

# Section 5

# Test Report

# Part 1

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### Test Equipment List

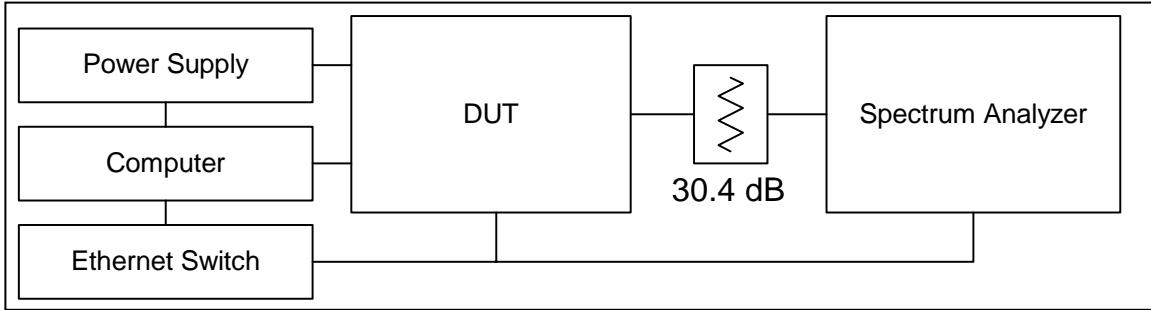
Test Equipment	Description
DUT	NextNet Wireless Base Transceiver Station Model No. BTS-2500-E S/N 0103X046RBAX15744632 RF Board S/N 0150-0100-6020210 Logic Board S/N 0150-0250-6040731 PS Board S/N 0200-0050-5510071
Spectrum Analyzer	Agilent E4440A S/N: MY44022791 Calibrated: 05/30/2004 Calibration due: 05/30/2006
Attenuator/Coaxial Cable (all applicable tests except harmonic frequencies and peak conducted power)	Calibrated by user MCE/Weinschel Attenuator 30 dB, 10W Model: 37-30-34, S/N. BN 9845 Calibrated by user
Attenuator/Coaxial Cable (peak conducted power)	Calibrated by user Aeroflex/Weinschel Attenuator 30 dB, 10W Model: 23-30-34, S/N. BR3252 Calibrated by user
Filter/Attenuator Assembly (harmonic frequency test only)	High Pass Filter 4-18 GHz, P/N H04G18G2, S/N 89099 Microwave Circuits 20 dB/10W Attenuator, MCE/Weinschel Model: 23-20-34, S/N BP4391 Calibrated by user
Computer	Dell Inspiron 5000 Model: PPM S/N: 000832RM-12961-04R-0441 Calibration not required
Ethernet Switch	D-Link Model: DSS-5+ 5 port 10/100Mbps S/N: B205335003173 Calibration not required
Power Supply 48V (All Tests Except Frequency Stability)	Lambda Model JWS600-48 S/N VVG-158C02-0082W050 Supply voltage verified with Digital Voltmeter listed below
Power Supply (Frequency Stability Test Only)	Agilent 6544A 0-60VDC S/N: US36390304 Calibrated with voltmeter listed below.

### Test Equipment List (Cont'd)

Test Equipment	Description
Digital Voltmeter	HP 34401A S/N: MY45001201 Calibrated: 4-9-2005 Calibration due: 4-9-2007
Temperature Chamber	Test Equity (W) 1000 Series Temperature verified with K-Type thermocouple listed below.
Temperature Sensor	Fluke 89 IV True RMS Multimeter K-Type Thermocouple
Radiation Hazard Meter	General Microwave Corporation RAHAM Model 3 Calibrated: 10-20-2005 Calibration due: 10-20-2007

## RF Power Output

FCC Rules:	2.1046, 27.50(h)(1), 27.50(i)
IC Rules:	RSS-193 clauses 3.2(f), 3.4, 4.3 SRSP-302.5 clause 5.2
FCC Requirement:	33 dBW EIRP (5.5 MHz or 6.0 MHz channel BW)
IC Requirement:	20 watts conducted in 6 MHz bandwidth 24.2 dBW in any 1 MHz bandwidth EIRP
Standard:	TIA-603-C TIA Standard, Land Mobile FM or PM Communications Equipment, Measurement and Performance Standards
Test Procedure:	The radiated power of the base station is calculated from the maximum antenna gain and the conducted power available at the antenna port. The peak conducted RF output power is measured over an interval of continuous transmission using a spectrum analyzer that has been calibrated in terms of rms-equivalent voltage. The peak power was recorded by utilizing the power measurement function within the spectrum analyzer. The RF output of the transmitter is applied to an attenuator that is connected to the spectrum analyzer RF input port. The transmitter is enabled in test mode and set to the maximum power level available with the attached computer. The RF loss of the attenuators and coax has been measured and is included in the spectrum analyzer offset level. The RF loss for the minimum power is noted on the test setup block diagram. Measurements are performed at several frequencies across the band for each of the modulation formats available (4-, 16-, and 64-QAM) and channel bandwidths (5.5 MHz and 6.0 MHz). RF power is calibrated at the antenna port, the channel filter that is required for emissions compliance is not used for this test since the 5.5 watts is the power applied to the channel filter.
Test Conditions:	Test Frequencies: 2503, 2593, 2689 MHz (2 and 5.5 watts, 5.5 and 6.0 MHz bandwidth) Temperature = 25°C Supply Voltage = 48.0 VDC Nominal to DUT



**2W and 5.5W Conducted RF Power Test Setup**

### Maximum (2W) Conducted RF Output Test Results

2W Maximum Conducted Power							
Freq (MHz)	Bandwidth	QPSK		16 QAM		64 QAM	
		(dBm)	(Watts)	(dBm)	(Watts)	(dBm)	(Watts)
2503	6.0 MHz	32.99	1.99	32.97	1.98	32.89	1.95
2593	6.0 MHz	32.88	1.94	32.95	1.97	32.94	1.97
2689	6.0 MHz	32.13	1.63	32.28	1.69	32.23	1.67
2503	5.5 MHz	32.73	1.87	32.61	1.82	32.70	1.86
2593	5.5 MHz	32.56	1.80	33.0	2.00	32.70	1.86
2689	5.5 MHz	32.75	1.88	32.75	1.88	32.73	1.87

### Maximum (5.5W) Conducted RF Output Test Results

5.5W Maximum Conducted Power							
Freq (MHz)	Bandwidth	QPSK		16 QAM		64 QAM	
		(dBm)	(Watts)	(dBm)	(Watts)	(dBm)	(Watts)
2503	6.0 MHz	37.37	5.46	37.05	5.07	37.14	5.18
2593	6.0 MHz	37.31	5.38	37.37	5.46	37.29	5.36
2689	6.0 MHz	36.53	4.50	36.28	4.25	36.27	4.24
2503	5.5 MHz	37.11	5.14	37.36	5.45	37.02	5.04
2593	5.5 MHz	36.96	4.97	37.04	5.06	37.07	5.09
2689	5.5 MHz	37.08	5.11	36.97	4.98	37.34	5.42

### Minimum Conducted RF Output Test Results

1 mW Minimum Conducted Power							
Freq (MHz)	Bandwidth	QPSK		16 QAM		64 QAM	
		(dBm)	(Watts)	(dBm)	(Watts)	(dBm)	(Watts)
2503	6.0 MHz	-0.01	0.00100	0.0	0.00100	-0.01	0.00100
2593	6.0 MHz	-0.23	0.00095	-0.23	0.00095	-0.24	0.00095
2689	6.0 MHz	0.86	0.00122	0.86	0.00122	0.86	0.00122
2503	5.5 MHz	0.0	0.00100	-0.01	0.00100	0.01	0.00100
2593	5.5 MHz	-0.22	0.00095	-0.22	0.00095	-0.22	0.00095
2689	5.5 MHz	0.87	0.86000	0.86	0.00122	0.87	0.00122

## RF Power Output (Cont'd)

Test Conclusions: 2-watt Tx power setting (for maximum antenna gain of 19 dBi)

### Vertically or Horizontally Polarized Antenna

RF Power Output = 33 dBm (5.5 MHz or 6.0 MHz channel BW)

Vertical Antenna Gain = 19 dBi

Transmitted Power = RF Power + Isotropic Antenna Gain

Transmitted Power = 33 + 19 = 52 dBm = 158.49 Watts EIRP

(FCC)

Transmitted Power =  $10 \cdot \log(158.49) = 22$  dBW EIRP

Convert to power in 1 MHz BW

$(158.49/6 \times 10^6) \cdot 1 \times 10^6 = 26.42$  Watts EIRP / 1 MHz

(IC)

Transmitted Power =  $10 \cdot \log(26.42) = 14.22$  dBW/1 MHz EIRP

Pass: Transmitted Power Output Requirement at 2 watt setting

Test Conclusions: 5.5-watt Tx power setting (for maximum antenna gain of 19 dBi)

### Vertically or Horizontally Polarized Antenna

RF Power Output = 37.4 dBm (5.5 MHz or 6.0 MHz channel BW)

Vertical Antenna Gain = 19 dBi

Transmitted Power = RF Power + Isotropic Antenna Gain

Transmitted Power = 37.4 + 19 = 56.4 dBm = 436.5 Watts EIRP

(FCC)

Transmitted Power =  $10 \cdot \log(436.5) = 26.4$  dBW EIRP

Convert to power in 1 MHz BW

$(436.5/6 \times 10^6) \cdot 1 \times 10^6 = 72.75$  Watts EIRP / 1 MHz

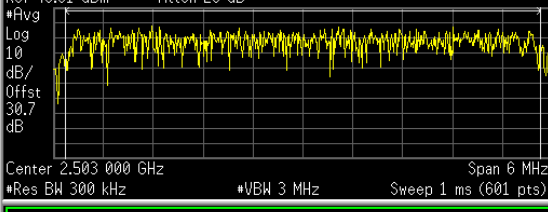
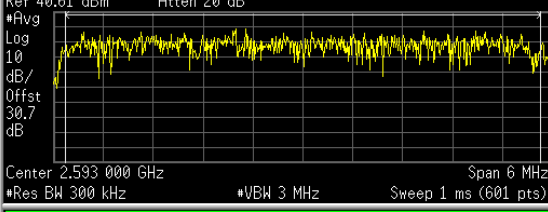
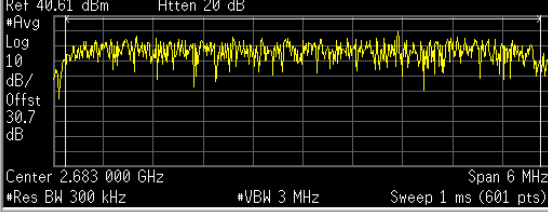
(IC)

Transmitted Power =  $10 \cdot \log(72.75) = 18.62$  dBW/1 MHz EIRP

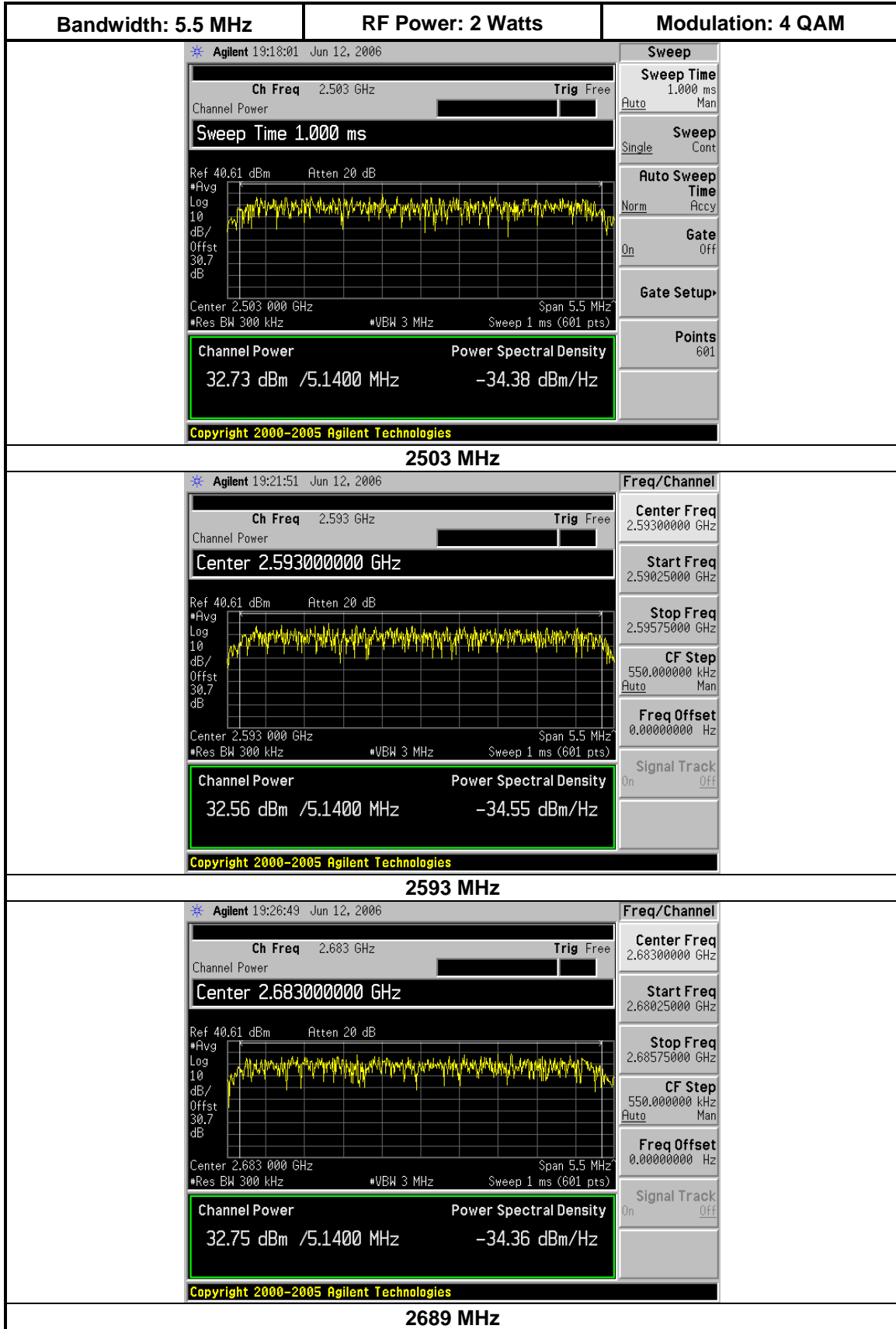
Pass: Transmitted Power Output Requirement at 5.5 watt setting

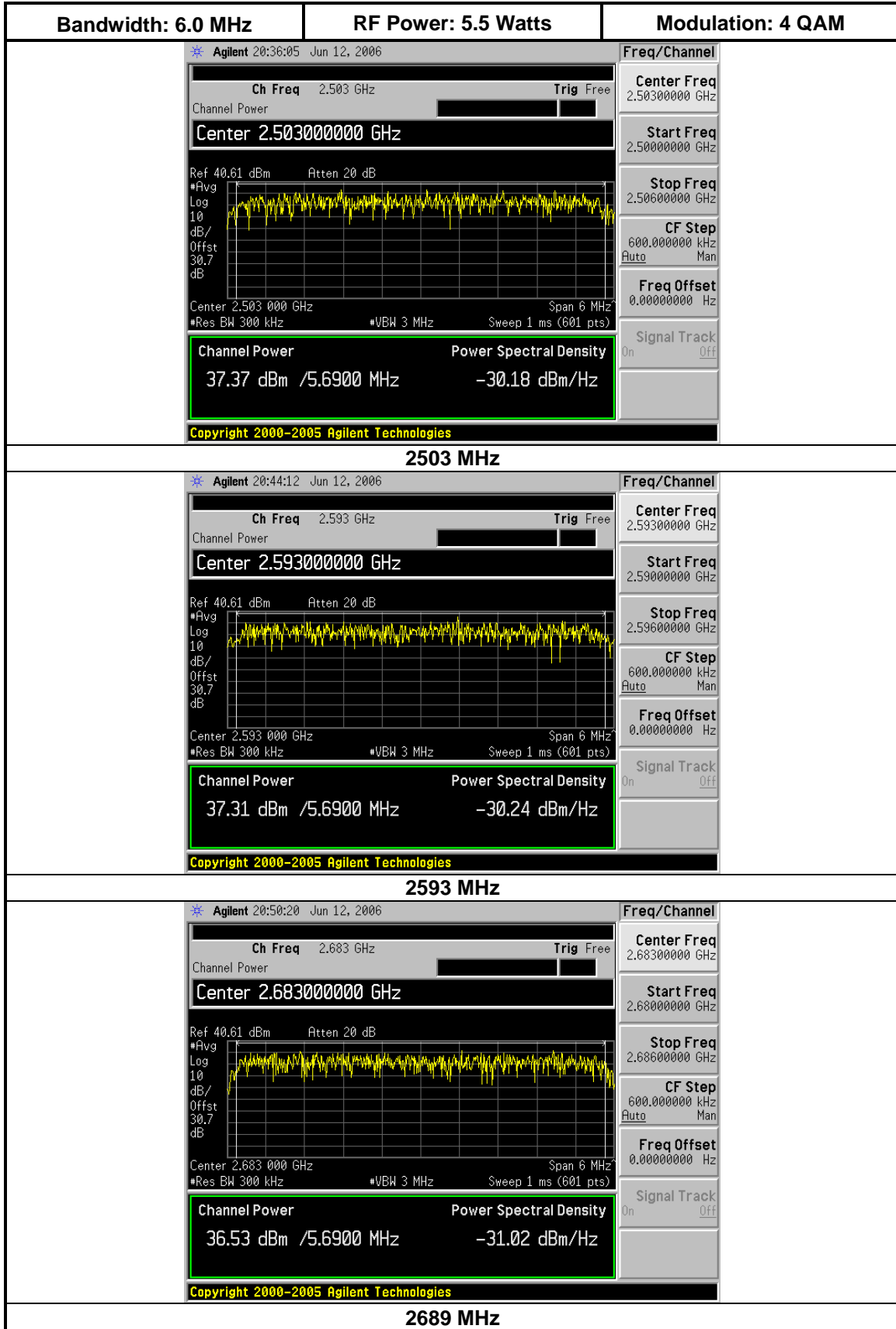
## Conducted RF Power Output Plots

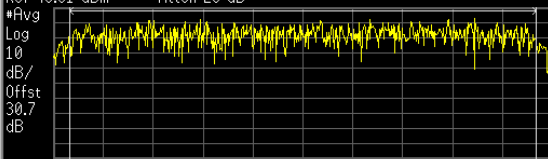
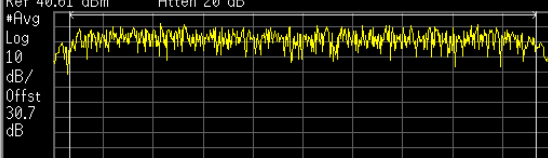
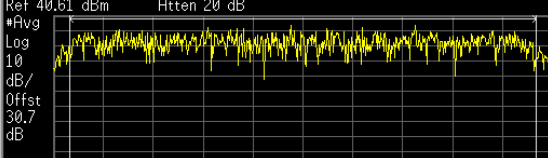
*NOTE: The following are spectrum analyzer plots of the 4 QAM data in the preceding tables. The plots for the 16 and 64 QAM modulation levels are similar and are located in the Appendix.*

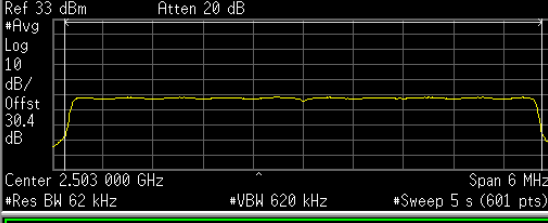
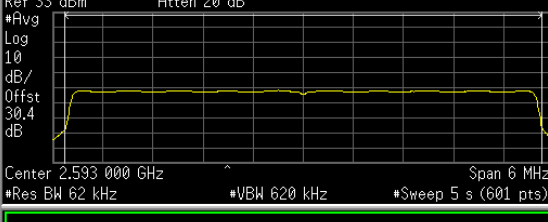
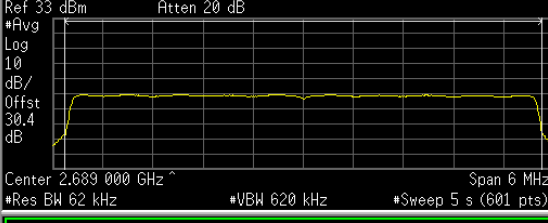
Bandwidth: 6.0 MHz	RF Power: 2 Watts	Modulation: 4 QAM
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 19:33:07 Jun 12, 2006</p> <p>Ch Freq 2.503 GHz Trig Free</p> <p>Channel Power</p> <p><b>Center 2.503000000 GHz</b></p> <p>Ref 40.61 dBm Atten 20 dB</p>  <p>Center 2.503 000 GHz Span 6 MHz #Res BW 300 kHz #VBW 3 MHz Sweep 1 ms (601 pts)</p> <p><b>Channel Power</b>      <b>Power Spectral Density</b> 32.99 dBm /5.6900 MHz      -34.56 dBm/Hz</p> <p>Copyright 2000-2005 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.50300000 GHz</p> <p>Start Freq 2.50000000 GHz</p> <p>Stop Freq 2.50600000 GHz</p> <p>CF Step 600.000000 kHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>		
<b>2503 MHz</b>		
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 20:37:17 Jun 12, 2006</p> <p>Ch Freq 2.593 GHz Trig Free</p> <p>Channel Power</p> <p><b>Center 2.593000000 GHz</b></p> <p>Ref 40.61 dBm Atten 20 dB</p>  <p>Center 2.593 000 GHz Span 6 MHz #Res BW 300 kHz #VBW 3 MHz Sweep 1 ms (601 pts)</p> <p><b>Channel Power</b>      <b>Power Spectral Density</b> 32.88 dBm /5.6900 MHz      -34.67 dBm/Hz</p> <p>Copyright 2000-2005 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.59300000 GHz</p> <p>Start Freq 2.59000000 GHz</p> <p>Stop Freq 2.59600000 GHz</p> <p>CF Step 600.000000 kHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>		
<b>2593 MHz</b>		
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 20:49:37 Jun 12, 2006</p> <p>Ch Freq 2.683 GHz Trig Free</p> <p>Channel Power</p> <p><b>Center 2.683000000 GHz</b></p> <p>Ref 40.61 dBm Atten 20 dB</p>  <p>Center 2.683 000 GHz Span 6 MHz #Res BW 300 kHz #VBW 3 MHz Sweep 1 ms (601 pts)</p> <p><b>Channel Power</b>      <b>Power Spectral Density</b> 32.13 dBm /5.6900 MHz      -35.43 dBm/Hz</p> <p>Copyright 2000-2005 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.68300000 GHz</p> <p>Start Freq 2.68000000 GHz</p> <p>Stop Freq 2.68600000 GHz</p> <p>CF Step 600.000000 kHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>		
<b>2689 MHz</b>		

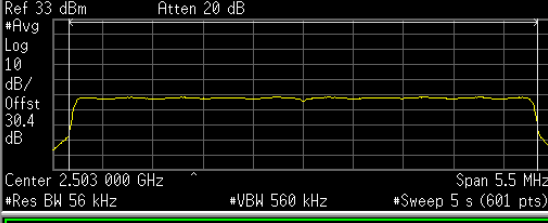
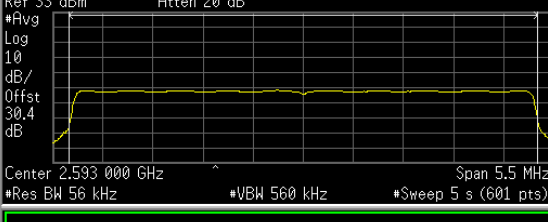
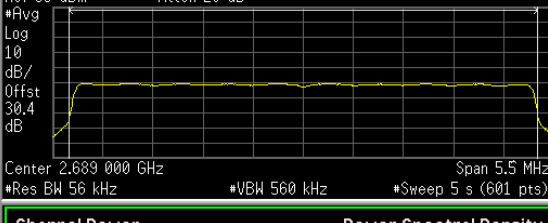






Bandwidth: 5.5 MHz	RF Power: 5.5 Watts	Modulation: 4 QAM
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 19:21:08 Jun 12, 2006</p> <p>Ch Freq 2.503 GHz Trig Free</p> <p>Channel Power</p> <p>Sweep Time 1.000 ms</p> <p>Ref 40.61 dBm Atten 20 dB</p>  <p>Center 2.503 000 GHz Span 5.5 MHz #Res BW 300 kHz #VBW 3 MHz Sweep 1 ms (601 pts)</p> <p><b>Channel Power</b>      <b>Power Spectral Density</b> 37.11 dBm /5.1400 MHz      -30.00 dBm/Hz</p> <p>Copyright 2000-2005 Agilent Technologies</p> </div> <div style="width: 35%; border-left: 1px solid black; padding-left: 5px;"> <p><b>Sweep</b></p> <p>Sweep Time 1.000 ms Auto Man</p> <p><b>Sweep</b></p> <p>Single Cont</p> <p><b>Auto Sweep</b></p> <p>Time Norm Accy</p> <p><b>Gate</b></p> <p>On Off</p> <p><b>Gate Setup</b></p> <p><b>Points</b> 601</p> </div> </div>		
<b>2503 MHz</b>		
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 19:26:01 Jun 12, 2006</p> <p>Ch Freq 2.593 GHz Trig Free</p> <p>Channel Power</p> <p>Center 2.593000000 GHz</p> <p>Ref 40.61 dBm Atten 20 dB</p>  <p>Center 2.593 000 GHz Span 5.5 MHz #Res BW 300 kHz #VBW 3 MHz Sweep 1 ms (601 pts)</p> <p><b>Channel Power</b>      <b>Power Spectral Density</b> 36.96 dBm /5.1400 MHz      -30.15 dBm/Hz</p> <p>Copyright 2000-2005 Agilent Technologies</p> </div> <div style="width: 35%; border-left: 1px solid black; padding-left: 5px;"> <p><b>Freq/Channel</b></p> <p>Center Freq 2.59300000 GHz</p> <p>Start Freq 2.59025000 GHz</p> <p>Stop Freq 2.59575000 GHz</p> <p>CF Step 550.000000 kHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>		
<b>2593 MHz</b>		
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 19:30:54 Jun 12, 2006</p> <p>Ch Freq 2.683 GHz Trig Free</p> <p>Channel Power</p> <p>Center 2.683000000 GHz</p> <p>Ref 40.61 dBm Atten 20 dB</p>  <p>Center 2.683 000 GHz Span 5.5 MHz #Res BW 300 kHz #VBW 3 MHz Sweep 1 ms (601 pts)</p> <p><b>Channel Power</b>      <b>Power Spectral Density</b> 37.08 dBm /5.1400 MHz      -30.03 dBm/Hz</p> <p>Copyright 2000-2005 Agilent Technologies</p> </div> <div style="width: 35%; border-left: 1px solid black; padding-left: 5px;"> <p><b>Freq/Channel</b></p> <p>Center Freq 2.68300000 GHz</p> <p>Start Freq 2.68025000 GHz</p> <p>Stop Freq 2.68575000 GHz</p> <p>CF Step 550.000000 kHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>		
<b>2689 MHz</b>		

