

Exhibit 6

Text Report

RF Power Output

Rule Part Number: 2.1046, 21.904(b), 74.935(b)
EIRP = 33 dBW+10log(X/6) dBW+10log(360/beamwidth) dBW
X = 6 for this filing
 $10\log(360/\text{beamwidth}) \leq 6\text{dB}$
beamwidth maximum = 360°
EIRP maximum = 33 dBW = 1995 W EIRP

Test Procedure: The RF output power is measured with a power meter. The RF output is applied to an attenuator that is connected to the power sensor of the power meter. The transmitter is enabled in test mode with the attached computer. Measurements are performed for each of the modulation formats available, 4 QAM, 16 QAM, and 64 QAM. The Tx power is measured at the antenna connector of the base station.

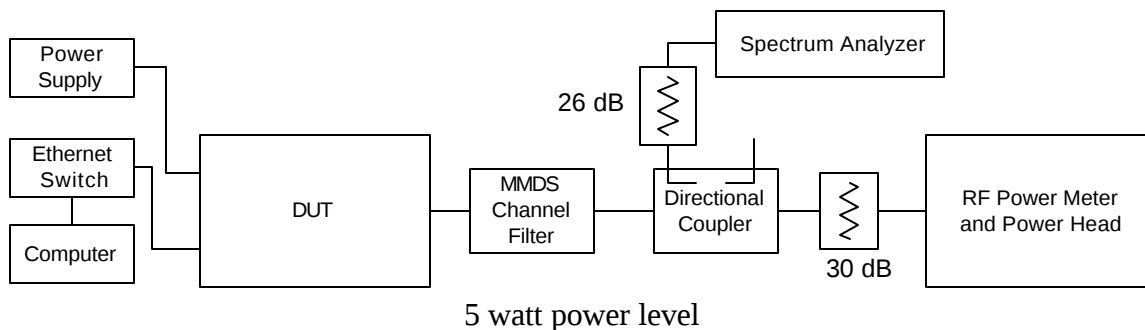
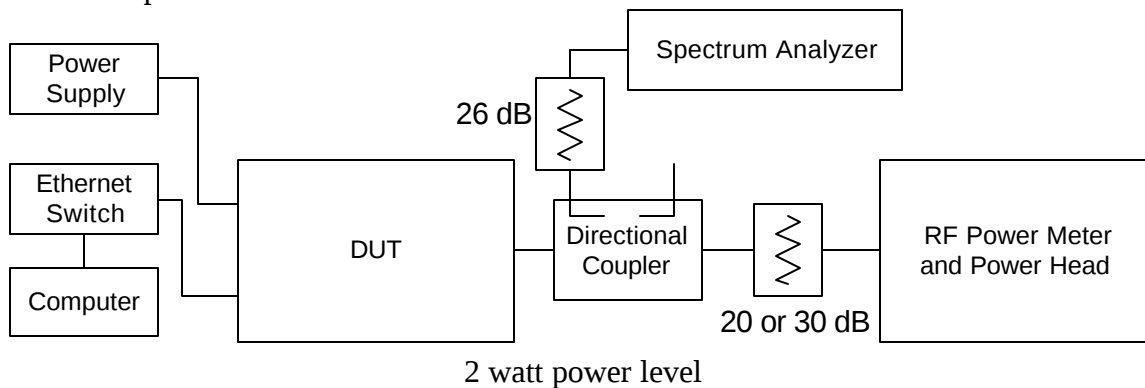
Test Conditions: Frequency = 2503, 2593, 2683 MHz
Temperature = 25°C
Supply Voltage = 120 Vac / 60 Hz

Test Equipment:

DVM	Fluke 87 III Calibration not required
Spectrum Analyzer	Rohde&Schwarz Model: FSEA S/N: DE24511 Cal Date: 06-02-2003 Cal Due: 06-02-2005
Power Meter	Agilent E4418B S/N: GB41299360 Cal Date: 08-28-2002 Due Date: 08-28-2004
Power Head	HP8481A S/N: 1550A08915 Cal date: 05-15-2003 Due Date: 05-15-2005
Directional Coupler	Dual Directional Coupler Model: Narda 3022 S/N: 01231

Attenuators (20 and 30dB)	Weinschel Model: 37-20-34 Model: 37-30-34 Calibration not required
Attenuators (6, 10 and 20dB)	Pasternak Corporation Model: PE7005-6 (6 dB) Model: PE7005-10 (10 dB) Calibration not required
Computer	Dell Inspiron 5000 Model: PPM S/N: 000832RM-12961-03N-3073
Ethernet Switch	D-Link Model: DSS-5+ 5 port 10/100Mbps S/N: B205335003051
Power Supply	Cherokee International, LLC Model: CRP500L1H-1A

Test Set-Up:



Test Results: 100 % transmit duty cycle

Tx Power: 2 watt setting

Minimum Power setting						
	4 QAM		16 QAM		64 QAM	
Freq (MHz)	(dBm)	(Watts)	(dBm)	(Watts)	(dBm)	(Watts)
2503	0.24	0.00106	0.28	0.00107	0.29	0.00107
2593	-0.45	0.00090	-0.37	0.00092	-0.38	0.00092
2683	0.49	0.00112	0.45	0.00111	0.56	0.00114

Maximum Power setting						
	4 QAM		16 QAM		64 QAM	
Freq (MHz)	(dBm)	(Watts)	(dBm)	(Watts)	(dBm)	(Watts)
2503	32.88	1.94089	32.84	1.92309	32.72	1.87068
2593	32.42	1.74582	32.32	1.70608	32.41	1.74181
2683	32.94	1.96789	32.90	1.94984	32.88	1.94089

Tx Power: 5 watt setting (without channel filter)

Minimum Power setting						
	4 QAM		16 QAM		64 QAM	
Freq (MHz)	(dBm)	(Watts)	(dBm)	(Watts)	(dBm)	(Watts)
2503	0.24	0.00106	0.28	0.00107	0.29	0.00107
2593	-0.45	0.00090	-0.37	0.00092	-0.38	0.00092
2683	0.49	0.00112	0.45	0.00111	0.56	0.00114

Maximum Power setting						
	4 QAM		16 QAM		64 QAM	
Freq (MHz)	(dBm)	(Watts)	(dBm)	(Watts)	(dBm)	(Watts)
2503	36.89	4.88652	36.94	4.94311	36.93	4.93174
2593	36.32	4.28549	36.41	4.37522	36.26	4.22669
2683	36.96	4.96592	36.98	4.98884	36.96	4.96592

Test Results: 100 % transmit duty cycle

Tx Power: 5 watt setting (with channel filter)

Minimum Power setting						
	QPSK		16 QAM		64 QAM	
Freq (MHz)	(dBm)	(Watts)	(dBm)	(Watts)	(dBm)	(Watts)
2503	-0.26	0.00094	-0.26	0.00094	-0.27	0.00094
2593	-0.82	0.00083	-0.79	0.00083	-0.84	0.00082
2683	-0.08	0.00098	-0.09	0.00098	0.03	0.00101

Maximum Power setting						
	QPSK		16 QAM		64 QAM	
Freq (MHz)	(dBm)	(Watts)	(dBm)	(Watts)	(dBm)	(Watts)
2503	36.39	4.35512	36.40	4.36516	36.37	4.33511
2593	35.95	3.93550	35.99	3.97192	35.80	3.80189
2683	36.39	4.35512	36.44	4.40555	36.43	4.39542

RF Power Output

Test Conclusions:

Vertically Polarized Antenna

RF Power Output = 33 dBm

Vertical Antenna Gain = 19 dBi

Transmitted Power = RF Power + Isotropic Antenna Gain

Transmitted Power = 33 + 19 = 52 dBm

Transmitted Power = $10 \cdot \log(2W) + 19 \text{ dBi} = 22 \text{ dBiW} < 33 \text{ dBiW}$

Pass: Transmitted Power Output Requirement at 2 watt setting

Horizontally Polarized Antenna

RF Power Output = 33 dBm

Horizontal Antenna Gain = 19 dBi

Transmitted Power = RF Power + Isotropic Antenna Gain

Transmitted Power = 33 + 19 = 52 dBm

Transmitted Power = $10 \cdot \log(2W) + 19 \text{ dBi} = 22 \text{ dBiW} < 33 \text{ dBiW}$

Pass: Transmitted Power Output Requirement at 2 watt setting

RF Power Output

Test Conclusions:

Vertically Polarized Antenna

RF Power Output = 37 dBm

Vertical Antenna Gain = 19 dBi

Transmitted Power = RF Power + Isotropic Antenna Gain

Transmitted Power = 37 + 19 = 56 dBm

Transmitted Power = $10 \cdot \log(5W) + 19 \text{dBi} = 26 \text{ dBm} < 33 \text{ dBm}$

Pass: Transmitted Power Output Requirement at 5 watt setting

Horizontally Polarized Antenna

RF Power Output = 37 dBm

Horizontal Antenna Gain = 19 dBi

Transmitted Power = RF Power + Isotropic Antenna Gain

Transmitted Power = 37 + 19 = 56 dBm

Transmitted Power = $10 \cdot \log(5W) + 19 \text{dBi} = 26 \text{ dBm} < 33 \text{ dBm}$

Pass: Transmitted Power Output Requirement at 5 watt setting

Modulation Characteristics

Rule Parts:

2.1047(d), 21.905(b), 21.908(a), 74.936(a), 74.936(c)

Modulation Characteristics = OFDM

21.905(b) Quadrature amplitude modulation (QAM), digital vestigial sideband modulation (VSB), quadrature phase shift key modulation (QPSK), code division multiple access (CDMA), and orthogonal frequency division multiplex (OFDM) emissions may be employed, subject to compliance with the policies set forth in the Declaratory Ruling and Order, 11 FCC Rcd 18839 (1996). Use of OFDM also is subject to the subsequent Declaratory Ruling and Order, DA 99-554 (Mass Med. Bur. rel. Mar. 19, 1999).

21.908(a) The maximum out-of-band power of an MDS station transmitter or booster transmitting on a single 6 MHz channel or a portion thereof with an EIRP in excess of -9 dBW (or, when subchannels are used, the appropriately adjusted value based upon the ratio of the channel-to-subchannel bandwidths) employing digital modulation shall be attenuated at the 6 MHz channel edges at least 25 dB relative to the licensed average 6 MHz channel power level, then attenuated along a linear slope to at least 40 dB at 250 kHz beyond the nearest channel edge, then attenuated along a linear slope from that level to at least 60 dB at 3 MHz above the upper and below the lower licensed channel edges, and attenuated at least 60 dB at all other frequencies.

21.908(e) In measuring compliance with the out-of-band emissions limitations, the licensee shall employ one of two methods in each instance: (1) absolute power measurement of the average signal power with one instrument, with measurement of the spectral attenuation on a separate instrument; or (2) relative measurement of both the average power and the spectral attenuation on a single instrument. The formula for absolute power measurements is to be used when the average signal power is found using a separate instrument, such as a power meter; the formula gives the amount by which the measured power value is to be attenuated to find the absolute power value to be used on the spectrum analyzer or equivalent instrument at the spectral point of concern. The formula for relative power measurements is to be used when the average signal power is found using the same instrument as used to measure the attenuation at the specified spectral points, and allows different resolution bandwidths to be applied to the two parts of the measurement; the formula gives the required amplitude separation (in dB) between the flat top of the (digital) signal and the point of concern.

Modulation Characteristics

For absolute power measurements:

Attenuation in dB (below channel power) = $A + 10\log(CBW / RBw)$

For relative power measurements:

Attenuation in dB (below flat top) = $A + 10\log(RBW1 / RBW2)$

Where:

A = Attenuation specified for spectral point (e.g., 25, 35, 40, 60 dB)

CBW = Channel bandwidth (for absolute power measurements)

RBW = Resolution bandwidth (for absolute power measurements)

$RBW1$ = Resolution bandwidth for flat top measurement (relative)

$RBW2$ = Resolution bandwidth for spectral point measurement (relative)

74.936(a) An ITFS station may employ amplitude modulation (C3F) for the transmission of the visual signal and frequency modulation (F3E) or (G3E) for the transmission of the aural signal when transmitting a standard analog television signal. Quadrature amplitude modulation (QAM), digital vestigial sideband modulation (VSB), quadrature phase shift key modulation (QPSK), code division multiple access (CDMA) and orthogonal frequency division multiplex (OFDM) emissions may be employed, subject to compliance with the policies set forth in the *Declaratory Ruling and Order*, 11 FCC Rcd 18839 (1996). Use of OFDM also is subject to the subsequently *Digital Declaratory Ruling and Order*, DA 99-554 (Mass Med. Bur. rel. Mar. 19, 1999).

74.936(c) The maximum out-of-band power of an ITFS station transmitter or booster transmitting on a single 6 MHz channel or a portion thereof with an EIRP in excess of -9 dBW (or, when subchannels are used, the appropriately adjusted value based upon the ratio of the channel-to-subchannel bandwidths) employing digital modulation shall be attenuated at the 6 MHz channel edges at least 25 dB relative to the licensed average 6 MHz channel power level, then attenuated along a linear slope to at least 40 dB at 250 kHz beyond the nearest channel edge, then attenuated along a linear slope from that level to at least 60 dB at 3 MHz above the upper and below the lower licensed channel edges, and attenuated at least 60 dB at all other frequencies.

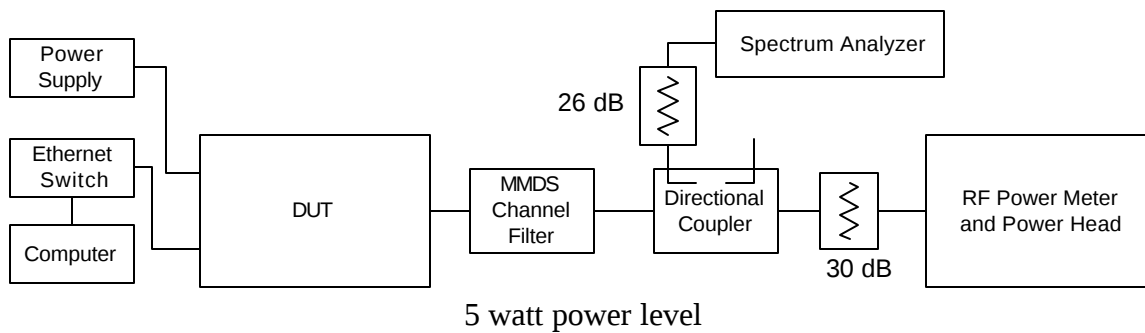
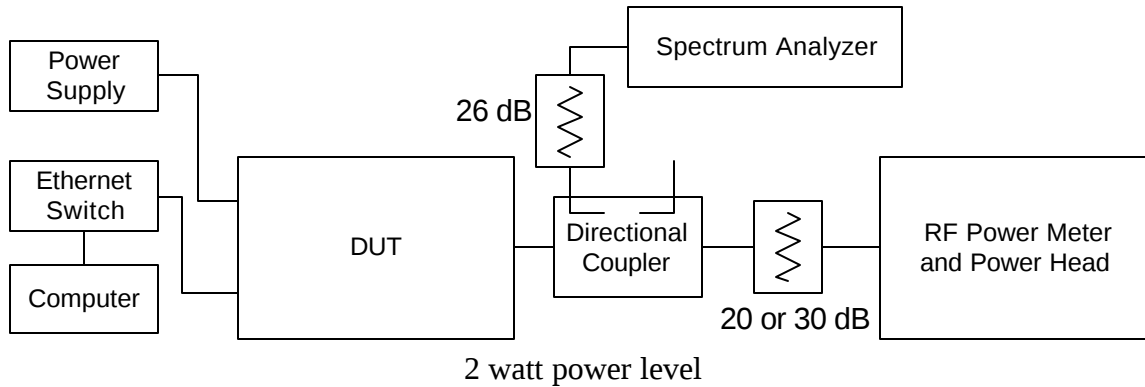
Modulation Characteristics

Test Procedure: The Orthogonal Frequency Division Multiplexing (OFDM) modulated Time Division Duplex (TDD) RF signal from the test unit is applied to a spectrum analyzer. An RMS detector is used to measure the average power of the transmission. The resolution bandwidth of the flat top measurement is equal to the resolution bandwidth of the spectral point measurement thereby setting the $10\log(RBW1 / RBW2) = 0$ for the relative power measurement method. The transmitter is enabled in test mode with the attached computer. Measurements are performed for each of the modulation formats available, 4 QAM, 16 QAM, and 64 QAM. Measurements completed at the 2 watt level are without an MMDS channel filter. Measurements completed at the 5 watt power level include an MMDS channel filter which will be required for spectral compliance. The 5 watts is measured at the input to the MMDS channel filter.

Test Conditions: Frequencies = 2503, 2593, 2683 MHz
Temperature = 25°C
Supply Voltage = 120 Vac / 60 Hz

Modulation Characteristics

Test Set-Up:



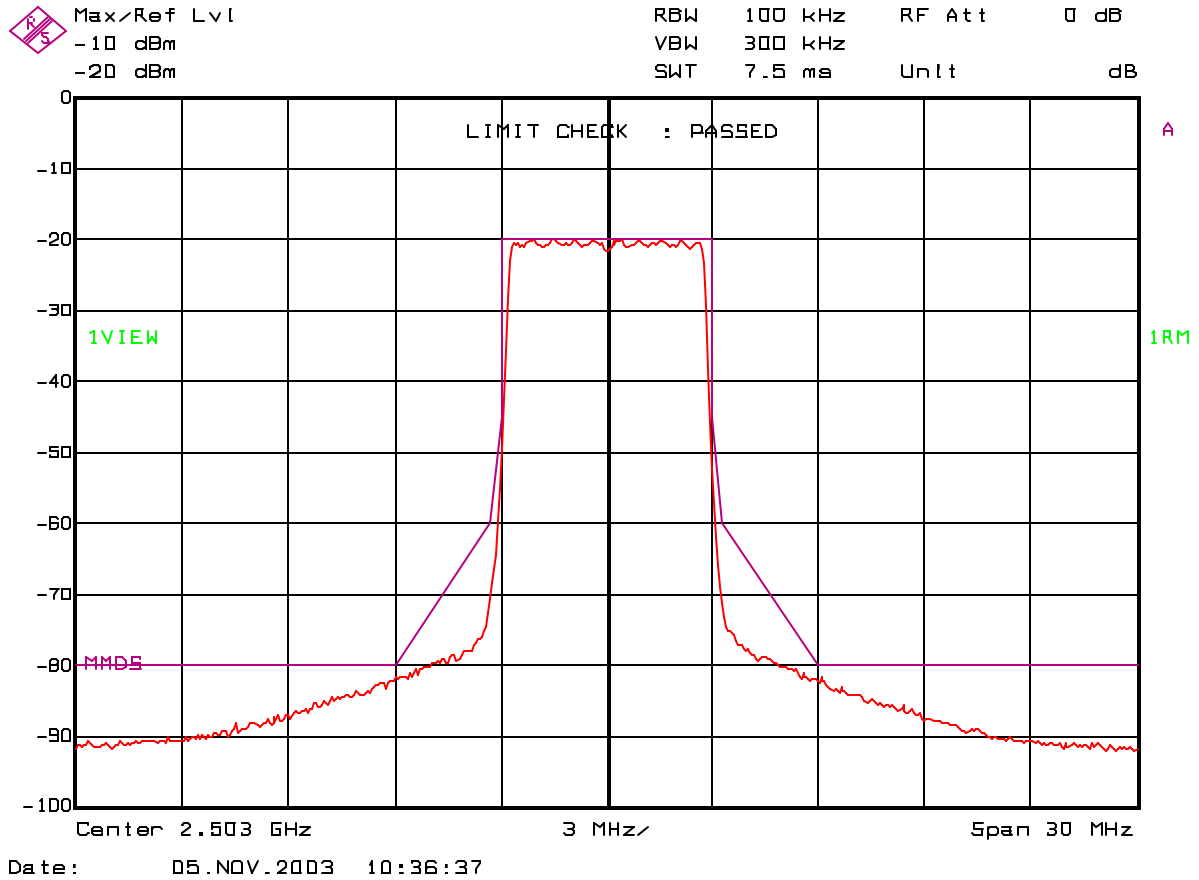
Modulation Characteristics

Test Equipment:

DVM	Fluke 87 III Calibration not required
Spectrum Analyzer	Rohde&Schwarz Model: FSEA S/N: DE24511 Cal Date: 06-02-2003 Cal Due: 06-02-2005
Directional Coupler	Dual Directional Coupler Model: Narda 3022 S/N: 01231
Attenuators (6 and 10 dB)	Pasternak Corporation Model: PE7005-6 (6 dB) Model: PE7005-10 (10 dB) Calibration not required
Attenuators (20 and 30dB)	Weinschel Model: 37-20-34 Model: 37-30-34 Calibration not required
Computer	Dell Inspiron 5000 Model: PPM S/N: 000832RM-12961-03N-3073
Ethernet Switch	D-Link Model: DSS-5+ 5 port 10/100Mbps S/N: B205335003051
Power Supply	Cherokee International, LLC Model: CRP500L1H-1A

