

TEST REPORT

ACCORDING TO: FCC part 15 subpart E and RSS-210 Issue 8, Annex 9

FOR:

RADWIN Ltd.

**Outdoor radio unit operating
in the 5.3 GHz band**

**Model: RADWIN 1000,
RADWIN 2000,
RADWIN 5000**

This report is in conformity with ISO/ IEC 17025. The "A2LA Accredited" symbol endorsement applies only to the tests and calibrations that are listed in the scope of Hermon Laboratories accreditation. The test results relate only to the items tested.
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Table of contents

1	Applicant information.....	3
2	Equipment under test attributes	3
3	Manufacturer information	3
4	Test details.....	3
5	Tests summary.....	4
6	EUT description.....	5
6.1	General information.....	5
6.2	Ports and lines	5
6.3	Support and test equipment	5
6.4	Changes made in the EUT	5
6.5	Test configuration.....	6
6.6	Transmitter characteristics	7
7	Transmitter tests according to 47CFR part 15 subpart E and RSS-210 Annex 9 requirements	8
7.1	Peak output power and peak spectral power density	8
7.2	Ratio of the peak excursion of the modulation envelope to the peak transmit power	155
7.3	Field strength of spurious emissions	180
7.4	Band edges spurious emission measurements	228
7.5	Frequency stability test.....	329
7.6	Antenna requirements	358
7.7	Conducted emissions	359
8	Tests according to RSS-Gen requirements.....	362
8.1	Occupied bandwidth.....	362
8.2	Receiver radiated spurious emission measurements	364
9	APPENDIX A Test equipment and ancillaries used for tests.....	372
10	APPENDIX B Measurement uncertainties.....	374
11	APPENDIX C Test laboratory description	375
12	APPENDIX D Specification references	375
13	APPENDIX E Test equipment correction factors.....	376
14	APPENDIX F Abbreviations and acronyms.....	392
15	APPENDIX G RADWIN 1000/2000 Antenna List and Power Settings	393
16	APPENDIX H RADWIN 5000 Antenna List and Power Settings	394

1 Applicant information

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Telephone: +972 3766 2988
Fax: +972 3766 2902
E-mail: shlomo_weiss@radwin.com
Contact name: Mr. Shlomo Weiss

2 Equipment under test attributes

Product name: Outdoor radio unit operating in 5.3 GHz band
Product type: Point to Point and Point to Multipoint transceiver
Model(s): RADWIN 1000, RADWIN 2000, RADWIN 5000
Receipt date 12/08/2009

3 Manufacturer information

Manufacturer name: RADWIN Ltd.
Address: 27 Habarzel str., Tel Aviv 69710, Israel
Telephone: +972 3766 2988
Fax: +972 3766 2902
E-Mail: shlomo_weiss@radwin.com
Contact name: Mr. Shlomo Weiss

4 Test details

Project ID: 20222
Location: Hermon Laboratories Ltd. P.O.Box 23, Binyamina 30500, Israel
Test started: 12/08/2009
Test completed: 12/30/2009
Test specification(s): FCC part 15 subpart E;
RSS-210 Issue 8:2010, Annex 9
RSS-Gen Issue 3:2010

5 Tests summary

Test	Status
Transmitter characteristics	
FCC Section 15.407(a)(3) / RSS-Gen, Section 4.6, Occupied 26 dB bandwidth	Measured
FCC Section 15.407(a)(3) / RSS-210, Section A9.2, Maximum peak output power	Pass
FCC Section 15.407(a)(3) / RSS-210, Section A9.2, Peak power spectral density	Pass
FCC Section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power	Pass
FCC Section 15.407(b) / RSS-210, Section A9.2, Unwanted radiated emission	Pass
FCC Section 15.407(b) / RSS-210, Section A9.2, Unwanted conducted emission	Pass
FCC Section 15.407(b)(6), 15.207/ RSS-Gen, Section 7.2.4, Conducted emission	Pass
FCC Section 15.407(f), / RSS-Gen, Section 5.6, RF exposure	Provided in documentation for Application
FCC Section 15.407(g), Frequency stability	Pass
RSS-Gen, Section 6, 4.10, Receiver spurious radiated emission	Pass
RSS-Gen, Section 4.6.1, 99% emission occupied bandwidth	Measured
FCC section 15.203, RSS-Gen section 7.1.2, Antenna requirement	Pass

Note: The EUT model RADWIN 2000 with power setting that produced Maximum Output Power with maximum Antenna Gain 23.5 and 28 dBi was tested as the worst case between all RADWIN 1000,2000,5000 models. The more detailed description of RADWIN 1000,2000,5000 is provided in section 6.1 of the test report.

Testing was completed against all relevant requirements of the test standard. Results obtained indicate that the product under test complies in full with the requirements tested.
The test results relate only to the items tested. Pass/ fail decision was based on nominal values.

This test report replaces the previously issued test report identified by Doc ID "RDWRAD_FCC.20222_21882".

	Name and Title	Date	Signature
Tested by:	Mr. S. Samokha, test engineer	December 30, 2009	
Reviewed by:	Ms. N. Averin, certification engineer	April 17, 2011	
Approved by:	Mr. M. Nikishin, EMC and Radio group manager	April 17, 2011	

6 EUT description

6.1 General information

The EUT, RADWIN 1000, RADWIN 2000, RADWIN 5000 is an outdoor unit (ODU). The power and Ethernet communication are supplied by an indoor unit (IDU) or PoE device. It has connectorized and integrated antenna configurations that can support dual pole antenna type. The RADWIN 1000 activates one RF port, RADWIN 2000 activates two RF ports for software configured Point to Point topology and RADWIN 5000 is identifier for software configured Point to Multipoint topology. For relevant output power setting versus each antenna type please refer to RADWIN 5000 Antenna List and Power Settings and RADWIN 1000/2000 Antenna List and Power Settings attached.

The EUT model RADWIN 2000 was tested as worst case representative.

6.2 Ports and lines

Port type	Port description	Conn. from	Conn. to	Qty.	Cable type	Cable length	Indoor / outdoor
Power	DC Power+ Ethernet	IDU	EUT	1	Shielded	20	Outdoor
RF1	RF1 (Antenna 1)	EUT	Antenna	1	Coax	1	Outdoor*
RF2	RF2 (Antenna 2)	EUT	Antenna	1	Coax	1	Outdoor*
Power	DC Power	AC/DC adaptor	IDU	1	Unshielded	1.5	Indoor
Power	AC Power	mains	AC/DC adaptor	1	Unshielded	1.5	Indoor
Signal	Ethernet	Laptop	IDU	1	Shielded	1	Indoor

* - for external antenna configuration only

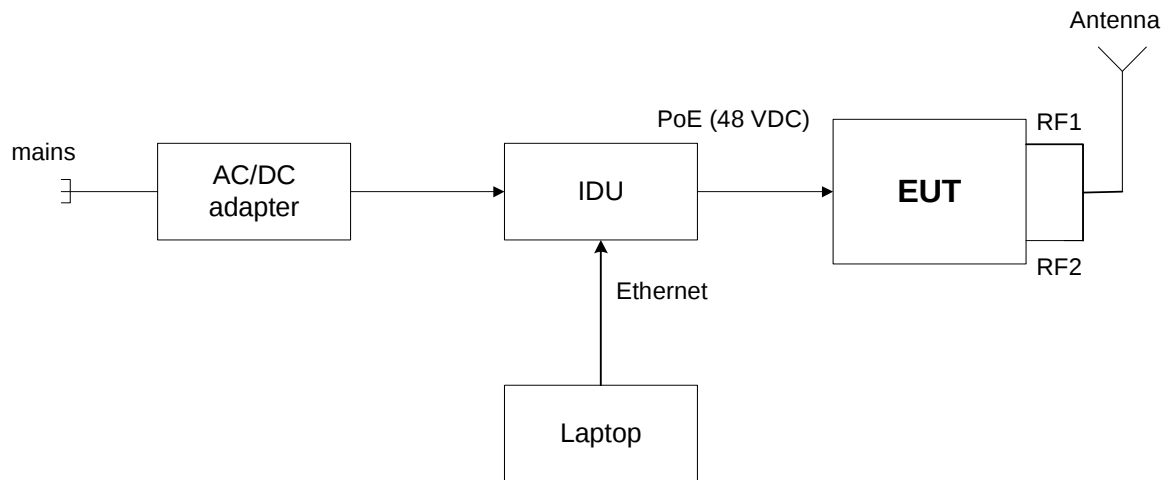
6.3 Support and test equipment

Description	Manufacturer	Model number	Serial number
Laptop	Dell	Latitude/D530	NA
IDU (for configuration with ODU)	RadWin Ltd.	IDU-E	DE000201267
AC/DC	YCL	WMB480042-5G	S0714002271

6.4 Changes made in the EUT

No changes were implemented.

6.5 Test configuration



6.6 Transmitter characteristics

Type of equipment			
X	Stand-alone (Equipment with or without its own control provisions)		
Intended use		Condition of use	
X	fixed	Always at a distance more than 2 m from all people	
Assigned frequency range		5250 - 5350 MHz	
Operating frequency range		5255 - 5345 MHz	
Maximum rated output power		Peak (conducted)	7.45 dBm with 22.5 dBi antenna 6.45 dBm with 23.5 dBi antenna 1.81 dBm with 28 dBi antenna 23.54 dBm with 6 dBi antenna 7.4 dBm with 14.5 dBi antenna 7.4 dBm with 13.0 dBi antenna
Antenna connection			
unique coupling	X	standard connector, N-type	X with temporary RF connector without temporary RF connector
Antenna/s technical characteristics			
Type	Manufacturer	Model number	Antenna Assembly Gain
Flat Panel – Dual polarized external	RADWIN Ltd.	RW-9611-4958	6 dBi (23.5 dBi with 17.5 dB feeder loss)
Dish – Dual polarized External	RADWIN Ltd.	RW-9721-5158	6 dBi (28.9 dBi with 22.9 dB feeder loss)
Flat Panel – Dual polarized Integrated	RADWIN Ltd.	RW-9611-4958INT	23.5 dBi
Flat Panel – Dual polarized external	RADWIN Ltd.	RW-9611-4958	22.5 dBi (23.5 dBi with 1 dB feeder loss)
Dish – Dual polarized External	RADWIN Ltd.	RW-9721-5158	27.9 dBi (28.9 dBi with 1 dB feeder loss)
Flat Panel Dual Pole External	RADWIN Ltd.	RW-9061-5002	14.5 dBi (15.5 dBi with 1 dB feeder loss)
Flat Panel Dual Pole External	RADWIN Ltd.	RW-9061-5001	13.0 dBi (14.0 dBi with 1 dB feeder loss)
Flat Panel Dual Pole External	RADWIN Ltd.	RW-9061-5002	6 dBi (15.5 dBi with 9.5 dB feeder loss)
Flat Panel Dual Pole External	RADWIN Ltd.	RW-9061-5001	6 dBi (14.0 dBi with 8.0 dB feeder loss)
Nominal channel bandwidth	Transmitter aggregate data rate/s, MBps		Type of modulation
5 MHz	3.25		BPSK
	32.5		64QAM
10 MHz	6.5		BPSK
	65		64QAM
20 MHz	13		BPSK
	130		64QAM
40 MHz	27		BPSK
	270		64QAM
Maximum transmitter duty cycle in normal use		92%	
Transmitter duty cycle supplied for test		100%	

Table 6.6.1 Measurement frequencies according to RSS-210 Annex 9 requirements

Channel bandwidth, MHz	Channel frequency, MHz				
	Low band edge	Low in band	Mid	High in band	High band edge
5 (with 6 dBi antenna)	5255	5260	5300	5340	5345
5 (with 22.5 dBi and 28 dBi antennas)	5257.5	5260	5300	5340	5342.5
10	5260	5265	5300	5335	5340
20	5265	5275	5300	5325	5335
40	5275	5285	5300	5315	5325

Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks:			

7 Transmitter tests according to 47CFR part 15 subpart E and RSS-210 Annex 9 requirements

7.1 Peak output power and peak spectral power density

7.1.1 General

This test was performed to measure the maximum peak output power and the peak spectral power density at the transmitter RF antenna connector. Specification test limits are given in Table 7.1.1.

Table 7.1.1 Peak output power and peak spectral power density limits

Assigned frequency range, MHz	Maximum peak transmit power*, dBm	Peak spectral power density*, dBm	Measurement bandwidth, MHz
5250 - 5350	The lesser of 250 mW or 11 dBm +10 log B**	11.0	1.0

*Note 1: due to 22.5 dBi antenna assembly gain the limits of peak output power and peak power spectral density shall be reduced by 16.5 dB, due to 28 dBi antenna assembly gain the limits of peak output power and peak power spectral density shall be reduced by 22 dB;

**Note 2: "B" is the 26-dB emission bandwidth in MHz.

7.1.2 Test procedure

7.1.2.1 The EUT was set up as shown in Figure 7.1.1, energized and its proper operation was checked.

7.1.2.2 The EUT was set to transmit modulated carrier at maximum data rate.

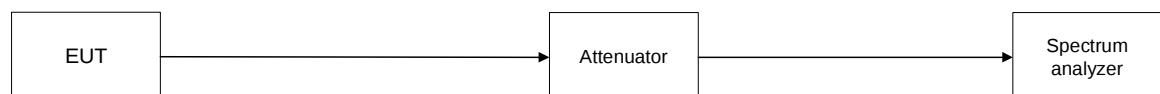
7.1.2.3 The measurements were performed in continuous transmission mode of operation for carrier (channel) frequencies at low and high edges and at the middle of the frequency range shown in Table 7.1.1. The transmitter 26 dB bandwidth was measured with spectrum analyzer as frequency delta between reference points on modulation envelope and provided in the associated tables and plots.

7.1.2.4 The EUT was adjusted to produce maximum available for end user RF output power.

7.1.2.5 The peak output power measurements were performed in continuous transmission mode of operation for carrier (channel) frequency at low, mid and high edges with a sample detector. The power was computed by integrating the spectrum across the 26 dB bandwidth of the signal as provided in the associated tables and plots.

7.1.2.6 The peak power spectral density was measured using a sample detector and power averaging mode to find the highest level across the emission in any 1-MHz band after 100 sweeps of averaging. The test results are provided in the associated tables and plots.

Figure 7.1.1 Peak output power test setup



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Table 7.1.2 Conducted output power test results

OPERATING FREQUENCY RANGE: 5275-5325 MHz
 MODULATING SIGNAL: OFDM
 DETECTOR USED: Peak
 RESOLUTION BANDWIDTH: 1 MHz
 VIDEO BANDWIDTH: 3 MHz
 METHOD OF POWER MEASUREMENTS: 1 (channel power across the 26 dB EBW)
 ANTENNA ASSEMBLY GAIN: 22.5dBi
 EMISSION BANDWIDTH: 40 MHz

Frequency, MHz	26 dB Bandwidth, MHz	Bit Rate, Mbps	Modulation	Output power				Verdict
				Measured, dBm	Total power, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge								
5275.0	43.800	27	BPSK	-1.95	1.05	7.50	-6.45	Pass
5275.0	45.200	270	64QAM	-1.98	1.02	7.50	-6.48	Pass
Low channel In-Band								
5285.0	47.550	27	BPSK	4.45	7.45	7.50	-0.05	Pass
5285.0	47.700	270	64QAM	4.21	7.21	7.50	-0.29	Pass
Mid channel								
5300.0	48.300	27	BPSK	3.65	6.65	7.50	-0.85	Pass
5300.0	47.400	270	64QAM	4.23	7.23	7.50	-0.27	Pass
High channel In-Band								
5315.0	47.700	27	BPSK	4.23	7.23	7.50	-0.27	Pass
5315.0	47.700	270	64QAM	4.38	7.38	7.50	-0.12	Pass
High channel Band Edge								
5325.0	43.900	27	BPSK	-1.71	1.29	7.50	-6.21	Pass
5325.0	44.700	270	64QAM	-1.47	1.53	7.50	-5.97	Pass

* - The total peak output power = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total output power – specification limit.

Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2	
Peak output power and peak power spectral density			
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Verdict: PASS	
Date:			
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Table 7.1.3 Conducted output power test results

OPERATING FREQUENCY RANGE: 5265-5335 MHz
 MODULATING SIGNAL: OFDM
 DETECTOR USED: Peak
 RESOLUTION BANDWIDTH: 1 MHz
 VIDEO BANDWIDTH: 3 MHz
 METHOD OF POWER MEASUREMENTS: 1 (channel power across the 26 dB EBW)
 ANTENNA ASSEMBLY GAIN: 22.5 dBi
 EMISSION BANDWIDTH: 20 MHz

Frequency, MHz	26 dB Bandwidth, MHz	Bit Rate, MBps	Modulation	Output power				Verdict
				Measured, dBm	Total power, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge								
5265	23.350	13	BPSK	-2.62	0.38	7.50	-7.12	Pass
5265	23.100	130	64QAM	-2.32	0.68	7.50	-6.82	Pass
High channel Band Edge								
5335	23.400	13	BPSK	-1.21	1.79	7.50	-5.71	Pass
5335	23.100	130	64QAM	-1.72	1.28	7.50	-6.22	Pass

* - The total peak output power = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total output power – specification limit.

Table 7.1.4 Conducted output power test results

OPERATING FREQUENCY RANGE: 5260-5340 MHz
 MODULATING SIGNAL: OFDM
 DETECTOR USED: Peak
 RESOLUTION BANDWIDTH: 1 MHz
 VIDEO BANDWIDTH: 3 MHz
 METHOD OF POWER MEASUREMENTS: 1 (channel power across the 26 dB EBW)
 ANTENNA ASSEMBLY GAIN: 22.5 dBi
 EMISSION BANDWIDTH: 10 MHz

Frequency, MHz	26 dB Bandwidth, MHz	Bit Rate, Mbps	Modulation	Output power				Verdict
				Measured, dBm	Total power, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge								
5260	12.730	6.5	BPSK	-1.20	1.80	5.55	-3.75	Pass
5260	12.730	65	64QAM	-1.05	1.95	5.55	-3.60	Pass
High channel Band Edge								
5340	12.970	6.5	BPSK	0.96	3.96	5.63	-1.67	Pass
5340	12.330	65	64QAM	0.97	3.97	5.41	-1.44	Pass

* - The total peak output power = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total output power – specification limit.

Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Table 7.1.5 Conducted output power test results

OPERATING FREQUENCY RANGE: 5257.5-5342.5 MHz
MODULATING SIGNAL: OFDM
DETECTOR USED: Peak
RESOLUTION BANDWIDTH: 1 MHz
VIDEO BANDWIDTH: 3 MHz
METHOD OF POWER MEASUREMENTS: 1 (channel power across the 26 dB EBW)
ANTENNA ASSEMBLY GAIN: 22.5 dBi
EMISSION BANDWIDTH: 5 MHz

Frequency, MHz	26 dB Bandwidth, MHz	Bit Rate, MBps	Modulation	Output power				Verdict
				Measured, dBm	Total power, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge								
5257.5	7.225	3.25	BPSK	-0.89	2.11	3.09	-0.98	Pass
5257.5	6.900	32.5	64QAM	-1.39	1.61	2.89	-1.28	Pass
High channel Band Edge								
5342.5	7.000	3.25	BPSK	-0.34	2.66	2.95	-0.29	Pass
5342.5	7.125	32.5	64QAM	-0.34	2.66	3.03	-0.37	Pass

* - The total peak output power = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total output power – specification limit.

Reference numbers of test equipment used

HL 2909	HL 2952	HL 3435	HL 3437				
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Full description is given in Appendix A.

Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Table 7.1.6 Peak power spectral density test results

OPERATING FREQUENCY RANGE: 5275-5325 MHz
 MODULATING SIGNAL: OFDM
 DETECTOR USED: Sample
 RESOLUTION BANDWIDTH: 1 MHz
 VIDEO BANDWIDTH: 3 MHz
 METHOD OF POWER DENSITY MEASUREMENTS: 2 (Sample detector and 100 power averaging)
 ANTENNA ASSEMBLY GAIN: 22.5dBi
 EMISSION BANDWIDTH: 40 MHz

Frequency, MHz	Bit Rate, MBps	Modulation	Peak power spectral density				Verdict
			Measured, dBm	Total peak power spectral density, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge							
5275.0	27	BPSK	-22.63	-19.63	-5.50	-14.13	Pass
5275.0	270	64QAM	-22.41	-19.41	-5.50	-13.91	Pass
Low channel In-Band							
5285.0	27	BPSK	-15.53	-12.53	-5.50	-7.03	Pass
5285.0	270	64QAM	-15.73	-12.73	-5.50	-7.23	Pass
Mid channel							
5300.0	27	BPSK	-15.65	-12.65	-5.50	-7.15	Pass
5300.0	270	64QAM	-15.35	-12.35	-5.50	-6.85	Pass
High channel In-Band							
5315.0	27	BPSK	-15.60	-12.60	-5.50	-7.10	Pass
5315.0	270	64QAM	-14.08	-11.08	-5.50	-5.58	Pass
High channel Band Edge							
5325.0	27	BPSK	-21.66	-18.66	-5.50	-13.16	Pass
5325.0	270	64QAM	-21.18	-18.18	-5.50	-12.68	Pass

* - The total peak power spectral density = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total peak power density – specification limit.

Reference numbers of test equipment used

HL 2909	HL 2952	HL 3435	HL 3437				
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Full description is given in Appendix A.

Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Table 7.1.7 Peak power spectral density test results

OPERATING FREQUENCY RANGE: 5265-5335 MHz
MODULATING SIGNAL: OFDM
DETECTOR USED: Sample
RESOLUTION BANDWIDTH: 1 MHz
VIDEO BANDWIDTH: 3 MHz
METHOD OF POWER DENSITY MEASUREMENTS: 2 (Sample detector and 100 power averaging)
ANTENNA ASSEMBLY GAIN: 22.5dBi
EMISSION BANDWIDTH: 20 MHz

Frequency, MHz	Bit Rate, Mbps	Modulation	Peak power spectral density				Verdict
			Measured, dBm	Total peak power spectral density, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge							
5265	13	BPSK	-20.92	-17.92	-5.50	-12.42	Pass
5265	130	64QAM	-20.43	-17.43	-5.50	-11.93	Pass
High channel Band Edge							
5335	13	BPSK	-19.19	-16.19	-5.50	-10.69	Pass
5335	130	64QAM	-19.32	-16.32	-5.50	-10.82	Pass

* - The total peak power spectral density = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total peak power density – specification limit.

Table 7.1.8 Peak power spectral density test results

OPERATING FREQUENCY RANGE: 5260-5340 MHz
MODULATING SIGNAL: OFDM
DETECTOR USED: Sample
RESOLUTION BANDWIDTH: 1 MHz
VIDEO BANDWIDTH: 3 MHz
METHOD OF POWER DENSITY MEASUREMENTS: 2 (Sample detector and 100 power averaging)
ANTENNA ASSEMBLY GAIN: 22.5dBi
EMISSION BANDWIDTH: 10 MHz

Frequency, MHz	Bit Rate, MBps	Modulation	Peak power spectral density				Verdict
			Measured, dBm	Total peak power spectral density, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge							
5260	6.5	BPSK	-15.08	-12.08	-5.50	-6.58	Pass
5260	65	64QAM	-15.51	-12.51	-5.50	-7.01	Pass
High channel Band Edge							
5340	6.5	BPSK	-13.70	-10.70	-5.50	-5.20	Pass
5340	65	64QAM	-14.37	-11.37	-5.50	-5.87	Pass

* - The total peak power spectral density = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total peak power density – specification limit.

Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Verdict: PASS	
Date:			
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Table 7.1.9 Peak power spectral density test results

OPERATING FREQUENCY RANGE: 5257.5-5342.5 MHz
 MODULATING SIGNAL: OFDM
 DETECTOR USED: Sample
 RESOLUTION BANDWIDTH: 1 MHz
 VIDEO BANDWIDTH: 3 MHz
 METHOD OF POWER DENSITY MEASUREMENTS: 2 (Sample detector and 100 power averaging)
 ANTENNA ASSEMBLY GAIN: 22.5dBi
 EMISSION BANDWIDTH: 5 MHz

Frequency, MHz	Bit Rate, MBps	Modulation	Peak power spectral density				Verdict
			Measured, dBm	Total peak power spectral density, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge							
5257.5	3.25	BPSK	-13.23	-10.23	-5.50	-4.73	Pass
5257.5	32.5	64QAM	-13.53	-10.53	-5.50	-5.03	Pass
High channel Band Edge							
5342.5	3.25	BPSK	-11.53	-8.53	-5.50	-3.03	Pass
5342.5	32.5	64QAM	-11.97	-8.97	-5.50	-3.47	Pass

* - The total peak power spectral density = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total peak power density – specification limit.

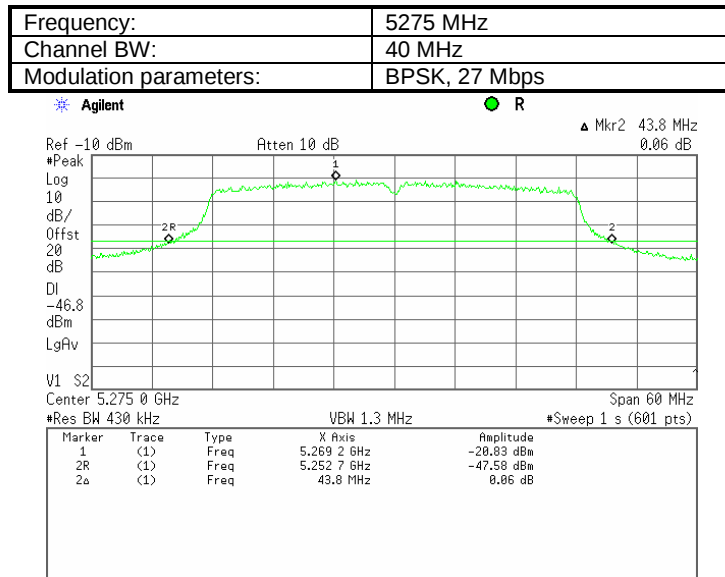
Reference numbers of test equipment used

HL 2909	HL 2952	HL 3435	HL 3437				
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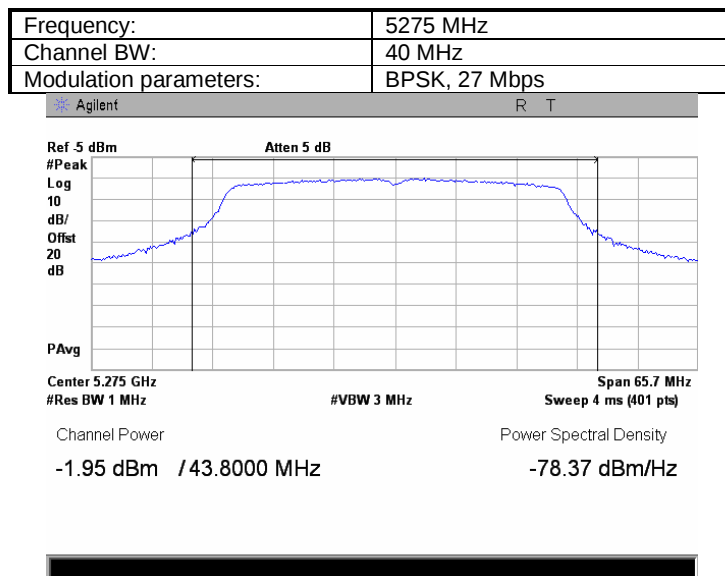
Full description is given in Appendix A.

Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.1 The 26 dB emission bandwidth

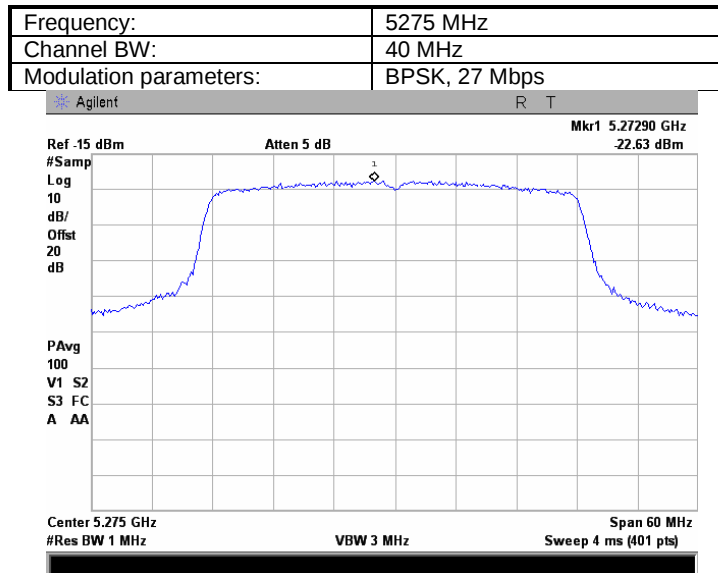


Plot 7.1.2 Peak output power

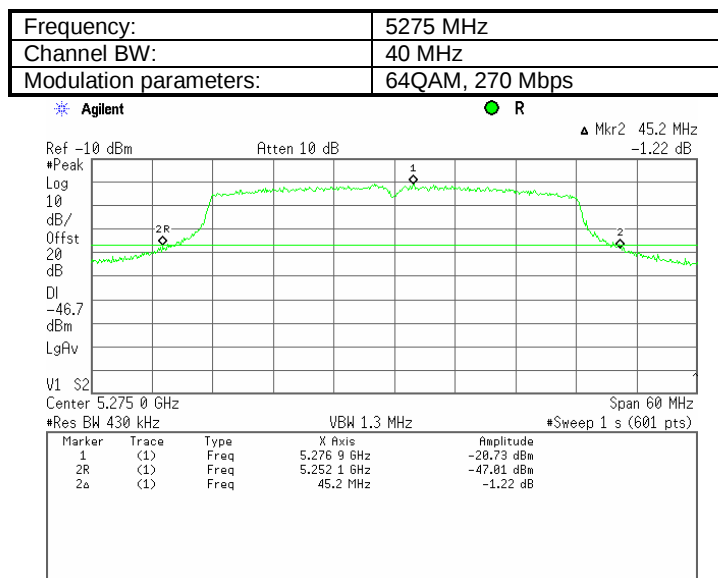


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.3 Peak spectral power density

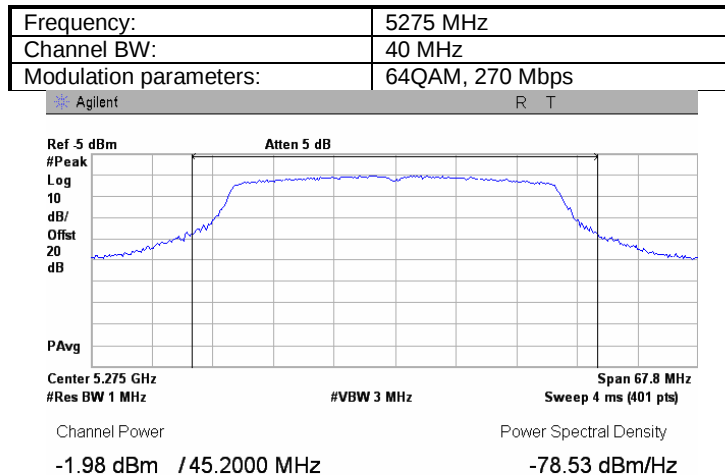


Plot 7.1.4 The 26 dB emission bandwidth

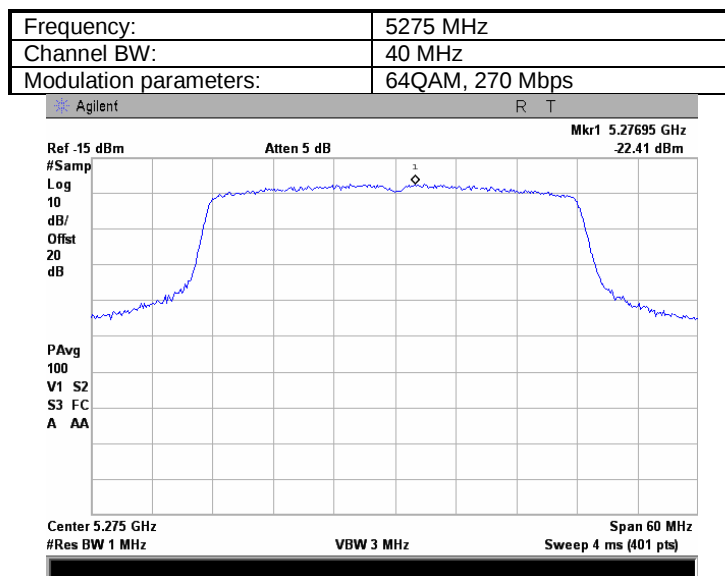


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.5 Peak output power

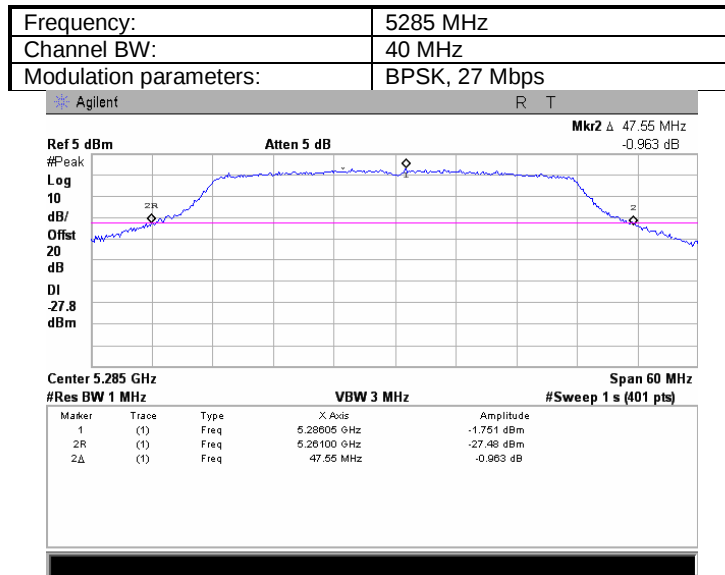


Plot 7.1.6 Peak spectral power density

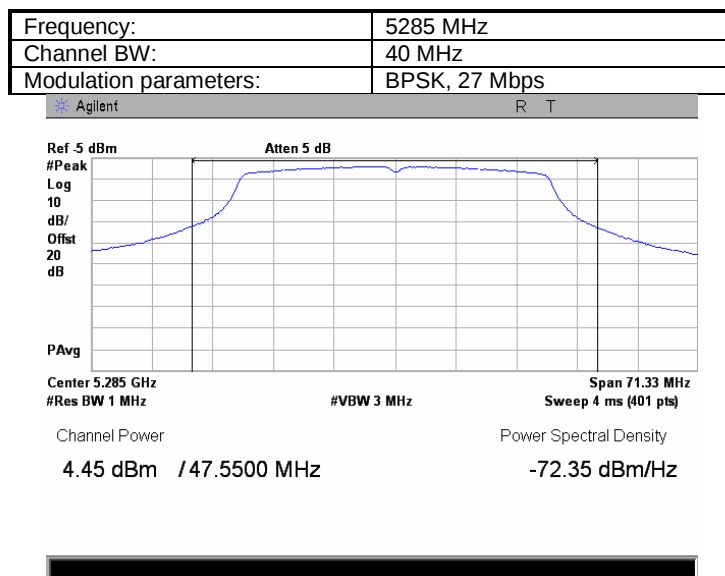


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.7 The 26 dB emission bandwidth

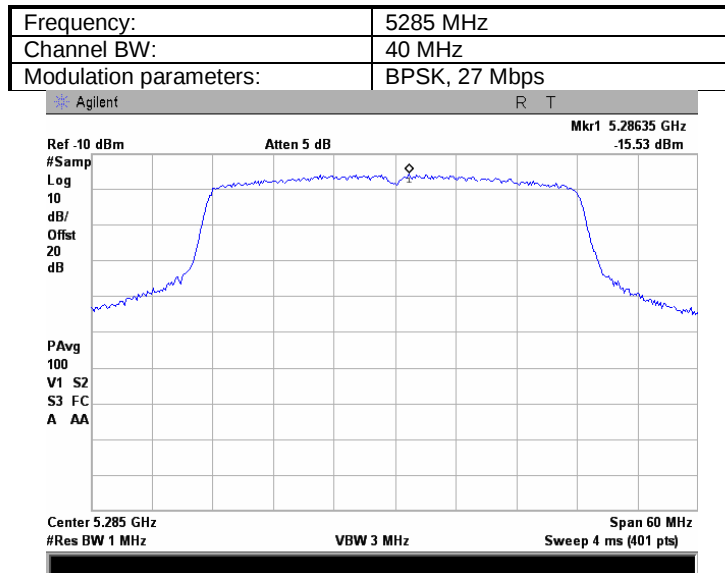


Plot 7.1.8 Peak output power

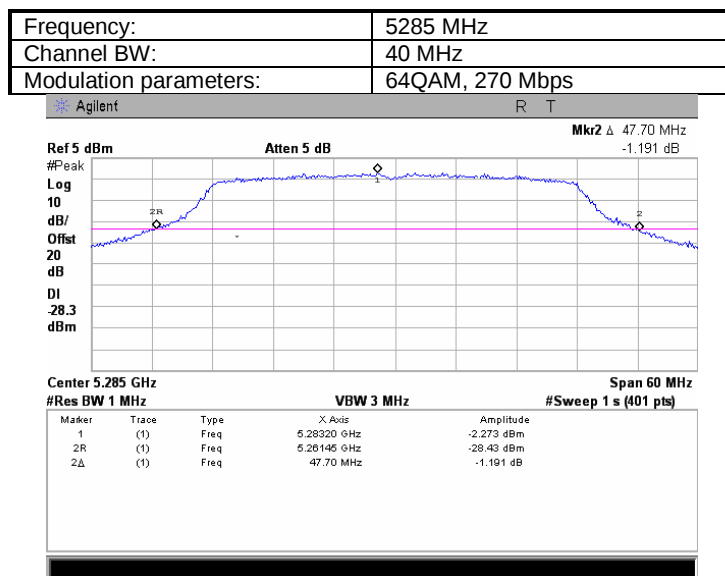


Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.9 Peak spectral power density

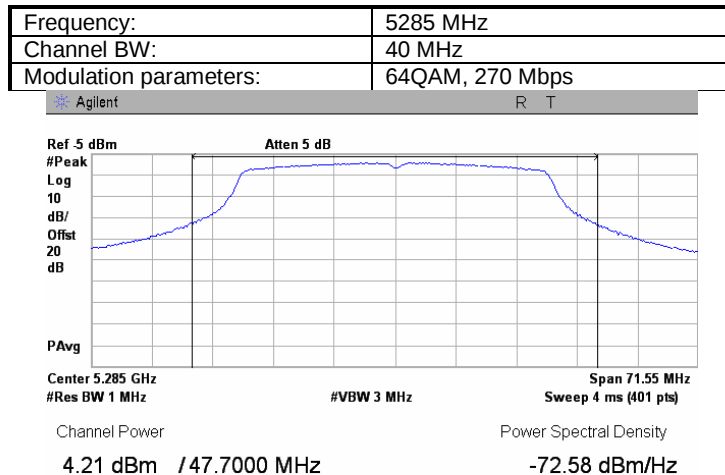


Plot 7.1.10 The 26 dB emission bandwidth

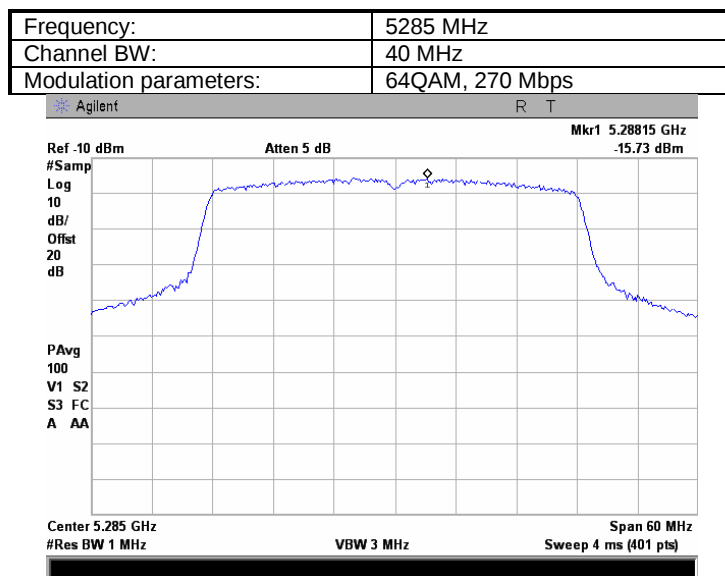


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.11 Peak output power

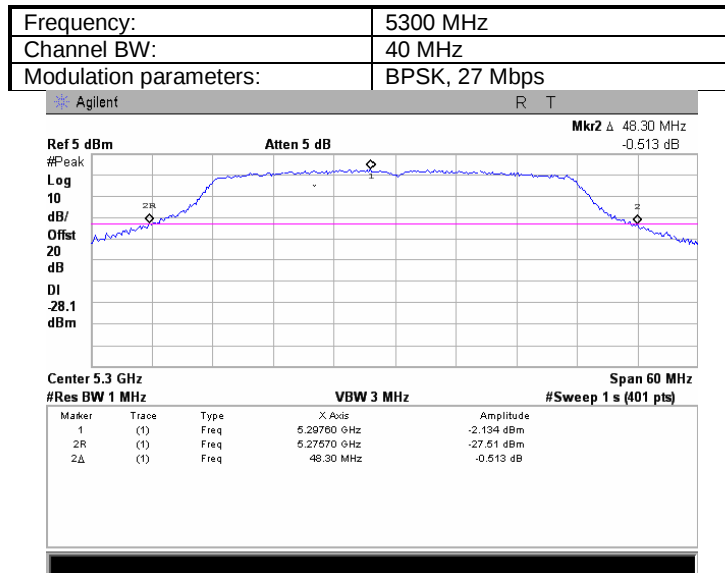


Plot 7.1.12 Peak spectral power density

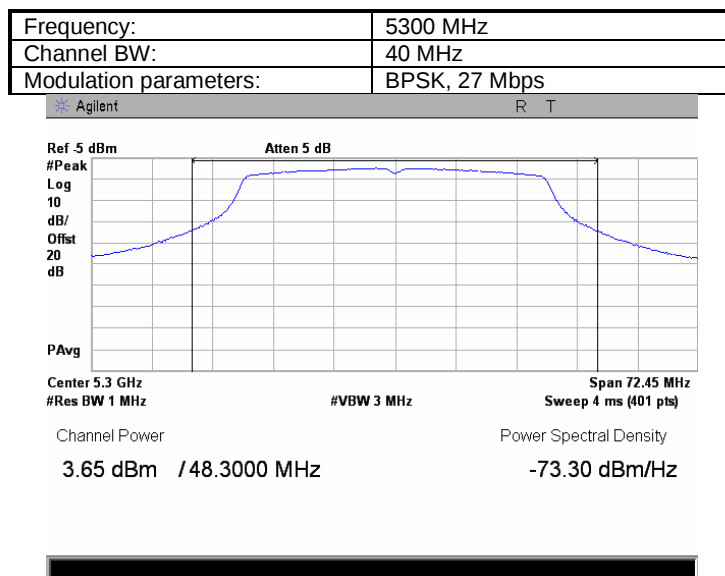


Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.13 The 26 dB emission bandwidth

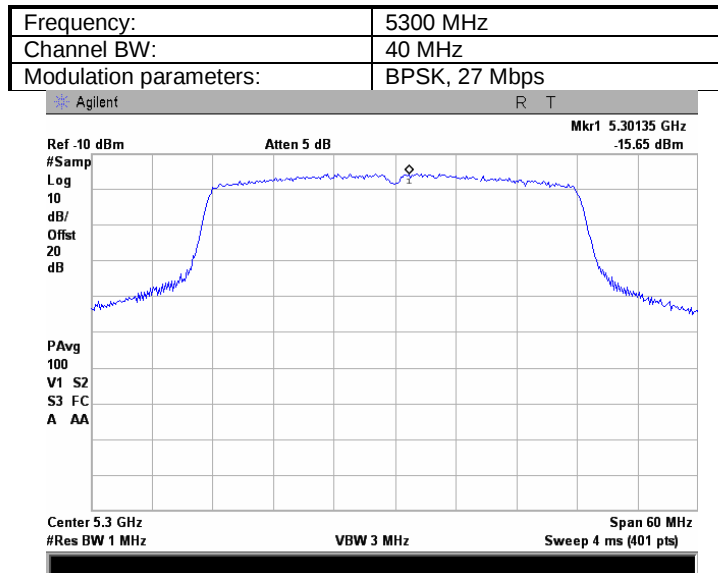


Plot 7.1.14 Peak output power

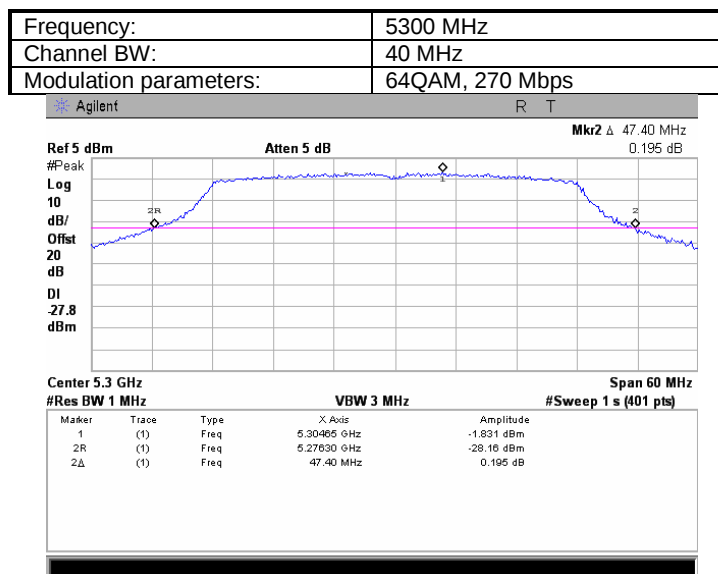


Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.15 Peak spectral power density

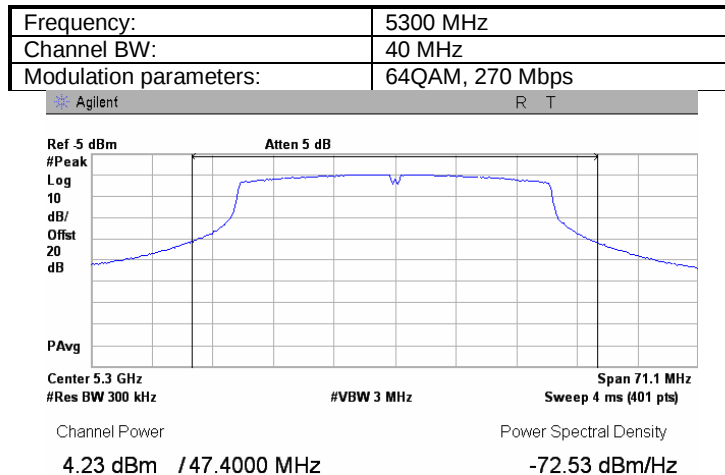


Plot 7.1.16 The 26 dB emission bandwidth

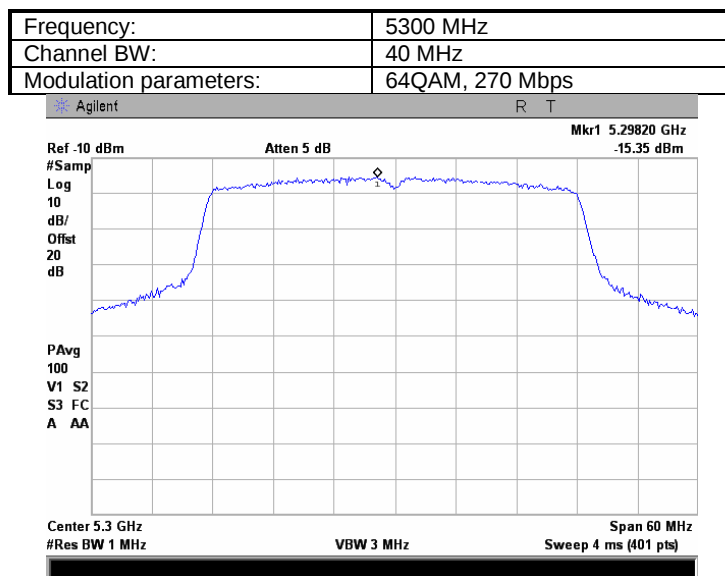


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.17 Peak output power

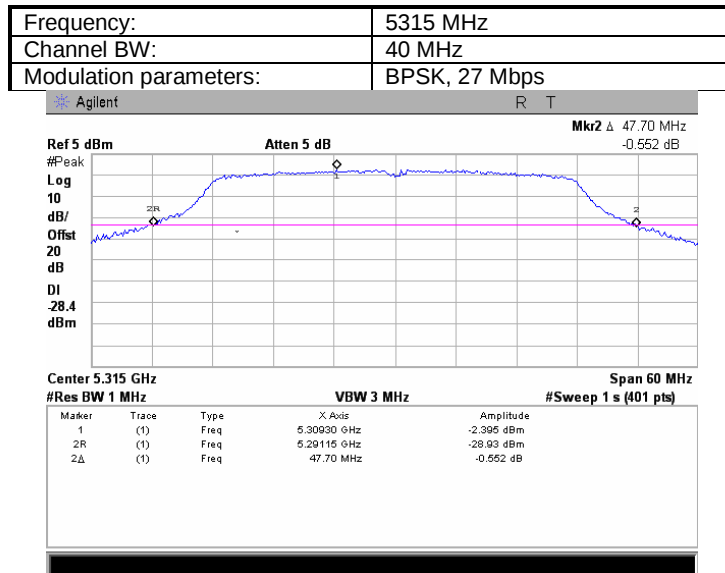


Plot 7.1.18 Peak spectral power density

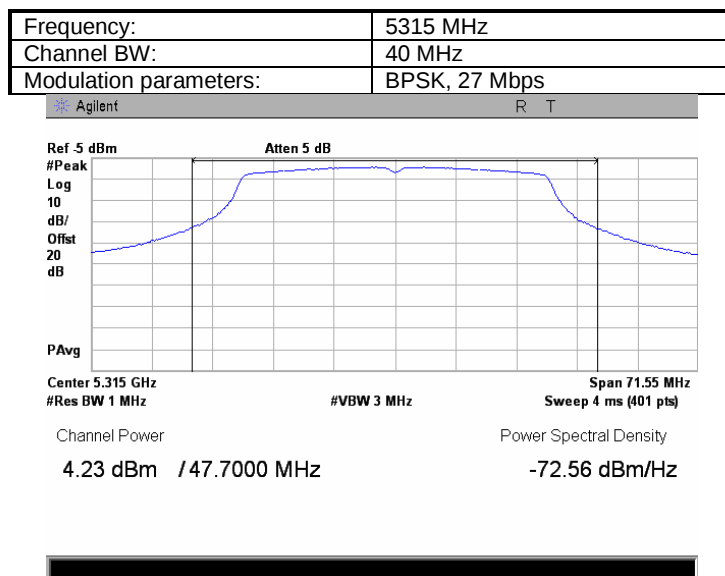


Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.19 The 26 dB emission bandwidth

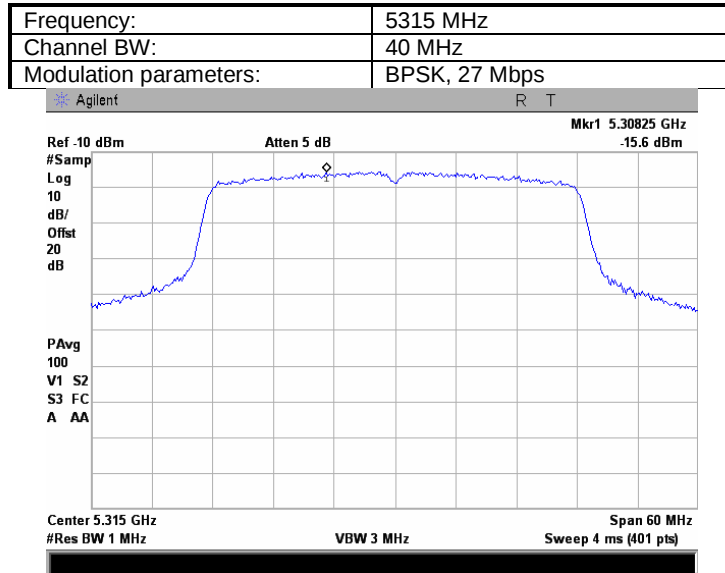


Plot 7.1.20 Peak output power

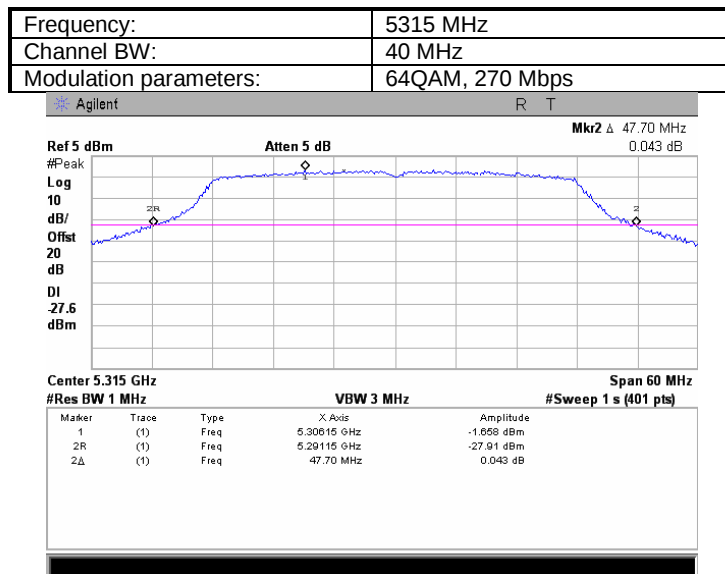


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.21 Peak spectral power density

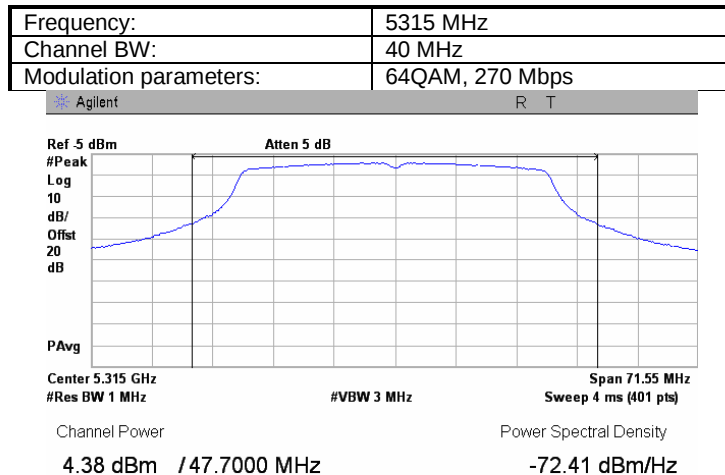


Plot 7.1.22 The 26 dB emission bandwidth

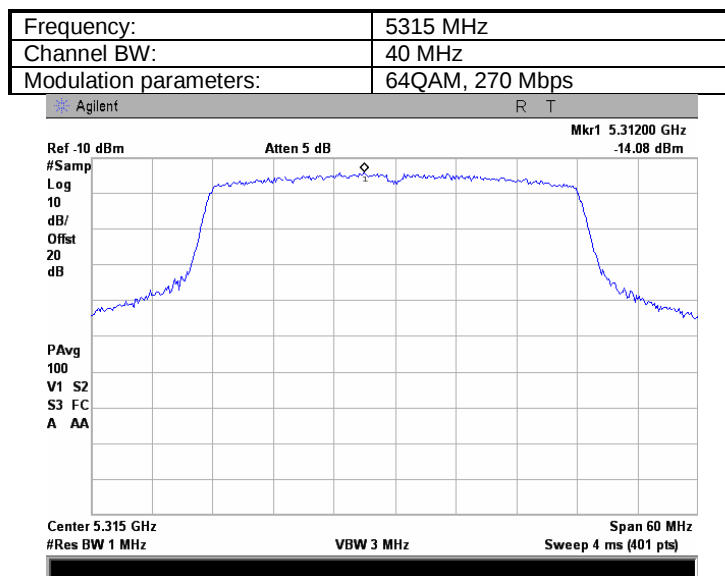


Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.23 Peak output power

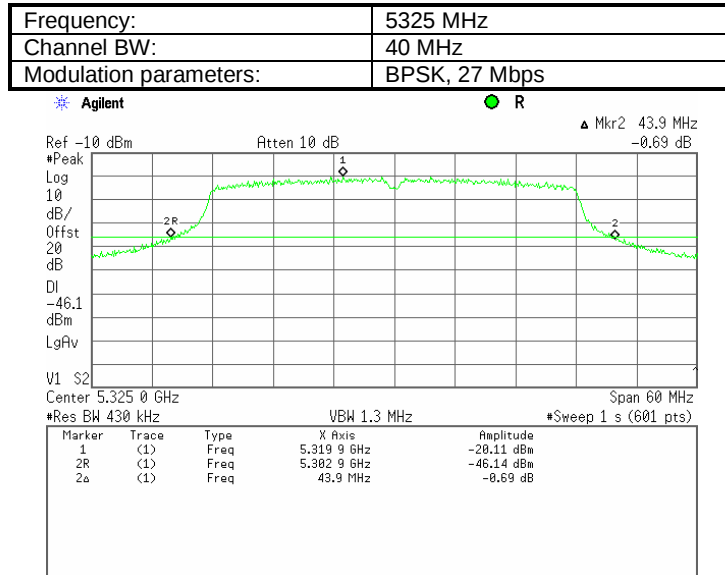


Plot 7.1.24 Peak spectral power density

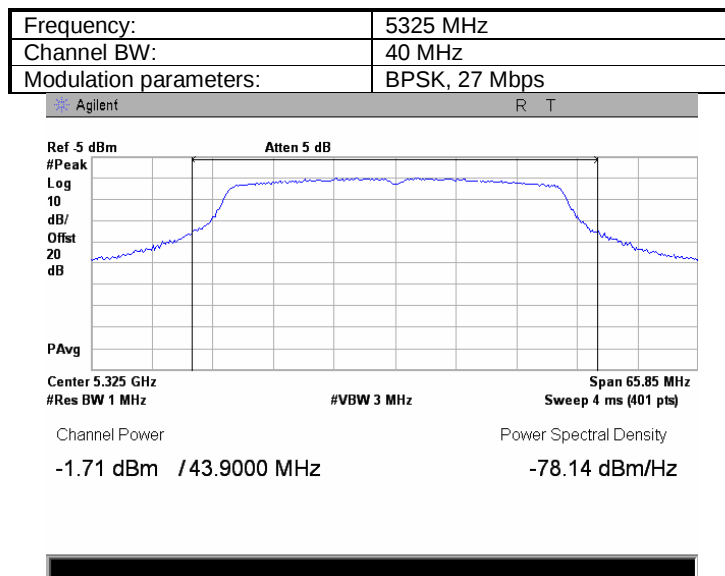


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.25 The 26 dB emission bandwidth