Bandwidth: 6.0 MHz	RF Power: 1 Milliwatt	Modulation: 4 QAM
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 09:27:01 Feb 16, 2006</p> <p>Ch Freq 2.503 GHz Trig Free</p> <p>Channel Power</p>  <p>Center 2.503 000 GHz Span 6 MHz #Res BW 62 kHz #VBW 620 kHz #Sweep 5 s (601 pts)</p> <p><b>Channel Power</b>      <b>Power Spectral Density</b> -0.01 dBm /5.6900 MHz      -67.56 dBm/Hz</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%; border: 1px solid gray; padding: 5px;"> <p>Freq/Channel</p> <p>Center Freq 2.50300000 GHz</p> <p>Start Freq 2.50000000 GHz</p> <p>Stop Freq 2.50600000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>		
<b>2503 MHz</b>		
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 09:28:02 Feb 16, 2006</p> <p>Ch Freq 2.593 GHz Trig Free</p> <p>Channel Power</p>  <p>Center 2.593 000 GHz Span 6 MHz #Res BW 62 kHz #VBW 620 kHz #Sweep 5 s (601 pts)</p> <p><b>Channel Power</b>      <b>Power Spectral Density</b> -0.23 dBm /5.6900 MHz      -67.78 dBm/Hz</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%; border: 1px solid gray; padding: 5px;"> <p>Freq/Channel</p> <p>Center Freq 2.59300000 GHz</p> <p>Start Freq 2.59000000 GHz</p> <p>Stop Freq 2.59600000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>		
<b>2593 MHz</b>		
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 09:30:27 Feb 16, 2006</p> <p>Ch Freq 2.689 GHz Trig Free</p> <p>Channel Power</p>  <p>Center 2.689 000 GHz Span 6 MHz #Res BW 62 kHz #VBW 620 kHz #Sweep 5 s (601 pts)</p> <p><b>Channel Power</b>      <b>Power Spectral Density</b> 0.86 dBm /5.6900 MHz      -66.69 dBm/Hz</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%; border: 1px solid gray; padding: 5px;"> <p>Freq/Channel</p> <p>Center Freq 2.68900000 GHz</p> <p>Start Freq 2.68600000 GHz</p> <p>Stop Freq 2.69200000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>		
<b>2689 MHz</b>		

Bandwidth: 5.5 MHz	RF Power: 1 Milliwatt	Modulation: 4 QAM
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 09:22:33 Feb 16, 2006</p> <p>Ch Freq 2.503 GHz Trig Free</p> <p>Channel Power</p> <p><b>Center 2.503000000 GHz</b></p> <p>Ref 33 dBm Atten 20 dB</p>  <p>Center 2.503 000 GHz Span 5.5 MHz #Res BW 56 kHz #VBW 560 kHz #Sweep 5 s (601 pts)</p> <p><b>Channel Power</b>      <b>Power Spectral Density</b> 0.00 dBm /5.1400 MHz      -67.11 dBm/Hz</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%; border: 1px solid gray; padding: 5px;"> <p>Freq/Channel</p> <p>Center Freq 2.50300000 GHz</p> <p>Start Freq 2.50025000 GHz</p> <p>Stop Freq 2.50575000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>		
<b>2503 MHz</b>		
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 09:23:31 Feb 16, 2006</p> <p>Ch Freq 2.593 GHz Trig Free</p> <p>Channel Power</p> <p><b>Center 2.593000000 GHz</b></p> <p>Ref 33 dBm Atten 20 dB</p>  <p>Center 2.593 000 GHz Span 5.5 MHz #Res BW 56 kHz #VBW 560 kHz #Sweep 5 s (601 pts)</p> <p><b>Channel Power</b>      <b>Power Spectral Density</b> -0.22 dBm /5.1400 MHz      -67.33 dBm/Hz</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%; border: 1px solid gray; padding: 5px;"> <p>Freq/Channel</p> <p>Center Freq 2.59300000 GHz</p> <p>Start Freq 2.59025000 GHz</p> <p>Stop Freq 2.59575000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>		
<b>2593 MHz</b>		
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 09:25:17 Feb 16, 2006</p> <p>Ch Freq 2.689 GHz Trig Free</p> <p>Channel Power</p> <p><b>Center 2.689000000 GHz</b></p> <p>Ref 33 dBm Atten 20 dB</p>  <p>Center 2.689 000 GHz Span 5.5 MHz #Res BW 56 kHz #VBW 560 kHz #Sweep 5 s (601 pts)</p> <p><b>Channel Power</b>      <b>Power Spectral Density</b> 0.87 dBm /5.1400 MHz      -66.24 dBm/Hz</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%; border: 1px solid gray; padding: 5px;"> <p>Freq/Channel</p> <p>Center Freq 2.68900000 GHz</p> <p>Start Freq 2.68625000 GHz</p> <p>Stop Freq 2.69175000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>		
<b>2689 MHz</b>		

## Modulation Characteristics (FCC)

FCC Rules: 2.1047(d), 27.53(l)(2), 27.53(l)(6)

FCC requirement: Attenuation at band edge =  $43 + 10 \cdot \log(P)$ ,  $P = 2$  watts  
Attenuation at band edge =  $43 + 10 \cdot \log(2) = 43 + 3$   
Attenuation at band edge = 46 dB (equates to -13 dBm)

Attenuation at band edge =  $43 + 10 \cdot \log(P)$ ,  $P = 5.5$  Watts  
Attenuation at band edge =  $43 + 10 \cdot \log(5.5) = 43 + 7.4$   
Attenuation at band edge = 50.4 dB (equates to -13 dBm)

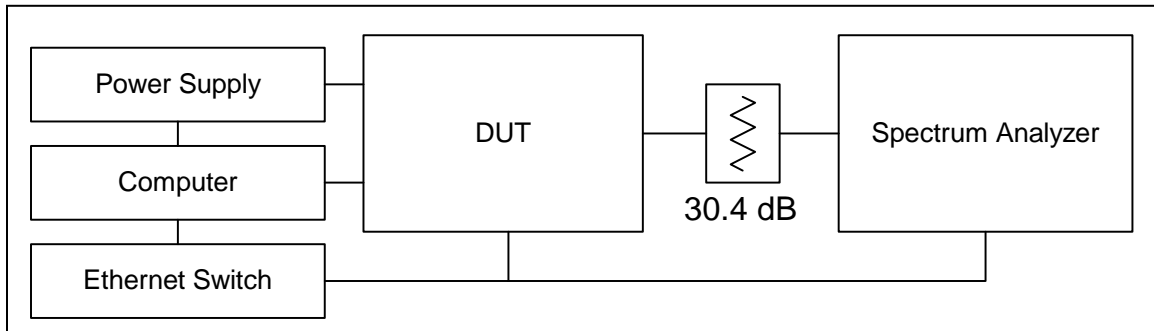
Optional Attenuation at 3 MHz from band edge =  
 $67 + 10 \cdot \log(P) = 67 + 10 \cdot \log(5.5) = 74.4$  dB  
(equates to -37 dBm)

Standard: 47CFR27.53(l)(3)

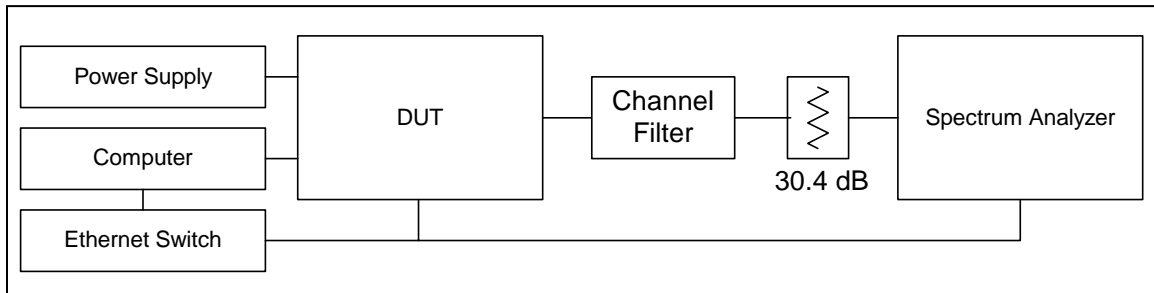
Test Procedure: The Orthogonal Frequency Division Multiplexing (OFDM) modulated Time Division Duplex (TDD) RF signal from the test unit is applied to a spectrum analyzer. An RMS detector is used to measure the average power of the transmission. As allowed per the FCC rules, a measurement bandwidth of 1% or greater was used for the test. The emission power is measured with the power measurement function contained in the spectrum analyzer. This function integrates all of the energy contained within the 1 MHz span of spectrum being measured. The resolution bandwidth used for each test is noted in the data measurement table. The video bandwidth is set to 10 times the resolution bandwidth.

The transmitter is enabled in test mode with the attached computer. The RF loss of the attenuators and coax was measured and is included in the spectrum analyzer amplitude offset and is noted in the block diagram below. Measurements are performed at frequencies across the band for each of the modulation formats available (4-, 16-, and 64-QAM) and channel bandwidths (5.5 and 6.0 MHz). Data is collected by incrementing the spectrum analyzer in 1 MHz steps and recording the power in the 1 MHz of spectrum being measured. The test frequencies of 2503, 2593, and 2689 MHz were chosen based on availability of channel filters for the 5.5-watt measurements.

Test Conditions: Test Frequencies: 2503, 2593, 2689 MHz (2 and 5.5 watts, 5.5 and 6.0 MHz bandwidth)  
Temperature = 25°C  
Supply Voltage = 48.0 VDC Nominal to DUT



**2W Modulation Characteristics Test Setup**



**5.5W Modulation Characteristics Test Setup**

### **Modulation Characteristics Test Results Summary (2W)**

Pass modulation characteristics across frequency band and modulation format.

### **Modulation Characteristics Test Results Summary (5.5W)**

Pass modulation characteristics across frequency band and modulation format.

**2503 MHz, 6.0 MHz, 2W Channel, 4-QAM**

		Channel Center Freq (MHz)		2503	3/21/2006			
		Channel BW (MHz)		6	48 VDC Nom			
		Channel Bandedge - Low (MHz)		2500	4-QAM			
		Channel Bandedge - High (MHz)		2506	2W			
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
60	- 10 MHz bin	2490.5	2490	2491	-46.35	-13	-33.35	Complies
	- 9 MHz bin	2491.5	2491	2492	-46.33	-13	-33.33	Complies
	- 8 MHz bin	2492.5	2492	2493	-46.29	-13	-33.29	Complies
	- 7 MHz bin	2493.5	2493	2494	-46.20	-13	-33.20	Complies
	- 6 MHz bin	2494.5	2494	2495	-46.10	-13	-33.10	Complies
	- 5 MHz bin	2495.5	2495	2496	-43.99	-13	-30.99	Complies
	- 4 MHz bin	2496.5	2496	2497	-40.38	-13	-27.38	Complies
	- 3 MHz bin	2497.5	2497	2498	-37.43	-13	-24.43	Complies
	- 2 MHz bin	2498.5	2498	2499	-34.95	-13	-21.95	Complies
	- 1 MHz bin	2499.5	2499	2500	-23.55	-13	-10.55	Complies
	+ 1 MHz bin	2506.5	2506	2507	-23.05	-13	-10.05	Complies
	+ 2 MHz bin	2507.5	2507	2508	-36.68	-13	-23.68	Complies
	+ 3 MHz bin	2508.5	2508	2509	-39.56	-13	-26.56	Complies
	+ 4 MHz bin	2509.5	2509	2510	-42.17	-13	-29.17	Complies
	+ 5 MHz bin	2510.5	2510	2511	-44.69	-13	-31.69	Complies
	+ 6 MHz bin	2511.5	2511	2512	-45.88	-13	-32.88	Complies
	+ 7 MHz bin	2512.5	2512	2513	-46.13	-13	-33.13	Complies
	+ 8 MHz bin	2513.5	2513	2514	-46.16	-13	-33.16	Complies
	+ 9 MHz bin	2514.5	2514	2515	-46.25	-13	-33.25	Complies
	+ 10 MHz bin	2515.5	2515	2516	-46.27	-13	-33.27	Complies

**2503 MHz, 6.0 MHz, 2W Channel, 16-QAM**

		Channel Center Freq (MHz)		2503	3/21/2006			
		Channel BW (MHz)		6	48 VDC Nom			
		Channel Bandedge - Low (MHz)		2500	16-QAM			
		Channel Bandedge - High (MHz)		2506				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
60	- 10 MHz bin	2490.5	2490	2491	-46.32	-13	-33.32	Complies
	- 9 MHz bin	2491.5	2491	2492	-46.30	-13	-33.30	Complies
	- 8 MHz bin	2492.5	2492	2493	-46.28	-13	-33.28	Complies
	- 7 MHz bin	2493.5	2493	2494	-46.24	-13	-33.24	Complies
	- 6 MHz bin	2494.5	2494	2495	-46.11	-13	-33.11	Complies
	- 5 MHz bin	2495.5	2495	2496	-43.99	-13	-30.99	Complies
	- 4 MHz bin	2496.5	2496	2497	-40.37	-13	-27.37	Complies
	- 3 MHz bin	2497.5	2497	2498	-37.31	-13	-24.31	Complies
	- 2 MHz bin	2498.5	2498	2499	-34.89	-13	-21.89	Complies
	- 1 MHz bin	2499.5	2499	2500	-23.39	-13	-10.39	Complies
	+ 1 MHz bin	2506.5	2506	2507	-22.96	-13	-9.96	Complies
	+ 2 MHz bin	2507.5	2507	2508	-36.63	-13	-23.63	Complies
	+ 3 MHz bin	2508.5	2508	2509	-39.42	-13	-26.42	Complies
	+ 4 MHz bin	2509.5	2509	2510	-42.15	-13	-29.15	Complies
	+ 5 MHz bin	2510.5	2510	2511	-44.67	-13	-31.67	Complies
	+ 6 MHz bin	2511.5	2511	2512	-45.91	-13	-32.91	Complies
	+ 7 MHz bin	2512.5	2512	2513	-46.11	-13	-33.11	Complies
	+ 8 MHz bin	2513.5	2513	2514	-46.16	-13	-33.16	Complies
	+ 9 MHz bin	2514.5	2514	2515	-46.25	-13	-33.25	Complies
	+ 10 MHz bin	2515.5	2515	2516	-46.29	-13	-33.29	Complies



**2503 MHz, 6.0 MHz, 2W Channel, 64-QAM**

		Channel Center Freq (MHz)		2503	3/21/2006			
		Channel BW (MHz)		6	48 VDC Nom			
		Channel Bandedge - Low (MHz)		2500	64-QAM			
		Channel Bandedge - High (MHz)		2506				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
62	- 10 MHz bin	2490.5	2490	2491	-46.33	-13	-33.33	Complies
	- 9 MHz bin	2491.5	2491	2492	-46.31	-13	-33.31	Complies
	- 8 MHz bin	2492.5	2492	2493	-46.25	-13	-33.25	Complies
	- 7 MHz bin	2493.5	2493	2494	-46.24	-13	-33.24	Complies
	- 6 MHz bin	2494.5	2494	2495	-46.09	-13	-33.09	Complies
	- 5 MHz bin	2495.5	2495	2496	-43.97	-13	-30.97	Complies
	- 4 MHz bin	2496.5	2496	2497	-40.36	-13	-27.36	Complies
	- 3 MHz bin	2497.5	2497	2498	-37.29	-13	-24.29	Complies
	- 2 MHz bin	2498.5	2498	2499	-34.87	-13	-21.87	Complies
	- 1 MHz bin	2499.5	2499	2500	-23.44	-13	-10.44	Complies
	+ 1 MHz bin	2506.5	2506	2507	-23.27	-13	-10.27	Complies
	+ 2 MHz bin	2507.5	2507	2508	-36.62	-13	-23.62	Complies
	+ 3 MHz bin	2508.5	2508	2509	-39.44	-13	-26.44	Complies
	+ 4 MHz bin	2509.5	2509	2510	-42.10	-13	-29.10	Complies
	+ 5 MHz bin	2510.5	2510	2511	-44.64	-13	-31.64	Complies
	+ 6 MHz bin	2511.5	2511	2512	-45.91	-13	-32.91	Complies
	+ 7 MHz bin	2512.5	2512	2513	-46.08	-13	-33.08	Complies
	+ 8 MHz bin	2513.5	2513	2514	-46.16	-13	-33.16	Complies
	+ 9 MHz bin	2514.5	2514	2515	-46.22	-13	-33.22	Complies
	+ 10 MHz bin	2515.5	2515	2516	-46.27	-13	-33.27	Complies

**2503 MHz, 5.5 MHz, 2W Channel, 4-QAM**

		Channel Center Freq (MHz)		2503	3/21/2006			
		Channel BW (MHz)		5.5	48 VDC Nom			
		Channel Bandedge - Low (MHz)		2500.25	4-QAM			
		Channel Bandedge - High (MHz)		2505.75				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2490.75	2490.25	2491.25	-46.36	-13	-33.36	Complies
	- 9 MHz bin	2491.75	2491.25	2492.25	-46.36	-13	-33.36	Complies
	- 8 MHz bin	2492.75	2492.25	2493.25	-46.29	-13	-33.29	Complies
	- 7 MHz bin	2493.75	2493.25	2494.25	-46.20	-13	-33.20	Complies
	- 6 MHz bin	2494.75	2494.25	2495.25	-46.15	-13	-33.15	Complies
	- 5 MHz bin	2495.75	2495.25	2496.25	-45.23	-13	-32.23	Complies
	- 4 MHz bin	2496.75	2496.25	2497.25	-41.03	-13	-28.03	Complies
	- 3 MHz bin	2497.75	2497.25	2498.25	-37.04	-13	-24.04	Complies
	- 2 MHz bin	2498.75	2498.25	2499.25	-34.32	-13	-21.32	Complies
	- 1 MHz bin	2499.75	2499.25	2500.25	-27.56	-13	-14.56	Complies
	+ 1 MHz bin	2506.25	2505.75	2506.75	-24.38	-13	-11.38	Complies
	+ 2 MHz bin	2507.25	2506.75	2507.75	-35.60	-13	-22.60	Complies
	+ 3 MHz bin	2508.25	2507.75	2508.75	-38.50	-13	-25.50	Complies
	+ 4 MHz bin	2509.25	2508.75	2509.75	-42.10	-13	-29.10	Complies
	+ 5 MHz bin	2510.25	2509.75	2510.75	-45.15	-13	-32.15	Complies
	+ 6 MHz bin	2511.25	2510.75	2511.75	-45.97	-13	-32.97	Complies
	+ 7 MHz bin	2512.25	2511.75	2512.75	-46.10	-13	-33.10	Complies
	+ 8 MHz bin	2513.25	2512.75	2513.75	-46.17	-13	-33.17	Complies
	+ 9 MHz bin	2514.25	2513.75	2514.75	-46.25	-13	-33.25	Complies
	+ 10 MHz bin	2515.25	2514.75	2515.75	-46.25	-13	-33.25	Complies

**2503 MHz, 5.5 MHz, 2W Channel, 16-QAM**

		Channel Center Freq (MHz)			2503	3/21/2006		
		Channel BW (MHz)			5.5	48 VDC Nom		
		Channel Bandedge - Low (MHz)			2500.25	16-QAM		
		Channel Bandedge - High (MHz)			2505.75			
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2490.75	2490.25	2491.25	-46.30	-13	-33.30	Complies
	- 9 MHz bin	2491.75	2491.25	2492.25	-46.26	-13	-33.26	Complies
	- 8 MHz bin	2492.75	2492.25	2493.25	-46.21	-13	-33.21	Complies
	- 7 MHz bin	2493.75	2493.25	2494.25	-46.25	-13	-33.25	Complies
	- 6 MHz bin	2494.75	2494.25	2495.25	-46.14	-13	-33.14	Complies
	- 5 MHz bin	2495.75	2495.25	2496.25	-45.22	-13	-32.22	Complies
	- 4 MHz bin	2496.75	2496.25	2497.25	-40.97	-13	-27.97	Complies
	- 3 MHz bin	2497.75	2497.25	2498.25	-36.95	-13	-23.95	Complies
	- 2 MHz bin	2498.75	2498.25	2499.25	-34.30	-13	-21.30	Complies
	- 1 MHz bin	2499.75	2499.25	2500.25	-26.70	-13	-13.70	Complies
	+ 1 MHz bin	2506.25	2505.75	2506.75	-25.66	-13	-12.66	Complies
	+ 2 MHz bin	2507.25	2506.75	2507.75	-35.59	-13	-22.59	Complies
	+ 3 MHz bin	2508.25	2507.75	2508.75	-38.58	-13	-25.58	Complies
	+ 4 MHz bin	2509.25	2508.75	2509.75	-42.18	-13	-29.18	Complies
	+ 5 MHz bin	2510.25	2509.75	2510.75	-45.17	-13	-32.17	Complies
	+ 6 MHz bin	2511.25	2510.75	2511.75	-45.94	-13	-32.94	Complies
	+ 7 MHz bin	2512.25	2511.75	2512.75	-46.13	-13	-33.13	Complies
+ 8 MHz bin	2513.25	2512.75	2513.75	-46.16	-13	-33.16	Complies	
+ 9 MHz bin	2514.25	2513.75	2514.75	-46.23	-13	-33.23	Complies	
+ 10 MHz bin	2515.25	2514.75	2515.75	-46.24	-13	-33.24	Complies	

**2503 MHz, 5.5 MHz, 2W Channel, 64-QAM**

		Channel Center Freq (MHz)			2503	3/21/2006		
		Channel BW (MHz)			5.5	48 VDC Nom		
		Channel Bandedge - Low (MHz)			2500.25	64-QAM		
		Channel Bandedge - High (MHz)			2505.75			
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2490.75	2490.25	2491.25	-46.34	-13	-33.34	Complies
	- 9 MHz bin	2491.75	2491.25	2492.25	-46.30	-13	-33.30	Complies
	- 8 MHz bin	2492.75	2492.25	2493.25	-46.27	-13	-33.27	Complies
	- 7 MHz bin	2493.75	2493.25	2494.25	-46.23	-13	-33.23	Complies
	- 6 MHz bin	2494.75	2494.25	2495.25	-46.13	-13	-33.13	Complies
	- 5 MHz bin	2495.75	2495.25	2496.25	-45.18	-13	-32.18	Complies
	- 4 MHz bin	2496.75	2496.25	2497.25	-40.93	-13	-27.93	Complies
	- 3 MHz bin	2497.75	2497.25	2498.25	-37.01	-13	-24.01	Complies
	- 2 MHz bin	2498.75	2498.25	2499.25	-34.30	-13	-21.30	Complies
	- 1 MHz bin	2499.75	2499.25	2500.25	-26.47	-13	-13.47	Complies
	+ 1 MHz bin	2506.25	2505.75	2506.75	-25.80	-13	-12.80	Complies
	+ 2 MHz bin	2507.25	2506.75	2507.75	-35.60	-13	-22.60	Complies
	+ 3 MHz bin	2508.25	2507.75	2508.75	-38.56	-13	-25.56	Complies
	+ 4 MHz bin	2509.25	2508.75	2509.75	-42.12	-13	-29.12	Complies
	+ 5 MHz bin	2510.25	2509.75	2510.75	-45.16	-13	-32.16	Complies
	+ 6 MHz bin	2511.25	2510.75	2511.75	-45.96	-13	-32.96	Complies
	+ 7 MHz bin	2512.25	2511.75	2512.75	-46.07	-13	-33.07	Complies
+ 8 MHz bin	2513.25	2512.75	2513.75	-46.23	-13	-33.23	Complies	
+ 9 MHz bin	2514.25	2513.75	2514.75	-46.22	-13	-33.22	Complies	
+ 10 MHz bin	2515.25	2514.75	2515.75	-46.24	-13	-33.24	Complies	

**2593 MHz, 6.0 MHz, 2W Channel, 4-QAM**

	Channel Center Freq (MHz)		2593			3/21/2006		
	Channel BW (MHz)		6			48 VDC Nom		
	Channel Bandedge - Low (MHz)		2590			4-QAM		
	Channel Bandedge - High (MHz)		2596					
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
62	- 10 MHz bin	2580.5	2580	2581	-46.19	-13	-33.19	Complies
	- 9 MHz bin	2581.5	2581	2582	-46.16	-13	-33.16	Complies
	- 8 MHz bin	2582.5	2582	2583	-46.12	-13	-33.12	Complies
	- 7 MHz bin	2583.5	2583	2584	-46.02	-13	-33.02	Complies
	- 6 MHz bin	2584.5	2584	2585	-45.85	-13	-32.85	Complies
	- 5 MHz bin	2585.5	2585	2586	-42.70	-13	-29.70	Complies
	- 4 MHz bin	2586.5	2586	2587	-38.29	-13	-25.29	Complies
	- 3 MHz bin	2587.5	2587	2588	-35.07	-13	-22.07	Complies
	- 2 MHz bin	2588.5	2588	2589	-32.64	-13	-19.64	Complies
	- 1 MHz bin	2589.5	2589	2590	-22.76	-13	-9.76	Complies
	+ 1 MHz bin	2596.5	2596	2597	-22.86	-13	-9.86	Complies
	+ 2 MHz bin	2597.5	2597	2598	-34.79	-13	-21.79	Complies
	+ 3 MHz bin	2598.5	2598	2599	-37.27	-13	-24.27	Complies
	+ 4 MHz bin	2599.5	2599	2600	-40.17	-13	-27.17	Complies
	+ 5 MHz bin	2600.5	2600	2601	-43.73	-13	-30.73	Complies
	+ 6 MHz bin	2601.5	2601	2602	-45.83	-13	-32.83	Complies
	+ 7 MHz bin	2602.5	2602	2603	-46.00	-13	-33.00	Complies
	+ 8 MHz bin	2603.5	2603	2604	-46.09	-13	-33.09	Complies
	+ 9 MHz bin	2604.5	2604	2605	-46.17	-13	-33.17	Complies
	+ 10 MHz bin	2605.5	2605	2606	-46.19	-13	-33.19	Complies

