



中认信通

CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)



TEST REPORT

Applicant: M5Stack Technology Co., Ltd

Address: 5F, Tangwei Stock Commercial Building Youli Road, Bao'an District,
Shenzhen, Guangdong, China

FCC ID: 2AN3WM5COREMP135

Product Name: M5CoreMP135

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: CR231276278-00

Date Of Issue: 2024/3/7

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.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR231276278-00	Original Report	2024/3/7

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	M5CoreMP135
EUT Model:	CoreMP135
Highest Operation Frequency:	1000 MHz
Rated Input Voltage:	DC 12V From Adapter
Serial Number:	2FEG-5
EUT Received Date:	2023/12/25
EUT Received Status:	Good

Accessory Information:

Accessory Description	Manufacturer	Model
Adapter	Guangdong Qingliu Electronics Co., LTD	QL036-1203000U

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: LCD Test M2: BUS Test M3: Device Test M4: Disk Test (mmc) M5: NET transmission M6: USB Data transmission M7: Type-C Data transmission
Equipment Modifications:	No
EUT Exercise Software:	No

1.2.2 Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Unknown	OTG Load	Unknown	Unknown
Kingston	USB Disk	DTI/2GB	CH 031308
SanDisk	TF Card	32 GB	521005904698
Unknown	I2C Load	Unknown	Unknown
Unknown	UART Load	Unknown	Unknown
AOC	Display	24M2	OHWL5YA000130 H7
Tenda	Router	RX12 Pro	ED331010215000033
Lenovo	Laptop	T460S	60PDTEK8
Lenovo	Laptop	T460S	60PDTEK7
PHILIPS	Keyboard	SPT6234	K234210510746
Unknown	Load	Unknown	Unknown

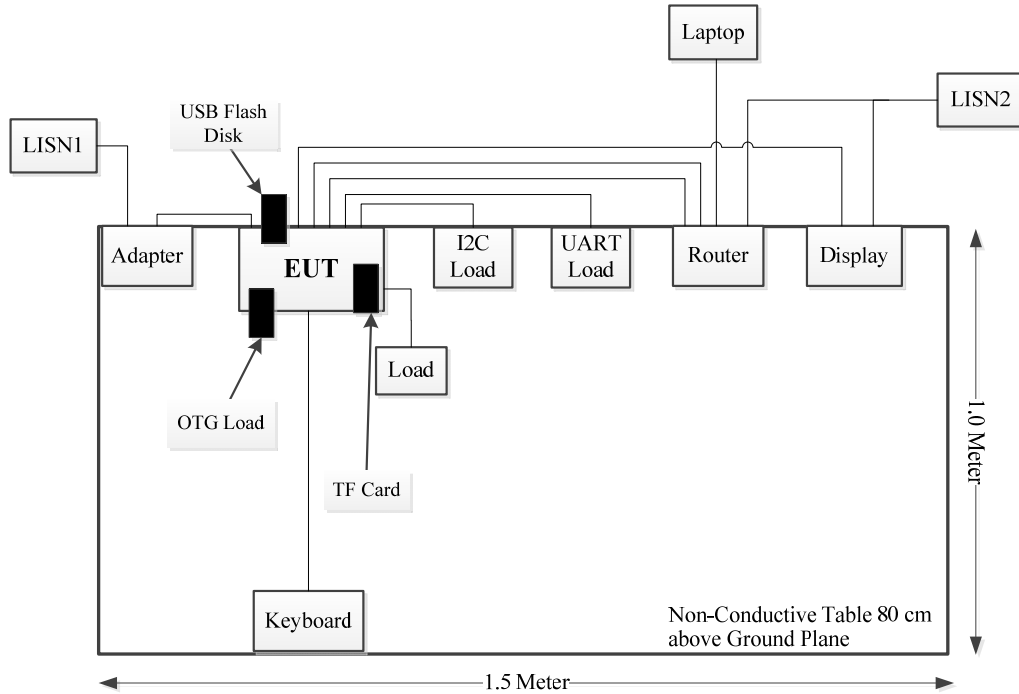
1.2.3 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Power Cable	No	No	1.2	Adapter	EUT
Keyboard Cable	No	No	1.2	EUT	Keyboard
RJ45 Cable	No	No	1	EUT	Router
RJ45 Cable	No	No	1.2	EUT	Router
RJ45 Cable	No	No	1	Router	Laptop
HDMI Cable	No	No	1.2	EUT	Display
Cable*2	No	No	0.2	EUT	i2C Load
Cable*2	No	No	0.2	EUT	UART Load
Cable	No	No	0.1	EUT	Load

1.2.4 Block Diagram of Test Setup

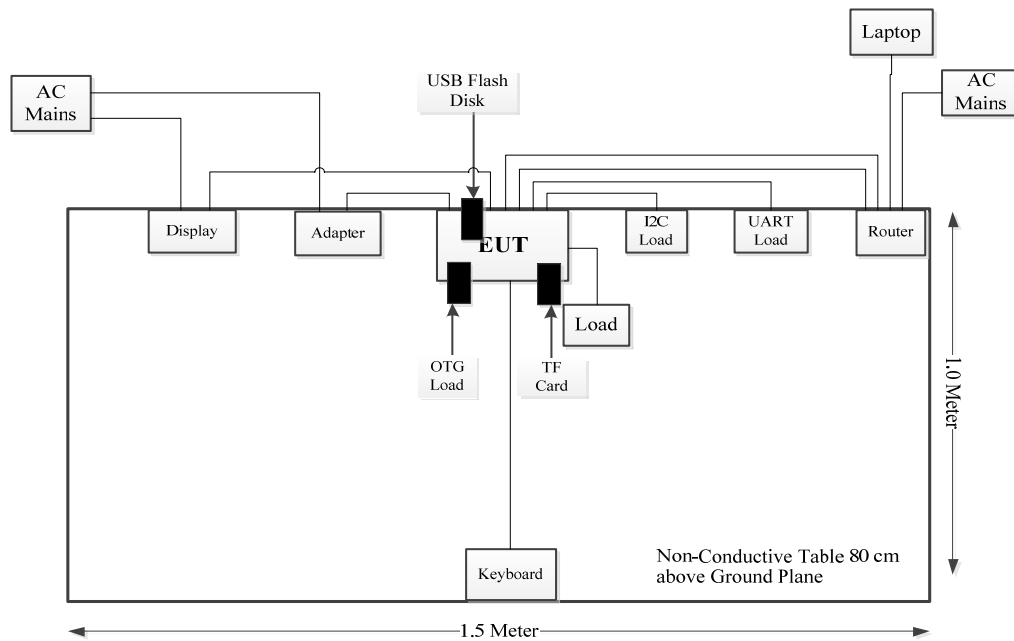
AC line conducted emissions:

M1-M7:



Radiated emissions:

M1-M7:



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	$\pm 1^{\circ}\text{C}$
Humidity	$\pm 5\%$
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

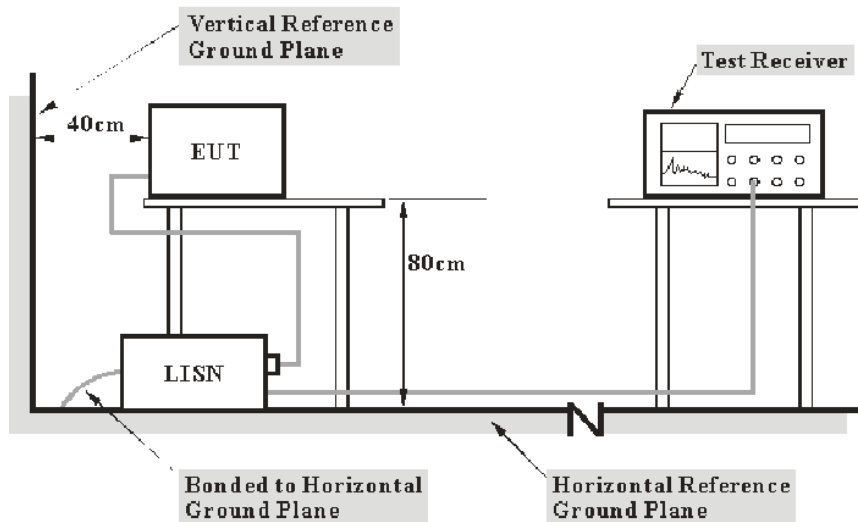
2. SUMMARY OF TEST RESULTS

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.

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

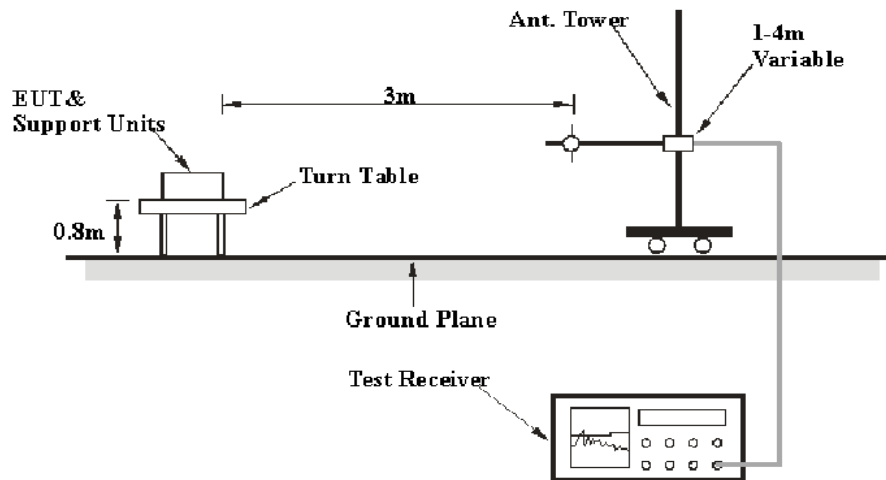
The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

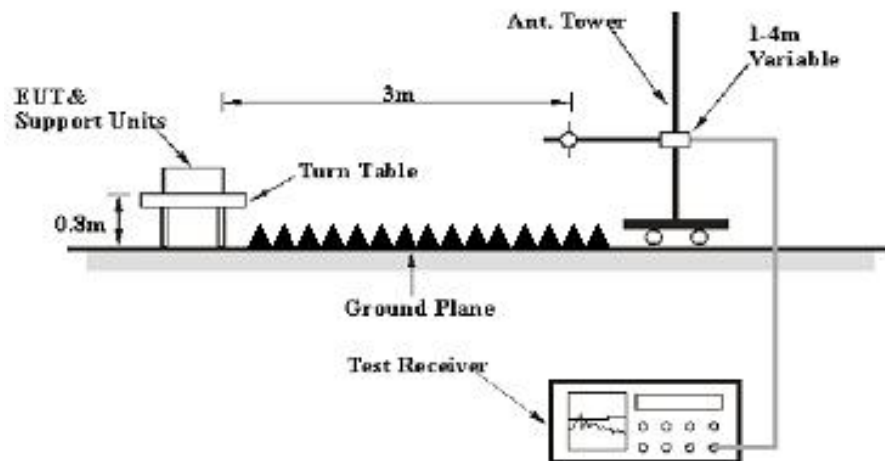
3.2 Radiation Spurious Emissions

3.2.1 EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emission 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 & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 5 GHz.

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

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	100 kHz	300 kHz	/	Peak
	/	/	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	Peak
	1 MHz	10 Hz	/	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:	2FEG-5	Test Date:	2024/3/5
Test Site:	CE	Test Mode:	M1,M2,M3,M4,M5,M6,M7
Tester:	David Huang	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	24.4	Relative Humidity: (%)	60	ATM Pressure: (kPa)	100.3

Test Equipment List and Details:

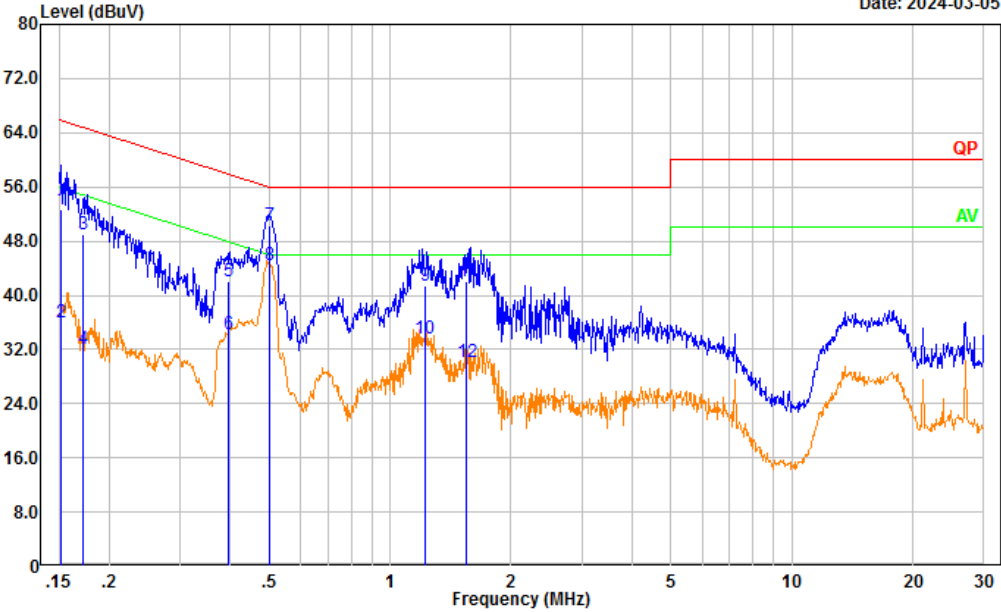
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101134	2023/3/31	2024/3/30
R&S	EMI Test Receiver	ESR3	102726	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2024/1/15	2025/1/14
Audix	Test Software	E3	190306 (V9)	N/A	N/A

* 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).

M1:

Project No.: CR231276278-EM
 Tester: David Huang
 Port: Line
 Note: M1 LCD Test

Date: 2024-03-05



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.152	42.16	10.50	52.66	65.91	13.25	QP
2	0.152	25.54	10.50	36.04	55.91	19.87	Average
3	0.172	38.52	10.42	48.94	64.88	15.94	QP
4	0.172	21.63	10.42	32.05	54.88	22.83	Average
5	0.395	31.73	10.31	42.04	57.96	15.92	QP
6	0.395	23.97	10.31	34.28	47.96	13.68	Average
7	0.502	40.01	10.31	50.32	56.00	5.68	QP
8	0.502	34.13	10.31	44.44	46.00	1.56	Average
9	1.218	30.90	10.53	41.43	56.00	14.57	QP
10	1.218	22.99	10.53	33.52	46.00	12.48	Average
11	1.554	31.66	10.41	42.07	56.00	13.93	QP
12	1.554	19.78	10.41	30.19	46.00	15.81	Average

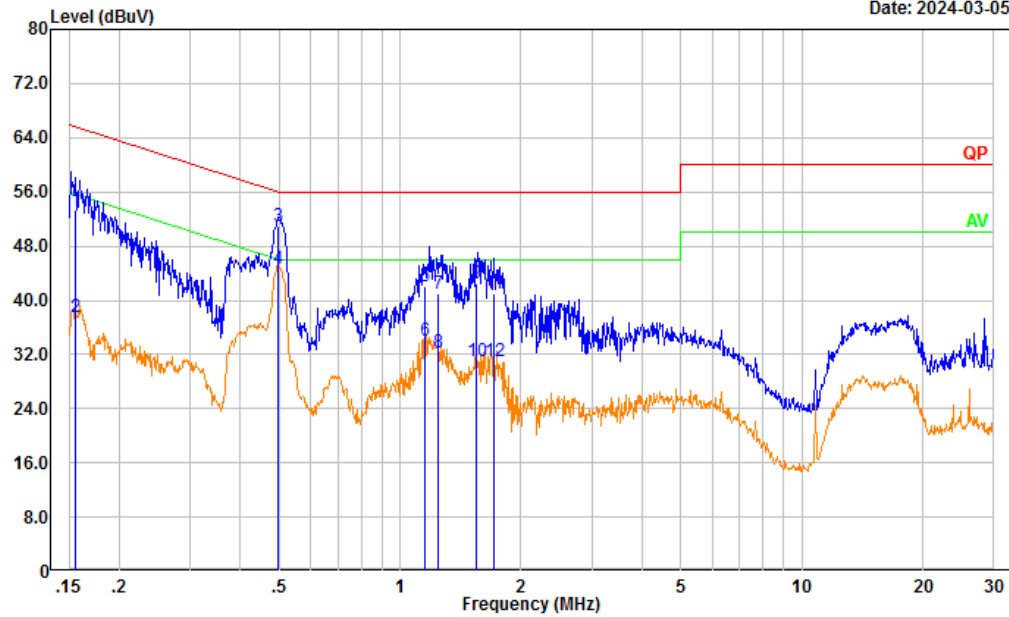
Project No.: CR231276278-EM

Tester: David Huang

Port: neutral

Note: M1 LCD Test

Date: 2024-03-05



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.156	42.84	10.40	53.24	65.69	12.45	QP
2	0.156	27.11	10.40	37.51	55.69	18.18	Average
3	0.499	40.49	10.51	51.00	56.02	5.02	QP
4	0.499	34.14	10.51	44.65	46.02	1.37	Average
5	1.157	31.55	10.49	42.04	56.00	13.96	QP
6	1.157	23.45	10.49	33.94	46.00	12.06	Average
7	1.242	30.59	10.47	41.06	56.00	14.94	QP
8	1.242	21.94	10.47	32.41	46.00	13.59	Average
9	1.542	32.06	10.42	42.48	56.00	13.52	QP
10	1.542	20.54	10.42	30.96	46.00	15.04	Average
11	1.710	30.49	10.39	40.88	56.00	15.12	QP
12	1.710	20.70	10.39	31.09	46.00	14.91	Average