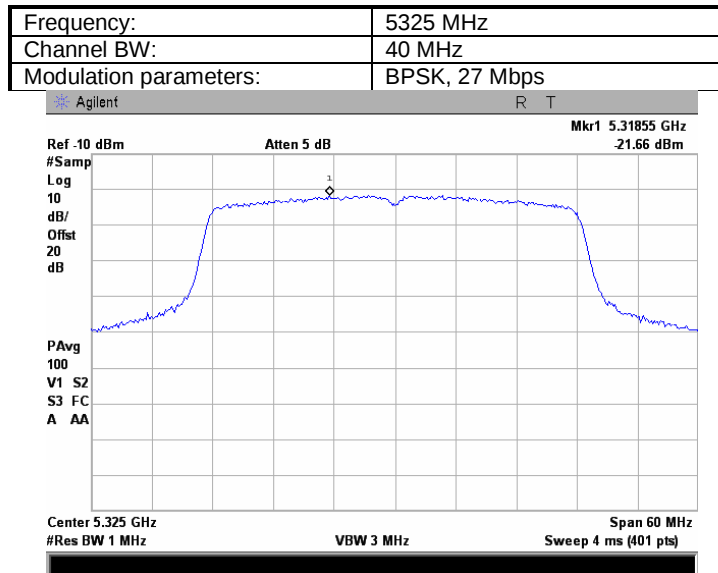


Plot 7.1.26 Peak output power

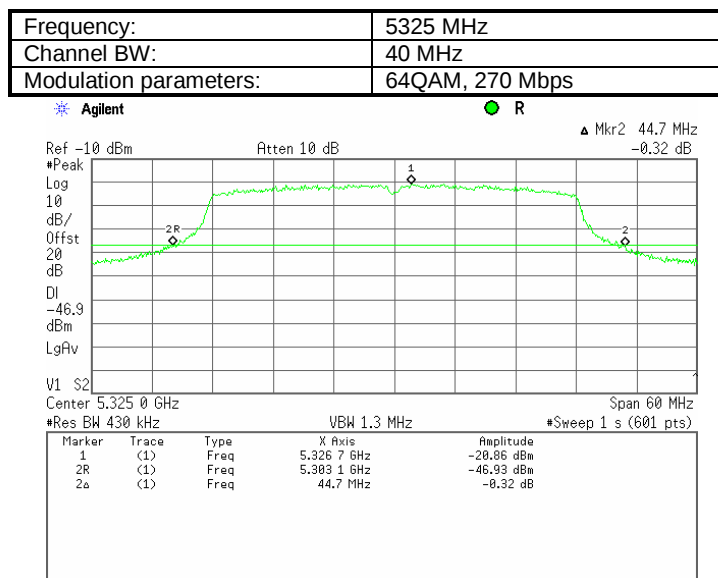


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.27 Peak spectral power density

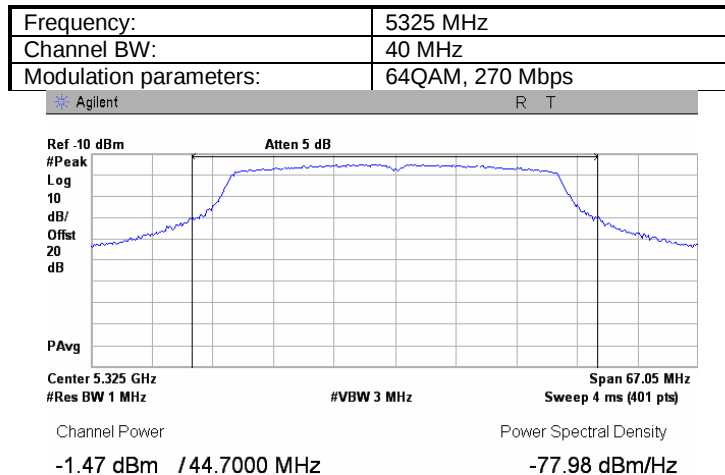


Plot 7.1.28 The 26 dB emission bandwidth

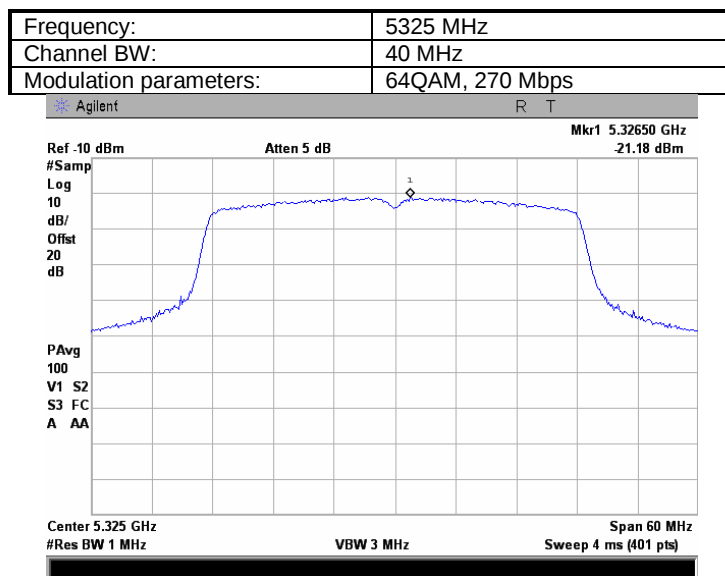


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.29 Peak output power

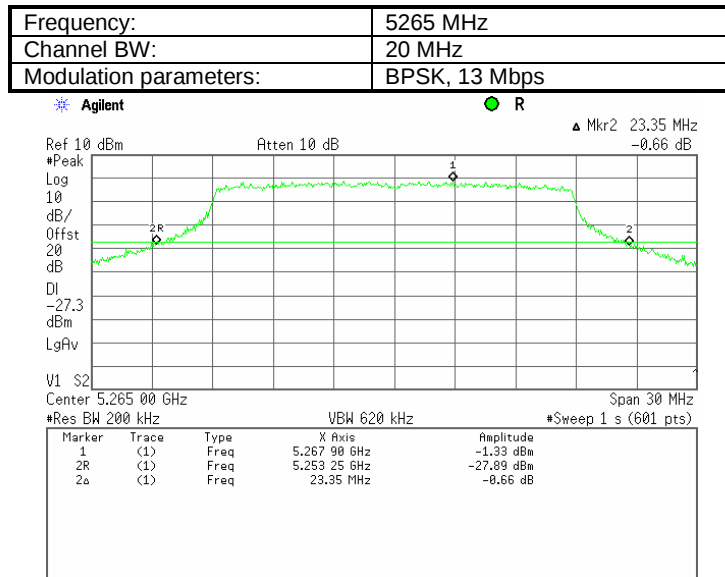


Plot 7.1.30 Peak spectral power density

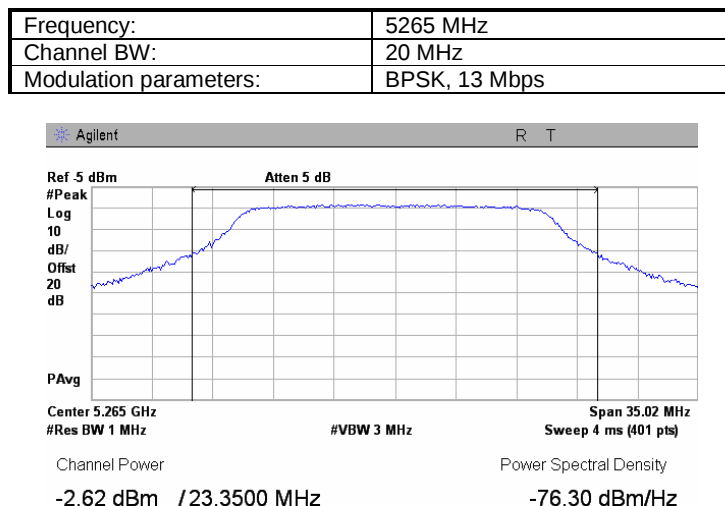


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.31 The 26 dB emission bandwidth

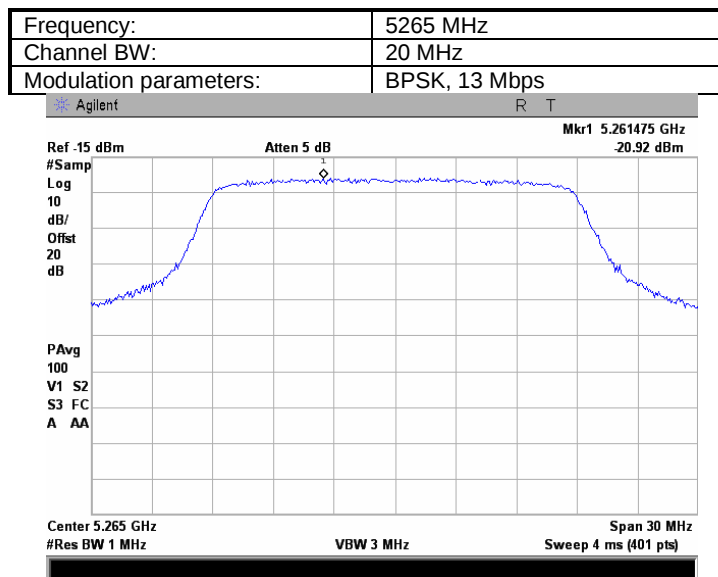


Plot 7.1.32 Peak output power

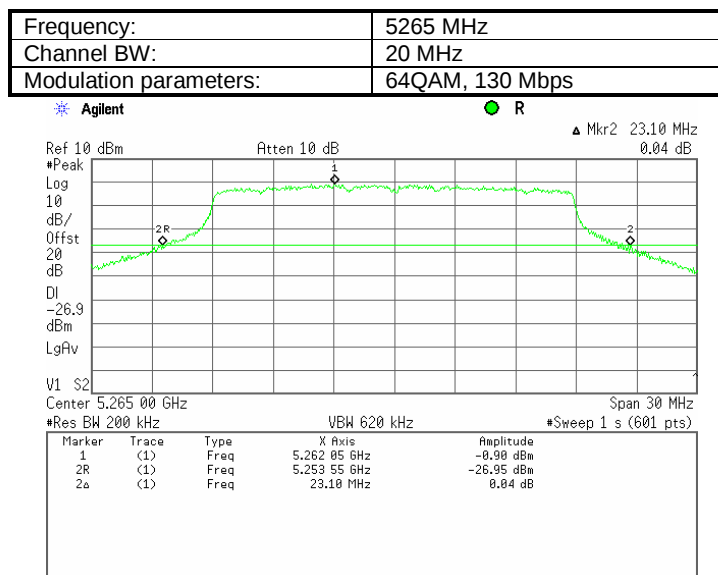


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.33 Peak spectral power density

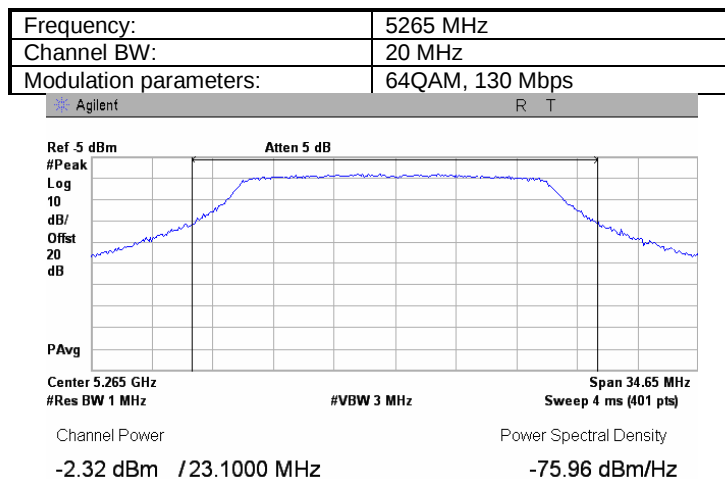


Plot 7.1.34 The 26 dB emission bandwidth

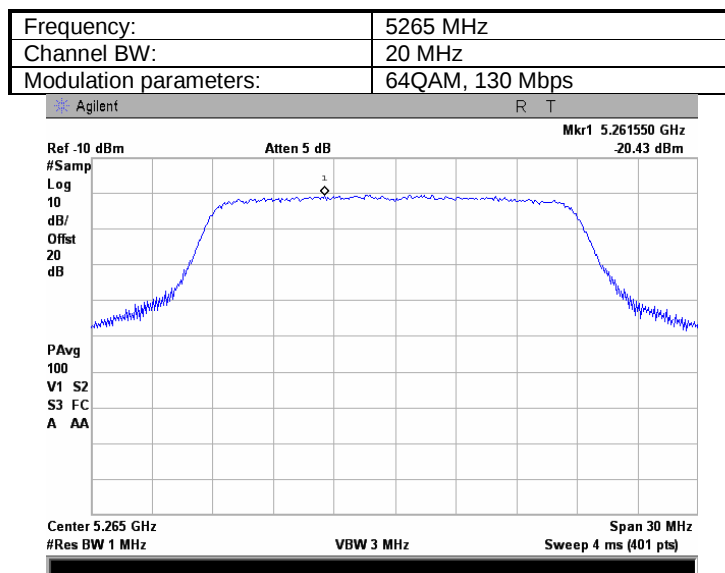


Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.35 Peak output power

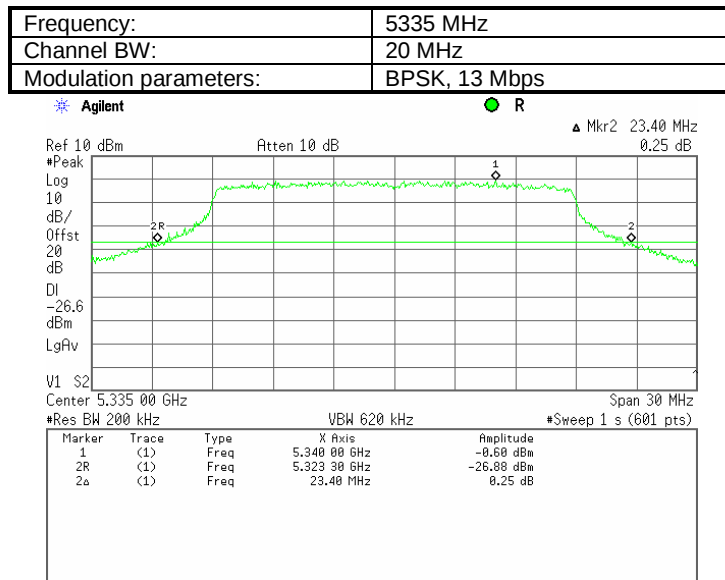


Plot 7.1.36 Peak spectral power density

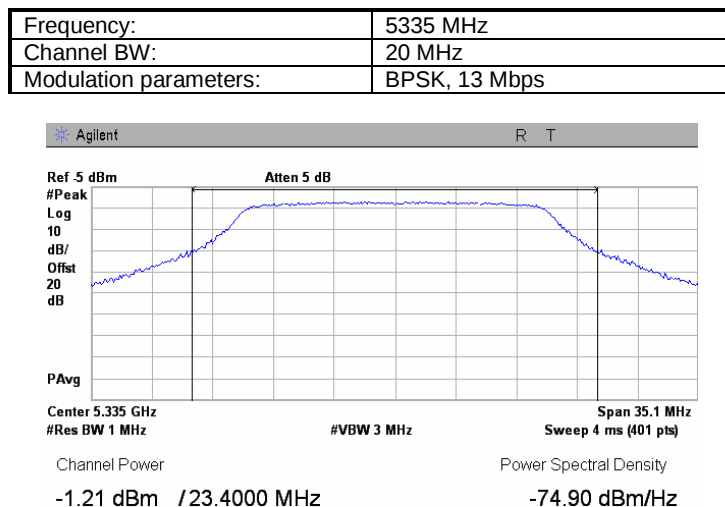


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.37 The 26 dB emission bandwidth

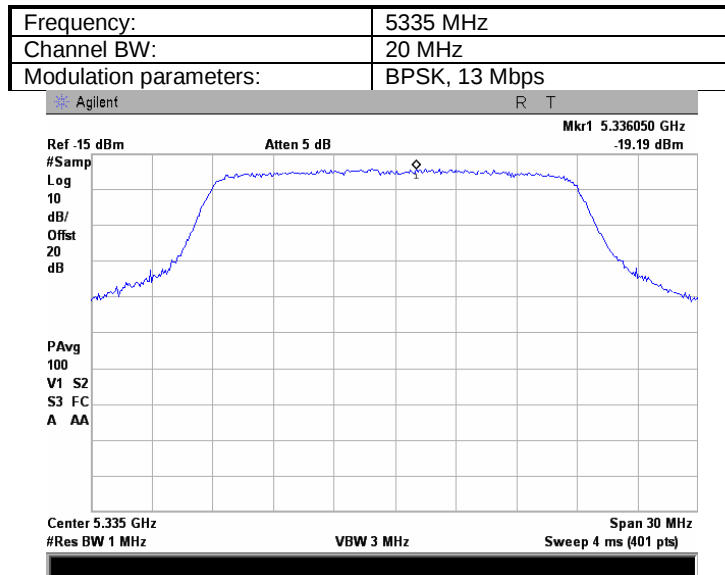


Plot 7.1.38 Peak output power

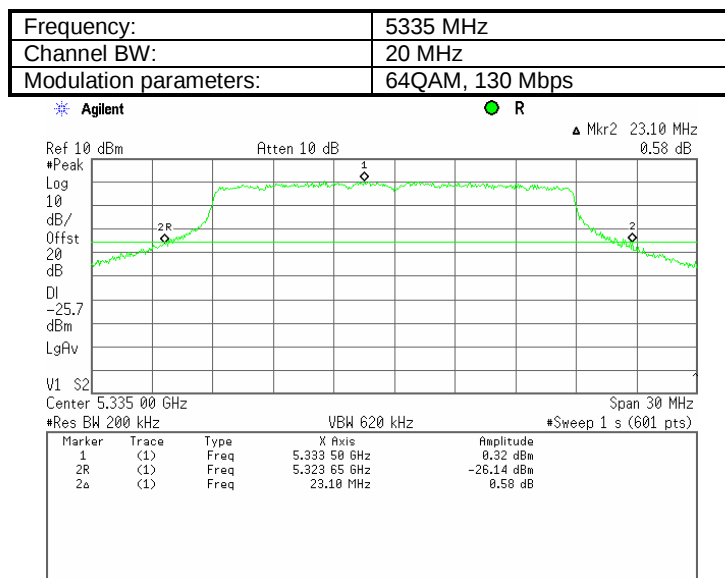


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.39 Peak spectral power density

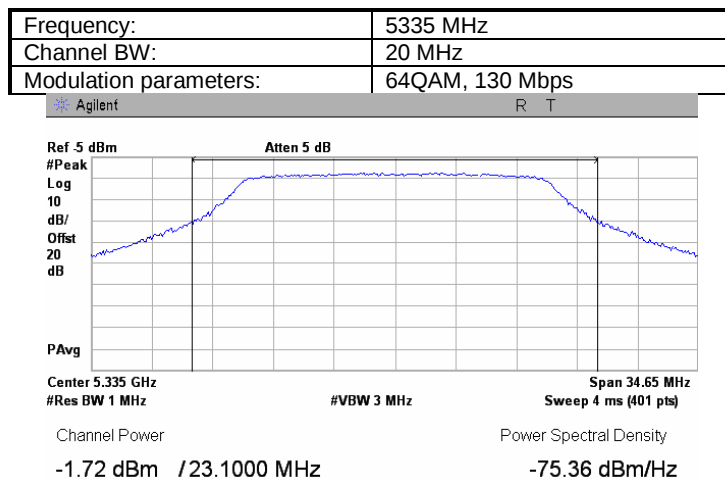


Plot 7.1.40 The 26 dB emission bandwidth

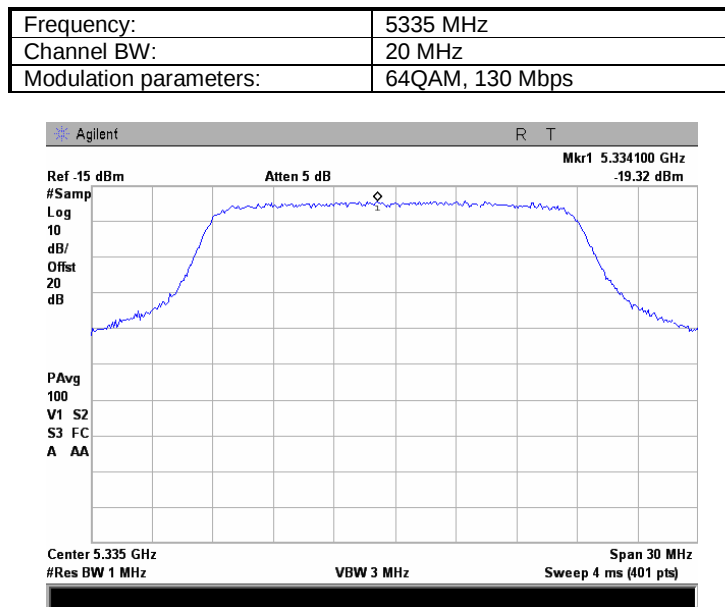


Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.41 Peak output power

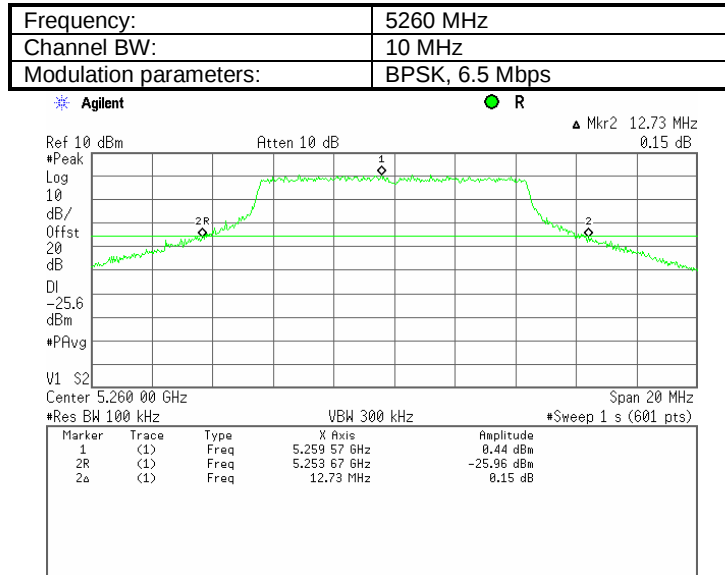


Plot 7.1.42 Peak spectral power density

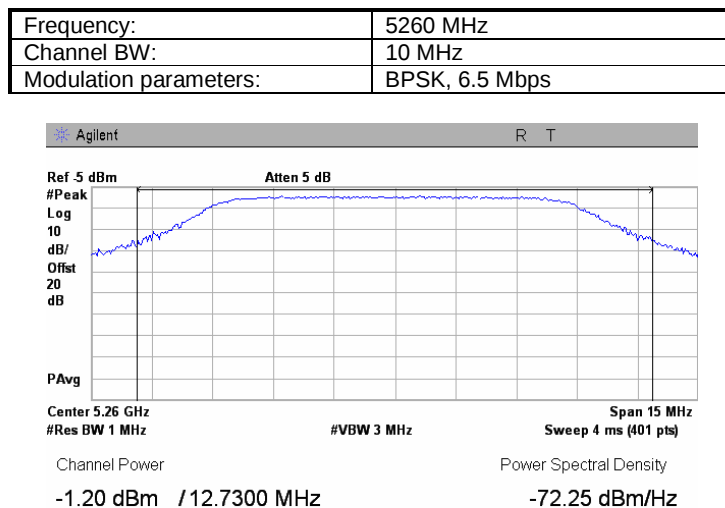


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.43 The 26 dB emission bandwidth

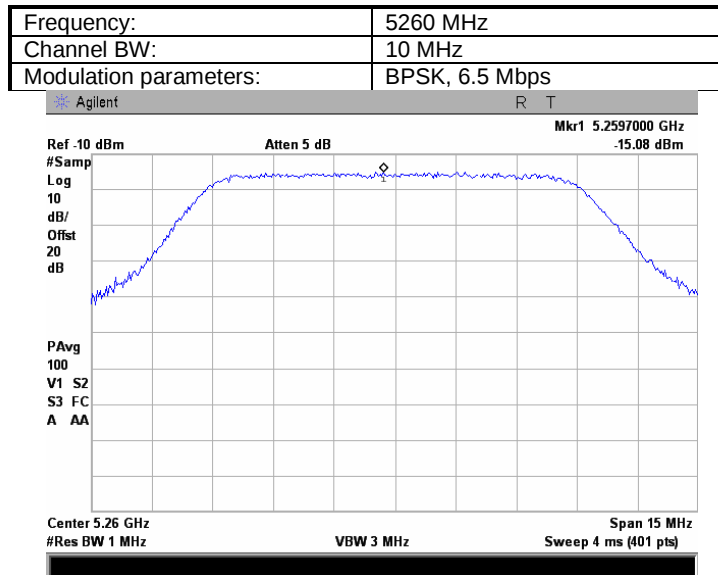


Plot 7.1.44 Peak output power

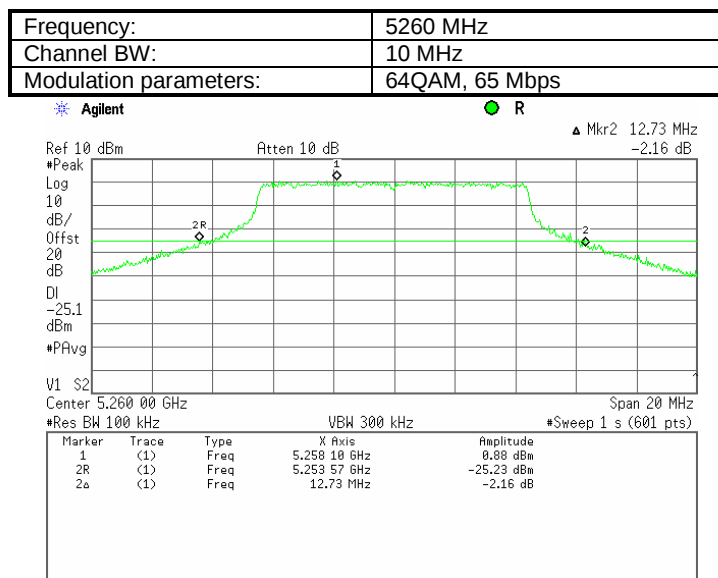


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.45 Peak spectral power density

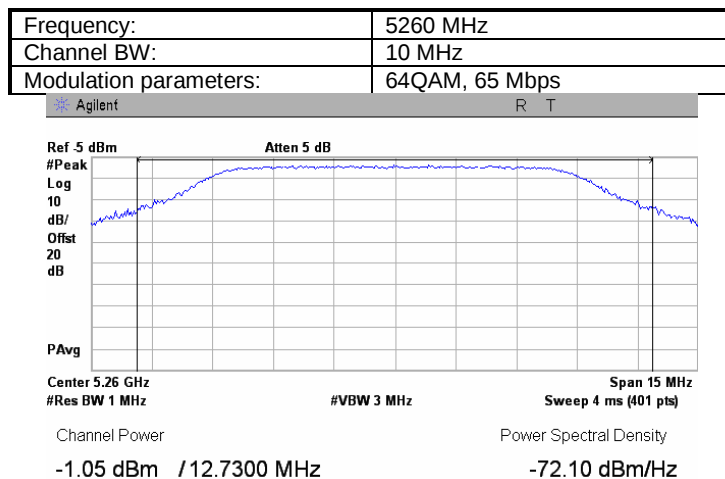


Plot 7.1.46 The 26 dB emission bandwidth

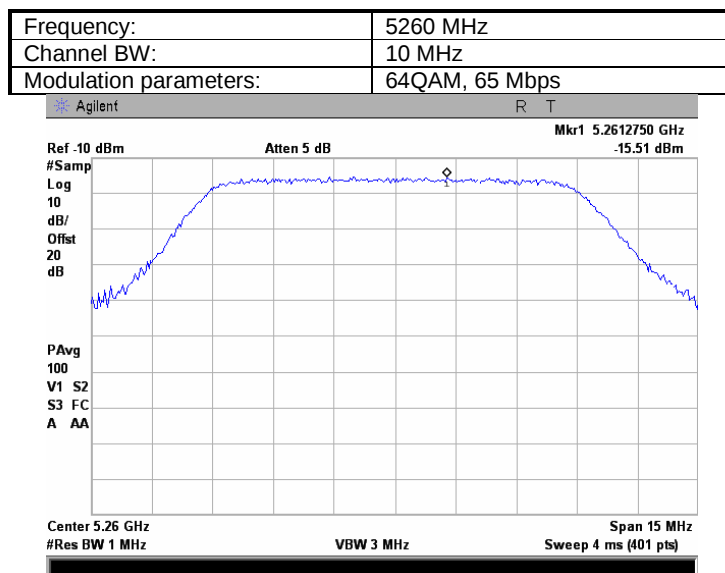


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.47 Peak output power

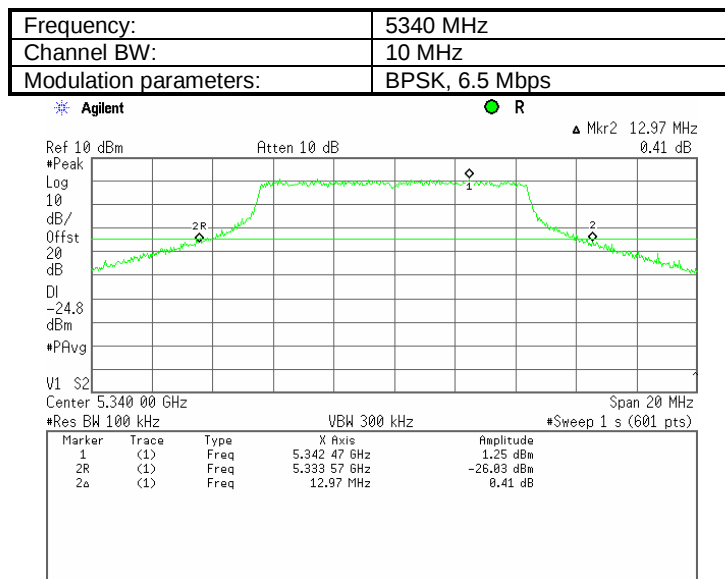


Plot 7.1.48 Peak spectral power density

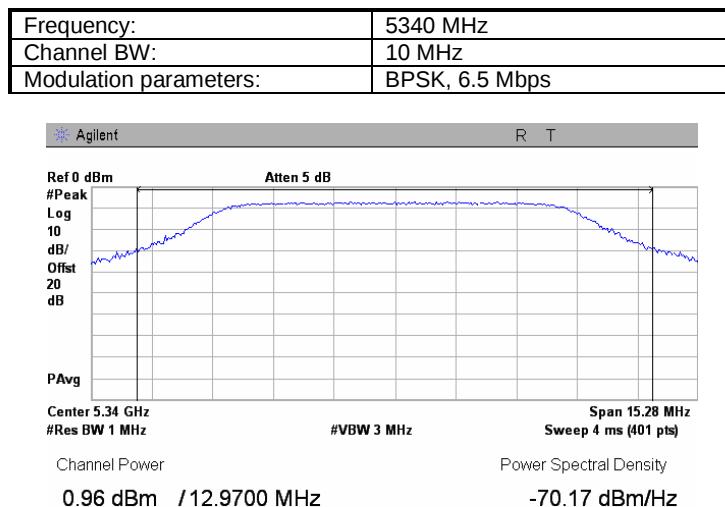


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.49 The 26 dB emission bandwidth

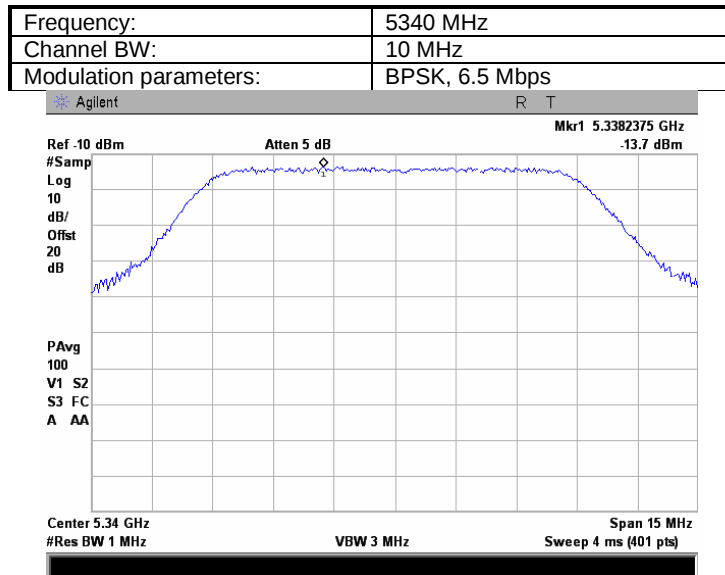


Plot 7.1.50 Peak output power

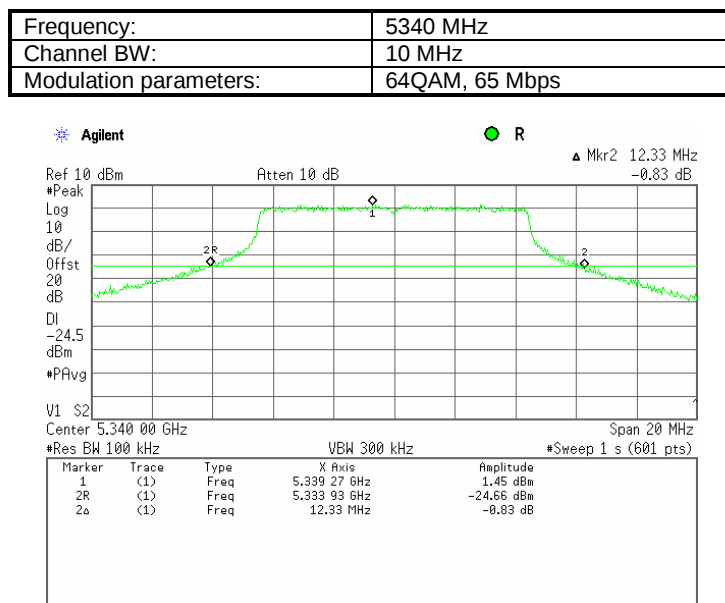


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.51 Peak spectral power density

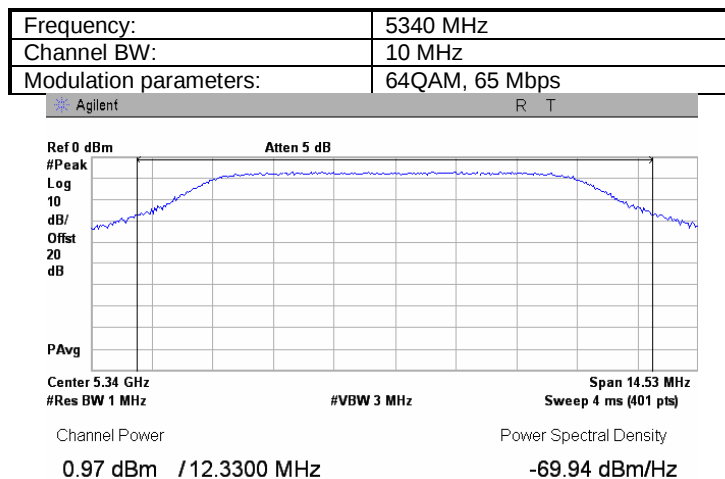


Plot 7.1.52 The 26 dB emission bandwidth

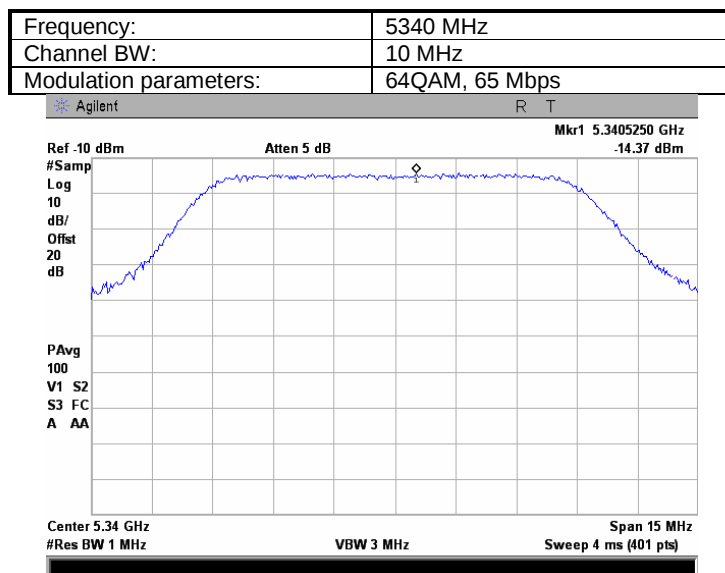


Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.53 Peak output power

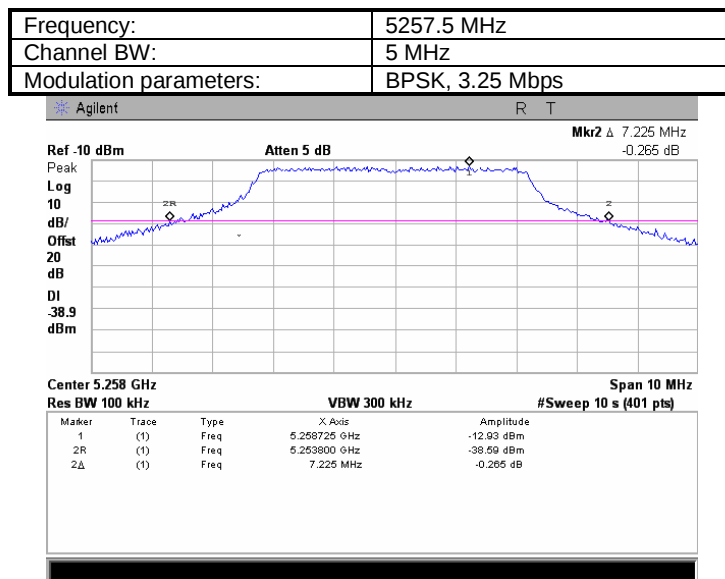


Plot 7.1.54 Peak spectral power density

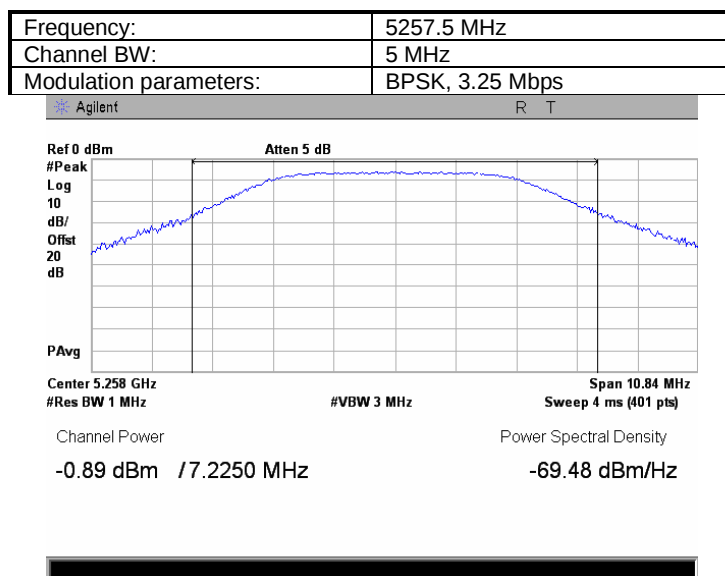


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.55 The 26 dB emission bandwidth

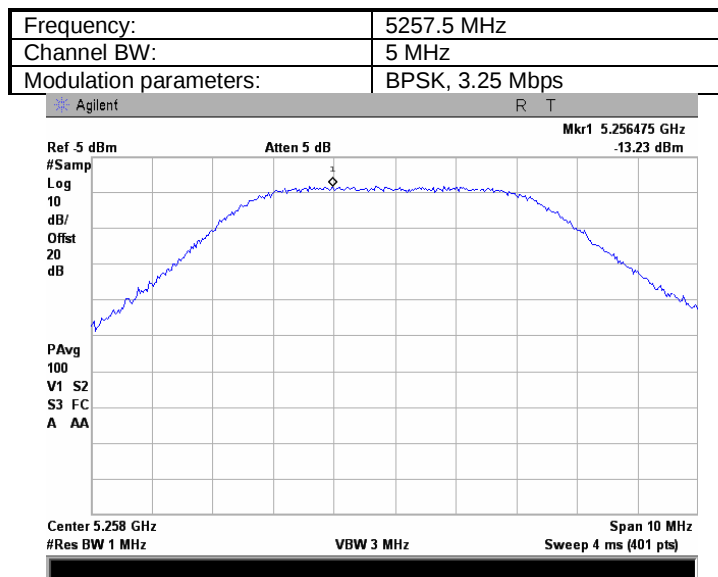


Plot 7.1.56 Peak output power

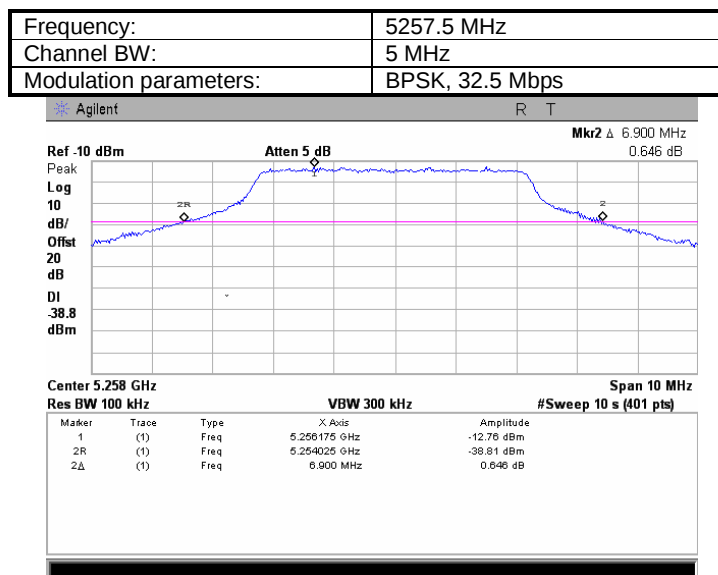


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.57 Peak spectral power density

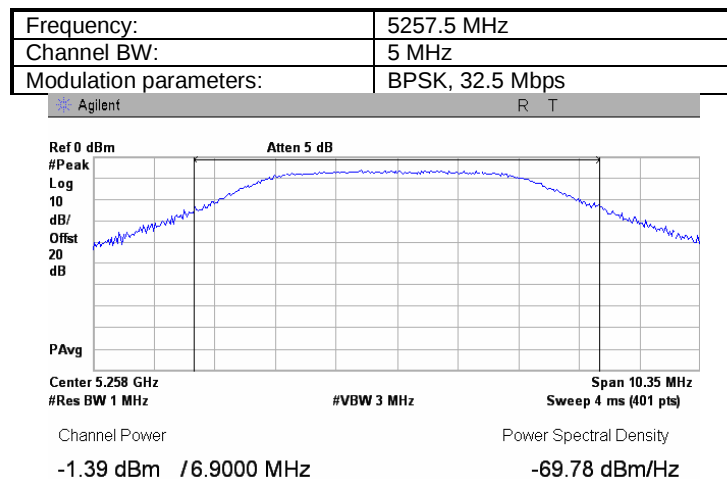


Plot 7.1.58 The 26 dB emission bandwidth

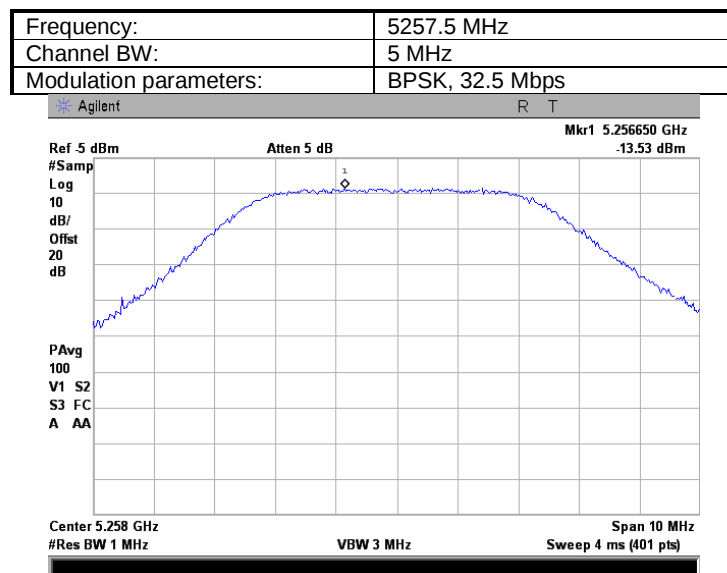


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.59 Peak output power

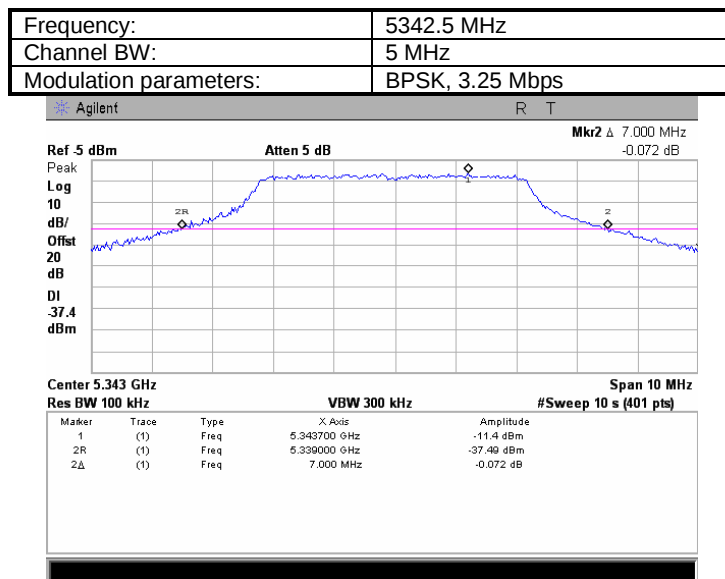


Plot 7.1.60 Peak spectral power density

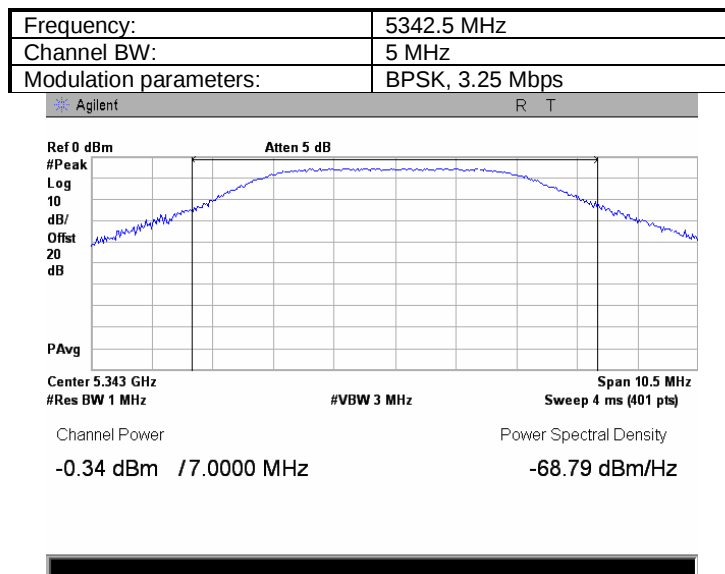


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.61 The 26 dB emission bandwidth

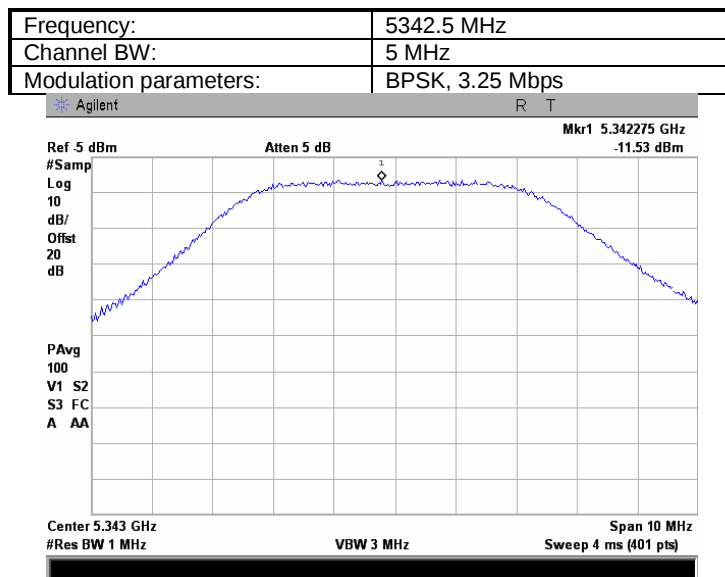


Plot 7.1.62 Peak output power

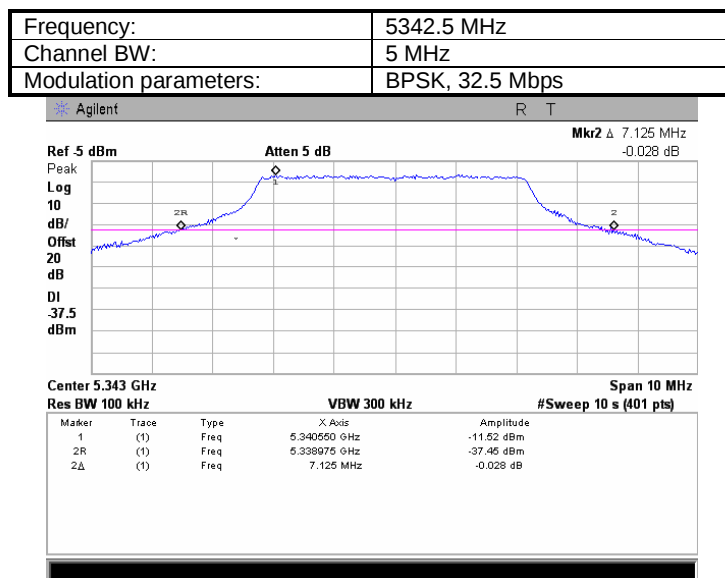


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.63 Peak spectral power density

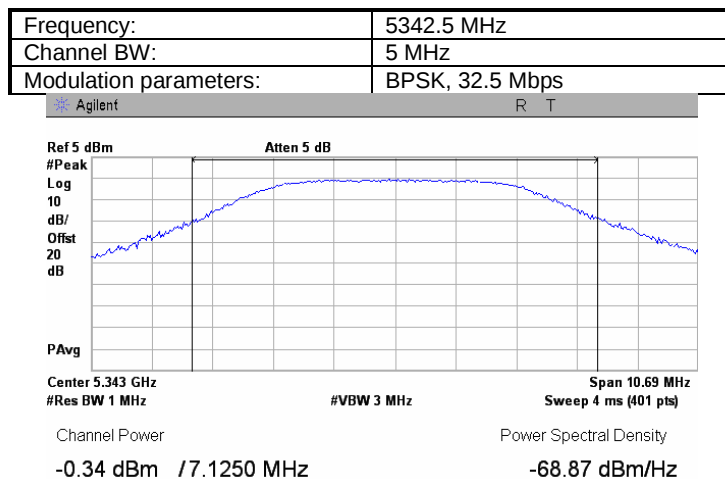


Plot 7.1.64 The 26 dB emission bandwidth

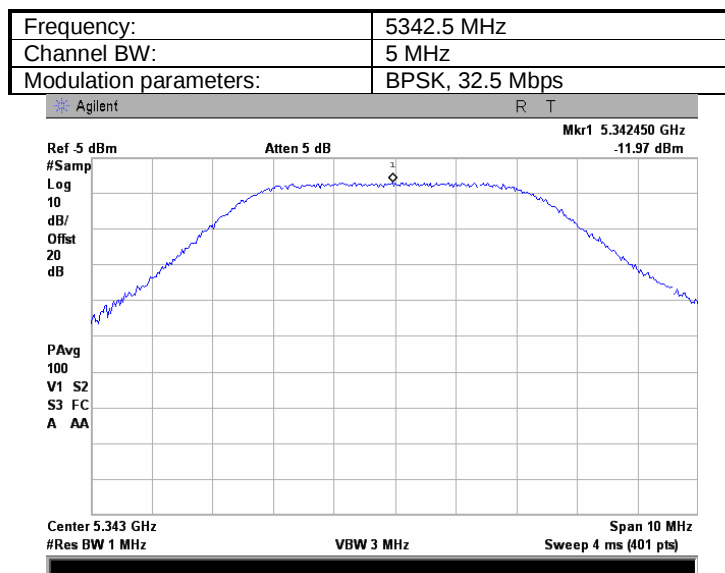


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 22.5 dBi antenna assembly gain			

Plot 7.1.65 Peak output power



Plot 7.1.66 Peak spectral power density



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Verdict: PASS	
Date:			
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Table 7.1.10 Conducted output power test results

OPERATING FREQUENCY RANGE: 5275-5325 MHz
MODULATING SIGNAL: OFDM
DETECTOR USED: Peak
RESOLUTION BANDWIDTH: 1 MHz
VIDEO BANDWIDTH: 3 MHz
METHOD OF POWER MEASUREMENTS: 1 (channel power across the 26 dB EBW)
ANTENNA ASSEMBLY GAIN: 28 dBi
EMISSION BANDWIDTH: 40 MHz

Frequency, MHz	26 dB Bandwidth	Bit Rate, MBps	Modulation	Output power				Verdict
				Measured, dBm	Total power, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge								
5275.0	43.800	27	BPSK	-4.67	-1.67	2.00	-3.67	Pass
5275.0	45.200	270	64QAM	-4.83	-1.83	2.00	-3.83	Pass
Low channel In-Band								
5285.0	47.550	27	BPSK	-1.52	1.48	2.00	-0.52	Pass
5285.0	47.400	270	64QAM	-1.53	1.47	2.00	-0.53	Pass
Mid channel								
5300.0	47.550	27	BPSK	-1.21	1.79	2.00	-0.21	Pass
5300.0	47.400	270	64QAM	-1.19	1.81	2.00	-0.19	Pass
High channel In-Band								
5315.0	47.550	27	BPSK	-1.36	1.64	2.00	-0.36	Pass
5315.0	47.550	270	64QAM	-1.20	1.80	2.00	-0.20	Pass
High channel Band Edge								
5325.0	43.900	27	BPSK	-4.34	-1.34	2.00	-3.34	Pass
5325.0	44.700	270	64QAM	-4.10	-1.10	2.00	-3.10	Pass

* - The total peak output power = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total output power – specification limit.

Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Verdict:	
Date:		PASS	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Table 7.1.11 Conducted output power test results

OPERATING FREQUENCY RANGE: 5265-5335 MHz
 MODULATING SIGNAL: OFDM
 DETECTOR USED: Peak
 RESOLUTION BANDWIDTH: 1 MHz
 VIDEO BANDWIDTH: 3 MHz
 METHOD OF POWER MEASUREMENTS: 1 (channel power across the 26 dB EBW)
 ANTENNA ASSEMBLY GAIN: 28 dBi
 EMISSION BANDWIDTH: 20 MHz

Frequency, MHz	26 dB Bandwidth, MHz	Bit Rate, MBps	Modulation	Output power				Verdict
				Measured, dBm	Total power, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge								
5265	23.350	13	BPSK	-4.42	-1.42	2.00	-3.42	Pass
5265	23.100	130	64QAM	-4.80	-1.80	2.00	-3.80	Pass
High channel Band Edge								
5335	23.400	13	BPSK	-3.59	-0.59	2.00	-2.59	Pass
5335	23.100	130	64QAM	-3.65	-0.65	2.00	-2.65	Pass

* - The total peak output power = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total output power – specification limit.

Table 7.1.12 Conducted output power test results

OPERATING FREQUENCY RANGE: 5260-5340 MHz
 MODULATING SIGNAL: OFDM
 DETECTOR USED: Peak
 RESOLUTION BANDWIDTH: 1 MHz
 VIDEO BANDWIDTH: 3 MHz
 METHOD OF POWER MEASUREMENTS: 1 (channel power across the 26 dB EBW)
 ANTENNA ASSEMBLY GAIN: 28 dBi
 EMISSION BANDWIDTH: 10 MHz

Frequency, MHz	26 dB Bandwidth, MHz	Bit Rate, Mbps	Modulation	Output power				Verdict
				Measured, dBm	Total power, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge								
5260	12.730	6.5	BPSK	-4.99	-1.99	0.05	-2.04	Pass
5260	12.730	65	64QAM	-5.02	-2.02	0.05	-2.07	Pass
High channel Band Edge								
5340	12.970	6.5	BPSK	-3.43	-0.43	0.13	-0.56	Pass
5340	12.330	65	64QAM	-3.37	-0.37	-0.09	-0.28	Pass

* - The total peak output power = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total output power – specification limit.

Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Table 7.1.13 Conducted output power test results

OPERATING FREQUENCY RANGE: 5257.5-5342.5 MHz
 MODULATING SIGNAL: OFDM
 DETECTOR USED: Peak
 RESOLUTION BANDWIDTH: 1 MHz
 VIDEO BANDWIDTH: 3 MHz
 METHOD OF POWER MEASUREMENTS: 1 (channel power across the 26 dB EBW)
 ANTENNA ASSEMBLY GAIN: 28 dBi
 EMISSION BANDWIDTH: 5 MHz

Frequency, MHz	26 dB Bandwidth, MHz	Bit Rate, MBps	Modulation	Output power				Verdict
				Measured, dBm	Total power, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge								
5257.5	7.225	3.25	BPSK	-7.25	-4.25	-2.41	-1.84	Pass
5257.5	6.900	32.5	64QAM	-7.20	-4.20	-2.61	-1.59	Pass
High channel Band Edge								
5342.5	7.000	3.25	BPSK	-5.94	-2.94	-2.55	-0.39	Pass
5342.5	7.125	32.5	64QAM	-6.06	-3.06	-2.47	-0.59	Pass

* - The total peak output power = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total output power – specification limit.

Reference numbers of test equipment used

HL 2909	HL 2952	HL 3435	HL 3437	HL 3818		
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Full description is given in Appendix A.

Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Table 7.1.14 Peak power spectral density test results

OPERATING FREQUENCY RANGE: 5275-5325 MHz
MODULATING SIGNAL: OFDM
DETECTOR USED: Sample
RESOLUTION BANDWIDTH: 1 MHz
VIDEO BANDWIDTH: 3 MHz
METHOD OF POWER DENSITY MEASUREMENTS: 2 (Sample detector and 100 power averaging)
ANTENNA ASSEMBLY GAIN: 28 dBi
EMISSION BANDWUIDTH: 40 MHz

Frequency, MHz	Bit Rate, MBps	Modulation	Peak power spectral density				Verdict
			Measured, dBm	Total peak power spectral density, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge							
5275.0	27	BPSK	-24.50	-21.50	-11.00	-10.50	Pass
5275.0	270	64QAM	-24.69	-21.69	-11.00	-10.69	Pass
Low channel In-Band							
5285.0	27	BPSK	-21.66	-18.66	-11.00	-7.66	Pass
5285.0	270	64QAM	-21.30	-18.30	-11.00	-7.30	Pass
Mid channel							
5300.0	27	BPSK	-20.55	-17.55	-11.00	-6.55	Pass
5300.0	270	64QAM	-20.87	-17.87	-11.00	-6.87	Pass
High channel In-Band							
5315.0	27	BPSK	-20.91	-17.91	-11.00	-6.91	Pass
5315.0	270	64QAM	-20.59	-17.59	-11.00	-6.59	Pass
High channel Band Edge							
5325.0	27	BPSK	-24.02	-21.02	-11.00	-10.02	Pass
5325.0	270	64QAM	-24.23	-21.23	-11.00	-10.23	Pass

* - The total peak power spectral density = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total peak power density – specification limit.

Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Verdict: PASS	
Date:			
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Table 7.1.15 Peak power spectral density test results

OPERATING FREQUENCY RANGE: 5265-5335 MHz
 MODULATING SIGNAL: OFDM
 DETECTOR USED: Sample
 RESOLUTION BANDWIDTH: 1 MHz
 VIDEO BANDWIDTH: 3 MHz
 METHOD OF POWER DENSITY MEASUREMENTS: 2 (Sample detector and 100 power averaging)
 ANTENNA ASSEMBLY GAIN: 28 dBi
 EMISSION BANDWIDTH: 20 MHz

Frequency, MHz	Bit Rate, Mbps	Modulation	Peak power spectral density				Verdict
			Measured, dBm	Total peak power spectral density, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge							
5265	13	BPSK	-22.64	-19.64	-11.00	-8.64	Pass
5265	130	64QAM	-22.37	-19.37	-11.00	-8.37	Pass
High channel Band Edge							
5335	13	BPSK	-20.50	-17.50	-11.00	-6.50	Pass
5335	130	64QAM	-21.01	-18.01	-11.00	-7.01	Pass

* - The total peak power spectral density = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total peak power density – specification limit.

