ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 15 SUBPART E REQUIREMENT INDUSTRY CANADA RSS-210

OF

Product Name:	**Wireless 802.11a/b/g SDIO Adaptor**
Brand Name:	**Silex**
Model Name:	**SX-SDWAG-02**
Model Different:	**N/A**
FCC ID:	**N6C-SXSDWAG02**
IC:	**4908B-SXSDWAG02**
Report No.:	**ER/2009/50003**
Issue Date:	**May. 26, 2009**
FCC Rule Part:	**§15.407**
IC Rule Part:	**RSS-210 issue 7:2007, Annex 9**
Prepared for:	**For FCC:** **Silex Technology, Inc.** **2-3-1 Hikaridai, Seika-cho Sourakugun Kyoto 619-0237 Japan** **For IC:** **SILEX TECHNOLOGY AMERICA INC.** **495 Woodward Avenue Milton Ontario L9T 3B7 Canada**
Prepared by:	**SGS Taiwan Ltd.** **Electronics & Communication Laboratory** **No. 134, Wu Kung Rd., Wuku Industrial Zone,** **Taipei County, Taiwan.**

VERIFICATION OF COMPLIANCE

Applicant:	For FCC: Silex Technology, Inc. 2-3-1 Hikaridai, Seika-cho Sourakugun Kyoto 619-0237 Japan For IC: SILEX TECHNOLOGY AMERICA INC. 495 Woodward Avenue Milton Ontario L9T 3B7 Canada
Product Name:	Wireless 802.11a/b/g SDIO Adaptor
Brand Name:	Silex
FCC ID:	N6C-SXSDWAG02
IC:	4908B-SXSDWAG02
Model No.:	SX-SDWAG-02
Model Difference:	N/A
File Number:	ER/2009/50003
Date of test:	Apr. 30, 2009 ~ May. 22, 2009
Date of EUT Received:	Apr. 30, 2009

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Electronics & Communication Laboratory The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2003) and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rules Part 15.407 and RSS-210 issue 7: 2007 Annex 9. The test results of this report relate only to the tested sample identified in this report.

Test By:		***Date***	May. 26, 2009
	Sky Wang / Asst. Supervisor		
Prepared By:		***Date***	May. 26, 2009
	Gigi Yeh/ Clerk		
Approved By:		***Date***	May. 26, 2009
	Vincent Su / Manager		

Version

Version No.	Date	Description
00	May. 26, 2009	Initial creation of document

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1. GENERAL INFORMATION

1.1. Product Description

General:

Product Name:	Wireless 802.11a/b/g SDIO Adaptor
Brand Name:	Silex
Model Name:	SX-SDWAG-02
Model Difference:	N/A
Power Supply:	3.3Vdc

WLAN: 802.11 a/b/g

Frequency Range	2412MHz–2462MHz	5150MHz–5350MHz	5470MHz–5725MHz	5725MHz–5825MHz
Channel number	11 channels	8 channels	11 channels	5 channels
Rated Power	b : 17.28 dBm g : 14.67 dBm	14.67 dBm	14.89 dBm	14.68 dBm
Modulation Technology	DSSS, OFDM	OFDM	OFDM	OFDM
Antenna Designation	Dipole Antenna, 1.5dBi	Dipole Antenna, 0.4dBi	Dipole Antenna, 1.7dBi	Dipole Antenna, 2.1dBi
Type of Emission	16M5M5D	16M6M1D	16M7M1D	22M3M4D
Modulation type	CCK, DQPSK, DBPSK for DSSS 64QAM. 16QAM, QPSK, BPSK for OFDM			
Transition Rate:	802.11 a: 6/9/12/18/24/36/48/54 Mbps; 802.11 b: 1/2/5.5/11 Mbps; 802.11 g: 6/9/12/18/24/36/48/54 Mbps			

The EUT is compliance with IEEE 802.11 a/b/g Standard.
This report applies for frequency bands 5150 MHz– 5350 MHz / 5470 MHz– 5725 MHz

Note: Devices subject to this Section shall not be capable of transmitting in the band 5600-5650 MHz, so that Environment Canada weather radars operating in this band are protected.

1.2. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for **FCC ID: N6C-SXSDWAG02** filing to comply with Section 15.407 of the FCC Part 15, Subpart E Rules and **IC: 4908B-SXSDWAG02** filing to comply with Industry Canada RSS-210 issue 7: 2007 Annex 9. The composite system (digital device) is compliance with Subpart B is authorized under a DoC procedure.

1.3. Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4 (2003) and RSS-Gen: 2007.. Radiated testing was performed at an antenna to EUT distance 3 meters.

1.4. Test Facility

The measurement facilities used to collect the 3m Radiated Emission and AC power line conducted data are located on the address of SGS Taiwan Ltd. Electronics & Communication Laboratory No. 134, Wu Kung Rd., Wuku Industrial Zone, Taipei Country, Taiwan which are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4: 2003. FCC Registration Number are: 990257 and 236194, Canada Registration Number: 4620A-1.

The 10 m Open Area Test Sites located on the address of SGS Taiwan Ltd. Electronics & Communication Laboratory No. 29, Pau-Tou-Tsuo Valley Chia-Pau Tsuen, Linkou Hsiang, Taipei county, which is constructed and calibrated to meet the CISPR 22/EN 55022 requirements. SGS Site No. 1(3 &10 meters) and FCC Registration Number: 94644.

1.5. Special Accessories

Not available for this EUT intended for grant.

1.6. Equipment Modifications

Not available for this EUT intended for grant.

2. SYSTEM TEST CONFIGURATION

2.1. EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2. EUT Exercise

The EUT (Transmitter) was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements.

2.3. Test Procedure

2.3.1 Conducted Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. According to the requirements in Section 7 and 13 of ANSI C63.4-2003.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and Average detector mode.

2.3.2 Radiated Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made “while keeping the antenna in the ‘cone of radiation’ from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response.” is still within the 3dB illumination BW of the measurement antenna. According to the requirements in Section 8 and 13 and Subclause 8.3.1.2 of ANSI C63.4-2003.

2.4. Configuration of Tested System

Fig. 2-1 Configuration of Tested System

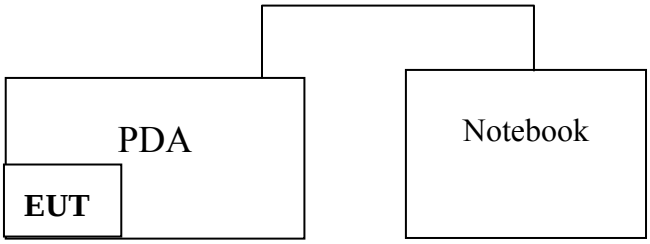


Table 2-1 Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/ Type No.	Series No.
1.	Notebook	IBM	T43	L3LHHN6
2.	PDA	Mio	Mio P350	WL1T6600211

3. SUMMARY OF TEST RESULT

FCC Rules	Description Of Test	Result
§15.207 RSS-Gen §7.2.2	AC Power Line Conducted Emission	Compliant
§15.407(a) RSS 210 A9.2 RSS-Gen §4.4.1	26 dB and 99% Emission Band-width	Compliant
§15.407(a) RSS 210 A9.2(1)	Peak Output Power Measurement	Compliant
§15.407(a) RSS 210 A9.2(1)	Peak Power Spectral Density Measurement	Compliant
15.407(a)(6)	Peak Excursion Measurement	Compliant
§15.407(b) RSS 210 A9.3	Undesirable Emission – Con-ducted Measurement	Compliant
§15.407(b) RSS 210 A9.3	Undesirable Emission – Radiated Measurement	Compliant
§15.407(c) RSS 210 A9.5(4)	Transmission in case of Absence of Information	Compliant
§15.407(g); RSS 210 A9.5(5)	Frequency Stability	Compliant
§15.407(d) RSS-210 issue 7,§A8.4	Antenna Requirement	Compliant
§15.407(d) RSS 210 A9.4	TPC and DFS Measurement	Compliant

4. DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition.
Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

FCC+IC: Channel lowest(5180MHz)、Mid(5260MHz) and Highest(5320MHz) with 6Mbps data rate are chosen for full testing.
IC: Channel lowest(5500MHz) 、Mid(5580MHz) and Highest(5700MHz) with 6Mbps data rate are chosen for full testing.
FCC: Channel lowest(5500MHz)、Mid(5600MHz) and Highest(5700MHz) with 6Mbps data rate are chosen for full testing.

5. AC POWER LINE CONDUCTED EMISSION TEST

5.1. Standard Applicable

According to §15.207 and RSS-Gen §7.2.2, frequency range within 150KHz to 30MHz shall not exceed the Limit table as below.

Frequency range	Limits dB(uV)	
MHz	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50
Note 1.The lower limit shall apply at the transition frequencies 2.The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.		

5.2. EUT Setup

1. The conducted emission tests were performed in the test site, using the setup in accordance with the ANSI C63.4-2003.
2. The AC/DC Power adaptor of EUT was plug-in LISN. The rear of the EUT and peripherals were placed flushed with the rear of the tabletop.
3. The LISN was connected with 120Vac/60Hz power source.

5.3. Measurement Procedure

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

5.4. Measurement Equipment Used:

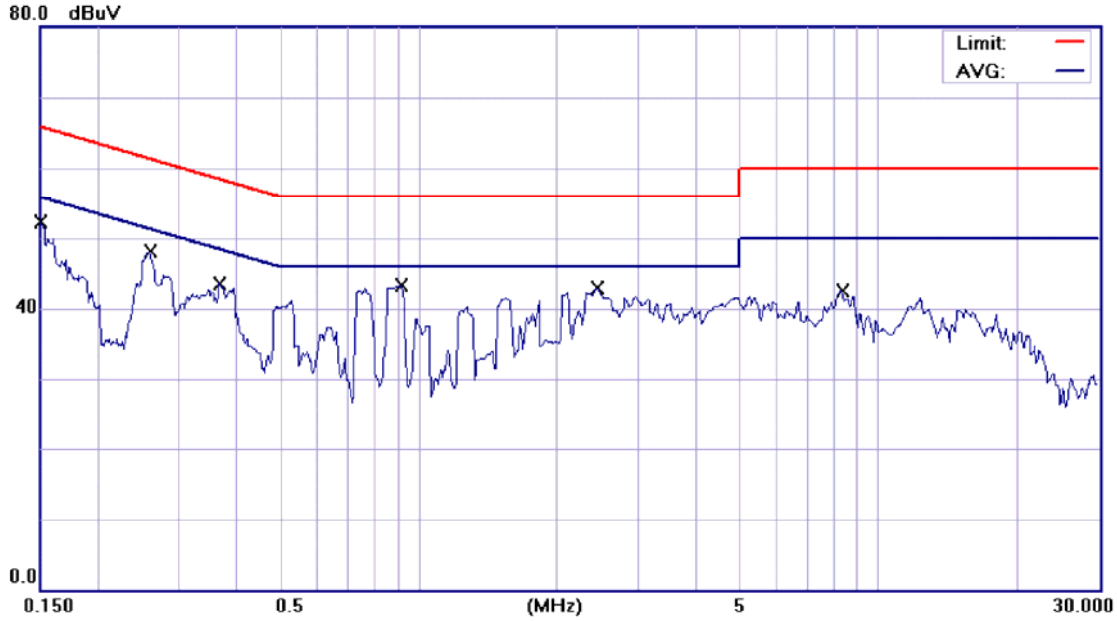
Conducted Emission Test Site					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
EMI Test Receiver	R&S	ESCS30	828985/004	09/16/2008	09/15/2009
LISN	Rolf-Heine	NNB-2/16Z	99012	02/02/2009	02/01/2010
LISN	FCC	FCC-LISN-50/250-25-2-01	04034	02/02/2009	02/01/2010
Coaxial Cables	N/A	WK CE Cable	N/A	10/30/2008	10/29/2009

5.5. Measurement Result

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

AC POWER LINE CONDUCTED EMISSION TEST DATA

Operation Mode:	WLAN Link			Test Date:	May. 15, 2009
Temperature:	23 ℃	Humidity:	60%	Test By:	Sky

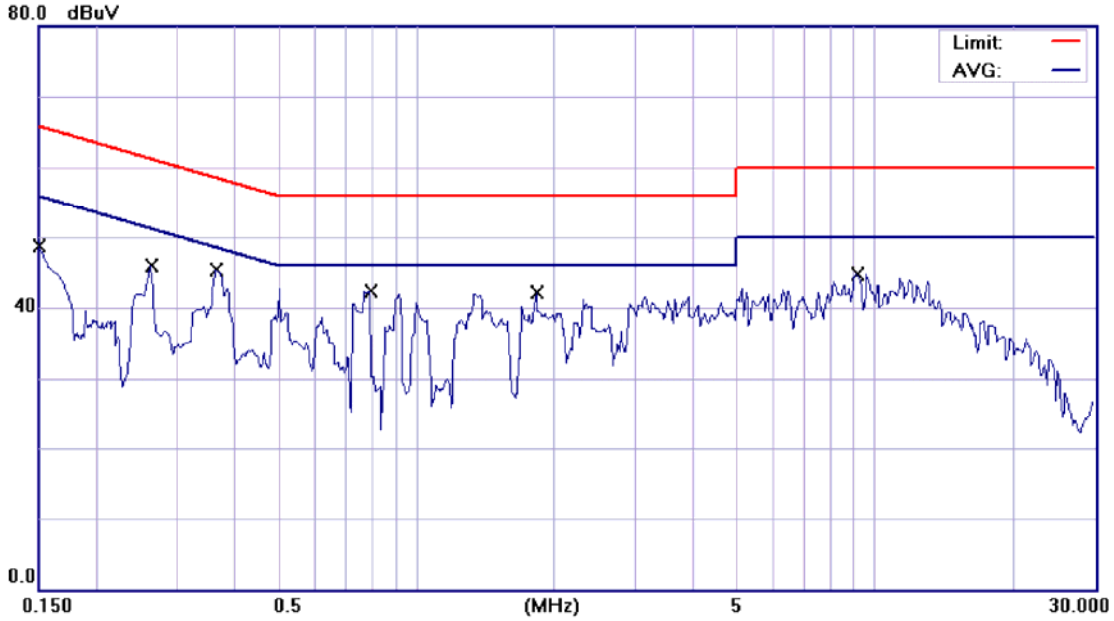


Site SGS CONDUCTED #1
Limit: CISPR22/11/EN55022 Class B
EUT: Wireless 802.11a/b/g SDIO Adaptor
M/N: SX-SDWAG-02
Note: WLAN link

Phase: L1
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 60 %
Air Pressure: hpa

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	52.19	0.18	52.37	66.00	-13.63	QP	
2		0.2594	47.90	0.12	48.02	61.45	-13.43	QP	
3		0.3688	43.36	0.10	43.46	58.53	-15.07	QP	
4	*	0.9180	43.22	0.10	43.32	56.00	-12.68	QP	
5		2.4375	42.83	0.14	42.97	56.00	-13.03	QP	
6		8.3281	42.26	0.33	42.59	60.00	-17.41	QP	



Site SGS CONDUCTED #1
Limit: CISPR22/11/EN55022 Class B
EUT: Wireless 802.11a/b/g SDIO Adaptor
M/N: SX-SDWAG-02
Note: WLAN link

Phase: N
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 60 %
Air Pressure: hpa

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	48.52	0.18	48.70	66.00	-17.30	QP	
2		0.2633	45.71	0.12	45.83	61.33	-15.50	QP	
3	*	0.3648	45.26	0.10	45.36	58.62	-13.26	QP	
4		0.7930	42.23	0.09	42.32	56.00	-13.68	QP	
5		1.8359	41.93	0.13	42.06	56.00	-13.94	QP	
6		9.1133	44.29	0.38	44.67	60.00	-15.33	QP	

6. 26dB and 99% EMISSION BANDWIDTH MEASUREMENT

6.1 Standard Applicable

According to §15.407(a). No Limit required.

According to RSS 210 A9.2(1), No Limit required.

RSS-Gen §4.4.1, the transmitter shall be operated at its maximum carrier power measured under normal test conditions. The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts. The resolution bandwidth shall be set to as close to 1% of the selected span as is possible without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth. Video averaging is not permitted. Where practical, a sampling detector shall be used since a peak or, peak hold, may produce a wider bandwidth than actual.

The trace data points are recovered and are directly summed in linear terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached and that frequency recorded. The process is repeated for the highest frequency data points. This frequency is recorded.

6.2 Measurement Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the 3.antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW=1% bandwidth, VBW =3* RBW, Span= 50MHz, Sweep=auto
4. Mark the peak frequency and –26dB (upper and lower) frequency.
5. Repeat above procedures until all frequency measured were complete.

6.3 Measurement Equipment Used:

Conducted Emission Test Site					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
Spectrum Analyzer	Agilent	E4446A	MY43360126	04/19/2008	04/18/2010
Spectrum Analyzer	Agilent	E4440A	US41160416	01/23/2008	01/22/2010
DC Block	Agilent	BLK-18	155452	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S20W5	N/A	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S10W5	N/A	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S6W5	N/A	07/05/2008	07/04/2009
Splitter	Agilent	11636B	N/A	07/05/2008	07/04/2009
DC Power Supply	HP	6038A	2929A-07548	06/27/2007	06/26/2009
DC Power Supply	Topward	3303D	981327	10/26/2007	10/25/2009

6.4 Measurement Result

UNII 1

Frequency (MHz)	26dB Bandwidth (B) (MHz)	10 Log (B) (dB)	99% Bandwidth (MHz)
5180	22.22	13.47	16.61
5260	22.90	13.60	16.58
5320	22.37	13.50	16.56

**Note: Offset 0.8dB*

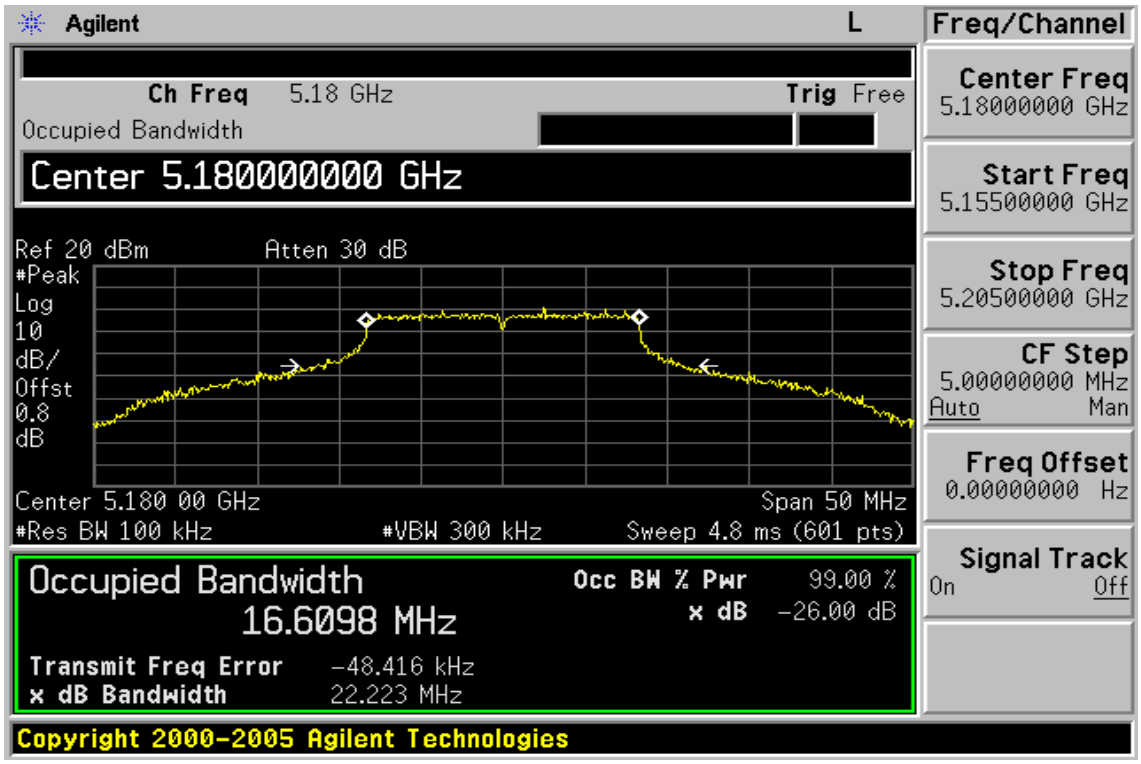
UNII 2

Frequency (MHz)	26dB Bandwidth (B) (MHz)	10 Log (B) (dB)	99% Bandwidth (MHz)
5500	22.27	13.48	16.64
5580	22.97	13.61	16.59
5600	22.61	13.54	16.60
5700	23.38	13.69	16.71

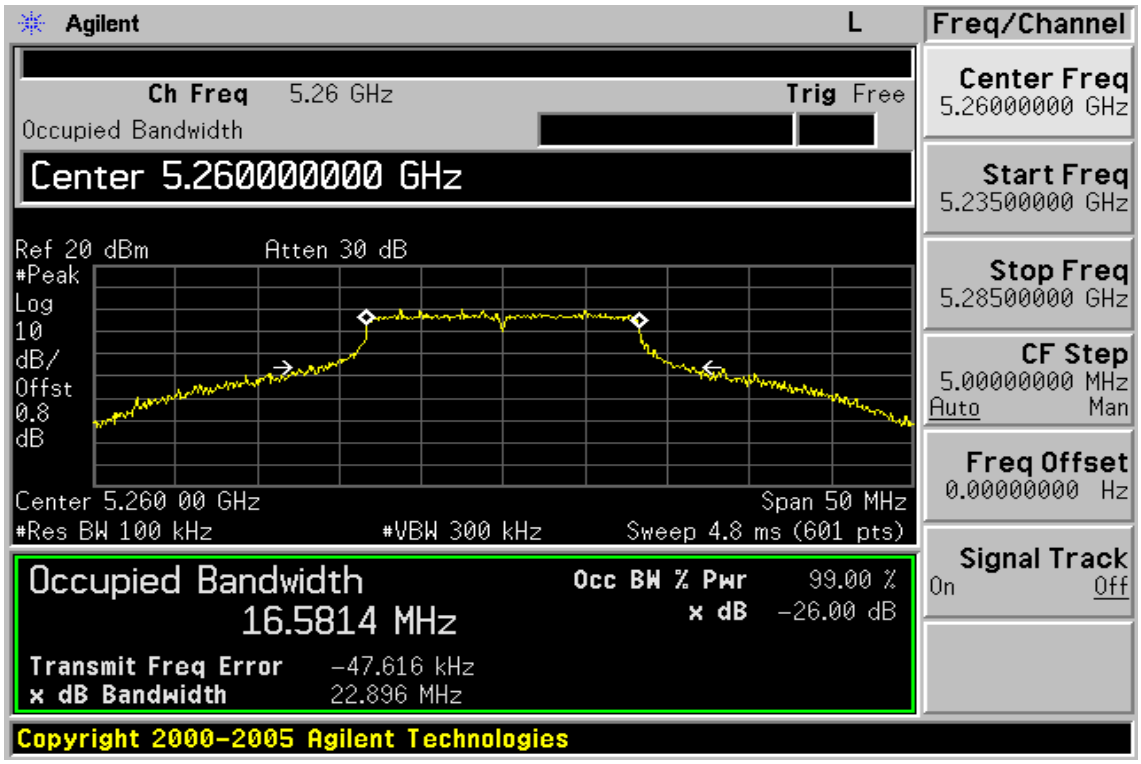
**Note: Offset 0.8dB*

UNII 1

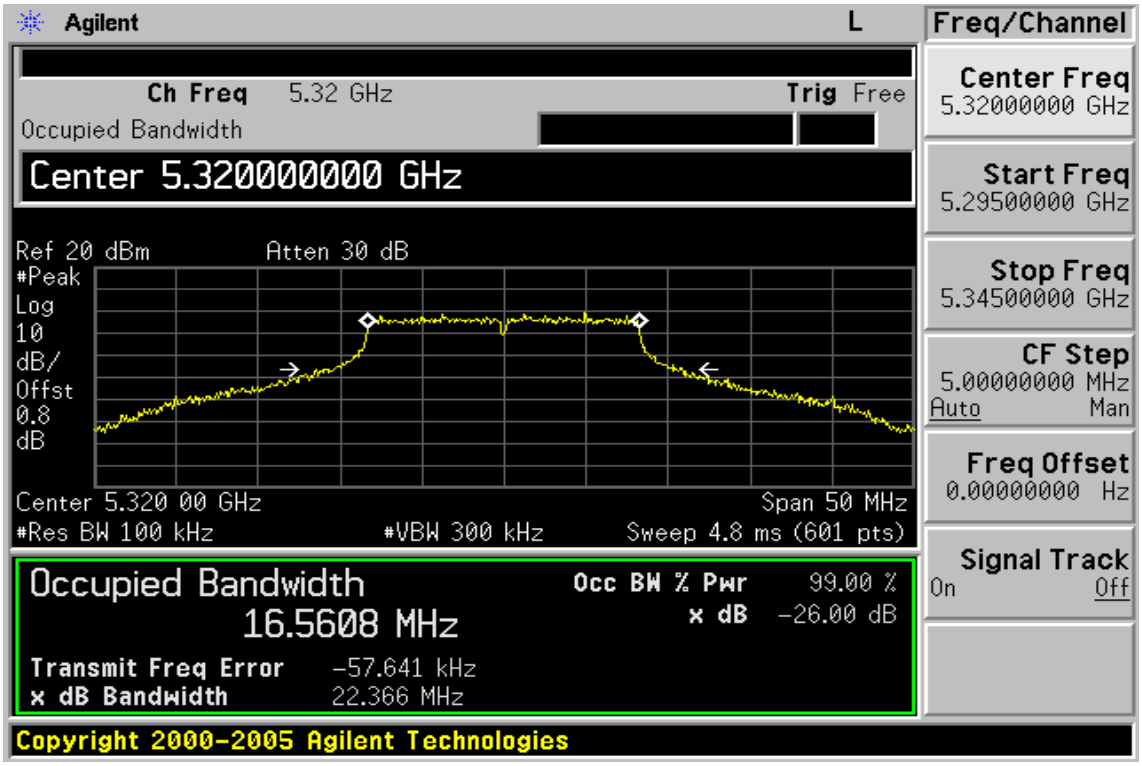
26dB / 99% Band Width Test Data CH-Low (5180MHz)



26dB / 99% Band Width Test Data CH-Mid (5260MHz)

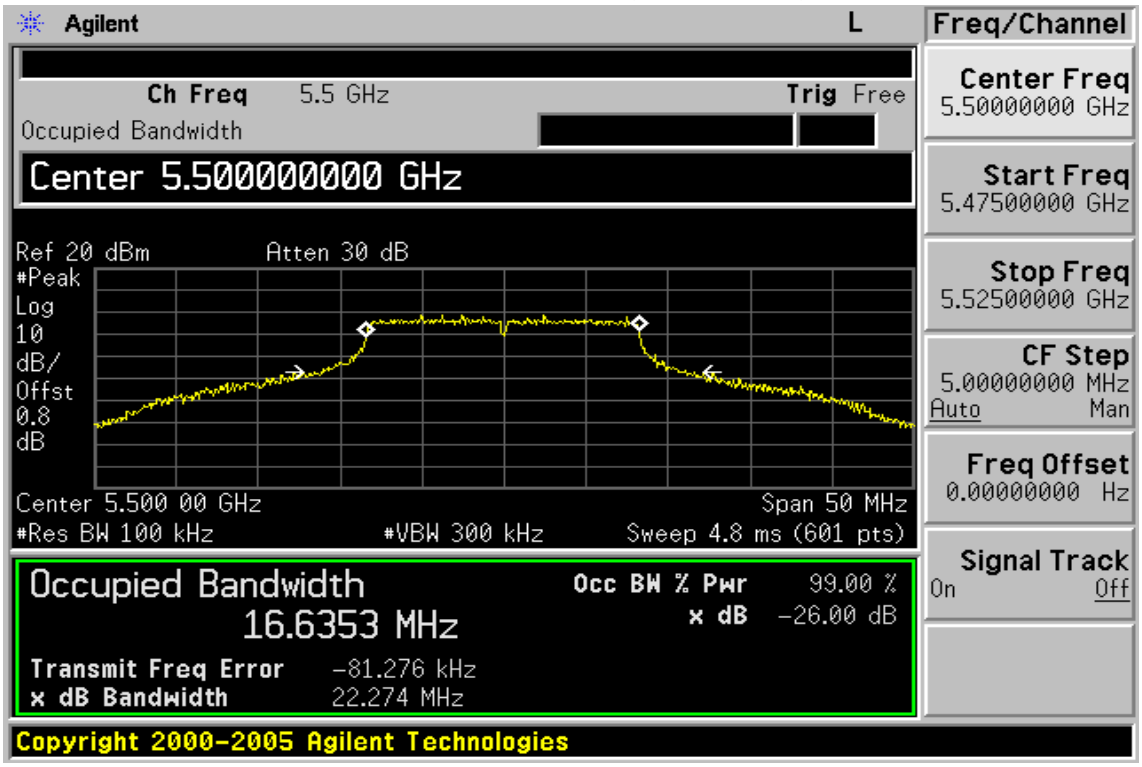


26dB / 99% Band Width Test Data CH-High (5320MHz)

