



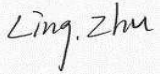
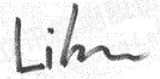
Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Bluetooth speaker watch

Test Model: B90

Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	 Ling Zhu
Supervised by:	 Li Huan





A.1 20dB Emission Bandwidth

Test Result

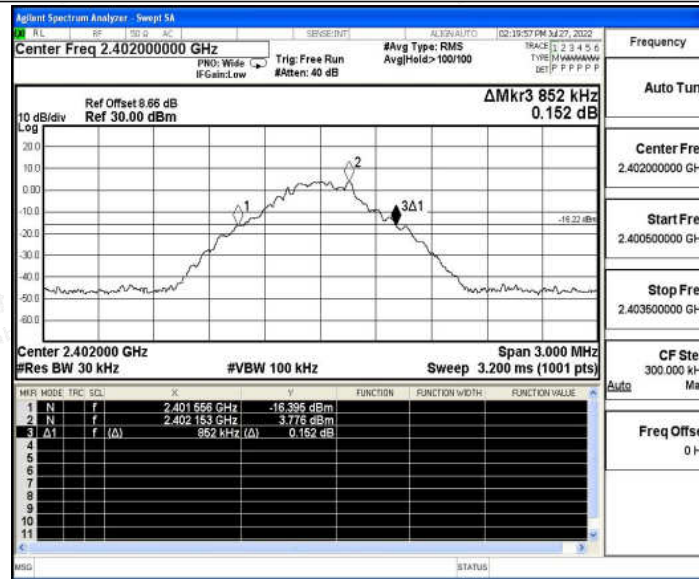
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Verdict
DH5	Ant1	2402	0.852	2401.556	2402.408	---
		2441	0.849	2440.556	2441.405	---
		2480	0.867	2479.541	2480.408	---
2DH5	Ant1	2402	1.245	2401.370	2402.615	---
		2441	1.269	2440.361	2441.630	---
		2480	1.266	2479.358	2480.624	---



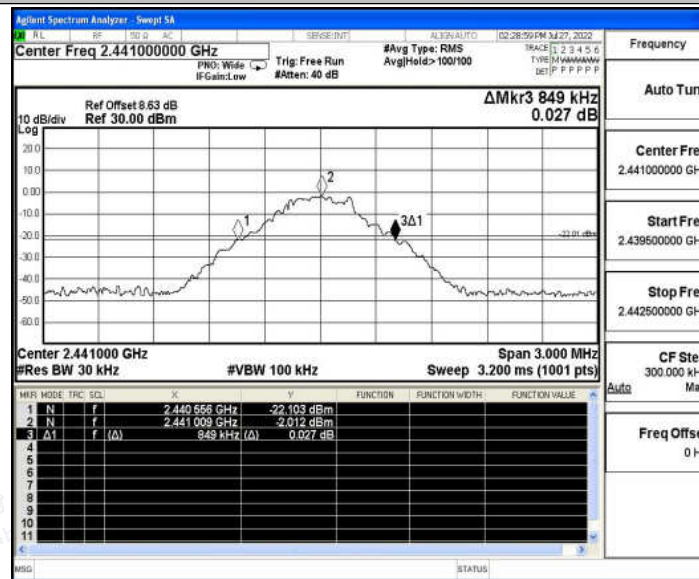


Test Graphs

DH5_Ant1_2402

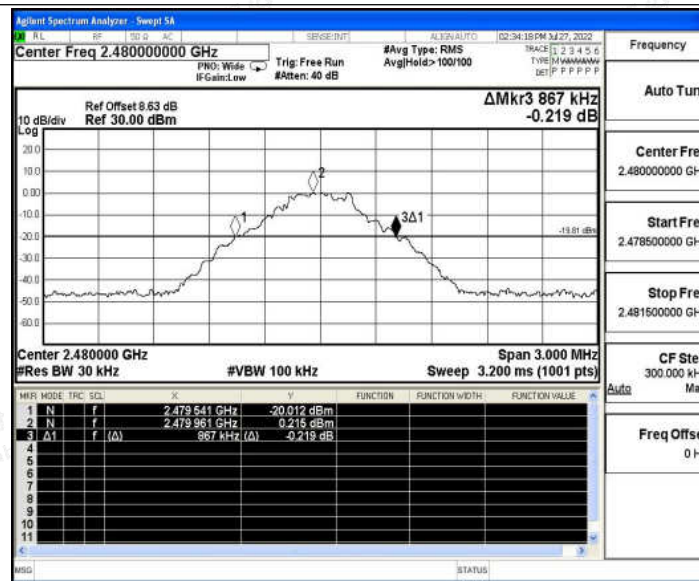


DH5_Ant1_2441

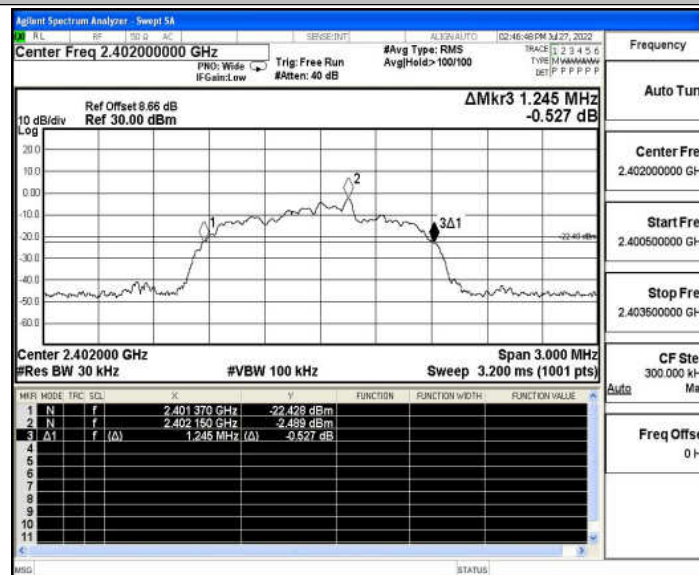


DH5_Ant1_2480





2DH5_Ant1_2402



2DH5_Ant1_2441

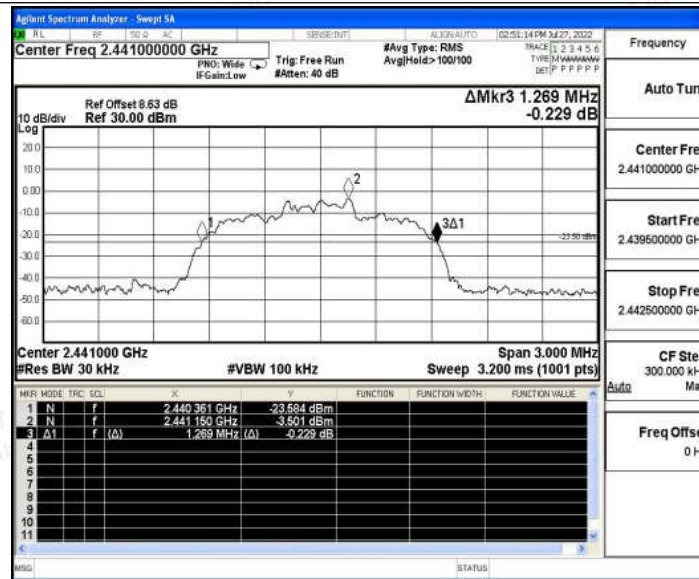


Shenzhen LCS Compliance Testing Laboratory Ltd.

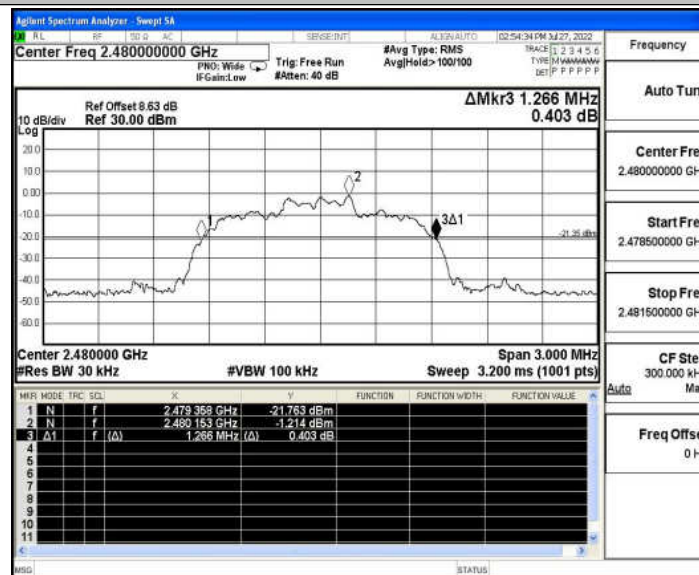
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



