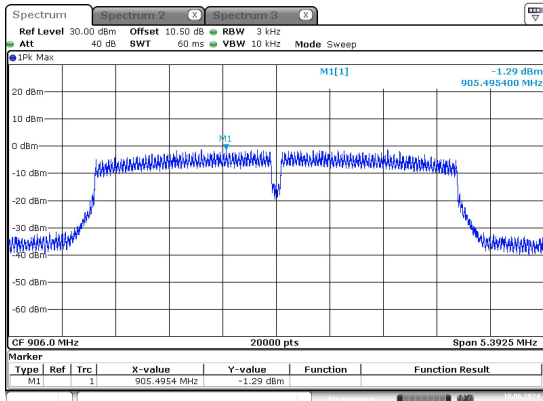
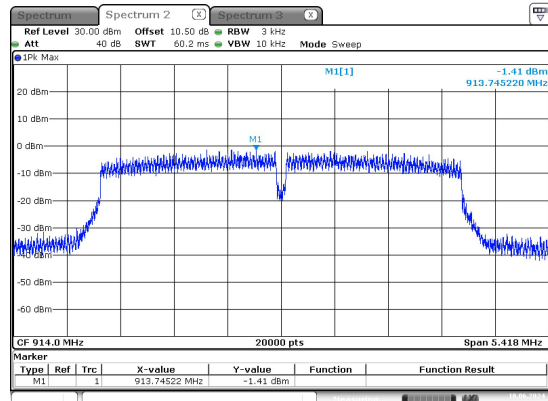


4M_Low Channel



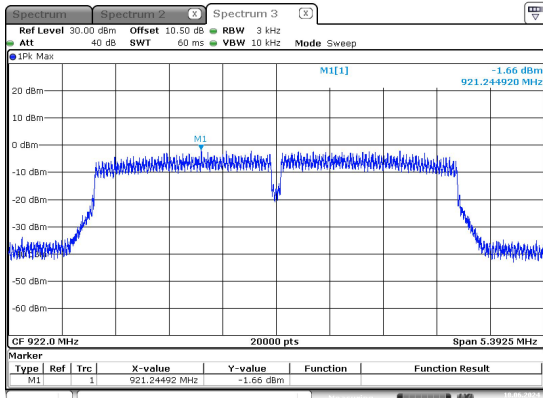
ProjectNo.:XMDN240322-14951E Tester:Roy xiao
Date: 18_JUN_2024 10:23:23

4M_Middle Channel



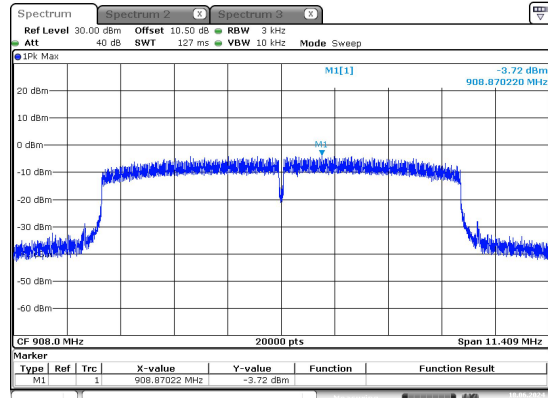
ProjectNo.:XMDN240322-14951E Tester:Roy xiao
Date: 18_JUN_2024 10:23:51

4M_High Channel



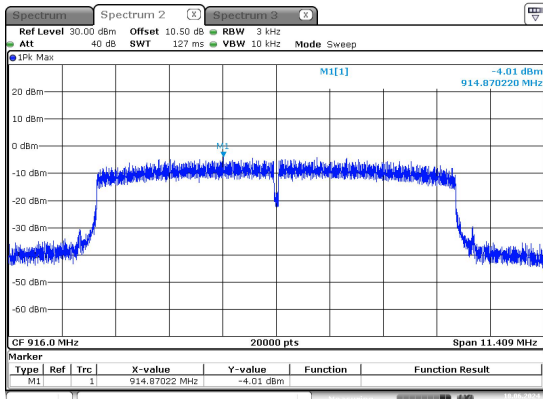
ProjectNo.:XMDN240322-14951E Tester:Roy xiao
Date: 18_JUN_2024 10:25:13

8M_Low Channel



ProjectNo.:XMDN240322-14951E Tester:Roy xiao
Date: 18_JUN_2024 10:19:04

8M_High Channel



ProjectNo.:XMDN240322-14951E Tester:Roy xiao
Date: 18_JUN_2024 10:13:55

5.7 100 kHz Bandwidth of Frequency Band Edge:

Serial No.:	2J2X-1	Test Date:	2024/06/13
Test Site:	RF	Test Mode:	Transmitting
Tester:	Roy Xiao	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	26.8	Relative Humidity: (%)	52	ATM Pressure: (kPa)	100.5
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Test Equipment List and Details:

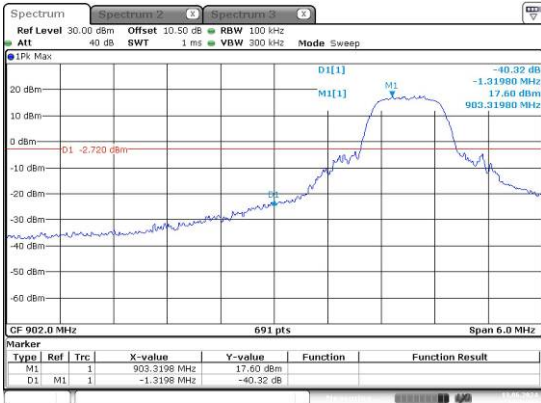
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101589	2023/10/18	2024/10/17
Eastsheep	Coaxial Attenuator	5W-N-JK-6G-10dB	F-08-EM503	2023/09/10	2024/09/09

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

Test Data:

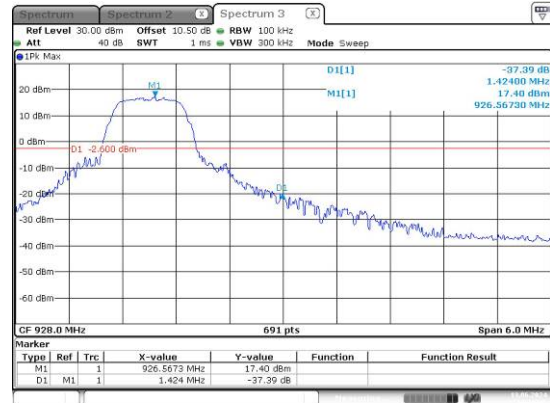
Please refer to the following plots.

1M_Low Channel



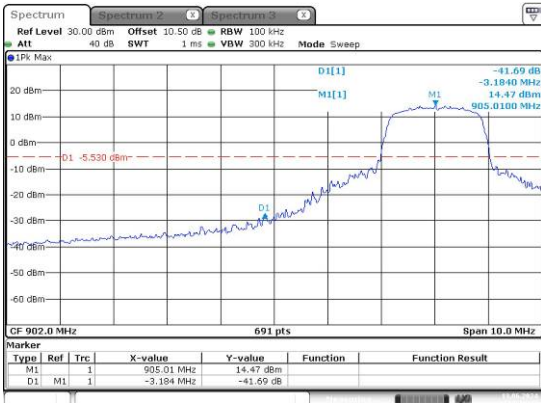
ProjectNo.:XMDN240322-14951E Tester:Roy xiao
Date: 13.JUN.2024 13:22:54

1M_High Channel



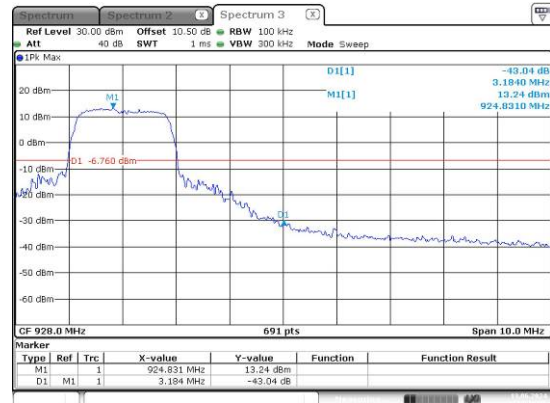
ProjectNo.:XMDN240322-14951E Tester:Roy xiao
Date: 13.JUN.2024 13:25:46

2M_Low Channel



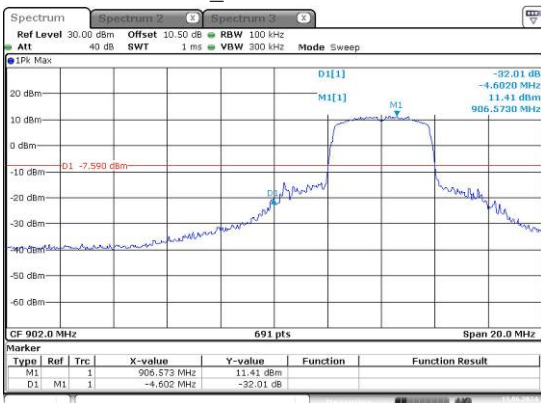
ProjectNo.:XMDN240322-14951E Tester:Roy xiao
Date: 13.JUN.2024 13:29:12

