FCC RF Test Report

APPLICANT	:	Wacom Co., Ltd.
EQUIPMENT	:	Portable Pad
BRAND NAME	:	Wacom
MODEL NAME	:	DTHA140
FCC ID	:	HV4DTHA140
STANDARD	:	FCC Part 15 Subpart E §15.407
CLASSIFICATION	:	15E 6 GHz Low Power Indoor Client (6XD)
TEST DATE(S)	:	Jul. 31, 2025 ~ Sep. 12, 2025

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia

ACCREDITED Cert #5145.02

Sporton International Inc. (Kunshan)
No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China

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History of this test report

Report No.	Version	Description	Issued Date
FR552114E	01	Initial issue of report	Aug. 20, 2025
FR552114E	02	Added co-location test data with the EMR mode This report is an updated version, replacing the report issued on Aug. 20, 2025	Sep. 15, 2025

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.407(a)(11)	26dB Emission Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Pass	-
3.2	15.407(a)(8)	Maximum Conducted Output Power	Reporting only	-
3.2	15.407(a)(8)	Fundamental Maximum EIRP	Pass	-
3.3	15.407(a)(8)	Fundamental Power Spectral Density	Pass	-
3.4	15.407(b)(7)	In-Band Emissions (Channel Mask)	Pass	-
3.5	15.407(d)(6)	Contention Based Protocol	Pass	
3.6	15.407(b)	Unwanted Emissions	Pass	Under limit 5.85 dB at 8029.00 MHz
3.7	15.207	AC Conducted Emission	Pass	Under limit 5.87 dB at 0.176 MHz
3.8	15.203 15.407(a)	Antenna Requirement	Pass	-

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section “Measurement Uncertainty”

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

1 General Description

1.1 Applicant

Wacom Co., Ltd.
2-510-1 Toyonodai, Kazo-shi, Saitama 349-1148 Japan

1.2 Manufacturer

Wacom Co., Ltd.
2-510-1 Toyonodai, Kazo-shi, Saitama 349-1148 Japan

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Portable Pad
Brand Name	Wacom
Model Name	DTHA140
FCC ID	HV4DTHA140
SN	Conducted: 5fls1u1000088 Conduction: 5gls1u10000228 Radiation: JPDBBG7636A002C7 CBP:5cb29fba
HW Version	V2
SW Version	Wacom_MovinkPad_14-userdebug 15 Mimosa_DEV_ userdebug_TC_11 20250629 release-keys
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	U-NII-5: 5925 MHz ~ 6425 MHz U-NII-6: 6425 MHz ~ 6525 MHz U-NII-7: 6525 MHz ~ 6875 MHz U-NII-8: 6875 MHz ~ 7125 MHz
Maximum EIRP	**<MIMO Ant.1+2>** **<5925 MHz ~ 7125 MHz >** 802.11a : 7.71 dBm / 0.0059 W 802.11ax HE20 : 8.28 dBm / 0.0067 W 802.11ax HE40 : 10.96 dBm / 0.0125 W 802.11ax HE80 : 13.99 dBm / 0.0251 W 802.11ax HE160 : 14.63 dBm / 0.0290 W
99% Occupied Bandwidth	802.11a : 16.678 MHz 802.11ax HE20 : 19.039 MHz 802.11ax HE40 : 38.001 MHz 802.11ax HE80 : 77.449 MHz 802.11ax HE160 : 157.487 MHz
Antenna Type / Gain	**<5925 MHz ~ 6425 MHz >** <Ant. 1> : Metal frame antenna with gain 0.17 dBi <Ant. 2> : Metal frame antenna with gain 2.41 dBi **<6425 MHz ~ 6525 MHz >** <Ant. 1> : Metal frame antenna with gain -1.44 dBi <Ant. 2> : Metal frame antenna with gain 2.17 dBi **<6525 MHz ~ 6875 MHz >** <Ant. 1> : Metal frame antenna with gain -0.7 dBi <Ant. 2> : Metal frame antenna with gain 2.4 dBi **<6875 MHz ~ 7125 MHz >** <Ant. 1> : Metal frame antenna with gain 0.06 dBi <Ant. 2> : Metal frame antenna with gain 1.01 dBi
Type of Modulation	802.11a : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ax : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM / 1024QAM)

Remark:

1. WIFI MIMO support CDD mode by manufacturer declared.
2. 802.11ax support full RU tone and partial RU tone, both full RU and partial RU-left (for low CH) and partial RU-right (for high CH) are tested for conducted power/PSD/Channel Mask in appendix A, all the other test case were performed with full RU with its maximum power/PSD.
3. The device does not support UNII-8 CH233 (BW=20M, Center Frequency = 7115MHz).
4. CBP test with antenna path of minimum gain (Antenna 1, Minimum gain= -1.44 dBi).

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Testing Location

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	CO01-KS 03CH03-KS 03CH06-KS TH01-KS DFS01-KS	CN1257	314309

1.7 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH03-KS	AUDIX	E3	6.2009-8-24al
2.	03CH06-KS	AUDIX	E3	210616
3.	CO01-KS	AUDIX	E3	6.2009-8-24

1.8 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart E
- FCC KDB 987594 D02 U-NII 6 GHz EMC Measurement v03
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB 414788 D01 Radiated Test Site v01r01.
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.10-2020

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Z plane) were recorded in this report.

b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

<U-NII-5, 6, 7, 8>

BW 20M	**Channel**	-	1	5	9	13	17	21	25	29
	Freq. (MHz)	-	5955	5975	5995	6015	6035	6055	6075	6095
BW 40M	**Channel**	3			11		19		27	
	Freq. (MHz)	5965			6005		6045		6085	
BW 80M	**Channel**	7					23			
	Freq. (MHz)	5985					6065			
BW 160M	**Channel**	15								
	Freq. (MHz)	6025								

BW 20M	**Channel**	33	37	41	45	49	53	57	61
	Freq. (MHz)	6115	6135	6155	6175	6195	6215	6235	6255
BW 40M	**Channel**	35		43		51		59	
	Freq. (MHz)	6125		6165		6205		6245	
BW 80M	**Channel**	39				55			
	Freq. (MHz)	6145				6225			
BW 160M	**Channel**	47							
	Freq. (MHz)	6185							

BW 20M	**Channel**	65	69	73	77	81	85	89	93
	Freq. (MHz)	6275	6295	6315	6335	6355	6375	6395	6415
BW 40M	**Channel**	67		75		83		91	
	Freq. (MHz)	6285		6325		6365		6405	
BW 80M	**Channel**	71				87			
	Freq. (MHz)	6305				6385			
BW 160M	**Channel**	79							
	Freq. (MHz)	6345							

BW 20M	Channel	97	101	105	109	113	117	121	125
	Freq. (MHz)	6435	6455	6475	6495	6515	6535	6555	6575
BW 40M	Channel	99		107		115		123	
	Freq. (MHz)	6445		6485		6525		6565	
BW 80M	Channel	103				119			
	Freq. (MHz)	6465				6545			
BW 160M	Channel	111							
	Freq. (MHz)	6505							

BW 20M	Channel	129	133	137	141	145	149	153	157
	Freq. (MHz)	6595	6615	6635	6655	6675	6695	6715	6735
BW 40M	Channel	131		139		147		155	
	Freq. (MHz)	6605		6645		6685		6725	
BW 80M	Channel	135				151			
	Freq. (MHz)	6625				6705			
BW 160M	Channel	143							
	Freq. (MHz)	6665							

BW 20M	Channel	161	165	169	173	177	181	185	189
	Freq. (MHz)	6755	6775	6795	6815	6835	6855	6875	6895
BW 40M	Channel	163		171		179		187	
	Freq. (MHz)	6765		6805		6845		6885	
BW 80M	Channel	167				183			
	Freq. (MHz)	6785				6865			
BW 160M	Channel	175							
	Freq. (MHz)	6825							

BW 20M	Channel	193	197	201	205	209	213	217	221
	Freq. (MHz)	6915	6935	6955	6975	6995	7015	7035	7055
BW 40M	Channel	195		203		211		219	
	Freq. (MHz)	6925		6965		7005		7045	
BW 80M	Channel	199				215			
	Freq. (MHz)	6945				7025			
BW 160M	Channel	207							
	Freq. (MHz)	6985							

BW 20M	Channel	225	229
	Freq. (MHz)	7075	7095
BW 40M	Channel	227	
	Freq. (MHz)	7085	

2.2 Test Mode

Final test modes are considering the modulation and worse data rates as below table.

MIMO Mode

Modulation	Data Rate
802.11a	6 Mbps
802.11ax HE20	MCS0
802.11ax HE40	MCS0
802.11ax HE80	MCS0
802.11ax HE160	MCS0

Test Cases	
AC Conducted Emission	Mode 1 : WLAN Link(6G)+ BT Link+ USB Cable1(Charging From Adapter)
Remark: For Radiated Test Cases, the tests were performed with Adapter, USB Cable 1	

Co-location
BLE 2Mbps CH39 ANT1 TX + WLAN 6G 802.11ax HE160 CH15 CDD TX
BLE 2Mbps CH39 ANT2 TX+ WLAN 6G 802.11ax HE160 CH15 CDD TX
BLE 2Mbps CH39 ANT2 TX+ WLAN 6G 802.11ax HE160 CH15 CDD TX + EMR 593.75KHz TX

Ch. #		UNII-5	UNII-6	UNII-7	UNII-8
		802.11a/ax HE20	802.11a/ax HE20	802.11a/ax HE20	802.11a/ax HE20
L	Low	001	097	117	189
M	Middle	045	105	149	209
H	High	093	113	181	229
Straddle		-	-	-	185

Ch. #		UNII-5	UNII-6	UNII-7	UNII-8
		802.11ax HE40	802.11ax HE40	802.11ax HE40	802.11ax HE40
L	Low	003	099	123	195
M	Middle	043	-	147	203
H	High	091	107	179	227
Straddle		-	115	-	187

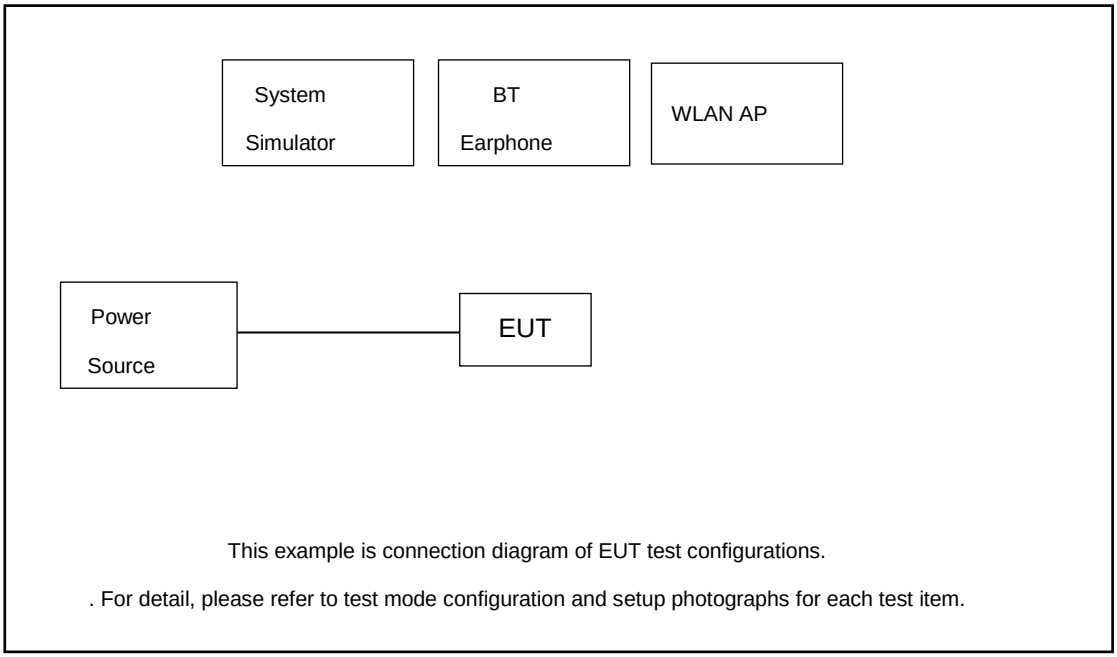
Ch. #		UNII-5	UNII-6	UNII-7	z UNII-8
		802.11ax HE80	802.11ax HE80	802.11ax HE80	802.11ax HE80
L	Low	007	103	135	199
M	Middle	039		151	-
H	High	087		167	215
Straddle		-	119	183	-

Ch. #		UNII-5	UNII-6	UNII-7	UNII-8
		802.11ax HE160	802.11ax HE160	802.11ax HE160	802.11ax HE160
L	Low	015	-	143	207
M	Middle	047			
H	High	079			
Straddle		-	111	175	-

Remark: For radiation spurious emission, the final modulation and the worst data rate was reference the max RF conducted power.

2.3 Connection Diagram of Test System

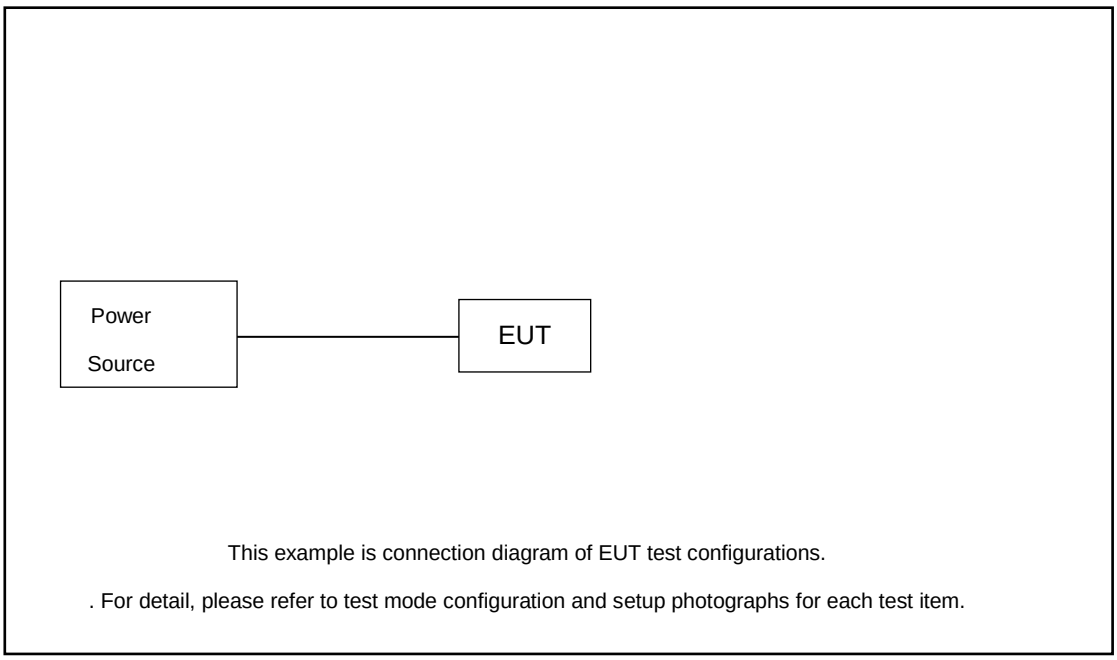
AC Conducted Emission:



This example is connection diagram of EUT test configurations.

. For detail, please refer to test mode configuration and setup photographs for each test item.

Radiated Emission:



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Earphone	Lenovo	thinkplus-BH3	N/A	N/A	N/A
2.	Notebook	Lenovo	G480	QDS-BRCM1050I	N/A	shielded cable DC O/P 1.8m , Unshielded AC I/P cable 1.8m
3.	WLAN AP	D-link	DIR-655	KA21R655B1	N/A	Unshielded,1.8m

2.5 EUT Operation Test Setup

For WLAN RF test items, an engineering test program (QRCT TX Tool) was provided and enabled to make EUT continuously transmit.

For AC power line conducted emissions, the EUT was set to connect with the WLAN AP under large package sizes transmission.

2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.95 dB and 20dB attenuator.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.95 + 20 = 24.95 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 CFR 15.407 (a)(11)

The maximum transmitter channel bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 megahertz.

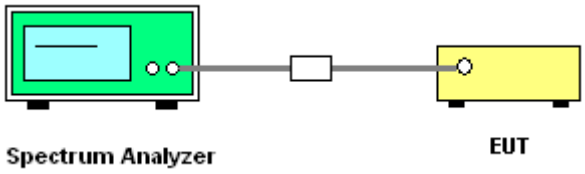
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) ≥ 3 * RBW.
8. Measure and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

3.2 Maximum conducted Output Power and Fundamental Maximum EIRP Measurement

3.2.1 Limit of Fundamental Maximum EIRP

<FCC 14-30 CFR 15.407>

(a)(8) For client devices operating under the control of an indoor access point in the 5.925-7.125 GHz bands, the maximum e.i.r.p. over the frequency band of operation must not exceed 24 dBm.

3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM (Measurement using an RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, 10 log(1/x), where x is the duty cycle.
4. For MIMO mode, the measure-and-sum technique should be used for measuring the in-band transmit power of a device.

3.2.4 Test Setup

3.2.5 Test Result of Fundamental Maximum EIRP

U-NII-5														
Mode							Power Setting	Average Conducted Power with duty factor(dBm)			Gain(dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass/Fail
Band	MIMO	N_{TX}	Channel	Freq (MHz)	Data Rate	RU Config		Ant 1	Ant 2	Ant 1+2	Ant 1+2	Ant 1+2	Ant 1+2	
11a	CDD	2	1	5955	6Mbps	-	1.50	1.88	1.65	4.78	2.41	7.19	24.00	Pass
11a	CDD	2	49	6195	6Mbps	-	1.50	2.15	1.55	4.88	2.41	7.29	24.00	Pass
11a	CDD	2	93	6415	6Mbps	-	2.50	1.69	1.53	4.63	2.41	7.04	24.00	Pass
HE20	CDD	2	1	5955	MCS0	Full	2.50	2.59	2.28	5.45	2.41	7.86	24.00	Pass
HE20	CDD	2	1	5955	MCS0	RU 26/0	-7.00	-6.46	-6.69	-3.56	2.41	-1.15	24.00	Pass
HE20	CDD	2	1	5955	MCS0	RU 52/37	-4.00	-3.56	-4.59	-1.03	2.41	1.38	24.00	Pass
HE20	CDD	2	1	5955	MCS0	RU 106/53	-0.50	-0.66	-1.19	2.09	2.41	4.50	24.00	Pass
HE20	CDD	2	49	6195	MCS0	Full	2.00	2.44	1.75	5.12	2.41	7.53	24.00	Pass
HE20	CDD	2	49	6195	MCS0	RU 26/0	-7.50	-6.86	-7.75	-4.27	2.41	-1.86	24.00	Pass
HE20	CDD	2	49	6195	MCS0	RU 52/37	-4.50	-4.01	-5.14	-1.53	2.41	0.88	24.00	Pass
HE20	CDD	2	49	6195	MCS0	RU 106/53	-1.50	-1.24	-2.19	1.32	2.41	3.73	24.00	Pass
HE20	CDD	2	93	6415	MCS0	Full	3.00	1.84	1.72	4.79	2.41	7.20	24.00	Pass
HE20	CDD	2	93	6415	MCS0	RU 26/8	-6.50	-7.35	-6.37	-3.82	2.41	-1.41	24.00	Pass
HE20	CDD	2	93	6415	MCS0	RU 52/40	-3.50	-4.36	-3.58	-0.94	2.41	1.47	24.00	Pass
HE20	CDD	2	93	6415	MCS0	RU 106/54	0.50	-1.26	-1.32	1.72	2.41	4.13	24.00	Pass
HE40	CDD	2	3	5965	MCS0	Full	5.00	5.45	5.07	8.27	2.41	10.68	24.00	Pass
HE40	CDD	2	51	6205	MCS0	Full	5.00	5.81	4.69	8.30	2.41	10.71	24.00	Pass
HE40	CDD	2	91	6405	MCS0	Full	5.50	4.74	5.04	7.90	2.41	10.31	24.00	Pass
HE80	CDD	2	7	5985	MCS0	Full	8.00	8.26	7.88	11.08	2.41	13.49	24.00	Pass
HE80	CDD	2	55	6225	MCS0	Full	6.50	7.78	7.27	10.54	2.41	12.95	24.00	Pass
HE80	CDD	2	87	6385	MCS0	Full	8.50	7.98	8.15	11.08	2.41	13.49	24.00	Pass
HE160	CDD	2	15	6025	MCS0	Full	8.50	8.59	8.21	11.41	2.41	13.82	24.00	Pass
HE160	CDD	2	47	6185	MCS0	Full	8.50	9.17	7.91	11.60	2.41	14.01	24.00	Pass
HE160	CDD	2	79	6345	MCS0	Full	8.50	7.73	8.19	10.98	2.41	13.39	24.00	Pass

U-NII-6														
Mode							Power Setting	Average Conducted Power with duty factor(dBm)			Gain(dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass/Fail
Band	MIMO	N_{TX}	Channel	Freq (MHz)	Data Rate	RU Config		Ant 1	Ant 2	Ant 1+2	Ant 1+2	Ant 1+2	Ant 1+2	
11a	CDD	2	97	6435	6Mbps	-	2.00	2.42	2.11	5.28	2.17	7.45	24.00	Pass
11a	CDD	2	105	6475	6Mbps	-	2.50	2.39	2.65	5.54	2.17	7.71	24.00	Pass
11a	CDD	2	113	6515	6Mbps	-	2.50	1.85	2.30	5.10	2.17	7.27	24.00	Pass
HE20	CDD	2	97	6435	MCS0	Full	3.00	2.98	2.73	5.87	2.17	8.04	24.00	Pass
HE20	CDD	2	97	6435	MCS0	RU 26/0	-5.50	-5.29	-5.92	-2.58	2.17	-0.41	24.00	Pass
HE20	CDD	2	97	6435	MCS0	RU 52/37	-2.50	-2.42	-3.38	0.14	2.17	2.31	24.00	Pass
HE20	CDD	2	97	6435	MCS0	RU 106/53	0.00	0.16	-0.79	2.72	2.17	4.89	24.00	Pass
HE20	CDD	2	105	6475	MCS0	Full	3.00	2.68	2.82	5.76	2.17	7.93	24.00	Pass
HE20	CDD	2	105	6475	MCS0	RU 26/0	-5.50	-5.49	-5.88	-2.67	2.17	-0.50	24.00	Pass
HE20	CDD	2	105	6475	MCS0	RU 52/37	-2.50	-2.82	-3.25	-0.02	2.17	2.15	24.00	Pass
HE20	CDD	2	105	6475	MCS0	RU 106/53	0.00	-0.68	-0.78	2.28	2.17	4.45	24.00	Pass
HE20	CDD	2	113	6515	MCS0	Full	3.00	2.12	2.45	5.30	2.17	7.47	24.00	Pass
HE20	CDD	2	113	6515	MCS0	RU 26/8	-6.00	-7.33	-6.08	-3.65	2.17	-1.48	24.00	Pass
HE20	CDD	2	113	6515	MCS0	RU 52/40	-2.50	-4.38	-3.23	-0.76	2.17	1.41	24.00	Pass
HE20	CDD	2	113	6515	MCS0	RU 106/54	0.00	-1.44	-1.13	1.73	2.17	3.90	24.00	Pass
HE40	CDD	2	99	6445	MCS0	Full	5.50	5.52	5.23	8.39	2.17	10.56	24.00	Pass
HE40	CDD	2	107	6485	MCS0	Full	5.50	5.36	5.24	8.31	2.17	10.48	24.00	Pass
HE40	CDD	2	115	6525	MCS0	Full	4.50	4.93	4.51	7.74	2.17	9.91	24.00	Pass
HE80	CDD	2	103	6465	MCS0	Full	9.00	8.79	8.82	11.82	2.17	13.99	24.00	Pass
HE80	CDD	2	119	6545	MCS0	Full	8.50	8.32	8.07	11.21	2.17	13.38	24.00	Pass
HE160	CDD	2	111	6505	MCS0	Full	9.00	8.34	8.75	11.56	2.17	13.73	24.00	Pass

U-NII-7														
Mode							Power Setting	Average Conducted Power with duty factor(dBm)			Gain(dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass/Fail
Band	MIMO	N_{TX}	Channel	Freq (MHz)	Data Rate	RU Config		Ant 1	Ant 2	Ant 1+2	Ant 1+2	Ant 1+2	Ant 1+2	
11a	CDD	2	117	6535	6Mbps	-	1.50	2.09	1.57	4.85	2.40	7.25	24.00	Pass
11a	CDD	2	149	6695	6Mbps	-	1.50	1.98	2.10	5.06	2.40	7.46	24.00	Pass
11a	CDD	2	181	6855	6Mbps	-	2.00	1.85	1.82	4.85	2.40	7.25	24.00	Pass
11a	CDD	2	185	6875	6Mbps	-	2.50	2.27	2.20	5.25	2.40	7.65	24.00	Pass
HE20	CDD	2	117	6535	MCS0	Full	2.50	2.71	2.27	5.51	2.40	7.91	24.00	Pass
HE20	CDD	2	117	6535	MCS0	RU 26/0	-6.50	-6.35	-6.97	-3.64	2.40	-1.24	24.00	Pass
HE20	CDD	2	117	6535	MCS0	RU 52/37	-4.00	-3.95	-4.72	-1.31	2.40	1.09	24.00	Pass
HE20	CDD	2	117	6535	MCS0	RU 106/53	-1.00	-1.18	-1.67	1.59	2.40	3.99	24.00	Pass
HE20	CDD	2	149	6695	MCS0	Full	2.50	2.51	2.79	5.66	2.40	8.06	24.00	Pass
HE20	CDD	2	149	6695	MCS0	RU 26/0	-6.00	-6.08	-6.50	-3.27	2.40	-0.87	24.00	Pass
HE20	CDD	2	149	6695	MCS0	RU 52/37	-3.50	-3.47	-4.65	-1.01	2.40	1.39	24.00	Pass
HE20	CDD	2	149	6695	MCS0	RU 106/53	-0.50	-0.61	-0.90	2.26	2.40	4.66	24.00	Pass
HE20	CDD	2	181	6855	MCS0	Full	3.00	2.55	2.45	5.51	2.40	7.91	24.00	Pass
HE20	CDD	2	181	6855	MCS0	RU 26/8	-5.50	-6.73	-6.05	-3.37	2.40	-0.97	24.00	Pass
HE20	CDD	2	181	6855	MCS0	RU 52/40	-2.50	-3.80	-3.43	-0.60	2.40	1.80	24.00	Pass
HE20	CDD	2	181	6855	MCS0	RU 106/54	0.00	-1.07	-1.02	1.97	2.40	4.37	24.00	Pass
HE20	CDD	2	185	6875	MCS0	Full	3.50	2.91	2.82	5.88	2.40	8.28	24.00	Pass
HE20	CDD	2	185	6875	MCS0	RU 26/8	-5.50	-7.01	-6.15	-3.55	2.40	-1.15	24.00	Pass
HE20	CDD	2	185	6875	MCS0	RU 52/40	-2.50	-4.04	-2.96	-0.46	2.40	1.94	24.00	Pass
HE20	CDD	2	185	6875	MCS0	RU 106/54	0.50	-0.75	-0.58	2.35	2.40	4.75	24.00	Pass
HE40	CDD	2	123	6565	MCS0	Full	5.00	4.87	4.51	7.70	2.40	10.10	24.00	Pass
HE40	CDD	2	147	6685	MCS0	Full	5.00	5.02	4.66	7.85	2.40	10.25	24.00	Pass
HE40	CDD	2	179	6845	MCS0	Full	6.00	5.47	5.21	8.35	2.40	10.75	24.00	Pass
HE40	CDD	2	187	6885	MCS0	Full	6.50	5.54	5.56	8.56	2.40	10.96	24.00	Pass
HE80	CDD	2	135	6625	MCS0	Full	8.00	7.68	8.43	11.08	2.40	13.48	24.00	Pass
HE80	CDD	2	151	6705	MCS0	Full	9.00	8.47	8.63	11.56	2.40	13.96	24.00	Pass
HE80	CDD	2	167	6785	MCS0	Full	9.00	7.76	8.73	11.28	2.40	13.68	24.00	Pass
HE80	CDD	2	183	6865	MCS0	Full	8.50	7.53	7.23	10.39	2.40	12.79	24.00	Pass
HE160	CDD	2	143	6665	MCS0	Full	9.00	8.92	9.50	12.23	2.40	14.63	24.00	Pass
HE160	CDD	2	175	6825	MCS0	Full	9.00	8.40	8.19	11.31	2.40	13.71	24.00	Pass

U-NII-8														
Mode							Power Setting	Average Conducted Power with duty factor(dBm)			Gain(dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass/Fail
Band	MIMO	N_{TX}	Channel	Freq (MHz)	Data Rate	RU Config		Ant 1	Ant 2	Ant 1+2	Ant 1+2	Ant 1+2	Ant 1+2	
11a	CDD	2	189	6895	6Mbps	-	2.00	2.49	2.37	5.45	1.01	6.46	24.00	Pass
11a	CDD	2	209	6995	6Mbps	-	2.00	2.40	1.88	5.16	1.01	6.17	24.00	Pass
11a	CDD	2	229	7095	6Mbps	-	3.00	2.97	2.98	5.99	1.01	7.00	24.00	Pass
HE20	CDD	2	189	6895	MCS0	Full	2.50	2.64	2.52	5.59	1.01	6.60	24.00	Pass
HE20	CDD	2	189	6895	MCS0	RU 26/0	-6.00	-6.15	-6.38	-3.25	1.01	-2.24	24.00	Pass
HE20	CDD	2	189	6895	MCS0	RU 52/37	-3.00	-3.05	-3.50	-0.26	1.01	0.75	24.00	Pass
HE20	CDD	2	189	6895	MCS0	RU 106/53	-0.50	-0.67	-0.90	2.23	1.01	3.24	24.00	Pass
HE20	CDD	2	209	6995	MCS0	Full	3.00	3.09	2.51	5.82	1.01	6.83	24.00	Pass
HE20	CDD	2	209	6995	MCS0	RU 26/0	-5.50	-6.05	-6.78	-3.39	1.01	-2.38	24.00	Pass
HE20	CDD	2	209	6995	MCS0	RU 52/37	-3.00	-3.19	-4.50	-0.79	1.01	0.22	24.00	Pass
HE20	CDD	2	209	6995	MCS0	RU 106/53	0.00	-0.25	-1.02	2.39	1.01	3.40	24.00	Pass
HE20	CDD	2	229	7095	MCS0	Full	4.00	3.38	3.08	6.24	1.01	7.25	24.00	Pass
HE20	CDD	2	229	7095	MCS0	RU 26/8	-5.50	-6.68	-5.94	-3.28	1.01	-2.27	24.00	Pass
HE20	CDD	2	229	7095	MCS0	RU 52/40	-2.50	-3.64	-2.82	-0.20	1.01	0.81	24.00	Pass
HE20	CDD	2	229	7095	MCS0	RU 106/54	0.50	-0.38	-0.36	2.64	1.01	3.65	24.00	Pass
HE40	CDD	2	195	6925	MCS0	Full	6.50	6.11	6.17	9.15	1.01	10.16	24.00	Pass
HE40	CDD	2	211	7005	MCS0	Full	6.50	5.85	5.11	8.51	1.01	9.52	24.00	Pass
HE40	CDD	2	227	7085	MCS0	Full	7.00	6.21	6.29	9.26	1.01	10.27	24.00	Pass
HE80	CDD	2	199	6945	MCS0	Full	9.00	8.48	8.24	11.37	1.01	12.38	24.00	Pass
HE80	CDD	2	215	7025	MCS0	Full	10.00	8.85	8.49	11.68	1.01	12.69	24.00	Pass
HE160	CDD	2	207	6985	MCS0	Full	10.00	9.39	8.32	11.90	1.01	12.91	24.00	Pass

3.3 Fundamental Power Spectral Density Measurement

3.3.1 Limit of Fundamental Power Spectral Density

<FCC 14-30 CFR 15.407>

(a)(8) For client devices operating under the control of an indoor access point in the 5.925-7.125 GHz bands, the maximum power spectral density must not exceed −1 dBm e.i.r.p. in any 1-megahertz band.

