



Nemko Test Report: 6L0424RUS1rev3

Applicant: Siemens Subscriber Networks
4849 Alpha Road
Dallas, TX 75244
USA

**Equipment Under Test:
(E.U.T.)** Gigaset SE567/ Gigaset SE568

In Accordance With: **FCC Part 15, Subpart C, 15.247 and
RSS-210, Issue 6**
Digital Transmission System Transmitter

Tested By: Nemko USA Inc.
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Lewisville, Texas 75057-3136

TESTED BY:

David Light,
Wireless Engineer

DATE:

22 August 2006

APPROVED BY:

Kevin Rose,
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DATE:

August 23, 2006

Number of Pages: 50

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Section 1. Summary of Test Results

Manufacturer: Siemens Subscriber Networks

Model No.: Gigaset SE567/ Gigaset SE568

Serial No.: 00.13.A3.D4.E8.18

General: **All measurements are traceable to national standards.**

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15, Subpart C, Paragraph 15.247 and RSS-210, Issue 6 for Digital Transmission Systems. Radiated tests were conducted in accordance with ANSI C63.4-2003. Radiated emissions are made on an open area test site. A description of the test facility is on file with the FCC.

- | | | | |
|-------------------------------------|----------------------------|-------------------------------------|---------------------|
| <input checked="" type="checkbox"/> | New Submission | <input type="checkbox"/> | Production Unit |
| <input type="checkbox"/> | Class II Permissive Change | <input checked="" type="checkbox"/> | Pre-Production Unit |

THIS TEST REPORT RELATES ONLY TO THE ITEM(S) TESTED.

THE FOLLOWING DEVIATIONS FROM, ADDITIONS TO, OR EXCLUSIONS FROM THE TEST SPECIFICATIONS HAVE BEEN MADE. NONE
See " Summary of Test Data".



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Summary Of Test Data

NAME OF TEST	PARA. NO.	RESULT
Powerline Conducted Emissions	15.207(a)	Complies
Minimum 6 dB Bandwidth	15.247(a)(2)	Complies
Maximum Peak Power Output	15.247(b)(3)	Complies
Spurious Emissions (Antenna Conducted)	15.247(d)	Complies
Spurious Emissions (Restricted Bands)	15.247(d)/15.205	Complies
Peak Power Spectral Density	15.247(e)	Complies

Footnotes:

The sample tested was a Gigaset SE568. Model SE567 does not have USB capabilities.

Section 2. Equipment Under Test (E.U.T.)

General Equipment Information

Frequency Band: 2400-2483.5 MHz

Operating Frequencies of Sample: 2412-2462 MHz

Standard Test Voltage: 120 Vac

Channel Spacing: 5 MHz

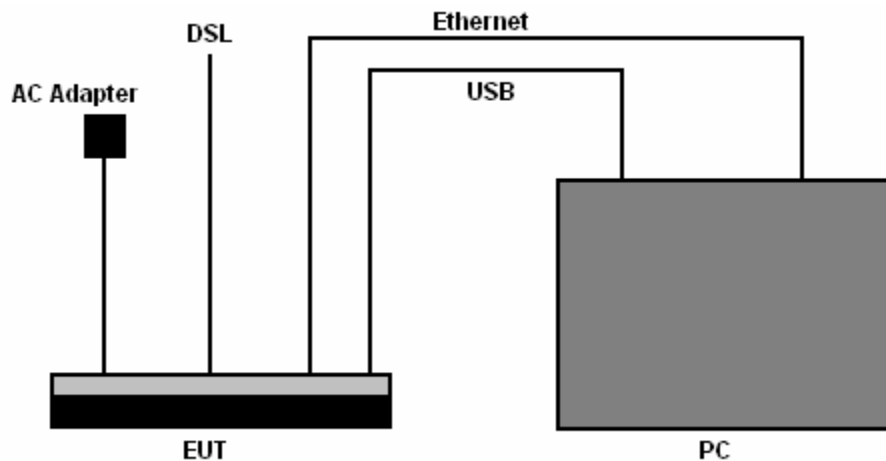
User Frequency Adjustment: Software controlled

Description of EUT

Siemens Gigaset SE567/568 ADSL2+ Wireless Gateways offer DSL and wireless performance tailored to the unique demands of service providers. WiFi performance is greatly improved through the Gateway’s advanced “Smart Antenna” design. Patented beam steering technology typically doubles signal strength and received sensitivity over conventional antenna solutions. This unprecedented antenna gain and wireless coverage pattern results from combining multiple antenna elements with rapid automatic antenna switching.

The SE568 offers USB option.

System Diagram



PC - Dell Latitude D610

AC Adapter – GC Technologies AM-121000

Section 3. Powerline Conducted Emissions

NAME OF TEST: Powerline Conducted Emissions	PARA. NO.: 15.207(a)
TESTED BY: David Light	DATE: 21 August 2006

Test Results: Complies. The worst case emission was 58.9 dBµV at 13.2 MHz. This is 1.1 dB below the quasi-peak specification limit of 60.0 dBµV.

Test Data: Refer to attached plots

Equipment Used: 1659-1625-674-968-969-1978

Measurement Uncertainty: +/- 1.7 dB

Temperature: 22 °C

Relative Humidity: 40 %

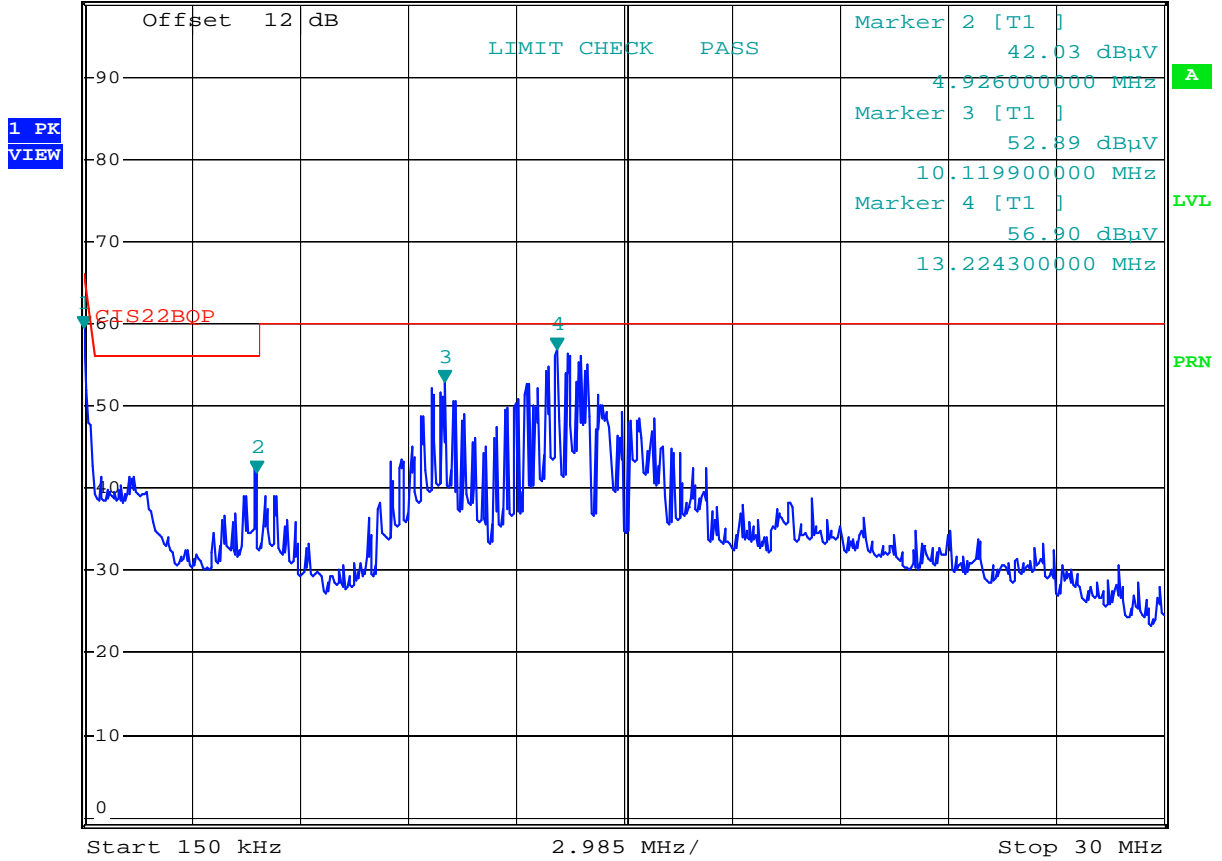
Test Data – Powerline Conducted Emissions

Line side - Peak



*RBW 10 kHz Marker 1 [T1]
VBW 30 kHz 59.50 dBµV
SWT 300 ms 150.000000000 kHz

Ref 99 dBµV Att 10 dB



Date: 21.AUG.2006 13:01:14

Test Data – Powerline Conducted Emissions

Line side - Average

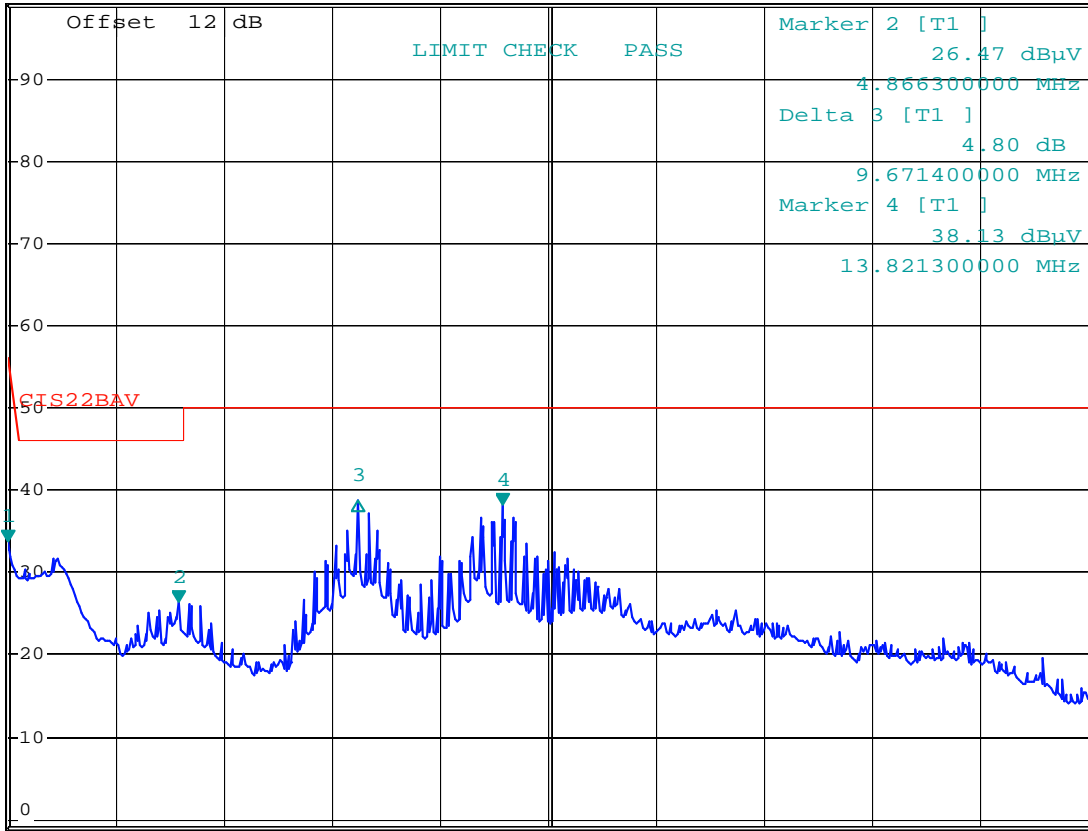


*RBW 10 kHz Marker 1 [T1]
VBW 100 kHz 33.84 dBμV
*SWT 15 s 150.000000000 kHz

Ref 99 dBμV

Att 10 dB

1 AV*
VIEW



Center 15.075 MHz 2.985 MHz/ Span 29.85 MHz

Date: 21.AUG.2006 13:10:11

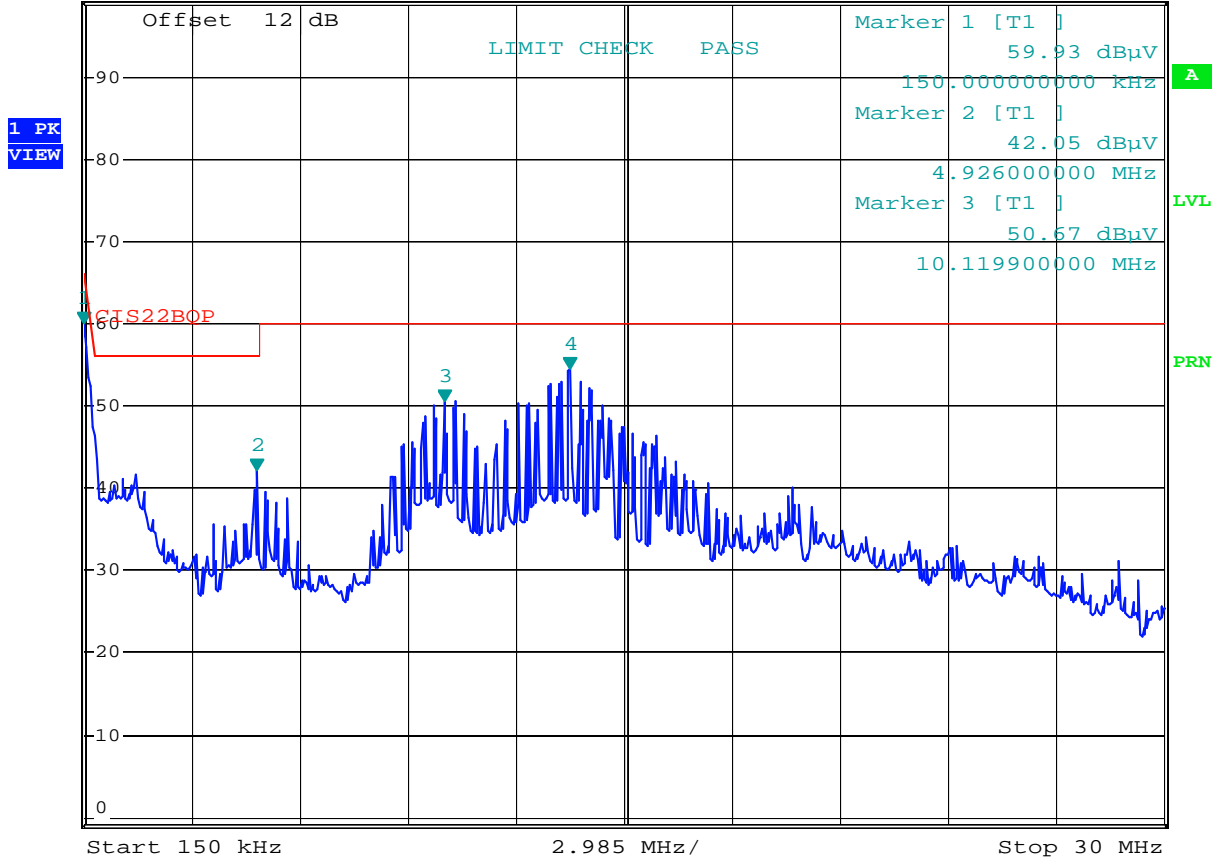
Test Data – Powerline Conducted Emissions

