Testing Laboratory 3787

RADIO TEST REPORT

FCC ID	:	MSQ-RTBE7D00
Equipment	:	BE6800 Dual-band WiFi Router
Brand Name	:	ASUS
Model Name	:	RT-BE86U, RT-BE6800
Applicant	:	ASUSTeK COMPUTER INC. 1F., No. 15, Lide Rd., Beitou, Taipei City 112, Taiwan
Standard	:	47 CFR FCC Part 15.247

The product was received on Aug. 06, 2024, and testing was started from Aug. 12, 2024 and completed on Aug. 12, 2024. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory
No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)

Table of Contents

History of this test report

Report No.	Version	Description	Issued Date
FR3N2202-02AA	01	Initial issue of report	Sep. 10, 2024

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

Conformity Assessment Condition:
1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account. 2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".
Disclaimer:
The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sam Chen
Report Producer: Sandy Chuang

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20), VHT20, ax (HEW20), be (EHT20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), VHT40, ax (HEW40), be (EHT40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	3TX
2.4-2.4835GHz	802.11g	20	3TX
2.4-2.4835GHz	802.11n HT20	20	3TX
2.4-2.4835GHz	802.11n HT20-BF	20	3TX
2.4-2.4835GHz	VHT20	20	3TX
2.4-2.4835GHz	VHT20-BF	20	3TX
2.4-2.4835GHz	802.11ax HEW20	20	3TX
2.4-2.4835GHz	802.11ax HEW20-BF	20	3TX
2.4-2.4835GHz	802.11be EHT20	20	3TX
2.4-2.4835GHz	802.11be EHT20-BF	20	3TX
2.4-2.4835GHz	802.11n HT40	40	3TX
2.4-2.4835GHz	802.11n HT40-BF	40	3TX
2.4-2.4835GHz	VHT40	40	3TX
2.4-2.4835GHz	VHT40-BF	40	3TX
2.4-2.4835GHz	802.11ax HEW40	40	3TX
2.4-2.4835GHz	802.11ax HEW40-BF	40	3TX
2.4-2.4835GHz	802.11be EHT40	40	3TX
2.4-2.4835GHz	802.11be EHT40-BF	40	3TX

Note:
- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- HEW20, HEW40 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- EHT20, EHT40 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Set	Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1~3	WALSIN	RFDPA141500SBLB807	Dipole	Reversed-SMA	Note 1
	4	INPAQ	RFPCA302604IM5B301	PCB	I-PEX	
2	1~3	WHA YU	C660-510490-A	Dipole	Reversed-SMA	
	4	WHA YU	C660-510579-A	PCB	I-PEX	

Note 1:

Set	Ant.	Port		Gain (dBi)				
		WLAN 2.4GHz	WLAN 5GHz	WLAN 2.4GHz	WLAN 5GHz			
					UNII 1	UNII 2A	UNII 2C	UNII 3
1	1	1	4	1.97	1.88	1.88	1.94	1.78
	2	2	3	1.97	1.88	1.88	1.94	1.78
	3	3	2	1.97	1.88	1.88	1.94	1.78
	4	-	1	-	1.99	1.99	1.99	1.99
2	1	1	4	1.95	1.87	1.87	1.93	1.72
	2	2	3	1.95	1.87	1.87	1.93	1.72
	3	3	2	1.95	1.87	1.87	1.93	1.72
	4	-	1	-	1.97	1.97	1.97	1.97

Note 2: Because Set 1 and Set 2 are composed of the same types of antennas, Set 1 with higher gain was selected to test.
Note 3: The above information was declared by manufacturer.
Note 4: Directional gain information of antenna Set 1

Type	Maximum Output Power	Power Spectral Density
Non-BF	Directional gain = Max.gain + array gain. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for N ANT ≤ 4	$DirectionalGain = 10 \cdot \log\left[\frac{\sum_{j=1}^{N_{SS}}\left\{\sum_{k=1}^{N_{ANT}} g_{j,k}\right\}^2}{N_{ANT}}\right]$
BF	$DirectionalGain = 10 \cdot \log\left[\frac{\sum_{j=1}^{N_{SS}}\left\{\sum_{k=1}^{N_{ANT}} g_{j,k}\right\}^2}{N_{ANT}}\right]$	$DirectionalGain = 10 \cdot \log\left[\frac{\sum_{j=1}^{N_{SS}}\left\{\sum_{k=1}^{N_{ANT}} g_{j,k}\right\}^2}{N_{ANT}}\right]$

Ex.

