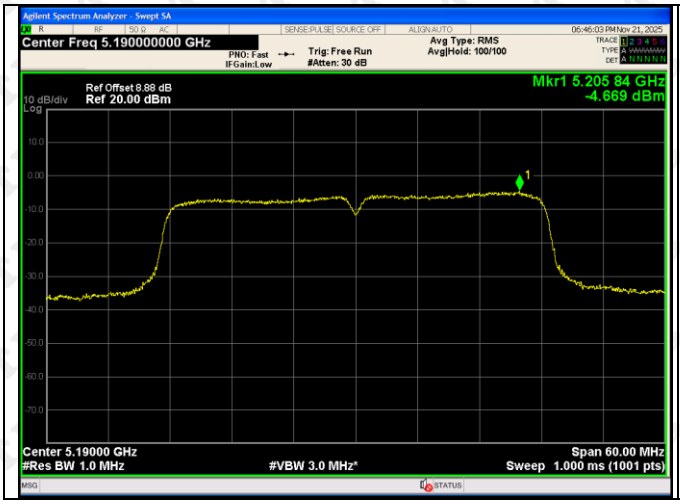
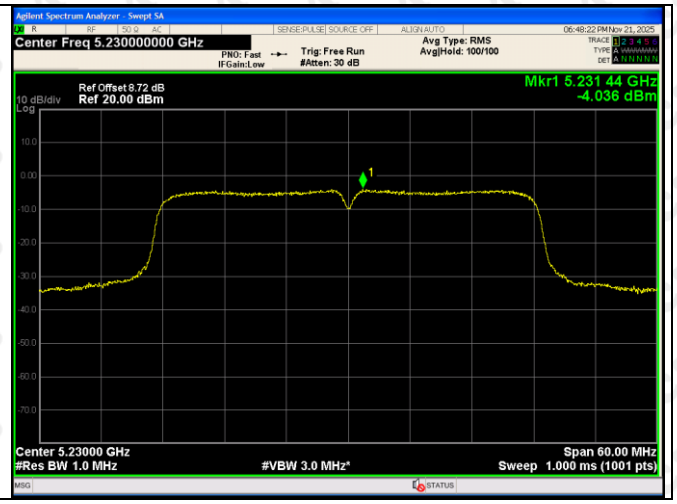
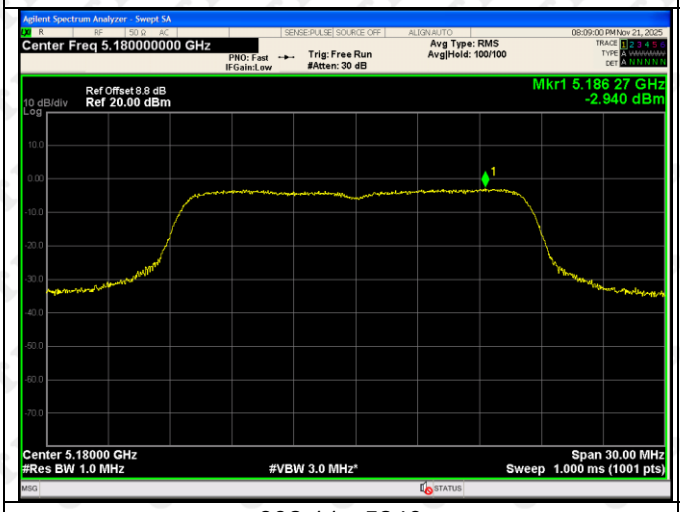


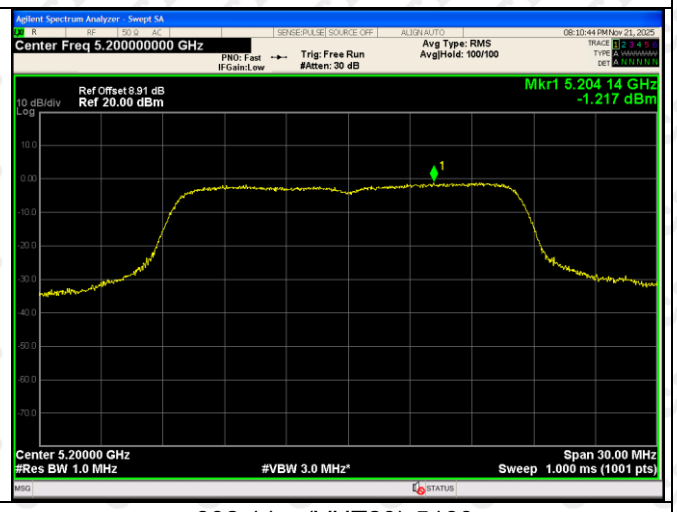


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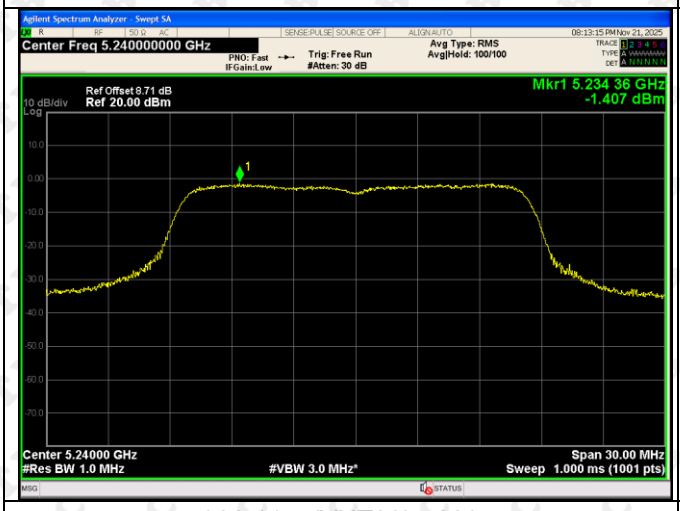
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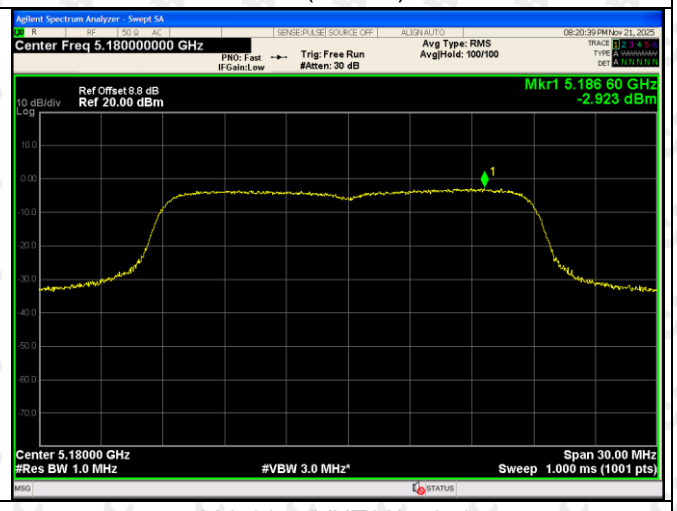
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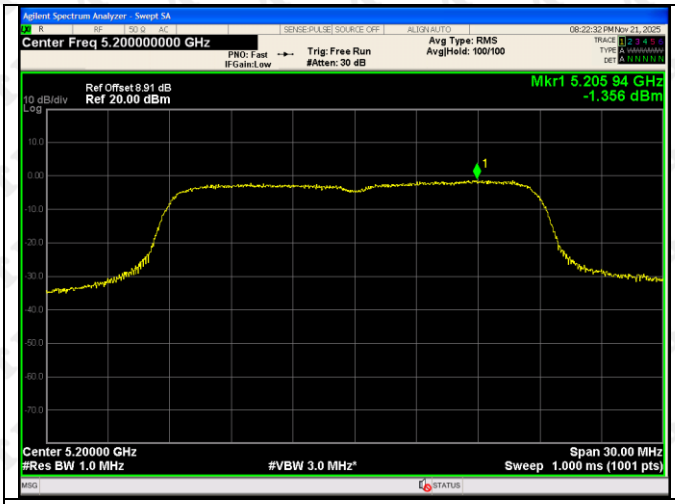


