



FCC RADIO TEST REPORT

FCC ID: 2ABX2UT-M3

Product : 2.4GHz Wireless mouse

Trade Name : N/A

Model Name : UT-M3

Serial Model : WMS615,WMS335, M3, M5, M6, M7, M8,
G9, M18

Report No. : 2014BZT0308271F

Prepared for

UCOMTEK CO., LTD

A Building, Baoshan Industrial Zone , New Village Area 2 of Dalang
Baoshan, Longhua District , Shenzhen City,China

Prepared by

BZT Testing Technology Co., Ltd.

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

TEST RESULT CERTIFICATION

Applicant's name : UCOMTEK CO., LTD
Address : A Building, Baoshan Industrial Zone , New Village Area 2 of Dalang
Baoshan, Longhua District , Shenzhen City,China
Manufacture's Name..... : UCOMTEK CO., LTD
Address : A Building, Baoshan Industrial Zone , New Village Area 2 of Dalang
Baoshan, Longhua District , Shenzhen City,China

Product description

Product name : 2.4GHz Wireless mouse
Model and/or type reference : N/A
Serial Model : WMS615,WMS335, M3, M5, M6, M7, M8,
G9, M18
Rating(s) : DC 1.5V

Standards : FCC Part15.249

Test procedure ANSI C63.4-2003

This device described above has been tested by BZT, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test :

Date (s) of performance of tests : 20 Feb. 2014 ~28 Feb. 2014

Date of Issue..... : 28 Feb. 2014

Test Result..... : **Pass**

Testing Engineer : Apple Huang
(Apple Huang)

Technical Manager : Tom Zhang
(Tom Zhang)

Authorized Signatory : Bovey Yang
(Bovey Yang)

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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	

1.1 TEST FACILITY

BZT Testing Technology Co., Ltd.

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

FCC Registered No.: 701733

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	2.4GHz Wireless mouse	
Trade Name	N/A	
Model Name	UT-M3	
Serial Model	WMS615,WMS335, M3, M5, M6, M7, M8, G9, M18	
Model Difference	All the model are the same circuit and RF module,except the appearance and colour.	
Product Description	The EUT is a 2.4GHz Wireless mouse	
	Operation Frequency:	2403~2479MHz
	Modulation Type:	GFSK
	Antenna Designation:	PCB Antenna
	Channel number	39
	Antenna Gain(Peak)	3.85 dBi
	EIRP	75.32 dbuv/m@3m(AVG Max)
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.		
Channel List	Please refer to the Note 2.	
Adapter	N/A	
Battery	Rated Voltage: 1.5V	
	Number:1 cell	

Note:

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

2.

Channel:

1CH	2403 GHZ	14CH	2429 GHZ	27CH	2455 GHZ
2CH	2405 GHZ	15CH	2431 GHZ	28CH	2457 GHZ
3CH	2407 GHZ	16CH	2433 GHZ	29CH	2459 GHZ
4CH	2409 GHZ	17CH	2435 GHZ	30CH	2461 GHZ
5CH	2411 GHZ	18CH	2437 GHZ	31CH	2463 GHZ
6CH	2413 GHZ	19CH	2439 GHZ	32CH	2465 GHZ
7CH	2415 GHZ	20CH	2441 GHZ	33CH	2467 GHZ
8CH	2417 GHZ	21CH	2443 GHZ	34CH	2469 GHZ
9CH	2419 GHZ	22CH	2445 GHZ	35CH	2471 GHZ
10CH	2421 GHZ	23CH	2447 GHZ	36CH	2473 GHZ
11CH	2423 GHZ	24CH	2449 GHZ	37CH	2475 GHZ
12CH	2425 GHZ	25CH	2451 GHZ	38CH	2477 GHZ
13CH	2427 GHZ	26CH	2453 GHZ	39CH	2479 GHZ

3.

Table for Filed Antenna

Ant	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	N/A	N/A	PCB Antenna	NA	3.85	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
Mode 2	CH26
Mode 3	CH39

For Conducted Emission	
Final Test Mode	Description
	N/A

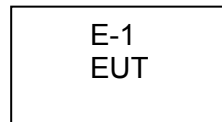
For Radiated Emission	
Final Test Mode	Description
Mode 1	CH01
Mode 2	CH26
Mode 3	CH39

Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (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	2.4GHz Wireless mouse	N/A	UT-M3	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	2013.07.06	2014.07.05	1 year
2	Test Receiver	R&S	ESPI	101318	2013.06.07	2014.06.06	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2013.07.06	2014.07.05	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2013.06.07	2014.06.06	1 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2013.06.07	2014.06.06	1 year
6	Horn Antenna	EM	EM-AH-10180	2011071402	2013.07.06	2014.07.05	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2013.07.06	2014.07.05	1 year
8	Amplifier	EM	EM-30180	060538	2013.12.22	2014.12.21	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2013.06.08	2014.06.07	1 year
10	Power Meter	R&S	NRVS	100696	2013.07.06	2014.07.05	1 year
11	Power Sensor	R&S	URV5-Z4	0395.1619.05	2013.07.06	2014.07.05	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	2013.06.06	2014.06.05	1 year
2	LISN	R&S	ENV216	101313	2013.08.24	2014.08.23	1 year
3	LISN	EMCO	3816/2	00042990	2013.08.24	2014.08.23	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2013.06.07	2014.06.06	1 year
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	2013.06.07	2014.06.06	1 year
6	Absorbing clamp	R&S	MOS-21	100423	2013.06.08	2014.06.07	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 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

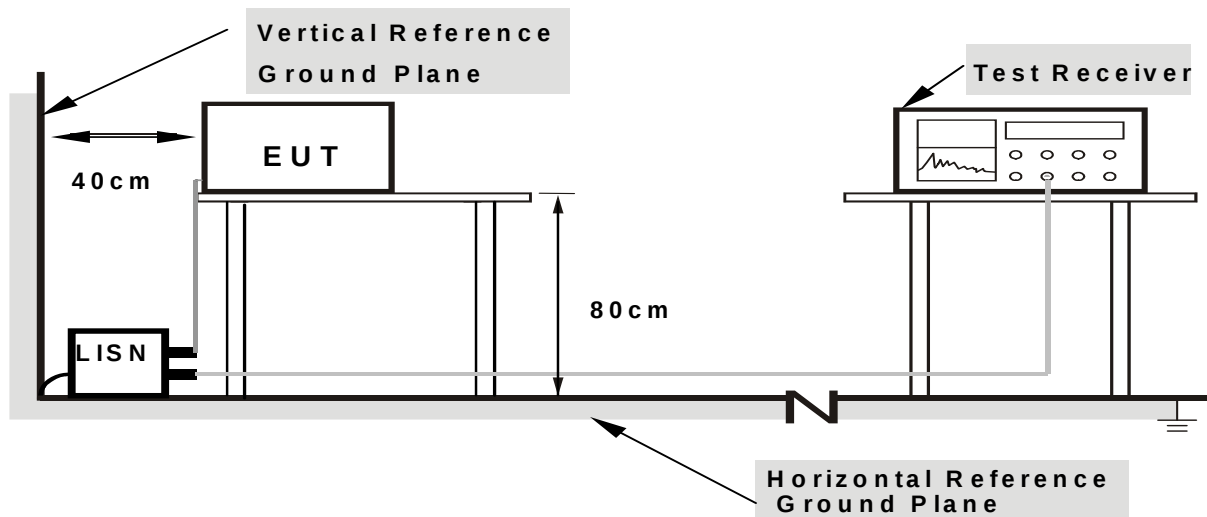
3.3.2 TEST PROCEDURE

- 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.
- 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.
- 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.
- LISN at least 80 cm from nearest part of EUT chassis.
- 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 cm from other units and other metal planes

