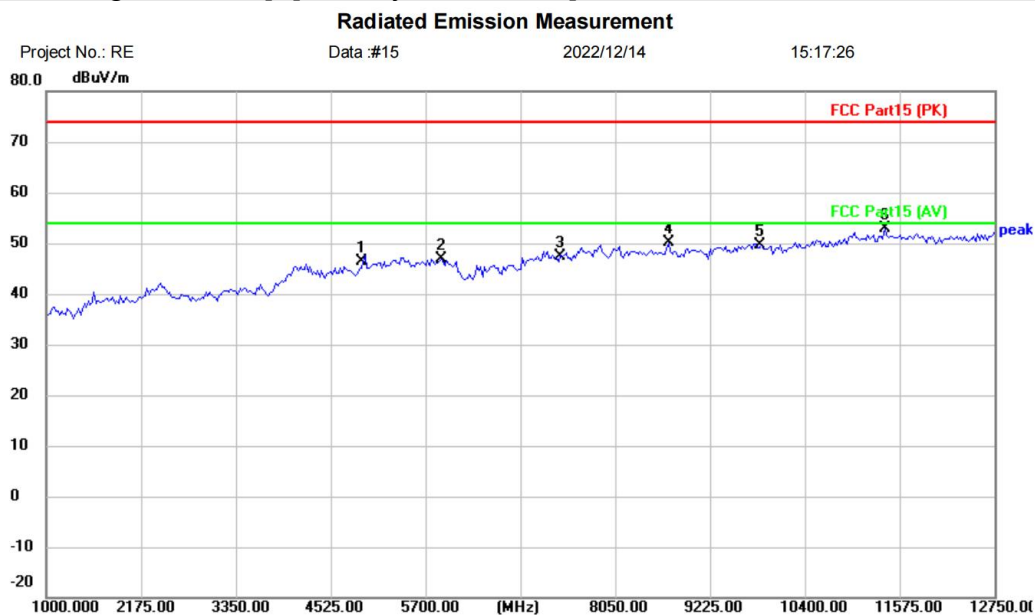


[TestMode: TX high channel]; [Polarity: Horizontal]



Site: Karaoke Microphone
Limit: FCC Part15 (PK)
EUT: Karaoke Microphone
M/N: KRMC120
Mode: TX-H
Note:

Polarization: **Horizontal** Temperature: (C)
Power: Humidity: %RH

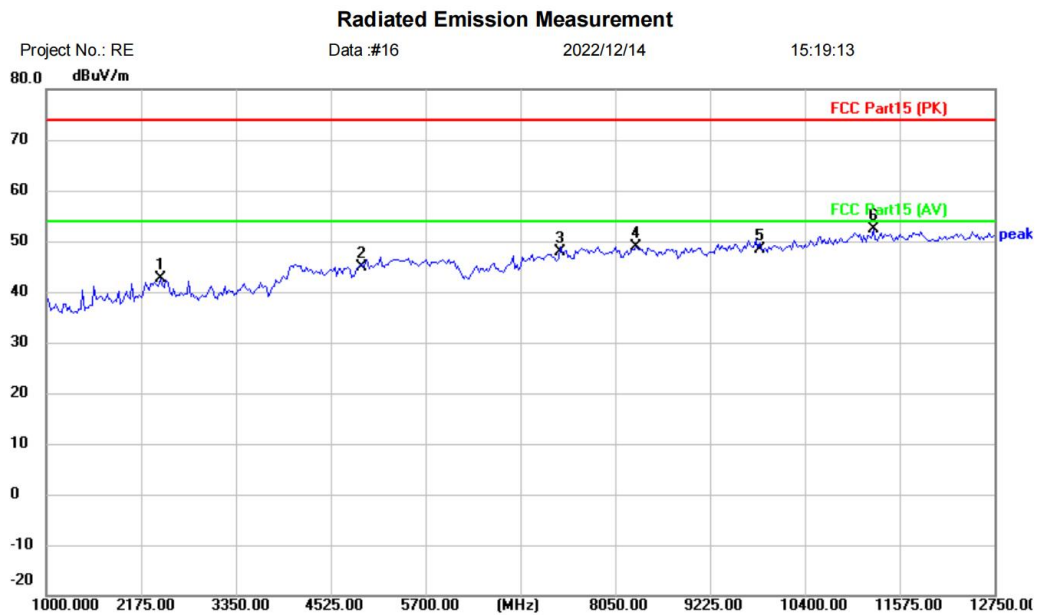
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.000	41.58	4.82	46.40	74.00	-27.60	peak	
2		5888.000	40.08	6.82	46.90	74.00	-27.10	peak	
3		7386.000	39.01	8.36	47.37	74.00	-26.63	peak	
4		8708.000	40.95	9.22	50.17	74.00	-23.83	peak	
5		9848.000	38.08	11.52	49.60	74.00	-24.40	peak	
6	*	11387.000	39.15	13.63	52.78	74.00	-21.22	peak	

*:Maximum data x:Over limit !:over margin

⟨Reference Only

Test Result: Pass

[TestMode: TX high channel]; [Polarity: Vertical]



Site: Karaoke Microphone
Limit: FCC Part15 (PK)
EUT: Karaoke Microphone
M/N: KRMC120
Mode: TX-H
Note:

Polarization: **Vertical**
Power:

Temperature: (C)
Humidity: %RH

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2410.000	43.89	-1.26	42.63	74.00	-31.37	peak	
2		4924.000	40.14	4.82	44.96	74.00	-29.04	peak	
3		7386.000	39.44	8.36	47.80	74.00	-26.20	peak	
4		8308.500	39.75	9.04	48.79	74.00	-25.21	peak	
5		9848.000	36.77	11.52	48.29	74.00	-25.71	peak	
6	*	11246.000	38.78	13.56	52.34	74.00	-21.66	peak	

*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

16 RADIATED EMISSIONS WHICH FALL IN THE RESTRICTED BANDS

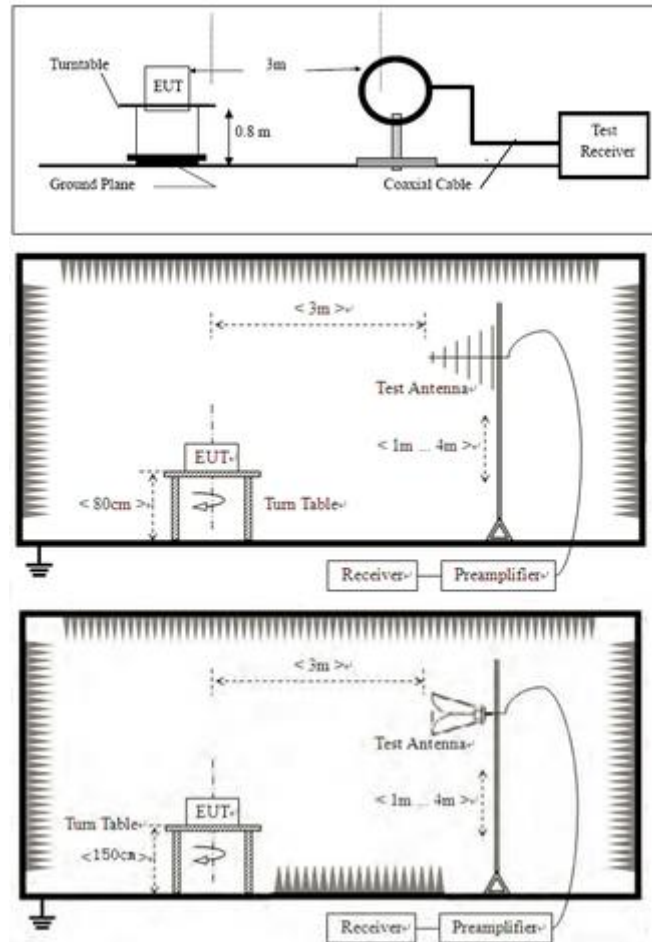
Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 6.10.5
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Jozu
Temperature	25℃
Humidity	60%

