ACCREDITED
CERTIFICATE #5473.01

Test Report No.:
FCC2022-0033-1/R2

TEST REPORT

FCC ID		2AR82-SKIWB921AU1
Applicant	:	Guangzhou Shikun Electronics Co., Ltd
Product Name	:	Module
Mode No.	:	SKI.WB921AU.1

CVC Testing Technology Co., Ltd.

广州检测技术有限公司
检验检测专用章

Applicant	**Name:** Guangzhou Shikun Electronics Co., Ltd **Address:** NO.6 Liankun Road,Huangpu District,Guangzhou,China
Manufacturer	**Name:** Guangzhou Shikun Electronics Co., Ltd **Address:** NO.6 Liankun Road,Huangpu District,Guangzhou,China
Equipment Under Test	**Product Name :** Module **Model No. :** SKI.WB921AU.1 **Trade mark :** / **Serial no. :** B4ADA3CE77D8 **Sampling :** —

Date of Receipt.	**2022.06.02**	Date of Testing	**2022.06.02~2022.08.26**

Test Specification	**Test Result**
FCC CFR47 Part 15C (2020) Radio Frequency Devices ANSI C63.10 (2013) DA00-705 Filing and Frequency Measurement Guidelines For Frequency Hopping Spread Spectrum System (2000).	PASS

Evaluation of Test Result	The equipment under test was found to comply with the requirements of the standards applied. **Seal of CVC** **Issue Date: 2022.08.26**

Tested by:	Reviewed by:	Approved by:
Xu Zhenfei	**Liu YongHai**	**Chen HuaWen**

Other Aspects: NONE.

Abbreviations:OK, Pass= passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested

This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of **CVC**.
After this report is released, it will replace the report numbered FCC2022-0033-1/R1.

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1. General Product Information

1.1 General information

Product Name	Module	
Model No.	SKI.WB921AU.1	
Power Supply	DC 3.3V	
Serial Number(SN)	B4ADA3CE77D8	
Power Supply	Adapter	/
	Battery	/
Antenna Type	External Antenna	
Antenna Connector	A permanently attached antenna (meet with the standard FCC Part 15.203 requirement)	
Antenna Gain	3.5 dBi (provided by client)	
Frequency Range	2402MHz~2480MHz	
Bluetooth Version:	BT5.2	
Channel Number	79	
Type of Modulation	GFSK, π/4DQPSK, 8DPSK	
Hopping Channel Type:	Adaptive Frequency Hopping systems	
Max. Conducted Power	16.47 dBm	
Operate Temp.Range	-40°C to +125°C	

Note：
1. The information of the EUT is declared by the manufacturer.
2. The laboratory is not responsible for the product technical specification provided by the client.
3. Note: This module (the module number is SKI.WB921AU.1) has passed the certification. The module plans to add four models of antennas, as shown in the table below. In the report, only the radiated emission is tested, and the antenna used is A100-0062. Other test items and test data will refer to the report of the module (FCC ID:2AR82-SKIWB921AU1)

Antennas	AG-011320-0679	3D0504BK07-001	SLK-KG-B3DBS-SMA(P)	A100-0062
Gain	3.0dBi	3.5dBi	3.5dBi	3.5dBi

2. Test Sites

2.1 Test Facilities

The tests and measurements refer to this report were performed by EMC testing Lab. of CVC Testing Technology Co., Ltd.

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Telephone : +86-20-32293888

Fax : +86-20-32293889

FCC(Test firm designation number：CN1282)

IC(Test firm CAB identifier number：CN0103)

2.2 Description of Non-standard Method and Deviations

The testing and measurement methods used in this report are applied by all standard methods. Not any non-standard method or deviation from the used standards was used.

2.3 List of Test and Measurement Instruments

Refer to **Appendix E**.

3. Test Configuration

3.1 Test Mode

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in lie-down position (X axis) and the worst case was recorded.

In order to find the worst case condition, Pre-tests are needed at the presence of different data rate. Preliminary tests have been done on all the configuration for confirming worst case. Data rate below means worst-case rate of each test item.

Worst-case data rates are shown as following table.

Test Mode	Antenna Delivery	Test Channel
DH5/2DH5/3DH5	2TX / 2RX	0,39,78

Test Mode	Test Modes
Radiated Emissions	3DH5
Peak Power Output -Conducted	DH5/2DH5/3DH5

4. Summary of measurement results

Summary of measurements of results	Clause in FCC rules	Verdict	Note
Radiated Emissions	15.247(d),15.205,15.209	PASS	/
Peak Power Output -Conducted	15.247(b)(1)	PASS	/

5. Measurement procedure

5.1 Radiated Emission

Ambient condition:

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement:

The EUT was setup and tested according to ANSI C63.10, 2013.
The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from Antenna to the EUT was 3 meters.
The Antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the Antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.
The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.
The frequency range from 30MHz to 10th harmonic is checked.
Note: When doing emission measurement above 1GHz, the horn Antenna will be bended down a little (as horn
Antenna has the narrow beamwidth) in order to keeping the Antenna in the “cone of radiation” of EUT. The 3dB beamwidth is 10~60 degrees for H-plane and 10~90 degrees for E-plane.

Limits:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Frequency	Limit (dBµV/m @3m)	Remark
30MHz-88MHz	40.0	Quasi-peak Level
88MHz-216MHz	43.5	Quasi-peak Level

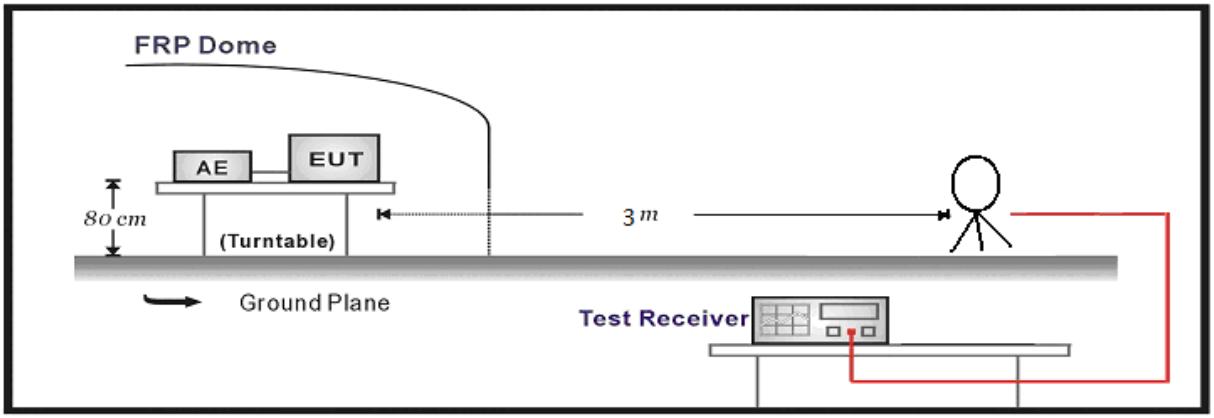
216MHz-960MHz	46.0	Quasi-peak Level
960MHz-1GHz	54.0	Quasi-peak Level
Above 1GHz	54.0	Average Level
	74.0	Peak Level

Spurious Radiated Emissions are permitted in any of the frequency bands listed below:

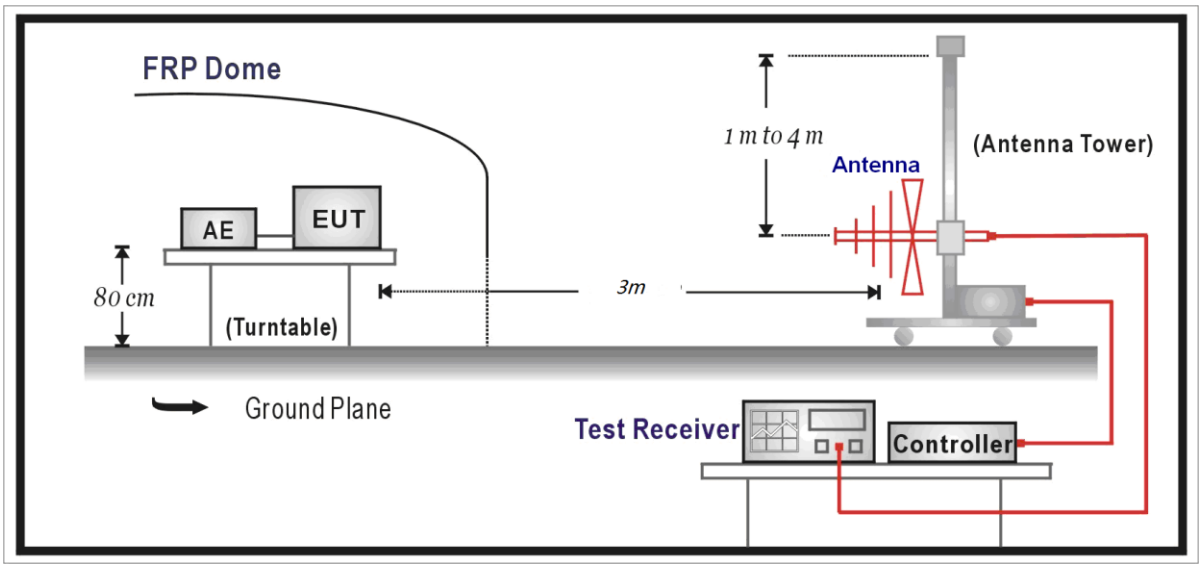
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	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.
12.57675-12.57725	322-335.4	3600-4400	/
13.36-13.41	/	/	/

Test Setup:

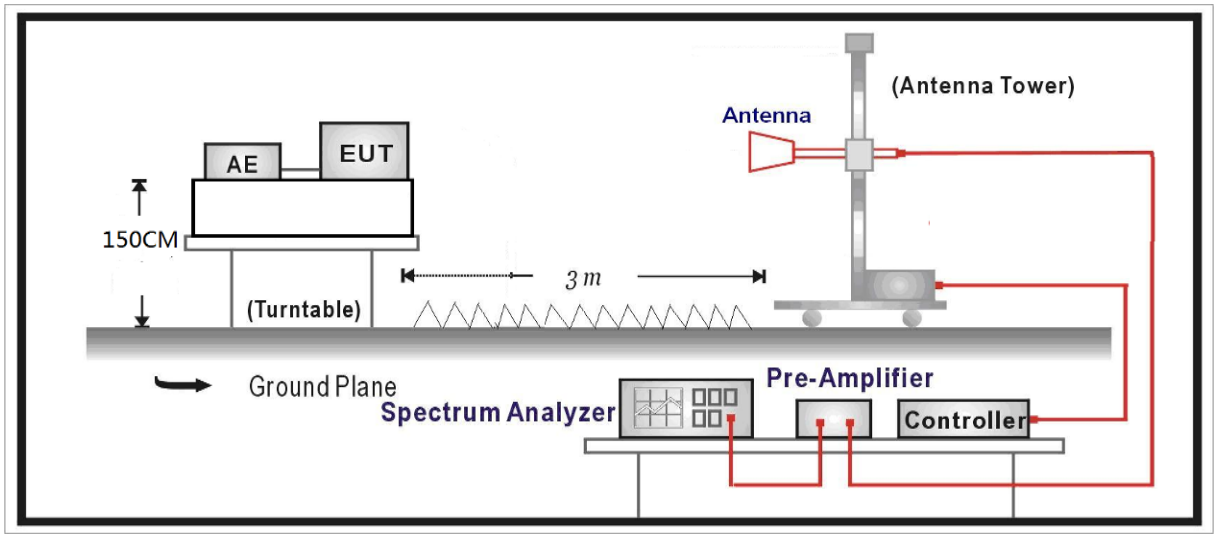
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



Measurement Data：

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

Final Level =Reading - Factor

Factor = Preamplifier Factor – Antenna Factor–Cable Loss

Measurement Uncertainty：

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96.

Frequency	Uncertainty
9KHz-30MHz	3.55 dB
30MHz-200MHz	4.19 dB
200MHz-1GHz	3.63 dB
Above 1GHz	3.68 dB

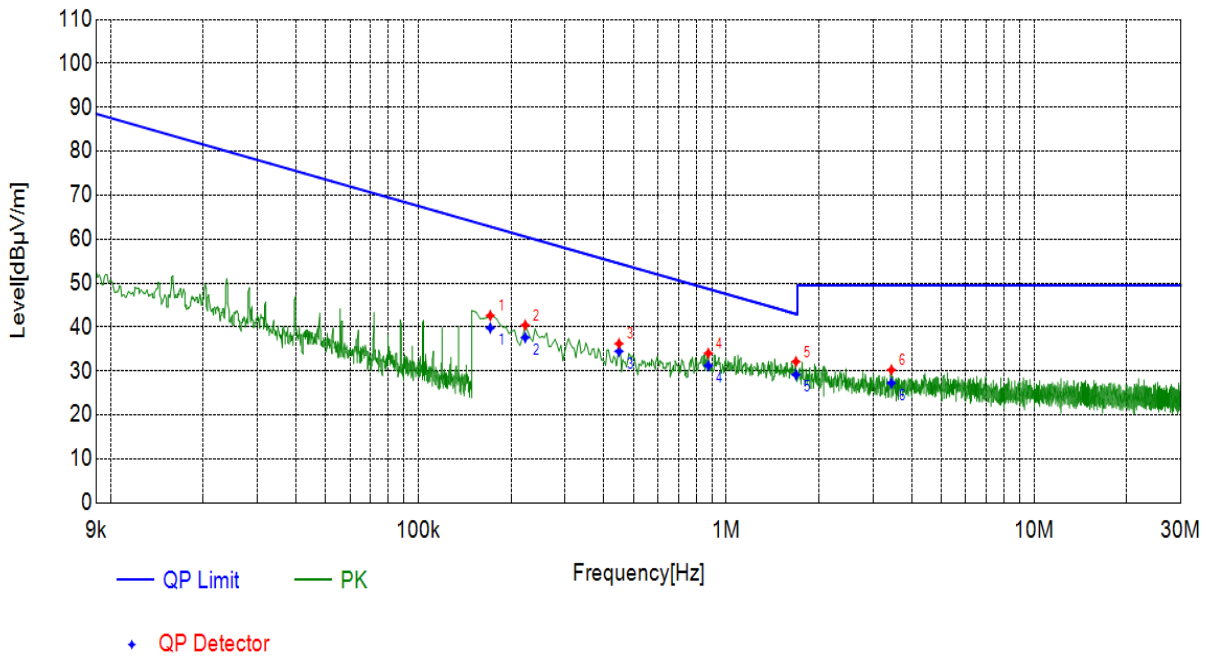
Test Results:

During the test, the Radiates Emission from 9KHz to 40GHz was performed in all modes with all channels, and all antenna, BT 8DPSK Channel 78, antenna 1 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

SPURIOUS EMISSIONS:

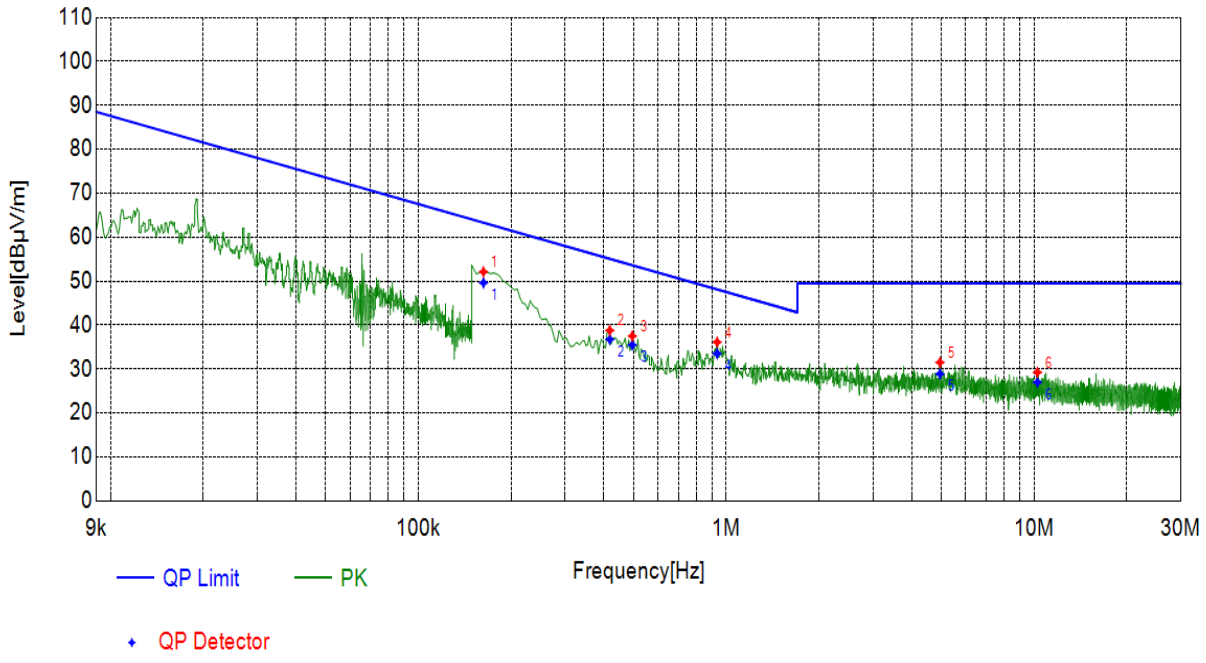
Radiated Emission	9KHz-30MHz
Polarity	X axis
Test channel	Worst-Case

