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Report No.: SZEMO10100659701

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# FCC REPORT

**Application No. :** SZEMO101006597RF  
**Applicant:** Shenzhen Fuyeda Industry Development Corp.Ltd  
**Product Name:** MOUSE  
**Operation Frequency:** 2405.2MHz to 2476.2MHz  
**FCC ID:** V4P-MS157OR  
**Standards:** FCC CFR Title 47 Part 15 Subpart C Section 15.249: 2008  
**Date of Receipt** 2009-11-04  
**Date of Test** 2009-11-04 to 2009-11-18  
**Date of Issue** 2010-10-28

<b>Test Result :</b>	<b>PASS *</b>
----------------------	---------------

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

Authorized Signature:

Jack Zhang  
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.

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### 3 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Passed
Field strength of the fundamental signal	15.249 (a)	Passed
Spurious emissions	15.249/15.209	Passed
20dB Occupied Bandwidth	15.215 (c)	Passed

*Remark: Passed: The EUT complies with the essential requirements in the standard.*

*Failed: The EUT does not comply with the essential requirements in the standard.*

This report was an additional report copied from the report SZEMO09110622301, just changed the FCC ID , model No.and added the trade mark and the external photos.

Since the electrical circuit design, layout, components used and internal wiring for the Item "MS-183OR" in the report SZEMO09110622301 was exactly the same as the Item "MS-157OR" in this report, only the interior structure, components and appearance are different.



## 4 General Information

### 4.1 Client Information

Applicant:	Shenzhen Fuyeda Industry Development Corp.Ltd
Manufacturer/ Factory:	Shenzhen Fuyeda Industry Development Corp.Ltd
Address of Applicant:	No.1, NEWMEN ROAD, TONGSHENG VILLAGE, DALANG STREET, BAO'AN, SHENZHEN, CHINA
Address of Manufacturer/ Factory:	No.1, NEWMEN ROAD, TONGSHENG VILLAGE, DALANG STREET, BAO'AN, SHENZHEN, CHINA

### 4.2 General Description of E.U.T.

Product Name:	MOUSE
Trade Name:	N/A
Trade mark:	NEWMEN
Item No.:	MS-157OR
Operation Frequency:	2405.2MHz to 2476.2MHz
Channel numbers:	32
Channel separation:	1MHz
Modulation type:	GFSK
Antenna Type:	Integral
Dwell Time	8ms
Power supply:	2X1.5V(AAA)=3.0V



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### Operation Frequency of each channel

Frequency Group1		Frequency Group2		Unit
2407.2	2442.2	2405.2	2443.2	[MHz]
2408.2	2447.2	2406.2	2444.2	
2412.2	2451.2	2409.2	2446.2	
2414.2	2452.2	2410.2	2448.2	
2417.2	2457.2	2411.2	2449.2	
2420.2	2458.2	2413.2	2453.2	
2421.2	2459.2	2415.2	2455.2	
2422.2	2460.2	2416.2	2456.2	
2427.2	2461.2	2418.2	2462.2	
2428.2	2465.2	2419.2	2463.2	
2431.2	2468.2	2423.2	2464.2	
2435.2	2469.2	2425.2	2466.2	
2436.2	2472.2	2429.2	2467.2	
2437.2	2473.2	2430.2	2470.2	
2438.2	2475.2	2432.2	2471.2	
2439.2	2476.2	2434.2	2474.2	

#### 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	2405.2MHz
The middle channel	2439.2MHz
The Highest channel	2476.2MHz



#### 4.3 E.U.T Operation mode

<b>Operating Environment:</b>	
Temperature:	24.0 °C
Humidity:	52 % RH
Atmospheric Pressure:	1008 mbar
<b>Test mode:</b>	
Normal operation mode:	Keep the EUT in communicating mode with the dongle
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:

**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 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 and C-2383 respectively.

Date of Registration: September 29, 2008. Valid until September 28, 2011.

**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 556682, June 27, 2008.

**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.

#### 4.5 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

Telephone: +86 (0) 755 2601 2053 Fax: +86 (0) 755 2671 0594

No tests were sub-contracted.

