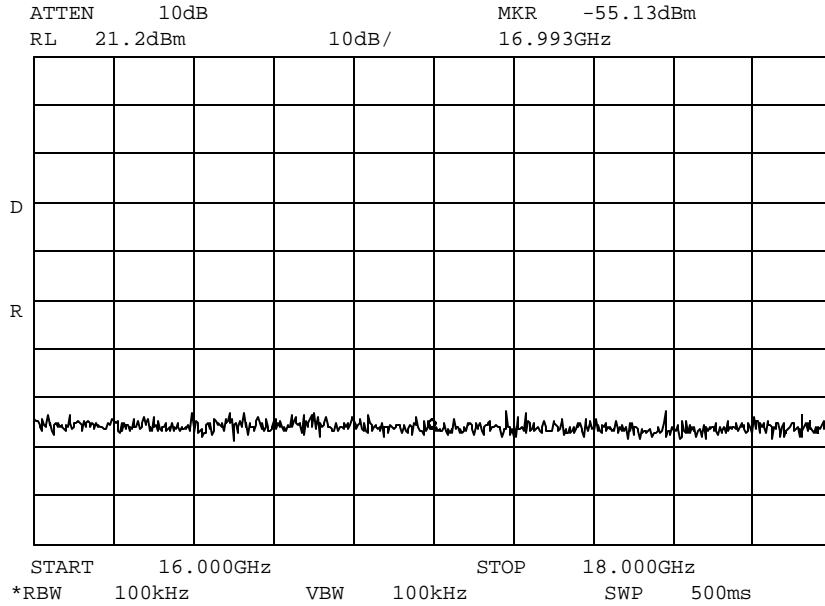
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740093: 2007-Apr-03 Tue 14:24:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

*Michael D Wyman*

Performed by:

Michael Wyman

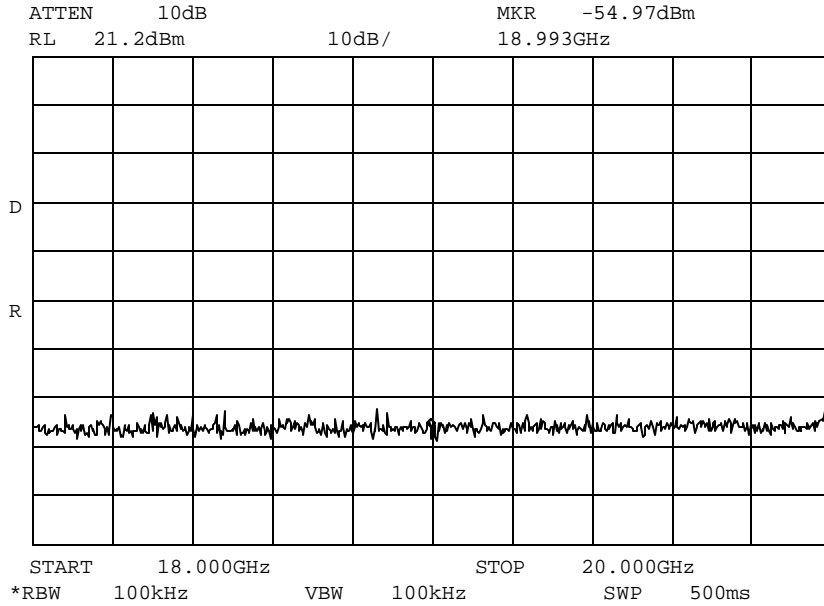


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740094: 2007-Apr-03 Tue 14:24:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

*Michael D Wyman*

Performed by:

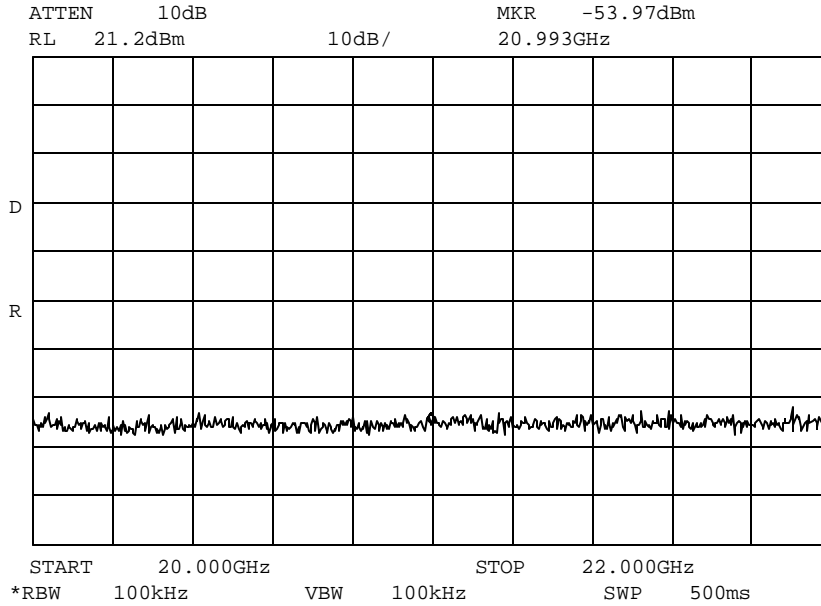
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740095: 2007-Apr-03 Tue 14:25:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

*Michael D Wyman*

Performed by:

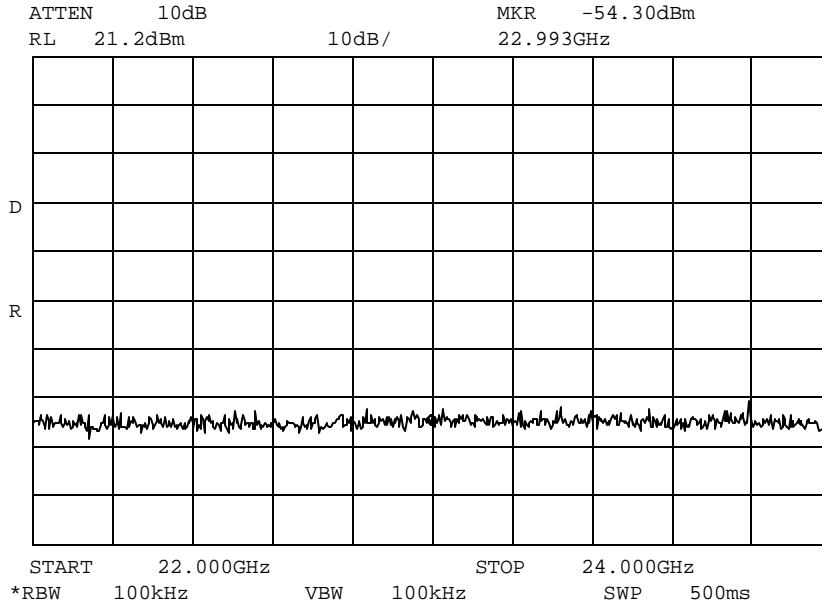
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740096: 2007-Apr-03 Tue 14:26:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

*Michael D Wyman*

Performed by:

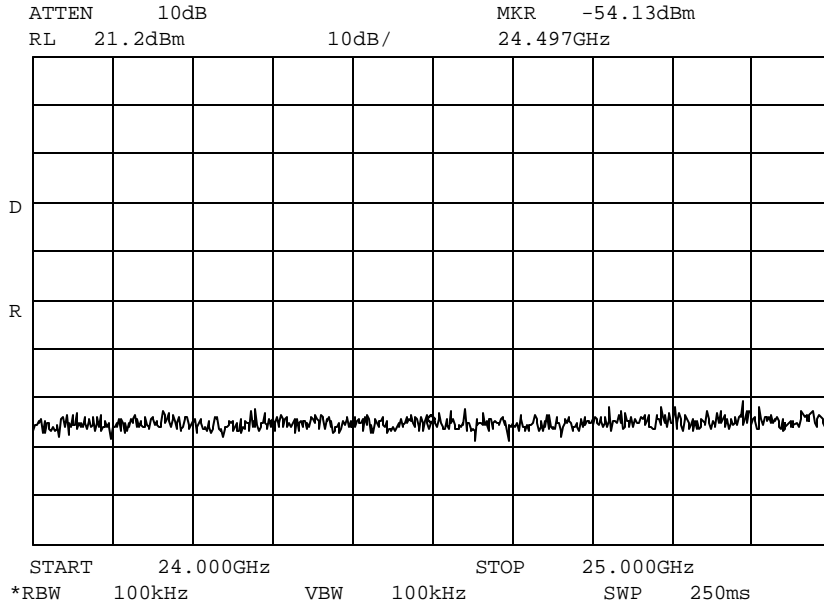
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740097: 2007-Apr-03 Tue 14:27:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

Performed by:

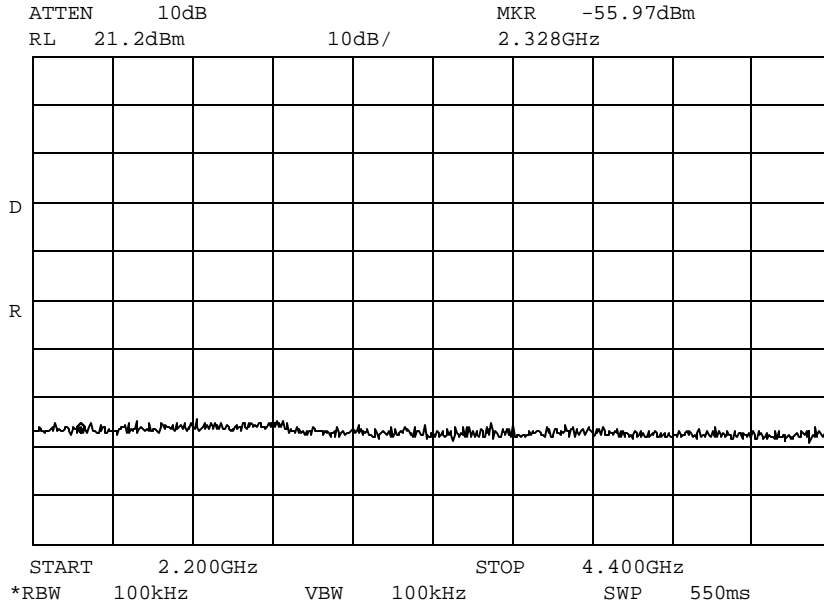
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740104: 2007-Apr-04 Wed 08:47:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
 Modulation: QAM64  
 TX Frequency: 2110MHz

*Michael D Wyman*

Performed by:

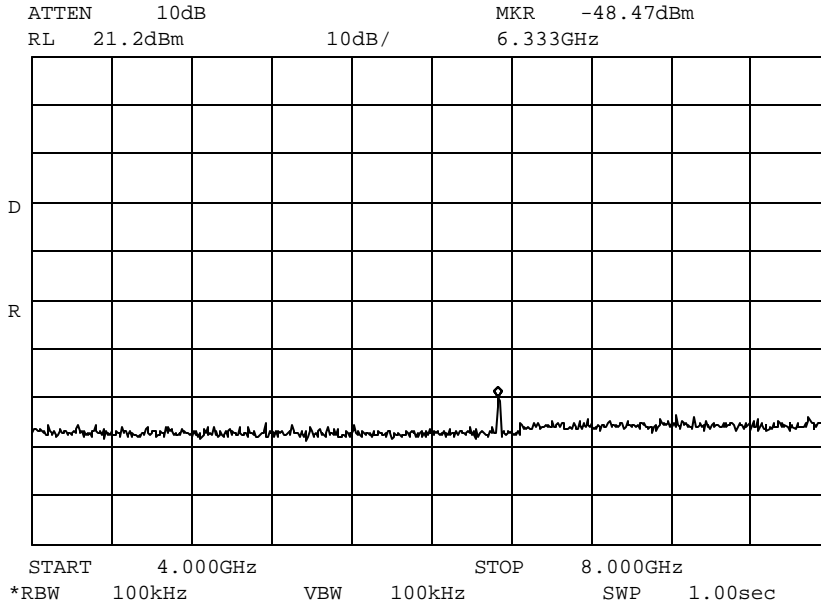
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740105: 2007-Apr-04 Wed 08:49:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

*Michael D Wyman*

Performed by:

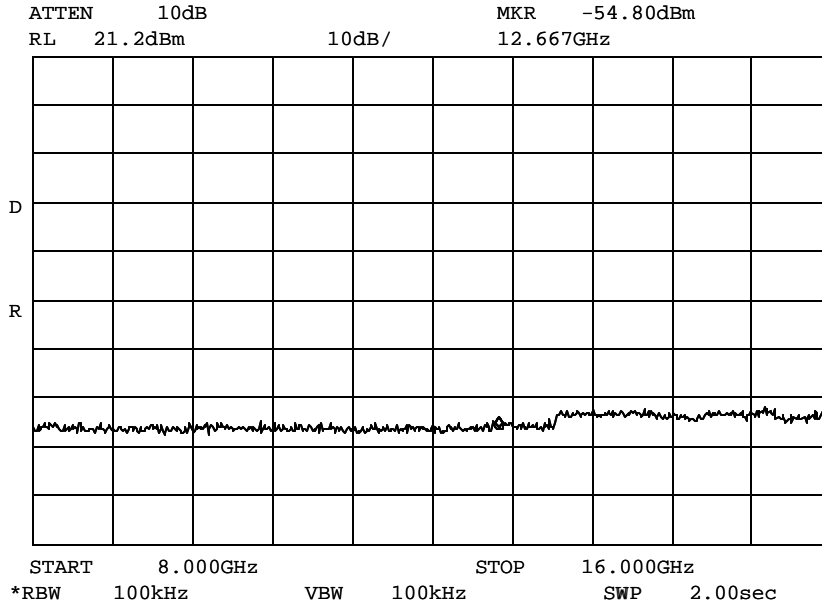
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740107: 2007-Apr-04 Wed 08:50:00  
 State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
 Modulation: QAM64