16.1 LIMITS

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

16.2 BLOCK DIAGRAM OF TEST SETUP



16.3 PROCEDURE

- For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

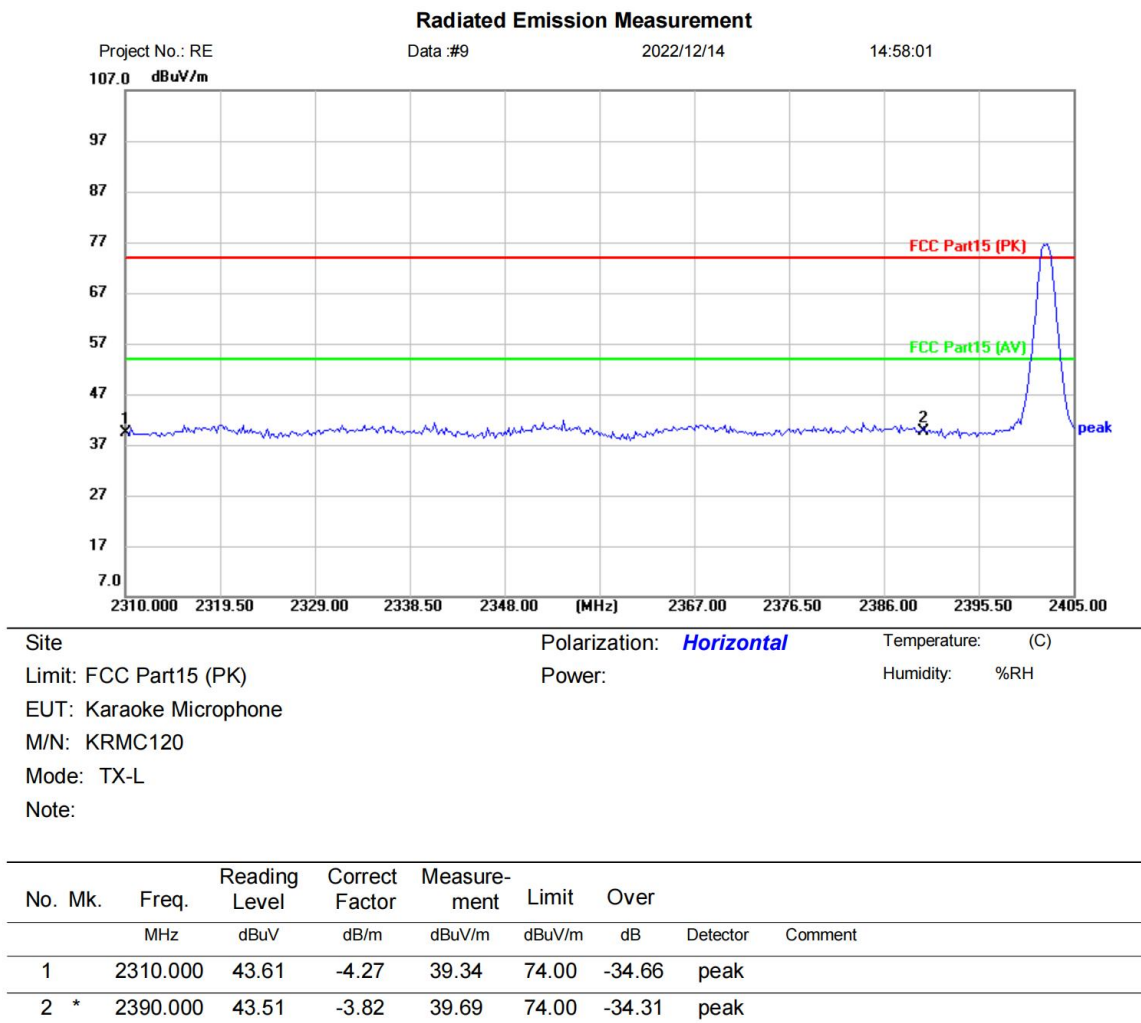
Remark 1: $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$

Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

BlueAsia

16.4 TEST DATA

[TestMode: TX low channel]; [Polarity: Horizontal]

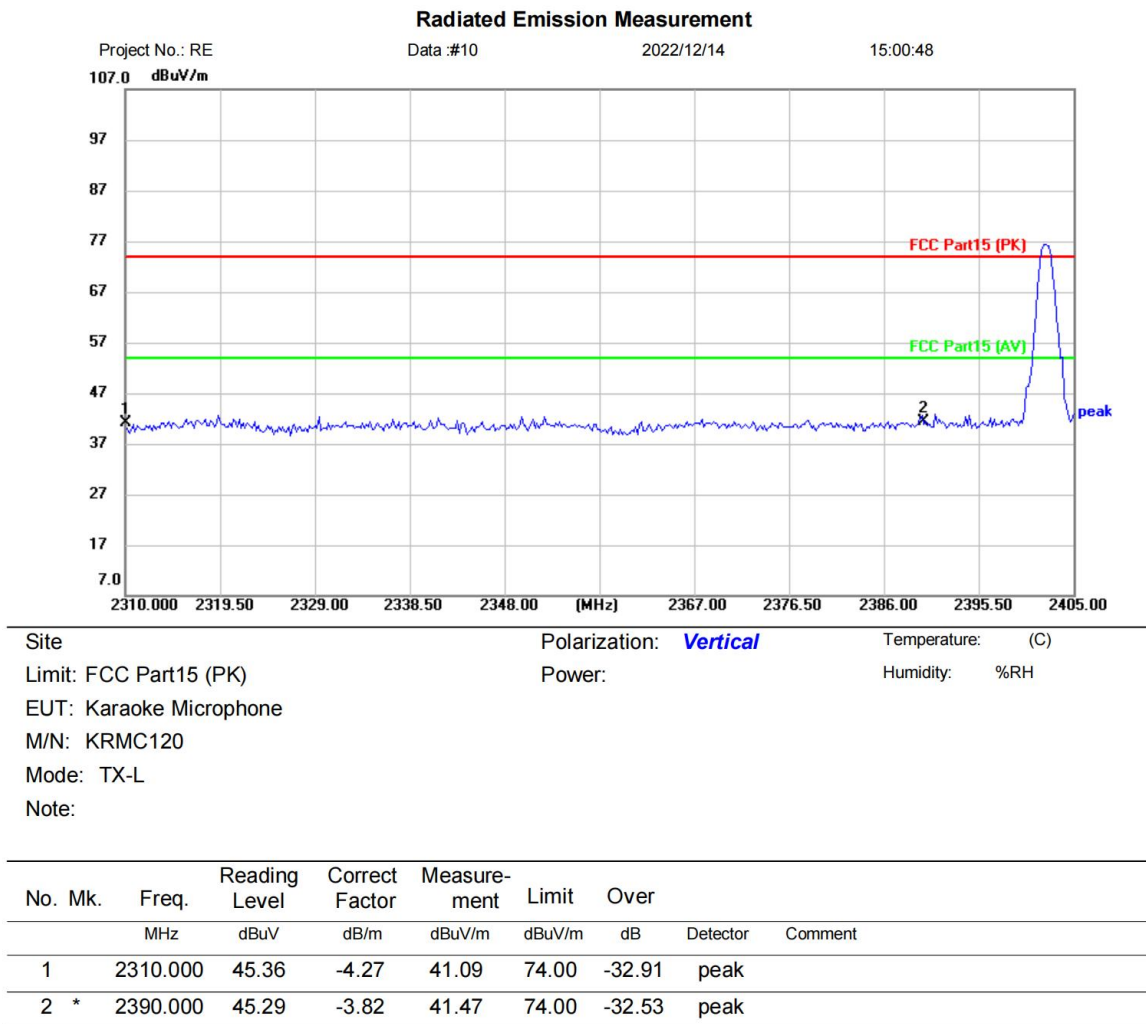


*:Maximum data x:Over limit !:over margin

⟨Reference Only

Test Result: Pass

[TestMode: TX low channel]; [Polarity: Vertical]