Neutral side - Peak



*RBW 10 kHz Marker 4 [T1]
VBW 30 kHz 54.52 dBμV
SWT 300 ms 13.582500000 MHz

Ref 99 dBμV Att 10 dB



Date: 21.AUG.2006 13:16:44

Test Data – Powerline Conducted Emissions

Neutral side - Average

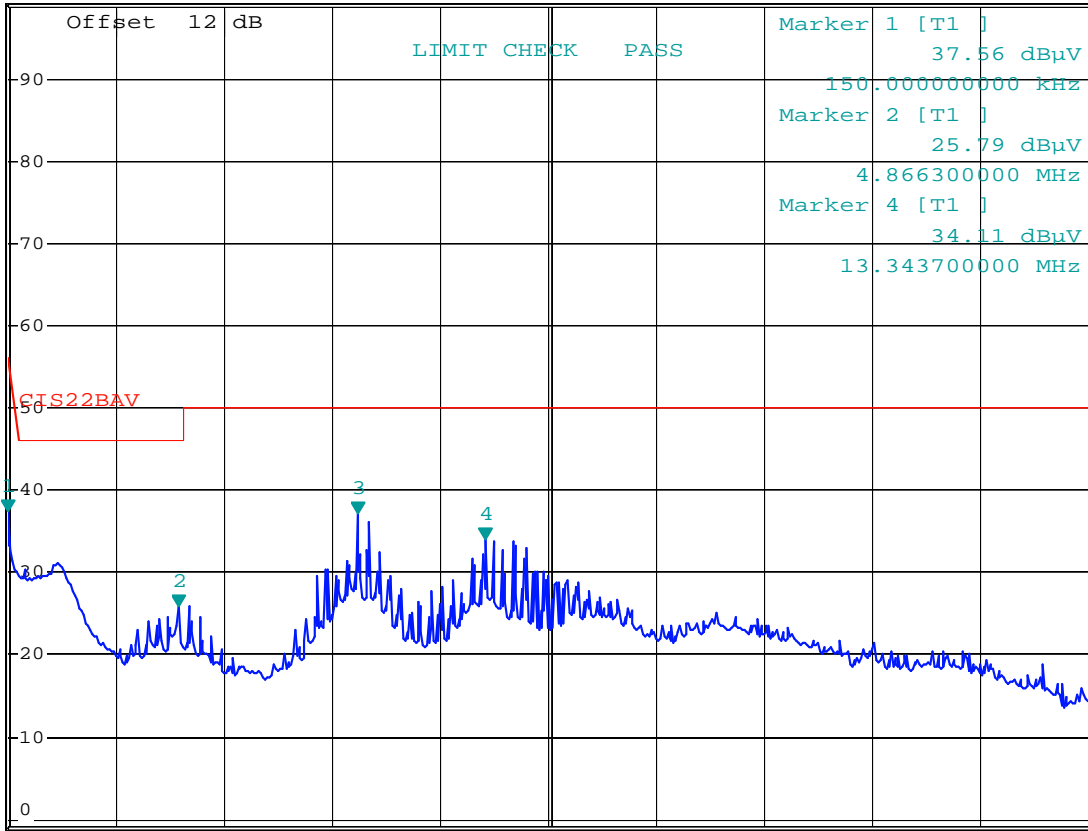


*RBW 10 kHz Marker 3 [T1]
VBW 100 kHz 37.10 dBµV
*SWT 15 s 9.821400000 MHz

Ref 99 dBµV

Att 10 dB

1 AV*
VIEW



Center 15.075 MHz 2.985 MHz/ Span 29.85 MHz

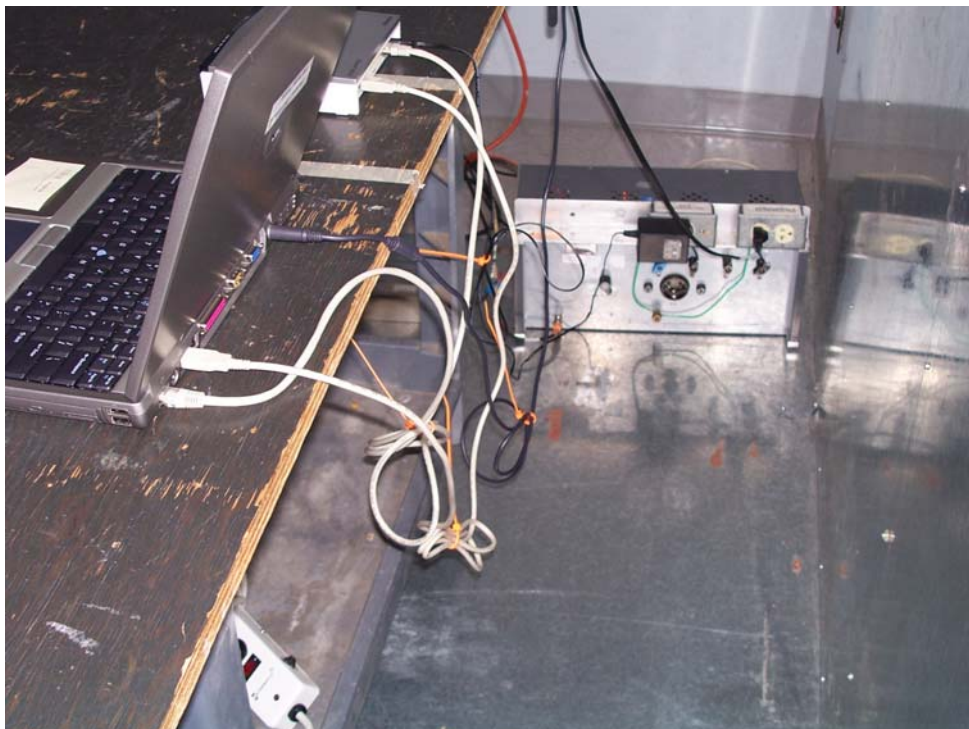
Date: 21.AUG.2006 13:12:18

Photos – Powerline Conducted Emissions

Front



Side



Section 4. Occupied Bandwidth

NAME OF TEST: Occupied Bandwidth	PARA. NO.: 15.247(a)(2)
TESTED BY: David Light	DATE: 18 August 2006

Test Results: [Complies.](#)

Test Data: See 6 dB BW plot
Measured 6 dB bandwidth: 16.6 MHz
Channel Separation: 5 MHz

Equipment Used: [1472-1626-1036](#)

Measurement Uncertainty: $1 \cdot 10^{-7}$ ppm

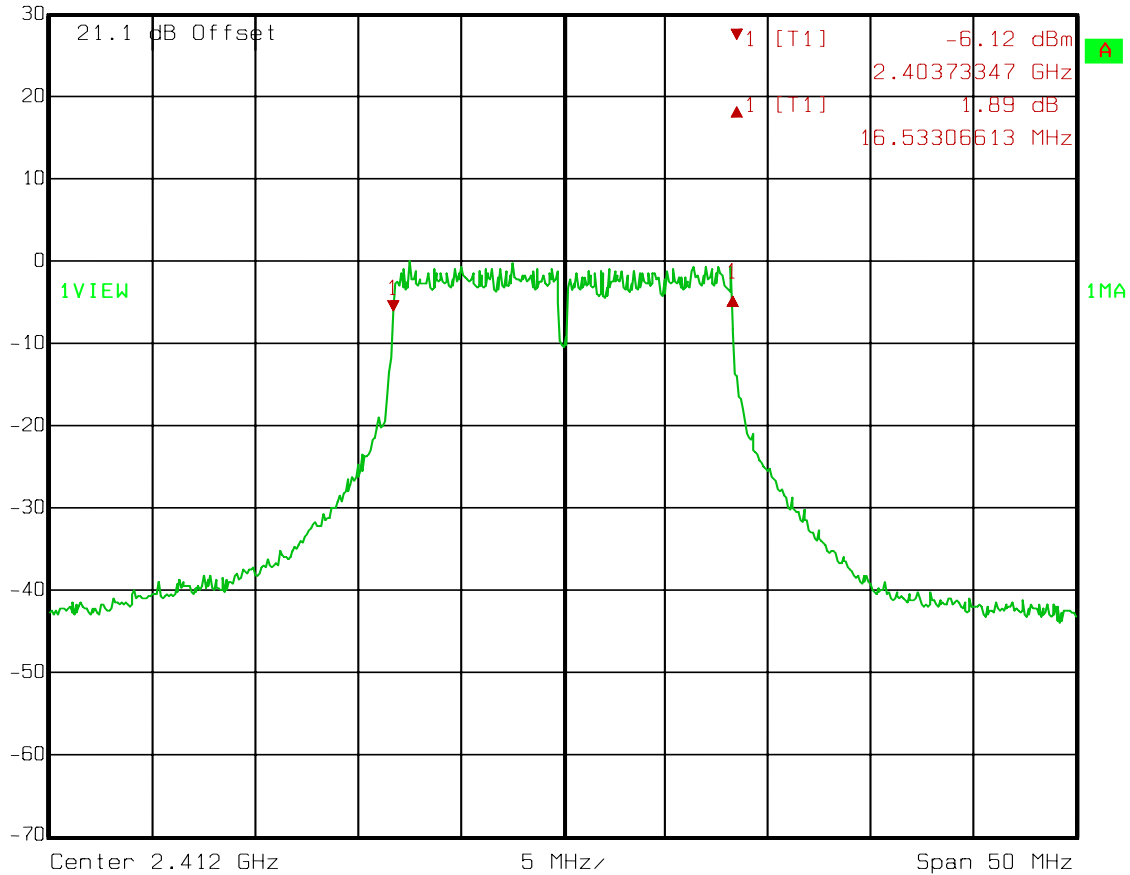
Temperature: [22](#) °C

Relative Humidity: [40](#) %

Test Data – Occupied Bandwidth – 802.11g



Ref Lvl 30 dBm
Delta 1 [T1] 1.89 dB
16.53306613 MHz
RBW 100 kHz
RF Att 30 dB
VBW 100 kHz
SWT 12.5 ms
Unit dBm

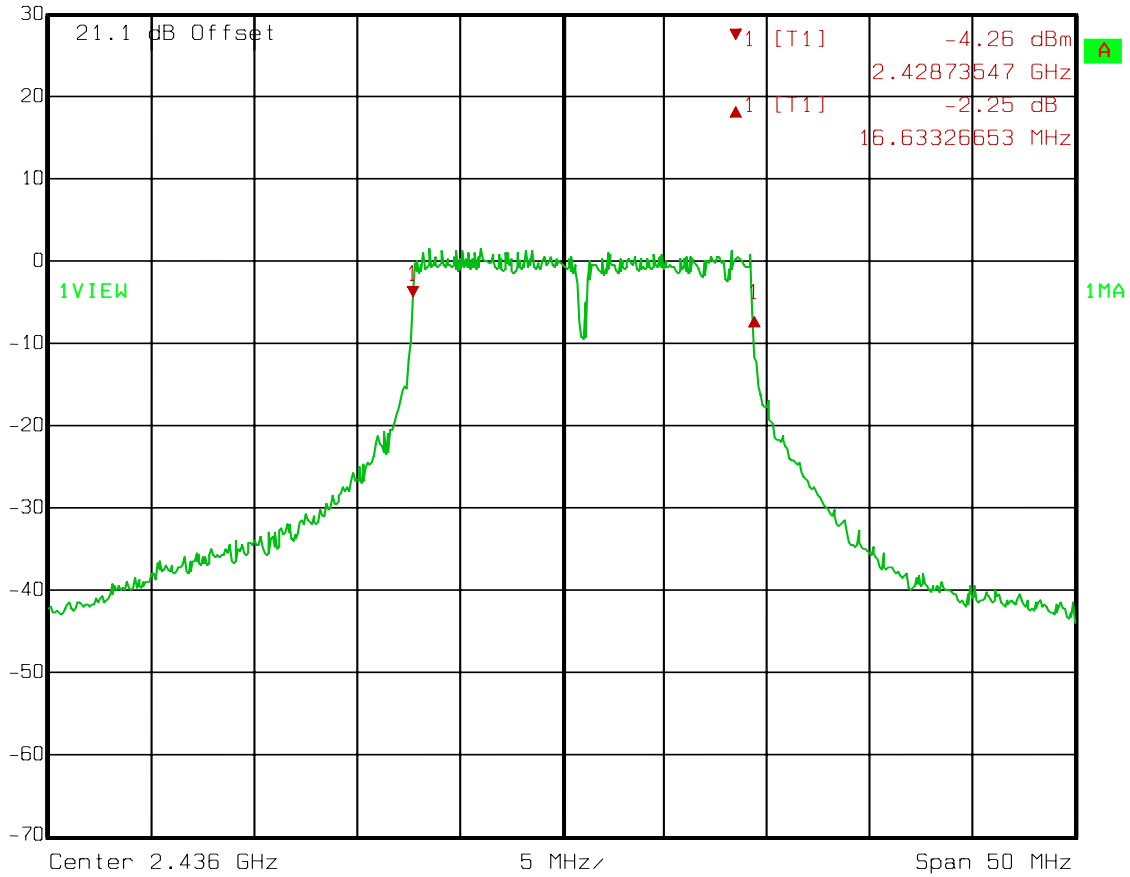


Date: 18.AUG.2006 14:33:30

Test Data – Occupied Bandwidth – 802.11g



Delta 1 [T1] RBW 100 kHz RF Att 30 dB
Ref Lvl -2.25 dB VBW 100 kHz
30 dBm 16.63326653 MHz SWT 12.5 ms Unit dBm