3.2.5 TEST RESULT

EUT :	2.4GHz Wireless mouse	Model Name. :	UT-M3
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Phase :	L
Test Voltage :	N/A	Test Mode :	N/A

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:

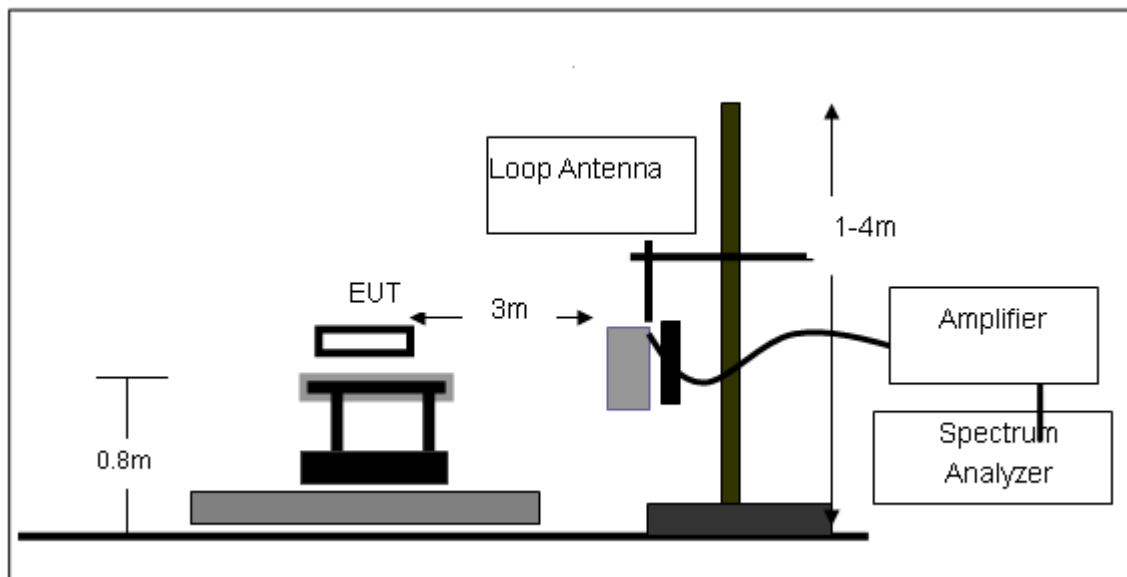
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

3.4.3 DEVIATION FROM TEST STANDARD

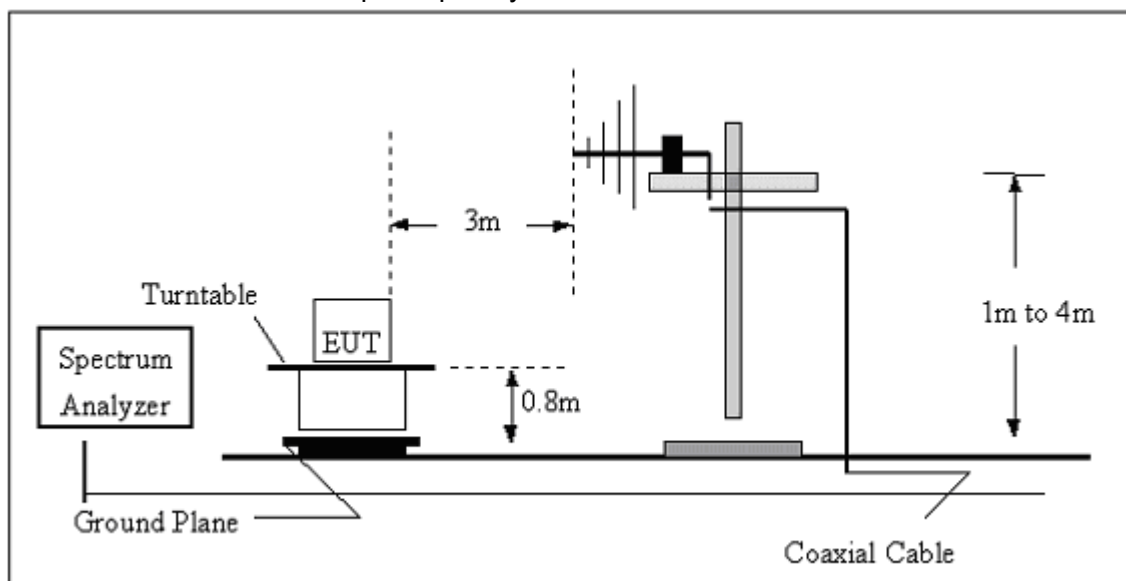
No deviation

3.4.4 TEST SETUP

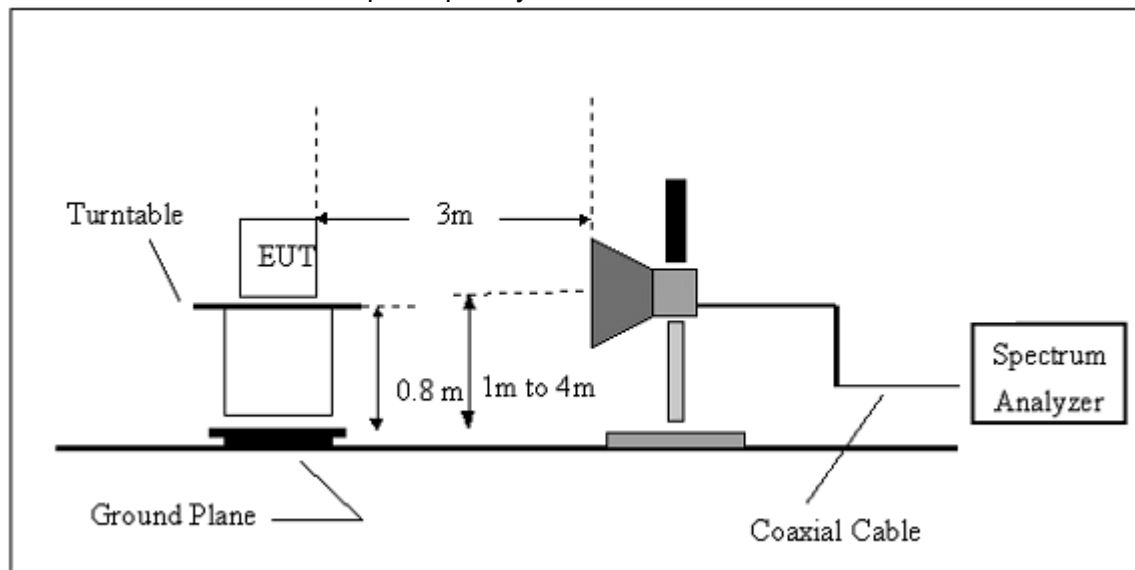
(A) Radiated Emission Test-Up Frequency Below 30MHz



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



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



3.4.5 TEST RESULTS (BLOW 30MHz)

EUT :	2.4GHz Wireless mouse	Model Name. :	UT-M3
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 1.5V
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 = $40 \log (\text{specific distance/test distance})$ (dB);

