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Report No.: SZEM110900364502
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FCC REPORT

Application No: SZEM1205002352RF
Applicant: Disruptive Ltd.
Manufacturer: Disruptive Ltd.
Factory: Dongguan Tai Sing Manufacturing Co.
Product Name: HouseParty Portable Wireless / HouseParty Rise2 Wireless
Model No.(EUT): PG533US
FCC ID: YNKPG533US
Standards: FCC CFR Title 47 Part 15 (2010)
(Only for AC Power Line Conducted Emission, Conducted Peak Output Power and Radiated Spurious emissions tests)
Date of Receipt: 2012-05-08
Date of Test: 2012-05-14 to 2012-05-17
Date of Issue: 2012-05-22

Test Result:	PASS *
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. * In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Jack Zhang
EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. 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 SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

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2 Test Summary

Test Item	Test Requirement	Test method	Result
AC Power Line Conducted Emission	FCC CFR Title 47 Part 15C Section 15.207	ANSI C63.10 (2009)	PASS
Conducted Peak Output Power	FCC CFR Title 47 Part 15C Section 15.247 (b)(1)	ANSI C63.10 (2009)	PASS
Radiated Spurious emissions	FCC CFR Title 47 Part 15C Section 15.205/15.209	ANSI C63.10 (2009)	PASS

Remark:

Model No.: PG533US

This test report (Ref. No.: SZEM110900364502) is only valid with the original test report (Ref. No.: SZEM110900364501).

Review this report and original report, this report just change the adapter.

According to the declaration from the applicant, the models in this report and models in original report were identical, only differences with changing the adapter.

Considering to the difference, pre-scan were performed on the sample in this report to find the models which can be influential to the result in the original test report for fully retest.

Therefore in this report AC Power Line Conducted Emission, Conducted Peak Output Power, and Radiated Spurious emissions tests were fully retested on model PG533US and shown the data in this report, other tests please refer to original report SZEM110900364501.



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4 General Information

4.1 Client Information

Applicant:	Disruptive Ltd.
Address of Applicant:	Windsor House, Turnpike Road, High Wycombe, Bucks, HP12 3NR, UK
Manufacturer:	Disruptive Ltd.
Address of Manufacturer:	Windsor House, Turnpike Road, High Wycombe, Bucks, HP12 3NR, UK
Factory:	Dongguan Tai Sing Manufacturing Co.
Address of Factory:	Tai Sing Industrial Road, Bai Zhou Bian, Dong Cheng, Dongguan, Guangdong Province, China

4.2 General Description of EUT

Name:	HouseParty Portable Wireless / HouseParty Rise2 Wireless
Model No.:	PG533US
Trade Mark:	Gear4
Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	2.1+EDR
Modulation Technique:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, $\pi/4$ DQPSK, 8DPSK
Number of Channel:	79
Hopping Channel Type:	Adaptive Frequency Hopping systems
Sample Type:	fixed production
Antenna Type:	Integral
Antenna Gain:	1.11dBi
Power Supply:	MOEDEL: S032BU1200250 P/N.: ET-A240V07100-B INPUT: 100-240V~ 50/60Hz 900mA OUTPUT: 12V === 2500mA
Test Voltage:	AC 120V

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2402MHz	21	2422MHz	41	2442MHz	61	2462MHz
2	2403MHz	22	2423MHz	42	2443MHz	62	2463MHz
3	2404MHz	23	2424MHz	43	2444MHz	63	2464MHz
4	2405MHz	24	2425MHz	44	2445MHz	64	2465MHz
5	2406MHz	25	2426MHz	45	2446MHz	65	2466MHz
6	2407MHz	26	2427MHz	46	2447MHz	66	2467MHz
7	2408MHz	27	2428MHz	47	2448MHz	67	2468MHz
8	2409MHz	28	2429MHz	48	2449MHz	68	2469MHz
9	2410MHz	29	2430MHz	49	2450MHz	69	2470MHz
10	2411MHz	30	2431MHz	50	2451MHz	70	2471MHz
11	2412MHz	31	2432MHz	51	2452MHz	71	2472MHz
12	2413MHz	32	2433MHz	52	2453MHz	72	2473MHz
13	2414MHz	33	2434MHz	53	2454MHz	73	2474MHz
14	2415MHz	34	2435MHz	54	2455MHz	74	2475MHz
15	2416MHz	35	2436MHz	55	2456MHz	75	2476MHz
16	2417MHz	36	2437MHz	56	2457MHz	76	2477MHz
17	2418MHz	37	2438MHz	57	2458MHz	77	2478MHz
18	2419MHz	38	2439MHz	58	2459MHz	78	2479MHz
19	2420MHz	39	2440MHz	59	2460MHz	79	2480MHz
20	2421MHz	40	2441MHz	60	2461MHz		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Channel	Frequency
The Lowest channel	2402MHz
The Middle channel	2441MHz
The Highest channel	2480MHz



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4.3 Test Environment and Mode

Operating Environment:	
Temperature:	24.0 °C
Humidity:	52 % RH
Atmospheric Pressure:	1006mbar

4.4 Description of Support Units

The EUT has been tested with associated equipment below.

Description	Manufacturer	Model No.
Mobile	Nokia	6300

4.5 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch E&E Lab,
No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China.
518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.6 Test Facility

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

- **CNAS (No. CNAS L2929)**
CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.
- **VCCI**
The 3m Semi-anechoic chamber, Full-anechoic Chamber and Shielded Room (7.5m x 4.0m x 3.0m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2197, G-416, T-1153 and C-2383 respectively.
- **FCC – Registration No.: 556682**
SGS-CSTC Standards Technical 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 our files. Registration No.: 556682.
- **Industry Canada (IC)**
The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1.

4.7 Deviation from Standards

None.

4.8 Abnormalities from Standard Conditions

None.

4.9 Other Information Requested by the Customer

None.