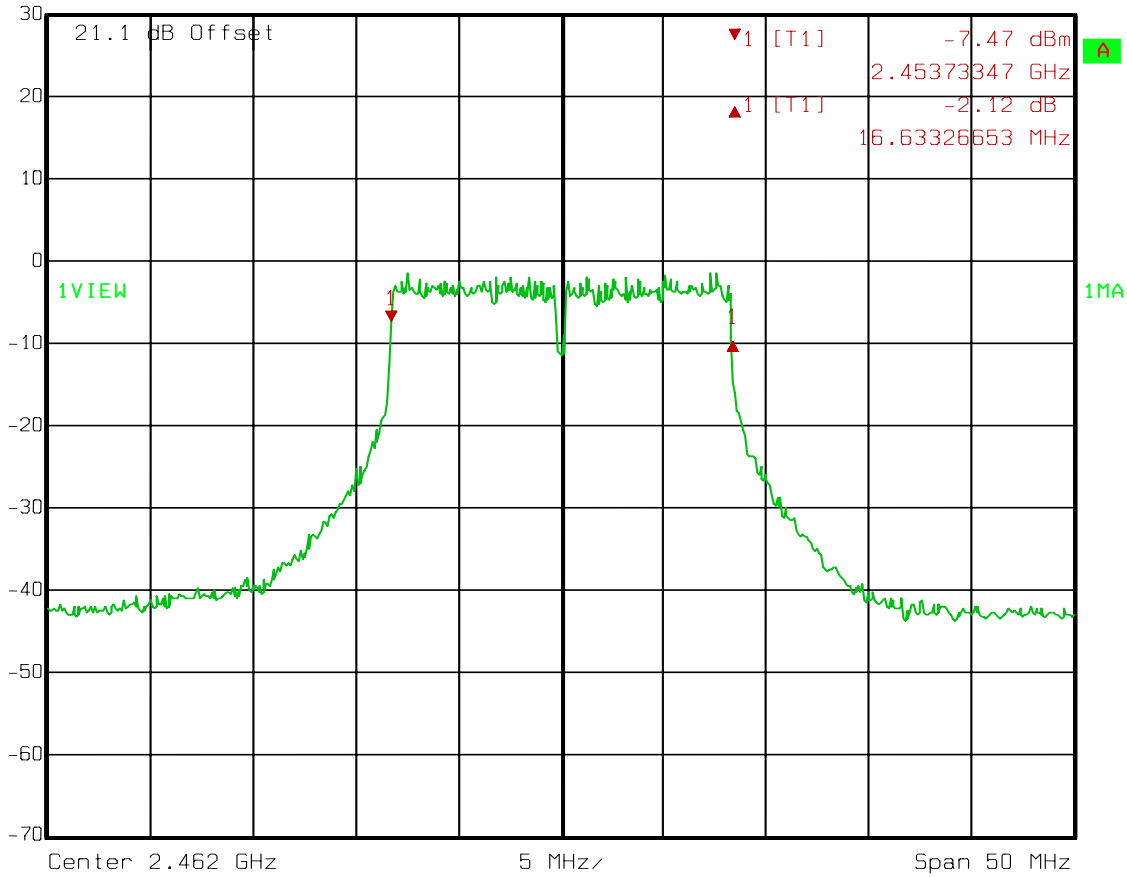


Date: 18.AUG.2006 15:22:07

Test Data – Occupied Bandwidth – 802.11g



Delta 1 [T1] RBW 100 kHz RF Att 30 dB
Ref Lvl -2.12 dB VBW 100 kHz
30 dBm 16.63326653 MHz SWT 12.5 ms Unit dBm

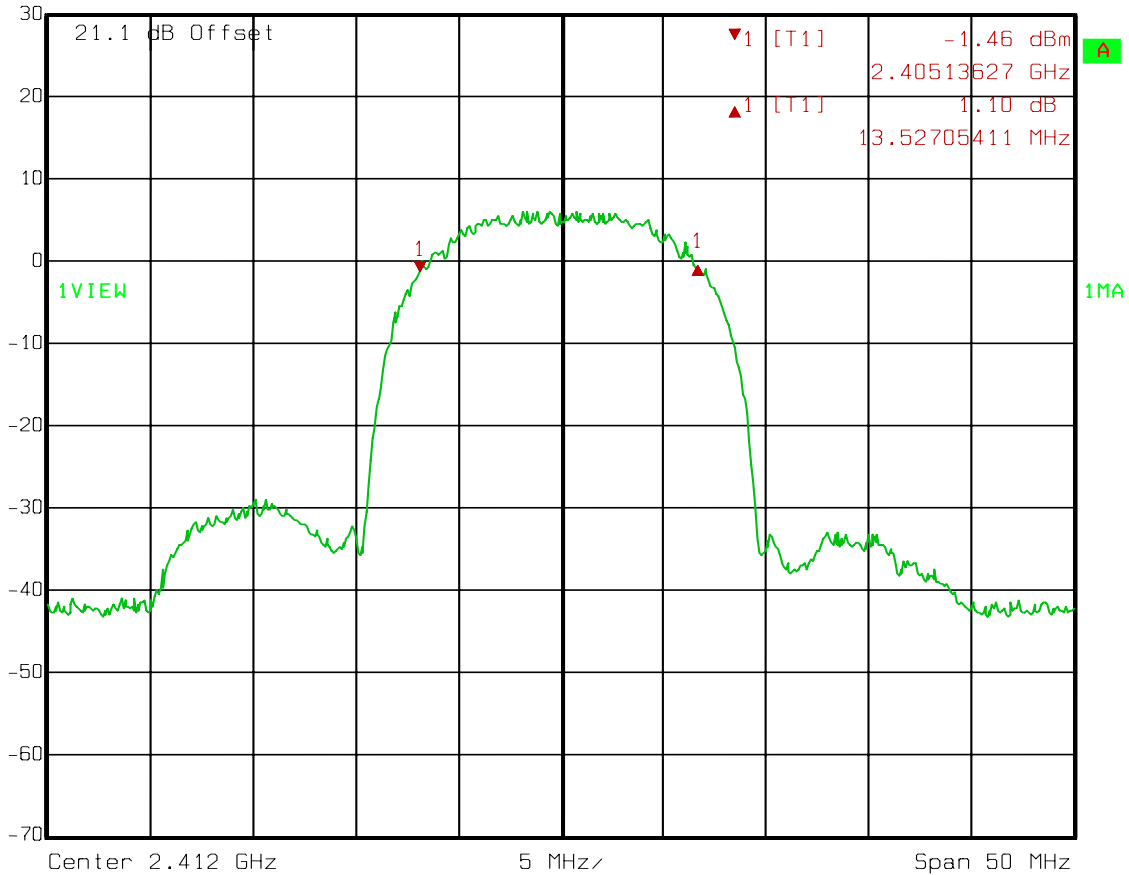


Date: 18.AUG.2006 16:00:09

Test Data – Occupied Bandwidth – 802.11b



Delta 1 [T1] RBW 100 kHz RF Att 30 dB
Ref Lvl 1.10 dB VBW 100 kHz
30 dBm 13.52705411 MHz SWT 12.5 ms Unit dBm

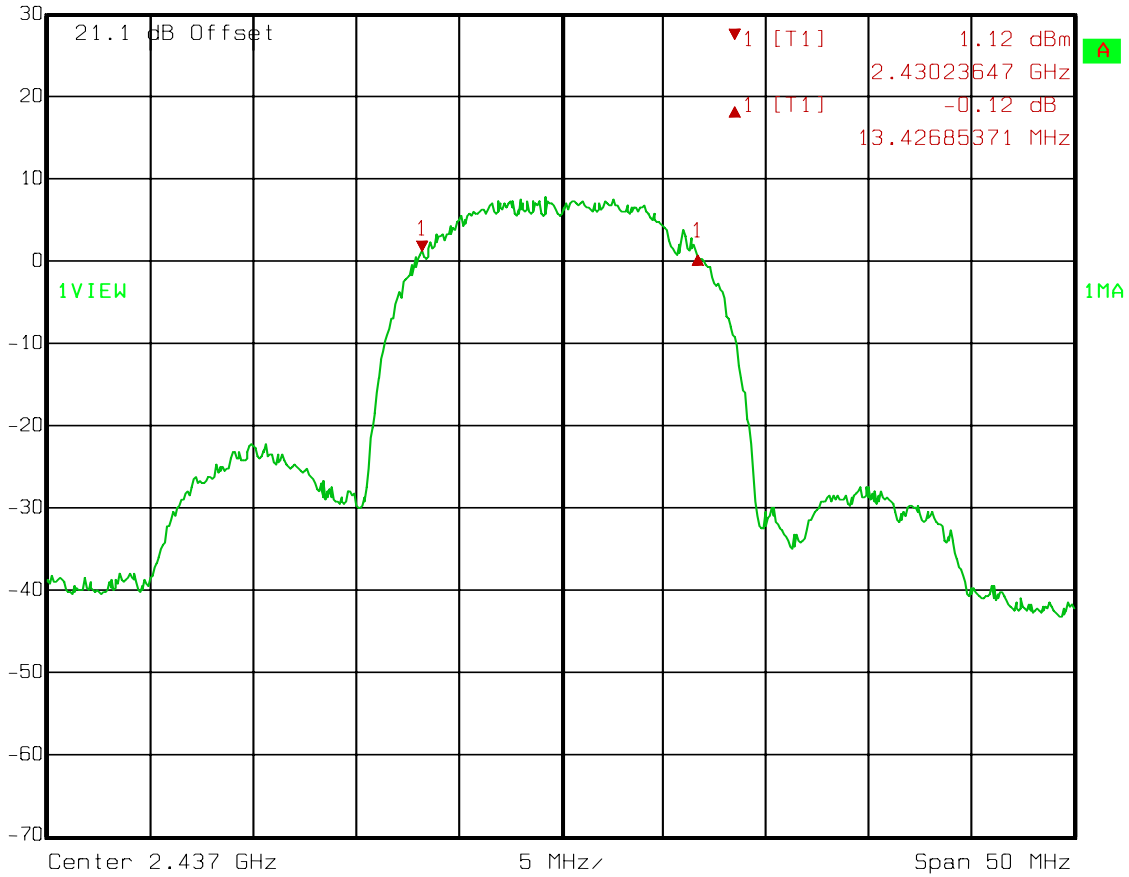


Date: 22.AUG.2006 11:07:19

Test Data – Occupied Bandwidth – 802.11b



Delta 1 [T1] RBW 100 kHz RF Att 30 dB
Ref Lvl -0.12 dB VBW 100 kHz
30 dBm 13.42685371 MHz SWT 12.5 ms Unit dBm

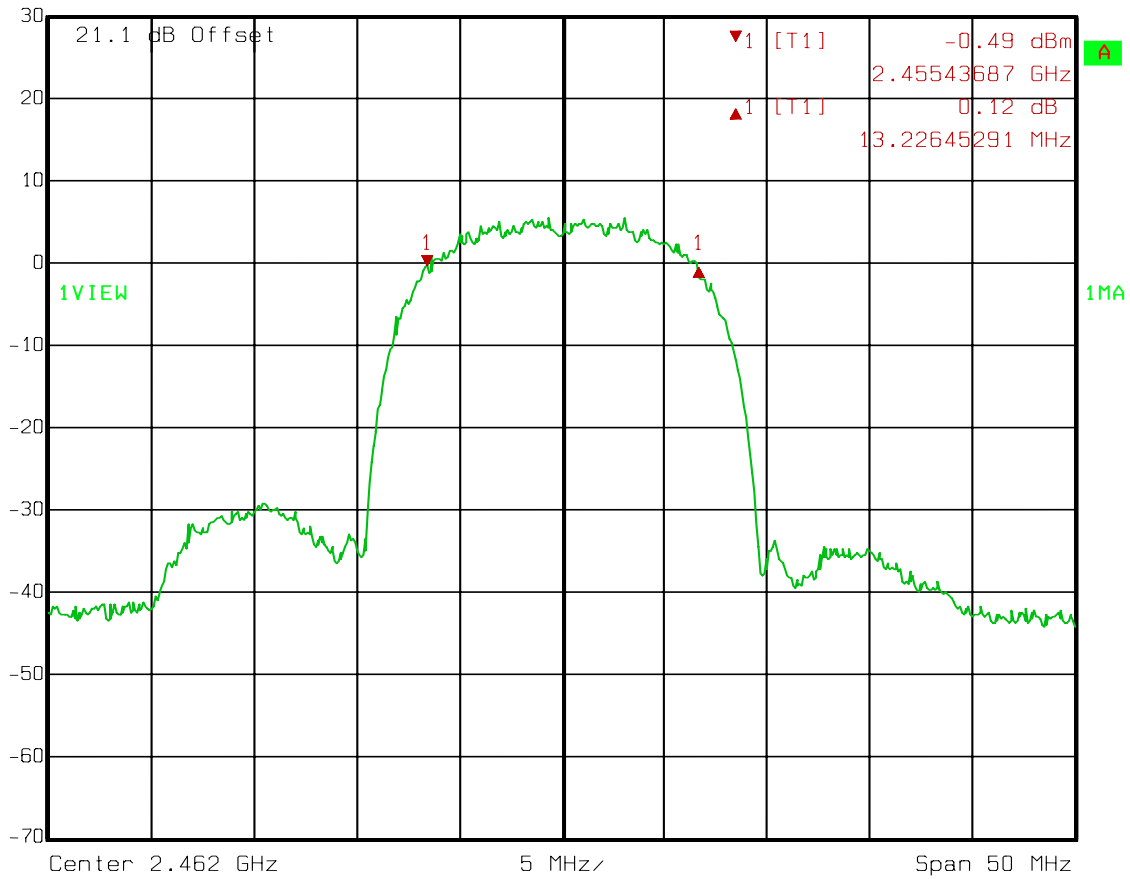


Date: 22.AUG.2006 11:48:17

Test Data – Occupied Bandwidth – 802.11b



Delta 1 [T1] RBW 100 kHz RF Att 30 dB
Ref Lvl 0.12 dB VBW 100 kHz
30 dBm 13.22645291 MHz SWT 12.5 ms Unit dBm