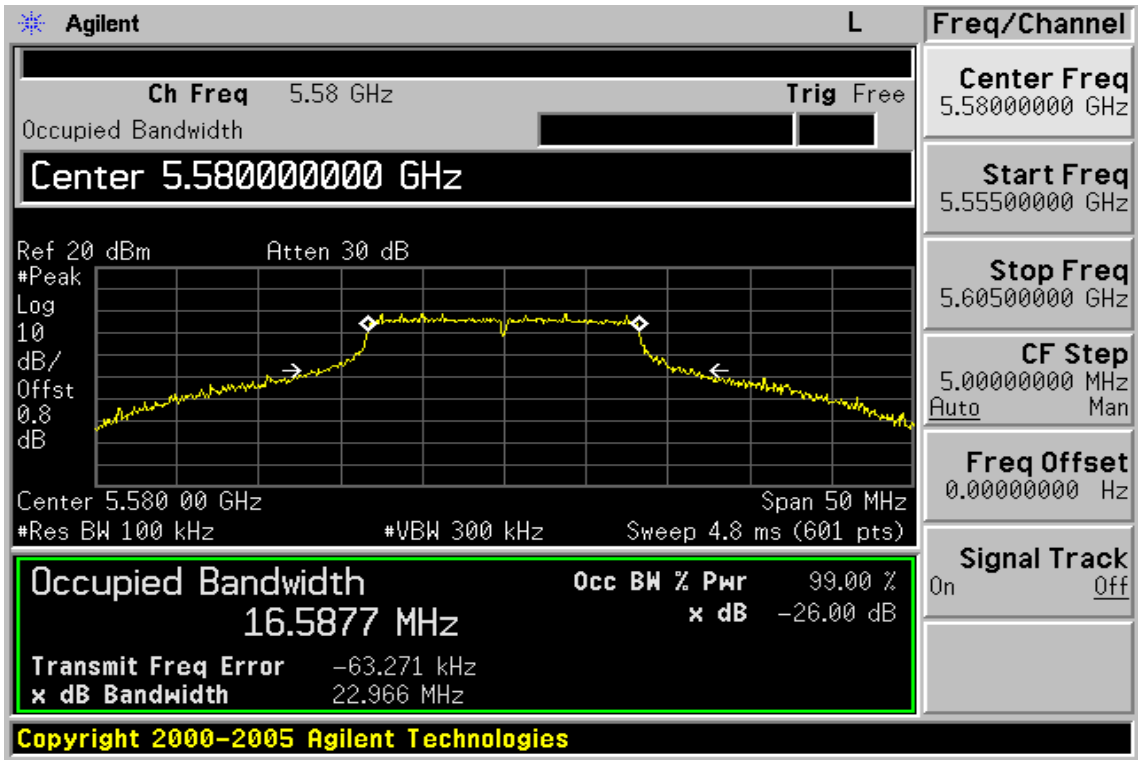


UNII 2

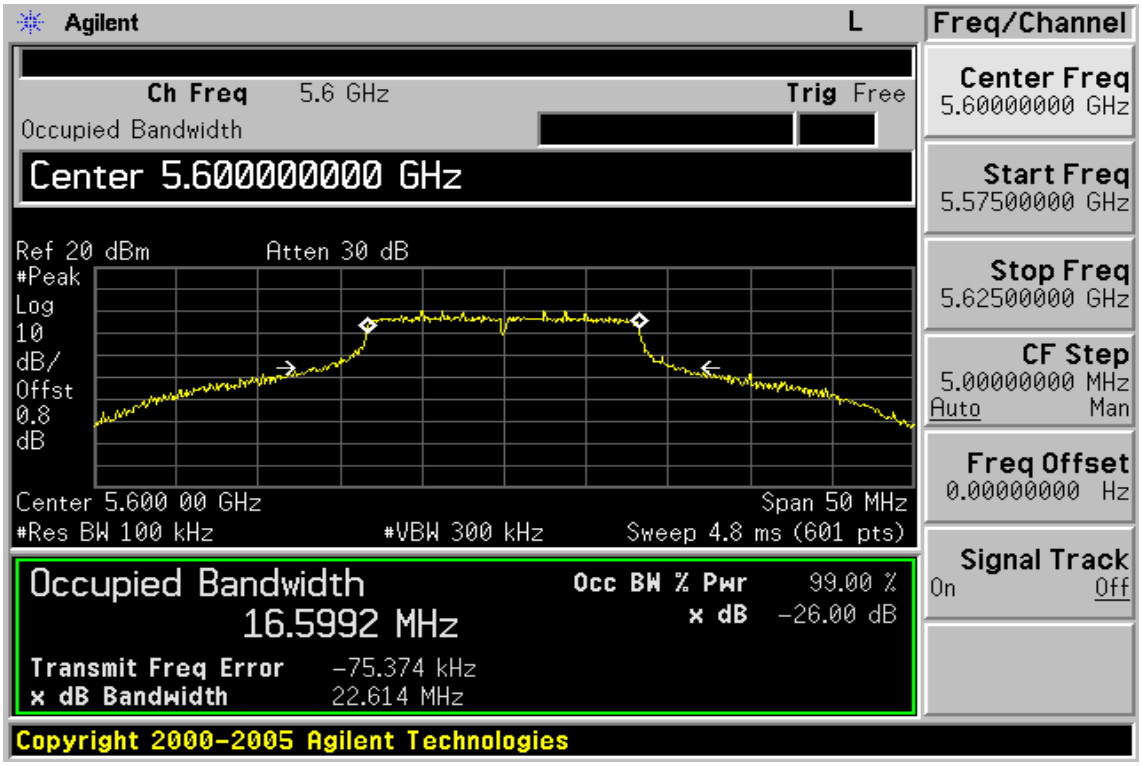
26dB / 99% Band Width Test Data CH-Low (5500 MHz)



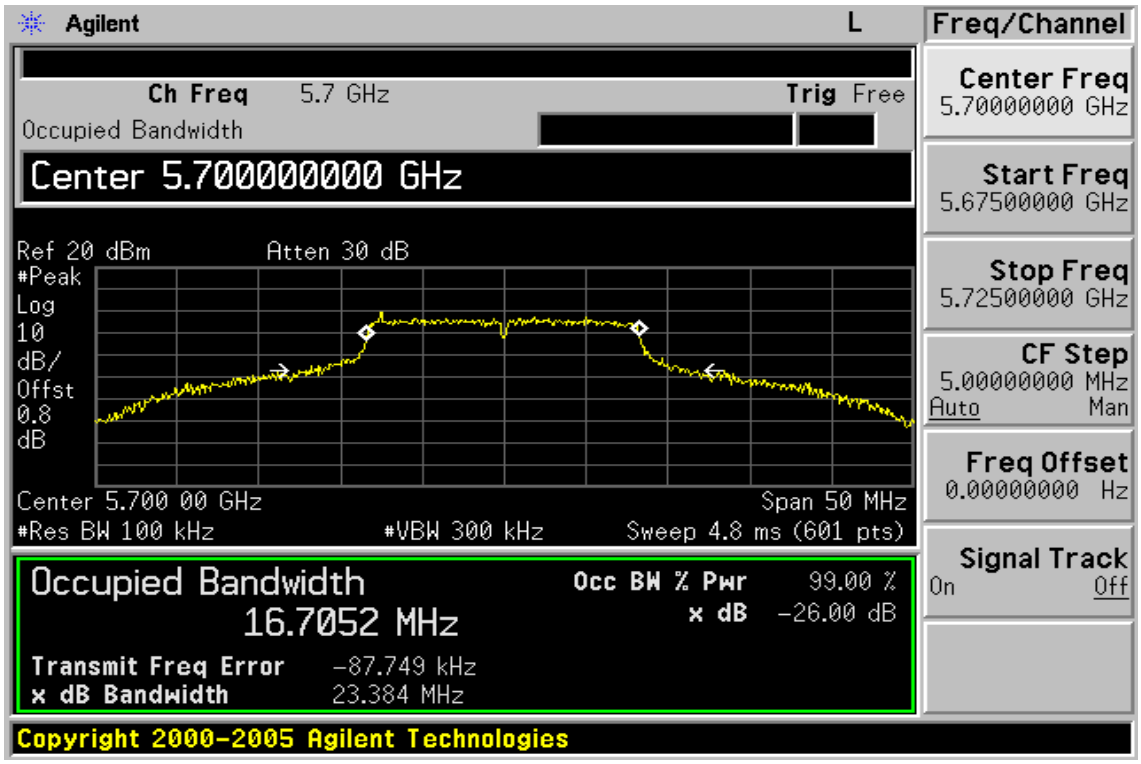
26dB / 99% Band Width Test Data CH-Mid (5580 MHz)



26dB / 99% Band Width Test Data CH-Mid (5600 MHz)



26dB / 99% Band Width Test Data CH-High (5700 MHz)



7. PEAK OUTPUT POWER MEASUREMENT

7.1 Standard Applicable

According to §15.407(a)

1. For the band 5.15-5.25 GHz, the maximum conducted power over the frequency of operation shall not exceed the lesser of 50 mW (17dBm) or 4 dBm + 10log B.
2. For the band 5.25-5.35 GHz and 5.47-5.725GMHz, the maximum conducted power over the frequency of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log B.
3. For the band 5.725-5.825 GHz, the maximum conducted power over the frequency of operation shall not exceed the lesser of 1W (30dBm) or 17 dBm + 10log B.

According to RSS-210 A9.2

1. For the band 5150-5250 MHz, the maximum equivalent isotropically radiated power (e.i.r.p.) shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.
2. For the bands 5250-5350 MHz and 5470-5725 MHz, the maximum conducted output power shall not exceed 250 mW or 11 + 10 log10 B, dBm, whichever power is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band. The maximum e.i.r.p. shall not exceed 1.0 W or

   17 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

   In addition, devices with maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

   In addition to the above requirements, devices operating in the band 5250-5350 MHz with maximum e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. elevation mask where θ is the angle above the local horizontal plane (of the earth) as shown below:

(i) -13 dB(W/MHz) for 0o ≤ θ < 8o
(ii) -13 – 0.716 (θ-8) dB(W/MHz) for 8o ≤ θ < 40o
(iii) -35.9 – 1.22 (θ-40) dB(W/MHz) for 40o ≤ θ ≤ 45o
(iv) -42 dB(W/MHz) for θ > 45o

3. For the band 5725-5825 MHz, the maximum conducted output power shall not exceed 1.0 W or

   17 + 10 log10 B, dBm, whichever power is less. The power spectral density shall not exceed 17 dBm in any 1.0 MHz band. The maximum e.i.r.p. shall not exceed 4.0 W or 23 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

   Fixed point-to-point systems for this band are permitted to have an e.i.r.p. greater than 4 W, provided that the higher e.i.r.p. is achieved by employing higher gain antennas, but not higher transmitter output powers. Point-to-multipoint systems, omni-directional applications and multiple co-located transmitters transmitting the same information are prohibited from exceeding 4 W e.i.r.p. However, remote stations of point-to-multipoint systems shall be permitted to operate at greater than 4 W e.i.r.p, under the same conditions as for point-to-point systems.

   where B is the 26dB emission bandwidth in MHz.

7.2 Measurement Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power meter or spectrum. (Channel Power Function, RBW=1MHz,VBW=3MHz, ACP Bandwidth =26dB Emission Bandwidth)
3. Record the max. reading.
4. Repeat above procedures until all frequency measured were complete.

7.3 Measurement Equipment Used:

Conducted Emission Test Site					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	Agilent	E4446A	MY43360126	04/27/2009	04/27/2010
Spectrum Analyzer	Agilent	E7405A	US41160416	07/04/2008	07/03/2009
Spectrum Analyzer	R&S	FSP 40	100034	11/09/2008	11/08/2009
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA	N/A	N/A	N/A
Attenuator	Mini-Circuit	BW-S6W5	N/A	01/05/2009	01/04/2010

7.4 Measurement Result

UNII 1

Channel	Frequency (MHz)	Peak Power (dBm)	Limit (dBm)	Margin (dB)
Low	5180	14.67	17.00	-2.33
Mid	5260	14.42	24.00	-9.58
High	5320	14.35	24.00	-9.65

**Note: Offset 0.8dB*

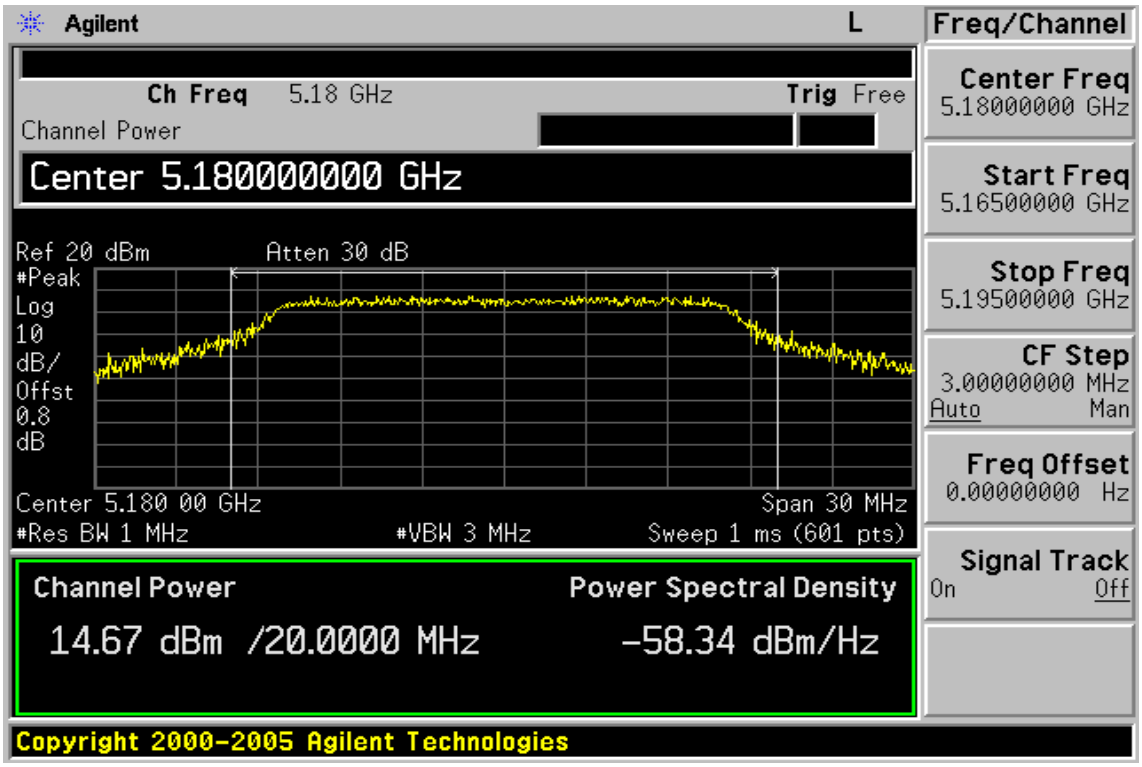
UNII 2

Channel	Frequency (MHz)	Peak Power (dBm)	Limit (dBm)	Margin (dB)
Low	5500	14.17	24.00	-9.83
Mid	5580	14.28	24.00	-9.72
Mid	5600	14.89	24.00	-9.11
High	5700	14.35	24.00	-9.65

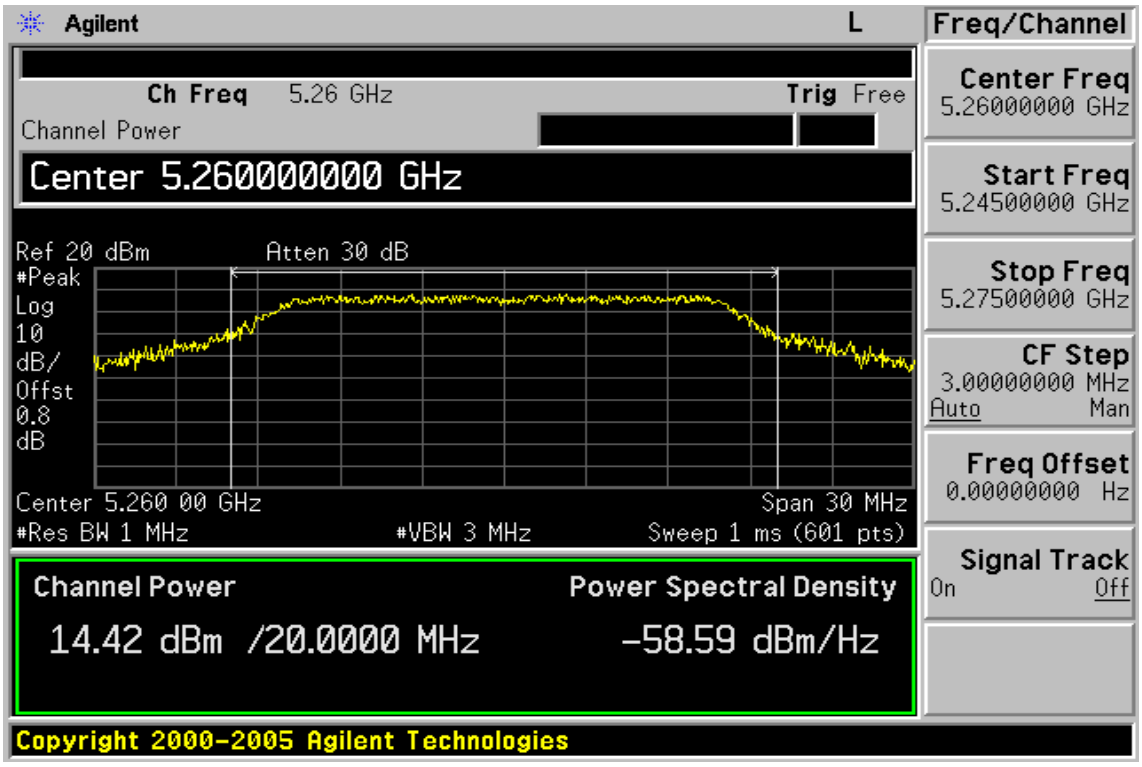
**Note: Offset 0.8dB*

UNII 1

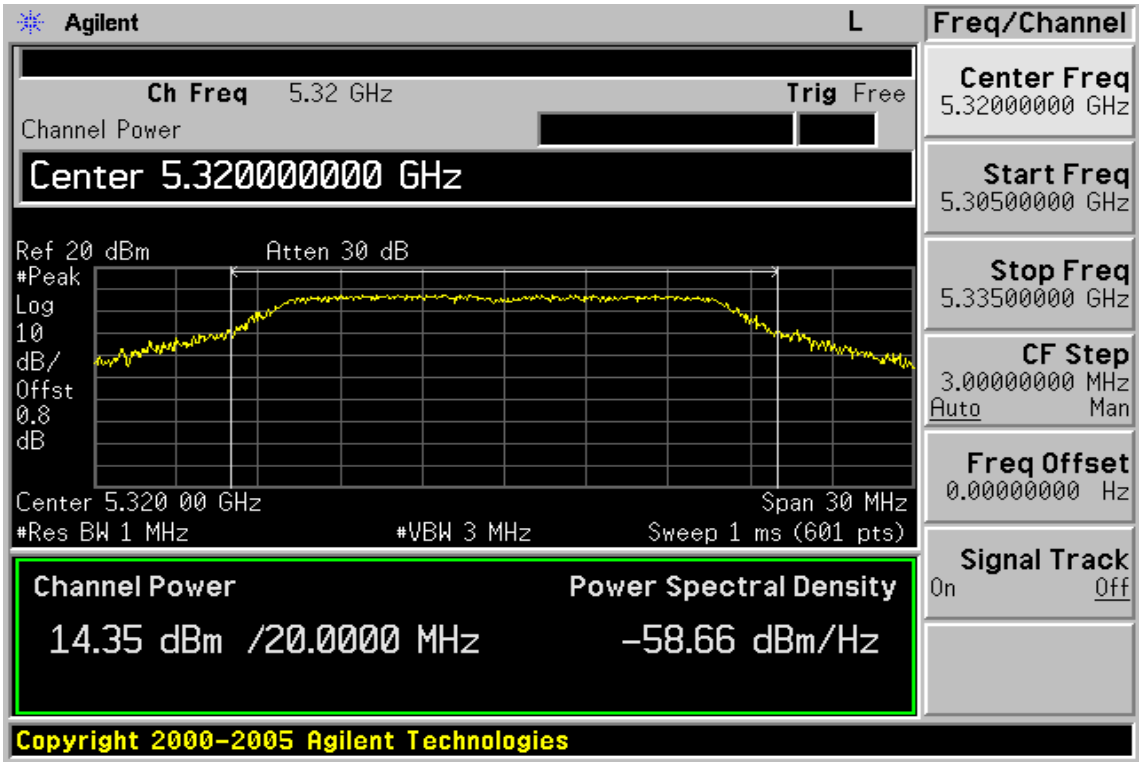
Peak Power Output Data Plot (CH Low 5180 MHz)



Peak Power Output Data Plot (CH Mid 5260 MHz)

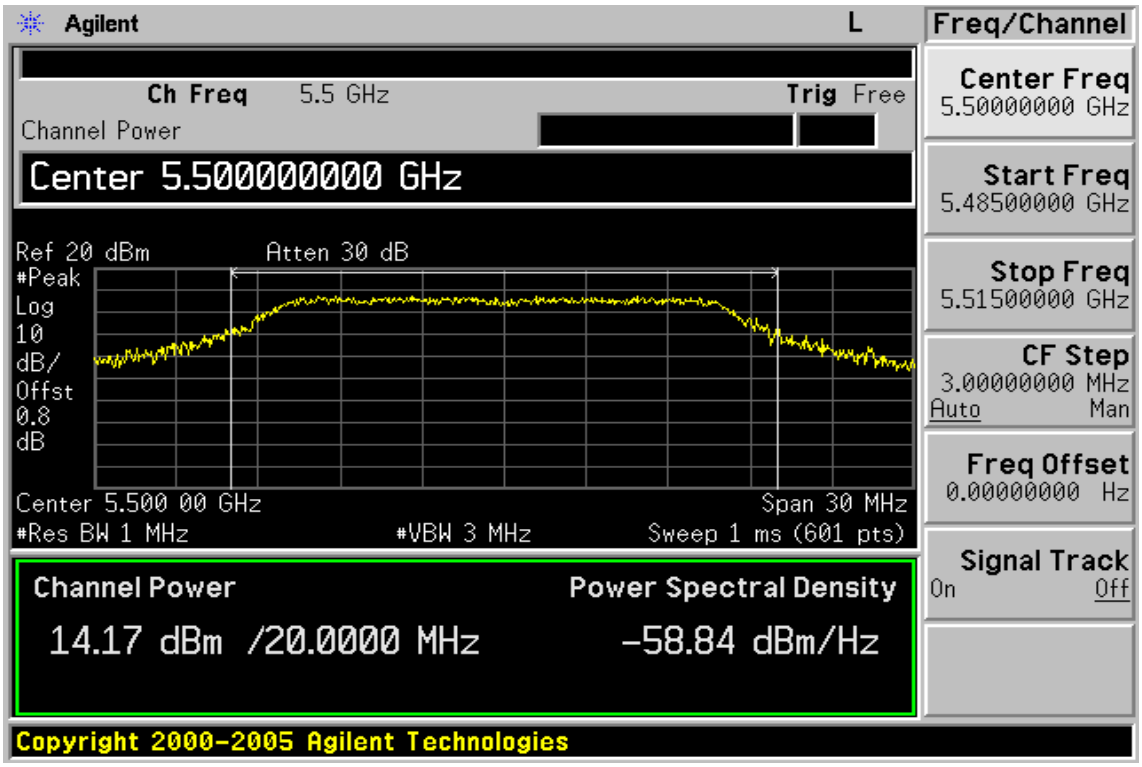


Peak Power Output Data Plot (CH High 5320 MHz)

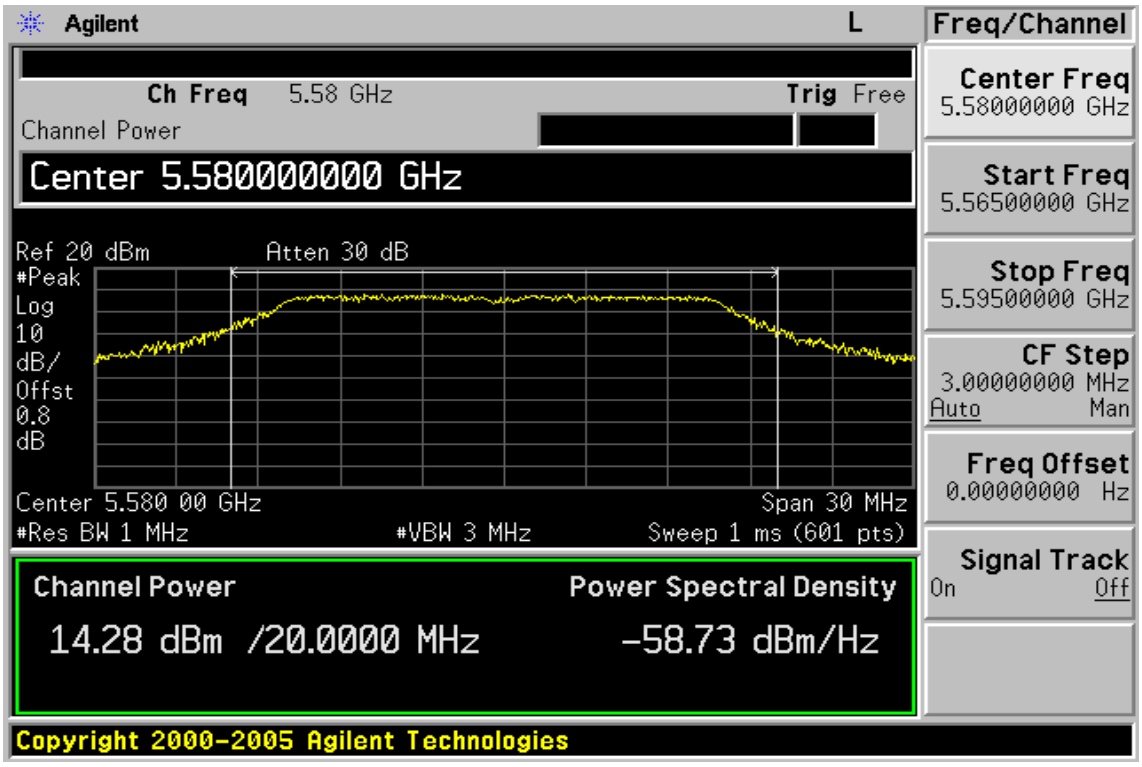


UNII 2

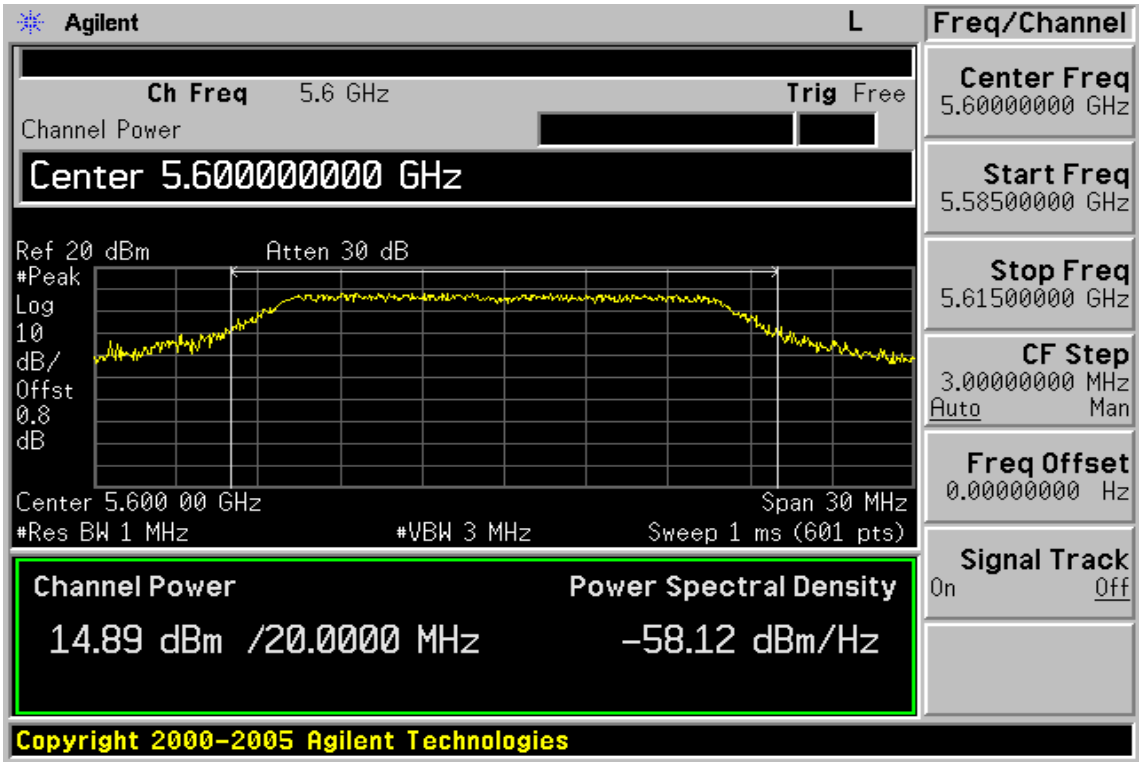
Peak Power Output Data Plot (CH Low 5500 MHz)



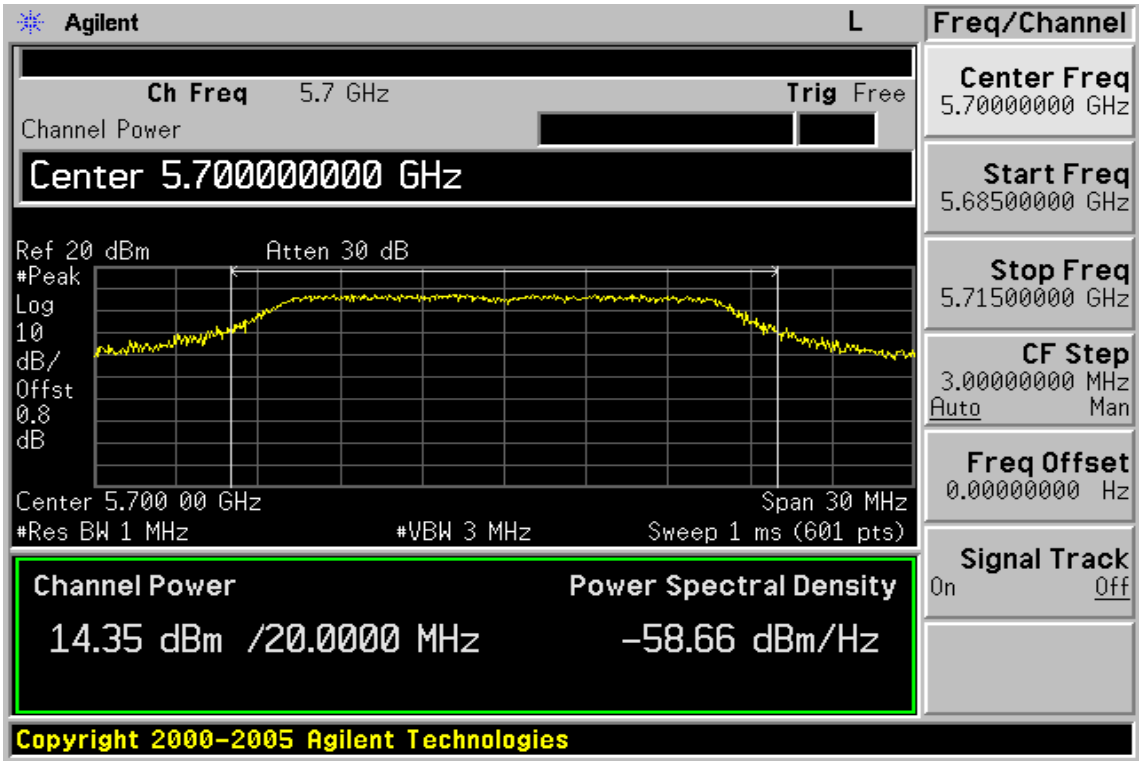
Peak Power Output Data Plot (CH Mid 5580 MHz)



Peak Power Output Data Plot (CH Mid 5600 MHz)



Peak Power Output Data Plot (CH High 5700 MHz)



8. PEAK POWER SPECTRAL DENSITY

8.1 Standard Applicable

According to §15.407(a)

1. For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band.
2. For the band 5.25-5.35 GHz and 5.47-5.725GMHz, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band.
3. For the band 5.725-5.825 GHz, the peak power spectral density shall not exceed 17 dBm in any 1-MHz band.

