FCC RF Test Report

APPLICANT	:	Motorola Mobility LLC
EQUIPMENT	:	Mobile Cellular Phone
BRAND NAME	:	Motorola
MODEL NAME	:	XT2503-1, XT2505-3
FCC ID	:	IHDT56AU7
STANDARD	:	FCC Part 15 Subpart E §15.407
CLASSIFICATION	:	(NII) Unlicensed National Information Infrastructure
TEST DATE(S)	:	Dec. 18, 2024 ~ Dec. 30, 2024

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.

This report contains data that were produced under subcontract by Sporton International Inc. (Shenzhen)

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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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR4D1311E	Rev. 01	Initial issue of report	Jan. 24, 2025

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit for U-NII-1/2A/2C	Limit for U-NII-3	Result	Remark
3.1	2.1049 & 15.403(i)	6dB, 26dB & 99% Bandwidth	-	6dB Bandwidth > 500kHz	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	≤ 24 dBm	≤ 30 dBm	Pass	-
3.3	15.407(a)	Power Spectral Density	≤ 11 dBm/MHz	≤ 30 dBm/500kHz	Pass	-
3.4	15.407(b)	Unwanted Emissions	15.407(b) & 15.209(a)	15.407(b)(4)(i) &15.209(a)	Pass	Under limit 3.07 dB at 5149.85 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	15.207(a)	Pass	Under limit 17.62 dB at 0.727 MHz
3.6	15.203 & 15.407(a)	Antenna Requirement	15.203 & 15.407(a)	15.203 & 15.407(a)	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

Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

1.2 Manufacturer

Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2503-1, XT2505-3
FCC ID	IHDT56AU7
IMEI /SN Code	Conducted: 354424860019573/354424860019581 Conduction: 354424860020134/354424860020142 Radiation: NM3R220146
HW Version	DVT2
SW Version	V2VC35.13
EUT Stage	Identical Prototype

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. There are two types of EUT, model name: XT2503-1 is sample 1 and model name: XT2505-3 is sample 2, the differences could be referred to the XT2503-1, XT2505-3_Operational Description of Product Equality Declaration which is exhibit separately. According to the difference, for RF report, we choose sample 1 to full test.

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz 5745 MHz ~ 5825 MHz
Maximum Output Power to Antenna	**<5180 MHz ~ 5240 MHz>** 802.11a : 18.46 dBm / 0.0701 W 802.11n HT20 : 18.47 dBm / 0.0703 W 802.11n HT40 : 18.40 dBm / 0.0692 W 802.11ac VHT20: 18.52 dBm / 0.0711 W 802.11ac VHT40: 18.43 dBm / 0.0697 W 802.11ac VHT80: 12.68 dBm / 0.0185 W 802.11ax HE20: 18.63 dBm / 0.0729 W 802.11ax HE40: 18.53 dBm / 0.0713 W 802.11ax HE80: 12.79 dBm / 0.0190 W **<5260 MHz ~ 5320 MHz>** 802.11a : 18.54 dBm / 0.0714 W 802.11n HT20 : 18.53 dBm / 0.0713 W 802.11n HT40 : 18.42 dBm / 0.0695 W 802.11ac VHT20: 18.56 dBm / 0.0718 W 802.11ac VHT40: 18.45 dBm / 0.0700 W 802.11ac VHT80: 13.81 dBm / 0.0240 W 802.11ax HE20: 18.64 dBm / 0.0731 W 802.11ax HE40: 18.56 dBm / 0.0718 W 802.11ax HE80: 13.92 dBm / 0.0247 W **<5500 MHz ~ 5720 MHz >** 802.11a : 18.78 dBm / 0.0755 W 802.11n HT20 : 18.67 dBm / 0.0736 W 802.11n HT40 : 18.79 dBm / 0.0757 W 802.11ac VHT20: 18.74 dBm / 0.0748 W 802.11ac VHT40: 18.83 dBm / 0.0764 W 802.11ac VHT80: 17.97 dBm / 0.0627 W 802.11ax HE20: 18.82 dBm / 0.0762 W 802.11ax HE40: 18.95 dBm / 0.0785 W 802.11ax HE80: 18.07 dBm / 0.0641 W **<5745 MHz ~ 5825 MHz>** 802.11a : 18.75 dBm / 0.0750 W 802.11n HT20 : 18.69 dBm / 0.0740 W 802.11n HT40 : 18.72 dBm / 0.0745 W 802.11ac VHT20: 18.75 dBm / 0.0750 W 802.11ac VHT40: 18.74 dBm / 0.0748 W 802.11ac VHT80: 17.98 dBm / 0.0628 W 802.11ax HE20: 18.83 dBm / 0.0764 W 802.11ax HE40: 18.86 dBm / 0.0769 W 802.11ax HE80: 18.07 dBm / 0.0641 W

99% Occupied Bandwidth	**<5180 MHz ~ 5240 MHz>** 802.11a : 19.310 MHz 802.11ax HE20: 19.938 MHz 802.11ax HE40: 38.924 MHz 802.11ax HE80: 78.600 MHz **<5260 MHz ~ 5320 MHz>** 802.11a : 19.622 MHz 802.11ax HE20: 19.898 MHz 802.11ax HE40: 38.980 MHz 802.11ax HE80: 78.888 MHz **<5500 MHz ~ 5720 MHz>** 802.11a : 19.670 MHz 802.11ax HE20: 19.958 MHz 802.11ax HE40: 39.476 MHz 802.11ax HE80: 78.648 MHz **<5745 MHz ~ 5825 MHz>** 802.11a : 19.802 MHz 802.11ax HE20: 19.910 MHz 802.11ax HE40: 39.004 MHz 802.11ax HE80: 78.408 MHz
Antenna Type / Gain	**<5180 MHz ~ 5240 MHz>** PIFA Antenna type with gain -6.5 dBi **<5260 MHz ~ 5320 MHz>** PIFA Antenna type with gain -6.7 dBi **<5500 MHz ~ 5720 MHz>** PIFA Antenna type with gain -6.9 dBi **<5745 MHz ~ 5825 MHz>** PIFA Antenna type with gain -6.7 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) 802.11ax : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM / 1024QAM)

Note:

1. For 802.11n HT20 /ac VHT20 /ax HE20 and 802.11n HT40 /ac VHT40/ax HE40, 802.11 ac VHT80/ax HE80 mode, the whole testing have assessed only 802.11ax HE20/HE40/HE80 by referring to the higher output power.
2. 802.11ax support OFDMA full RU tone and partial RU tone, both full RU and partial RU-left (for low CH) and partial RU-right (for high CH) test output power, the full RU Power/PSD > partial RU, therefore the full RU perform full test to cover partial RU except for Spurious and bandedge.

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 03CH08-KS	CN1257	314309

Sporton International Inc. (ShenZhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	TH01-SZ	CN1256	421272

Test data subcontracted: conducted test case in section 3.1~3.3 of this report.

1.7 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH08-KS	AUDIX	E3	210616
2.	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:

- 47 CFR Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- ANSI C63.10-2013

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.

1.9 Specification of Accessory

Accessories Information				
AC Adapter 1(US)	**Brand Name**	Motorola(Chenyang)	**Model Name**	MC-681N
AC Adapter 1(EU)	**Brand Name**	Motorola(Chenyang)	**Model Name**	MC-682N
AC Adapter 1(UK)	**Brand Name**	Motorola(Chenyang)	**Model Name**	MC-683N
AC Adapter 1(AU)	**Brand Name**	Motorola(Chenyang)	**Model Name**	MC-685N
AC Adapter 1(AR)	**Brand Name**	Motorola(Chenyang)	**Model Name**	MC-686N
AC Adapter 1(BR)	**Brand Name**	Motorola(Chenyang)	**Model Name**	MC-687N
AC Adapter 1(CHILE)	**Brand Name**	Motorola(Chenyang)	**Model Name**	MC-689N
AC Adapter 2(US)	**Brand Name**	Motorola(Acbel)	**Model Name**	MC-681N
AC Adapter 2(EU)	**Brand Name**	Motorola(Acbel)	**Model Name**	MC-682N
AC Adapter 2(UK)	**Brand Name**	Motorola(Acbel)	**Model Name**	MC-683N
AC Adapter 2(AU)	**Brand Name**	Motorola(Acbel)	**Model Name**	MC-685N
AC Adapter 2(AR)	**Brand Name**	Motorola(Acbel)	**Model Name**	MC-686N
AC Adapter 2(BR)	**Brand Name**	Motorola(Acbel)	**Model Name**	MC-687N
AC Adapter 2(CHILE)	**Brand Name**	Motorola(Acbel)	**Model Name**	MC-689N
Battery 1	**Brand Name**	Motorola(ATL)	**Model Name**	RM52
Battery 2	**Brand Name**	Motorola(Cosmx)	**Model Name**	RM52
USB Cable 1	**Brand Name**	Motorola(saibao)	**Model Name**	SC18D71644
USB Cable 2	**Brand Name**	Motorola(Luxshare)	**Model Name**	SC18E08104
USB Cable 3	**Brand Name**	Motorola(saibao)	**Model Name**	SC18D86731
USB Cable 4	**Brand Name**	Motorola(Luxshare)	**Model Name**	SC18E08103
Wireless Earphones	**Brand Name**	Motorola	**Model Name**	XT2443-1

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 for Adapter mode and Earphone mode. The worst cases (X plane-Adapter mode) were recorded in this report.

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

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq.(MHz)	Channel	Freq. (MHz)
5180-5240 MHz U-NII-1	36	5180	44	5220
	38*	5190	46*	5230
	40	5200	48	5240
	42#	5210	-	-

Frequency Band	Channel	Freq.(MHz)	Channel	Freq. (MHz)
5260-5320 MHz U-NII-2A	52	5260	60	5300
	54*	5270	62*	5310
	56	5280	64	5320
	58#	5290	-	-

Frequency Band	Channel	Freq.(MHz)	Channel	Freq. (MHz)
5500-5720MHz U-NII-2C	100	5500	112	5560
	102*	5510	116	5580
	104	5520	132	5660
	106#	5530	134*	5670
	108	5540	136	5680
	110*	5550	140	5700

Frequency Band	Channel	Freq.(MHz)	Channel	Freq. (MHz)
5745-5825 MHz U-NII-3	149	5745	157	5785
	151*	5755	159*	5795
	153	5765	161	5805
	155#	5775	165	5825

Frequency Band	Channel	Freq.(MHz)	Channel	Freq. (MHz)
TDWR Channel	118*	5590	124	5620
	120	5600	126*	5630
	122#	5610	128	5640

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channel	138#	5690	144	5720
	142*	5710	-	-

Note:

1. The above Frequency and Channel in "*" are 40MHz bandwidth.
2. The above Frequency and Channel in "#" are 80MHz bandwidth.

2.2 Test Mode

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

SISO Mode

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

AC Conducted Emission	Mode 1 : GSM 850 Idle + BT Link + WLAN Link(5G) + USB Cable 4 (Charging From Adaptor 1)
Remark: For Radiated Test Cases, the tests were performed with Adapter 1 and USB Cable 1.	

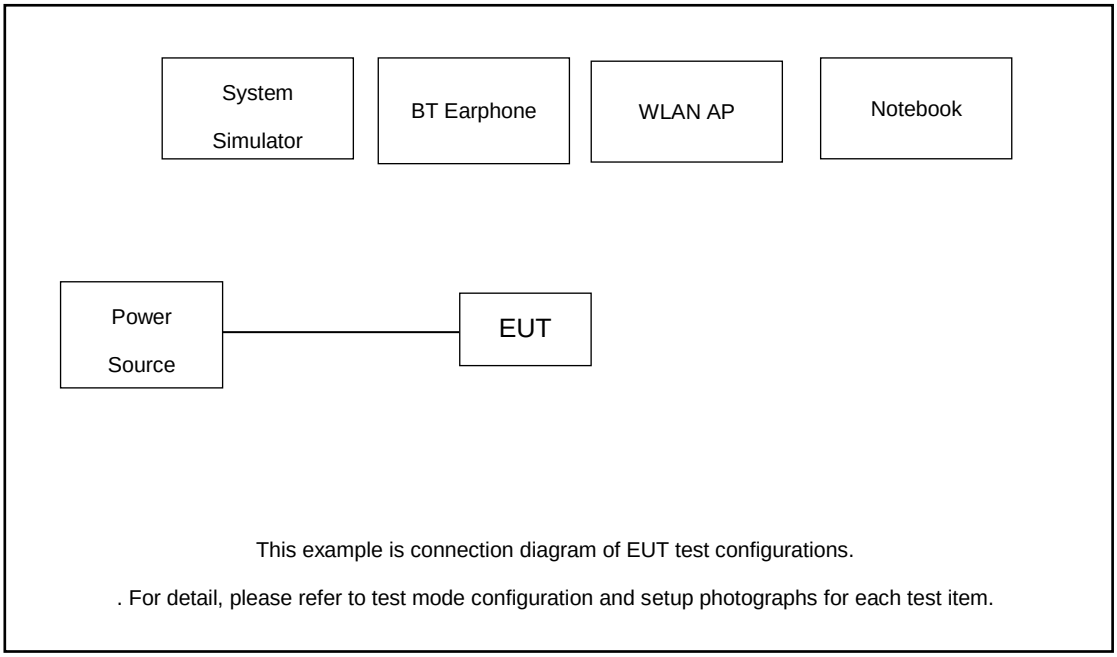
Ch. #		U-NII-1	U-NII-2A	U-NII-2C	U-NII-3
		20M BW	20M BW	20M BW	20M BW
L	Low	36	52	100	149
M	Middle	44	60	116	157
H	High	48	64	140	165
Straddle		-	-	144	-

Ch. #		U-NII-1	U-NII-2A	U-NII-2C	U-NII-3
		40M BW	40M BW	40M BW	40M BW
L	Low	38	54	102	151
M	Middle	-	-	110	-
H	High	46	62	134	159
Straddle		-	-	142	-

Ch. #		U-NII-1	U-NII-2A	U-NII-2C	U-NII-3
		80M BW	80M BW	80M BW	80M BW
L	Low	-	-	106	-
M	Middle	42	58	-	155
H	High	-	-	122	-
Straddle		-	-	138	-