2DH5_Ant1_2480



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



A.2 Maximum peak conducted output power

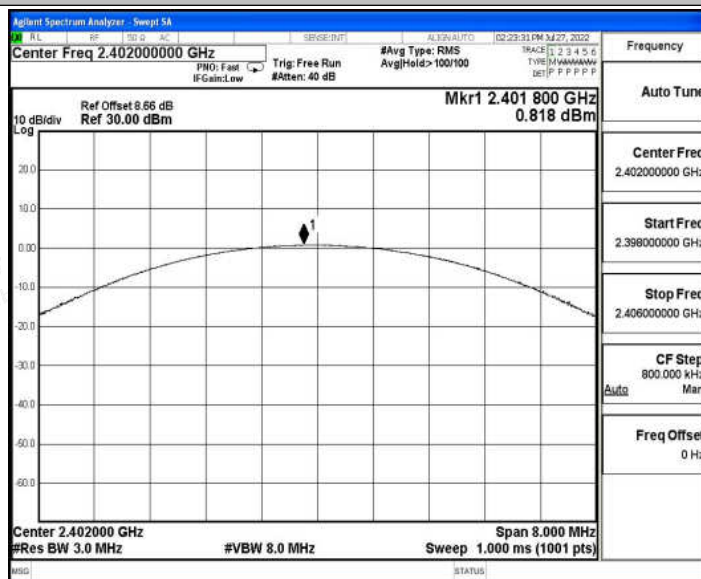
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	0.82	≤20.97	PASS
		2441	0.89	≤20.97	PASS
		2480	0.97	≤20.97	PASS
2DH5	Ant1	2402	-0.12	≤20.97	PASS
		2441	-0.14	≤20.97	PASS
		2480	0.09	≤20.97	PASS





Test Graphs



Agilent Spectrum Analyzer - Sweep 5A

Center Freq 2.441000000 GHz

Ref Offset 8.63 dB

Ref 30.00 dBm

Mkr1 2.440 880 GHz

0.894 dBm

10 dB/div

Log

Center 2.441000 GHz

Res BW 3.0 MHz

VBW 8.0 MHz

Span 8.000 MHz

Sweep 1.000 ms (1001 pts)

Frequency

Auto Tune

Center Freq 2.441000000 GHz

Start Freq 2.437000000 GHz

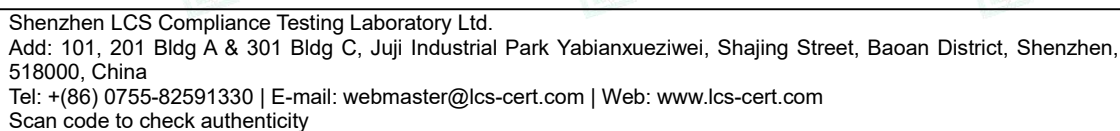
Stop Freq 2.445000000 GHz

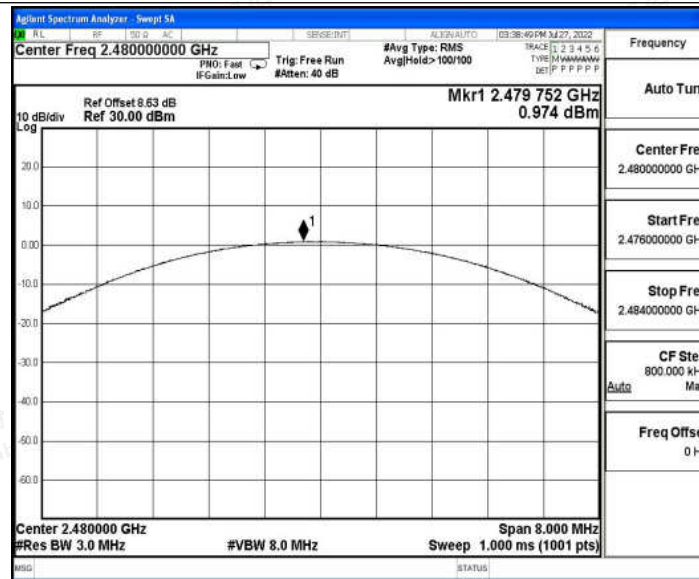
CF Step 800.000 kHz

Auto

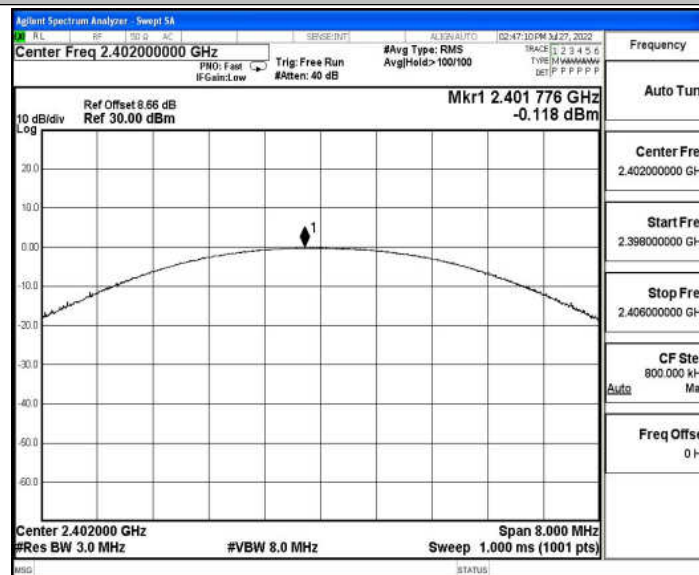
Freq Offset 0 Hz

DH5 Ant1 2480



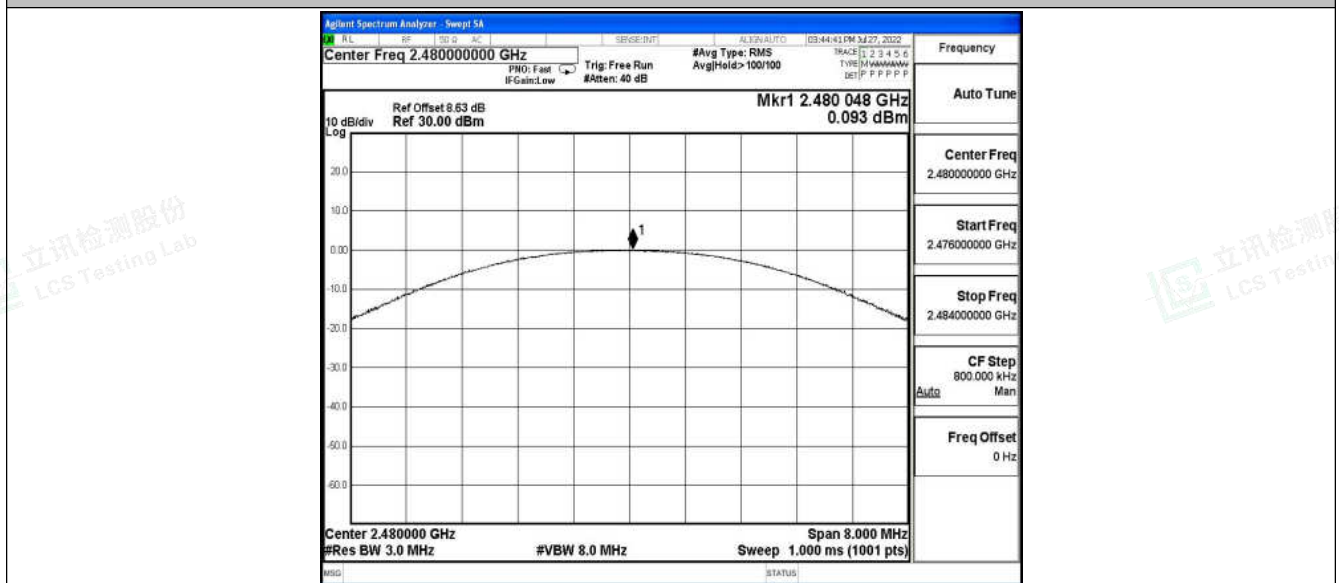
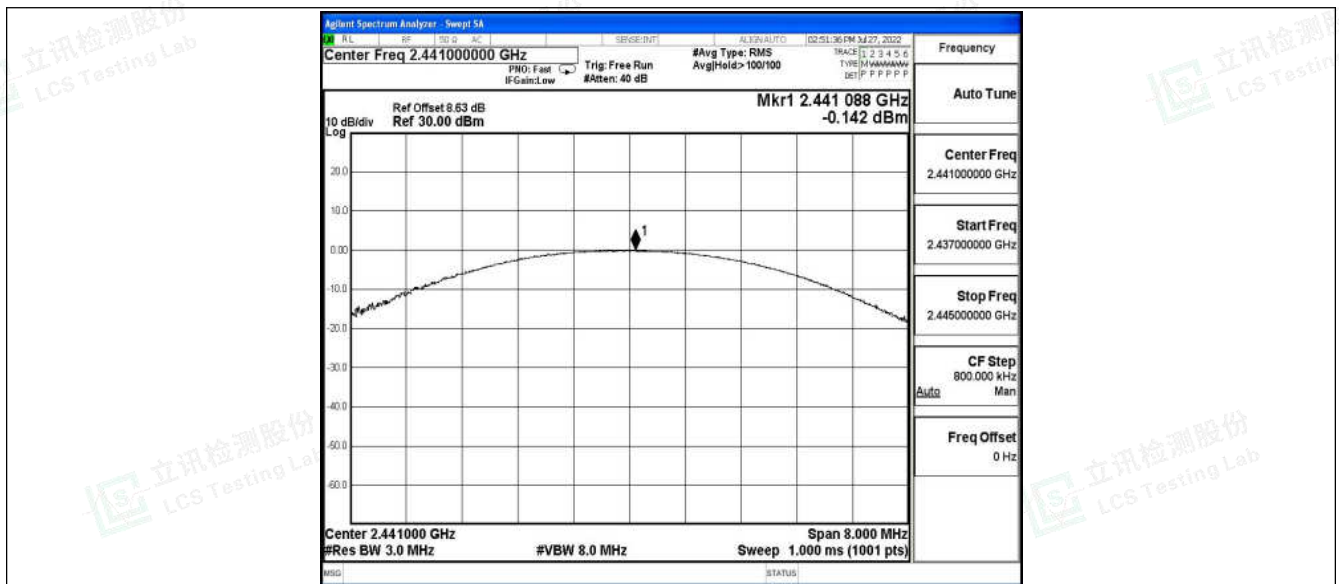