Table 7.1.16 Peak power spectral density test results

OPERATING FREQUENCY RANGE: 5260-5340 MHz
 MODULATING SIGNAL: OFDM
 DETECTOR USED: Sample
 RESOLUTION BANDWIDTH: 1 MHz
 VIDEO BANDWIDTH: 3 MHz
 METHOD OF POWER DENSITY MEASUREMENTS: 2 (Sample detector and 100 power averaging)
 ANTENNA ASSEMBLY GAIN: 28 dBi
 EMISSION BANDWIDTH: 10 MHz

Frequency, MHz	Bit Rate, MBps	Modulation	Peak power spectral density				Verdict
			Measured, dBm	Total peak power spectral density, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge							
5260	6.5	BPSK	-19.62	-16.62	-11.00	-5.62	Pass
5260	65	64QAM	-19.48	-16.48	-11.00	-5.48	Pass
High channel Band Edge							
5340	6.5	BPSK	-17.74	-14.74	-11.00	-3.74	Pass
5340	65	64QAM	-17.86	-14.86	-11.00	-3.86	Pass

* - The total peak power spectral density = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total peak power density – specification limit.

Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Table 7.1.17 Peak power spectral density test results

OPERATING FREQUENCY RANGE: 5257.5-5342.5 MHz
 MODULATING SIGNAL: OFDM
 DETECTOR USED: Sample
 RESOLUTION BANDWIDTH: 1 MHz
 VIDEO BANDWIDTH: 3 MHz
 METHOD OF POWER DENSITY MEASUREMENTS: 2 (Sample detector and 100 power averaging)
 ANTENNA ASSEMBLY GAIN: 28 dBi
 EMISSION BANDWIDTH: 5 MHz

Frequency, MHz	Bit Rate, Mbps	Modulation	Peak power spectral density				Verdict
			Measured, dBm	Total peak power spectral density, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge							
5257.5	3.25	BPSK	-18.71	-15.71	-11.00	-4.71	Pass
5257.5	32.5	64QAM	-18.97	-15.97	-11.00	-4.97	Pass
High channel Band Edge							
5342.5	3.25	BPSK	-17.33	-14.33	-11.00	-3.33	Pass
5342.5	32.5	64QAM	-17.51	-14.51	-11.00	-3.51	Pass

* - The total peak power spectral density = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total peak power density – specification limit.

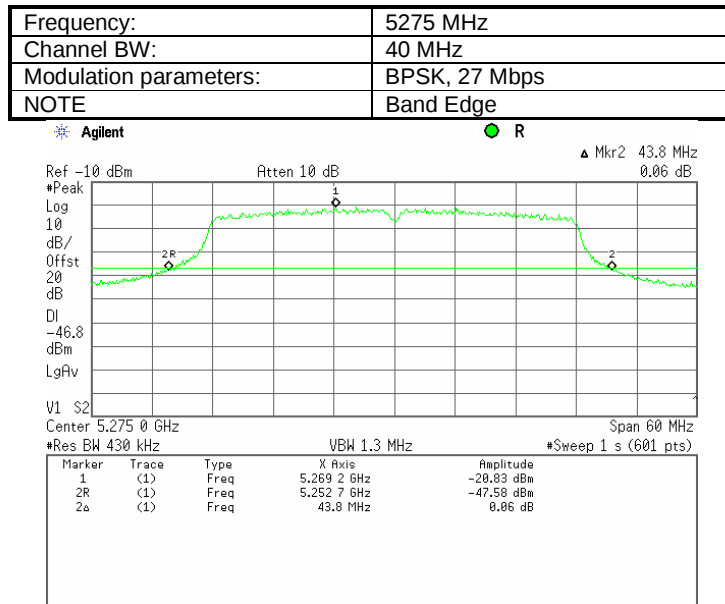
Reference numbers of test equipment used

HL 2909	HL 2952	HL 3435	HL 3437	HL 3818			
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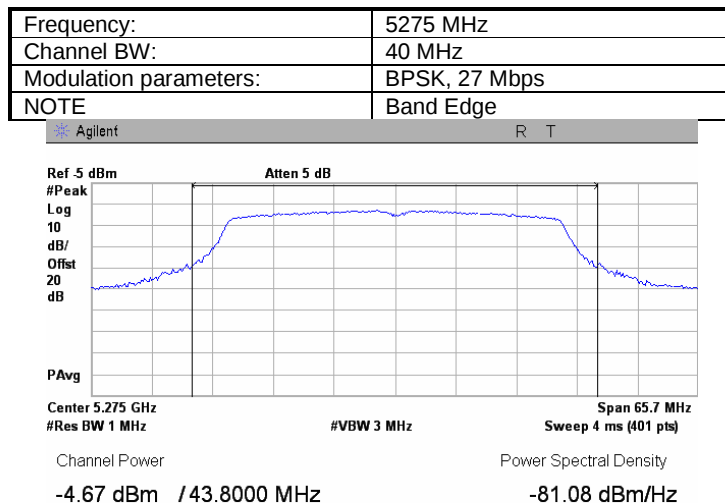
Full description is given in Appendix A.

Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.67 The 26 dB emission bandwidth



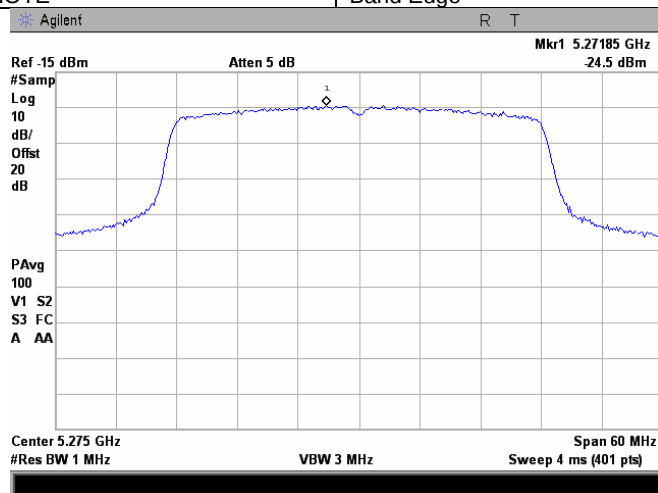
Plot 7.1.68 Peak output power



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

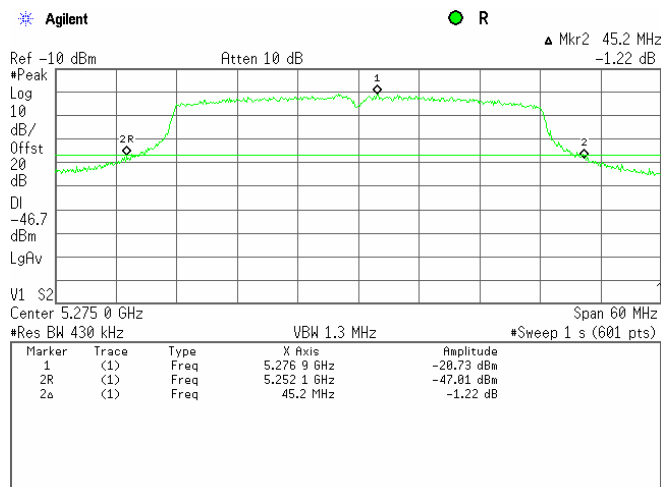
Plot 7.1.69 Peak spectral power density

Frequency:	5275 MHz
Channel BW:	40 MHz
Modulation parameters:	BPSK, 27 Mbps
NOTE	Band Edge



Plot 7.1.70 The 26 dB emission bandwidth

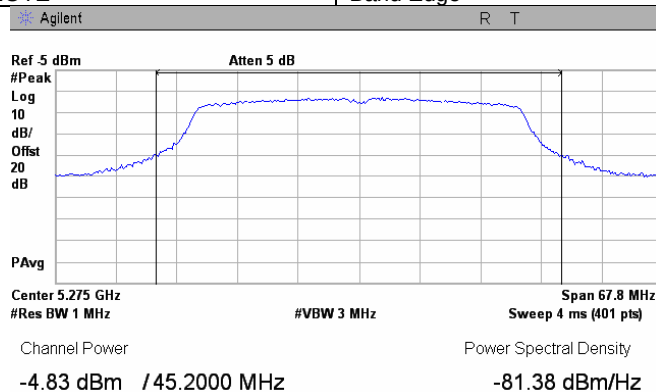
Frequency:	5275 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	Band Edge



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

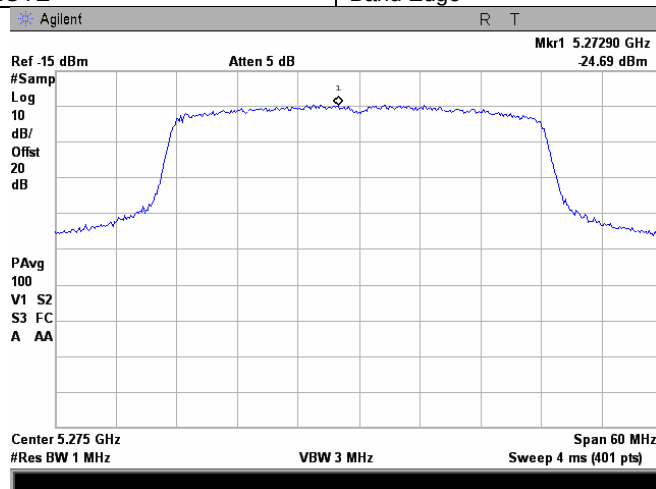
Plot 7.1.71 Peak output power

Frequency:	5275 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	Band Edge



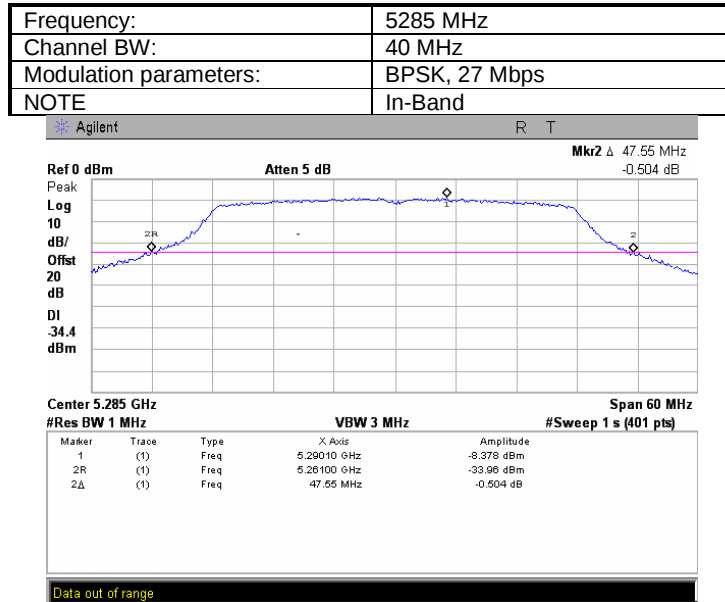
Plot 7.1.72 Peak spectral power density

Frequency:	5275 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	Band Edge

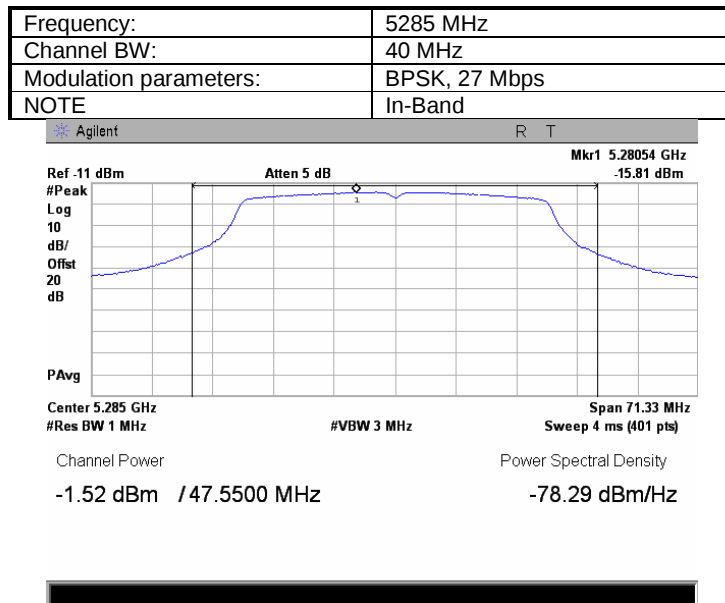


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.73 The 26 dB emission bandwidth



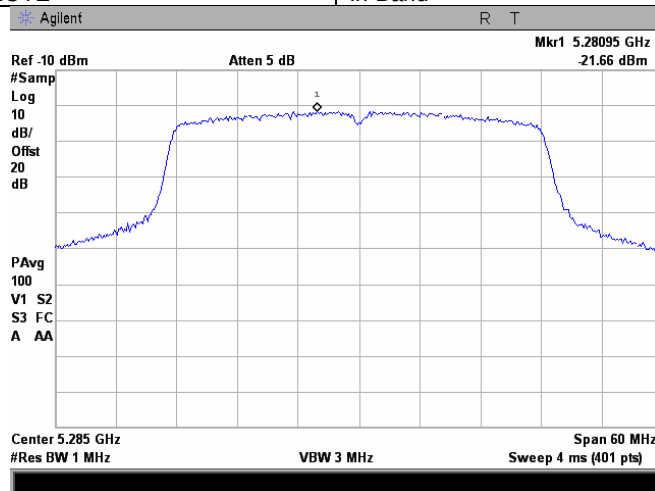
Plot 7.1.74 Peak output power



Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

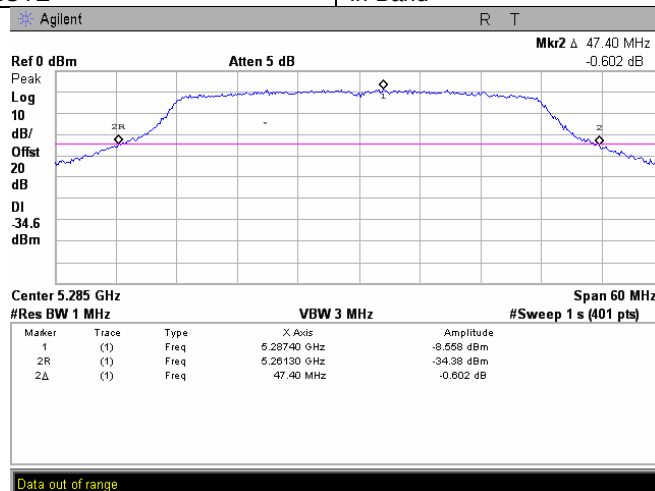
Plot 7.1.75 Peak spectral power density

Frequency:	5285 MHz
Channel BW:	40 MHz
Modulation parameters:	BPSK, 27 Mbps
NOTE	In-Band



Plot 7.1.76 The 26 dB emission bandwidth

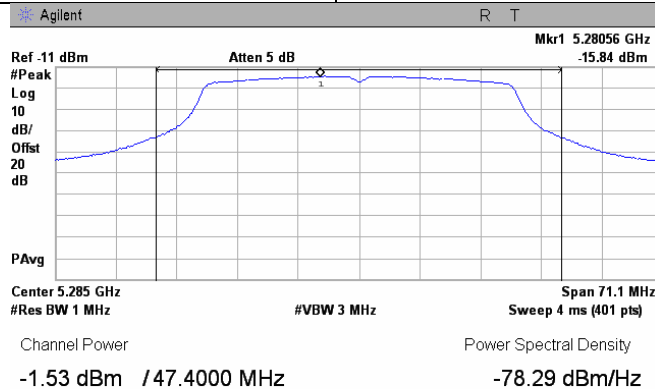
Frequency:	5285 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	In-Band



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

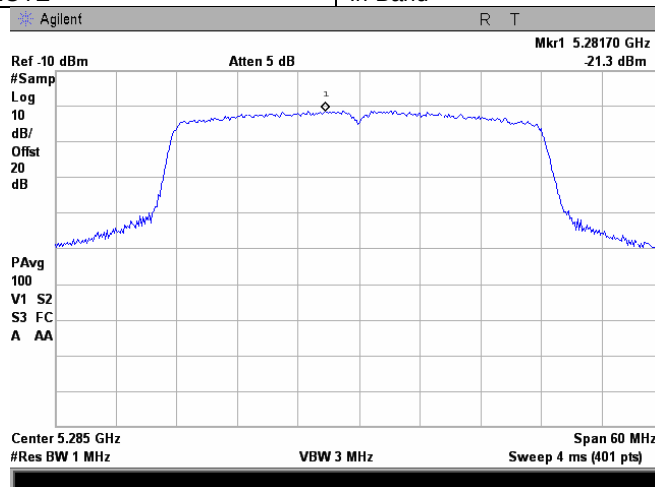
Plot 7.1.77 Peak output power

Frequency:	5285 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	In-Band



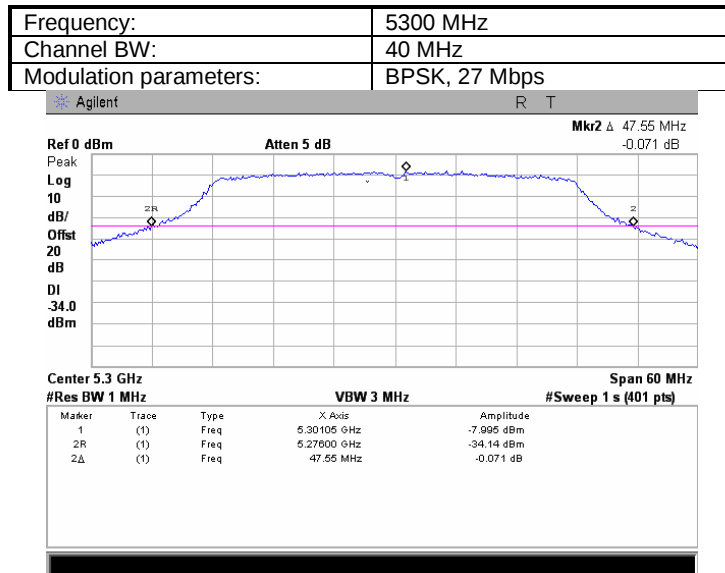
Plot 7.1.78 Peak spectral power density

Frequency:	5285 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	In-Band

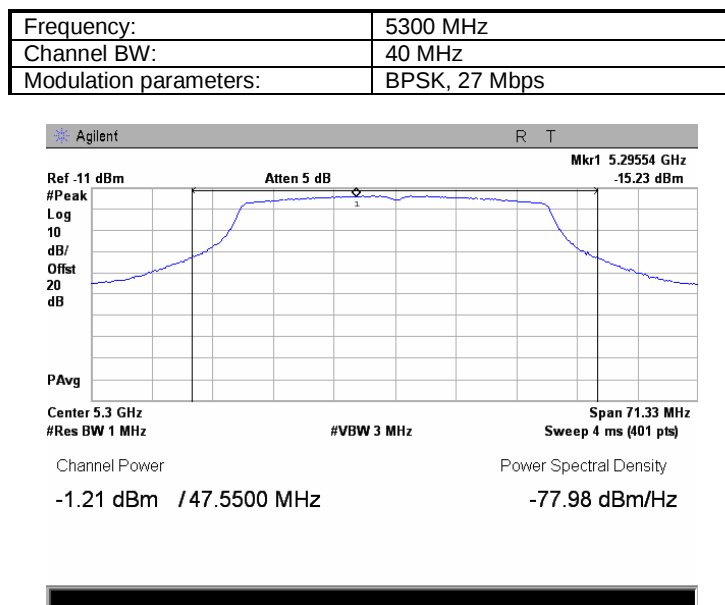


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.79 The 26 dB emission bandwidth

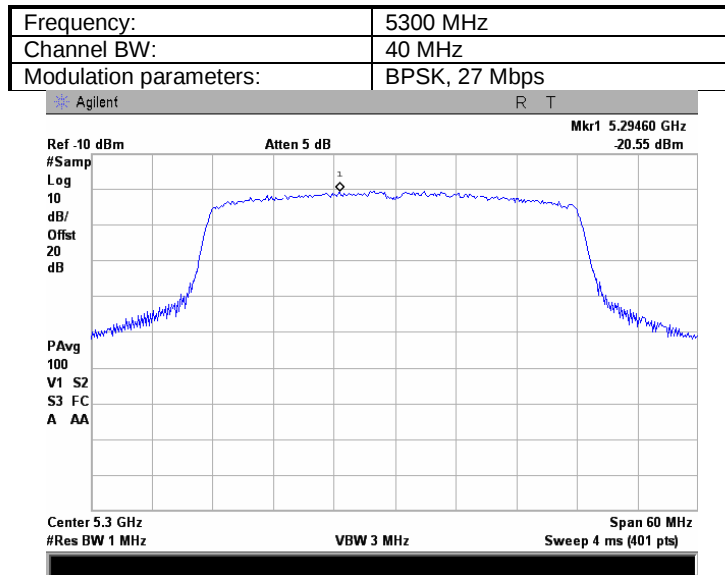


Plot 7.1.80 Peak output power

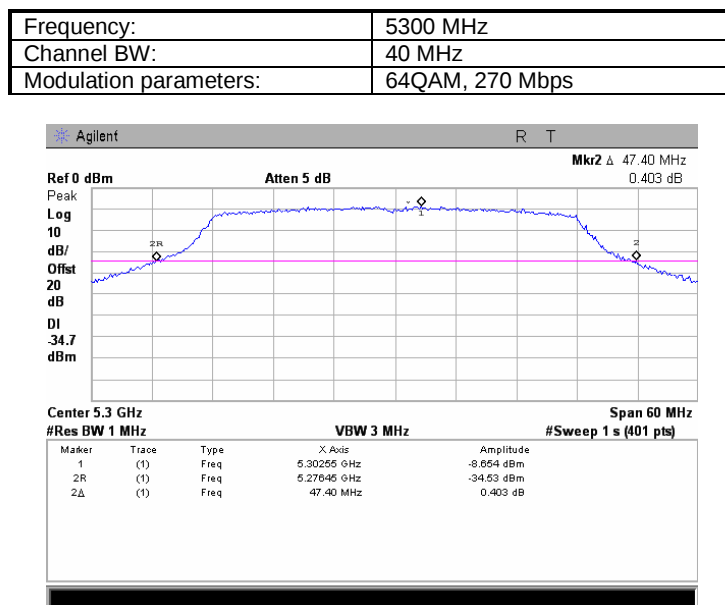


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.81 Peak spectral power density

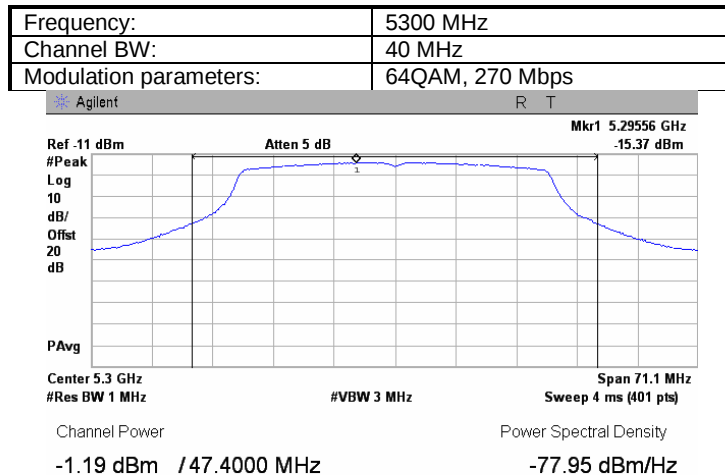


Plot 7.1.82 The 26 dB emission bandwidth

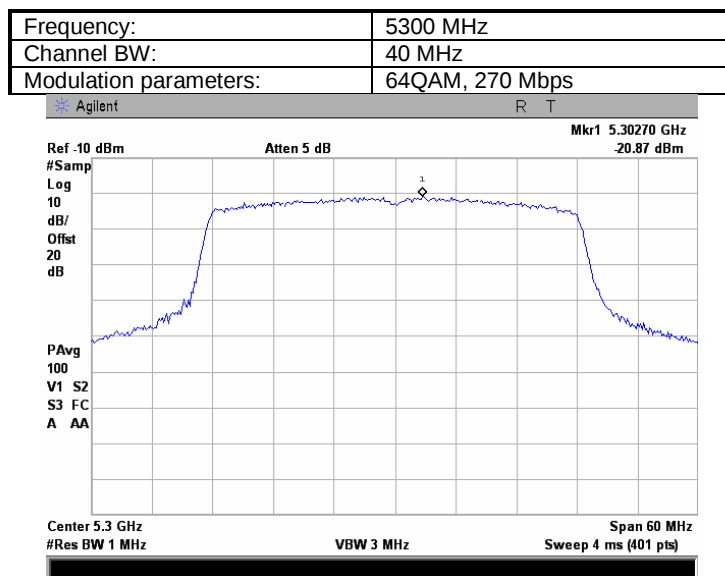


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.83 Peak output power

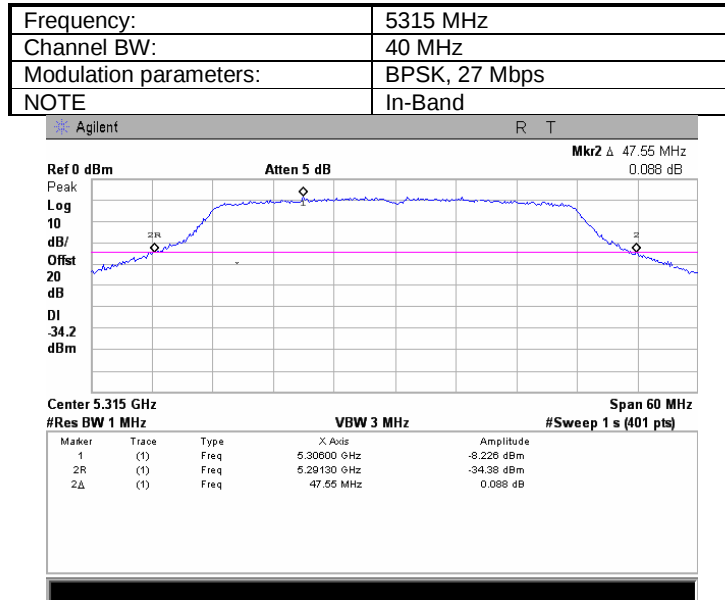


Plot 7.1.84 Peak spectral power density

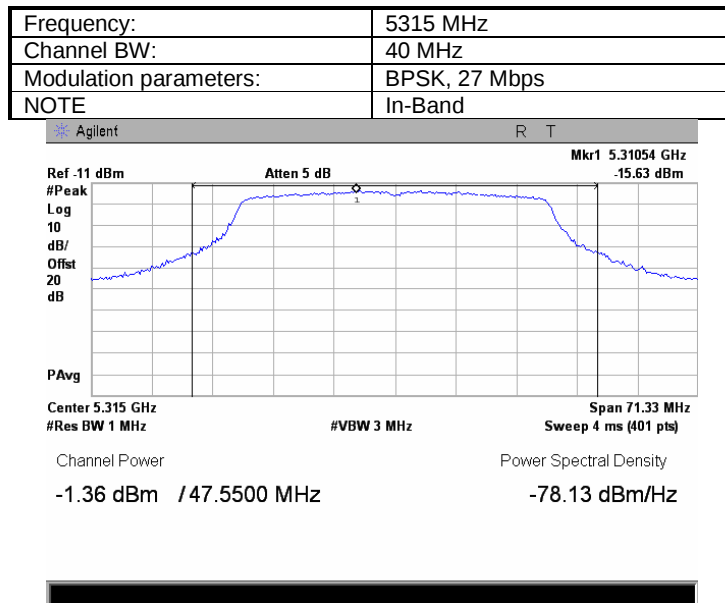


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.85 The 26 dB emission bandwidth



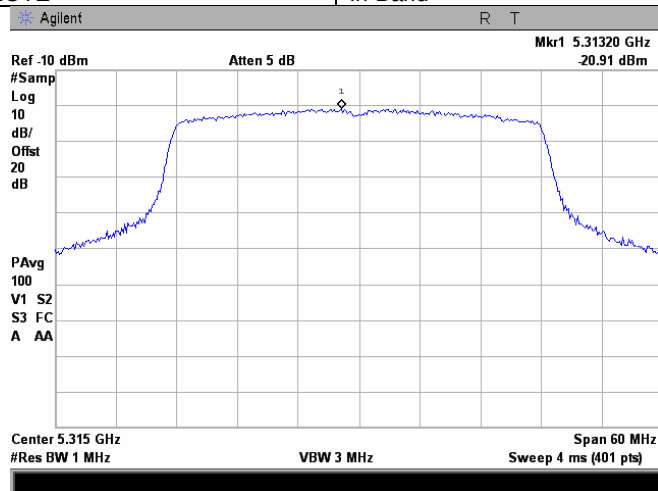
Plot 7.1.86 Peak output power



Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

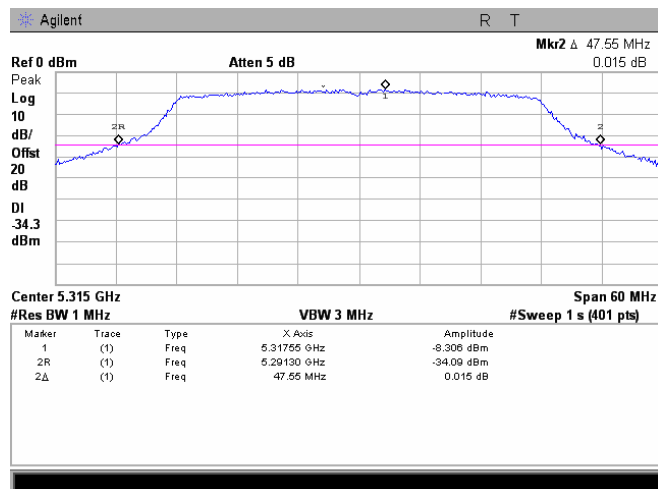
Plot 7.1.87 Peak spectral power density

Frequency:	5315 MHz
Channel BW:	40 MHz
Modulation parameters:	BPSK, 27 Mbps
NOTE	In-Band



Plot 7.1.88 The 26 dB emission bandwidth

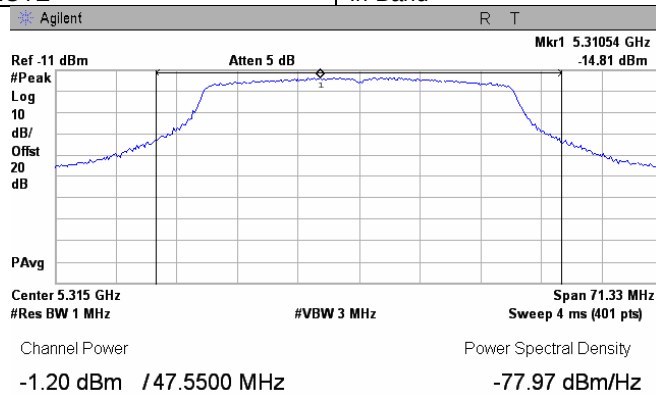
Frequency:	5315 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	In-Band



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

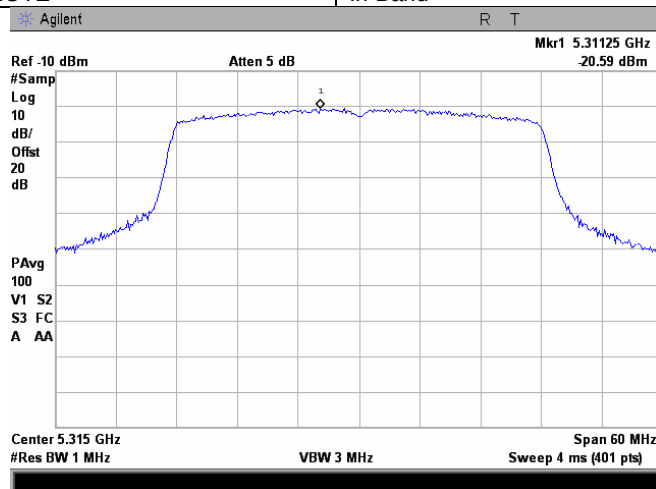
Plot 7.1.89 Peak output power

Frequency:	5315 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	In-Band



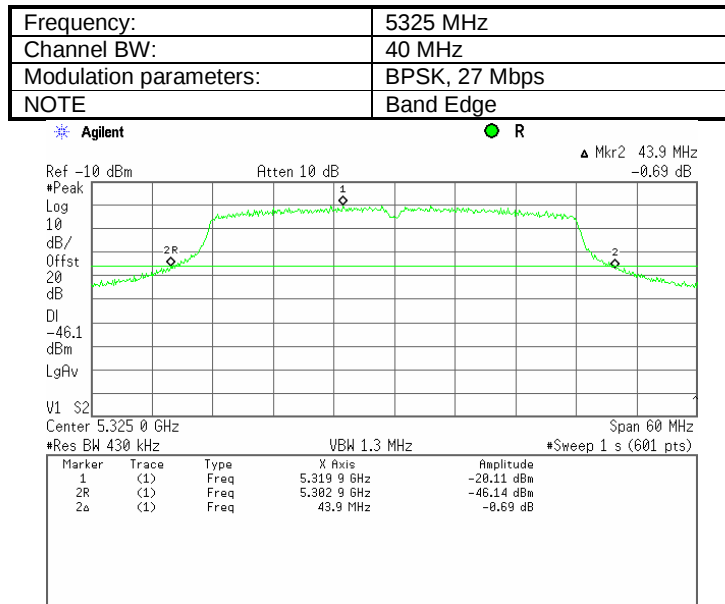
Plot 7.1.90 Peak spectral power density

Frequency:	5315 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	In-Band

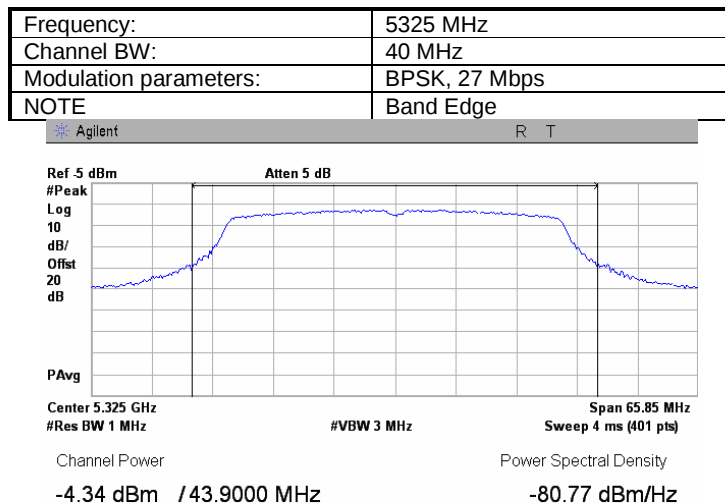


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.91 The 26 dB emission bandwidth

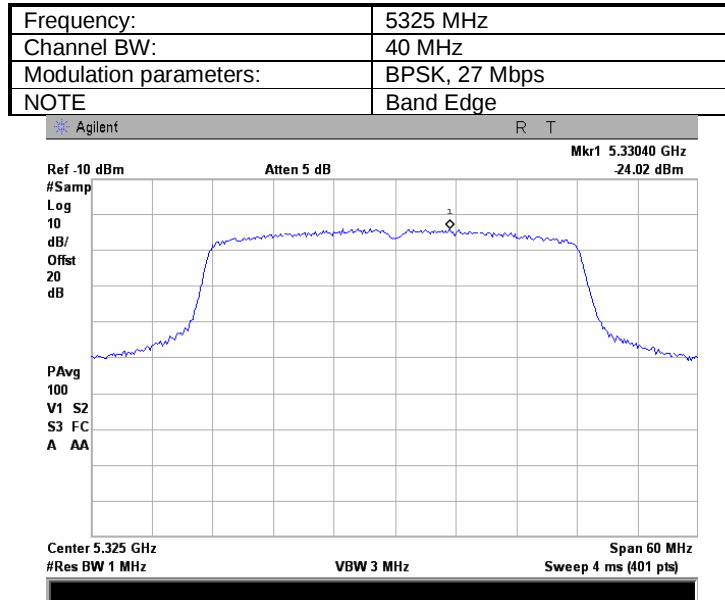


Plot 7.1.92 Peak output power

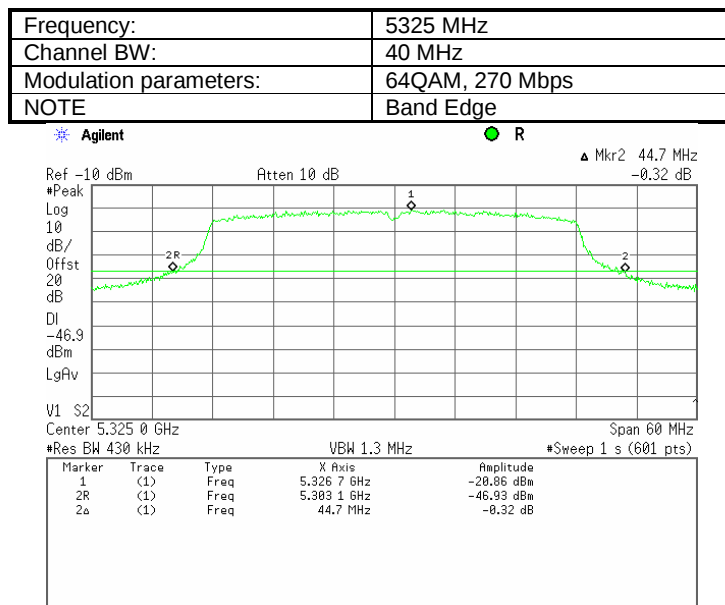


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.93 Peak spectral power density



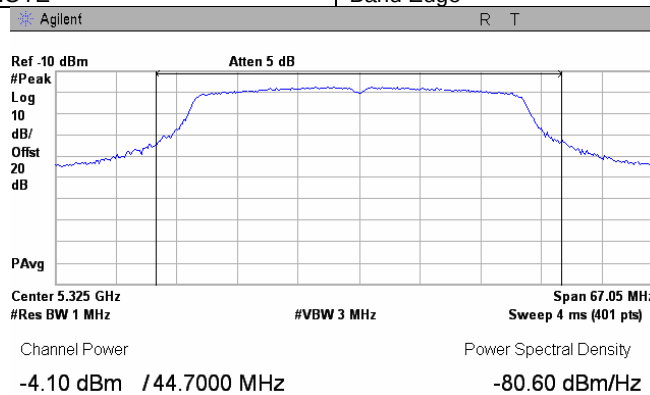
Plot 7.1.94 The 26 dB emission bandwidth



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Verdict:	
Date:		PASS	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

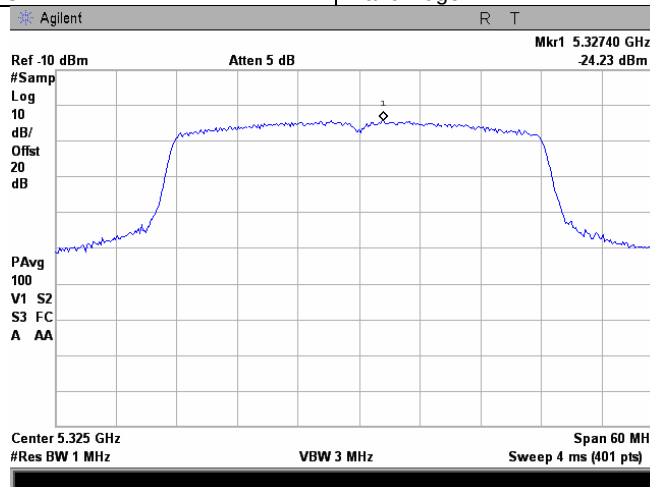
Plot 7.1.95 Peak output power

Frequency:	5325 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	Band Edge



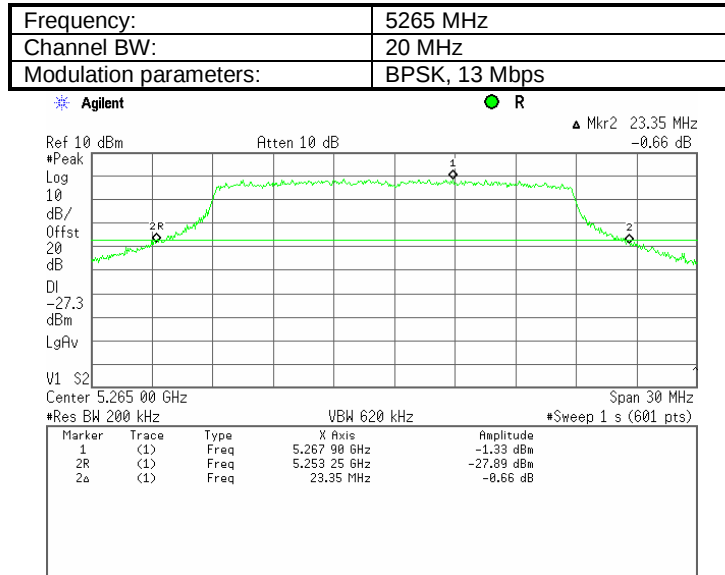
Plot 7.1.96 Peak spectral power density

Frequency:	5325 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	Band Edge

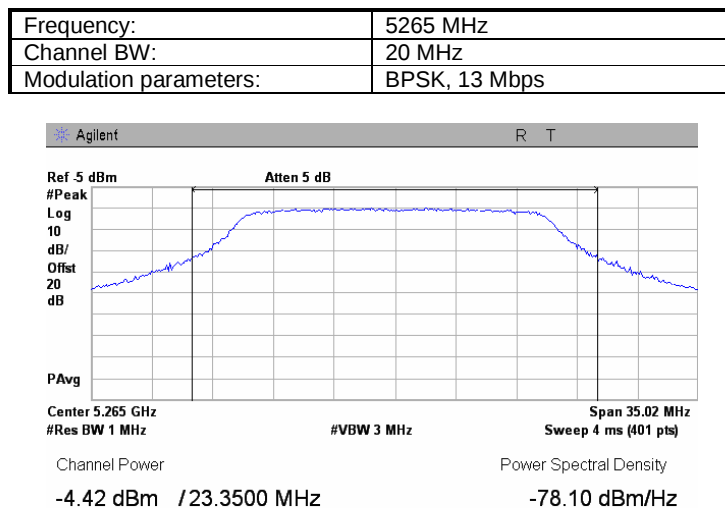


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.97 The 26 dB emission bandwidth

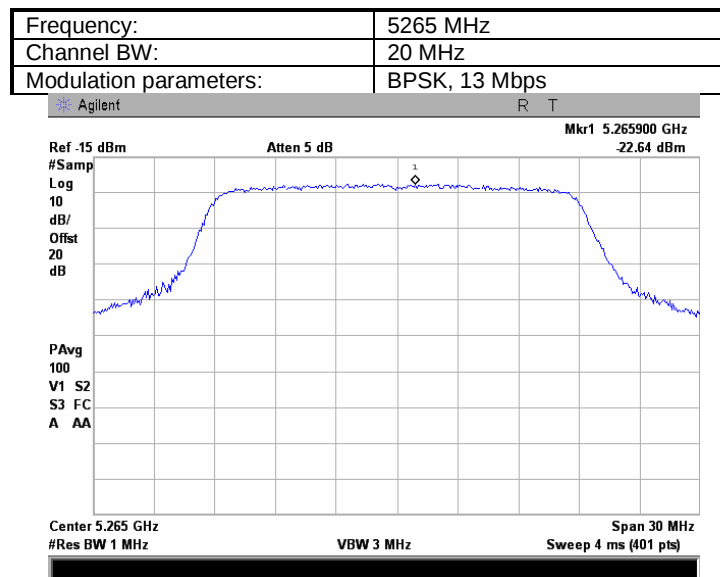


Plot 7.1.98 Peak output power

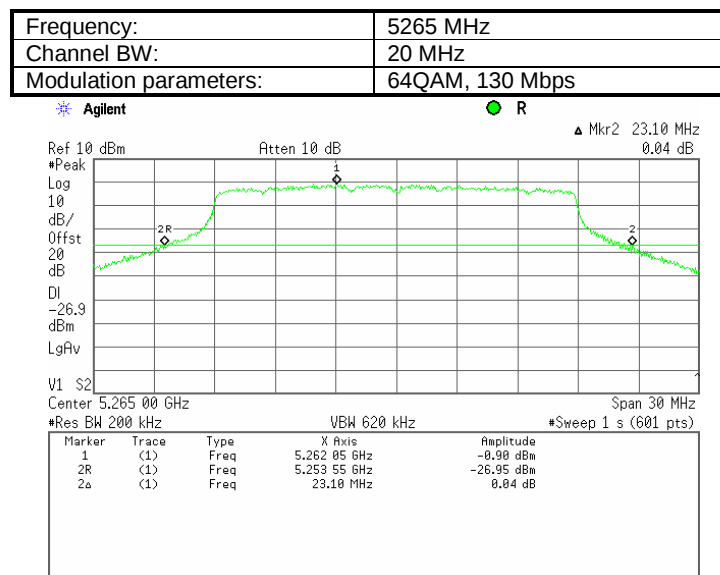


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.99 Peak spectral power density

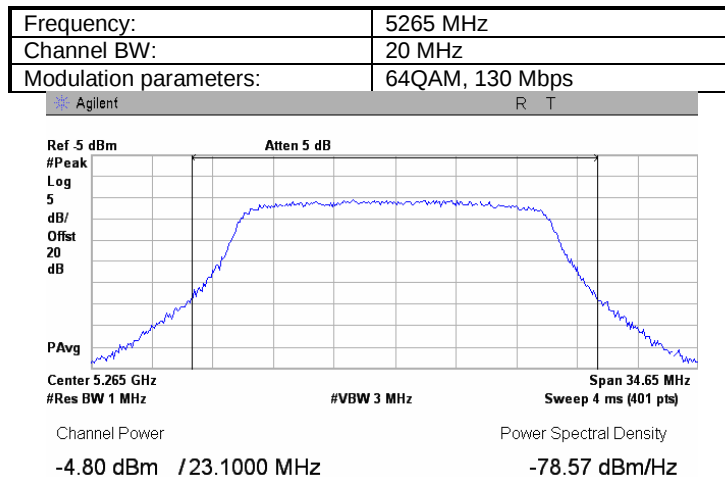


Plot 7.1.100 The 26 dB emission bandwidth

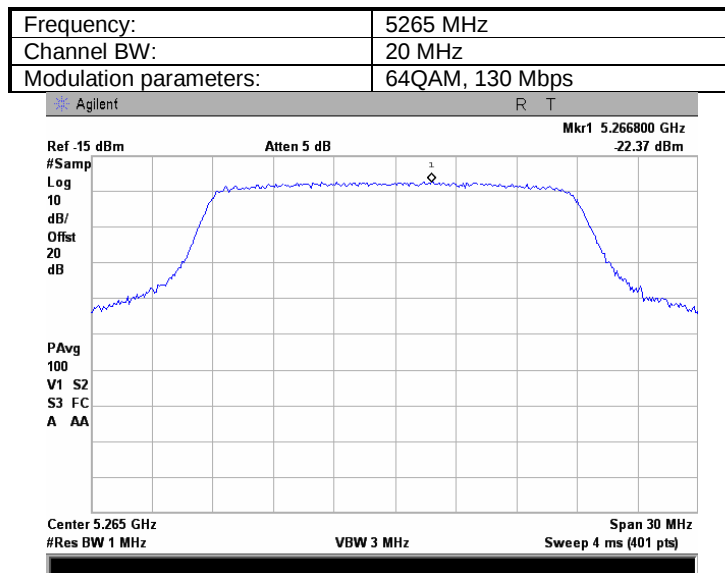


Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.101 Peak output power

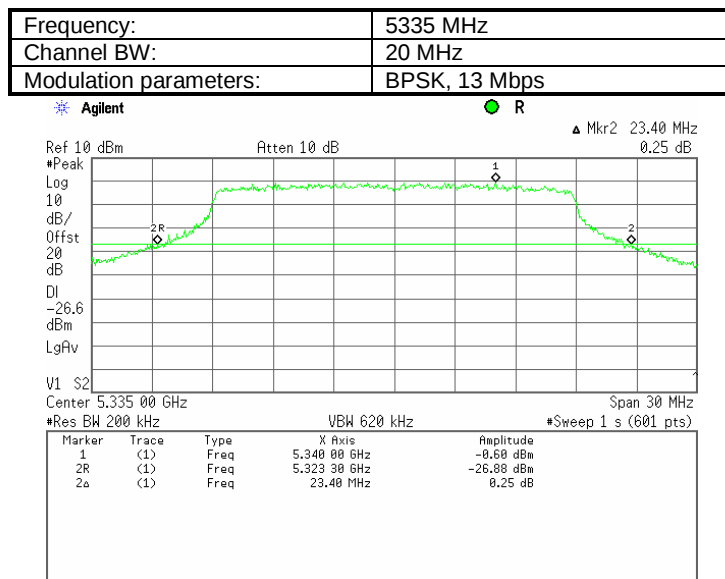


Plot 7.1.102 Peak spectral power density

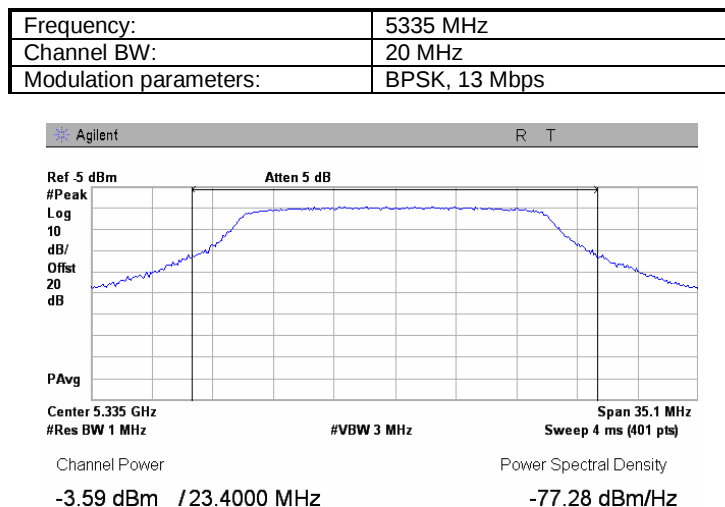


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.103 The 26 dB emission bandwidth

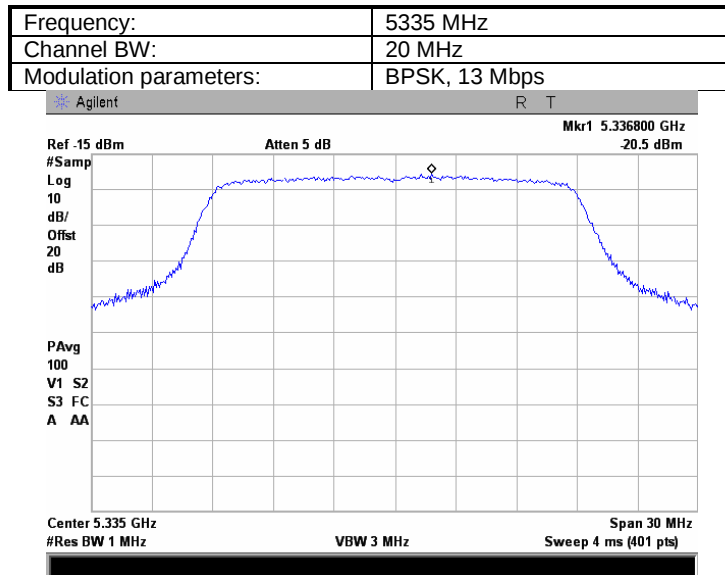


Plot 7.1.104 Peak output power

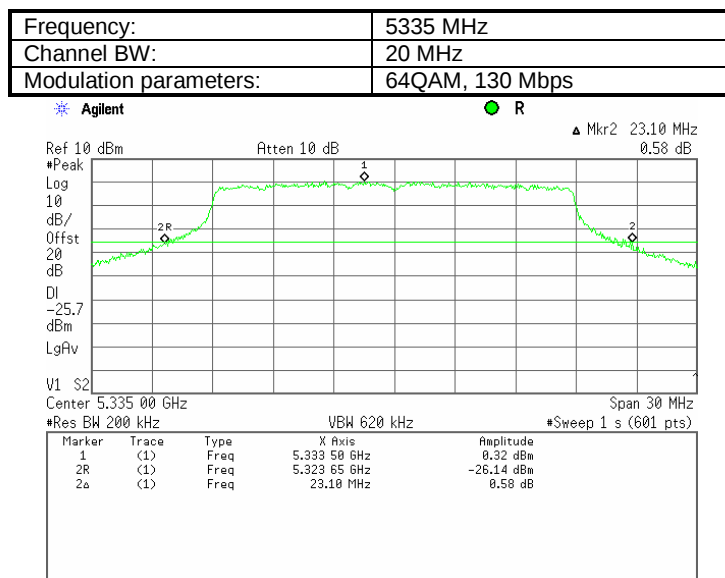


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.105 Peak spectral power density

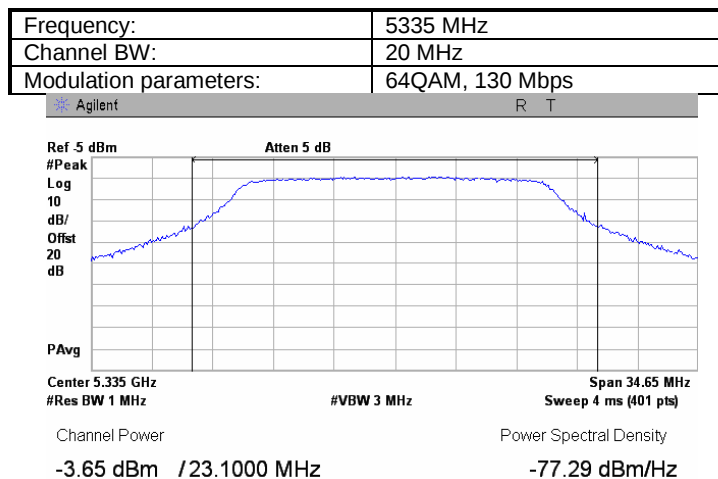


Plot 7.1.106 The 26 dB emission bandwidth

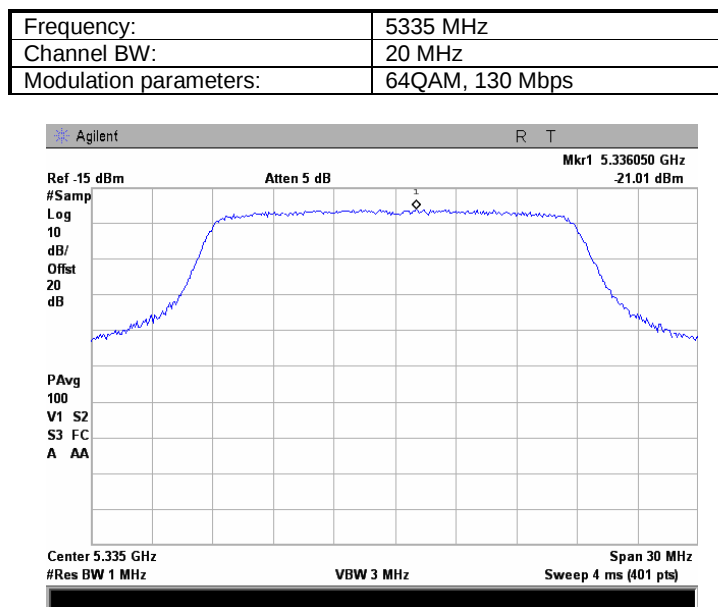


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.107 Peak output power

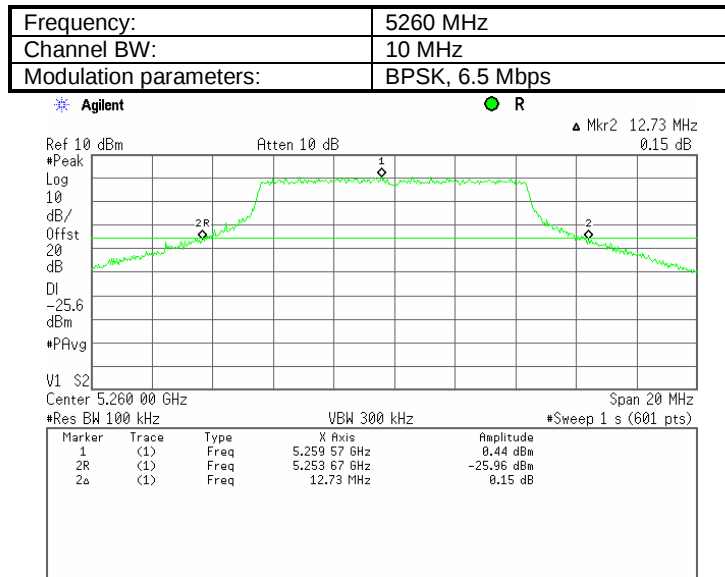


Plot 7.1.108 Peak spectral power density

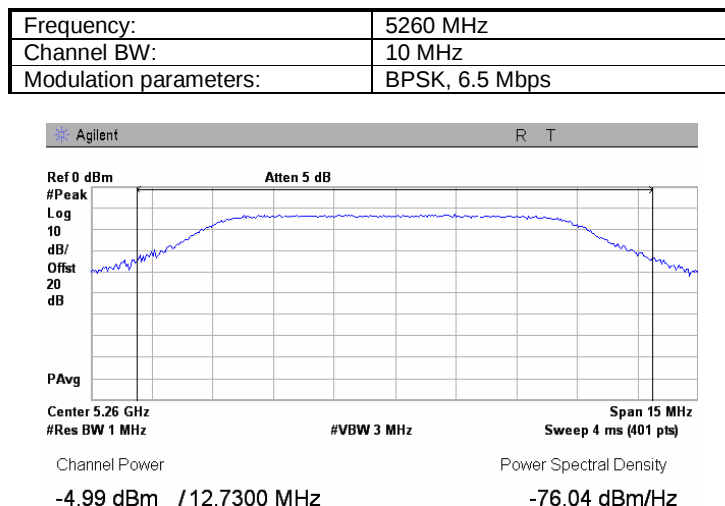


Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.109 The 26 dB emission bandwidth

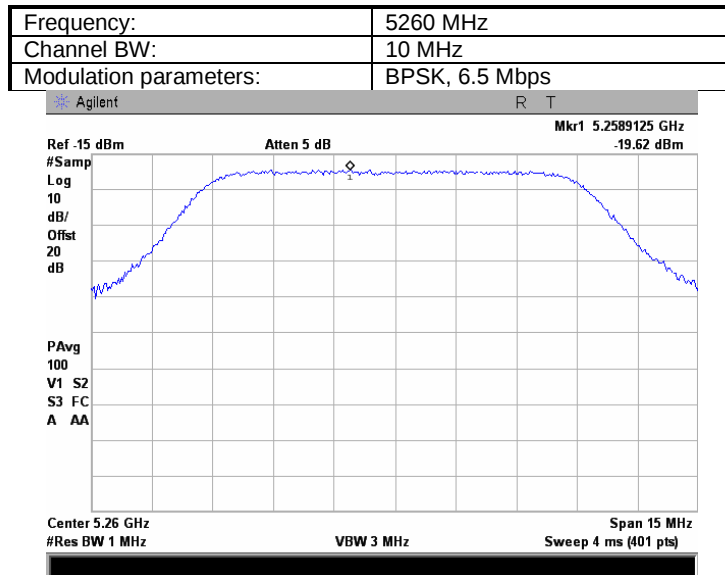


Plot 7.1.110 Peak output power

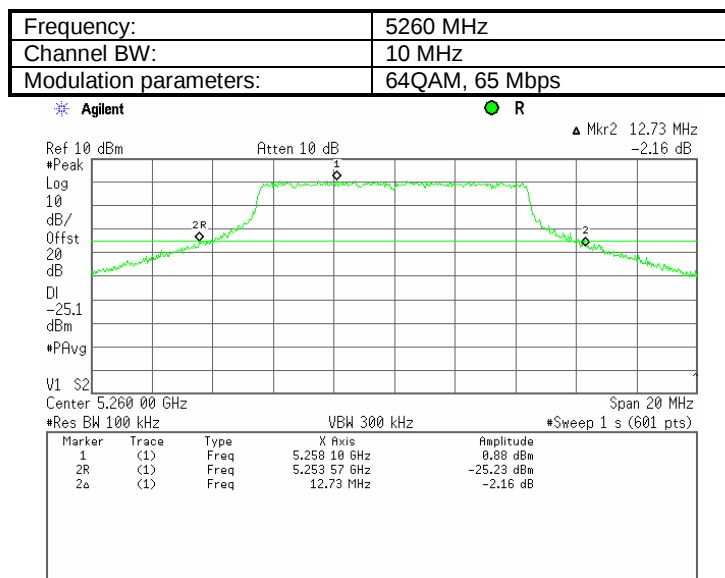


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.111 Peak spectral power density