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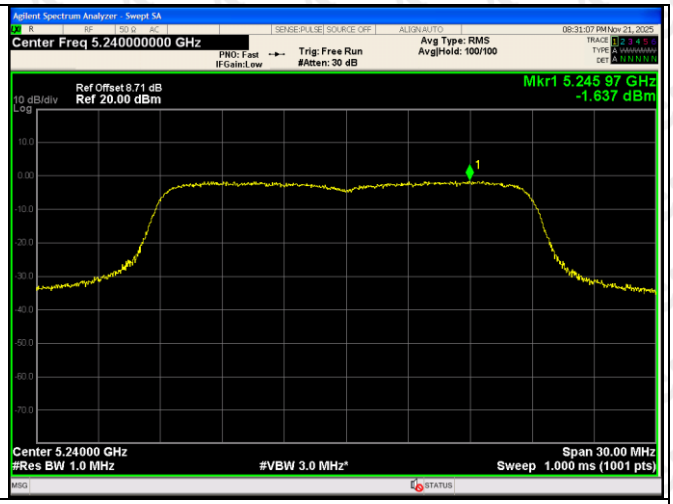


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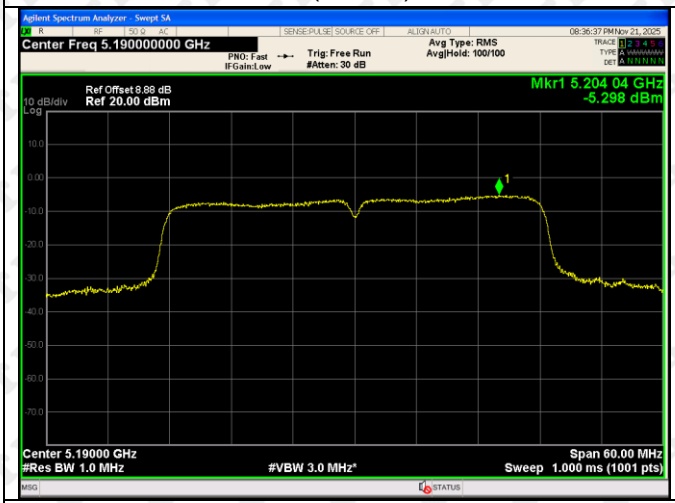
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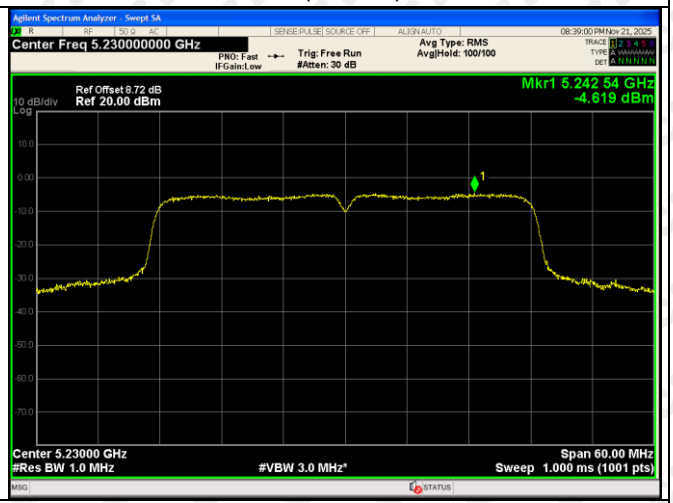
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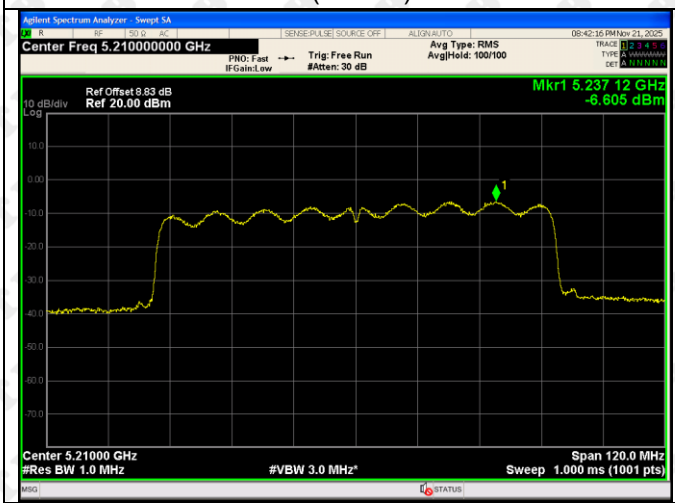
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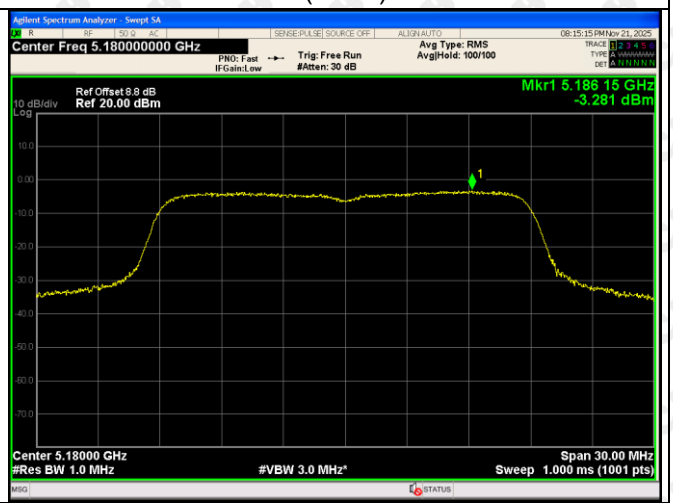
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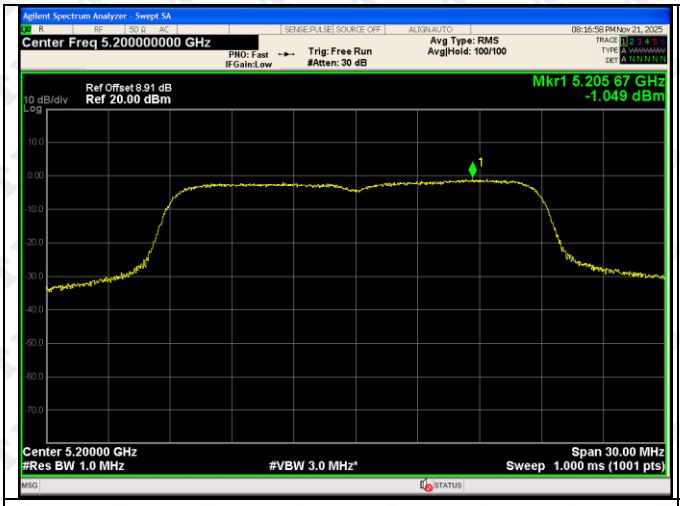
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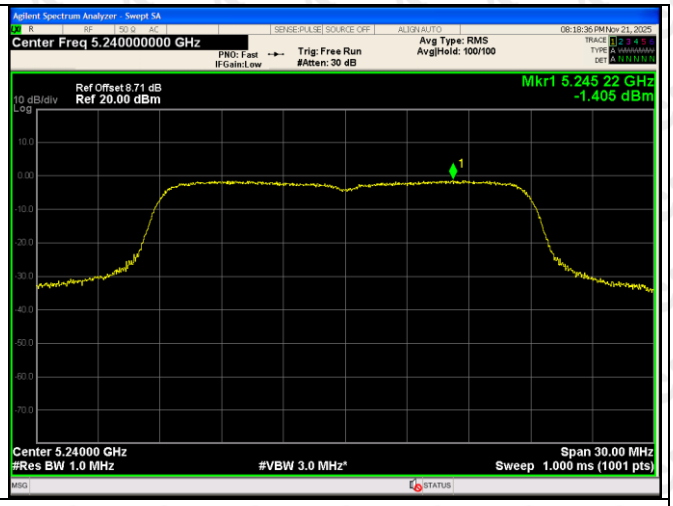
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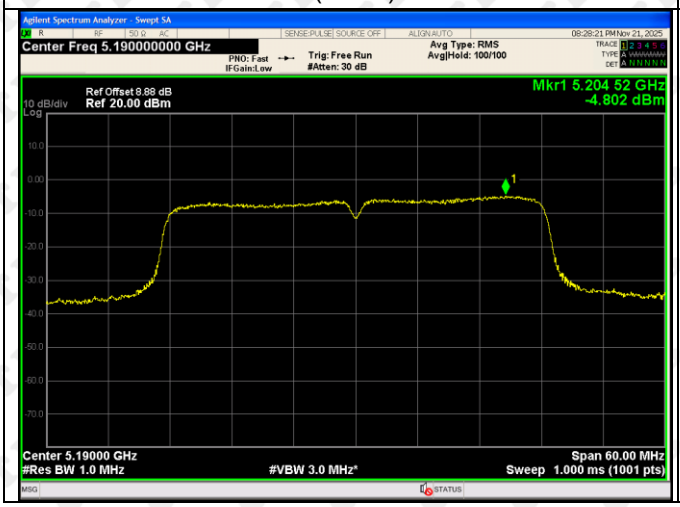
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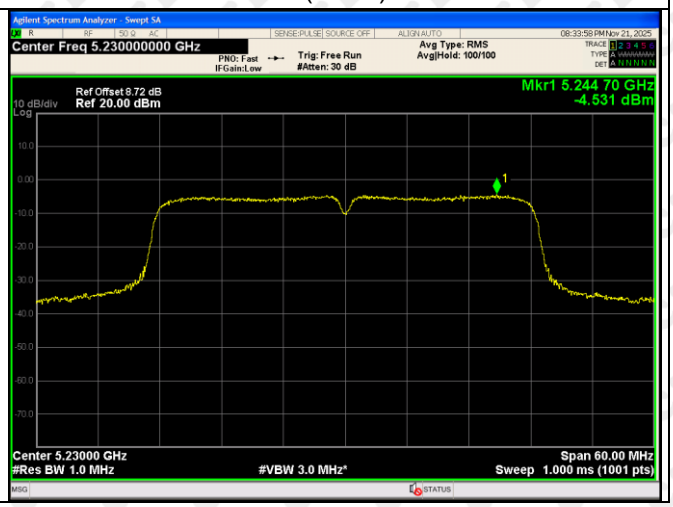