M2:

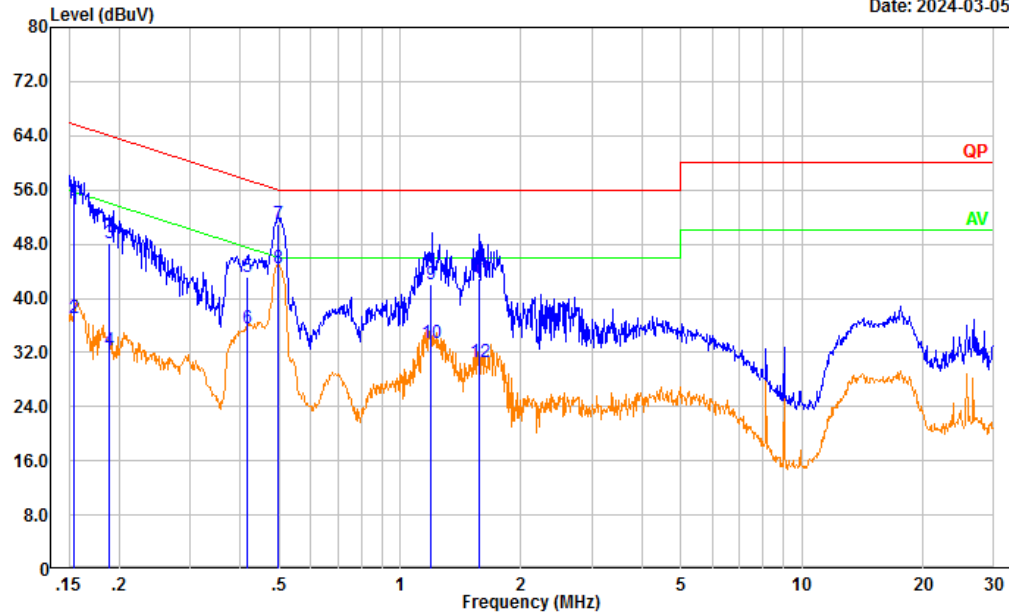
Project No.: CR231276278-EM

Tester: David Huang

Port: Line

Note: M2 BUS Test

Date: 2024-03-05



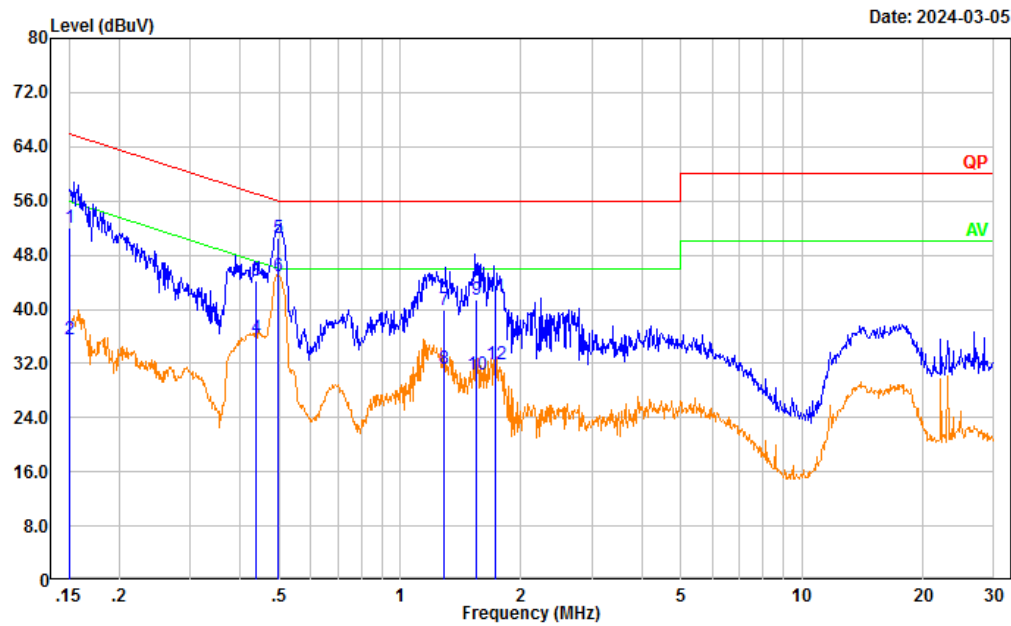
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.155	42.61	10.49	53.10	65.75	12.65	QP
2	0.155	26.68	10.49	37.17	55.75	18.58	Average
3	0.188	37.67	10.36	48.03	64.11	16.08	QP
4	0.188	21.98	10.36	32.34	54.11	21.77	Average
5	0.417	32.87	10.31	43.18	57.50	14.32	QP
6	0.417	25.29	10.31	35.60	47.50	11.90	Average
7	0.497	40.54	10.31	50.85	56.04	5.19	QP
8	0.497	34.13	10.31	44.44	46.04	1.60	Average
9	1.194	31.58	10.54	42.12	56.00	13.88	QP
10	1.194	22.76	10.54	33.30	46.00	12.70	Average
11	1.578	32.46	10.40	42.86	56.00	13.14	QP
12	1.578	20.09	10.40	30.49	46.00	15.51	Average

Project No.: CR231276278-EM

Tester: David Huang

Port: neutral

Note: M2 BUS Test

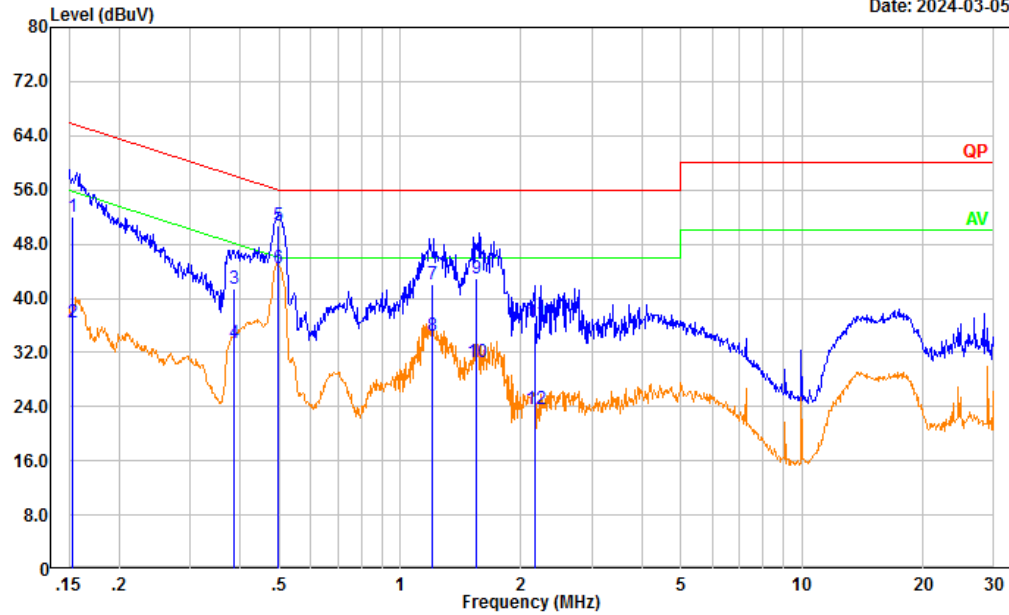


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.151	41.69	10.41	52.10	65.94	13.84	QP
2	0.151	25.09	10.41	35.50	55.94	20.44	Average
3	0.437	33.82	10.47	44.29	57.12	12.83	QP
4	0.437	25.30	10.47	35.77	47.12	11.35	Average
5	0.496	39.94	10.51	50.45	56.07	5.62	QP
6	0.496	34.31	10.51	44.82	46.07	1.25	Average
7	1.290	29.44	10.46	39.90	56.00	16.10	QP
8	1.290	20.83	10.46	31.29	46.00	14.71	Average
9	1.550	31.06	10.42	41.48	56.00	14.52	QP
10	1.550	20.04	10.42	30.46	46.00	15.54	Average
11	1.721	31.48	10.39	41.87	56.00	14.13	QP
12	1.721	21.56	10.39	31.95	46.00	14.05	Average

M3:

Project No.: CR231276278-EM
Tester: David Huang
Port: Line
Note: M3 Device Test

Date: 2024-03-05



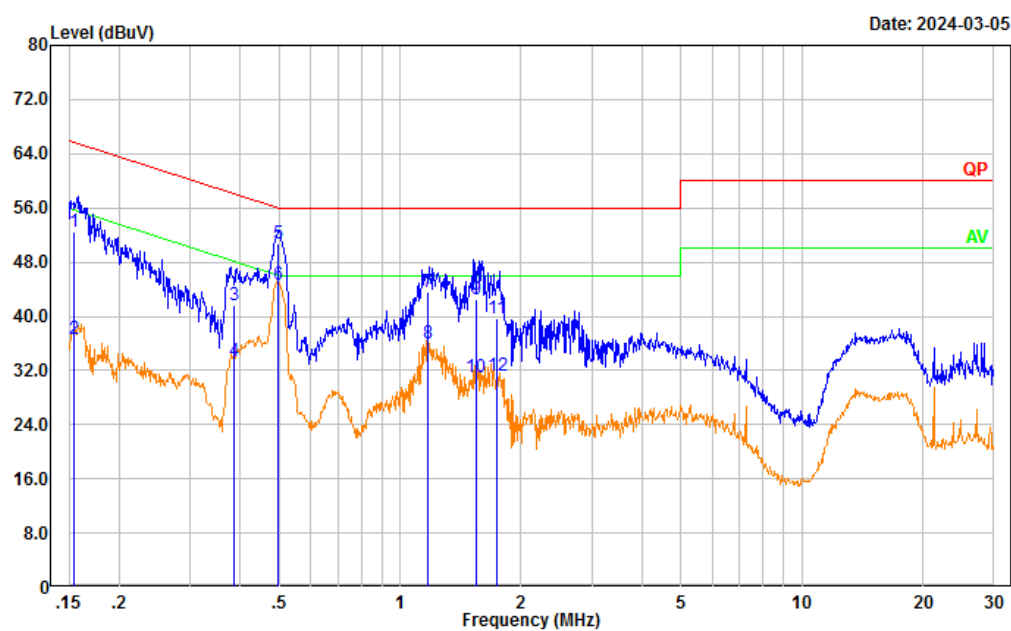
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Detector
1	0.153	41.57	10.50	52.07	65.83	13.76	QP
2	0.153	25.83	10.50	36.33	55.83	19.50	Average
3	0.385	31.16	10.31	41.47	58.17	16.70	QP
4	0.385	23.05	10.31	33.36	48.17	14.81	Average
5	0.498	40.50	10.31	50.81	56.03	5.22	QP
6	0.498	34.07	10.31	44.38	46.03	1.65	Average
7	1.205	31.57	10.54	42.11	56.00	13.89	QP
8	1.205	23.88	10.54	34.42	46.00	11.58	Average
9	1.554	32.47	10.41	42.88	56.00	13.12	QP
10	1.554	20.08	10.41	30.49	46.00	15.51	Average
11	2.170	26.12	10.26	36.38	56.00	19.62	QP
12	2.170	13.34	10.26	23.60	46.00	22.40	Average

Project No.: CR231276278-EM

Tester: David Huang

Port: neutral

Note: M3 Device Test

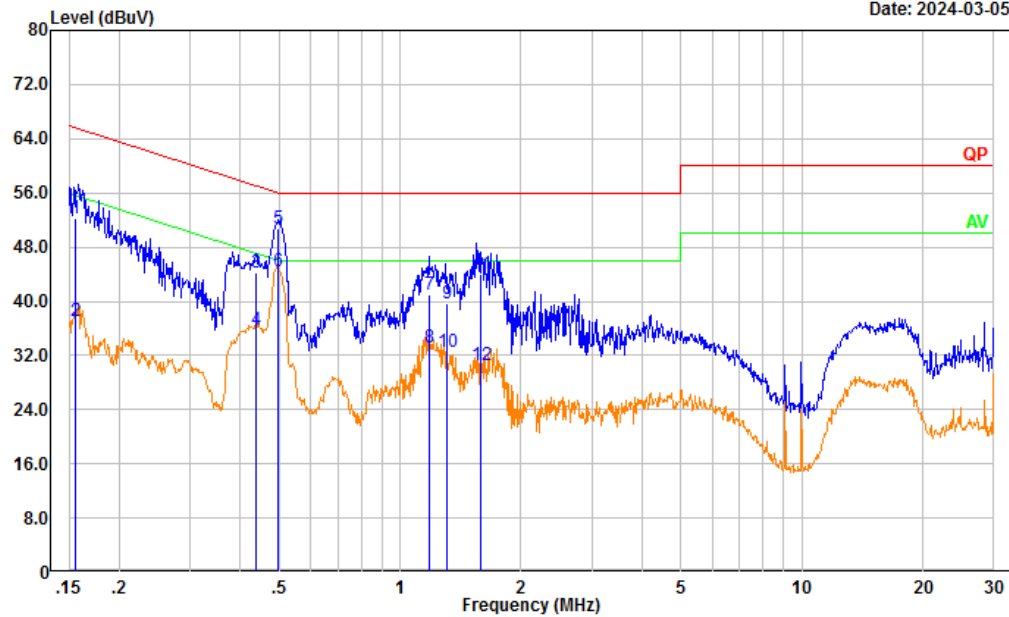


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.154	42.06	10.40	52.46	65.79	13.33	QP
2	0.154	26.20	10.40	36.60	55.79	19.19	Average
3	0.385	31.11	10.43	41.54	58.17	16.63	QP
4	0.385	22.98	10.43	33.41	48.17	14.76	Average
5	0.497	40.23	10.51	50.74	56.05	5.31	QP
6	0.497	34.25	10.51	44.76	46.05	1.29	Average
7	1.168	33.02	10.49	43.51	56.00	12.49	QP
8	1.168	25.48	10.49	35.97	46.00	10.03	Average
9	1.542	31.99	10.42	42.41	56.00	13.59	QP
10	1.542	20.68	10.42	31.10	46.00	14.90	Average
11	1.741	29.36	10.38	39.74	56.00	16.26	QP
12	1.741	20.89	10.38	31.27	46.00	14.73	Average

M4:

Project No.: CR231276278-EM
Tester: David Huang
Port: Line
Note: M4 Disk Test (mmc)

