TESTING LABORATORY
CERTIFICATE#4323.01

FCC PART 15B

TEST REPORT

For

Quanzhou Wouxun Electronics Co., Ltd.

Jiangnan High Technology Industry Park, No.928 Nanhuan Road, Quanzhou, Fujian, China

FCC ID: WVTWOUXUN22

Report Type:	**Product Type:**
Original Report	Radio

Test Engineer:	Gerry Xing
Report Number:	RXM200817050-00B
Report Date:	2020-11-19
Reviewed By:	Oscar Ye EMC Manager
Prepared By:	Bay Area Compliance Laboratories Corp. (Kunshan) No.248 Chenghu Road, Kunshan,Jiangsu province, China Tel: +86-0512-86175000 Fax: +86-0512-88934268 www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant	Quanzhou Wouxun Electronics Co., Ltd.
Test Model	KG-UV8HT
Series Model	KG-UV3Q, KG-UV8H, KG-UV3QT, KG-UV12W, KG-UV10W, KG-UV9P, KG-UV9T, KG-UV9D Mate, KG-UV9K, KG-UV9H, KG-UV86, KG-UV10D, KG-UV12D, KG-UV11D, KG-UV10P, KG-UV11P, KG-UV12P, KG-UV96, KG-UV9Q, KG-UV10Q, KG-UV10H
Model Difference	Model name
Product	Radio
Rate Voltage	DC 12 V from Adapter and DC 7.4 V from battery
Operating frequency range	TX:144~148MHz,420~450MHz RX:136~174MHz,400~480MHz
Highest Operation Frequency	480 MHz

Adapter Information:
Model: DSX- 120100-US
Input: AC 100-240V, 50/60Hz, 0.3A
Output: DC 12V, 1A

** All measurement and test data in this report was gathered from production sample serial number: 20200817050. (Assigned by BACL, Kunshan).The EUT supplied by the applicant was received on 2020-08-17.*

Objective

This report is prepared on behalf of *Quanzhou Wouxun Electronics 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 devices.

Related Submittal(s)/Grant(s)

No related submittal(s).

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 fashion (as normally used by a typical user).

Test Mode 1: Charging (Worst case)
Test Mode 2: Scanning receiver mode
Test Mode 3: Receive at VHF low channel(136MHz)
Test Mode 4: Receive at VHF middle channel(155MHz)
Test Mode 5: Receive at VHF high channel(174MHz)
Test Mode 6: Rreceive at UHF low channel(400MHz)
Test Mode 7: Receive at UHF middle channel(440MHz)
Test Mode 8: Receive at UHF high channel(480MHz)

EUT Exercise Software

No 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

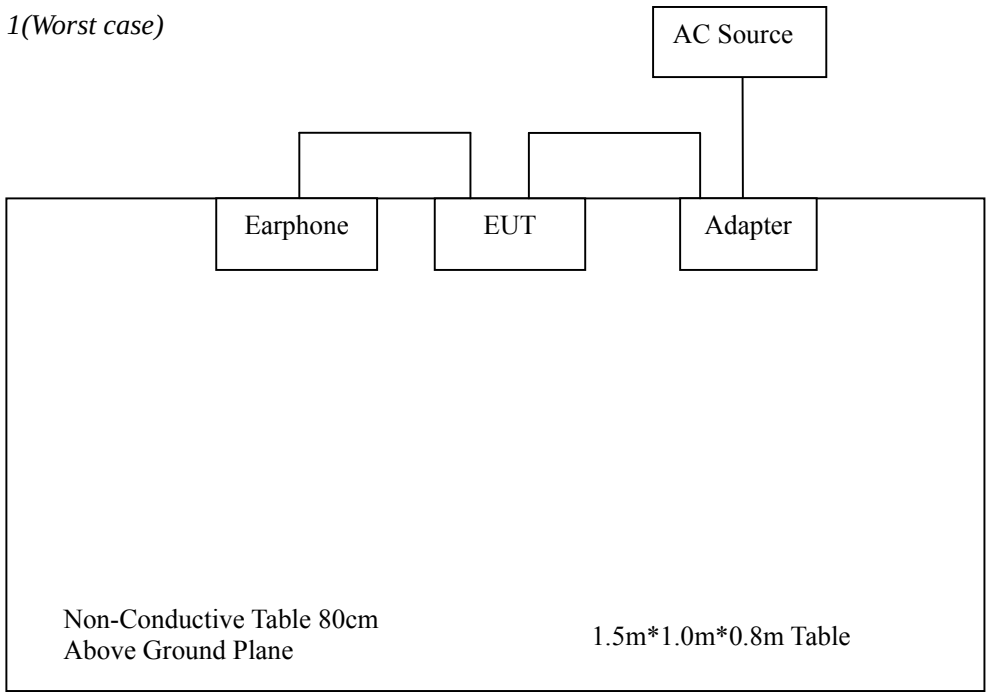
Manufacturer	Description	Model	Serial Number
BOLD	Earphone	/	/
Rohde & Schwarz	SMB 100A Signal Generator	SMB100A	110390

External I/O Cable

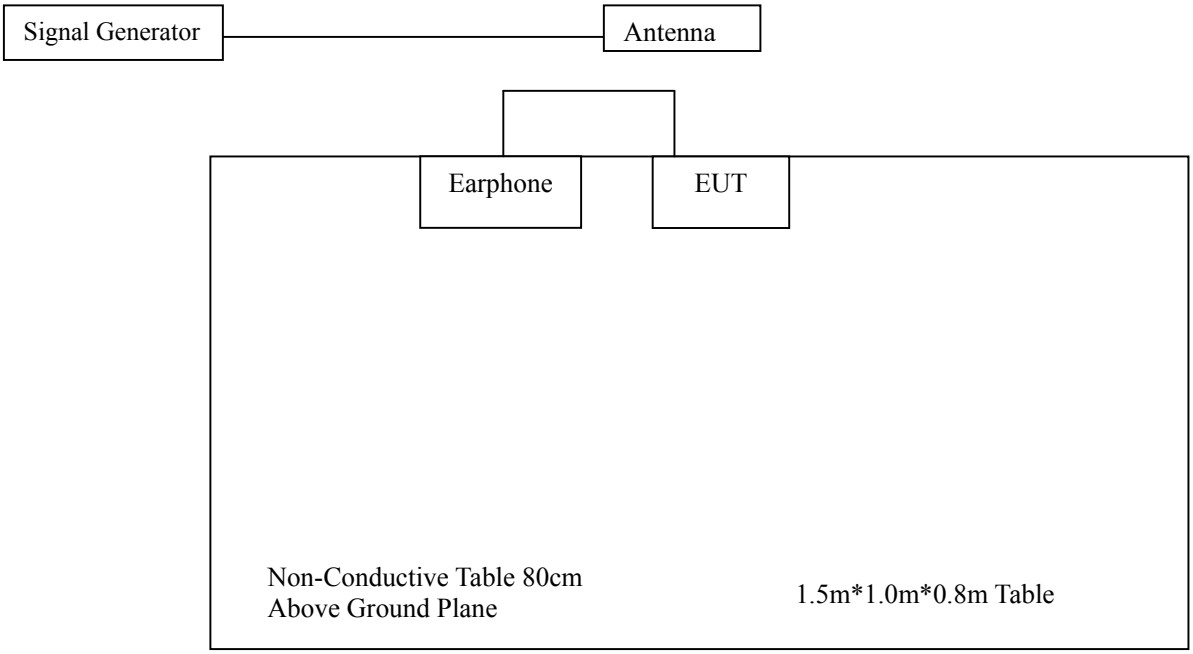
Cable Description	Length (m)	From/Port	To
Earphone Cable	1.0	EUT	Earphone
USB Cable	1.0	EUT	Adapter
Power Cable	1.0	Adapter	AC Source

Block Diagram of Radiated Test Setup

Test Mode 1(Worst case)



Test Mode 2-8



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§15.107	Conducted Emissions	Compliant
§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