Directional Gain (NSS1) formula : $Directiona\,lGain = 10 \cdot \log\left[\frac{\sum_{j=1}^{N_{SS}}\left\{\sum_{k=1}^{N_{ANT}} g_{j,k}\right\}^2}{N_{ANT}}\right]$

NSS1(g1,1) = $10^{G1/20}$; NSS1(g1,2)= $10^{G2/20}$; NSS1(g1,2)= $10^{G3/20}$; NSS1(g1,2)= $10^{G4/20}$

gj,k =$(Nss1(g1,1) + Nss1(g1,2) + Nss1(g1,3) + Nss1(g1,4))^2$

DG = 10 log$[(Nss1(g1,1) + Nss1(g1,2) + Nss1(g1,3) + Nss1(g1,4))^2 / N_{ANT}]$ => 10 log$[(10^{G1/20} + 10^{G2/20} + 10^{G3/20} + 10^{G4/20})^2 / N_{ANT}]$

Where;

2.4G G1= 1.97 dBi ;G2= 1.97 dBi ;G3= 1.97 dBi
5G UNII-1 G1 = 1.99 dBi; G2 = 1.88 dBi;G3 = 1.88 dBi; G4 = 1.88 dBi
5G UNII-2A G1= 1.99 dBi; G2 = 1.88 dBi;G3 = 1.88 dBi; G4 = 1.88 dBi
5G UNII-2C G1 = 1.99 dBi; G2 = 1.94 dBi;G3 = 1.94 dBi; G4 = 1.94 dBi
5G UNII-3 G1 = 1.99 dBi; G2 = 1.78 dBi;G3 = 1.78 dBi; G4 = 1.78 dBi

3T1S
2.4G DG = 6.74 dBi
3T2S
2.4G DG=3.73 dBi

The 5GHz bands support four antennas, there are three antennas that are vertical polarization, and the other antenna is horizontal polarization. Thus, the cross-polarized array gain was calculated to 10log(3).

4T1S
5G UNII-1 DG = 6.65 dBi
5G UNII-2A DG = 6.65 dBi
5G UNII-2C DG = 6.71 dB
5G UNII-3 DG = 6.55 dBi
4T2S
5G UNII-1 DG = 3.64 dBi
5G UNII-3 DG = 3.54 dBi

Note 5: **For 2.4GHz function:**
For IEEE 802.11 b/g/n/VHT/ax/be (3TX/3RX):
Port 1~3 can be used as transmitting/receiving antenna.
Port 1~3 could transmit/receive simultaneously.
For 5GHz function:
For IEEE 802.11a/n/ac/ax/be (4TX/4RX):
Port 1~4 can be used as transmitting/receiving antenna.
Port 1~4 could transmit/receive simultaneously.

1.1.3 EUT Operational Condition

EUT Power Type	From power adapter			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	The product has beamforming function for n/VHT/ax/be in 2.4GHz and n/ac/ax/be in 5GHz.			
Function	☒	Point-to-multipoint	☐	Point-to-point
Support RU	☒	Full RU	☐	Partial RU

Note: The above information was declared by manufacturer.

1.1.4 Table for Multiple Listing

Model Name	Description
RT-BE86U	All the models are identical; the different model names served as a strategy for marketing.
RT-BE6800	

Note 1: From the above models, model: RT-BE86U was selected as representative model for the test and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

1.1.5 Table for EUT support Function

Function	Support Type
AP Router	Master
Bridge	Client without radar detection
Repeater	Master
Mesh	Master

Note 1: The AP Router (Master) mode was tested and recorded in this test report.

Note 2: The USB ports of the EUT support storage function and WWAN function. During the operation of WWAN function, the 10G WAN/LAN port will fix to WAN function.

Note 3: The above information was declared by manufacturer.

