



FCC REPORT

Applicant: Hunan Space Satellite Communication Co., Ltd

Address of Applicant: HangTian yard, Wangchengpo, Changsha, Hunan, PRC

Equipment Under Test (EUT)

Product Name: Wireless hd transmission machine

Model No.: WTD-700T, NTD-700T, ETD700T, MTD700T

FCC ID: ZBOWTD-700T

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247:2009

Date of sample receipt: 12 Jan. 2011

Date of Test: 13 Jan – 18 Mar. 2011

Date of report issued: 19 Mar. 2011

Test Result : PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Robinson Lo
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the GTS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of GTS International Electrical Approvals or testing done by GTS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by GTS International Electrical Approvals in writing.

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3 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	PASS
Conducted emission	15.207	PASS
Conducted Peak Output Power	15.247 (b)(3)	PASS
6dB Occupied Bandwidth	15.247 (a)(2)	PASS
Power Spectral Density	15.247 (e)	PASS
RF antenna conducted spurious emissions	15.247(d)	PASS
Radiated Emission	15.205/15.209	PASS

Remark:

- Pass: The EUT complies with the essential requirements in the standard.
- Fail: The EUT does not comply with the essential requirements in the standard.
- Tx: In this whole report Tx (or tx) means Transmitter.
- Rx: In this whole report Rx (or rx) means Receiver.

4 General Information

4.1 Client Information

Applicant:	Hunan Space Satellite Communication Co., Ltd
Address of Applicant:	HangTian yard,Wangchengpo,Changsha,Hunan,PRC
Manufacturer/ Factory:	Hunan Space Satellite Communication Co., Ltd
Address of Manufacturer/ Factory:	HangTian yard,Wangchengpo,Changsha,Hunan,PRC

4.2 General Description of E.U.T.

Product Name:	Wireless hd transmission machine
Model No.:	WTD-700T, NTD-700T, ETD700T, MTD700T
Operation Frequency:	5190MHz, 5230MHz; 5755MHz, 5795MHz, 5835MHz
Channel numbers:	5
Channel separation:	40MHz
Modulation type:	OFDM
Antenna Type:	PCB Antenna
Antenna gain:	2dBi
Power supply:	AC 120V 60Hz

4.3 Test environment and mode

Operating Environment:	
Temperature:	24.0 °C
Humidity:	52 % RH
Atmospheric Pressure:	1008 mbar
Test mode:	
Transmitting mode	Keep the EUT in transmitting mode with modulation.

4.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

● **FCC —Registration No.: 600491**

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 600491, July 20, 2010.

● **Industry Canada (IC)**

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-1.

4.5 Test Location

All tests were performed at:
Global United Technology Services Co., Ltd. Address: 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen, China Tel: 0755-27798480 Fax: 0755-27798960

4.6 Other Information Requested by the Customer

None.

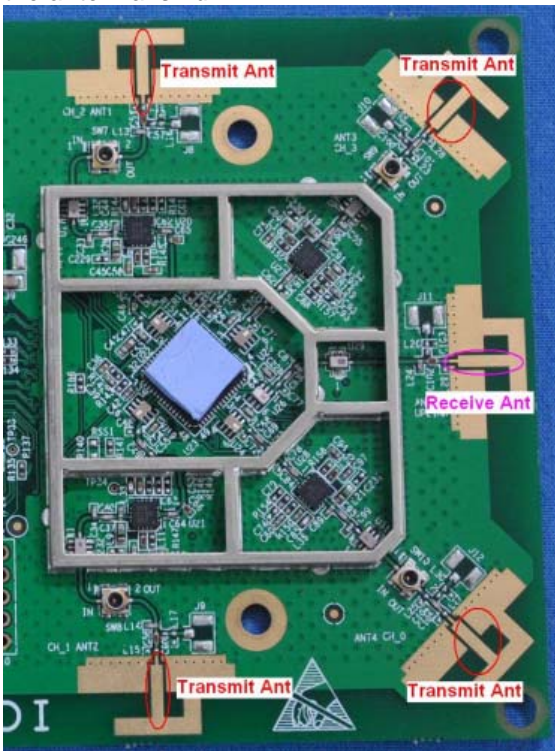
4.7 Test Instruments list

Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS201	Mar. 30 2010	Mar. 30 2011
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS202	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Sep. 10 2010	Sep. 10 2011
4	Spectrum analyzer	Rohde & Schwarz	FSP40	GTS203	Sep. 10 2010	Sep. 10 2011
5	8-WAY Power Divider	JFW	50PD-647	GTS203	Sep. 10 2010	Sep. 10 2011
6	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS204	Feb. 26 2011	Feb. 26 2012
7	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS205	June 30 2010	June 30 2011
8	Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	9170	GTS205	June 30 2010	June 30 2011
9	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
10	Coaxial Cable	GTS	N/A	GTS400	Apr. 01 2010	Apr. 01 2011
11	Coaxial Cable	GTS	N/A	GTS401	Apr. 01 2010	Apr. 01 2011
12	Coaxial cable	GTS	N/A	GTS402	Apr. 01 2010	Apr. 01 2011
13	Coaxial Cable	GTS	N/A	GTS407	Apr. 01 2010	Apr. 01 2011
14	Coaxial Cable	GTS	N/A	GTS408	Apr. 01 2010	Apr. 01 2011
15	Amplifier	Sonnoma Instrument	305-1052	GTS210	Apr. 01 2010	Apr. 01 2011
16	Amplifier	HP	8349B	GTS231	Apr. 01 2010	Apr. 01 2011

Conducted Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
1	Shielding Room	ZhongYu Electron	7.0(L)x3.0(W)x3.0(H)	GTS206	Apr. 10 2010	Apr. 10 2011
2	EMI Test Receiver	Rohde & Schwarz	ESCS30	GTS208	Sep. 14 2010	Sep. 14 2011
3	10dB Pulse Limita	Rohde & Schwarz	N/A	GTS209	Sep. 14 2010	Sep. 14 2011
4	LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	GTS207	Apr. 14 2010	Apr. 14 2011
5	Coaxial Cable	GTS	N/A	GTS406	Apr. 1 2010	Apr. 01 2011
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A

5 Test results and Measurement Data

5.1 Antenna requirement:

Standard requirement:	FCC Part15 C Section 15.203
<p>15.203 requirement: <i>An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.</i></p>	
E.U.T Antenna:	
<p>The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 2dBi.</p> 	

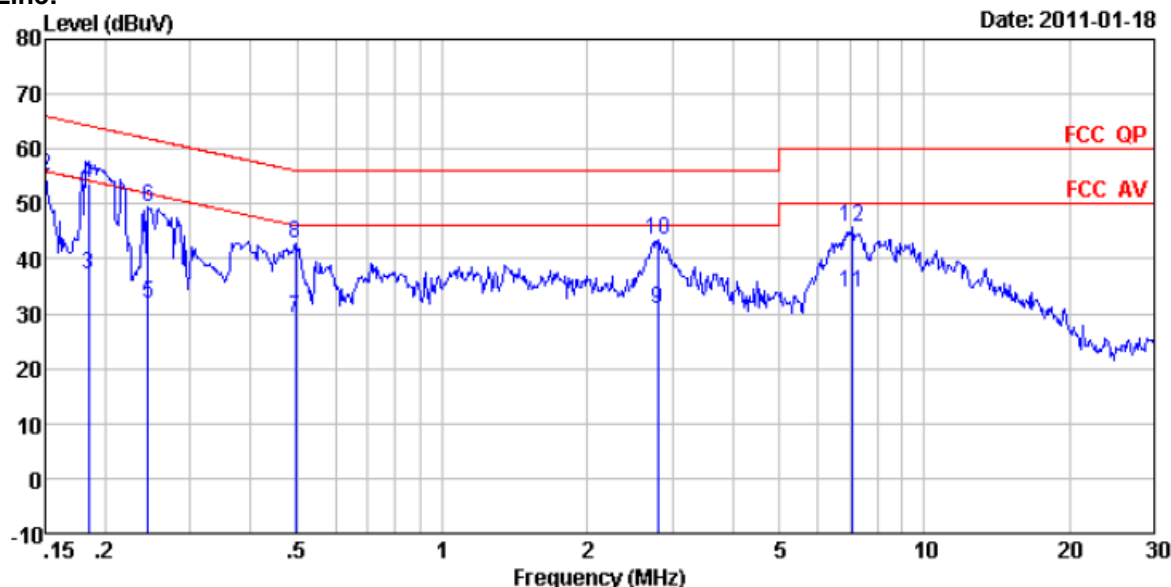
5.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207		
Test Method:	ANSI C63.4: 2003		
Test Frequency Range:	150KHz to 30MHz		
Class / Severity:	Class B		
Receiver setup:	RBW=9KHz, VBW=30KHz		
Limit:	Frequency range (MHz)	Limit (dBuV)	
		Quasi-peak	Average
	0.15-0.5	66 to 56*	56 to 46*
	0.5-5	56	46
	5-30	60	50
* Decreases with the logarithm of the frequency.			
Test procedure	The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.		
Test setup:	<div><div><div><div><div>Reference Plane</div><div>LISN</div><div>AUX Equipment</div><div>E.U.T</div><div>Test table/Insulation plane</div></div><div><div>40cm</div><div>80cm</div></div><div><div>LISN</div><div>Filter</div><div>AC power</div><div>EMI Receiver</div></div></div></div><div><div>Remark:</div><div>E.U.T: Equipment Under Test</div><div>LISN: Line Impedance Stabilization Network</div><div>Test table height=0.8m</div></div></div>		
Test Instruments:	Refer to section 4.7 for details		
Test mode:	Refer to section 4.3 for details		
Test results:	Passed		

Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

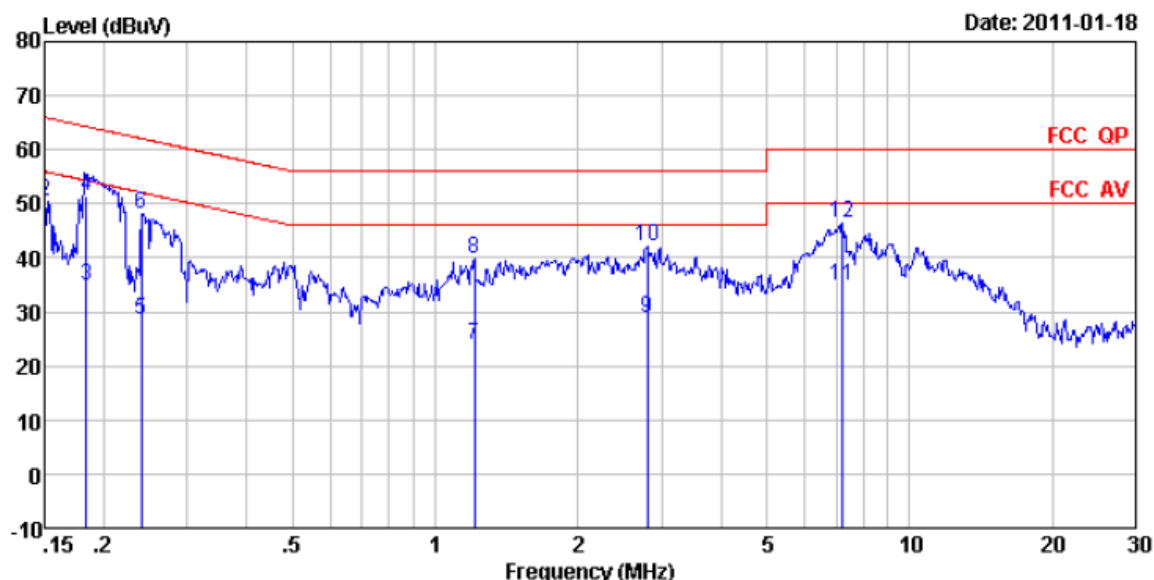
Live Line:



Condition : FCC QP LISN(2011) LINE
Job No. : 019RF
EUT : Wireless hd transmission machine
Test Mode : Operation mode
Test Engineer: Lau

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.150	30.84	0.69	0.01	31.54	56.00	-24.46	Average
2	0.150	54.43	0.69	0.01	55.13	66.00	-10.87	QP
3	0.184	36.58	0.67	0.01	37.26	54.28	-17.02	Average
4	0.184	53.10	0.67	0.01	53.78	64.28	-10.50	QP
5	0.246	31.17	0.63	0.01	31.81	51.91	-20.10	Average
6	0.246	48.77	0.63	0.01	49.41	61.91	-12.50	QP
7	0.497	28.71	0.56	0.01	29.28	46.05	-16.77	Average
8	0.497	42.11	0.56	0.01	42.68	56.05	-13.37	QP
9	2.794	30.25	0.36	0.18	30.79	46.00	-15.21	Average
10	2.794	43.00	0.36	0.18	43.54	56.00	-12.46	QP
11	7.100	33.08	0.26	0.36	33.70	50.00	-16.30	Average
12	7.100	45.27	0.26	0.36	45.89	60.00	-14.11	QP

Neutral Line:



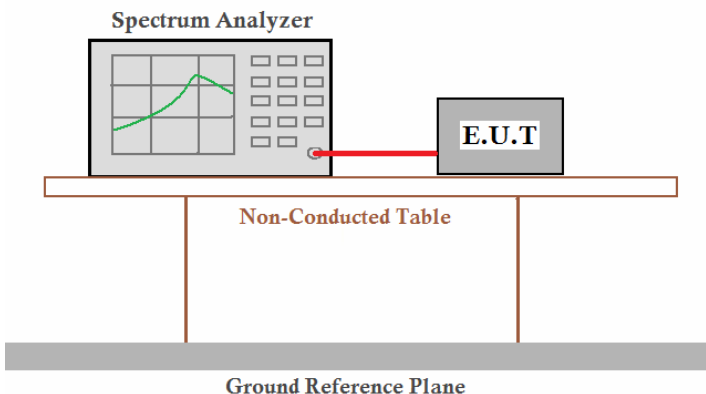
Condition : FCC QP LISN(2011) NEUTRAL
 Job No. : 019RF
 EUT : Wireless hd transmission machine
 Test Mode : Operation mode
 Test Engineer: Lau

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.150	28.04	0.69	0.01	28.74	56.00	-27.26	Average
2	0.150	49.76	0.69	0.01	50.46	66.00	-15.54	QP
3	0.184	34.28	0.67	0.01	34.96	54.30	-19.34	Average
4	0.184	50.90	0.67	0.01	51.58	64.30	-12.72	QP
5	0.240	27.98	0.64	0.01	28.63	52.08	-23.45	Average
6	0.240	47.50	0.64	0.01	48.15	62.08	-13.93	QP
7	1.210	23.54	0.46	0.01	24.01	46.00	-21.99	Average
8	1.210	39.43	0.46	0.01	39.90	56.00	-16.10	QP
9	2.794	28.29	0.36	0.18	28.83	46.00	-17.17	Average
10	2.794	41.45	0.36	0.18	41.99	56.00	-14.01	QP
11	7.213	34.06	0.26	0.36	34.68	50.00	-15.32	Average
12	7.213	45.87	0.26	0.36	46.49	60.00	-13.51	QP

Notes:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level = Receiver Reading + LISN Factor + Cable Loss.

5.3 Conducted Peak Output Power

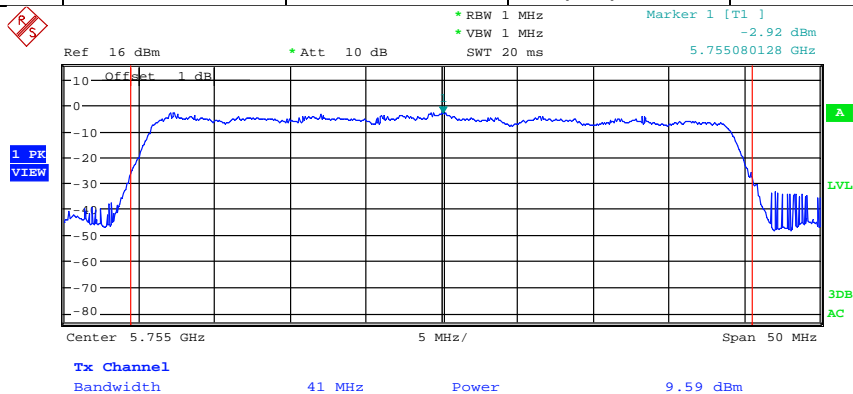
Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Test Method:	ANSI C63.4:2003 and KDB558074
Limit:	30dBm
Test setup:	 <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T. are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.</p>
Test procedure:	<p>As an alternative to Publication: 662911, the test method is “measure and sum”, In the measure and sum approach, the conducted emission level (e.g., transmit power or power in specified bandwidth) is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically to determine the total emission level from the device. Summing is performed in linear power units (e.g., mW—not dBm).</p> <p>The EUT peak power was measured with a peak power meter employing a video bandwidth greater than 6dB BW of the emission under test. Peak output power was read directly from the spectrum analyzer across all data rates, Special care was used to make sure that the EUT was transmitting in continuous mode.</p>
Test Instruments:	Refer to section 4.7 for details
Test mode:	Refer to section 4.3 for details
Test results:	Pass

Measurement Data

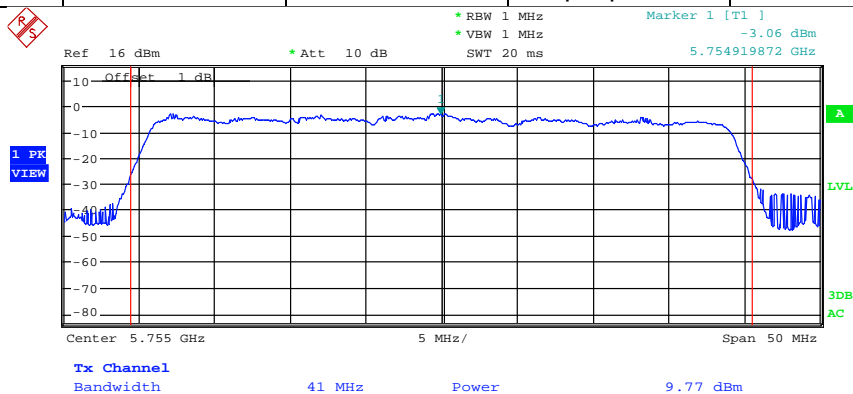
Channel	Antenna	Output power (dBm)	Sum Output Power (dBm)	Limit (dBm)	Result
Low	1	9.59	15.82	30.00	Pass
	2	9.77			
	3	9.83			
	4	9.98			
Middle	1	9.30	15.58	30.00	Pass
	2	9.46			
	3	9.62			
	4	9.84			
High	1	8.64	14.88	30.00	Pass
	2	8.84			
	3	8.92			
	4	9.02			

Test plot as follows:

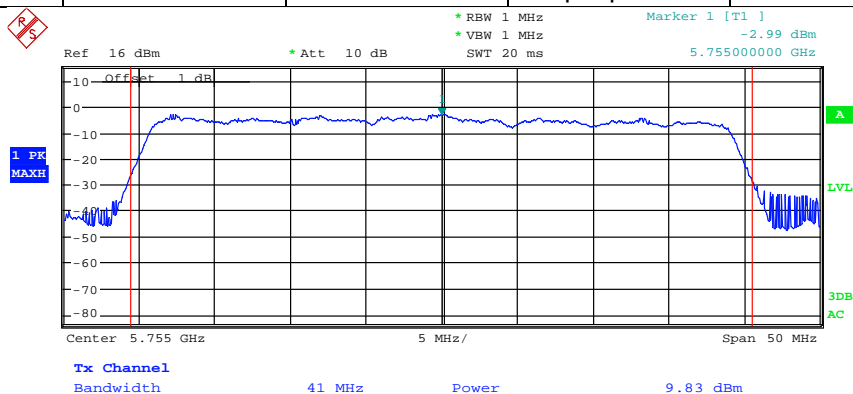
Channel:	Low channel	Test item:	Output power	Antenna:	1
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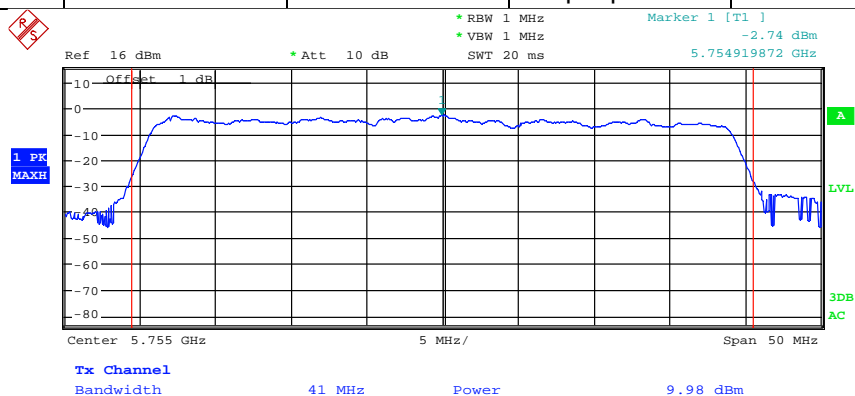
Channel:	Low channel	Test item:	Output power	Antenna:	2
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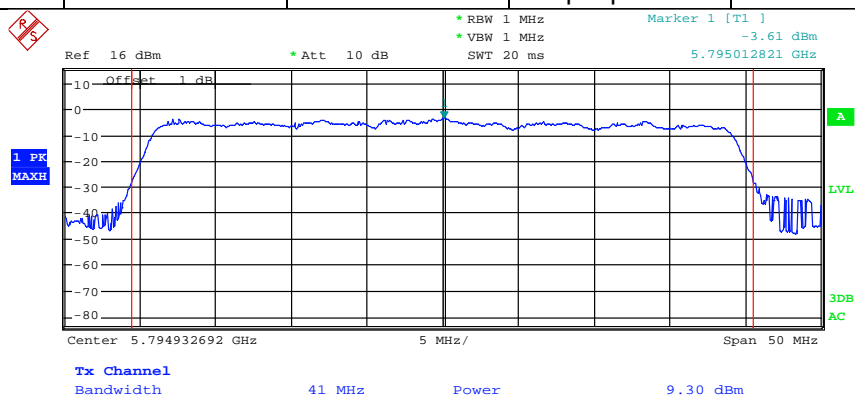
Channel:	Low channel	Test item:	Output power	Antenna:	3
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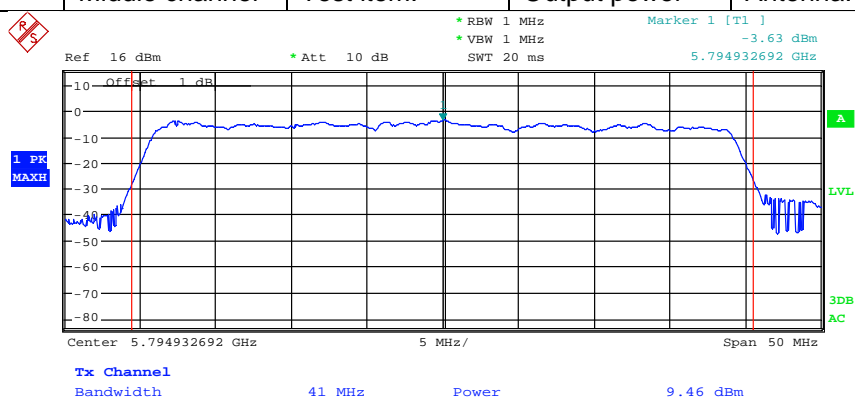
Channel:	Low channel	Test item:	Output power	Antenna:	4
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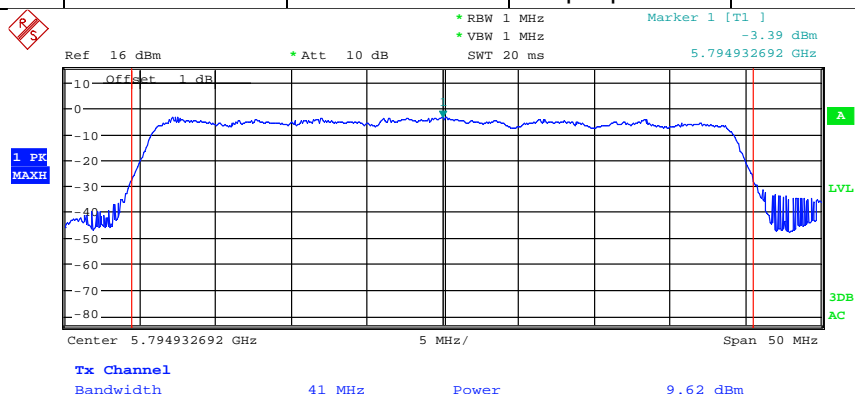
Channel:	Middle channel	Test item:	Output power	Antenna:	1
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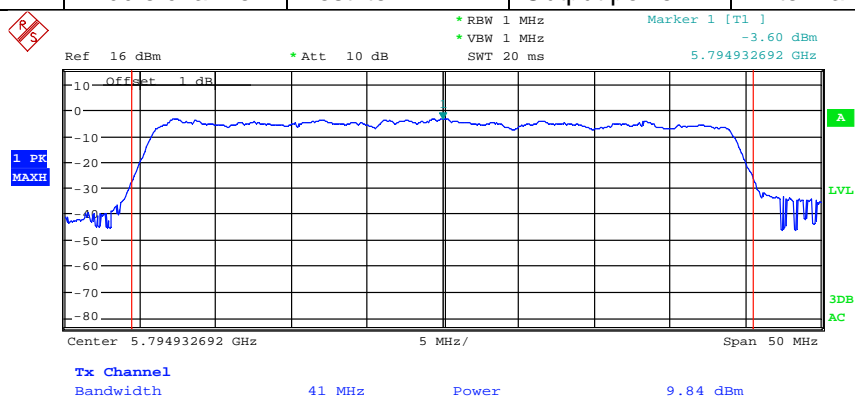
Channel:	Middle channel	Test item:	Output power	Antenna:	2
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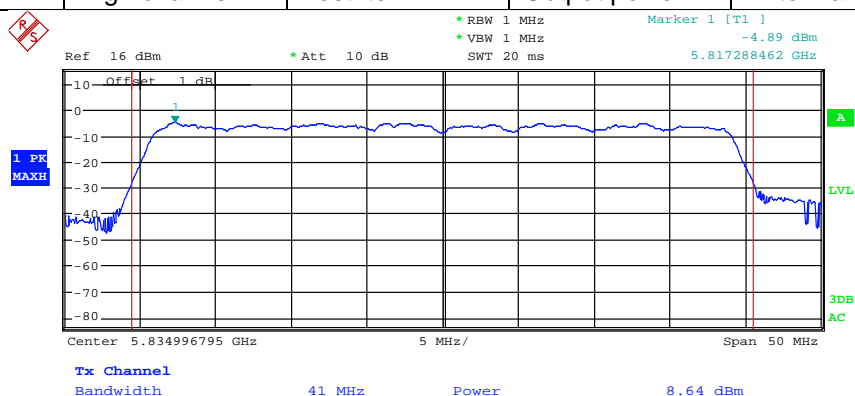
Channel:	Middle channel	Test item:	Output power	Antenna:	3
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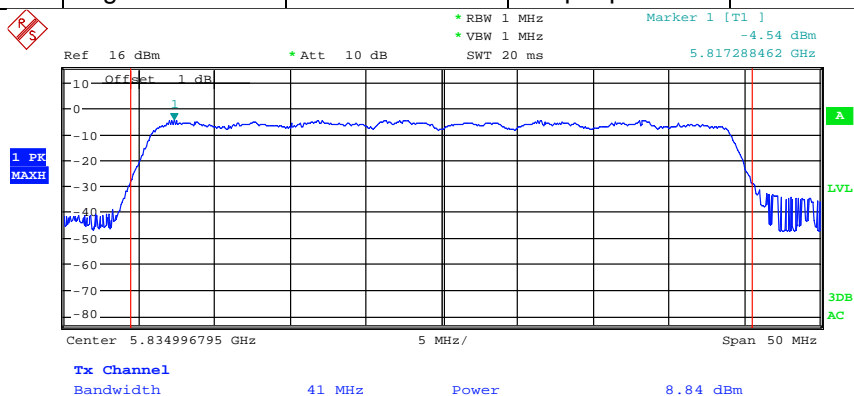
Channel:	Middle channel	Test item:	Output power	Antenna:	4
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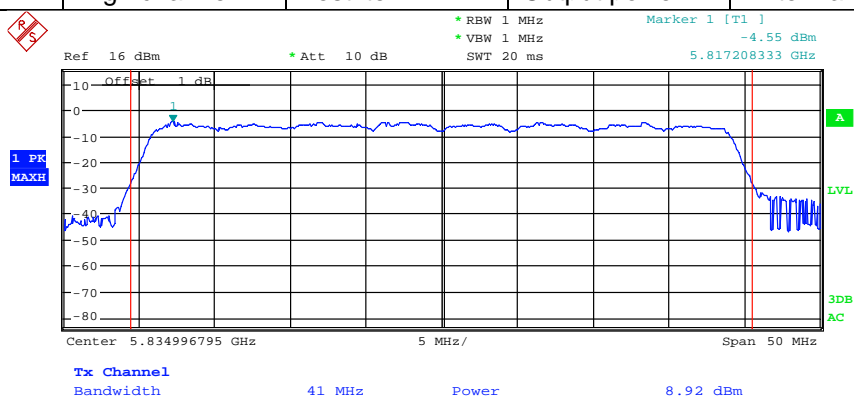
Channel:	High channel	Test item:	Output power	Antenna:	1
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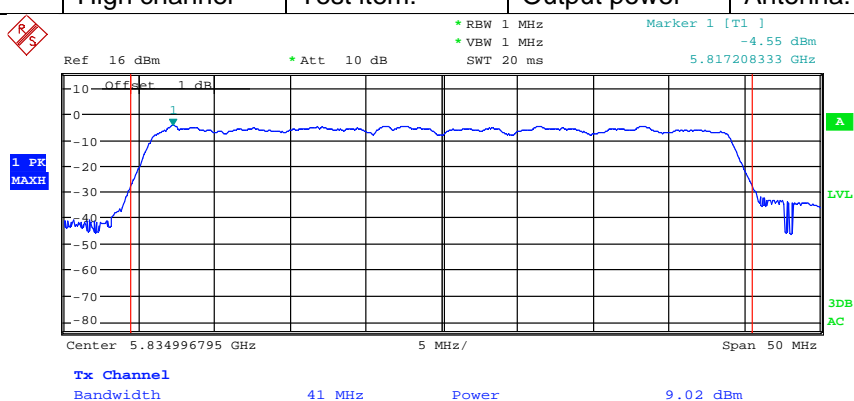
Channel:	High channel	Test item:	Output power	Antenna:	2
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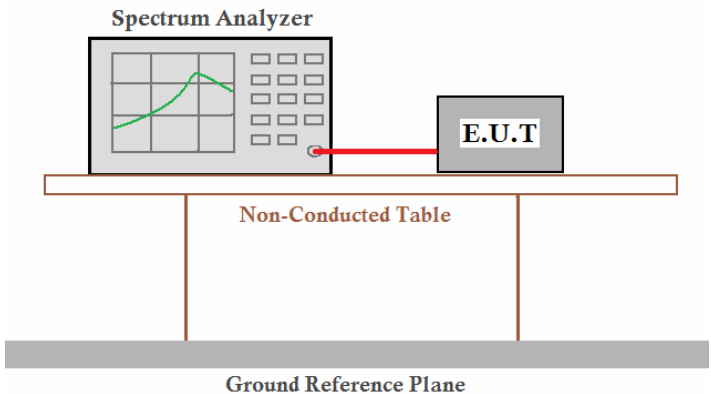
Channel:	High channel	Test item:	Output power	Antenna:	3
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Channel:	High channel	Test item:	Output power	Antenna:	4
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5.4 6dB Occupy Bandwidth