2DH5_Ant1_2402



2DH5_Ant1_2441







A.3 Carrier frequency separation

Test Result

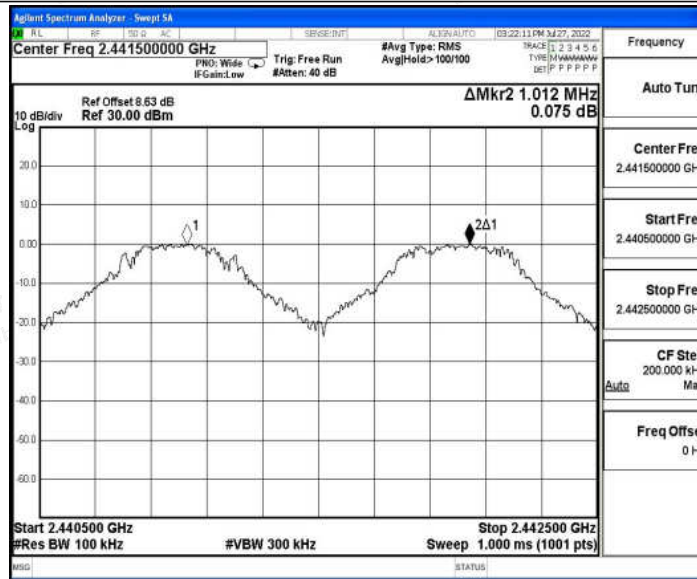
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.012	≥0.867	PASS
2DH5	Ant1	Hop	1.294	≥1.269	PASS



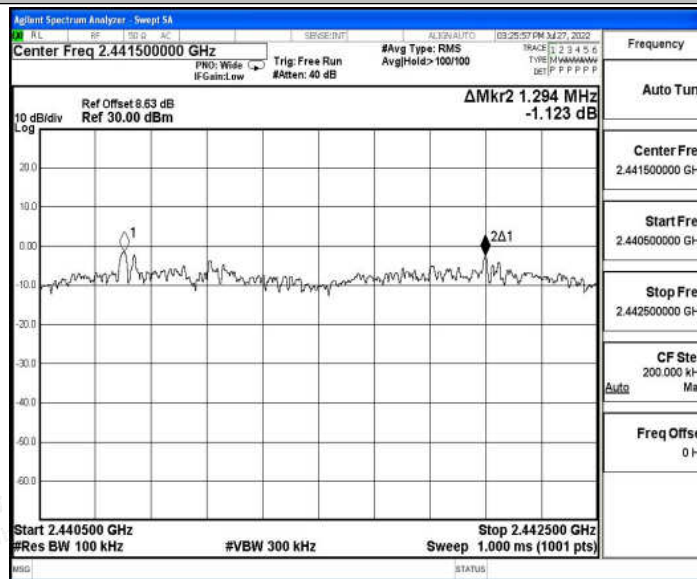


Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop





A.4 Time of occupancy

Test Result

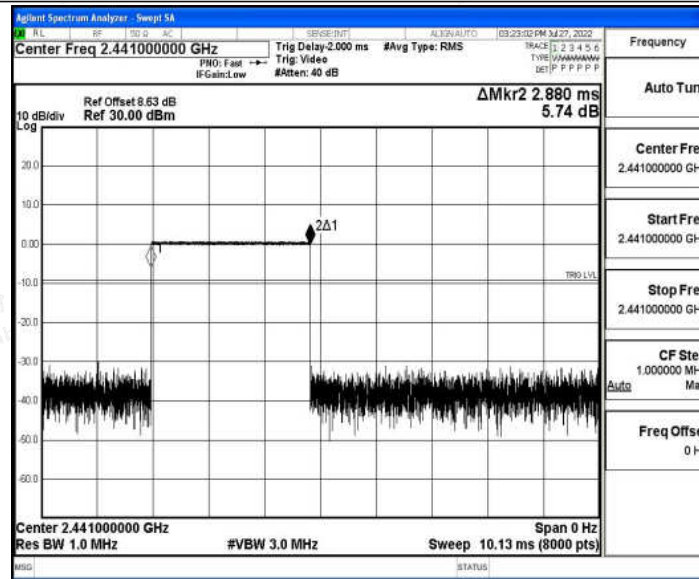
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	106.67	0.307	≤0.4	PASS
2DH5	Ant1	Hop	2.88	106.67	0.308	≤0.4	PASS



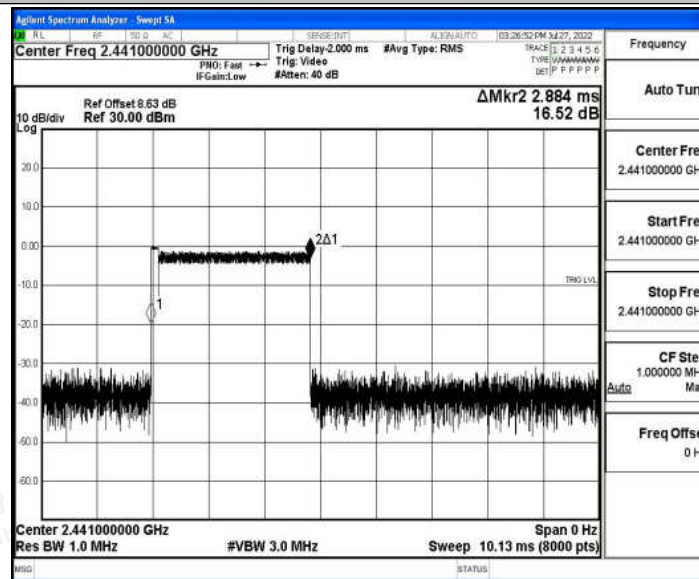


Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop





A.5 Number of hopping channels

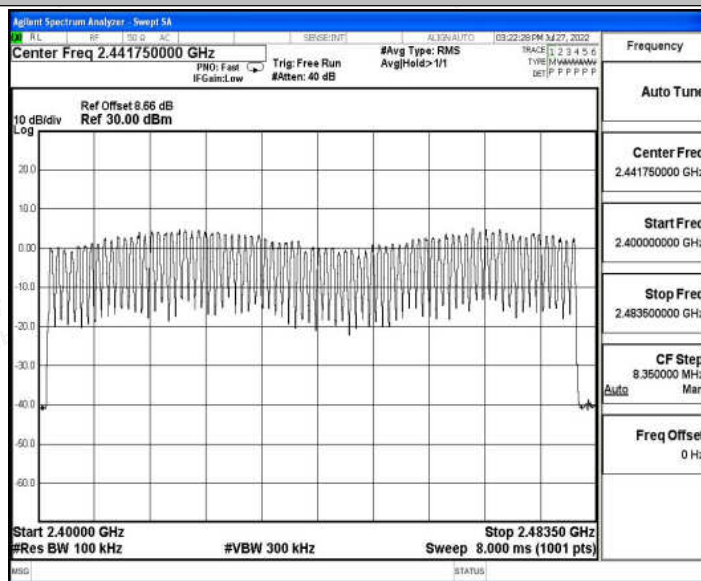
Test Result

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS

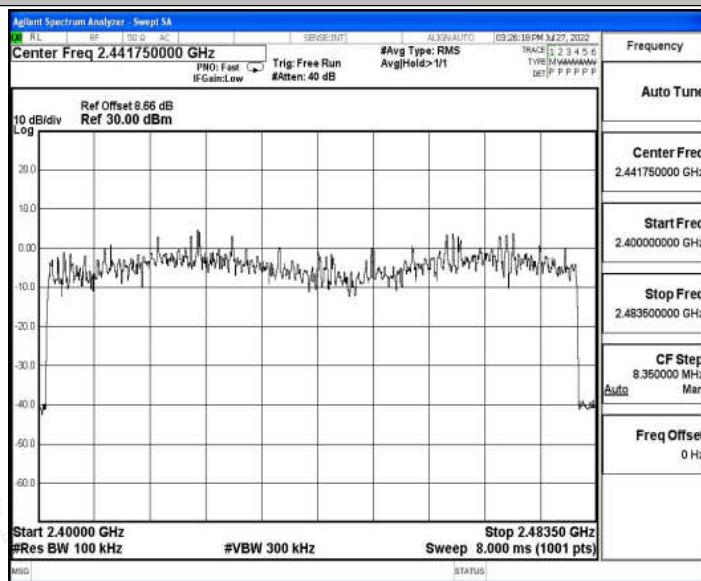


Test Graphs

DH5 Ant1 Hop



2DH5 Ant1 Hop





A.6 Band edge measurements

Test Result

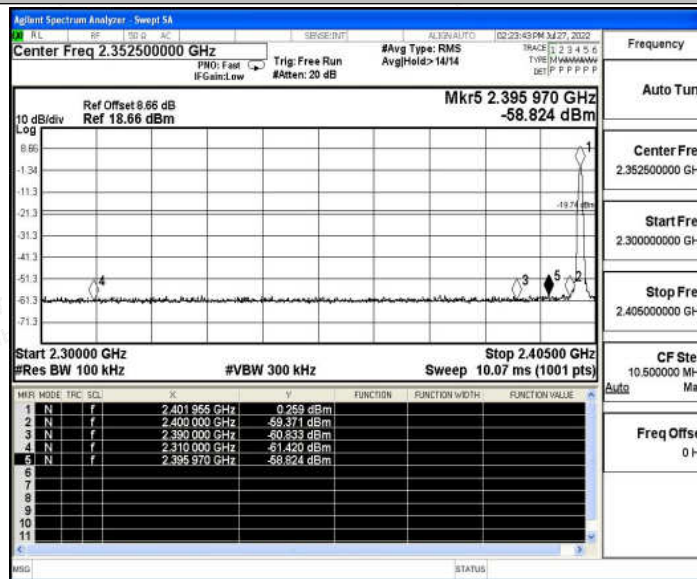
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.26	-58.82	≤-19.74	PASS
		High	2480	2.65	-58.27	≤-17.35	PASS
		Low	Hop_2402	-0.39	-58.14	≤-20.39	PASS
		High	Hop_2480	4.22	-57.59	≤-15.78	PASS
2DH5	Ant1	Low	2402	-1.90	-58.05	≤-21.9	PASS
		High	2480	1.80	-57.19	≤-18.2	PASS
		Low	Hop_2402	-5.13	-58.79	≤-25.13	PASS
		High	Hop_2480	1.83	-56.38	≤-18.17	PASS



