RF MEASUREMENT REPORT

FCC ID:	2A7RQ-RPSS02
Applicant:	Arrival UK Ltd
Product:	Radar Proximity Sensor (RPSS)
Model No.:	RPSS 1.0
Brand Name	ARRIVAL
FCC Classification:	Part 95 Vehicular Radar Systems (VRD)
FCC Rule(s):	FCC Part 95, Subpart M
Test Date:	2022-08-29 ~ 2022-09-19

Reviewed By: Jame Yuan

Approved By: Robin Wu

ACCREDITED
TESTING LABORATORY
CERTIFICATE #3628.01

The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10-2013. Test results reported herein relate only to the item(s) tested.

Revision History

Report No.	Version	Description	Issue Date	Note
2208RSU061-U1	Rev. 01	Initial Report	2022-09-20	Valid

CONTENTS

1. General Information

1.1. Applicant

Arrival UK Ltd

Beaumont House Kensington Village, London, W14 8TS United Kingdom

1.2. Manufacturer

Arrival UK Ltd

Beaumont House Kensington Village, London, W14 8TS United Kingdom

1.3. Testing Facility

☒	**Test Site – MRT Suzhou Laboratory**				
	Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China **Laboratory Location (Suzhou - SIP)** 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China				
	Laboratory Accreditations				
	A2LA: 3628.01		CNAS: L10551		
	FCC: CN1166		ISED: CN0001		
	VCCI:	☐R-20025 ☐R-20141	☐G-20034 ☐G-20134	☐C-20020 ☐C-20103	☐T-20020 ☐T-20104
☐	**Test Site – MRT Shenzhen Laboratory**				
	Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China				
	Laboratory Accreditations				
	A2LA: 3628.02		CNAS: L10551		
	FCC: CN1284		ISED: CN0105		
☐	**Test Site – MRT Taiwan Laboratory**				
	Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)				
	Laboratory Accreditations				
	TAF: L3261-190725				
	FCC: 291082, TW3261		ISED: TW3261		

1.4. Product Information

Product Name	Radar Proximity Sensor (RPSS)
Model No.	RPSS 1.0
Serial No.	99
Product Voltage	10VDC ~ 14VDC (Nominal 12VDC) or 22VDC ~ 26VDC(Nominal 24VDC)
Working Temperature Rang	-40°C ~ 75°C
Remark: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

1.5. Radio Specification under Test

Working Frequency Range	77 ~ 81GHz
Radar Type	Fixed Beam, Non-pulsed Radar (FMCW)
Modulation type	Triangle wave
Sweep time	62.2ms
Sweep bandwidth	4GHz
Sweep rate	100 MHz/μs

2. Test Configuration

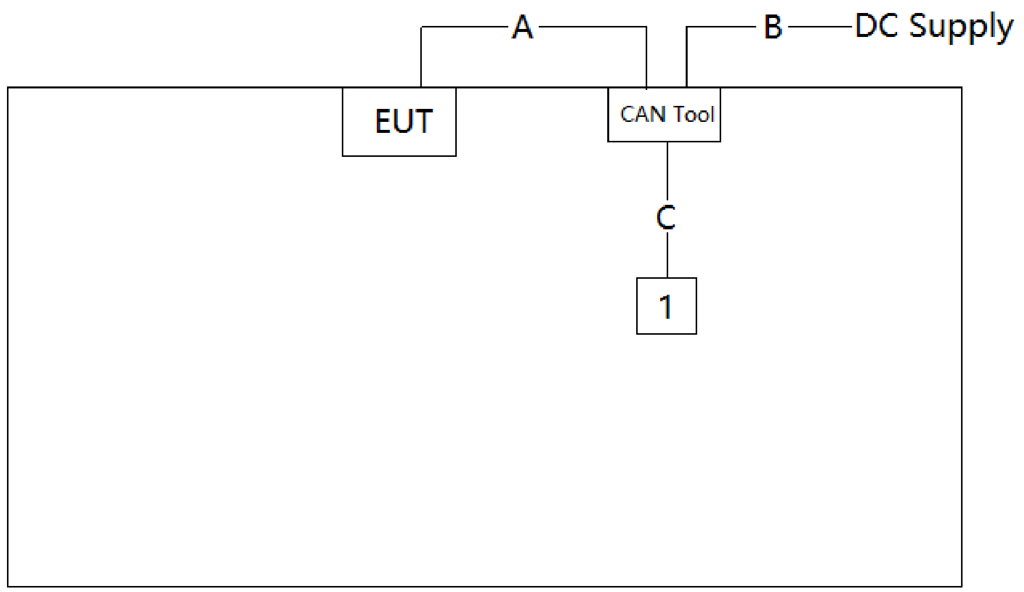
2.1. Test Mode

Mode 1: Collocated Tx/Rx mode by DC 12V
Mode 2: Collocated Tx/Rx mode by DC 24V

Note 1: The test sample was provided by the manufacturer, which was configured into Collocated Tx/Rx mode after power on.

2.2. Test System Connection Diagram

Connection Diagram – Radiated Emission



Cable Type		Cable Description
A	Power Cable	Non shielded, 2.0m
B	Power Cable	Non shielded, 2.0m
C	USB Cable	Shielded, 1.0m

2.3. Test System Details

Product		Manufacturer	Model No.
1	Notebook	Lenovo	T480s

2.4. Test Software

The test utility software used during testing was “RViz”.