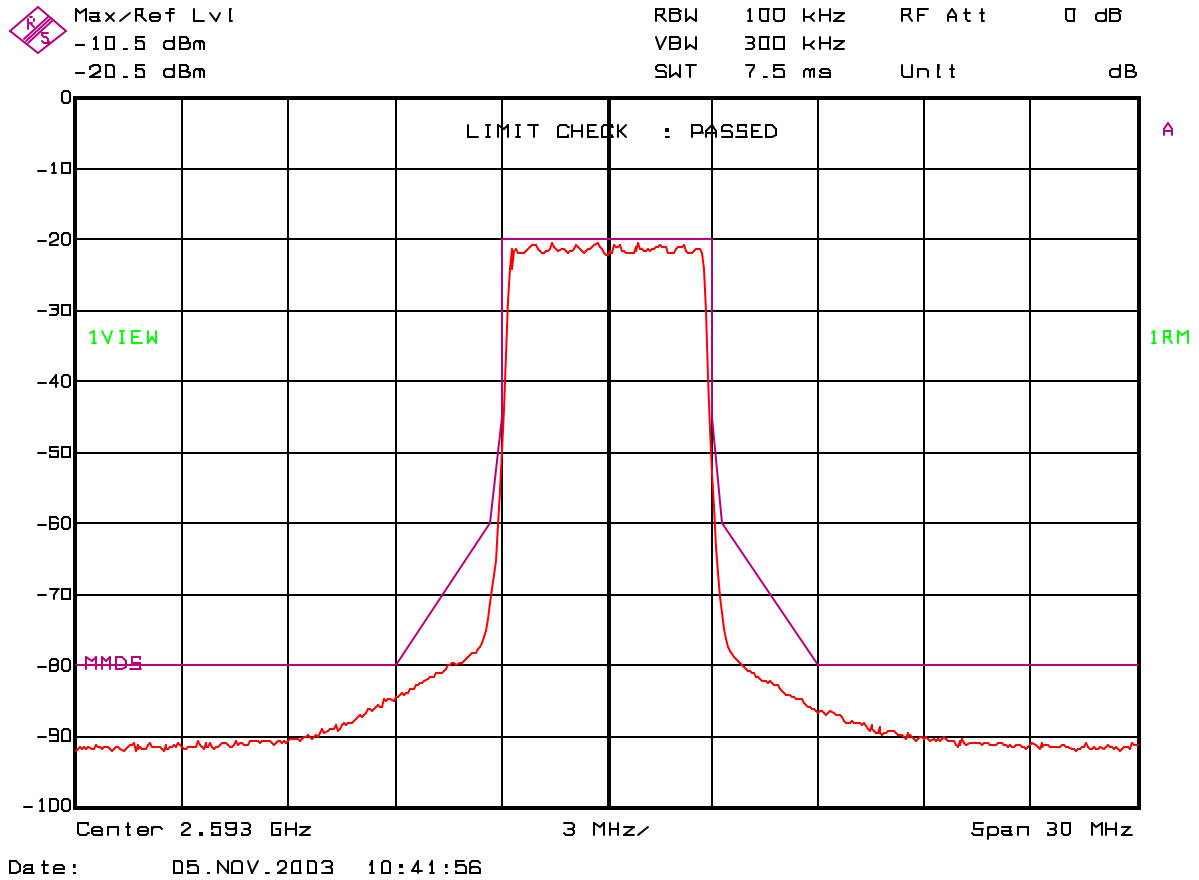
Modulation Characteristics

Test Results: Channel 1, 2503 MHz
33dBm / 2W
4 QAM



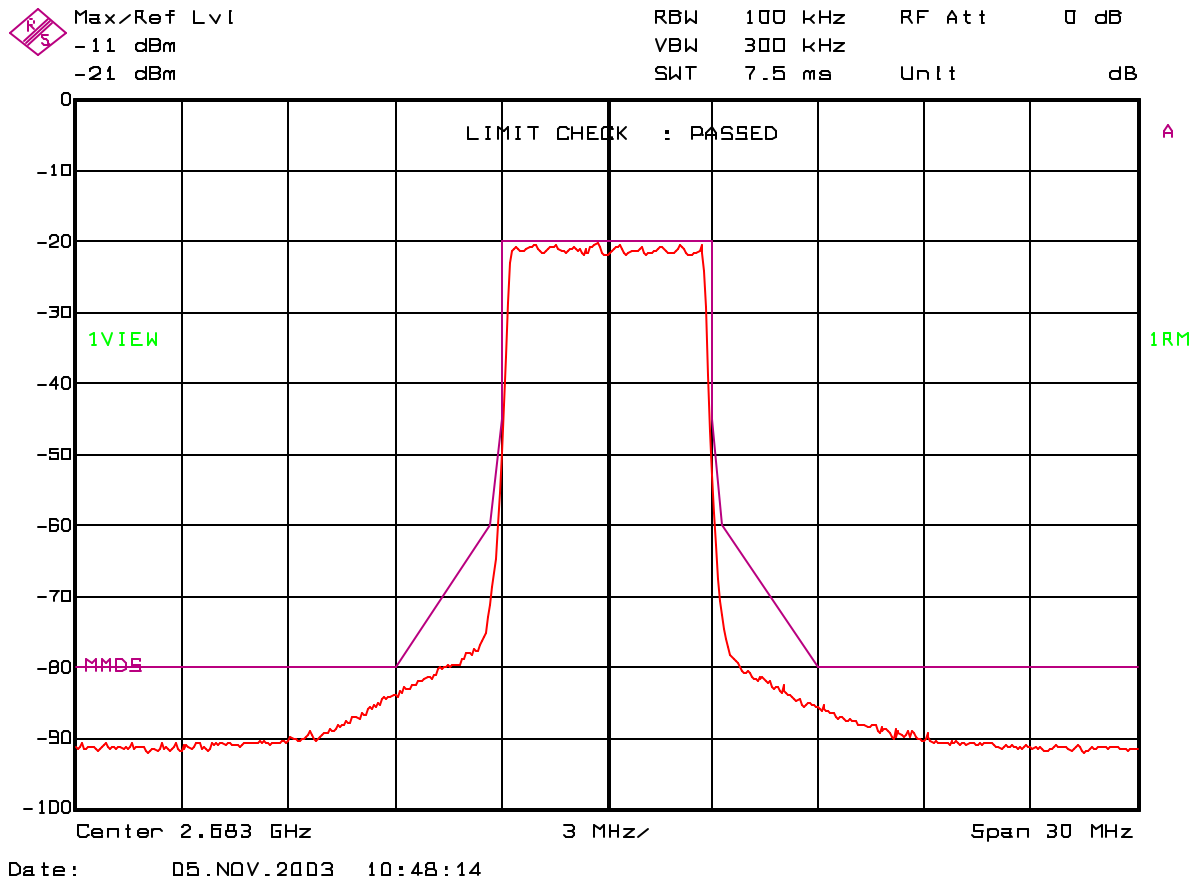
Modulation Characteristics

Test Results: Channel 16, 2593 MHz
33dBm / 2W
4 QAM



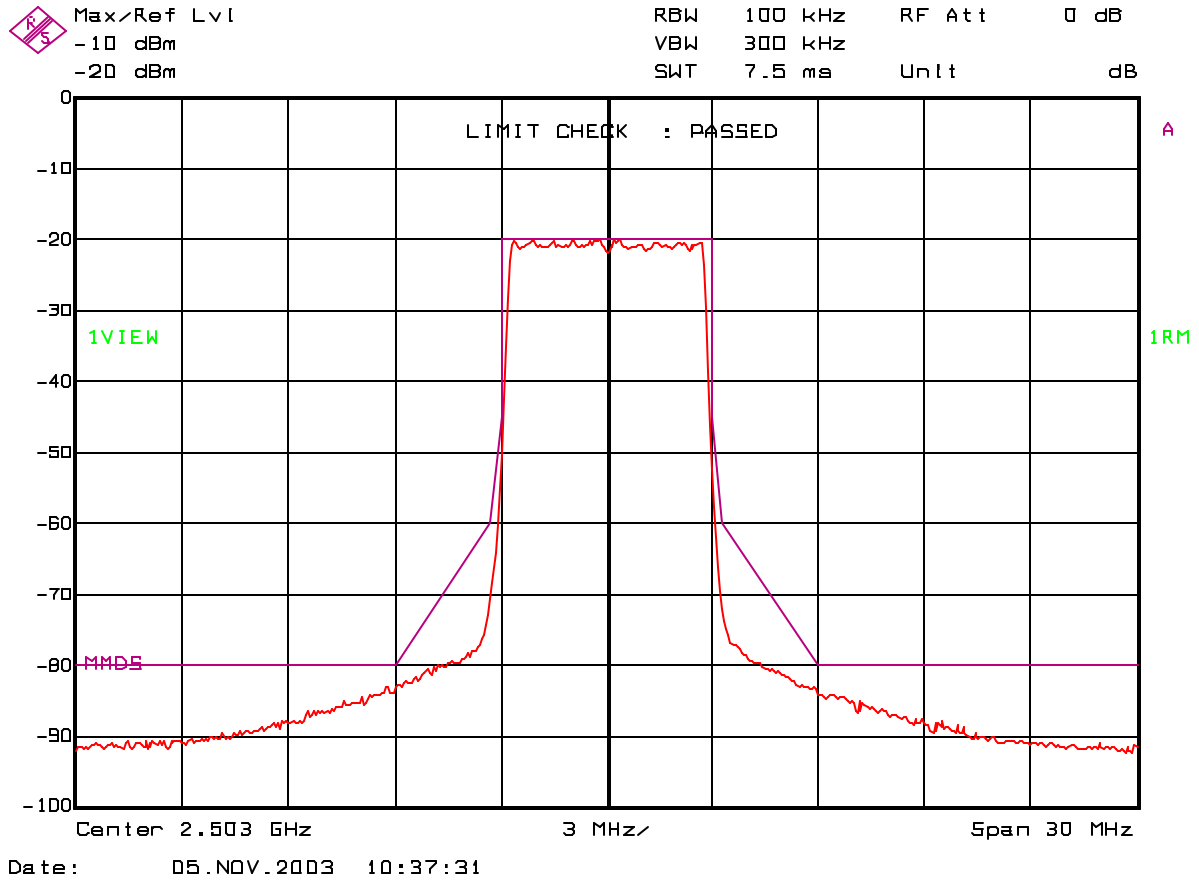
Modulation Characteristics

Test Results: Channel 31, 2683 MHz
33dBm / 2W
4 QAM



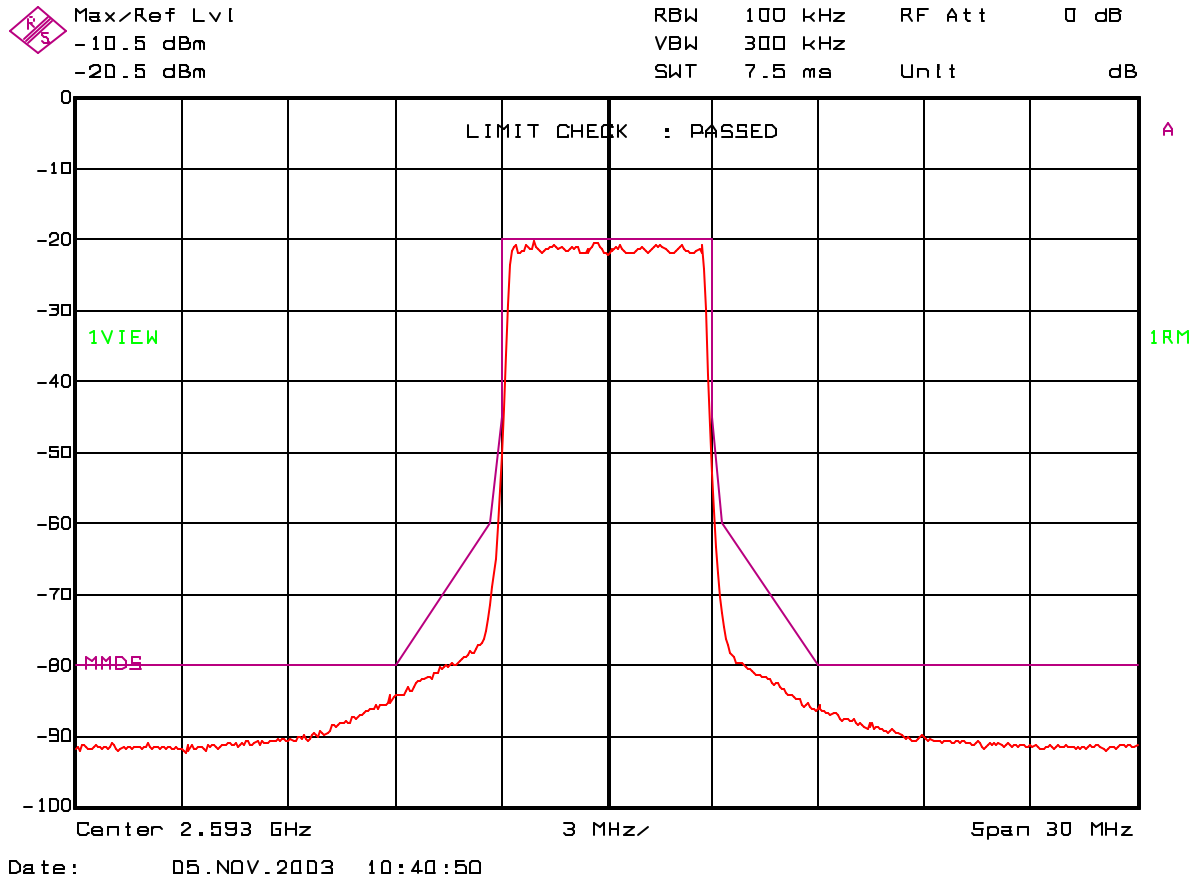
Modulation Characteristics

Test Results: Channel 1, 2503 MHz
33dBm / 2W
16 QAM



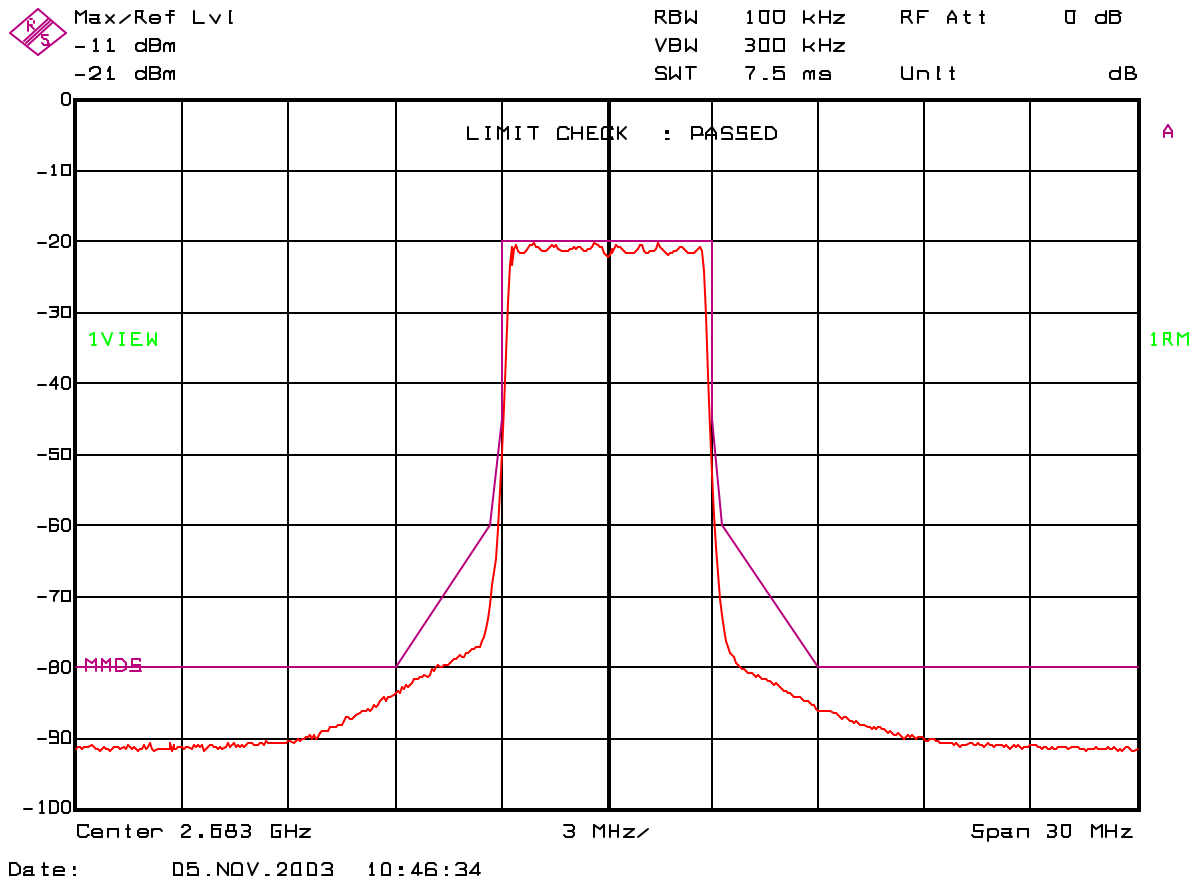
Modulation Characteristics

Test Results: Channel 16, 2593 MHz
33dBm / 2W
16 QAM



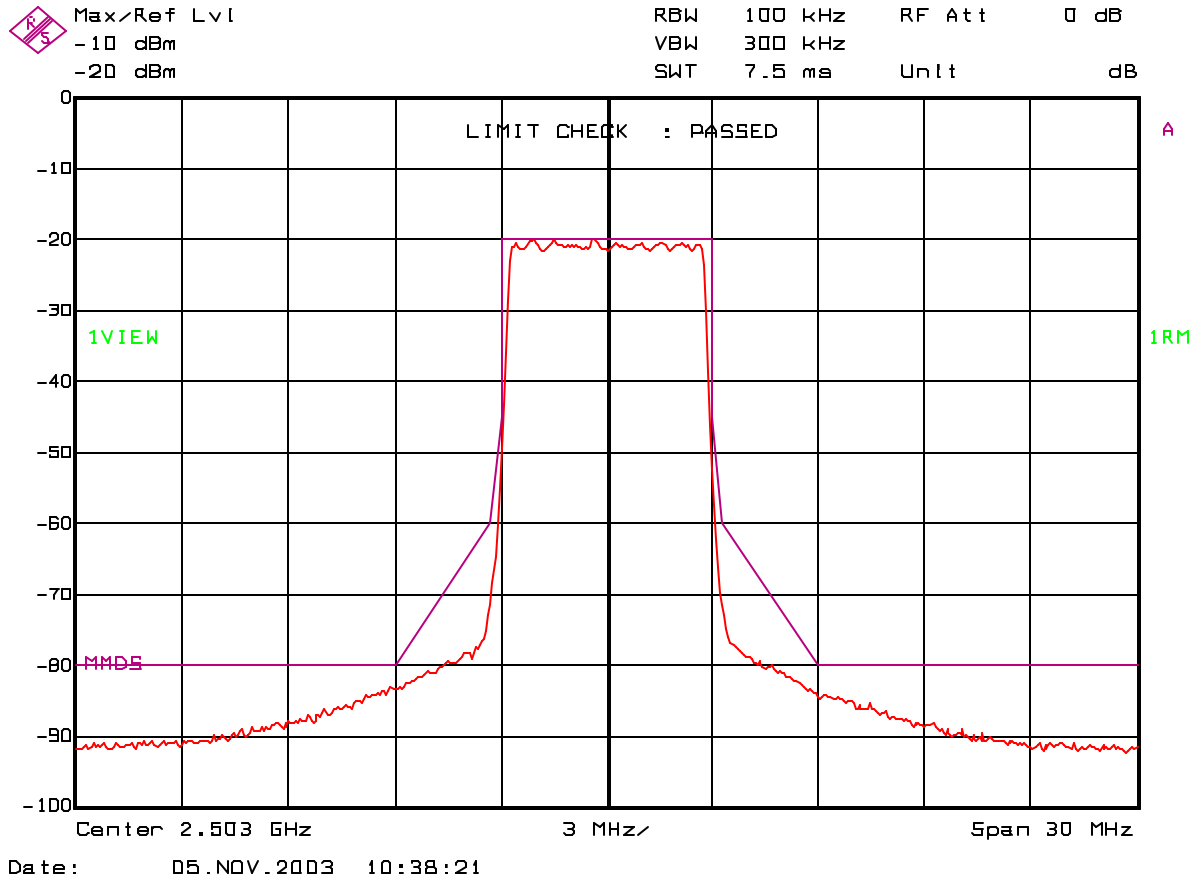
Modulation Characteristics

Test Results: Channel 31, 2683 MHz
33dBm / 2W
16 QAM



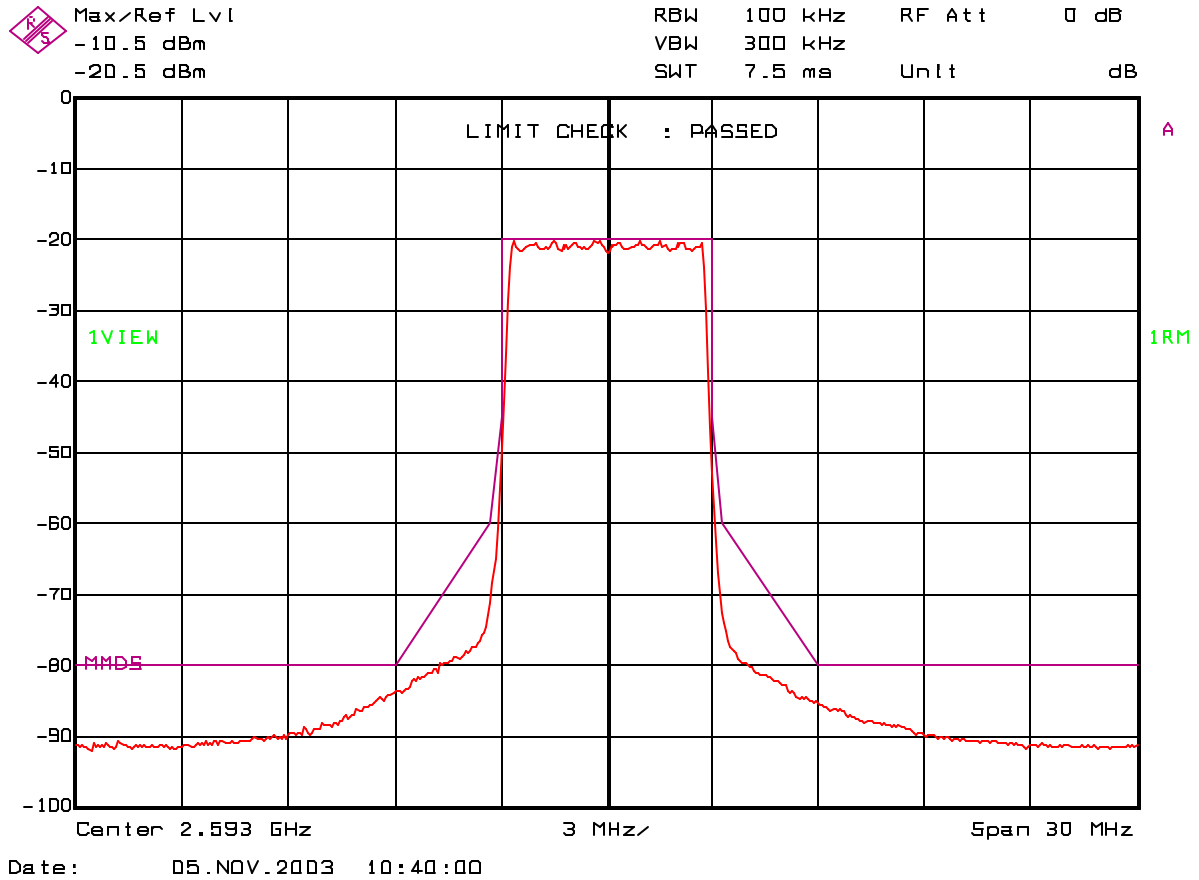
Modulation Characteristics

Test Results: Channel 1, 2503 MHz
33dBm / 2W
64 QAM



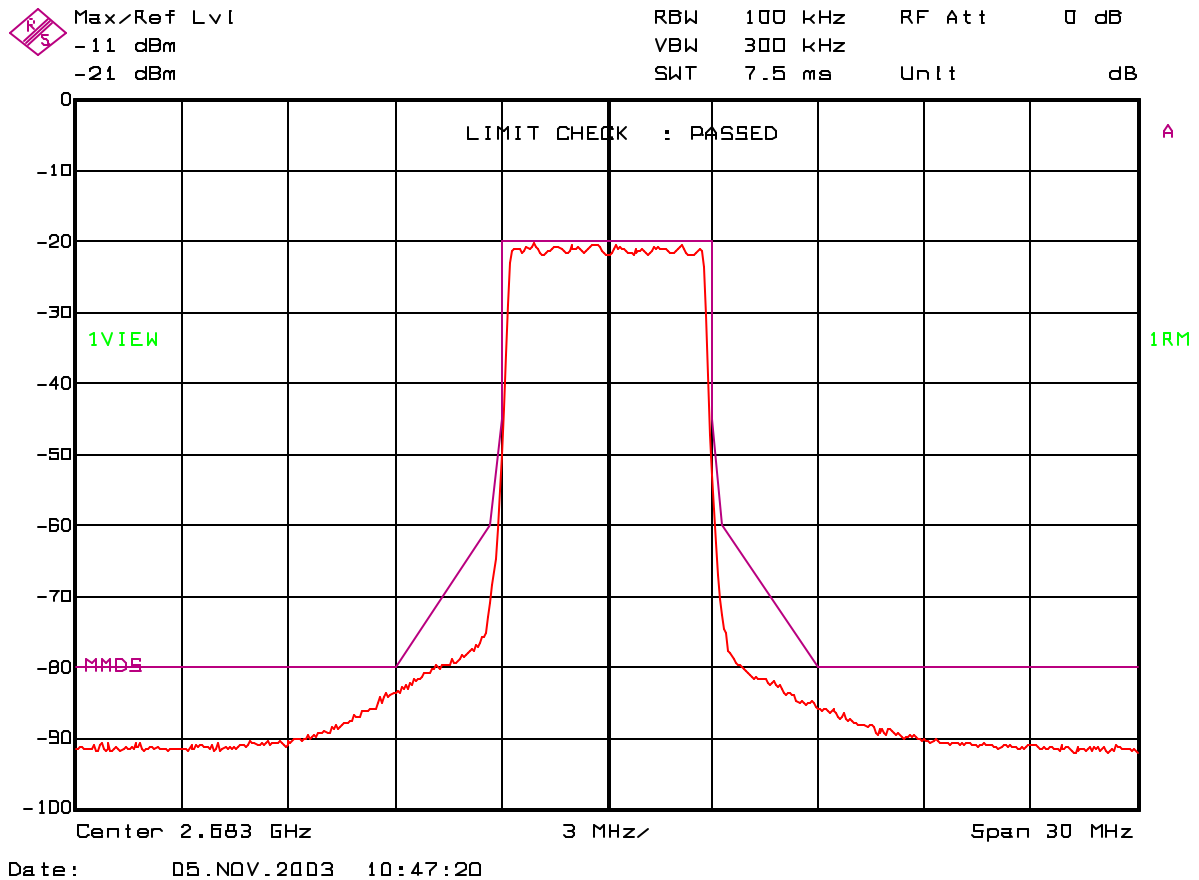
Modulation Characteristics

Test Results: Channel 16, 2593 MHz
33dBm / 2W
64 QAM



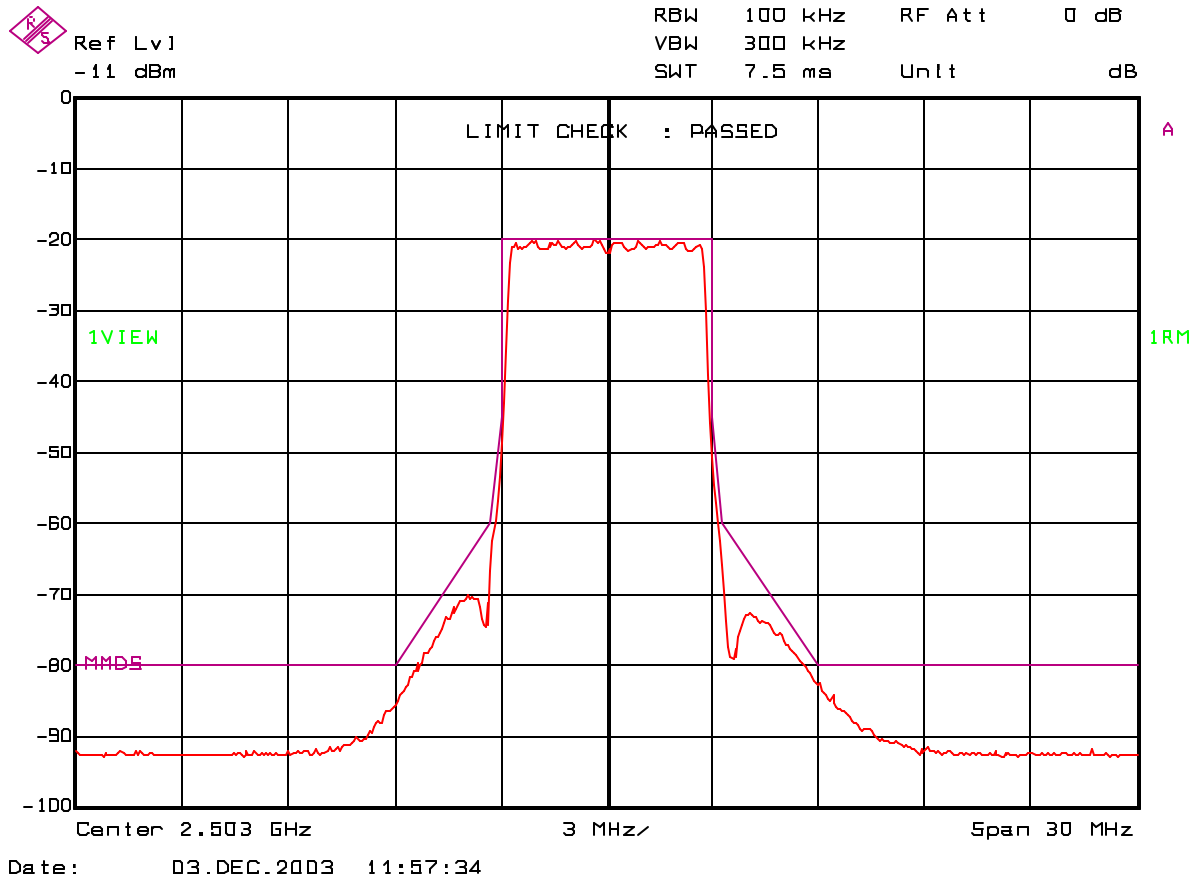
Modulation Characteristics

Test Results: Channel 31, 2683 MHz
33dBm / 2W
64 QAM



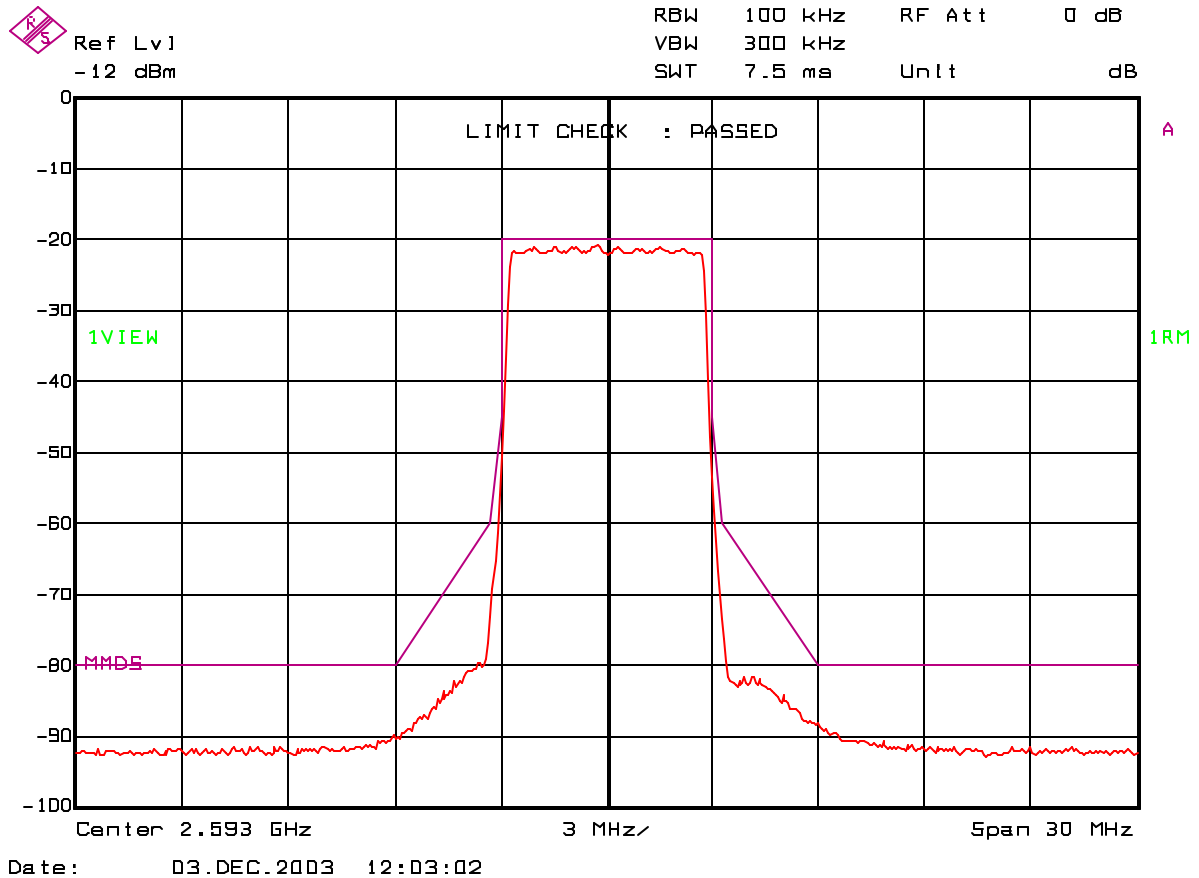
Modulation Characteristics

Test Results: Channel 1, 2503 MHz
37dBm / 5W
4 QAM



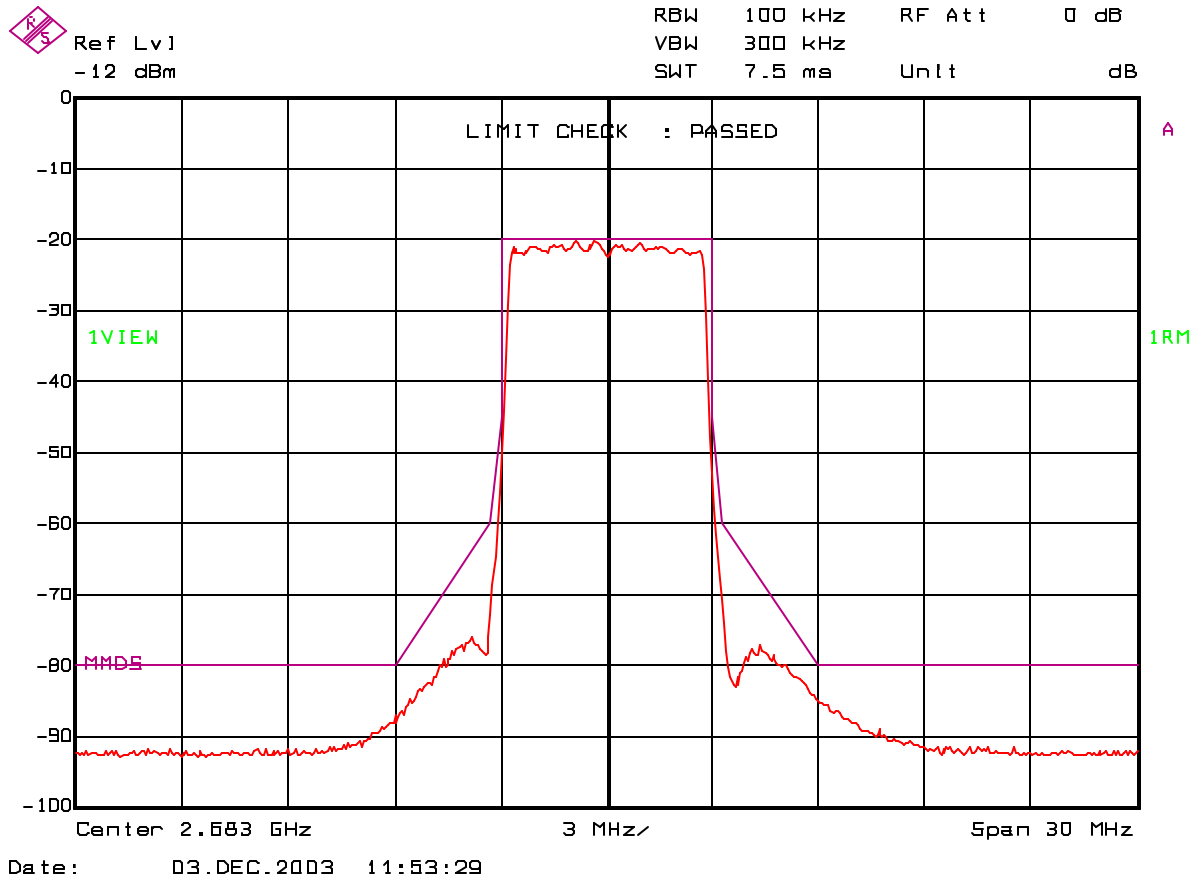
Modulation Characteristics

Test Results: Channel 16, 2593 MHz
37dBm / 5W
4 QAM



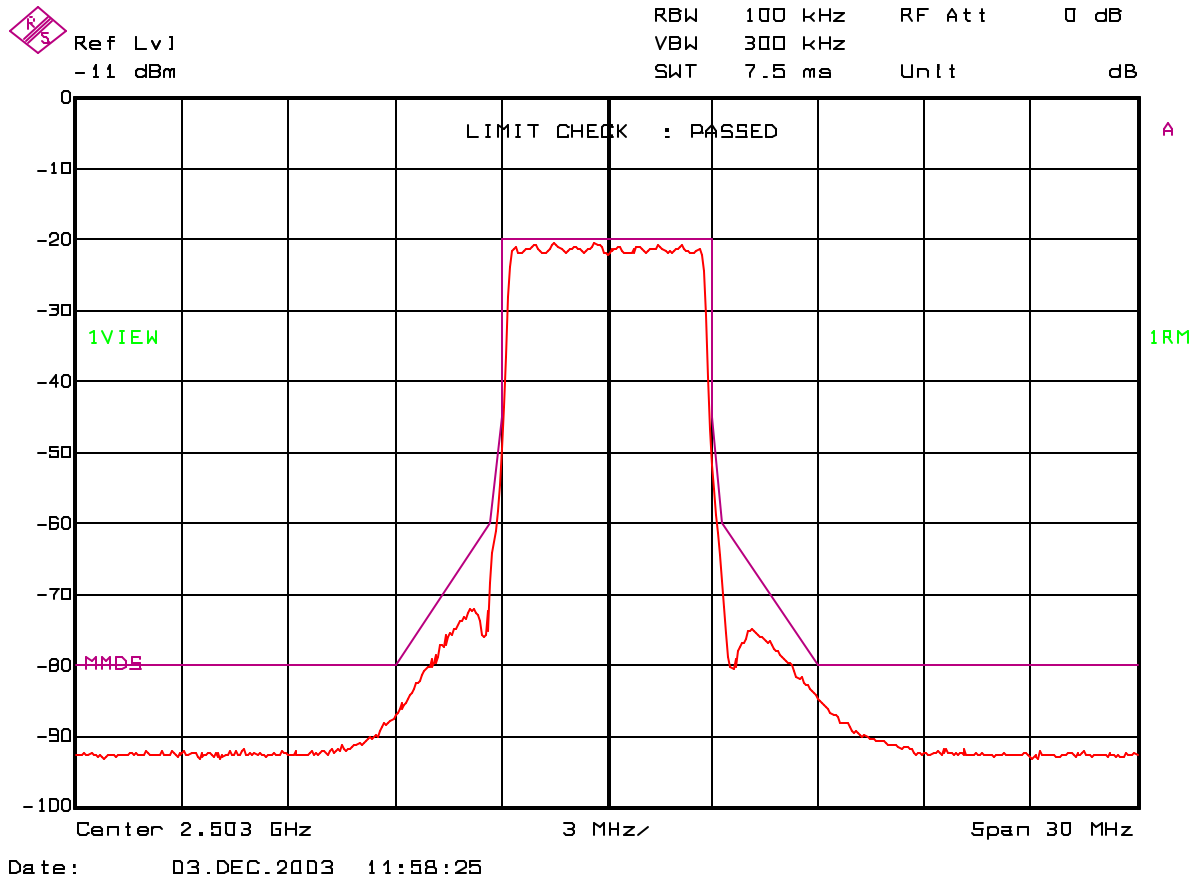
Modulation Characteristics

Test Results: Channel 31, 2683 MHz
37dBm / 5W
4 QAM



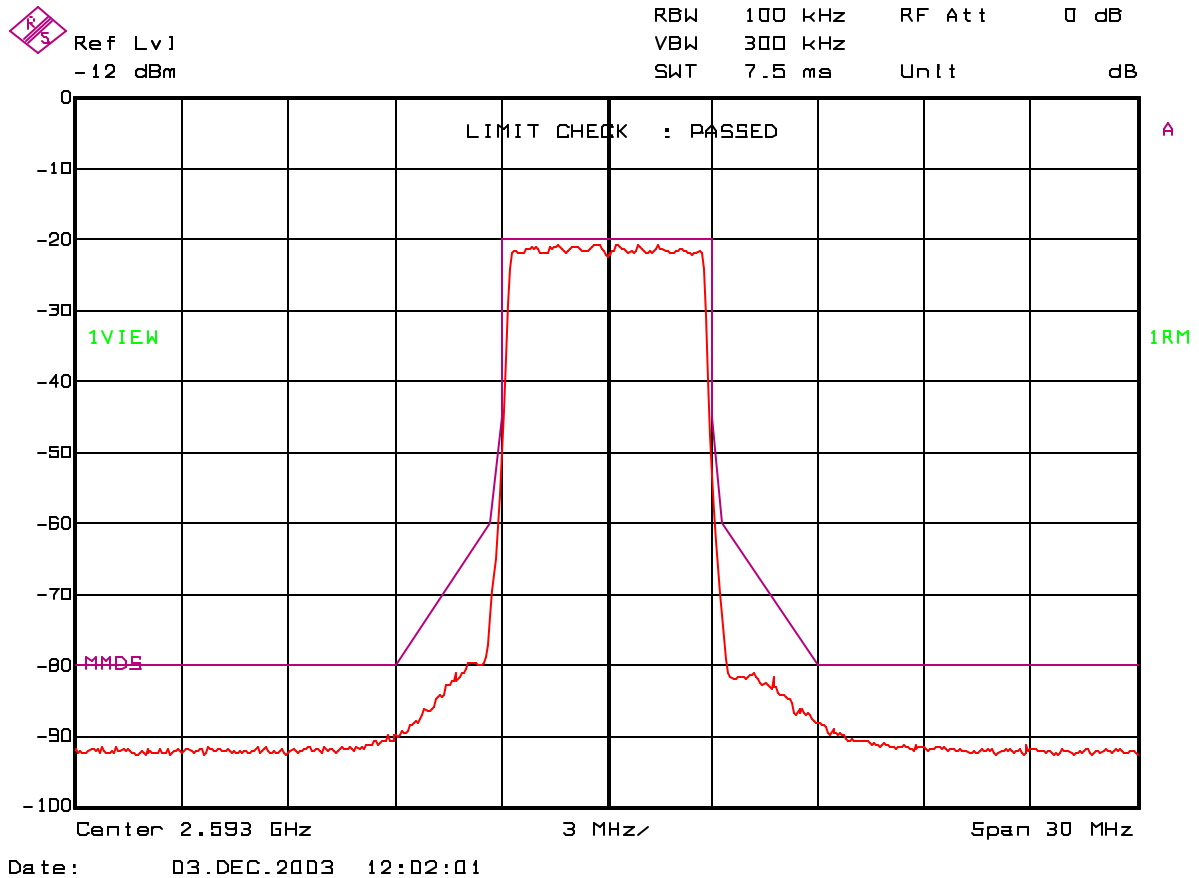