Where B is the -26dBc emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to RSS-210 A9.2

1. For the band 5150-5250 MHz, the maximum equivalent isotropically radiated power (e.i.r.p.) shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.
2. For the bands 5250-5350 MHz and 5470-5725 MHz, the maximum conducted output power shall not exceed 250 mW or 11 + 10 log10 B, dBm, whichever power is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band. The maximum e.i.r.p. shall not exceed 1.0 W or

17 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

In addition, devices with maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

In addition to the above requirements, devices operating in the band 5250-5350 MHz with maximum e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. elevation mask where θ is the angle above the local horizontal plane (of the earth) as shown below:

(i) -13 dB(W/MHz) for 0o ≤ θ < 8o

(ii) -13 – 0.716 (θ-8) dB(W/MHz) for 8o ≤ θ < 40o

(iii) -35.9 – 1.22 (θ-40) dB(W/MHz) for 40o ≤ θ ≤ 45o

(iv) -42 dB(W/MHz) for θ > 45o

3. For the band 5725-5825 MHz, the maximum conducted output power shall not exceed 1.0 W or 17 + 10 log10 B, dBm, whichever power is less. The power spectral density shall not exceed 17 dBm in any 1.0 MHz band. The maximum e.i.r.p. shall not exceed 4.0 W or 23 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

Fixed point-to-point systems for this band are permitted to have an e.i.r.p. greater than 4 W, provided that the higher e.i.r.p. is achieved by employing higher gain antennas, but not higher transmitter output powers. Point-to-multipoint systems, omni-directional applications and multiple co-located transmitters transmitting the same information are prohibited from exceeding 4 W e.i.r.p. However, remote stations of point-to-multipoint systems shall be permitted to operate at greater than 4 W e.i.r.p, under the same conditions as for point-to-point systems.

B is the 99% emission bandwidth in MHz.

8.2 Measurement Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to Spectrum.
3. Set RBW=1MHz,VBW=3MHz, Span=20MHz (Base Mode)/ 50MHz (Turbo Mode), Sweep time = Auto, traces 100 sweeps of video averaging.
4. Record the max. reading.
5. Repeat above procedures until all frequency measured were complete.

8.3 Measurement Equipment Used:

Conducted Emission Test Site					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
Spectrum Analyzer	Agilent	E4446A	MY43360126	04/19/2008	04/18/2010
Spectrum Analyzer	Agilent	E4440A	US41160416	01/23/2008	01/22/2010
DC Block	Agilent	BLK-18	155452	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S20W5	N/A	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S10W5	N/A	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S6W5	N/A	07/05/2008	07/04/2009
Splitter	Agilent	11636B	N/A	07/05/2008	07/04/2009
DC Power Supply	HP	6038A	2929A-07548	06/27/2007	06/26/2009
DC Power Supply	Topward	3303D	981327	10/26/2007	10/25/2009

8.4 Measurement Result

UNII 1

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5180	-1.84	4.00	-5.84
Mid	5260	-1.72	11.00	-12.72
High	5320	-2.71	11.00	-13.71

**Note: Offset 0.8dB*

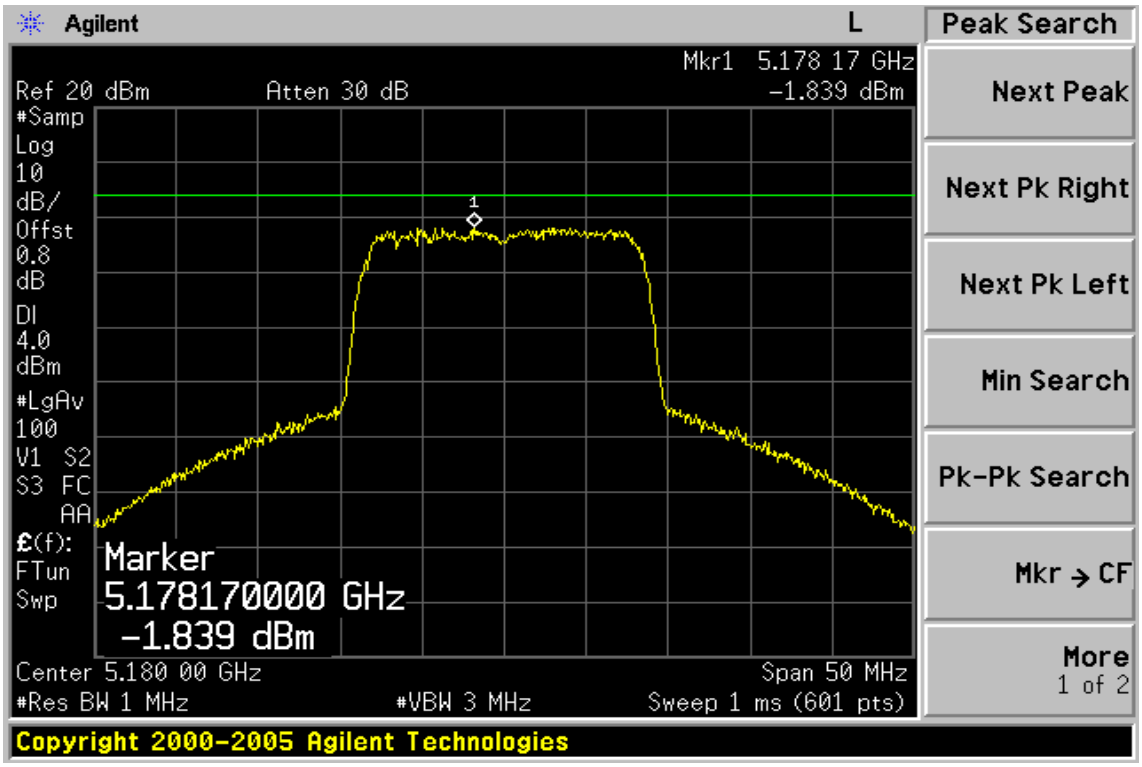
UNII 2

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5500	-2.79	11.00	-13.79
Mid	5580	-2.11	11.00	-13.11
Mid	5600	-1.90	11.00	-12.90
High	5700	-2.20	11.00	-13.20

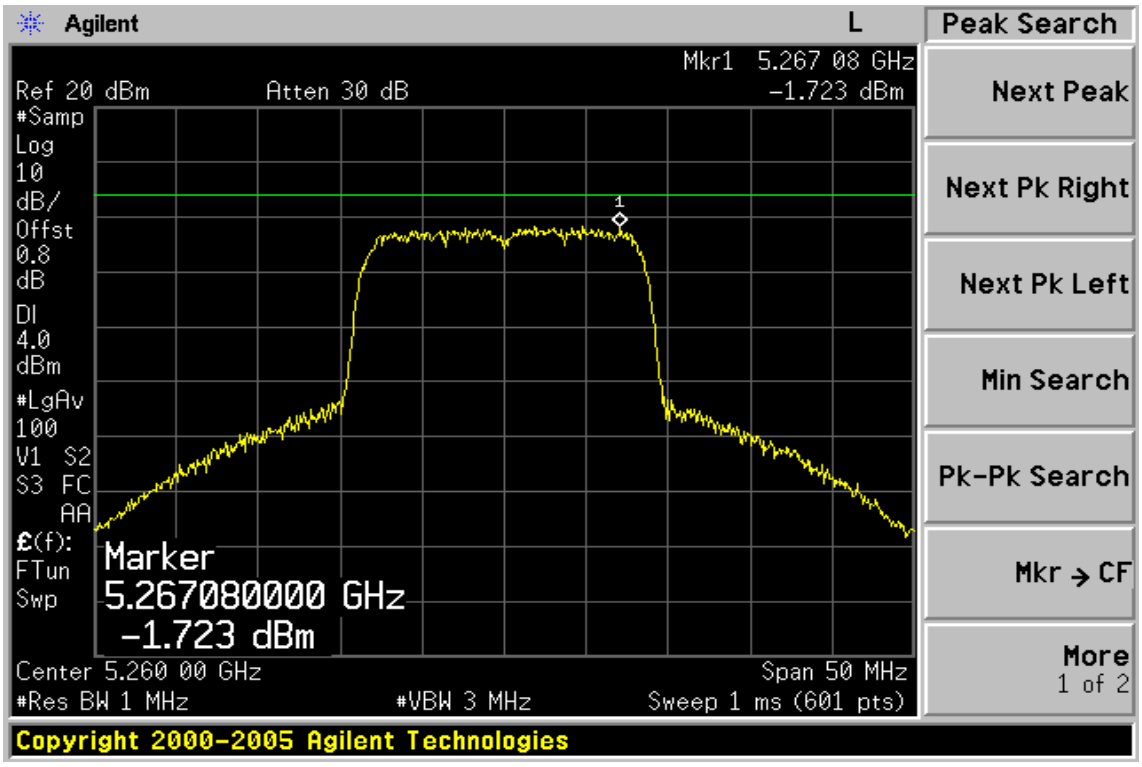
**Note: Offset 0.8dB*

UNII1

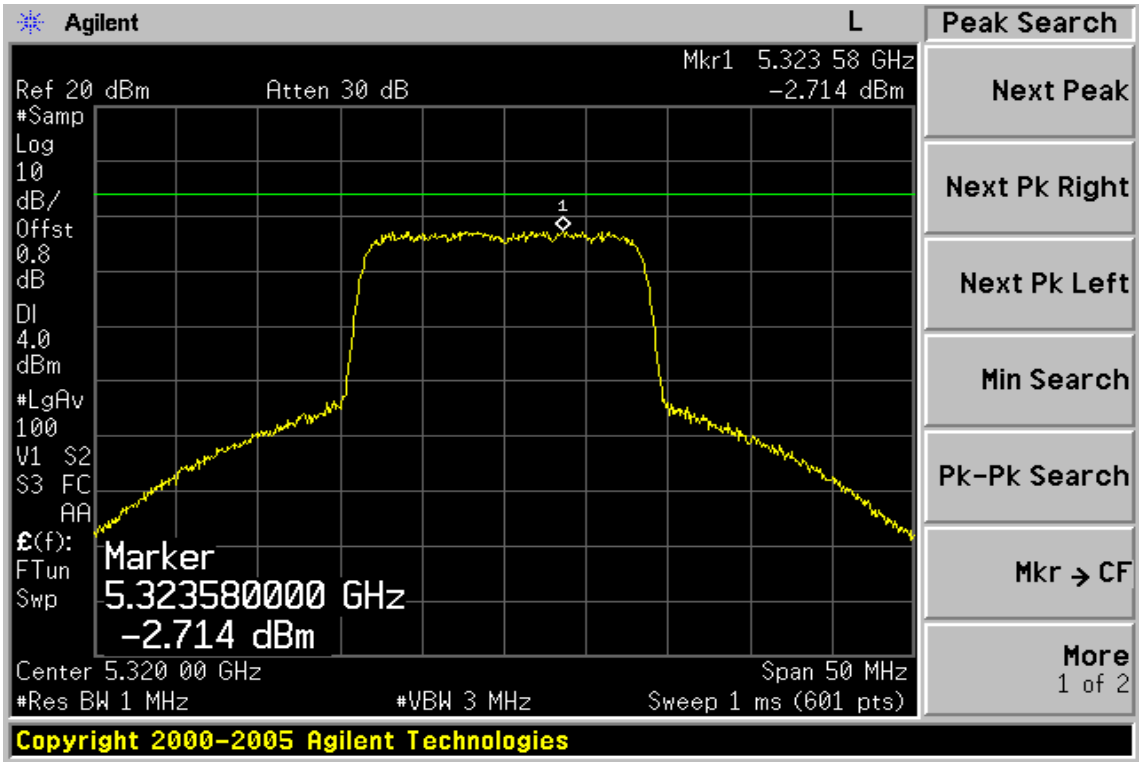
Peak Power Spectral Density Data Plot (CH Low 5180 MHz)



Peak Power Spectral Density Data Plot (CH Mid 5260 MHz)

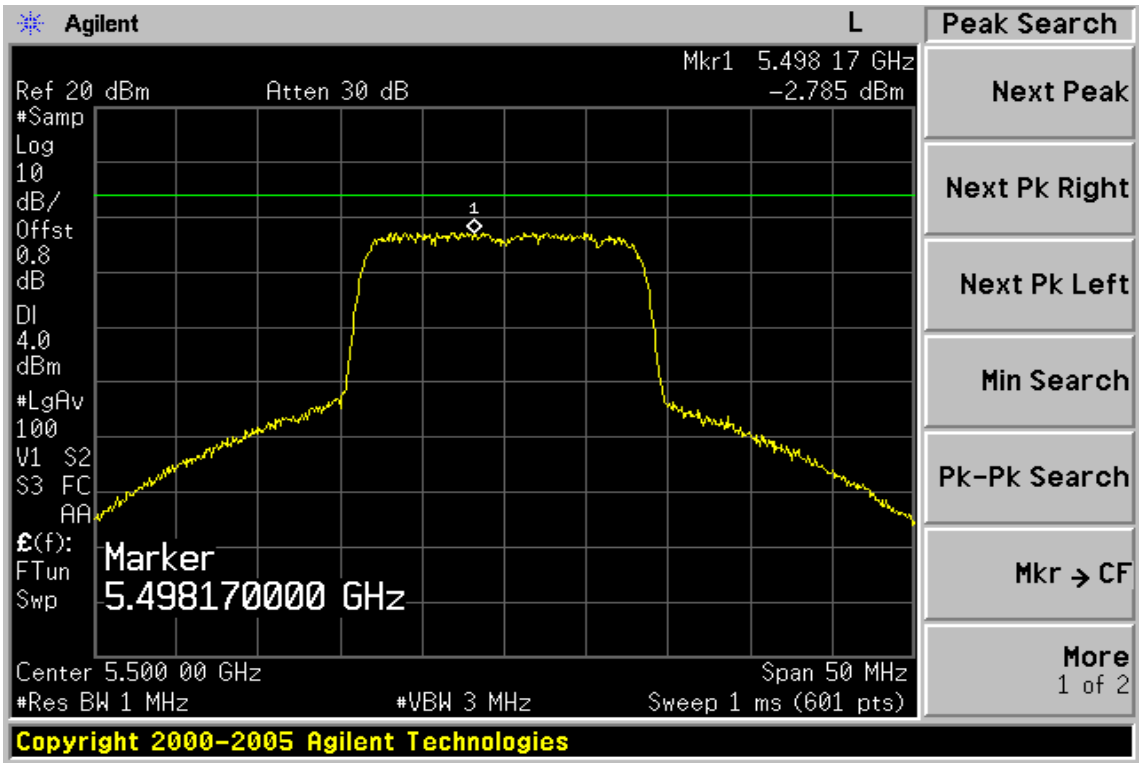


Peak Power Spectral Density Data Plot (CH High 5320 MHz)

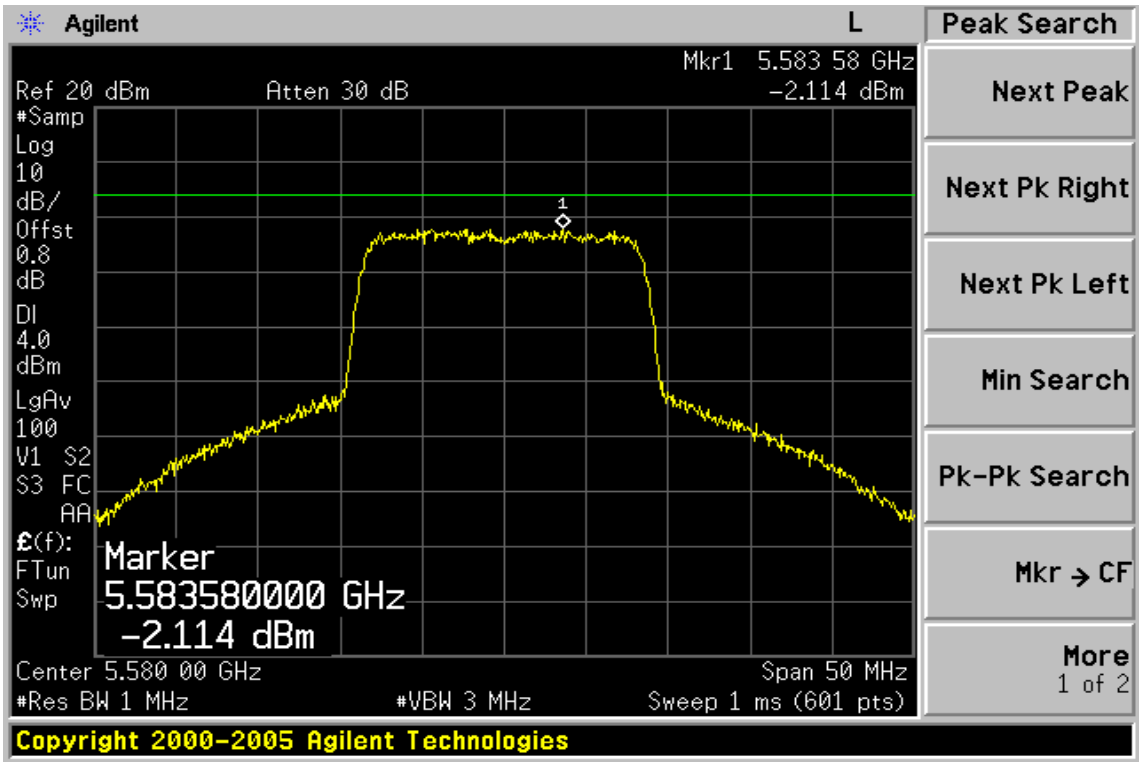


UNII2

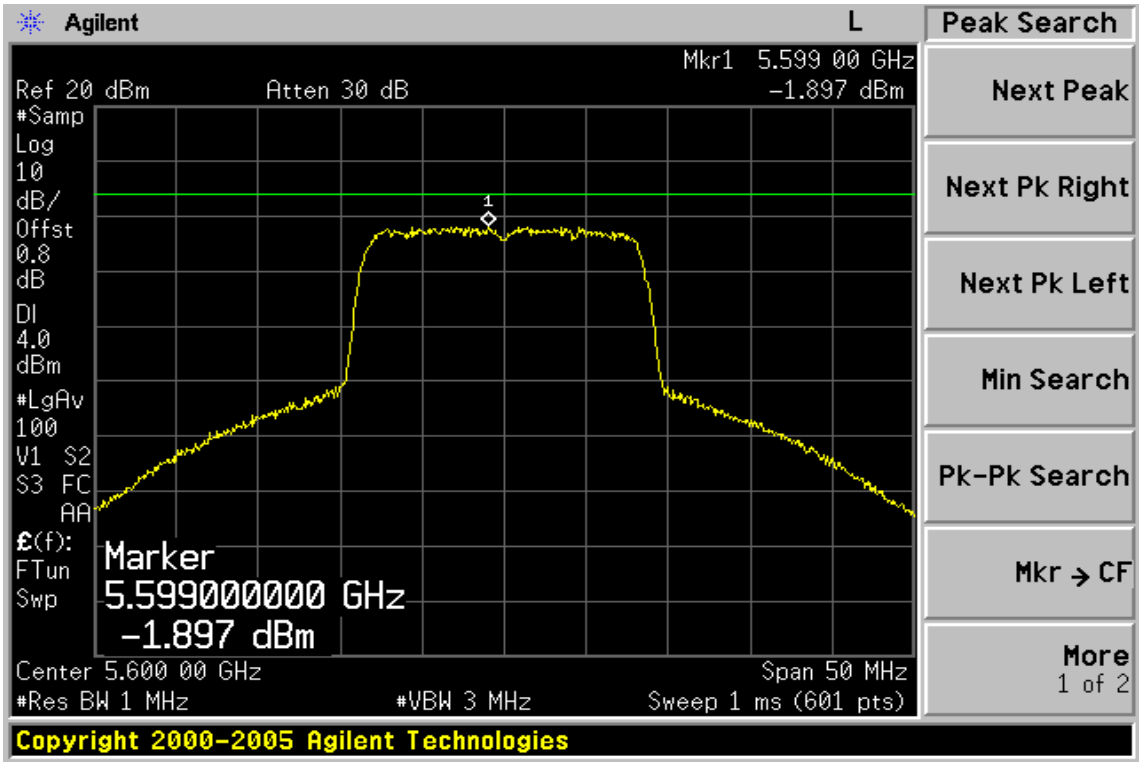
Peak Power Spectral Density Data Plot (CH Low 5500 MHz)



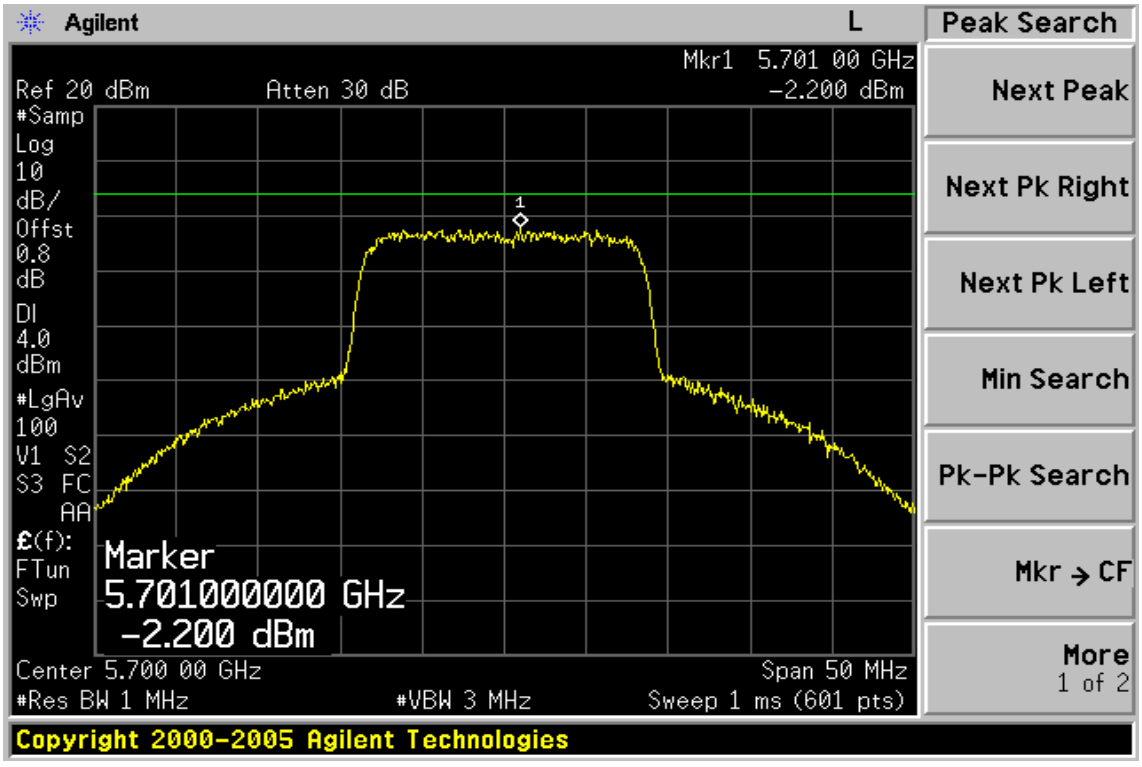
Peak Power Spectral Density Data Plot (CH Mid 5580MHz)



Peak Power Spectral Density Data Plot (CH Mid 5600 MHz)



Peak Power Spectral Density Data Plot (CH High 5700 MHz)



9. PEAK EXCURSION MEASUREMENT

9.1 Standard Applicable

15.407(a)(6) The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

9.2 Measurement Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to spectrum.
3. Trace A, Set RBW=1MHz, VBW = 3MHz, Span = 26dBc, Max. hold.
4. Trace B, Set RBW=1MHz, VBW = 30KHz, Span = 26dBc, Max. hold..
5. Delta Mark trace A center frequency and trace B center frequency.
6. Repeat above procedures until all frequency measured were complete.

9.3 Measurement Equipment Used:

Conducted Emission Test Site					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
Spectrum Analyzer	Agilent	E4446A	MY43360126	04/19/2008	04/18/2010
Spectrum Analyzer	Agilent	E4440A	US41160416	01/23/2008	01/22/2010
DC Block	Agilent	BLK-18	155452	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S20W5	N/A	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S10W5	N/A	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S6W5	N/A	07/05/2008	07/04/2009
Splitter	Agilent	11636B	N/A	07/05/2008	07/04/2009
DC Power Supply	HP	6038A	2929A-07548	06/27/2007	06/26/2009
DC Power Supply	Topward	3303D	981327	10/26/2007	10/25/2009

9.4 Test Results:

UNII1

Channel	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Low	5180	6.80	13.00	-6.20
Mid	5260	8.90	13.00	-4.10
High	5320	8.50	13.00	-4.50

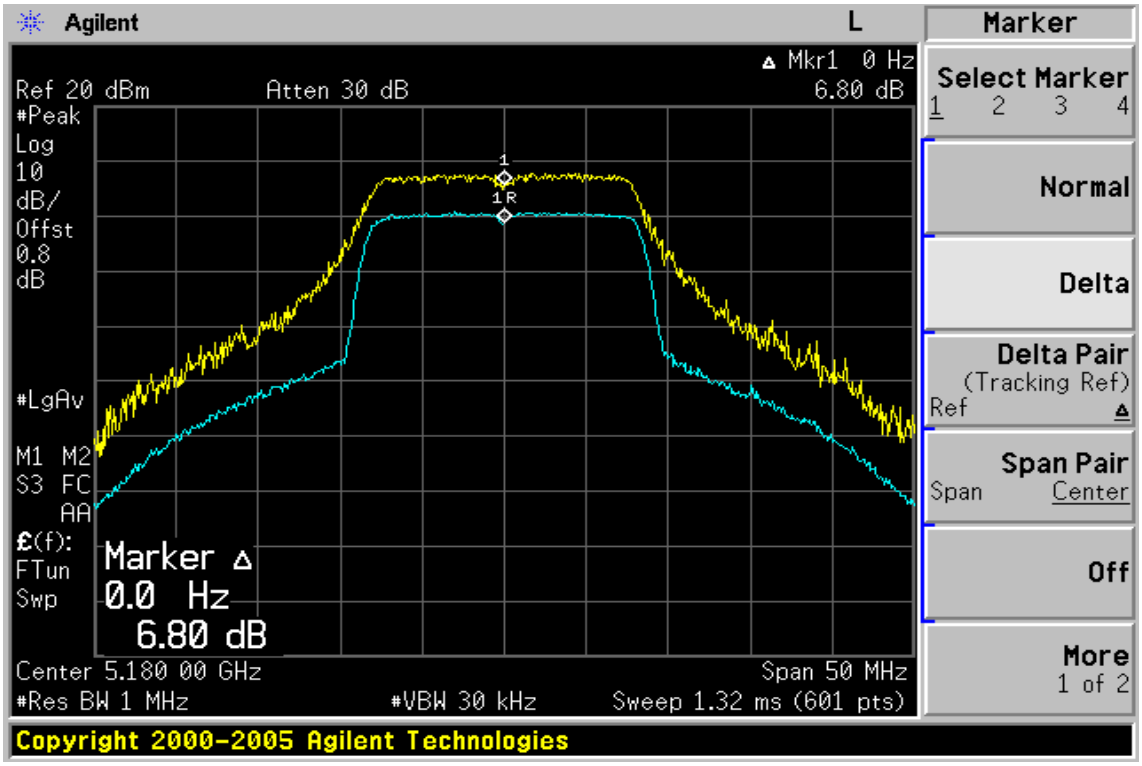
**Note: Offset 0.8dB*

UNII2

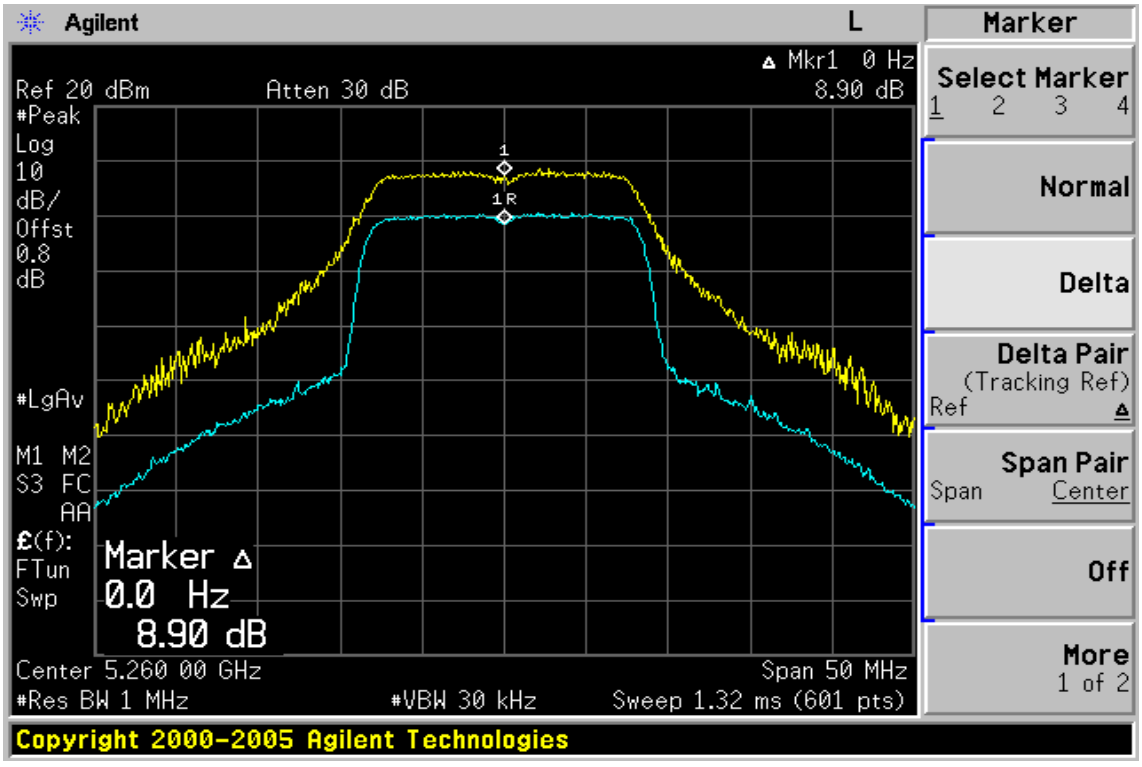
Channel	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Low	5500	7.01	13.00	-5.99
Mid	5580	7.36	13.00	-5.64
IC: Mid	5600	7.02	13.00	-5.98
High	5700	7.12	13.00	-5.88