Performed by:

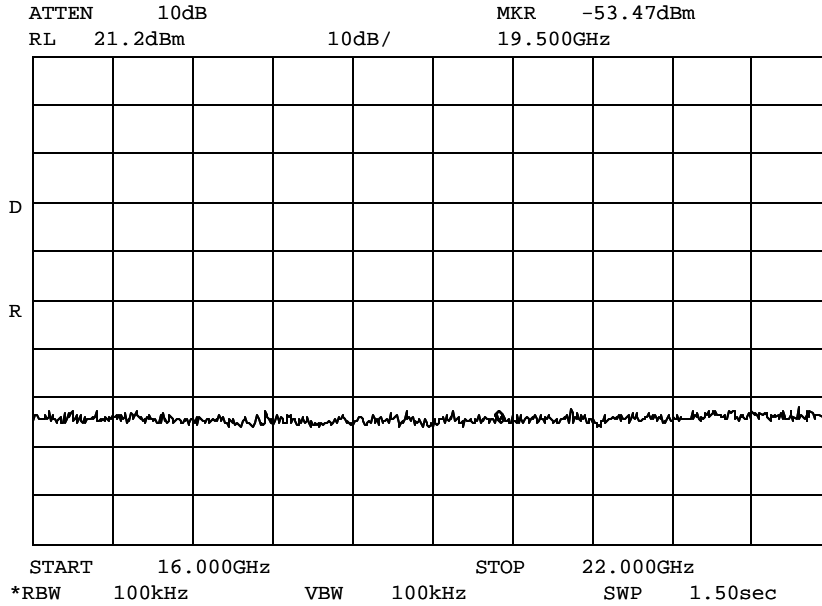
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740108: 2007-Apr-04 Wed 08:51:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

Performed by:

Michael Wyman

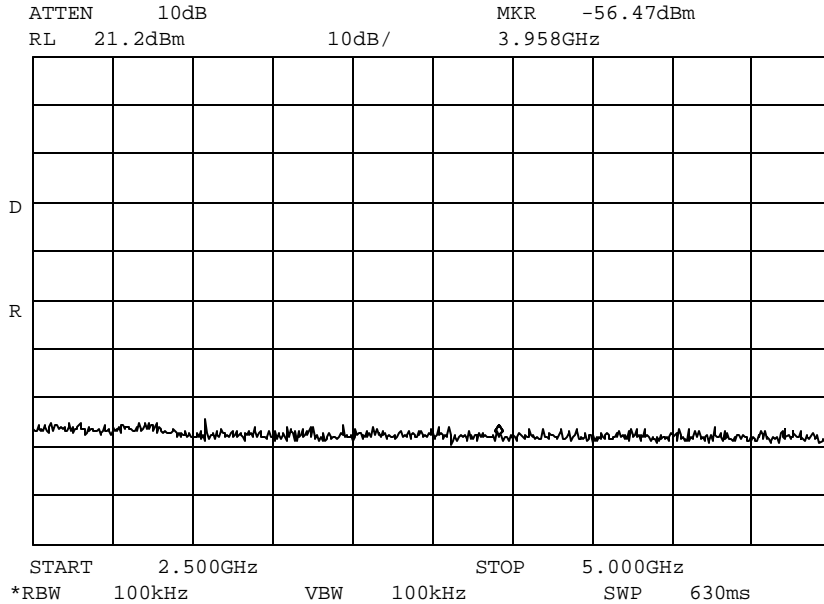


Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740109: 2007-Apr-04 Wed 08:53:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
 Modulation: QAM64  
 TX Frequency: 2450MHz

*Michael D Wyman*

Performed by:

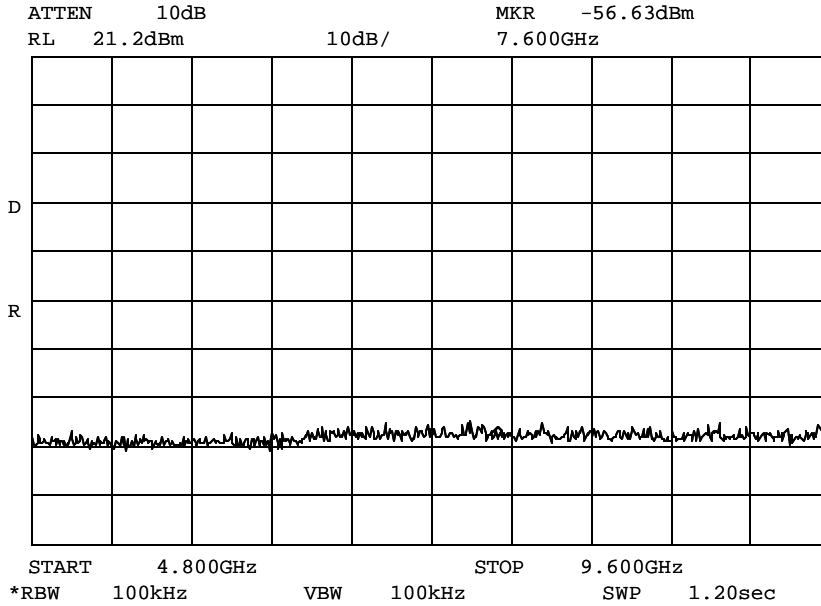
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740110: 2007-Apr-04 Wed 08:55:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

*Michael D Wyman*

Performed by:

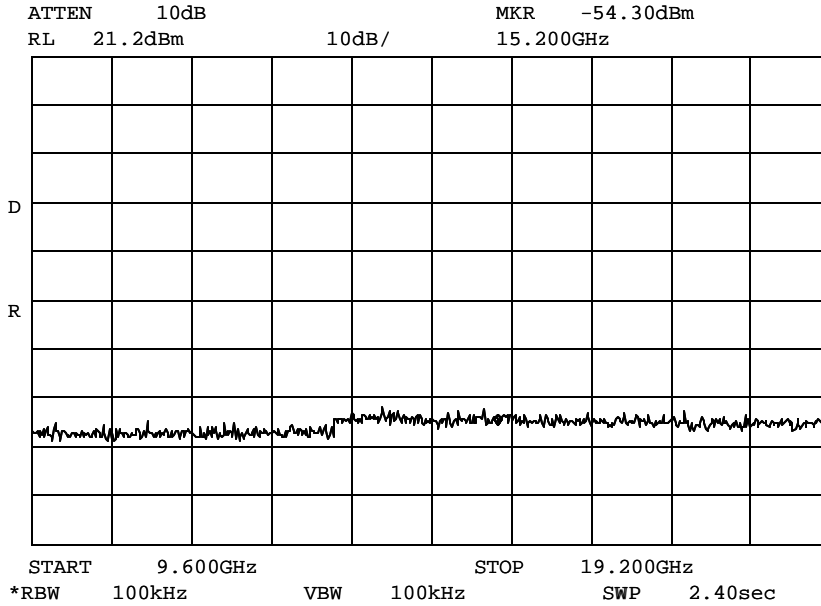
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740111: 2007-Apr-04 Wed 08:56:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

