



TEST REPORT

Report No. SST2504E0606

Applicant: Shen Zhen Yelaw Technology Co., LTD
4th Floor, Building D, Xinyong Fengxin Industrial Park,
Fengzheng Road, Shiyan Street, Baoan District,
Shenzhen, China

Address of Applicant:

Product Name: Emergency Radio

Trade Mark: Mesqool / ROCAM / Raynic / Roxicosly / PPLEE / OnLyee/
Eoxsmile / PESCON / MINORZ / Zebon

Standard(s): FCC CFR Title 47 Part 15 Subpart B
ANSI C63.4:2014a-2017

FCC ID: 2A6CL-CR1030

Test Report Form No: SST-RD-7.5-02-E01(A/0)

Date of sample receipt: 2025/4/27

Date of Test: 2025/4/27 - 2025/4/30

Date of report issued: 2025/4/30

*The equipment complies with the requirements according to the standard(s) or Specification above, it is applicable only to the tested sample identified in the report.

Prepared by:

Bo Li

Reviewed by:

Tiger Li

Approved by:

Seven Zhan



*The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Revision History

Version	Description	Date of Issue
V1.0	Original	2025/4/30



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3 Test Summary

Test items	Basics standards	Result
Conducted Emission	FCC Part15.107	Pass
Radiated Emissions	FCC Part15.109 &15.31	Pass

Notes:

1: NA =Not Applicable

2: Determining compliance based on the results of the compliance measurement, not taking into account measurement uncertainty. If necessary, the applicant shall informing test lab in advance

3: Additions, Deviations and Exclusions from Standards: None.

4 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

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

Item	Uncertainty ($\pm$) (k=2, 95%)	
Output Power, Conducted	0.54	
Power Spectral Density, Conducted	1.28	
Spurious Emissions, Conducted	1.28	
Radiated Emissions(<1GHz)	9kHz~30MHz	2.6
	30MHz~1GHz	5.08
Radiated Emissions(>1GHz)	1GHz~6GHz	4.02
	6GHz~18GHz	4.62
	18GHz~40GHz	4.7
Occupied Bandwidth	1.14	
Conducted Emissions—AC mains	9kHz~150KHz	1.76
	150kHz~30MHz	2.52
Conducted Emissions—Telecom	2.64	

5 General Information

5.1 Client Information

Applicant: Shen Zhen Yelaw Technology Co., LTD
Address of applicant: 4th Floor, Building D, Xinyong Fengxin Industrial Park,
Fengzheng Road, Shiyan Street, Baoan District, Shenzhen,
China
Manufacturer: Same as applicant
Address of Manufacturer: Same as applicant
Factory: Same as applicant
Address of Factory: Same as applicant

5.2 General Description of EUT

Product Name:	Emergency Radio
Model No.:	CR1030, CR1030DAB, CR1030Pro
Test sample(s) ID:	2504220401
Specifications:	
FM:	87 MHz -108MHz
AM:	520 kHz -1700kHz
NOAA Weather:	162.400MHz /162.425MHz /162.450MHz /162.475MHz /162.500MHz /162.525MHz /162.550MHz
Sample(s) Status:	Normal without modified
Power supply:	Input/Output: DC 5V,2A Rechargeable battery:12000mAh Li-ion Battery Dry Battery: DC 4.5 V(3*AAA) Solar Panel Power:350mA Crank power:650mA

5.3 Test mode(s)

Mode 1:	Charging + FM band + lighting on + usb out
Mode 2:	Charging + AM band + lighting on + usb out
Mode 3:	Charging + NOAA band + lighting on + usb out
Mode 4:	
Mode 5:	

5.4 Test Facility

The test facility is recognized, certified, or accredited by these organizations:	FCC Accredited Lab Test Firm Registration Number: 638130 Designation Number: CN1359
	IC Registration Lab CAB Identifier No.CN0154
	A2LA Accreditation Lab Certificate No.:7057.01

Test Performed at:	Name GuangDong Set Sail Testing Co., Ltd.
	Address 101, No.19, Tianxin Hudie 1st Road, Huangjiang Town, Dongguan, Guangdong, China

5.5 Description of Support Units

Manufacturer	Description	Model	Serial Number
Lenovo	Adapter	XXC100G	-

5.6 Others

The laboratory responsible for all the information provided in the report, except those information provided by the applicant. The applicant shall fully responsible for the information they provided. The report would be invalid without a stamp of test laboratory and the signatures of compiler and approver. The laboratory has not been responsible for the sampling stage; the test report merely corresponds to the test sample received. Any objection to the test report shall submitted to the test laboratory within 15 days from the date of receipt of the report. It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

6 Technical Requirement and Measurement Data

6.1 Conducted Emission

Limit				
Frequency (MHz)	☐ Class A (dB μ V)		☒ Class B (dB μ V)	
	Quasi-peak	Average	Quasi-peak	Average
0.15~0.50	79	66	66 to 56*	56 to 46*
0.50~5.0	73	60	56	46
5.0~30	73	60	60	50