2M_High Channel



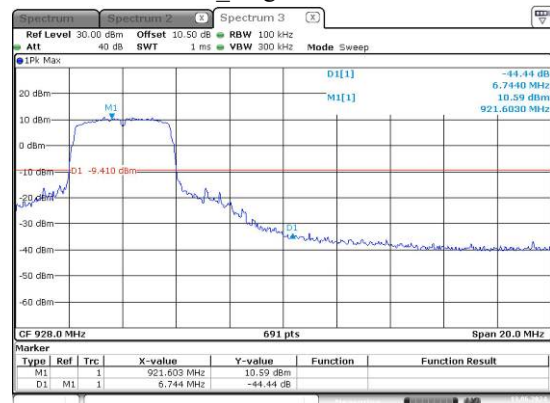
ProjectNo.:XMDN240322-14951E Tester:Roy xiao
Date: 13.JUN.2024 13:30:09

4M_Low Channel



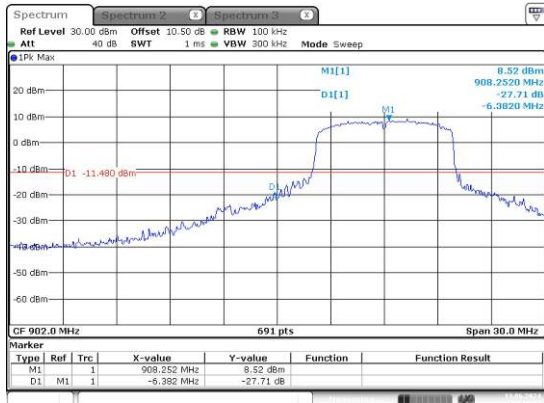
ProjectNo.:XMDN240322-14951E Tester:Roy xiao
Date: 13.JUN.2024 13:56:15

4M_High Channel



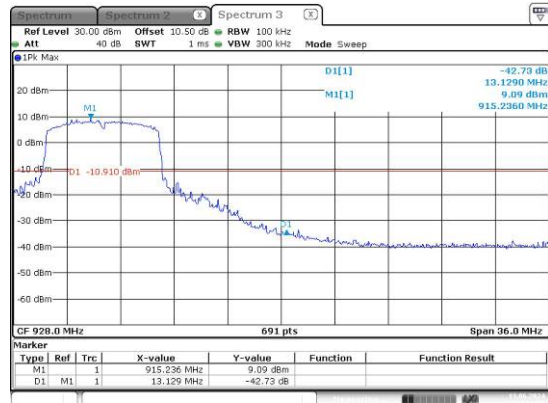
ProjectNo.:XMDN240322-14951E Tester:Roy xiao
Date: 13.JUN.2024 14:02:42

8M_Low Channel



ProjectNo.:XMDN240322-14951E Tester:Roy xiao
 Date: 13.JUN.2024 14:27:33

8M_High Channel



ProjectNo.:XMDN240322-14951E Tester:Roy xiao
 Date: 13.JUN.2024 14:26:26

5.8 Duty Cycle:

Serial No.:	2J2X-1	Test Date:	2024/06/13
Test Site:	RF	Test Mode:	Transmitting
Tester:	Roy Xiao	Test Result:	/

Environmental Conditions:

Temperature: (°C)	26.8	Relative Humidity: (%)	52	ATM Pressure: (kPa)	100.5
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101589	2023/10/18	2024/10/17
Eastsheep	Coaxial Attenuator	5W-N-JK-6G-10dB	F-08-EM503	2023/09/10	2024/09/09

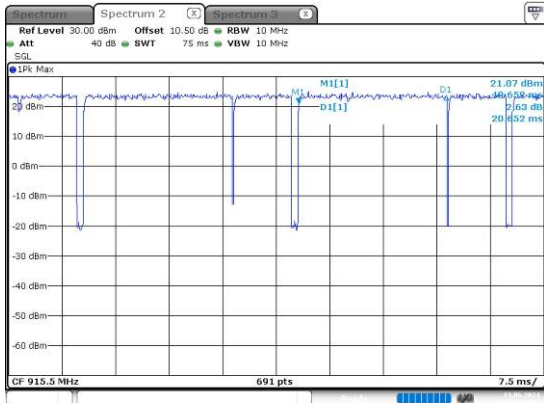
* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

Test Modes	Ton (ms)	Ton+off (ms)	Duty cycle (%)	1/T (Hz)	VBW Setting (kHz)
1M	20.652	/	Not constant	48	0.05
2M	12.681	13.768	92.10	79	0.1
4M	6.217	7.174	86.66	161	0.2
8M	3.036	3.957	76.72	329	0.5