1.1.6 Table for Component Source

Source	5G RF chip (location: UF1)	
	Brand Name	Model Name
Main source	BROADCOM	BCM6726
Second source	BROADCOM	BCM67263
Note: The chipset BCM6726 and BCM67263 products use the same silicon die. The RF SoC design is the same for both chipsets.		

Note: The above information was declared by manufacturer.

1.1.7 Table for EUT Information

5G RF chip (location: UF1)	
EUT	Source
1	Main source
2	Second source

Note: The above information was declared by manufacturer.

1.1.8 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR3N2202-01AA.

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
Adding the EUT 2. (Please refer to section 1.1.6 & 1.1.7 for detail information).	Emissions in Restricted Frequency Bands below 1GHz

1.2 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

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

The following reference test guidance is not within the scope of accreditation of TAF.

- FCC KDB 558074 D01 v05r02
- FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location Information	
Test Lab.：Sporton International Inc. Hsinchu Laboratory	
Hsinchu	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)
(TAF: 3787)	TEL: 886-3-656-9065 FAX: 886-3-656-9085
	Test site Designation No. TW3787 with FCC.
	Conformity Assessment Body Identifier (CABID) TW3787 with ISED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
Radiated < 1GHz	03CH06-CB	Alex Kuo	21.9-22.4 / 55-58	Aug. 12, 2024

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Test Items	Uncertainty	Remark
Radiated Emission (9kHz ~ 30MHz)	4.1 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.2 dB	Confidence levels of 95%

2 Test Configuration of EUT

2.1 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
	According to the original test report, “EUT in Y axis + Adapter 2 + Power cable 1_WLAN 2.4GHz” has been evaluated to be the worst case, so the measurement will follow this same test configuration
1	EUT 2 in Y axis + Adapter 2 + Power cable 1_WLAN 2.4GHz

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz
2	WLAN 2.4GHz + WLAN 5GHz + WWAN
Refer to Sporton Test Report No.: FA3N2202-02 for Co-location RF Exposure Evaluation.	

2.2 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.3 Accessories

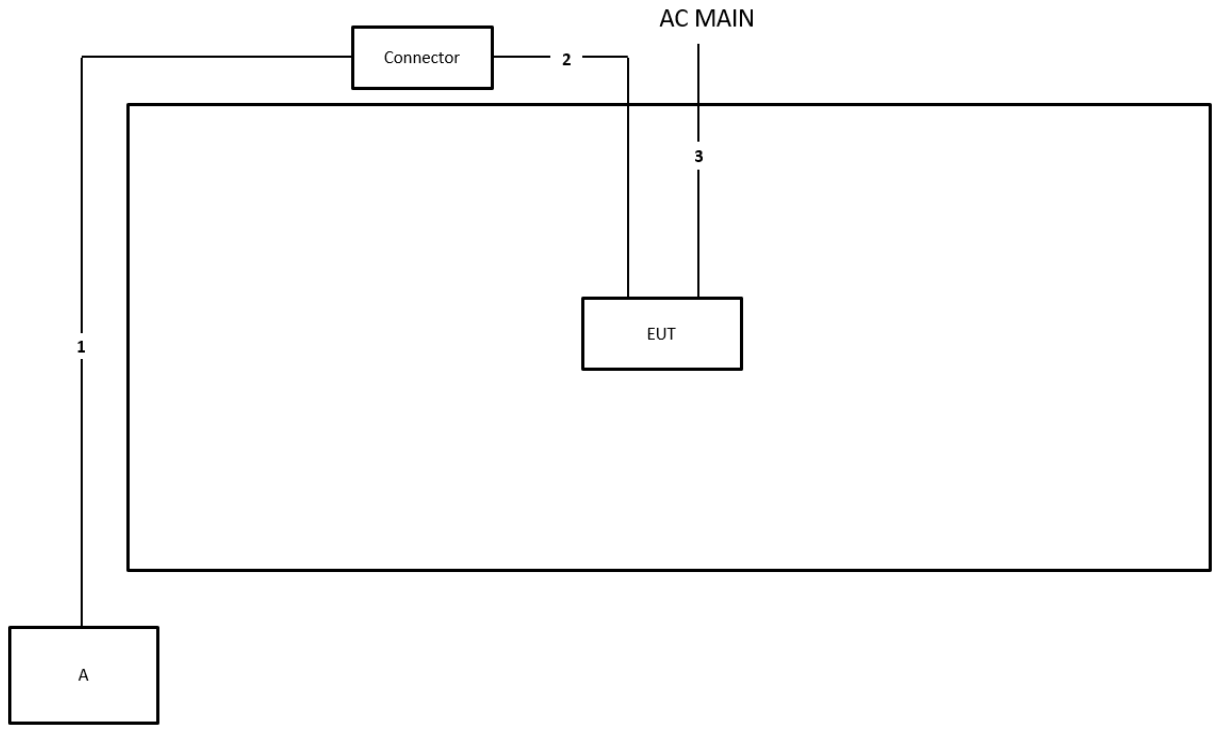
Accessories				
Power	**Brand**	**Model**	**Rating**	**Remark**
Adapter 1	LEI	MU60B3120500-A1	Input: 100-240V~50/60Hz, 1.5A Output: 12.0V, 5.0A	-
Adapter 2	AcBel	ADH011	Input: 100-240V, 1.4A, 50-60Hz Output: 19.5V, 2.31A, 45.0W MAX.	DC power cable: Non-shielded, 1.8m
Adapter 3	AcBel	ADK008	Input: 100-240V, 1.4A, 50-60Hz Output: 19.5V, 2.31A, 45.0W MAX.	DC power cable: Non-shielded, 1.8m
Others				
Power cable 1 (For Adapter 2 use only)*1: Non-shielded, 0.8m				
Power cable 2 (For Adapter 3 use only)*1: Non-shielded, 0.8m				
RJ-45 cable*1: Shielded, 1.5m				

