



Solutions

**FCC 47 CFR PART 15 SUBPART C
ISED RSS-247 ISSUE 3**

TEST REPORT

For

Smart Cordless steam floor washer

FCC MODEL NUMBER: FW2A0500US

FCC SERIES MODEL NUMBER: FW2A*****

(“*” = 0-9, A-Z or blank used to denote different countries, customers, colors or minor cosmetic changes, or for indicate factory identification)

IC MODEL NUMBER: FW2A0500US

PROJECT NUMBER: 4791665995

REPORT NUMBER: 4791665995-1

FCC ID: 2AV7A-FW2A

IC: 26039-FW2A

ISSUE DATE: Mar. 07, 2025

Prepared for

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	03/07/2025	Initial Issue	

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: Tineco Intelligent Technology Co., Ltd.
Address: No. 108 Shihu Road West, Wuzhong Zone Suzhou, Jiangsu, China 215128

Manufacturer Information

Company Name: Tineco Intelligent Technology Co., Ltd.
Address: No. 108 Shihu Road West, Wuzhong Zone Suzhou, Jiangsu, China 215128

EUT Description

Product Name: Smart Cordless steam floor washer
FCC Model Number: FW2A0500US
FCC Series Model Number: FW2A*****
(“**” = 0-9, A-Z or blank used to denote different countries, customers, colors or minor cosmetic changes, or for indicate factory identification)
IC Model Number: FW2A0500US
Model Difference: Their electrical circuit design, layout, components used and internal wiring are identical, only the color and model name is different. The model FW2A0500US was selected as the representative model for compliance test.
Sample Number: 8058052
Data of Receipt Sample: Jan. 22, 2025
Test Date: Jan. 22, 2025~ Mar. 07, 2025

APPLICABLE STANDARDS

STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	PASS
ISED RSS-247 Issue 3	PASS
ISED RSS-GEN Issue 5	PASS

Summary of Test Results			
Clause	Test Items	FCC and ISED Rules	Test Results
1	6 dB Bandwidth and 99% Occupied Bandwidth	FCC 15.247 (a) (2) RSS-247 Clause 5.2 (a) RSS-Gen Clause 6.7	PASS
2	Conducted Power	FCC 15.247 (b) (3) RSS-247 Clause 5.4 (d) RSS-Gen Clause 6.12	PASS
3	Power Spectral Density	FCC 15.247 (e) RSS-247 Clause 5.2 (b)	PASS
4	Conducted Band edge And Spurious emission	FCC 15.247 (d) RSS-247 Clause 5.5 RSS-GEN Clause 6.13	PASS
5	Radiated Band edges and Spurious emission	FCC 15.247 (d) FCC 15.209 FCC 15.205 RSS-247 Clause 5.5 RSS-GEN Clause 8.9 RSS-GEN Clause 6.13	PASS
6	Conducted Emission Test for AC Power Port	FCC 15.207 RSS-GEN Clause 8.8	PASS
7	Antenna Requirement	FCC 15.203 RSS-GEN Clause 6.8	PASS

Note:
The measurement result for the sample received is <Pass> according to < ANSI C63.10-2013, FCC CFR 47 Part 2, FCC CFR 47 Part 15C, ISED RSS-GEN, ISED RSS-247> when <Accuracy Method> decision rule is applied.

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 558074 D01 15.247 Meas Guidance v05r02, 414788 D01 Radiated Test Site v01r01, CFR 47 FCC Part 2, CFR 47 FCC Part 15, ANSI C63.10-2013, ISED RSS-247 Issue 3 and ISED RSS-GEN Issue 5.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p>A2LA (Certificate No.: 4829.01) UL-CCIC COMPANY LIMITED has been assessed and proved to be in compliance with A2LA.</p> <p>FCC (FCC Designation No.: CN1247) UL-CCIC COMPANY LIMITED has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules.</p> <p>IC (IC Designation No.: 25056; CAB No.: CN0073) UL-CCIC COMPANY LIMITED has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules.</p>
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Note 1: All tests measurement facilities use to collect the measurement data are located at No. 2, Chengwan Road, Suzhou Industrial Park, Suzhou 215122, China

Note 2: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. These measurements below 30MHz had been correlated to measurements performed on an OFS.

Note 3: The test anechoic chamber in UL-CCIC COMPANY LIMITED had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty
Conduction emission	3.1 dB
DTS Bandwidth	1.9 %
Maximum Conducted Output Power	1.3 dB
Maximum Power Spectral Density Level	1.5 dB
Band-edge Compliance	1.9%
Unwanted Emissions in Non-restricted Freq Bands	9kHz-30MHz: ± 0.90 dB 30MHz-1GHz: ± 1.5 dB 1GHz-12.75GHz: ± 1.9 dB 12.75GHz-26.5GHz: ± 2.1 dB
Radiation Emission test (include Fundamental emission) (9kHz-30MHz)	3.4dB
Radiation Emission test (include Fundamental emission) (30MHz-1GHz)	3.4dB
Radiation Emission test (1GHz to 26GHz) (include Fundamental emission)	3.5dB (1GHz-18GHz) 3.9dB (18GHz-26.5GHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

Equipment:	Smart Cordless steam floor washer	
Model Name:	FW2A0500US	
Technology:	Bluetooth - Low Energy	
Transmit Frequency Range:	2402 MHz ~ 2480 MHz	
Modulation:	GFSK	
Data Rate:	LE 1M	1 Mbps
Test software of EUT:	EspRFTestTool (manufacturer declare)	
Antenna Type:	PCB Antenna	
Antenna Gain:	<p>3.96 dBi</p> <p>Note: This data is provided by customer and our lab isn't responsible for this data.</p>	

5.2. MAXIMUM OUTPUT POWER

Bluetooth Mode	Frequency (MHz)	Channel Number	Max Output Power(dBm)
BLE	2402-2480	0-39[40]	-1.84

5.3. CHANNEL LIST

Channel	Frequency (MHz)						
0	2402	11	2424	22	2446	33	2468
1	2404	12	2426	23	2448	34	2470
2	2406	13	2428	24	2450	35	2472
3	2408	14	2430	25	2452	36	2474
4	2410	15	2432	26	2454	37	2476
5	2412	16	2434	27	2456	38	2478
6	2414	17	2436	28	2458	39	2480
7	2416	18	2438	29	2460		
8	2418	19	2440	30	2462		
9	2420	20	2442	31	2464		
10	2422	21	2444	32	2468		

5.4. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel		Frequency
GFSK	Low Channel	CH 0	2402MHz
	Middle Channel	CH 19	2440MHz
	High Channel	CH 39	2480MHz

5.5. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band				
Test Software		EspRFTestTool		
Modulation Type	Transmit Antenna Number	Test Channel		
		LCH	MCH	HCH
GFSK	1	7	7	7

5.6. DESCRIPTION OF AVAILABLE ANTENNAS

Ant.	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)
1	2400-2483.5	PCB Antenna	3.96 dBi

Note: This data is provided by customer and our lab isn't responsible for this data.

Test Mode	Transmit and Receive Mode	Description
BLE	<input checked="" type="checkbox"/> 1TX, 1RX	Antenna1 can be used as transmitting/receiving antenna independently.

5.7. THE WORSE CASE CONFIGURATIONS

For BLE module, the product only supports 1 Mbps, so 1 Mbps was tested and the test result was recorded in this report.

5.8. TEST ENVIRONMENT

Environment Parameter	Selected Values During Tests	
Relative Humidity	55 ~ 65%	
Atmospheric Pressure:	101kPa	
Temperature	TN	23 ~ 28°C
Voltage:	VL	N/A
	VN	AC 120V
	VH	N/A

Note: VL= Lower Extreme Test Voltage

VL= Nominal Voltage

VH= Upper Extreme Test Voltage

TN= Normal Temperature

5.9. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	Description
1	Laptop	ThinkPad	E580	/

I/O PORT

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	USB	USB	USB	100cm Length	/

ACCESSORY

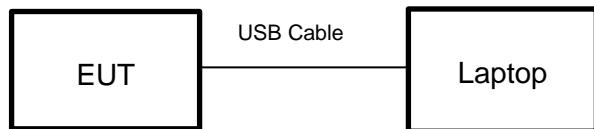
Item	Accessory	Brand Name	Model Name	Description
1	Drying & Charging Dock	Tineco	AA2460	Input(drying): 120V~ 60Hz 5.2A Input(charging): 120V~ 60Hz 0.5A Output: 30V=1A

TEST SETUP

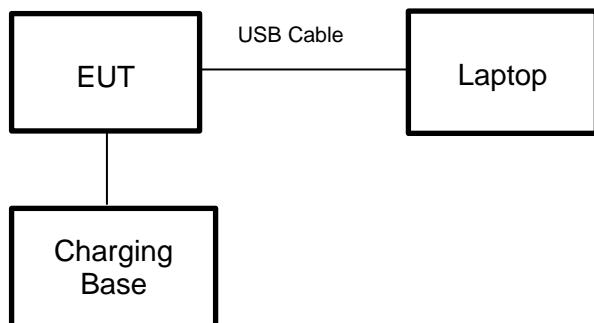
The EUT can work in an engineer mode with a software through a laptop.

SETUP DIAGRAM FOR TESTS

For Antenna Port test and Radiated Test:



For Conducted Emission Test:



5.10. MEASURING INSTRUMENT AND SOFTWARE USED

Conducted Emissions Test (Instrument)							
Used	Equipment	Manufacturer	Model No.	Serial No.	Upper Last Cal.	Last Cal.	Next Cal.
<input checked="" type="checkbox"/>	EMI Test Receiver	R&S	ESR3	126700	2023-11-25	2024-11-02	2025-11-01
<input checked="" type="checkbox"/>	Two-Line V-Network	R&S	ENV216	126701	2023-11-25	2024-11-02	2025-11-01
Conducted Emissions Test (Software)							
Used	Description		Manufacturer	Name		Version	
<input checked="" type="checkbox"/>	Software for Conducted Emissions Test		R&S	EMC32		9.25.00	
Radiated Emissions Test (Instrument)							
Used	Equipment	Manufacturer	Model No.	Serial No.	Upper Last Cal.	Last Cal.	Next Cal.
<input checked="" type="checkbox"/>	EMI test receiver	R&S	ESR7	222993	2023-04-08	2024-03-23	2025-03-22
<input checked="" type="checkbox"/>	EMI test receiver	R&S	ESR26	126703	2023-11-25	2024-11-02	2025-11-01
<input checked="" type="checkbox"/>	Spectrum Analyzer	R&S	FSV3044	222992	2023-04-08	2024-03-23	2025-03-22
<input checked="" type="checkbox"/>	Receiver Antenna (9kHz-30MHz)	Schwarzbeck	FMZB 1513	155456	2021-06-03	2024-05-27	2027-05-26
<input checked="" type="checkbox"/>	Receiver Antenna (30MHz-1GHz)	Schwarzbeck	VULB 9168	171952	2021-07-05	2024-07-04	2027-07-03
<input checked="" type="checkbox"/>	Receiver Antenna (1GHz-18GHz)	R&S	HF907	126705	2022-02-28	2025-02-17	2028-02-16
<input checked="" type="checkbox"/>	Receiver Antenna (18GHz-26.5GHz)	Schwarzbeck	BBHA9170	126706	2022-02-28	2025-02-17	2028-02-16
<input checked="" type="checkbox"/>	Pre-amplification (To 18GHz)	Tonscned	TAP01018050	224539	2023-10-10	2024-10-10	2025-10-09
<input checked="" type="checkbox"/>	Pre-amplification (To 18GHz)	R&S	SCU-18D	134667	2023-11-25	2024-11-02	2025-11-01
<input checked="" type="checkbox"/>	Pre-amplification (To 26.5GHz)	R&S	SCU-26D	135391	2023-11-25	2024-11-02	2025-11-01
<input checked="" type="checkbox"/>	Band Reject Filter	Wainwright	WRCGV12-2375-2400-2485-2510-40SS	1	2023-12-18	2024-11-02	2025-11-01
<input checked="" type="checkbox"/>	High Pass Filter	COM-MW	ZBF13-3-18G-01	2	2023-12-18	2024-11-02	2025-11-01
Radiated Emissions Test (Software)							
Used	Description		Manufacturer	Name		Version	
<input checked="" type="checkbox"/>	Software for Radiated Emissions Test		Tonscend	JS32-RE		5.0.0.2	
Antenna Port Test (Instrument)							
Used	Equipment	Manufacturer	Model No.	Serial No.	Upper Last Cal.	Last Cal.	Next Cal.
<input checked="" type="checkbox"/>	Spectrum Analyzer	Keysight	N9010B	155368	2023-04-08	2024-03-23	2025-03-22
<input checked="" type="checkbox"/>	Power Meter	MWT	MW100-RFCB	221694	2023-04-08	2024-03-23	2025-03-22
<input checked="" type="checkbox"/>	Power Meter	Anritsu	MA24406A	12896	2023-04-08	2024-03-23	2025-03-22
<input checked="" type="checkbox"/>	Attenuator	PASTERNACK	PE7087-6	1624	/	2024-11-04	2025-11-03
Antenna Port Test (Software)							
Used	Description		Manufacturer	Name		Version	
<input checked="" type="checkbox"/>	Software for Antenna Port Test		Tonscend	JS1120-3 Test System		V3.2.22	

6. MEASUREMENT METHODS

No.	Test Item	KDB Name	Section
1	6dB Bandwidth	KDB 558074 D01 15.247 Meas Guidance v05r02	8.2
2	Output Power	KDB 558074 D01 15.247 Meas Guidance v05r02	8.3.1.3
3	Power Spectral Density	KDB 558074 D01 15.247 Meas Guidance v05r02	8.4
4	Out-of-band emissions in non-restricted bands	KDB 558074 D01 15.247 Meas Guidance v05r02	8.5
5	Out-of-band emissions in restricted bands	KDB 558074 D01 15.247 Meas Guidance v05r02	8.6
6	Band-edge	KDB 558074 D01 15.247 Meas Guidance v05r02	8.7
7	Conducted Emission Test for AC Power Port	ANSI C63.10-2013	6.2

7. ANTENNA PORT TEST RESULTS

7.1. ON TIME AND DUTY CYCLE

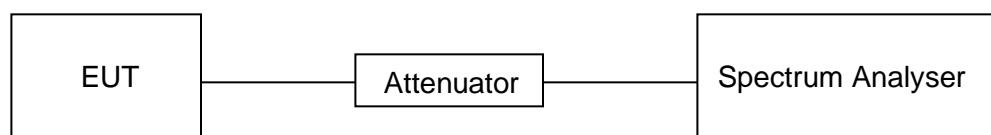
LIMITS

None; for reporting purposes only

PROCEDURE

FCC KDB 558074 Zero-Span Spectrum Analyzer Method

TEST SETUP



TEST ENVIRONMENT

Temperature	22°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

TEST RESULTS TABLE

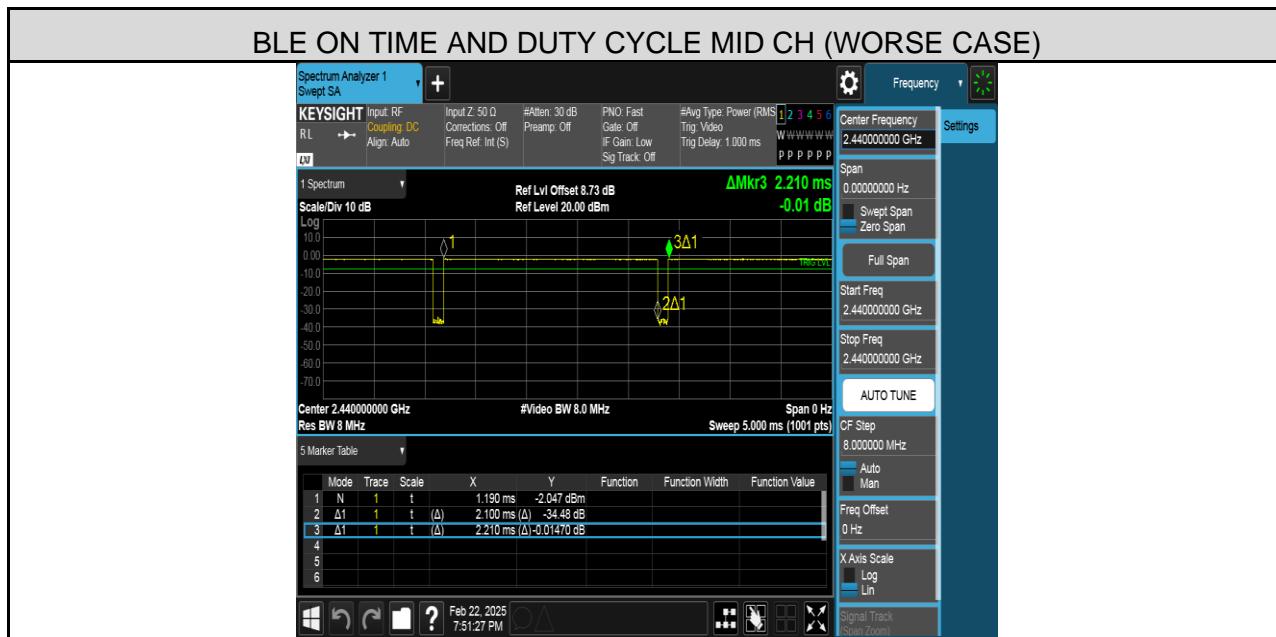
Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (db)	1/T Minimum VBW (kHz)	Final VBW (kHz)
BLE	2.10	2.21	0.9502	95.02%	0.22	0.48	0.5

Note: 1) Duty Cycle Correction Factor=10log(1/x).