#### 4.6 Other Information Requested by the Customer

None.



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### 4.7 Test Instruments list:

RE in Chamber						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	16-06-2009	15-06-2010
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEL0023	12-12-2009	11-12-2010
3	EMI Test software	AUDIX	E3	SEL0050	N/A	N/A
4	Coaxial cable	SGS	N/A	SEL0028	18-06-2009	17-06-2010
6	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0014	12-08-2009	11-08-2010
7	Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEL0005	12-08-2009	11-08-2010
8	Horn Antenna (18-26GHz)	ETS-LINDGREN	3160	SEL0076	12-08-2009	11-08-2010
9	Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEL0053	18-06-2009	17-06-2010
10	Pre-amplifier (1-18GHz)	Rohde & Schwarz	AFS42-00101 800-25-S-42	SEL0081	18-06-2009	17-06-2010
11	Pre-amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	SEL0080	18-06-2009	17-06-2010
12	Band filter	Amindeon	82346	SEL0094	18-06-2009	17-06-2010



## 5 Test results and Measurement Data

### 5.1 Antenna requirement:

<b>Standard requirement:</b>	FCC Part15 C Section 15.203
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>	
<b>E.U.T Antenna:</b>	
<i>The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 2dBi.</i>	





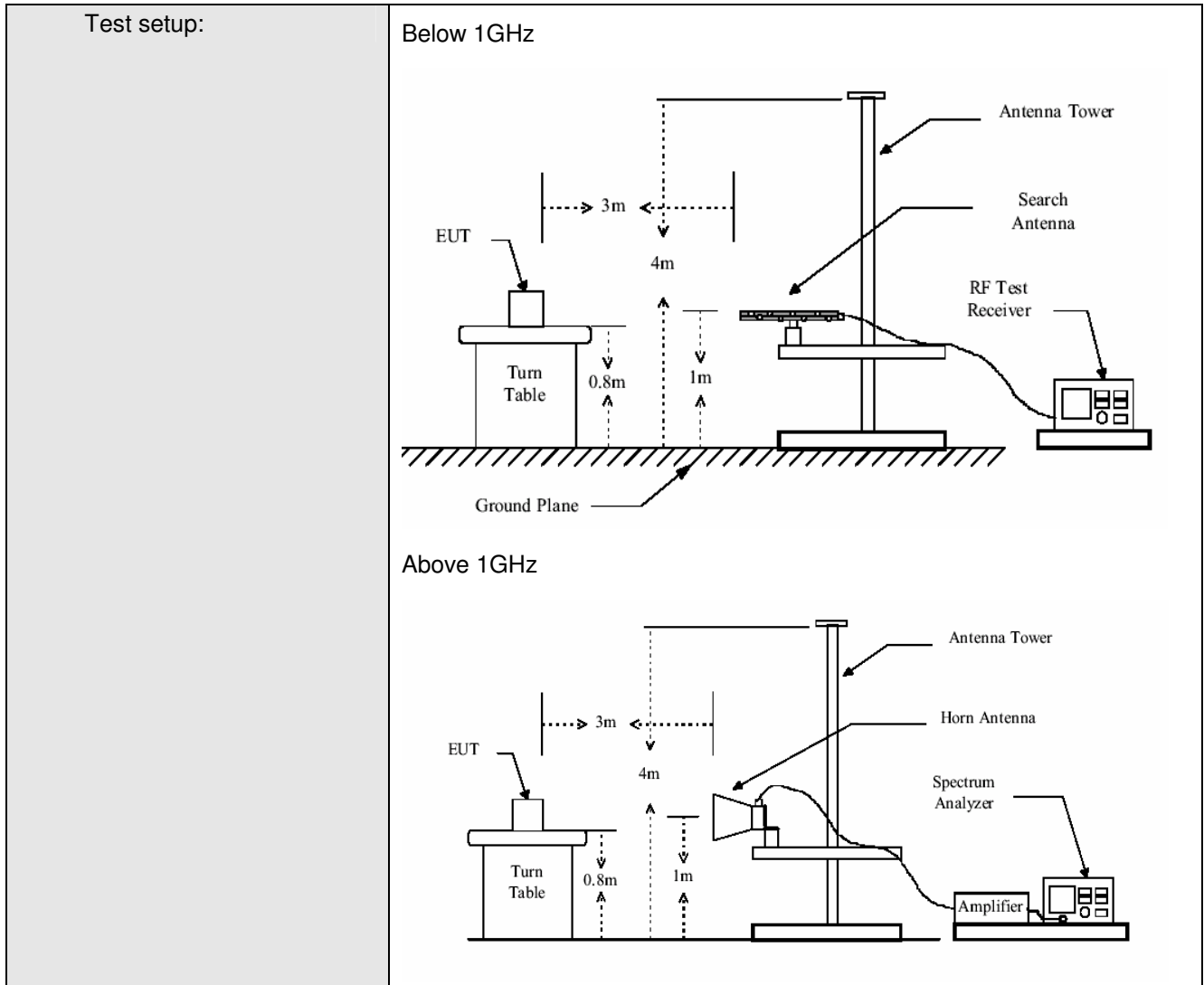
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### 5.2 Radiated Emission