2.4 Support Equipment

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A

2.5 Test Setup Diagram

Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	RJ-45 cable	Yes	10m
2	RJ-45 cable	Yes	1.5m
3	Power cable	No	2.6m

3 Transmitter Test Result

3.1 Emissions in Restricted Frequency Bands

3.1.1 Emissions in Restricted Frequency Bands Limit

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: Test distance for frequencies at or above 30 MHz, 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).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more 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). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

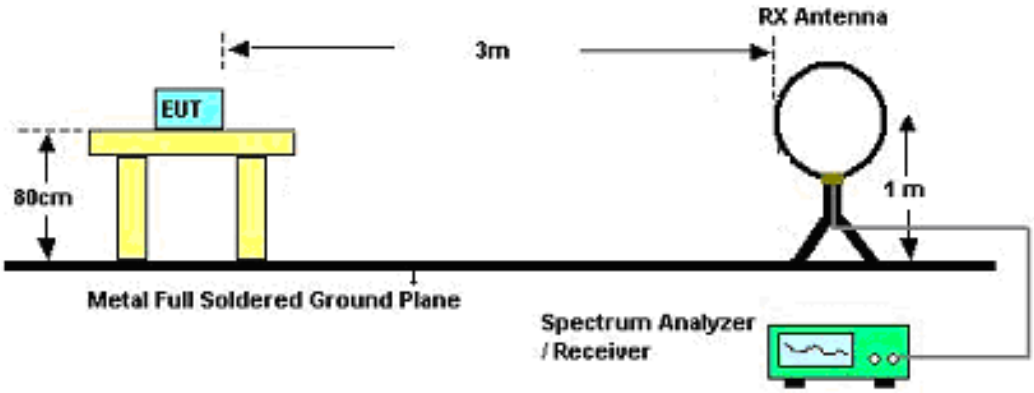
3.1.3 Test Procedures

Test Method			
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].			
▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.			
▪ For the transmitter unwanted emissions shall be measured using following options below:			
	▪ Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.		
		☐	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle ≥98%).
		☐	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
		☒	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW≥1/T).
		☐	Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐	Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
		☒	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
▪ For the transmitter band-edge emissions shall be measured using following options below:			
	▪ Refer as FCC KDB 558074 clause 8.7 & C63.10 clause 11.13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.		
	▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.		
	▪ Refer as FCC KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).		
	▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB		
	▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.		

