

FCC RADIO TEST REPORT

Prepared For	ADESSO ELECTRONICS INC.
Product Name:	2.4G Wireless Mouse
Trade Name:	N/A
Model Name :	iMouse G25, iMouse S10, iMouse S20, iMouse S30,iMouse M10 , iMouse M20 , iMouse M30 ,iMouse E10, iMouse W 10, iMouse M40
FCC ID:	SREIMOUSEG25
Prepared By	DongGuan Precise Testing Service Co.,Ltd.
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Report No.	PTS201304022F
Test Date:	Mar.30, 2013 ~ Apr.05, 2013
Date of Report :	Apr.05, 2013



VERIFICATION OF COMPLIANCE

Applicant:	ADESSO ELECTRONICS INC.
Address	DaBanDi Industrial, DaNing Precinct, Humen, DongGuan, China
Manufacturer Name:	ADESSO ELECTRONICS INC.
Address:	DaBanDi Industrial, DaNing Precinct, Humen, DongGuan, China
Product Description:	2.4G Wireless Mouse
Brand Name:	N/A
Model Name:	iMouse G25, iMouse S10, iMouse S20, iMouse S30, iMouse M10 , iMouse M20 , iMouse M30 , iMouse E10, iMouse W 10, iMouse M40
Model difference:	Model name is different
Test procedure	ANSI C63.4
Standards	FCC PART15.249

Prepared by :

Assistant

Reviewer :

Supervisor

Approved & Authorized Signer :

Jacky Ou / Manager

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1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15, Subpart C (15.249)			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	N/A	
15.203	Antenna Requirement	Pass	
15.249	Radiated Spurious Emission	Pass	
15.205	Band Edge Emission	Pass	
15.249	Occupied Bandwidth	Pass	

NOTE: (1) " N/A" denotes test is not applicable in this Test Report

1.1 TEST FACILITY

NTEK Testing Technology Co., Ltd

Add. : 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen P.R. China.

FCC Registration No.:238937; IC Registration No.:9270A-1

CNAS Registration No.:L5516

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95 %**.

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 1.38\text{dB}$
2	RF power,conducted	$\pm 0.16\text{dB}$
3	Spurious emissions,conducted	$\pm 0.21\text{dB}$
4	All emissions,radiated(<1G)	$\pm 4.68\text{dB}$
5	All emissions,radiated(>1G)	$\pm 4.89\text{dB}$
6	Temperature	$\pm 0.5^{\circ}\text{C}$
7	Humidity	$\pm 2\%$

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	2.4G Wireless Mouse	
Trade Name	N/A	
Model Name	iMouse G25	
Serial Model	iMouse S10, iMouse S20, iMouse S30, iMouse M10 , iMouse M20 , iMouse M30 , iMouse E10, iMouse W 10, iMouse M40	
Model Difference	All the model are the same circuit and RF module, except the model name.	
Product Description	The EUT is a 2.4G Wireless Mouse	
	Operation Frequency:	2402~2480MHz
	Modulation Type:	GFSK
	Antenna Designation:	PCB Antenna
	Antenna Gain(Peak)	0 dBi
	EIRP	80.4dbuv/m@3m(Peak)
	Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.	
Rating	DC 3.0V	
Channel List	Please refer to the Note 2.	
Adapter	N/A	
Battery	1.5V*2cell "AA" alkaline battery	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.

Channel List					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2402	28	2429	55	2456
02	2403	29	2430	56	2457
03	2404	30	2431	57	2458
04	2405	31	2432	58	2459
05	2406	32	2433	59	2460
06	2407	33	2434	60	2461
07	2408	34	2435	61	2462
08	2409	35	2436	62	2463
09	2410	36	2437	63	2464
10	2411	37	2438	64	2465
11	2412	38	2439	65	2466
12	2413	39	2440	66	2467
13	2414	40	2441	67	2468
14	2415	41	2442	68	2469
15	2416	42	2443	69	2470
16	2417	43	2444	70	2471
17	2418	44	2445	71	2472
18	2419	45	2446	72	2473
19	2420	46	2447	73	2474
20	2421	47	2448	74	2475
21	2422	48	2449	75	2476
22	2423	49	2450	76	2477
23	2424	50	2451	77	2478
24	2425	51	2452	78	2479
25	2426	52	2453	79	2480
26	2427	53	2454		
27	2428	54	2455		

3.

Table for Filed Antenna

Ant	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	N/A	N/A	PCB Antenna	NA	0	Antenna

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	CH01(2402MHz)
Mode 2	CH47(2448MHz)
Mode 3	CH79(2480MHz)

For Conducted Emission	
Final Test Mode	Description
N/A	N/A

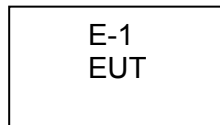
For Radiated Emission	
Final Test Mode	Description
Mode 1	CH01(2402MHz)
Mode 2	CH47(2448MHz)
Mode 3	CH79(2480MHz)

Note:

- (1) The measurements are performed at the highest, middle, lowest available channels. The worst data will reported.
- (2) The EUT use new battery.

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test



2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	2.4G Wireless Mouse	N/A	iMouse G25	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY45108040	2012.07.06	2013.07.05	1 year
2	Test Receiver	R&S	ESPI	101318	2012.06.07	2013.06.06	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2012.07.06	2013.07.05	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2012.06.07	2013.06.06	1 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2012.06.07	2013.06.06	1 year
6	Horn Antenna	EM	EM-AH-10180	2011071402	2012.07.06	2013.07.05	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2012.07.06	2013.07.05	1 year
8	Amplifier	EM	EM-30180	060538	2012.12.22	2013.12.21	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2012.06.08	2013.06.07	1 year
10	Power Meter	R&S	NRVS	100696	2012.07.06	2013.07.05	1 year
11	Power Sensor	R&S	URV5-Z4	0395.1619.05	2012.07.06	2013.07.05	1 year

Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2012.06.06	2013.06.05	1 year
2	LISN	R&S	ENV216	101313	2012.08.24	2013.08.23	1 year
3	LISN	EMCO	3816/2	00042990	2012.08.24	2013.08.23	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2012.06.07	2013.06.06	1 year
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	2012.06.07	2013.06.06	1 year
6	Absorbing clamp	R&S	MOS-21	100423	2012.06.08	2013.06.07	1 year

3. ANTENNA REQUIREMENT

3.1 STANDARD REQUIREMENT

15.203 requirement: 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.

3.2 EUT ANTENNA

The EUT antenna is PCB external Antenna. It comply with the standard requirement.

3.3 CONDUCTED EMISSION MEASUREMENT

3.3.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)		Standard
	Quasi-peak	Average	Quasi-peak	Average	
0.15 -0.5			66 - 56 *	56 - 46 *	CISPR
0.50 -5.0			56.00	46.00	CISPR
5.0 -30.0			60.00	50.00	CISPR

0.15 -0.5			66 - 56 *	56 - 46 *	LP002.
0.50 -5.0			56.00	46.00	LP002.
5.0 -30.0			60.00	50.00	LP002.

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

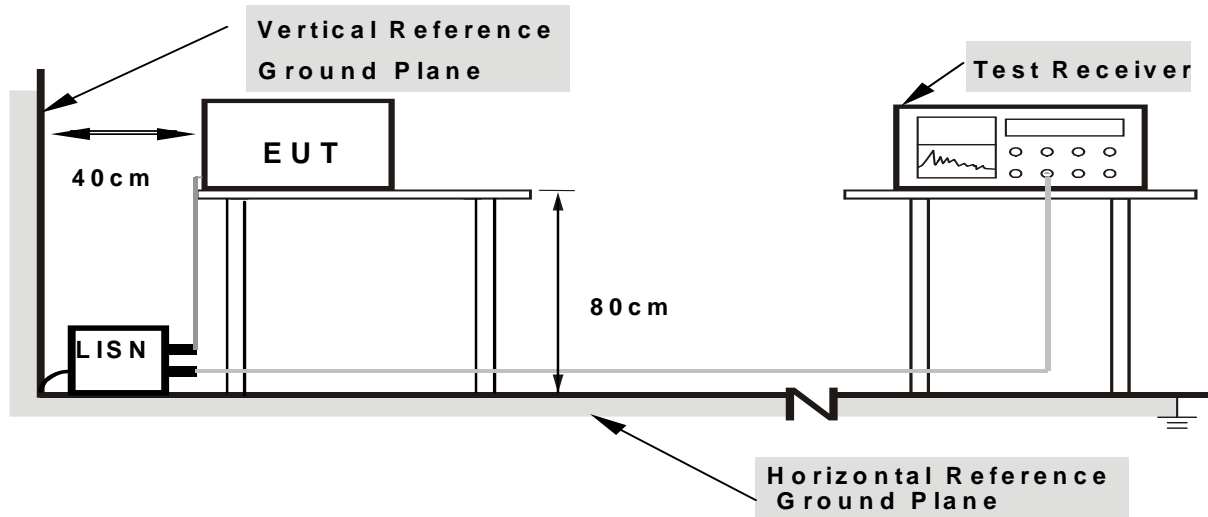
3.3.2 TEST PROCEDURE

- a. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.3.3 DEVIATION FROM TEST STANDARD

No deviation

3.3.4 TEST SETUP



- Note:**
- 1. Support units were connected to second LISN.
 - 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.2.5 TEST RESULT

EUT :	2.4G Wireless Mouse	Model Name. :	iMouse G25
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Phase :	L
Test Voltage :	N/A	Test Mode :	N/A

NOTE: To Conducted Emission, not suitable for battery devices.

