EUROFINS ELECTRICAL TESTING SERVICE (SHENZHEN) CO., LTD.

RADIO TEST - REPORT

FCC& Compliance Test Report for

Product name: WIRELESS MOUSE

Model name: BTS-060

FCC ID: 2AYFV-SY201218

Test Report Number: EFGX20120089-IE-01-E01

1 General Information

1.1 Notes

The results of this test report relate exclusively to the item tested as specified in chapter "Description of test item" and are not transferable to any other test items.

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Operator:

Date	Eurofins-Lab.	Name / Title	Signature
2020-12-24		Bruce Zheng / Project Engineer	Bruce Zheng

Technical responsibility for area of testing:

Date	Eurofins	Name / Title	Signature
2020-12-24		Tom Tian / Supervisor	Tom Tian

1.2 Testing laboratory

Eurofins Electrical Testing Service (Shenzhen) Co., Ltd.
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The Laboratory has passed the Accreditation by the American Association for Laboratory Accrediation (A2LA). The Accreditation number is 5376.01
The Laboratory has been listed by industry Canada to perform electromagnetic emission measurements, The CAB identifier is CN0088

1.3 Details of applicant

Name	:	NINGBO SYLOON IMP & EXP CO., LTD
Address	:	No.2, Zhenxing Road, Xiaogang, Ningbo, China
Telephone	:	0086 574 8623 5830
Fax	:	N/A

1.4 Details of manufacturer

Name	:	NINGBO SYLOON IMP & EXP CO., LTD
Address	:	No.2, Zhenxing Road, Xiaogang, Ningbo, China
Telephone	:	0086 574 8623 5830
Fax	:	N/A

1.5 Application details

Date of receipt of application	:	2020-12-14
Date of receipt of test item	:	2020-12-14
Date of test	:	2020-12-14 to 2020-12-21
Date of issue		2020-12-22

1.6 Test item

Product type	:	WIRELESS MOUSE
Model name	:	BTS-060
Brand	:	Hobby Lobby
Serial number	:	N/A
Ratings	:	Powered by AA battery
Test voltage	:	1.5 Vdc
FCC ID	:	2AYFV-SY201218
Additional information	:	N/A

RadioTechnical data

Frequency range	:	2402MHz – 2480MHz
Radio Tech.	:	2.4G Proprietary Protocols
Frequency channel	:	40 Channels
Modulation	:	GFSK
Antenna type	:	PCB antenna
Antenna gain	:	-4.26 dBi

Radio module

Type	:	2.4G Proprietary Protocols
Model	:	HS6210
Manufacturer	:	OnMicro

1.7 Test standards

Test Standards	
FCC Part 15 Subpart C December 16, 2020	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators

Test Method

1: ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.
2: ANSI C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices.

2 Technical test

2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed. ☒

or

The deviations as specified were ascertained in the course of the tests performed. ☐

2.2 Test environment

RF Conducted

Enviroment Parameter	Temperature	Relative Humidity
101.2Kpa	24.6	62.6%

Radiated

Enviroment Parameter	Temperature	Relative Humidity
101.2Kpa	23.7	51.7%

2.3 Measurement uncertainty

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO.

System Measurement Uncertainty	
Test Items	Extended Uncertainty
Uncertainty in conducted measurements	1.96dB
Uncertainty for Conducted RF test	RF Power Conducted: 1.16dB Frequency test involved: 1.05×10-7 or 1%
Uncertainty for Radiated Spurious Emission 25MHz-3000MHz	Horizontal: 4.46dB; Vertical: 4.54dB;
Uncertainty for Radiated Spurious Emission 3000MHz-18000MHz	Horizontal: 4.42dB; Vertical: 4.41dB;
Uncertainty for Radiated Spurious Emission 18000MHz-40000MHz	Horizontal: 4.63dB; Vertical: 4.62dB;

2.4 Test mode

The EUT was set at continuously transmitting mode (CH1, CH20, CH40) during the test.

Channel List

1CH	2402 MHz	**21CH**	2442 MHz
2CH	2404 MHz	**22CH**	2444 MHz
3CH	2406 MHz	**23CH**	2446 MHz
4CH	2408 MHz	**24CH**	2448 MHz
5CH	2410 MHz	**25CH**	2450 MHz
6CH	2412 MHz	**26CH**	2452 MHz
7CH	2414 MHz	**27CH**	2454 MHz
8CH	2416 MHz	**28CH**	2456 MHz
9CH	2418 MHz	**29CH**	2458 MHz
10CH	2420 MHz	**30CH**	2460 MHz
11CH	2422 MHz	**31CH**	2462 MHz
12CH	2424 MHz	**32CH**	2464 MHz
13CH	2426 MHz	**33CH**	2466 MHz
14CH	2428 MHz	**34CH**	2468 MHz
15CH	2430 MHz	**35CH**	2470 MHz
16CH	2432 MHz	**36CH**	2472 MHz
17CH	2434 MHz	**37CH**	2474 MHz
18CH	2436 MHz	**38CH**	2476 MHz
19CH	2438 MHz	**39CH**	2478 MHz
20CH	2440 MHz	**40CH**	2480 MHz

