

TEST REPORT

Application No.: KSEM2606001808AT

Applicant: Qingdao MicroSense Intelligent Technology Co.,Ltd.

Address of Applicant: Room 803, Floor 8, Building F, InnovationPark II, No.1, Keyuan Wei 1st Road, Laoshan District, Qingdao, Shandong, China

Manufacturer: Qingdao MicroSense Intelligent Technology Co.,Ltd.

Address of Manufacturer: Room 803, Floor 8, Building F, InnovationPark II, No.1, Keyuan Wei 1st Road, Laoshan District, Qingdao, Shandong, China

Factory: Qingdao MicroSense Intelligent Technology Co.,Ltd.

Address of Factory: Room 803, Floor 8, Building F, InnovationPark II, No.1, Keyuan Wei 1st Road, Laoshan District, Qingdao, Shandong, China

Equipment Under Test (EUT):

EUT Name: 3D TOF CAMERA

Model No.: DS62, DS63

Trade Mark: Vzense

Standard(s) : ICES-003: Issue 7 October 2020

Date of Receipt: 2026-06-24

Date of Test: 2026-07-17 to 2026-07-22

Date of Issue: 2026-07-28

Test Result:
Pass*

* In the configuration tested, the EUT complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Revision Record			
Version	Description	Date	Remark
00	Original	2026-07-28	/

Authorized for issue by:				
Prepared By		Lee Li		
		Lee Li /Project Engineer		
Approved By		Terry Hou		
		Terry Hou /Reviewer		

2 Test Summary

Emission Part				
Item	Standard	Method	Requirement	Result
Radiated Emissions (30MHz-1GHz)	ICES-003: Issue 7 October 2020	ANSI C63.4-2014 +C63.4a-2017	Class A	Pass
Radiated Emissions (Above 1GHz)		ANSI C63.4-2014 +C63.4a-2017	Class A	Pass

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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 12-24V
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4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Notebook	LENOVO	K27	EB24537655

4.3 Measurement Uncertainty & Decision Rule

Measurement Uncertainty:

No.	Item	Measurement Uncertainty (U_{LAB}) *	U_{CISPR}
1	Conducted Emission at mains port using AMN	2.4dB (9kHz to 150kHz)	3.8dB (9kHz to 150kHz)
		2.2dB (150kHz to 30MHz)	3.4dB (150kHz to 30MHz)
2	Conducted Emission at telecommunication port using AAN	4.0 dB (150kHz to 30MHz)	5.0dB (150kHz to 30MHz)
3	Radiated Power	3.2dB	4.5dB (30MHz to 300MHz)
4	Radiated Emission (10m)	4.1 dB	6.3dB (30MHz-1GHz)
5	Radiated Emission (3m)	4.6 dB (30MHz-1GHz)	6.3dB (30MHz-1GHz)
		5.0dB (1GHz-6GHz)	5.2dB (1GHz-6GHz)
		5.2dB (6GHz-18GHz)	5.5dB (6GHz-18GHz)
		5.3dB (18GHz-40GHz)	N/A
6	Radiated disturbance (disturbance current in a LLAS)	2.6dB (9kHz to 30MHz)	3.3dB (9kHz to 30MHz)

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Decision Rule:

- CISPR 16-4-2 for emission measurements is as below described.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.

U_{LAB} less than U_{CISPR} , therefore:

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit.
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.
- For immunity testing no decision rule is applicable.

4.4 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1.SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).

2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).

3. Sample source: sent by customer.

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **A2LA (Certificate No. 2541.01)**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA).

- **FCC (Designation Number: CN1172)**

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory.

- **ISED (CAB Identifier: CN0072)**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory.

Company Number: 2324E

- **VCCI (Member No:1938)**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Radiated Emissions (30MHz-1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
EMI Test Receiver	R&S	ESCI	KS301196	07/07/2026	07/06/2027
Antenna	TESEQ	CBL 6112D	KUS1806E006	01/19/2026	01/18/2027
Signal Analyzer	R&S	FSV40	KUS1806E003	07/07/2026	07/06/2027
Software	Faratronic	E3 v 3A1	N/A	N/A	N/A

Radiated Emissions (Above 1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Spectrum Analyzer	R&S	FSU26	KS301206	12/18/2025	12/17/2026
Preamplifier	PANSHAN TECHNOLOGY	LNA:1~18G	KSEM010-2	12/17/2025	12/16/2026
Horn-antenna	SCHWARZBECK	BBHA9120D	KS301079	01/11/2026	01/10/2027
Antenna	SCHAFFNER	CBL6143	CZ301091	08/11/2024	08/10/2026
Software	Faratronic	E3 v 3A1	N/A	N/A	N/A

General used equipment					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Digital Pressure Meter	Mengde	DYM3	CZ750023	12/26/2025	12/25/2026
Temperature & Humidity Recorder	JDRK	RS-WS-N01-6J	KSEM024-1 KSEM024-2 KSEM024-3 KSEM024-6 KSEM024-7 KSEM024--8 KSEM024--9	12/26/2025	12/25/2026