Final Data List								
Frequency [MHz]	Polarity	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Pass/Fail
0.1713	X axis	20.40	39.78	62.85	23.07	100	150	PASS
0.2225	X axis	20.37	37.61	60.57	22.96	100	90	PASS
0.4485	X axis	20.41	34.47	54.47	20.00	100	250	PASS
0.8750	X axis	20.59	31.21	48.68	17.47	100	320	PASS
1.6854	X axis	20.73	29.14	43.00	13.86	100	40	PASS
3.4425	X axis	20.99	27.26	49.50	22.24	100	0	PASS



Radiated Emission	9KHz-30MHz
Polarity	Y axis
Test channel	Worst-Case

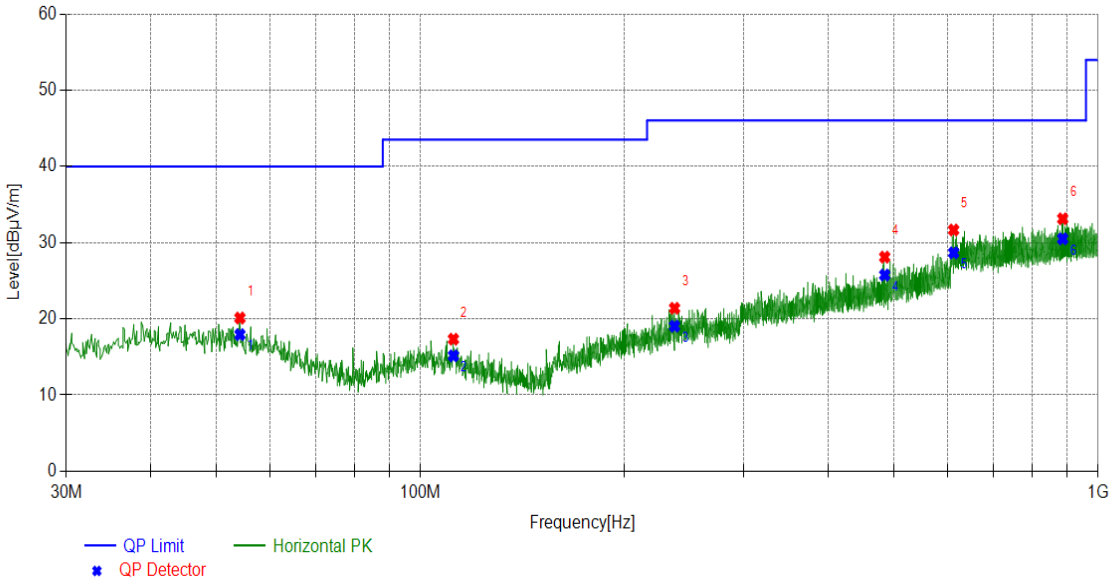
Final Data List								
Frequency [MHz]	Polarity	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Pass/Fail
0.1628	Y axis	20.41	49.61	63.29	13.68	100	270	PASS
0.4187	Y axis	20.32	36.75	55.07	18.32	100	300	PASS
0.4955	Y axis	20.56	35.47	53.60	18.13	100	320	PASS
0.9347	Y axis	20.56	33.49	48.11	14.62	100	90	PASS
4.9480	Y axis	21.13	28.87	49.50	20.63	100	270	PASS
10.2578	Y axis	20.95	26.98	49.50	22.52	100	230	PASS



Radiates Emission	30M~1G
Test channel	Worst-Case

Suspected List										
Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Height [cm]	Angle deg	Pass/Fail
54.1554	Horizontal	14.03	6.08	20.11	40.00	19.89	PK	100	60	PASS
111.8762	Horizontal	12.25	5.08	17.33	43.52	26.19	PK	100	30	PASS
237.2127	Horizontal	14.32	7.07	21.39	46.02	24.63	PK	100	30	PASS
484.4904	Horizontal	18.90	9.20	28.10	46.02	17.92	PK	100	70	PASS
612.3492	Horizontal	21.21	10.45	31.66	46.02	14.36	PK	100	20	PASS
887.1777	Horizontal	24.39	8.74	33.13	46.02	12.89	PK	100	40	PASS

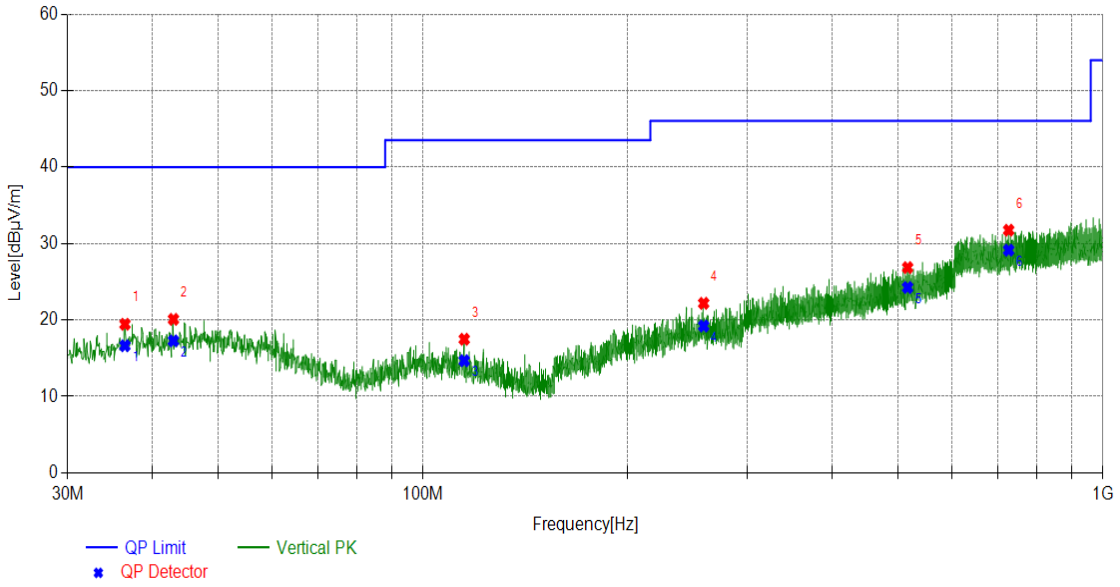
Final Data List								
Frequency [MHz]	Polarity	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Pass/Fail
54.1554	Horizontal	14.03	17.93	40.00	22.07	102	60	PASS
111.8762	Horizontal	12.25	15.15	43.52	28.37	130	30	PASS
237.2127	Horizontal	14.32	19.04	46.02	26.98	160	30	PASS
484.4904	Horizontal	18.90	25.75	46.02	20.27	230	70	PASS
612.3492	Horizontal	21.21	28.67	46.02	17.35	140	20	PASS
887.1777	Horizontal	24.39	30.50	46.02	15.52	302	40	PASS