FCC §15.107 –CONDUCTED EMISSIONS

Applicable Standard

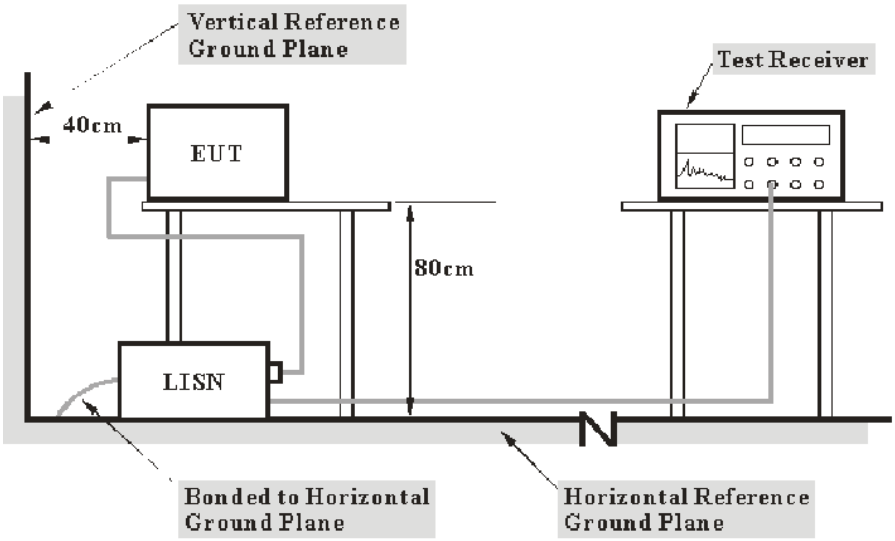
According to FCC§15.107

Measurement Uncertainty

Input quantities to be considered for conducted disturbance measurements maybe receiver reading, attenuation of the connection between LISN and receiver, LISN voltage division factor, LISN VDF frequency interpolation and receiver related input quantities, etc.

Item		Measurement Uncertainty	U_{cispr}
AMN	150kHz~30MHz	3.19 dB	3.4 dB

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 measurement procedure of EUT setup is according with ANSI C63.4-2014. The related limit was specified in FCC Part 15.107 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 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

Test Procedure

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

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

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test	ESR	1316.3003K03-101746-zn	2020-08-05	2021-08-04
Rohde & Schwarz	LISN	ENV216	101115	2019-12-14	2020-12-13
Rohde & Schwarz	Pluse limiter	ESH3-Z2	100552	2020-08-10	2021-08-09
Audix	Test Software	e3	V9	/	/
MICRO-COAX	Coaxial Cable	Cable-15	015	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).

Factor & Over Limit Calculation

The factor is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation. The basic equation is as follows:

Factor (dB) = LISN VDF (dB) + Cable Loss (dB) + Transient Limiter Attenuation (dB)

The "**Over Limit**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit of 7dB means the emission is 7 dB above the limit. The equation for Over Limit calculation is as follows:

Over Limit (dB) = Read level (dBμV) + Factor (dB) - Limit (dBμV)

Test Data

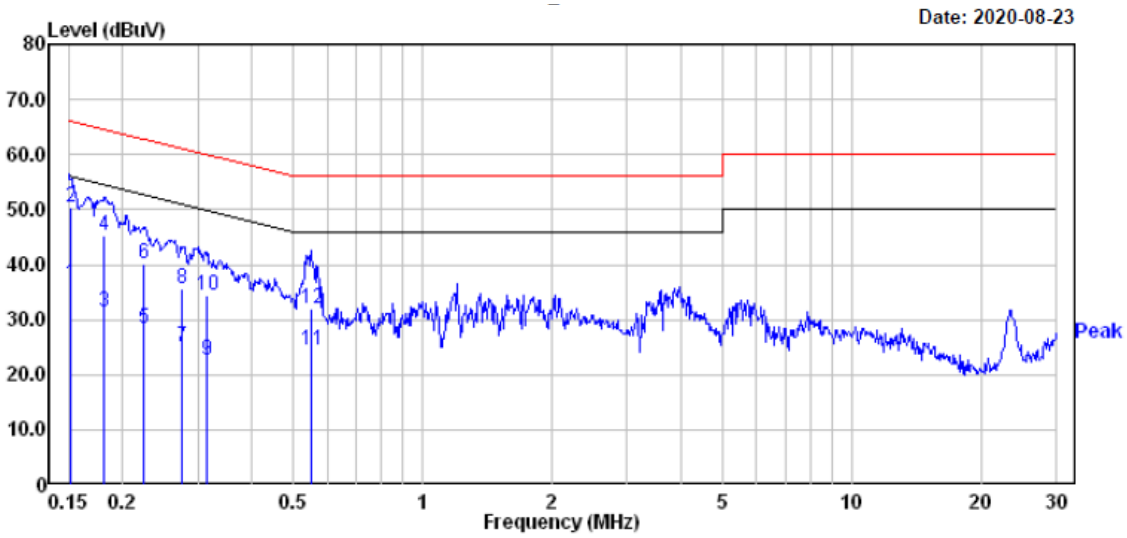
Environmental Conditions

Temperature:	26.3℃
Relative Humidity:	58 %
ATM Pressure:	101.5 kPa

The testing was performed by Gerry Xing on 2020-08-23.

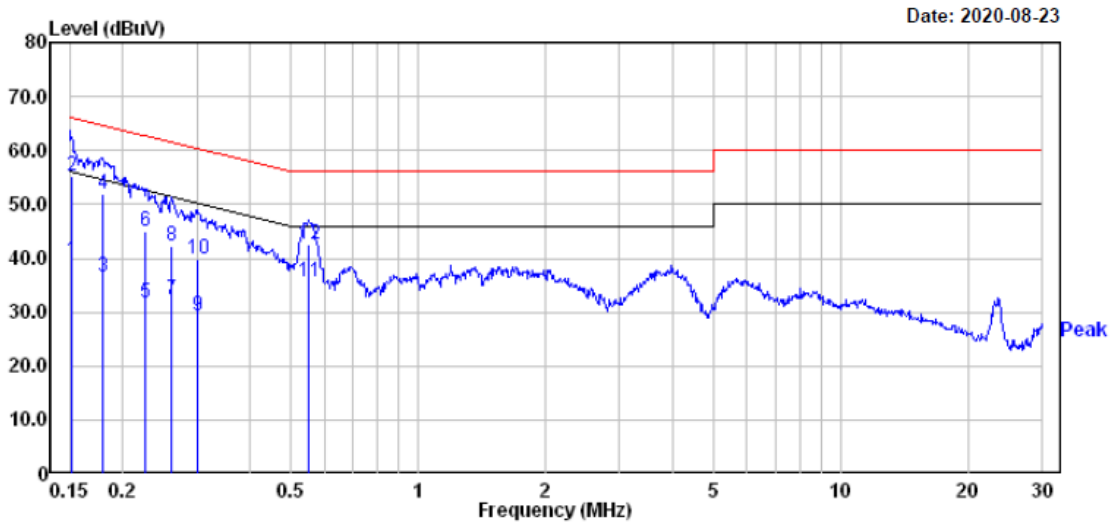
Test Mode 1

Line:



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.152	16.60	19.82	36.42	55.91	-19.49	Average
2	0.152	30.70	19.82	50.52	65.91	-15.39	QP
3	0.182	11.50	19.83	31.33	54.42	-23.09	Average
4	0.182	25.40	19.83	45.23	64.42	-19.19	QP
5	0.224	8.50	19.82	28.32	52.66	-24.34	Average
6	0.224	20.30	19.82	40.12	62.66	-22.54	QP
7	0.276	5.20	19.82	25.02	50.94	-25.92	Average
8	0.276	15.80	19.82	35.62	60.94	-25.32	QP
9	0.315	2.70	19.82	22.52	49.84	-27.32	Average
10	0.315	14.60	19.82	34.42	59.84	-25.42	QP
11	0.549	4.80	19.75	24.55	46.00	-21.45	Average
12	0.549	12.30	19.75	32.05	56.00	-23.95	QP

Neutral:



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.152	19.70	19.79	39.49	55.91	-16.42	Average
2	0.152	35.40	19.79	55.19	65.91	-10.72	QP
3	0.179	16.60	19.82	36.42	54.55	-18.13	Average
4	0.179	32.20	19.82	52.02	64.55	-12.53	QP
5	0.226	11.90	19.80	31.70	52.61	-20.91	Average
6	0.226	25.30	19.80	45.10	62.61	-17.51	QP
7	0.260	12.60	19.78	32.38	51.42	-19.04	Average
8	0.260	22.50	19.78	42.28	61.42	-19.14	QP
9	0.300	9.50	19.74	29.24	50.24	-21.00	Average
10	0.300	20.00	19.74	39.74	60.24	-20.50	QP
11	0.552	15.81	19.72	35.53	46.00	-10.47	Average
12	0.552	22.81	19.72	42.53	56.00	-13.47	QP

Note:

1) Factor (dB) = LISN VDF (dB) + Cable Loss (dB) + Transient Limiter Attenuation (dB)
2) Over Limit (dB) = Read level (dBμV) + Factor (dB) - Limit (dBμV)

FCC §15.109 - RADIATED EMISSIONS

Applicable Standard

FCC §15.109

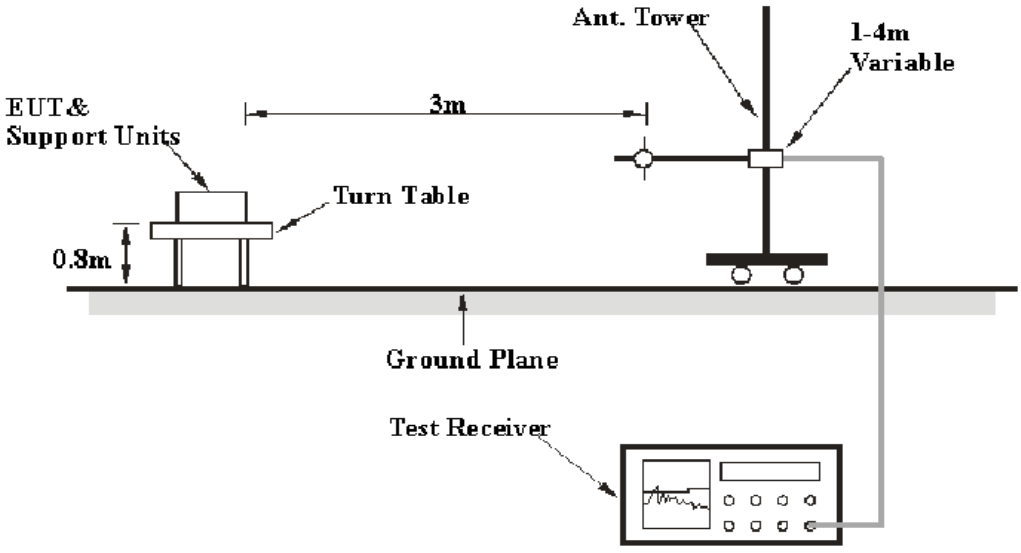
Measurement Uncertainty

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.

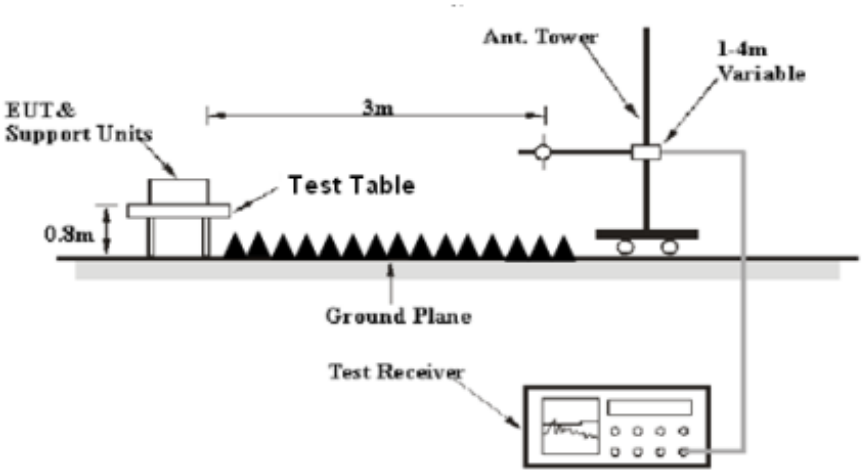
Item		Measurement Uncertainty	U_{cispr}
Radiated Emission	30MHz~1GHz	6.11dB	6.3 dB
	1GHz~6GHz	4.45dB	5.2 dB
	6 GHz ~18 GHz	5.23dB	5.5 dB

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	IF B/W	Detector
30MHz – 1000 MHz	120 kHz	300 kHz	120kHz	QP
Above 1 GHz	1MHz	3 MHz	/	Peak
	1MHz	3 MHz	1MHz	AVG

Test Procedure

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

All data was recorded in the Quasi-peak detector mode from 30 MHz to 1 GHz, Peak and average detection mode above 1 GHz.

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	ESCI	100195	2019-12-14	2020-12-13
Rohde & Schwarz	SMB 100A Signal Generator	SMB100A	110390	2020-07-21	2021-07-20
Sunol Sciences	Broadband Antenna	JB3	A090413-1	2020-01-07	2023-01-06
Champrotek	Chamber 1#	3m-SAC 966	NA	2019-05-08	2022-05-07
Albatross	Chamber 2#	3m-SAC 966	NA	2019-05-08	2022-05-07
R&S	Auto test Software	EMC32	100361	/	/
ETS	Horn Antenna	3115	6229	2020-01-10	2023-01-09
Rohde & Schwarz	EMI Receiver	ESU40	100207	2020-04-01	2021-03-31
A.H.Systems, inc	Amplifier	PAM-0118P	512	2020-02-20	2021-02-19
MICRO-COAX	Coaxial Cable	Cable-8	008	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-9	009	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-10	010	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-4	004	2019-12-12	2020-12-11
MICRO-COAX	Coaxial Cable	Cable-5	005	2019-12-12	2020-12-11

*** 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:

Corr. Amp. =Meter Reading + Antenna Factor+ Cable Loss - Amplifier Gain

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 = Limit – Corrected Amp

Test Data

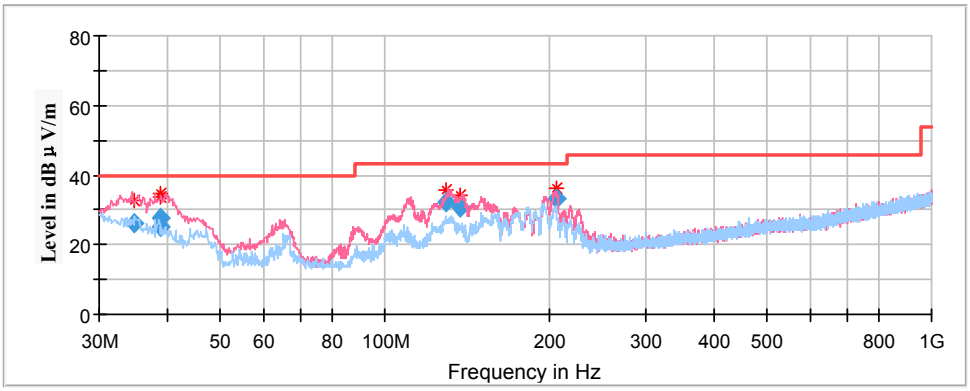
Environmental Conditions

Temperature:	26.1℃
Relative Humidity:	58 %
ATM Pressure:	101.5 kPa

The testing was performed by Gerry Xing from 2020-08-24 to 2020-11-04.

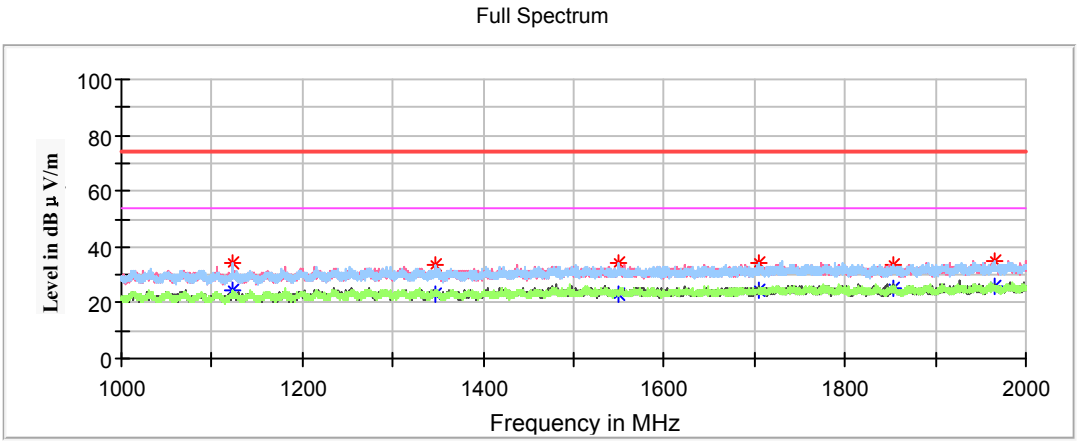
Test Mode 1

1)30MHz ~ 1GHz



Frequency (MHz)	Corrected Amp / Quasi Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
34.760450	26.31	40.00	13.69	101.0	V	266.0	-7.6
38.767500	25.37	40.00	14.63	101.0	V	251.0	-10.3
38.842950	27.79	40.00	12.21	101.0	V	158.0	-10.4
129.591750	32.00	43.50	11.50	101.0	V	256.0	-12.0
137.741300	30.56	43.50	12.94	101.0	V	111.0	-12.3
205.357950	33.11	43.50	10.39	101.0	V	320.0	-12.7

