

# EMI TEST REPORT

## Test Report No. 15790276H-R2

Customer	Sage Co., Ltd.
Description of EUT	Telematics Control Unit
Model Number of EUT	8B100-45T-A
FCC ID	VRB8B100-45T-A
Test Regulation	FCC Part 15 Subpart B, Class B
Test Result	Complied
Issue Date	June 3, 2025
Remarks	-

Representative test engineer

Ken Fujita  
Engineer

Approved by

Satofumi Matsuyama  
Engineer

CERTIFICATE 5107.02

- The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan, Inc.  
 There is no testing item of "Non-accreditation".

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## **REVISION HISTORY**

Revision	Test Report No.	Date	Page Revised Contents
- (Original)	15790276H	May 26, 2025	-
1	15790276H-R1	June 3, 2025	<b><u>2.2 Product Description</u></b> -Corrected Radio Specification <b><u>5.4 Test procedure</u></b> -Deleted note for Distance Factor <b><u>Figure 1: Test Setup</u></b> -Corrected figure for 1 GHz to 13.5 GHz
2	15790276H-R2	June 3, 2025	<b><u>3.3 Summary of Test Results</u></b> -Corrected Result of Conducted emission: Complied -> N/A

## Reference: Abbreviations (Including words undescribed in this report)

A2LA	The American Association for Laboratory Accreditation	Hori.	Horizontal
AAN	Asymmetric Artificial Network	ICES	Interference-Causing Equipment Standard
AC	Alternating Current	I/O	Input/Output
AE	Auxiliary equipment	IEC	International Electrotechnical Commission
AM	Amplitude Modulation	IEEE	Institute of Electrical and Electronics Engineers
AMN	Artificial Mains Network	IF	Intermediate Frequency
Amp, AMP	Amplifier	ILAC	International Laboratory Accreditation Conference
ANSI	American National Standards Institute	ISED	Innovation, Science and Economic Development Canada
Ant, ANT	Antenna	ISN	Impedance Stabilization Network
AP	Access Point	ISO	International Organization for Standardization
ASK	Amplitude Shift Keying	JAB	Japan Accreditation Board
Atten., ATT	Attenuator	LAN	Local Area Network
AV	Average	LCL	Longitudinal Conversion Loss
BPSK	Binary Phase-Shift Keying	LIMS	Laboratory Information Management System
BR	Bluetooth Basic Rate	LISN	Line Impedance Stabilization Network
BT	Bluetooth	MRA	Mutual Recognition Arrangement
BT LE	Bluetooth Low Energy	N/A	Not Applicable
BW	BandWidth	NIST	National Institute of Standards and Technology
C.F	Correction Factor	NS	No signal detect.
Cal Int	Calibration Interval	NSA	Normalized Site Attenuation
CAV	CISPR AV	OBW	Occupied BandWidth
CCK	Complementary Code Keying	OFDM	Orthogonal Frequency Division Multiplexing
CDN	Coupling Decoupling Network	PER	Packet Error Rate
Ch., CH	Channel	PK	Peak
CISPR	Comite International Special des Perturbations Radioelectriques	P <sub>LT</sub>	long-term flicker severity
Corr.	Correction	POHC(A)	Partial Odd Harmonic Current
CPE	Customer premise equipment	Pol., Pola.	Polarization
CW	Continuous Wave	PR-ASK	Phase Reversal ASK
DBPSK	Differential BPSK	P <sub>ST</sub>	short-term flicker severity
DC	Direct Current	QAM	Quadrature Amplitude Modulation
DET	Detector	QP	Quasi-Peak
D-factor, D.fac.	Distance factor	QPSK	Quadrature Phase Shift Keying
Dmax	maximum absolute voltage change during an observation period	r.m.s., RMS	Root Mean Square
DQPSK	Differential QPSK	RBW	Resolution BandWidth
DSSS	Direct Sequence Spread Spectrum	RE	Radio Equipment
DUT	Device Under Test	REV	Reverse
EDR	Enhanced Data Rate	RF	Radio Frequency
e.i.r.p., EIRP	Equivalent Isotropically Radiated Power	RFID	Radio Frequency Identifier
EM clamp	Electromagnetic clamp	RNSS	Radio Navigation Satellite Service
EMC	ElectroMagnetic Compatibility	RSS	Radio Standards Specifications
EMI	ElectroMagnetic Interference	Rx	Receiving
EMS	ElectroMagnetic Susceptibility	S.fac.	Site factor
EN	European Norm	SINAD	Ratio of (Signal + Noise + Distortion) to (Noise + Distortion)
e.r.p., ERP	Effective Radiated Power	S/N	Signal to Noise ratio
ETSI	European Telecommunications Standards Institute	SA, S/A	Spectrum Analyzer
EU	European Union	SABS	South African Bureau of Standards
EUT	Equipment Under Test	SANS	South African National Standards
Fac.	Factor	SG	Signal Generator
FCC	Federal Communications Commission	SVSWR	Site-Voltage Standing Wave Ratio
FHSS	Frequency Hopping Spread Spectrum	THC(A)	Total Harmonic Current
FM	Frequency Modulation	THD(%)	Total Harmonic Distortion
Freq.	Frequency	TR, T/R	Test Receiver
FSK	Frequency Shift Keying	Tx	Transmitting
Fund	Fundamental	UFA	Uniform field area
FWD	Forward	VBW	Video BandWidth
GFSK	Gaussian Frequency-Shift Keying	Vert.	Vertical
GNSS	Global Navigation Satellite System	WLAN	Wireless LAN
GPS	Global Positioning System	xDSL	Generic term for all types of DSL technology (DSL: Digital Subscriber Line)