2.5. Applied Standards

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

- FCC Part 95, Subpart M
- KDB 653005 D01v01r02
- ANSI C63.26-2015

2.6. Test Environment Condition

Ambient Temperature	15 ~ 35°C
Relative Humidity	20% ~ 75%RH

3. Measuring Instrument

Instrument	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
EMI Test Receiver	R&S	ESR3	MRTSUE06185	1 year	2022-12-29	SIP-AC2
Thermohygrometer	testo	608-H1	MRTSUE06623	1 year	2022-11-28	SIP-AC2
Thermohygrometer	testo	608-H1	MRTSUE06624	1 year	2022-11-28	SIP-AC2
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06647	1 year	2023-07-13	SIP-AC2
Anechoic Chamber	RIKEN	SIP-AC2	MRTSUE06781	1 year	2022-12-23	SIP-AC2
Loop Antenna	Schwarzbeck	FMZB 1519 B	MRTSUE06937	1 year	2023-03-14	SIP-AC2
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2023-06-08	SIP-AC3
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06598	1 year	2022-11-09	SIP-AC3
Signal Analyzer	Keysight	N9010B	MRTSUE06559	1 year	2023-06-01	SIP-AC3
Horn Antenna	R&S	HF907	MRTSUE06611	1 year	2023-07-30	SIP-AC3
Preamplifier	EMCI	EMC012645SE	MRTSUE06642	1 year	2023-01-13	SIP-AC3
Thermohygrometer	testo	608-H1	MRTSUE06619	1 year	2022-11-02	SIP-AC3
Thermohygrometer	testo	608-H1	MRTSUE06622	1 year	2022-11-28	SIP-AC3
Anechoic Chamber	RIKEN	SIP-AC3	MRTSUE06782	1 year	2022-12-23	SIP-AC3
Signal Analyzer	Keysight	N9030B	MRTSUE06395	1 year	2023-07-08	SIP-TR1/SIP-TR2
Temperature Chamber	BAOYT	BYG-408CS	MRTSUE06847	1 year	2023-02-22	SIP-TR1
Waveguide Harmonic Mixer	Keysight	M1970V	MRTSUE06271	N/A	N/A	SIP-TR2
Waveguide Harmonic Mixer	Keysight	M1970W	MRTSUE06272	N/A	N/A	SIP-TR1/SIP-TR2
mmWave Antenna	MI-WWAVE	261U-25/383	MRTSUE06273	N/A	N/A	SIP-TR2
mmWave Antenna	MI-WWAVE	261G/387	MRTSUE06274	N/A	N/A	SIP-TR2
mmWave Antenna	MI-WWAVE	261F/387	MRTSUE06275	N/A	N/A	SIP-TR2
mmWave Extension Module	Keysight	N9029AV05	MRTSUE06367	N/A	N/A	SIP-TR2
mmWave Extension Module	Keysight	N9029AV06	MRTSUE06368	N/A	N/A	SIP-TR2
mmWave Antenna	A-INFO	LB-15-25-A	MRTSUE06409	N/A	N/A	SIP-TR2
mmWave Antenna	A-INFO	LB-10-25-A	MRTSUE06410	N/A	N/A	SIP-TR1/SIP-TR2
mmWave Antenna	VDI	WR3/4	MRTSUE06277	N/A	N/A	SIP-TR2
mmWave Extension Module	Keysight	N9029AV03	MRTSUE06366	N/A	N/A	SIP-TR2

Software	Version	Function
EMI Test Software	V3	EMI Test Software
Controller_MF 7802BS	1.02	RE Antenna & Turntable
MotorContor	V 2	mmw

4. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Radiated Emission Measurement
Measurement Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): Horizontal: 30MHz~300MHz: 5.04dB 300MHz~1GHz: 4.95dB 1GHz~40GHz: 6.40dB Vertical: 30MHz~300MHz: 5.24dB 300MHz~1GHz: 6.03dB 1GHz~40GHz: 6.40dB

5. Test Result

5.1. Summary

FCC Part Section(s)	Test Description	Test Condition	Verdict
95.3367	EIRP	Radiated	Pass
2.1049	Occupied bandwidth		Pass
95.3379(a)	Unwanted Emissions		Pass
95.3379(b)	Frequency stability		Pass

Note:

1. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case data are shown in the report.
2. For EIRP, Occupied Bandwidth and Unwanted Emissions, we choose Mode 1 to test because of the same working condition between Mode 1 and Mode 2.

5.2. Equivalent Isotropically Radiated Power (EIRP)

5.2.1. Test Limit

The fundamental radiated emission limits within the 76-81 GHz band are expressed in terms of Equivalent Isotropically Radiated Power (EIRP) and are as follows:

(a) The maximum power (EIRP) within the 76-81 GHz band shall not exceed 50 dBm based on measurements employing a power averaging detector with a 1 MHz Resolution Bandwidth (RBW).

(b) The maximum peak power (EIRP) within the 76-81 GHz band shall not exceed 55 dBm based on measurements employing a peak detector with a 1 MHz RBW.

5.2.2. Test Procedure

ANSI C63.26 Section 5.2.3 & 5.2.4

KDB 653005 D01v01r02 Section 4.b) & 4.c)

Note: Far-field boundary calculation as below.

According to ANSI C63.26-2015, Clause 4.4, The aperture dimensions of horn antennas shall be small enough so that the measurement distance in meters is equal to or greater than the Rayleigh (far-field) distance (i.e., $R_m = 2D^2 / \lambda$).