3.3.2 Measuring Instruments

See list of measuring equipment of this test report.

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Section F) Maximum power spectral density.

 # Method SA-2 #

(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

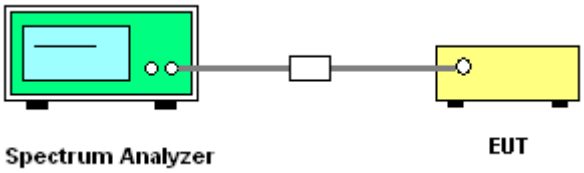
- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add 10 log(1/0.25) = 6 dB if the duty cycle is 25 percent.

1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, attenuator loss and duty factor. Measure the PSD and record it.
3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

   Method (b): Measure and sum spectral maxima across the outputs.

   The measurement on each individual output were performed with the same span and number on each individual output. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

3.4 In-Band Emissions (Channel Mask)

3.4.1 Limit of Unwanted Emissions

<FCC 14-30 CFR 15.407>

(b)(7) For transmitters operating within the 5.925-7.125 GHz bands: Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.

3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 Test Procedures

The testing follows FCC KDB 987594 D02 U-NII 6GHz EMC Measurement.

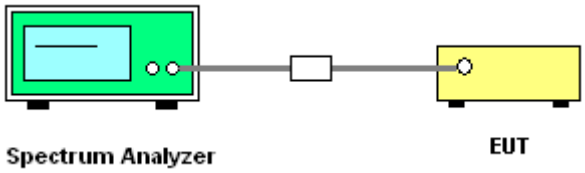
Section J) In-Band Emissions.

1. Take nominal bandwidth as reference channel bandwidth provided that 26 dB emission bandwidth is always larger than nominal bandwidth
2. Measure the power spectral density (which will be used for emissions mask reference) using the following procedure:
   a) Set the span to encompass the entire 26 dB EBW of the signal.
   b) Set RBW = same RBW used for 26 dB EBW measurement.
   c) Set VBW ≥ 3 X RBW
   d) Number of points in sweep ≥ [2 X span / RBW].
   e) Sweep time = auto.
   f) Detector = RMS (i.e., power averaging)
   g) Trace average at least 100 traces in power averaging (rms) mode.
   h) Use the peak search function on the instrument to find the peak of the spectrum.
3. Using the measuring equipment limit line function, develop the emissions mask based on the following requirements. The emissions power spectral density must be reduced below the peak power spectral density (in dB) as follows:
   a. Suppressed by 20 dB at 1 MHz outside of the channel edge.
   b. Suppressed by 28 dB at one channel bandwidth from the channel center.

c. Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center.

4. Adjust the span to encompass the entire mask as necessary.
5. Clear trace.
6. Trace average at least 100 traces in power averaging (rms) mode.
7. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask.

3.4.4 Test Setup



3.4.5 Test Result

Please refer to Appendix A.

3.5 Contention Based Protocol

3.5.1 Limit of Contention Based Protocol

<FCC 14-30 CFR 15.407>

(d)(6) All U-NII transmitters, except for standard power access points and fixed client devices, operating in the 5.925-7.125 GHz band must employ a contention-based protocol.

Unlicensed low-power indoor devices must detect co-channel radio frequency power that is at least -62 dBm or lower. Upon detection of energy in the band, unlicensed low power indoor devices must vacate the channel and stay off the channel as long as detected radio frequency power is equal to or greater than the threshold (-62 dBm). The -62 dBm (or lower) threshold is referenced to a 0 dBi antenna gain. To ensure incumbent operations are reliably detected in the band, low power indoor devices must detect RF energy throughout their intended operating channel. For example, an 802.11 device that plans to transmit a 40 MHz- wide signal (on a primary 20 MHz channel and a secondary 20 MHz channel) must detect energy throughout the entire 40 MHz channel. Additionally, low-power indoor devices must detect co-channel energy with 90% or greater certainty.

Table 1. Criteria to determine number of times detection threshold test may be performed

If	Number of Tests	Placement of Incumbent Transmission
$BW_{EUT} \leq BW_{Inc}$	Once	Tune incumbent and EUT transmissions ($f_{c1} = f_{c2}$)
$BW_{Inc} < BW_{EUT} \leq 2BW_{Inc}$	Once	Incumbent transmission is contained within BW_{EUT}
$2BW_{Inc} < BW_{EUT} \leq 4BW_{Inc}$	Twice. Incumbent transmission is contained within BW_{EUT}	Incumbent transmission is located as closely as possible to the lower edge and upper edge, respectively, of the EUT channel
$BW_{EUT} > 4BW_{Inc}$	Three times	Incumbent transmission is located as closely as possible to the lower edge of the EUT channel, in the middle of EUT channel, and as closely as possible to the upper edge of the EUT channel

where:
$BWEUT$: Transmission bandwidth of EUT signal
$BWInc$: Transmission bandwidth of the simulated incumbent signal (10 MHz wide AWGN signal)
$fc1$: Center frequency of EUT transmission
$fc2$: Center frequency of simulated incumbent signal

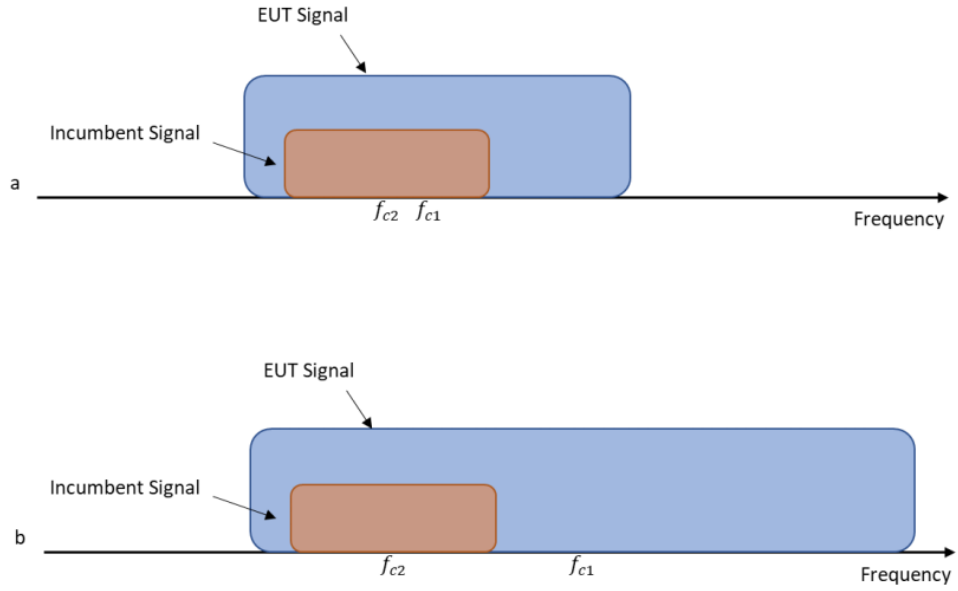


Figure 1. Two possible scenarios where a) center frequency of EUT transmission falls within incumbent's bandwidth, or b) outside of it

3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

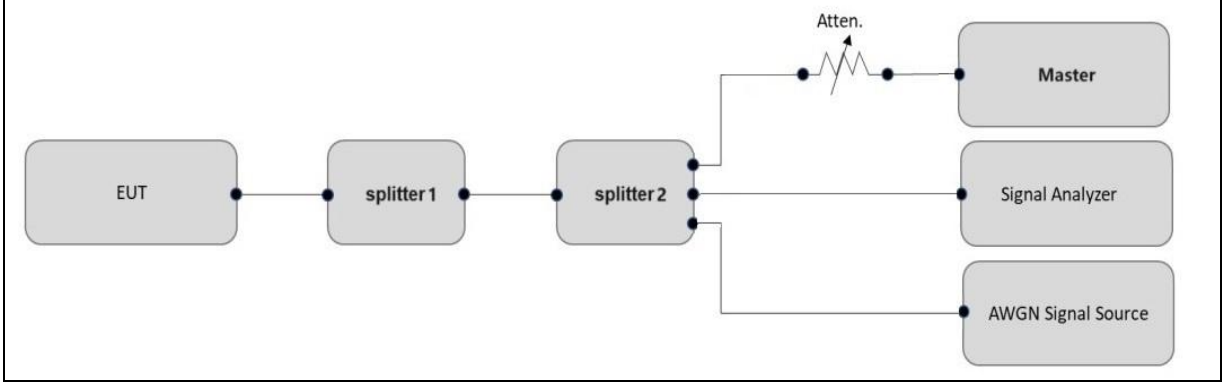
3.5.3 Test Procedures

1. To ensure EUT reliably detects an incumbent signal in both scenarios shown in Figure 1, the detection threshold test may be repeated more than once with the incumbent signal (having center frequency $fc2$) tuned to different center frequencies within the UT transmission bandwidth. The criteria specified in Table 1 determines how many times the detection threshold test must be performed
2. Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use Table 1 to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
3. Monitor the signal analyzer to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.
4. (Including all losses in the RF paths) Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty.
5. Refer to Table 1 to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step 2, choose a different center frequency for the AWGN signal and repeat the process.

6. EUT was driven in MIMO mode, the interferer signal was injected to both chains to monitor the performance, while the interferer level is determined according to the lowest antenna gain among both antennas.

3.5.4 Test Setup

Conducted Setup



3.5.5 Support Unit used in test configuration and system

Instrument	Brand Name	Model No.	Characteristics
Signal Generator	Keysight	5182B/5182BX07	9KHz~7.2GHz
Spectrum Analyzer	R&S	FSV40	10kHz~40GHz
Terminal (NB Server)	DELL	P78G	LAN
Combiner (splitter1)	Tojoin	N/A	2G~8GHz
Combiner (splitter2)	MTJ Cooperation	MTJ7144-M	0.5GHz~18GHz
Attenuator	Keysight	8494B	0-110dBm
WLAN AP	ASUS	GT-AXE11000	Dual Band AP

3.5.6 Test Summary of Contention Based Protocol Test

Band	Channel Freq. (MHz)	Channel BW (MHz)	Incumbent freq. (MHz)	Injected AWGN Level (dBm)	Detection Rate (%)	Regulated Threshold level (dBm)	Adjusted Power (dBm)	Margin (dB)
UNII Band 5	6135	20	6135	-77.70	100	-62	-76.26	14.26
					Result: Stop Transmission			
				-78.70	< 90	-62	-77.26	15.26
					Result: Minimal Operation			
				-79.73	0	-62	-78.29	16.29
					Result: Normal Operation			
	6185	160	6110	-77.93	100	-62	-76.49	14.49
					Result: Stop Transmission			
				-78.93	< 90	-62	-77.49	15.49
					Result: Minimal Operation			
				-79.45	0	-62	-78.01	16.01
					Result: Normal Operation			
			6185	-75.83	100	-62	-74.39	12.39
					Result: Stop Transmission			
				-76.83	< 90	-62	-75.39	13.39
					Result: Minimal Operation			
				-77.50	0	-62	-76.06	14.06
					Result: Normal Operation			
			6260	-78.02	100	-62	-76.58	14.58
					Result: Stop Transmission			
				-79.02	< 90	-62	-77.58	15.58
					Result: Minimal Operation			
				-79.27	0	-62	-77.83	15.83
					Result: Normal Operation			

Note 1: Adjusted Power = Injected AWGN Level - minimum antenna gain (Antenna 1, gain = -1.44dBi)

Note 2: Path Loss between antenna and RF connector is negligible. (0 dB)

Note 3: Margin = Regulated Threshold level - Adjusted Power

Band	Channel Freq. (MHz)	Channel BW (MHz)	Incumbent freq. (MHz)	Injected AWGN Level (dBm)	Detection Rate (%)	Regulated Threshold level (dBm)	Adjusted Power (dBm)	Margin (dB)
UNII Band 6	6455	20	6455	-77.97	100	-62	-76.53	14.53
					Result: Stop Transmission			
				-78.97	< 90	-62	-77.53	15.53
					Result: Minimal Operation			
				-79.34	0	-62	-77.9	15.9
					Result: Normal Operation			
	6505	160	6430	-77.39	100	-62	-75.95	13.95
					Result: Stop Transmission			
				-78.39	< 90	-62	-76.95	14.95
					Result: Minimal Operation			
				-79.07	0	-62	-77.63	15.63
					Result: Normal Operation			
			6505	**-74.33 (worst)**	100	-62	-72.89	10.89
					Result: Stop Transmission			
				-75.33	< 90	-62	-73.89	11.89
					Result: Minimal Operation			
				-76.62	0	-62	-75.18	13.18
					Result: Normal Operation			
			6580	-77.54	100	-62	-76.1	14.1
					Result: Stop Transmission			
				-78.54	< 90	-62	-77.1	15.1
					Result: Minimal Operation			
				-78.79	0	-62	-77.35	15.35
					Result: Normal Operation			

Note 1: Adjusted Power = Injected AWGN Level - minimum antenna gain (Antenna 1, gain = -1.44dBi)

Note 2: Path Loss between antenna and RF connector is negligible. (0 dB)

Note 3: Margin = Regulated Threshold level - Adjusted Power

Band	Channel Freq. (MHz)	Channel BW (MHz)	Incumbent freq. (MHz)	Injected AWGN Level (dBm)	Detection Rate (%)	Regulated Threshold level (dBm)	Adjusted Power (dBm)	Margin (dB)
UNII Band 7	6695	20	6695	-78.02	100	-62	-76.58	14.58
					Result: Stop Transmission			
				-79.02	< 90	-62	-77.58	15.58
					Result: Minimal Operation			
				-79.31	0	-62	-77.87	15.87
					Result: Normal Operation			
	6665	160	6590	-77.45	100	-62	-76.01	14.01
					Result: Stop Transmission			
				-78.45	< 90	-62	-77.01	15.01
					Result: Minimal Operation			
				-78.83	0	-62	-77.39	15.39
					Result: Normal Operation			
			6665	-75.51	100	-62	-74.07	12.07
					Result: Stop Transmission			
				-76.51	< 90	-62	-75.07	13.07
					Result: Minimal Operation			
				-77.09	0	-62	-75.65	13.65
					Result: Normal Operation			
			6740	-77.94	100	-62	-76.5	14.5
					Result: Stop Transmission			
				-78.94	< 90	-62	-77.5	15.5
					Result: Minimal Operation			
				-79.13	0	-62	-77.69	15.69
					Result: Normal Operation			

Note 1: Adjusted Power = Injected AWGN Level - minimum antenna gain (Antenna 1, gain = -1.44dBi)

Note 2: Path Loss between antenna and RF connector is negligible. (0 dB)

Note 3: Margin = Regulated Threshold level - Adjusted Power

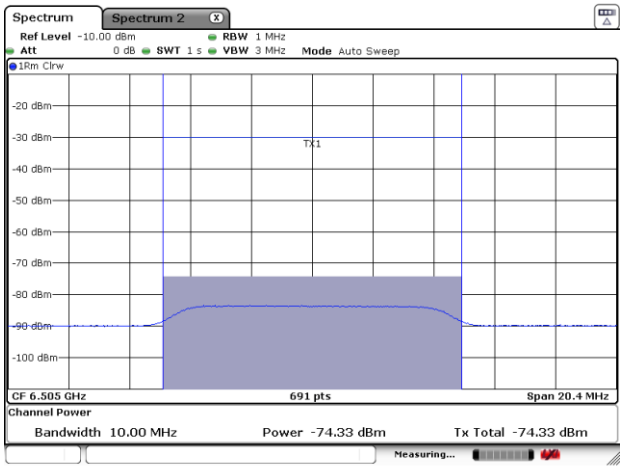
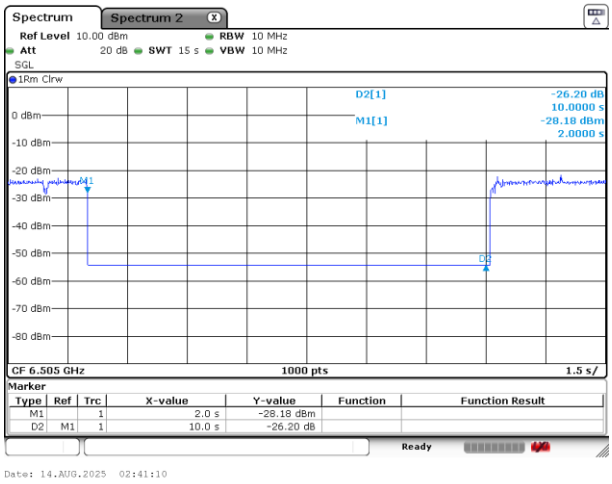
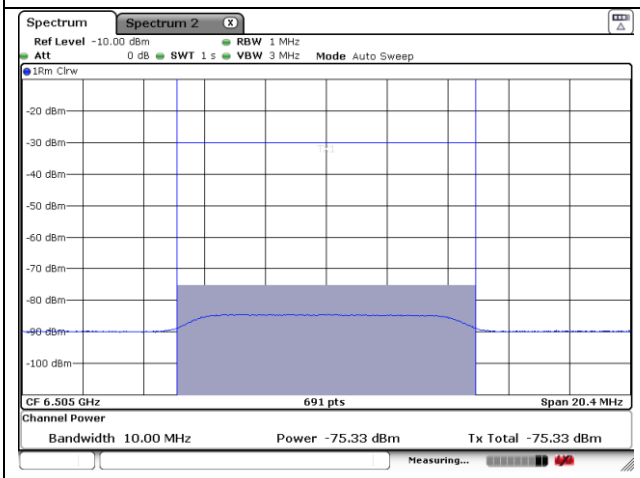
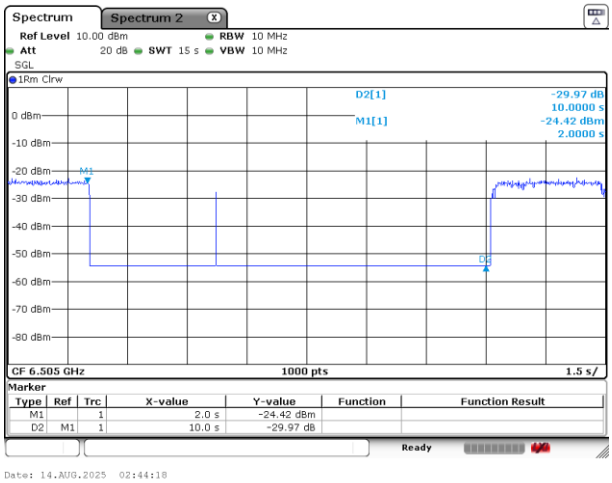
Band	Channel Freq. (MHz)	Channel BW (MHz)	Incumbent freq. (MHz)	Injected AWGN Level (dBm)	Detection Rate (%)	Regulated Threshold level (dBm)	Adjusted Power (dBm)	Margin (dB)
UNII Band 8	7015	20	7015	-77.35	100	-62	-75.91	13.91
					Result: Stop Transmission			
				-78.35	< 90	-62	-76.91	14.91
					Result: Minimal Operation			
				-78.57	0	-62	-77.13	15.13
					Result: Normal Operation			
	6985	160	6910	-76.96	100	-62	-75.52	13.52
					Result: Stop Transmission			
				-77.96	< 90	-62	-76.52	14.52
					Result: Minimal Operation			
				-78.58	0	-62	-77.14	15.14
					Result: Normal Operation			
			6985	-75.99	100	-62	-74.55	12.55
					Result: Stop Transmission			
				-76.99	< 90	-62	-75.55	13.55
					Result: Minimal Operation			
				-77.18	0	-62	-75.74	13.74
					Result: Normal Operation			
			7060	-77.98	100	-62	-76.54	14.54
					Result: Stop Transmission			
				-78.98	< 90	-62	-77.54	15.54
					Result: Minimal Operation			
				-79.03	0	-62	-77.59	15.59
					Result: Normal Operation			

Note 1: Adjusted Power = Injected AWGN Level - minimum antenna gain (Antenna 1, gain = -1.44dBi)

Note 2: Path Loss between antenna and RF connector is negligible. (0 dB)

Note 3: Margin = Regulated Threshold level - Adjusted Power

3.5.7 Worst Case Plots of Contention Based Protocol

Contention Based Protocol Result Plots on U-NII 6 (AWGN Interference)	
802.11ax (HE160) / 6505MHz (Middle) Threshold Level (TL) = -74.33 dBm	802.11ax (HE160) / CH111 (Middle) Test result is pass due to no transmission occur.
	
802.11ax (HE160) / 6505MHz (Middle) Threshold Level (TL) =-75.33 dBm	802.11ax (HE160) / CH111 (Middle) Transmit when the interferer is 1dB lower.
	

Remark: M1: Injection of AWGN signal, D1: Removal of AWGN signal

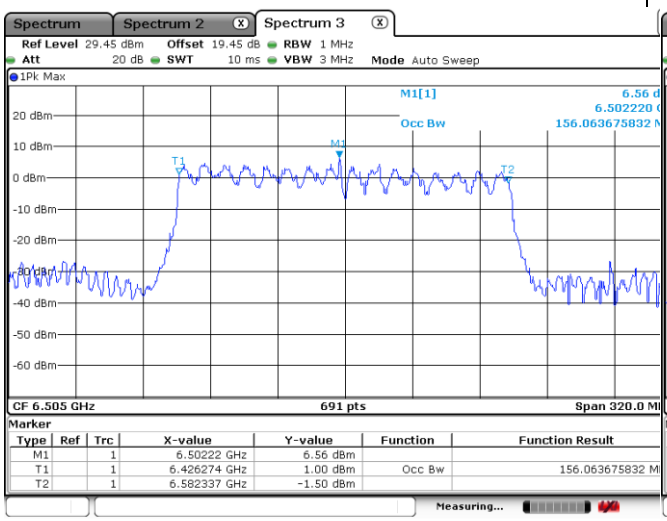
3.5.8 Worst Case of Contention Based Protocol Transmission Bandwidth

Verify transmission absence when Incumbent signal at different frequency (frequency domain plots).

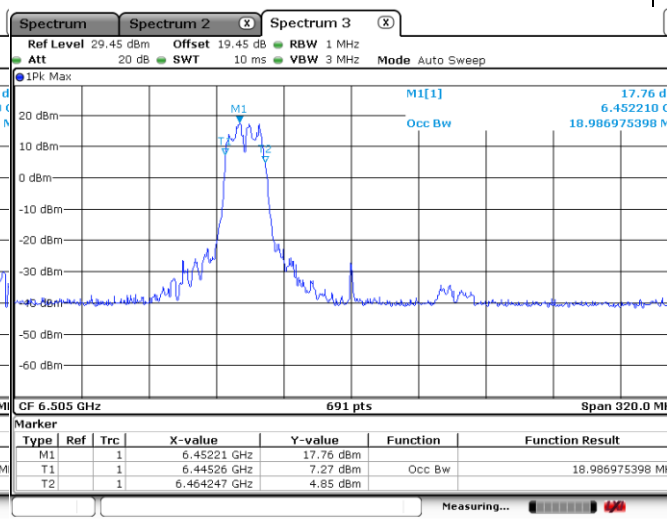
1. When Incumbent Signal inject at lowest frequency, the transmission bandwidth reduced to 20MHz;
2. When Incumbent Signal inject at middle frequency, the whole 160MHz bandwidth stop transmission;
3. When Incumbent Signal inject at highest frequency, the transmission bandwidth reduced to 80MHz;
4. This device does not support channel puncturing mode for incumbent avoidance but bandwidth reduction mechanism is supported.

UNII 6_CH111 (6985MHz / BW=160MHz)

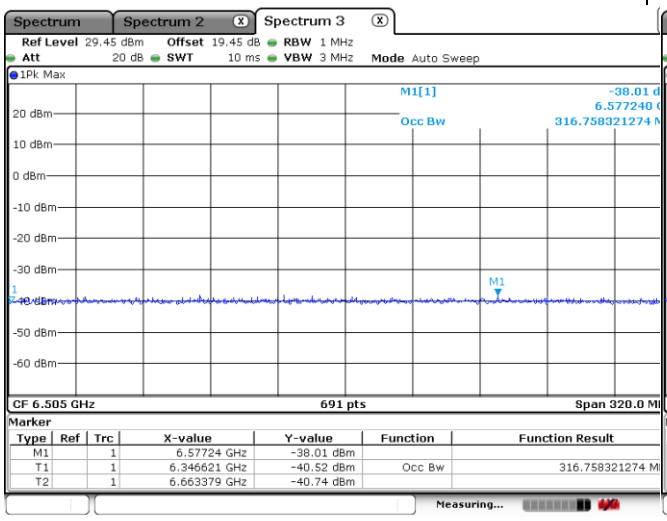
Non-Incumbent Signal



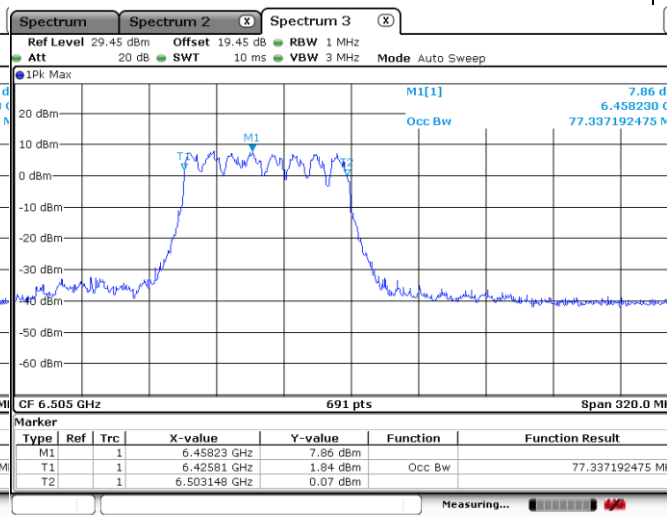
Incumbent freq @ 6430MHz



Incumbent freq @ 6505MHz



Incumbent freq @ 6580 MHz



3.6 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

3.6.1 Limit of Unwanted Emissions

(1) For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of −27 dBm/MHz.

EIRP (dBm)	Field Strength at 3m (dBμV/m)
- 27 (RMS)	68.2
- 7 (Peak)	88.2

Unwanted emissions outside of restricted bands are measured with a RMS detector.
In addition, 15.35(b) applies where the peak emissions must be limited to no more than 20 dB above the average limit

(2) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as below table:

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

Note: The following formula is used to convert the EIRP to field strength.

$$E=\frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts)

3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

   Section G) Unwanted emissions measurement.

   (1) Procedure for Unwanted Emissions Measurements Below 1000MHz

   - RBW = 120 kHz
   - VBW = 300 kHz
   - Detector = Peak
   - Trace mode = max hold

   (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz

   - RBW = 1 MHz
   - VBW ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

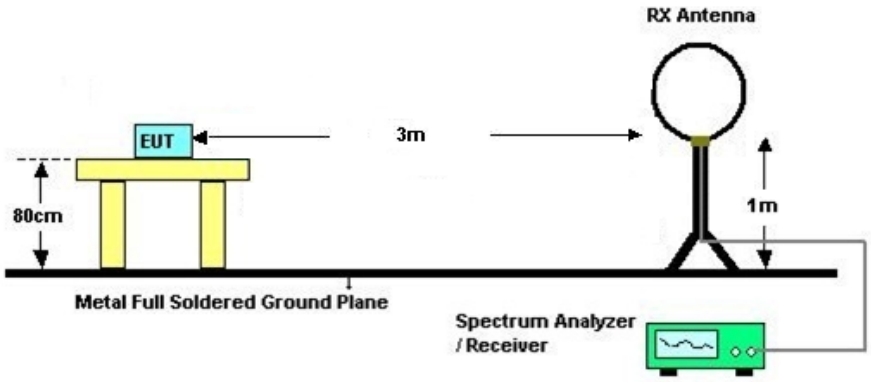
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

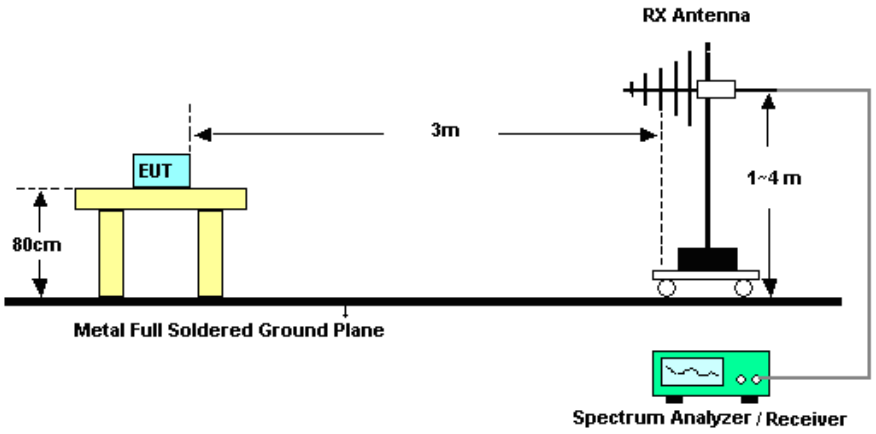
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.6.4 Test Setup

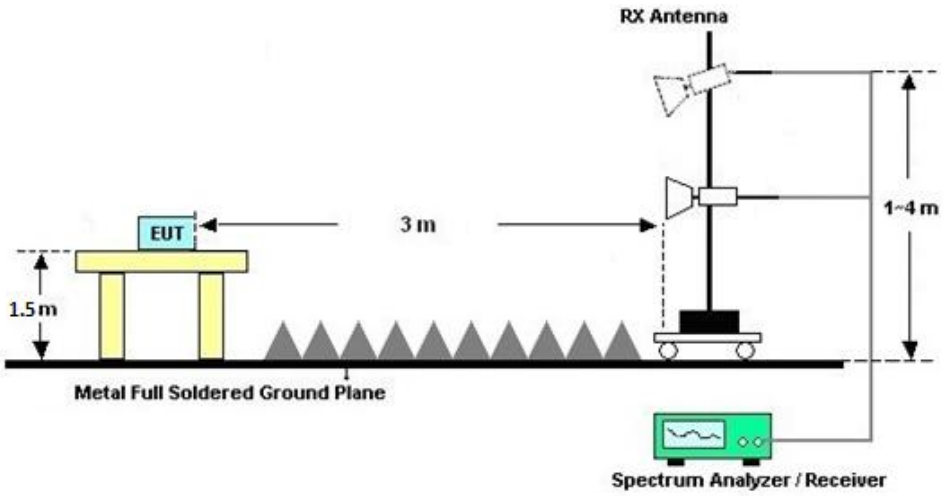
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.6.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.6.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C

3.6.7 Duty Cycle

Please refer to Appendix D.