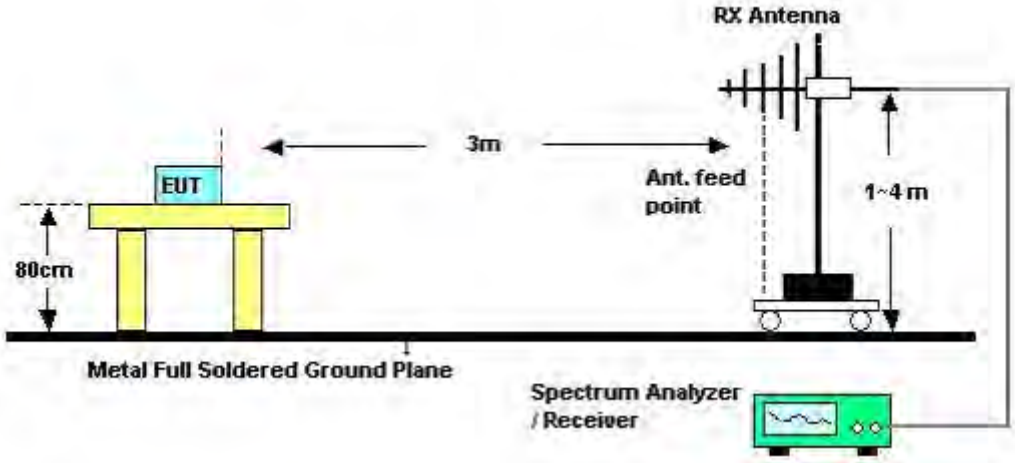
3.1.4 Test Setup

Radiated - Emissions in Restricted Frequency Bands

9kHz ~30MHz



30MHz~1GHz



3.1.5 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

3.1.6 Emissions in Restricted Frequency Bands (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.
The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10th harmonic or 40 GHz, whichever is appropriate.

3.1.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix A

4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Loop Antenna	Teseq	HLA 6121	65417	9kHz - 30 MHz	Oct. 13, 2023	Oct. 12, 2024	Radiation (03CH06-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH06-CB	30 MHz ~ 1 GHz	Aug. 02, 2024	Aug. 01, 2025	Radiation (03CH06-CB)
Bilog Antenna with 6 dB attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37878 & AT-N0606	20MHz ~ 2GHz	Jul. 29, 2024	Jul. 28, 2025	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	310N	187290	0.1MHz ~ 1GHz	Nov. 03, 2023	Nov. 02, 2024	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz ~ 26.5GHz	Jul. 31, 2024	Jul. 30, 2025	Radiation (03CH06-CB)
Signal Analyzer	R&S	FSV40	101904	9kHz ~ 40GHz	Apr. 26, 2024	Apr. 25, 2025	Radiation (03CH06-CB)
EMI Test Receiver	R&S	ESR7	102172	9kHz ~ 7GHz	Oct. 20, 2023	Oct. 19, 2024	Radiation (03CH06-CB)
RF Cable-low	Woken	RG402	Low Cable-24+68	30MHz~1GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE-EMI	V5.11	30MHz-40GHz	N.C.R.	N.C.R.	Radiation (03CH06-CB)

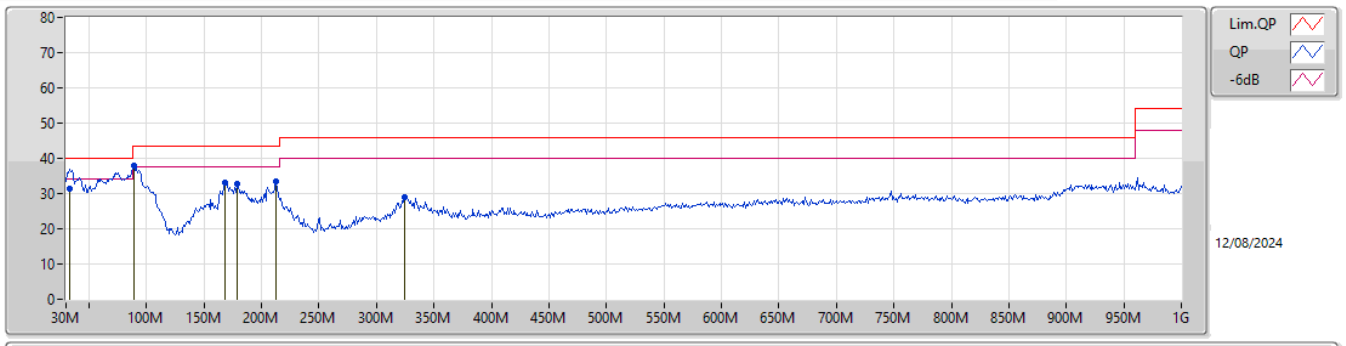
Note: Calibration Interval of instruments listed above is one year.