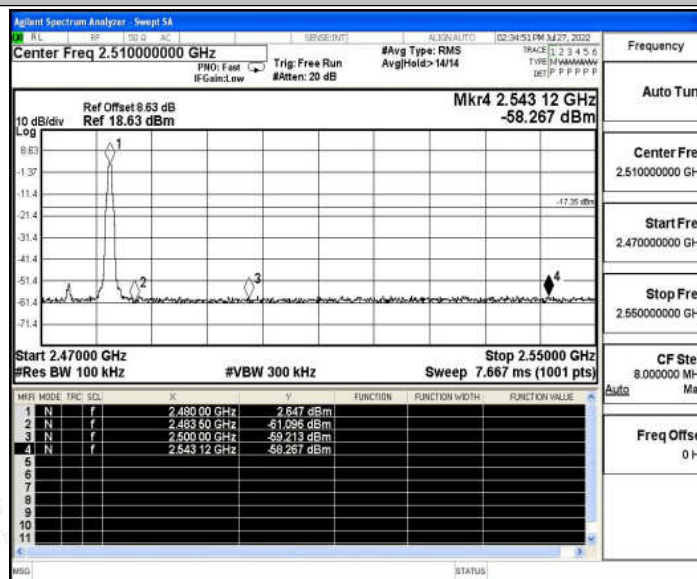


Test Graphs

DH5_Ant1_Low_2402



DH5_Ant1_High_2480



DH5_Ant1_Low_Hop_2402

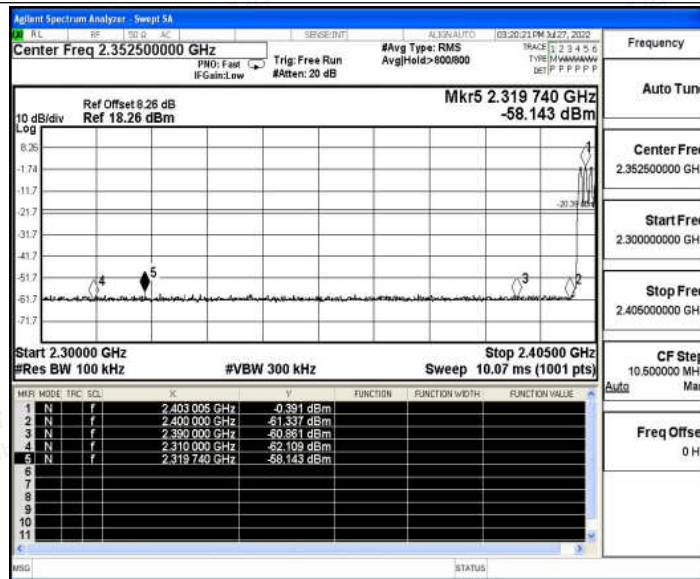


Shenzhen LCS Compliance Testing Laboratory Ltd.

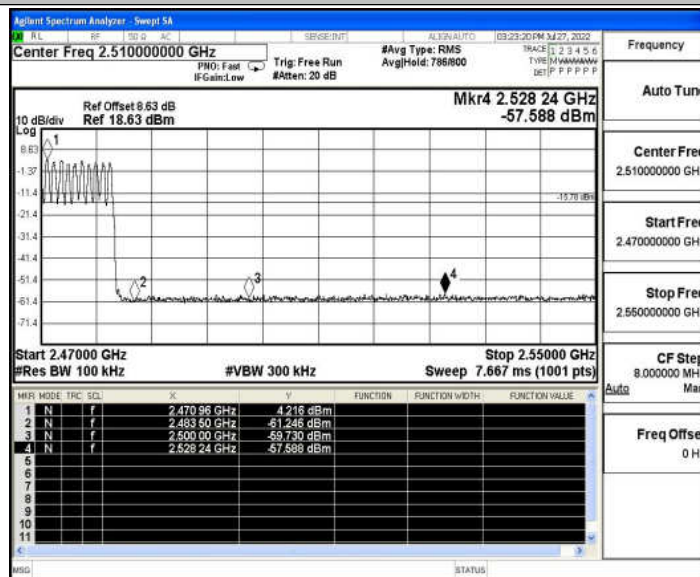
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