Radiates Emission	30M~1G
Test channel	Worst-Case

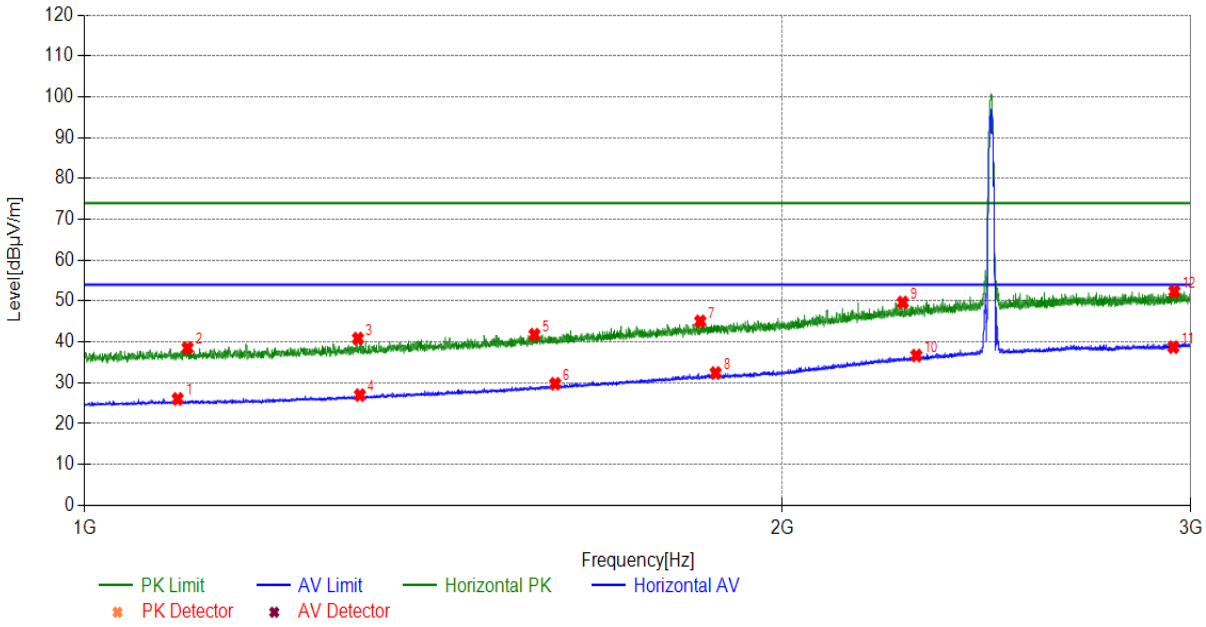
Suspected List										
Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Height [cm]	Angle deg	Pass/Fail
36.4480	Vertical	13.18	6.26	19.44	40.00	20.56	PK	100	30	PASS
42.9531	Vertical	14.13	5.95	20.08	40.00	19.92	PK	100	30	PASS
115.0226	Vertical	11.94	5.54	17.48	43.52	26.04	PK	100	40	PASS
258.7623	Vertical	15.00	7.18	22.18	46.02	23.84	PK	100	30	PASS
516.3980	Vertical	19.48	7.37	26.85	46.02	19.17	PK	100	40	PASS
727.1857	Vertical	22.56	9.18	31.74	46.02	14.28	PK	100	30	PASS

Final Data List								
Frequency [MHz]	Polarity	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Pass/Fail
36.4480	Vertical	13.18	16.63	40.00	23.37	110	30	PASS
42.9531	Vertical	14.13	17.27	40.00	22.73	146	30	PASS
115.0226	Vertical	11.94	14.67	43.52	28.85	182	40	PASS
258.7623	Vertical	15.00	19.21	46.02	26.81	204	30	PASS
516.3980	Vertical	19.48	24.24	46.02	21.78	256	40	PASS
727.1857	Vertical	22.56	29.13	46.02	16.89	310	30	PASS



Radiates Emission	1G~3G
Test channel	Worst-Case

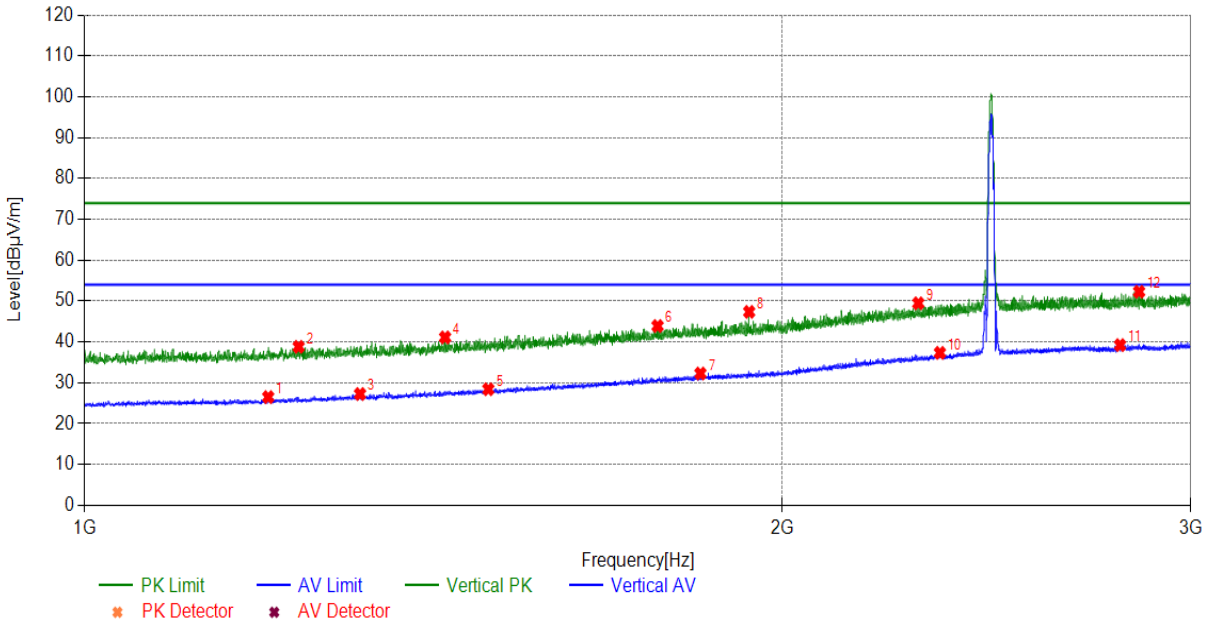
Suspected List										
Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Height [cm]	Angle deg	Pass/Fail
2951.99	Horizont	37.80	14.56	52.36	74.00	21.64	PK	100	190	PASS
1312.03	Horizont	26.90	13.92	40.82	74.00	33.18	PK	100	180	PASS
1843.48	Horizont	31.15	13.88	45.03	74.00	28.97	PK	100	190	PASS
1107.81	Horizont	25.84	12.68	38.52	74.00	35.48	PK	100	40	PASS
2253.92	Horizont	34.70	14.96	49.66	74.00	24.34	PK	100	130	PASS
1563.45	Horizont	28.75	13.03	41.78	74.00	32.22	PK	100	40	PASS
1314.63	Horizont	26.91	0.08	26.99	54.00	27.01	AV	100	10	PASS
1596.05	Horizont	29.03	0.74	29.77	54.00	24.23	AV	100	10	PASS
2284.72	Horizont	34.95	1.72	36.67	54.00	17.33	AV	100	10	PASS
2948.99	Horizont	37.79	0.95	38.74	54.00	15.26	AV	100	180	PASS
1871.68	Horizont	31.30	1.10	32.40	54.00	21.60	AV	100	10	PASS
1097.00	Horizont	25.80	0.26	26.06	54.00	27.94	AV	100	10	PASS



