

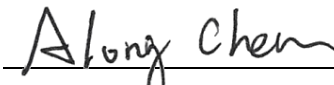
FCC C2PC Co-Location Test Report

FCC ID : MXF-W1701K
Equipment : Tri-Band AP
Model No. : W1701K
Brand Name : Q Fiber
Applicant : Gemtek Technology Co., Ltd.
Address : No. 15-1 Zhonghua Road, Hsinchu Industrial
Park, Hukou, Hsinchu, Taiwan, 30352.
Standard : 47 CFR FCC Part 15.247
47 CFR FCC Part 15.407
Received Date : Jun. 27, 2023
Tested Date : Jan. 04, 2024

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:

Approved by:



Along Chen / Assistant Manager



Gary Chang / Manager

Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information.....	5
1.2	The Equipment List	7
1.3	Test Standards	8
1.4	Reference Guidance	8
1.5	Deviation from Test Standard and Measurement Procedure.....	8
1.6	Measurement Uncertainty	8
2	TEST CONFIGURATION.....	9
2.1	Testing Facility	9
2.2	The Worst Test Modes and Channel Details	9
3	TRANSMITTER TEST RESULTS	10
3.1	Unwanted Emissions into Restricted Frequency Bands	10
4	TEST LABORATORY INFORMATION	13

Appendix A. Unwanted Emissions Into Restricted Frequency Bands

Release Record

Report No.	Version	Description	Issued Date
FR362701-01CO	Rev. 01	Initial issue	Mar. 18, 2024

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.247(d) 15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5265.00MHz 53.31 (Margin -0.69dB) - AV	Pass

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Information

This report is issued as a Class II Permissive Change.

This report is issued as a supplementary report to original ICC report no. FR362701CO. The difference is concerned with following items:

- ✧ Adding 5250~5350MHz and 5470~5725 MHz band by software setting.
- ✧ Adding one Internal Power source.

Therefore, all related test items had been tested and presented in the following sections.

1.1.1 Specification of the Equipment under Test (EUT)

WLAN	
Operating Frequency	802.11b/g/n/ax/be: 2412 MHz ~ 2462 MHz 802.11a/n/ac/ax/be: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz; 5500 MHz ~ 5720 MHz, 5745 MHz ~ 5825 MHz 5925 MHz ~ 6425 MHz; 6425 MHz ~ 6525 MHz 6525 MHz ~ 6875 MHz; 6875 MHz ~ 7125 MHz
Modulation Type	802.11b: DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n/ac/ax/be: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM / 1024QAM/ 4096QAM)
BT	
Operating Frequency	2402 MHz ~ 2480 MHz
Modulation Type	Bluetooth LE: GFSK

1.1.2 Antenna Details

BLE

Ant. No.	Type	Connector	Gain (dBi)
1	PIFA	NA	2.4

WiFi 2.4G / 5G

Ant. No.	Brand	Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)				
					2400-2483.5	5150-5250	5250-5350	5470-5725	5725-5850
1	Gemtek	WREM-129AX_Dual_Ant1	PIFA	NA	1.01	1.21	1.19	1.05	1.43
2	Gemtek	WREM-129AX_Dual_Ant2	PIFA	UFL	1.06	1.17	1.33	1.16	2.06
3	Gemtek	WREM-129AX_Dual_Ant3	PIFA	UFL	1.09	1.39	1.23	1.31	2.81
4	Gemtek	WREM-129AX_Dual_Ant4	PIFA	UFL	1.03	2.58	2.22	1.79	1.37
5	Gemtek	WREM-129AX_DFS	PIFA	UFL	---	4.24	4.44	4.57	4.43

WiFi 6G

Ant. No.	Brand	Model	Type	Connector	Operating Frequencies (MHz) / Gain (dBi)			
					5925~6425	6425~6525	6525~6875	6875~7125
1	Gemtek	WREM-129AX_6E_Ant1	PIFA	UFL	1.39	1.29	2.84	1.02
2	Gemtek	WREM-129AX_6E_Ant2	PIFA	UFL	4.01	1.25	2.29	2.91
3	Gemtek	WREM-129AX_6E_Ant3	PIFA	UFL	1.03	1.22	1.35	3.03
4	Gemtek	WREM-129AX_6E_Ant4	PIFA	UFL	1.08	1.09	1.68	1.06
5	Gemtek	WREM-129AX_6E_Ant5	PIFA	UFL	4.41	4.49	4.57	4.6

