

FCC PART 15B TEST REPORT

For

FUJIAN NEW CENTURY COMMUNICATIONS CO., LTD

NO.1 FENGSHOU RD., ZHAOFENG IND. ZONE FENGZE DISTRICT, QUANZHOU,
FUJIAN, CHINA.

FCC ID: VO6CDR-300UV

Report Type: Original Report	Product Type: DMR Mini mobile radio
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Report Number:	RXM201208050-00B
Report Date:	2021-08-04
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	FUJIAN NEW CENTURY COMMUNICATIONS CO., LTD
Test Model:	CDR-300UV
Series Model:	CDR-200UV
Model Difference:	See Declaration letter
Product:	DMR Mini mobile radio
Rate Voltage:	DC 13.8V
*Highest Operation Frequency:	480 MHz

**Note: The highest operation frequency was declared by the applicant.*

**All measurement and test data in this report was gathered from production sample serial number: RXM201208050 -1. (Assigned by the BACL. The EUT supplied by the applicant was received on 2020-12-08)*

Objective

This report is prepared on behalf of *FUJIAN NEW CENTURY COMMUNICATIONS CO., LTD* in accordance with Part 2-Subpart J, and Part 15-Subparts A and B of the Federal Communication Commission's rules.

The objective of the manufacturer is to determine the compliance of EUT with FCC Part 15, Class B device.

Related Submittal(s)/Grant(s)

FCC Part 95 TNB Submittal with FCC ID: VO6CDR-300UV.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All radiated and conducted emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Kunshan). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu province, China.

Bay Area Compliance Laboratories Corp. (Kunshan) Lab is accredited to ISO/IEC 17025 by A2LA (Lab code: 4323.01) and the FCC designation No. CN1185 under the FCC KDB 974614 D01 and CAB identifier CN0004 under the ISED requirement. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2014.

SYSTEM TEST CONFIGURATION

Justification

The system was configured for testing in a typical mode (as normally used by a typical user).

Test mode 1: Receive at 136MHz

Test mode 2: Receive at 155MHz

Test mode 3: Receive at 174MHz

Test mode 4: Receive at 400MHz

Test mode 5: Receive at 440MHz

Test mode 6: Receive at 480MHz

Test mode 7: scanning receiver

EUT Exercise Software

No exercise software was used to test.

Special Accessories

No special accessory was used.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

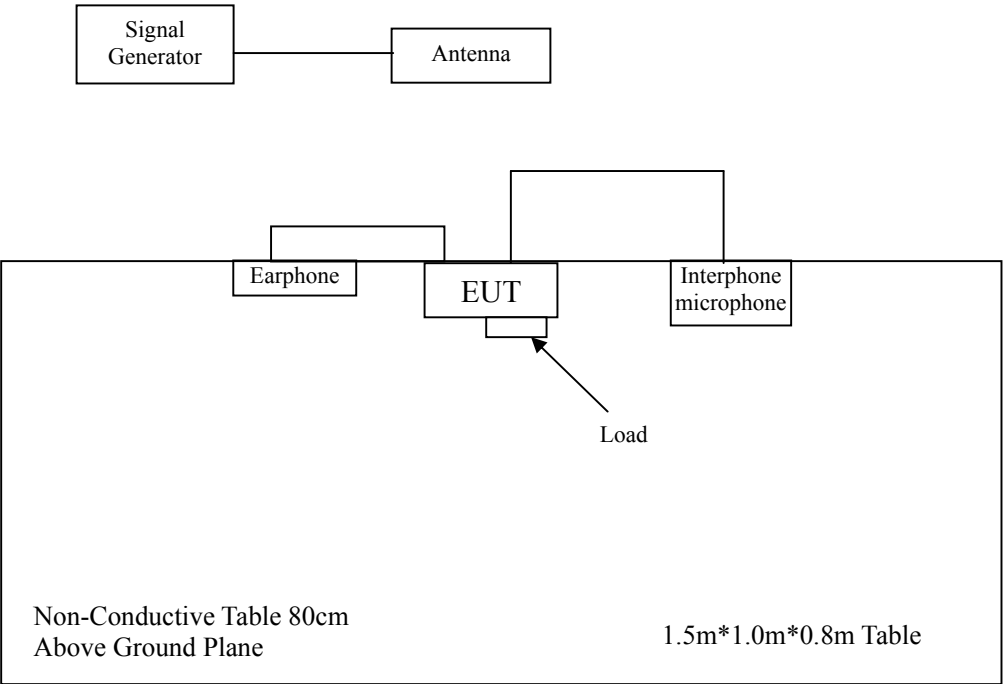
Manufacturer	Description	Model	Serial Number
Huaxiang	50OhmCoaxial Load	4.3/10TF20-8	17011301
ZHAOXIN	DC Source	RXN-605D	DC002
BOLD	Earphone	/	/

External I/O Cable

Cable Description	Length (m)	From Port	To Port
Audio Cable	1.0	EUT	Earphone
Audio Cable	1.0	EUT	Interphone microphone

Block Diagram of Radiated Test Setup

Test mode1-7:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§15.107	Conducted Emissions	Not Applicable (see note)
§15.109	Radiated Emissions	Compliant
§15.111	Antenna Conducted Power for receivers	Compliant
§15.121(b)	Scanning receivers and frequency converters used with scanning receivers	Compliant

Note: The EUT was used in a vehicle..

FCC §15.109 - RADIATED EMISSIONS

Applicable Standard

FCC §15.109

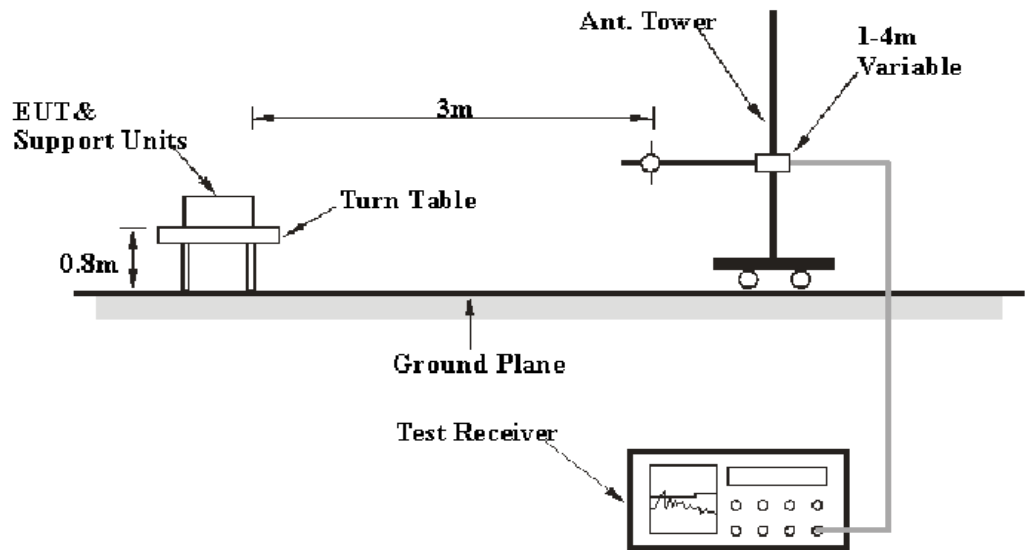
Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average) and system repeatability.

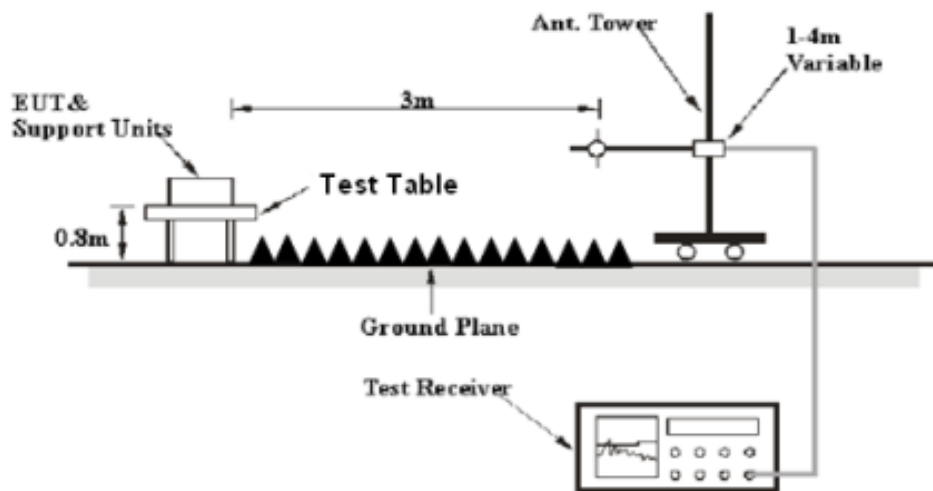
Item		Measurement Uncertainty	U_{cispr}
Radiated Emission	30MHz~1GHz	6.11dB	6.3 dB
	1GHz~6GHz	4.45dB	5.2dB

EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2014. The specification used was the FCC Part 15.109 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 spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

The system was investigated from 30 MHz to 2 GHz.