6 Emission Test Results

6.1 Radiated Emissions (30MHz-1GHz)

Test Requirement: ICES-003: Issue 7 October 2020

Test Method: ANSI C63.4-2014+C63.4a-2017

Limit:

Class A

Test Distance: 3m

30MHz -88MHz: 50.0(dB μ V/m) quasi-peak

88MHz-216MHz: 54.0(dB μ V/m) quasi-peak

216MHz-230MHz: 56.9(dB μ V/m) quasi-peak

230MHz-960MHz: 57.0(dB μ V/m) quasi-peak

960MHz-1000MHz: 60.0(dB μ V/m) quasi-peak

Detector: Peak for pre-scan (120kHz resolution bandwidth) 30M to1000MHz

6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 24.5 °C

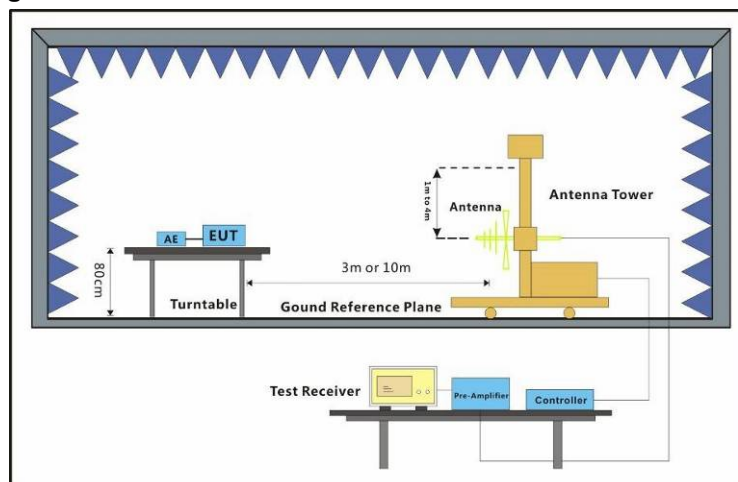
Humidity: 46.5 % RH

Atmospheric Pressure: 1010 mbar

6.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT1_(DS62) working continuously with Auxiliary equipment-DC 24V
Final test	01	Keep EUT2_(DS63) working continuously with Auxiliary equipment-DC 24V