2.5 Test equipment utilized

EQUIPMENT ID	EQUIPMENT NAME	MODEL NO.	CAL. DUE DATE
23-2-13-05	EMI Test Receiver	ESR3	2021-04-24
23-2-13-06	LISN	NNLK 8127 RC	2021-04-23
23-2-10-16	Attenuator	VTSD 9561-F	2021-04-24
23-2-13-12	Signal Analyzer	N9010B-544	2021-04-24
23-2-13-13	BT/WLAN Tester	CMW270	2021-04-23
23-2-13-14	Signal Generator	N5183B-520	2021-04-23
23-2-13-15	Vector Signal Generator	N5182B-506	2021-04-23
23-2-10-43	Switch and Control Unit	ERIT-E-JS0806-2	2021-06-17
23-2-10-44	DC power supply	E3642A	2021-06-03
23-2-10-45	Temperature test chamber	SG-80-CC-2	2021-04-23
23-2-13-01	EMI Test Receiver	ESR7	2021-04-24
23-2-13-02	Signal Analyzer	N9020B-544	2021-04-24
23-2-12-01	Active Loop Antenna	FMZB 1519B	2021-05-13
23-2-12-02	TRILOG Broadband Antenna	VULB9168	2021-04-27
23-2-12-03	Horn Antenna	3117	2021-05-11
23-2-12-04	Horn Antenna	BBHA 9170	2021-05-11
23-2-10-01	Preamplifier	BBV9745	2021-04-23
23-2-10-02	Preamplifier	TAP01018048	2021-04-24
23-2-10-03	Preamplifier	TAP18040048	2021-04-24
23-2-10-14	Switch and Control Unit	ERIT-E-JS0806-SF1	N/A

2.6 Auxiliary Equipment Used during Test:

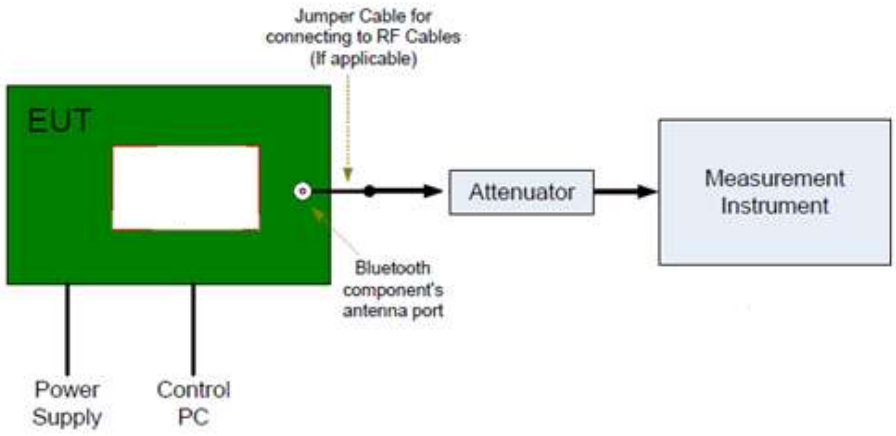
DESCRIPTION	MANUFACTURER	MODEL NO.	S/N
Laptop	LENOVO	TP00096A	PF-1QH0LV

2.7 Test software information:

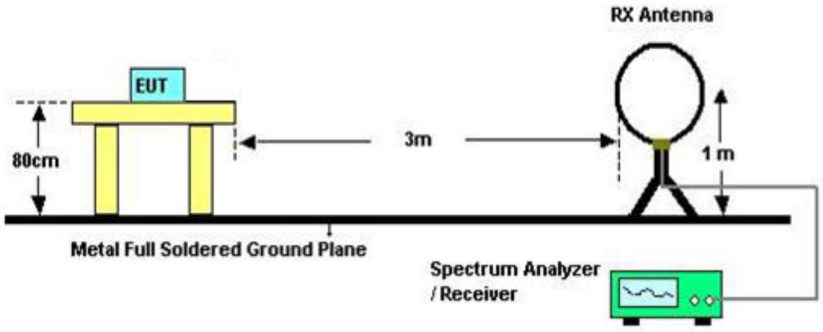
Test Software Version	N/A		
Modulation	Setting TX Power	TX Pattern	Packet Type
N/A	N/A	TX Packet	N/A