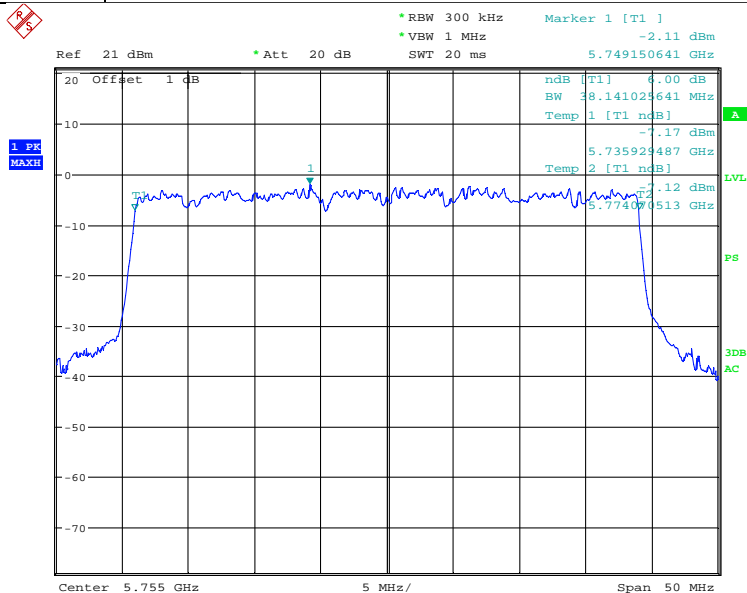
Test Requirement:	FCC Part15 C Section 15.247 (a)(2)
Test Method:	ANSI C63.4:2003 and KDB558074
Limit:	>500KHz
Test setup:	
Test Instruments:	Refer to section 4.7 for details
Test mode:	Refer to section 4.3 for details
Test results:	Passed

Measurement Data

Test channel	Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (KHz)	Result
Low	5755	38.141	>500	Pass
Middle	5795	38.221	>500	Pass
High	5835	38.141	>500	Pass

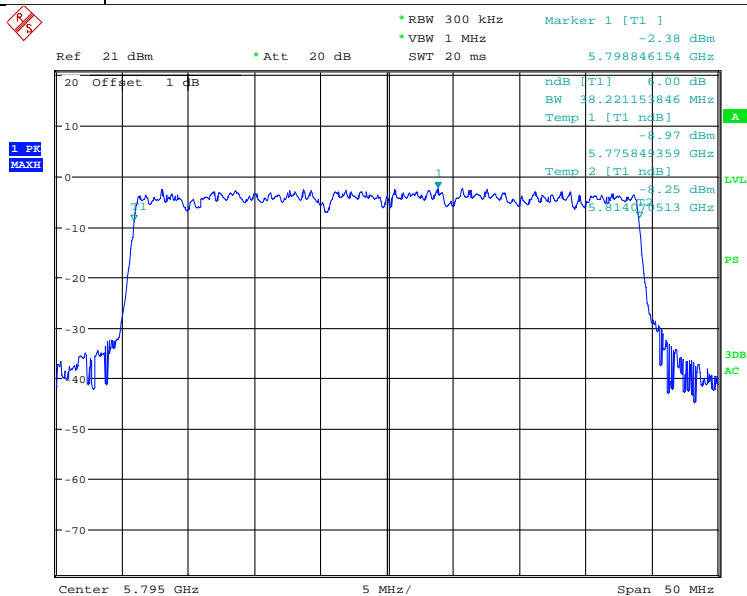
Test plot as follows:

Test channel:	Low
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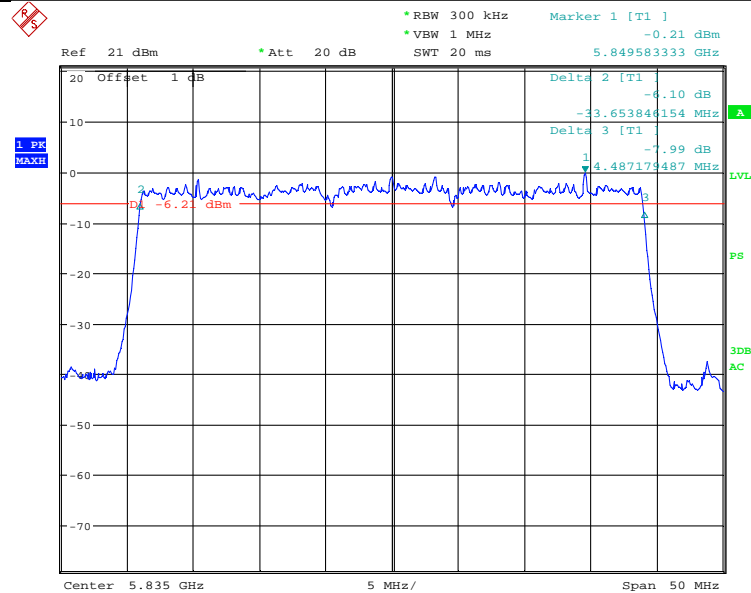
Date: 25.FEB.2011 16:05:01

Test channel:	Middle
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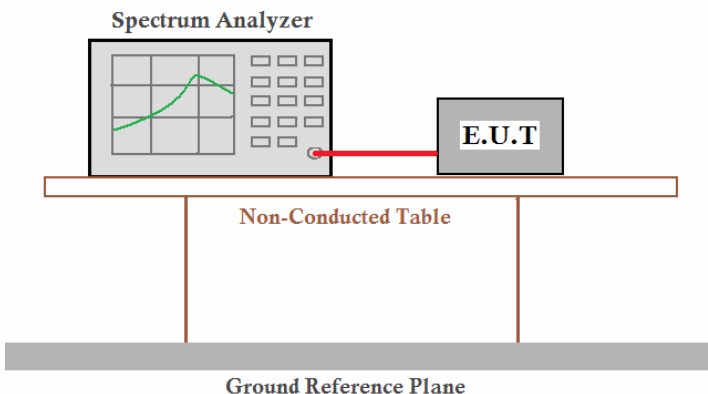
Date: 25.FEB.2011 16:25:52

Test channel: High



Date: 25.FEB.2011 16:44:09

5.5 Power Spectral Density

Test Requirement:	FCC Part15 C Section 15.247 (e)
Test Method:	ANSI C63.4:2003 and KDB558074
Limit:	8dBm
Test setup:	
Test procedure:	As an alternative to Publication: 662911, Measure and sum the PSDs across the outputs. With this technique, PSD is measured at each output of the device. The individual PSDs are then summed mathematically in linear power units
Test Instruments:	Refer to section 4.7 for details
Test mode:	Refer to section 4.3 for details
Test results:	Pass

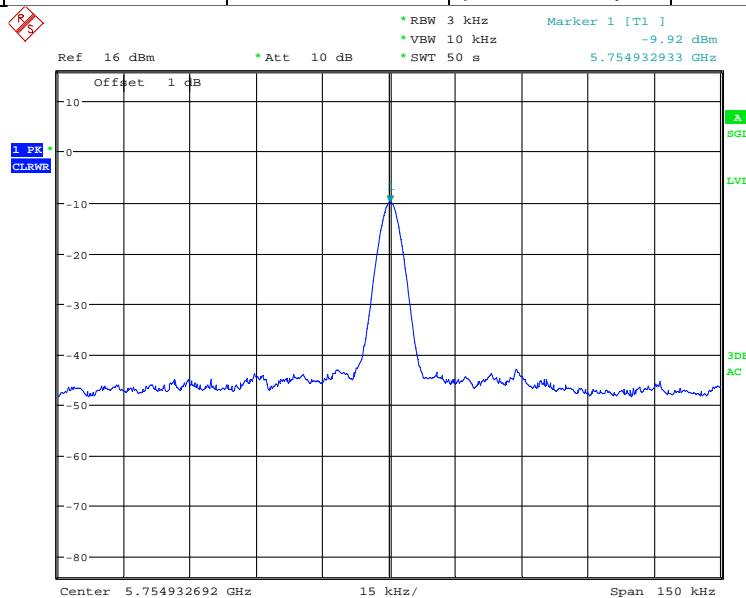
Test plot as follows:

Measurement Data

Channel	Antenna	Power density (dBm)	Sum Power density (dBm)	Limit (dBm)	Result
Low	1	-9.92	-3.91	8.00	Pass
	2	-9.92			
	3	-9.92			
	4	-9.95			
Middle	1	-11.50	-5.43	8.00	Pass
	2	-11.45			
	3	-11.46			
	4	-11.38			
High	1	-8.65	-4.30	8.00	Pass
	2	-10.42			
	3	-10.53			
	4	-12.51			

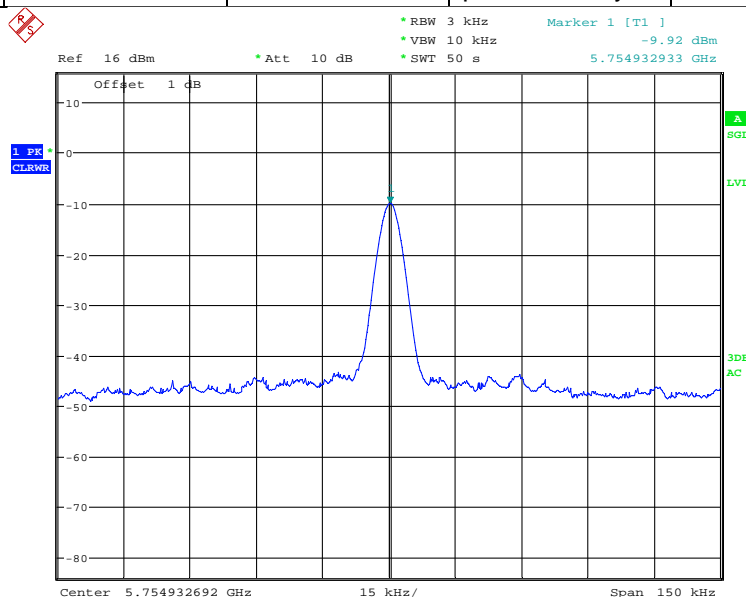
Test plot as follows:

Channel:	Low channel	Test item:	power density	Antenna:	1
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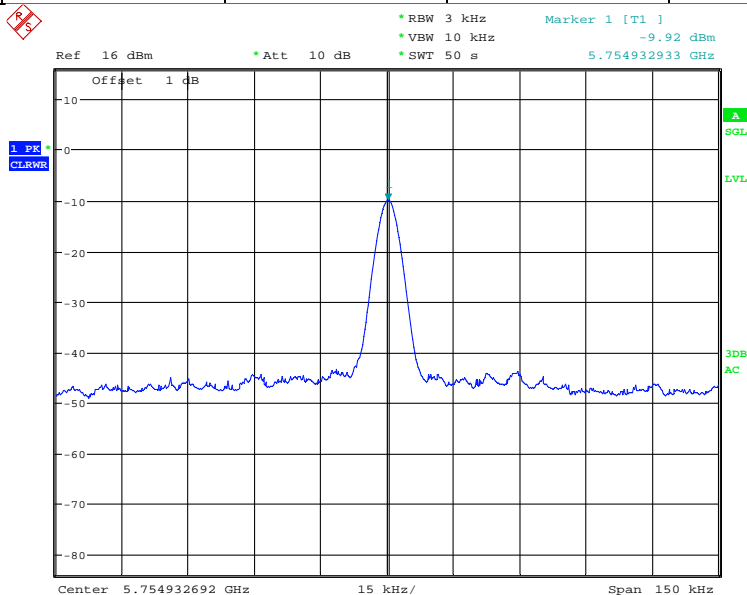
Date: 18.MAR.2011 19:42:23

Channel:	Low channel	Test item:	power density	Antenna:	2
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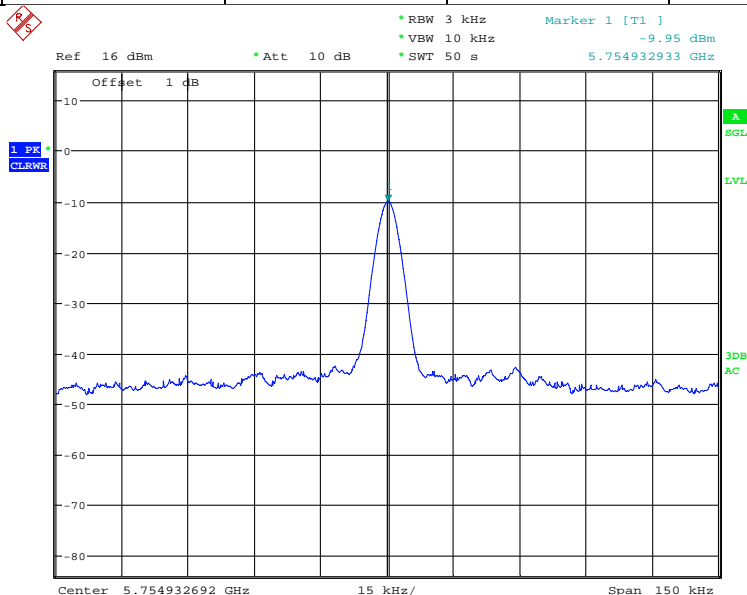
Date: 18.MAR.2011 19:43:39

Channel:	Low channel	Test item:	power density	Antenna:	3
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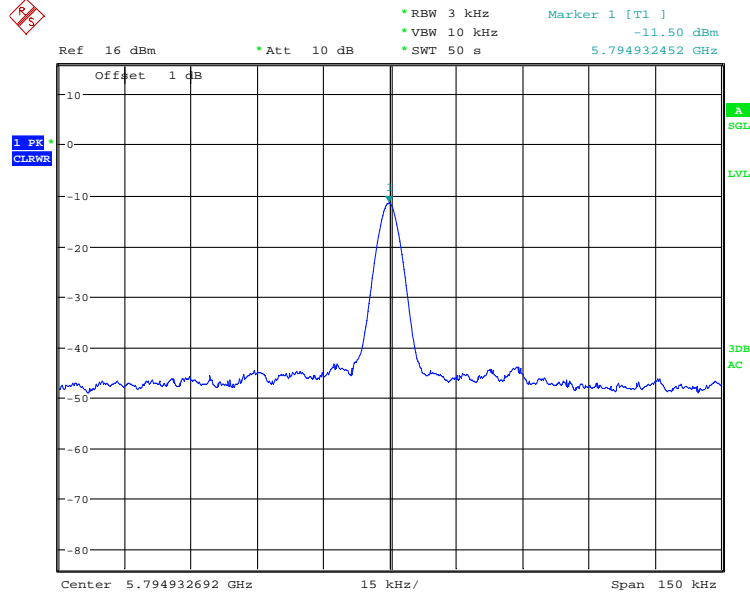
Date: 18.MAR.2011 19:43:39

Channel:	Low channel	Test item:	power density	Antenna:	4
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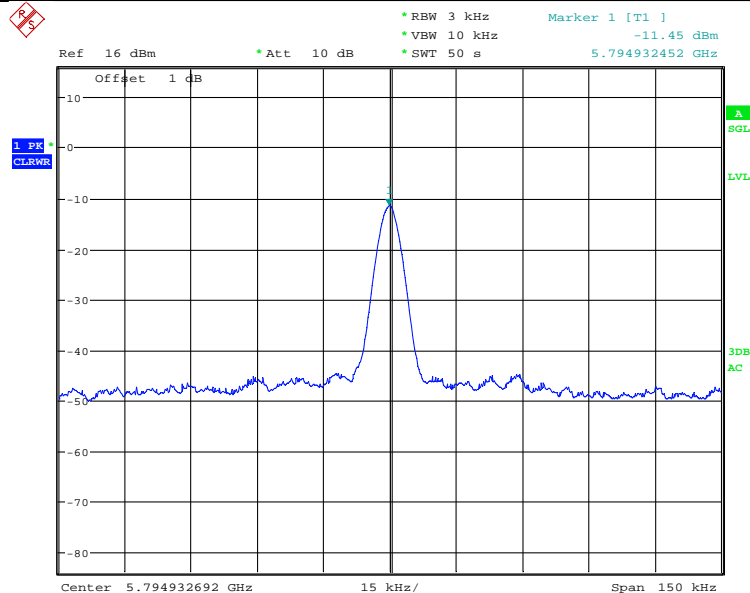
Date: 18.MAR.2011 19:47:46

Channel:	Middle channel	Test item:	power density	Antenna:	1
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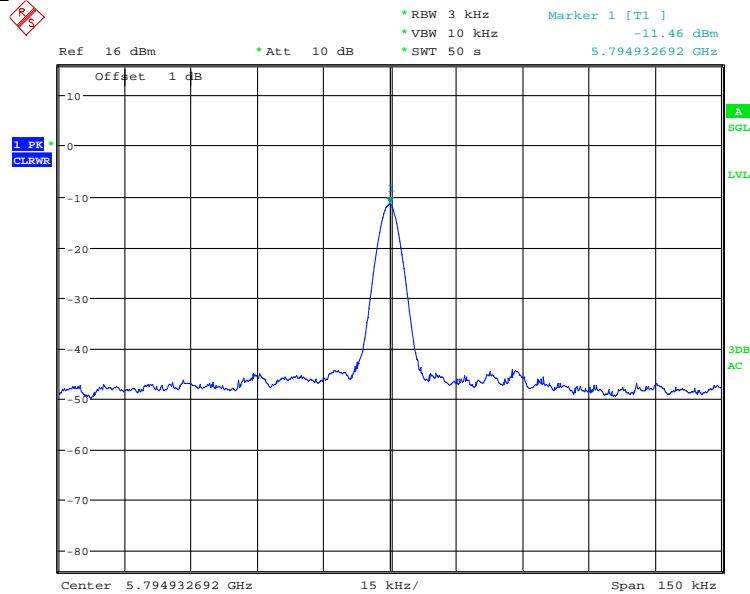
Date: 18.MAR.2011 19:56:28

Channel:	Middle channel	Test item:	power density	Antenna:	2
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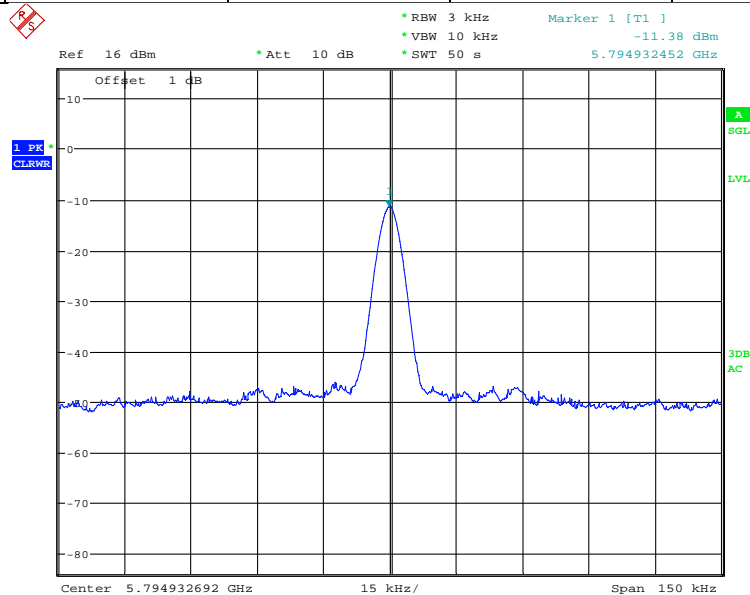
Date: 18.MAR.2011 19:59:17