2) Where: x is Duty Cycle (Linear)

3) Where: T is On Time (transmit duration)

TEST GRAPHS



7.2. 6 dB BANDWIDTH AND 99% OCCUPIED BANDWIDTH

LIMITS

FCC Part15 (15.247), Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(a)(2) ISED RSS-247 5.2 (a)	6dB Bandwidth	>= 500kHz	2400-2483.5
ISED RSS-Gen Clause 6.7	99 % Occupied Bandwidth	For reporting purposes only	2400-2483.5

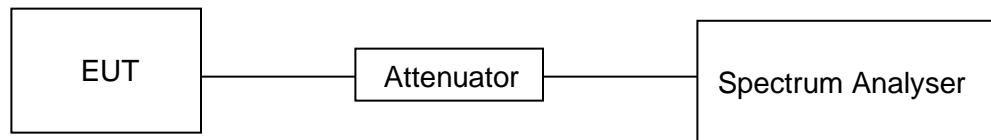
TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.8 for DTS bandwidth and clause 6.9 for Occupied Bandwidth.

Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The centre frequency of the channel under test
Frequency Span	For 6 dB Bandwidth: enough to capture all products of the modulation carrier emission For 99 % Occupied Bandwidth: Between 1.5 times and 5 times the OBW
Detector	Peak
RBW	For 6 dB Bandwidth: 100 kHz For 99 % Occupied Bandwidth: 1 % to 5 % of the occupied bandwidth
VBW	For 6 dB Bandwidth: $\geq 3 \times$ RBW For 99 % Occupied Bandwidth: $\geq 3 \times$ RBW
Trace	Max hold
Sweep	Auto couple

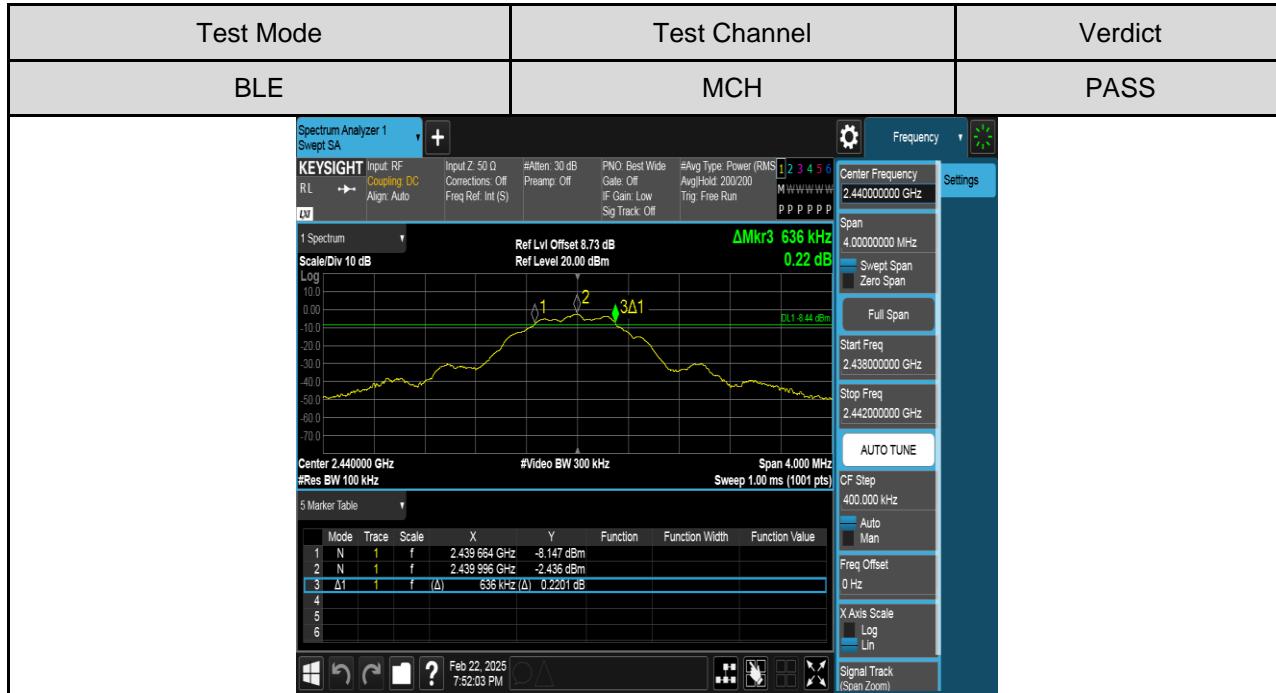
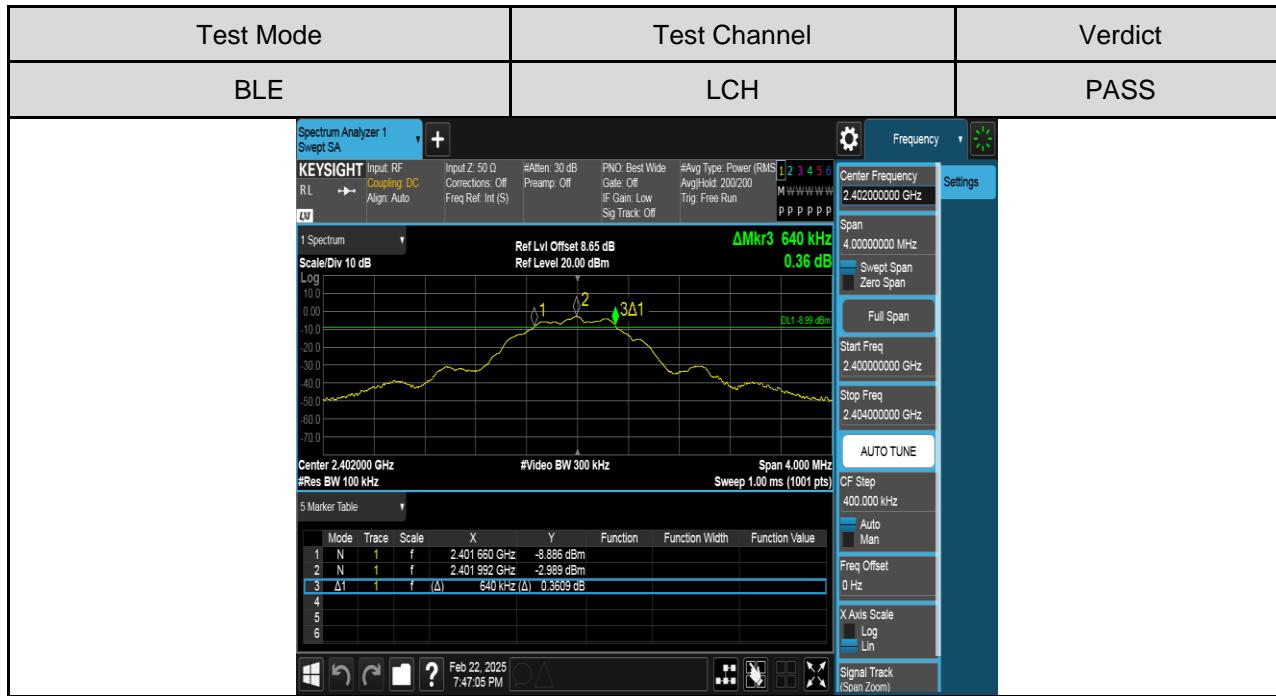
- Use the 99 % power bandwidth function of the instrument, allow the trace to stabilize and report the measured bandwidth.
- Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

TEST SETUP**TEST ENVIRONMENT**

Temperature	22°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

TEST RESULTS TABLE

Test Mode	Test Channel	6dB bandwidth (MHz)	99% bandwidth (MHz)	Result
BLE	LCH	0.640	1.0551	Pass
	MCH	0.636	1.0553	Pass
	HCH	0.644	1.0558	Pass

TEST GRAPHS
6dB Bandwidth


Test Mode	Test Channel	Verdict
BLE	HCH	PASS

Spectrum Analyzer 1
Swept SA

KEYSIGHT Input: RF Coupling: DC
RL → Align: Auto

Input Z: 50 Ω Corrections: Off
Preampl: Off Freq Ref: Int (S)

#Attenu: 30 dB PNO: Best Wide
Gate: Off IF Gain: Low
Sig Track: Off

#Avg Type: Power (RMS) 1 2 3 4 5 6
Avg/Hold: 200/200 Trig: Free Run

M W W W W W P P P P P P

1 Spectrum Ref Lvl Offset: 8.73 dB
Ref Level: 20.00 dBm

Scale: Div 10 dB

Log

1 2 3Δ1

ΔMkr3 644 kHz 0.01 dB

DL1-8.35 dBm

Center Frequency: 2.48000000 GHz

Span: 4.00000000 MHz

Start Freq: 2.47800000 GHz

Stop Freq: 2.48200000 GHz

AUTO TUNE

CF Step: 400.000 kHz

Auto

Man

Freq Offset: 0 Hz

X Axis Scale: Log

Signal Track (Span Zoom)

Marker Table

Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	2.479 660 GHz	-9.327 dBm			
2	N	1	f	2.479 996 GHz	-2.349 dBm		
3	Δ1	1	f	(Δ)	644 kHz	(Δ0.008982 dB)	
4							
5							
6							

Feb 22, 2025
7:57:48 PM

99% Bandwidth

The screenshot displays the Keysight N9320B Spectrum Analyzer software interface, divided into two main sections: **Test Mode** and **Test Channel**.

Test Mode: This section is currently active and shows the configuration for the **BLE** test. The top header reads "Test Mode". The main panel displays a spectrum graph with the following parameters:

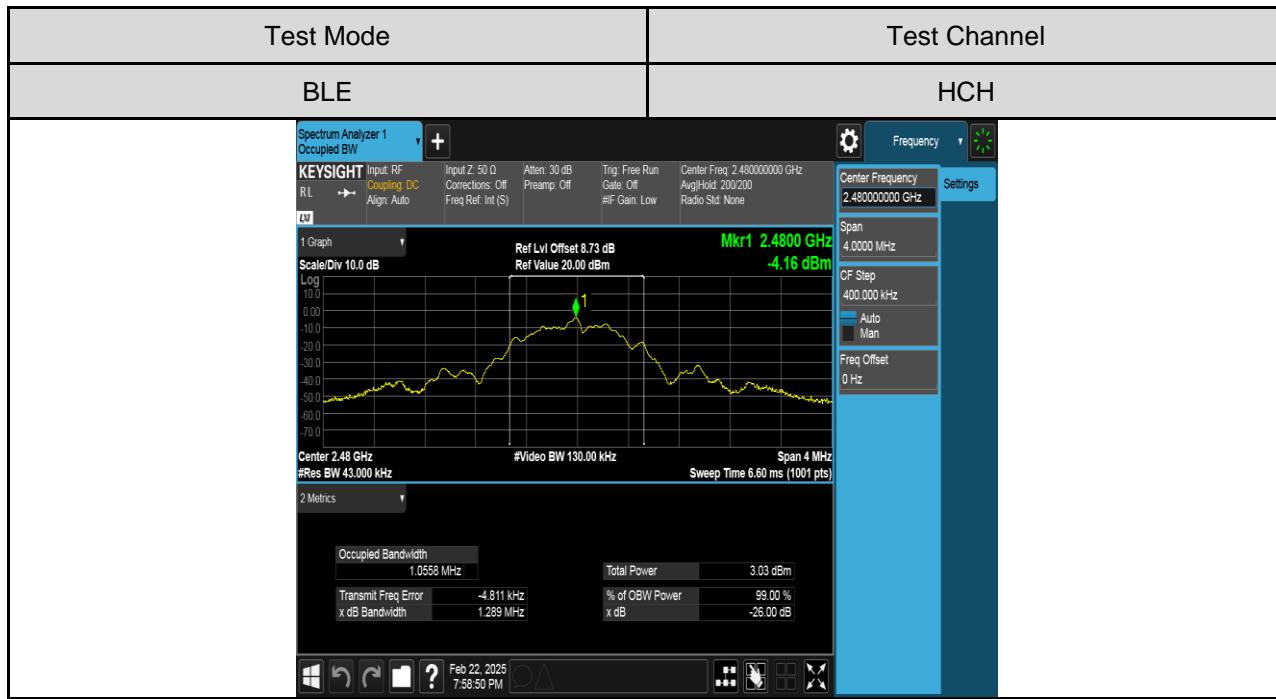
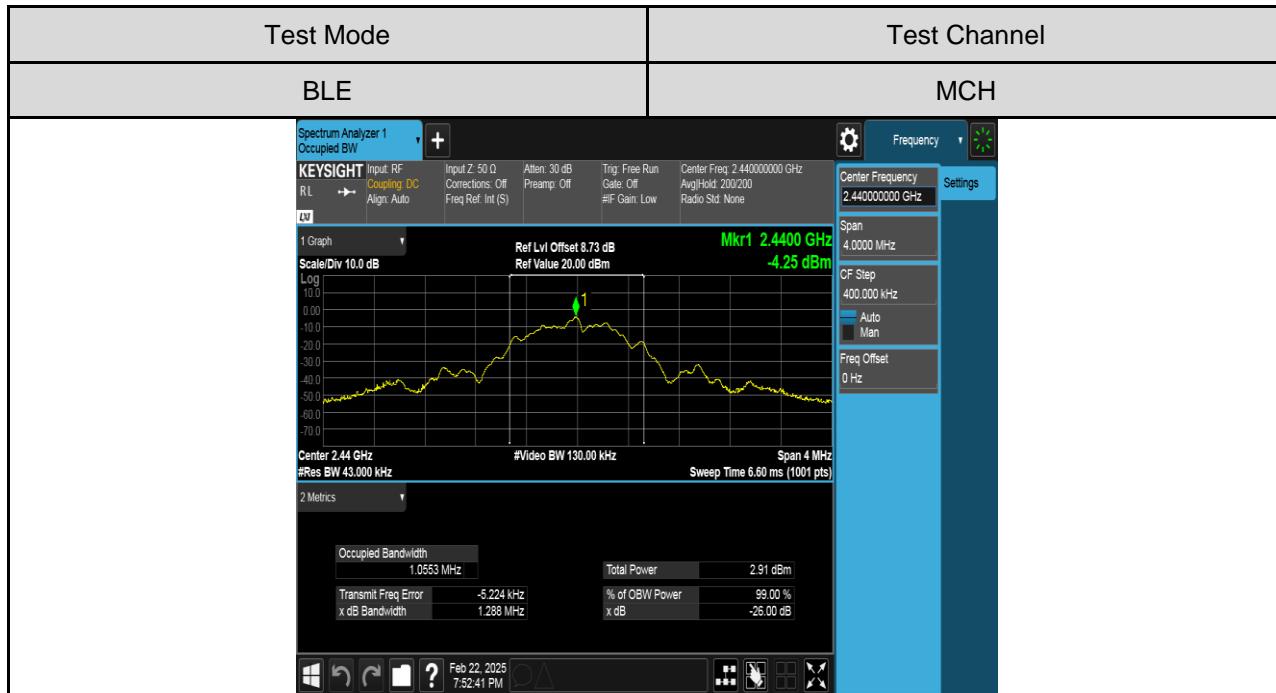
- Spectrum Analyzer 1 Occupied BW:** KEYSIGHT Input RF Coupling: DC
- Input Z:** 50 Ω
- Attenuation:** 30 dB
- Trigger:** Free Run
- Center Freq:** 2.402000000 GHz
- Span:** 4.0000 MHz
- Video BW:** 130.00 kHz
- Sweep Time:** 6.60 ms (1001 pts)

The graph shows a signal with a peak labeled **Mkr1 2.4020 GHz -4.88 dBm**. The Y-axis is labeled "Scale/Div 10.0 dB" and ranges from -70.0 to 10.0. The X-axis is labeled "Center 2.402 GHz" and "Span 4 MHz".

Test Channel: This section is currently inactive and shows the configuration for the **LCH** test. The top header reads "Test Channel". The main panel displays a spectrum graph with the following parameters:

- Spectrum Analyzer 1 Occupied BW:** KEYSIGHT Input RF Coupling: DC
- Input Z:** 50 Ω
- Attenuation:** 30 dB
- Trigger:** Free Run
- Center Freq:** 2.402000000 GHz
- Span:** 4.0000 MHz
- Video BW:** 130.00 kHz
- Sweep Time:** 6.60 ms (1001 pts)

The graph shows a signal with a peak labeled **Mkr1 2.4020 GHz -4.88 dBm**. The Y-axis is labeled "Scale/Div 10.0 dB" and ranges from -70.0 to 10.0. The X-axis is labeled "Center 2.402 GHz" and "Span 4 MHz".



7.3. CONDUCTED OUTPUT POWER

LIMITS

FCC Part15 (15.247), Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
FCC 15.247(b)(3)	Output Power	1 watt or 30dBm	2400-2483.5

TEST PROCEDURE

Place the EUT on the table and set it in the transmitting mode.

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the Power sensor.

Measure the power of each channel.

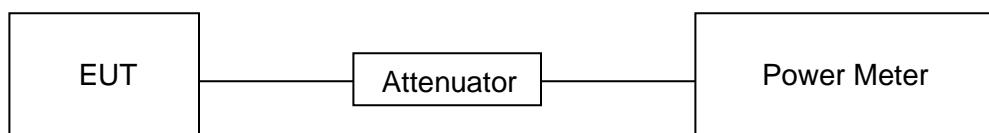
PK Detector used for PK result.

Peak Detector used for Peak result.

TEST ENVIRONMENT

Temperature	22°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

TEST SETUP



TEST RESULTS TABLE

Test Mode	Test Channel	Maximum Conducted Output Power (PK)		LIMIT
		dBm	dBm	
BLE	LCH	-2.52		30
	MCH	-1.99		30
	HCH	-1.84		30

7.4. POWER SPECTRAL DENSITY

LIMITS

FCC Part15 (15.247), Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
FCC §15.247 (e)	Power Spectral Density	8 dBm/3 kHz	2400-2483.5

TEST PROCEDURE

Refer to FCC KDB 558074, connect the UUT to the spectrum analyser and use the following settings:

Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	$3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
VBW	$\geq 3 \times \text{RBW}$
Span	$1.5 \times \text{DTS bandwidth}$
Trace	Max hold
Sweep time	Auto couple.