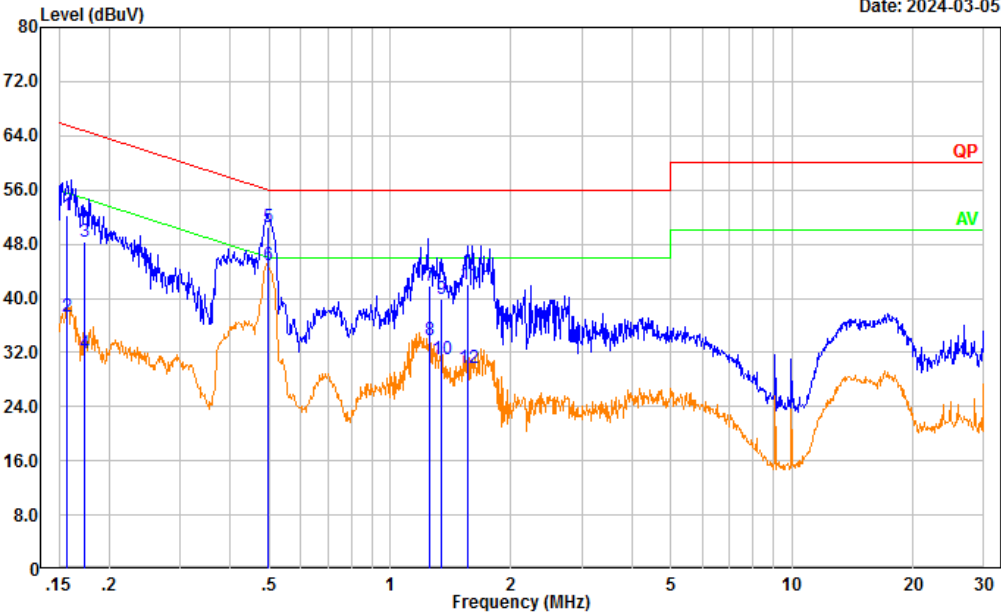
Date: 2024-03-05



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.155	41.72	10.49	52.21	65.71	13.50	QP
2	0.155	26.62	10.49	37.11	55.71	18.60	Average
3	0.438	33.86	10.31	44.17	57.10	12.93	QP
4	0.438	25.50	10.31	35.81	47.10	11.29	Average
5	0.498	40.50	10.31	50.81	56.03	5.22	QP
6	0.498	34.05	10.31	44.36	46.03	1.67	Average
7	1.181	30.42	10.55	40.97	56.00	15.03	QP
8	1.181	22.53	10.55	33.08	46.00	12.92	Average
9	1.309	29.10	10.50	39.60	56.00	16.40	QP
10	1.309	21.91	10.50	32.41	46.00	13.59	Average
11	1.590	33.63	10.39	44.02	56.00	11.98	QP
12	1.590	20.23	10.39	30.62	46.00	15.38	Average

Project No.: CR231276278-EM
 Tester: David Huang
 Port: neutral
 Note: M4 Disk Test (mmc)

Date: 2024-03-05

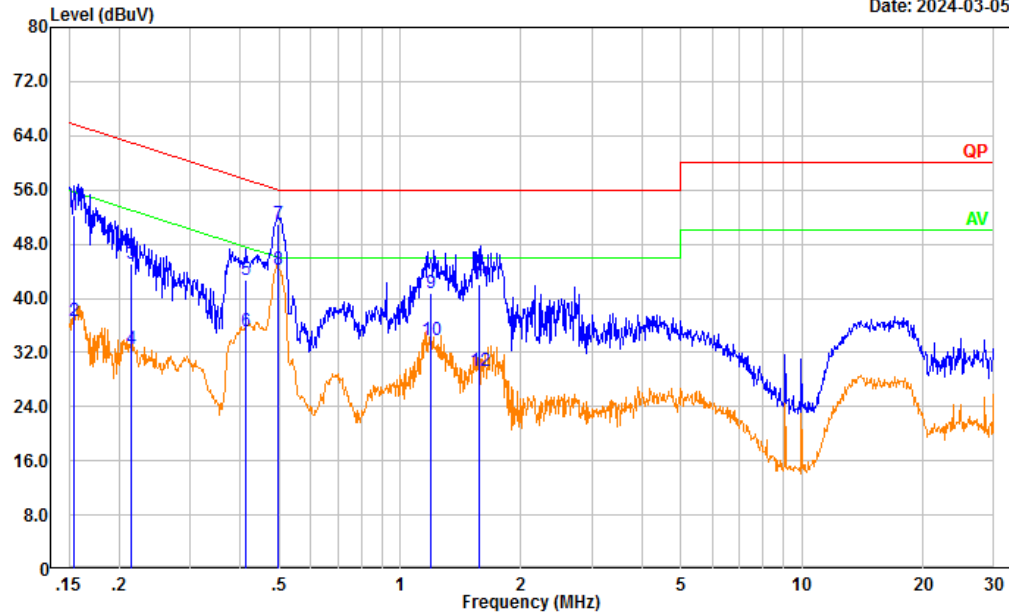


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.157	41.83	10.40	52.23	65.63	13.40	QP
2	0.157	26.90	10.40	37.30	55.63	18.33	Average
3	0.174	38.07	10.36	48.43	64.75	16.32	QP
4	0.174	21.45	10.36	31.81	54.75	22.94	Average
5	0.495	39.93	10.51	50.44	56.08	5.64	QP
6	0.495	34.38	10.51	44.89	46.08	1.19	Average
7	1.252	31.46	10.47	41.93	56.00	14.07	QP
8	1.252	23.25	10.47	33.72	46.00	12.28	Average
9	1.338	29.44	10.45	39.89	56.00	16.11	QP
10	1.338	20.56	10.45	31.01	46.00	14.99	Average
11	1.566	31.67	10.42	42.09	56.00	13.91	QP
12	1.566	19.36	10.42	29.78	46.00	16.22	Average

M5:

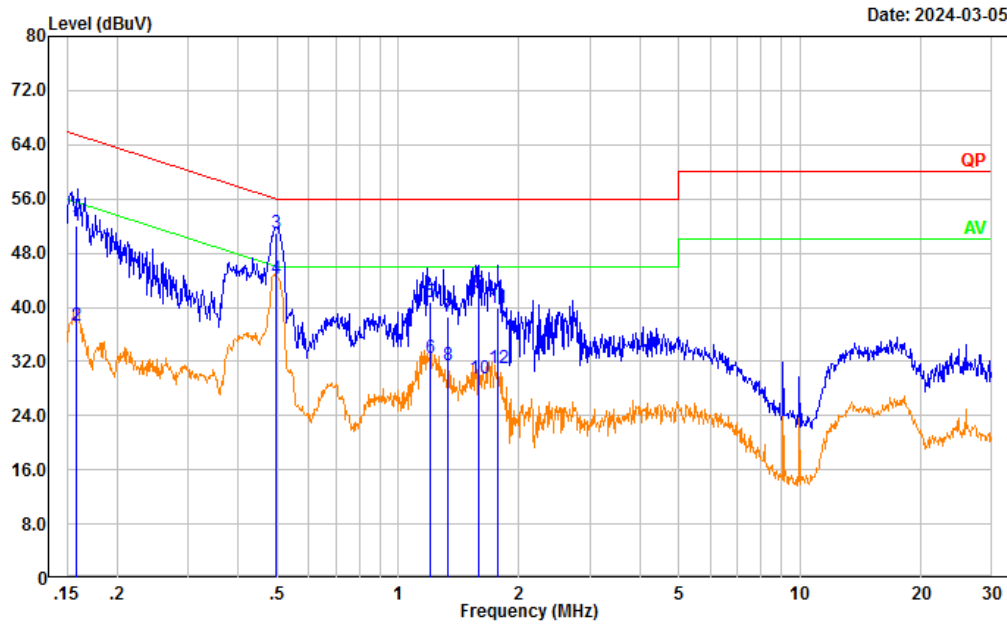
Project No.: CR231276278-EM
Tester: David Huang
Port: Line
Note: M5 NET transmission

Date: 2024-03-05



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.154	41.81	10.49	52.30	65.78	13.48	QP
2	0.154	26.15	10.49	36.64	55.78	19.14	Average
3	0.214	34.88	10.31	45.19	63.06	17.87	QP
4	0.214	22.11	10.31	32.42	53.06	20.64	Average
5	0.412	32.42	10.31	42.73	57.61	14.88	QP
6	0.412	24.84	10.31	35.15	47.61	12.46	Average
7	0.498	40.61	10.31	50.92	56.04	5.12	QP
8	0.498	33.84	10.31	44.15	46.04	1.89	Average
9	1.191	30.16	10.54	40.70	56.00	15.30	QP
10	1.191	23.33	10.54	33.87	46.00	12.13	Average
11	1.577	31.74	10.40	42.14	56.00	13.86	QP
12	1.577	18.93	10.40	29.33	46.00	16.67	Average

Project No.: CR231276278-EM
 Tester: David Huang
 Port: neutral
 Note: M5 NET transmission



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.158	41.67	10.39	52.06	65.57	13.51	QP
2	0.158	26.97	10.39	37.36	55.57	18.21	Average
3	0.497	40.53	10.51	51.04	56.05	5.01	QP
4	0.497	33.76	10.51	44.27	46.05	1.78	Average
5	1.205	30.36	10.48	40.84	56.00	15.16	QP
6	1.205	22.13	10.48	32.61	46.00	13.39	Average
7	1.334	28.15	10.45	38.60	56.00	17.40	QP
8	1.334	20.97	10.45	31.42	46.00	14.58	Average
9	1.590	31.68	10.41	42.09	56.00	13.91	QP
10	1.590	19.04	10.41	29.45	46.00	16.55	Average
11	1.769	29.51	10.38	39.89	56.00	16.11	QP
12	1.769	20.61	10.38	30.99	46.00	15.01	Average

M6:

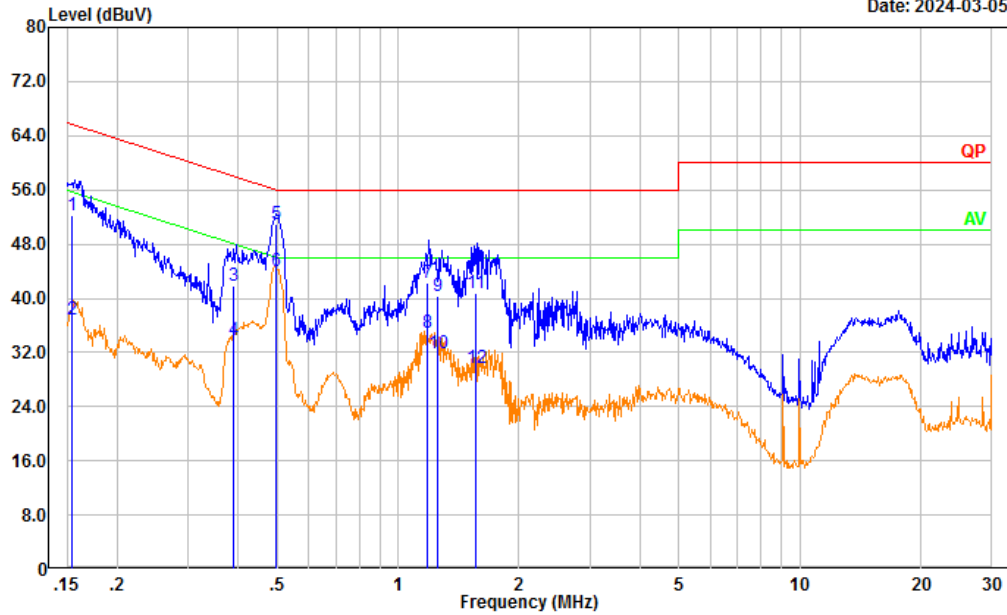
Project No.: CR231276278-EM

Tester: David Huang

Port: Line

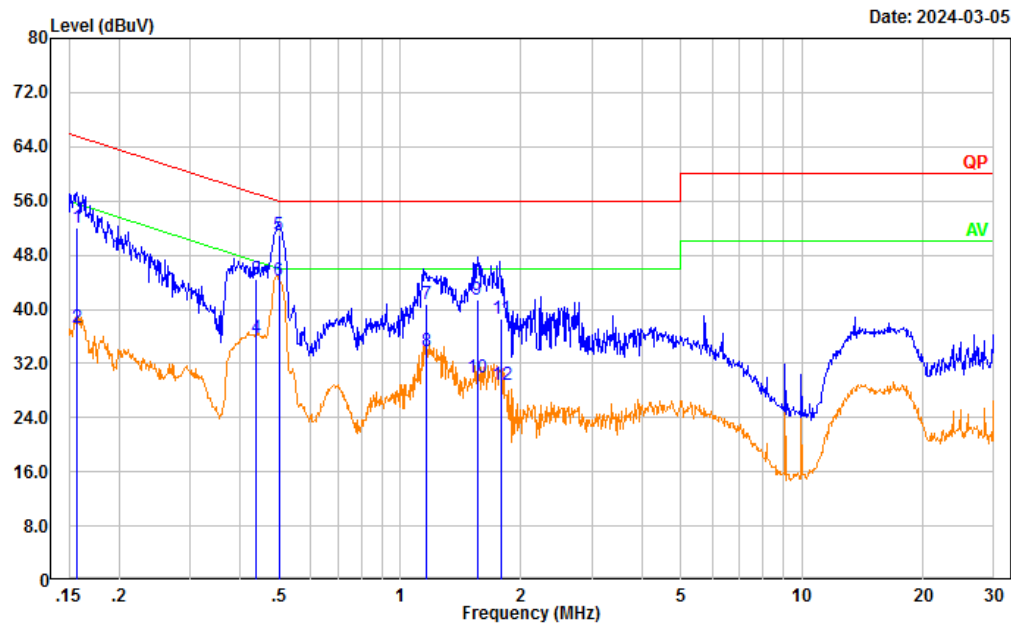
Note: M6 USB Data transmission

Date: 2024-03-05



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.155	41.84	10.49	52.33	65.74	13.41	QP
2	0.155	26.40	10.49	36.89	55.74	18.85	Average
3	0.389	31.52	10.31	41.83	58.08	16.25	QP
4	0.389	23.50	10.31	33.81	48.08	14.27	Average
5	0.498	40.63	10.31	50.94	56.03	5.09	QP
6	0.498	33.76	10.31	44.07	46.03	1.96	Average
7	1.180	31.74	10.55	42.29	56.00	13.71	QP
8	1.180	24.34	10.55	34.89	46.00	11.11	Average
9	1.253	29.73	10.52	40.25	56.00	15.75	QP
10	1.253	21.40	10.52	31.92	46.00	14.08	Average
11	1.561	30.44	10.41	40.85	56.00	15.15	QP
12	1.561	19.27	10.41	29.68	46.00	16.32	Average

Project No.: CR231276278-EM
Tester: David Huang
Port: neutral
Note: M6 USB Data transmission

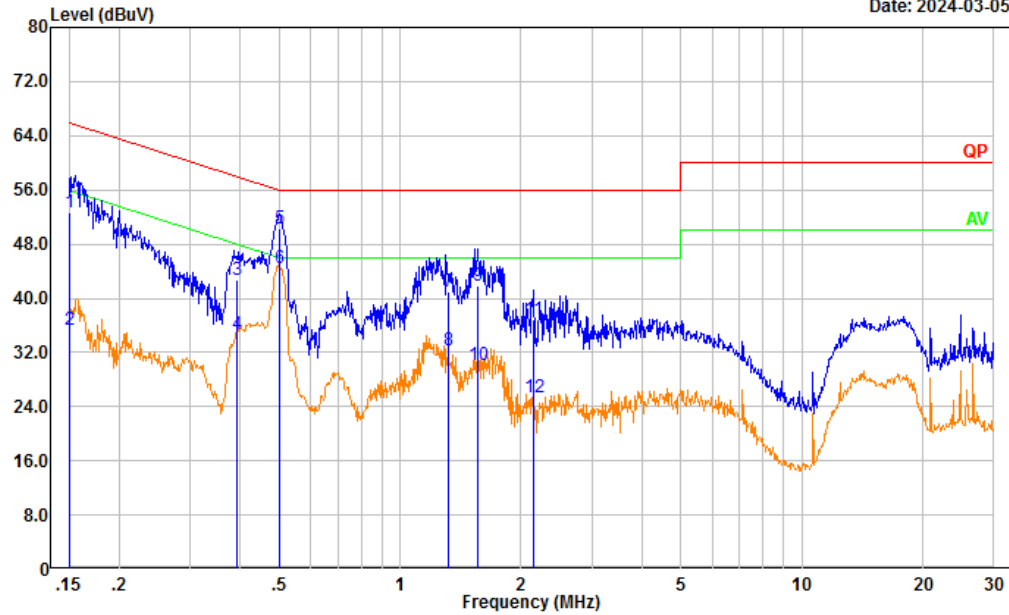


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.157	41.68	10.40	52.08	65.61	13.53	QP
2	0.157	26.95	10.40	37.35	55.61	18.26	Average
3	0.437	34.05	10.47	44.52	57.11	12.59	QP
4	0.437	25.29	10.47	35.76	47.11	11.35	Average
5	0.499	40.47	10.51	50.98	56.01	5.03	QP
6	0.499	33.71	10.51	44.22	46.01	1.79	Average
7	1.165	30.21	10.49	40.70	56.00	15.30	QP
8	1.165	23.35	10.49	33.84	46.00	12.16	Average
9	1.554	31.02	10.42	41.44	56.00	14.56	QP
10	1.554	19.54	10.42	29.96	46.00	16.04	Average
11	1.782	28.13	10.37	38.50	56.00	17.50	QP
12	1.782	18.48	10.37	28.85	46.00	17.15	Average

