

FCC 47 CFR PART 15 SUBPART E

Product Type : Notebook computer
Applicant : MilDef Crete Inc.
Address : 7F, No. 250, Sec.3, Peishen Rd., Shenkeng District, New Taipei City, Taiwan
Trade Name : MilDef Crete Inc.
Model Number : DT10
Test Specification : FCC 47 CFR PART 15 SUBPART E: Oct., 2013
ANSI C63.10-2009
ANSI C63.4-2009
Application Purpose : Original
Receive Date : Aug. 07, 2014
Test Period : Aug. 11 ~ Aug. 22, 2014
Issue Date : Sep. 03, 2014

Issue by

A Test Lab Techno Corp.
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Taiwan Accreditation Foundation accreditation number: 1330

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Revision History

Rev.	Issue Date	Revisions	Revised By
00	Sep. 03, 2014	Initial Issue	

Verification of Compliance

Issued Date: 09/03/2014

Product Type : Notebook computer
Applicant : MilDef Crete Inc.
Address : 7F, No. 250, Sec.3, Peishen Rd., Shenkeng District, New Taipei City, Taiwan
Trade Name : MilDef Crete Inc.
Model Number : DT10
FCC ID : IR5DT10
EUT Rated Voltage : DC 12V~32V, 7A
Test Voltage : 120 Vac / 60 Hz
Applicable Standard : FCC 47 CFR PART 15 SUBPART E: Oct., 2013
ANSI C63.10-2009
ANSI C63.4-2009
Test Result : Complied
Application Purpose : Original
Performing Lab. : A Test Lab Techno Corp.

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<http://www.atl-lab.com.tw/e-index.htm>



A Test Lab Techno Corp. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by A Test Lab Techno Corp. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Approved By : Fly Lu
(Manager) (Fly Lu)

Reviewed By : Eric Ou Yang
(Testing Engineer) (Eric Ou Yang)

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1 General Information

1.1. Summary of Test Result

Standard	Item	Result	Remark
FCC			
15.407(b)(6) 15.207	AC Power Conducted Emission	PASS	---
15.407(b) 15.205 / 15.209	Radiated Emission	PASS	---
15.407(a)	Maximum Conducted Output Power	PASS	---
15.407(a)	26dB RF Bandwidth	Reference	---
15.407(a)	6dB RF Bandwidth	PASS	----
15.407(a)	Peak Power Spectral Density	PASS	---
15.407(g)	Frequency Stability	PASS	---
15.407(a) 15.203	Antenna Requirement	PASS	---

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

Measurement Item	Frequency Range		Uncertainty (dB)
Conducted Emission	9kHz ~ 30MHz		± 2.020
Radiated Emission	30MHz ~ 1000MHz	Horizontal	± 3.960
		Vertical	± 3.570
	1000MHz ~ 18000MHz	Horizontal	± 3.072
		Vertical	± 3.028
	18000MHz ~ 40000MHz	Horizontal	± 3.622
		Vertical	± 3.506

2 EUT Description

Product Type	Notebook computer			
Trade Name	MilDef Crete Inc.			
Model No.	DT10			
Applicant	MilDef Crete Inc. 7F, No. 250, Sec.3, Peishen Rd., Shengkeng District, New Taipei City, Taiwan			
Manufacturer	MilDef Crete Inc. 7F, No. 250, Sec.3, Peishen Rd., Shengkeng District, New Taipei City, Taiwan			
FCC ID	IR5DT10			
Frequency Range	Band	Mode	Frequency Range (MHz)	Number of Channels
	U-NII Band I	IEEE 802.11a	5180 – 5240	4 Channels
		IEEE 802.11n 20 MHz	5180 – 5240	4 Channels
		IEEE 802.11n 40 MHz	5190 – 5230	2 Channels
	U-NII Band III	IEEE 802.11a	5745 – 5825	5 Channels
		IEEE 802.11n 20 MHz	5745 – 5825	5 Channels
		IEEE 802.11n 40 MHz	5755 – 5795	2 Channels
Modulation Type	OFDM			
Antenna Used	Band	Antenna Port	Type	Max. Gain
	U-NII Band I	Antenna 1 (MAIN)	PIFA Antenna	1.68 dBi
		Antenna 2 (AUX)	PIFA Antenna	-6.17 dBi
	U-NII Band III	Antenna 1 (MAIN)	PIFA Antenna	1.27 dBi
		Antenna 2 (AUX)	PIFA Antenna	-0.14 dBi
Antenna Delivery	IEEE 802.11a : 1TX + 1RX IEEE 802.11n 20MHz / 40MHz : 2TX + 2RX			
RF Output Power	IEEE 802.11a U-NII Band I : 0.015 W / 11.66 dBm IEEE 802.11a U-NII Band III : 0.015 W / 11.88 dBm IEEE 802.11n 20MHz U-NII Band I : 0.014 W / 11.52 dBm IEEE 802.11n 20MHz U-NII Band III: 0.017 W / 12.25 dBm IEEE 802.11n 40MHz U-NII Band I : 0.008 W / 9.29 dBm IEEE 802.11n 40MHz U-NII Band III: 0.011 W / 10.29 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: Normal Operation Mode
Mode 2: IEEE 802.11a Link Mode
Mode 3: IEEE 802.11n 20MHz Link Mode
Mode 4: IEEE 802.11n 40MHz Link 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 (Antenna 2):

Channel Low (5180MHz), Channel Mid (5220MHz) and Channel High (5240MHz) with 6Mbps data rate were chosen for full testing.

IEEE 802.11a mode / 5745 ~ 5825MHz (Antenna 2):

Channel Low (5745MHz), Channel Mid (5785MHz) and Channel High (5825MHz) with 6Mbps data rate were chosen for full testing.

IEEE 802.11n 20 MHz Channel mode / 5180 ~ 5240MHz (Antenna 1+2):

Channel Low (5180MHz), Channel Mid (5220MHz) and Channel High (5240MHz) with 13Mbps data rate were chosen for full testing.

IEEE 802.11n 20 MHz Channel mode / 5745 ~ 5825MHz (Antenna 1+2):

Channel Low (5745MHz), Channel Mid (5785MHz) and Channel High (5825MHz) with 13Mbps data rate were chosen for full testing.

IEEE 802.11n 40 MHz Channel mode / 5190 ~ 5230MHz (Antenna 1+2):

Channel Low (5190MHz) and Channel High (5230MHz) with 27Mbps data rate were chosen for full testing.

IEEE 802.11n 40 MHz Channel mode / 5755 ~ 5795MHz (Antenna 1+2):

Channel Low (5755MHz) and Channel High (5795MHz) with 27Mbps data rate were chosen for full testing.

3.2. EUT Exercise Software

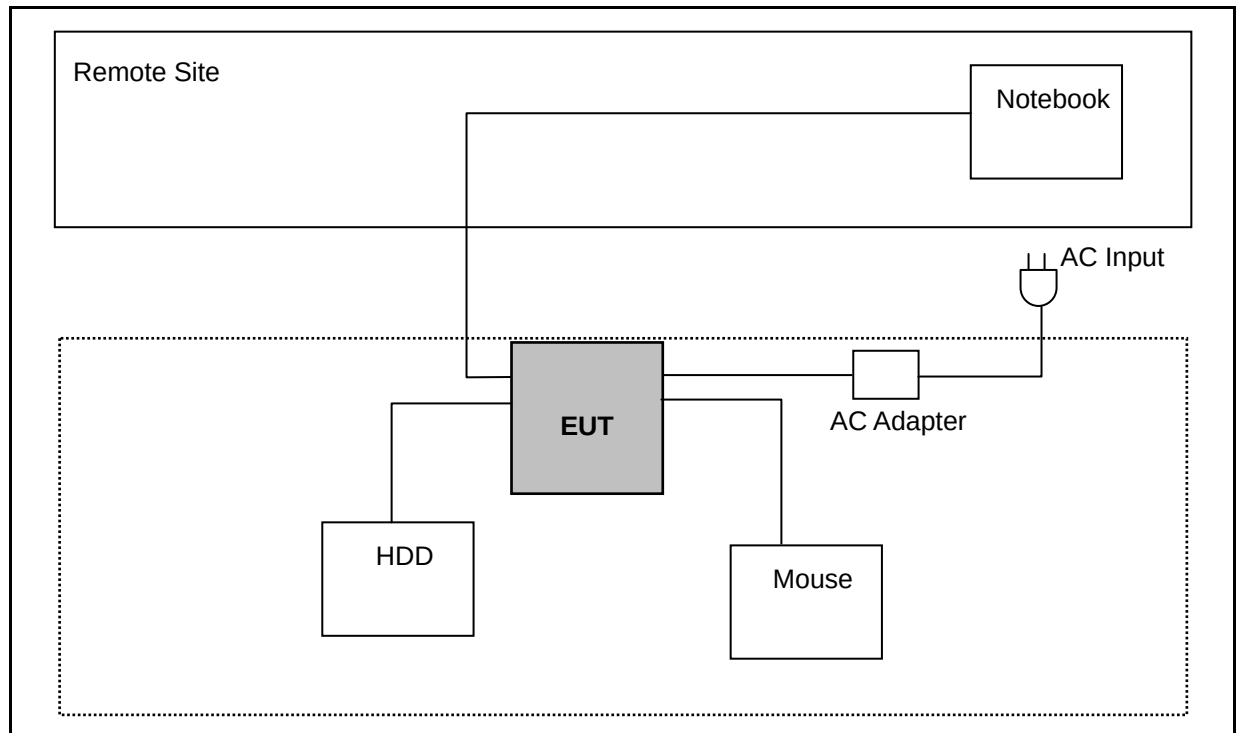
The EUT is operated in the engineering mode to fix the TX frequency for the purposes of measurement.

According to its specifications, the EUT must comply with the requirements of Section 15.407 under the FCC Rules Part 15 Subpart E.

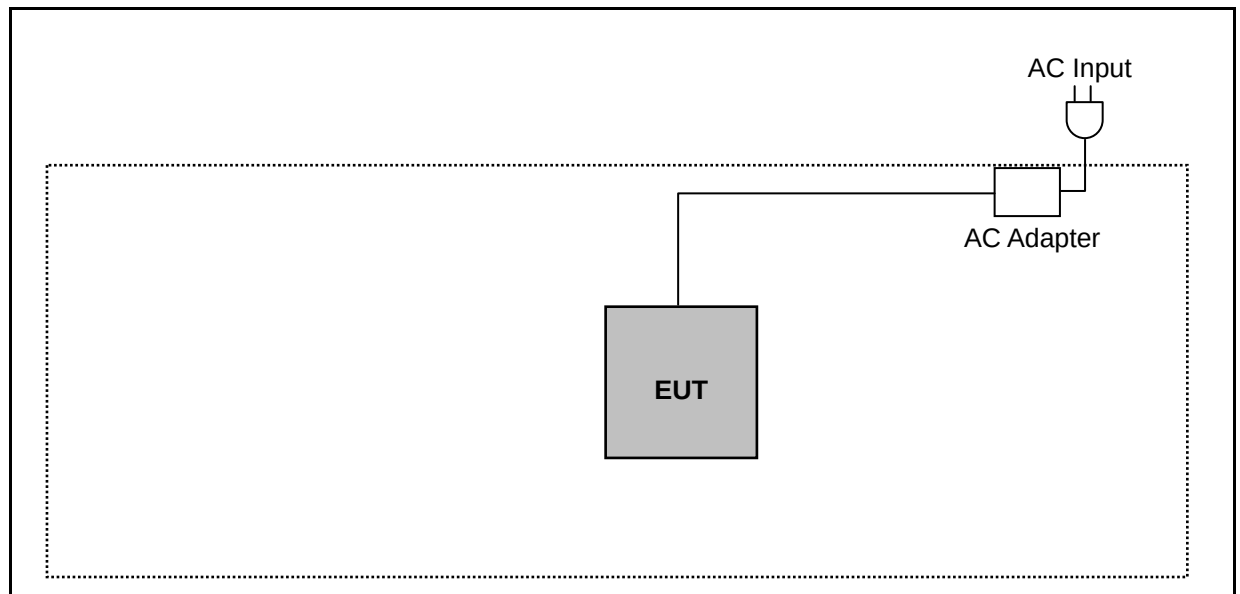
1.	Setup the EUT shown on 3.3.
2.	Turn on the power of all equipment.
3.	Turn on Wi-Fi function link to Notebook.
4.	EUT run test program.

3.3. Configuration of Test System Details

Conducted Emission



Radiated Emission



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

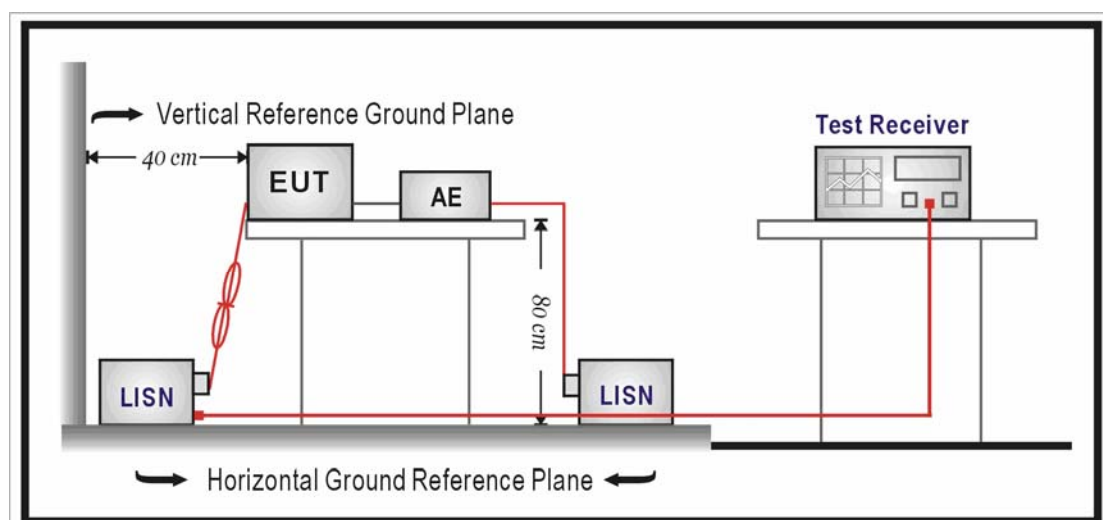
4.2. Test Instruments

Describe	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Test Receiver	R&S	ESCI	100367	06/12/2014	(1)
LISN	R&S	ENV216	101040	03/07/2014	(1)
LISN	R&S	ENV216	101041	03/07/2014	(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

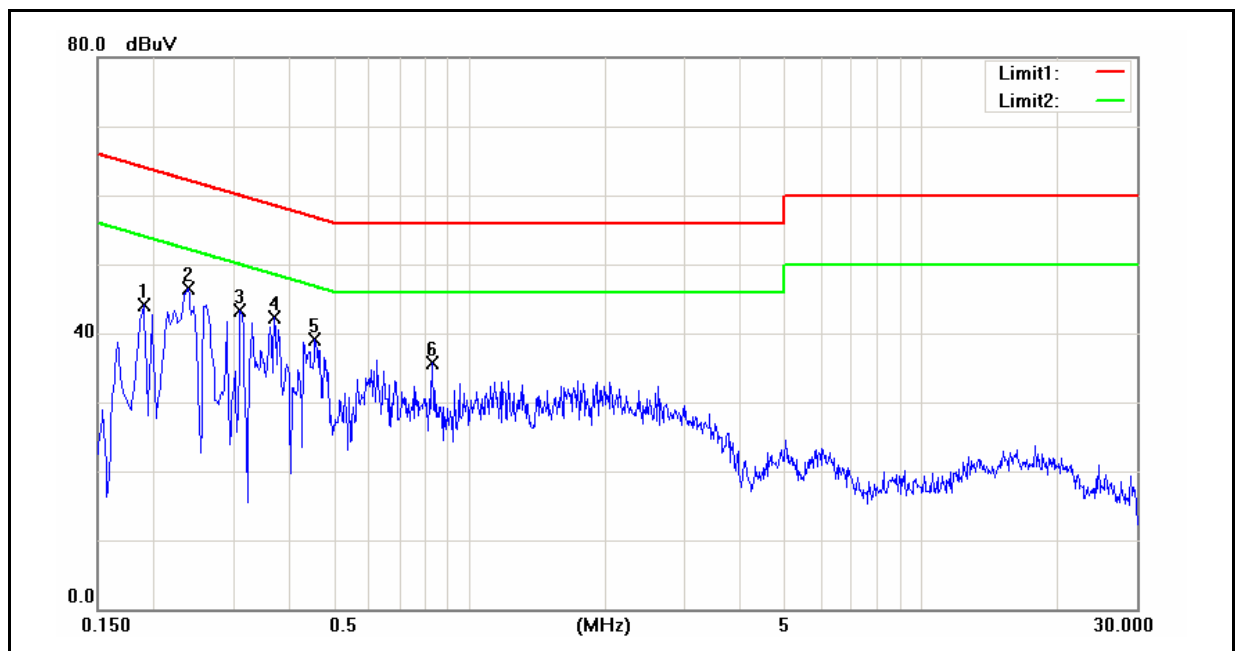
The power line conducted emission measurements were performed in a shielded enclosure. The EUT was assembled on a wooden table which is 80 centimeters high, was placed 40 centimeters from the back wall and at least 1 meter from the sidewall.

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.

