中认信通
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

TEST REPORT

Applicant: **Grandstream Networks, Inc.**

Address: 126 Brookline Ave., 3rd Floor Boston, MA 02215, USA

FCC ID: **YZZDP725**

Product Name: **DECT Cordless HD Handset for Mobility**

Standard(s): **47 CFR Part 15 Subpart B**
ANSI C63.4-2014

The above device has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number: **CR231273998-00A**

Date Of Issue: **2024/01/26**

Reviewed By: **Calvin Chen**
Title: RF Engineer

Approved By: **Sun Zhong**
Title: Manager

Test Laboratory: **China Certification ICT Co., Ltd (Dongguan)**
No. 113, Pingkang Road, Dalang Town, Dongguan,
Guangdong, China
Tel: +86-769-82016888

Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "▲". Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

This report cannot be reproduced except in full, without prior written approval of the Company.

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

This report may contain data that are not covered by the accreditation scope and shall be marked with an asterisk "★".

CONTENTS

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR231273998-00A	Original Report	2024/01/26

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	DECT Cordless HD Handset for Mobility
Trade Name:	GRANDSTREAM
EUT Model:	DP725
Highest Operation Frequency:	1928.448 MHz
Rated Input Voltage:	DC 3.8V from battery or DC 5V from adapter
Serial Number:	2F0X-4
EUT Received Date:	2023/12/12
EUT Received Status:	Good

Accessory Information:

Accessory Description	Manufacturer	Model	Parameters
Adapter 1	Zhuzhou dachuan Electronic Technology Co.,Ltd.	DCT06W050100US-D0	Input: AC 100-240V~50/60Hz, 200mA Output: DC 5.0V, 1.0A
Adapter 2	DONGGUAN GANGQI ELECTRONIC CO LTD	GQ06-050100-ZU	Input: AC 100-240V~50/60Hz, 0.3A Max Output: DC 5.0V, 1.0A
Charger	Grandstream	DP725	Input: DC 5.0V, 1.0A

1.2 Description of Test Configuration

1.2.1 EUT Operation Condition

EUT Operation Mode:	The system was configured for testing in Typical Use Mode, which was provided by the manufacturer. Test Mode : M1: Charging+Talking
Equipment Modifications:	No
EUT Exercise Software:	No

1.2.2 Support Equipment List and Details

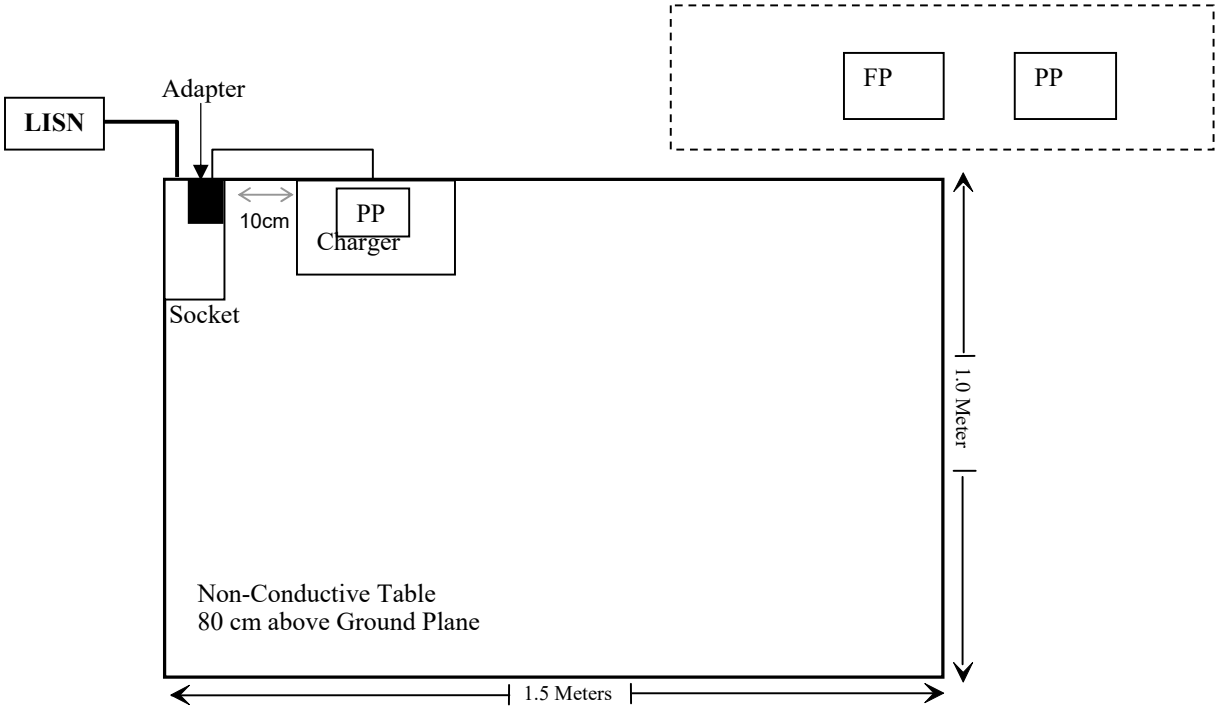
Manufacturer	Description	Model	Serial Number
Unknown	Socket	Unknown	Unknown
Grandstream	FP	DP750	/
Grandstream	PP	DP730	/

