FCC 47 CFR PART 15 SUBPART E

Product Type	:	Smartphone
Applicant	:	HTC Corporation
Address	:	No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan
Trade Name	:	HTC
Model Number	:	PH85110
Test Specification	:	FCC 47 CFR PART 15 SUBPART E: Oct., 2010 ANSI C63.4-2009
Issue Date	:	Jul. 29, 2011

Issue by

A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade City,
Taoyuan County 334, Taiwan R.O.C.
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Taiwan Accreditation Foundation accreditation number: 1330

Revision History

Rev.	Issue Date	Revisions	Revised By
00	Jul. 29, 2011	Initial Issue	

Verification of Compliance

Issued Date: 07/29/2011

Product Type	:	Smartphone
Applicant	:	HTC Corporation
Address	:	No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan
Trade Name	:	HTC
Model Number	:	PH85110
FCC ID	:	NM8PH85110
EUT Rated Voltage	:	DC 5.0V, 1.0A
Test Voltage	:	120 Vac / 60 Hz
Applicable Standard	:	FCC 47 CFR PART 15 SUBPART E: Oct., 2010 ANSI C63.4-2009
Test Result	:	Complied
Performing Lab.	:	A Test Lab Techno Corp. No. 140-1, Changan Street, Bade City, Taoyuan County 334, Taiwan R.O.C. Tel：+86-3-2710188 / Fax：+86-3-2710190 Taiwan Accreditation Foundation accreditation number: 1330 http://www.atl-lab.com.tw/e-index.htm

The above equipment was tested by A Test Lab Techno Corp. 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: 2009 and the energy emitted by the sample tested as described in this report is in compliance with the requirements of FCC Rules Part 15.203, 15.407 .
The test results of this report relate only to the tested sample identified in this report.

Approved By	:		Reviewed By	:	
(Manager)		(Miller Lee)	(Testing Engineer)		(Gary Wu)

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1 General Information

1.1 Summary of Test Result

Standard	Item	Result	Remark
15.407(b)(5)	AC Power Conducted Emission	PASS	Meet the requirement of limit.
15.407(b/1/2/3) (b)(5)	Radiated Emission	PASS	Meet the requirement of limit.
15.407(a/1/2/3)	Maximum Conducted Output Power	PASS	Meet the requirement of limit.
---	26dB RF Bandwidth	Reference	---
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407 (b) (1)	Out of Band Conducted Emissions	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Meet the requirement of limit.

The test results of this report relate only to the tested sample(s) identified in this report. Manufacturer or whom it may concern should recognize the pass or fail of the test result.

1.2 Measurement Uncertainty

Conducted Emission

The measurement uncertainty is evaluated as ± 2.24 dB.

Radiated Emission

The measurement uncertainty of 30 MHz - 1GHz is evaluated as ± 3.96dB.

The measurement uncertainty of 1 GHz - 40 GHz is evaluated as ± 3.62dB.

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

2 EUT Description

Product	:	Smartphone			
Trade Name	:	HTC			
Model No.	:	PH85110			
Applicant	:	HTC Corporation No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan			
Manufacturer	:	HTC Corporation No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan			
FCC ID	:	NM8PH85110			
Frequency Range	:	**Band**	**Mode**	**Frequency Range (MHz)**	**Number of Channels**
		U-NII Band I	IEEE 802.11a	5180 – 5240	4 Channels
			draft 802.11n Standard-20 MHz	5180 – 5240	4 Channels
		U-NII Band II	IEEE 802.11a	5260 - 5320	4 Channels
			draft 802.11n Standard-20 MHz	5260 - 5320	4 Channels
		U-NII Band III	IEEE 802.11a	5500 - 5700	11 Channels
			draft 802.11n Standard-20 MHz	5500 – 5700	11 Channels
Modulation Type	:	IEEE 802.11a U-NII Band I/Band II/Band III: OFDM(6, 9, 12, 18, 24, 36, 48, 54 Mbps) draft 802.11n Standard-20MHz U-NII Band I/Band II/Band III: OFDM(7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2 Mbps)			
Antenna Type	:	PIFA Type			
Antenna Gain	:	1.5 dBi			
RF Output Power	:	IEEE 802.11a U-NII Band I : 0.0189 W / 12.76 dBm IEEE 802.11a U-NII Band II : 0.0197 W / 12.94 dBm IEEE 802.11a U-NII Band III : 0.0196 W / 12.92 dBm draft 802.11n Standard-20MHz U-NII Band I: 0.0152 W / 11.81 dBm draft 802.11n Standard-20MHz U-NII Band II: 0.0150 W / 11.77 dBm draft 802.11n Standard-20MHz U-NII Band III: 0.0154 W / 11.87 dBm			

3 Test Methodology

3.1. Mode of Operation

Decision of Test ATL has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: IDLE Mode
Mode 2: Normal Operation Mode
Mode 3: IEEE 802.11a Link Mode
Mode 4: draft 802.11n Standard-20MHz Link Mode
Mode 5: Receiver Mode

Software used to control the EUT for staying in continuous transmitting mode was programmed.
After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz and power line conducted emissions below 30MHz, which worst case was in normal link mode only.

IEEE 802.11a mode / 5180 ~ 5240MHz:
Channel Low (5180MHz), Channel Mid (5220MHz) and Channel High (5240MHz) with 6Mbps data rate were chosen for full testing.
IEEE 802.11a mode / 5260 ~ 5320MHz:
Channel Low (5260MHz), Channel Mid (5280MHz) and Channel High (5320MHz) with 6Mbps data rate were chosen for full testing.
IEEE 802.11a mode / 5500 ~ 5700MHz:
Channel Low (5500MHz), Channel Mid (5600MHz) and Channel High (5700MHz) with 6Mbps data rate were chosen for full testing.
draft 802.11n Standard-20 MHz Channel mode / 5180 ~ 5240MHz:
Channel Low (5180MHz), Channel Mid (5220MHz) and Channel High (5240MHz) with 6Mbps data rate were chosen for full testing.
draft 802.11n Standard-20 MHz Channel mode / 5260 ~ 5320MHz:
Channel Low (5260MHz), Channel Mid (5280MHz) and Channel High (5320MHz) with 6Mbps data rate were chosen for full testing.
draft 802.11n Standard-20 MHz Channel mode / 5500 ~ 5700MHz:
Channel Low (5500MHz), Channel Mid (5600MHz) and Channel High (5700MHz) with 6Mbps data rate were chosen for full testing.

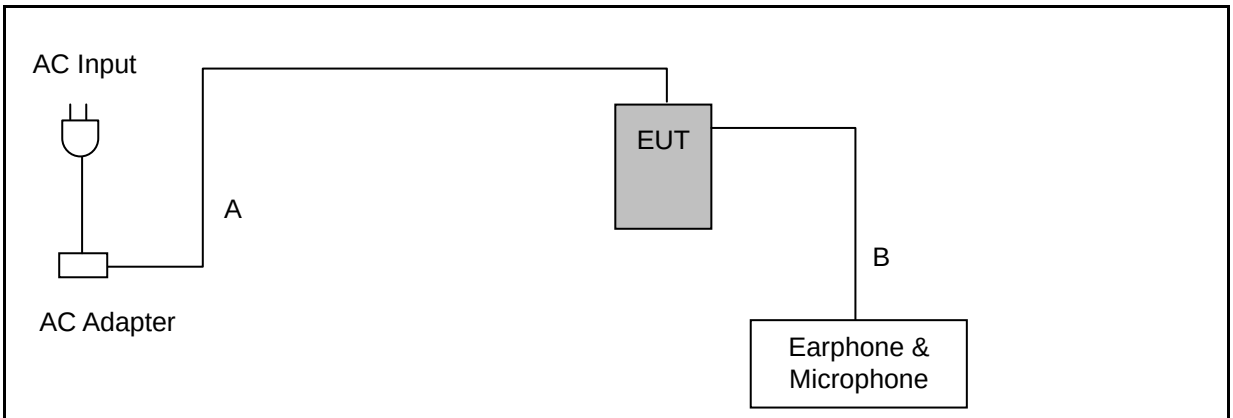
3.2. EUT Exercise Software

The EUT is operated in the engineering mode to fix the TX frequency for the purposes of measurement. According to its specifications, the EUT must comply with the requirements of Section 15.407 under the FCC Rules Part 15 Subpart E.

1.	Setup the EUT shown on 3.3.
2.	Turn on the power of all equipment.
3.	Turn on Wi-Fi function link to Notebook.
4.	EUT run test program.

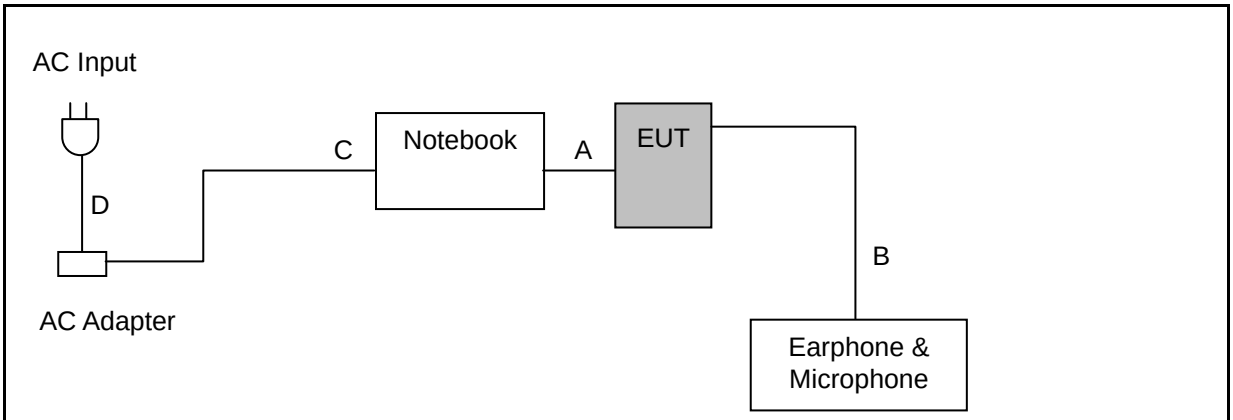
3.3. Configuration of Test System Details

Conducted Emission



Signal Cable Type		Signal Cable Description
A	USB Cable	Shielded, 1.2 m
B	Earphone & Microphone Cable	Non-Shielded, 1.2 m

Radiated Emission



Signal Cable Type		Signal Cable Description
A	USB Cable	Shielded, 1.2 m
B	Earphone & Microphone Cable	Non-Shielded, 1.2 m
C	DC Power Cable	Non-Shielded, 1.8 m
D	AC Power Cable	Non-Shielded, 2.0 m

3.4. Test Site Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	26
Humidity (%RH)	25-75	60
Barometric pressure (mbar)	860-1060	950

4 AC Power Conducted Emission Measurement

4.1. Limit

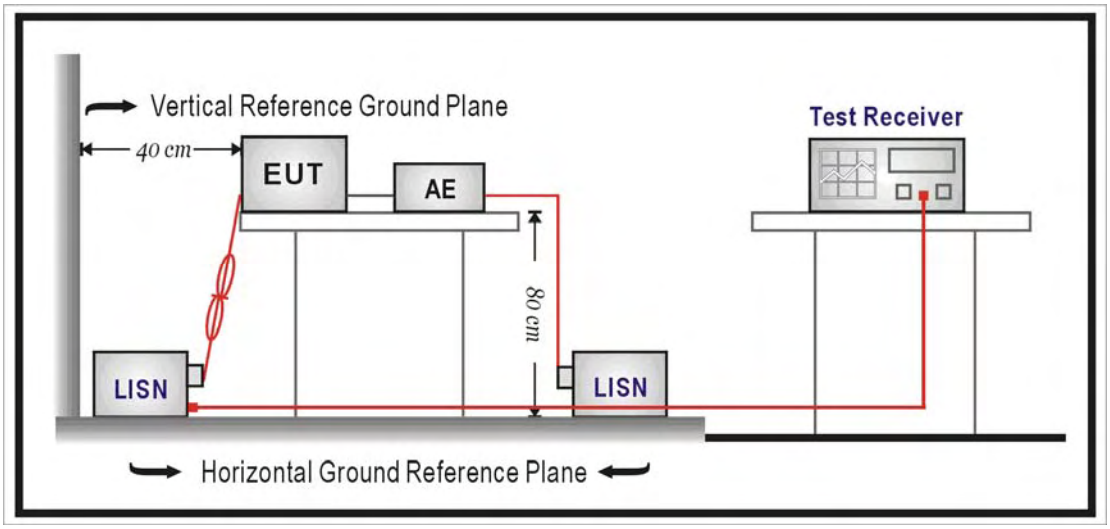
Frequency (MHz)	Quasi-peak	Average
0.15 - 0.5	66 to 56	56 to 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

4.2. Test Instruments

Describe	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Test Receiver	R&S	ESCI	100367	06/30/2011	(1)
LISN	R&S	ENV216	101040	03/04/2011	(1)
LISN	R&S	ENV216	101041	03/04/2011	(1)
Test Site	ATL	TE05	TE05	N.C.R.	-----

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.
NOTE: N.C.R. = No Calibration Request.

4.3. Test Setup



4.4. Test Procedure

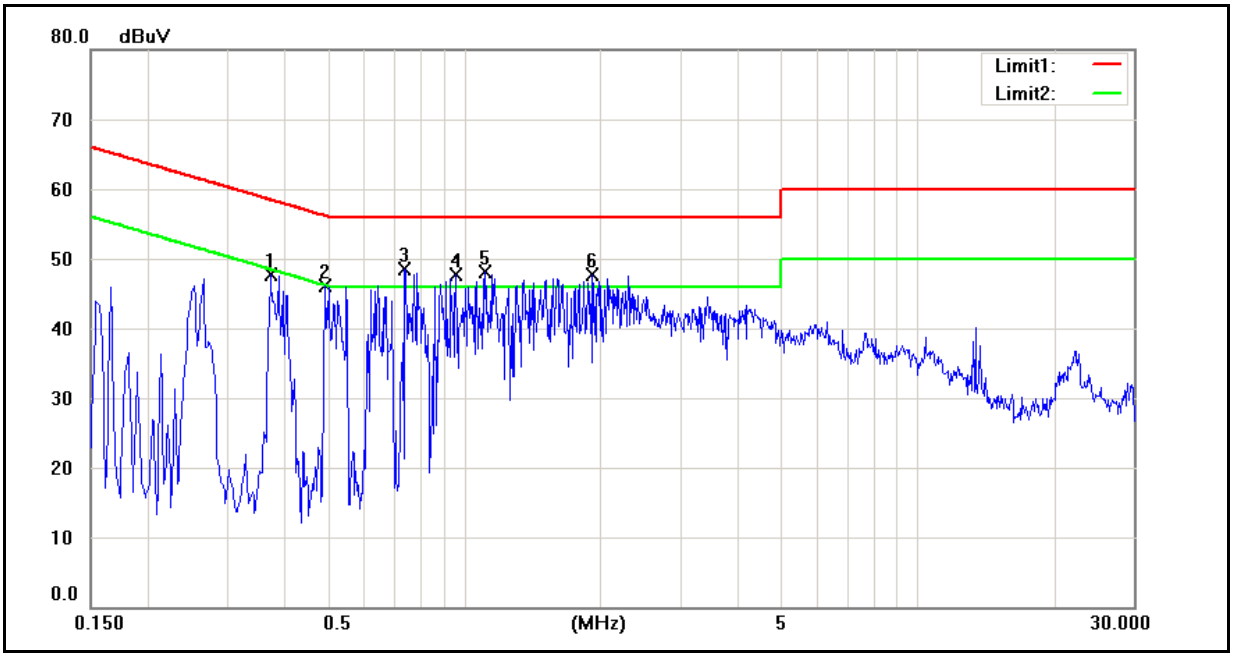
The power line conducted emission measurements were performed in a shielded enclosure. The EUT was assembled on a wooden table which is 80 centimeters high, was placed 40 centimeters from the back wall and at least 1 meter from the sidewall.

Power was fed to the EUT from the public utility power grid through a line filter and EMCO Model 3162/2 SH Line Impedance Stabilization Networks (LISN). The LISN housing, measuring instrumentation case, ground plane, etc., were electrically bonded together at the same RF potential. The Spectrum analyzer was connected to the AC line through an isolation transformer. The 50-ohm output of the LISN was connected to the spectrum analyzer directly. Conducted emission levels were in the CISPR quasi-peak detection mode. The analyzer's 6 dB bandwidth was set to 9 KHz. No post-detector video filter was used.

The spectrum was scanned from 150 KHz to 30 MHz. The physical arrangement of the test system and associated cabling was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude and frequency. All spurious emission frequencies were observed. The highest emission amplitudes relative to the appropriate limit were measured and have been recorded in paragraph 4.1.

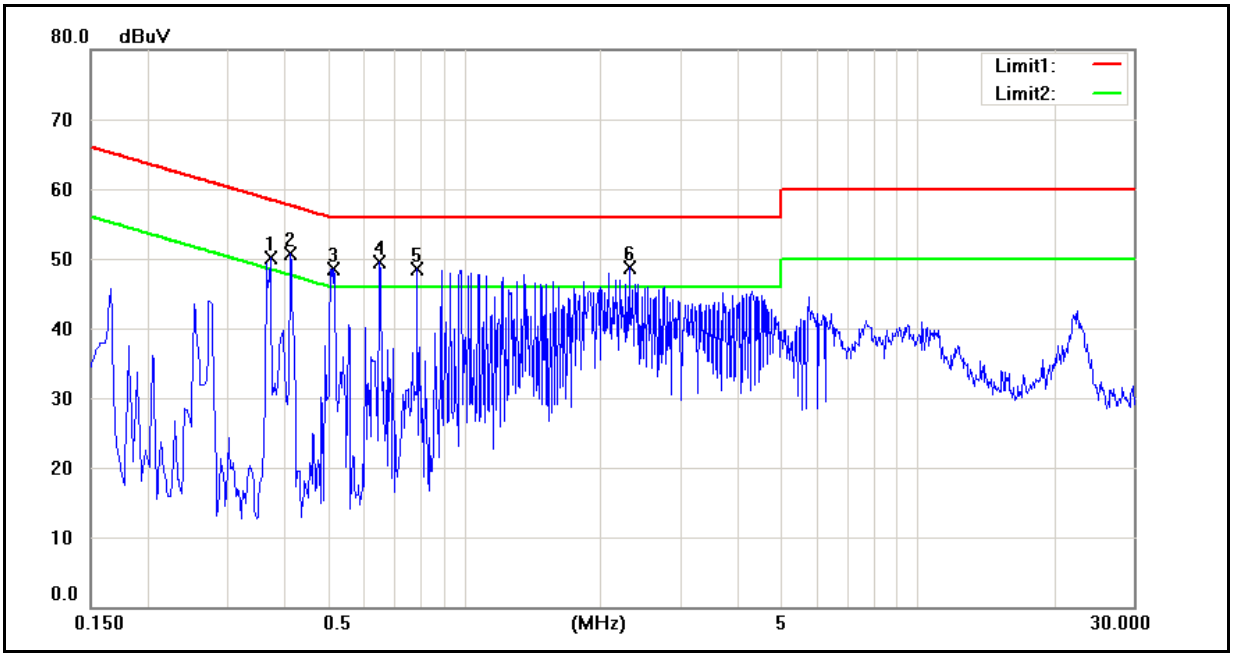
4.5. Test Result

Standard:	FCC Part 15E	Line:	L1
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 1	Date:	06/24/2011
		Test By:	Gary Wu
Description:			



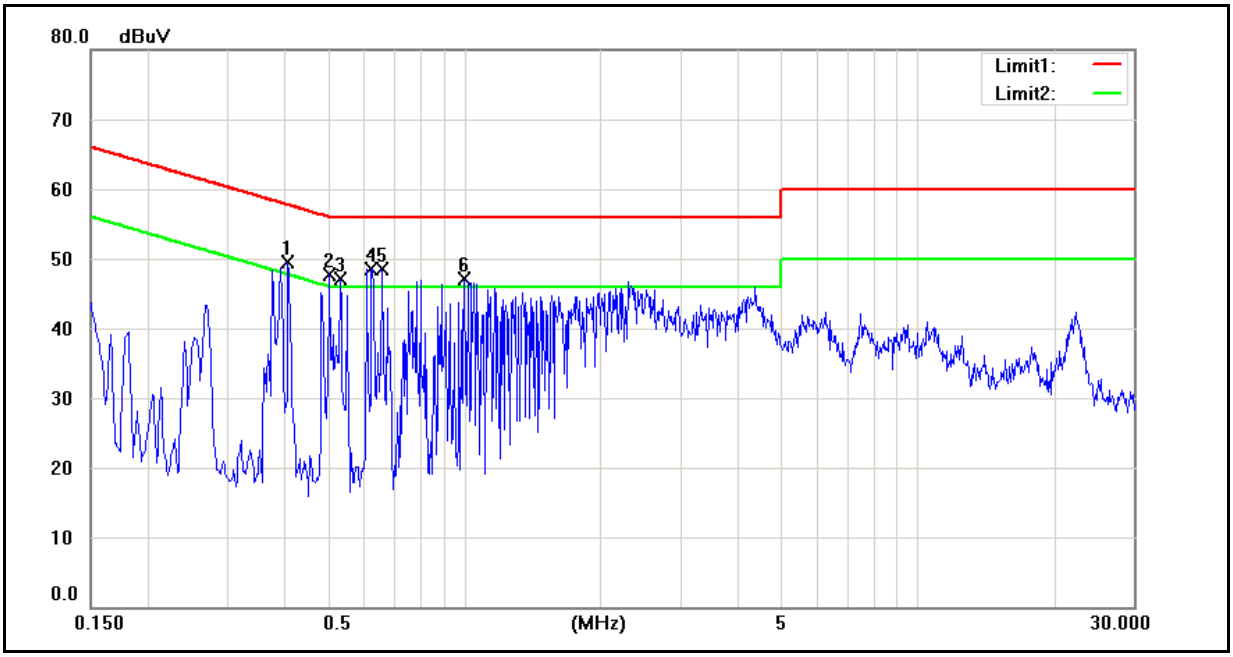
No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.3740	33.80	17.98	9.98	43.78	27.96	58.41	48.41	-14.63	-20.45	Pass
2	0.4940	32.38	15.04	9.93	42.31	24.97	56.10	46.10	-13.79	-21.13	Pass
3	0.7420	33.13	14.84	9.84	42.97	24.68	56.00	46.00	-13.03	-21.32	Pass
4	0.9620	31.73	10.63	9.75	41.48	20.38	56.00	46.00	-14.52	-25.62	Pass
5	1.1140	31.97	12.29	9.72	41.69	22.01	56.00	46.00	-14.31	-23.99	Pass
6	1.9180	30.75	15.93	9.68	40.43	25.61	56.00	46.00	-15.57	-20.39	Pass

Standard:	FCC Part 15E	Line:	N
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 1	Date:	06/24/2011
		Test By:	Gary Wu
Description:			



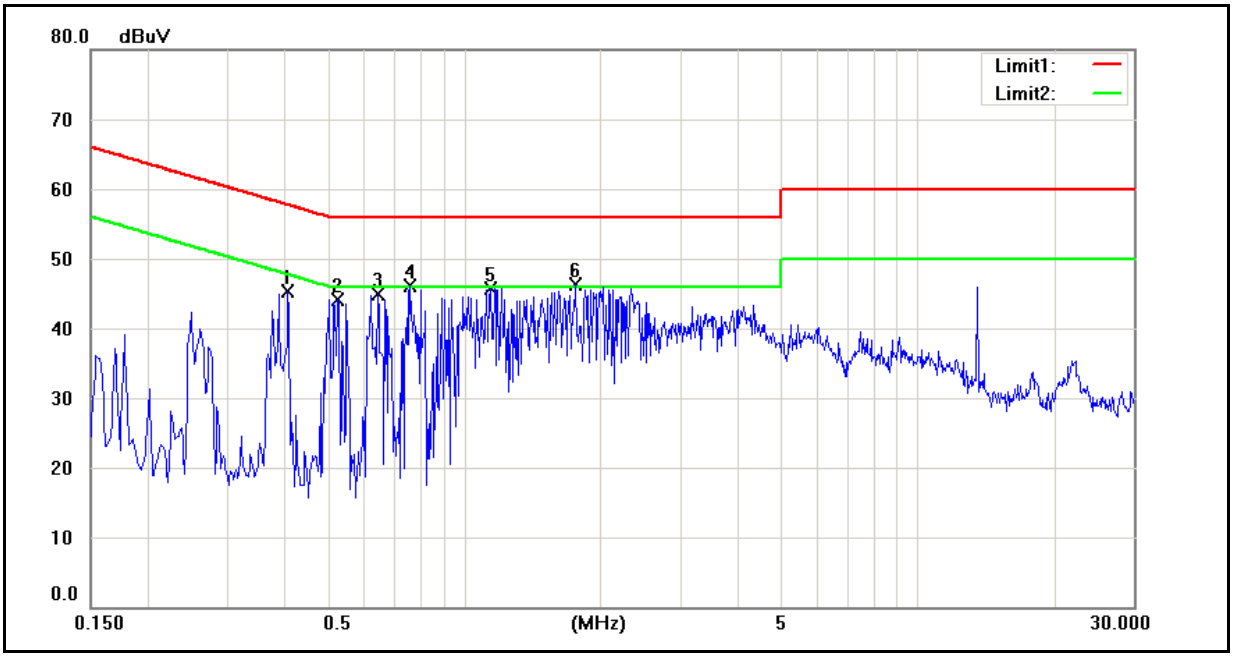
No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.3740	36.14	14.37	10.06	46.20	24.43	58.41	48.41	-12.21	-23.98	Pass
2	0.4140	35.01	10.49	10.05	45.06	20.54	57.57	47.57	-12.51	-27.03	Pass
3	0.5180	34.22	11.30	10.00	44.22	21.30	56.00	46.00	-11.78	-24.70	Pass
4	0.6540	34.76	10.25	9.95	44.71	20.20	56.00	46.00	-11.29	-25.80	Pass
5	0.7900	33.09	8.73	9.89	42.98	18.62	56.00	46.00	-13.02	-27.38	Pass
6	2.3180	29.78	16.62	9.78	39.56	26.40	56.00	46.00	-16.44	-19.60	Pass

Standard:	FCC Part 15E	Line:	L1
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 2	Date:	07/20/2011
		Test By:	Gary Wu
Description:			



No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.4100	35.20	12.52	9.97	45.17	22.49	57.65	47.65	-12.48	-25.16	Pass
2	0.5060	33.54	13.01	9.93	43.47	22.94	56.00	46.00	-12.53	-23.06	Pass
3	0.5340	33.07	11.70	9.92	42.99	21.62	56.00	46.00	-13.01	-24.38	Pass
4	0.6260	33.86	11.59	9.88	43.74	21.47	56.00	46.00	-12.26	-24.53	Pass
5	0.6580	33.72	11.41	9.86	43.58	21.27	56.00	46.00	-12.42	-24.73	Pass
6	1.0020	31.18	9.57	9.73	40.91	19.30	56.00	46.00	-15.09	-26.70	Pass

Standard:	FCC Part 15E	Line:	N
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 2	Date:	07/20/2011
		Test By:	Gary Wu
Description:			



No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.4100	31.91	12.76	10.05	41.96	22.81	57.65	47.65	-15.69	-24.84	Pass
2	0.5260	30.69	14.02	10.00	40.69	24.02	56.00	46.00	-15.31	-21.98	Pass
3	0.6460	30.91	13.71	9.95	40.86	23.66	56.00	46.00	-15.14	-22.34	Pass
4	0.7620	31.10	13.78	9.90	41.00	23.68	56.00	46.00	-15.00	-22.32	Pass
5	1.1420	29.80	12.24	9.79	39.59	22.03	56.00	46.00	-16.41	-23.97	Pass
6	1.7700	29.38	13.46	9.74	39.12	23.20	56.00	46.00	-16.88	-22.80	Pass

5 Radiated Emission Measurement

5.1. Limit

Limits of Radiated Emission Measurement

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequency Range (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	10	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Note:

1. The lower limit shall apply at the transition frequencies.

2. Emission level (dBuV/m) = 20 log Emission level (uV/m).

3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

Limits of Unwanted Emission out of the Restricted Bands

Frequency Range (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dBμV/m) *NOTE
	PK	PK
5150 ~ 5350	-27	68.3
5470 ~ 5725	-27	68.3

Note:

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$E = \frac{1000000\sqrt{30P}}{3}$ μV/m, where P is the eirp (Watts).