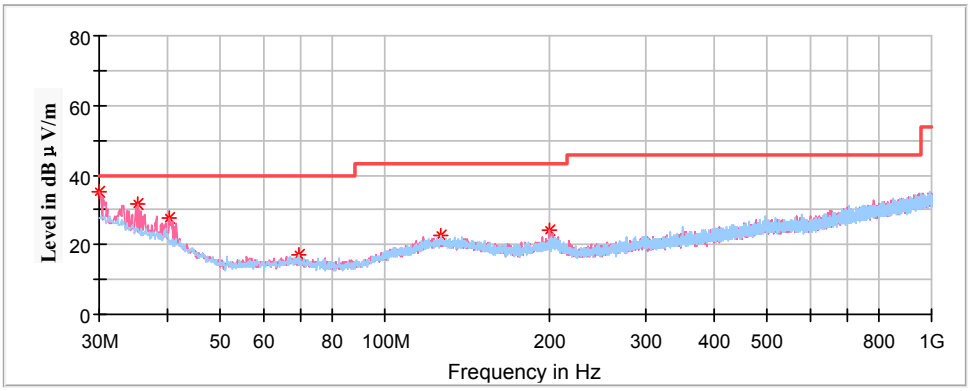
2) Above 1 GHz:



Frequency (MHz)	Corrected Amp		Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
	Max Peak (dBµV/m)	Average (dBµV/m)						
1122.300000	---	24.25	54.00	29.75	200.0	H	259.0	-18.4
1122.300000	34.14	---	74.00	39.86	200.0	H	259.0	-18.4
1348.000000	---	23.09	54.00	30.91	200.0	H	312.0	-17.2
1348.000000	33.30	---	74.00	40.70	200.0	H	312.0	-17.2
1549.400000	---	23.31	54.00	30.69	100.0	H	115.0	-16.2
1549.400000	33.94	---	74.00	40.06	100.0	H	115.0	-16.2
1705.500000	---	24.40	54.00	29.60	100.0	H	32.0	-15.6
1705.500000	34.43	---	74.00	39.57	100.0	H	32.0	-15.6
1853.000000	---	24.96	54.00	29.04	100.0	H	21.0	-15.0
1853.000000	33.43	---	74.00	40.57	100.0	H	21.0	-15.0
1965.700000	---	25.67	54.00	28.33	200.0	V	138.0	-14.6
1965.700000	35.29	---	74.00	38.71	200.0	V	138.0	-14.6

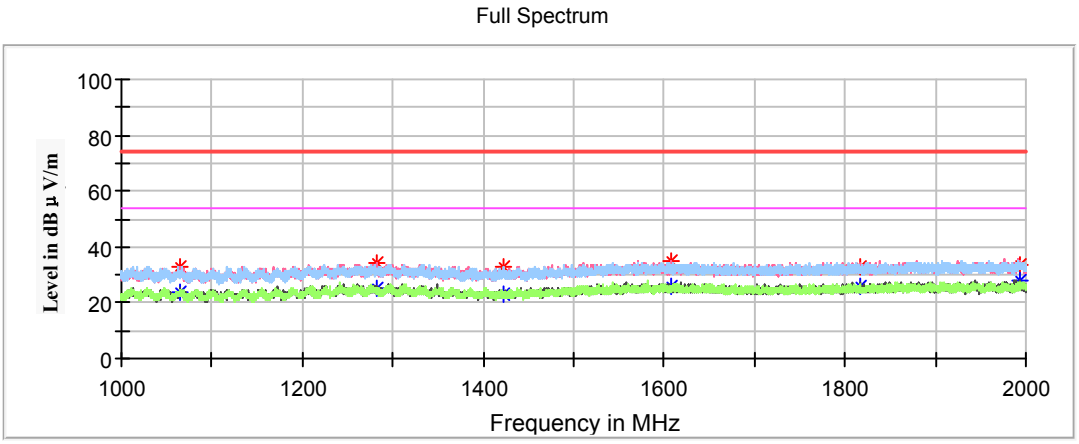
Test Mode 2

1)30MHz ~ 1GHz



Frequency (MHz)	Corrected Amp / Max Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.000000	35.38	40.00	4.62	100.0	V	104.0	-4.6
35.335000	31.45	40.00	8.55	200.0	V	0.0	-8.2
40.427500	27.52	40.00	12.48	200.0	V	85.0	-11.6
69.406250	17.30	40.00	22.70	100.0	H	214.0	-17.1
127.000000	22.85	43.50	20.65	100.0	H	87.0	-11.3
200.477500	24.01	43.50	19.49	100.0	V	285.0	-11.5

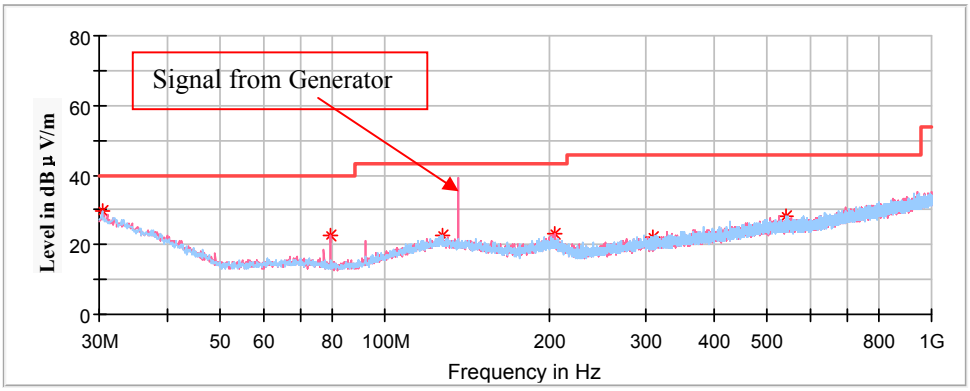
2) Above 1 GHz:



Frequency (MHz)	Corrected Amp		Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
	Max Peak (dBµV/m)	Average (dBµV/m)						
1063.900000	---	24.00	54.00	30.00	100.0	H	355.0	-18.7
1063.900000	32.84	---	74.00	41.16	100.0	H	355.0	-18.7
1281.700000	---	25.07	54.00	28.93	100.0	V	202.0	-17.5
1281.700000	34.28	---	74.00	39.72	100.0	V	202.0	-17.5
1421.700000	---	23.23	54.00	30.77	100.0	H	202.0	-16.8
1421.700000	33.12	---	74.00	40.88	100.0	H	202.0	-16.8
1608.100000	---	25.85	54.00	28.15	100.0	V	148.0	-16.0
1608.100000	34.79	---	74.00	39.21	100.0	V	148.0	-16.0
1817.500000	---	25.53	54.00	28.47	100.0	V	170.0	-15.2
1817.500000	32.95	---	74.00	41.05	100.0	V	170.0	-15.2
1993.300000	33.73	---	74.00	40.27	100.0	H	309.0	-14.5
1993.300000	---	28.06	54.00	25.94	100.0	H	309.0	-14.5