Date: 22.AUG.2006 12:29:52

Section 5. Maximum Peak Output Power

NAME OF TEST: Maximum Peak Output power	PARA. NO.: 15.247(b)(1)
TESTED BY: David Light	DATE: 18 August 2006

Test Results: [Complies.](#)

Test Data:

Channel	Data Rate	Peak Power (dBm)	Peak Power (mW)
1	54	23.53	225.4
6	54	25.08	322.1
11	54	22.40	173.8
1	11	22.56	180.3
6	11	24.44	278.0
11	11	22.56	180.3

Maximum Peak Output Power: [25.08 dBm / 322.1 mW](#)

Rated Antenna Gain: 7 dBi max

Equipment Used: [1472-1626-1029-1030](#)

Measurement Uncertainty: +/- 1.7 dB

Temperature: [22](#) °C

Relative Humidity: [40](#) %

The measurement was repeated at +/- 15% of nominal supply voltage with no variation noted in rf power output.

Section 6 Spurious Emissions at Antenna Terminals

NAME OF TEST: Spurious Emissions at Antenna Terminals	PARA. NO.: 15.247 (c)
TESTED BY: David Light	DATE: 18 August 2006

Test Results: [Complies.](#)

Test Data: [See attached plots](#)

Equipment Used: [1472-1626-1036](#)


Measurement Uncertainty: +/- [1.7](#) dB

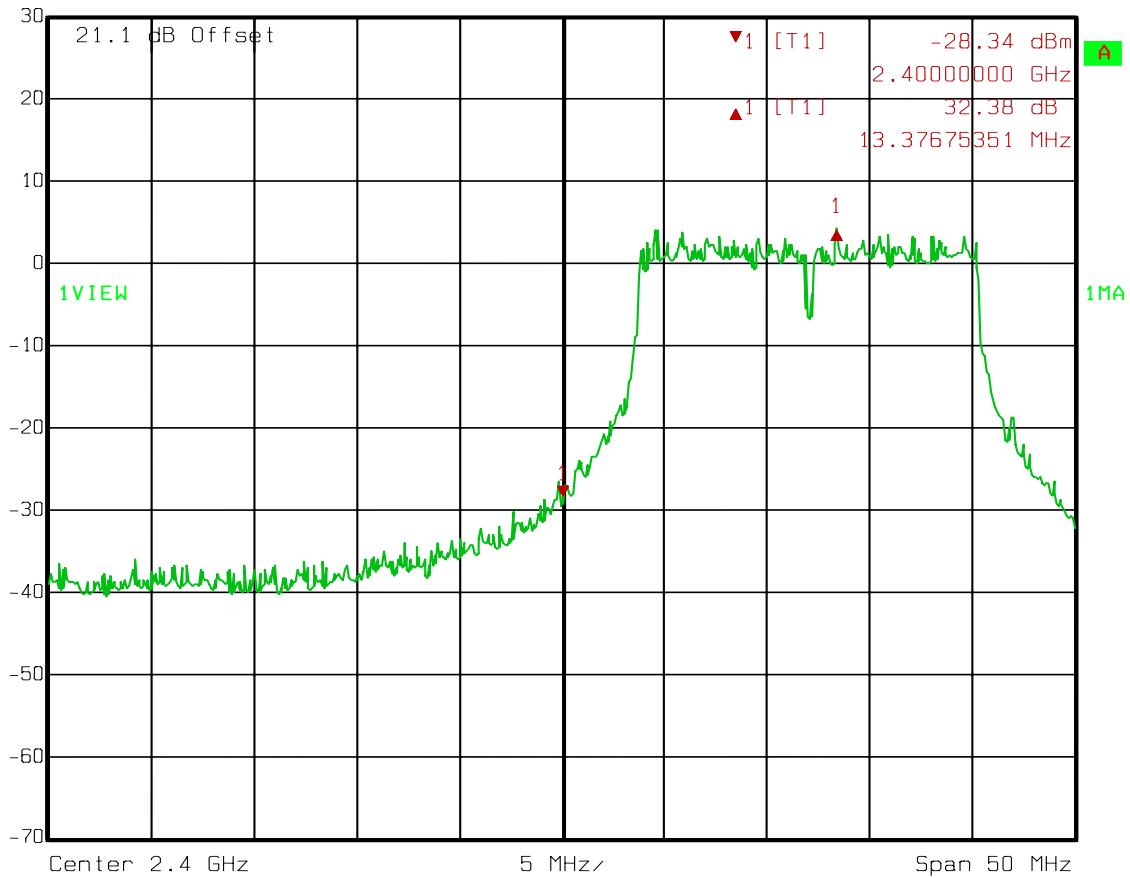
Temperature: [22](#) °C

Relative Humidity: [40](#) %

Test Data – Spurious Emissions at Antenna Terminals – 802.11g

Low Channel

 Delta 1 [T1] RBW 100 kHz RF Att 30 dB
Ref Lvl 32.38 dB VBW 100 kHz
30 dBm 13.37675351 MHz SWT 12.5 ms Unit dBm

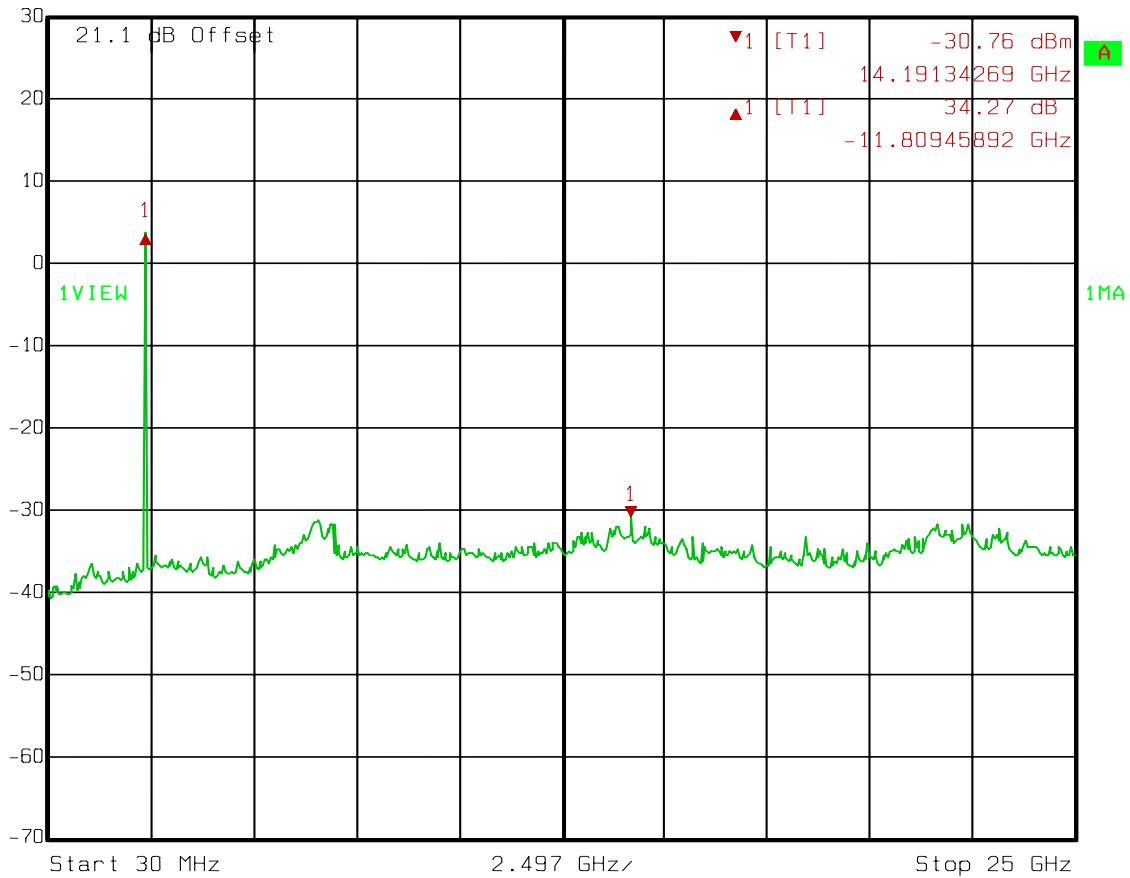


Date: 18.AUG.2006 14:34:33

Test Data – Spurious Emissions at Antenna Terminals – 802.11g

Low Channel

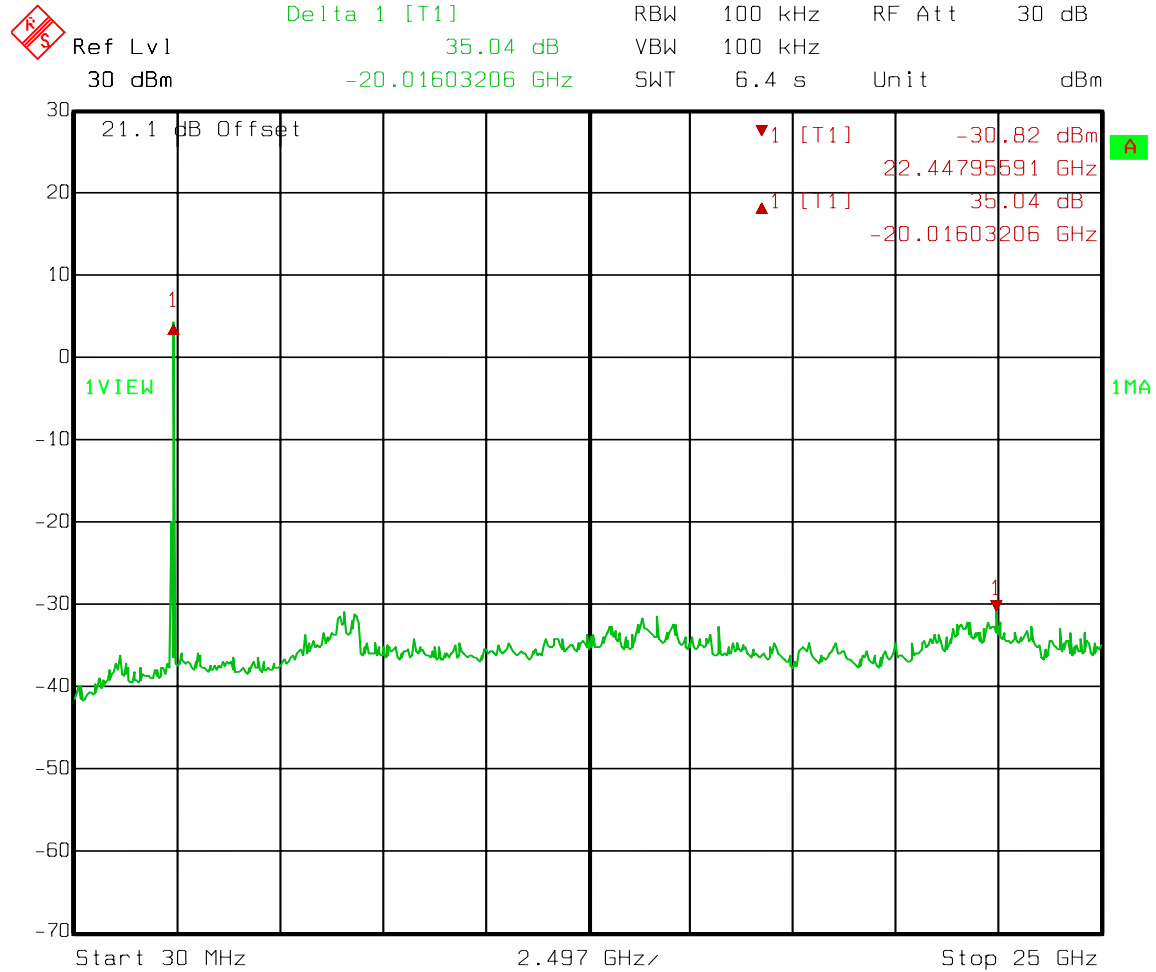
 Delta 1 [T1] RBW 100 kHz RF Att 30 dB
Ref Lvl 34.27 dB VBW 100 kHz
30 dBm -11.80945892 GHz SWT 6.4 s Unit dBm