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

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

Test Procedure

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

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sonoma Instrument	Amplifier	310N	185700	2020-08-14	2021-08-13
Rohde & Schwarz	EMI Test Receiver	ESR	102454	2020-11-27	2021-11-26
Sunol Sciences	Hybrid Antenna	JB3	A090314-1	2020-08-05	2023-08-04
Albatross	Chamber 3#	3m-SAC 966	N/A	2019-07-02	2022-07-01
Audix	Test Software	e3	V9	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-11	011	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-12	012	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-13	013	2020-08-15	2021-08-14
A.H. Systems,inc.	Amplifier	PAM-0118P	512	2020-08-14	2021-08-13
Albatross	Chamber 2#	3m-SAC 966	N/A	2019-05-08	2022-05-07
ETS	Horn Antenna	3115	9311-4159	2020-07-15	2023-07-14
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2021-03-16	2022-03-15
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-4	004	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-5	005	2020-08-15	2021-08-14

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Kunshan) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude (dB μ V/m) = Meter Reading (dB μ V) + Antenna Factor (dB/m) + Cable Loss (dB) - Amplifier Gain (dB)

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin (dB) = Limit (dB μ V/m) – Corrected Amplitude (dB μ V/m)

Test Data

Environmental Conditions

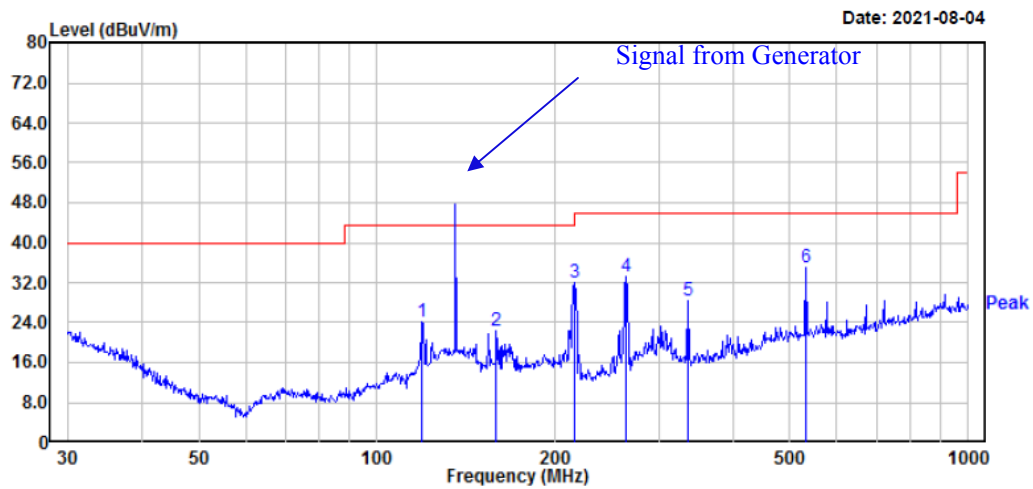
Temperature:	24.3°C
Relative Humidity:	53 %
ATM Pressure:	101.5 kPa

The testing was performed by Kaka Lei on 2021-08-04.

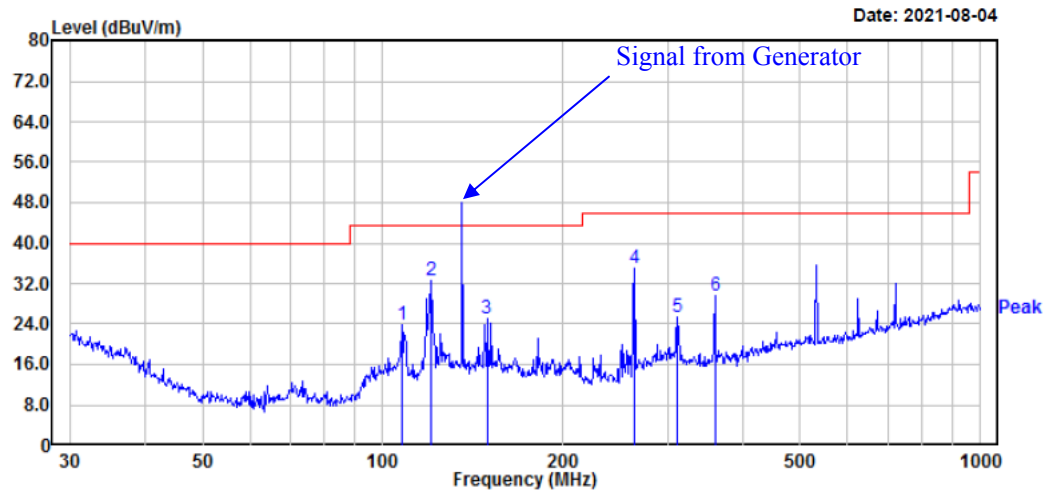
Test mode 1:

Below 1 GHz:

Horizontal:



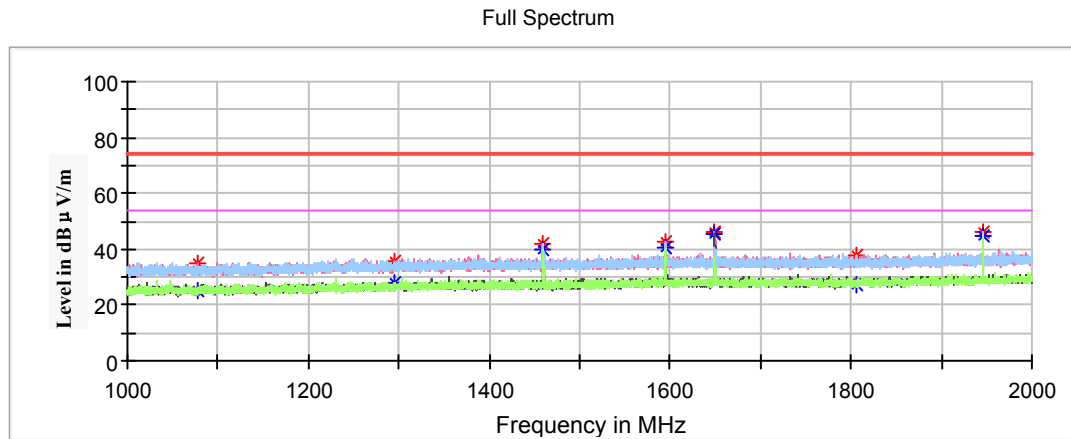
	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	119.44	35.83	-11.62	24.21	43.50	-19.29	100	51	Peak
2	159.23	33.76	-11.56	22.20	43.50	-21.30	200	58	Peak
3	216.00	44.73	-12.61	32.12	43.50	-11.38	100	201	Peak
4	263.82	44.31	-11.25	33.06	46.00	-12.94	200	1	Peak
5	336.04	37.60	-9.34	28.26	46.00	-17.74	100	274	Peak
6	531.96	40.46	-5.34	35.12	46.00	-10.88	200	296	Peak

Vertical:

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	107.89	37.18	-13.35	23.83	43.50	-19.67	200	2	Peak
2	120.28	44.18	-11.49	32.69	43.50	-10.81	100	356	Peak
3	149.49	36.86	-11.91	24.95	43.50	-18.55	100	38	Peak
4	263.82	46.17	-11.25	34.92	46.00	-11.08	100	115	Peak
5	312.18	34.06	-8.81	25.25	46.00	-20.75	200	112	Peak
6	360.45	38.81	-9.37	29.44	46.00	-16.56	200	78	Peak

Note:

Note: The PK values of the emissions are 6dB below the QP Limit, so the QP values of the emissions were not recorded.

Above 1 GHz:

Frequency (MHz)	Corrected Amplitude		Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
	Max Peak (dBµV/m)	Average (dBµV/m)						
1078.400000	---	25.43	54.00	28.57	100.0	V	190.0	-8.6
1078.400000	35.17	---	74.00	38.83	100.0	V	190.0	-8.6
1296.200000	---	28.06	54.00	25.94	200.0	H	100.0	-7.5
1296.200000	35.75	---	74.00	38.25	200.0	H	100.0	-7.5
1459.500000	42.01	---	74.00	31.99	100.0	H	180.0	-6.7
1459.500000	---	40.18	54.00	13.82	100.0	H	180.0	-6.7
1594.700000	---	40.52	54.00	13.48	200.0	V	334.0	-6.2
1594.700000	42.82	---	74.00	31.18	200.0	V	334.0	-6.2
1649.400000	---	45.17	54.00	8.83	100.0	V	190.0	-6.0
1649.400000	46.43	---	74.00	27.57	100.0	V	190.0	-6.0
1806.800000	---	27.57	54.00	26.43	200.0	V	297.0	-5.5
1806.800000	37.60	---	74.00	36.40	200.0	V	297.0	-5.5
1946.300000	---	44.42	54.00	9.58	100.0	H	142.0	-5.1
1946.300000	46.16	---	74.00	27.84	100.0	H	142.0	-5.1

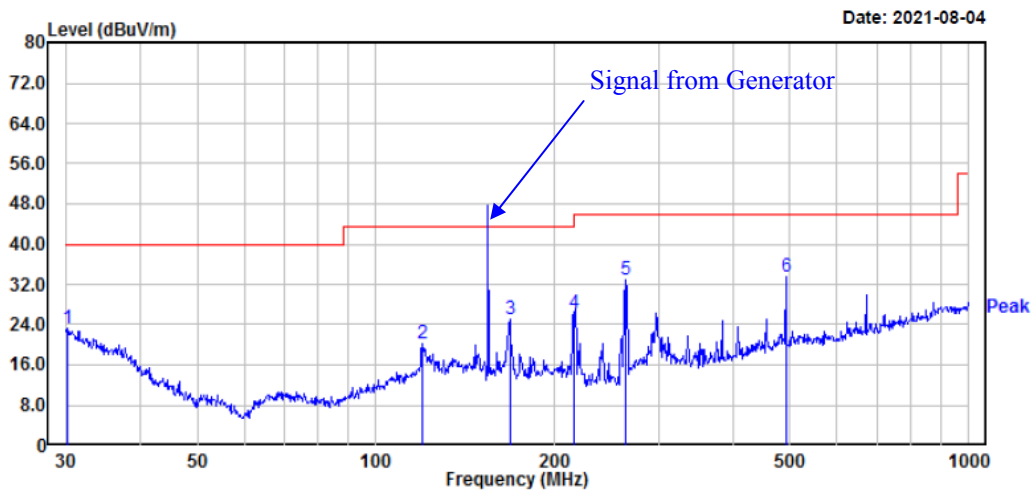
Note:

- 1) Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain
- 2) Margin = Limit - Corrected Amplitude

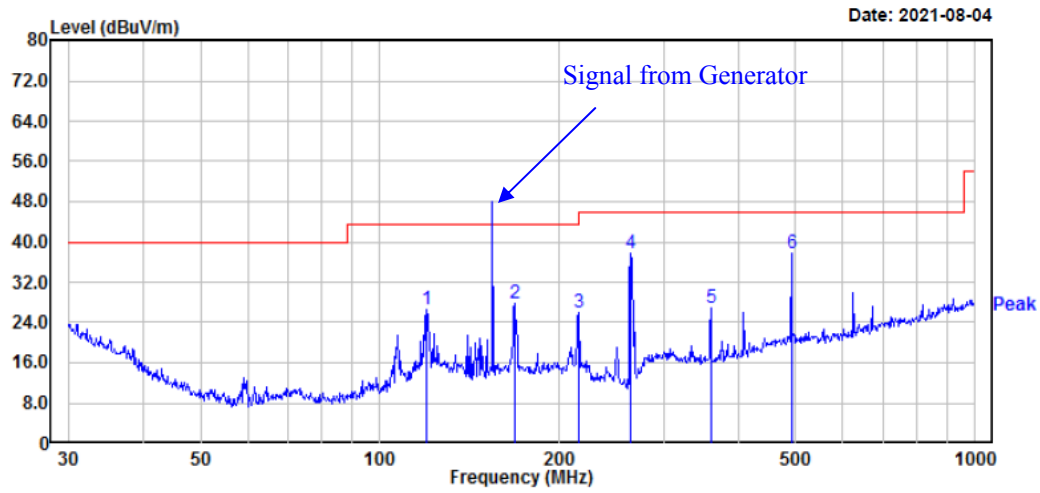
Test mode 2:

Below 1 GHz:

Horizontal:



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	30.21	27.66	-4.39	23.27	40.00	-16.73	200	182	Peak
2	119.86	31.82	-11.55	20.27	43.50	-23.23	100	6	Peak
3	168.41	37.07	-12.05	25.02	43.50	-18.48	200	254	Peak
4	216.00	38.95	-12.61	26.34	43.50	-17.16	100	287	Peak
5	263.82	44.22	-11.25	32.97	46.00	-13.03	200	286	Peak
6	492.47	39.12	-5.69	33.43	46.00	-12.57	200	97	Peak

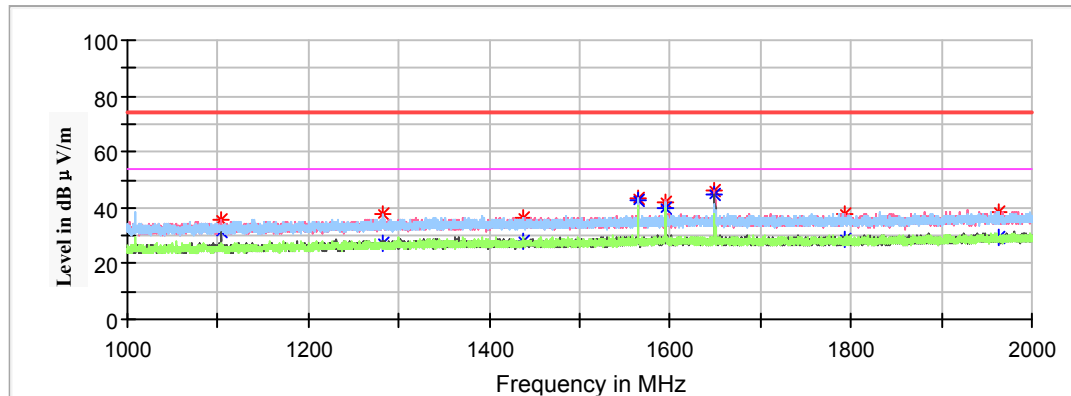
Vertical:

	Freq	Read Level	Factor	Level	Limit	Over	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	119.86	38.26	-11.55	26.71	43.50	-16.79	200	241	Peak
2	168.41	39.86	-12.05	27.81	43.50	-15.69	200	230	Peak
3	216.00	38.72	-12.61	26.11	43.50	-17.39	200	349	Peak
4	263.82	48.93	-11.25	37.68	46.00	-8.32	100	173	Peak
5	360.45	36.28	-9.37	26.91	46.00	-19.09	200	358	Peak
6	492.47	43.43	-5.69	37.74	46.00	-8.26	100	134	Peak

Note: The PK values of the emissions are 6dB below the QP Limit, so the QP values of the emissions were not recorded.

Above 1 GHz:

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
	Max Peak (dBμV/m)	Average (dBμV/m)						
1103.700000	---	31.64	54.00	22.36	100.0	V	245.0	-8.5
1103.700000	35.48	---	74.00	38.52	100.0	V	245.0	-8.5
1283.400000	---	27.14	54.00	26.86	200.0	V	0.0	-7.6
1283.400000	37.84	---	74.00	36.16	200.0	V	0.0	-7.6
1437.300000	---	27.75	54.00	26.25	200.0	H	41.0	-6.8
1437.300000	36.52	---	74.00	37.48	200.0	H	41.0	-6.8
1564.500000	43.63	---	74.00	30.37	100.0	V	330.0	-6.3
1564.500000	---	42.42	54.00	11.58	100.0	V	330.0	-6.3
1594.500000	42.13	---	74.00	31.87	200.0	H	30.0	-6.2
1594.500000	---	39.99	54.00	14.01	200.0	H	30.0	-6.2
1649.300000	46.23	---	74.00	27.77	100.0	V	191.0	-6.0
1649.400000	---	44.71	54.00	9.29	100.0	V	191.0	-6.0
1792.500000	---	28.35	54.00	25.65	200.0	V	7.0	-5.6
1792.500000	38.07	---	74.00	35.93	200.0	V	7.0	-5.6
1964.300000	---	29.44	54.00	24.56	100.0	H	105.0	-5.0
1964.300000	38.62	---	74.00	35.38	100.0	H	105.0	-5.0

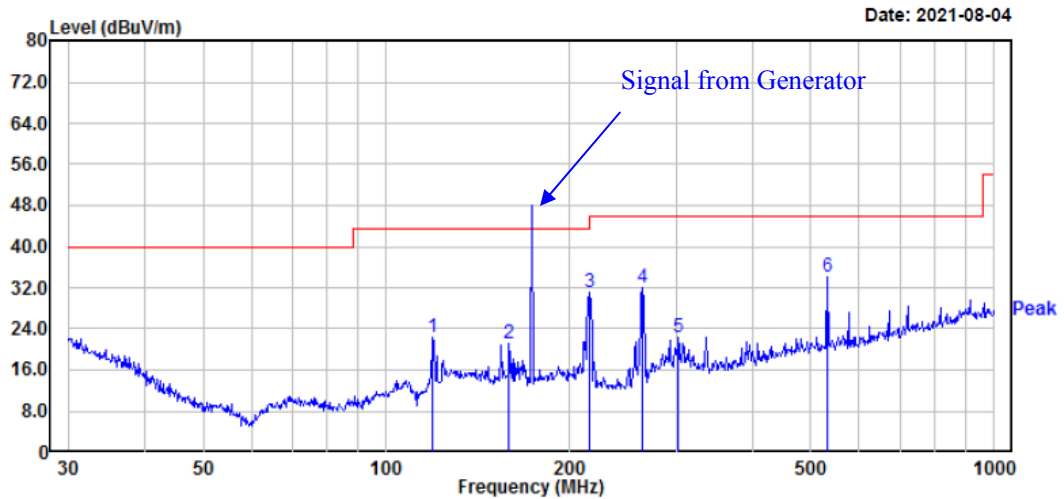
Note:

- 1) Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain
- 2) Margin = Limit - Corrected Amplitude

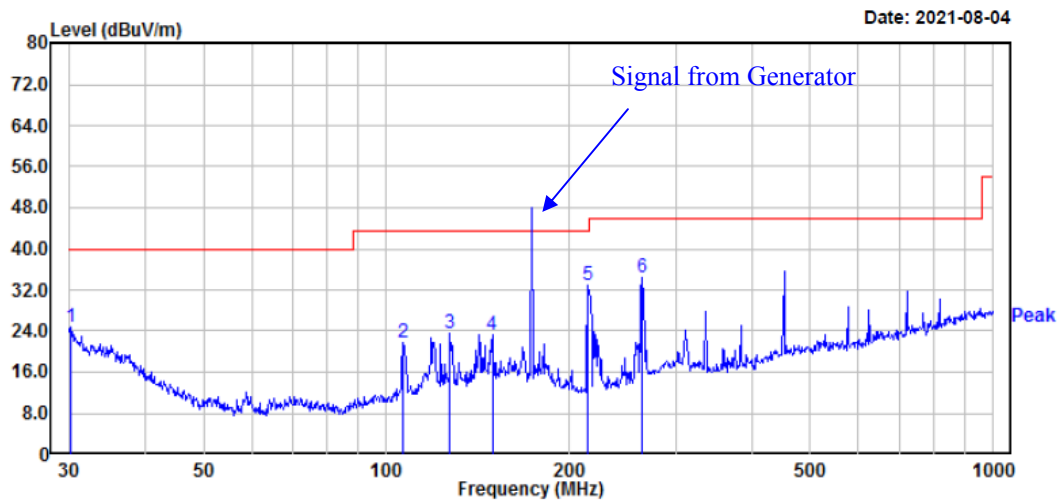
Test mode 3:

Below 1 GHz:

Horizontal:

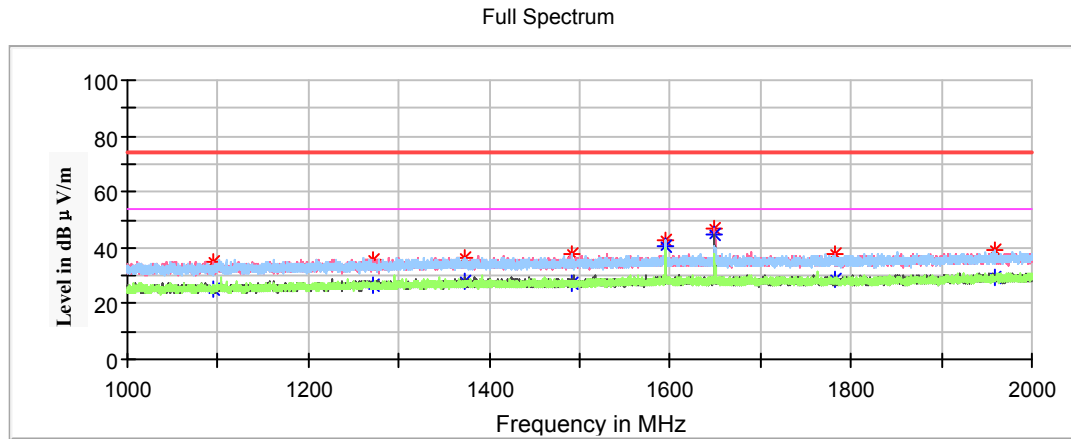


	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	119.44	33.83	-11.62	22.21	43.50	-21.29	100	51	Peak
2	159.23	32.76	-11.56	21.20	43.50	-22.30	200	58	Peak
3	216.00	43.73	-12.61	31.12	43.50	-12.38	100	201	Peak
4	263.82	43.31	-11.25	32.06	46.00	-13.94	100	1	Peak
5	302.48	30.89	-8.64	22.25	46.00	-23.75	100	79	Peak
6	531.96	39.46	-5.34	34.12	46.00	-11.88	200	296	Peak

Vertical:

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	30.21	29.24	-4.39	24.85	40.00	-15.15	100	172	Peak
2	106.76	35.23	-13.52	21.71	43.50	-21.79	100	214	Peak
3	127.22	34.55	-10.89	23.66	43.50	-19.84	100	8	Peak
4	149.49	35.03	-11.91	23.12	43.50	-20.38	100	358	Peak
5	215.27	45.39	-12.55	32.84	43.50	-10.66	100	101	Peak
6	263.82	45.55	-11.25	34.30	46.00	-11.70	200	300	Peak

Note: The PK values of the emissions are 6dB below the QP Limit, so the QP values of the emissions were not recorded.

Above 1 GHz:

Frequency (MHz)	Corrected Amplitude		Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
	Max Peak (dBμV/m)	Average (dBμV/m)						
1093.900000	35.18	---	74.00	38.82	100.0	V	158.0	-8.6
1093.900000	---	25.51	54.00	28.49	100.0	V	158.0	-8.6
1271.300000	---	26.29	54.00	27.71	200.0	V	2.0	-7.7
1271.300000	35.44	---	74.00	38.56	200.0	V	2.0	-7.7
1371.900000	---	28.11	54.00	25.89	100.0	H	83.0	-7.1
1371.900000	36.08	---	74.00	37.92	100.0	H	83.0	-7.1
1490.700000	---	27.34	54.00	26.66	200.0	H	3.0	-6.5
1490.700000	37.86	---	74.00	36.14	200.0	H	3.0	-6.5
1594.600000	---	40.82	54.00	13.18	100.0	V	329.0	-6.2
1594.600000	42.69	---	74.00	31.31	100.0	V	329.0	-6.2
1649.300000	---	45.06	54.00	8.94	200.0	V	169.0	-6.0
1649.300000	46.90	---	74.00	27.10	200.0	V	169.0	-6.0
1781.900000	---	28.61	54.00	25.39	200.0	V	12.0	-5.6
1781.900000	37.85	---	74.00	36.15	200.0	V	12.0	-5.6
1958.000000	---	29.35	54.00	24.65	100.0	H	0.0	-5.0
1958.000000	39.10	---	74.00	34.90	100.0	H	0.0	-5.0

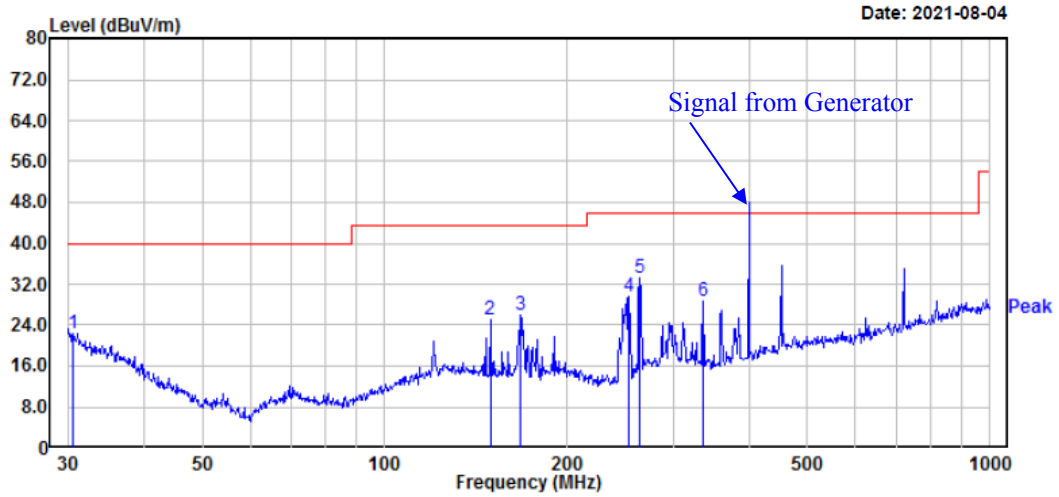
Note:

- 1) Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain
- 2) Margin = Limit - Corrected Amplitude

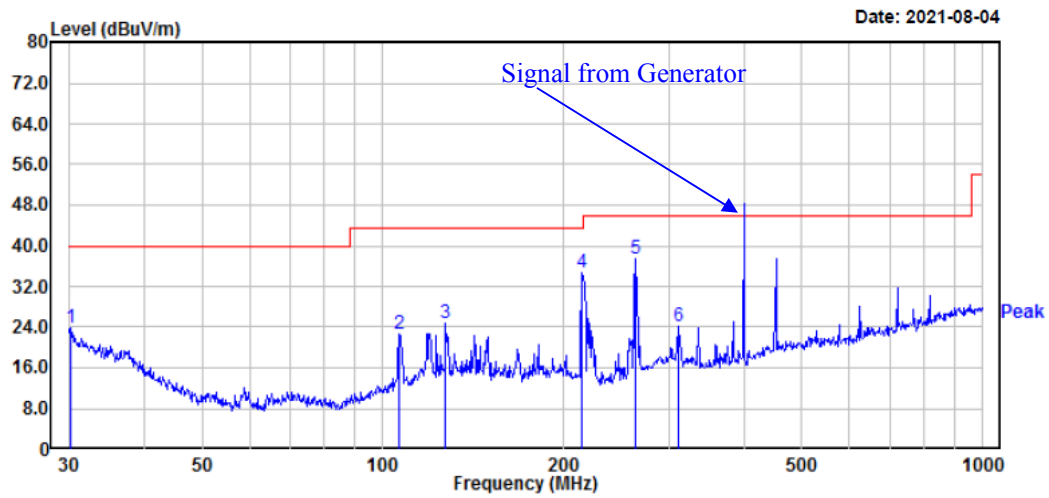
Test mode 4:

Below 1 GHz:

Horizontal:

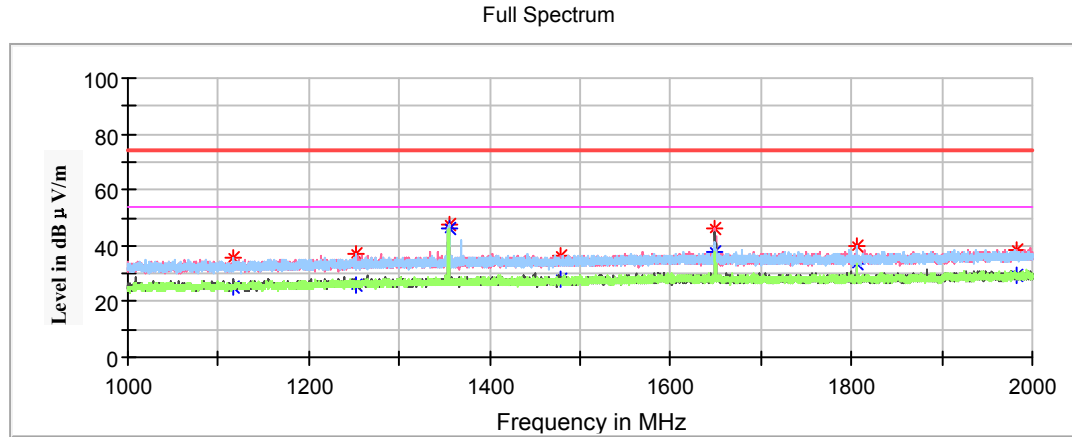


	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	30.64	27.16	-4.68	22.48	40.00	-17.52	200	78	Peak
2	149.49	36.85	-11.91	24.94	43.50	-18.56	200	225	Peak
3	167.82	38.05	-12.02	26.03	43.50	-17.47	100	17	Peak
4	253.84	41.94	-12.40	29.54	46.00	-16.46	100	236	Peak
5	263.82	44.59	-11.25	33.34	46.00	-12.66	200	68	Peak
6	336.04	38.01	-9.34	28.67	46.00	-17.33	100	87	Peak