2.8 Test setup

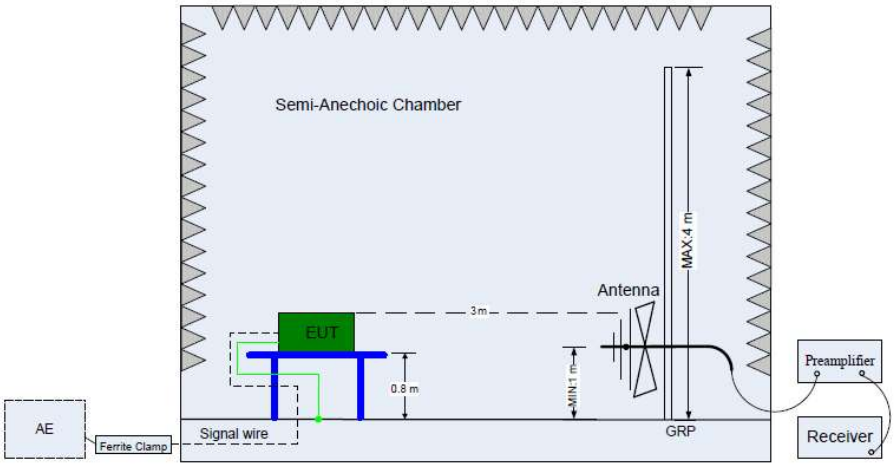
Setup diagram for conducted tests



Setup diagram for radiated tests below 30MHz

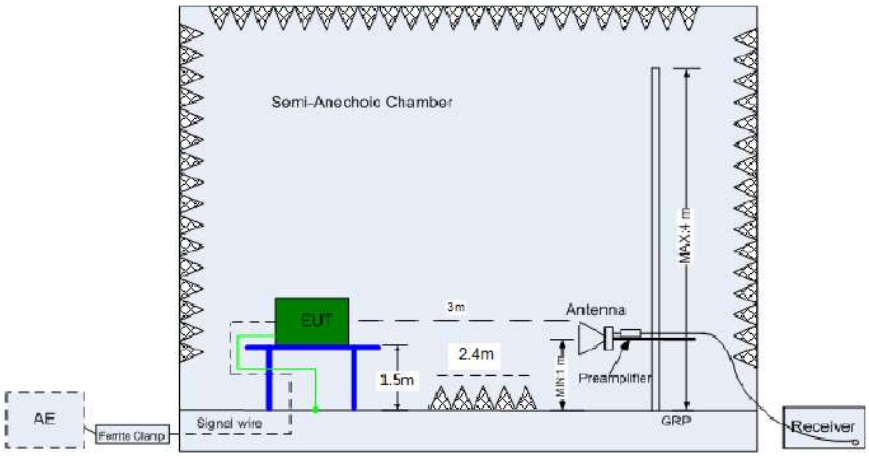


Setup diagram for radiated tests below 1GHz



(Below 1 GHz)

Setup diagram for radiated tests above 1GHz



(Above 1 GHz)

2.9 Test results

☒ 1st test ☐ test after modification ☐ production test

Technical Requirements				
FCC Part 15 Subpart C				
Test Condition		Test Result	Verdict	Test Site
§15.215(c)(1)	20dB bandwidth	See page 13	Pass	Site 1
§15.249(a)&(d)&§15.209 &§15.205	Radiated emission	See page 19	Pass	Site 1
§15.203	Antenna requirement	See note 1	Pass	--

Remark 1: N/A – Not Applicable.
Note 1: The EUT uses an PCB antenna, the gain: -4.26 dBi. According to §15.203, it is considered sufficiently to comply with the provisions of this section.

3 Technical requirement and result

3.1 20 dB bandwidth

Test Method:
The test method was refered to the subclause 6.9.2 of ANSI C63.10-2013.

The occupied bandwidth is measured as the width of the spectral envelope of the modulated signal, at an amplitude level reduced from a reference value by a specified ratio (or in decibels, a specified number of dB down from the reference value). Typical ratios, expressed in dB, are −6 dB, −20 dB, and −26 dB, corresponding to 6 dB BW, 20 dB BW, and 26 dB BW, respectively. In this subclause, the ratio is designated by "−xx dB." The reference value is either the level of the unmodulated carrier or the highest level of the spectral envelope of the modulated signal, as stated by the applicable requirement. Some requirements might specify a specific maximum or minimum value for the "−xx dB" bandwidth; other requirements might specify that the "−xx dB" bandwidth be entirely contained within the authorized or designated frequency band.

a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the EMI receiver or spectrum analyzer shall be between two times and five times the OBW.

b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be approximately three times RBW, unless otherwise specified by the applicable requirement.

c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.

d) Steps a) through c) might require iteration to adjust within the specified tolerances.

e) The dynamic range of the instrument at the selected RBW shall be more than 10 dB below the target "−xx dB down" requirement; that is, if the requirement calls for measuring the −20 dB OBW, the instrument noise floor at the selected RBW shall be at least 30 dB below the reference value.

f) Set detection mode to peak and trace mode to max hold.

g) Determine the reference value: Set the EUT to transmit an unmodulated carrier or modulated signal, as applicable. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value).

h) Determine the "−xx dB down amplitude" using [(reference value) − xx]. Alternatively, this calculation may be made by using the marker-delta function of the instrument.

i) If the reference value is determined by an unmodulated carrier, then turn the EUT modulation ON, and either clear the existing trace or start a new trace on the spectrum analyzer and allow the new trace to stabilize. Otherwise, the trace from step g) shall be used for step j).

j) Place two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the "íxx dB down amplitude" determined in step h). If a marker is below this "−xx dB down amplitude" value, then it shall be as close as possible to this value. The occupied bandwidth is the frequency difference between the two markers. Alternatively, set a marker at the lowest frequency of the envelope of the spectral display, such that the marker is at or slightly below the "íxx dB down amplitude" determined in step h). Reset the marker-delta function and move the marker to the other side of the emission until the delta marker amplitude is at the same level as the reference marker amplitude. The marker-delta frequency reading at this point is the specified emission bandwidth.

k) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

Limit:

None; for reporting purposes only.