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## **SECTION 1: Customer information**

Company Name	Sage Co., Ltd.
Address	2F, KY Bldg. 2-24, Sumiyoshi-cho, Naka-ku, Yokohama, Kanagawa, 231-0013 JAPAN
Telephone Number	+81-45-650-6840
Contact Person	Taiki Urasaki

The information provided by the customer is as follows;

- Customer, Description of EUT, Model Number of EUT, FCC ID on the cover and other relevant pages
- Operating/Test Mode(s) (Mode(s)) on all the relevant pages
- SECTION 1: Customer Information
- SECTION 2: Equipment Under Test (EUT) other than the Receipt Date and Test Date
- SECTION 4: Operation of EUT during testing

## **SECTION 2: Equipment under test (EUT)**

### **2.1 Identification of EUT**

Description	Telematics Control Unit
Model Number	8B100-45T-A
Serial Number	Refer to SECTION 4.2
Condition	Production prototype (Not for Sale: This sample is equivalent to mass-produced items.)
Modification	No Modification by the test lab
Receipt Date	April 4, 2025
Test Date	May 9, 2025

### **2.2 Product Description**

#### **General Specification**

Rating	DC 12 V
Clock frequency (ies) in the system	180 MHz

#### **Radio Specification**

##### **LTE**

Equipment Type	Transceiver	
Frequency of Operation	[Up Link] Band 2: 1850 MHz to 1910 MHz Band 4: 1710 MHz to 1755 MHz Band 5: 824 MHz to 849 MHz Band 12: 699 MHz to 716 MHz Band 26: 814 MHz to 849 MHz	[Down Link] Band 2: 1930 MHz to 1990 MHz Band 4: 2110 MHz to 2155 MHz Band 5: 869 MHz to 894 MHz Band 12: 729 MHz to 746 MHz Band 26: 859 MHz to 894 MHz
Type of Modulation	QPSK, 16QAM 64QAM (DL Only)	

## **SECTION 3: Test Summary**

### **3.1 Test Specification**

Test Specification	FCC Part 15 Subpart B The latest version on the first day of the testing period
Title	FCC 47CFR Part15 Radio Frequency Device Subpart B Unintentional Radiators

### **3.2 Reference Standards**

ANSI/USEMCSC C63.2-2023

ANSI C63.4-2014+C63.4a-2017

ANSI C63.5-2017

ANSI C63.25.1-2018

### **3.3 Summary of Test Results**

Item	Limits	Result	Remarks
Conducted emission	<b>FCC:</b> Part 15 Subpart B 15.107(a) <b>ISED:</b> RSS-Gen 7.2	N/A	*1)
Radiated emission	<b>FCC:</b> Part 15 Subpart B 15.109(a) <b>ISED:</b> RSS-Gen 7.3	Complied	-

\* Note: UL Japan, Inc.'s EMI Work Procedure: Work Instructions-ULID-003591.

\*1) The test is not applicable since the EUT is not the device that is designed to be connected to the public utility (AC) power line.

### **3.4 Addition to standard**

No addition, exclusion nor deviation has been made from the standard.

### **3.5 Uncertainty**

Measurement uncertainty is not taken into account when stating conformity with a specified requirement.