5.2. Test Instruments

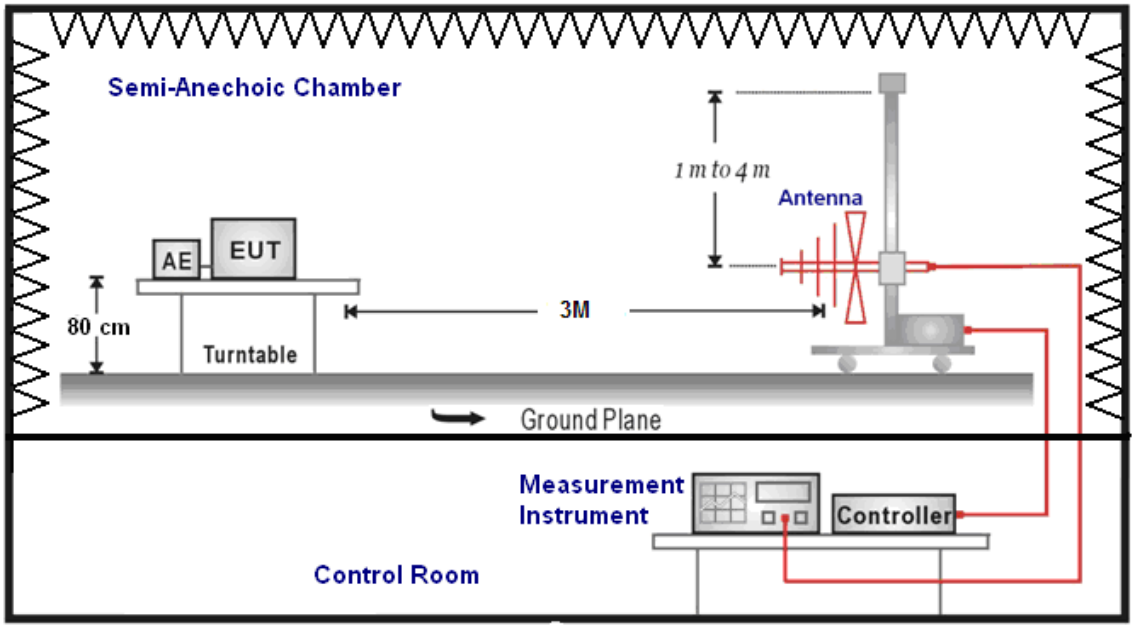
3 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY46181986	06/16/2011	(1)
Amplifier	Mini-Circuits	ZKL-1R5+	N/A	05/30/2011	(1)
Amplifier	Mini-Circuits	ZVA-213-S+	N/A	05/30/2011	(1)
RF Pre-selector	Agilent	N9039A	MY46520255	05/16/2011	(1)
Broadband Horn Antenna	Schwarzbeck Mess-Elektronik	BBHA 9170	9170-320	06/28/2011	(1)
Double-Ridged Waveguide Horn	ETS-Lindgren	3117	00128055	08/24/2010	(1)
Trilog-Broadband Antenna	Schwarzbeck Mess-Elektronik	SB AC VULB	9168-419	05/10/2011	(1)
Test Site	ATL	TE09	TE09	05/13/2011	(1)

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.

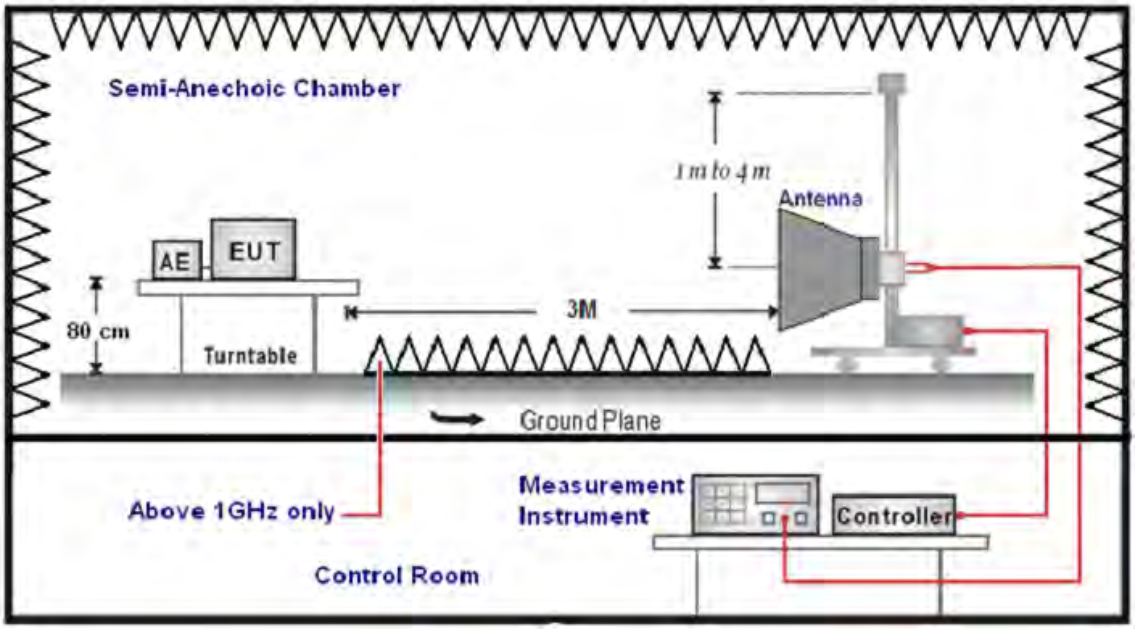
NOTE: N.C.R. = No Calibration Request.

5.3. Setup

Below 1GHz



Above 1GHz



5.4. Test Procedure

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. The EUT system was placed on a nonconductive turntable which is 0.8 meters height, top surface 1.0 x 1.5 meter. The spectrum was examined from 250 MHz to 2.5 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to transmit continuously & Measurements spectrum range from 30 MHz to 40 GHz is investigated.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

A nonconductive material surrounded the EUT to supporting the EUT for standing on tree orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

SCHWARZBECK MESS-ELEKTRONIK Trilog-Broadband Antenna (mode SB AC VULB) at 3 Meter and the ETS-Lindgren Double-Ridged Waveguide Horn antnna (model 3117) Schwarzbeck Mess-Elektronik Broadband Horn Antenna (BBHA 9170) was used in frequencies 1 – 40 GHz at a distance of 1 meter. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20dB/decade).

For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post – detector video filters were used in the test.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts pre meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro colts per meter (dBuV/m).

The actual field is intensity in referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

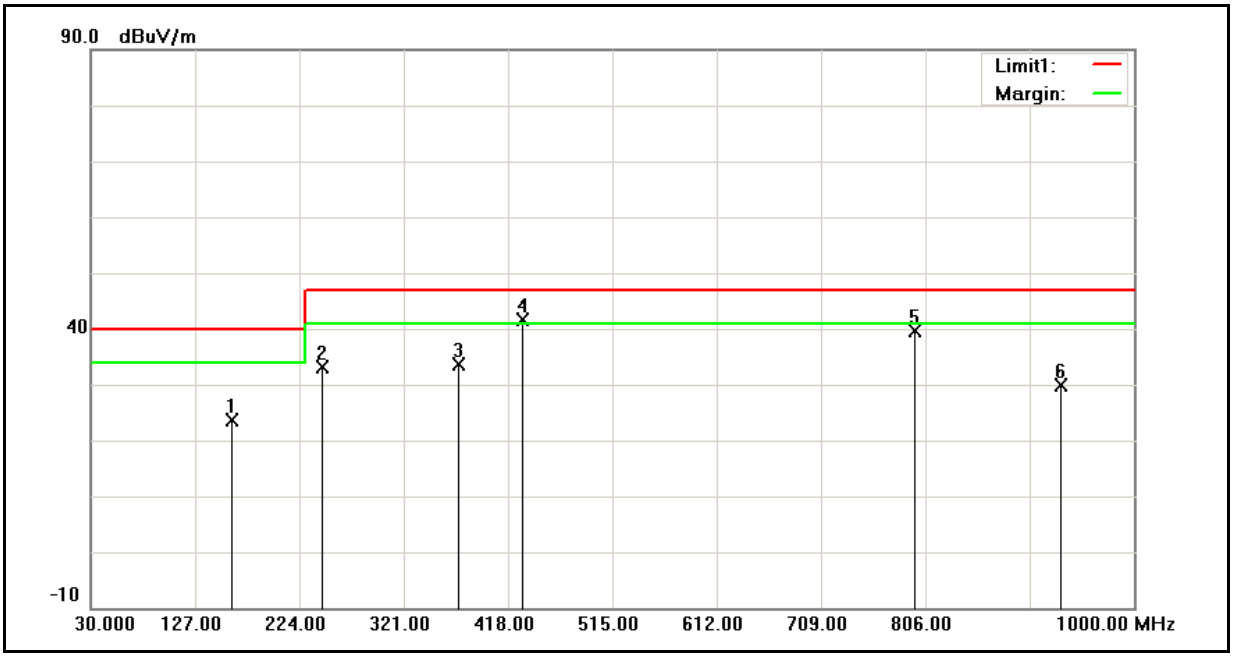
(1) Amplitude (dBuV/m) = FI (dBuV) +AF (dBuV) +CL (dBuV)-Gain (dB)
FI= Reading of the field intensity.
AF= Antenna factor.
CL= Cable loss.
P.S Amplitude is auto calculate in spectrum analyzer.

(2) Actual Amplitude (dBuV/m) = Amplitude (dBuV)-Dis(dB)
The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:
(a) For fundamental frequency : Transmitter Output < +30dBm
(b) For spurious frequency : Spurious emission limits = fundamental emission limit /10

5.5. Test Result

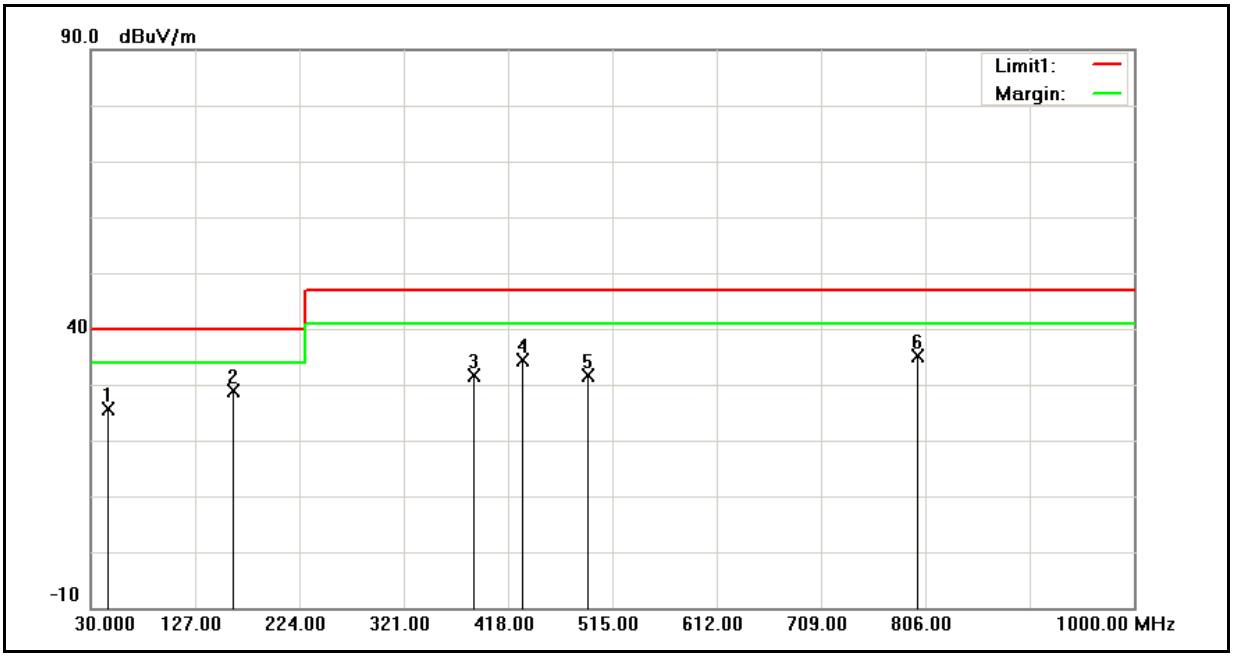
Below 1GHz

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 2	Date:	07/20/2011
Ant.Polar.:	Horizontal	Test By:	Gary Wu



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	161.0000	47.96	-24.32	23.64	40.00	-16.36	QP
2	245.5000	58.18	-25.03	33.15	47.00	-13.85	QP
3	371.5000	54.76	-21.13	33.63	47.00	-13.37	QP
4	432.0000	61.13	-19.45	41.68	47.00	-5.32	QP
5	796.5000	52.36	-12.71	39.65	47.00	-7.35	QP
6	933.0000	40.84	-10.96	29.88	47.00	-17.12	QP

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 2	Date:	07/20/2011
Ant.Polar.:	Vertical	Test By:	Gary Wu



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	46.0000	50.29	-24.54	25.75	40.00	-14.25	QP
2	162.5000	53.38	-24.46	28.92	40.00	-11.08	QP
3	386.5000	52.41	-20.86	31.55	47.00	-15.45	QP
4	432.0000	53.94	-19.45	34.49	47.00	-12.51	QP
5	493.0000	49.94	-18.35	31.59	47.00	-15.41	QP
6	799.5000	47.69	-12.68	35.01	47.00	-11.99	QP

Above 1GHz

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 3	Date:	07/20/2011
Frequency:	5180MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1329.000	69.07	-21.73	47.34	74.00	-26.66	peak	H
1595.000	66.05	-20.52	45.53	74.00	-28.47	peak	H
1861.000	64.42	-19.07	45.35	74.00	-28.65	peak	H
1336.000	69.85	-21.70	48.15	74.00	-25.85	peak	V
1595.000	70.75	-20.52	50.23	74.00	-23.77	peak	V
2393.000	65.04	-17.78	47.26	74.00	-26.74	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 3	Date:	07/20/2011
Frequency:	5220MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1063.000	69.54	-22.80	46.74	74.00	-27.26	peak	H
1336.000	70.27	-21.70	48.57	74.00	-25.43	peak	H
1595.000	69.97	-20.52	49.45	74.00	-24.55	peak	H
1329.000	69.70	-21.73	47.97	74.00	-26.03	peak	V
1595.000	69.22	-20.52	48.70	74.00	-25.30	peak	V
1868.000	64.33	-19.03	45.30	74.00	-28.70	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 3	Date:	07/20/2011
Frequency:	5240MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1063.000	68.47	-22.80	45.67	74.00	-28.33	peak	H
1329.000	69.68	-21.73	47.95	74.00	-26.05	peak	H
1595.000	70.08	-20.52	49.56	74.00	-24.44	peak	H
1329.000	70.02	-21.73	48.29	74.00	-25.71	peak	V
1595.000	70.27	-20.52	49.75	74.00	-24.25	peak	V
2134.000	62.38	-18.13	44.25	74.00	-29.75	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 3	Date:	07/20/2011
Frequency:	5260MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1329.000	69.06	-21.73	47.33	74.00	-26.67	peak	H
1861.000	64.35	-19.07	45.28	74.00	-28.72	peak	H
2491.000	64.25	-17.64	46.61	74.00	-27.39	peak	H
1329.000	68.47	-21.73	46.74	74.00	-27.26	peak	V
1595.000	70.45	-20.52	49.93	74.00	-24.07	peak	V
2127.000	64.76	-18.14	46.62	74.00	-27.38	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 3	Date:	07/20/2011
Frequency:	5280MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1070.000	69.44	-22.77	46.67	74.00	-27.33	peak	H
1329.000	69.52	-21.73	47.79	74.00	-26.21	peak	H
1595.000	66.86	-20.52	46.34	74.00	-27.66	peak	H
1329.000	69.39	-21.73	47.66	74.00	-26.34	peak	V
1595.000	69.90	-20.52	49.38	74.00	-24.62	peak	V
2134.000	63.98	-18.13	45.85	74.00	-28.15	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 3	Date:	07/20/2011
Frequency:	5320MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1063.000	69.18	-22.80	46.38	74.00	-27.62	peak	H
1329.000	69.59	-21.73	47.86	74.00	-26.14	peak	H
1602.000	68.21	-20.48	47.73	74.00	-26.27	peak	H
1329.000	69.99	-21.73	48.26	74.00	-25.74	peak	V
1595.000	68.98	-20.52	48.46	74.00	-25.54	peak	V
1861.000	64.81	-19.07	45.74	74.00	-28.26	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 3	Date:	07/20/2011
Frequency:	5500MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1063.000	68.68	-22.80	45.88	74.00	-28.12	peak	H
1329.000	68.09	-21.73	46.36	74.00	-27.64	peak	H
1602.000	67.21	-20.48	46.73	74.00	-27.27	peak	H
1063.000	70.75	-22.80	47.95	74.00	-26.05	peak	V
1329.000	68.85	-21.73	47.12	74.00	-26.88	peak	V
1595.000	71.64	-20.52	51.12	74.00	-22.88	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 3	Date:	07/20/2011
Frequency:	5600MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1063.000	66.83	-22.80	44.03	74.00	-29.97	peak	H
1329.000	70.52	-21.73	48.79	74.00	-25.21	peak	H
1602.000	65.81	-20.48	45.33	74.00	-28.67	peak	H
1063.000	69.71	-22.80	46.91	74.00	-27.09	peak	V
1329.000	68.88	-21.73	47.15	74.00	-26.85	peak	V
1595.000	67.87	-20.52	47.35	74.00	-26.65	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 3	Date:	07/20/2011
Frequency:	5700MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1329.000	69.59	-21.73	47.86	74.00	-26.14	peak	H
1595.000	66.09	-20.52	45.57	74.00	-28.43	peak	H
1917.000	64.21	-18.76	45.45	74.00	-28.55	peak	H
1329.000	69.74	-21.73	48.01	74.00	-25.99	peak	V
1602.000	69.32	-20.48	48.84	74.00	-25.16	peak	V
2134.000	63.76	-18.13	45.63	74.00	-28.37	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	07/21/2011
Frequency:	5180MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1063.000	70.83	-22.80	48.03	74.00	-25.97	peak	H
1329.000	69.24	-21.73	47.51	74.00	-26.49	peak	H
1595.000	69.30	-20.52	48.78	74.00	-25.22	peak	H
1336.000	69.80	-21.70	48.10	74.00	-25.90	peak	V
1595.000	71.11	-20.52	50.59	74.00	-23.41	peak	V
1868.000	68.77	-19.03	49.74	74.00	-24.26	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	07/21/2011
Frequency:	5220MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1329.000	69.44	-21.73	47.71	74.00	-26.29	peak	H
1595.000	66.64	-20.52	46.12	74.00	-27.88	peak	H
1868.000	64.05	-19.03	45.02	74.00	-28.98	peak	H
1336.000	70.22	-21.70	48.52	74.00	-25.48	peak	V
1595.000	69.21	-20.52	48.69	74.00	-25.31	peak	V
1868.000	64.95	-19.03	45.92	74.00	-28.08	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	07/21/2011
Frequency:	5240MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1336.000	70.28	-21.70	48.58	74.00	-25.42	peak	H
1595.000	65.96	-20.52	45.44	74.00	-28.56	peak	H
1868.000	64.23	-19.03	45.20	74.00	-28.80	peak	H
1329.000	69.88	-21.73	48.15	74.00	-25.85	peak	V
1595.000	71.09	-20.52	50.57	74.00	-23.43	peak	V
1868.000	65.59	-19.03	46.56	74.00	-27.44	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	07/21/2011
Frequency:	5260MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1329.000	69.74	-21.73	48.01	74.00	-25.99	peak	H
1595.000	66.33	-20.52	45.81	74.00	-28.19	peak	H
1861.000	63.22	-19.07	44.15	74.00	-29.85	peak	H
1329.000	70.09	-21.73	48.36	74.00	-25.64	peak	V
1595.000	71.47	-20.52	50.95	74.00	-23.05	peak	V
2652.000	64.66	-17.16	47.50	74.00	-26.50	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	07/21/2011
Frequency:	5280MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1329.000	68.71	-21.73	46.98	74.00	-27.02	peak	H
1595.000	69.23	-20.52	48.71	74.00	-25.29	peak	H
1868.000	64.38	-19.03	45.35	74.00	-28.65	peak	H
1329.000	69.66	-21.73	47.93	74.00	-26.07	peak	V
1595.000	69.71	-20.52	49.19	74.00	-24.81	peak	V
2666.000	64.65	-17.11	47.54	74.00	-26.46	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	07/21/2011
Frequency:	5320MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1329.000	69.88	-21.73	48.15	74.00	-25.85	peak	H
1595.000	64.72	-20.52	44.20	74.00	-29.80	peak	H
2295.000	62.34	-17.91	44.43	74.00	-29.57	peak	H
1329.000	70.12	-21.73	48.39	74.00	-25.61	peak	V
1595.000	70.31	-20.52	49.79	74.00	-24.21	peak	V
2393.000	67.64	-17.78	49.86	74.00	-24.14	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	07/21/2011
Frequency:	5500MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1329.000	70.53	-21.73	48.80	74.00	-25.20	peak	H
1595.000	65.03	-20.52	44.51	74.00	-29.49	peak	H
2498.000	65.54	-17.63	47.91	74.00	-26.09	peak	H
1329.000	70.85	-21.73	49.12	74.00	-24.88	peak	V
1595.000	70.83	-20.52	50.31	74.00	-23.69	peak	V
2127.000	63.47	-18.14	45.33	74.00	-28.67	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	07/21/2011
Frequency:	5600MHz	Test By:	Gary Wu

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1329.000	69.16	-21.73	47.43	74.00	-26.57	peak	H
1868.000	64.81	-19.03	45.78	74.00	-28.22	peak	H
3086.000	62.43	-15.93	46.50	74.00	-27.50	peak	H
1329.000	70.51	-21.73	48.78	74.00	-25.22	peak	V
1595.000	69.26	-20.52	48.74	74.00	-25.26	peak	V
1861.000	65.68	-19.07	46.61	74.00	-27.39	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	07/21/2011
Frequency:	5700MHz	Test By:	Gary Wu

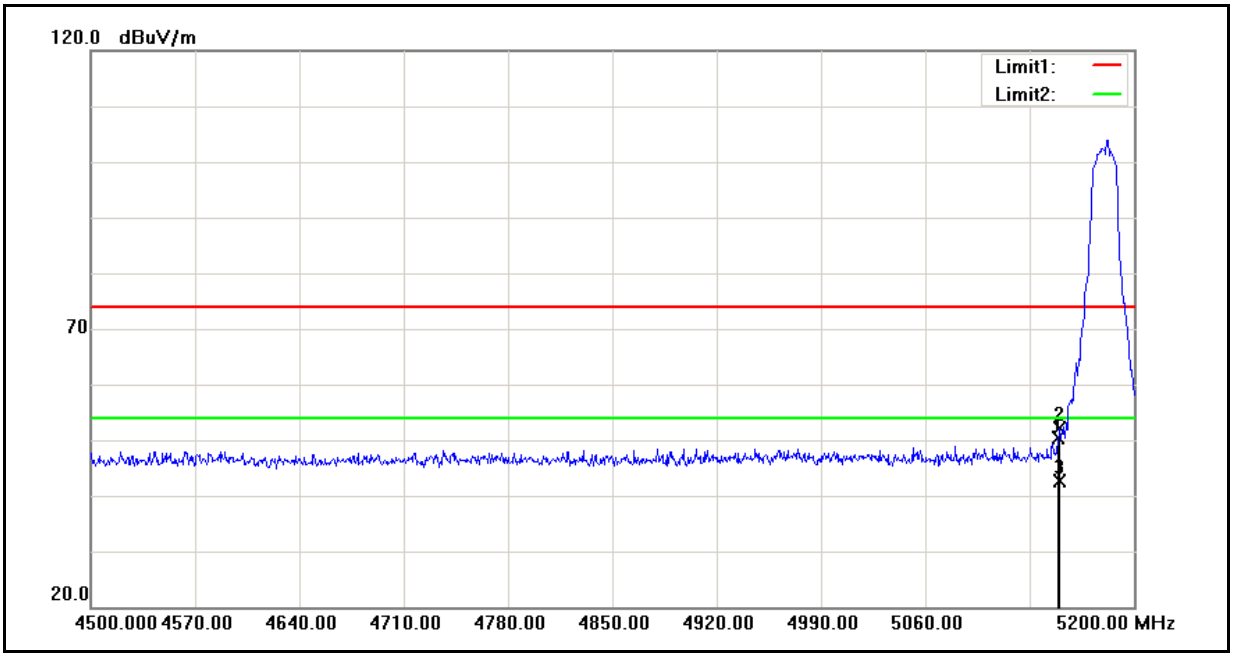
Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
1336.000	69.33	-21.70	47.63	74.00	-26.37	peak	H
1595.000	65.61	-20.52	45.09	74.00	-28.91	peak	H
1861.000	63.61	-19.07	44.54	74.00	-29.46	peak	H
1329.000	73.36	-21.73	51.63	74.00	-22.37	peak	V
1595.000	68.85	-20.52	48.33	74.00	-25.67	peak	V
2393.000	65.93	-17.78	48.15	74.00	-25.85	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 5	Date:	07/21/2011
Modulation:	IEEE 802.11a	Test By:	Gary Wu
Frequency:	5220 MHz		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Peak Limit (dBuV/m)	AVG. Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2708.500	63.44	-16.97	46.47	74.00	54.00	-27.53	peak	H
3932.500	60.27	-13.91	46.36	74.00	54.00	-27.64	peak	H
5411.500	58.15	-9.96	48.19	74.00	54.00	-25.81	peak	H
2683.000	64.46	-17.06	47.40	74.00	54.00	-26.60	peak	V
3856.000	59.78	-14.14	45.64	74.00	54.00	-28.36	peak	V
5539.000	57.79	-9.63	48.16	74.00	54.00	-25.84	peak	V