3.4 RADIATED EMISSION MEASUREMENT

3.4.1 Radiated Emission Limits (FCC 15.209)

Frequencies (MHz)	Field Strength (micorvolts/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	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RADIATED EMISSION MEASUREMENT (FCC 15.249)

Frequency of Emission (MHz)	Field Strength of fundamental ((millivolts /meter)	Field Strength of Harmonics (microvolts/meter)
2400 - 2483.5	50	500

Notes:

- (1) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.4.2 TEST PROCEDURE

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

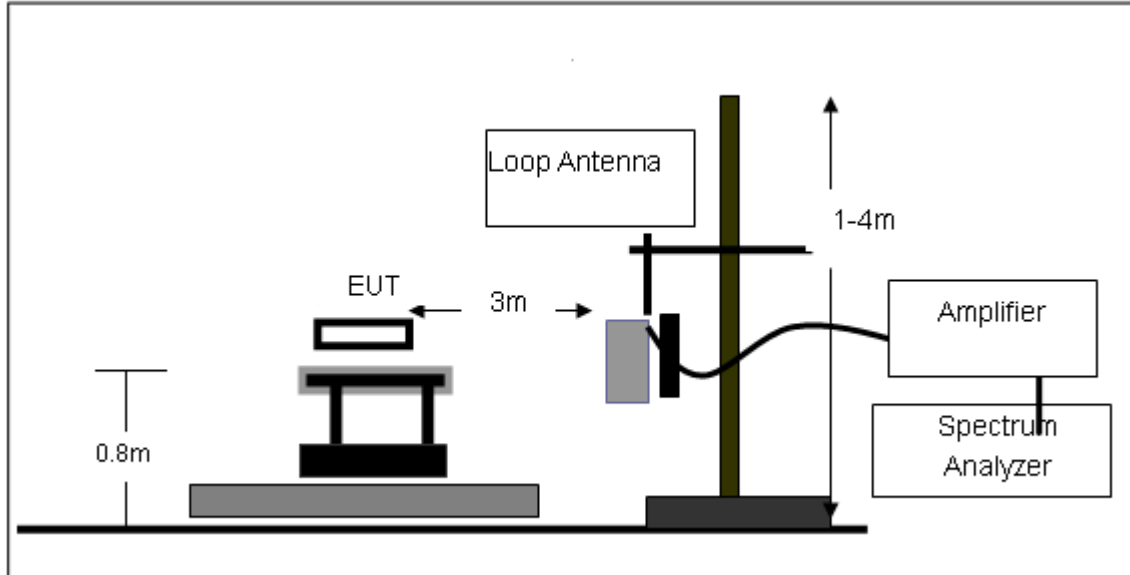
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

3.4.3 DEVIATION FROM TEST STANDARD

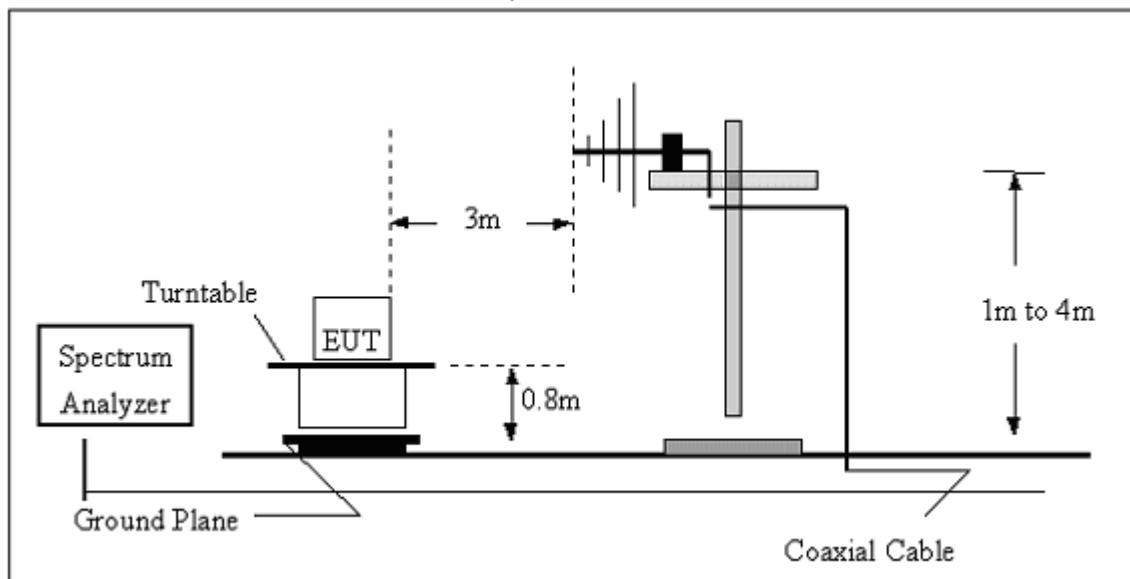
No deviation

3.4.4 TEST SETUP

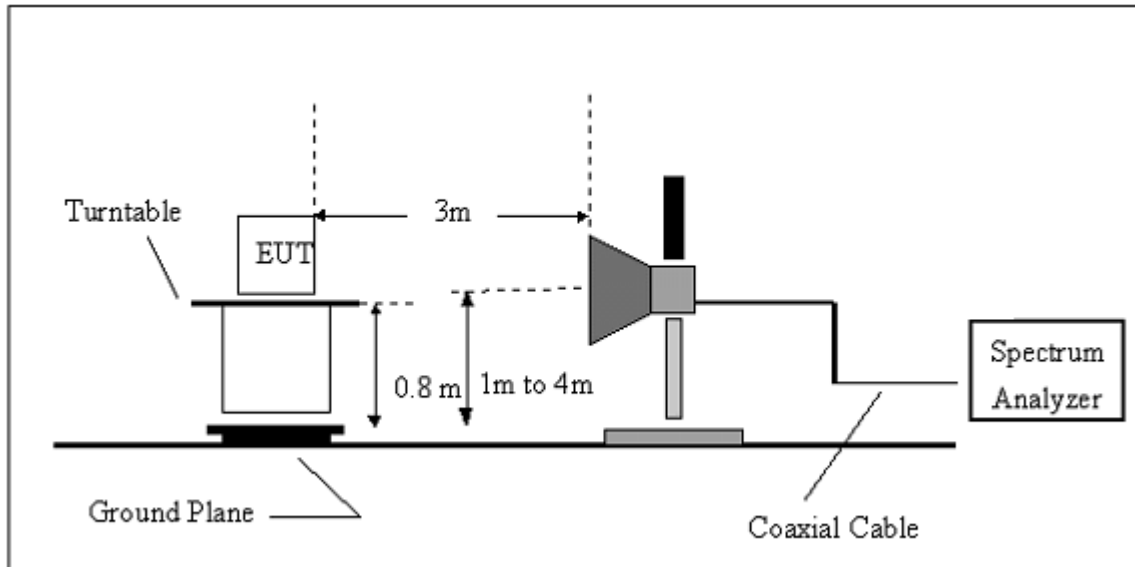
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



3.4.5 TEST RESULTS (BLOW 30MHz)

EUT :	2.4G Wireless Mouse	Model Name.	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX	Polarization :	--

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

NOTE:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log (\text{specific distance}/\text{test distance})$ (dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.

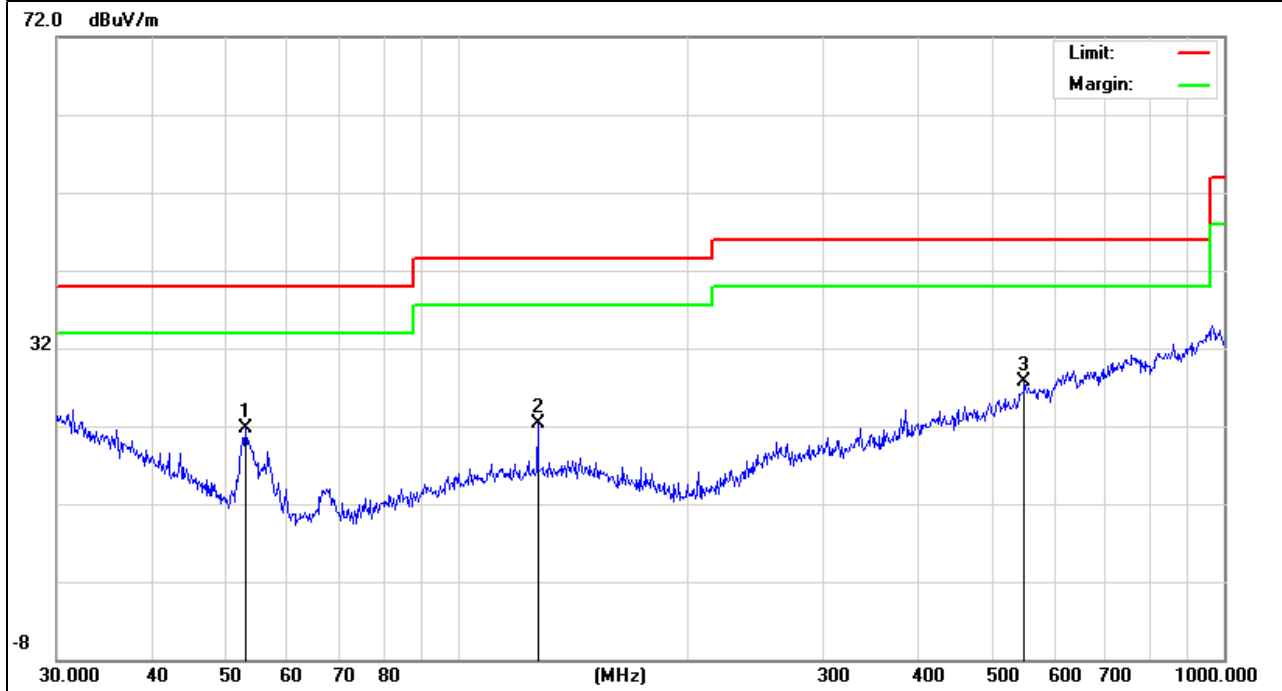
3.4.6 TEST RESULTS (BETWEEN 30 – 1000 MHZ)

EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX 2402MHz	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
52.9453	14.96	6.84	21.8	40	-18.2	QP
127.2176	10.46	11.91	22.37	43.5	-21.13	QP
549.0193	5.87	21.83	27.7	46	-18.3	QP

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

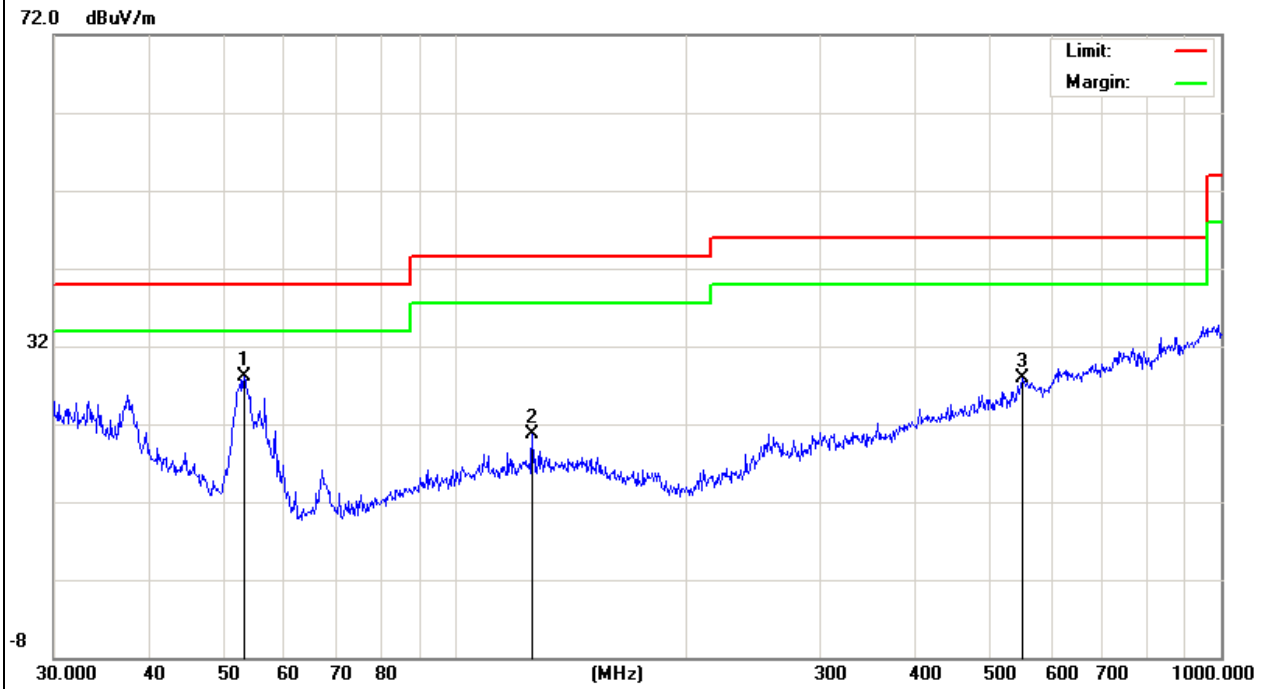


EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX 2402MHz	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBµV)	Factor (dB)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector Type
53.1313	21.28	6.76	28.04	40	-11.96	QP
126.3285	8.76	11.9	20.66	43.5	-22.84	QP
550.9479	5.93	21.92	27.85	46	-18.15	QP

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

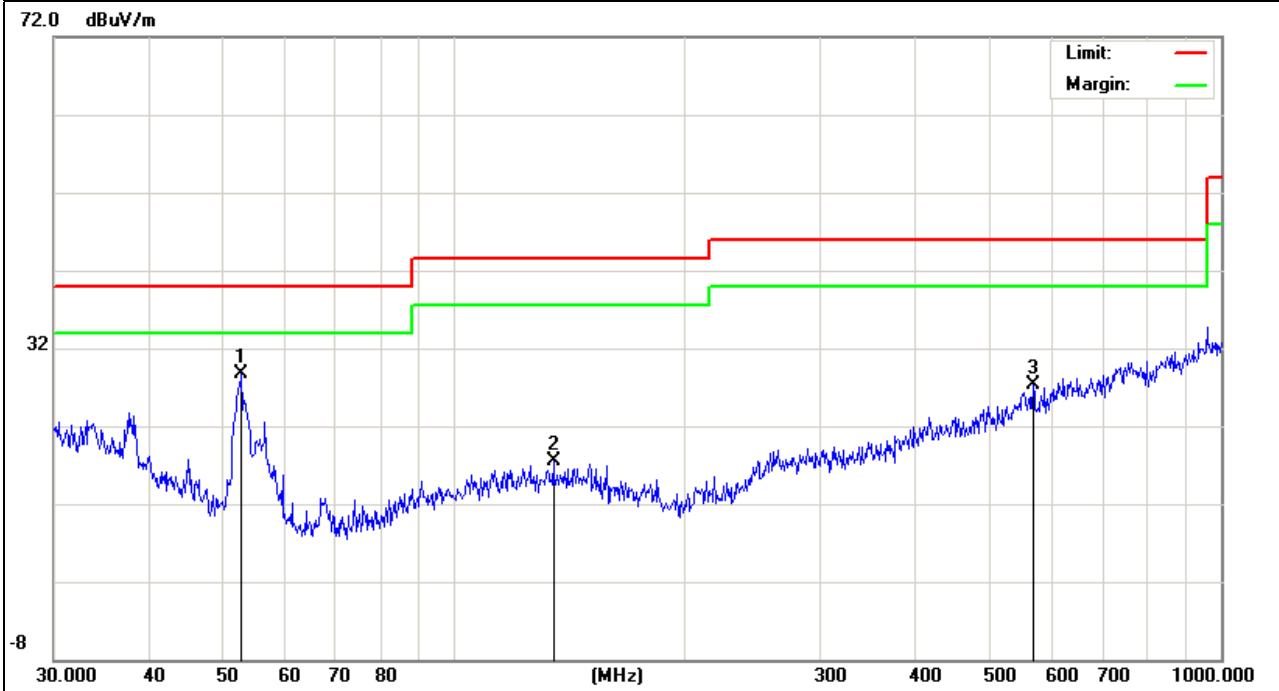


EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX 2448MHz	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBµV)	Factor (dB)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector Type
52.7599	21.82	6.92	28.74	40	-11.26	QP
134.5592	5.45	11.98	17.43	43.5	-26.07	QP
568.6127	6.36	20.99	27.35	46	-18.65	QP

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

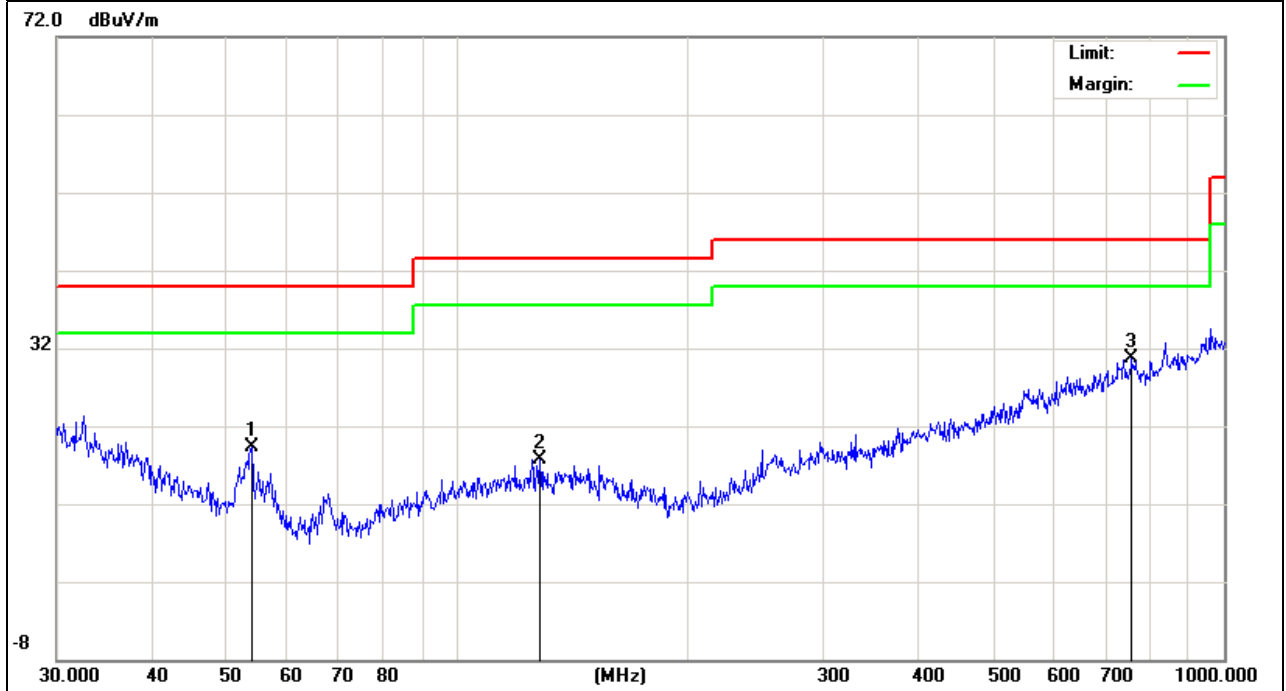


EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX 2448MHz	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBµV)	Factor (dB)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector Type
53.8817	12.91	6.45	19.36	40	-20.64	QP
128.1127	5.87	11.91	17.78	43.5	-25.72	QP
758.0407	6.25	24.36	30.61	46	-15.39	QP