4.10 Test Instruments List

RE in Chamber					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	2012-06-10
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEL0023	2012-05-26
3	EMI Test software	AUDIX	E3	SEL0050	N/A
4	Coaxial cable	SGS	N/A	SEL0028	2012-05-29
5	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0015	2012-10-29
6	Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEL0006	2012-10-29
7	Horn Antenna (18-26GHz)	ETS-LINDGREN	3160	SEL0076	2012-10-29
8	Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEL0053	2012-05-26
9	Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	SEL0168	2012-10-26
11	Band filter	Amindeon	82346	SEL0094	2012-05-26

Conducted Emission					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)
1	Shielding Room	ZhongYu Electron	GB-88	SEL0042	2012-06-10
2	Two-Line V-Network	ETS-LINDGREN	3816/2	SEL0021	2012-05-26
3	LISN	Rohde & Schwarz	ENV216	SEL0152	2012-10-23
4	EMI Test Receiver	Rohde & Schwarz	ESCI	SEL0022	2012-05-26
5	Coaxial Cable	SGS	N/A	SEL0024	2012-05-29



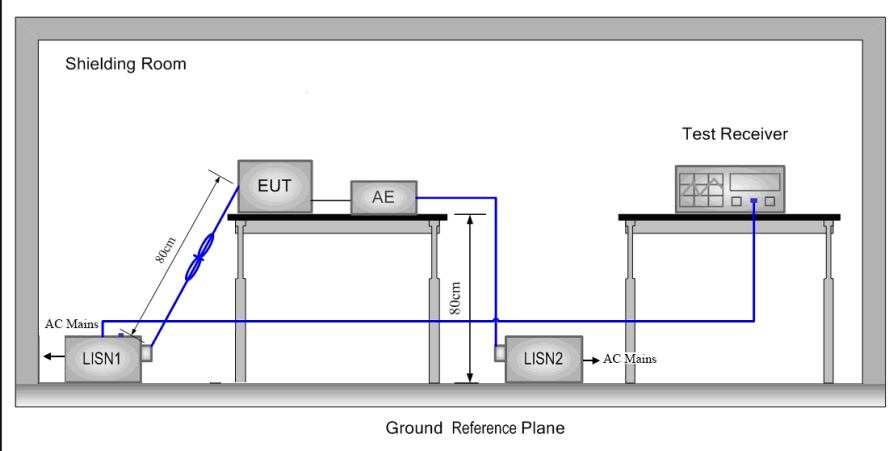
RF conducted					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)
1	Spectrum Analyzer	Rohde & Schwarz	FSP 30	SEL0154	2012-10-23
2	Coaxial cable	SGS	N/A	SEL0028	2012-05-29

General used equipment					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)
1	Humidity/ Temperature Indicator	Shanghai	ZJ1-2B	SEL0102 to SEL0103	2012-10-27
2	Humidity/ Temperature Indicator	Shanghai	ZJ1-2B	SEL0101	2012-10-27
3	Barometer	ChangChun	DYM3	SEL0088	2013-05-17

5 Test results and Measurement Data

5.1 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207		
Test Method:	ANSI C63.10: 2009		
Test Frequency Range:	150kHz to 30MHz		
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:	<ol style="list-style-type: none"> 1) The mains terminal disturbance voltage test was conducted in a shielded room. 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded. 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2. 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2009 on conducted measurement. 		

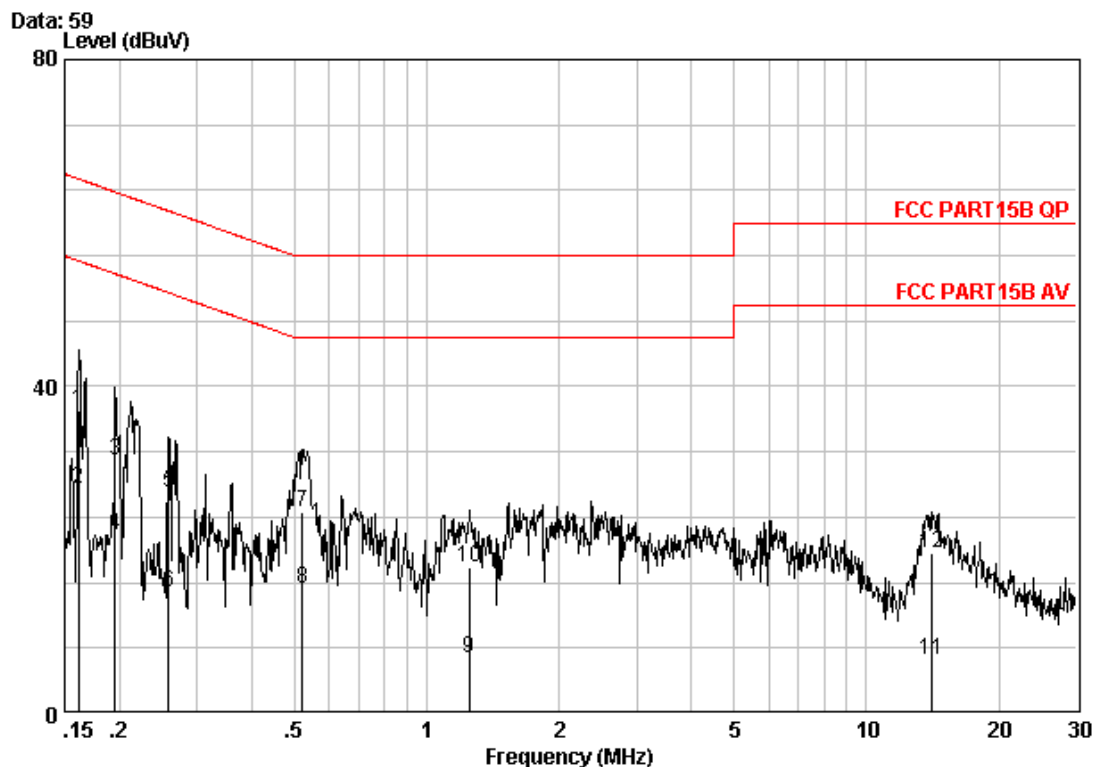
Test Setup:	
Test Mode:	Keep the EUT in transmitting mode and AC charge to the EUT.
Instruments Used:	Refer to section 4.10 for details
Test Results:	Pass

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:

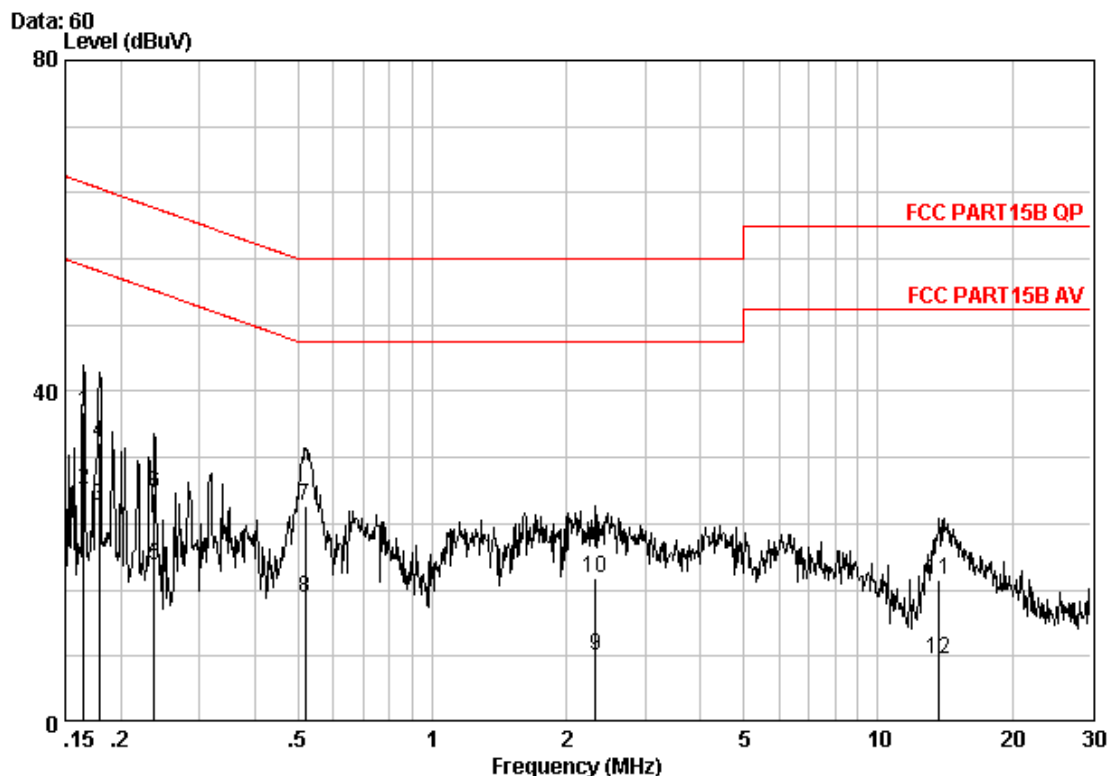


Site : Shielding Room
Condition : FCC PART 15B QP CE-20101216 LINE
Job No. : 2352RF
Mode : AC charge+transmitting

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.16155	0.04	9.60	27.44	37.08	65.38	-28.30	QP
2	0.16155	0.04	9.60	17.79	27.43	55.38	-27.96	Average
3	0.19550	0.04	9.60	21.41	31.05	63.80	-32.75	QP
4	0.19550	0.04	9.60	12.23	21.87	53.80	-31.93	Average
5	0.25888	0.05	9.60	17.41	27.06	61.47	-34.41	QP
6	0.25888	0.05	9.60	5.08	14.73	51.47	-36.74	Average
7	0.52099	0.06	9.61	14.92	24.59	56.00	-31.41	QP
8	0.52099	0.06	9.61	5.59	15.26	46.00	-30.74	Average
9	1.249	0.09	9.70	-2.98	6.81	46.00	-39.19	Average
10	1.249	0.09	9.70	8.15	17.94	56.00	-38.06	QP
11	14.138	0.24	9.97	-3.66	6.56	50.00	-43.44	Average
12	14.138	0.24	9.97	9.43	19.64	60.00	-40.36	QP

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Neutral line:



Site : Shielding Room
Condition : FCC PART 15B QP CE-20101216 NEUTRAL
Job No. : 2352RF
Mode : AC charge+transmitting

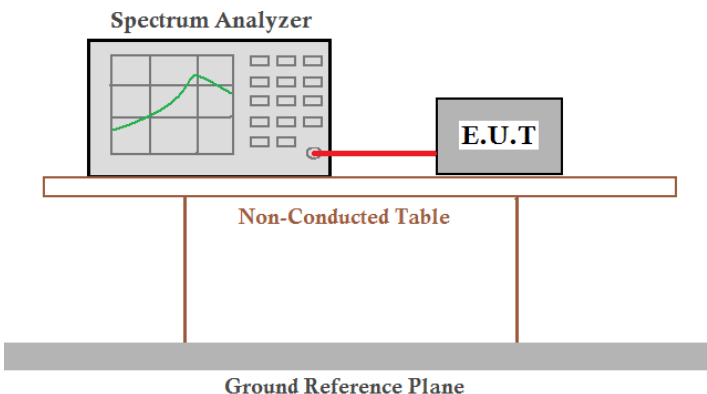
	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.16501	0.04	9.60	27.84	37.48	65.21	-27.73	QP
2	0.16501	0.04	9.60	18.50	28.14	55.21	-27.07	Average
3	0.17866	0.04	9.60	16.62	26.26	54.55	-28.29	Average
4	0.17866	0.04	9.60	24.11	33.75	64.55	-30.80	QP
5	0.23784	0.04	9.60	9.31	18.95	52.17	-33.22	Average
6	0.23784	0.04	9.60	18.03	27.67	62.17	-34.50	QP
7	0.51824	0.06	9.61	16.54	26.21	56.00	-29.79	QP
8	0.51824	0.06	9.61	5.45	15.13	46.00	-30.87	Average
9	2.321	0.13	9.72	-1.74	8.11	46.00	-37.89	Average
10	2.321	0.13	9.72	7.61	17.45	56.00	-38.55	QP
11	13.695	0.24	9.95	7.09	17.28	60.00	-42.72	QP
12	13.695	0.24	9.95	-2.46	7.74	50.00	-42.26	Average

Notes:

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

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5.2 Conducted Peak Output Power

Test Requirement:	FCC Part15 C Section 15.247 (b)(1)
Test Method:	ANSI C63.10:2009
Test Setup:	 <p><i>Remark:</i> Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.</p>
Limit:	20dBm
Exploratory Test Mode:	Keep the EUT in transmitting mode and AC charge to the EUT.
Final Test Mode:	Through Pre-scan, find the DH1 of date type is the worse case of GFSK modulation type, 2-DH1 of date type is worse case of $\pi/4$ DQPSK modulation type, 3-DH1 of date type is worse case of 8DPSK modulation type.
Instruments Used:	Refer to section 4.10 for details
Test Results:	Pass



Measurement Data

GFSK mode			
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result
Lowest	-0.78	20.00	Pass
Middle	-3.32	20.00	Pass
Highest	-6.30	20.00	Pass
$\pi/4$ DQPSK mode			
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result
Lowest	-2.52	20.00	Pass
Middle	-4.51	20.00	Pass
Highest	-7.31	20.00	Pass
8DPSK mode			
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result
Lowest	-2.52	20.00	Pass
Middle	-4.49	20.00	Pass
Highest	-7.35	20.00	Pass