**2593 MHz, 6.0 MHz, 2W Channel, 16-QAM**

	Channel Center Freq (MHz)		2593			3/21/2006		
	Channel BW (MHz)		6			48 VDC Nom		
	Channel Bandedge - Low (MHz)		2590			16-QAM		
	Channel Bandedge - High (MHz)		2596					
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
62	- 10 MHz bin	2580.5	2580	2581	-46.18	-13	-33.18	Complies
	- 9 MHz bin	2581.5	2581	2582	-46.13	-13	-33.13	Complies
	- 8 MHz bin	2582.5	2582	2583	-46.10	-13	-33.10	Complies
	- 7 MHz bin	2583.5	2583	2584	-45.98	-13	-32.98	Complies
	- 6 MHz bin	2584.5	2584	2585	-45.86	-13	-32.86	Complies
	- 5 MHz bin	2585.5	2585	2586	-42.67	-13	-29.67	Complies
	- 4 MHz bin	2586.5	2586	2587	-38.26	-13	-25.26	Complies
	- 3 MHz bin	2587.5	2587	2588	-35.02	-13	-22.02	Complies
	- 2 MHz bin	2588.5	2588	2589	-32.63	-13	-19.63	Complies
	- 1 MHz bin	2589.5	2589	2590	-22.82	-13	-9.82	Complies
	+ 1 MHz bin	2596.5	2596	2597	-23.03	-13	-10.03	Complies
	+ 2 MHz bin	2597.5	2597	2598	-34.73	-13	-21.73	Complies
	+ 3 MHz bin	2598.5	2598	2599	-37.22	-13	-24.22	Complies
	+ 4 MHz bin	2599.5	2599	2600	-40.10	-13	-27.10	Complies
	+ 5 MHz bin	2600.5	2600	2601	-43.71	-13	-30.71	Complies
	+ 6 MHz bin	2601.5	2601	2602	-45.86	-13	-32.86	Complies
	+ 7 MHz bin	2602.5	2602	2603	-46.01	-13	-33.01	Complies
	+ 8 MHz bin	2603.5	2603	2604	-46.09	-13	-33.09	Complies
	+ 9 MHz bin	2604.5	2604	2605	-46.17	-13	-33.17	Complies
	+ 10 MHz bin	2605.5	2605	2606	-46.21	-13	-33.21	Complies

**2593 MHz, 6.0 MHz, 2W Channel, 64-QAM**

	Channel Center Freq (MHz)			2593		3/21/2006		
	Channel BW (MHz)			6		48 VDC Nom		
	Channel Bandedge - Low (MHz)			2590		64-QAM		
	Channel Bandedge - High (MHz)			2596				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
62	- 10 MHz bin	2580.5	2580	2581	-46.15	-13	-33.15	Complies
	- 9 MHz bin	2581.5	2581	2582	-46.16	-13	-33.16	Complies
	- 8 MHz bin	2582.5	2582	2583	-46.10	-13	-33.10	Complies
	- 7 MHz bin	2583.5	2583	2584	-45.99	-13	-32.99	Complies
	- 6 MHz bin	2584.5	2584	2585	-45.85	-13	-32.85	Complies
	- 5 MHz bin	2585.5	2585	2586	-42.67	-13	-29.67	Complies
	- 4 MHz bin	2586.5	2586	2587	-38.25	-13	-25.25	Complies
	- 3 MHz bin	2587.5	2587	2588	-35.00	-13	-22.00	Complies
	- 2 MHz bin	2588.5	2588	2589	-32.62	-13	-19.62	Complies
	- 1 MHz bin	2589.5	2589	2590	-22.74	-13	-9.74	Complies
	+ 1 MHz bin	2596.5	2596	2597	-23.10	-13	-10.10	Complies
	+ 2 MHz bin	2597.5	2597	2598	-34.73	-13	-21.73	Complies
	+ 3 MHz bin	2598.5	2598	2599	-37.13	-13	-24.13	Complies
	+ 4 MHz bin	2599.5	2599	2600	-40.12	-13	-27.12	Complies
	+ 5 MHz bin	2600.5	2600	2601	-43.59	-13	-30.59	Complies
	+ 6 MHz bin	2601.5	2601	2602	-45.82	-13	-32.82	Complies
	+ 7 MHz bin	2602.5	2602	2603	-46.03	-13	-33.03	Complies
	+ 8 MHz bin	2603.5	2603	2604	-46.08	-13	-33.08	Complies
	+ 9 MHz bin	2604.5	2604	2605	-46.14	-13	-33.14	Complies
	+ 10 MHz bin	2605.5	2605	2606	-46.20	-13	-33.20	Complies

**2593 MHz, 5.5 MHz, 2W Channel, 4-QAM**

	Channel Center Freq (MHz)			2593		3/21/2006		
	Channel BW (MHz)			5.5		48 VDC Nom		
	Channel Bandedge - Low (MHz)			2590.25		4-QAM		
	Channel Bandedge - High (MHz)			2595.75				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2580.75	2580.25	2581.25	-46.10	-13	-33.10	Complies
	- 9 MHz bin	2581.75	2581.25	2582.25	-46.11	-13	-33.11	Complies
	- 8 MHz bin	2582.75	2582.25	2583.25	-46.09	-13	-33.09	Complies
	- 7 MHz bin	2583.75	2583.25	2584.25	-45.99	-13	-32.99	Complies
	- 6 MHz bin	2584.75	2584.25	2585.25	-45.89	-13	-32.89	Complies
	- 5 MHz bin	2585.75	2585.25	2586.25	-44.43	-13	-31.43	Complies
	- 4 MHz bin	2586.75	2586.25	2587.25	-38.97	-13	-25.97	Complies
	- 3 MHz bin	2587.75	2587.25	2588.25	-34.74	-13	-21.74	Complies
	- 2 MHz bin	2588.75	2588.25	2589.25	-31.96	-13	-18.96	Complies
	- 1 MHz bin	2589.75	2589.25	2590.25	-25.55	-13	-12.55	Complies
	+ 1 MHz bin	2596.25	2595.75	2596.75	-25.48	-13	-12.48	Complies
	+ 2 MHz bin	2597.25	2596.75	2597.75	-33.74	-13	-20.74	Complies
	+ 3 MHz bin	2598.25	2597.75	2598.75	-36.50	-13	-23.50	Complies
	+ 4 MHz bin	2599.25	2598.75	2599.75	-40.43	-13	-27.43	Complies
	+ 5 MHz bin	2600.25	2599.75	2600.75	-44.72	-13	-31.72	Complies
	+ 6 MHz bin	2601.25	2600.75	2601.75	-45.85	-13	-32.85	Complies
	+ 7 MHz bin	2602.25	2601.75	2602.75	-46.03	-13	-33.03	Complies
	+ 8 MHz bin	2603.25	2602.75	2603.75	-46.08	-13	-33.08	Complies
	+ 9 MHz bin	2604.25	2603.75	2604.75	-46.15	-13	-33.15	Complies
	+ 10 MHz bin	2605.25	2604.75	2605.75	-46.14	-13	-33.14	Complies

**2593 MHz, 5.5 MHz, 2W Channel, 16-QAM**

		Channel Center Freq (MHz)			2593	3/21/2006		
		Channel BW (MHz)			5.5	48 VDC Nom		
		Channel Bandedge - Low (MHz)			2590.25	16-QAM		
		Channel Bandedge - High (MHz)			2595.75			
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2580.75	2580.25	2581.25	-46.14	-13	-33.14	Complies
	- 9 MHz bin	2581.75	2581.25	2582.25	-46.10	-13	-33.10	Complies
	- 8 MHz bin	2582.75	2582.25	2583.25	-46.08	-13	-33.08	Complies
	- 7 MHz bin	2583.75	2583.25	2584.25	-46.03	-13	-33.03	Complies
	- 6 MHz bin	2584.75	2584.25	2585.25	-45.93	-13	-32.93	Complies
	- 5 MHz bin	2585.75	2585.25	2586.25	-44.40	-13	-31.40	Complies
	- 4 MHz bin	2586.75	2586.25	2587.25	-39.04	-13	-26.04	Complies
	- 3 MHz bin	2587.75	2587.25	2588.25	-34.76	-13	-21.76	Complies
	- 2 MHz bin	2588.75	2588.25	2589.25	-32.01	-13	-19.01	Complies
	- 1 MHz bin	2589.75	2589.25	2590.25	-25.59	-13	-12.59	Complies
	+ 1 MHz bin	2596.25	2595.75	2596.75	-25.26	-13	-12.26	Complies
	+ 2 MHz bin	2597.25	2596.75	2597.75	-33.78	-13	-20.78	Complies
	+ 3 MHz bin	2598.25	2597.75	2598.75	-36.41	-13	-23.41	Complies
	+ 4 MHz bin	2599.25	2598.75	2599.75	-40.36	-13	-27.36	Complies
	+ 5 MHz bin	2600.25	2599.75	2600.75	-44.72	-13	-31.72	Complies
	+ 6 MHz bin	2601.25	2600.75	2601.75	-45.83	-13	-32.83	Complies
	+ 7 MHz bin	2602.25	2601.75	2602.75	-46.06	-13	-33.06	Complies
	+ 8 MHz bin	2603.25	2602.75	2603.75	-46.16	-13	-33.16	Complies
+ 9 MHz bin	2604.25	2603.75	2604.75	-46.13	-13	-33.13	Complies	
+ 10 MHz bin	2605.25	2604.75	2605.75	-46.17	-13	-33.17	Complies	

**2593 MHz, 5.5 MHz, 2W Channel, 64-QAM**

		Channel Center Freq (MHz)			2593	3/21/2006		
		Channel BW (MHz)			5.5	48 VDC Nom		
		Channel Bandedge - Low (MHz)			2590.25	64-QAM		
		Channel Bandedge - High (MHz)			2595.75			
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2580.75	2580.25	2581.25	-46.12	-13	-33.12	Complies
	- 9 MHz bin	2581.75	2581.25	2582.25	-46.13	-13	-33.13	Complies
	- 8 MHz bin	2582.75	2582.25	2583.25	-46.08	-13	-33.08	Complies
	- 7 MHz bin	2583.75	2583.25	2584.25	-46.02	-13	-33.02	Complies
	- 6 MHz bin	2584.75	2584.25	2585.25	-45.84	-13	-32.84	Complies
	- 5 MHz bin	2585.75	2585.25	2586.25	-44.40	-13	-31.40	Complies
	- 4 MHz bin	2586.75	2586.25	2587.25	-38.98	-13	-25.98	Complies
	- 3 MHz bin	2587.75	2587.25	2588.25	-34.75	-13	-21.75	Complies
	- 2 MHz bin	2588.75	2588.25	2589.25	-32.00	-13	-19.00	Complies
	- 1 MHz bin	2589.75	2589.25	2590.25	-25.59	-13	-12.59	Complies
	+ 1 MHz bin	2596.25	2595.75	2596.75	-25.30	-13	-12.30	Complies
	+ 2 MHz bin	2597.25	2596.75	2597.75	-33.75	-13	-20.75	Complies
	+ 3 MHz bin	2598.25	2597.75	2598.75	-36.48	-13	-23.48	Complies
	+ 4 MHz bin	2599.25	2598.75	2599.75	-40.41	-13	-27.41	Complies
	+ 5 MHz bin	2600.25	2599.75	2600.75	-44.74	-13	-31.74	Complies
	+ 6 MHz bin	2601.25	2600.75	2601.75	-45.83	-13	-32.83	Complies
	+ 7 MHz bin	2602.25	2601.75	2602.75	-46.04	-13	-33.04	Complies
	+ 8 MHz bin	2603.25	2602.75	2603.75	-46.13	-13	-33.13	Complies
+ 9 MHz bin	2604.25	2603.75	2604.75	-46.19	-13	-33.19	Complies	
+ 10 MHz bin	2605.25	2604.75	2605.75	-46.14	-13	-33.14	Complies	

**2689 MHz, 6.0 MHz, 2W Channel, 4-QAM**

		Channel Center Freq (MHz)		2689	3/21/2006			
		Channel BW (MHz)		6	48 VDC Nom			
		Channel Bandedge - Low (MHz)		2686	4-QAM			
		Channel Bandedge - High (MHz)		2692				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
62	- 10 MHz bin	2676.5	2676	2677	-46.09	-13	-33.09	Complies
	- 9 MHz bin	2677.5	2677	2678	-46.08	-13	-33.08	Complies
	- 8 MHz bin	2678.5	2678	2679	-46.03	-13	-33.03	Complies
	- 7 MHz bin	2679.5	2679	2680	-45.92	-13	-32.92	Complies
	- 6 MHz bin	2680.5	2680	2681	-45.64	-13	-32.64	Complies
	- 5 MHz bin	2681.5	2681	2682	-40.06	-13	-27.06	Complies
	- 4 MHz bin	2682.5	2682	2683	-34.67	-13	-21.67	Complies
	- 3 MHz bin	2683.5	2683	2684	-31.14	-13	-18.14	Complies
	- 2 MHz bin	2684.5	2684	2685	-28.72	-13	-15.72	Complies
	- 1 MHz bin	2685.5	2685	2686	-22.92	-13	-9.92	Complies
	+ 1 MHz bin	2692.5	2692	2693	-21.73	-13	-8.73	Complies
	+ 2 MHz bin	2693.5	2693	2694	-31.88	-13	-18.88	Complies
	+ 3 MHz bin	2694.5	2694	2695	-33.95	-13	-20.95	Complies
	+ 4 MHz bin	2695.5	2695	2696	-37.07	-13	-24.07	Complies
	+ 5 MHz bin	2696.5	2696	2697	-41.70	-13	-28.70	Complies
	+ 6 MHz bin	2697.5	2697	2698	-45.60	-13	-32.60	Complies
	+ 7 MHz bin	2698.5	2698	2699	-46.00	-13	-33.00	Complies
	+ 8 MHz bin	2699.5	2699	2700	-46.21	-13	-33.21	Complies
	+ 9 MHz bin	2700.5	2700	2701	-46.28	-13	-33.28	Complies
	+ 10 MHz bin	2701.5	2701	2702	-46.34	-13	-33.34	Complies

**2689 MHz, 6.0 MHz, 2W Channel, 16-QAM**

		Channel Center Freq (MHz)		2689	3/21/2006			
		Channel BW (MHz)		6	48 VDC Nom			
		Channel Bandedge - Low (MHz)		2686	16-QAM			
		Channel Bandedge - High (MHz)		2692				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
62	- 10 MHz bin	2676.5	2676	2677	-46.09	-13	-33.09	Complies
	- 9 MHz bin	2677.5	2677	2678	-46.04	-13	-33.04	Complies
	- 8 MHz bin	2678.5	2678	2679	-46.02	-13	-33.02	Complies
	- 7 MHz bin	2679.5	2679	2680	-45.94	-13	-32.94	Complies
	- 6 MHz bin	2680.5	2680	2681	-45.61	-13	-32.61	Complies
	- 5 MHz bin	2681.5	2681	2682	-39.95	-13	-26.95	Complies
	- 4 MHz bin	2682.5	2682	2683	-34.57	-13	-21.57	Complies
	- 3 MHz bin	2683.5	2683	2684	-31.08	-13	-18.08	Complies
	- 2 MHz bin	2684.5	2684	2685	-28.64	-13	-15.64	Complies
	- 1 MHz bin	2685.5	2685	2686	-22.08	-13	-9.08	Complies
	+ 1 MHz bin	2692.5	2692	2693	-22.71	-13	-9.71	Complies
	+ 2 MHz bin	2693.5	2693	2694	-31.91	-13	-18.91	Complies
	+ 3 MHz bin	2694.5	2694	2695	-34.01	-13	-21.01	Complies
	+ 4 MHz bin	2695.5	2695	2696	-37.10	-13	-24.10	Complies
	+ 5 MHz bin	2696.5	2696	2697	-41.75	-13	-28.75	Complies
	+ 6 MHz bin	2697.5	2697	2698	-45.64	-13	-32.64	Complies
	+ 7 MHz bin	2698.5	2698	2699	-46.02	-13	-33.02	Complies
	+ 8 MHz bin	2699.5	2699	2700	-46.17	-13	-33.17	Complies
	+ 9 MHz bin	2700.5	2700	2701	-46.28	-13	-33.28	Complies
	+ 10 MHz bin	2701.5	2701	2702	-46.32	-13	-33.32	Complies

**2689 MHz, 6.0 MHz, 2W Channel, 64-QAM**

		Channel Center Freq (MHz)		2689	3/21/2006			
		Channel BW (MHz)		6	48 VDC Nom			
		Channel Bandedge - Low (MHz)		2686	64-QAM			
		Channel Bandedge - High (MHz)		2692				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
62	- 10 MHz bin	2676.5	2676	2677	-46.10	-13	-33.10	Complies
	- 9 MHz bin	2677.5	2677	2678	-46.07	-13	-33.07	Complies
	- 8 MHz bin	2678.5	2678	2679	-46.02	-13	-33.02	Complies
	- 7 MHz bin	2679.5	2679	2680	-45.97	-13	-32.97	Complies
	- 6 MHz bin	2680.5	2680	2681	-45.69	-13	-32.69	Complies
	- 5 MHz bin	2681.5	2681	2682	-39.95	-13	-26.95	Complies
	- 4 MHz bin	2682.5	2682	2683	-34.56	-13	-21.56	Complies
	- 3 MHz bin	2683.5	2683	2684	-31.08	-13	-18.08	Complies
	- 2 MHz bin	2684.5	2684	2685	-28.64	-13	-15.64	Complies
	- 1 MHz bin	2685.5	2685	2686	-21.76	-13	-8.76	Complies
	+ 1 MHz bin	2692.5	2692	2693	-22.71	-13	-9.71	Complies
	+ 2 MHz bin	2693.5	2693	2694	-31.87	-13	-18.87	Complies
	+ 3 MHz bin	2694.5	2694	2695	-34.02	-13	-21.02	Complies
	+ 4 MHz bin	2695.5	2695	2696	-37.11	-13	-24.11	Complies
	+ 5 MHz bin	2696.5	2696	2697	-41.71	-13	-28.71	Complies
	+ 6 MHz bin	2697.5	2697	2698	-45.68	-13	-32.68	Complies
	+ 7 MHz bin	2698.5	2698	2699	-46.03	-13	-33.03	Complies
	+ 8 MHz bin	2699.5	2699	2700	-46.16	-13	-33.16	Complies
	+ 9 MHz bin	2700.5	2700	2701	-46.26	-13	-33.26	Complies
	+ 10 MHz bin	2701.5	2701	2702	-46.33	-13	-33.33	Complies

**2689 MHz, 5.5 MHz, 2W Channel, 4-QAM**

		Channel Center Freq (MHz)		2689	3/21/2006			
		Channel BW (MHz)		5.5	48 VDC Nom			
		Channel Bandedge - Low (MHz)		2686.25	4-QAM			
		Channel Bandedge - High (MHz)		2691.75				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2676.75	2676.25	2677.25	-46.12	-13	-33.12	Complies
	- 9 MHz bin	2677.75	2677.25	2678.25	-46.05	-13	-33.05	Complies
	- 8 MHz bin	2678.75	2678.25	2679.25	-45.99	-13	-32.99	Complies
	- 7 MHz bin	2679.75	2679.25	2680.25	-45.89	-13	-32.89	Complies
	- 6 MHz bin	2680.75	2680.25	2681.25	-45.78	-13	-32.78	Complies
	- 5 MHz bin	2681.75	2681.25	2682.25	-43.02	-13	-30.02	Complies
	- 4 MHz bin	2682.75	2682.25	2683.25	-35.75	-13	-22.75	Complies
	- 3 MHz bin	2683.75	2683.25	2684.25	-31.20	-13	-18.20	Complies
	- 2 MHz bin	2684.75	2684.25	2685.25	-28.39	-13	-15.39	Complies
	- 1 MHz bin	2685.75	2685.25	2686.25	-24.05	-13	-11.05	Complies
	+ 1 MHz bin	2692.25	2691.75	2692.75	-24.99	-13	-11.99	Complies
	+ 2 MHz bin	2693.25	2692.75	2693.75	-31.44	-13	-18.44	Complies
	+ 3 MHz bin	2694.25	2693.75	2694.75	-33.85	-13	-20.85	Complies
	+ 4 MHz bin	2695.25	2694.75	2695.75	-37.98	-13	-24.98	Complies
	+ 5 MHz bin	2696.25	2695.75	2696.75	-43.78	-13	-30.78	Complies
	+ 6 MHz bin	2697.25	2696.75	2697.75	-45.77	-13	-32.77	Complies
	+ 7 MHz bin	2698.25	2697.75	2698.75	-46.06	-13	-33.06	Complies
	+ 8 MHz bin	2699.25	2698.75	2699.75	-46.22	-13	-33.22	Complies
	+ 9 MHz bin	2700.25	2699.75	2700.75	-46.26	-13	-33.26	Complies
	+ 10 MHz bin	2701.25	2700.75	2701.75	-46.32	-13	-33.32	Complies

**2689 MHz, 5.5 MHz, 2W Channel, 16-QAM**

		Channel Center Freq (MHz)			2689	3/21/2006		
		Channel BW (MHz)			5.5	48 VDC Nom		
		Channel Bandedge - Low (MHz)			2686.25	16-QAM		
		Channel Bandedge - High (MHz)			2691.75			
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2676.75	2676.25	2677.25	-46.08	-13	-33.08	Complies
	- 9 MHz bin	2677.75	2677.25	2678.25	-46.04	-13	-33.04	Complies
	- 8 MHz bin	2678.75	2678.25	2679.25	-46.02	-13	-33.02	Complies
	- 7 MHz bin	2679.75	2679.25	2680.25	-45.94	-13	-32.94	Complies
	- 6 MHz bin	2680.75	2680.25	2681.25	-45.79	-13	-32.79	Complies
	- 5 MHz bin	2681.75	2681.25	2682.25	-43.01	-13	-30.01	Complies
	- 4 MHz bin	2682.75	2682.25	2683.25	-35.70	-13	-22.70	Complies
	- 3 MHz bin	2683.75	2683.25	2684.25	-31.16	-13	-18.16	Complies
	- 2 MHz bin	2684.75	2684.25	2685.25	-28.33	-13	-15.33	Complies
	- 1 MHz bin	2685.75	2685.25	2686.25	-24.10	-13	-11.10	Complies
	+ 1 MHz bin	2692.25	2691.75	2692.75	-24.96	-13	-11.96	Complies
	+ 2 MHz bin	2693.25	2692.75	2693.75	-31.41	-13	-18.41	Complies
	+ 3 MHz bin	2694.25	2693.75	2694.75	-33.85	-13	-20.85	Complies
	+ 4 MHz bin	2695.25	2694.75	2695.75	-38.00	-13	-25.00	Complies
	+ 5 MHz bin	2696.25	2695.75	2696.75	-43.76	-13	-30.76	Complies
	+ 6 MHz bin	2697.25	2696.75	2697.75	-45.78	-13	-32.78	Complies
	+ 7 MHz bin	2698.25	2697.75	2698.75	-46.05	-13	-33.05	Complies
	+ 8 MHz bin	2699.25	2698.75	2699.75	-46.20	-13	-33.20	Complies
+ 9 MHz bin	2700.25	2699.75	2700.75	-46.27	-13	-33.27	Complies	
+ 10 MHz bin	2701.25	2700.75	2701.75	-46.35	-13	-33.35	Complies	

**2689 MHz, 5.5 MHz, 2W Channel, 64-QAM**

		Channel Center Freq (MHz)			2689	3/21/2006		
		Channel BW (MHz)			5.5	48 VDC Nom		
		Channel Bandedge - Low (MHz)			2686.25	64-QAM		
		Channel Bandedge - High (MHz)			2691.75			
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2676.75	2676.25	2677.25	-46.12	-13	-33.12	Complies
	- 9 MHz bin	2677.75	2677.25	2678.25	-46.03	-13	-33.03	Complies
	- 8 MHz bin	2678.75	2678.25	2679.25	-46.01	-13	-33.01	Complies
	- 7 MHz bin	2679.75	2679.25	2680.25	-45.94	-13	-32.94	Complies
	- 6 MHz bin	2680.75	2680.25	2681.25	-45.85	-13	-32.85	Complies
	- 5 MHz bin	2681.75	2681.25	2682.25	-43.02	-13	-30.02	Complies
	- 4 MHz bin	2682.75	2682.25	2683.25	-35.73	-13	-22.73	Complies
	- 3 MHz bin	2683.75	2683.25	2684.25	-31.20	-13	-18.20	Complies
	- 2 MHz bin	2684.75	2684.25	2685.25	-28.34	-13	-15.34	Complies
	- 1 MHz bin	2685.75	2685.25	2686.25	-24.09	-13	-11.09	Complies
	+ 1 MHz bin	2692.25	2691.75	2692.75	-24.95	-13	-11.95	Complies
	+ 2 MHz bin	2693.25	2692.75	2693.75	-31.40	-13	-18.40	Complies
	+ 3 MHz bin	2694.25	2693.75	2694.75	-33.88	-13	-20.88	Complies
	+ 4 MHz bin	2695.25	2694.75	2695.75	-37.96	-13	-24.96	Complies
	+ 5 MHz bin	2696.25	2695.75	2696.75	-43.78	-13	-30.78	Complies
	+ 6 MHz bin	2697.25	2696.75	2697.75	-45.72	-13	-32.72	Complies
	+ 7 MHz bin	2698.25	2697.75	2698.75	-46.02	-13	-33.02	Complies
	+ 8 MHz bin	2699.25	2698.75	2699.75	-46.21	-13	-33.21	Complies
+ 9 MHz bin	2700.25	2699.75	2700.75	-46.30	-13	-33.30	Complies	
+ 10 MHz bin	2701.25	2700.75	2701.75	-46.32	-13	-33.32	Complies	



**2503 MHz, 6.0 MHz, 5.5W Channel, 4-QAM**

		Channel Center Freq (MHz)		2503		3/21/2006	5W	
		Channel BW (MHz)		6		48 VDC Nom		
		Channel Bandedge - Low (MHz)		2500		4-QAM		
		Channel Bandedge - High (MHz)		2506				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
60	- 10 MHz bin	2490.5	2490	2491	-47.15	-37	-10.15	Complies
	- 9 MHz bin	2491.5	2491	2492	-47.10	-37	-10.10	Complies
	- 8 MHz bin	2492.5	2492	2493	-47.09	-37	-10.09	Complies
	- 7 MHz bin	2493.5	2493	2494	-47.12	-37	-10.12	Complies
	- 6 MHz bin	2494.5	2494	2495	-46.92	-37	-9.92	Complies
	- 5 MHz bin	2495.5	2495	2496	-46.03	-37	-9.03	Complies
	- 4 MHz bin	2496.5	2496	2497	-44.39	-37	-7.39	Complies
	- 3 MHz bin	2497.5	2497	2498	-41.30	-13	-28.30	Complies
	- 2 MHz bin	2498.5	2498	2499	-36.51	-13	-23.51	Complies
	- 1 MHz bin	2499.5	2499	2500	-21.33	-13	-8.33	Complies
	+ 1 MHz bin	2506.5	2506	2507	-18.30	-13	-5.30	Complies
	+ 2 MHz bin	2507.5	2507	2508	-31.20	-13	-18.20	Complies
	+ 3 MHz bin	2508.5	2508	2509	-36.03	-13	-23.03	Complies
	+ 4 MHz bin	2509.5	2509	2510	-41.11	-37	-4.11	Complies
	+ 5 MHz bin	2510.5	2510	2511	-44.75	-37	-7.75	Complies
	+ 6 MHz bin	2511.5	2511	2512	-46.35	-37	-9.35	Complies
	+ 7 MHz bin	2512.5	2512	2513	-46.81	-37	-9.81	Complies
	+ 8 MHz bin	2513.5	2513	2514	-47.02	-37	-10.02	Complies
	+ 9 MHz bin	2514.5	2514	2515	-47.10	-37	-10.10	Complies
	+ 10 MHz bin	2515.5	2515	2516	-47.12	-37	-10.12	Complies