Note: When margins obtained from test results are less than the measurement uncertainty, the test results may exceed the limit.

The following uncertainties have been calculated to provide a confidence level of 95 % using a coverage factor  $k = 2$ .

#### **Radiated emission**

Measurement distance	Frequency range	Unit	Calculated Uncertainty (+/-)
3 m	9 kHz to 30 MHz	dB	3.3
10 m		dB	3.1
3 m	30 MHz to 200 MHz	Horizontal	5.0
		Vertical	5.0
	200 MHz to 1000 MHz	Horizontal	5.2
		Vertical	6.2
10 m	30 MHz to 200 MHz	Horizontal	5.5
		Vertical	5.4
	200 MHz to 1000 MHz	Horizontal	5.5
		Vertical	5.5
3 m	1 GHz to 6 GHz	dB	5.1
	6 GHz to 18 GHz	dB	5.4
1 m	10 GHz to 18 GHz	dB	5.4
	18 GHz to 26.5 GHz	dB	5.3
	26.5 GHz to 40 GHz	dB	4.8
0.5 m	26.5 GHz to 40 GHz	dB	5.0

### 3.6 Test Location

UL Japan, Inc. Ise EMC Lab.  
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 Japan  
Telephone: +81-596-24-8999

A2LA Certificate Number: 5107.02 / FCC Test Firm Registration Number: 884919

ISED Lab Company Number: 2973C / CAB identifier: JP0002

Test site	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Other rooms	Maximum measurement distance
No.1 semi-anechoic chamber (SAC1)	19.2 x 11.2 x 7.7	7.0 x 6.0	No.1 Power source room	10 m
No.2 semi-anechoic chamber (SAC2)	7.5 x 5.8 x 5.2	4.0 x 4.0	-	3 m
No.3 semi-anechoic chamber (SAC3)	12.0 x 8.5 x 5.9	6.8 x 5.75	No.3 Preparation room (PR3)	3 m
No.3 shielded room (SR3)	4.0 x 6.0 x 2.7	N/A	-	-
No.4 semi-anechoic chamber (SAC4)	12.0 x 8.5 x 5.9	6.8 x 5.75	No.4 Preparation room (PR4)	3 m
No.4 shielded room (SR4)	4.0 x 6.0 x 2.7	N/A	-	-
No.5 semi-anechoic chamber (SAC5)	6.0 x 6.0 x 3.9	6.0 x 6.0	-	-
No.5 measurement room (MR5)	6.4 x 6.4 x 3.0	6.4 x 6.4	-	-
No.6 shielded room (SR6)	4.0 x 4.5 x 2.7	4.0 x 4.5	-	-
No.6 measurement room (MR6)	4.75 x 5.4 x 3.0	4.75 x 4.15	-	-
No.7 shielded room (SR7)	4.7 x 7.5 x 2.7	4.7 x 7.5	-	-
No.8 measurement room (MR8)	3.1 x 5.0 x 2.7	3.1 x 5.0	-	-
No.9 measurement room (MR9)	8.8 x 4.6 x 2.8	2.4 x 2.4	-	-
No.10 shielded room (SR10)	3.8 x 2.8 x 2.8	3.8 x 2.8	-	-
No.11 measurement room (MR11)	4.0 x 3.4 x 2.5	N/A	-	-
No.12 measurement room (MR12)	2.6 x 3.4 x 2.5	N/A	-	-
Large Chamber	16.9 x 22.1 x 10.17	16.9 x 22.1	-	10 m
Small Chamber	5.3 x 6.69 x 3.59	5.3 x 6.69	-	-

### 3.7 Test data, Test instruments, and Test set up

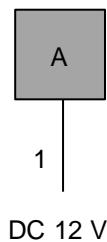
Refer to APPENDIX.

## **SECTION 4: Operation of EUT during testing**

### **4.1 Operating Mode(s)**

Mode	1. LTE Band 2 Communication mode 2. LTE Band 5 Communication mode
Remarks	LTE communications were conducted on a Band 2 and 5 as representative.
Software(s)	B 00.01.00

### **4.2 Configuration and peripherals**



\* Cabling and setup(s) were taken into consideration and test data was taken under worse case conditions.