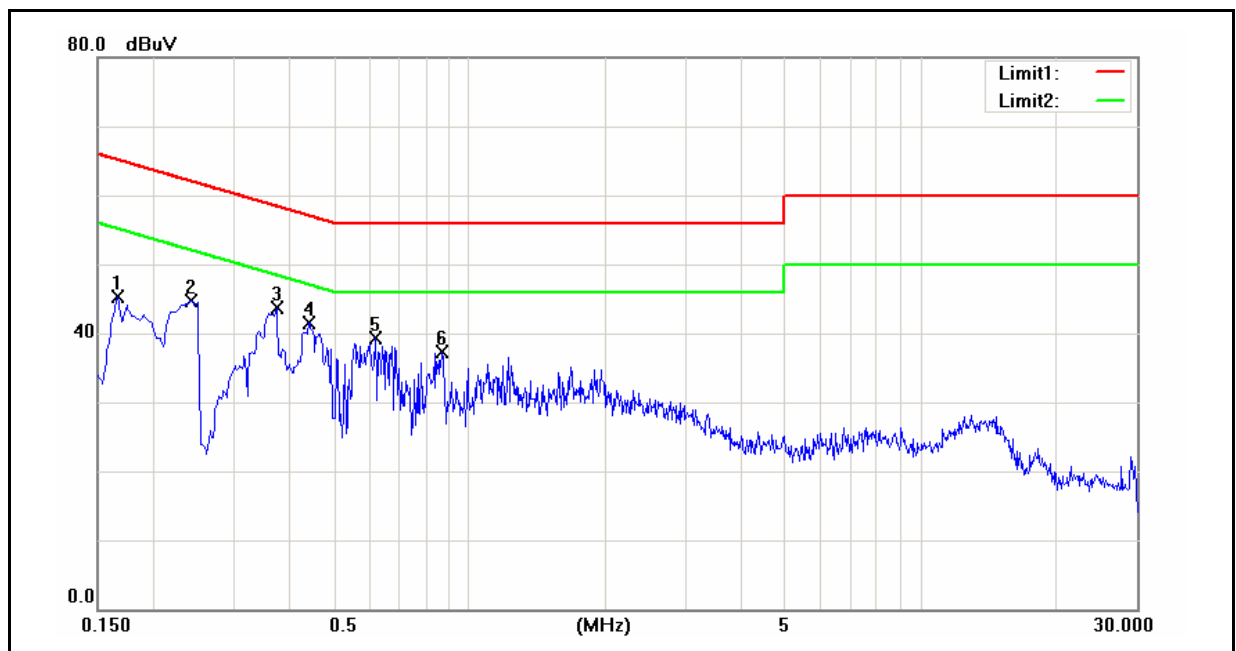
4.5. Test Result

Standard:	FCC Part 15E	Line:	L1
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	DT10	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Test Mode:	Mode 1	Date:	08/22/2014
		Test By:	Eric Ou Yang
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	0.1900	30.70	11.86	9.60	40.30	21.46	64.04	54.04	-23.74	-32.58	Pass
2	0.2380	33.98	19.54	9.60	43.58	29.14	62.17	52.17	-18.59	-23.03	Pass
3	0.3100	25.55	5.67	9.61	35.16	15.28	59.97	49.97	-24.81	-34.69	Pass
4	0.3700	29.26	14.22	9.61	38.87	23.83	58.50	48.50	-19.63	-24.67	Pass
5	0.4540	27.82	14.17	9.62	37.44	23.79	56.80	46.80	-19.36	-23.01	Pass
6	0.8300	21.44	11.60	9.64	31.08	21.24	56.00	46.00	-24.92	-24.76	Pass

Standard:	FCC Part 15E	Line:	N
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	DT10	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Test Mode:	Mode 1	Date:	08/22/2014
		Test By:	Eric Ou Yang
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	0.1660	34.47	16.71	9.60	44.07	26.31	65.16	55.16	-21.09	-28.85	Pass
2	0.2420	34.29	18.81	9.60	43.89	28.41	62.03	52.03	-18.14	-23.62	Pass
3	0.3740	27.44	10.99	9.61	37.05	20.60	58.41	48.41	-21.36	-27.81	Pass
4	0.4420	28.15	14.09	9.61	37.76	23.70	57.02	47.02	-19.26	-23.32	Pass
5	0.6180	24.36	10.58	9.62	33.98	20.20	56.00	46.00	-22.02	-25.80	Pass
6	0.8700	22.89	11.30	9.64	32.53	20.94	56.00	46.00	-23.47	-25.06	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.

5.2. Test Instruments

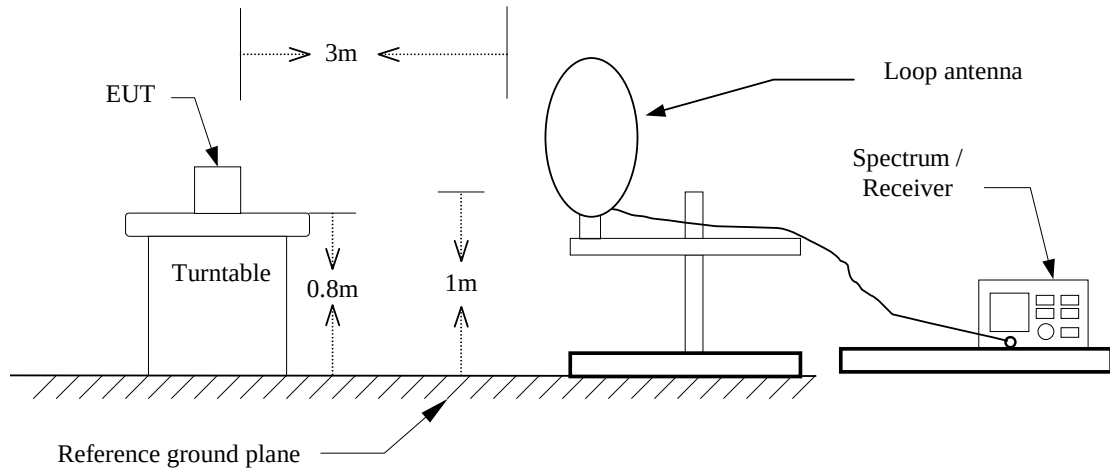
3 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
RF Pre-selector	Agilent	N9039A	MY46520256	01/10/2014	(1)
Spectrum Analyzer	Agilent	E4446A	MY46180578	01/10/2014	(1)
Pre Amplifier	Agilent	8449B	3008A02237	02/21/2014	(1)
Pre Amplifier	Agilent	8447D	2944A10961	02/21/2014	(1)
Broadband Antenna (30MHz~1GHz)	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	07/18/2014	(1)
Horn Antenna (1~18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	06/11/2014	(1)
Horn Antenna (18~40GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	06/13/2014	(1)
Test Site	ATL	TE01	888001	08/28/2013	(1)

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

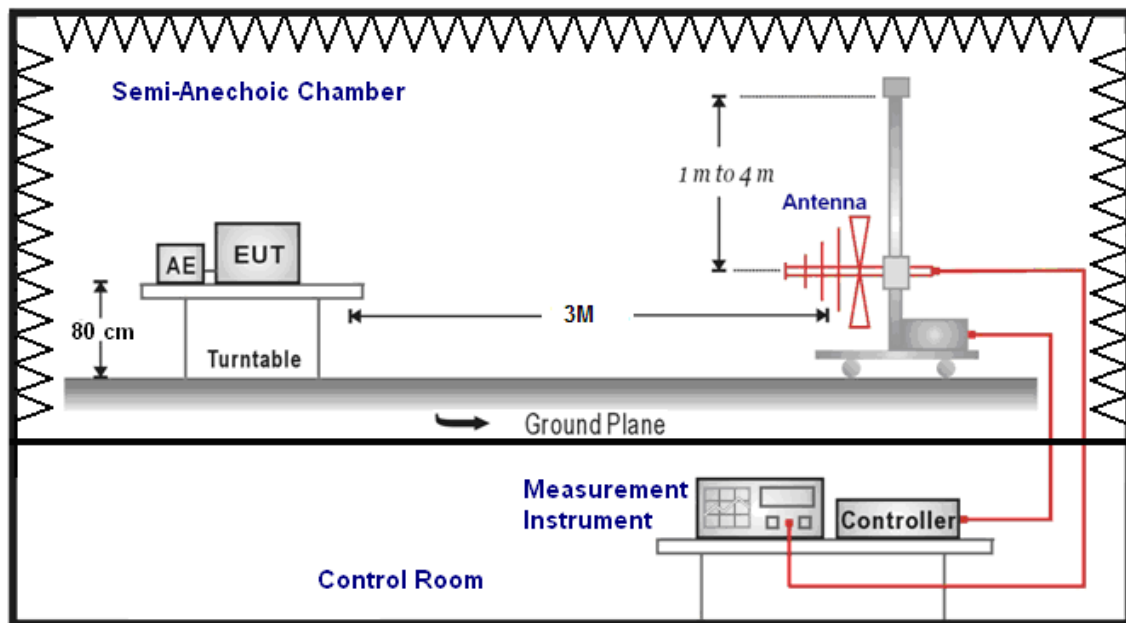
Note: N.C.R. = No Calibration Request.

5.3. Setup

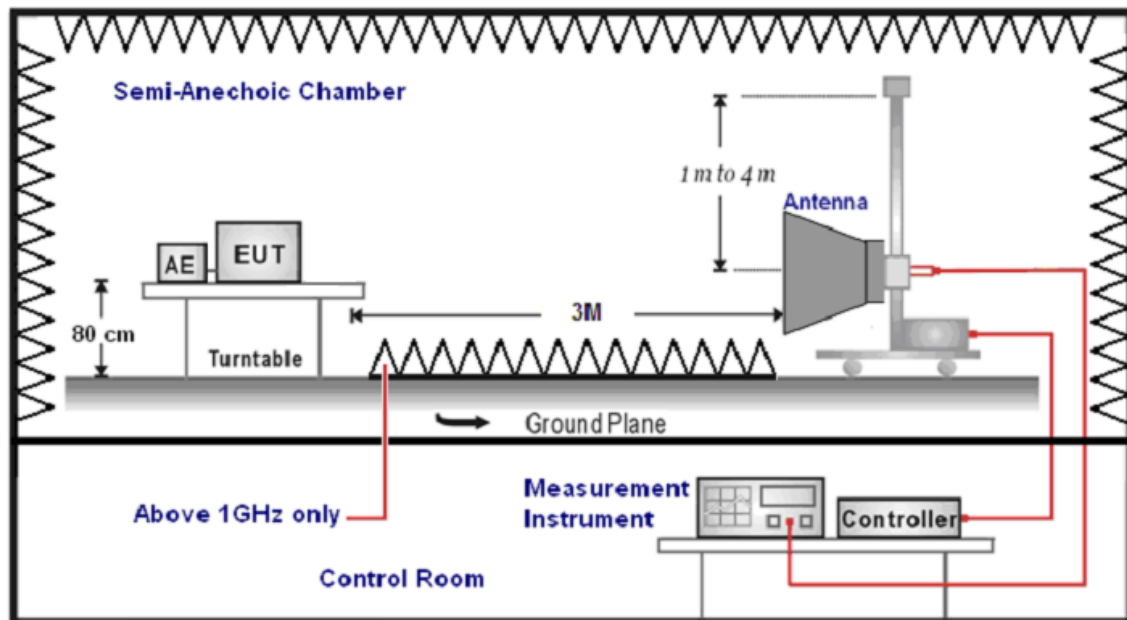
9kHz ~ 30MHz



30MHz ~ 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 9 kHz 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 3 MHz for peak measurements and 3 MHz for average measurements.

A nonconductive material surrounded the EUT to supporting the EUT for standing on three 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 antenna (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 per meter (uV/m).

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

The actual field intensity in decibels 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) $\text{Amplitude (dBuV/m)} = \text{FI (dBuV)} + \text{AF (dBuV)} + \text{CL (dBuV)} - \text{Gain (dB)}$

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

P.S Amplitude is auto calculate in spectrum analyzer.

(2) $\text{Actual Amplitude (dBuV/m)} = \text{Amplitude (dBuV)} - \text{Dis(dB)}$

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:		DT10		Temp.(°C)/Hum.(%RH):		26(°C)/60%RH	
Test Mode:		Mode 1		Date:		08/11/2014	
				Test By:		Eric Ou Yang	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
133.0000	36.19	-13.02	23.17	43.50	-20.33	QP	H
288.0000	37.64	-10.59	27.05	46.00	-18.95	QP	H
333.0000	38.75	-9.69	29.06	46.00	-16.94	QP	H
519.0000	31.62	-5.96	25.66	46.00	-20.34	QP	H
665.0000	33.11	-3.01	30.10	46.00	-15.90	QP	H
896.0000	25.87	1.59	27.46	46.00	-18.54	QP	H
129.0000	43.79	-13.46	30.33	43.50	-13.17	QP	V
175.0000	43.90	-12.63	31.27	43.50	-12.23	QP	V
308.5000	49.32	-10.10	39.22	46.00	-6.78	QP	V
518.0000	38.79	-5.99	32.80	46.00	-13.20	QP	V
666.0000	39.29	-3.00	36.29	46.00	-9.71	QP	V
942.5000	33.44	2.66	36.10	46.00	-9.90	QP	V

Note: No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz).

Above 1GHz

Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	DT10			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 2			Date:	08/16/2014		
Frequency:	5180MHz			Test By:	Eric Ou Yang		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2834.000	36.94	-0.61	36.33	74.00	-37.67	peak	H
4577.000	34.90	4.39	39.29	74.00	-34.71	peak	H
5150.000	33.25	5.71	38.96	68.20	-29.24	peak	H
7650.000	33.28	12.27	45.55	74.00	-28.45	peak	H
2834.000	37.33	-0.61	36.72	74.00	-37.28	peak	V
4598.000	35.33	4.45	39.78	74.00	-34.22	peak	V
5150.000	33.23	5.71	38.94	68.20	-29.26	peak	V
7643.000	33.14	12.26	45.40	74.00	-28.60	peak	V

Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	DT10			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 2			Date:	08/16/2014		
Frequency:	5220MHz			Test By:	Eric Ou Yang		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2827.000	37.16	-0.62	36.54	74.00	-37.46	peak	H
4577.000	34.07	4.39	38.46	74.00	-35.54	peak	H
7671.000	32.97	12.30	45.27	74.00	-28.73	peak	H
2799.000	36.56	-0.70	35.86	74.00	-38.14	peak	V
4605.000	34.08	4.47	38.55	74.00	-35.45	peak	V
7622.000	33.46	12.22	45.68	74.00	-28.32	peak	V

Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	DT10			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 2			Date:	08/16/2014		
Frequency:	5240MHz			Test By:	Eric Ou Yang		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2813.000	37.45	-0.66	36.79	74.00	-37.21	peak	H
4598.000	34.59	4.45	39.04	74.00	-34.96	peak	H
5350.000	32.18	6.02	38.20	68.20	-30.00	peak	H
7671.000	33.19	12.30	45.49	74.00	-28.51	peak	H
2799.000	37.85	-0.70	37.15	74.00	-36.85	peak	V
4598.000	34.09	4.45	38.54	74.00	-35.46	peak	V
5350.000	32.91	6.02	38.93	68.20	-29.27	peak	V
7671.000	33.23	12.30	45.53	74.00	-28.47	peak	V

Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	DT10			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 2			Date:	08/16/2014		
Frequency:	5745MHz			Test By:	Eric Ou Yang		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2827.000	36.90	-0.62	36.28	74.00	-37.72	peak	H
4577.000	34.01	4.39	38.40	74.00	-35.60	peak	H
5715.000	32.29	6.71	39.00	78.20	-39.20	peak	H
5725.000	33.02	6.73	39.75	68.20	-28.45	peak	H
7678.000	32.11	12.31	44.42	74.00	-29.58	peak	H
2827.000	37.88	-0.62	37.26	74.00	-36.74	peak	V
4598.000	34.62	4.45	39.07	74.00	-34.93	peak	V
5715.000	33.25	6.71	39.96	78.20	-38.24	peak	V
5725.000	32.51	6.73	39.24	68.20	-28.96	peak	V
7657.000	34.02	12.28	46.30	74.00	-27.70	peak	V

Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	DT10			Temp.(℃)/Hum.(%RH):	26(℃)/60%RH		
Test Mode:	Mode 2			Date:	08/16/2014		
Frequency:	5785MHz			Test By:	Eric Ou Yang		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2813.000	36.33	-0.66	35.67	74.00	-38.33	peak	H
4605.000	34.04	4.47	38.51	74.00	-35.49	peak	H
7657.000	33.28	12.28	45.56	74.00	-28.44	peak	H
2834.000	36.92	-0.61	36.31	74.00	-37.69	peak	V
4570.000	34.26	4.38	38.64	74.00	-35.36	peak	V
7671.000	32.98	12.30	45.28	74.00	-28.72	peak	V

Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	DT10			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 2			Date:	08/16/2014		
Frequency:	5825MHz			Test By:	Eric Ou Yang		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2806.000	35.99	-0.68	35.31	74.00	-38.69	peak	H
4605.000	34.97	4.47	39.44	74.00	-34.56	peak	H
5850.000	33.74	6.99	40.73	78.20	-37.47	peak	H
5860.000	33.64	7.01	40.65	68.20	-27.55	peak	H
7657.000	33.54	12.28	45.82	74.00	-28.18	peak	H
2806.000	36.61	-0.68	35.93	74.00	-38.07	peak	V
4570.000	33.40	4.38	37.78	74.00	-36.22	peak	V
5850.000	34.72	6.99	41.71	78.20	-36.49	peak	V
5860.000	33.20	7.01	40.21	68.20	-27.99	peak	V
7657.000	33.65	12.28	45.93	74.00	-28.07	peak	V

Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	DT10			Temp.(℃)/Hum.(%RH):	26(℃)/60%RH		
Test Mode:	Mode 3			Date:	08/16/2014		
Frequency:	5180MHz			Test By:	Eric Ou Yang		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2813.000	36.99	-0.66	36.33	74.00	-37.67	peak	H
4577.000	35.12	4.39	39.51	74.00	-34.49	peak	H
5150.000	33.62	5.71	39.33	68.20	-28.87	peak	H
7671.000	32.56	12.30	44.86	74.00	-29.14	peak	H
2785.000	36.83	-0.73	36.10	74.00	-37.90	peak	V
4577.000	34.26	4.39	38.65	74.00	-35.35	peak	V
5150.000	32.90	5.71	38.61	68.20	-29.59	peak	V
7643.000	32.64	12.26	44.90	74.00	-29.10	peak	V

Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	DT10			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 3			Date:	08/16/2014		
Frequency:	5220MHz			Test By:	Eric Ou Yang		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2827.000	37.21	-0.62	36.59	74.00	-37.41	peak	H
4598.000	34.74	4.45	39.19	74.00	-34.81	peak	H
7657.000	33.14	12.28	45.42	74.00	-28.58	peak	H
2806.000	38.46	-0.68	37.78	74.00	-36.22	peak	V
4563.000	34.97	4.36	39.33	74.00	-34.67	peak	V
7657.000	33.39	12.28	45.67	74.00	-28.33	peak	V

Standard:		FCC Part 15E		Test Distance:		3m	
Test item:		Radiated Emission		Power:		AC 120V/60Hz	
Model Number:		DT10		Temp.(°C)/Hum.(%RH):		26(°C)/60%RH	
Test Mode:		Mode 3		Date:		08/16/2014	
Frequency:		5240MHz		Test By:		Eric Ou Yang	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2806.000	36.97	-0.68	36.29	74.00	-37.71	peak	H
4598.000	35.04	4.45	39.49	74.00	-34.51	peak	H
5350.000	32.36	6.02	38.38	68.20	-29.82	peak	H
7671.000	33.44	12.30	45.74	74.00	-28.26	peak	H
2827.000	37.19	-0.62	36.57	74.00	-37.43	peak	V
4647.000	34.64	4.57	39.21	74.00	-34.79	peak	V
5350.000	32.62	6.02	38.64	68.20	-29.56	peak	V
7678.000	32.71	12.31	45.02	74.00	-28.98	peak	V

Standard:		FCC Part 15E		Test Distance:		3m	
Test item:		Radiated Emission		Power:		AC 120V/60Hz	
Model Number:		DT10		Temp.(°C)/Hum.(%RH):		26(°C)/60%RH	
Test Mode:		Mode 3		Date:		08/16/2014	
Frequency:		5745MHz		Test By:		Eric Ou Yang	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2827.000	37.09	-0.62	36.47	74.00	-37.53	peak	H
4591.000	34.29	4.43	38.72	74.00	-35.28	peak	H
5715.000	31.70	6.71	38.41	78.20	-39.79	peak	H
5725.000	32.07	6.73	38.80	68.20	-29.40	peak	H
7678.000	34.94	12.31	47.25	74.00	-26.75	peak	H
2799.000	36.58	-0.70	35.88	74.00	-38.12	peak	V
4591.000	34.02	4.43	38.45	74.00	-35.55	peak	V
5715.000	32.31	6.71	39.02	78.20	-39.18	peak	V
5725.000	32.56	6.73	39.29	68.20	-28.91	peak	V
7657.000	32.51	12.28	44.79	74.00	-29.21	peak	V

Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	DT10			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 3			Date:	08/16/2014		
Frequency:	5785MHz			Test By:	Eric Ou Yang		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2806.000	36.07	-0.68	35.39	74.00	-38.61	peak	H
4577.000	33.64	4.39	38.03	74.00	-35.97	peak	H
7671.000	33.85	12.30	46.15	74.00	-27.85	peak	H
2806.000	36.80	-0.68	36.12	74.00	-37.88	peak	V
4598.000	34.71	4.45	39.16	74.00	-34.84	peak	V
7671.000	34.84	12.30	47.14	74.00	-26.86	peak	V

Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	DT10			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 3			Date:	08/16/2014		
Frequency:	5825MHz			Test By:	Eric Ou Yang		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2799.000	35.54	-0.70	34.84	74.00	-39.16	peak	H
4605.000	34.64	4.47	39.11	74.00	-34.89	peak	H
5850.000	33.48	6.99	40.47	78.20	-37.73	peak	H
5860.000	33.17	7.01	40.18	68.20	-28.02	peak	H
7699.000	33.37	12.34	45.71	74.00	-28.29	peak	H
2799.000	36.49	-0.70	35.79	74.00	-38.21	peak	V
4598.000	34.70	4.45	39.15	74.00	-34.85	peak	V
5850.000	33.88	6.99	40.87	78.20	-37.33	peak	V
5860.000	33.13	7.01	40.14	68.20	-28.06	peak	V
7650.000	33.08	12.27	45.35	74.00	-28.65	peak	V

Standard:		FCC Part 15E		Test Distance:		3m	
Test item:		Radiated Emission		Power:		AC 120V/60Hz	
Model Number:		DT10		Temp.(°C)/Hum.(%RH):		26(°C)/60%RH	
Test Mode:		Mode 4		Date:		08/16/2014	
Frequency:		5190MHz		Test By:		Eric Ou Yang	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2813.000	38.13	-0.66	37.47	74.00	-36.53	peak	H
4591.000	33.77	4.43	38.20	74.00	-35.80	peak	H
5150.000	33.42	5.71	39.13	68.20	-29.07	peak	H
7643.000	32.94	12.26	45.20	74.00	-28.80	peak	H
2834.000	37.49	-0.61	36.88	74.00	-37.12	peak	V
4577.000	34.81	4.39	39.20	74.00	-34.80	peak	V
5150.000	34.68	5.71	40.39	68.20	-27.81	peak	V
7657.000	32.17	12.28	44.45	74.00	-29.55	peak	V

Standard:		FCC Part 15E			Test Distance:		3m	
Test item:		Radiated Emission			Power:		AC 120V/60Hz	
Model Number:		DT10			Temp.(°C)/Hum.(%RH):		26(°C)/60%RH	
Test Mode:		Mode 4			Date:		08/16/2014	
Frequency:		5230MHz			Test By:		Eric Ou Yang	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V	
2806.000	36.67	-0.68	35.99	74.00	-38.01	peak	H	
4570.000	34.58	4.38	38.96	74.00	-35.04	peak	H	
5350.000	31.32	6.02	37.34	68.20	-30.86	peak	H	
7685.000	32.46	12.32	44.78	74.00	-29.22	peak	H	
2806.000	36.80	-0.68	36.12	74.00	-37.88	peak	V	
4570.000	35.86	4.38	40.24	74.00	-33.76	peak	V	
5350.000	32.02	6.02	38.04	68.20	-30.16	peak	V	
7671.000	33.06	12.30	45.36	74.00	-28.64	peak	V	

Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	DT10			Temp.(℃)/Hum.(%RH):	26(℃)/60%RH		
Test Mode:	Mode 4			Date:	08/16/2014		
Frequency:	5755MHz			Test By:	Eric Ou Yang		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2813.000	37.59	-0.66	36.93	74.00	-37.07	peak	H
4577.000	33.51	4.39	37.90	74.00	-36.10	peak	H
5715.000	32.15	6.71	38.86	78.20	-39.34	peak	H
5725.000	33.04	6.73	39.77	68.20	-28.43	peak	H
7657.000	32.54	12.28	44.82	74.00	-29.18	peak	H
2827.000	36.33	-0.62	35.71	74.00	-38.29	peak	V
4563.000	34.74	4.36	39.10	74.00	-34.90	peak	V
5715.000	32.44	6.71	39.15	78.20	-39.05	peak	V
5725.000	31.91	6.73	38.64	68.20	-29.56	peak	V
7678.000	33.07	12.31	45.38	74.00	-28.62	peak	V

Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	DT10			Temp.(℃)/Hum.(%RH):	26(℃)/60%RH		
Test Mode:	Mode 4			Date:	08/16/2014		
Frequency:	5795MHz			Test By:	Eric Ou Yang		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2771.000	39.12	-0.77	38.35	74.00	-35.65	peak	H
4577.000	36.19	4.39	40.58	74.00	-33.42	peak	H
5850.000	34.31	6.99	41.30	78.20	-36.90	peak	H
5860.000	34.78	7.01	41.79	68.20	-26.41	peak	H
7650.000	33.38	12.27	45.65	74.00	-28.35	peak	H
2827.000	36.56	-0.62	35.94	74.00	-38.06	peak	V
4598.000	35.24	4.45	39.69	74.00	-34.31	peak	V
5850.000	32.92	6.99	39.91	78.20	-38.29	peak	V
5860.000	33.77	7.01	40.78	68.20	-27.42	peak	V
7657.000	32.43	12.28	44.71	74.00	-29.29	peak	V

Band Edge

Standard:		FCC Part 15E		Test Distance:		3m	
Test item:		Radiated Emission		Power:		AC 120V/60Hz	
Model Number:		DT10		Temp.(℃)/Hum.(%RH):		26(℃)/60%RH	
Test Mode:		Mode 2		Date:		08/16/2014	
Frequency:		5180 MHz		Test By:		Eric Ou Yang	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5146.800	51.46	5.71	57.17	74.00	-16.83	peak	H
5146.800	40.13	5.71	45.84	54.00	-8.16	AVG	H
5150.000	51.12	5.71	56.83	74.00	-17.17	peak	H
5150.000	40.89	5.71	46.60	54.00	-7.40	AVG	H
5147.500	64.06	5.71	69.77	74.00	-4.23	peak	V
5147.500	43.17	5.71	48.88	54.00	-5.12	AVG	V
5150.000	65.13	5.71	70.84	74.00	-3.16	peak	V
5150.000	44.72	5.71	50.43	54.00	-3.57	AVG	V

Standard:		FCC Part 15E			Test Distance:		3m	
Test item:		Radiated Emission			Power:		AC 120V/60Hz	
Model Number:		DT10			Temp.(°C)/Hum.(%RH):		26(°C)/60%RH	
Test Mode:		Mode 2			Date:		08/16/2014	
Frequency:		5240 MHz			Test By:		Eric Ou Yang	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V	
5350.000	45.25	6.02	51.27	74.00	-22.73	peak	H	
5414.680	48.29	6.12	54.41	74.00	-19.59	peak	H	
5414.680	36.03	6.12	42.15	54.00	-11.85	AVG	H	
5350.000	45.45	6.02	51.47	74.00	-22.53	peak	V	
5414.240	48.85	6.12	54.97	74.00	-19.03	peak	V	
5414.240	36.66	6.12	42.78	54.00	-11.22	AVG	V	

Standard:		FCC Part 15E		Test Distance:		3m	
Test item:		Radiated Emission		Power:		AC 120V/60Hz	
Model Number:		DT10		Temp.(℃)/Hum.(%RH):		26(℃)/60%RH	
Test Mode:		Mode 3		Date:		08/16/2014	
Frequency:		5180 MHz		Test By:		Eric Ou Yang	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4944.500	50.23	5.34	55.57	74.00	-18.43	peak	H
4944.500	36.32	5.34	41.66	54.00	-12.34	AVG	H
5150.000	48.45	5.71	54.16	74.00	-19.84	peak	H
5150.000	37.74	5.71	43.45	54.00	-10.55	AVG	H
5146.800	60.22	5.71	65.93	74.00	-8.07	peak	V
5146.800	41.60	5.71	47.31	54.00	-6.69	AVG	V
5150.000	59.75	5.71	65.46	74.00	-8.54	peak	V
5150.000	44.39	5.71	50.10	54.00	-3.90	AVG	V

Standard:		FCC Part 15E			Test Distance:		3m	
Test item:		Radiated Emission			Power:		AC 120V/60Hz	
Model Number:		DT10			Temp.(°C)/Hum.(%RH):		26(°C)/60%RH	
Test Mode:		Mode 3			Date:		08/16/2014	
Frequency:		5240 MHz			Test By:		Eric Ou Yang	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V	
5350.000	46.20	6.02	52.22	74.00	-21.78	peak	H	
5350.000	38.36	6.02	44.38	54.00	-9.62	AVG	H	
5416.660	48.58	6.12	54.70	74.00	-19.30	peak	H	
5416.660	37.57	6.12	43.69	54.00	-10.31	AVG	H	
5350.000	45.90	6.02	51.92	74.00	-22.08	peak	V	
5407.420	49.13	6.10	55.23	74.00	-18.77	AVG	V	
5407.420	39.14	6.10	45.24	54.00	-8.76	peak	V	

Standard:		FCC Part 15E			Test Distance:		3m	
Test item:		Radiated Emission			Power:		AC 120V/60Hz	
Model Number:		DT10			Temp.(°C)/Hum.(%RH):		26(°C)/60%RH	
Test Mode:		Mode 4			Date:		08/16/2014	
Frequency:		5190 MHz			Test By:		Eric Ou Yang	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V	
5146.800	50.05	5.71	55.76	74.00	-18.24	peak	H	
5146.800	39.88	5.71	45.59	54.00	-8.41	AVG	H	
5150.000	51.00	5.71	56.71	74.00	-17.29	peak	H	
5150.000	41.39	5.71	47.10	54.00	-6.90	AVG	H	
5147.500	59.43	5.71	65.14	74.00	-8.86	peak	V	
5147.500	45.08	5.71	50.79	54.00	-3.21	AVG	V	
5150.000	57.46	5.71	63.17	74.00	-10.83	peak	V	
5150.000	46.43	5.71	52.14	54.00	-1.86	AVG	V	

Standard:		FCC Part 15E		Test Distance:		3m	
Test item:		Radiated Emission		Power:		AC 120V/60Hz	
Model Number:		DT10		Temp.(°C)/Hum.(%RH):		26(°C)/60%RH	
Test Mode:		Mode 4		Date:		08/16/2014	
Frequency:		5230 MHz		Test By:		Eric Ou Yang	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5350.000	45.65	6.02	51.67	74.00	-22.33	peak	H
5390.540	48.31	6.08	54.39	74.00	-19.61	peak	H
5390.540	37.94	6.08	44.02	54.00	-9.98	AVG	H
5350.000	47.74	6.02	53.76	74.00	-20.24	peak	V
5350.000	37.21	6.02	43.23	54.00	-10.77	AVG	V
5407.790	49.03	6.10	55.13	74.00	-18.87	peak	V
5407.790	36.55	6.10	42.65	54.00	-11.35	AVG	V

6 Maximum Conducted Output Power

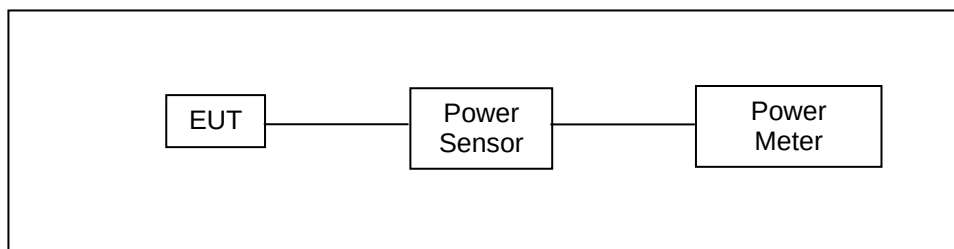
6.1. Limit

Conducted Output Power

Frequency Range (MHz)	FCC Limit
5.150 ~ 5.250 GHz	The lesser of 250mW (24dBm)
5.250 ~ 5.350 GHz	The lesser of 250mW (24dBm) or 11dBm + 10log (B)
5.470 ~ 5.725 GHz	The lesser of 250mW (24dBm) or 11dBm + 10log (B)
5.725 ~ 5.850 GHz	The lesser of 1000mW (30dBm)

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
Power Sensor	Anritsu	MA2411B	1126022	08/19/2013	(1)
Power Meter	Anritsu	ML2495A	1135009	08/19/2013	(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.

6.4. Test Procedure

The test is performed in accordance with KDB789033: D02 General UNII Test Procedures New Rules v01, Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E.