**2503 MHz, 6.0 MHz, 5.5W Channel, 16-QAM**

		Channel Center Freq (MHz)		2503		3/21/2006		
		Channel BW (MHz)		6		48 VDC Nom		
		Channel Bandedge - Low (MHz)		2500		16-QAM		
		Channel Bandedge - High (MHz)		2506				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
60	- 10 MHz bin	2490.5	2490	2491	-47.13	-37	-10.13	Complies
	- 9 MHz bin	2491.5	2491	2492	-47.13	-37	-10.13	Complies
	- 8 MHz bin	2492.5	2492	2493	-47.11	-37	-10.11	Complies
	- 7 MHz bin	2493.5	2493	2494	-47.09	-37	-10.09	Complies
	- 6 MHz bin	2494.5	2494	2495	-46.95	-37	-9.95	Complies
	- 5 MHz bin	2495.5	2495	2496	-46.01	-37	-9.01	Complies
	- 4 MHz bin	2496.5	2496	2497	-44.30	-37	-7.30	Complies
	- 3 MHz bin	2497.5	2497	2498	-41.19	-13	-28.19	Complies
	- 2 MHz bin	2498.5	2498	2499	-36.51	-13	-23.51	Complies
	- 1 MHz bin	2499.5	2499	2500	-20.71	-13	-7.71	Complies
	+ 1 MHz bin	2506.5	2506	2507	-18.71	-13	-5.71	Complies
	+ 2 MHz bin	2507.5	2507	2508	-31.12	-13	-18.12	Complies
	+ 3 MHz bin	2508.5	2508	2509	-35.99	-13	-22.99	Complies
	+ 4 MHz bin	2509.5	2509	2510	-41.04	-37	-4.04	Complies
	+ 5 MHz bin	2510.5	2510	2511	-44.76	-37	-7.76	Complies
	+ 6 MHz bin	2511.5	2511	2512	-46.29	-37	-9.29	Complies
	+ 7 MHz bin	2512.5	2512	2513	-46.85	-37	-9.85	Complies
	+ 8 MHz bin	2513.5	2513	2514	-47.04	-37	-10.04	Complies
	+ 9 MHz bin	2514.5	2514	2515	-47.11	-37	-10.11	Complies
	+ 10 MHz bin	2515.5	2515	2516	-47.13	-37	-10.13	Complies

**2503 MHz, 6.0 MHz, 5.5W Channel, 64-QAM**

		Channel Center Freq (MHz)		2503	3/21/2006			
		Channel BW (MHz)		6	48 VDC Nom			
		Channel Bandedge - Low (MHz)		2500	64-QAM			
		Channel Bandedge - High (MHz)		2506				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
62	- 10 MHz bin	2490.5	2490	2491	-47.17	-37	-10.17	Complies
	- 9 MHz bin	2491.5	2491	2492	-47.15	-37	-10.15	Complies
	- 8 MHz bin	2492.5	2492	2493	-47.09	-37	-10.09	Complies
	- 7 MHz bin	2493.5	2493	2494	-47.11	-37	-10.11	Complies
	- 6 MHz bin	2494.5	2494	2495	-46.97	-37	-9.97	Complies
	- 5 MHz bin	2495.5	2495	2496	-46.03	-37	-9.03	Complies
	- 4 MHz bin	2496.5	2496	2497	-44.34	-37	-7.34	Complies
	- 3 MHz bin	2497.5	2497	2498	-41.13	-13	-28.13	Complies
	- 2 MHz bin	2498.5	2498	2499	-36.43	-13	-23.43	Complies
	- 1 MHz bin	2499.5	2499	2500	-20.80	-13	-7.80	Complies
	+ 1 MHz bin	2506.5	2506	2507	-18.76	-13	-5.76	Complies
	+ 2 MHz bin	2507.5	2507	2508	-31.16	-13	-18.16	Complies
	+ 3 MHz bin	2508.5	2508	2509	-36.03	-13	-23.03	Complies
	+ 4 MHz bin	2509.5	2509	2510	-41.10	-37	-4.10	Complies
	+ 5 MHz bin	2510.5	2510	2511	-44.77	-37	-7.77	Complies
	+ 6 MHz bin	2511.5	2511	2512	-46.28	-37	-9.28	Complies
	+ 7 MHz bin	2512.5	2512	2513	-46.82	-37	-9.82	Complies
	+ 8 MHz bin	2513.5	2513	2514	-47.03	-37	-10.03	Complies
	+ 9 MHz bin	2514.5	2514	2515	-47.12	-37	-10.12	Complies
	+ 10 MHz bin	2515.5	2515	2516	-47.12	-37	-10.12	Complies

**2503 MHz, 5.5 MHz, 5.5W Channel, 4-QAM**

		Channel Center Freq (MHz)		2503	3/21/2006			
		Channel BW (MHz)		5.5	48 VDC Nom			
		Channel Bandedge - Low (MHz)		2500.25	4-QAM			
		Channel Bandedge - High (MHz)		2505.75				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2490.75	2490.25	2491.25	-47.16	-37	-10.16	Complies
	- 9 MHz bin	2491.75	2491.25	2492.25	-47.12	-37	-10.12	Complies
	- 8 MHz bin	2492.75	2492.25	2493.25	-47.09	-37	-10.09	Complies
	- 7 MHz bin	2493.75	2493.25	2494.25	-47.08	-37	-10.08	Complies
	- 6 MHz bin	2494.75	2494.25	2495.25	-46.88	-37	-9.88	Complies
	- 5 MHz bin	2495.75	2495.25	2496.25	-45.88	-37	-8.88	Complies
	- 4 MHz bin	2496.75	2496.25	2497.25	-43.39	-37	-6.39	Complies
	- 3 MHz bin	2497.75	2497.25	2498.25	-38.79	-13	-25.79	Complies
	- 2 MHz bin	2498.75	2498.25	2499.25	-34.36	-13	-21.36	Complies
	- 1 MHz bin	2499.75	2499.25	2500.25	-20.03	-13	-7.03	Complies
	+ 1 MHz bin	2506.25	2505.75	2506.75	-17.55	-13	-4.55	Complies
	+ 2 MHz bin	2507.25	2506.75	2507.75	-29.68	-13	-16.68	Complies
	+ 3 MHz bin	2508.25	2507.75	2508.75	-34.24	-13	-21.24	Complies
	+ 4 MHz bin	2509.25	2508.75	2509.75	-40.08	-37	-3.08	Complies
	+ 5 MHz bin	2510.25	2509.75	2510.75	-44.42	-37	-7.42	Complies
	+ 6 MHz bin	2511.25	2510.75	2511.75	-46.13	-37	-9.13	Complies
	+ 7 MHz bin	2512.25	2511.75	2512.75	-46.85	-37	-9.85	Complies
	+ 8 MHz bin	2513.25	2512.75	2513.75	-47.05	-37	-10.05	Complies
	+ 9 MHz bin	2514.25	2513.75	2514.75	-47.16	-37	-10.16	Complies
	+ 10 MHz bin	2515.25	2514.75	2515.75	-47.19	-37	-10.19	Complies

**2503 MHz, 5.5 MHz, 5.5W Channel, 16-QAM**

		Channel Center Freq (MHz)			2503	3/21/2006		
		Channel BW (MHz)			5.5	48 VDC Nom		
		Channel Bandedge - Low (MHz)			2500.25	16-QAM		
		Channel Bandedge - High (MHz)			2505.75			
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2490.75	2490.25	2491.25	-47.17	-37	-10.17	Complies
	- 9 MHz bin	2491.75	2491.25	2492.25	-47.14	-37	-10.14	Complies
	- 8 MHz bin	2492.75	2492.25	2493.25	-47.15	-37	-10.15	Complies
	- 7 MHz bin	2493.75	2493.25	2494.25	-47.09	-37	-10.09	Complies
	- 6 MHz bin	2494.75	2494.25	2495.25	-46.94	-37	-9.94	Complies
	- 5 MHz bin	2495.75	2495.25	2496.25	-46.07	-37	-9.07	Complies
	- 4 MHz bin	2496.75	2496.25	2497.25	-43.86	-37	-6.86	Complies
	- 3 MHz bin	2497.75	2497.25	2498.25	-39.48	-13	-26.48	Complies
	- 2 MHz bin	2498.75	2498.25	2499.25	-34.82	-13	-21.82	Complies
	- 1 MHz bin	2499.75	2499.25	2500.25	-20.27	-13	-7.27	Complies
	+ 1 MHz bin	2506.25	2505.75	2506.75	-17.64	-13	-4.64	Complies
	+ 2 MHz bin	2507.25	2506.75	2507.75	-29.88	-13	-16.88	Complies
	+ 3 MHz bin	2508.25	2507.75	2508.75	-34.44	-13	-21.44	Complies
	+ 4 MHz bin	2509.25	2508.75	2509.75	-40.38	-37	-3.38	Complies
	+ 5 MHz bin	2510.25	2509.75	2510.75	-44.61	-37	-7.61	Complies
	+ 6 MHz bin	2511.25	2510.75	2511.75	-46.25	-37	-9.25	Complies
	+ 7 MHz bin	2512.25	2511.75	2512.75	-46.88	-37	-9.88	Complies
	+ 8 MHz bin	2513.25	2512.75	2513.75	-47.08	-37	-10.08	Complies
+ 9 MHz bin	2514.25	2513.75	2514.75	-47.15	-37	-10.15	Complies	
+ 10 MHz bin	2515.25	2514.75	2515.75	-47.15	-37	-10.15	Complies	

**2503 MHz, 5.5 MHz, 5.5W Channel, 64-QAM**

		Channel Center Freq (MHz)			2503	3/21/2006		
		Channel BW (MHz)			5.5	48 VDC Nom		
		Channel Bandedge - Low (MHz)			2500.25	64-QAM		
		Channel Bandedge - High (MHz)			2505.75			
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2490.75	2490.25	2491.25	-47.15	-37	-10.15	Complies
	- 9 MHz bin	2491.75	2491.25	2492.25	-47.15	-37	-10.15	Complies
	- 8 MHz bin	2492.75	2492.25	2493.25	-47.11	-37	-10.11	Complies
	- 7 MHz bin	2493.75	2493.25	2494.25	-47.11	-37	-10.11	Complies
	- 6 MHz bin	2494.75	2494.25	2495.25	-46.93	-37	-9.93	Complies
	- 5 MHz bin	2495.75	2495.25	2496.25	-46.12	-37	-9.12	Complies
	- 4 MHz bin	2496.75	2496.25	2497.25	-43.85	-37	-6.85	Complies
	- 3 MHz bin	2497.75	2497.25	2498.25	-39.52	-13	-26.52	Complies
	- 2 MHz bin	2498.75	2498.25	2499.25	-34.84	-13	-21.84	Complies
	- 1 MHz bin	2499.75	2499.25	2500.25	-20.20	-13	-7.20	Complies
	+ 1 MHz bin	2506.25	2505.75	2506.75	-17.76	-13	-4.76	Complies
	+ 2 MHz bin	2507.25	2506.75	2507.75	-29.82	-13	-16.82	Complies
	+ 3 MHz bin	2508.25	2507.75	2508.75	-34.47	-13	-21.47	Complies
	+ 4 MHz bin	2509.25	2508.75	2509.75	-40.39	-37	-3.39	Complies
	+ 5 MHz bin	2510.25	2509.75	2510.75	-44.61	-37	-7.61	Complies
	+ 6 MHz bin	2511.25	2510.75	2511.75	-46.25	-37	-9.25	Complies
	+ 7 MHz bin	2512.25	2511.75	2512.75	-46.87	-37	-9.87	Complies
	+ 8 MHz bin	2513.25	2512.75	2513.75	-47.11	-37	-10.11	Complies
+ 9 MHz bin	2514.25	2513.75	2514.75	-47.12	-37	-10.12	Complies	
+ 10 MHz bin	2515.25	2514.75	2515.75	-47.16	-37	-10.16	Complies	

**2593 MHz, 6.0 MHz, 5.5W Channel, 4-QAM**

		Channel Center Freq (MHz)		2593	3/21/2006			
		Channel BW (MHz)		6	48 VDC Nom			
		Channel Bandedge - Low (MHz)		2590	4-QAM			
		Channel Bandedge - High (MHz)		2596				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
62	- 10 MHz bin	2580.5	2580	2581	-47.08	-37	-10.08	Complies
	- 9 MHz bin	2581.5	2581	2582	-47.07	-37	-10.07	Complies
	- 8 MHz bin	2582.5	2582	2583	-47.05	-37	-10.05	Complies
	- 7 MHz bin	2583.5	2583	2584	-47.03	-37	-10.03	Complies
	- 6 MHz bin	2584.5	2584	2585	-46.70	-37	-9.70	Complies
	- 5 MHz bin	2585.5	2585	2586	-45.33	-37	-8.33	Complies
	- 4 MHz bin	2586.5	2586	2587	-42.70	-37	-5.70	Complies
	- 3 MHz bin	2587.5	2587	2588	-37.92	-13	-24.92	Complies
	- 2 MHz bin	2588.5	2588	2589	-31.62	-13	-18.62	Complies
	- 1 MHz bin	2589.5	2589	2590	-20.18	-13	-7.18	Complies
	+ 1 MHz bin	2596.5	2596	2597	-18.61	-13	-5.61	Complies
	+ 2 MHz bin	2597.5	2597	2598	-28.00	-13	-15.00	Complies
	+ 3 MHz bin	2598.5	2598	2599	-32.80	-13	-19.80	Complies
	+ 4 MHz bin	2599.5	2599	2600	-38.21	-37	-1.21	Complies
	+ 5 MHz bin	2600.5	2600	2601	-42.81	-37	-5.81	Complies
	+ 6 MHz bin	2601.5	2601	2602	-45.35	-37	-8.35	Complies
	+ 7 MHz bin	2602.5	2602	2603	-46.46	-37	-9.46	Complies
	+ 8 MHz bin	2603.5	2603	2604	-46.88	-37	-9.88	Complies
+ 9 MHz bin	2604.5	2604	2605	-46.99	-37	-9.99	Complies	
+ 10 MHz bin	2605.5	2605	2606	-47.08	-37	-10.08	Complies	

**2593 MHz, 6.0 MHz, 5.5W Channel, 16-QAM**

		Channel Center Freq (MHz)		2593	3/21/2006			
		Channel BW (MHz)		6	48 VDC Nom			
		Channel Bandedge - Low (MHz)		2590	16-QAM			
		Channel Bandedge - High (MHz)		2596				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
62	- 10 MHz bin	2580.5	2580	2581	-47.11	-37	-10.11	Complies
	- 9 MHz bin	2581.5	2581	2582	-47.12	-37	-10.12	Complies
	- 8 MHz bin	2582.5	2582	2583	-47.06	-37	-10.06	Complies
	- 7 MHz bin	2583.5	2583	2584	-46.99	-37	-9.99	Complies
	- 6 MHz bin	2584.5	2584	2585	-46.76	-37	-9.76	Complies
	- 5 MHz bin	2585.5	2585	2586	-45.47	-37	-8.47	Complies
	- 4 MHz bin	2586.5	2586	2587	-43.13	-37	-6.13	Complies
	- 3 MHz bin	2587.5	2587	2588	-38.36	-13	-25.36	Complies
	- 2 MHz bin	2588.5	2588	2589	-32.22	-13	-19.22	Complies
	- 1 MHz bin	2589.5	2589	2590	-20.36	-13	-7.36	Complies
	+ 1 MHz bin	2596.5	2596	2597	-18.93	-13	-5.93	Complies
	+ 2 MHz bin	2597.5	2597	2598	-28.37	-13	-15.37	Complies
	+ 3 MHz bin	2598.5	2598	2599	-33.13	-13	-20.13	Complies
	+ 4 MHz bin	2599.5	2599	2600	-38.52	-37	-1.52	Complies
	+ 5 MHz bin	2600.5	2600	2601	-43.05	-37	-6.05	Complies
	+ 6 MHz bin	2601.5	2601	2602	-45.48	-37	-8.48	Complies
	+ 7 MHz bin	2602.5	2602	2603	-46.50	-37	-9.50	Complies
	+ 8 MHz bin	2603.5	2603	2604	-46.88	-37	-9.88	Complies
+ 9 MHz bin	2604.5	2604	2605	-47.06	-37	-10.06	Complies	
+ 10 MHz bin	2605.5	2605	2606	-47.08	-37	-10.08	Complies	

**2593 MHz, 6.0 MHz, 5.5W Channel, 64-QAM**

		Channel Center Freq (MHz)		2593	3/21/2006			
		Channel BW (MHz)		6	48 VDC Nom			
		Channel Bandedge - Low (MHz)		2590	64-QAM			
		Channel Bandedge - High (MHz)		2596				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
62	- 10 MHz bin	2580.5	2580	2581	-47.11	-37	-10.11	Complies
	- 9 MHz bin	2581.5	2581	2582	-47.03	-37	-10.03	Complies
	- 8 MHz bin	2582.5	2582	2583	-47.07	-37	-10.07	Complies
	- 7 MHz bin	2583.5	2583	2584	-47.00	-37	-10.00	Complies
	- 6 MHz bin	2584.5	2584	2585	-46.78	-37	-9.78	Complies
	- 5 MHz bin	2585.5	2585	2586	-45.50	-37	-8.50	Complies
	- 4 MHz bin	2586.5	2586	2587	-43.12	-37	-6.12	Complies
	- 3 MHz bin	2587.5	2587	2588	-38.58	-13	-25.58	Complies
	- 2 MHz bin	2588.5	2588	2589	-32.31	-13	-19.31	Complies
	- 1 MHz bin	2589.5	2589	2590	-20.42	-13	-7.42	Complies
	+ 1 MHz bin	2596.5	2596	2597	-19.02	-13	-6.02	Complies
	+ 2 MHz bin	2597.5	2597	2598	-28.49	-13	-15.49	Complies
	+ 3 MHz bin	2598.5	2598	2599	-33.25	-13	-20.25	Complies
	+ 4 MHz bin	2599.5	2599	2600	-38.62	-37	-1.62	Complies
	+ 5 MHz bin	2600.5	2600	2601	-43.07	-37	-6.07	Complies
	+ 6 MHz bin	2601.5	2601	2602	-45.57	-37	-8.57	Complies
	+ 7 MHz bin	2602.5	2602	2603	-46.51	-37	-9.51	Complies
	+ 8 MHz bin	2603.5	2603	2604	-46.88	-37	-9.88	Complies
	+ 9 MHz bin	2604.5	2604	2605	-47.03	-37	-10.03	Complies
	+ 10 MHz bin	2605.5	2605	2606	-47.08	-37	-10.08	Complies

**2593 MHz, 5.5 MHz, 5.5W Channel, 4-QAM**

		Channel Center Freq (MHz)		2593	3/21/2006			
		Channel BW (MHz)		5.5	48 VDC Nom			
		Channel Bandedge - Low (MHz)		2590.25	4-QAM			
		Channel Bandedge - High (MHz)		2595.75				
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2580.75	2580.25	2581.25	-47.18	-37	-10.18	Complies
	- 9 MHz bin	2581.75	2581.25	2582.25	-47.09	-37	-10.09	Complies
	- 8 MHz bin	2582.75	2582.25	2583.25	-47.06	-37	-10.06	Complies
	- 7 MHz bin	2583.75	2583.25	2584.25	-47.03	-37	-10.03	Complies
	- 6 MHz bin	2584.75	2584.25	2585.25	-46.67	-37	-9.67	Complies
	- 5 MHz bin	2585.75	2585.25	2586.25	-45.16	-37	-8.16	Complies
	- 4 MHz bin	2586.75	2586.25	2587.25	-41.64	-37	-4.64	Complies
	- 3 MHz bin	2587.75	2587.25	2588.25	-35.67	-13	-22.67	Complies
	- 2 MHz bin	2588.75	2588.25	2589.25	-29.38	-13	-16.38	Complies
	- 1 MHz bin	2589.75	2589.25	2590.25	-17.81	-13	-4.81	Complies
	+ 1 MHz bin	2596.25	2595.75	2596.75	-16.89	-13	-3.89	Complies
	+ 2 MHz bin	2597.25	2596.75	2597.75	-26.75	-13	-13.75	Complies
	+ 3 MHz bin	2598.25	2597.75	2598.75	-31.07	-13	-18.07	Complies
	+ 4 MHz bin	2599.25	2598.75	2599.75	-37.25	-37	-0.25	Complies
	+ 5 MHz bin	2600.25	2599.75	2600.75	-42.45	-37	-5.45	Complies
	+ 6 MHz bin	2601.25	2600.75	2601.75	-45.26	-37	-8.26	Complies
	+ 7 MHz bin	2602.25	2601.75	2602.75	-46.50	-37	-9.50	Complies
	+ 8 MHz bin	2603.25	2602.75	2603.75	-46.93	-37	-9.93	Complies
	+ 9 MHz bin	2604.25	2603.75	2604.75	-47.07	-37	-10.07	Complies
	+ 10 MHz bin	2605.25	2604.75	2605.75	-47.16	-37	-10.16	Complies

**2593 MHz, 5.5 MHz, 5.5W Channel, 16-QAM**

		Channel Center Freq (MHz)			2593	3/21/2006		
		Channel BW (MHz)			5.5	48 VDC Nom		
		Channel Bandedge - Low (MHz)			2590.25	16-QAM		
		Channel Bandedge - High (MHz)			2595.75			
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2580.75	2580.25	2581.25	-47.14	-37	-10.14	Complies
	- 9 MHz bin	2581.75	2581.25	2582.25	-47.12	-37	-10.12	Complies
	- 8 MHz bin	2582.75	2582.25	2583.25	-47.05	-37	-10.05	Complies
	- 7 MHz bin	2583.75	2583.25	2584.25	-47.01	-37	-10.01	Complies
	- 6 MHz bin	2584.75	2584.25	2585.25	-46.66	-37	-9.66	Complies
	- 5 MHz bin	2585.75	2585.25	2586.25	-45.26	-37	-8.26	Complies
	- 4 MHz bin	2586.75	2586.25	2587.25	-41.84	-37	-4.84	Complies
	- 3 MHz bin	2587.75	2587.25	2588.25	-35.95	-13	-22.95	Complies
	- 2 MHz bin	2588.75	2588.25	2589.25	-29.63	-13	-16.63	Complies
	- 1 MHz bin	2589.75	2589.25	2590.25	-18.31	-13	-5.31	Complies
	+ 1 MHz bin	2596.25	2595.75	2596.75	-16.74	-13	-3.74	Complies
	+ 2 MHz bin	2597.25	2596.75	2597.75	-26.91	-13	-13.91	Complies
	+ 3 MHz bin	2598.25	2597.75	2598.75	-31.28	-13	-18.28	Complies
	+ 4 MHz bin	2599.25	2598.75	2599.75	-37.35	-37	-0.35	Complies
	+ 5 MHz bin	2600.25	2599.75	2600.75	-42.48	-37	-5.48	Complies
	+ 6 MHz bin	2601.25	2600.75	2601.75	-45.31	-37	-8.31	Complies
	+ 7 MHz bin	2602.25	2601.75	2602.75	-46.52	-37	-9.52	Complies
	+ 8 MHz bin	2603.25	2602.75	2603.75	-46.97	-37	-9.97	Complies
+ 9 MHz bin	2604.25	2603.75	2604.75	-47.06	-37	-10.06	Complies	
+ 10 MHz bin	2605.25	2604.75	2605.75	-47.11	-37	-10.11	Complies	

**2593 MHz, 5.5 MHz, 5.5W Channel, 64-QAM**

		Channel Center Freq (MHz)			2593	3/21/2006		
		Channel BW (MHz)			5.5	48 VDC Nom		
		Channel Bandedge - Low (MHz)			2590.25	64-QAM		
		Channel Bandedge - High (MHz)			2595.75			
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2580.75	2580.25	2581.25	-47.11	-37	-10.11	Complies
	- 9 MHz bin	2581.75	2581.25	2582.25	-47.08	-37	-10.08	Complies
	- 8 MHz bin	2582.75	2582.25	2583.25	-47.07	-37	-10.07	Complies
	- 7 MHz bin	2583.75	2583.25	2584.25	-47.01	-37	-10.01	Complies
	- 6 MHz bin	2584.75	2584.25	2585.25	-46.69	-37	-9.69	Complies
	- 5 MHz bin	2585.75	2585.25	2586.25	-45.34	-37	-8.34	Complies
	- 4 MHz bin	2586.75	2586.25	2587.25	-41.90	-37	-4.90	Complies
	- 3 MHz bin	2587.75	2587.25	2588.25	-36.08	-13	-23.08	Complies
	- 2 MHz bin	2588.75	2588.25	2589.25	-29.73	-13	-16.73	Complies
	- 1 MHz bin	2589.75	2589.25	2590.25	-18.26	-13	-5.26	Complies
	+ 1 MHz bin	2596.25	2595.75	2596.75	-16.90	-13	-3.90	Complies
	+ 2 MHz bin	2597.25	2596.75	2597.75	-26.98	-13	-13.98	Complies
	+ 3 MHz bin	2598.25	2597.75	2598.75	-31.24	-13	-18.24	Complies
	+ 4 MHz bin	2599.25	2598.75	2599.75	-37.41	-37	-0.41	Complies
	+ 5 MHz bin	2600.25	2599.75	2600.75	-42.48	-37	-5.48	Complies
	+ 6 MHz bin	2601.25	2600.75	2601.75	-45.27	-37	-8.27	Complies
	+ 7 MHz bin	2602.25	2601.75	2602.75	-46.52	-37	-9.52	Complies
	+ 8 MHz bin	2603.25	2602.75	2603.75	-46.92	-37	-9.92	Complies
+ 9 MHz bin	2604.25	2603.75	2604.75	-47.03	-37	-10.03	Complies	
+ 10 MHz bin	2605.25	2604.75	2605.75	-47.10	-37	-10.10	Complies	