**Note: Offset 0.8dB*

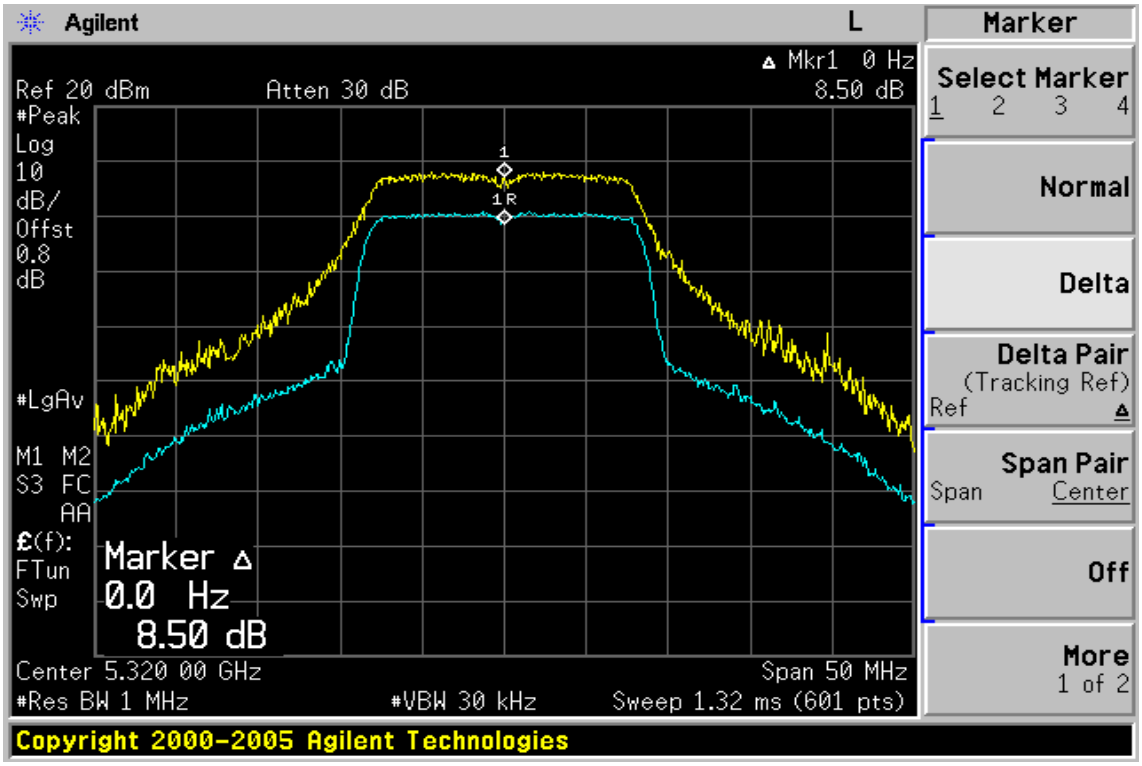
Peak Excursion Data Plot (CH Low 5180 MHz)



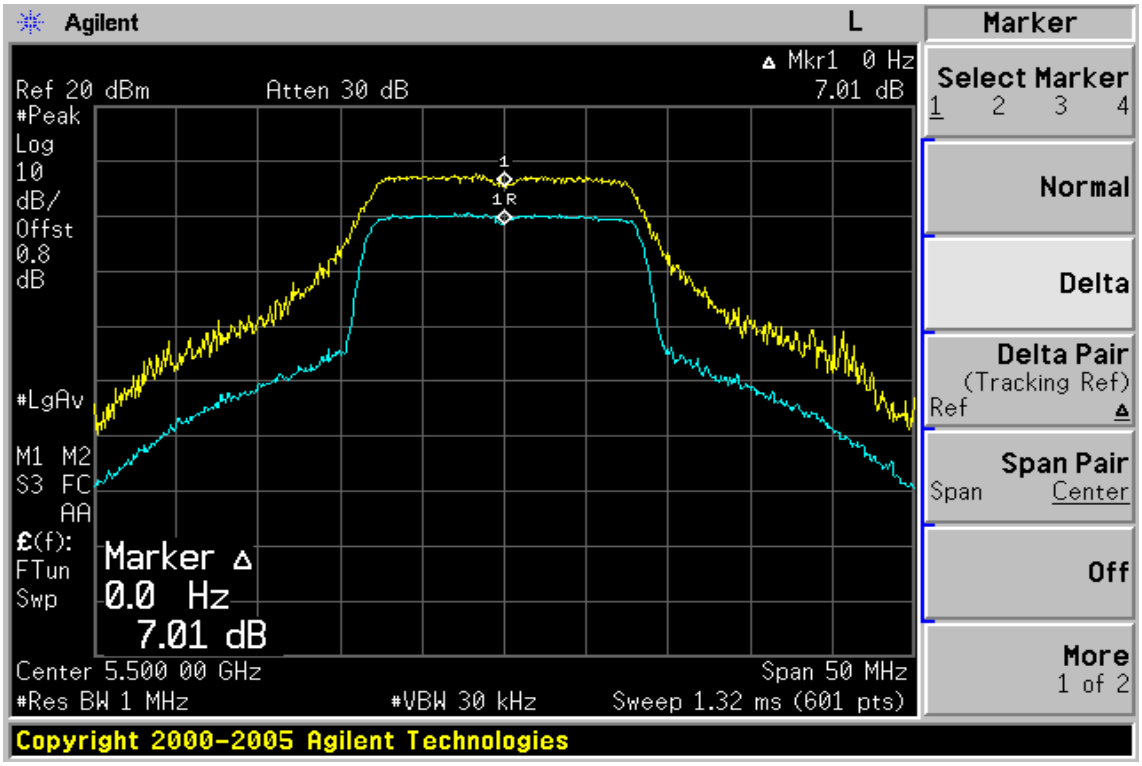
Peak Excursion Data Plot (CH Mid 5260 MHz)



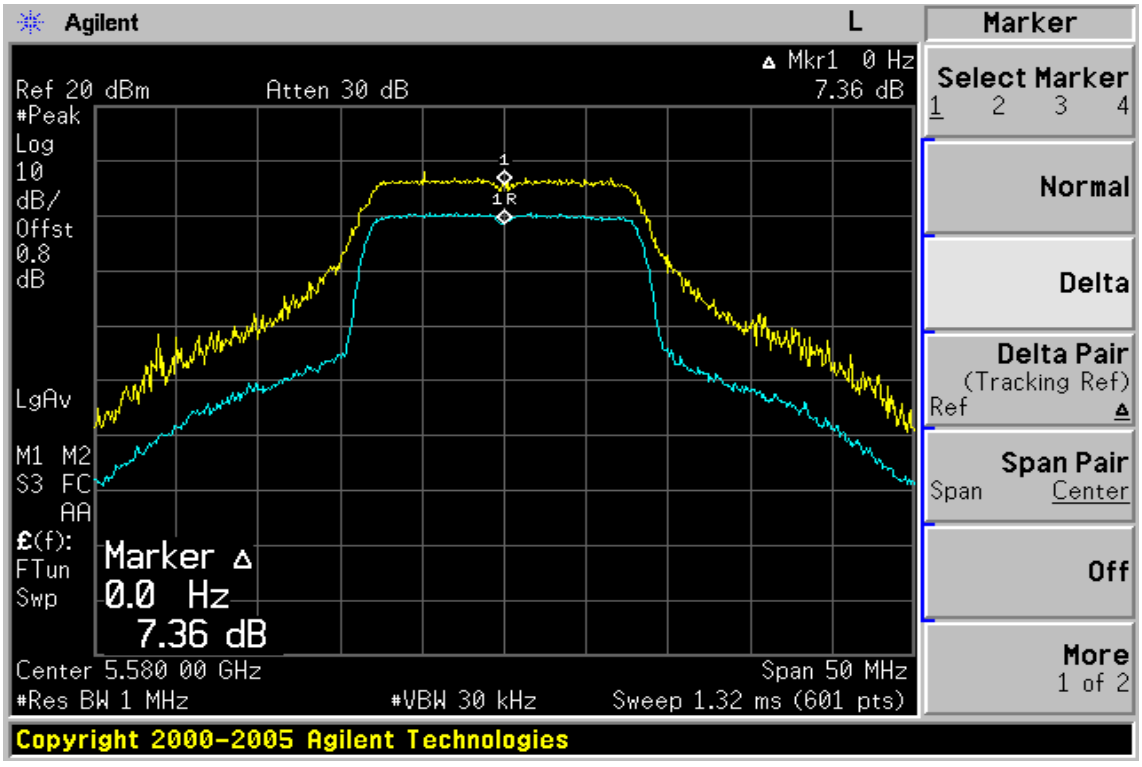
Peak Excursion Data Plot (CH High 5320 MHz)



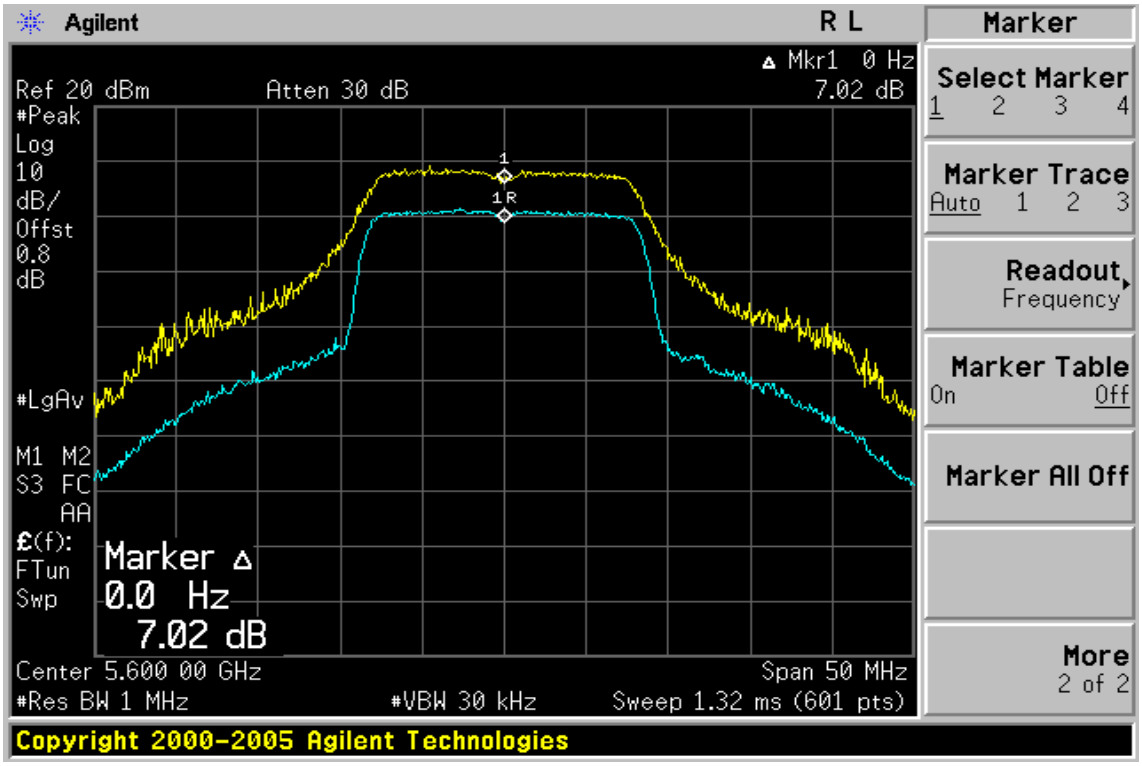
Peak Excursion Data Plot (CH Low 5500 MHz)



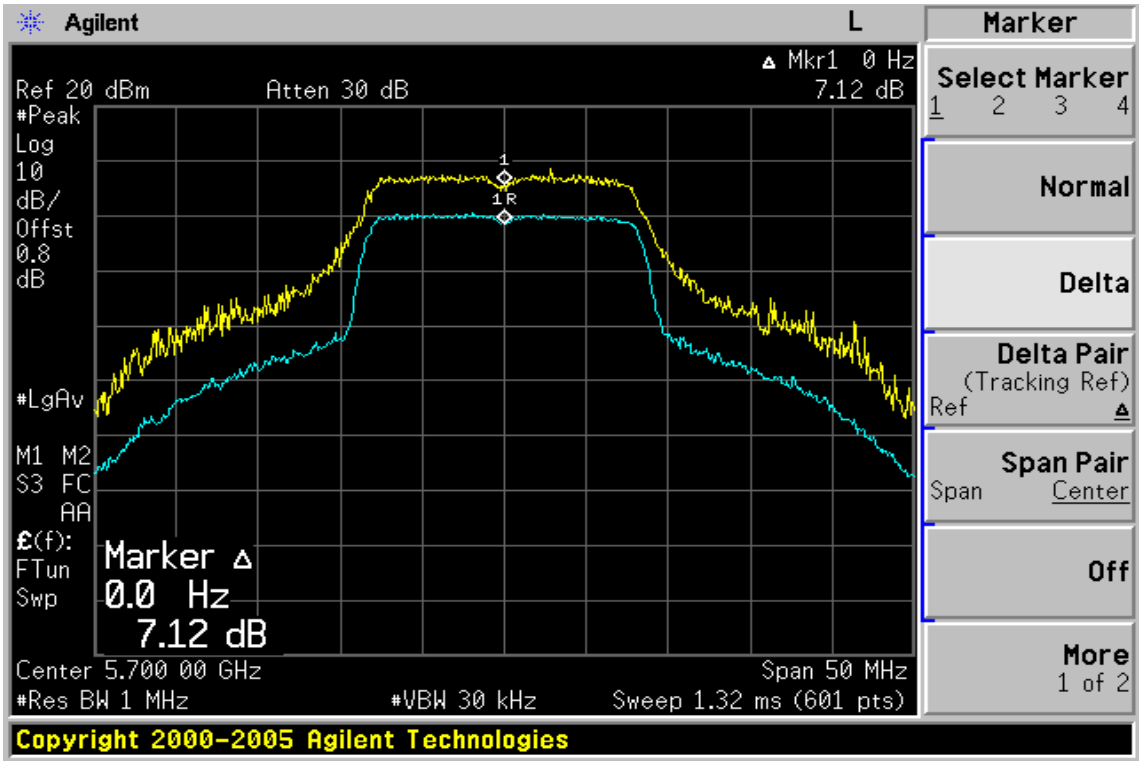
Peak Excursion Data Plot (CH Mid 5580 MHz)



Peak Excursion Data Plot (CH Mid 5600 MHz)



Peak Excursion Data Plot (CH High 5700 MHz)



10. UNDESIRABLE EMISSION - CONDUCTED MEASUREMENT

10.1 Standard Applicable

According to §15.407(b),

(b) Undesirable Emission Limits: Except as shown in Paragraph (b)(6) of this section, the peak emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.

(3) For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.825 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of -27 dBm/MHz.

(5) The above emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in Section 15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in Section 15.207.

(7) The provisions of Section 15.205 of this part apply to intentional radiators operating under this section.

(8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency block edges as the design of the equipment permits.

10.2 Measurement Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to spectrum.
3. Set Spectrum RBW=1MHz, VBW = 1MHz for peak measurement and 10Hz for average measurement.
4. Set Spectrum at lower/upper band edge and the restricted band adjacent to the lower/upper edge of the authorized band, with the transmitter set to the lowest/highest channel.
5. Set Spectrum over the 30MHz to 40GHz range with the transmitter set to the lowest, middle, and highest channels.

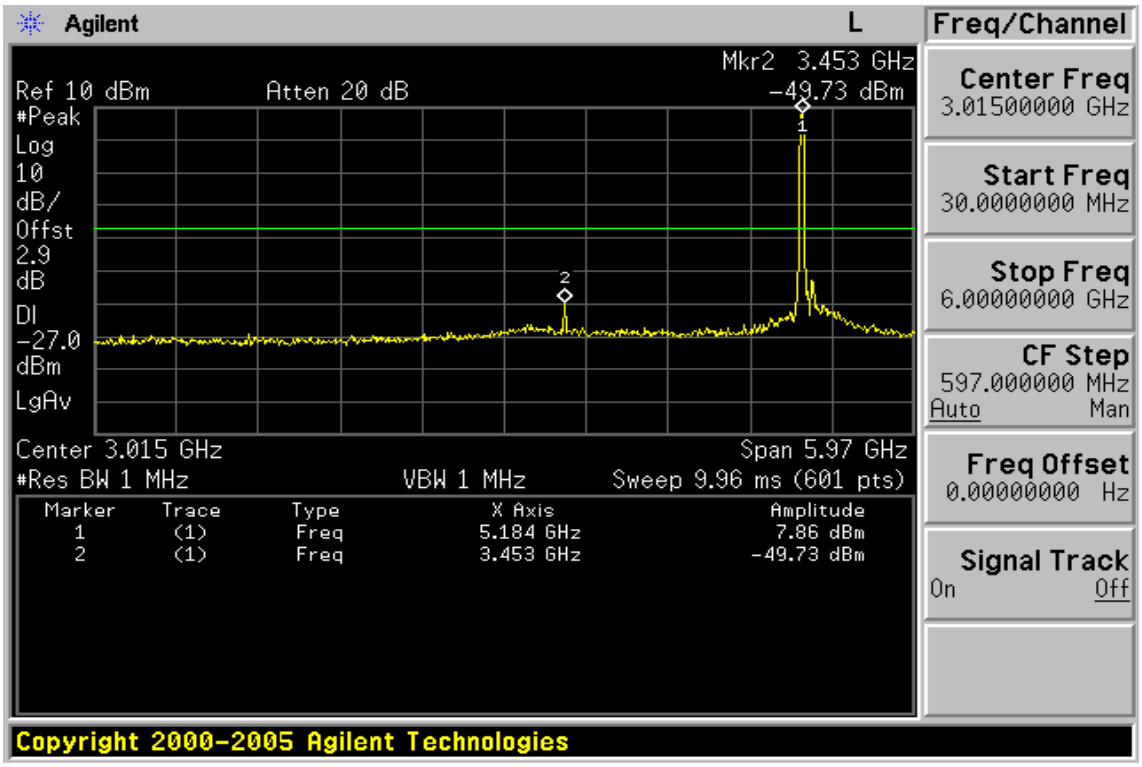
Conducted RF measurements of the transmitter output were made at the band edges and the adjacent restricted bands.

Also, conducted RF measurements of the transmitter output over the 30 MHz to 40 GHz band were made in order to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

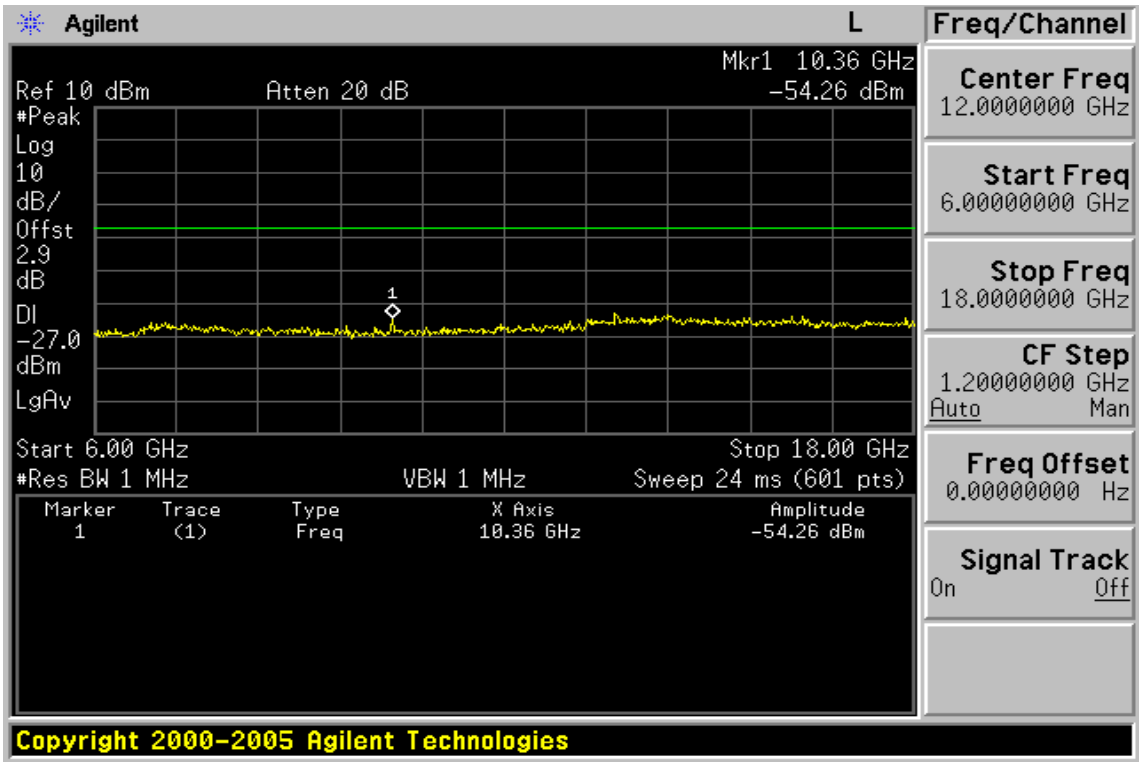
10.3 Measurement Equipment Used:

Conducted Emission Test Site					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
Spectrum Analyzer	Agilent	E4446A	MY43360126	04/19/2008	04/18/2010
Spectrum Analyzer	Agilent	E4440A	US41160416	01/23/2008	01/22/2010
DC Block	Agilent	BLK-18	155452	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S20W5	N/A	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S10W5	N/A	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S6W5	N/A	07/05/2008	07/04/2009
Splitter	Agilent	11636B	N/A	07/05/2008	07/04/2009
DC Power Supply	HP	6038A	2929A-07548	06/27/2007	06/26/2009
DC Power Supply	Topward	3303D	981327	10/26/2007	10/25/2009

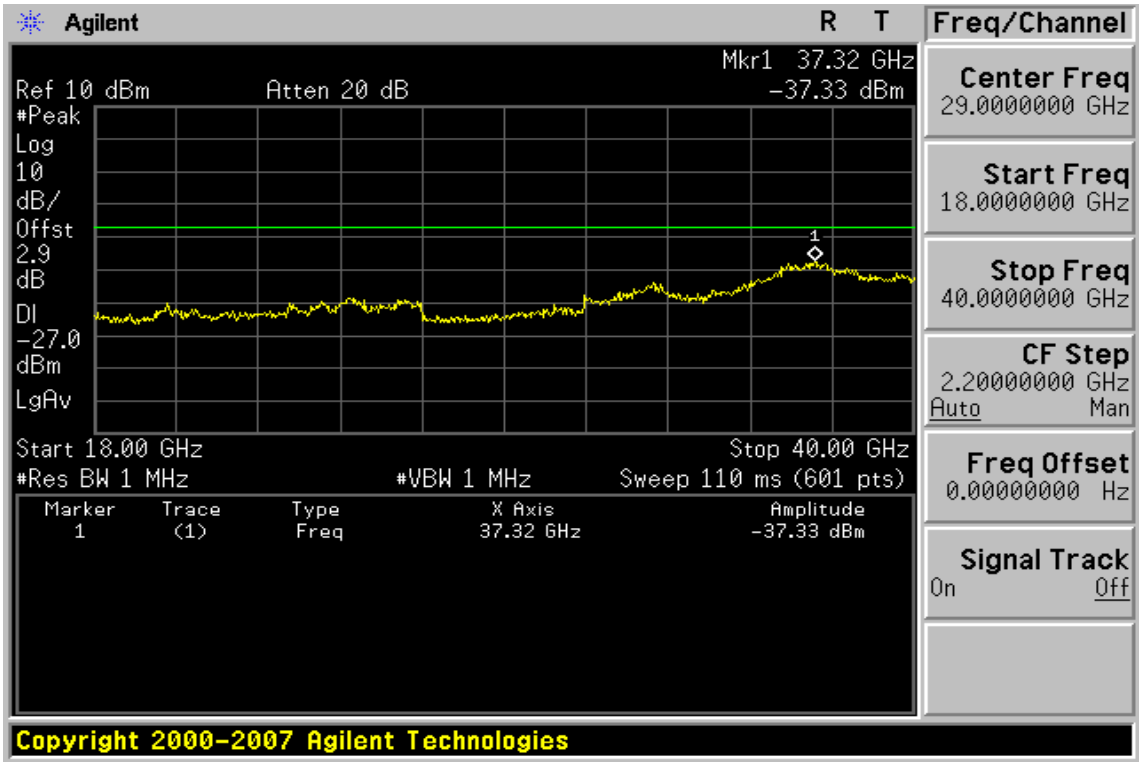
Ch Low 30MHz – 6GHz (5180 MHz)



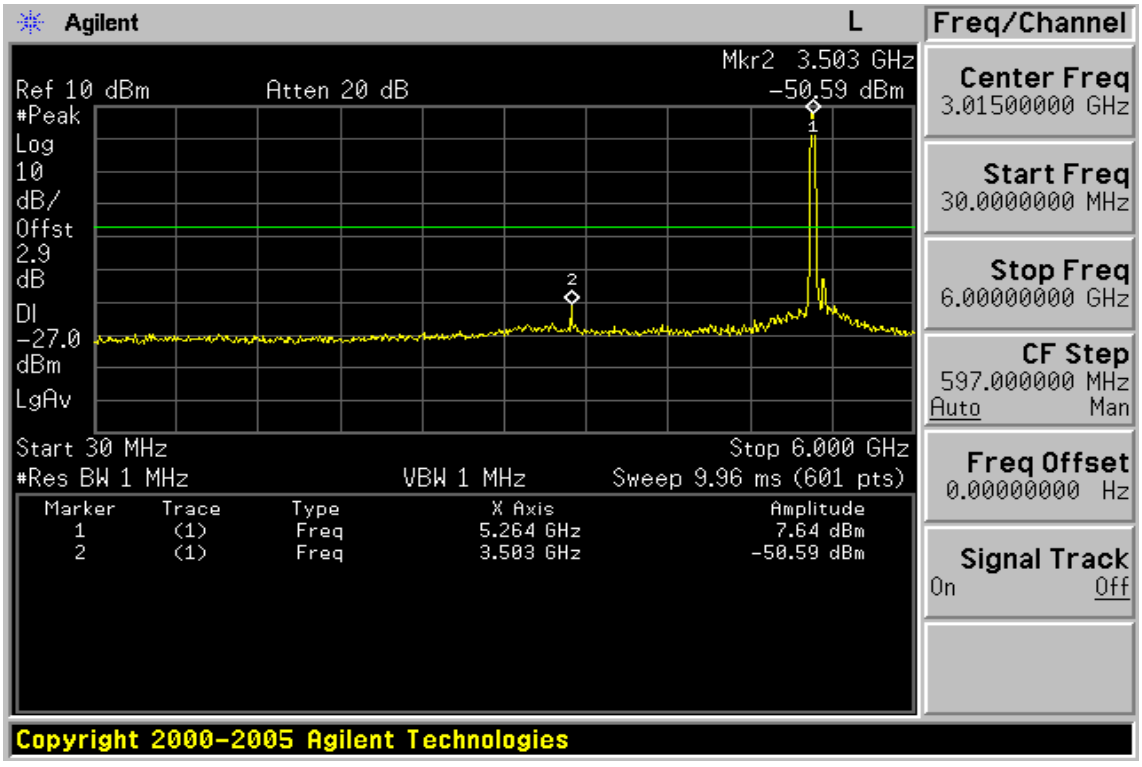
Ch Low 6GHz – 18GHz



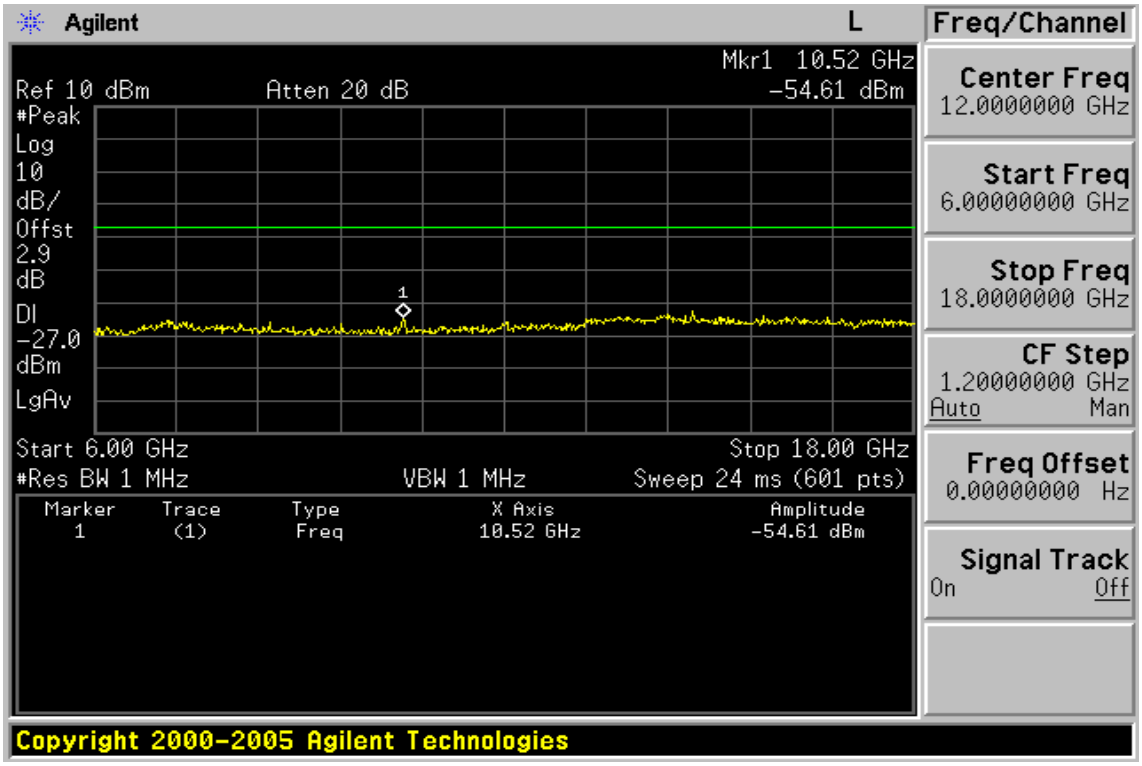
Ch Low 18GHz – 40GHz



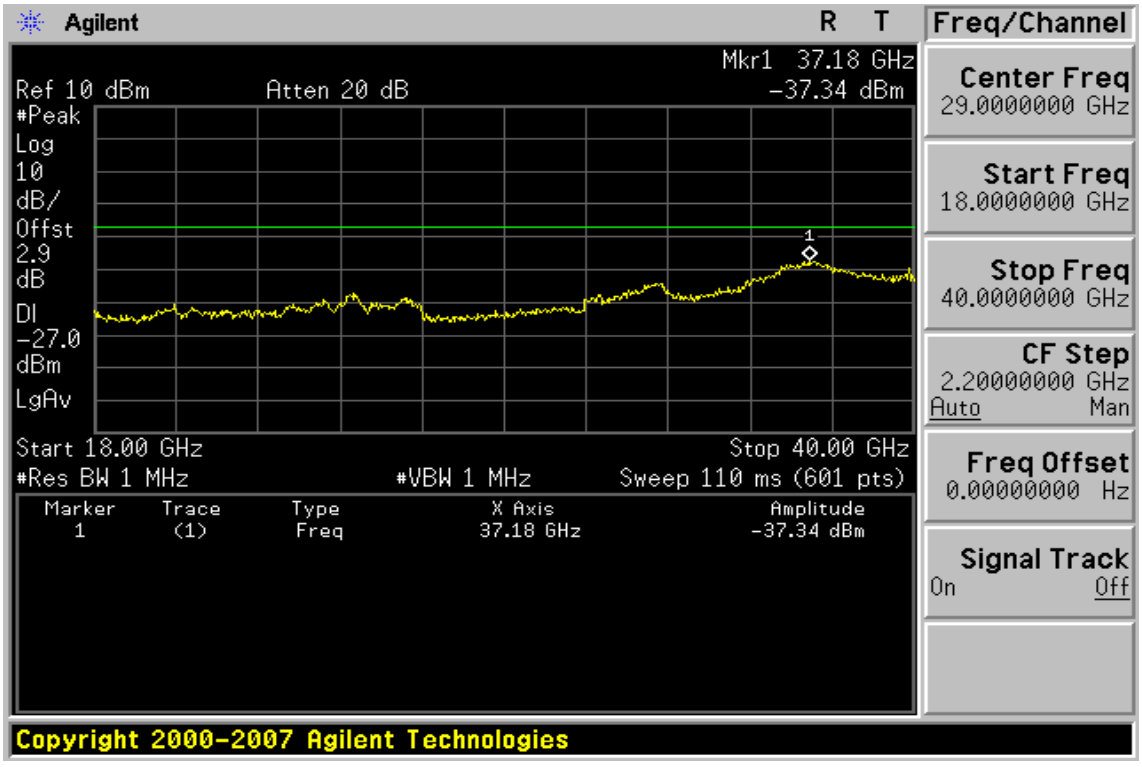
Ch Mid 30MHz – 6GHz (5260 MHz)