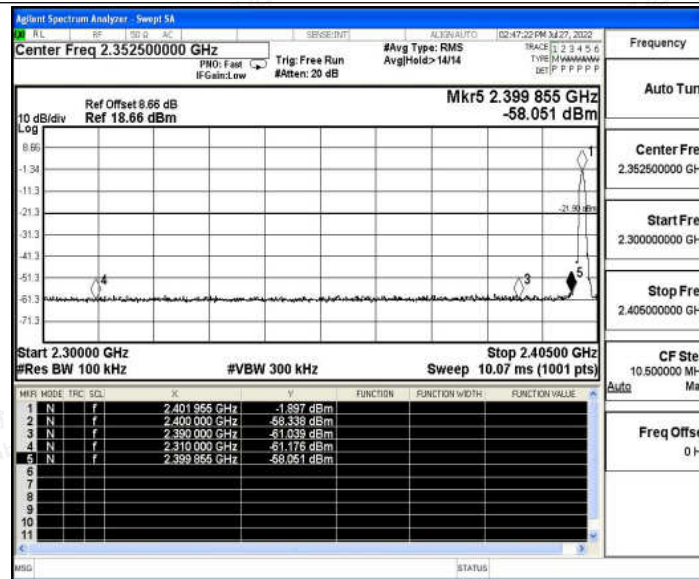


DH5_Ant1_High_Hop_2480

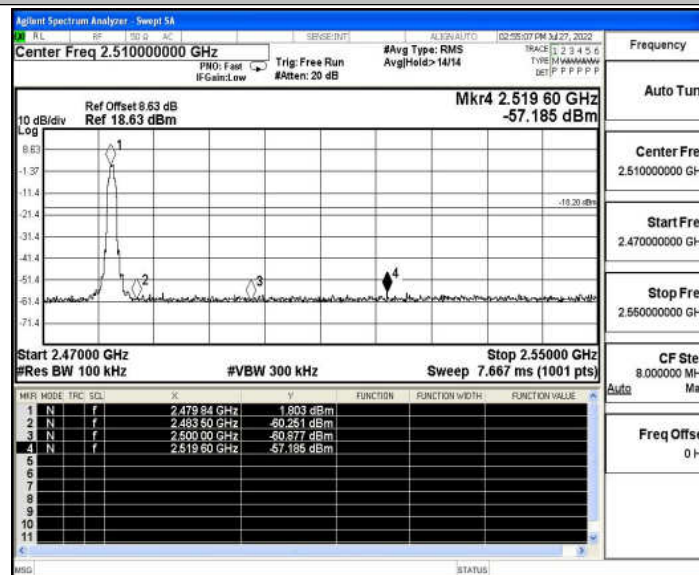


2DH5_Ant1_Low_2402



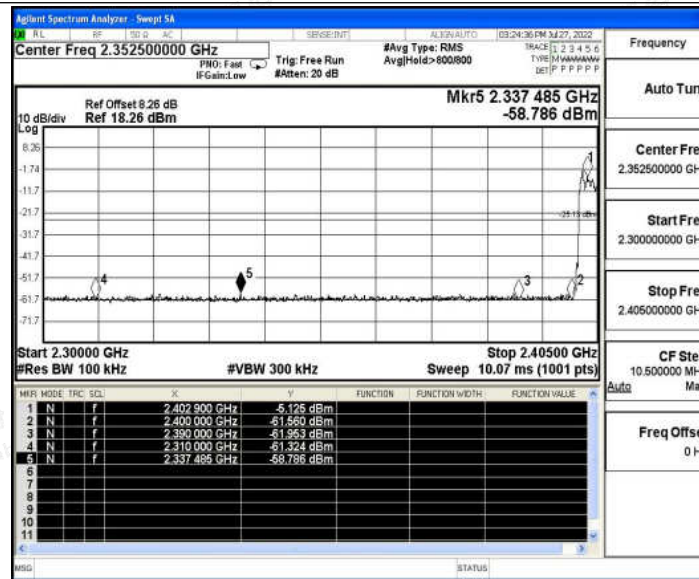


2DH5_Ant1_High_2480

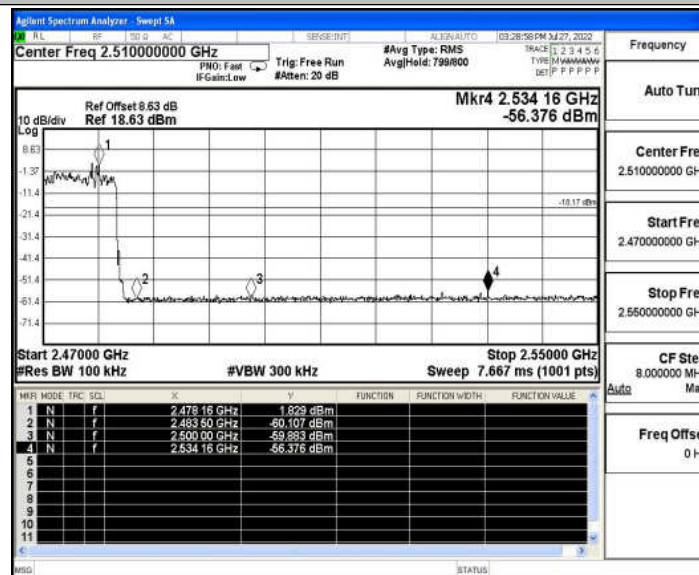


2DH5_Ant1_Low_Hop_2402





2DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

Test Result

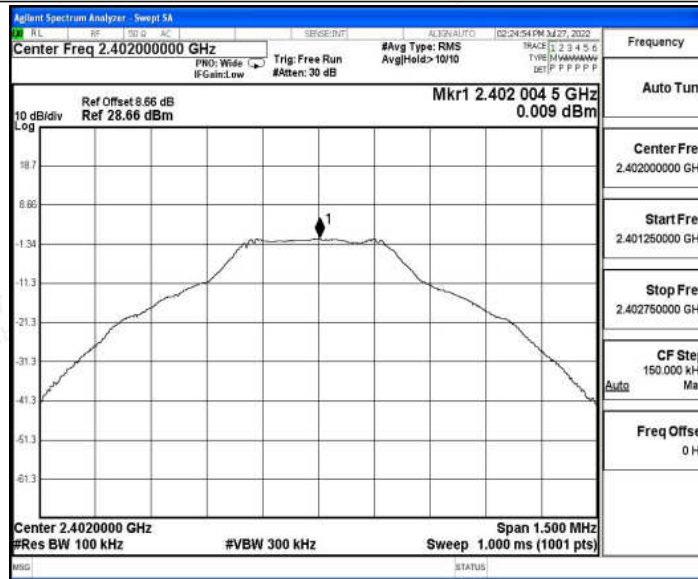
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.01	0.01	---	PASS
			30~1000	0.01	-44.53	≤-19.99	PASS
			1000~26500	0.01	-43.11	≤-19.99	PASS
		2441	Reference	0.07	0.07	---	PASS
			30~1000	0.07	-42.15	≤-19.93	PASS
			1000~26500	0.07	-46.35	≤-19.93	PASS
		2480	Reference	2.32	2.32	---	PASS
			30~1000	2.32	-41.9	≤-17.68	PASS
			1000~26500	2.32	-33.96	≤-17.68	PASS
2DH5	Ant1	2402	Reference	-0.76	-0.76	---	PASS
			30~1000	-0.76	-43.18	≤-20.76	PASS
			1000~26500	-0.76	-45.9	≤-20.76	PASS
		2441	Reference	-0.97	-0.97	---	PASS
			30~1000	-0.97	-43.99	≤-20.97	PASS
			1000~26500	-0.97	-45.7	≤-20.97	PASS
		2480	Reference	1.75	1.75	---	PASS
			30~1000	1.75	-44.15	≤-18.25	PASS
			1000~26500	1.75	-45.96	≤-18.25	PASS