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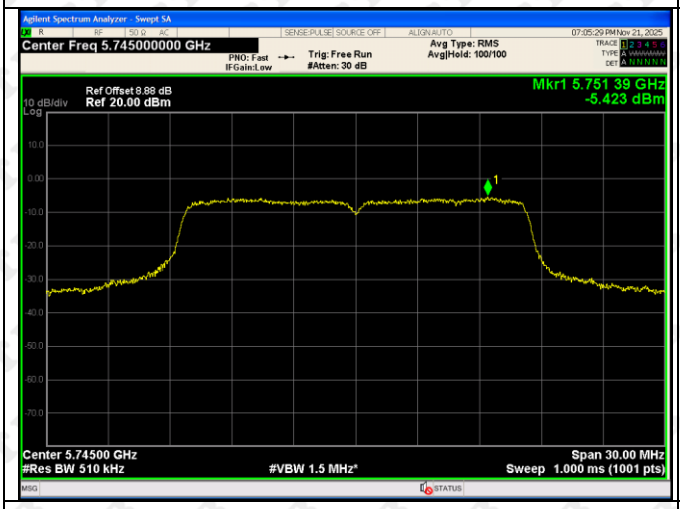
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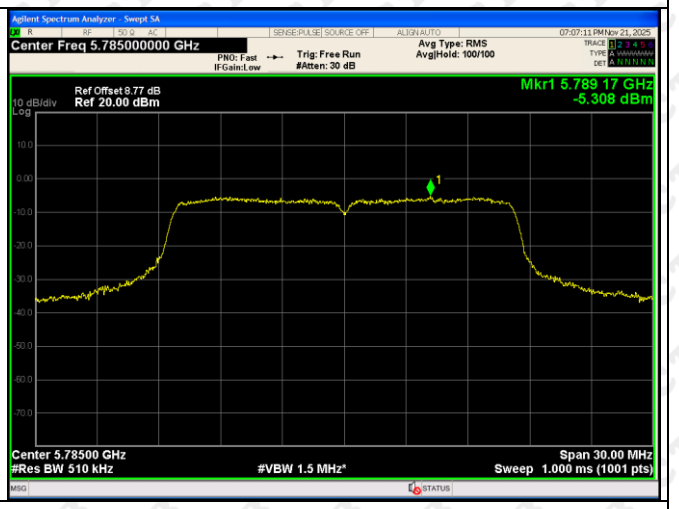


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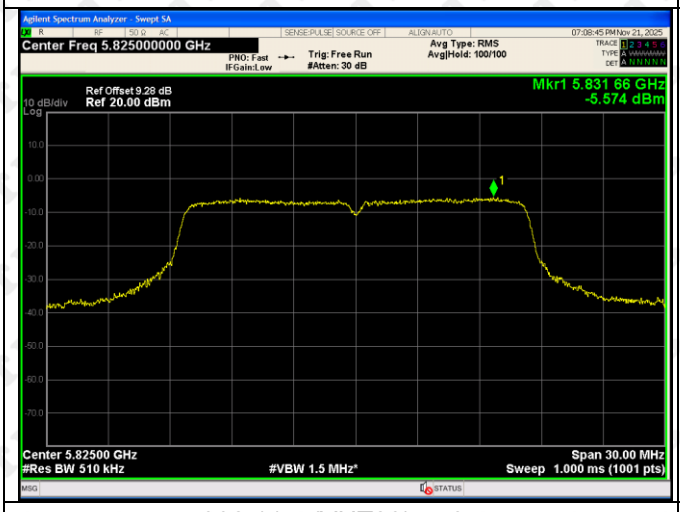
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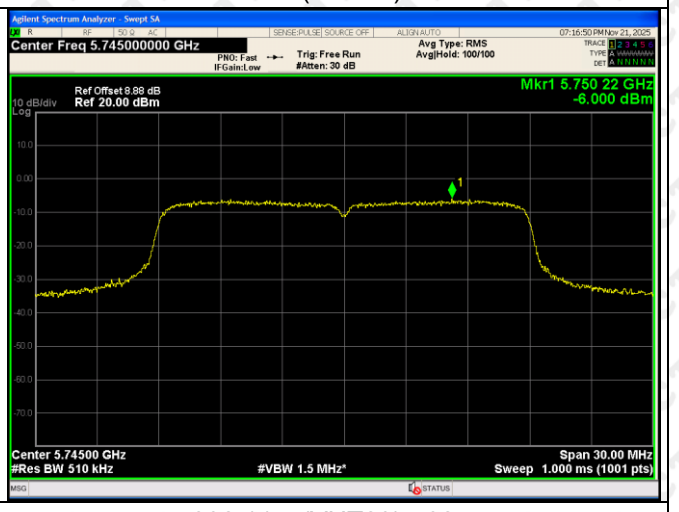
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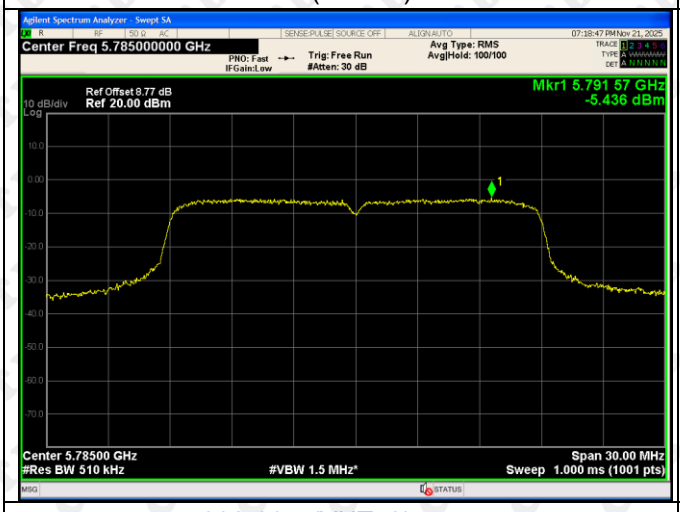
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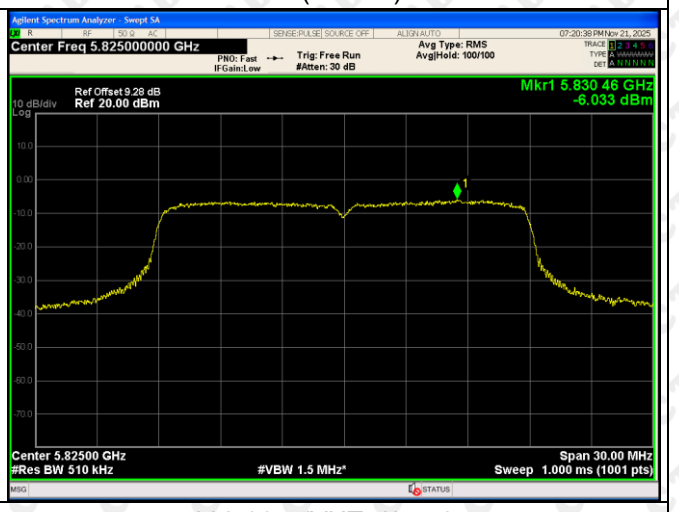
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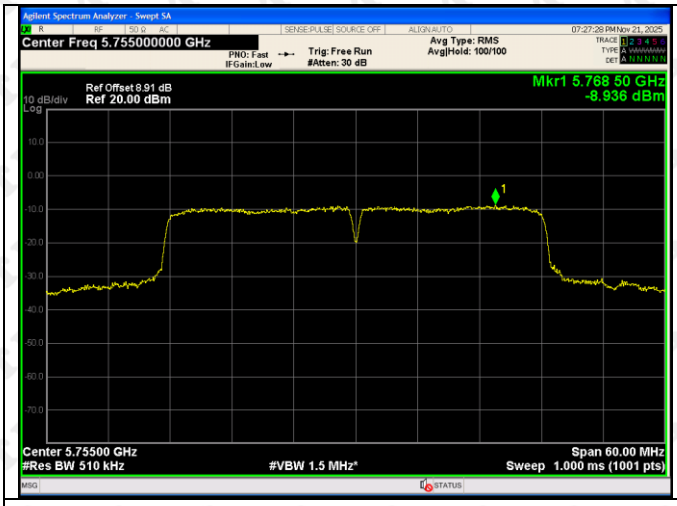