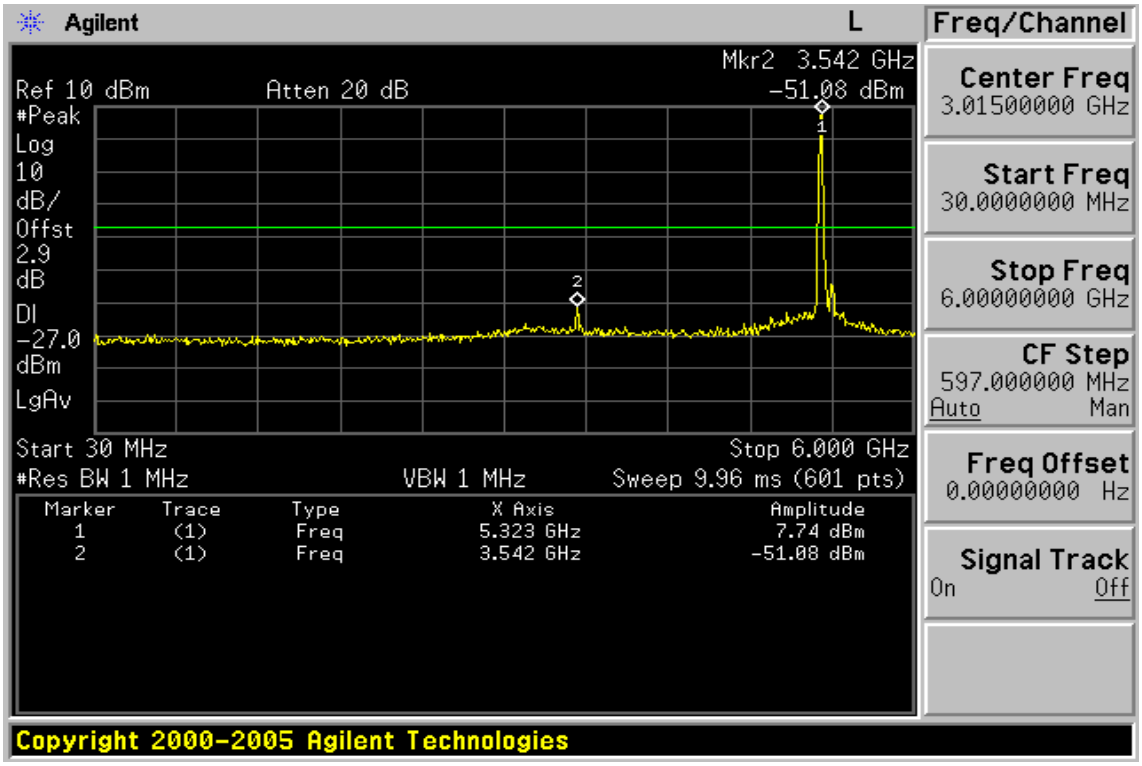
Ch Mid 6GHz – 18GHz



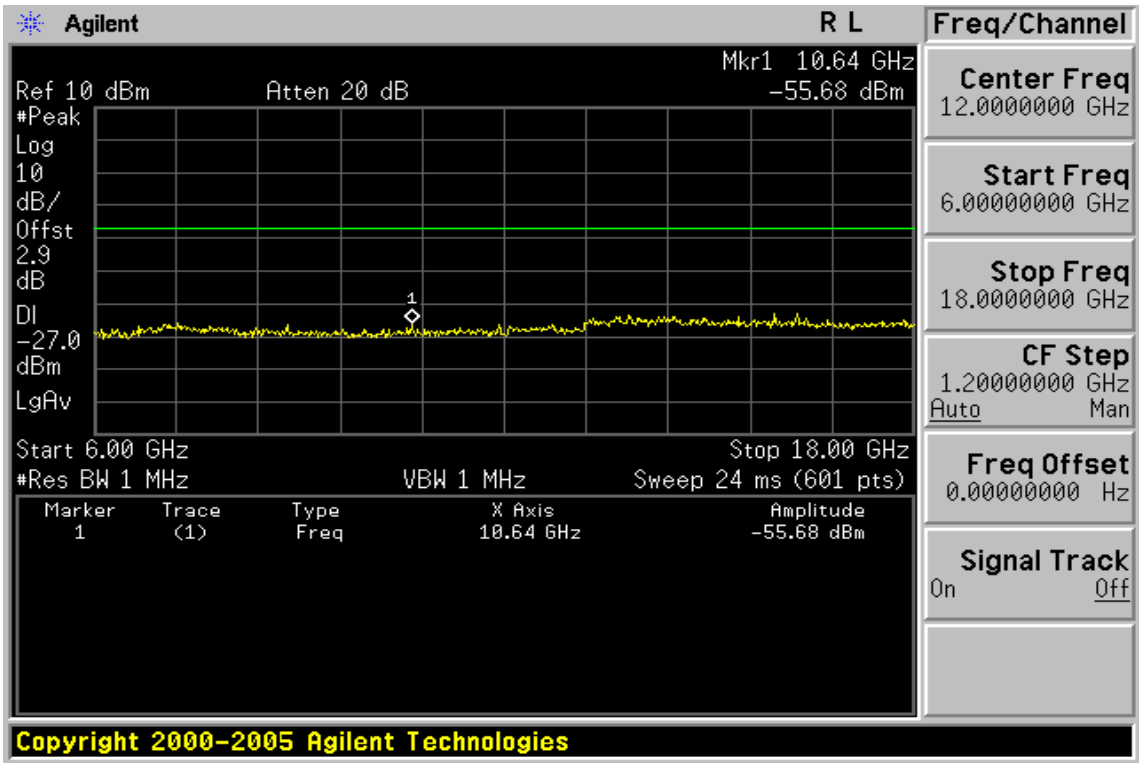
Ch Mid 18GHz – 40GHz



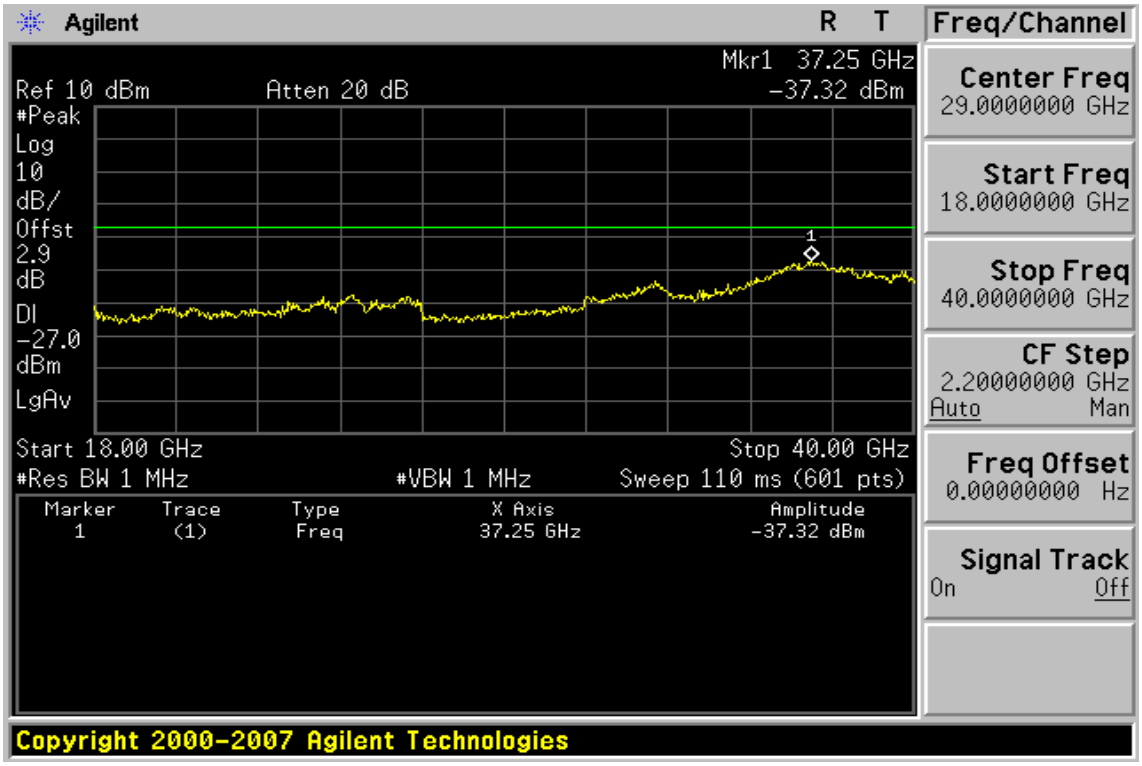
Ch High 30MHz – 6GHz (5320 MHz)



Ch High 6GHz – 18GHz

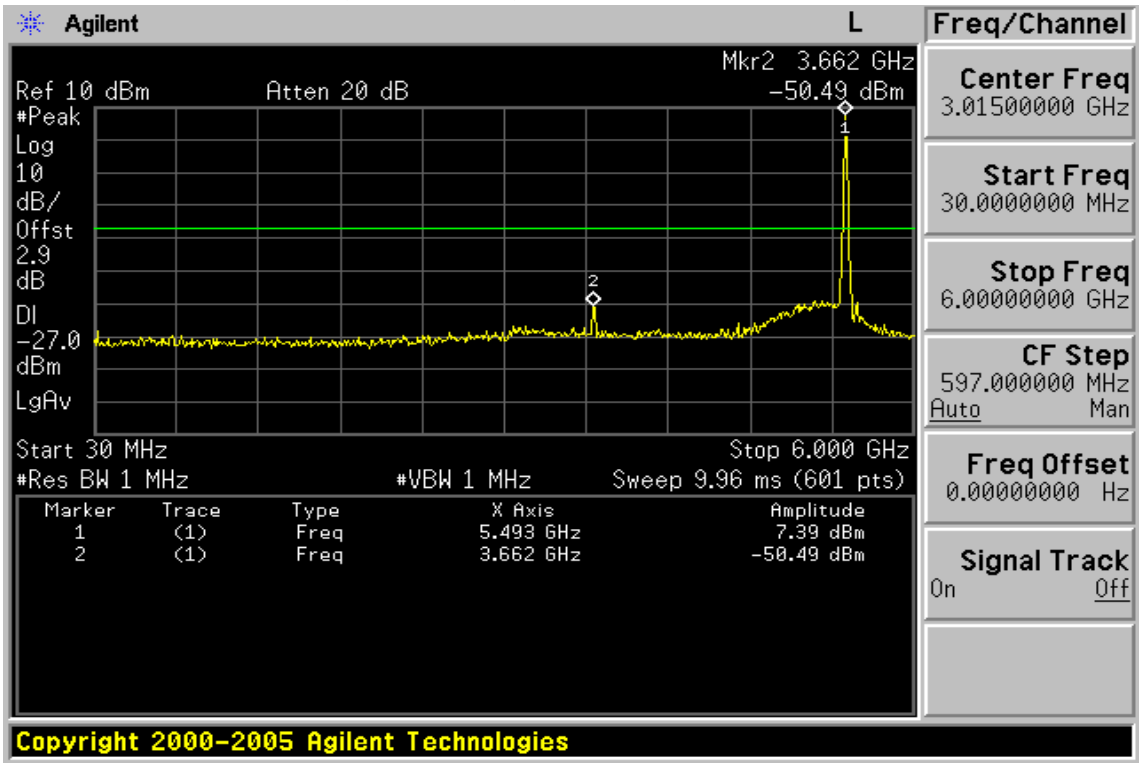


Ch High 18GHz – 40GHz

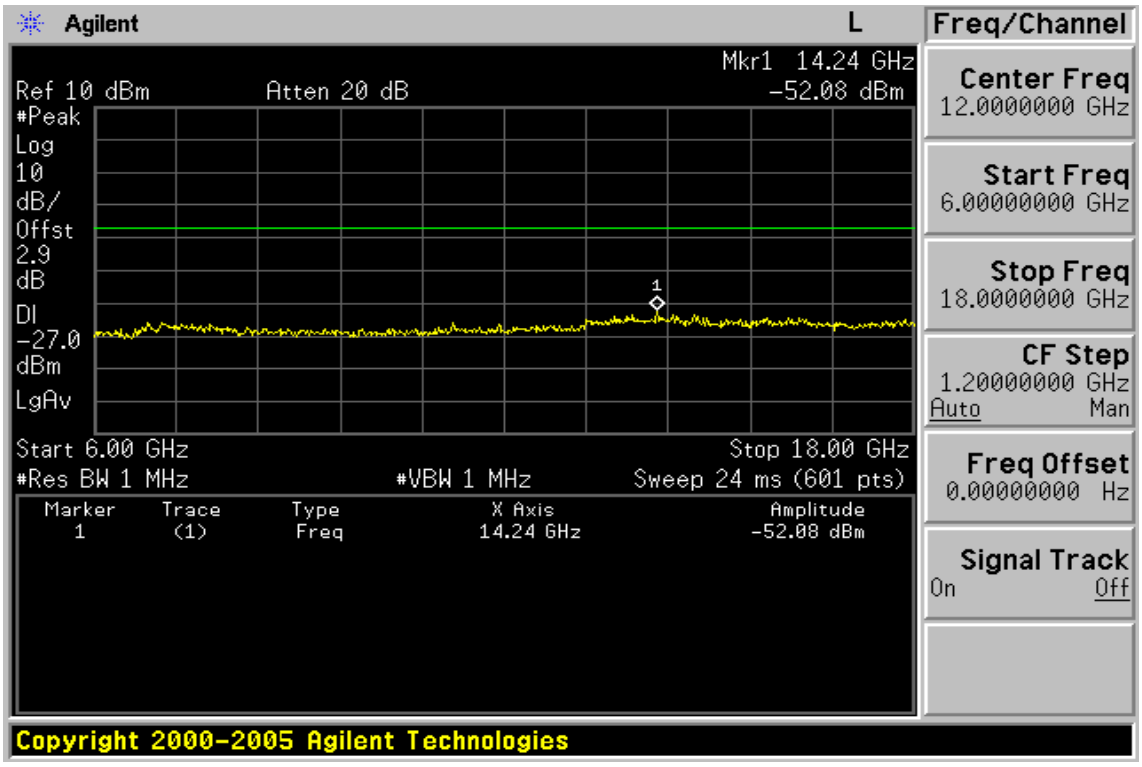


UNII 2

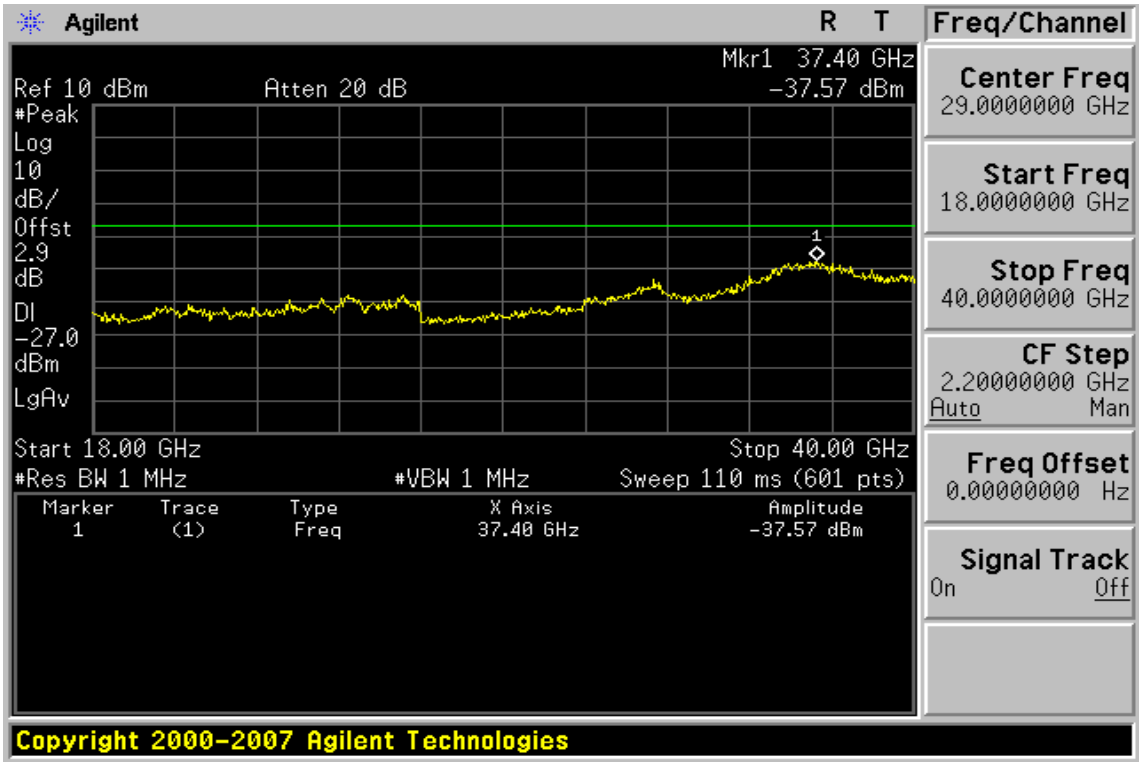
Ch Low 30MHz – 6GHz (5500 MHz)



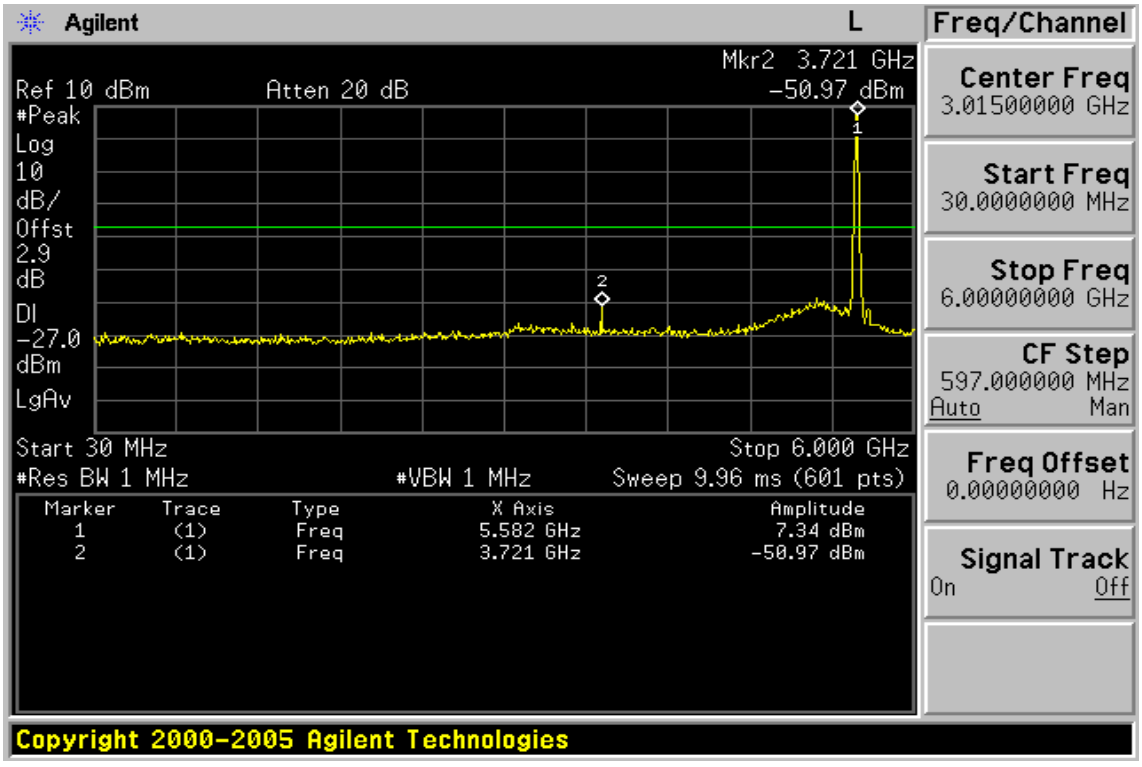
Ch Low 6GHz – 18GHz



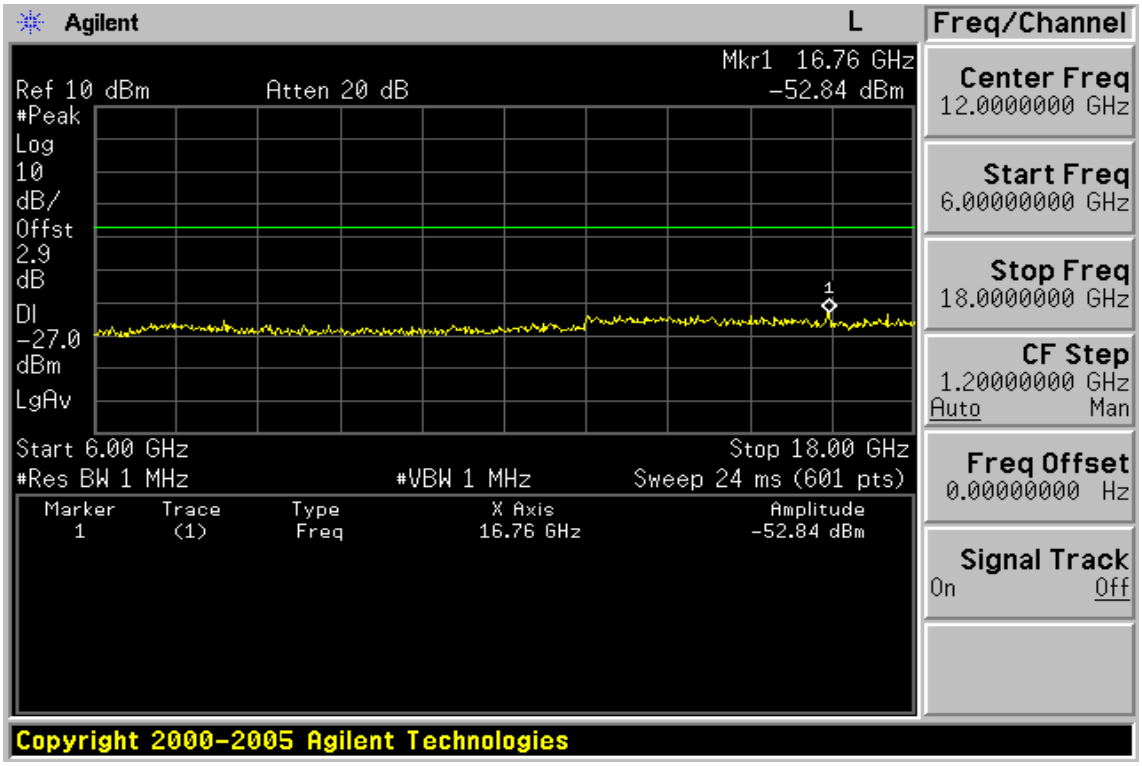
Ch Low 18GHz – 40GHz



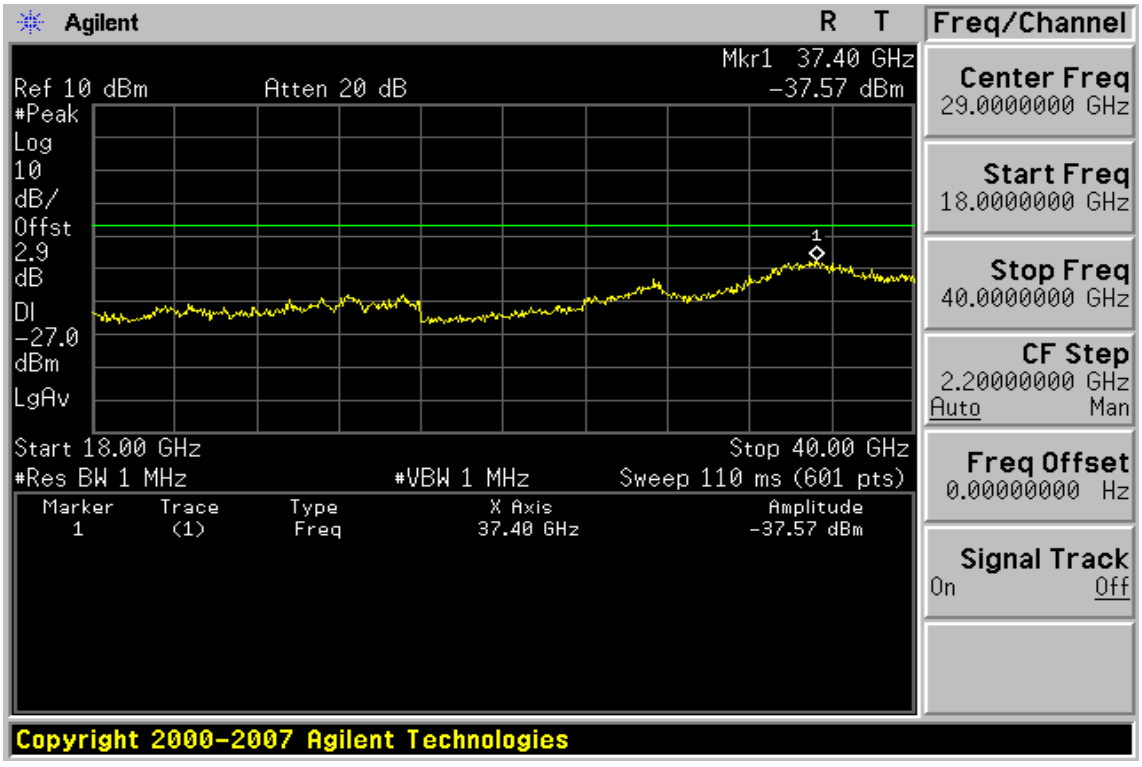
IC:Ch Mid 30MHz – 6GHz (5580 MHz)



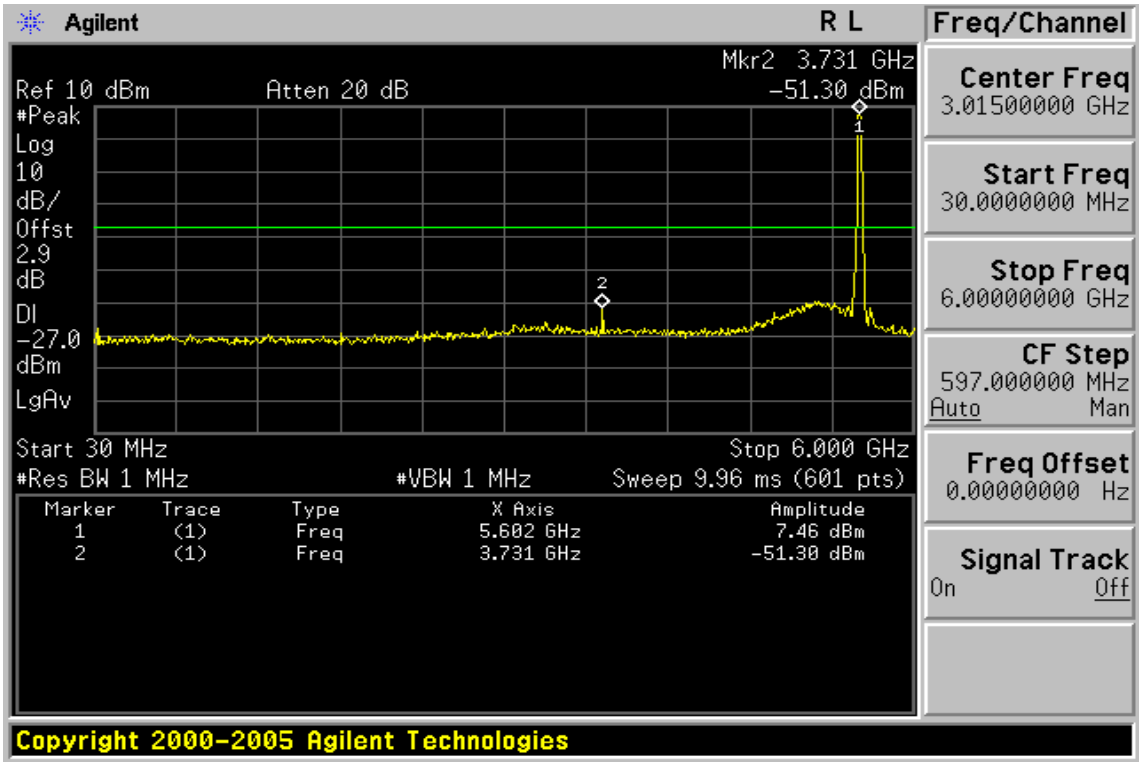
Ch Mid 6GHz – 18GHz



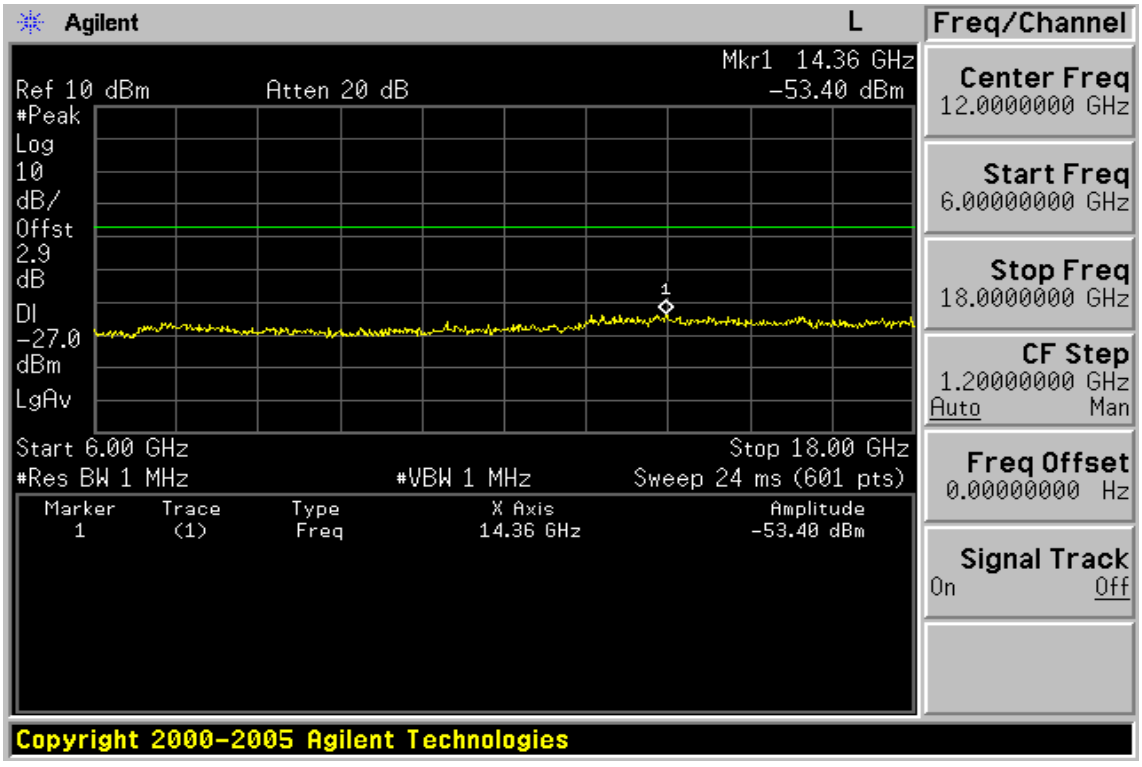
Ch Mid 18GHz – 40GHz



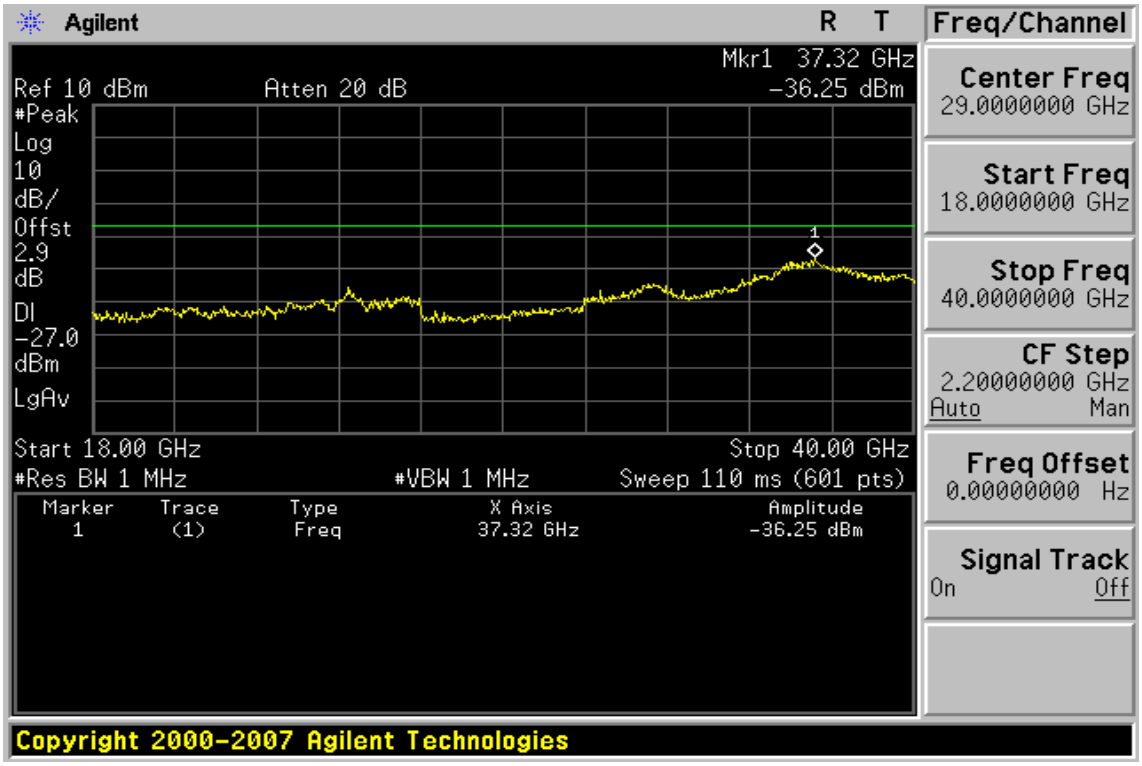
Ch Mid 30MHz – 6GHz (5600 MHz)