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

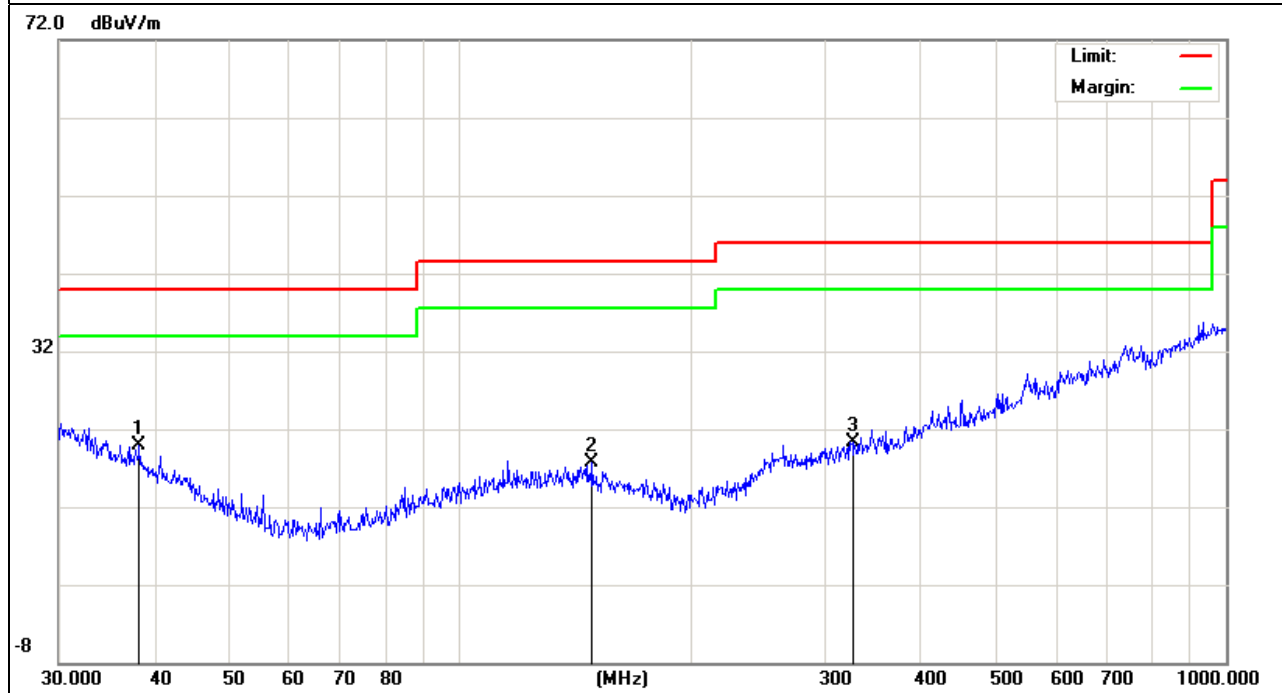
3.4.6 TEST RESULTS (BETWEEN 30 – 1000 MHZ)

EUT :	2.4GHz Wireless mouse	Model Name :	UT-M3
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 1.5V
Test Mode :	TX	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
38.212	5.64	14.27	19.91	40	-20.09	peak
148.9625	5.97	11.79	17.76	43.5	-25.74	peak
325.5957	4.69	15.67	20.36	46	-25.64	peak

Remark:

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

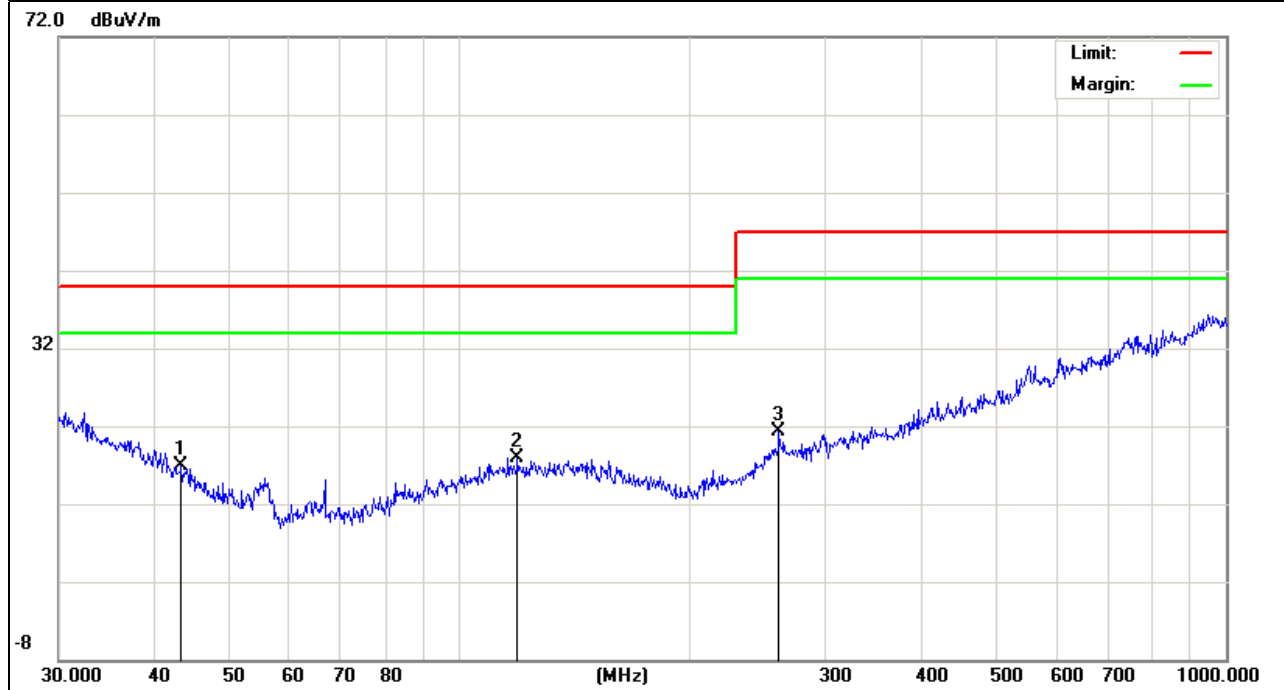


EUT :	2.4GHz Wireless mouse	Model Name :	UT-M3
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 1.5V
Test Mode :	TX	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
43.3534	5.41	11.5	16.91	40	-23.09	peak
119.018	5.92	12.06	17.98	40	-22.02	peak
261.0583	6.45	14.85	21.3	47	-25.7	peak

Remark:

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



3.4.7 TEST RESULTS (ABOVE 1000 MHZ)

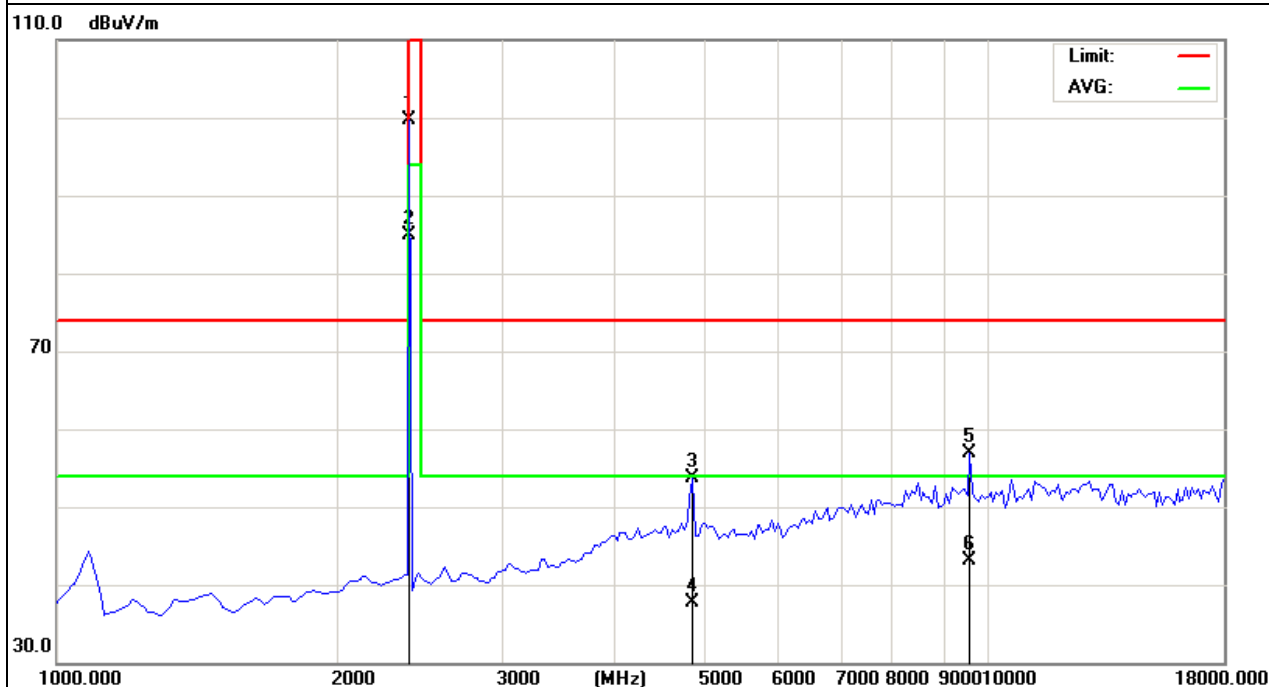
EUT :	2.4GHz Wireless mouse	Model Name :	UT-M3
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 1.5V
Test Mode :	TX /2403MHz	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2403	100.44	-12.99	87.45	114.0 0	-26.55	peak
2403	86.73	-12.99	73.74	94	-20.26	AVG
4806	56.27	-3.57	54.7	74	-19.30	peak
4806	42.85	-3.57	39.28	54	-14.72	AVG
9612	55.77	1.78	53.99	74	-20.01	peak
9612	42.32	1.78	40.54	54	-13.46	AVG

Remark:

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

No emission above 18GHz.



EUT :	2.4GHz Wireless mouse	Model Name :	UT-M3
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 1.5V
Test Mode :	TX /2403MHz	Polarization :	Vertical

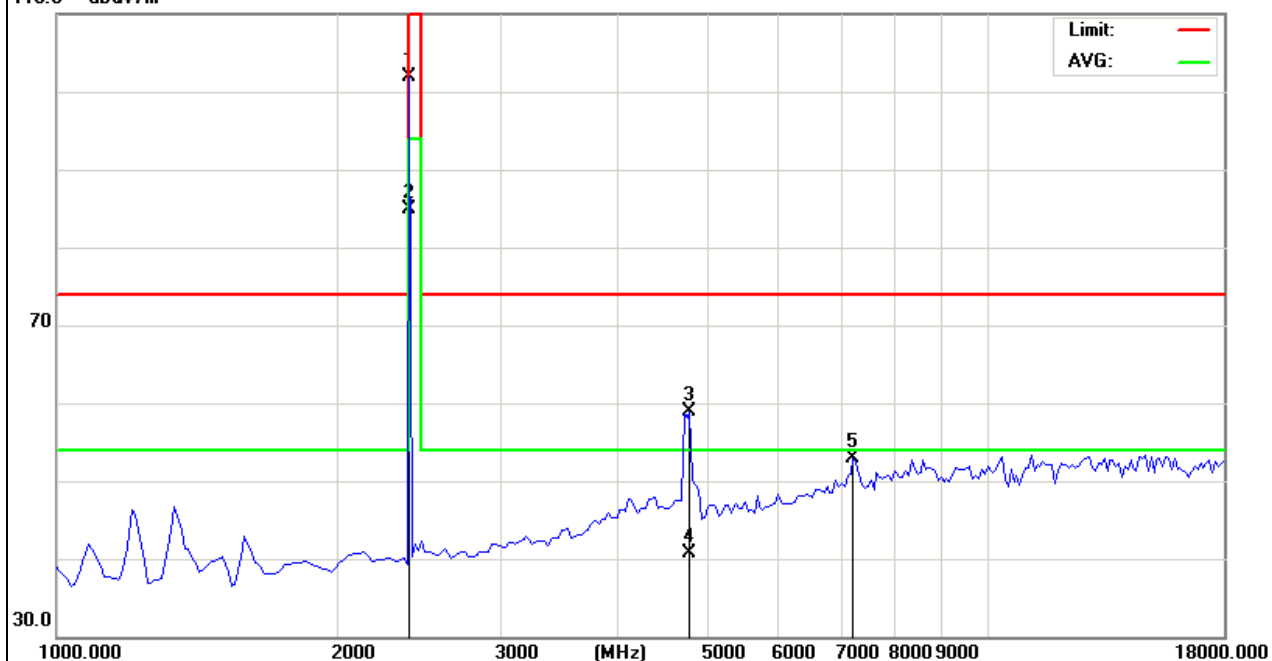
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2403	103.94	-12.99	90.95	114.0 0	-23.05	peak
2403	88.03	-12.99	75.04	94	-18.96	AVG
4806	61.75	-3.59	58.16	74	-15.84	peak
4806	43.46	-3.59	39.87	54	-14.13	AVG
7809	54.83	-0.96	53.87	74	-20.13	peak

Remark:

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

No emission above 18GHz.

110.0 dBμV/m



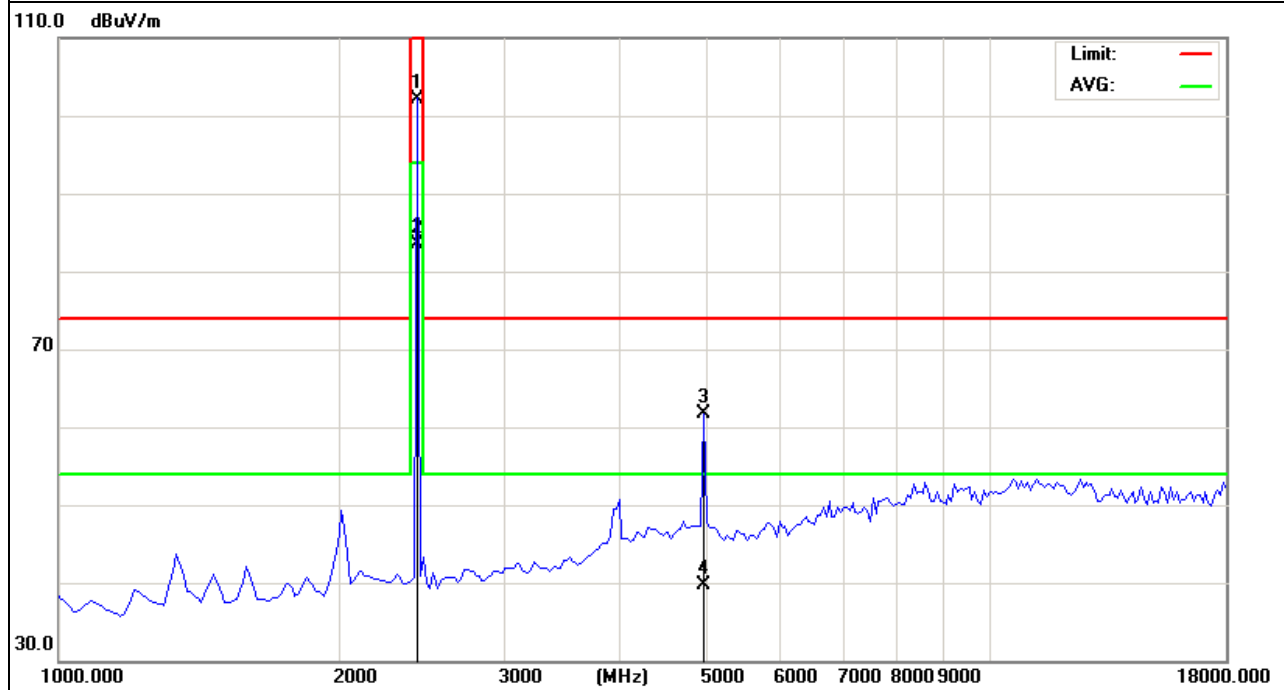
EUT :	2.4GHz Wireless mouse	Model Name :	UT-M3
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 1.5V
Test Mode :	TX /2453MHz	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2453	103.48	-12.93	90.55	114.0 0	-23.45	peak
2453	85.62	-12.93	72.69	94	-21.31	AVG
4906	63.85	-3.55	60.3	74	-13.7	peak
4906	42.41	-3.55	38.86	54	-15.14	AVG