- D is the largest dimension of the antenna aperture in meters.
- λ is the wavelength in m

Far-field boundary calculation			
Frequency Range (GHz)	λ (m)	D (m)	$R_{(Far\ Field)}$ (m)
76 ~ 81	0.0037	0.026	0.365

The measurement is performed at a minimum distance of 0.75m > $R_{(Far\ Field)}$

5.2.3. Test Setting

For the maximum power (EIRP)

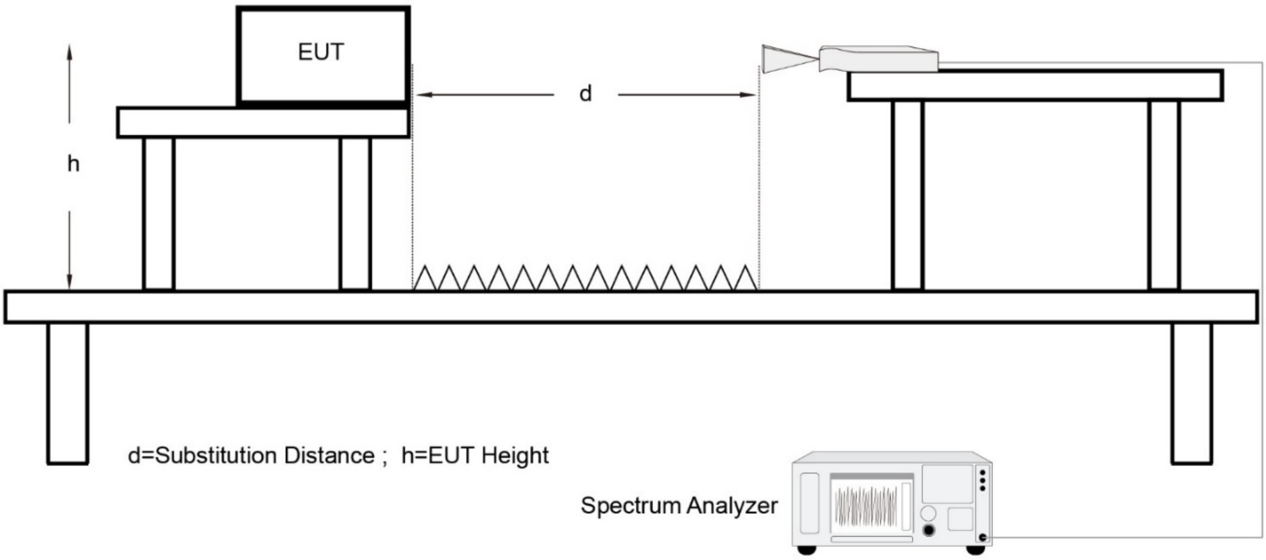
1. Span = 2 × to 3 × the OBW, centered on the carrier frequency
2. Set the RBW = 1MHz
3. Set the VBW ≥ 3 × RBW
4. Detector function = Average
5. Set number of measurement points in sweep ≥ 2 × span / RBW.
6. Sweep time ≥ 10 × (number of points in sweep) × (transmission symbol period).
7. Trace mode = Average

8. Allow the trace to stabilize
9. Use the integrated band/channel power analyzer function to determine the average power.

For the maximum peak power (EIRP)

1. Span = 2 × to 3 × the OBW, centered on the carrier frequency
2. Set the RBW to the specified reference bandwidth
3. Set the VBW ≥ 3 × RBW
4. Detector function = Peak
5. Sweep time ≥ 10 × (number of points in sweep) × (transmission symbol period).
6. Trace mode = max hold
7. Allow the trace to stabilize
8. Use the peak search function to mark the max value of the emission.

5.2.4. Test Setup



5.2.5. Test Result

Test Engineer	Andy Zhu	Temperature	28.3°C
Test Site	SIP-TR2	Relative Humidity	59.3%
Test Date	2022/9/19		

EIRP (dBm)		EIRP Limit (dBm)		Result
Peak	Average	Peak	Average	
6.00	3.72	≤ 55	≤ 50	Pass