6.1.3 Test Setup Diagram

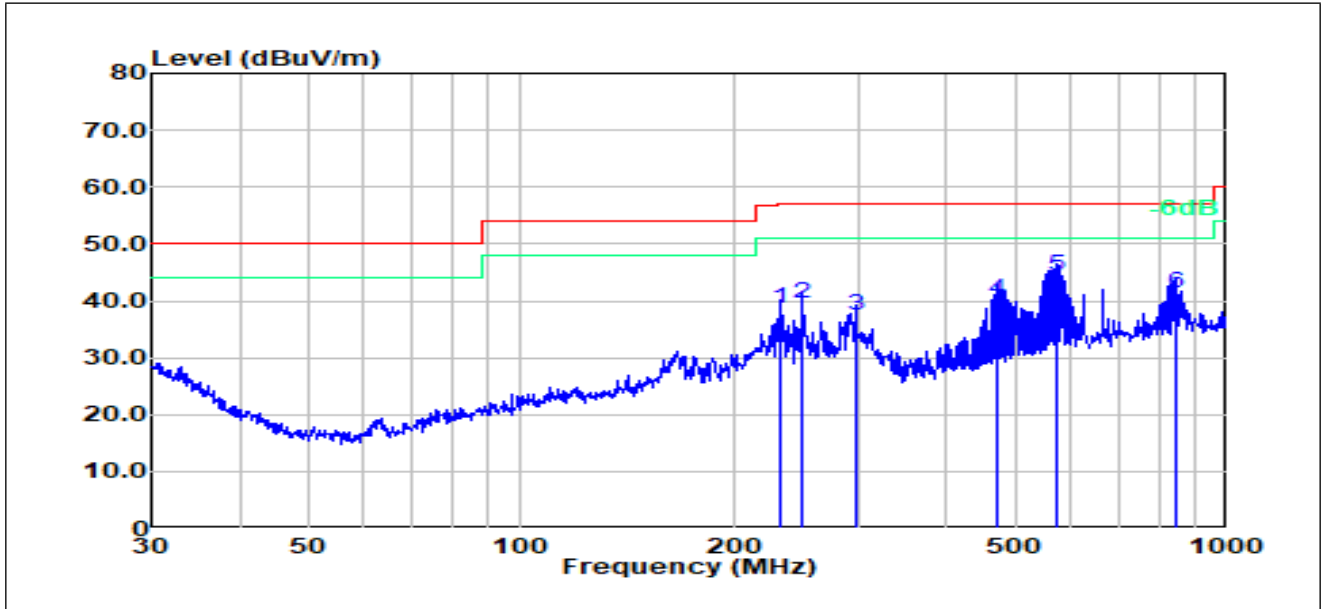


6.1.4 Measurement Procedure and Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.

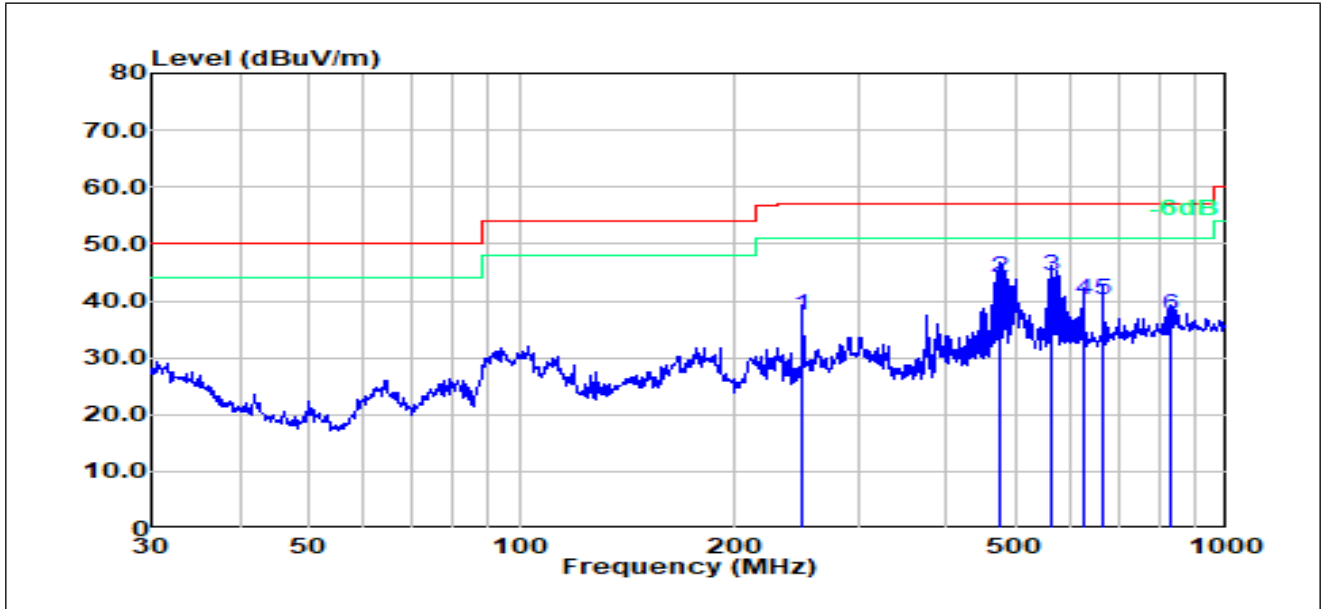
Remark: $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamplifier Factor}$

Test Mode: 00; Polarity: Horizontal



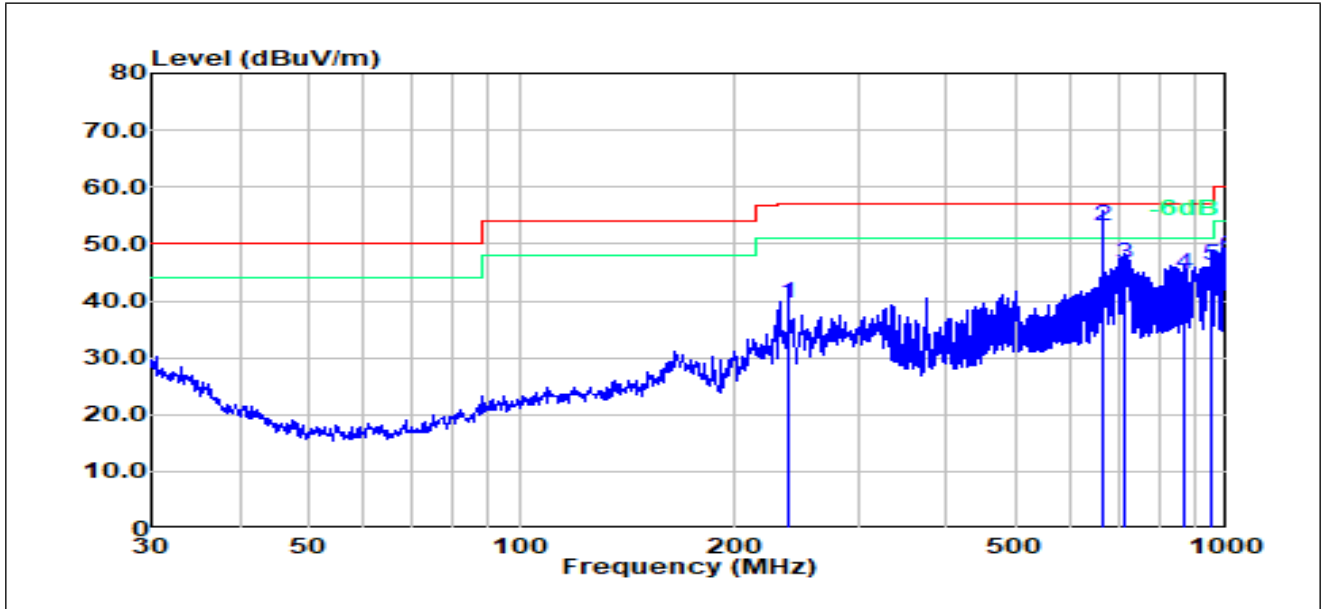
No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	233.349	19.57	18.95	38.52	57.00	-18.48	100	311	QP
2	250.301	19.18	20.24	39.42	57.00	-17.58	100	321	QP
3	297.224	16.05	21.53	37.58	57.00	-19.42	200	228	QP
4	470.523	14.42	25.81	40.23	57.00	-16.77	100	23	QP
5	572.614	16.17	28.34	44.51	57.00	-12.49	200	360	QP
6	842.130	10.79	30.47	41.26	57.00	-15.74	100	76	QP