Remark:

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

No emission above 18GHz.



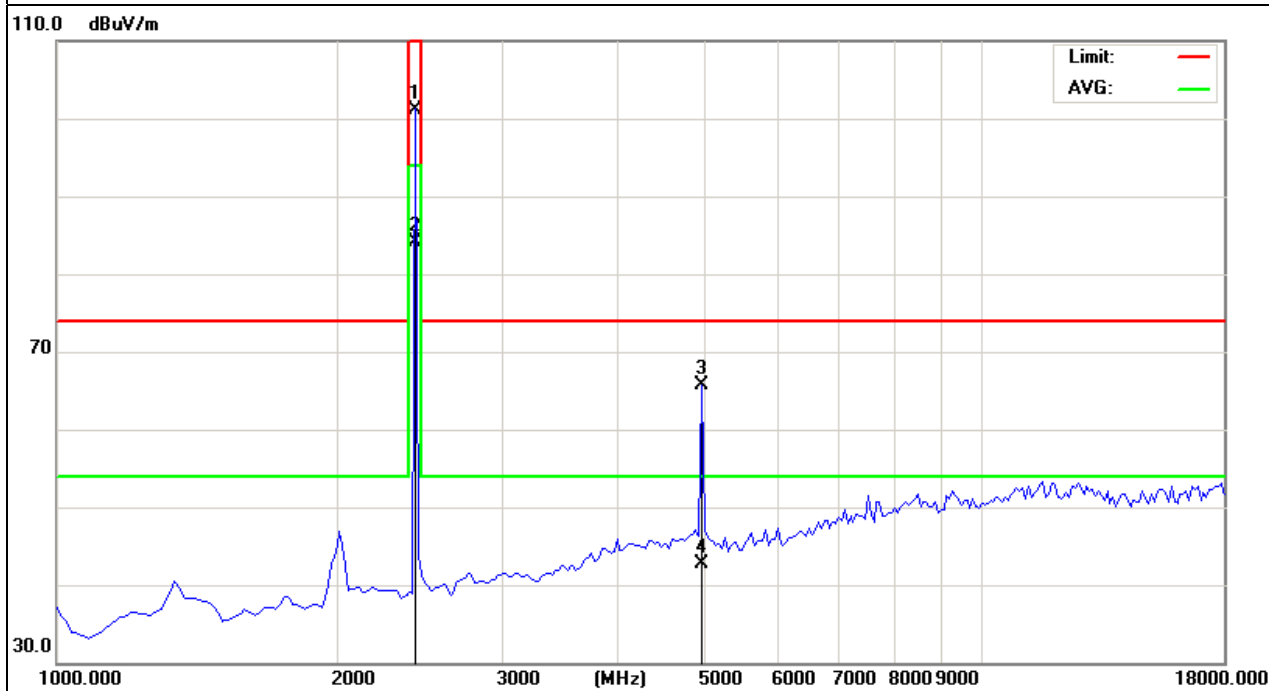
EUT :	2.4GHz Wireless mouse	Model Name :	UT-M3
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 1.5V
Test Mode :	TX /2453MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2453	103.76	-12.93	90.8	114.0 0	-23.20	peak
2453	86.92	-12.93	73.99	94	-20.01	AVG
4906	68.26	-3.55	64.71	74	-9.29	peak
4906	45.88	-3.55	42.33	54	-11.67	AVG

Remark:

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

No emission above 18GHz.



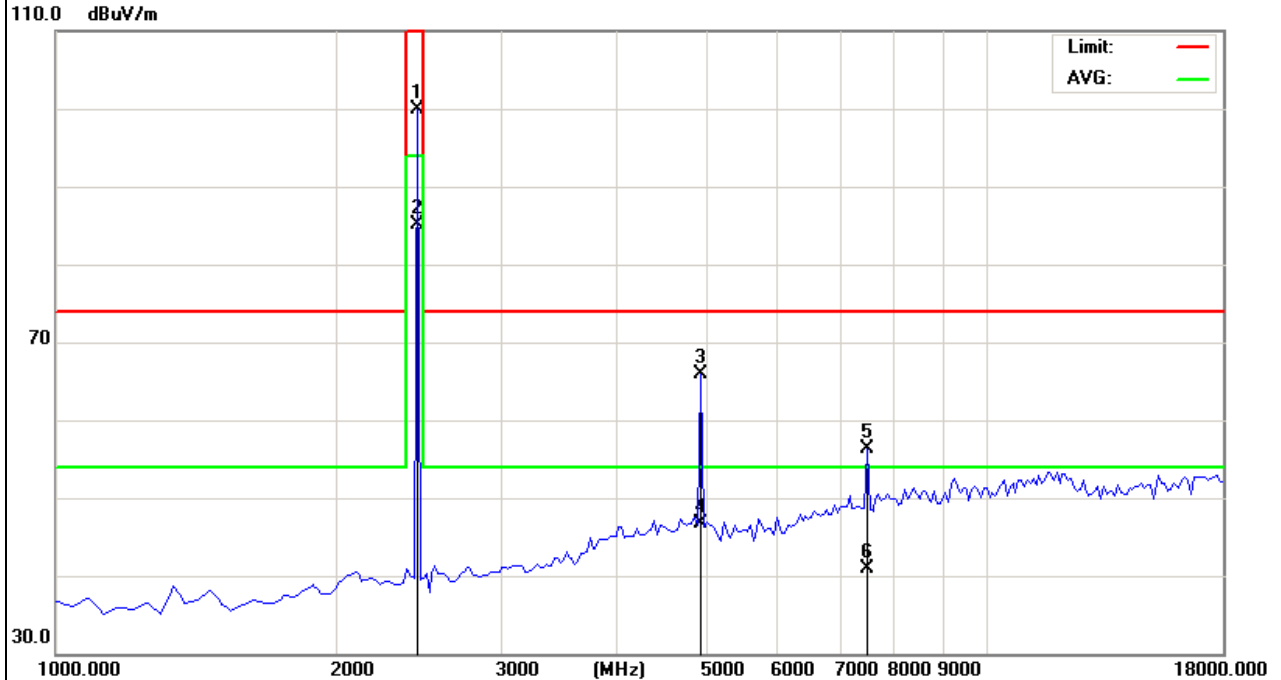
EUT :	2.4GHz Wireless mouse	Model Name :	UT-M3
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 1.5V
Test Mode :	TX /2479MHz	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2479	101.99	-12.92	89.07	114.0 0	-24.93	peak
2479	88.24	-12.92	75.32	94	-18.68	AVG
4956	68.89	-3.55	65.34	74	-8.66	peak
4956	51.15	-3.55	47.60	54	-6.40	AVG
7437	56.77	-0.68	56.09	74	-17.91	peak
7437	42.46	-0.68	41.78	54	-12.22	AVG

Remark:

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

No emission above 18GHz.