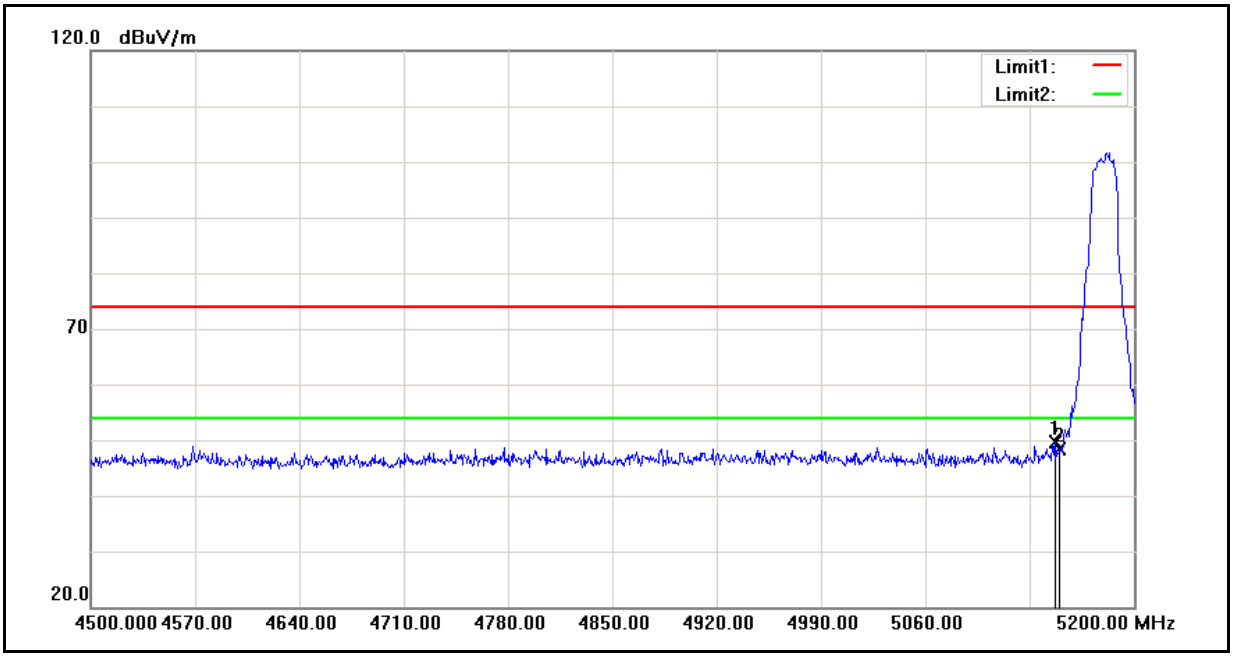
Band Edge

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 3	Date:	07/15/2011
Frequency:	5180 MHz	Test By:	Gary Wu
Ant.Polar.:	Horizontal		



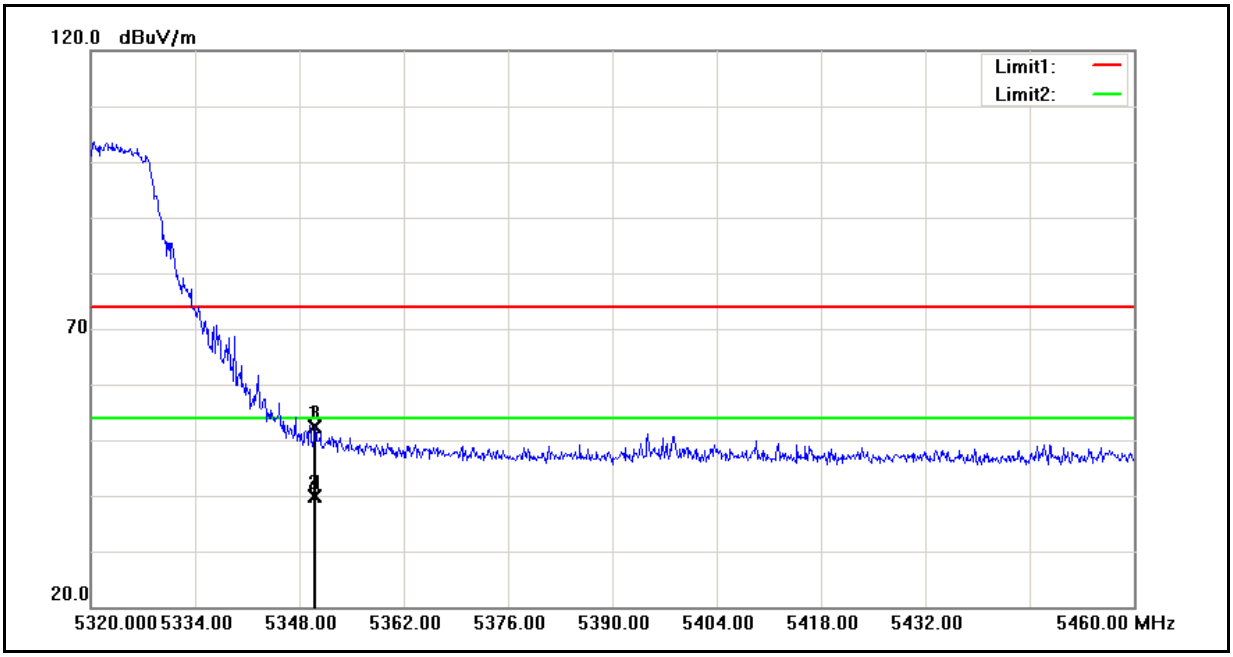
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5148.900	61.00	-10.57	50.43	74.00	-23.57	peak
2	5150.000	62.68	-10.57	52.11	74.00	-21.89	peak
3	5150.000	53.14	-10.57	42.57	54.00	-11.43	AVG

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 3	Date:	07/15/2011
Frequency:	5180 MHz	Test By:	Gary Wu
Ant.Polar.:	Vertical		



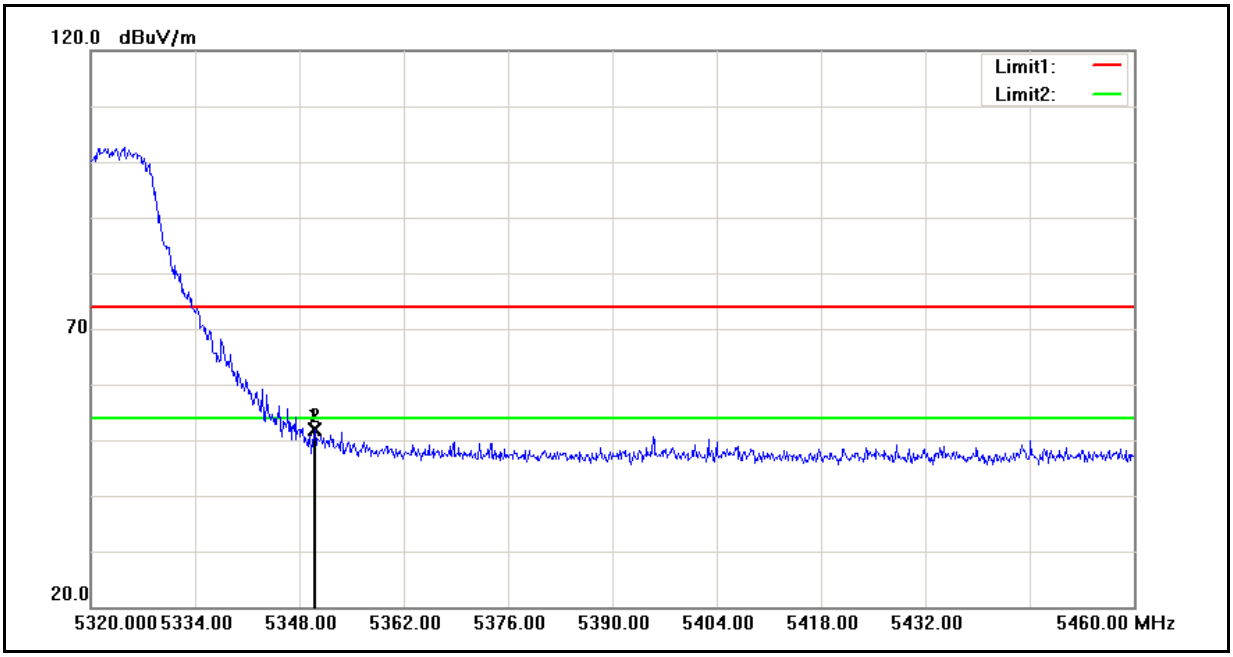
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5147.500	60.15	-10.57	49.58	74.00	-24.42	peak
2	5150.000	58.87	-10.57	48.30	74.00	-25.70	peak

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 3	Date:	07/15/2011
Frequency:	5320 MHz	Test By:	Gary Wu
Ant.Polar.:	Horizontal		



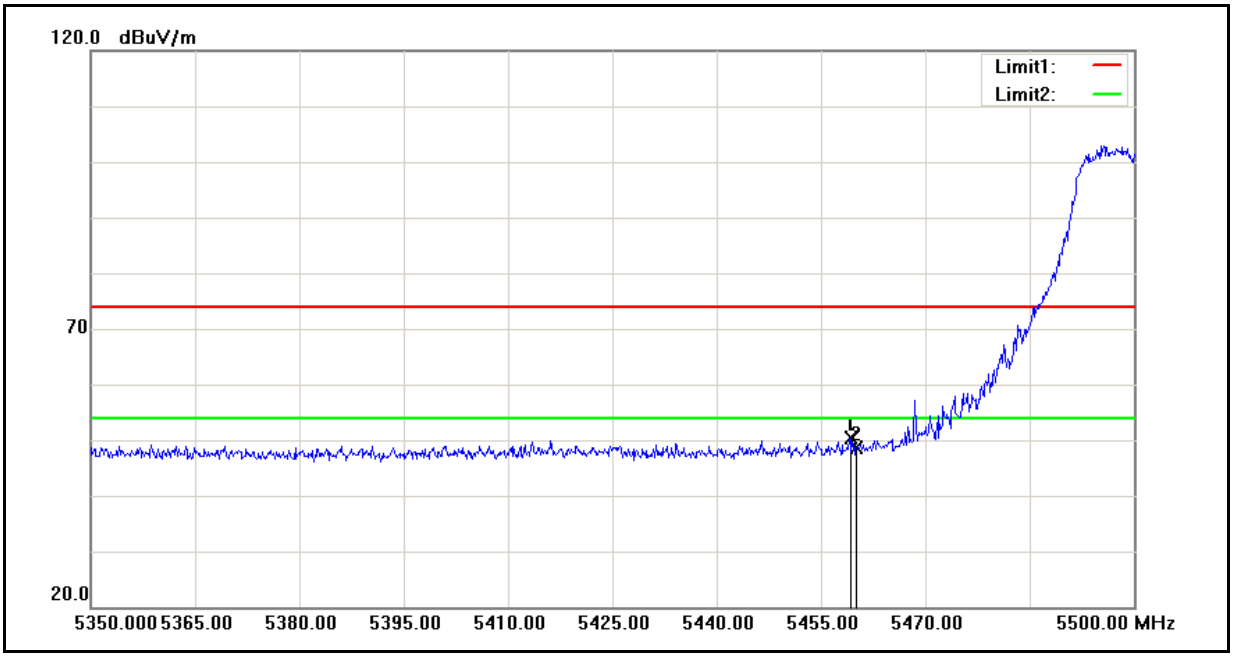
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	62.60	-10.10	52.50	74.00	-21.50	peak
2	5350.000	50.02	-10.10	39.92	54.00	-14.08	AVG
3	5350.100	62.60	-10.10	52.50	74.00	-21.50	peak
4	5350.100	50.02	-10.10	39.92	54.00	-14.08	AVG

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 3	Date:	07/15/2011
Frequency:	5320 MHz	Test By:	Gary Wu
Ant.Polar.:	Vertical		



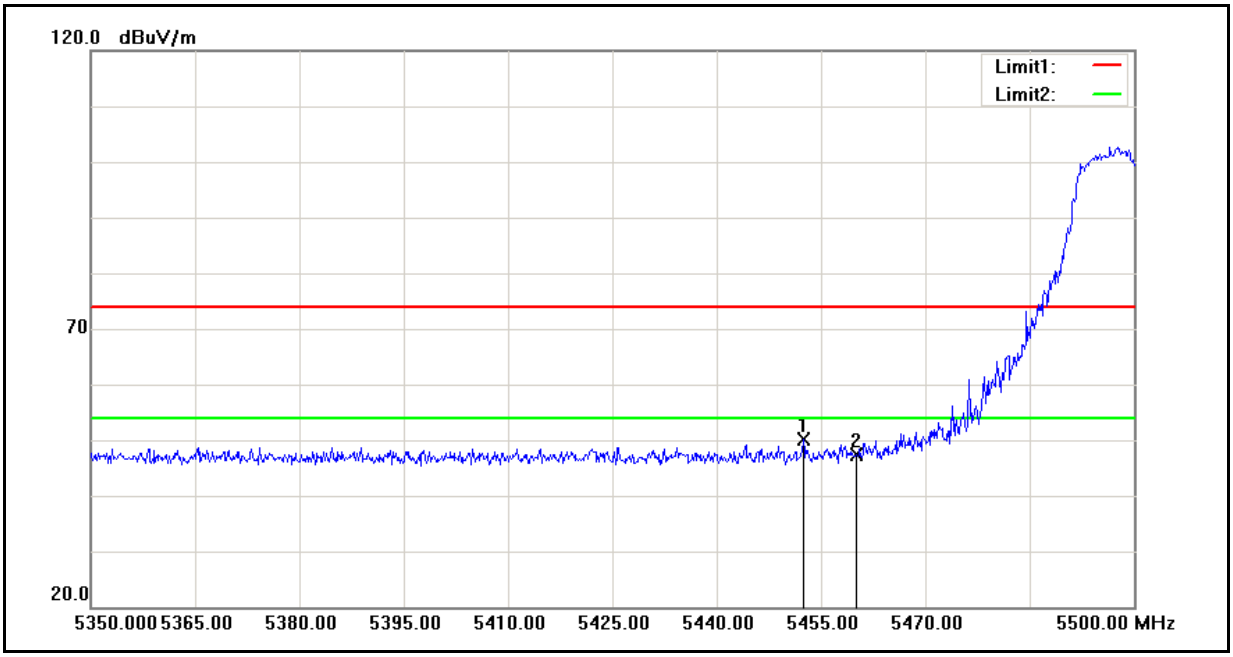
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	62.05	-10.10	51.95	74.00	-22.05	peak
2	5350.100	62.05	-10.10	51.95	74.00	-22.05	peak

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 3	Date:	07/15/2011
Frequency:	5500 MHz	Test By:	Gary Wu
Ant.Polar.:	Horizontal		



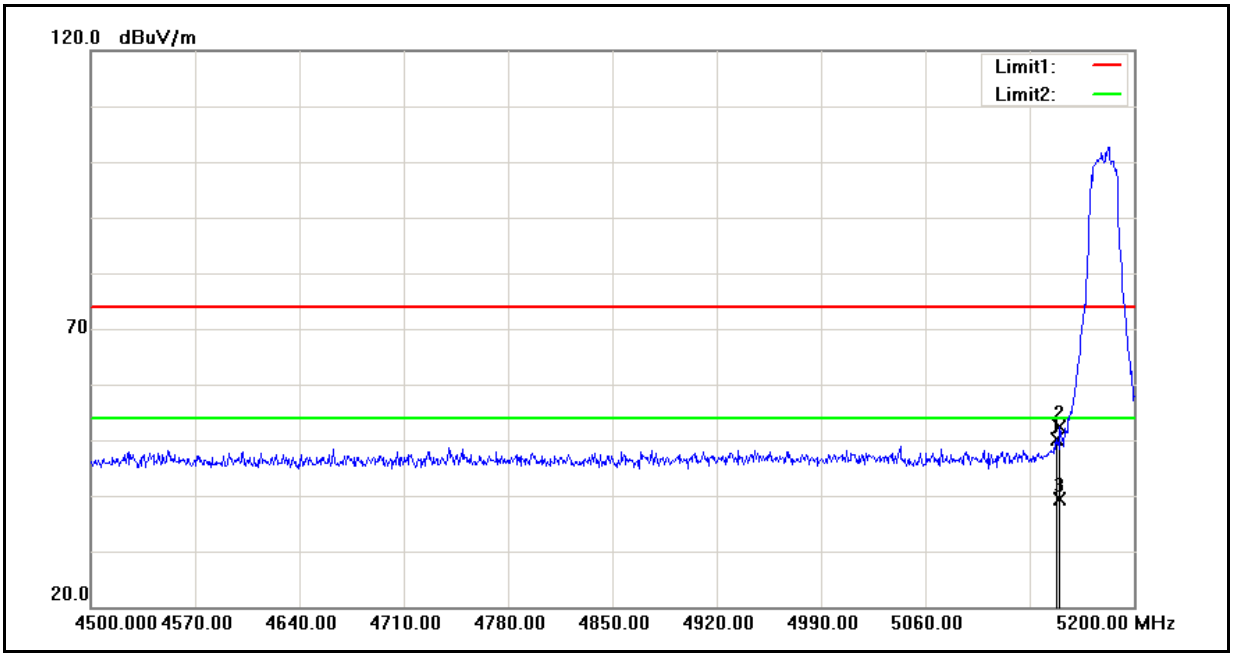
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5459.200	60.26	-9.84	50.42	74.00	-23.58	peak
2	5460.000	58.56	-9.84	48.72	74.00	-25.28	peak

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 3	Date:	07/15/2011
Frequency:	5500 MHz	Test By:	Gary Wu
Ant.Polar.:	Vertical		



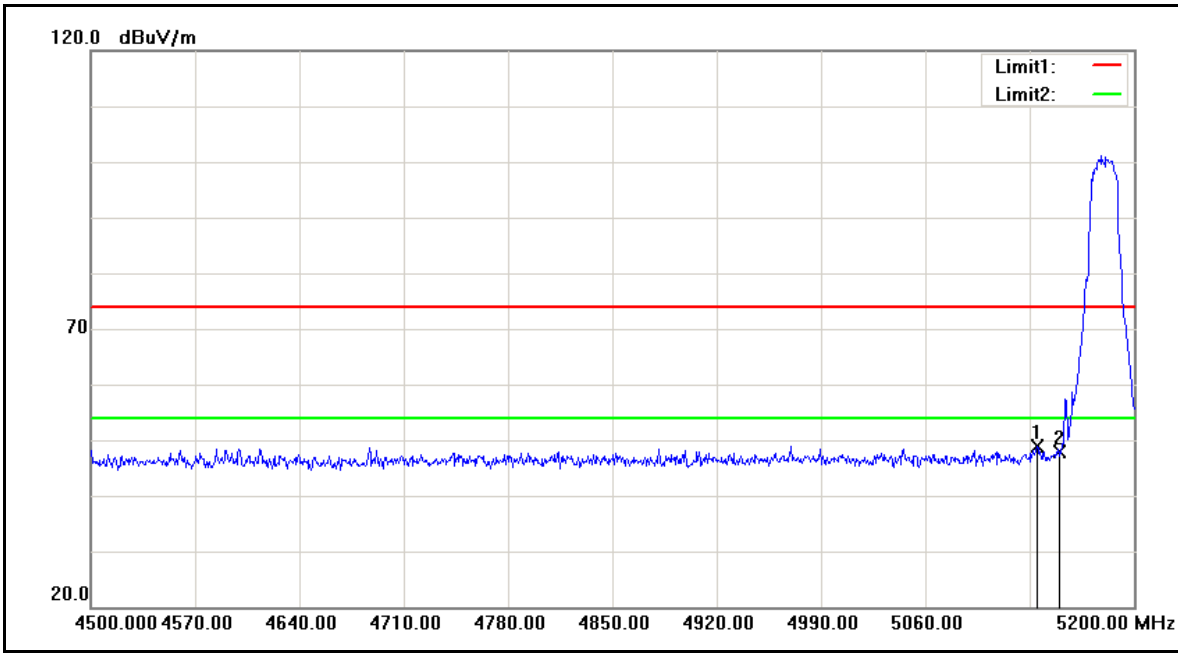
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5452.450	60.03	-9.86	50.17	74.00	-23.83	peak
2	5460.000	57.21	-9.84	47.37	74.00	-26.63	peak

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	07/15/2011
Frequency:	5180 MHz	Test By:	Gary Wu
Ant.Polar.:	Horizontal		



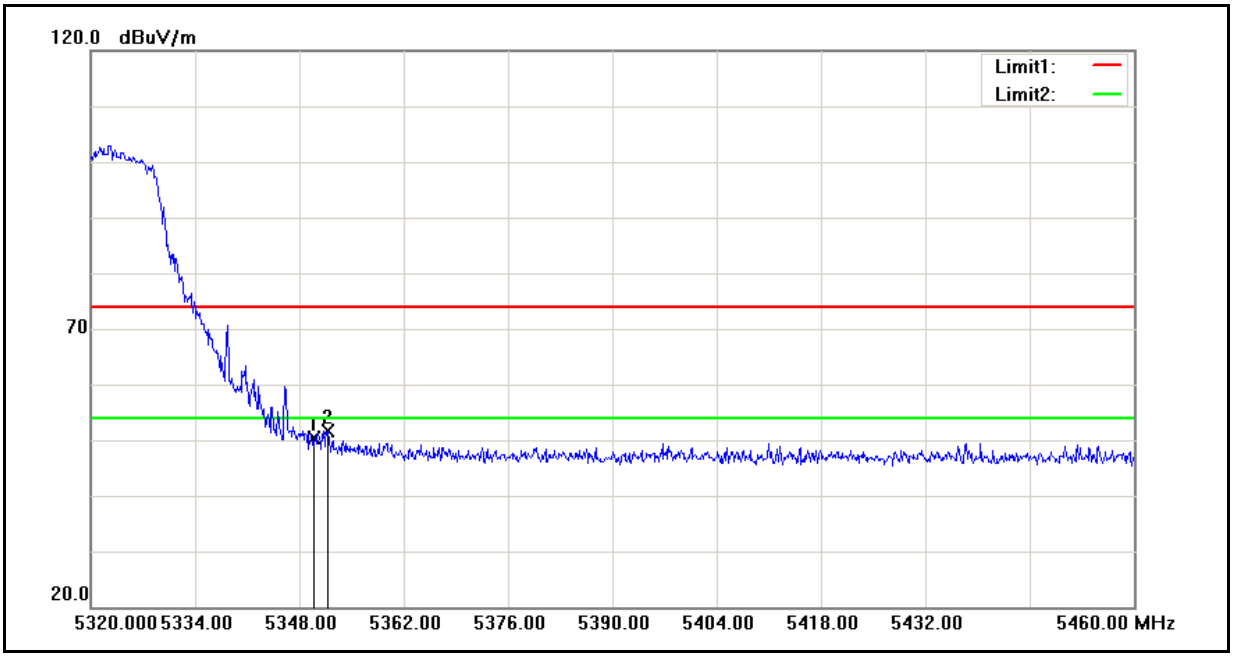
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5148.200	60.68	-10.57	50.11	74.00	-23.89	peak
2	5150.000	63.06	-10.57	52.49	74.00	-21.51	peak
3	5150.000	50.04	-10.57	39.47	54.00	-14.53	AVG

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	07/15/2011
Frequency:	5180 MHz	Test By:	Gary Wu
Ant.Polar.:	Vertical		



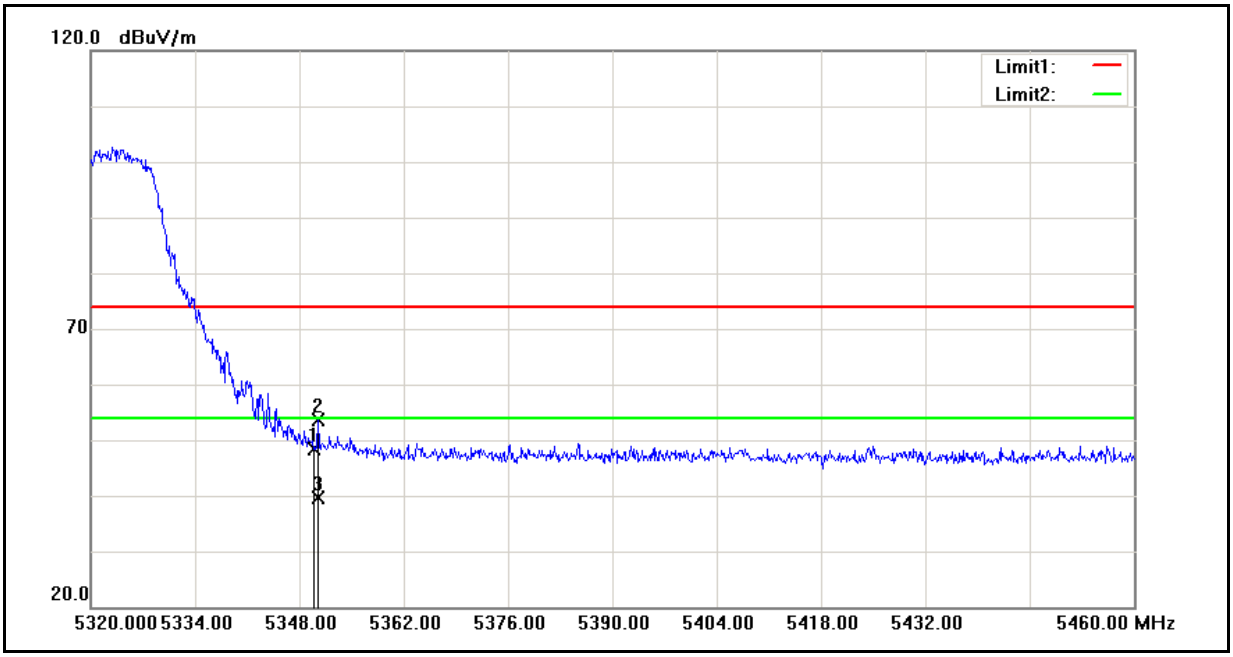
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5134.900	59.58	-10.60	48.98	74.00	-25.02	peak
2	5150.000	58.55	-10.57	47.98	74.00	-26.02	peak