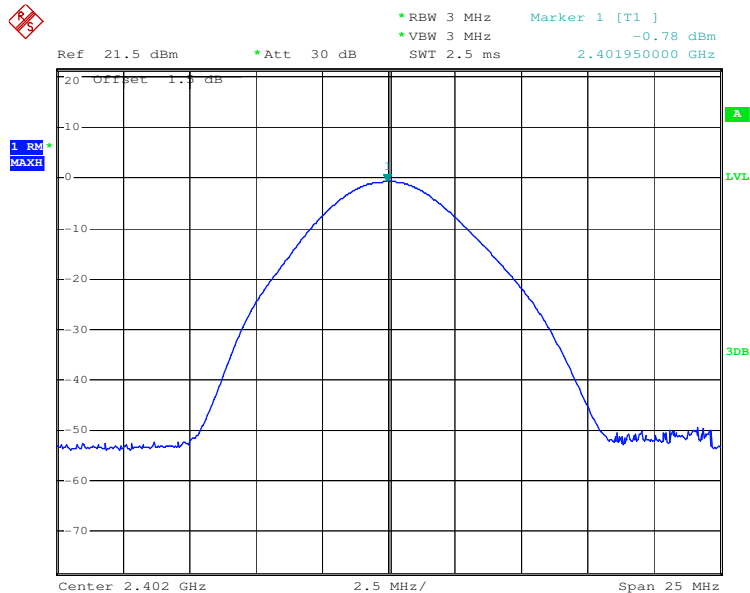


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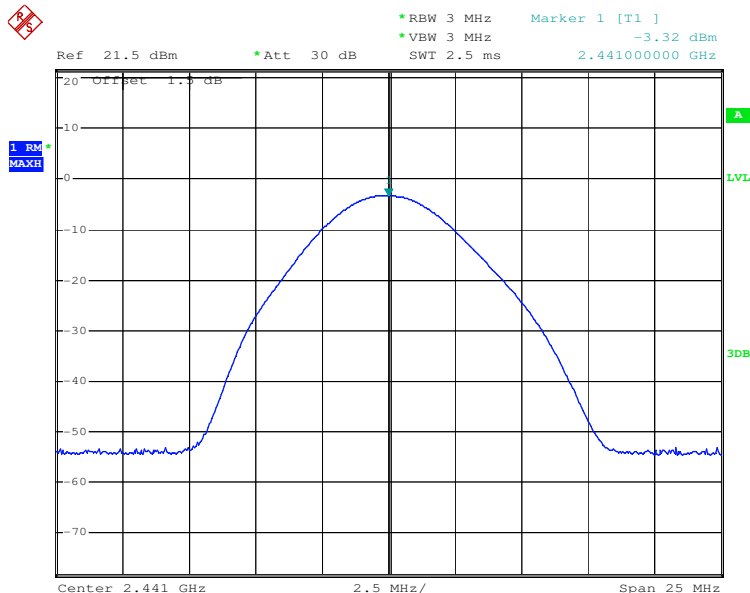


Test plot as follows:

Test mode:	GFSK	Test channel:	Lowest
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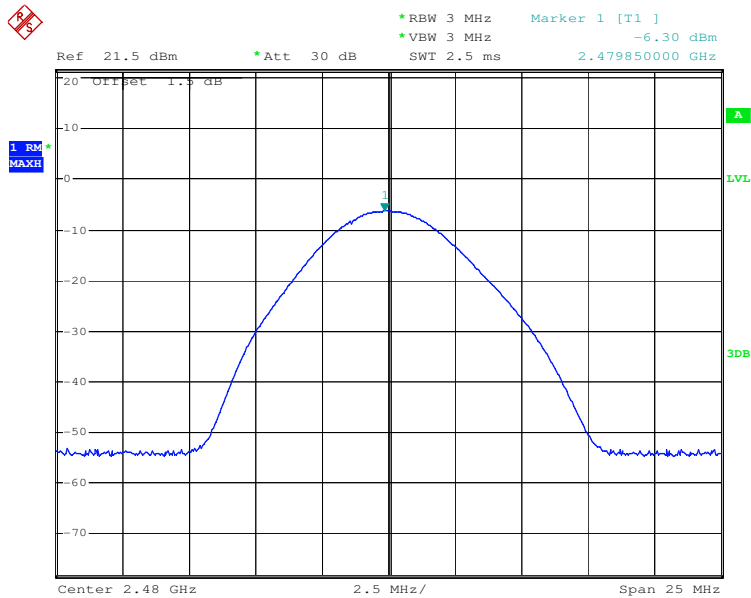
Test mode:	GFSK	Test channel:	Middle
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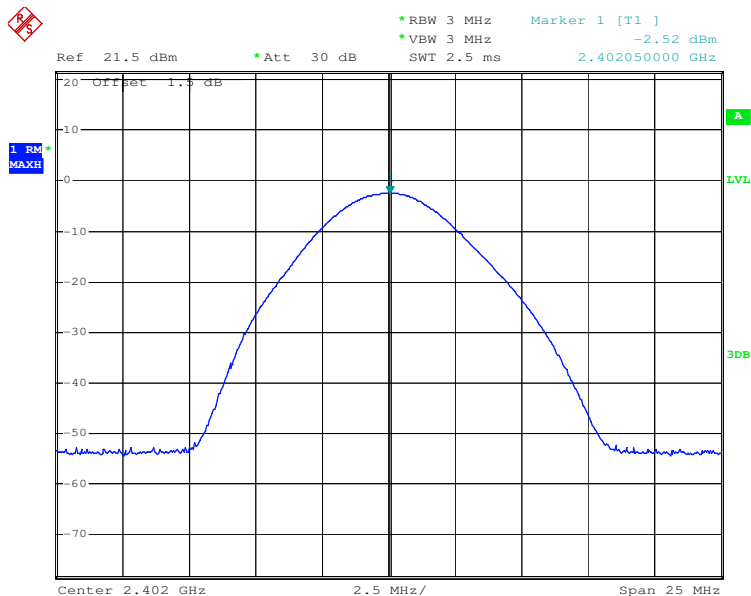
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Test mode:	GFSK	Test channel:	Highest
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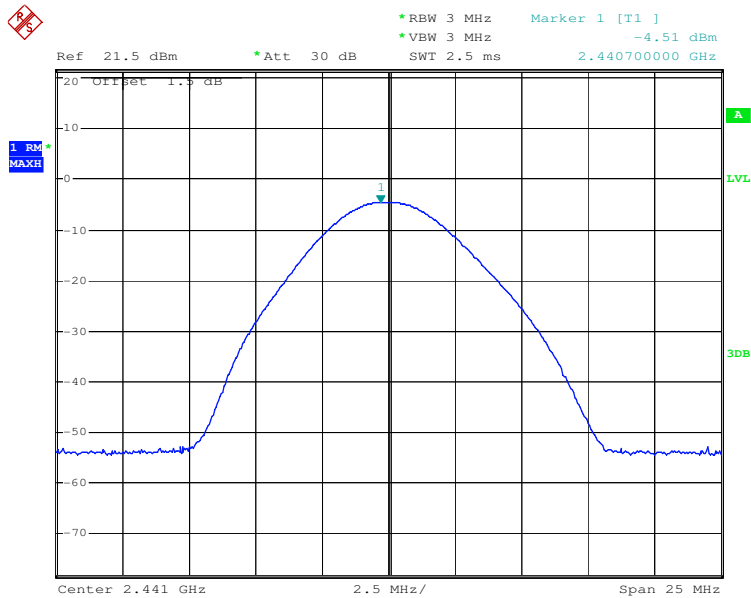
Test mode:	$\pi/4$ DQPSK	Test channel:	Lowest
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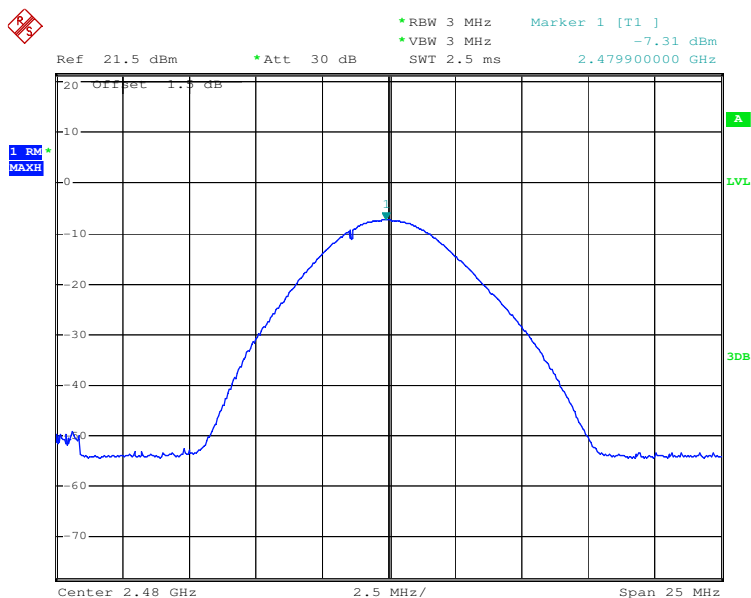
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Test mode:	$\pi/4$ DQPSK	Test channel:	Middle
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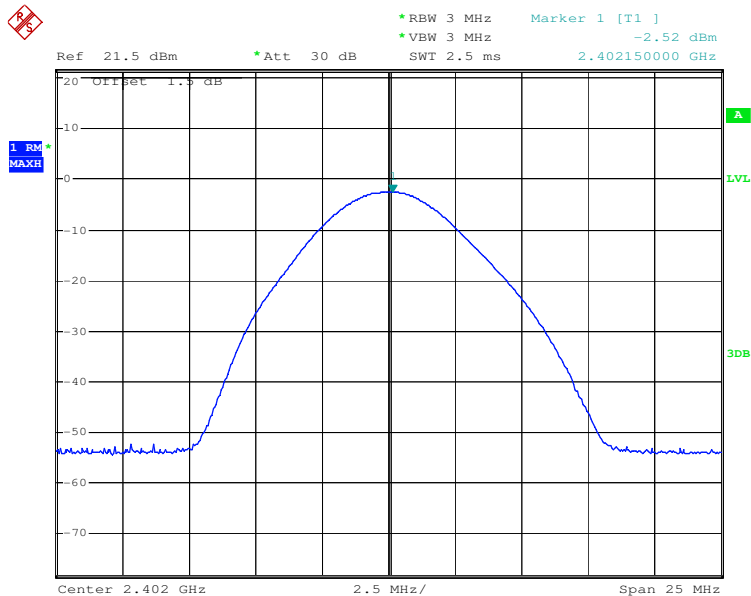
Test mode:	$\pi/4$ DQPSK	Test channel:	Highest
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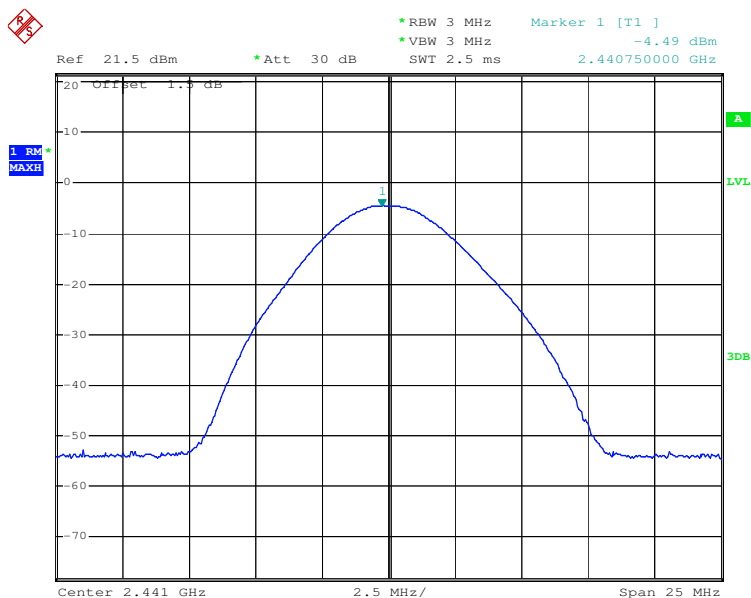
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Test mode:	8DPSK	Test channel:	Lowest
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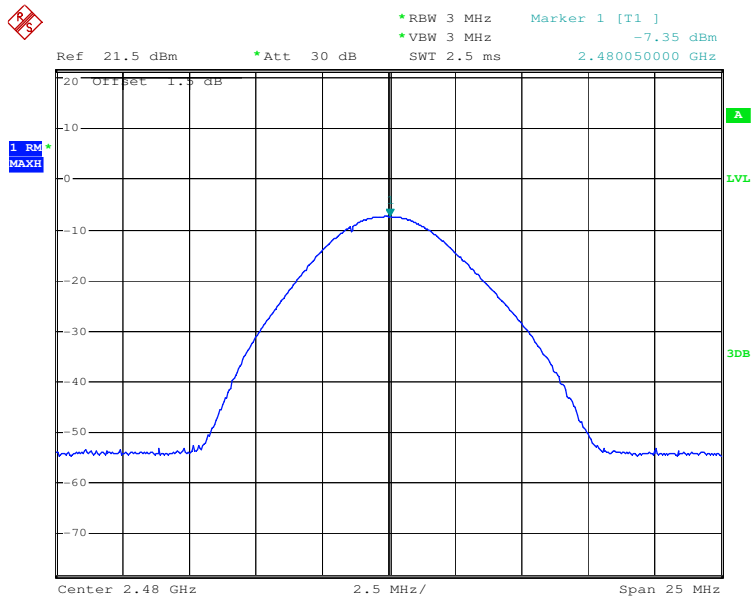
Test mode:	8DPSK	Test channel:	Middle
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Test mode:	8DPSK	Test channel:	Highest
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5.3 Radiated Spurious Emission