2.3 Connection Diagram of Test System

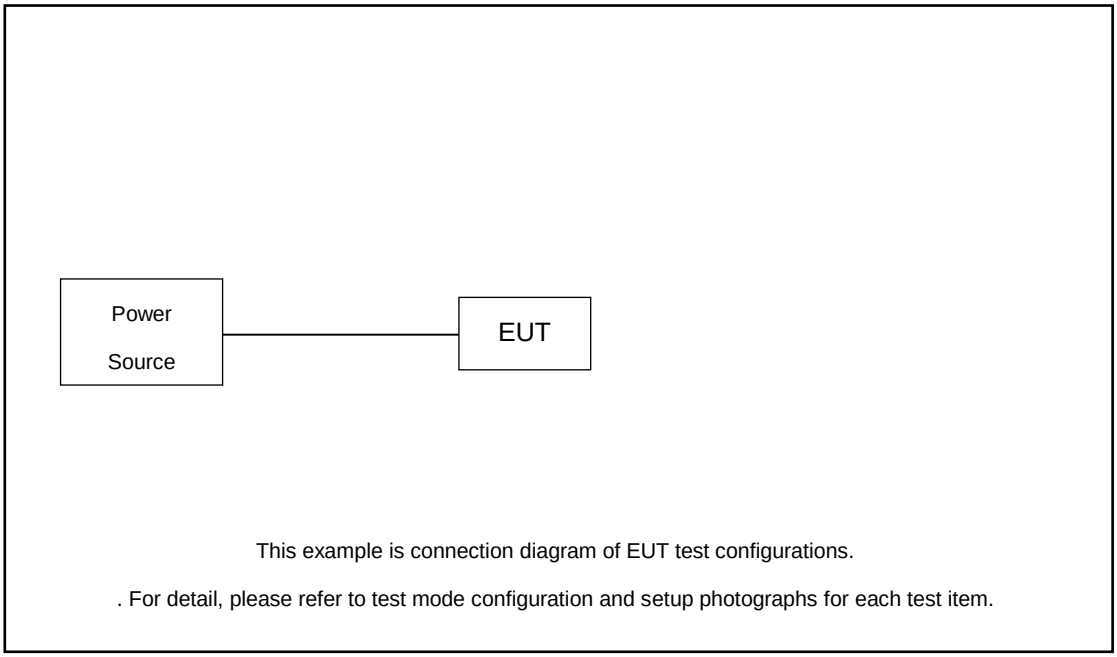
AC Conducted Emission:



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:



This example is connection diagram of EUT test configurations.

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

2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Base Station	Anritsu	MT8821C	N/A	N/A	Unshielded,1.8m
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
4.	SD Card	Kingston	8GB	N/A	N/A	N/A

2.5 EUT Operation Test Setup

For WLAN RF test items, an engineering test program 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 4.53 dB and 10dB attenuator.

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

= 4.53 + 10 = 14.53 (dB)

3 Test Result

3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement

3.1.1 Description of 6dB and 26dB and 99% Occupied Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

26dB and 99% Occupied bandwidth are reporting only.

3.1.2 Measuring Instruments

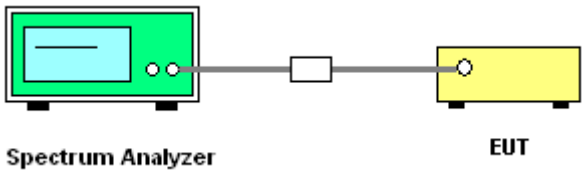
The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

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

☒	Section C) Bandwidth Measurement 1. Emission Bandwidth (EBW) and 99% OBW
	1. Set RBW = approximately 1% of the emission bandwidth. **2.** Set the VBW > RBW. **3.** Detector = Peak. **4.** Trace mode = max hold **5.** 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%. **6.** For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set to 1%~5% of the OBW and set the Video bandwidth (VBW) ≥ 3 * RBW. **7.** Measure and record the results in the test report.
☒	Section C) Bandwidth Measurement 2. Minimum Emission Bandwidth for the band 5.725 - 5.85 GHz
	1. Set RBW = 100kHz. **2.** Set the VBW ≥ 3 x RBW. **3.** Detector = Peak. **4.** Trace mode = max hold **5.** Measure the maximum width of the emission that is 6 dB down from the peak of the emission. **6.** Measure and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of 6dB Bandwidth

Please refer to Appendix A.

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW.

For the 5.25–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm +10 $\log_{10}$ B, where B is the 26 dB emission bandwidth in megahertz.

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Note that U-NII-2 band, devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

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3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.2.3 Test Procedures

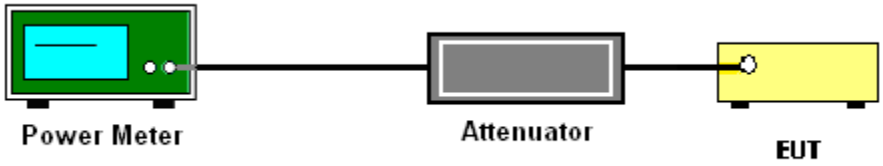
The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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.

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

<5180 MHz ~ 5240 MHz>										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	Pass/Fail	Power Setting
11a	6Mbps	1	36	5180	0.13	17.96	24.00	-6.50	Pass	18.5
11a	6Mbps	1	44	5220	0.13	18.42	24.00	-6.50	Pass	19
11a	6Mbps	1	48	5240	0.13	18.46	24.00	-6.50	Pass	19
HT20	MCS0	1	36	5180	0.14	17.23	24.00	-6.50	Pass	18
HT20	MCS0	1	44	5220	0.14	18.47	24.00	-6.50	Pass	19
HT20	MCS0	1	48	5240	0.14	18.45	24.00	-6.50	Pass	19
HT40	MCS0	1	38	5190	0.28	13.74	24.00	-6.50	Pass	14
HT40	MCS0	1	46	5230	0.28	18.40	24.00	-6.50	Pass	18.5
VHT20	MCS0	1	36	5180	0.14	17.30	24.00	-6.50	Pass	18
VHT20	MCS0	1	44	5220	0.14	18.50	24.00	-6.50	Pass	19
VHT20	MCS0	1	48	5240	0.14	18.52	24.00	-6.50	Pass	19
VHT40	MCS0	1	38	5190	0.29	13.80	24.00	-6.50	Pass	14
VHT40	MCS0	1	46	5230	0.29	18.43	24.00	-6.50	Pass	18.5
VHT80	MCS0	1	42	5210	0.55	12.68	24.00	-6.50	Pass	13

<5180 MHz ~ 5240 MHz>										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	Pass/Fail	Power Setting
HE20	MCS0	1	36	5180	0.18	17.41	24.00	-6.50	Pass	18
HE20	MCS0	1	44	5220	0.18	18.60	24.00	-6.50	Pass	19
HE20	MCS0	1	48	5240	0.18	18.63	24.00	-6.50	Pass	19
HE40	MCS0	1	38	5190	0.34	13.93	24.00	-6.50	Pass	14
HE40	MCS0	1	46	5230	0.34	18.53	24.00	-6.50	Pass	18.5
HE80	MCS0	1	42	5210	0.61	12.79	24.00	-6.50	Pass	13

<5260 MHz ~ 5320 MHz>											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail	Power Setting
11a	6M bps	1	52	5260	0.13	18.54	23.98	-6.70	26.99	Pass	19
11a	6M bps	1	60	5300	0.13	18.44	23.98	-6.70	26.99	Pass	19
11a	6M bps	1	64	5320	0.13	18.05	23.98	-6.70	26.99	Pass	18.5
HT20	MCS 0	1	52	5260	0.14	18.44	23.98	-6.70	26.99	Pass	19
HT20	MCS 0	1	60	5300	0.14	18.53	23.98	-6.70	26.99	Pass	19
HT20	MCS 0	1	64	5320	0.14	17.53	23.98	-6.70	26.99	Pass	18
HT40	MCS 0	1	54	5270	0.28	18.42	23.98	-6.70	26.99	Pass	18.5
HT40	MCS 0	1	62	5310	0.28	14.00	23.98	-6.70	26.99	Pass	14
VHT20	MCS 0	1	52	5260	0.14	18.51	23.98	-6.70	26.99	Pass	19
VHT20	MCS 0	1	60	5300	0.14	18.56	23.98	-6.70	26.99	Pass	19
VHT20	MCS 0	1	64	5320	0.14	17.60	23.98	-6.70	26.99	Pass	18
VHT40	MCS 0	1	54	5270	0.29	18.45	23.98	-6.70	26.99	Pass	18.5
VHT40	MCS 0	1	62	5310	0.29	14.05	23.98	-6.70	26.99	Pass	14
VHT80	MCS 0	1	58	5290	0.55	13.81	23.98	-6.70	26.99	Pass	14

<5260 MHz ~ 5320 MHz>											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail	Power Setting
HE20	MCS 0	1	52	5260	0.18	18.60	23.98	-6.70	26.99	Pass	19
HE20	MCS 0	1	60	5300	0.18	18.64	23.98	-6.70	26.99	Pass	19
HE20	MCS 0	1	64	5320	0.18	17.71	23.98	-6.70	26.99	Pass	18
HE40	MCS 0	1	54	5270	0.34	18.56	23.98	-6.70	26.99	Pass	18.5
HE40	MCS 0	1	62	5310	0.34	14.16	23.98	-6.70	26.99	Pass	14
HE80	MCS 0	1	58	5290	0.61	13.92	23.98	-6.70	26.99	Pass	14

<5500 MHz ~ 5720 MHz>											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail	Power Setting
11a	6M bps	1	100	5500	0.13	18.60	23.98	-6.90	26.99	Pass	19
11a	6M bps	1	116	5580	0.13	18.78	23.98	-6.90	26.99	Pass	19
11a	6M bps	1	140	5700	0.13	18.67	23.98	-6.90	26.99	Pass	19
11a	6M bps	1	144	5720	0.13	18.69	23.98	-6.90	26.99	Pass	19
HT20	MCS 0	1	100	5500	0.14	18.61	23.98	-6.90	26.99	Pass	19
HT20	MCS 0	1	116	5580	0.14	18.67	23.98	-6.90	26.99	Pass	19
HT20	MCS 0	1	140	5700	0.14	16.61	23.98	-6.90	26.99	Pass	17
HT20	MCS 0	1	144	5720	0.14	18.66	23.98	-6.90	26.99	Pass	19
HT40	MCS 0	1	102	5510	0.28	18.76	23.98	-6.90	26.99	Pass	18.5
HT40	MCS 0	1	110	5550	0.28	18.56	23.98	-6.90	26.99	Pass	18.5
HT40	MCS 0	1	134	5670	0.28	18.55	23.98	-6.90	26.99	Pass	18.5
HT40	MCS 0	1	142	5710	0.28	18.79	23.98	-6.90	26.99	Pass	18.5
VHT20	MCS 0	1	100	5500	0.14	18.67	23.98	-6.90	26.99	Pass	19
VHT20	MCS 0	1	116	5580	0.14	18.74	23.98	-6.90	26.99	Pass	19
VHT20	MCS 0	1	140	5700	0.14	16.66	23.98	-6.90	26.99	Pass	17
VHT20	MCS 0	1	144	5720	0.14	18.72	23.98	-6.90	26.99	Pass	19
VHT40	MCS 0	1	102	5510	0.29	18.78	23.98	-6.90	26.99	Pass	18.5
VHT40	MCS 0	1	110	5550	0.29	18.58	23.98	-6.90	26.99	Pass	18.5
VHT40	MCS 0	1	134	5670	0.29	18.59	23.98	-6.90	26.99	Pass	18.5
VHT40	MCS 0	1	142	5710	0.29	18.83	23.98	-6.90	26.99	Pass	18.5
VHT80	MCS 0	1	106	5530	0.55	17.97	23.98	-6.90	26.99	Pass	18
VHT80	MCS 0	1	122	5610	0.55	17.92	23.98	-6.90	26.99	Pass	18
VHT80	MCS 0	1	138	5690	0.55	17.89	23.98	-6.90	26.99	Pass	18

<5500 MHz ~ 5720 MHz>											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail	Power Setting
HE20	MCS 0	1	100	5500	0.18	18.73	23.98	-6.90	26.99	Pass	19
HE20	MCS 0	1	116	5580	0.18	18.82	23.98	-6.90	26.99	Pass	19
HE20	MCS 0	1	140	5700	0.18	16.74	23.98	-6.90	26.99	Pass	17
HE20	MCS 0	1	144	5720	0.18	18.80	23.98	-6.90	26.99	Pass	19
HE40	MCS 0	1	102	5510	0.34	18.89	23.98	-6.90	26.99	Pass	18.5
HE40	MCS 0	1	110	5550	0.34	18.69	23.98	-6.90	26.99	Pass	18.5
HE40	MCS 0	1	134	5670	0.34	18.69	23.98	-6.90	26.99	Pass	18.5
HE40	MCS 0	1	142	5710	0.34	18.95	23.98	-6.90	26.99	Pass	18.5
HE80	MCS 0	1	106	5530	0.61	18.07	23.98	-6.90	26.99	Pass	18
HE80	MCS 0	1	122	5610	0.61	18.03	23.98	-6.90	26.99	Pass	18
HE80	MCS 0	1	138	5690	0.61	17.98	23.98	-6.90	26.99	Pass	18

<5745 MHz ~ 5825 MHz>										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	Pass/Fail	Setting
11a	6M bps	1	149	5745	0.13	18.70	30.00	-6.70	Pass	19
11a	6Mbps	1	157	5785	0.13	18.71	30.00	-6.70	Pass	19
11a	6Mbps	1	165	5825	0.13	18.75	30.00	-6.70	Pass	19
HT20	MCS 0	1	149	5745	0.14	18.63	30.00	-6.70	Pass	19
HT20	MCS 0	1	157	5785	0.14	18.69	30.00	-6.70	Pass	19
HT20	MCS 0	1	165	5825	0.14	18.59	30.00	-6.70	Pass	19
HT40	MCS 0	1	151	5755	0.28	18.72	30.00	-6.70	Pass	18.5
HT40	MCS 0	1	159	5795	0.28	18.67	30.00	-6.70	Pass	18.5
VHT20	MCS 0	1	149	5745	0.14	18.67	30.00	-6.70	Pass	19
VHT20	MCS 0	1	157	5785	0.14	18.75	30.00	-6.70	Pass	19
VHT20	MCS 0	1	165	5825	0.14	18.62	30.00	-6.70	Pass	19
VHT40	MCS 0	1	151	5755	0.28	18.74	30.00	-6.70	Pass	18.5
VHT40	MCS 0	1	159	5795	0.28	18.71	30.00	-6.70	Pass	18.5
VHT80	MCS 0	1	155	5775	0.55	17.98	30.00	-6.70	Pass	18

<5745 MHz ~ 5825 MHz>										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	Pass/Fail	Setting
HE20	MCS 0	1	149	5745	0.18	18.77	30.00	-6.70	Pass	19
HE20	MCS 0	1	157	5785	0.18	18.83	30.00	-6.70	Pass	19
HE20	MCS 0	1	165	5825	0.18	18.74	30.00	-6.70	Pass	19
HE40	MCS 0	1	151	5755	0.34	18.86	30.00	-6.70	Pass	18.5
HE40	MCS 0	1	159	5795	0.34	18.81	30.00	-6.70	Pass	18.5
HE80	MCS 0	1	155	5775	0.61	18.07	30.00	-6.70	Pass	18

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum power spectral density shall not exceed 11dBm in any 1 megahertz band.