#### **Description of EUT**

No.	Item	Model number	Serial Number	Manufacturer	Remarks
A	Telematics Control Unit	8B100-45T-A	1T24C00048	Sage Co., Ltd.	EUT

#### **List of Cables Used**

No.	Name	Length (m)	Shield		Remarks
			Cable	Connector	
1	DC Cable	2.0	Unshielded	Unshielded	-

## **SECTION 5: Radiated Emission**

### **5.1 Operating environment**

Date	Test site	Temperature	Humidity	Engineer	Mode
See data	See data	See data	See data	See data	See data

### **5.2 Test configuration**

EUT was placed on the platform of nominal size, 1.0 m by 1.5 m, raised 0.8 m above the conducting ground plane.

The EUT was set on the edge of the platform.

Test was made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna was varied in height above the conducting ground plane to obtain the maximum signal strength.

Photographs of the set up are shown in APPENDIX.

### **5.3 Test conditions**

Frequency range	:	30 MHz to 200 MHz (Biconical antenna)
		200 MHz to 1000 MHz (Logperiodic antenna)
		1000 MHz to 13500 MHz (Horn antenna)
Test distance	:	See Figure 1
EUT position	:	Table top
EUT operation mode	:	See Clause 4.1

### **5.4 Test procedure**

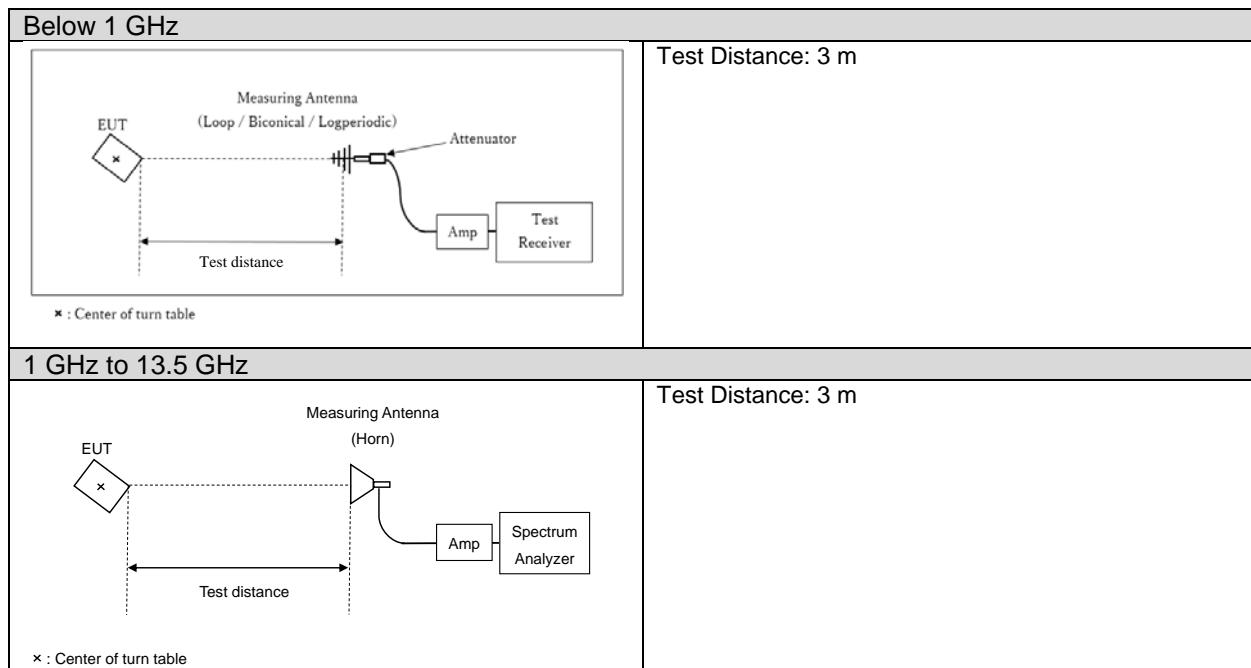
The height of the measuring antenna varied between 1 and 4 m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.

The measurements were performed for both vertical and horizontal antenna polarization with the Test Receiver

The radiated emission measurements were made with the following detector function of the Test Receiver  
Test antenna was aimed at the emission source for receiving the maximum signal and always kept. (Above 1 GHz)

Frequency	Below 1 GHz	Above 1 GHz
Instrument used	Test Receiver	Test Receiver
IF Bandwidth	QP: BW 120 kHz	PK: BW 1 MHz, CAV: BW 1 MHz

**Figure 1: Test Setup**



- The carrier level and noise levels were confirmed at each position of X, Y and Z axes of EUT to see the position of maximum noise, and the test was made at the position that has the maximum noise.