Date: 18.AUG.2006 14:36:17

Test Data – Spurious Emissions at Antenna Terminals – 802.11g

Mid Channel

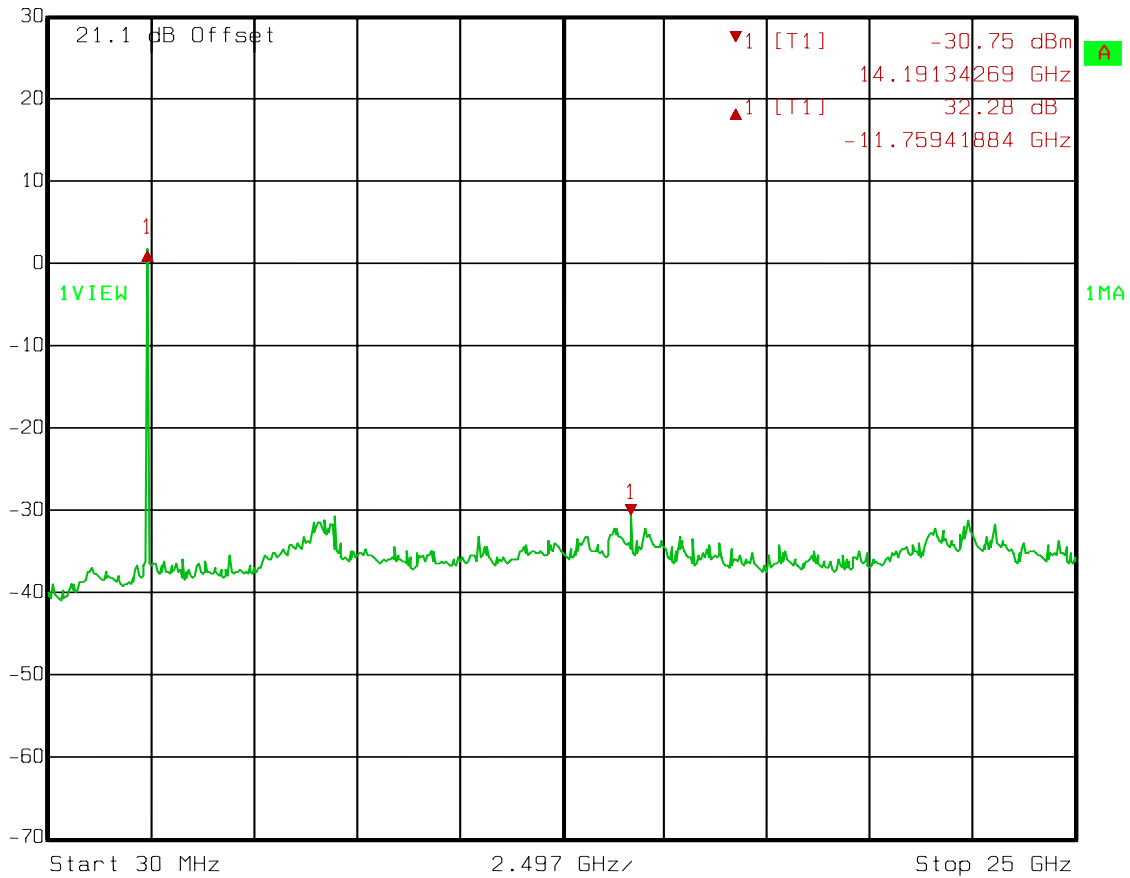


Date: 18.AUG.2006 15:23:36

Test Data – Spurious Emissions at Antenna Terminals – 802.11g

High Channel

 Delta 1 [T1] RBW 100 kHz RF Att 30 dB
Ref Lvl 32.28 dB VBW 100 kHz
30 dBm -11.75941884 GHz SWT 6.4 s Unit dBm

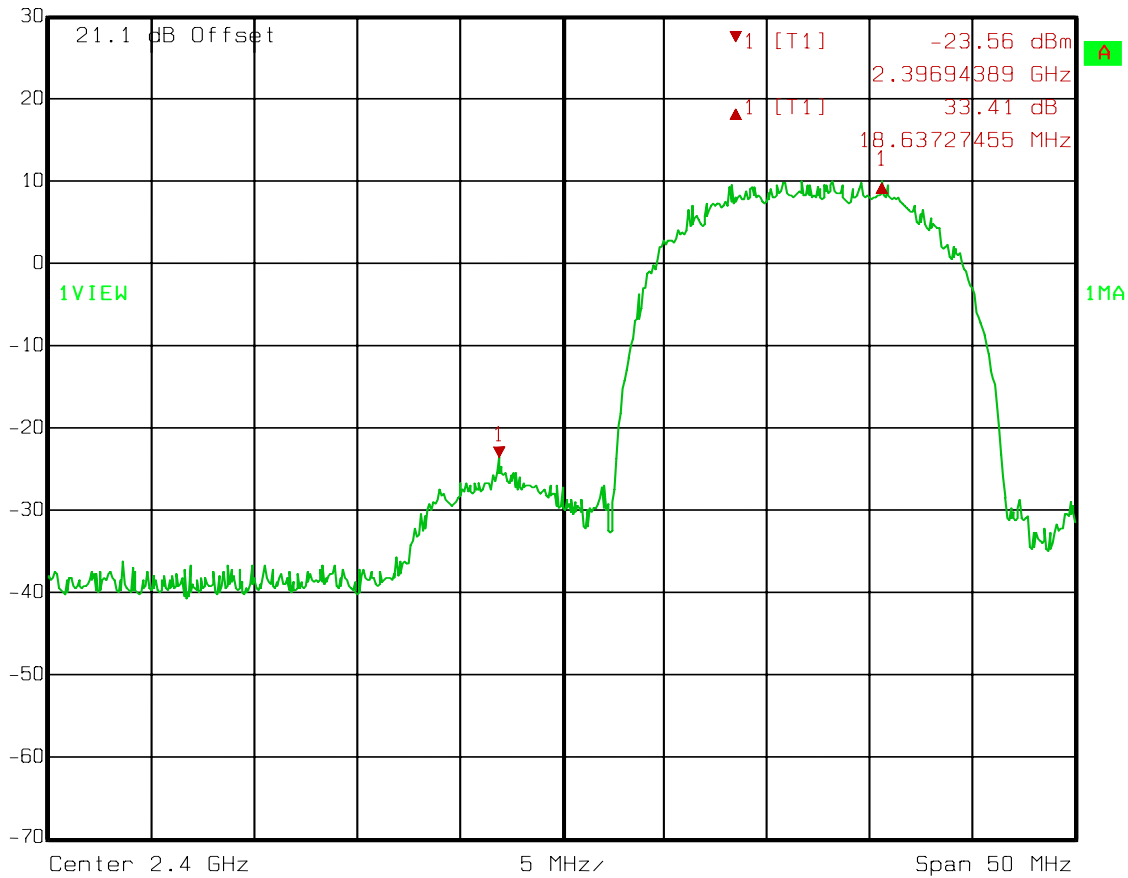


Date: 18.AUG.2006 16:01:11

Test Data – Spurious Emissions at Antenna Terminals – 802.11b

Low Channel

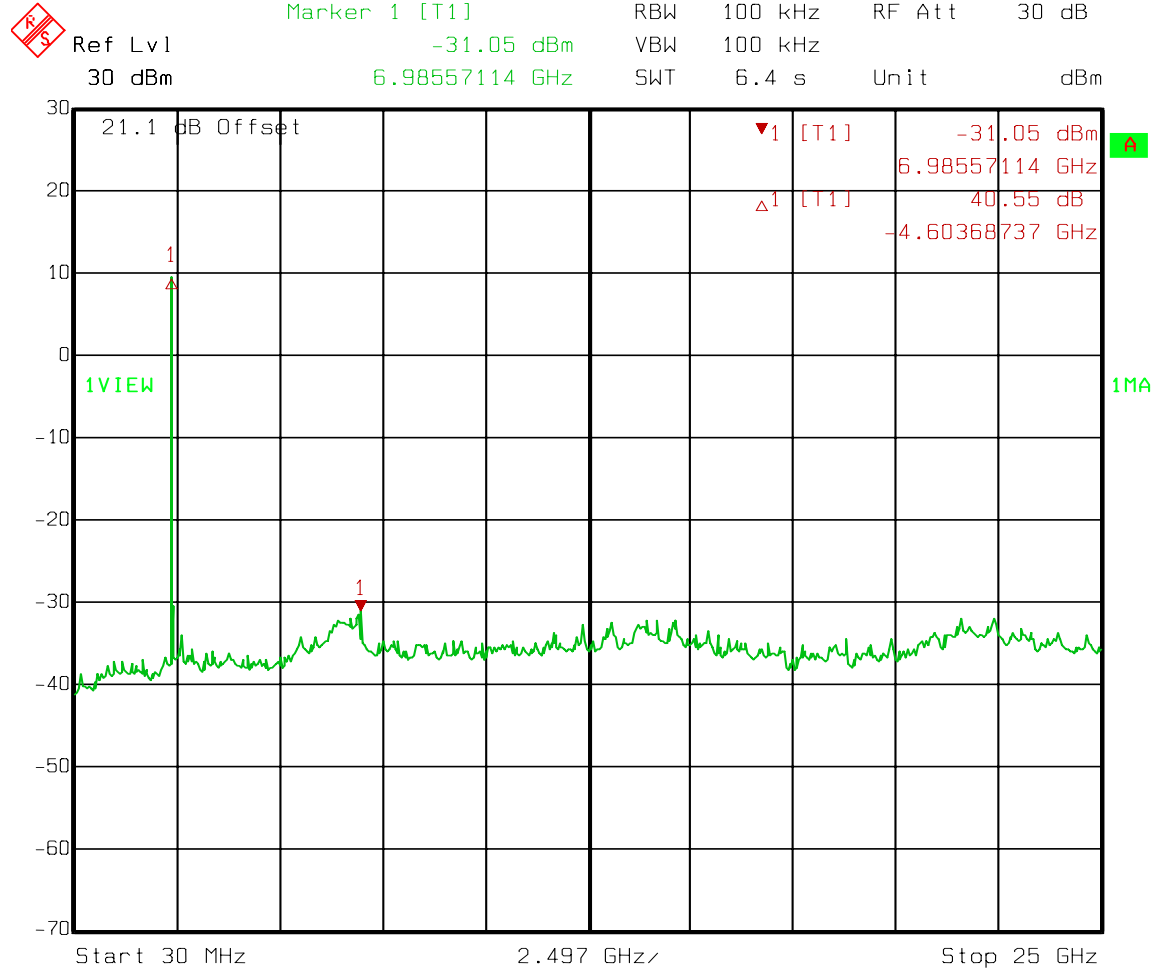
 Delta 1 [T1] RBW 100 kHz RF Att 30 dB
Ref Lvl 33.41 dB VBW 100 kHz
30 dBm 18.63727455 MHz SWT 12.5 ms Unit dBm