Modulation Characteristics

Test Results: Channel 1, 2503 MHz
37dBm / 5W
16 QAM



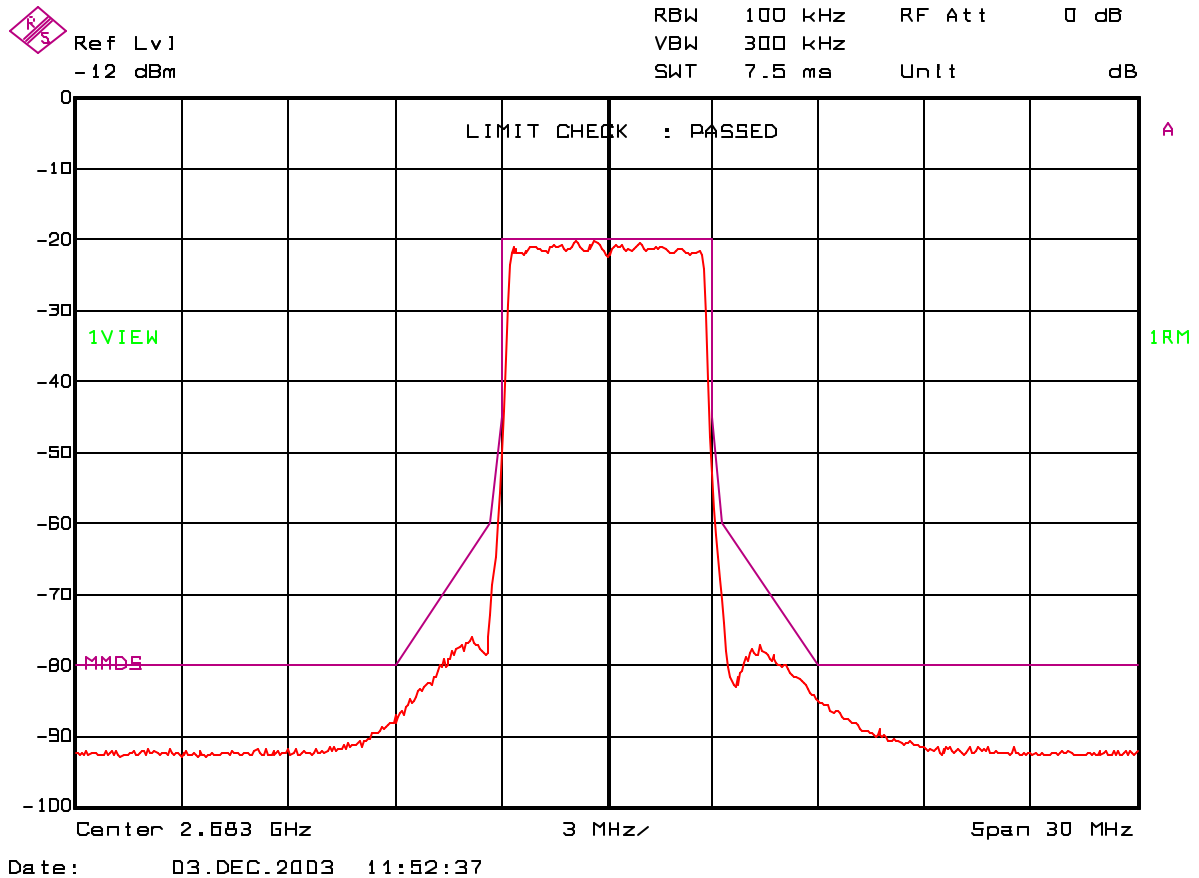
Modulation Characteristics

Test Results: Channel 16, 2593 MHz
37dBm / 5W
16 QAM



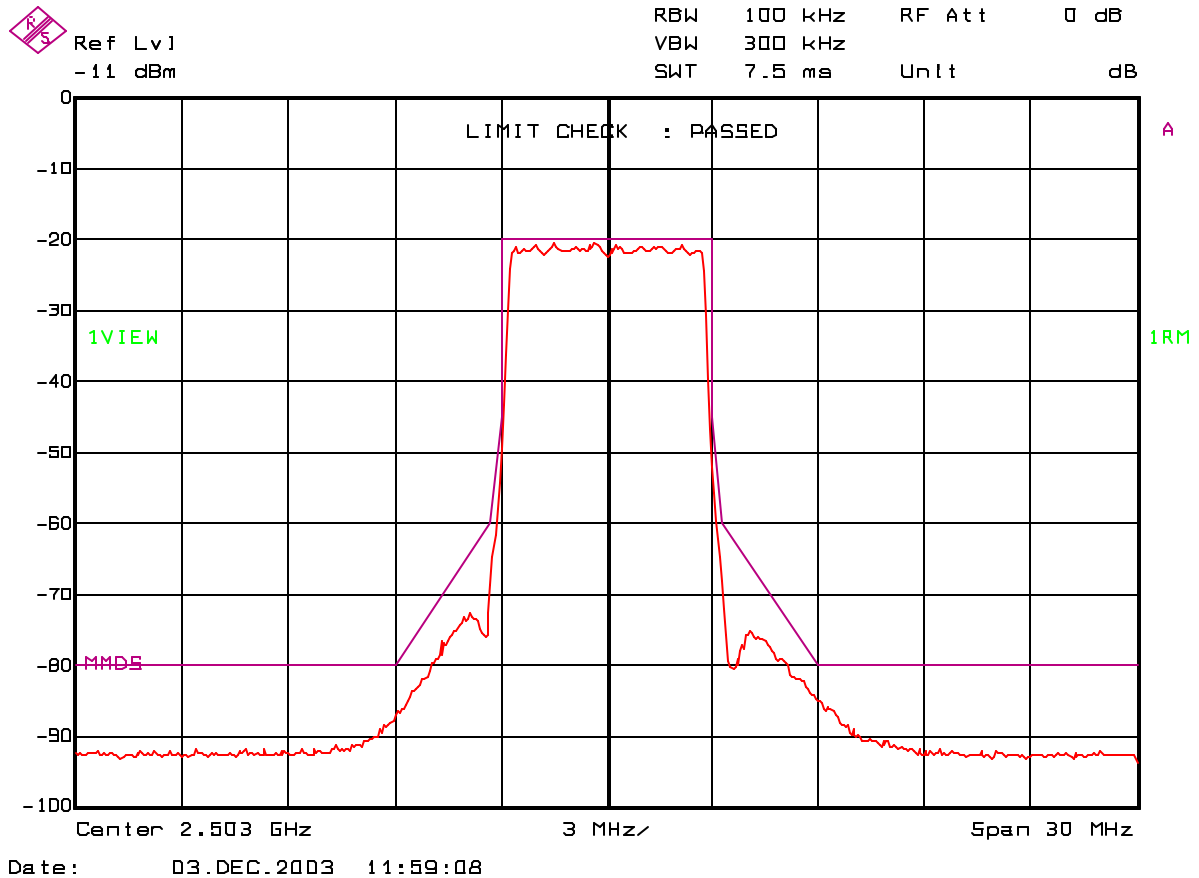
Modulation Characteristics

Test Results: Channel 31, 2683 MHz
37dBm / 5W
16 QAM



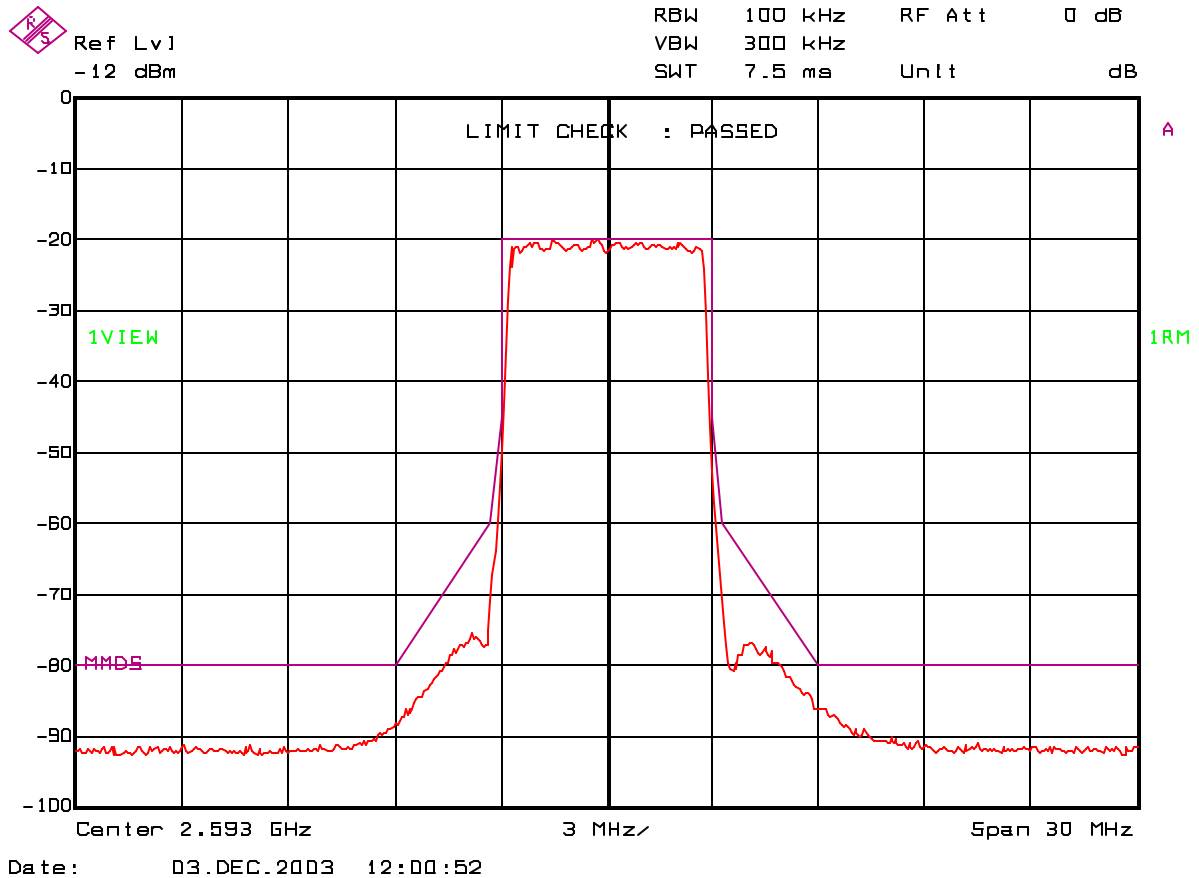
Modulation Characteristics

Test Results: Channel 1, 2503 MHz
37dBm / 5W
64 QAM



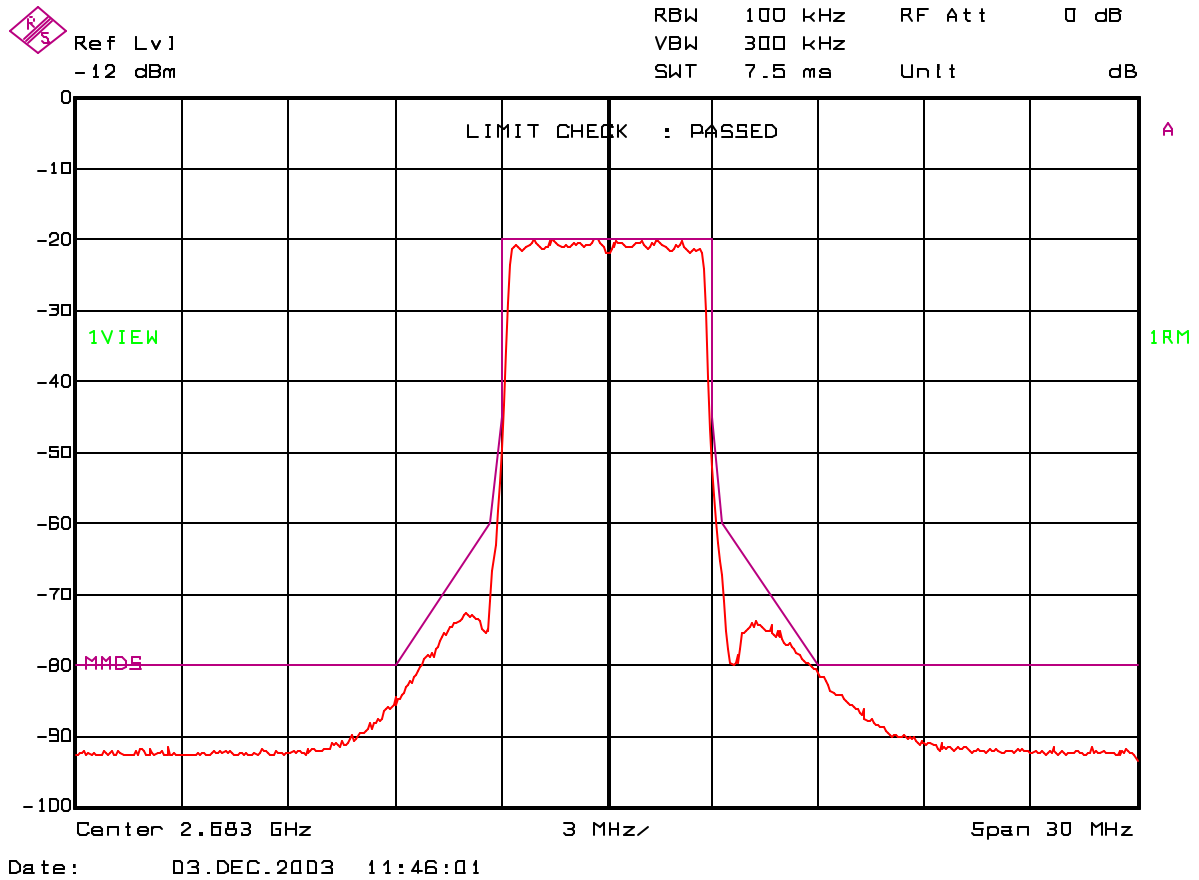
Modulation Characteristics

Test Results: Channel 16, 2593 MHz
37dBm / 5W
64 QAM



Modulation Characteristics

Test Results: Channel 31, 2683 MHz
37dBm / 5W
64 QAM



Occupied Bandwidth

Rule Part Number: 2.1049(h), 21.105

Each authorization issued pursuant to these rules will show, as the emission designator, a symbol representing the class of emission which shall be prefixed by a number specifying the necessary bandwidth. This figure does not necessarily indicate the bandwidth actually occupied by the emission at any instant. In those cases where part 2 of this chapter does not provide a formula for the computation of the necessary bandwidth, the occupied bandwidth may be used in the emission designator.

Test Procedure: The Orthogonal Frequency Division Multiplexing (OFDM) modulated Time Division Duplex (TDD) RF signal from the test unit is applied to a spectrum analyzer. The occupied bandwidth of the test unit is recorded by measuring the 99% modulation bandwidth with the built in measurement function in the spectrum analyzer. The transmitter is enabled in test mode with the attached computer. Measurements are performed for each of the modulation formats available, 4 QAM, 16 QAM, and 64 QAM.