1.2.3 Support Cable List and Details

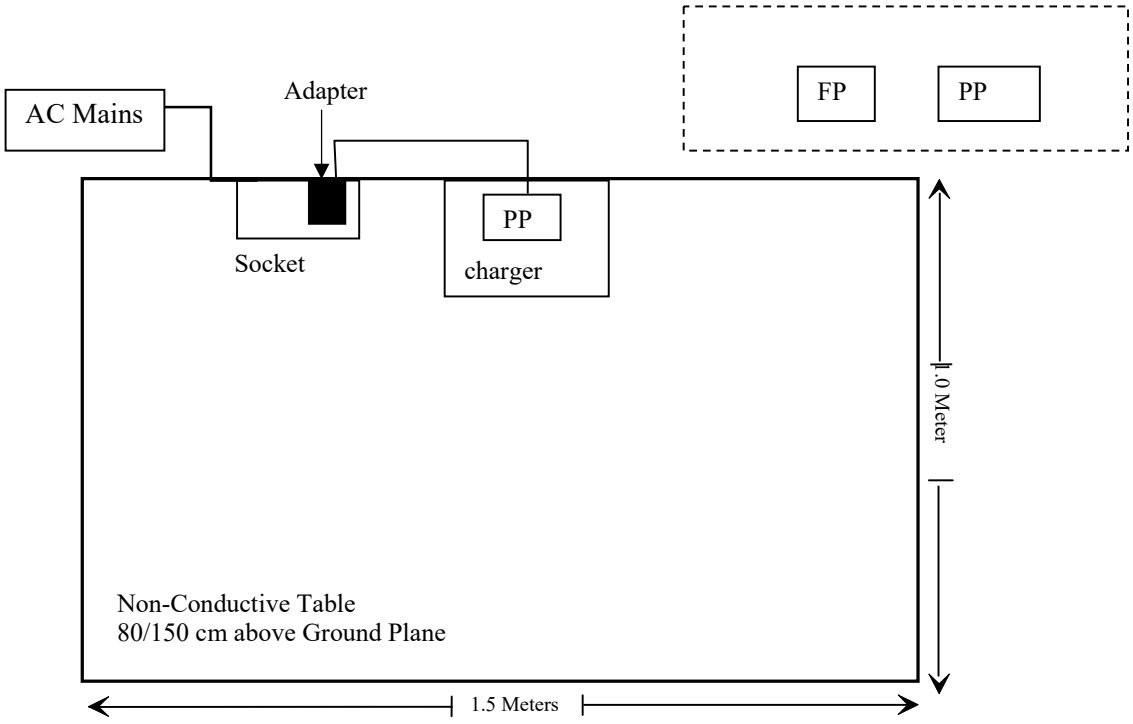
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
AC Cable	No	No	1	EUT	Adapter

1.2.4 Block Diagram of Test Setup

Conducted emissions:



Radiated emissions:



1.3 Measurement Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty
Unwanted Emissions, radiated	30M~200MHz: 4.15 dB,200M~1GHz: 5.61 dB,1G~6GHz: 5.14 dB, 6G~18GHz: 5.93 dB,18G~26.5G:5.47 dB,26.5G~40G:5.63 dB
Temperature	±1℃
Humidity	±5%
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

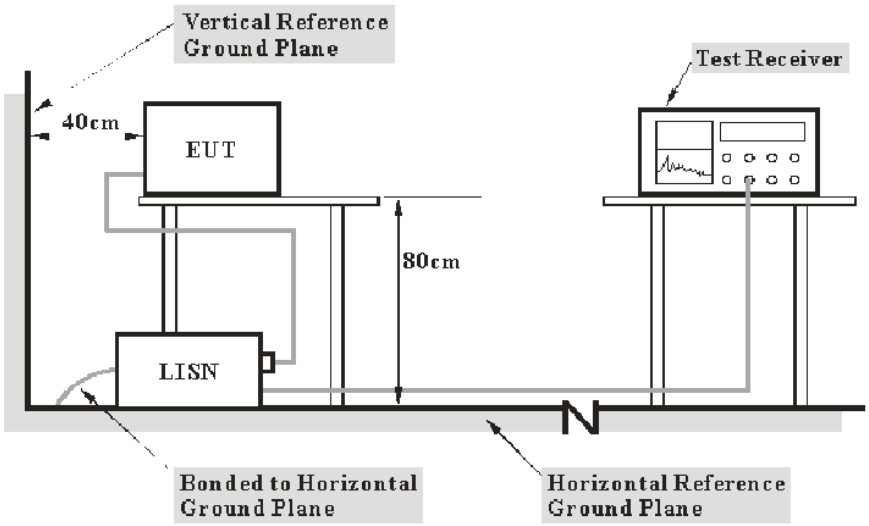
2. SUMMARY OF TEST RESULTS

Standard(s) Section	Description of Test	Result
§15.107	Conducted emissions	Compliant
§15.109	Radiated emissions	Compliant

3. REQUIREMENTS AND TEST PROCEDURES

3.1 AC Line Conducted Emissions

3.1.1 EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.4-2014 measurement procedure. The specification used was with the FCC Part 15 B Class B limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The adapter or EUT was connected to the main LISN with a 120 V/60 Hz AC power source.

3.1.2 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

3.1.3 Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the first LISN and the other support equipments were connected to the outlet of the second LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT, the report shall list the six emissions with the smallest margin relative to the limit, unless the margin is greater than 20 dB.

All data was recorded in the Quasi-peak and average detection mode.

The report shall list the six emissions with the smallest margin relative to the limit, unless the margin is greater than 20 dB.

3.1.4 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor
Factor = attenuation caused by cable loss + voltage division factor of AMN

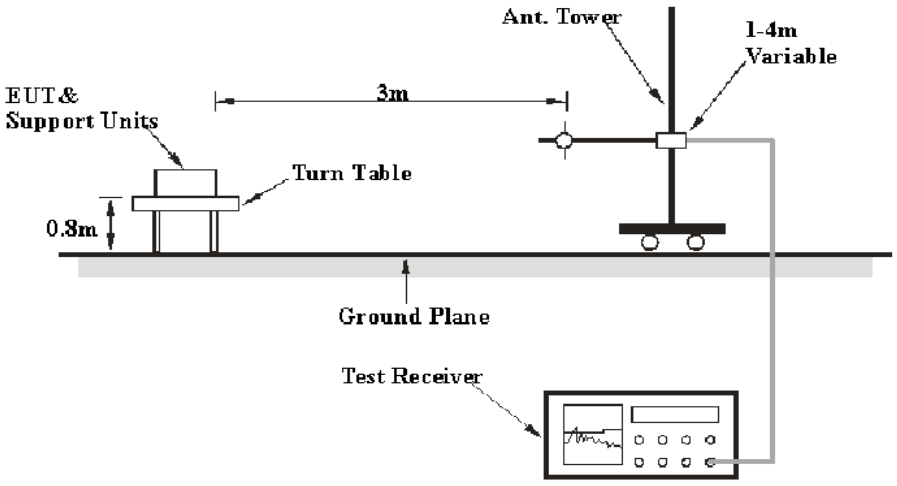
The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