*Decreases with the logarithm of the frequency.
If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out

Measured Frequency Range				
150kHz ~ 30MHz				
Block diagram of Test Setup				
☒ For table-top equipment		☐ For floor standing equipment		
Test Instrument				
Refer to Annex A for details				
Test Procedures				
The measurement was performed in a shield room. Measured levels of ac power-line conducted emission shall be the radio-noise voltage from the voltage probe, where permitted, or across the 50 Ω LISN port (to which the EUT is connected), as terminated into a 50 Ω EMI receiver or spectrum analyzer. All radio-noise voltage and current measurements shall be made on each current-carrying conductor at the plug end of the EUT power cord or calibrated extension cord by the use of mating plugs and receptacles on the EUT and LISN, if used. The manufacturer shall test equipment with power cords that are normally supplied or recommended by the manufacturer and that have electrical and shielding characteristics that are the same as those cords normally supplied or recommended. For measurements using a LISN, the 50 Ω measuring port is terminated into a 50 Ω EMI receiver or spectrum analyzer. All other ports are terminated into 50 Ω loads. Table top devices shall be placed on a platform of nominal size 1 m by 1.5 m, raised 80 cm above the reference ground plane. The vertical conducting plane or wall of an RF-shielded (screened) room shall be located 40 cm to the rear of the EUT. Floor-standing devices shall be placed either directly on the reference ground-plane or on insulating material as described in ANSI C63.4. All other surfaces of table top or floor-standing EUTs shall be at least 80 cm from any other grounded conducting surface, including the case or cases of one or more LISNs.				

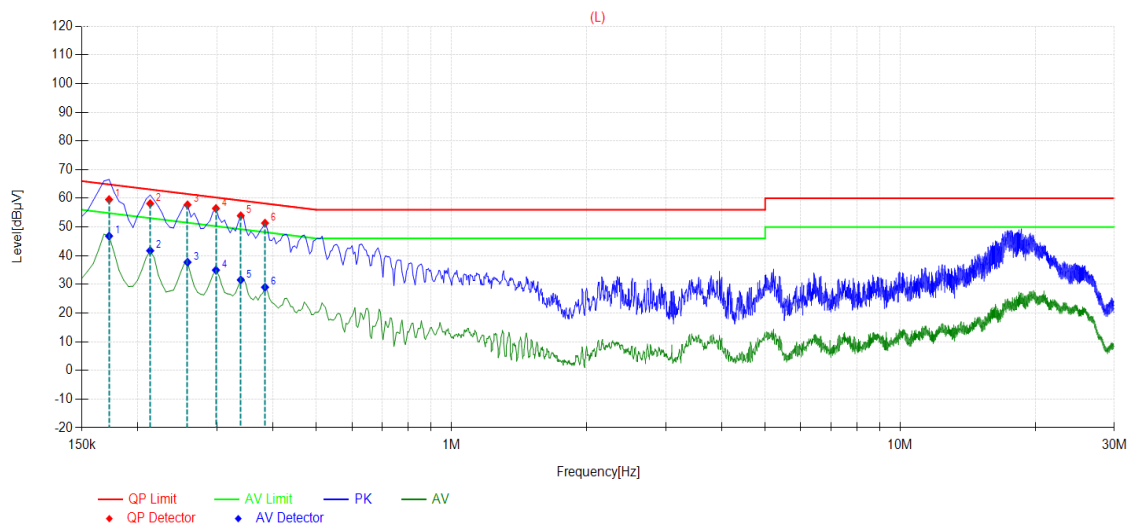
The bandwidth of the test receiver is set at 9 kHz.