For the 5.25–5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the band 5.725–5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.3.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.
Section F) Maximum power spectral density.

For devices operating in the bands UNII-1/2A/2C

 # 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.

For devices operating in the band UNII-3

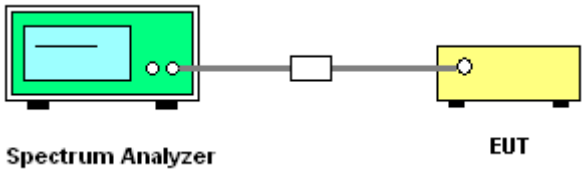
 # Method SA-2 #

(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 = 500KHz (or 300 kHz if the SA can’t set RBW=500KHz).
- Set VBW ≥ 1 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- If the SA can’t set RBW=500KHz, then add 10 log(500kHz/RBW) to the test result.
- 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, and attenuator loss. Measure the PPSD and record it.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

3.4 Unwanted Emissions Measurement

This section as specified in FCC Part 15.407(b) is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement. The unwanted emissions shall comply with 15.407(b)(1) to (6), and restricted bands per FCC Part15.205.

3.4.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of –27dBm/MHz.

For transmitters operating in the 5250-5350 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5250-5350 MHz band that generate emissions in the 5150-5250 MHz band must meet all applicable technical requirements for operation in the 5150-5250 MHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5150-5250 MHz band.

For transmitters operating in the 5470-5600 MHz and 5650-5725MHz band: all emissions outside of the 5470-5600 MHz and 5650-5725MHz band shall not exceed an EIRP of -27 dBm/MHz.

(2) For transmitters operating in the 5.725-5.85 GHz band:
15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(3) 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

(4) EIRP (dBm)	Field Strength at 3m (dBμV/m)
- 27	68.2

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

$$EIRP = E_{Meas} + 20\log(d_{Meas}) - 104.7$$

where

EIRP is the equivalent isotropically radiated power, in dBm

E_{Meas} is the field strength of the emission at the measurement distance, in dBμV/m

d_{Meas} is the measurement distance, in m

3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04. 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

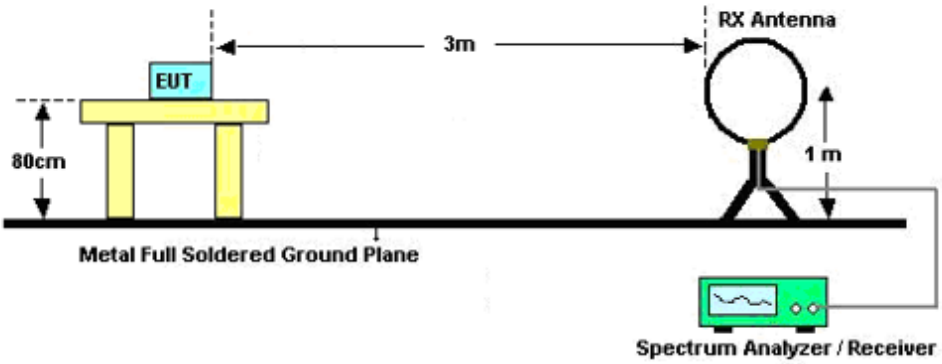
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

   - 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.

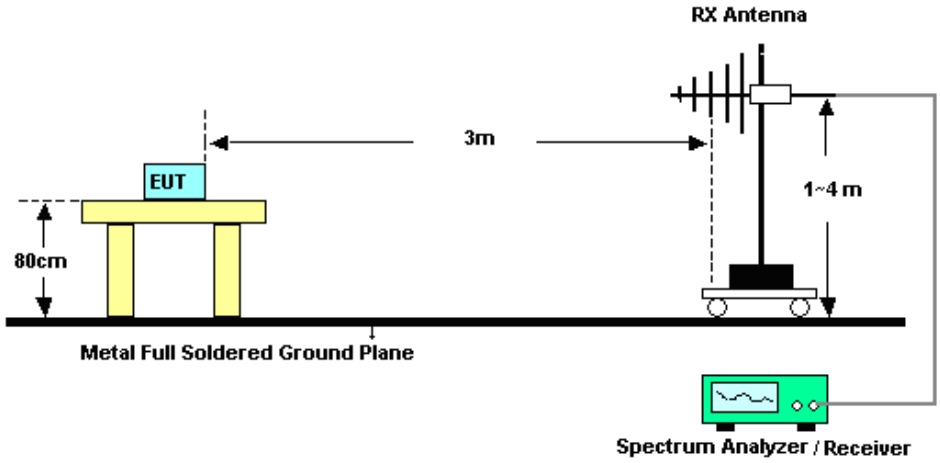
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband 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.

3.4.4 Test Setup

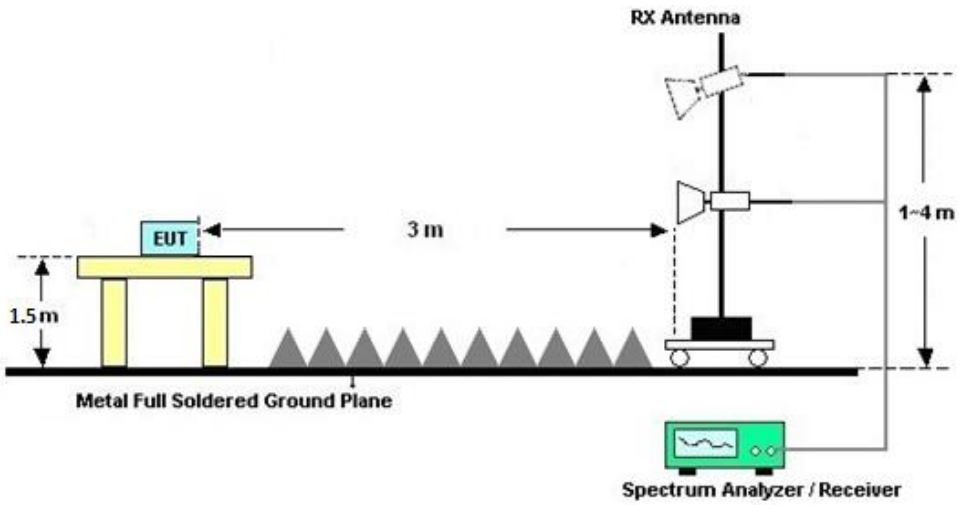
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.4.5 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 a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C.

3.4.7 Duty Cycle

Please refer to Appendix D.

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

Please refer to Appendix C.

3.5 AC Conducted Emission Measurement

3.5.1 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.

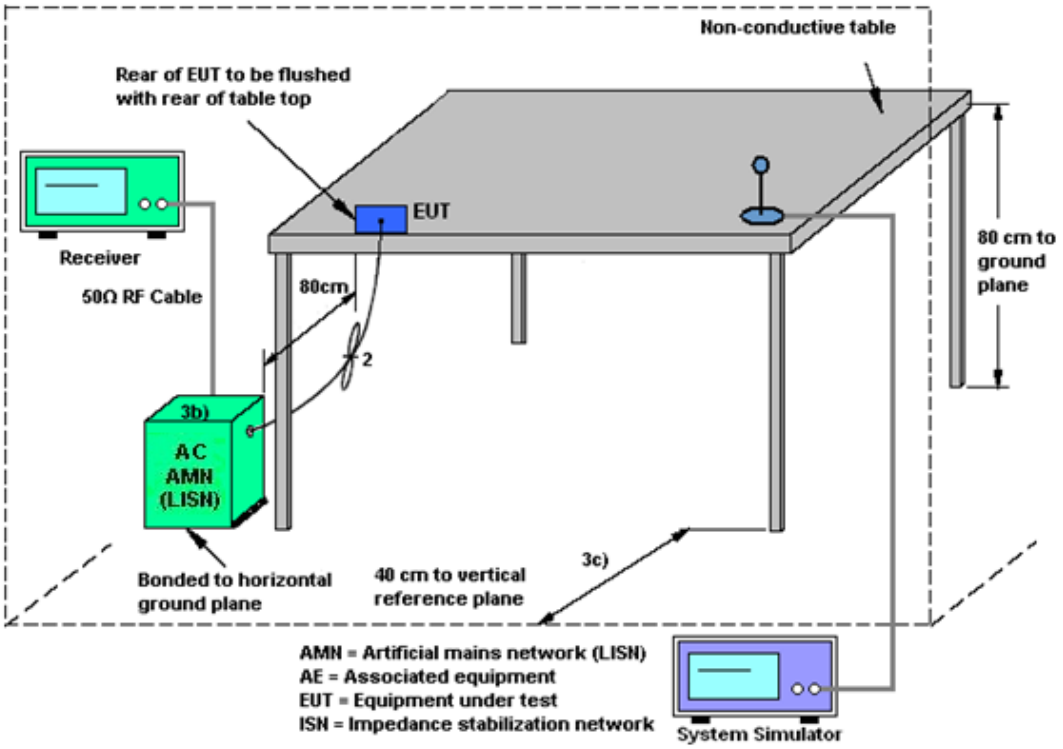
3.5.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.5.3 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.

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Antenna Requirements

3.6.1 Standard Applicable

According to FCC 47 CFR Section 15.407(a)(1)(2) ,if transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.6.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 09, 2024	Dec. 28, 2024~ Dec. 30, 2024	Apr. 08, 2025	Conducted (TH01-SZ)
Pulse Power Senor	Anritsu	MA2411B	1339473	30MHz~40GHz	Dec. 27, 2024	Dec. 28, 2024~ Dec. 30, 2024	Dec. 26, 2025	Conducted (TH01-SZ)
Thermo meter	Anymetre	JR593	#7	- 10℃ ~ 50℃ 10%RH~99%RH	Apr. 09, 2024	Dec. 28, 2024~ Dec. 30, 2024	Apr. 08, 2025	Conducted (TH01-SZ)
EMI Test Receiver	Keysight	N9038A	MY57290151	3Hz~8.5GHz;Max 30dBm	Jul. 04, 2024	Dec. 18, 2024	Jul. 03, 2025	Radiation (03CH08-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57441079	10Hz-44GHz	Oct. 09, 2024	Dec. 18, 2024	Oct. 08, 2025	Radiation (03CH08-KS)
Loop Antenna	R&S	HFH2-Z2E	101125	9kHz~30MHz	Sep. 08, 2024	Dec. 18, 2024	Sep. 07, 2025	Radiation (03CH08-KS)
Bilog Antenna	TESEQ	CBL 6111D	59915	30MHz-1GHz	Aug. 18, 2024	Dec. 18, 2024	Aug.17, 2025	Radiation (03CH08-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00240138	1GHz~18GHz	Jul. 06, 2024	Dec. 18, 2024	Jul. 05, 2025	Radiation (03CH08-KS)
high gain Amplifier	EM	EM01G18GA	060890	1Ghz-18Ghz	Jul. 23, 2024	Dec. 18, 2024	Jul. 22, 2025	Radiation (03CH08-KS)
SHF-EHF Horn	Com-power	AH-840	101116	18GHz~40GHz	Oct. 22, 2024	Dec. 18, 2024	Oct. 21, 2025	Radiation (03CH08-KS)
Amplifier	SONOMA	310N	380826	9KHz-1GHz	Jul. 03, 2024	Dec. 18, 2024	Jul. 02, 2025	Radiation (03CH08-KS)
Amplifier	Keysight	83017A	MY53270417	500MHz~26.5GHz	Oct. 09, 2024	Dec. 18, 2024	Oct. 08, 2025	Radiation (03CH08-KS)
Amplifier	EM	EM18G40GGA	060737	18~40GHz	Jan. 03, 2024	Dec. 18, 2024	Jan. 02, 2025	Radiation (03CH08-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Dec. 18, 2024	NCR	Radiation (03CH08-KS)
Turn Table	EM	EM 1000-T	N/A	0~360 degree	NCR	Dec. 18, 2024	NCR	Radiation (03CH08-KS)
Antenna Mast	EM	EM 1000-A	N/A	1 m~4 m	NCR	Dec. 18, 2024	NCR	Radiation (03CH08-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 18, 2024	Dec. 20, 2024	Apr. 17, 2025	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Aug. 20, 2024	Dec. 20, 2024	Aug. 19, 2025	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	Apr. 18, 2024	Dec. 20, 2024	Apr. 17, 2025	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 09, 2024	Dec. 20, 2024	Oct. 08, 2025	Conduction (CO01-KS)

NCR: No Calibration Required

5 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.10-2013. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Spurious Emission & Bandedge	±1.34 dB
Occupied Channel Bandwidth	±0.012 MHz
Conducted Power	±1.34 dB
Conducted Power Spectral Density	±1.32 dB
Frequency	±1.3 Hz

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.30 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	6.04 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.26 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.40 dB

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

Appendix A. Conducted Test Results

Ambient Condition: 24-26 ℃, 45-55 %RH	
According Standard: ■Part15E	
Test Date: 2024.12.28~2024.12.30	**Test Engineer:** Chen ZhiQiang