**2689 MHz, 6.0 MHz, 5.5W Channel, 4-QAM**

	Channel Center Freq (MHz)		2689		3/21/2006			
	Channel BW (MHz)		6		48 VDC Nom			
	Channel Bandedge - Low (MHz)		2686		4-QAM			
	Channel Bandedge - High (MHz)		2692					
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
62	- 10 MHz bin	2676.5	2676	2677	-46.99	-37	-9.99	Complies
	- 9 MHz bin	2677.5	2677	2678	-46.93	-37	-9.93	Complies
	- 8 MHz bin	2678.5	2678	2679	-46.90	-37	-9.90	Complies
	- 7 MHz bin	2679.5	2679	2680	-46.85	-37	-9.85	Complies
	- 6 MHz bin	2680.5	2680	2681	-46.40	-37	-9.40	Complies
	- 5 MHz bin	2681.5	2681	2682	-44.61	-37	-7.61	Complies
	- 4 MHz bin	2682.5	2682	2683	-41.32	-37	-4.32	Complies
	- 3 MHz bin	2683.5	2683	2684	-36.15	-13	-23.15	Complies
	- 2 MHz bin	2684.5	2684	2685	-30.65	-13	-17.65	Complies
	- 1 MHz bin	2685.5	2685	2686	-17.54	-13	-4.54	Complies
	+ 1 MHz bin	2692.5	2692	2693	-16.07	-13	-3.07	Complies
	+ 2 MHz bin	2693.5	2693	2694	-29.01	-13	-16.01	Complies
	+ 3 MHz bin	2694.5	2694	2695	-33.44	-13	-20.44	Complies
	+ 4 MHz bin	2695.5	2695	2696	-38.38	-37	-1.38	Complies
	+ 5 MHz bin	2696.5	2696	2697	-42.31	-37	-5.31	Complies
	+ 6 MHz bin	2697.5	2697	2698	-44.85	-37	-7.85	Complies
	+ 7 MHz bin	2698.5	2698	2699	-46.18	-37	-9.18	Complies
	+ 8 MHz bin	2699.5	2699	2700	-46.66	-37	-9.66	Complies
+ 9 MHz bin	2700.5	2700	2701	-46.89	-37	-9.89	Complies	
+ 10 MHz bin	2701.5	2701	2702	-46.95	-37	-9.95	Complies	

**2689 MHz, 6.0 MHz, 5.5W Channel, 16-QAM**

	Channel Center Freq (MHz)		2689		3/21/2006			
	Channel BW (MHz)		6		48 VDC Nom			
	Channel Bandedge - Low (MHz)		2686		16-QAM			
	Channel Bandedge - High (MHz)		2692					
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
62	- 10 MHz bin	2676.5	2676	2677	-46.98	-37	-9.98	Complies
	- 9 MHz bin	2677.5	2677	2678	-46.94	-37	-9.94	Complies
	- 8 MHz bin	2678.5	2678	2679	-46.90	-37	-9.90	Complies
	- 7 MHz bin	2679.5	2679	2680	-46.85	-37	-9.85	Complies
	- 6 MHz bin	2680.5	2680	2681	-46.47	-37	-9.47	Complies
	- 5 MHz bin	2681.5	2681	2682	-44.84	-37	-7.84	Complies
	- 4 MHz bin	2682.5	2682	2683	-41.72	-37	-4.72	Complies
	- 3 MHz bin	2683.5	2683	2684	-36.88	-13	-23.88	Complies
	- 2 MHz bin	2684.5	2684	2685	-31.41	-13	-18.41	Complies
	- 1 MHz bin	2685.5	2685	2686	-17.91	-13	-4.91	Complies
	+ 1 MHz bin	2692.5	2692	2693	-16.76	-13	-3.76	Complies
	+ 2 MHz bin	2693.5	2693	2694	-29.55	-13	-16.55	Complies
	+ 3 MHz bin	2694.5	2694	2695	-33.94	-13	-20.94	Complies
	+ 4 MHz bin	2695.5	2695	2696	-38.73	-37	-1.73	Complies
	+ 5 MHz bin	2696.5	2696	2697	-42.58	-37	-5.58	Complies
	+ 6 MHz bin	2697.5	2697	2698	-45.01	-37	-8.01	Complies
	+ 7 MHz bin	2698.5	2698	2699	-46.22	-37	-9.22	Complies
	+ 8 MHz bin	2699.5	2699	2700	-46.71	-37	-9.71	Complies
+ 9 MHz bin	2700.5	2700	2701	-46.95	-37	-9.95	Complies	
+ 10 MHz bin	2701.5	2701	2702	-46.96	-37	-9.96	Complies	

**2689 MHz, 6.0 MHz, 5.5W Channel, 64-QAM**

	Channel Center Freq (MHz)		2689		3/21/2006			
	Channel BW (MHz)		6		48 VDC Nom			
	Channel Bandedge - Low (MHz)		2686		64-QAM			
	Channel Bandedge - High (MHz)		2692					
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
60	- 10 MHz bin	2676.5	2676	2677	-47.00	-37	-10.00	Complies
	- 9 MHz bin	2677.5	2677	2678	-46.95	-37	-9.95	Complies
	- 8 MHz bin	2678.5	2678	2679	-46.93	-37	-9.93	Complies
	- 7 MHz bin	2679.5	2679	2680	-46.86	-37	-9.86	Complies
	- 6 MHz bin	2680.5	2680	2681	-46.46	-37	-9.46	Complies
	- 5 MHz bin	2681.5	2681	2682	-44.83	-37	-7.83	Complies
	- 4 MHz bin	2682.5	2682	2683	-41.74	-37	-4.74	Complies
	- 3 MHz bin	2683.5	2683	2684	-36.96	-13	-23.96	Complies
	- 2 MHz bin	2684.5	2684	2685	-31.52	-13	-18.52	Complies
	- 1 MHz bin	2685.5	2685	2686	-17.98	-13	-4.98	Complies
	+ 1 MHz bin	2692.5	2692	2693	-16.68	-13	-3.68	Complies
	+ 2 MHz bin	2693.5	2693	2694	-29.67	-13	-16.67	Complies
	+ 3 MHz bin	2694.5	2694	2695	-33.94	-13	-20.94	Complies
	+ 4 MHz bin	2695.5	2695	2696	-38.83	-37	-1.83	Complies
	+ 5 MHz bin	2696.5	2696	2697	-42.61	-37	-5.61	Complies
	+ 6 MHz bin	2697.5	2697	2698	-45.01	-37	-8.01	Complies
	+ 7 MHz bin	2698.5	2698	2699	-46.20	-37	-9.20	Complies
	+ 8 MHz bin	2699.5	2699	2700	-46.71	-37	-9.71	Complies
	+ 9 MHz bin	2700.5	2700	2701	-46.91	-37	-9.91	Complies
	+ 10 MHz bin	2701.5	2701	2702	-46.95	-37	-9.95	Complies

**2689 MHz, 5.5 MHz, 5.5W Channel, 4-QAM**

	Channel Center Freq (MHz)		2689		3/21/2006			
	Channel BW (MHz)		5.5		48 VDC Nom			
	Channel Bandedge - Low (MHz)		2686.25		4-QAM			
	Channel Bandedge - High (MHz)		2691.75					
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2676.75	2676.25	2677.25	-47.03	-37	-10.03	Complies
	- 9 MHz bin	2677.75	2677.25	2678.25	-47.00	-37	-10.00	Complies
	- 8 MHz bin	2678.75	2678.25	2679.25	-46.95	-37	-9.95	Complies
	- 7 MHz bin	2679.75	2679.25	2680.25	-46.84	-37	-9.84	Complies
	- 6 MHz bin	2680.75	2680.25	2681.25	-46.27	-37	-9.27	Complies
	- 5 MHz bin	2681.75	2681.25	2682.25	-44.26	-37	-7.26	Complies
	- 4 MHz bin	2682.75	2682.25	2683.25	-40.11	-37	-3.11	Complies
	- 3 MHz bin	2683.75	2683.25	2684.25	-34.24	-13	-21.24	Complies
	- 2 MHz bin	2684.75	2684.25	2685.25	-29.02	-13	-16.02	Complies
	- 1 MHz bin	2685.75	2685.25	2686.25	-15.80	-13	-2.80	Complies
	+ 1 MHz bin	2692.25	2691.75	2692.75	-13.20	-13	-0.20	Complies
	+ 2 MHz bin	2693.25	2692.75	2693.75	-27.82	-13	-14.82	Complies
	+ 3 MHz bin	2694.25	2693.75	2694.75	-31.52	-13	-18.52	Complies
	+ 4 MHz bin	2695.25	2694.75	2695.75	-37.04	-37	-0.04	Complies
	+ 5 MHz bin	2696.25	2695.75	2696.75	-41.69	-37	-4.69	Complies
	+ 6 MHz bin	2697.25	2696.75	2697.75	-44.55	-37	-7.55	Complies
	+ 7 MHz bin	2698.25	2697.75	2698.75	-46.12	-37	-9.12	Complies
	+ 8 MHz bin	2699.25	2698.75	2699.75	-46.69	-37	-9.69	Complies
	+ 9 MHz bin	2700.25	2699.75	2700.75	-46.88	-37	-9.88	Complies
	+ 10 MHz bin	2701.25	2700.75	2701.75	-47.00	-37	-10.00	Complies



**2689 MHz, 5.5 MHz, 5.5W Channel, 16-QAM**

		Channel Center Freq (MHz)			2689	3/21/2006		
		Channel BW (MHz)			5.5	48 VDC Nom		
		Channel Bandedge - Low (MHz)			2686.25	16-QAM		
		Channel Bandedge - High (MHz)			2691.75			
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2676.75	2676.25	2677.25	-47.00	-37	-10.00	Complies
	- 9 MHz bin	2677.75	2677.25	2678.25	-46.95	-37	-9.95	Complies
	- 8 MHz bin	2678.75	2678.25	2679.25	-46.93	-37	-9.93	Complies
	- 7 MHz bin	2679.75	2679.25	2680.25	-46.84	-37	-9.84	Complies
	- 6 MHz bin	2680.75	2680.25	2681.25	-46.31	-37	-9.31	Complies
	- 5 MHz bin	2681.75	2681.25	2682.25	-44.31	-37	-7.31	Complies
	- 4 MHz bin	2682.75	2682.25	2683.25	-40.18	-37	-3.18	Complies
	- 3 MHz bin	2683.75	2683.25	2684.25	-34.31	-13	-21.31	Complies
	- 2 MHz bin	2684.75	2684.25	2685.25	-28.97	-13	-15.97	Complies
	- 1 MHz bin	2685.75	2685.25	2686.25	-15.62	-13	-2.62	Complies
	+ 1 MHz bin	2692.25	2691.75	2692.75	-13.47	-13	-0.47	Complies
	+ 2 MHz bin	2693.25	2692.75	2693.75	-28.04	-13	-15.04	Complies
	+ 3 MHz bin	2694.25	2693.75	2694.75	-31.86	-13	-18.86	Complies
	+ 4 MHz bin	2695.25	2694.75	2695.75	-37.35	-37	-0.35	Complies
	+ 5 MHz bin	2696.25	2695.75	2696.75	-41.79	-37	-4.79	Complies
	+ 6 MHz bin	2697.25	2696.75	2697.75	-44.68	-37	-7.68	Complies
	+ 7 MHz bin	2698.25	2697.75	2698.75	-46.14	-37	-9.14	Complies
	+ 8 MHz bin	2699.25	2698.75	2699.75	-46.71	-37	-9.71	Complies
+ 9 MHz bin	2700.25	2699.75	2700.75	-46.97	-37	-9.97	Complies	
+ 10 MHz bin	2701.25	2700.75	2701.75	-46.99	-37	-9.99	Complies	

**2689 MHz, 5.5 MHz, 5.5W Channel, 64-QAM**

		Channel Center Freq (MHz)			2689	3/21/2006		
		Channel BW (MHz)			5.5	48 VDC Nom		
		Channel Bandedge - Low (MHz)			2686.25	64-QAM		
		Channel Bandedge - High (MHz)			2691.75			
Resolution Bandwidth (kHz)		1 MHz Band Center Freq (MHz)	1 MHz Band Low Freq (MHz)	1 MHz Band High Freq (MHz)	Emission Power in 1 MHz BW (dBm)	Spec (dBm/MHz)	Margin (dB)	Result
56	- 10 MHz bin	2676.75	2676.25	2677.25	-46.98	-37	-9.98	Complies
	- 9 MHz bin	2677.75	2677.25	2678.25	-46.96	-37	-9.96	Complies
	- 8 MHz bin	2678.75	2678.25	2679.25	-46.97	-37	-9.97	Complies
	- 7 MHz bin	2679.75	2679.25	2680.25	-46.84	-37	-9.84	Complies
	- 6 MHz bin	2680.75	2680.25	2681.25	-46.35	-37	-9.35	Complies
	- 5 MHz bin	2681.75	2681.25	2682.25	-44.45	-37	-7.45	Complies
	- 4 MHz bin	2682.75	2682.25	2683.25	-40.45	-37	-3.45	Complies
	- 3 MHz bin	2683.75	2683.25	2684.25	-34.67	-13	-21.67	Complies
	- 2 MHz bin	2684.75	2684.25	2685.25	-29.37	-13	-16.37	Complies
	- 1 MHz bin	2685.75	2685.25	2686.25	-16.01	-13	-3.01	Complies
	+ 1 MHz bin	2692.25	2691.75	2692.75	-13.52	-13	-0.52	Complies
	+ 2 MHz bin	2693.25	2692.75	2693.75	-28.38	-13	-15.38	Complies
	+ 3 MHz bin	2694.25	2693.75	2694.75	-32.01	-13	-19.01	Complies
	+ 4 MHz bin	2695.25	2694.75	2695.75	-37.52	-37	-0.52	Complies
	+ 5 MHz bin	2696.25	2695.75	2696.75	-41.94	-37	-4.94	Complies
	+ 6 MHz bin	2697.25	2696.75	2697.75	-44.76	-37	-7.76	Complies
	+ 7 MHz bin	2698.25	2697.75	2698.75	-46.18	-37	-9.18	Complies
	+ 8 MHz bin	2699.25	2698.75	2699.75	-46.74	-37	-9.74	Complies
+ 9 MHz bin	2700.25	2699.75	2700.75	-46.92	-37	-9.92	Complies	
+ 10 MHz bin	2701.25	2700.75	2701.75	-46.98	-37	-9.98	Complies	

## Unwanted Emissions (Industry Canada)

IC Rules: RSS-193, section 6.3(c)(i)  
SRSP-302.5, section 5.5

IC Requirement: In any 100 kHz bandwidth, the minimum attenuation of the emission spectral density that is relative to the inband spectral density, found outside the sub-band, shall be: (a) 25 dB at the sub-band edge, 40 dB at 250 kHz from the sub-band edge, 60 dB at 3MHz from the sub-band edge, and linearly interpolated in between; (b) 60 dB over the rest of the out-of-band domain.

Test Procedure: The measurement of the emission mask for compliance to the RSS-193 “Wideband Digital Modulation – Emission Mask C” was performed under the guidance of “The Measurement of Power Spectral Density for Industry Canada Radio Standard Specification Compliance”, prepared by, Brian Kasper, Certification and Engineering Bureau, Industry Canada. A copy of this document can be found at: [http://strategis.ic.gc.ca/epic/internet/inceb-bhst.nsf/en/h\\_tt00032e.html](http://strategis.ic.gc.ca/epic/internet/inceb-bhst.nsf/en/h_tt00032e.html)

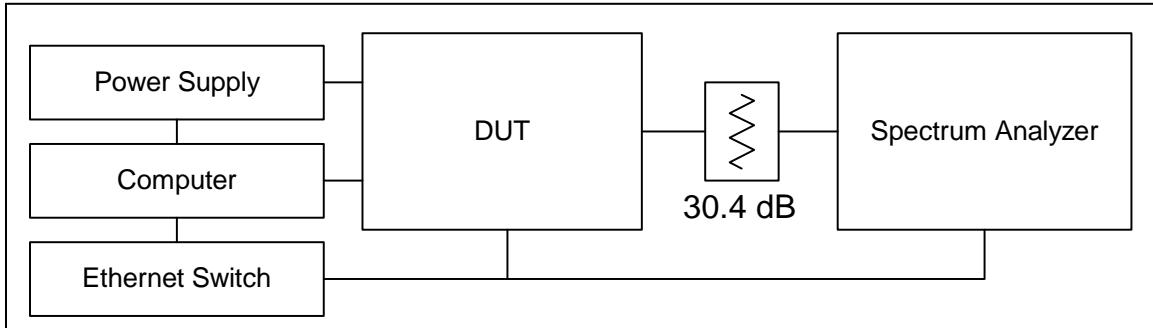
The Orthogonal Frequency Division Multiplexing (OFDM) modulated Time Division Duplex (TDD) RF signal from the test unit is applied to a spectrum analyzer. The spectrum analyzer is configured with the following settings:

RF Span = 100 kHz  
Resolution BW = 100 kHz  
Video BW = 1 MHz  
Sweep = 50 msec  
Detector = Sample  
RF Path Attenuation = 30.4 dB

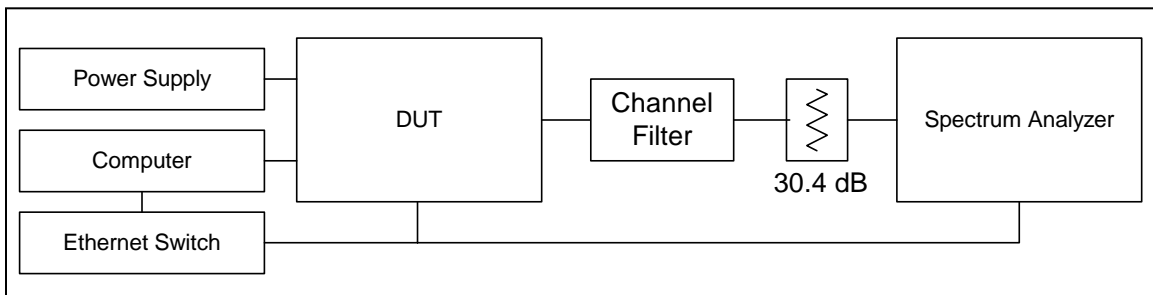
The transmitter is enabled in test mode with the attached computer and the power adjusted to 33 dBm +0/-1 dB and 37 dBm +0/-1 dB.

Test Conditions: Frequencies = 2503, 2593, and 2689 MHz,  
(5.5 and 6.0 MHz Bandwidth)  
Temperature = 25°C  
Supply Voltage = 48 VDC nominal

### Unwanted Emissions (Cont'd)



**2W Unwanted Emissions Test Setup**

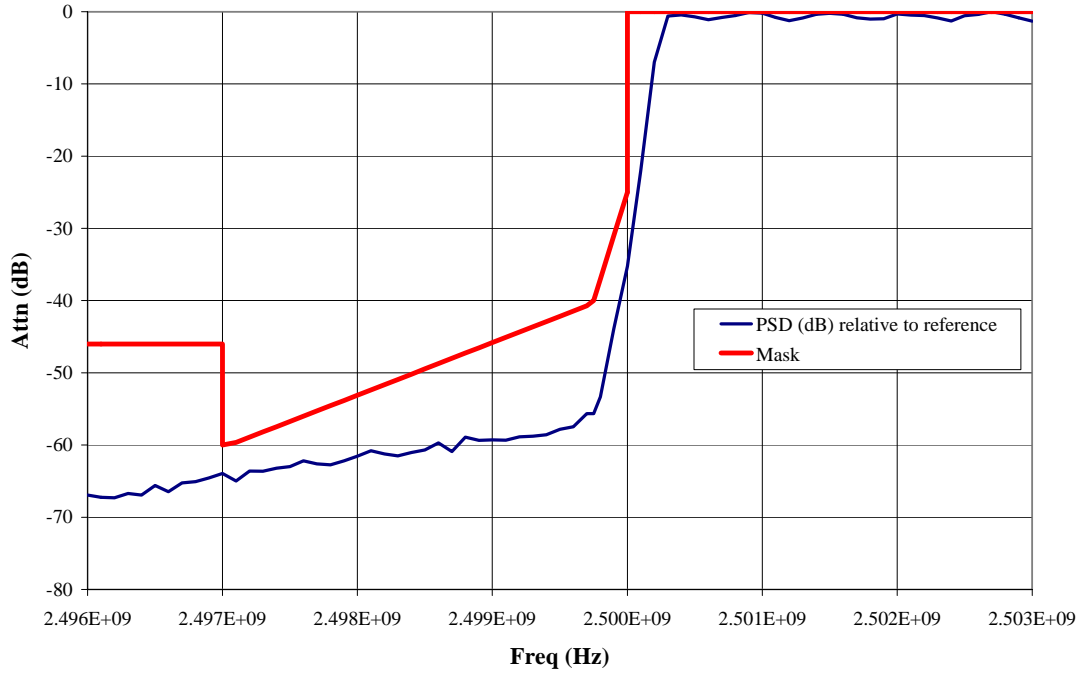


**5.5W Unwanted Emissions Test Setup**

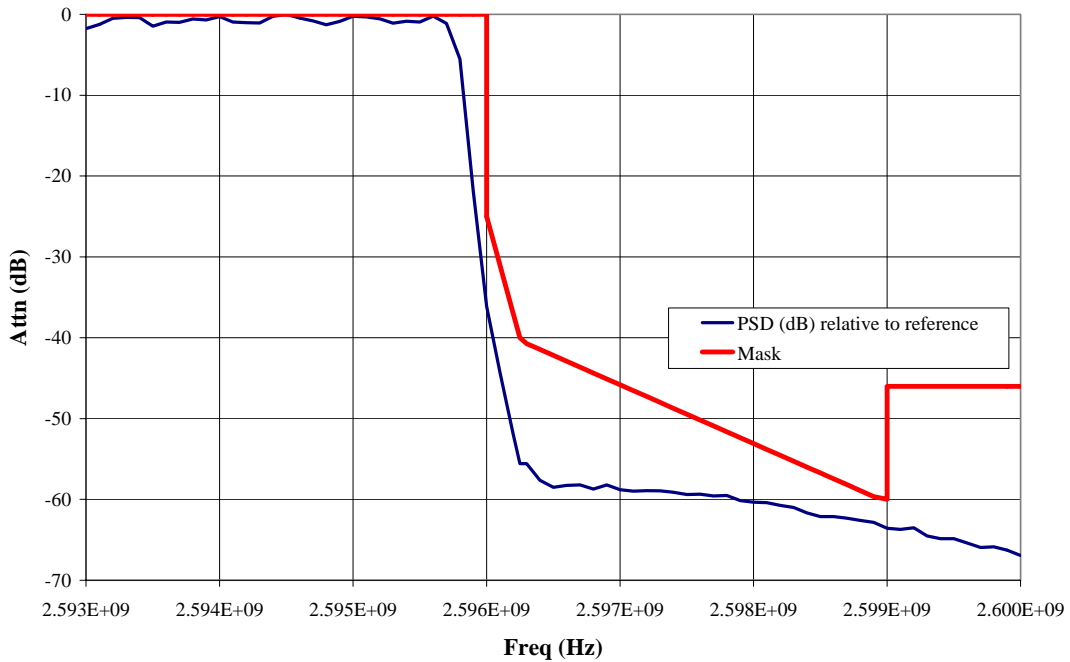
## 2W Unwanted Emissions Test Results

### 4QAM, 6.0 MHz Bandwidth

Modulation Mask at 2500 MHz band edge  
4-QAM



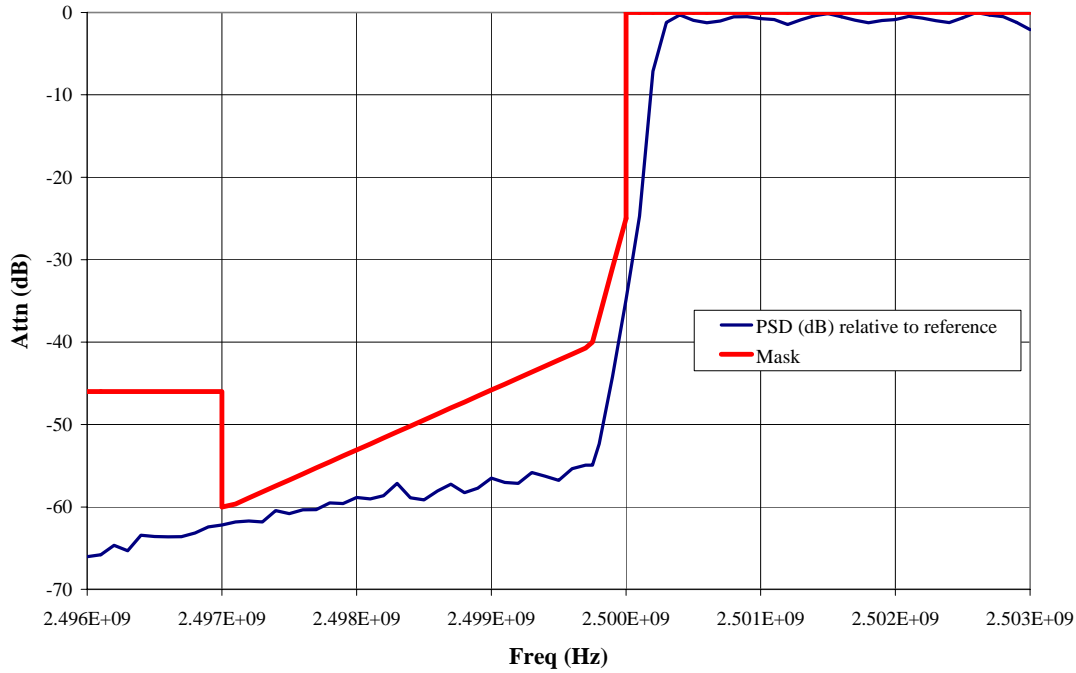
Modulation Mask at 2596 MHz band edge  
4-QAM



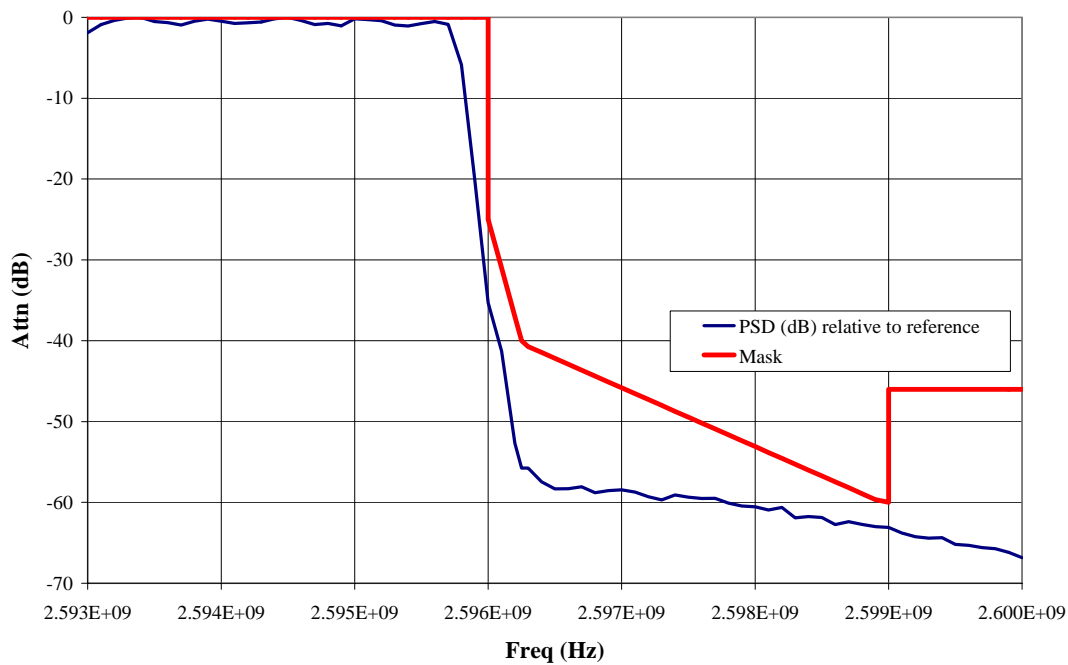
## 2W Unwanted Emissions Results (Cont'd)