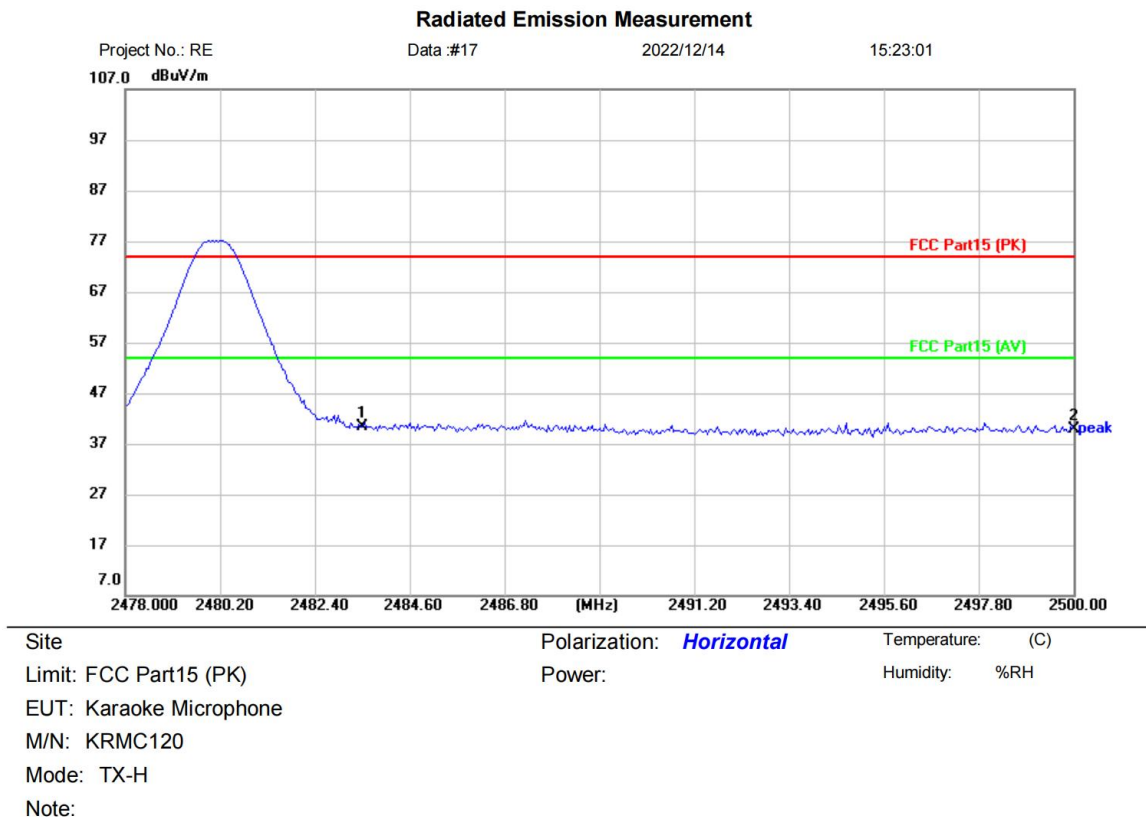


*:Maximum data x:Over limit !:over margin

⟨Reference Only

Test Result: Pass

[TestMode: TX high channel]; [Polarity: Horizontal]



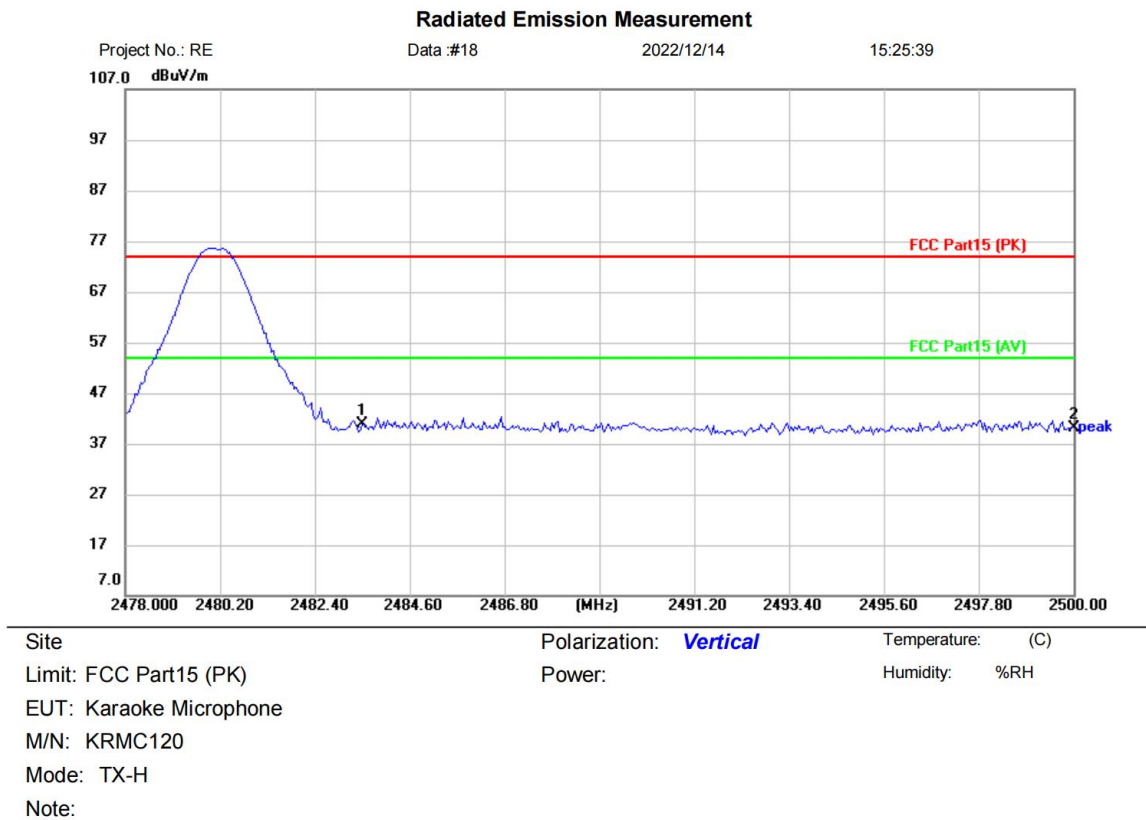
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2483.500	44.23	-3.96	40.27	74.00	-33.73	peak	
2		2500.000	43.77	-4.00	39.77	74.00	-34.23	peak	

*:Maximum data x:Over limit !:over margin

⟨Reference Only

Test Result: Pass

[TestMode: TX high channel]; [Polarity: Vertical]



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2483.500	44.82	-3.96	40.86	74.00	-33.14	peak	
2		2500.000	44.20	-4.00	40.20	74.00	-33.80	peak	

*:Maximum data x:Over limit !:over margin

⟨Reference Only

Test Result: Pass

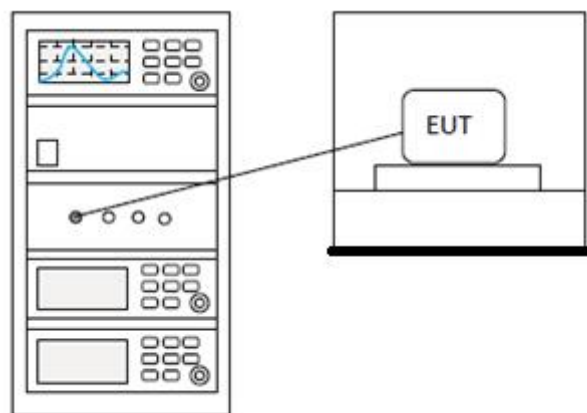
17 CONDUCTED BAND EDGES MEASUREMENT

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.8 & Section 11.13.3.2
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Jozu
Temperature	25°C
Humidity	60%

17.1 LIMITS

Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).
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17.2 BLOCK DIAGRAM OF TEST SETUP



17.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

BlueAsia

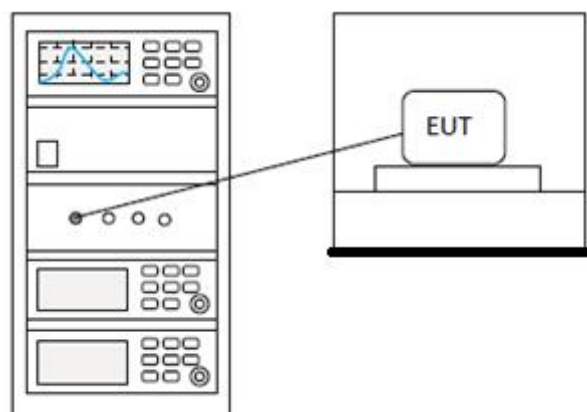
18 DWELL TIME

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.4
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Jozu
Temperature	25℃
Humidity	60%