3.6.8 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic)

Please refer to Appendix C.

3.7 AC Conducted Emission Measurement

3.7.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

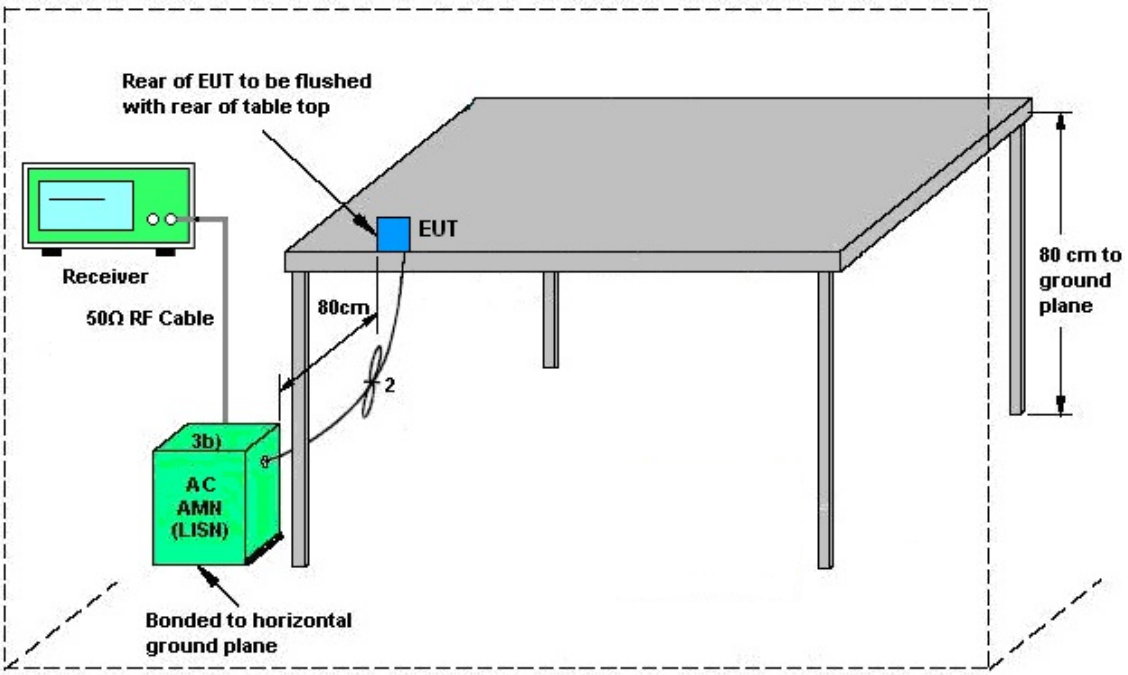
3.7.2 Measuring Instruments

See list of measuring equipment of this test report.

3.7.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.7.4 Test Setup



AMN = Artificial mains network (LISN)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network

3.7.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.8 Antenna Requirements

3.8.1 Standard Applicable

§15.203: 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 shall be considered sufficient to comply with the provisions of this section.

3.8.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used. The EUT complies with the requirement of 15.203.

3.8.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

For power, the directional gain GANT is set equal to the antenna having the highest gain, i.e.,

Directional gain = $G_{ANT\ MAX}$(Ant.1 Gain, Ant.2 Gain,…) + Array Gain, as following table for Power, where Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4;

For PSD, the directional gain calculation is following,

Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{Gn/20})^2 / N_{ANT}$] dBi, as following table for PSD.

N_{ANT} = number of transmit antennas

N_{SS} = number of spatial streams. (The worst case directional gain will occur when NSS = 1)

<CDD Modes>

	Ant. 1 (dBi)	Ant. 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)
U-NII-5	0.17	2.41	2.41	4.37
U-NII-6	-1.44	2.17	2.17	3.56
U-NII-7	-0.70	2.40	2.40	4.00
U-NII-8	0.06	1.01	1.01	3.56

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 10, 2024	Jul. 31, 2025~ Aug. 15, 2025	Oct. 09, 2025	Conducted (TH01-KS)
Pulse Power Senor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 02, 2025	Jul. 31, 2025~ Aug. 15, 2025	Jan. 01, 2026	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 02, 2025	Jul. 31, 2025~ Aug. 15, 2025	Jan. 01, 2026	Conducted (TH01-KS)
EMI Test Receiver	Keysight	N9038A	MY56400004	3Hz~8.5GHz;Max 30dBm	Oct. 11, 2024	Aug. 06, 2025	Oct. 10, 2025	Radiation (03CH03-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz-44GHz	Apr. 18, 2025	Aug. 06, 2025	Apr. 17, 2026	Radiation (03CH03-KS)
Loop Antenna	R&S	HFH2-Z2E	101125	9kHz~30MHz	Sep. 08, 2024	Aug. 06, 2025	Sep. 07, 2025	Radiation (03CH03-KS)
Bilog Antenna	TeseQ	CBL6111D	44483	30MHz-1GHz	Nov. 23, 2024	Aug. 06, 2025	Nov. 22, 2025	Radiation (03CH03-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00251982	1GHz~18GHz	Aug. 16, 2024	Aug. 06, 2025	Aug. 15, 2025	Radiation (03CH03-KS)
SHF-EHF Horn	com-power	AH-840	101116	18GHz~40GHz	Oct. 22, 2024	Aug. 06, 2025	Oct. 21, 2025	Radiation (03CH03-KS)
Amplifier	SONOMA	310N	380826	9KHz-1GHz	Jul. 02, 2025	Aug. 06, 2025	Jul. 01, 2026	Radiation (03CH03-KS)
Amplifier	EM	EM18G40GA	060851	18~40GHz	Jan. 02, 2025	Aug. 06, 2025	Jan. 01, 2026	Radiation (03CH03-KS)
high gain Amplifier	EM	EM01G18GA	060834	1Ghz-18Ghz	Dec. 02, 2024	Aug. 06, 2025	Dec. 01, 2025	Radiation (03CH03-KS)
Amplifier	EM	EM01G18GA	EM	1GHz~26.5GHz	Oct. 09, 2024	Aug. 06, 2025	Oct. 08, 2025	Radiation (03CH03-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Aug. 06, 2025	NCR	Radiation (03CH03-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Aug. 06, 2025	NCR	Radiation (03CH03-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Aug. 06, 2025	NCR	Radiation (03CH03-KS)
EMI Test Receiver	Keysight	N9038A	MY57290157	3Hz~8.5GHz;Max 30dBm	Feb. 22, 2025	Sep. 12, 2025	Feb. 21, 2026	Radiation (03CH06-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57471084	10Hz-44GHz	Jul. 04, 2025	Sep. 12, 2025	Jul. 03, 2026	Radiation (03CH06-KS)
Loop Antenna	R&S	HFH2-Z2E	101125	9kHz~30MHz	Sep. 07, 2025	Sep. 12, 2025	Sep. 06, 2026	Radiation (03CH06-KS)
Bilog Antenna	TeseQ	CBL6111D	59913	30MHz-1GHz	Sep. 02, 2025	Sep. 12, 2025	Sep. 01, 2026	Radiation (03CH06-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00251694	1GHz~18GHz	Jul. 06, 2025	Sep. 12, 2025	Jul. 05, 2026	Radiation (03CH06-KS)
SHF-EHF Horn	Com-power	AH-840	101116	18GHz~40GHz	Oct. 22, 2024	Sep. 12, 2025	Oct. 21, 2025	Radiation (03CH06-KS)
Amplifier	SONOMA	310N	380827	9KHz ~1GHZ	Jul. 04, 2025	Sep. 12, 2025	Jul. 03, 2026	Radiation (03CH06-KS)
Amplifier	EM	EM18G40GA	060728	18~40GHz	Jan. 03, 2025	Sep. 12, 2025	Jan. 02, 2026	Radiation (03CH06-KS)
high gain Amplifier	EM	EM01G18GA	060845	1Ghz-18Ghz	Jan. 03, 2025	Sep. 12, 2025	Jan. 02, 2026	Radiation (03CH06-KS)
Amplifier	Keysight	83017A	MY57280119	500MHz~26.5GHz	Oct. 09, 2024	Sep. 12, 2025	Oct. 08, 2025	Radiation (03CH06-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Sep. 12, 2025	NCR	Radiation (03CH06-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Sep. 12, 2025	NCR	Radiation (03CH06-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Sep. 12, 2025	NCR	Radiation (03CH06-KS)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 16, 2025	Jul. 31, 2025	Apr. 15, 2026	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Aug. 20, 2024	Jul. 31, 2025	Aug. 19, 2025	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	Dec. 24, 2024	Jul. 31, 2025	Dec. 23, 2025	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP00000 0811	AC 0V~300V, 45Hz~1000Hz	Oct. 09, 2024	Jul. 31, 2025	Oct. 08, 2025	Conduction (CO01-KS)
Signal Analyzer	R&S	FSV7	101472	10Hz~7GHz	Jan. 02, 2025	Aug. 14, 2025	Jan. 01, 2026	CBP (DFS01-KS)
MXG-B RF Vector Signal Genertor	Keysight	5182B /5182BX07	MY562004 17 /MY59360 210	9kHz~7.2GHz	Apr. 16, 2025	Aug. 14, 2025	Apr. 15, 2026	CBP (DFS01-KS)
Vector Signal Generator	R&S	SMJ100A	101908	100kHz~6GHz	Jan. 02, 2025	Aug. 14, 2025	Jan. 01, 2026	CBP (DFS01-KS)
Combiner	MTJ Cooperation	MTJ7112	N/A	0.4-6GHz	NCR	Aug. 14, 2025	NCR	CBP (DFS01-KS)

NCR: No Calibration Required

5 Measurement Uncertainty

Uncertainty of Conducted Measurement

Conducted Spurious Emission & Bandedge	±2.00 dB
Occupied Channel Bandwidth	±0.384%
Conducted Power	±0.90 dB
Conducted Power Spectral Density	±0.90 dB
Frequency	±0.38 Hz
Conducted Generated signal Levels	±0.56 dB
Conducted Time	0.44%

Uncertainty of AC Conducted Emission Measurement (0.15 MHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.84dB

03CH03-KS

Uncertainty of Radiated Emission Measurement (9 KHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.3dB

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	6.2dB

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.88dB

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.32dB

03CH06-KS

Uncertainty of Radiated Emission Measurement (9 KHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.3 dB**

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**6.18 dB**

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.88 dB**

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.36 dB**

---------- THE END ----------

Appendix A. Conducted Test Results

Emission Bandwidth

Test Result

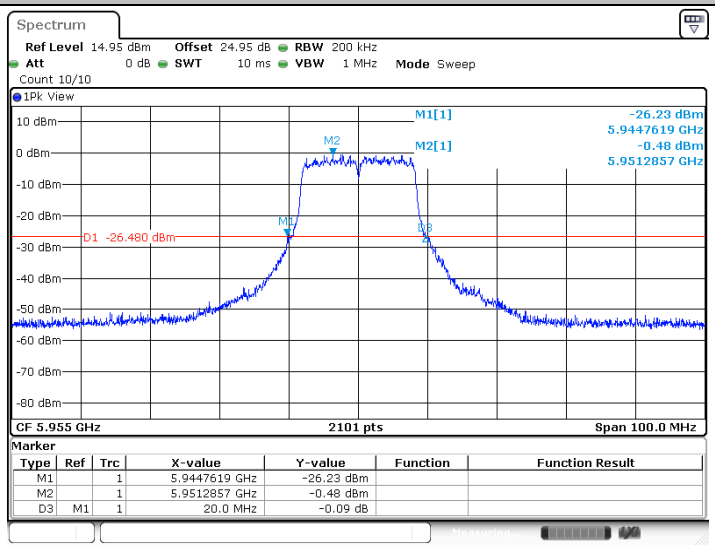
TestMode	Antenna	Freq(MHz)	26dB EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A-CDD	Ant1	5955	20.00	5944.76	5964.76	320	PASS
	Ant2	5955	19.52	5945.14	5964.67	320	PASS
	Ant1	6195	19.86	6184.76	6204.62	320	PASS
	Ant2	6195	20.24	6184.90	6205.14	320	PASS
	Ant1	6415	19.81	6404.81	6424.62	320	PASS
	Ant2	6415	19.62	6405.05	6424.67	320	PASS
	Ant1	6435	19.76	6424.81	6444.57	320	PASS
	Ant2	6435	20.05	6425.10	6445.14	320	PASS
	Ant1	6475	19.67	6464.95	6484.62	320	PASS
	Ant2	6475	19.52	6465.14	6484.67	320	PASS
	Ant1	6515	19.76	6504.81	6524.57	320	PASS
	Ant2	6515	19.52	6505.14	6524.67	320	PASS
	Ant1	6535	19.71	6524.90	6544.62	320	PASS
	Ant2	6535	20.10	6525.05	6545.14	320	PASS
	Ant1	6695	19.57	6684.81	6704.38	320	PASS
	Ant2	6695	19.52	6685.14	6704.67	320	PASS
	Ant1	6855	19.62	6844.95	6864.57	320	PASS
	Ant2	6855	19.71	6845.10	6864.81	320	PASS
	Ant1	6875	19.81	6864.81	6884.62	320	PASS
	Ant2	6875	19.52	6865.10	6884.62	320	PASS
	Ant1	6895	19.24	6885.57	6904.81	320	PASS
	Ant2	6895	19.43	6885.24	6904.67	320	PASS
	Ant1	6995	19.76	6984.86	7004.62	320	PASS
	Ant2	6995	19.19	6985.43	7004.62	320	PASS
	Ant1	7095	19.71	7084.90	7104.62	320	PASS
	Ant2	7095	19.05	7085.62	7104.67	320	PASS
11AX20MIMO	Ant1	5955	20.95	5944.57	5965.52	320	PASS
	Ant2	5955	21.24	5944.52	5965.76	320	PASS
	Ant1	6195	21.24	6184.29	6205.52	320	PASS
	Ant2	6195	20.86	6184.52	6205.38	320	PASS
	Ant1	6415	20.90	6404.57	6425.48	320	PASS
	Ant2	6415	20.67	6404.71	6425.38	320	PASS
	Ant1	6435	20.95	6424.57	6445.52	320	PASS
	Ant2	6435	20.86	6424.57	6445.43	320	PASS
	Ant1	6475	20.71	6464.67	6485.38	320	PASS
	Ant2	6475	21.05	6464.52	6485.57	320	PASS
	Ant1	6515	20.52	6504.76	6525.29	320	PASS
	Ant2	6515	20.95	6504.48	6525.43	320	PASS
	Ant1	6535	21.05	6524.43	6545.48	320	PASS
	Ant2	6535	21.33	6524.33	6545.67	320	PASS
	Ant1	6695	21.43	6684.19	6705.62	320	PASS
	Ant2	6695	21.19	6684.43	6705.62	320	PASS
	Ant1	6855	20.81	6844.52	6865.33	320	PASS

	Ant2	6855	20.90	6844.48	6865.38	320	PASS
	Ant1	6875	20.90	6864.67	6885.57	320	PASS
	Ant2	6875	21.14	6864.29	6885.43	320	PASS
	Ant1	6895	20.86	6884.57	6905.43	320	PASS
	Ant2	6895	21.05	6884.48	6905.52	320	PASS
	Ant1	6995	21.24	6984.62	7005.86	320	PASS
	Ant2	6995	20.62	6984.71	7005.33	320	PASS
	Ant1	7095	20.90	7084.62	7105.52	320	PASS
	Ant2	7095	21.24	7084.38	7105.62	320	PASS
11AX40MIMO	Ant1	5965	41.14	5944.71	5985.86	320	PASS
	Ant2	5965	40.67	5944.81	5985.48	320	PASS
	Ant1	6205	40.86	6184.52	6225.38	320	PASS
	Ant2	6205	40.86	6184.52	6225.38	320	PASS
	Ant1	6405	40.29	6384.90	6425.19	320	PASS
	Ant2	6405	40.29	6384.90	6425.19	320	PASS
	Ant1	6445	40.48	6424.71	6465.19	320	PASS
	Ant2	6445	40.86	6424.62	6465.48	320	PASS
	Ant1	6485	40.48	6464.81	6505.29	320	PASS
	Ant2	6485	40.67	6464.62	6505.29	320	PASS
	Ant1	6525	40.48	6504.71	6545.19	320	PASS
	Ant2	6525	40.57	6504.71	6545.29	320	PASS
	Ant1	6565	40.48	6544.81	6585.29	320	PASS
	Ant2	6565	40.57	6544.62	6585.19	320	PASS
	Ant1	6685	40.57	6664.71	6705.29	320	PASS
	Ant2	6685	40.48	6664.90	6705.38	320	PASS
	Ant1	6845	40.57	6824.81	6865.38	320	PASS
	Ant2	6845	40.57	6824.81	6865.38	320	PASS
	Ant1	6885	40.29	6864.90	6905.19	320	PASS
	Ant2	6885	41.05	6864.52	6905.57	320	PASS
	Ant1	6925	40.48	6904.81	6945.29	320	PASS
	Ant2	6925	40.48	6904.81	6945.29	320	PASS
	Ant1	7005	40.38	6984.81	7025.19	320	PASS
	Ant2	7005	40.10	6985.10	7025.19	320	PASS
	Ant1	7085	40.57	7064.71	7105.29	320	PASS
	Ant2	7085	40.86	7064.52	7105.38	320	PASS
11AX80MIMO	Ant1	5985	81.90	5944.24	6026.14	320	PASS
	Ant2	5985	82.67	5943.86	6026.52	320	PASS
	Ant1	6225	81.90	6184.05	6265.95	320	PASS
	Ant2	6225	82.29	6183.86	6266.14	320	PASS
	Ant1	6385	82.29	6343.86	6426.14	320	PASS
	Ant2	6385	81.90	6344.05	6425.95	320	PASS
	Ant1	6465	82.29	6423.86	6506.14	320	PASS
	Ant2	6465	82.29	6423.86	6506.14	320	PASS
	Ant1	6545	82.29	6503.67	6585.95	320	PASS
	Ant2	6545	81.90	6504.24	6586.14	320	PASS
	Ant1	6625	82.29	6584.05	6666.33	320	PASS
	Ant2	6625	82.29	6584.05	6666.33	320	PASS
	Ant1	6705	82.29	6663.86	6746.14	320	PASS
	Ant2	6705	82.10	6664.05	6746.14	320	PASS
	Ant1	6785	82.48	6743.29	6825.76	320	PASS

	Ant2	6785	82.67	6743.67	6826.33	320	PASS
	Ant1	6865	82.29	6823.67	6905.95	320	PASS
	Ant2	6865	82.29	6823.86	6906.14	320	PASS
	Ant1	6945	83.05	6903.29	6986.33	320	PASS
	Ant2	6945	81.71	6904.05	6985.76	320	PASS
	Ant1	7025	81.71	6983.86	7065.57	320	PASS
	Ant2	7025	81.71	6984.05	7065.76	320	PASS
11AX160MIMO	Ant1	6025	165.33	5942.71	6108.05	320	PASS
	Ant2	6025	165.33	5942.33	6107.67	320	PASS
	Ant1	6185	166.10	6101.95	6268.05	320	PASS
	Ant2	6185	165.33	6102.71	6268.05	320	PASS
	Ant1	6345	165.71	6261.95	6427.67	320	PASS
	Ant2	6345	165.71	6261.95	6427.67	320	PASS
	Ant1	6505	165.33	6422.33	6587.67	320	PASS
	Ant2	6505	164.95	6423.10	6588.05	320	PASS
	Ant1	6665	163.81	6583.10	6746.90	320	PASS
	Ant2	6665	166.10	6582.33	6748.43	320	PASS
	Ant1	6825	166.48	6741.19	6907.67	320	PASS
	Ant2	6825	165.71	6741.57	6907.29	320	PASS
	Ant1	6985	164.57	6901.95	7066.52	320	PASS
	Ant2	6985	164.57	6903.10	7067.67	320	PASS

Test Graphs

11A-CDD_Ant1_5955



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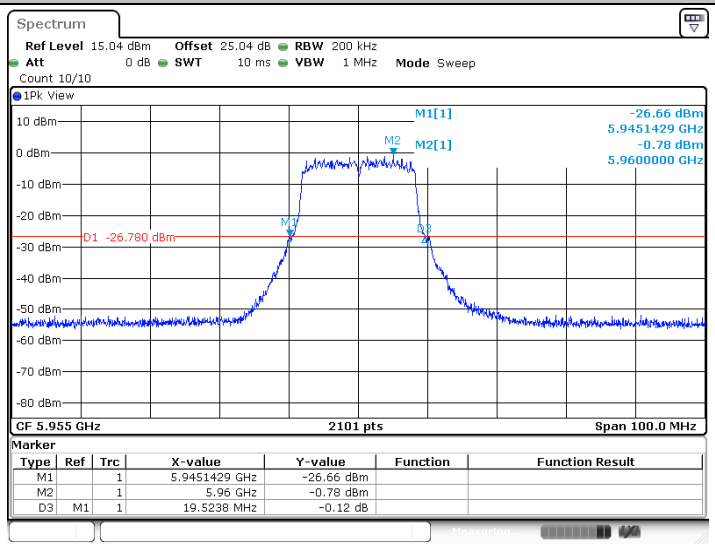

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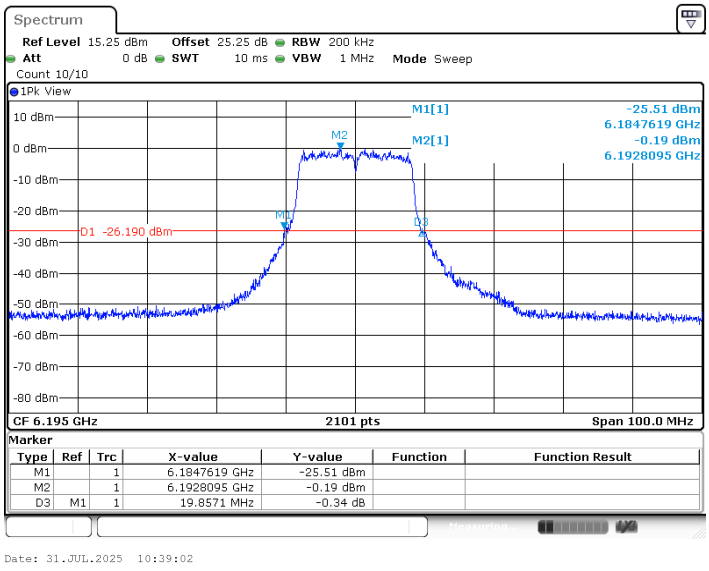

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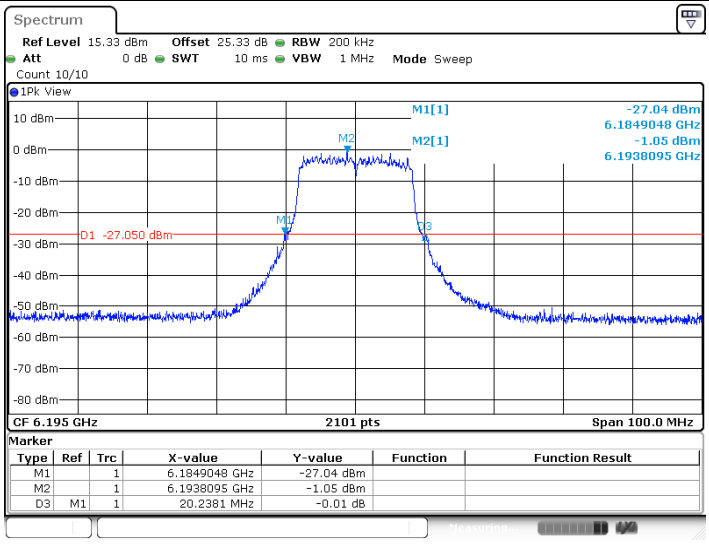

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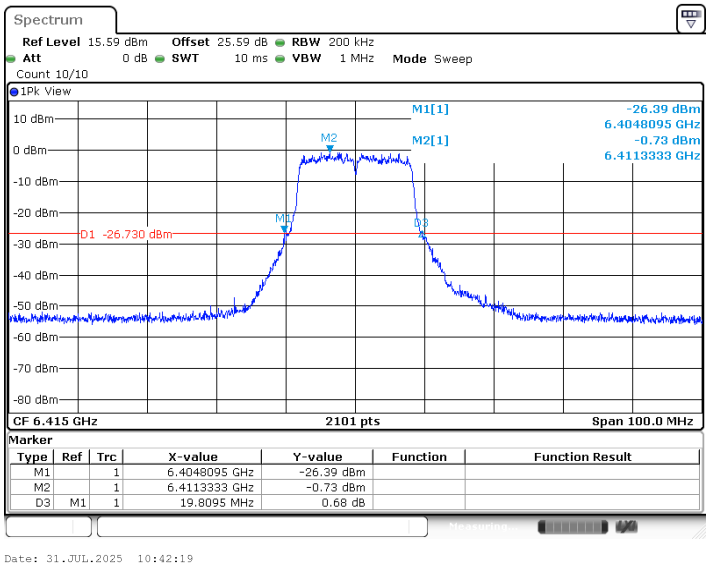

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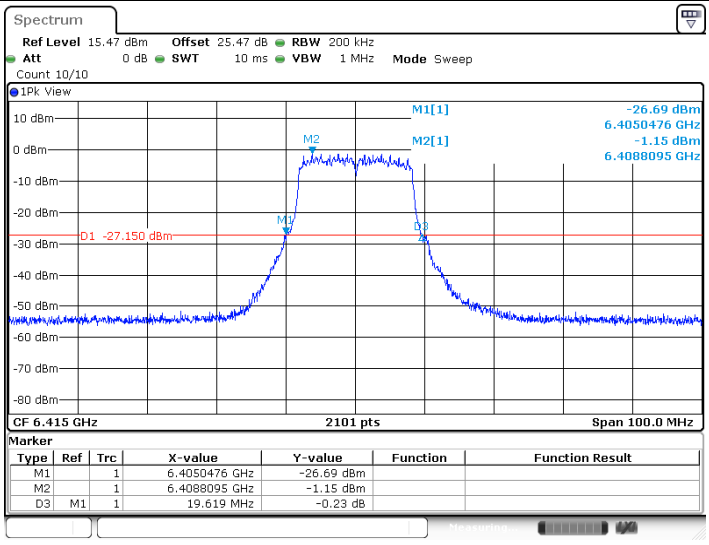

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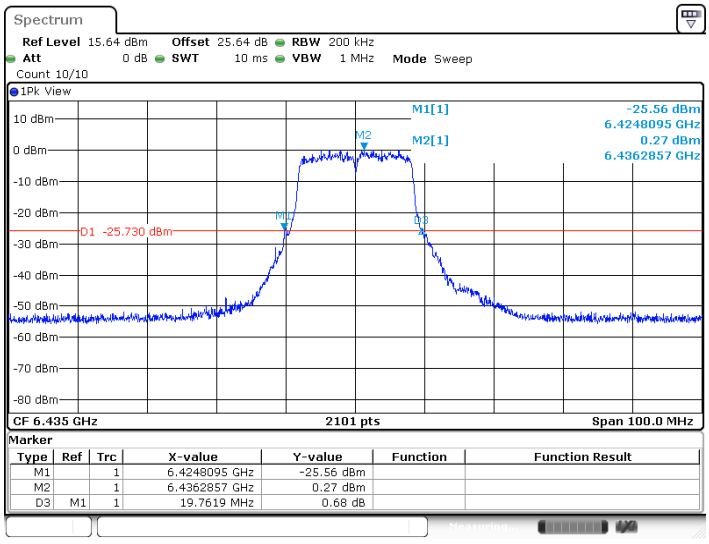

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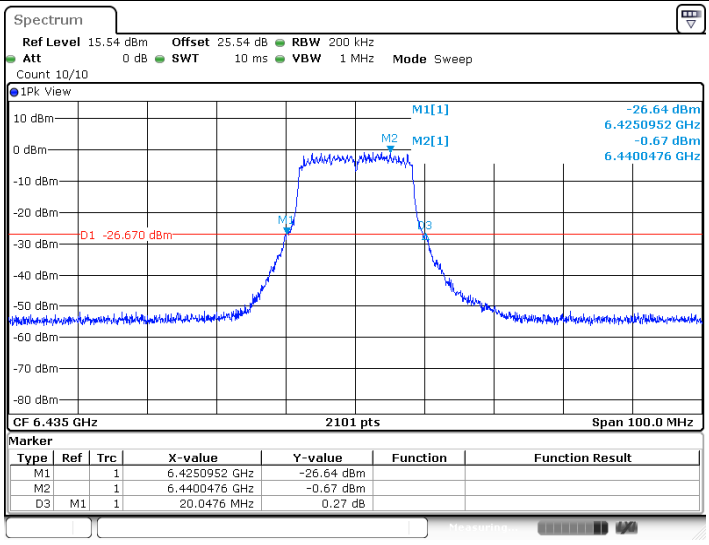

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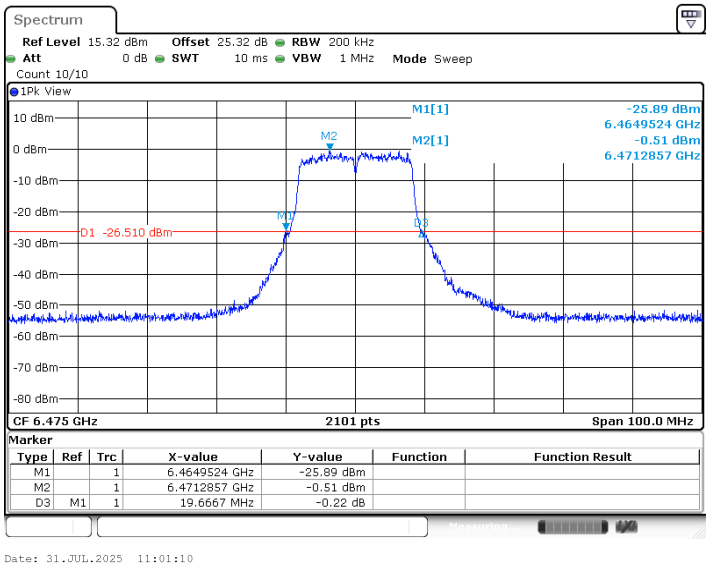