Note: The signal beyond the limit is carrier

Radiates Emission	1G~3G
Test channel	Worst-Case

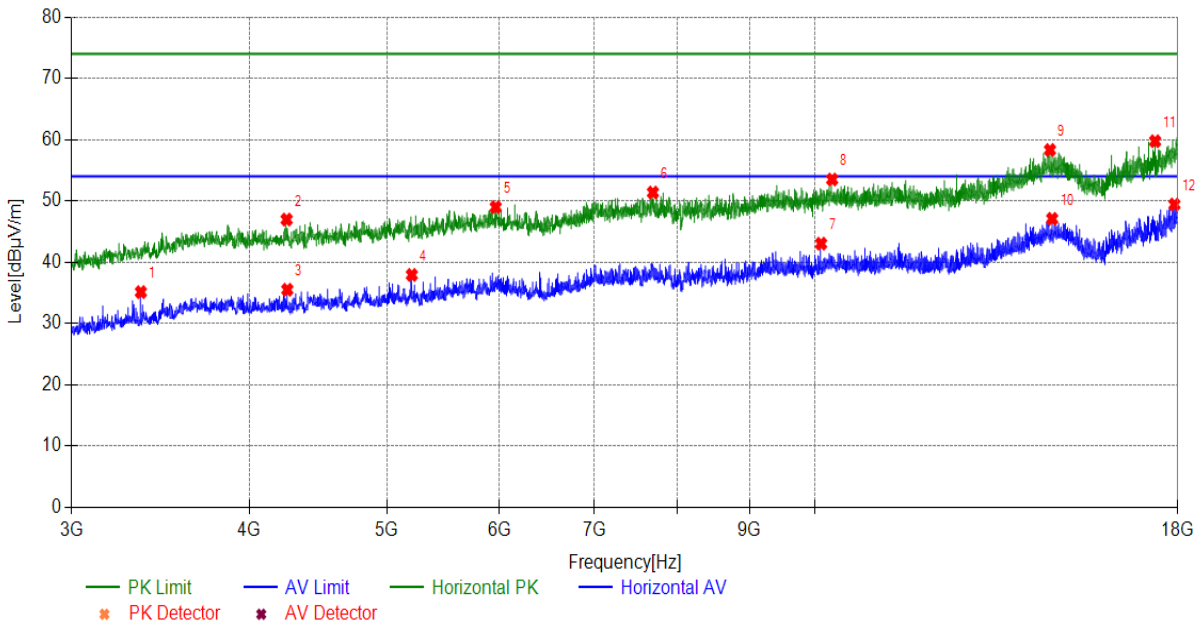
Suspected List										
Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Height [cm]	Angle deg	Pass/Fail
2850.38	Vertical	37.48	14.80	52.28	74.00	21.72	PK	100	10	PASS
1237.02	Vertical	26.44	12.37	38.81	74.00	35.19	PK	100	20	PASS
1766.87	Vertical	30.61	13.29	43.90	74.00	30.10	PK	100	30	PASS
1935.09	Vertical	31.63	15.73	47.36	74.00	26.64	PK	100	70	PASS
2289.12	Vertical	34.98	14.48	49.46	74.00	24.54	PK	100	60	PASS
1430.64	Vertical	27.66	13.45	41.11	74.00	32.89	PK	100	40	PASS
2796.97	Vertical	37.31	1.92	39.23	54.00	14.77	AV	100	10	PASS
1493.44	Vertical	28.14	0.28	28.42	54.00	25.58	AV	100	10	PASS
1314.83	Vertical	26.91	0.35	27.26	54.00	26.74	AV	100	10	PASS
1843.68	Vertical	31.15	1.12	32.27	54.00	21.73	AV	100	10	PASS
2338.73	Vertical	35.38	1.95	37.33	54.00	16.67	AV	100	10	PASS
1200.22	Vertical	26.22	0.28	26.50	54.00	27.50	AV	100	10	PASS



Note: The signal beyond the limit is carrier

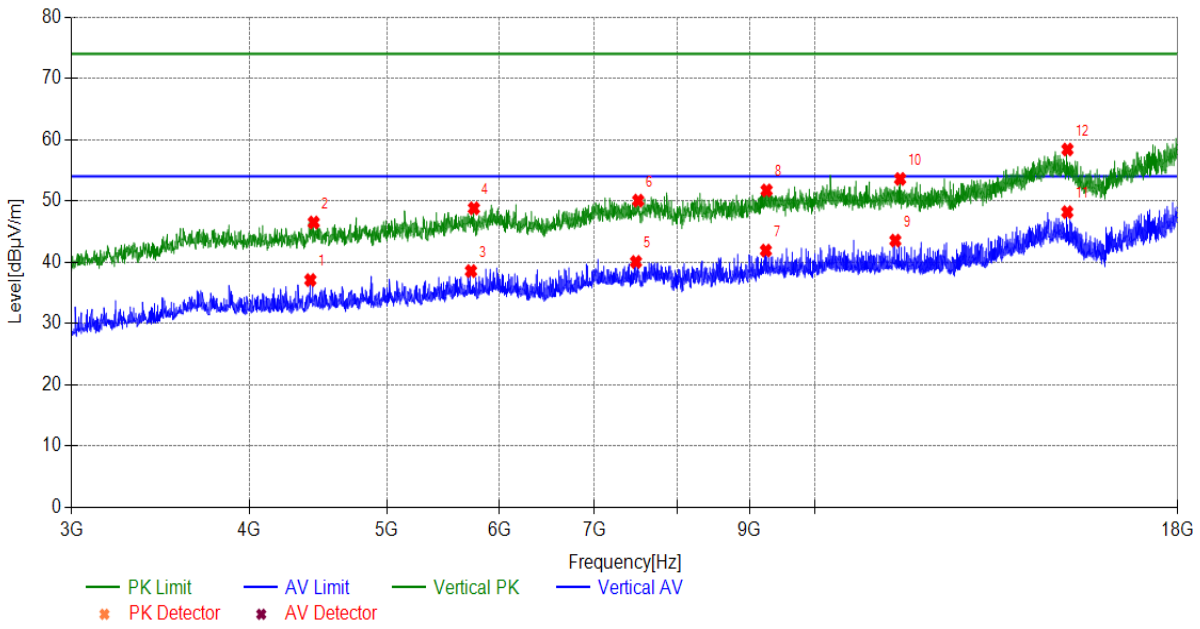
Radiates Emission	3G~18G
Test channel	Worst-Case

Suspected List										
Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Height [cm]	Angle deg	Pass/Fail
7693.96	Horizont	-0.26	51.63	51.37	74.00	22.63	PK	100	350	PASS
14638.1	Horizont	8.62	49.69	58.31	74.00	15.69	PK	100	40	PASS
17354.9	Horizont	12.07	47.67	59.74	74.00	14.26	PK	100	190	PASS
10286.2	Horizont	4.29	49.21	53.50	74.00	20.50	PK	100	260	PASS
4251.12	Horizont	-6.36	53.32	46.96	74.00	27.04	PK	100	330	PASS
5964.29	Horizont	-4.14	53.12	48.98	74.00	25.02	PK	100	320	PASS
5206.72	Horizont	-5.60	43.53	37.93	54.00	16.07	AV	100	10	PASS
17908.4	Horizont	14.97	34.44	49.41	54.00	4.59	AV	100	10	PASS
4255.62	Horizont	-6.36	41.87	35.51	54.00	18.49	AV	100	10	PASS
10103.2	Horizont	3.84	39.19	43.03	54.00	10.97	AV	100	10	PASS
14690.6	Horizont	8.62	38.46	47.08	54.00	6.92	AV	100	10	PASS
3357.03	Horizont	-8.26	43.39	35.13	54.00	18.87	AV	100	10	PASS