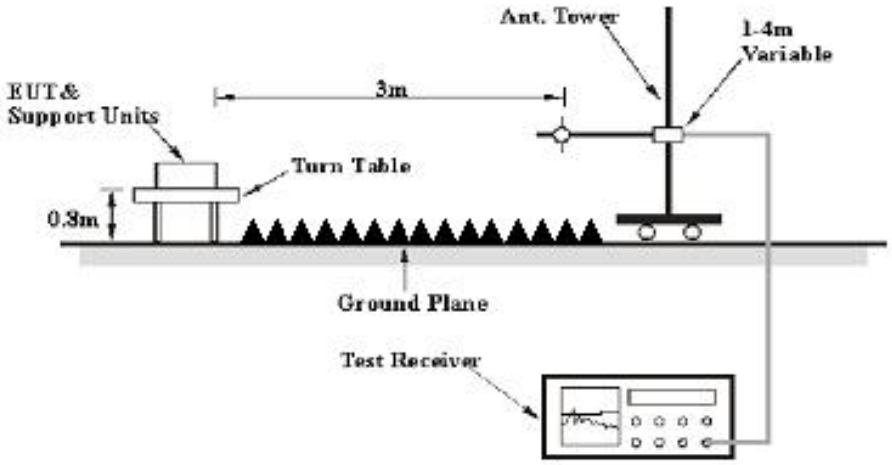
3.2 Radiation Spurious Emissions

3.2.1 EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emissions were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2014. The specification used was with the FCC Part 15 B Class B limits.

3.2.2 EMI Test Receiver Setup

The system was investigated from 30 MHz to 13 GHz.

During the radiated emission test, the EMI test receiver was set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
30 MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	Peak
	1 MHz	3 MHz	/	AVG

If the maximized peak measured value complies with under the limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

3.2.3 Test Procedure

During the radiated emissions, the adapter was connected to the first AC floor outlet and the other support equipments were connected to the second AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The data was recorded in the Quasi-peak detection mode for below 1 GHz.

All emissions under the average limit and under the noise floor have not recorded in the report.

3.2.4 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor
Factor = Antenna Factor + Cable Loss- Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

4. TEST DATA AND RESULTS

4.1 AC Line Conducted Emissions

Serial Number:	2F0X-4	Test Date:	2024/1/25
Test Site:	CE	Test Mode:	M1
Tester:	David Huang	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	22.1	Relative Humidity: (%)	27	ATM Pressure: (kPa)	102.5

Test Equipment List and Details:

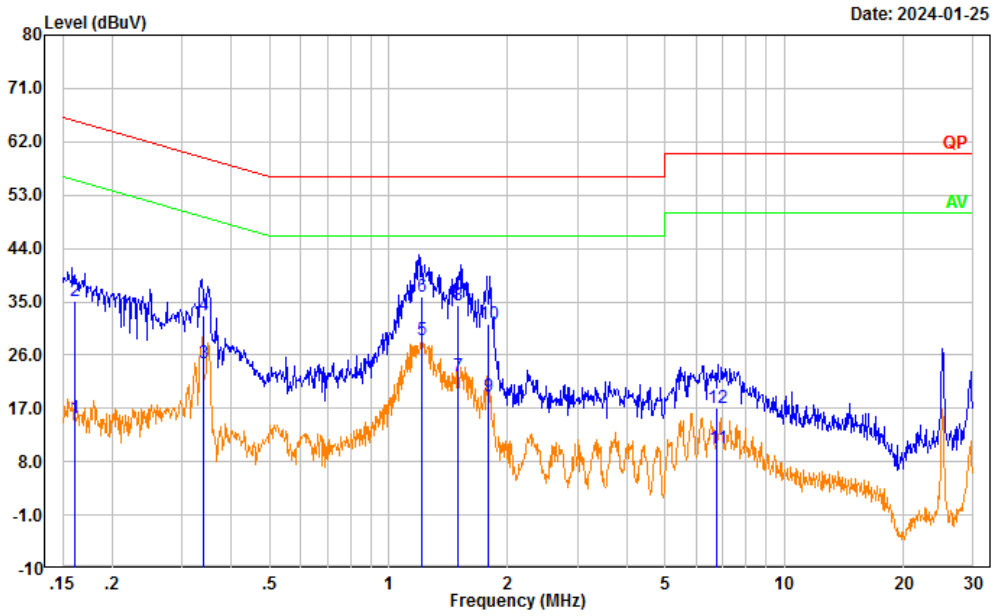
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101134	2023/3/31	2024/3/30
R&S	EMI Test Receiver	ESR3	102726	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2023/8/6	2024/8/5
Audix	Test Software	E3	190306 (V9)	N/A	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