Test Result:

Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Verdict
2402	2.170	2400.940	2403.110	PASS
2440	2.170	2438.930	2441.100	PASS
2480	2.180	2478.930	2481.110	PASS

3.1.1 Test Graphs

2402

2440

2480


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
#Atten: 10 dB
PNO: Best Wide
Gate: Off
IF Gain: Low
Sig Track: Off
#Avg Type: Power (RMS)
Avg|Hold: 6285/10000
Trig: Free Run
1 Spectrum
Ref Lvl Offset 8.80 dB
Ref Level 8.80 dBm
ΔMkr3 2.18 MHz
0.13 dB
Scale/Div 10 dB
Center 2.480000 GHz
#Res BW 100 kHz
#Video BW 300 kHz
Span 10.00 MHz
Sweep 1.00 ms (1001 pts)
5 Marker Table
Mode Trace Scale X Y Function Function Width Function Value
1 N 1 f 2.478 93 GHz -27.89 dBm
2 N 1 f 2.480 04 GHz -7.500 dBm
3 Δ1 1 f (Δ) 2.18 MHz (Δ) 0.1279 dB
Frequency
Center Frequency
2.480000000 GHz
Settings
Span
10.0000000 MHz
Swept Span
Zero Span
Full Span
Start Freq
2.475000000 GHz
Stop Freq
2.485000000 GHz
AUTO TUNE
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
Dec 18, 2020
12:36:43 PM

3.2 Radiated emission

Test Method:

The test method was refered to the subclause 11.11/11.12 of ANSI C63.10-2013.

1: The EUT was place on a turn table which is 1.5m above ground plane for above 1GHz and 0.8m above ground for below 1GHz at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

2: The EUT was set 3 meters away from the interference – receiving antenna, which was mounted on the top of a variable – height antenna tower.

3: The height of antenna 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.

4: 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.

5: Use the following spectrum analyzer settings According to C63.10:

For Above 1GHz

Span = wide enough to capture the peak level of the in-band emission and all spurious
RBW = 1MHz, VBW≥RBW for peak measurement and VBW = 10Hz for average measurement, Sweep = auto, Detector function = peak, Trace = max hold.

For Below 1GHz

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious
RBW = 100 KHz, VBW≥RBW for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

For Below 30MHz

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious
RBW = 200 Hz, VBW≥RBW from 9KHz to 0.15MHz, RBW 9KHz VBW≥RBW from 0.15MHz to 30MHz for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

Note:

1: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 KHz for Quasi-peak detection (QP) at frequency below 1GHz.

2: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for peak detection (PK) at frequency above 1GHz.

3: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average ((duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor (20log(1/duty cycle)).

4: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.

5: When duty cycle <98%, The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is VBW ≥ 1 / T, the T is transmission duration (T).

Limit:

FCC §15.205 and §15.209

Frequency Range (MHz)	Field Strength Limit (μV/m) at 3 m	Field Strength Limit (dBμV/m) at 3 m
0.009-0.490	2400/F(kHz) @ 300 m	-
0.490-1.705	24000/F(kHz) @ 30 m	-
1.705 - 30	30 @ 30m	-
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

§15.205 Restricted bands of operation

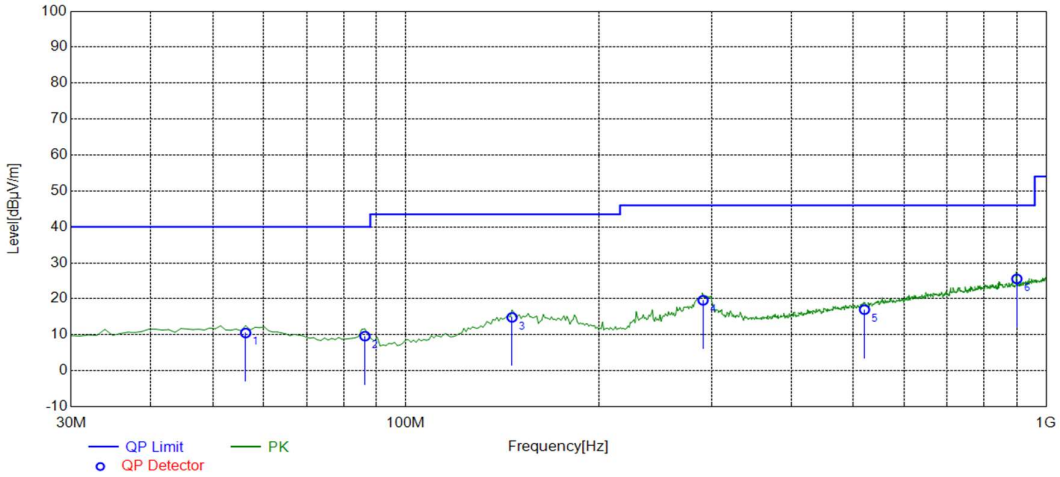
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	
13.36-13.41			

FCC §15.247(a)

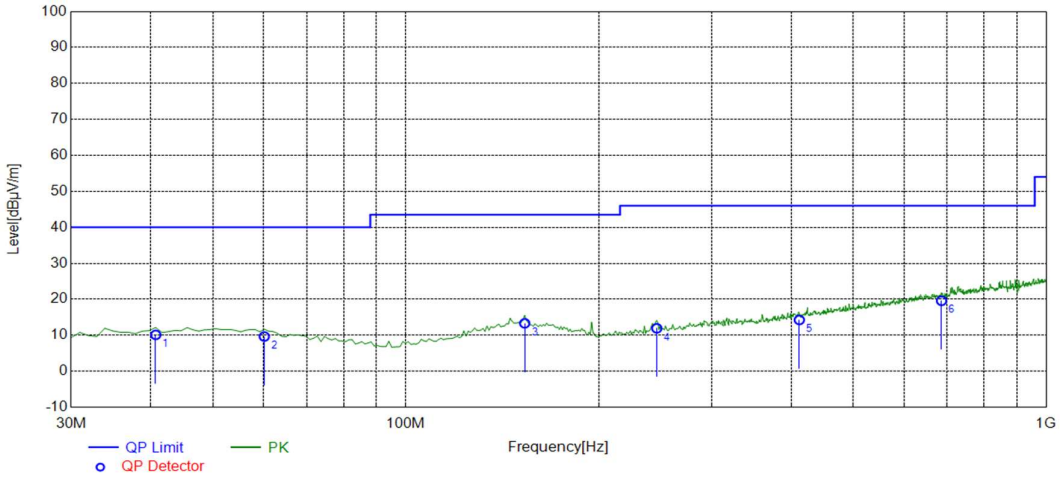
Fundamental frequency	Field strength of fundamental (mV/m)	Field strength of fundamental (dBμV/m)	Field strength of harmonics (μV/m)	Field strength of harmonics (dBμV/m)
902-928 MHz	50	94	500	54
2400-2483.5 MHz	50	94	500	54
5725-5875 MHz	50	94	500	54
24.0-24.25 GHz	250	128	2500	68