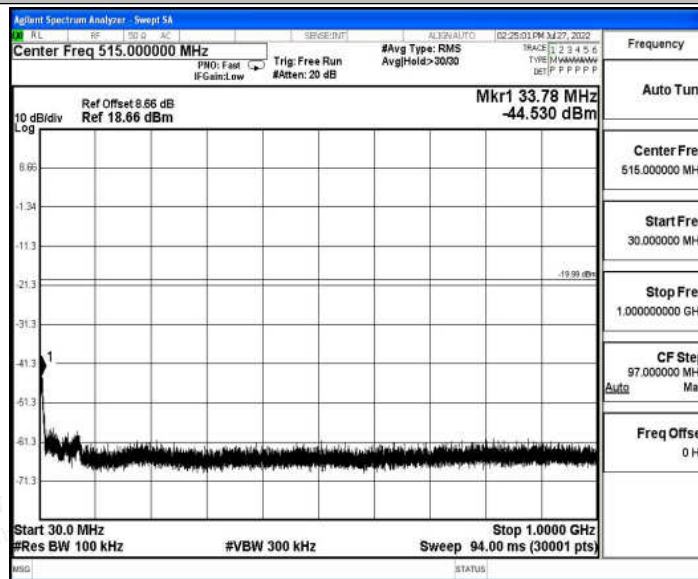


Test Graphs

DH5_Ant1_2402_0~Reference

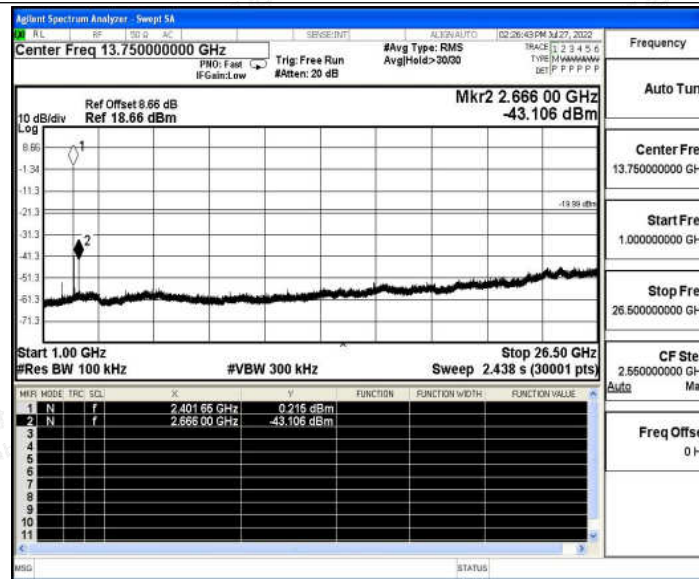


DH5_Ant1_2402_30~1000

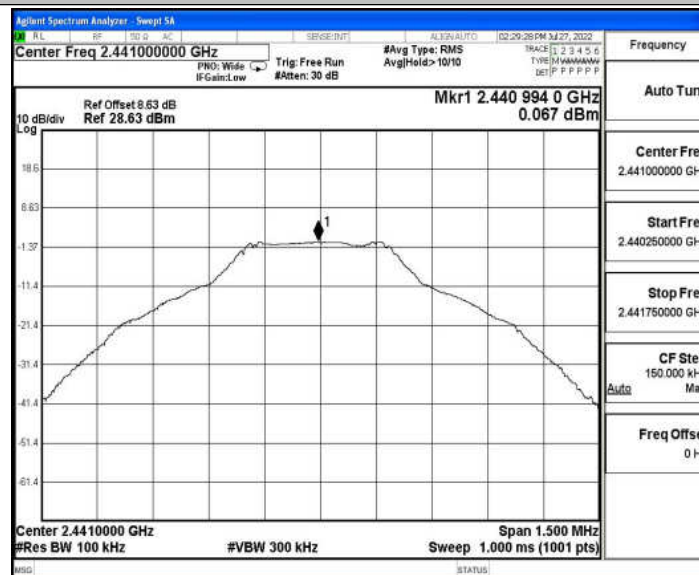


DH5_Ant1_2402_1000~26500



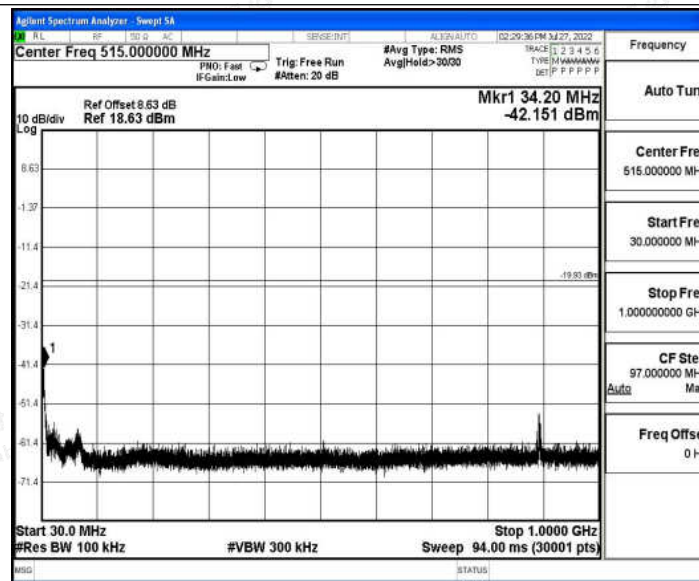


DH5_Ant1_2441_0~Reference

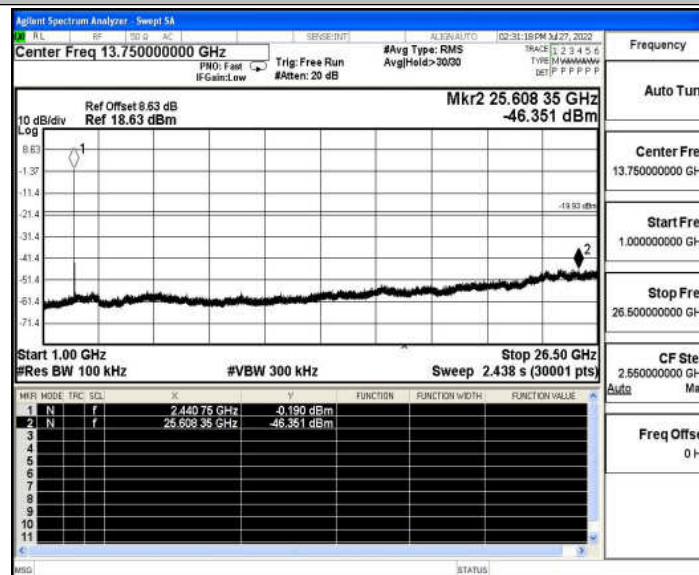


DH5_Ant1_2441_30~1000



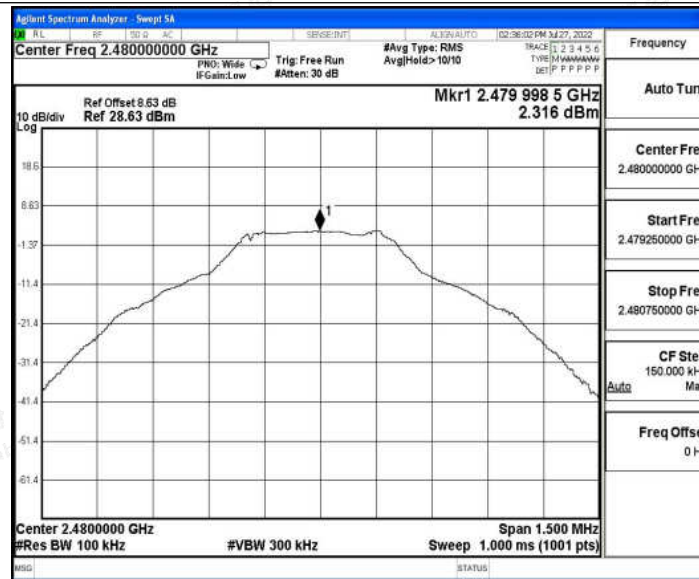


DH5_Ant1_2441_1000~26500

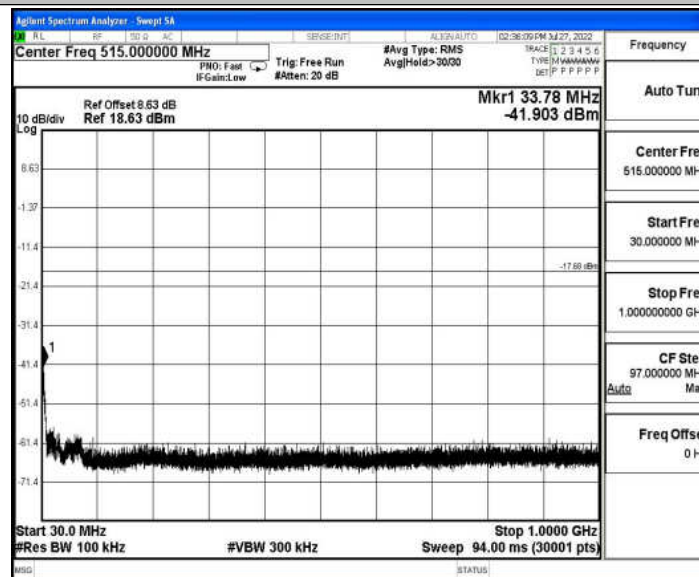


DH5_Ant1_2480_0~Reference



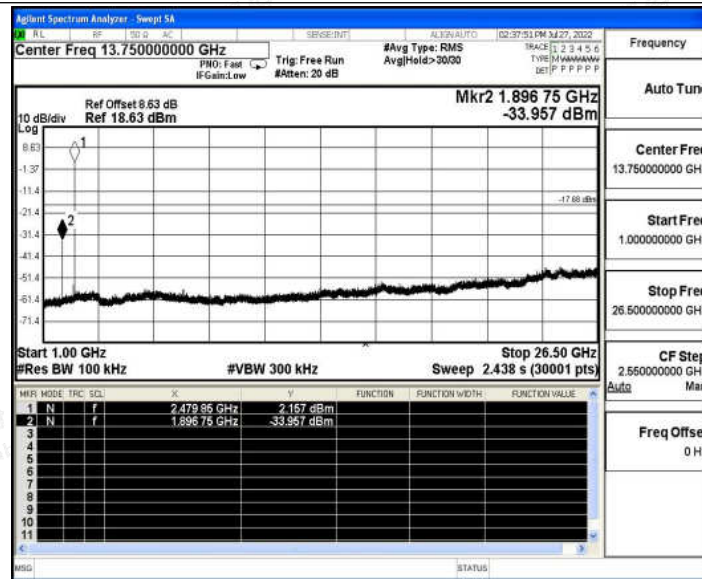


DH5_Ant1_2480_30~1000

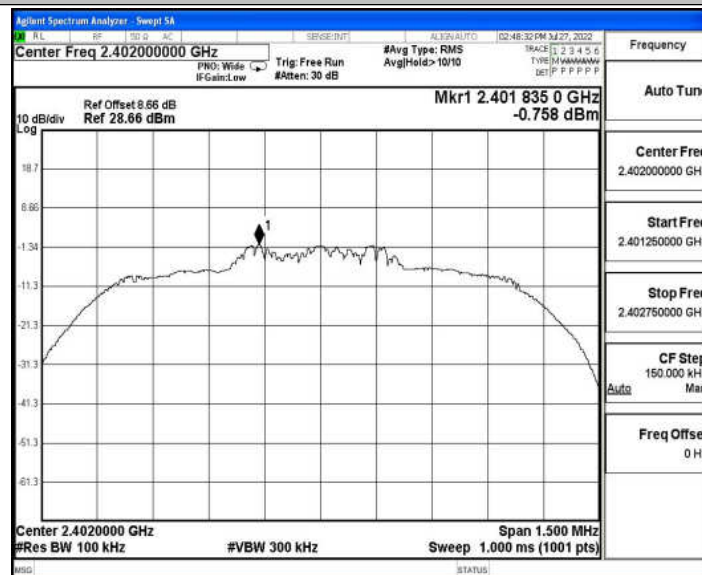


DH5_Ant1_2480_1000~26500



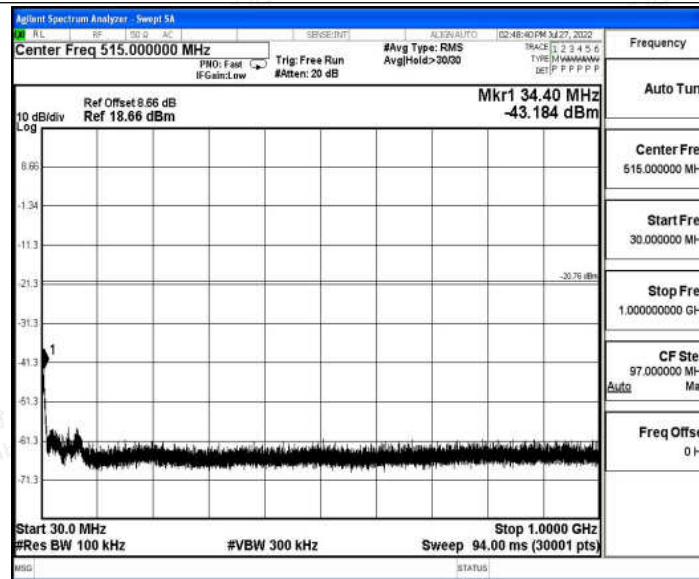


2DH5_Ant1_2402_0~Reference

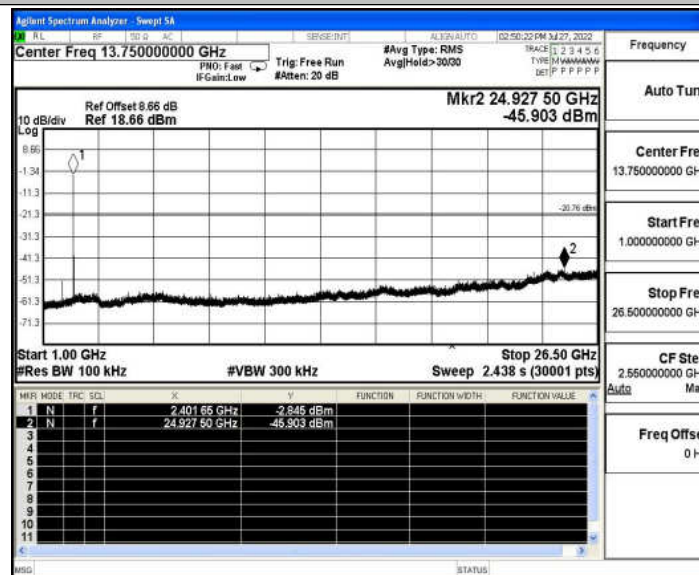


2DH5_Ant1_2402_30~1000



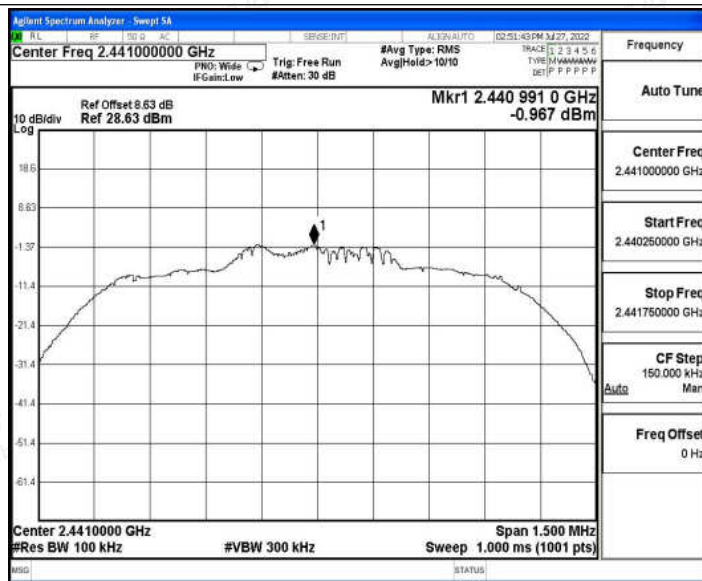


2DH5_Ant1_2402_1000~26500

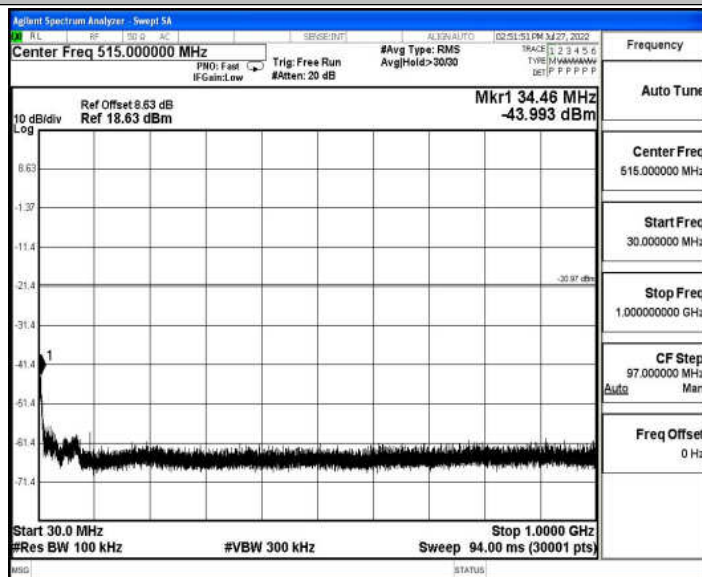


2DH5_Ant1_2441_0~Reference



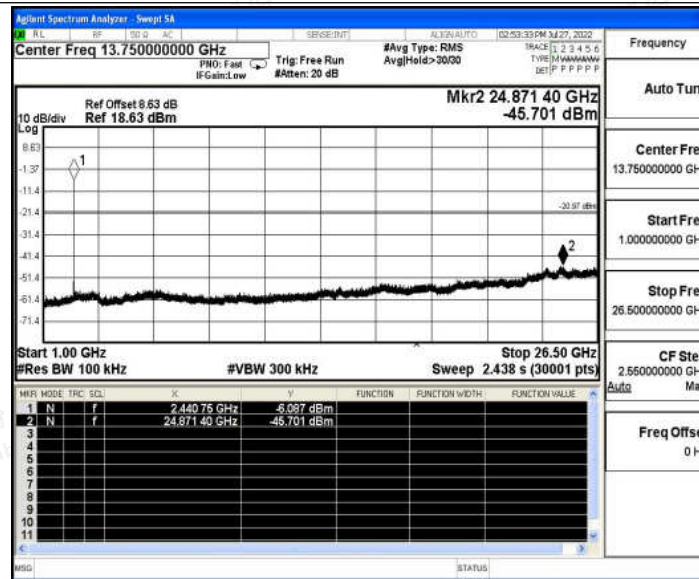


2DH5_Ant1_2441_30~1000

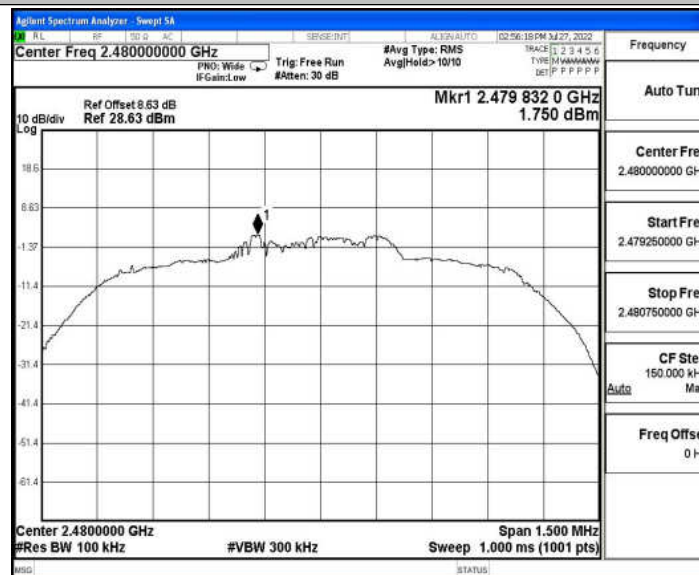


2DH5_Ant1_2441_1000~26500



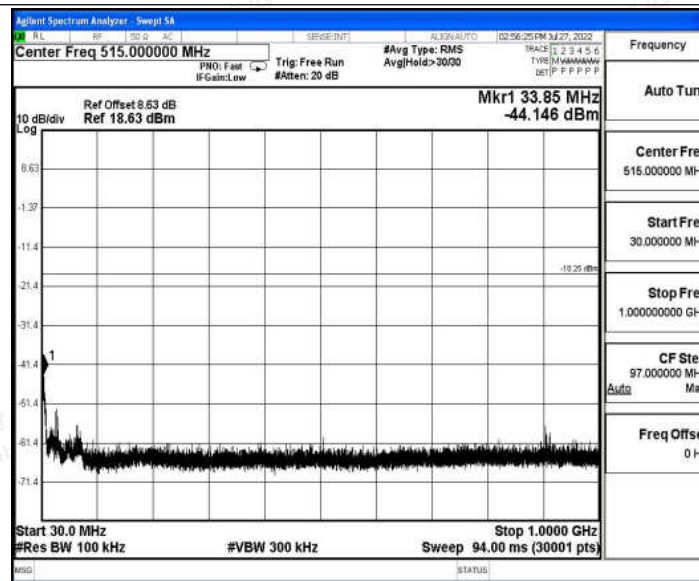


2DH5_Ant1_2480_0~Reference

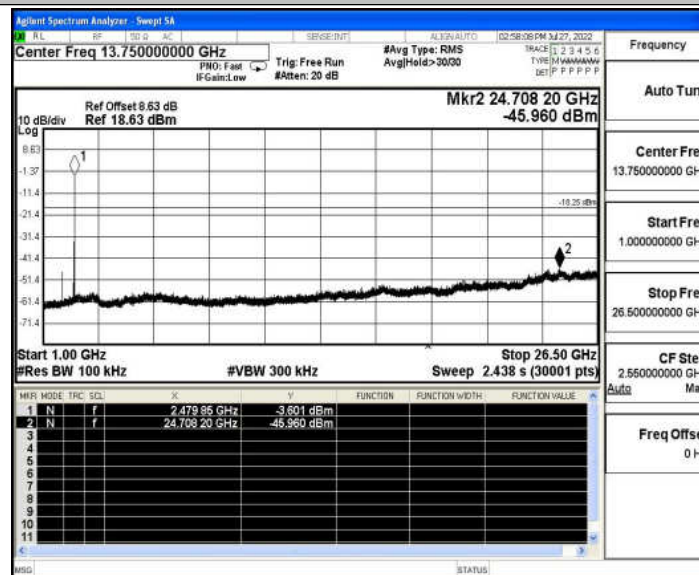


2DH5_Ant1_2480_30~1000





2DH5_Ant1_2480_1000~26500