Test Mode: 00; Polarity: Vertical



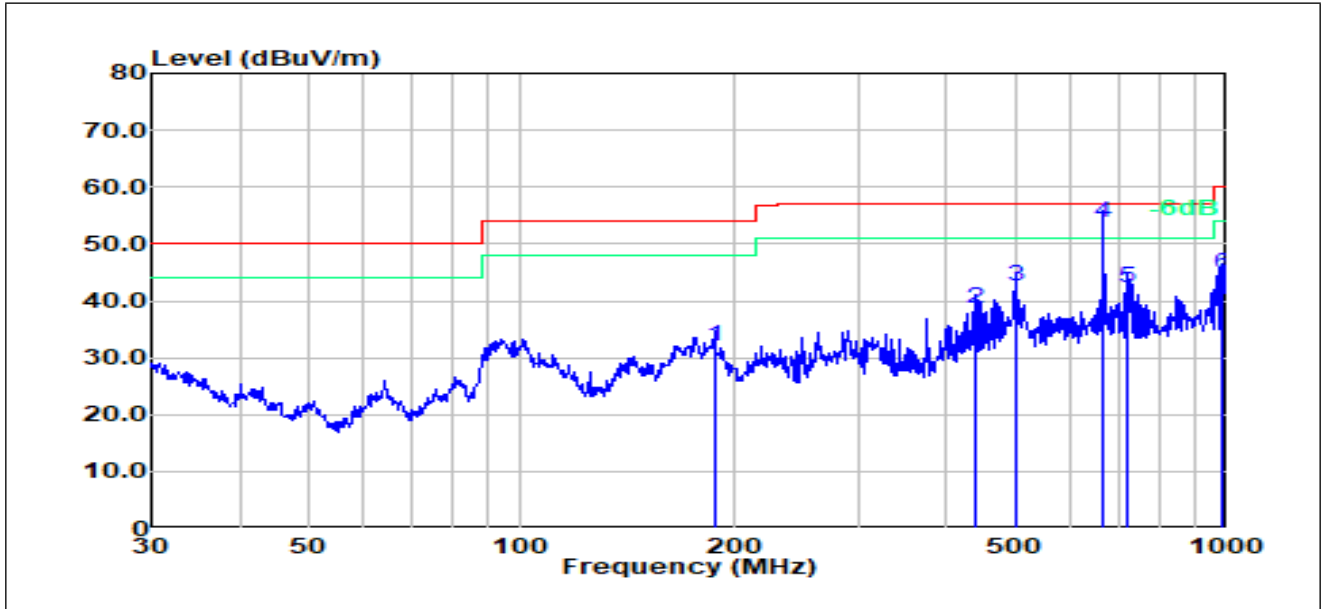
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	250.301	17.28	20.24	37.52	57.00	-19.48	100	202	QP
2	475.499	18.38	25.77	44.15	57.00	-12.85	100	60	QP
3	562.662	16.08	28.17	44.25	57.00	-12.75	100	39	QP
4	625.078	11.54	28.71	40.25	57.00	-16.75	200	29	QP
5	665.804	10.70	29.56	40.26	57.00	-16.74	100	360	QP
6	833.317	7.04	30.54	37.58	57.00	-19.42	200	202	QP

Test Mode: 01; Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	239.147	20.27	19.29	39.56	57.00	-17.44	100	280	QP
2	665.804	23.59	29.56	53.15	57.00	-3.85	100	0	QP
3	714.173	16.75	29.77	46.52	57.00	-10.48	200	358	QP
4	869.130	13.78	30.79	44.57	57.00	-12.43	200	148	QP
5	948.761	15.07	31.18	46.25	57.00	-10.75	100	128	QP
6	996.500	16.32	31.52	47.84	60.00	-12.16	100	280	QP