Verdict

Pass

Test Result

Test mode	Mode 1	Polarity	Line
Test voltage	AC 120V/60Hz	Temp. /Hum.	25 °C/60%



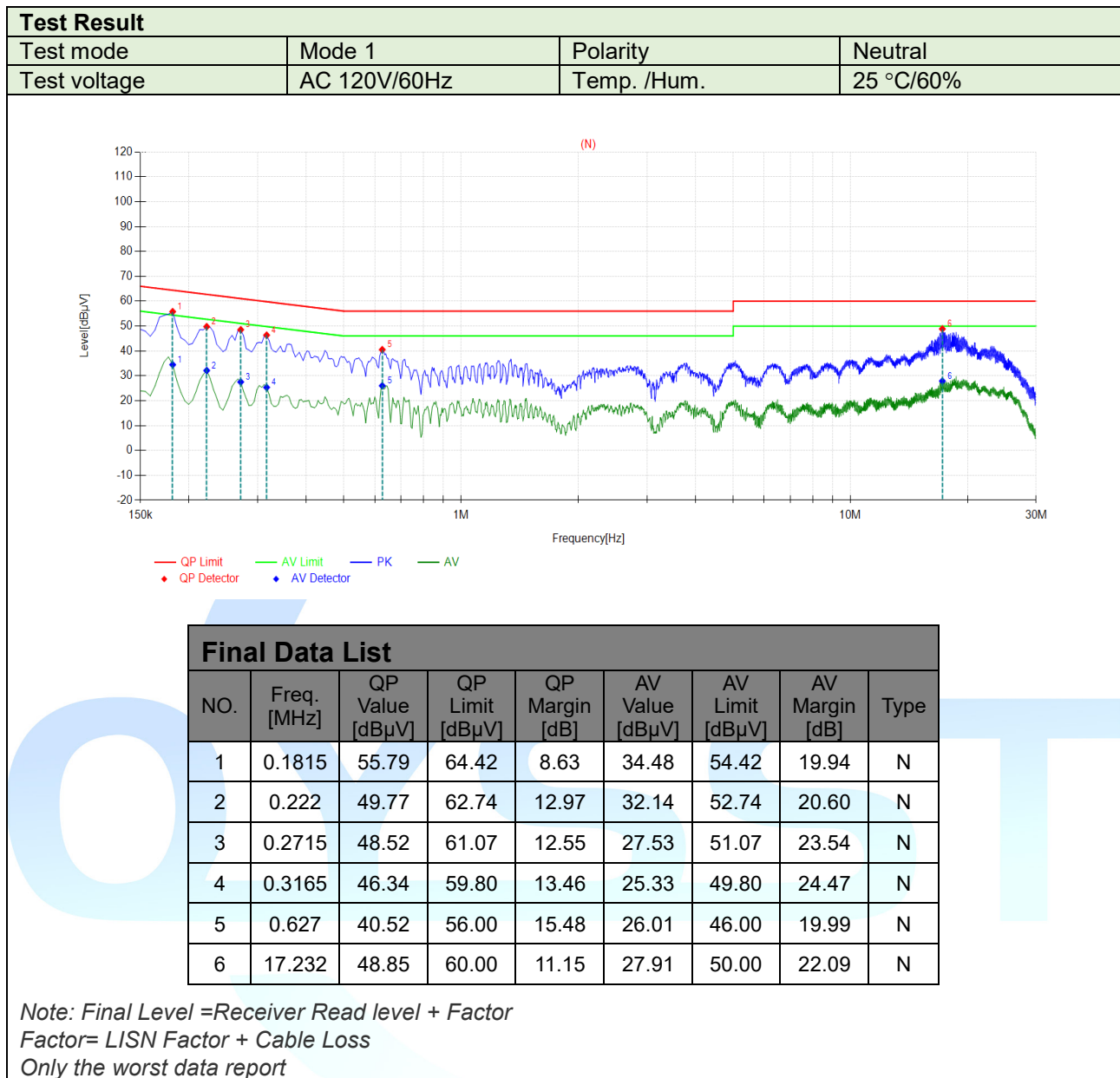
Final Data List

NO.	Freq. [MHz]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Type
1	0.1725	59.56	64.84	5.28	46.84	54.84	8.00	L
2	0.213	58.17	63.09	4.92	41.74	53.09	11.35	L
3	0.258	57.74	61.50	3.76	37.72	51.50	13.78	L
4	0.2985	56.45	60.28	3.83	34.97	50.28	15.31	L
5	0.339	53.93	59.23	5.30	31.54	49.23	17.69	L
6	0.384	51.36	58.19	6.83	29.01	48.19	19.18	L

Note: Final Level = Receiver Read level + Factor

Factor = LISN Factor + Cable Loss

Only the worst data report



6.2 Radiated Emission

Limit of Radiated Emission Measurement (Below 1GHz)

Frequency (MHz)	☐ Class A (3m)	☒ Class B (3m)
	Quasi-peak (dB μ V/m)	Quasi-peak (dB μ V/m)
30~88	49.5	40.0
88~216	54.0	43.5
216~960	56.9	46.0
960~1000	60.0	54.0

Note: The tighter limit applies at the band edges.

Limit of Radiated Emission Measurement (Above 1GHz)

Frequency (MHz)	☐ Class A (3m)		☒ Class B (3m)	
	Peak (dBμV/m)	Average (dBμV/m)	Peak (dBμV/m)	Average (dBμV/m)
Above 1000	80.0	60.0	74.0	54.0

Note: The tighter limit applies at the band edges.