1.1.3 Accessories (Adding Internal Power source was marked in boldface.)

Accessories		
No.	Equipment	Description
1	Internal Power source	Brand: LUCENT TRANS ELECTRONICS CO., LTD. Model: 1A106-US1240 I/P: 100-120Vac, 50/60Hz, 1.4A max O/P: 12V=4.0A, 48.0W
2	Internal Power source	Brand: LEADER ELECTRONICS INC. Model: SL42-1120350-3C I/P: 100-120Vac, 50-60Hz, 1.5A O/P: 12V=3.5A
3	Internal Power source	Brand: Hunan Frecom electronics Co.,Ltd Model: FC042X02-120035 I/P: 100-120Vac, 50/60Hz, 1.2A O/P: 12V=3.5A
4	Fan	Brand: SUNONWEALTH ELECTRIC MACHINE INDUSTRY CO LTD Model: EG75070S1-C395-S99
5	Fan	Brand: Yingfan Model: NB801005HHT4B10001

1.1.4 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	12Vdc from Internal Power source
--------------------------	----------------------------------

1.2 The Equipment List

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Jan. 04, 2024				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101657	Mar. 03, 2023	Mar. 02, 2024
Spectrum Analyzer	R&S	FSV40	101498	Nov. 23, 2023	Nov. 22, 2024
Loop Antenna	R&S	HFH2-Z2	100330	Oct. 31, 2023	Oct. 30, 2024
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jul. 31, 2023	Jul. 30, 2024
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Nov. 27, 2023	Nov. 26, 2024
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Oct. 30, 2023	Oct. 29, 2024
Preamplifier	EMC	EMC02325	980225	Jun. 28, 2023	Jun. 27, 2024
Preamplifier	EMC	EMC118A45SE	980898	Jul. 14, 2023	Jul. 13, 2024
Preamplifier	EMC	EMC184045SE	980903	Jul. 17, 2023	Jul. 16, 2024
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 03, 2023	Oct. 02, 2024
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 03, 2023	Oct. 02, 2024
LF cable 11M	EMC	EMCCFD400-NW-N W-11000	200801	Oct. 03, 2023	Oct. 02, 2024
LF cable 1M	EMC	EMCCFD400-NM-N M-1000	160502	Oct. 03, 2023	Oct. 02, 2024
RF Cable	EMC	EMC104-35M-35M- 8000	210920	Oct. 03, 2023	Oct. 02, 2024
RF Cable	EMC	EMC104-35M-35M- 3000	210922	Oct. 03, 2023	Oct. 02, 2024
Attenuator	Pasternack	PE7005-10	10-1	Oct. 05, 2023	Oct. 04, 2024
HIGHPASS FILTER 7.5-18G	STI	STI15-9722	STI-HP7.5G-A	Oct. 05, 2023	Oct. 04, 2024
HIGHPASS FILTER 3.1-18G	WHK	WHK3.1/18G-10SS	39	Oct. 05, 2023	Oct. 04, 2024
HIGHPASS FILTER 7-18G	K&L	11SH10-7000/T1800 0-O/OP	18	Oct. 05, 2023	Oct. 04, 2024
Measurement Software	AUDIX	e3	6.120210g	NA	NA

Note: Calibration Interval of instruments listed above is one year.

1.3 Test Standards

47 CFR FCC Part 15.247
47 CFR FCC Part 15.407
ANSI C63.10-2013

1.4 Reference Guidance

FCC KDB 558074 D01 15.247 Meas Guidance v05r02
FCC KDB 662911 D01 Multiple Transmitter Output v02r01
FCC KDB 412172 D01 Determining ERP and EIRP v01r01
FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01

1.5 Deviation from Test Standard and Measurement Procedure

None

1.6 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor ($k=2$)).