M7:

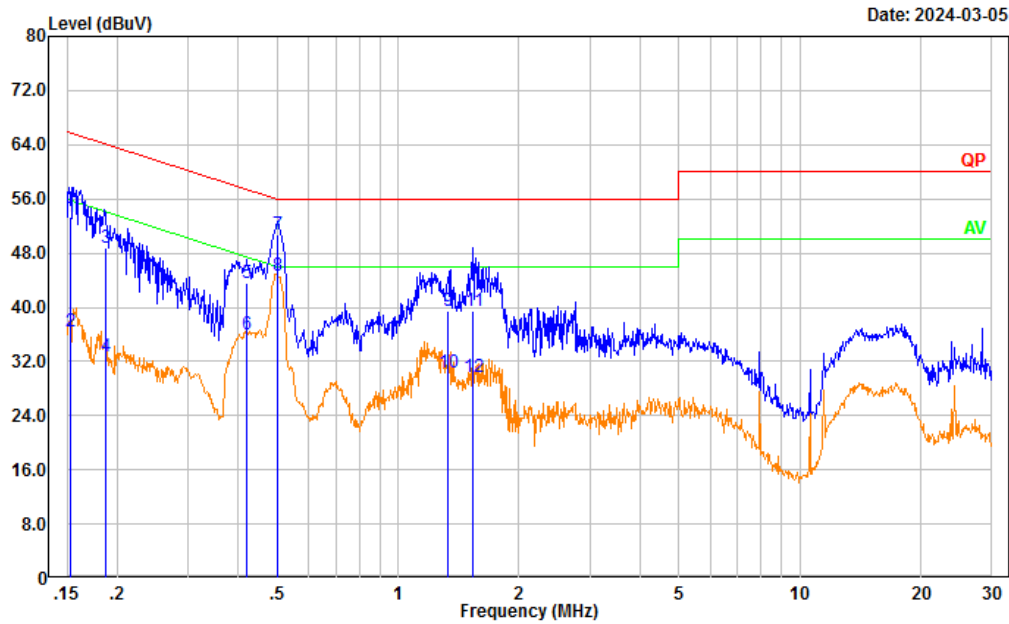
Project No.: CR231276278-EM
Tester: David Huang
Port: Line
Note: M7 Type-C Data transmission

Date: 2024-03-05



No.	Frequency (MHz)	Reading (dBUV)	Factor (dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Detector
1	0.151	42.16	10.51	52.67	65.95	13.28	QP
2	0.151	24.88	10.51	35.39	55.95	20.56	Average
3	0.394	32.39	10.31	42.70	57.97	15.27	QP
4	0.394	24.46	10.31	34.77	47.97	13.20	Average
5	0.502	40.07	10.31	50.38	56.00	5.62	QP
6	0.502	34.12	10.31	44.43	46.00	1.57	Average
7	1.324	30.38	10.49	40.87	56.00	15.13	QP
8	1.324	21.82	10.49	32.31	46.00	13.69	Average
9	1.564	31.41	10.40	41.81	56.00	14.19	QP
10	1.564	19.70	10.40	30.10	46.00	15.90	Average
11	2.151	26.57	10.25	36.82	56.00	19.18	QP
12	2.151	15.04	10.25	25.29	46.00	20.71	Average

Project No.: CR231276278-EM
 Tester: David Huang
 Port: neutral
 Note: M7 Type-C Data transmission



4.2 Radiation Spurious Emissions

Serial Number:	2FEG-5	Test Date:	2024/2/4~2024/3/7
Test Site:	966-2,966-1	Test Mode:	M1,M2,M3,M4,M5,M6, M7
Tester:	Jeff Luo,Mack Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	24.3~24.4	Relative Humidity: (%)	56~60	ATM Pressure: (kPa)	100.9~101
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Test Equipment List and Details:

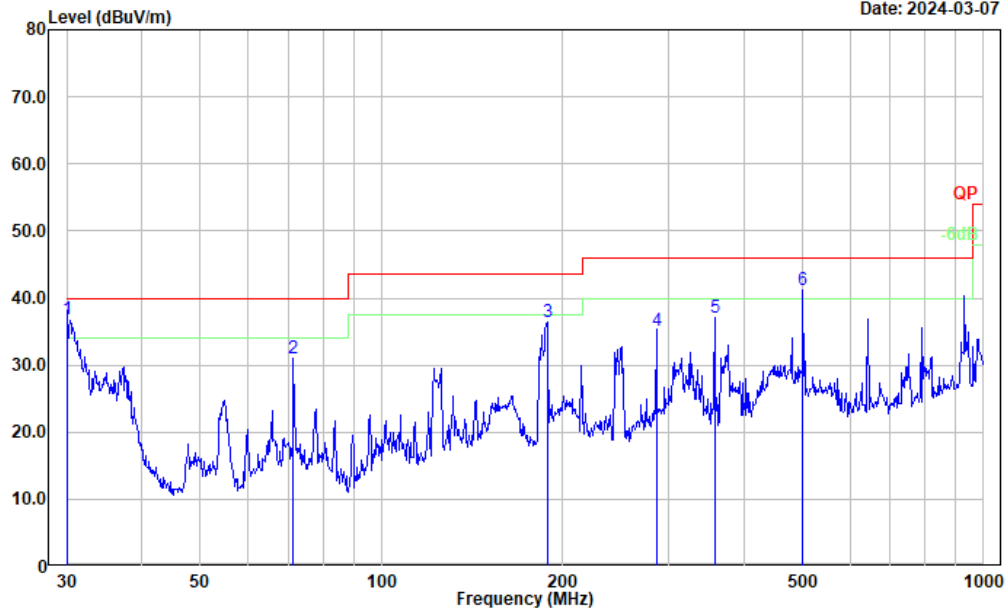
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2023/12/1	2026/11/30
R&S	EMI Test Receiver	ESR3	102724	2023/3/31	2024/3/30
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2023/7/16	2024/7/15
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2023/7/16	2024/7/15
Sonoma	Amplifier	310N	186165	2023/7/16	2024/7/15
AH	Double Ridge Guide Horn Antenna	SAS-571	1394	2023/2/22	2026/2/21
R&S	Spectrum Analyzer	FSV40	101591	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2023/8/6	2024/8/5
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2023/8/6	2024/8/5
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2023/11/8	2024/11/7
Audix	Test Software	E3	201021 (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).

1) 30MHz-1GHz:
M1:

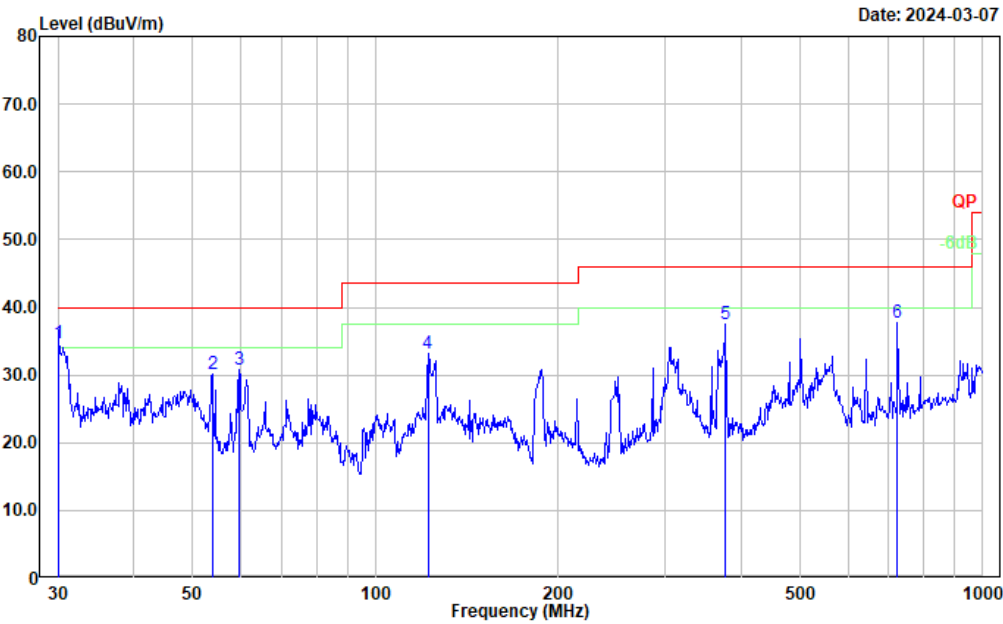
Project No.: CR231276278-EM
Tester: Jeff Luo
Polarization: horizontal
Note: M1 LCD Test

Date: 2024-03-07



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.000	40.79	-3.87	36.92	40.00	3.08	QP
2	71.330	48.21	-17.19	31.02	40.00	8.98	Peak
3	188.413	50.17	-13.77	36.40	43.50	7.10	Peak
4	285.978	45.80	-10.57	35.23	46.00	10.77	Peak
5	357.929	46.44	-9.38	37.06	46.00	8.94	Peak
6	500.017	47.06	-5.87	41.19	46.00	4.81	QP

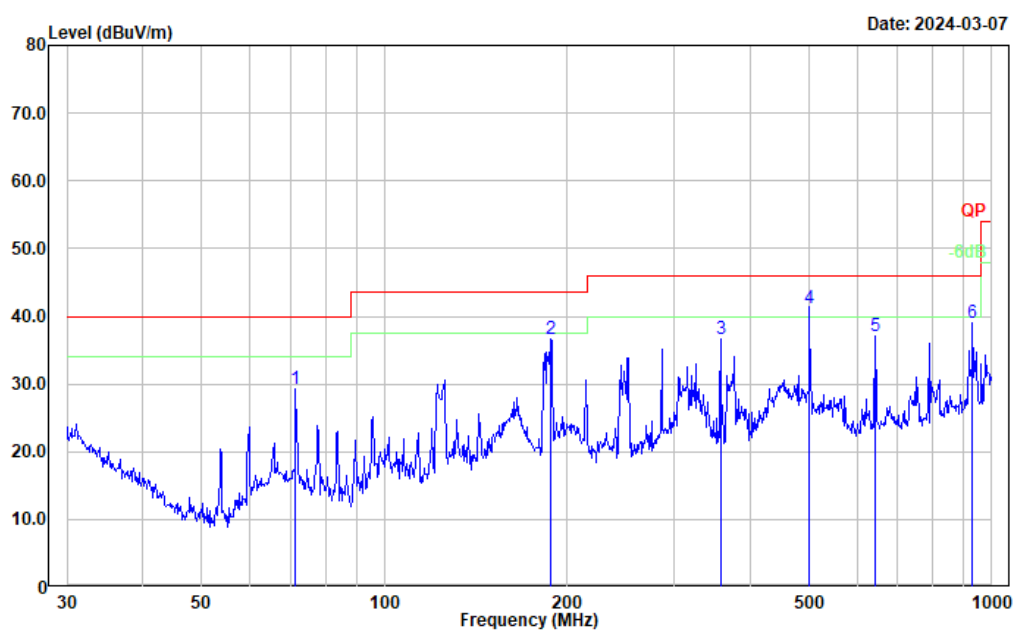
Project No.: CR231276278-EM
Tester: Jeff Luo
Polarization: vertical
Note: M1 LCD Test



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.000	38.60	-3.87	34.73	40.00	5.27	QP
2	53.882	47.75	-17.64	30.11	40.00	9.89	Peak
3	59.649	48.43	-17.70	30.73	40.00	9.27	Peak
4	121.976	44.12	-10.90	33.22	43.50	10.28	Peak
5	377.259	46.31	-8.88	37.43	46.00	8.57	Peak
6	724.261	40.54	-2.75	37.79	46.00	8.21	Peak

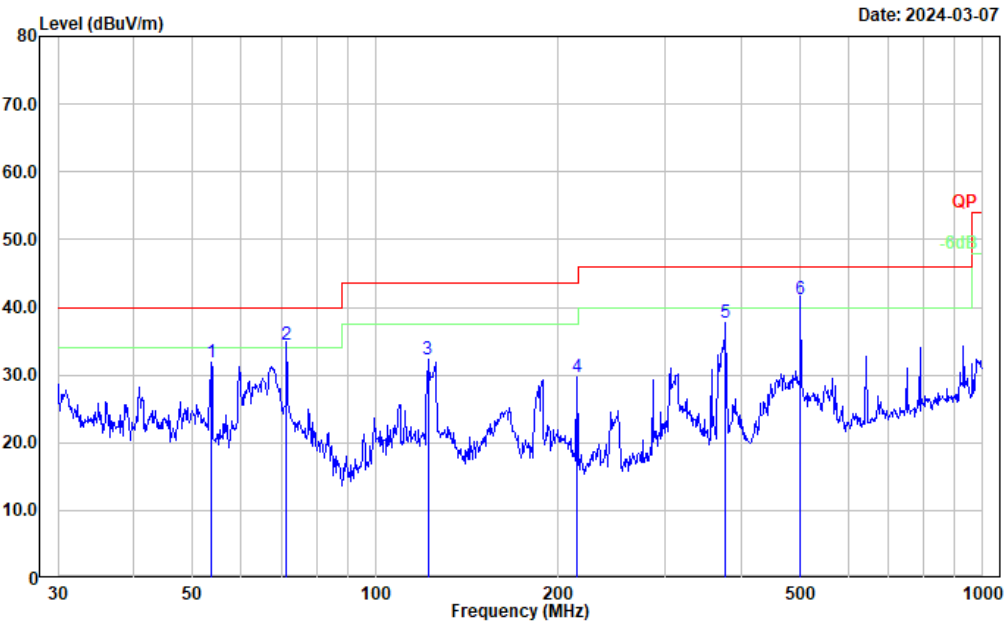
M2:

Project No.: CR231276278-EM
Tester: Jeff Luo
Polarization: horizontal
Note: M2 BUS Test



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBUV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	71.330	46.39	-17.19	29.20	40.00	10.80	Peak
2	187.753	50.47	-13.77	36.70	43.50	6.80	Peak
3	357.929	46.01	-9.38	36.63	46.00	9.37	Peak
4	500.017	47.16	-5.87	41.29	46.00	4.71	QP
5	642.861	40.85	-3.71	37.14	46.00	8.86	Peak
6	929.008	38.49	0.55	39.04	46.00	6.96	Peak

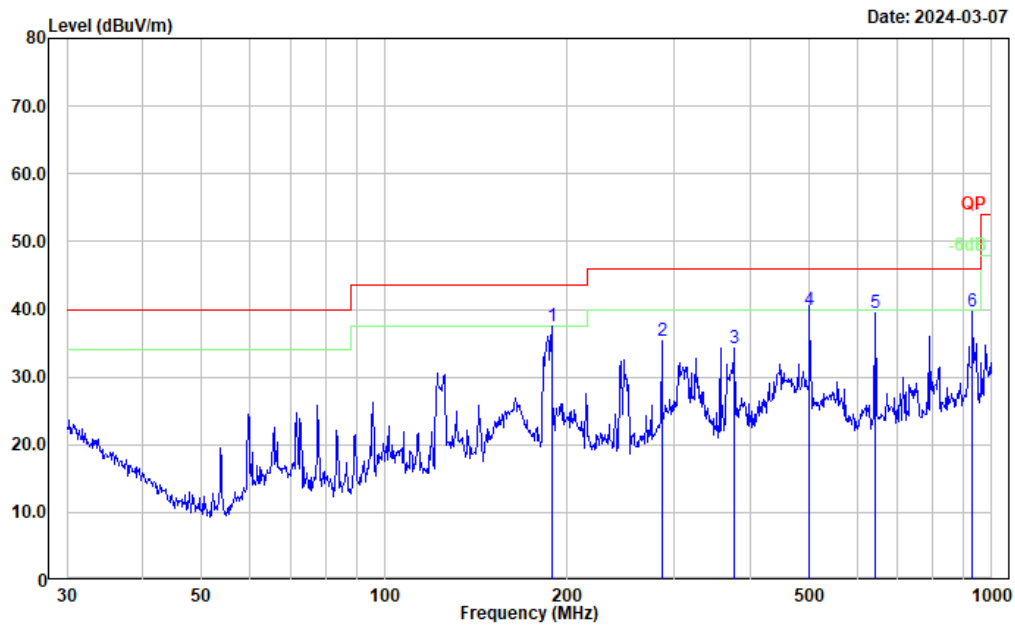
Project No.: CR231276278-EM
Tester: Jeff Luo
Polarization: vertical
Note: M2 BUS Test