Date: 22.AUG.2006 11:08:09

Test Data – Spurious Emissions at Antenna Terminals – 802.11b

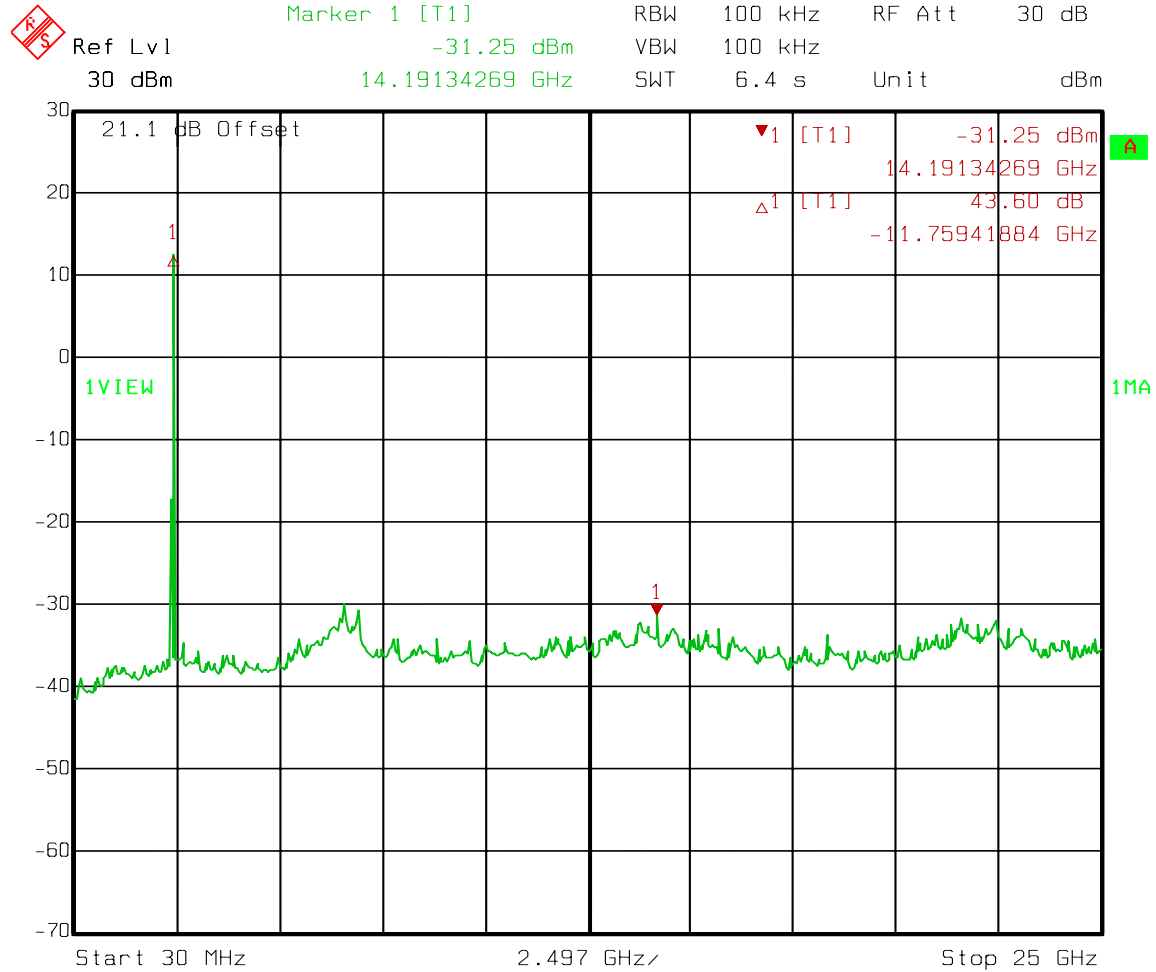
Low Channel



Date: 22.AUG.2006 11:08:58

Test Data – Spurious Emissions at Antenna Terminals – 802.11b

Mid channel



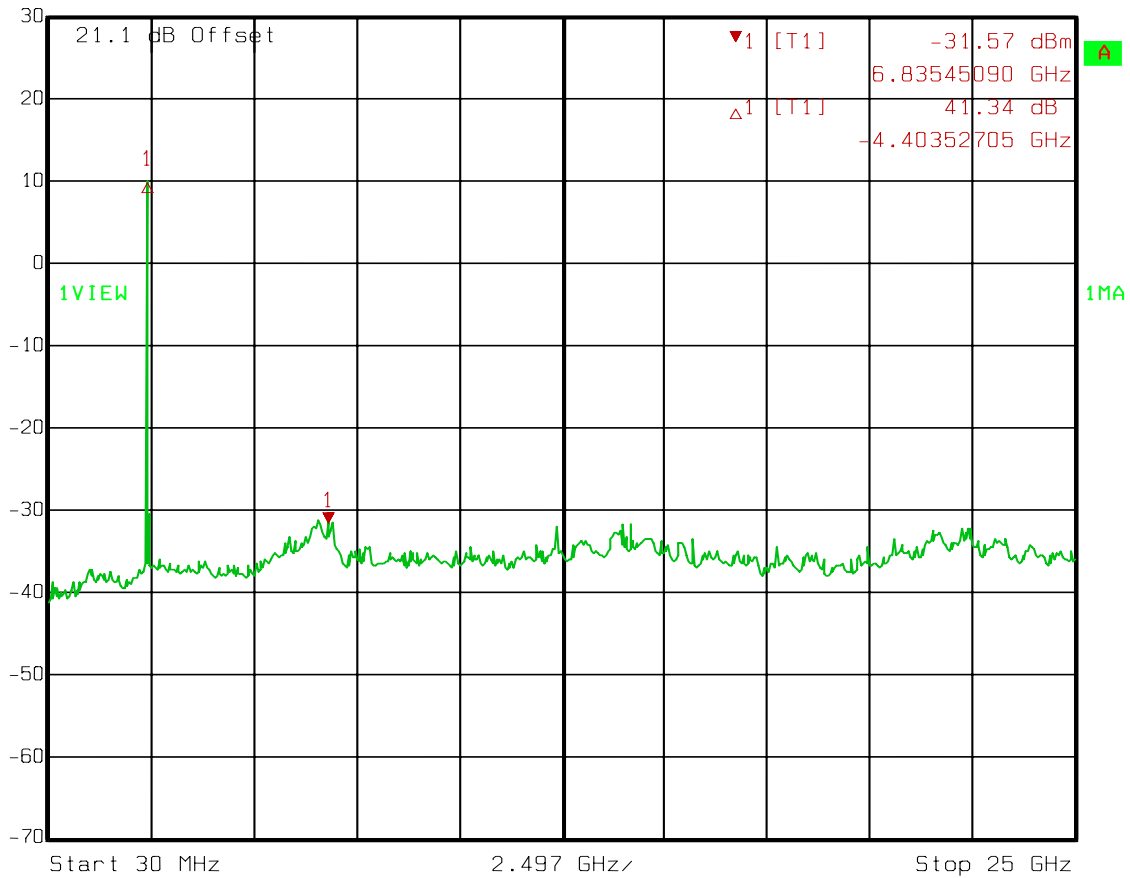
Date: 22.AUG.2006 11:48:56

Test Data – Spurious Emissions at Antenna Terminals – 802.11b

High Channel



Marker 1 [T1] RBW 100 kHz RF Att 30 dB
Ref Lvl -31.57 dBm VBW 100 kHz
30 dBm 6.83545090 GHz SWT 6.4 s Unit dBm



Date: 22.AUG.2006 12:30:35

Section 7. Radiated Emissions

NAME OF TEST: Radiated Emissions	PARA. NO.: 15.247 (c)
TESTED BY: David Light	DATE: 21 August 2006

Test Results: [Complies.](#)

Test Data: [See attached plots](#)

Equipment Used: [1464-1484-1485-993-759-1195-791-1016](#)

Measurement Uncertainty: +/- 1.7 dB

Temperature: 22 °C

Relative Humidity: 40 %

The spectrum was searched from 30 MHz to the tenth harmonic of the carrier. There were no emissions detected above the noise floor which was at least 20 dB below the specification limit. Upper band edge data (noise floor) is presented in 802.11g mode as this carrier had the widest bandwidth.

Analyzer settings
RBW=VBW=100 kHz below 1000 MHz
RBW=VBW=1 MHz above 1000 MHz (Peak)
RBW= 1 MHz VBW=10Hz (Average)

The radio was transmitting greater than 95% ON time.

This device was tested on three channels.

Radiated Emissions

Measurement

Reading listed by order taken.

Test Distance: 3 Meters

Data:

#	Freq MHz	Rdng dBµV	Cable dB	Cable dB	Pre-A dB	Horn dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	2483.500 Peak	46.3	+0.8	+2.3	+12.8	+29.0	+0.0	65.6	74.0	-8.4	Vert
2	2483.500 Ave	33.3	+0.8	+2.3	+12.8	+29.0	+0.0	52.6	54.0	-1.4	Vert
12	2483.500 Peak	44.8	+0.8	+2.3	+12.8	+29.0	+0.0	64.1	74.0	-9.9	Horiz
13	2483.500 Ave	32.5	+0.8	+2.3	+12.8	+29.0	+0.0	51.8	54.0	-2.2	Horiz

Radiated Photographs



Section 8. Peak Power Spectral Density

NAME OF TEST: Peak Power Spectral Density	PARA. NO.: 15.247(d)
TESTED BY: David Light	DATE: 18 August 2006

Test Results: [Complies.](#)

Test Data: [See attached plots](#)

Equipment Used: [1472-1626-1036](#)

Measurement Uncertainty: [+/- 1.7 dB](#)

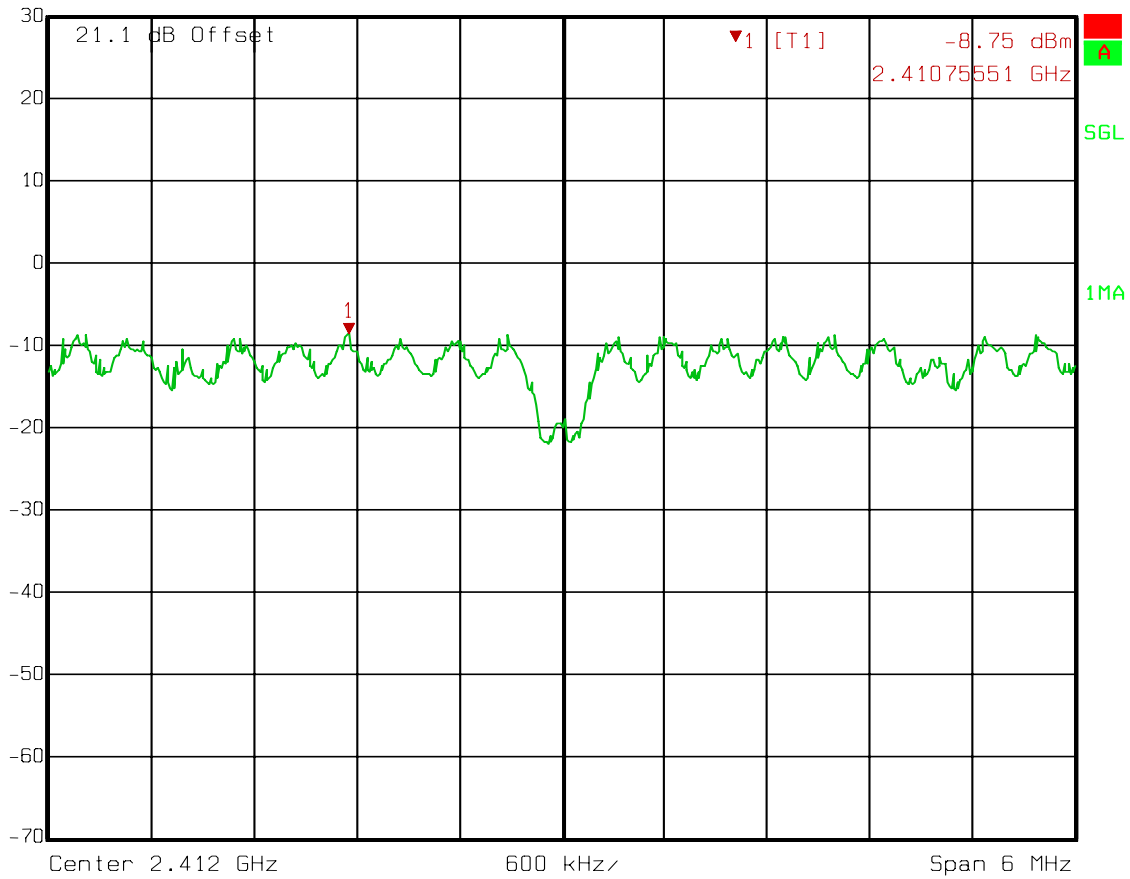
Temperature: [22 °C](#)

Relative Humidity: [40 %](#)

Peak Power Spectral Density – 802.11g



Ref Lvl 30 dBm
Marker 1 [T1] 2.41075551 GHz
RBW 3 kHz RF Att 30 dB
VBW 3 kHz
SWT 2000 s Unit dBm

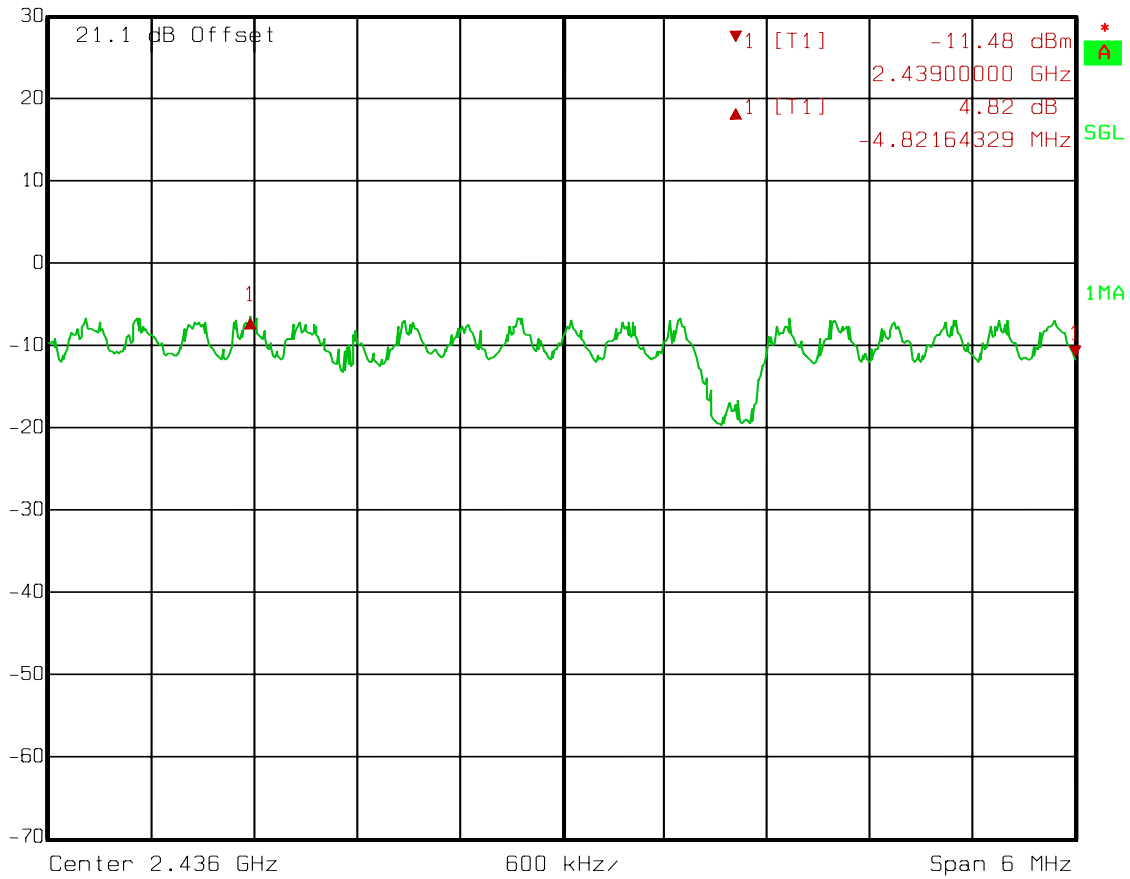


Date: 18.AUG.2006 15:20:02

Peak Power Spectral Density – 802.11g



Delta 1 [T1] RBW 3 kHz RF Att 30 dB
Ref Lvl 4.82 dB VBW 3 kHz
30 dBm -4.82164329 MHz SWT 2000 s Unit dBm