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	07/15/2011
Frequency:	5320 MHz	Test By:	Gary Wu
Ant.Polar.:	Horizontal		



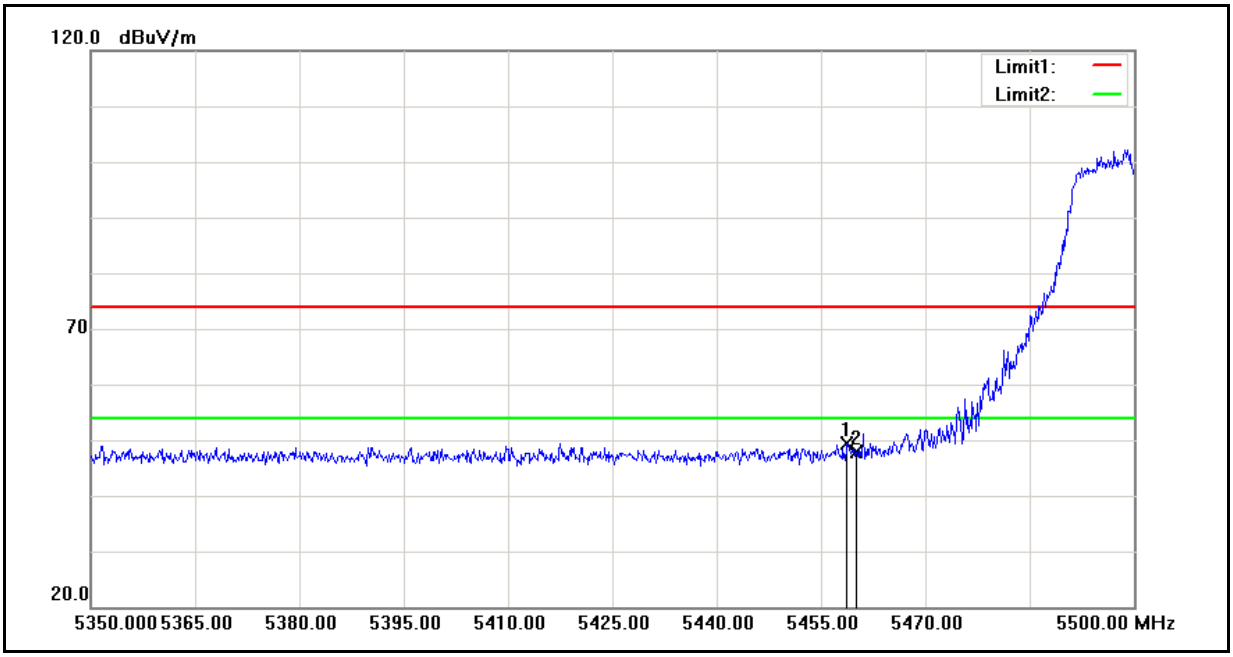
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	60.43	-10.10	50.33	74.00	-23.67	peak
2	5351.780	61.75	-10.10	51.65	74.00	-22.35	peak

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	07/15/2011
Frequency:	5320 MHz	Test By:	Gary Wu
Ant.Polar.:	Vertical		



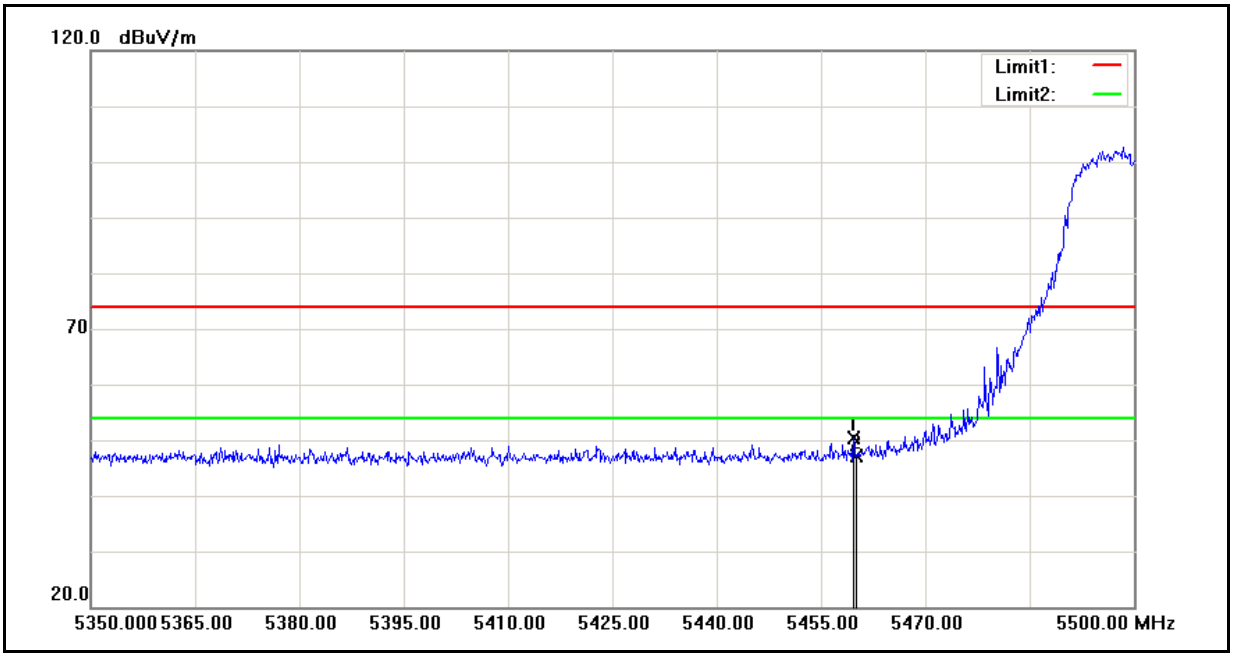
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	58.51	-10.10	48.41	74.00	-25.59	peak
2	5350.520	63.80	-10.10	53.70	74.00	-20.30	peak
3	5350.520	49.82	-10.10	39.72	54.00	-14.28	AVG

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	07/15/2011
Frequency:	5500 MHz	Test By:	Gary Wu
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5458.750	59.26	-9.84	49.42	74.00	-24.58	peak
2	5460.000	57.63	-9.84	47.79	74.00	-26.21	peak

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PH85110	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 4	Date:	07/15/2011
Frequency:	5500 MHz	Test By:	Gary Wu
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5459.650	60.28	-9.84	50.44	74.00	-23.56	peak
2	5460.000	57.09	-9.84	47.25	74.00	-26.75	peak

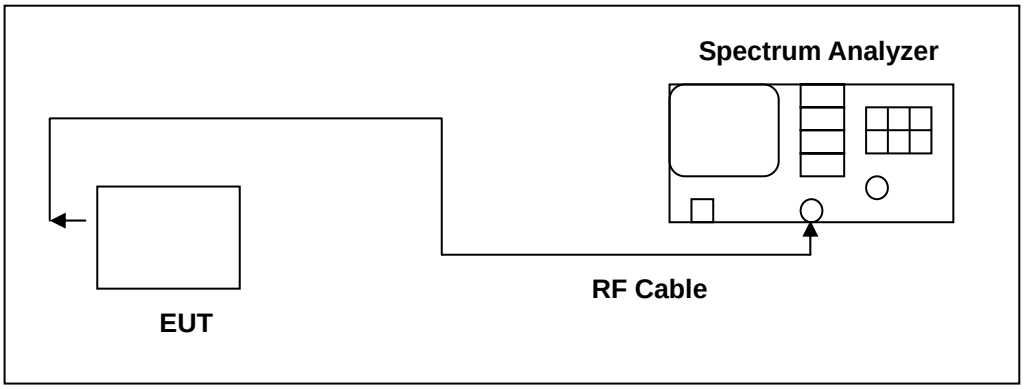
6 Maximum Conducted Output Power Measurement

6.1. Limit

Frequency Range (MHz)	Limit
5.150 ~ 5.250 GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.250 ~ 5.350 GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.470 ~ 5.725 GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB

Note: Where B is the 26dB emission bandwidth in MHz.

6.2. Test Setup



6.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/28/2010	(2)
Test Site	ATL	TE02	TE02	N.C.R.	-----

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.
NOTE: N.C.R. = No Calibration Request.

6.4. Test Procedure

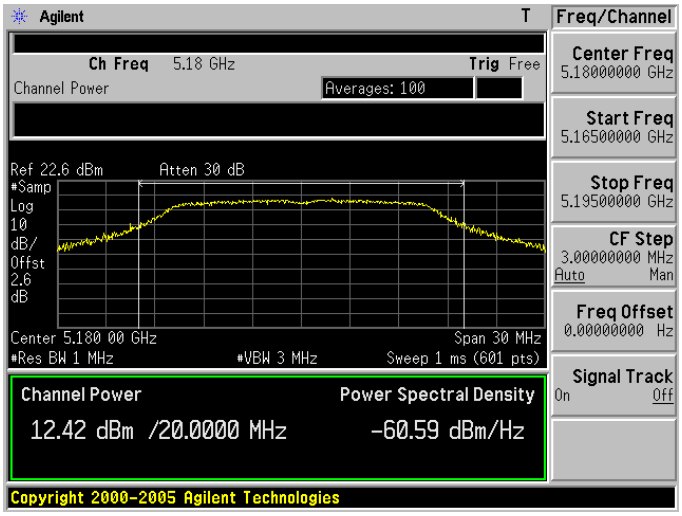
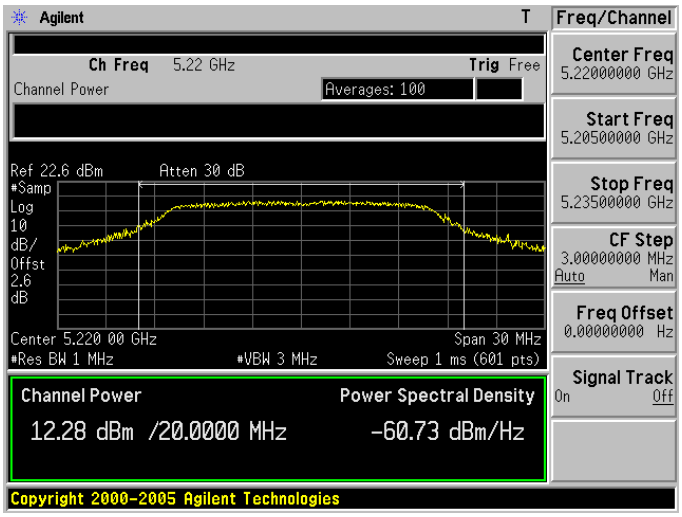
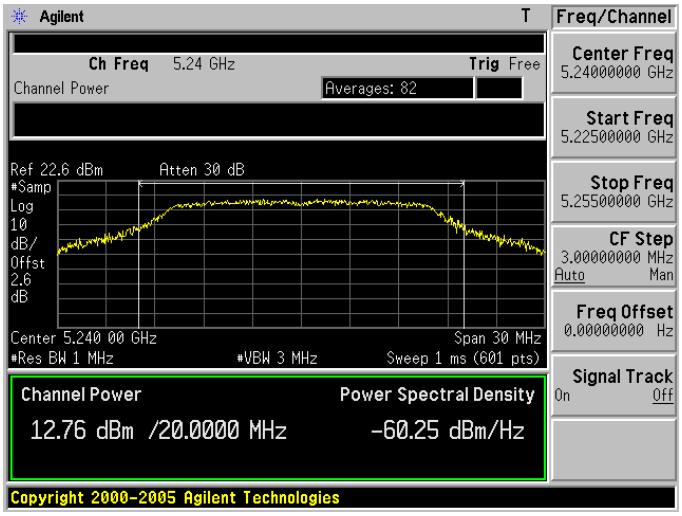
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

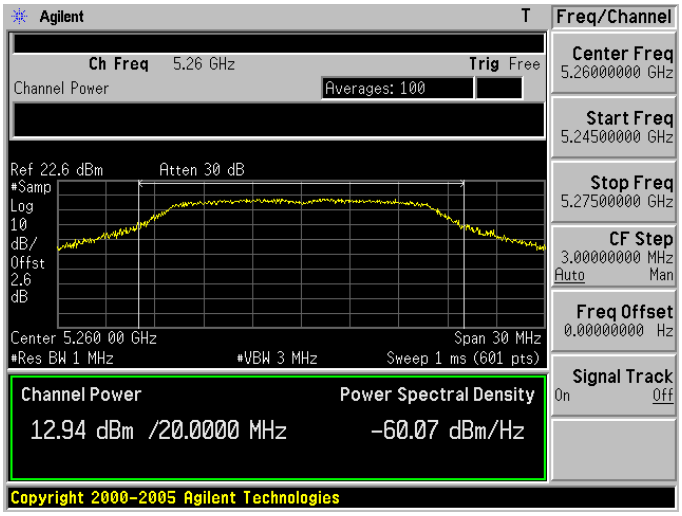
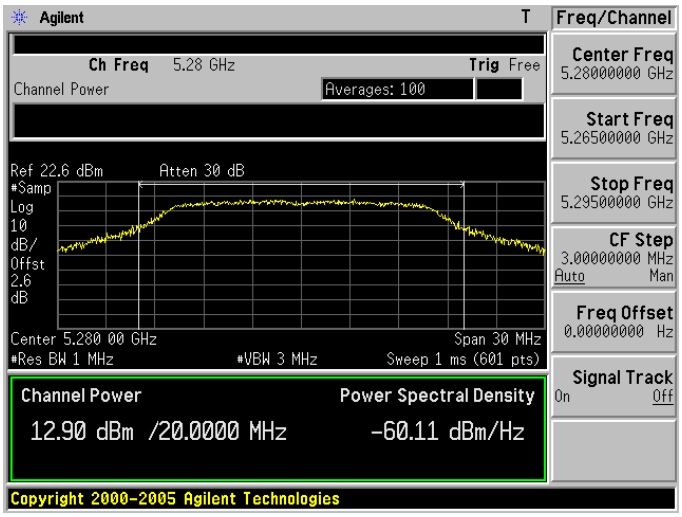
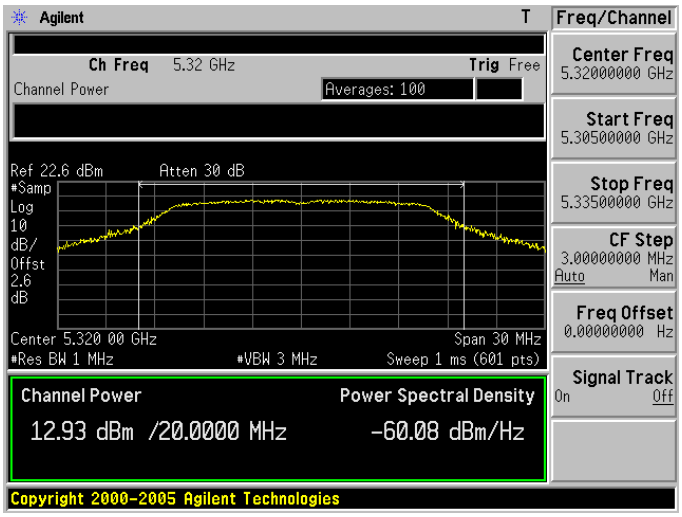
6.5. Test Result

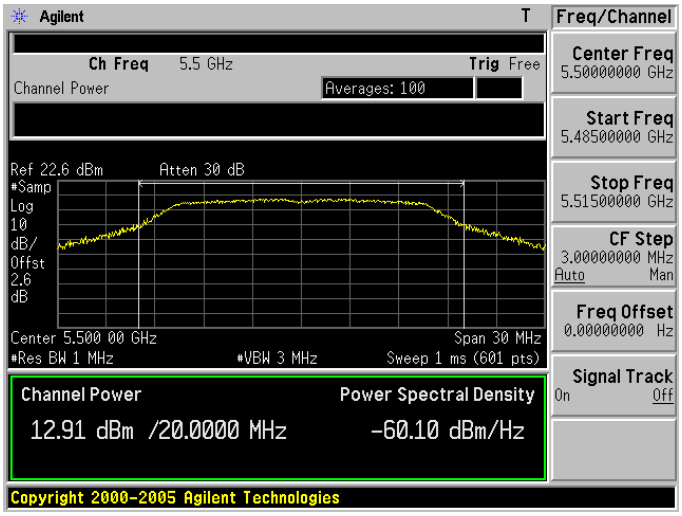
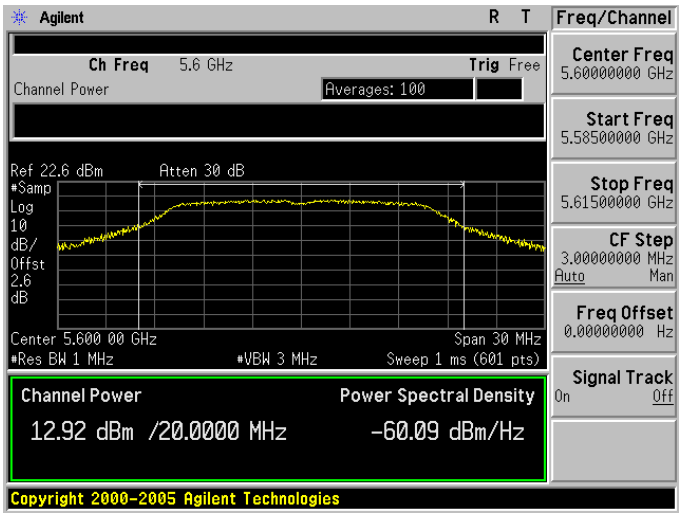
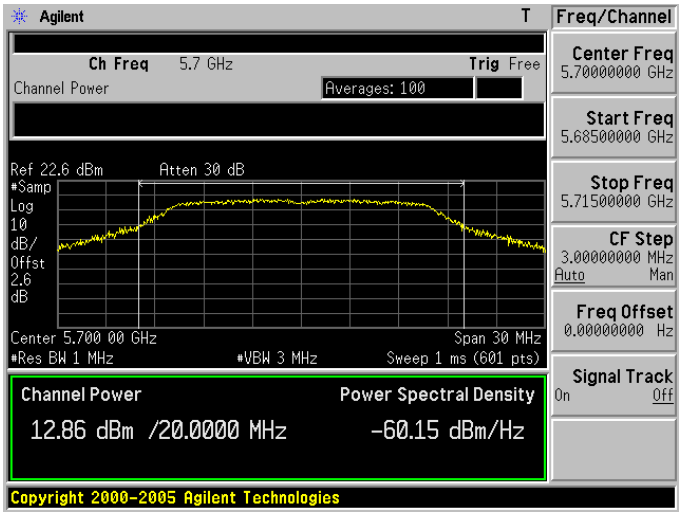
Model Number	PH85110		
Test Item	Maximum Conducted Output Power		
Test Mode	Mode 3: IEEE 802.11a Link Mode		
Date of Test	07/20/2011	Test Site	TE02
Frequency (MHz)	(dBm)	(W)	Limit (dBm)
5180	12.42	0.0175	< 17
5200	12.28	0.0169	< 17
5240	12.76	0.0189	< 17
5260	12.94	0.0197	< 24
5280	12.90	0.0195	< 24
5320	12.93	0.0196	< 24
5500	12.91	0.0195	< 24
5600	12.92	0.0196	< 24
5700	12.86	0.0193	< 24

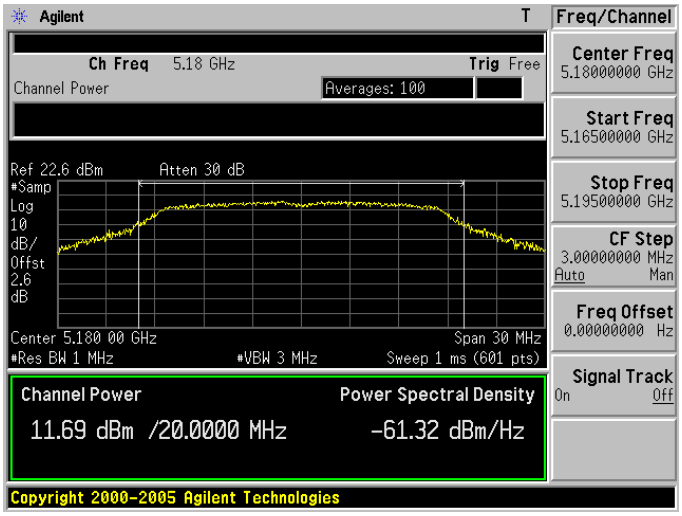
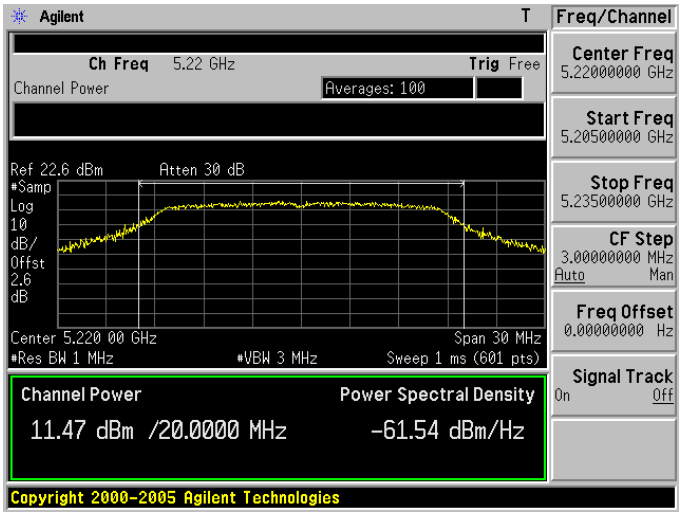
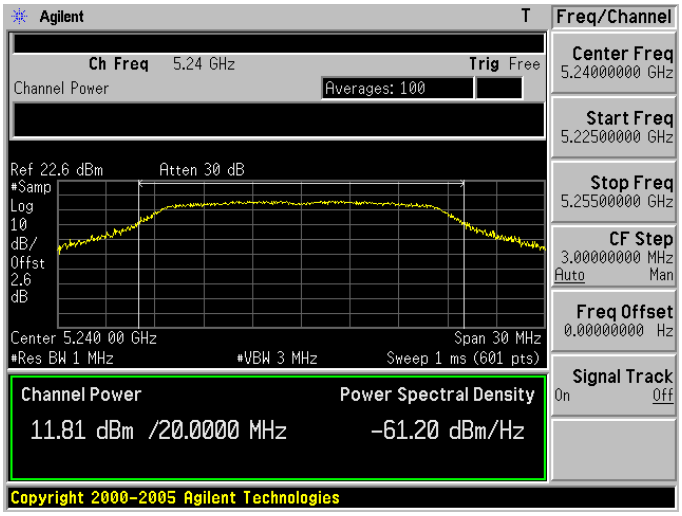
Model Number	PH85110		
Test Item	Maximum Conducted Output Power		
Test Mode	Mode 4: draft 802.11n Standard-20MHz Link Mode		
Date of Test	07/20/2011	Test Site	TE02
Frequency (MHz)	(dBm)	(W)	Limit (dBm)
5180	11.69	0.0148	< 17
5200	11.47	0.0140	< 17
5240	11.81	0.0152	< 17
5260	11.73	0.0149	< 24
5280	11.73	0.0149	< 24
5320	11.77	0.0150	< 24
5500	11.87	0.0154	< 24
5600	11.87	0.0154	< 24
5700	11.77	0.0150	< 24

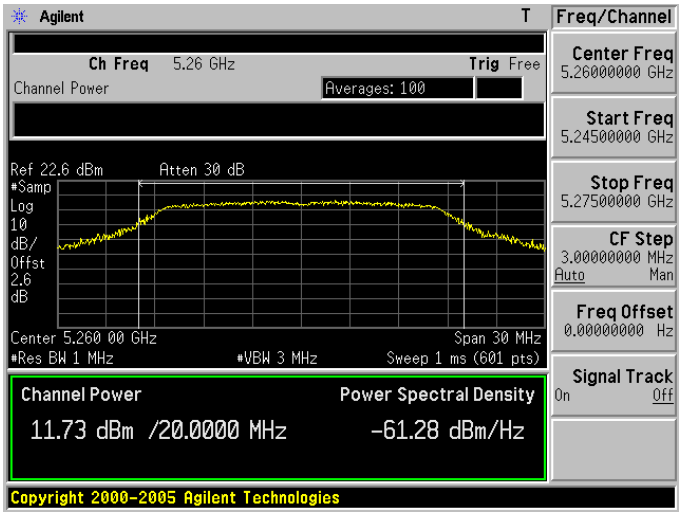
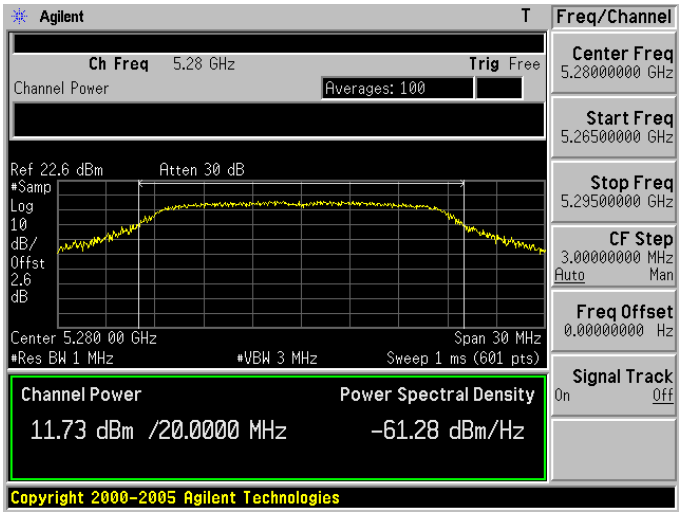
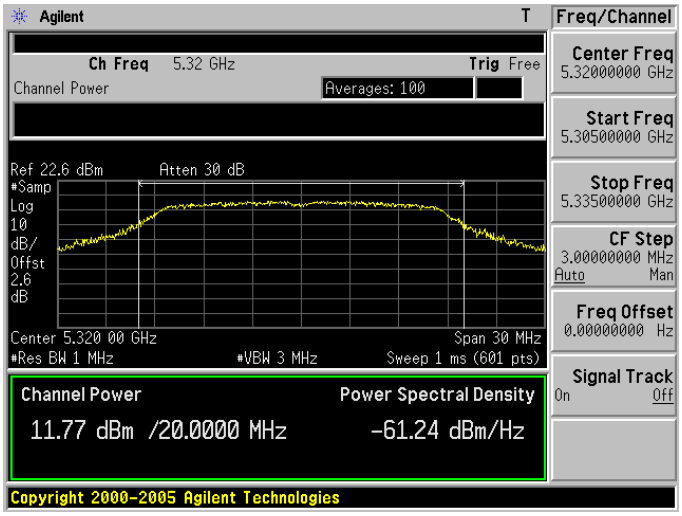
6.6. Test Graphs