Test Mode: 01; Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	187.753	14.19	17.96	32.15	54.00	-21.85	100	1	QP
2	438.655	13.70	24.86	38.56	57.00	-18.44	100	4	QP
3	501.179	15.80	26.71	42.51	57.00	-14.49	200	201	QP
4	665.804	24.06	29.56	53.62	57.00	-3.38	100	234	QP
5	724.261	12.23	29.92	42.15	57.00	-14.85	200	120	QP
6	979.180	13.47	31.27	44.74	60.00	-15.26	100	29	QP

6.2 Radiated Emissions (Above 1GHz)

Test Requirement: ICES-003: Issue 7 October 2020

Test Method: ANSI C63.4-2014+C63.4a-2017

Limit:

Test Distance: 3m

Above 1GHz: 80(dBμV/m) peak, 60(dBμV/m) average

Detector: Peak for pre-scan (1MHz resolution bandwidth) 1GHz to 40GHz

6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 26.5 °C

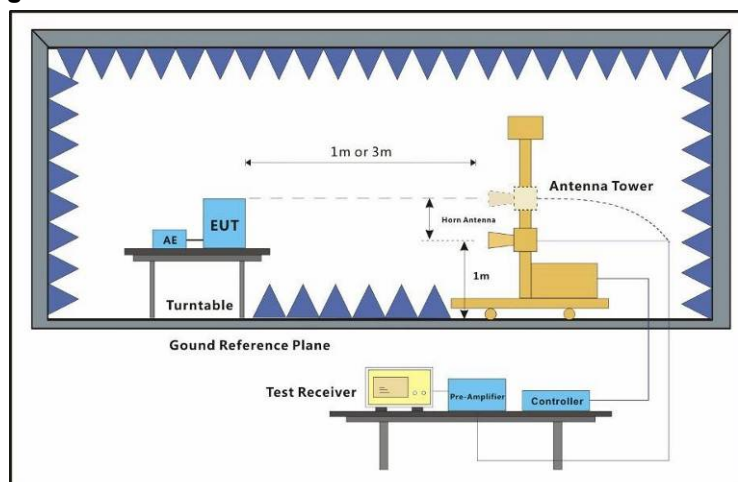
Humidity: 48.3 % RH

Atmospheric Pressure: 1010 mbar

6.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT1_(DS62) working continuously with Auxiliary equipment-DC 24V
Final test	01	Keep EUT2_(DS63) working continuously with Auxiliary equipment-DC 24V