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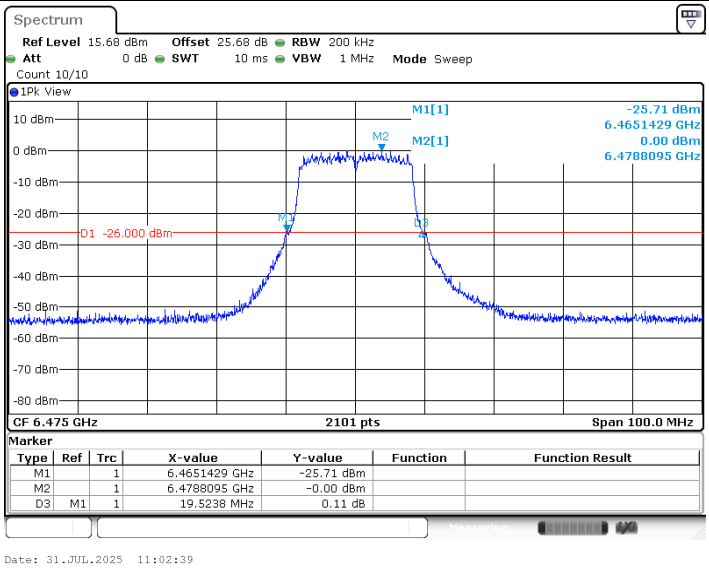

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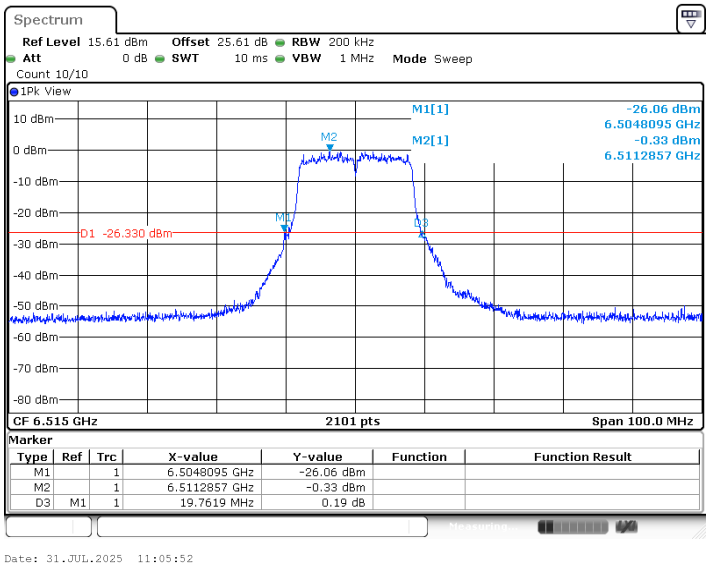

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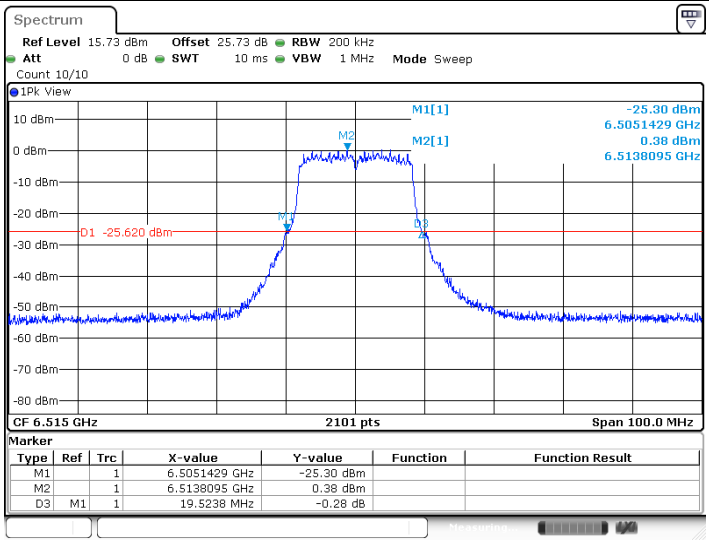

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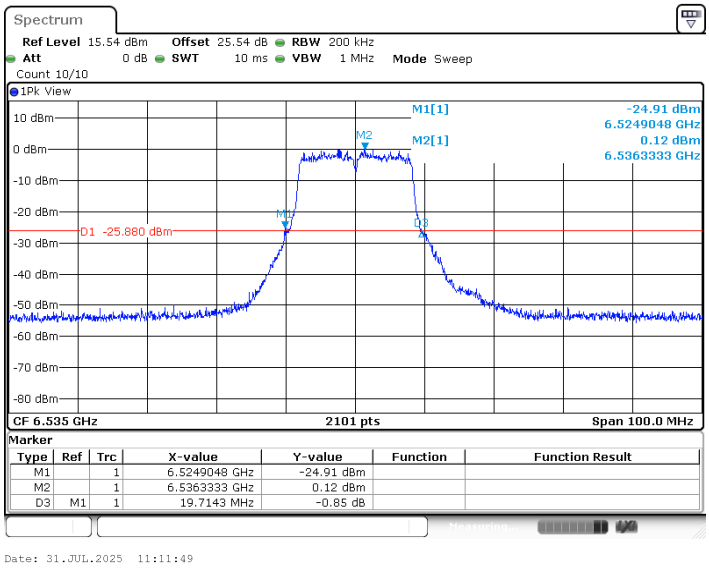

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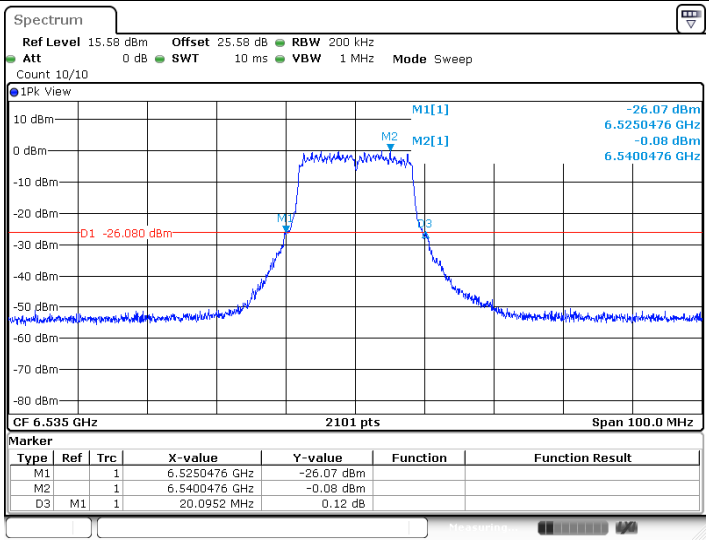

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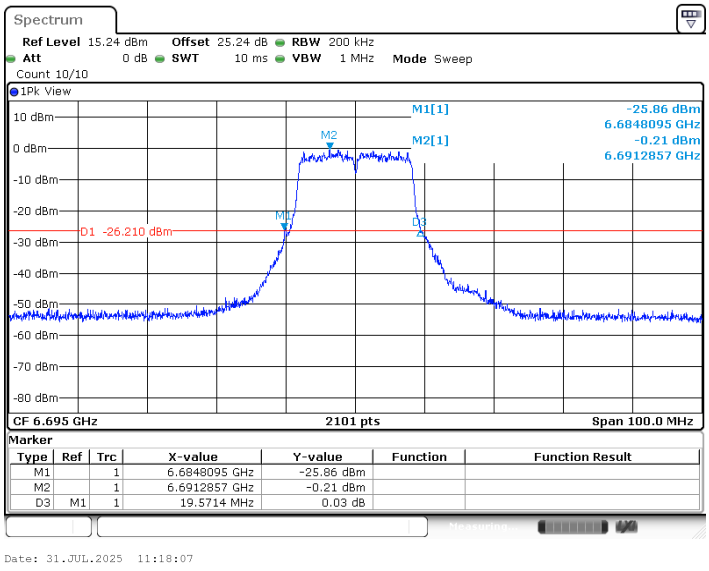

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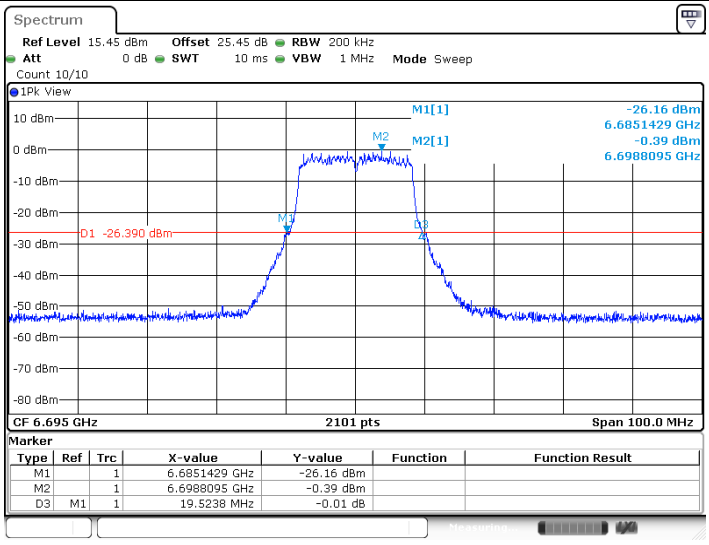

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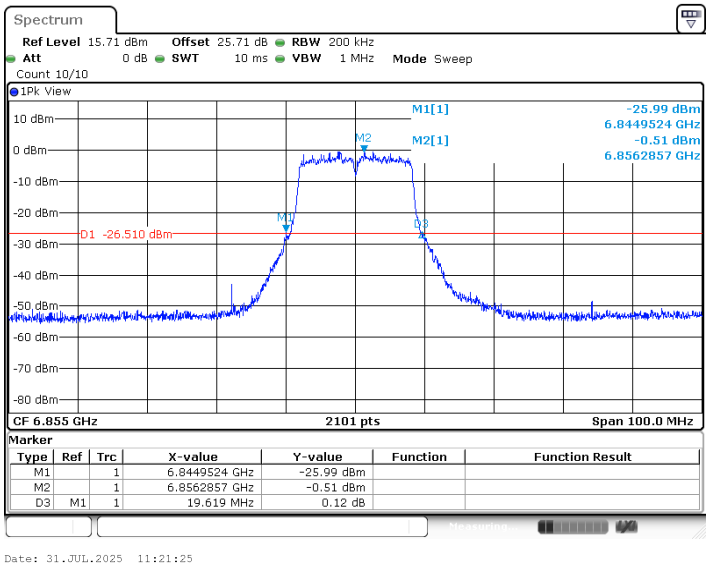

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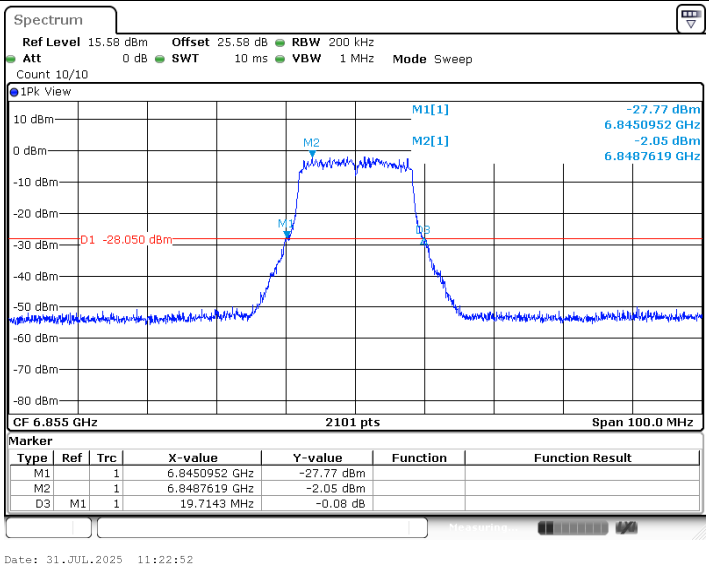

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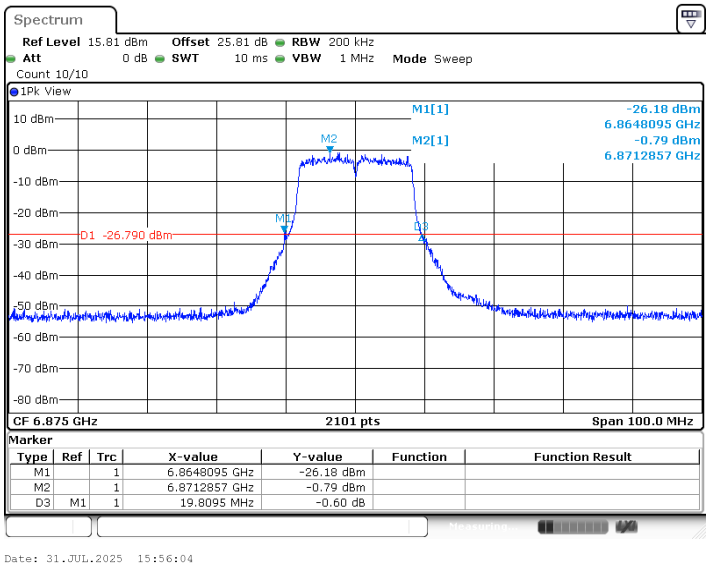

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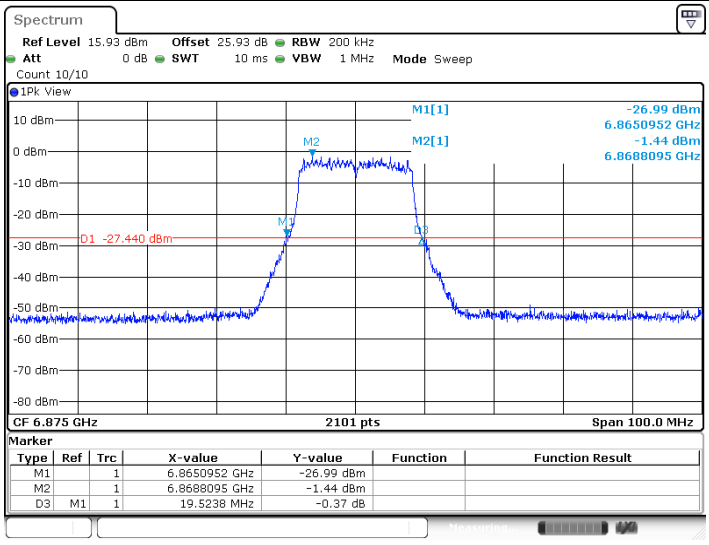

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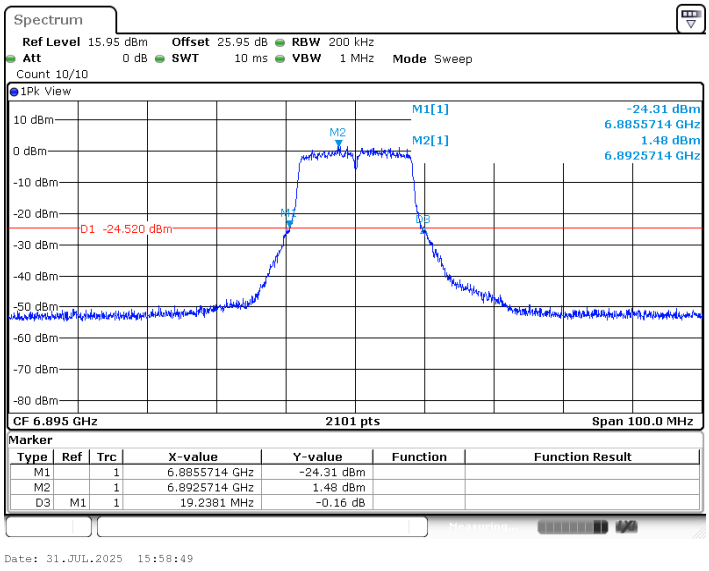

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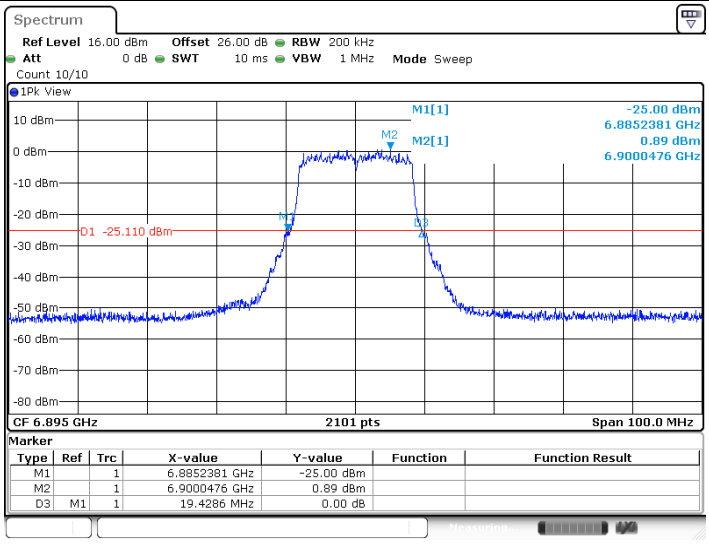

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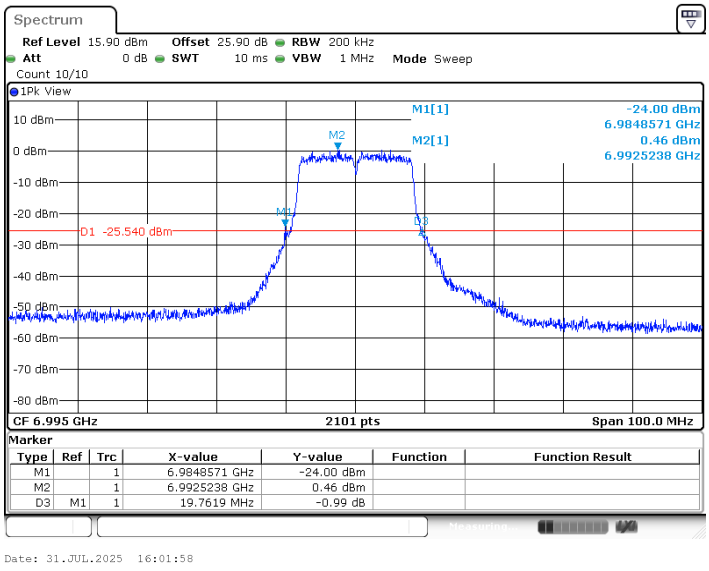

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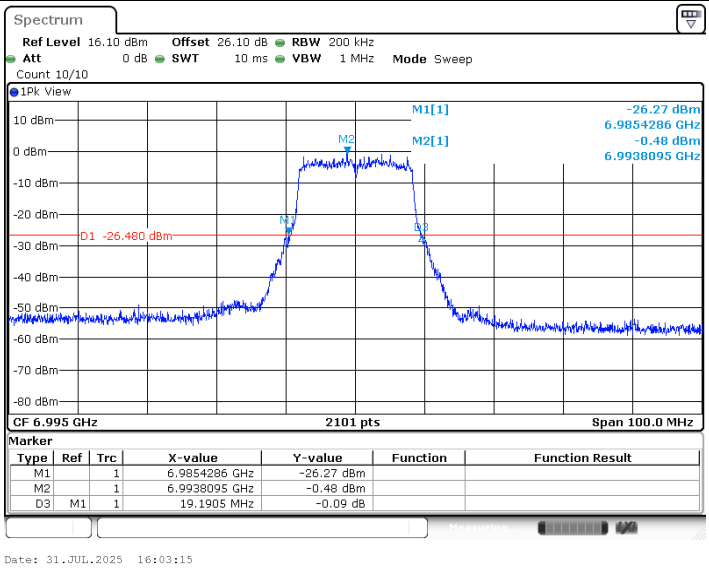

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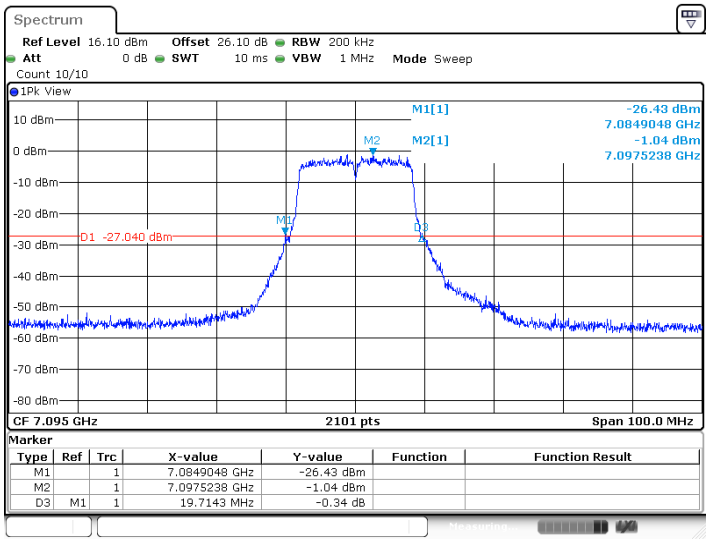

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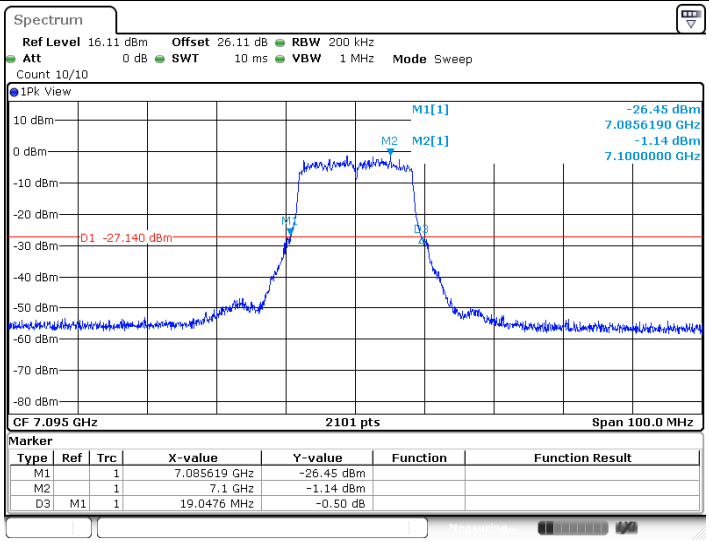

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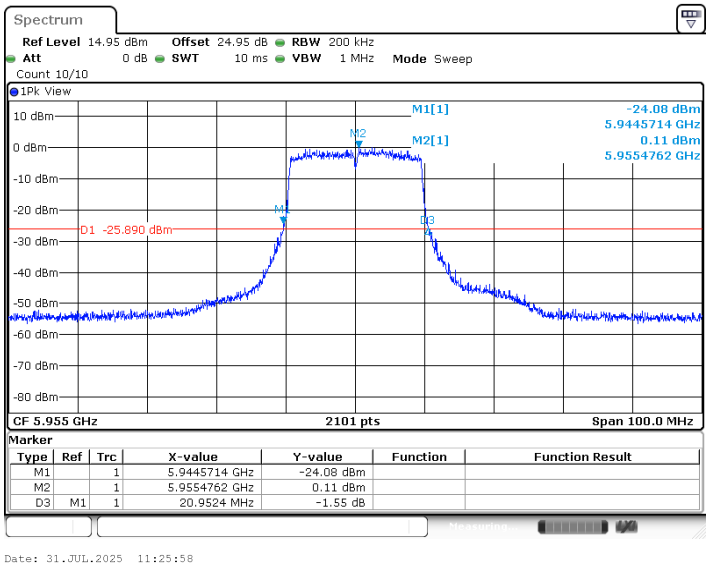

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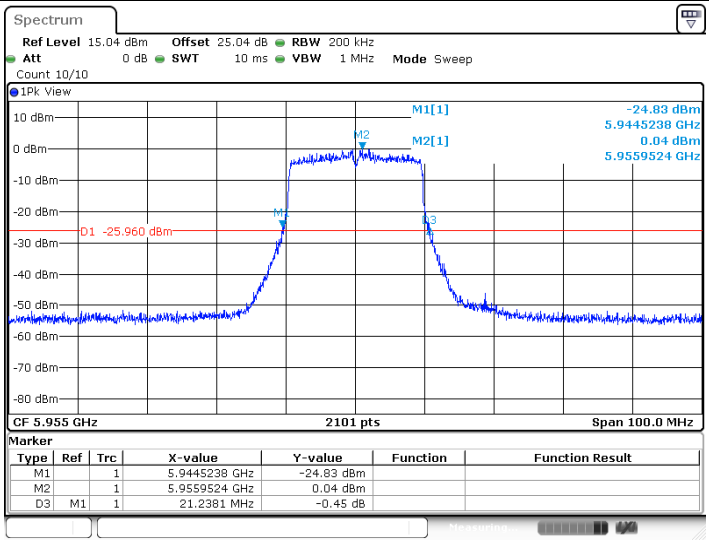

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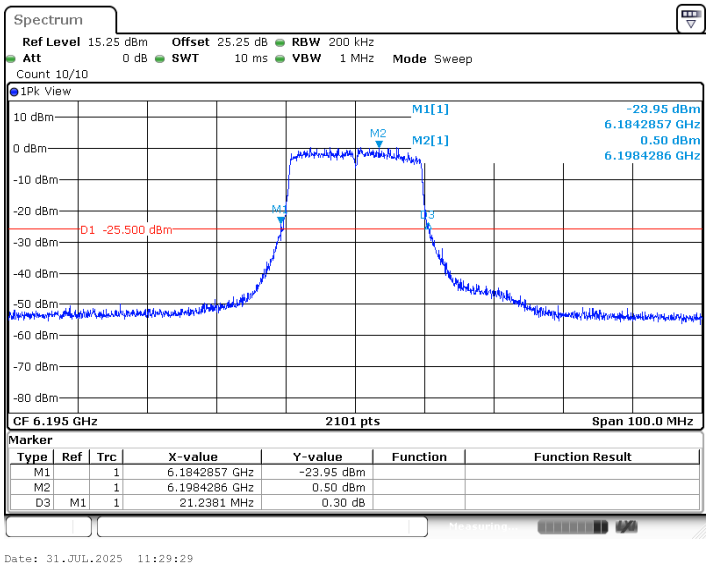

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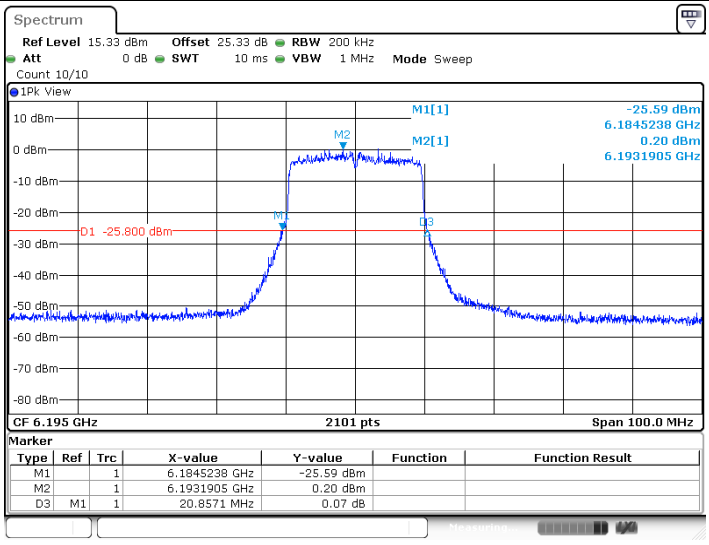

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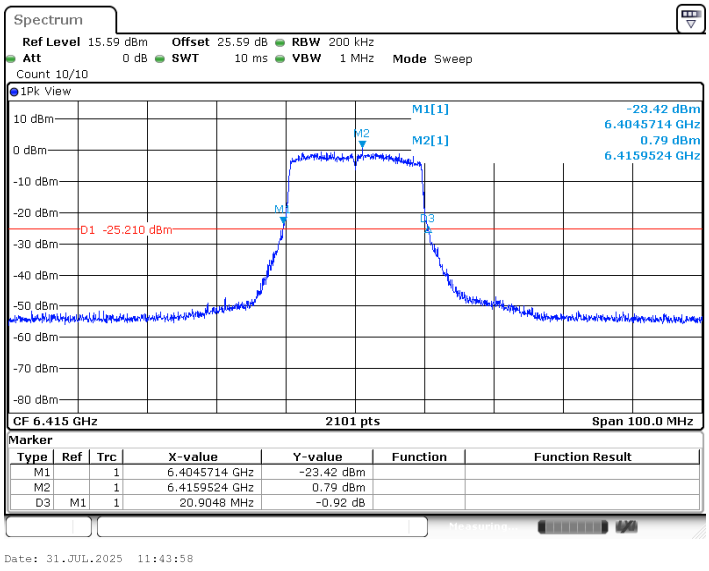

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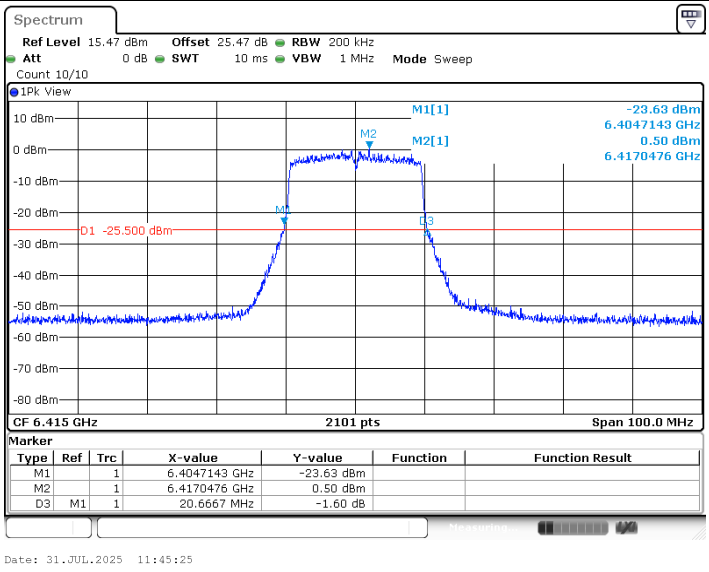