Channel:	Middle channel	Test item:	power density	Antenna:	3
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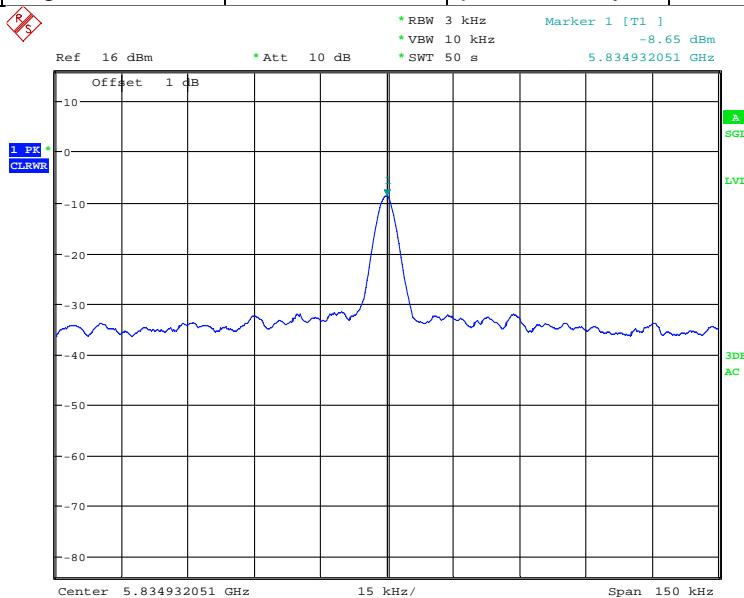
Date: 18.MAR.2011 19:58:02

Channel:	Middle channel	Test item:	power density	Antenna:	4
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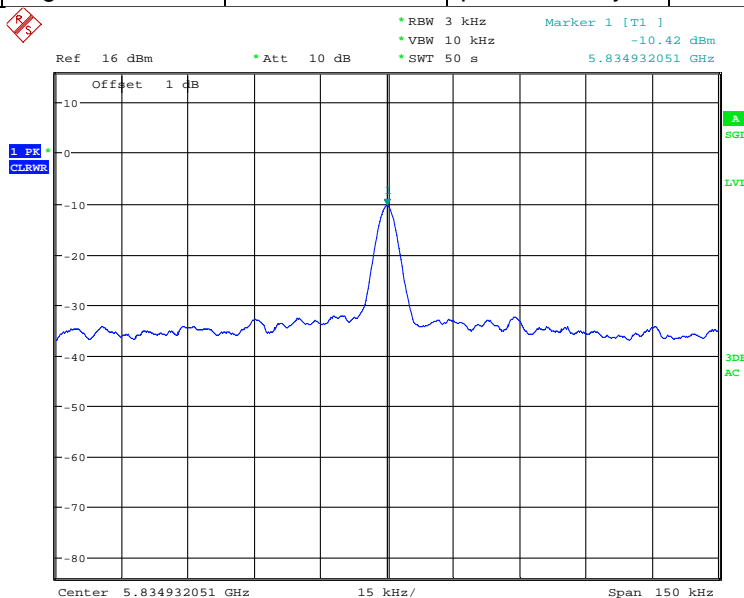
Date: 18.MAR.2011 20:02:47

Channel:	High channel	Test item:	power density	Antenna:	1
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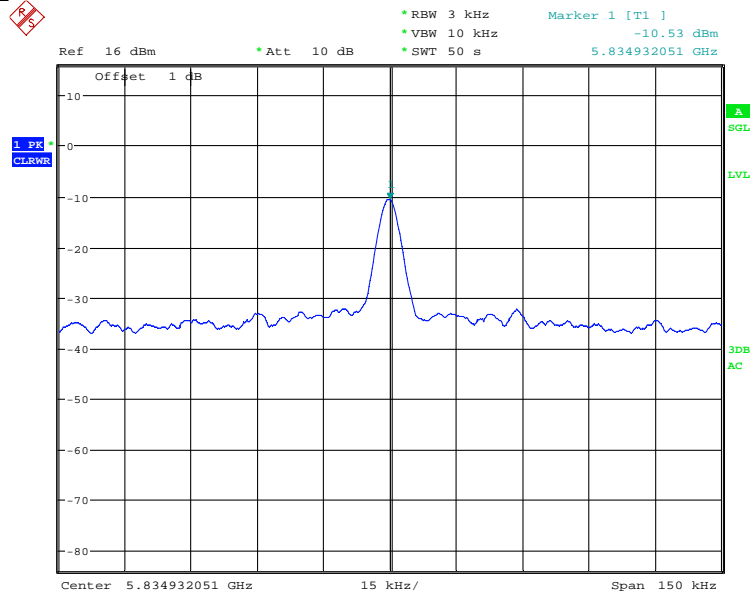
Date: 18.MAR.2011 20:18:58

Channel:	High channel	Test item:	power density	Antenna:	2
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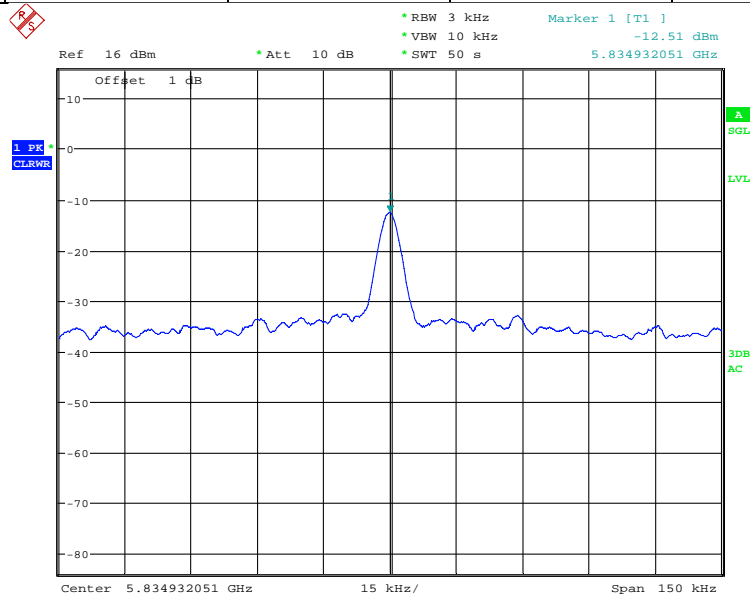
Date: 18.MAR.2011 20:15:22

Channel:	High channel	Test item:	power density	Antenna:	3
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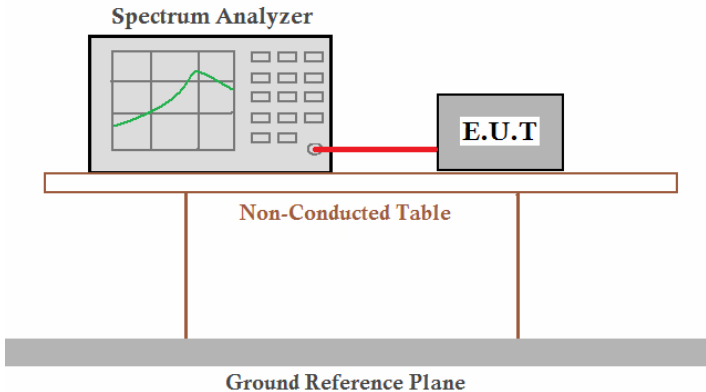
Date: 18.MAR.2011 20:20:23

Channel:	High channel	Test item:	power density	Antenna:	4
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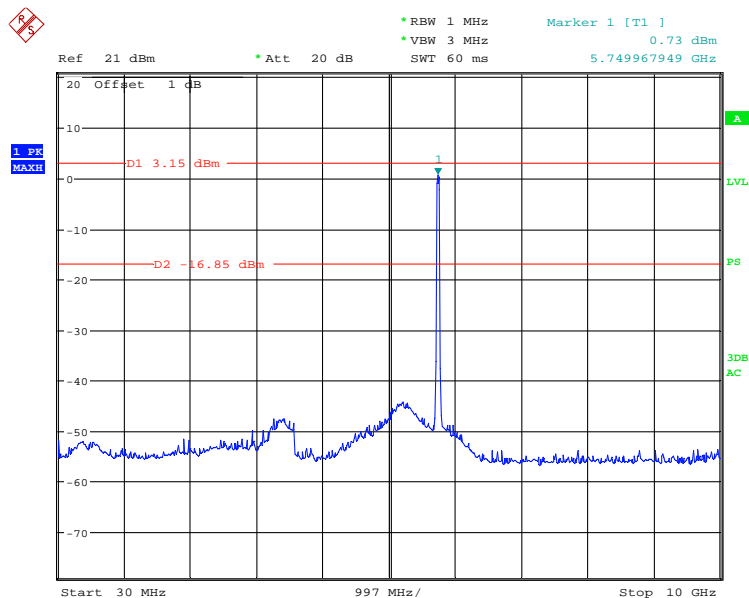
Date: 18.MAR.2011 20:16:53

5.6 RF Antenna Conducted spurious emissions

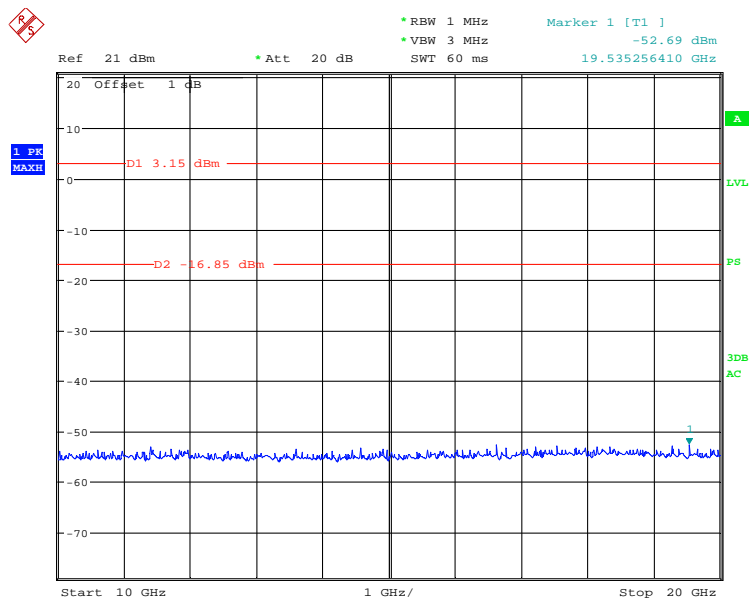
Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.4:2003 and KDB558074
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	 <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T. are placed on a Non-Conducted Table. The table is supported by two vertical legs and sits on a Ground Reference Plane.</p>
Test Instruments:	Refer to section 4.7 for details
Test mode:	Refer to section 4.3 for details
Test results:	Passed

Test plot as follows:

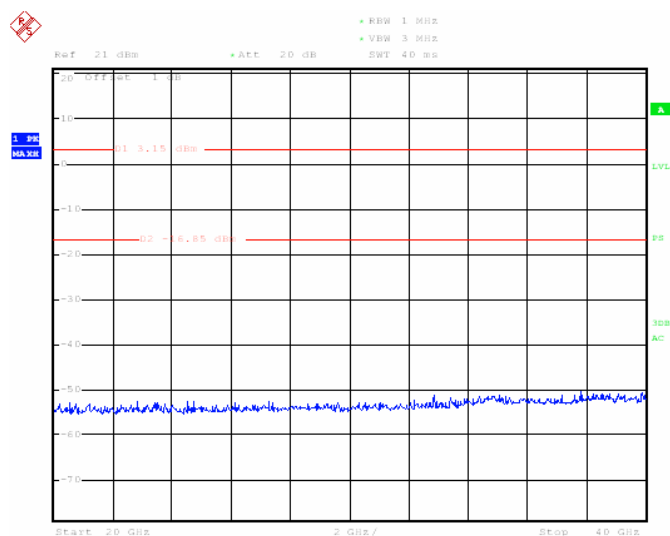
Test channel	Low channel	Worse case	Antenna 4
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Date: 25.FEB.2011 16:09:35

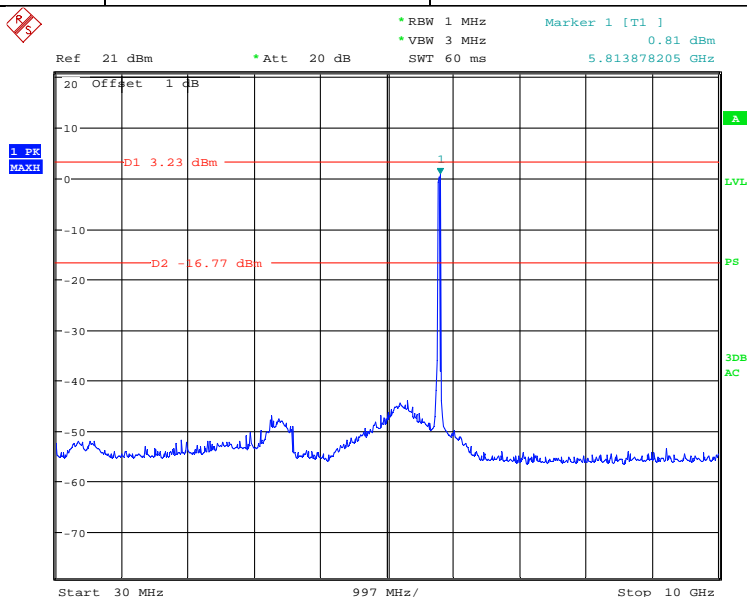


Date: 25.FEB.2011 16:09:50

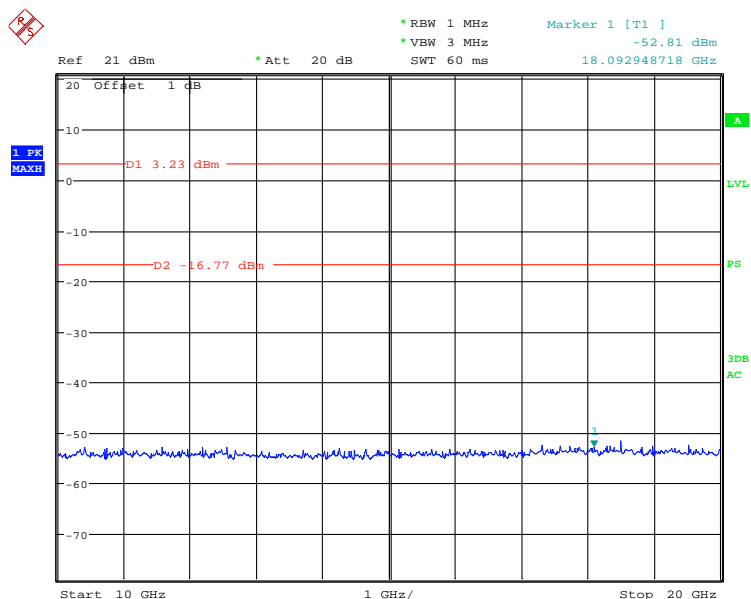


Date: 25.FEB.2011 16:10:05

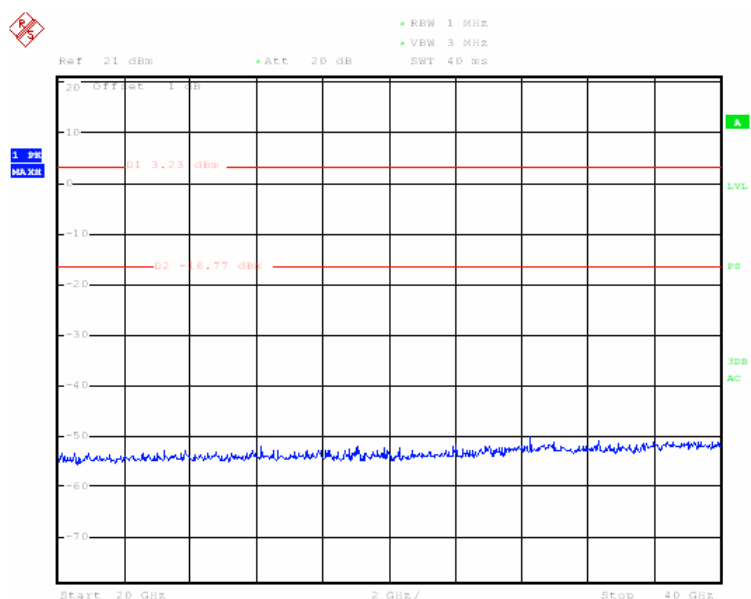
Test channel	Middle channel	Worse case	Antenna 4
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Date: 25.FEB.2011 16:31:36

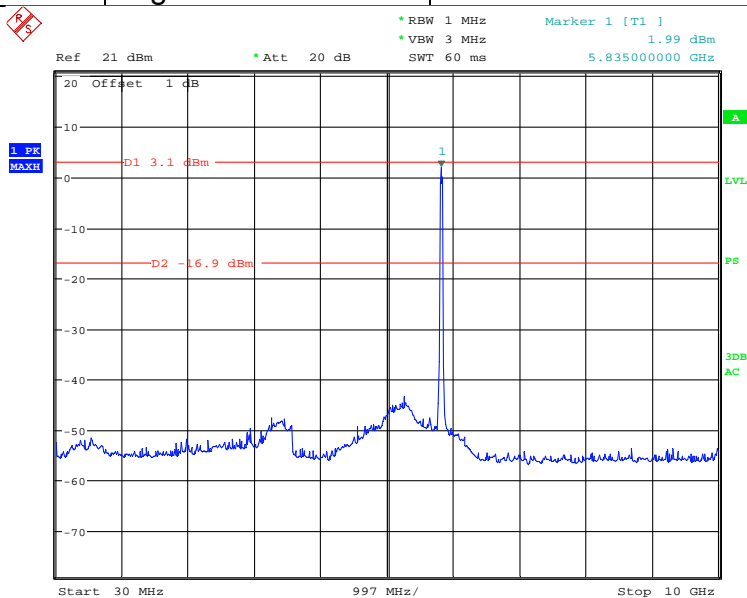


Date: 25.FEB.2011 16:32:28

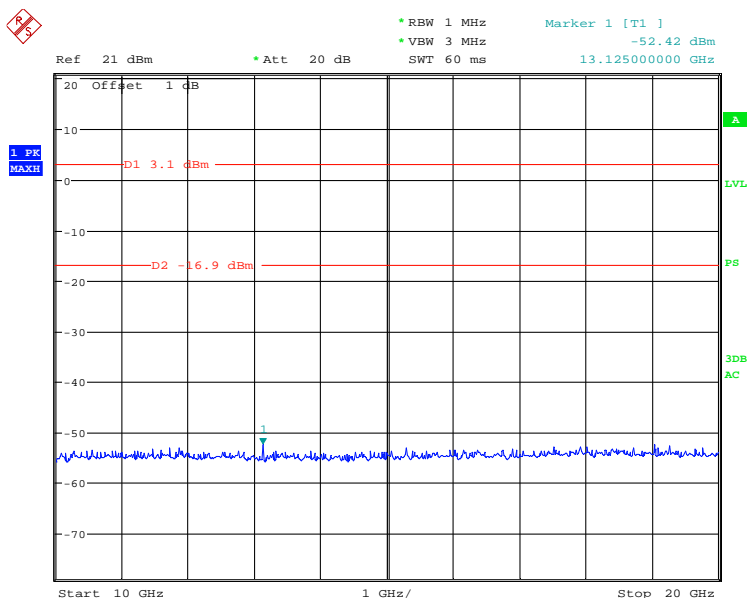


Date: 25.FEB.2011 16:32:44

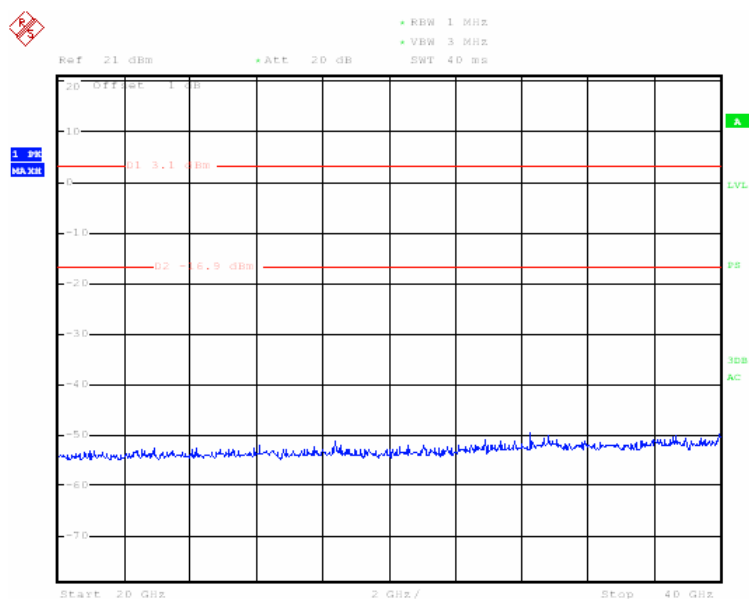
Test channel	High channel	Worse case	Antenna 4
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Date: 25.FEB.2011 16:46:11