*Michael D Wyman*

Performed by:

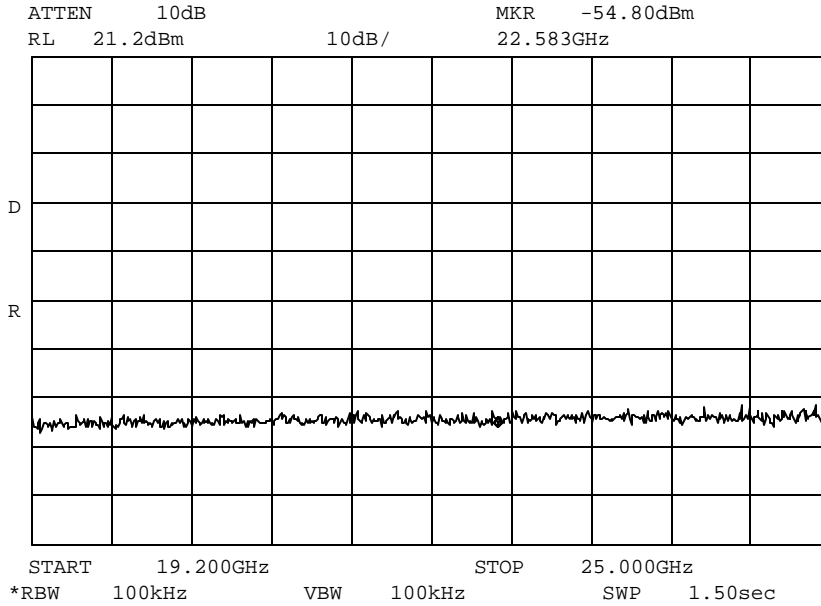
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

**Measurement Results**

g0740112: 2007-Apr-04 Wed 08:57:00  
 State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
 Modulation: QAM64

*Michael D Wyman*

Performed by:

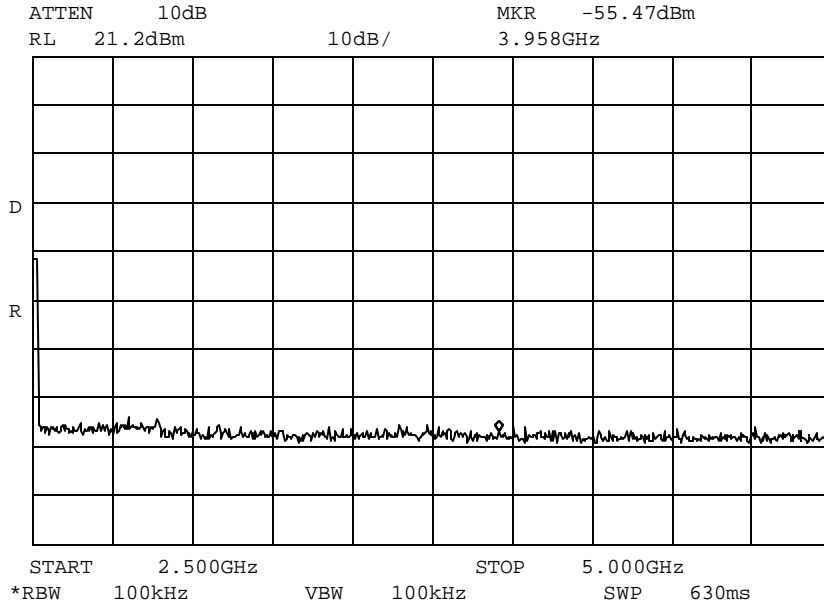
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740113: 2007-Apr-04 Wed 08:58:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64  
TX Frequency: 2500MHz

*Michael D Wyman*

Performed by:

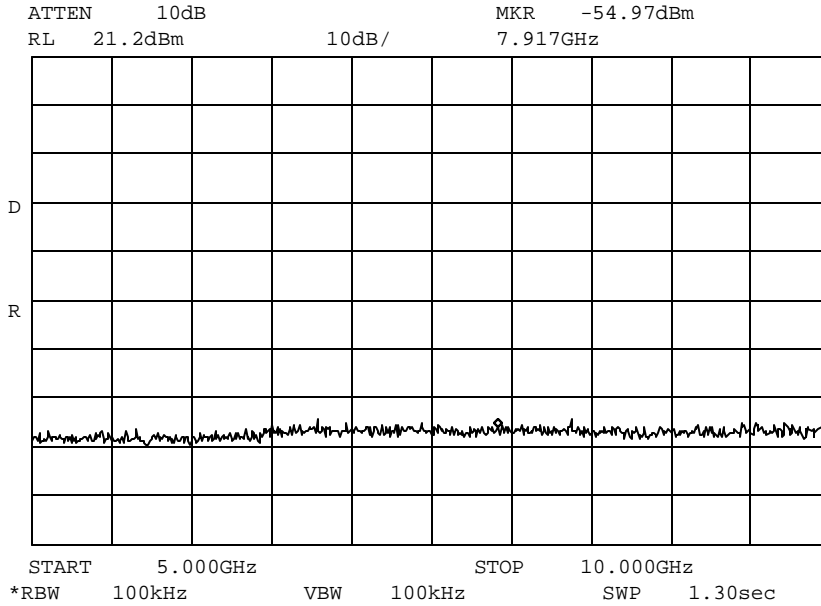
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740114: 2007-Apr-04 Wed 08:59:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

Performed by:

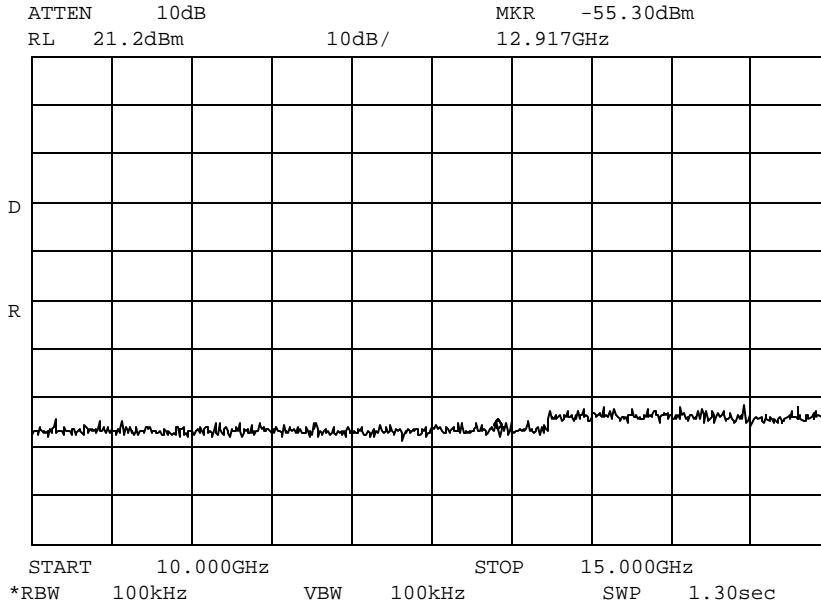
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740115: 2007-Apr-04 Wed 09:00:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