Measured Frequency Range

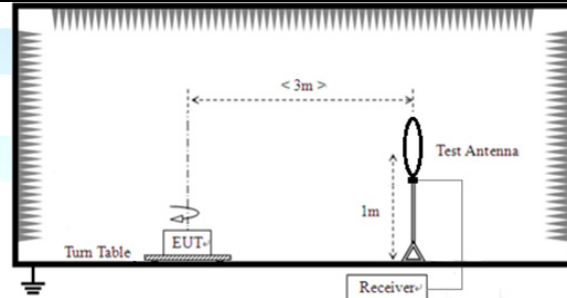
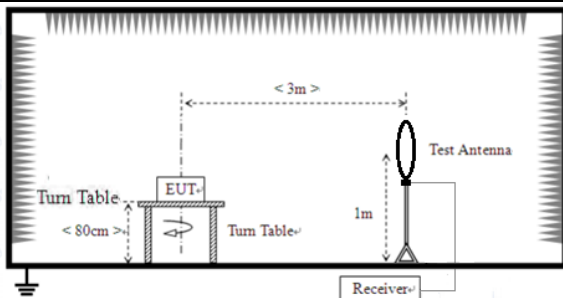
Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30.
1.705~108	1000.
108~500	2000.
500~1000	5000.
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower.

Block diagram of Test Setup

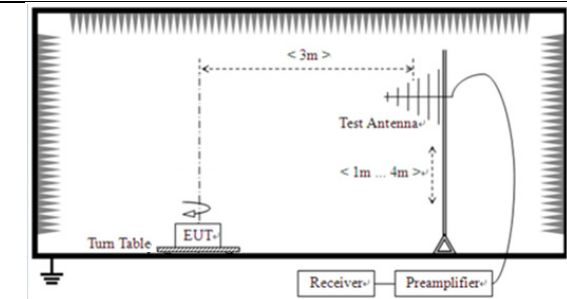
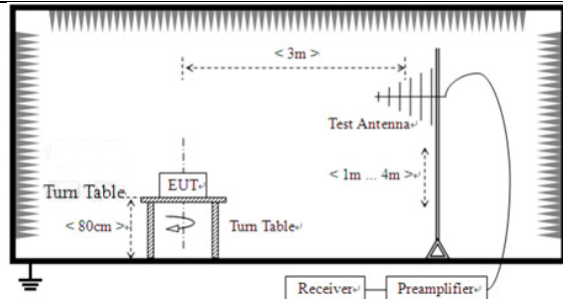
☒ For table-top equipment

☐ For floor standing equipment

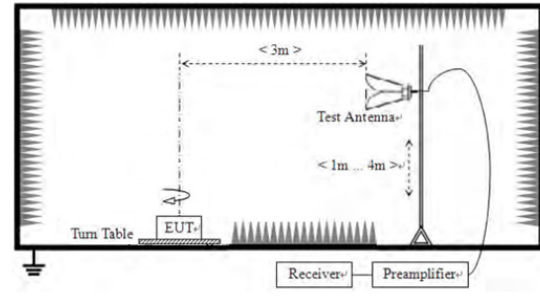
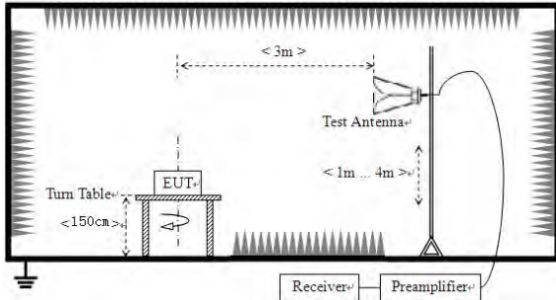
For radiated emissions from 9kHz to 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



Test Instrument

Refer to Annex A for details

Test Procedures

The measurement was performed in a semi-anechoic chamber. While testing for spurious emission higher than 1GHz, the pre-amplifier (and high pass filter if necessary) is equipped just at the output terminal of the antenna.

The distance from EUT to receiving antenna is 3 meters.

Measurement was performed according to clause 4 and clause 5 of ANSI 63.4.

Test procedure was according to clause 8.3 of ANSI 63.4. EUT arrangement and operate condition were according to clause 6 and clause 8 of ANSI 63.4.