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	53.693	49.53	-17.62	31.91	40.00	8.09	Peak
2	71.330	51.58	-17.19	34.39	40.00	5.61	QP
3	121.976	43.17	-10.90	32.27	43.50	11.23	Peak
4	214.514	43.60	-13.90	29.70	43.50	13.80	Peak
5	377.259	46.63	-8.88	37.75	46.00	8.25	Peak
6	500.017	47.01	-5.87	41.14	46.00	4.86	QP

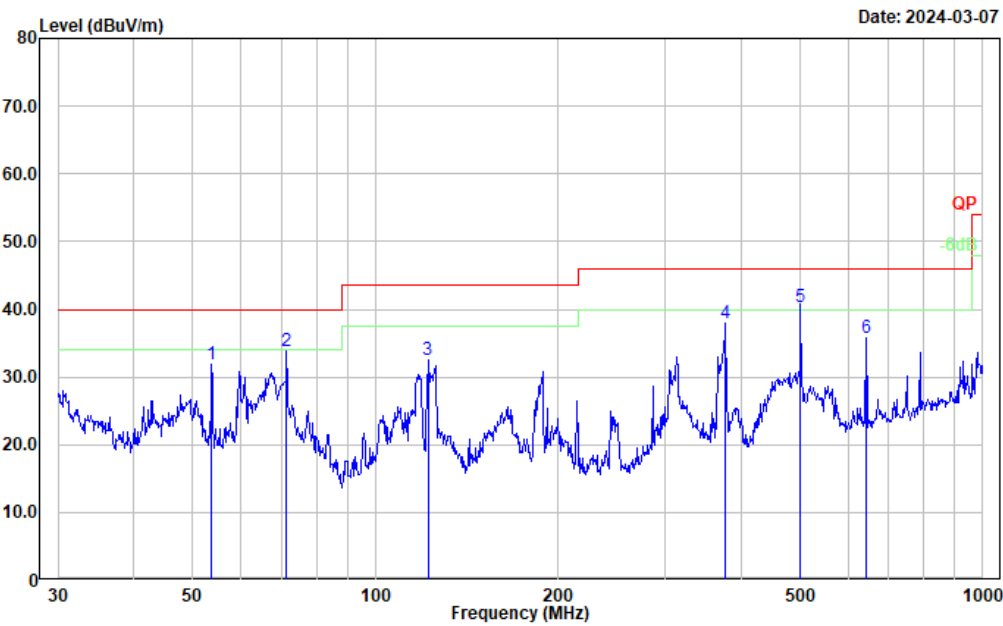
M3:

Project No.: CR231276278-EM
Tester: Jeff Luo
Polarization: horizontal
Note: M3 Device Test



No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	188.413	51.26	-13.77	37.49	43.50	6.01	Peak
2	285.978	45.89	-10.57	35.32	46.00	10.68	Peak
3	377.259	43.12	-8.88	34.24	46.00	11.76	Peak
4	501.179	45.71	-5.85	39.86	46.00	6.14	QP
5	642.861	43.22	-3.71	39.51	46.00	6.49	Peak
6	929.008	39.19	0.55	39.74	46.00	6.26	Peak

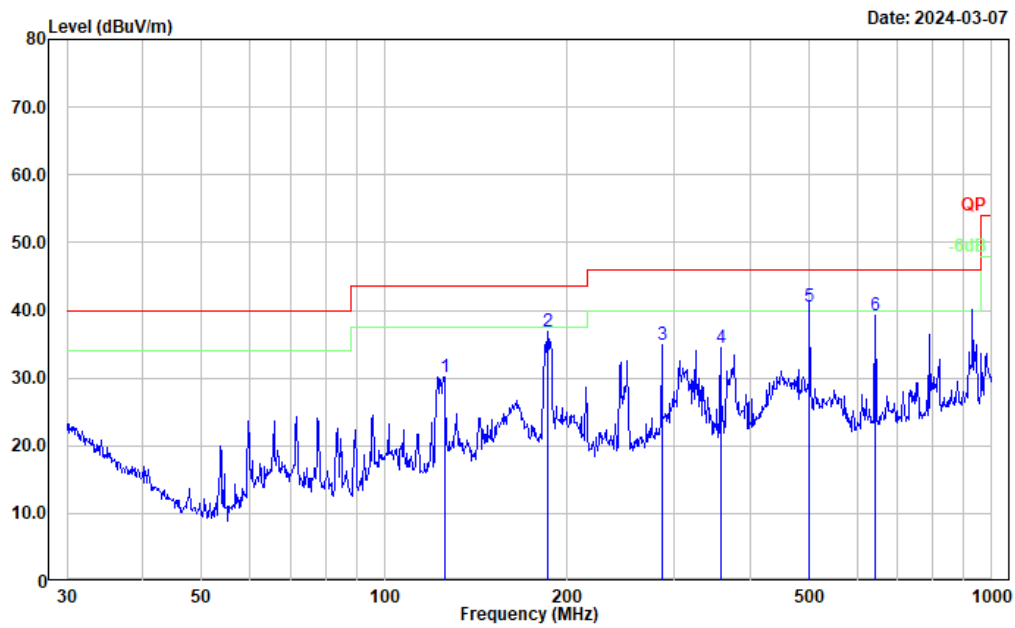
Project No.: CR231276278-EM
Tester: Jeff Luo
Polarization: vertical
Note: M3 Device Test



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	53.693	49.51	-17.62	31.89	40.00	8.11	Peak
2	71.330	50.94	-17.19	33.75	40.00	6.25	Peak
3	121.976	43.34	-10.90	32.44	43.50	11.06	Peak
4	377.259	46.80	-8.88	37.92	46.00	8.08	Peak
5	501.179	46.09	-5.85	40.24	46.00	5.76	QP
6	642.861	39.52	-3.71	35.81	46.00	10.19	Peak

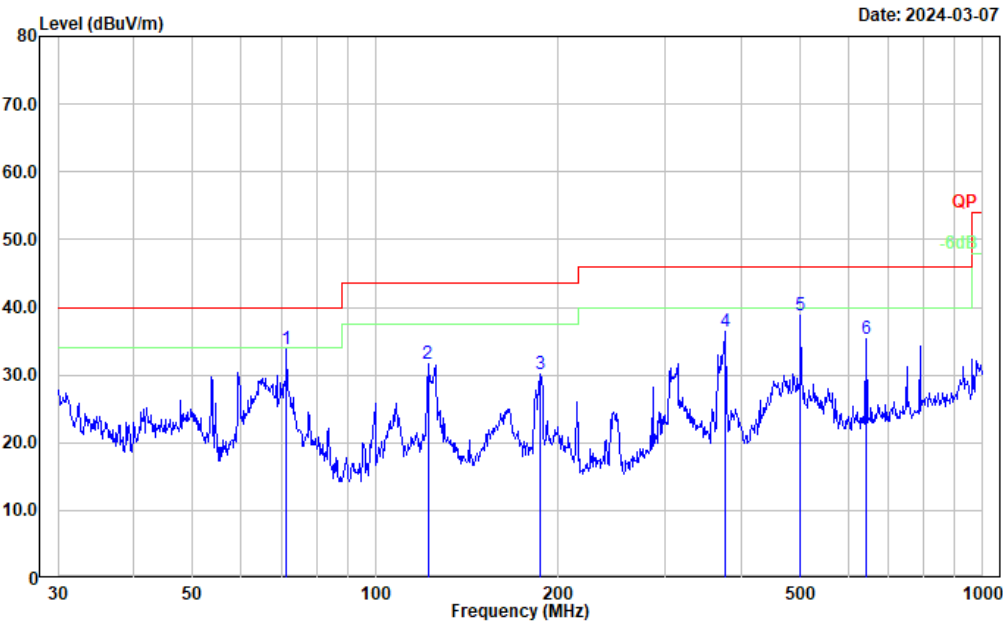
M4:

Project No.: CR231276278-EM
Tester: Jeff Luo
Polarization: horizontal
Note: M4 Disk Test (mmc)



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	125.446	41.26	-11.03	30.23	43.50	13.27	Peak
2	185.788	50.57	-13.78	36.79	43.50	6.71	Peak
3	285.978	45.49	-10.57	34.92	46.00	11.08	Peak
4	357.929	43.89	-9.38	34.51	46.00	11.49	Peak
5	501.179	46.42	-5.85	40.57	46.00	5.43	QP
6	642.861	42.98	-3.71	39.27	46.00	6.73	Peak

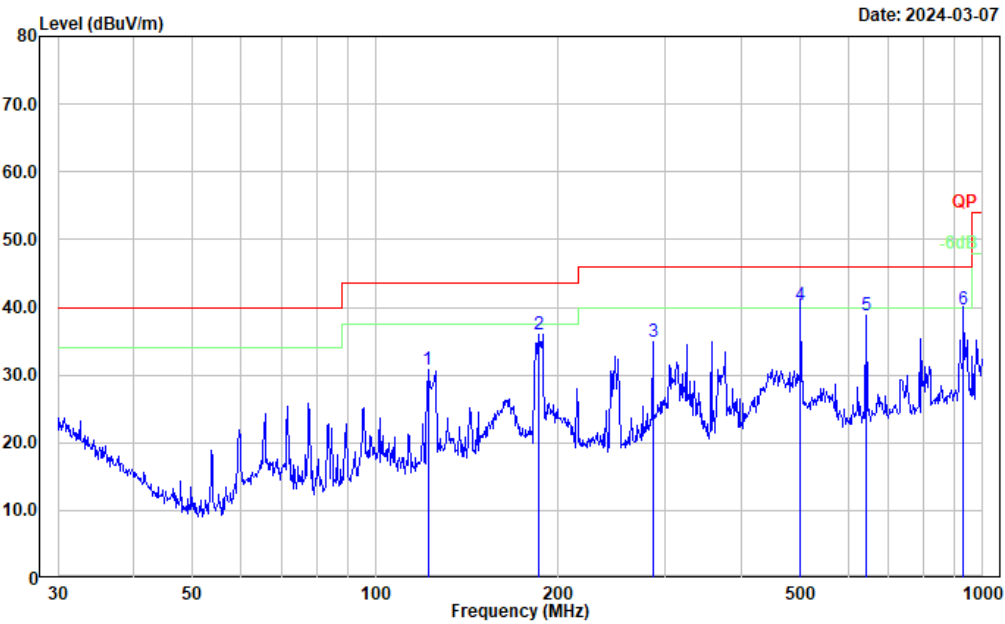
Project No.: CR231276278-EM
Tester: Jeff Luo
Polarization: vertical
Note: M4 Disk Test (mmc)



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	71.330	50.95	-17.19	33.76	40.00	6.24	Peak
2	121.976	42.53	-10.90	31.63	43.50	11.87	Peak
3	187.096	43.97	-13.77	30.20	43.50	13.30	Peak
4	375.939	45.41	-8.97	36.44	46.00	9.56	Peak
5	501.179	44.56	-5.85	38.71	46.00	7.29	Peak
6	642.861	39.11	-3.71	35.40	46.00	10.60	Peak

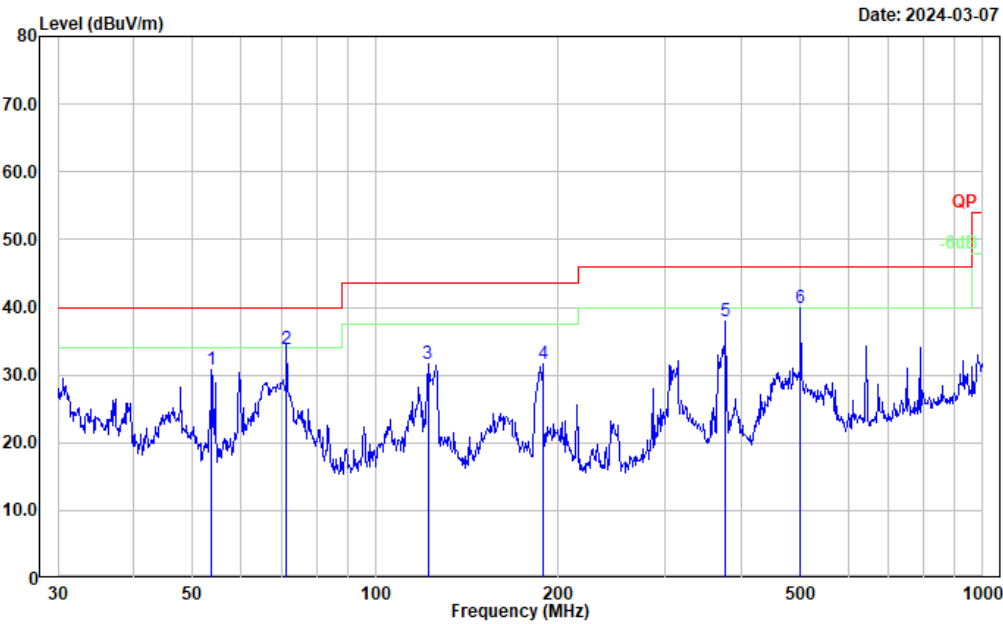
M5:

Project No.: CR231276278-EM
Tester: Jeff Luo
Polarization: horizontal
Note: M5 NET transmission



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	121.976	41.65	-10.90	30.75	43.50	12.75	Peak
2	185.788	49.69	-13.78	35.91	43.50	7.59	Peak
3	285.978	45.49	-10.57	34.92	46.00	11.08	Peak
4	501.179	46.28	-5.85	40.43	46.00	5.57	QP
5	642.861	42.48	-3.71	38.77	46.00	7.23	Peak
6	929.008	39.02	0.55	39.57	46.00	6.43	QP

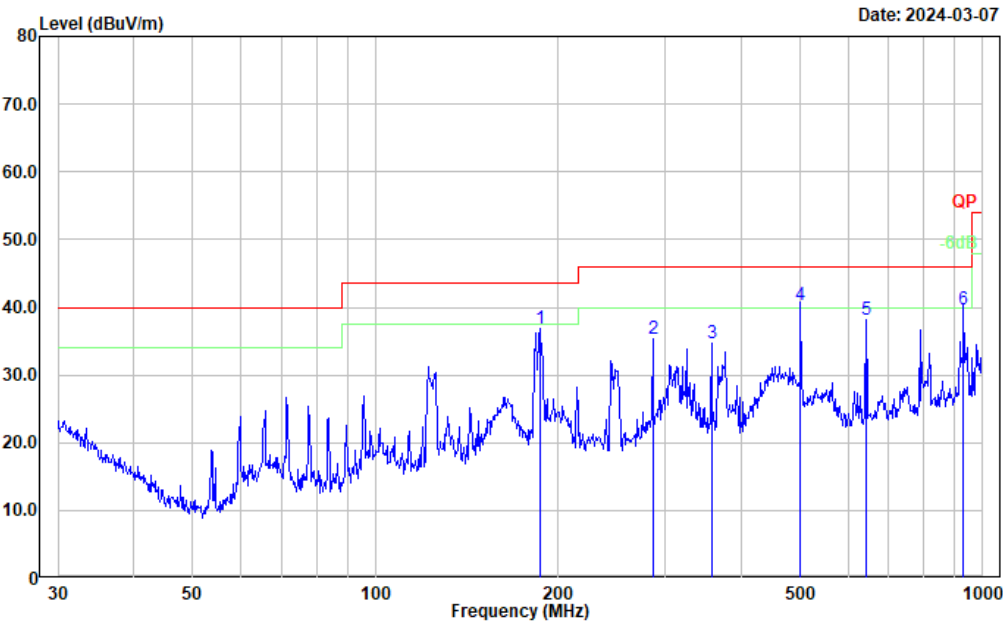
Project No.: CR231276278-EM
Tester: Jeff Luo
Polarization: vertical
Note: M5 NET transmission