5.3. Occupied bandwidth

5.3.1. Test Limit

N/A

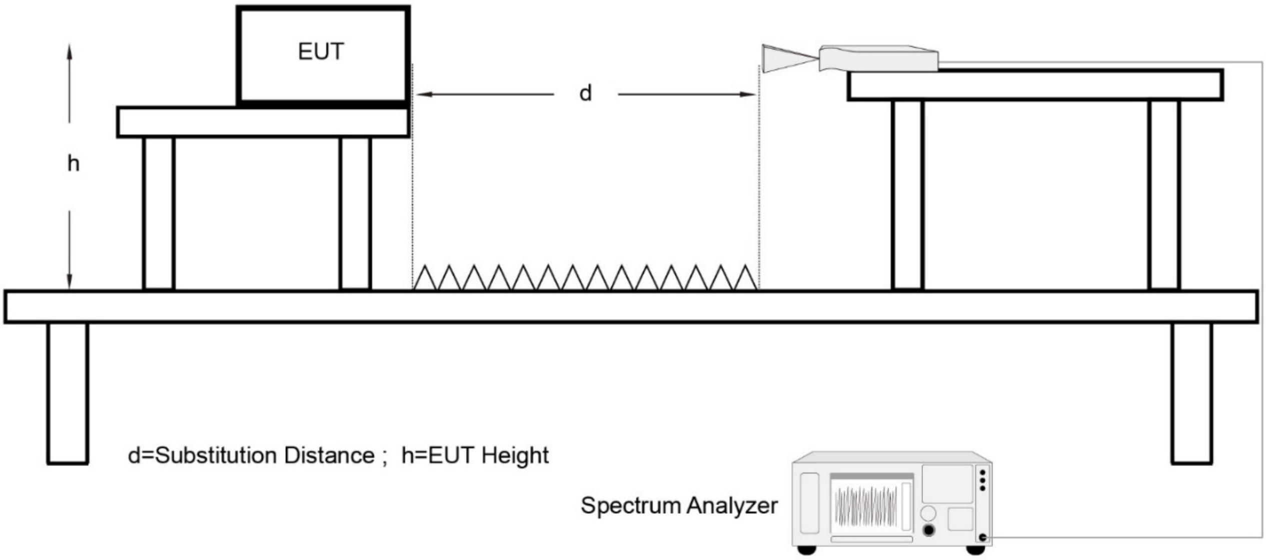
5.3.2. Test Procedure

ANSI C63.26 Section 5.4.4

5.3.3. Test Setting

1. Span = 1.5 × OBW, centered on the carrier frequency
2. RBW = 1% to 5% of the anticipated OBW
3. Set the VBW ≥ 3 × RBW
4. Detector function = Peak
5. Trace mode = max hold.
6. Use the 99% power bandwidth function of the instrument and report the measured bandwidth.

5.3.4. Test Setup



5.3.5. Test Result

Test Engineer	Andy Zhu	Temperature	28.3°C
Test Site	SIP-TR2	Relative Humidity	59.3%
Test Date	2022/8/29		

99% Bandwidth (MHz)	f_L (MHz)	f_L Limit (MHz)	f_H (MHz)	f_H Limit (MHz)	Result
3879.7	77099.0	≥ 76000	80978.8	≤ 81000	Pass

99% Occupied Bandwidth

5.4. Unwanted Emissions

5.4.1. Test Limit

The power density of any emissions outside the 76-81 GHz band shall consist solely of spurious emissions and shall not exceed the following:

(1) Radiated emissions below 40 GHz shall not exceed the field strength as shown in the following emissions table.

Frequency (MHz)	Field Strength (uV/m)	Measurement Distance (m)
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
Above 960	500	3

(i) The tighter limit applies at the band edges.

(ii) The limits in the table are based on the frequency of the unwanted emissions and not the fundamental frequency. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.

(iii) The emissions limits shown in the table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9.0-90.0 kHz, 110.0-490.0 kHz, and above 1000 MHz. Radiated emissions limits in these three bands are based on measurements employing an average detector with a 1 MHz RBW.

(2) The power density of radiated emissions outside the 76-81 GHz band above 40.0 GHz shall not exceed the following, based on measurements employing an average detector with a 1 MHz RBW:

(i) For radiated emissions between 40 GHz and 200 GHz: 600 pW/cm^2 at a distance of 3 meters from the exterior surface of the radiating structure.

(ii) For radiated emissions above 200 GHz: 1000 pW/cm^2 at a distance of 3 meters from the exterior surface of the radiating structure.

(3) For field disturbance sensors and radar systems operating in the 76-81 GHz band, the spectrum shall be investigated up to 231.0 GHz.

5.4.2. Test Procedure

ANSI C63.26 Section 5.2.7&5.5

Note: Far-field boundary calculation as below.

According to ANSI C63.26-2015, Clause 4.4, The aperture dimensions of horn antennas shall be small enough so that the measurement distance in meters is equal to or greater than the Rayleigh (far-field) distance (i.e., $R_m = 2D^2 / \lambda$).

- D is the largest dimension of the antenna aperture in meters.
- λ is the wavelength in m

Far-field boundary calculation			
Frequency Range (GHz)	λ (m)	D (m)	$R_{(Far\ Field)}$ (m)
40.00 ~ 50.00	0.006	0.046	0.705
50.00 ~ 75.00	0.004	0.036	0.648
75.00 ~ 110.00	0.0027	0.026	0.501
110.00 ~ 140.00	0.0021	0.020	0.381
140.00 ~ 220.00	0.0014	0.014	0.280
220.00 ~ 231.00	0.0013	0.0055	0.047

For 40.00 ~ 231.00GHz, Our measurement is performed at a minimum distance of 0.75m > $R_{(Far\ Field)}$.

5.4.3. Test Setting

Measurement of harmonic and spurious emissions above 40 GHz

1. Connect the test antenna covering the appropriate frequency range to a spectrum analyzer via an external mixer.
2. Set spectrum analyzer RBW = 1MHz, VBW = 3MHz, average detector.
3. Maximize all observed emissions. Note the maximum power indicated on the spectrum analyzer. Adjust this reading, if necessary, by the conversion loss of the external mixer used at the frequency under investigation and the external mixer IF cable loss.
4. Calculate the maximum field strength of the emission at the measurement distance.
5. Calculate the power density at the distance specified by the limit from the field strength at the distance specified by the limit.
6. Repeat the preceding sequence for every emission observed in the frequency band under investigation.