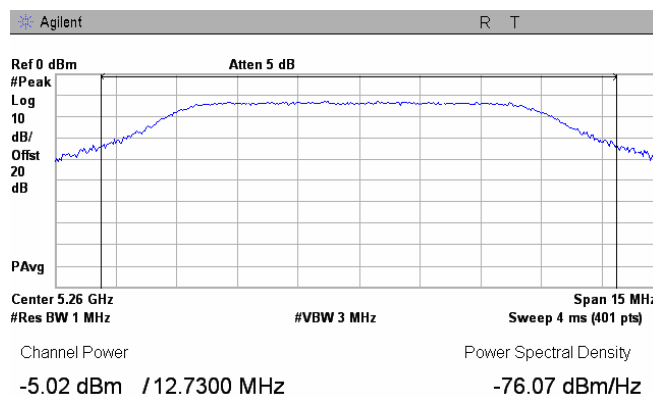
Plot 7.1.112 The 26 dB emission bandwidth



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

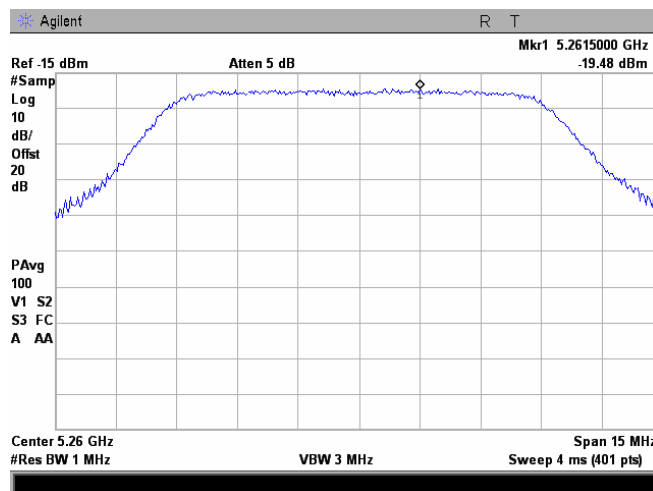
Plot 7.1.113 Peak output power

Frequency:	5260 MHz
Channel BW:	10 MHz
Modulation parameters:	64QAM, 65 Mbps



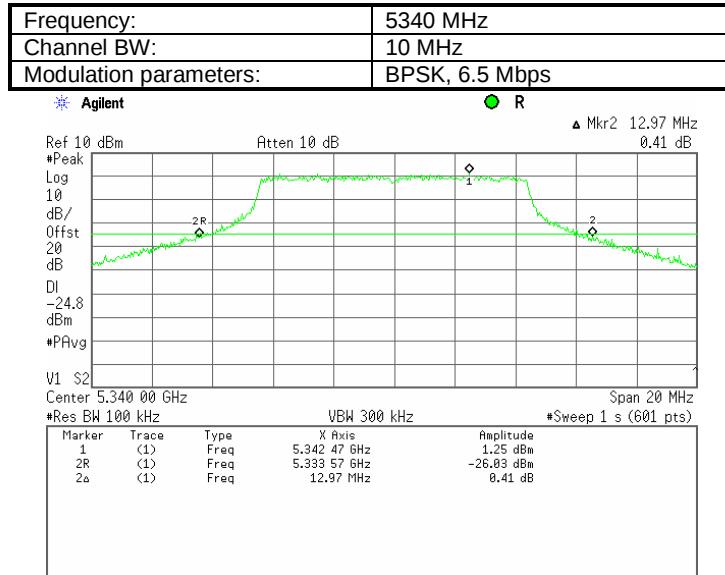
Plot 7.1.114 Peak spectral power density

Frequency:	5260 MHz
Channel BW:	10 MHz
Modulation parameters:	64QAM, 65 Mbps

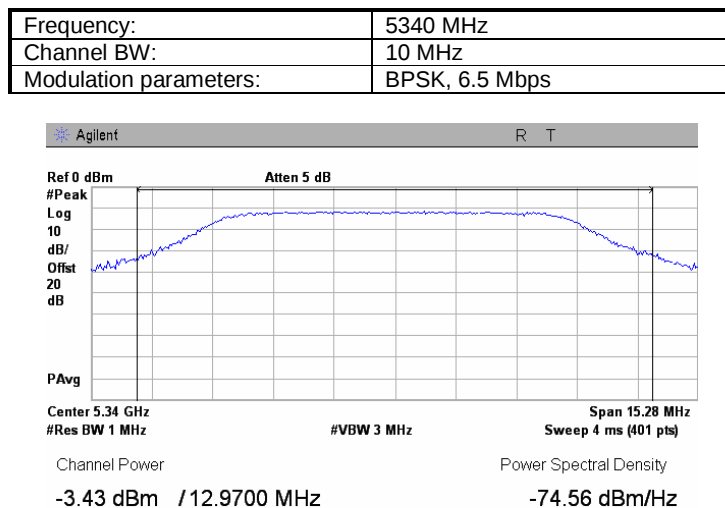


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.115 The 26 dB emission bandwidth



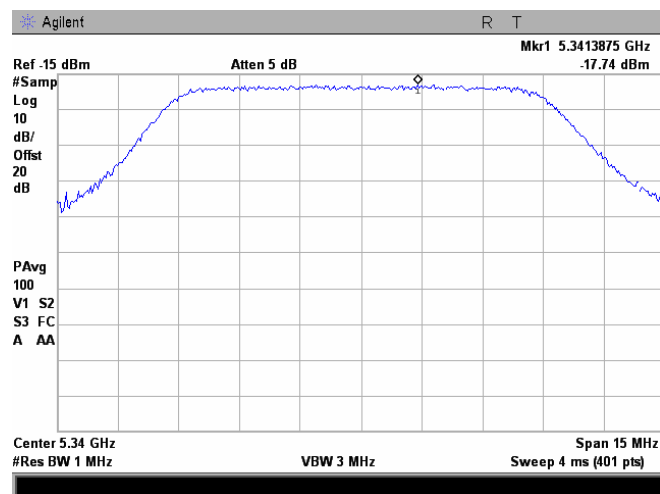
Plot 7.1.116 Peak output power



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Verdict:	
Date:		PASS	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

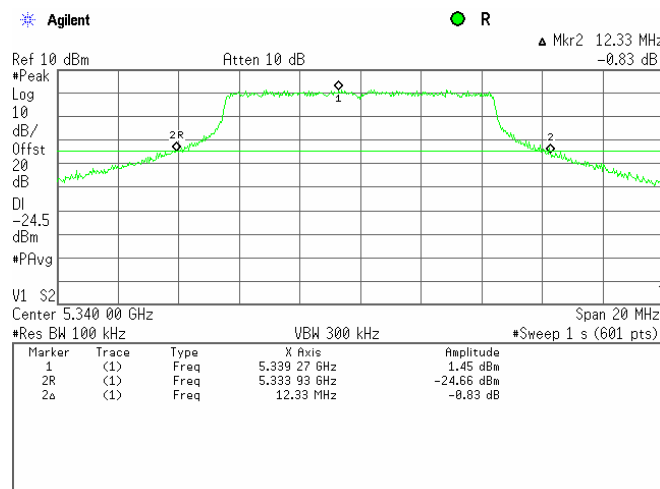
Plot 7.1.117 Peak spectral power density

Frequency:	5340 MHz
Channel BW:	10 MHz
Modulation parameters:	BPSK, 6.5 Mbps



Plot 7.1.118 The 26 dB emission bandwidth

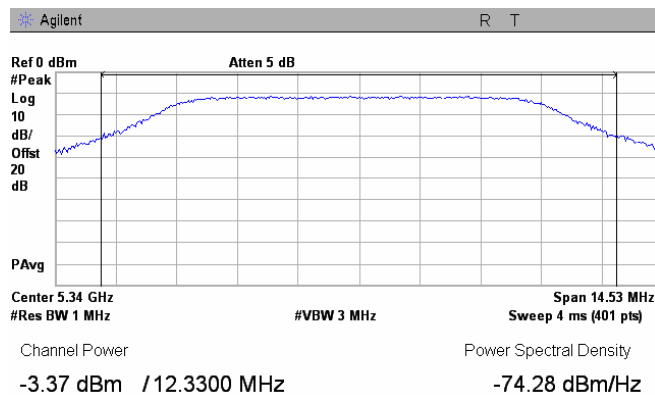
Frequency:	5340 MHz
Channel BW:	10 MHz
Modulation parameters:	64QAM, 65 Mbps



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

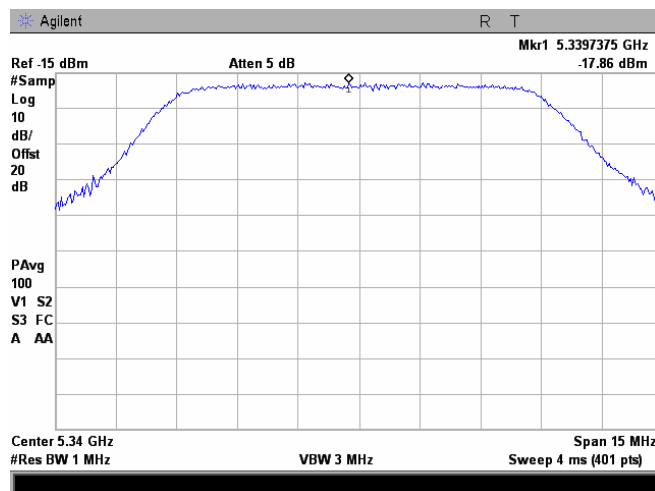
Plot 7.1.119 Peak output power

Frequency:	5340 MHz
Channel BW:	10 MHz
Modulation parameters:	64QAM, 65 Mbps



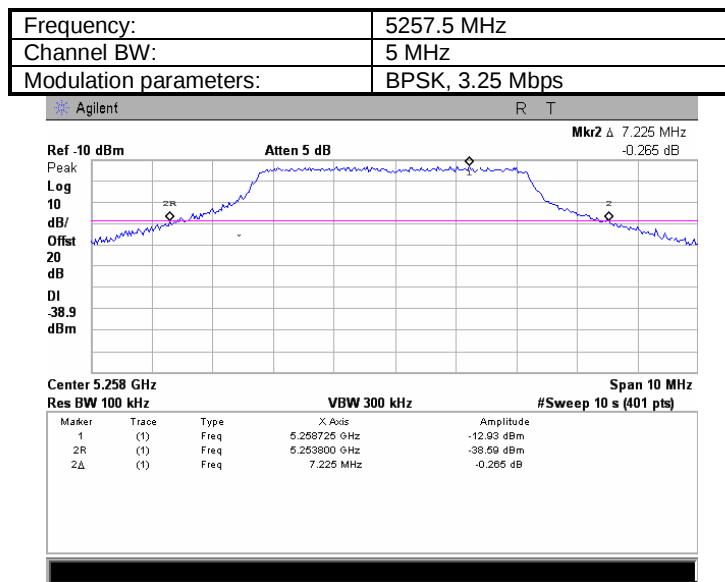
Plot 7.1.120 Peak spectral power density

Frequency:	5340 MHz
Channel BW:	10 MHz
Modulation parameters:	64QAM, 65 Mbps

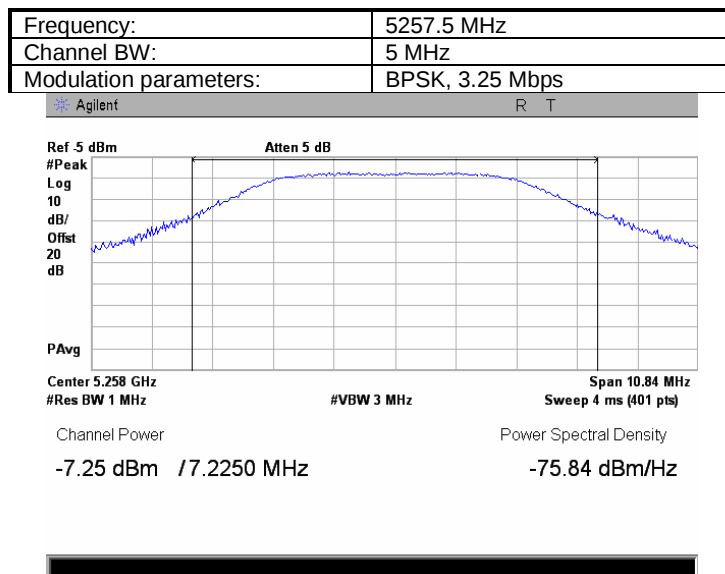


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.121 The 26 dB emission bandwidth

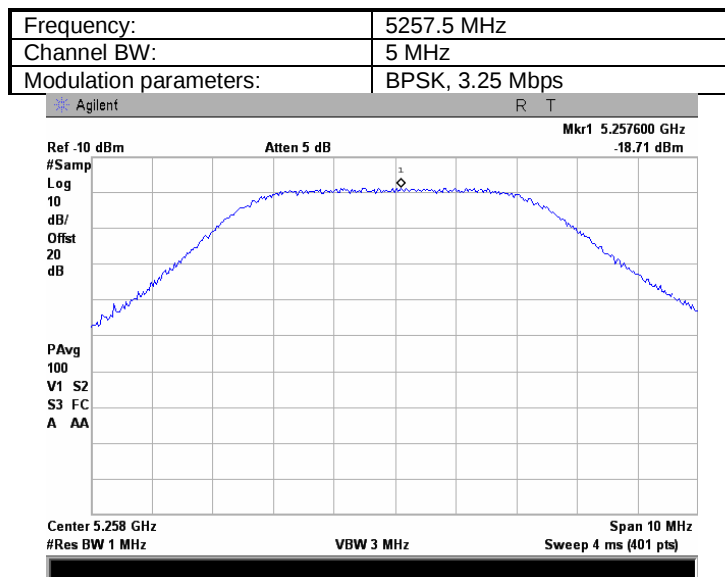


Plot 7.1.122 Peak output power

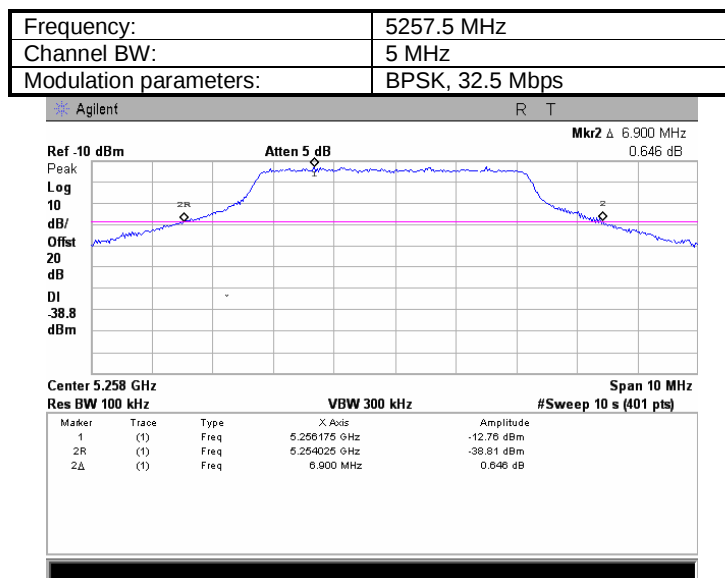


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.123 Peak spectral power density

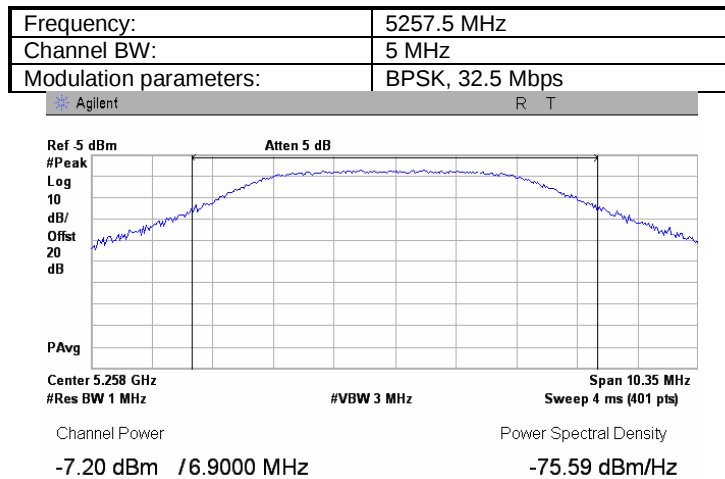


Plot 7.1.124 The 26 dB emission bandwidth

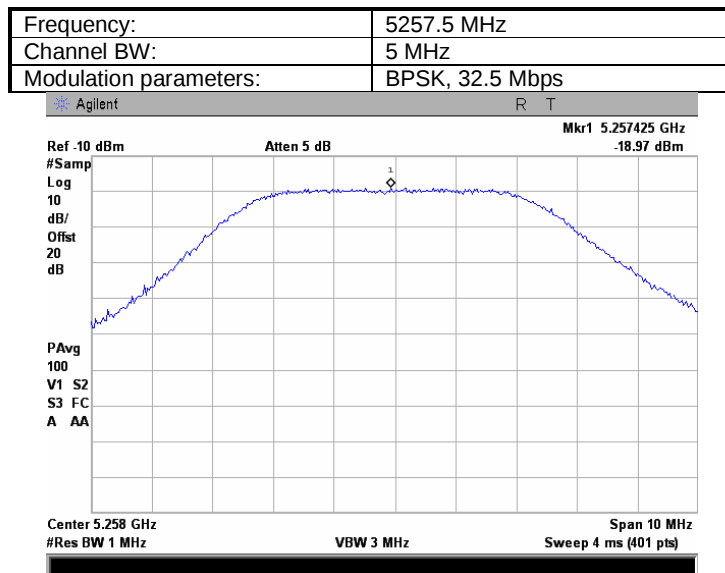


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.125 Peak output power

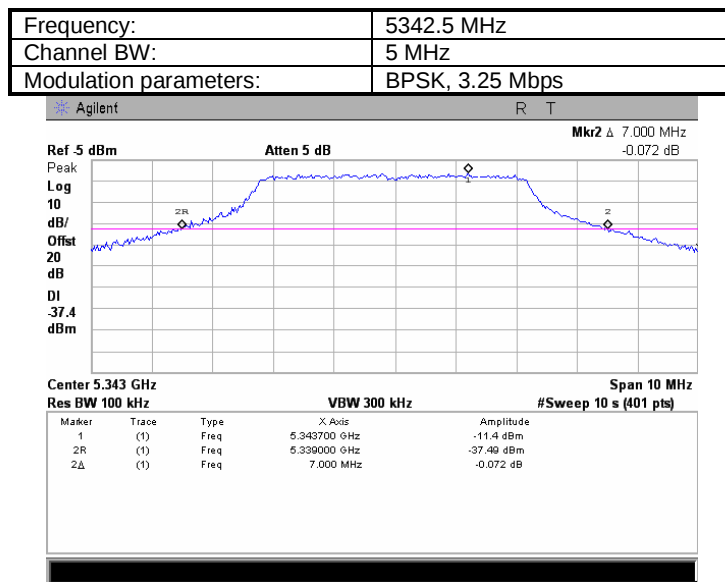


Plot 7.1.126 Peak spectral power density

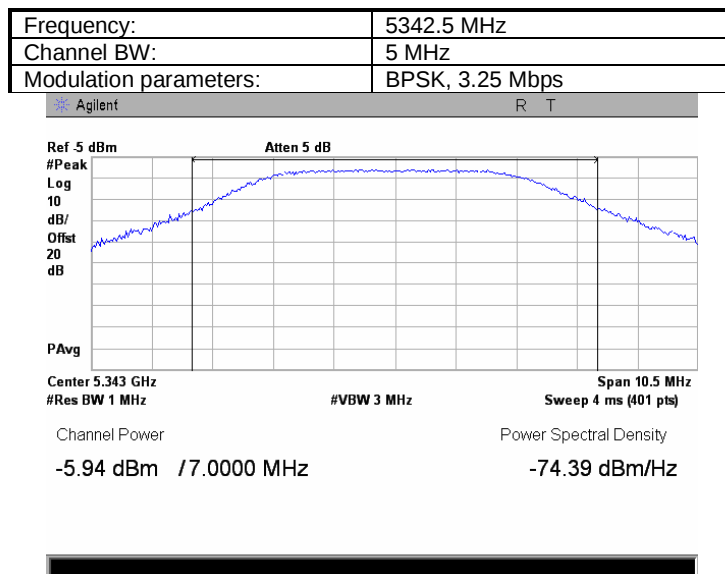


Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.127 The 26 dB emission bandwidth

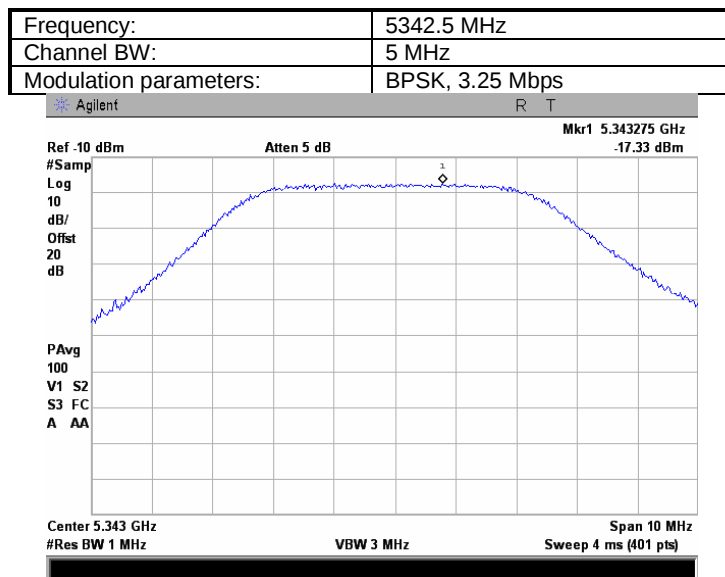


Plot 7.1.128 Peak output power

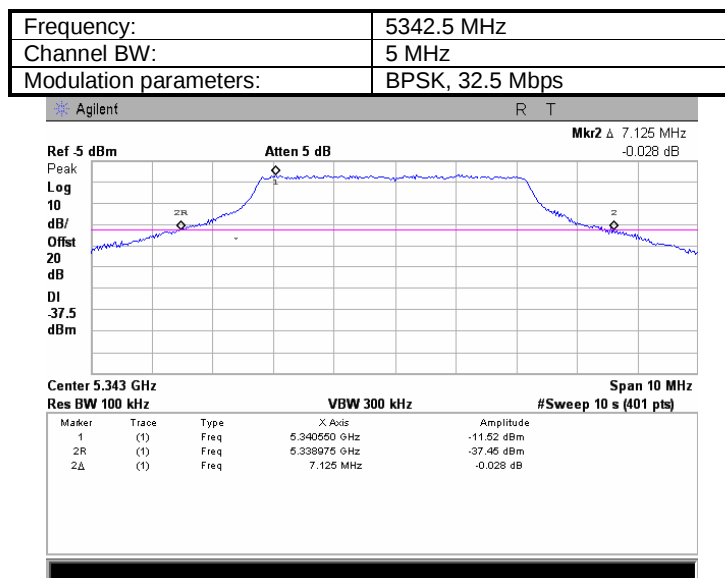


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.129 Peak spectral power density

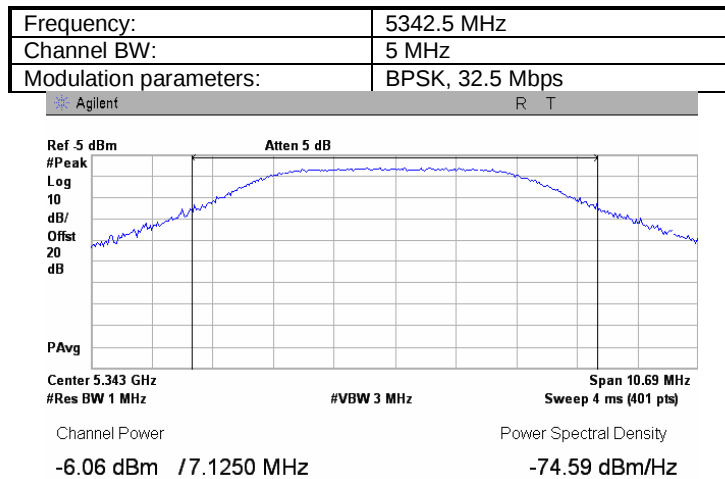


Plot 7.1.130 The 26 dB emission bandwidth

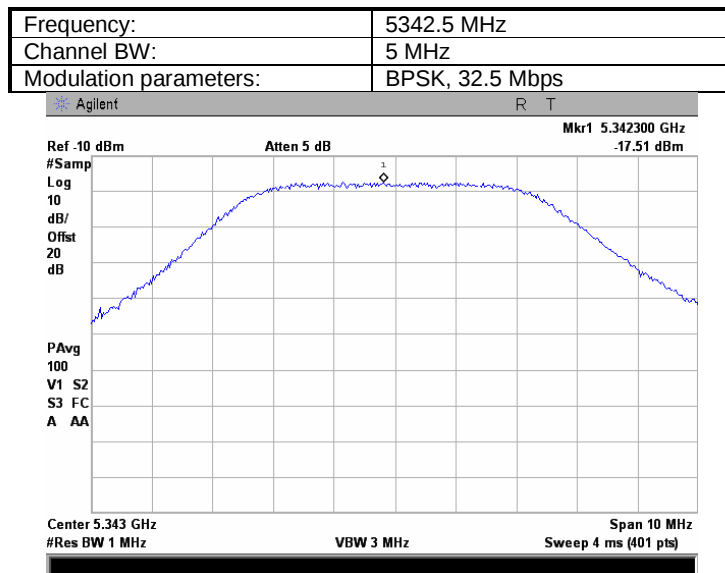


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 28 dBi antenna assembly gain			

Plot 7.1.131 Peak output power



Plot 7.1.132 Peak spectral power density



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Table 7.1.18 Conducted output power test results

OPERATING FREQUENCY RANGE: 5275-5325 MHz
 MODULATING SIGNAL: OFDM
 DETECTOR USED: Peak
 RESOLUTION BANDWIDTH: 1 MHz
 VIDEO BANDWIDTH: 3 MHz
 METHOD OF POWER MEASUREMENTS: 1 (channel power across the 26 dB EBW)
 ANTENNA ASSEMBLY GAIN: 6 dBi
 EMISSION BANDWIDTH: 40 MHz

Frequency, MHz	26 dB Bandwidth, MHz	Bit Rate, MBps	Modulation	Output power				Verdict
				Measured, dBm	Total power, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge								
5275	43.5	27	BPSK	10.99	13.99	24.00	-10.01	Pass
5275	43.5	270	64QAM	10.63	13.63	24.00	-10.37	Pass
Low channel In-Band								
5285	44.0	27	BPSK	19.04	22.04	24.00	-1.96	Pass
5285	44.2	270	64QAM	19.42	22.42	24.00	-1.58	Pass
Mid channel								
5300	43.5	27	BPSK	19.33	22.33	24.00	-1.67	Pass
5300	44.3	270	64QAM	19.12	22.12	24.00	-1.88	Pass
High channel In-Band								
5315	42.4	27	BPSK	19.10	22.10	24.00	-1.90	Pass
5315	43.7	270	64QAM	19.07	22.07	24.00	-1.93	Pass
High channel Band Edge								
5325	43.7	27	BPSK	11.36	14.36	24.00	-9.64	Pass
5325	43.5	270	64QAM	11.29	14.29	24.00	-9.71	Pass

*- Total peak power = Measured peak power + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total peak power – specification limit.

Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Table 7.1.19 Conducted output power test results

OPERATING FREQUENCY RANGE: 5265-5335 MHz
MODULATING SIGNAL: OFDM
DETECTOR USED: Peak
RESOLUTION BANDWIDTH: 1 MHz
VIDEO BANDWIDTH: 3 MHz
METHOD OF POWER MEASUREMENTS: 1 (channel power across the 26 dB EBW)
ANTENNA ASSEMBLY GAIN: 6 dBi
EMISSION BANDWIDTH: 20 MHz

Frequency, MHz	26 dB Bandwidth, MHz	Bit Rate, Mbps	Modulation	Output power				Verdict
				Measured, dBm	Total power, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge								
5265	23.35	13	BPSK	10.82	13.82	24.00	-10.18	Pass
5265	23.10	130	64QAM	10.89	13.89	24.00	-10.11	Pass
Low channel In Band								
5275	23.00	13	BPSK	20.25	23.25	24.00	-0.75	Pass
5275	22.93	130	64QAM	19.65	22.65	24.00	-1.35	Pass
Mid channel								
5300	23.47	13	BPSK	19.97	22.97	24.00	-1.03	Pass
5300	23.27	130	64QAM	20.54	23.54	24.00	-0.46	Pass
High channel In Band								
5325	23.40	13	BPSK	20.34	23.34	24.00	-0.66	Pass
5325	22.60	130	64QAM	20.42	23.42	24.00	-0.58	Pass
High channel Band Edge								
5335	23.40	13	BPSK	12.36	15.36	24.00	-8.64	Pass
5335	23.10	130	64QAM	11.67	14.67	24.00	-9.33	Pass

* - The total peak output power = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total output power – specification limit.

Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Table 7.1.20 Conducted output power test results

OPERATING FREQUENCY RANGE: 5260-5340 MHz
MODULATING SIGNAL: OFDM
DETECTOR USED: Peak
RESOLUTION BANDWIDTH: 1 MHz
VIDEO BANDWIDTH: 3 MHz
METHOD OF POWER MEASUREMENTS: 1 (channel power across the 26 dB EBW)
ANTENNA ASSEMBLY GAIN: 6 dBi
EMISSION BANDWIDTH: 10 MHz

Frequency, MHz	26 dB Bandwidth, MHz	Bit Rate, Mbps	Modulation	Output power				Verdict
				Measured, dBm	Total power, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge								
5260	12.73	6.5	BPSK	10.75	13.75	22.05	-8.30	Pass
5260	12.73	65	64QAM	10.47	13.47	22.05	-8.58	Pass
Low channel In Band								
5265	12.90	6.5	BPSK	18.46	21.46	22.11	-0.65	Pass
5265	12.43	65	64QAM	18.06	21.06	21.94	-0.88	Pass
Mid channel								
5300	12.83	6.5	BPSK	18.57	21.57	22.08	-0.51	Pass
5300	12.37	65	64QAM	18.45	21.45	21.92	-0.47	Pass
High channel In Band								
5335	13.70	6.5	BPSK	18.78	21.78	22.37	-0.59	Pass
5335	12.40	65	64QAM	18.67	21.67	21.93	-0.26	Pass
High channel Band Edge								
5340	12.97	6.5	BPSK	11.02	14.02	22.13	-8.11	Pass
5340	12.33	65	64QAM	11.01	14.01	21.91	-7.90	Pass

* - The total peak output power = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total output power – specification limit.

Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Table 7.1.21 Conducted output power test results

OPERATING FREQUENCY RANGE: 5255-5345 MHz
MODULATING SIGNAL: OFDM
DETECTOR USED: Peak
RESOLUTION BANDWIDTH: 1 MHz
VIDEO BANDWIDTH: 3 MHz
METHOD OF POWER MEASUREMENTS: 1 (channel power across the 26 dB EBW)
ANTENNA ASSEMBLY GAIN: 6 dBi
EMISSION BANDWIDTH: 5 MHz

Frequency, MHz	26 dB Bandwidth, MHz	Bit Rate, MBps	Modulation	Output power				Verdict
				Measured, dBm	Total power, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge								
5255	6.417	3.25	BPSK	4.71	7.71	19.07	-11.36	Pass
5255	6.450	32.5	64QAM	4.83	7.83	19.10	-11.27	Pass
Low channel In Band								
5260	6.817	3.25	BPSK	14.61	17.61	19.34	-1.73	Pass
5260	6.300	32.5	64QAM	14.85	17.85	18.99	-1.14	Pass
Mid channel								
5300	6.767	3.25	BPSK	15.00	18.00	19.30	-1.30	Pass
5300	6.317	32.5	64QAM	15.58	18.58	19.01	-0.43	Pass
High channel In Band								
5340	6.467	3.25	BPSK	15.91	18.91	19.11	-0.20	Pass
5340	6.533	32.5	64QAM	15.69	18.69	19.15	-0.46	Pass
High channel Band Edge								
5345	6.550	3.25	BPSK	5.97	8.97	19.16	-10.19	Pass
5345	6.500	32.5	64QAM	6.38	9.38	19.13	-9.75	Pass

* - The total peak output power = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total output power – specification limit.

Reference numbers of test equipment used

HL 2909	HL 2952	HL 3435	HL 3437				
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Full description is given in Appendix A.

Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict: PASS	
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Table 7.1.22 Peak power spectral density test results

OPERATING FREQUENCY RANGE: 5275-5325 MHz
MODULATING SIGNAL: OFDM
DETECTOR USED: Sample
RESOLUTION BANDWIDTH: 1 MHz
VIDEO BANDWIDTH: 3 MHz
METHOD OF POWER DENSITY MEASUREMENTS: 2 (Sample detector and 100 power averaging)
ANTENNA ASSEMBLY GAIN: 6 dBi
EMISSION BANDWIDTH: 40 MHz

Frequency, MHz	Bit Rate, MBps	Modulation	Peak power spectral density				Verdict
			Measured, dBm	Total peak power spectral density, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge							
5275	27	BPSK	-9.02	-6.02	11.00	-17.02	Pass
5275	270	64QAM	-9.35	-6.35	11.00	-17.35	Pass
Low channel In Band							
5285	27	BPSK	-0.63	2.37	11.00	-8.63	Pass
5285	270	64QAM	-0.66	2.34	11.00	-8.66	Pass
Mid channel							
5300	27	BPSK	-0.76	2.24	11.00	-8.76	Pass
5300	270	64QAM	-0.48	2.52	11.00	-8.48	Pass
High channel In-Band							
5315	27	BPSK	-1.22	1.78	11.00	-9.22	Pass
5315	270	64QAM	-0.77	2.23	11.00	-8.77	Pass
High channel Band Edge							
5325	27	BPSK	-8.64	-5.64	11.00	-16.64	Pass
5325	270	64QAM	-8.36	-5.36	11.00	-16.36	Pass

*- The total peak power spectral density = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total peak power density – specification limit.

Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Table 7.1.23 Peak power spectral density test results

OPERATING FREQUENCY RANGE: 5265-5335 MHz
 MODULATING SIGNAL: OFDM
 DETECTOR USED: Sample
 RESOLUTION BANDWIDTH: 1 MHz
 VIDEO BANDWIDTH: 3 MHz
 METHOD OF POWER DENSITY MEASUREMENTS: 2 (Sample detector and 100 power averaging)
 ANTENNA ASSEMBLY GAIN: 6 dBi
 EMISSION BANDWIDTH: 20 MHz

Frequency, MHz	Bit Rate, Mbps	Modulation	Peak power spectral density				Verdict
			Measured, dBm	Total peak power spectral density, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge							
5265	13	BPSK	-7.41	-4.41	11.00	-15.41	Pass
5265	130	64QAM	-6.92	-3.92	11.00	-14.92	Pass
Low channel In Band							
5275	13	BPSK	2.30	5.30	11.00	-5.70	Pass
5275	130	64QAM	1.87	4.87	11.00	-6.13	Pass
Mid channel							
5300	13	BPSK	2.26	5.26	11.00	-5.74	Pass
5300	130	64QAM	2.56	5.56	11.00	-5.44	Pass
High channel In Band							
5325	13	BPSK	2.58	5.58	11.00	-5.42	Pass
5325	130	64QAM	2.63	5.63	11.00	-5.37	Pass
High channel Band Edge							
5335	13	BPSK	-6.18	-3.18	11.00	-14.18	Pass
5335	130	64QAM	-6.10	-3.10	11.00	-14.10	Pass

* - The total peak power spectral density = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total peak power density – specification limit.

Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Table 7.1.24 Peak power spectral density test results

OPERATING FREQUENCY RANGE: 5260-5340 MHz
 MODULATING SIGNAL: OFDM
 DETECTOR USED: Sample
 RESOLUTION BANDWIDTH: 1 MHz
 VIDEO BANDWIDTH: 3 MHz
 METHOD OF POWER DENSITY MEASUREMENTS: 2 (Sample detector and 100 power averaging)
 ANTENNA ASSEMBLY GAIN: 6 dBi
 EMISSION BANDWIDTH: 10 MHz

Frequency, MHz	Bit Rate, Mbps	Modulation	Peak power spectral density				Verdict
			Measured, dBm	Total peak power spectral density, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge							
5260	6.5	BPSK	-4.70	-1.70	11.00	-12.70	Pass
5260	65	64QAM	-4.96	-1.96	11.00	-12.96	Pass
Low channel In Band							
5265	6.5	BPSK	3.26	6.26	11.00	-4.74	Pass
5265	65	64QAM	3.20	6.20	11.00	-4.80	Pass
Mid channel							
5300	6.5	BPSK	3.31	6.31	11.00	-4.69	Pass
5300	65	64QAM	3.32	6.32	11.00	-4.68	Pass
High channel In Band							
5335	6.5	BPSK	3.78	6.78	11.00	-4.22	Pass
5335	65	64QAM	3.98	6.98	11.00	-4.02	Pass
High channel Band Edge							
5340	6.5	BPSK	-3.92	-0.92	11.00	-11.92	Pass
5340	65	64QAM	-4.18	-1.18	11.00	-12.18	Pass

* - The total peak power spectral density = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total peak power density – specification limit.

Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Verdict: PASS	
Date:			
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Table 7.1.25 Peak power spectral density test results

OPERATING FREQUENCY RANGE: 5255-5345 MHz
 MODULATING SIGNAL: OFDM
 DETECTOR USED: Sample
 RESOLUTION BANDWIDTH: 1 MHz
 VIDEO BANDWIDTH: 3 MHz
 METHOD OF POWER DENSITY MEASUREMENTS: 2 (Sample detector and 100 power averaging)
 ANTENNA ASSEMBLY GAIN: 6 dBi
 EMISSION BANDWIDTH: 5 MHz

Frequency, MHz	Bit Rate, MBps	Modulation	Peak power spectral density				Verdict
			Measured, dBm	Total peak power spectral density, dBm*	Limit, dBm	Margin, dB**	
Low channel Band Edge							
5255	3.25	BPSK	-6.89	-3.89	11.00	-14.89	Pass
5255	32.5	64QAM	-6.74	-3.74	11.00	-14.74	Pass
Low channel In Band							
5260	3.25	BPSK	2.72	5.72	11.00	-5.28	Pass
5260	32.5	64QAM	2.41	5.41	11.00	-5.59	Pass
Mid channel							
5300	3.25	BPSK	2.81	5.81	11.00	-5.19	Pass
5300	32.5	64QAM	3.45	6.45	11.00	-4.55	Pass
High channel In Band							
5340	3.25	BPSK	3.03	6.03	11.00	-4.97	Pass
5340	32.5	64QAM	2.98	5.98	11.00	-5.02	Pass
High channel Band Edge							
5345	3.25	BPSK	-6.63	-3.63	11.00	-14.63	Pass
5345	32.5	64QAM	-5.94	-2.94	11.00	-13.94	Pass

* - The total peak power spectral density = Measured + 3 dB. Both of antenna outputs are equal and transmit the same data.

** - Margin = Total peak power density – specification limit.

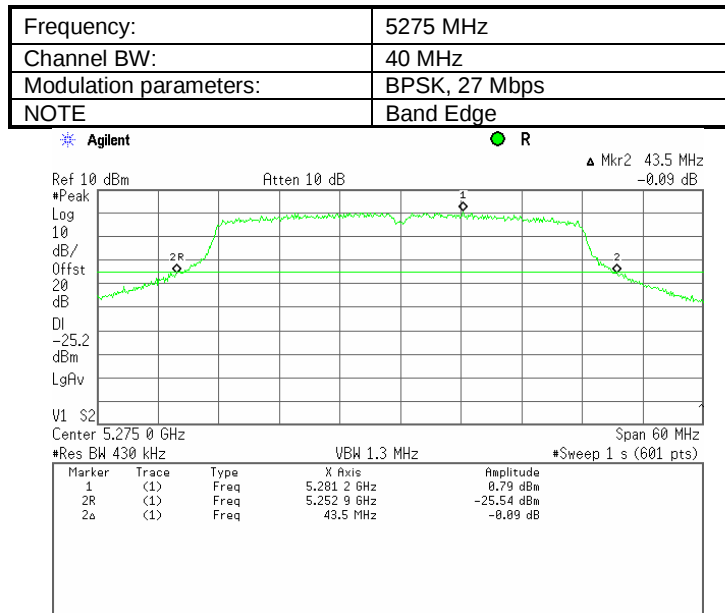
Reference numbers of test equipment used

HL 2909	HL 2952	HL 3435	HL 3437			
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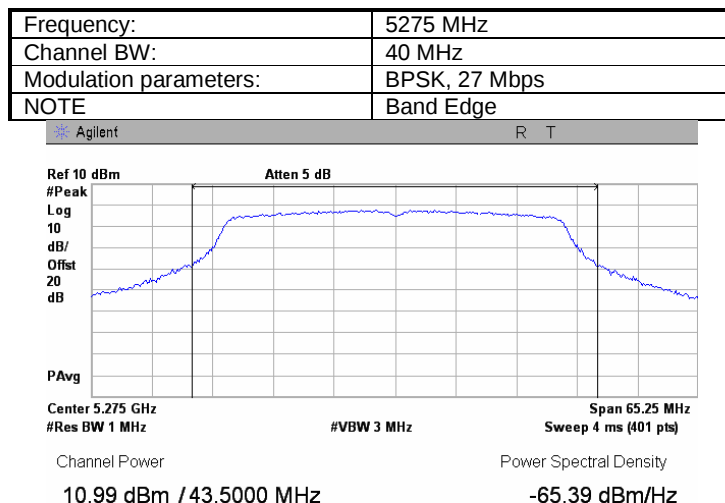
Full description is given in Appendix A.

Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.133 The 26 dB emission bandwidth



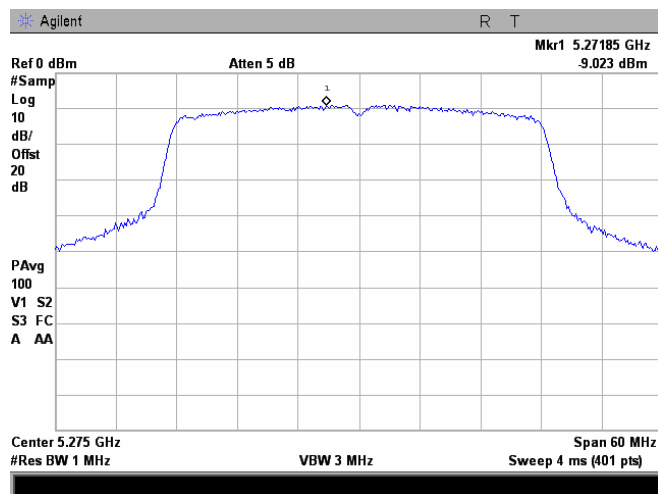
Plot 7.1.134 Peak output power



Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

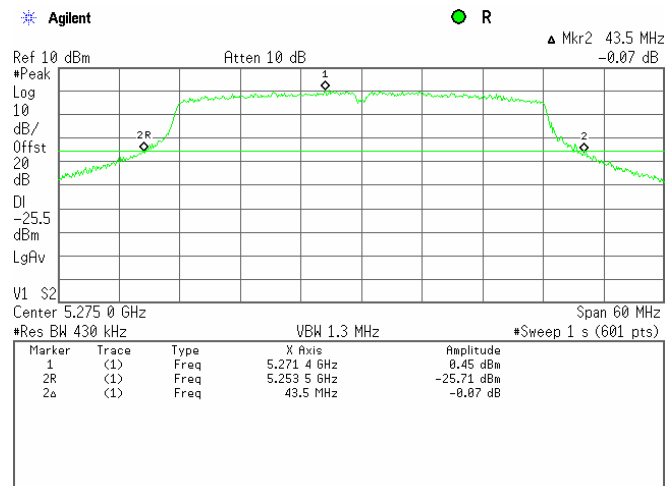
Plot 7.1.135 Peak spectral power density

Frequency:	5275 MHz
Channel BW:	40 MHz
Modulation parameters:	BPSK, 27 Mbps
NOTE	Band Edge



Plot 7.1.136 The 26 dB emission bandwidth

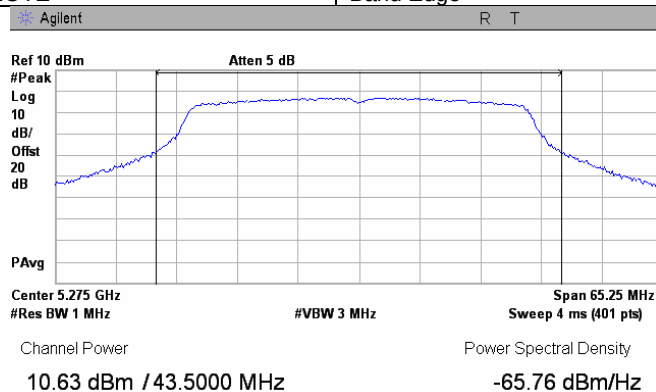
Frequency:	5275 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	Band Edge



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

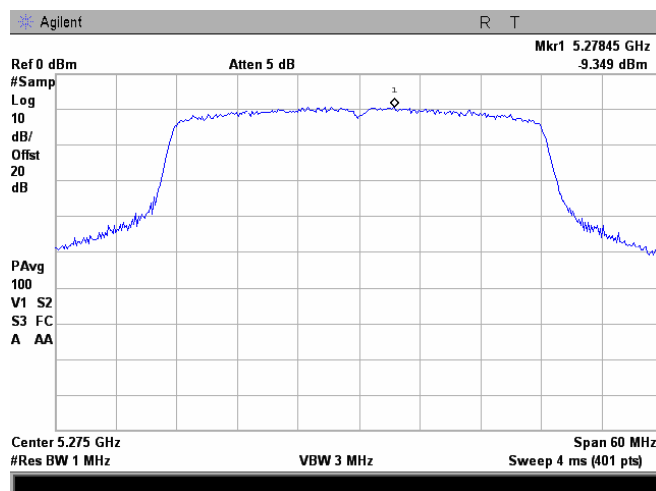
Plot 7.1.137 Peak output power

Frequency:	5275 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	Band Edge



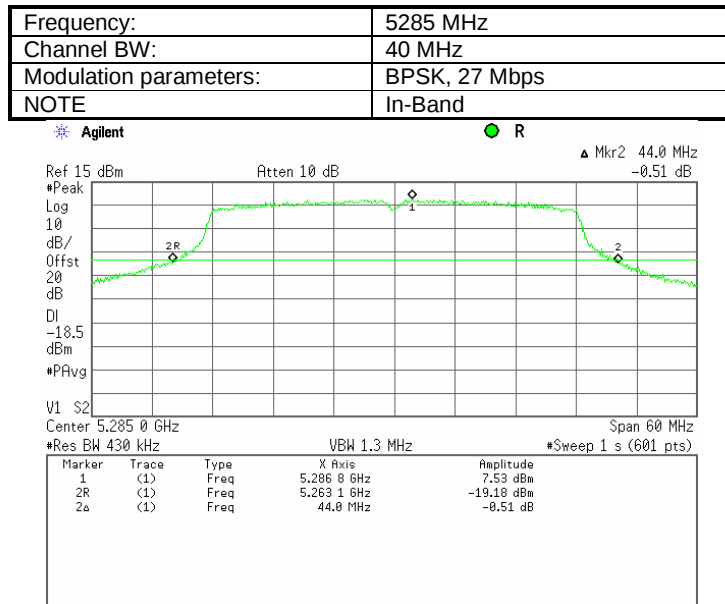
Plot 7.1.138 Peak spectral power density

Frequency:	5275 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	Band Edge

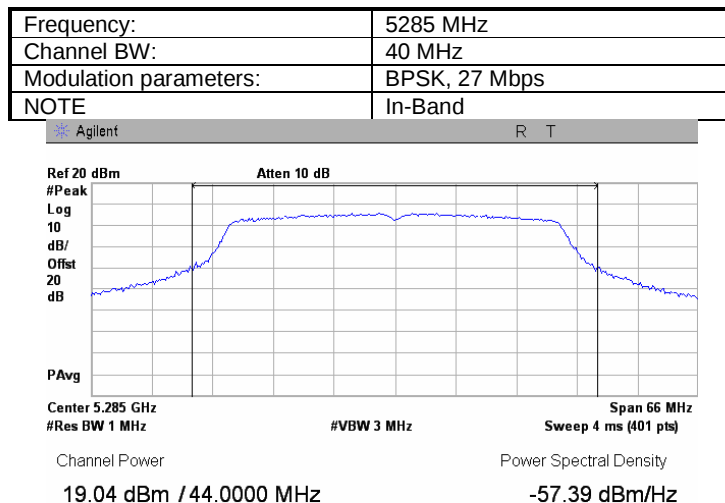


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.139 The 26 dB emission bandwidth



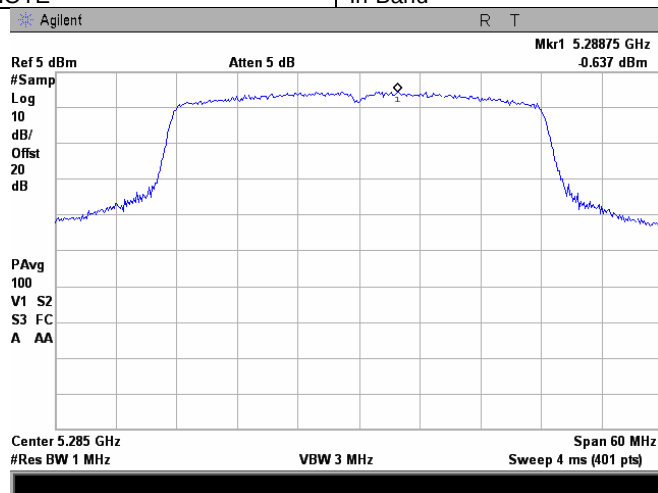
Plot 7.1.140 Peak output power



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

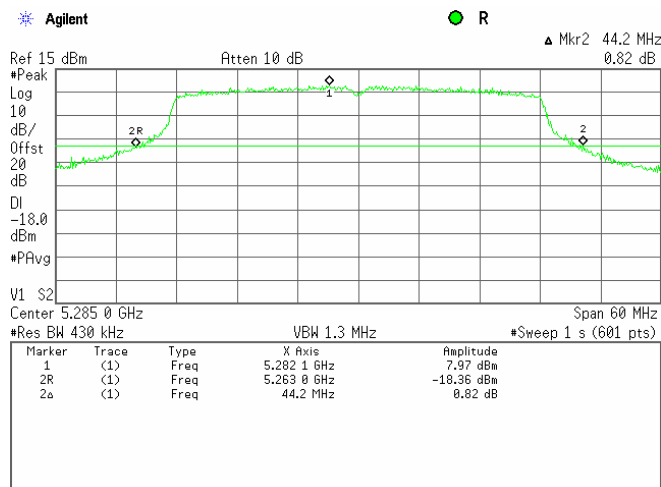
Plot 7.1.141 Peak spectral power density

Frequency:	5285 MHz
Channel BW:	40 MHz
Modulation parameters:	BPSK, 27 Mbps
NOTE	In-Band



Plot 7.1.142 The 26 dB emission bandwidth

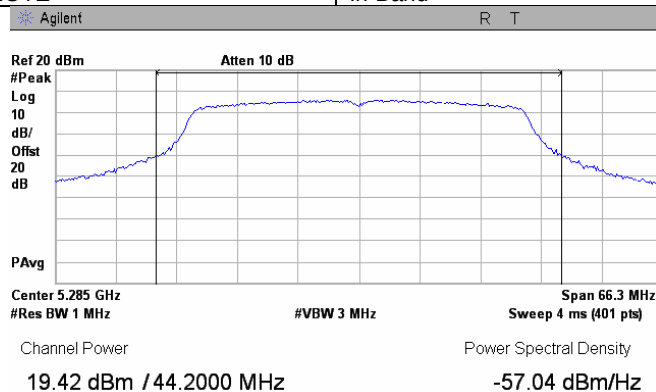
Frequency:	5285 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	In-Band



Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

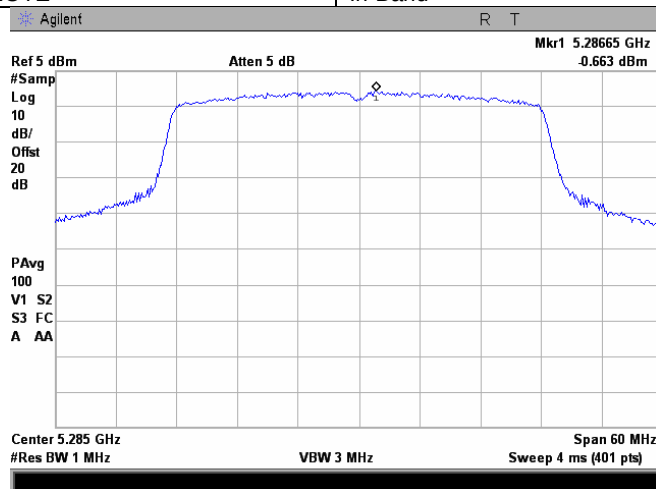
Plot 7.1.143 Peak output power

Frequency:	5285 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	In-Band



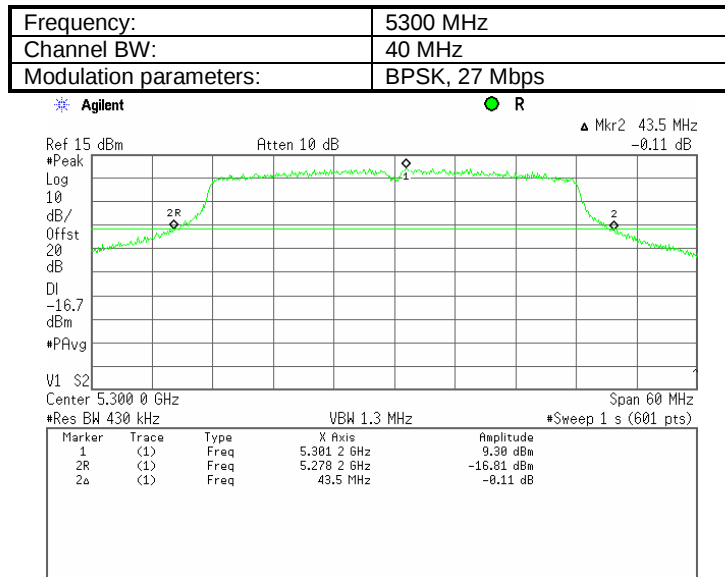
Plot 7.1.144 Peak spectral power density

Frequency:	5285 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	In-Band

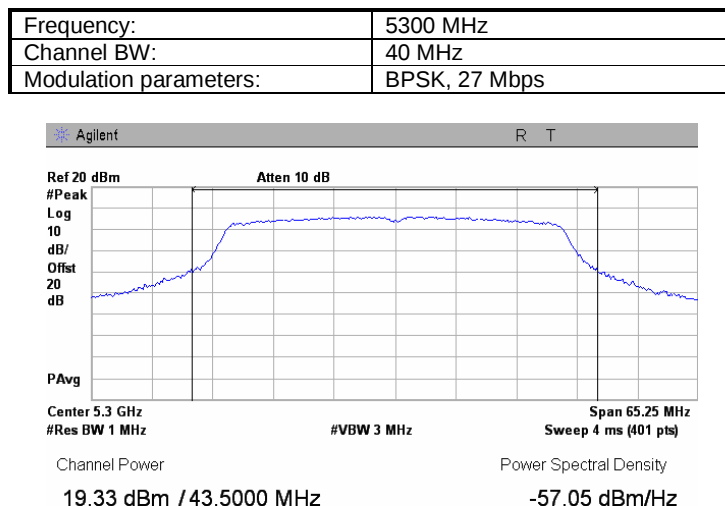


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.145 The 26 dB emission bandwidth

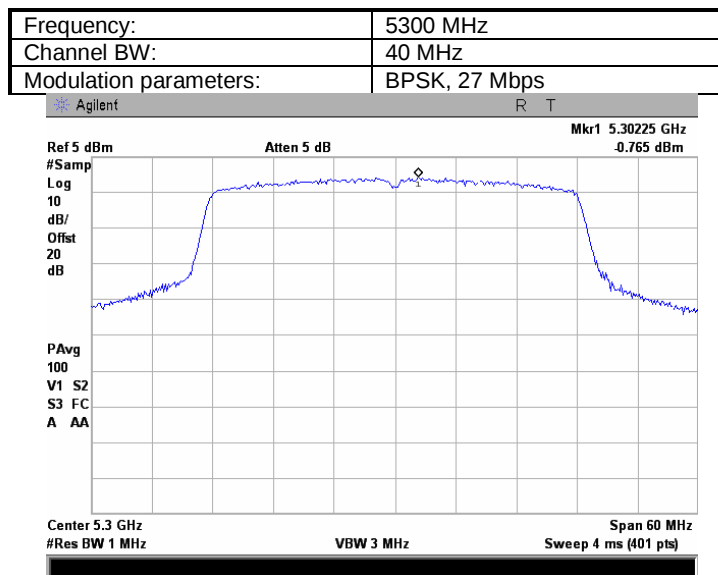


Plot 7.1.146 Peak output power

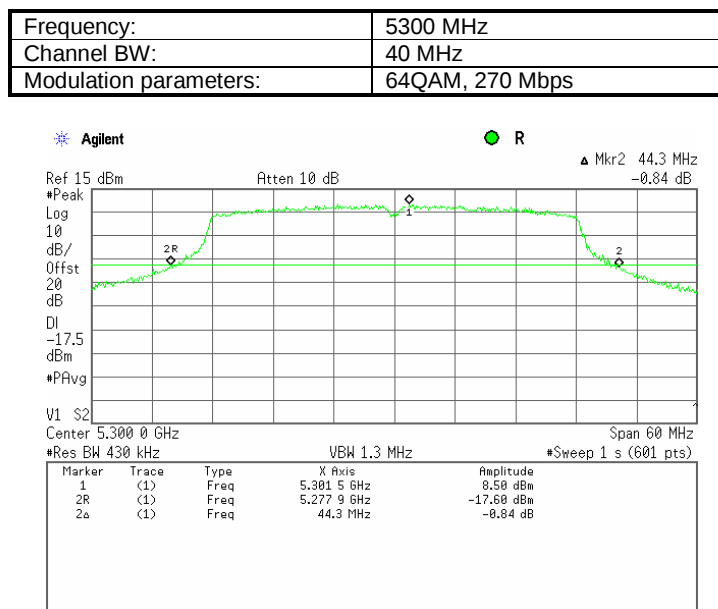


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.147 Peak spectral power density