Test Conditions: Frequency = 2503, 2593, 2683 MHz
Temperature = 25°C
Supply Voltage = 120 Vac / 60 Hz

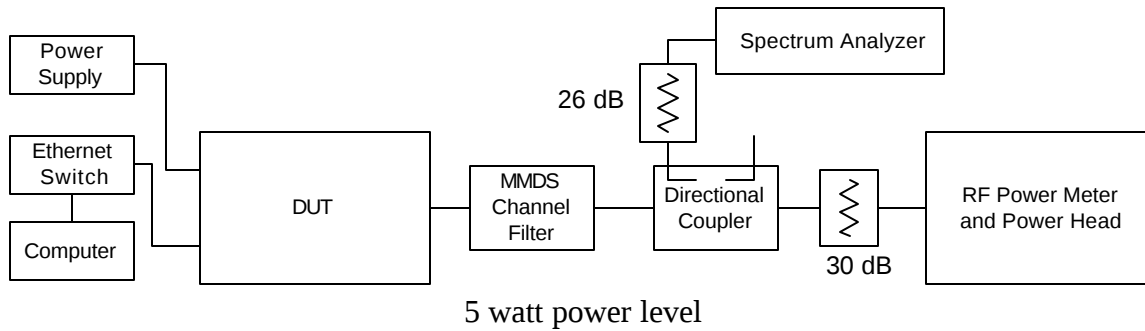
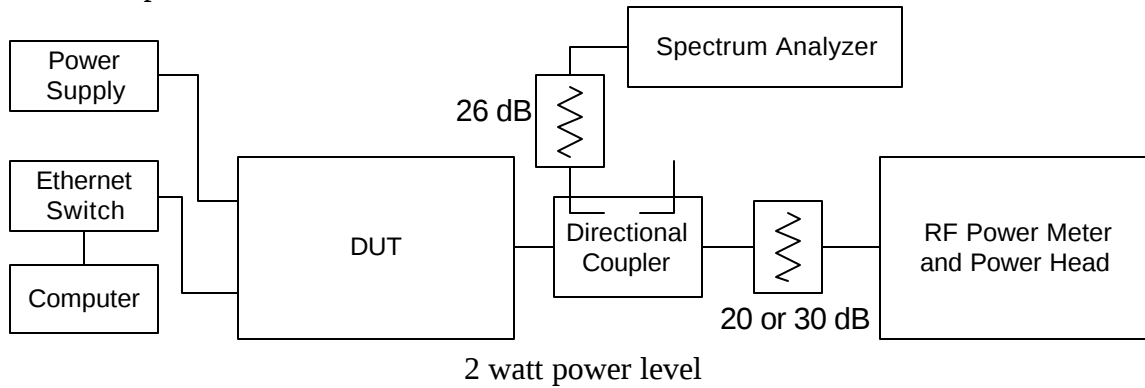
Test Results Summary:

99 % Occupied Bandwidth (2 watt power level)			
(MHz)	Modulation Type		
Channel	4 QAM	16 QAM	64 QAM
1	5.51603206	5.53106212	5.51603206
16	5.50100200	5.51603206	5.51603206
31	5.51603206	5.50100200	5.50100200

99 % Occupied Bandwidth (5 watt power level)			
(MHz)	Modulation Type		
Channel	4 QAM	16 QAM	64 QAM
1	5.51603206	5.50100200	5.50100200
16	5.50100200	5.50100200	5.50100200
31	5.50100200	5.50100200	5.50100200

Occupied Bandwidth

Test Set-Up:



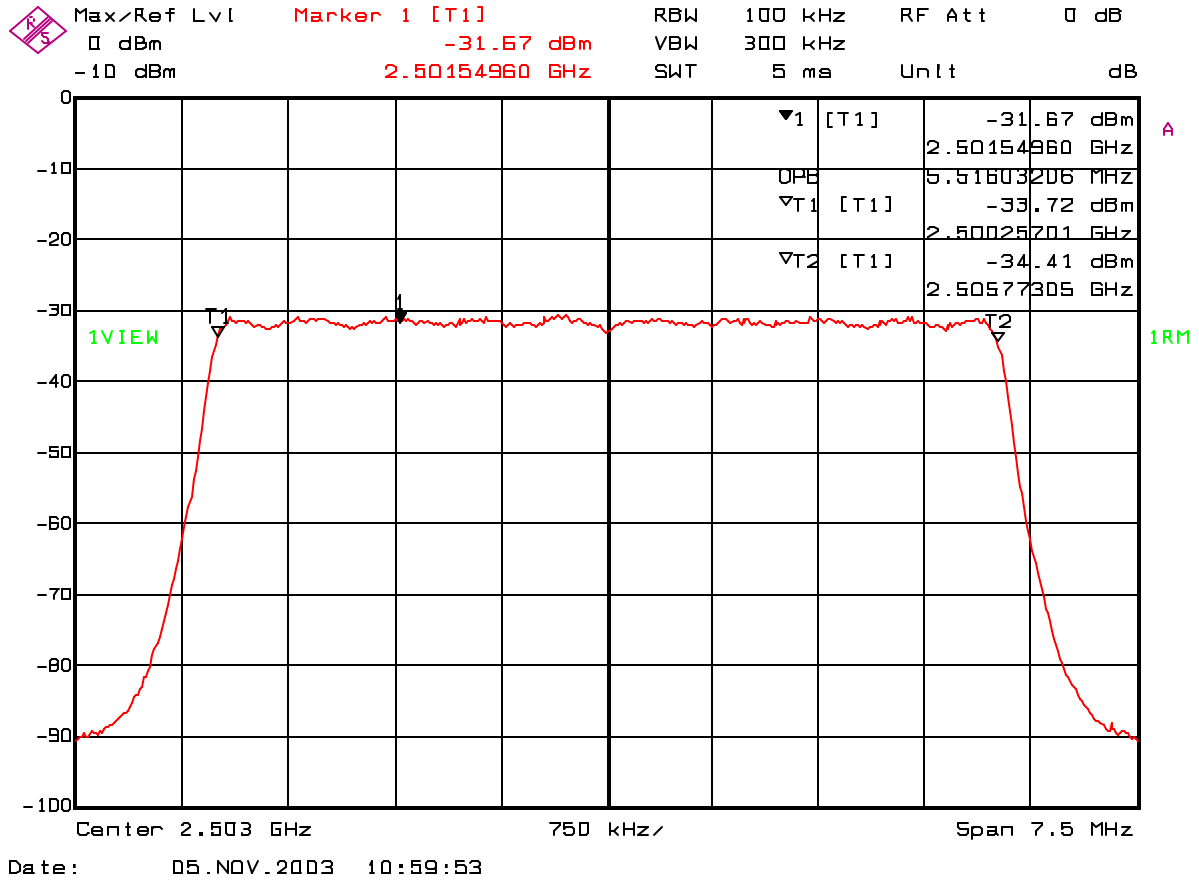
Occupied Bandwidth

Test Equipment:

DVM	Fluke 87 III Calibration not required
Spectrum Analyzer	Rohde&Schwarz Model: FSEA S/N: DE24511 Cal Date: 06-02-2003 Cal Due: 06-02-2005
Directional Coupler	Dual Directional Coupler Model: Narda 3022 S/N: 01231
Attenuators (30dB)	Weinschel Model: 37-30-34 Calibration not required
Attenuators (6 dB)	Pasternak Corporation Model: PE7005-6 (6 dB) Calibration not required
Computer	Dell Inspiron 5000 Model: PPM S/N: 000832RM-12961-03N-3073
Ethernet Switch	D-Link Model: DSS-5+ 5 port 10/100Mbps S/N: B205335003051
Power Supply	Cherokee International, LLC Model: CRP500L1H-1A