6.5. Test Result

Model Number		DT10				
Test Item		Maximum Conducted Output Power				
Test Mode		Mode 2: IEEE 802.11a Link Mode				
Date of Test		08/11/2014		Test Site	TE02	
Frequency (MHz)	Data Rate	Average Power				FCC Limit (dBm)
		Antenna 1		Antenna 2		
		(dBm)	(W)	(dBm)	(W)	
5180.0	6M	10.51	0.011	11.66	0.015	< 24
5200.0		10.33	0.011	11.64	0.015	
5220.0		10.39	0.011	11.40	0.014	
5240.0		10.06	0.010	10.98	0.013	
5745.0		11.11	0.013	11.14	0.013	< 30
5765.0		10.83	0.012	11.32	0.014	
5785.0		11.01	0.013	11.88	0.015	
5805.0		10.51	0.011	11.81	0.015	
5825.0	10.10	0.010	11.64	0.015		
5180.0	54M	9.83	0.010	11.63	0.015	< 24
5200.0		9.75	0.009	11.61	0.014	
5220.0		9.78	0.010	11.39	0.014	
5240.0		9.73	0.009	10.97	0.013	
5745.0		11.05	0.013	10.06	0.010	< 30
5765.0		10.78	0.012	10.10	0.010	
5785.0		10.71	0.012	10.18	0.010	
5805.0		10.48	0.011	10.02	0.010	
5825.0	10.03	0.010	10.14	0.010		

Model Number		DT10							
Test Item		Maximum Conducted Output Power							
Test Mode		Mode 3: IEEE 802.11n 20MHz Link Mode							
Date of Test		08/11/2014				Test Site		TE02	
Frequency (MHz)	Data Rate	Average Power						FCC Limit (dBm)	
		Antenna 1		Antenna 2		Antenna 1+2			
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)		
5180.0	13M	7.35	0.005	8.92	0.008	11.22	0.013	< 24	
5200.0		7.47	0.006	8.70	0.007	11.14	0.013		
5220.0		7.64	0.006	9.23	0.008	11.52	0.014		
5240.0		7.53	0.006	9.20	0.008	11.46	0.014		
5180.0	130M	7.30	0.005	8.90	0.008	11.18	0.013	< 24	
5200.0		7.37	0.005	8.66	0.007	11.07	0.013		
5220.0		7.53	0.006	9.18	0.008	11.44	0.014		
5240.0		7.41	0.006	9.15	0.008	11.38	0.014		
5745.0	13M	8.36	0.007	8.78	0.008	11.59	0.014	< 30	
5765.0		8.60	0.007	8.34	0.007	11.48	0.014		
5785.0		9.21	0.008	9.26	0.008	12.25	0.017		
5805.0		8.91	0.008	8.83	0.008	11.88	0.015		
5825.0		8.79	0.008	8.72	0.007	11.77	0.015		
5745.0	130M	8.24	0.007	8.75	0.007	11.51	0.014	< 30	
5765.0		8.51	0.007	8.29	0.007	11.41	0.014		
5785.0		7.95	0.006	9.10	0.008	11.57	0.014		
5805.0		8.85	0.008	8.33	0.007	11.61	0.014		
5825.0		8.75	0.007	8.63	0.007	11.70	0.015		

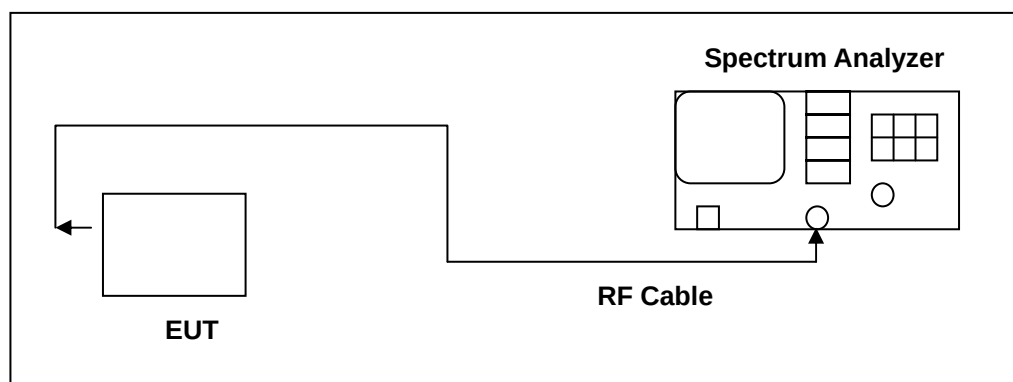
Model Number		DT10							
Test Item		Maximum Conducted Output Power							
Test Mode		Mode 4: IEEE 802.11n 40MHz Link Mode							
Date of Test		08/11/2014				Test Site		TE02	
Frequency (MHz)	Data Rate	Average Power						FCC Limit (dBm)	
		Antenna 1		Antenna 2		Antenna 1+2			
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)		
5190.0	27M	5.38	0.003	7.02	0.005	9.29	0.008	< 24	
5230.0		5.28	0.003	6.98	0.005	9.22	0.008		
5190.0	270M	5.18	0.003	6.38	0.004	8.83	0.008	< 24	
5230.0		5.13	0.003	6.57	0.005	8.92	0.008		
5755.0	27M	6.76	0.005	7.08	0.005	9.93	0.010	< 30	
5795.0		6.84	0.005	7.67	0.006	10.29	0.011		
5755.0	270M	6.42	0.004	6.97	0.005	9.71	0.009	< 30	
5795.0		6.51	0.004	7.62	0.006	10.11	0.010		

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	12/18/2013	(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.

7.4. Test Procedure

The test is performed in accordance with KDB789033: D02 General UNII Test Procedures New Rules v01, Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E.

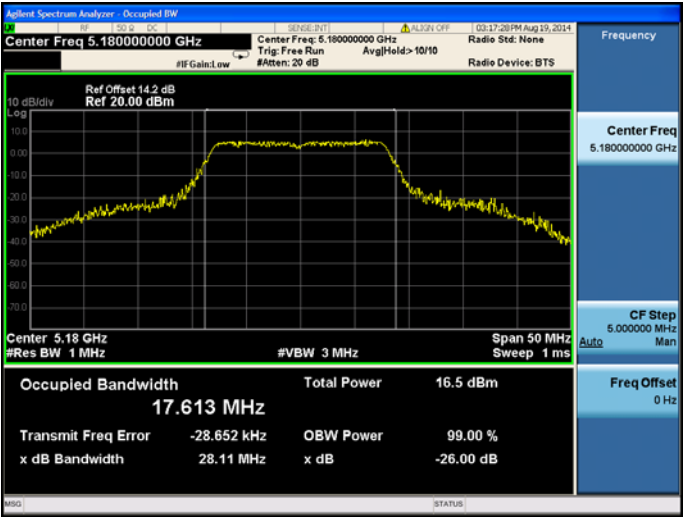
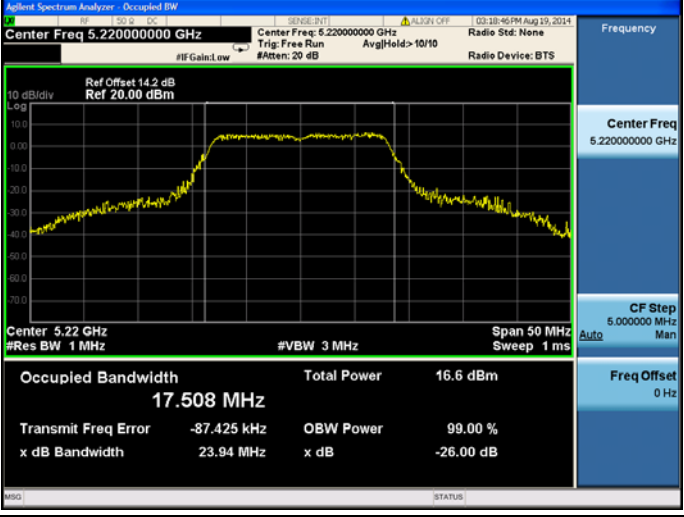
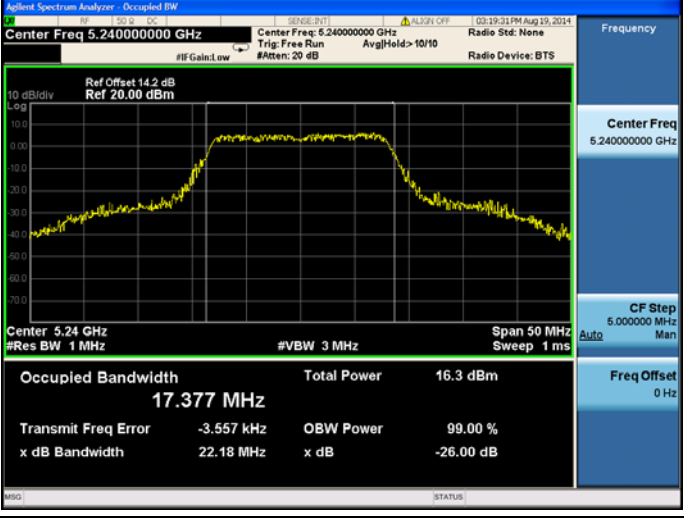
7.5. Test Result

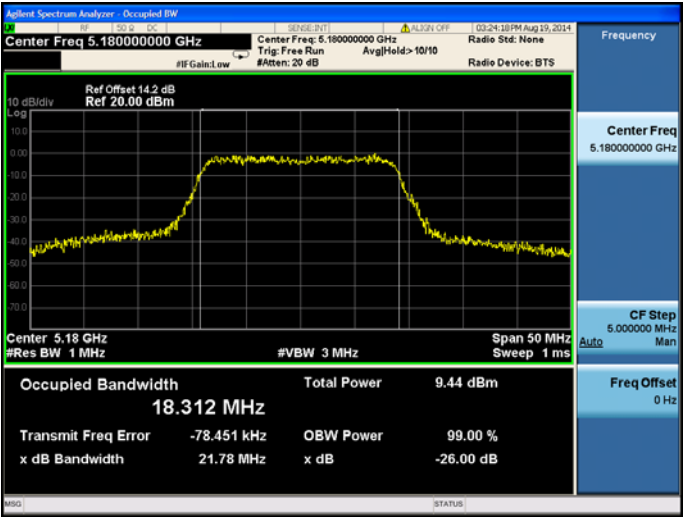
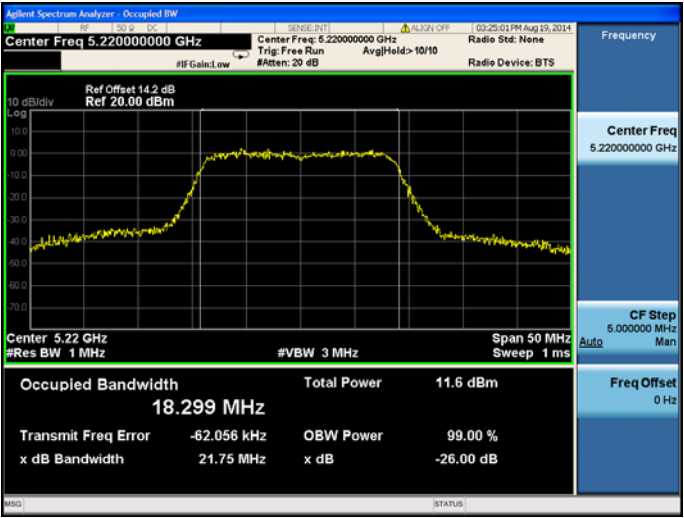
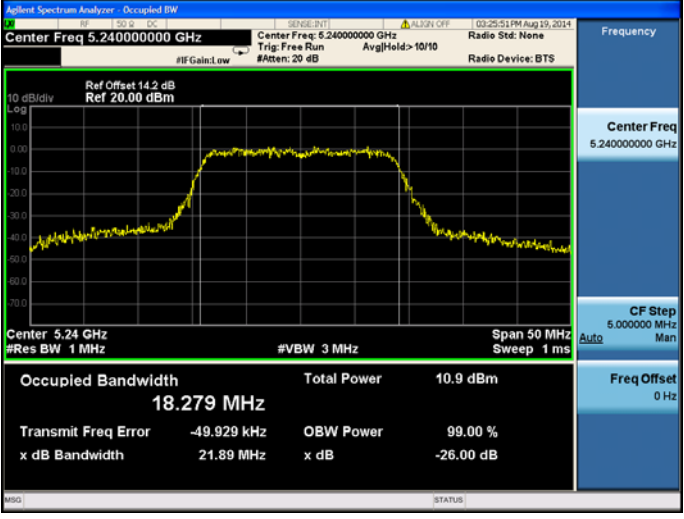
Model Number	DT10		
Test Item	26dB RF Bandwidth		
Test Mode	Mode 2: IEEE 802.11a Link Mode		
Date of Test	08/19/2014	Test Site	TE02
Frequency (MHz)	26dB Bandwidth (MHz)		
	Antenna 2		
5180	28.11		
5220	23.94		
5240	22.18		

Model Number	DT10		
Test Item	26dB RF Bandwidth		
Test Mode	Mode 3: IEEE 802.11n 20MHz Link Mode		
Date of Test	08/19/2014	Test Site	TE02
Frequency (MHz)	26dB Bandwidth (MHz)		
	Antenna 1	Antenna 2	
5180	21.78	22.05	
5220	21.75	21.67	
5240	21.89	22.02	

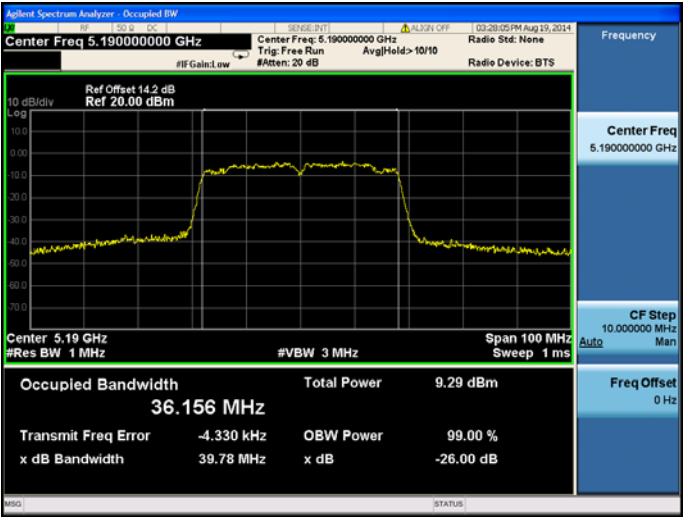
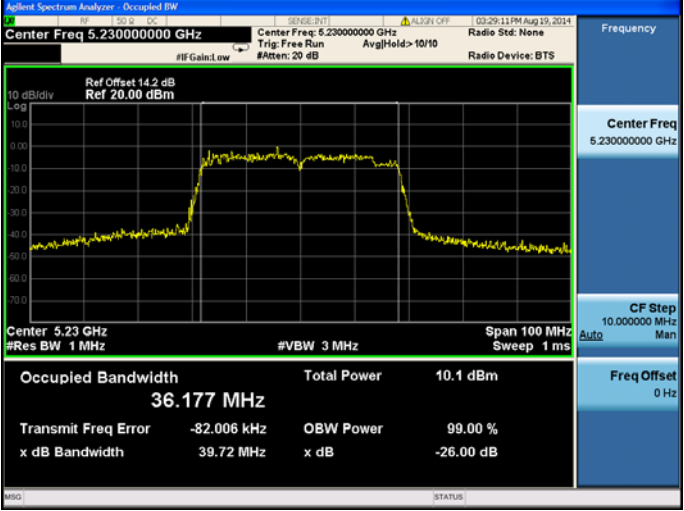
Model Number	DT10		
Test Item	26dB RF Bandwidth		
Test Mode	Mode 4: IEEE 802.11n 40MHz Link Mode		
Date of Test	08/19/2014	Test Site	TE02
Frequency (MHz)	26dB Bandwidth (MHz)		
	Antenna 1	Antenna 2	
5190	39.78	40.01	
5230	39.72	39.84	

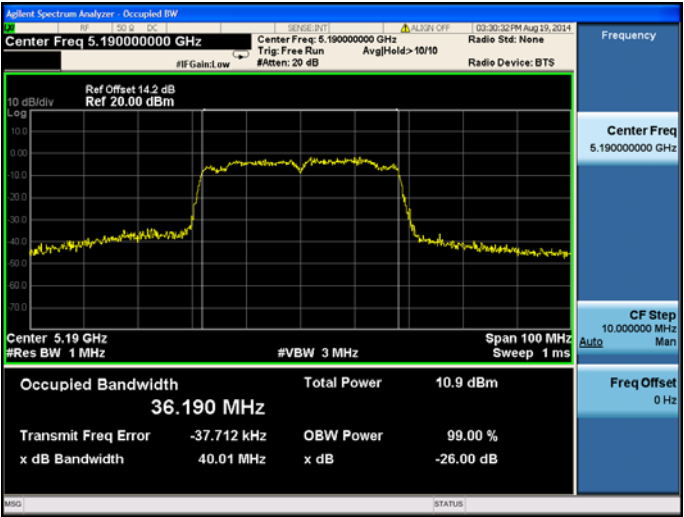
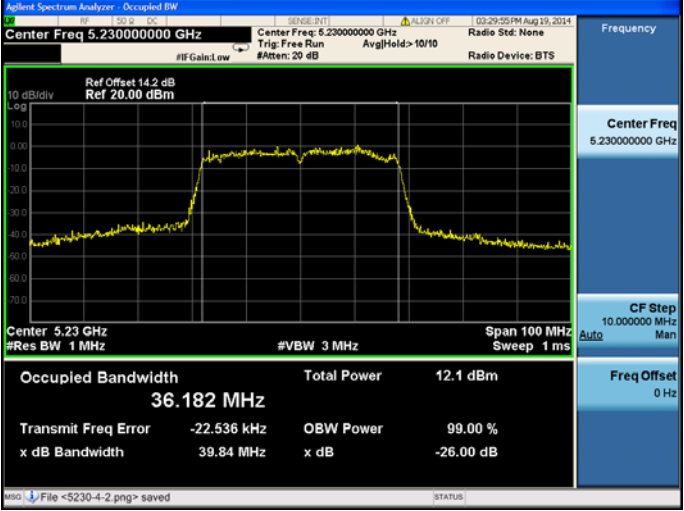
7.6. Test Graphs