18.1 LIMITS

Frequency(MHz)	Limit
902-928	0.4S within a 20S period(20dB bandwidth<250kHz)
	0.4S within a 10S period(20dB bandwidth≥250kHz)
2400-2483.5	0.4S within a period of 0.4S multiplied by the number of hopping channels
5725-5850	0.4S within a 30S period

18.2 BLOCK DIAGRAM OF TEST SETUP



18.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

BlueAsia

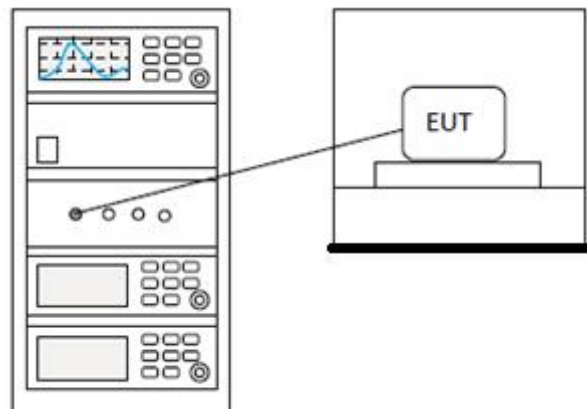
19 HOPPING CHANNEL NUMBER

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.3
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Jozu
Temperature	25℃
Humidity	60%

19.1 LIMITS

Frequency range(MHz)	Number of hopping channels (minimum)
902-928	50 for 20dB bandwidth <250kHz
	25 for 20dB bandwidth ≥250kHz
2400-2483.5	15
5725-5850	75

19.2 BLOCK DIAGRAM OF TEST SETUP



19.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

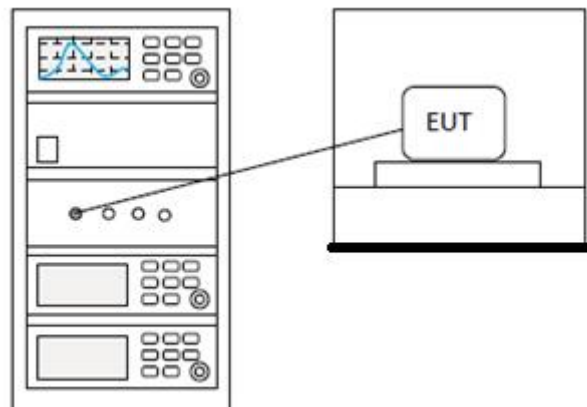
20 CARRIER FREQUENCIES SEPARATION

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.2
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Jozu
Temperature	25°C
Humidity	60%

20.1 LIMITS

Limit:	2/3 of the 20dB bandwidth base on the transmission power is less than 0.125W
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20.2 BLOCK DIAGRAM OF TEST SETUP



20.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details
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21 APPENDIX

Appendix1

21.1 APPENDIX A: 20DB EMISSION BANDWIDTH

Test Result

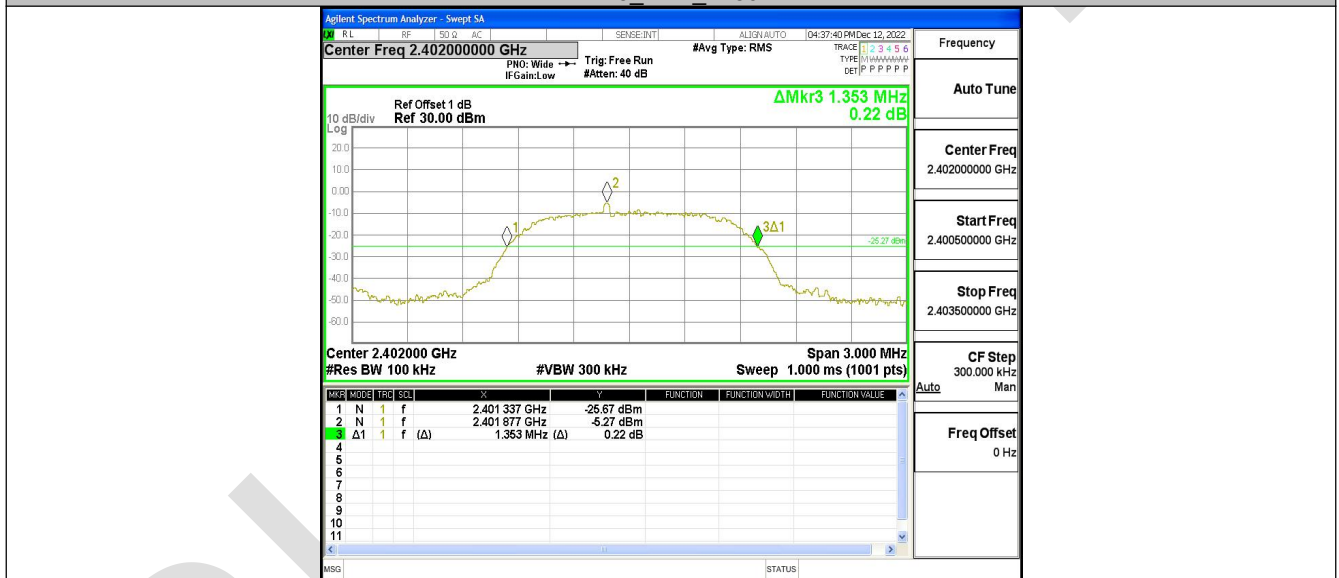
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.092	2401.469	2402.561	---	PASS
		2441	1.113	2440.469	2441.582	---	PASS
		2480	1.092	2479.493	2480.585	---	PASS
2DH5	Ant1	2402	1.353	2401.337	2402.690	---	PASS
		2441	1.353	2440.355	2441.708	---	PASS
		2480	1.407	2479.319	2480.726	---	PASS
3DH5	Ant1	2402	1.347	2401.364	2402.711	---	PASS
		2441	1.389	2440.334	2441.723	---	PASS
		2480	1.368	2479.349	2480.717	---	PASS