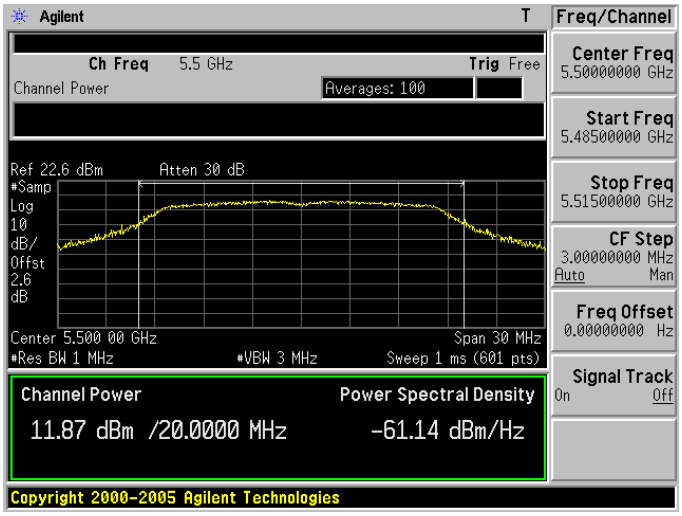
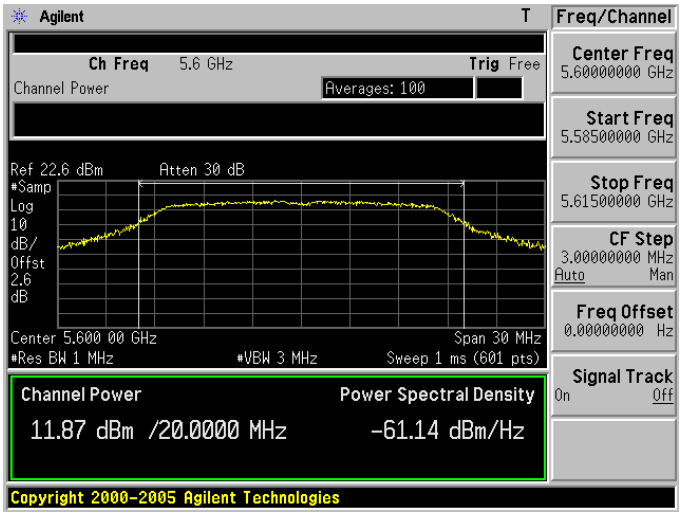
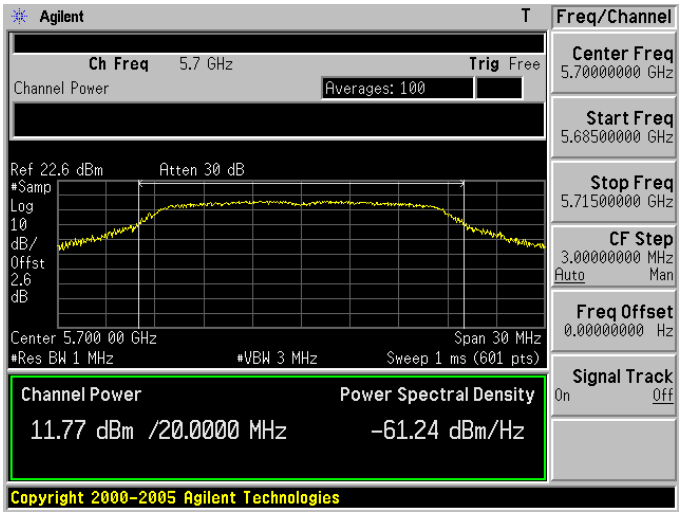
Mode 3: IEEE 802.11a Link Mode	
5180	
5200	
5240	

Mode 3: IEEE 802.11a Link Mode	
5260	
5280	
5320	

Mode 3: IEEE 802.11a Link Mode	
5500	
5600	
5700	

Mode 4: draft 802.11n Standard-20MHz Link Mode	
5180	
5200	
5240	

Mode 4: draft 802.11n Standard-20MHz Link Mode	
5260	
5280	
5320	

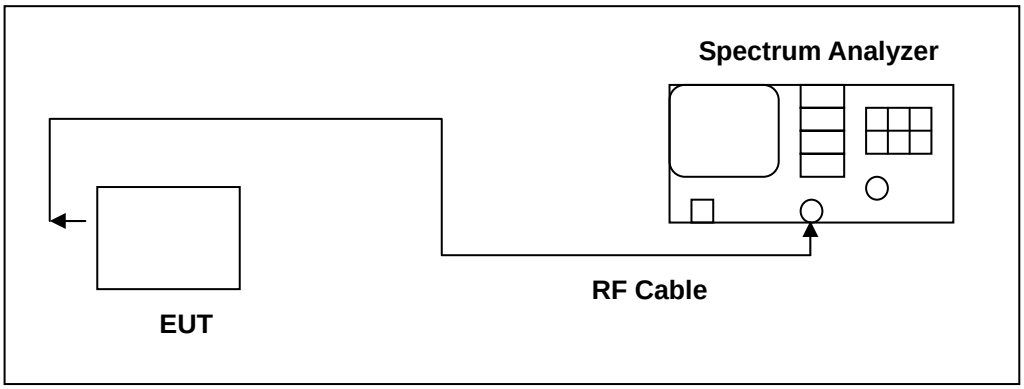
Mode 4: draft 802.11n Standard-20MHz Link Mode	
5500	
5600	
5700	

7 26dB RF Bandwidth Measurement

7.1. Limit

N/A

7.2. Test Setup



7.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/28/2010	(2)
Test Site	ATL	TE02	TE02	N.C.R.	-----

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.
NOTE: N.C.R. = No Calibration Request.

7.4. Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 300kHz RBW and 1MHz VBW. The 26dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 26dB.

7.5. Test Result

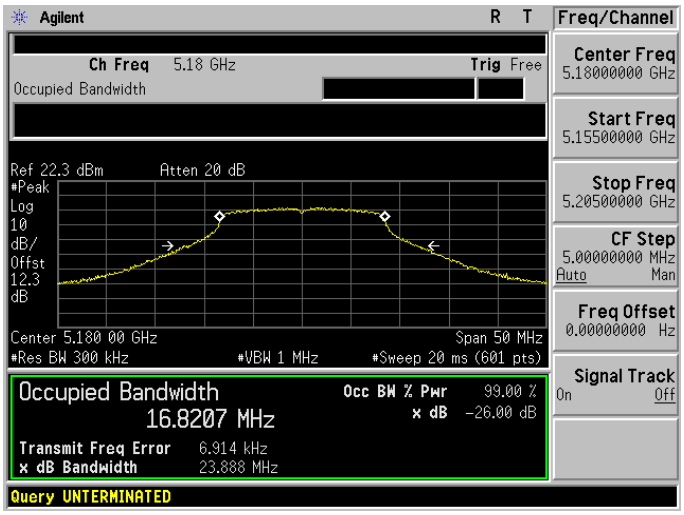
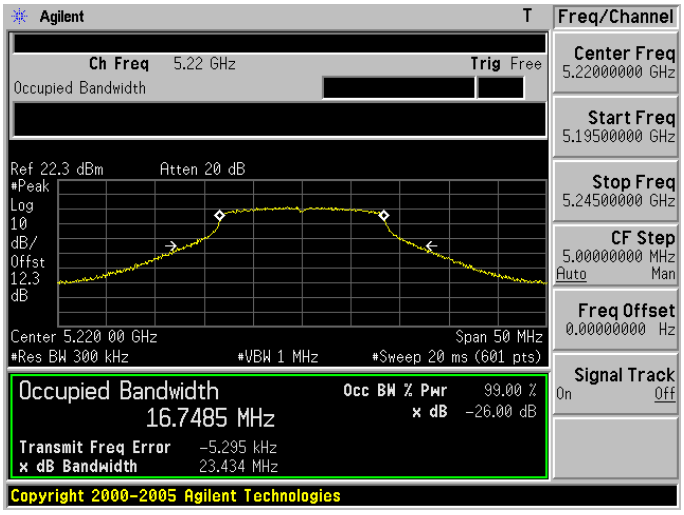
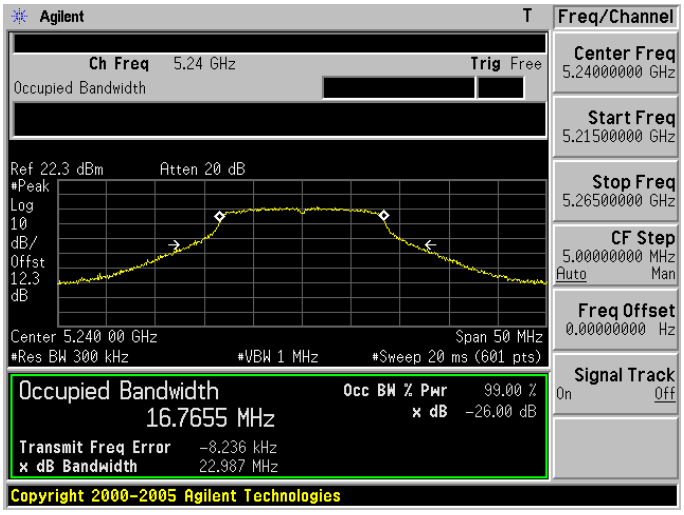
Model Number	PH85110		
Test Item	26dB RF Bandwidth		
Test Mode	Mode 3: IEEE 802.11a Link Mode		
Date of Test	07/20/2011	Test Site	TE02

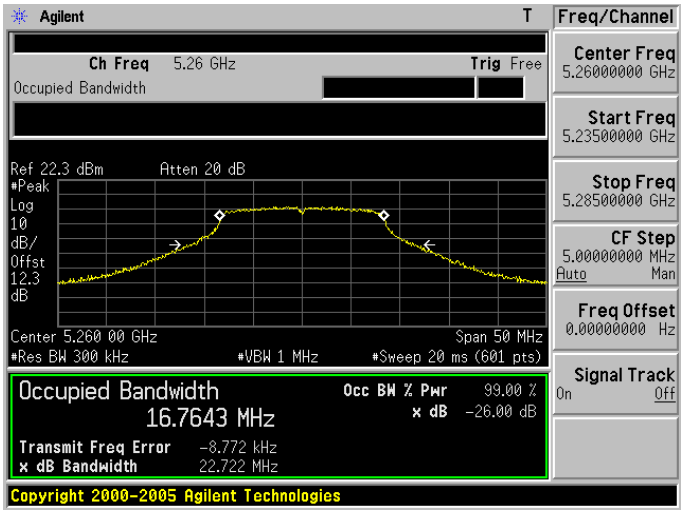
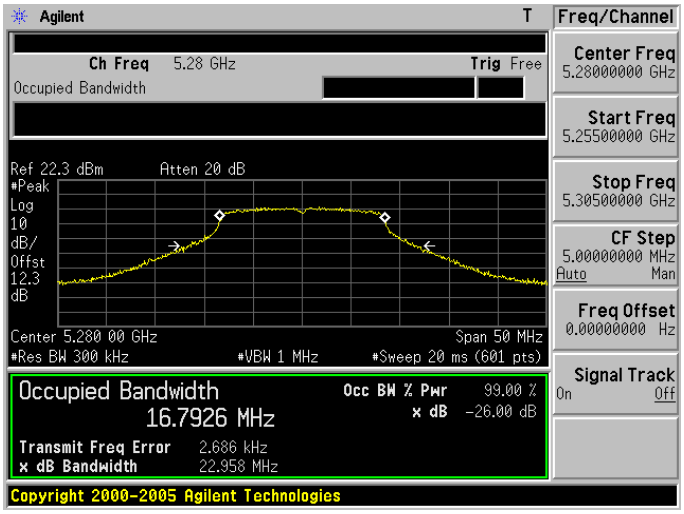
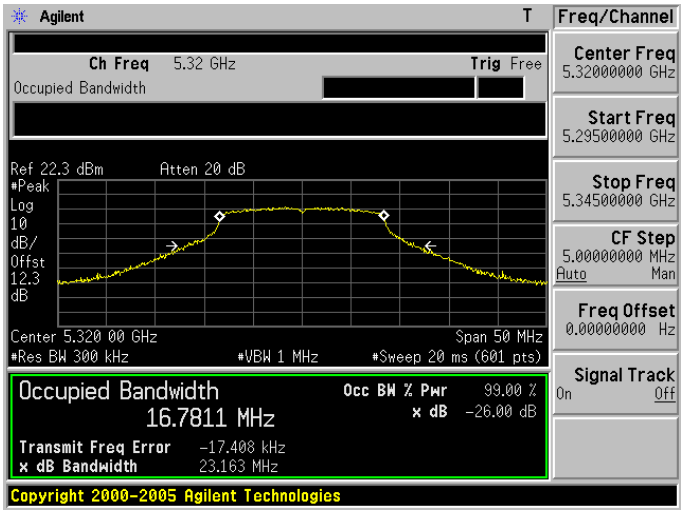
Frequency (MHz)	Measurement (MHz)
5180	16.8207
5200	16.7485
5240	16.7655
5260	16.7643
5280	16.7926
5320	16.7811
5500	16.8128
5600	16.7907
5700	16.7612

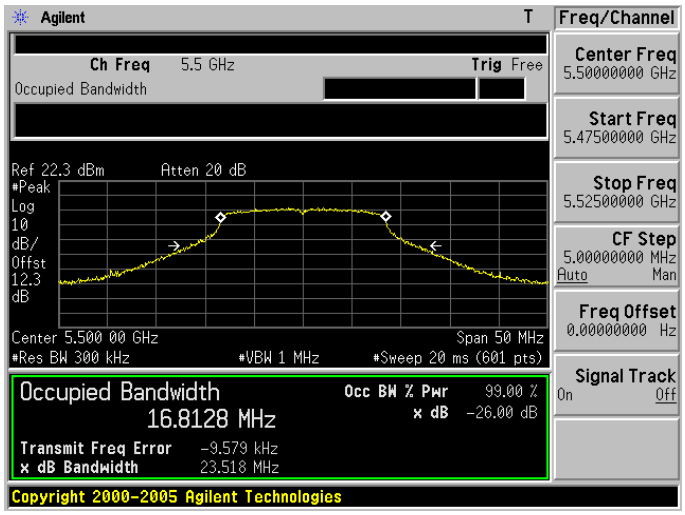
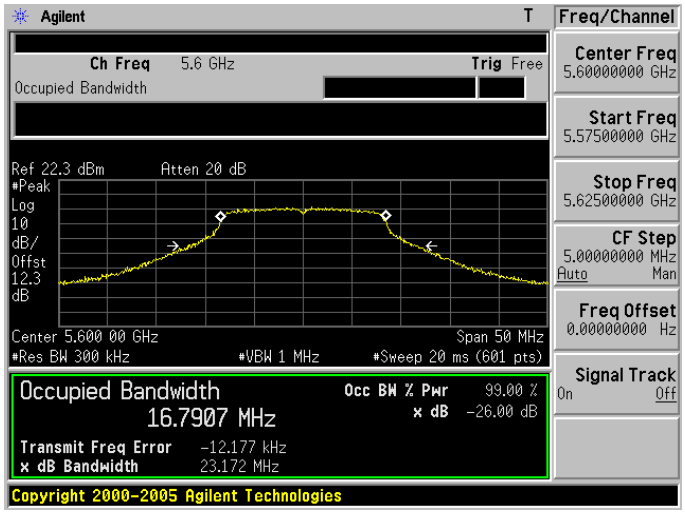
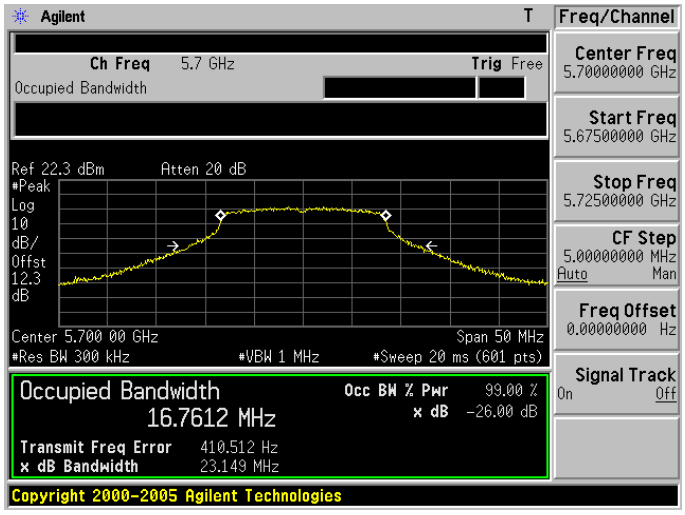
Model Number	PH85110		
Test Item	26dB RF Bandwidth		
Test Mode	Mode 4: draft 802.11n Standard-20MHz Link Mode		
Date of Test	07/20/2011	Test Site	TE06

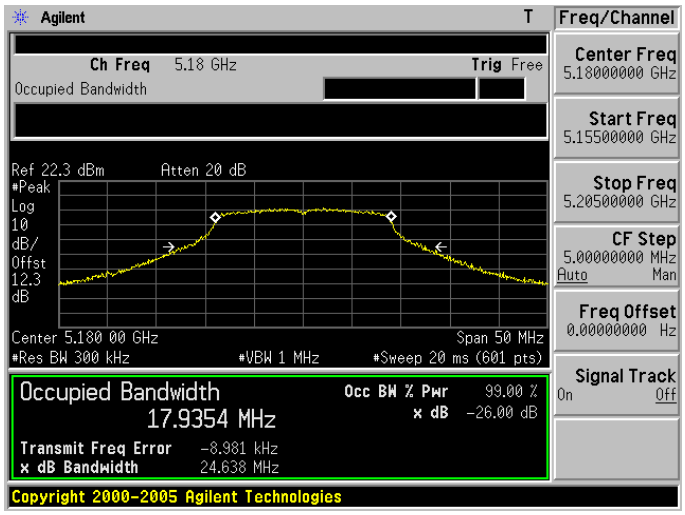
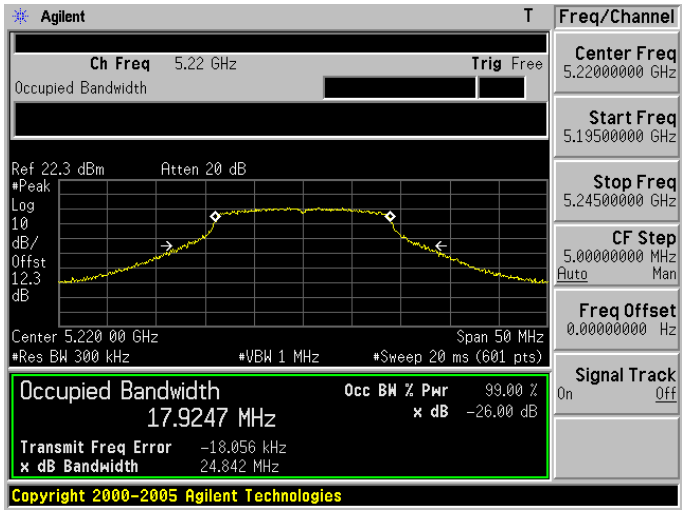
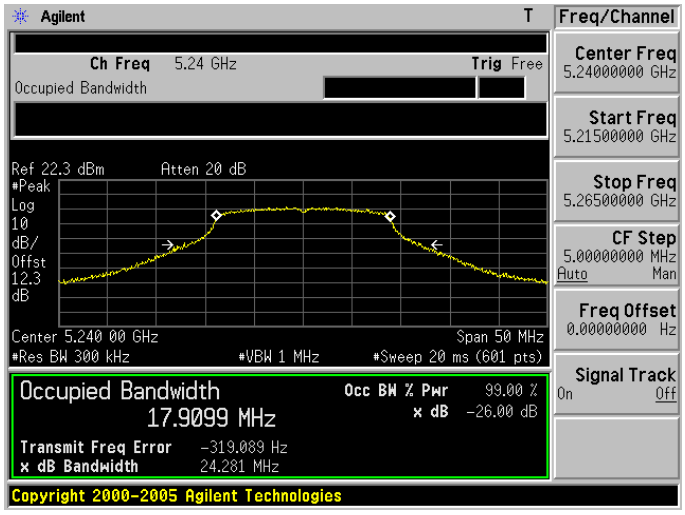
Frequency (MHz)	Measurement (MHz)
5180	17.9354
5200	17.9247
5240	17.9099
5260	17.9189
5280	17.9086
5320	17.8747
5500	17.9081
5600	17.9257
5700	17.9189

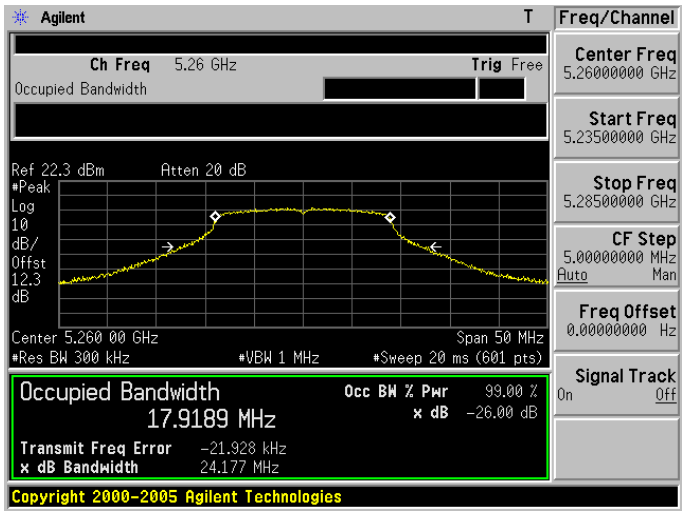
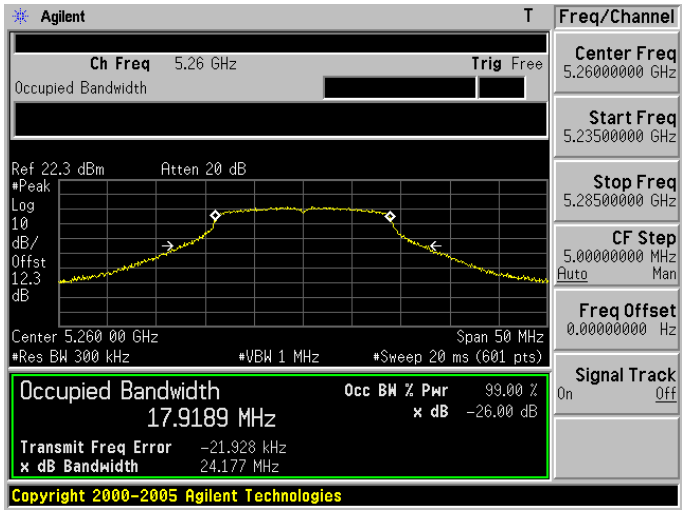
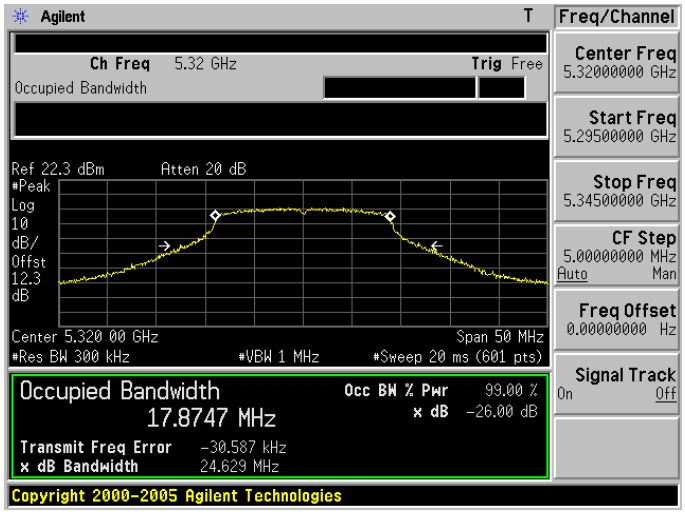
7.6. Test Graphs

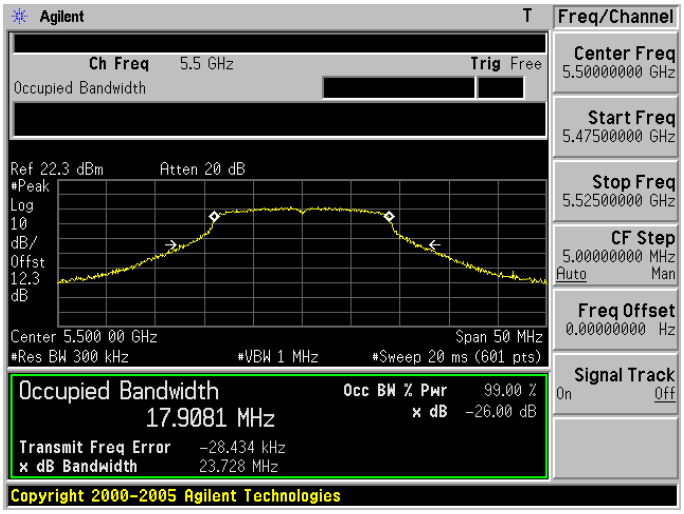
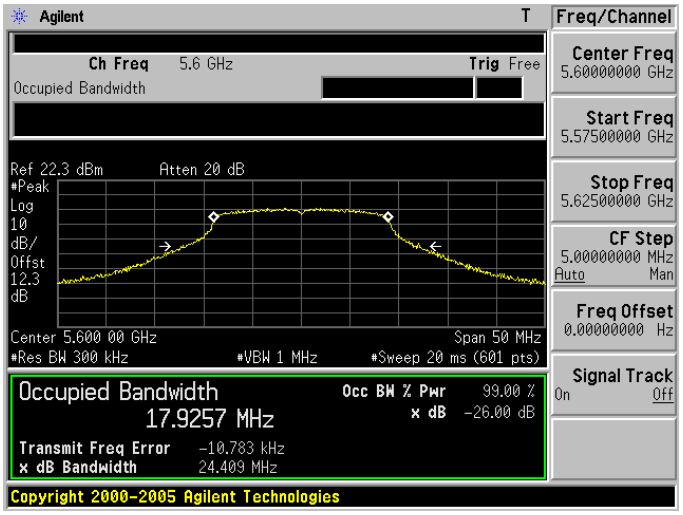
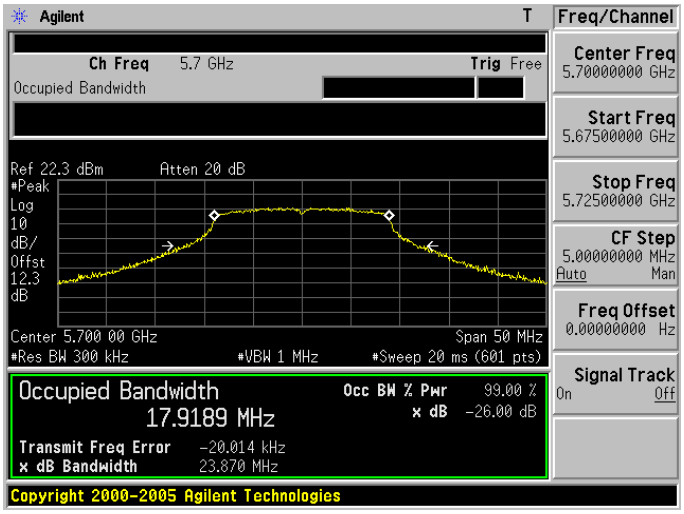
Mode 3: IEEE 802.11a Link Mode	
5180	
5200	
5240	

Mode 3: IEEE 802.11a Link Mode	
5260	
5280	
5320	

Mode 3: IEEE 802.11a Link Mode	
5500	
5600	
5700	

Mode 4: draft 802.11n Standard-20MHz Link Mode	
5180	
5200	
5240	

Mode 4: draft 802.11n Standard-20MHz Link Mode	
5260	
5280	
5320	

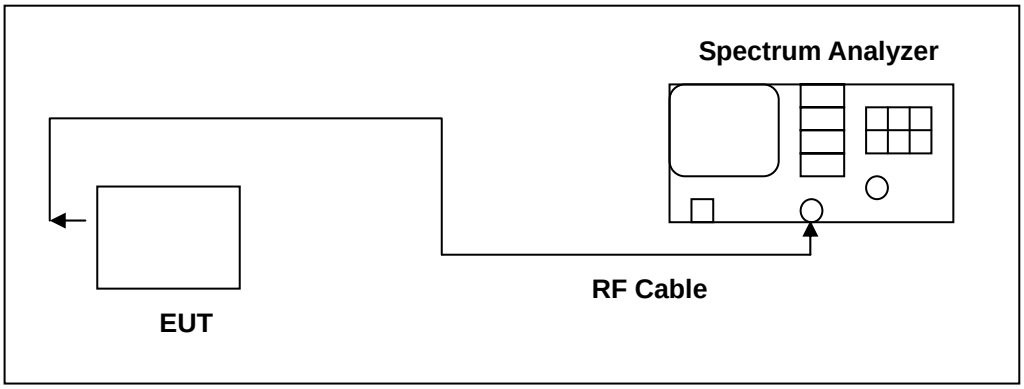
Mode 4: draft 802.11n Standard-20MHz Link Mode	
5500	
5600	
5700	

8 Peak Power Excursion Measurement

8.1. Limit

Frequency Range (MHz)	Limit
5.150 ~ 5.250 GHz	13 dB
5.250 ~ 5.350 GHz	13 dB
5.470 ~ 5.725 GHz	13 dB

8.2. Test Setup



8.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/28/2010	(2)
Test Site	ATL	TE02	TE02	N.C.R.	-----

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.
NOTE: N.C.R. = No Calibration Request.