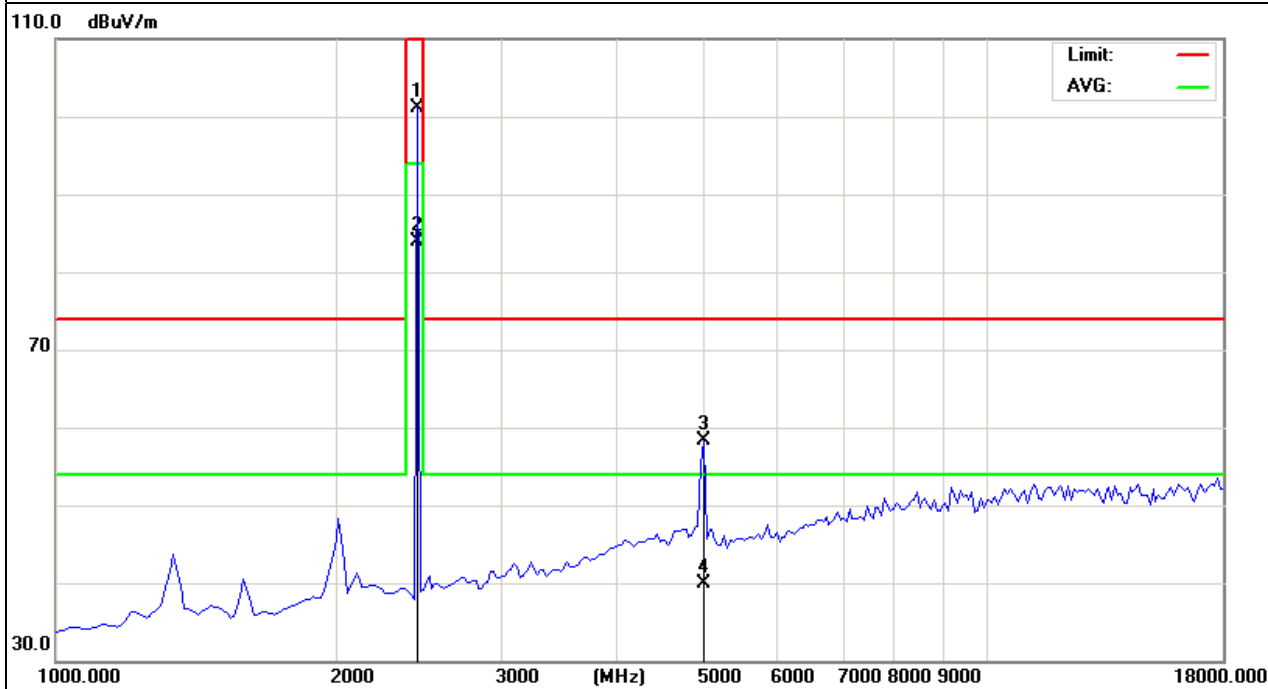
EUT :	2.4GHz Wireless mouse	Model Name :	UT-M3
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 1.5V
Test Mode :	TX /2479MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2479	103.85	-12.92	90.93	114.0 0	-23.07	peak
2479	85.47	-12.92	72.55	94	-21.45	AVG
4956	61.38	-3.8	57.58	74	-16.42	peak
4956	44.52	-3.8	40.72	54	-13.28	AVG

Remark:

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

No emission above 18GHz.



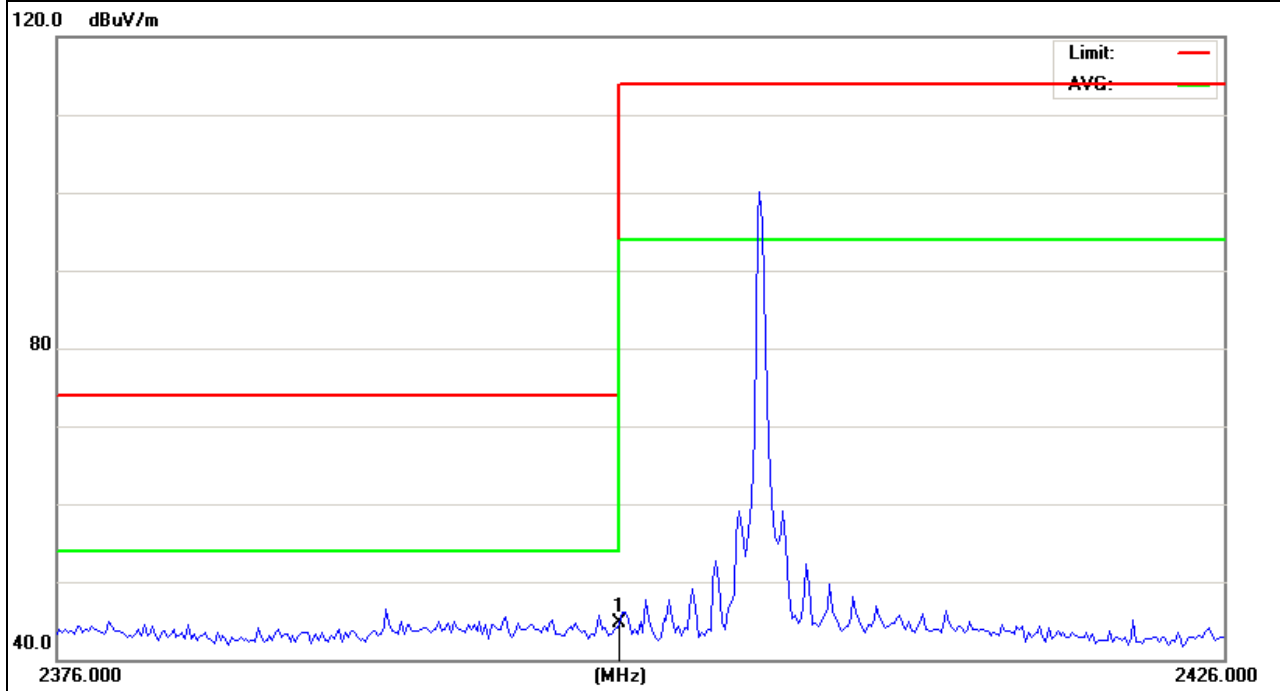
3.4.8 TEST RESULTS (RESTRICTED BANDS REQUIREMENTS)

EUT :	2.4GHz Wireless mouse	Model Name :	UT-M3
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 1.5V
Test Mode :	TX /2403MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2400	57.61	-12.99	44.62	74	-29.38	peak

Remark:

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

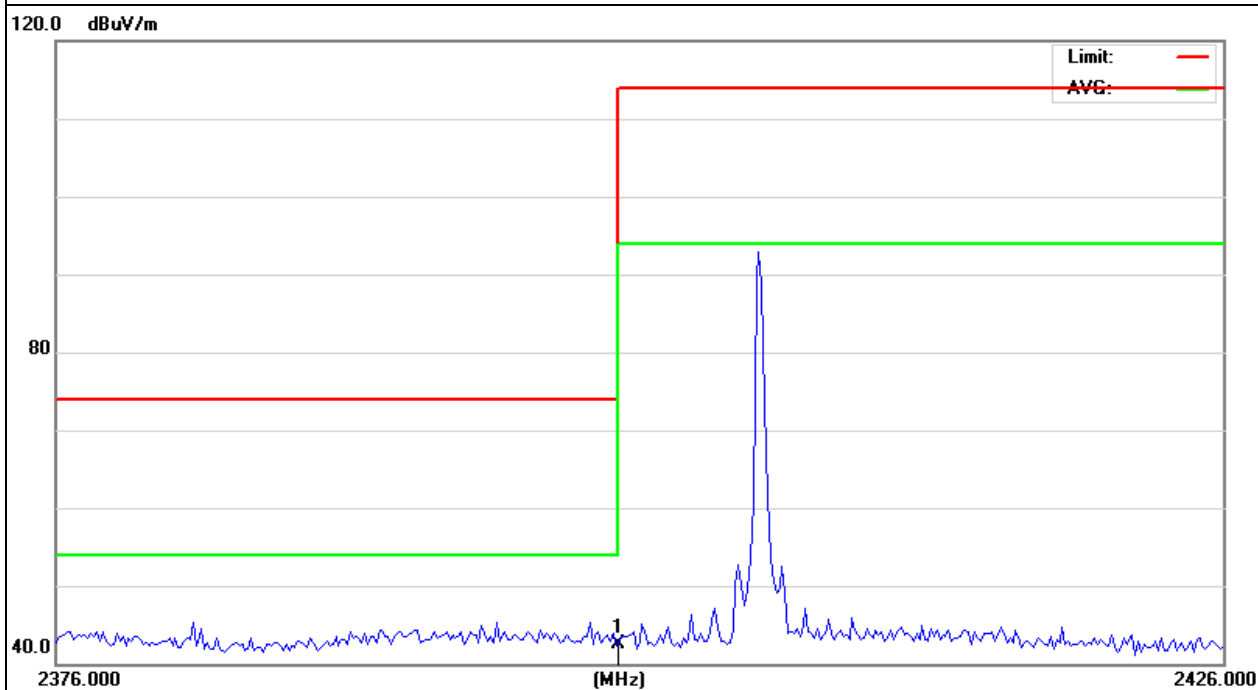


EUT :	2.4GHz Wireless mouse	Model Name :	UT-M3
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 1.5V
Test Mode :	TX /2403MHz	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2400	55.49	-12.99	42.5	74	-31.5	peak

Remark:

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

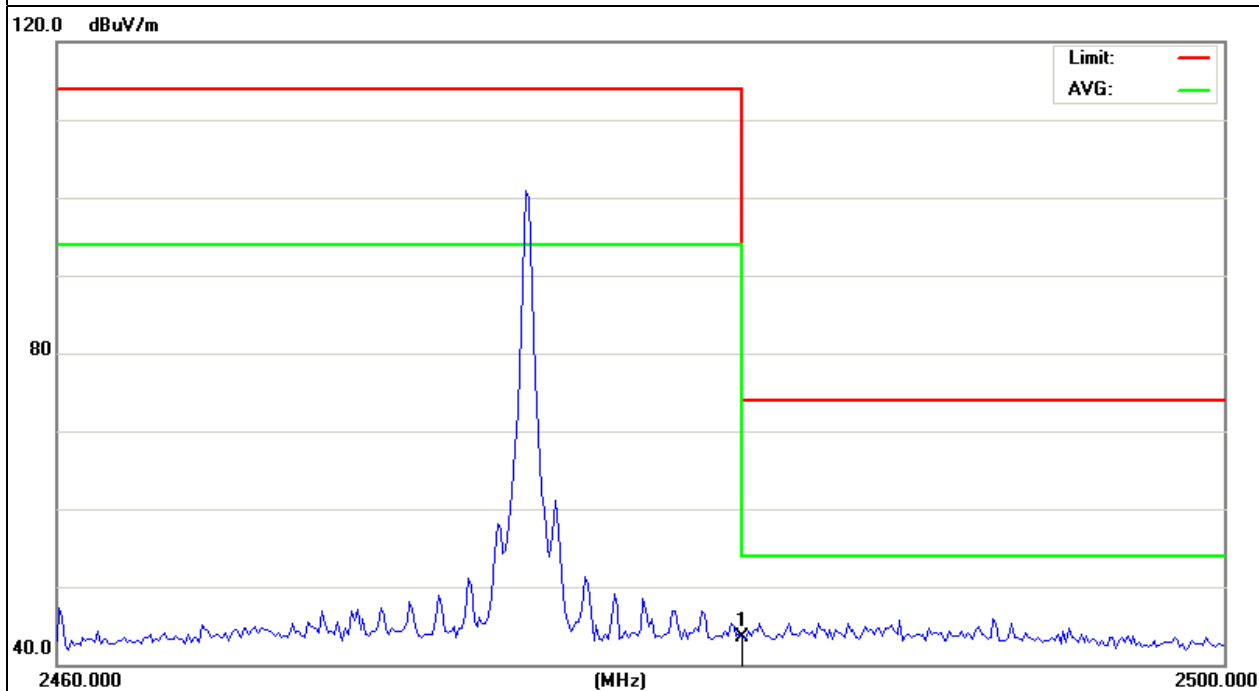


EUT :	2.4GHz Wireless mouse	Model Name :	UT-M3
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 1.5V
Test Mode :	TX /2479MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	56.3	-12.78	43.52	74	-30.48	peak

Remark:

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

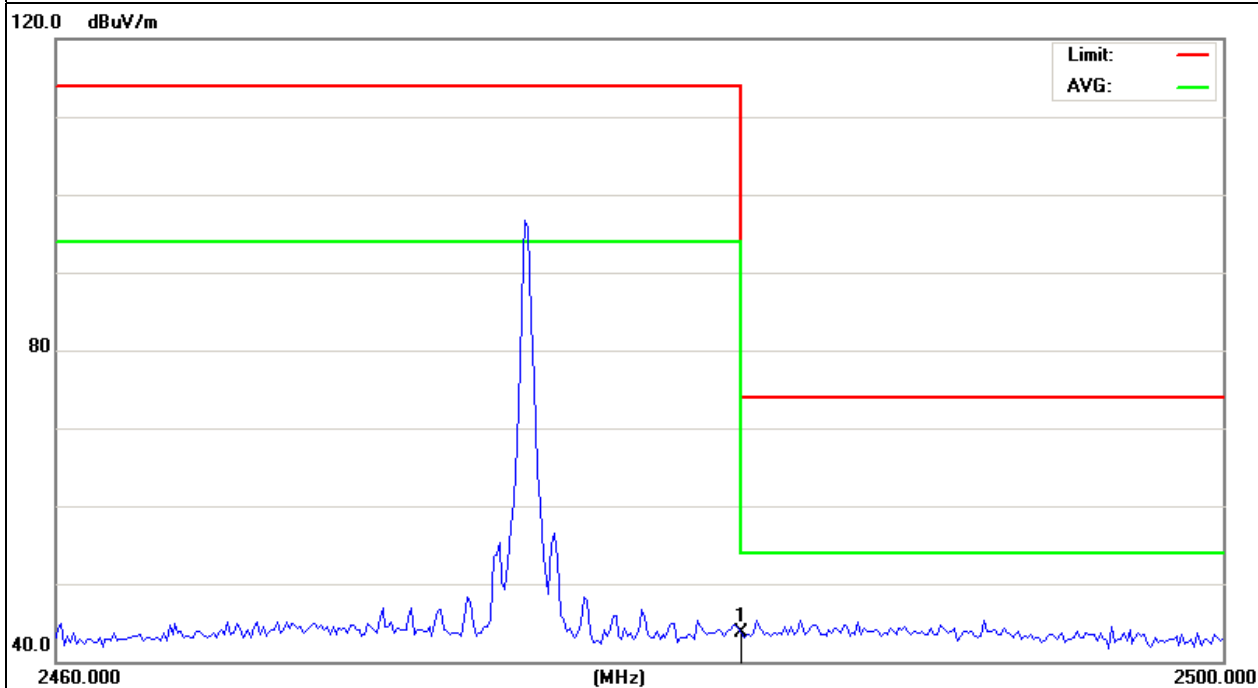


EUT :	2.4GHz Wireless mouse	Model Name :	UT-M3
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 1.5V
Test Mode :	TX /2479MHz	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	56.44	-12.78	43.66	74	-30.34	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