Performed by:

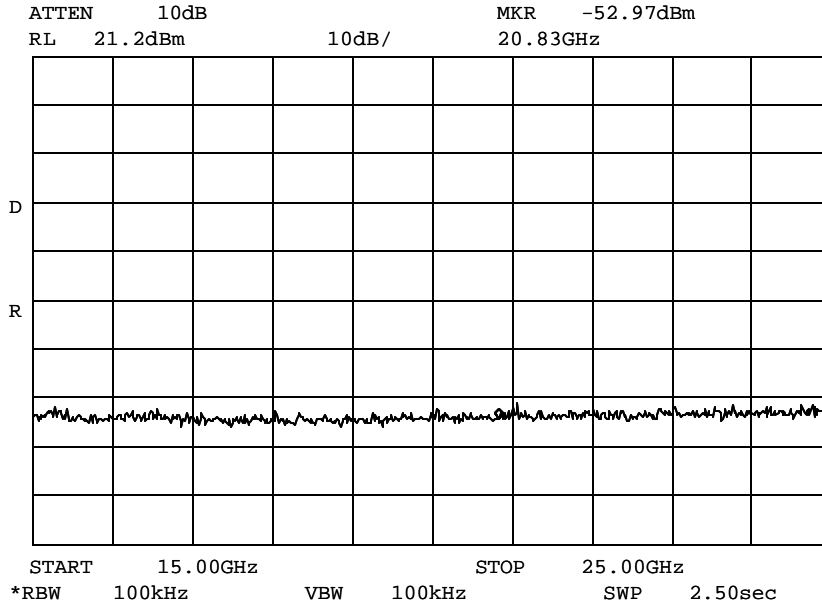
Michael Wyman

Name of Test: Spurious Emission (Transmitter Conducted)

Measurement Results

g0740116: 2007-Apr-04 Wed 09:01:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64

Performed by:

Michael Wyman



**Name of Test:** Emission Masks (Occupied Bandwidth)

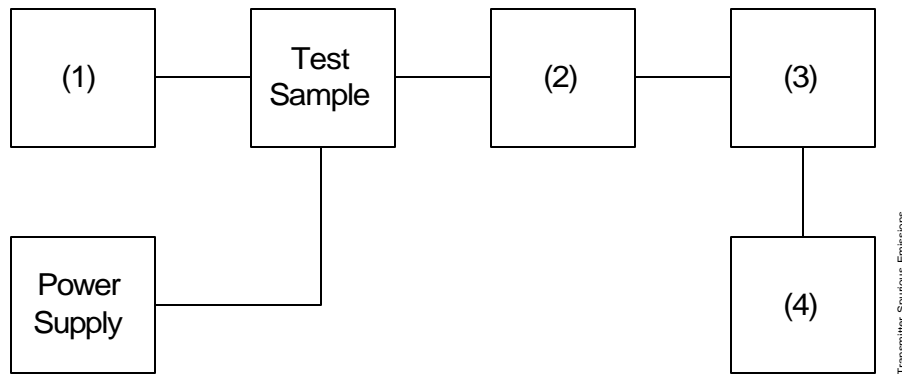
**Specification:** 47 CFR 2.1049(c)(1)

**Guide:** ANSI/TIA/EIA-603-1992, Paragraph 2.2.11

**Measurement Procedure**

- A) The EUT and test equipment were set up as shown below
- B) For EUTs supporting audio modulation, the audio signal generator was adjusted to the frequency of maximum response and with output level set for  $\pm 2.5/\pm 1.25$  kHz deviation (or 50% modulation). With level constant, the signal level was increased 16 dB.
- C) For EUTs supporting digital modulation, the digital modulation mode was operated to its maximum extent.
- D) The Occupied Bandwidth was measured with the Spectrum Analyzer controls set as shown on the test results.

**Transmitter Test Set-Up: Occupied Bandwidth**



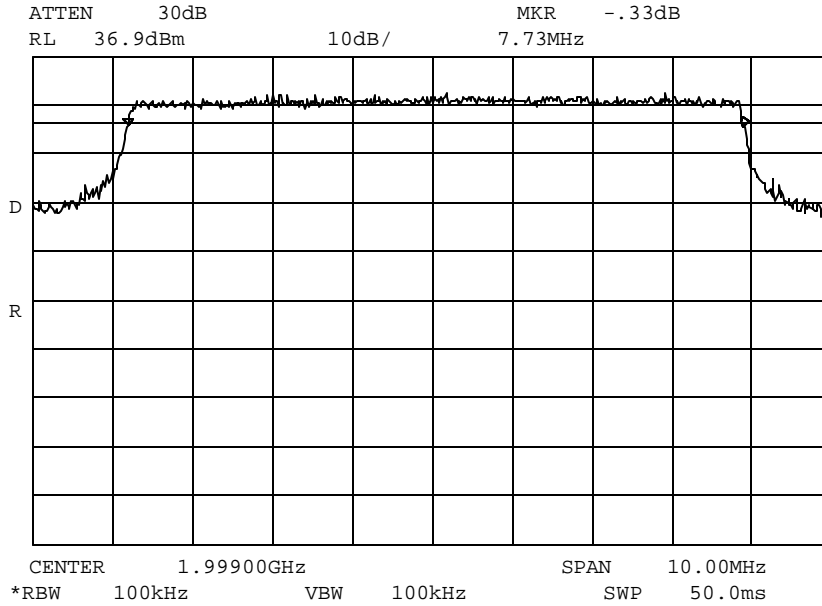
Asset	Description	s/n	Cycle	Last Cal
<b>(1) Audio Oscillator/Generator</b>				
X	i00324 HP 8903B Modulation Meter	3011A09079	12 mo.	Oct-06
<b>(2) Coaxial Attenuator</b>				
X	i00231/2 PASTERNAK PE7021-30 (30 dB)	231 or 232	N/A	NCR
	i00123 NARDA 766 (10 dB)	7802A	N/A	NCR
<b>(3) Interface</b>				
X	i00021 HP 8954A Transceiver Interface	2146A00159	N/A	NCR
<b>(4) Spectrum Analyzer</b>				
X	i00048 HP 8566B Spectrum Analyzer	2511A01467	12 mo.	Aug-06
	i00029 HP 8563E Spectrum Analyzer	3213A00104	12 mo.	Jan-06

Name of Test: Occupied Bandwidth 6 dB BW

Measurement Results

g0740117: 2007-Apr-04 Wed 09:29:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QPSK  
6 dB BW = 7.73 MHz