Vertical:

		Read			Limit	Over	APos	TPos	
	Freq	Level	Factor	Level	Line	Limit			Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	30.21	28.24	-4.39	23.85	40.00	-16.15	100	172	Peak
2	106.76	36.23	-13.52	22.71	43.50	-20.79	100	214	Peak
3	127.22	35.55	-10.89	24.66	43.50	-18.84	100	8	Peak
4	215.27	47.39	-12.55	34.84	43.50	-8.66	100	101	Peak
5	263.82	48.55	-11.25	37.30	46.00	-8.70	200	300	Peak
6	311.09	32.92	-8.80	24.12	46.00	-21.88	200	98	Peak

Note: The PK values of the emissions are 6dB below the QP Limit, so the QP values of the emissions were not recorded.

Above 1 GHz:

Frequency (MHz)	Corrected Amplitude		Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
	Max Peak (dBμV/m)	Average (dBμV/m)						
1116.700000	---	25.39	54.00	28.61	200.0	H	0.0	-8.5
1116.700000	35.57	---	74.00	38.43	200.0	H	0.0	-8.5
1253.000000	---	26.15	54.00	27.85	100.0	H	276.0	-7.8
1253.000000	36.87	---	74.00	37.13	100.0	H	276.0	-7.8
1354.700000	---	46.10	54.00	7.90	100.0	H	20.0	-7.2
1354.800000	47.59	---	74.00	26.41	100.0	H	20.0	-7.2
1478.800000	---	27.65	54.00	26.35	200.0	V	102.0	-6.6
1478.800000	36.45	---	74.00	37.55	200.0	V	102.0	-6.6
1649.300000	45.93	---	74.00	28.07	100.0	V	168.0	-6.0
1649.300000	---	37.90	54.00	16.10	100.0	V	168.0	-6.0
1806.300000	---	33.61	54.00	20.39	100.0	H	233.0	-5.5
1806.300000	39.51	---	74.00	34.49	100.0	H	233.0	-5.5
1981.800000	---	29.61	54.00	24.39	200.0	H	123.0	-4.9
1981.800000	38.52	---	74.00	35.48	200.0	H	123.0	-4.9

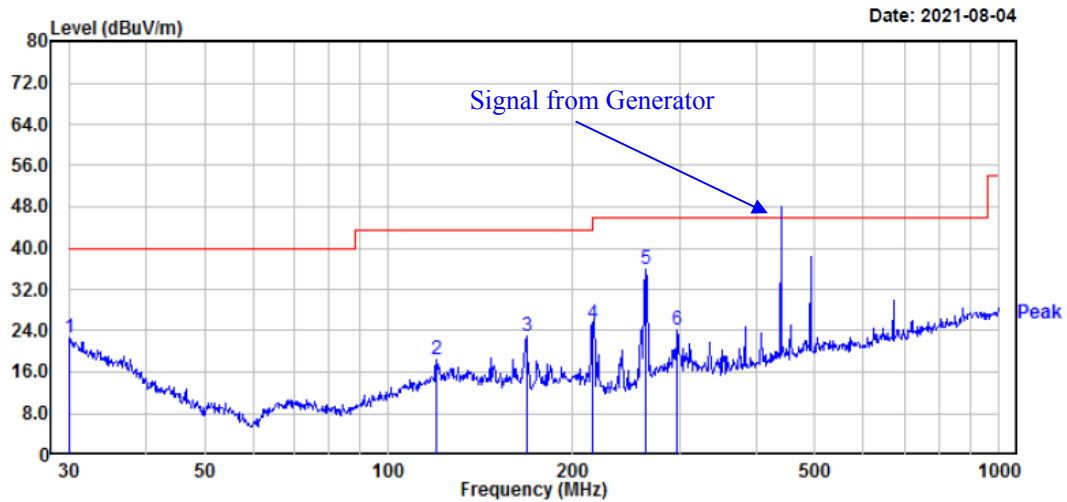
Note:

- 1) Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain
- 2) Margin = Limit - Corrected Amplitude

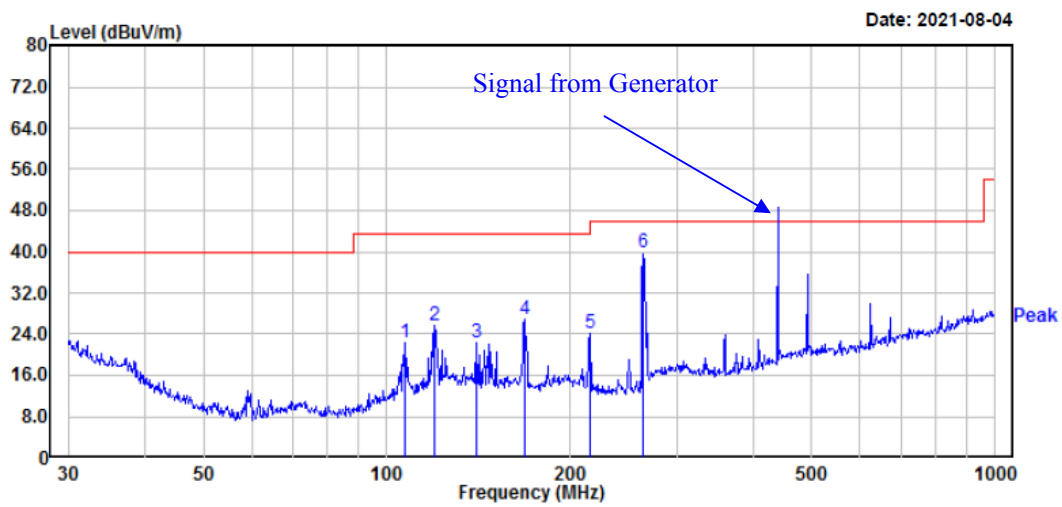
Test mode 5:

Below 1 GHz:

Horizontal:



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	30.00	27.00	-4.24	22.76	40.00	-17.24	100	105	Peak
2	119.86	29.82	-11.55	18.27	43.50	-25.23	100	6	Peak
3	168.41	35.07	-12.05	23.02	43.50	-20.48	200	182	Peak
4	216.00	37.95	-12.61	25.34	43.50	-18.16	100	287	Peak
5	263.82	47.22	-11.25	35.97	46.00	-10.03	200	286	Peak
6	297.22	32.91	-8.74	24.17	46.00	-21.83	100	262	Peak

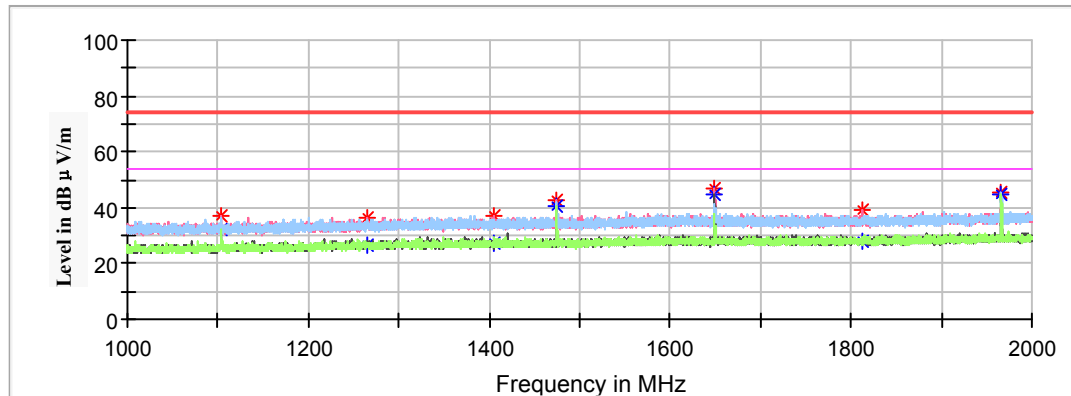
Vertical:

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	107.13	35.92	-13.46	22.46	43.50	-21.04	100	325	Peak
2	119.86	37.26	-11.55	25.71	43.50	-17.79	200	241	Peak
3	140.84	33.96	-11.51	22.45	43.50	-21.05	100	168	Peak
4	168.41	38.86	-12.05	26.81	43.50	-16.69	200	230	Peak
5	216.00	36.72	-12.61	24.11	43.50	-19.39	200	349	Peak
6	263.82	51.03	-11.25	39.78	46.00	-6.22	100	173	Peak

Note: The PK values of the emissions are 6dB below the QP Limit, so the QP values of the emissions were not recorded.