Emission Bandwidth

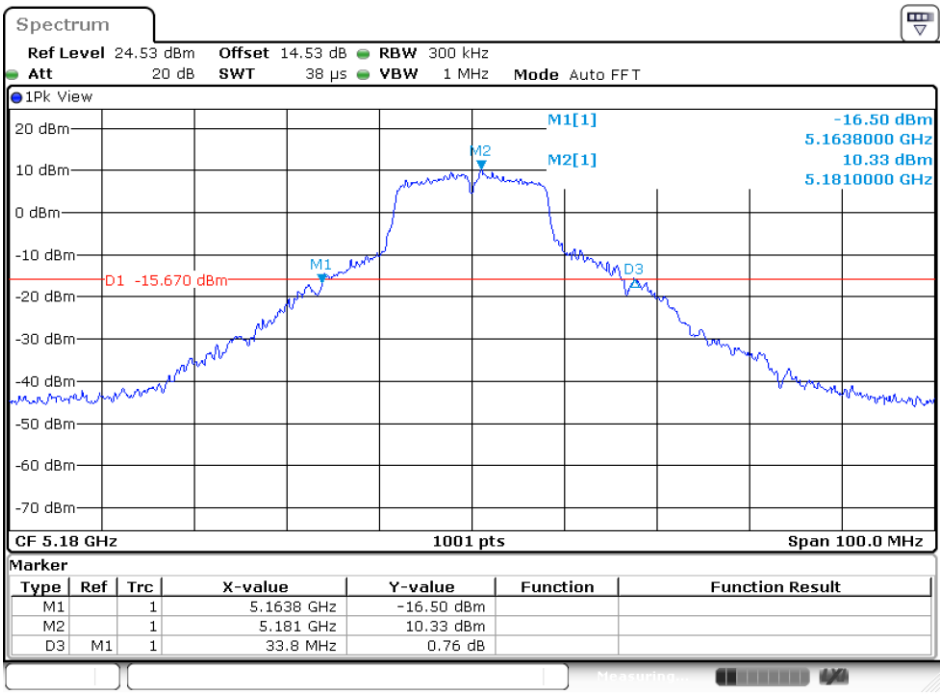
Test Result

TestMode	Antenna	Freq(MHz)	26dB EBW [MHz]	FL[MHz]	FH[MHz]
11A	Ant4	5180	33.80	5163.80	5197.60
		5220	31.90	5204.40	5236.30
		5240	32.90	5223.60	5256.50
		5260	35.20	5242.30	5277.50
		5300	32.40	5283.90	5316.30
		5320	32.60	5303.60	5336.20
		5500	32.20	5483.90	5516.10
		5580	33.80	5564.10	5597.90
		5700	33.90	5682.10	5716.00
		5720	35.40	5702.00	5737.40
		5745	34.30	5729.10	5763.40
		5785	33.50	5768.70	5802.20
		5825	34.90	5806.60	5841.50
11AX20SISO	Ant4	5180	36.00	5163.80	5199.80
		5220	34.40	5201.80	5236.20
		5240	37.60	5223.90	5261.50
		5260	37.10	5242.00	5279.10
		5300	39.80	5278.20	5318.00
		5320	35.90	5301.80	5337.70
		5500	34.70	5483.70	5518.40
		5580	38.20	5559.80	5598.00
		5700	38.90	5680.10	5719.00
		5720	41.20	5699.20	5740.40
		5745	35.20	5727.10	5762.30
		5785	42.30	5763.10	5805.40
		5825	39.40	5804.90	5844.30
11AX40SISO	Ant4	5190	74.60	5156.20	5230.80
		5230	74.60	5192.60	5267.20
		5270	72.60	5233.60	5306.20
		5310	72.40	5272.20	5344.60
		5510	70.00	5477.20	5547.20
		5550	75.40	5512.00	5587.40

		5670	72.20	5632.20	5704.40
		5710	75.60	5672.00	5747.60
		5755	78.20	5717.80	5796.00
		5795	78.00	5760.60	5838.60
11AX80SISO	Ant4	5210	130.80	5148.40	5279.20
		5290	118.00	5226.40	5344.40
		5530	139.20	5462.40	5601.60
		5610	125.20	5546.80	5672.00
		5690	108.80	5629.20	5738.00
		5775	118.40	5710.60	5829.00

Test Graphs

11A_Ant4_5180



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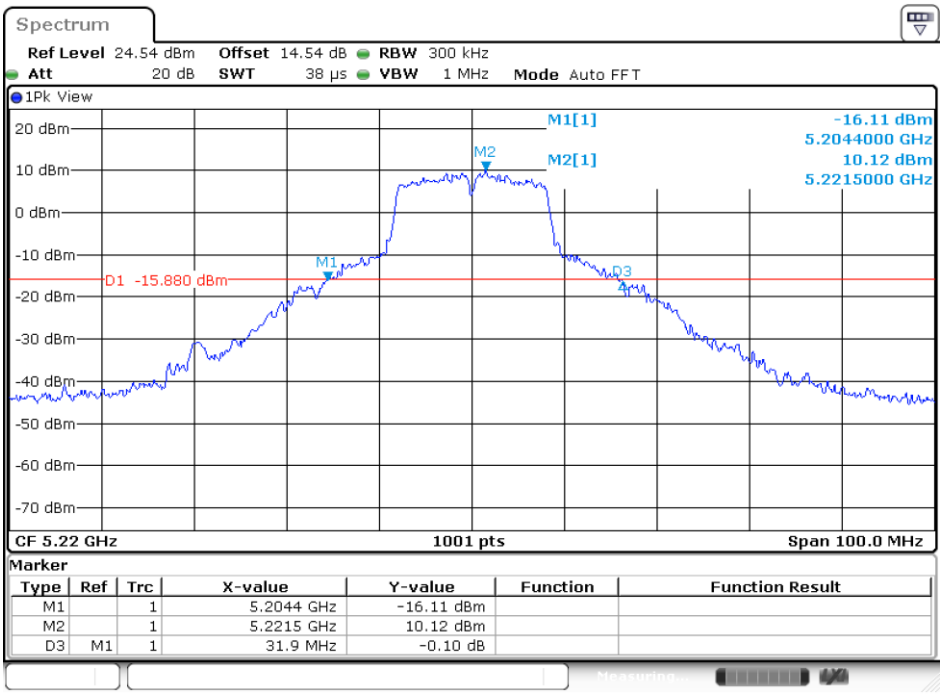
11A_Ant4_5220



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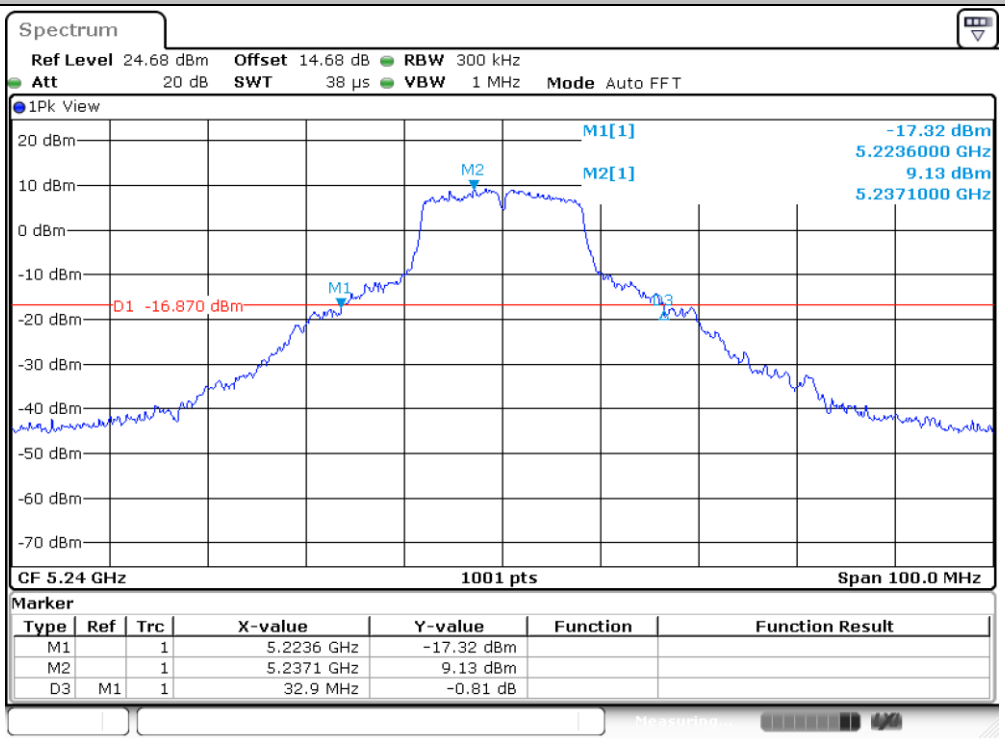

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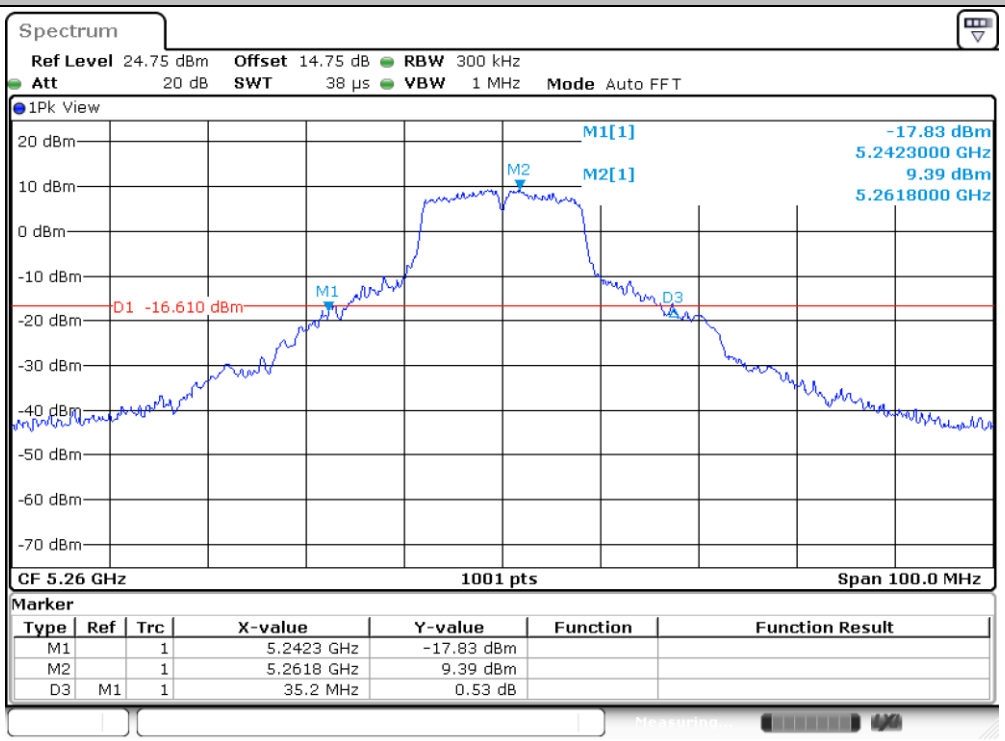

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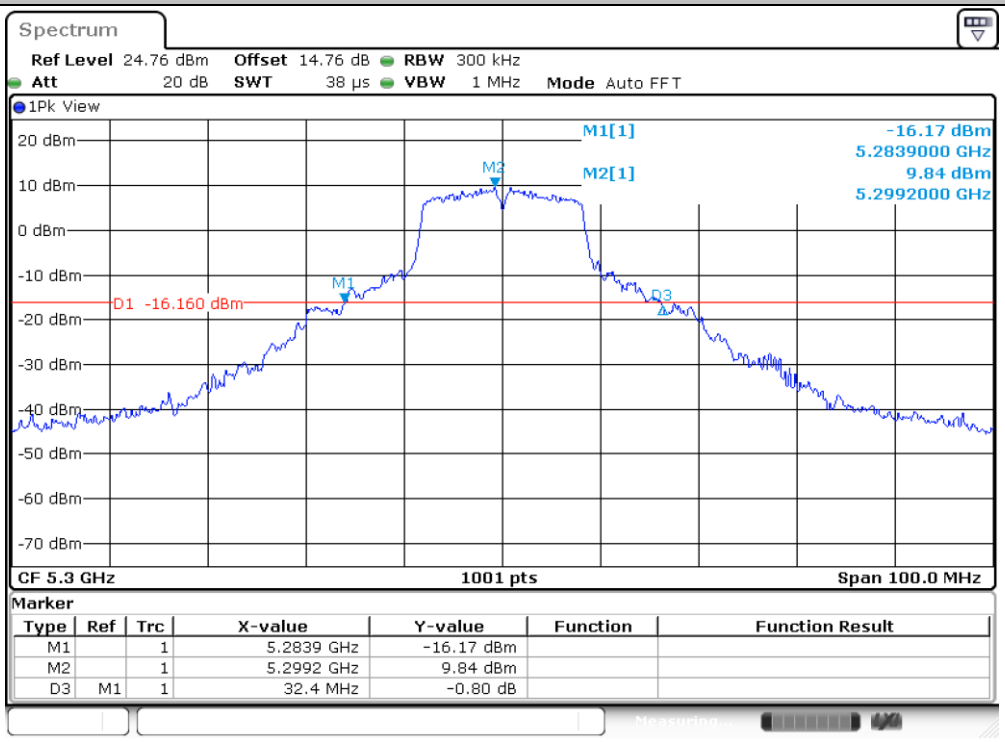