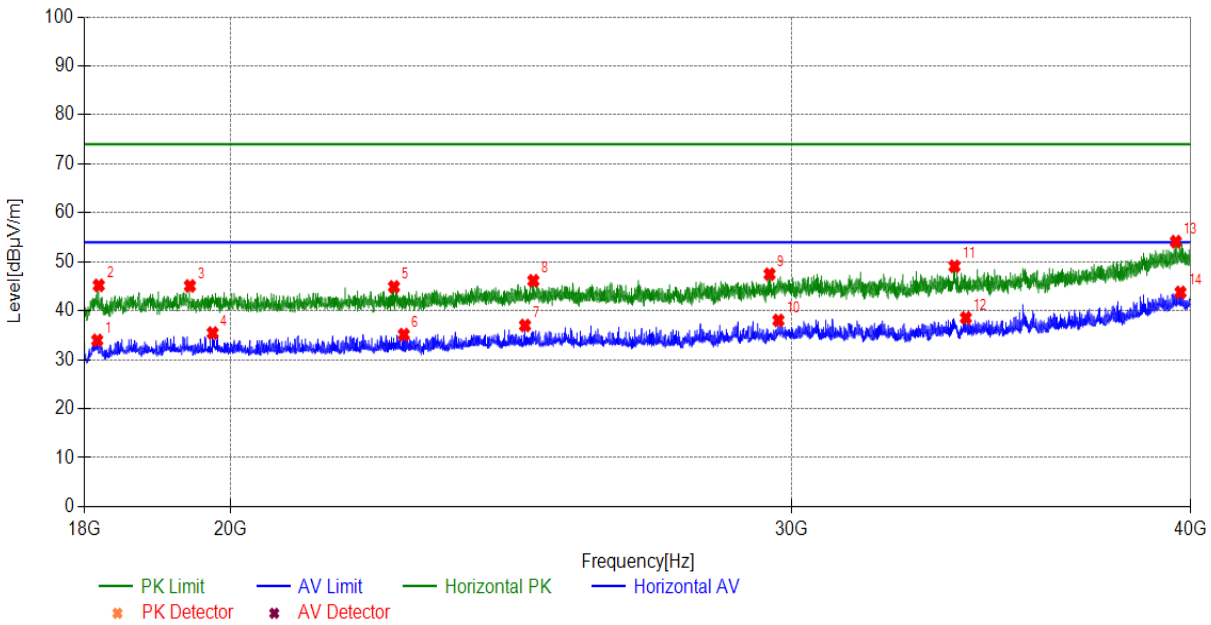
Radiates Emission	3G~18G
Test channel	Worst-Case

Suspected List										
Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Height [cm]	Angle deg	Pass/Fail
15058.2	Vertical	8.47	49.92	58.39	74.00	15.61	PK	100	220	PASS
11483.3	Vertical	5.03	48.56	53.59	74.00	20.41	PK	100	180	PASS
7512.45	Vertical	-0.32	50.37	50.05	74.00	23.95	PK	100	210	PASS
9249.62	Vertical	2.10	49.62	51.72	74.00	22.28	PK	100	320	PASS
4441.64	Vertical	-6.22	52.70	46.48	74.00	27.52	PK	100	170	PASS
5757.27	Vertical	-4.81	53.60	48.79	74.00	25.21	PK	100	120	PASS
15053.7	Vertical	8.48	39.69	48.17	54.00	5.83	AV	100	10	PASS
7485.44	Vertical	-0.35	40.40	40.05	54.00	13.95	AV	100	10	PASS
5730.27	Vertical	-4.90	43.45	38.55	54.00	15.45	AV	100	10	PASS
9239.12	Vertical	2.08	39.82	41.90	54.00	12.10	AV	100	10	PASS
11394.8	Vertical	5.07	38.46	43.53	54.00	10.47	AV	100	10	PASS
4417.64	Vertical	-6.24	43.33	37.09	54.00	16.91	AV	100	10	PASS



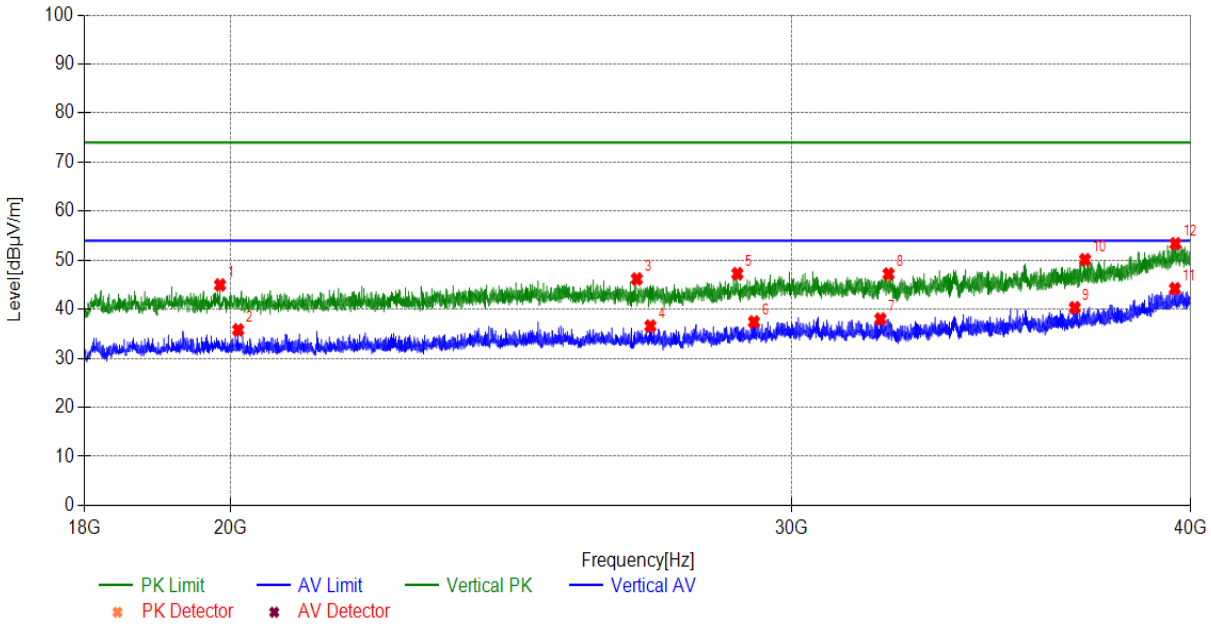
Radiates Emission	18G~40G
Test channel	Worst-Case

Suspected List										
Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Height [cm]	Angle deg	Pass/Fail
19423.5	Horizont	1.33	43.74	45.07	74.00	28.93	PK	100	100	PASS
24888.8	Horizont	4.06	42.06	46.12	74.00	27.88	PK	100	60	PASS
39575.3	Horizont	10.78	43.33	54.11	74.00	19.89	PK	100	150	PASS
18187.0	Horizont	1.15	44.03	45.18	74.00	28.82	PK	100	60	PASS
33731.5	Horizont	6.52	42.56	49.08	74.00	24.92	PK	100	180	PASS
22506.0	Horizont	2.41	42.47	44.88	74.00	29.12	PK	100	90	PASS
29515.9	Horizont	6.36	41.10	47.46	74.00	26.54	PK	100	170	PASS
19744.7	Horizont	1.31	34.14	35.45	54.00	18.55	AV	100	10	PASS
22666.6	Horizont	2.57	32.56	35.13	54.00	18.87	AV	100	10	PASS
24739.2	Horizont	4.00	32.99	36.99	54.00	17.01	AV	100	10	PASS
39709.5	Horizont	10.79	32.95	43.74	54.00	10.26	AV	100	10	PASS
29705.1	Horizont	6.49	31.53	38.02	54.00	15.98	AV	100	10	PASS
34008.8	Horizont	6.60	31.94	38.54	54.00	15.46	AV	100	10	PASS
18167.2	Horizont	1.14	32.82	33.96	54.00	20.04	AV	100	10	PASS



Radiates Emission	18G~40G
Test channel	Worst-Case

Suspected List										
Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Height [cm]	Angle deg	Pass/Fail
39564.3	Vertical	10.78	42.57	53.35	74.00	20.65	PK	100	50	PASS
37064.9	Vertical	7.93	42.16	50.09	74.00	23.91	PK	100	120	PASS
19850.3	Vertical	1.31	43.64	44.95	74.00	29.05	PK	100	120	PASS
32162.8	Vertical	5.97	41.22	47.19	74.00	26.81	PK	100	20	PASS
28838.2	Vertical	5.90	41.35	47.25	74.00	26.75	PK	100	70	PASS
26818.4	Vertical	4.83	41.34	46.17	74.00	27.83	PK	100	70	PASS
39548.9	Vertical	10.78	33.39	44.17	54.00	9.83	AV	100	10	PASS
20112.2	Vertical	1.34	34.44	35.78	54.00	18.22	AV	100	10	PASS
27082.5	Vertical	4.94	31.62	36.56	54.00	17.44	AV	100	10	PASS
36789.8	Vertical	7.72	32.59	40.31	54.00	13.69	AV	100	10	PASS
31975.7	Vertical	5.91	32.08	37.99	54.00	16.01	AV	100	10	PASS
29185.9	Vertical	6.13	31.27	37.40	54.00	16.60	AV	100	10	PASS