8.4. Test Procedure

The transmitter outputs are connected to the spectrum analyzer via a combiner. The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

8.5. Test Result

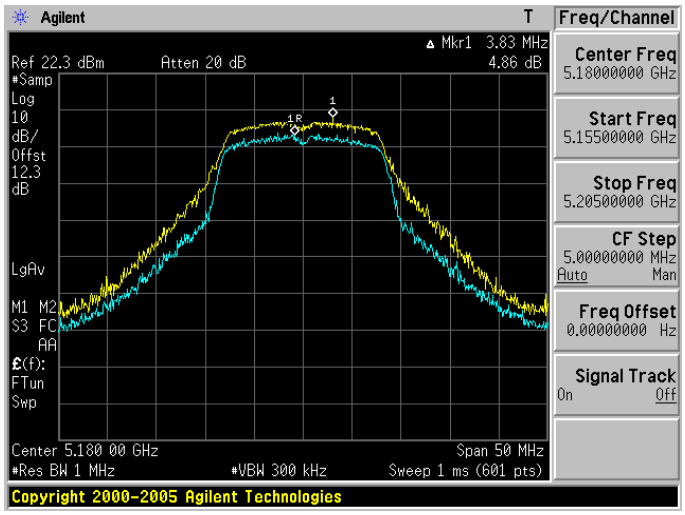
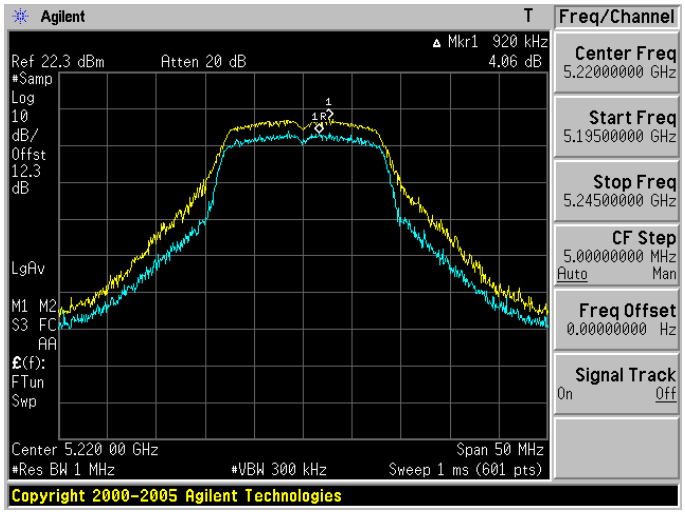
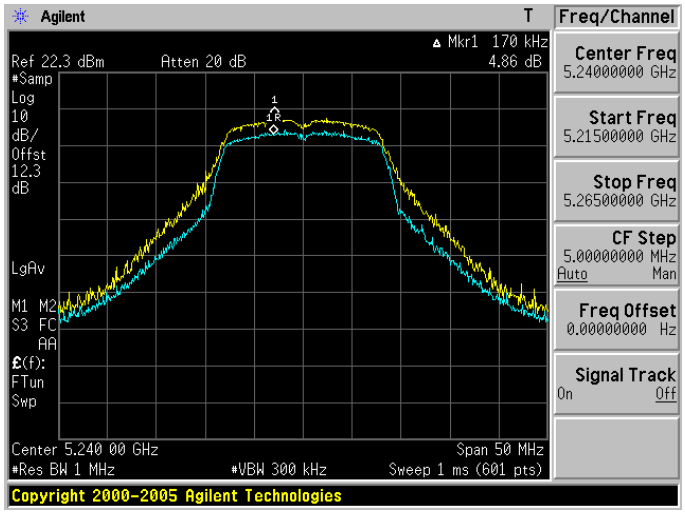
Model Number	PH85110		
Test Item	Peak Power Excursion		
Test Mode	Mode 3: IEEE 802.11a Link Mode		
Date of Test	07/20/2011	Test Site	TE02

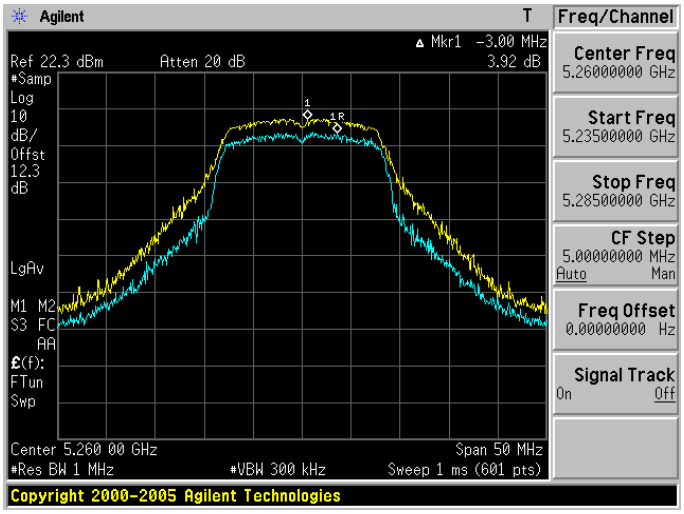
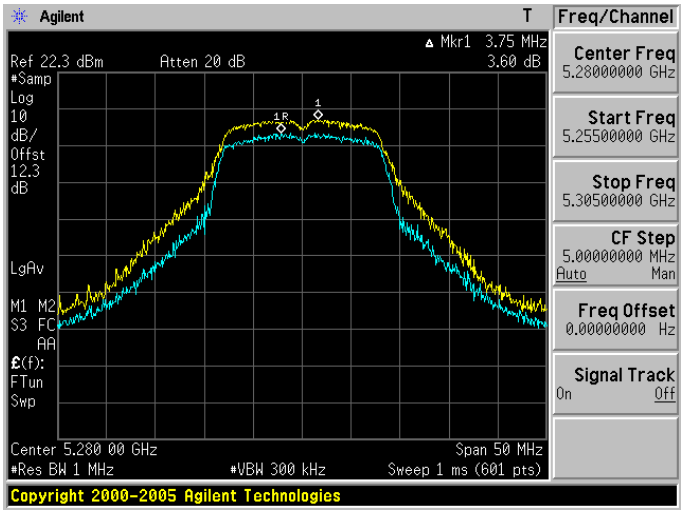
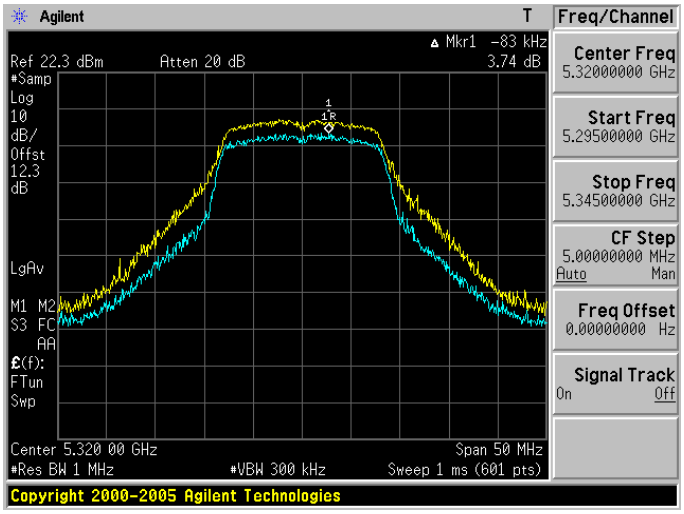
Frequency (MHz)	Measurement (dB)	Limit (dB)
5180	4.86	< 13
5200	4.06	< 13
5240	4.86	< 13
5260	3.92	< 13
5280	3.60	< 13
5320	3.74	< 13
5500	4.04	< 13
5600	3.82	< 13
5700	4.14	< 13

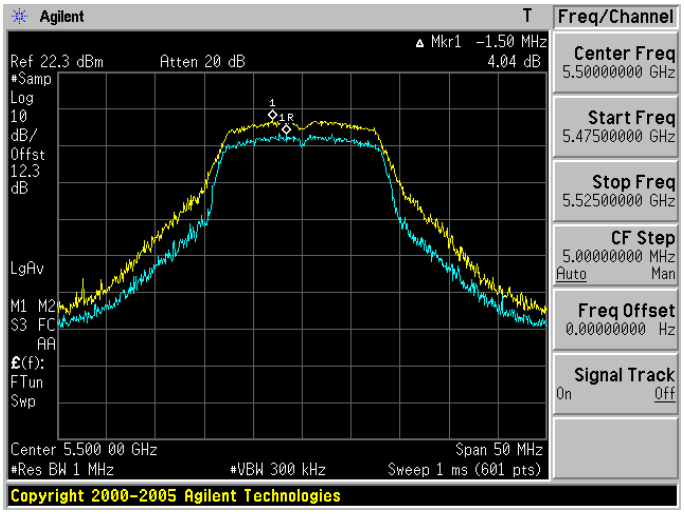
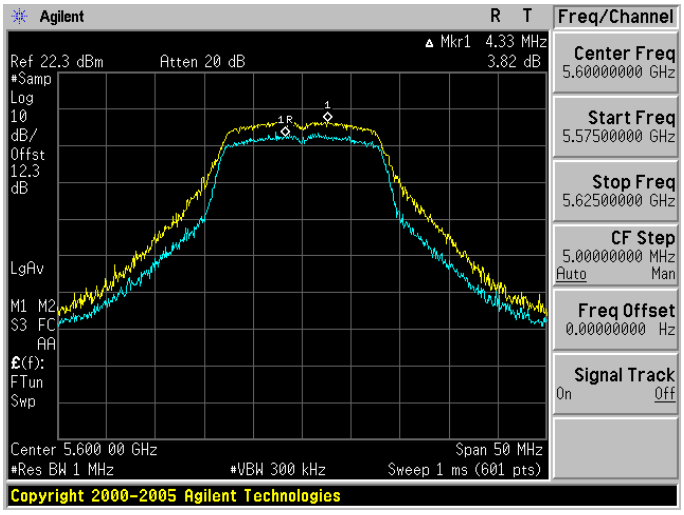
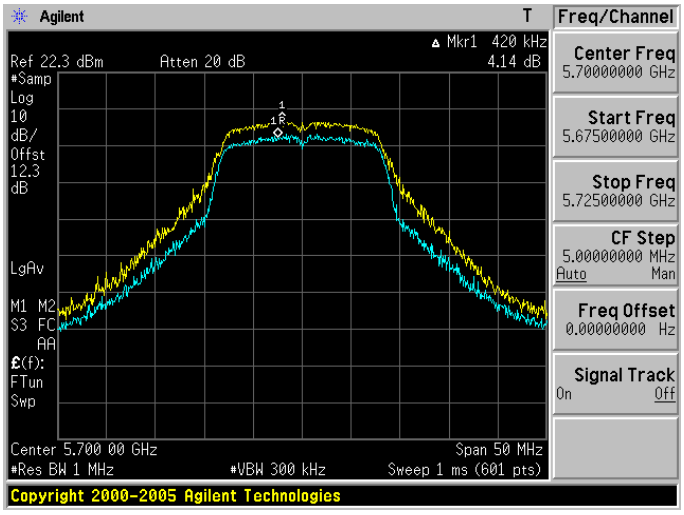
Model Number	PH85110		
Test Item	Peak Power Excursion		
Test Mode	Mode 4: draft 802.11n Standard-20MHz Link Mode		
Date of Test	07/20/2011	Test Site	TE06

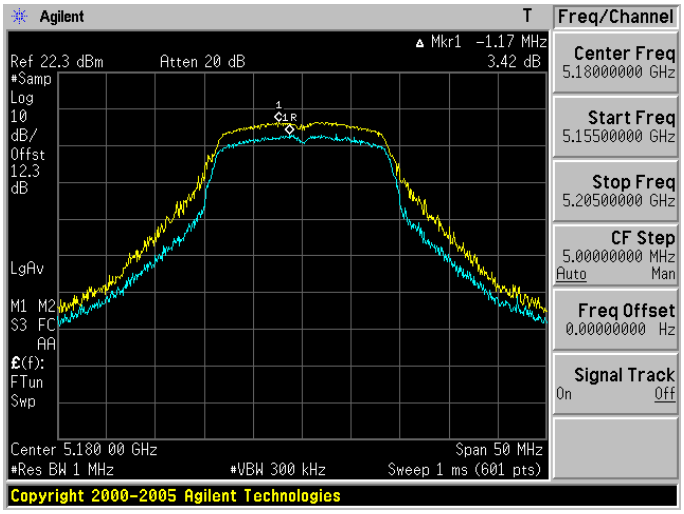
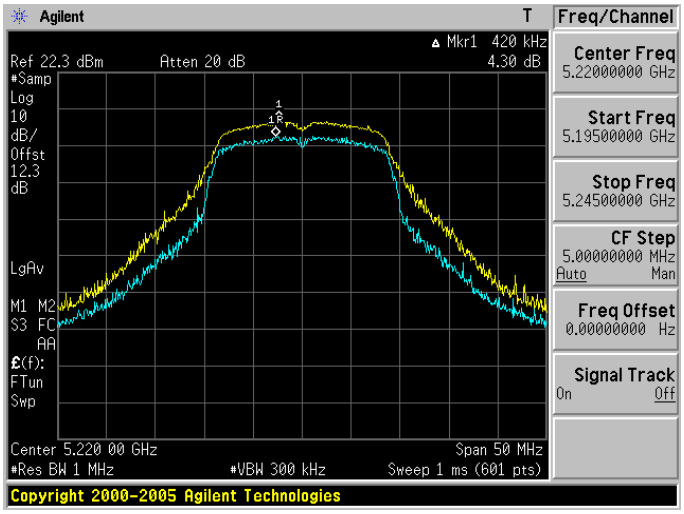
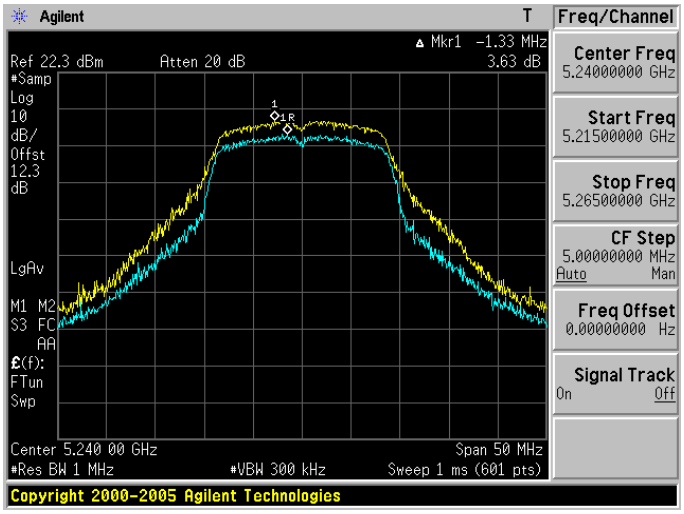
Frequency (MHz)	Measurement (dB)	Limit (dB)
5180	3.42	< 13
5200	4.30	< 13
5240	3.63	< 13
5260	4.69	< 13
5280	3.74	< 13
5320	3.34	< 13
5500	4.15	< 13
5600	4.05	< 13
5700	4.08	< 13

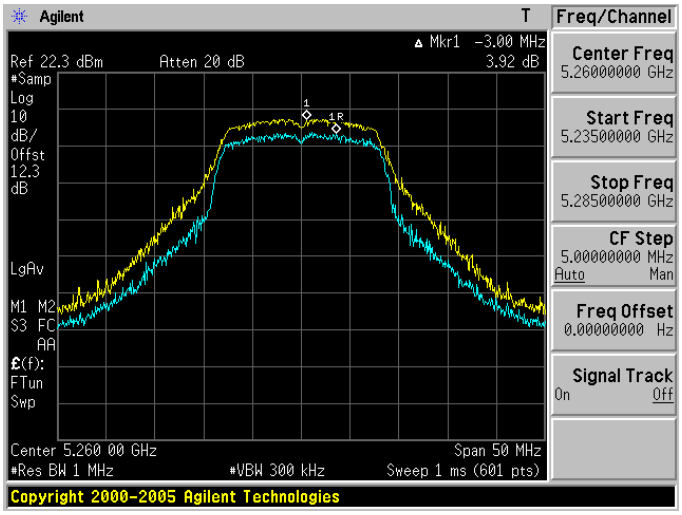
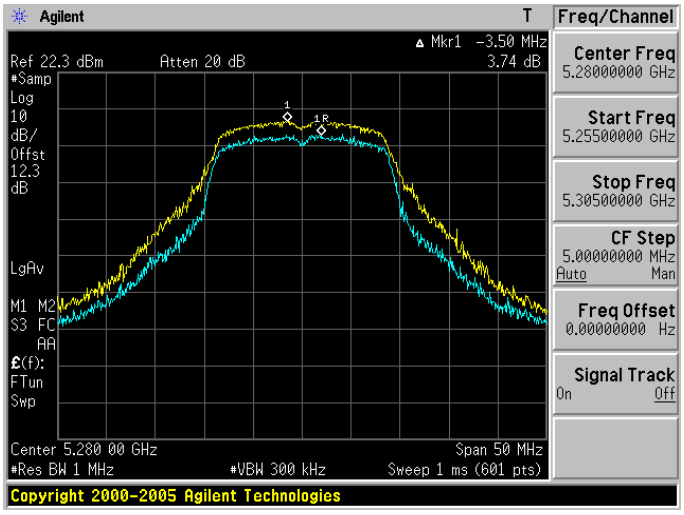
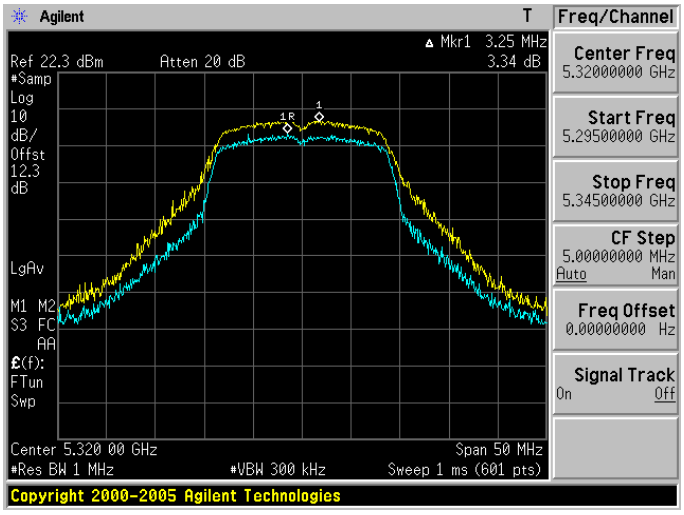
8.6. Test Graphs

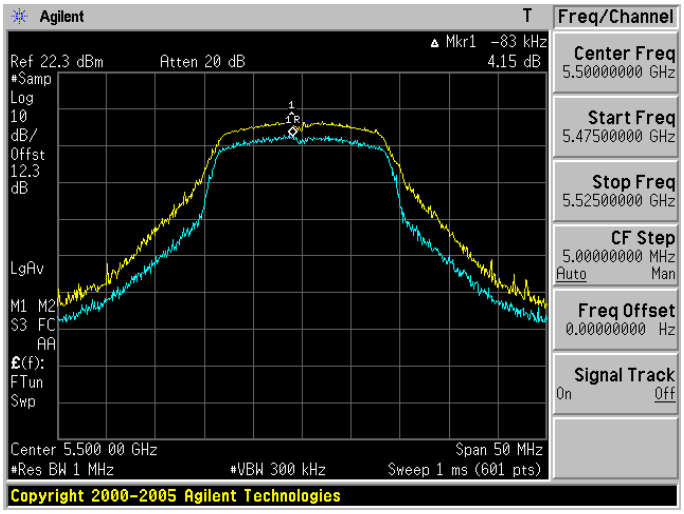
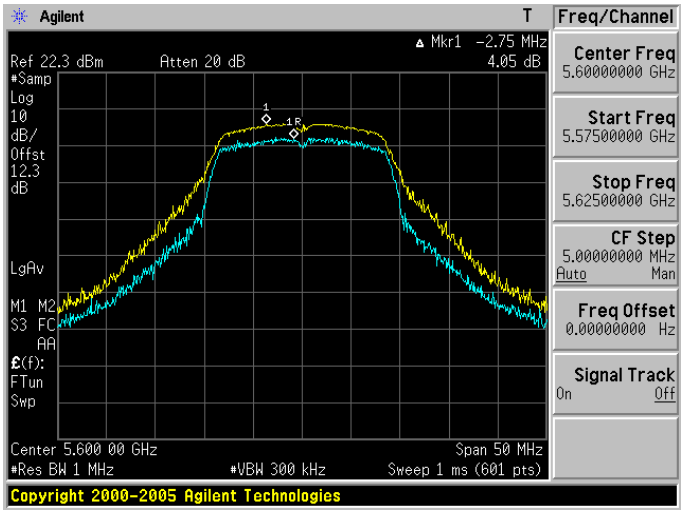
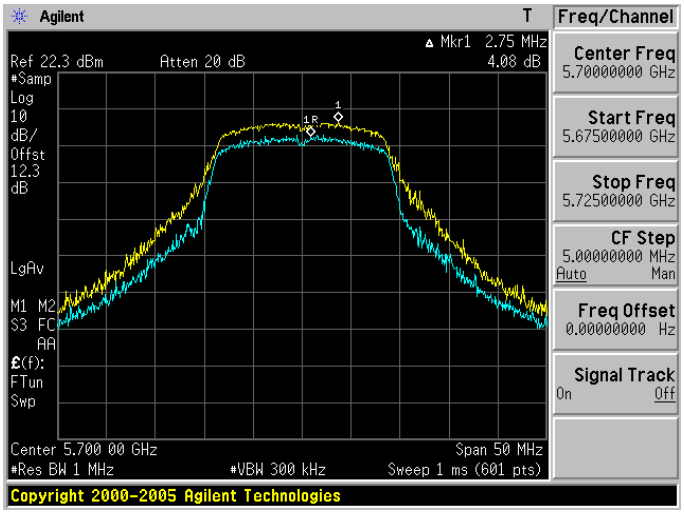
Mode 3: IEEE 802.11a Link Mode	
5180	
5200	
5240	

Mode 3: IEEE 802.11a Link Mode	
5260	
5280	
5320	

Mode 3: IEEE 802.11a Link Mode	
5500	
5600	
5700	

Mode 4: draft 802.11n Standard-20MHz Link Mode	
5180	
5200	
5240	

Mode 4: draft 802.11n Standard-20MHz Link Mode	
5260	
5280	
5320	

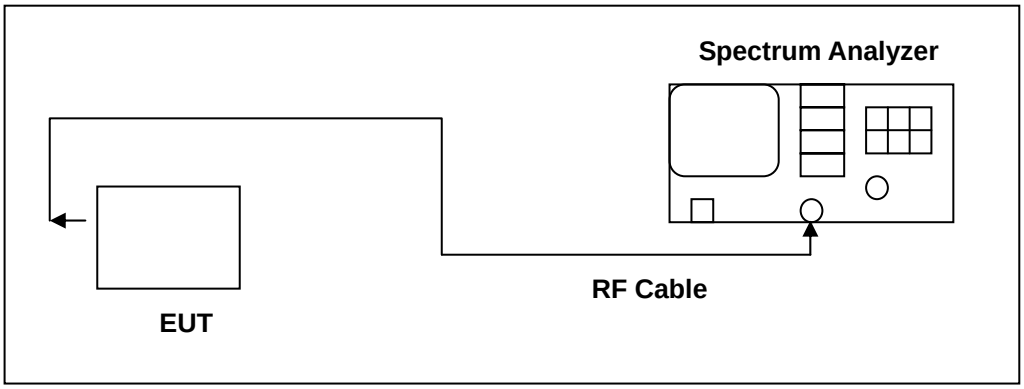
Mode 4: draft 802.11n Standard-20MHz Link Mode	
5500	
5600	
5700	

9 Peak Power Spectral Density Measurement

9.1. Limit

Frequency Range (MHz)	Limit
5.150 ~ 5.250 GHz	4 dB
5.250 ~ 5.350 GHz	11 dB
5.470 ~ 5.725 GHz	11 dB

9.2. Test Setup



9.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/28/2010	(2)
Test Site	ATL	TE02	TE02	N.C.R.	-----

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.
NOTE: N.C.R. = No Calibration Request.