A.8 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-58.06	≤-41.20	37.14	≤54	PASS
				AV	2389.355	-57.52	≤-41.20	37.68	≤54	PASS
				AV	2390.000	-57.6	≤-41.20	37.60	≤54	PASS
				Peak	2310.000	-48.71	≤-21.20	46.49	≤74	PASS
				Peak	2340.740	-46.47	≤-21.20	48.73	≤74	PASS
				Peak	2390.000	-46.89	≤-21.20	48.31	≤74	PASS
		High	2480	AV	2483.500	-55.2	≤-41.20	40.00	≤54	PASS
				AV	2483.520	-55.2	≤-41.20	40.00	≤54	PASS
				AV	2500.000	-57.07	≤-41.20	38.13	≤54	PASS
				Peak	2483.500	-47.37	≤-21.20	47.83	≤74	PASS
				Peak	2485.040	-45.43	≤-21.20	49.77	≤74	PASS
				Peak	2500.000	-47.42	≤-21.20	47.78	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-58.07	≤-41.20	37.13	≤54	PASS
				AV	2388.515	-57.4	≤-41.20	37.80	≤54	PASS
				AV	2390.000	-57.63	≤-41.20	37.57	≤54	PASS
				Peak	2310.000	-48.61	≤-21.20	46.59	≤74	PASS
				Peak	2372.975	-46.42	≤-21.20	48.78	≤74	PASS
				Peak	2390.000	-48.24	≤-21.20	46.96	≤74	PASS
		High	2480	AV	2483.500	-54.61	≤-41.20	40.59	≤54	PASS
				AV	2483.520	-54.61	≤-41.20	40.59	≤54	PASS
				AV	2500.000	-57.15	≤-41.20	38.05	≤54	PASS
				Peak	2483.500	-46.58	≤-21.20	48.62	≤74	PASS
				Peak	2484.880	-45.89	≤-21.20	49.31	≤74	PASS
				Peak	2500.000	-47.61	≤-21.20	47.59	≤74	PASS

Note:

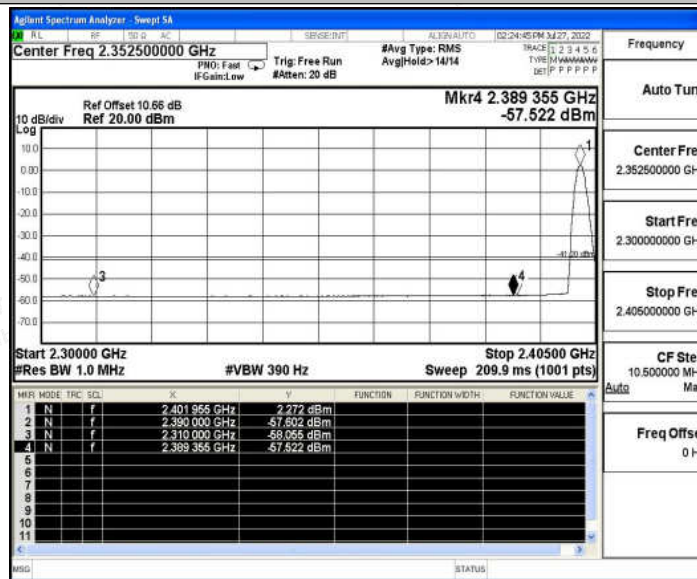
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



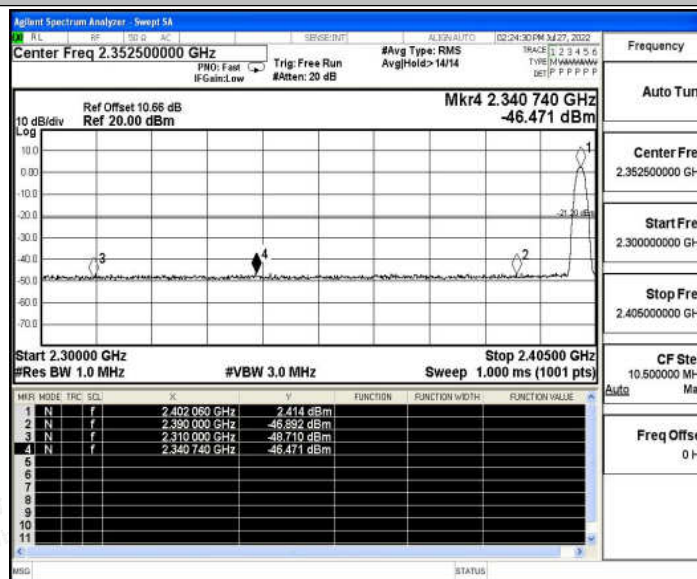


Test Graphs

DH5_Ant1_Low_2402_AV



DH5_Ant1_Low_2402_Peak



DH5_Ant1_High_2480_AV

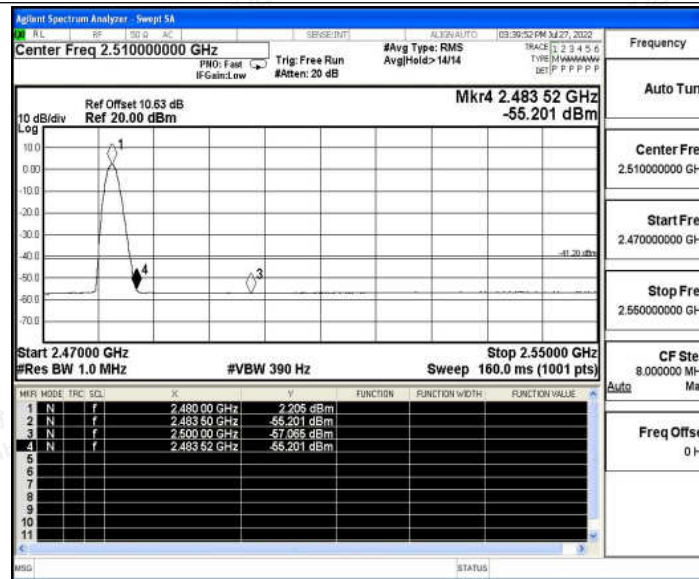


Shenzhen LCS Compliance Testing Laboratory Ltd.

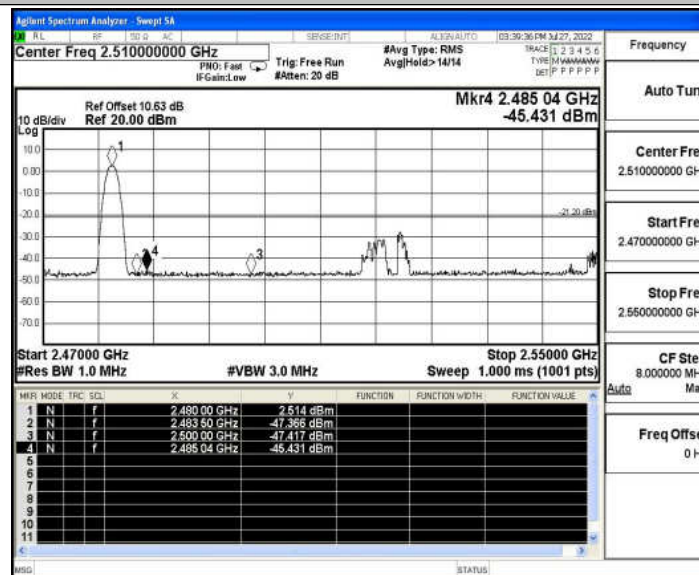
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



DH5_Ant1_High_2480_Peak



2DH5_Ant1_Low_2402_AV

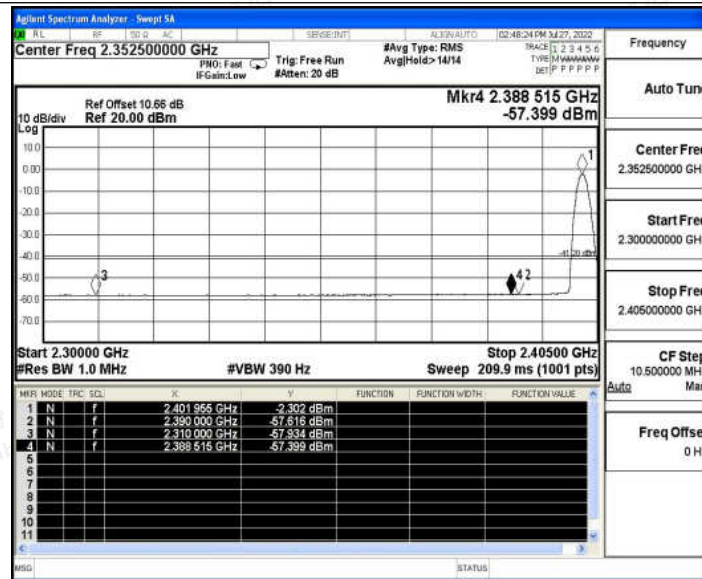


Shenzhen LCS Compliance Testing Laboratory Ltd.

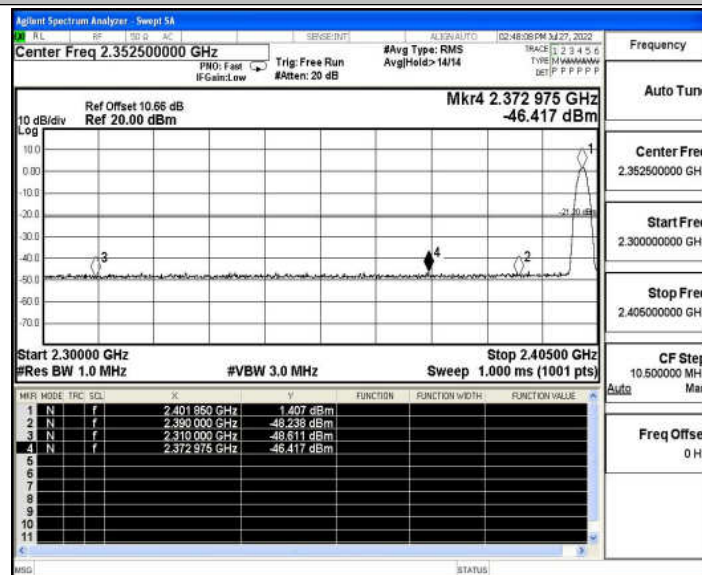
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

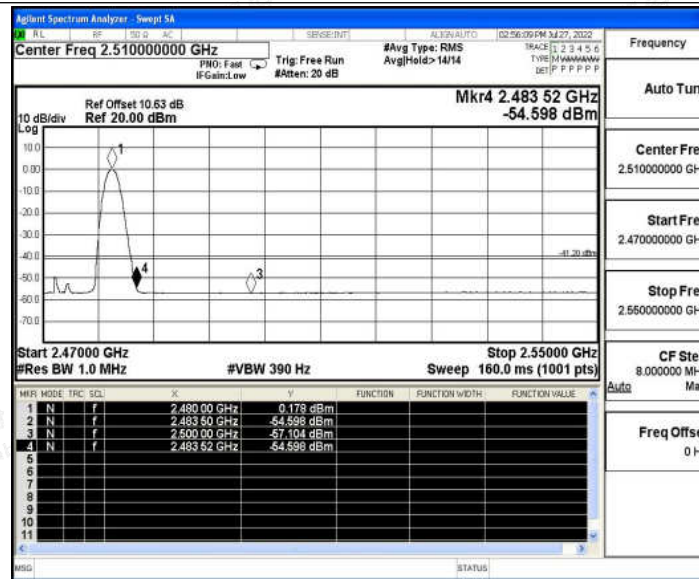


2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV





2DH5_Ant1_High_2480_Peak