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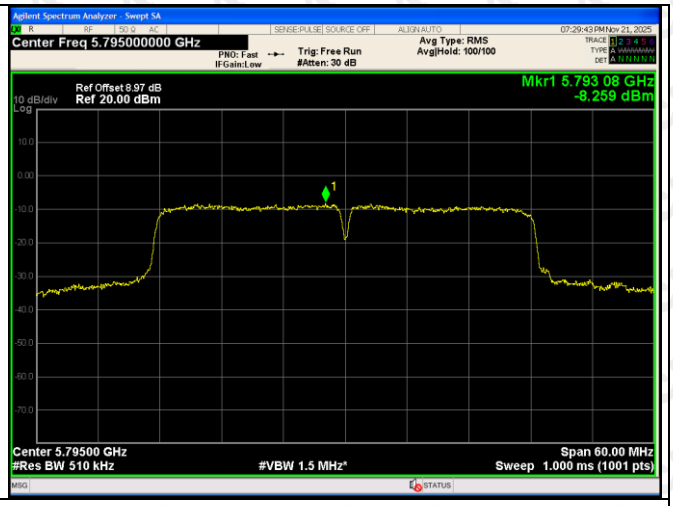


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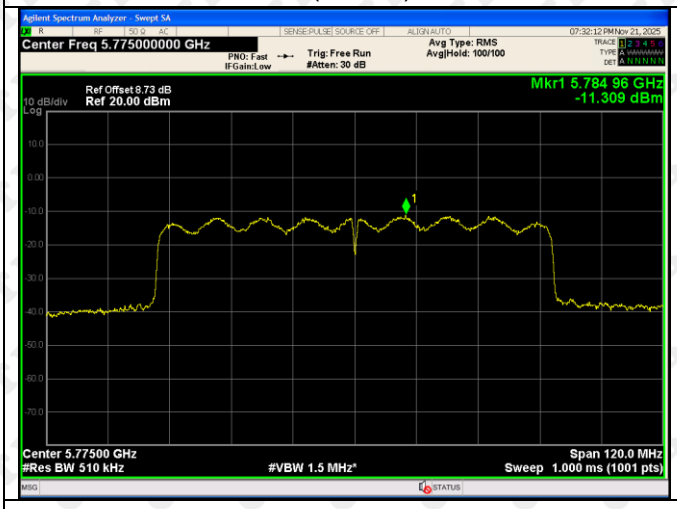
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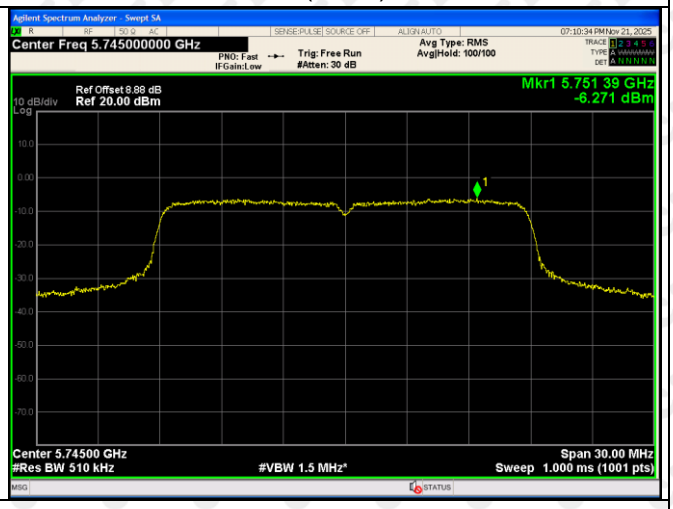
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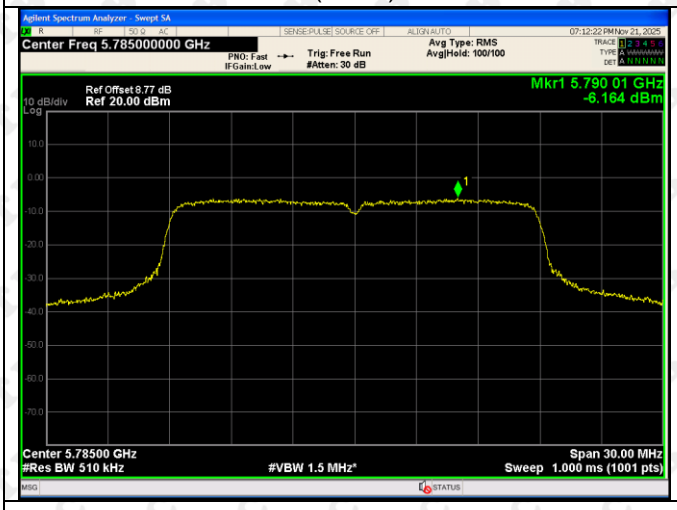
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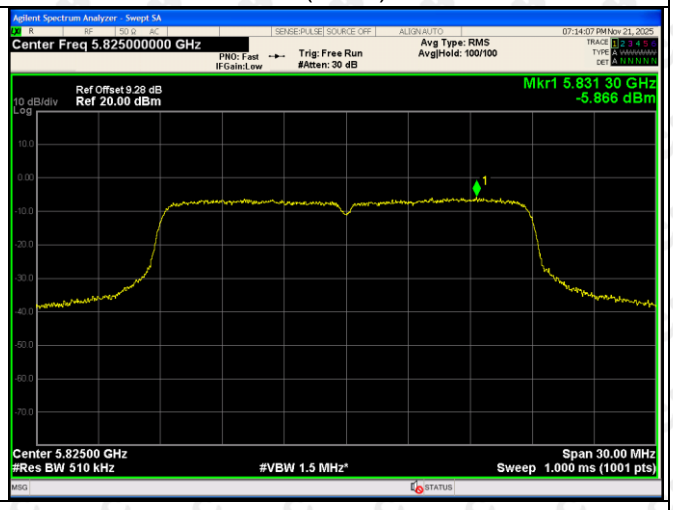
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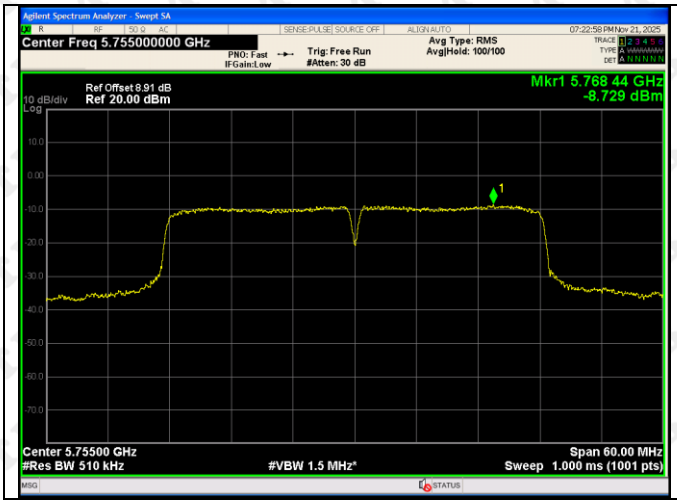
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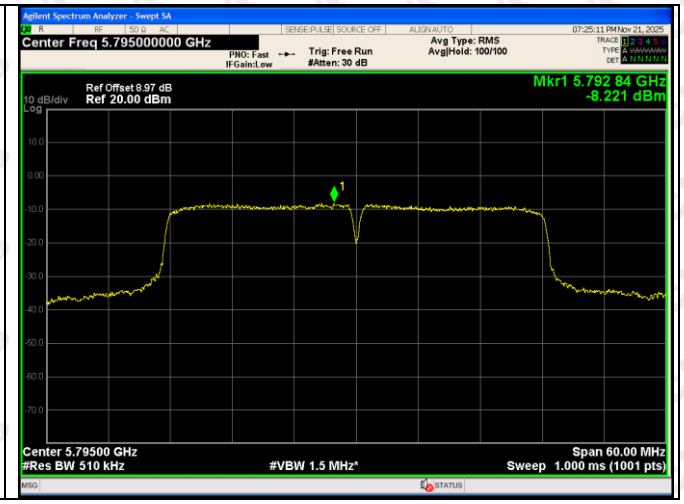