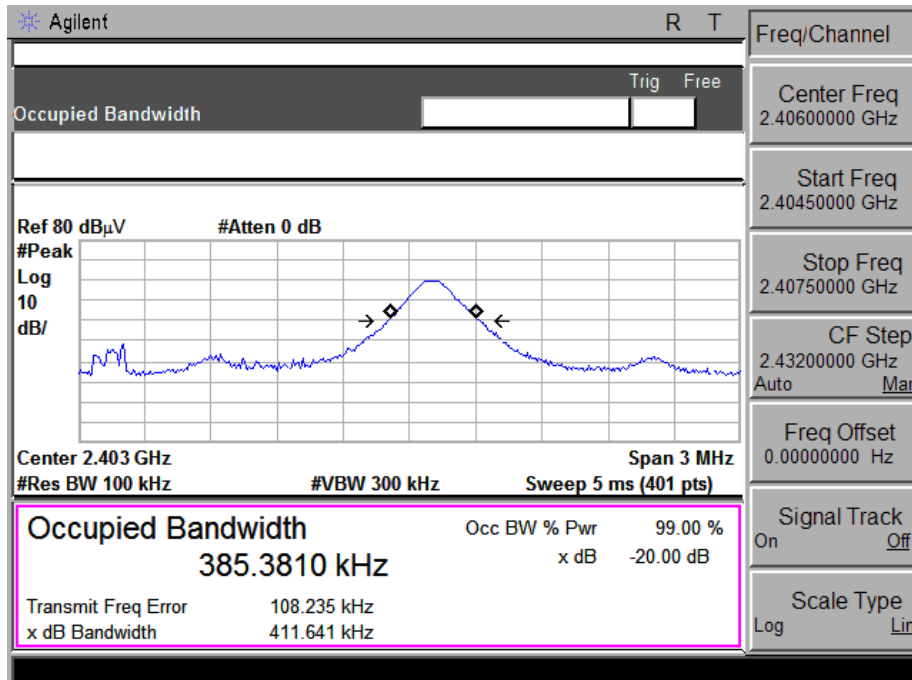


4.4 TEST RESULTS

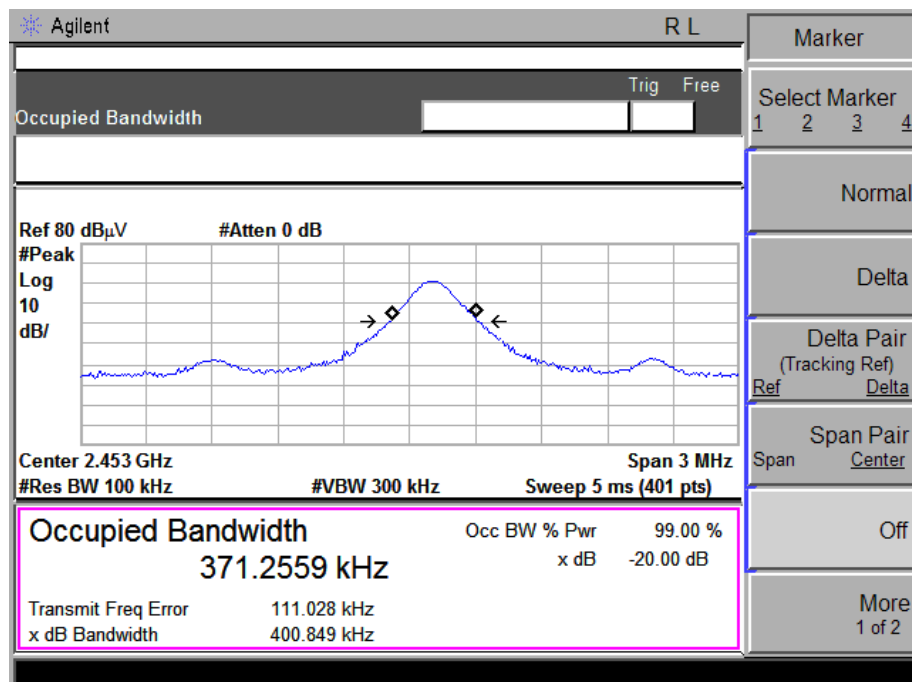
EUT :	2.4GHz Wireless mouse	Model Name :	UT-M3
Temperature :	26 °C	Relative Humidity :	53%
Pressure :	1020 hPa	Test Power :	DC 1.5V
Test Mode :	TX CH 1/26/39		

Test Channel	Frequency (MHz)	20 dBc Bandwidth (MHz)	99% Bandwidth (MHz)
CH01	2403	0.412	0.385
CH26	2453	0.401	0.371
CH39	2479	0.412	0.384

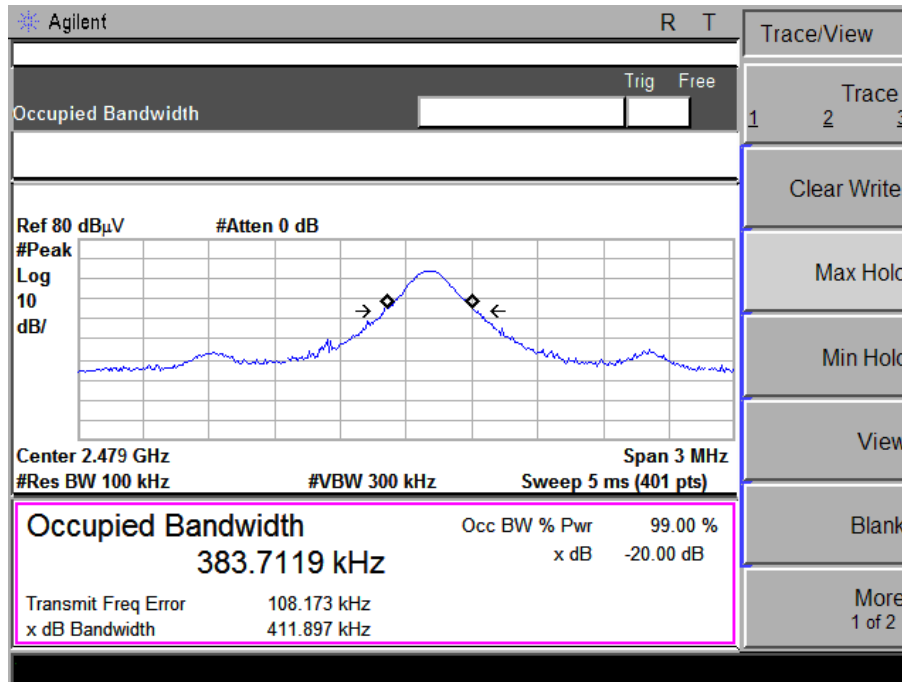
The Lowest Channel: 2406MHz



The Middle Channel: 2453MHz



The High Channel:2479MHz



5. EUT TEST PHOTO

Radiated Measurement Photos