Measurement of harmonic and spurious emissions below 40 GHz

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = as specified in Table 1
3. VBW = 3 x RBW
4. Detector = Peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Table 1 – RBW

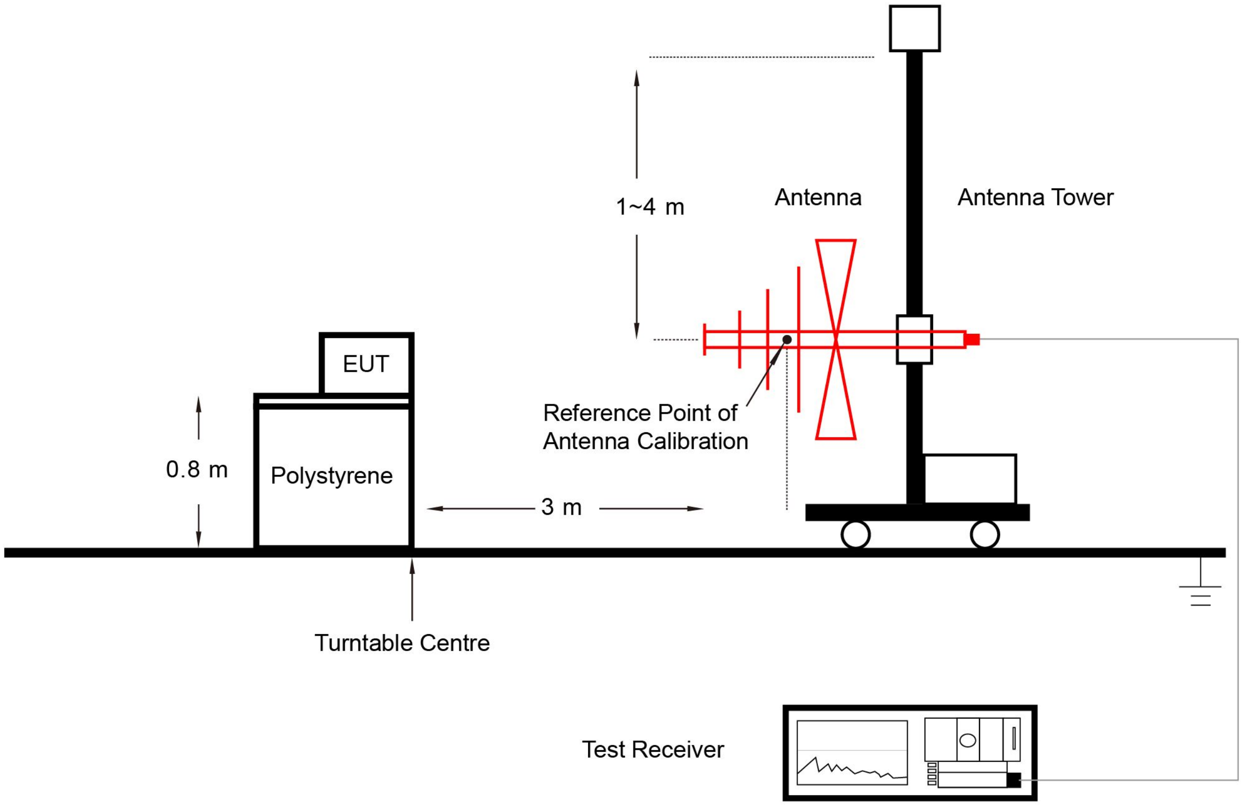
Frequency	RBW
9 ~ 90 kHz	1 MHz
90 ~ 110 kHz	200 Hz
110 ~ 490 kHz	1 MHz
0.49 ~ 30 MHz	9 kHz
30 ~ 1000 MHz	120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

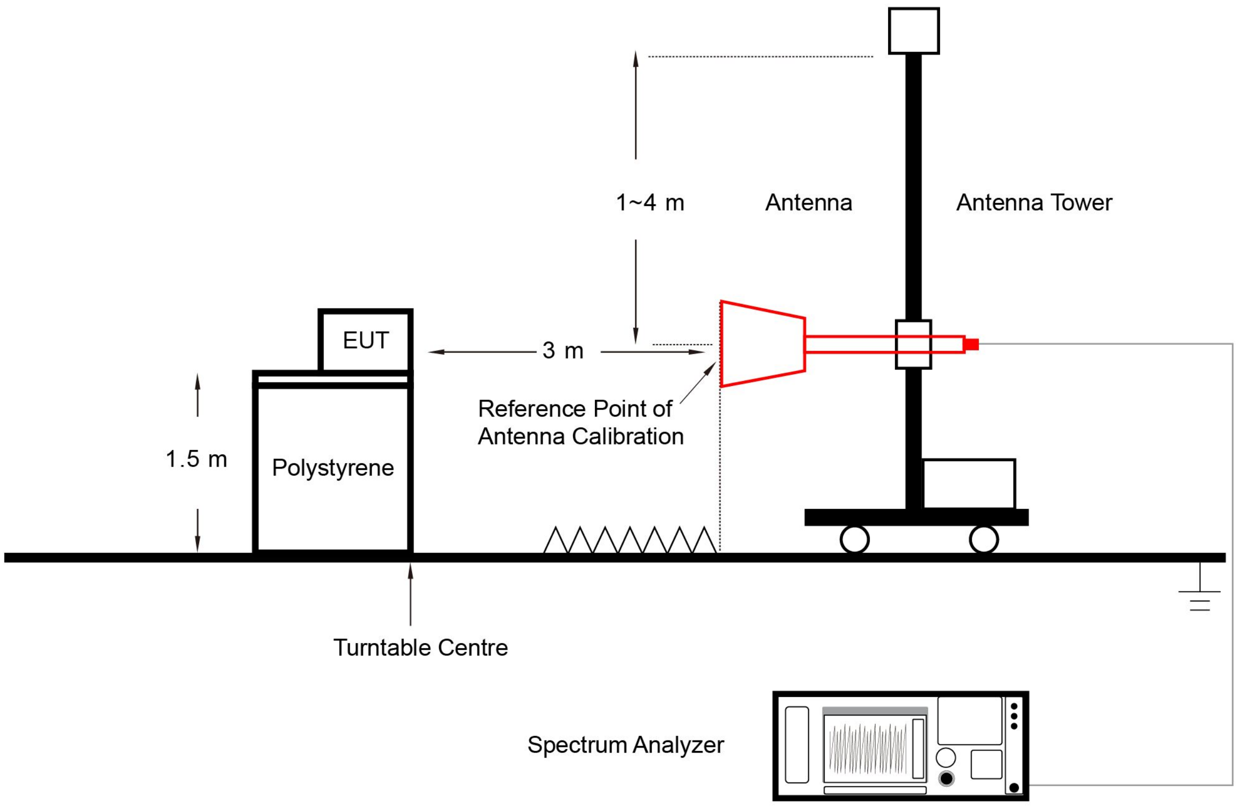
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW ≥ 1/T
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to “Voltage” regardless of the display mode
5. Detector = Peak
6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces.