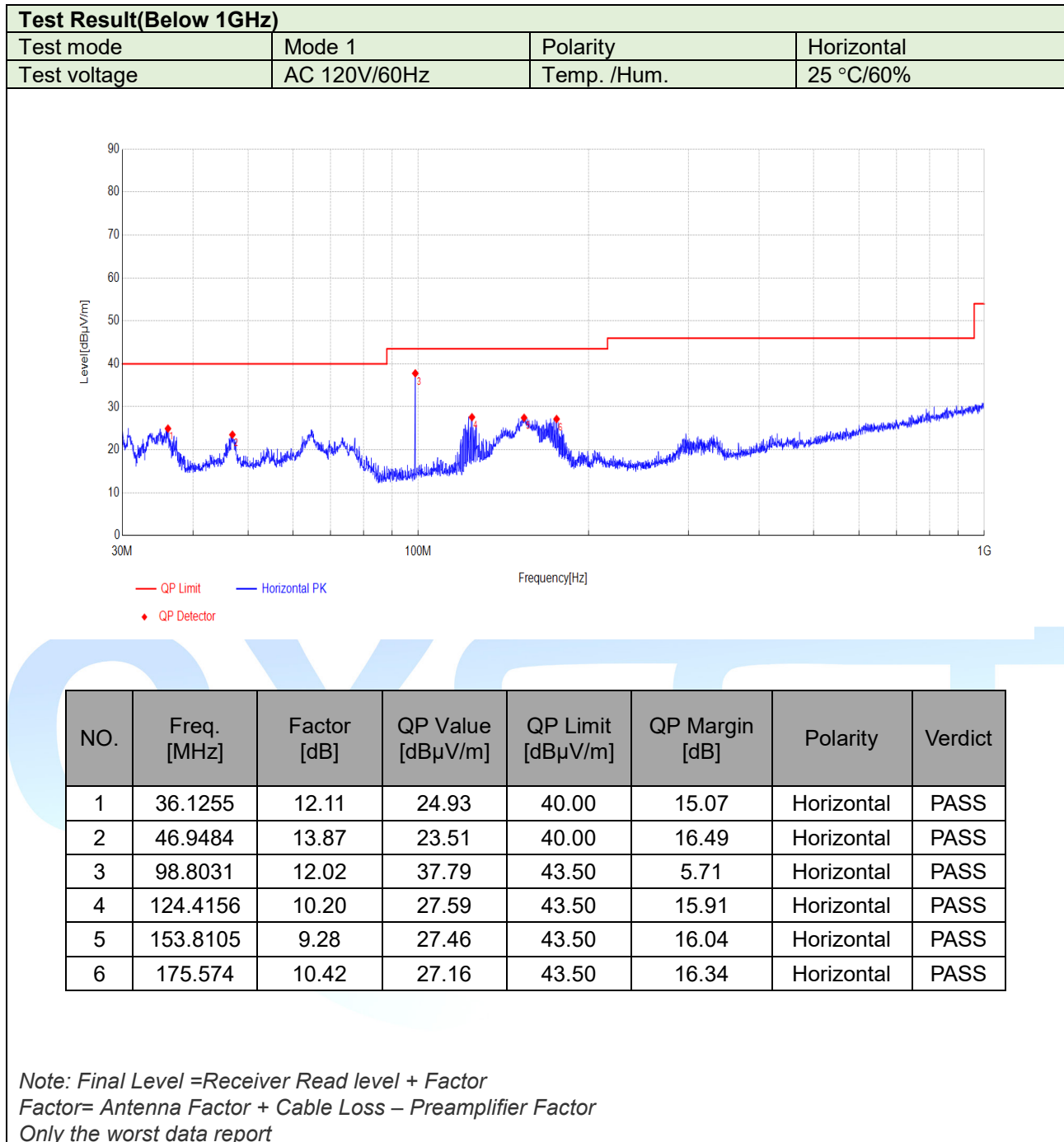
The radiated emission was measured using the test receiver with the resolutions bandwidth set as:

RBW = 100kHz, VBW = 300kHz (30MHz~1GHz)

RBW = 1MHz, VBW = 3MHz (>1GHz for PK)

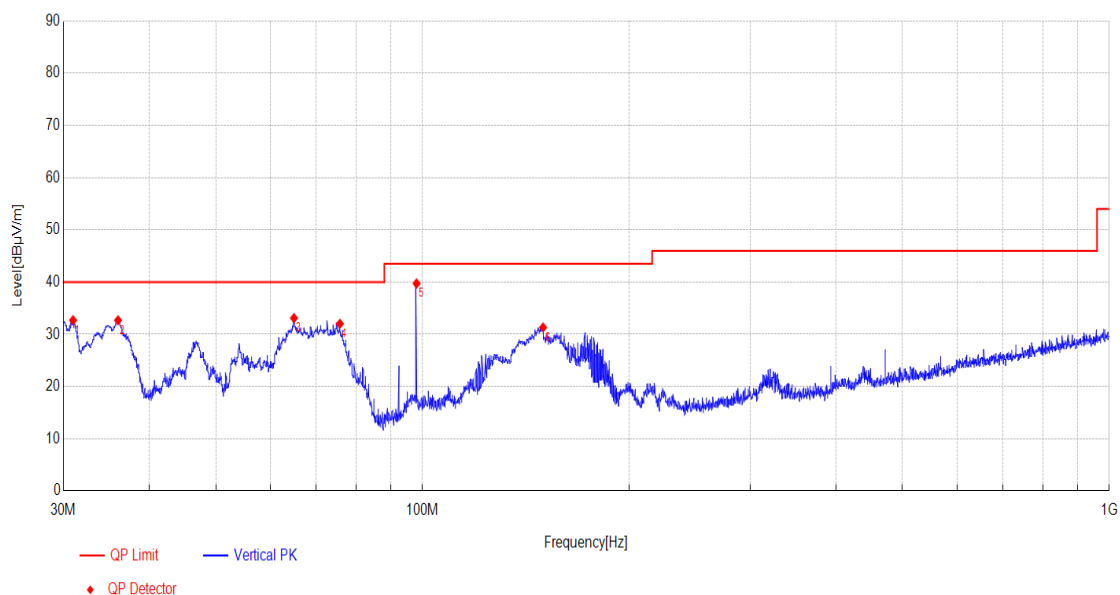
Verdict

Pass



Test Result(Below 1GHz)