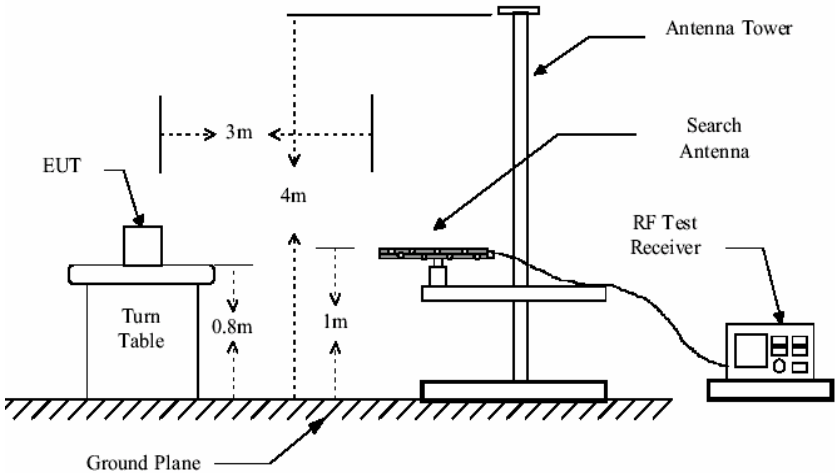
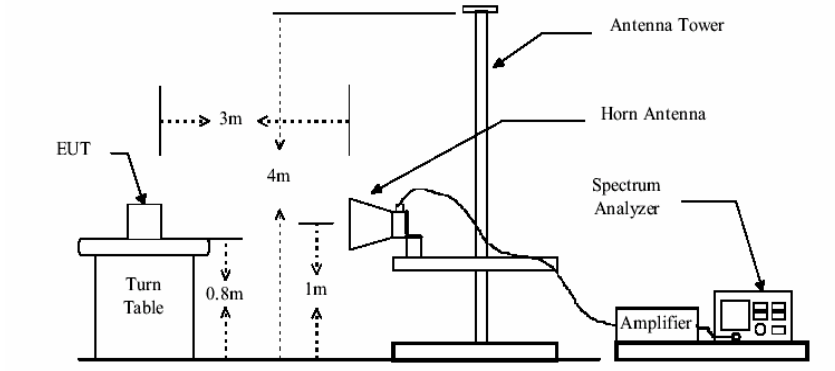
Date: 25.FEB.2011 16:46:32



Date: 25.FEB.2011 16:47:14

5.7 Radiated Emission

Test Requirement:	FCC Part15 C Section 15.209 and 15.205				
Test Method:	ANSI C63.4: 2003				
Test Frequency Range:	30MHz to 40GHz				
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)				
Receiver setup:					
	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
Peak		1MHz	10Hz	Average Value	
Limit:					
	Frequency		Limit (dBuV/m @3m)		Remark
	30MHz-88MHz		40.0		Quasi-peak Value
	88MHz-216MHz		43.5		Quasi-peak Value
	216MHz-960MHz		46.0		Quasi-peak Value
	960MHz-1GHz		54.0		Quasi-peak Value
	Above 1GHz		54.0		Average Value
74.0			Peak Value		
Test Procedure:	<p>a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.</p> <p>b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</p> <p>c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</p> <p>d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.</p> <p>e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</p> <p>f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.</p>				

<p>Test setup:</p>	<p>Below 1GHz</p>  <p>Above 1GHz</p> 
<p>Test Instruments:</p>	<p>Refer to section 4.7 for details</p>
<p>Test mode:</p>	<p>Refer to section 4.3 for details</p>
<p>Test results:</p>	<p>Passed</p>

Note:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

$$\text{Final Test Level} = \text{Receiver Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Preamplifier Factor}$$

5.7.1 Radiated emission below 1GHz

Worst case:	Middle Channel
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Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
31.843	25.75	13.64	30.05	0.61	18.55	40.0	-21.45	Vertical
36.127	25.74	14.29	28.46	0.63	17.64	40.0	-22.36	Vertical
96.436	25.67	14.18	27.45	1.12	17.08	43.5	-26.42	Vertical
176.888	25.63	14.07	26.92	1.67	17.03	43.5	-26.47	Vertical
317.701	25.58	16.76	26.66	2.11	19.95	46.0	-26.05	Vertical
747.483	25.52	23.52	26.58	3.03	27.61	46.0	-18.39	Vertical
39.576	25.73	15.54	25.45	0.64	15.90	40.0	-24.1	Horizontal
104.536	25.66	12.18	26.40	1.19	14.11	43.5	-29.39	Horizontal
199.286	25.62	11.44	26.54	1.77	14.13	43.5	-29.37	Horizontal
270.375	25.59	13.57	25.39	2.00	15.37	46.0	-30.63	Horizontal
684.745	25.53	26.78	24.55	2.89	28.69	46.0	-17.31	Horizontal
763.376	25.52	29.62	24.73	3.07	31.90	46.0	-14.1	Horizontal

5.7.2 Transmitter emission above 1GHz

Test channel:	Lowest	Remark:	Peak
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Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11510	38.59	39.85	10.16	38.15	50.45	74.00	-23.55	Horizontal
17265	33.25	40.51	14.60	36.15	52.21	74.00	-21.79	Horizontal
23020	*	*	*	*	*	74.00	*	Horizontal
28775	*	*	*	*	*	74.00	*	Horizontal
34530	*	*	*	*	*	74.00	*	Horizontal
40285	*	*	*	*	*	74.00	*	Horizontal
11510	37.34	39.85	10.16	38.15	49.20	74.00	-24.80	Vertical
17265	31.52	40.51	14.60	36.15	50.48	74.00	-23.52	Vertical
23020	*	*	*	*	*	74.00	*	Vertical
28775	*	*	*	*	*	74.00	*	Vertical
34530	*	*	*	*	*	74.00	*	Vertical
40285	*	*	*	*	*	74.00	*	Vertical

Test channel:	Lowest	Remark:	Average
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Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11510	25.84	39.85	10.16	38.15	37.70	54.00	-16.30	Horizontal
17265	21.09	40.51	14.60	36.15	40.05	54.00	-13.95	Horizontal
23020	*	*	*	*	*	54.00	*	Horizontal
28775	*	*	*	*	*	54.00	*	Horizontal
34530	*	*	*	*	*	54.00	*	Horizontal
40285	*	*	*	*	*	54.00	*	Horizontal
11510	24.59	39.85	10.16	38.15	36.45	54.00	-17.55	Vertical
17265	19.36	40.51	14.60	36.15	38.32	54.00	-15.68	Vertical
23020	*	*	*	*	*	54.00	*	Vertical
28775	*	*	*	*	*	54.00	*	Vertical
34530	*	*	*	*	*	54.00	*	Vertical
40285	*	*	*	*	*	54.00	*	Vertical

Remark:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the too weak instrument of signal is unable to test.
5. Level = Reading Level + Antenna factor+ Cable loss – Preamp Factor
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Test channel:	Middle	Remark:	Peak
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Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11590	38.78	39.71	10.20	38.10	50.59	74.00	-23.41	Horizontal
17385	33.18	40.29	14.65	36.07	52.05	74.00	-21.95	Horizontal
23180	*	*	*	*	*	74.00	*	Horizontal
28975	*	*	*	*	*	74.00	*	Horizontal
34770	*	*	*	*	*	74.00	*	Horizontal
40565	*	*	*	*	*	74.00	*	Horizontal
11590	37.71	39.71	10.20	38.10	49.52	74.00	-24.48	Vertical
17385	31.69	40.29	14.65	36.07	50.56	74.00	-23.44	Vertical
23180	*	*	*	*	*	74.00	*	Vertical
28975	*	*	*	*	*	74.00	*	Vertical
34770	*	*	*	*	*	74.00	*	Vertical
40565	*	*	*	*	*	74.00	*	Vertical

Test channel:	Middle	Remark:	Average
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Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11590	26.37	39.71	10.20	38.10	38.18	54.00	-15.82	Horizontal
17385	22.14	40.29	14.65	36.07	41.01	54.00	-12.99	Horizontal
23180	*	*	*	*	*	54.00	*	Horizontal
28975	*	*	*	*	*	54.00	*	Horizontal
34770	*	*	*	*	*	54.00	*	Horizontal
40565	*	*	*	*	*	54.00	*	Horizontal
11590	25.30	39.71	10.20	38.10	37.11	54.00	-16.89	Vertical
17385	20.65	40.29	14.65	36.07	39.52	54.00	-14.48	Vertical
23180	*	*	*	*	*	54.00	*	Vertical
28975	*	*	*	*	*	54.00	*	Vertical
34770	*	*	*	*	*	54.00	*	Vertical
40565	*	*	*	*	*	54.00	*	Vertical

Remark:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the too weak instrument of signal is unable to test.
5. Level = Reading Level + Antenna factor+ Cable loss – Preamp Factor
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Test channel:	Highest	Remark:	Peak
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Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11670	38.91	39.61	10.23	37.95	50.80	74.00	-23.20	Horizontal
17505	34.08	40.05	14.71	36.04	52.80	74.00	-21.20	Horizontal
23340	*	*	*	*	*	74.00	*	Horizontal
29175	*	*	*	*	*	74.00	*	Horizontal
35010	*	*	*	*	*	74.00	*	Horizontal
40845	*	*	*	*	*	74.00	*	Horizontal
11670	37.84	39.61	10.23	37.95	49.73	74.00	-24.27	Vertical
17505	32.59	40.05	14.71	36.04	51.31	74.00	-22.69	Vertical
23340	*	*	*	*	*	74.00	*	Vertical
29175	*	*	*	*	*	74.00	*	Vertical
35010	*	*	*	*	*	74.00	*	Vertical
40845	*	*	*	*	*	74.00	*	Vertical

Test channel:	Highest	Remark:	Average
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Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11670	26.39	39.61	10.23	37.95	38.28	54.00	-15.72	Horizontal
17505	23.74	40.05	14.71	36.04	42.46	54.00	-11.54	Horizontal
23340	*	*	*	*	*	54.00	*	Horizontal
29175	*	*	*	*	*	54.00	*	Horizontal
35010	*	*	*	*	*	54.00	*	Horizontal
40845	*	*	*	*	*	54.00	*	Horizontal
11670	25.32	39.61	10.23	37.95	37.21	54.00	-16.79	Vertical
17505	22.25	40.05	14.71	36.04	40.97	54.00	-13.03	Vertical
23340	*	*	*	*	*	54.00	*	Vertical
29175	*	*	*	*	*	54.00	*	Vertical
35010	*	*	*	*	*	54.00	*	Vertical
40845	*	*	*	*	*	54.00	*	Vertical

Remark:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the too weak instrument of signal is unable to test.
5. Level = Reading Level + Antenna factor+ Cable loss – Preamp Factor
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.