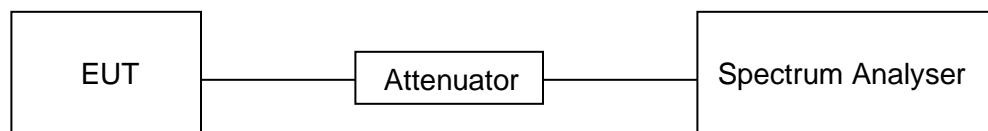
Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

TEST ENVIRONMENT

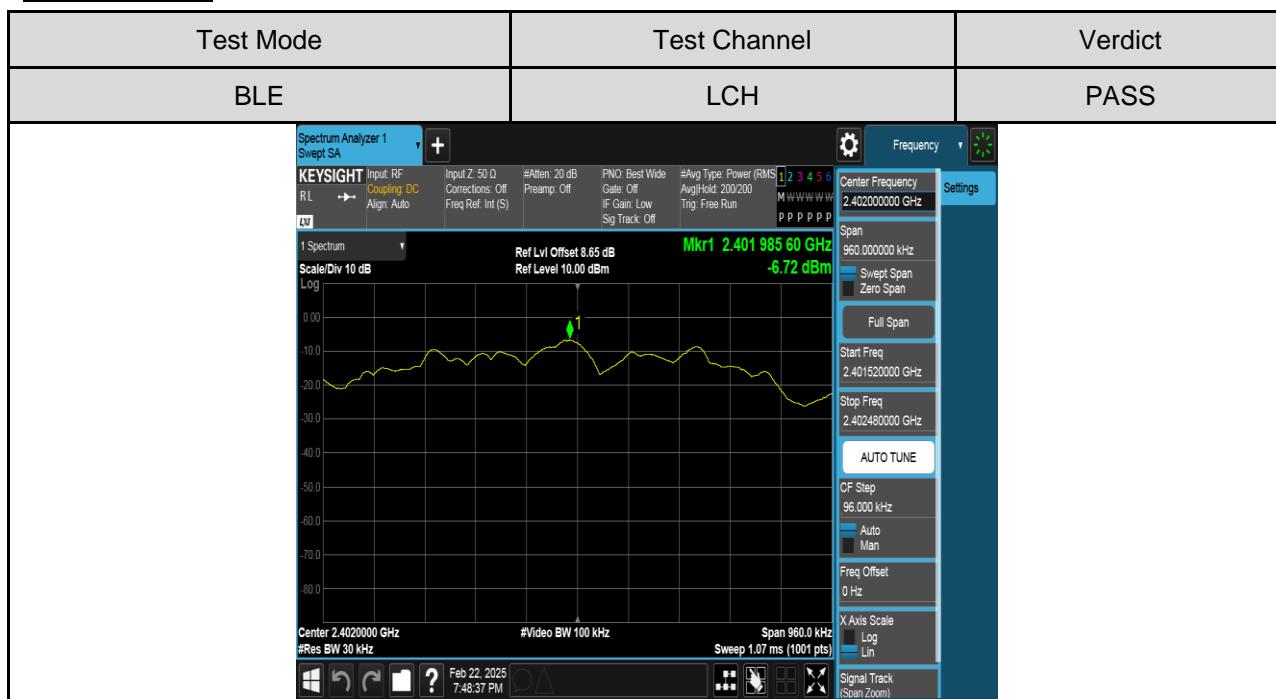
Temperature	22°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

TEST SETUP



TEST RESULTS TABLE

Test Mode	Test Channel	Maximum Peak power spectral density (dBm/30kHz)	Result
BLE	LCH	-6.72	Pass
	MCH	-6.04	Pass
	HCH	-5.86	Pass

TEST GRAPHS


Test Mode	Test Channel	Verdict
BLE	MCH	PASS
		

Test Mode	Test Channel	Verdict
BLE	HCH	PASS
		

7.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

LIMITS

FCC Part15 (15.247), Subpart C		
Section	Test Item	Limit
FCC §15.247 (d)	Conducted Bandedge and Spurious Emissions	20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power

TEST PROCEDURE

Refer to FCC KDB 558074, connect the UUT to the spectrum analyser and use the following settings:

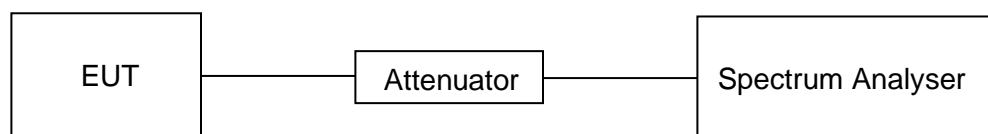
Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	100 kHz
VBW	$\geq 3 \times$ RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

Use the peak marker function to determine the maximum PSD level.

Span	Set the center frequency and span to encompass frequency range to be measured
Detector	Peak
RBW	100 kHz
VBW	$\geq 3 \times$ RBW
measurement points	\geq span/RBW
Trace	Max hold
Sweep time	Auto couple.

Use the peak marker function to determine the maximum amplitude level.

TEST SETUP



TEST ENVIRONMENT

Temperature	22°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

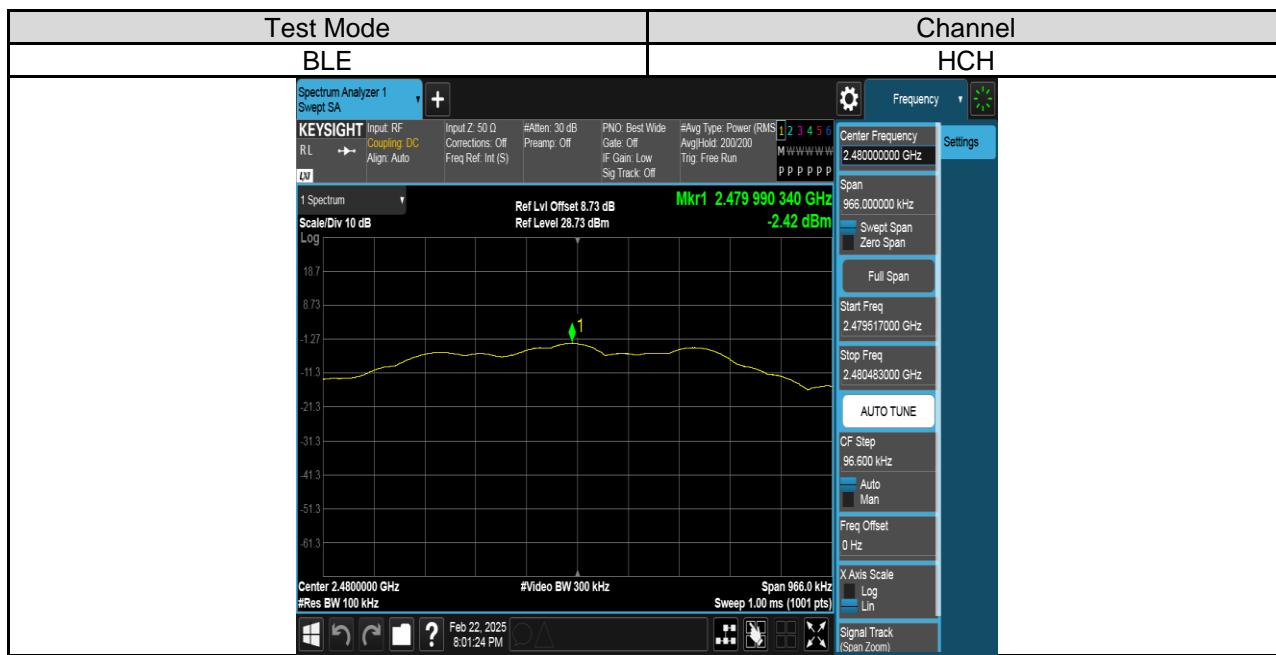
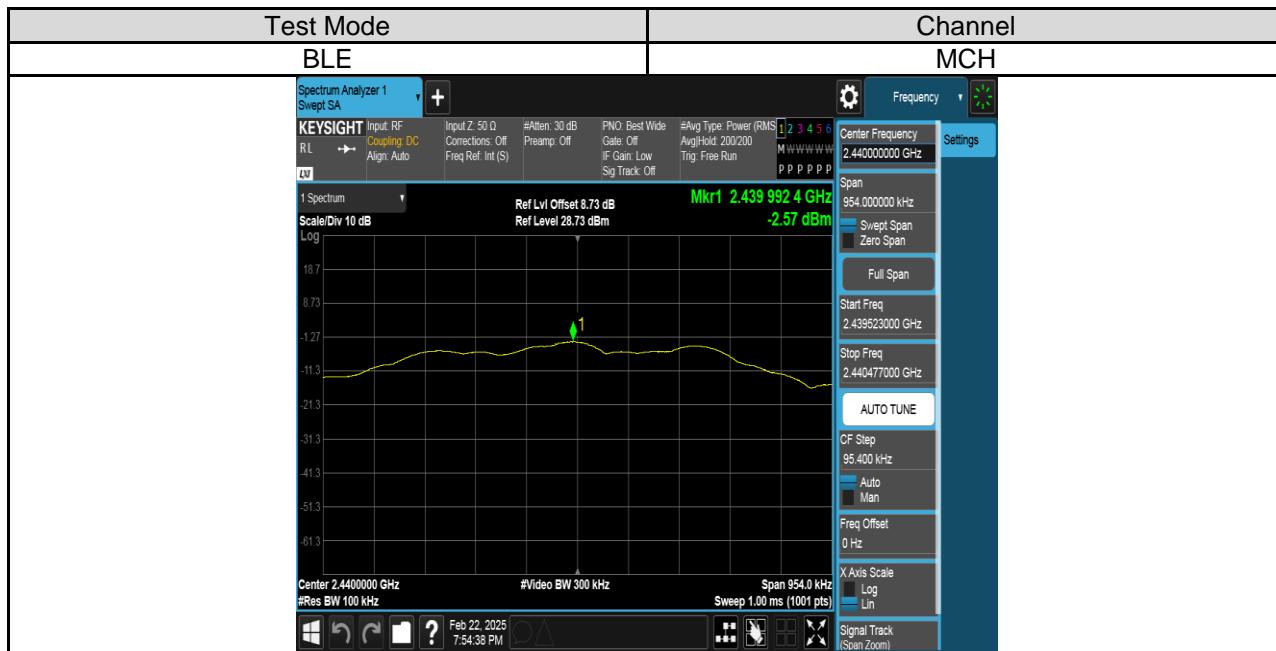
PART 1: REFERENCE LEVEL MEASUREMENT

TEST RESULTS TABLE

Test Mode	Test Channel	Result[dBm]
BLE	LCH	-3.05
	MCH	-2.57
	HCH	-2.42

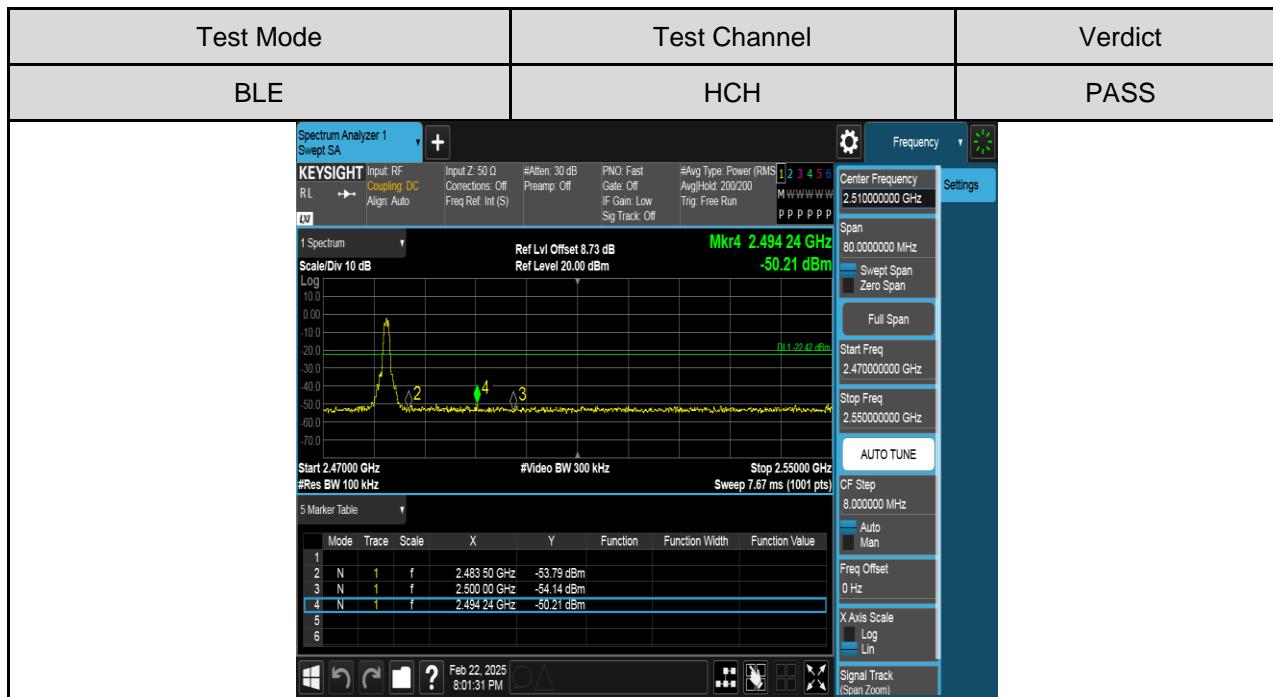
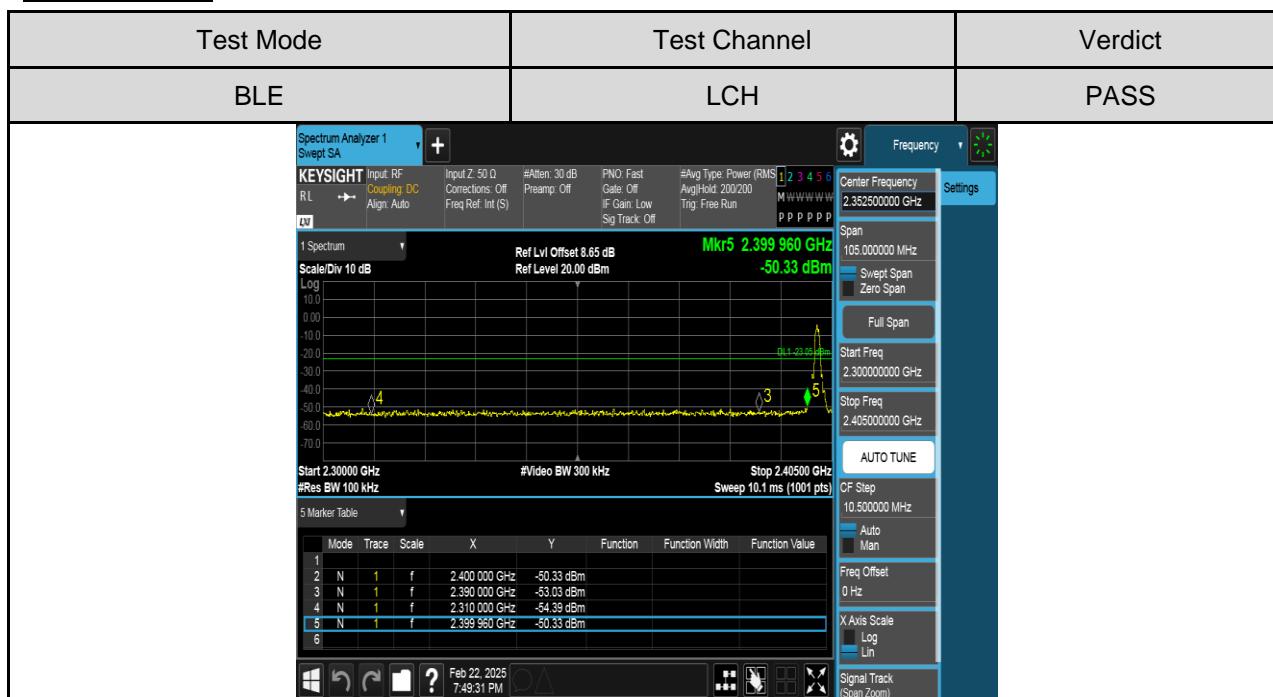
TEST GRAPHS





PART 2: CONDUCTED BANDEDGE**TEST RESULTS TABLE**

Test Mode	Test Channel	Result	Verdict
BLE	LCH	Refer to the Test Graph	PASS
	HCH	Refer to the Test Graph	PASS