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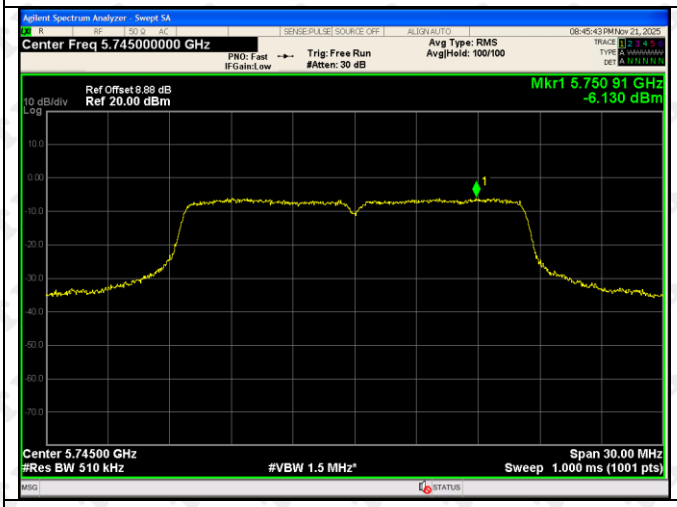
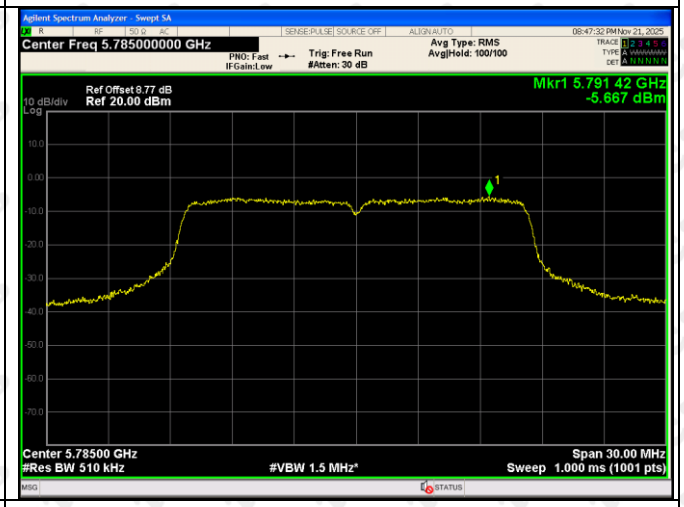
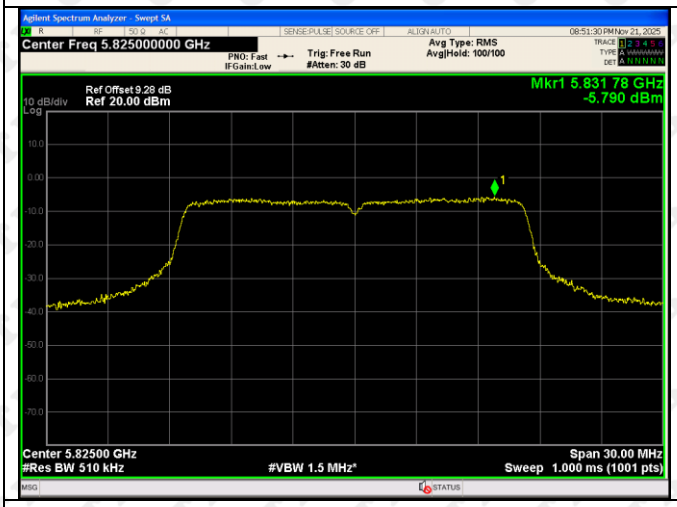
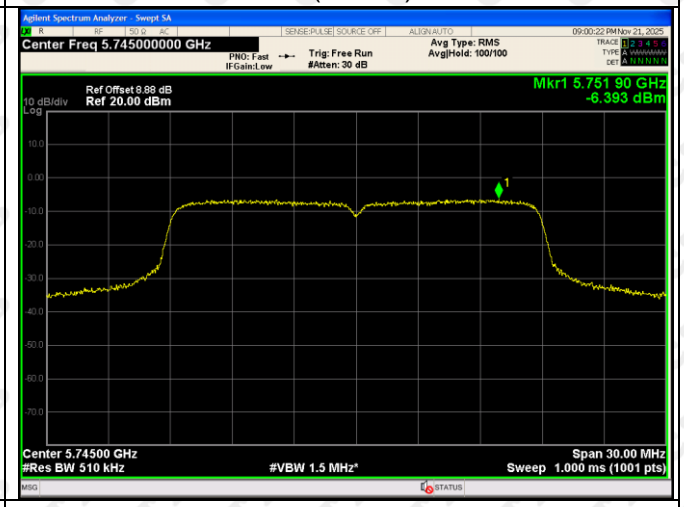