9.4. Test Procedure

The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

9.5. Test Result

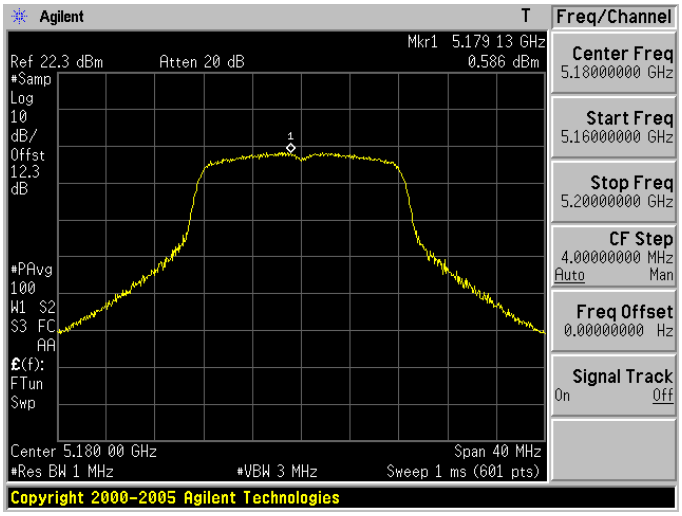
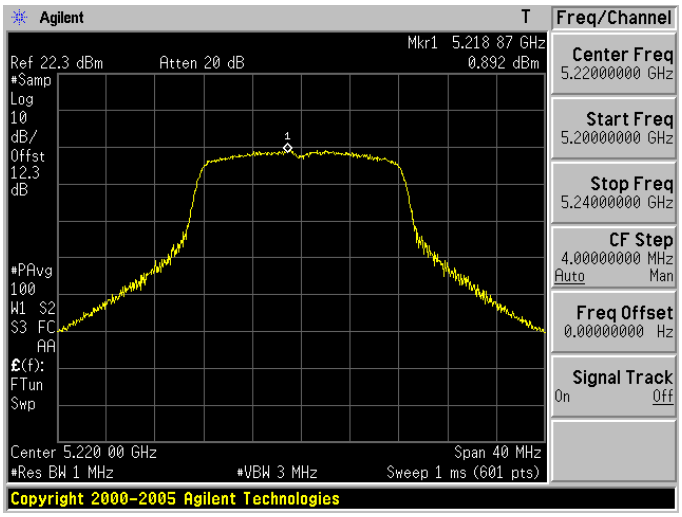
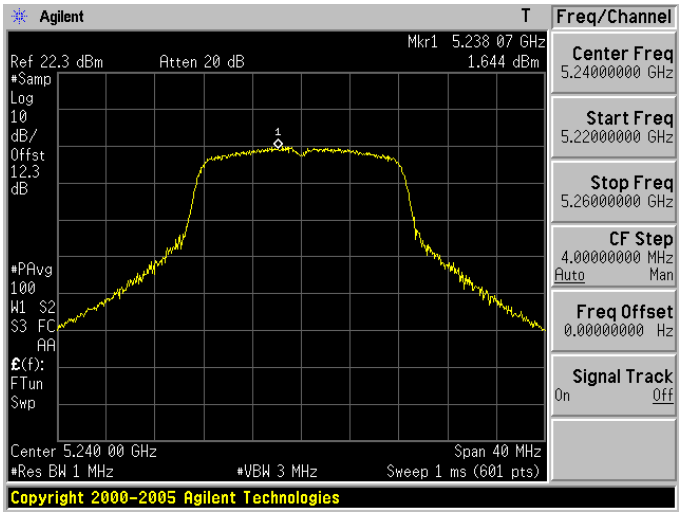
Model Number	PH85110		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 3: IEEE 802.11a Link Mode		
Date of Test	07/20/2011	Test Site	TE02

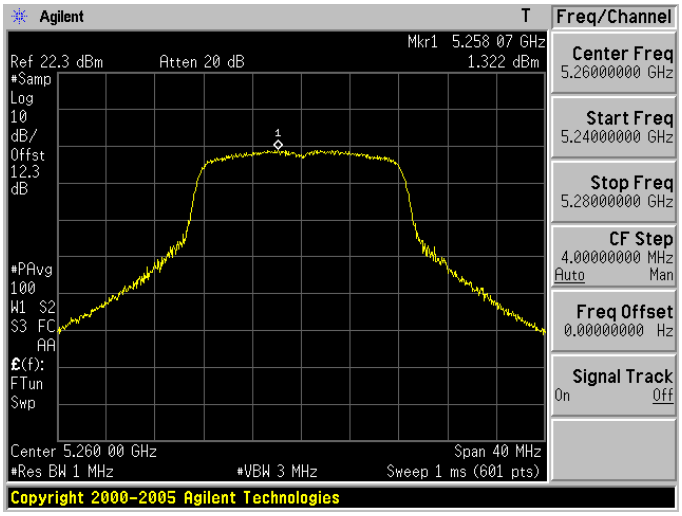
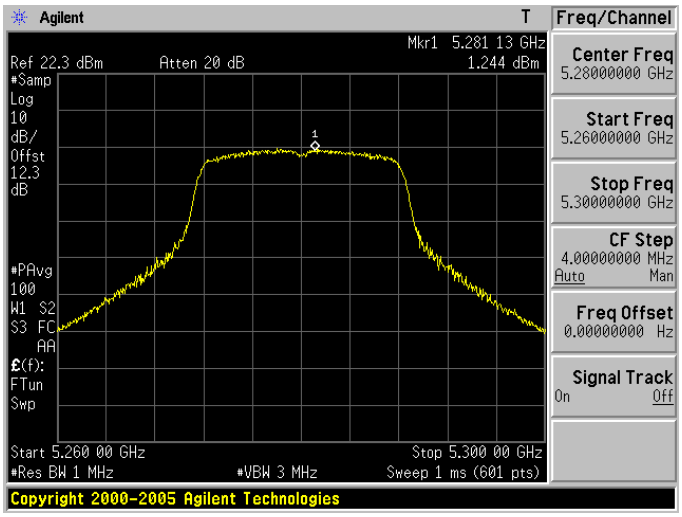
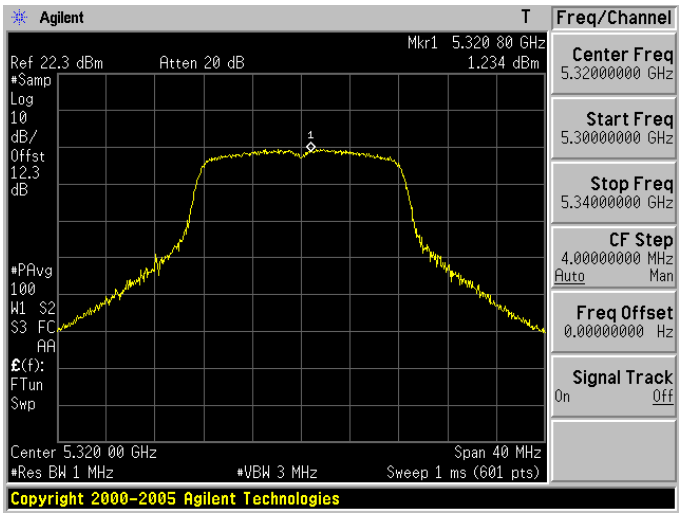
Frequency (MHz)	Measurement (dBm)	Limit (dBm)
5180	0.586	< 4
5200	0.892	< 4
5240	1.644	< 4
5260	1.322	< 11
5280	1.244	< 11
5320	1.234	< 11
5500	0.404	< 11
5600	1.413	< 11
5700	1.649	< 11

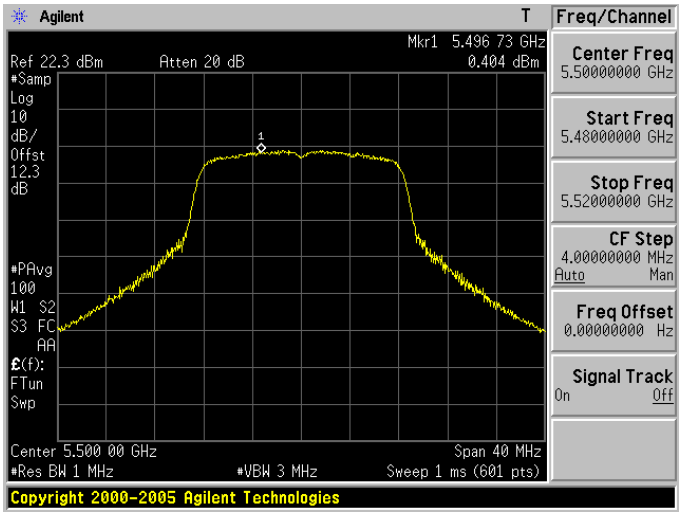
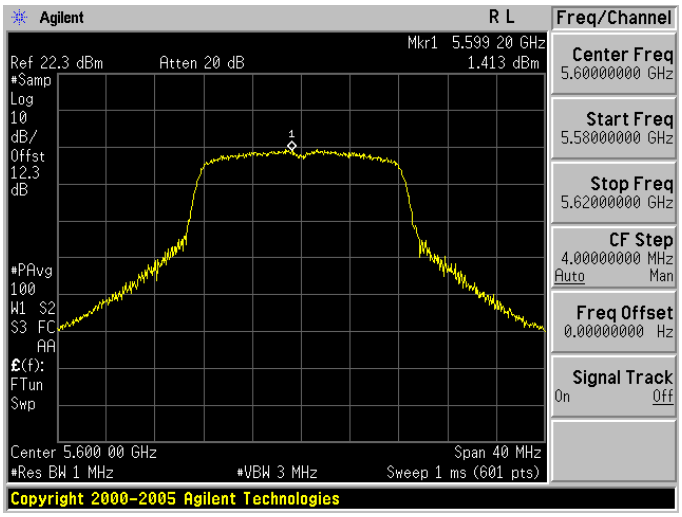
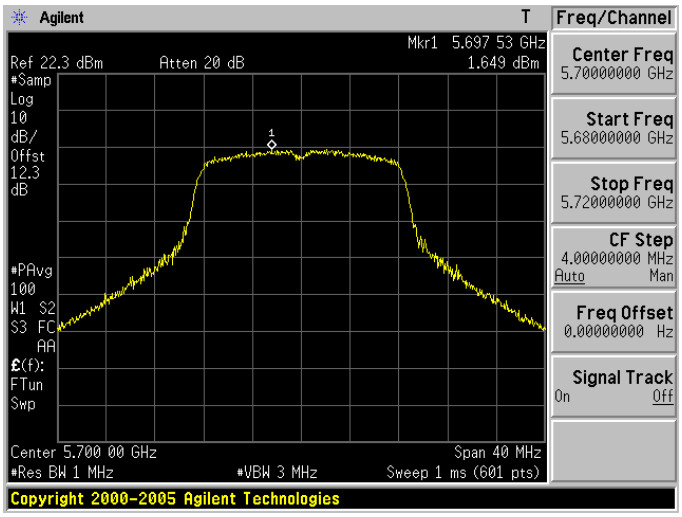
Model Number	PH85110		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 4: draft 802.11n Standard-20MHz Link Mode		
Date of Test	07/20/2011	Test Site	TE02

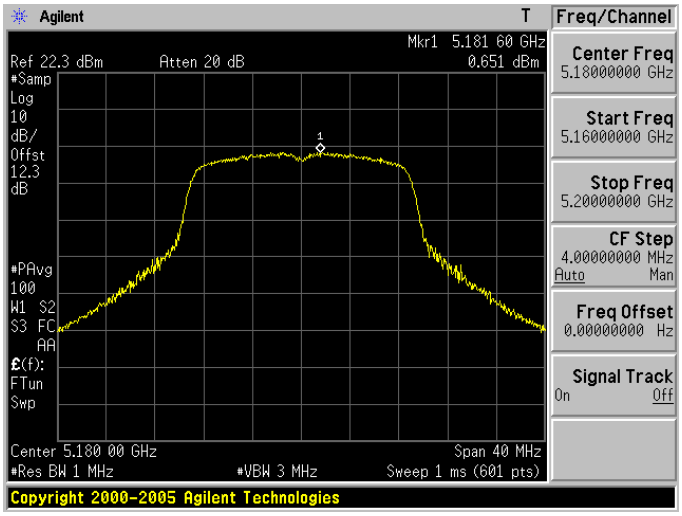
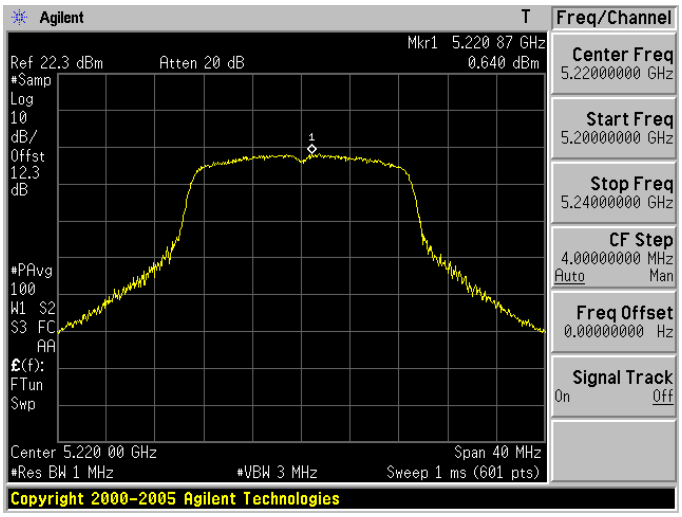
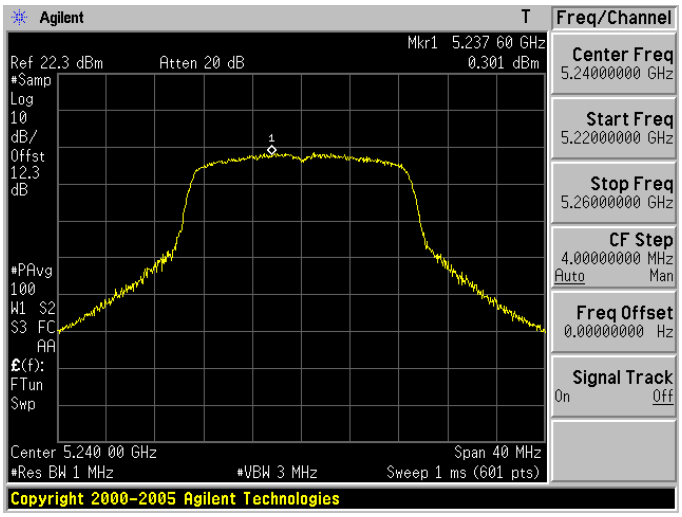
Frequency (MHz)	Measurement (dBm)	Limit (dBm)
5180	0.651	< 4
5200	0.640	< 4
5240	0.301	< 4
5260	-0.078	< 11
5280	0.193	< 11
5320	0.447	< 11
5500	-0.017	< 11
5600	0.321	< 11
5700	-0.074	< 11

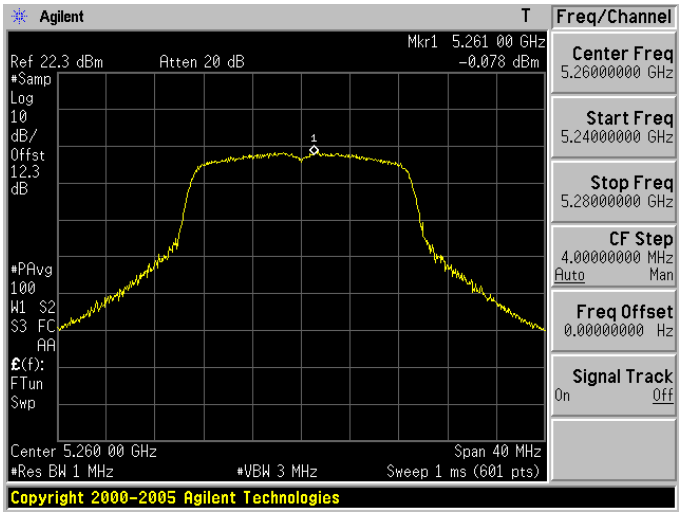
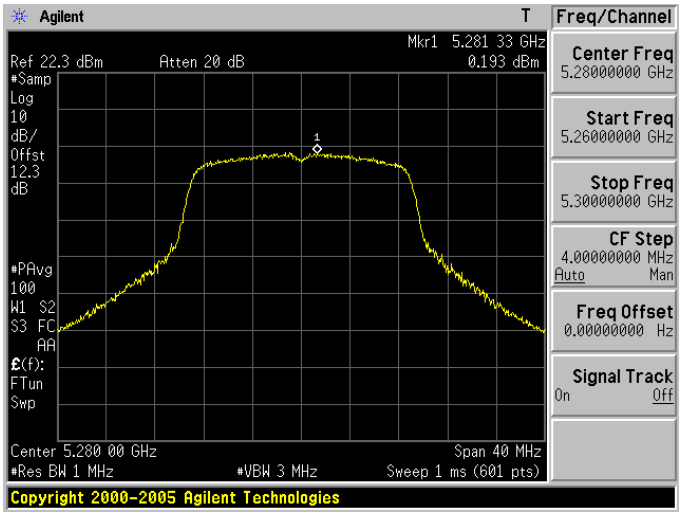
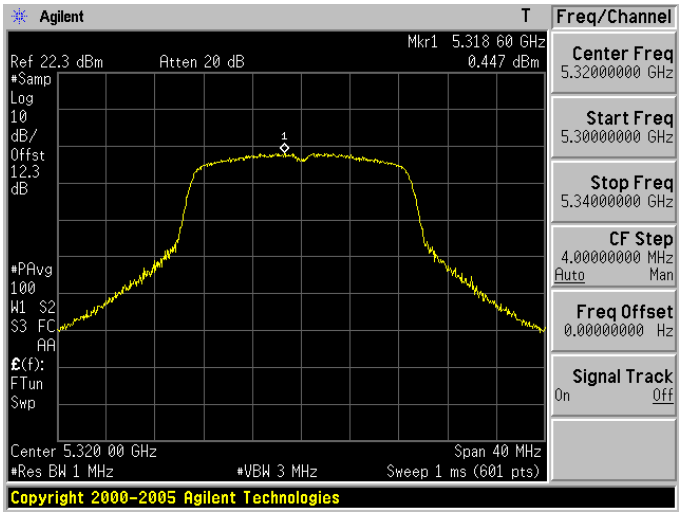
9.6. Test Graphs

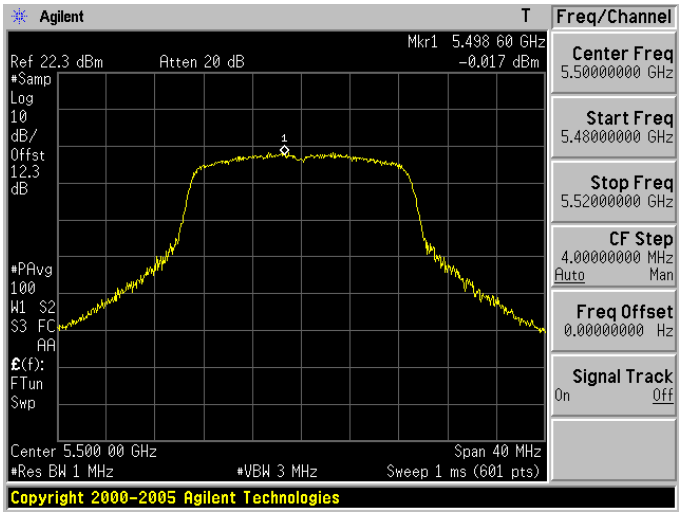
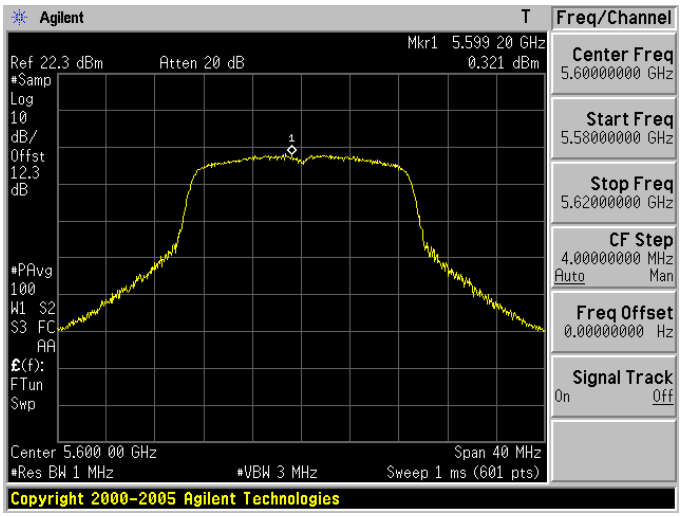
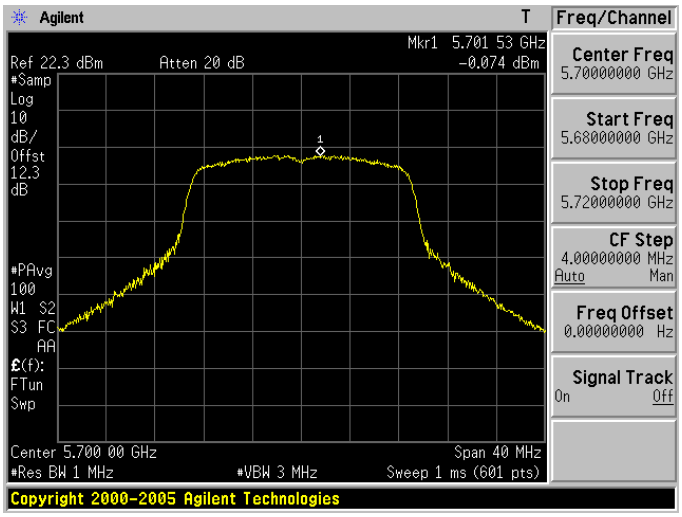
Mode 3: IEEE 802.11a Link Mode	
5180	
5200	
5240	

Mode 3: IEEE 802.11a Link Mode	
5260	
5280	
5320	

Mode 3: IEEE 802.11a Link Mode	
5500	
5600	
5700	

Mode 4: draft 802.11n Standard-20MHz Link Mode	
5180	
5200	
5240	

Mode 4: draft 802.11n Standard-20MHz Link Mode	
5260	
5280	
5320	

Mode 4: draft 802.11n Standard-20MHz Link Mode	
5500	
5600	
5700	

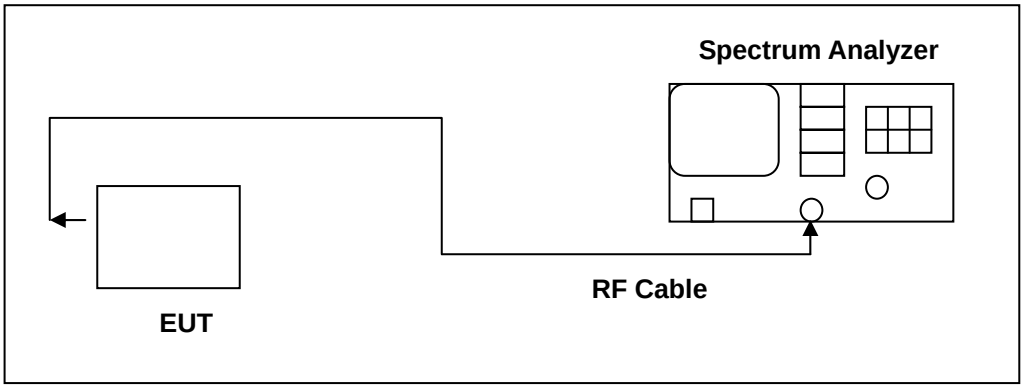
10 Out of Band Conducted Emissions Measurement

10.1. Limit

FCC §15.407 (b) (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.

10.2. Test Setup



10.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/28/2010	(2)
Spectrum Analyzer	Agilent	E4408B	MY45107753	07/07/2011	(1)
Test Site	ATL	TE02	TE02	N.C.R.	-----

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.
NOTE: N.C.R. = No Calibration Request.