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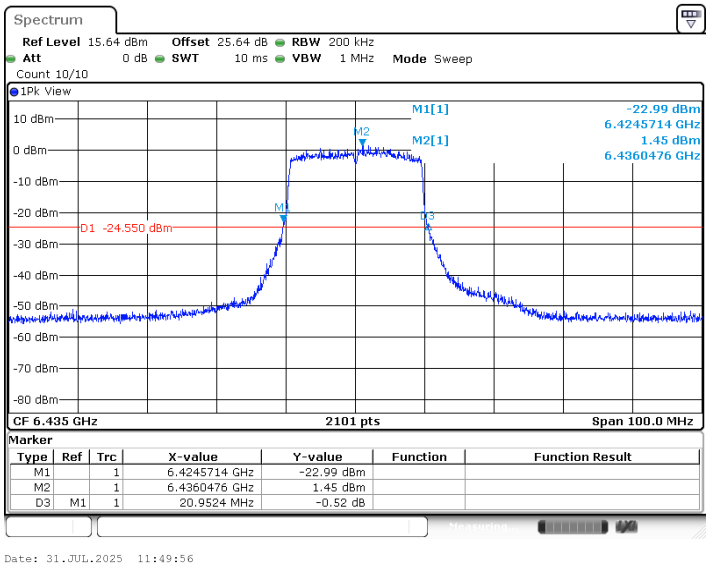

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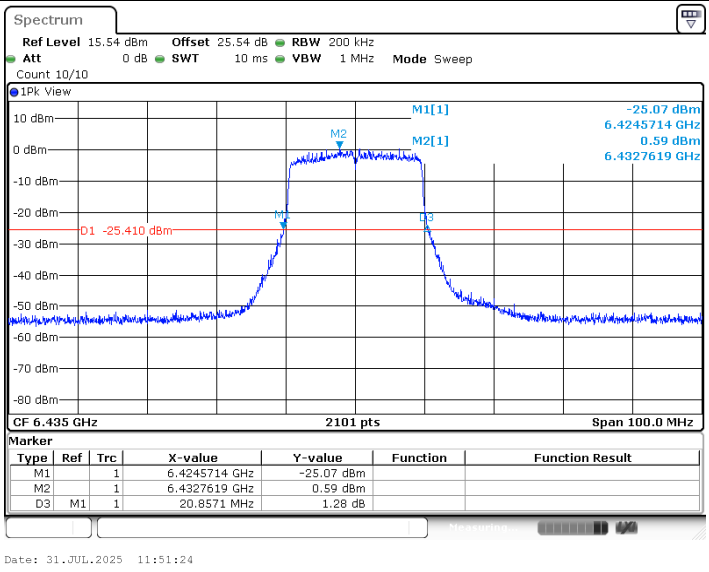

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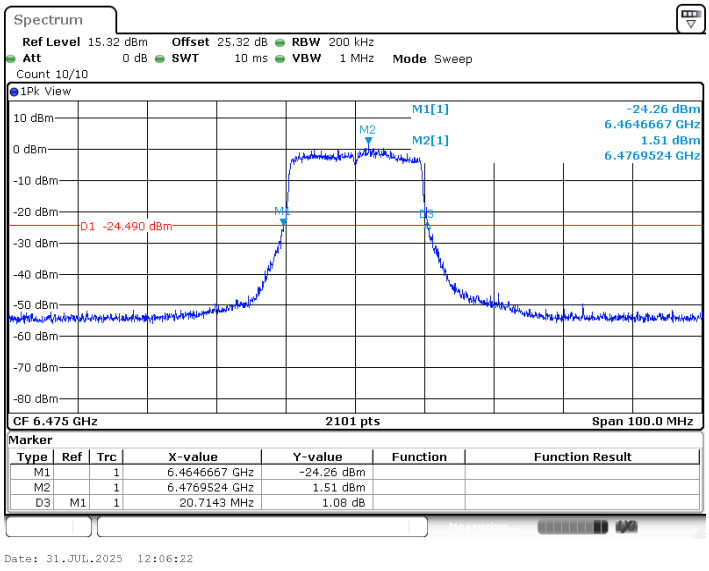

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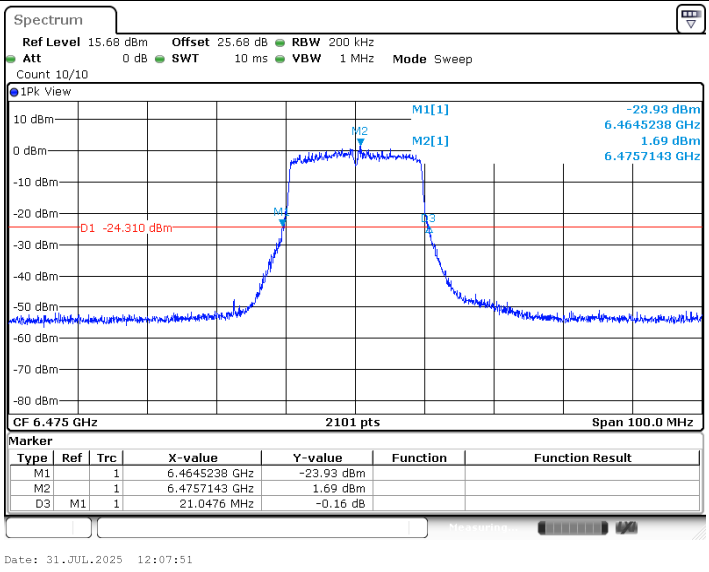

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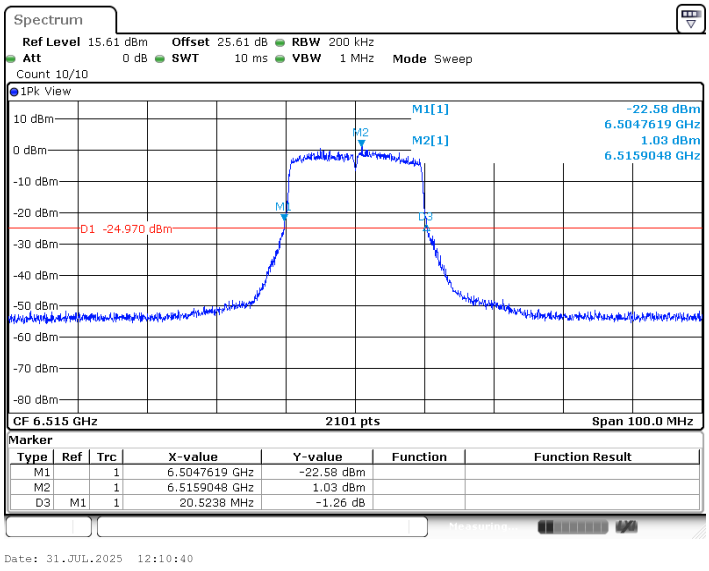

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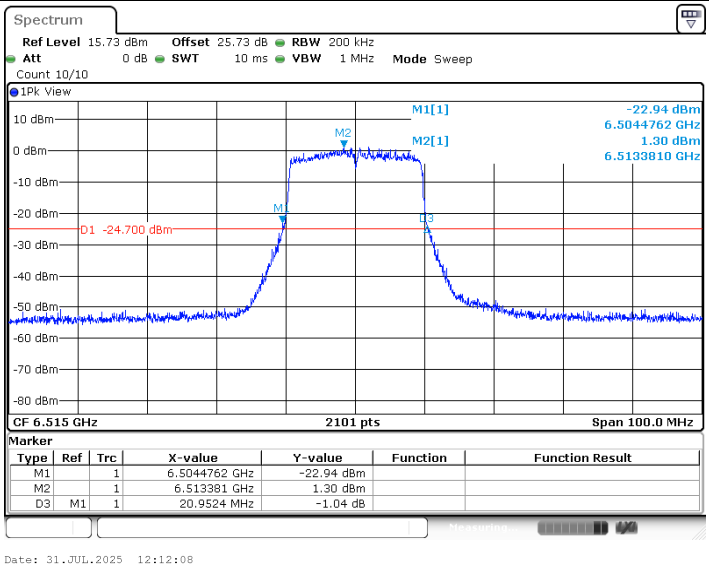

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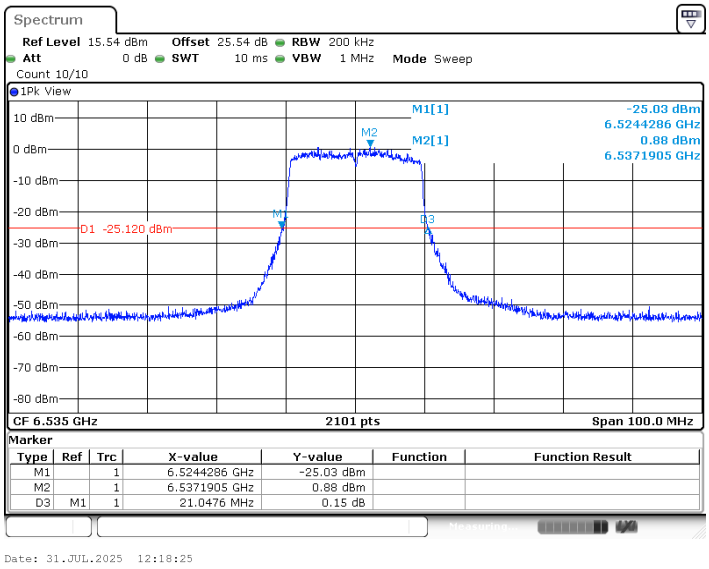

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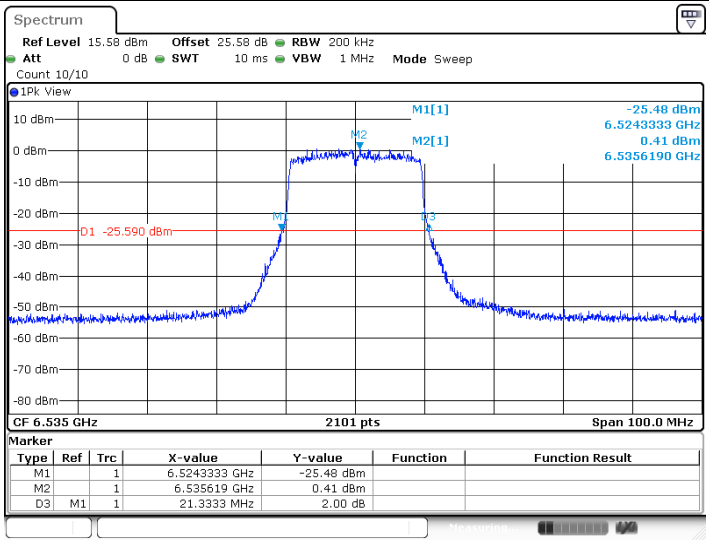

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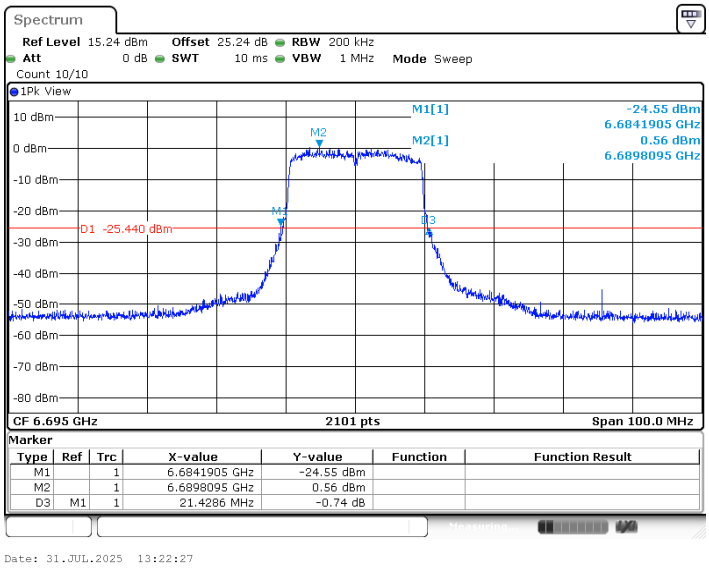

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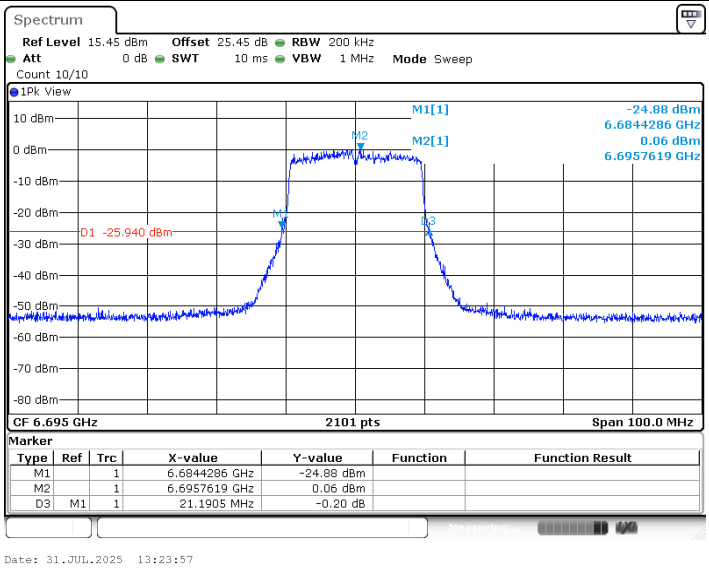

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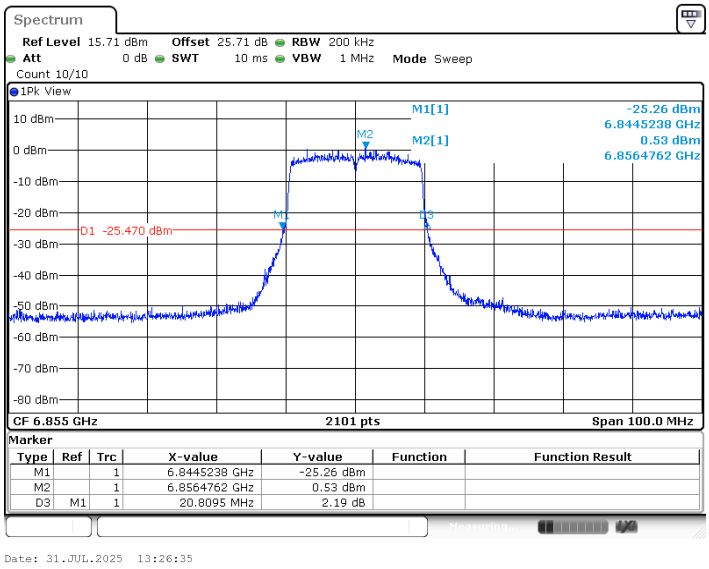

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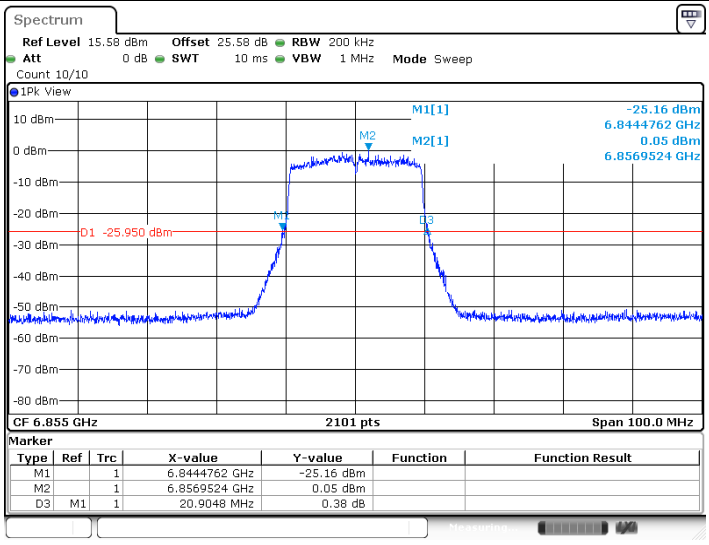

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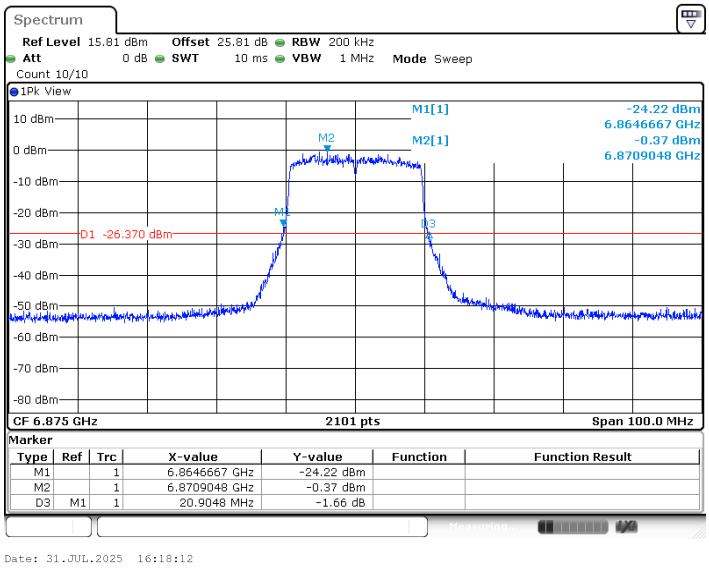

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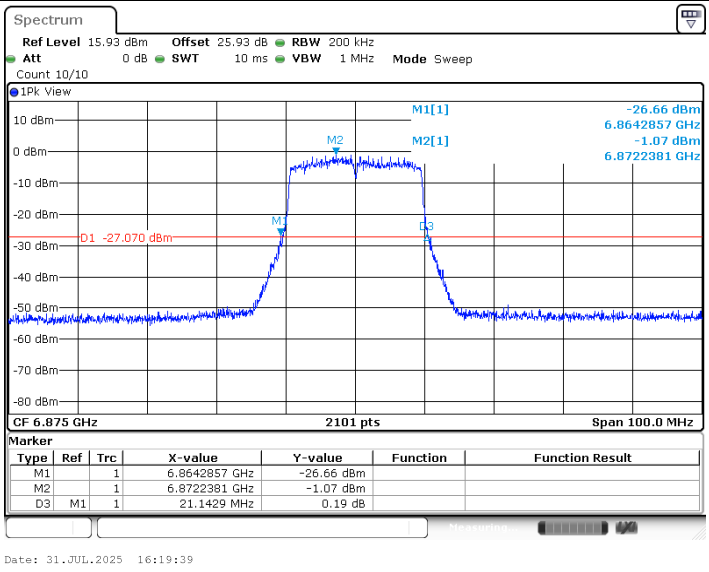

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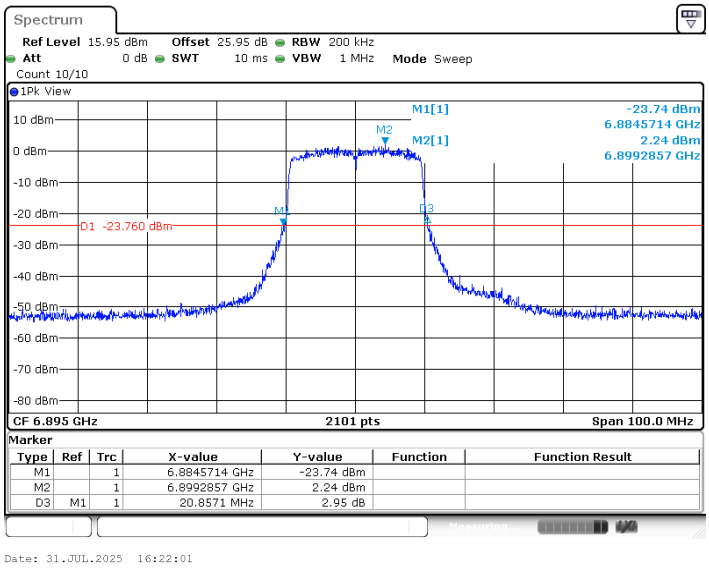

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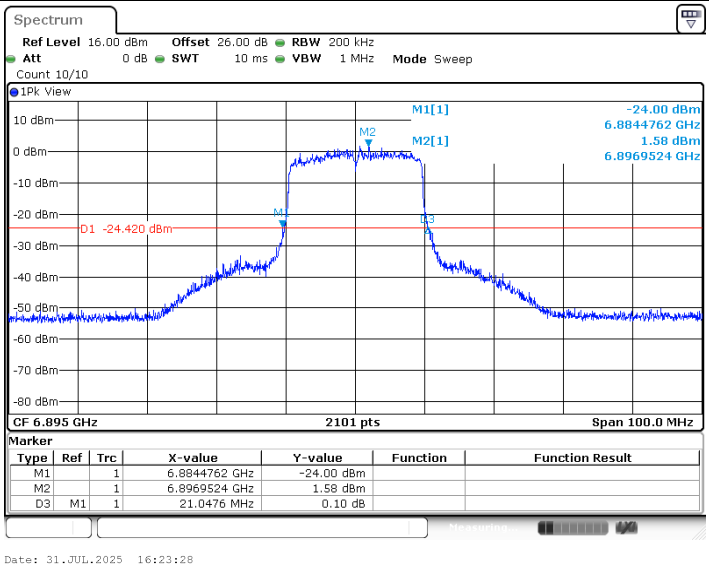

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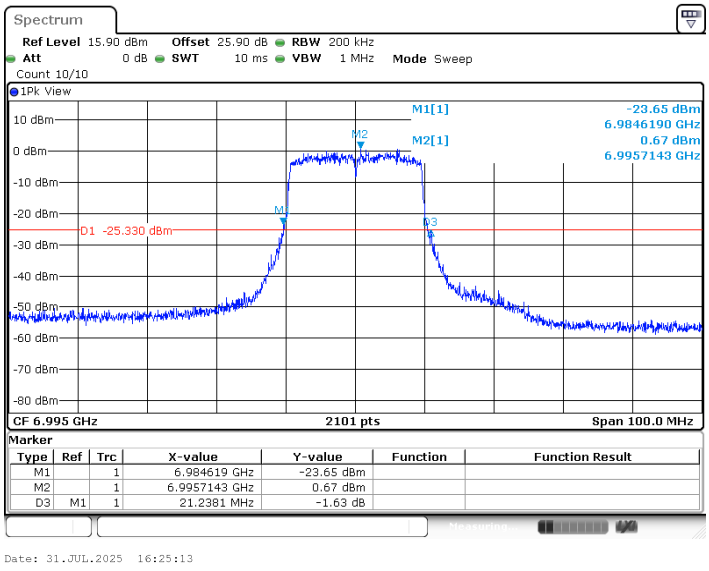

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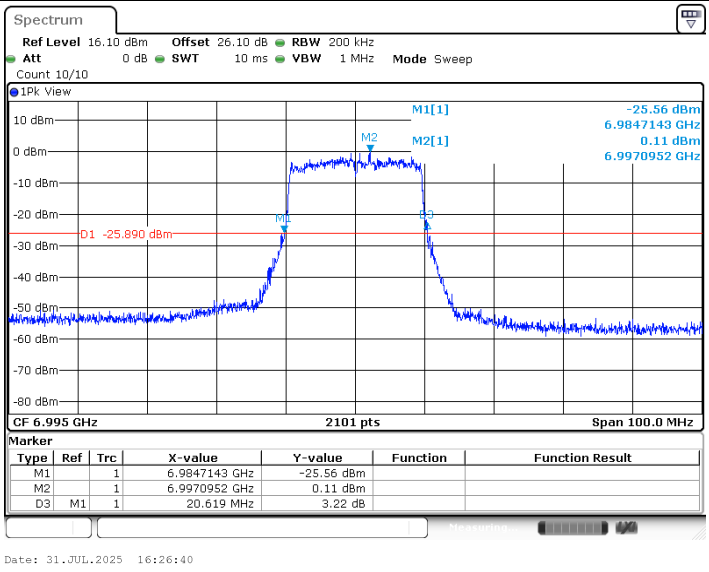

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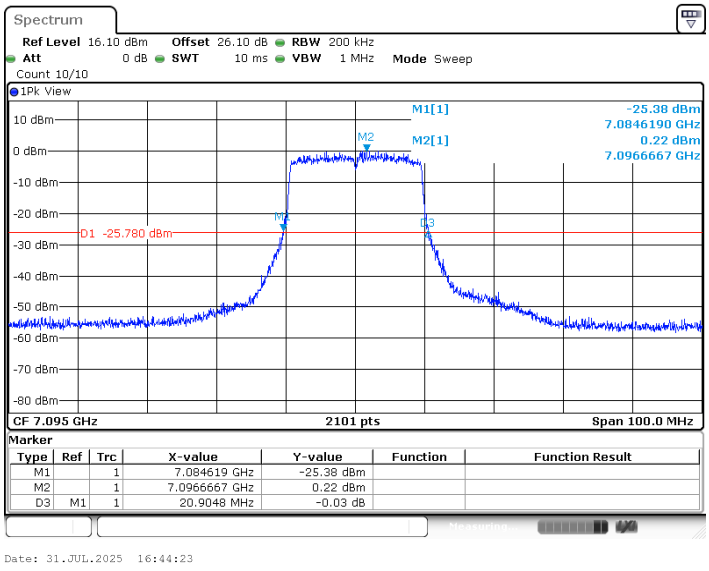

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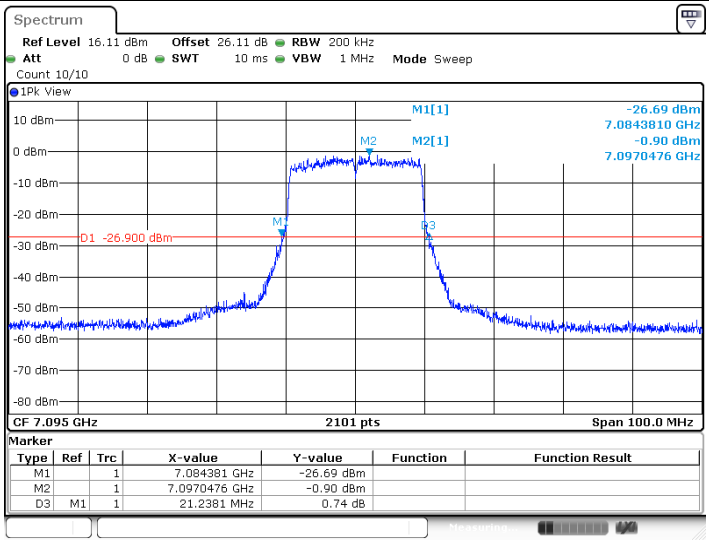

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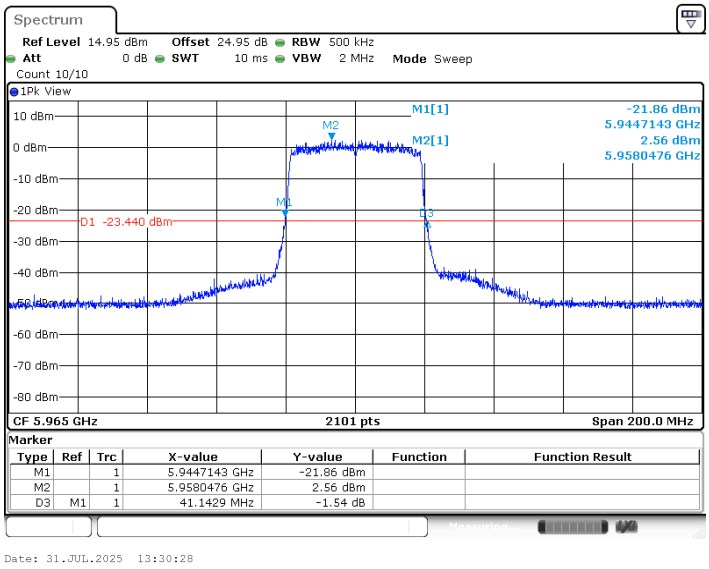

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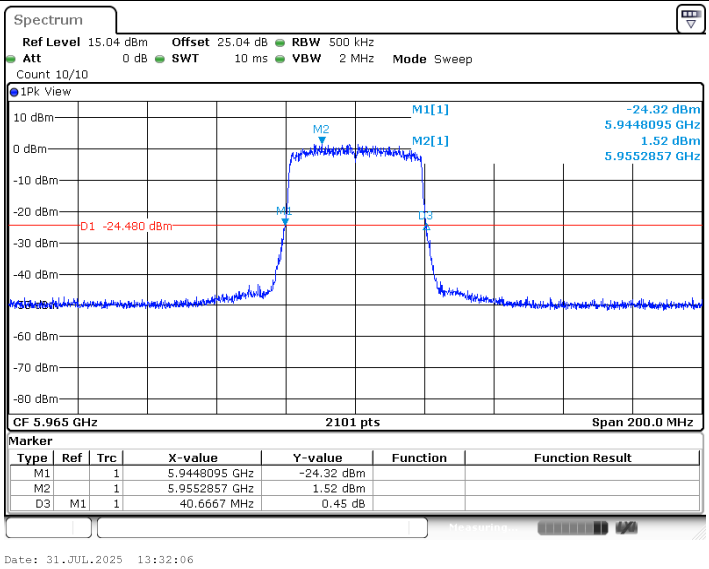

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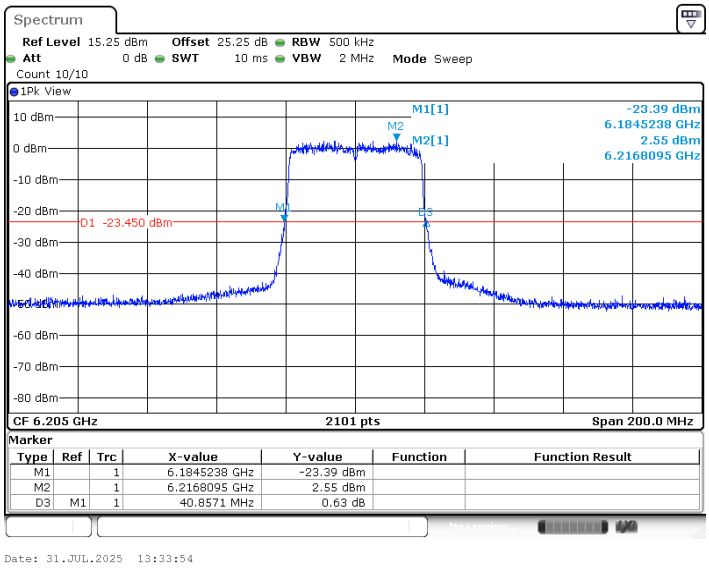

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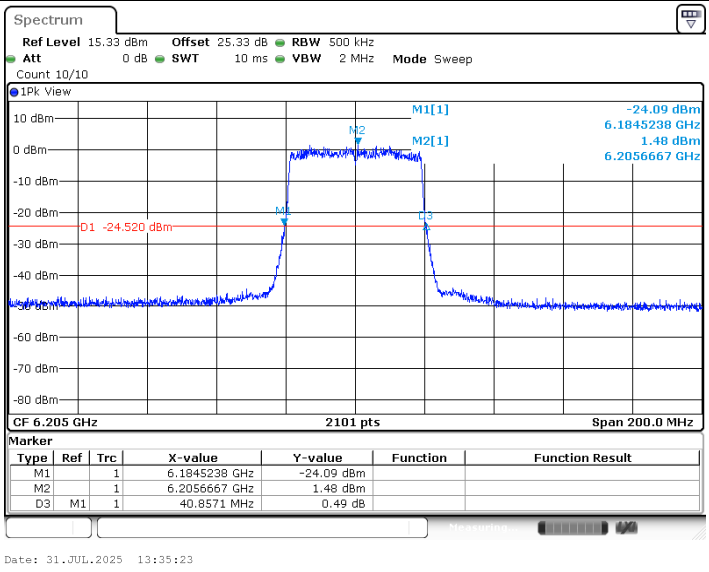