5.4.4. Test Setup

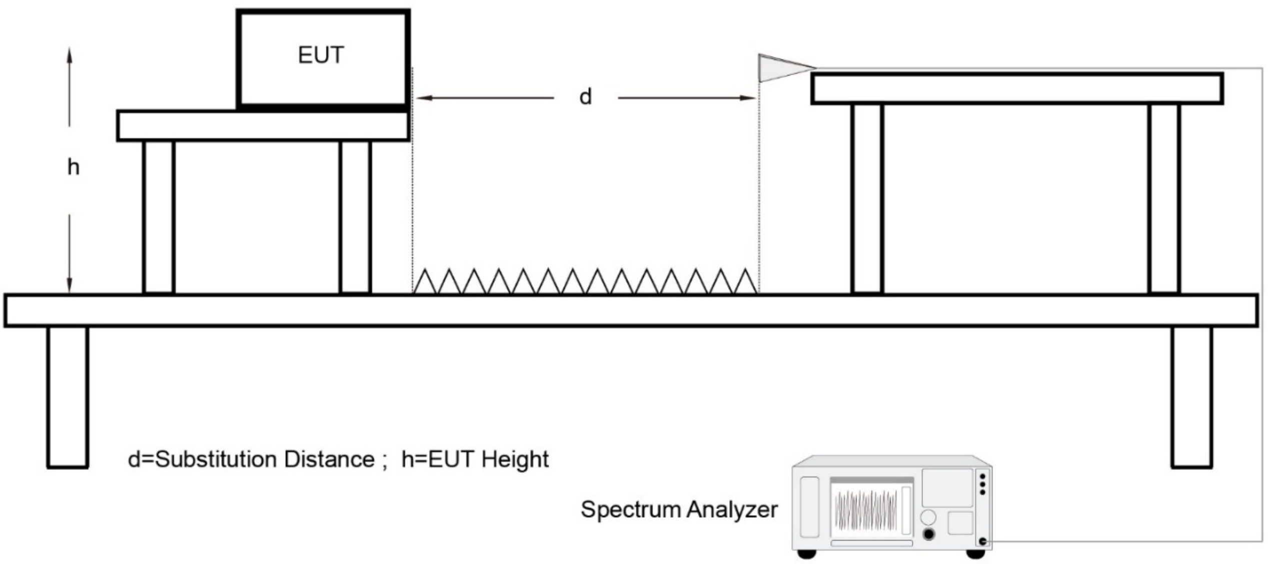
Below 1GHz Test Setup:



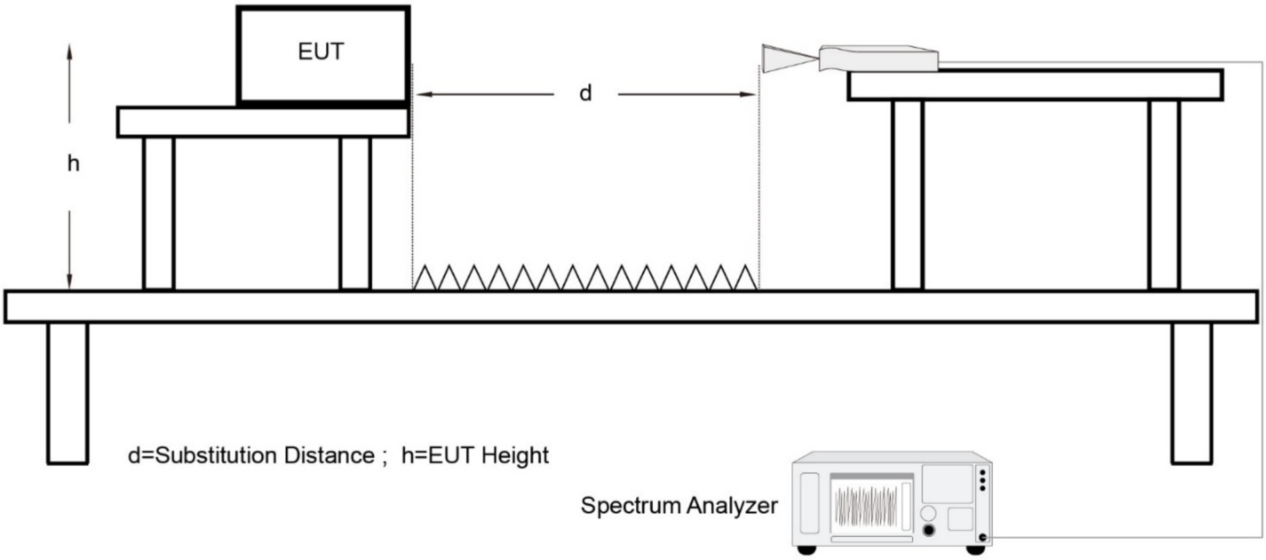
1GHz ~ 40GHz Test Setup:



Above 40GHz Test Setup:



Above 50GHz Test Setup:



5.4.5. Test Results

Test Engineer	Andy Zhu	Temperature	26.4°C
Test Site	SIP-AC2	Relative Humidity	67.5%
Test Date	2022/8/30	Test Mode	Mode 1

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Below 1GHz							
33.9	13.1	17.0	30.1	40.0	-9.9	Peak	Horizontal
49.9	9.5	18.4	27.9	40.0	-12.1	Peak	Horizontal
142.5	11.9	17.4	29.3	43.5	-14.2	Peak	Horizontal
240.0	11.8	16.6	28.4	46.0	-17.6	Peak	Horizontal
393.3	10.1	20.9	31.0	46.0	-15.0	Peak	Horizontal
720.2	7.6	27.7	35.3	46.0	-10.7	Peak	Horizontal
33.9	20.1	17.0	37.1	40.0	-2.9	QP	Vertical
40.2	16.3	17.8	34.1	40.0	-5.9	QP	Vertical
56.2	17.6	18.3	35.9	40.0	-4.1	QP	Vertical
73.2	14.9	16.2	31.1	40.0	-8.9	QP	Vertical
240.0	21.1	16.6	37.7	46.0	-8.3	Peak	Vertical
720.2	8.1	27.7	35.8	46.0	-10.2	Peak	Vertical

Notes:

1. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)
   Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)
2. Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.
3. The amplitude of radiated emissions (frequency range from 9KHz to 30MHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Test Engineer	Andy Zhu	Temperature	27.3°C
Test Site	SIP-AC3	Relative Humidity	66.2%
Test Date	2022/8/30	Test Mode	Mode 1

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
1 ~ 40 GHz							
2411.0	55.2	-14.6	40.6	54.0	-13.4	Peak	Horizontal
5360.5	50.1	-8.3	41.8	54.0	-12.2	Peak	Horizontal
7553.5	50.7	-5.5	45.2	54.0	-8.8	Peak	Horizontal
4655.0	51.8	-8.9	42.9	54.0	-11.1	Peak	Vertical
8794.5	49.0	-3.3	45.7	54.0	-8.3	Peak	Vertical
10163.0	47.9	-2.3	45.6	54.0	-8.4	Peak	Vertical
26811.0	57.4	-7.7	49.7	54.0	-4.3	Peak	Horizontal
35424.0	45.9	-6.0	39.9	54.0	-14.1	Peak	Horizontal
39263.0	42.4	-0.3	42.1	54.0	-11.9	Peak	Horizontal
33664.0	47.1	-7.8	39.3	54.0	-14.7	Peak	Vertical
36216.0	44.4	-5.1	39.3	54.0	-14.7	Peak	Vertical
38504.0	53.9	-2.5	51.4	54.0	-2.6	Peak	Vertical

Notes:

1. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)
   Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)
2. Average measurement was not performed when the peak level lower than average limit

Test Engineer	Andy Zhu	Temperature	28.3°C
Test Site	SIP-TR2	Relative Humidity	59.3%
Test Date	2022/8/29 ~ 2022/8/30	Test Mode	Mode 1

Frequency (GHz)	Factor (dB/m)	Measure Level @0.75m (dBμV/m)	Measure Level @3m (dBμV/m)	Power Density (pW/cm²)	Limit (pW/cm²)	Result
40GHz ~ 231GHz						
49.1	46.6	51.6	39.6	0.0024	600.0	Pass
53.5	41.4	74.9	62.9	0.5172	600.0	Pass
60.0	42.1	77.0	65.0	0.8388	600.0	Pass
71.0	44.4	73.6	61.6	0.3834	600.0	Pass
90.6	44.9	74.8	62.8	0.5054	600.0	Pass
110.3	58.8	63.0	51.0	0.0334	600.0	Pass
154.0	61.3	65.4	53.4	0.0580	600.0	Pass
188.6	62.1	66.8	54.8	0.0801	600.0	Pass
228.9	62.4	67.4	55.4	0.0920	1000.0	Pass

Notes:

1. Measure Level @0.75m = Reading Level @0.75m + Factor
   Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) + Mixer Conversion Loss (dB)
2. Measure Level @3m = Measure Level @0.75m + 20 * log(0.75m / 3m)
3. Power Density = $(10^8 / 377) * \{10^{[(\text{Measure Level @3m} - 120) / 20]}\}^2$
4. The Vertical and Horizontal polarization were evaluated, only the worst case test results are shown in the table.
5. The distance of testing is 0.75m and the height of testing is 0.45m.