Test Requirement:	FCC Part15 C Section 15.209 and 15.205				
Test Method:	ANSI C63.10: 2009				
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 Setup:					

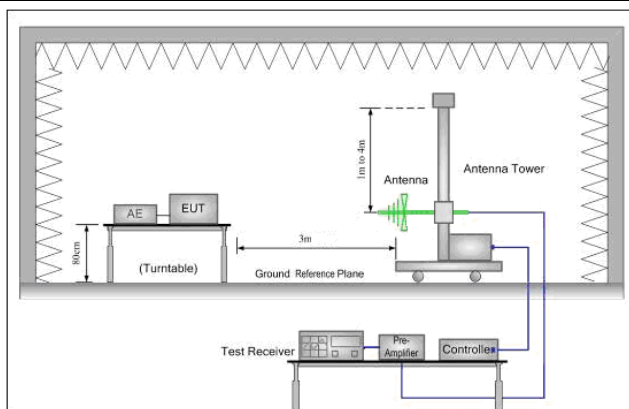


Figure 1. 30MHz to 1GHz

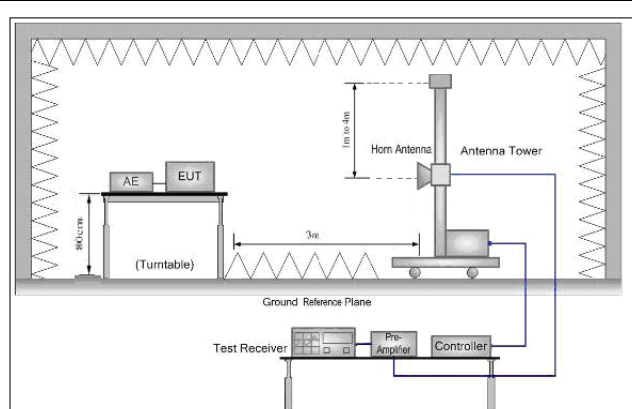


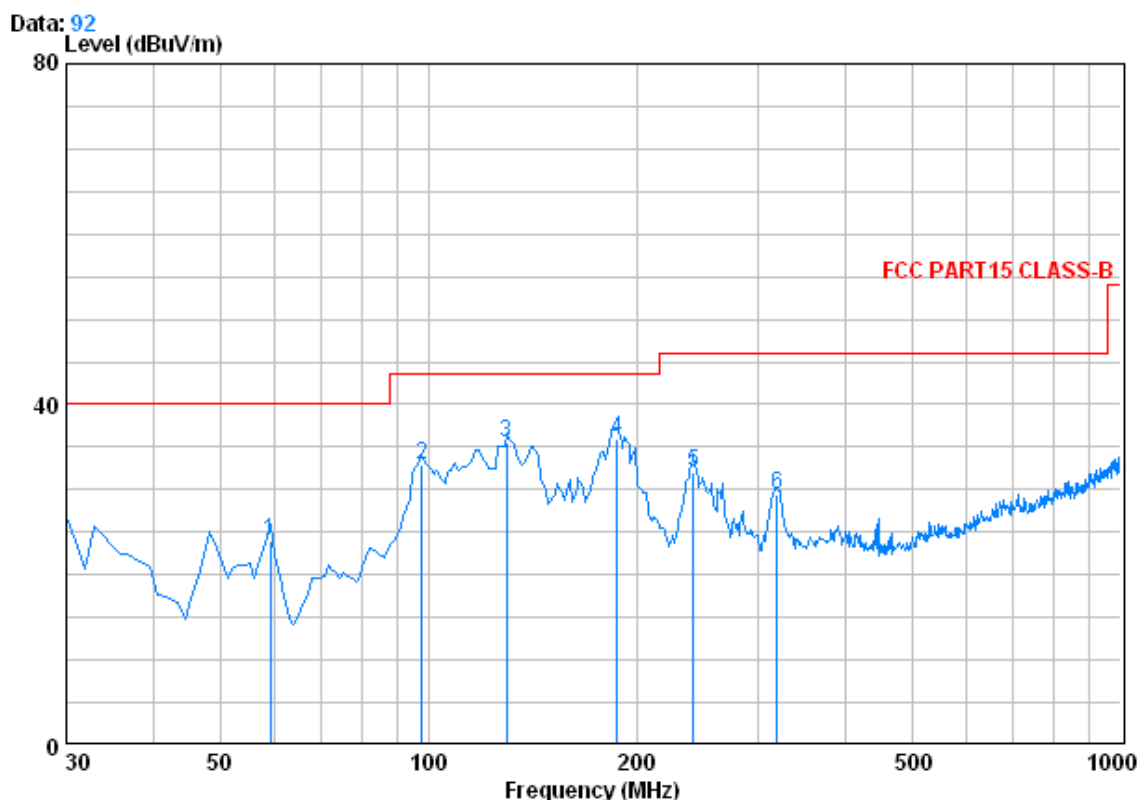
Figure 2. Above 1 GHz



Test Procedure:	<ul style="list-style-type: none">a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.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.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.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.e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.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.g. Test the EUT in the lowest channel (2402MHz), the middle channel (2441MHz), the Highest channel (2480MHz).h. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case. Only the test worst case mode is recorded in the report.i. Repeat above procedures until all frequencies measured was complete.
Exploratory Test Mode:	Keep the EUT in transmitting mode and AC charge to the EUT.
Final Test Mode:	Through Pre-scan, find the DH1 of date type is the worse case of GFSK modulation type.
Instruments Used:	Refer to section 4.10 for details
Test Results:	Pass