Mode 2: IEEE 802.11a Link Mode (Antenna 2)	
5180	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.180000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Center 5.18 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Occupied Bandwidth 17.613 MHz Total Power 16.5 dBm Transmit Freq Error -28.652 kHz OBW Power 99.00 % x dB Bandwidth 28.11 MHz x dB -26.00 dB Frequency Center Freq 5.180000000 GHz CF Step 5.000000 MHz Auto Freq Offset 0 Hz
5220	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.220000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Center 5.22 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Occupied Bandwidth 17.508 MHz Total Power 16.6 dBm Transmit Freq Error -87.425 kHz OBW Power 99.00 % x dB Bandwidth 23.94 MHz x dB -26.00 dB Frequency Center Freq 5.220000000 GHz CF Step 5.000000 MHz Auto Freq Offset 0 Hz
5240	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.240000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Center 5.24 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Occupied Bandwidth 17.377 MHz Total Power 16.3 dBm Transmit Freq Error -3.557 kHz OBW Power 99.00 % x dB Bandwidth 22.18 MHz x dB -26.00 dB Frequency Center Freq 5.240000000 GHz CF Step 5.000000 MHz Auto Freq Offset 0 Hz

Mode 3: IEEE 802.11n 20MHz Link Mode (Antenna 1)	
5180	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.180000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Center 5.18 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Occupied Bandwidth 18.312 MHz Total Power 9.44 dBm Transmit Freq Error -78.451 kHz OBW Power 99.00 % x dB Bandwidth 21.78 MHz x dB -26.00 dB Radio Device: BTS Frequency Center Freq 5.180000000 GHz CF Step 5.000000 MHz Freq Offset 0 Hz
5220	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.220000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Center 5.22 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Occupied Bandwidth 18.299 MHz Total Power 11.6 dBm Transmit Freq Error -62.056 kHz OBW Power 99.00 % x dB Bandwidth 21.75 MHz x dB -26.00 dB Radio Device: BTS Frequency Center Freq 5.220000000 GHz CF Step 5.000000 MHz Freq Offset 0 Hz
5240	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.240000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Center 5.24 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Occupied Bandwidth 18.279 MHz Total Power 10.9 dBm Transmit Freq Error -49.929 kHz OBW Power 99.00 % x dB Bandwidth 21.89 MHz x dB -26.00 dB Radio Device: BTS Frequency Center Freq 5.240000000 GHz CF Step 5.000000 MHz Freq Offset 0 Hz

Mode 3: IEEE 802.11n 20MHz Link Mode (Antenna 2)	
5180	Agilent Spectrum Analyzer - Occupied BW Center Freq 5.180000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Center 5.18 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Occupied Bandwidth 18.271 MHz Total Power 11.2 dBm Transmit Freq Error -32.534 kHz x dB Bandwidth 22.05 MHz OBW Power 99.00 % x dB -26.00 dB Frequency Center Freq 5.180000000 GHz CF Step 5.000000 MHz Freq Offset 0 Hz
5220	Agilent Spectrum Analyzer - Occupied BW Center Freq 5.220000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Center 5.22 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Occupied Bandwidth 18.237 MHz Total Power 12.8 dBm Transmit Freq Error -17.803 kHz x dB Bandwidth 21.67 MHz OBW Power 99.00 % x dB -26.00 dB Frequency Center Freq 5.220000000 GHz CF Step 5.000000 MHz Freq Offset 0 Hz
5240	Agilent Spectrum Analyzer - Occupied BW Center Freq 5.240000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Center 5.24 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Occupied Bandwidth 18.243 MHz Total Power 14.4 dBm Transmit Freq Error -49.048 kHz x dB Bandwidth 22.02 MHz OBW Power 99.00 % x dB -26.00 dB Frequency Center Freq 5.240000000 GHz CF Step 5.000000 MHz Freq Offset 0 Hz

Mode 4: IEEE 802.11n 40MHz Link Mode (Antenna 1)	
5190	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.190000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Center 5.19 GHz #Res BW 1 MHz #VBW 3 MHz Span 100 MHz Sweep 1 ms Occupied Bandwidth 36.156 MHz Total Power 9.29 dBm Transmit Freq Error -4.330 kHz OBW Power 99.00 % x dB Bandwidth 39.78 MHz x dB -26.00 dB Frequency Center Freq 5.190000000 GHz CF Step 10.000000 MHz Auto Man Freq Offset 0 Hz
5230	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.230000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Center 5.23 GHz #Res BW 1 MHz #VBW 3 MHz Span 100 MHz Sweep 1 ms Occupied Bandwidth 36.177 MHz Total Power 10.1 dBm Transmit Freq Error -32.006 kHz OBW Power 99.00 % x dB Bandwidth 39.72 MHz x dB -26.00 dB Frequency Center Freq 5.230000000 GHz CF Step 10.000000 MHz Auto Man Freq Offset 0 Hz

Mode 4: IEEE 802.11n 40MHz Link Mode (Antenna 2)	
5190	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.190000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Center 5.19 GHz #Res BW 1 MHz #VBW 3 MHz Span 100 MHz Sweep 1 ms Occupied Bandwidth 36.190 MHz Total Power 10.9 dBm Transmit Freq Error -37.712 kHz OBW Power 99.00 % x dB Bandwidth 40.01 MHz x dB -26.00 dB Frequency Center Freq 5.190000000 GHz CF Step 10.000000 MHz Auto Man Freq Offset 0 Hz
5230	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.230000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Center 5.23 GHz #Res BW 1 MHz #VBW 3 MHz Span 100 MHz Sweep 1 ms Occupied Bandwidth 36.182 MHz Total Power 12.1 dBm Transmit Freq Error -22.536 kHz OBW Power 99.00 % x dB Bandwidth 39.84 MHz x dB -26.00 dB Frequency Center Freq 5.230000000 GHz CF Step 10.000000 MHz Auto Man Freq Offset 0 Hz File <5230-4-2.png> saved

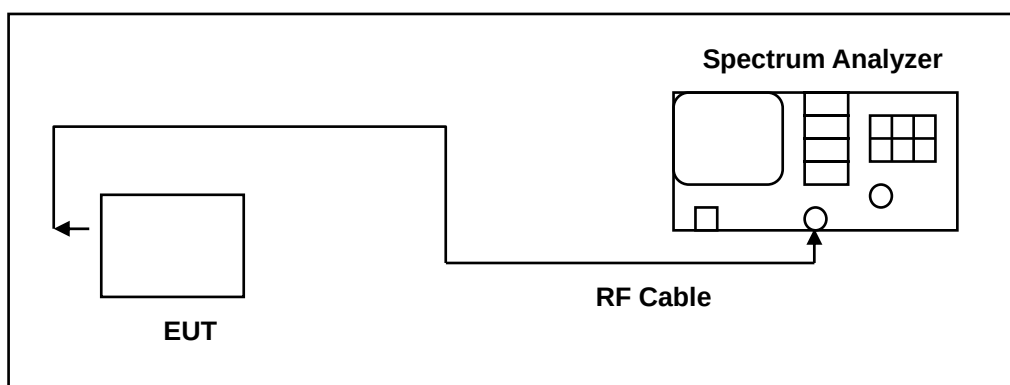
8 6dB RF Bandwidth

8.1. Limit

6dB RF Bandwidth

Systems using digital modulation techniques may operate in the 5725~5850MHz bands. The minimum 6 dB band-width shall be at least 500 kHz.

8.2. Test Setup



8.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/18/2013	(2)
Test Site	ATL	TE05	TE05	N.C.R.	-----

dRemark: (1) Calibration period 1 year. (2) Calibration period 2 years. (3) Calibration period 3 years.

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

8.4. Test Procedure

6dB RF Bandwidth

The EUT was setup to ANSI C63.4, 2009; tested to UNII test procedure of KDB789033 D02 for compliance to FCC 47CFR 15.247 requirements.

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RES BW was set to 100 kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A peak output reading was taken, a DISPLAY line was drawn 6 dB lower than peak level. The 6 dB bandwidth was determined from where the channel output spectrum intersected the display line.

The test was performed at 3 channels.

8.5. Test Result

Model Number	DT10		
Test Item	6dB RF Bandwidth & 99 % Occupied Bandwidth		
Test Mode	Mode 2: IEEE 802.11a Link Mode		
Date of Test	08/19/2014	Test Site	TE05
Frequency (MHz)	6dB Bandwidth (MHz)	6dB Bandwidth Limit (kHz)	
	Antenna 2		
5745	16.34	> 500	
5785	16.33	> 500	
5825	16.36	> 500	

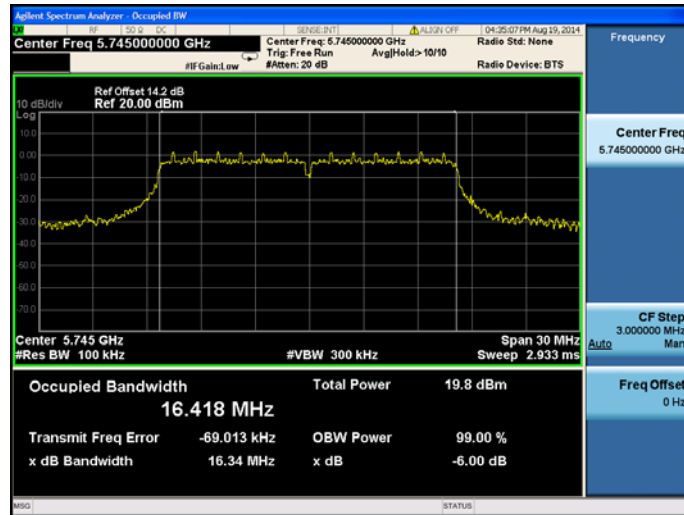
Model Number	DT10		
Test Item	6dB RF Bandwidth & 99 % Occupied Bandwidth		
Test Mode	Mode 3: IEEE 802.11n 20MHz Link Mode		
Date of Test	08/19/2014	Test Site	TE05
Frequency (MHz)	6dB Bandwidth (MHz)		6dB Bandwidth Limit (kHz)
	Antenna 1	Antenna 2	
5745	17.59	17.62	> 500
5785	17.62	17.61	> 500
5825	17.58	17.60	> 500

Model Number	DT10		
Test Item	6dB RF Bandwidth & 99 % Occupied Bandwidth		
Test Mode	Mode 4: IEEE 802.11n 40MHz Link Mode		
Date of Test	08/19/2014	Test Site	TE05
Frequency (MHz)	6dB Bandwidth (MHz)		6dB Bandwidth Limit (kHz)
	Antenna 1	Antenna 2	
5755	35.41	35.39	> 500
5795	35.07	35.15	> 500

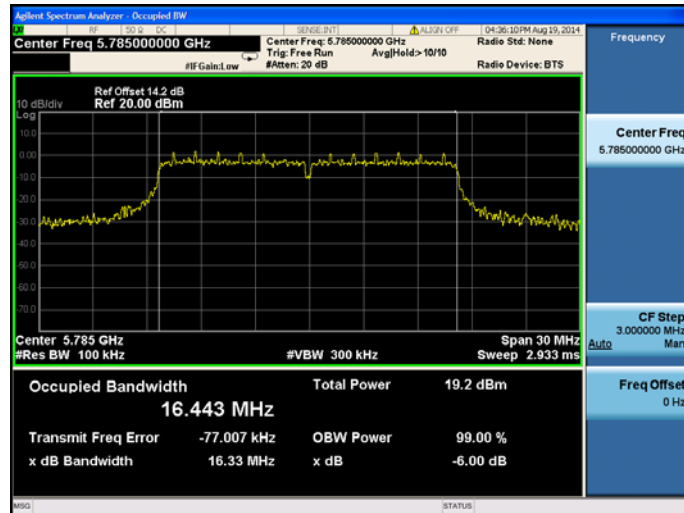
8.6. Test Graphs

Mode 2: IEEE 802.11a Link Mode (Antenna 2)

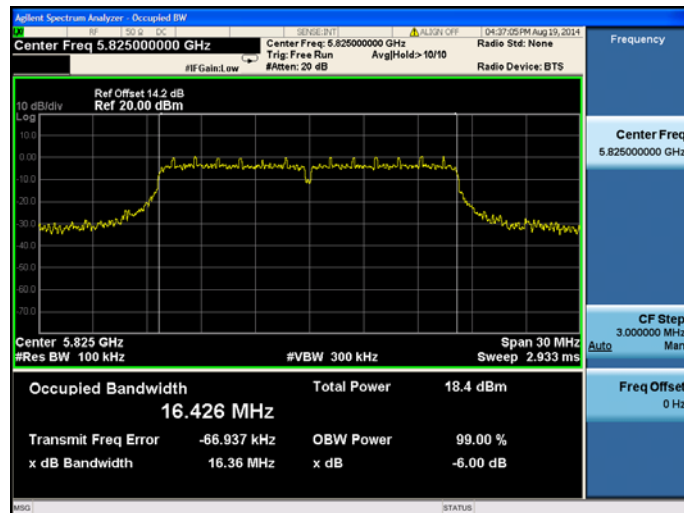
5745



5785

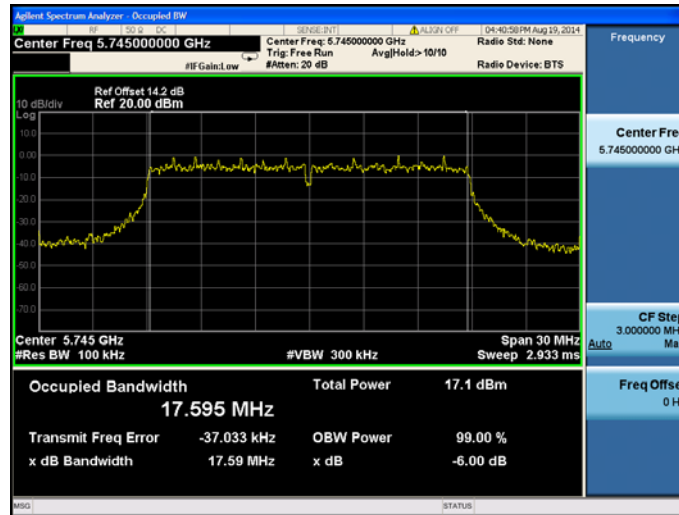


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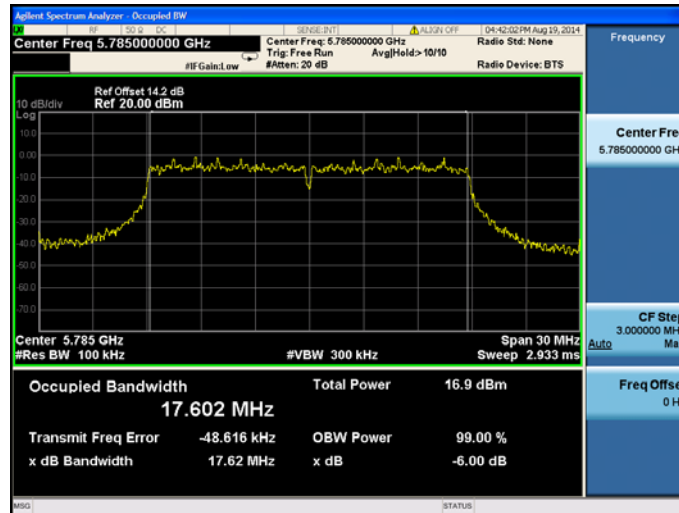


Mode 3: IEEE 802.11n 20MHz Link Mode (Antenna 1)

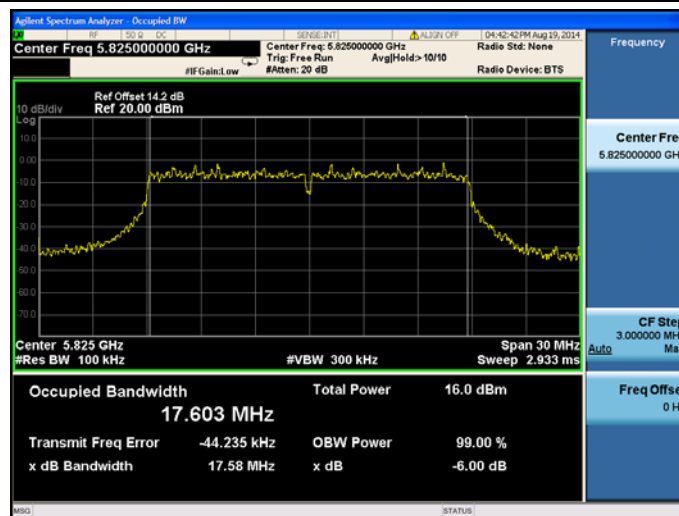
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5785