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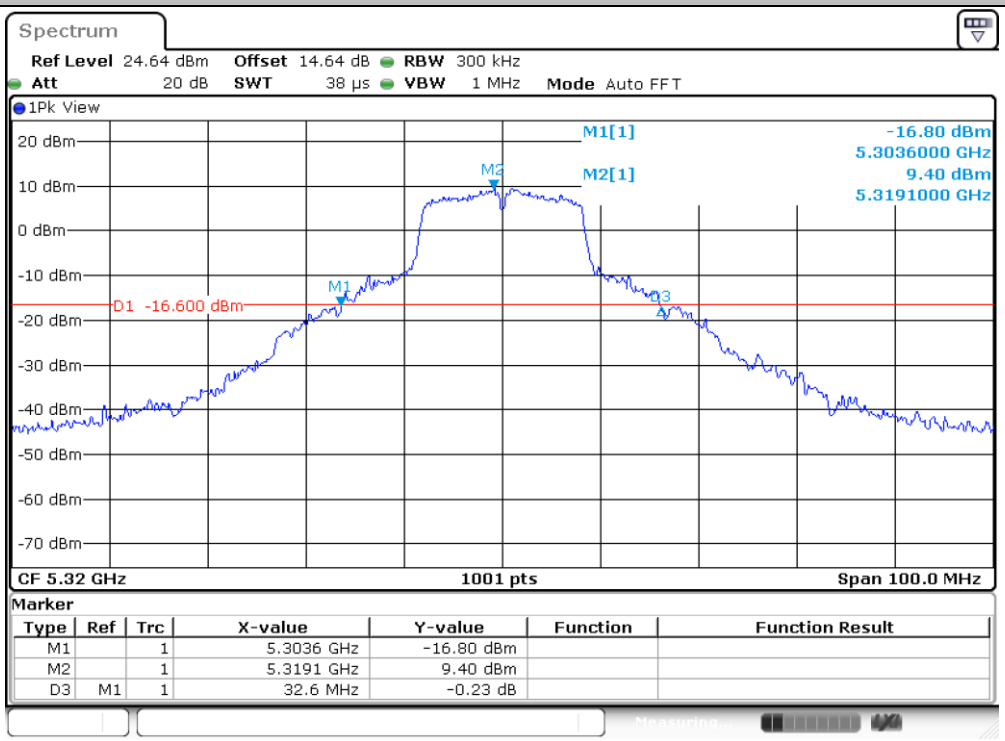
11A_Ant4_5320



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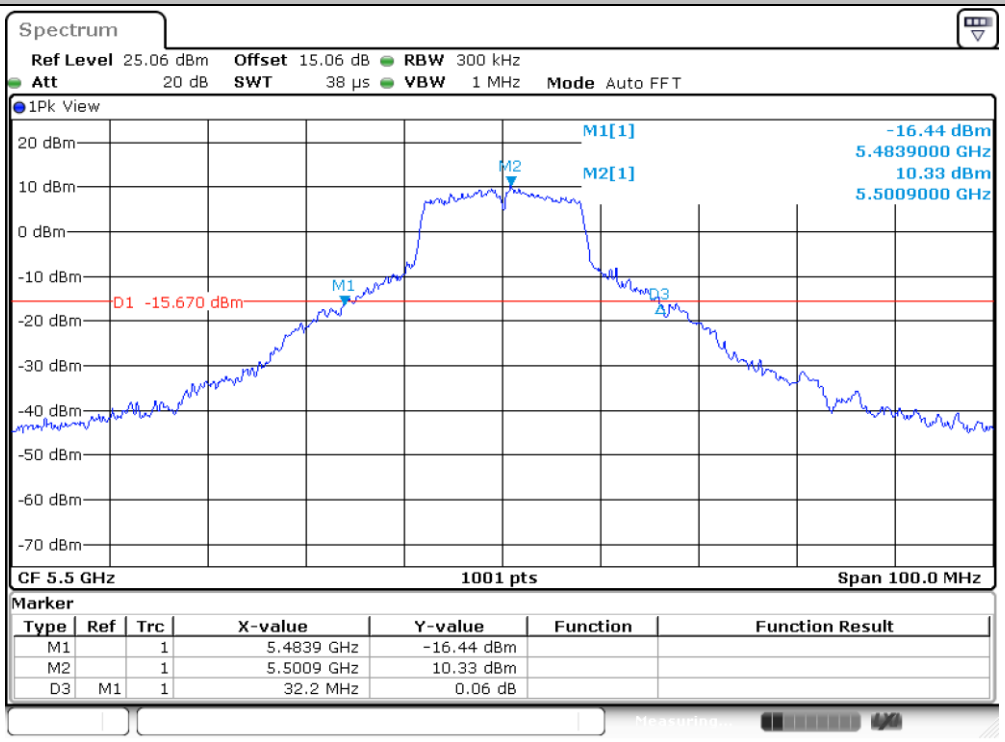

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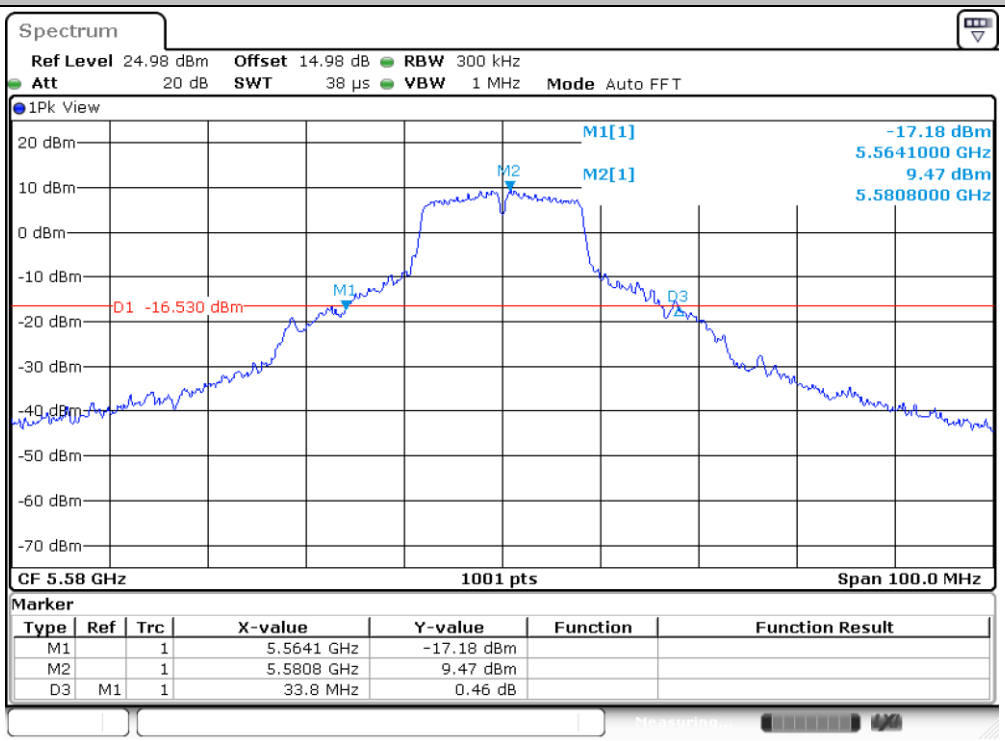

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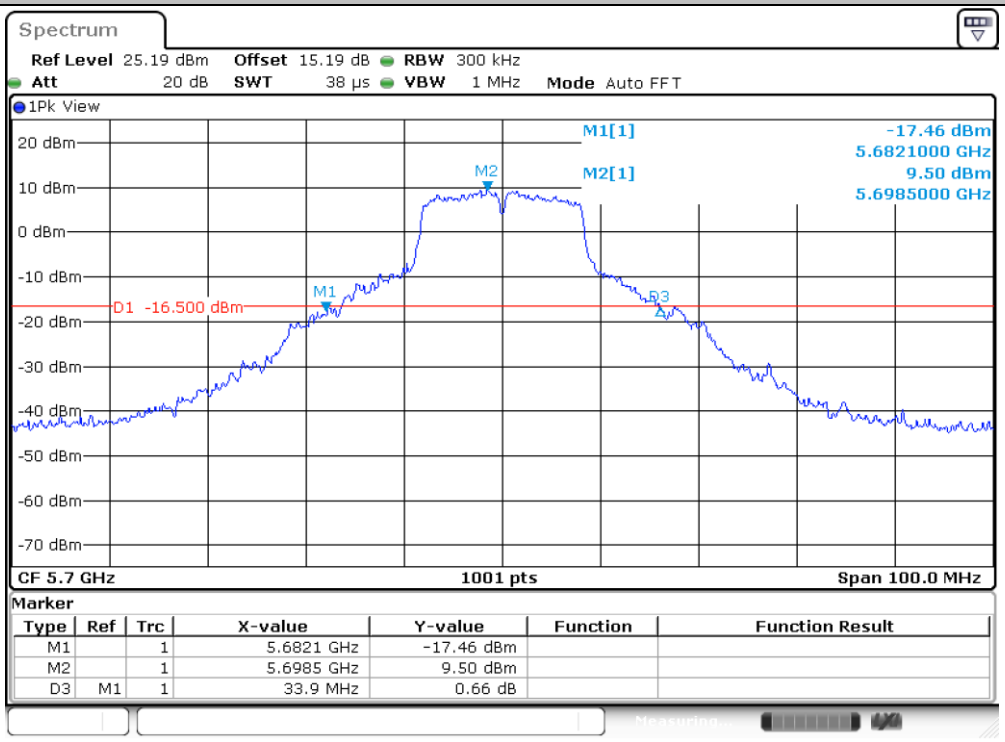

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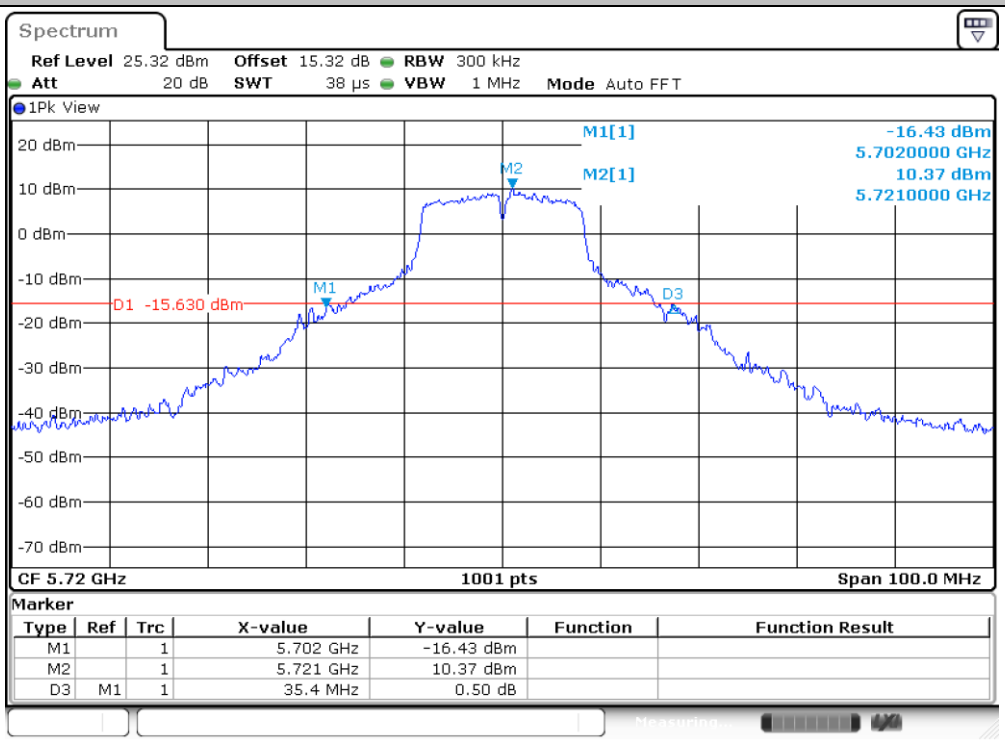

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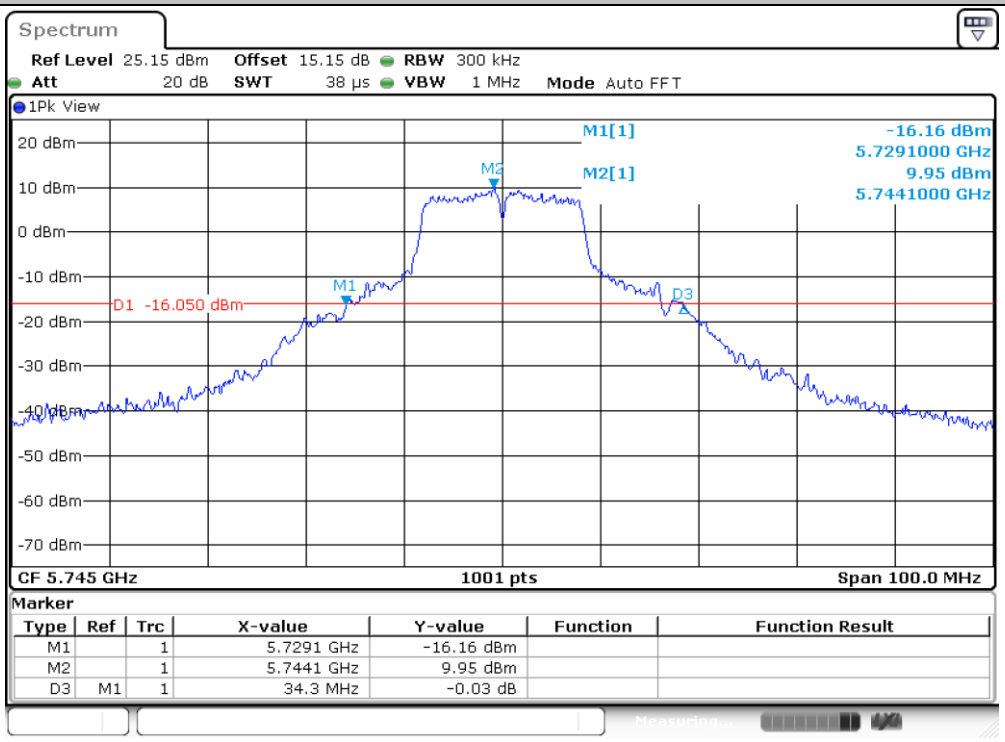