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	53.693	48.43	-17.62	30.81	40.00	9.19	Peak
2	71.330	51.05	-17.19	33.86	40.00	6.14	QP
3	121.976	42.58	-10.90	31.68	43.50	11.82	Peak
4	188.413	45.53	-13.77	31.76	43.50	11.74	Peak
5	377.259	46.74	-8.88	37.86	46.00	8.14	Peak
6	501.179	45.84	-5.85	39.99	46.00	6.01	Peak

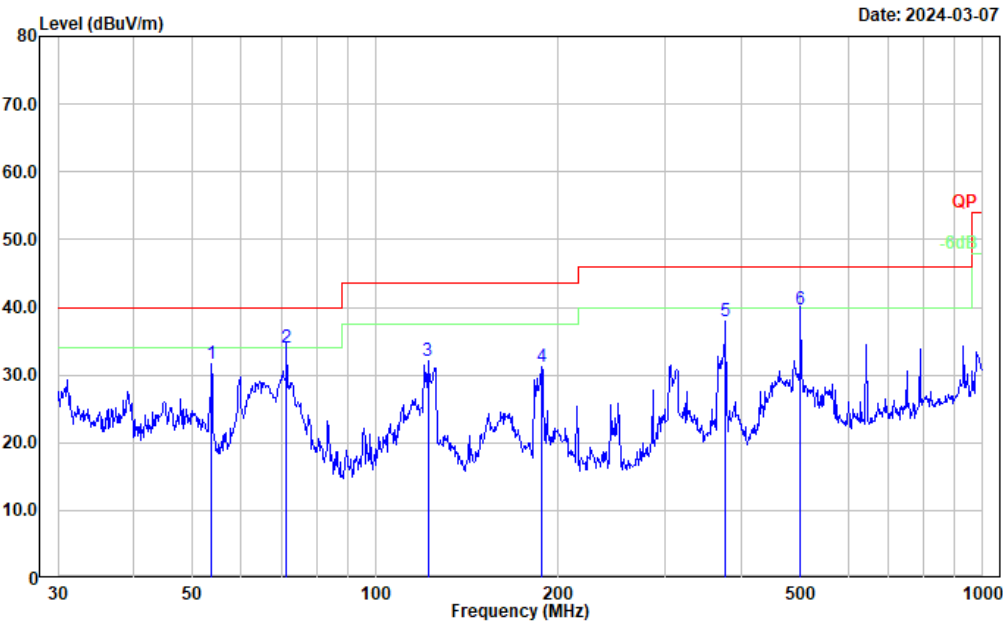
M6:

Project No.: CR231276278-EM
Tester: Jeff Luo
Polarization: horizontal
Note: M6 USB Data transmission



No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	186.441	50.67	-13.78	36.89	43.50	6.61	Peak
2	285.978	45.96	-10.57	35.39	46.00	10.61	Peak
3	357.929	44.10	-9.38	34.72	46.00	11.28	Peak
4	501.179	46.10	-5.85	40.25	46.00	5.75	QP
5	642.861	41.96	-3.71	38.25	46.00	7.75	Peak
6	929.008	39.23	0.55	39.78	46.00	6.22	QP

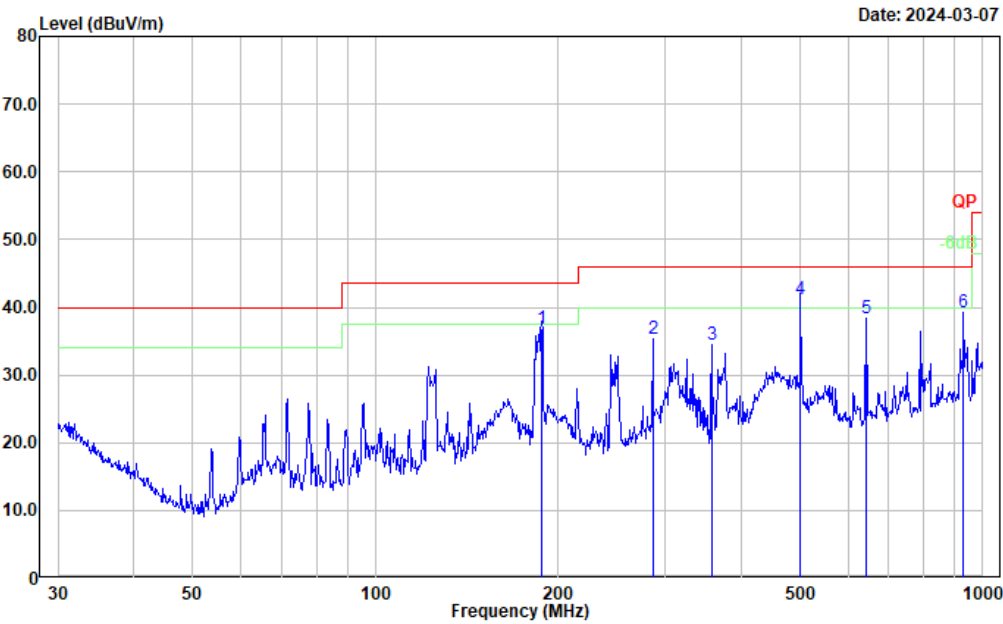
Project No.: CR231276278-EM
Tester: Jeff Luo
Polarization: vertical
Note: M6 USB Data transmission



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	53.693	49.33	-17.62	31.71	40.00	8.29	Peak
2	71.330	51.17	-17.19	33.98	40.00	6.02	QP
3	121.976	42.92	-10.90	32.02	43.50	11.48	Peak
4	187.753	45.07	-13.77	31.30	43.50	12.20	Peak
5	377.259	46.88	-8.88	38.00	46.00	8.00	Peak
6	501.179	45.46	-5.85	39.61	46.00	6.39	QP

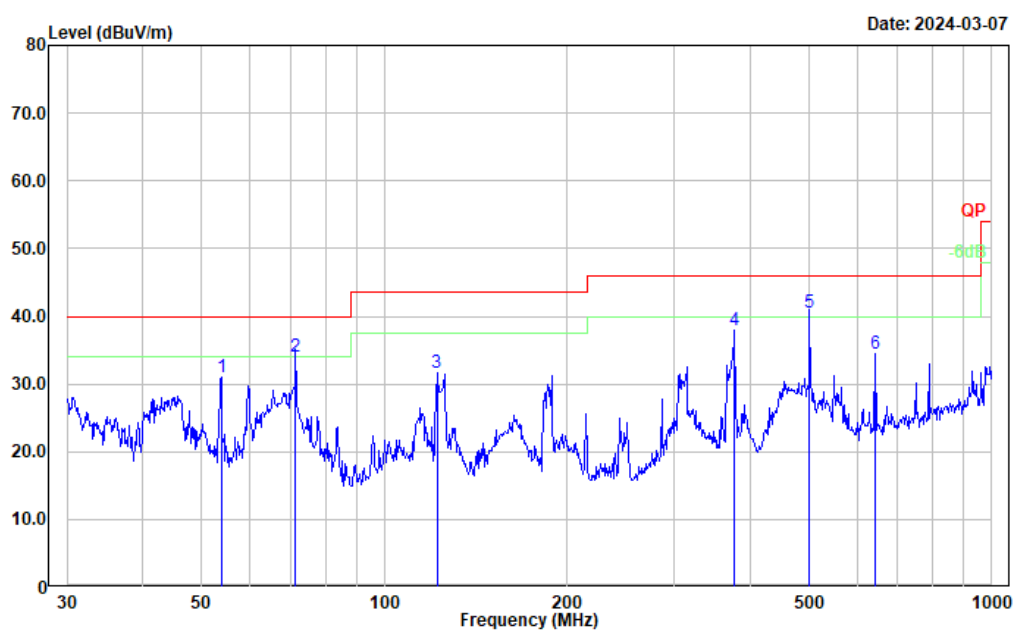
M7:

Project No.: CR231276278-EM
 Tester: Jeff Luo
 Polarization: horizontal
 Note: M7 Type-C Data transmission



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	187.753	50.72	-13.77	36.95	43.50	6.55	QP
2	285.978	45.86	-10.57	35.29	46.00	10.71	Peak
3	357.929	43.78	-9.38	34.40	46.00	11.60	Peak
4	501.179	47.14	-5.85	41.29	46.00	4.71	QP
5	642.861	42.06	-3.71	38.35	46.00	7.65	Peak
6	929.008	38.75	0.55	39.30	46.00	6.70	Peak

Project No.: CR231276278-EM
Tester: Jeff Luo
Polarization: vertical
Note: M7 Type-C Data transmission



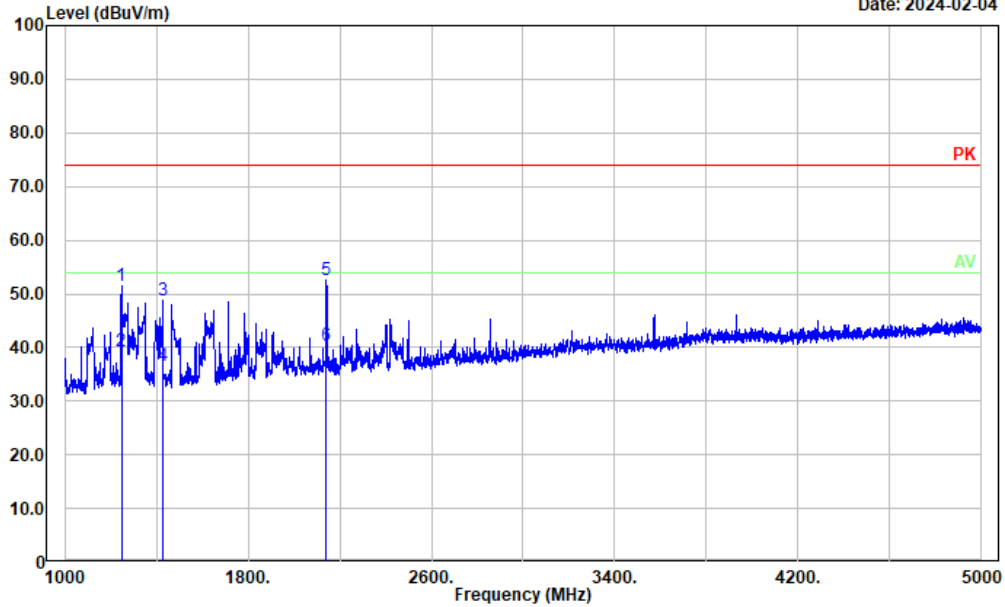
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	53.882	48.73	-17.64	31.09	40.00	8.91	Peak
2	71.330	51.25	-17.19	34.06	40.00	5.94	QP
3	121.976	42.46	-10.90	31.56	43.50	11.94	Peak
4	377.259	46.87	-8.88	37.99	46.00	8.01	Peak
5	501.179	46.30	-5.85	40.45	46.00	5.55	QP
6	642.861	38.16	-3.71	34.45	46.00	11.55	Peak

2) Above 1GHz:

M1:

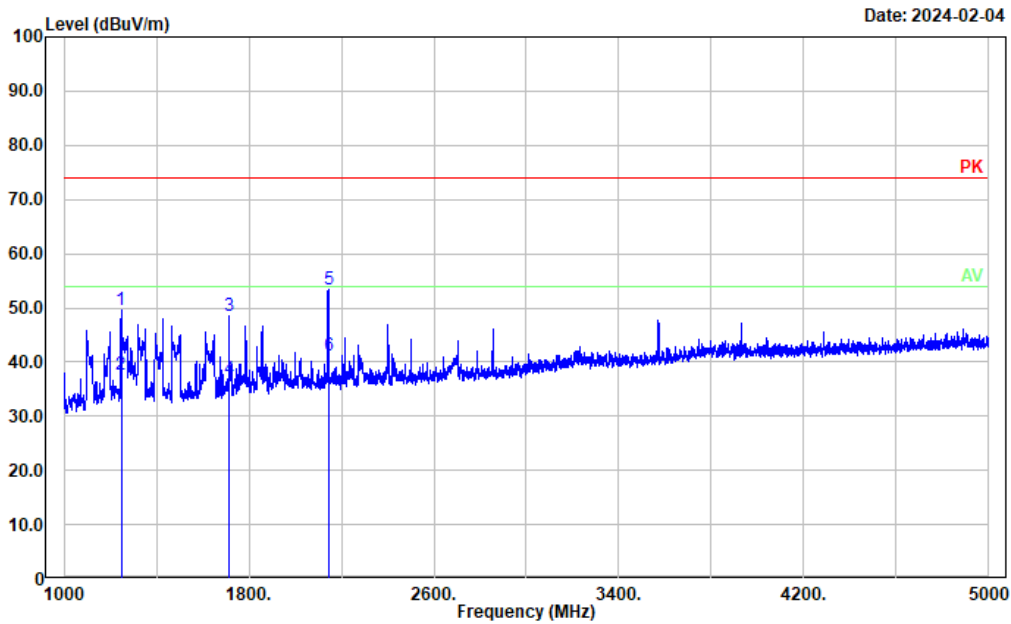
Project No.: CR231276278-EM
Tester: Mack Huang
Polarization: horizontal
Note: LCD Test

Date: 2024-02-04



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1247.200	51.80	-0.36	51.44	74.00	22.56	Peak
2	1247.200	39.57	-0.36	39.21	54.00	14.79	Average
3	1428.800	48.83	0.04	48.87	74.00	25.13	Peak
4	1428.800	36.47	0.04	36.51	54.00	17.49	Average
5	2142.400	49.88	2.62	52.50	74.00	21.50	Peak
6	2142.400	37.71	2.62	40.33	54.00	13.67	Average

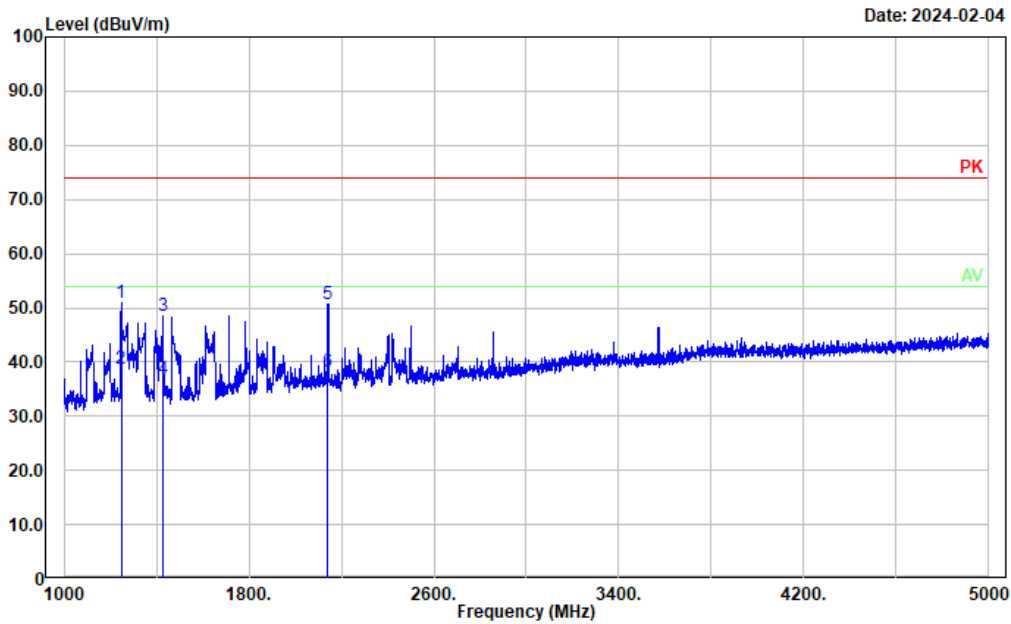
Project No.: CR231276278-EM
Tester: Mack Huang
Polarization: vertical
Note: LCD Test



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1247.200	49.90	-0.36	49.54	74.00	24.46	Peak
2	1247.200	38.01	-0.36	37.65	54.00	16.35	Average
3	1714.400	47.78	0.84	48.62	74.00	25.38	Peak
4	1714.400	36.03	0.84	36.87	54.00	17.13	Average
5	2143.200	50.65	2.61	53.26	74.00	20.74	Peak
6	2143.200	38.55	2.61	41.16	54.00	12.84	Average