Test Requirement:	FCC Part15 C Section 15.249, 15.209 and 15.205																								
Test Method:	ANSI C63.4: 2003																								
Test Frequency Range:	30MHz to 25GHz																								
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)																								
Receiver setup:	<table><tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr><tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>100KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr><tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr><tr><td>Peak</td><td>1MHz</td><td>10Hz</td><td>Average Value</td></tr></table>					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	
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: (Field strength of the fundamental signal)	<table><tr><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></tr><tr><td rowspan="2">2400MHz-2483.5MHz</td><td>94.0</td><td>Average Value</td></tr><tr><td>114.0</td><td>Peak Value</td></tr></table>					Frequency	Limit (dBuV/m @3m)	Remark	2400MHz-2483.5MHz	94.0	Average Value	114.0	Peak Value												
Frequency	Limit (dBuV/m @3m)	Remark																							
2400MHz-2483.5MHz	94.0	Average Value																							
	114.0	Peak Value																							
Limit: (Spurious Emissions)	<table><tr><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></tr><tr><td>30MHz-88MHz</td><td>40.0</td><td>Quasi-peak Value</td></tr><tr><td>88MHz-216MHz</td><td>43.5</td><td>Quasi-peak Value</td></tr><tr><td>216MHz-960MHz</td><td>46.0</td><td>Quasi-peak Value</td></tr><tr><td>960MHz-1GHz</td><td>54.0</td><td>Quasi-peak Value</td></tr><tr><td rowspan="2">Above 1GHz</td><td>54.0</td><td>Average Value</td></tr><tr><td>74.0</td><td>Peak Value</td></tr></table>					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
Frequency	Limit (dBuV/m @3m)	Remark																							
30MHz-88MHz	40.0	Quasi-peak Value																							
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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>The E.U.T and its simulators are placed on a turn table which is 0.8meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.</p> <p>Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:2003 on radiated measurement.</p>																								
Test Instruments:	Refer to section 4.7 for details																								
Test mode:	Normal operation mode																								
Test results:	Passed																								



**Note:**

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

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



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### Measurement Data

#### 5.2.1 Field Strength Of The Fundamental Signal

##### Peak value:

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
2405.2	6.25	30.05	38.83	80.84	78.31	114.00	-35.69	Horizontal
2405.2	6.25	30.05	38.83	85.61	83.08	114.00	-30.92	Vertical
2439.2	6.29	30.15	38.64	84.5	82.30	114.00	-31.70	Horizontal
2439.2	6.29	30.15	38.64	85.65	83.45	114.00	-30.55	Vertical
2476.2	6.45	30.3	39.72	85.2	82.23	114.00	-31.77	Horizontal
2476.2	6.45	30.3	39.72	85.76	82.79	114.00	-31.21	Vertical