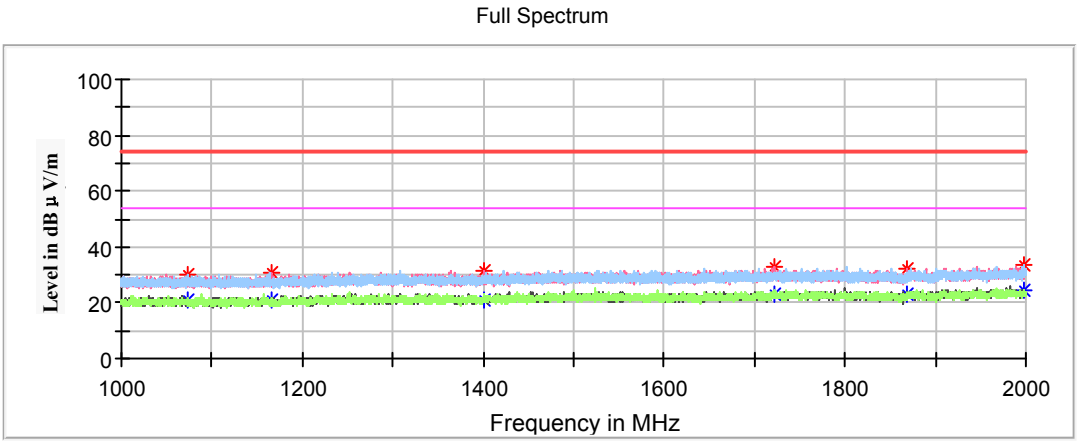
Test Mode 3

1)30MHz ~ 1GHz



Frequency (MHz)	Corrected Amp / Max Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.363750	29.44	40.00	10.56	100.0	H	122.0	-4.8
79.470000	22.63	40.00	17.37	100.0	V	161.0	-18.0
127.363750	22.70	43.50	20.80	200.0	H	142.0	-11.3
205.085000	22.92	43.50	20.58	100.0	V	46.0	-12.0
309.481250	22.22	46.00	23.78	100.0	H	87.0	-10.8
541.311250	28.04	46.00	17.96	200.0	H	117.0	-5.8

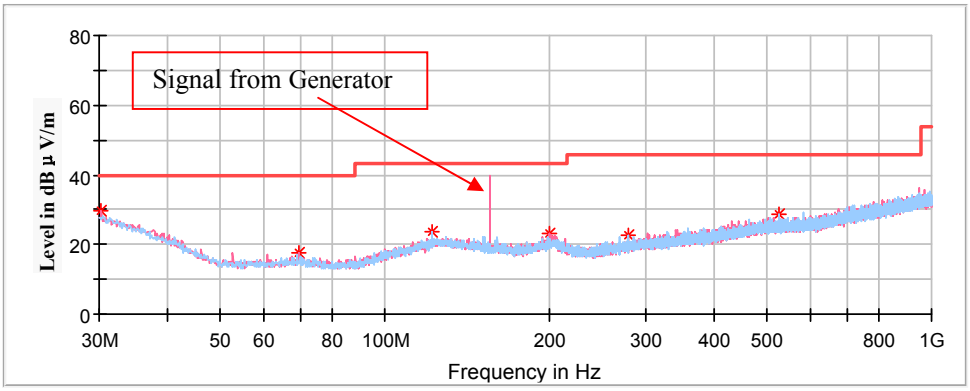
2) Above 1 GHz:



Frequency (MHz)	Corrected Amp		Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
	Max Peak (dBµV/m)	Average (dBµV/m)						
1073.500000	29.73	---	74.00	44.27	200.0	H	124.0	-18.7
1073.500000	---	21.02	54.00	32.98	200.0	H	124.0	-18.7
1164.900000	---	21.15	54.00	32.85	100.0	V	353.0	-18.2
1164.900000	30.79	---	74.00	43.21	100.0	V	353.0	-18.2
1401.000000	31.35	---	74.00	42.65	100.0	V	175.0	-16.9
1401.000000	---	21.17	54.00	32.83	100.0	V	175.0	-16.9
1721.300000	---	22.81	54.00	31.19	200.0	V	138.0	-15.5
1721.300000	32.53	---	74.00	41.47	200.0	V	138.0	-15.5
1868.900000	32.26	---	74.00	41.74	100.0	V	127.0	-15.0
1868.900000	---	22.95	54.00	31.05	100.0	V	127.0	-15.0
1998.000000	---	24.42	54.00	29.58	100.0	H	214.0	-14.5
1998.000000	33.61	---	74.00	40.39	100.0	H	214.0	-14.5

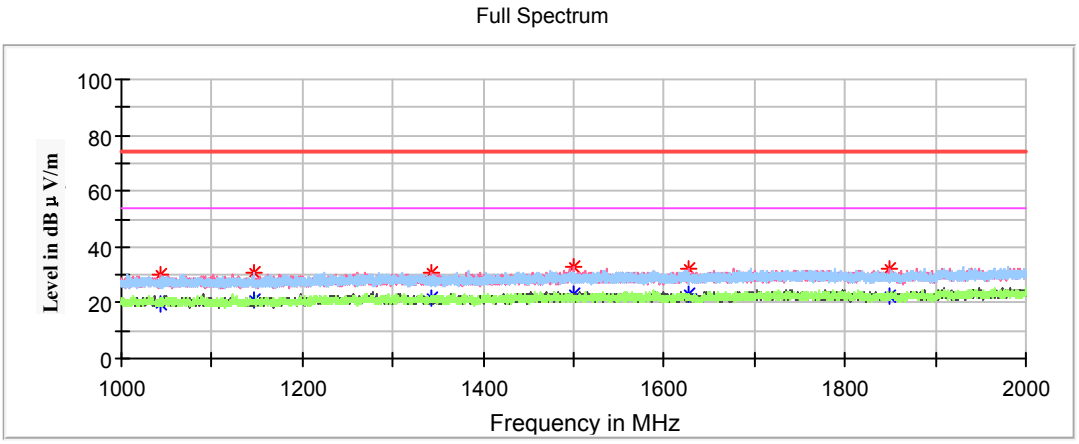
Test Mode 4

1)30MHz ~ 1GHz



Frequency (MHz)	Corrected Amp / Max Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.242500	29.58	40.00	10.42	200.0	V	359.0	-4.7
69.648750	17.67	40.00	22.33	200.0	V	303.0	-17.1
122.150000	23.40	43.50	20.10	100.0	H	295.0	-11.6
199.871250	22.92	43.50	20.58	100.0	V	224.0	-11.5
277.835000	22.51	46.00	23.49	100.0	H	20.0	-12.0
526.276250	28.49	46.00	17.51	100.0	H	205.0	-5.9

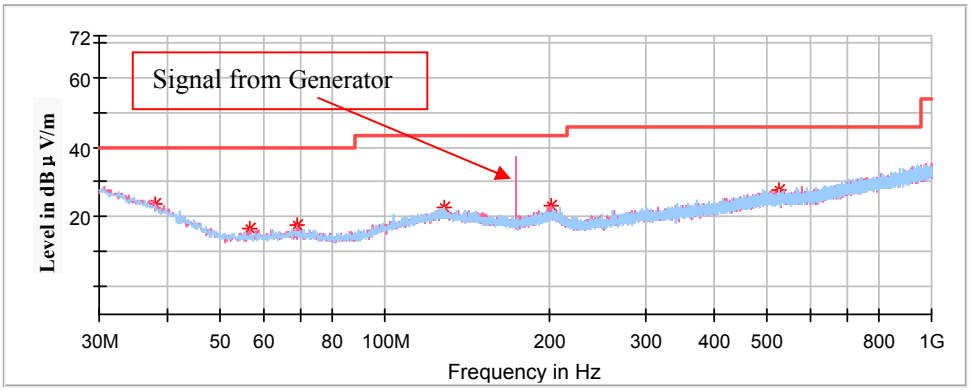
2) Above 1 GHz:



Frequency (MHz)	Corrected Amp		Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
	Max Peak (dBµV/m)	Average (dBµV/m)						
1042.800000	29.92	---	74.00	44.08	200.0	V	88.0	-18.8
1042.800000	---	19.67	54.00	34.33	200.0	V	88.0	-18.8
1147.300000	---	21.08	54.00	32.92	100.0	H	177.0	-18.3
1147.300000	30.46	---	74.00	43.54	100.0	H	177.0	-18.3
1342.500000	30.88	---	74.00	43.12	200.0	V	125.0	-17.2
1342.500000	---	21.66	54.00	32.34	200.0	V	125.0	-17.2
1499.700000	---	23.00	54.00	31.00	200.0	V	7.0	-16.4
1499.700000	32.56	---	74.00	41.44	200.0	V	7.0	-16.4
1627.200000	32.00	---	74.00	42.00	100.0	V	34.0	-15.9
1627.200000	---	22.90	54.00	31.10	100.0	V	34.0	-15.9
1850.200000	---	22.20	54.00	31.80	200.0	V	77.0	-15.0
1850.200000	32.49	---	74.00	41.51	200.0	V	77.0	-15.0