5.3.1 Radiated Emission below 1GHz

30MHz~1GHz (QP)		
Test mode:	Transmitting	Vertical



Condition : FCC PART15 CLASS-B 3m 0042673 VERTICAL

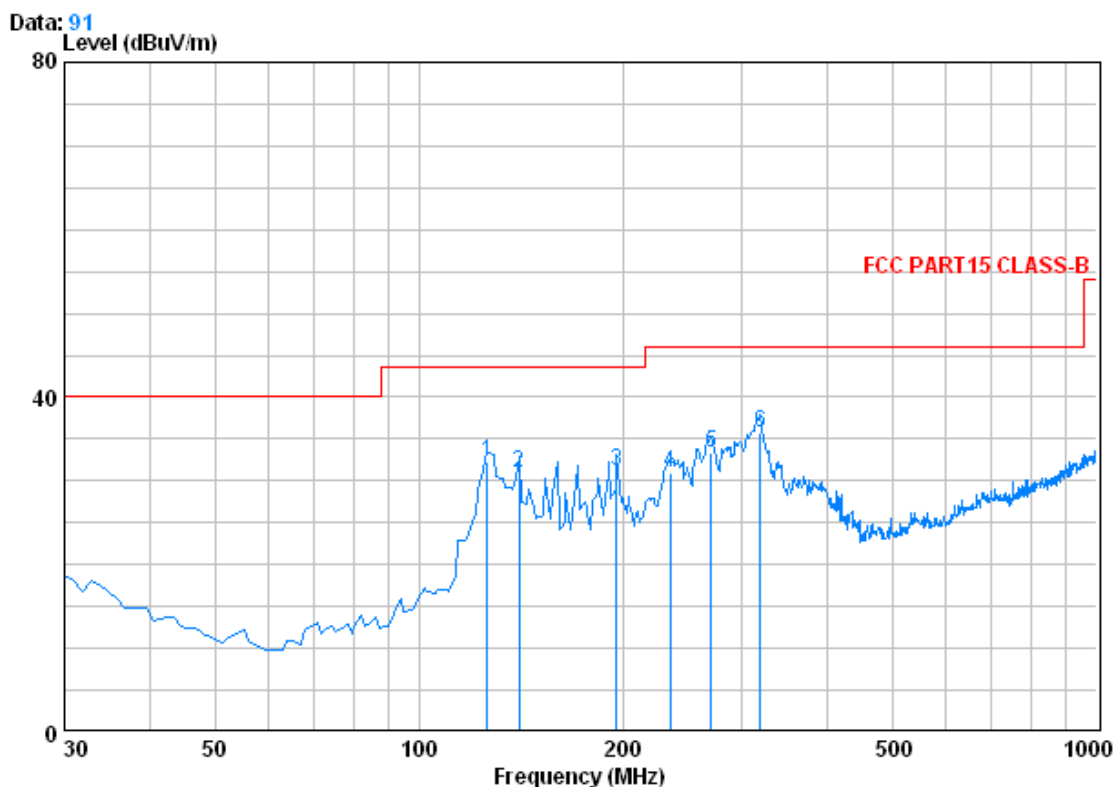
Job No. : 2352RF

Test Mode : AC charge+TX

	Freq	Cable Loss	Antenna Factor	Preamplifier	Read Level	Level	Limit	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	59.100	0.80	7.27	27.27	43.12	23.92	40.00	-16.08
2	97.900	1.18	9.02	27.20	49.96	32.95	43.50	-10.55
3	129.910	1.28	7.70	27.01	53.59	35.56	43.50	-7.94
4 @	187.140	1.38	10.05	26.74	51.37	36.05	43.50	-7.45
5	241.460	1.63	12.04	26.56	45.02	32.13	46.00	-13.87
6	319.060	1.96	14.59	26.54	39.35	29.35	46.00	-16.65



Test mode:	Transmitting	Horizontal
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Condition : FCC PART15 CLASS-B 3m 0042673 HORIZONTAL

Job No. : 2352RF

Test Mode : AC charge+TX

	Freq	Cable Loss	Antenna Factor	Preamplifier Factor	Read Level	Level	Limit	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	126.030	1.27	7.77	27.03	50.29	32.30	43.50	-11.20
2	140.580	1.30	8.15	26.95	48.40	30.90	43.50	-12.60
3	195.870	1.39	10.16	26.71	46.33	31.17	43.50	-12.33
4	234.670	1.60	11.81	26.58	44.09	30.92	46.00	-15.08
5	269.590	1.77	12.70	26.48	45.30	33.29	46.00	-12.71
6	319.060	1.96	14.59	26.54	45.85	35.85	46.00	-10.15

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**5.3.2 Transmitter Emission above 1GHz**

Worse case mode:		GFSK(DH1)		Test channel:		Lowest		Remark:	Peak
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	
1587.500	2.57	28.84	39.39	53.26	45.28	74.00	-28.72	Vertical	
2962.250	3.30	33.33	40.27	48.09	44.45	74.00	-29.55	Vertical	
4137.250	4.25	34.22	41.14	49.42	46.75	74.00	-27.25	Vertical	
4804.000	4.69	34.70	41.63	59.17	56.93	74.00	-17.07	Vertical	
5723.500	5.03	35.26	41.15	49.75	48.89	74.00	-25.11	Vertical	
7662.250	6.23	36.00	39.48	49.61	52.36	74.00	-21.64	Vertical	
1587.500	2.57	28.84	39.39	51.47	43.49	74.00	-30.51	Horizontal	
4184.250	4.28	34.31	41.18	48.98	46.39	74.00	-27.61	Horizontal	
4804.000	4.69	34.70	41.63	60.38	58.14	74.00	-15.86	Horizontal	
6616.500	5.29	36.20	40.38	50.36	51.47	74.00	-22.53	Horizontal	
7206.000	5.77	35.88	39.87	55.96	57.74	74.00	-16.26	Horizontal	
10905.250	6.20	38.47	37.82	45.64	52.49	74.00	-21.51	Horizontal	