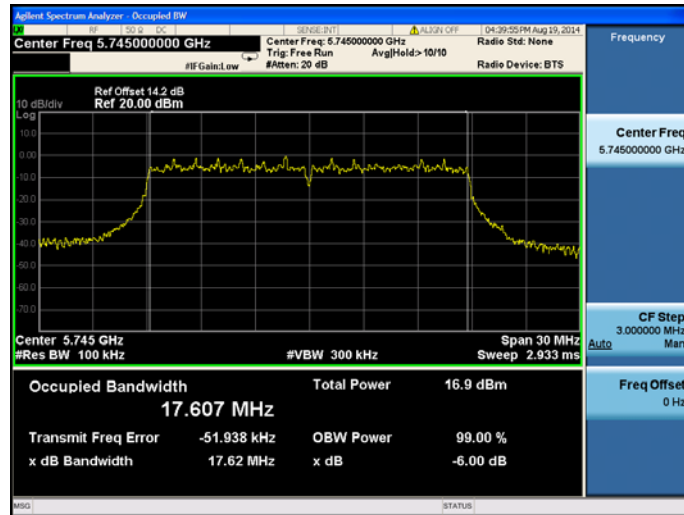


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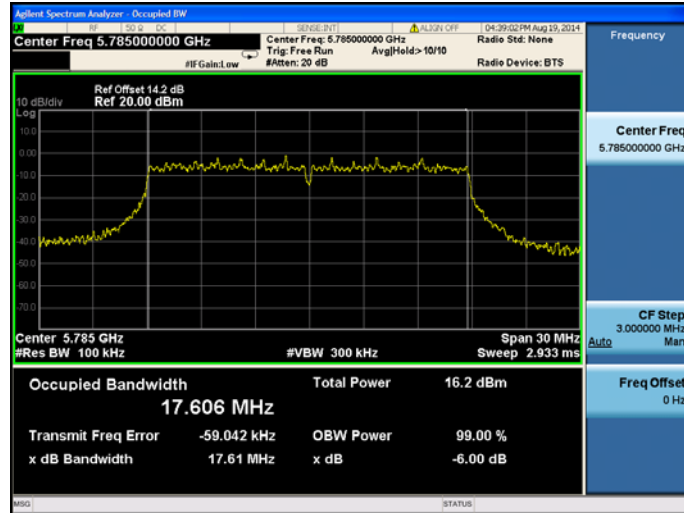


Mode 3: IEEE 802.11n 20MHz Link Mode (Antenna 2)

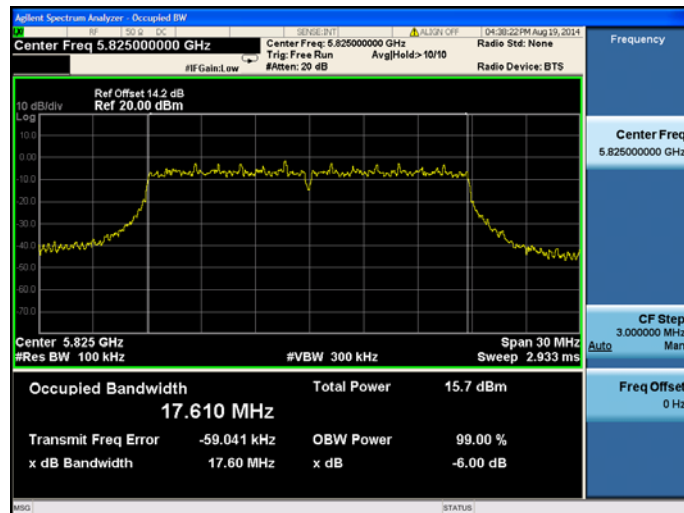
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5785

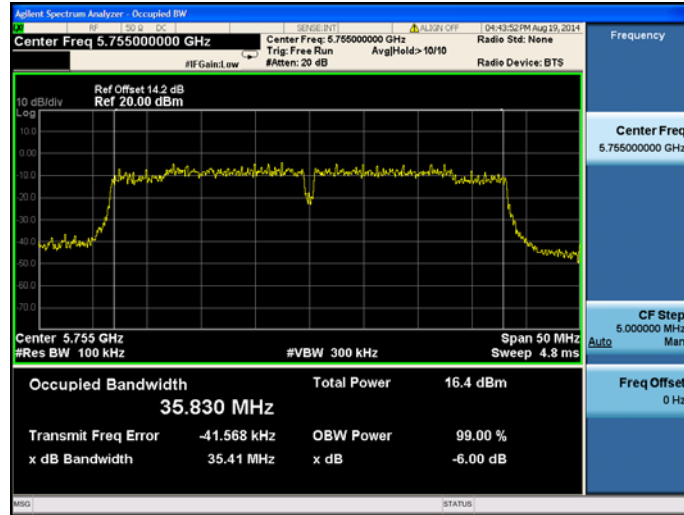


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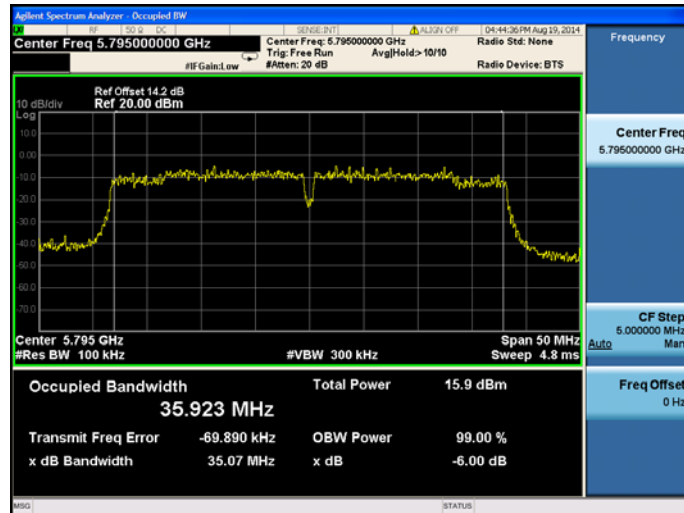


Mode 4: IEEE 802.11n 40MHz Link Mode (Antenna 1)

5755

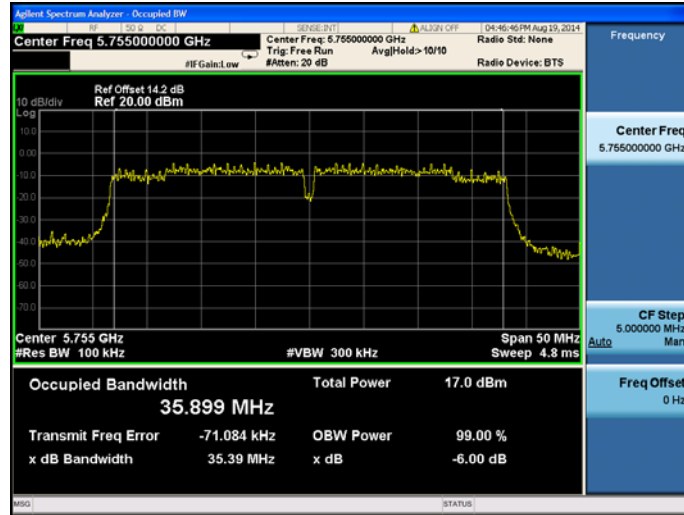


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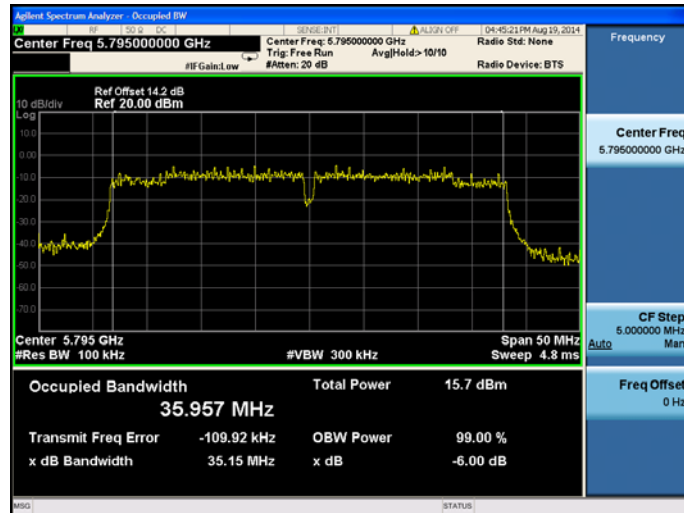


Mode 4: IEEE 802.11n 40MHz Link Mode (Antenna 2)

5755



5795



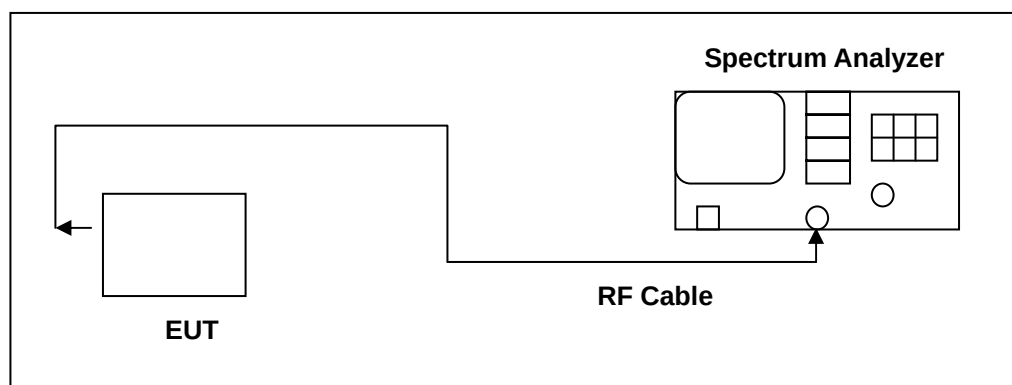
9 Peak Power Spectral Density Measurement

9.1. Limit

Conducted power spectral density

Frequency Range (MHz)	FCC Limit
5.150 ~ 5.250 GHz	11 dBm/MHz
5.250 ~ 5.350 GHz	11 dBm/MHz
5.470 ~ 5.725 GHz	11 dBm/MHz
5.725 ~ 5.850 GHz	30 dBm/500KHz

9.2. Test Setup



9.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/18/2013	(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.

9.4. Test Procedure

The test is performed in accordance with KDB789033: D02 General UNII Test Procedures New Rules v01, Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E.

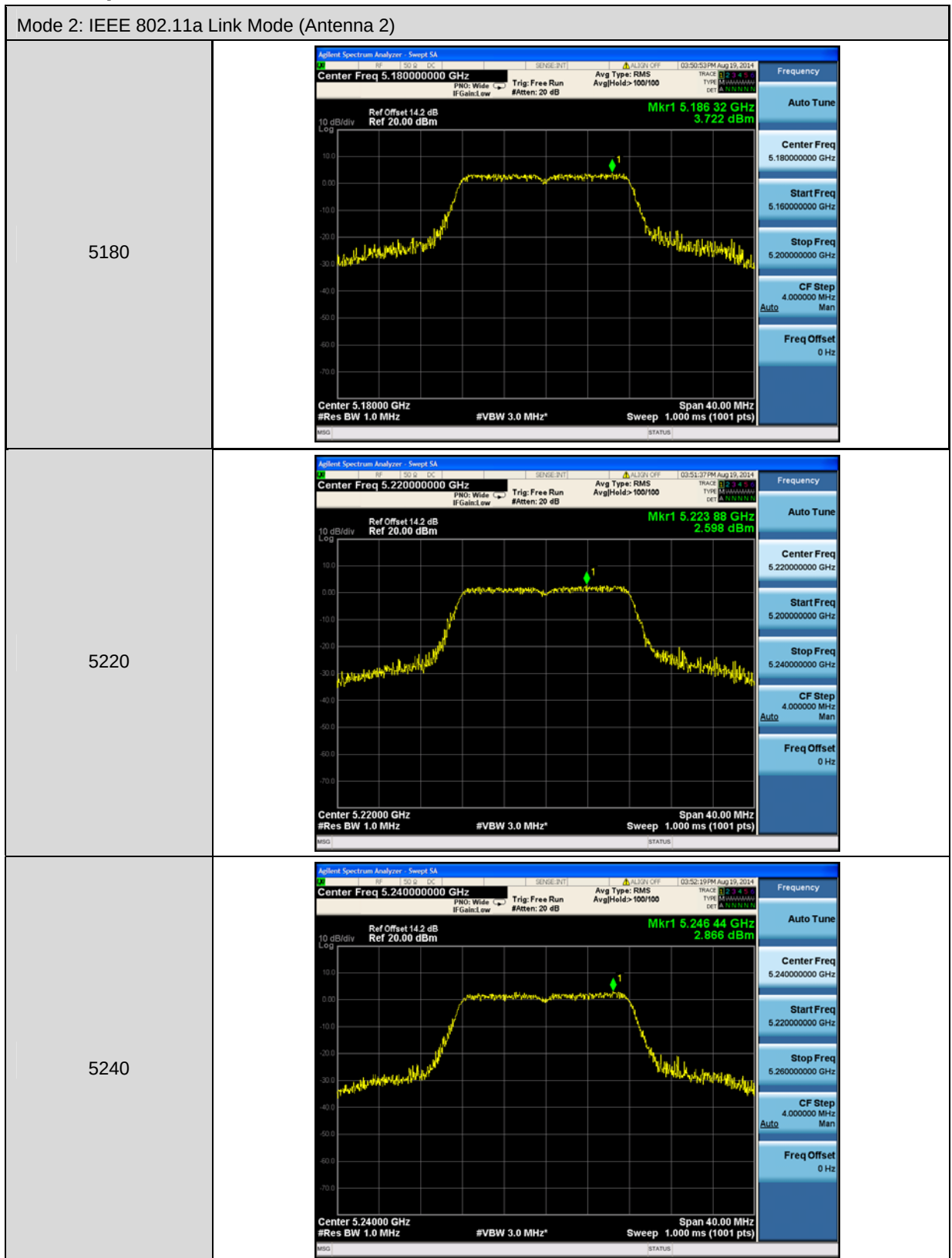
9.5. Test Result

Model Number	DT10		
Test Item	Conducted power spectral density		
Test Mode	Mode 2: IEEE 802.11a Link Mode		
Date of Test	08/19/2014	Test Site	TE02
Frequency (MHz)	Antenna 2		FCC Limit (dBm/MHz)
	Measurement (dBm/MHz)		
5180	3.72		< 11
5220	2.60		
5240	2.87		
Frequency (MHz)	Antenna 2		FCC Limit (dBm/500KHz)
	Measurement (dBm/100KHz)	Measurement (dBm/500KHz)	
5745	1.73	8.72	< 30
5785	1.63	8.62	
5825	0.56	7.55	

Model Number	DT10				
Test Item	Conducted power spectral density				
Test Mode	Mode 3: IEEE 802.11n 20MHz Link Mode				
Date of Test	08/19/2014	Test Site	TE02		
Frequency (MHz)	Measurement (dBm/MHz)				FCC Limit (dBm/MHz)
	Antenna 1	Antenna 2	Antenna 1+2		
5180	-1.27	0.38	2.64		< 11
5220	0.04	2.60	4.52		
5240	1.62	2.40	5.04		
Frequency (MHz)	Antenna 1	Antenna 2	Antenna 1+2		FCC Limit (dBm/500KHz)
	Measurement (dBm/100KHz)	Measurement (dBm/500KHz)	Measurement (dBm/100KHz)	Measurement (dBm/500KHz)	
5745	-1.16	5.83	-0.03	6.96	< 30
5785	-2.05	4.94	-0.52	6.47	
5825	-2.28	4.71	0.42	7.41	

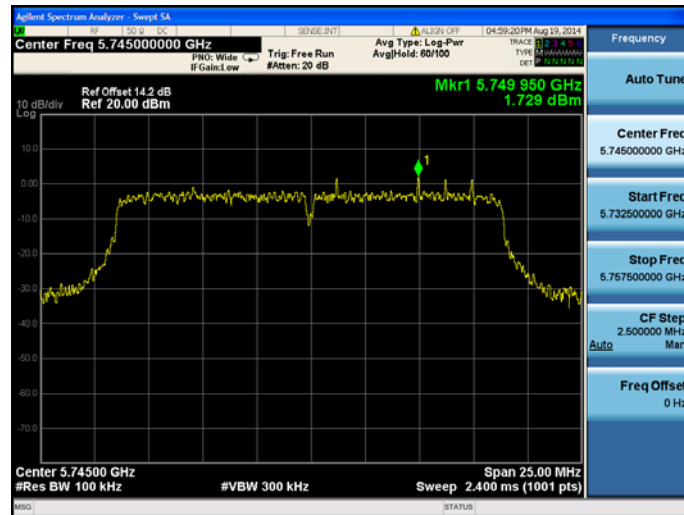
Model Number	DT10					
Test Item	Conducted power spectral density					
Test Mode	Mode 4: IEEE 802.11n 40MHz Link Mode					
Date of Test	08/19/2014			Test Site		TE02
Frequency (MHz)	Measurement (dBm/MHz)					FCC Limit (dBm/MHz)
	Antenna 1		Antenna 2		Antenna 1+2	
5190	-4.02		-3.01		-0.47	< 11
5230	-2.17		-1.92		0.97	
Frequency (MHz)	Antenna 1		Antenna 2		Antenna 1+2	FCC Limit (dBm/500KHz)
	Measurement (dBm/100KHz)	Measurement (dBm/500KHz)	Measurement (dBm/100KHz)	Measurement (dBm/500KHz)	Measurement (dBm/500KHz)	
5755	-4.33	2.66	-4.14	2.85	5.77	< 30
5795	-4.87	2.12	-4.82	2.17	5.16	