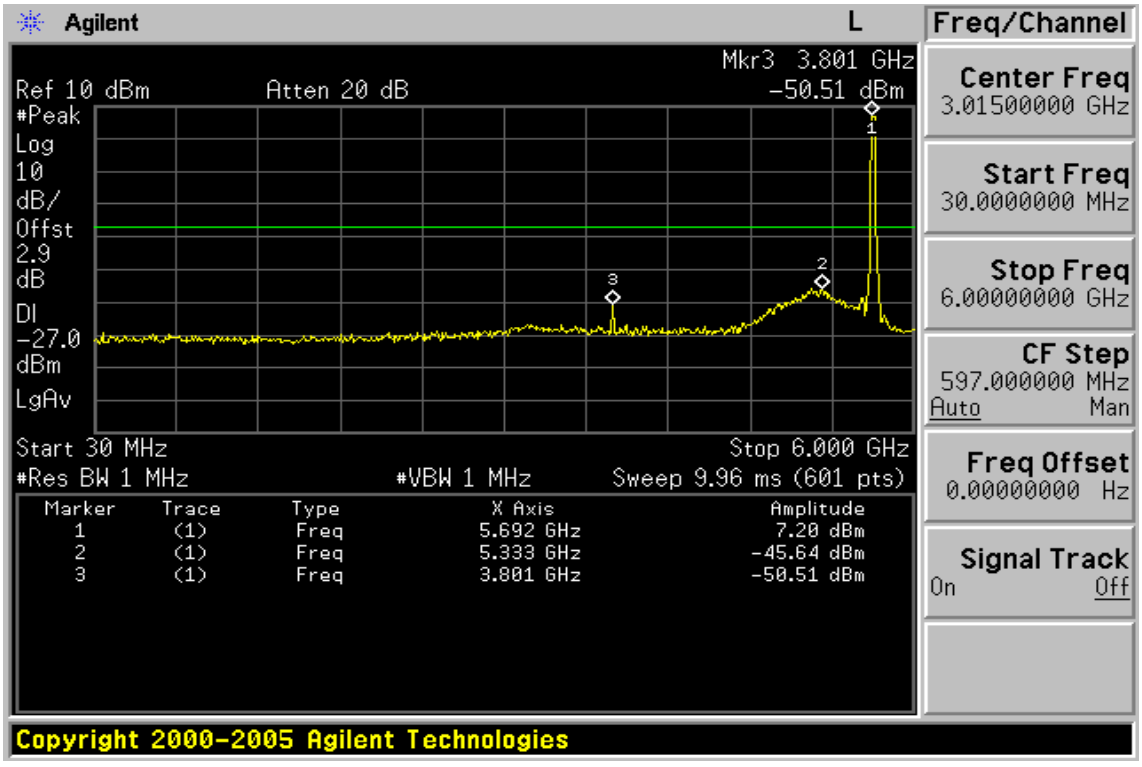
Ch Mid 6GHz – 18GHz



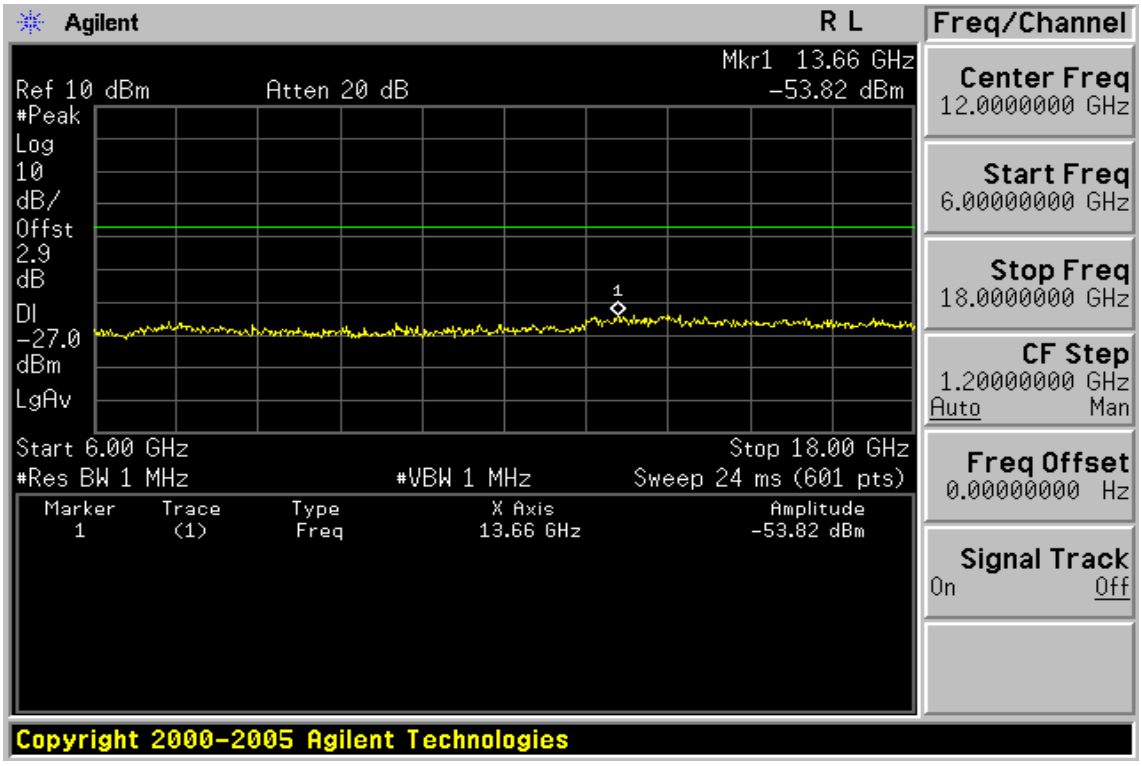
Ch Mid 18GHz – 40GHz



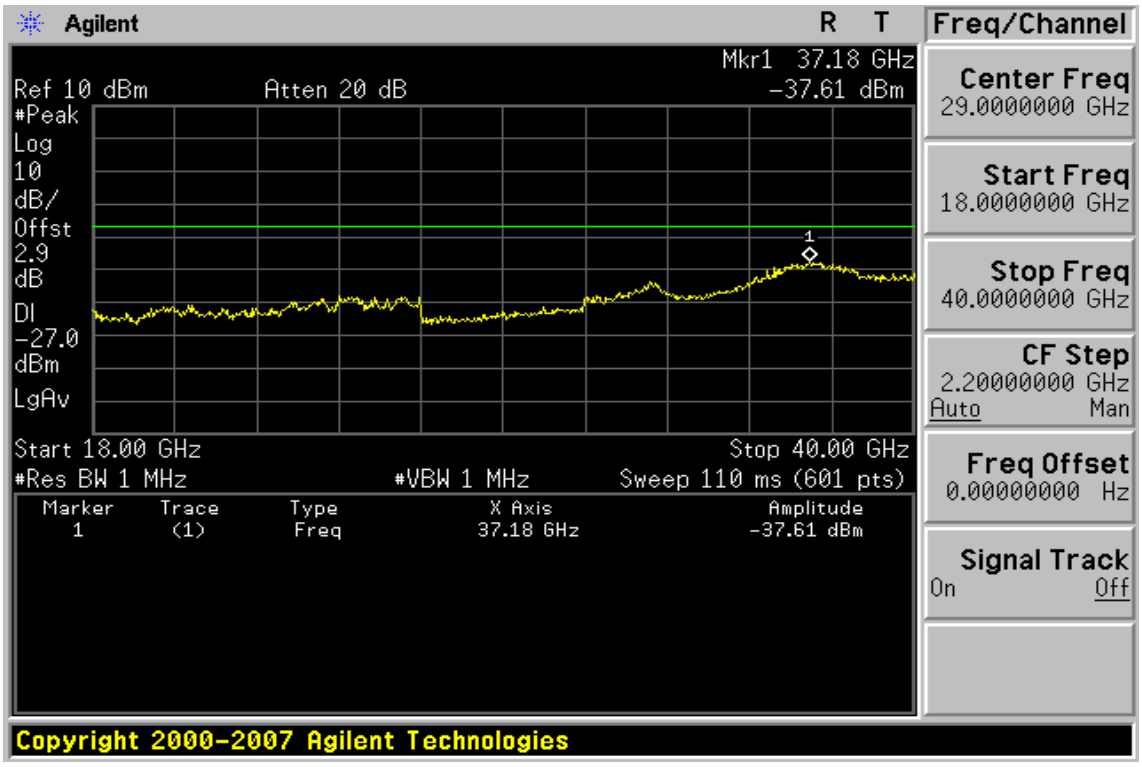
Ch High 30MHz – 6GHz (5320 MHz)



Ch High 6GHz – 18GHz



Ch High 18GHz – 40GHz



11. UNDESIRABLE EMISSION - RADICTED MEASUREMENT

11.1 Standard Applicable

According to §15.407(b),

(b) Undesirable Emission Limits: Except as shown in Paragraph (b)(6) of this section, the peak emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.

(3) For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.825 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of -27 dBm/MHz.

(5) The above emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in Section 15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in Section 15.207.

(7) The provisions of Section 15.205 of this part apply to intentional radiators operating under this section.

(8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency block edges as the design of the equipment permits.

According to RSS-210 A9.3

1. For transmitters operating in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p.
2. For transmitters operating in the band 5250-5350 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Devices operating in the band 5250-5350 MHz that generate emissions in the band 5150-5250 MHz shall not exceed an out-of-band emission limit of -27 dBm/MHz e.i.r.p. in the band 5150-5250 MHz in order to operate indoor/outdoor, or alternatively shall comply with the spectral power density for operation within the band 5150-5250 MHz and shall be labelled “for indoor use only”.
3. For transmitters operating in the band 5470-5725 MHz, all emissions outside that band shall not exceed -27 dBm/MHz e.i.r.p.
4. For transmitters operating in the band 5725-5825 MHz, all emissions within the frequency range from the band edges to 10 MHz above or below the band edges shall not exceed -17 dBm/MHz e.i.r.p. For frequencies more than 10 MHz above or below the band edges, emissions shall not exceed -27 dBm/MHz.

§15.205- RESTRICTED BANDS OF OPERATIONS

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	([2])
13.36 - 13.41	322 - 335.4		

[1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2] Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

§15.209- RADIATED EMISSION LIMITS: GENERAL REQUIREMENTS

FCC PART 15.209

MEASURING DISTANCE OF 3 METER		
FREQUENCY RANGE (MHz)	FIELD STRENGTH (Microvolts/m)	FIELD STRENGTH (dBuV/m)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

11.2 EUT Setup

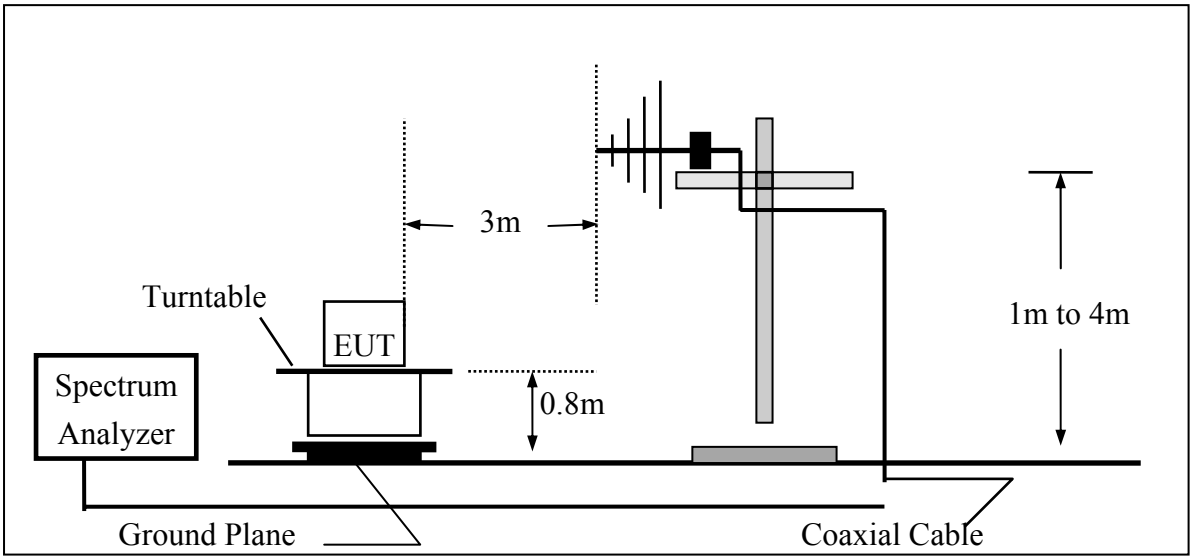
1. The radiated emission tests were performed in the 3 meter open-test site, using the setup in accordance with the ANSI C63.4-1992.
2. The EUT was put in the front of the test table. The host PC system was placed on the center of the back edge on the test table. The peripherals like modem, monitor printer, K/B, and mouse were placed on the side of the host PC system. The rear of the EUT and peripherals were placed flushed with the rear of the tabletop.
3. The keyboard was placed directly in the front of the monitor, flushed with the front tabletop. The mouse was placed next to the Keyboard, flushed with the back of keyboard.
4. The spacing between the peripherals was 10 centimeters.
5. External I/O cables were draped along the edge of the test table and bundle when necessary.
6. The host PC system was connected with 110Vac/60Hz power source.

11.3 Measurement Procedure

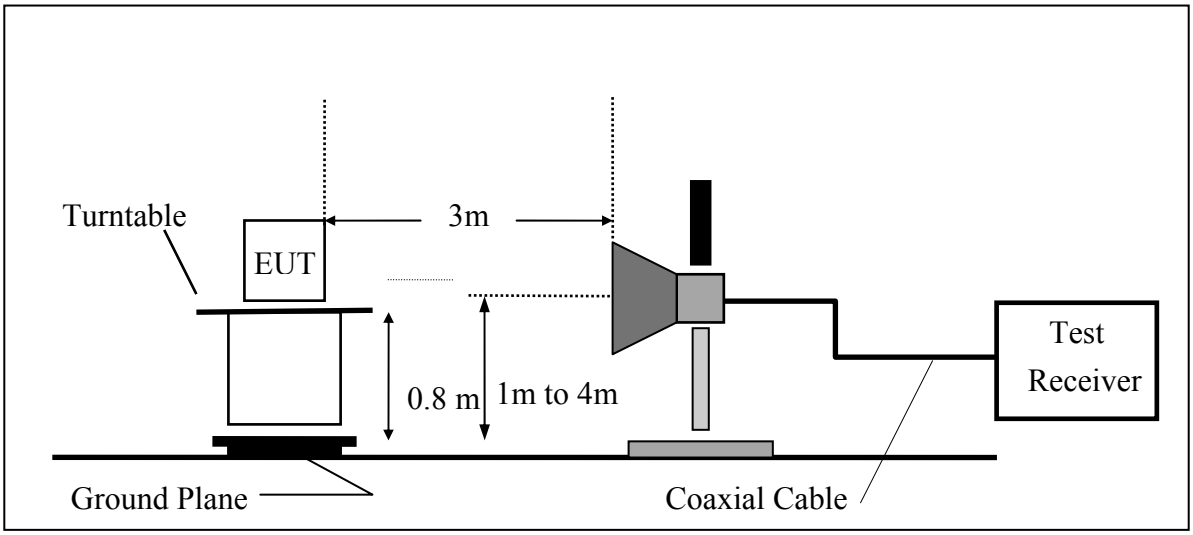
1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. The turn table shall rotate 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until all frequency measured were complete.

11.4 Test SET-UP (Block Diagram of Configuration)

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(B) Radiated Emission Test Set-UP Frequency Over 1 GHz



11.5 Measurement Equipment Used:

966 Chamber					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
Spectrum Analyzer	R&S	FSP 40	100034	02/12/2009	02/11/2010
Bilog Antenna	SCHWAZBECK	VULB9160	9160-3136	11/15/2008	11/14/2009
Dipole Antenna	SCHWAZBECK	VHAP	908/909	07/10/2008	07/09/2010
Dipole Antenna	SCHWAZBECK	UHAP	891/892	07/10/2008	07/09/2010
Hor.n antenna	SCHWAZBECK	BBHA 9120D	309	01/22/2008	01/21/2010
Horn antenna	SCHWAZBECK	BBHA 9120D	9120D-673	05/09/2008	05/08/2010
Signal Generator	R&S	SMR40	100210	01/22/2008	01/21/2010
Signal Generator	Agilent	E4438C	MY45093613	05/22/2008	05/21/2009
Pre-Amplifier	Agilent	8447D	1937A02834	11/30/2008	11/29/2009
Pre-Amplifier	Agilent	8449B	3008A01973	01/05/2009	01/04/2010
Attenuator	Mini-Circuit	BW-S20W5	001	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S10W5	001	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S6W5	001	07/05/2008	07/04/2009
Turn Table	HD	DT420	N/A	N.C.R	N.C.R
Antenna Tower	HD	MA240-N	240/657	N.C.R	N.C.R
Controller	HD	HD100	N/A	N.C.R	N.C.R
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-10M	10m	01/05/2009	01/04/2010
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-3M	3m	01/05/2009	01/04/2010
3m Site	SGS	966 chamber	N/A	11/08/2008	11/09/2009

11.6 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CL - AG

Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

11.7 Measurement Result

Refer to attach tabular data sheets.

NOTE:

The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 100kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.

UNII 1

Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode	TX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5180MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
96.93	V	Peak	53.68	-17.16	36.52	43.50	-6.98
198.78	V	Peak	48.54	-15.56	32.98	43.50	-10.52
240.49	V	Peak	45.21	-14.11	31.10	46.00	-14.90
332.64	V	Peak	47.24	-12.16	35.08	46.00	-10.92
378.23	V	Peak	45.59	-10.79	34.80	46.00	-11.20
421.88	V	Peak	43.91	-9.34	34.57	46.00	-11.43
245.34	H	Peak	49.16	-13.98	35.18	46.00	-10.82
288.99	H	Peak	49.49	-13.23	36.26	46.00	-9.74
332.64	H	Peak	51.90	-12.16	39.74	46.00	-6.26
378.23	H	Peak	51.34	-10.79	40.55	46.00	-5.45
421.88	H	Peak	47.95	-9.34	38.61	46.00	-7.39
533.43	H	Peak	40.34	-7.96	32.38	46.00	-13.62

Remark：

(1) Measuring frequencies from 30 MHz to the 1GHz。

(2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.

(3) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode	TX CH Mid	Test Date	May. 15, 2009
Fundamental Frequency	5260MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
96.93	V	Peak	53.71	-17.16	36.55	43.50	-6.95
198.78	V	Peak	47.08	-15.56	31.52	43.50	-11.98
332.64	V	Peak	46.77	-12.16	34.61	46.00	-11.39
378.23	V	Peak	45.52	-10.79	34.73	46.00	-11.27
400.54	V	Peak	42.85	-9.99	32.86	46.00	-13.14
421.88	V	Peak	43.99	-9.34	34.65	46.00	-11.35
245.34	H	Peak	48.98	-13.98	35.00	46.00	-11.00
288.99	H	Peak	49.34	-13.23	36.11	46.00	-9.89
332.40	H	Peak	51.72	-12.16	39.56	46.00	-6.44
378.23	H	Peak	48.47	-10.79	37.68	46.00	-8.32
400.54	H	Peak	48.00	-9.99	38.01	46.00	-7.99
421.88	H	Peak	50.58	-9.34	41.24	46.00	-4.76

Remark：

(1) Measuring frequencies from 30 MHz to the 1GHz。

(2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.

(3) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode	TX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5320MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
96.93	V	Peak	53.71	-17.16	36.55	43.50	-6.95
198.78	V	Peak	49.17	-15.56	33.61	43.50	-9.89
332.64	V	Peak	47.07	-12.16	34.91	46.00	-11.09
378.23	V	Peak	45.61	-10.79	34.82	46.00	-11.18
421.88	V	Peak	44.07	-9.34	34.73	46.00	-11.27
630.43	V	Peak	37.43	-5.37	32.06	46.00	-13.94
245.34	H	Peak	49.40	-13.98	35.42	46.00	-10.58
288.99	H	Peak	49.48	-13.23	36.25	46.00	-9.75
332.64	H	Peak	52.03	-12.16	39.87	46.00	-6.13
378.23	H	Peak	50.92	-10.79	40.13	46.00	-5.87
400.54	H	Peak	48.65	-9.99	38.66	46.00	-7.34
421.88	H	Peak	49.06	-9.34	39.72	46.00	-6.28

Remark：

(1) Measuring frequencies from 30 MHz to the 1GHz。

(2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.

(3) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

UNII 2

Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode	TX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5500MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
106.63	V	Peak	50.98	-16.48	34.50	43.50	-9.00
240.49	V	Peak	48.92	-14.11	34.81	46.00	-11.19
288.99	V	Peak	47.02	-13.23	33.79	46.00	-12.21
332.64	V	Peak	50.39	-12.16	38.23	46.00	-7.77
363.68	V	Peak	47.04	-11.27	35.77	46.00	-10.23
378.23	V	Peak	46.02	-10.79	35.23	46.00	-10.77
240.49	H	Peak	49.68	-14.11	35.57	46.00	-10.43
288.99	H	Peak	50.22	-13.23	36.99	46.00	-9.01
332.64	H	Peak	52.76	-12.16	40.60	46.00	-5.40
366.59	H	Peak	49.41	-11.17	38.24	46.00	-7.76
378.23	H	Peak	48.01	-10.79	37.22	46.00	-8.78
421.88	H	Peak	46.03	-9.34	36.69	46.00	-9.31

Remark：

(1) Measuring frequencies from 30 MHz to the 1GHz。

(2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.

(3) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode	TX CH Mid	Test Date	May. 15, 2009
Fundamental Frequency	5580MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
106.63	V	Peak	51.09	-16.48	34.61	43.50	-8.89
240.49	V	Peak	49.29	-14.11	35.18	46.00	-10.82
332.64	V	Peak	50.11	-12.16	37.95	46.00	-8.05
366.59	V	Peak	46.27	-11.17	35.10	46.00	-10.90
378.23	V	Peak	46.21	-10.79	35.42	46.00	-10.58
421.88	V	Peak	44.11	-9.34	34.77	46.00	-11.23
240.90	H	Peak	50.03	-14.11	35.92	46.00	-10.08
288.99	H	Peak	49.14	-13.23	35.91	46.00	-10.09
332.64	H	Peak	52.78	-12.16	40.62	46.00	-5.38
366.59	H	Peak	48.56	-11.17	37.39	46.00	-8.61
378.23	H	Peak	50.08	-10.79	39.29	46.00	-6.71
421.88	H	Peak	46.97	-9.34	37.63	46.00	-8.37

Remark：

(1) Measuring frequencies from 30 MHz to the 1GHz。

(2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.

(3) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode	TX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5700MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
106.63	V	Peak	49.49	-16.48	33.01	43.50	-10.49
240.49	V	Peak	48.93	-14.11	34.82	46.00	-11.18
288.99	V	Peak	46.85	-13.23	33.62	46.00	-12.38
332.64	V	Peak	49.26	-12.16	37.10	46.00	-8.90
378.23	V	Peak	46.07	-10.79	35.28	46.00	-10.72
421.88	V	Peak	44.21	-9.34	34.87	46.00	-11.13
240.49	H	Peak	48.49	-14.11	34.38	46.00	-11.62
288.99	H	Peak	48.32	-13.23	35.09	46.00	-10.91
332.64	H	Peak	52.01	-12.16	39.85	46.00	-6.15
366.59	H	Peak	48.30	-11.17	37.13	46.00	-8.87
378.23	H	Peak	47.82	-10.79	37.03	46.00	-8.97
400.54	H	Peak	48.42	-9.99	38.43	46.00	-7.57

Remark：

(1) Measuring frequencies from 30 MHz to the 1GHz。

(2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.