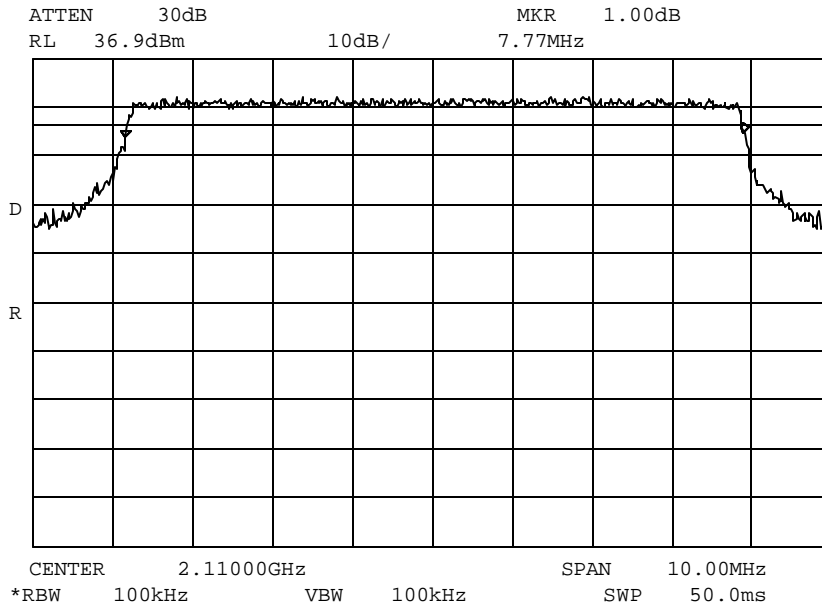
*Michael D Wyman*

Performed by: Michael Wyman  
Name of Test: Occupied Bandwidth 6 dB BW

**Measurement Results**

g0740118: 2007-Apr-04 Wed 09:32:00  
 State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power:  
 Modulation:

HIGH  
 QPSK  
 6dB BW = 7.77MHz

*Michael D Wyman*

Performed by:

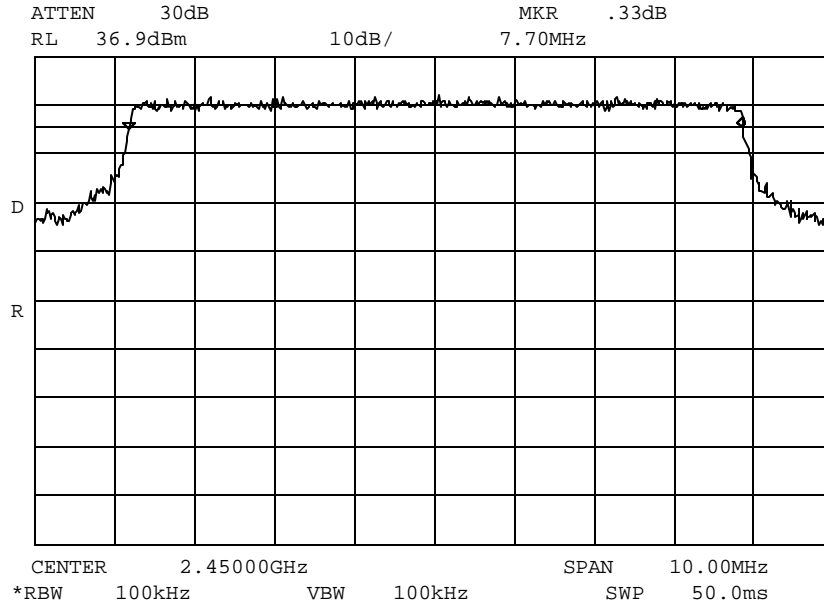
Michael Wyman

Name of Test: Occupied Bandwidth 6 dB BW

Measurement Results

g0740119: 2007-Apr-04 Wed 09:34:00  
 State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
 Modulation: QPSK  
 6dB BW = 7.70MHz

*Michael D Wyman*

Performed by:

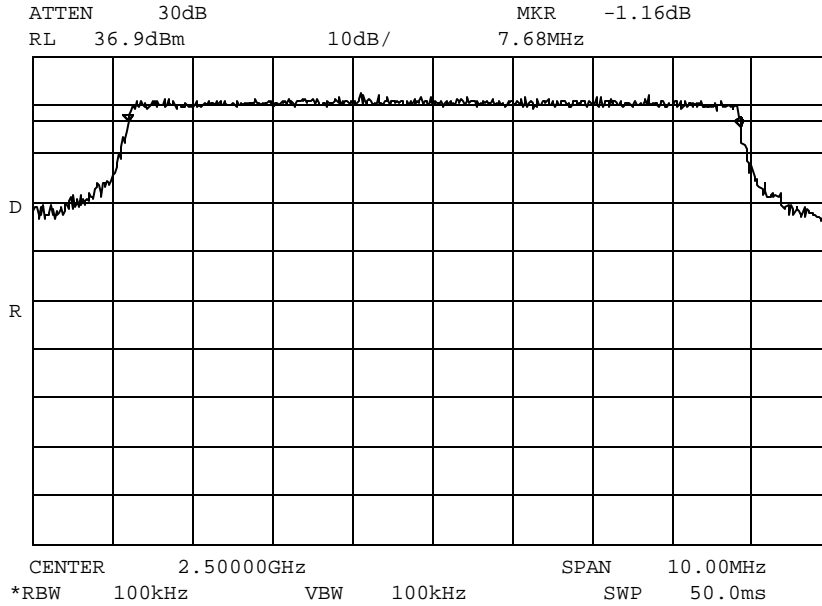
Michael Wyman

Name of Test: Occupied Bandwidth 6 dB BW

Measurement Results

g0740120: 2007-Apr-04 Wed 09:37:00  
 State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
 Modulation: QPSK  
 6dB BW = 7.68MHz

*Michael D Wyman*

Performed by:

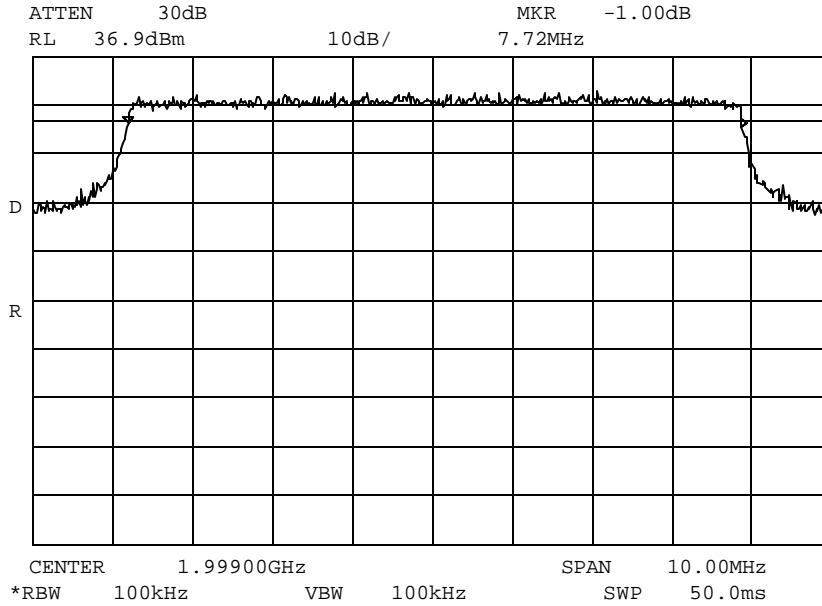
Michael Wyman

Name of Test: Occupied Bandwidth 6 dB BW

Measurement Results

g0740121: 2007-Apr-04 Wed 09:39:00  
 State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
 Modulation: QAM16  
 6dB BW = 7.72MHz