Measurement Uncertainty	
Parameters	Uncertainty
Unwanted Emission \leq 1GHz	± 3.41 dB
Unwanted Emission $>$ 1GHz	± 4.59 dB

2 Test Configuration

2.1 Testing Facility

Test Laboratory	International Certification Corporation
Test Site	03CH01-WS
Address of Test Site	No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

- FCC Designation No.: TW2732
- FCC site registration No.: 181692
- ISED#: 10807A
- CAB identifier: TW2732

2.2 The Worst Test Modes and Channel Details

Test item	Modulation Mode
Unwanted Emissions ≤ 1GHz	Test Mode1: 2.4G 11g CH06 + 5G 11be EHT20 CH149 + 6G 11be EHT320 CH31 Test Mode2: BLE CH0 + 5G 11be EHT20 CH149 + 6G 11be EHT320 CH31
Unwanted Emissions > 1GHz	Test Mode1: 2.4G 11g CH06 + 5G 11be EHT20 CH149 + 6G 11be EHT320 CH31
NOTE: The selected channel is the maximum power channel of Wi-Fi mode + BT.	

3 Transmitter Test Results

3.1 Unwanted Emissions into Restricted Frequency Bands

3.1.1 Limit of Unwanted Emissions into Restricted Frequency Bands

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1:
Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit

Note 2:
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.850 GHz	All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Un-restricted band emissions above 1GHz Limit		
Operating Band	PK Limit	AV Limit
5.925 – 7.125 GHz	e.i.r.p. -7 dBm [88.2 dBuV/m@3m]	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<p>Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).</p>		

3.1.2 Test Procedures

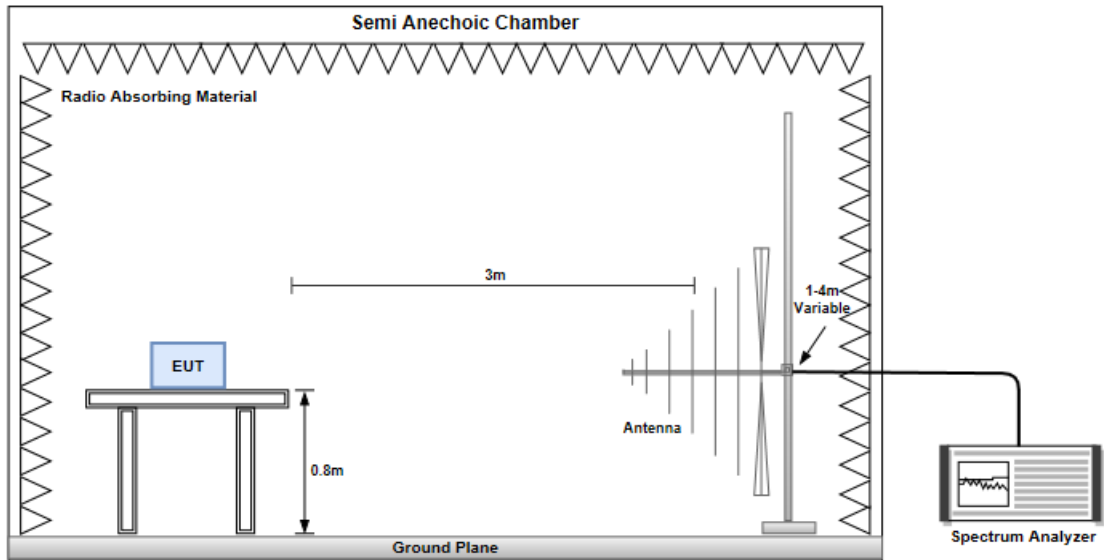
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m.
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

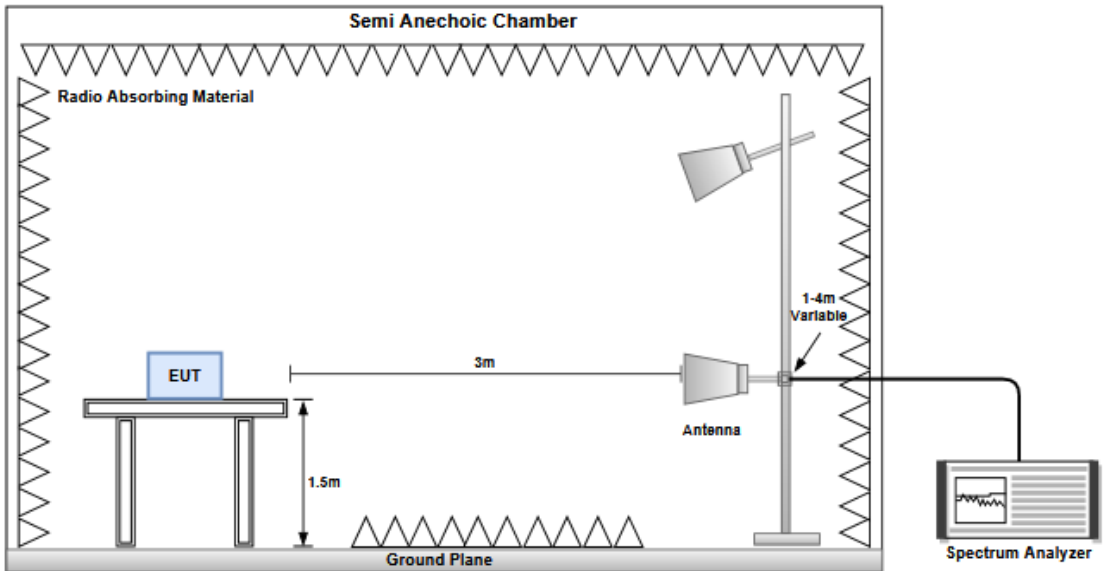
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