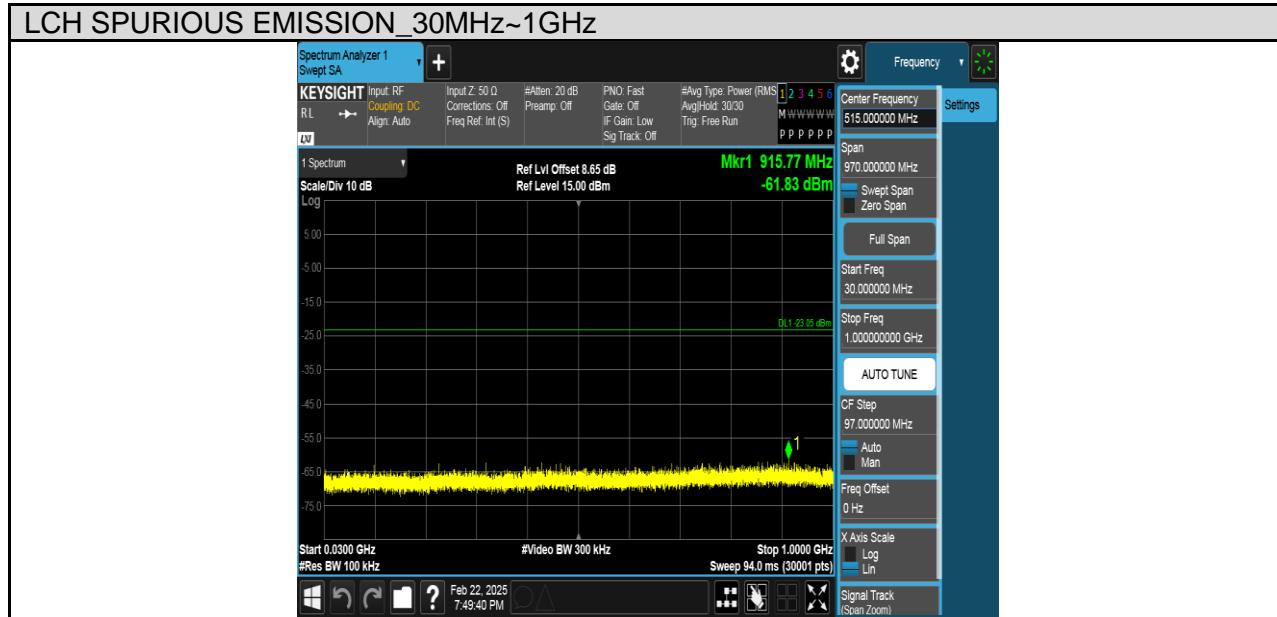
TEST GRAPHS


PART 3: CONDUCTED SPURIOUS EMISSION**TEST RESULTS TABLE**

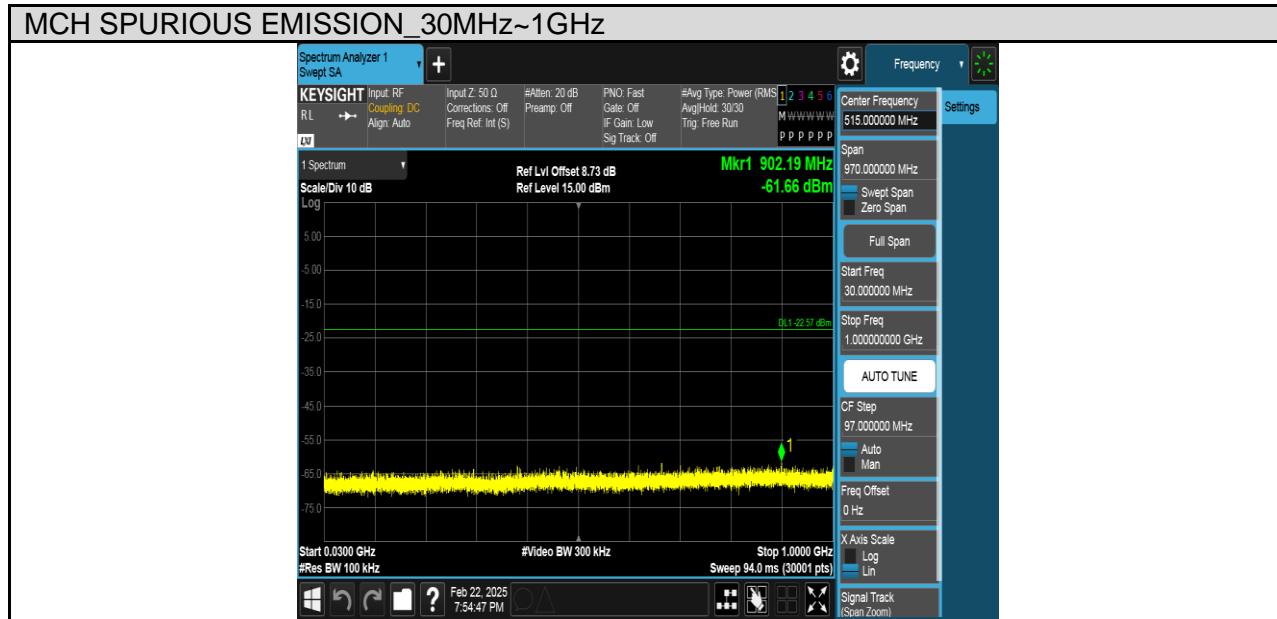
Test Mode	Test Channel	Result	Verdict
BLE	LCH	Refer to the Test Graph	PASS
	MCH	Refer to the Test Graph	PASS
	HCH	Refer to the Test Graph	PASS

TEST GRAPHS

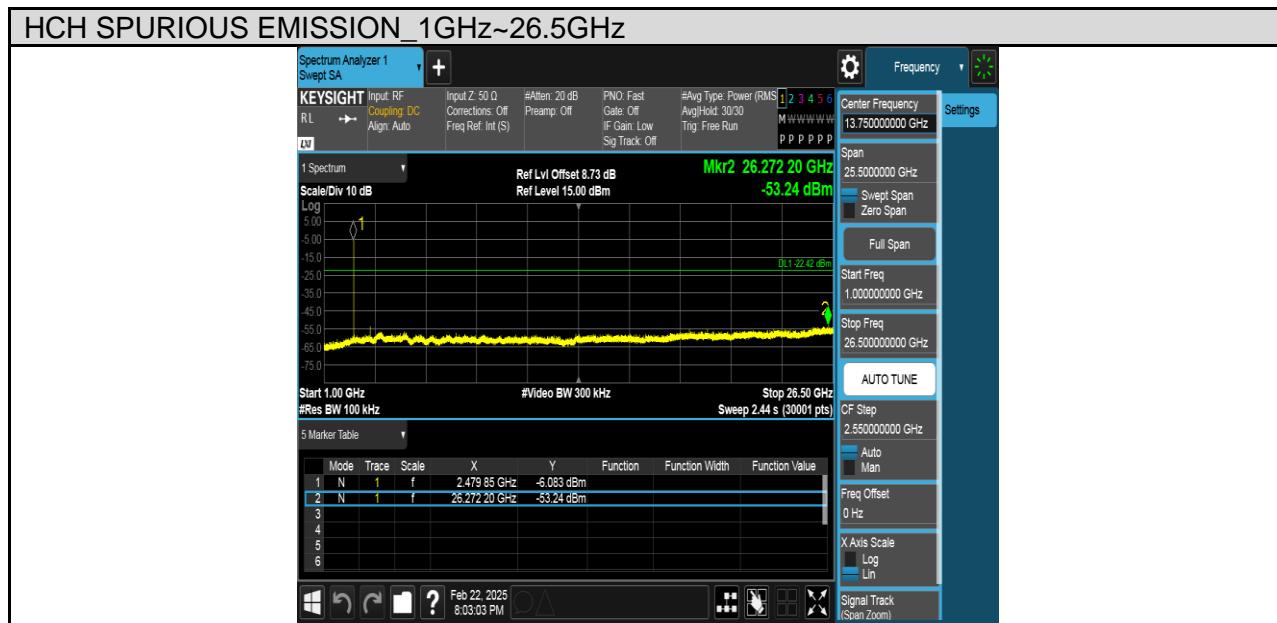
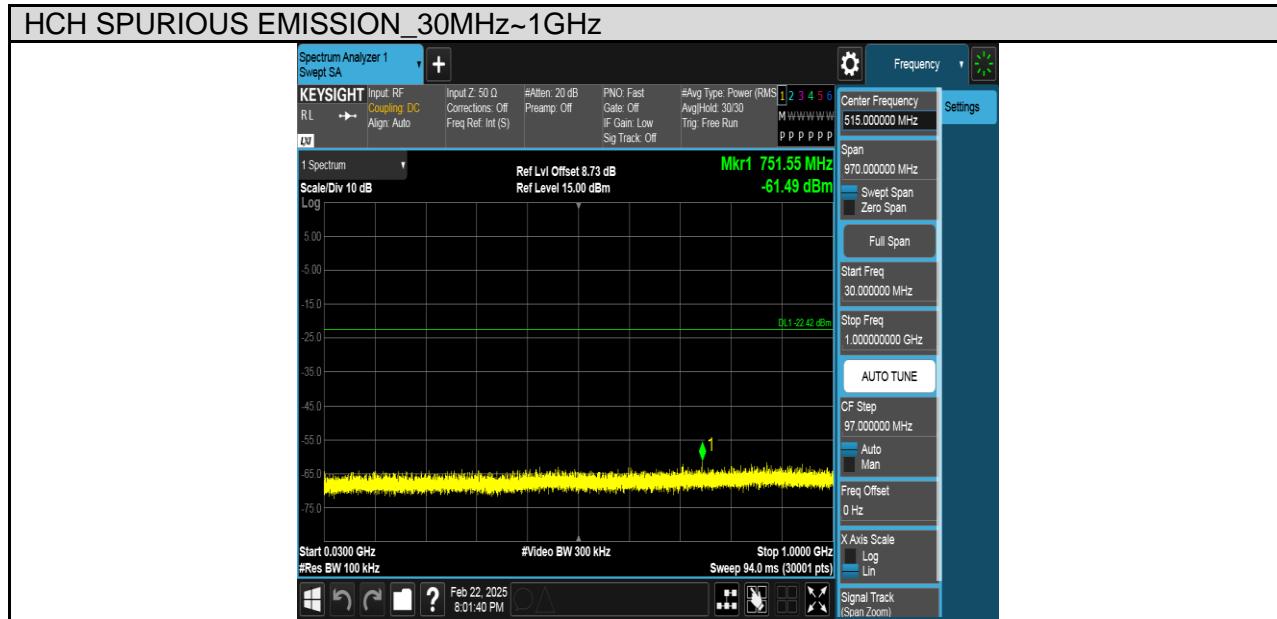
Test Mode	Channel	Verdict
BLE	LCH	PASS



Test Mode	Channel	Verdict
BLE	MCH	PASS



Test Mode	Channel	Verdict
BLE	HCH	PASS



8. RADIATED TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMITS

Please refer to FCC §15.205 and §15.209, ISED RSS-247 Clause 5.5, ISED RSS-GEN Clause 8.9&6.13 (Transmitter)

Radiation Disturbance Test Limit for ISED (9kHz-1GHz)

Except where otherwise indicated in the applicable RSS, radiated emissions shall comply with the field strength limits shown in table 5 and table 6. Additionally, the level of any transmitter unwanted emission shall not exceed the level of the transmitter's fundamental emission.

Table 5 – General field strength limits at frequencies above 30 MHz

Frequency (MHz)	Field strength (μ V/m at 3 m)
30 – 88	100
88 – 216	150
216 – 960	200
Above 960	500

Table 6 – General field strength limits at frequencies below 30 MHz

Frequency	Magnetic field strength (H-Field) (μ A/m)	Measurement distance (m)
9 - 490 kHz ^{Note 1}	6.37/F (F in kHz)	300
490 - 1705 kHz	63.7/F (F in kHz)	30
1.705 - 30 MHz	0.08	30

Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

Please refer to FCC KDB 558074

Radiation Disturbance Test Limit for FCC (Class B) (9kHz-1GHz)

Frequency (MHz)	Field Strength (microvolts/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
960~1000	500	3

Note: 1) At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. 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 linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

(2) At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). This paragraph (f) shall not apply to Access BPL devices operating below 30 MHz.

Radiation Disturbance Test Limit for FCC (Above 1G)

Frequency (MHz)	dB(uV/m) (at 3 meters)	
	Peak	Average
Above 1000	74	54

Restricted bands of operation

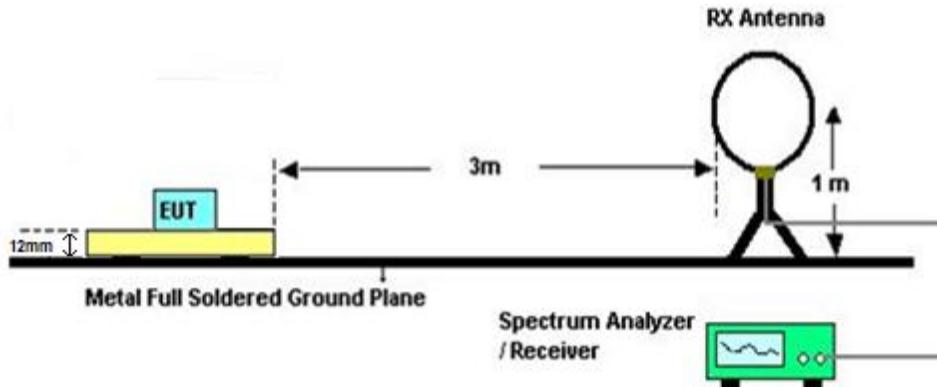
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	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	(²)
13.36-13.41			

Note: ¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

²Above 38.6c

TEST SETUP AND PROCEDURE

Below 30MHz

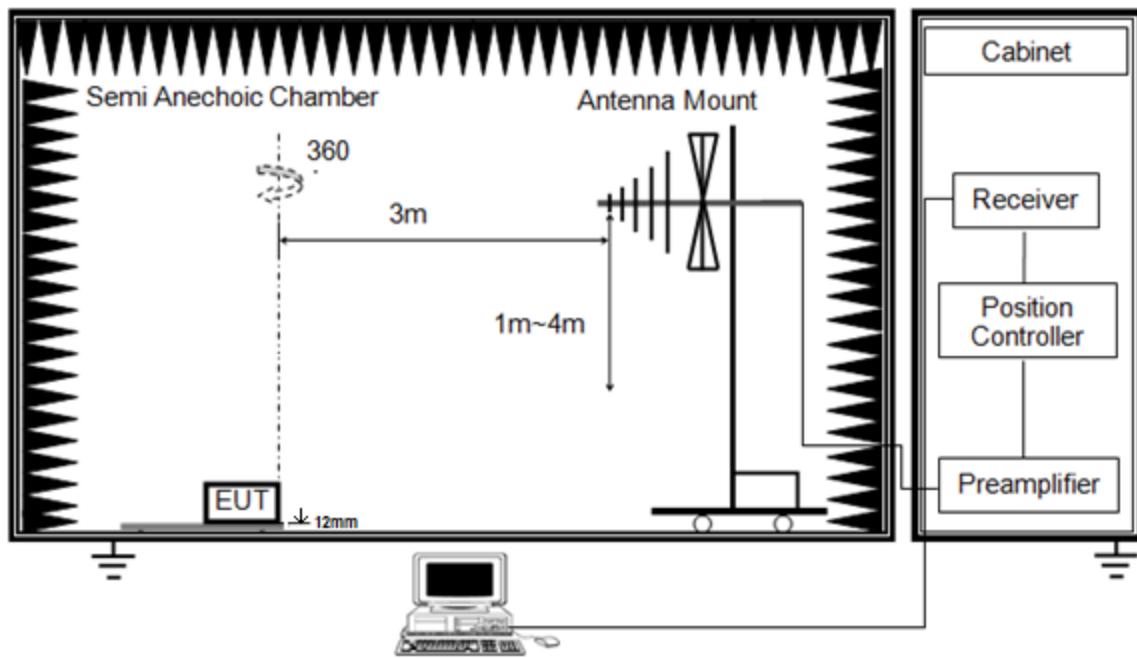


The setting of the spectrum analyser

RBW	200 Hz (From 9kHz to 0.15MHz) / 9kHz (From 0.15MHz to 30MHz)
VBW	200 Hz (From 9kHz to 0.15MHz) / 9kHz (From 0.15MHz to 30MHz)
Sweep	Auto
Detector	Peak/QP/Average
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013
2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 12 mm above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1m height antenna tower.
5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector
6. For measurement below 1GHz, 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. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
7. For the actual test configuration, please refer to the related item in this test report
(Photographs of the Test Configuration)
8. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω . For example, the measurement frequency X kHz resulted in a level of Y dB V /m, which is equivalent to $Y - 51.5 = Z$ dB A /m, which has the same margin, W dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.

Below 1G

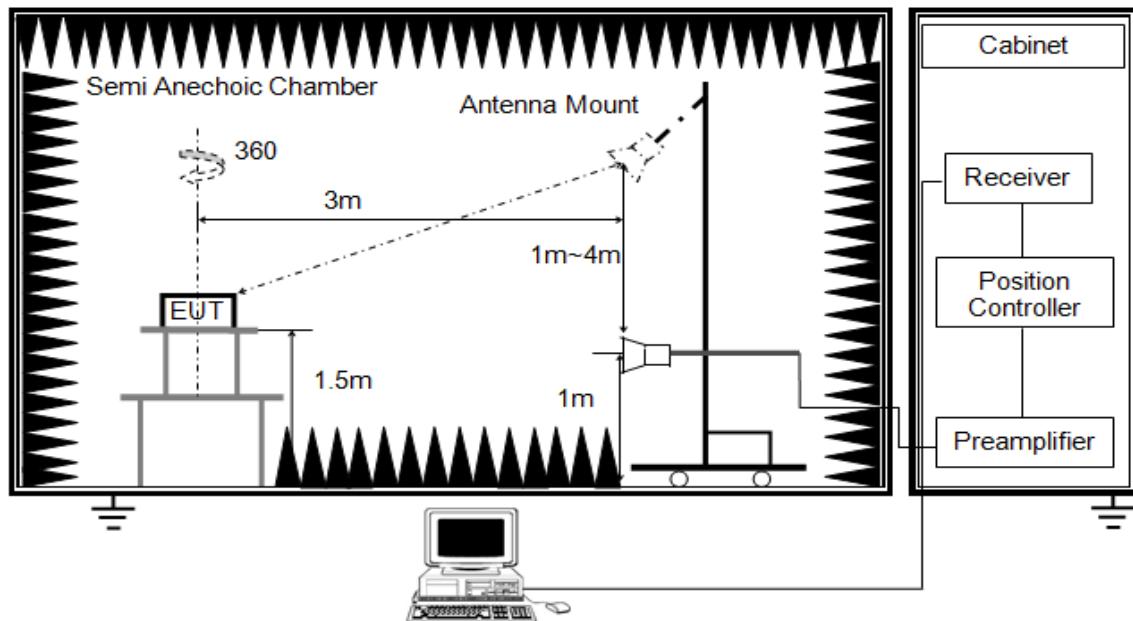


The setting of the spectrum analyser

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 12 mm above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement below 1GHz, 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. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
6. For the actual test configuration, please refer to the related item in this test report (Photographs of the Test Configuration)

Above 1G

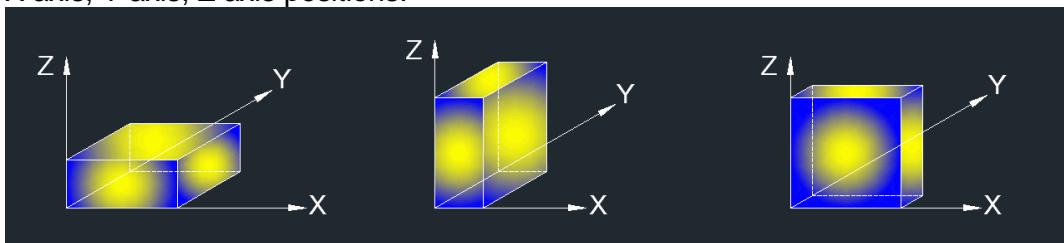


The setting of the spectrum analyser

RBW	1 MHz
VBW	PEAK:3 MHz AVG: See note6
Sweep	Auto
Detector	Peak
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 1.5m above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement above 1GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.
6. For measurements above 1 GHz, the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements; and 1 MHz resolution bandwidth with video bandwidth $\geq 1/T$ but not less than the setting list in section 7.1 when use peak detector, max hold to be run for at least $[50 * (1/\text{Duty Cycle})]$ traces for average measurements. For the Duty Cycle need to refer the results in section 7.1.
7. For the actual test configuration, please refer to the related item in this test report (Photographs of the Test Configuration)

X axis, Y axis, Z axis positions:



Note: For all radiated test, EUT in each of two orthogonal axis emissions had been tested, but only the worse case (X axis) data recorded in the report.