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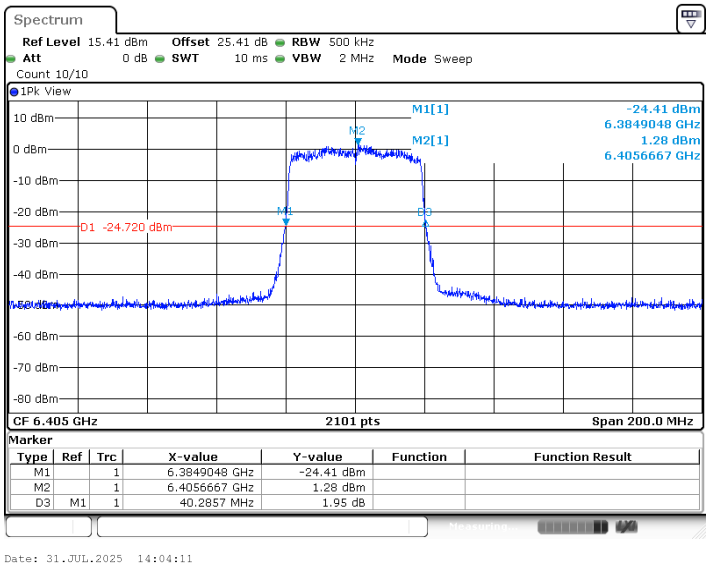

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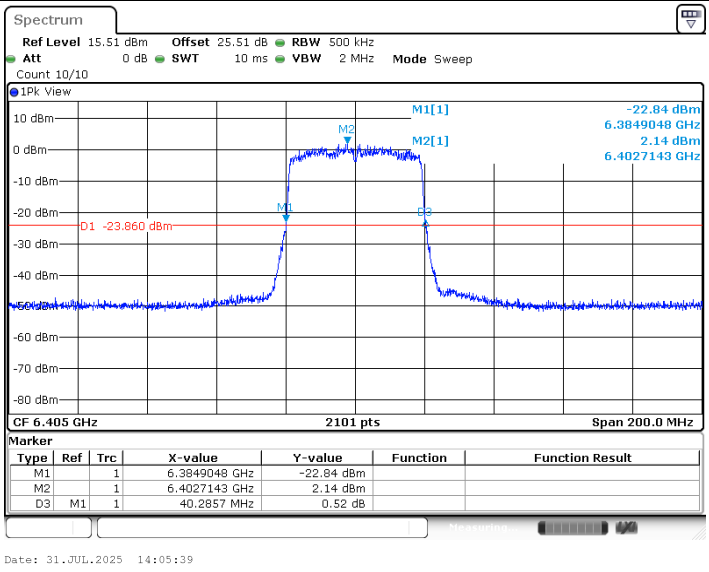

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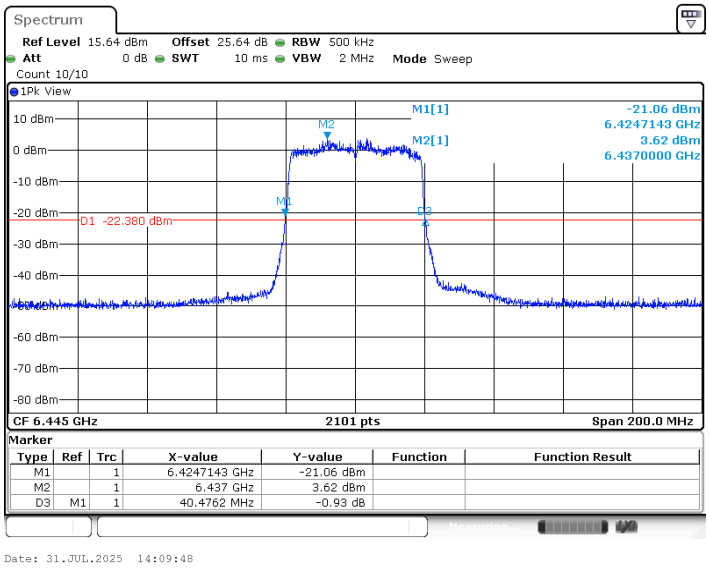

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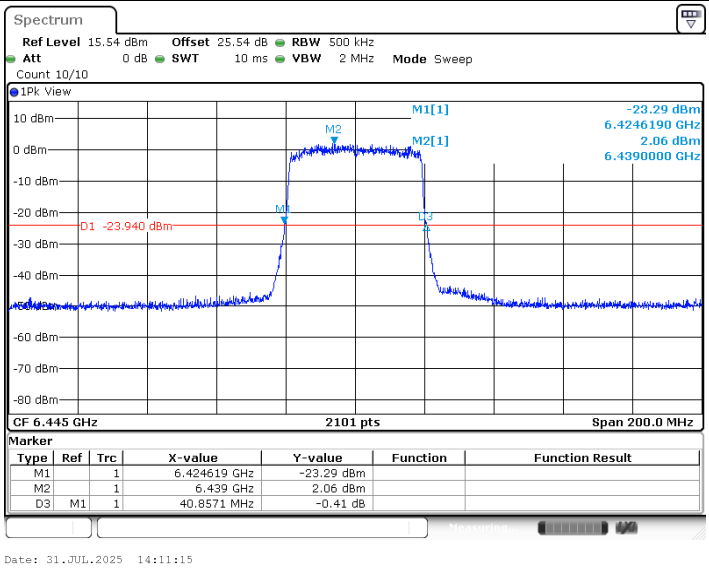

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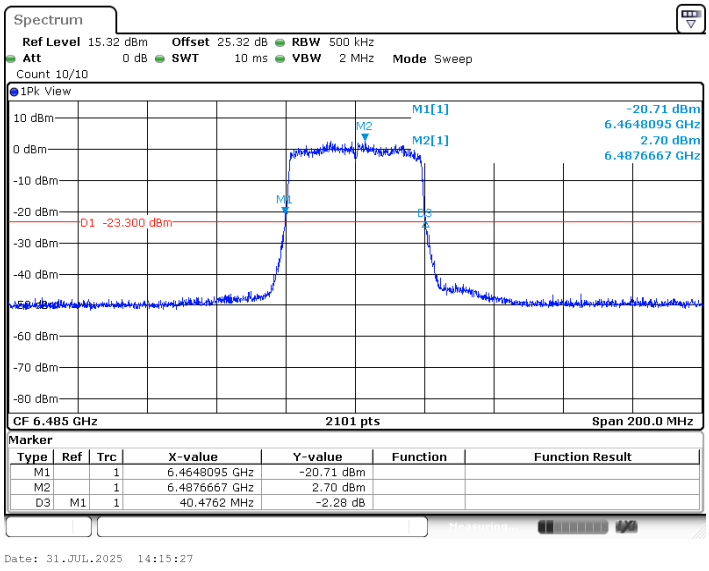

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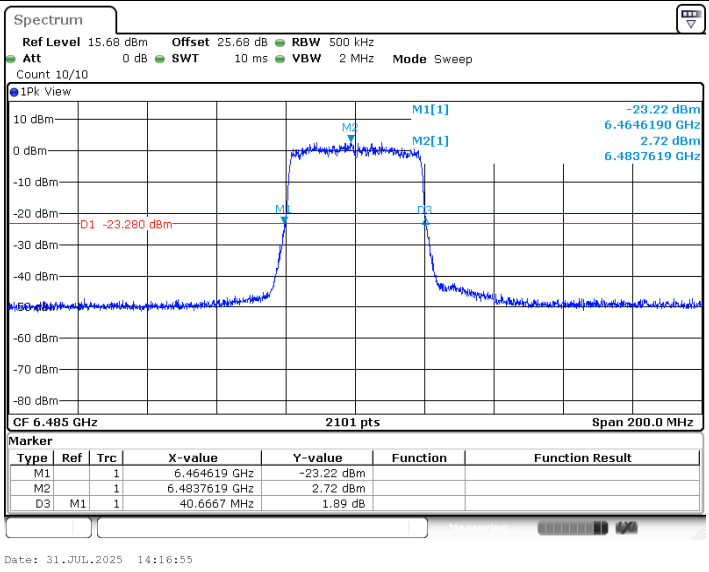

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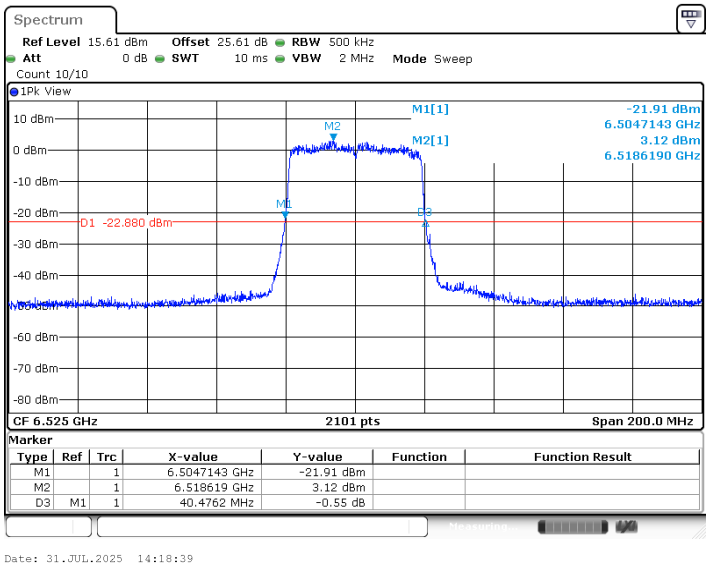

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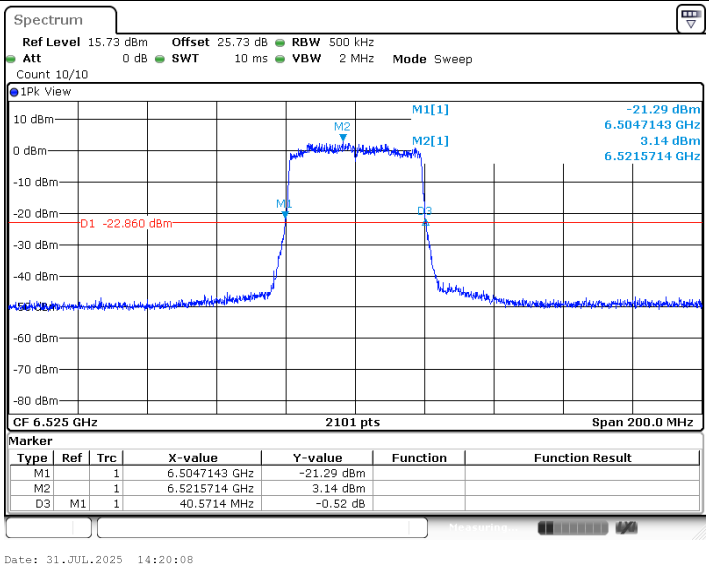

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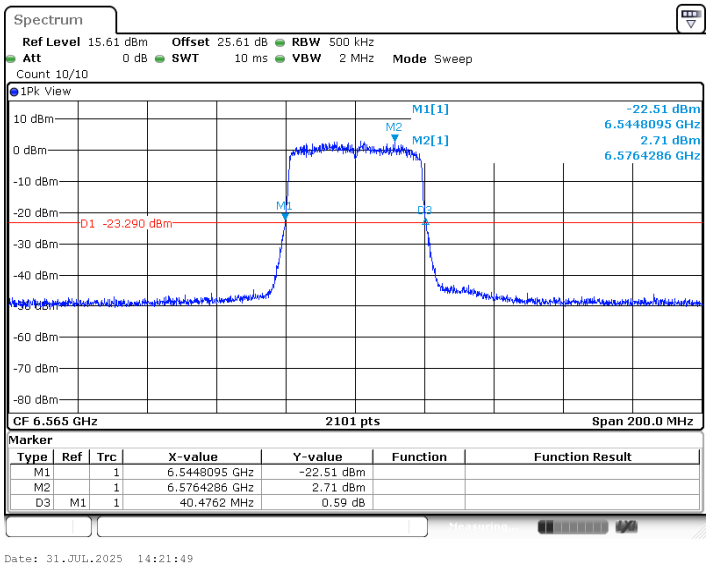

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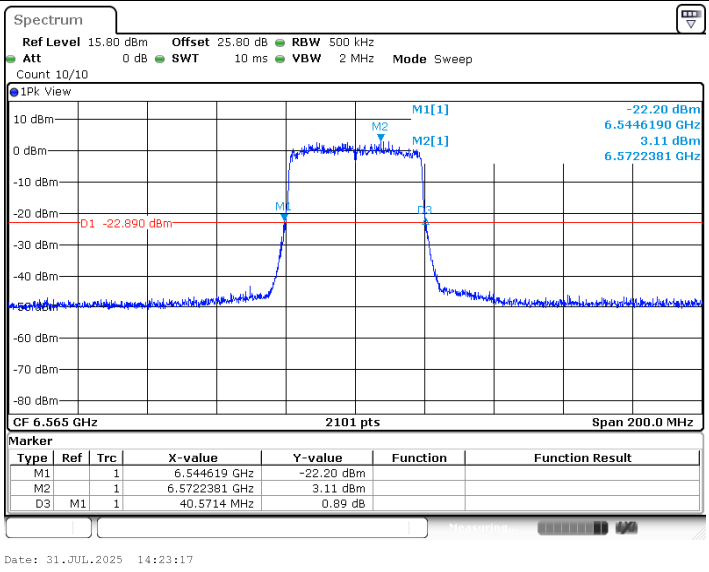

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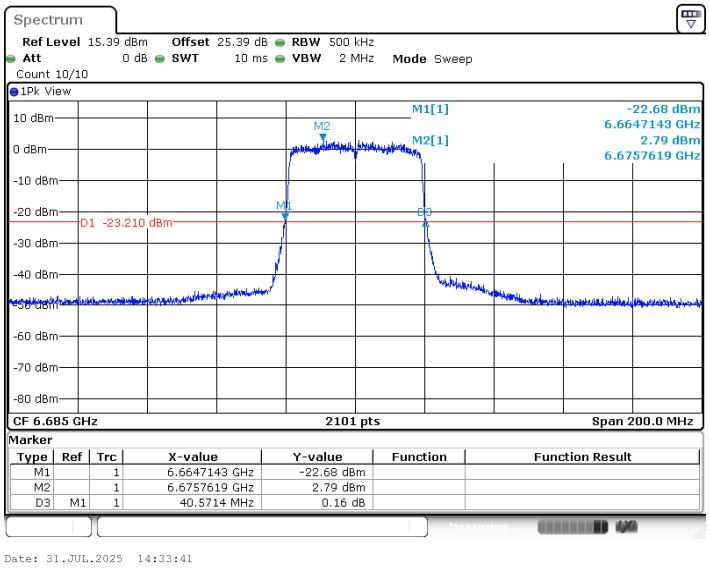

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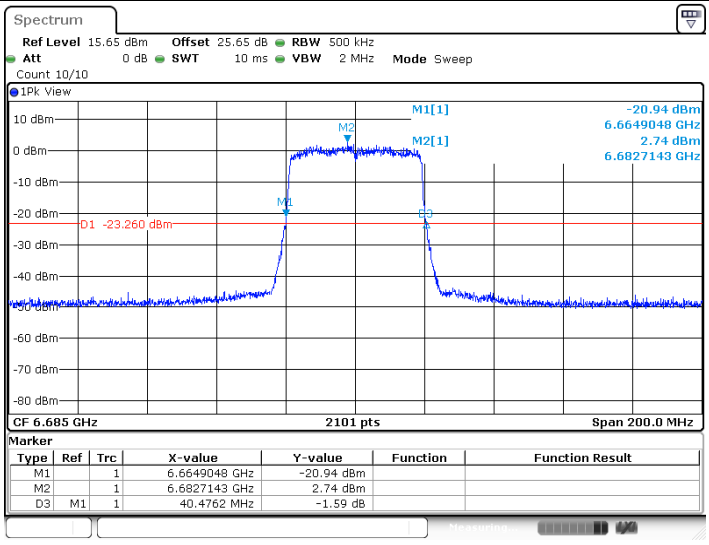

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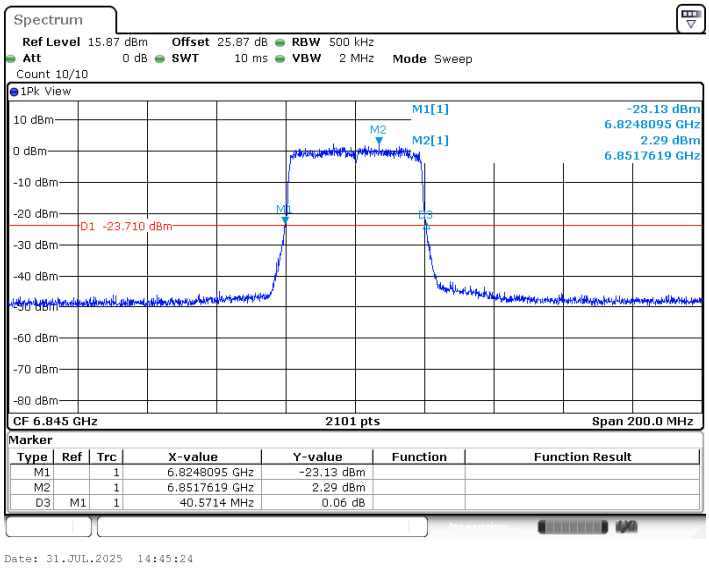

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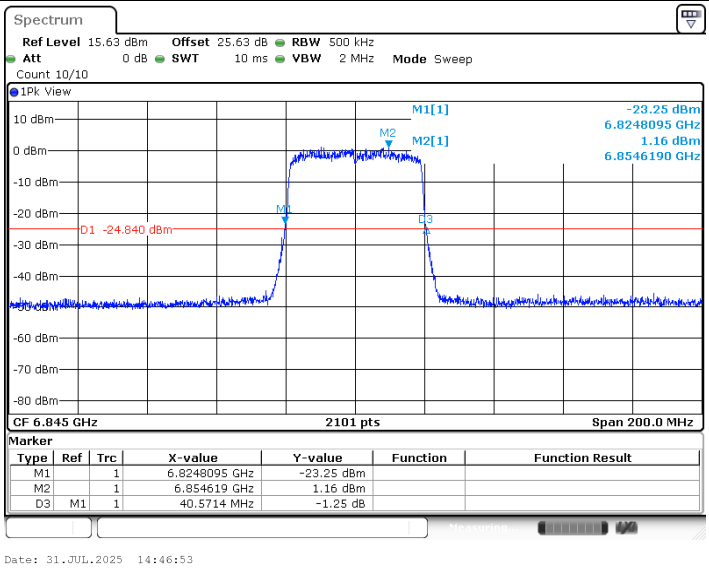

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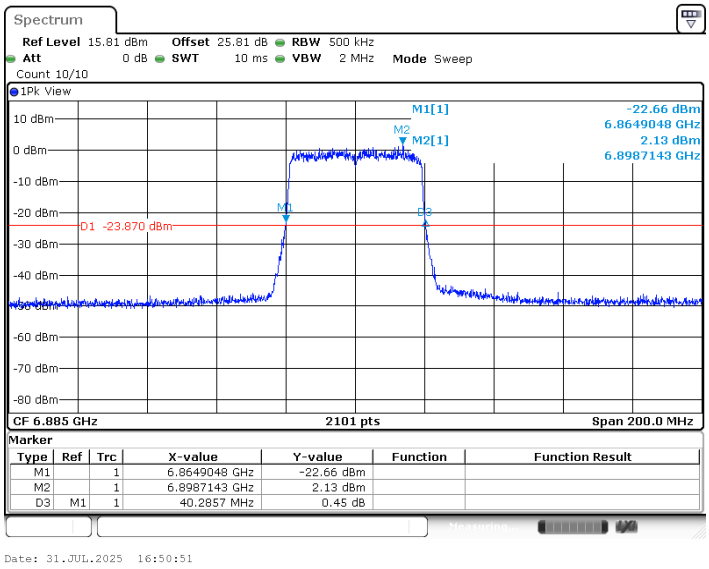

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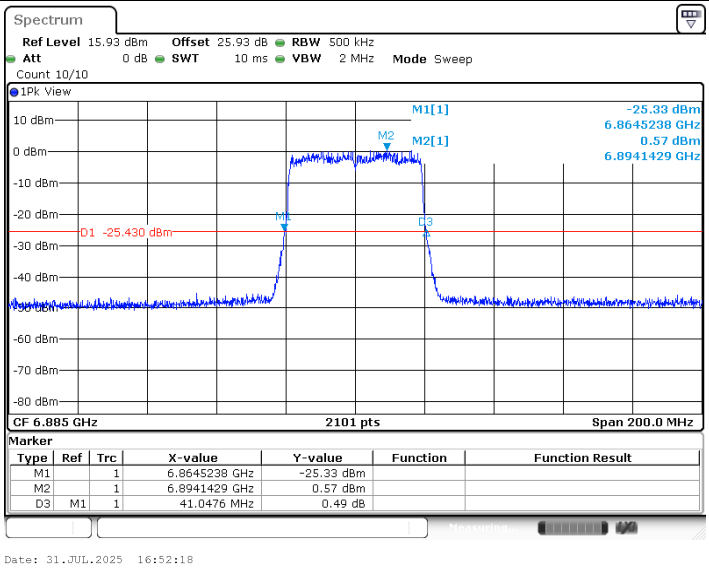

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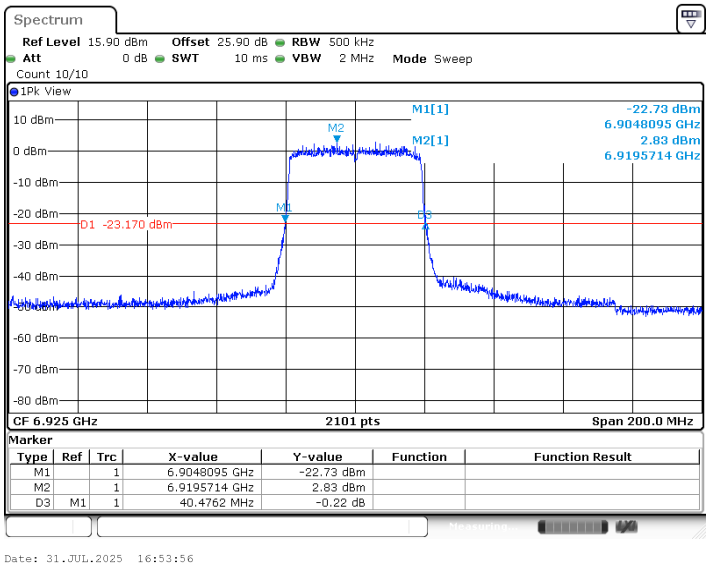

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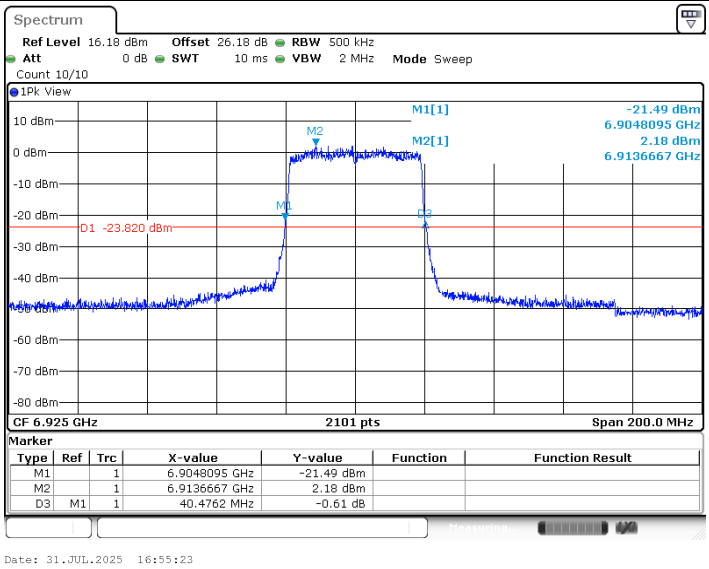

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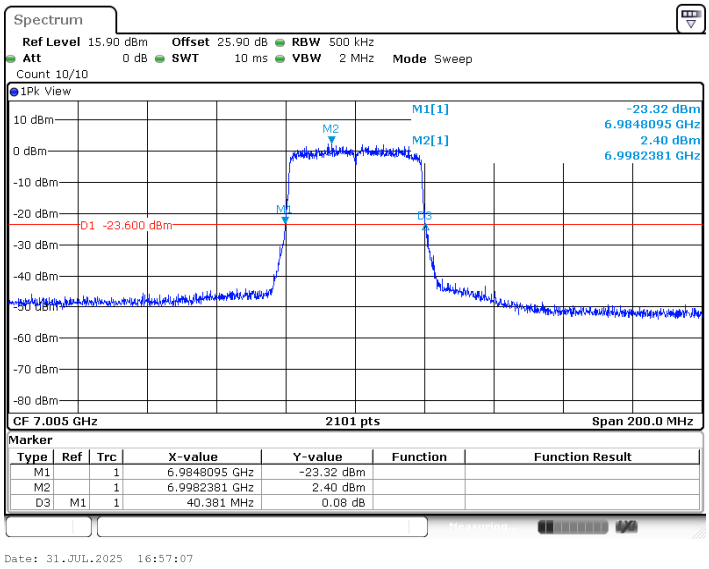

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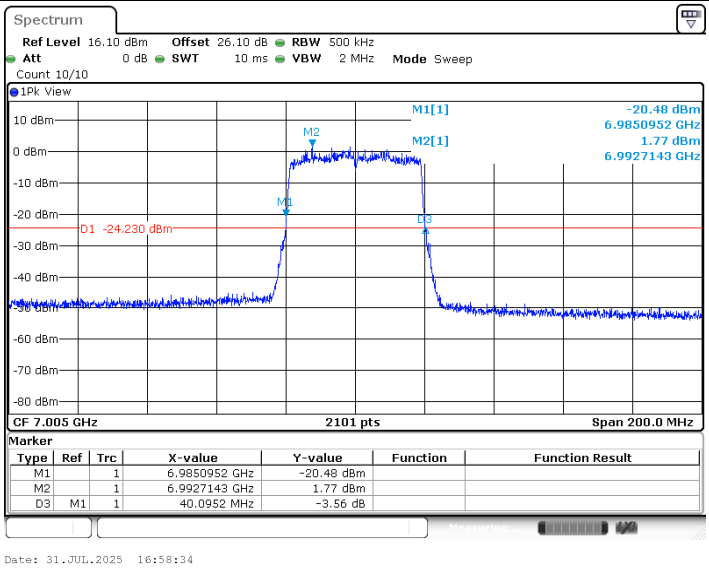

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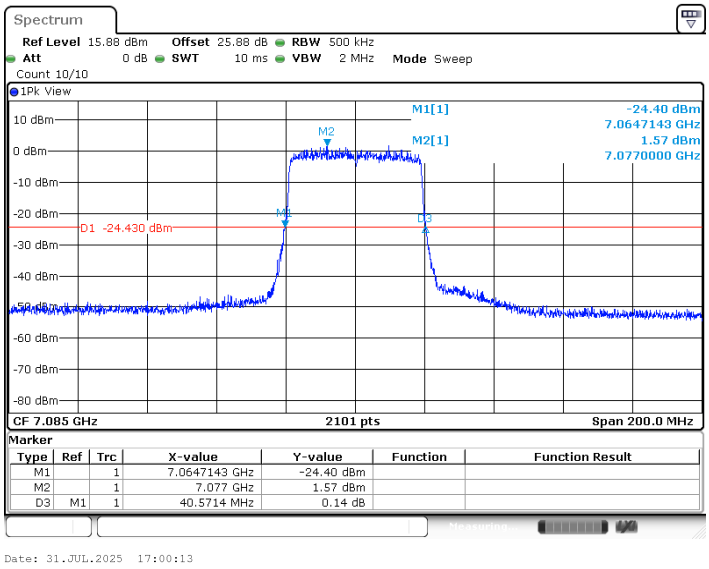

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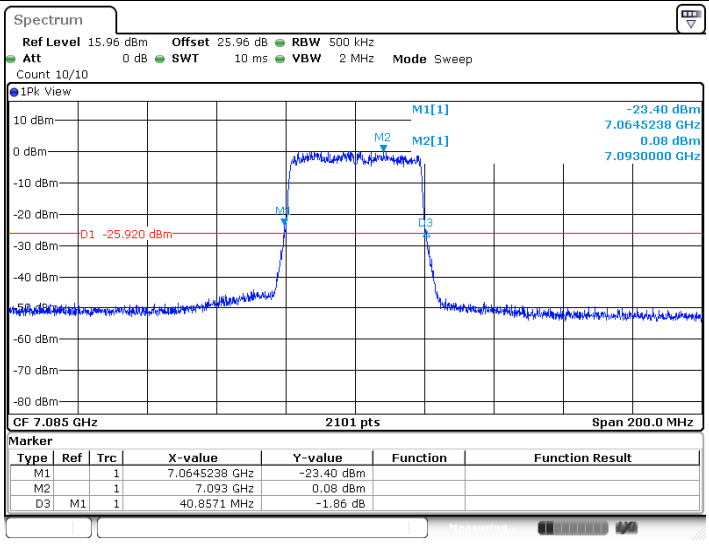

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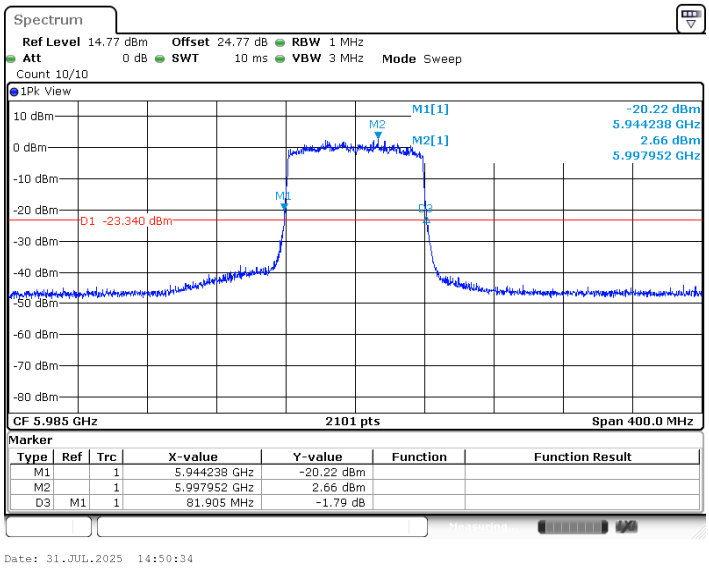