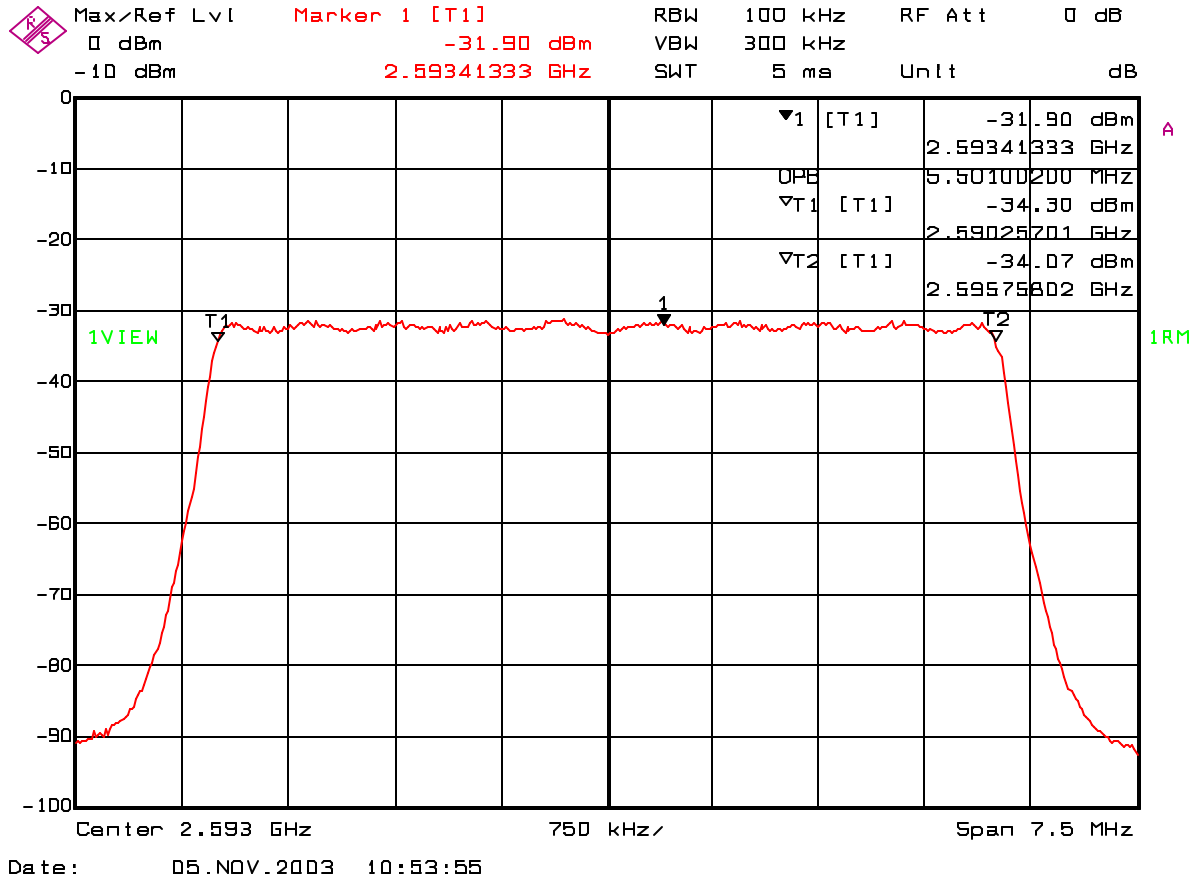
Occupied Bandwidth

Test Results: Channel 1, 2503 MHz
4 QAM
33 dBm / 2 watt



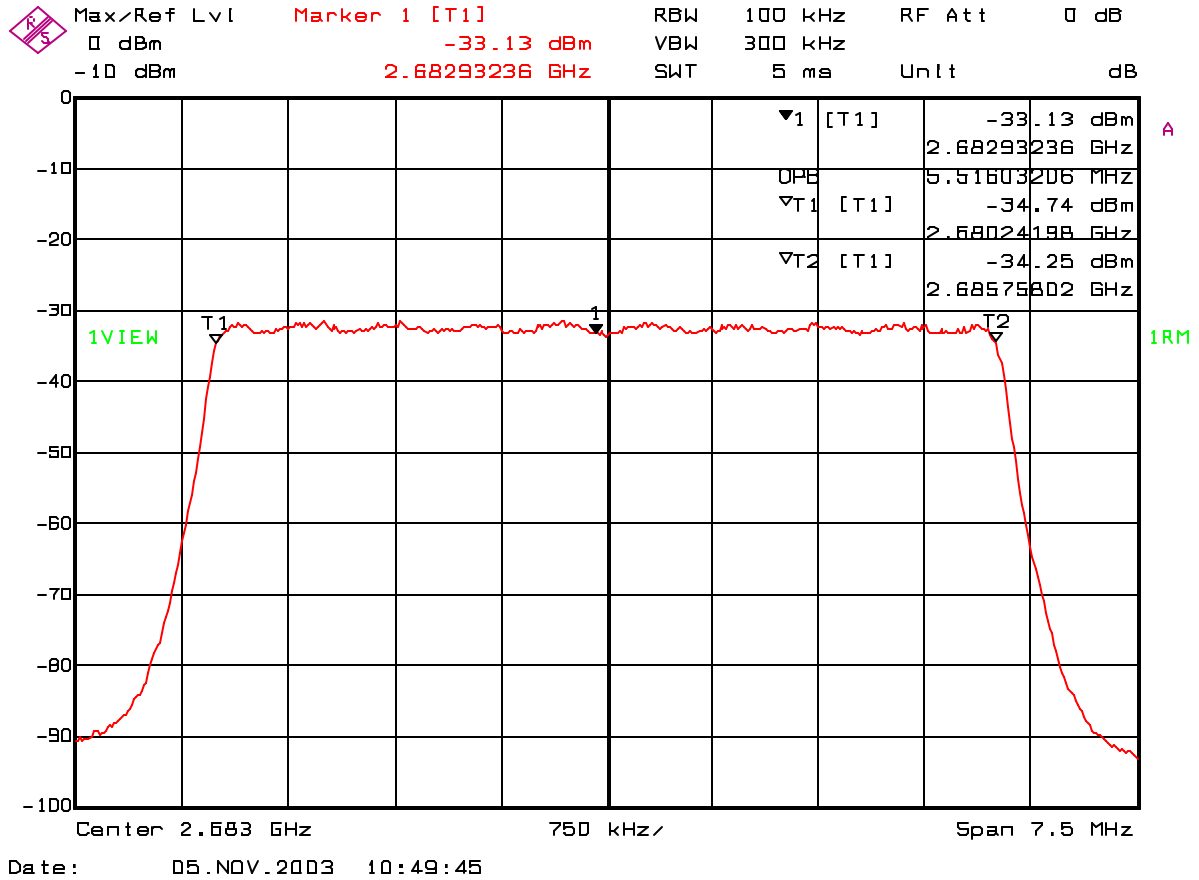
Occupied Bandwidth

Test Results: Channel 16, 2593 MHz
4 QAM
33 dBm / 2 watt



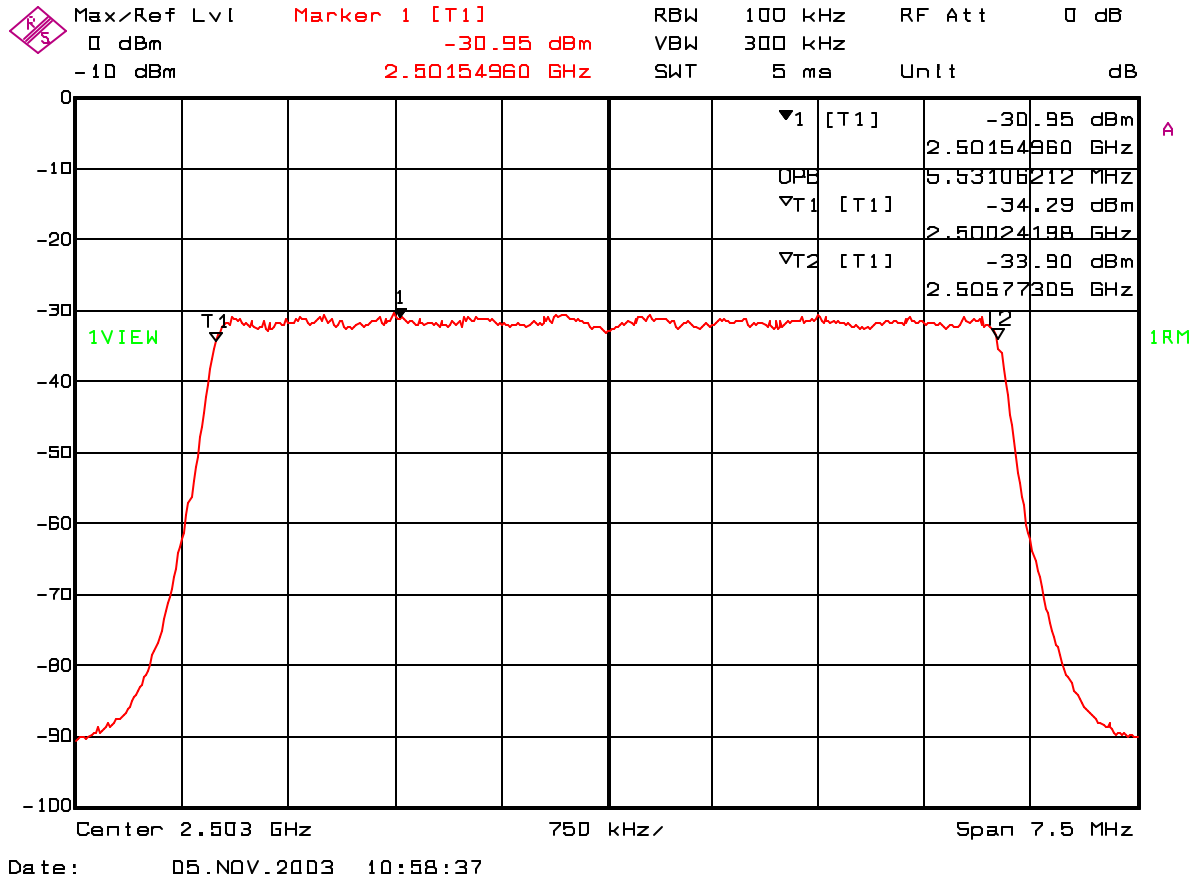
Occupied Bandwidth

Test Results: Channel 31, 2683 MHz
4 QAM
33 dBm / 2 watt



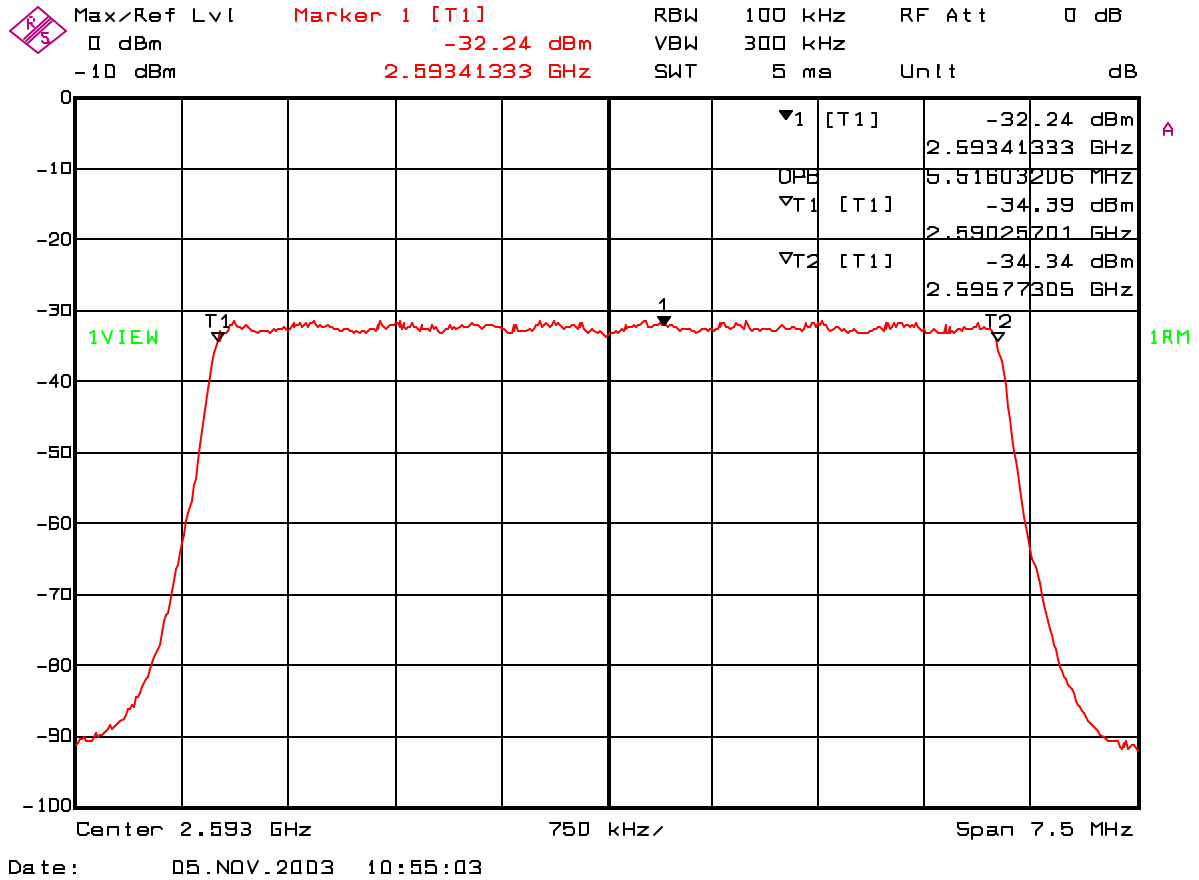
Occupied Bandwidth

Test Results: Channel 1, 2503 MHz
16 QAM
33 dBm / 2 watt



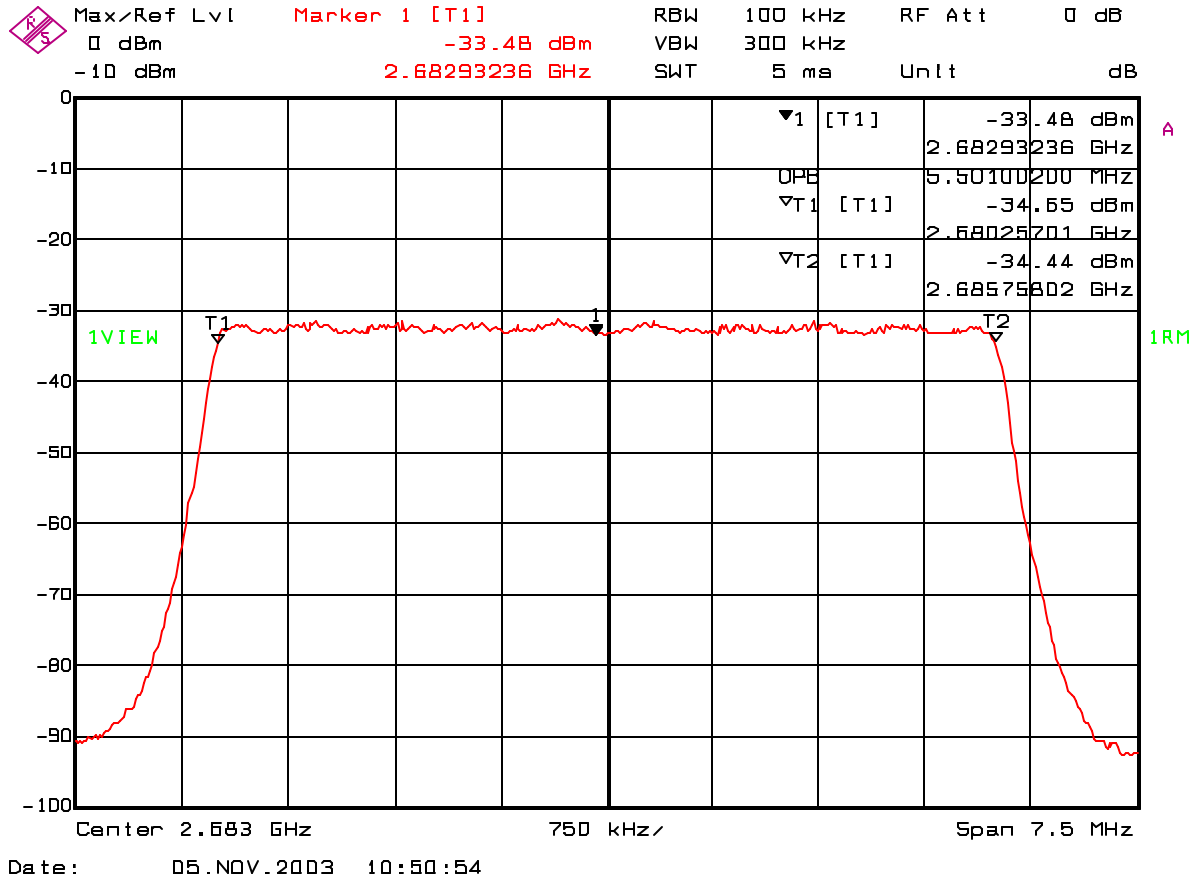
Occupied Bandwidth

Test Results: Channel 16, 2593 MHz
16 QAM
33 dBm / 2 watt



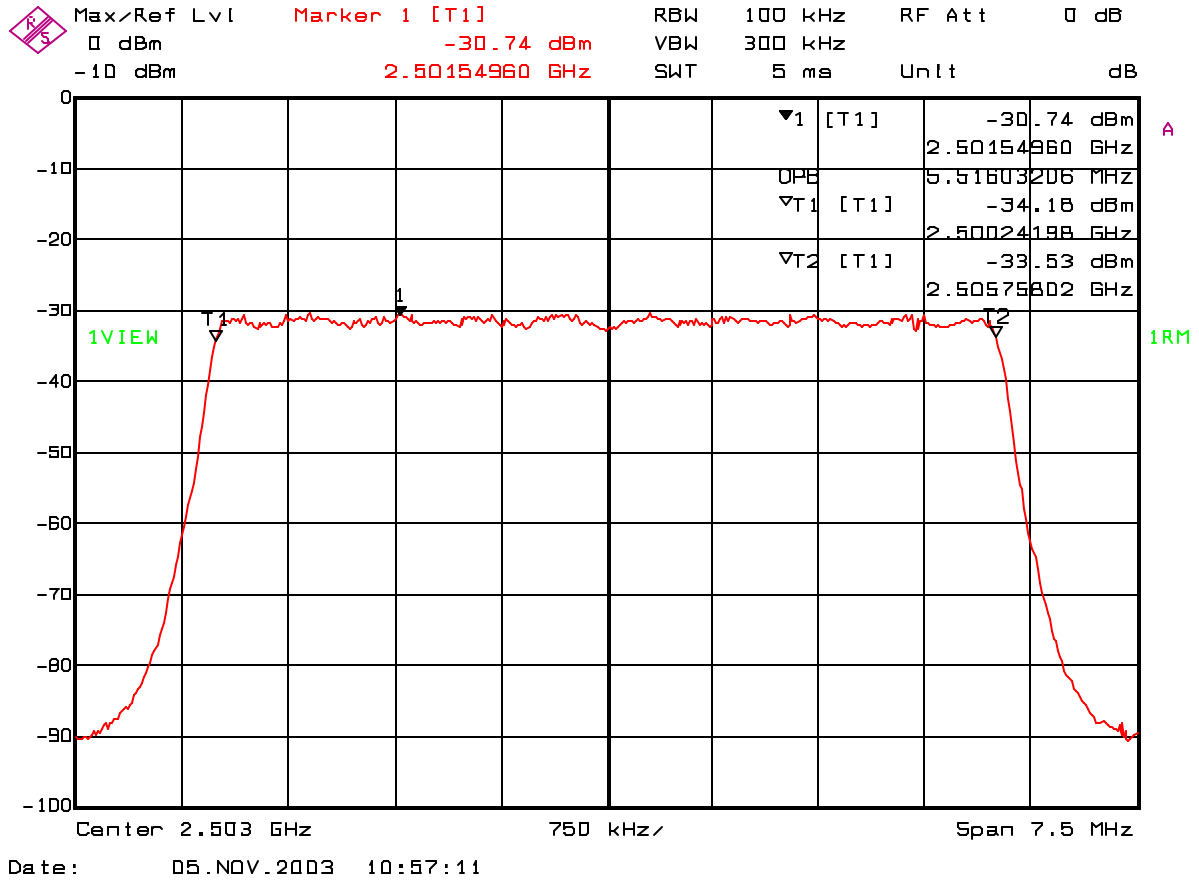
Occupied Bandwidth

Test Results: Channel 31, 2683 MHz
16 QAM
33 dBm / 2 watt



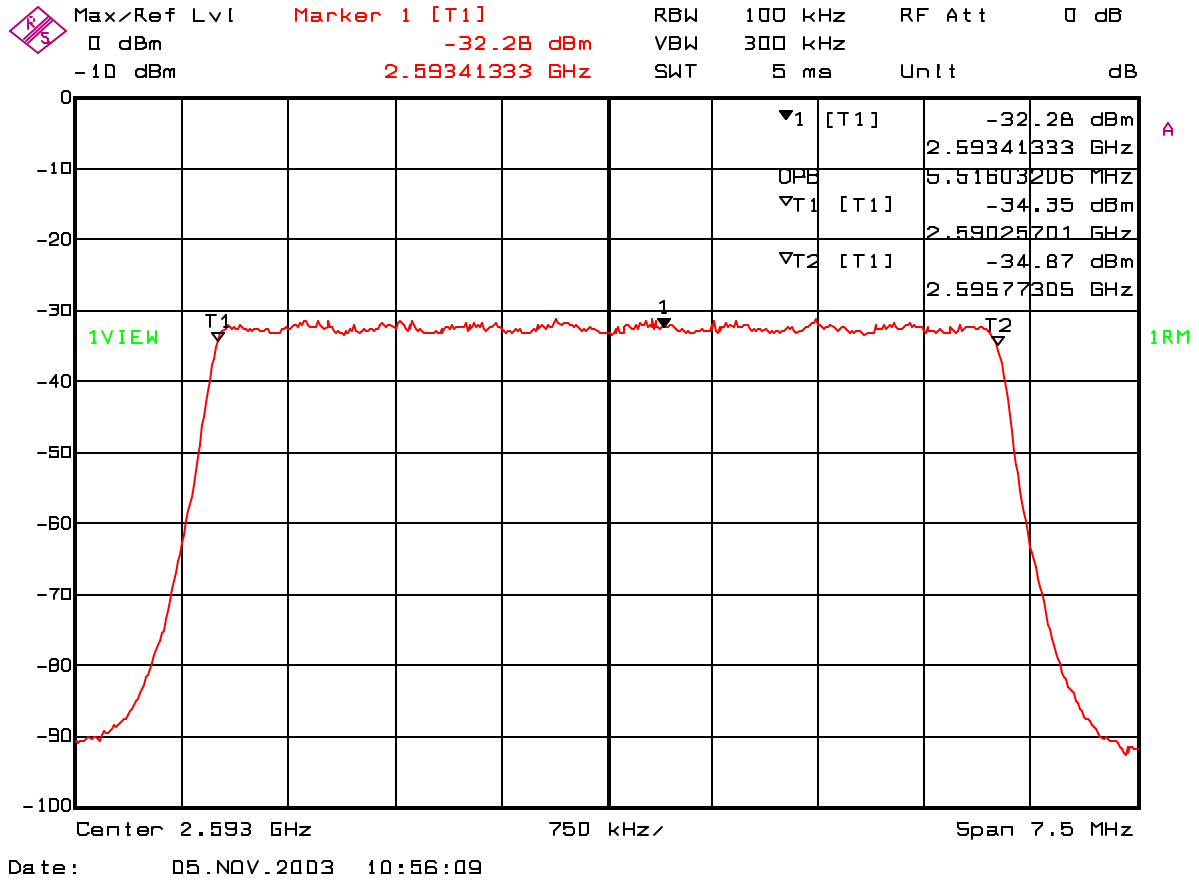
Occupied Bandwidth

Test Results: Channel 1, 2503 MHz
64 QAM
33 dBm / 2 watt



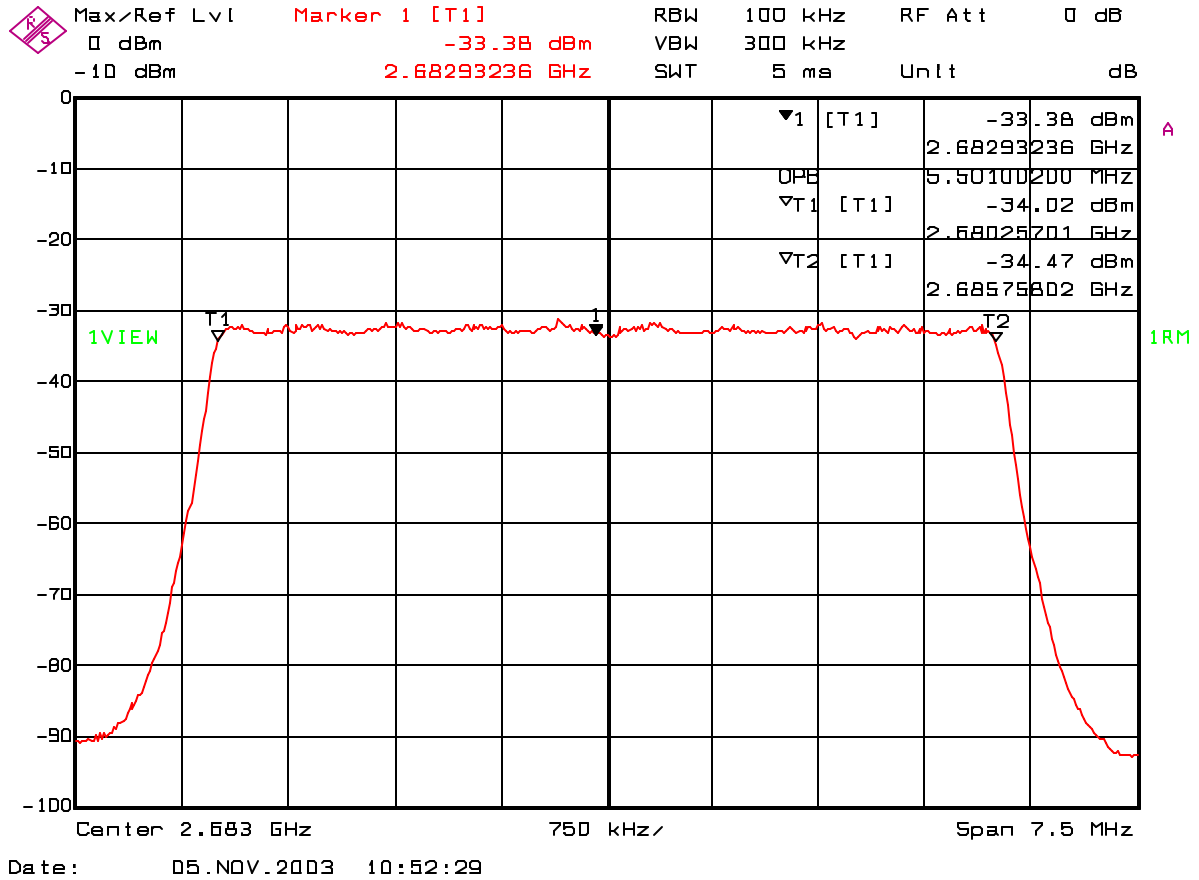
Occupied Bandwidth

Test Results: Channel 16, 2593 MHz
64 QAM
33 dBm / 2 watt



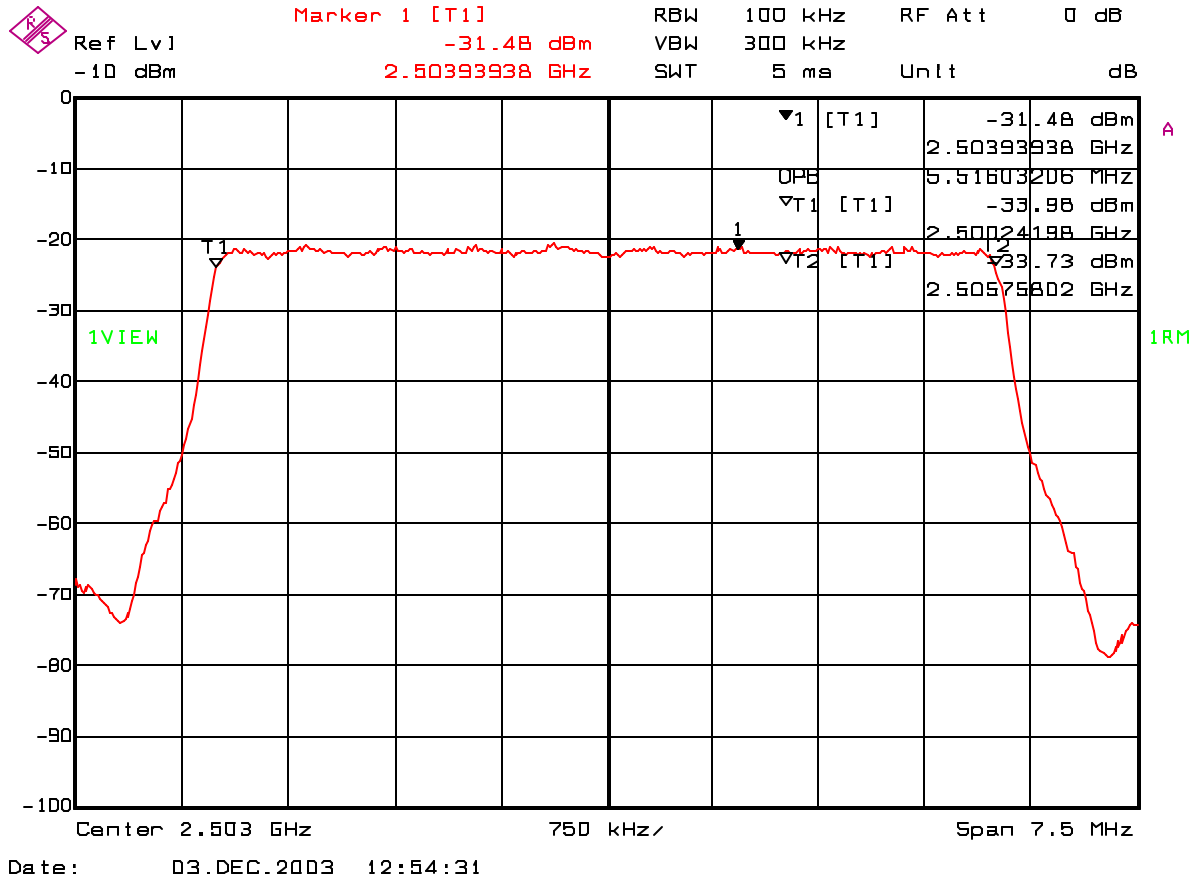
Occupied Bandwidth

Test Results: Channel 31, 2683 MHz
64 QAM
33 dBm / 2 watt



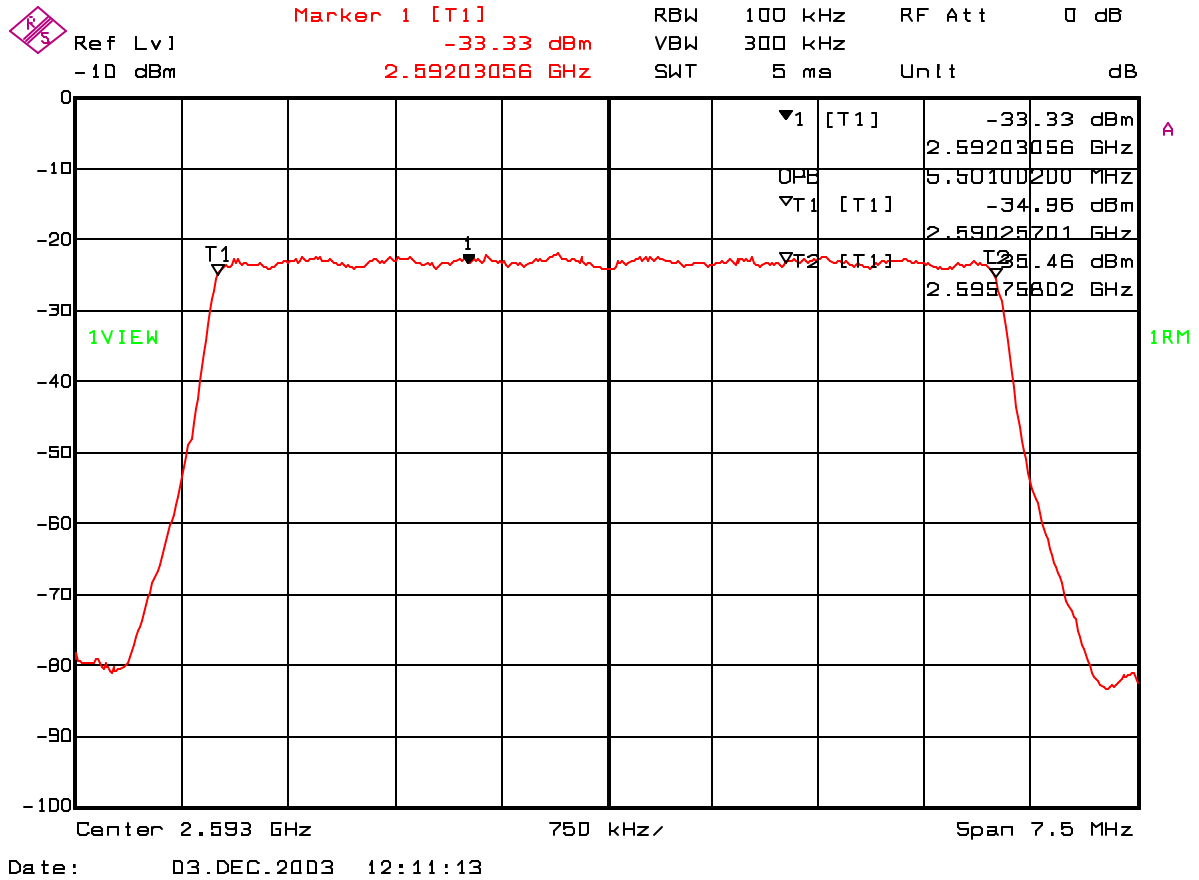
Occupied Bandwidth

Test Results: Channel 1, 2503 MHz
4 QAM
37 dBm / 5 watt



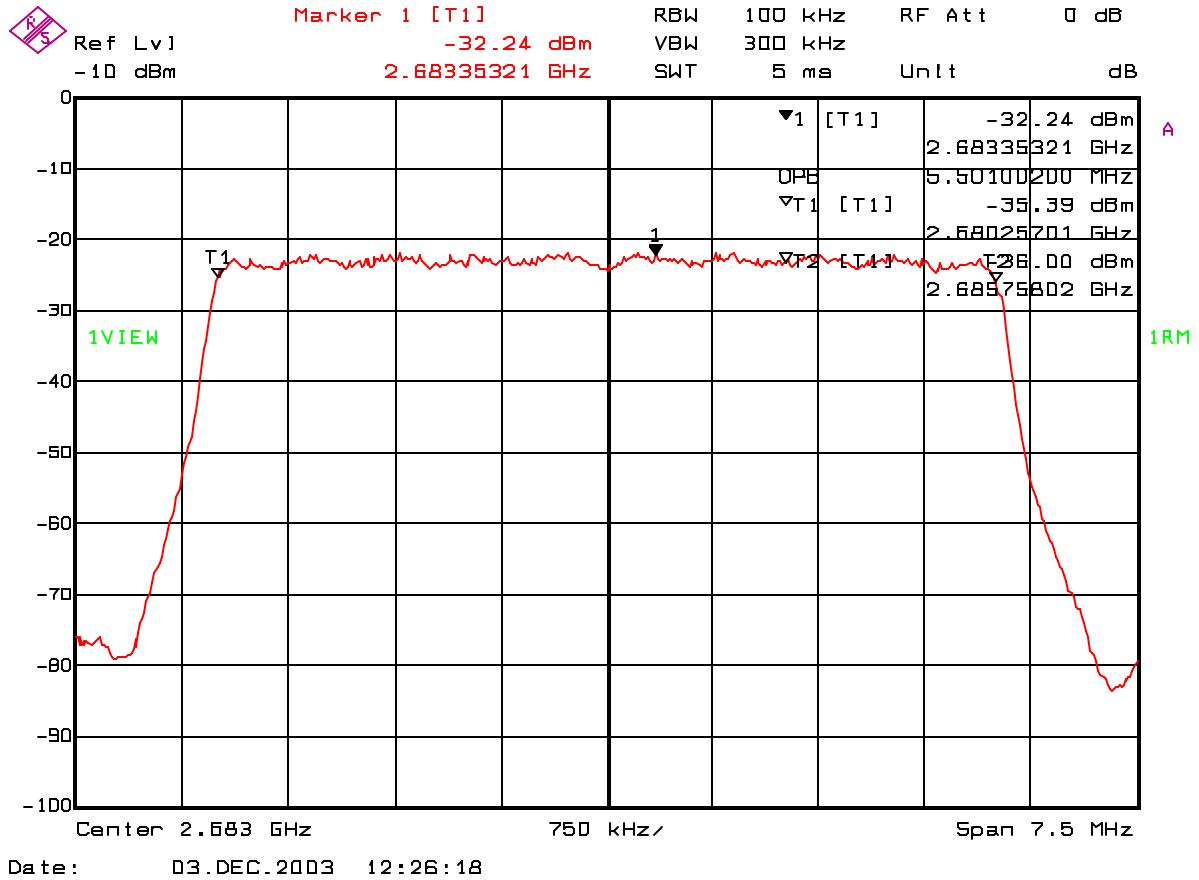
Occupied Bandwidth

Test Results: Channel 16, 2593 MHz
4 QAM
37 dBm / 5 watt



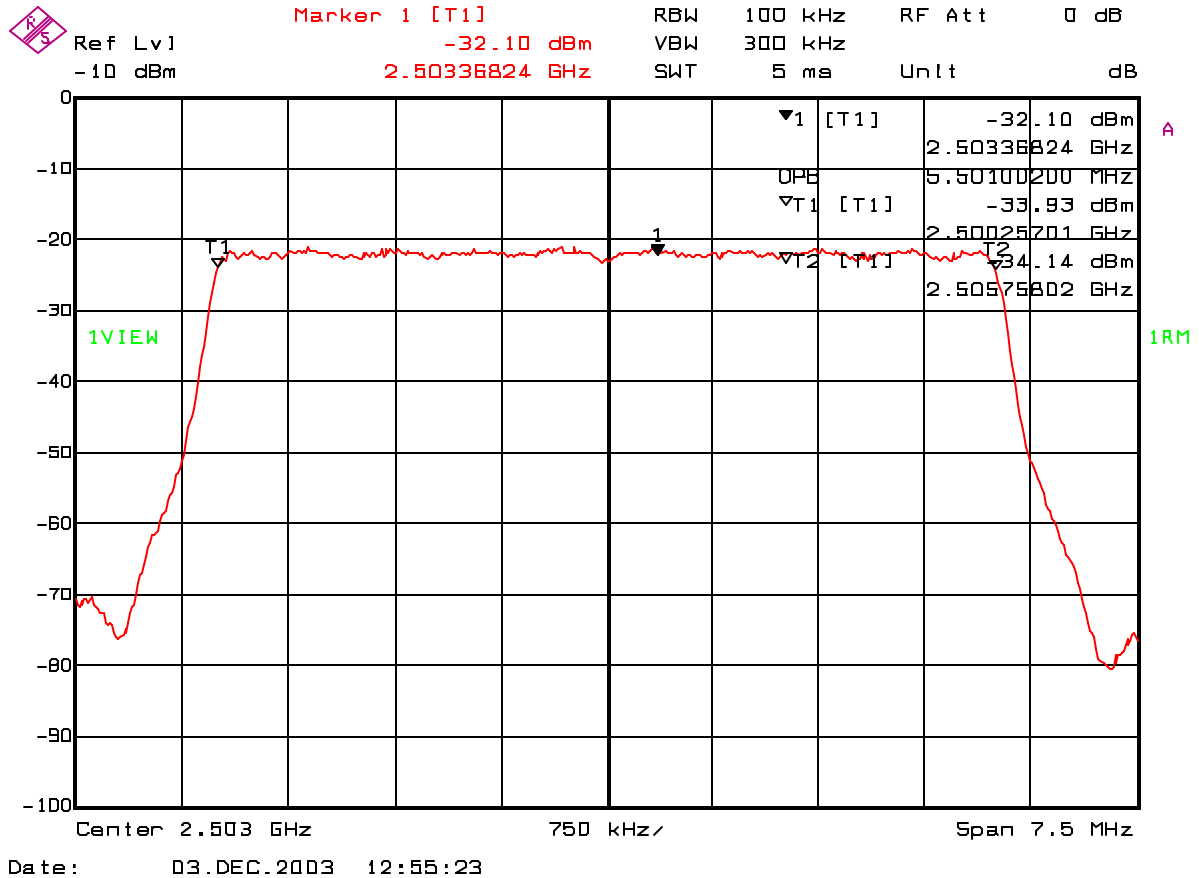
Occupied Bandwidth

Test Results: Channel 31, 2683 MHz