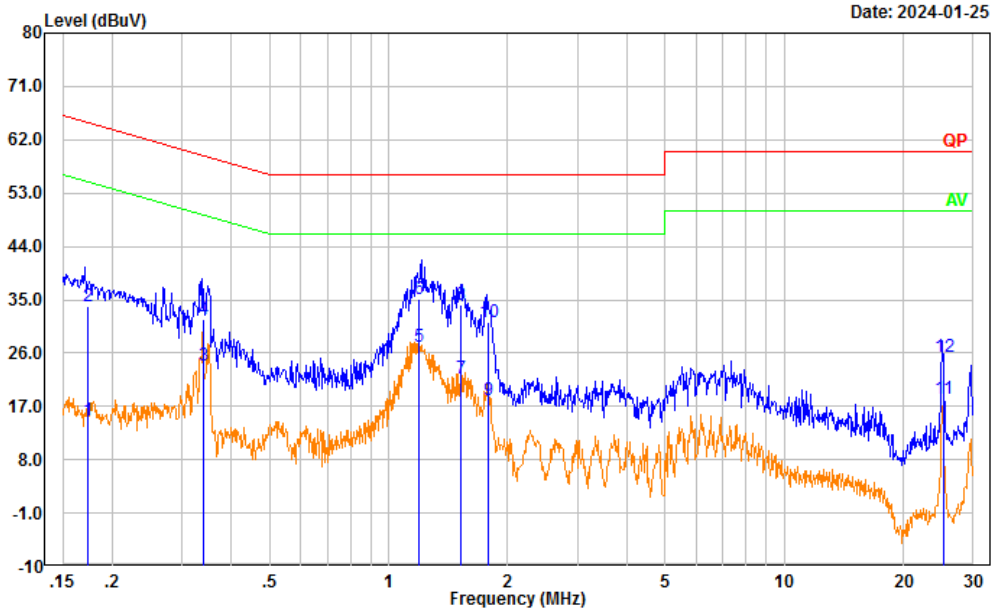
Adapter 1

Project No.: CR231273998-RF
Tester: David Huang
Port: Line



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.161	5.84	9.61	15.45	55.43	39.98	Average
2	0.161	25.44	9.61	35.05	65.43	30.38	QP
3	0.341	15.00	9.61	24.61	49.18	24.57	Average
4	0.341	23.03	9.61	32.64	59.18	26.54	QP
5	1.213	18.87	9.62	28.49	46.00	17.51	Average
6	1.213	26.15	9.62	35.77	56.00	20.23	QP
7	1.494	12.74	9.62	22.36	46.00	23.64	Average
8	1.494	24.87	9.62	34.49	56.00	21.51	QP
9	1.783	9.52	9.63	19.15	46.00	26.85	Average
10	1.783	21.59	9.63	31.22	56.00	24.78	QP
11	6.773	0.67	9.66	10.33	50.00	39.67	Average
12	6.773	7.46	9.66	17.12	60.00	42.88	QP

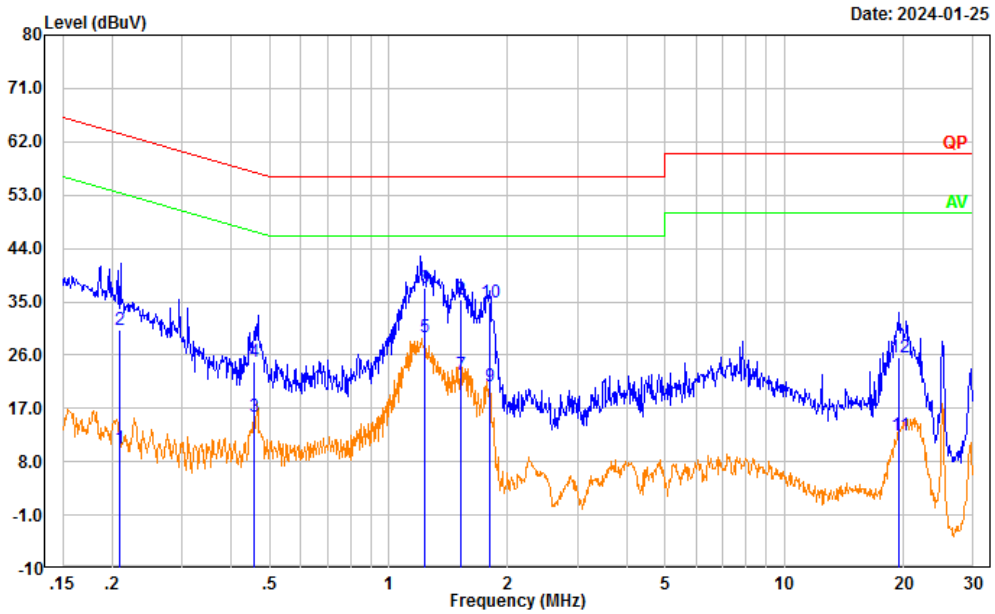
Project No.: CR231273998-RF
Tester: David Huang
Port: neutral



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.173	5.00	9.61	14.61	54.81	40.20	Average
2	0.173	24.38	9.61	33.99	64.81	30.82	QP
3	0.341	14.17	9.61	23.78	49.17	25.39	Average
4	0.341	22.12	9.61	31.73	59.17	27.44	QP
5	1.193	17.46	9.62	27.08	46.00	18.92	Average
6	1.193	25.58	9.62	35.20	56.00	20.80	QP
7	1.518	11.99	9.63	21.62	46.00	24.38	Average
8	1.518	24.51	9.63	34.14	56.00	21.86	QP
9	1.788	8.32	9.63	17.95	46.00	28.05	Average
10	1.788	21.52	9.63	31.15	56.00	24.85	QP
11	25.220	8.53	9.76	18.29	50.00	31.71	Average
12	25.220	15.57	9.76	25.33	60.00	34.67	QP