*Michael D Wyman*

Performed by:

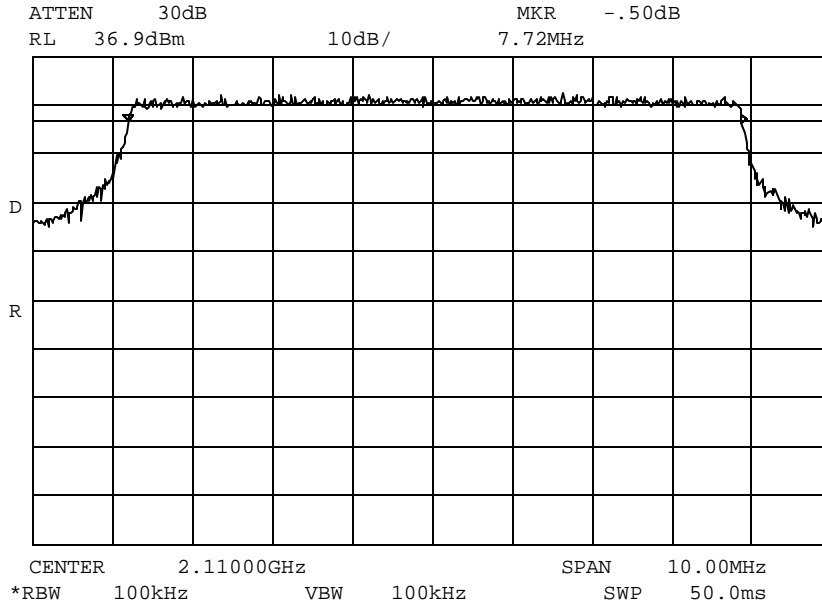
Michael Wyman

Name of Test: Occupied Bandwidth 6 dB BW

Measurement Results

g0740122: 2007-Apr-04 Wed 09:41:00  
 State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
 Modulation: QAM16  
 6dB BW = 7.72MHz

*Michael D Wyman*

Performed by:

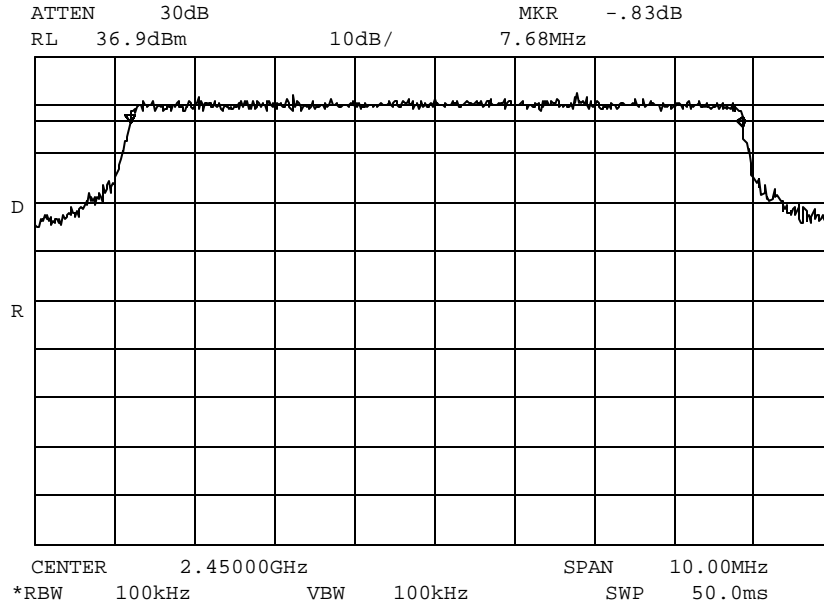
Michael Wyman

Name of Test: Occupied Bandwidth 6 dB BW

Measurement Results

g0740123: 2007-Apr-04 Wed 09:43:00  
 State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
 Modulation: QAM16  
 6dB BW = 7.68MHz

6dB BW = 7.77MHz

Performed by:

Michael Wyman

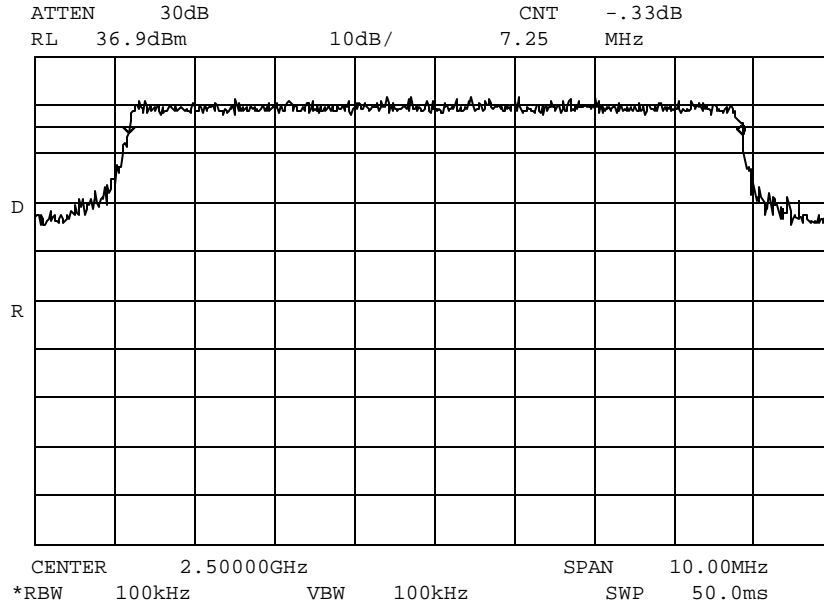


Name of Test: Occupied Bandwidth 6 dB BW

Measurement Results

g0740124: 2007-Apr-04 Wed 09:45:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM16  
6dB BW = 7.25MHz

*Michael D Wyman*

Performed by:

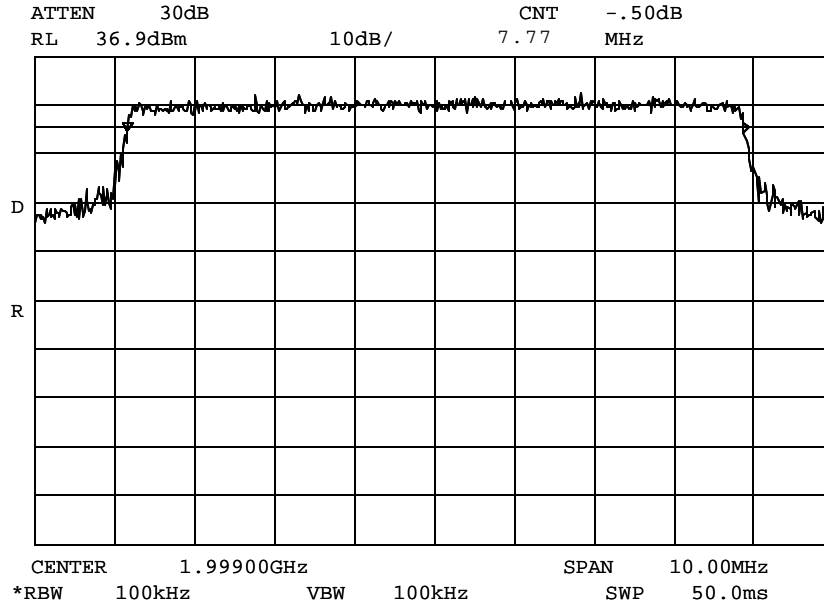
Michael Wyman

Name of Test: Occupied Bandwidth 6 dB BW

Measurement Results

g0740125: 2007-Apr-04 Wed 09:48:00  
 State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
 Modulation: QAM64  
 6dB BW = 7.77MHz