### 16 QAM, 6.0 MHz Bandwidth

Modulation Mask at 2500 MHz band edge  
16-QAM



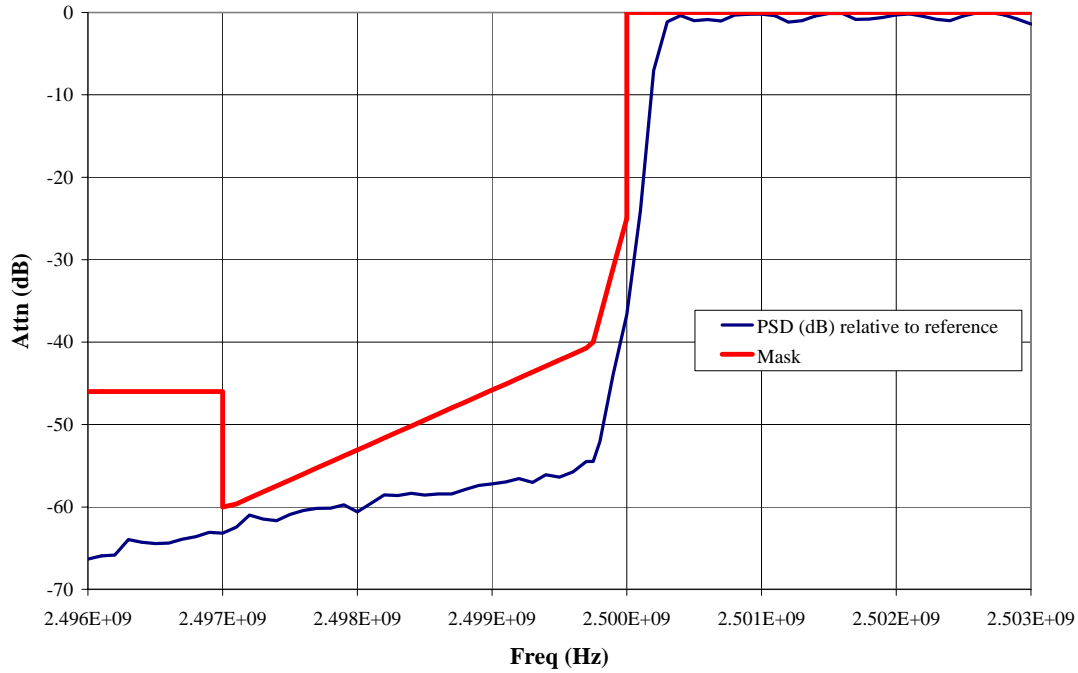
Modulation Mask at 2596 MHz band edge  
16-QAM



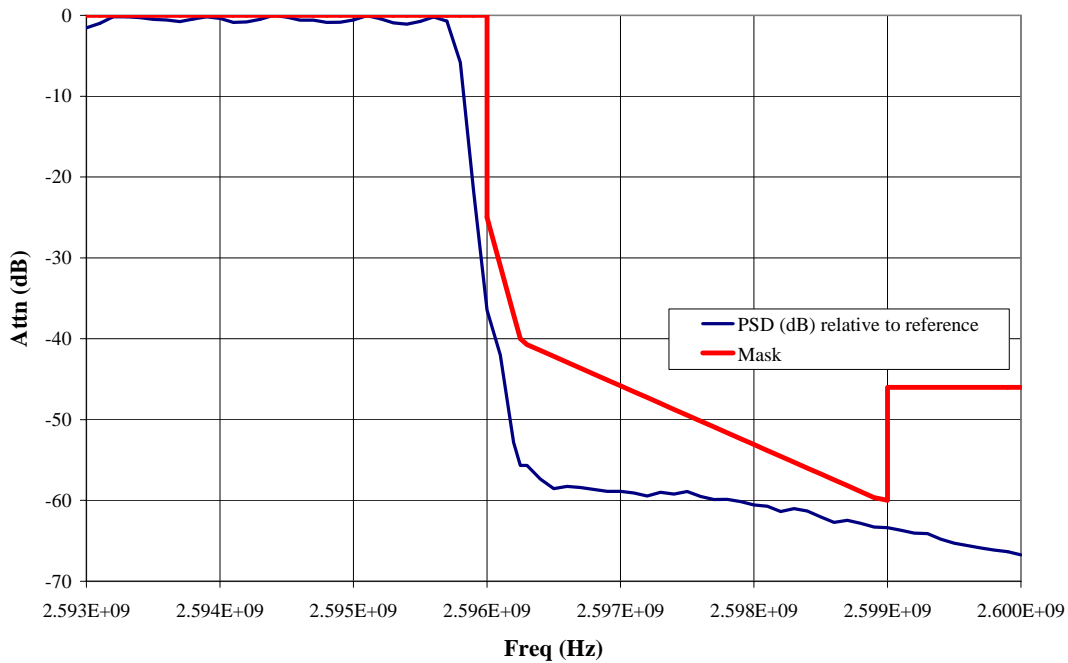
## 2W Unwanted Emissions Results (Cont'd)

### 64 QAM, 6.0 MHz Bandwidth

Modulation Mask at 2500 MHz band edge  
64-QAM



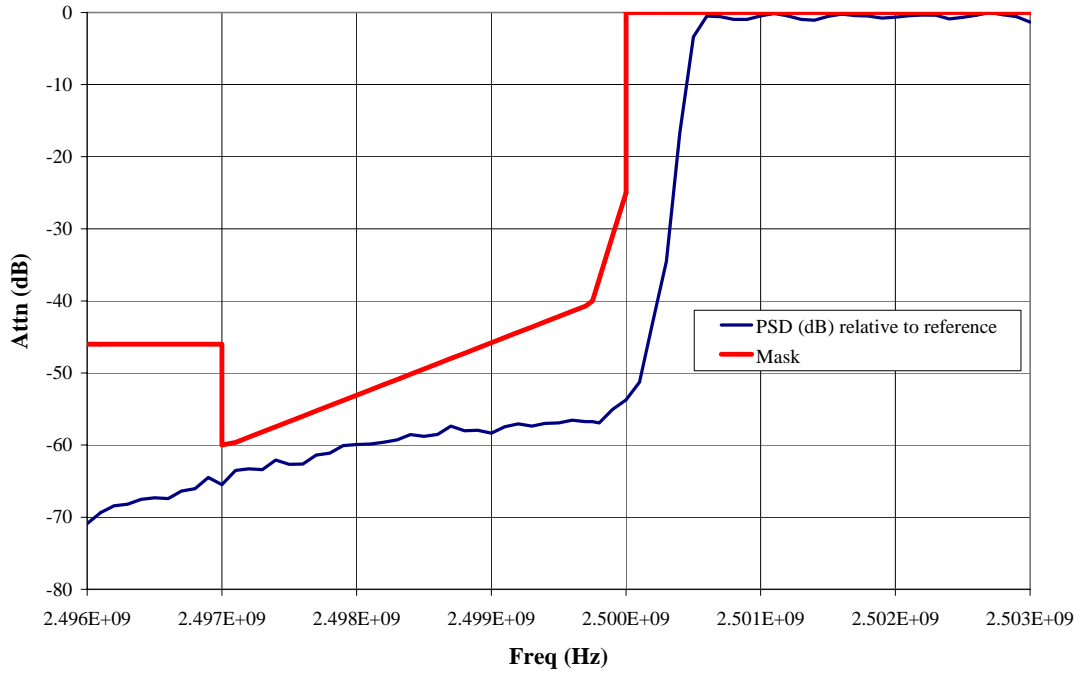
Modulation Mask at 2596 MHz band edge  
64-QAM



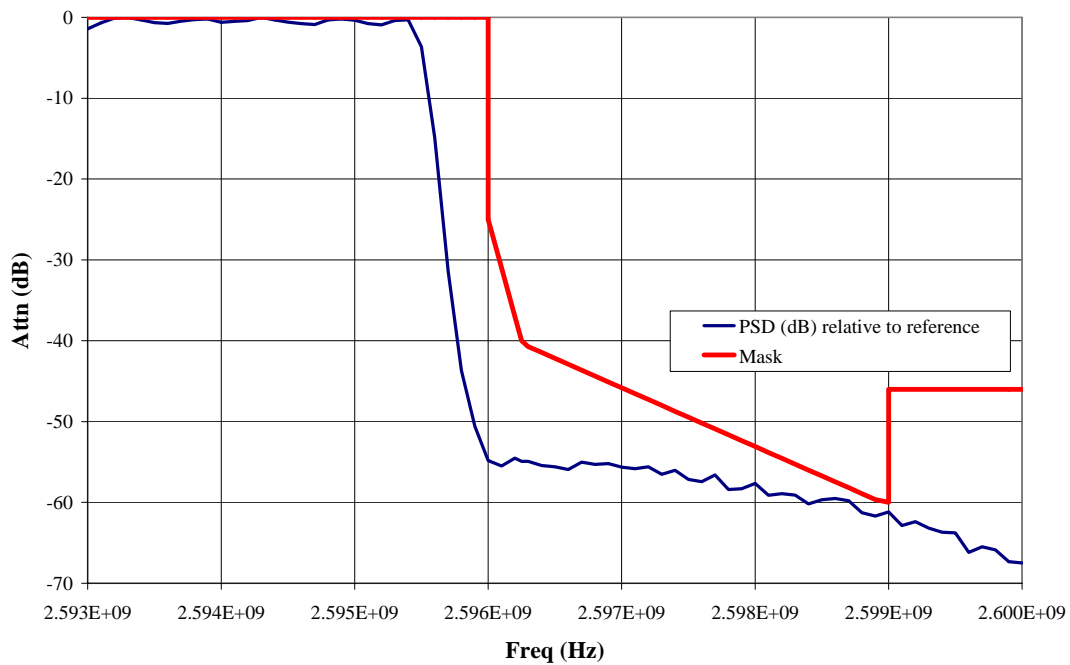
## 2W Unwanted Emissions Results (Cont'd)

### 4 QAM, 5.5 MHz Bandwidth

Modulation Mask at 2500 MHz band edge  
4-QAM



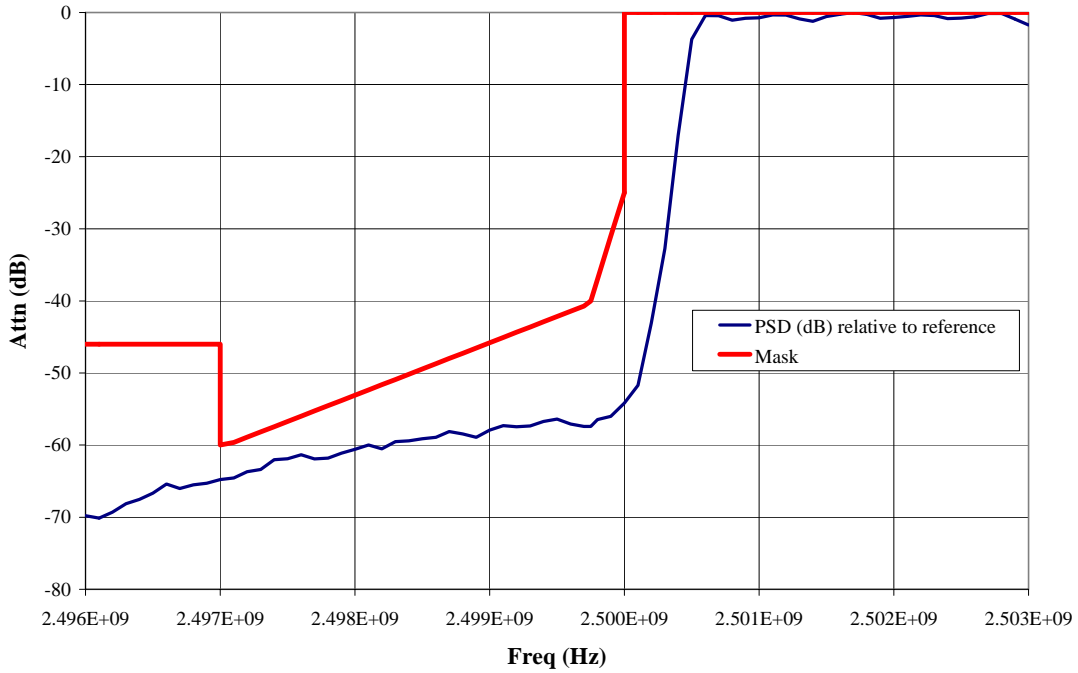
Modulation Mask at 2596 MHz band edge  
4-QAM



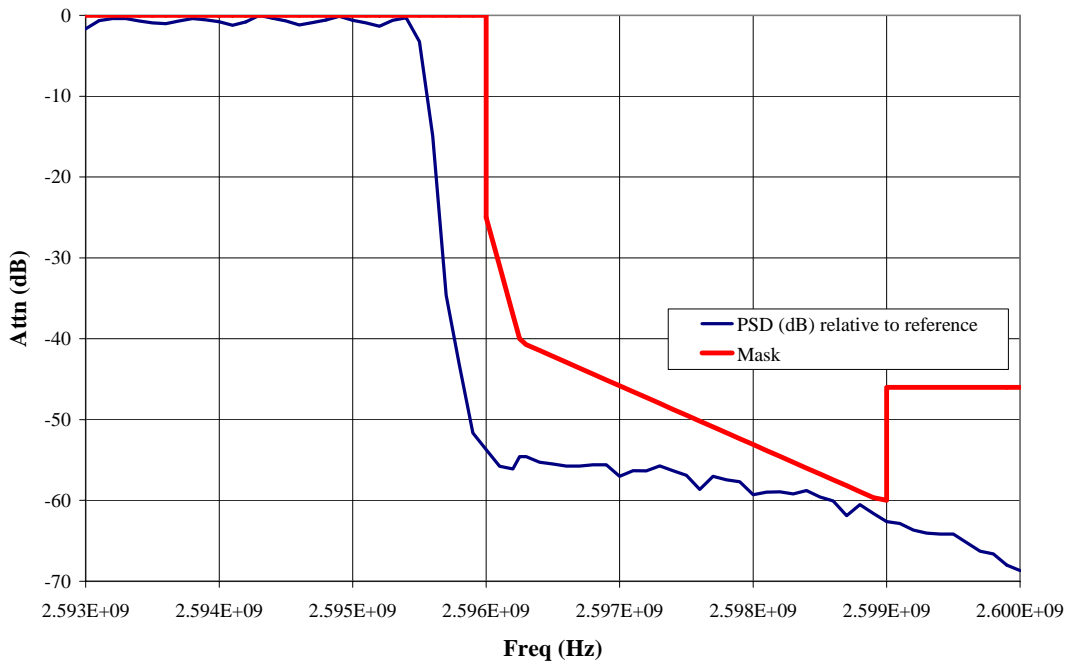
## 2W Unwanted Emissions Results (Cont'd)

### 16 QAM, 5.5 MHz Bandwidth

Modulation Mask at 2500 MHz band edge  
16-QAM



Modulation Mask at 2596 MHz band edge  
16-QAM

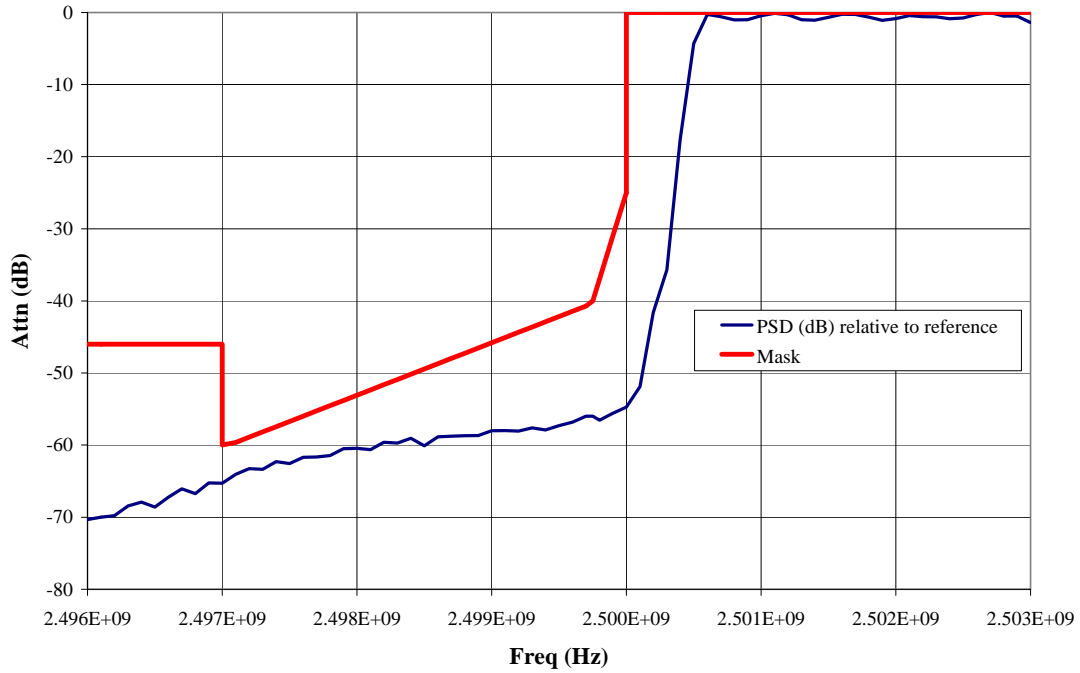




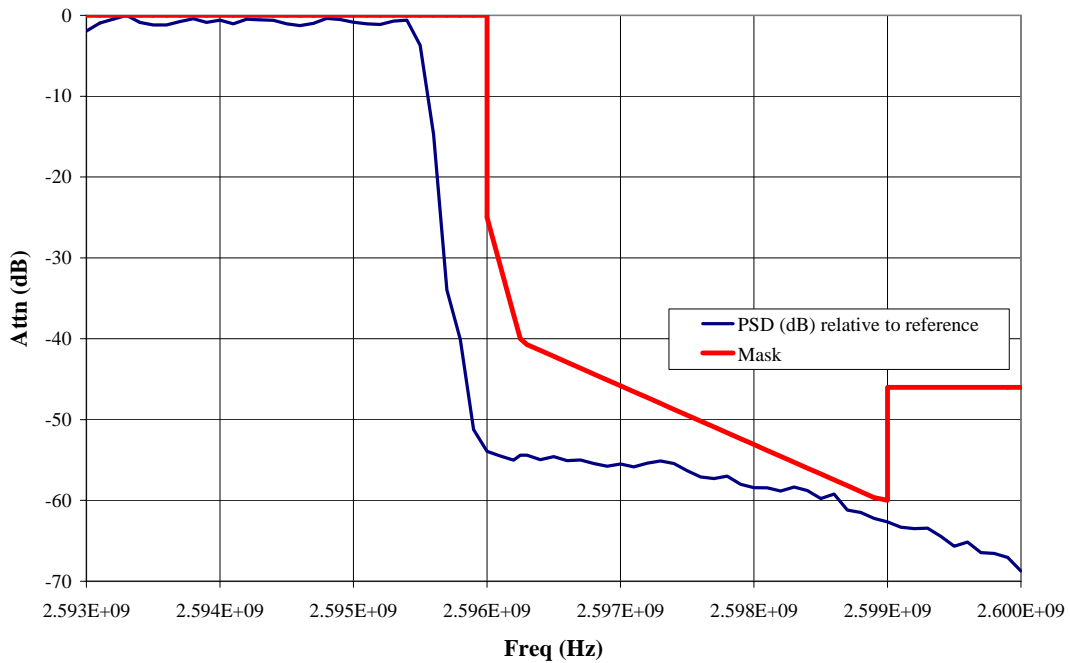
## 2W Unwanted Emissions Results (Cont'd)

### 64 QAM, 5.5 MHz Bandwidth

Modulation Mask at 2500 MHz band edge  
64-QAM



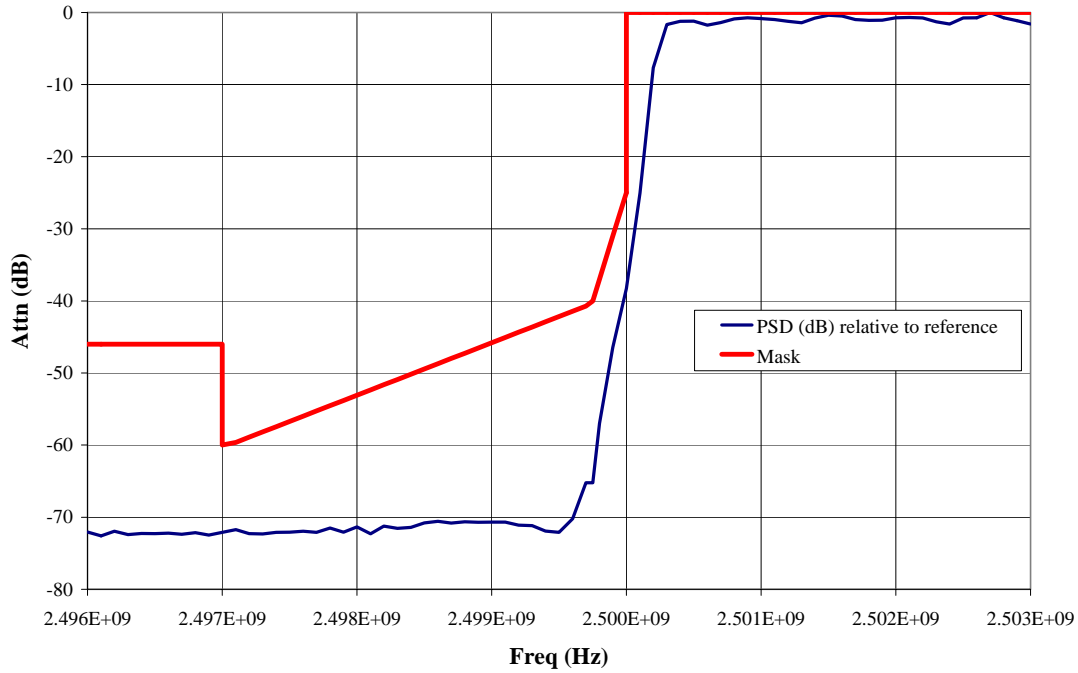
Modulation Mask at 2596 MHz band edge  
64-QAM



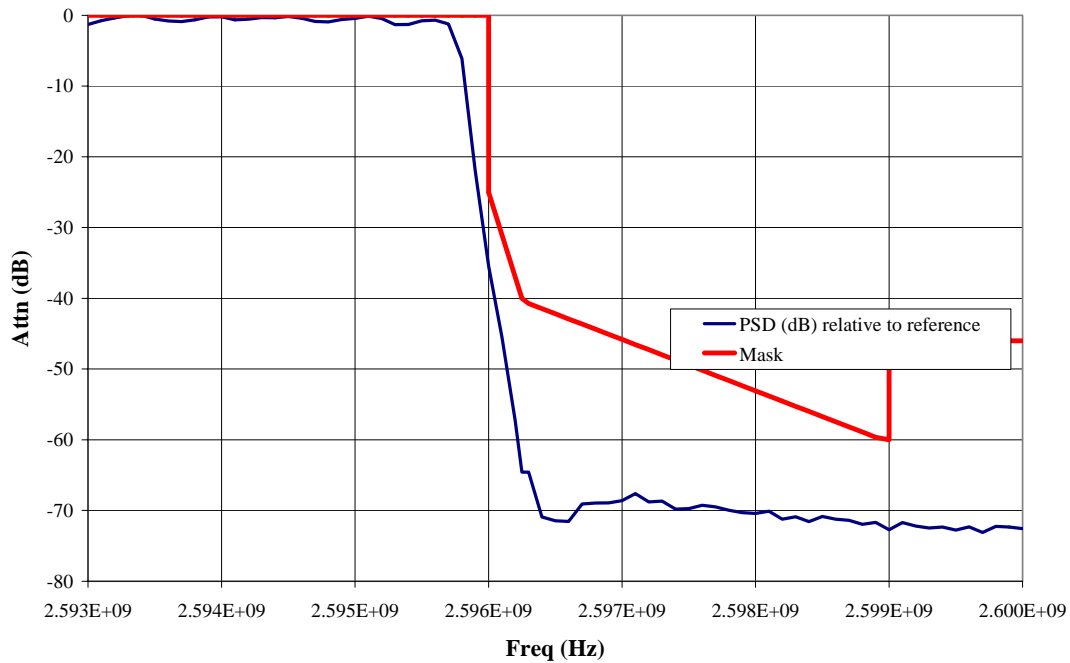
### 5.5W Unwanted Emissions Results (Cont'd)

#### 4 QAM, 6.0 MHz Bandwidth

Modulation Mask at 2500 MHz band edge  
4-QAM



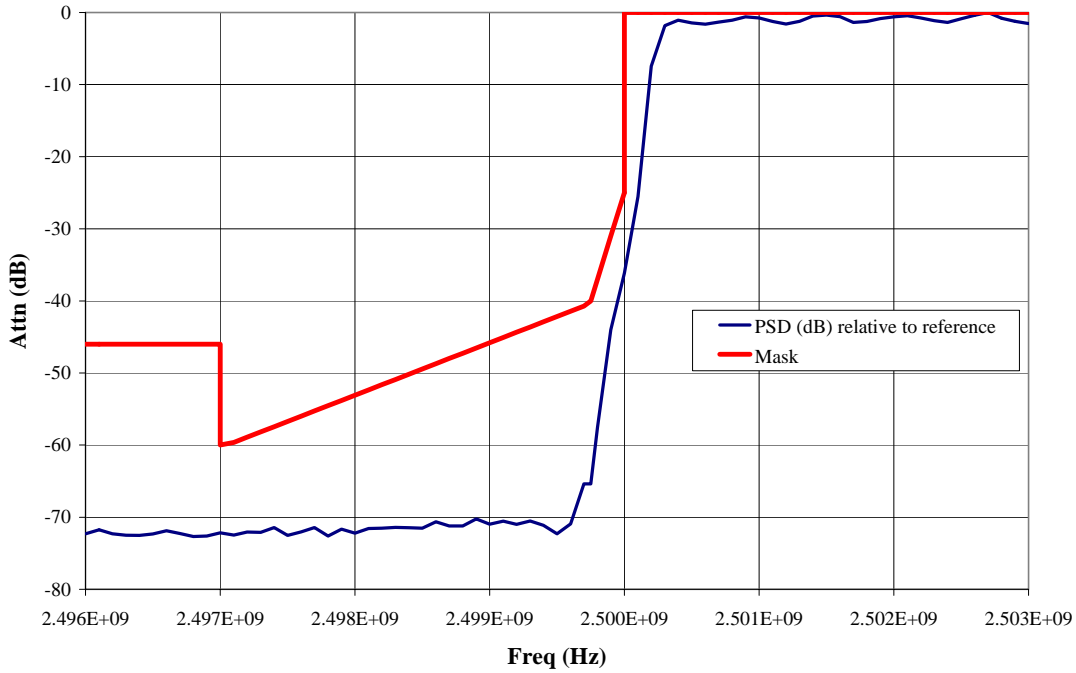
Modulation Mask at 2596 MHz band edge  
4-QAM