##### Average value:

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
2405.2	6.25	30.05	38.83	75.29	72.76	94.00	-21.24	Horizontal
2405.2	6.25	30.05	38.83	80.24	77.71	94.00	-16.29	Vertical
2439.2	6.29	30.15	38.64	78.95	76.75	94.00	-17.25	Horizontal
2439.2	6.29	30.15	38.64	80.57	78.37	94.00	-15.63	Vertical
2476.2	6.45	30.30	39.72	81.06	78.09	94.00	-15.91	Horizontal
2476.2	6.45	30.30	39.72	80.97	78.00	94.00	-16.00	Vertical



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### 5.2.2 Spurious Emissions

#### 30MHz~1GHz

Test mode: Normal operation mode:

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
35.820	0.60	12.70	28.13	39.24	24.41	40.00	-15.59	Vertical
48.430	0.78	8.47	28.11	35.60	16.74	40.00	-23.26	Vertical
123.120	1.26	7.84	27.66	34.60	16.04	43.50	-27.46	Vertical
184.230	1.38	9.98	27.24	32.02	16.14	43.50	-27.36	Vertical
797.270	3.20	22.09	26.95	39.21	37.55	46.00	-8.45	Vertical
935.980	3.64	23.30	26.43	35.70	36.21	46.00	-9.79	Vertical
32.910	0.60	13.84	28.16	29.24	15.52	40.00	-24.48	Horizontal
184.230	1.38	9.98	27.24	32.85	16.97	43.50	-26.53	Horizontal
432.550	2.34	16.56	27.52	42.78	34.16	46.00	-11.84	Horizontal
710.940	2.94	21.60	27.24	39.21	36.51	46.00	-9.49	Horizontal
749.740	3.06	21.70	27.11	44.60	42.25	46.00	-3.75	Horizontal
797.270	3.20	22.09	26.95	38.23	36.57	46.00	-9.43	Horizontal

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Above 1GHz					
Test mode:	Transmitting	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
2390.0	6.28	29.98	39.03	45.31	42.54	74.00	-31.46	Vertical
2400.0	6.34	30.03	38.87	45.82	43.32	74.00	-30.68	Vertical
4810.4	9.36	34.25	41.53	52.93	55.01	74.00	-18.99	Vertical
7215.6	13.30	37.24	40.88	50.44	60.10	74.00	-13.90	Vertical
9620.8	13.39	37.99	37.56	44.27	58.09	74.00	-15.91	Vertical
12026.0	16.45	39.10	39.09	44.07	60.53	74.00	-13.47	Vertical
2390.0	6.28	29.98	39.03	45.59	42.82	74.00	-31.18	Horizontal
2400.0	6.34	30.03	38.87	45.89	43.39	74.00	-30.61	Horizontal
4810.4	9.36	34.25	41.53	56.09	58.17	74.00	-15.83	Horizontal
7215.6	13.30	37.24	40.88	50.31	59.97	74.00	-14.03	Horizontal
9620.8	13.39	37.99	37.56	43.71	57.53	74.00	-16.47	Horizontal
12026.0	16.45	39.10	39.09	44.52	60.98	74.00	-13.02	Horizontal
2390.0	6.28	29.98	39.03	45.59	42.82	74.00	-31.18	Horizontal

Test mode:	Transmitting	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
2390.0	6.28	29.98	39.03	32.94	30.17	54.00	-23.83	Vertical
2400.0	6.34	30.03	38.87	32.72	30.22	54.00	-23.78	Vertical
4810.4	9.36	34.25	41.53	35.03	37.11	54.00	-16.89	Vertical
7215.6	13.30	37.24	40.88	35.17	44.83	54.00	-9.17	Vertical
9620.8	13.39	37.99	37.56	32.24	46.06	54.00	-7.94	Vertical
12026.0	16.45	39.10	39.09	28.54	45.00	54.00	-9.00	Vertical
2390.0	6.28	29.98	39.03	31.18	28.41	54.00	-25.59	Horizontal
2400.0	6.34	30.03	38.87	32.62	30.12	54.00	-23.88	Horizontal
4810.4	9.36	34.25	41.53	36.65	38.73	54.00	-15.27	Horizontal
7215.6	13.30	37.24	40.88	28.91	38.57	54.00	-15.43	Horizontal
9620.8	13.39	37.99	37.56	32.22	46.04	54.00	-7.96	Horizontal
12026.0	16.45	39.10	39.09	28.31	44.77	54.00	-9.23	Horizontal