Test mode	Mode 1	Polarity	Vertical
Test voltage	AC 120V/60Hz	Temp. /Hum.	25 °C/60%

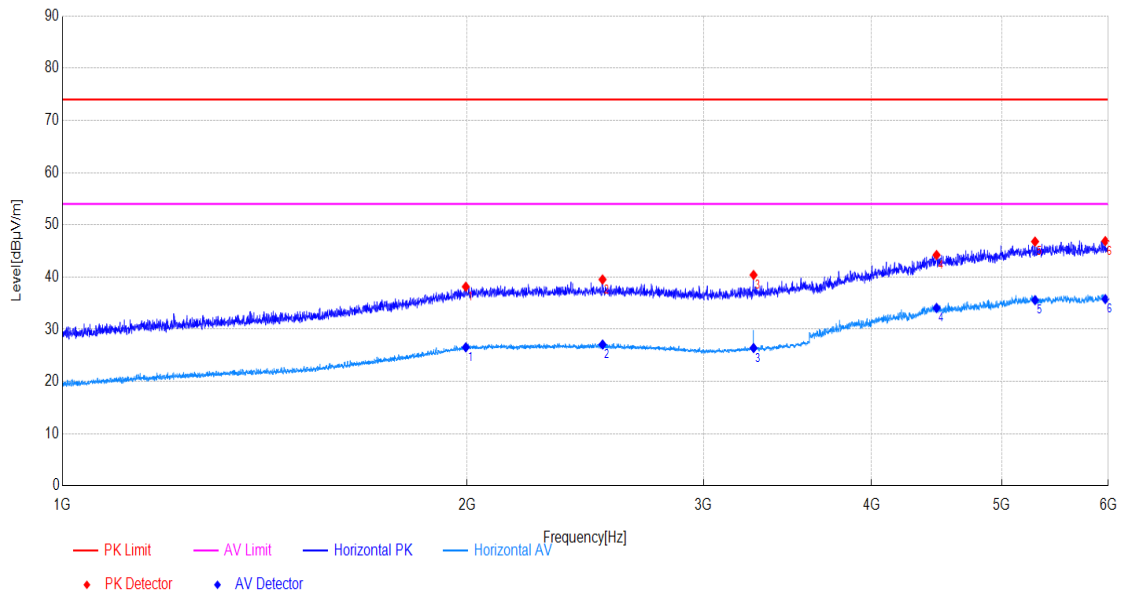


NO.	Freq. [MHz]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Polarity	Verdict
1	30.9888	10.98	32.69	40.00	7.31	Vertical	PASS
2	36.0306	12.09	32.69	40.00	7.31	Vertical	PASS
3	64.9878	11.87	33.10	40.00	6.90	Vertical	PASS
4	75.8267	9.02	32.02	40.00	7.98	Vertical	PASS
5	98.0268	11.85	39.74	43.50	3.76	Vertical	PASS
6	149.8191	8.99	31.31	43.50	12.19	Vertical	PASS

Note: Final Level = Receiver Read level + Factor
Factor= Antenna Factor + Cable Loss – Preamplifier Factor
Only the worst data report