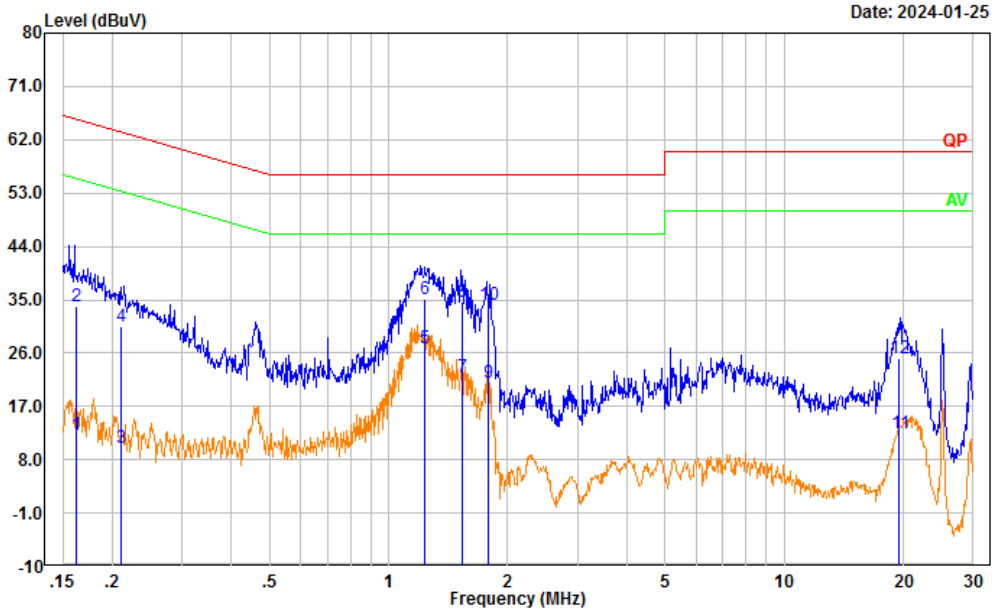
Adapter 2

Project No.: CR231273998-RF
Tester: David Huang
Port: Line



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.210	0.63	9.61	10.24	53.21	42.97	Average
2	0.210	20.67	9.61	30.28	63.21	32.93	QP
3	0.458	6.09	9.61	15.70	46.73	31.03	Average
4	0.458	15.30	9.61	24.91	56.73	31.82	QP
5	1.230	19.28	9.62	28.90	46.00	17.10	Average
6	1.230	27.59	9.62	37.21	56.00	18.79	QP
7	1.517	13.04	9.63	22.67	46.00	23.33	Average
8	1.517	25.80	9.63	35.43	56.00	20.57	QP
9	1.805	11.13	9.63	20.76	46.00	25.24	Average
10	1.805	25.23	9.63	34.86	56.00	21.14	QP
11	19.535	2.77	9.79	12.56	50.00	37.44	Average
12	19.535	15.94	9.79	25.73	60.00	34.27	QP

Project No.: CR231273998-RF
Tester: David Huang
Port: neutral



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.163	2.48	9.61	12.09	55.33	43.24	Average
2	0.163	24.24	9.61	33.85	65.33	31.48	QP
3	0.211	0.33	9.61	9.94	53.16	43.22	Average
4	0.211	20.81	9.61	30.42	63.16	32.74	QP
5	1.230	17.20	9.62	26.82	46.00	19.18	Average
6	1.230	25.39	9.62	35.01	56.00	20.99	QP
7	1.536	12.26	9.63	21.89	46.00	24.11	Average
8	1.536	25.02	9.63	34.65	56.00	21.35	QP
9	1.782	11.38	9.63	21.01	46.00	24.99	Average
10	1.782	24.55	9.63	34.18	56.00	21.82	QP
11	19.543	2.74	9.70	12.44	50.00	37.56	Average
12	19.543	15.33	9.70	25.03	60.00	34.97	QP

4.2 Radiation Spurious Emissions

Serial Number:	2F0X-4	Test Date:	2024/1/25
Test Site:	966-2, 966-1	Test Mode:	M1
Tester:	Carl Xue, coco Tian	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	23.7~26.1	Relative Humidity: (%)	42~53	ATM Pressure: (kPa)	102.5

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2023/12/1	2026/11/30
R&S	EMI Test Receiver	ESR3	102724	2023/3/31	2024/3/30
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2023/7/16	2024/7/15
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2023/7/16	2024/7/15
Sonoma	Amplifier	310N	186165	2023/7/16	2024/7/15
Audix	Test Software	E3	201021 (V9)	N/A	N/A
ETS-Lindgren	Horn Antenna	3115	9912-5985	2023/12/6	2026/12/5
R&S	Spectrum Analyzer	FSV40	101591	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2024/1/15	2025/1/14
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2024/1/15	2025/1/14
A.H	Preamplifier	PAM-0118P	628	2024/1/15	2025/1/14
Audix	Test Software	E3	191218 (V9)	N/A	N/A
Mini Circuits	High Pass Filter	VHF-6010+	31119	2023/8/6	2024/8/5

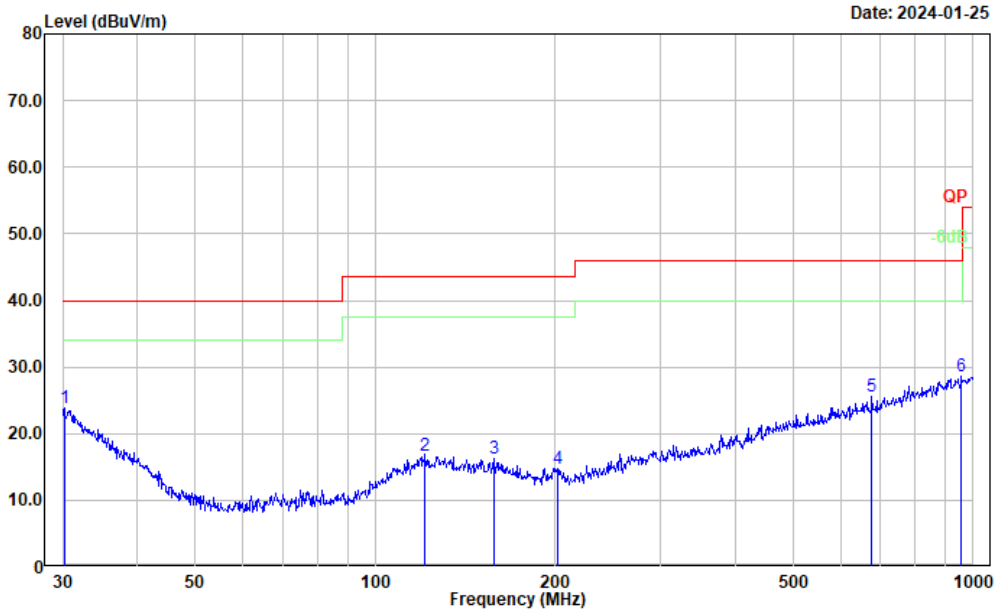
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Please refer to the below table and plots.