6.2.3 Test Setup Diagram

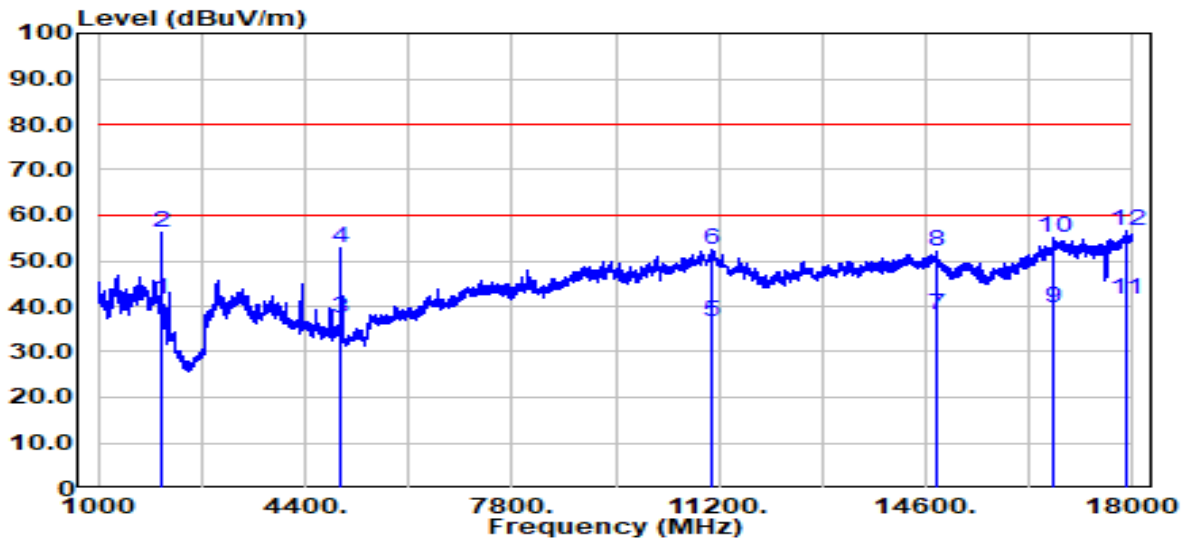


6.2.4 Measurement Procedure and Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities.

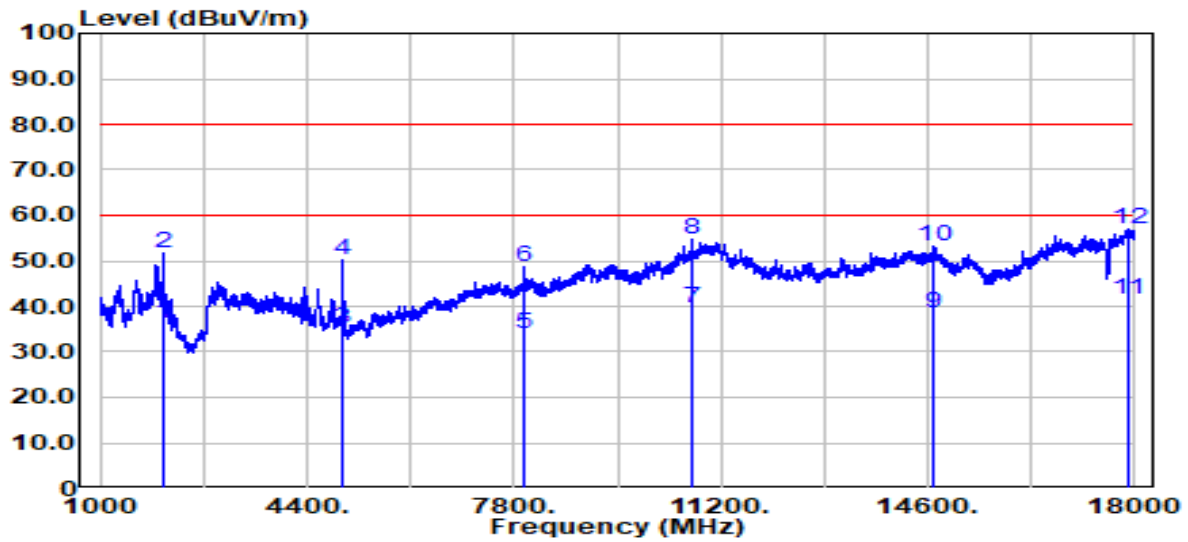
Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Test Mode: 00; Polarity: Horizontal



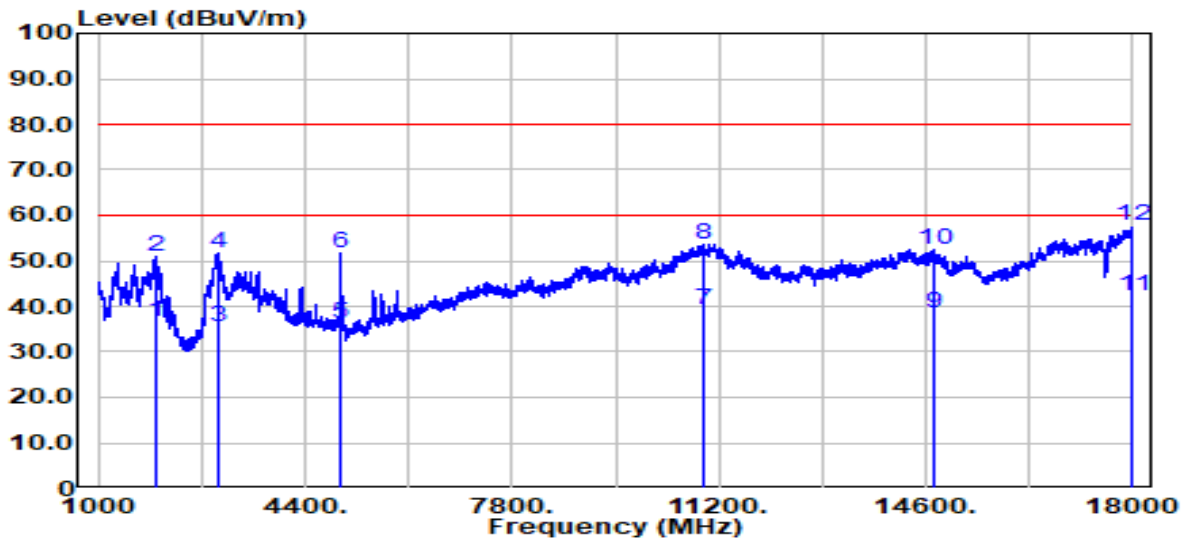
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2054.00	60.64	-19.01	41.63	60.00	-18.37	200	157	Average
2	2054.00	75.34	-19.01	56.33	80.00	-23.67	200	157	Peak
3	4973.75	49.60	-12.34	37.26	60.00	-22.74	100	193	Average
4	4973.75	65.26	-12.34	52.92	80.00	-27.08	100	193	Peak
5	11098.00	33.82	2.81	36.63	60.00	-23.37	100	53	Average
6	11098.00	49.72	2.81	52.53	80.00	-27.47	100	53	Peak
7	14765.75	35.47	2.79	38.26	60.00	-21.74	100	78	Average
8	14765.75	49.21	2.79	52.00	80.00	-28.00	100	78	Peak
9	16708.00	35.55	4.10	39.65	60.00	-20.35	200	1	Average
10	16708.00	50.82	4.10	54.92	80.00	-25.08	200	1	Peak
11	17889.50	32.27	9.09	41.36	60.00	-18.64	100	352	Average
12	17889.50	47.41	9.09	56.50	80.00	-23.50	100	352	Peak