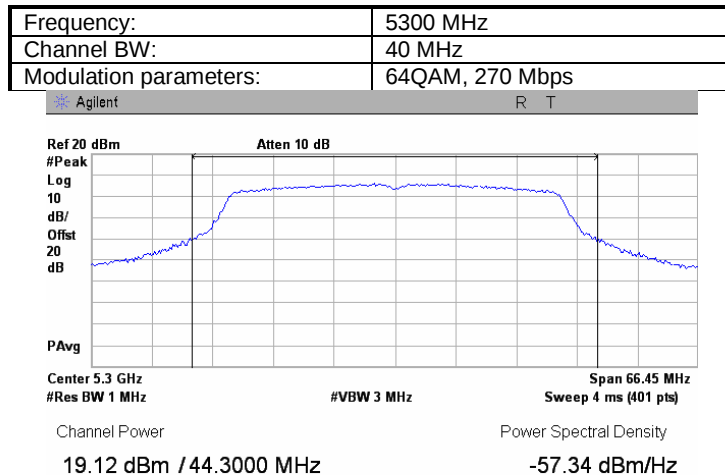


Plot 7.1.148 The 26 dB emission bandwidth

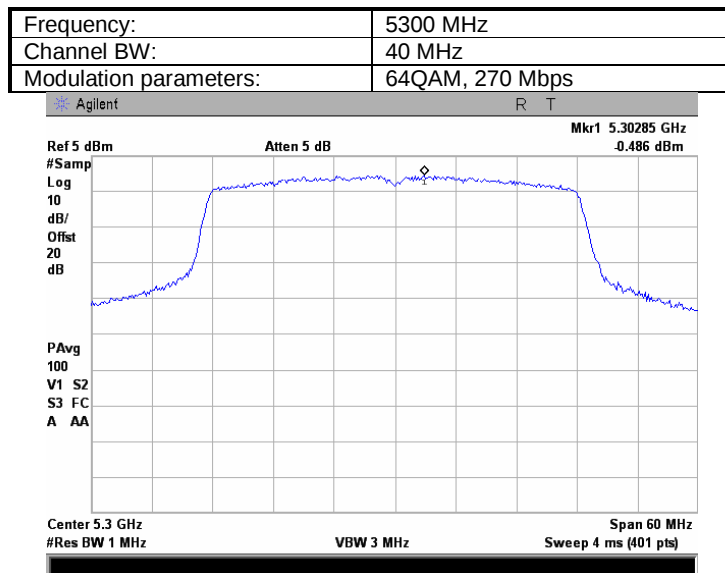


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.149 Peak output power

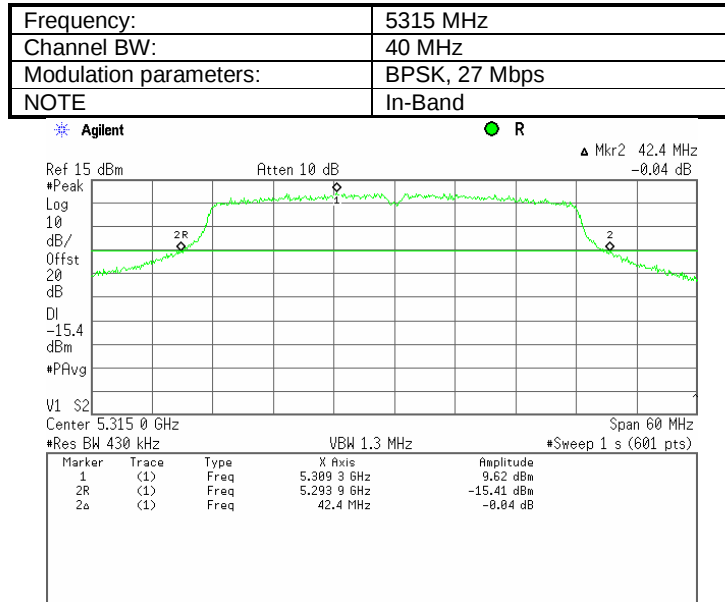


Plot 7.1.150 Peak spectral power density

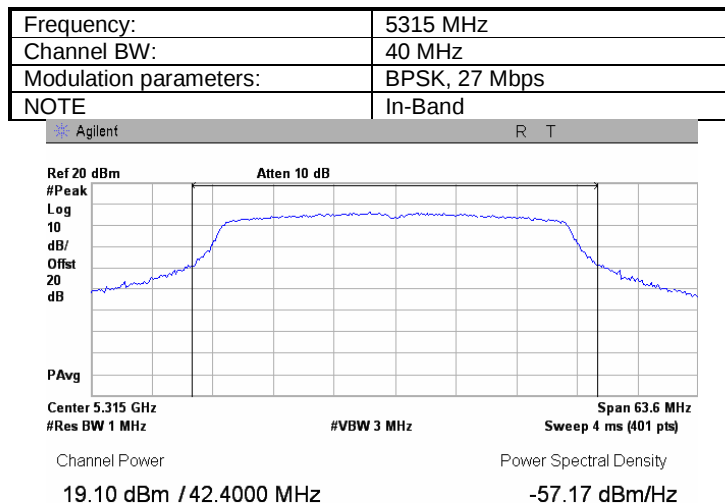


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.151 The 26 dB emission bandwidth



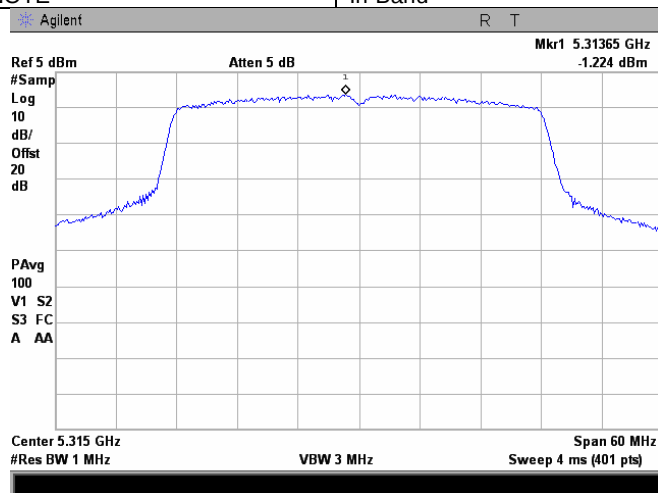
Plot 7.1.152 Peak output power



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

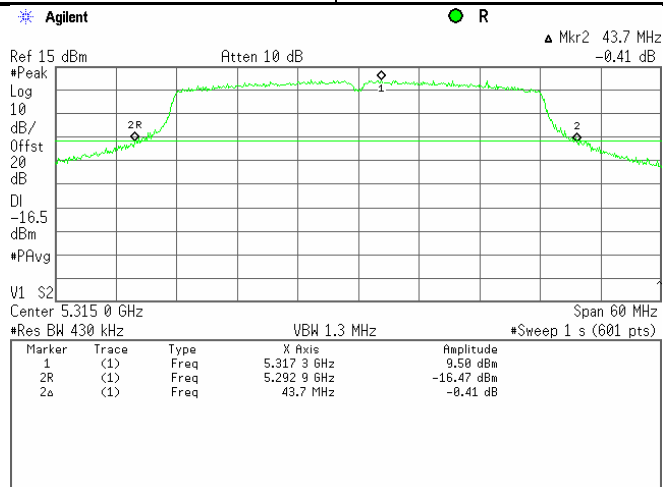
Plot 7.1.153 Peak spectral power density

Frequency:	5315 MHz
Channel BW:	40 MHz
Modulation parameters:	BPSK, 27 Mbps
NOTE	In-Band



Plot 7.1.154 The 26 dB emission bandwidth

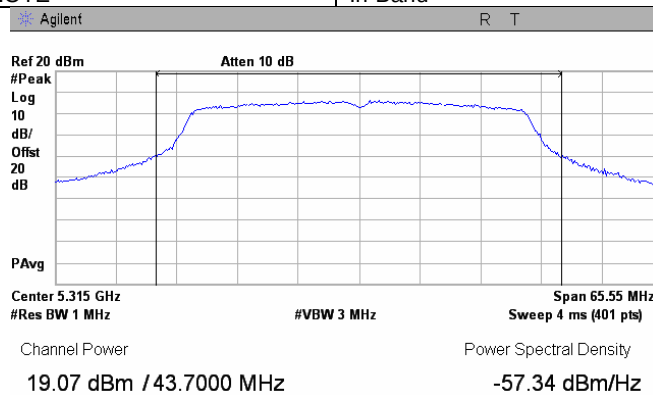
Frequency:	5315 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	In-Band



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

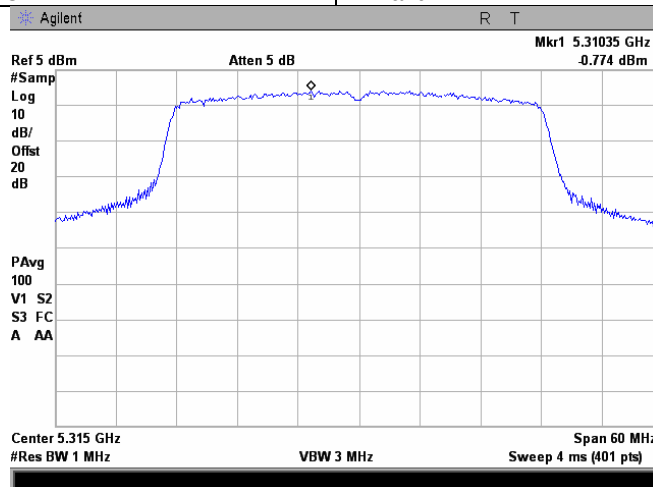
Plot 7.1.155 Peak output power

Frequency:	5315 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	In-Band



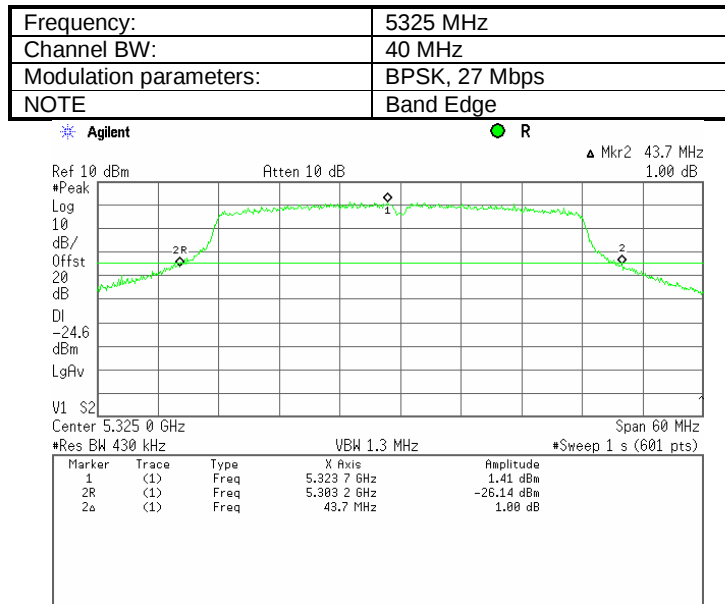
Plot 7.1.156 Peak spectral power density

Frequency:	5315 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	In-Band

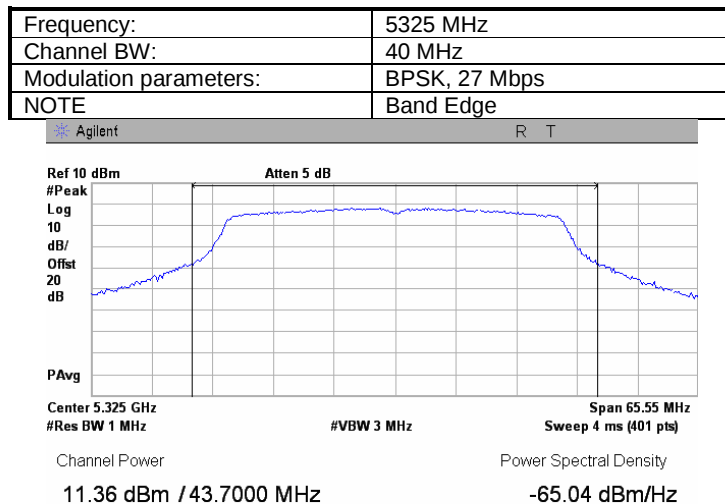


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.157 The 26 dB emission bandwidth



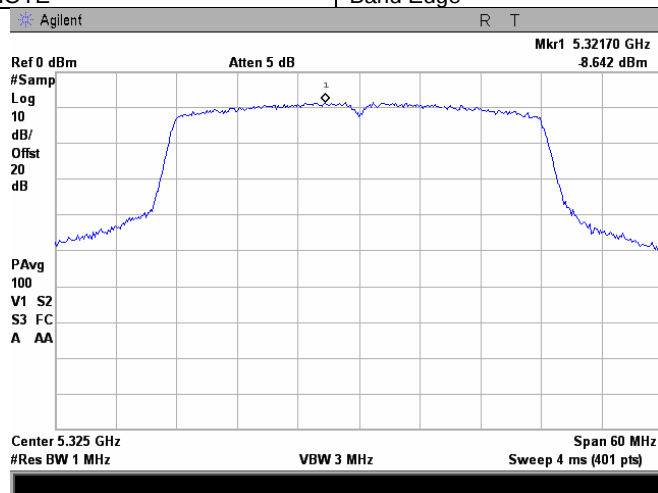
Plot 7.1.158 Peak output power



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

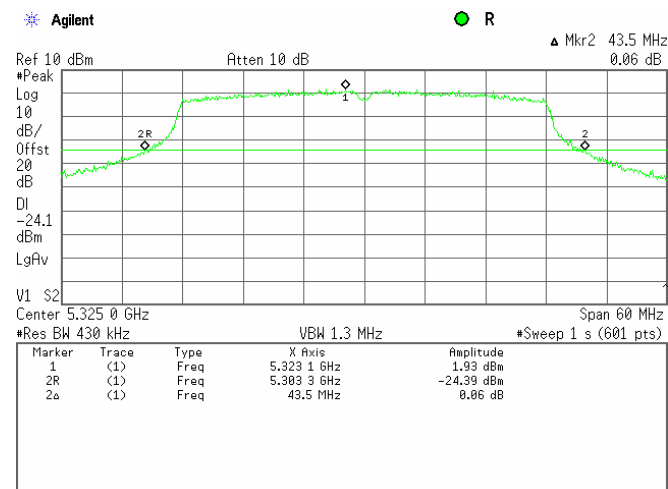
Plot 7.1.159 Peak spectral power density

Frequency:	5325 MHz
Channel BW:	40 MHz
Modulation parameters:	BPSK, 27 Mbps
NOTE	Band Edge



Plot 7.1.160 The 26 dB emission bandwidth

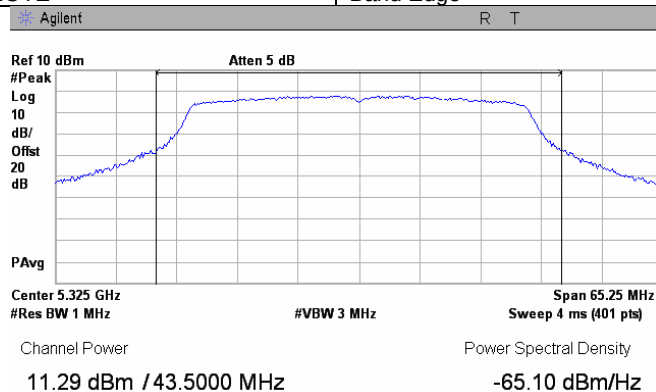
Frequency:	5325 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	Band Edge



Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

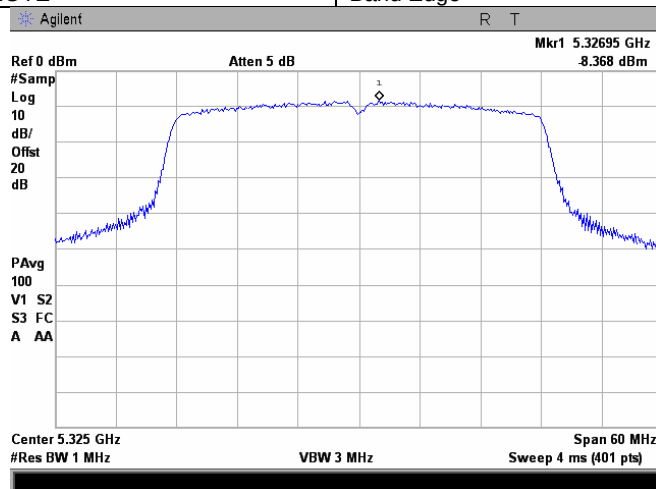
Plot 7.1.161 Peak output power

Frequency:	5325 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	Band Edge



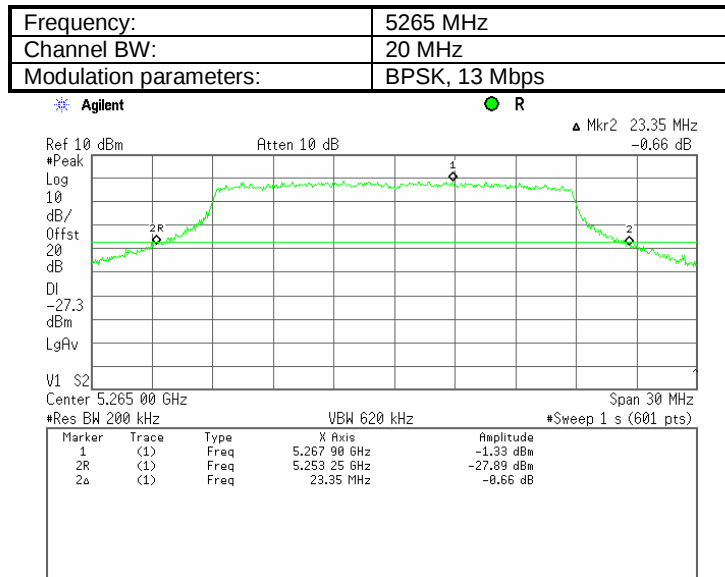
Plot 7.1.162 Peak spectral power density

Frequency:	5325 MHz
Channel BW:	40 MHz
Modulation parameters:	64QAM, 270 Mbps
NOTE	Band Edge

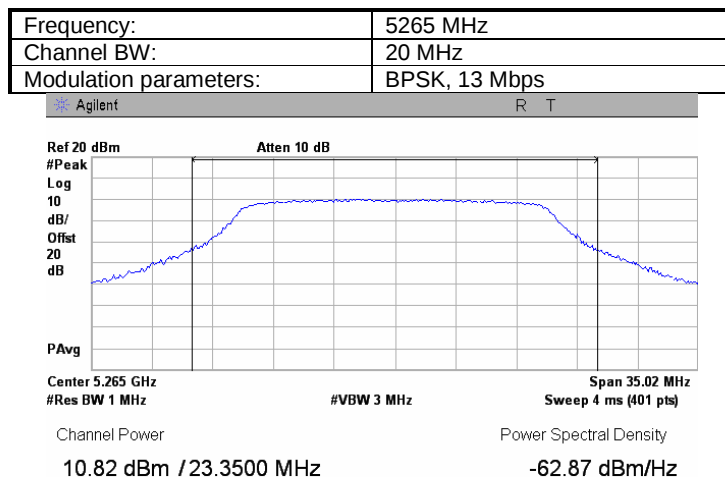


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.163 The 26 dB emission bandwidth

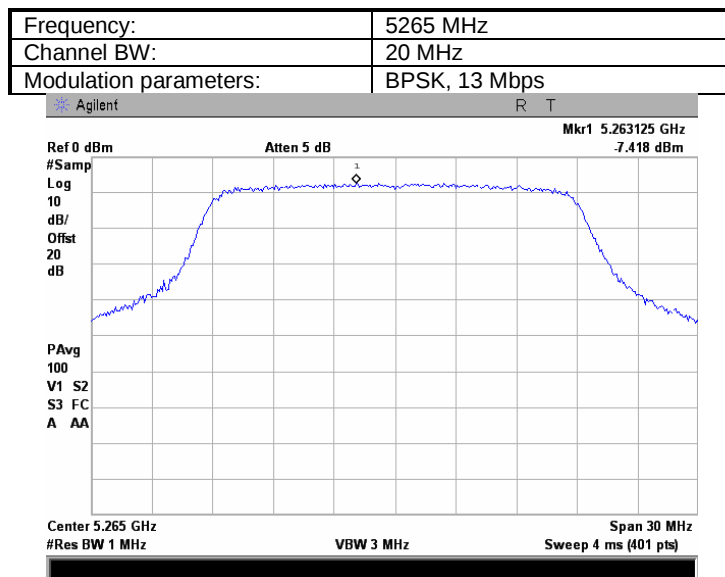


Plot 7.1.164 Peak output power

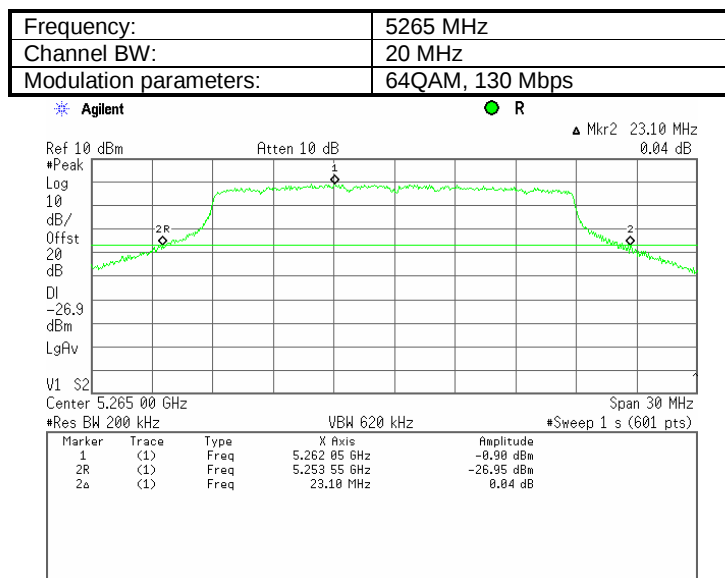


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Verdict: PASS	
Date:			
12/14/2009			
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.165 Peak spectral power density

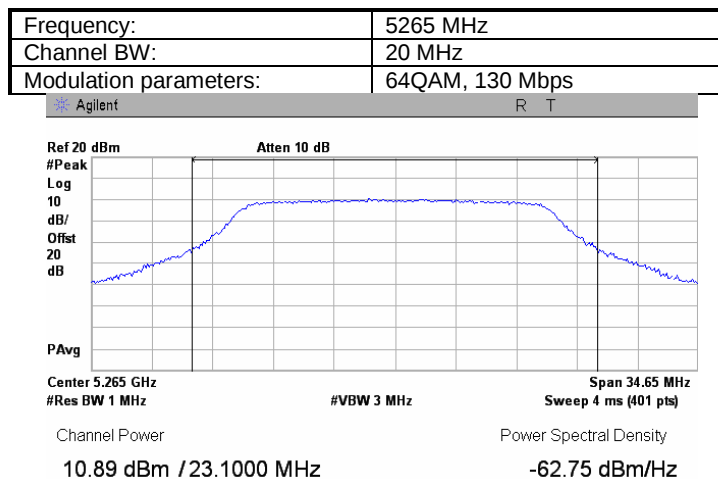


Plot 7.1.166 The 26 dB emission bandwidth

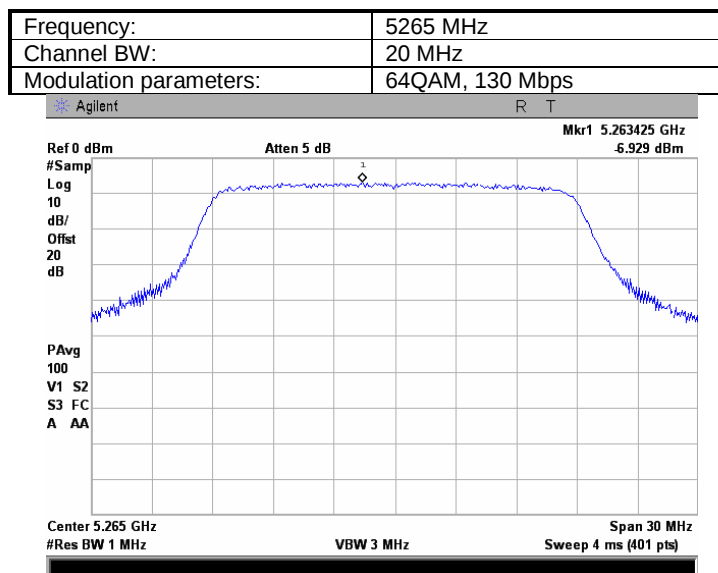


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.167 Peak output power

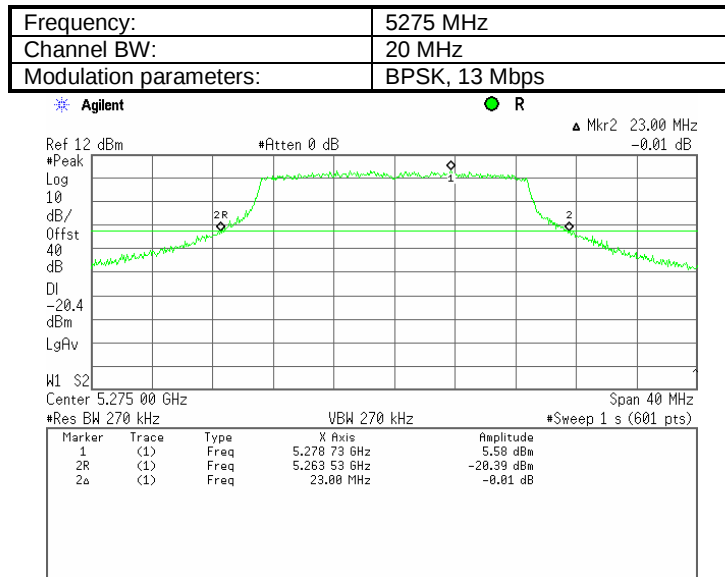


Plot 7.1.168 Peak spectral power density

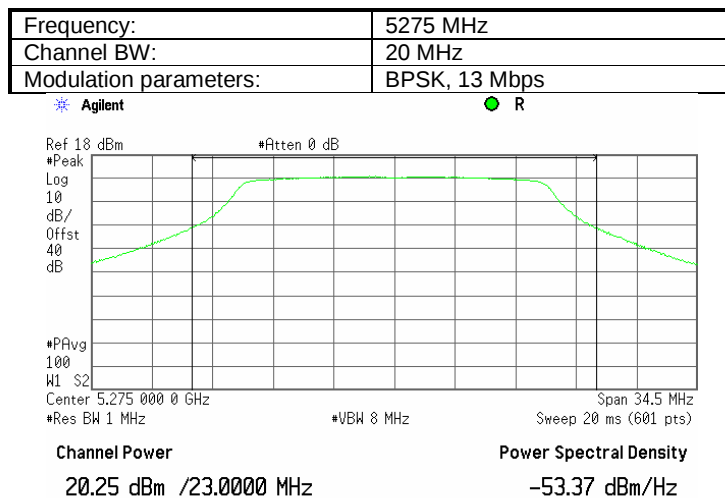


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Verdict:	
Date:		PASS	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.169 The 26 dB emission bandwidth

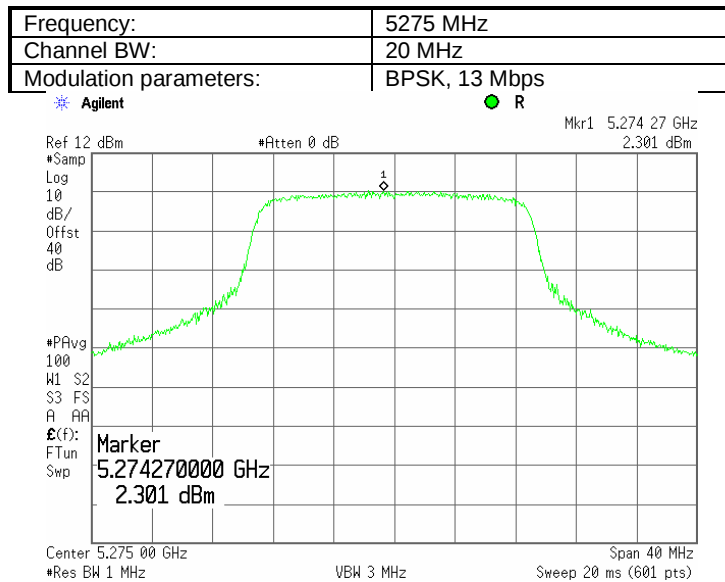


Plot 7.1.170 Peak output power

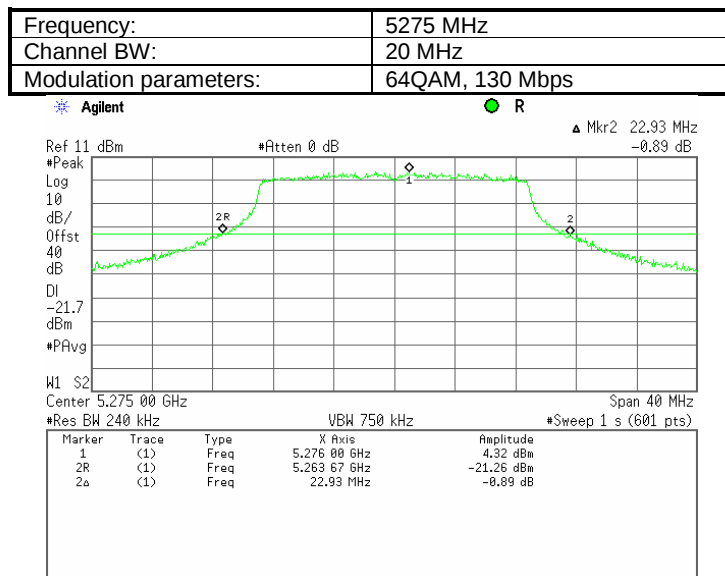


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.171 Peak spectral power density

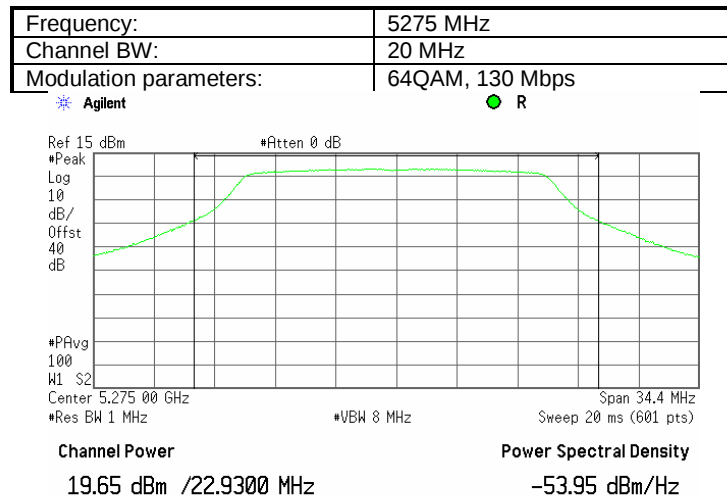


Plot 7.1.172 The 26 dB emission bandwidth

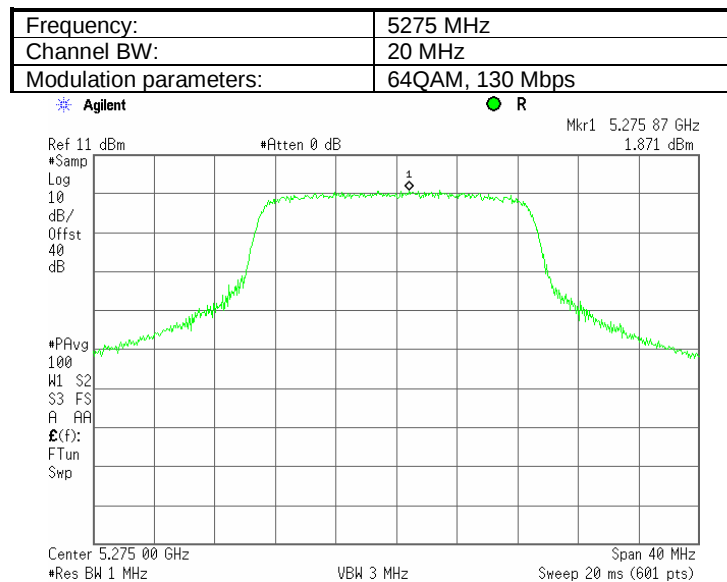


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.173 Peak output power

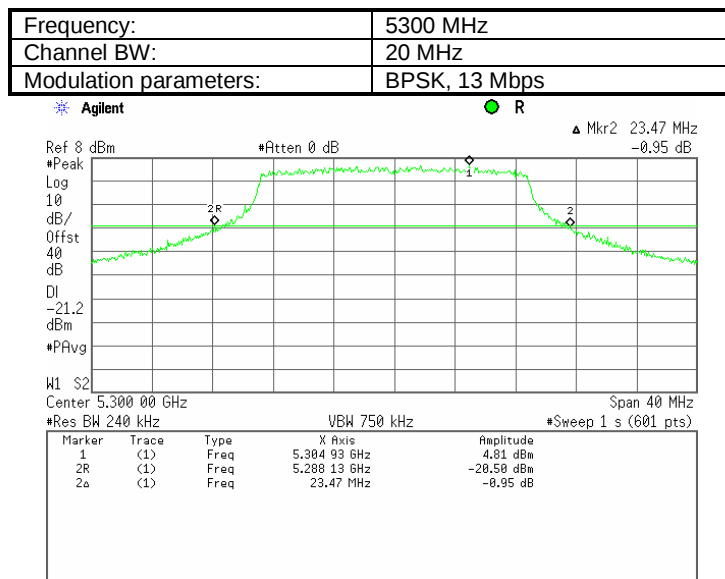


Plot 7.1.174 Peak spectral power density

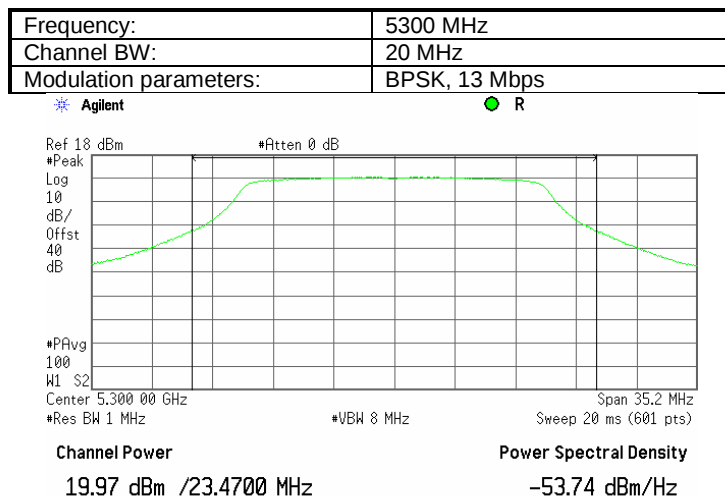


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.175 The 26 dB emission bandwidth

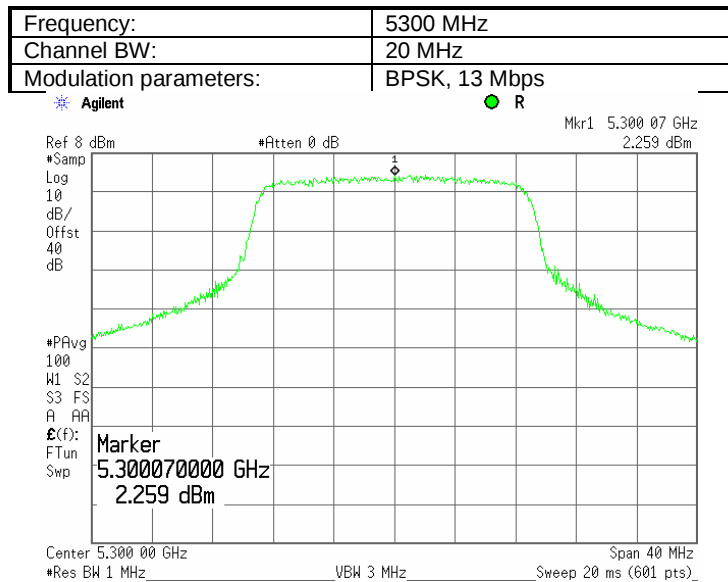


Plot 7.1.176 Peak output power

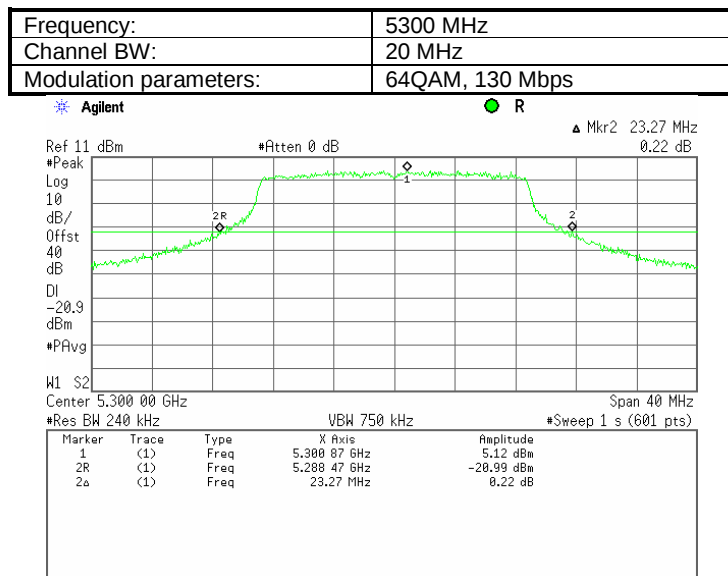


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.177 Peak spectral power density

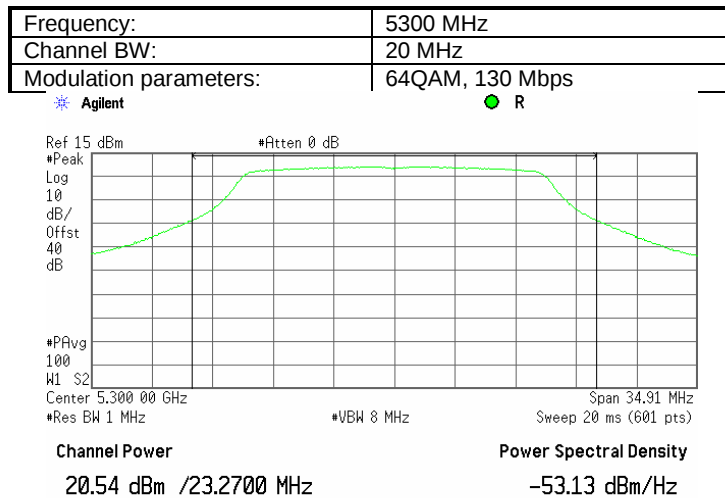


Plot 7.1.178 The 26 dB emission bandwidth

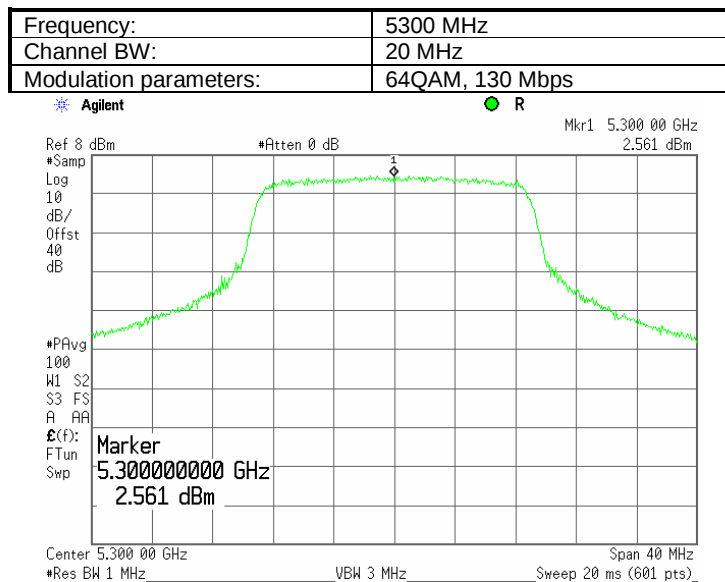


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.179 Peak output power

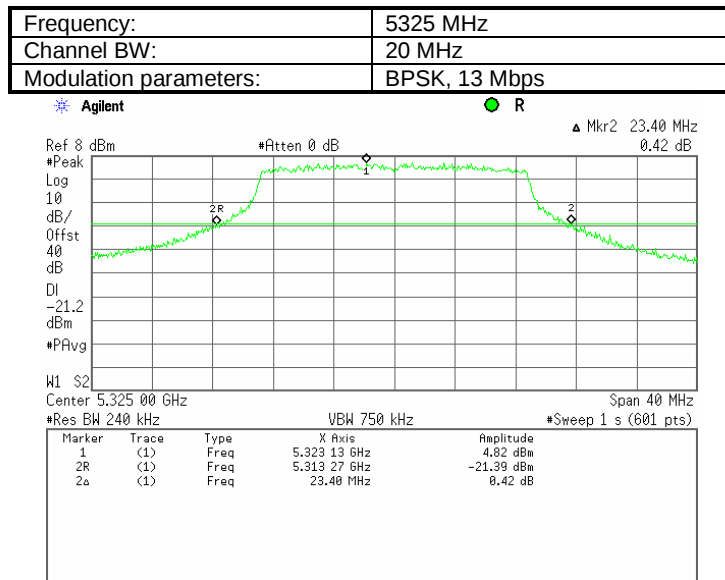


Plot 7.1.180 Peak spectral power density

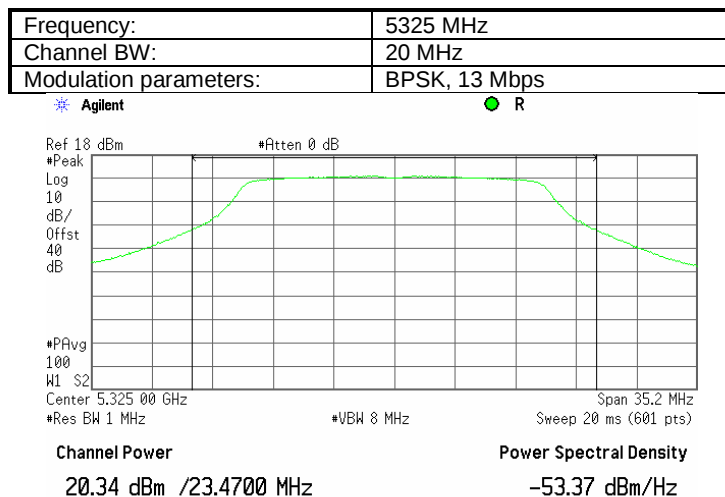


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2	
Test procedure:		Peak output power and peak power spectral density	
Test mode:		Verdict: PASS	
Date: 12/14/2009			
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.181 The 26 dB emission bandwidth

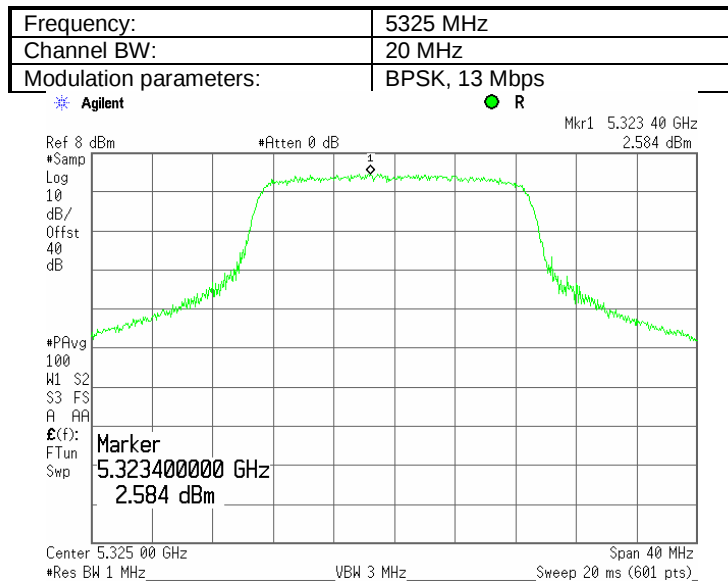


Plot 7.1.182 Peak output power

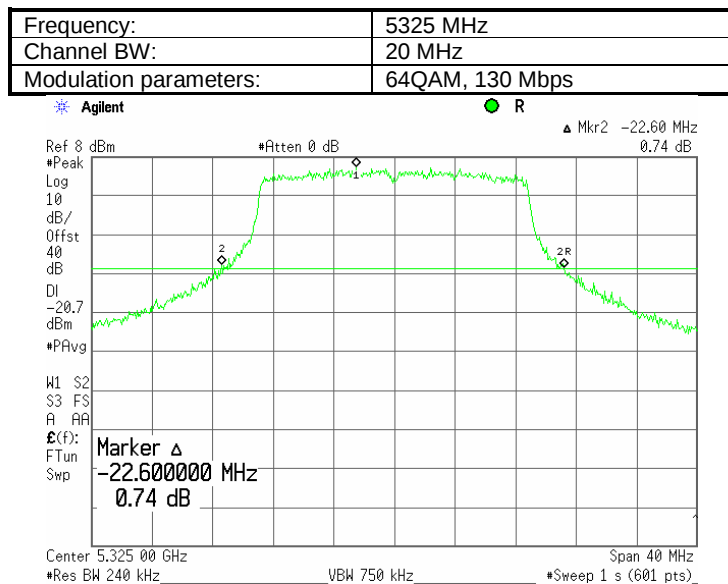


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.183 Peak spectral power density

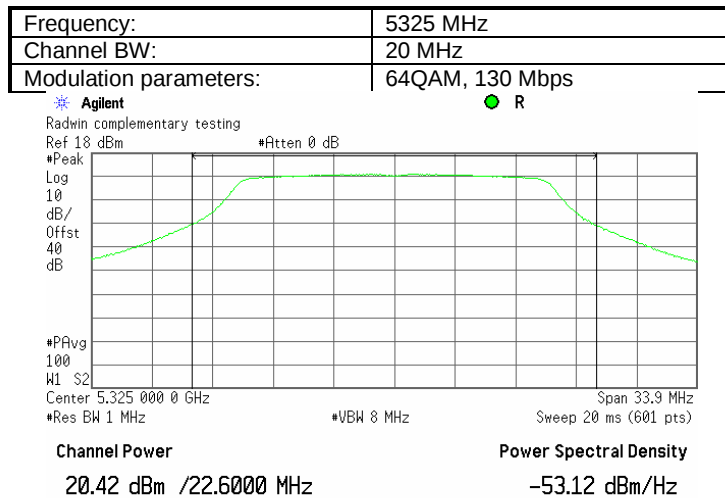


Plot 7.1.184 The 26 dB emission bandwidth

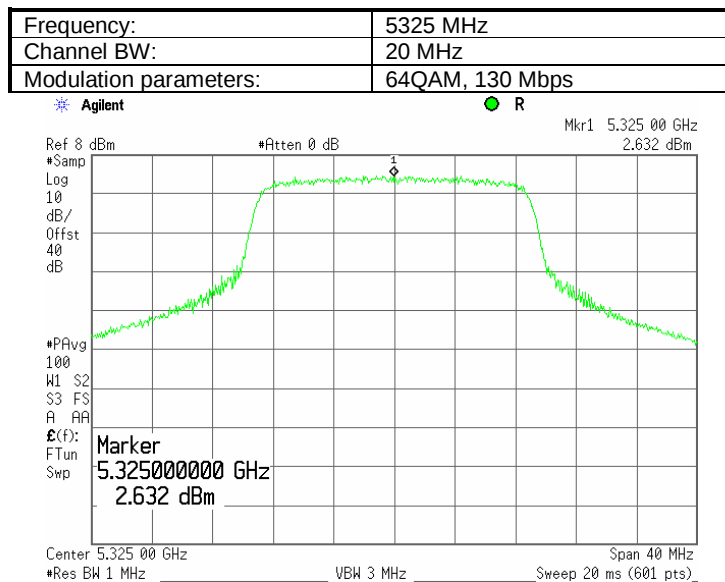


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.185 Peak output power

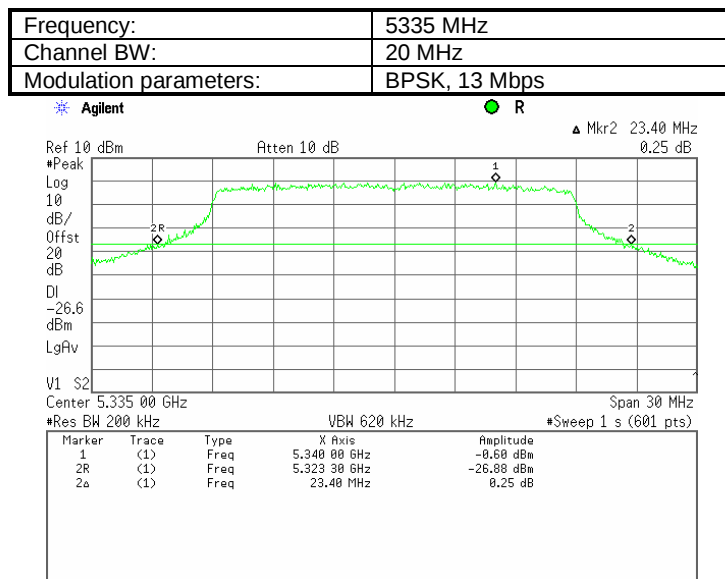


Plot 7.1.186 Peak spectral power density

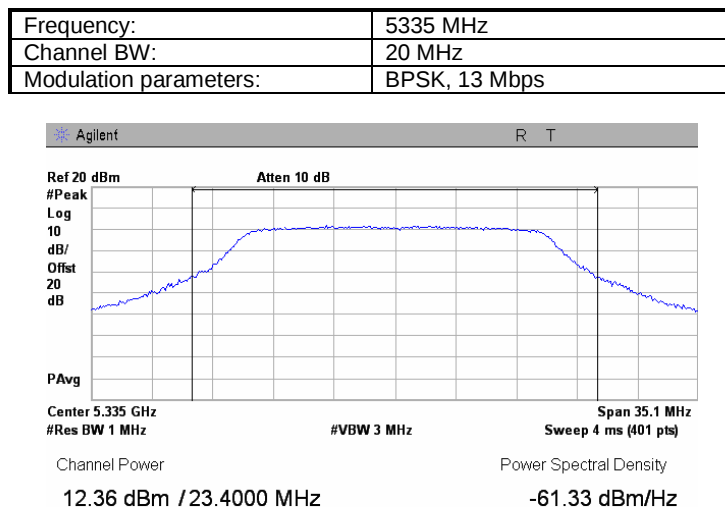


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.187 The 26 dB emission bandwidth

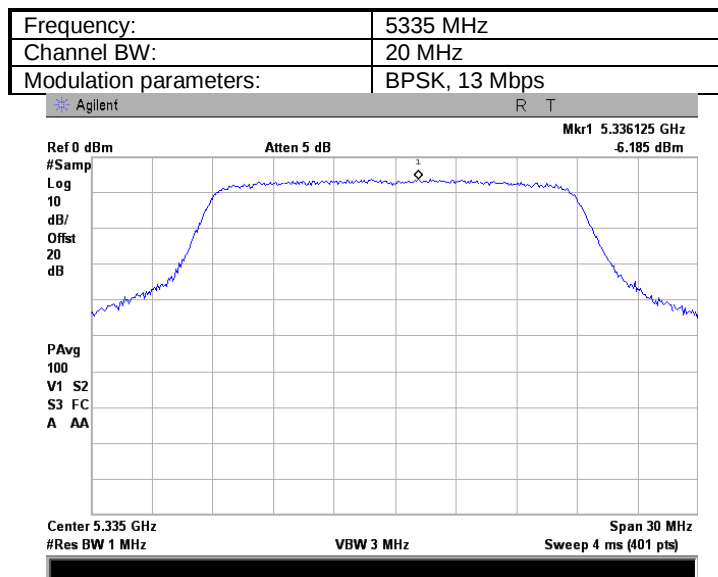


Plot 7.1.188 Peak output power

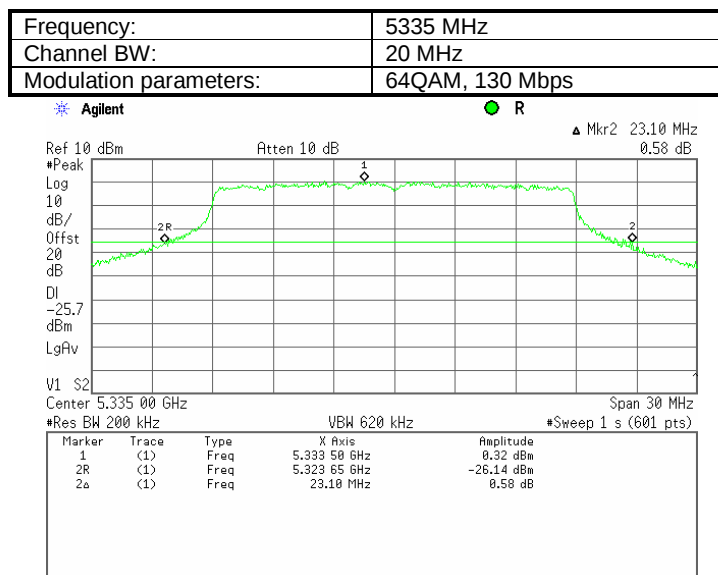


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.189 Peak spectral power density

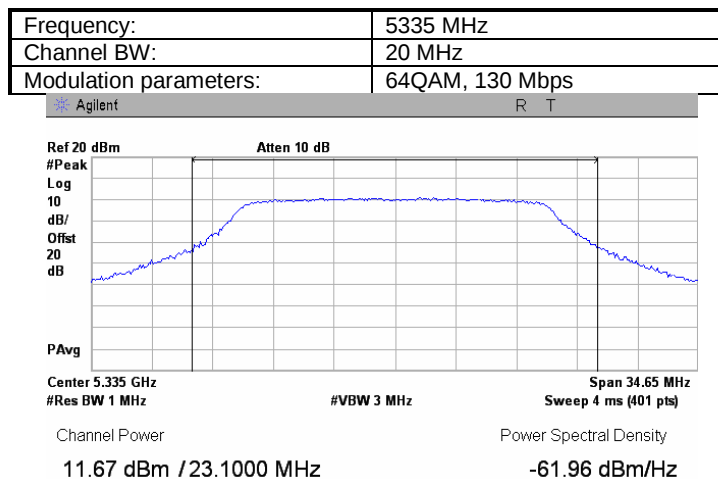


Plot 7.1.190 The 26 dB emission bandwidth

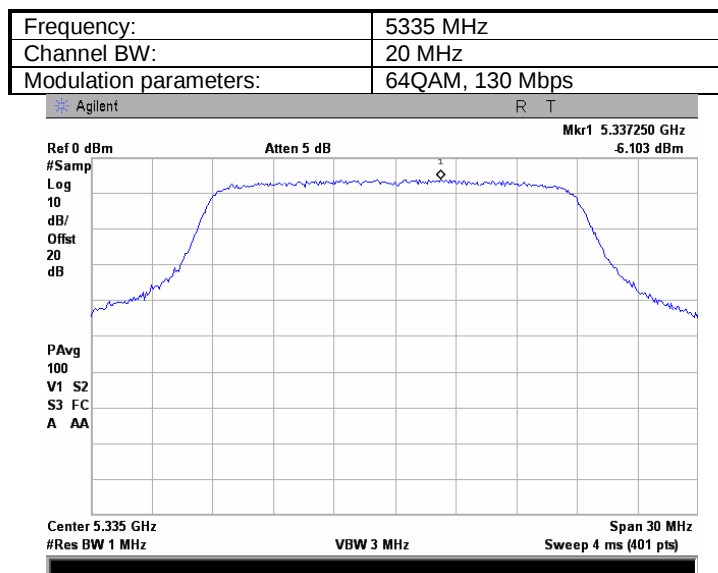


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.191 Peak output power

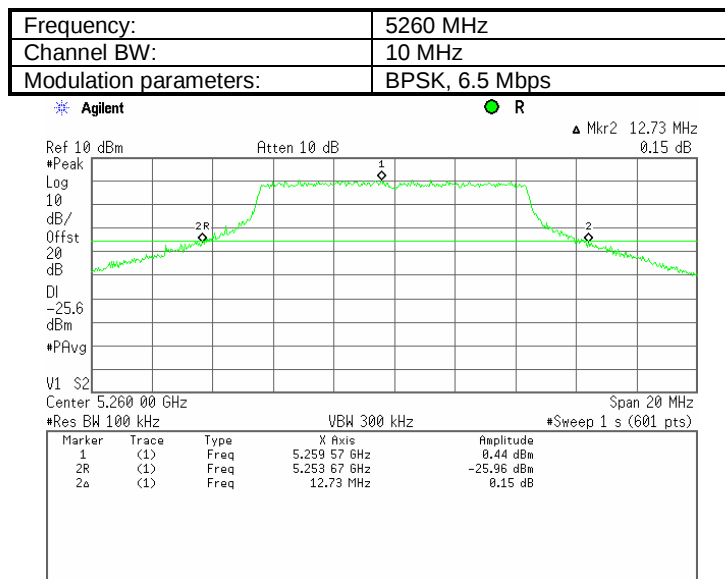


Plot 7.1.192 Peak spectral power density

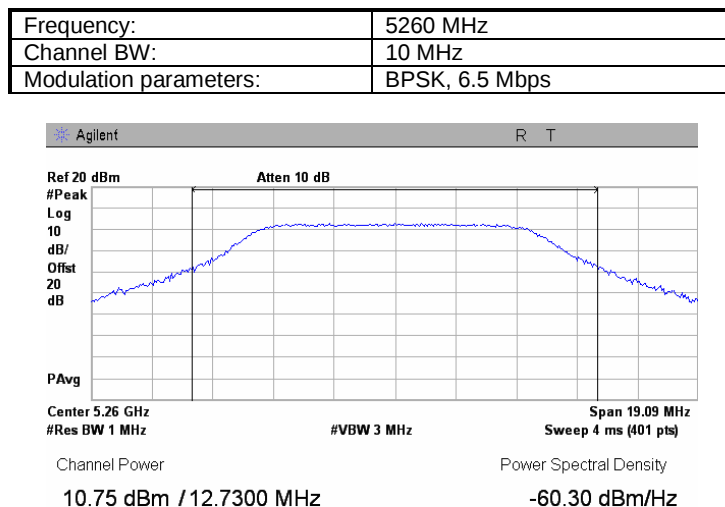


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.193 The 26 dB emission bandwidth

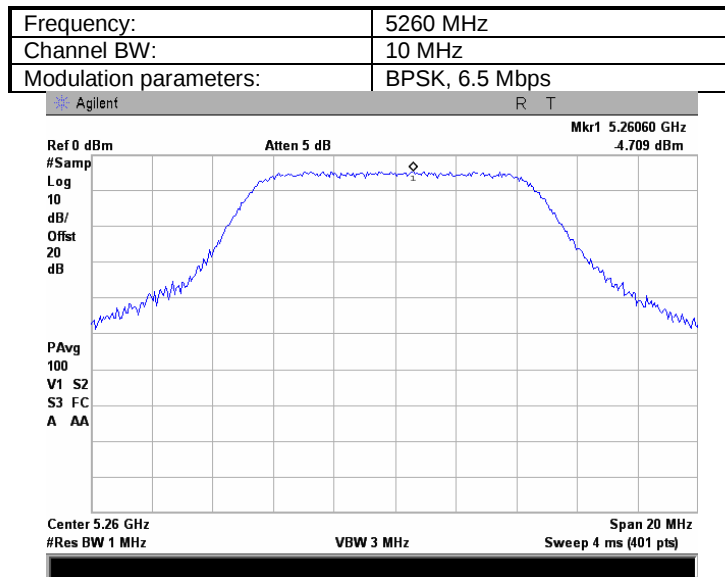


Plot 7.1.194 Peak output power

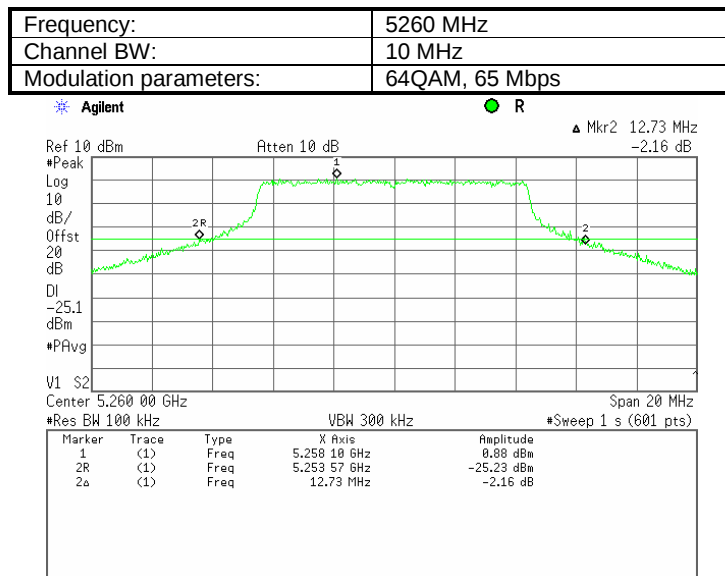


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.195 Peak spectral power density