(3) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	TX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5180MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver.
Humidity	60 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3545.0	37.82	---	1.92	39.74	---	74.00	54.00	-14.26	Peak
10360.0	31.52	---	17.47	48.99	---	75.00	54.00	-5.01	Peak
15540.0	----					74.00	54.00		
20720.0	----					74.00	54.00		
25900.0	----					74.00	54.00		
31080.0	----					74.00	54.00		
36260.0	----					74.00	54.00		
41440.0	----					74.00	54.00		
46620.0	----					74.00	54.00		
51800.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	TX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5180MHz	Test By	Sky
Temperature	25 ℃	Pol	Hor
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3545.0	42.17	---	1.92	44.09	---	74.00	54.00	-9.91	Peak
10360.0	29.53	---	17.47	47.00	---	74.00	54.00	-7.00	Peak
15540.0	----					74.00	54.00		
20720.0	----					74.00	54.00		
25900.0	----					74.00	54.00		
31080.0	----					74.00	54.00		
36260.0	----					74.00	54.00		
41440.0	----					74.00	54.00		
46620.0	----					74.00	54.00		
51800.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	TX CH Mid	Test Date	May. 15, 2009
Fundamental Frequency	5260MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3502.0	38.99	---	2.06	41.05	---	74.00	54.00	-12.95	Peak
10520.0	30.53	---	17.81	48.34	---	74.00	54.00	-5.66	Peak
15780.0	----					74.00	54.00		
21040.0	----					74.00	54.00		
26300.0	----					74.00	54.00		
31560.0	----					74.00	54.00		
36820.0	----					74.00	54.00		
42080.0	----					74.00	54.00		
47340.0	----					74.00	54.00		
52600.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	TX CH Mid	Test Date	May. 15, 2009
Fundamental Frequency	5260MHz	Test By	Sky
Temperature	25 ℃	Pol	Hor
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3502.0	42.31	---	2.06	44.37	---	74.00	54.00	-9.63	Peak
10520.0	29.54	---	17.81	47.35	---	75.00	54.00	-6.65	Peak
15780.0	----					74.00	54.00		
21040.0	----					74.00	54.00		
26300.0	----					74.00	54.00		
31560.0	----					74.00	54.00		
36820.0	----					74.00	54.00		
42080.0	----					74.00	54.00		
47340.0	----					74.00	54.00		
52600.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	TX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5320MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3544.0	39.25	---	2.22	41.47	---	74.00	54.00	-12.53	Peak
10640.0	29.77	---	18.34	48.11	---	74.00	54.00	-5.89	Peak
15960.0	----					74.00	54.00		
21280.0	----					74.00	54.00		
26600.0	----					74.00	54.00		
31920.0	----					74.00	54.00		
37240.0	----					74.00	54.00		
42560.0	----					74.00	54.00		
47880.0	----					74.00	54.00		
53200.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	TX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5320MHz	Test By	Sky
Temperature	25 ℃	Pol	Hor
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3544.0	42.10	---	2.22	44.32	---	74.00	54.00	-9.68	Peak
10640.0	28.36	---	18.34	46.70	---	74.00	54.00	-7.30	Peak
15960.0	----					74.00	54.00		
21280.0	----					74.00	54.00		
26600.0	----					74.00	54.00		
31920.0	----					74.00	54.00		
37240.0	----					74.00	54.00		
42560.0	----					74.00	54.00		
47880.0	----					74.00	54.00		
53200.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	TX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5500MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver.
Humidity	60 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3364.0	38.47	---	2.60	41.07	---	74.00	54.00	-12.93	Peak
11000.0	28.91	---	19.88	48.79	---	75.00	54.00	-5.21	Peak
16500.0	----					74.00	54.00		
22000.0	----					74.00	54.00		
27500.0	----					74.00	54.00		
33000.0	----					74.00	54.00		
38500.0	----					74.00	54.00		
44000.0	----					74.00	54.00		
49500.0	----					74.00	54.00		
55000.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	TX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5500MHz	Test By	Sky
Temperature	25 ℃	Pol	Hor
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3664.0	41.40	---	2.60	44.00	---	74.00	54.00	-10.00	Peak
11000.0	29.30	---	19.88	49.18	---	74.00	54.00	-4.82	Peak
16500.0	----					74.00	54.00		
22000.0	----					74.00	54.00		
27500.0	----					74.00	54.00		
33000.0	----					74.00	54.00		
38500.0	----					74.00	54.00		
44000.0	----					74.00	54.00		
49500.0	----					74.00	54.00		
55000.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	TX CH Mid	Test Date	May. 15, 2009
Fundamental Frequency	5580MHz for IC	Test By	Sky
Temperature	25 ℃	Pol	Ver
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3712.0	38.80	---	2.76	41.56	---	74.00	54.00	-12.44	Peak
11160.0	29.42	---	19.66	49.08	---	74.00	54.00	-4.92	Peak
16740.0	----					74.00	54.00		
22320.0	----					74.00	54.00		
27900.0	----					74.00	54.00		
33480.0	----					74.00	54.00		
39060.0	----					74.00	54.00		
44640.0	----					74.00	54.00		
50220.0	----					74.00	54.00		
55800.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	TX CH Mid	Test Date	May. 15, 2009
Fundamental Frequency	5580MHz for IC	Test By	Sky
Temperature	25 ℃	Pol	Hor
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3712.0	40.57	---	2.76	43.33	---	74.00	54.00	-10.67	Peak
11160.0	29.50	---	19.66	49.16	---	75.00	54.00	-4.84	Peak
16740.0	----					74.00	54.00		
22320.0	----					74.00	54.00		
27900.0	----					74.00	54.00		
33480.0	----					74.00	54.00		
39060.0	----					74.00	54.00		
44640.0	----					74.00	54.00		
50220.0	----					74.00	54.00		
55800.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	TX CH Mid	Test Date	May. 15, 2009
Fundamental Frequency	5600MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3724.0	37.87	---	2.78	40.65	---	74.00	54.00	-13.35	Peak
11200.0	29.31	---	19.58	48.89	---	74.00	54.00	-5.11	Peak
16800.0	----					74.00	54.00		
22400.0	----					74.00	54.00		
28000.0	----					74.00	54.00		
33600.0	----					74.00	54.00		
39200.0	----					74.00	54.00		
44800.0	----					74.00	54.00		
50400.0	----					74.00	54.00		
56000.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	TX CH Mid	Test Date	May. 15, 2009
Fundamental Frequency	5600MHz	Test By	Sky
Temperature	25 ℃	Pol	Hor
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3724.0	40.67	---	2.78	43.45	---	74.00	54.00	-10.55	Peak
11200.0	28.98	---	19.58	48.56	---	74.00	54.00	-5.44	Peak
16800.0	----					74.00	54.00		
22400.0	----					74.00	54.00		
28000.0	----					74.00	54.00		
33600.0	----					74.00	54.00		
39200.0	----					74.00	54.00		
44800.0	----					74.00	54.00		
50400.0	----					74.00	54.00		
56000.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	TX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5700MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3802.0	37.07	---	3.05	40.12	---	74.00	54.00	-13.88	Peak
11400.0	29.17	---	19.30	48.47	---	74.00	54.00	-5.53	Peak
22800.0	----					74.00	54.00		
22800.0	----					74.00	54.00		
28500.0	----					74.00	54.00		
34200.0	----					74.00	54.00		
39900.0	----					74.00	54.00		
45600.0	----					74.00	54.00		
51300.0	----					74.00	54.00		
57000.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	TX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5700MHz	Test By	Sky
Temperature	25 ℃	Pol	Hor
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3802.0	40.14	---	3.05	43.19	---	74.00	54.00	-10.81	Peak
11400.0	29.56	---	19.30	48.86	---	74.00	54.00	-5.14	Peak
22800.0	----					74.00	54.00		
22800.0	----					74.00	54.00		
28500.0	----					74.00	54.00		
34200.0	----					74.00	54.00		
39900.0	----					74.00	54.00		
45600.0	----					74.00	54.00		
51300.0	----					74.00	54.00		
57000.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode	RX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5180MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
96.93	V	Peak	53.69	-17.16	36.53	43.50	-6.97
150.28	V	Peak	46.87	-12.83	34.04	43.50	-9.46
240.49	V	Peak	45.54	-14.11	31.43	46.00	-14.57
332.64	V	Peak	46.80	-12.16	34.64	46.00	-11.36
378.23	V	Peak	45.59	-10.79	34.80	46.00	-11.20
421.88	V	Peak	44.07	-9.34	34.73	46.00	-11.27
288.99	H	Peak	49.47	-13.23	36.24	46.00	-9.76
332.64	H	Peak	52.04	-12.16	39.88	46.00	-6.12
378.23	H	Peak	51.05	-10.79	40.26	46.00	-5.74
400.54	H	Peak	48.46	-9.99	38.47	46.00	-7.53
421.88	H	Peak	47.69	-9.34	38.35	46.00	-7.65
465.53	H	Peak	45.59	-8.55	37.04	46.00	-8.96

Remark：

(1) Measuring frequencies from 30 MHz to the 1GHz。

(2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.

(3) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode	RX CH Mid	Test Date	May. 15, 2009
Fundamental Frequency	5260MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
96.93	V	Peak	53.86	-17.16	36.70	43.50	-6.80
198.78	V	Peak	47.25	-15.56	31.69	43.50	-11.81
240.49	V	Peak	46.29	-14.11	32.18	46.00	-13.82
332.64	V	Peak	46.98	-12.16	34.82	46.00	-11.18
378.23	V	Peak	45.11	-10.79	34.32	46.00	-11.68
421.88	V	Peak	43.62	-9.34	34.28	46.00	-11.72
245.34	H	Peak	49.32	-13.98	35.34	46.00	-10.66
288.99	H	Peak	49.36	-13.23	36.13	46.00	-9.87
332.64	H	Peak	52.01	-12.16	39.85	46.00	-6.15
378.23	H	Peak	51.12	-10.79	40.33	46.00	-5.67
400.54	H	Peak	48.85	-9.99	38.86	46.00	-7.14
421.88	H	Peak	47.87	-9.34	38.53	46.00	-7.47

Remark：

(1) Measuring frequencies from 30 MHz to the 1GHz。

(2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.

(3) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode	RX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5320MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
96.93	V	Peak	53.82	-17.16	36.66	43.50	-6.84
198.78	V	Peak	47.58	-15.56	32.02	43.50	-11.48
332.64	V	Peak	47.12	-12.16	34.96	46.00	-11.04
378.23	V	Peak	45.92	-10.79	35.13	46.00	-10.87
421.88	V	Peak	44.09	-9.34	34.75	46.00	-11.25
465.53	V	Peak	39.81	-8.55	31.26	46.00	-14.74
245.34	H	Peak	48.66	-13.98	34.68	46.00	-11.32
288.99	H	Peak	49.62	-13.23	36.39	46.00	-9.61
332.64	H	Peak	51.55	-12.16	39.39	46.00	-6.61
378.23	H	Peak	50.83	-10.79	40.04	46.00	-5.96
400.54	H	Peak	49.15	-9.99	39.16	46.00	-6.84
421.88	H	Peak	47.90	-9.34	38.56	46.00	-7.44

Remark：

(1) Measuring frequencies from 30 MHz to the 1GHz。

(2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.

(3) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode	RX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5500MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
240.49	V	Peak	49.78	-14.11	35.67	46.00	-10.33
300.63	V	Peak	47.07	-13.11	33.96	46.00	-12.04
332.64	V	Peak	48.86	-12.16	36.70	46.00	-9.30
378.23	V	Peak	45.83	-10.79	35.04	46.00	-10.96
400.54	V	Peak	44.67	-9.99	34.68	46.00	-11.32
421.88	V	Peak	44.73	-9.34	35.39	46.00	-10.61
240.49	H	Peak	49.43	-14.11	35.32	46.00	-10.68
288.99	H	Peak	49.35	-13.23	36.12	46.00	-9.88
332.64	H	Peak	51.88	-12.16	39.72	46.00	-6.28
366.59	H	Peak	49.75	-11.17	38.58	46.00	-7.42
378.23	H	Peak	50.13	-10.79	39.34	46.00	-6.66
421.88	H	Peak	47.96	-9.34	38.62	46.00	-7.38

Remark：

(1) Measuring frequencies from 30 MHz to the 1GHz。

(2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.

(3) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode	RX CH Mid	Test Date	May. 15, 2009
Fundamental Frequency	5580MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
240.49	V	Peak	49.49	-14.11	35.38	46.00	-10.62
332.64	V	Peak	48.32	-12.16	36.16	46.00	-9.84
366.59	V	Peak	46.24	-11.17	35.07	46.00	-10.93
378.23	V	Peak	45.78	-10.79	34.99	46.00	-11.01
400.54	V	Peak	44.83	-9.99	34.84	46.00	-11.16
421.88	V	Peak	44.51	-9.34	35.17	46.00	-10.83
240.49	H	Peak	49.42	-14.11	35.31	46.00	-10.69
288.99	H	Peak	49.19	-13.23	35.96	46.00	-10.04
332.64	H	Peak	51.01	-12.16	38.85	46.00	-7.15
378.23	H	Peak	48.97	-10.79	38.18	46.00	-7.82
400.54	H	Peak	48.94	-9.99	38.95	46.00	-7.05
421.88	H	Peak	47.31	-9.34	37.97	46.00	-8.03

Remark：

(1) Measuring frequencies from 30 MHz to the 1GHz。

(2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.

(3) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode	RX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5700MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
90.14	V	Peak	52.92	-17.62	35.30	43.50	-8.20
240.49	V	Peak	50.02	-14.11	35.91	46.00	-10.09
266.68	V	Peak	49.00	-13.57	35.43	46.00	-10.57
332.64	V	Peak	49.72	-12.16	37.56	46.00	-8.44
378.23	V	Peak	45.79	-10.79	35.00	46.00	-11.00
421.88	V	Peak	44.13	-9.34	34.79	46.00	-11.21
240.49	H	Peak	49.51	-14.11	35.40	46.00	-10.60
288.99	H	Peak	53.21	-13.23	39.98	46.00	-6.02
332.64	H	Peak	51.85	-12.16	39.69	46.00	-6.31
378.23	H	Peak	48.95	-10.79	38.16	46.00	-7.84
400.54	H	Peak	48.56	-9.99	38.57	46.00	-7.43
421.88	H	Peak	46.99	-9.34	37.65	46.00	-8.35

Remark：

(1) Measuring frequencies from 30 MHz to the 1GHz。

(2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.

(3) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	RX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5180MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver.
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3545.0	32.74	---	1.92	34.66	---	74.00	54.00	-19.34	Peak
10360.0	----					74.00	54.00		
15540.0	----					74.00	54.00		
20720.0	----					74.00	54.00		
25900.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	RX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5180MHz	Test By	Sky
Temperature	25 ℃	Pol	Hor
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3545.0	31.58	---	1.92	33.50	---	74.00	54.00	-20.50	Peak
10360.0	----					74.00	54.00		
15540.0	----					74.00	54.00		
20720.0	----					74.00	54.00		
25900.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	RX CH Mid	Test Date	May. 15, 2009
Fundamental Frequency	5260MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3502.0	34.04	---	2.06	36.10	---	74.00	54.00	-17.90	Peak
10520.0	----					74.00	54.00		
15780.0	----					74.00	54.00		
21040.0	----					74.00	54.00		
26300.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	RX CH Mid	Test Date	May. 15, 2009
Fundamental Frequency	5220MHz	Test By	Sky
Temperature	25 ℃	Pol	Hor
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3502.0	32.37	---	2.06	34.43	---	74.00	54.00	-19.57	Peak
10520.0	----					74.00	54.00		
15780.0	----					74.00	54.00		
21040.0	----					74.00	54.00		
26300.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	RX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5320MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3544.0	37.12	---	2.22	39.34	---	74.00	54.00	-14.66	Peak
10640.0	----					74.00	54.00		
15960.0	----					74.00	54.00		
21280.0	----					74.00	54.00		
26600.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	RX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5320MHz	Test By	Sky
Temperature	25 ℃	Pol	Hor
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3544.0	36.18	---	2.22	38.40	---	74.00	54.00	-15.60	Peak
10640.0	----					74.00	54.00		
15960.0	----					74.00	54.00		
21280.0	----					74.00	54.00		
26600.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	RX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5500MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver.
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3664.0	39.66	---	2.60	42.26	---	74.00	54.00	-11.74	Peak
11000.0	----					74.00	54.00		
16500.0	----					74.00	54.00		
22000.0	----					74.00	54.00		
27500.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	RX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5500MHz	Test By	Sky
Temperature	25 ℃	Pol	Hor
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
36640.0	38.39	---	2.60	40.99	---	74.00	54.00	-13.01	Peak
11000.0	----					74.00	54.00		
16500.0	----					74.00	54.00		
22000.0	----					74.00	54.00		
27500.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	RX CH Mid	Test Date	May. 15, 2009
Fundamental Frequency	5600MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3724.0	38.95	---	2.78	41.73	---	74.00	54.00	-12.27	Peak
11200.0	----					74.00	54.00		
16800.0	----					74.00	54.00		
22400.0	----					74.00	54.00		
28000.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	RX CH Mid	Test Date	May. 15, 2009
Fundamental Frequency	5600MHz	Test By	Sky
Temperature	25 ℃	Pol	Hor
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3724.0	38.23	---	2.78	41.01	---	74.00	54.00	-12.99	Peak
11200.0	----					74.00	54.00		
16800.0	----					74.00	54.00		
22400.0	----					74.00	54.00		
28000.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	RX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5700MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3802.0	37.94	---	3.05	40.99	---	74.00	54.00	-13.01	Peak
11400.0	----					74.00	54.00		
17100.0	----					74.00	54.00		
22800.0	----					74.00	54.00		
28500.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode	RX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5700MHz	Test By	Sky
Temperature	25 ℃	Pol	Hor
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	
3802.0	38.82	---	3.05	41.87	---	74.00	54.00	-12.13	Peak
11400.0	----					74.00	54.00		
17100.0	----					74.00	54.00		
22800.0	----					74.00	54.00		
28500.0	----					74.00	54.00		

Remark:

(1) Measuring frequencies scanned from 1GHz to the 10th harmonic of highest fundamental frequency。

(2) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

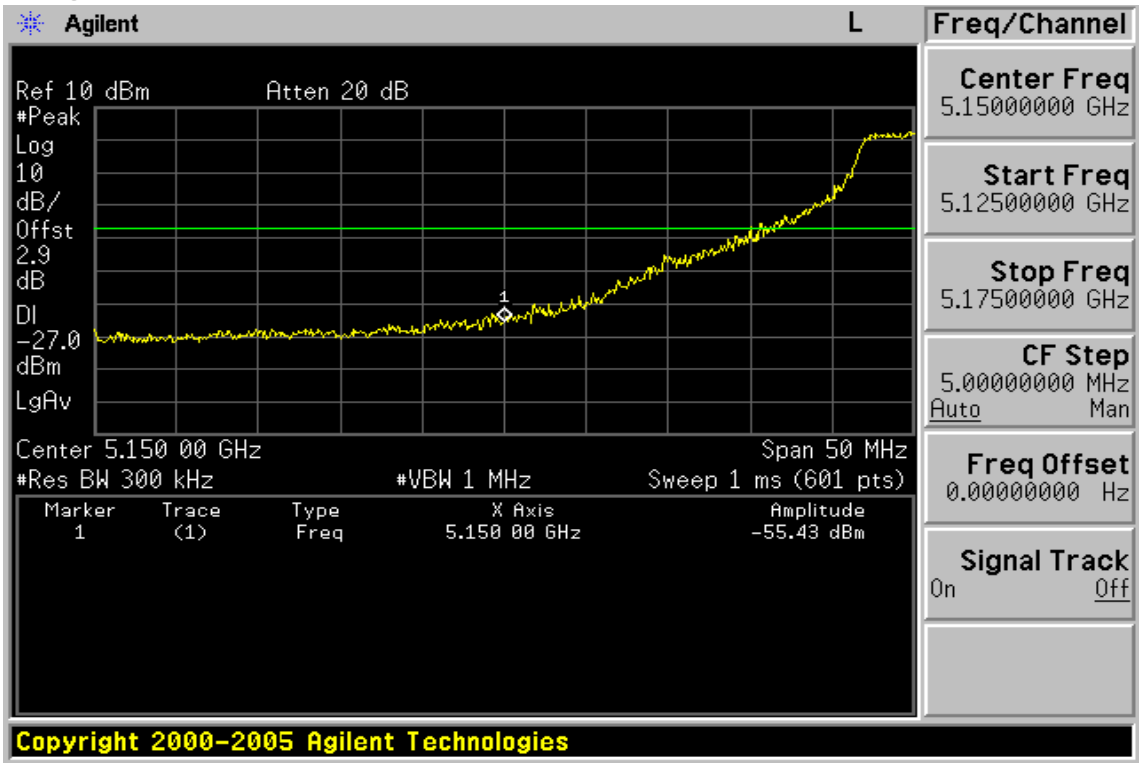
(3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column。

(4) Spectrum Peak Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(5) Spectrum AV Setting : 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

UNII 1

Band Edges Test Data CH-Low



Band Edges Test Data CH-High

Radiated Emission:

Operation Mode	TX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5180 MHz	Test By	Sky
Tmperature	25 ℃	Pol	Ver.
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
5150.00	28.89	---	6.76	35.65	---	74.00	54.00	-18.35	Peak

Operation Mode	TX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5180 MHz	Test By	Sky
Temperature	25 ℃	Pol	Hor.
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
5150.00	29.02	---	6.76	35.78	---	74.00	54.00	-18.22	Peak

Remark:

(1) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(2) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.

(3) Spectrum Peak Setting: 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(4) Spectrum AV Setting: 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Emission:

Operation Mode	TX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5320 MHz	Test By	Sky
Temperature	25 °C	Pol	Ver.
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
5350.00	29.13	---	7.18	36.31	---	74.00	54.00	-17.69	Peak

Operation Mode	TX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5320 MHz	Test By	Sky
Temperature	25 °C	Pol	Hor.
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
5350.00	29.00	---	7.18	36.18	---	74.00	54.00	-17.82	Peak

Remark:

(1) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

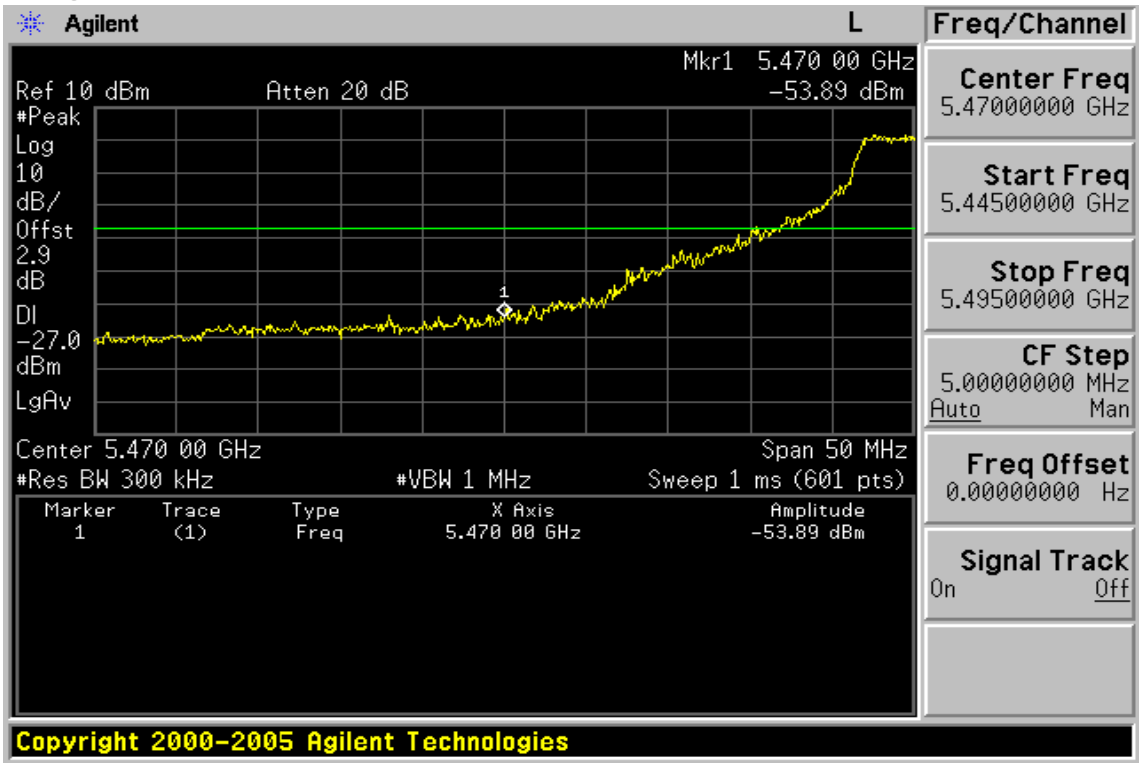
(2) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.

(3) Spectrum Peak Setting: 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

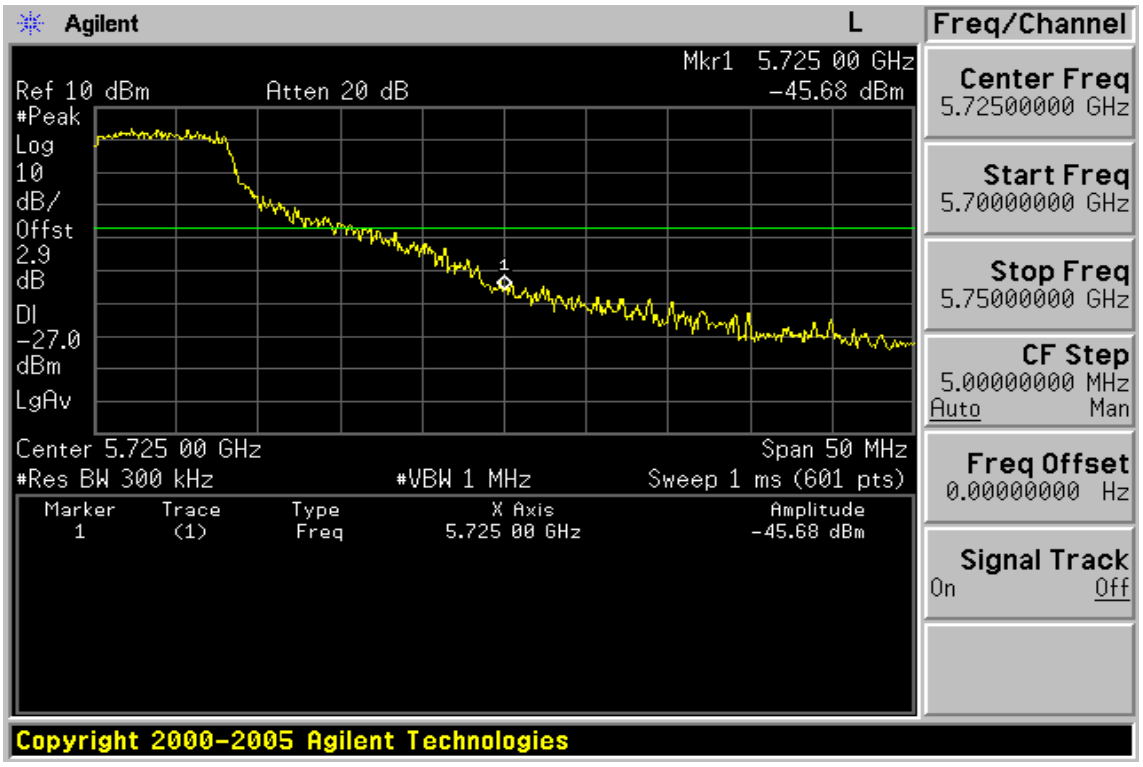
(4) Spectrum AV Setting: 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

UNII 2

Band Edges Test Data CH-Low



Band Edges Test Data CH-High



Radiated Emission:

Operation Mode	TX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5500MHz	Test By	Sky
Tmperature	25 ℃	Pol	Ver.
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
5475.00	28.15	---	7.45	35.60	---	74.00	54.00	-18.40	Peak

Operation Mode	TX CH Low	Test Date	May. 15, 2009
Fundamental Frequency	5180 MHz	Test By	Sky
Temperature	25 ℃	Pol	Hor.
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
5475.00	28.33	---	7.45	35.78	---	74.00	54.00	-18.22	Peak

Remark:

(1) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(2) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.

(3) Spectrum Peak Setting: 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(4) Spectrum AV Setting: 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Radiated Emission:

Operation Mode	TX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5700 MHz	Test By	Sky
Temperature	25 ℃	Pol	Ver.
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
5725.00	33.06	---	8.03	41.09	---	74.00	54.00	-12.91	Peak

Operation Mode	TX CH High	Test Date	May. 15, 2009
Fundamental Frequency	5240 MHz	Test By	Sky
Temperature	25 ℃	Pol	Hor.
Humidity	65 %		

Freq. (MHz)	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF(dB)	Actual FS Peak (dBuV/m)	Actual FS AV (dBuV/m)	Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
5725.00	34.59	---	8.03	42.62	---	74.00	54.00	-11.38	Peak

Remark:

(1) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(2) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.

(3) Spectrum Peak Setting: 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.

(4) Spectrum AV Setting: 1GHz- 40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

12. TRANSMISSION IN THE ABSENCE OF DATA

12.1 Standard Applicable

According to §15.407(c)

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

According to RSS-210 A9.5

The device shall automatically discontinue transmission in case of absence of information to transmit, or operational failure. A description on how this is done shall accompany the application for equipment certification. Note that this is not intended to prohibit transmission of control or signalling information or the use of repetitive codes where required by the technology.

12.2 Result:

No non-compliance noted:

Refer to the theory of operation.

13. FREQUENCY STABILITY

13.1 Standard Applicable

According to §15.407 (g) Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

According to A9.5

(5) The applicant shall ensure frequency stability by showing that an emission is maintained within the band of operation under all normal operating conditions as specified in the user's manual.

13.2 Result:

No non-compliance noted:

±20ppm ppm was defined in product specification.

14. ANTENNA REQUIREMENT

14.1 Standard Applicable

According to §15.203, Antenna requirement.

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.

14.2 Antenna Connected Construction

The directional gins of antenna used for transmitting is 1.5dBi for 2.4GHz, 0.4dBi for 5.2GHz, 2.1dBi for 5.8GHz, and the antenna connector is designed with unique type RF connector and no consideration of replacement. Please see EUT photo and antenna spec.for details.

15. TPC and DFS MEASUREMENT

15.1 TPC: Standard Applicable

According to §15.407(h)(1), Transmit power control (TPC). U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

15.1.1. Result: N/A, The output power is less than 500mW.

15.2 DFS: Standard Applicable

According to §15.407(h)(2), Radar Detection Function of Dynamic Frequency Selection (DFS). U-NII devices operating in the 5.25-5.35 GHz and 5.47-5.725 GHz bands shall employ a DFS radar detection. According to RSS-210 A9.4 Dynamic Frequency Selection (DFS) for devices operating in the bands 5250-5350 MHz and 5470-5725 MHz(devices subject to this Section shall not be capable of transmitting in the band 5600-5650 MHz, so that Environment Canada weather radars operating in this band are protected).

15.2.1.Limit

Table 1: Applicability of DFS requirements prior to use of a channel

Requirement	Operational Mode		
	Master	Client(without radar detection)	Client(with radar detection)
Non-occupancy Period	Yes	Yes	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
Uniform Spareading	Yes	Not required	Not required

Table 2:Applicability of DFS requirements during normal operation

Requirement	Operational Mode		
	Master	Client(without radar detection)	Client(with radar detection)
DFS Detection Threshold	Yes	Not required	Yes
Cannel Closing Transmis-sion time	Yes	Yes	Yes
Channel Move time	Yes	Yes	Yes

Table 3: Interference Threshold values, Master or Client incorporating In-Service Monitoring

Maximum Transmit Power	Value (see note)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt	-62 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.	

Table 4: DFS Response requirement values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 80% of the 99% power bandwidth See Note 3.

Note 1: The instant that the *Channel Move Time* and the *Channel Closing Transmission Time* begins is as follows:

- For the Short pulse radar Test Signals this instant is the end of the *Burst*.
- For the Frequency Hopping radar Test Signal, this instant is the end of the last radar *Burst* generated.
- For the Long Pulse radar Test Signal this instant is the end of the 12 second period defining the radar transmission.

Note 2: The *Channel Closing Transmission Time* is comprised of 200 milliseconds starting at the beginning of the *Channel Move Time* plus any additional intermittent control signals required to facilitate *Channel* changes (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the *U-NII Detection Bandwidth* detection test, radar type 1 is used and for each frequency step the minimum percentage of detection is 90%. Measurements are performed with no data traffic.