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

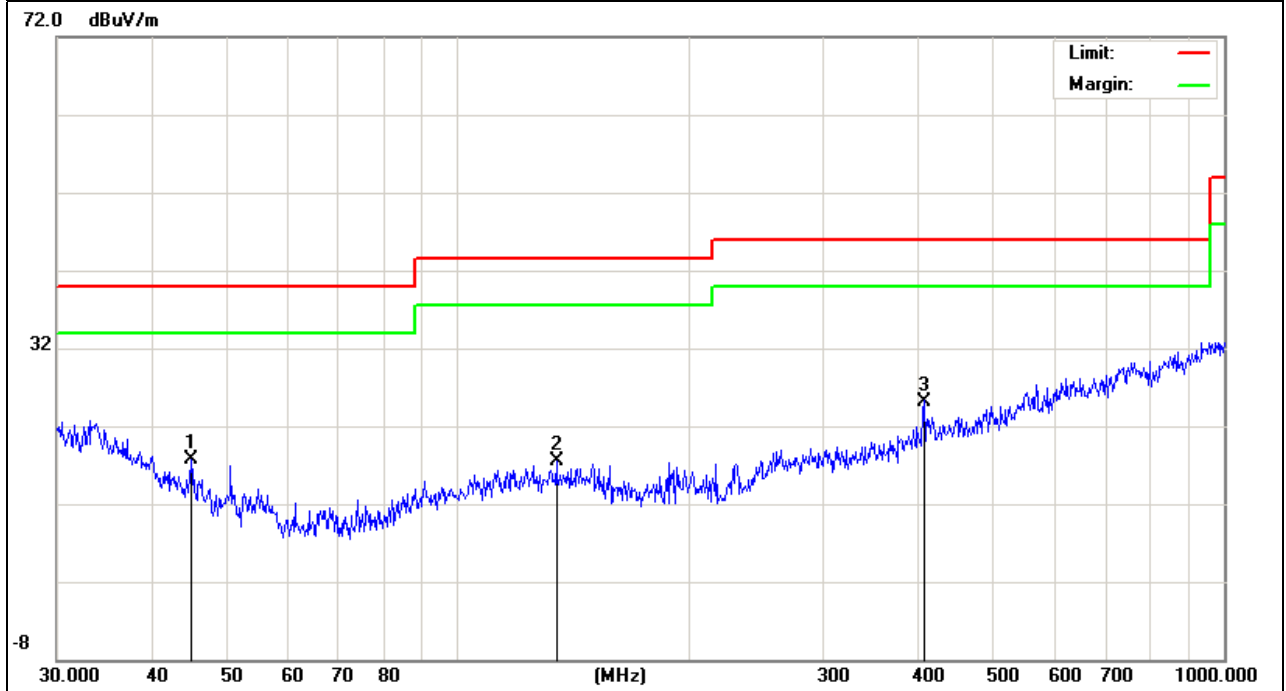


EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX 2480MHz	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBµV)	Factor (dB)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector Type
44.9004	7.02	10.66	17.68	40	-22.32	QP
134.5592	5.45	11.98	17.43	43.5	-26.07	QP
406.088	7.72	17.48	25.2	46	-20.8	QP

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

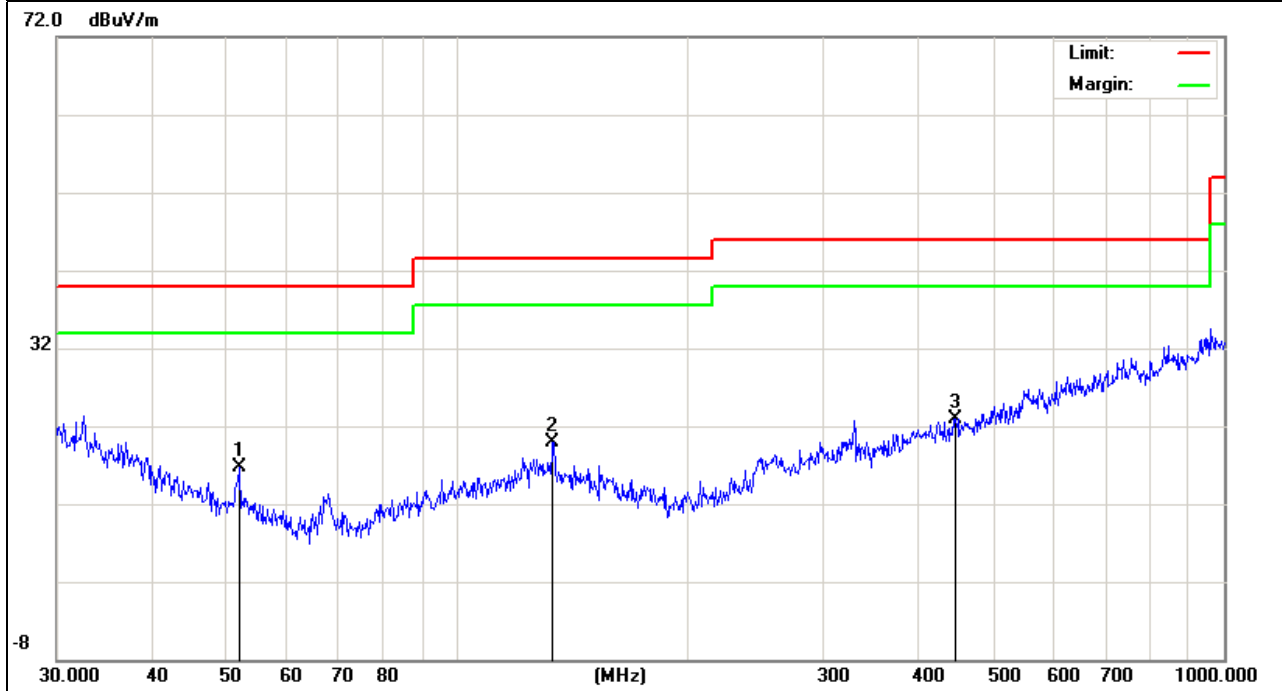


EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX 2480MHz	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBµV)	Factor (dB)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector Type
51.843	9.43	7.31	16.74	40	-23.26	QP
133.1511	7.94	11.96	19.9	43.5	-23.6	QP
446.4141	4.87	18.13	23	46	-23	QP

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

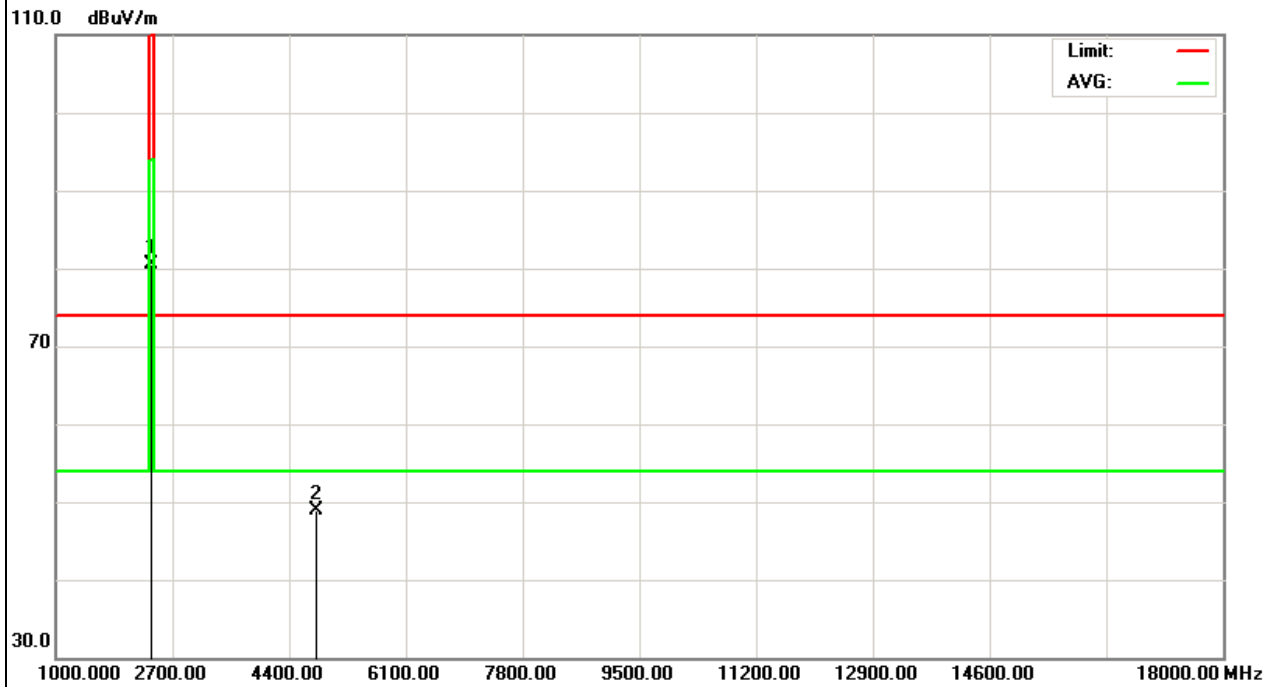


3.4.7 TEST RESULTS (ABOVE 1000 MHZ)

EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX /2402MHz	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2402	93.39	-12.99	80.4	114.0 0	-33.6	peak
4804	52.58	-3.64	48.94	74	-25.06	peak