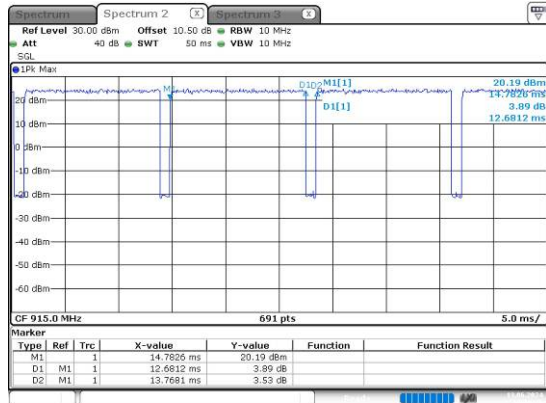
Duty Cycle = Ton/(Ton+Toff)*100%

1M_Middle Channel



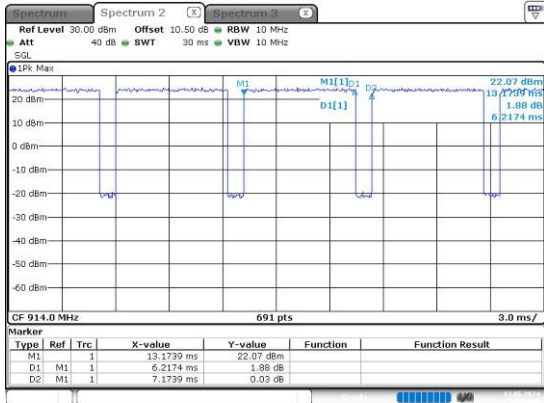
ProjectNo.:XMDN240322-14951E Tester:Roy xiao
Date: 13 JUN 2024 15:18:32

2M_Middle Channel



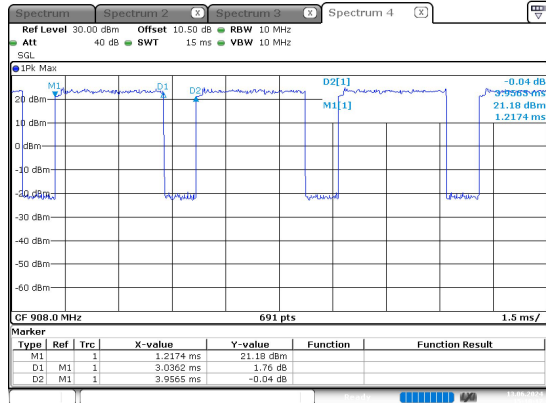
ProjectNo.:XMDN240322-14951E Tester:Roy xiao
Date: 13 JUN 2024 15:09:11

4M_Middle Channel



ProjectNo.:XMDN240322-14951E Tester:Roy xiao
Date: 13 JUN 2024 15:03:41

8M_Low Channel



ProjectNo.:XMDN240322-14951E Tester:Roy xiao
Date: 13 JUN 2024 15:10:18

APPENDIX A - EUT PHOTOGRAPHS

Please refer to the attachment XMDN240322-14951E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and XMDN240322-14951E-RF-INP EUT INTERNAL PHOTOGRAPHS.

APPENDIX B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment XMDN240322-14951E-RF-00D-TSP TEST SETUP PHOTOGRAPHS.

APPENDIX C - RF EXPOSURE EVALUATION

Applicable Standard

According to subpart §1.1310,15.247(i) systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission’s guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm²)	Averaging Time (minutes)
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculation formula:

Prediction of power density at the distance of the applicable MPE limit

S = PG/4πR² = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

Calculated Data:

Frequency (MHz)	Antenna Gain		Conducted output power including Tune-up Tolerance		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
	(dBi)	(numeric)	(dBm)	(mW)			
903.5-926.5	-3.95	0.40	24	251.19	20.00	0.0201	0.6
2412-2462	2.13	1.63	26	398.11	20.00	0.1294	1.0
5856	6.48	4.45	-11.50	0.07	20.00	0.0001	1.0

Note:

For 5G, The power of EUT: E Field@3m is 89.99dBuV/m = -5.21dBm (0.30mW)

E[dBuV/m] = EIRP[dBm] + 95.2 for d = 3 m.

Conducted output power = -5.21 dBm - 6.48dBi = -11.69 dBm

Conducted output power = EIRP(dBm) - Antenna Gain(dBi)

The Conducted output power including Tune-up Tolerance provided by manufacturer

The WLAN 2.4G / 5G/900M can transmit simultaneously:

$$\sum_i \frac{S_i}{S_{Limit,i}}$$

$$= S_{2.4G} / S_{limit-2.4G} + S_{5G} / S_{limit-5G} + S_{900M} / S_{limit-900M}$$

$$= 0.1294 / 1 + 0.0001 / 1 + 0.0201 / 0.6$$

$$= 0.16$$

$$< 1.0$$

Result: The device meet FCC MPE at 20 cm distance

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