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Test mode:	Transmitting	Test channel:	Middle	Remark:	Peak
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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
2390.0	6.28	29.98	39.03	45.24	42.47	74.00	-31.53	Vertical
2500.0	5.76	30.37	39.15	46.39	43.37	74.00	-30.63	Vertical
4878.4	10.36	34.34	39.89	59.45	64.26	74.00	-9.74	Vertical
7317.6	12.91	37.31	40.40	47.04	56.86	74.00	-17.14	Vertical
9756.8	13.89	38.03	37.94	45.02	59.00	74.00	-15.00	Vertical
12195.0	18.03	39.21	39.27	42.25	60.22	74.00	-13.78	Vertical
2390.0	6.28	29.98	39.03	44.54	41.77	74.00	-32.23	Horizontal
2500.0	5.76	30.37	39.15	45.61	42.59	74.00	-31.41	Horizontal
4878.4	10.36	34.34	39.89	56.64	61.45	74.00	-12.55	Horizontal
7317.6	12.91	37.31	40.40	48.14	57.96	74.00	-16.04	Horizontal
9756.8	13.89	38.03	37.94	45.16	59.14	74.00	-14.86	Horizontal
12195.0	18.03	39.21	39.27	42.40	60.37	74.00	-13.63	Horizontal

Test mode:	Transmitting	Test channel:	Middle	Remark:	Average
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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
2390.0	6.28	29.98	39.03	31.13	28.36	54.00	-25.64	Vertical
2500.0	5.76	30.37	39.15	32.67	29.65	54.00	-24.35	Vertical
4878.4	10.36	34.34	39.89	30.09	34.90	54.00	-19.10	Vertical
7317.6	12.91	37.31	40.40	28.22	38.04	54.00	-15.96	Vertical
9756.8	13.89	38.03	37.94	24.07	38.05	54.00	-15.95	Vertical
12195.0	18.03	39.21	39.27	21.50	39.47	54.00	-14.53	Vertical
2390.0	6.28	29.98	39.03	30.93	28.16	54.00	-25.84	Horizontal
2500.0	5.76	30.37	39.15	32.66	29.64	54.00	-24.36	Horizontal
4878.4	10.36	34.34	39.89	32.90	37.71	54.00	-16.29	Horizontal
7317.6	12.91	37.31	40.40	34.13	43.95	54.00	-10.05	Horizontal
9756.8	13.89	38.03	37.94	32.06	46.04	54.00	-7.96	Horizontal
12195.0	18.03	39.21	39.27	25.91	43.88	54.00	-10.12	Horizontal

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Test mode:	Transmitting	Test channel:	Highest	Remark:	Peak
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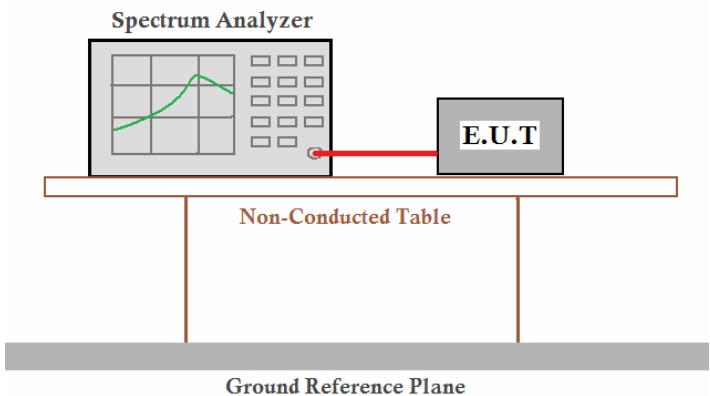
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.0	6.28	29.98	39.03	44.03	41.26	74.00	-32.74	Vertical
2483.5	6.22	30.32	39.53	45.87	42.88	74.00	-31.12	Vertical
2500.0	5.76	30.37	39.15	45.30	42.28	74.00	-31.72	Vertical
4952.4	10.43	34.45	41.03	62.79	66.64	74.00	-7.36	Vertical
7428.6	12.72	37.37	40.01	47.39	57.47	74.00	-16.53	Vertical
9904.8	14.21	38.07	37.85	44.99	59.42	74.00	-14.58	Vertical
12381.0	17.55	39.34	39.48	38.40	55.81	74.00	-18.19	Vertical
2390.0	6.28	29.98	39.03	45.69	42.92	74.00	-31.08	Horizontal
2483.5	6.22	30.32	39.53	45.69	42.70	74.00	-31.30	Horizontal
2500.0	5.76	30.37	39.15	45.19	42.17	74.00	-31.83	Horizontal
4952.4	10.43	34.45	41.03	58.98	62.83	74.00	-11.17	Horizontal
7428.6	12.72	37.37	40.01	47.60	57.68	74.00	-16.32	Horizontal
9904.8	14.21	38.07	37.85	46.27	60.70	74.00	-13.30	Horizontal
12380.0	17.55	39.34	39.48	39.36	56.77	74.00	-17.23	Horizontal