Test Result:
2402MHz Test Result

30-1000MHz



Freq. [MHz]	Factor [dB/m]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
56.2162	-16.14	10.50	40.00	29.50	100	191	Horizontal
86.3163	-20.33	9.63	40.00	30.37	200	163	Horizontal
146.5165	-14.97	14.85	43.50	28.65	200	134	Horizontal
291.1912	-15.58	19.59	46.00	26.41	100	113	Horizontal
520.3403	-11.01	16.99	46.00	29.01	100	318	Horizontal
899.9900	-5.68	25.56	46.00	20.44	200	152	Horizontal



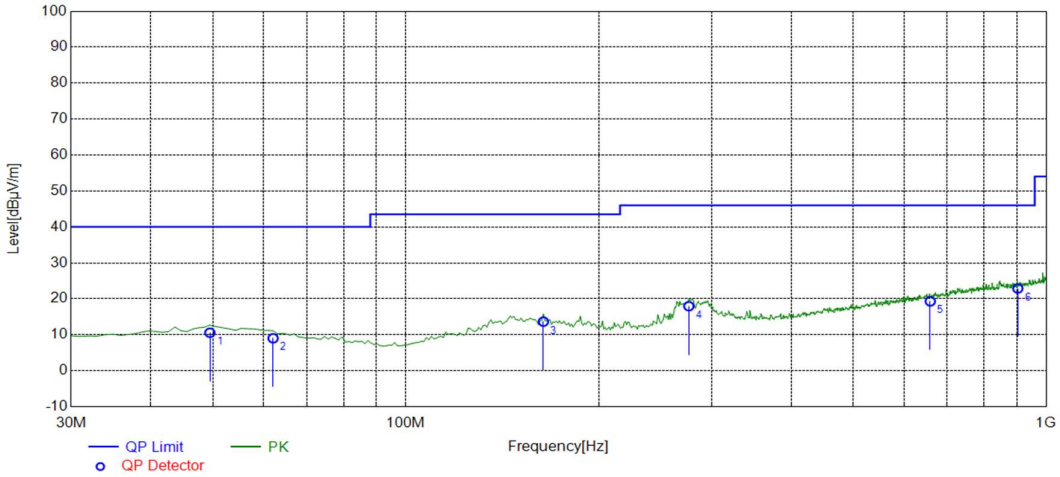
Freq. [MHz]	Factor [dB/m]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
40.6807	-16.39	10.12	40.00	29.88	100	117	Vertical
60.1001	-16.27	9.66	40.00	30.34	100	190	Vertical
153.3133	-14.84	13.33	43.50	30.17	100	184	Vertical
246.5265	-17.17	11.94	46.00	34.06	100	91	Vertical
411.5916	-13.35	14.27	46.00	31.73	100	94	Vertical
686.3764	-8.14	19.59	46.00	26.41	100	307	Vertical

According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

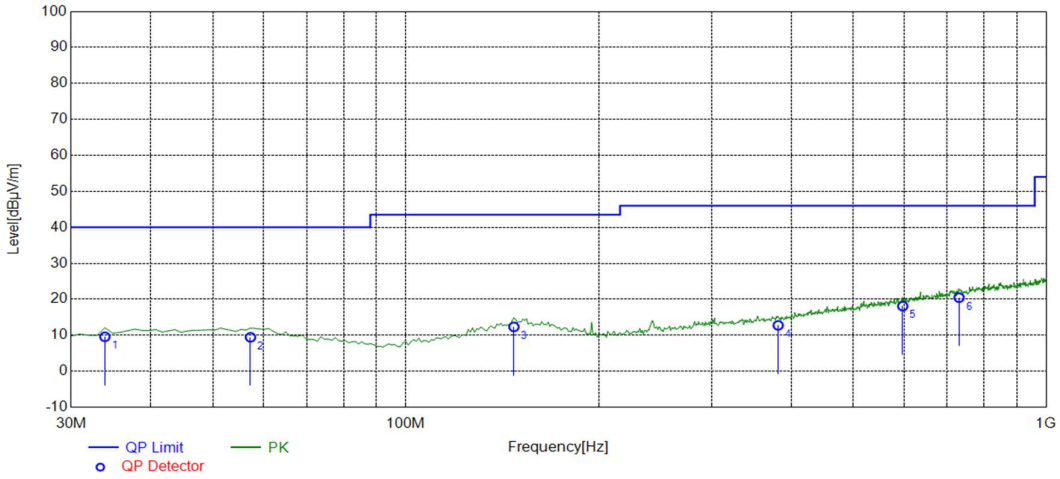
Frequency Band	Freq. [MHz]	Factor [dB/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarization	Result
1000-25000MHz	2402.0350	-22.77	85.36	114.00	28.64	PK	Horizontal	Pass
	4805.7105	-14.77	55.17	74.00	18.83	PK	Horizontal	Pass
	4805.7105	-14.77	36.13	54.00	17.87	AV	Horizontal	Pass
	2402.0300	-22.77	83.20	114.00	30.80	PK	Vertical	Pass
	4803.5842	-14.77	55.31	74.00	18.69	PK	Vertical	Pass
	4803.5842	-14.77	36.71	54.00	17.29	AV	Vertical	Pass