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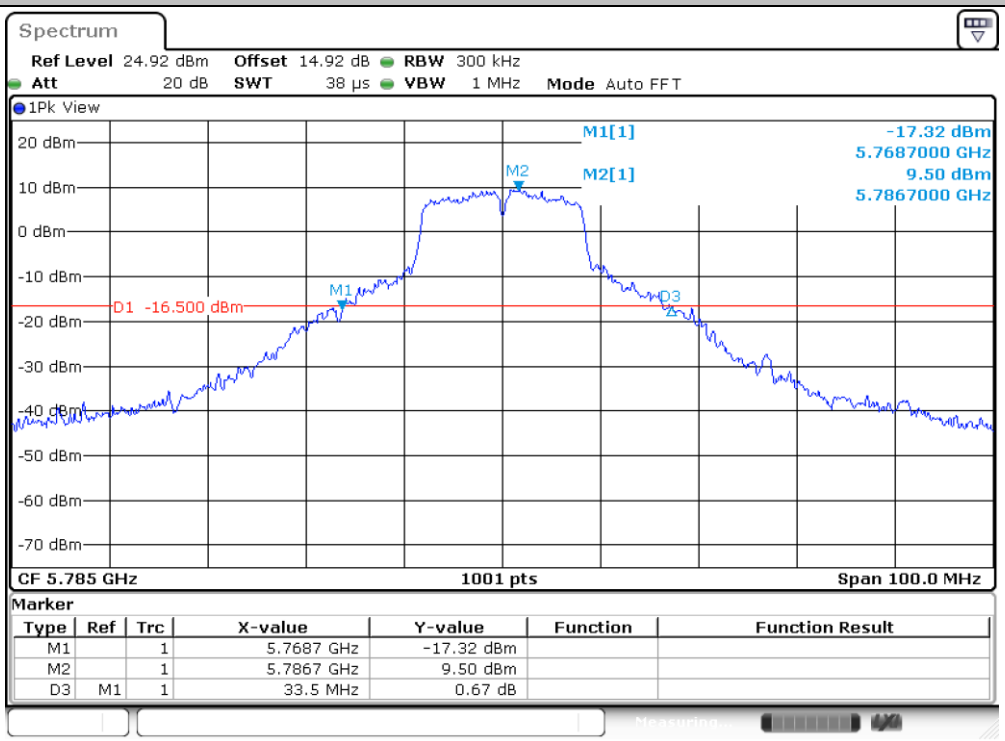

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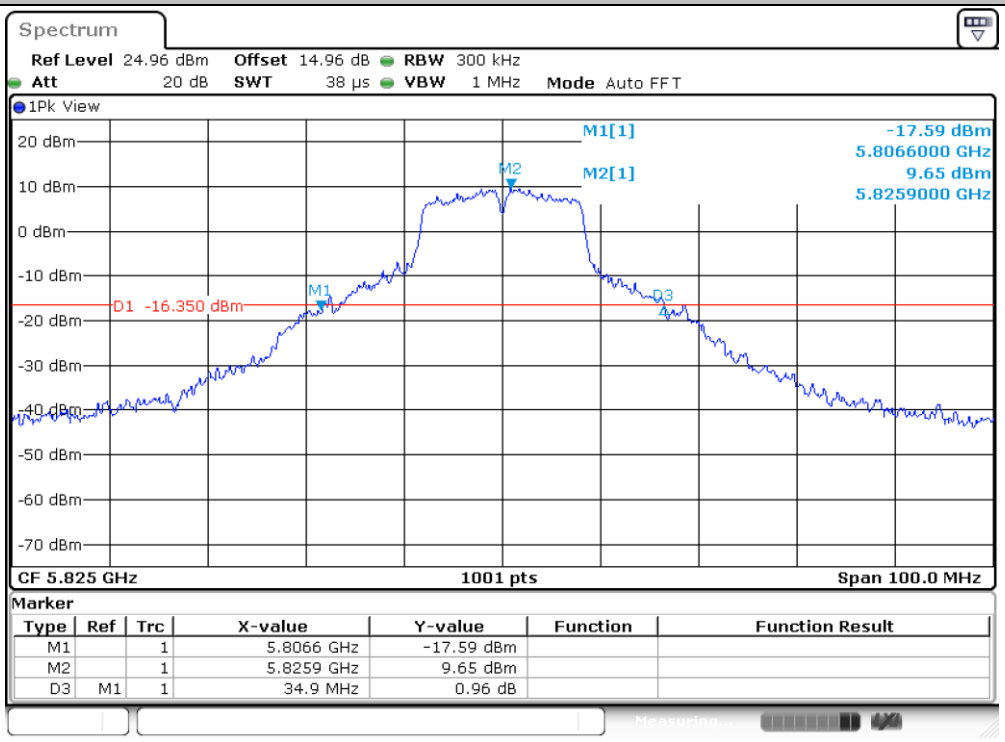

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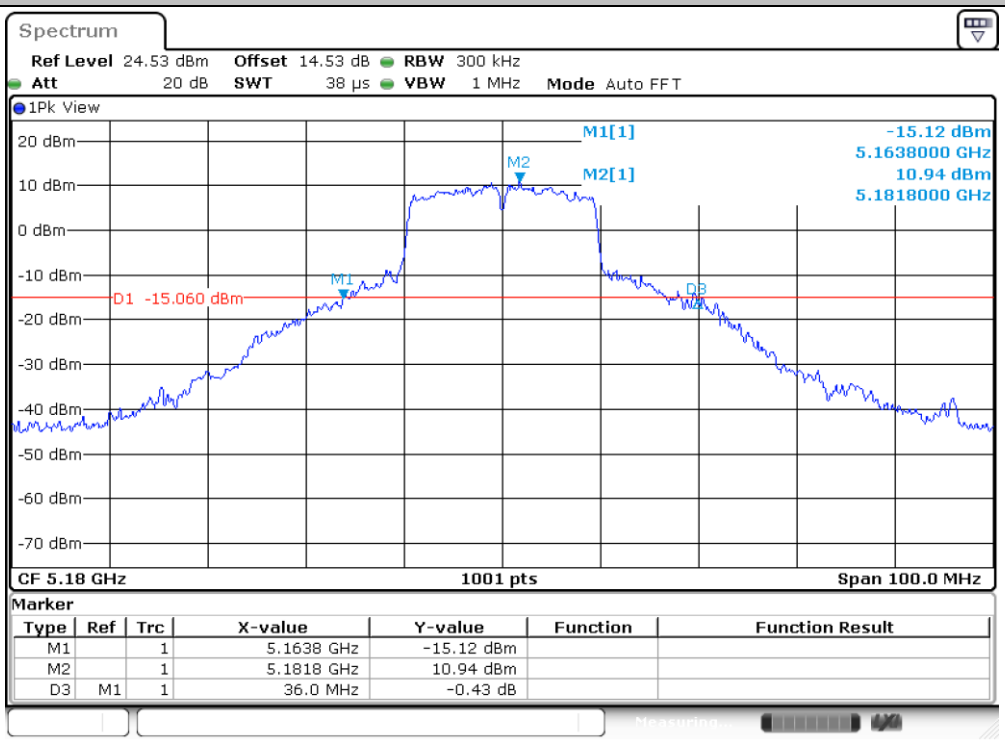

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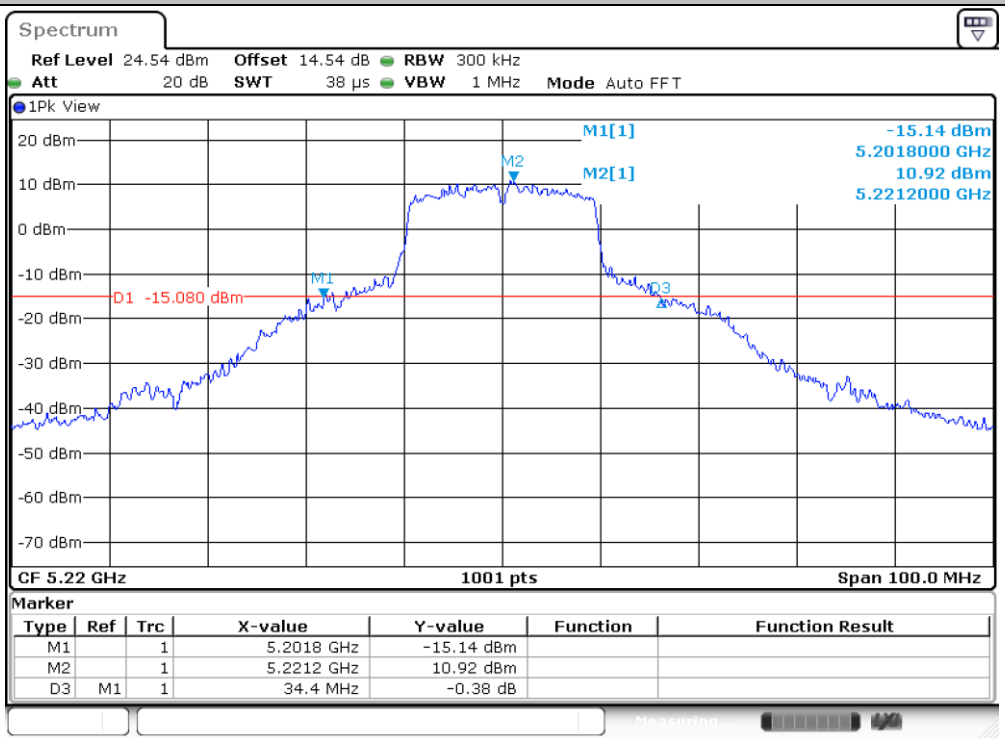

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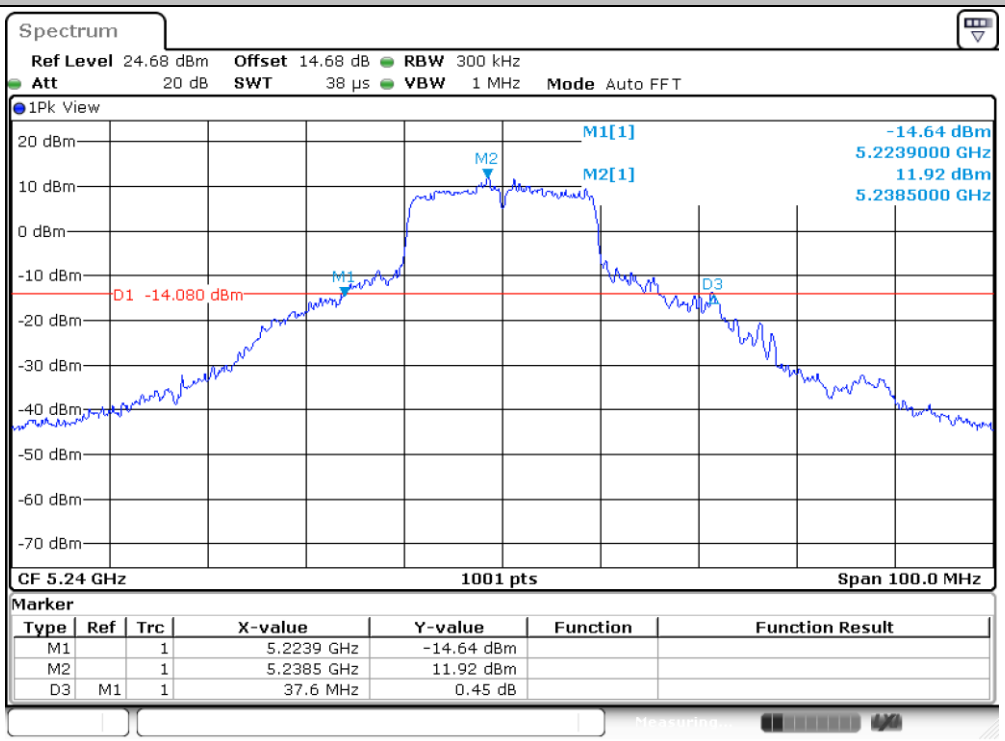

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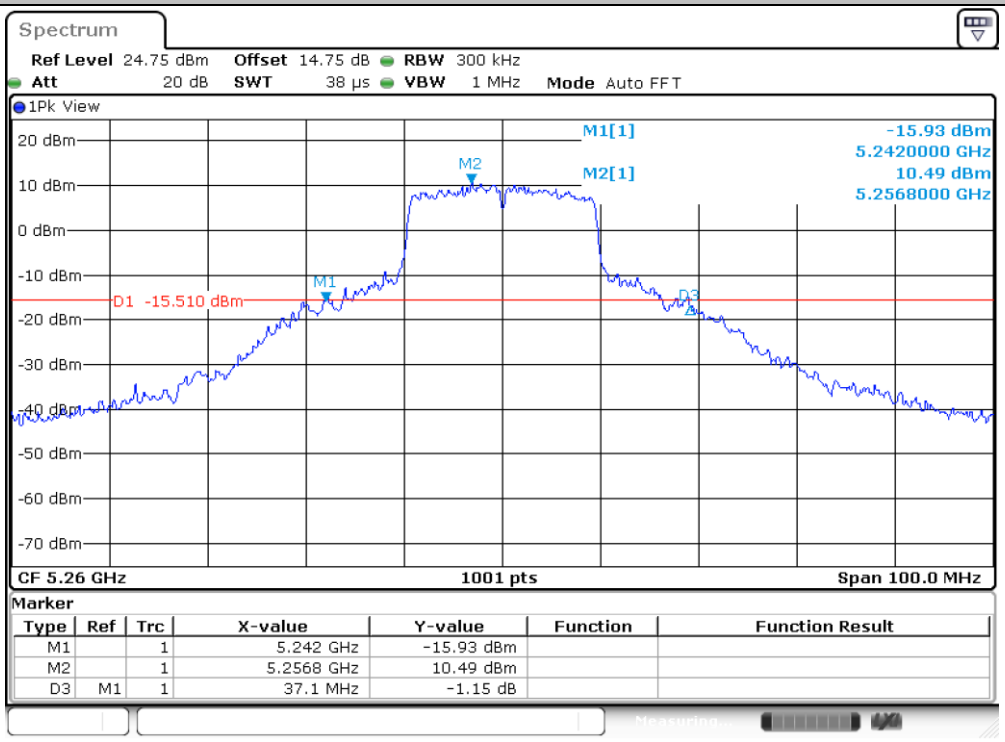