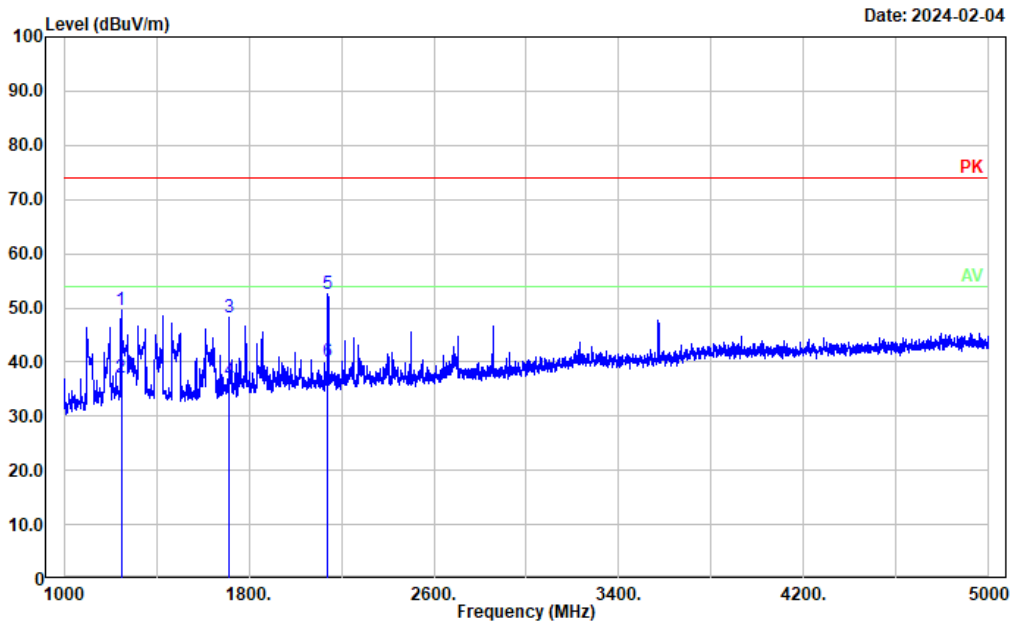
M2:

Project No.: CR231276278-EM
Tester: Mack Huang
Polarization: horizontal
Note: BUS Test



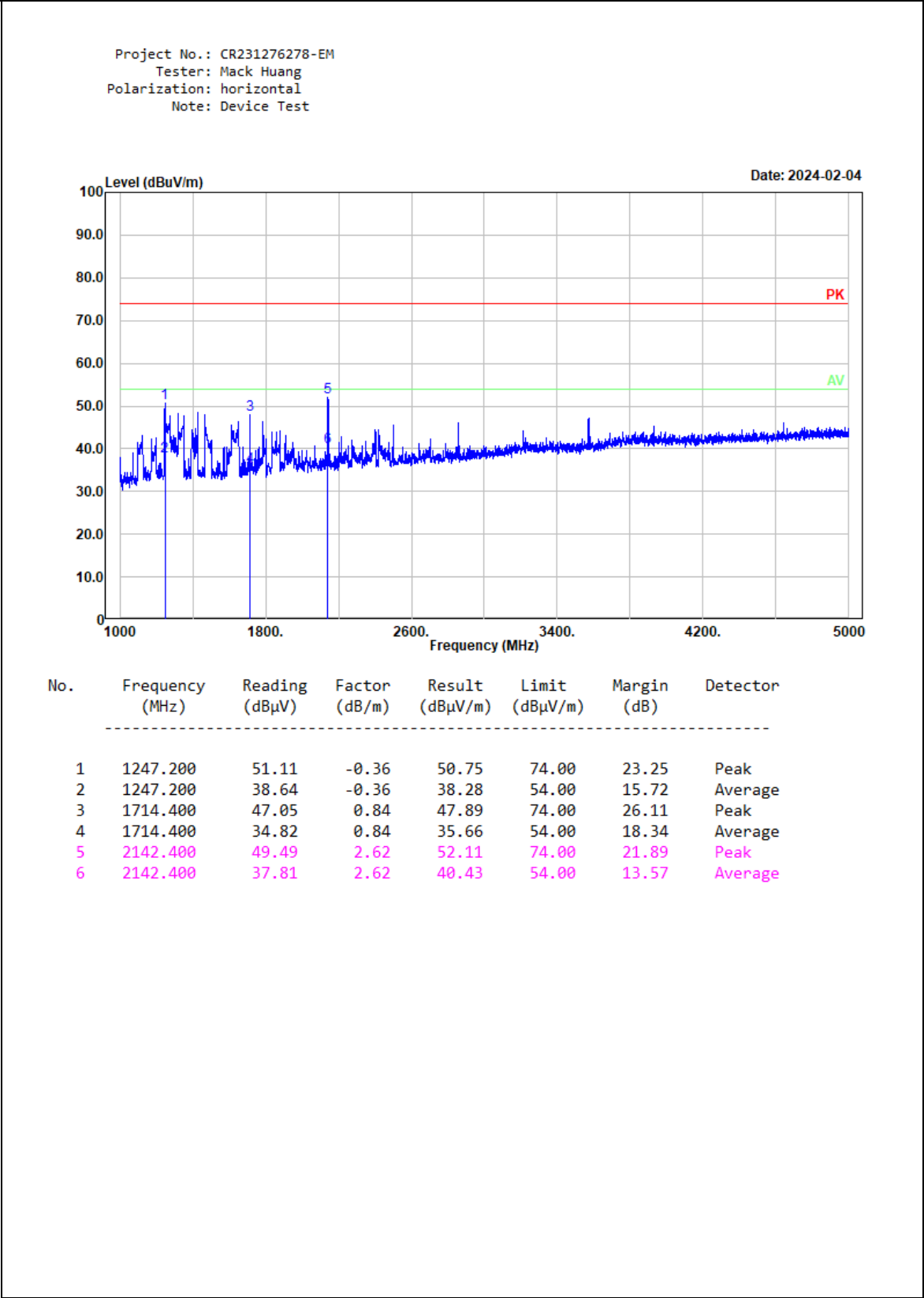
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1247.200	51.20	-0.36	50.84	74.00	23.16	Peak
2	1247.200	39.02	-0.36	38.66	54.00	15.34	Average
3	1428.000	48.57	0.04	48.61	74.00	25.39	Peak
4	1428.000	36.87	0.04	36.91	54.00	17.09	Average
5	2142.400	48.07	2.62	50.69	74.00	23.31	Peak
6	2142.400	35.66	2.62	38.28	54.00	15.72	Average

Project No.: CR231276278-EM
Tester: Mack Huang
Polarization: vertical
Note: BUS Test

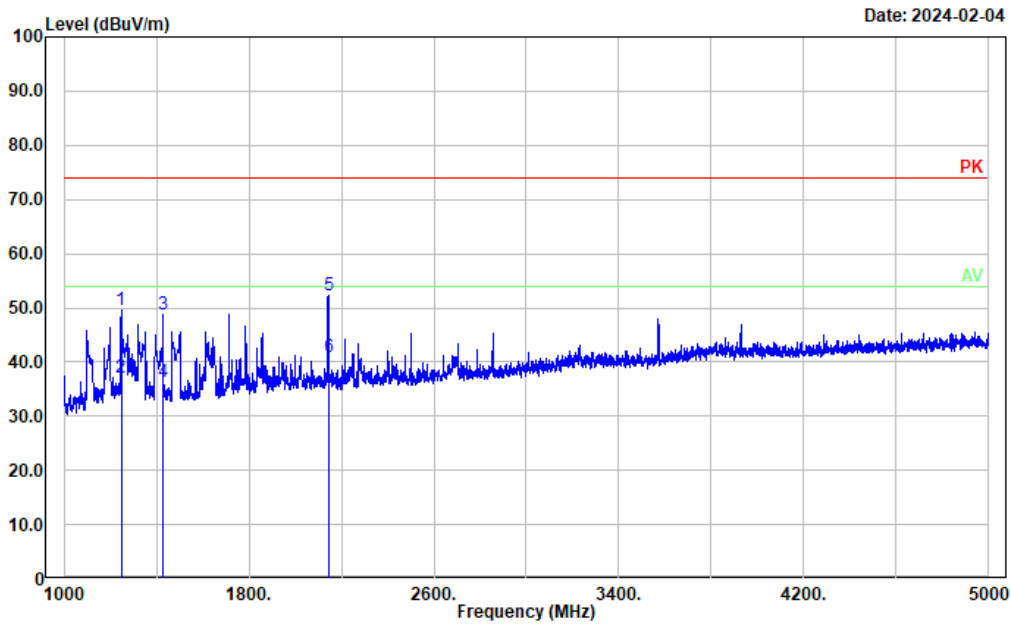


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1247.200	49.93	-0.36	49.57	74.00	24.43	Peak
2	1247.200	37.52	-0.36	37.16	54.00	16.84	Average
3	1714.400	47.48	0.84	48.32	74.00	25.68	Peak
4	1714.400	35.73	0.84	36.57	54.00	17.43	Average
5	2142.400	50.03	2.62	52.65	74.00	21.35	Peak
6	2142.400	37.60	2.62	40.22	54.00	13.78	Average

M3:



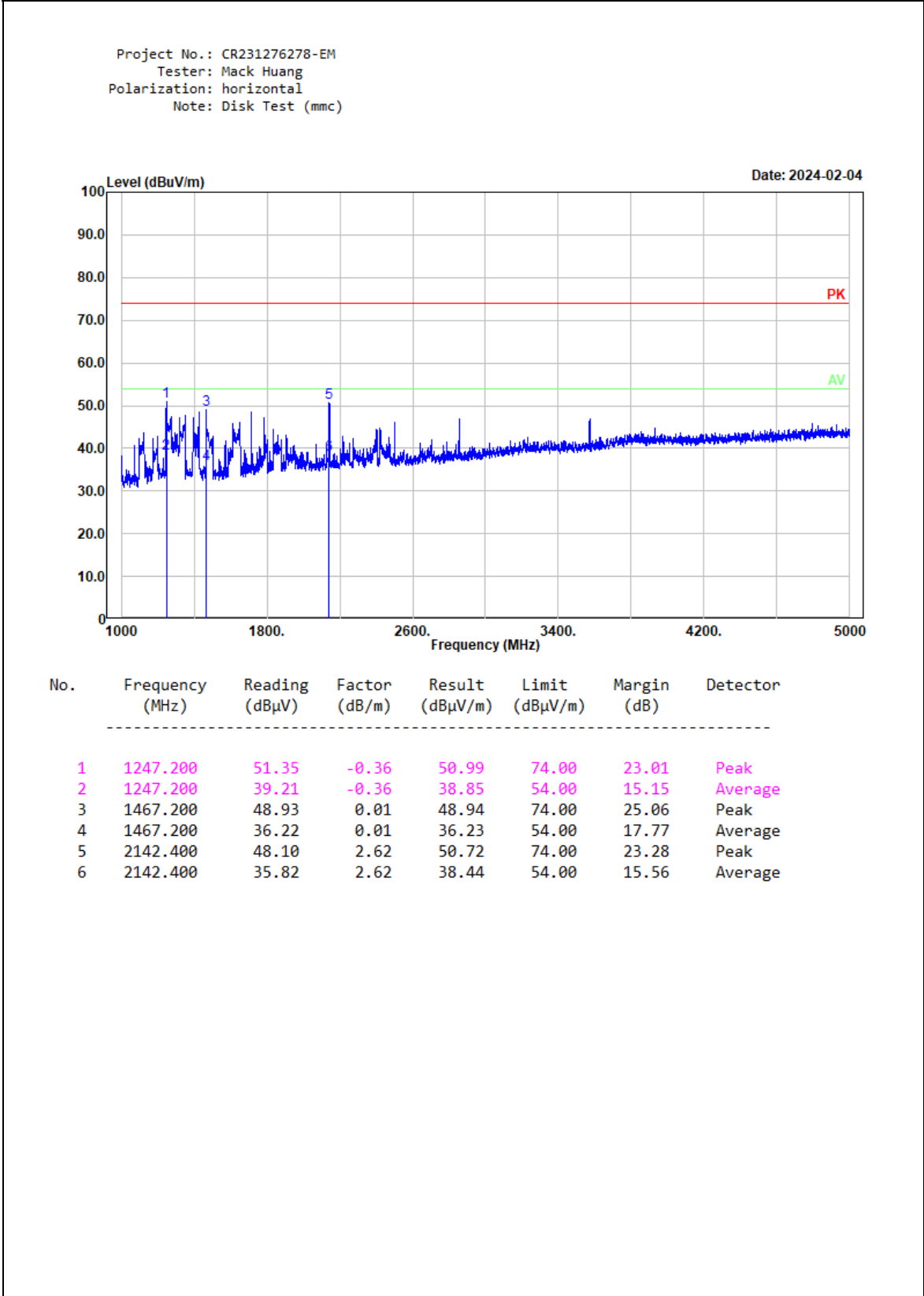
Project No.: CR231276278-EM
Tester: Mack Huang
Polarization: vertical
Note: Device Test



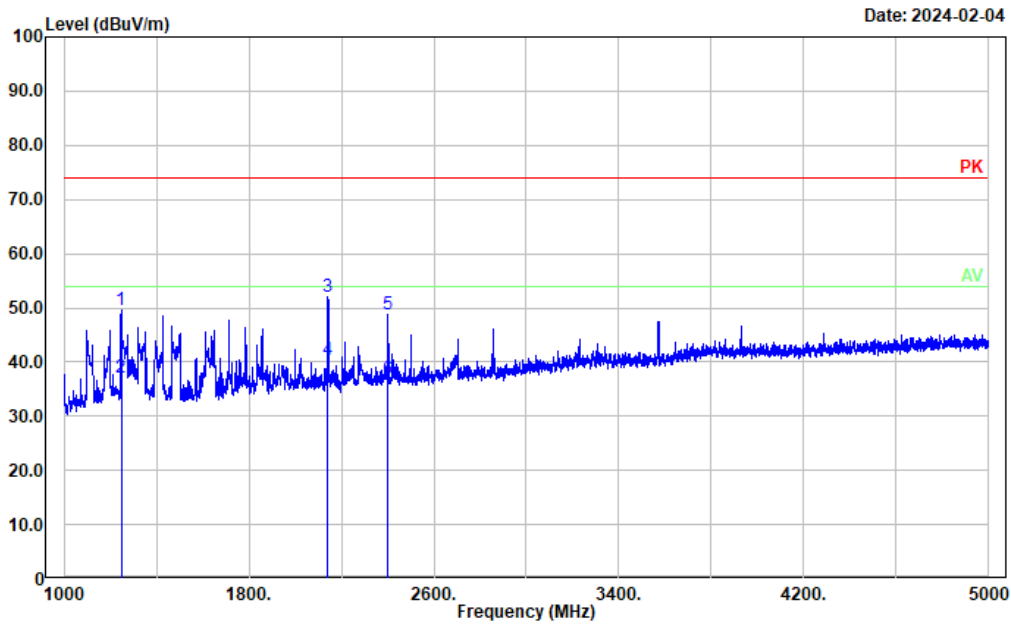
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector

1	1247.200	50.07	-0.36	49.71	74.00	24.29	Peak
2	1247.200	37.50	-0.36	37.14	54.00	16.86	Average
3	1428.000	48.75	0.04	48.79	74.00	25.21	Peak
4	1428.000	36.18	0.04	36.22	54.00	17.78	Average
5	2143.200	49.58	2.61	52.19	74.00	21.81	Peak
6	2143.200	38.35	2.61	40.96	54.00	13.04	Average

M4:



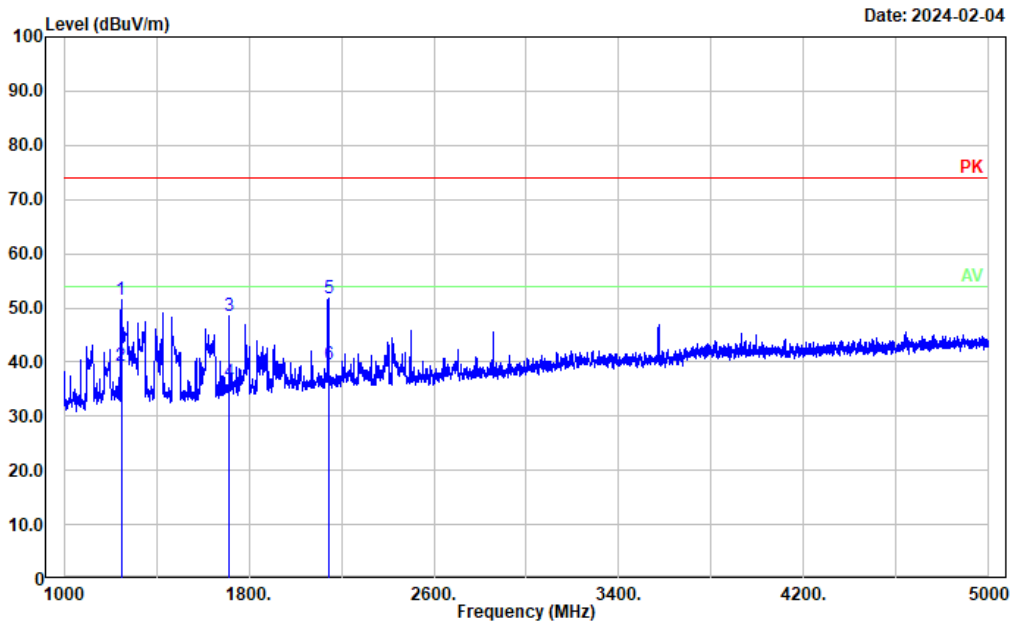
Project No.: CR231276278-EM
Tester: Mack Huang
Polarization: vertical
Note: Disk Test (mmc)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1247.200	49.99	-0.36	49.63	74.00	24.37	Peak
2	1247.200	37.48	-0.36	37.12	54.00	16.88	Average
3	2142.400	49.46	2.62	52.08	74.00	21.92	Peak
4	2142.400	37.70	2.62	40.32	54.00	13.68	Average
5	2401.600	45.13	3.53	48.66	74.00	25.34	Peak
6	2401.600	33.25	3.53	36.78	54.00	17.22	Average

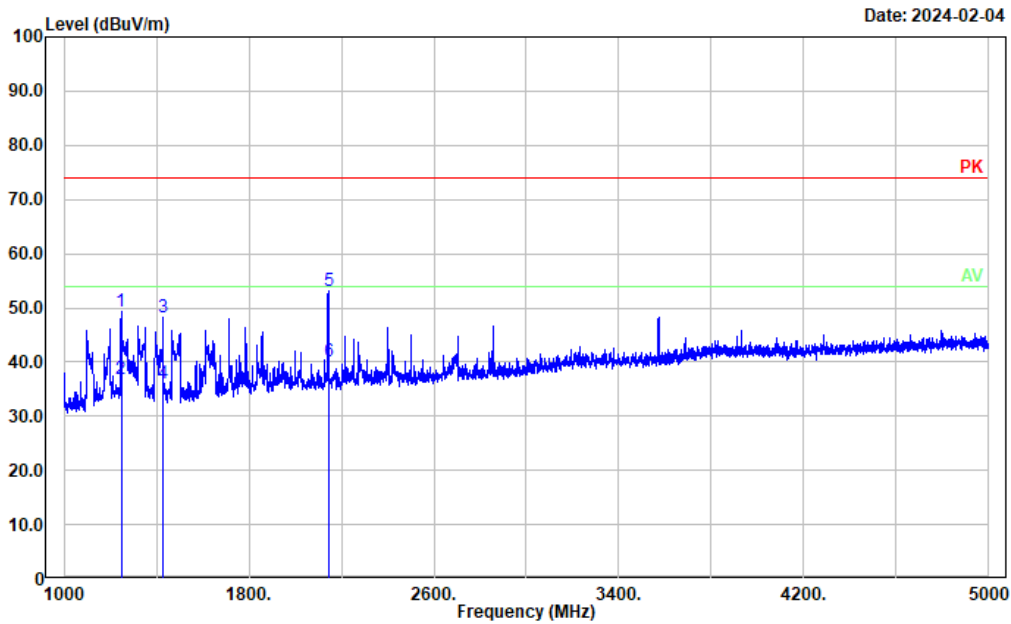
M5:

Project No.: CR231276278-EM
Tester: Mack Huang
Polarization: horizontal
Note: NET transmission



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1247.200	51.84	-0.36	51.48	74.00	22.52	Peak
2	1247.200	39.72	-0.36	39.36	54.00	14.64	Average
3	1714.400	47.80	0.84	48.64	74.00	25.36	Peak
4	1714.400	35.37	0.84	36.21	54.00	17.79	Average
5	2143.200	49.14	2.61	51.75	74.00	22.25	Peak
6	2143.200	36.94	2.61	39.55	54.00	14.45	Average

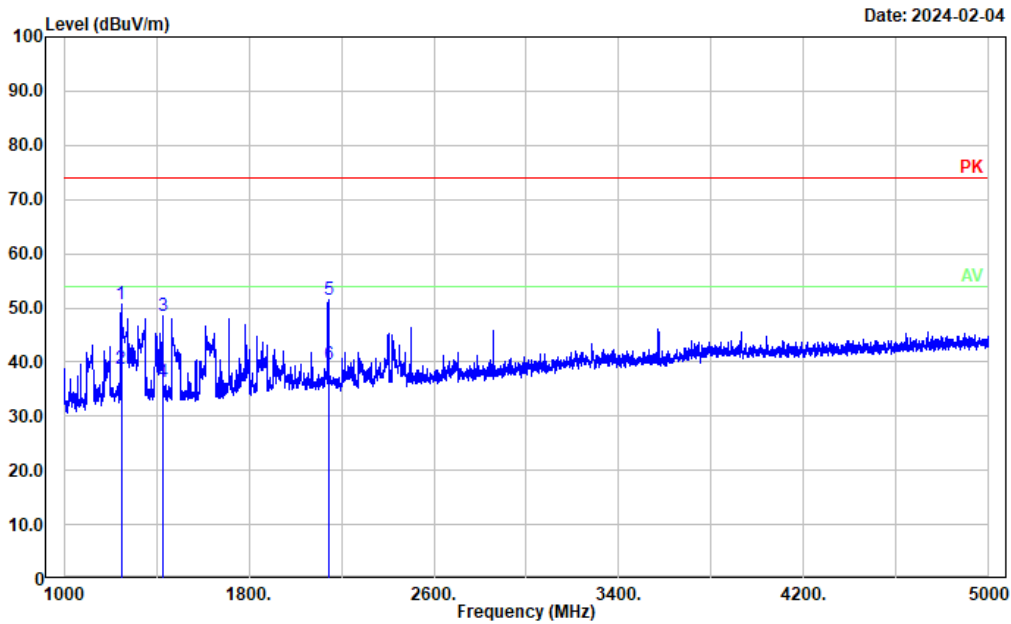
Project No.: CR231276278-EM
Tester: Mack Huang
Polarization: vertical
Note: NET transmission



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1247.200	49.81	-0.36	49.45	74.00	24.55	Peak
2	1247.200	37.25	-0.36	36.89	54.00	17.11	Average
3	1428.000	48.25	0.04	48.29	74.00	25.71	Peak
4	1428.000	36.08	0.04	36.12	54.00	17.88	Average
5	2143.200	50.44	2.61	53.05	74.00	20.95	Peak
6	2143.200	37.62	2.61	40.23	54.00	13.77	Average

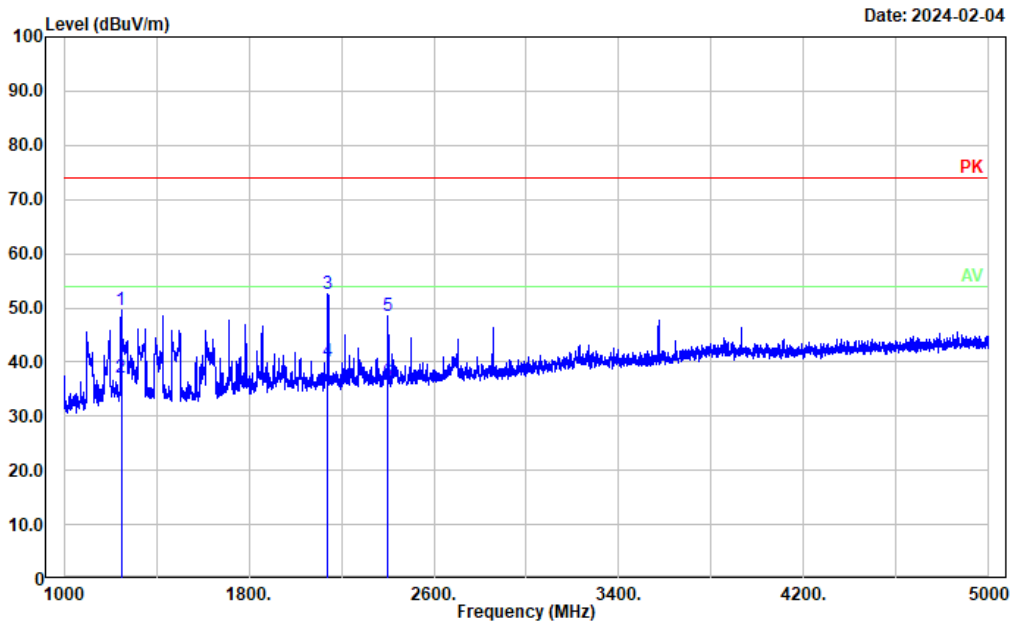
M6:

Project No.: CR231276278-EM
Tester: Mack Huang
Polarization: horizontal
Note: USB Data transmission



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1247.200	51.00	-0.36	50.64	74.00	23.36	Peak
2	1247.200	39.14	-0.36	38.78	54.00	15.22	Average
3	1428.000	48.54	0.04	48.58	74.00	25.42	Peak
4	1428.000	36.29	0.04	36.33	54.00	17.67	Average
5	2143.200	48.96	2.61	51.57	74.00	22.43	Peak
6	2143.200	37.04	2.61	39.65	54.00	14.35	Average

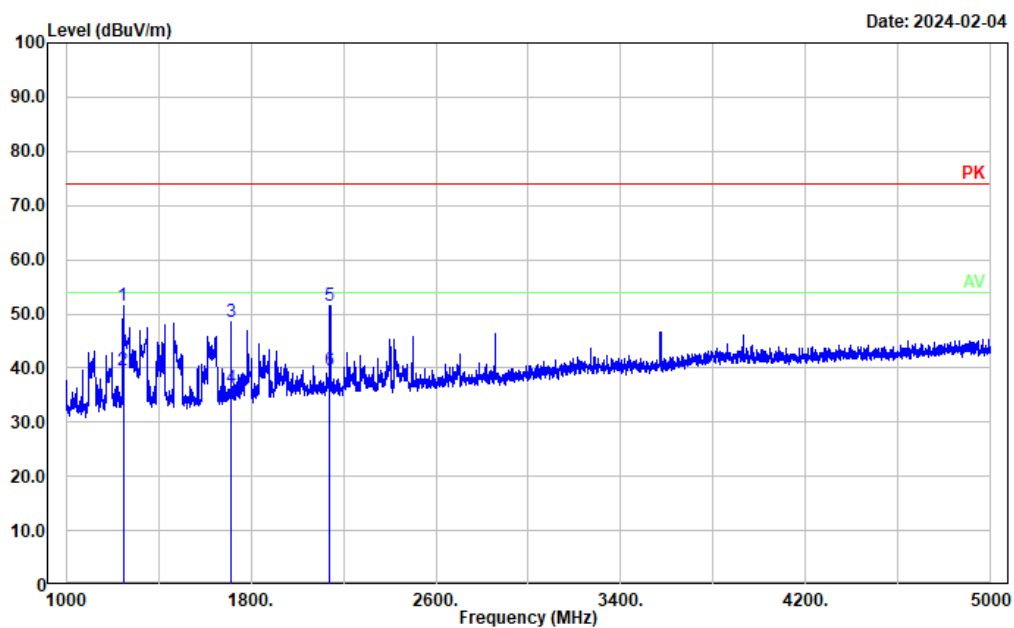
Project No.: CR231276278-EM
Tester: Mack Huang
Polarization: vertical
Note: USB Data transmission



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1247.200	49.98	-0.36	49.62	74.00	24.38	Peak
2	1247.200	37.60	-0.36	37.24	54.00	16.76	Average
3	2142.400	49.83	2.62	52.45	74.00	21.55	Peak
4	2142.400	37.48	2.62	40.10	54.00	13.90	Average
5	2402.400	45.09	3.53	48.62	74.00	25.38	Peak
6	2402.400	32.70	3.53	36.23	54.00	17.77	Average

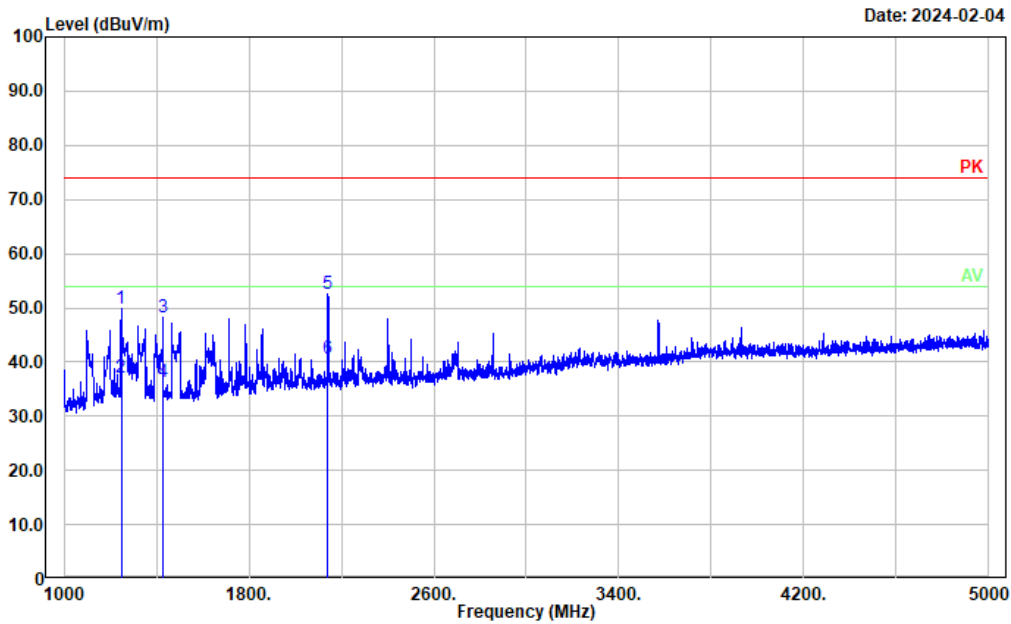
M7:

Project No.: CR231276278-EM
Tester: Mack Huang
Polarization: horizontal
Note: Type-C Data transmission



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1247.200	51.81	-0.36	51.45	74.00	22.55	Peak
2	1247.200	39.99	-0.36	39.63	54.00	14.37	Average
3	1714.400	47.72	0.84	48.56	74.00	25.44	Peak
4	1714.400	35.37	0.84	36.21	54.00	17.79	Average
5	2142.400	48.82	2.62	51.44	74.00	22.56	Peak
6	2142.400	36.82	2.62	39.44	54.00	14.56	Average

Project No.: CR231276278-EM
Tester: Mack Huang
Polarization: vertical
Note: Type-C Data transmission



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1247.200	50.13	-0.36	49.77	74.00	24.23	Peak
2	1247.200	37.47	-0.36	37.11	54.00	16.89	Average
3	1428.000	48.20	0.04	48.24	74.00	25.76	Peak
4	1428.000	36.19	0.04	36.23	54.00	17.77	Average
5	2142.400	50.01	2.62	52.63	74.00	21.37	Peak
6	2142.400	38.03	2.62	40.65	54.00	13.35	Average

5. EUT PHOTOGRAPHS

Please refer to the attachment CR231276278-EXP EUT EXTERNAL PHOTOGRAPHS and
CR231276278-INP EUT INTERNAL PHOTOGRAPHS

6. TEST SETUP PHOTOGRAPHS

Please refer to the attachment CR231276278-00-TSP TEST SETUP PHOTOGRAPHS.

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