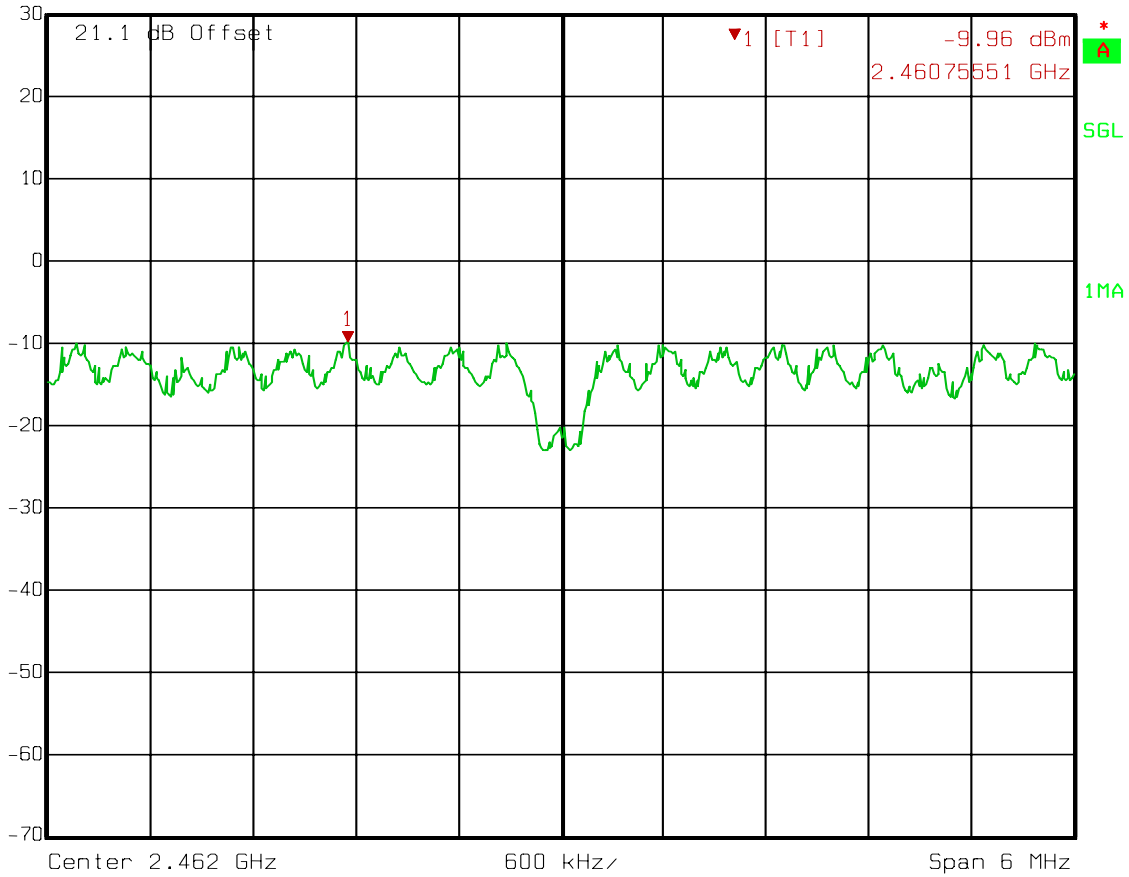


Date: 18.AUG.2006 15:58:24

Peak Power Spectral Density – 802.11g



Ref Lvl 30 dBm
Marker 1 [T1] -9.96 dBm
2.46075551 GHz
RBW 3 kHz RF Att 30 dB
VBW 3 kHz
SWT 2000 s Unit dBm

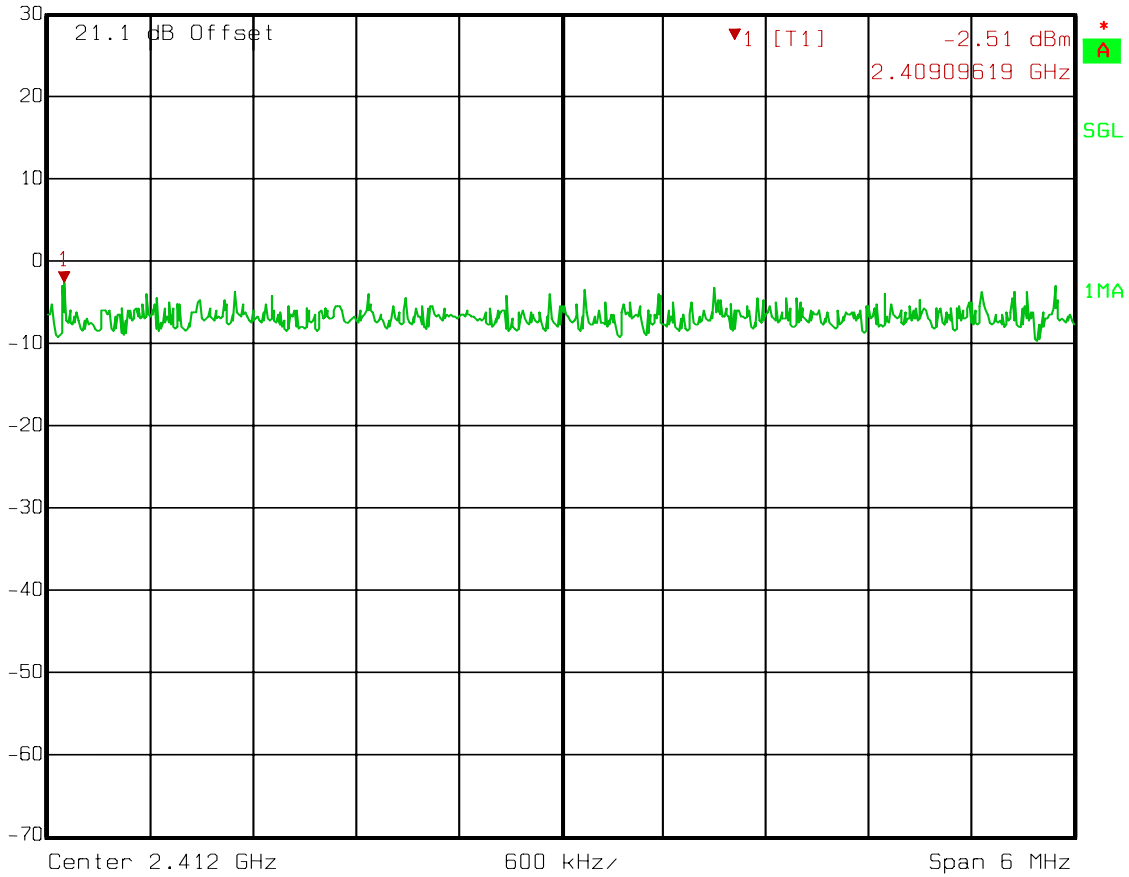


Date: 18.AUG.2006 16:36:51

Peak Power Spectral Density – 802.11b



Ref Lvl 30 dBm
Marker 1 [T1] -2.51 dBm
2.40909619 GHz
RBW 3 kHz RF Att 30 dB
VBW 3 kHz
SWT 2000 s Unit dBm

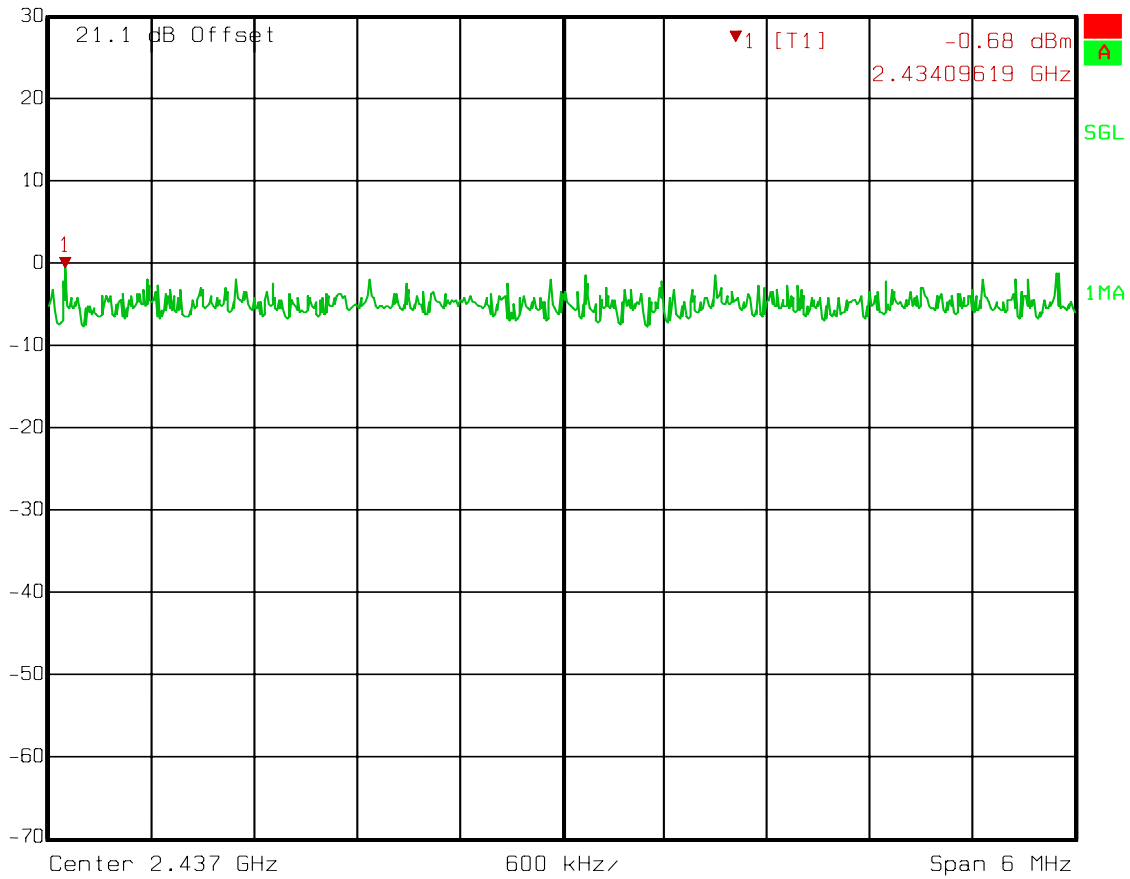


Date: 22.AUG.2006 11:46:51

Peak Power Spectral Density – 802.11b



Ref Lvl 30 dBm
Marker 1 [T1] -0.68 dBm
2.43409619 GHz
RBW 3 kHz RF Att 30 dB
VBW 3 kHz
SWT 2000 s Unit dBm

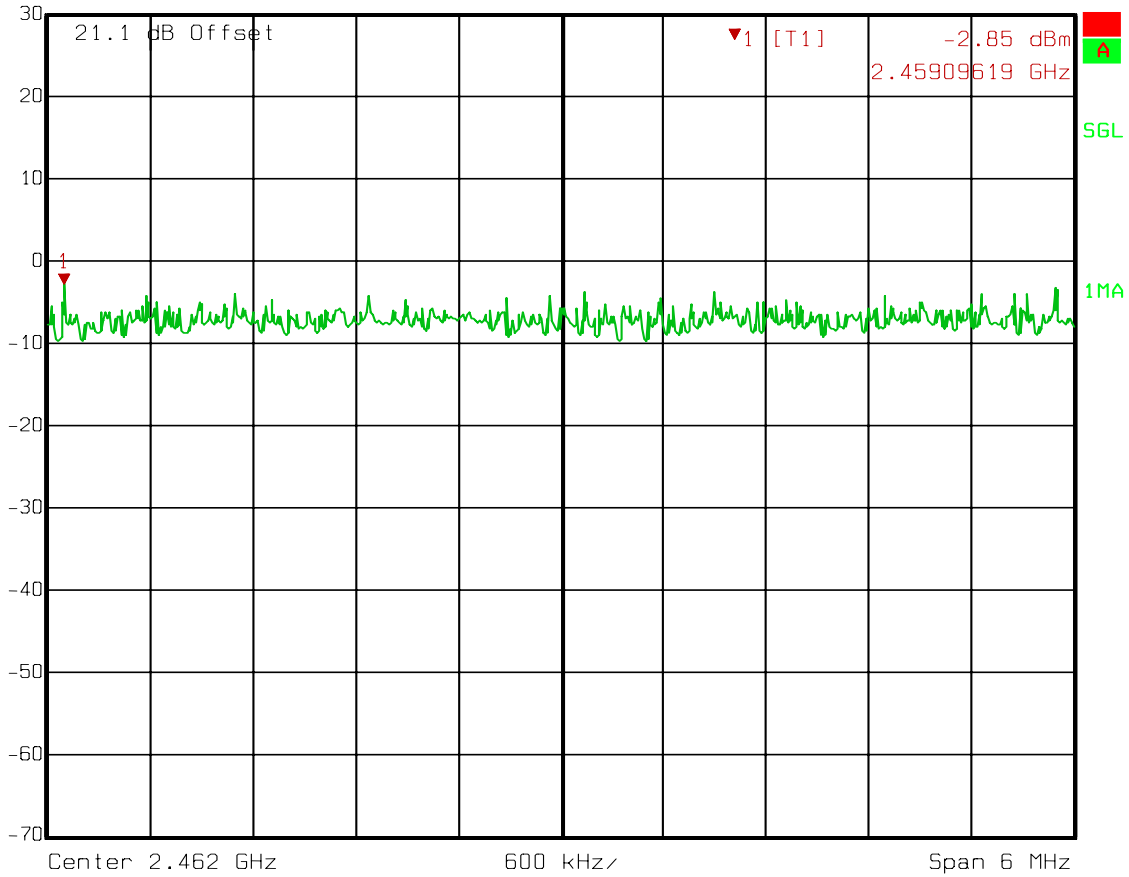


Date: 22.AUG.2006 12:28:21

Peak Power Spectral Density – 802.11b



Ref Lvl 30 dBm
Marker 1 [T1] -2.85 dBm
2.45909619 GHz
RBW 3 kHz RF Att 30 dB
VBW 3 kHz
SWT 2000 s Unit dBm



Date: 22.AUG.2006 13:06:59

Section 9. Test Equipment List

Nemko ID	Description	Manufacturer Model Number	Serial Number	Calibration Date	Calibration Due
1036	SPECTRUM ANALYZER	ROHDE & SCHWARZ FSEK30	830844/006	05/26/06	05/26/08
1626	CABLE, 5 ft	MEGAPHASE 10311 1GVT4	N/A	CBU	N/A
1472	20db Attenuator DC 18 Ghz	Omni Spectra 20600-20db	NONE	CBU	N/A
1464	Spectrum analyzer	Hewlett Packard 8563E	3551A04428	01/14/05	01/15/07
1484	Cable	Storm PR90-010-072	N/A	08/26/05	08/26/06
1485	Cable	Storm PR90-010-216	N/A	08/26/05	08/26/06
1016	Pre-Amp	HEWLETT PACKARD 8449A	2749A00159	04/20/06	04/20/07
791	PREAMP, 25dB	Nemko USA, Inc. LNA25	398	04/20/06	04/20/07
993	Horn antenna	A.H. Systems SAS-200/571	XXX	08/01/05	08/02/07
759	ANTENNA, LOG PERIODIC	A.H. SYSTEMS SAS-200/510	556	02/13/06	02/13/07
1195	ANTENNA, BICONICAL	A.H. SYSTEMS SAS-200/542	235	02/10/06	02/10/07
1625	CABLE, 18 ft	MEGAPHASE 10311 1GVT4	N/A	CBU	NA
1978	CABLE, 2.8m.	Nemko USA, Inc. RG223	N/A	03/09/06	03/09/07
674	LIMITER	HP 11947A	3107A02200	04/19/06	04/19/07
968	Filter, High pass 5khz	Solartron 7930-5.0	933124	04/20/06	04/20/07
969	lisn	Schwarzbeck NNLA 8120	8120281	02/02/06	02/02/07
1029	PEAK POWER METER	HP 8900D	3303U0012	09/14/05	09/14/06
1030	PEAK POWER SENSOR	HP 84811A	2539A03573	09/14/05	09/14/06

ANNEX A - TEST DETAILS

NAME OF TEST: Powerline Conducted Emissions	PARA. NO.: 15.207(a)
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Minimum Standard: §15.207 Conducted limits.