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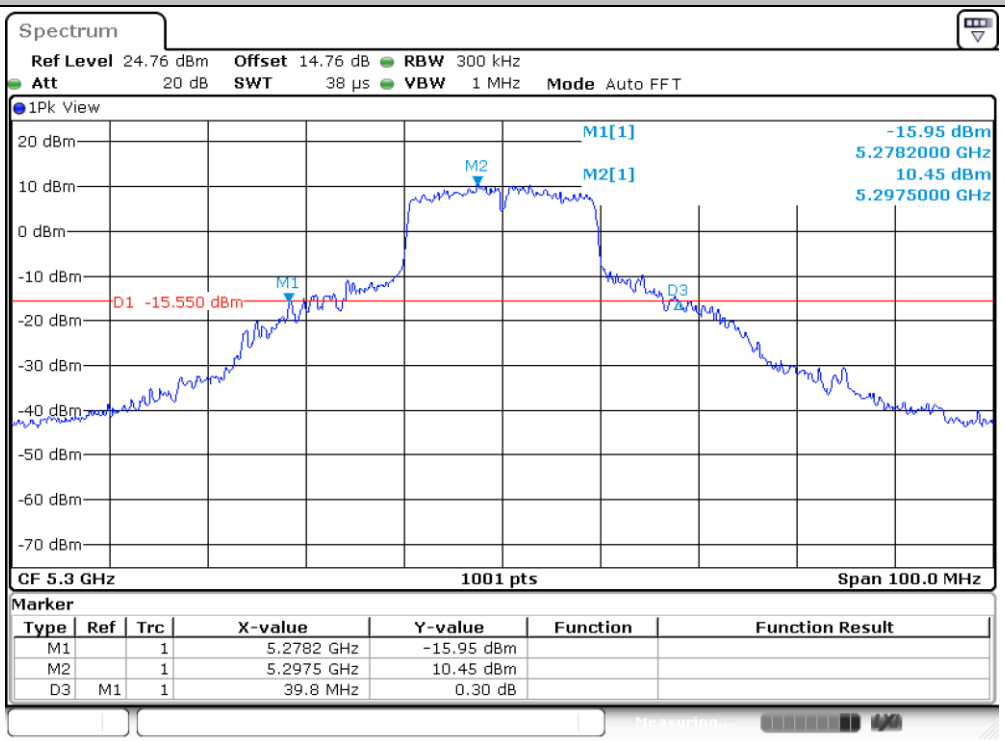

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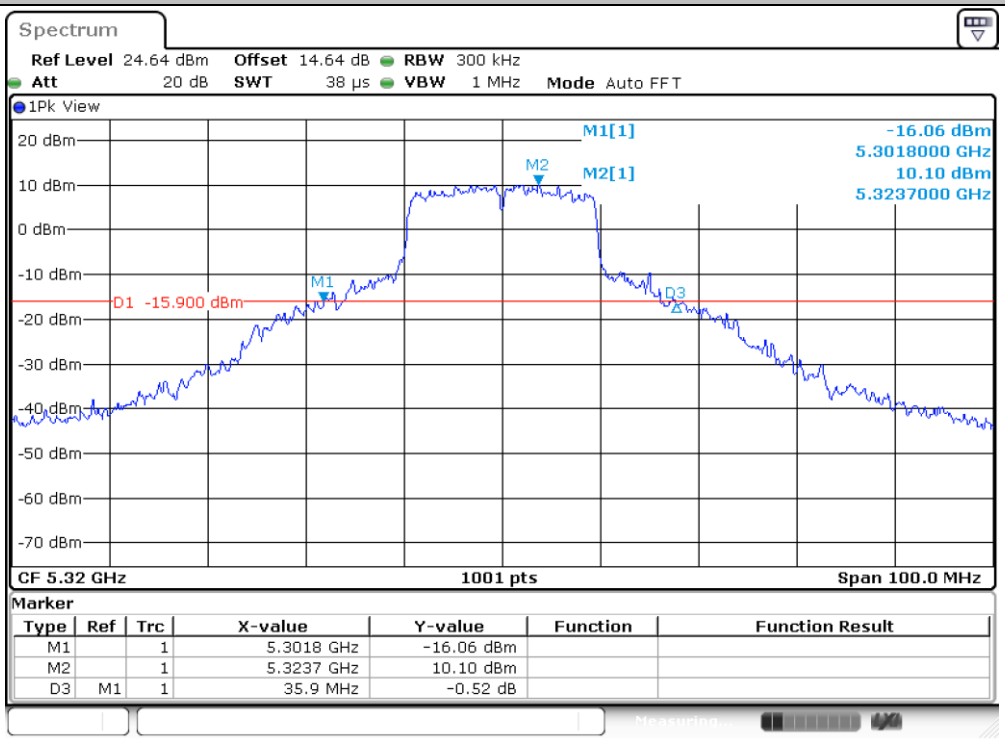

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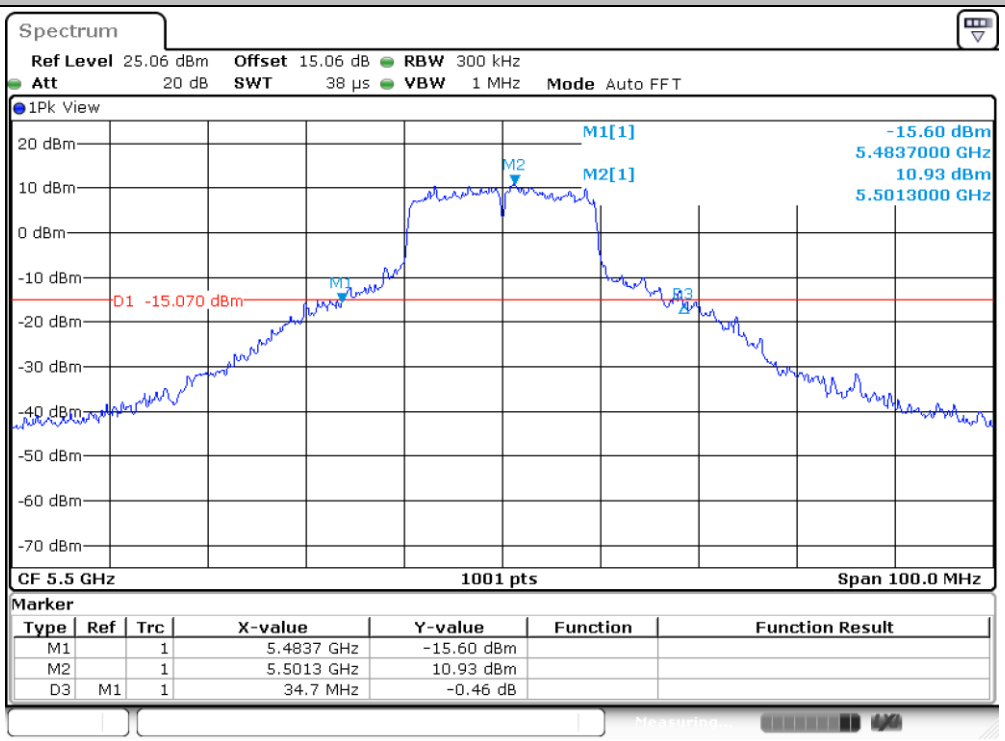

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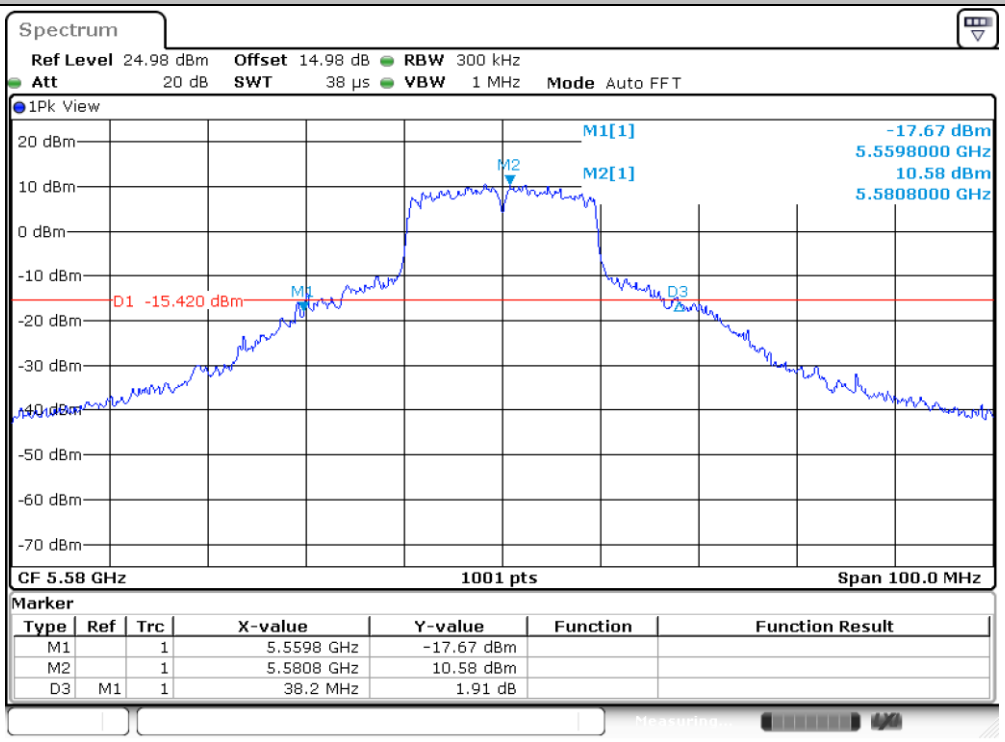

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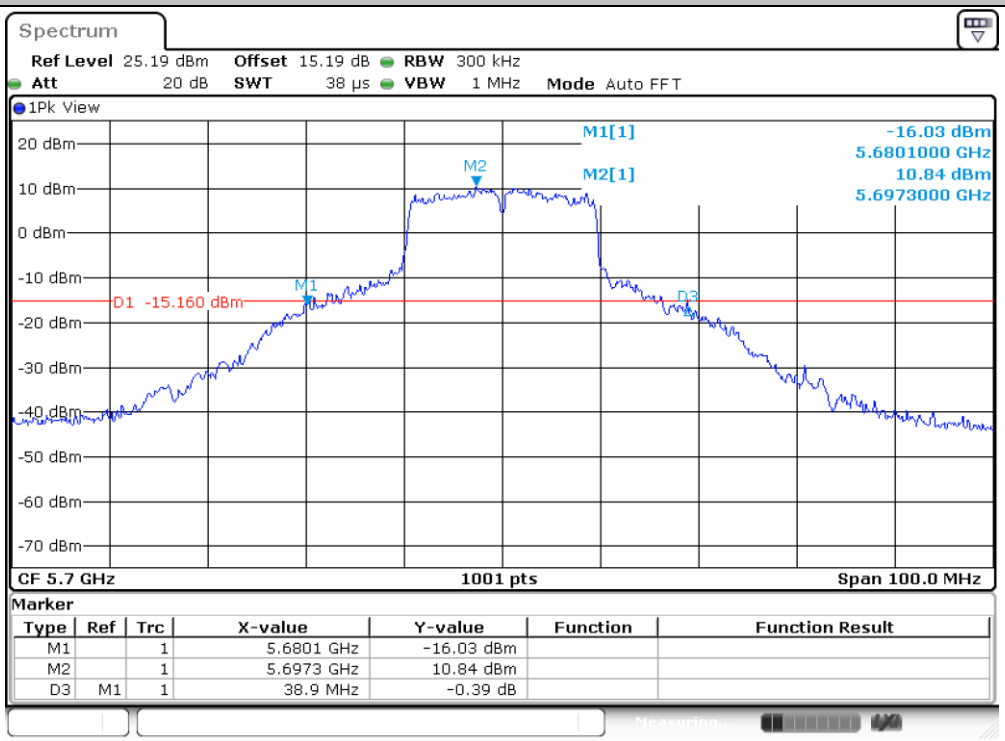

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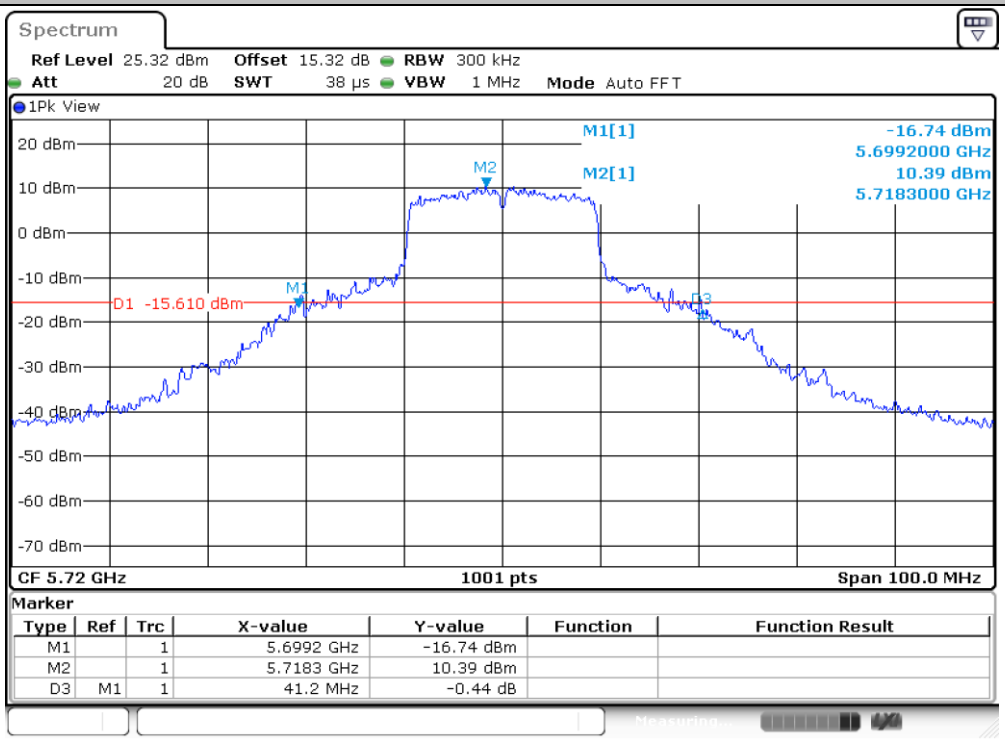