Table 5: Radar Test Waveforms

Short Pulse Radar

Radar Type	Pulse Width (µsec)	PRI (µsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Trials
1	1	1428	18	60%	30
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

Long Pulse Radar

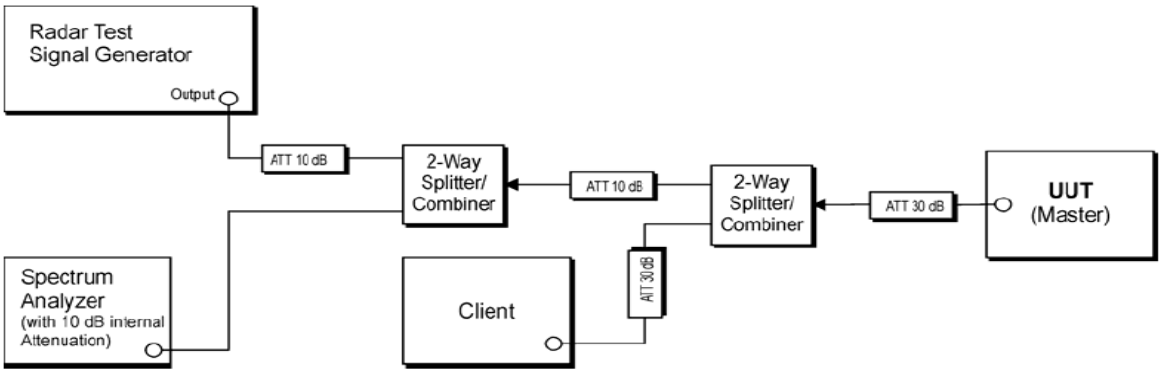
Radar Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Number of Pulses per *Burst*	Number of *Bursts*	Minimum Percentage of Successful Detection	Minimum Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

Frequency Hopping Radar

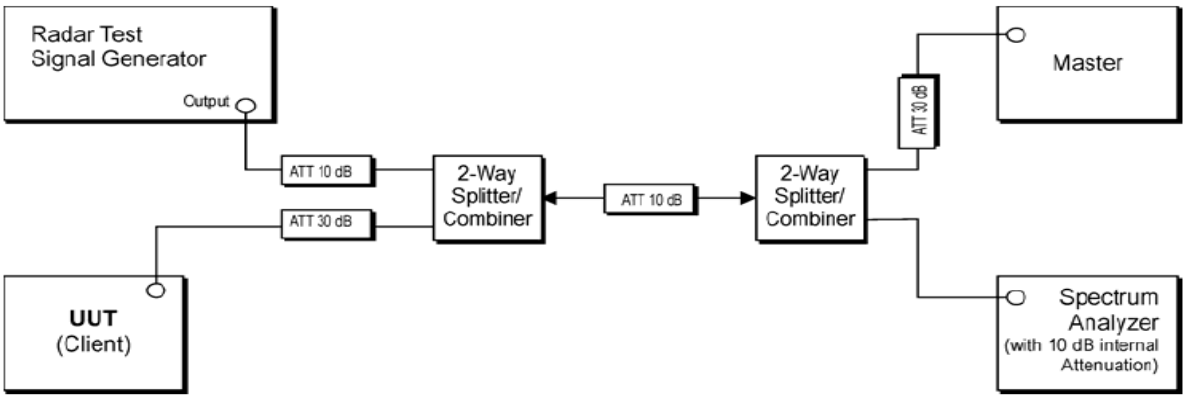
Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Trials
6	1	333	9	.333	300	70%	30

15.2.2.Test Setup

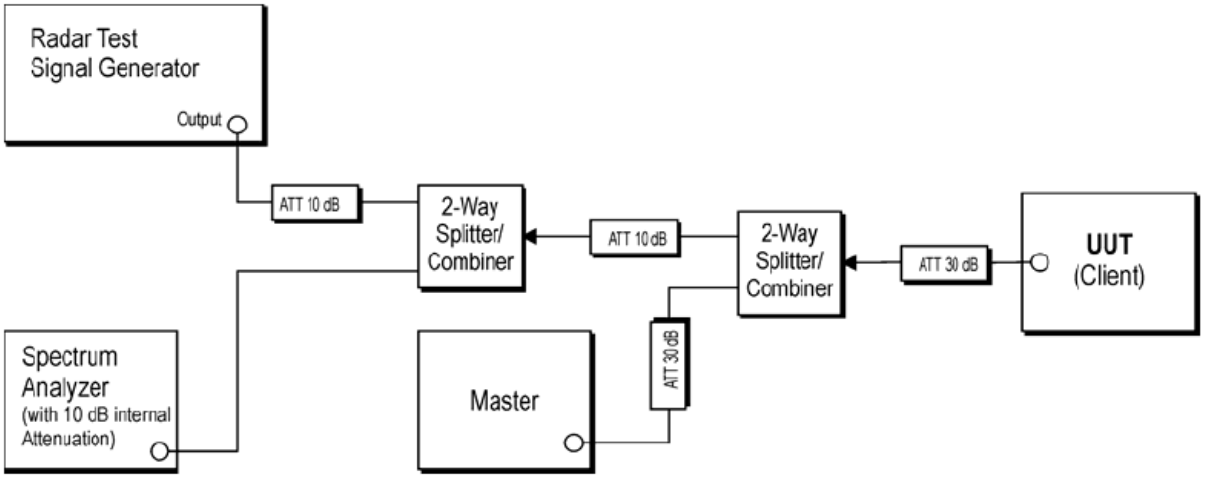
Setup for Master with injection at the Master



Setup for Client with injection at the Master



Setup for Client with injection at the Client



15.2.3. Test Equipment Used:

Conducted Emission Test Site					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
Spectrum Analyzer	Agilent	E4446A	MY43360126	04/19/2008	04/18/2010
Spectrum Analyzer	Agilent	E4440A	MY45304525	01/23/2008	01/22/2010
DC Block	Agilent	BLK-18	155452	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S6W5	001	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S10W5	001	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S20W5	001	07/05/2008	07/04/2009
Splitter	Mini-Circuit	ZFSC-2-10G	001	07/05/2008	07/04/2009
Splitter	Mini-Circuit	ZFSC-2-10G	002	07/05/2008	07/04/2009
Splitter	Agilent	POWER DI-VIDER	51818	07/05/2008	07/04/2009
Splitter	Agilent	POWER DI-VIDER	51820	07/05/2008	07/04/2009
Access point	CISCO	AIR-AP1252 G-A-K9	FTX122091Y2 FCC ID: LDK102062	N/A	N/A
ESG VECTOR SIGNAL GENERATOR	Agilent	E4438C	MY45093613	N/A	N/A

15.2.4. Descriptoion of EUT :

EUT of operates over the 5250-5350MHz and 5470-5725MHz ranges.EUT is slave device it dose not have radar detection.EUT has a gain of 2.1dBi in the 5.8GHz Band.

The EUT utilizes the 802.11a architecture,with a nominal channel bandwidth of 20MHz

WLAN traffic is generated by streaming the mpeg file from the master to slave in full monitor video mode using the media player.

The rated output power of the master unit is >23dBm(EIRP).therefore the required interference threshold level is -64dBm.after correction for antenna gain and procedural adjustments,the required conducted threshold at the antenna port is -64+6=-58,the maste FCC ID: LDK102061

15.2.5. Test results

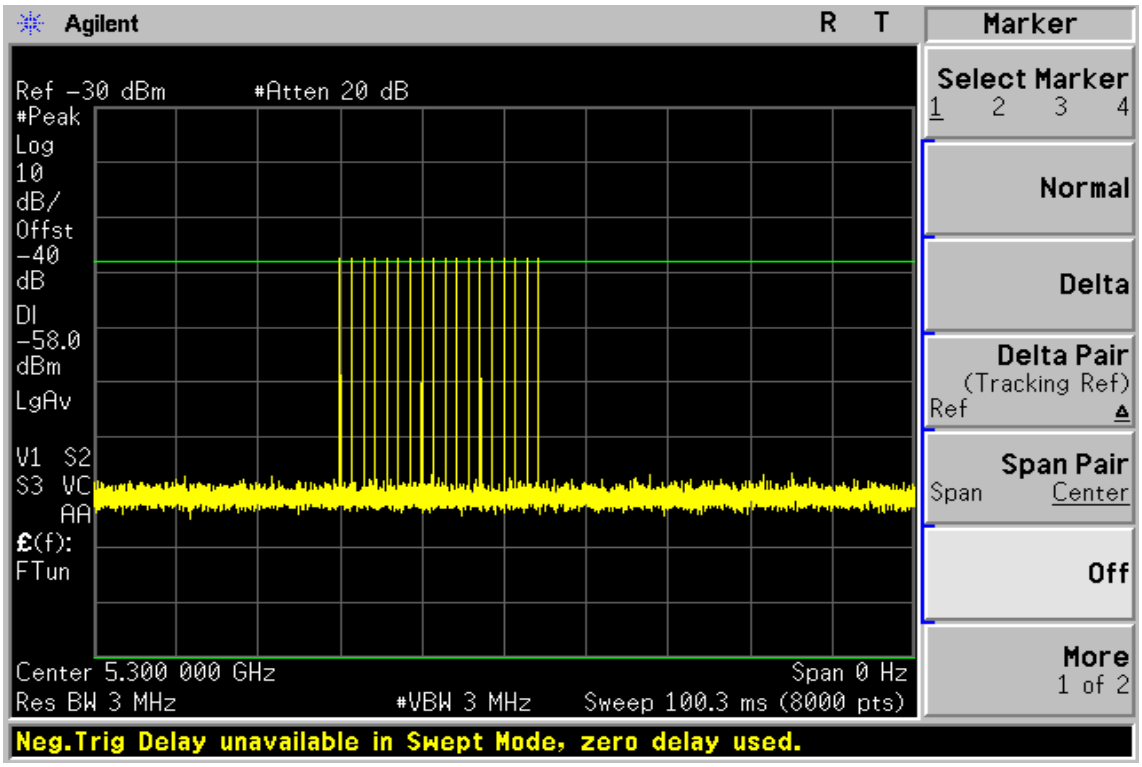
Refer to attach radar waveforms data chart.

The EUT is defined as a client with out radar detection function.

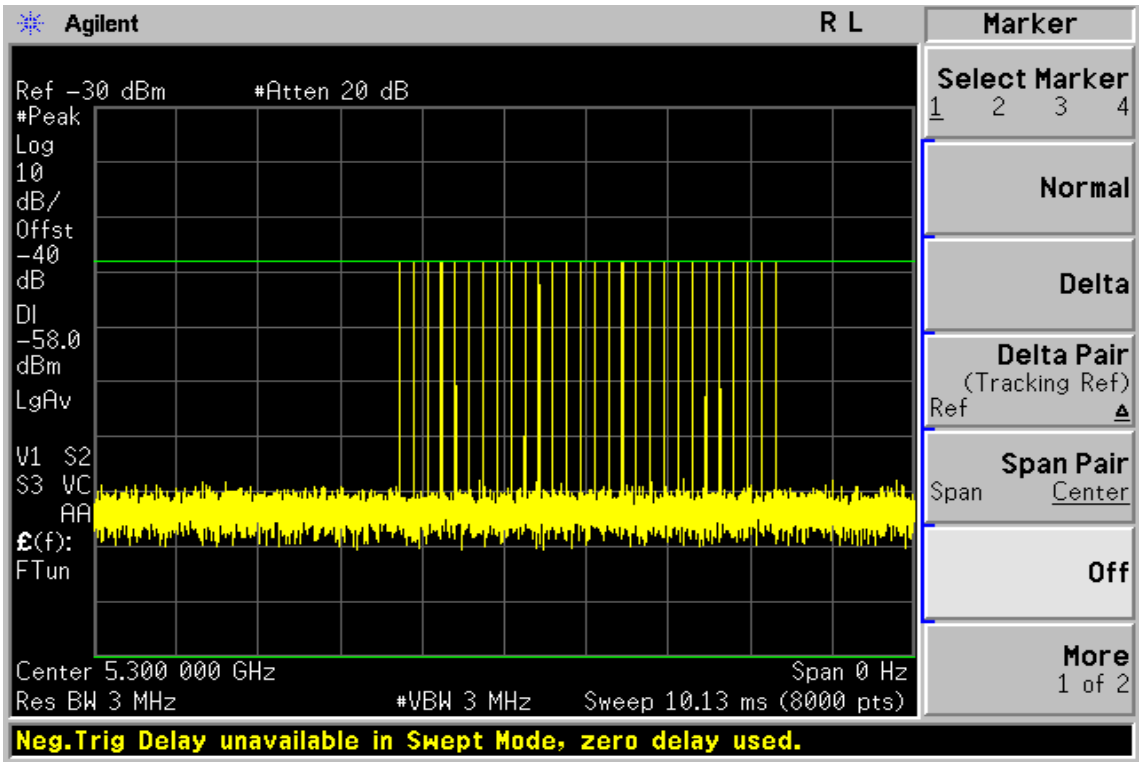
Item	Result	Limit
Cannel Closing Transmission time	434.1ms	10s
Channel Move time	1.5ms	<60ms
Non-occupancy Period	Pass	>30min

Calibration plots for each of the required radar waveforms

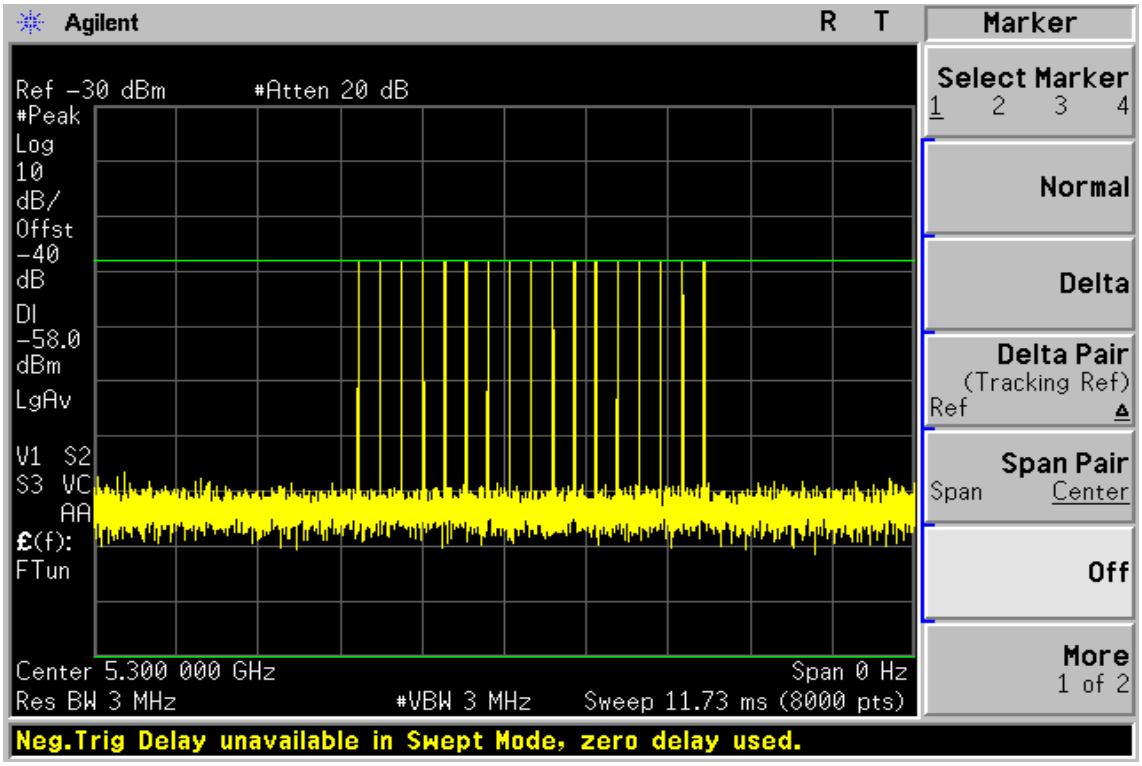
Radar type 1



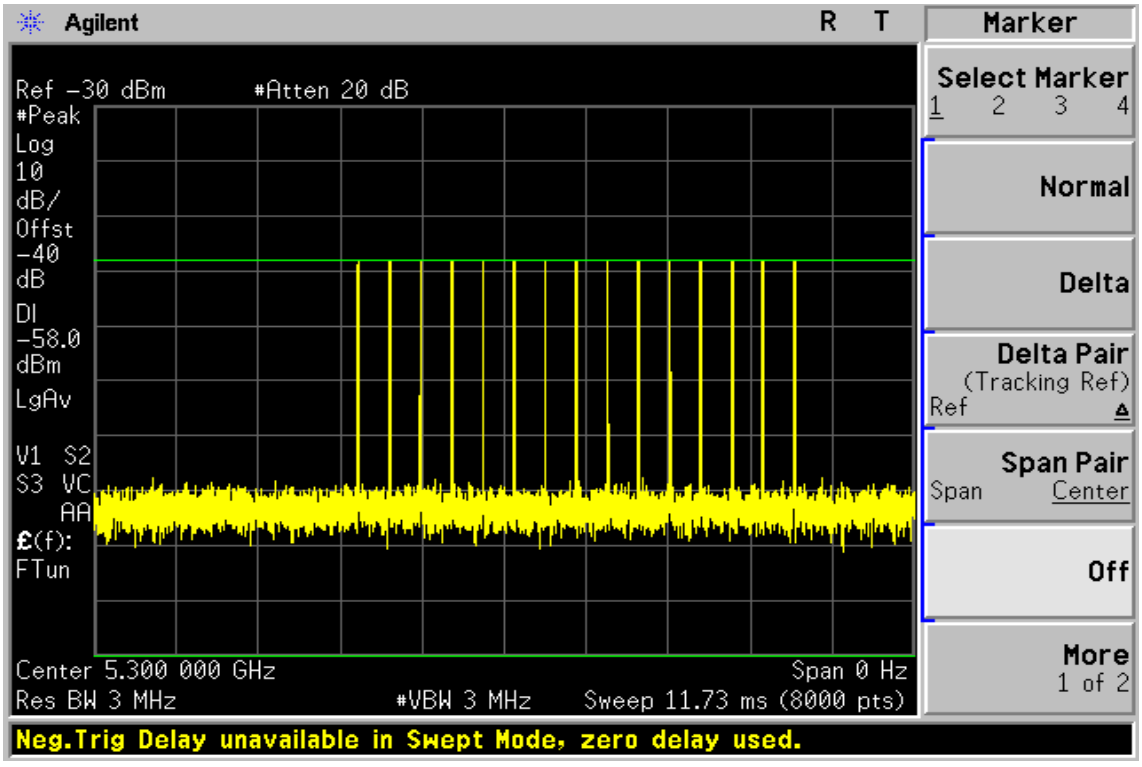
Radar type 2



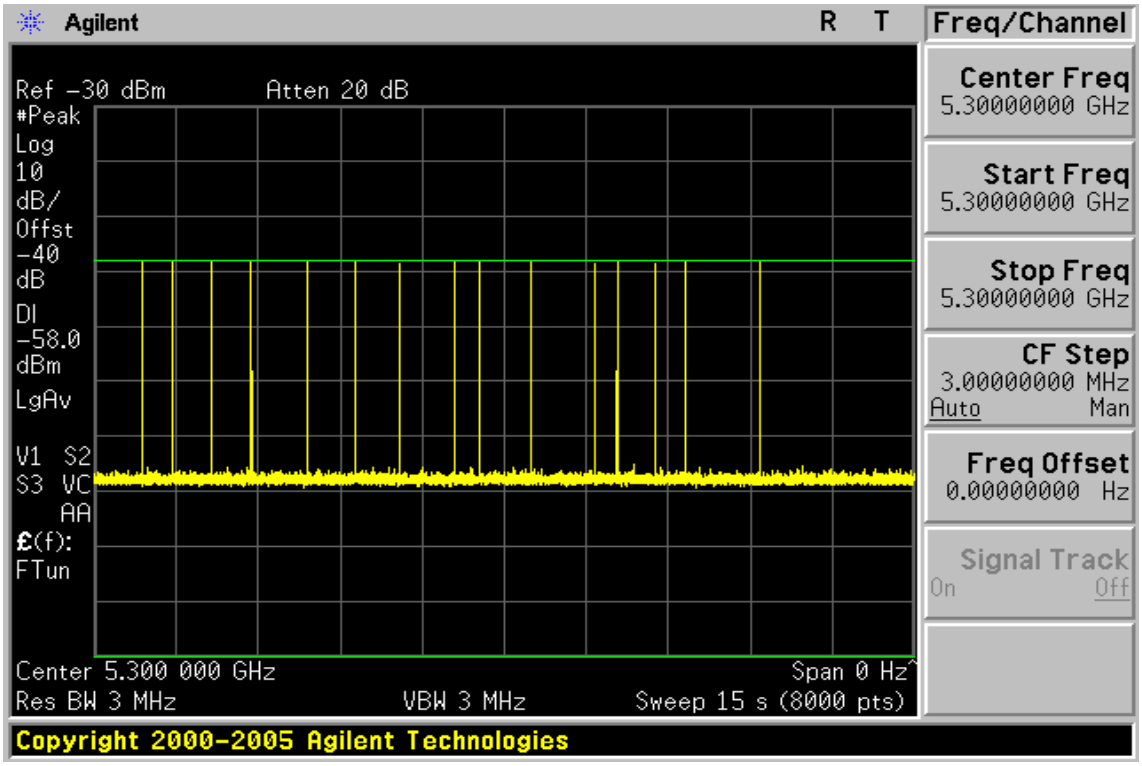
Radar type 3



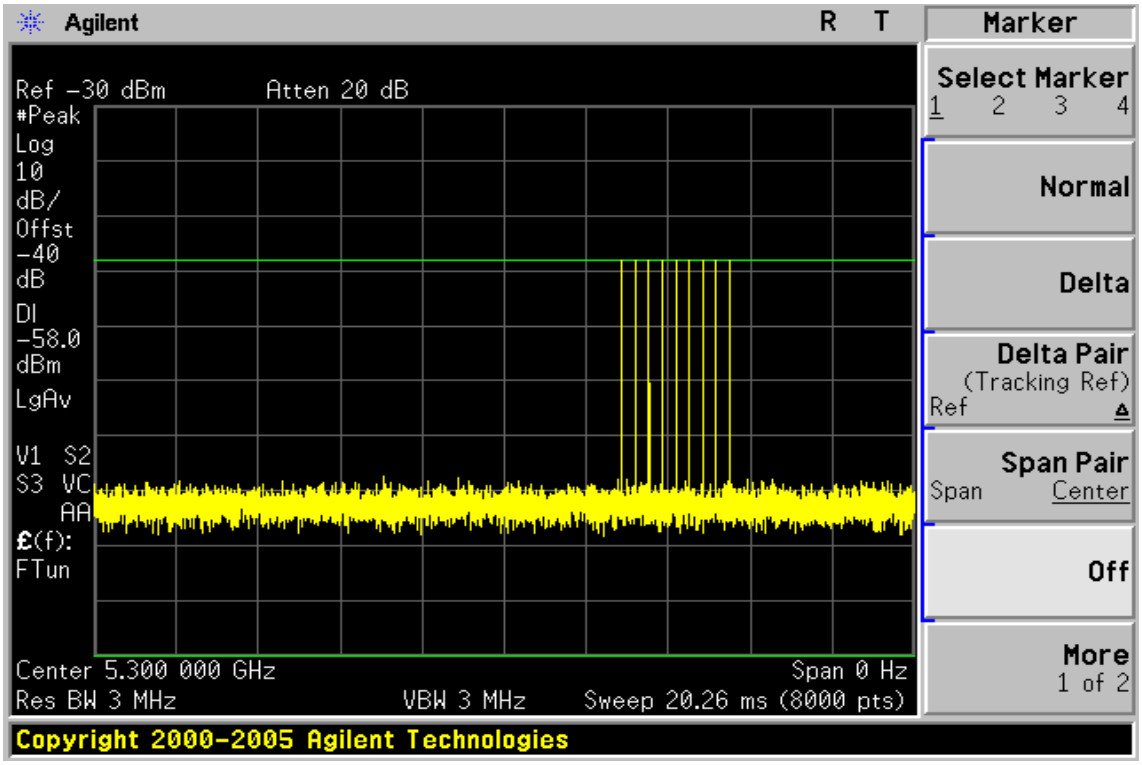
Radar type 4



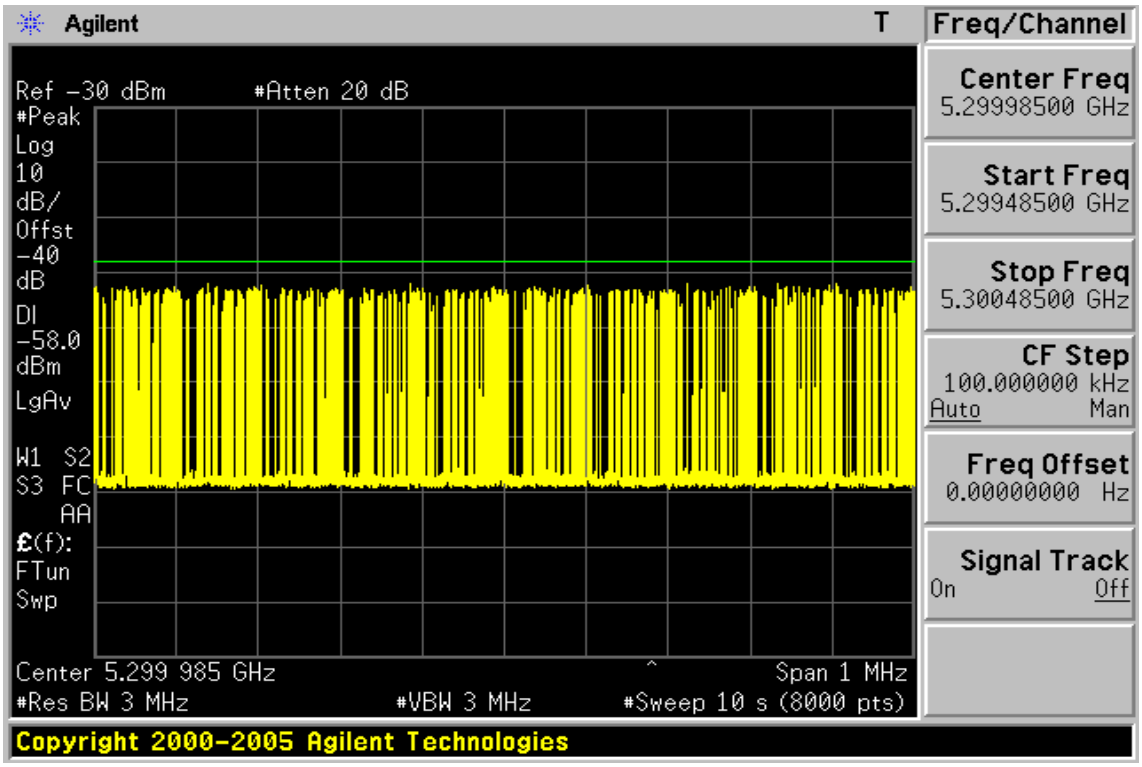
Radar type 5



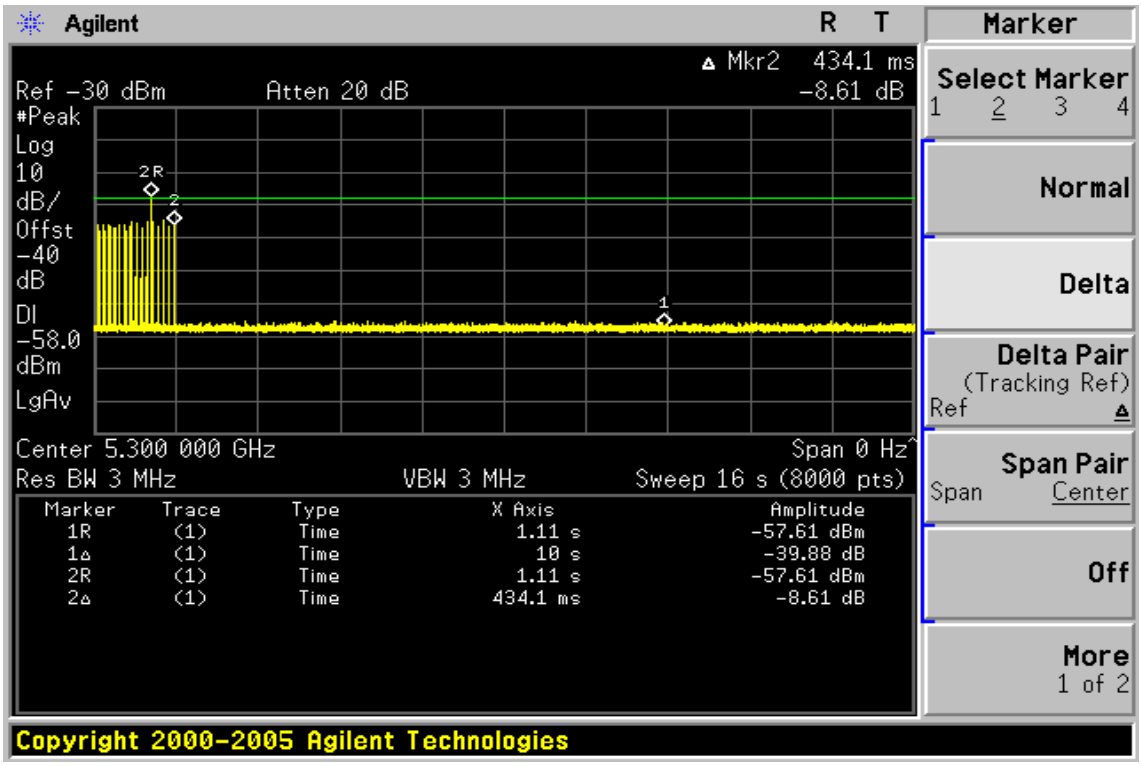
Radar type 6



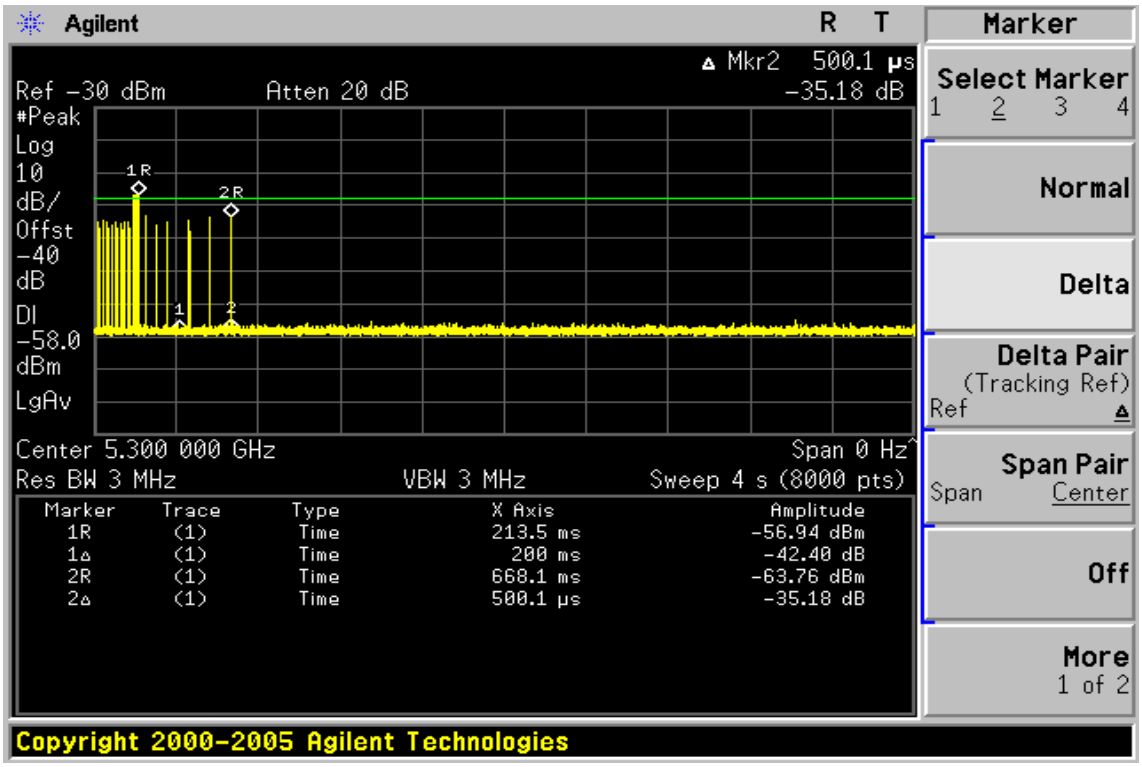
Wlan traffic



Radar Type 1 Channel Move Time



Radar Type 1 Channel Closing Transmission Time



500.1*3=1500.3us=1.5ms<60ms

Radar Type 1 Non-occupancy Period