Worse case mode:		GFSK(DH1)		Test channel:		Lowest		Remark:	Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization	
1587.500	2.57	28.84	39.39	42.68	34.70	54.00	-19.30	Vertical	
2962.250	3.30	33.33	40.27	42.76	39.12	54.00	-14.88	Vertical	
4137.250	4.25	34.22	41.14	40.59	37.92	54.00	-16.08	Vertical	
4804.000	4.69	34.70	41.63	55.03	52.79	54.00	-1.21	Vertical	
5723.500	5.03	35.26	41.15	41.27	40.41	54.00	-13.59	Vertical	
7662.250	6.23	36.00	39.48	40.76	43.51	54.00	-10.49	Vertical	
1587.500	2.57	28.84	39.39	43.57	35.59	54.00	-18.41	Horizontal	
4184.250	4.28	34.31	41.18	40.19	37.60	54.00	-16.40	Horizontal	
4804.000	4.69	34.70	41.63	54.90	52.66	54.00	-1.34	Horizontal	
6616.500	5.29	36.20	40.38	42.34	43.45	54.00	-10.55	Horizontal	
7206.000	5.77	35.88	39.87	47.68	49.46	54.00	-4.54	Horizontal	
10905.250	6.20	38.47	37.82	43.17	50.02	54.00	-3.98	Horizontal	

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Worse case mode:		GFSK(DH1)		Test channel:		Middle		Remark:	Peak
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	
1928.250	4.27	31.31	39.54	46.62	42.66	74.00	-31.34	Vertical	
2974.000	5.04	33.35	40.28	46.59	44.70	74.00	-29.30	Vertical	
4882.000	7.48	34.59	41.68	61.34	61.73	74.00	-12.27	Vertical	
5512.000	7.76	34.90	41.35	48.58	49.89	74.00	-24.11	Vertical	
8414.250	9.45	36.17	38.83	44.80	51.59	74.00	-22.41	Vertical	
11986.250	11.28	38.88	38.27	45.04	56.93	74.00	-17.07	Vertical	
1599.250	3.99	28.84	39.40	51.78	45.21	74.00	-28.79	Horizontal	
2680.250	4.81	32.96	40.06	49.08	46.79	74.00	-27.21	Horizontal	
3655.500	5.98	33.39	40.79	48.61	47.19	74.00	-26.81	Horizontal	
4882.000	7.48	34.59	41.68	60.97	61.36	74.00	-12.64	Horizontal	
8355.500	9.43	36.14	38.88	47.51	54.20	74.00	-19.80	Horizontal	
10764.250	10.39	38.40	37.76	44.68	55.71	74.00	-18.29	Horizontal	

Worse case mode:		GFSK(DH1)		Test channel:		Middle		Remark:	Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization	
1928.250	4.27	31.31	39.54	34.59	30.63	54.00	-23.37	Vertical	
2974.000	5.04	33.35	40.28	35.89	34.00	54.00	-20.00	Vertical	
4882.000	7.48	34.59	41.68	52.97	53.36	54.00	-0.64	Vertical	
5512.000	7.76	34.90	41.35	36.49	37.80	54.00	-16.20	Vertical	
8414.250	9.45	36.17	38.83	36.78	43.57	54.00	-10.43	Vertical	
11986.250	11.28	38.88	38.27	32.19	44.08	54.00	-9.92	Vertical	
1599.250	3.99	28.84	39.40	43.87	37.30	54.00	-16.70	Horizontal	
2680.250	4.81	32.96	40.06	40.28	37.99	54.00	-16.01	Horizontal	
3655.500	5.98	33.39	40.79	38.16	36.74	54.00	-17.26	Horizontal	
4882.000	7.48	34.59	41.68	52.33	52.72	54.00	-1.28	Horizontal	
8355.500	9.43	36.14	38.88	40.39	47.08	54.00	-6.92	Horizontal	
10764.250	10.39	38.40	37.76	35.61	46.64	54.00	-7.36	Horizontal	

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Worse case mode:		GFSK(DH1)		Test channel:		Highest		Remark:		Peak
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		
1634.500	4.02	29.09	39.41	52.14	45.84	74.00	-28.16	Vertical		
3373.500	5.57	33.25	40.58	48.79	47.03	74.00	-26.97	Vertical		
4607.250	7.20	35.03	41.49	49.17	49.91	74.00	-24.09	Vertical		
4960.000	7.53	34.46	41.74	56.30	56.55	74.00	-17.45	Vertical		
8132.250	9.37	36.06	39.08	47.77	54.12	74.00	-19.88	Vertical		
11645.500	11.03	38.54	38.13	46.68	58.12	74.00	-15.88	Vertical		
1634.500	4.02	29.09	39.41	51.13	44.83	74.00	-29.17	Horizontal		
2762.500	4.87	33.07	40.13	47.94	45.75	74.00	-28.25	Horizontal		
4501.500	7.07	35.20	41.40	48.22	49.09	74.00	-24.91	Horizontal		
4960.000	7.53	34.46	41.74	58.12	58.37	74.00	-15.63	Horizontal		
6475.500	8.14	36.26	40.51	49.92	53.81	74.00	-20.19	Horizontal		
11316.500	10.80	38.44	37.99	45.35	56.60	74.00	-17.40	Horizontal		
Worse case mode:		GFSK(DH1)		Test channel:		Highest		Remark:		Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization		
1634.500	4.02	29.09	39.41	42.59	36.29	54.00	-17.71	Vertical		
3373.500	5.57	33.25	40.58	36.79	35.03	54.00	-18.97	Vertical		
4607.250	7.20	35.03	41.49	39.75	40.49	54.00	-13.51	Vertical		
4960.000	7.53	34.46	41.74	51.31	51.56	54.00	-2.44	Vertical		
8132.250	9.37	36.06	39.08	38.15	44.50	54.00	-9.50	Vertical		
11645.500	11.03	38.54	38.13	35.98	47.42	54.00	-6.58	Vertical		
1634.500	4.02	29.09	39.41	42.16	35.86	54.00	-18.14	Horizontal		
2762.500	4.87	33.07	40.13	36.49	34.30	54.00	-19.70	Horizontal		
4501.500	7.07	35.20	41.40	37.19	38.06	54.00	-15.94	Horizontal		
4960.000	7.53	34.46	41.74	51.88	52.13	54.00	-1.87	Horizontal		
6475.500	8.14	36.26	40.51	38.16	42.05	54.00	-11.95	Horizontal		
11316.500	10.80	38.44	37.99	36.48	47.73	54.00	-6.27	Horizontal		

Remark:

- 1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor
- 2) The disturbance above 12GHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

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