2440MHz Test Result

30-1000MHz



Freq. [MHz]	Factor [dB/m]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
49.4194	-16.00	10.58	40.00	29.42	100	186	Horizontal
62.0420	-16.77	9.04	40.00	30.96	100	337	Horizontal
163.9940	-15.16	13.67	43.50	29.83	100	143	Horizontal
276.6266	-16.11	17.96	46.00	28.04	100	113	Horizontal
659.1892	-8.43	19.31	46.00	26.69	100	349	Horizontal
902.9029	-5.63	22.91	46.00	23.09	100	344	Horizontal



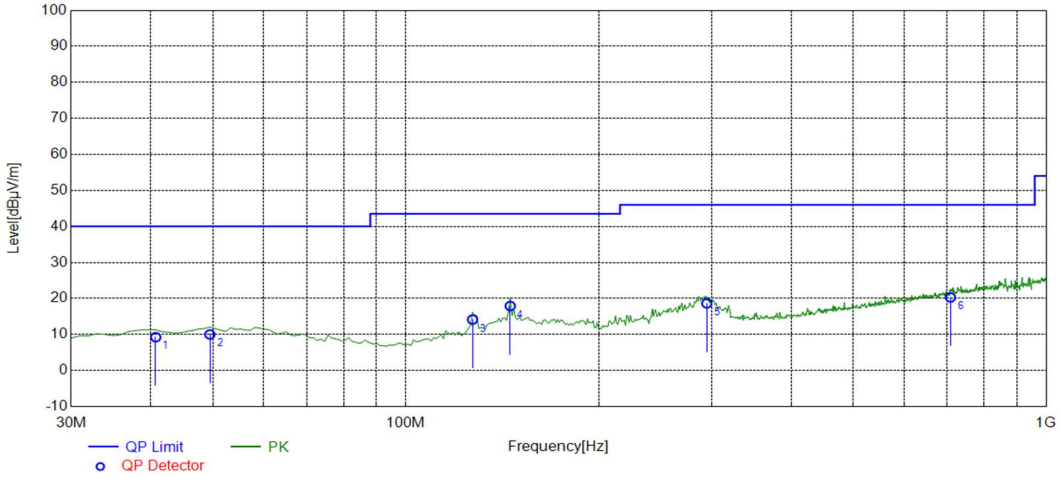
Freq. [MHz]	Factor [dB/m]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
33.8839	-17.73	9.58	40.00	30.42	100	229	Vertical
57.1872	-16.17	9.45	40.00	30.55	100	289	Vertical
147.4875	-14.90	12.34	43.50	31.16	100	206	Vertical
381.4915	-14.07	12.76	46.00	33.24	100	147	Vertical
597.0470	-9.53	18.11	46.00	27.89	100	121	Vertical
731.0410	-7.55	20.46	46.00	25.54	100	121	Vertical

According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

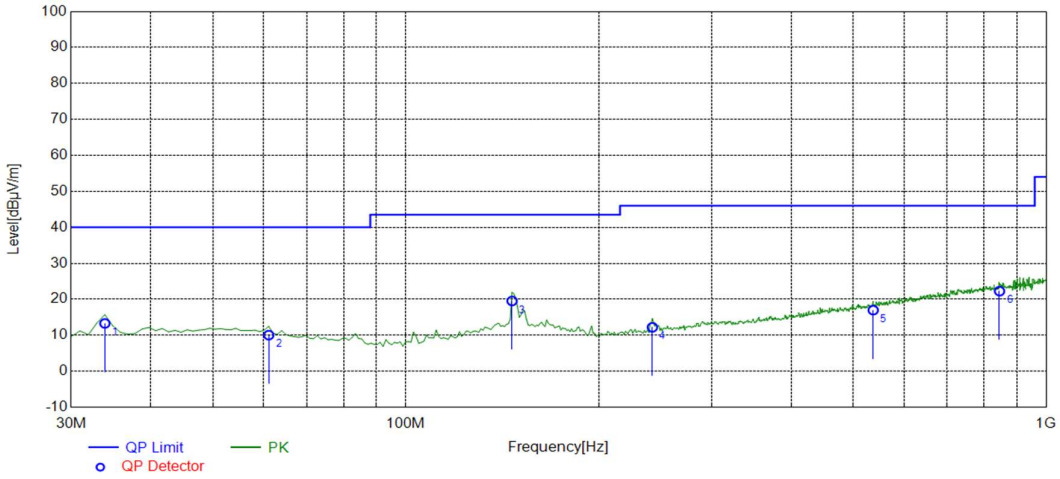
Frequency Band	Freq. [MHz]	Factor [dB/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarization	Result
1000-25000MHz	2440.0364	-22.66	84.33	114.00	29.67	PK	Horizontal	Pass
	4884.5117	-14.88	49.51	74.00	24.49	PK	Horizontal	Pass
	4884.5117	-14.88	35.07	54.00	18.93	AV	Horizontal	Pass
	2440.0130	-22.66	81.61	114.00	32.39	PK	Vertical	Pass
	4883.5117	-14.88	50.00	74.00	24.00	PK	Vertical	Pass
	4883.5117	-14.88	35.54	54.00	18.46	AV	Vertical	Pass