## 5.5 Test result

Summary of the test results: Pass

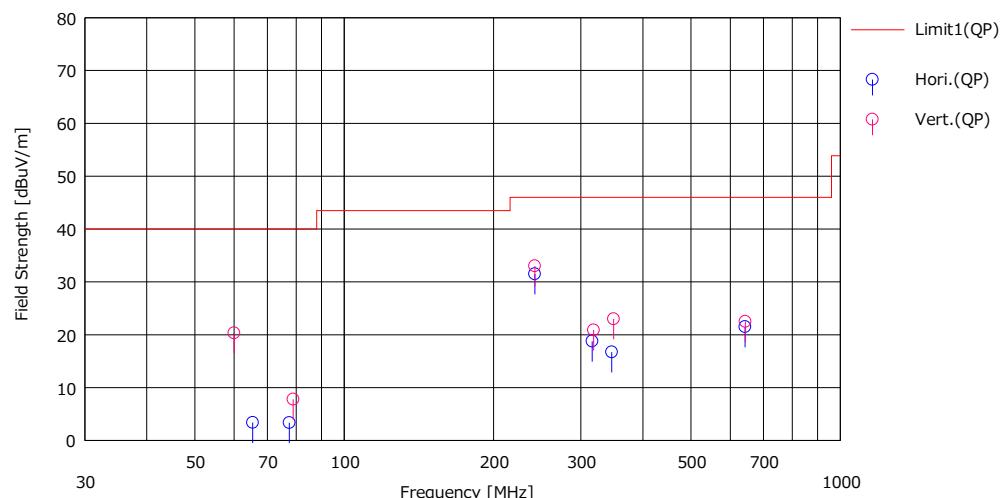
Test results are rounded off and limit are rounded down, so some differences might be observed.

## APPENDIX 1: Test data

### Radiated Emission

Mode	1				
Date	Test site	Temperature	Humidity	Engineer	Measurement Range
May 9, 2025	SAC4	21 deg. C	52 % RH	Ken Fujita	Below 1 GHz

Limit : FCC\_Part 15 Subpart B(15.109)\_Class B



No.	Freq. [MHz]	Reading (QP)		Ant.Fac	Loss [dB]	Gain [dB]	Result (QP)		Limit (QP)	Margin (QP)	Pda [dB]	Height [H/V]	Angle [cm]	Ant. Type	Comment
		Reading [dBuV]	Ant.Fac [dB/m]				Result [dBuV/m]	Limit [dBuV/m]							
1	65.409	28.30	6.72	7.30	38.94	3.38	40.00	36.62	Hori.	400	239	BA			
2	77.524	28.20	6.66	7.44	38.95	3.35	40.00	36.65	Hori.	400	64	BA			
3	242.161	49.70	11.82	8.90	38.91	31.51	46.00	14.49	Hori.	100	310	LA23			
4	316.076	33.80	14.16	9.56	38.75	18.77	46.00	27.23	Hori.	100	2	LA23			
5	346.166	30.60	15.10	9.71	38.69	16.72	46.00	29.28	Hori.	100	74	LA23			
6	642.477	29.20	19.40	11.20	38.29	21.51	46.00	24.49	Hori.	100	277	LA23			
7	60.004	44.20	7.82	7.24	38.94	20.32	40.00	19.68	Vert.	100	201	BA			
8	78.919	32.50	6.78	7.44	38.95	7.79	40.00	32.21	Vert.	100	10	BA			
9	242.189	51.20	11.82	8.90	38.91	33.01	46.00	12.99	Vert.	100	154	LA23			
10	318.102	35.80	14.25	9.57	38.74	20.88	46.00	25.12	Vert.	100	348	LA23			
11	349.225	36.80	15.15	9.73	38.68	23.00	46.00	23.00	Vert.	100	187	LA23			
12	643.278	30.20	19.40	11.20	38.29	22.51	46.00	23.49	Vert.	100	334	LA23			

#### CHART: WITH FACTOR

ANT TYPE: - 30 MHz: LOOP, 30 MHz - 200 MHz: BICONICAL, 200 MHz - 1000 MHz: LOGPERIODIC, 1000 MHz -: HORN  
CALCULATION: RESULT = READING + ANT FACTOR + LOSS(CABLE + ATT) - GAIN(AMP)