Test mode:	Transmitting	Test channel:	Highest	Remark:	Average
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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
2390.0	6.28	29.98	39.03	31.63	28.86	54.00	-25.14	Vertical
2483.5	6.22	30.32	39.53	32.52	29.53	54.00	-24.47	Vertical
2500.0	5.76	30.37	39.15	33.16	30.14	54.00	-23.86	Vertical
4952.4	10.43	34.45	41.03	33.72	37.57	54.00	-16.43	Vertical
7428.6	12.72	37.37	40.01	33.89	43.97	54.00	-10.03	Vertical
9904.8	14.21	38.07	37.85	31.41	45.84	54.00	-8.16	Vertical
12381.0	17.55	39.34	39.48	25.91	43.32	54.00	-10.68	Vertical
2390.0	6.28	29.98	39.03	31.06	28.29	54.00	-25.71	Horizontal
2483.5	6.22	30.32	39.53	32.63	29.64	54.00	-24.36	Horizontal
2500.0	5.76	30.37	39.15	40.94	37.92	54.00	-16.08	Horizontal
4952.4	10.43	34.45	41.03	33.28	37.13	54.00	-16.87	Horizontal
7428.6	12.72	37.37	40.01	33.68	43.76	54.00	-10.24	Horizontal
9904.8	14.21	38.07	37.85	31.55	45.98	54.00	-8.02	Horizontal
12381.0	17.55	39.34	39.48	26.01	43.42	54.00	-10.58	Horizontal

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### 5.3 20dB Bandwidth

Test Requirement:	FCC Part15 C Section 15.249/15.215
Test Method:	ANSI C63.4:2003
Limit:	Operation Frequency range 2400MHz-2483.5MHz
Test Procedure:	<ol style="list-style-type: none"> <li>1. According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT.</li> <li>2. Set the EUT to proper test channel.</li> <li>3. Max hold the radiated emissions, mark the peak power frequency point and the -20dB upper and lower frequency points.</li> <li>4. Read 20dB bandwidth.</li> </ol>
Test setup:	 <p><i>Remark:</i> Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.</p>
Test Instruments:	Refer to section 4.7 for details
Test mode:	Normal operation mode
Test results:	Passed

#### Measurement Data

Test channel	20dB bandwidth (MHz)	Results
Lowest	0.300	Pass
Middle	0.296	Pass
Highest	0.280	Pass

Test plot as follows:



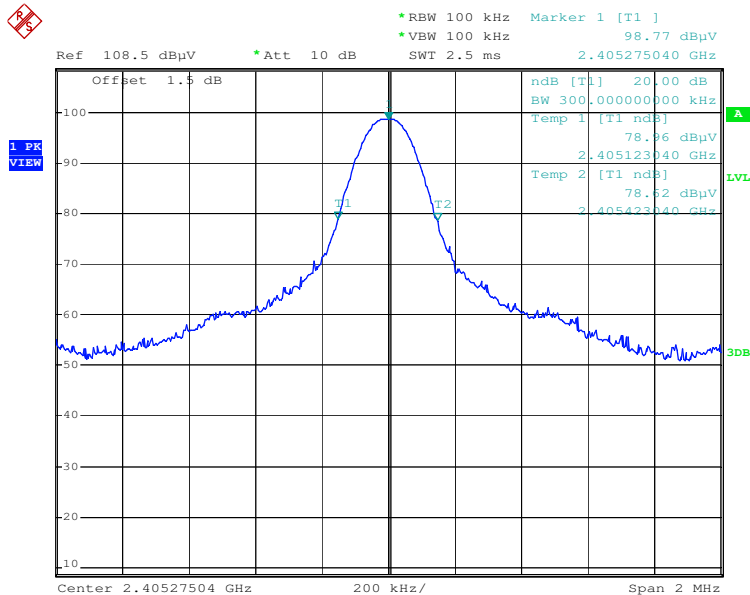


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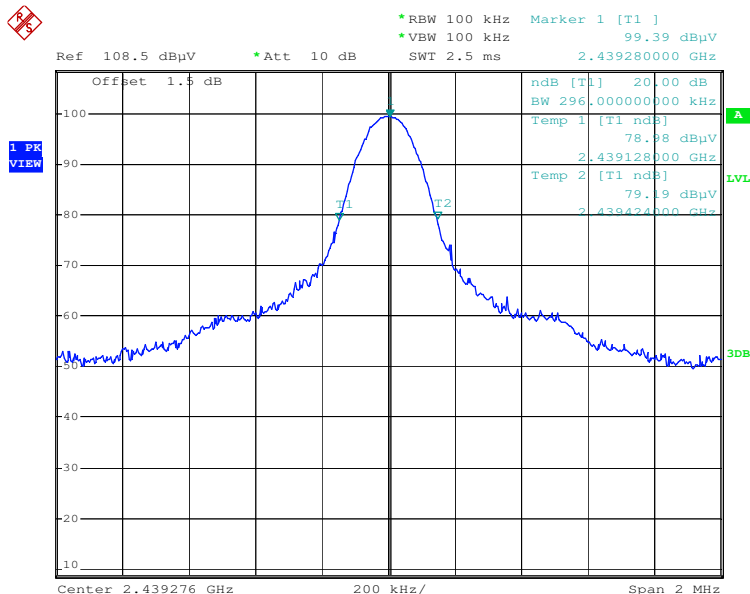
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Test channel:	Lowest	
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Test channel:	Middle	
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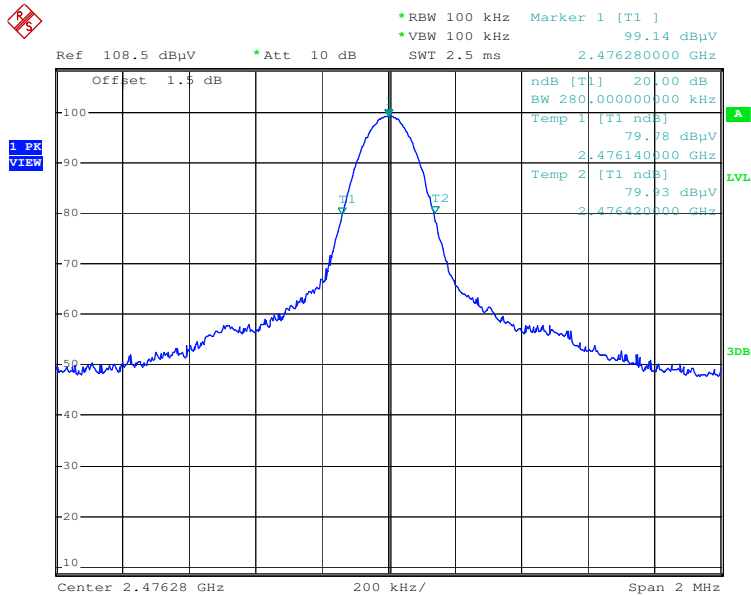


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Test channel:	Highest	
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