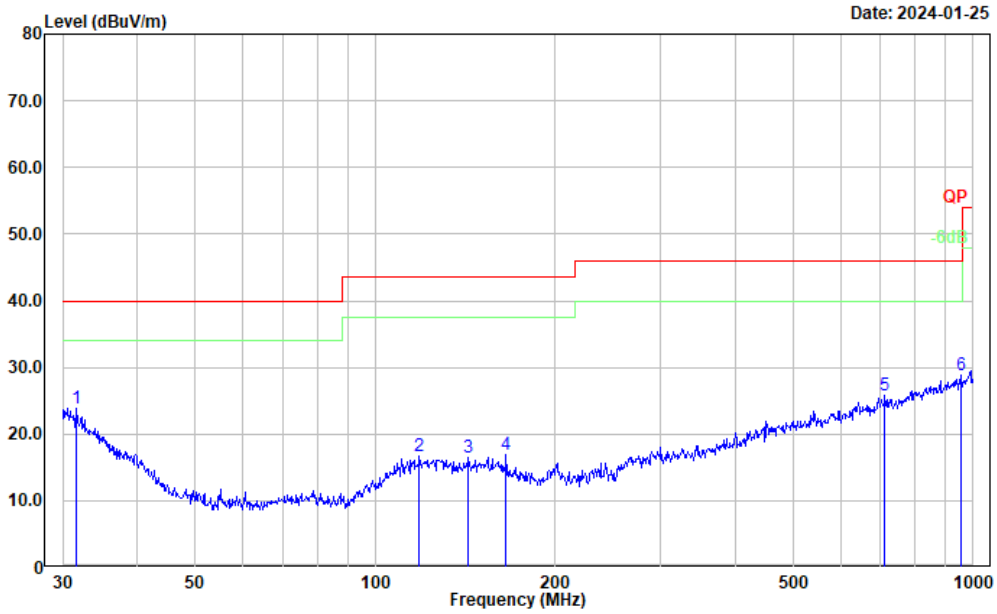
1) 30MHz-1GHz:
Adapter 1

Project No.: CR231273998-RF
Tester: Carl Xue
Polarization: horizontal



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.211	27.94	-4.00	23.94	40.00	16.06	Peak
2	121.123	27.88	-11.08	16.80	43.50	26.70	Peak
3	158.112	28.22	-11.87	16.35	43.50	27.15	Peak
4	201.393	27.46	-12.61	14.85	43.50	28.65	Peak
5	677.580	28.91	-3.42	25.49	46.00	20.51	Peak
6	955.438	27.66	0.99	28.65	46.00	17.35	Peak

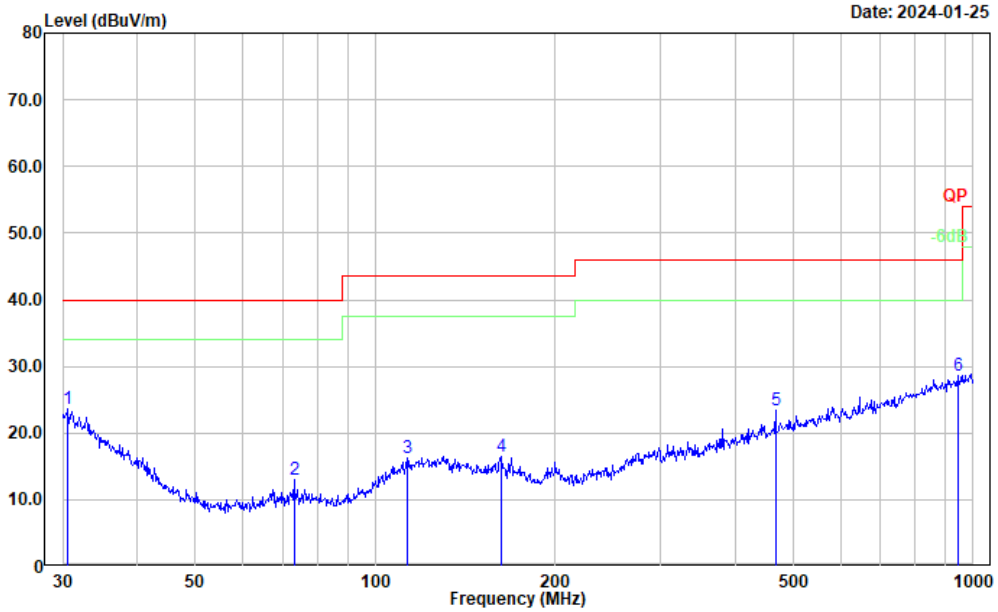
Project No.: CR231273998-RF
Tester: Carl Xue
Polarization: vertical



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	31.620	28.87	-4.96	23.91	40.00	16.09	Peak
2	118.601	28.20	-11.45	16.75	43.50	26.75	Peak
3	143.326	28.50	-12.04	16.46	43.50	27.04	Peak
4	165.487	29.10	-12.24	16.86	43.50	26.64	Peak
5	711.674	28.59	-2.80	25.79	46.00	20.21	Peak
6	952.094	27.90	0.94	28.84	46.00	17.16	Peak