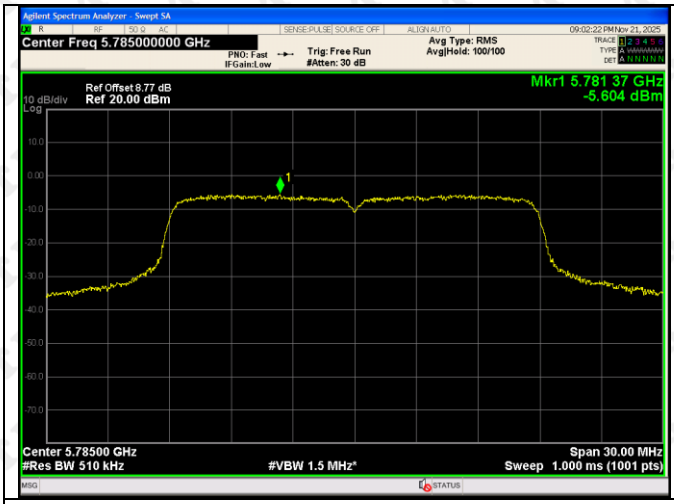
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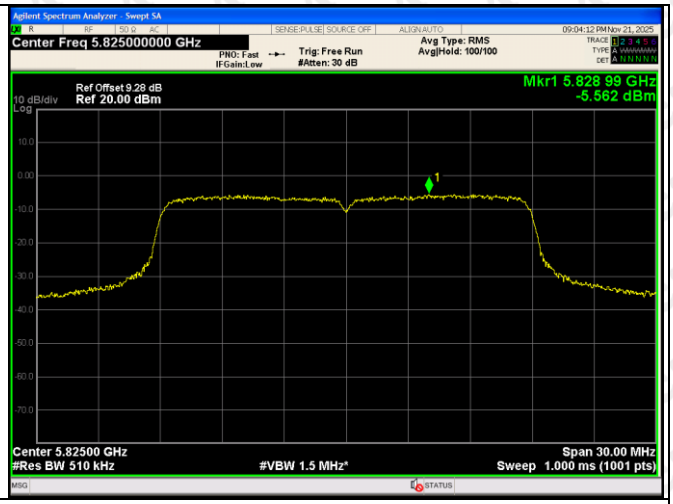


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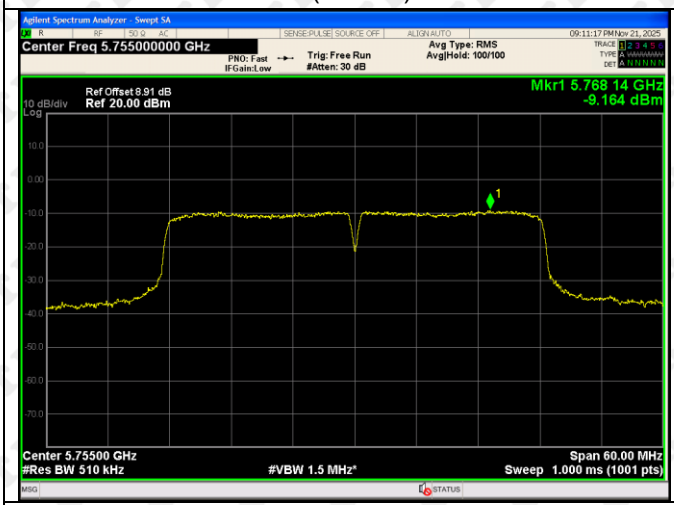
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802.11a-5825	802.11ac(VHT20)-5745
	
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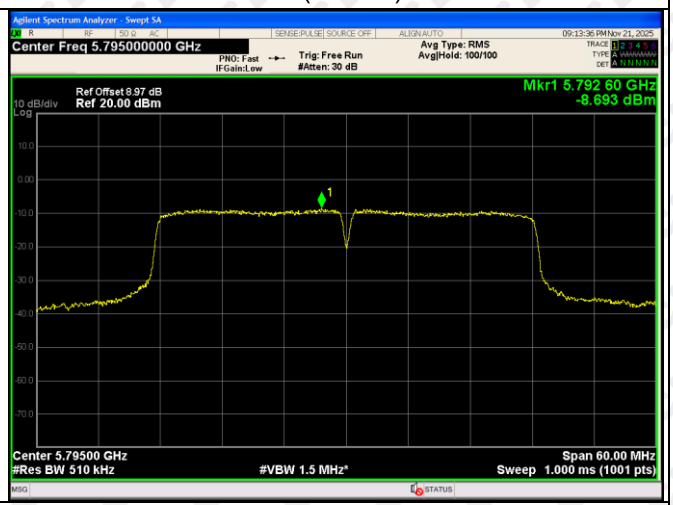
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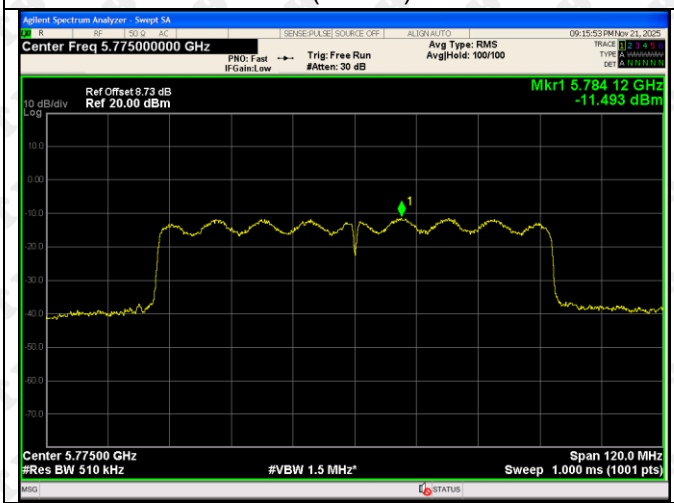
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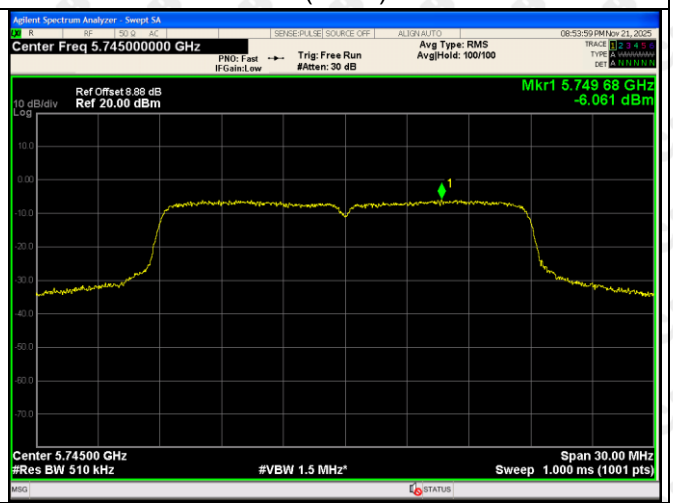
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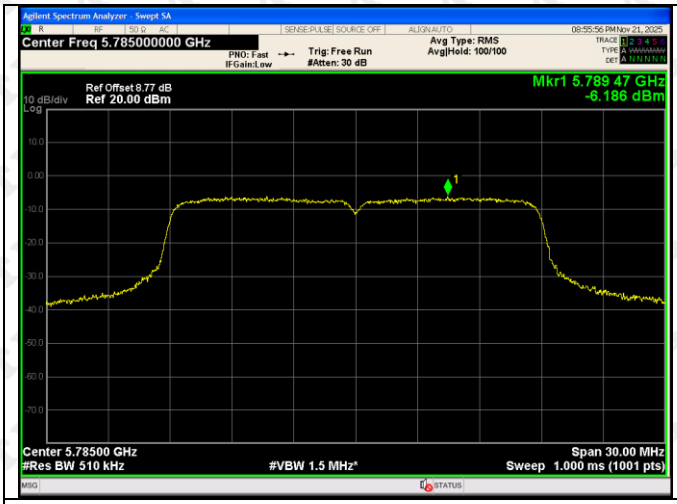
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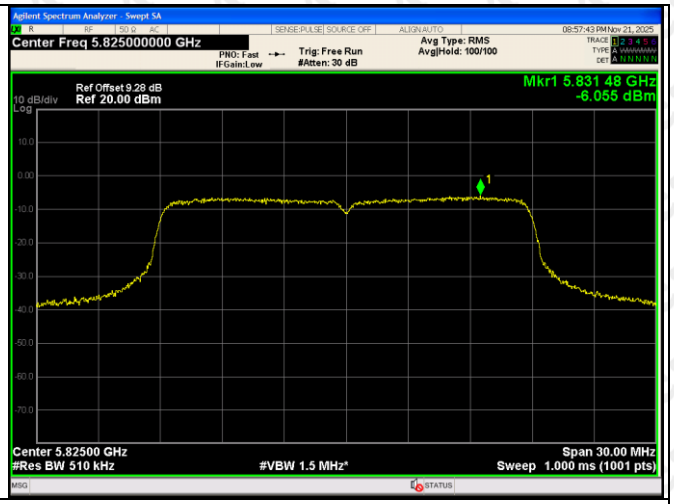
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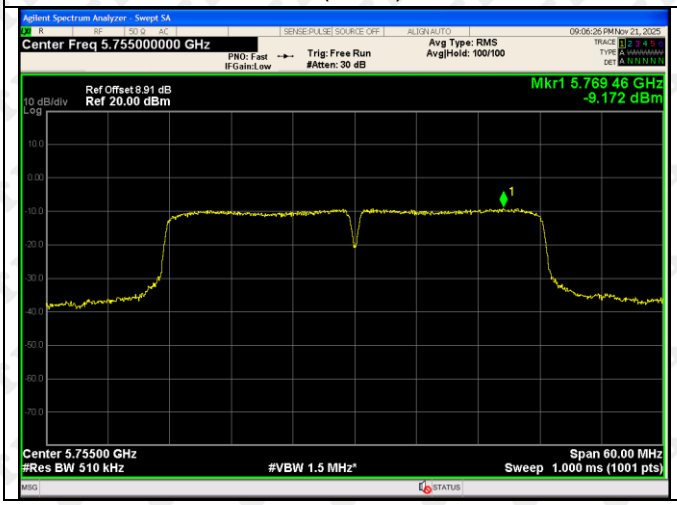
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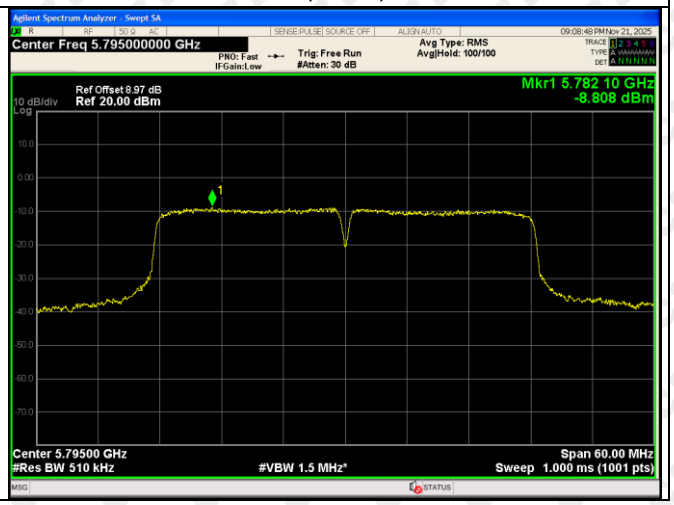