NCR means Non-Calibration required.

Summary

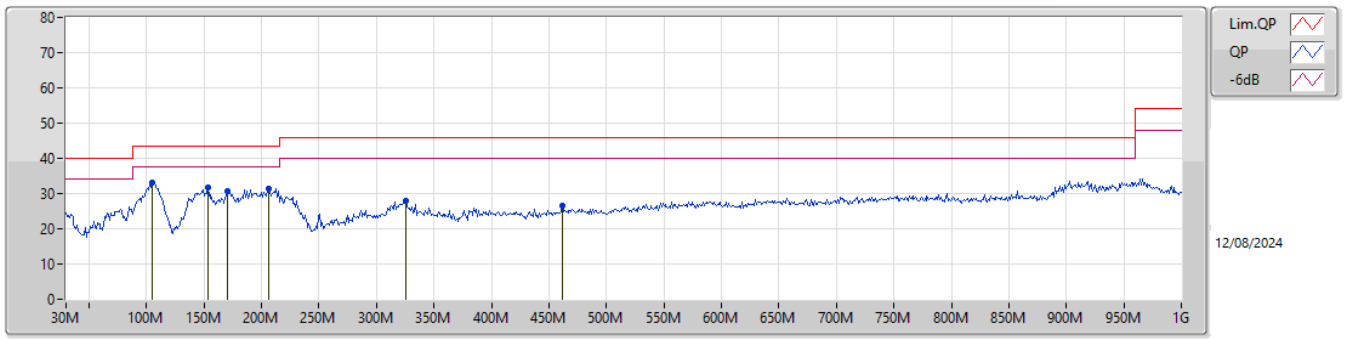
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	PK	89.17M	38.06	43.50	-5.44	Vertical

Mode 1



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV)	(dB/m)	(dB)	(dB)
QP	32.91M	31.22	40.00	-8.78	-8.56	3	Vertical	91	1.00	-	39.78	22.68	1.17	32.41
PK	89.17M	38.06	43.50	-5.44	-16.18	3	Vertical	42	1.25	"Worst"	54.24	14.58	1.62	32.38
PK	168.71M	33.17	43.50	-10.33	-14.72	3	Vertical	166	1.00	-	47.89	15.57	2.03	32.32
PK	178.41M	32.90	43.50	-10.60	-15.15	3	Vertical	317	1.00	-	48.05	15.16	2.08	32.39
PK	212.36M	33.53	43.50	-9.97	-15.17	3	Vertical	199	1.25	-	48.70	14.85	2.24	32.26
PK	324.88M	28.94	46.00	-17.06	-9.71	3	Vertical	226	2.00	-	38.65	19.50	2.69	31.90

Mode 1



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV)	(dB/m)	(dB)	(dB)
PK	104.69M	33.10	43.50	-10.40	-13.62	3	Horizontal	88	3.00	"Worst"	46.72	17.02	1.70	32.34
PK	153.19M	31.83	43.50	-11.67	-14.09	3	Horizontal	245	2.00	-	45.92	16.22	1.95	32.26
PK	170.65M	30.76	43.50	-12.74	-14.76	3	Horizontal	277	1.50	-	45.52	15.53	2.04	32.33
PK	206.54M	31.41	43.50	-12.09	-14.81	3	Horizontal	227	1.25	-	46.22	15.21	2.22	32.24
PK	325.85M	28.07	46.00	-17.93	-9.69	3	Horizontal	62	1.00	-	37.76	19.51	2.69	31.89
PK	461.65M	26.66	46.00	-19.34	-6.16	3	Horizontal	93	2.00	-	32.82	22.76	3.14	32.06