Test Mode: 00; Polarity: Vertical



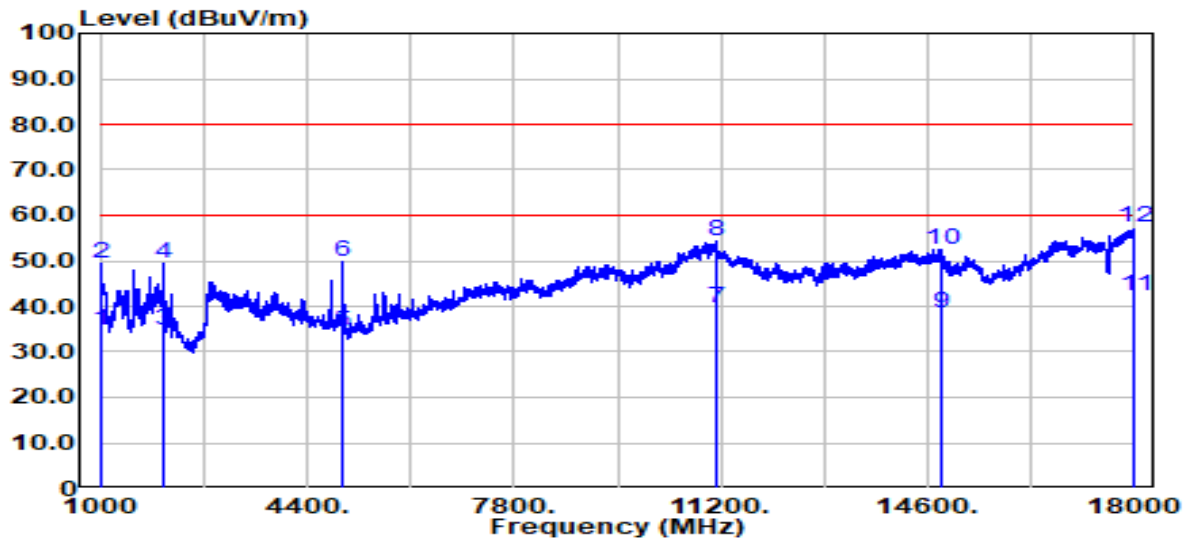
No.	Frequency (MHz)	Reading (dBUV)	Correct Factor(dB/m)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2054.00	55.36	-19.01	36.35	60.00	-23.65	100	13	Average
2	2054.00	70.88	-19.01	51.87	80.00	-28.13	100	13	Peak
3	4978.00	47.59	-12.33	35.26	60.00	-24.74	200	169	Average
4	4978.00	62.39	-12.33	50.06	80.00	-29.94	200	169	Peak
5	7970.00	39.42	-5.36	34.06	60.00	-25.94	100	238	Average
6	7970.00	54.18	-5.36	48.82	80.00	-31.18	100	238	Peak
7	10741.00	37.70	1.93	39.63	60.00	-20.37	100	267	Average
8	10741.00	52.91	1.93	54.84	80.00	-25.16	100	267	Peak
9	14697.75	35.53	2.83	38.36	60.00	-21.64	100	191	Average
10	14697.75	50.35	2.83	53.18	80.00	-26.82	100	191	Peak
11	17898.00	32.10	9.26	41.36	60.00	-18.64	200	250	Average
12	17898.00	47.54	9.26	56.80	80.00	-23.20	200	250	Peak

Test Mode: 01; Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1969.00	56.09	-19.53	36.56	60.00	-23.44	200	297	Average
2	1969.00	70.59	-19.53	51.06	80.00	-28.94	200	297	Peak
3	2972.00	51.45	-16.09	35.36	60.00	-24.64	100	212	Average
4	2972.00	67.84	-16.09	51.75	80.00	-28.25	100	212	Peak
5	4990.75	48.66	-12.31	36.35	60.00	-23.65	100	207	Average
6	4990.75	63.96	-12.31	51.65	80.00	-28.35	100	207	Peak
7	10940.75	36.31	3.05	39.36	60.00	-20.64	200	358	Average
8	10940.75	50.56	3.05	53.61	80.00	-26.39	200	358	Peak
9	14748.75	35.55	2.81	38.36	60.00	-21.64	100	4	Average
10	14748.75	49.58	2.81	52.39	80.00	-27.61	100	4	Peak
11	18000.00	31.74	10.62	42.36	60.00	-17.64	100	306	Average
12	18000.00	47.28	10.62	57.90	80.00	-22.10	100	306	Peak