2480MHz Test Result

30-1000MHz



Freq. [MHz]	Factor [dB/m]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
40.6807	-16.39	9.27	40.00	30.73	100	50	Horizontal
49.4194	-16.00	10.02	40.00	29.98	100	16	Horizontal
127.0971	-17.21	14.15	43.50	29.35	100	114	Horizontal
145.5455	-15.04	17.92	43.50	25.58	100	114	Horizontal
295.0751	-15.44	18.65	46.00	27.35	100	313	Horizontal
708.7087	-7.87	20.31	46.00	25.69	100	224	Horizontal



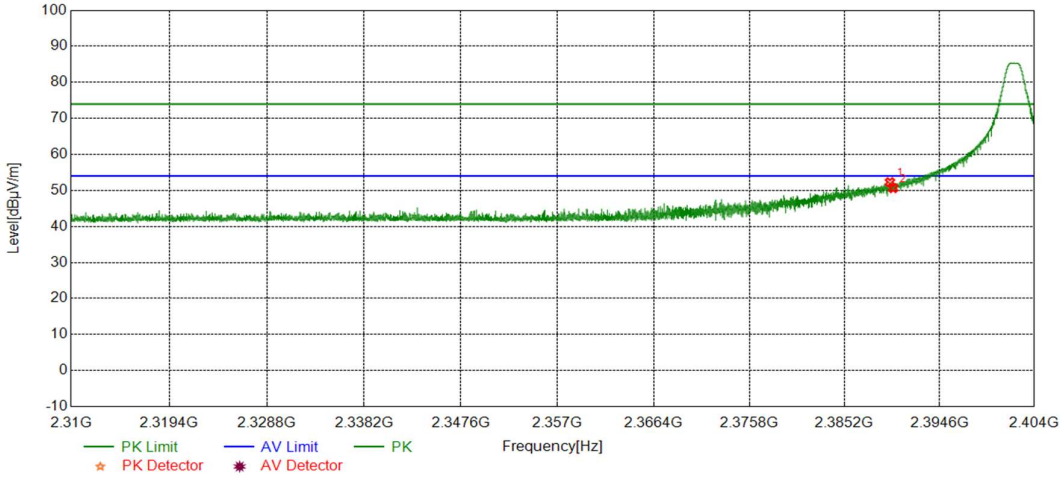
Freq. [MHz]	Factor [dB/m]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
33.8839	-17.73	13.30	40.00	26.70	100	7	Vertical
61.0711	-16.52	10.05	40.00	29.95	100	213	Vertical
146.5165	-14.97	19.54	43.50	23.96	100	12	Vertical
242.6426	-17.27	12.22	46.00	33.78	100	61	Vertical
536.8468	-10.65	16.98	46.00	29.02	100	14	Vertical
845.6156	-6.10	22.26	46.00	23.74	100	175	Vertical

According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

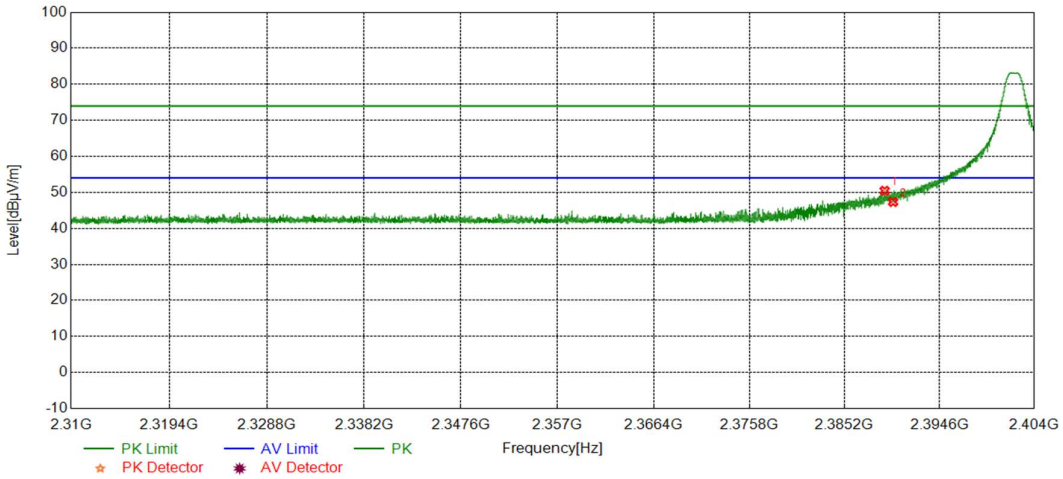
Frequency Band	Freq. [MHz]	Factor [dB/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarization	Result
1000-25000MHz	2480.0362	-22.53	85.96	114.00	28.04	PK	Horizontal	Pass
	4960.0492	-14.57	58.60	74.00	15.40	PK	Horizontal	Pass
	4960.0492	-14.57	38.98	54.00	15.02	AV	Horizontal	Pass
	2480.0277	-22.53	82.86	114.00	31.14	PK	Vertical	Pass
	4960.1892	-14.57	54.19	74.00	19.81	PK	Vertical	Pass
	4960.1892	-14.57	37.09	54.00	16.91	AV	Vertical	Pass