Above 1 GHz:

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
	Max Peak (dBμV/m)	Average (dBμV/m)						
1103.800000	---	32.36	54.00	21.64	100.0	V	348.0	-8.5
1103.800000	37.35	---	74.00	36.65	100.0	V	348.0	-8.5
1264.200000	---	26.70	54.00	27.30	200.0	H	87.0	-7.7
1264.200000	36.33	---	74.00	37.67	200.0	H	87.0	-7.7
1404.700000	---	27.33	54.00	26.67	100.0	H	55.0	-7.0
1404.700000	37.00	---	74.00	37.00	100.0	H	55.0	-7.0
1474.700000	---	40.46	54.00	13.54	100.0	V	328.0	-6.6
1474.700000	42.67	---	74.00	31.33	100.0	V	328.0	-6.6
1649.200000	---	44.69	54.00	9.31	200.0	V	166.0	-6.0
1649.200000	46.53	---	74.00	27.47	200.0	V	166.0	-6.0
1811.600000	---	28.24	54.00	25.76	200.0	V	143.0	-5.5
1811.600000	38.91	---	74.00	35.09	200.0	V	143.0	-5.5
1966.100000	45.54	---	74.00	28.46	100.0	H	130.0	-5.0
1966.200000	---	44.51	54.00	9.49	100.0	H	130.0	-5.0

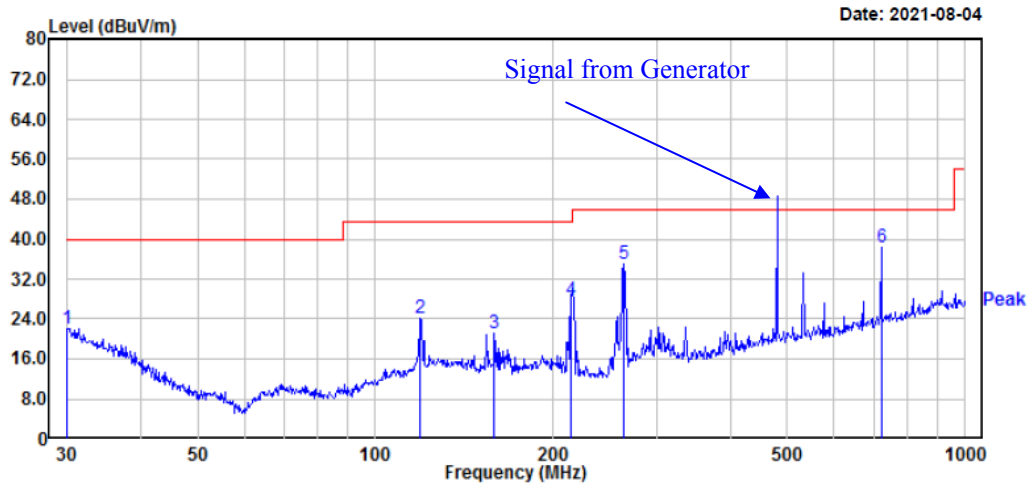
Note:

- 1) Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain
- 2) Margin = Limit - Corrected Amplitude

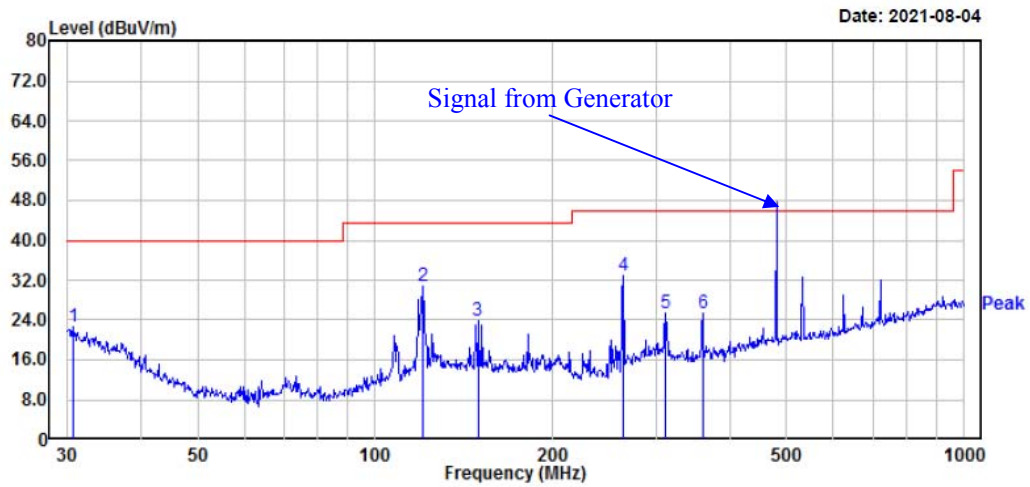
Test mode 6:

Below 1 GHz:

Horizontal:



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	30.00	26.43	-4.24	22.19	40.00	-17.81	100	1	Peak
2	119.44	35.83	-11.62	24.21	43.50	-19.29	100	51	Peak
3	159.23	32.76	-11.56	21.20	43.50	-22.30	200	58	Peak
4	215.27	40.28	-12.55	27.73	43.50	-15.77	100	201	Peak
5	263.82	46.31	-11.25	35.06	46.00	-10.94	200	213	Peak
6	721.73	40.97	-2.50	38.47	46.00	-7.53	100	281	Peak

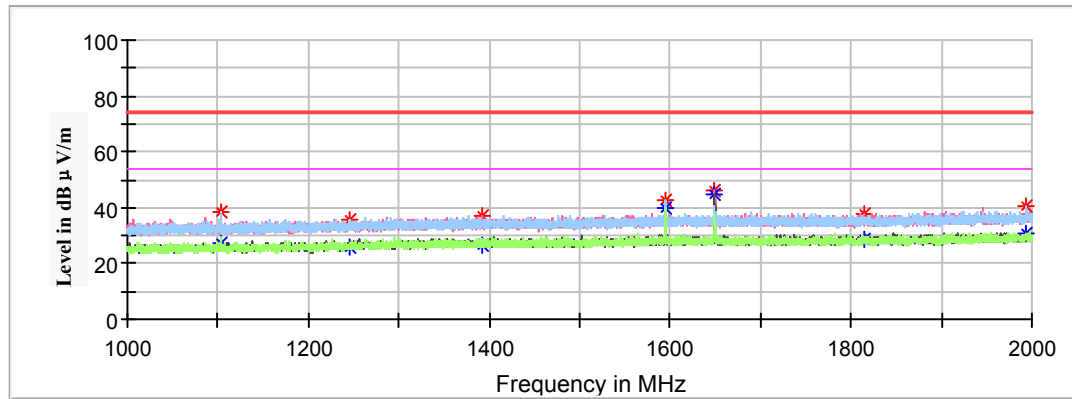
Vertical:

	Freq	Read		Limit	Over	APos	TPos	
	MHz	Level	Factor	Level	Line	Limit		Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg
1	30.75	27.55	-4.76	22.79	40.00	-17.21	200	263 Peak
2	120.28	42.18	-11.49	30.69	43.50	-12.81	100	254 Peak
3	149.49	35.86	-11.91	23.95	43.50	-19.55	100	38 Peak
4	263.82	44.17	-11.25	32.92	46.00	-13.08	100	115 Peak
5	312.18	34.06	-8.81	25.25	46.00	-20.75	200	187 Peak
6	360.45	34.81	-9.37	25.44	46.00	-20.56	200	78 Peak

Note: The PK values of the emissions are 6dB below the QP Limit, so the QP values of the emissions were not recorded.

Above 1 GHz:

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
	Max Peak (dBμV/m)	Average (dBμV/m)						
1103.500000	---	27.00	54.00	27.00	200.0	H	321.0	-8.5
1103.500000	38.81	---	74.00	35.19	200.0	H	321.0	-8.5
1245.500000	---	26.19	54.00	27.81	100.0	H	3.0	-7.8
1245.500000	35.75	---	74.00	38.25	100.0	H	3.0	-7.8
1391.600000	---	26.83	54.00	27.17	200.0	V	83.0	-7.0
1391.600000	36.78	---	74.00	37.22	200.0	V	83.0	-7.0
1594.600000	---	40.07	54.00	13.93	200.0	H	186.0	-6.2
1594.600000	42.67	---	74.00	31.33	200.0	H	186.0	-6.2
1649.100000	46.48	---	74.00	27.52	200.0	V	168.0	-6.0
1649.300000	---	45.00	54.00	9.00	200.0	V	168.0	-6.0
1815.000000	---	28.33	54.00	25.67	100.0	V	254.0	-5.5
1815.000000	38.02	---	74.00	35.98	100.0	V	254.0	-5.5
1994.600000	---	30.69	54.00	23.31	100.0	H	175.0	-4.9
1994.600000	40.23	---	74.00	33.77	100.0	H	175.0	-4.9

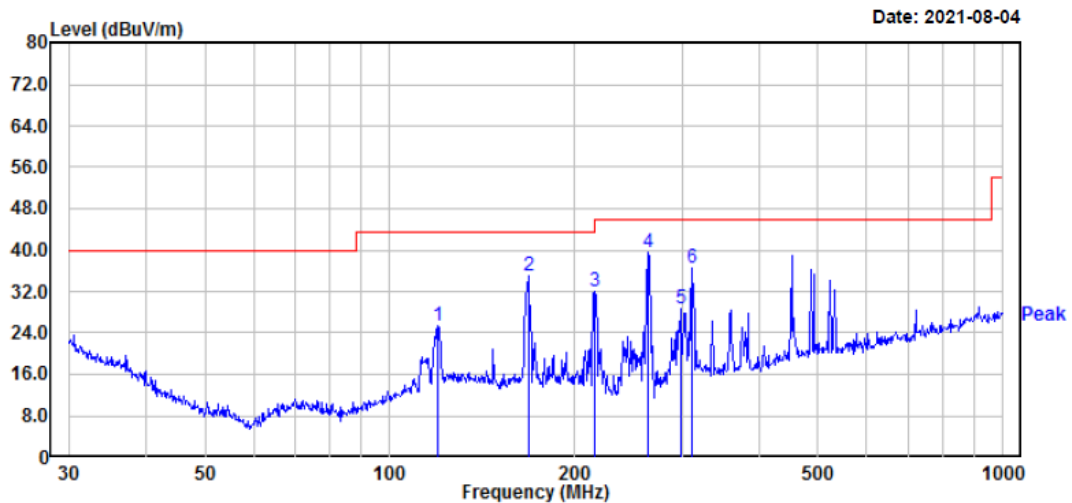
Note:

- 1) Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain
- 2) Margin = Limit - Corrected Amplitude

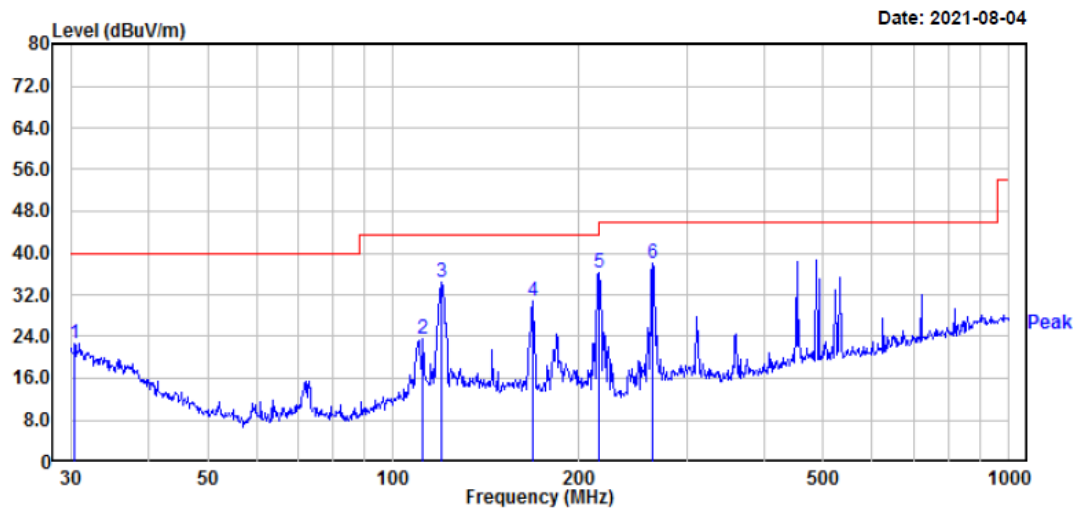
Test mode 7:

Below 1 GHz:

Horizontal:

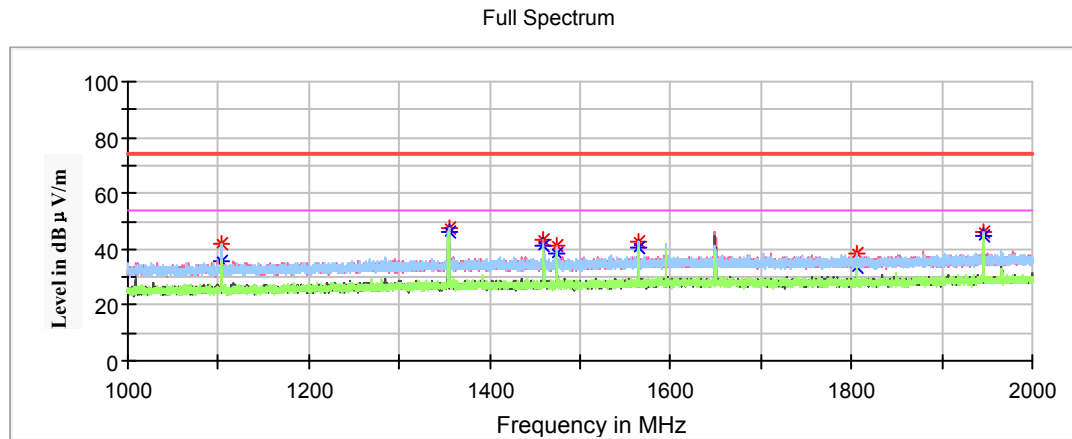


	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	119.86	36.80	-11.55	25.25	43.50	-18.25	200	234	Peak
2	168.41	46.92	-12.05	34.87	43.50	-8.63	200	70	Peak
3	216.02	44.51	-12.62	31.89	46.00	-14.11	100	231	Peak
4	263.82	50.88	-11.25	39.63	46.00	-6.37	100	60	Peak
5	298.27	37.31	-8.68	28.63	46.00	-17.37	100	124	Peak
6	312.18	45.39	-8.81	36.58	46.00	-9.42	100	68	Peak

Vertical:

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	30.42	27.20	-4.54	22.66	40.00	-17.34	100	112	Peak
2	111.74	36.42	-12.78	23.64	43.50	-19.86	100	273	Peak
3	119.86	46.04	-11.55	34.49	43.50	-9.01	100	78	Peak
4	168.41	42.95	-12.05	30.90	43.50	-12.60	100	219	Peak
5	216.02	48.70	-12.62	36.08	46.00	-9.92	100	238	Peak
6	263.82	49.25	-11.25	38.00	46.00	-8.00	100	119	Peak

Note: The PK values of the emissions are 6dB below the QP Limit, so the QP values of the emissions were not recorded.

Above 1 GHz:

Frequency (MHz)	Corrected Amplitude		Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
	Max Peak (dBµV/m)	Average (dBµV/m)						
1104.000000	---	35.84	54.00	18.16	100.0	H	322.0	-8.5
1104.000000	41.72	---	74.00	32.28	100.0	H	322.0	-8.5
1354.700000	---	46.22	54.00	7.78	200.0	H	175.0	-7.2
1354.700000	47.34	---	74.00	26.66	200.0	H	175.0	-7.2
1459.600000	43.05	---	74.00	30.95	100.0	V	323.0	-6.7
1459.600000	---	41.38	54.00	12.62	100.0	V	323.0	-6.7
1474.600000	---	38.18	54.00	15.82	200.0	V	344.0	-6.6
1474.600000	41.17	---	74.00	32.83	200.0	V	344.0	-6.6
1564.500000	42.91	---	74.00	31.09	100.0	H	164.0	-6.3
1564.500000	---	40.41	54.00	13.59	100.0	H	164.0	-6.3
1806.200000	---	33.27	54.00	20.73	200.0	H	175.0	-5.5
1806.300000	38.45	---	74.00	35.55	200.0	H	175.0	-5.5
1946.200000	---	44.63	54.00	9.37	100.0	H	132.0	-5.1
1946.200000	46.39	---	74.00	27.61	100.0	H	132.0	-5.1

Note:

- 1) Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain
- 2) Margin = Limit - Corrected Amplitude

FCC §15.111 - ANTENNA CONDUCTED POWER FOR RECEIVERS

Applicable Standard

FCC §15.111

Limit

The antenna conducted power of the receiver as defined in §15.111 shall not exceed the values given in the following tables

Frequency Range	Limit
9 kHz to 2 GHz	2.0 nW (-57 dBm)

EUT Setup



Test Procedure

1. The receiver antenna terminal connected to a spectrum analyzer.
2. The test data of the worst case condition (mode 2) was reported on the following Data page.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESIB26	100146/026	2020-12-14	2021-12-13
WouXun	RF Cable	WouXun C01	C01	Each Time	/

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Kunshan) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Test Data

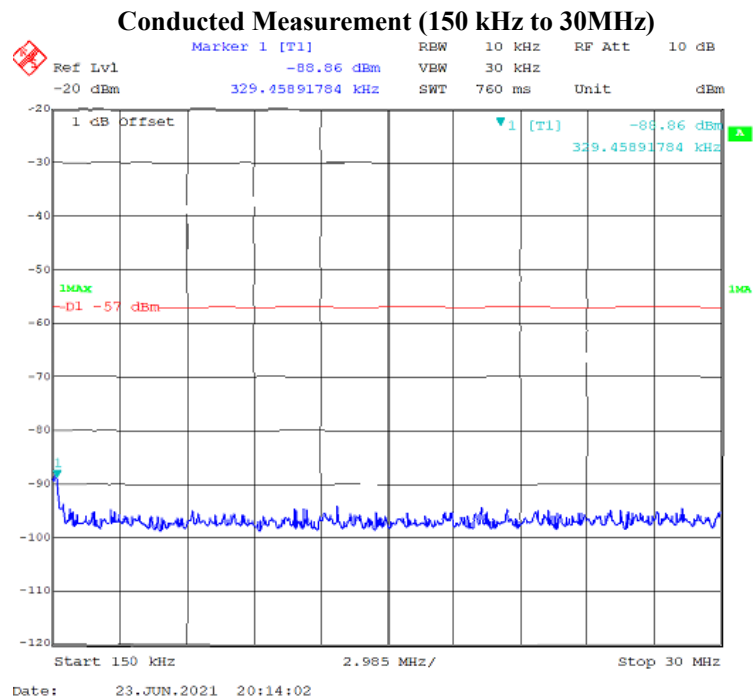
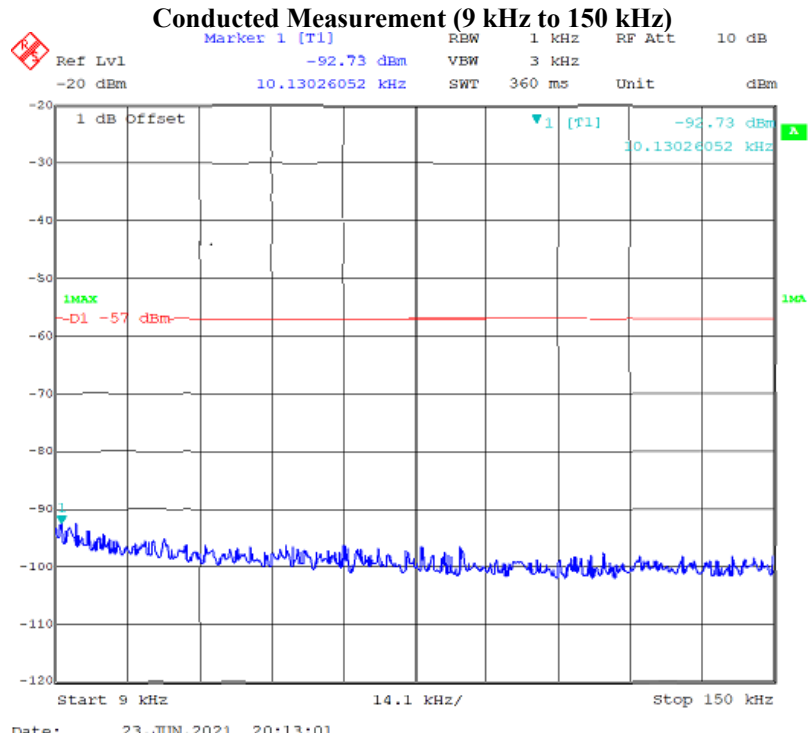
Environmental Conditions