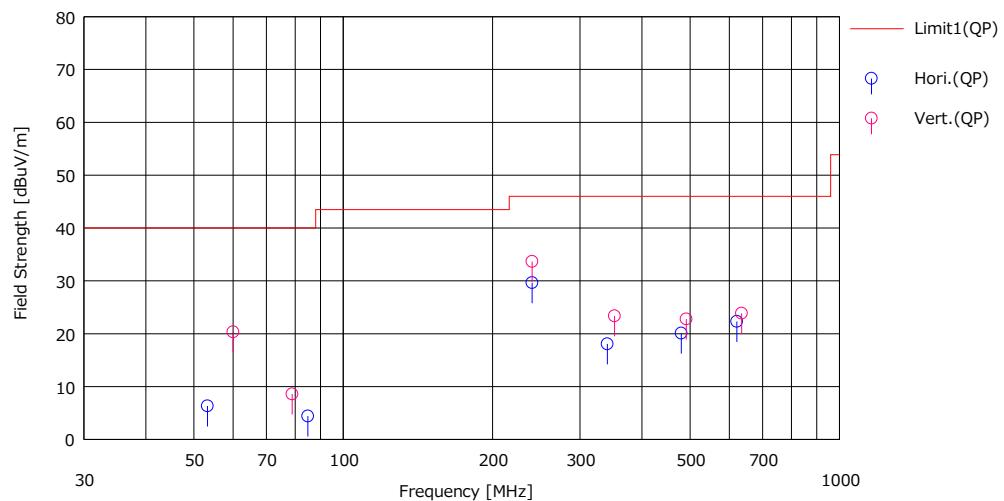
Except for the above table: adequate margin data below the limits.

## Radiated Emission

Mode	2
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Date	Test site	Temperature	Humidity	Engineer	Measurement Range
May 9, 2025	SAC4	21 deg. C	52 % RH	Ken Fujita	Below 1 GHz

Limit : FCC\_Part 15 Subpart B(15.109)\_Class B



No.	Freq. [MHz]	Reading (QP)		Ant.Foc [dB/m]	Loss [dB]	Gain [dB]	Result (QP)	Limit (QP)	Margin (QP)	Pda [dB]	Height [H/V]	Angle [deg]	Ant. Type	Comment
		Reading [dBuV]	Ant.Foc [dB/m]											
1	53.272	28.10	10.00	7.15	38.93	6.32	40.00	33.68	Hori.	400	206	BA		
2	84.880	28.20	7.64	7.52	38.96	4.40	40.00	35.60	Hori.	400	32	BA		
3	240.298	47.90	11.77	8.89	38.91	29.65	46.00	16.35	Hori.	100	72	LA23		
4	340.493	32.10	14.98	9.68	38.70	18.06	46.00	27.94	Hori.	100	31	LA23		
5	479.923	30.70	17.48	10.39	38.48	20.09	46.00	25.91	Hori.	100	278	LA23		
6	621.275	29.80	19.69	11.12	38.29	22.32	46.00	23.68	Hori.	100	59	LA23		
7	59,996	44.20	7.82	7.24	38.94	20.32	40.00	19.68	Vert.	100	267	BA		
8	78.871	33.30	6.78	7.46	38.95	8.59	40.00	31.41	Vert.	100	82	BA		
9	240.320	51.90	11.77	8.89	38.91	33.65	46.00	12.35	Vert.	100	94	LA23		
10	352.127	37.10	15.20	9.74	38.68	23.36	46.00	22.64	Vert.	100	297	LA23		
11	491.413	33.00	17.77	10.46	38.47	22.76	46.00	23.24	Vert.	100	57	LA23		
12	635.255	31.50	19.49	11.17	38.29	23.87	46.00	22.13	Vert.	100	103	LA23		

### CHART: WITH FACTOR

ANT TYPE: - 30 MHz: LOOP, 30 MHz - 200 MHz: BICONICAL, 200 MHz - 1000 MHz: LOGPERIODIC, 1000 MHz -: HORN

CALCULATION: RESULT = READING + ANT FACTOR + LOSS(CABLE + ATT) - GAIN(AMP)