Band-edge (Radiated)

2402MHz Test Result



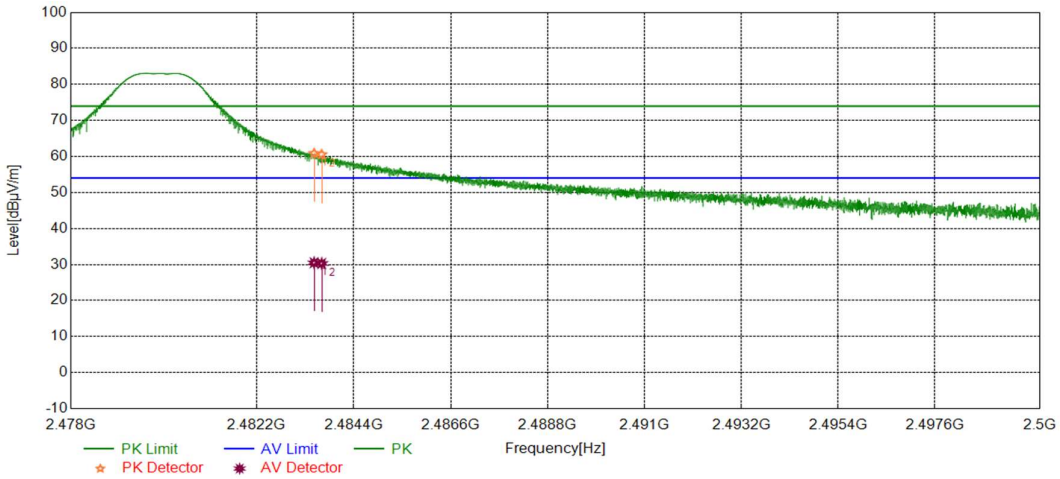
Freq. [MHz]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
2389.6831	52.30	-22.81	74.00	21.70	148.3	20	Horizontal
2390.0000	50.63	-22.81	74.00	23.37	148.3	20	Horizontal



Freq. [MHz]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
2389.1614	50.47	-22.81	74.00	23.53	292.6	50	Vertical
2390.0000	47.32	-22.81	74.00	26.68	292.6	50	Vertical

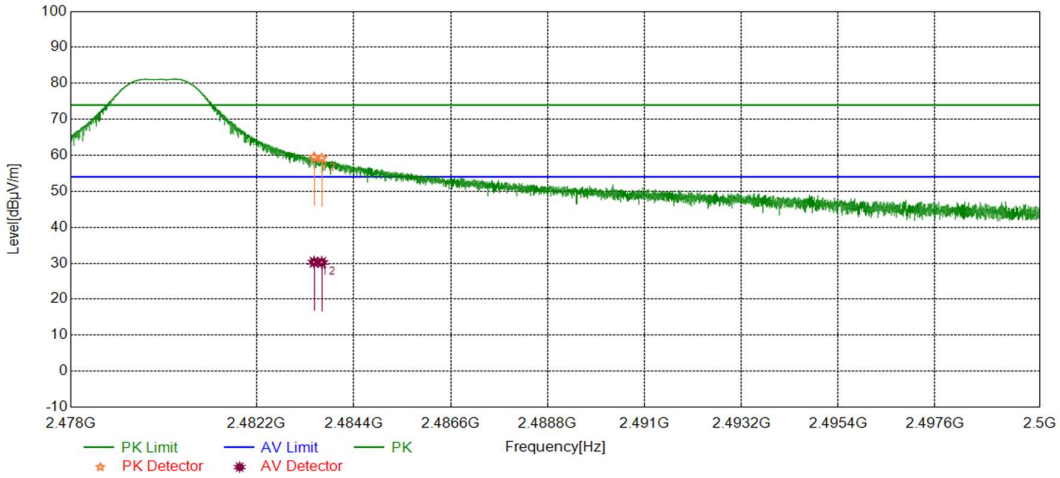
Level = Read level + Factor
Factor= Antenna Factor + Cable loss – Preamp Factor

2480MHz Test Result



Freq. [MHz]	Factor [dB/m]	PK Value [dBµV/m]	PK Limit [dBµV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
2483.5000	-22.52	60.87	74.00	13.13	150	40	Horizontal
2483.6719	-22.52	60.53	74.00	13.47	150	40	Horizontal

Freq. [MHz]	Factor [dB/m]	AV Value [dBµV/m]	AV Limit [dBµV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
2483.5000	-22.52	30.48	54.00	23.52	150	40	Horizontal
2483.6719	-22.52	30.29	54.00	23.71	150	40	Horizontal



Freq. [MHz]	Factor [dB/m]	PK Value [dBµV/m]	PK Limit [dBµV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
2483.5000	-22.52	59.49	74.00	14.51	150	40	Vertical
2483.6730	-22.52	59.17	74.00	14.83	150	40	Vertical

Freq. [MHz]	Factor [dB/m]	AV Value [dBµV/m]	AV Limit [dBµV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
2483.5000	-22.52	30.29	54.00	23.71	150	40	Vertical
2483.6730	-22.52	30.22	54.00	23.78	150	40	Vertical

Level = Read level + Factor
Factor= Antenna Factor + Cable loss – Preamp Factor

-END OF REPORT-