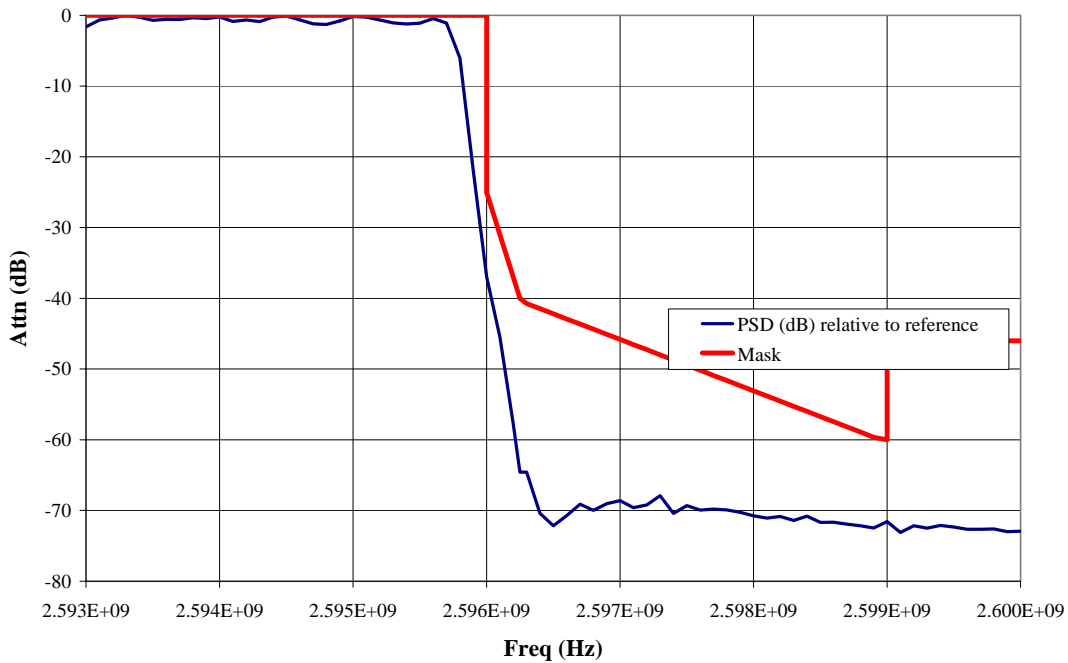
### 5.5W Unwanted Emissions Results (Cont'd)

#### 16 QAM, 6.0 MHz Bandwidth

Modulation Mask at 2500 MHz band edge  
16-QAM



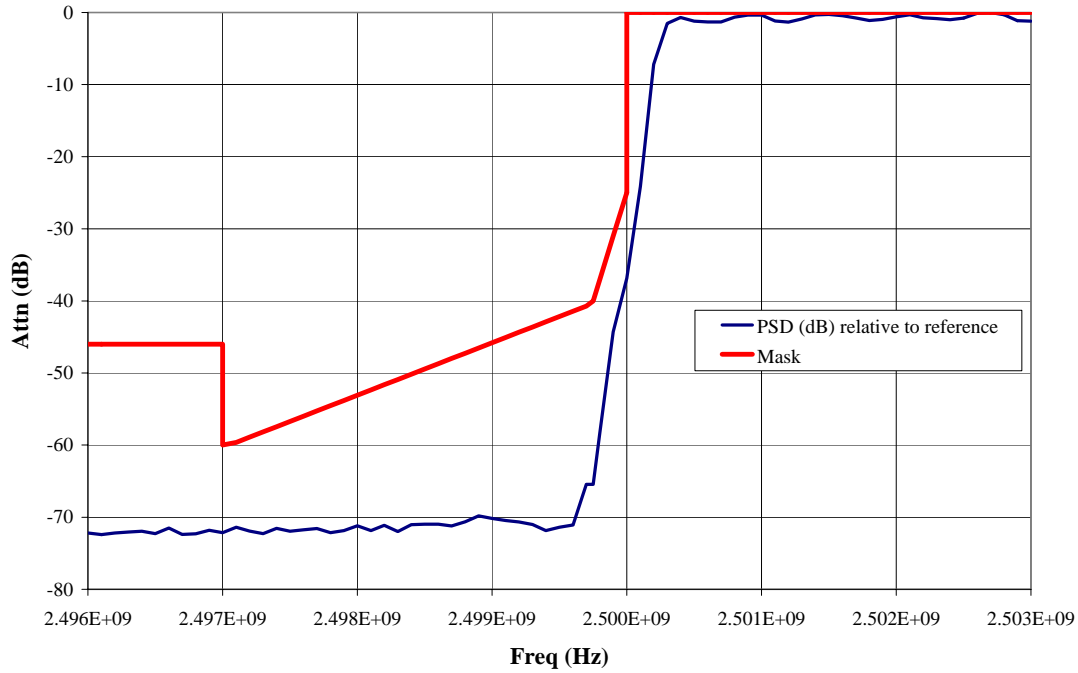
Modulation Mask at 2596 MHz band edge  
16-QAM



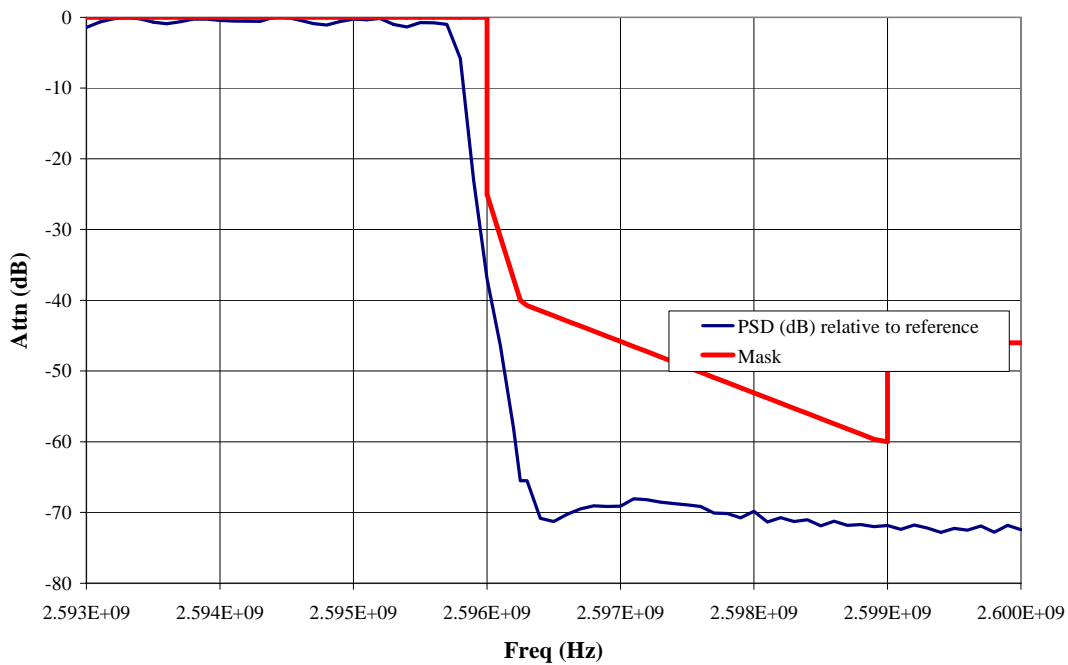
### 5.5W Unwanted Emissions Results (Cont'd)

#### 64 QAM, 6.0 MHz Bandwidth

Modulation Mask at 2500 MHz band edge  
64-QAM



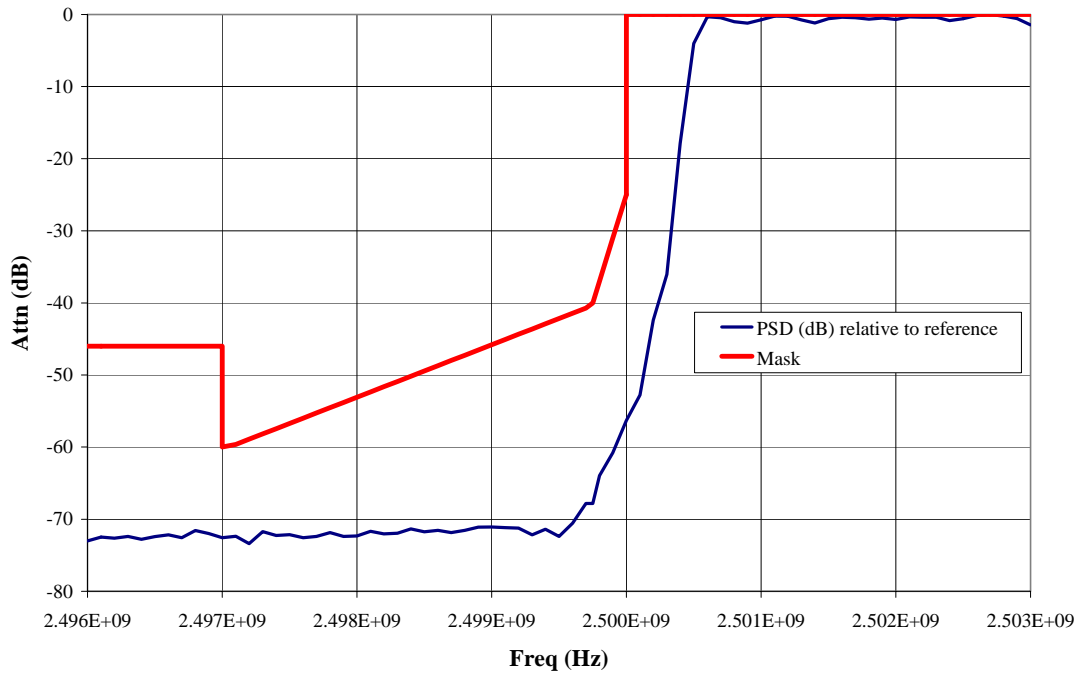
Modulation Mask at 2596 MHz band edge  
64-QAM



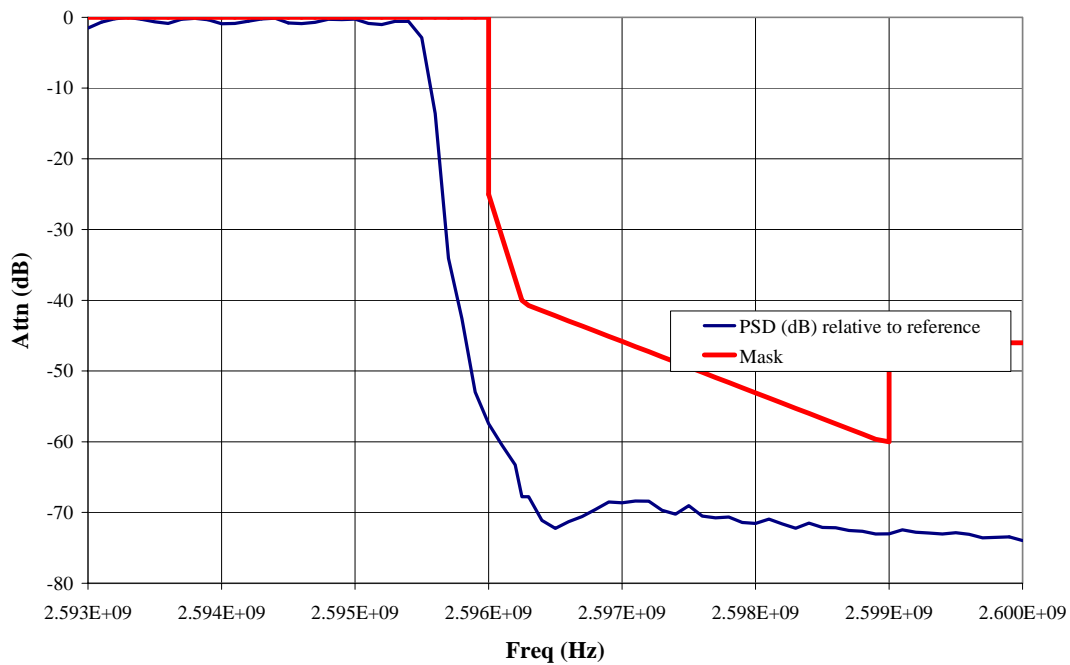
### 5.5W Unwanted Emissions Results (Cont'd)

#### 4 QAM, 5.5 MHz Bandwidth

Modulation Mask at 2500 MHz band edge  
4-QAM



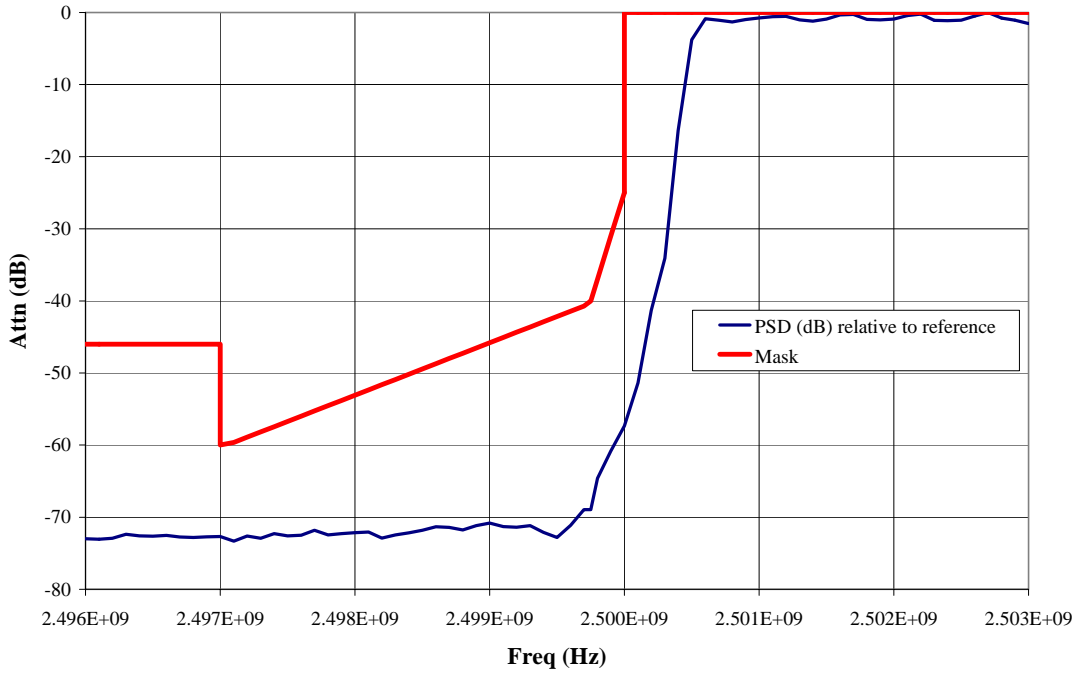
Modulation Mask at 2596 MHz band edge  
4-QAM



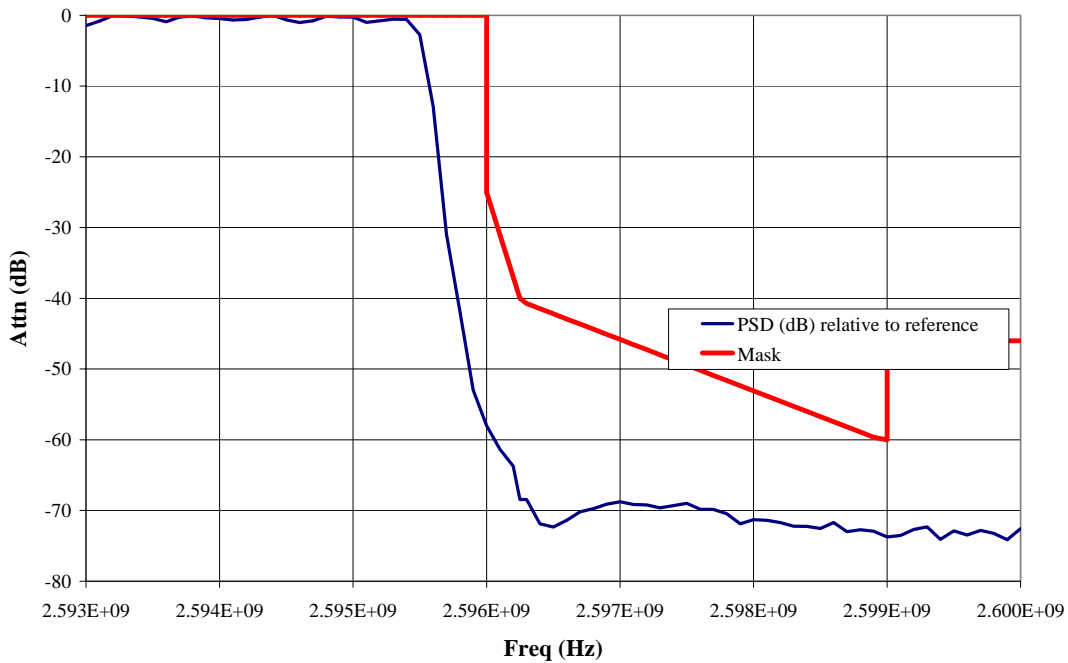
### 5.5W Unwanted Emissions Results (Cont'd)

#### 16 QAM, 5.5 MHz Bandwidth

Modulation Mask at 2500 MHz band edge  
16-QAM



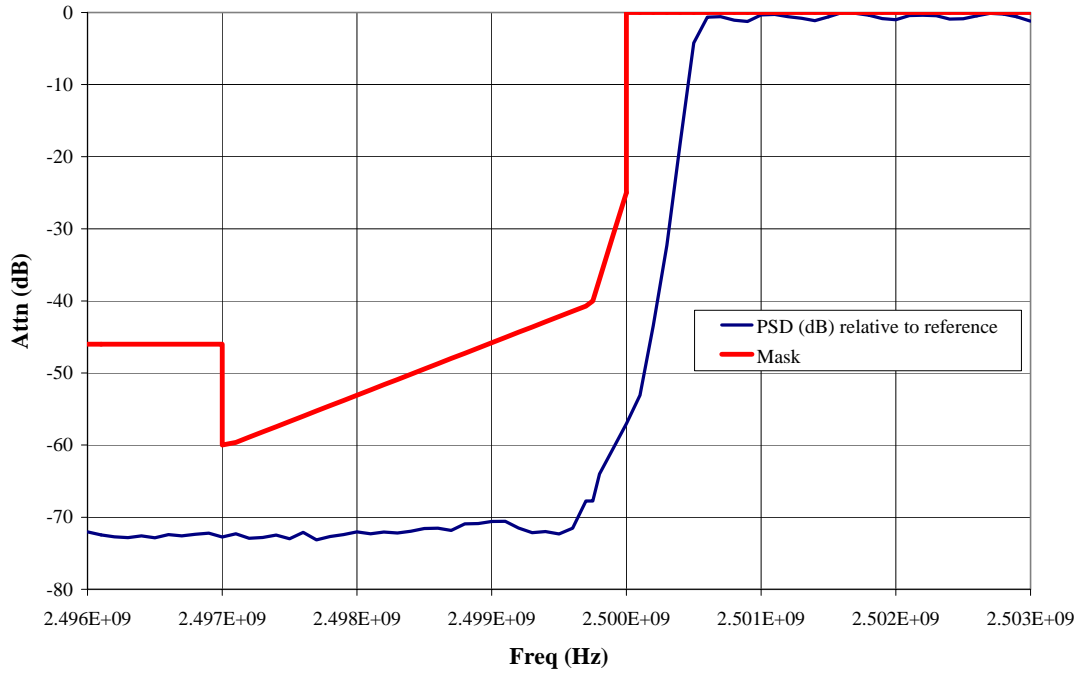
Modulation Mask at 2596 MHz band edge  
16-QAM



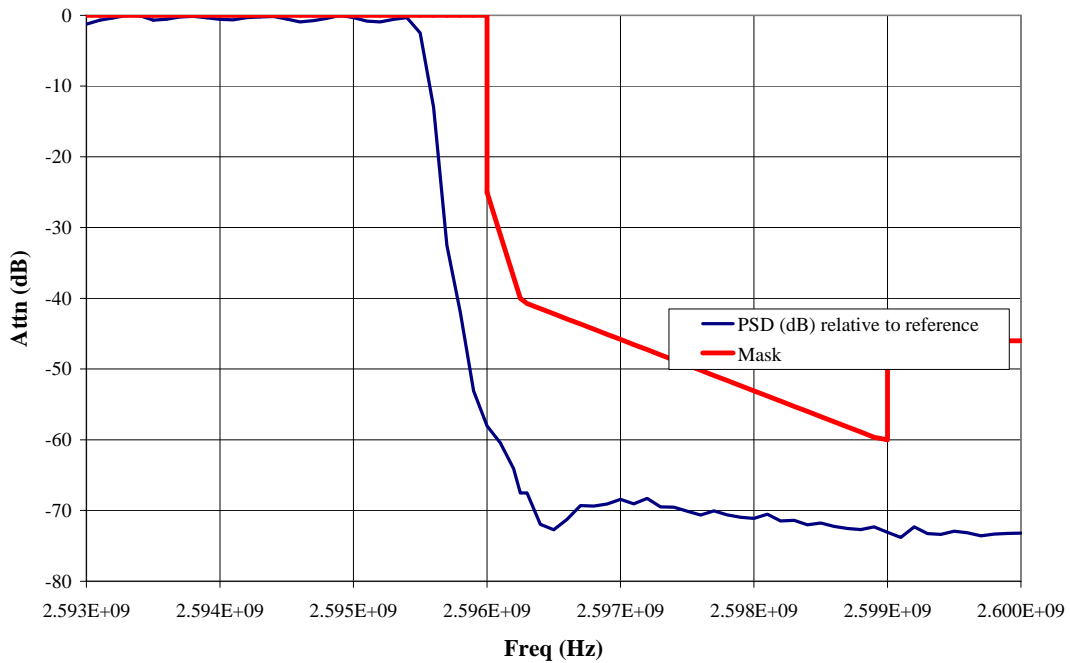
### 5.5W Unwanted Emissions Results (Cont'd)

#### 64 QAM, 5.5 MHz Bandwidth

Modulation Mask at 2500 MHz band edge  
64-QAM



Modulation Mask at 2596 MHz band edge  
64-QAM



## Occupied Bandwidth and Emission Bandwidth

*NOTE: Occupied Bandwidth (99.0%/20 dB) applies to both FCC and Industry Canada tests, and Emission Bandwidth (99.75%/26 dB) applies to FCC tests only.*

FCC Rules: 2.1049, 27.53(l)(6)  
IC Rules: RSS-193 clause 3.2(h)

FCC Requirements: Report Results  
IC Requirements: Report Results

Standard: ANSI C63.4-2003  
American National Standard for Methods of Measurement of Radio- Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

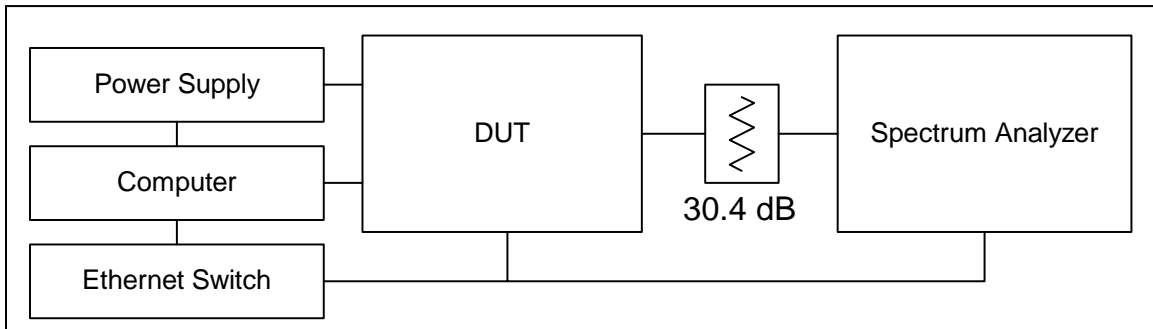
Test Procedure: The measurement of the Occupied Bandwidth was performed under the guidance of "Occupied Bandwidth Measurement", prepared by, Brian Kasper, Certification and Engineering Bureau, Industry Canada. A copy of this document can be found at:  
[http://strategis.ic.gc.ca/epic/internet/inceb-bhst.nsf/en/h\\_tt00032e.html](http://strategis.ic.gc.ca/epic/internet/inceb-bhst.nsf/en/h_tt00032e.html)

The Orthogonal Frequency Division Multiplexing (OFDM) modulated Time Division Duplex (TDD) RF signal from the test unit is applied to a spectrum analyzer. The bandwidth of the signal is recorded by measuring the modulation bandwidth with the built in measurement function in the spectrum analyzer. The transmitter is enabled in test mode with the attached computer. The RF loss of the attenuators and coax has been measured and is included in the spectrum analyzer offset level. Measurements are performed at frequencies across the band, for each of the modulation formats available (4, 16, and 64-QAM) and channel bandwidths (5.5 MHz and 6 MHz).