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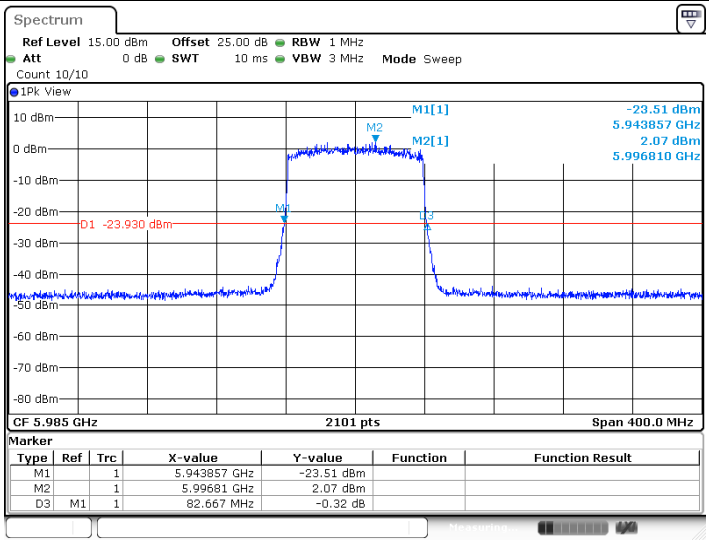

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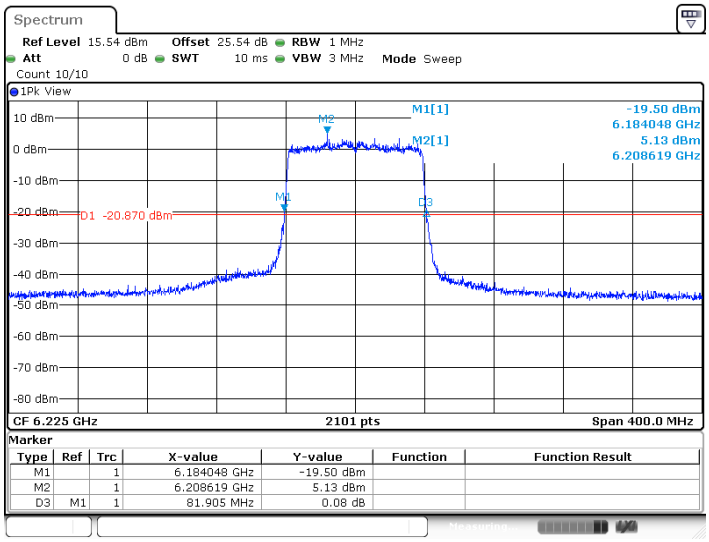

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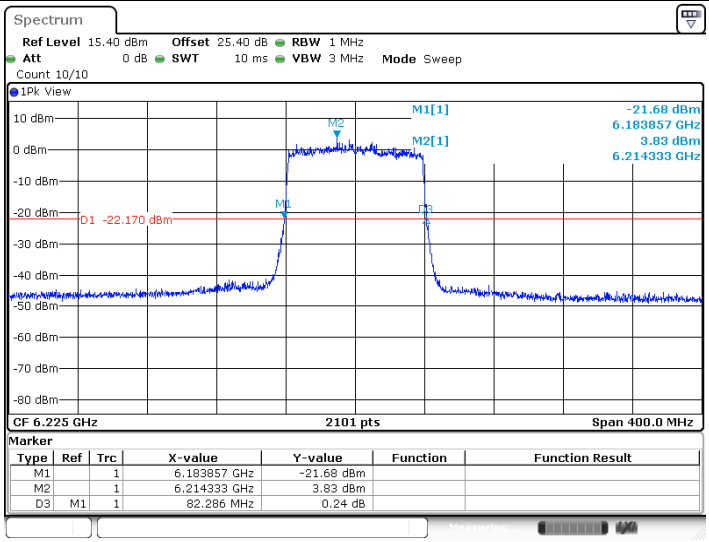

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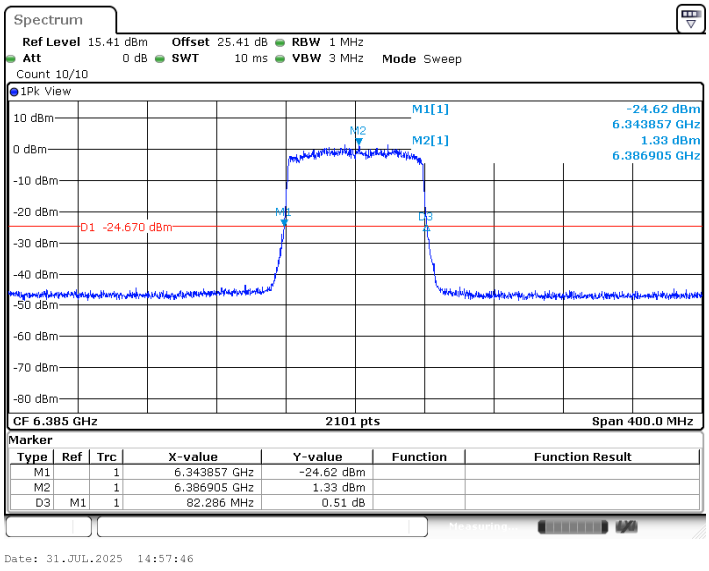

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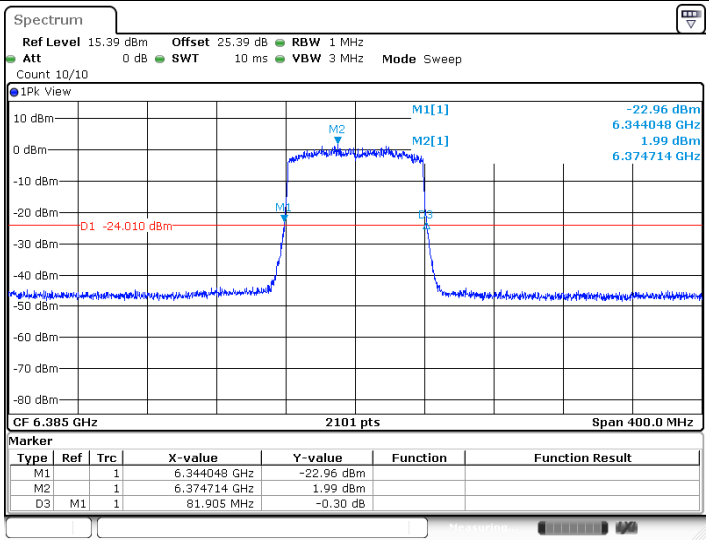

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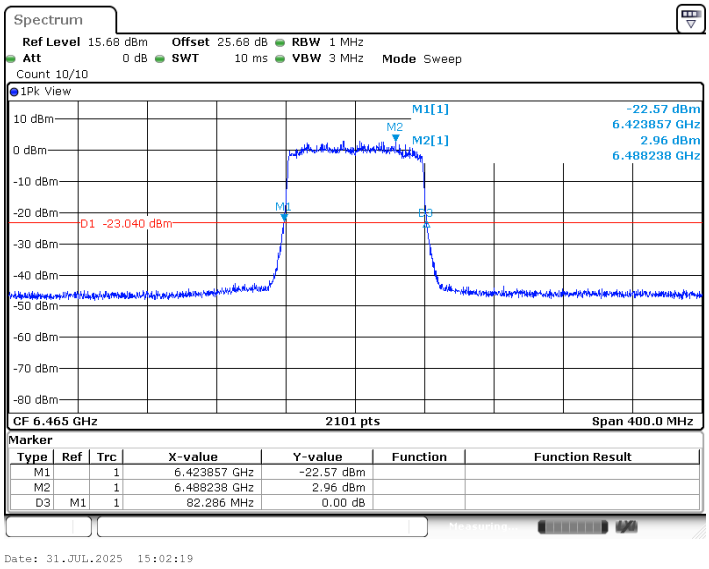

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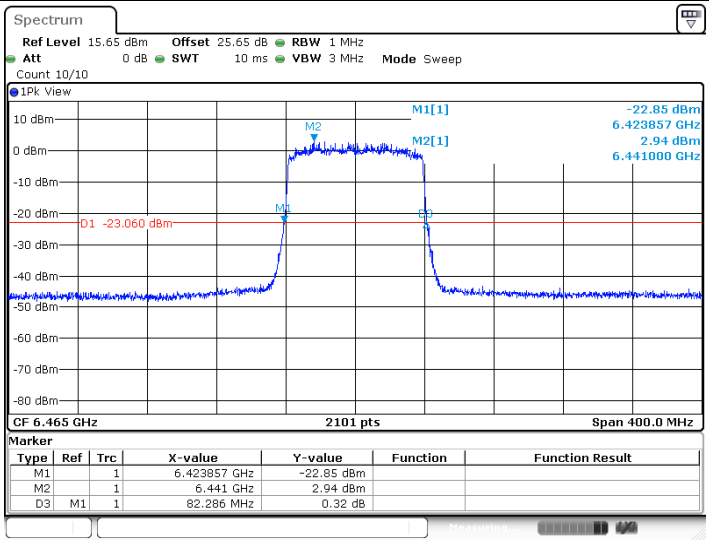

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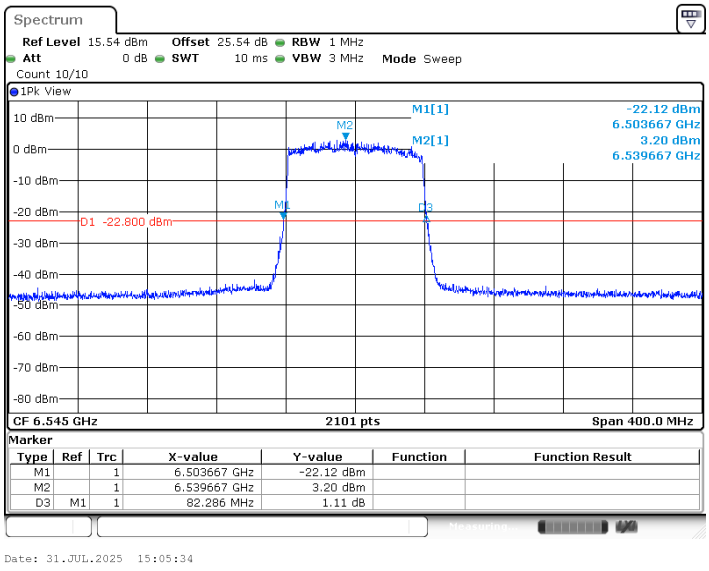

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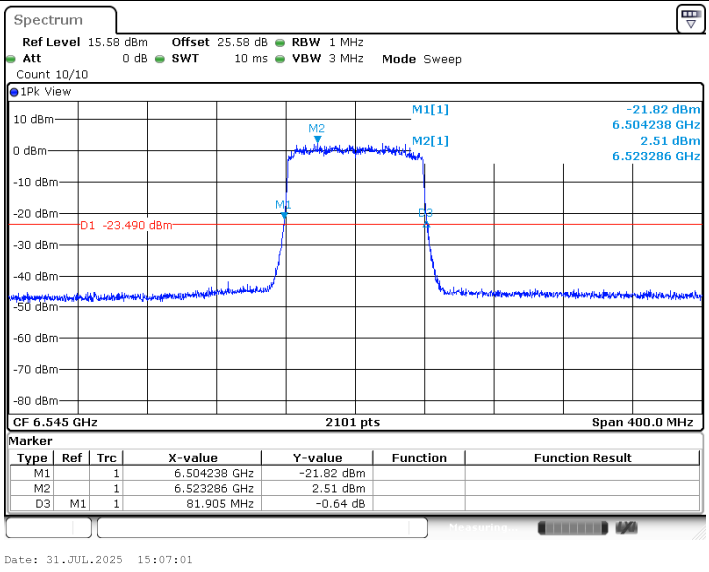

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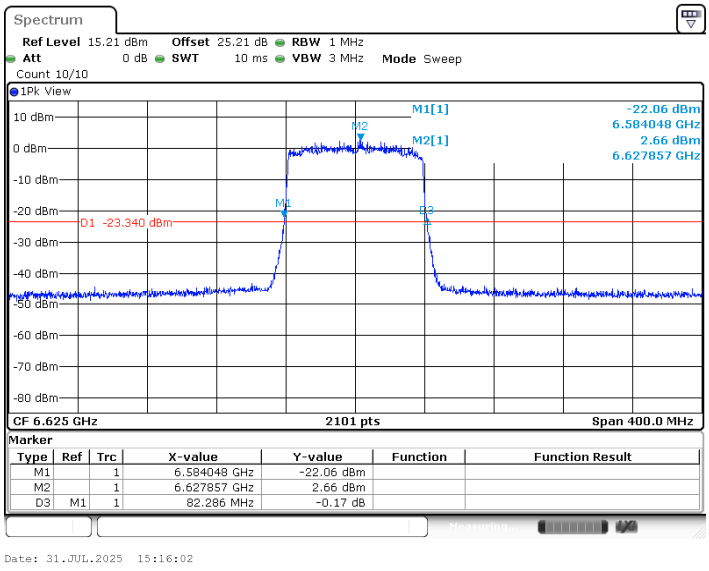

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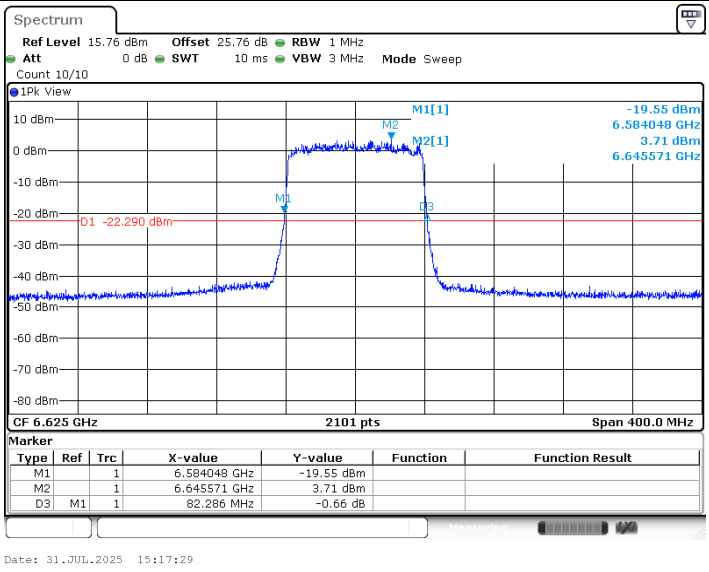

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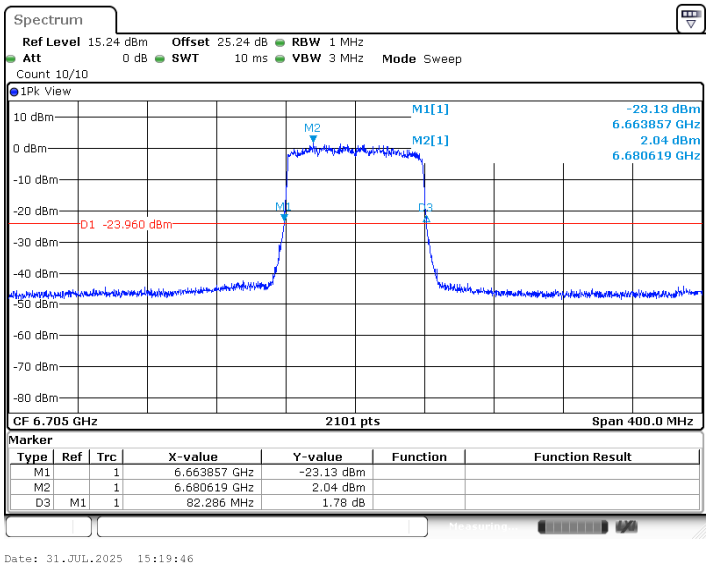

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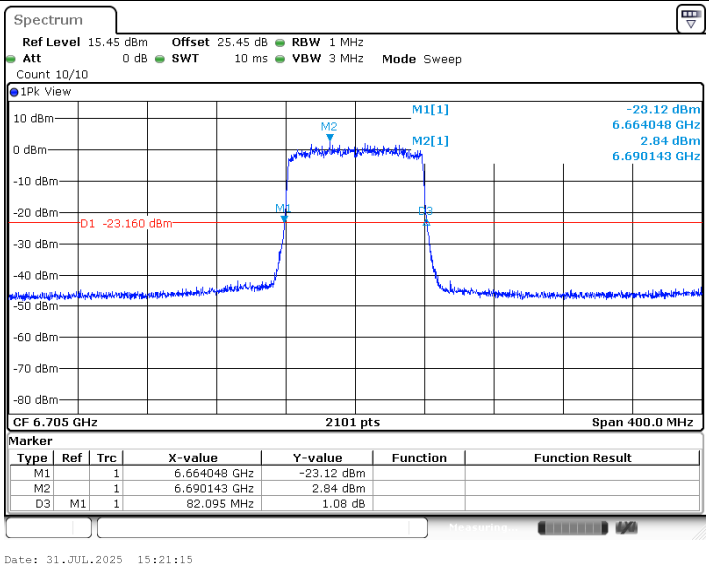

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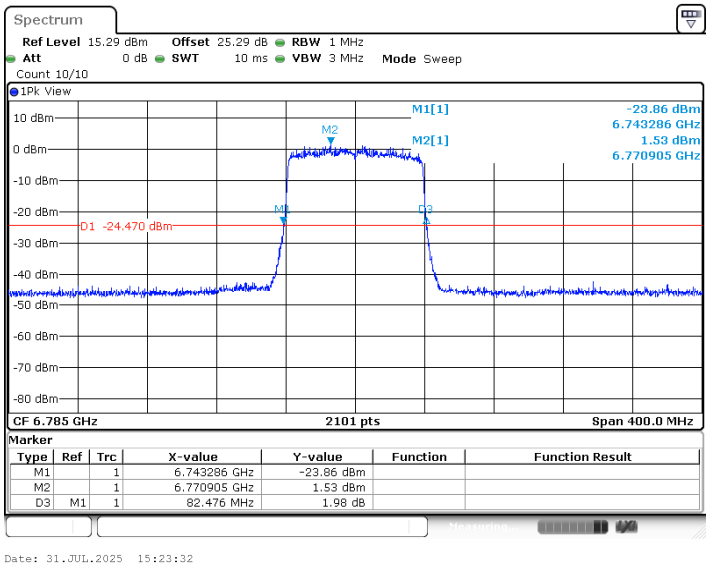

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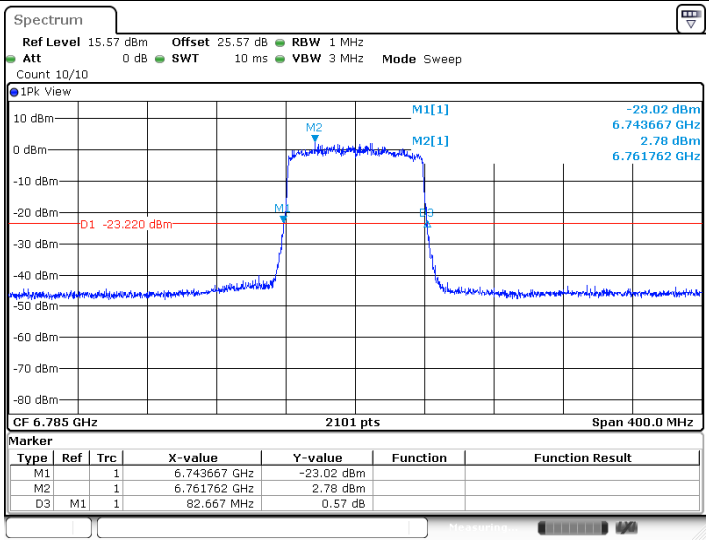

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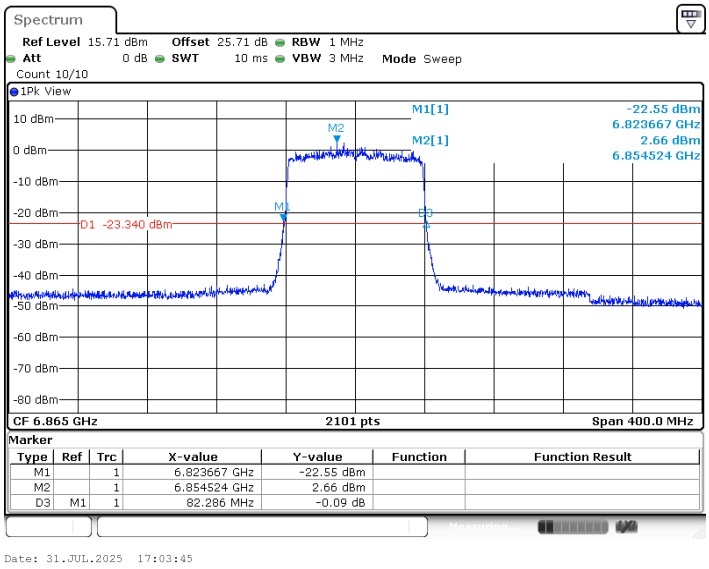

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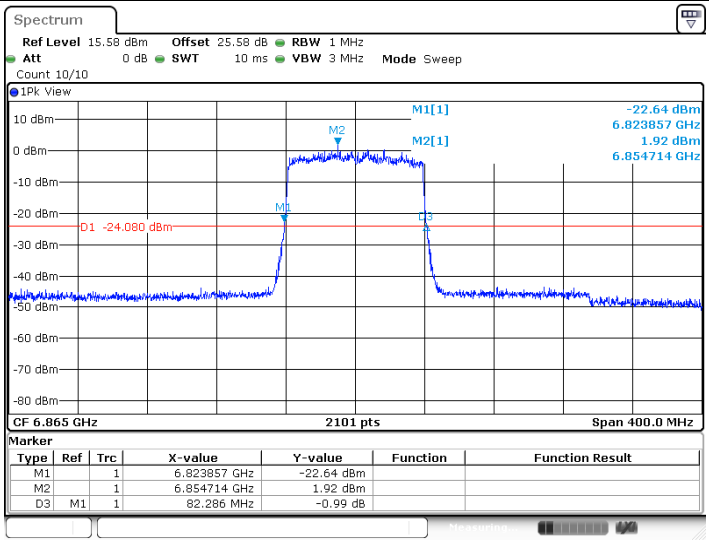

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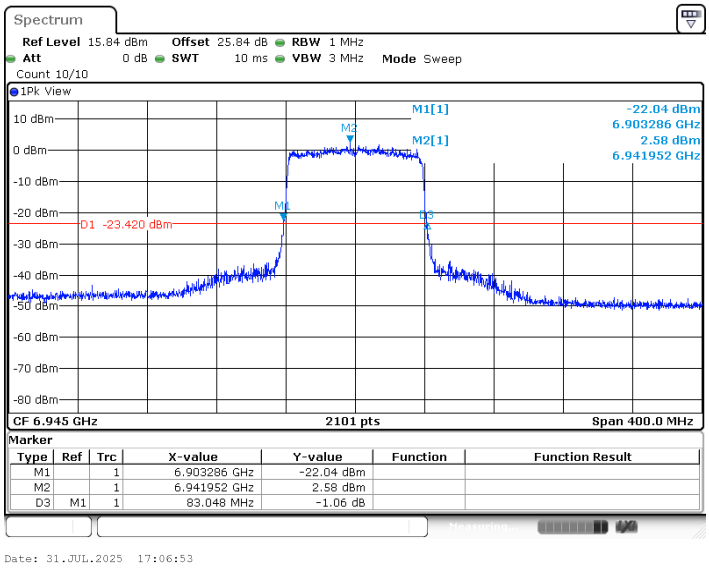

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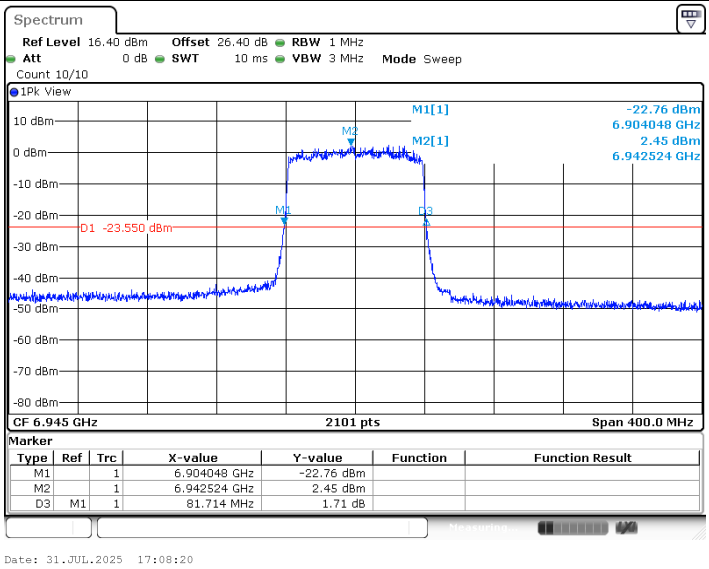
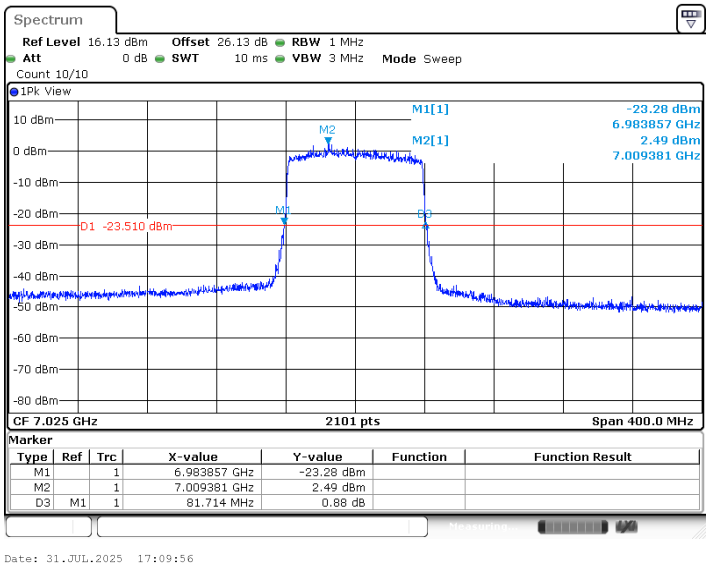
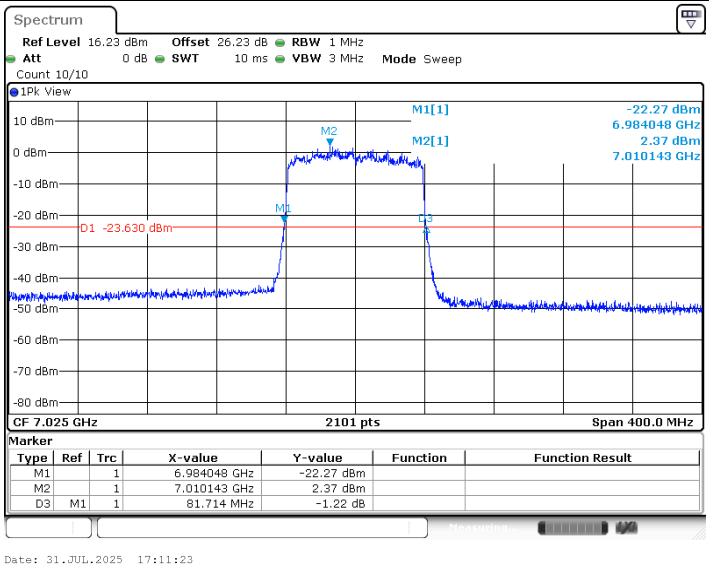
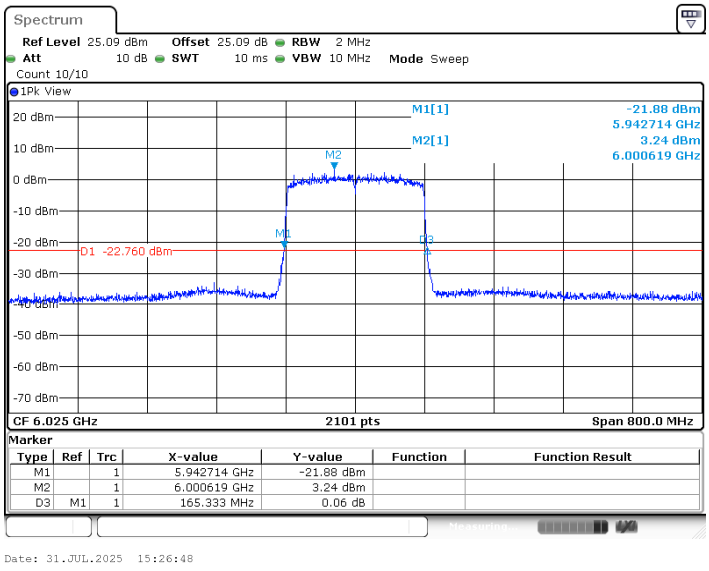


11AX80MIMO_Ant1_7025


11AX80MIMO_Ant2_7025


11AX160MIMO_Ant1_6025



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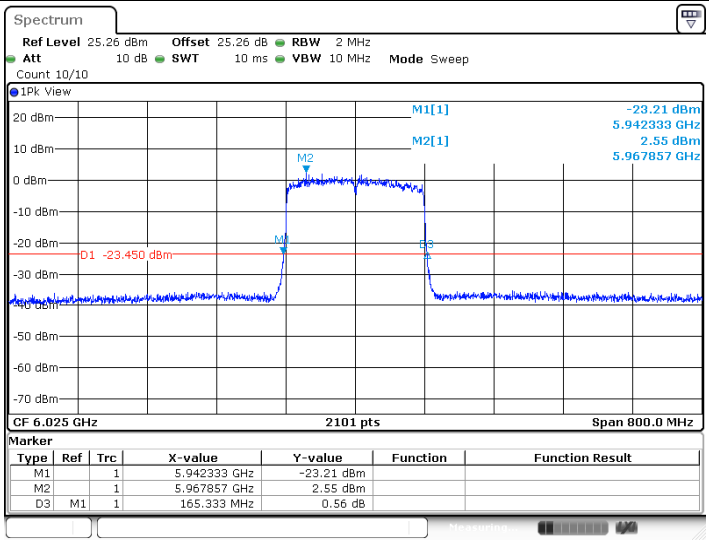
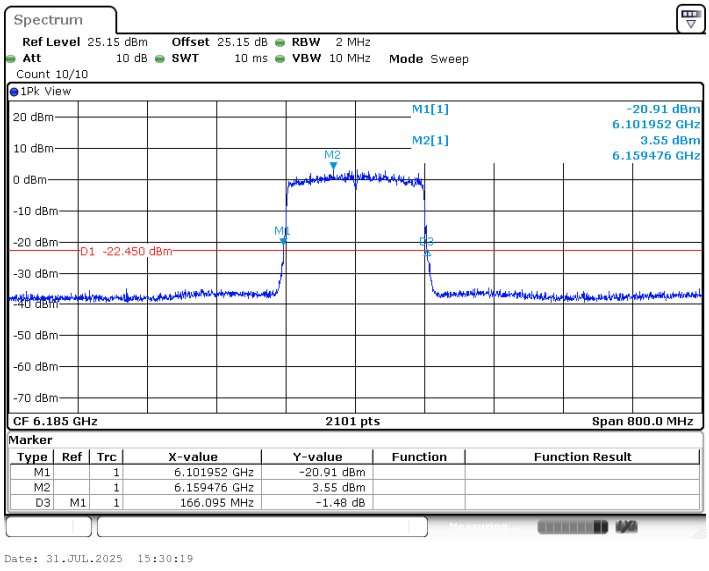