8.2. TEST ENVIRONMENT

Temperature	22°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

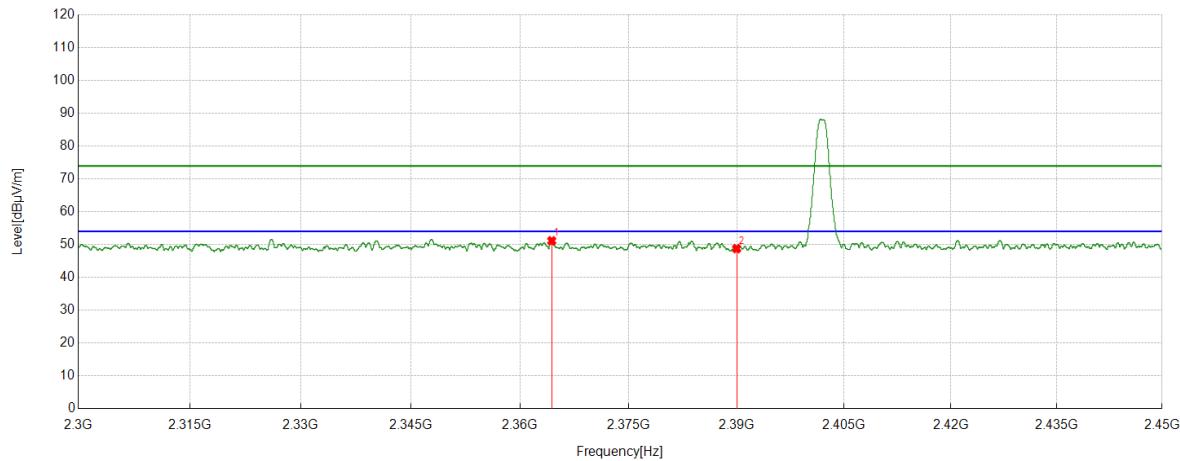
8.3. RESTRICTED BANDEDGE

TEST RESULT TABLE

Test Mode	Channel	Puw(dBm)	Verdict
BLE	LCH	<Limit	PASS
	HCH	<Limit	PASS

TEST GRAPHS

Test Mode	Channel	Polarization	Verdict
BLE	LCH	Horizontal	PASS



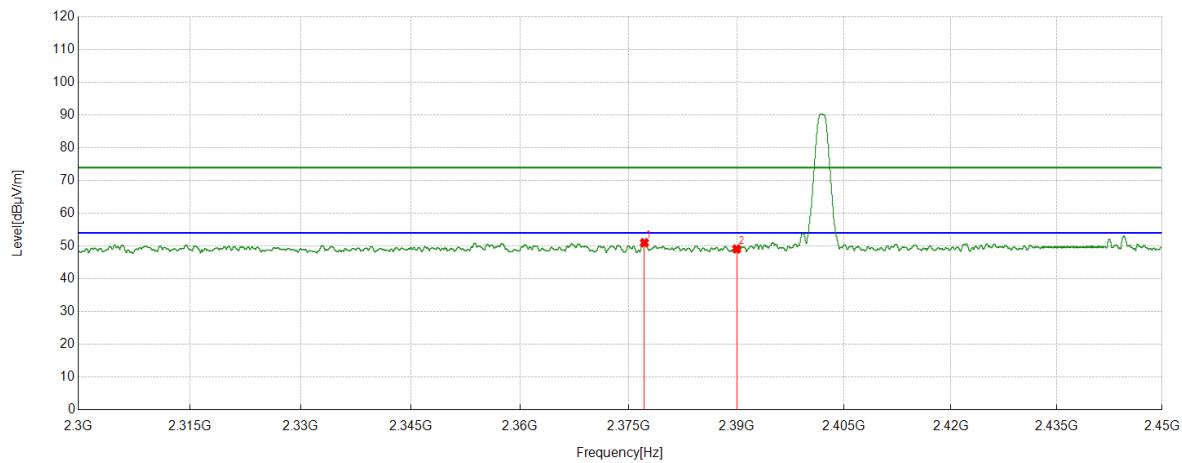
PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	2364.3768	37.65	13.50	51.15	74.00	-22.85	Horizontal
2	2390.0000	35.28	13.48	48.76	74.00	-25.24	Horizontal

Note:

1. Peak result: Peak detector, RBW: 1 MHz, VBW: 3 MHz.
2. Average result: Peak detector, RBW: 1 MHz, VBW: 1/T MHz (refer to clause 7.1.).
3. Measurement = Reading Level + Correct Factor.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

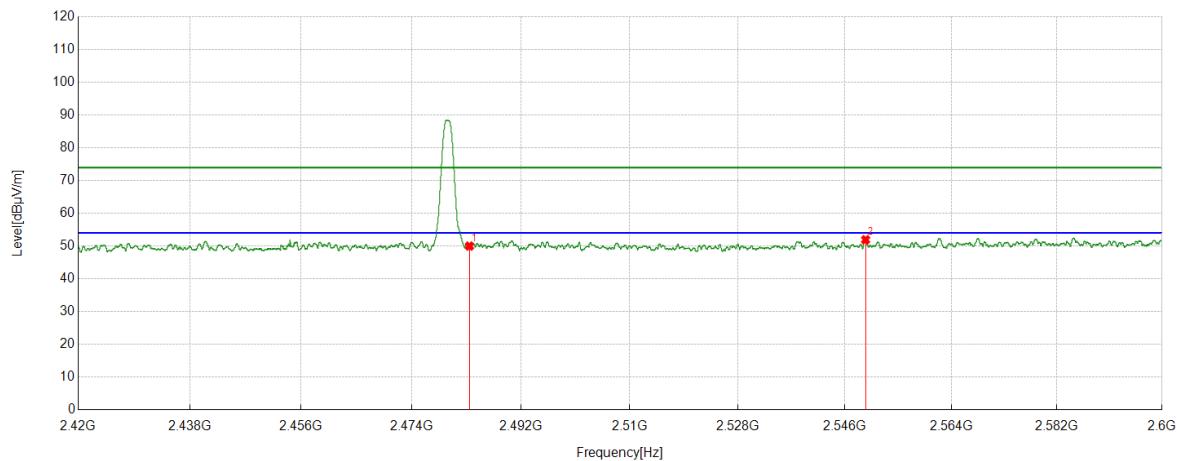
Test Mode	Channel	Polarization	Verdict
BLE	LCH	Vertical	PASS


PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	2377.1846	37.43	13.59	51.02	74.00	-22.98	Vertical
2	2390.0000	35.63	13.48	49.11	74.00	-24.89	Vertical

Note: 1. Peak result: Peak detector, RBW: 1 MHz, VBW: 3 MHz.
2. Average result: Peak detector, RBW: 1 MHz, VBW: 1/T MHz (refer to clause 7.1.).
3. Measurement = Reading Level + Correct Factor.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

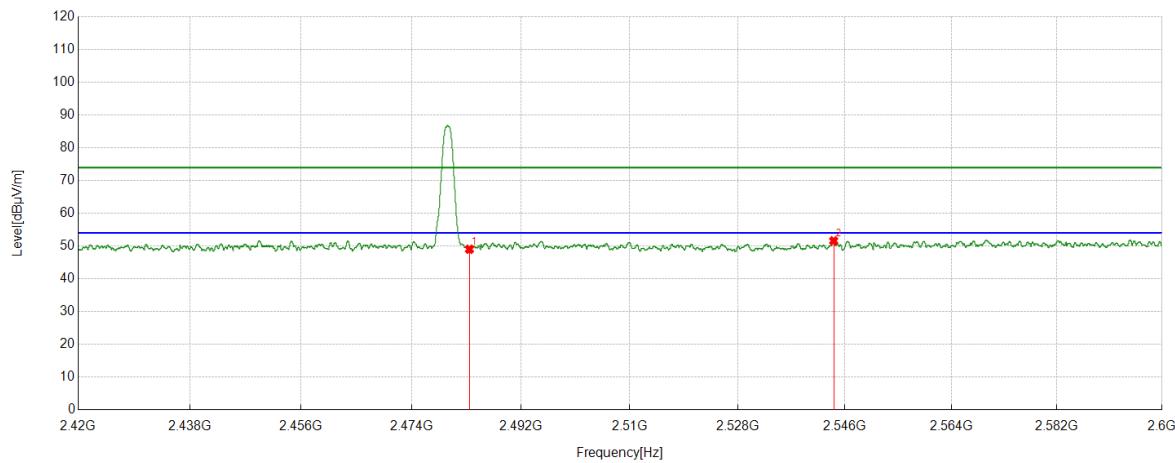
Test Mode	Channel	Polarization	Verdict
BLE	HCH	Horizontal	PASS


PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	2483.5000	35.75	14.25	50.00	74.00	-24.00	Horizontal
2	2549.4812	37.29	14.63	51.92	74.00	-22.08	Horizontal

Note: 1. Peak result: Peak detector, RBW: 1 MHz, VBW: 3 MHz.
2. Average result: Peak detector, RBW: 1 MHz, VBW: 1/T MHz (refer to clause 7.1.).
3. Measurement = Reading Level + Correct Factor.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Test Mode	Channel	Polarization	Verdict
BLE	HCH	Vertical	PASS


PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	2483.5000	34.77	14.25	49.02	74.00	-24.98	Vertical
2	2544.1030	37.01	14.58	51.59	74.00	-22.41	Vertical

Note: 1. Peak result: Peak detector, RBW: 1 MHz, VBW: 3 MHz.
2. Average result: Peak detector, RBW: 1 MHz, VBW: 1/T MHz (refer to clause 7.1.).
3. Measurement = Reading Level + Correct Factor.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

8.4. SPURIOUS EMISSIONS

TEST RESULTS TABLE

1) For 1GHz~18GHz

Test Mode	Channel	Puw(dBm)	Verdict
BLE	LCH	<Limit	PASS
	MCH	<Limit	PASS
	HCH	<Limit	PASS

Note:

Through pre-testing all the test modes and test channels, but only the data of the worst case is included in this test report.

2) For 9kHz~30MHz

Test Mode	Channel	Puw(dBm)	Verdict
BLE	HCH	<Limit	PASS

Note:

Through pre-testing all the test modes and test channels, but only the data of the worst case is included in this test report.

3) For 30MHz~1GHz

Test Mode	Channel	Puw(dBm)	Verdict
BLE	HCH	<Limit	PASS

Note:

Through pre-testing all the test modes and test channels, but only the data of the worst case is included in this test report.

4) For 18GHz~26.5GHz

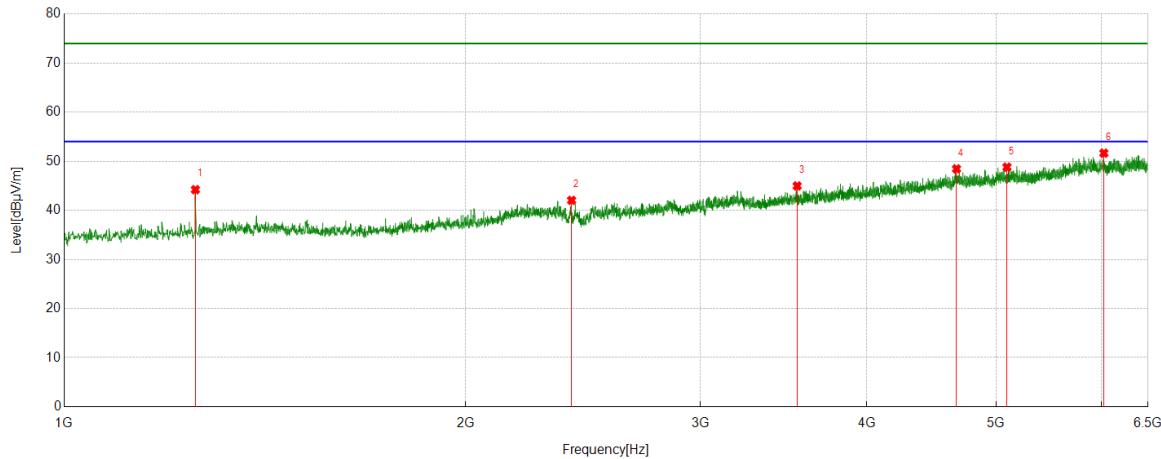
Test Mode	Channel	Puw(dBm)	Verdict
BLE	HCH	<Limit	PASS

Note:

Through pre-testing all the test modes and test channels, but only the data of the worst case is included in this test report.

Part 1: 1GHz~6.5GHz
HARMONICS AND SPURIOUS EMISSIONS

Test Mode	Channel	Polarization	Verdict
BLE	LCH	Horizontal	PASS

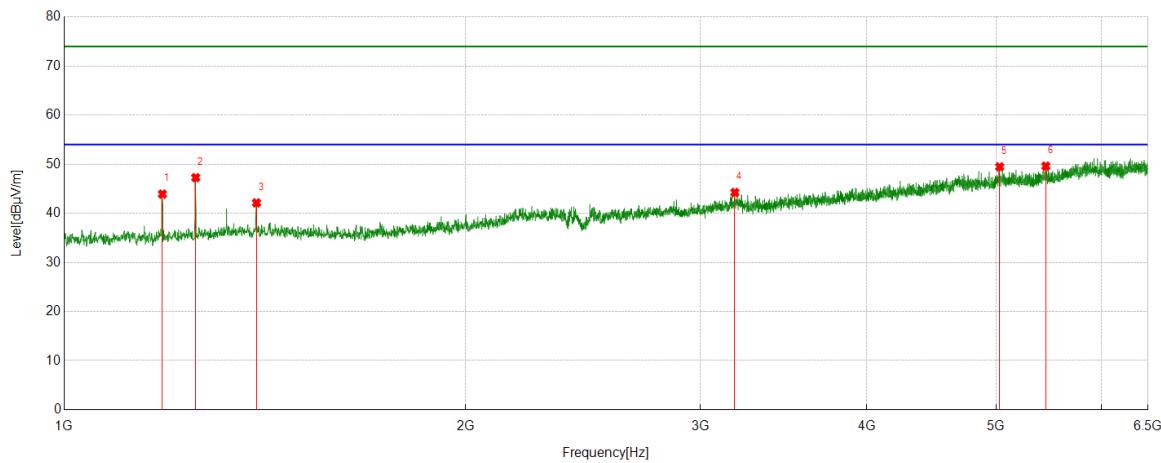

PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	1254.4068	45.06	-0.85	44.21	74.00	-29.79	Horizontal
2	2401.9877	38.37	3.66	42.03	74.00	-31.97	Horizontal
3	3546.1308	37.13	7.84	44.97	74.00	-29.03	Horizontal
4	4669.6462	36.04	12.41	48.45	74.00	-25.55	Horizontal
5	5094.5743	35.75	13.05	48.80	74.00	-25.20	Horizontal
6	6022.8154	36.04	15.61	51.65	74.00	-22.35	Horizontal

Note:

1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

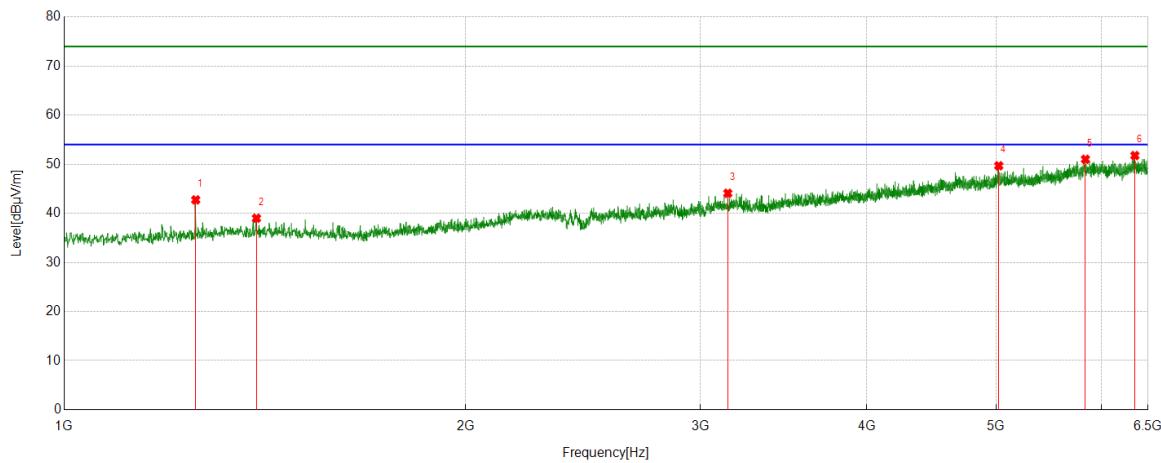
Test Mode	Channel	Polarization	Verdict
BLE	LCH	Vertical	PASS


PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dB _B uV/m]	[dB]				
1	1184.9606	45.11	-1.19	43.92	74.00	-30.08	Vertical
2	1255.0944	48.13	-0.86	47.27	74.00	-26.73	Vertical
3	1393.9867	42.56	-0.42	42.14	74.00	-31.86	Vertical
4	3184.4606	37.47	6.78	44.25	74.00	-29.75	Vertical
5	5030.6288	36.43	13.05	49.48	74.00	-24.52	Vertical
6	5447.9935	34.95	14.67	49.62	74.00	-24.38	Vertical

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

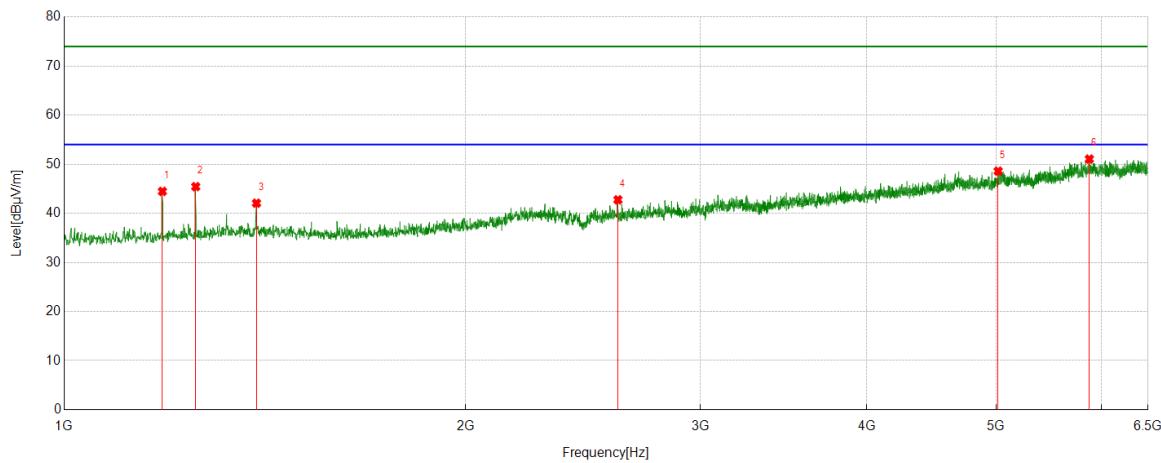
Test Mode	Channel	Polarization	Verdict
BLE	MCH	Horizontal	PASS


PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	1255.0944	43.60	-0.86	42.74	74.00	-31.26	Horizontal
2	1393.9867	39.42	-0.42	39.00	74.00	-35.00	Horizontal
3	3145.9557	37.83	6.26	44.09	74.00	-29.91	Horizontal
4	5023.0654	36.91	12.78	49.69	74.00	-24.31	Horizontal
5	5833.7292	34.69	16.32	51.01	74.00	-22.99	Horizontal
6	6354.2318	34.23	17.54	51.77	74.00	-22.23	Horizontal

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

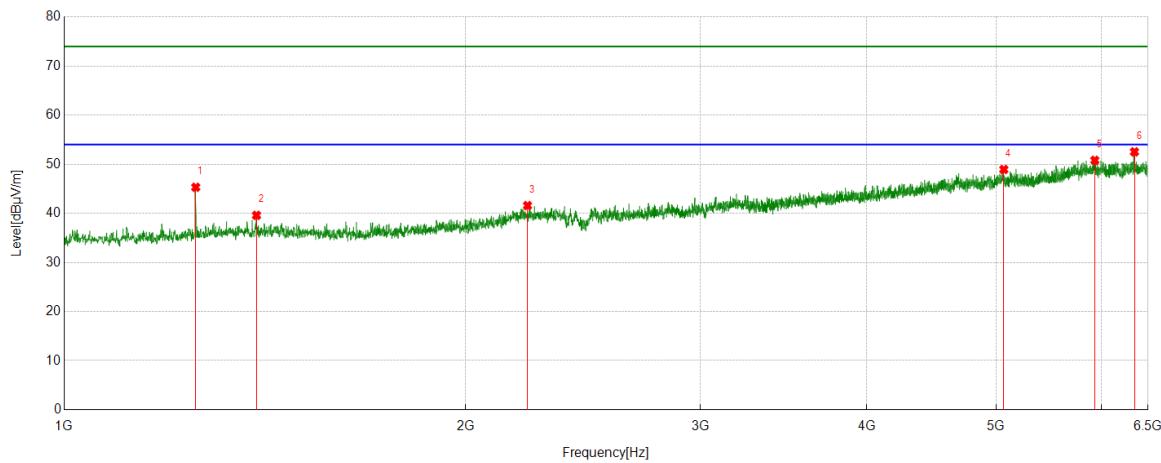
Test Mode	Channel	Polarization	Verdict
BLE	MCH	Vertical	PASS


PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dB _{BuV/m}]	[dB]				
1	1184.9606	45.66	-1.19	44.47	74.00	-29.53	Vertical
2	1255.0944	46.30	-0.86	45.44	74.00	-28.56	Vertical
3	1393.9867	42.49	-0.42	42.07	74.00	-31.93	Vertical
4	2602.0753	38.70	4.06	42.76	74.00	-31.24	Vertical
5	5017.5647	35.99	12.61	48.60	74.00	-25.40	Vertical
6	5873.6092	35.53	15.53	51.06	74.00	-22.94	Vertical

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

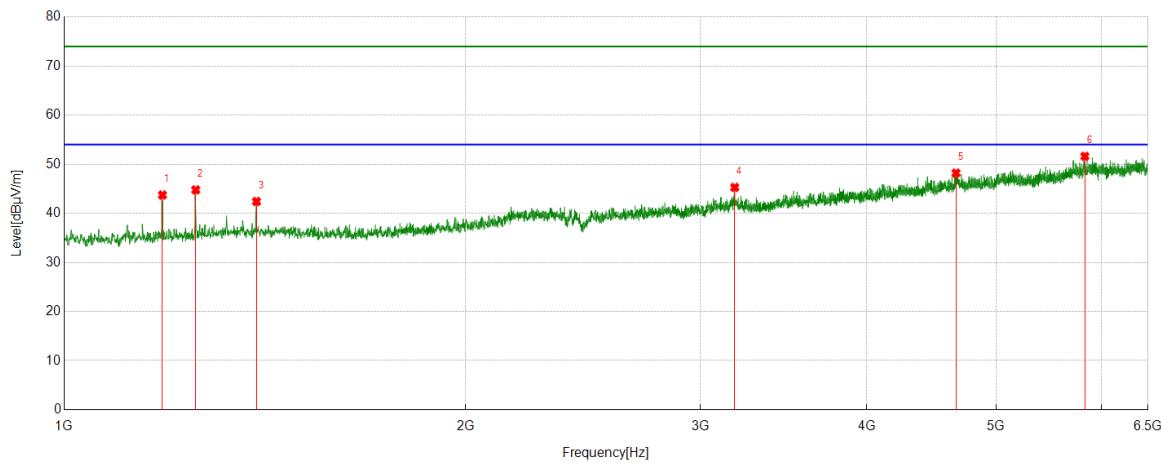
Test Mode	Channel	Polarization	Verdict
BLE	HCH	Horizontal	PASS


PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dB _B uV/m]	[dB]	[dB _B uV/m]	[dB _B uV/m]	[dB]	
1	1255.0944	46.17	-0.86	45.31	74.00	-28.69	Horizontal
2	1393.9867	40.01	-0.42	39.59	74.00	-34.41	Horizontal
3	2225.9657	37.72	3.86	41.58	74.00	-32.42	Horizontal
4	5067.0709	35.37	13.56	48.93	74.00	-25.07	Horizontal
5	5929.3037	34.29	16.51	50.80	74.00	-23.20	Horizontal
6	6349.4187	34.93	17.60	52.53	74.00	-21.47	Horizontal

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Test Mode	Channel	Polarization	Verdict
BLE	HCH	Vertical	PASS


PK Result:

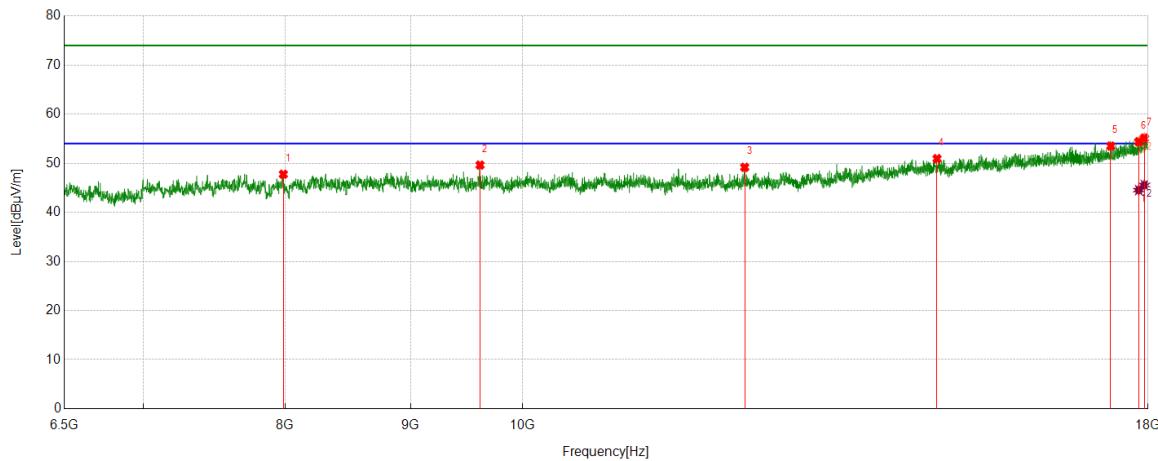
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]				
1	1184.9606	44.92	-1.19	43.73	74.00	-30.27	Vertical
2	1255.0944	45.63	-0.86	44.77	74.00	-29.23	Vertical
3	1393.9867	42.83	-0.42	42.41	74.00	-31.59	Vertical
4	3183.7730	38.55	6.73	45.28	74.00	-28.72	Vertical
5	4665.5207	35.98	12.22	48.20	74.00	-25.80	Vertical
6	5828.2285	35.03	16.58	51.61	74.00	-22.39	Vertical

Note:

1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Part 2: 6.5GHz~18GHz
HARMONICS AND SPURIOUS EMISSIONS

Test Mode	Channel	Polarization	Verdict
BLE	LCH	Horizontal	PASS


PK Result:

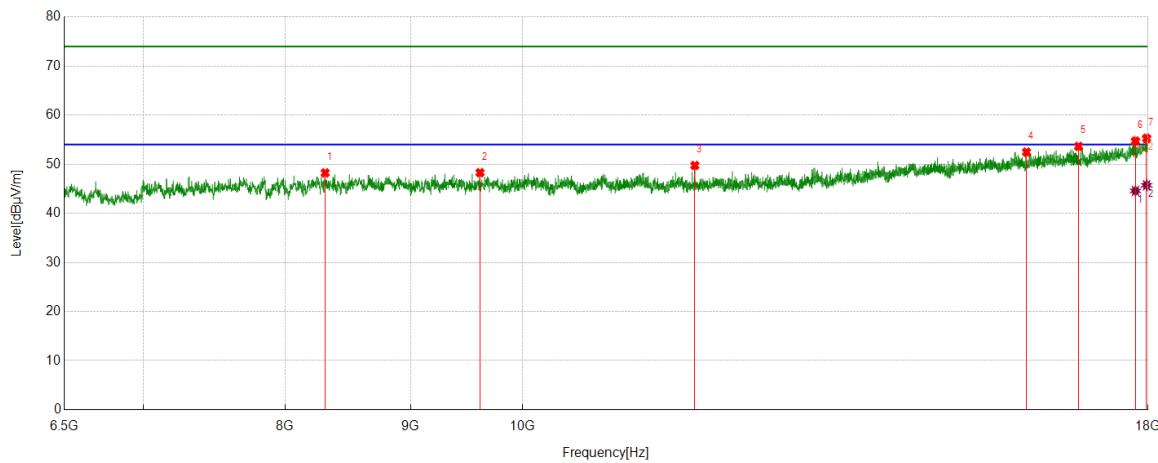
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	7986.5608	42.24	5.52	47.76	74.00	-26.24	Horizontal
2	9608.2635	43.40	6.23	49.63	74.00	-24.37	Horizontal
3	12321.1651	40.60	8.57	49.17	74.00	-24.83	Horizontal
4	14762.3453	37.98	12.95	50.93	74.00	-23.07	Horizontal
5	17380.3600	36.15	17.34	53.49	74.00	-20.51	Horizontal
6	17843.2929	35.28	19.10	54.38	74.00	-19.62	Horizontal
7	17938.1798	35.70	19.43	55.13	74.00	-18.87	Horizontal

AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	17843.2929	25.43	19.10	44.53	54.00	-9.47	Horizontal
2	17938.1798	26.13	19.43	45.56	54.00	-8.44	Horizontal

Note: 1. Measurement = Reading Level + Correct Factor.
2. If peak result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak result: Peak detector, RBW: 1 MHz, VBW: 3 MHz.
4. Average result: Peak detector, RBW: 1 MHz, VBW: 1/T MHz(refer to clause 7.1.).
5. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses.
6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Test Mode	Channel	Polarization	Verdict
BLE	LCH	Vertical	PASS


PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	8307.1634	41.92	6.32	48.24	74.00	-25.76	Vertical
2	9608.2635	42.05	6.23	48.28	74.00	-25.72	Vertical
3	11757.5947	41.98	7.77	49.75	74.00	-24.25	Vertical
4	16057.6947	37.95	14.52	52.47	74.00	-21.53	Vertical
5	16862.7953	37.33	16.30	53.63	74.00	-20.37	Vertical
6	17788.6611	36.01	18.71	54.72	74.00	-19.28	Vertical
7	17975.5594	35.55	19.73	55.28	74.00	-18.72	Vertical

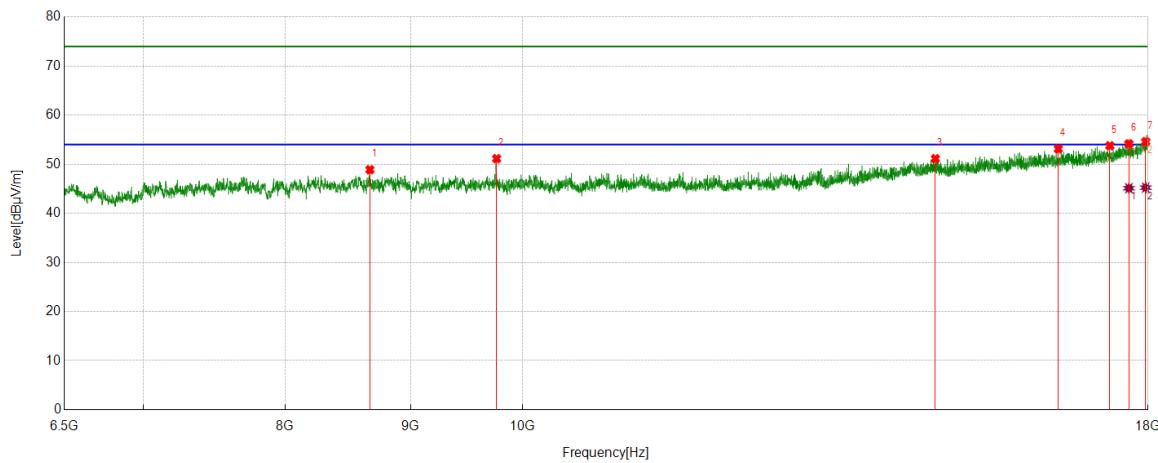
AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	17788.6611	25.86	18.71	44.57	54.00	-9.43	Vertical
2	17975.5594	25.99	19.73	45.72	54.00	-8.28	Vertical

Note:

1. Measurement = Reading Level + Correct Factor.
2. If peak result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak result: Peak detector, RBW: 1 MHz, VBW: 3 MHz.
4. Average result: Peak detector, RBW: 1 MHz, VBW: 1/T MHz(refer to clause 7.1.).
5. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses.
6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Test Mode	Channel	Polarization	Verdict
BLE	MCH	Horizontal	PASS


PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	8663.7080	42.59	6.30	48.89	74.00	-25.11	Horizontal
2	9759.2199	44.63	6.51	51.14	74.00	-22.86	Horizontal
3	14739.3424	38.24	12.89	51.13	74.00	-22.87	Horizontal
4	16545.0681	37.28	15.84	53.12	74.00	-20.88	Horizontal
5	17365.9832	36.46	17.31	53.77	74.00	-20.23	Horizontal
6	17679.3974	36.04	18.11	54.15	74.00	-19.85	Horizontal
7	17961.1826	34.98	19.63	54.61	74.00	-19.39	Horizontal

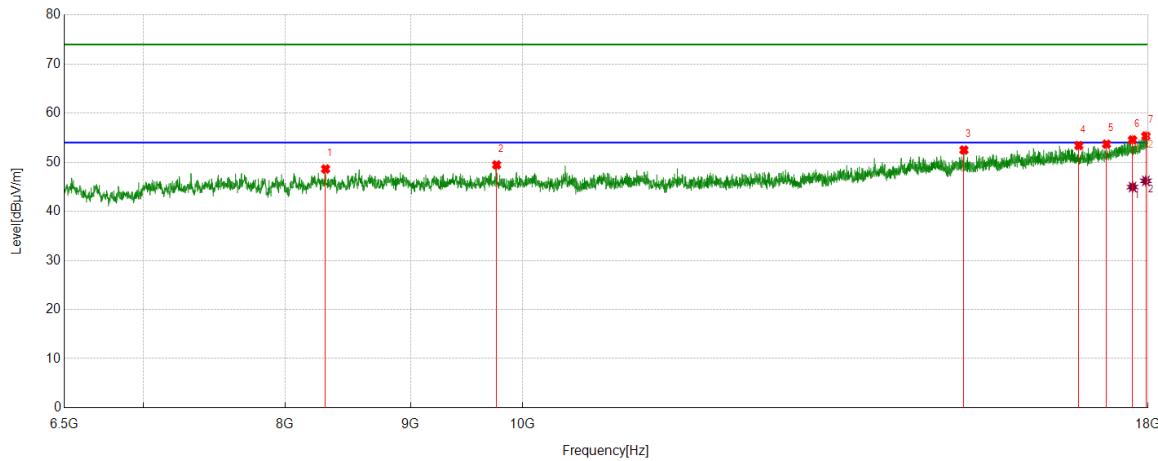
AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	17679.3974	27.00	18.11	45.11	54.00	-8.89	Horizontal
2	17961.1826	25.61	19.63	45.24	54.00	-8.76	Horizontal