4 QAM
37 dBm / 5 watt



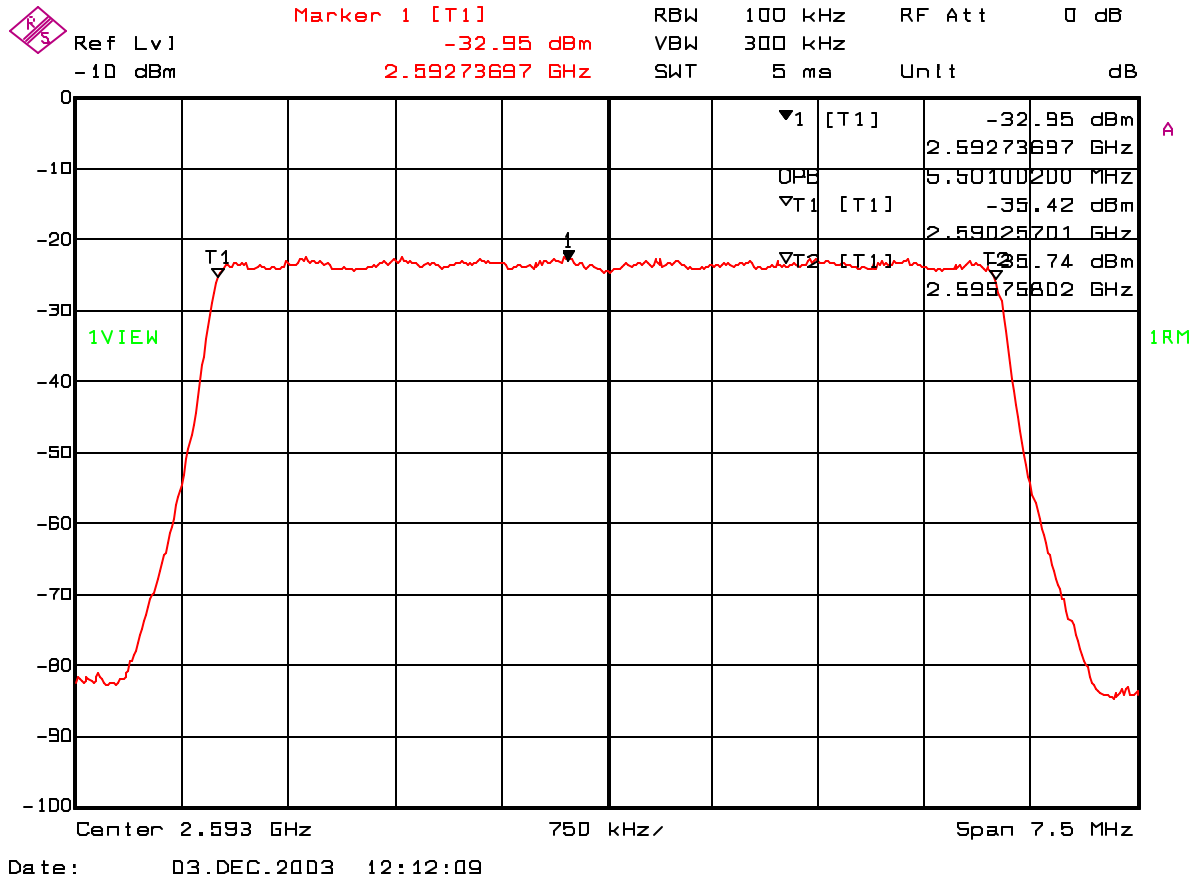
Occupied Bandwidth

Test Results: Channel 1, 2503 MHz
16 QAM
37 dBm / 5 watt



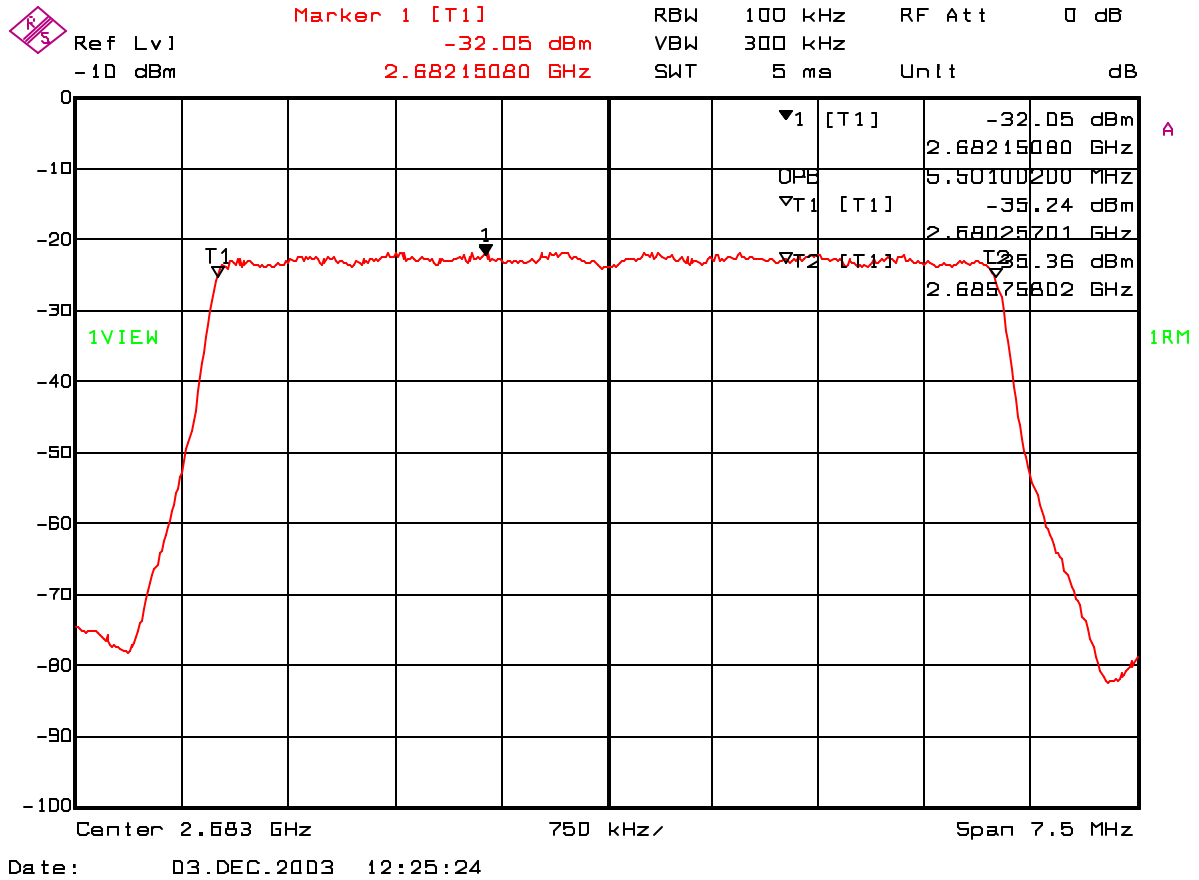
Occupied Bandwidth

Test Results: Channel 16, 2593 MHz
16 QAM
37 dBm / 5 watt



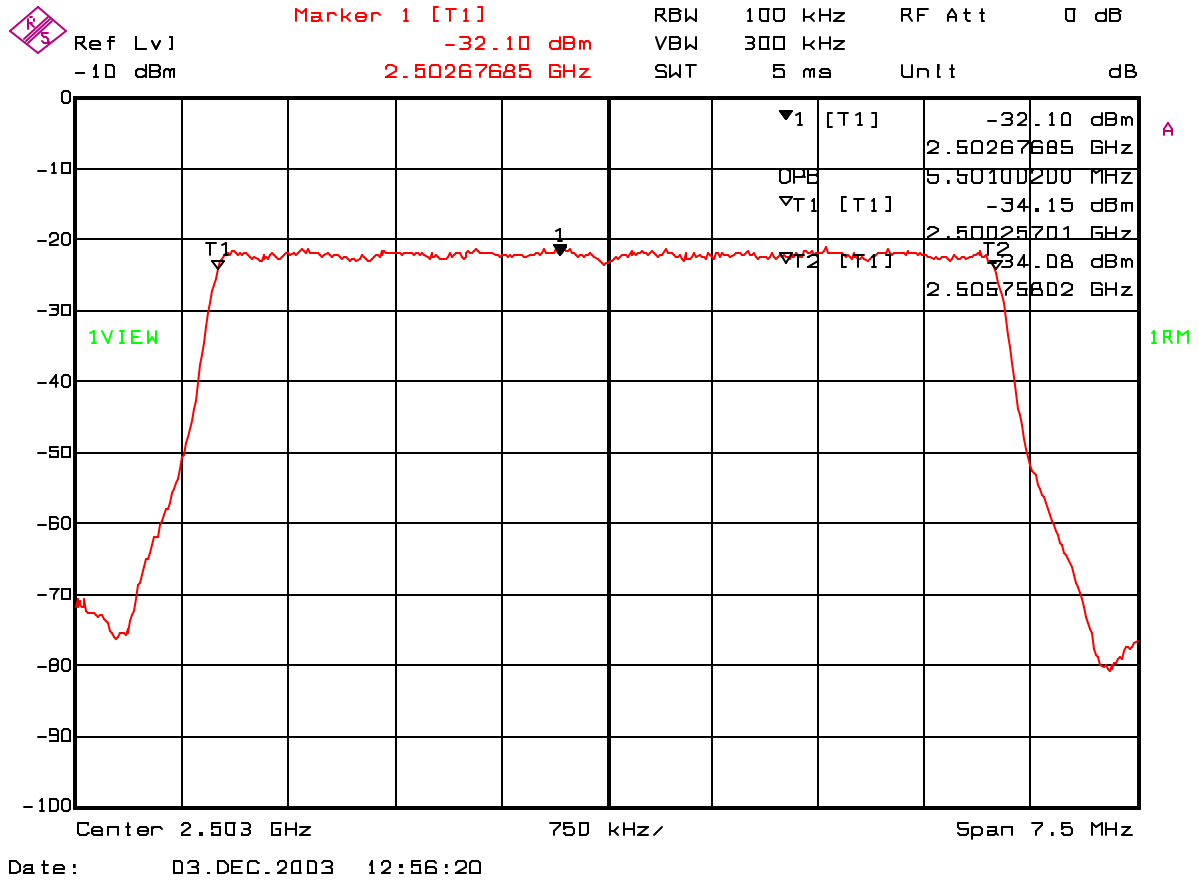
Occupied Bandwidth

Test Results: Channel 31, 2683 MHz
16 QAM
37 dBm / 5 watt



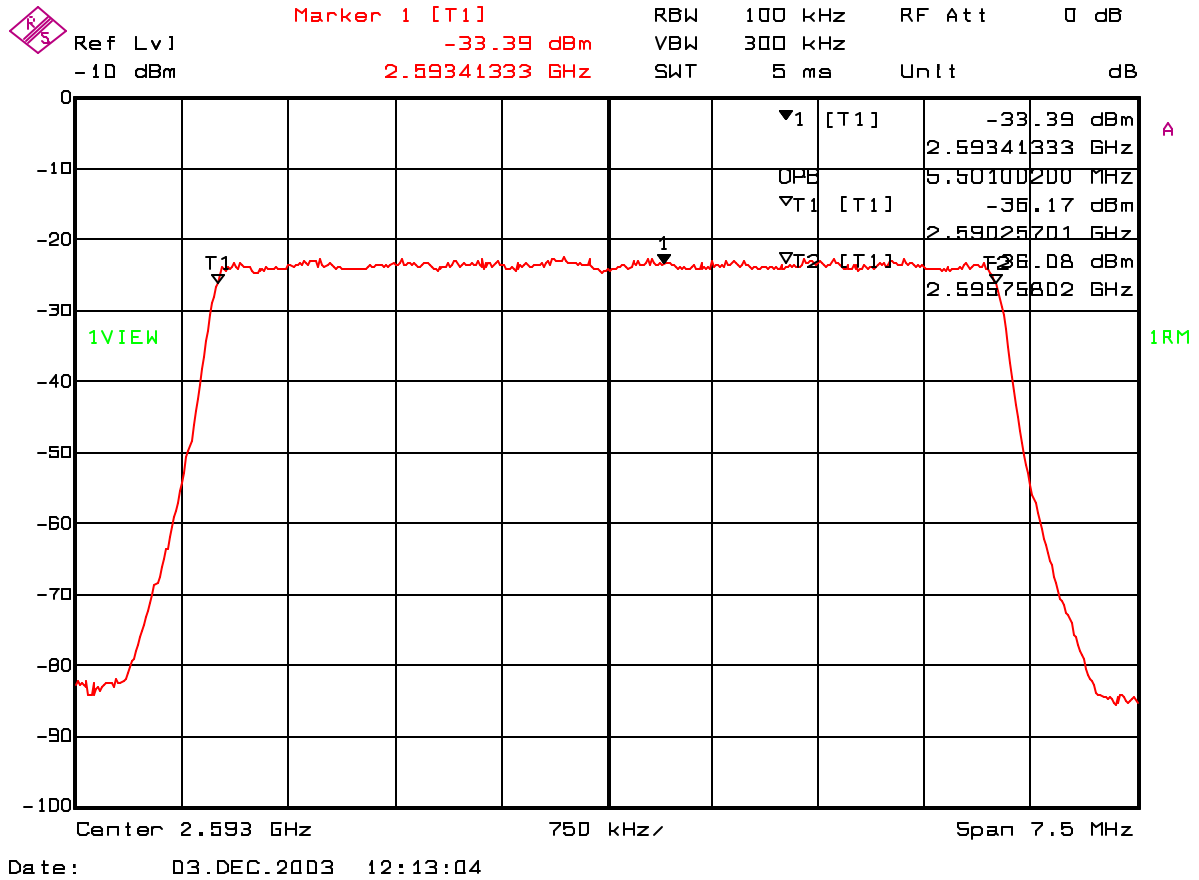
Occupied Bandwidth

Test Results: Channel 1, 2503 MHz
64 QAM
37 dBm / 5 watt



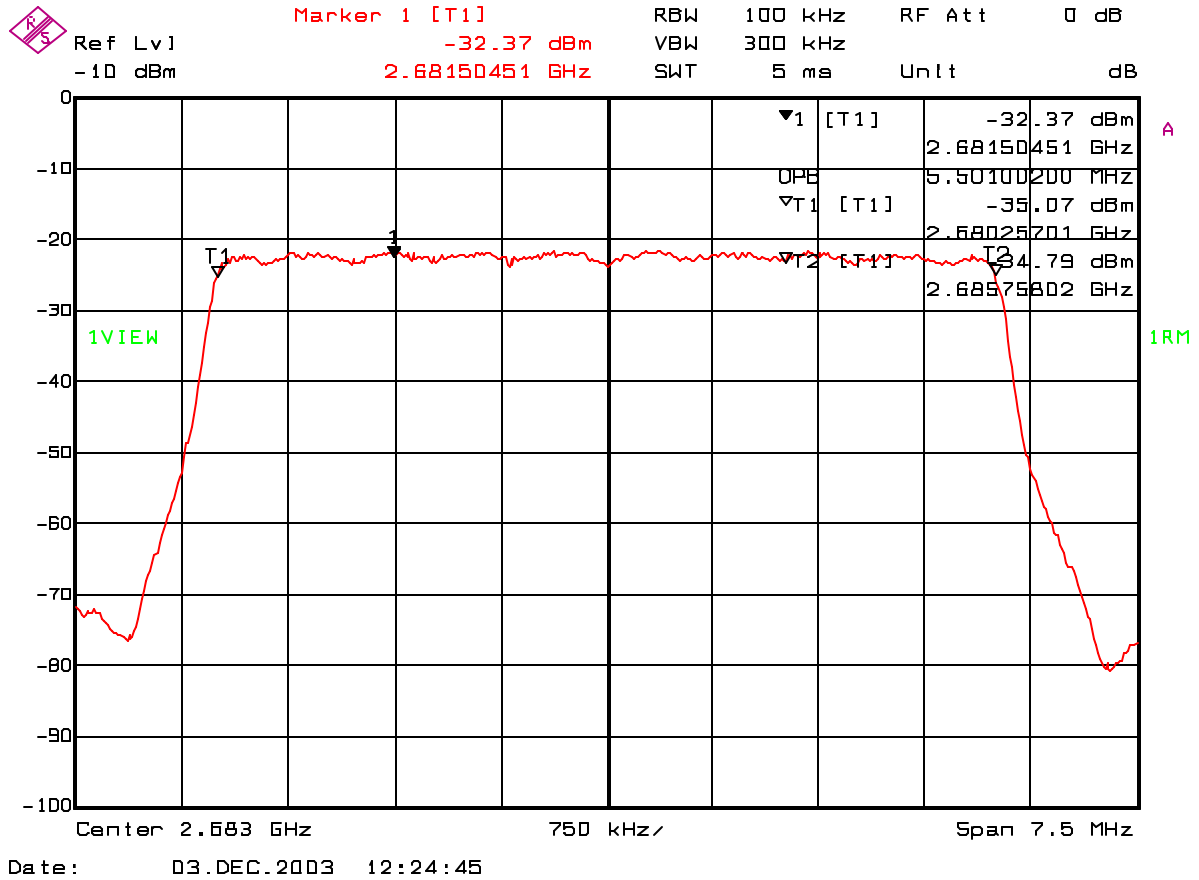
Occupied Bandwidth

Test Results: Channel 16, 2593 MHz
64 QAM
37 dBm / 5 watt



Occupied Bandwidth

Test Results: Channel 31, 2683 MHz
64 QAM
37 dBm / 5 watt



Spurious emissions at antenna terminals

Rule Part Number: 2.1051, 2.1049, 2.1057

Frequency Range = 9 kHz to 26.86 GHz

Attenuation (dB) below the power (W) supplied to the antenna transmission line

Attenuation = $43 + 10 \log P$, or 70 dBc, whichever is less stringent

Attenuation = $43 + 10 \log(2)$ = 46 dBc 2 watt transmit level

Attenuation = $43 + 10 \log(5)$ = 50 dBc 5 watt transmit level

Test Procedure: The Orthogonal Frequency Division Multiplexing (OFDM) modulated Time Division Duplex (TDD) RF signal from the test unit is applied to a spectrum analyzer thru 30 dB of attenuation. The transmission is recorded from 9 kHz to 26.5 GHz. The transmitter is enabled in test mode with the attached computer.