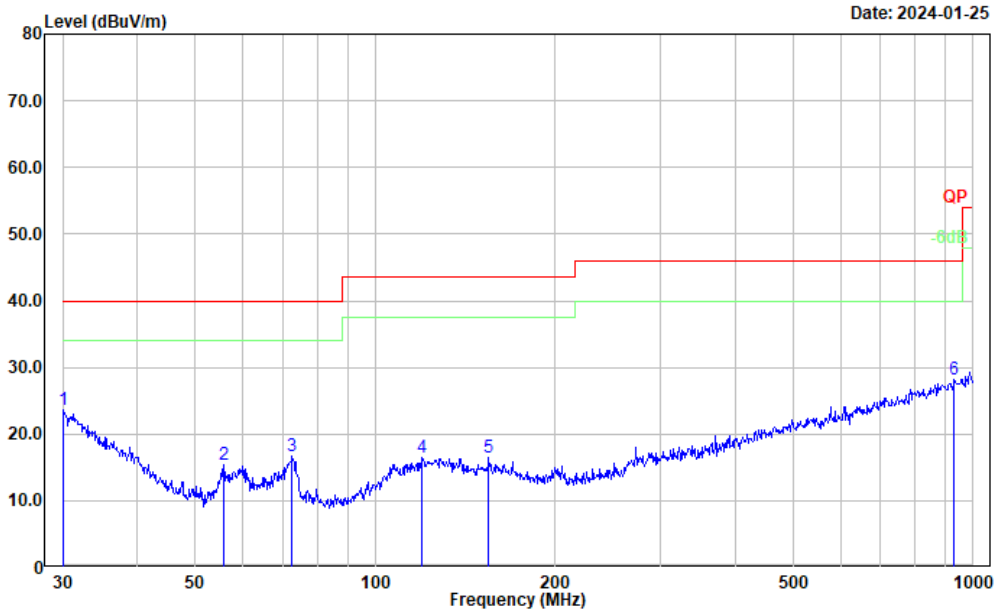
Adapter 2

Project No.: CR231273998-RF
Tester: Carl Xue
Polarization: horizontal



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.638	27.98	-4.24	23.74	40.00	16.26	Peak
2	73.103	30.11	-17.10	13.01	40.00	26.99	Peak
3	112.920	28.05	-11.84	16.21	43.50	27.29	Peak
4	162.611	28.64	-12.10	16.54	43.50	26.96	Peak
5	467.235	29.81	-6.31	23.50	46.00	22.50	Peak
6	942.131	27.84	0.82	28.66	46.00	17.34	Peak

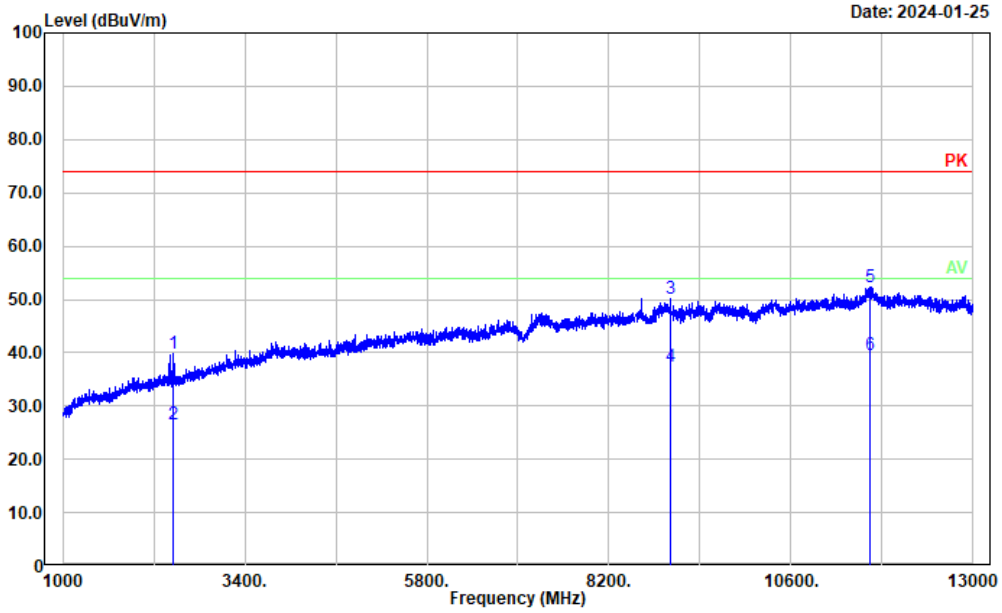
Project No.: CR231273998-RF
Tester: Carl Xue
Polarization: vertical



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.000	27.53	-3.87	23.66	40.00	16.34	Peak
2	55.805	33.14	-17.75	15.39	40.00	24.61	Peak
3	72.592	33.79	-17.13	16.66	40.00	23.34	Peak
4	119.436	27.80	-11.32	16.48	43.50	27.02	Peak
5	154.821	28.65	-12.09	16.56	43.50	26.94	Peak
6	929.008	27.61	0.55	28.16	46.00	17.84	Peak

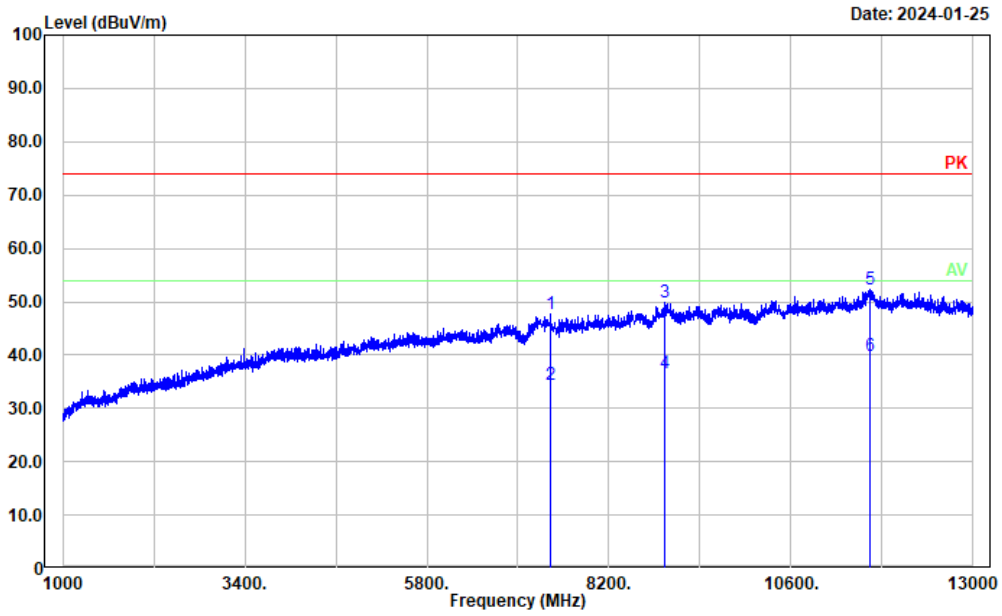
2) Above 1GHz:
Adapter 1

Project No.: CR231273998-RF
Tester: coco Tian
Polarization: horizontal



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	2464.000	51.80	-11.99	39.81	74.00	34.19	Peak
2	2464.000	38.53	-11.99	26.54	54.00	27.46	Average
3	9004.000	46.02	4.11	50.13	74.00	23.87	Peak
4	9004.000	33.40	4.11	37.51	54.00	16.49	Average
5	11632.000	44.79	7.64	52.43	74.00	21.57	Peak
6	11632.000	31.83	7.64	39.47	54.00	14.53	Average