3.1.3 Test Setup

Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz



3.1.4 Test Results

Refer to Appendix A.

4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website <http://www.icertifi.com.tw>.

Linkou

Tel: 886-2-2601-1640

No.30-2, Ding Fwu Tsuen, Lin Kou
District, New Taipei City, Taiwan
(R.O.C.)

Kwei Shan

Tel: 886-3-271-8666

No.3-1, Lane 6, Wen San 3rd
St., Kwei Shan Dist., Tao Yuan
City 33381, Taiwan (R.O.C.)
No.2-1, Lane 6, Wen San 3rd
St., Kwei Shan Dist., Tao Yuan
City 33381, Taiwan (R.O.C.)

Kwei Shan Site II

Tel: 886-3-271-8640

No.14-1, Lane 19, Wen San 3rd
St., Kwei Shan Dist., Tao Yuan
City 33381, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666

Fax: 886-3-318-0345

Email: ICC_Service@icertifi.com.tw

==END==



Unwanted Emissions (Below 1GHz)

Modulation	2.4G 11g CH6 + 5G 11be EHT20 CH149 + 6G EHT320 CH31								
Polarization	Horizontal			Test Mode			1		
Test By :Paul Lin Temperature(°C):22 Humidity(%):64									
<p>The graph plots Level (dBuV/m) on the y-axis (0 to 90) against Frequency (MHz) on the x-axis (30 to 1000). A red step function represents the CLASS-B limit. Blue vertical lines indicate emission peaks at various frequencies: 1 (59.26 MHz), 2 (86.31 MHz), 3 (158.21 MHz), 4 (171.45 MHz), 5 (249.22 MHz), and 6 (499.48 MHz). The emission levels are generally below the limit, with peak 6 being the highest at approximately 36.55 dBuV/m.</p>									
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		cm	deg
1	59.26	23.45	40.00	-16.55	32.18	-8.73	Peak	---	---
2	86.31	22.45	40.00	-17.55	37.07	-14.62	Peak	---	---
3	158.21	26.33	43.50	-17.17	34.97	-8.64	Peak	---	---
4	171.45	25.84	43.50	-17.66	35.18	-9.34	Peak	---	---
5	249.22	39.26	46.00	-6.74	49.23	-9.97	Peak	---	---
6	499.48	36.55	46.00	-9.45	39.63	-3.08	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.