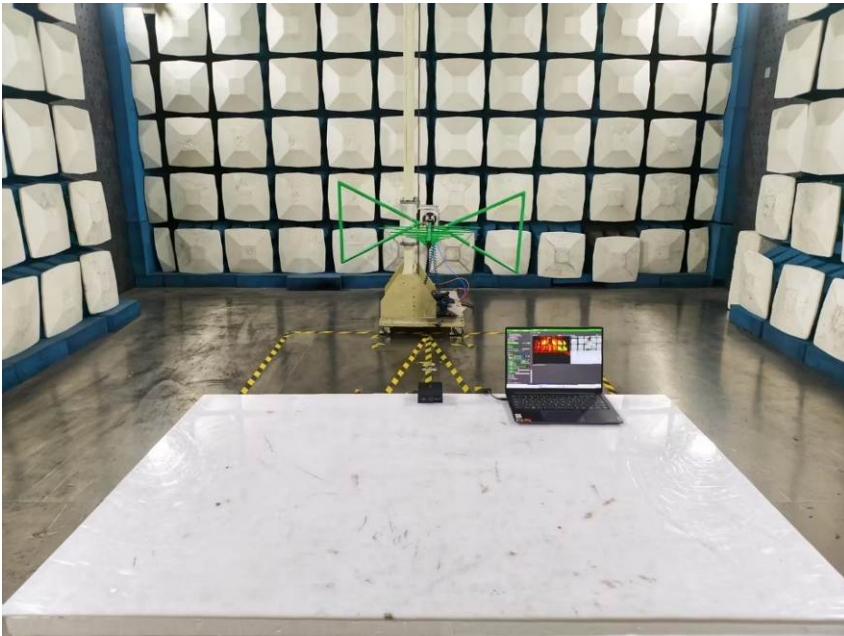
Test Mode: 01; Polarity: Vertical



No.	Frequency (MHz)	Reading (dBUV)	Correct Factor(dB/m)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1017.00	56.91	-22.23	34.68	60.00	-25.32	100	30	Average
2	1017.00	71.58	-22.23	49.35	80.00	-30.65	100	30	Peak
3	2037.00	53.72	-19.14	34.58	60.00	-25.42	200	159	Average
4	2037.00	68.39	-19.14	49.25	80.00	-30.75	200	159	Peak
5	4978.00	46.59	-12.33	34.26	60.00	-25.74	100	123	Average
6	4978.00	61.99	-12.33	49.66	80.00	-30.34	100	123	Peak
7	11110.75	36.89	2.74	39.63	60.00	-20.37	200	8	Average
8	11110.75	51.60	2.74	54.34	80.00	-25.66	200	8	Peak
9	14808.25	35.63	2.73	38.36	60.00	-21.64	100	360	Average
10	14808.25	49.90	2.73	52.63	80.00	-27.37	100	360	Peak
11	18000.00	31.74	10.62	42.36	60.00	-17.64	100	360	Average
12	18000.00	46.83	10.62	57.45	80.00	-22.55	100	360	Peak

7 Test Setup Photo

Radiated Emissions (30MHz-1GHz)

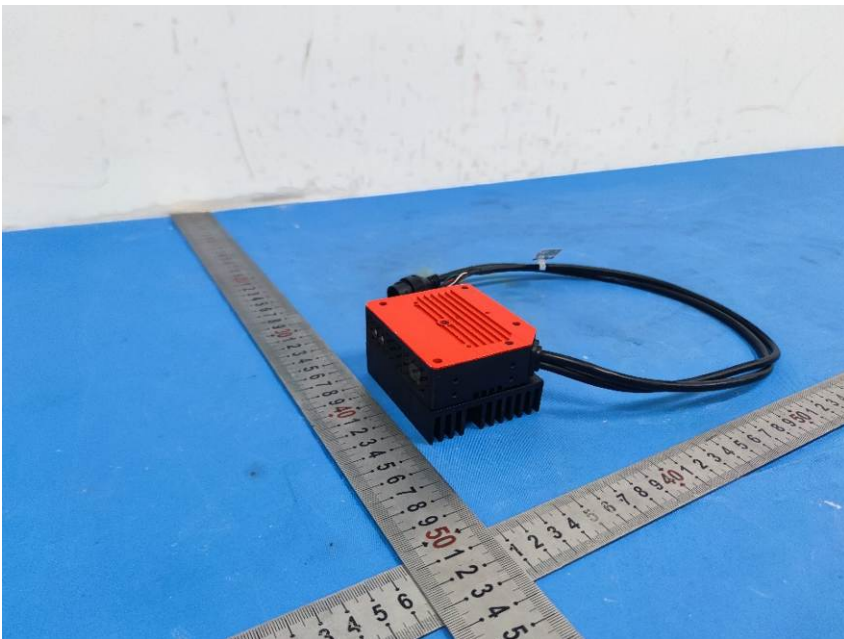


Radiated Emissions (Above 1GHz)



8 EUT Constructional Details (EUT Photos)







- End of the Report -