Test Graphs

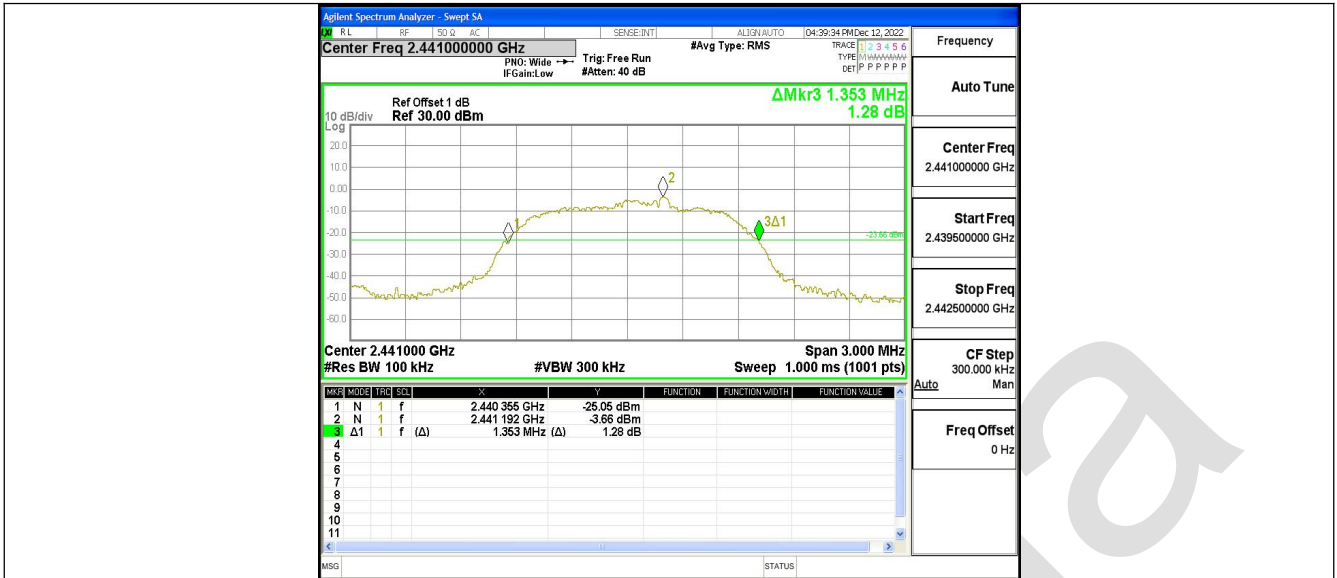




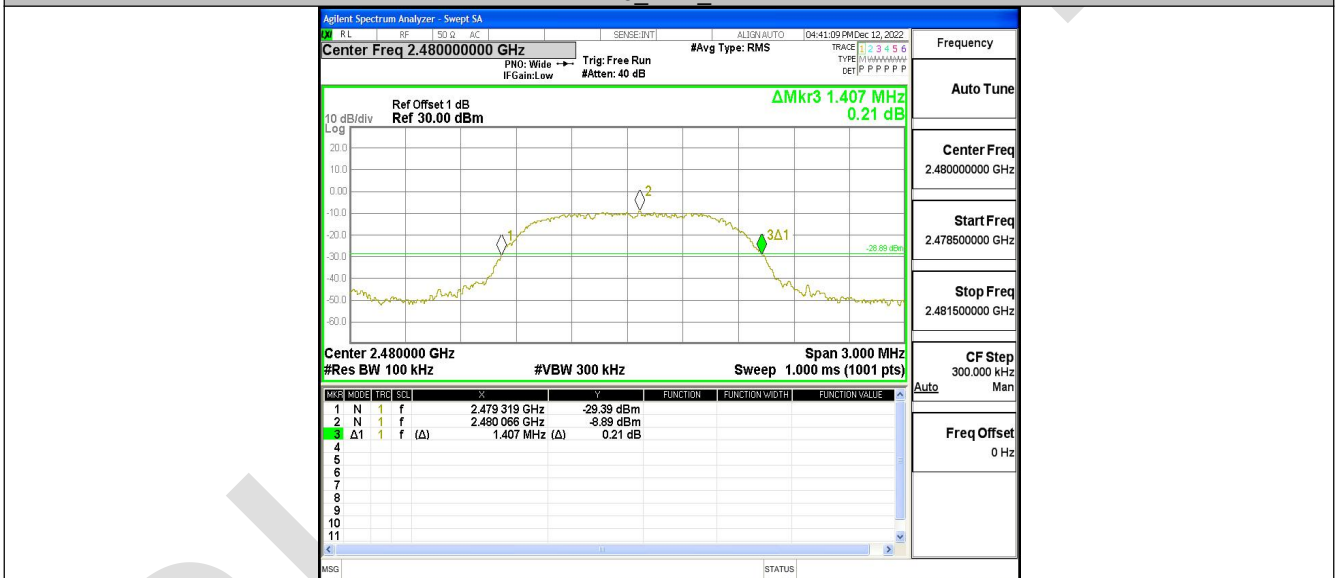
DH5_Ant1_2480



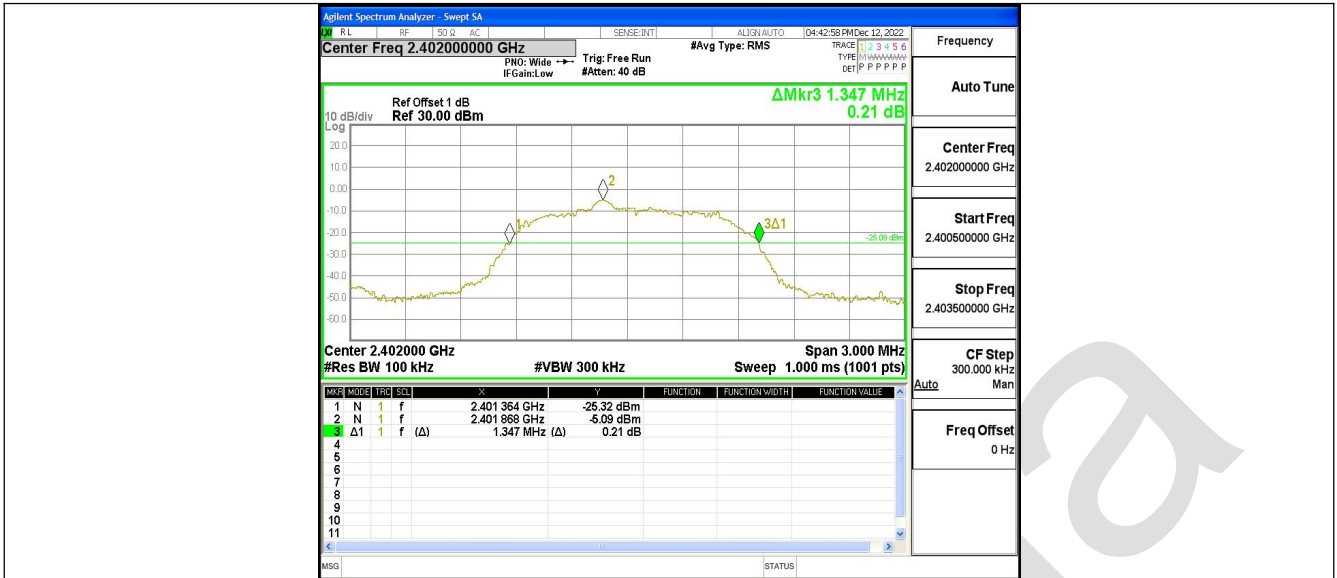
2DH5_Ant1_2402



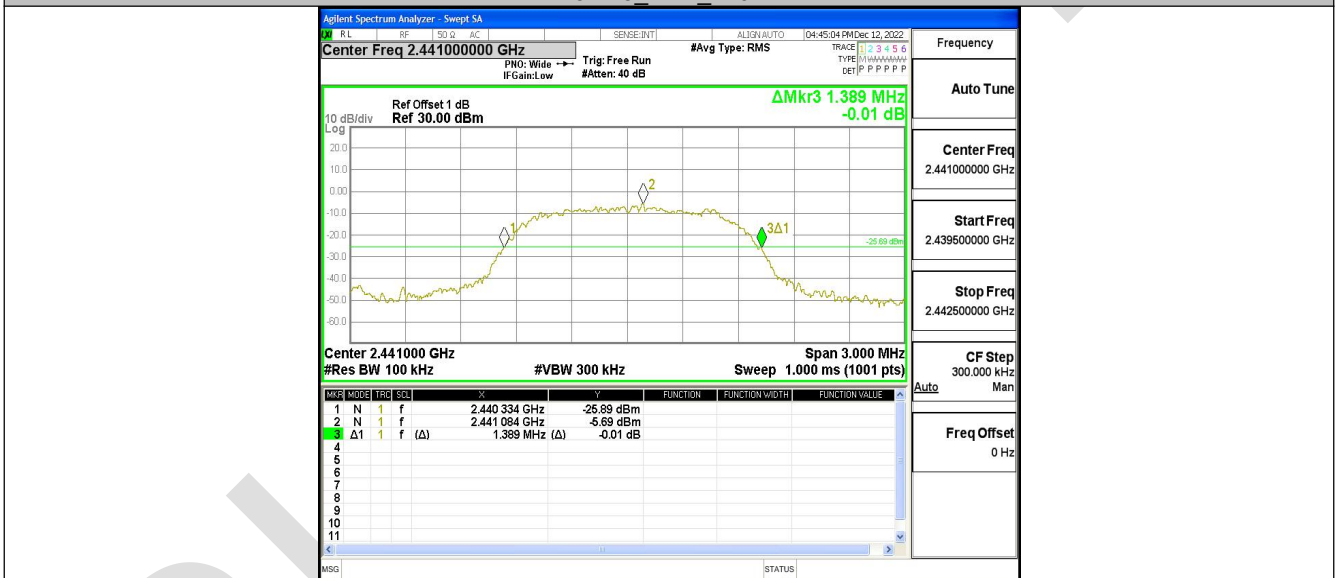
2DH5 Ant1_2441