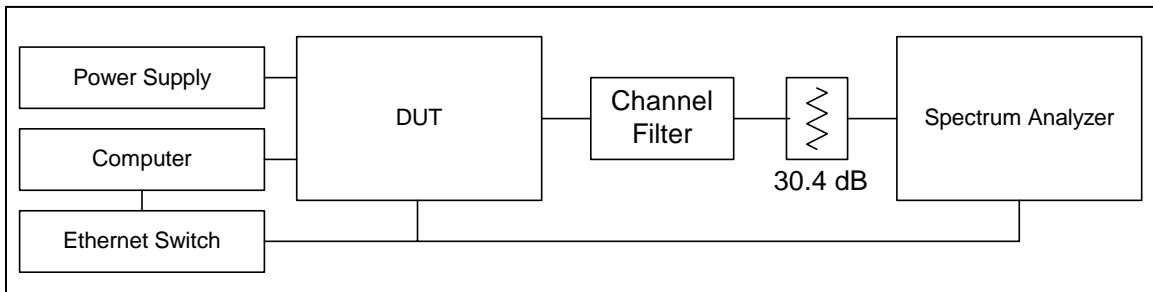
Test Conditions: Test Frequencies: 2503, 2593, 2689 MHz (2 and 5.5 watts, 5.5 and 6.0 MHz bandwidth)  
Temperature = 25°C  
Supply Voltage = 48.0 VDC Nominal to DUT



## Occupied Bandwidth and Emission Bandwidth (Cont'd)



**2W Test Setup**



**5W Test Setup**

**Occupied and Emission Bandwidth Test Results Summary (2W)**

**2-WATT CHANNELS**

<b>Occupied Bandwidth (MHz) for 20 dB (99.0%)</b>				
<b>Freq (MHz)</b>	<b>Channel BW (MHz)</b>	<b>4-QAM</b>	<b>16-QAM</b>	<b>64-QAM</b>
2503	5.5	4.959	4.959	4.958
2593	5.5	4.959	4.959	4.999
2689	5.5	4.959	4.959	4.959
2503	6.0	5.480	5.480	5.480
2593	6.0	5.480	5.480	5.480
2689	6.0	5.480	5.480	5.480

<b>Emission Bandwidth (MHz) for 26 dB (99.75 %)</b>				
<b>Freq (MHz)</b>	<b>Channel BW (MHz)</b>	<b>4-QAM</b>	<b>16-QAM</b>	<b>64-QAM</b>
2503	5.5	5.023	5.023	5.023
2593	5.5	5.023	5.023	5.023
2689	5.5	5.023	5.023	5.023
2503	6.0	5.550	5.550	5.550
2593	6.0	5.550	5.551	5.550
2689	6.0	5.550	5.550	5.550

## Occupied and Emission Bandwidth Test Results Summary (5.5W)

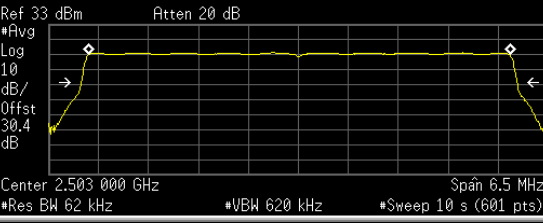
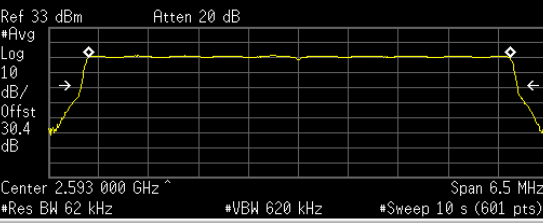
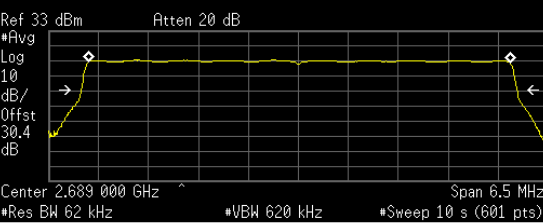
### 5.5-WATT CHANNELS

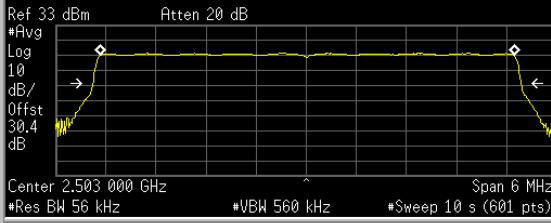
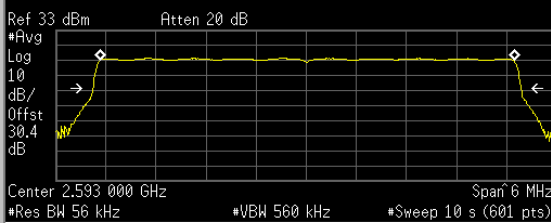
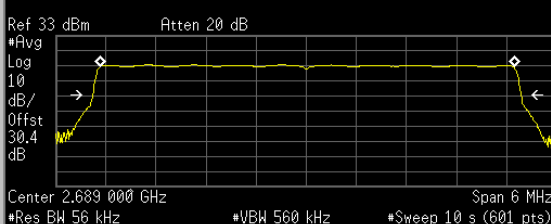
Occupied Bandwidth (MHz) for 20 dB (99.0%)				
Freq (MHz)	Channel BW (MHz)	4-QAM	16-QAM	64-QAM
2503	5.5	4.956	4.956	4.956
2593	5.5	4.956	4.956	4.956
2683	5.5	4.956	4.956	4.956
2503	6.0	5.475	5.475	5.475
2593	6.0	5.474	5.474	5.474
2683	6.0	5.475	5.475	5.475

Emission Bandwidth (MHz) for 26 dB (99.75 %)				
Freq (MHz)	Channel BW (MHz)	4-QAM	16-QAM	64-QAM
2503	5.5	5.021	5.021	5.021
2593	5.5	5.021	5.021	5.021
2503	5.5	5.021	5.021	5.021
2503	6.0	5.547	5.547	5.547
2593	6.0	5.546	5.546	5.547
2683	6.0	5.547	5.547	5.546

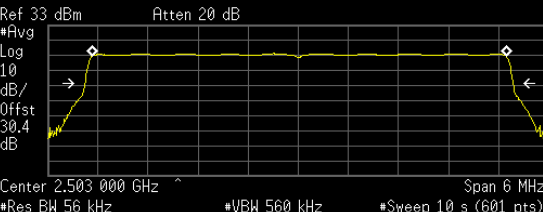
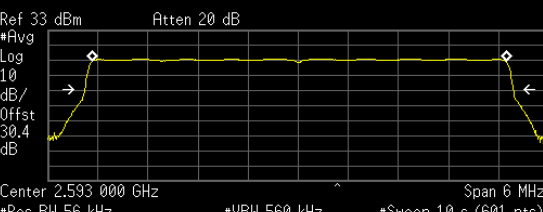
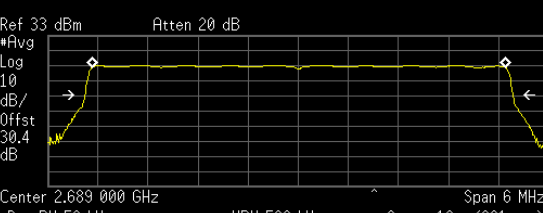
### Occupied Bandwidth Spectrum Analyzer Plots

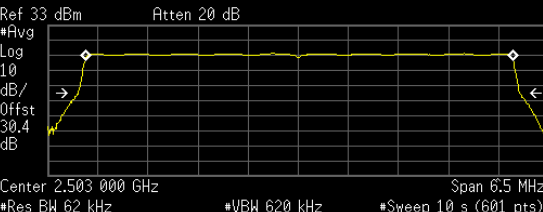
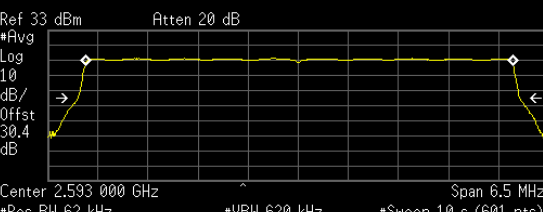
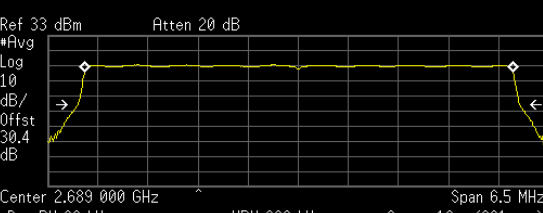
*NOTE: The following are spectrum analyzer plots of the 4 QAM data in the preceding tables. The plots for the 16 and 64 QAM modulation levels are similar and are shown in the Appendix.*

Occupied BW	Bandwidth: 5.5 MHz	RF Power: 2 Watts	Modulation: 4 QAM
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 16:20:56 Feb 16, 2006</p> <p>Ch Freq 2.503 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref Level 33.00 dBm</p>  <p>Center 2.503 000 GHz Span 6.5 MHz Res BW 62 kHz VBW 620 kHz Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth</b> 5.4803 MHz Occ BW % Pwr 99.00 % x dB Bandwidth 5.670 MHz* Transmit Freq Error 7.863 kHz</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Amplitude</p> <p>Ref Level 33.00 dBm</p> <p>Attenuation 20.00 dB Auto Man</p> <p>Scale/Div 10.00 dB</p> <p>Scale Type Log Lin</p> <p>Presel Center</p> <p>Presel Adj [3-26 GHz] 0.000 Hz</p> <p>More 1 of 3</p> </div> </div>			
<b>2503 MHz</b>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 16:22:07 Feb 16, 2006</p> <p>Ch Freq 2.593 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref Level 33.00 dBm</p>  <p>Center 2.593 000 GHz Span 6.5 MHz Res BW 62 kHz VBW 620 kHz Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth</b> 5.4800 MHz Occ BW % Pwr 99.00 % x dB Bandwidth 5.669 MHz* Transmit Freq Error 7.317 kHz</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.59300000 GHz</p> <p>Start Freq 2.58975000 GHz</p> <p>Stop Freq 2.59625000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>			
<b>2593 MHz</b>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 16:23:09 Feb 16, 2006</p> <p>Ch Freq 2.689 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref Level 33.00 dBm</p>  <p>Center 2.689 000 GHz Span 6.5 MHz Res BW 62 kHz VBW 620 kHz Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth</b> 5.4802 MHz Occ BW % Pwr 99.00 % x dB Bandwidth 5.669 MHz* Transmit Freq Error 6.423 kHz</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.68900000 GHz</p> <p>Start Freq 2.68575000 GHz</p> <p>Stop Freq 2.69225000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>			
<b>2689 MHz</b>			

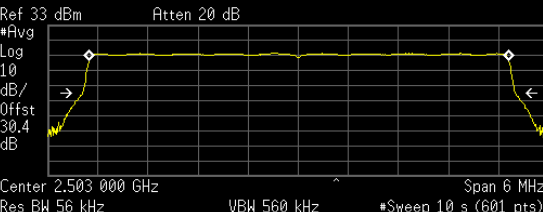
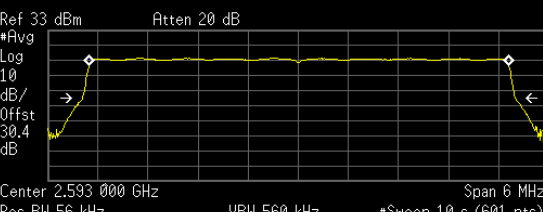
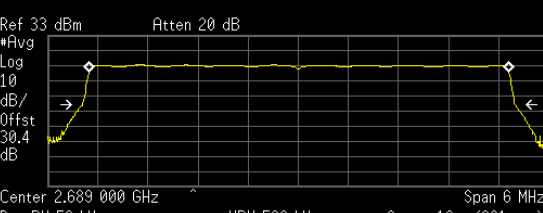
Occupied BW	Bandwidth: 5.5 MHz	RF Power: 2 Watts	Modulation: 4 QAM
<p>Agilent 16:08:47 Feb 16, 2006</p> <p>Ch Freq 2.503 GHz Trig Free</p> <p>Occupied Bandwidth</p>  <p>Ref 33 dBm Atten 20 dB #Avg 10 Log dB/ Offst 30.4 dB</p> <p>Center 2.503 000 GHz Span 6 MHz #Res BW 56 kHz #VBW 500 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth</b> 4.9586 MHz <b>Occ BW % Pwr</b> 99.00 % <b>x dB</b> -20.00 dB</p> <p>Transmit Freq Error 7.356 kHz <b>x dB Bandwidth</b> 5.131 MHz*</p> <p>Copyright 2000-2004 Agilent Technologies</p>			
<b>2503 MHz</b>			
<p>Agilent 16:11:42 Feb 16, 2006</p> <p>Ch Freq 2.593 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 2.593000000 GHz</p>  <p>Ref 33 dBm Atten 20 dB #Avg 10 Log dB/ Offst 30.4 dB</p> <p>Center 2.593 000 GHz Span 6 MHz #Res BW 56 kHz #VBW 500 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth</b> 4.9586 MHz <b>Occ BW % Pwr</b> 99.00 % <b>x dB</b> -20.00 dB</p> <p>Transmit Freq Error 6.734 kHz <b>x dB Bandwidth</b> 5.131 MHz*</p> <p>Copyright 2000-2004 Agilent Technologies</p>			
<b>2593 MHz</b>			
<p>Agilent 16:12:49 Feb 16, 2006</p> <p>Ch Freq 2.689 GHz Trig Free</p> <p>Occupied Bandwidth</p>  <p>Ref 33 dBm Atten 20 dB #Avg 10 Log dB/ Offst 30.4 dB</p> <p>Center 2.689 000 GHz Span 6 MHz #Res BW 56 kHz #VBW 500 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth</b> 4.9588 MHz <b>Occ BW % Pwr</b> 99.00 % <b>x dB</b> -20.00 dB</p> <p>Transmit Freq Error 5.940 kHz <b>x dB Bandwidth</b> 5.131 MHz*</p> <p>Copyright 2000-2004 Agilent Technologies</p>			
<b>2689 MHz</b>			

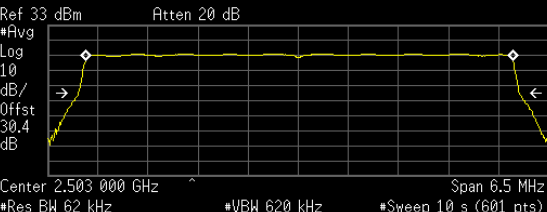
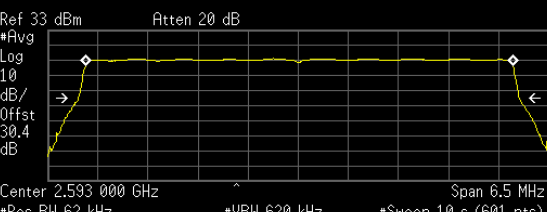
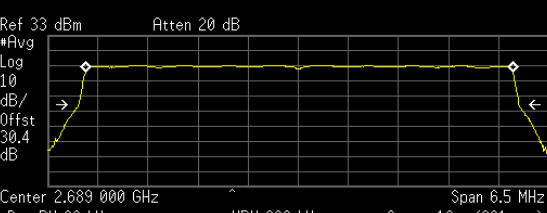
Occupied BW	Bandwidth: 6.0 MHz	RF Power: 5.5 watts	Modulation: 4 QAM
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 09:08:15 Feb 17, 2006</p> <p>Ch Freq 2.503 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p><b>Center 2.50300000 GHz</b></p> <p>Ref 33 dBm Atten 20 dB</p> <p>Center 2.503 000 GHz Span 6.5 MHz #Res BW 62 kHz #VBW 620 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth 5.4748 MHz</b></p> <p>Transmit Freq Error 8.429 kHz <b>x dB Bandwidth 5.668 MHz*</b></p> <p>Occ BW % Pwr 99.00 % x dB -20.00 dB</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.50300000 GHz</p> <p>Start Freq 2.49975000 GHz</p> <p>Stop Freq 2.50625000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>			
<b>2503 MHz</b>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 10:08:43 Feb 17, 2006</p> <p>Ch Freq 2.593 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p><b>Center 2.59300000 GHz</b></p> <p>Ref 33 dBm Atten 20 dB</p> <p>Center 2.593 000 GHz Span 6.5 MHz #Res BW 62 kHz #VBW 620 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth 5.4740 MHz</b></p> <p>Transmit Freq Error 7.853 kHz <b>x dB Bandwidth 5.666 MHz*</b></p> <p>Occ BW % Pwr 99.00 % x dB -20.00 dB</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.59300000 GHz</p> <p>Start Freq 2.58975000 GHz</p> <p>Stop Freq 2.59625000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>			
<b>2593 MHz</b>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 09:55:39 Feb 17, 2006</p> <p>Ch Freq 2.689 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p><b>Center 2.68900000 GHz</b></p> <p>Ref 33 dBm Atten 20 dB</p> <p>Center 2.689 000 GHz Span 6.5 MHz #Res BW 62 kHz #VBW 620 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth 5.4749 MHz</b></p> <p>Transmit Freq Error 6.378 kHz <b>x dB Bandwidth 5.666 MHz*</b></p> <p>Occ BW % Pwr 99.00 % x dB -20.00 dB</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.68900000 GHz</p> <p>Start Freq 2.68575000 GHz</p> <p>Stop Freq 2.69225000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>			
<b>2689 MHz</b>			

Occupied BW	Bandwidth: 5.5 MHz	RF Power: 2 Watts	Modulation: 4 QAM
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 08:51:03 Feb 17, 2006</p> <p>Ch Freq 2.503 GHz Trig Free</p> <p>Occupied Bandwidth</p>  <p>Center 2.503 000 GHz Span 6 MHz #Res BW 56 kHz #VBW 500 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth</b> 4.9559 MHz Occ BW % Pwr 99.00 % x dB -20.00 dB</p> <p>Transmit Freq Error 7.902 kHz x dB Bandwidth 5.130 MHz*</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.50300000 GHz</p> <p>Start Freq 2.50000000 GHz</p> <p>Stop Freq 2.50600000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>			
<b>2503 MHz</b>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 09:36:33 Feb 17, 2006</p> <p>Ch Freq 2.593 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 2.593000000 GHz</p>  <p>Center 2.593 000 GHz Span 6 MHz #Res BW 56 kHz #VBW 500 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth</b> 4.9560 MHz Occ BW % Pwr 99.00 % x dB -20.00 dB</p> <p>Transmit Freq Error 7.487 kHz x dB Bandwidth 5.130 MHz*</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.59300000 GHz</p> <p>Start Freq 2.59000000 GHz</p> <p>Stop Freq 2.59600000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>			
<b>2593 MHz</b>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 09:58:04 Feb 17, 2006</p> <p>Ch Freq 2.689 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 2.689000000 GHz</p>  <p>Center 2.689 000 GHz Span 6 MHz #Res BW 56 kHz #VBW 500 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth</b> 4.9563 MHz Occ BW % Pwr 99.00 % x dB -20.00 dB</p> <p>Transmit Freq Error 6.505 kHz x dB Bandwidth 5.130 MHz*</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.68900000 GHz</p> <p>Start Freq 2.68600000 GHz</p> <p>Stop Freq 2.69200000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>			
<b>2689 MHz</b>			

Emission BW	Bandwidth: 6.0 MHz	RF Power: 2 Watts	Modulation: 4 QAM
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 16:26:53 Feb 16, 2006</p> <p>Ch Freq 2.503 GHz Trig Free</p> <p>Occupied Bandwidth</p>  <p>Ref 33 dBm Atten 20 dB</p> <p>#Avg Log 10 dB/Offst 30.4 dB</p> <p>Center 2.503 000 GHz Span 6.5 MHz</p> <p>#Res BW 62 kHz #VBW 620 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth 5.5503 MHz</b></p> <p>Transmit Freq Error 8.048 kHz</p> <p>x dB Bandwidth 5.725 MHz*</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.50300000 GHz</p> <p>Start Freq 2.49975000 GHz</p> <p>Stop Freq 2.50625000 GHz</p> <p>CF Step 90.0000000 MHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On</p> </div> </div> <p>Copyright 2000-2004 Agilent Technologies</p>			
<b>2503 MHz</b>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 16:36:17 Feb 16, 2006</p> <p>Ch Freq 2.593 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 2.593000000 GHz</p>  <p>Ref 33 dBm Atten 20 dB</p> <p>#Avg Log 10 dB/Offst 30.4 dB</p> <p>Center 2.593 000 GHz Span 6.5 MHz</p> <p>#Res BW 62 kHz #VBW 620 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth 5.5504 MHz</b></p> <p>Transmit Freq Error 7.660 kHz</p> <p>x dB Bandwidth 5.725 MHz*</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.59300000 GHz</p> <p>Start Freq 2.58975000 GHz</p> <p>Stop Freq 2.59625000 GHz</p> <p>CF Step 90.0000000 MHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On</p> </div> </div> <p>Copyright 2000-2004 Agilent Technologies</p>			
<b>2593 MHz</b>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 16:35:17 Feb 16, 2006</p> <p>Ch Freq 2.689 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 2.689000000 GHz</p>  <p>Ref 33 dBm Atten 20 dB</p> <p>#Avg Log 10 dB/Offst 30.4 dB</p> <p>Center 2.689 000 GHz Span 6.5 MHz</p> <p>#Res BW 62 kHz #VBW 620 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth 5.5504 MHz</b></p> <p>Transmit Freq Error 7.217 kHz</p> <p>x dB Bandwidth 5.723 MHz*</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.68900000 GHz</p> <p>Start Freq 2.68575000 GHz</p> <p>Stop Freq 2.69225000 GHz</p> <p>CF Step 90.0000000 MHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On</p> </div> </div> <p>Copyright 2000-2004 Agilent Technologies</p>			
<b>2689 MHz</b>			



Emission BW	Bandwidth: 5.5 MHz	RF Power: 2 Watts	Modulation: 4 QAM
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 16:40:55 Feb 16, 2006</p> <p>Ch Freq 2.503 GHz Trig Free</p> <p>Occupied Bandwidth</p>  <p>Ref 33 dBm Atten 20 dB</p> <p>#Avg 10 Log dB/Offst 30.4 dB</p> <p>Center 2.503 000 GHz Span 6 MHz Res BW 56 kHz VBW 560 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth 5.0225 MHz</b></p> <p>Transmit Freq Error 7.406 kHz</p> <p>x dB Bandwidth 5.179 MHz*</p> <p>Occ BW % Pwr 99.75 % x dB -26.00 dB</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.50300000 GHz</p> <p>Start Freq 2.50000000 GHz</p> <p>Stop Freq 2.50600000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>			
<b>2503 MHz</b>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 16:41:59 Feb 16, 2006</p> <p>Ch Freq 2.593 GHz Trig Free</p> <p>Occupied Bandwidth</p>  <p>Ref 33 dBm Atten 20 dB</p> <p>#Avg 10 Log dB/Offst 30.4 dB</p> <p>Center 2.593 000 GHz Span 6 MHz Res BW 56 kHz VBW 560 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth 5.0227 MHz</b></p> <p>Transmit Freq Error 7.052 kHz</p> <p>x dB Bandwidth 5.184 MHz*</p> <p>Occ BW % Pwr 99.75 % x dB -26.00 dB</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.59300000 GHz</p> <p>Start Freq 2.59000000 GHz</p> <p>Stop Freq 2.59600000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>			
<b>2593 MHz</b>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 16:43:17 Feb 16, 2006</p> <p>Ch Freq 2.689 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p><b>Center 2.689000000 GHz</b></p>  <p>Ref 33 dBm Atten 20 dB</p> <p>#Avg 10 Log dB/Offst 30.4 dB</p> <p>Center 2.689 000 GHz Span 6 MHz Res BW 56 kHz VBW 560 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth 5.0225 MHz</b></p> <p>Transmit Freq Error 6.755 kHz</p> <p>x dB Bandwidth 5.179 MHz*</p> <p>Occ BW % Pwr 99.75 % x dB -26.00 dB</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.68900000 GHz</p> <p>Start Freq 2.68600000 GHz</p> <p>Stop Freq 2.69200000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>			
<b>2689 MHz</b>			

Emission BW	Bandwidth: 6.0 MHz	RF Power: 5.5 watts	Modulation: 4 QAM
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 09:10:16 Feb 17, 2006</p> <p>Ch Freq 2.503 GHz Trig Free</p> <p>Occupied Bandwidth</p>  <p>Center 2.503 000 GHz Span 6.5 MHz #Res BW 62 kHz #VBW 620 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth</b> 5.5470 MHz Occ BW % Pwr 99.75 % x dB -26.00 dB</p> <p>Transmit Freq Error 8.506 kHz x dB Bandwidth 5.718 MHz*</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%; border-left: 1px solid black; padding-left: 5px;"> <p>Freq/Channel</p> <p>Center Freq 2.50300000 GHz</p> <p>Start Freq 2.49975000 GHz</p> <p>Stop Freq 2.50625000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>			
<b>2503 MHz</b>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 10:10:14 Feb 17, 2006</p> <p>Ch Freq 2.593 GHz Trig Free</p> <p>Occupied Bandwidth</p>  <p>Center 2.593 000 GHz Span 6.5 MHz #Res BW 62 kHz #VBW 620 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth</b> 5.5463 MHz Occ BW % Pwr 99.75 % x dB -26.00 dB</p> <p>Transmit Freq Error 8.380 kHz x dB Bandwidth 5.714 MHz*</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%; border-left: 1px solid black; padding-left: 5px;"> <p>Freq/Channel</p> <p>Center Freq 2.59300000 GHz</p> <p>Start Freq 2.58975000 GHz</p> <p>Stop Freq 2.59625000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>			
<b>2593 MHz</b>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 09:51:42 Feb 17, 2006</p> <p>Ch Freq 2.689 GHz Trig Free</p> <p>Occupied Bandwidth</p>  <p>Center 2.689 000 GHz Span 6.5 MHz #Res BW 62 kHz #VBW 620 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth</b> 5.5471 MHz Occ BW % Pwr 99.75 % x dB -26.00 dB</p> <p>Transmit Freq Error 7.940 kHz x dB Bandwidth 5.714 MHz*</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%; border-left: 1px solid black; padding-left: 5px;"> <p>Freq/Channel</p> <p>Center Freq 2.68900000 GHz</p> <p>Start Freq 2.68575000 GHz</p> <p>Stop Freq 2.69225000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div>			
<b>2689 MHz</b>			

Emission BW	Bandwidth: 5.5 MHz	RF Power: 5.5 watts	Modulation: 4 QAM
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 09:12:13 Feb 17, 2006</p> <p>Ch Freq 2.503 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 33 dBm Atten 20 dB</p> <p>#Avg Log 10 dB/Offst 30.4 dB</p> <p>Center 2.503 000 GHz Span 6 MHz Res BW 56 kHz VBW 560 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth 5.0210 MHz</b></p> <p>Transmit Freq Error 7.666 kHz x dB Bandwidth 5.178 MHz*</p> <p>Occ BW % Pwr 99.75 % x dB -26.00 dB</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.50300000 GHz</p> <p>Start Freq 2.50000000 GHz</p> <p>Stop Freq 2.50600000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div> <p style="text-align: center;"><b>2503 MHz</b></p>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 09:24:01 Feb 17, 2006</p> <p>Ch Freq 2.593 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p><b>Center 2.593000000 GHz</b></p> <p>Ref 33 dBm Atten 20 dB</p> <p>#Avg Log 10 dB/Offst 30.4 dB</p> <p>Center 2.593 000 GHz Span 6 MHz Res BW 56 kHz VBW 560 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth 5.0211 MHz</b></p> <p>Transmit Freq Error 7.554 kHz x dB Bandwidth 5.176 MHz*</p> <p>Occ BW % Pwr 99.75 % x dB -26.00 dB</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.59300000 GHz</p> <p>Start Freq 2.59000000 GHz</p> <p>Stop Freq 2.59600000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div> <p style="text-align: center;"><b>2593 MHz</b></p>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Agilent 10:00:07 Feb 17, 2006</p> <p>Ch Freq 2.689 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p><b>Center 2.689000000 GHz</b></p> <p>Ref 33 dBm Atten 20 dB</p> <p>#Avg Log 10 dB/Offst 30.4 dB</p> <p>Center 2.689 000 GHz Span 6 MHz Res BW 56 kHz VBW 560 kHz #Sweep 10 s (601 pts)</p> <p><b>Occupied Bandwidth 5.0214 MHz</b></p> <p>Transmit Freq Error 6.999 kHz x dB Bandwidth 5.173 MHz*</p> <p>Occ BW % Pwr 99.75 % x dB -26.00 dB</p> <p>Copyright 2000-2004 Agilent Technologies</p> </div> <div style="width: 35%;"> <p>Freq/Channel</p> <p>Center Freq 2.68900000 GHz</p> <p>Start Freq 2.68600000 GHz</p> <p>Stop Freq 2.69200000 GHz</p> <p>CF Step 90.0000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> </div> </div> <p style="text-align: center;"><b>2689 MHz</b></p>			