Note:

1. Measurement = Reading Level + Correct Factor.
2. If peak result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak result: Peak detector, RBW: 1 MHz, VBW: 3 MHz.
4. Average result: Peak detector, RBW: 1 MHz, VBW: 1/T MHz(refer to clause 7.1.).
5. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses.
6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Test Mode	Channel	Polarization	Verdict
BLE	MCH	Vertical	PASS


PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	8310.0388	42.29	6.34	48.63	74.00	-25.37	Vertical
2	9759.2199	42.95	6.51	49.46	74.00	-24.54	Vertical
3	15140.4551	39.25	13.24	52.49	74.00	-21.51	Vertical
4	16867.1084	37.23	16.16	53.39	74.00	-20.61	Vertical
5	17311.3514	36.70	16.98	53.68	74.00	-20.32	Vertical
6	17739.7800	36.01	18.54	54.55	74.00	-19.45	Vertical
7	17964.0580	35.71	19.63	55.34	74.00	-18.66	Vertical

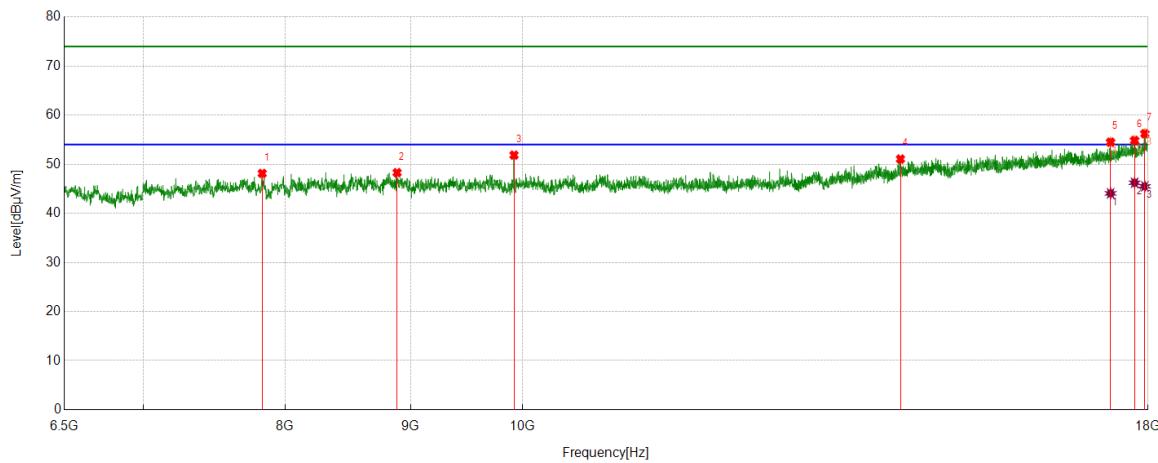
AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	17739.7800	26.41	18.54	44.95	54.00	-9.05	Vertical
2	17964.0580	26.58	19.63	46.21	54.00	-7.79	Vertical

Note:

1. Measurement = Reading Level + Correct Factor.
2. If peak result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak result: Peak detector, RBW: 1 MHz, VBW: 3 MHz.
4. Average result: Peak detector, RBW: 1 MHz, VBW: 1/T MHz(refer to clause 7.1.).
5. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses.
6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Test Mode	Channel	Polarization	Verdict
BLE	HCH	Horizontal	PASS


PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	7829.8537	43.00	5.13	48.13	74.00	-25.87	Horizontal
2	8887.9860	42.07	6.22	48.29	74.00	-25.71	Horizontal
3	9920.2400	45.29	6.57	51.86	74.00	-22.14	Horizontal
4	14263.4704	39.00	12.06	51.06	74.00	-22.94	Horizontal
5	17377.4847	37.16	17.34	54.50	74.00	-19.50	Horizontal
6	17774.2843	36.13	18.71	54.84	74.00	-19.16	Horizontal
7	17946.8059	36.75	19.48	56.23	74.00	-17.77	Horizontal

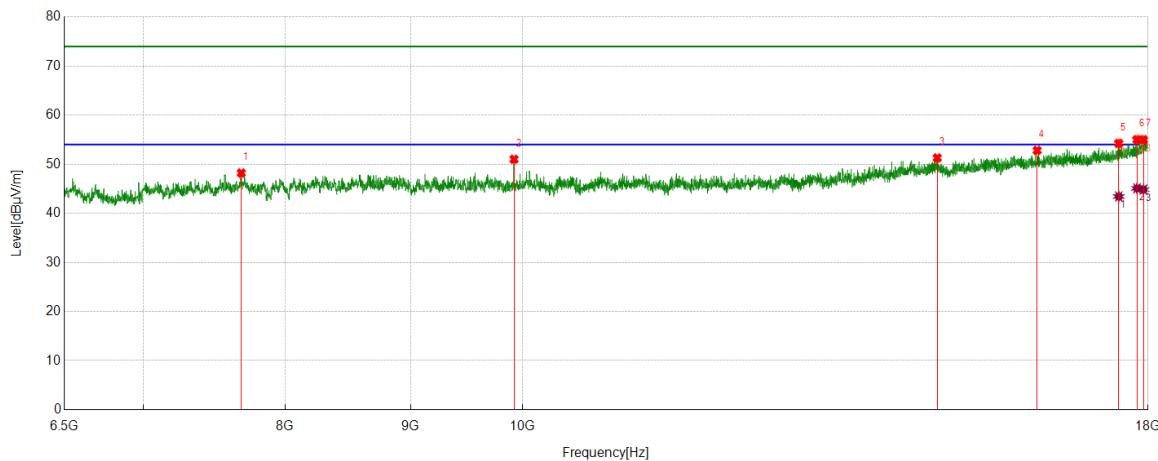
AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	17377.4847	26.73	17.34	44.07	54.00	-9.93	Horizontal
2	17774.2843	27.52	18.71	46.23	54.00	-7.77	Horizontal
3	17946.8059	26.02	19.48	45.50	54.00	-8.50	Horizontal

Note:

1. Measurement = Reading Level + Correct Factor.
2. If peak result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak result: Peak detector, RBW: 1 MHz, VBW: 3 MHz.
4. Average result: Peak detector, RBW: 1 MHz, VBW: 1/T MHz(refer to clause 7.1.).
5. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses.
6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Test Mode	Channel	Polarization	Verdict
BLE	HCH	Vertical	PASS


PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	7677.4597	42.90	5.31	48.21	74.00	-25.79	Vertical
2	9920.2400	44.45	6.57	51.02	74.00	-22.98	Vertical
3	14765.2207	38.34	12.94	51.28	74.00	-22.72	Vertical
4	16218.7148	37.40	15.42	52.82	74.00	-21.18	Vertical
5	17511.1889	36.63	17.62	54.25	74.00	-19.75	Vertical
6	17813.1016	36.08	18.93	55.01	74.00	-18.99	Vertical
7	17923.8030	35.63	19.36	54.99	74.00	-19.01	Vertical

AV Result:

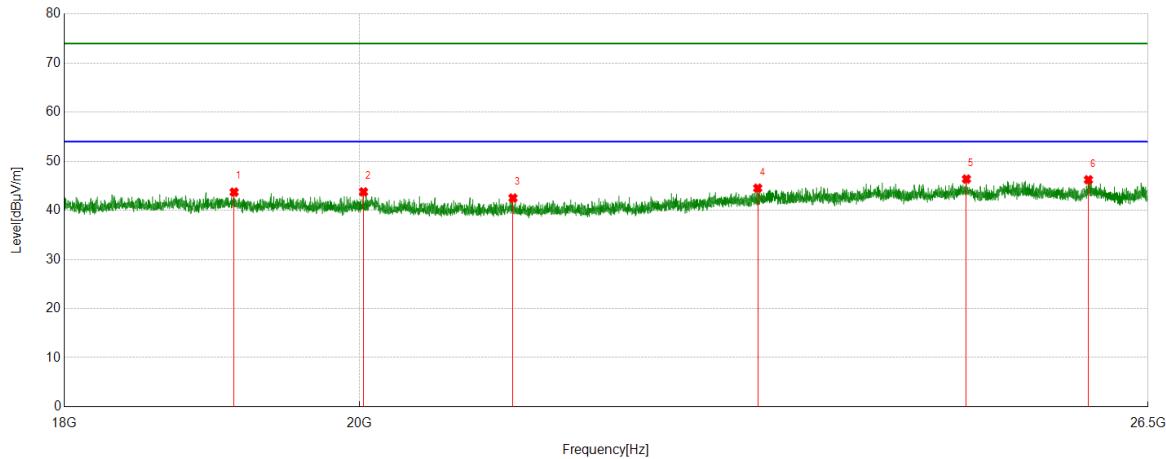
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	17511.1889	25.81	17.62	43.43	54.00	-10.57	Vertical
2	17813.1016	26.15	18.93	45.08	54.00	-8.92	Vertical
3	17923.8030	25.49	19.36	44.85	54.00	-9.15	Vertical

Note:

1. Measurement = Reading Level + Correct Factor.
2. If peak result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak result: Peak detector, RBW: 1 MHz, VBW: 3 MHz.
4. Average result: Peak detector, RBW: 1 MHz, VBW: 1/T MHz (refer to clause 7.1.).
5. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses.
6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Part 3: 18GHz~26.5GHz
SPURIOUS EMISSIONS 18GHz - 26.5GHz (WORST-CASE CONFIGURATION)

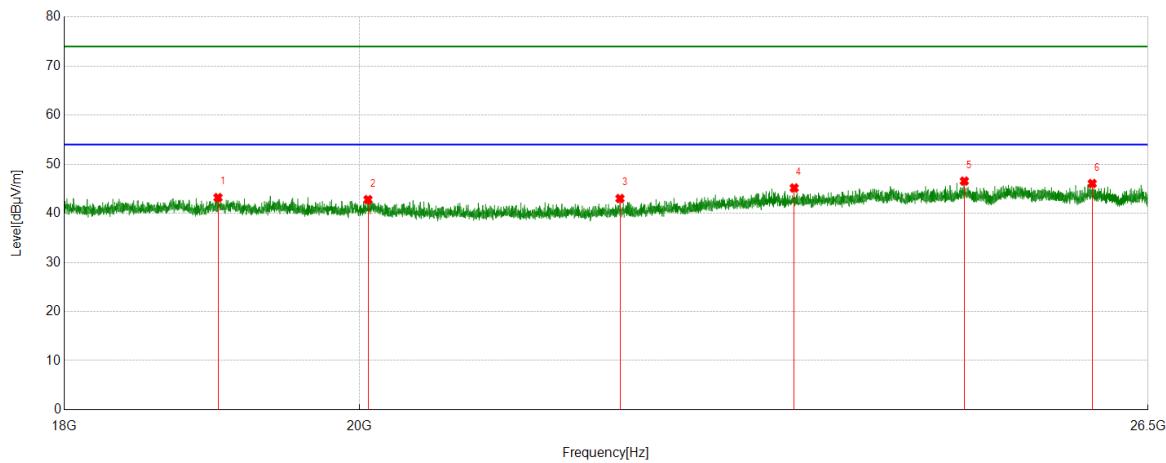
Test Mode	Channel	Polarization	Verdict
BLE	HCH	Horizontal	PASS


PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	19125.5126	49.58	-5.87	43.71	74.00	30.29	Horizontal
2	20029.1529	48.82	-5.07	43.75	74.00	30.25	Horizontal
3	21126.6127	48.48	-5.98	42.50	74.00	31.50	Horizontal
4	23054.6055	48.02	-3.51	44.51	74.00	29.49	Horizontal
5	24837.2337	49.75	-3.38	46.37	74.00	27.63	Horizontal
6	25942.3442	48.97	-2.74	46.23	74.00	27.77	Horizontal

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
3. Measurement = Reading Level + Correct Factor.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Test Mode	Channel	Polarization	Verdict
BLE	HCH	Vertical	PASS

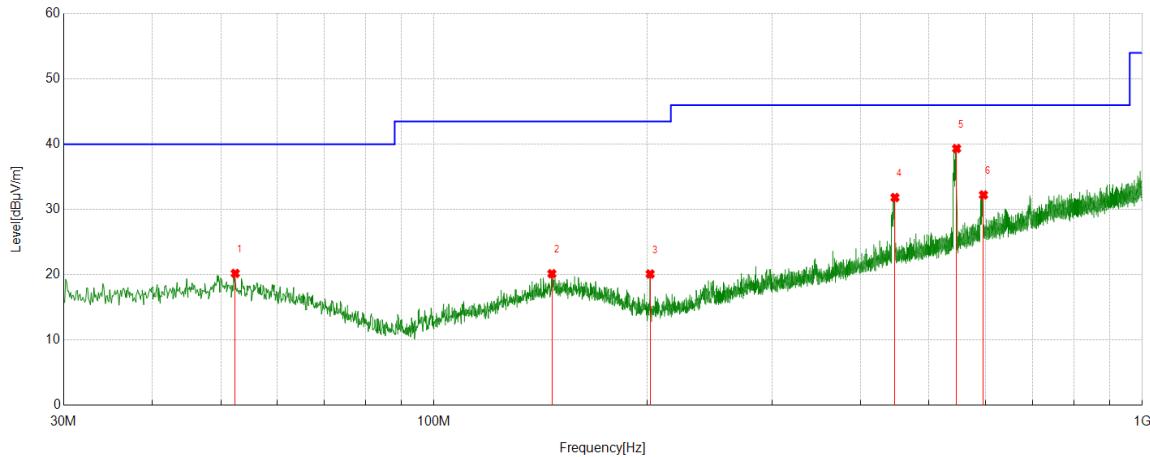

PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dB _{AV} /V/m]	[dB]	[dB _{AV} /V/m]	[dB _{AV} /V/m]	[dB]	
1	19015.8516	49.26	-6.06	43.20	74.00	30.80	Vertical
2	20061.4561	47.90	-5.11	42.79	74.00	31.21	Vertical
3	21948.6449	48.77	-5.76	43.01	74.00	30.99	Vertical
4	23356.3856	48.42	-3.26	45.16	74.00	28.84	Vertical
5	24818.5319	49.92	-3.35	46.57	74.00	27.43	Vertical
6	25978.0478	48.77	-2.70	46.07	74.00	27.93	Vertical

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
3. Measurement = Reading Level + Correct Factor.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Part 4: 30MHz~1GHz
SPURIOUS EMISSIONS 30MHz ~ 1GHz (WORST-CASE CONFIGURATION)

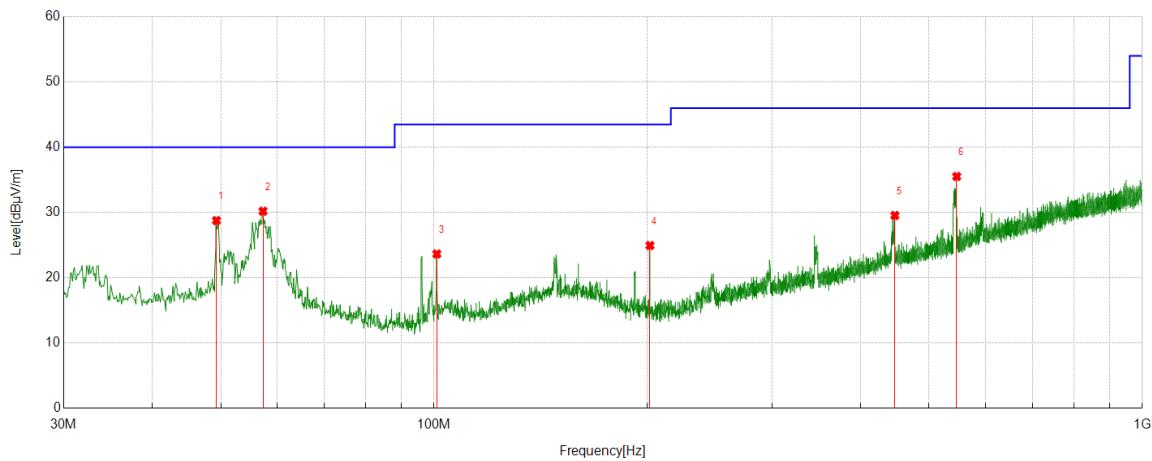
Test Mode	Channel	Polarization	Verdict
BLE	HCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	52.4092	-0.43	20.62	20.19	40.00	-19.81	Peak
2	146.7027	-0.29	20.43	20.14	43.50	-23.36	Peak
3	201.9012	3.01	17.09	20.10	43.50	-23.40	Peak
4	447.4327	6.85	24.98	31.83	46.00	-14.17	Peak
5	546.7707	12.67	26.67	39.34	46.00	-6.66	Peak
6	596.6337	4.12	28.11	32.23	46.00	-13.77	Peak

Note: 1. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
2. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.
3. Measurement = Reading Level + Correct Factor.