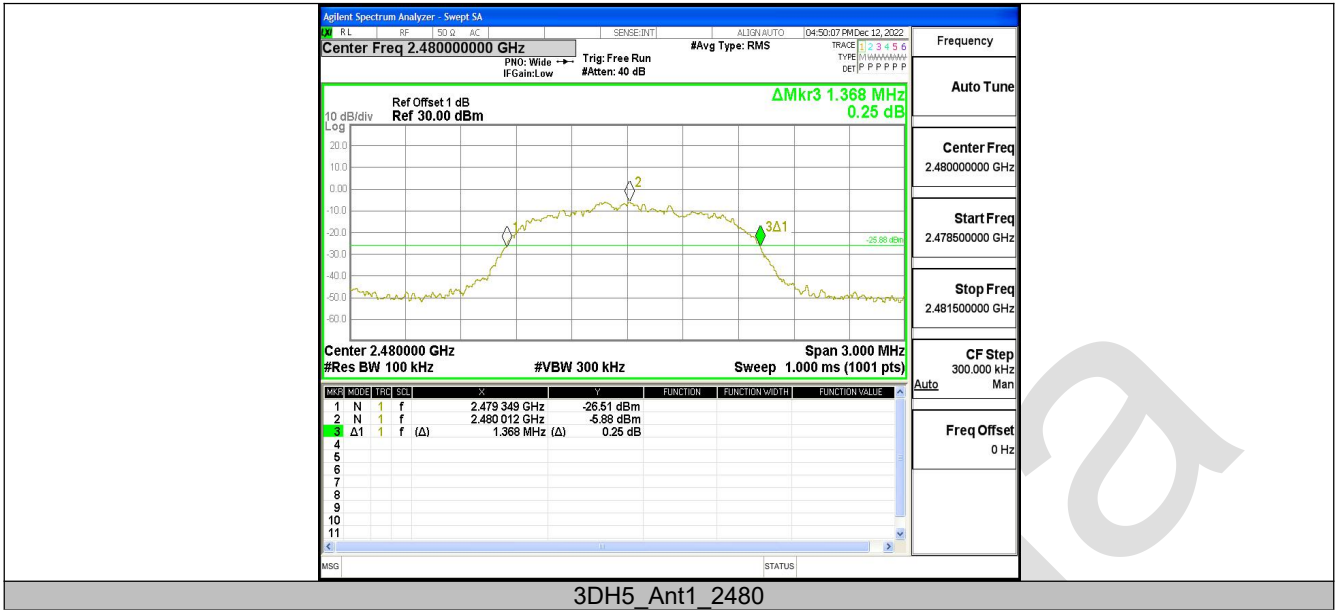
2DH5 Ant1_2480



3DH5 Ant1_2402



3DH5 Ant1_2441

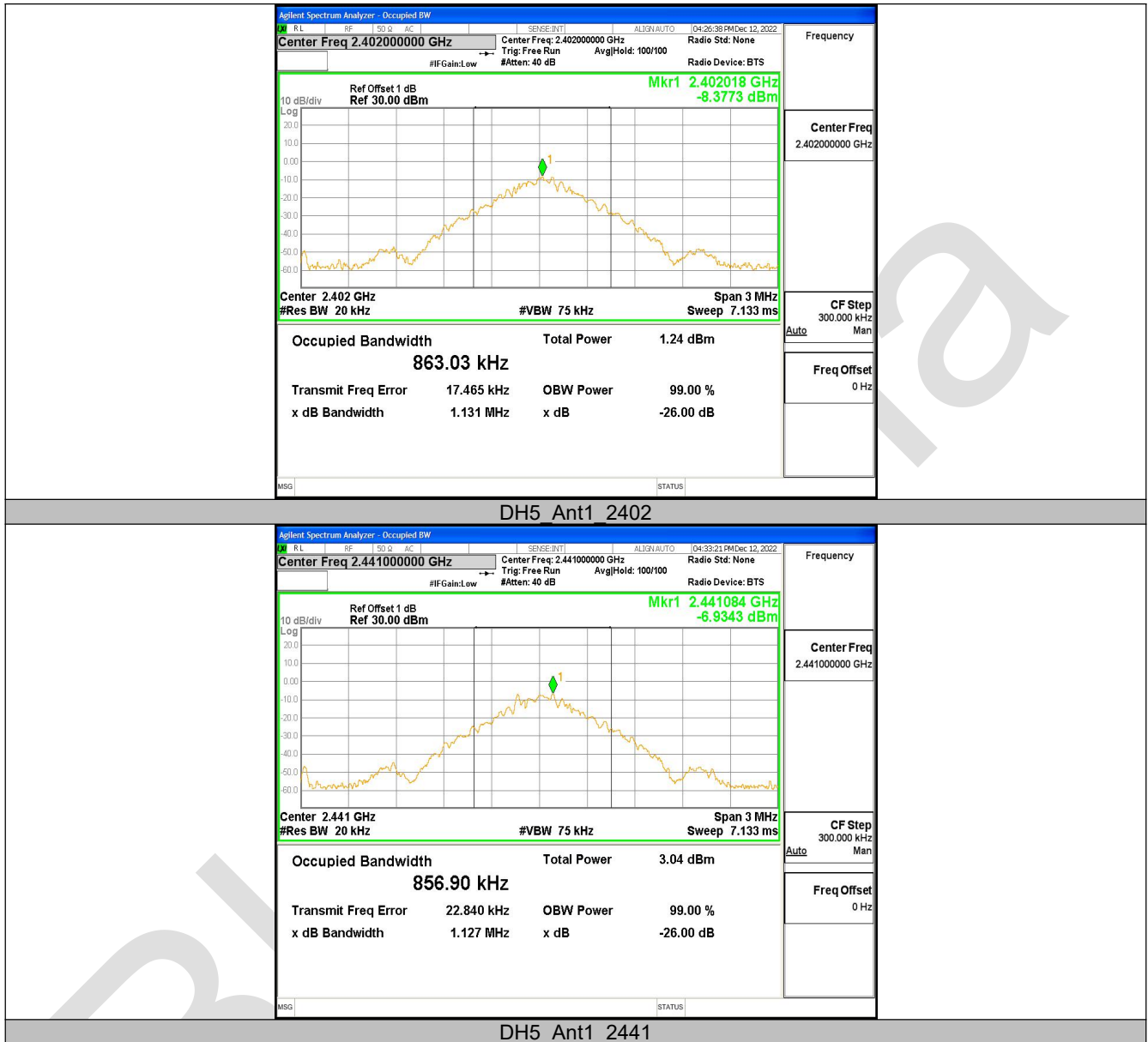


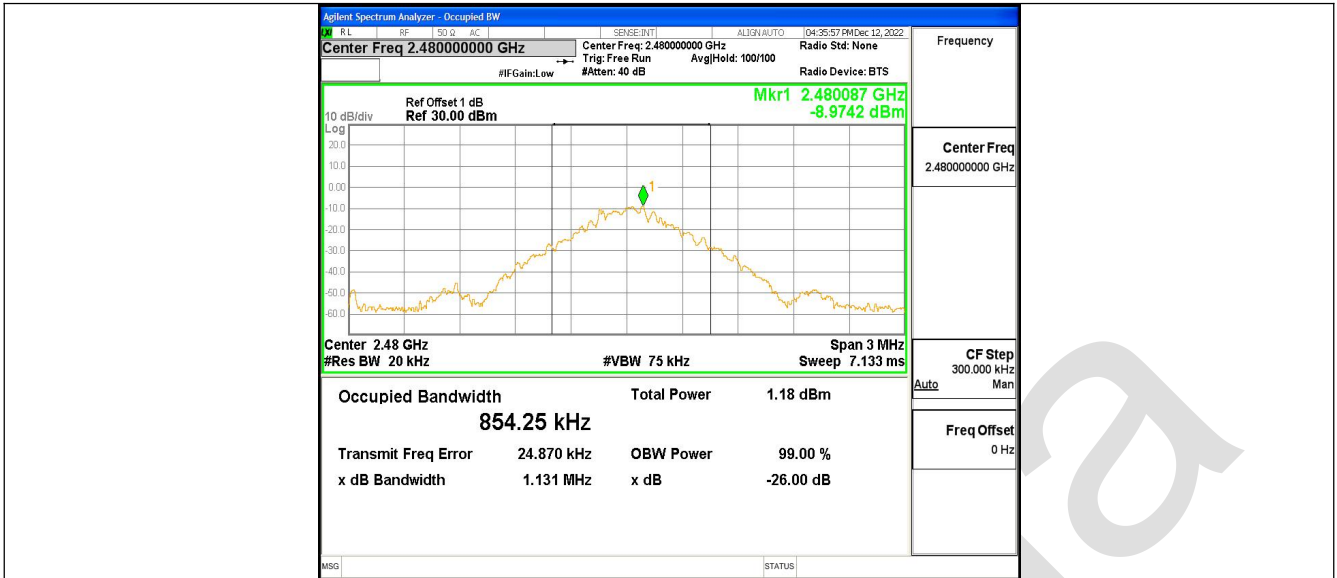
21.2 APPENDIX B: OCCUPIED CHANNEL BANDWIDTH