Modulation	2.4G 11g CH6 + 5G 11be EHT20 CH149 + 6G EHT320 CH31																																																															
Polarization	Vertical	Test Mode	1																																																													
Test By : Paul Lin Temperature(°C): 22 Humidity(%): 64																																																																
<p>The graph displays the emission level in dBuV/m across a frequency range from 30 MHz to 1000 MHz. A red step function represents the CLASS-B limit. Six peaks are identified and labeled with blue numbers 1 through 6. The peaks occur at approximately 42.45 MHz, 58.31 MHz, 86.31 MHz, 168.66 MHz, 249.22 MHz, and 499.52 MHz. The emission levels for these peaks are 36.85, 35.46, 27.45, 26.49, 40.15, and 33.68 dBuV/m, respectively. The CLASS-B limit is 40 dBuV/m from 30 MHz to 200 MHz, 45 dBuV/m from 200 MHz to 900 MHz, and 50 dBuV/m from 900 MHz to 1000 MHz.</p>																																																																
	<table border="1"> <thead> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> </tr> </thead> <tbody> <tr> <td>42.45</td> <td>58.31</td> <td>86.31</td> <td>168.66</td> <td>249.22</td> <td>499.52</td> </tr> <tr> <td>36.85</td> <td>35.46</td> <td>27.45</td> <td>26.49</td> <td>40.15</td> <td>33.68</td> </tr> <tr> <td>40.00</td> <td>40.00</td> <td>40.00</td> <td>43.50</td> <td>46.00</td> <td>46.00</td> </tr> <tr> <td>-3.15</td> <td>-4.54</td> <td>-12.55</td> <td>-17.01</td> <td>-5.85</td> <td>-12.32</td> </tr> <tr> <td>45.25</td> <td>44.12</td> <td>42.07</td> <td>35.66</td> <td>50.12</td> <td>36.76</td> </tr> <tr> <td>-8.40</td> <td>-8.66</td> <td>-14.62</td> <td>-9.17</td> <td>-9.97</td> <td>-3.08</td> </tr> <tr> <td>Peak</td> <td>Peak</td> <td>Peak</td> <td>Peak</td> <td>Peak</td> <td>Peak</td> </tr> <tr> <td>---</td> <td>---</td> <td>---</td> <td>---</td> <td>---</td> <td>---</td> </tr> <tr> <td>---</td> <td>---</td> <td>---</td> <td>---</td> <td>---</td> <td>---</td> </tr> </tbody> </table>	1	2	3	4	5	6	42.45	58.31	86.31	168.66	249.22	499.52	36.85	35.46	27.45	26.49	40.15	33.68	40.00	40.00	40.00	43.50	46.00	46.00	-3.15	-4.54	-12.55	-17.01	-5.85	-12.32	45.25	44.12	42.07	35.66	50.12	36.76	-8.40	-8.66	-14.62	-9.17	-9.97	-3.08	Peak	Peak	Peak	Peak	Peak	Peak	---	---	---	---	---	---	---	---	---	---	---	---			
1	2	3	4	5	6																																																											
42.45	58.31	86.31	168.66	249.22	499.52																																																											
36.85	35.46	27.45	26.49	40.15	33.68																																																											
40.00	40.00	40.00	43.50	46.00	46.00																																																											
-3.15	-4.54	-12.55	-17.01	-5.85	-12.32																																																											
45.25	44.12	42.07	35.66	50.12	36.76																																																											
-8.40	-8.66	-14.62	-9.17	-9.97	-3.08																																																											
Peak	Peak	Peak	Peak	Peak	Peak																																																											
---	---	---	---	---	---																																																											
---	---	---	---	---	---																																																											
<p>Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB/m) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m). Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.</p>																																																																



Modulation		BLE CH0 + 5G 11be EHT20 CH149 + 6G EHT320 CH31								
Polarization		Horizontal			Test Mode			2		
Test By		:Paul Lin			Temperature(°C):22			Humidity(%):64		
<p>The spectrum plot displays the emission level in dBuV/m across a frequency range from 30 MHz to 1000 MHz. A red step function represents the CLASS-B emission limit. Six peaks are identified and labeled with numbers 1 through 6. Peak 1 is at 59.26 MHz, peak 2 at 86.13 MHz, peak 3 at 158.26 MHz, peak 4 at 171.45 MHz, peak 5 at 249.45 MHz, and peak 6 at 499.51 MHz. The emission levels for these peaks are 23.64, 22.41, 24.68, 25.88, 39.22, and 36.38 dBuV/m respectively. The CLASS-B limit is 40 dBuV/m from 30 MHz to 200 MHz, 43.5 dBuV/m from 200 MHz to 500 MHz, and 46 dBuV/m from 500 MHz to 1000 MHz.</p>										
		Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
		MHz	level	dBuV/m	dB	reading	dB/m		High	Table
			dBuV/m			dBuV			cm	deg
1		59.26	23.64	40.00	-16.36	32.37	-8.73	Peak	---	---
2		86.13	22.41	40.00	-17.59	37.03	-14.62	Peak	---	---
3		158.26	24.68	43.50	-18.82	33.32	-8.64	Peak	---	---
4		171.45	25.88	43.50	-17.62	35.22	-9.34	Peak	---	---
5		249.45	39.22	46.00	-6.78	49.18	-9.96	Peak	---	---
6		499.51	36.38	46.00	-9.62	39.46	-3.08	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB/m)
 *Factor includes antenna factor , cable loss and amplifier gain
 Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
 Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.