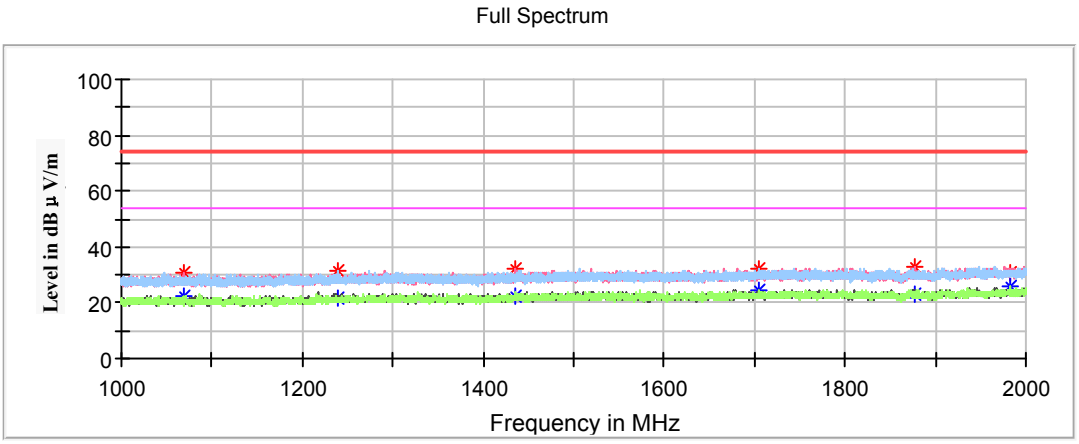
Test Mode 5

1)30MHz ~ 1GHz



Frequency (MHz)	Corrected Amp / Max Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
38.123750	23.52	40.00	16.48	100.0	V	28.0	-10.0
56.796250	16.46	40.00	23.54	100.0	V	28.0	-18.0
68.921250	17.52	40.00	22.48	200.0	V	43.0	-17.1
128.576250	22.61	43.50	20.89	100.0	H	254.0	-11.4
202.175000	23.40	43.50	20.10	100.0	V	0.0	-11.7
526.518750	27.91	46.00	18.09	200.0	H	39.0	-5.9

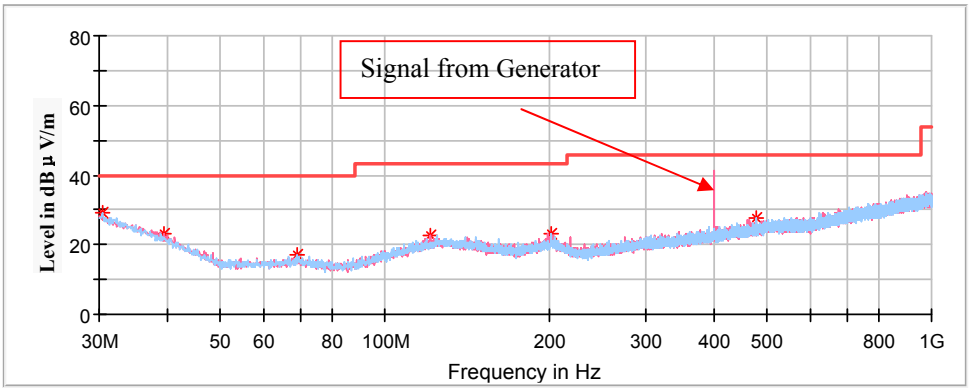
2) Above 1 GHz:



Frequency (MHz)	Corrected Amp		Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
	Max Peak (dBµV/m)	Average (dBµV/m)						
1067.900000	---	22.13	54.00	31.87	200.0	V	222.0	-18.7
1067.900000	30.47	---	74.00	43.53	200.0	V	222.0	-18.7
1238.600000	31.60	---	74.00	42.40	200.0	H	190.0	-17.8
1238.600000	---	21.87	54.00	32.13	200.0	H	190.0	-17.8
1435.700000	---	22.18	54.00	31.82	200.0	V	158.0	-16.7
1435.700000	32.11	---	74.00	41.89	200.0	V	158.0	-16.7
1704.800000	32.42	---	74.00	41.58	200.0	V	260.0	-15.6
1704.800000	---	24.35	54.00	29.65	200.0	V	260.0	-15.6
1876.600000	---	23.00	54.00	31.00	100.0	V	25.0	-14.9
1876.600000	32.70	---	74.00	41.30	100.0	V	25.0	-14.9
1982.400000	---	25.57	54.00	28.43	200.0	H	271.0	-14.5
1982.400000	30.85	---	74.00	43.15	200.0	H	271.0	-14.5

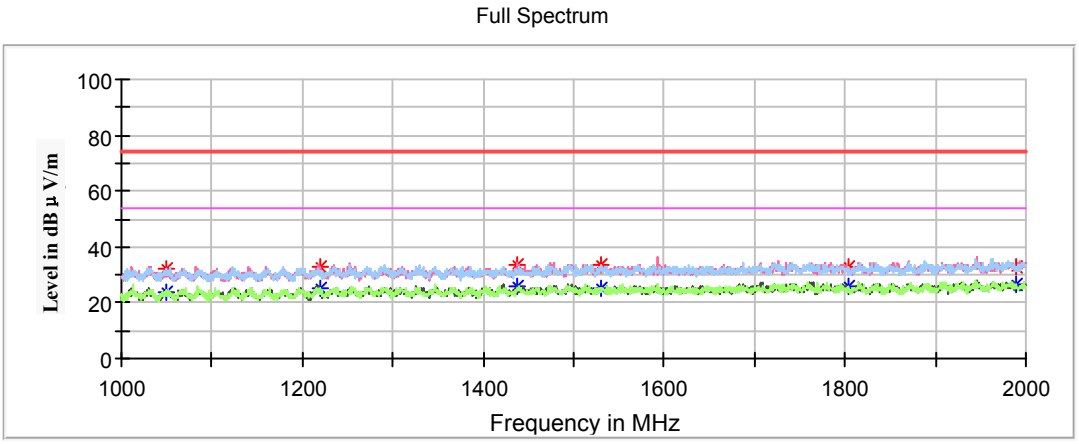
Test Mode 6

1)30MHz ~ 1GHz



Frequency (MHz)	Corrected Amp / Max Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.363750	28.96	40.00	11.04	100.0	H	88.0	-4.8
39.457500	23.22	40.00	16.78	200.0	V	236.0	-10.9
68.921250	17.35	40.00	22.65	200.0	H	298.0	-17.1
121.180000	22.84	43.50	20.66	200.0	V	140.0	-11.8
201.690000	23.38	43.50	20.12	100.0	V	112.0	-11.6
479.110000	27.74	46.00	18.26	200.0	H	87.0	-6.6

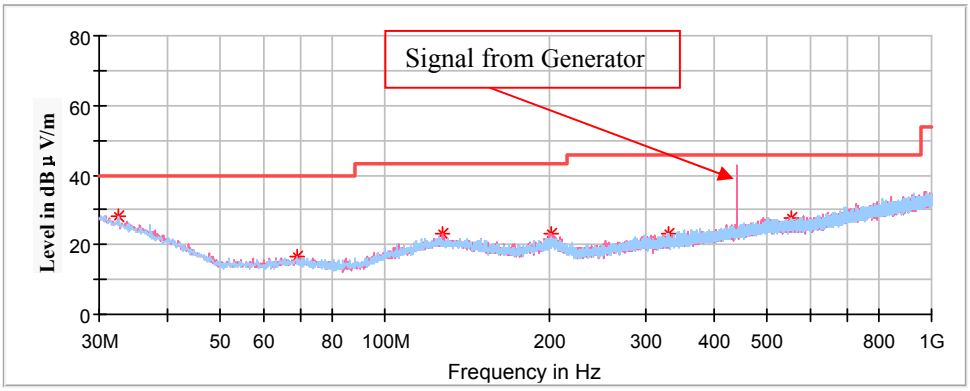
2) Above 1 GHz:



Frequency (MHz)	Corrected Amp		Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
	Max Peak (dBµV/m)	Average (dBµV/m)						
1045.800000	30.00	---	74.00	44.00	100.0	V	265.0	-18.8
1045.800000	---	20.07	54.00	33.93	100.0	V	265.0	-18.8
1354.500000	---	21.25	54.00	32.75	200.0	V	17.0	-17.1
1354.500000	31.80	---	74.00	42.20	200.0	V	17.0	-17.1
1515.600000	32.56	---	74.00	41.44	200.0	V	69.0	-16.3
1515.600000	---	23.82	54.00	30.18	200.0	V	69.0	-16.3
1664.000000	---	22.13	54.00	31.87	100.0	V	318.0	-15.7
1664.000000	32.71	---	74.00	41.29	100.0	V	318.0	-15.7
1797.100000	---	25.34	54.00	28.66	200.0	V	322.0	-15.2
1797.100000	30.70	---	74.00	43.30	200.0	V	322.0	-15.2
1996.300000	---	24.50	54.00	29.50	200.0	V	17.0	-14.5
1996.300000	33.74	---	74.00	40.26	200.0	V	17.0	-14.5