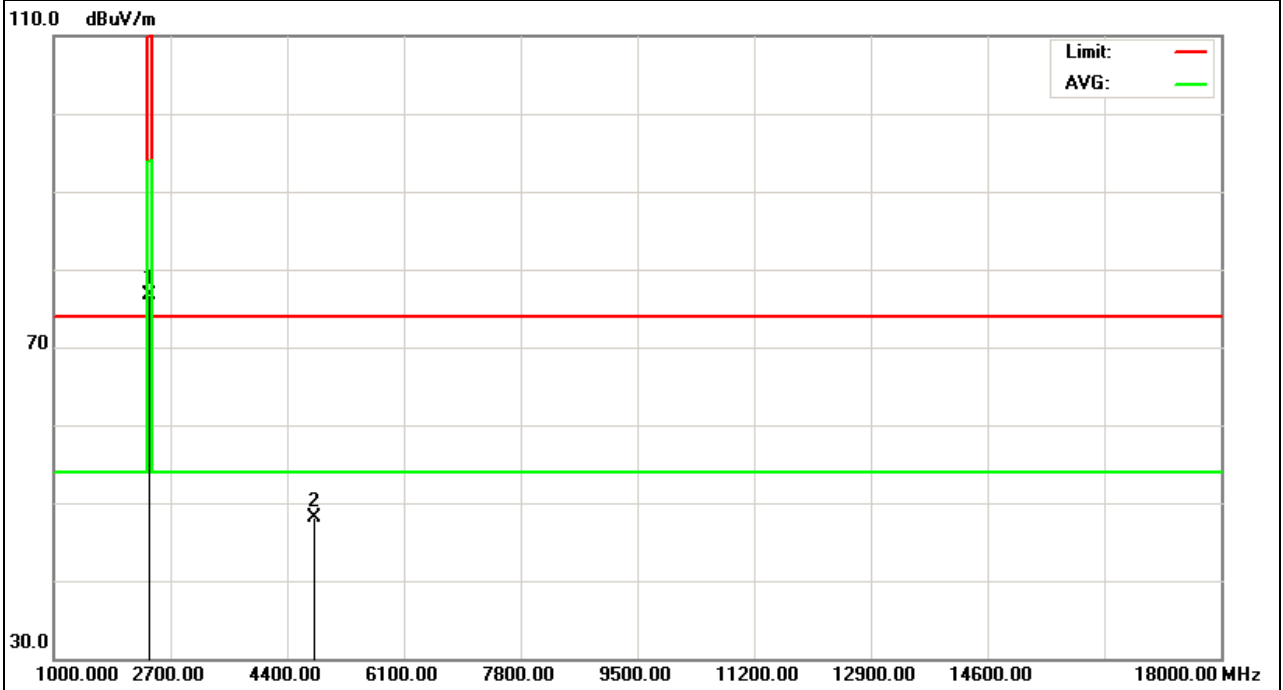
Remark:
 Factor = Antenna Factor + Cable Loss – Pre-amplifier.
 No emission detected in 18GHz~25GHz.



EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX /2402MHz	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBµV)	Factor (dB)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector Type
2402	89.69	-12.99	76.7	114.0 0	-37.3	peak
4804	51.73	-3.64	48.09	74	-25.91	peak

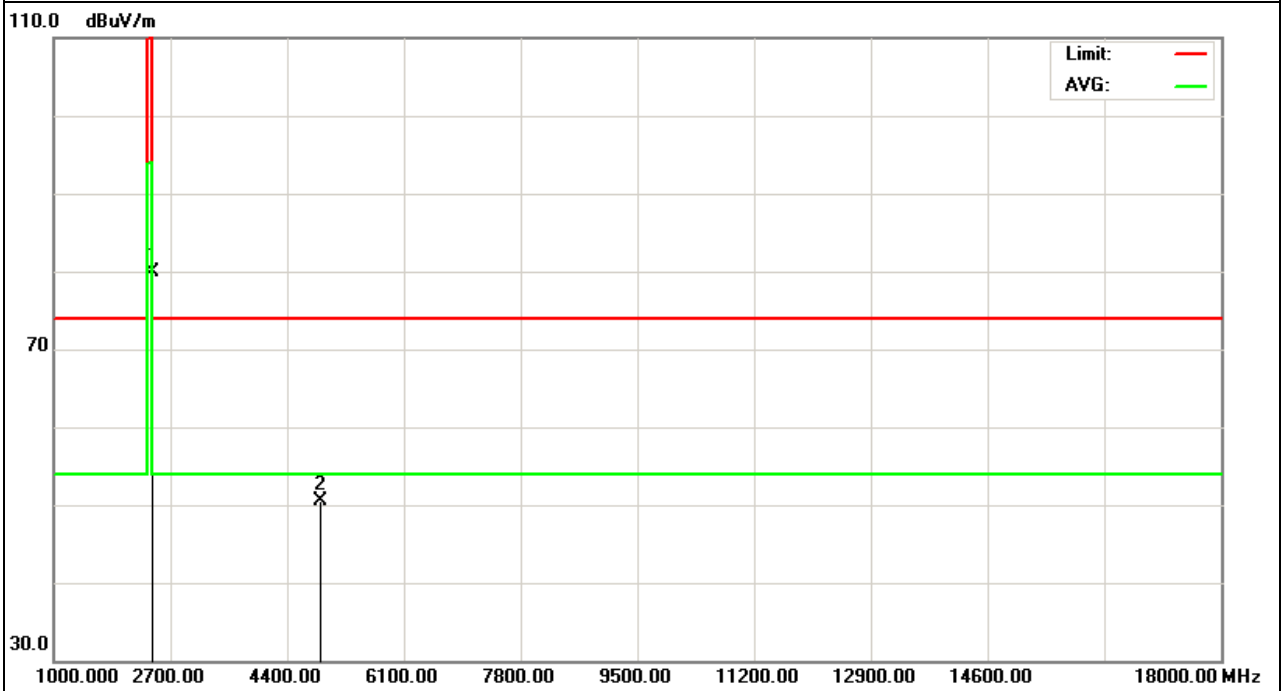
Remark:
 Factor = Antenna Factor + Cable Loss – Pre-amplifier.
 No emission detected in 18GHz~25GHz .



EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX /2448MHz	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBµV)	Factor (dB)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector Type
2448	92.77	-12.92	79.85	114.0 0	-34.15	peak
4896	54.22	-3.75	50.47	74	-23.53	peak

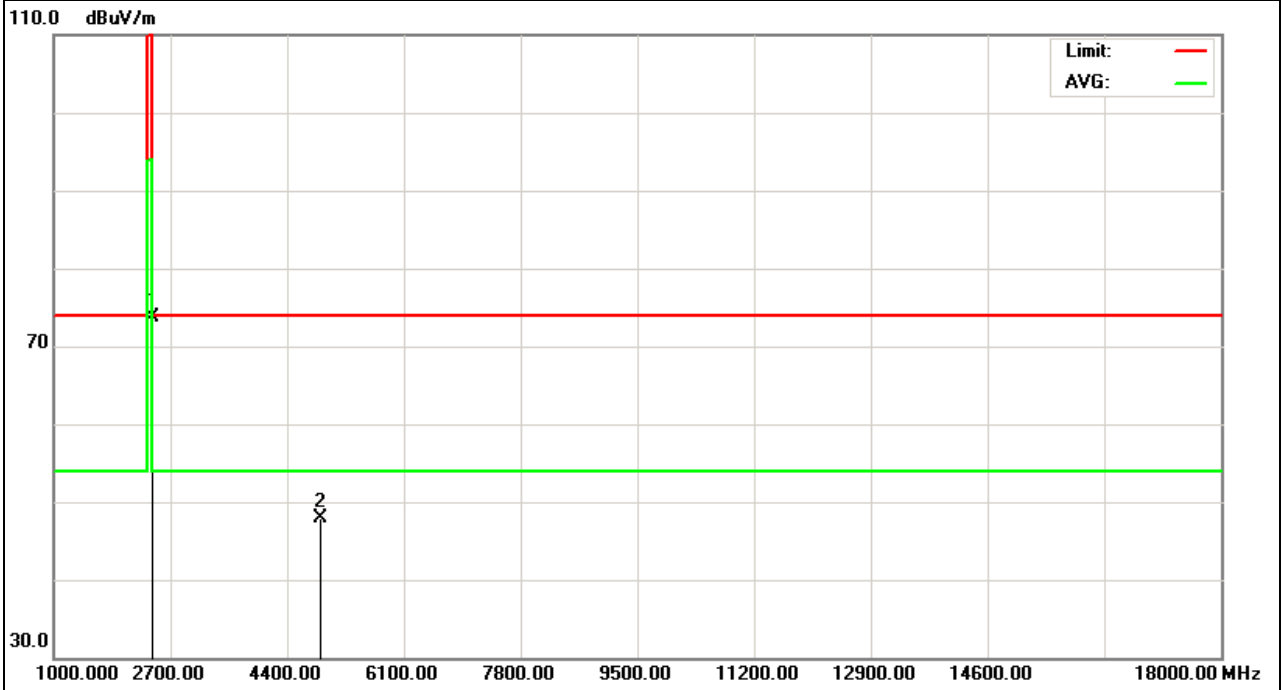
Remark:
 Factor = Antenna Factor + Cable Loss – Pre-amplifier.
 No emission detected in 18GHz~25GHz .



EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX /2448MHz	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2448	86.57	-12.92	73.65	114.0 0	-40.35	peak
4896	51.65	-3.75	47.9	74	-26.1	peak

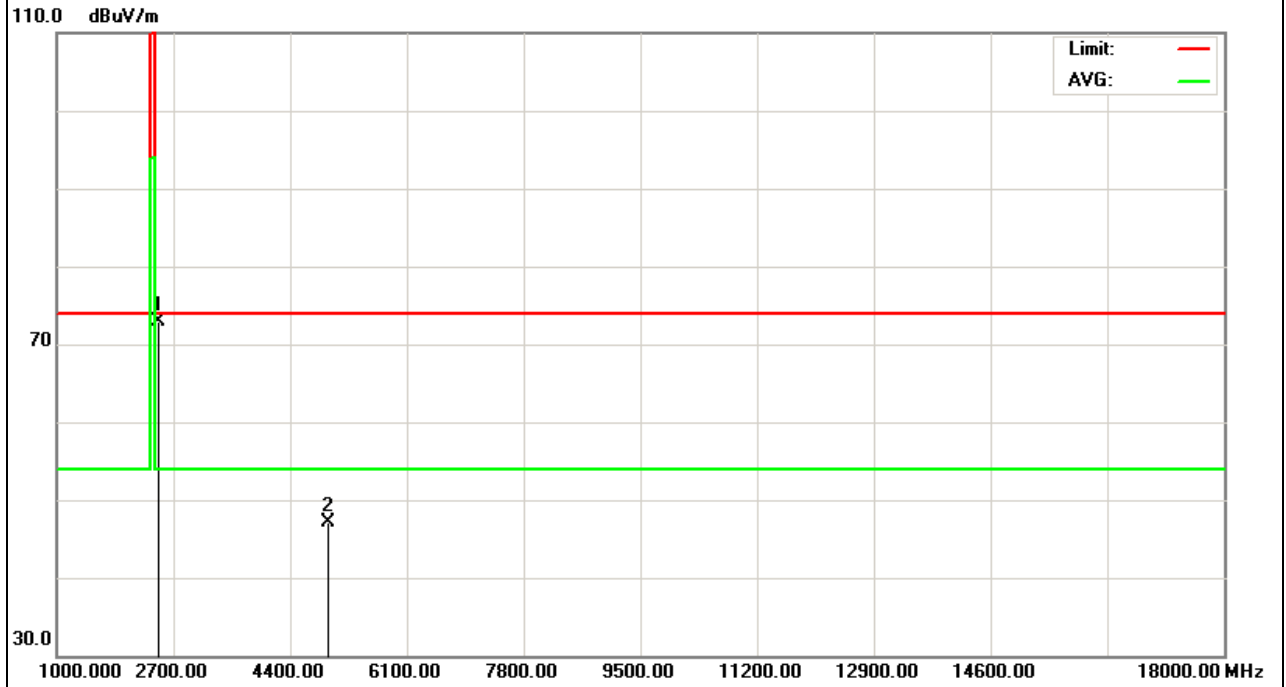
Remark:
 Factor = Antenna Factor + Cable Loss – Pre-amplifier.
 No emission detected in 18GHz~25GHz .



EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX /2480MHz	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2480	85.61	-12.79	72.82	114.0 0	-41.18	peak
4960	50.63	-3.59	47.04	74	-26.96	peak

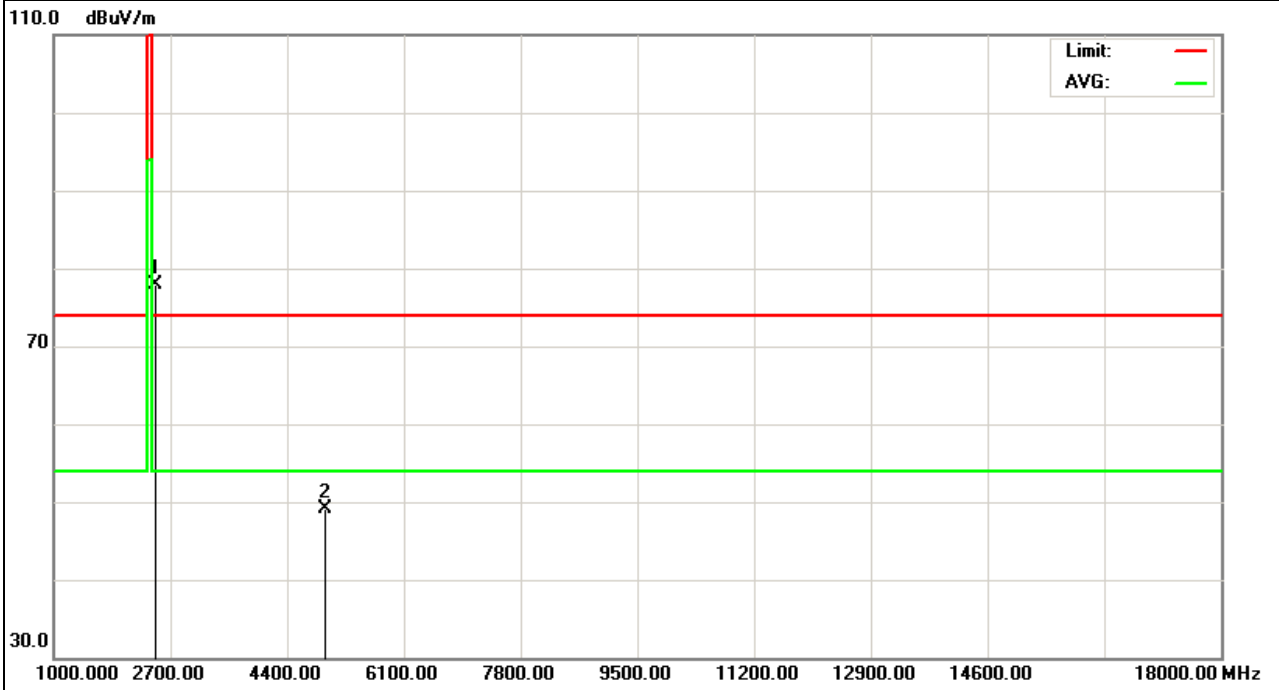
Remark:
 Factor = Antenna Factor + Cable Loss – Pre-amplifier.
 No emission detected in 18GHz~25GHz .



EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX /2480MHz	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2480	90.76	-12.79	77.97	114.0 0	-36.03	peak
4960	52.72	-3.59	49.13	74	-24.87	peak

Remark:
 Factor = Antenna Factor + Cable Loss – Pre-amplifier.
 No emission detected in 18GHz~25GHz .

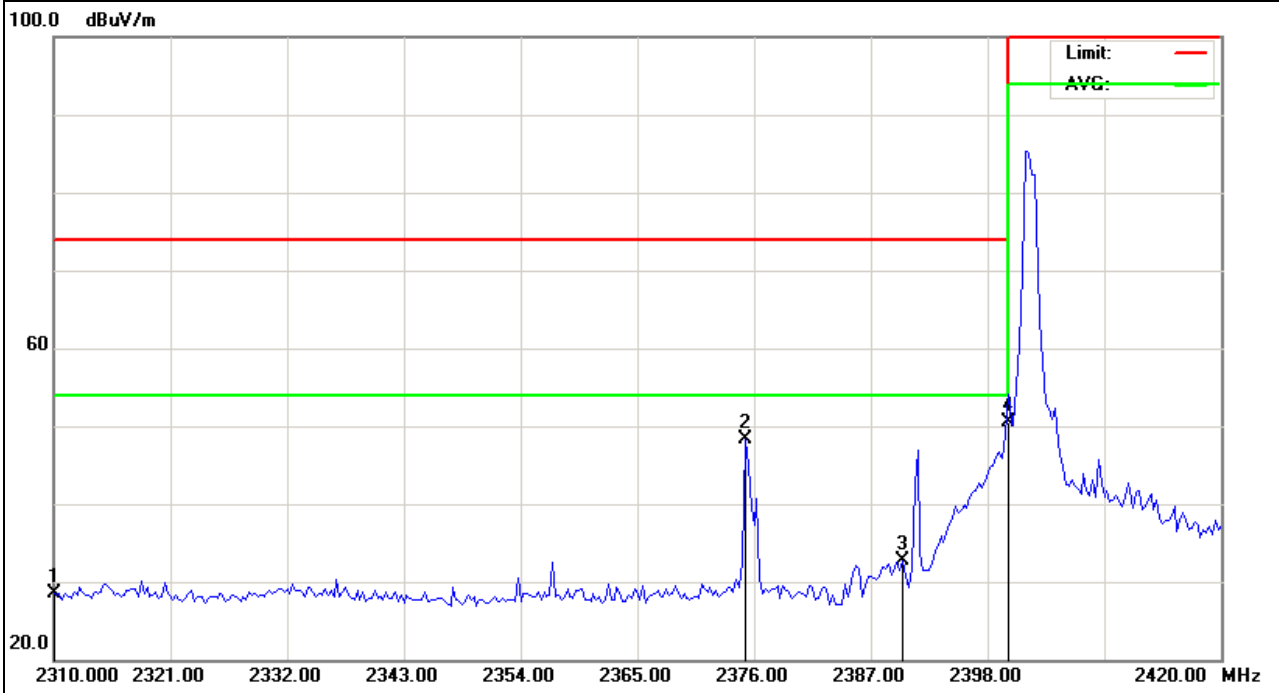


3.4.8 TEST RESULTS (RESTRICTED BANDS REQUIREMENTS)

EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX /2402MHz	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2310	41.39	-12.89	28.5	74	-45.5	peak
2375.175	61.49	-13.16	48.33	74	-25.67	peak
2390	45.81	-13.06	32.75	74	-41.25	peak
2400	63.51	-12.99	50.52	74	-23.48	peak