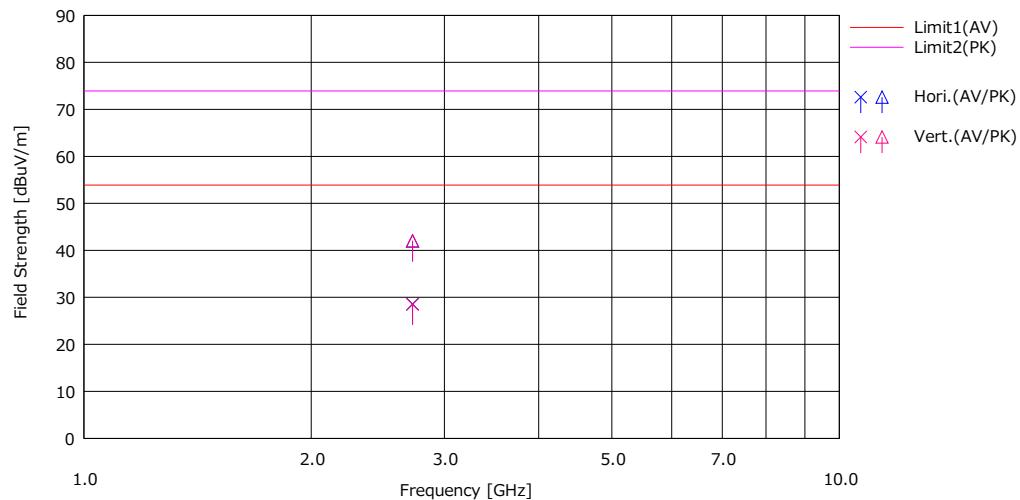
Except for the above table: adequate margin data below the limits.

## Radiated Emission

Mode	1
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Date	Test site	Temperature	Humidity	Engineer	Measurement Range
May 9, 2025	SAC4	21 deg. C	52 % RH	Ken Fujita	1 GHz to 10 GHz

Limit : FCC\_Part 15 Subpart B(15.109)\_Class B



No.	Freq. [MHz]	Reading		Ant.Foc	Loss	Gain [dB]	Result		Limit		Margin		Pola	Height [cm]	Angle [deg]	Ant. Type	Comment
		(AV) [dBuV]	(PK) [dBuV]				(AV) [dBuV/m]	(PK) [dBuV/m]	(AV) [dBuV/m]	(PK) [dBuV/m]	(AV) [dB]	(PK) [dB]					
		(AV) [dBuV]	(PK) [dBuV]				(AV) [dBuV/m]	(PK) [dBuV/m]	(AV) [dBuV/m]	(PK) [dBuV/m]	(AV) [dB]	(PK) [dB]					
1	2723.125	29.70	43.10	28.18	2.48	31.79	28.57	41.97	53.90	73.90	25.33	31.93	Hori.	100	4	H21	
2	2723.125	29.60	43.20	28.18	2.48	31.79	28.47	42.07	53.90	73.90	25.43	31.83	Vert.	100	0	H21	

### CHART: WITH FACTOR

ANT TYPE: - 30 MHz: LOOP, 30 MHz - 200 MHz: BICONICAL, 200 MHz - 1000 MHz: LOGPERIODIC, 1000 MHz -: HORN  
CALCULATION: RESULT = READING + ANT FACTOR + LOSS(CABLE + ATT) - GAIN(AMP)

Except for the above table: adequate margin data below the limits.

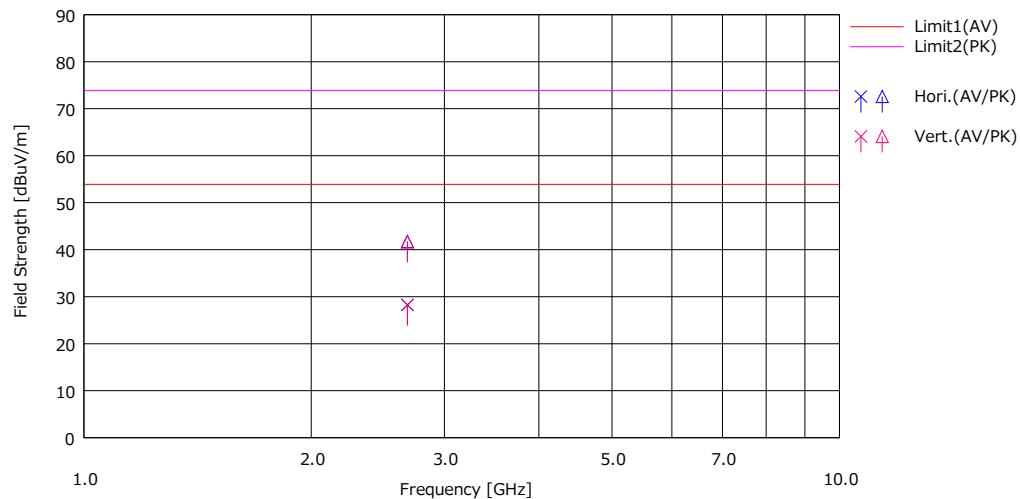
\* No signal was detected above 10 GHz.