Test Result

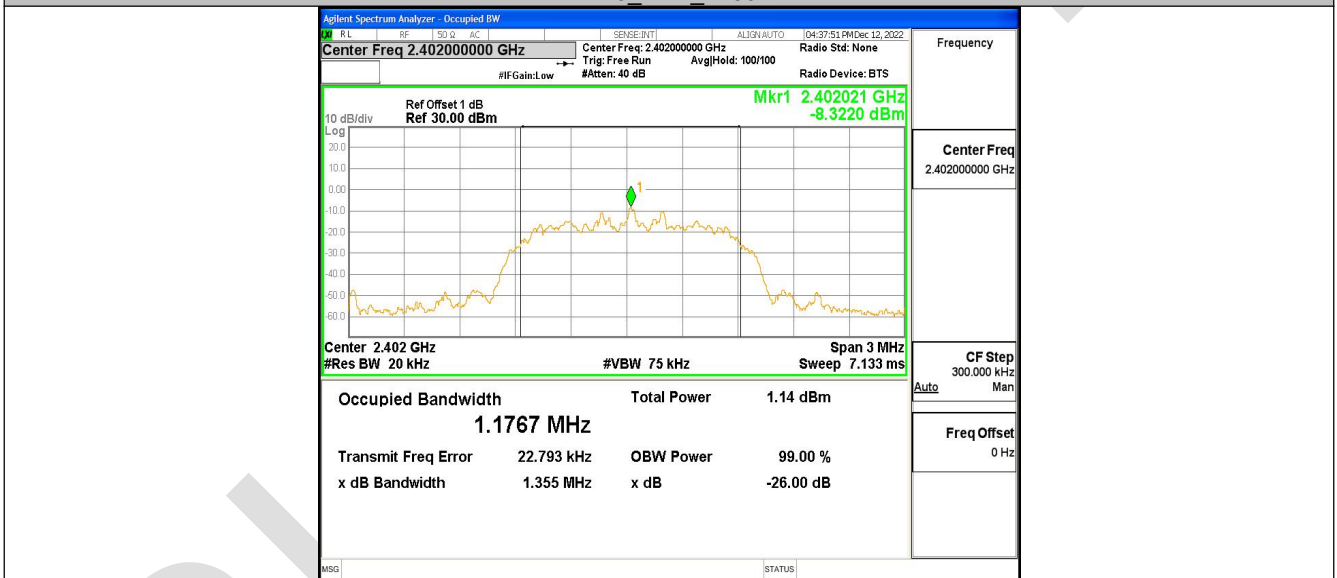
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86303	2401.586	2402.449	---	PASS
		2441	0.85690	2440.594	2441.451	---	PASS
		2480	0.85425	2479.598	2480.452	---	PASS
2DH5	Ant1	2402	1.1767	2401.434	2402.611	---	PASS
		2441	1.1940	2440.429	2441.623	---	PASS
		2480	1.1792	2479.438	2480.617	---	PASS
3DH5	Ant1	2402	1.1795	2401.432	2402.611	---	PASS
		2441	1.2032	2440.417	2441.620	---	PASS
		2480	1.1819	2479.431	2480.613	---	PASS