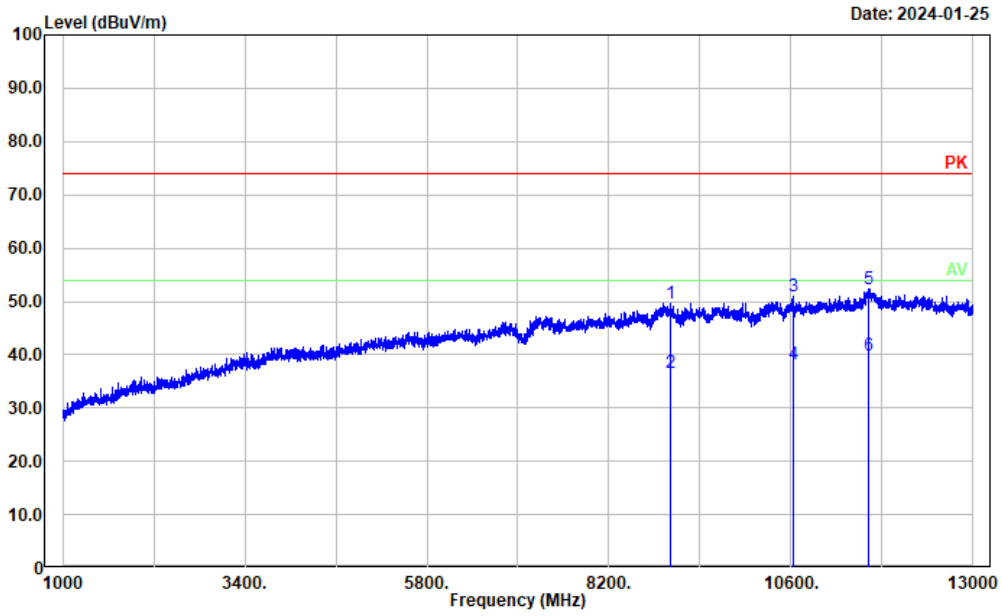
Project No.: CR231273998-RF
Tester: coco Tian
Polarization: vertical



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7424.800	47.11	0.71	47.82	74.00	26.18	Peak
2	7424.800	33.82	0.71	34.53	54.00	19.47	Average
3	8934.400	46.15	3.78	49.93	74.00	24.07	Peak
4	8934.400	32.73	3.78	36.51	54.00	17.49	Average
5	11641.600	44.80	7.60	52.40	74.00	21.60	Peak
6	11641.600	32.24	7.60	39.84	54.00	14.16	Average

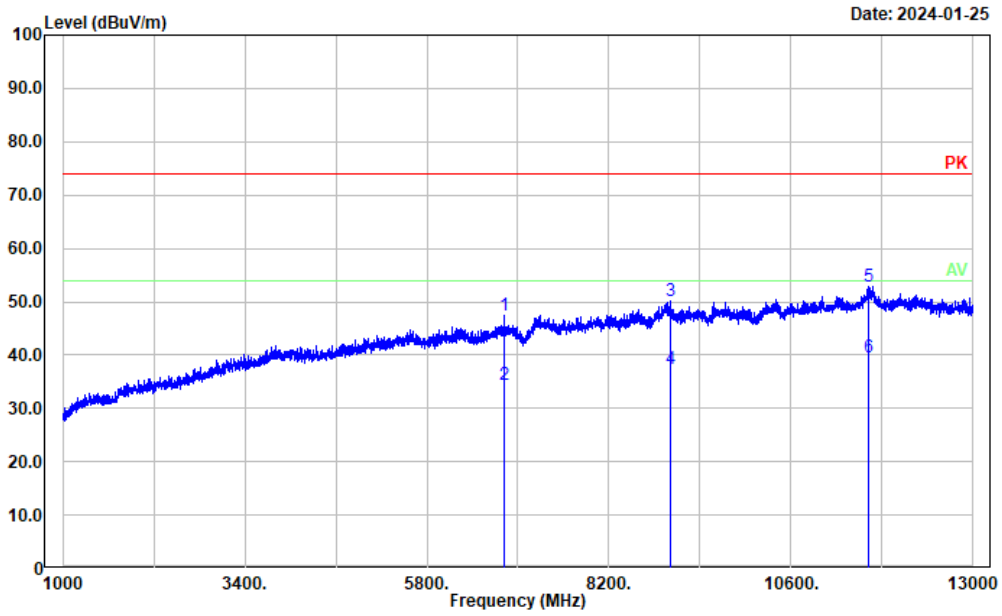
Adapter 2

Project No.: CR231273998-RF
Tester: coco Tian
Polarization: horizontal



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	9004.000	45.57	4.11	49.68	74.00	24.32	Peak
2	9004.000	32.53	4.11	36.64	54.00	17.36	Average
3	10624.000	45.51	5.56	51.07	74.00	22.93	Peak
4	10624.000	32.58	5.56	38.14	54.00	15.86	Average
5	11622.400	44.74	7.67	52.41	74.00	21.59	Peak
6	11622.400	32.17	7.67	39.84	54.00	14.16	Average

Project No.: CR231273998-RF
Tester: coco Tian
Polarization: vertical



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	6824.800	49.01	-1.47	47.54	74.00	26.46	Peak
2	6824.800	35.99	-1.47	34.52	54.00	19.48	Average
3	9004.000	45.98	4.11	50.09	74.00	23.91	Peak
4	9004.000	33.40	4.11	37.51	54.00	16.49	Average
5	11615.200	45.07	7.71	52.78	74.00	21.22	Peak
6	11615.200	31.96	7.71	39.67	54.00	14.33	Average

5. EUT PHOTOGRAPHS

Please refer to the attachment CR231273998-EXP EUT EXTERNAL PHOTOGRAPHS and CR231273998-INP EUT INTERNAL PHOTOGRAPHS.

6. TEST SETUP PHOTOGRAPHS

Please refer to the attachment CR231273998-00A-TSP TEST SETUP PHOTOGRAPHS.

===== END OF REPORT =====