Temperature:	25.2 °C
Relative Humidity:	51 %
SDATM Pressure:	101.5 kPa

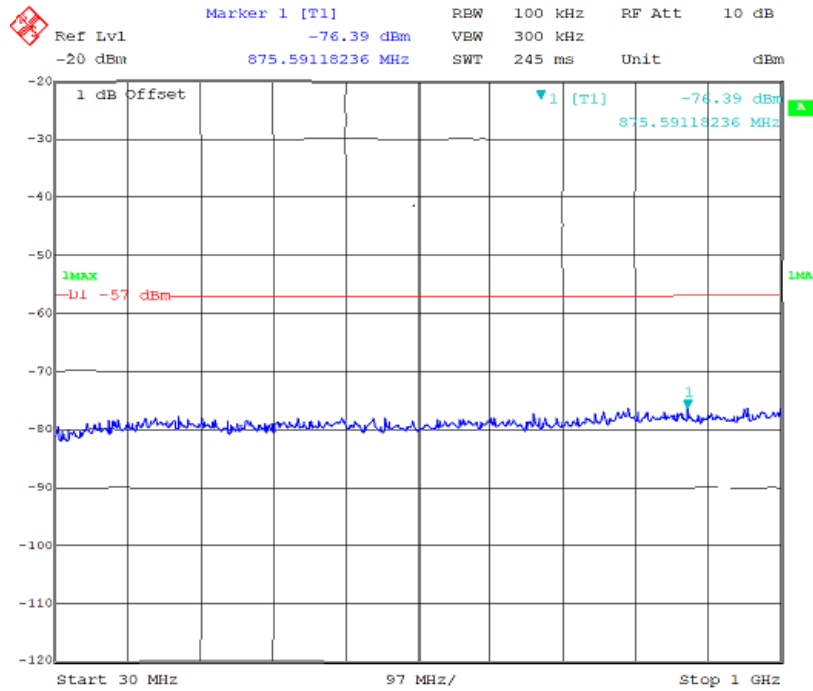
The testing was performed by Gerry Xing on 2021-08-04.

Test Mode 7:

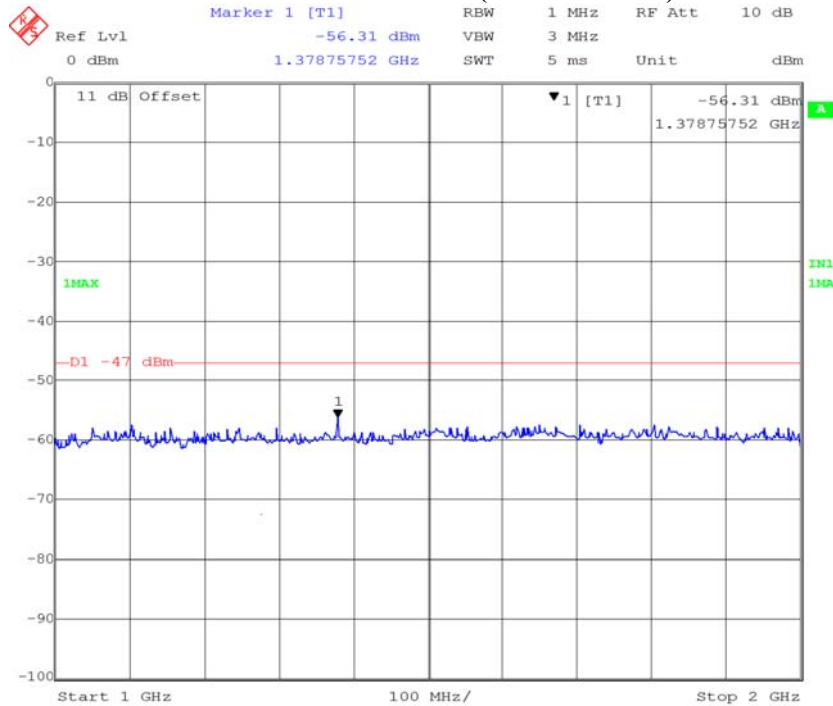
Antenna conducted power for receivers :



Conducted Measurement (30MHz to 1GHz)



Conducted Measurement (1GHz to 2 GHz)



Date: 23.JUN.2021 20:17:09

FCC §15.121(b) - SCANNING RECEIVERS AND FREQUENCY CONVERTERS USED WITH SCANNING RECEIVERS

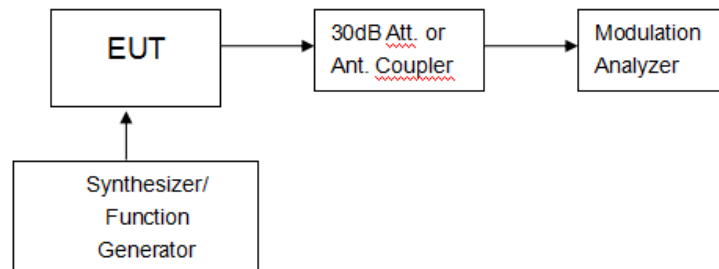
Applicable Standard

FCC §15.121(b)

Limit

Except as provided in paragraph (c) of this section, scanning receivers shall reject any signals from the Cellular Radiotelephone Service frequency bands that are 38 dB or lower based upon a 12 dB SINAD measurement, which is considered the threshold where a signal can be clearly discerned from any interference that may be present.

EUT Setup



Test Procedure

- 1) Connected the EUT as shown in the above block diagram.
- 2) Apply a RF signal to the receiver input port at lowest, middle and highest channel frequencies of receiver operation band.
- 3) Adjust the audio output level of the receiver to it's rated value with the distortion less than 10%.
- 4) Adjust the RF Signal Generator Output Power to produce 12 dB SINAD without the audio output power dropping by more than 3 dB. This output level of the RF SG at each channel frequency is the sensitivity of the receiver.
- 5) Select the lowest or worse-case sensitivity level for all of the bands as the reference sensitivity.
- 6) Adjust the RF Signal Generator output to a level of +60 dB above the reference sensitivity obtained in step 5) and its frequency to the frequency points in the cellular band.
- 7) Set the Receiver squelch to threshold, the signal required to open the squelch must be lower than the reference sensitivity level.
- 8) Set the receiver in a scanning mode and allow it to scan through it's complete receiving range.
- 9) If the receiver unsquelched or stopped on any frequency, receiving at this frequency, then adjust the signal generator output level until 12 dB SINAD is produced, this level is the spurious value and the difference between the reference sensitivity and the spurious value is the rejection ratio and must be at least 38dB.
- 10) Repeat above procedure at the frequencies 824, 836.0, and 849 MHz for the mobile band, and 869, 881.5, and 894 MHz for the cellular base band.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Narda	Attenuator	30dB	030	2020-08-15	2021-08-14
Rohde & Schwarz	SMBV100A Vector Signal Generator	SMBV100A	261558	2020-07-28	2021-07-27
HP	RF communication test SET.	8920B	079	2021-04-13	2022-04-12
WouXun	RF Cable	WouXun C01	C01	Each Time	/

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Kunshan) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Test Data**Environmental Conditions**

Temperature:	25.2 °C
Relative Humidity:	51 %
ATM Pressure:	101.5 kPa

The testing was performed by Kaka Lei on 2021-06-18.

EUT's Scanning Frequency Range (MHz)	Test Frequencies of Cellular Band (MHz)	Measurement Result (dB)	Limit (dB)
136-174	824,836,849,869,881.5,894	49	≥38
400-480	824,836,849,869,881.5,894	51	≥38

Note: The test report only shows the worst test results

Declarations

- 1: BACL 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 an asterisk '*'. Customer model name, addresses, names, trademarks etc. are not considered data.
- 2: Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.
- 3: Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.
- 4: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.
- 5: This report cannot be reproduced except in full, without prior written approval of the Company.
- 6: 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.

*******END OF REPORT*******