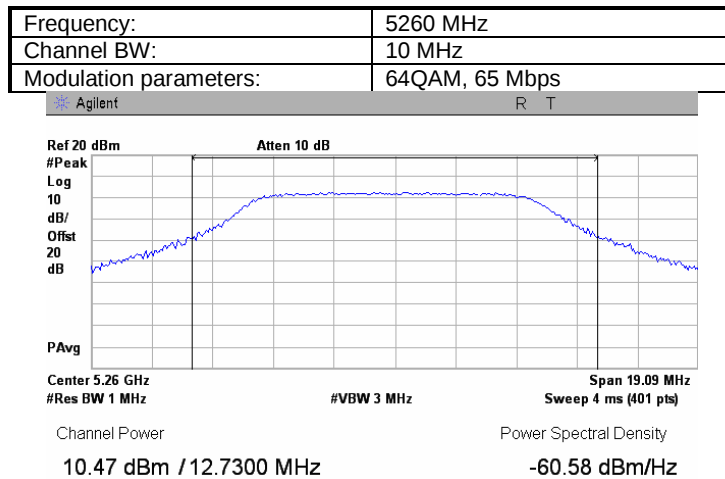


Plot 7.1.196 The 26 dB emission bandwidth

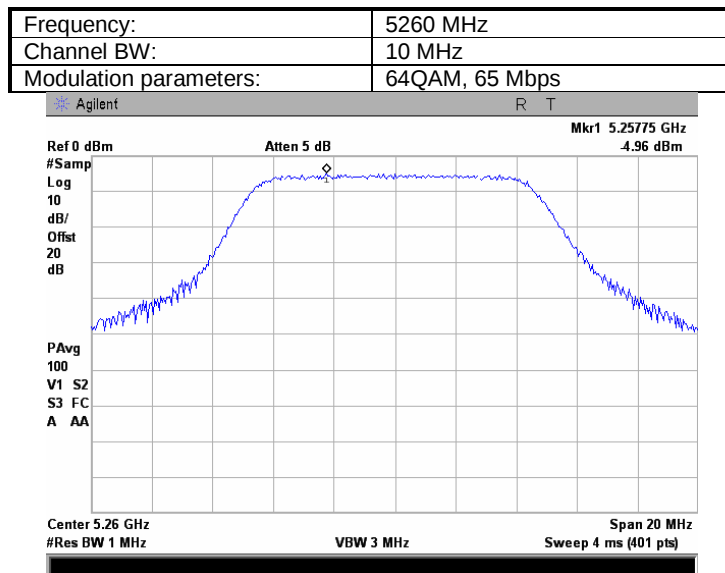


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.197 Peak output power

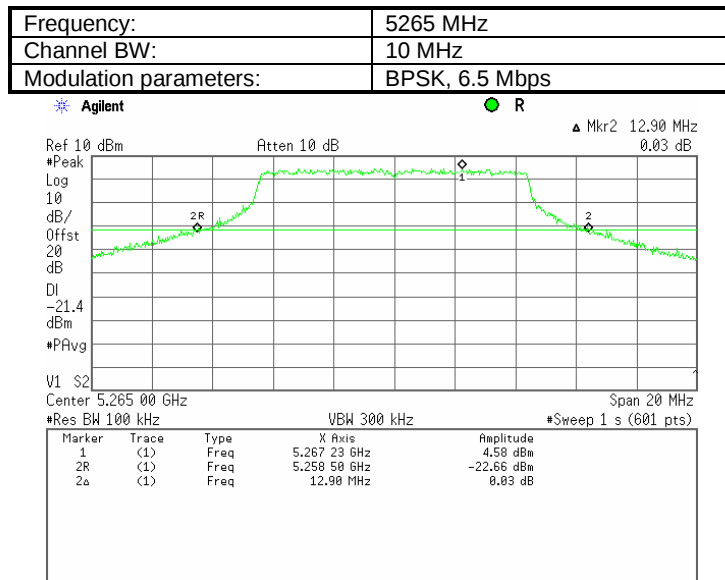


Plot 7.1.198 Peak spectral power density

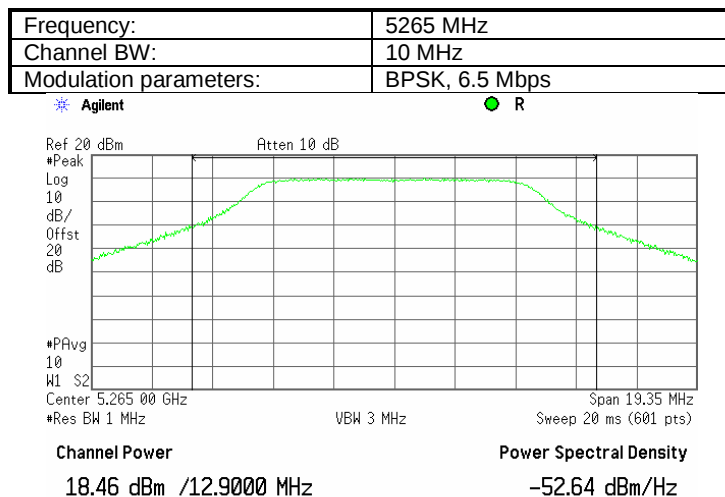


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.199 The 26 dB emission bandwidth

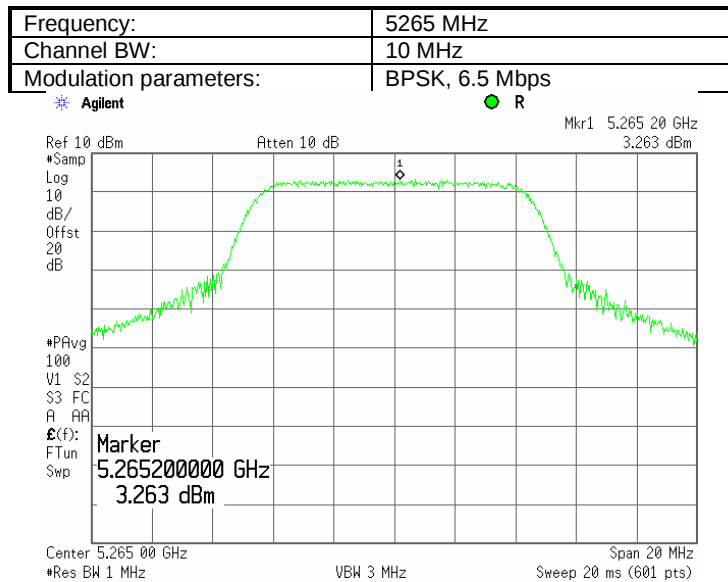


Plot 7.1.200 Peak output power

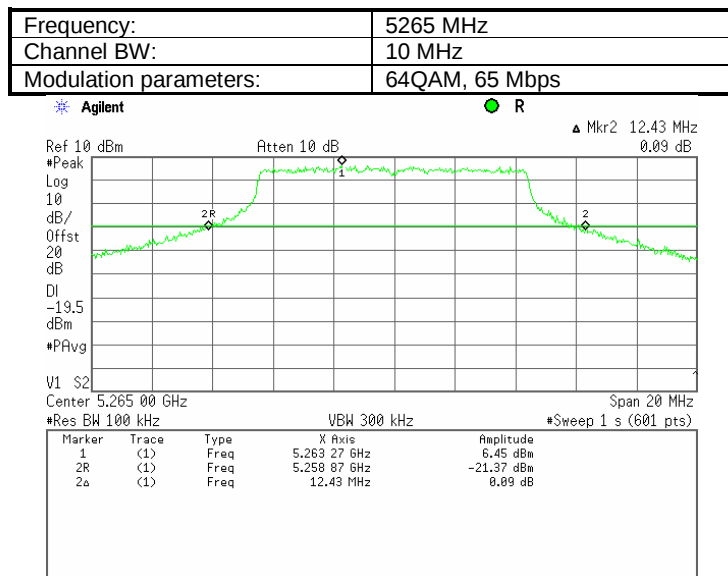


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.201 Peak spectral power density

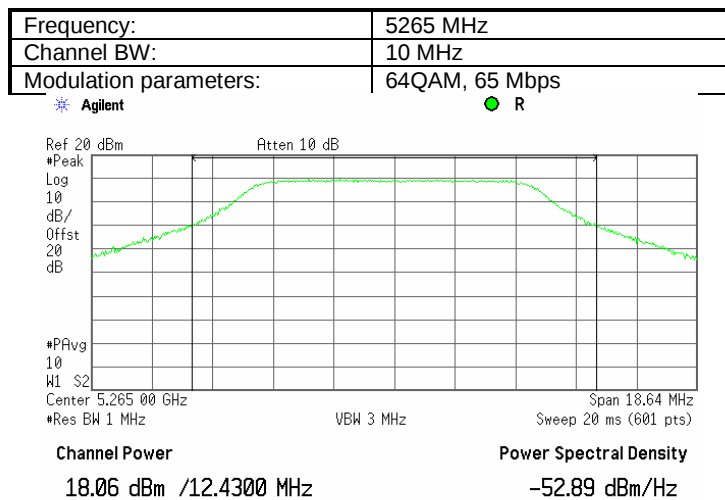


Plot 7.1.202 The 26 dB emission bandwidth

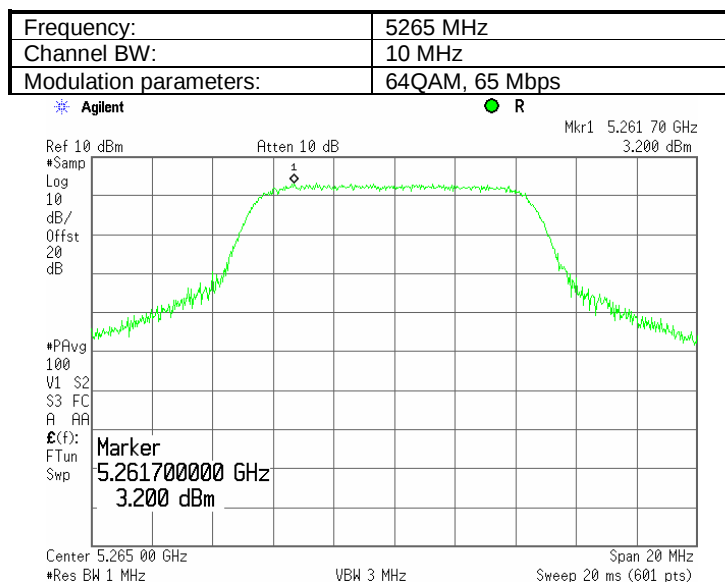


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.203 Peak output power

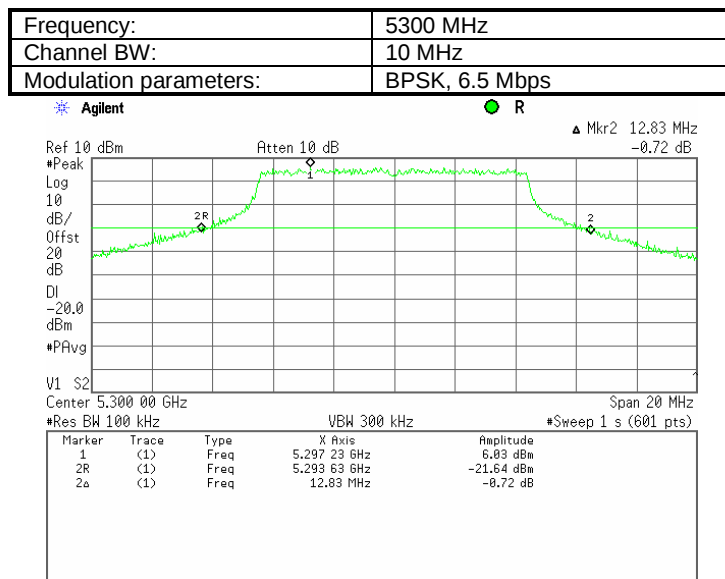


Plot 7.1.204 Peak spectral power density

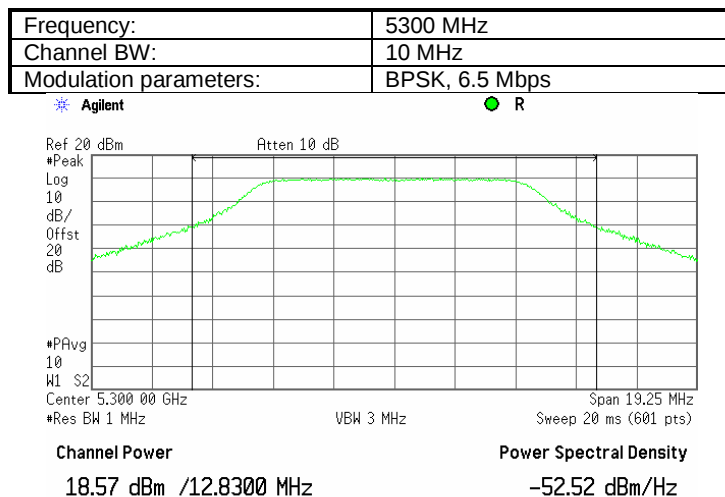


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.205 The 26 dB emission bandwidth

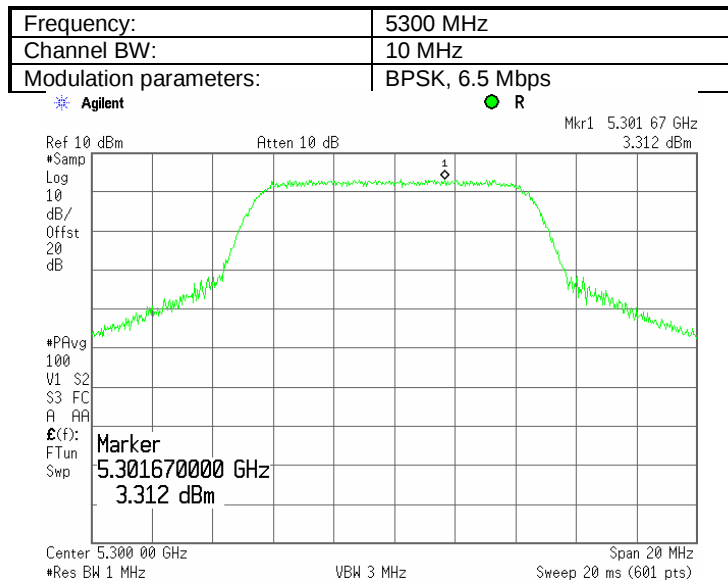


Plot 7.1.206 Peak output power

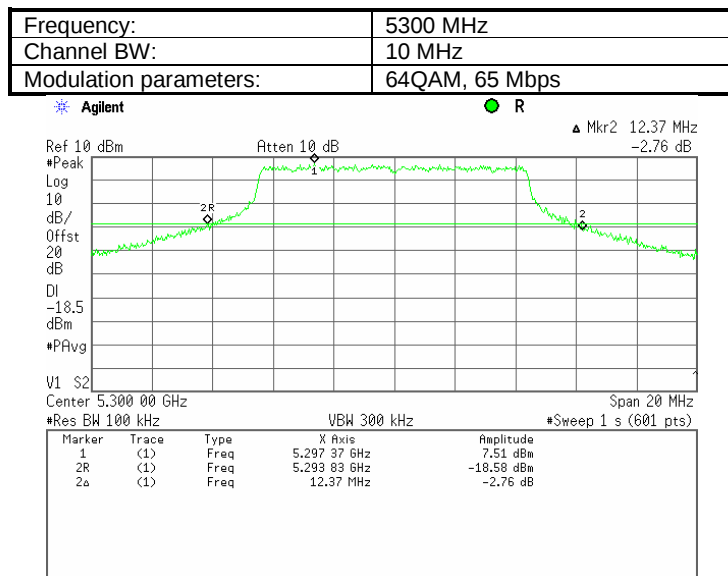


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.207 Peak spectral power density

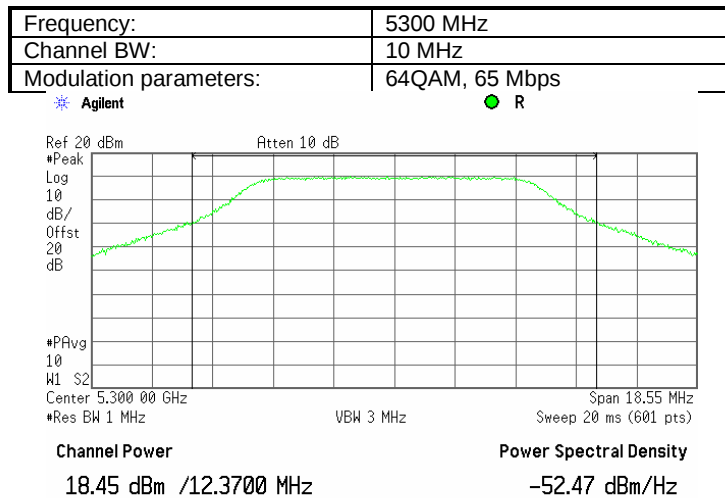


Plot 7.1.208 The 26 dB emission bandwidth

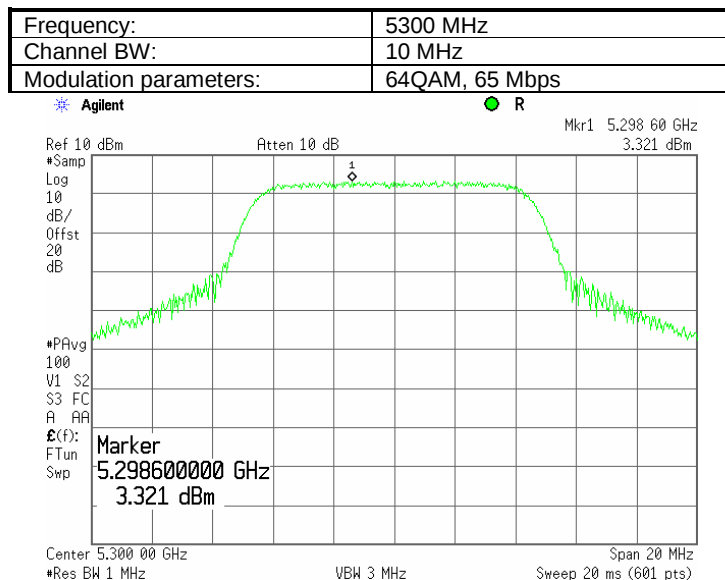


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.209 Peak output power

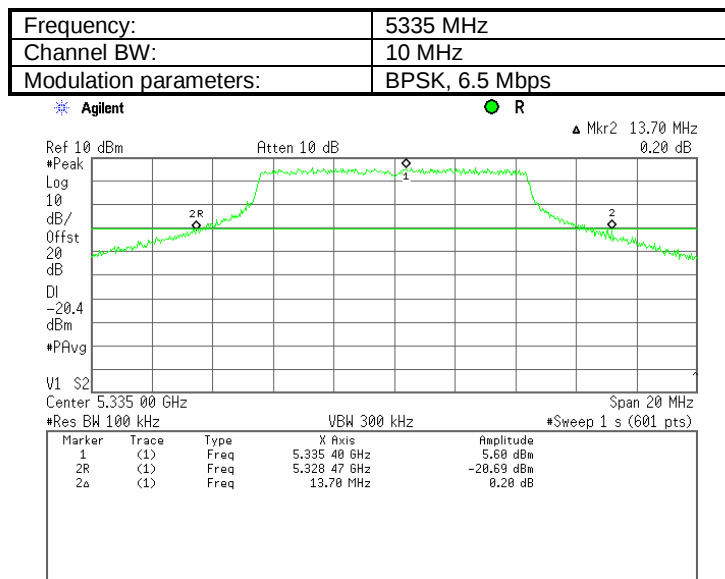


Plot 7.1.210 Peak spectral power density

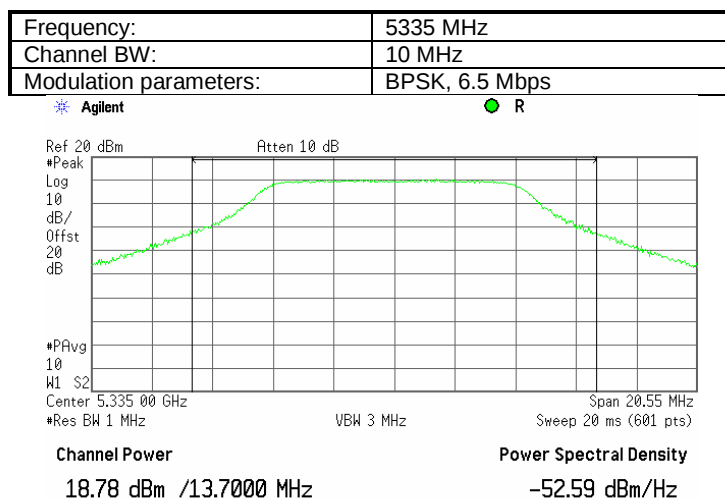


Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.211 The 26 dB emission bandwidth

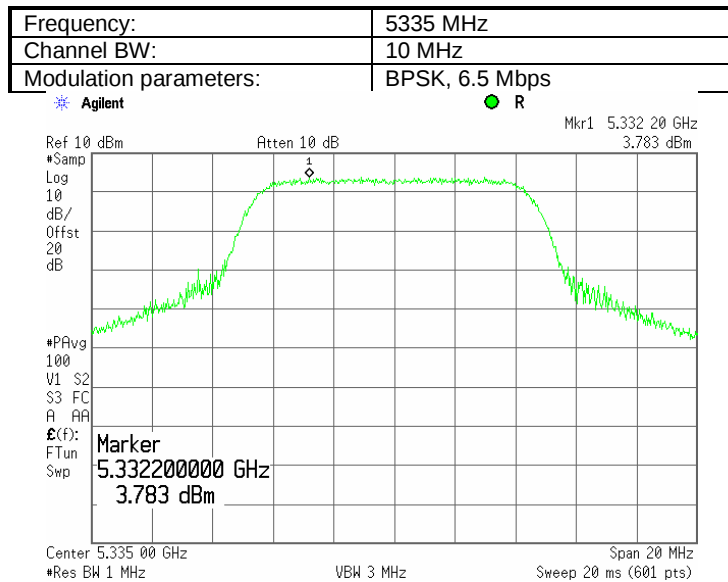


Plot 7.1.212 Peak output power

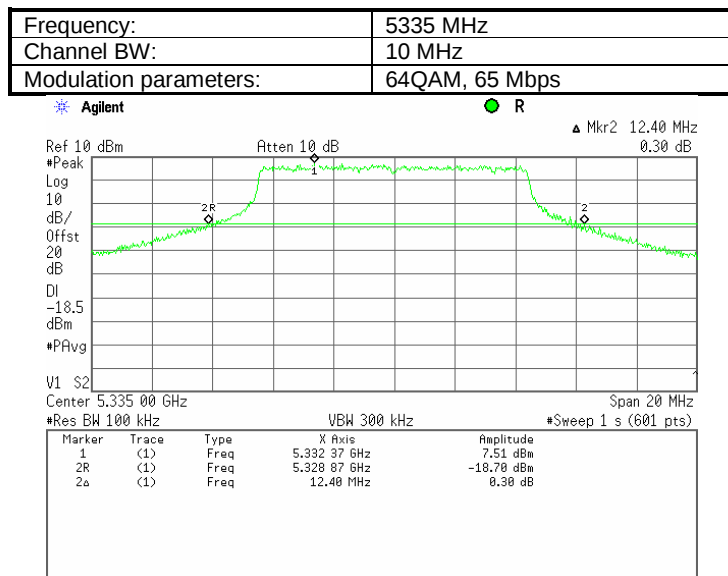


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.213 Peak spectral power density

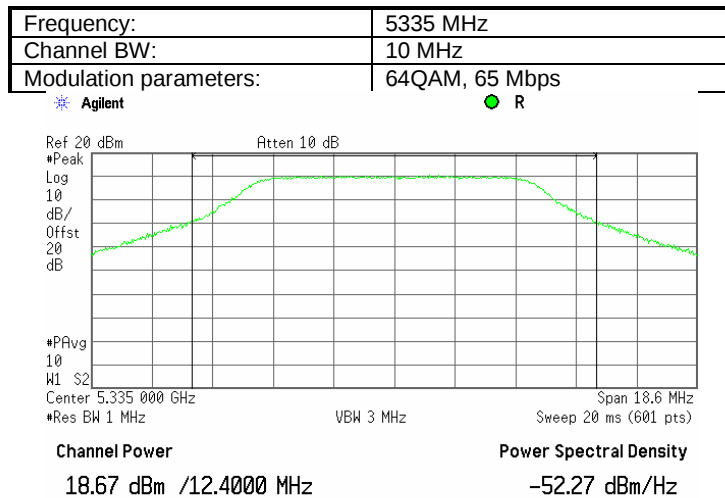


Plot 7.1.214 The 26 dB emission bandwidth

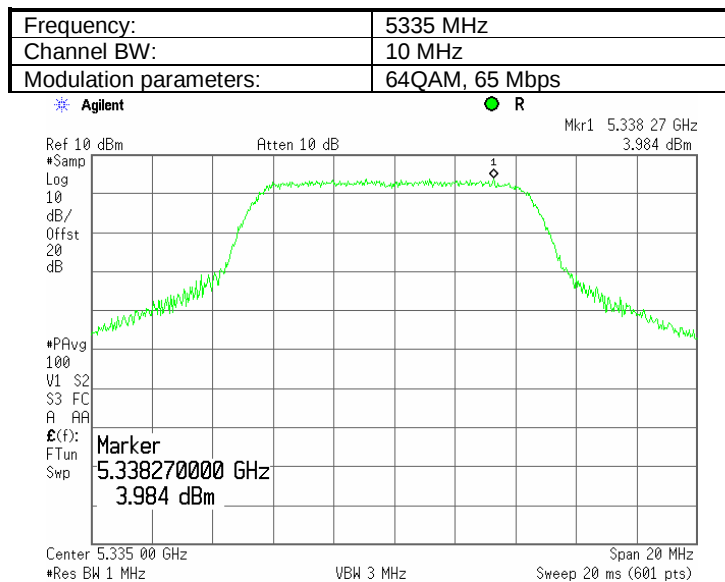


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.215 Peak output power

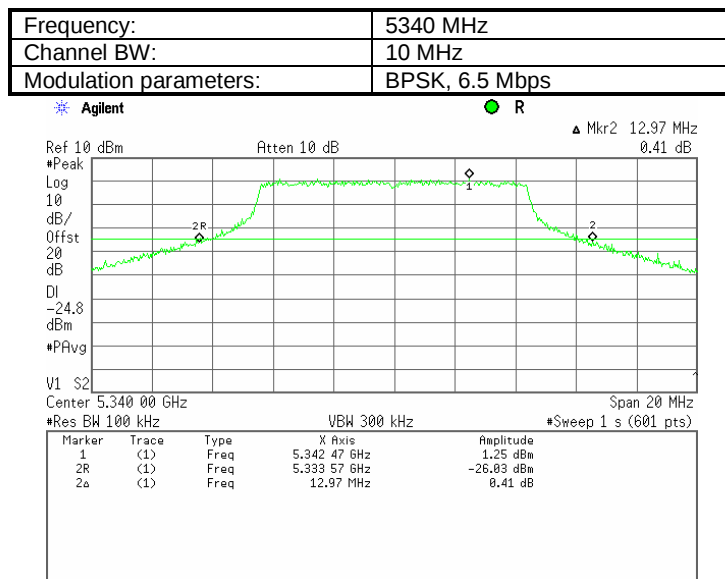


Plot 7.1.216 Peak spectral power density

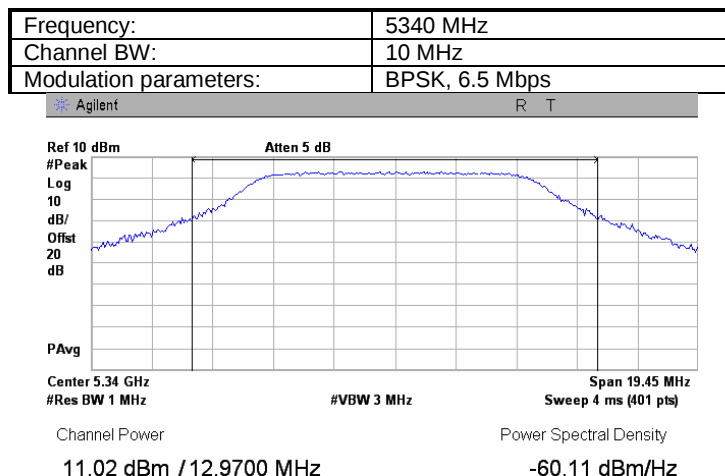


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.217 The 26 dB emission bandwidth

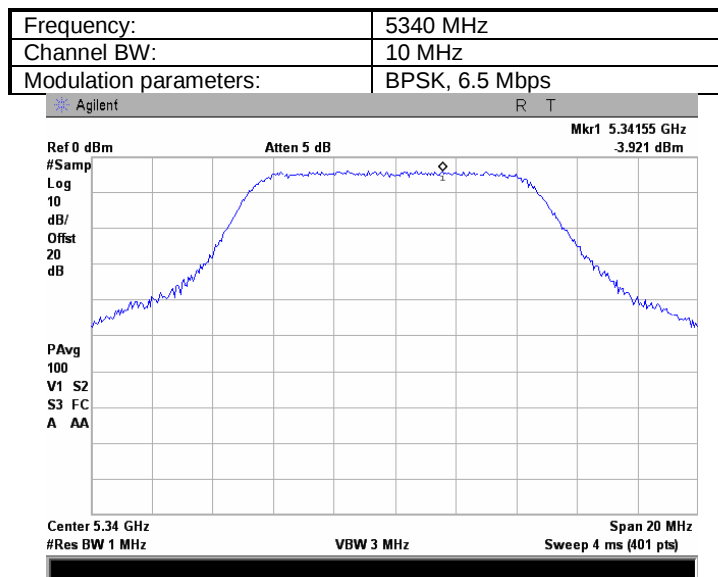


Plot 7.1.218 Peak output power

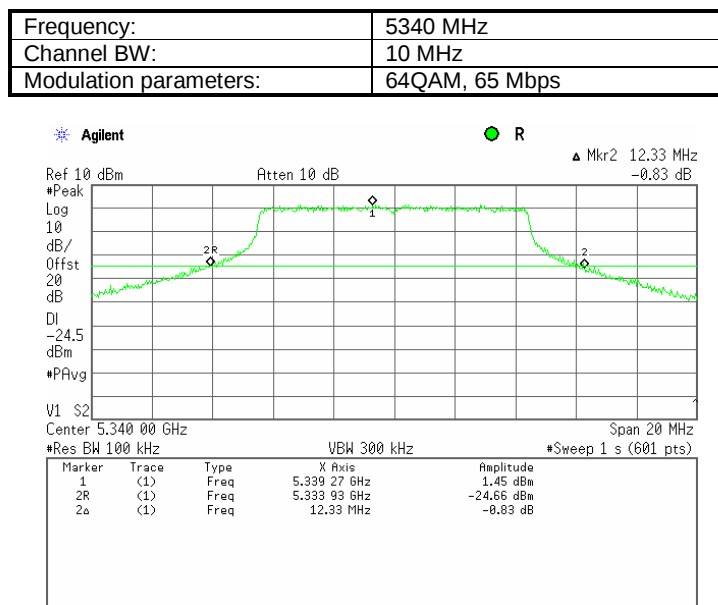


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.219 Peak spectral power density

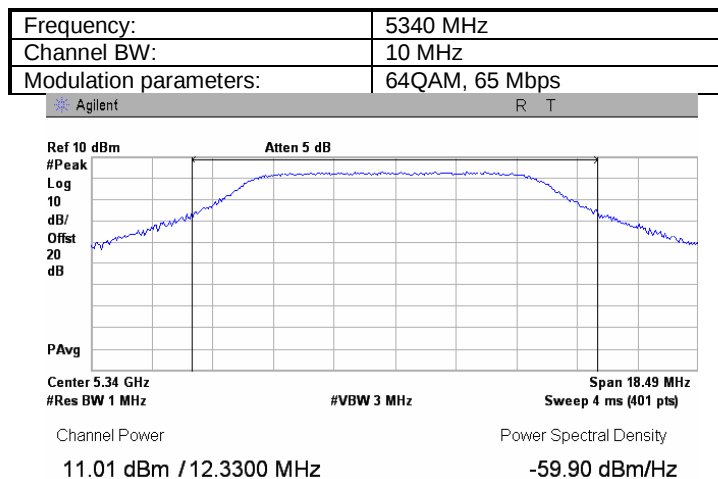


Plot 7.1.220 The 26 dB emission bandwidth

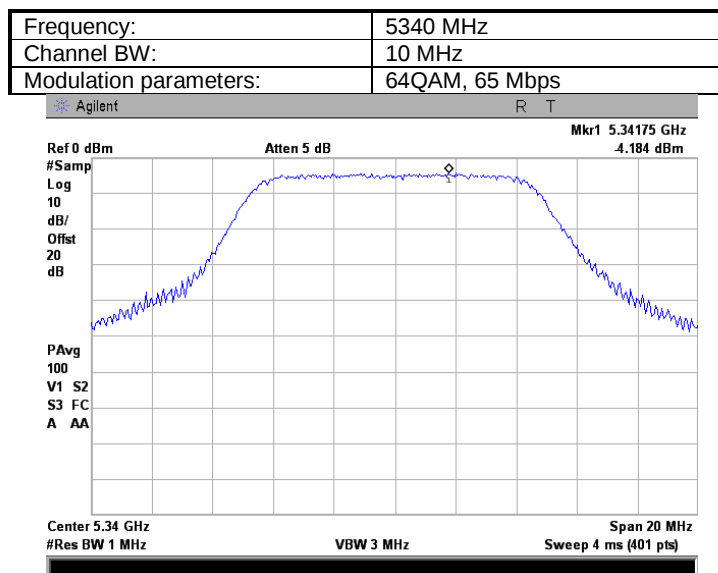


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.221 Peak output power

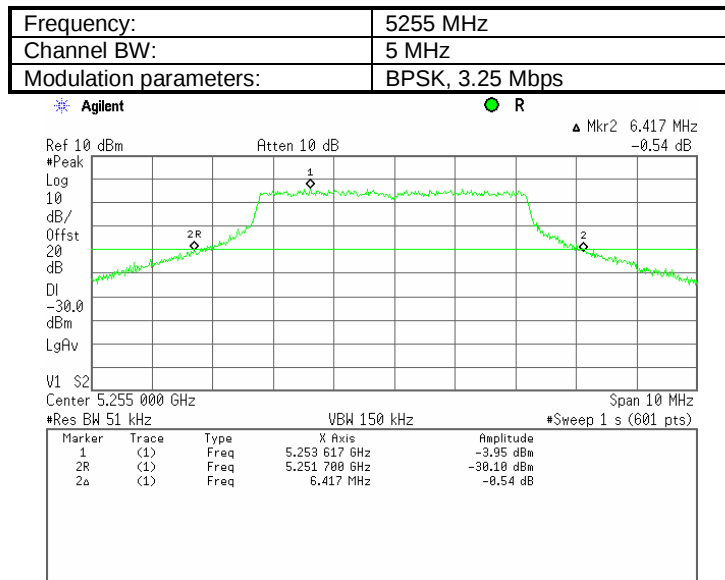


Plot 7.1.222 Peak spectral power density

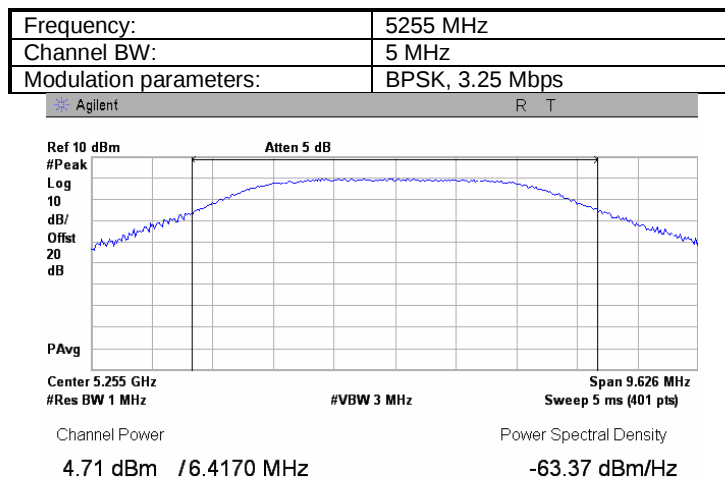


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.223 The 26 dB emission bandwidth

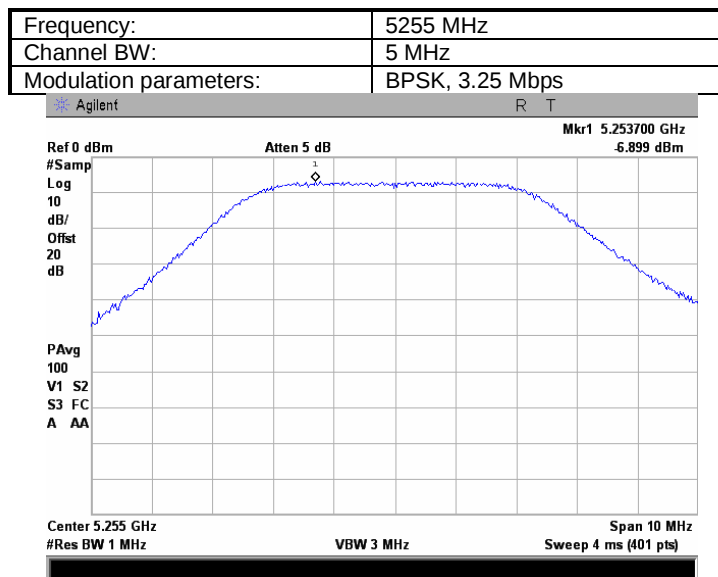


Plot 7.1.224 Peak output power

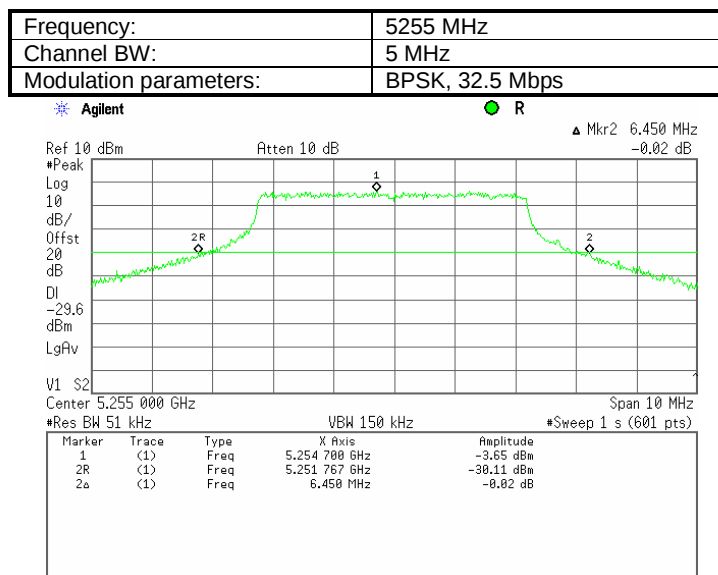


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.225 Peak spectral power density

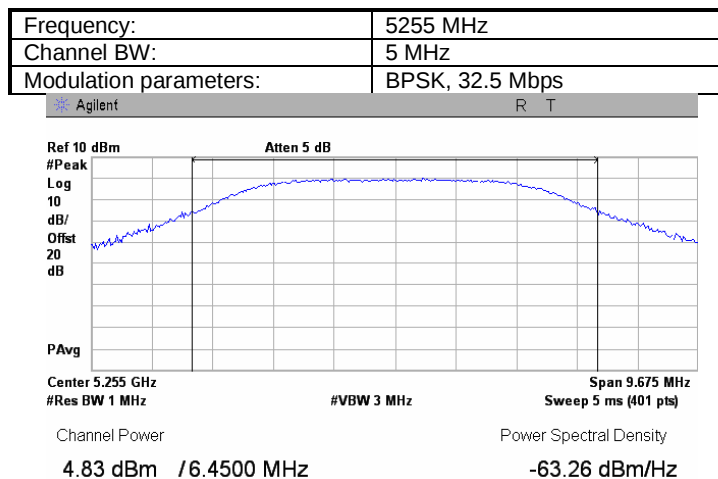


Plot 7.1.226 The 26 dB emission bandwidth

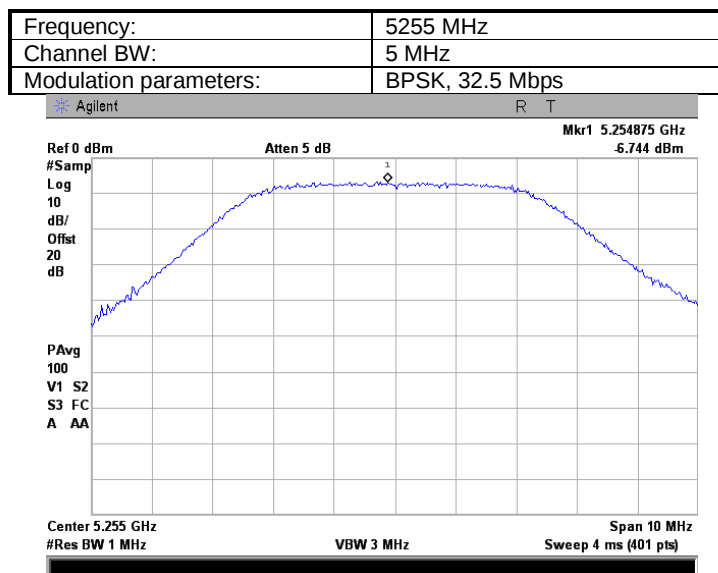


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.227 Peak output power

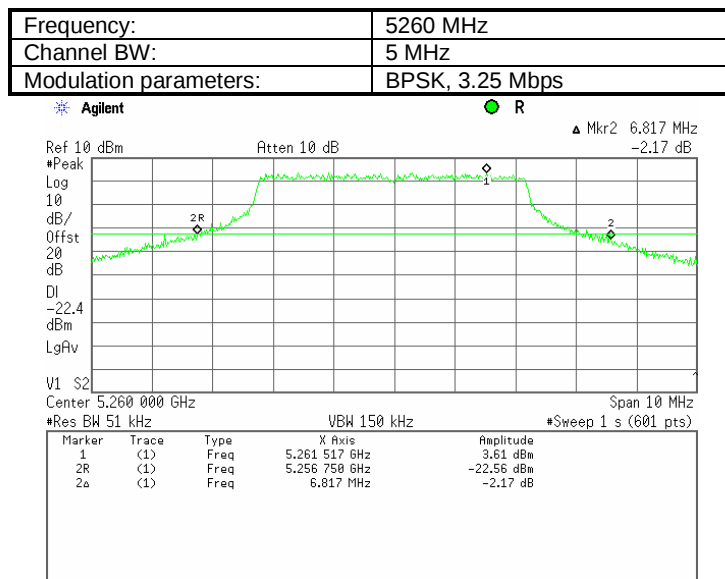


Plot 7.1.228 Peak spectral power density

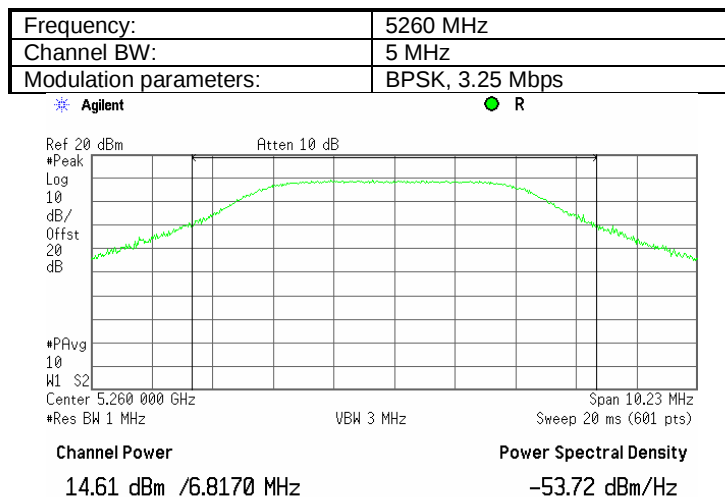


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.229 The 26 dB emission bandwidth

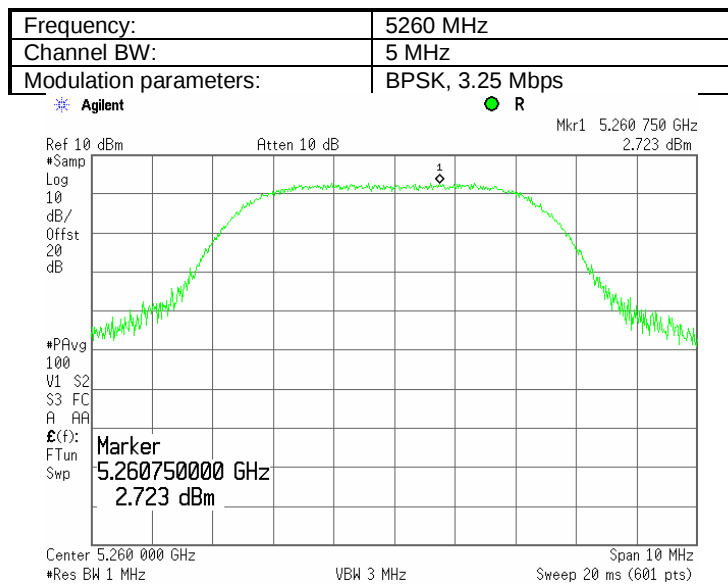


Plot 7.1.230 Peak output power

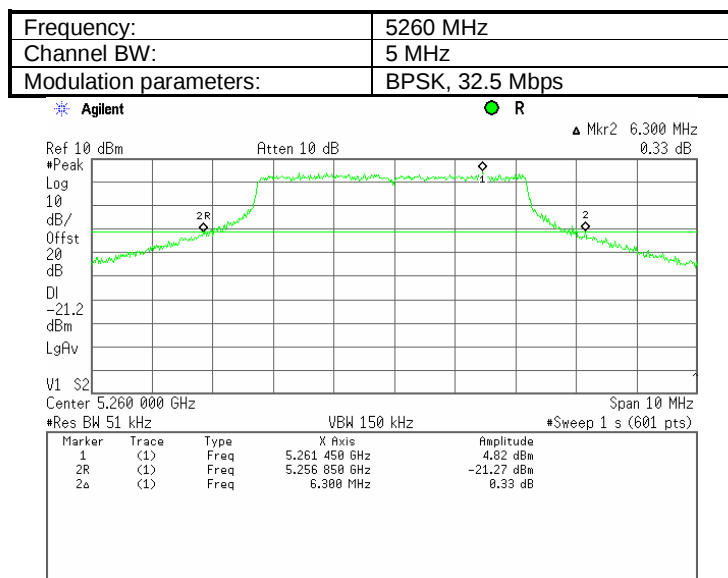


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.231 Peak spectral power density



Plot 7.1.232 The 26 dB emission bandwidth



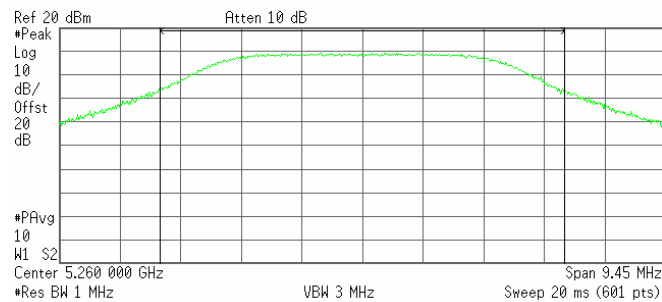
Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.233 Peak output power

Frequency:	5260 MHz
Channel BW:	5 MHz
Modulation parameters:	BPSK, 32.5 Mbps

* Agilent

R



Channel Power

14.85 dBm /6.3000 MHz

Power Spectral Density

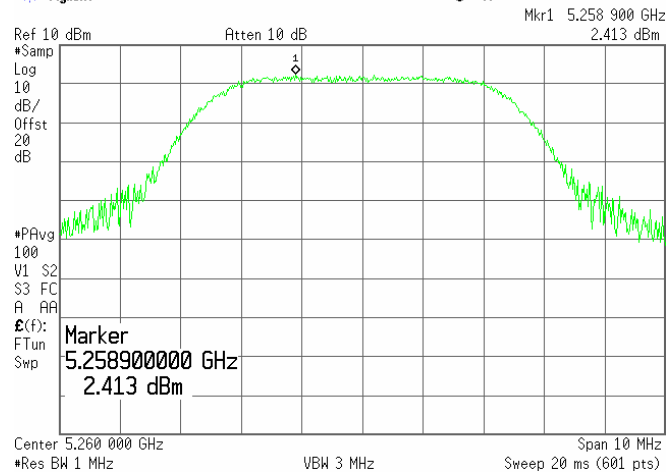
-53.14 dBm/Hz

Plot 7.1.234 Peak spectral power density

Frequency:	5260 MHz
Channel BW:	5 MHz
Modulation parameters:	BPSK, 32.5 Mbps

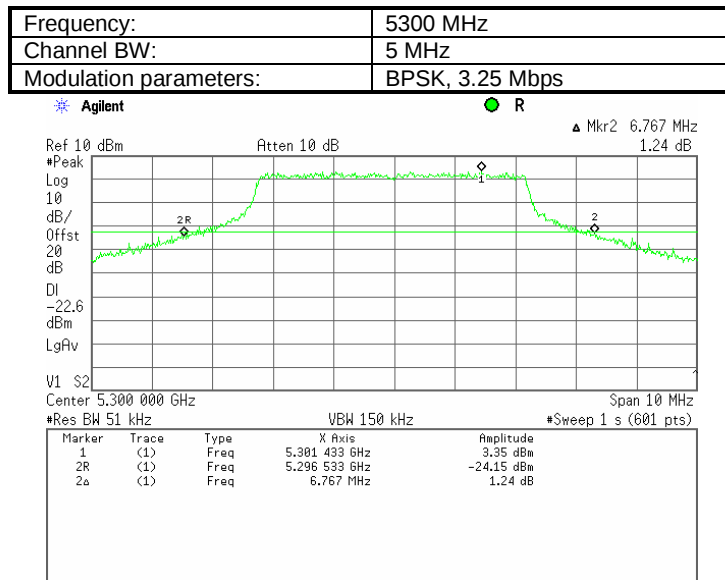
* Agilent

R

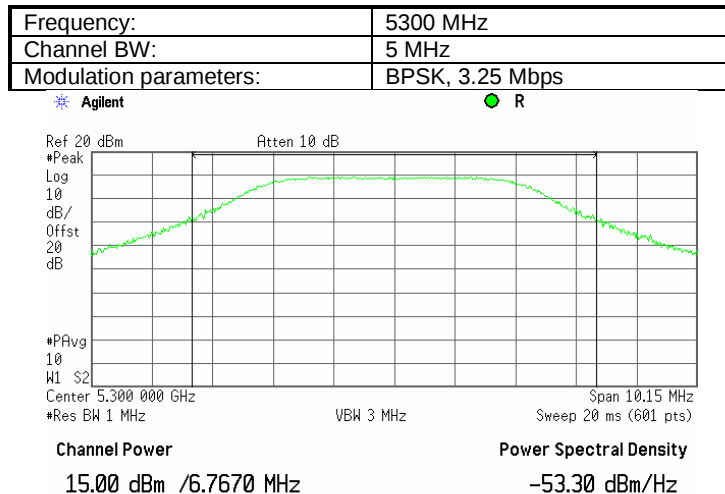


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.235 The 26 dB emission bandwidth

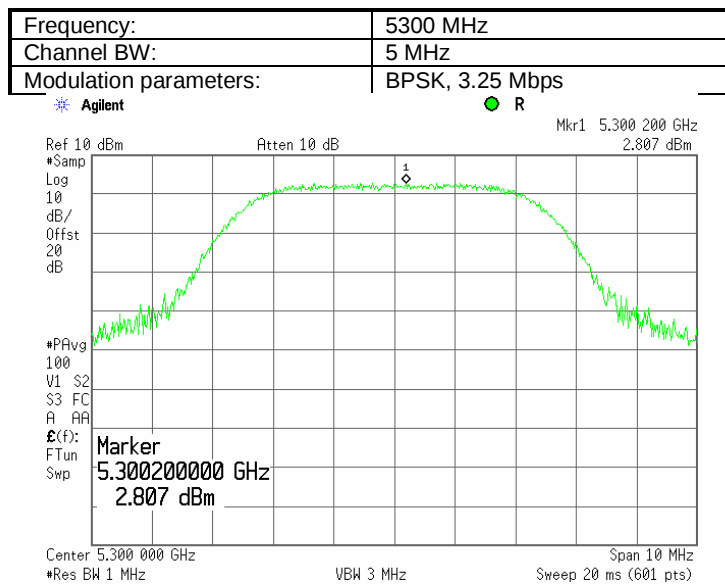


Plot 7.1.236 Peak output power

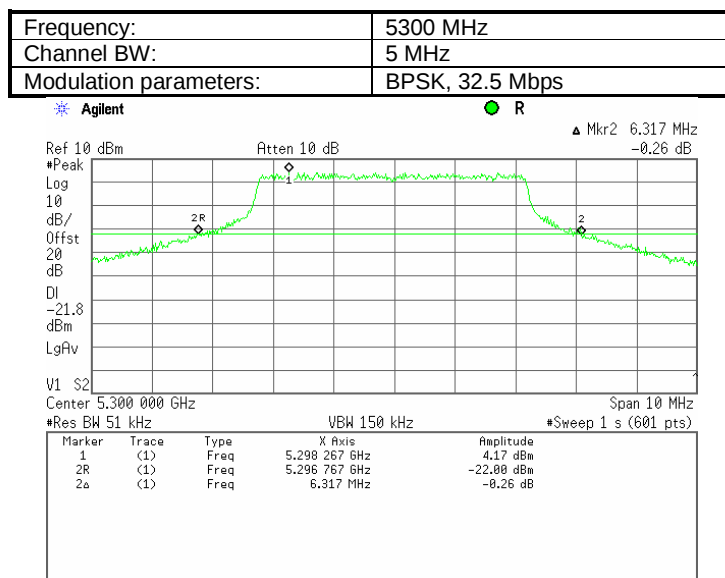


Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.237 Peak spectral power density

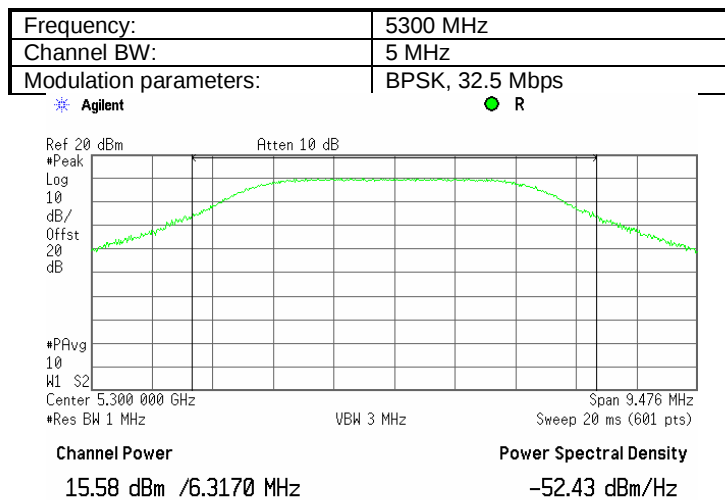


Plot 7.1.238 The 26 dB emission bandwidth

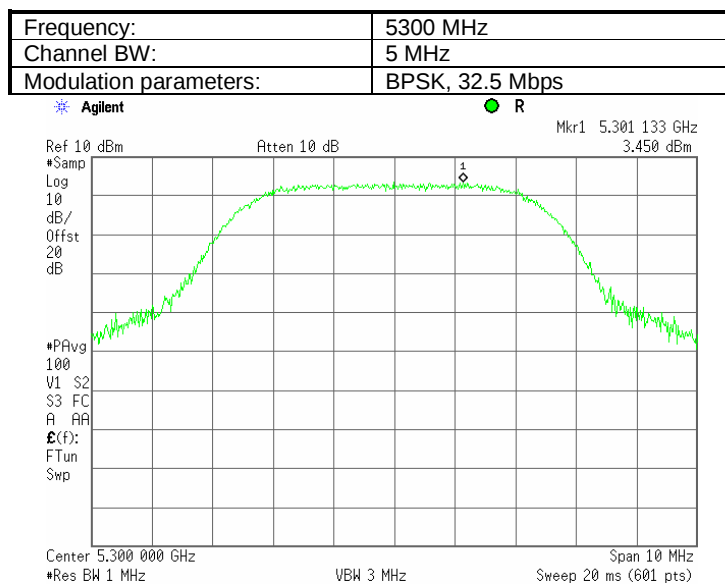


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.239 Peak output power

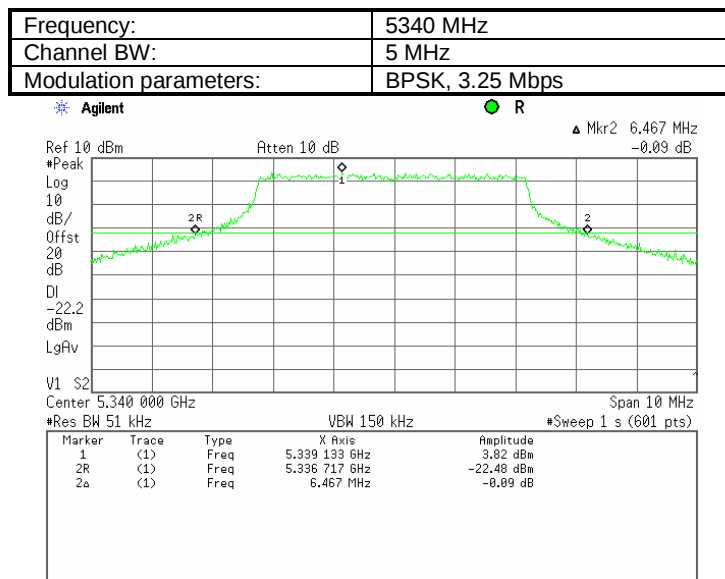


Plot 7.1.240 Peak spectral power density

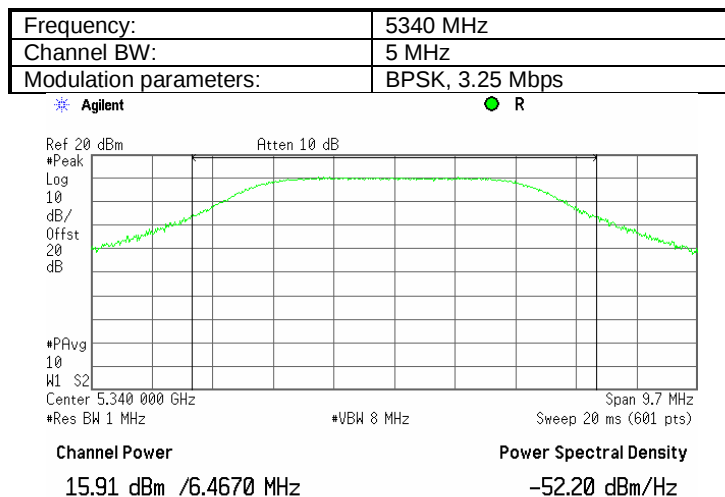


Test specification:	FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.241 The 26 dB emission bandwidth