9.6. Test Graphs

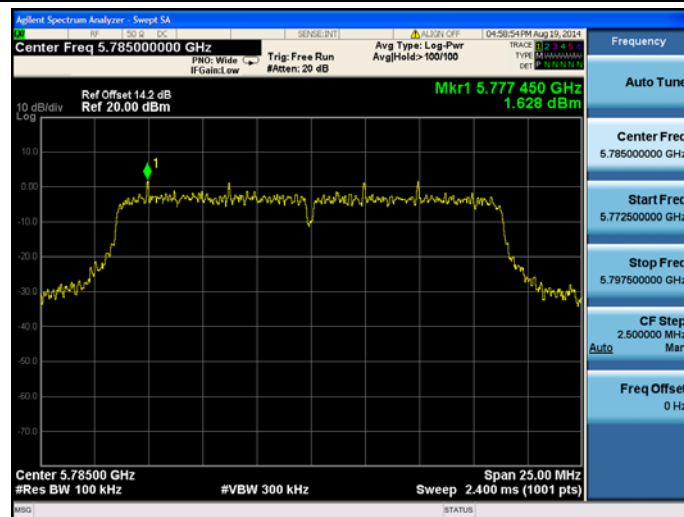


Mode 2: IEEE 802.11a Link Mode (Antenna 2)

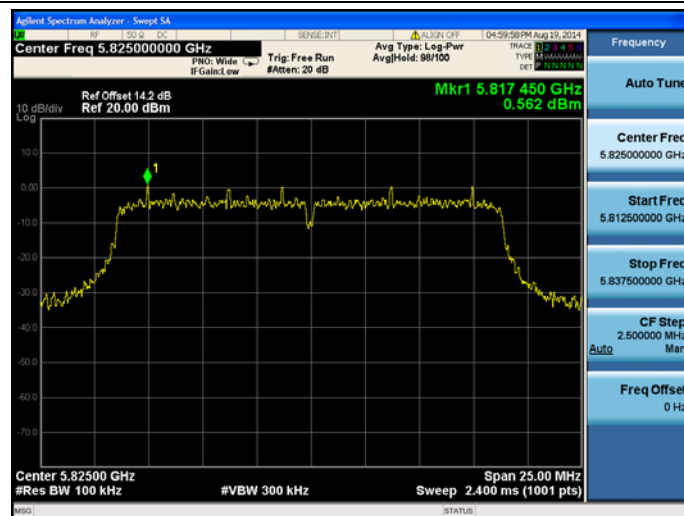
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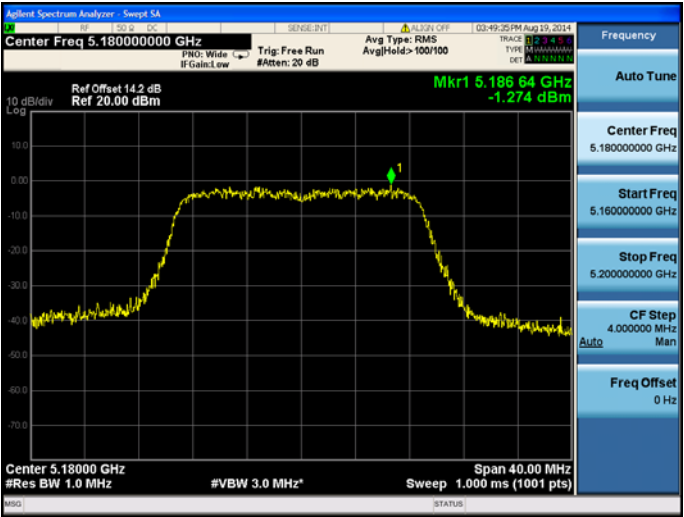
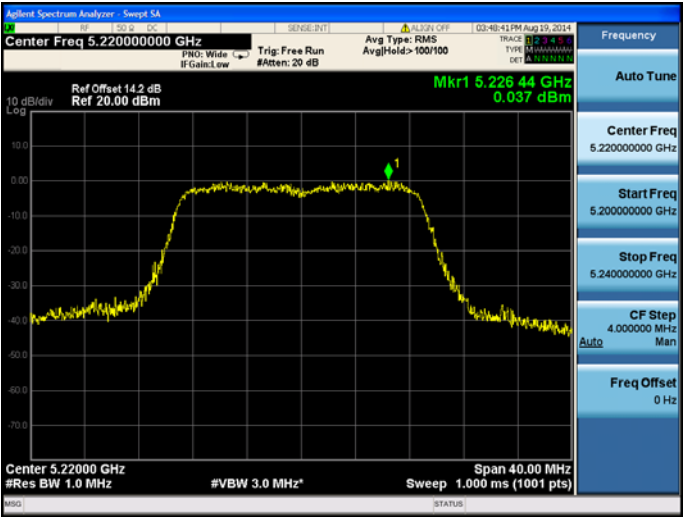


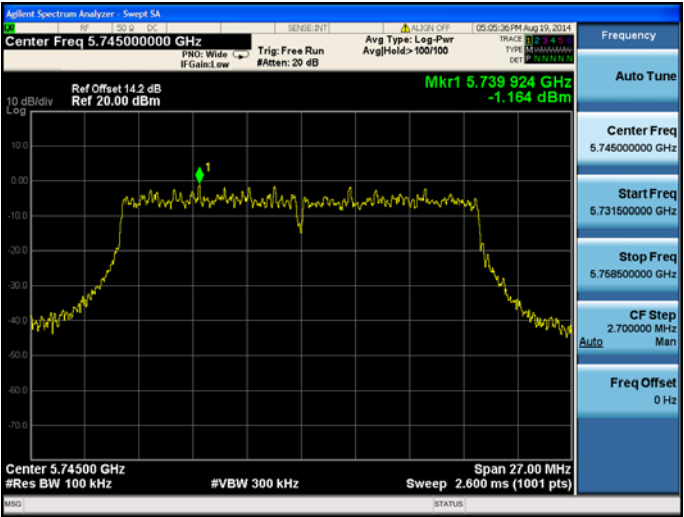
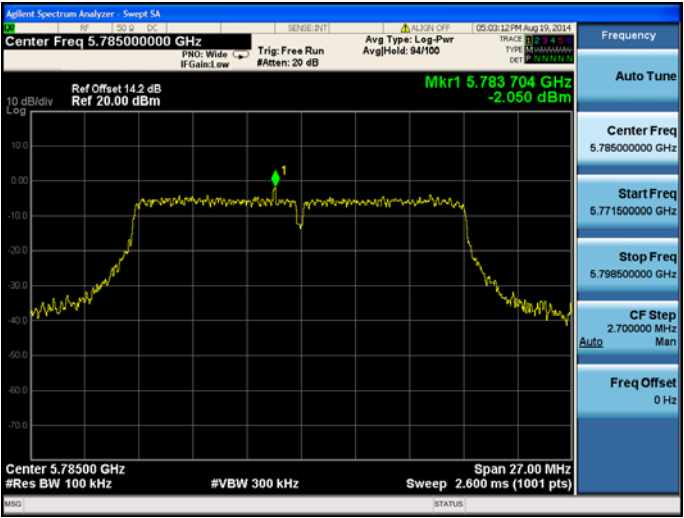
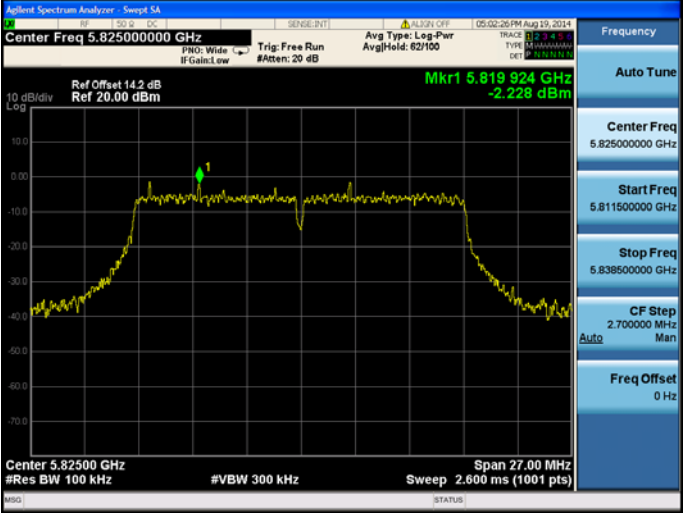
5785

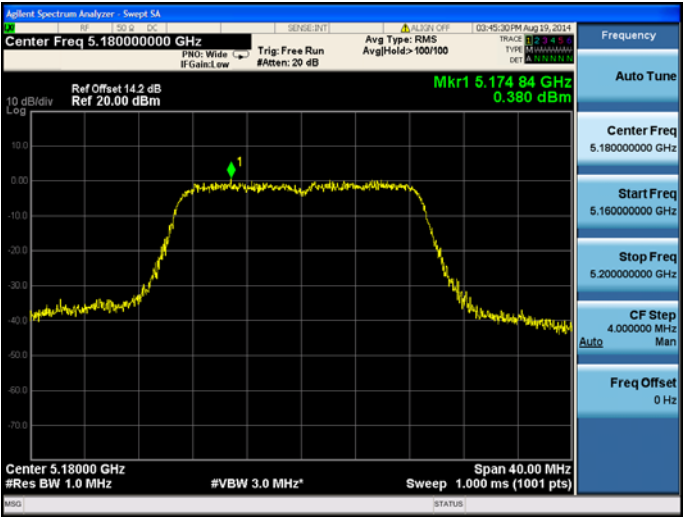
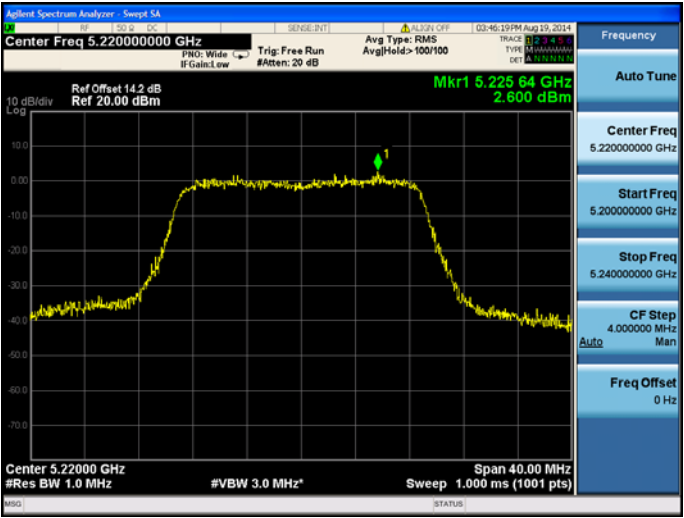


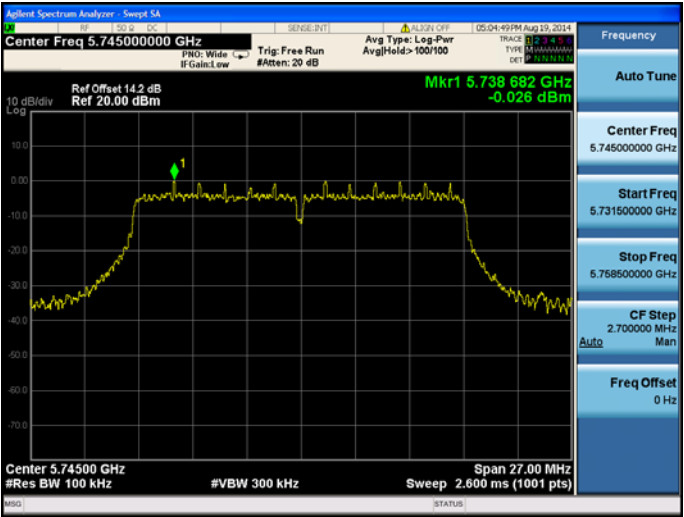
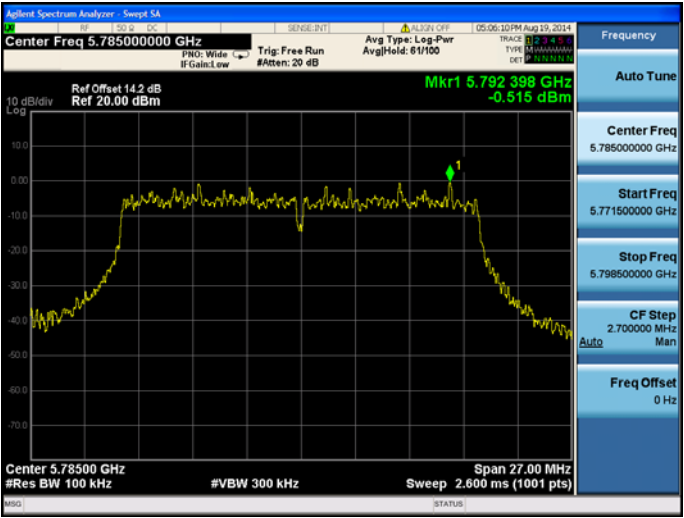
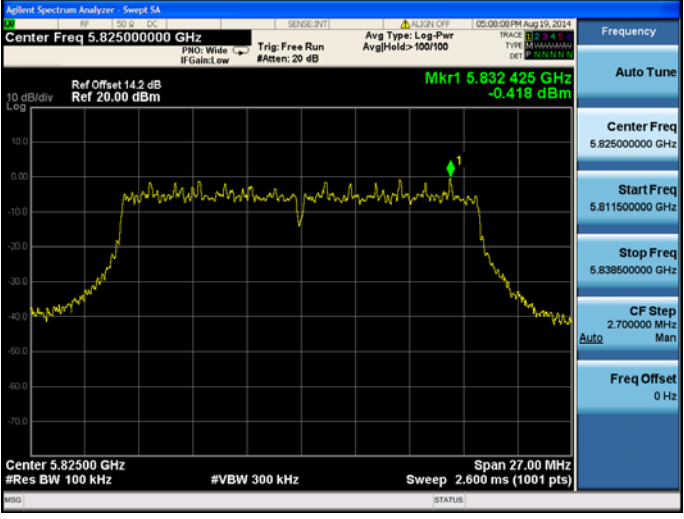
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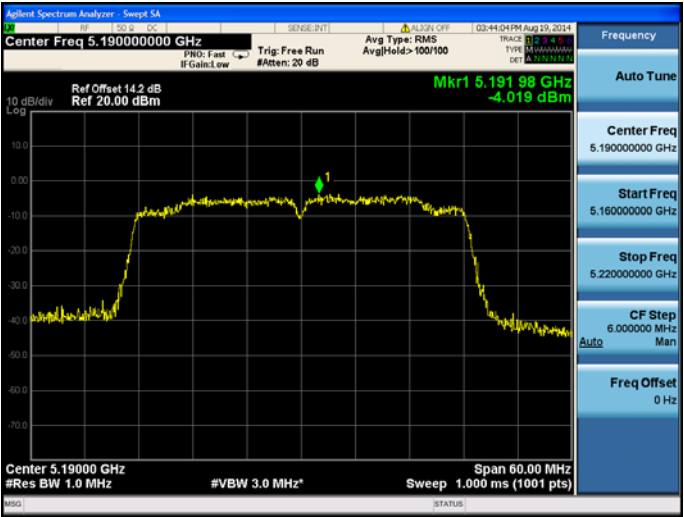


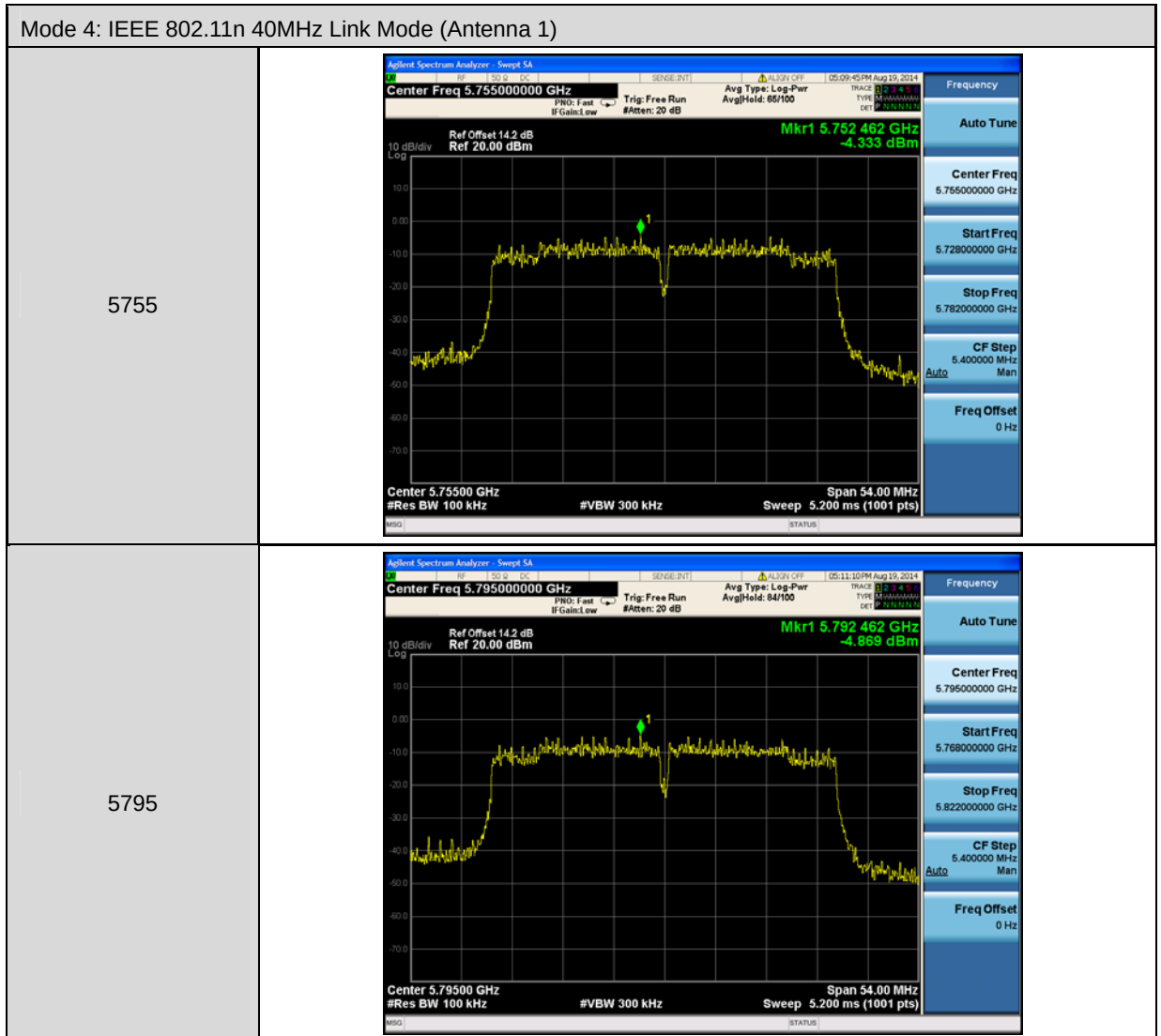
Mode 3: IEEE 802.11n 20MHz Link Mode (Antenna 1)	
5180	
5220	
5240	