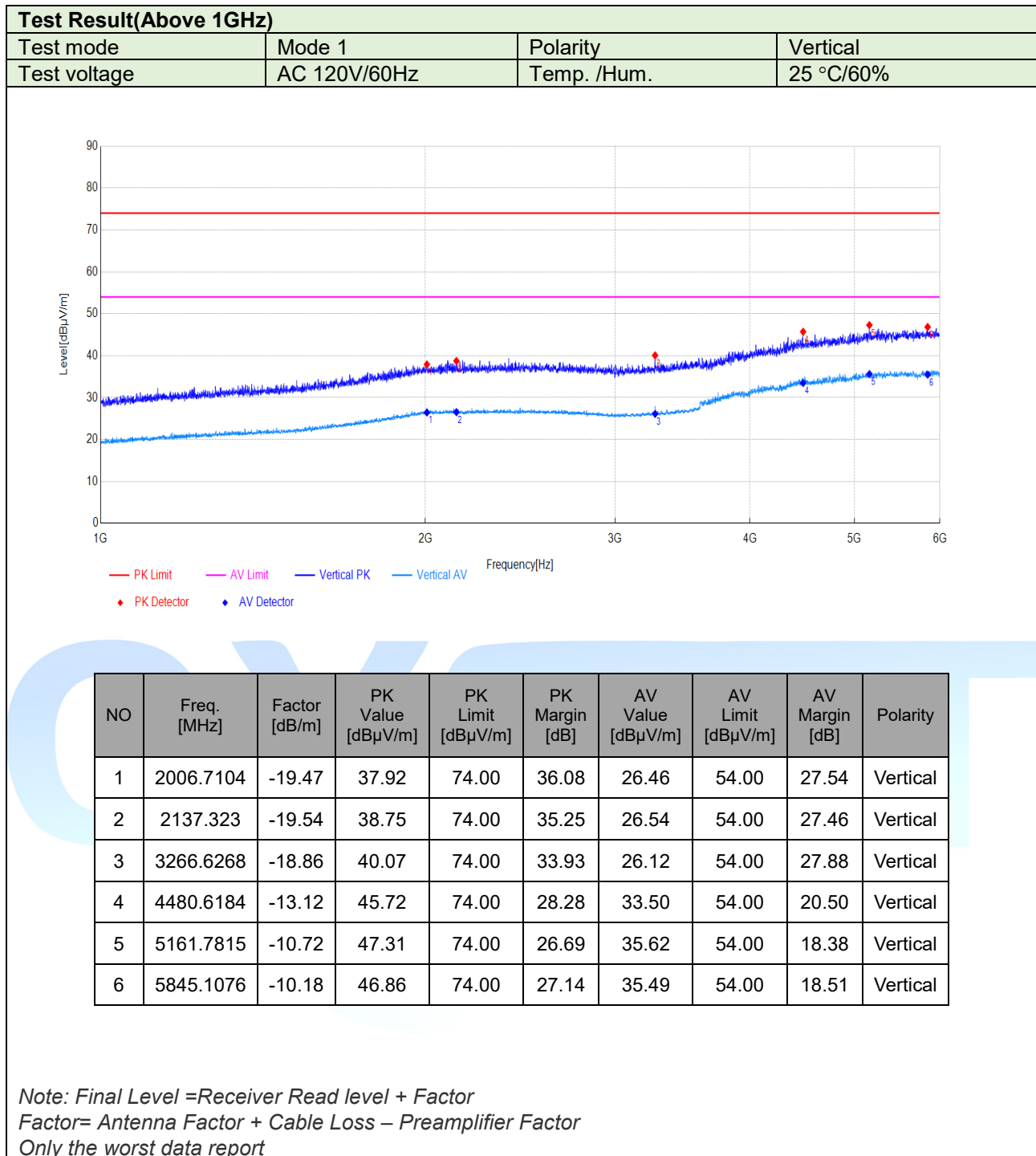
Test Result(Above 1GHz)

Test mode	Mode 1	Polarity	Horizontal
Test voltage	AC 120V/60Hz	Temp. /Hum.	25 °C/60%



NO	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity
1	1995.9549	-19.51	38.16	74.00	35.84	26.55	54.00	27.45	Horizontal
2	2522.9727	-19.75	39.54	74.00	34.46	27.09	54.00	26.91	Horizontal
3	3267.7974	-18.86	40.41	74.00	33.59	26.42	54.00	27.58	Horizontal
4	4470.9969	-13.16	44.24	74.00	29.76	34.09	54.00	19.91	Horizontal
5	5292.874	-10.66	46.81	74.00	27.19	35.59	54.00	18.41	Horizontal
6	5969.9798	-10.03	46.90	74.00	27.10	35.79	54.00	18.21	Horizontal

Note: Final Level =Receiver Read level + Factor
Factor= Antenna Factor + Cable Loss – Preamplifier Factor
Only the worst data report