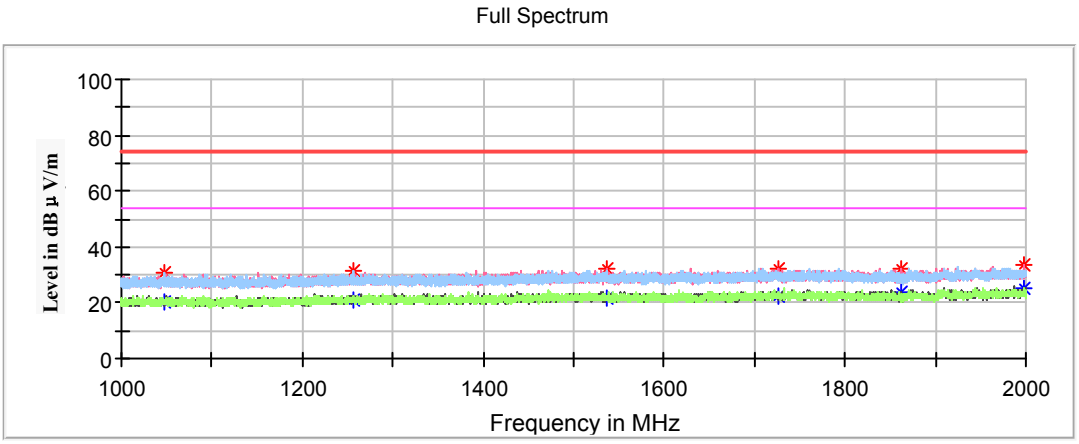
Test Mode 7

1)30MHz ~ 1GHz



Frequency (MHz)	Corrected Amp / Max Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.546250	28.40	40.00	11.60	200.0	H	51.0	-6.3
68.921250	16.51	40.00	23.49	100.0	V	136.0	-17.1
127.242500	22.95	43.50	20.55	100.0	V	184.0	-11.3
202.175000	23.35	43.50	20.15	100.0	V	256.0	-11.7
330.578750	23.26	46.00	22.74	200.0	H	261.0	-10.3
553.072500	27.91	46.00	18.09	100.0	H	253.0	-5.8

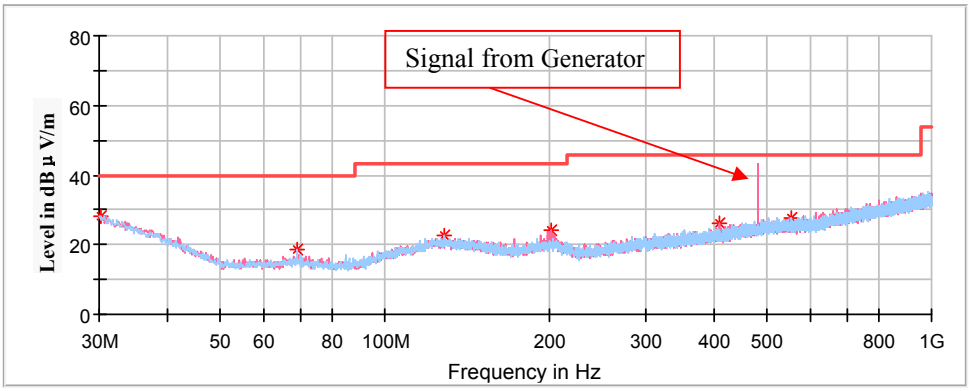
2) Above 1 GHz:



Frequency (MHz)	Corrected Amp		Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
	Max Peak (dBµV/m)	Average (dBµV/m)						
1047.900000	30.81	---	74.00	43.19	100.0	H	297.0	-18.8
1047.900000	---	20.17	54.00	33.83	100.0	H	297.0	-18.8
1257.100000	---	20.91	54.00	33.09	200.0	H	324.0	-17.7
1257.100000	31.72	---	74.00	42.28	200.0	H	324.0	-17.7
1537.100000	32.16	---	74.00	41.84	200.0	V	231.0	-16.2
1537.100000	---	21.34	54.00	32.66	200.0	V	231.0	-16.2
1726.500000	---	22.34	54.00	31.66	200.0	V	71.0	-15.5
1726.500000	32.14	---	74.00	41.86	200.0	V	71.0	-15.5
1861.200000	32.39	---	74.00	41.61	100.0	V	135.0	-15.0
1861.200000	---	23.80	54.00	30.20	100.0	V	135.0	-15.0
1998.400000	---	25.27	54.00	28.73	100.0	H	331.0	-14.5
1998.400000	33.48	---	74.00	40.52	100.0	H	331.0	-14.5

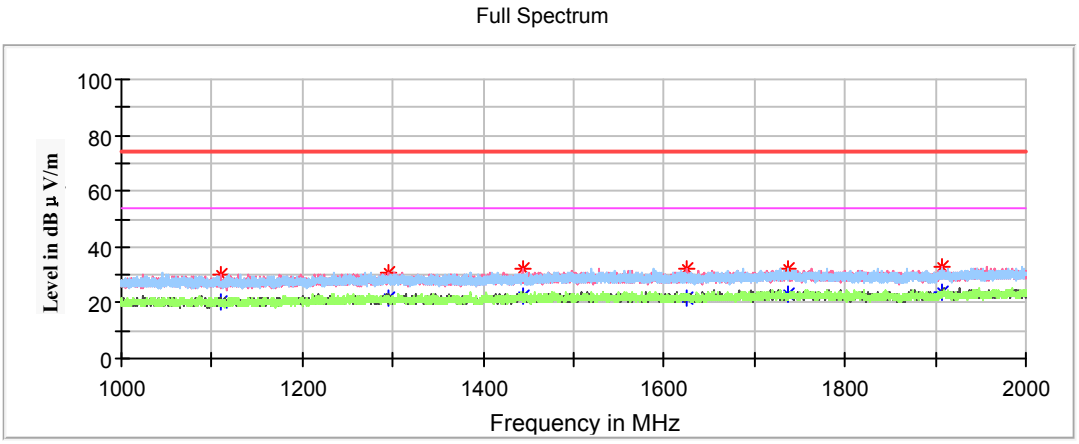
Test Mode 8

1)30MHz ~ 1GHz



Frequency (MHz)	Corrected Amp / Max Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.121250	28.30	40.00	11.70	200.0	V	224.0	-4.7
69.042500	18.67	40.00	21.33	100.0	H	166.0	-17.1
128.212500	22.83	43.50	20.67	100.0	H	160.0	-11.3
201.205000	24.14	43.50	19.36	100.0	V	154.0	-11.6
409.148750	26.17	46.00	19.83	200.0	V	110.0	-8.4
554.770000	27.84	46.00	18.16	100.0	H	18.0	-5.7

2) Above 1 GHz:



Frequency (MHz)	Corrected Amp		Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
	Max Peak (dBµV/m)	Average (dBµV/m)						
1109.300000	30.30	---	74.00	43.70	200.0	V	40.0	-18.5
1109.300000	---	20.04	54.00	33.96	200.0	V	40.0	-18.5
1295.600000	---	22.00	54.00	32.00	200.0	V	72.0	-17.5
1295.600000	30.92	---	74.00	43.08	200.0	V	72.0	-17.5
1442.900000	32.14	---	74.00	41.86	100.0	V	159.0	-16.7
1442.900000	---	22.15	54.00	31.85	100.0	V	159.0	-16.7
1625.900000	---	21.76	54.00	32.24	100.0	V	358.0	-15.9
1625.900000	31.88	---	74.00	42.12	100.0	V	358.0	-15.9
1738.000000	31.97	---	74.00	42.03	200.0	H	156.0	-15.5
1738.000000	---	23.34	54.00	30.66	200.0	H	156.0	-15.5
1907.000000	---	23.58	54.00	30.42	200.0	V	230.0	-14.8
1907.000000	33.18	---	74.00	40.82	200.0	V	230.0	-14.8

FCC §15.111 - ANTENNA CONDUCTED POWER FOR RECEIVERS

Applicable Standard

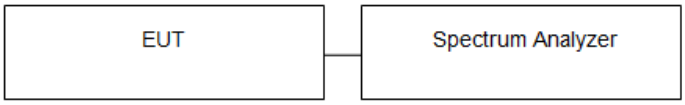
FCC §15.111

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 1) was reported on the following Data page.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	Signal Analyzer	FSIQ26	836131/009	2019-12-14	2020-12-13
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