5.5. Frequency Stability

5.5.1. Test Limit

Fundamental emissions must be contained within the frequency bands 76 - 81GHz during all conditions of operation. Equipment is presumed to operate over the temperature range -20 to +50 degrees Celsius with an input voltage variation of 85% to 115% of rated input voltage, unless justification is presented to demonstrate otherwise.

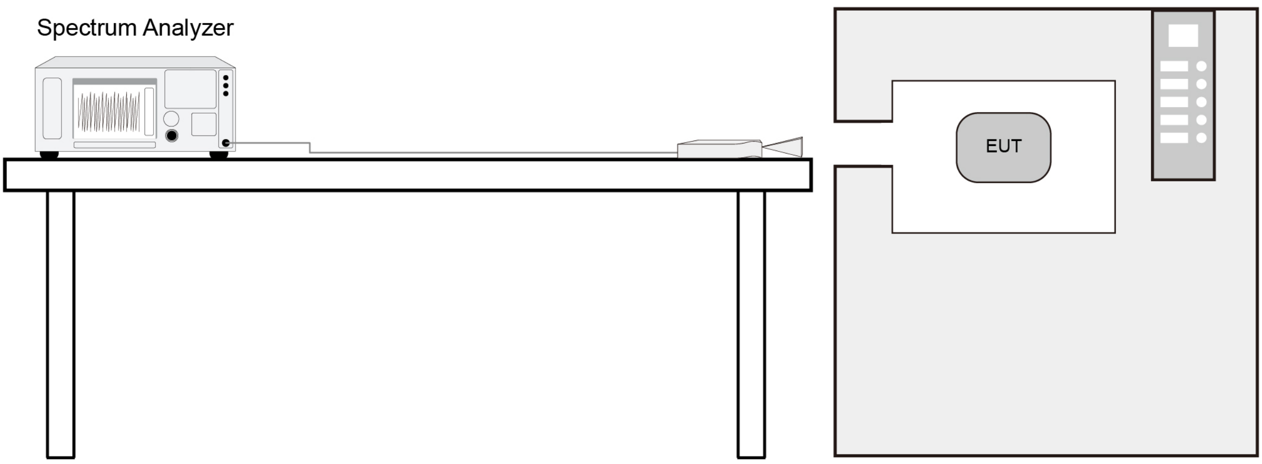
5.5.2. Test Procedure

ANSI C63.26 Section 5.6.3

5.5.3. Test Setting

1. Arrange EUT and test equipment according Section 5.5.4.
2. With the EUT at ambient temperature (20 °C) and voltage source set to the EUT nominal operating voltage
3. Record the Low and high frequencies (f_L and f_H) of the fundamental frequency emission. The applicable spurious emissions limit 600pW/cm^2 (-1.61dBm) was used to define f_L and f_H.
4. Vary EUT power supply between 85% and 115% of nominal Voltage, record the f_L and f_H.
5. Set the power supply to 100% nominal setting, and raise EUT operating temperature to 50 °C.
6. Record the f_L and f_H of the fundamental frequency emission.
7. Repeat step 9 at each 10°C increment down to -20 °C.

5.5.4. Test Setup



5.5.5. Test Result

Test Engineer	Andy Zhu	Temperature	26.7°C
Test Site	SIP-TR1	Relative Humidity	66.7%
Test Date	2022/09/02	Test Mode	Mode 1

Voltage (%)	Power (VDC)	Temp (°C)	f_L (GHz)	f_H (GHz)	Limit (GHz)	Result
100	12.0	- 20	77.1050	80.9849	76 ~ 81	Pass
		- 10	77.1042	80.9827	76 ~ 81	Pass
		0	77.1033	80.9830	76 ~ 81	Pass
		+ 10	77.1029	80.9824	76 ~ 81	Pass
		+ 20	77.0990	80.9788	76 ~ 81	Pass
		+ 30	77.0963	80.9824	76 ~ 81	Pass
		+ 40	77.0954	80.9818	76 ~ 81	Pass
		+ 50	77.1016	80.9818	76 ~ 81	Pass
115	13.8	+ 20	77.1040	80.9826	76 ~ 81	Pass
85	10.2	+ 20	77.1044	80.9825	76 ~ 81	Pass

Test Engineer	Andy Zhu	Temperature	26.7°C
Test Site	SIP-TR1	Relative Humidity	66.7%
Test Date	2022/09/02	Test Mode	Mode 2

Voltage (%)	Power (VDC)	Temp (°C)	f_L (GHz)	f_H (GHz)	Limit (GHz)	Result
100	24.0	- 20	77.1056	80.9833	76 ~ 81	Pass
		- 10	77.1024	80.9837	76 ~ 81	Pass
		0	77.1036	80.9836	76 ~ 81	Pass
		+ 10	77.1050	80.9832	76 ~ 81	Pass
		+ 20	77.1028	80.9821	76 ~ 81	Pass
		+ 30	77.0966	80.9820	76 ~ 81	Pass
		+ 40	77.0957	80.9817	76 ~ 81	Pass
		+ 50	77.1003	80.9826	76 ~ 81	Pass
115	27.6	+ 20	77.1030	80.9823	76 ~ 81	Pass
85	20.4	+ 20	77.1045	80.9806	76 ~ 81	Pass

Appendix A - Test Setup Photograph

Refer to “2208RSU061-UT” file.

Appendix B - EUT Photograph

Refer to “2208RSU061-UE” file.