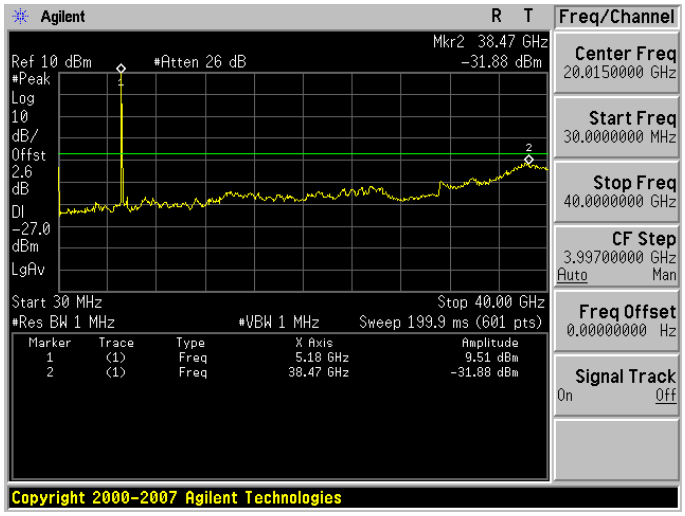
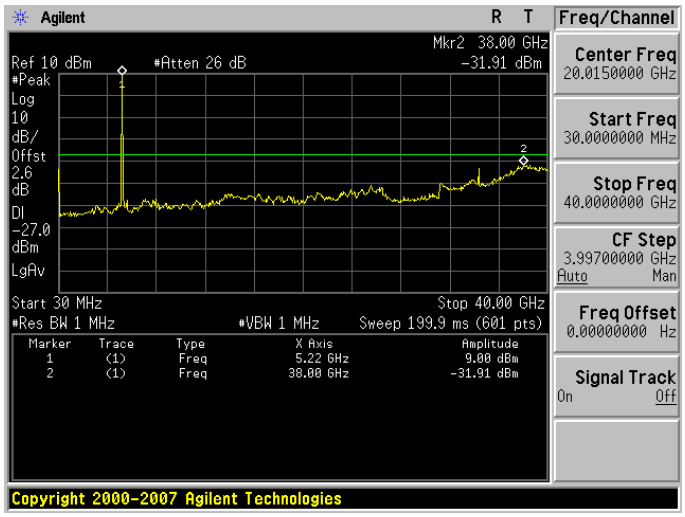
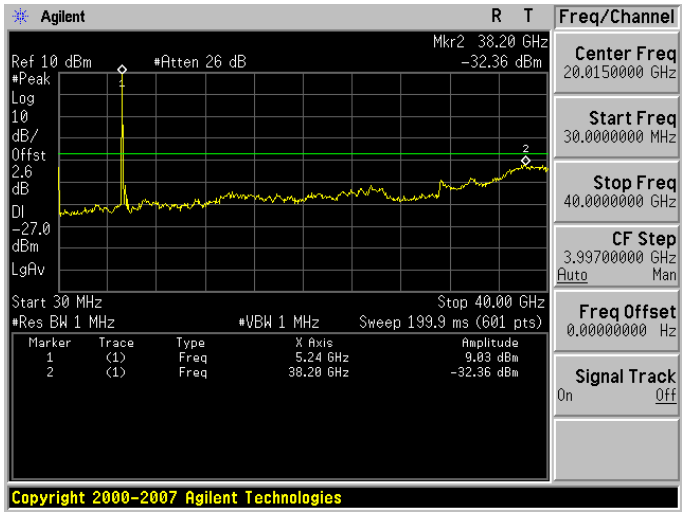
10.4. Test Procedure

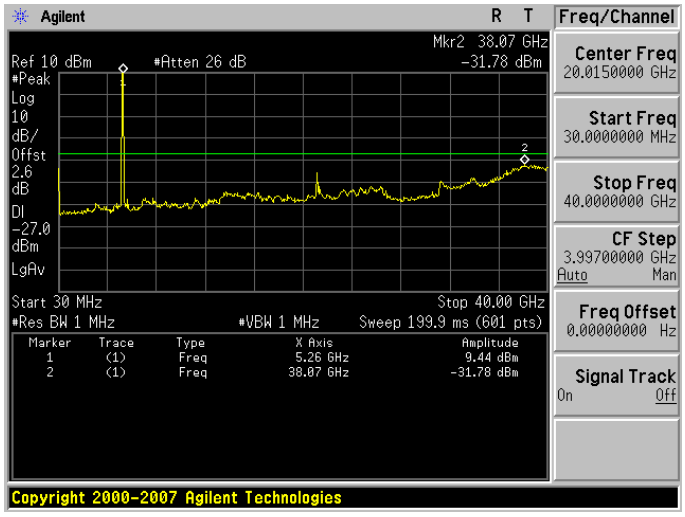
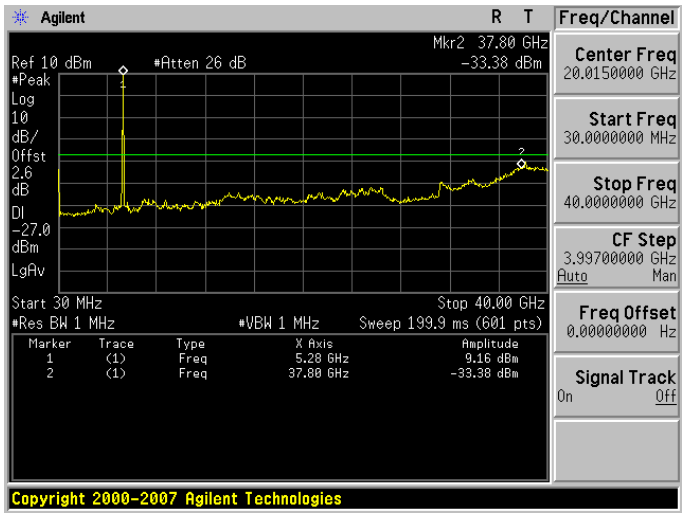
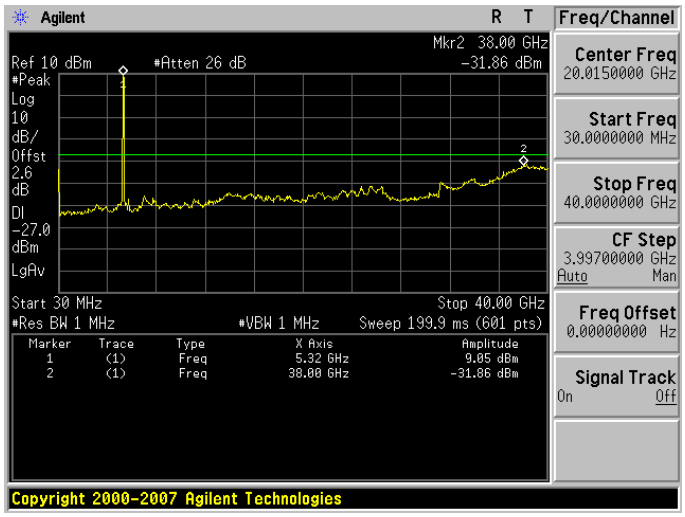
Conducted RF measurements of the transmitter output are made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

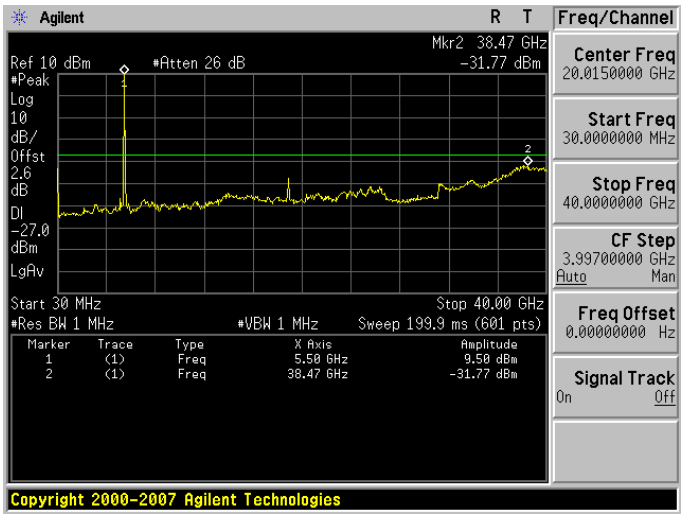
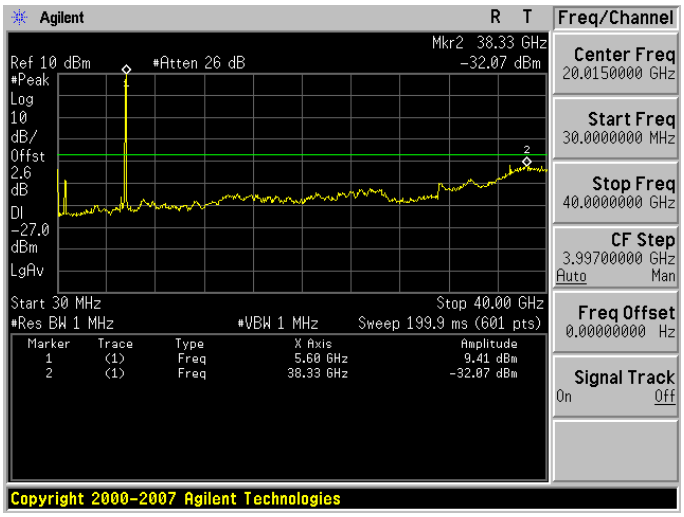
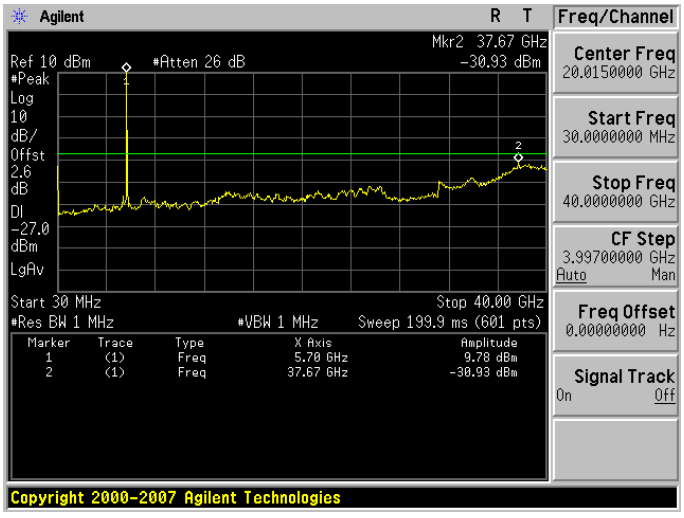
The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 1 MHz. The video bandwidth is set to 1 MHz. Peak detection measurements are compared to EIRP limit, adjusted for the maximum antenna gain.

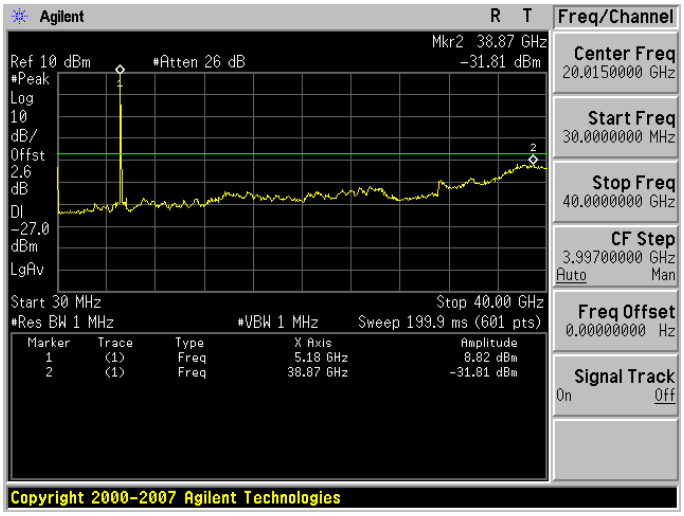
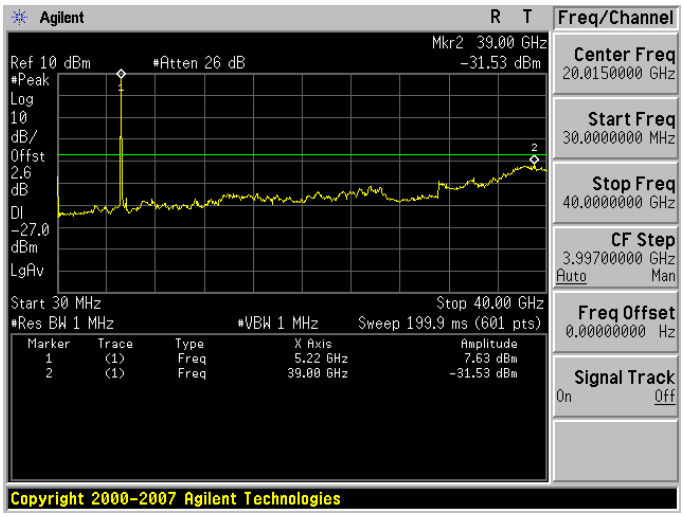
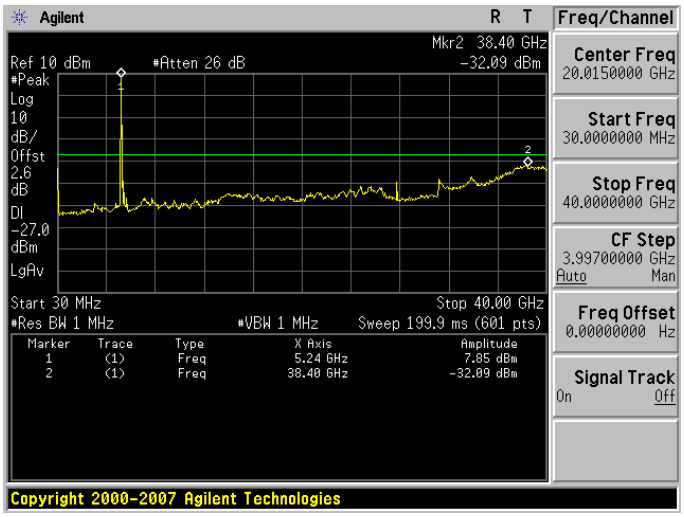
Measurements are made over the 30 MHz to 40 GHz range with the transmitter set to the lowest, middle, and highest channels.

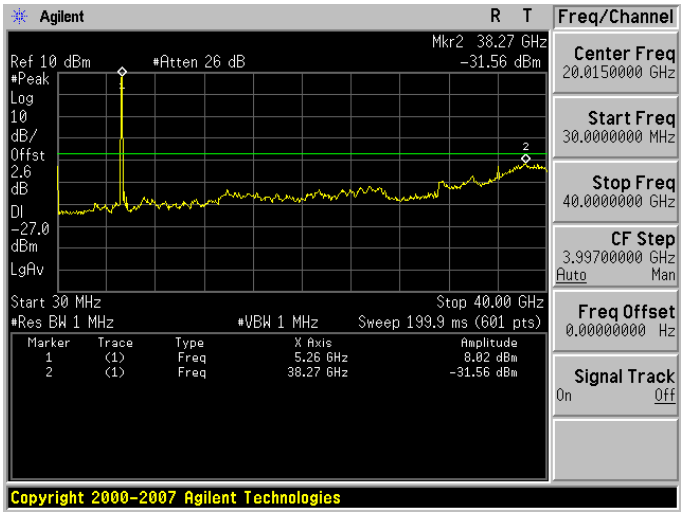
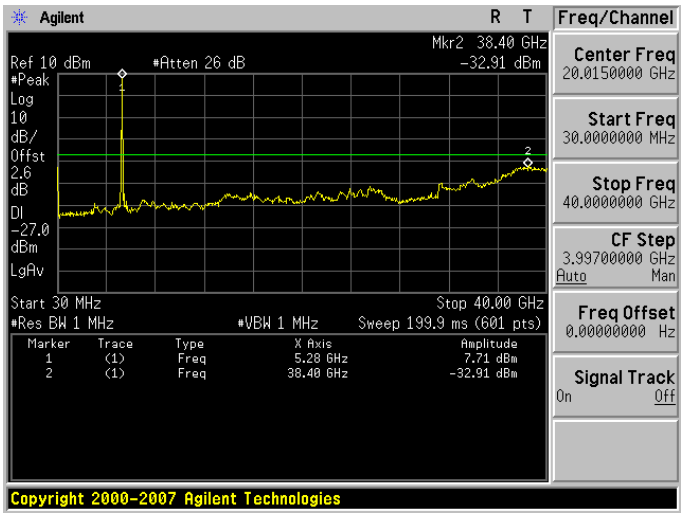
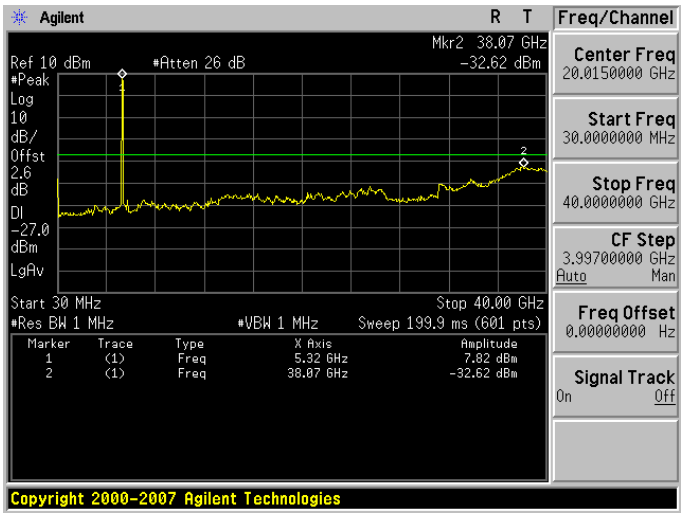
10.5.Test Graphs

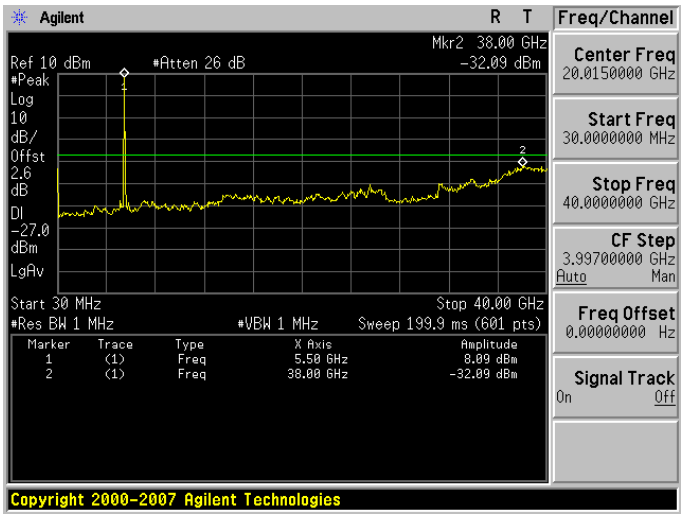
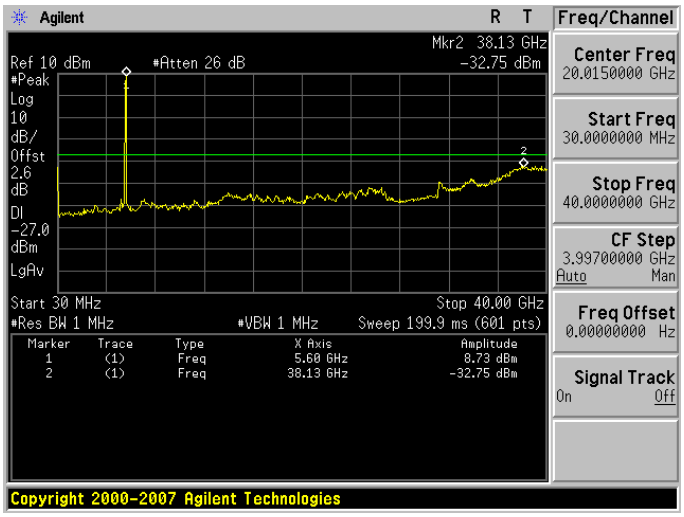
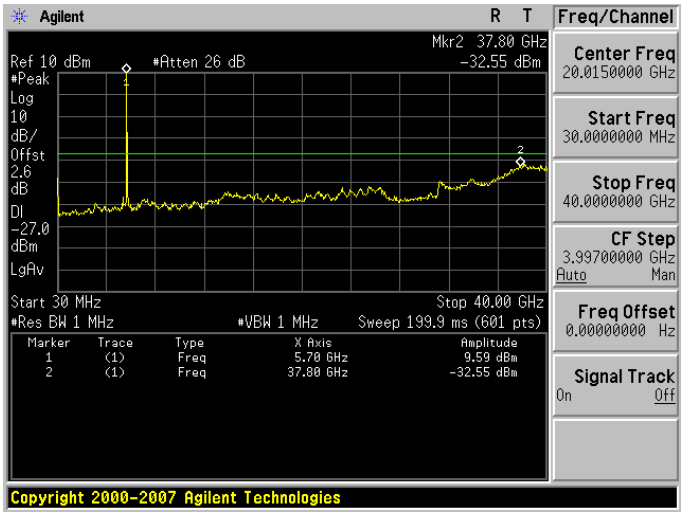
Mode 3: IEEE 802.11a Link Mode	
5180	
5200	
5240	

Mode 3: IEEE 802.11a Link Mode	
5260	
5280	
5320	

Mode 3: IEEE 802.11a Link Mode	
5500	
5600	
5700	

Mode 4: draft 802.11n Standard-20MHz Link Mode	
5180	
5200	
5240	

Mode 4: draft 802.11n Standard-20MHz Link Mode	
5260	
5280	
5320	

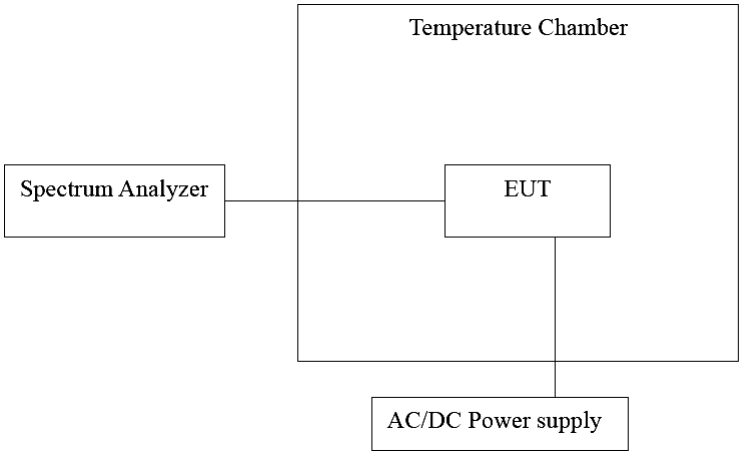
Mode 4: draft 802.11n Standard-20MHz Link Mode	
5500	
5600	
5700	

11 Frequency Stability Measurement

11.1. Limit

The frequency tolerance of the carrier signal shall be maintained within the band of operation frequency over a temperature variation of –30 degrees to 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

11.2. Test Setup



11.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4408B	MY45107753	07/07/2011	(1)
Temperature & Humidity Chamber	TAICHY	MHU-225LA	980729	08/26/2010	(1)
Test Site	ATL	TE02	TE02	N.C.R.	-----

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

11.4. Test Procedure

1. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
2. Turn the EUT on and couple its output to a spectrum analyzer.
3. Turn the EUT off and set the chamber to the highest temperature specified.
4. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize.
5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

11.5. Test Result

Temperature Variations

Model Number	PH85110				
Mode	Mode 3				
Frequency	5220 MHz				
Date of Test	07/20/2011			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
-30	120	5219.975466	-24534	4.700	Pass
-20		5220.002457	2457	-0.471	Pass
-10		5220.011540	11540	-2.211	Pass
0		5220.000462	462	-0.089	Pass
10		5220.024812	24812	-4.753	Pass
20		5220.005463	5463	-1.047	Pass
30		5220.013357	13357	-2.559	Pass
40		5219.986060	-13940	2.670	Pass
50		5220.011090	11090	-2.125	Pass

Model Number	PH85110				
Mode	Mode 3				
Frequency	5280 MHz				
Date of Test	07/20/2011			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
-30	120	5279.981142	-18858	3.572	Pass
-20		5280.022574	22574	-4.275	Pass
-10		5280.000255	255	-0.048	Pass
0		5279.981529	-18471	3.498	Pass
10		5280.019946	19946	-3.778	Pass
20		5279.997599	-2401	0.455	Pass
30		5280.002694	2694	-0.510	Pass
40		5279.996310	-3690	0.699	Pass
50		5280.019145	19145	-3.626	Pass

Model Number	PH85110				
Mode	Mode 3				
Frequency	5600 MHz				
Date of Test	07/20/2011			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
-30	120	5599.997887	-2113	0.377	Pass
-20		5600.024183	24183	-4.318	Pass
-10		5600.001270	1270	-0.227	Pass
0		5599.998784	-1216	0.217	Pass
10		5600.021017	21017	-3.753	Pass
20		5600.000250	250	-0.045	Pass
30		5600.013681	13681	-2.443	Pass
40		5600.005582	5582	-0.997	Pass
50		5599.981073	-18927	3.380	Pass

Model Number	PH85110				
Mode	Mode 4				
Frequency	5220 MHz				
Date of Test	07/20/2011			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
-30	120	5220.009795	9795	-1.876	Pass
-20		5219.984568	-15432	2.956	Pass
-10		5220.024988	24988	-4.787	Pass
0		5220.015017	15017	-2.877	Pass
10		5219.990963	-9037	1.731	Pass
20		5220.004346	4346	-0.833	Pass
30		5220.001799	1799	-0.345	Pass
40		5219.976250	-23750	4.550	Pass
50		5219.995162	-4838	0.927	Pass

Model Number	PH85110				
Mode	Mode 4				
Frequency	5280 MHz				
Date of Test	07/20/2011			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
-30	120	5280.008679	8679	-1.644	Pass
-20		5280.008524	8524	-1.614	Pass
-10		5280.000137	137	-0.026	Pass
0		5280.021311	21311	-4.036	Pass
10		5279.993912	-6088	1.153	Pass
20		5280.018553	18553	-3.514	Pass
30		5279.991976	-8024	1.520	Pass
40		5280.009510	9510	-1.801	Pass
50		5279.999201	-799	0.151	Pass

Model Number	PH85110				
Mode	Mode 4				
Frequency	5600 MHz				
Date of Test	07/20/2011			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
-30	120	5600.021987	21987	-3.926	Pass
-20		5600.000492	492	-0.088	Pass
-10		5599.982427	-17573	3.138	Pass
0		5600.005149	5149	-0.919	Pass
10		5599.976658	-23342	4.168	Pass
20		5599.981964	-18036	3.221	Pass
30		5599.997895	-2105	0.376	Pass
40		5600.004669	4669	-0.834	Pass
50		5600.000279	279	-0.050	Pass

Voltage Variations

Model Number	PH85110				
Mode	Mode 3				
Frequency	5220 MHz				
Date of Test	07/20/2011			Test Site	TE02
Temp. (°(°C))	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
20	102	5219.992572	-7428	1.423	Pass
	120	5220.015377	15377	-2.946	Pass
	138	5219.985000	-15000	2.874	Pass

Model Number	PH85110				
Mode	Mode 3				
Frequency	5280 MHz				
Date of Test	07/20/2011			Test Site	TE02
Temp. (°(°C))	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
20	102	5279.990121	-9879	1.871	Pass
	120	5280.001912	1912	-0.362	Pass
	138	5279.987455	-12545	2.376	Pass

Model Number	PH85110				
Mode	Mode 3				
Frequency	5600 MHz				
Date of Test	07/20/2011			Test Site	TE02
Temp. (°(°C))	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
20	102	5599.989068	-10932	1.952	Pass
	120	5600.017493	17493	-3.124	Pass
	138	5599.989475	-10525	1.879	Pass

Model Number	PH85110				
Mode	Mode 4				
Frequency	5220 MHz				
Date of Test	07/20/2011			Test Site	TE02
Temp. (°(°C))	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
20	102	5219.984496	-15504	2.970	Pass
	120	5220.012663	12663	-2.426	Pass
	138	5220.013621	13621	-2.609	Pass

Model Number	PH85110				
Mode	Mode 4				
Frequency	5280 MHz				
Date of Test	07/20/2011			Test Site	TE02
Temp. (°(°C))	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
20	102	5279.982420	-17580	3.330	Pass
	120	5279.993103	-6897	1.306	Pass
	138	5280.007367	7367	-1.395	Pass

Model Number	PH85110				
Mode	Mode 4				
Frequency	5600 MHz				
Date of Test	07/20/2011			Test Site	TE02
Temp. (°(°C))	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
20	102	5599.991160	-8840	1.579	Pass
	120	5600.016193	16193	-2.892	Pass
	138	5600.003965	3965	-0.708	Pass

12 Antenna Measurement

12.1. Limit

For intentional device, according to 15.203, 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.
And According to 15.407 (a), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

12.2. Antenna Connector Construction

The antenna used in this product is **PIFA antenna**. And the maximum Gain of this antenna is only **1.5 dBi**.