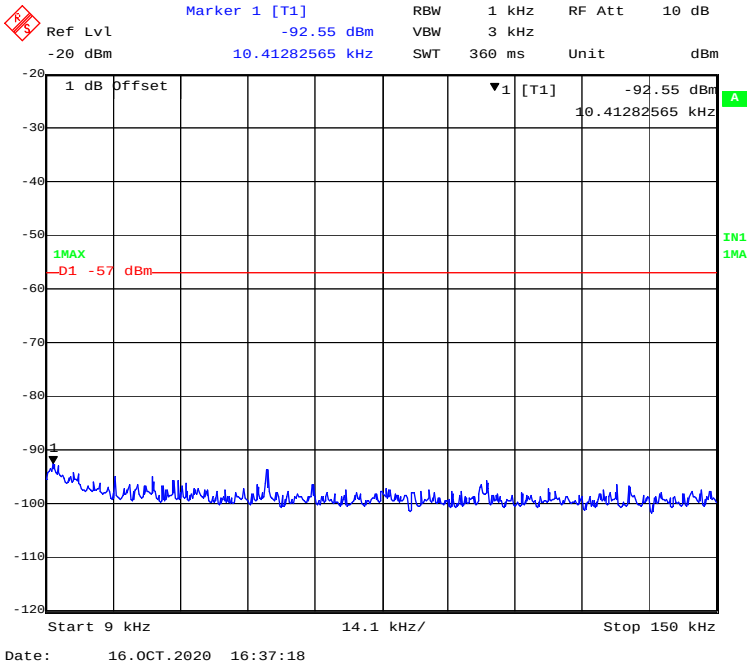
Environmental Conditions

Temperature:	25.2 ℃
Relative Humidity:	51 %
ATM Pressure:	101.5 kPa

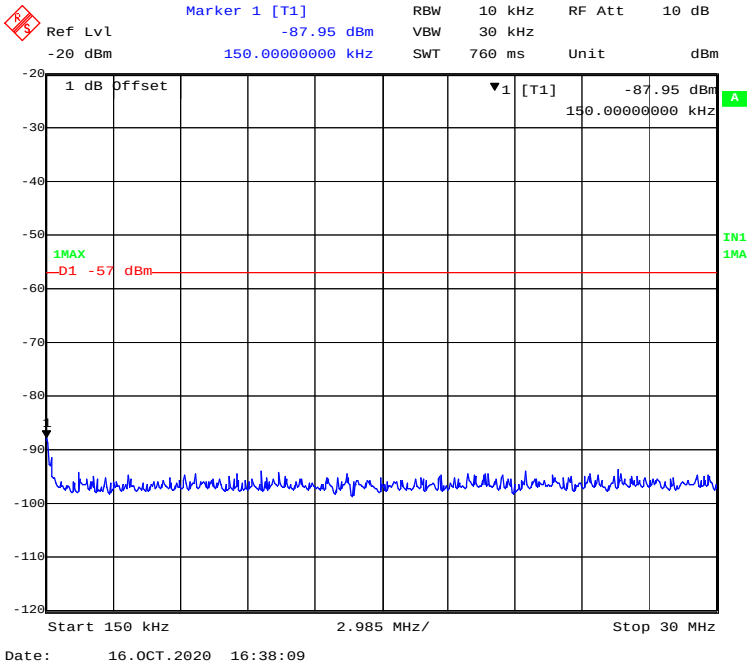
The testing was performed by Gerry Xing on 2020-10-16.

Test mode: Receive at UHF low channel (worst case)

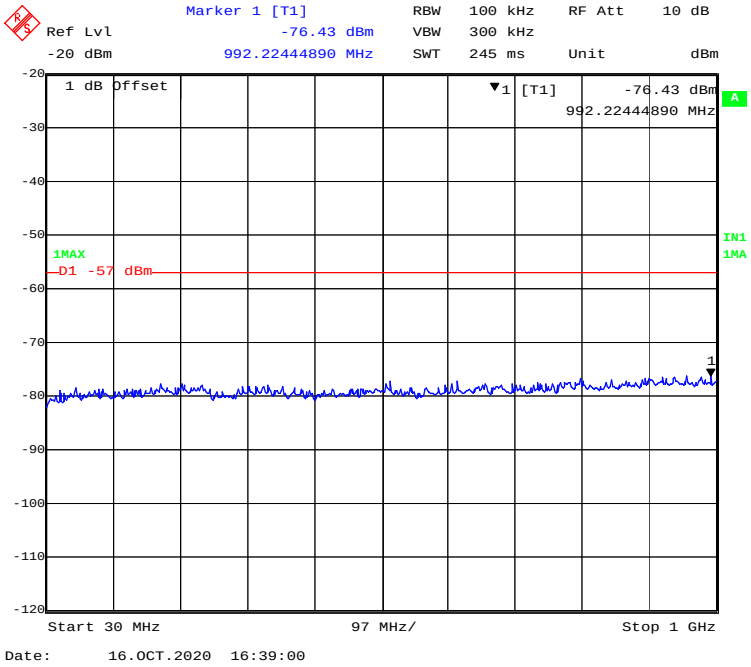
Conducted Measurement (9 kHz to 150 kHz)



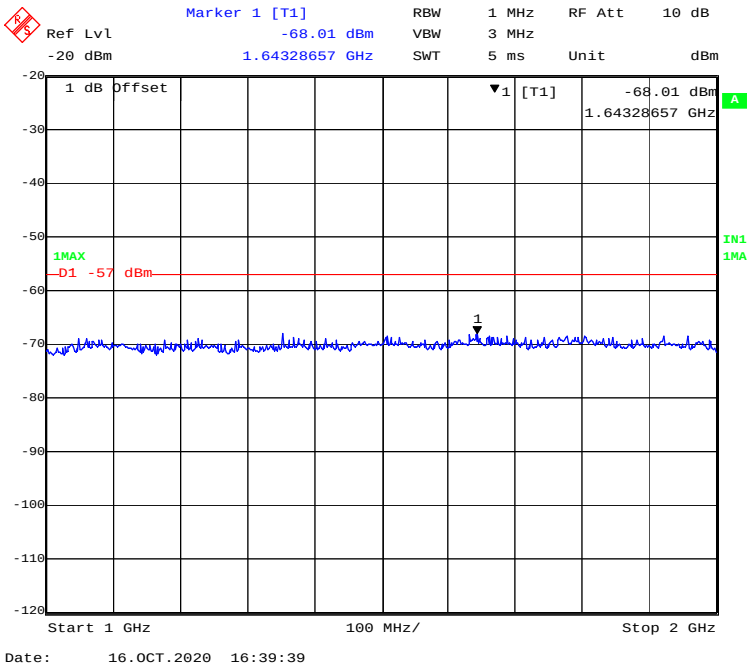
Conducted Measurement (150 kHz to 30MHz)



Conducted Measurement (30MHz to 1GHz)



Conducted Measurement (1GHz to 2GHz)



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

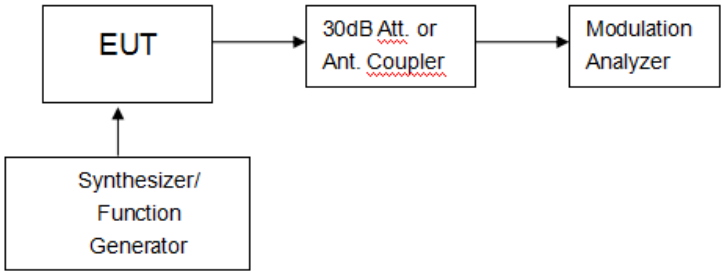
Applicable Standard

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 in a scanning mode and allow it to scan through it's preset frequencies.
8) 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

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
ZHAOXIN	DC Power Supply	RXN-605D	DC002	2020-10-10	2021-10-09
HP	RF communication test SET.	8920B	079	2020-04-01	2021-03-31
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 ℃
Relative Humidity:	51 %
ATM Pressure:	101.5 kPa

The testing was performed by Gerry Xing on 2020-11-03.

Test mode: Receive

Frequency Range (MHz)	Channel	Measurement Result (dB)	Limit (dB)
136-174	Low	51	>38
136-174	Middle	47	>38
136-174	High	45	>38
400-480	Low	54	>38
400-480	Middle	50	>38
400-480	High	48	>38

Note:
1. This device meets the requirements of FCC PART 15.121(b)
2. 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.

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