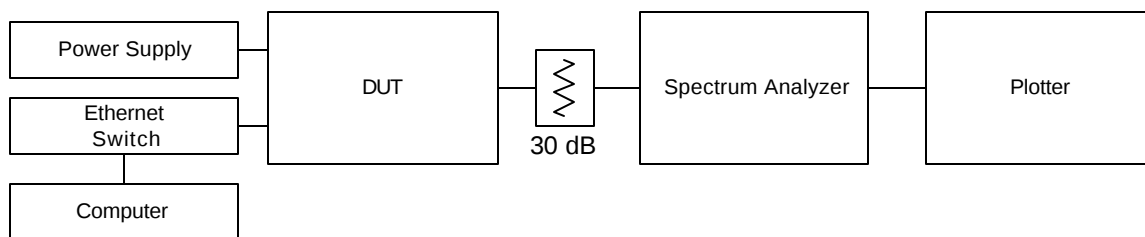
Test Conditions: Frequency = 2593 MHz
Temperature = 22°C
Supply Voltage = 120 Vac / 60 Hz

Spurious emissions at antenna terminals

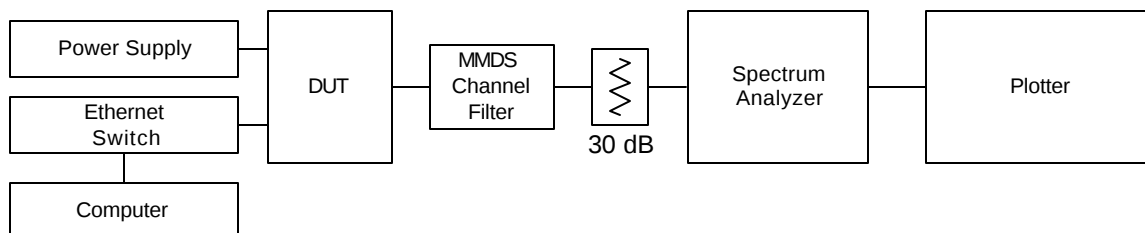
Test Equipment: CPE

Attenuator (30dB)	Weinschel Model: 37-30-34 Calibration not required
Spectrum Analyzer	Hewlett Packard HP8563E S/N: 3221A00143 Cal Date: 10-16-2003 Cal Due: 10-16-2005
Computer	Dell Inspiron 5000 Model: PPM S/N: 000832RM-12961-03N-3073
Ethernet Switch	D-Link Model: DSS-5+ 5 port 10/100Mbps S/N: B205335003051
Power Supply	Cherokee International, LLC Model: CRP500L1H-1A

Test Setup



2 watt power level

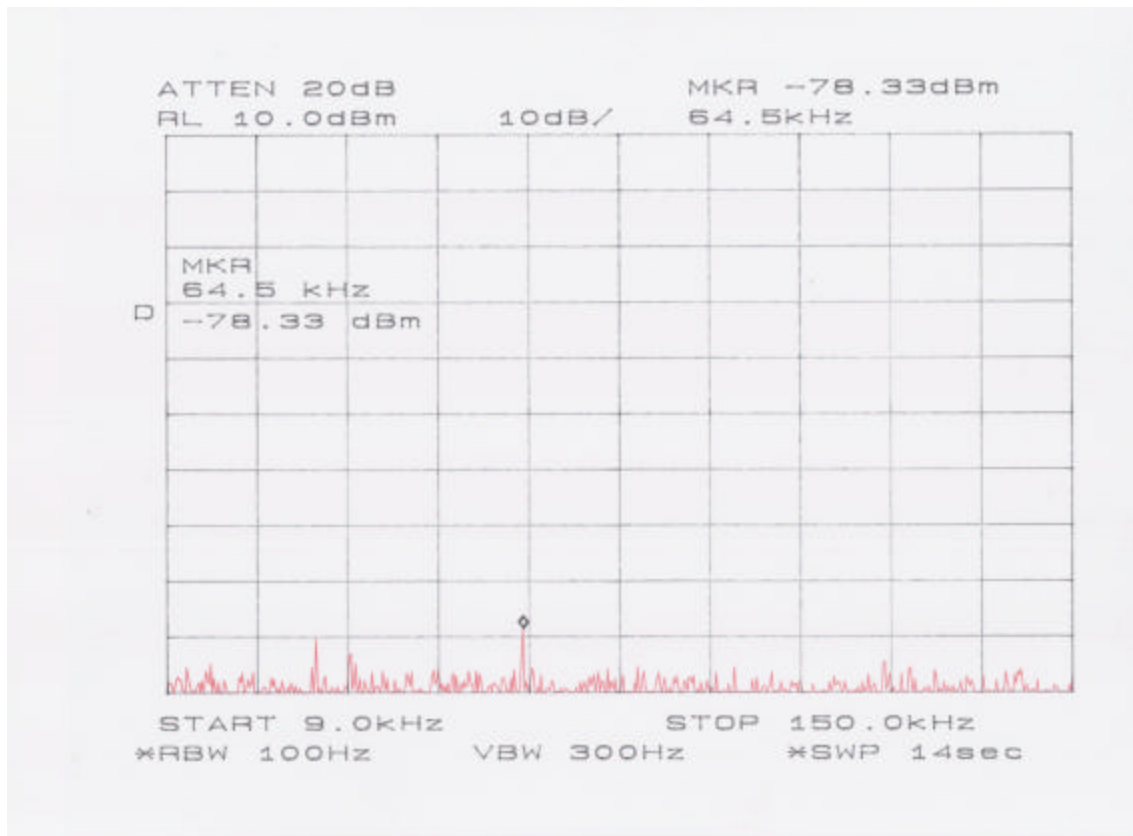


5 watt power level

Spurious emissions at antenna terminals

Test Results: The spectral measurement from 9 kHz to 150 kHz resulted in one observed spurious signal that is internal to the spectrum analyzer.

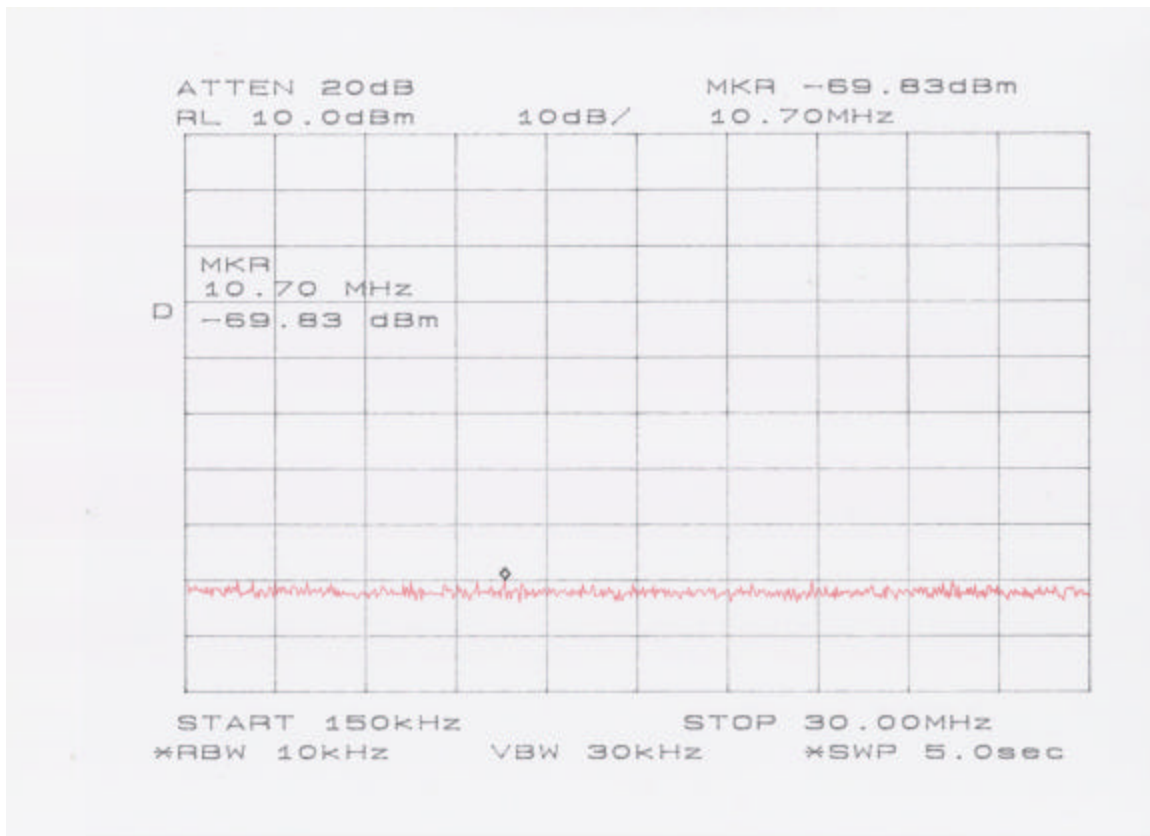
Channel 16, 2593 MHz (33 dBm / 2 Watts)
9 KHz – 150 KHz



Spurious emissions at antenna terminals

Test Results: The spectral measurement from 150 kHz to 30 MHz resulted in no observed spurious signals.

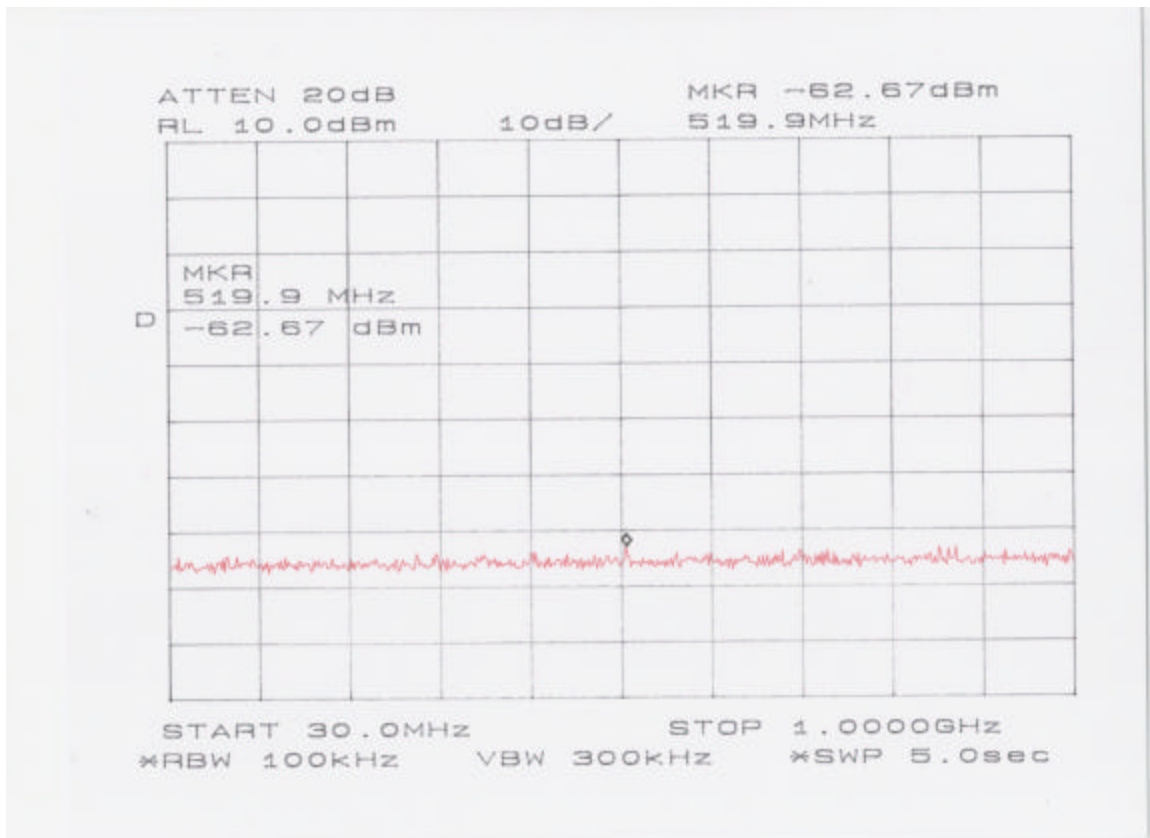
Channel 16, 2593 MHz (33 dBm / 2 Watts)
150 KHz – 30 MHz



Spurious emissions at antenna terminals

Test Results: The spectral measurement from 30 MHz to 1 GHz resulted in no observed spurious signals.

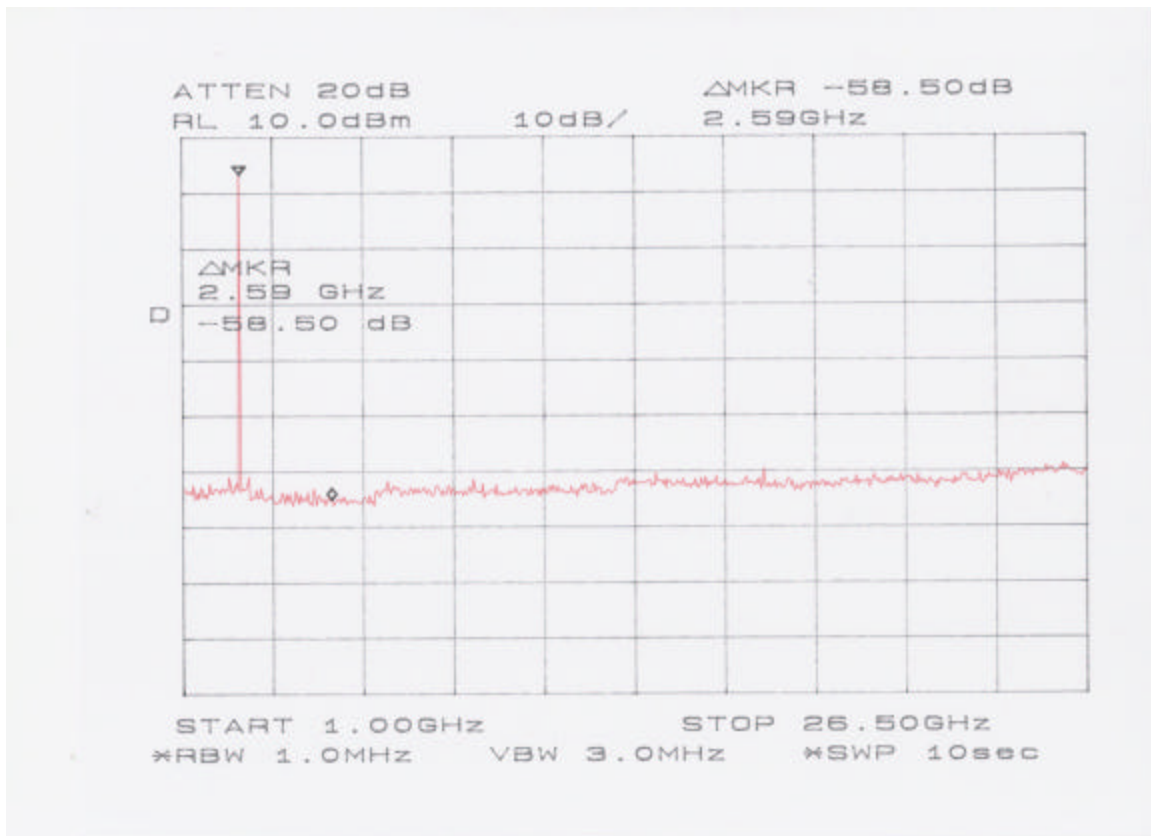
Channel 16, 2593 MHz (33 dBm / 2 Watts)
30 MHz – 1 GHz



Spurious emissions at antenna terminals

Test Results: The spectral measurement from 1 GHz to 26.5 GHz resulted in no observed spurious signals.

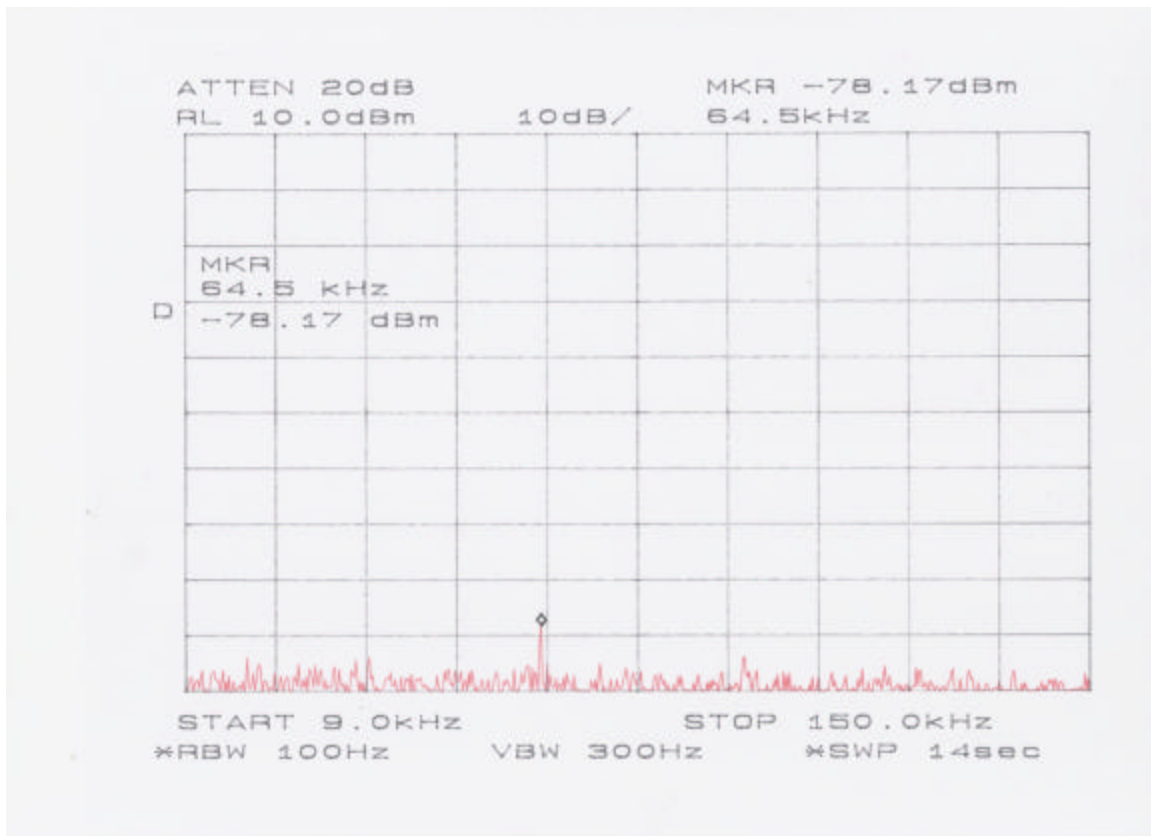
Channel 16, 2593 MHz (33 dBm / 2 Watts)
1 GHz – 26.5 GHz



Spurious emissions at antenna terminals

Test Results: The spectral measurement from 9 kHz to 150 kHz resulted in one observed spurious signal that is internal to the spectrum analyzer.

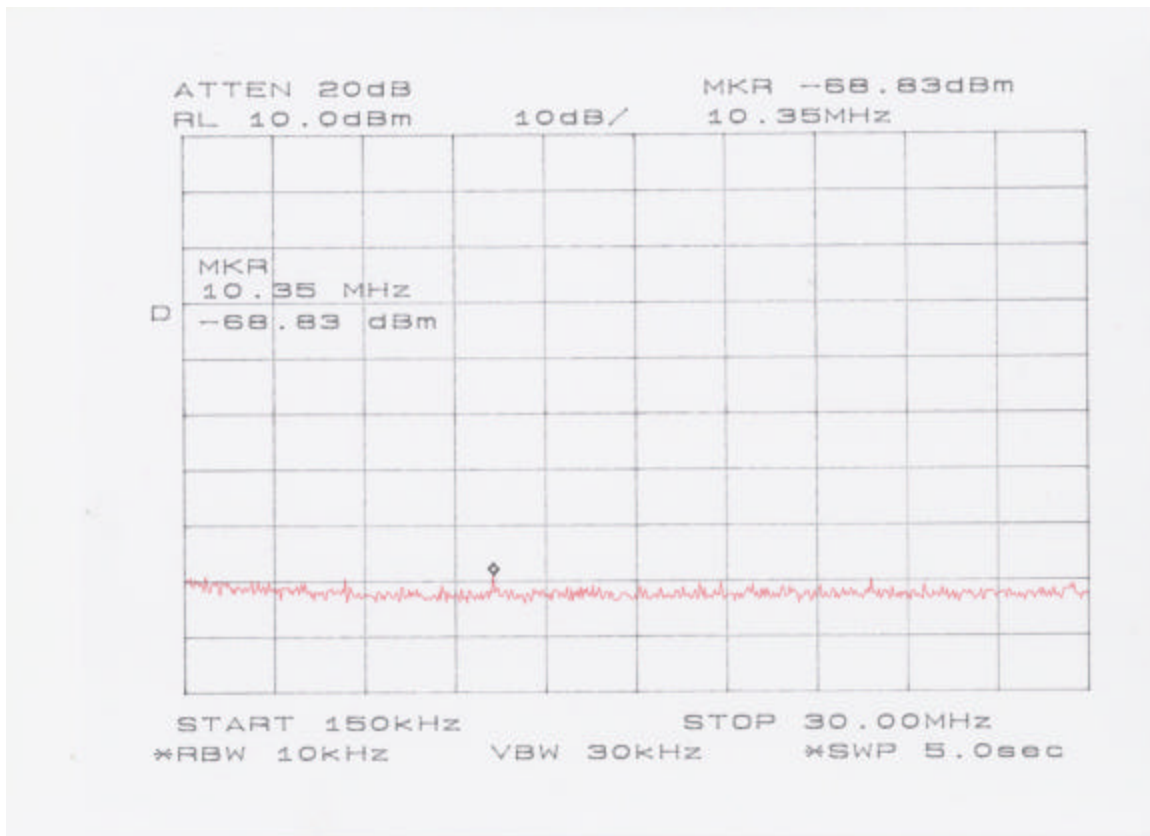
Channel 16, 2593 MHz (37 dBm / 5 Watts)
9 KHz – 150 KHz



Spurious emissions at antenna terminals

Test Results: The spectral measurement from 150 kHz to 30 MHz resulted in no observed spurious signals.

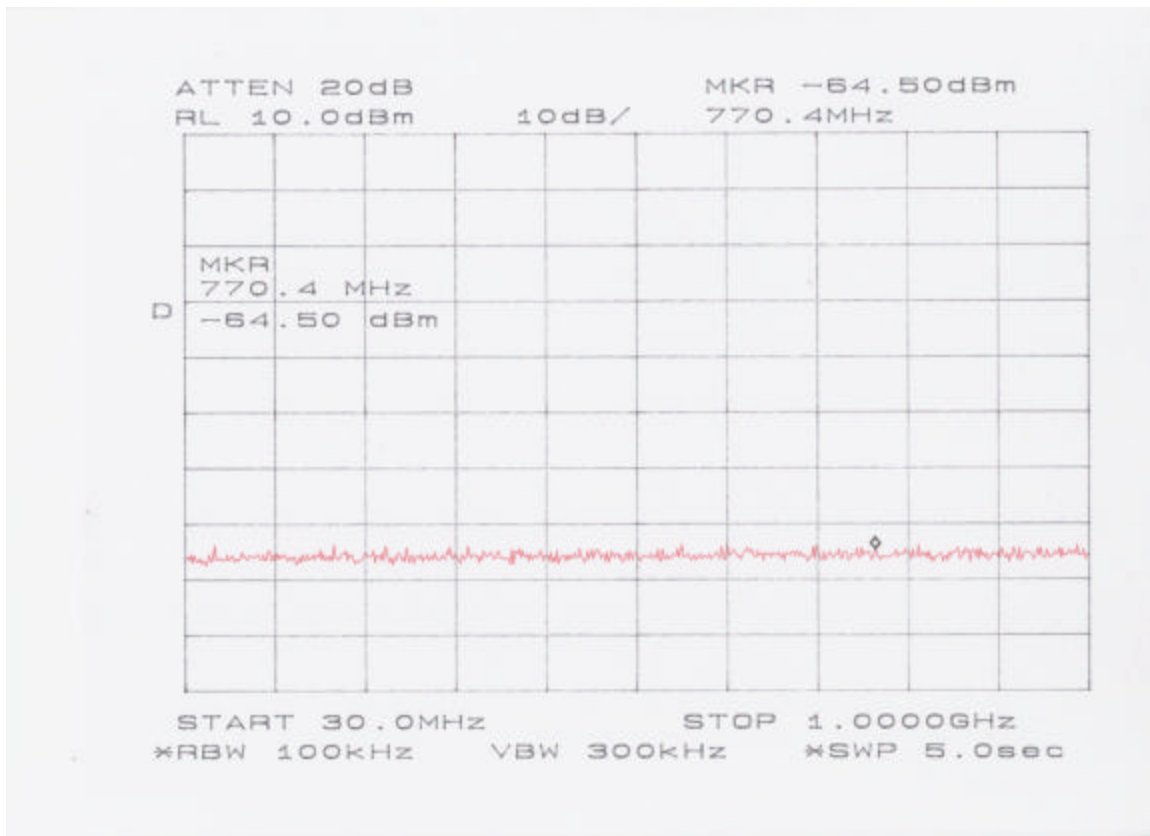
Channel 16, 2593 MHz (37 dBm / 5 Watts)
150 KHz – 30 MHz



Spurious emissions at antenna terminals

Test Results: The spectral measurement from 30 MHz to 1 GHz resulted in no observed spurious signals.