11AX160MIMO_Ant1_6185



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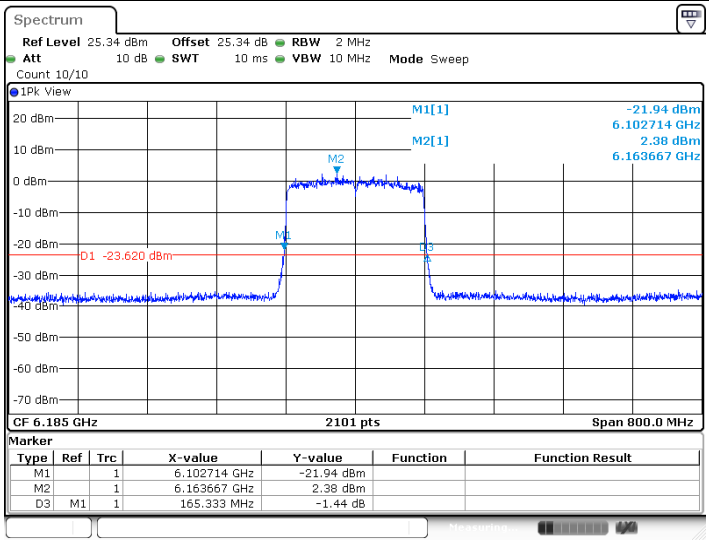
11AX160MIMO_Ant2_6185



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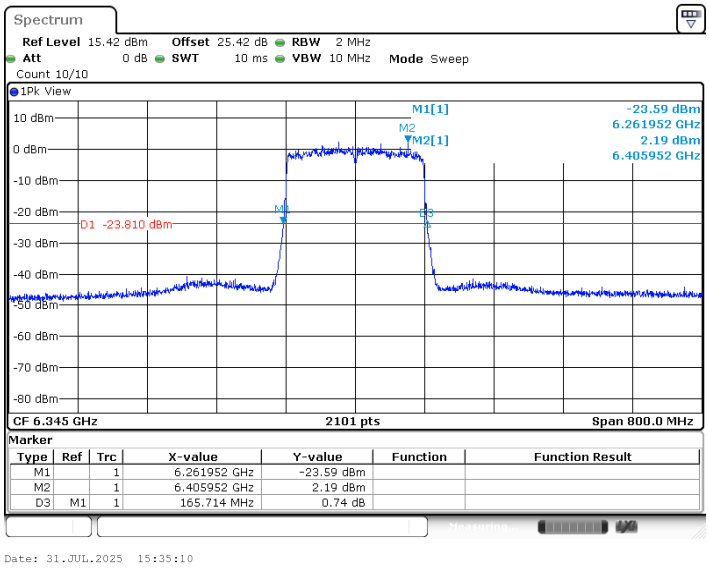
11AX160MIMO_Ant1_6345



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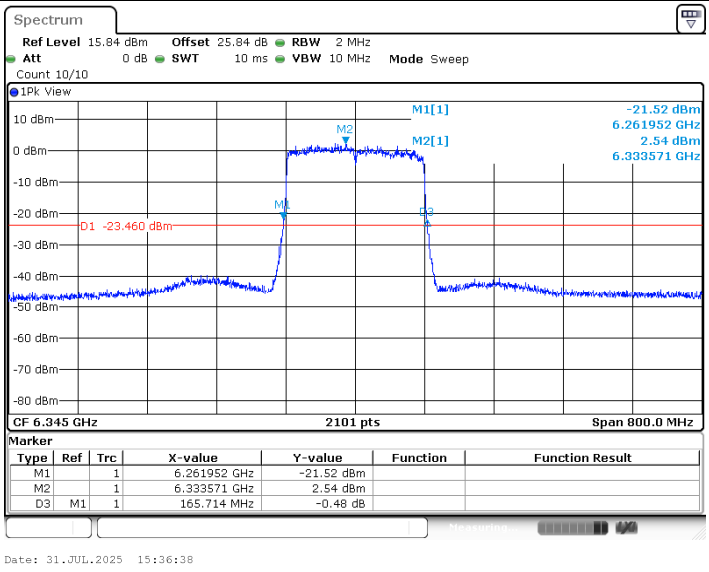
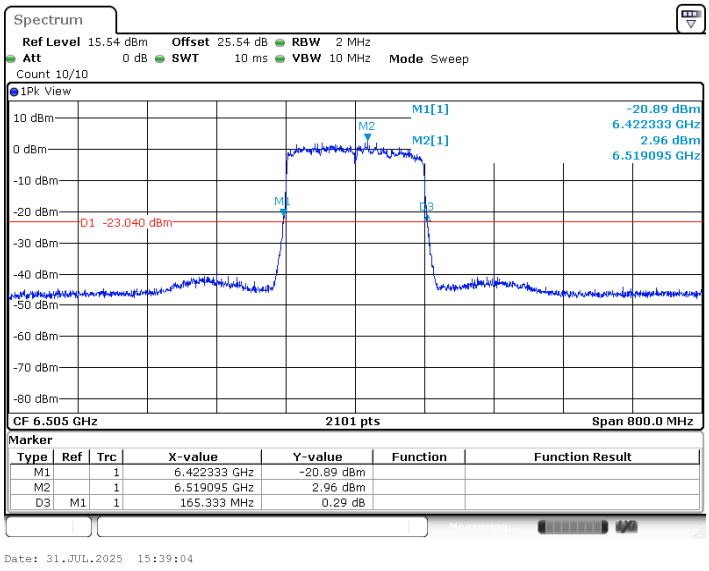
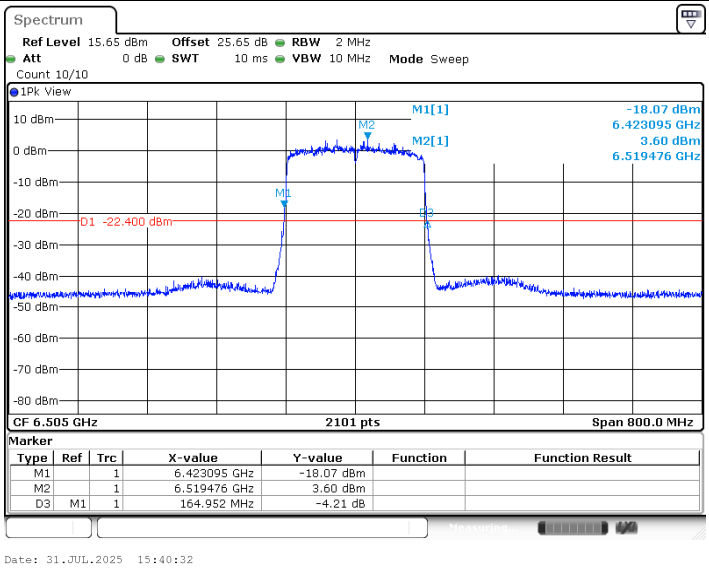


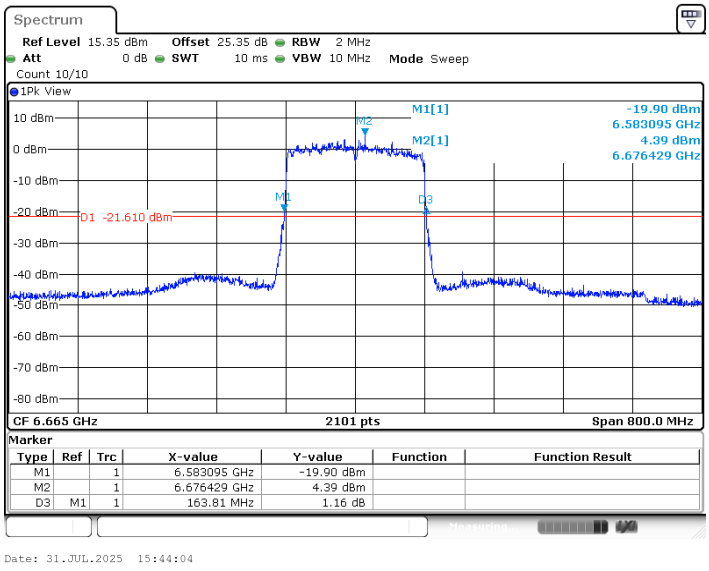
11AX160MIMO_Ant1_6505



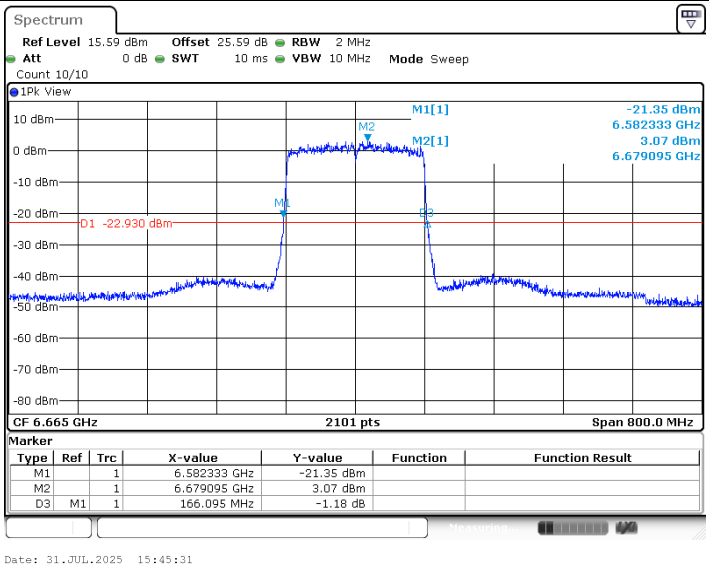
11AX160MIMO_Ant2_6505



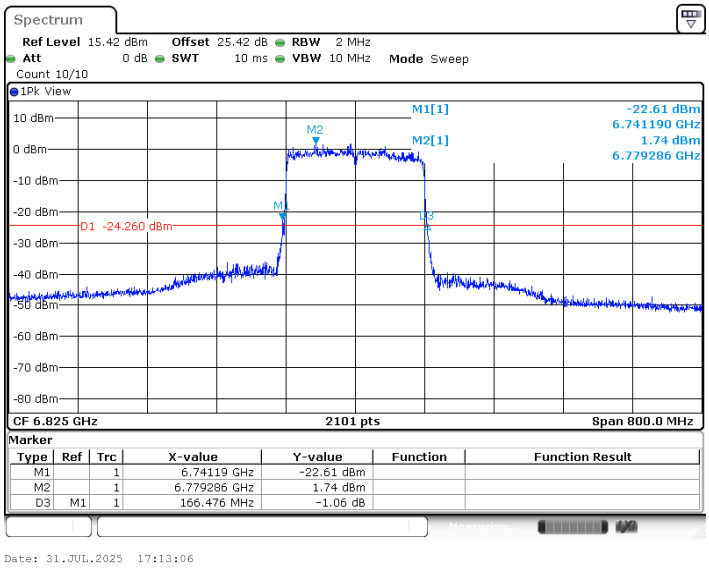
11AX160MIMO_Ant1_6665



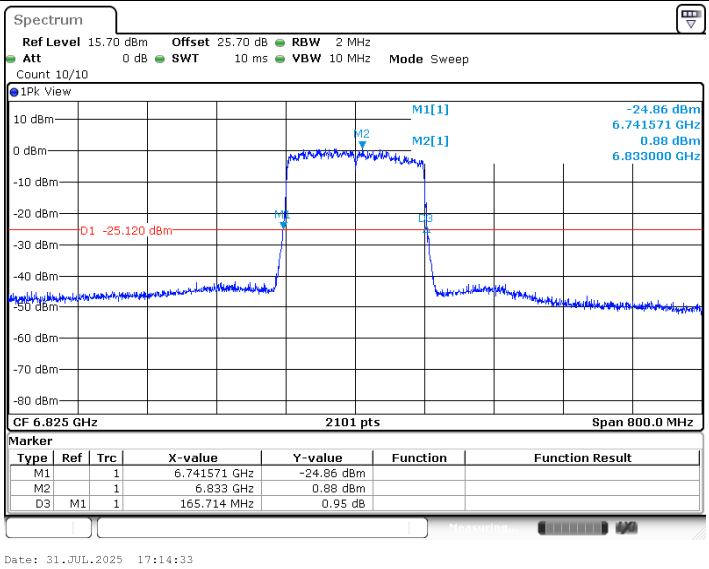
11AX160MIMO_Ant2_6665



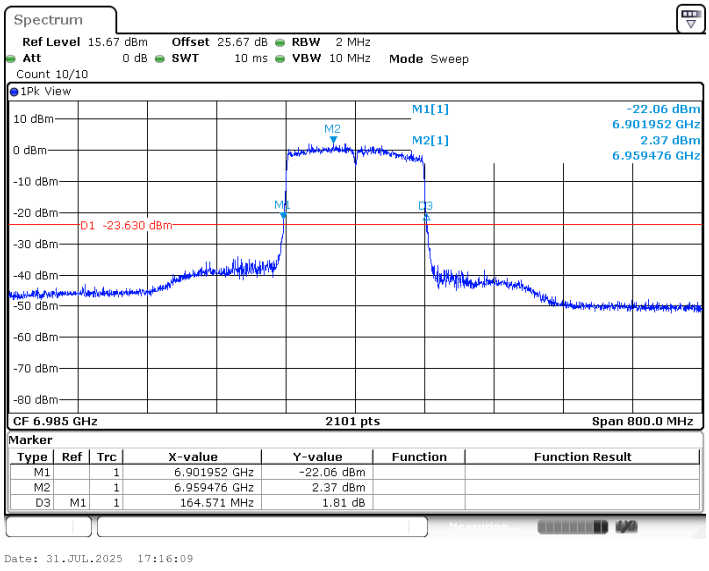
11AX160MIMO_Ant1_6825



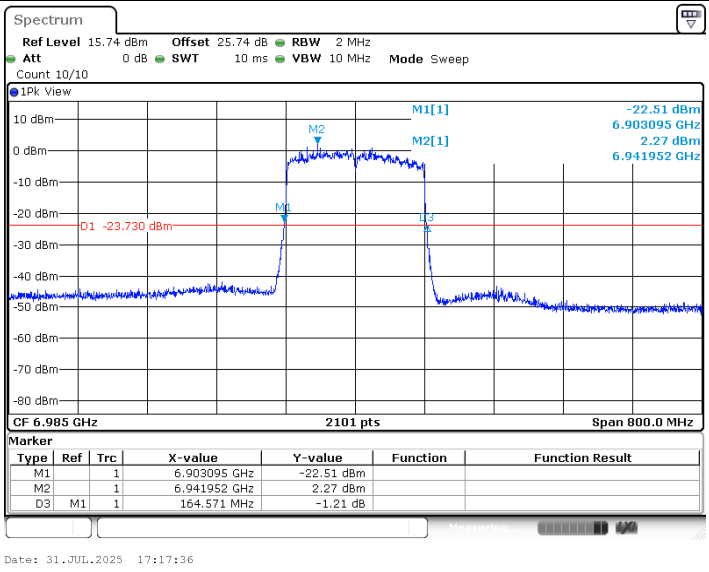
11AX160MIMO_Ant2_6825



11AX160MIMO_Ant1_6985



11AX160MIMO_Ant2_6985



Occupied channel bandwidth

Test Result

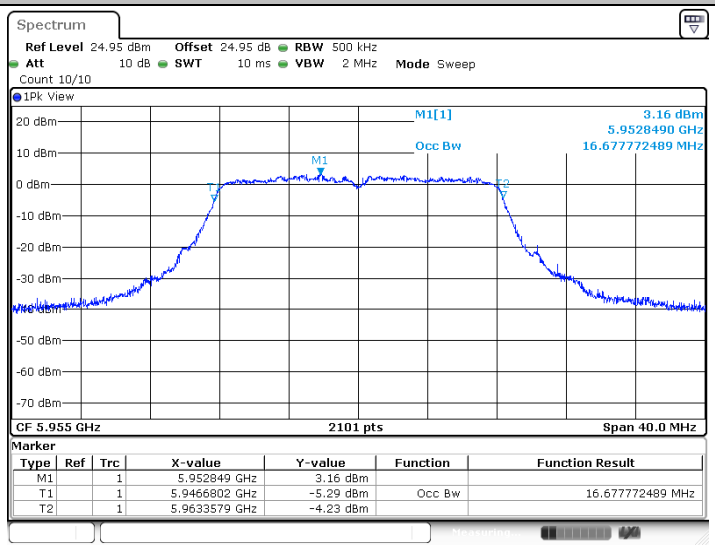
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A-CDD	Ant1	5955	16.678	5946.6802	5963.3579	---	---
	Ant2	5955	16.545	5946.7563	5963.3008	---	---
	Ant1	6195	16.659	6186.6802	6203.3389	---	---
	Ant2	6195	16.583	6186.7373	6203.3198	---	---
	Ant1	6415	16.659	6406.6802	6423.3389	---	---
	Ant2	6415	16.564	6406.7563	6423.3198	---	---
	Ant1	6435	16.640	6426.6992	6443.3389	---	---
	Ant2	6435	16.545	6426.7753	6443.3198	---	---
	Ant1	6475	16.640	6466.6992	6483.3389	---	---
	Ant2	6475	16.564	6466.7753	6483.3389	---	---
	Ant1	6515	16.640	6506.6992	6523.3389	---	---
	Ant2	6515	16.583	6506.7563	6523.3389	---	---
	Ant1	6535	16.659	6526.6802	6543.3389	---	---
	Ant2	6535	16.583	6526.7373	6543.3198	---	---
	Ant1	6695	16.678	6686.6802	6703.3579	---	---
	Ant2	6695	16.564	6686.7753	6703.3389	---	---
	Ant1	6855	16.659	6846.6992	6863.3579	---	---
	Ant2	6855	16.545	6846.7563	6863.3008	---	---
	Ant1	6875	16.678	6866.6802	6883.3579	---	---
	Ant2	6875	16.583	6866.7373	6883.3198	---	---
	Ant1	6895	16.659	6886.6992	6903.3579	---	---
	Ant2	6895	16.583	6886.7563	6903.3389	---	---
	Ant1	6995	16.640	6986.6802	7003.3198	---	---
	Ant2	6995	16.545	6986.7563	7003.3008	---	---
	Ant1	7095	16.659	7086.6992	7103.3579	---	---
	Ant2	7095	16.564	7086.7563	7103.3198	---	---
11AX20MIMO	Ant1	5955	19.039	5945.5188	5964.5574	---	---
	Ant2	5955	19.039	5945.5188	5964.5574	---	---
	Ant1	6195	19.039	6185.4998	6204.5383	---	---
	Ant2	6195	19.020	6185.5188	6204.5383	---	---
	Ant1	6415	19.000	6405.5188	6424.5193	---	---
	Ant2	6415	19.000	6405.5378	6424.5383	---	---
	Ant1	6435	19.000	6425.5378	6444.5383	---	---
	Ant2	6435	19.000	6425.5569	6444.5574	---	---
	Ant1	6475	19.020	6465.5188	6484.5383	---	---
	Ant2	6475	19.000	6465.5569	6484.5574	---	---
	Ant1	6515	19.000	6505.5188	6524.5193	---	---
	Ant2	6515	19.020	6505.5378	6524.5574	---	---
	Ant1	6535	19.000	6525.5188	6544.5193	---	---
	Ant2	6535	19.020	6525.5188	6544.5383	---	---
	Ant1	6695	19.000	6685.5378	6704.5383	---	---
	Ant2	6695	18.981	6685.5569	6704.5383	---	---
	Ant1	6855	19.000	6845.5378	6864.5383	---	---
	Ant2	6855	19.000	6845.5378	6864.5383	---	---

	Ant1	6875	19.020	6865.5188	6884.5383	---	---
	Ant2	6875	19.000	6865.5378	6884.5383	---	---
	Ant1	6895	18.962	6885.5759	6904.5383	---	---
	Ant2	6895	19.000	6885.5759	6904.5764	---	---
	Ant1	6995	19.000	6985.5188	7004.5193	---	---
	Ant2	6995	19.000	6985.5188	7004.5193	---	---
	Ant1	7095	19.039	7085.5188	7104.5574	---	---
	Ant2	7095	19.039	7085.5378	7104.5764	---	---
11AX40MIMO	Ant1	5965	37.849	5946.1138	5983.9624	---	---
	Ant2	5965	37.887	5946.1138	5984.0005	---	---
	Ant1	6205	37.887	6186.0757	6223.9624	---	---
	Ant2	6205	38.001	6186.0376	6224.0386	---	---
	Ant1	6405	37.849	6386.0757	6423.9243	---	---
	Ant2	6405	37.887	6386.1138	6424.0005	---	---
	Ant1	6445	37.811	6426.0757	6463.8862	---	---
	Ant2	6445	37.849	6426.1518	6464.0005	---	---
	Ant1	6485	37.849	6466.0757	6503.9243	---	---
	Ant2	6485	37.925	6466.0757	6504.0005	---	---
	Ant1	6525	37.849	6506.0376	6543.8862	---	---
	Ant2	6525	37.849	6506.1138	6543.9624	---	---
	Ant1	6565	37.849	6546.0376	6583.8862	---	---
	Ant2	6565	37.811	6546.1518	6583.9624	---	---
	Ant1	6685	37.925	6666.0376	6703.9624	---	---
	Ant2	6685	37.925	6666.1138	6704.0386	---	---
	Ant1	6845	37.849	6826.0757	6863.9243	---	---
	Ant2	6845	37.887	6826.1138	6864.0005	---	---
	Ant1	6885	37.887	6866.0757	6903.9624	---	---
	Ant2	6885	37.925	6866.0757	6904.0005	---	---
	Ant1	6925	37.849	6906.0757	6943.9243	---	---
	Ant2	6925	37.925	6906.1138	6944.0386	---	---
	Ant1	7005	37.849	6986.0376	7023.8862	---	---
	Ant2	7005	37.925	6986.0757	7024.0005	---	---
	Ant1	7085	37.887	7066.0376	7103.9243	---	---
	Ant2	7085	37.887	7066.0757	7103.9624	---	---
11AX80MIMO	Ant1	5985	77.297	5946.3137	6023.6102	---	---
	Ant2	5985	77.373	5946.3137	6023.6863	---	---
	Ant1	6225	77.373	6186.3137	6263.6863	---	---
	Ant2	6225	77.449	6186.3137	6263.7625	---	---
	Ant1	6385	77.373	6346.2375	6423.6102	---	---
	Ant2	6385	77.297	6346.3898	6423.6863	---	---
	Ant1	6465	77.297	6426.2375	6503.5340	---	---
	Ant2	6465	77.449	6426.3898	6503.8386	---	---
	Ant1	6545	77.297	6506.1614	6583.4579	---	---
	Ant2	6545	77.297	6506.3898	6583.6863	---	---
	Ant1	6625	77.220	6586.3137	6663.5340	---	---
	Ant2	6625	77.449	6586.3898	6663.8386	---	---
	Ant1	6705	77.220	6666.2375	6743.4579	---	---
	Ant2	6705	77.297	6666.4660	6743.7625	---	---
	Ant1	6785	77.449	6746.1614	6823.6102	---	---
	Ant2	6785	77.297	6746.3898	6823.6863	---	---

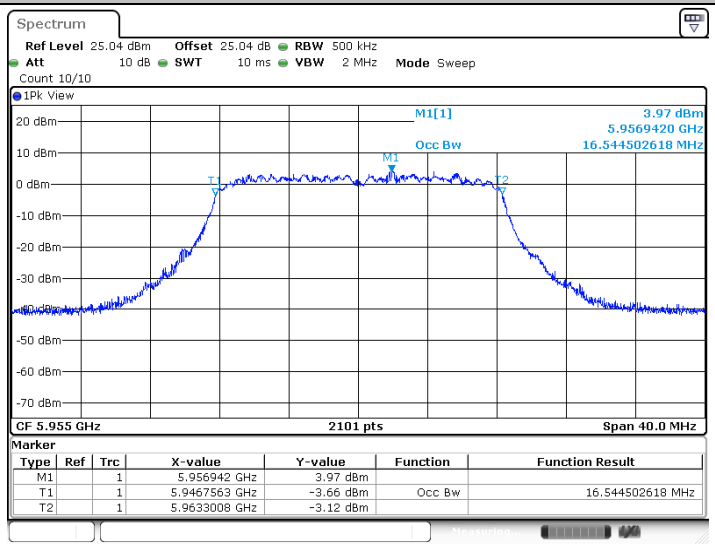
	Ant1	6865	77.297	6826.3137	6903.6102	---	---
	Ant2	6865	77.373	6826.3898	6903.7625	---	---
	Ant1	6945	77.373	6906.1614	6983.5340	---	---
	Ant2	6945	77.220	6906.3898	6983.6102	---	---
	Ant1	7025	77.449	6986.1614	7063.6102	---	---
	Ant2	7025	77.373	6986.2375	7063.6102	---	---
11AX160MIMO	Ant1	6025	157.030	5946.5612	6103.5911	---	---
	Ant2	6025	156.725	5946.5612	6103.2865	---	---
	Ant1	6185	157.182	6106.4089	6263.5911	---	---
	Ant2	6185	157.335	6106.4089	6263.7435	---	---
	Ant1	6345	157.030	6266.2565	6423.2865	---	---
	Ant2	6345	157.182	6266.2565	6423.4388	---	---
	Ant1	6505	157.030	6425.9519	6582.9819	---	---
	Ant2	6505	156.725	6426.7135	6583.4388	---	---
	Ant1	6665	157.030	6586.1042	6743.1342	---	---
	Ant2	6665	157.030	6586.7135	6743.7435	---	---
	Ant1	6825	157.487	6745.9519	6903.4388	---	---
	Ant2	6825	157.182	6746.2565	6903.4388	---	---
	Ant1	6985	157.030	6905.9519	7062.9819	---	---
	Ant2	6985	156.725	6906.2565	7062.9819	---	---

Test Graphs

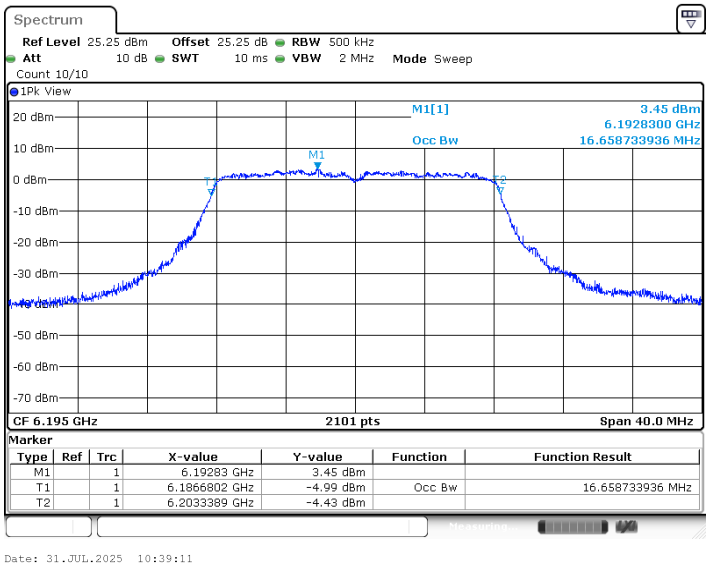
11A-CDD_Ant1_5955



11A-CDD_Ant2_5955



11A-CDD_Ant1_6195



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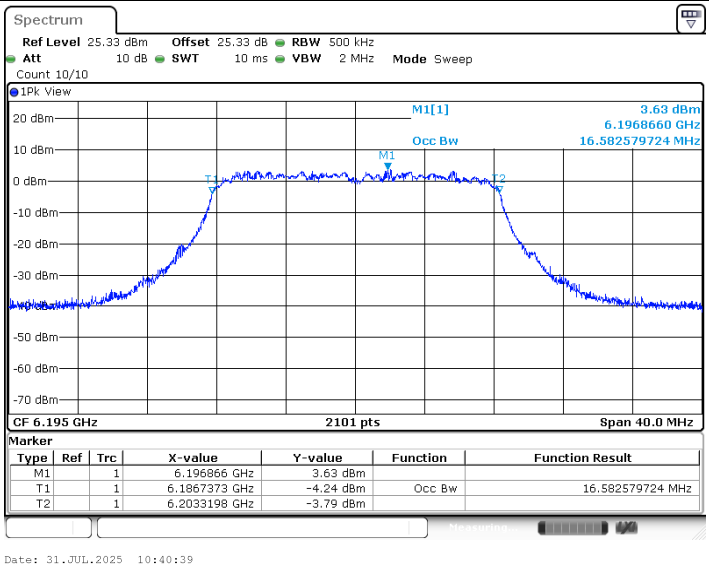

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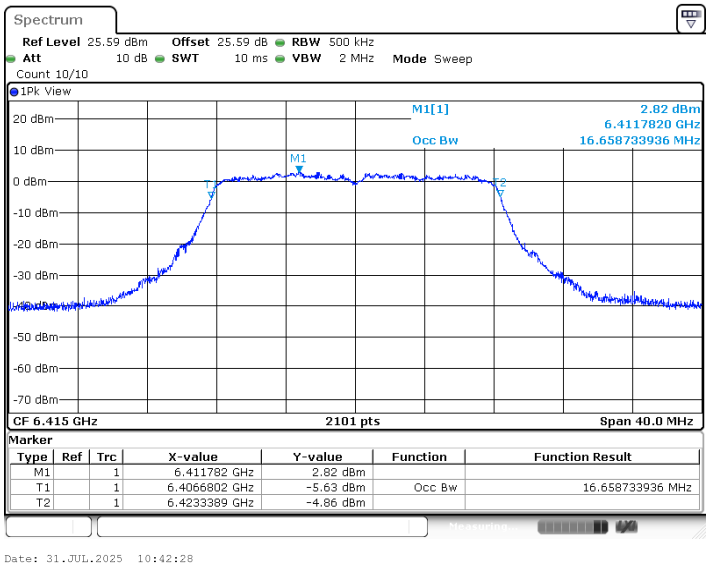

11A-CDD_Ant2_6415