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 mH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

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

* Decreases with the logarithm of the frequency.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators on frequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

(1) For carrier current systems containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 mV within the frequency band 535-1705 kHz, as measured using a 50 mH/50 ohms LISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits as provided in §15.205 and §§15.209, 15.221, 15.223, 15.225 or 15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provision for, the use of battery chargers which permit operating while charging, AC adaptors or battery eliminators or that connect to the AC power lines indirectly, obtaining their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

NAME OF TEST: Occupied Bandwidth	PARA. NO.: 15.247(a)(2)
----------------------------------	-------------------------

Minimum Standard: The minimum 6 dB bandwidth shall be at least 500 kHz

NAME OF TEST: Maximum Peak Output Power	PARA. NO.: 15.247(b)(3)
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Minimum Standard: The maximum peak output power shall not exceed 1 watt.

If transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Systems operating in the 2400-2483.5 MHz band that are used exclusively for fixed, point to point operation may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum peak output power is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceed 6 dBi.

Systems operating in the 5725 – 5850 MHz band that are used exclusively for fixed, point-to-point operation may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter peak output power.

Direct Measurement Method For Detachable Antennas:

If the antenna is detachable, a peak power meter is used to measure the power output with the transmitter operating into a 50 ohm load. The dBi gain of the antenna(s) employed shall be reported.

Substitution Antenna Method for Integral Antennas:

The peak field strength of the carrier is measured in a worst-case configuration with a RBW > 5 times the occupied bandwidth of the transmitted waveform. For cases where the RBW of the test instrument is not sufficient, the power is measured using a peak power meter instead of the spectrum analyzer.

The RBW of the spectrum analyzer shall be set to a value greater than the measured 6 dB occupied bandwidth of the E.U.T.

Number of channels tested:

Tuning range	Number of channels tested	Channel location in band
1 MHz or less	1	middle
1 to 10 MHz	2	top and bottom
more than 10 MHz	3	top, middle, bottom

NAME OF TEST: Spurious Emissions(conducted)	PARA. NO.: 15.247(d)
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Minimum Standard: In any 100kHz bandwidth outside the frequency band in which the transmitter is operating, emissions shall be at least 20 dB below the fundamental emission or shall not exceed the following field strength limits. Emissions falling in the restricted bands of 15.205 shall not exceed the following field strength limits:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$ @ 3m)	Field Strength (dB @ 3m)
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
Above 960	500	54.0

THE SPECTRUM IS SEARCHED TO THE 10th HARMONIC OF THE HIGHEST FREQUENCY GENERATED IN THE EUT.

Method Of Measurement:

30 MHz - 10th harmonic plot

RBW: 100 kHz

VBW: 300 kHz

Sweep: Auto

Display line: -20 dBc

Lower Band Edge

RBW: At least 1% of span/div.

VBW: >RBW

Span: As necessary to display any spurious at band edge.

Sweep: Auto

Center Frequency: 902 MHz, 2400 MHz, or 5725 MHz

Marker: Peak of fundamental emission

Marker Δ : Peak of highest spurious level below center frequency.

Upper Band Edge

RBW: At least 1% of span/div.

VBW: >RBW

Span: As necessary to display any spurious at band edge.

Sweep: Auto

Center Frequency: 928 MHz, 2483.5 MHz, or 5850 MHz

Marker: Peak of fundamental emission

Marker Δ : Peak of highest spurious level above center frequency.

Number of channels tested:

Tuning range	Number of channels tested	Channel location in band
1 MHz or less	1	middle
1 to 10 MHz	2	top and bottom
more than 10 MHz	3	top, middle, bottom

NAME OF TEST: Radiated Spurious Emissions	PARA. NO.: 15.247(d)
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Minimum Standard: In any 100kHz bandwidth outside the frequency band in which the transmitter is operating, emissions shall be at least 20 dB below the fundamental emission or shall not exceed the following field strength limits:

Emissions falling in the restricted bands of 15.205 shall not exceed the following field strength limits:

Frequency (MHz)	Field Strength ($\mu\text{V/m @ 3m}$)	Field Strength (dB @ 3m)
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
Above 960	500	54.0

THE SPECTRUM WAS SEARCHED TO THE 10th HARMONIC

15.205 Restricted Bands

MHz	MHz	MHz	GHz
0.09-0.11	16.42-16.423	399.9-410	4.5-5.25
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.125-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2655-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41	1718		

Number of channels tested:

Tuning range	Number of channels tested	Channel location in band
1 MHz or less	1	middle
1 to 10 MHz	2	top and bottom
more than 10 MHz	3	top, middle, bottom

NAME OF TEST: Transmitter Power Density	PARA. NO.: 15.247(e)
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Minimum Standard: The transmitted power density averaged over any 1 second interval shall not be greater than +8 dBm in any 3 kHz bandwidth.

Method Of Measurement: The spectrum analyzer is set as follows:

- RBW: 3 kHz
- VBW: >3 kHz
- Span: Sufficient to capture the peak envelope.
- Sweep: Span(kHz)/3 (i.e. for a span of 1.5 MHz the sweep rate is 1500/3 = 500 sec.
- LOG dB/div.: 2 dB

Note: For devices with spectrum line spacing ≤ 3 kHz, the RBW of the analyzer is reduced until the spectral lines are resolved. The measurement data is normalized to 3 kHz by summing the power of all the individual spectral lines within a 3 kHz band in linear power units.

For Devices With Integral Antenna:

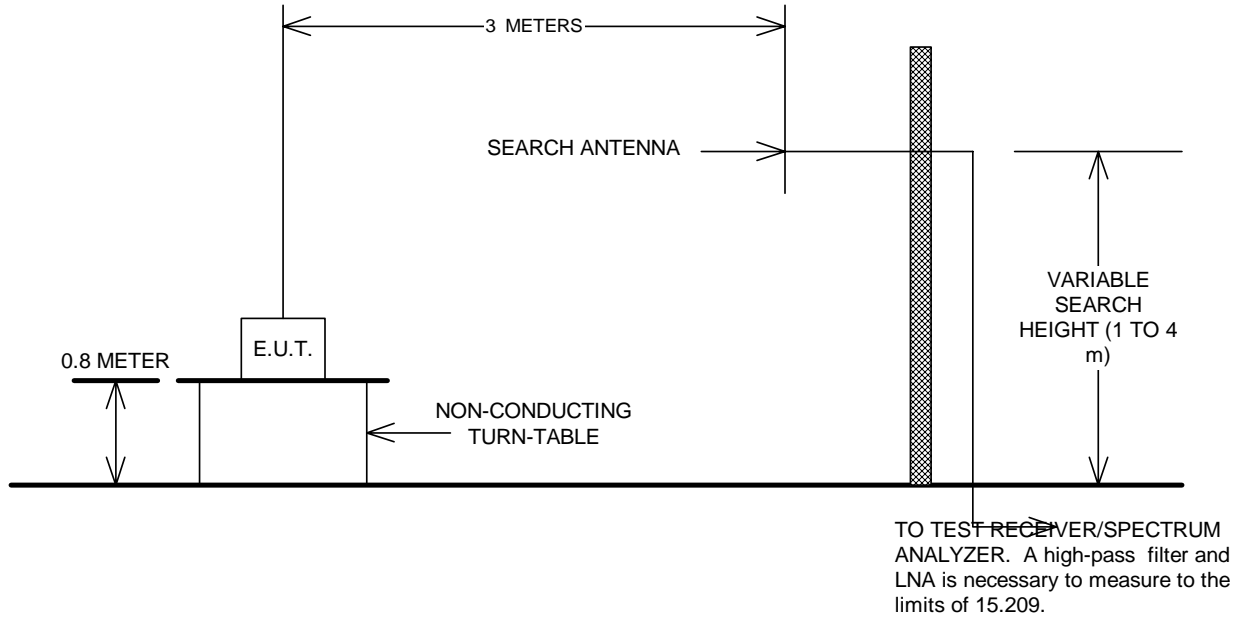
For devices with non-detachable antennas, the received field strength is peaked and the spectrum analyzer is set as above. The peak emission level is then measured and converted to a field strength by adding the appropriate antenna factor and cable loss. This field strength is then converted to an equivalent isotropic radiated power using the same method as described for Peak Power output.

Number of channels tested:

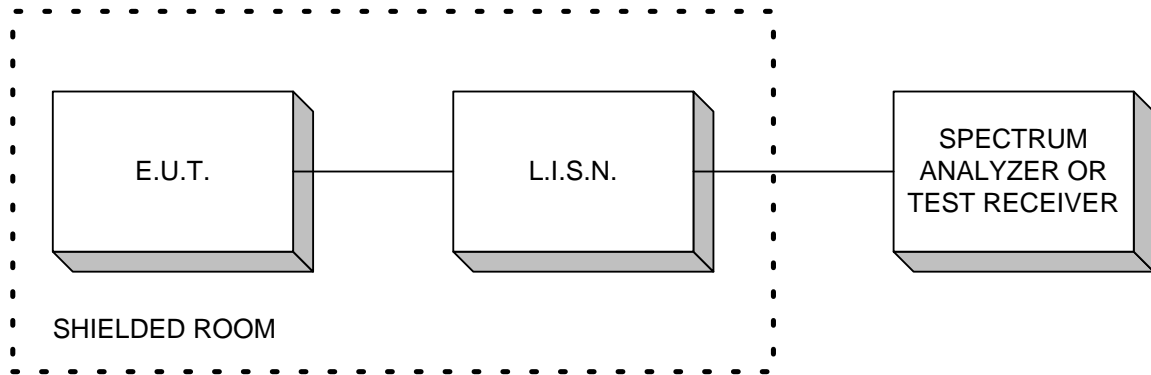
Tuning Range	Number Of Channels Tested	Channel Location In Band
1 MHz or Less	1	Middle
1 to 10 MHz	2	Top And Bottom
More Than 10 MHz	3	Top, Middle, Bottom

ANNEX B - TEST DIAGRAMS

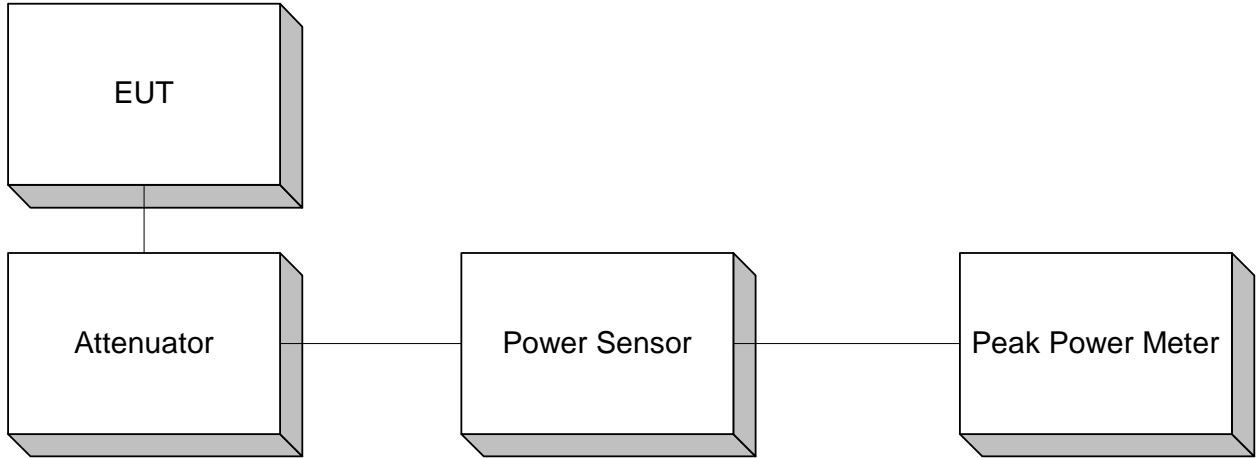
Test Site For Radiated Emissions



Conducted Emissions



Peak Power At Antenna Terminals



**Minimum 6 dB Bandwidth
Peak Power Spectral Density
Spurious Emissions (conducted)**