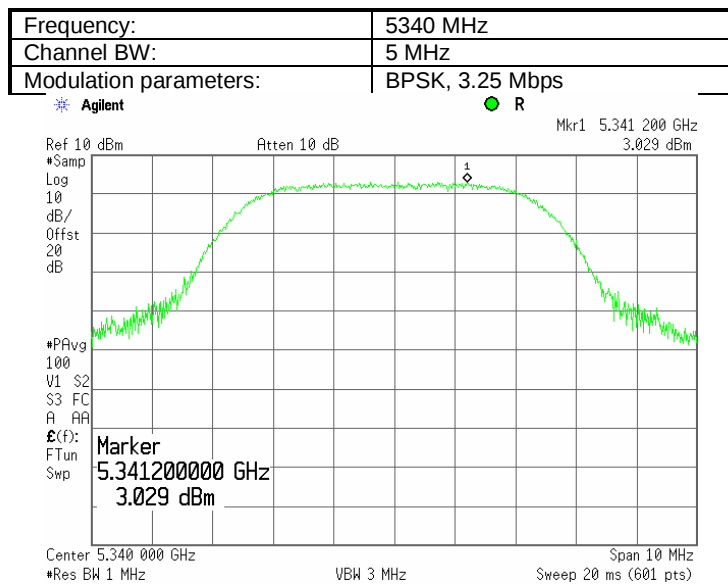


Plot 7.1.242 Peak output power

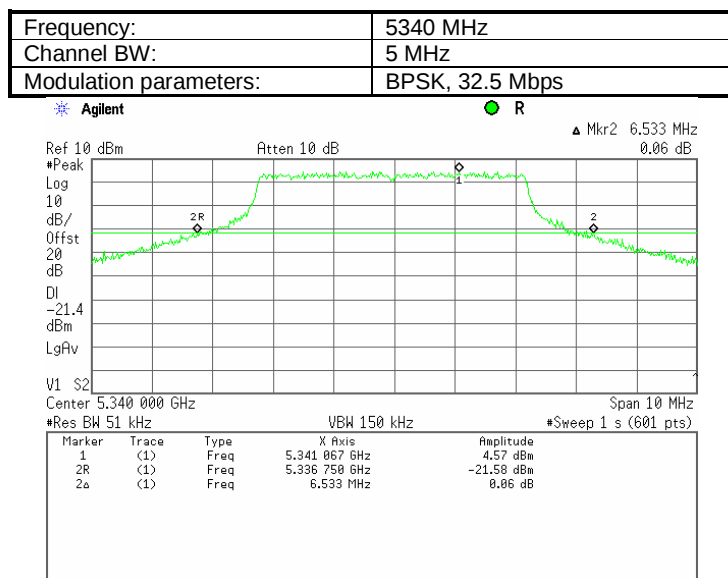


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.243 Peak spectral power density

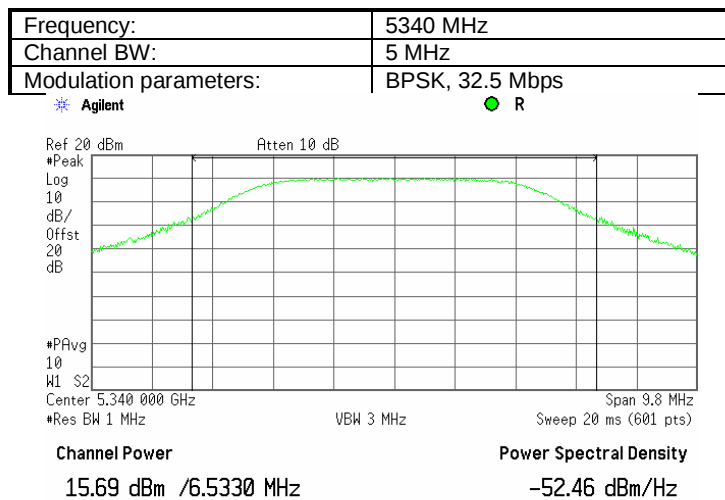


Plot 7.1.244 The 26 dB emission bandwidth

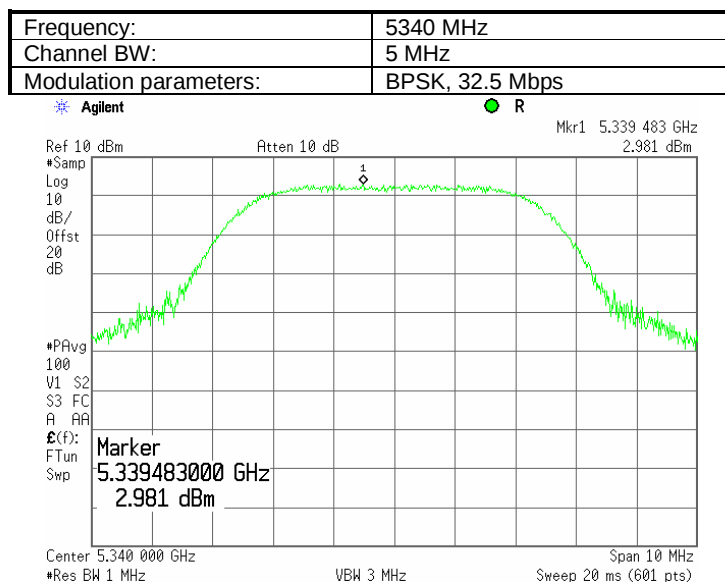


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.245 Peak output power

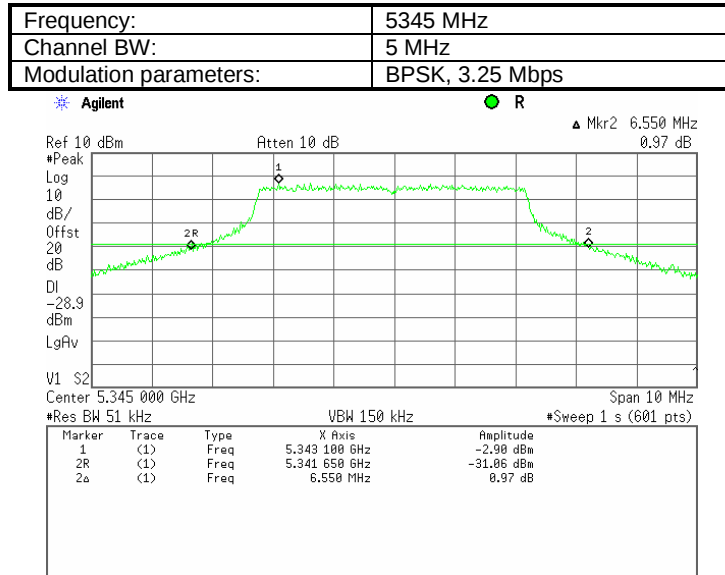


Plot 7.1.246 Peak spectral power density

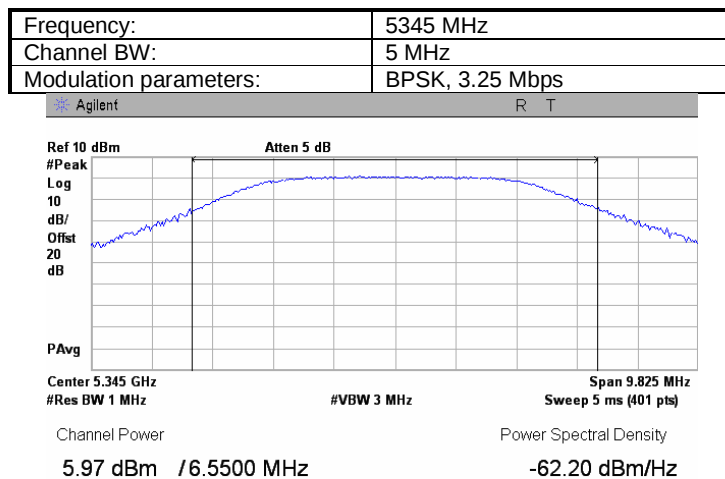


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.247 The 26 dB emission bandwidth

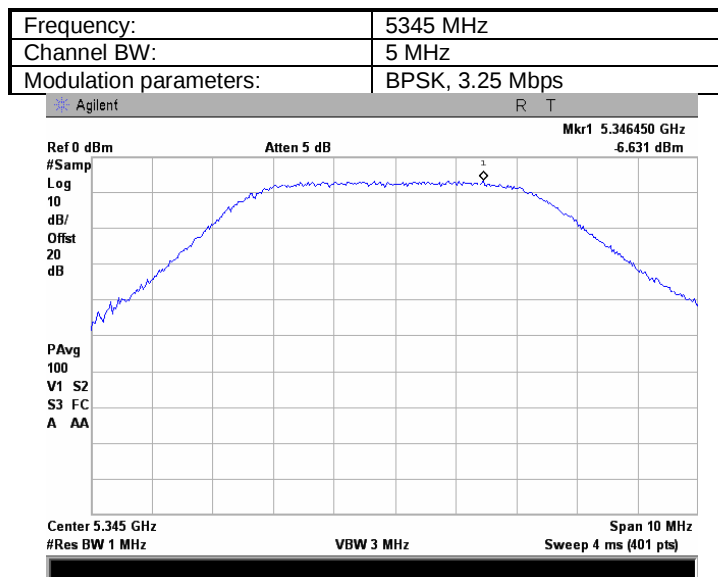


Plot 7.1.248 Peak output power

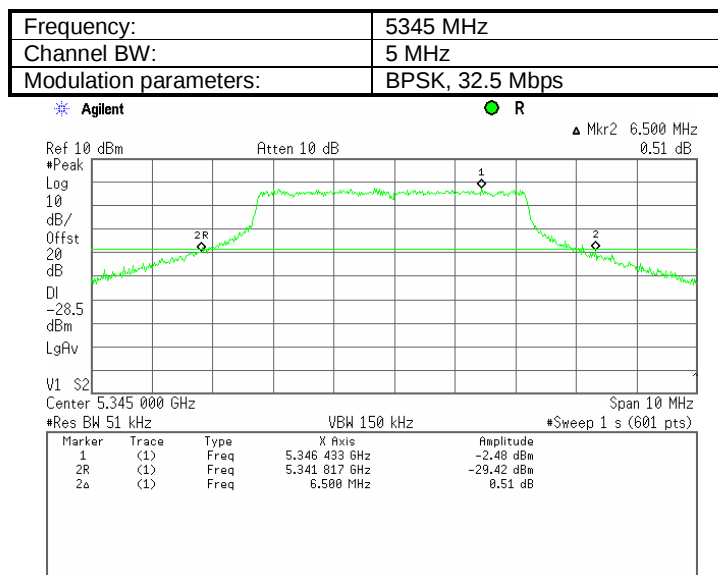


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:	Compliance	Verdict:	PASS
Date:	12/14/2009		
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.249 Peak spectral power density

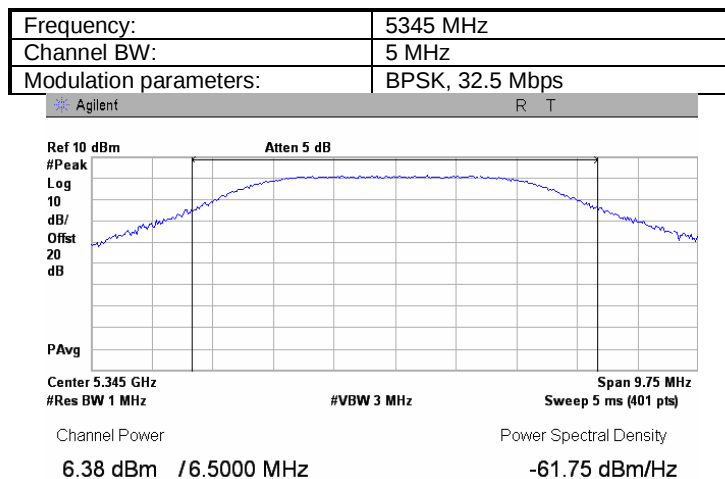


Plot 7.1.250 The 26 dB emission bandwidth

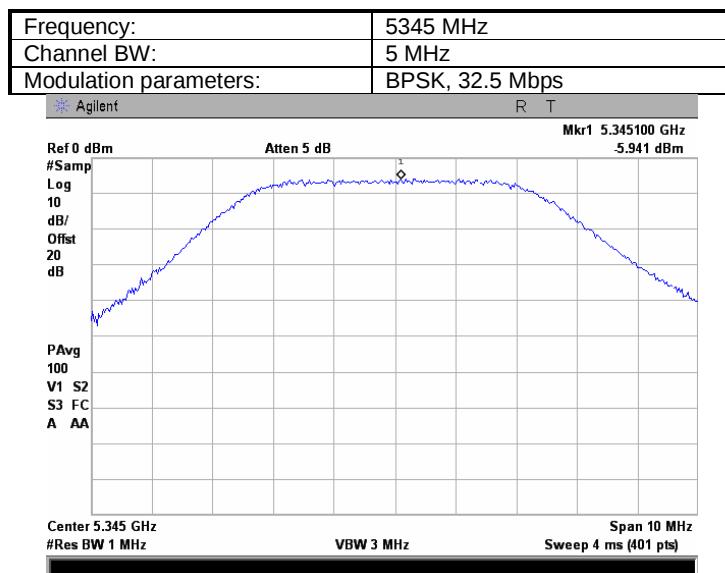


Test specification:		FCC section 15. 407(a)(1-3), RSS-210 Annex 9, section A9.2 Peak output power and peak power spectral density	
Test procedure:		FCC Public Notice DA 02-2138, Appendix A	
Test mode:		Compliance	Verdict: PASS
Date:		12/14/2009	
Temperature: 23 °C	Air Pressure: 1013 hPa	Relative Humidity: 43 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.1.251 Peak output power



Plot 7.1.252 Peak spectral power density



Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks:			

7.2 Ratio of the peak excursion of the modulation envelope to the peak transmit power

7.2.1 General

This test was performed to measure the ratio of the peak excursion of the modulation envelope to the peak transmit power at RF antenna connector. Specification test limits are given in Table 7.2.1.

Table 7.2.1 Peak excursion limits

Assigned frequency, MHz	Maximum peak excursion, dB/MHz
5250 - 5350	13.0

7.2.2 Test procedure

7.2.2.1 The EUT was set up as shown in Figure 7.2.1, energized and its proper operation was checked.

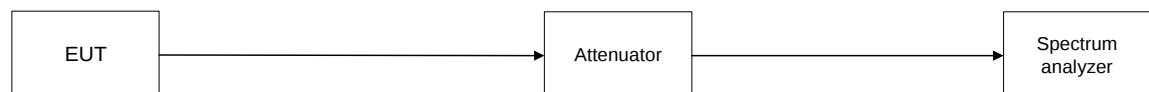
7.2.2.2 The EUT was adjusted to produce maximum available to end user RF output power.

7.2.2.3 The measurements were performed in continuous transmission mode of operation for carrier (channel) frequency at low and high edges and at the middle of the frequency range.

The maximum peak excursion of modulation envelope was measured as a difference between 2 traces.

7.2.2.4 The test results were recorded in Table 7.2.2 to Table 7.2.7 and shown in the associated plots.

Figure 7.2.1 Ratio of peak excursion test setup



Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict: PASS	
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Table 7.2.2 Ratio of peak excursion test results

OPERATING FREQUENCY RANGE: 5275-5325 MHz
DETECTOR USED: 1-st trace : Peak, Max Hold
2-nd trace : Peak, 100 Power Averaging
TRANSMITTER OUTPUT POWER: Maximum
RESOLUTION BANDWIDTH: 1 MHz
VIDEO BANDWIDTH: 3 MHz
EMISSION BANDWIDTH 40 MHz

Frequency, MHz	Bit Rate, MBps	1-st trace, dBm	2-nd trace, dBm	Peak excursion, dB	Limit, dB	Margin, dB	Verdict
Low channel Band Edge							
5275	27	1.77	-3.04	4.81	13.0	-8.19	Pass
5275	270	1.15	-3.68	4.83	13.0	-8.17	Pass
Low channel In-Band							
5285	27	10.00	5.95	4.05	13.0	-8.95	Pass
5285	270	10.00	5.80	4.20	13.0	-8.80	Pass
Mid channel							
5300	27	10.03	6.07	3.96	13.0	-9.04	Pass
5300	270	10.15	6.03	4.12	13.0	-8.88	Pass
High channel In-Band							
5315	27	10.27	6.46	3.81	13.0	-9.19	Pass
5315	270	10.19	5.83	4.36	13.0	-8.64	Pass
High channel Band Edge							
5325	27	1.80	-2.61	4.41	13.0	-8.59	Pass
5325	270	2.27	-2.75	5.02	13.0	-7.98	Pass

Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict: PASS	
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Table 7.2.3 Ratio of peak excursion test results

OPERATING FREQUENCY RANGE: 5265-5335 MHz
DETECTOR USED: 1-st trace : Peak, Max Hold
2-nd trace : Peak, 100 Power Averaging
TRANSMITTER OUTPUT POWER: Maximum
RESOLUTION BANDWIDTH: 1 MHz
VIDEO BANDWIDTH: 3 MHz
EMISSION BANDWIDTH: 20 MHz

Frequency, MHz	Bit Rate, MBps	1-st trace, dBm	2-nd trace, dBm	Peak excursion, dB	Limit, dB	Margin, dB	Verdict
Low channel Band Edge							
5265	13	3.86	-0.73	4.59	13.0	-8.41	Pass
5265	130	3.93	-1.74	5.67	13.0	-7.33	Pass
Low channel In-Band							
5275	13	12.6	8.61	3.99	13	-9.01	Pass
5275	130	13.46	9.1	4.36	13	-8.64	Pass
Mid channel							
5300	13	13.8	9.79	4.01	13	-8.99	Pass
5300	130	13.39	9.53	3.86	13	-9.14	Pass
High channel In-Band							
5325	13	13.77	9.81	3.96	13	-9.04	Pass
5325	130	13.53	9.25	4.28	13	-8.72	Pass
High channel Band Edge							
5335	13	4.59	-0.09	4.68	13.0	-8.32	Pass
5335	130	5.14	0.11	5.03	13.0	-7.97	Pass

Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict: PASS	
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Table 7.2.4 Ratio of peak excursion test results

OPERATING FREQUENCY RANGE: 5260-5340 MHz
DETECTOR USED: 1-st trace : Peak, Max Hold
2-nd trace : Peak, 100 Power Averaging
TRANSMITTER OUTPUT POWER: Maximum
RESOLUTION BANDWIDTH: 1 MHz
VIDEO BANDWIDTH: 3 MHz
EMISSION BANDWIDTH: 10 MHz

Frequency, MHz	Bit Rate, MBps	1-st trace, dBm	2-nd trace, dBm	Peak excursion, dB	Limit, dB	Margin, dB	Verdict
Low channel Band Edge							
5260	6.5	7.08	2.12	4.96	13.0	-8.04	Pass
5260	65	6.36	1.37	4.99	13.0	-8.01	Pass
Low channel In-Band							
5265	6.5	13.33	9.36	3.97	13.0	-9.03	Pass
5265	65	12.92	8.77	4.15	13.0	-8.85	Pass
Mid channel							
5300	6.5	13.72	9.34	4.38	13.0	-8.62	Pass
5300	65	13.47	9.75	3.72	13.0	-9.28	Pass
High channel In-Band							
5335	6.5	14.09	10.06	4.03	13.0	-8.97	Pass
5335	65	12.69	9.53	3.16	13.0	-9.84	Pass
High channel Band Edge							
5340	6.5	6.81	1.53	5.28	13.0	-7.72	Pass
5340	65	7.33	2.52	4.81	13.0	-8.19	Pass

Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict: PASS	
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Table 7.2.5 Ratio of peak excursion test results

OPERATING FREQUENCY RANGE: 5255-5345 MHz
DETECTOR USED: 1-st trace : Peak, Max Hold
2-nd trace : Peak, 100 Power Averaging
TRANSMITTER OUTPUT POWER: Maximum
RESOLUTION BANDWIDTH: 1 MHz
VIDEO BANDWIDTH: 3 MHz
EMISSION BANDWIDTH: 5 MHz

Frequency, MHz	Bit Rate, MBps	1-st trace, dBm	2-nd trace, dBm	Peak excursion, dB	Limit, dB	Margin, dB	Verdict
Low channel Band Edge							
5255	3.25	4.05	-1.20	5.25	13.0	-7.75	Pass
5255	32.5	4.08	-0.77	4.85	13.0	-8.15	Pass
Low channel In-Band							
5260	3.25	12.86	8.53	4.33	13.0	-8.67	Pass
5260	32.5	12.71	8.24	4.47	13.0	-8.53	Pass
Mid channel							
5300	3.25	13.29	9.47	3.82	13.0	-9.18	Pass
5300	32.5	13.05	8.97	4.08	13.0	-8.92	Pass
High channel In-Band							
5340	3.25	13.07	9.29	3.78	13.0	-9.22	Pass
5340	32.5	13.38	8.76	4.62	13.0	-8.38	Pass
High channel Band Edge							
5345	3.25	4.15	-1.21	5.36	13.0	-7.64	Pass
5345	32.5	4.12	-0.86	4.98	13.0	-8.02	Pass

Reference numbers of test equipment used

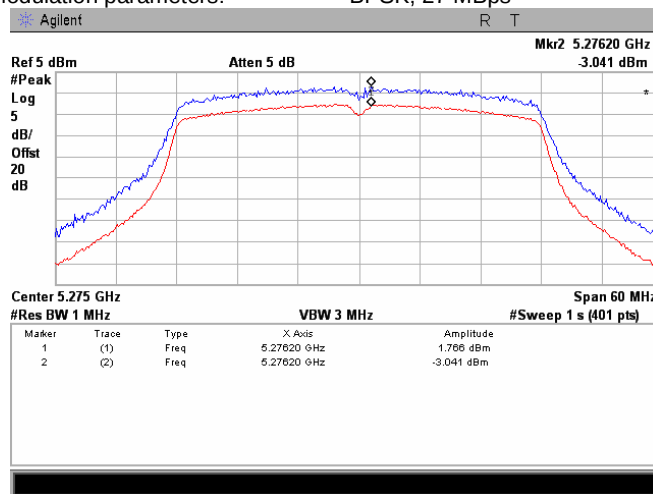
HL 2952	HL 3435	HL 3437	HL 3818				
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Full description is given in Appendix A.

Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

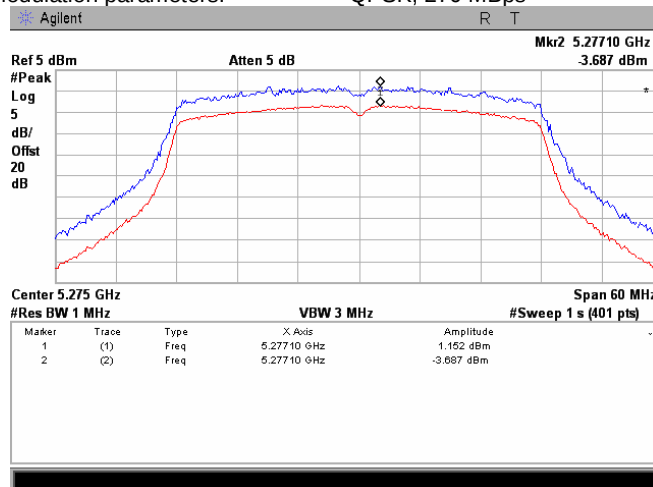
Plot.7.2.1 Peak excursion measurement

Frequency: 5275 MHz
Channel BW: 40 MHz
Modulation parameters: BPSK; 27 MBps



Plot.7.2.2 Peak excursion measurement

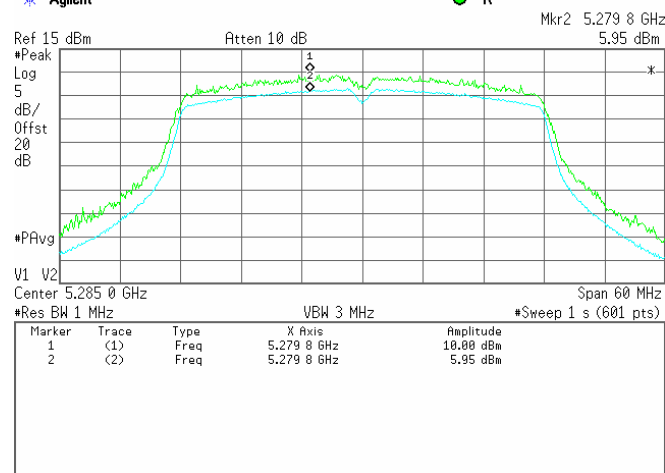
Frequency: 5275 MHz
Channel BW: 40 MHz
Modulation parameters: QPSK; 270 MBps



Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

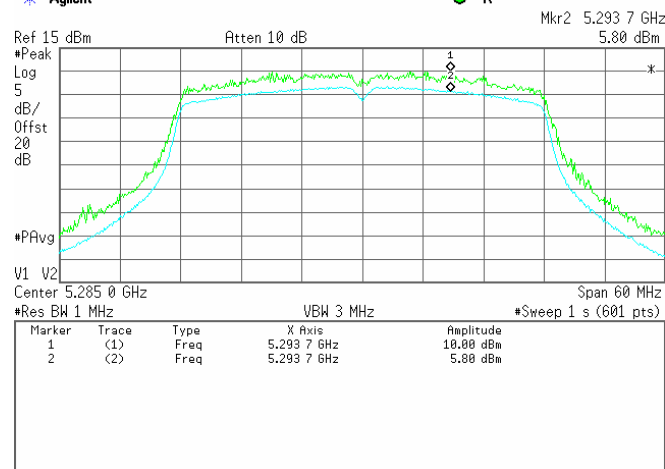
Plot.7.2.3 Peak excursion measurement

Frequency: 5285 MHz
Channel BW: 40 MHz
Modulation parameters: BPSK; 27 MBps
* Agilent R



Plot.7.2.4 Peak excursion measurement

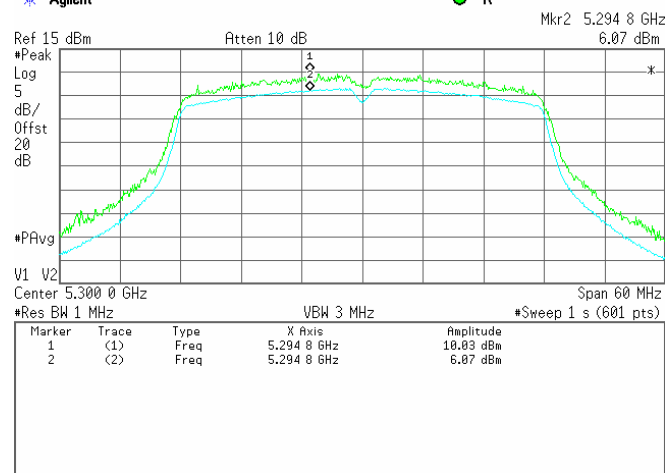
Frequency: 5285 MHz
Channel BW: 40 MHz
Modulation parameters: QPSK; 270 MBps
* Agilent R



Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

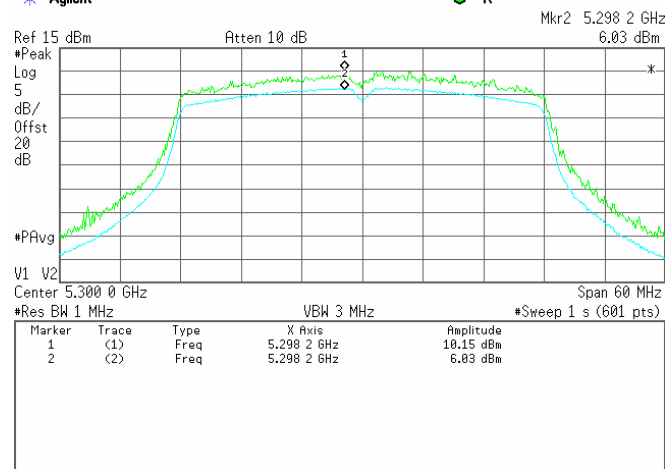
Plot.7.2.5 Peak excursion measurement

Frequency: 5300 MHz
Channel BW: 40 MHz
Modulation parameters: BPSK; 27 MBps
* Agilent R



Plot.7.2.6 Peak excursion measurement

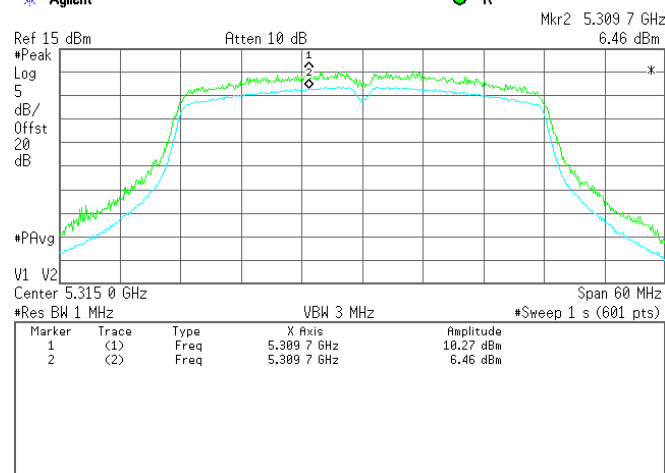
Frequency: 5300 MHz
Channel BW: 40 MHz
Modulation parameters: QPSK; 270 MBps
* Agilent R



Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

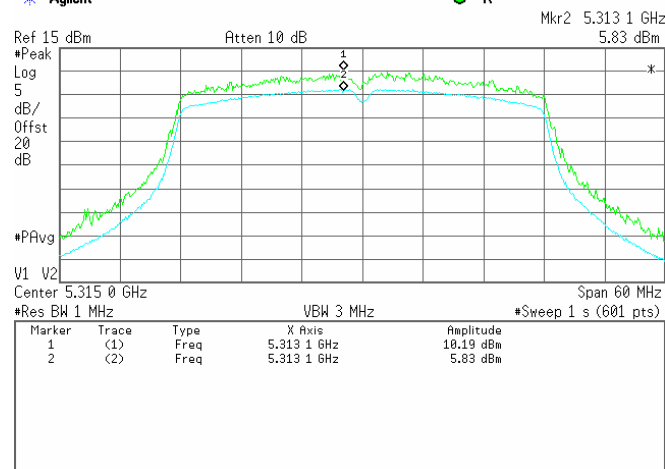
Plot.7.2.7 Peak excursion measurement

Frequency: 5315 MHz
Channel BW: 40 MHz
Modulation parameters: BPSK; 27 MBps
* Agilent R



Plot.7.2.8 Peak excursion measurement

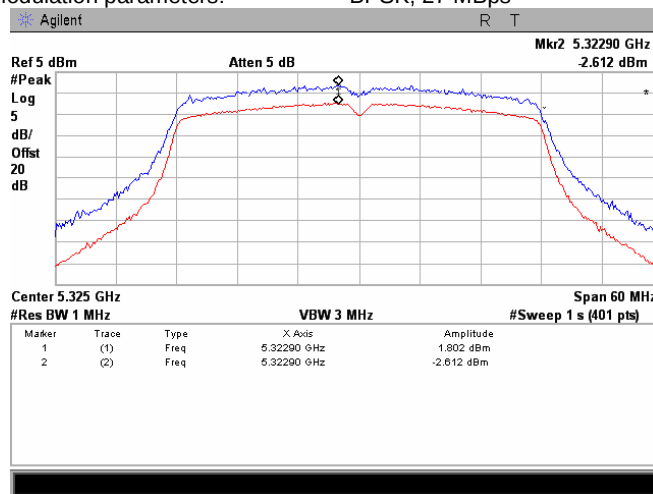
Frequency: 5315 MHz
Channel BW: 40 MHz
Modulation parameters: QPSK; 270 MBps
* Agilent R



Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

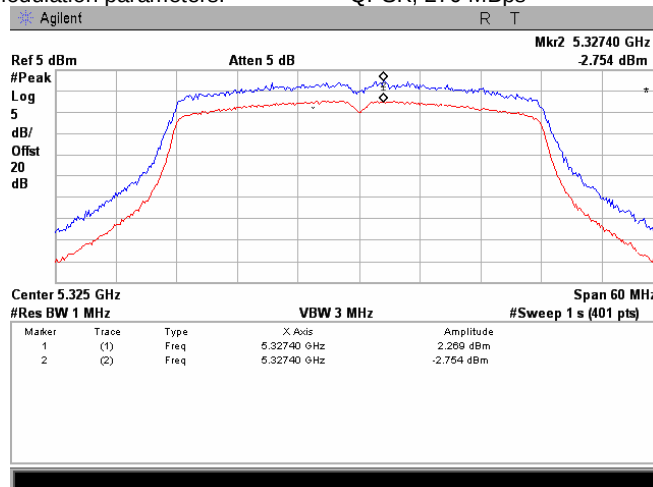
Plot.7.2.9 Peak excursion measurement

Frequency: 5325 MHz
Channel BW: 40 MHz
Modulation parameters: BPSK; 27 MBps



Plot.7.2.10 Peak excursion measurement

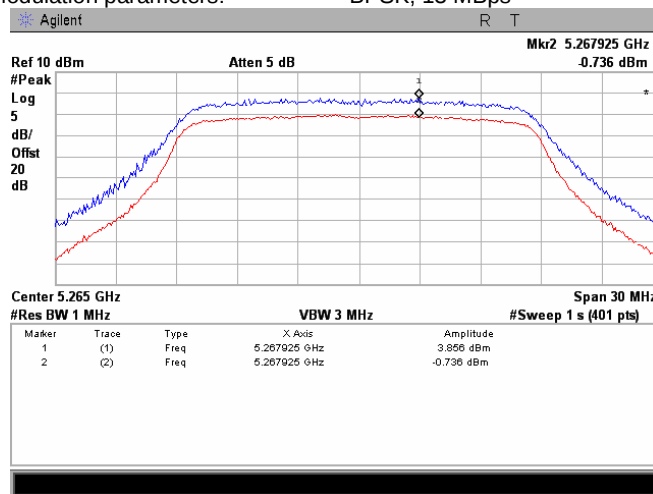
Frequency: 5325 MHz
Channel BW: 40 MHz
Modulation parameters: QPSK; 270 MBps



Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

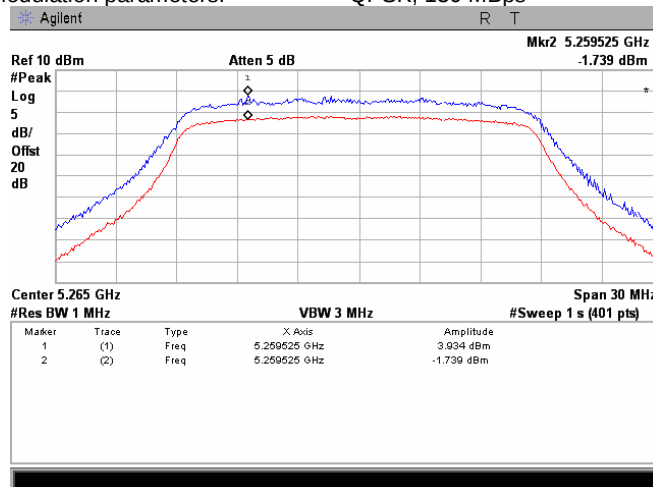
Plot.7.2.11 Peak excursion measurement

Frequency: 5265 MHz
Channel BW: 20 MHz
Modulation parameters: BPSK; 13 MBps



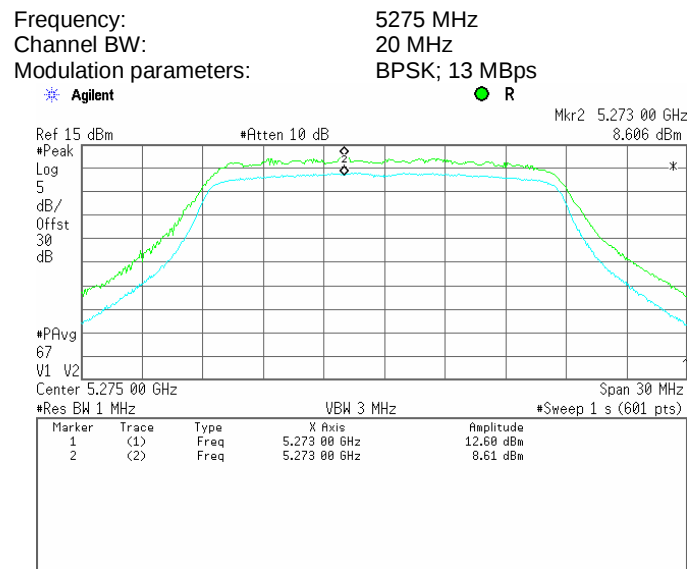
Plot.7.2.12 Peak excursion measurement

Frequency: 5265 MHz
Channel BW: 20 MHz
Modulation parameters: QPSK; 130 MBps

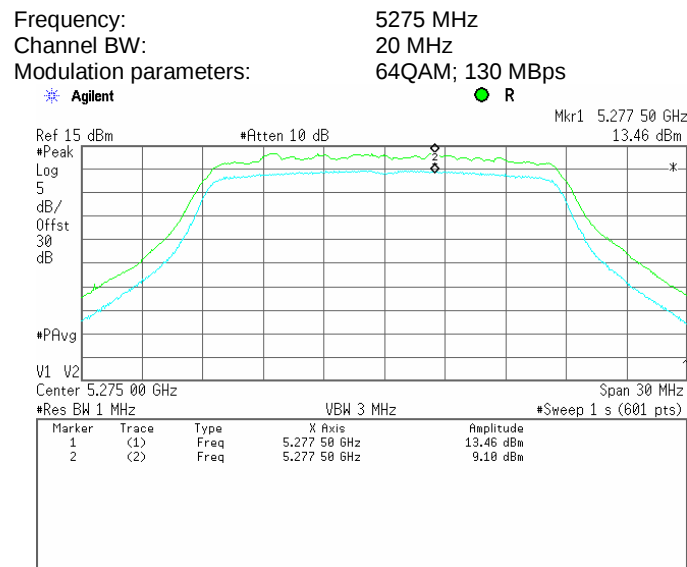


Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot.7.2.13 Peak excursion measurement

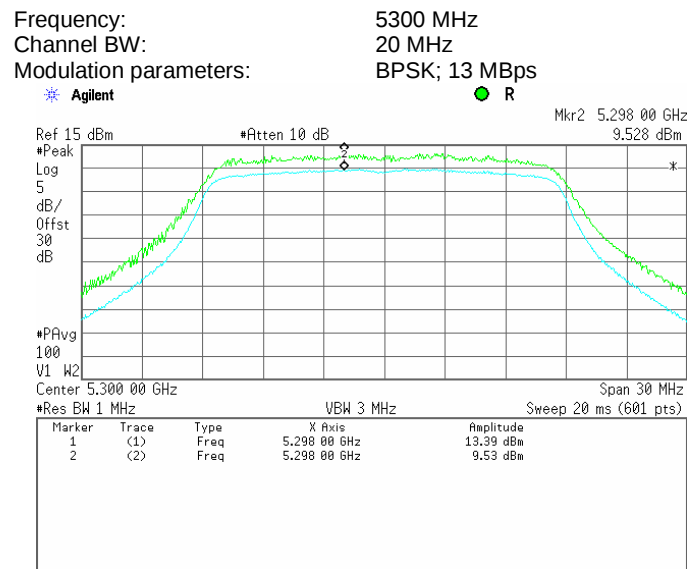


Plot.7.2.14 Peak excursion measurement

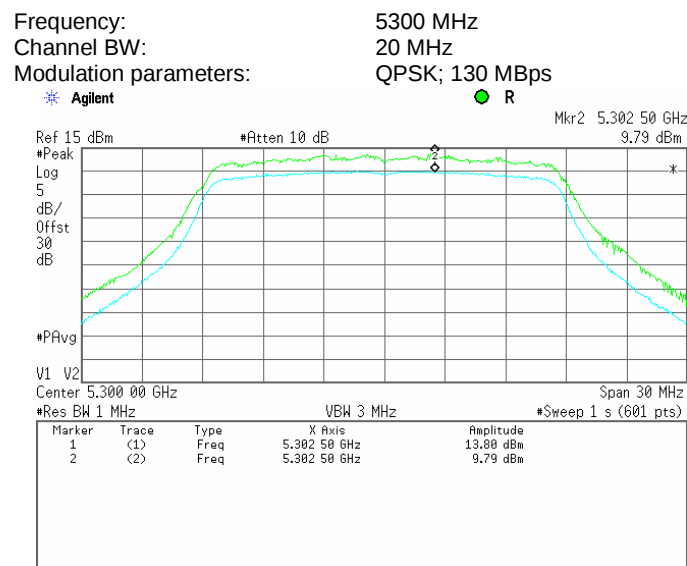


Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot.7.2.15 Peak excursion measurement

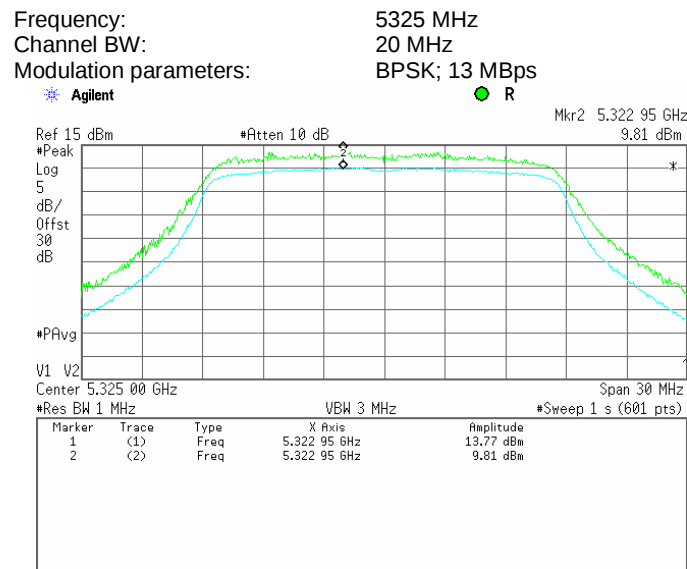


Plot.7.2.16 Peak excursion measurement

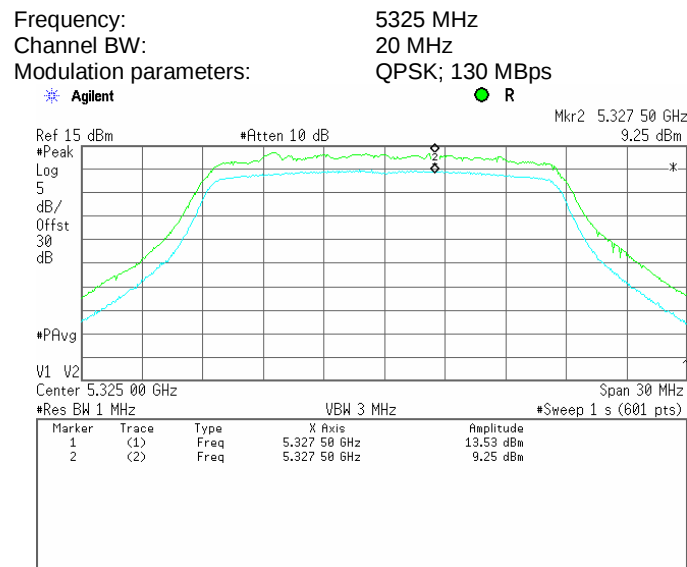


Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot.7.2.17 Peak excursion measurement



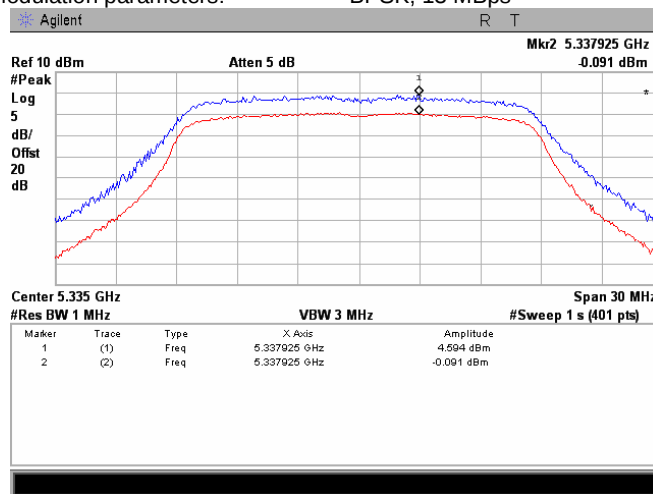
Plot.7.2.18 Peak excursion measurement



Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

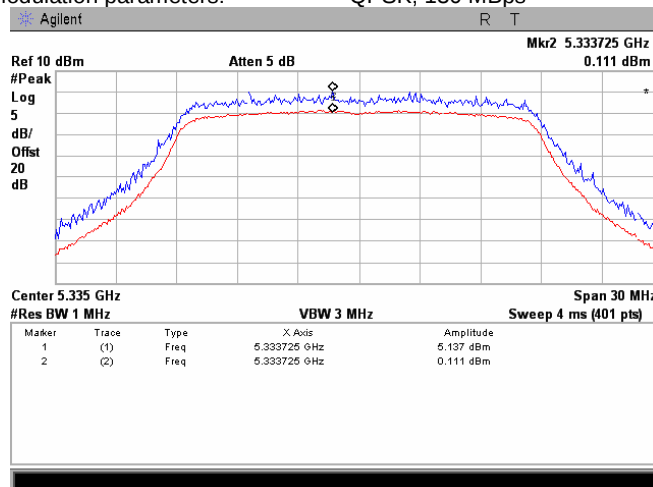
Plot.7.2.19 Peak excursion measurement

Frequency: 5335 MHz
Channel BW: 20 MHz
Modulation parameters: BPSK; 13 MBps



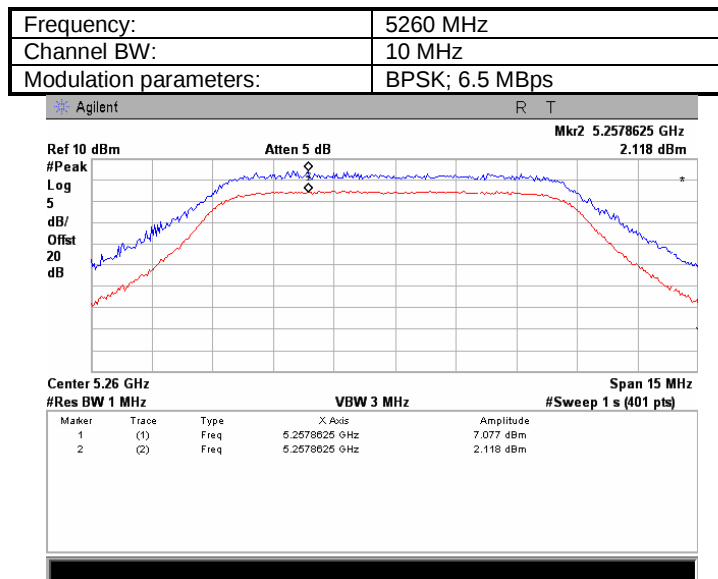
Plot.7.2.20 Peak excursion measurement

Frequency: 5335 MHz
Channel BW: 20 MHz
Modulation parameters: QPSK; 130 MBps

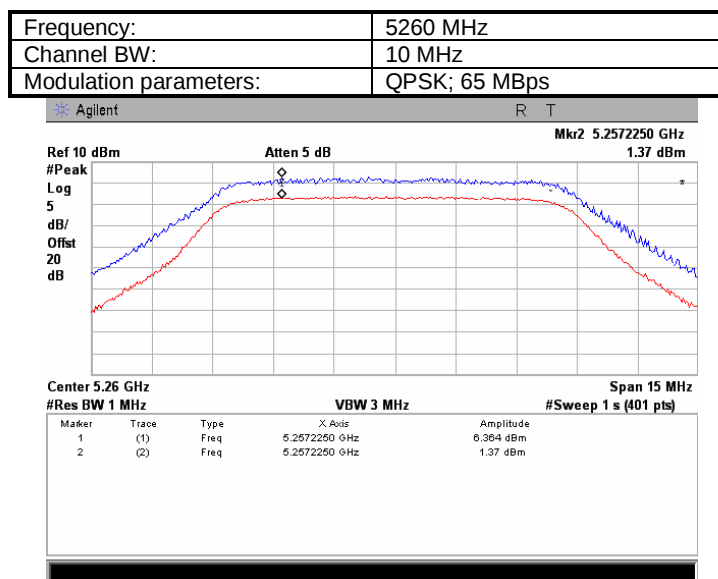


Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.2.21 Peak excursion measurement

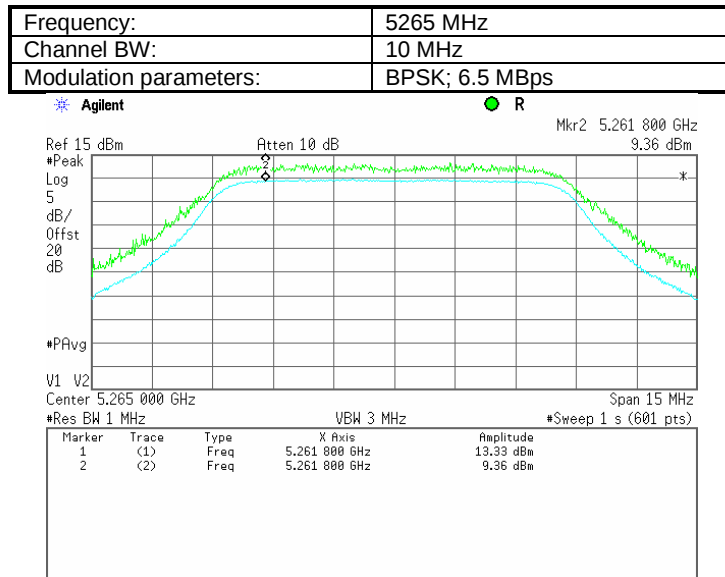


Plot 7.2.22 Peak excursion measurement

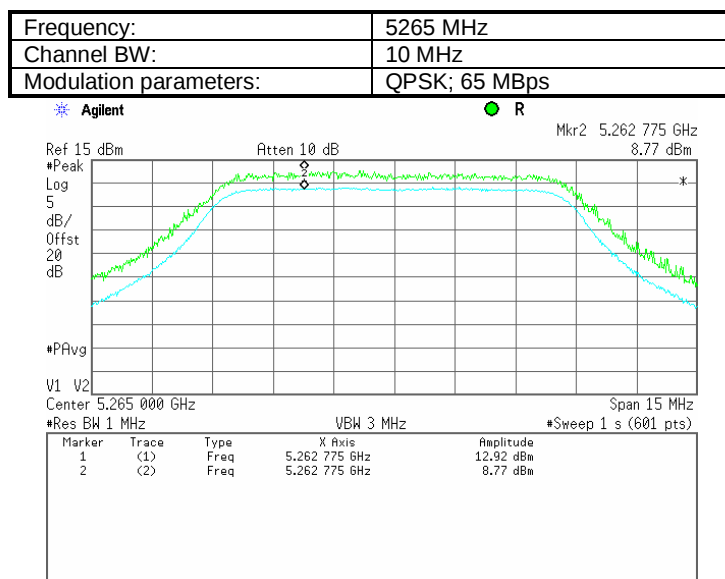


Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.2.23 Peak excursion measurement

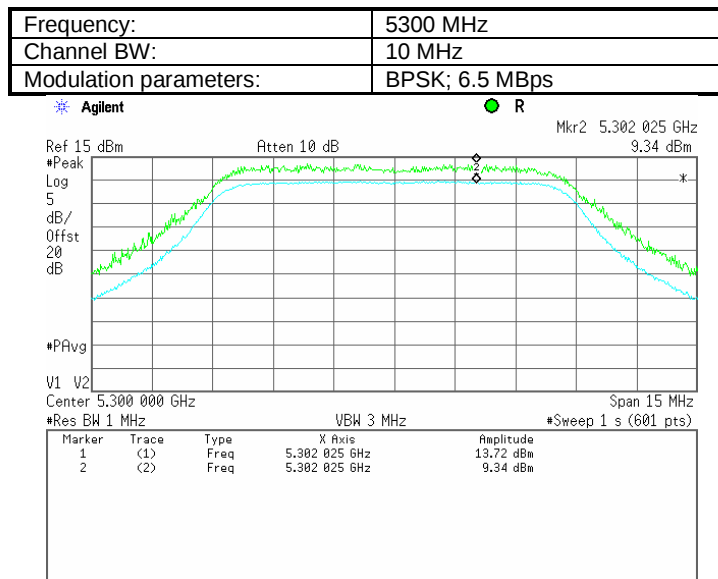


Plot 7.2.24 Peak excursion measurement

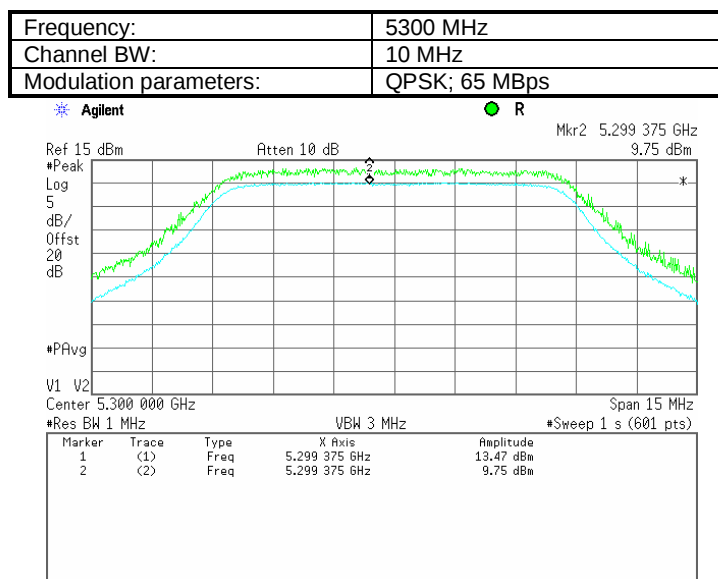


Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.2.25 Peak excursion measurement

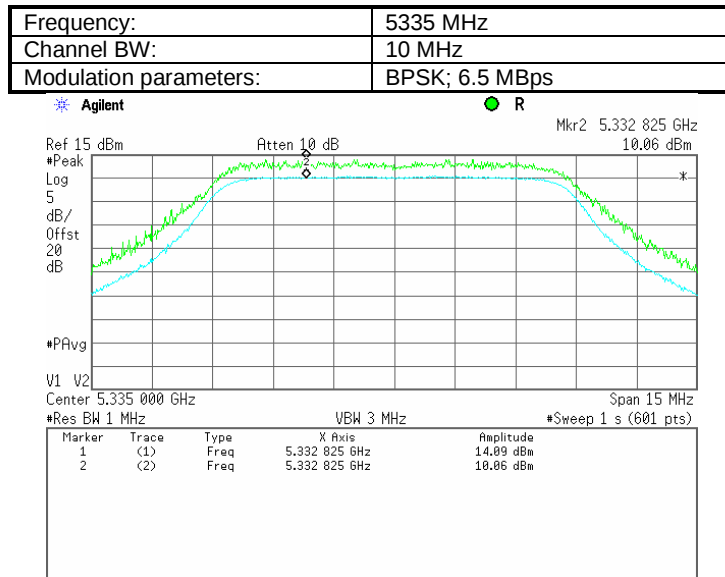


Plot 7.2.26 Peak excursion measurement

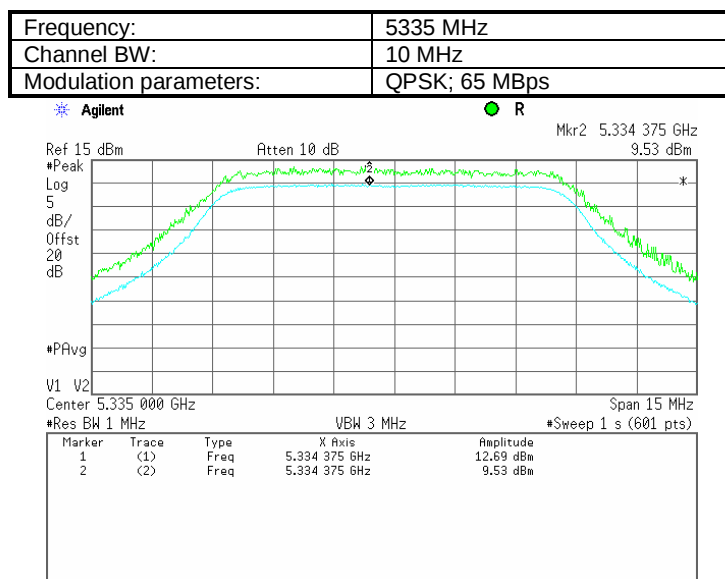


Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.2.27 Peak excursion measurement

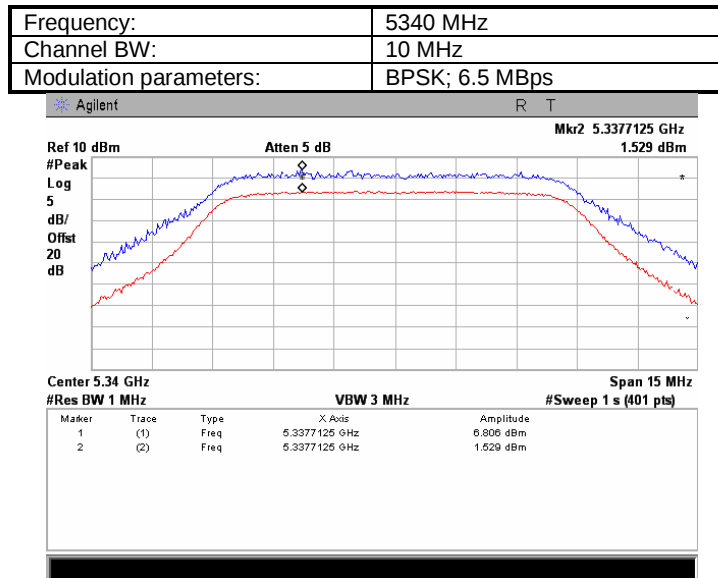


Plot 7.2.28 Peak excursion measurement

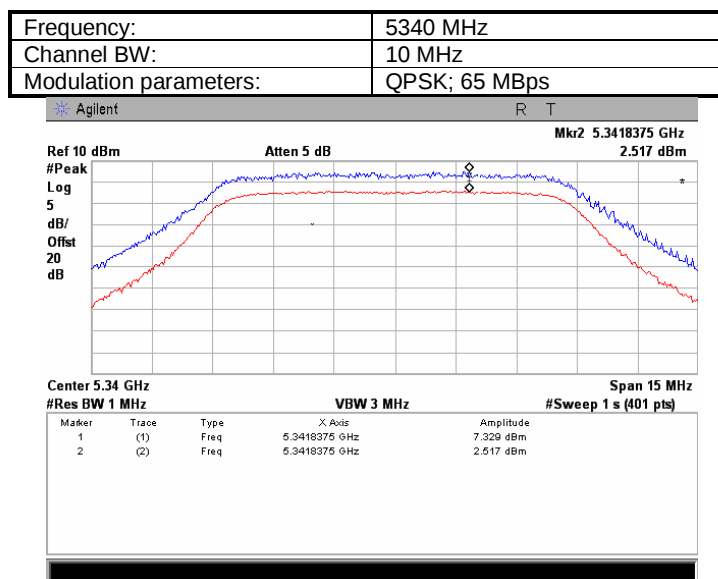


Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.2.29 Peak excursion measurement