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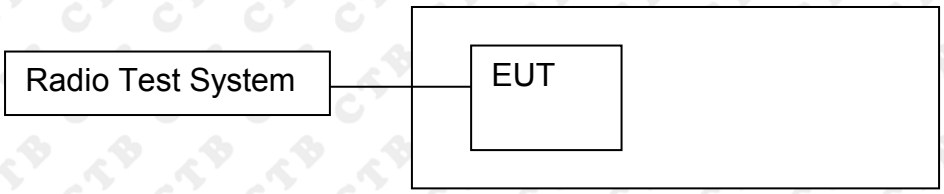
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12. FREQUENCY STABILITY

12.1 Block Diagram Of Test Setup



12.2 Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

12.3 Test procedure

1. The EUT was placed inside temperature chamber and powered and powered by nominal DC voltage.

2. Set EUT as normal operation.

3. Turn the EUT on and couple its output to spectrum.

4. Turn the EUT off and set the chamber to the highest temperature specified.

5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT and measure the operating frequency.

6. Repeat step with the temperature chamber set to the lowest temperature.

12.4 Test Result

ANT1:

TX Frequency (5150-5250MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5180.0046	5180	0.0046	0.8788
		V max (V)	132	5180.0195	5180	0.0195	3.7719
		V min (V)	108	5180.0394	5180	0.0394	7.6064
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5180.0290	5180	0.0290	5.6055
		T (°C)	10	5180.0200	5180	0.0200	3.8544
		T (°C)	20	5180.0247	5180	0.0247	4.7714
		T (°C)	30	5180.0257	5180	0.0257	4.9706
		T (°C)	40	5180.0136	5180	0.0136	2.6184
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5200.0008	5200	0.0008	0.1491
		V max (V)	132	5200.0333	5200	0.0333	6.4081
		V min (V)	108	5200.0486	5200	0.0486	9.3431
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5200.0292	5200	0.0292	5.6146
		T (°C)	10	5200.0213	5200	0.0213	4.1012
		T (°C)	20	5200.0110	5200	0.0110	2.1213
		T (°C)	30	5200.0193	5200	0.0193	3.7141
		T (°C)	40	5200.0077	5200	0.0077	1.4744
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5240.0448	5240	0.0448	8.5474
		V max (V)	132	5240.0358	5240	0.0358	6.8412
		V min (V)	108	5240.0032	5240	0.0032	0.6012
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5240.0498	5240	0.0498	9.4976
		T (°C)	10	5240.0067	5240	0.0067	1.2769
		T (°C)	20	5240.0003	5240	0.0003	0.0478
		T (°C)	30	5240.0522	5240	0.0522	9.9563
		T (°C)	40	5240.0021	5240	0.0021	0.3959
Limits				±20ppm			
Result				Complies			

ANT2:

TX Frequency (5150-5250MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5180.0677	5180	0.0677	13.0684
		V max (V)	132	5180.0708	5180	0.0708	13.6697
		V min (V)	108	5180.0394	5180	0.0394	7.6042
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5180.0087	5180	0.0087	1.6865
		T (°C)	10	5180.0389	5180	0.0389	7.5004
		T (°C)	20	5180.0532	5180	0.0532	10.2656
		T (°C)	30	5180.0752	5180	0.0752	14.5260
		T (°C)	40	5180.0006	5180	0.0006	0.1063
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5200.0906	5200	0.0906	17.4319
		V max (V)	132	5200.0390	5200	0.0390	7.4977
		V min (V)	108	5200.0572	5200	0.0572	10.9999
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5200.0517	5200	0.0517	9.9347
		T (°C)	10	5200.0574	5200	0.0574	11.0318
		T (°C)	20	5200.0738	5200	0.0738	14.1998
		T (°C)	30	5200.0079	5200	0.0079	1.5247
		T (°C)	40	5200.0654	5200	0.0654	12.5718
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5240.0381	5240	0.0381	7.2673
		V max (V)	132	5240.0723	5240	0.0723	13.7966
		V min (V)	108	5240.0540	5240	0.0540	10.3025
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5240.0156	5240	0.0156	2.9739
		T (°C)	10	5240.0190	5240	0.0190	3.6218
		T (°C)	20	5240.0890	5240	0.0890	16.9892
		T (°C)	30	5240.0894	5240	0.0894	17.0567
		T (°C)	40	5240.0567	5240	0.0567	10.8180
Limits				±20ppm			
Result				Complies			

ANT1:

TX Frequency (5725-5850MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5745.0532	5745	0.0532	9.2535
		V max (V)	132	5745.0098	5745	0.0098	1.7009
		V min (V)	108	5745.0532	5745	0.0532	9.2535
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5745.0580	5745	0.0580	10.0992
		T (°C)	10	5745.0765	5745	0.0765	13.3205
		T (°C)	20	5745.0629	5745	0.0629	10.9463
		T (°C)	30	5745.0329	5745	0.0329	5.7294
		T (°C)	40	5745.0795	5745	0.0795	13.8458
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5785.0318	5785	0.0318	5.4975
		V max (V)	132	5785.0841	5785	0.0841	14.5400
		V min (V)	108	5785.0786	5785	0.0786	13.5933
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5785.0016	5785	0.0016	0.2801
		T (°C)	10	5785.0754	5785	0.0754	13.0306
		T (°C)	20	5785.0452	5785	0.0452	7.8090
		T (°C)	30	5785.0613	5785	0.0613	10.5935
		T (°C)	40	5785.0555	5785	0.0555	9.5890
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5825.0316	5825	0.0316	5.4309
		V max (V)	132	5825.0623	5825	0.0623	10.6928
		V min (V)	108	5825.0395	5825	0.0395	6.7767
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5825.0702	5825	0.0702	12.0562
		T (°C)	10	5825.0806	5825	0.0806	13.8438
		T (°C)	20	5825.0453	5825	0.0453	7.7811
		T (°C)	30	5825.0159	5825	0.0159	2.7245
		T (°C)	40	5825.0505	5825	0.0505	8.6779
Limits				±20ppm			
Result				Complies			

ANT2:

TX Frequency (5725-5850MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5745.0804	5745	0.0804	13.9891
		V max (V)	132	5745.0670	5745	0.0670	11.6583
		V min (V)	108	5745.0400	5745	0.0400	6.9553
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5745.0127	5745	0.0127	2.2080
		T (°C)	10	5745.0049	5745	0.0049	0.8476
		T (°C)	20	5745.0501	5745	0.0501	8.7237
		T (°C)	30	5745.0335	5745	0.0335	5.8305
		T (°C)	40	5745.0923	5745	0.0923	16.0686
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5785.0292	5785	0.0292	5.0423
		V max (V)	132	5785.0098	5785	0.0098	1.6949
		V min (V)	108	5785.0172	5785	0.0172	2.9769
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5785.0379	5785	0.0379	6.5562
		T (°C)	10	5785.0275	5785	0.0275	4.7496
		T (°C)	20	5785.0642	5785	0.0642	11.0962
		T (°C)	30	5785.0062	5785	0.0062	1.0681
		T (°C)	40	5785.0278	5785	0.0278	4.8081
		T (°C)	50	5785.0425	5785	0.0425	7.3428
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5825.0488	5825	0.0488	8.3715
		V max (V)	132	5825.0927	5825	0.0927	15.9119
		V min (V)	108	5825.0036	5825	0.0036	0.6181
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5825.0453	5825	0.0453	7.7843
		T (°C)	10	5825.0468	5825	0.0468	8.0316
		T (°C)	20	5825.0117	5825	0.0117	2.0050
		T (°C)	30	5825.0790	5825	0.0790	13.5661
		T (°C)	40	5825.0192	5825	0.0192	3.2934
Limits				±20ppm			
Result				Complies			

13. OPERATION IN THE ABSENCE OF INFORMATION TO THE TRANSMIT

13.1 Requirement

15.407(c) requirement:
The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signal ling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

13.2 Test Results

Operation in the absence of information to the transmit:

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling
signal of ASK message transmitting from remote device and verify whether it shall resend or
discontinue transmission. (manufacturer declare)

14. ANTENNA REQUIREMENT

15.203 requirement:
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.
15.247(b) (4) requirement:
The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

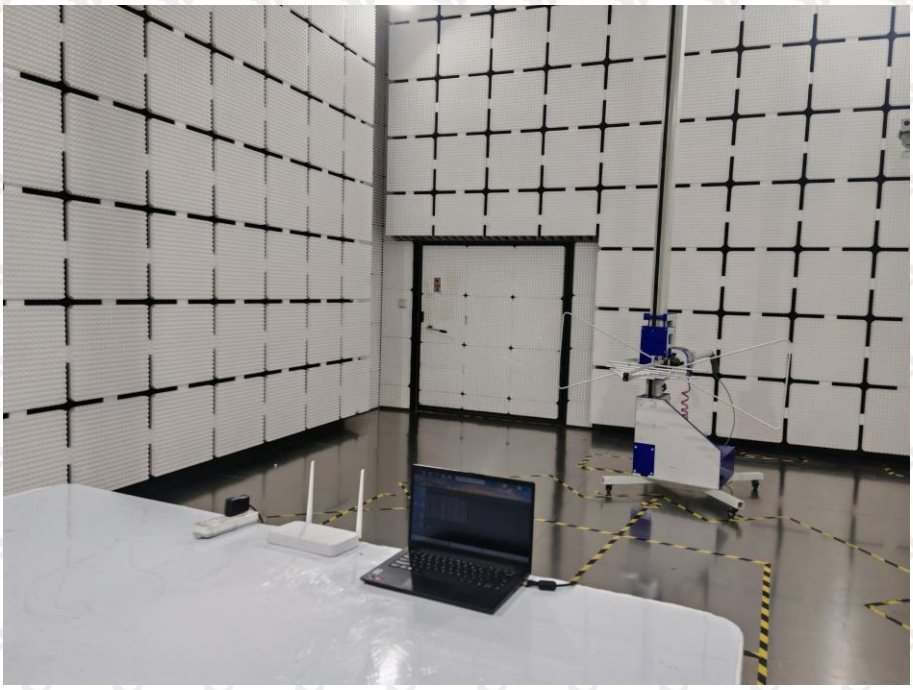
EUT Antenna:

The antenna is external antenna and no consideration of replacement. The best case gain of the antenna is WiFi (5.2G):Ant1: 4.67dBi, Ant2: 4.55dBi, WiFi (5.8G):Ant1: 5.05dBi, Ant2: 5.01dBi.

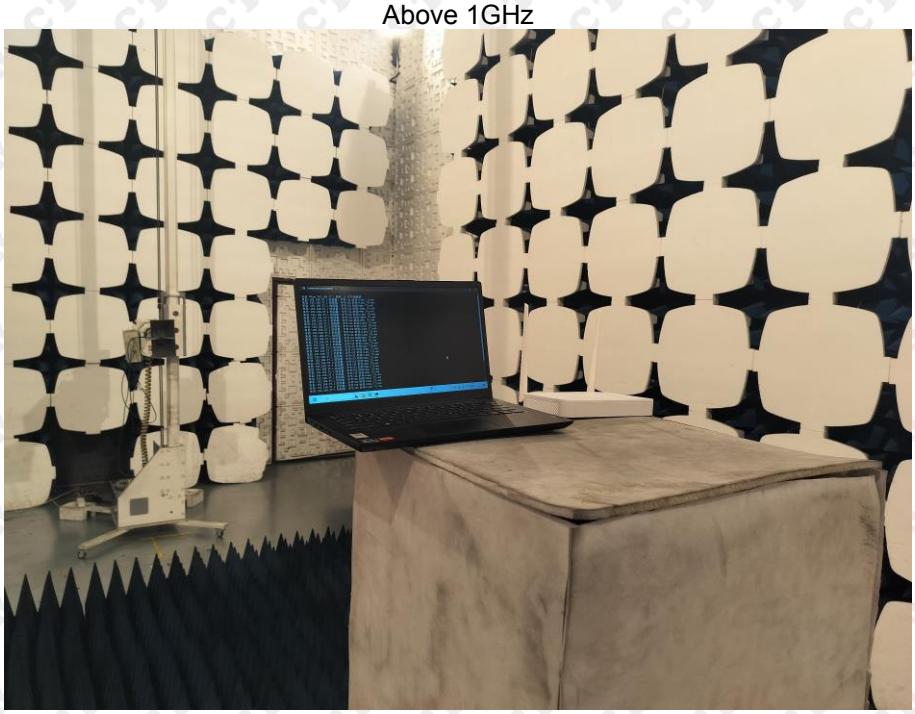
15. EUT TEST SETUP PHOTOGRAPHS

Spurious emissions

Below 1GHz



Above 1GHz



Conducted Emission



※※※※※ END OF REPORT ※※※※※