## Radiated Emission

Mode	2
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Date	Test site	Temperature	Humidity	Engineer	Measurement Range
May 9, 2025	SAC4	21 deg. C	52 % RH	Ken Fujita	1 GHz to 10 GHz

Limit : FCC\_Part 15 Subpart B(15.109)\_Class B



No.	Freq. [MHz]	Reading				Gain [dB]	Result				Limit		Margin		Pola.	Height [cm]	Angle [deg]	Ant. Type	Comment
		(AV) [dBuV]		(PK) [dBuV]			(AV) [dBuV/m]		(PK) [dBuV/m]		(AV) [dB]	(PK) [dB]	(AV) [dB]	(PK) [dB]					
		2.680.046	29.60	43.10	28.01	2.46	31.81	28.26	41.76	53.90	73.90	25.64	32.14	Hori.	100	7	H21		
1	2.680.046	29.60	43.10	28.01	2.46	31.81	28.26	41.76	53.90	73.90	25.64	32.14	32.24	Vert.	100	0	H21		
2	2.680.046	29.60	43.00	28.01	2.46	31.81	28.26	41.66	53.90	73.90	25.64	32.24	32.24						

CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-200MHz: BICONICAL, 200-1000MHz: LOGPERIODIC, 1000MHz-: HORN  
CALCULATION: RESULT = READING + ANT FACTOR + LOSS(CABLE + ATT.) - GAIN(AMP)

### CHART: WITH FACTOR

ANT TYPE: - 30 MHz: LOOP, 30 MHz - 200 MHz: BICONICAL, 200 MHz - 1000 MHz: LOGPERIODIC, 1000 MHz -: HORN  
CALCULATION: RESULT = READING + ANT FACTOR + LOSS(CABLE + ATT.) - GAIN(AMP)  
Except for the above table: adequate margin data below the limits.

\* No signal was detected above 10 GHz.

## **APPENDIX 2: Test instruments**

### **Test equipment**

Test Item	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Cal Int
RE	141267	Logperiodic Antenna (200-1000MHz)	Schwarzbeck Mess-Elektronik OHG	VUSLP9111B	9111B-192	09/18/2024	12
RE	141397	Coaxial Cable	UL-ISE EMC	-	-	11/29/2024	12
RE	141425	Biconical Antenna	Schwarzbeck Mess-Elektronik OHG	VHA9103+BBA9106	VHA 91031302	08/23/2024	12
RE	141508	Horn Antenna 1-18GHz	Schwarzbeck Mess-Elektronik OHG	BBHA9120D	557	05/17/2024	12
RE	141545	DIGITAL HiTESTER	HIOKI E. E. CORPORATION	3805	51201148	02/25/2025	12
RE	141581	MicroWave System Amplifier	Keysight Technologies Inc	83017A	00650	10/30/2024	12
RE	141583	Pre Amplifier	SONOMA INSTRUMENT	310	260833	04/02/2025	12
RE	141951	EMI Test Receiver	Rohde & Schwarz	ESR26	101408	05/07/2025	12
RE	142011	AC4_Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	12/13/2023	24
RE	142017	AC4_Semi Anechoic Chamber(SVSWR)	TDK	Semi Anechoic Chamber 3m	DA-10005	04/17/2025	24
RE	142230	Measure, Tape, Steel	KOMELON	KMC-36	-	-	-
RE	178648	EMI measurement program	TSJ (Techno Science Japan)	TEPTO-DV	-	-	-
RE	220646	Attenuator	Huber+Suhner	6806_N-50-1	-	03/06/2025	12
RE	244710	Thermo-Hygrometer	HIOKI E. E. CORPORATION	LR5001	231202104	01/19/2025	12
RE	246002	Microwave Cable	Huber+Suhner	SF103/11PC35/11P C35/1000mm / SF126E/5000mm	800674(1m) / 610205(5m)	03/18/2025	12

**\*Hyphens for Last Calibration Date and Cal Int (month) are instruments that Calibration is not required (e.g. software), or instruments checked in advance before use.**

**The expiration date of the calibration is the end of the expired month.**

**As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.**

**All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.**

**Test item:**

**RE: Radiated emission**