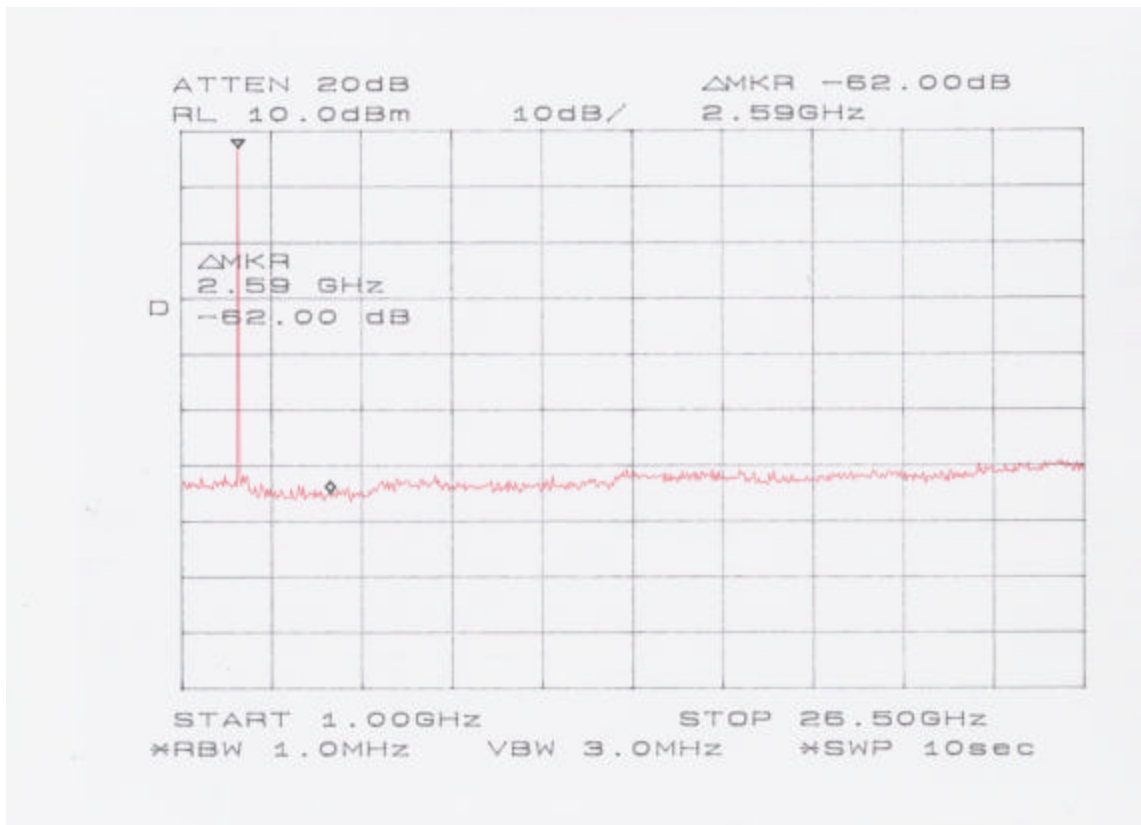
Channel 16, 2593 MHz (37 dBm / 5 Watts)
30 MHz – 1 GHz



Spurious emissions at antenna terminals

Test Results: The spectral measurement from 1 GHz to 26.5 GHz resulted in no observed spurious signals.

Channel 16, 2593 MHz (37 dBm / 5 Watts)
1 GHz – 26.5 GHz



Field strength of spurious radiation

Rule Part Number: 2.1053, 2.1049, 2.1057

Frequency Range = 30 MHz to 26.86 GHz
Case Radiation Attenuation = $43 + 10 \log P = -13$ dBm maximum

Test Procedure: The field strength of spurious radiation was measured at an open area test site with applicable measurement antennas, low noise amplifiers, and spectrum analyzers. Measurements were performed by TUV Product Service Inc – Taylors Falls on Oct 27, 2003. Spurious signals were maximized for peak level by rotation of the test unit and elevation of the measurement antenna. Verification of compliance to the emissions limit was accomplished by antenna substitution. Identified spurious signals between 30 MHz and 1000 MHz are measured with a 120 kHz/6 dB bandwidth and quasi-peak detection. Spurious signals above 1000 MHz are measured with a 1 MHz/6 dB bandwidth and peak detection.

Test Conditions: Channel 16
Tx power set for 5 watts
Frequency = 2593 MHz
Temperature = 25°C
Supply Voltage = 120 Vac / 60 Hz

Test Equipment: NextNet Wireless, Inc.

Computer	Dell Inspiron 5000 Model: PPM S/N: 000832RM-12961-03N-3073
Ethernet Switch	D-Link Model: DSS-5+ 5 port 10/100Mbps S/N: B205335003051
Power Supply	Cherokee International, LLC Model: CRP500L1H-1A
Transmitter Load	Inmet Corp TS180I-25W

Field strength of spurious radiation

Test Equipment: TUV Product Services



Emissions Test Conditions: RADIATED EMISSIONS (Electric Field)

The *RADIATED EMISSIONS (ELECTRIC FIELD)* measurements, in the frequency range of 30 MHz-1000 MHz, were tested in a horizontal and vertical polarization at the following test location:

☐ - Test not applicable

- ☒ - Wild River Lab Large Test Site (Open Area Test Site) – NSA measurements made 2-03, due 2-04.
- ☐ - Wild River Lab Small Test Site (Open Area Test Site)
- ☐ - Oakwood Lab (Open Area Test Site)

at a test distance of :

- ☒ - 3 meters
- ☐ - 10 meters
- ☐ - 30 meters

Test equipment used :

TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
☒ - 2668	8447D	Electro-Mechanics (EMCO)	Preamplifier	1937A02209	2-28-04
☒ - 2690	8566B	Hewlett-Packard	Spectrum Analyzer (Unit F)	2430A00930	12-02-03
☒ - 2673	85662A	Hewlett-Packard	Analyzer Display (Unit A)	2152A03687	4-16-03
☒ - 2684	85650A	Hewlett-Packard	Quasi-Peak Adapter (Unit F)	2521A01006	11-26-03
☒ - 3203	EM-6917B	Electro-Metrics	Biconical Log Periodic	106	3-18-04

All measurement instrumentation is traceable to the National Institute of Standards and Technology (NIST) and is calibrated annually.

Emissions Test Conditions: INTERFERENCE POWER

The *INTERFERENCE POWER* measurements were performed by using the absorbing clamp on the mains and interface cables in the frequency range 30 MHz - 300 MHz at the following test location:

☒ - Test not applicable

- ☐ - Wild River Lab Large Test Site (Open Area Test Site)
- ☐ - Wild River Lab Small Test Site (Open Area Test Site)
- ☐ - Oakwood Lab (Open Area Test Site)
- ☐ - Wild River Lab Screen Room
- ☐ - New Brighton Lab Shielded Room

File No. NC304850.2, Page 6 of 12

TUV PRODUCT SERVICE INC 19333 Wild Mountain Road Taylors Falls MN 55084-1758 Tel: 651 638 0297 Fax: 651 638 0286 Rev.No 1.0

Field strength of spurious radiation

Test Equipment: TUV Product Services



Emissions Test Conditions: RADIATED EMISSIONS (Electric Field)

The EQUIVALENT RADIATED EMISSIONS measurements in the frequency range 1 GHz - 12 GHz were performed in a horizontal and vertical polarization at the following test location:

☐ - Test not applicable

- ☒ - Wild River Lab Large Test Site (Open Area Test Site)
- ☐ - Wild River Lab Small Test Site (Open Area Test Site)
- ☐ - Oakwood Lab (Open Area Test Site)
- ☐ - Wild River Lab Screen Room

at a test distance of:

- ☐ - 1 meters
- ☒ - 3 meters
- ☐ - 10 meters

Test equipment used :

TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
■ - 2125	JCA018-504	JCA Technology	Preamplifier 400 MHz - 18 GHz	101A	8-15-04
■ - 2690	8566B	Hewlett-Packard	Spectrum Analyzer (Unit F)	2430A00930	12-02-03
■ - 2673	85662A	Hewlett-Packard	Analyzer Display (Unit A)	2152A03687	4-16-03
■ - 2684	85650A	Hewlett-Packard	Quasi-Peak Adapter (Unit F)	2521A01006	11-26-03
■ - 3203	EM-6917B	Electro-Metrics	Biological Periodic	106	3-18-04
■ - 2075	3115	Electro-Mechanics (EMCO)	Ridge Guide Ant. 1-18 GHz	9001-3275	11-13-03
■ - 3957	SL18B4020	Phase One Microwave	Preamplifier 2 - 18 GHz	0001	9-23-04

All measurement instrumentation is traceable to the National Institute of Standards and Technology (NIST) and is calibrated annually.

File No. NC304850.2, Page 7 of 12

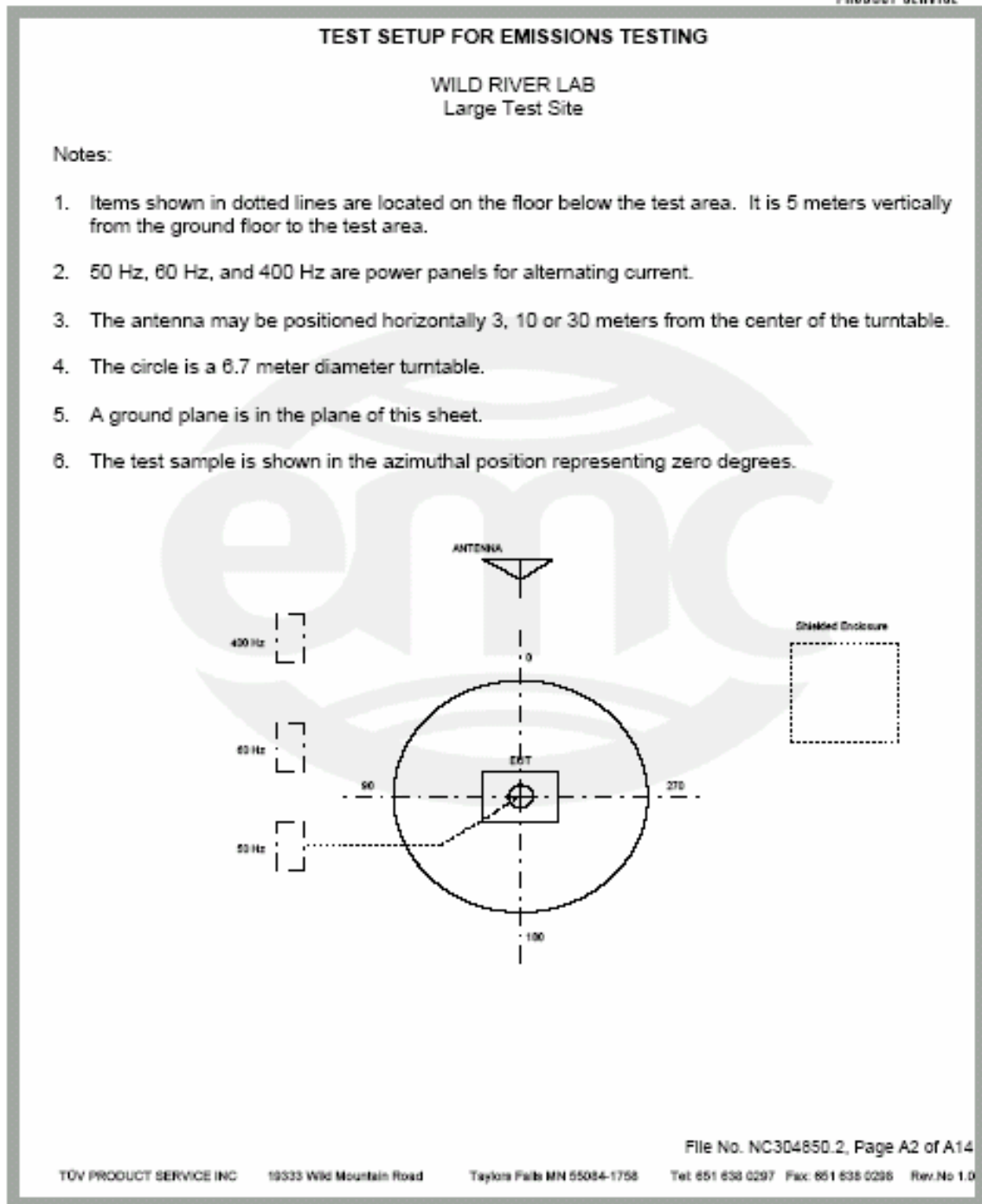
TUV PRODUCT SERVICE INC 19333 Wild Mountain Road Taylors Falls MN 55084-1758 Tel: 651 638 0297 Fax: 651 638 0298 Rev.No 1.0

NextNet Wireless, Inc
9555 James Ave. South Suite 270
Bloomington, MN 55431

12/05/2003

Field strength of spurious radiation

Test Setup: TUV Product Services



Field strength of spurious radiation

RADIATED EMISSIONS



Test Report #:	NC304850 Run 6	Test Area:	LTS
EUT Model #:	BASE-2	Date:	10/24/03
EUT Serial #:		EUT Power:	60HZ/110VAC
Test Method:	FCC PART 2	Temperature:	22.0 °C
Customer:	NEXNET WIRELESS	Air Pressure:	70.0 kPa
EUT Description:	WIRELESS ETHERNET TRANSMITTER		
Notes:			
Data File Name:	4850.dat	Page:	4 of 4

Measurement summary for limit1:						
FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL dBm	DELTA From Limit (-13dBm)
64.787 MHz	57.0 Qp	0.7 / 10.4 / 25.2 / 0.0	42.9	V / 1.00 / 270	-51.0	-38.0
88.188 MHz	63.16 Qp	0.8 / 7.57 / 25.3 / 0.0	46.23	V / 1.00 / 0	-47.7	-34.7
77.621 MHz	54.1 Qp	0.76 / 7.87 / 25.3 / 0.0	37.43	H / 1.00 / 180	-56.5	-43.5
195.859 MHz	52.7 Qp	1.19 / 11.3 / 25.1 / 0.0	40.09	H / 1.00 / 183	-53.8	-40.8
110.88 MHz	51.7 Qp	0.9 / 9.3 / 25.47 / 0.0	36.43	V / 1.00 / 90	-57.5	-44.5
223.862 MHz	51.2 Qp	1.28 / 11.0 / 24.92 / 0.0	38.57	H / 1.00 / 180	-55.4	-42.4
207.189 MHz	48.3 Qp	1.2 / 10.9 / 25.03 / 0.0	35.37	H / 1.00 / 180	-58.6	-45.6
332.267 MHz	45.65 Qp	1.65 / 14.43 / 24.6 / 0.0	37.13	H / 1.00 / 0	-56.8	-43.8
391.888 MHz	43.95 Qp	1.7 / 15.7 / 24.61 / 0.0	36.74	H / 1.00 / 270	-57.2	-44.2
251.861 MHz	47.75 Qp	1.35 / 11.94 / 24.75 / 0.0	36.3	H / 1.00 / 180	-57.6	-44.6
359.872 MHz	42.3 Qp	1.7 / 15.1 / 24.67 / 0.0	34.43	V / 1.00 / 0	-59.5	-46.6
133.901 MHz	46.75 Qp	0.94 / 8.4 / 25.46 / 0.0	30.63	V / 1.00 / 0	-63.3	-50.3
363.862 MHz	40.1 Qp	1.7 / 15.1 / 24.68 / 0.0	32.22	H / 1.00 / 270	-61.7	-48.7
179.878 MHz	44.05 Qp	1.1 / 9.54 / 25.1 / 0.0	29.59	H / 1.00 / 180	-64.3	-51.6
719.862 MHz	32.55 Qp	2.4 / 21.0 / 24.5 / 0.0	31.45	V / 1.00 / 0	-62.5	-49.5

Tested by: RMJ

Printed

Signature

Reviewed by: TKS

Printed

Signature

File No. NC304850.2, Page A14 of A14

Frequency Stability

Rule Part Number: 2.1055, 21.101(a), 74.961(a)

Stability Requirements: 0.001 % or 10 ppm

Test Procedure: The local oscillator signal that drives the transmit modulator was lightly coupled onto an RF probe and applied to a spectrum analyzer. The frequency of the RF VCO was monitored and recorded for changes due to temperature change and input voltage.

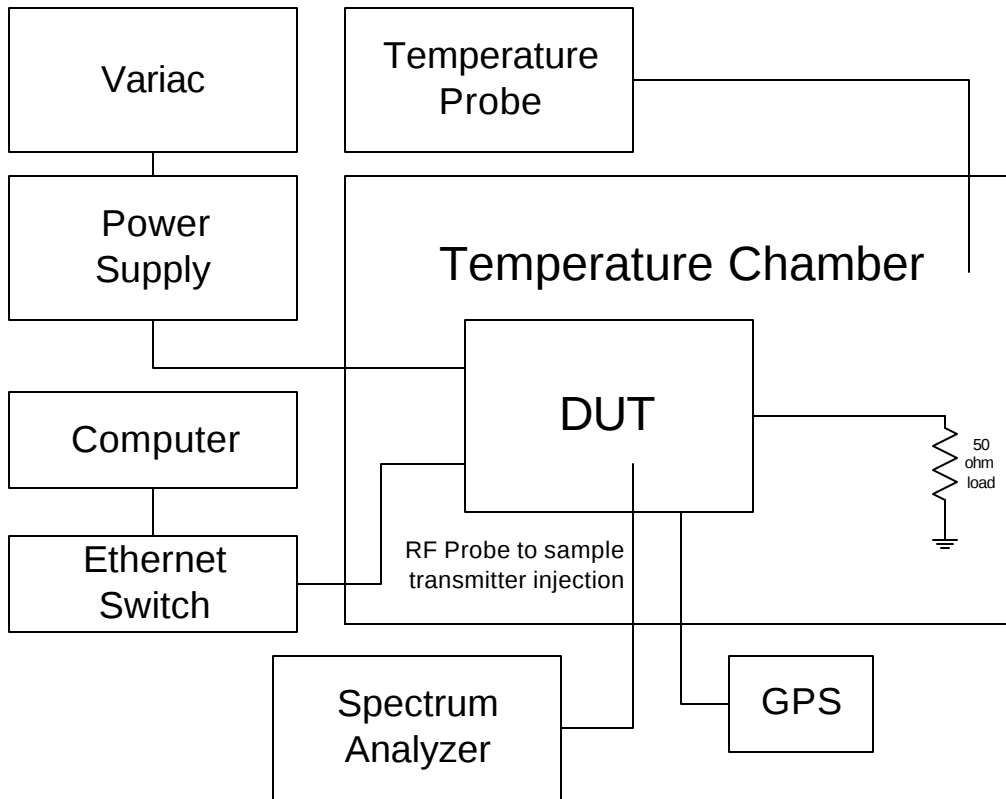
Test Conditions: Standard Test Conditions

Test Equipment:

DVM	Fluke 87 III Calibration not required
Spectrum Analyzer	Hewlett Packard HP8563E S/N: 3221A00143 Cal Date: 10-16-2003 Cal Due: 10-16-2005
GPS	Trimble Acutime 2000 S/N: 12002702
Temperature Chamber	Test Equity 1000 Series Calibration not required
Temperature Sensor	Fluke 89 IV True RMS Multimeter K-Type thermocouple Calibration not required
Computer	Dell Inspiron 5000 Model: PPM S/N: 000832RM-12961-03N-3073
Ethernet Switch	D-Link Model: DSS-5+ 5 port 10/100Mbps S/N: B205335003051
Power Supply	Cherokee International, LLC Model: CRP500L1H-1A
Variac	Lafayette Radio Electronics Corp. NO. TR-115

Frequency Stability

Test Set-Up:



Frequency Stability

Test Conditions: Frequency = 2593 MHz
Supply Voltage = 120 Vac / 60 Hz

2.1055(a) The frequency stability shall be measured with variation of ambient temperature as follows:

(1) From -30° to +50° centigrade for all equipment except that specified in paragraphs (a) (2) and (3) of this section.

2.1055(b) Frequency measurements shall be made at the extremes of the specified temperature range and at intervals of not more than 10° centigrade through the range.

Test Results: Temperature Variation

Without GPS				
Temperature (°C)	Frequency (Hz)	Frequency Error (Hz)	Frequency Error (%)	Frequency Error (ppm)
-30	2592997020	-2980	-0.000115	-1.149
-20	2592999400	-600	-0.000023	-0.231
-10	2592999730	-270	-0.000010	-0.104
0	2592999420	-580	-0.000022	-0.224
10	2592998880	-1120	-0.000043	-0.432
20	2592998030	-1970	-0.000076	-0.760
25	2592997920	-2080	-0.000080	-0.802
30	2592997730	-2270	-0.000088	-0.875
40	2592998120	-1880	-0.000073	-0.725
50	2592998850	-1150	-0.000044	-0.444
60	2592999870	-130	-0.000005	-0.050

With GPS				
Temperature (°C)	Frequency (Hz)	Frequency Error (Hz)	Frequency Error (%)	Frequency Error (ppm)
-30	2593000050	50	0.000002	0.019
-20	2593000042	42	0.000002	0.016
-10	2593000050	50	0.000002	0.019
0	2593000050	50	0.000002	0.019
10	2593000050	50	0.000002	0.019
20	2593000042	42	0.000002	0.016
25	2593000042	42	0.000002	0.016
30	2593000050	50	0.000002	0.019
40	2593000042	42	0.000002	0.016
50	2593000042	42	0.000002	0.016
60	2593000042	42	0.000002	0.016

Frequency Stability

Test Conditions: Frequency = 2593 MHz
Temperature = 20°C

(d) The frequency stability shall be measured with variation of primary supply voltage as follows:
(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

Test Results: Supply Voltage Variation

Source Input
Voltage Specification: 120 Vac / 60 Hz

Without GPS				
Source Voltage (VAC)	Frequency (Hz)	Frequency Error (Hz)	Frequency Error (%)	Frequency Error (ppm)
102.0	2592997771	-2229	-0.000086	-0.860
106.5	2592997771	-2229	-0.000086	-0.860
111.0	2592997771	-2229	-0.000086	-0.860
115.5	2592997771	-2229	-0.000086	-0.860
120.0	2592997771	-2229	-0.000086	-0.860
124.5	2592997771	-2229	-0.000086	-0.860
129.0	2592997771	-2229	-0.000086	-0.860
133.5	2592997771	-2229	-0.000086	-0.860
138.0	2592997771	-2229	-0.000086	-0.860

With GPS				
Source Voltage (VAC)	Frequency (Hz)	Frequency Error (Hz)	Frequency Error (%)	Frequency Error (ppm)
102.0	2593000042	42	0.000002	0.016
106.5	2593000042	42	0.000002	0.016
111.0	2593000042	42	0.000002	0.016
115.5	2593000042	42	0.000002	0.016
120.0	2593000042	42	0.000002	0.016
124.5	2593000042	42	0.000002	0.016
129.0	2593000042	42	0.000002	0.016
133.5	2593000042	42	0.000002	0.016
138.0	2593000042	42	0.000002	0.016