Test Mode	Channel	Polarization	Verdict
BLE	HCH	Vertical	PASS

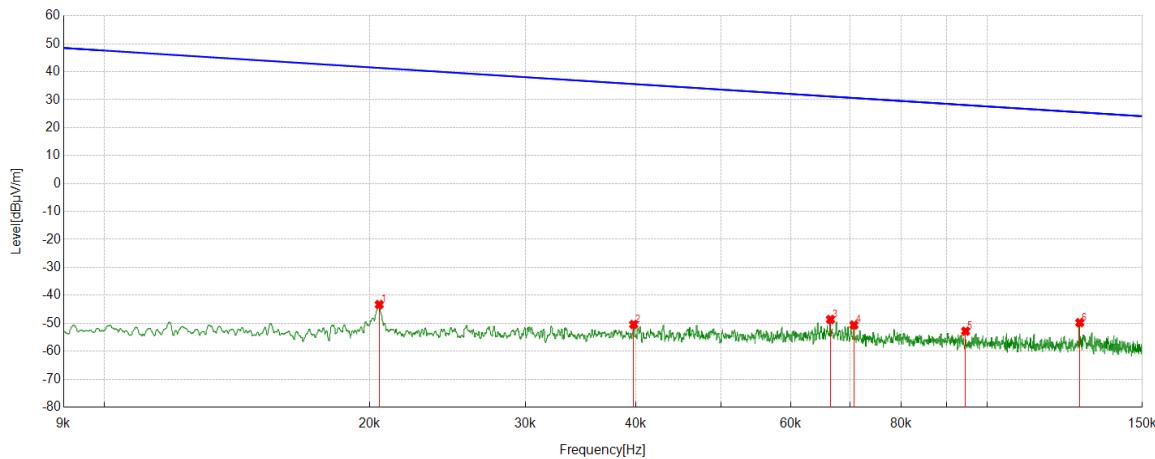


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	49.3049	8.18	20.58	28.76	40.00	-11.24	Peak
2	57.3567	9.96	20.23	30.19	40.00	-9.81	Peak
3	100.9141	7.85	15.79	23.64	43.50	-19.86	Peak
4	201.8042	7.84	17.09	24.93	43.50	-18.57	Peak
5	447.3357	4.56	24.98	29.54	46.00	-16.46	Peak
6	546.9647	8.84	26.68	35.52	46.00	-10.48	Peak

Note: 1. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
2. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.
3. Measurement = Reading Level + Correct Factor.

Part 5: 9kHz~30MHz
SPURIOUS EMISSIONS 9kHz ~ 30MHz (WORST CASE CONFIGURATION-FACE ON)

Test Mode	Channel	Frequency Range	Verdict
BLE	HCH	9kHz~150kHz	PASS

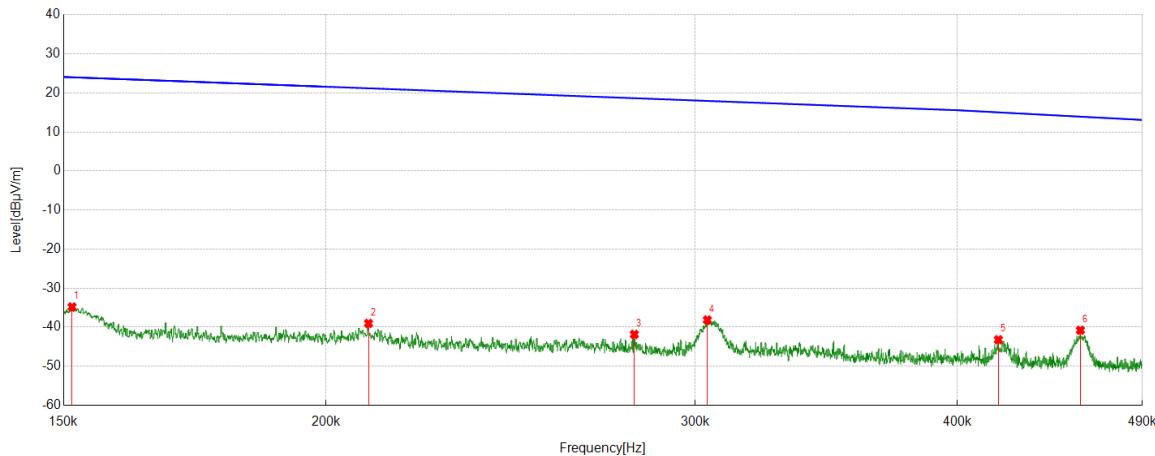


No.	Frequency	Reading Level	Correct Factor	FCC Result	FCC Limit	ISED Result	ISED Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dBuA/m]	[dBuA/m]	[dB]	
1	0.0205	18.43	-61.74	-43.31	41.38	-94.81	-10.12	-84.69	Peak
2	0.0398	11.17	-61.60	-50.43	35.60	-101.93	-15.90	-86.03	Peak
3	0.0665	12.96	-61.61	-48.65	31.14	-100.15	-20.36	-79.79	Peak
4	0.0707	10.97	-61.61	-50.64	30.61	-102.14	-20.89	-81.25	Peak
5	0.0946	8.83	-61.68	-52.85	28.08	-104.35	-23.42	-80.93	Peak
6	0.1274	11.92	-61.72	-49.80	25.50	-101.30	-26.00	-75.30	Peak

Note:

1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

Test Mode	Channel	Frequency Range	Verdict
BLE	HCH	150kHz~490kHz	PASS

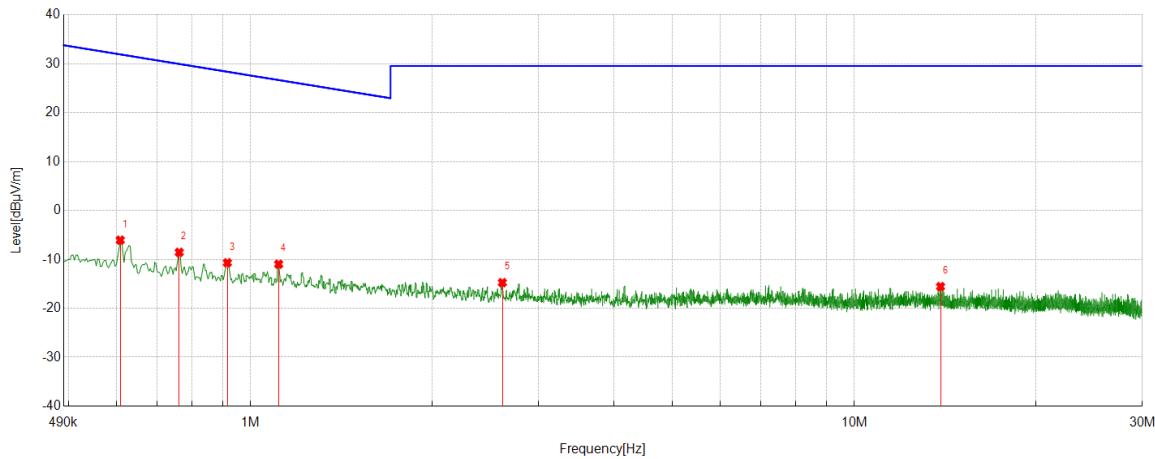


No.	Frequency	Reading Level	Correct Factor	FCC Result	FCC Limit	ISED Result	ISED Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dBuA/m]	[dBuA/m]	[dB]	
1	0.1514	26.92	-61.74	-34.82	24.00	-86.32	-27.50	-58.82	Peak
2	0.2096	22.74	-61.77	-39.03	21.17	-90.53	-30.33	-60.20	Peak
3	0.2806	19.97	-61.81	-41.84	18.64	-93.34	-32.86	-60.48	Peak
4	0.3040	23.67	-61.82	-38.15	17.94	-89.65	-33.56	-56.09	Peak
5	0.4184	18.62	-61.84	-43.22	15.01	-94.72	-36.49	-58.23	Peak
6	0.4578	21.07	-61.86	-40.79	13.91	-92.29	-37.59	-54.70	Peak

Note:

1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

Test Mode	Channel	Frequency Range	Verdict
BLE	HCH	490kHz~30MHz	PASS



No.	Frequency	Reading Level	Correct Factor	FCC Result	FCC Limit	ISED Result	ISED Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dBuA/m]	[dBuA/m]	[dB]	
1	0.6081	15.82	-21.89	-6.07	31.92	-57.57	-19.58	-37.99	Peak
2	0.7615	13.31	-21.87	-8.56	29.97	-60.06	-21.53	-38.53	Peak
3	0.9150	11.18	-21.87	-10.69	28.38	-62.19	-23.12	-39.07	Peak
4	1.1127	10.87	-21.86	-10.99	26.68	-62.49	-24.82	-37.67	Peak
5	2.6120	7.05	-21.81	-14.76	29.54	-66.26	-21.96	-44.30	Peak
6	13.8948	6.02	-21.58	-15.56	29.54	-67.06	-21.96	-45.10	Peak

Note:

1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

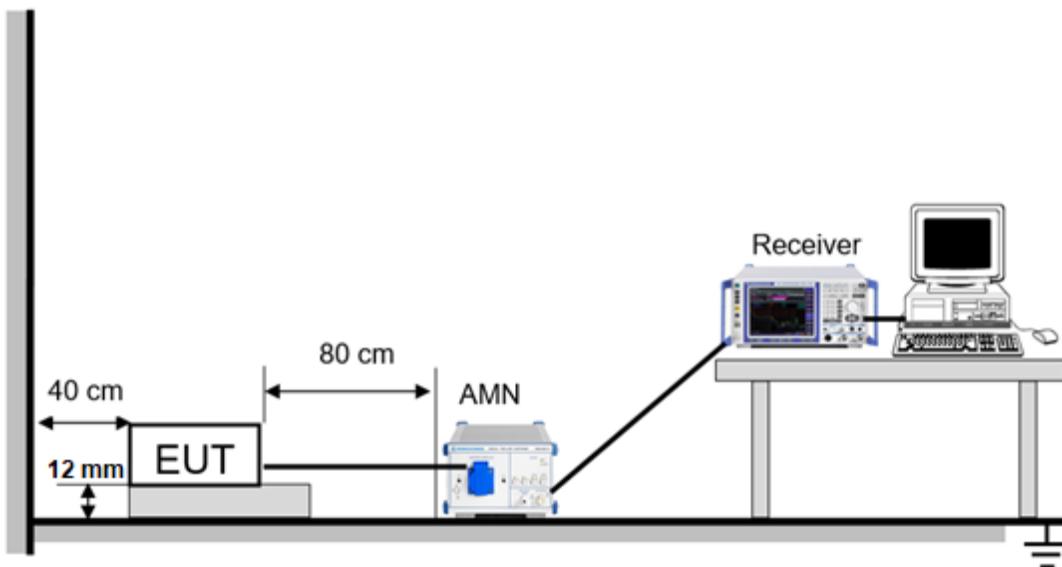
Please refer to FCC §15.207 (a)

FREQUENCY (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

TEST ENVIRONMENT

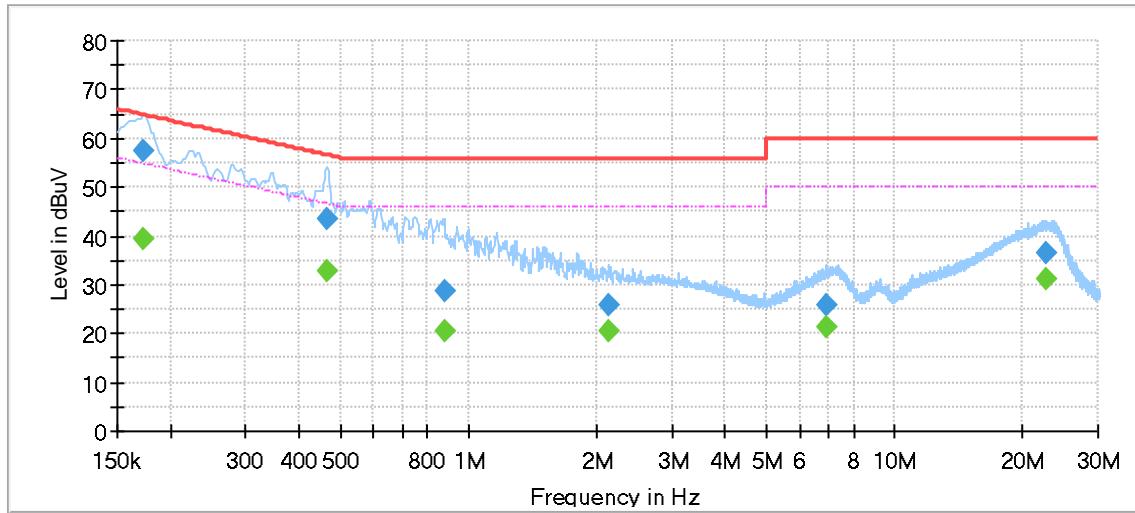
Temperature	22°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

TEST SETUP AND PROCEDURE



The EUT is put on a table of non-conducting material that is 12 mm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through an Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.

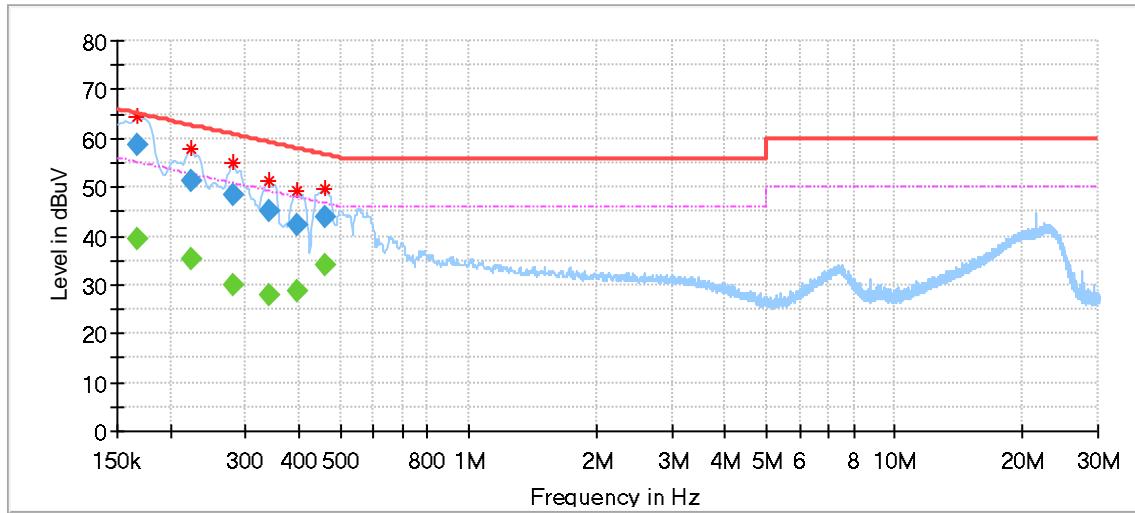
The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

LINE L RESULTS (WORST-CASE CONFIGURATION)

Final Result

Frequency [MHz]	QuasiPeak [dBμV]	Average [dBμV]	Limit [dBμV]	Margin [dB]	Meas. Time [ms]	Bandwidth [kHz]	Line	Filter	Corr. [dB]
0.172388	---	39.52	54.85	15.32	5000.0	9.000	L1	OFF	9.6
0.172388	57.33	---	64.85	7.51	5000.0	9.000	L1	OFF	9.6
0.465913	---	32.80	46.59	13.78	5000.0	9.000	L1	OFF	9.6
0.465913	43.64	---	56.59	12.95	5000.0	9.000	L1	OFF	9.6
0.878838	---	20.45	46.00	25.55	5000.0	9.000	L1	OFF	9.6
0.878838	28.65	---	56.00	27.35	5000.0	9.000	L1	OFF	9.6
2.132538	---	20.61	46.00	25.39	5000.0	9.000	L1	OFF	9.6
2.132538	25.83	---	56.00	30.17	5000.0	9.000	L1	OFF	9.6
6.881175	---	21.23	50.00	28.77	5000.0	9.000	L1	OFF	9.7
6.881175	25.99	---	60.00	34.01	5000.0	9.000	L1	OFF	9.7
22.564863	---	31.38	50.00	18.62	5000.0	9.000	L1	OFF	9.8
22.564863	36.55	---	60.00	23.45	5000.0	9.000	L1	OFF	9.8

Note:

1. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
3. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.
4. The extension cord/outlet strip was calibrated with the LISN as required by ANSI C63.10:2013 Clause 6.2.2.
5. Pre-testing all test modes and channels and find the HCH which is the worst case, so only the worst case is included in this test report.
6. Two types of power supply will be collocated to the EUT, one is a adapter, another is a dock, both of them have been test, the result of the adapter is the worse case and recorded in this test report.

LINE N RESULTS (WORST-CASE CONFIGURATION)

Final Result

Frequency [MHz]	QuasiPeak [dBµV]	Average [dBµV]	Limit [dBµV]	Margin [dB]	Meas. Time [ms]	Bandwidth [kHz]	Line	Filter	Corr. [dB]
0.167413	---	39.43	55.09	15.66	5000.0	9.000	N	OFF	9.5
0.167413	58.56	---	65.09	6.53	5000.0	9.000	N	OFF	9.5
0.224625	---	35.09	52.65	17.56	5000.0	9.000	N	OFF	9.5
0.224625	51.23	---	62.65	11.41	5000.0	9.000	N	OFF	9.5
0.281838	---	30.03	50.76	20.73	5000.0	9.000	N	OFF	9.6
0.281838	48.30	---	60.76	12.46	5000.0	9.000	N	OFF	9.6
0.339050	---	27.84	49.23	21.39	5000.0	9.000	N	OFF	9.6
0.339050	45.14	---	59.23	14.08	5000.0	9.000	N	OFF	9.6
0.396263	---	28.52	47.93	19.41	5000.0	9.000	N	OFF	9.6
0.396263	42.39	---	57.93	15.55	5000.0	9.000	N	OFF	9.6
0.460938	---	34.12	46.68	12.55	5000.0	9.000	N	OFF	9.6
0.460938	43.90	---	56.68	12.78	5000.0	9.000	N	OFF	9.6

Note:

1. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
3. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.
4. The extension cord/outlet strip was calibrated with the LISN as required by ANSI C63.10:2013 Clause 6.2.2.
5. Pre-testing all test modes and channels and find the HCH which is the worst case, so only the worst case is included in this test report.
6. Two types of power supply will be collocated to the EUT, one is a adapter, another is a dock, both of them have been test, the result of the adapter is the worse case and recorded in this test report.

10. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.247(b)(4)

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

ANTENNA GAIN

The antenna gain of EUT is less than 6 dBi

END OF REPORT