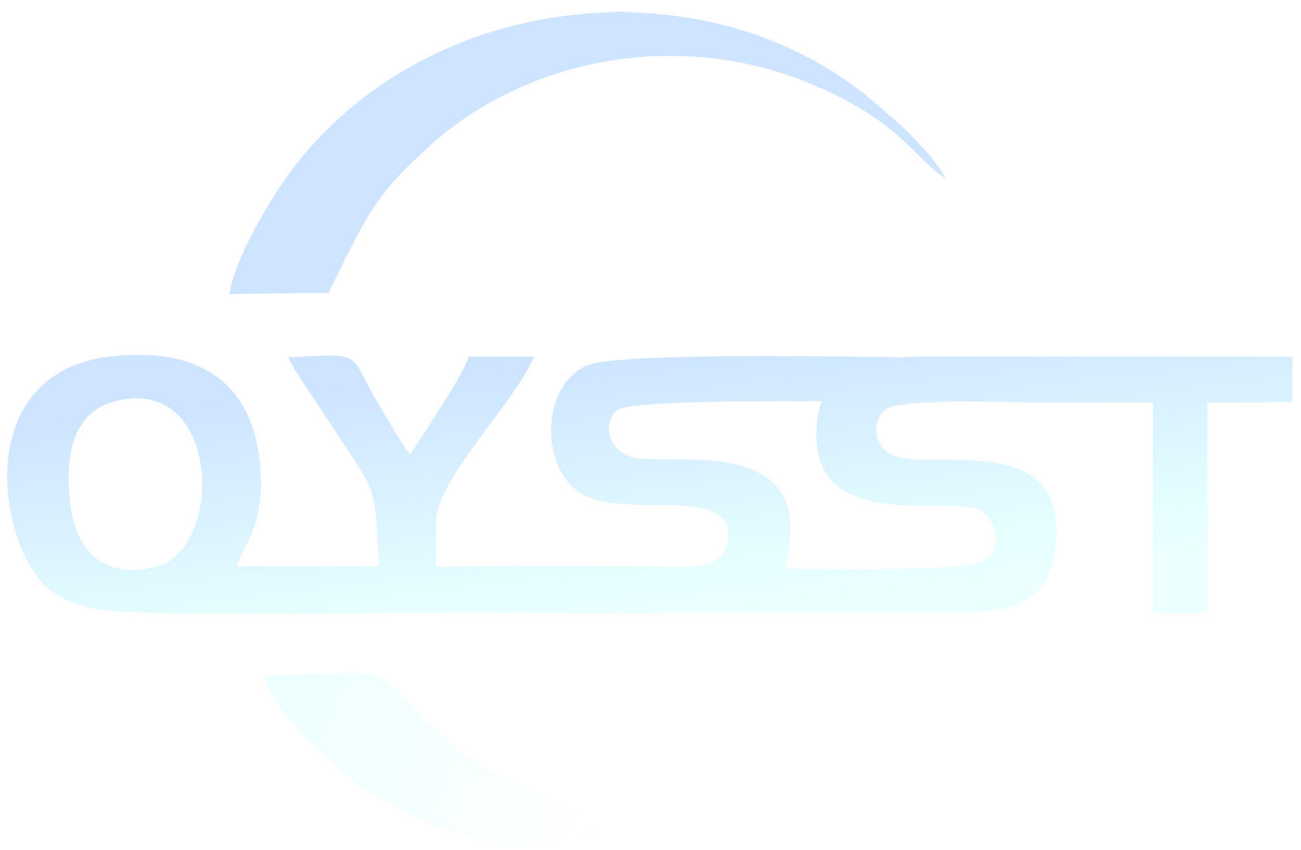


7 Test Setup Photo

Reference to the **appendix I** for details.

8 EUT Constructional Details

Reference to the **appendix II** for details.



Annex A --Test Instruments list

Radiated Emission:					
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. cycle	Cal.Date
3m Semi- Anechoic Chamber	BOST	966	/	3 years	2023.01.07
Control Room	BOST	333	/	3 years	2023.01.07
Breiband TRILOG Messantenne	Schwarzbeck	VULB 9162	00556	1 year	2025.04.19
Broad-band Horn Antenna	Schwarzbeck	BBHA 9120 D	02783	1 year	2025.04.19
EMI Test Receiver	R&S	ESU8	100372	1 year	2025.04.17
Amplifier (1-18GHz)	TSTPASS	LNA10180G45	TSAM2303003	1 year	2025.04.17
Spectrum Analyzer	keysight	N9020A	MY51280659	1 year	2025.04.17
Amplifier (40G)	RFsystem	TRLA-180400G45B	23060801	1 year	2025.04.18
Broadband Horn Antenna (40G)	Schwarzbeck	BBHA9170	01306	1 year	2025.04.19
Spectrum analyzer	R&S	FSV40-N	101791	1 year	2025.04.17
Loop Antenna	Schwarzbeck	FMZB 1513-60B	1513-60B 044	1 year	2025.04.18
5W 6dB attenuator	/	DC-6GHz	/	Internal calibration	/
Thermohygrometer	KTJ	TA218A	879030	1 year	2025.04.21
EMI Test Software	Tonscend	TS+	V5.0	/	/

Conducted Emission					
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. cycle	Cal.Date
Shielding Room	BOST	854	/	3 year	2023.01.07
EMI Test Receiver	R&S	ESR3	103057	1 year	2025.04.17
LISN	R&S	ENV 216	102832	1 year	2025.04.17
ISN	Schwarzbeck	NTFM 8158	00347	1 year	2025.04.17
ISN	Schwarzbeck	CAT3 8158	00279	1 year	2025.04.17
ISN	Schwarzbeck	CAT5 8158	00524	1 year	2025.04.17
Sensor probe	TCTEST	CSP 9160A	81837	1 year	2025.04.17
High impedance capacitive voltage probe	Schwarzbeck	CVP 9222C	00221	1 year	2025.04.22
Voltage probe	Schwarzbeck	TK 9420	01304	1 year	2025.04.17
Antenna port test assembly	/	DC-3GHz	/	Internal calibration	/
Thermohygrometer	KTJ	TA218A	879036	1 year	2025.04.21
EMI Test Software	Tonscend	TS+	V4.0	/	/

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