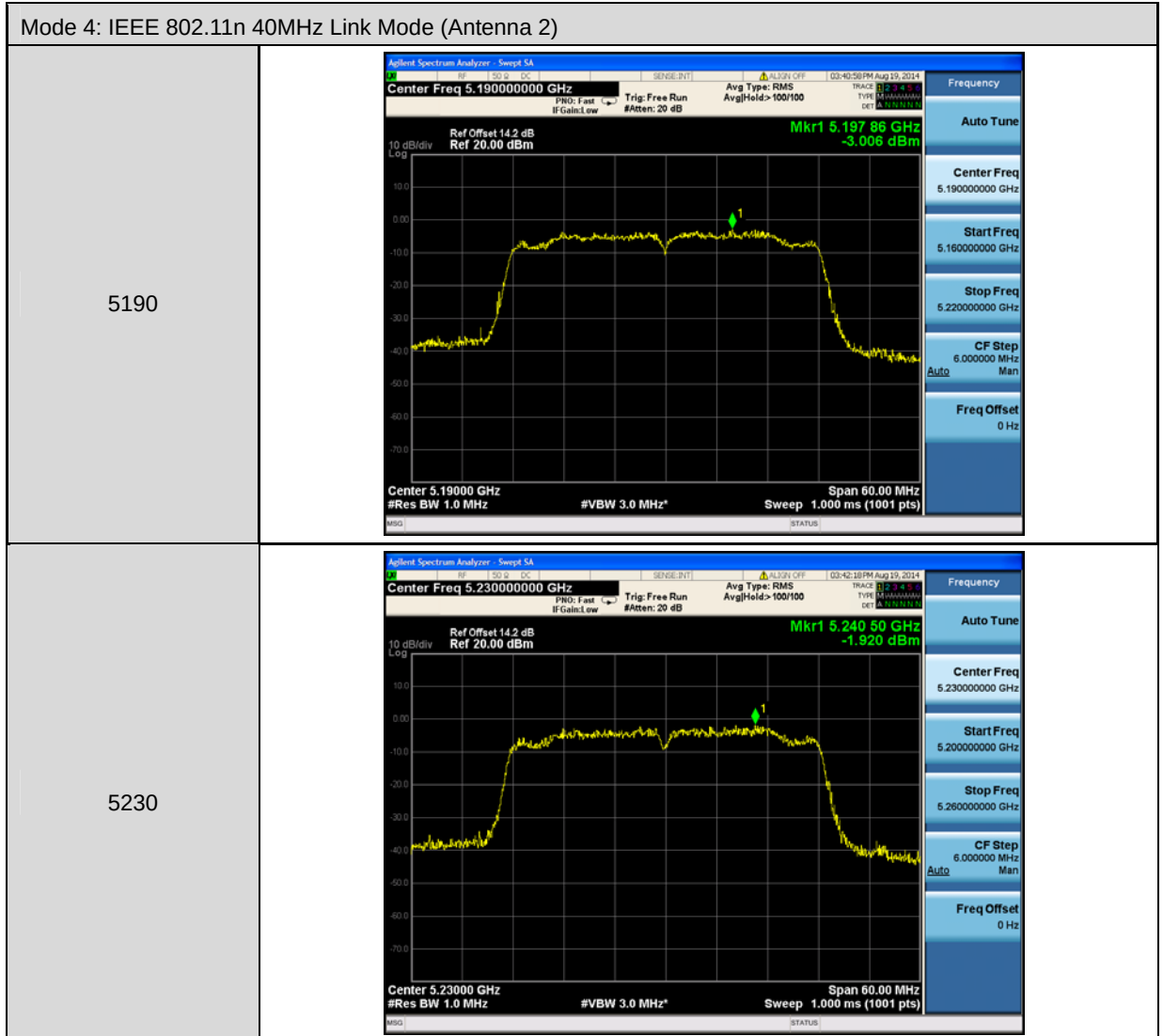
Mode 3: IEEE 802.11n 20MHz Link Mode (Antenna 1)	
5745	
5785	
5825	

Mode 3: IEEE 802.11n 20MHz Link Mode (Antenna 2)	
5180	
5220	
5240	

Mode 3: IEEE 802.11n 20MHz Link Mode (Antenna 2)	
5745	 Agilent Spectrum Analyzer - Sweep SA Center Freq 5.745000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Mkr1 5.738 682 GHz -0.026 dBm Span 27.00 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.600 ms (1001 pts)
5785	 Agilent Spectrum Analyzer - Sweep SA Center Freq 5.785000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Mkr1 5.792 398 GHz -0.515 dBm Span 27.00 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.600 ms (1001 pts)
5825	 Agilent Spectrum Analyzer - Sweep SA Center Freq 5.825000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Mkr1 5.832 425 GHz -0.418 dBm Span 27.00 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.600 ms (1001 pts)

Mode 4: IEEE 802.11n 40MHz Link Mode (Antenna 1)	
5190	 Agilent Spectrum Analyzer: Sweep SA Center Freq 5.190000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Mkr1 5.191 98 GHz -4.019 dBm Auto Tune Center Freq 5.190000000 GHz Start Freq 5.160000000 GHz Stop Freq 5.220000000 GHz CF Step 6.000000 MHz Auto Freq Offset 0 Hz Center 5.19000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Span 60.00 MHz Sweep 1.000 ms (1001 pts)
5230	 Agilent Spectrum Analyzer: Sweep SA Center Freq 5.230000000 GHz Ref Offset 14.2 dB Ref 20.00 dBm Mkr1 5.240 38 GHz -2.168 dBm Auto Tune Center Freq 5.230000000 GHz Start Freq 5.200000000 GHz Stop Freq 5.260000000 GHz CF Step 6.000000 MHz Auto Freq Offset 0 Hz Center 5.23000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Span 60.00 MHz Sweep 1.000 ms (1001 pts)

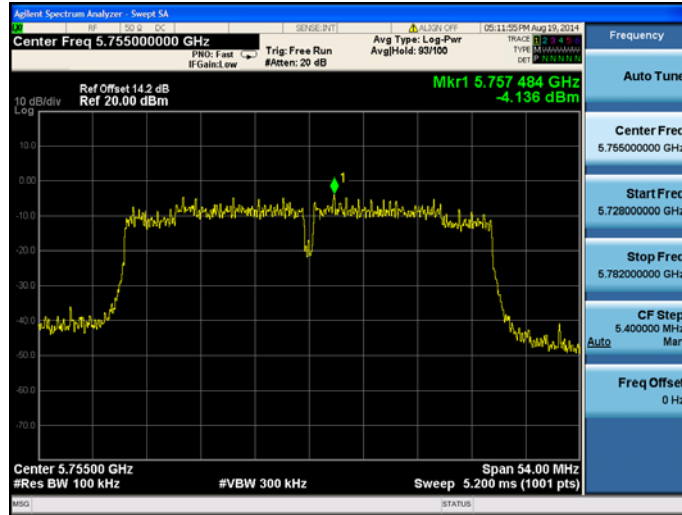




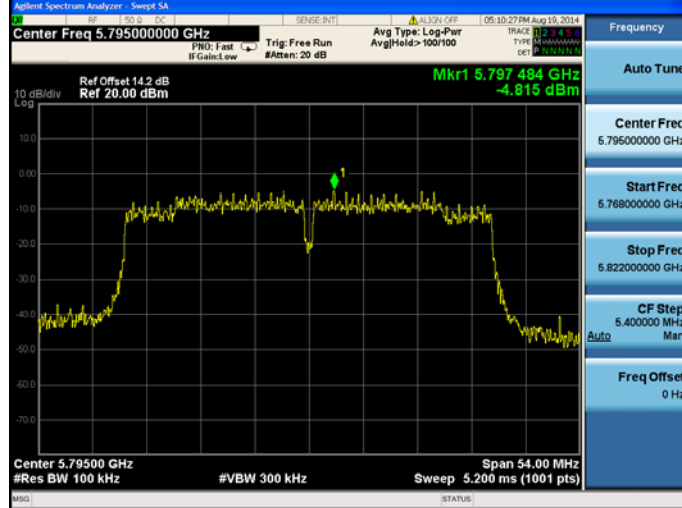


Mode 4: IEEE 802.11n 40MHz Link Mode (Antenna 2)

5755



5795

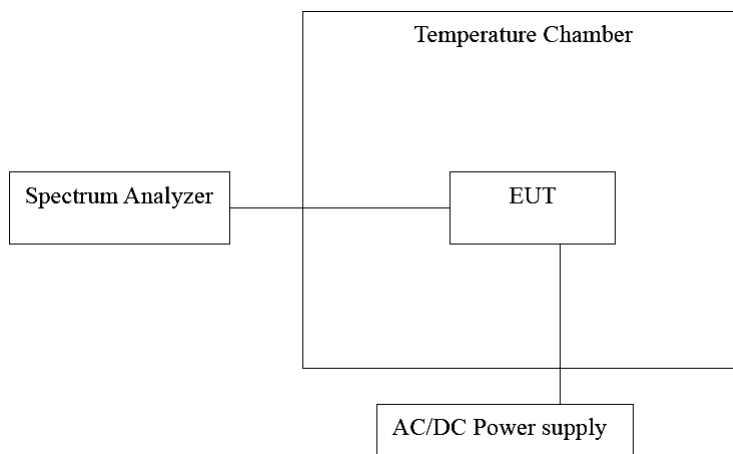


10 Frequency Stability Measurement

10.1. 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.

10.2. Test Setup



10.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4408B	MY45107753	07/24/2013	(1)
Temperature & Humidity Chamber	TAICHY	MHU-225LA	980729	08/07/2013	(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

1. The EUT was placed inside the environmental test chamber and powered by nominal AC/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.

10.5. Test Result

Temperature Variations

Model Number	DT10				
Test Mode	Mode 2				
Frequency	5220 MHz				
Date of Test	08/19/2014			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
-30	120	5219.9082	-91800	17.586	Pass
-20		5219.9196	-80400	15.402	Pass
-10		5219.9595	-40500	7.759	Pass
0		5219.9131	-86900	16.648	Pass
10		5219.9893	-10700	2.050	Pass
20		5219.9408	-59200	11.341	Pass
30		5219.9243	-75700	14.502	Pass
40		5219.9261	-73900	14.157	Pass
50		5219.9547	-45300	8.678	Pass

Note: The manufacturer's frequency stability specification is better than 20ppm.

Model Number	DT10				
Test Mode	Mode 2				
Frequency	5785 MHz				
Date of Test	08/19/2014			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
-30	120	5784.9272	-72800	12.584	Pass
-20		5784.9434	-56600	9.784	Pass
-10		5784.9613	-38700	6.690	Pass
0		5784.917	-83000	14.347	Pass
10		5784.9791	-20900	3.613	Pass
20		5784.9437	-56300	9.732	Pass
30		5784.9191	-80900	13.984	Pass
40		5784.9209	-79100	13.673	Pass
50		5784.9455	-54500	9.421	Pass

Model Number	DT10				
Test Mode	Mode 3				
Frequency	5220 MHz				
Date of Test	08/19/2014			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
-30	120	5219.9653	-34700	6.648	Pass
-20		5219.9553	-44700	8.563	Pass
-10		5219.9135	-86500	16.571	Pass
0		5220.0019	1900	-0.364	Pass
10		5219.9236	-76400	14.636	Pass
20		5219.9936	-6400	1.226	Pass
30		5219.9538	-46200	8.851	Pass
40		5219.9555	-44500	8.525	Pass
50		5219.941	-59000	11.303	Pass

Note: The manufacturer's frequency stability specification is better than 20ppm.

Model Number	DT10				
Test Mode	Mode 3				
Frequency	5785 MHz				
Date of Test	08/19/2014			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
-30	120	5784.9767	-23300	4.028	Pass
-20		5784.9562	-43800	7.571	Pass
-10		5784.9625	-37500	6.482	Pass
0		5784.9285	-71500	12.360	Pass
10		5784.9556	-44400	7.675	Pass
20		5784.9409	-59100	10.216	Pass
30		5784.9067	-93300	16.128	Pass
40		5784.9386	-61400	10.614	Pass
50		5784.9523	-47700	8.245	Pass

Model Number	DT10				
Test Mode	Mode 4				
Frequency	5190 MHz				
Date of Test	08/19/2014			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
-30	120	5189.9052	-94800	18.266	Pass
-20		5189.9322	-67800	13.064	Pass
-10		5190.0046	4600	-0.886	Pass
0		5189.997	-3000	0.578	Pass
10		5189.9376	-62400	12.023	Pass
20		5189.972	-28000	5.395	Pass
30		5189.955	-45000	8.671	Pass
40		5189.9471	-52900	10.193	Pass
50		5189.9459	-54100	10.424	Pass

Note: The manufacturer's frequency stability specification is better than 20ppm.

Model Number	DT10				
Test Mode	Mode 4				
Frequency	5755 MHz				
Date of Test	08/19/2014			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
-30	120	5754.9798	-20200	3.510	Pass
-20		5755.0335	33500	-5.821	Pass
-10		5754.9871	-12900	2.242	Pass
0		5754.9822	-17800	3.093	Pass
10		5755.0247	24700	-4.292	Pass
20		5754.9418	-58200	10.113	Pass
30		5754.9638	-36200	6.290	Pass
40		5755.0158	15800	-2.745	Pass
50		5755.0298	29800	-5.178	Pass

Note: The manufacturer's frequency stability specification is better than 20ppm.

Voltage Variations

Model Number	DT10				
Test Mode	Mode 2				
Frequency	5220 MHz				
Date of Test	08/19/2014			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
20	138.00	5219.9503	-49700	9.521	Pass
	120.00	5219.9499	-50100	9.598	Pass
	102.00	5219.9493	-50700	9.713	Pass

Model Number	DT10				
Test Mode	Mode 2				
Frequency	5785 MHz				
Date of Test	08/19/2014			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
20	138.00	5784.9701	-29900	5.169	Pass
	120.00	5784.9437	-56300	9.732	Pass
	102.00	5784.9276	-72400	12.515	Pass

Model Number	DT10				
Test Mode	Mode 3				
Frequency	5220 MHz				
Date of Test	08/19/2014			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
20	138.00	5219.9481	-51900	9.943	Pass
	120.00	5219.9538	-46200	8.851	Pass
	102.00	5219.9805	-19500	3.736	Pass

Note: The manufacturer's frequency stability specification is better than 20ppm.

Model Number	DT10				
Test Mode	Mode 3				
Frequency	5785 MHz				
Date of Test	08/19/2014			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
20	138.00	5784.9518	-48200	8.332	Pass
	120.00	5784.9409	-59100	10.216	Pass
	102.00	5784.9185	-81500	14.088	Pass

Model Number	DT10				
Test Mode	Mode 4				
Frequency	5190 MHz				
Date of Test	08/19/2014			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
20	138.00	5189.9078	-92200	17.765	Pass
	120.00	5189.955	-45000	8.671	Pass
	102.00	5189.9852	-14800	2.852	Pass

Model Number	DT10				
Test Mode	Mode 4				
Frequency	5755 MHz				
Date of Test	08/19/2014			Test Site	TE02
Temp. (°C)	Voltage (VAC)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (ppm)	Result (Pass/Fail)
20	138.00	5754.9565	-43500	7.559	Pass
	120.00	5754.9418	-58200	10.113	Pass
	102.00	5754.9284	-71600	12.441	Pass

Note: The manufacturer's frequency stability specification is better than 20ppm.

11 Antenna Requirement

11.1. 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.

11.2. Antenna Connector Construction

The antenna used in this product is listed below.

Band	Antenna Port	Type	Max. Gain
U-NII Band I	Antenna 1 (MAIN)	PIFA Antenna	1.68 dBi
	Antenna 2 (AUX)	PIFA Antenna	-6.17 dBi
U-NII Band III	Antenna 1 (MAIN)	PIFA Antenna	1.27 dBi
	Antenna 2 (AUX)	PIFA Antenna	-0.14 dBi