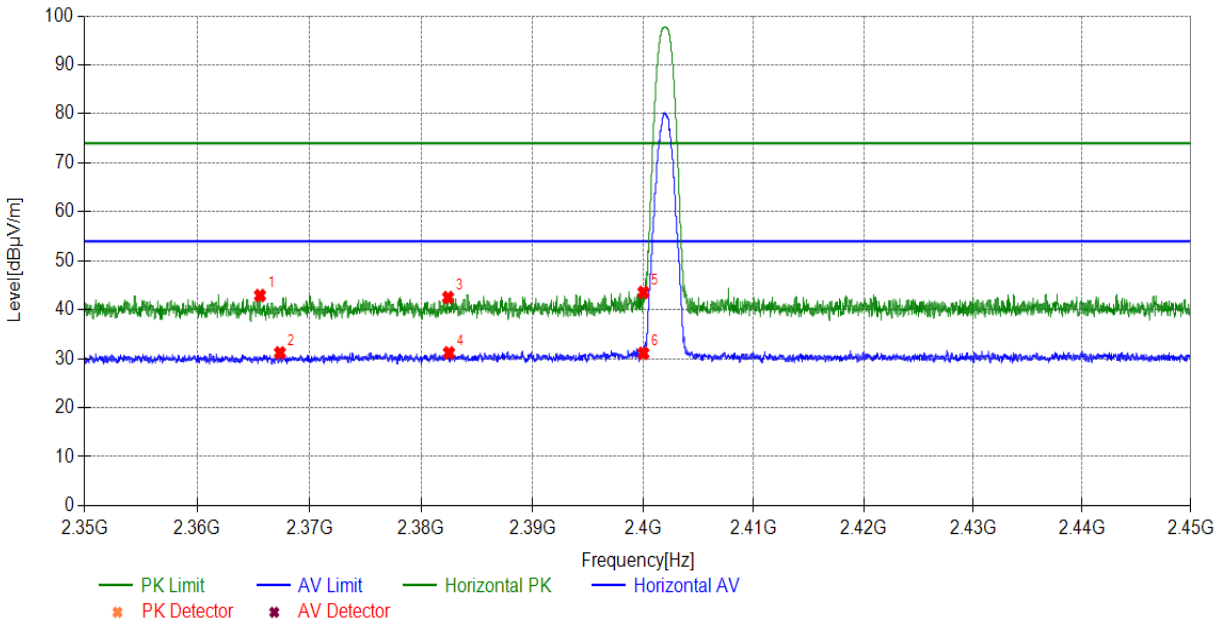


Band Edge:

Test mode	3DH5
Test channel	LOW channel

Suspected List

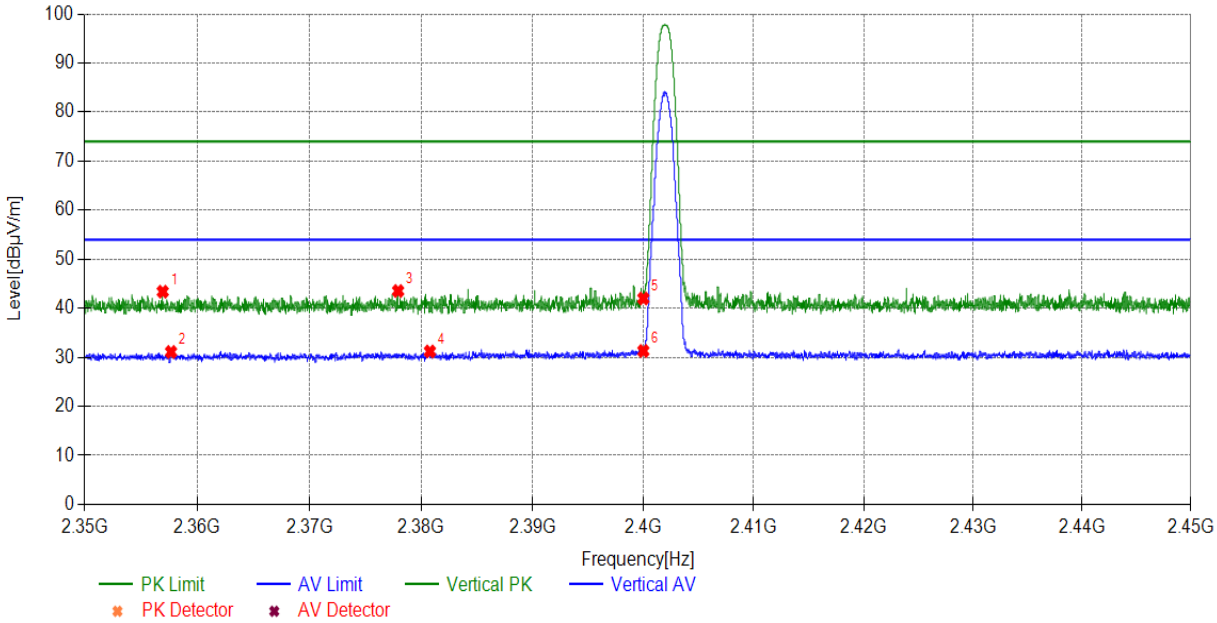
Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Height [cm]	Angle deg	Pass/Fail
2365.59	Horizont	29.58	13.32	42.90	74.00	31.10	PK	100	10	PASS
2382.41	Horizont	29.62	12.88	42.50	74.00	31.50	PK	100	20	PASS
2400.00	Horizont	29.67	13.86	43.53	74.00	30.47	PK	100	20	PASS
2367.37	Horizont	29.58	1.62	31.20	54.00	22.80	AV	100	10	PASS
2382.49	Horizont	29.62	1.57	31.19	54.00	22.81	AV	100	10	PASS
2400.00	Horizont	29.67	1.43	31.10	54.00	22.90	AV	100	20	PASS



Test mode	3DH5
Test channel	LOW channel

Suspected List

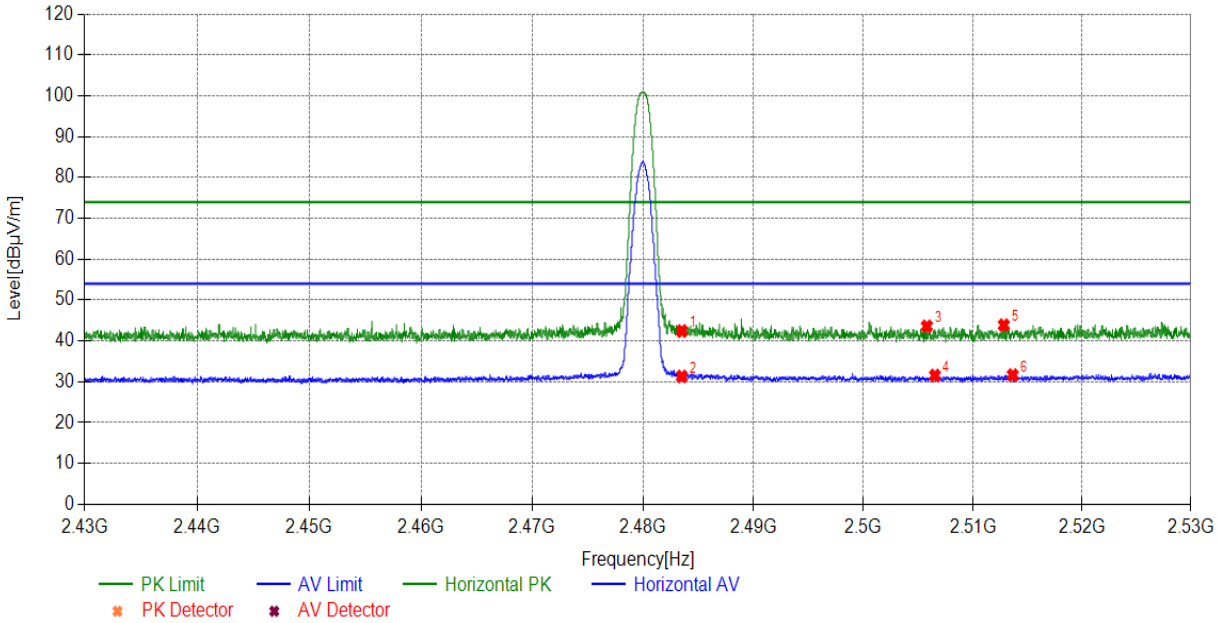
Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Height [cm]	Angle deg	Pass/Fail
2356.94	Vertical	29.55	13.83	43.38	74.00	30.62	PK	100	30	PASS
2377.93	Vertical	29.61	13.91	43.52	74.00	30.48	PK	100	20	PASS
2400.00	Vertical	29.67	12.32	41.99	74.00	32.01	PK	100	20	PASS
2357.68	Vertical	29.55	1.54	31.09	54.00	22.91	AV	100	20	PASS
2380.78	Vertical	29.62	1.58	31.20	54.00	22.80	AV	100	20	PASS
2400.00	Vertical	29.67	1.62	31.29	54.00	22.71	AV	100	20	PASS