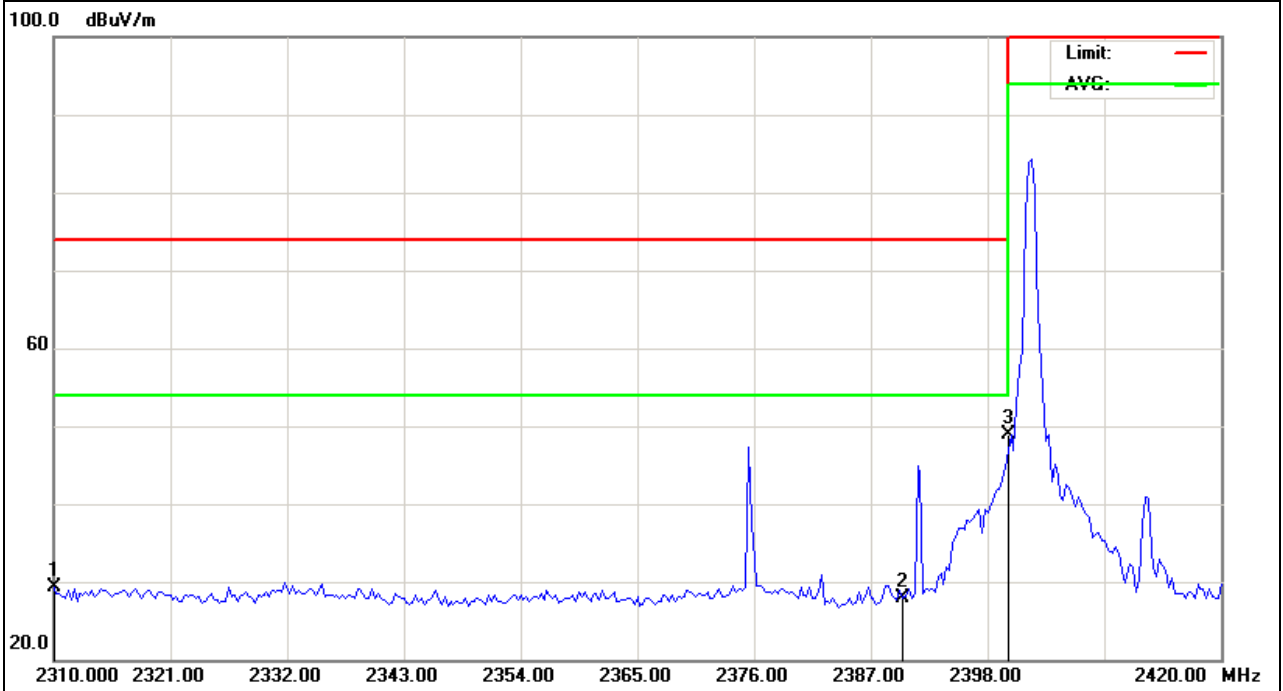
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX /2402MHz	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBµV)	Factor (dB)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector Type
2310	42.21	-12.89	29.32	74	-44.68	peak
2390	41.04	-13.06	27.98	74	-46.02	peak
2400	61.8	-12.99	48.81	74	-25.19	peak

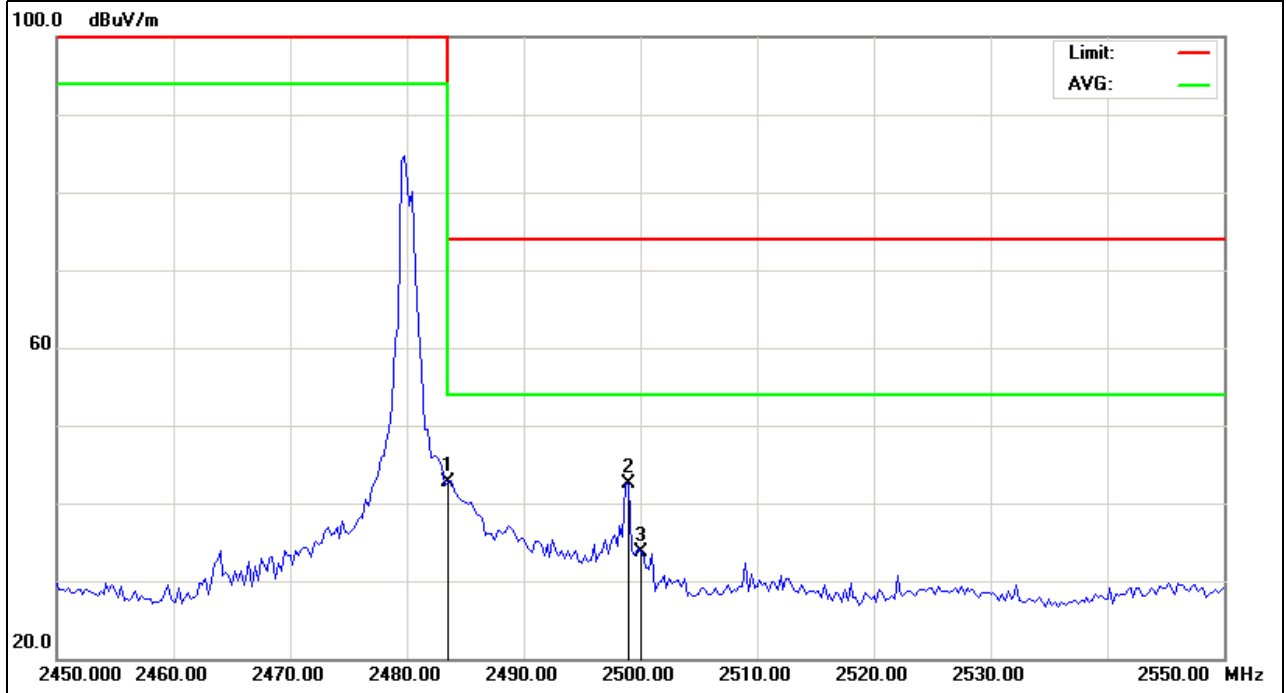
Remark:
 Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX /2480MHz	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2483.5	55.46	-12.78	42.68	74	-31.32	peak
2499	55.32	-12.72	42.6	74	-31.4	peak
2500	46.52	-12.72	33.8	74	-40.2	peak

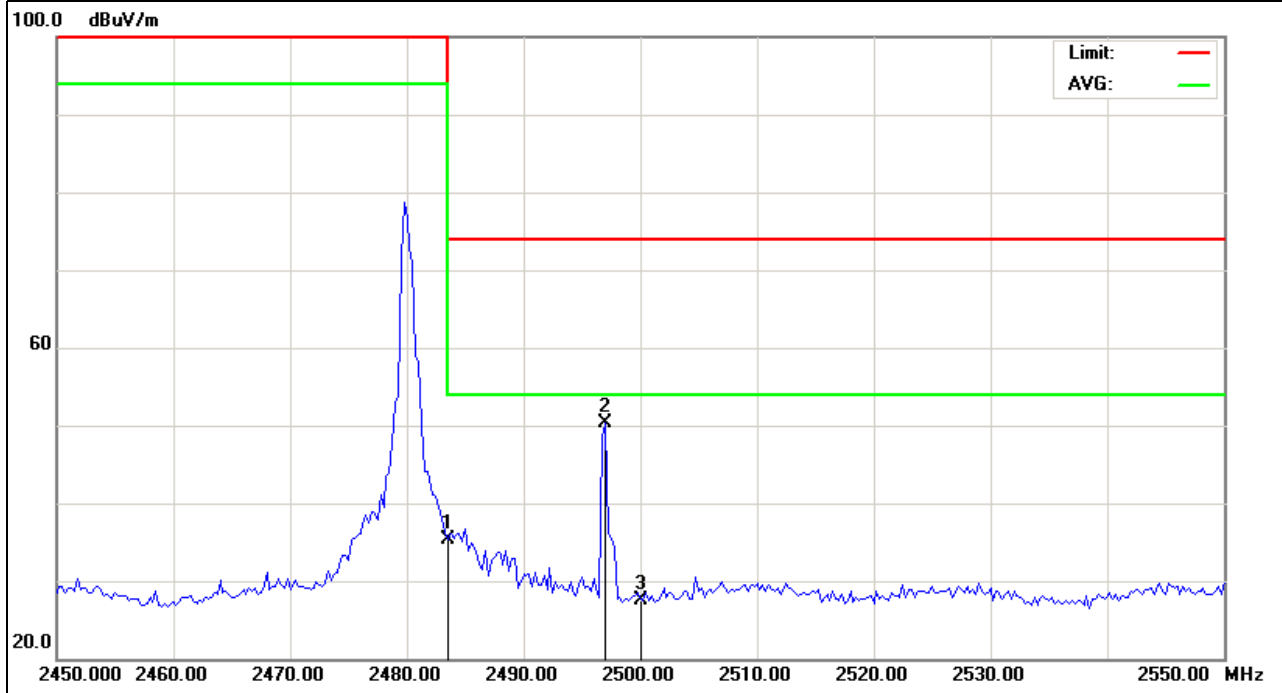
Remark:
 Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.0V
Test Mode :	TX /2480MHz	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBµV)	Factor (dB)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector Type
2483.5	48.15	-12.78	35.37	74	-38.63	peak
2497	63.03	-12.73	50.3	74	-23.7	peak
2500	40.32	-12.72	27.6	74	-46.4	peak