Modulation		BLE CH0 + 5G 11be EHT20 CH149 + 6G EHT320 CH31								
Polarization		Vertical			Test Mode			2		
Test By		:Paul Lin			Temperature(°C):22			Humidity(%):64		
<p>The plot shows a red step-like line representing the CLASS-B emission limit. The y-axis is Level (dBUV/m) from 0 to 90. The x-axis is Frequency (MHz) from 30 to 1000. Six peaks are labeled with blue numbers 1 through 6. Peak 1 is at 42.55 MHz, peak 2 at 58.26 MHz, peak 3 at 86.36 MHz, peak 4 at 168.45 MHz, peak 5 at 249.35 MHz, and peak 6 at 499.50 MHz. The CLASS-B limit is approximately 40 dBUV/m from 30 MHz to 200 MHz, 45 dBUV/m from 200 MHz to 950 MHz, and 55 dBUV/m from 950 MHz to 1000 MHz.</p>										
		Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
		MHz	level	dBUV/m	dB	reading	dB/m		High	Table
			dBUV/m			dBuV			cm	deg
1		42.55	36.89	40.00	-3.11	45.28	-8.39	Peak	---	---
2		58.26	35.22	40.00	-4.78	43.88	-8.66	Peak	---	---
3		86.36	27.48	40.00	-12.52	42.10	-14.62	Peak	---	---
4		168.45	25.26	43.50	-18.24	34.40	-9.14	Peak	---	---
5		249.35	40.27	46.00	-5.73	50.23	-9.96	Peak	---	---
6		499.50	33.19	46.00	-12.81	36.27	-3.08	Peak	---	---

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB/m)
 *Factor includes antenna factor , cable loss and amplifier gain
 Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).
 Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.



Unwanted Emissions (Above 1GHz)

Modulation	2.4G 11g CH6 + 5G 11be EHT20 CH149 + 6G EHT320 CH31								
Polarization	Horizontal			Test Mode			1		
Test By :Paul Lin Temperature(°C):22 Humidity(%):64									
<p>The plot shows a grid with Level (dBuV/m) on the y-axis (0 to 90) and Frequency (MHz) on the x-axis (1000 to 40000). Two horizontal red lines represent limits: CLASS-B at 74 dBuV/m and CLASS-B (AVG) at 54 dBuV/m. Six vertical blue lines represent emission peaks labeled 1 through 6. Peak 1 is at 5265 MHz (53.31 dBuV/m), peak 2 at 5265 MHz (70.55 dBuV/m), peak 3 at 8182 MHz (38.67 dBuV/m), peak 4 at 8182 MHz (51.62 dBuV/m), peak 5 at 9053 MHz (40.21 dBuV/m), and peak 6 at 9053 MHz (53.79 dBuV/m).</p>									
	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
	MHz	level	dBuV/m	dB	reading	dB/m		High	Table
		dBuV/m			dBuV			cm	deg
1	5265.00	53.31	54.00	-0.69	53.43	-0.12	Average	100	359
2	5265.00	70.55	74.00	-3.45	70.67	-0.12	Peak	100	359
3	8182.00	38.67	54.00	-15.33	33.08	5.59	Average	100	54
4	8182.00	51.62	74.00	-22.38	46.03	5.59	Peak	100	54
5	9053.00	40.21	54.00	-13.79	33.91	6.30	Average	100	70
6	9053.00	53.79	74.00	-20.21	47.49	6.30	Peak	100	70
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB/m) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).									



Modulation	2.4G 11g CH6 + 5G 11be EHT20 CH149 + 6G EHT320 CH31								
Polarization	Vertical	Test Mode			1				
Test By : Paul Lin		Temperature(°C): 22			Humidity(%): 64				
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		cm	deg
1	5265.00	50.27	54.00	-3.73	50.39	-0.12	Average	100	312
2	5265.00	67.03	74.00	-6.97	67.15	-0.12	Peak	100	312
3	8182.00	38.55	54.00	-15.45	32.96	5.59	Average	100	55
4	8182.00	51.88	74.00	-22.12	46.29	5.59	Peak	100	55
5	9053.00	40.16	54.00	-13.84	33.86	6.30	Average	100	49
6	9053.00	53.81	74.00	-20.19	47.51	6.30	Peak	100	49
<p>Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB/m) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).</p>									