Test mode	3DH5
Test channel	HIGH channel

Suspected List

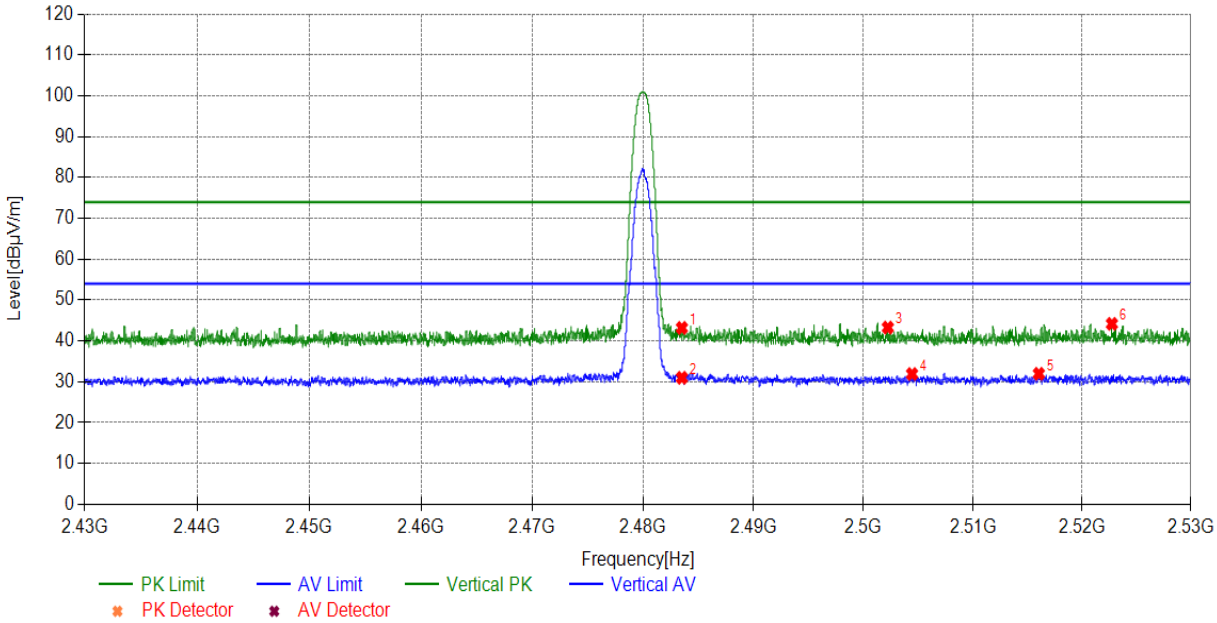
Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Height [cm]	Angle deg	Pass/Fail
2483.50	Horizont	29.91	12.50	42.41	74.00	31.59	PK	100	30	PASS
2505.78	Horizont	29.98	13.60	43.58	74.00	30.42	PK	100	50	PASS
2512.82	Horizont	30.01	13.86	43.87	74.00	30.13	PK	100	20	PASS
2483.50	Horizont	29.91	1.41	31.32	54.00	22.68	AV	100	40	PASS
2506.52	Horizont	29.99	1.57	31.56	54.00	22.44	AV	100	30	PASS
2513.64	Horizont	30.02	1.63	31.65	54.00	22.35	AV	100	20	PASS



Test mode	3DH5
Test channel	HIGH channel

Suspected List

Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Height [cm]	Angle deg	Pass/Fail
2522.74	Vertical	30.05	14.14	44.19	74.00	29.81	PK	100	20	PASS
2483.50	Vertical	29.91	13.28	43.19	74.00	30.81	PK	100	20	PASS
2502.22	Vertical	29.97	13.30	43.27	74.00	30.73	PK	100	20	PASS
2504.43	Vertical	29.98	1.93	31.91	54.00	22.09	AV	100	10	PASS
2516.03	Vertical	30.03	1.93	31.96	54.00	22.04	AV	100	10	PASS
2483.50	Vertical	29.91	1.08	30.99	54.00	23.01	AV	100	10	PASS



5.2 Peak Power Output -Conducted

Ambient condition:

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement:

During the process of the testing, The EUT was connected to the spectrum analyzer and Bluetooth test set via a power splitter with a known loss. The EUT is controlled by the Bluetooth test set to ensure max power transmission with proper modulation. The peak detector is used.

Limits:

Rule Part 15.247 (b) (1)specifies that " For frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725–5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts."

Peak Output Power	⩽ 0.125W (21dBm)

Test Setup:

Measurement Uncertainty：

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 0.44 dB.

Test Results:

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	16.31	<=30	PASS
	Ant2	2402	16.08	<=30	PASS
	Ant1	2441	16.47	<=30	PASS
	Ant2	2441	15.17	<=30	PASS
	Ant1	2480	15.05	<=30	PASS
	Ant2	2480	15.12	<=30	PASS
2DH5	Ant1	2402	15.11	<=20.97	PASS
	Ant2	2402	14.84	<=20.97	PASS
	Ant1	2441	16.32	<=20.97	PASS
	Ant2	2441	14.99	<=20.97	PASS
	Ant1	2480	14.92	<=20.97	PASS
	Ant2	2480	13.96	<=20.97	PASS
3DH5	Ant1	2402	15.39	<=20.97	PASS
	Ant2	2402	14.09	<=20.97	PASS
	Ant1	2441	15.76	<=20.97	PASS
	Ant2	2441	13.16	<=20.97	PASS
	Ant1	2480	15.03	<=20.97	PASS
	Ant2	2480	14.06	<=20.97	PASS

6. Appendix E

Test Equipment	Type/Mode	SERIAL NO.	Equipment No.	Manufacturer	Cal. Due
3m Semi-Anechoic Chamber	FACT-4	ST08035	WKNA-0024	ETS	2024-12-12
Semi-Anechoic Chamber(5m)	SAC-5	SAC-5-2.0	EM-000557	COMTEST	2024-11-02
Spectrum Analyzer	N9010B	MY57470323	DZ-000174	KEYSIGHT	2023-03-02
EMI Test Receiver	N9038A-508	MY532290079	EM-000397	Agilent	2023-03-02
EMI Test Receiver	ESR7	102235	VGDY-0956	R&S	2023-03-03
Broadband Antenna	VULB 9163	9163-530	EM-000342	SCHWARZBECK	2023-06-26
Waveguide Horn Antenna	HF906	360306/008	WKNA-0024-8	R&S	2023-03-04
Waveguide Horn Antenna	BBHA9170	00949	EM-000383	SCHWARZBECK	2022-08-27
Loop Antenna	HLA 6121	540046	EM-000546	TESEQ	2023-06-07
Loop Antenna	FMZB1513	1513-170	EM-000384	SCHWARZBECK	2023-03-04
Broadband Antenna(5m)	VULB 9163	9163-676	EM-000382	SCHWARZBECK	2023-05-06
Bandstop Filters	SW-BSF-2400-100-7-A1	/	EM-000495	/	2022-08-31
5G Bandstop Filters	WRCJV12-4900-5100-5900-6100-50EE	1	DZ-000186	WI	2022-12-20
Spectrum Analyzer	FSV40	101580	DZ-000238-3	R&S	2023-06-05
RF Radio Frequency Switch	JS0806-2	19H9080187	/	Tonscend	2023-06-06

The End