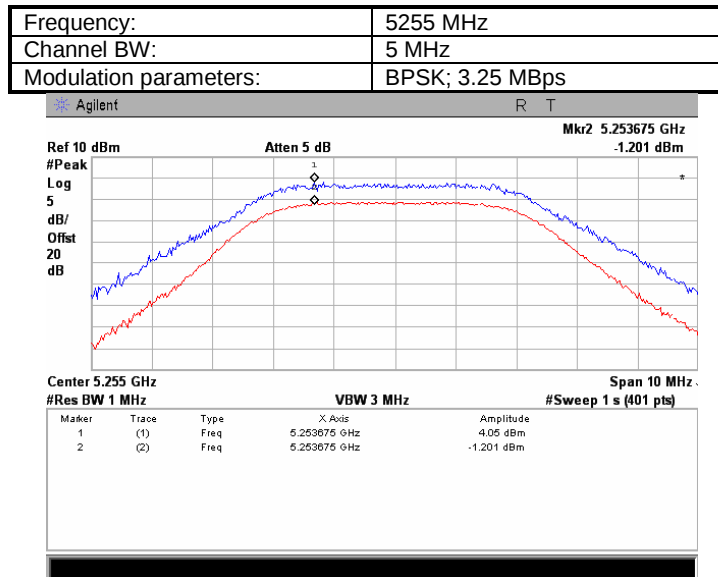


Plot 7.2.30 Peak excursion measurement

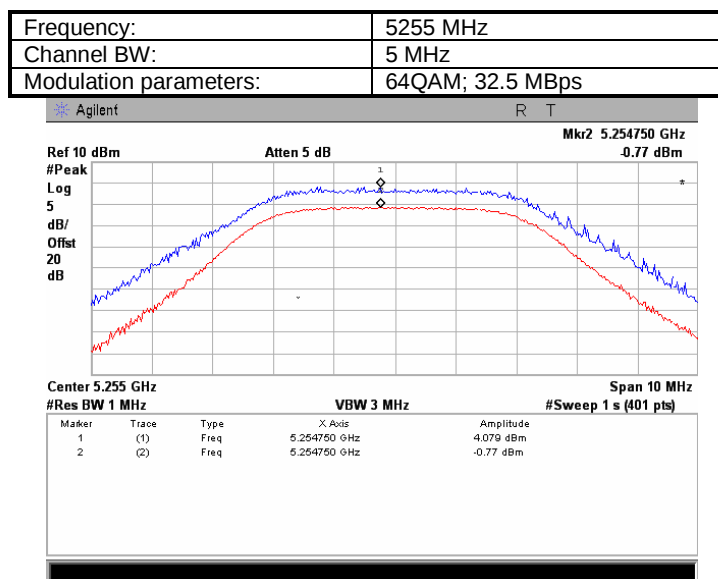


Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.2.31 Peak excursion measurement

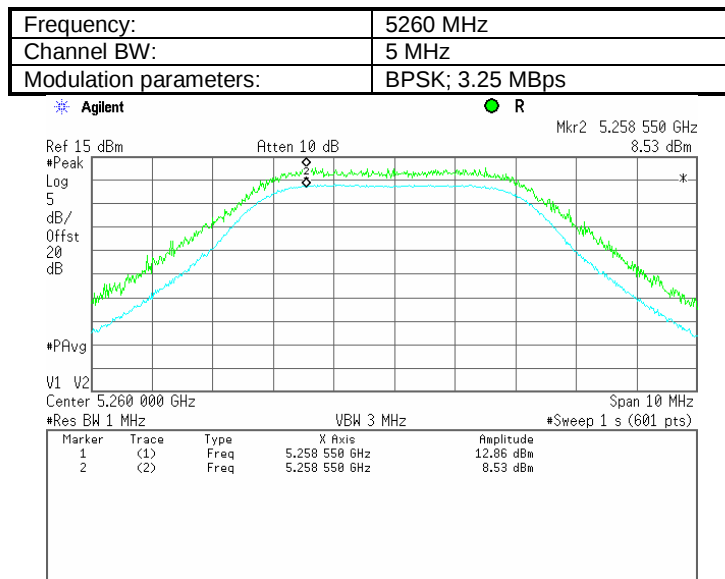


Plot 7.2.32 Peak excursion measurement

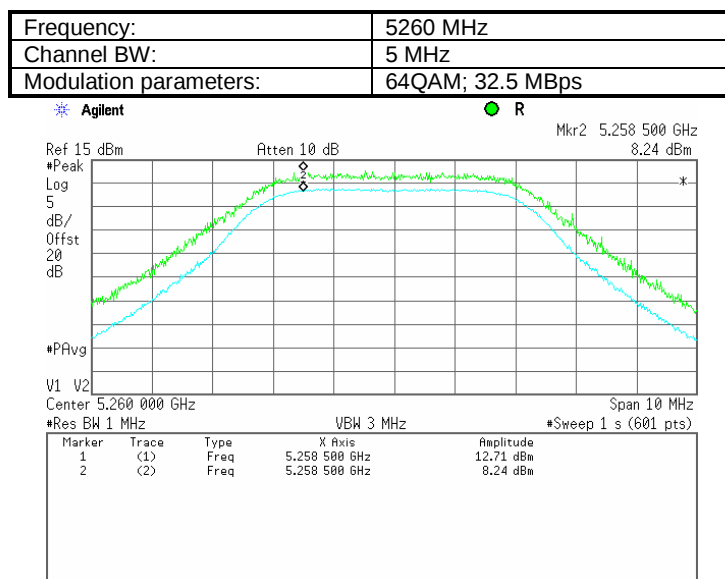


Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.2.33 Peak excursion measurement

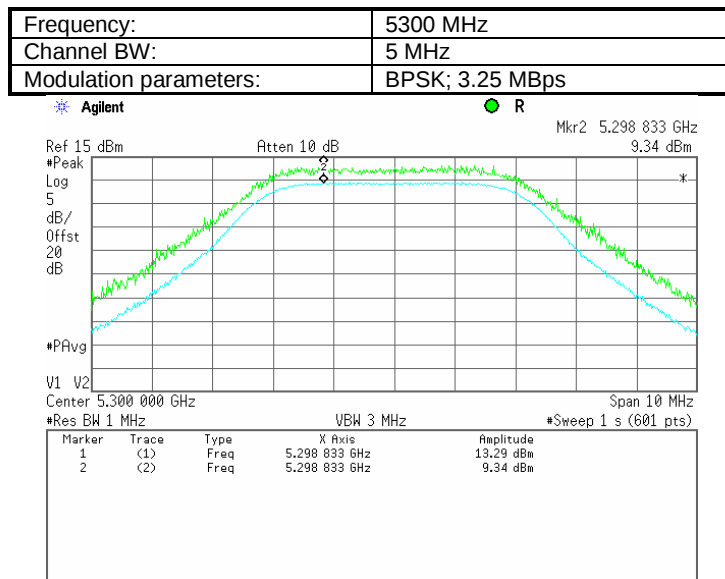


Plot 7.2.34 Peak excursion measurement

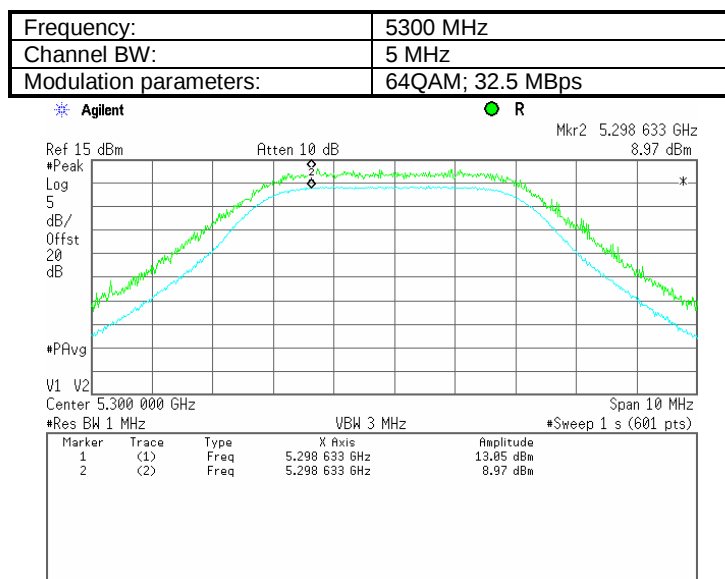


Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.2.35 Peak excursion measurement

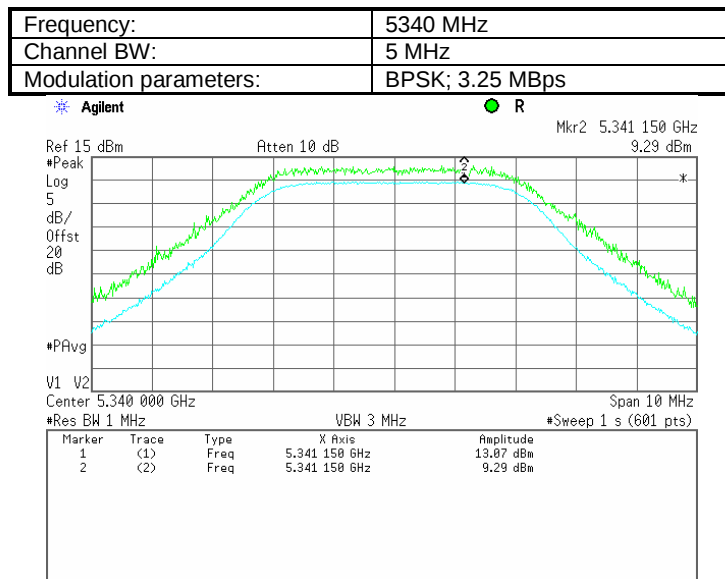


Plot 7.2.36 Peak excursion measurement

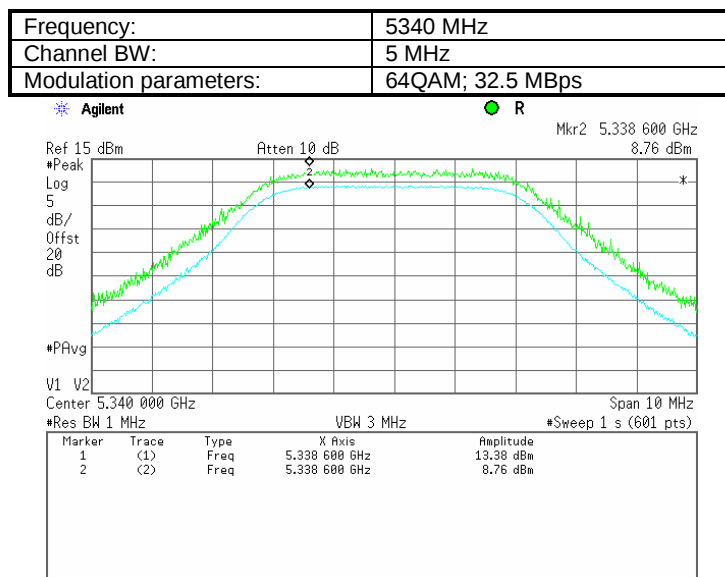


Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.2.37 Peak excursion measurement

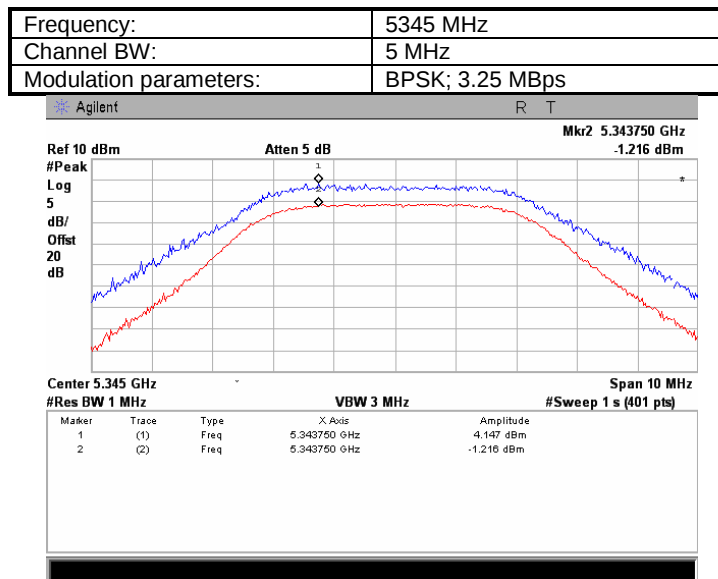


Plot 7.2.38 Peak excursion measurement

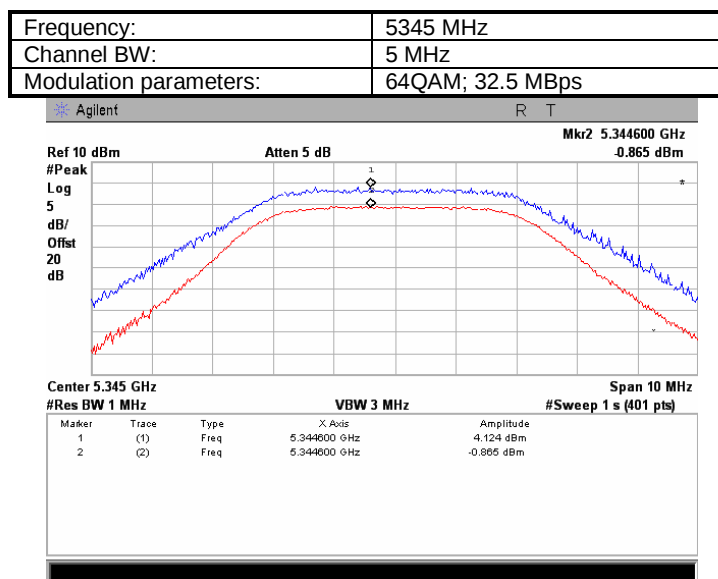


Test specification:	FCC section 15.407(a)(6), Ratio of the peak excursion of the modulation envelope to the peak transmit power		
Test procedure:	FCC Public Notice DA 02-2138, Appendix A		
Test mode:	Compliance	Verdict:	PASS
Date:	12/15/2009		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 49 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain			

Plot 7.2.39 Peak excursion measurement



Plot 7.2.40 Peak excursion measurement



Test specification:	FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705 / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS
Date:	12/08/2009		
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks:			

7.3 Field strength of spurious emissions

7.3.1 General

This test was performed to measure field strength of spurious emissions from the EUT. Specification test limits are given in Table 7.3.1, Table 7.3.2.

Table 7.3.1 Radiated spurious emissions limits below 1 GHz and within restricted bands above 1 GHz

Frequency, MHz	Field strength at 3 m, dB(μV/m)***		
	Peak	Quasi Peak	Average
0.009 – 0.490*	NA	128.5 – 93.8**	NA
0.490 – 1.705*		73.8 – 63.0**	
1.705 – 30.0*		69.5**	
30 – 88		40.0	
88 – 216		43.5	
216 – 960		46.0	
960 - 1000		54.0	
Above 1000	74.0	NA	54.0

*- The limit for 3 m test distance was calculated using the inverse square distance extrapolation factor as follows:

$$\text{LimS2} = \text{LimS1} + 40 \log (S1/S2),$$

where S1 and S2 – standard defined and test distance respectively in meters.

** - The limit decreases linearly with the logarithm of frequency.

*** - The field strength limits applied from the lowest radio frequency generated in the device, without going below 9 kHz up to the tenth harmonic of the highest fundamental frequency.

Table 7.3.2 EIRP of undesirable emissions limits outside restricted bands (above 1 GHz)

Frequency band, GHz	Out of band EIRP, dBm/MHz	Field strength at 3 m, dB(μV/m)
5.25 – 5.35	-27	68.23

7.3.2 Test procedure for spurious emission field strength measurements in 9 kHz to 30 MHz band

7.3.2.1 The EUT was set up as shown in Figure 7.3.1, energized and the performance check was conducted.

7.3.2.2 The specified frequency range was investigated with antenna connected to spectrum analyzer/ EMI receiver. To find maximum radiation the turntable was rotated 360° and the measuring antenna was rotated around its vertical axis.

7.3.2.3 The worst test results (the lowest margins) were recorded and shown in the associated plots.

7.3.3 Test procedure for spurious emission field strength measurements above 30 MHz

7.3.3.1 The EUT was set up as shown in Figure 7.3.2, energized and the performance check was conducted.

7.3.3.2 The specified frequency range was investigated with antenna connected to spectrum analyzer/ EMI receiver. To find maximum radiation the turntable was rotated 360°, the measuring antenna height was changed from 1 to 4 m, its polarization was switched from vertical to horizontal.

7.3.3.3 The worst test results (the lowest margins) were recorded and shown in the associated plots.

Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:	Compliance	Verdict: PASS	
Date:	12/08/2009		
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks:			

Figure 7.3.1 Setup for spurious emission field strength measurements below 30 MHz

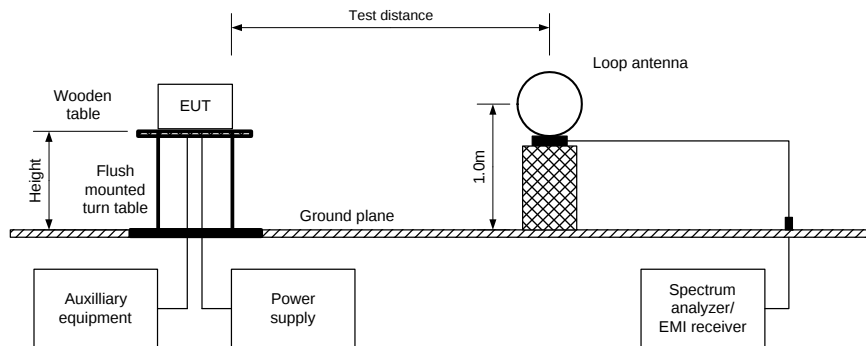
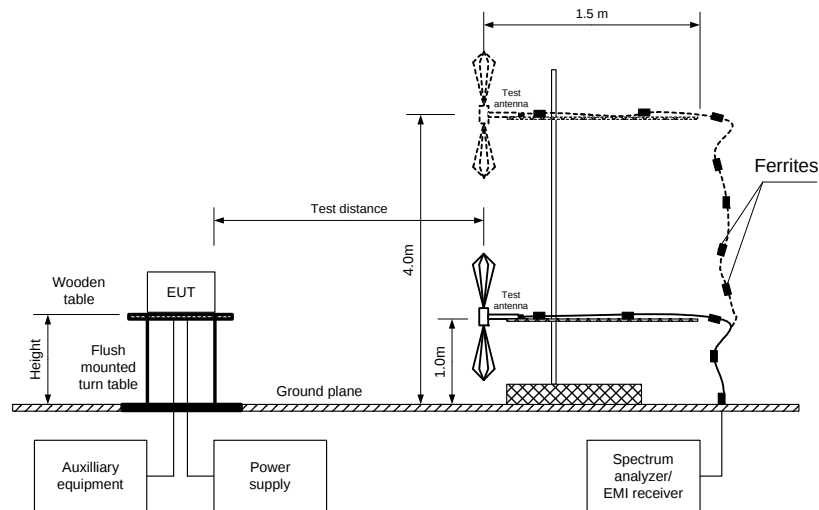


Figure 7.3.2 Setup for spurious emission field strength measurements above 30 MHz



Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Verdict: PASS	
Date:			
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

Table 7.3.3 Field strength of spurious emissions below 1 GHz within restricted bands

ASSIGNED FREQUENCY RANGE: 5250 - 5350 MHz
 INVESTIGATED FREQUENCY RANGE: 0.009 - 1000 MHz
 TEST SITE: Semi Anechoic Chamber
 TEST DISTANCE: 3 m
 MODULATION: OFDM, 64QAM
 BIT RATE: 65 Mbps
 DUTY CYCLE: 100 %
 TRANSMITTER OUTPUT POWER: Maximum
 RESOLUTION BANDWIDTH: 1.0 kHz (9 kHz – 150 kHz)
 9.0 kHz (150 kHz – 30 MHz)
 120 kHz (30 MHz – 1000 MHz)
 VIDEO BANDWIDTH: > Resolution bandwidth
 TEST ANTENNA TYPE: Active loop (9 kHz – 30 MHz)
 Biconilog (30 MHz – 1000 MHz)
 Double ridged guide (above 1000 MHz)

Frequency, MHz	Peak, dB(μV/m)	Quasi-peak dB(μV/m)			Antenna polariz.	Antenna height, m	Turntable position**, degrees	Verdict	
		Measured emission, dB(μV/m)	Limit, dB(μV/m)	Margin, dB*					
Low channel (5260 MHz)									
37.53722	34.80	30.50	40.0	-9.50	Vert	1.0	126	Pass	
400.00530	40.10	37.00	46.0	-9.00	Vert	1.0	179		
Mid channel (5300 MHz)									
37.53722	34.40	30.80	40.0	-9.20	Vert	1.0	126		
400.00530	40.50	37.10	46.0	-8.90	Vert	1.0	179		
High channel (5340 MHz)									
37.53722	34.70	31.20	40.0	-8.80	Vert	1.0	126		
400.00530	40.60	37.10	46.0	-8.90	Vert	1.0	179		

*- Margin = Measured emission – specification limit.

** - EUT front panel refers to 0 degrees position of turntable.

Reference numbers of test equipment used

HL 0446	HL 0521	HL 0604	HL 3123	HL 3616			
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Full description is given in Appendix A.

Test specification:	FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705 / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS	
Date:	12/08/2009		
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

Table 7.3.4 Field strength of spurious emissions above 1 GHz within restricted bands

ASSIGNED FREQUENCY RANGE: 5250 - 5350 MHz
 INVESTIGATED FREQUENCY RANGE: 1000 - 40000 MHz
 TEST SITE: Semi Anechoic Chamber
 TEST DISTANCE: 3 m
 MODULATION: OFDM, 64QAM
 BIT RATE: 65 Mbps
 DUTY CYCLE: 100 %
 TRANSMITTER OUTPUT POWER: Maximum
 RESOLUTION BANDWIDTH: 1000 kHz
 VIDEO BANDWIDTH: > Resolution bandwidth
 TEST ANTENNA TYPE: Double ridged guide (above 1000 MHz)

Frequency, MHz	Peak, dB(μV/m)			Average dB(μV/m)			Ant. polariz.	Ant. height, m	Turntable position**, degrees	Verdict	
	Measured emission, dB(μV/m)	Limit, dB(μV/m)	Margin, dB*	Measured emission, dB(μV/m)	Limit, dB(μV/m)	Margin, dB*					
Low channel (5260 MHz)											
All emissions were found more than 20 dB below the specified limit											
Mid channel (5300 MHz)											
10600.30	52.80	74.0	-21.20	40.50	54.0	-13.50	Vert	1.0	102	Pass	
High channel (5340 MHz)											
10679.90	53.19	74.0	-20.81	39.36	54.0	-14.64	Vert	1.0	180		

*- Margin = Measured emission – specification limit.

** - EUT front panel refers to 0 degrees position of turntable.

Reference numbers of test equipment used

HL 0446	HL 0521	HL 0604	HL 0768	HL 0769	HL 1424	HL 1984	HL 2254
HL 2387	HL 2871	HL 2909	HL 2952	HL 3123	HL 3531	HL 3533	HL 3535
HL 3616							

Full description is given in Appendix A.

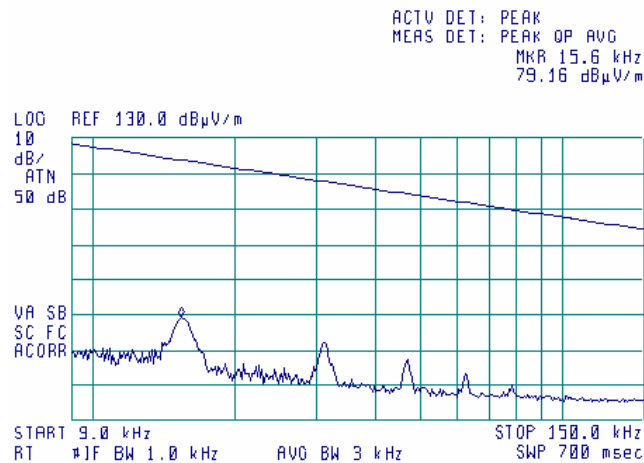
Table 7.3.5 Restricted bands

MHz	MHz	MHz	MHz	MHz	GHz
0.09 - 0.11	8.37625 - 8.38675	73 - 74.6	399.9 - 410	2690 - 2900	10.6 - 12.7
0.495 - 0.505	8.41425 - 8.41475	74.8 - 75.2	608 - 614	3260 - 3267	13.25 - 13.4
2.1735 - 2.1905	12.29 - 12.293	108 - 121.94	960 - 1240	3332 - 3339	14.47 - 14.5
4.125 - 4.128	12.51975 - 12.52025	123 - 138	1300 - 1427	3345.8 - 3358	15.35 - 16.2
4.17725 - 4.17775	12.57675 - 12.57725	149.9 - 150.05	1435 - 1626.5	3600 - 4400	17.7 - 21.4
4.20725 - 4.20775	13.36 - 13.41	156.52475 - 156.52525	1645.5 - 1646.5	4500 - 5150	22.01 - 23.12
6.215 - 6.218	16.42 - 16.423	156.7 - 156.9	1660 - 1710	5350 - 5460	23.6 - 24
6.26775 - 6.26825	16.69475 - 16.69525	162.0125 - 167.17	1718.8 - 1722.2	7250 - 7750	31.2 - 31.8
6.31175 - 6.31225	16.80425 - 16.80475	167.72 - 173.2	2200 - 2300	8025 - 8500	36.43 - 36.5
8.291 - 8.294	25.5 - 25.67	240 - 285	2310 - 2390	9000 - 9200	Above 38.6
8.362 - 8.366	37.5 - 38.25	322 - 335.4	2483.5 - 2500	9300 - 9500	

Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Verdict: PASS	
Date: 12/08/2009			
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

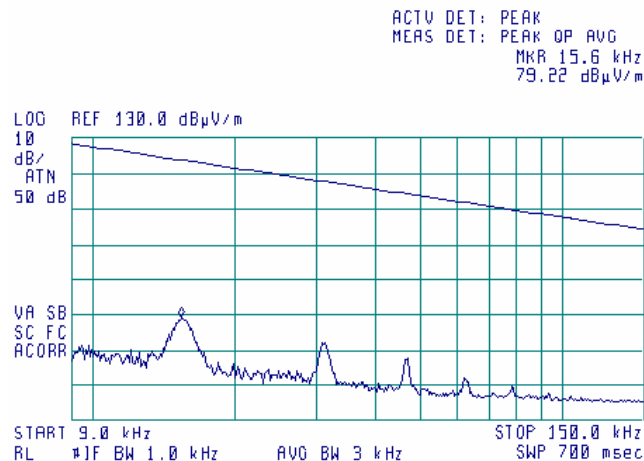
Plot 7.3.1 Radiated emission measurements from 9 to 150 kHz at the low carrier frequency

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.3.2 Radiated emission measurements from 9 to 150 kHz at the mid carrier frequency

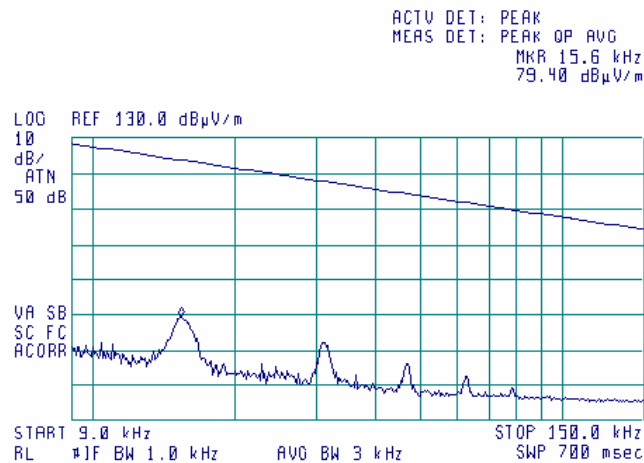
TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal



Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Verdict: PASS	
Date: 12/08/2009			
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

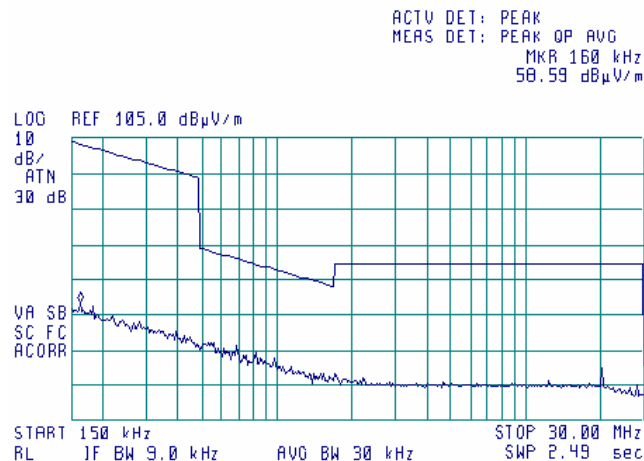
Plot 7.3.3 Radiated emission measurements from 9 to 150 kHz at the high carrier frequency

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.3.4 Radiated emission measurements from 0.15 MHz to 30 MHz at the low carrier frequency

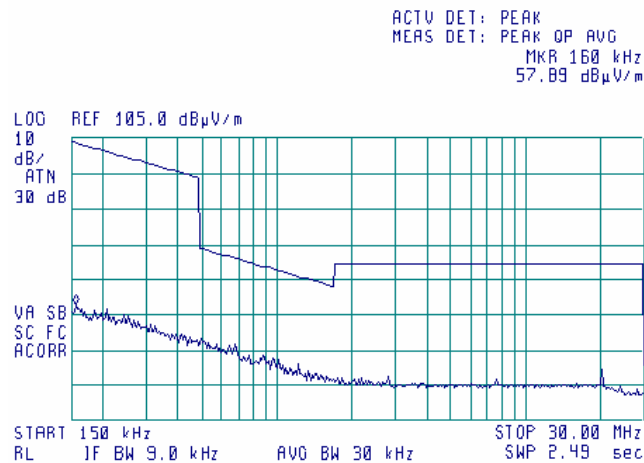
TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal



Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Verdict: PASS	
Date: 12/08/2009			
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

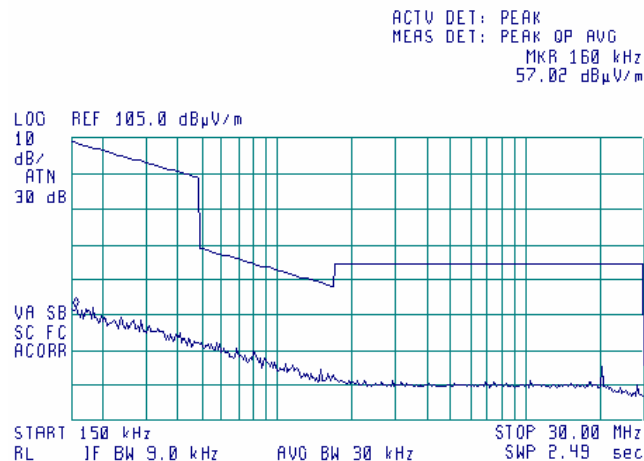
Plot 7.3.5 Radiated emission measurements from 0.15 MHz to 30 MHz at the mid carrier frequency

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.3.6 Radiated emission measurements from 0.15 MHz to 30 MHz at the high carrier frequency

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal

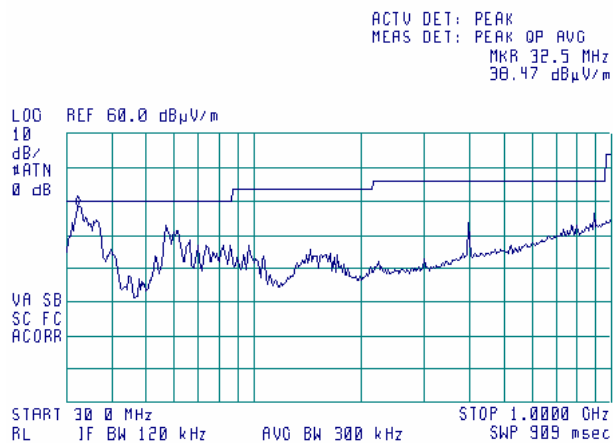


Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Verdict: PASS	
Date:			
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

Plot 7.3.7 Radiated emission measurements from 30 MHz to 1000 MHz at the low carrier frequency

TEST SITE: Semi Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal

20:08:30 DEC 08, 2009

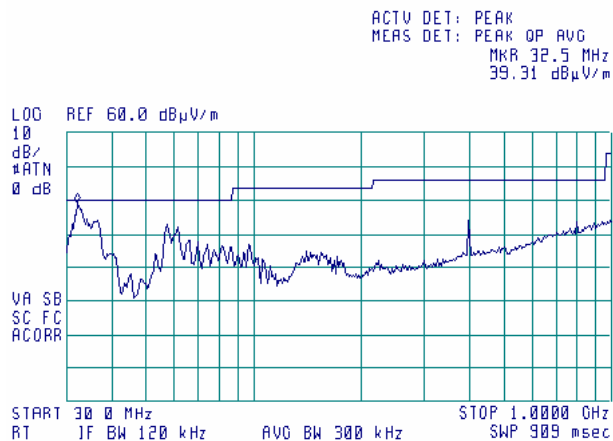


Note: Maximum peak emission was found outside restricted band

Plot 7.3.8 Radiated emission measurements from 30 MHz to 1000 MHz at the mid carrier frequency

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal

20:24:15 DEC 08, 2009



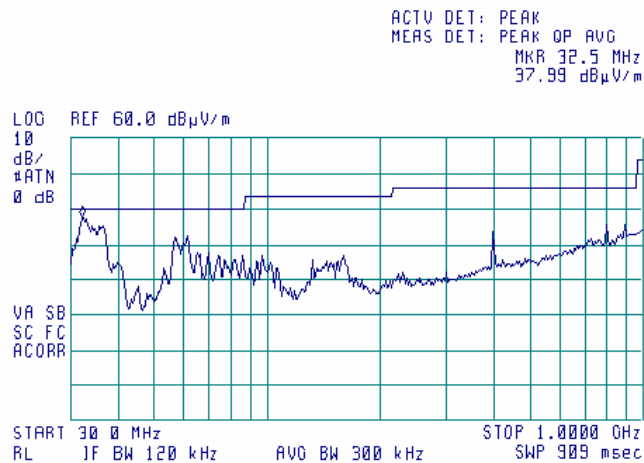
Note: Maximum peak emission was found outside restricted band

Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Verdict: PASS	
Date:			
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

Plot 7.3.9 Radiated emission measurements from 30 MHz to 1000 MHz at the high carrier frequency

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal

20:27:38 DEC 08, 2009

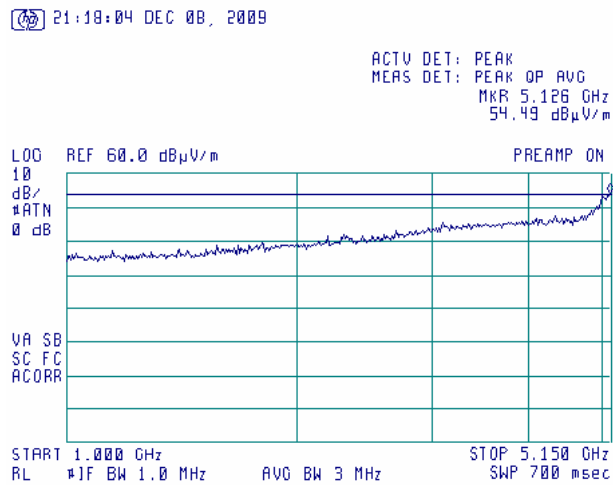


Note: Maximum peak emission was found outside restricted band

Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Verdict: PASS	
Date:			
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

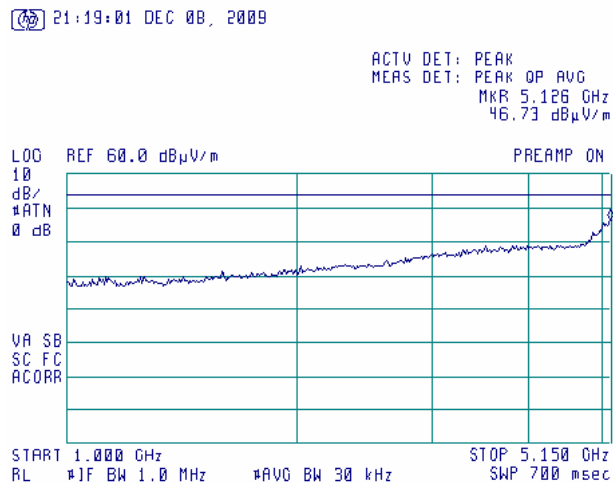
Plot 7.3.10 Radiated emission measurements from 1.0 to 5.15 GHz at the low carrier frequency

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Peak



Plot 7.3.11 Radiated emission measurements from 1.0 to 5.15 GHz at the low carrier frequency

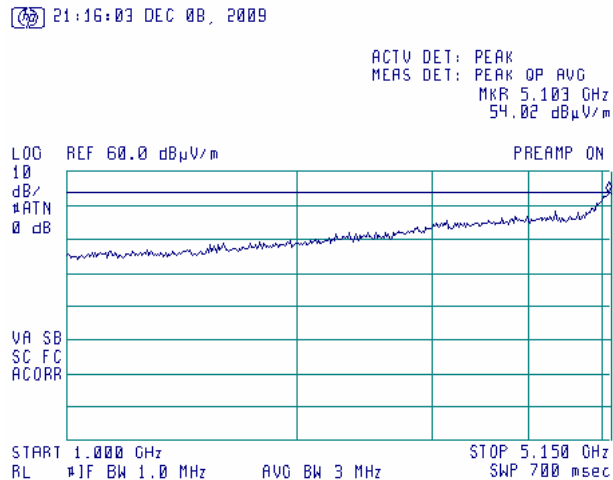
TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Average



Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Verdict: PASS	
Date:			
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

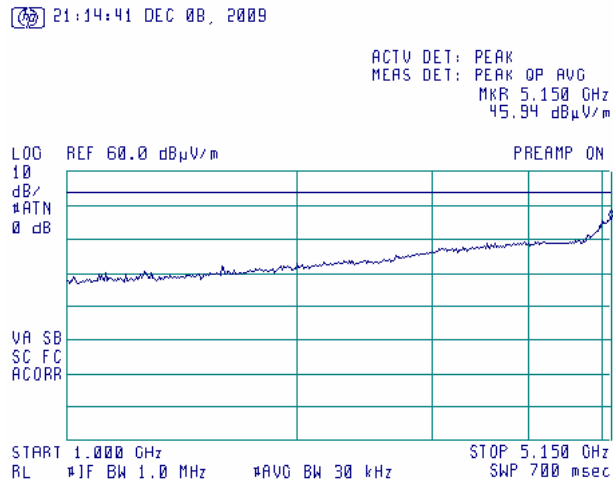
Plot 7.3.12 Radiated emission measurements from 1.0 to 5.15 GHz at the mid carrier frequency

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Peak



Plot 7.3.13 Radiated emission measurements from 1.0 to 5.15 GHz at the mid carrier frequency

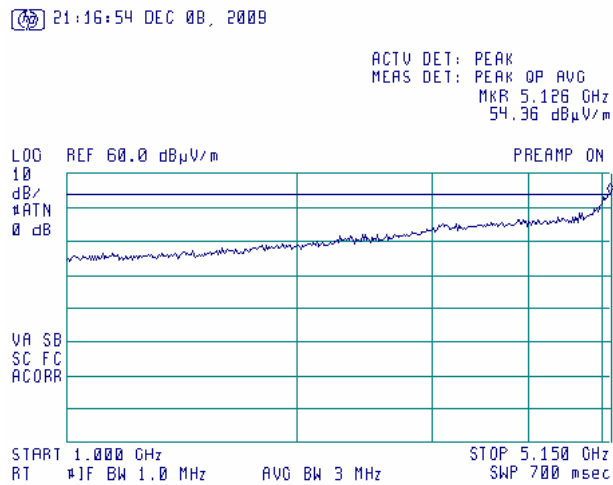
TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Average



Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Verdict: PASS	
Date:			
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

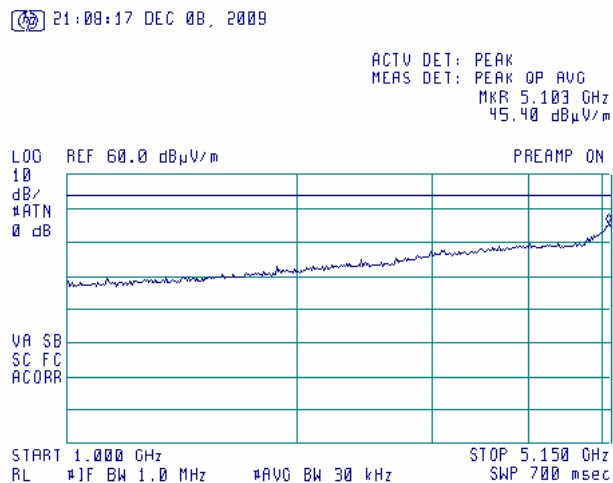
Plot 7.3.14 Radiated emission measurements from 1.0 to 5.15 GHz at the high carrier frequency

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Peak



Plot 7.3.15 Radiated emission measurements from 1.0 to 5.15 GHz at the high carrier frequency

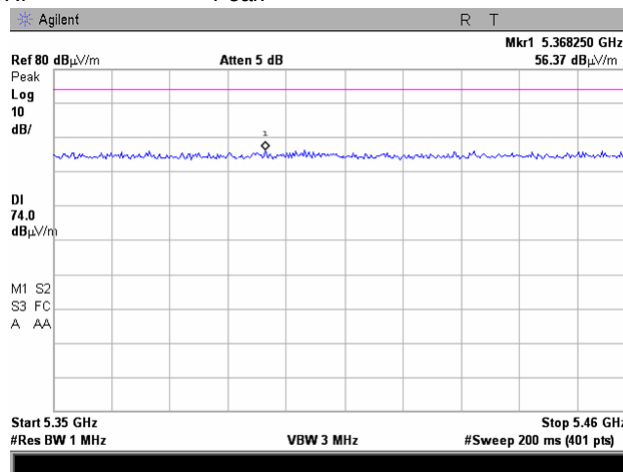
TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Average



Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Compliance	Verdict: PASS
Date:		12/08/2009	
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

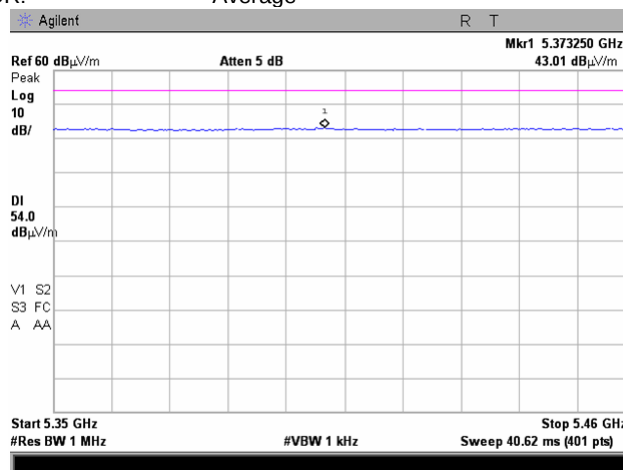
Plot 7.3.16 Radiated emission measurements from 5.35 to 5.46 GHz at the low carrier frequency

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Peak



Plot 7.3.17 Radiated emission measurements from 5.35 to 5.46 GHz at the low carrier frequency

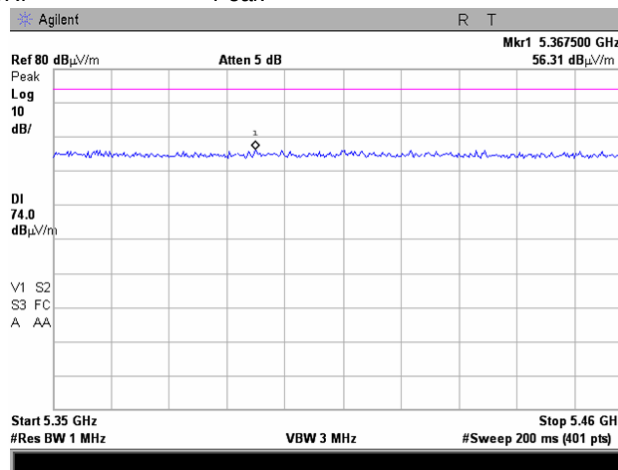
TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Average



Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Compliance	Verdict: PASS
Date:		12/08/2009	
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

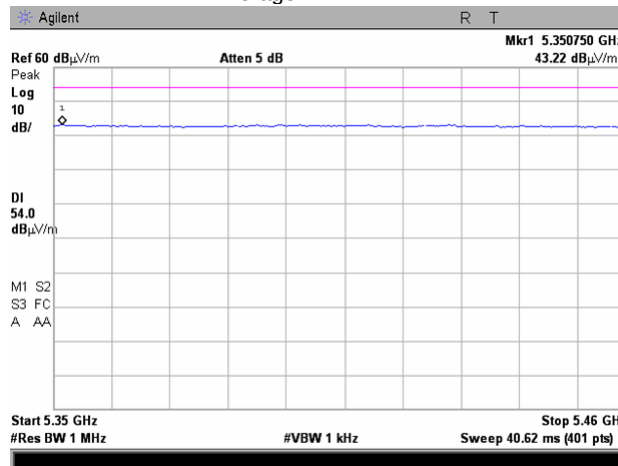
Plot 7.3.18 Radiated emission measurements from 5.35 to 5.46 GHz at the mid carrier frequency

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Peak



Plot 7.3.19 Radiated emission measurements from 5.35 to 5.46 GHz at the mid carrier frequency

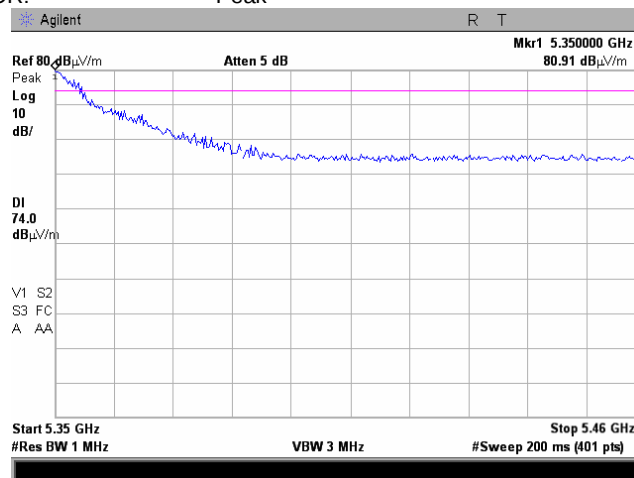
TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Average



Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Compliance	Verdict: PASS
Date:		12/08/2009	
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

Plot 7.3.20 Radiated emission measurements from 5.35 to 5.46 GHz at the high carrier frequency

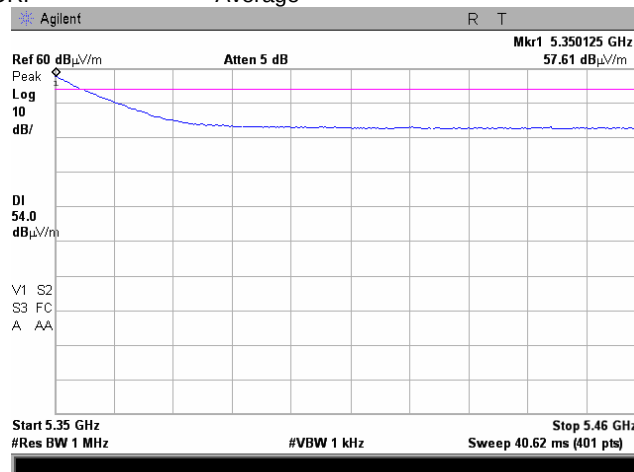
TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Peak



NOTE: Band edge radiated emission compliance with 74 dBuV limit was demonstrated by measurements as referred in plots of section 7.4.

Plot 7.3.21 Radiated emission measurements from 5.35 to 5.46 GHz at the high carrier frequency

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Average

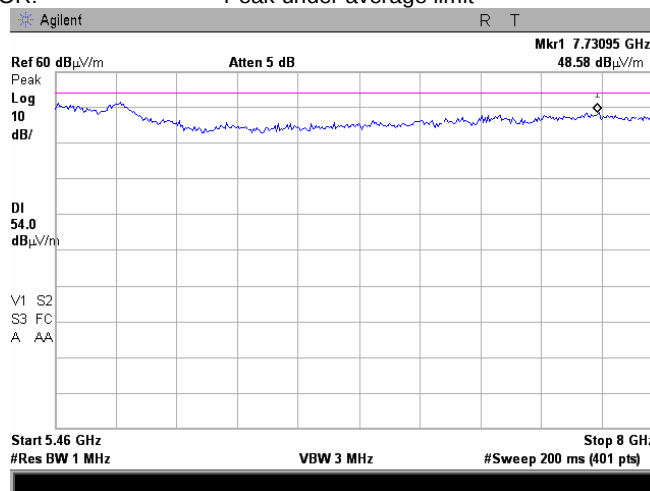


NOTE: Band edge radiated emission compliance with 54 dBuV limit was demonstrated by measurements as referred in plots of section 7.4.

Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Compliance	Verdict: PASS
Date:		12/08/2009	
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

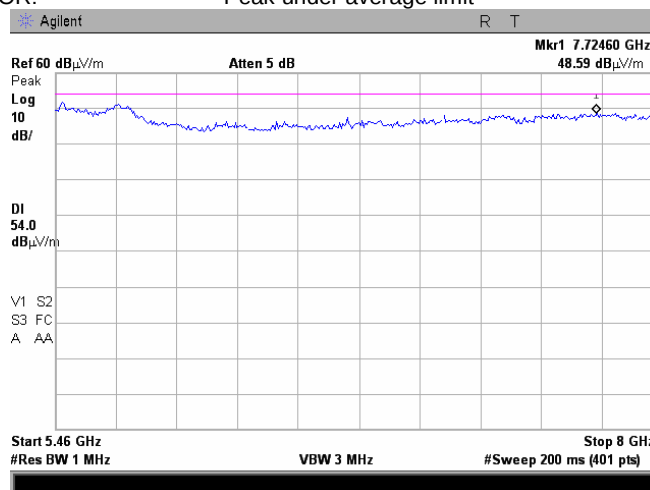
Plot 7.3.22 Radiated emission measurements from 5.46 to 8 GHz at the low carrier frequency

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Peak under average limit



Plot 7.3.23 Radiated emission measurements from 5.46 to 8 GHz at the mid carrier frequency

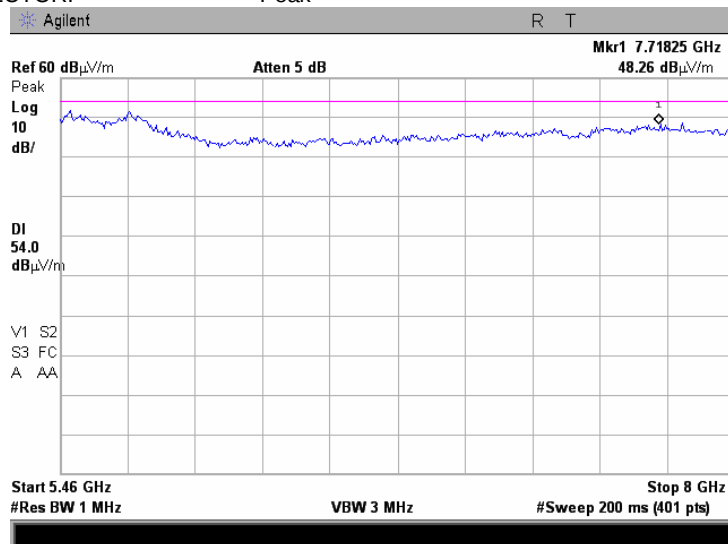
TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Peak under average limit



Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Verdict: PASS	
Date:			
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

Plot 7.3.24 Radiated emission measurements from 5.46 to 8 GHz at the high carrier frequency

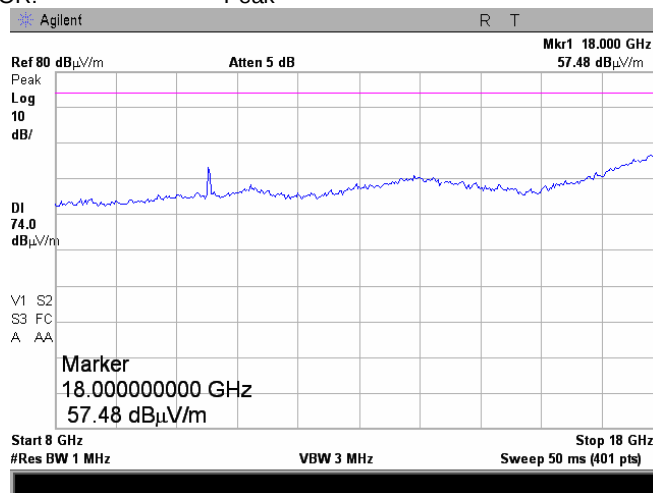
TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Peak



Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Compliance	Verdict: PASS
Date:		12/08/2009	
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

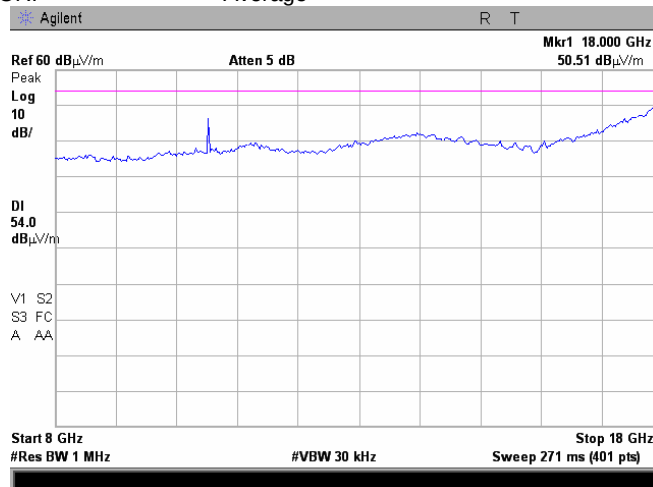
Plot 7.3.25 Radiated emission measurements from 8 to 18 GHz at the low carrier frequency

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Peak



Plot 7.3.26 Radiated emission measurements from 8 to 18 GHz at the low carrier frequency

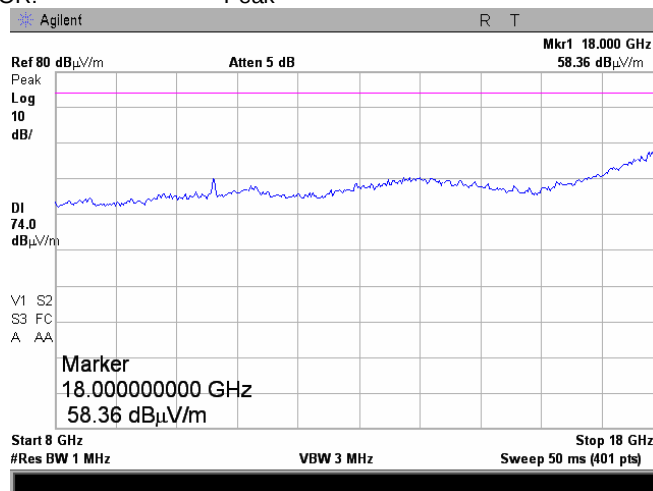
TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Average



Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Compliance	Verdict: PASS
Date:		12/08/2009	
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

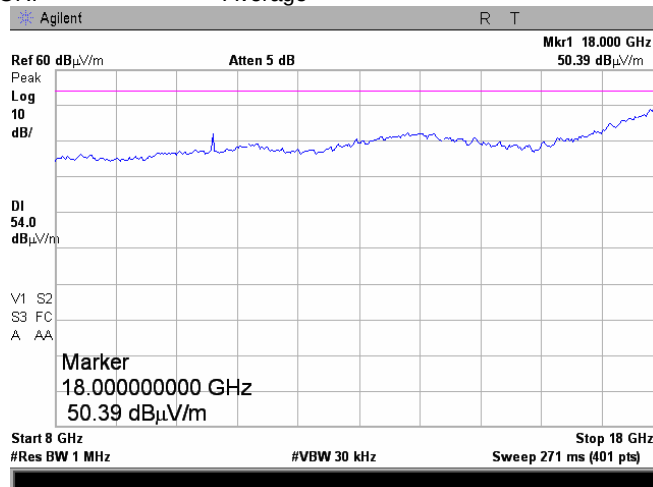
Plot 7.3.27 Radiated emission measurements from 8 to 18 GHz at the mid carrier frequency

TEST SITE: OATS
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Peak



Plot 7.3.28 Radiated emission measurements from 8 to 18 GHz at the mid carrier frequency

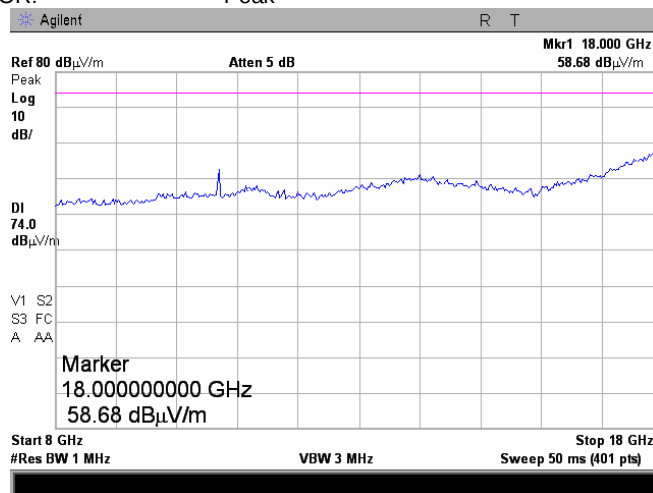
TEST SITE: OATS
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Average



Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Compliance	Verdict: PASS
Date:		12/08/2009	
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

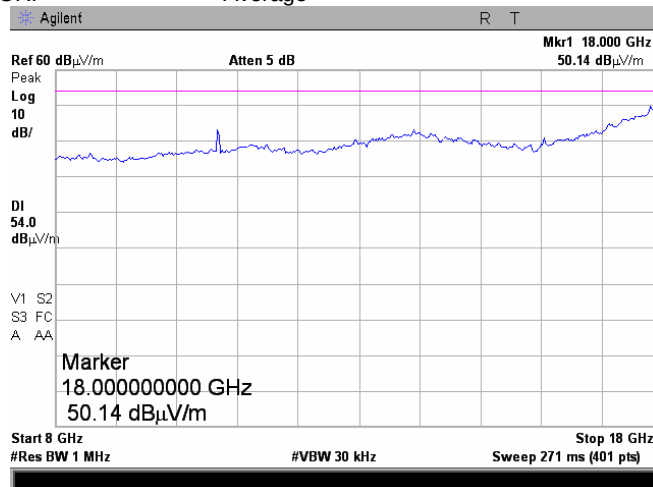
Plot 7.3.29 Radiated emission measurements from 8 to 18 GHz at the high carrier frequency

TEST SITE: OATS
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Peak



Plot 7.3.30 Radiated emission measurements from 8 to 18 GHz at the high carrier frequency

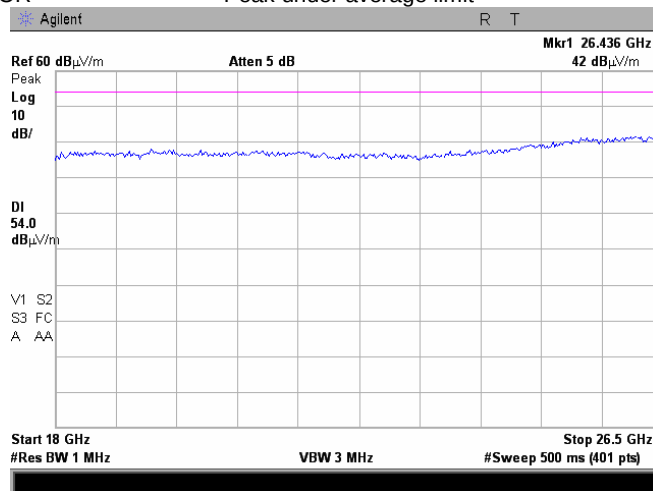
TEST SITE: OATS
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Average



Test specification:		FCC section 15.407(b), RSS-210 Annex 9, section A9.2 Unwanted radiated emissions	
Test procedure:		Public notice DA 00-705 / ANSI C63.4, Section 13.1.4	
Test mode:		Verdict: PASS	
Date:			
Temperature: 18°C	Air Pressure: 1015 hPa	Relative Humidity: 75 %	Power Supply: 120 VAC
Remarks: EUT with 6 dBi antenna assembly gain, flat antenna			

Plot 7.3.31 Radiated emission measurements from 18 to 26.5 GHz at the low carrier frequency

TEST SITE: OATS
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Peak under average limit



Plot 7.3.32 Radiated emission measurements from 18 to 26.5 GHz at the mid carrier frequency

TEST SITE: OATS
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Peak under average limit