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



4. BANDWIDTH TEST

4.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting : RBW= 100KHz, VBW \geq RBW, Sweep time = Auto.

4.2 DEVIATION FROM STANDARD

No deviation.

4.3 TEST SETUP

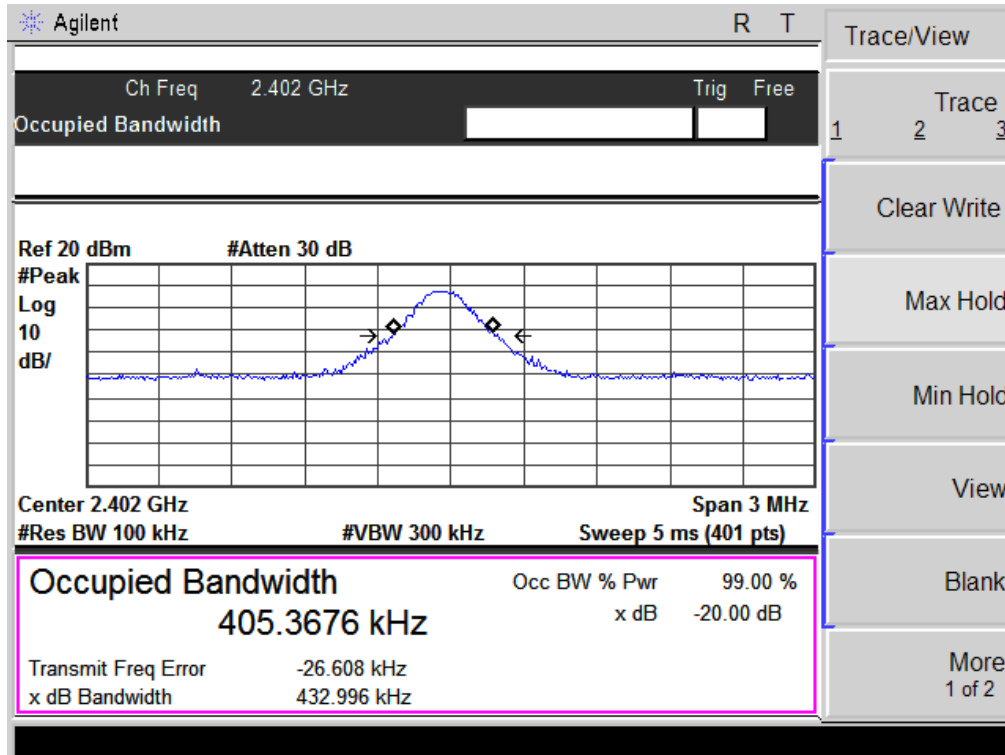


4.4 TEST RESULTS

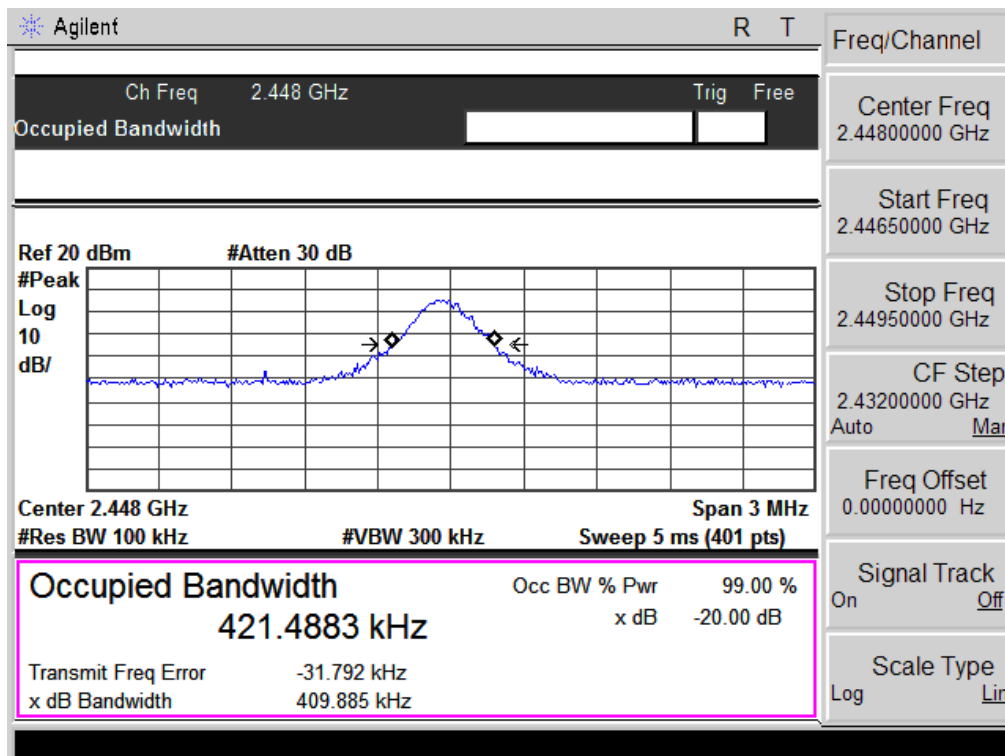
EUT :	2.4G Wireless Mouse	Model Name :	iMouse G25
Temperature :	26 °C	Relative Humidity :	53%
Pressure :	1020 hPa	Test Power :	DC 3.0V
Test Mode :	TX CH 1/48/80		

Test Channel	Frequency (MHz)	20 dBc Bandwidth (MHz)	99% Bandwidth (MHz)
CH01	2402	0.433	0.405
CH48	2448	0.410	0.422
CH80	2480	0.415	0.453

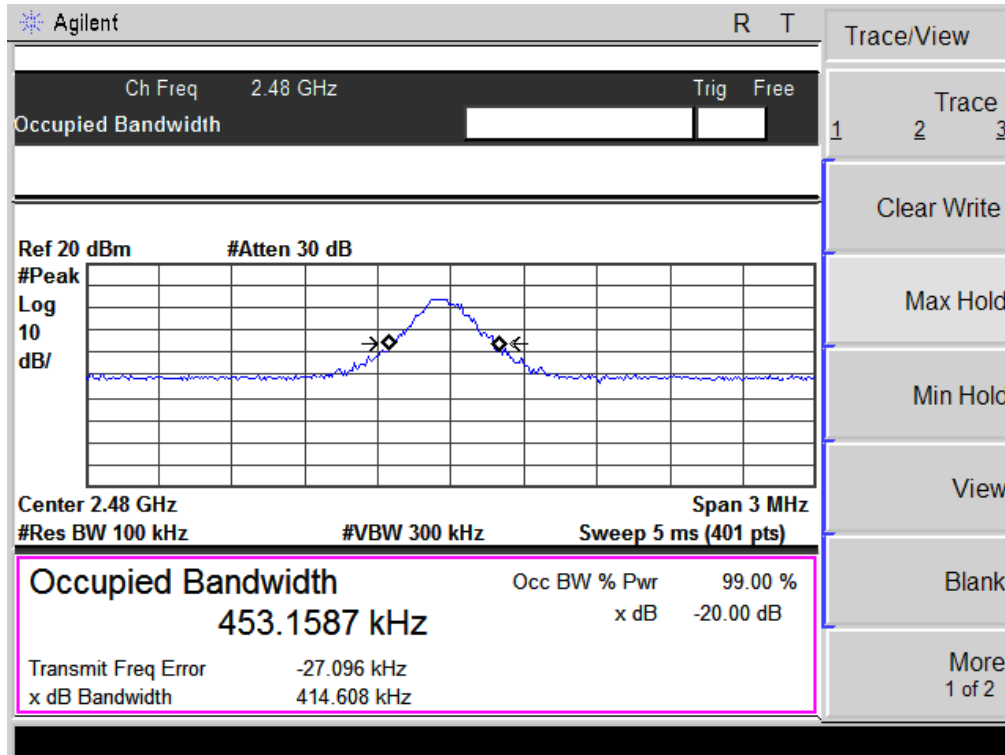
The Lowest Channel: 2402MHz



The Middle Channel: 2448MHz



The High Channel:2480MHz



5. EUT TEST PHOTO

Radiated Measurement Photos