*Michael D Wyman*

Performed by:

Michael Wyman

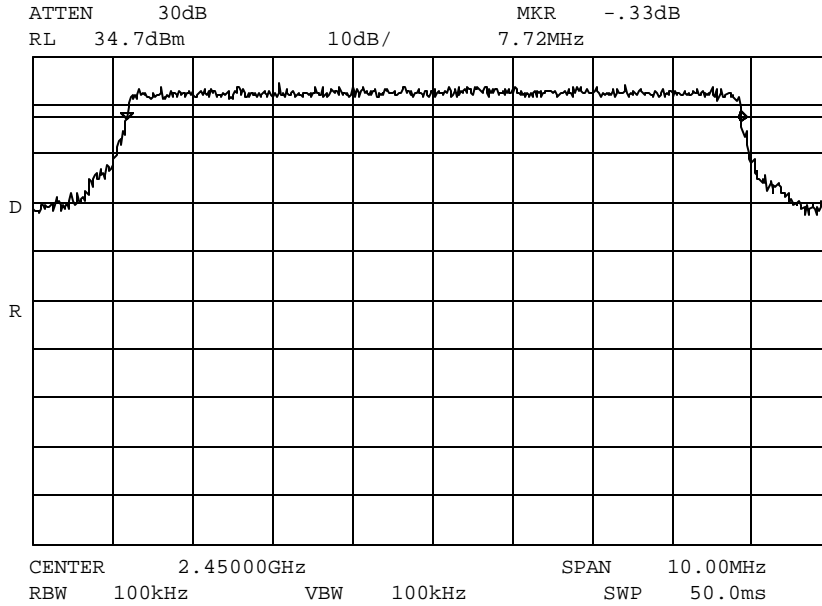


Name of Test: Occupied Bandwidth 6 dB BW

Measurement Results

g0740127: 2007-Apr-04 Wed 10:04:00  
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
Modulation: QAM64  
6dB BW = 7.72MHz

*Michael D Wyman*

Performed by:

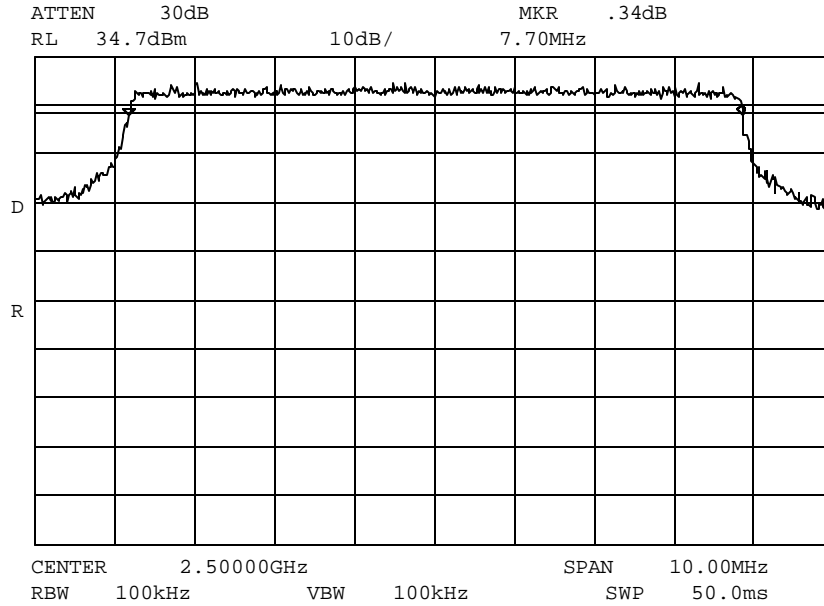
Michael Wyman

Name of Test: Occupied Bandwidth 6 dB BW

Measurement Results

g0740128: 2007-Apr-04 Wed 10:06:00  
 State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH  
 Modulation: QAM64  
 6dB BW = 7.70MHz

*Michael D Wyman*

Performed by:

Michael Wyman

**Name of Test:** Necessary Bandwidth and Emission Bandwidth

**Specification:** 47 CFR 2.202(g)

Modulation = 17M0F8W

**Necessary Bandwidth Calculation:**

Maximum Modulation (M), kHz	=	3
Maximum Deviation (D), kHz	=	5
Constant Factor (K)	=	1
Necessary Bandwidth (B <sub>N</sub> ), kHz	=	(2xM)+(2xDxK)
	=	16.0

Modulation = 17M0D9W

**Necessary Bandwidth Calculation:**

Maximum Modulation (M), kHz	=	3
Maximum Deviation (D), kHz	=	5
Constant Factor (K)	=	1
Necessary Bandwidth (B <sub>N</sub> ), kHz	=	(2xM)+(2xDxK)
	=	16.0

Modulation = 12M0F8W

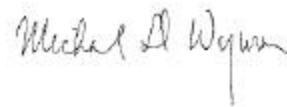
**Necessary Bandwidth Calculation:**

Maximum Modulation (M), kHz	=	3
Maximum Deviation (D), kHz	=	5
Constant Factor (K)	=	1
Necessary Bandwidth (B <sub>N</sub> ), kHz	=	(2xM)+(2xDxK)
	=	16.0

Modulation = 12M0D9W

**Necessary Bandwidth Calculation:**

Maximum Modulation (M), kHz	=	3
Maximum Deviation (D), kHz	=	5
Constant Factor (K)	=	1
Necessary Bandwidth (B <sub>N</sub> ), kHz	=	(2xM)+(2xDxK)
	=	16.0



Performed by:

Michael Wyman

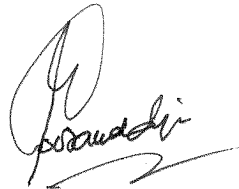
END OF TEST REPORT

**Testimonial  
and  
Statement of Certification**

**This is to Certify:**

1. **That** the application was prepared either by, or under the direct supervision of, the undersigned.
2. **That** the technical data supplied with the application was taken under my direction and supervision.
3. **That** the data was obtained on representative units, randomly selected.
4. **That**, to the best of my knowledge and belief, the facts set forth in the application and accompanying technical data are true and correct.

Certifying Engineer:



Hoosamuddin S. Bandukwala, Lab Director