Test Graphs





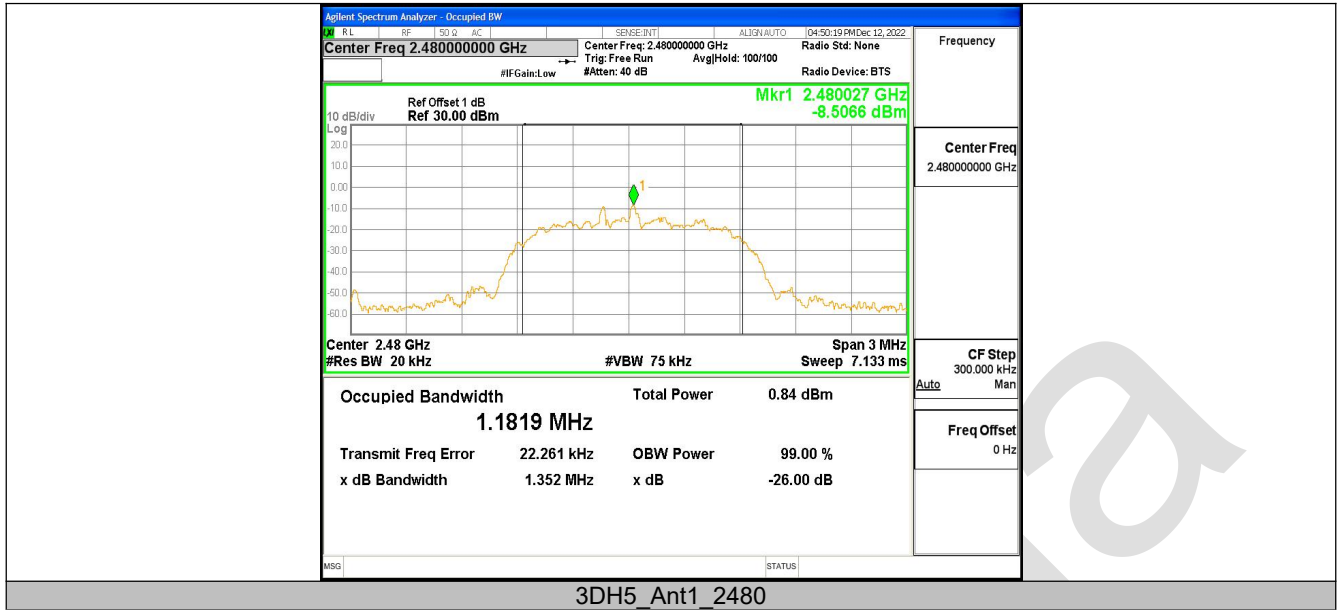
DH5_Ant1_2480



2DH5_Ant1_2402





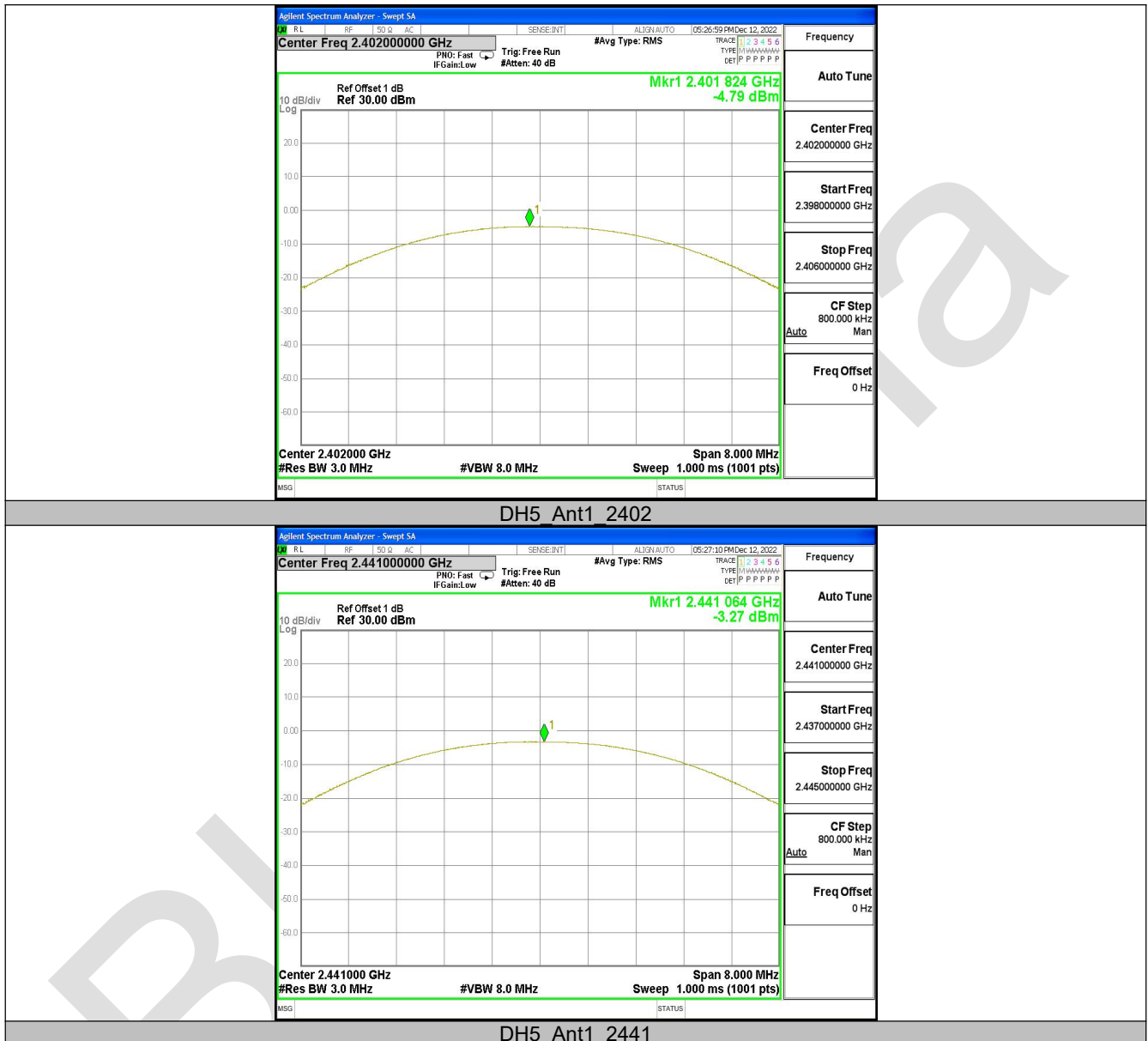


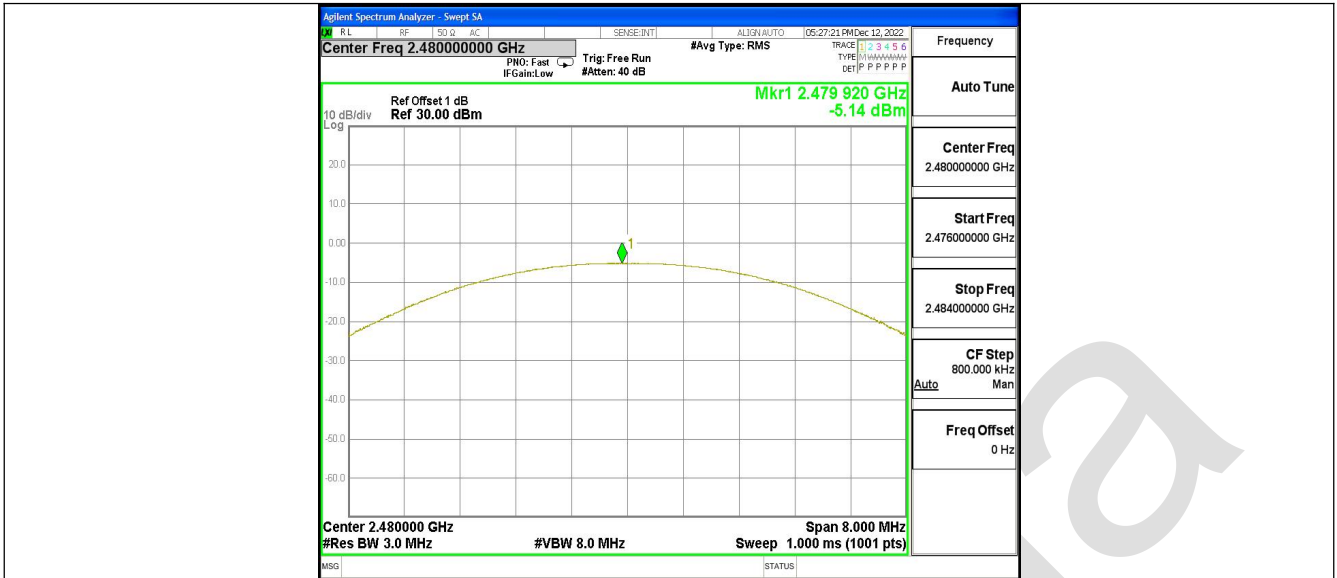
21.3 APPENDIX C: MAXIMUM CONDUCTED OUTPUT POWER

Test Result

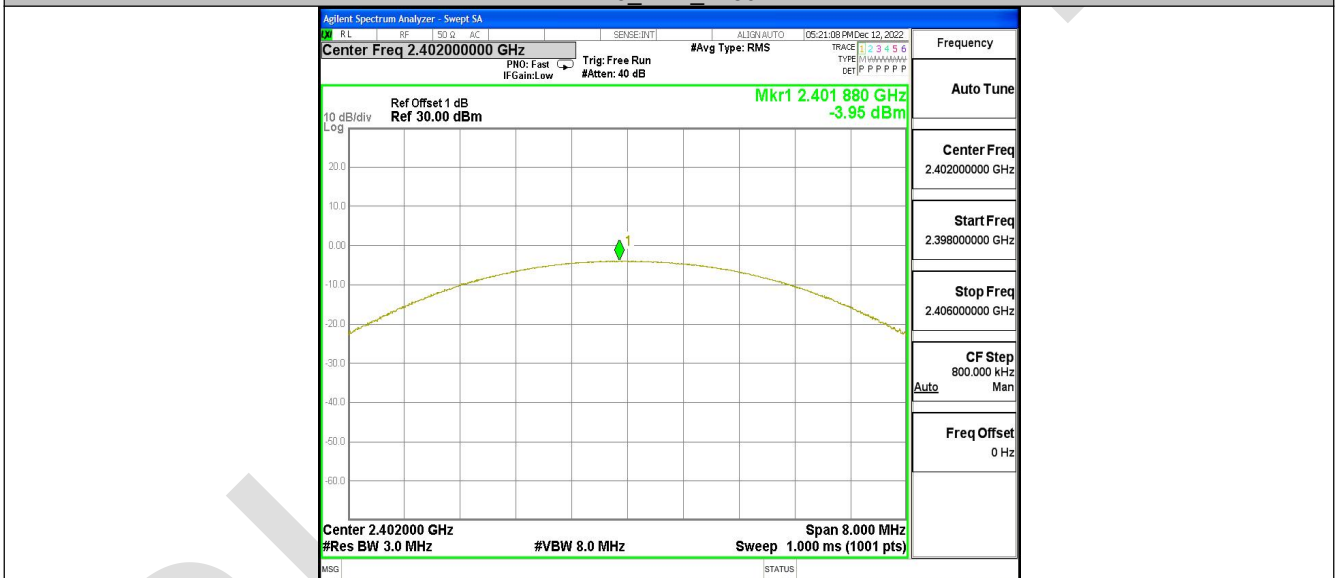
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-4.79	<=20.97	PASS
		2441	-3.27	<=20.97	PASS
		2480	-5.14	<=20.97	PASS
2DH5	Ant1	2402	-3.95	<=20.97	PASS
		2441	-2.39	<=20.97	PASS
		2480	-4.26	<=20.97	PASS
3DH5	Ant1	2402	-3.46	<=20.97	PASS
		2441	-1.97	<=20.97	PASS
		2480	-3.78	<=20.97	PASS

Test Graphs





DH5_Ant1_2480



2DH5_Ant1_2402