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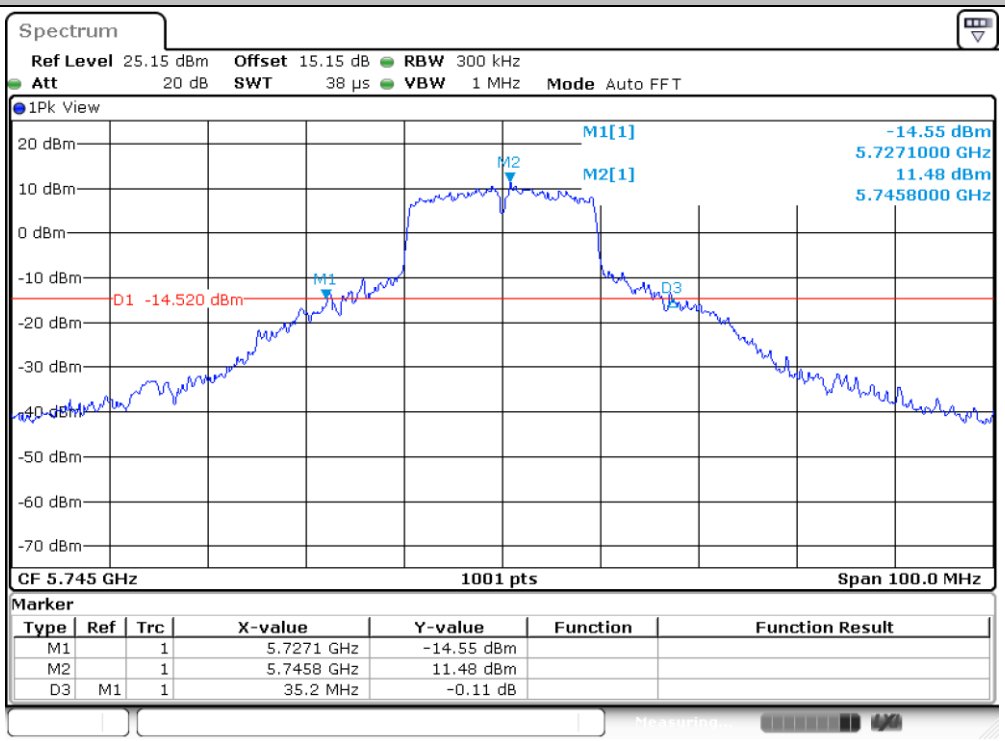

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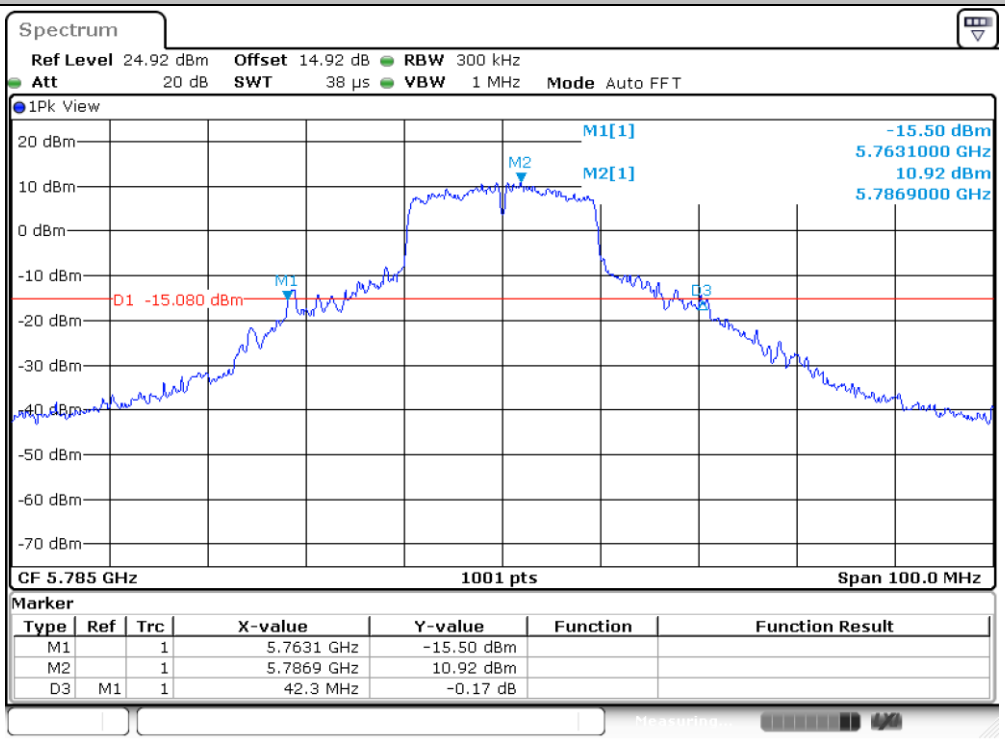

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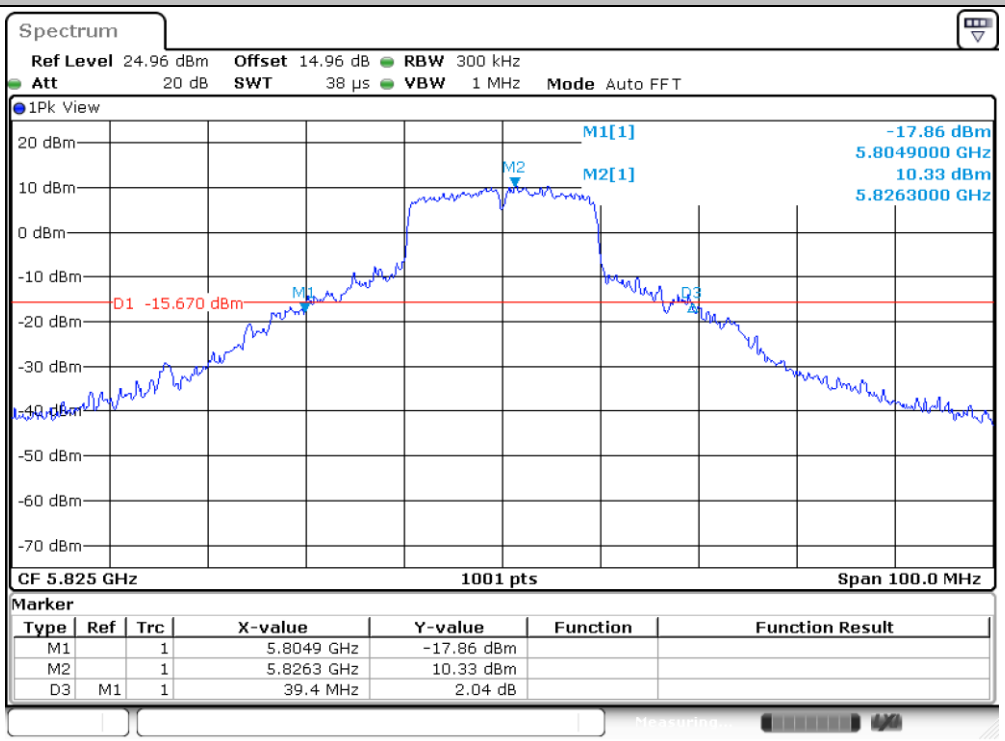

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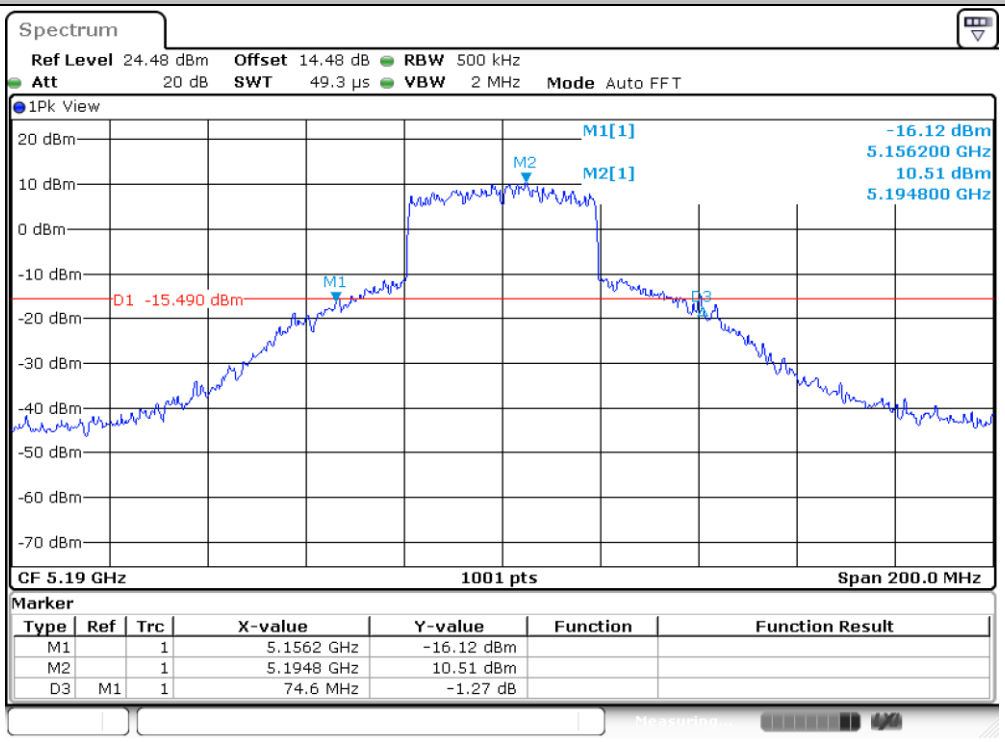

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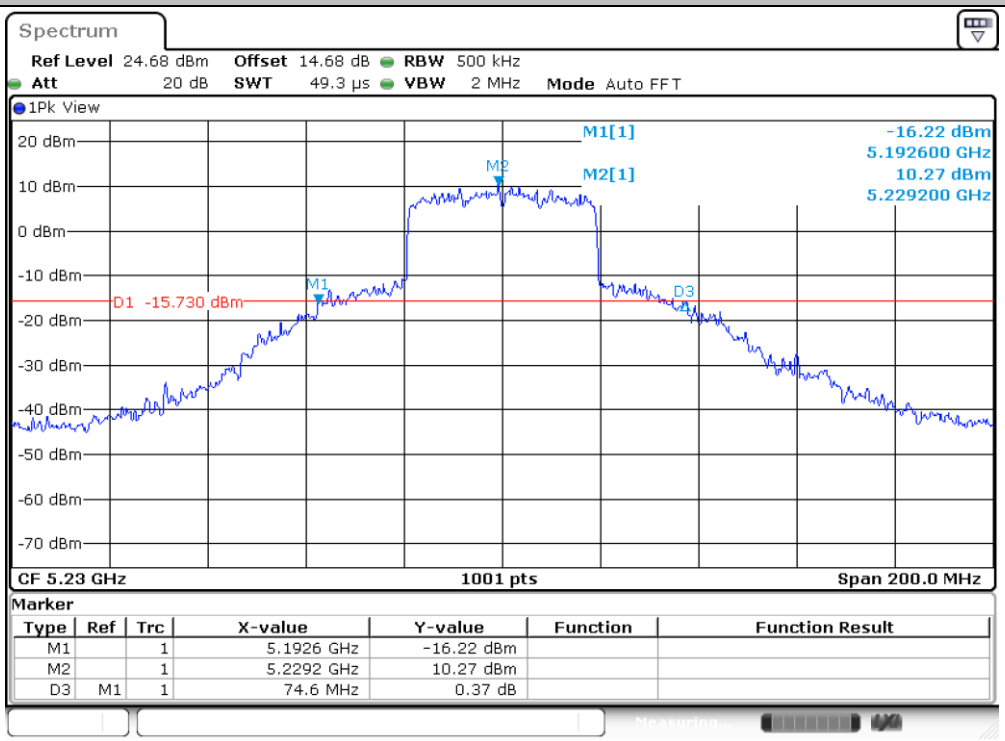

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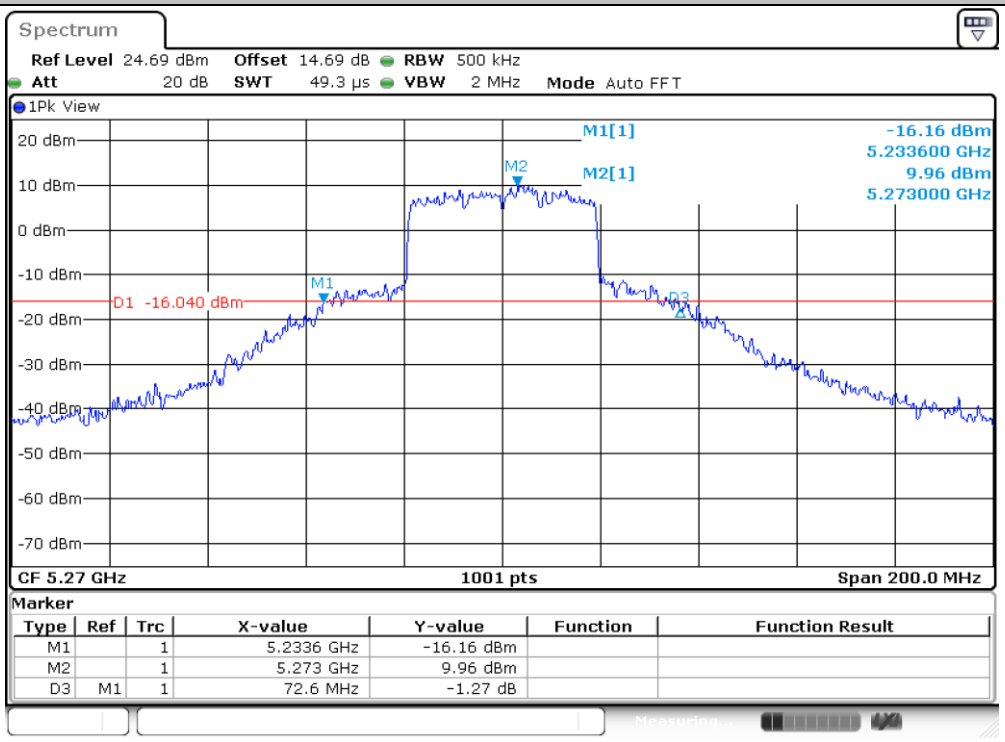

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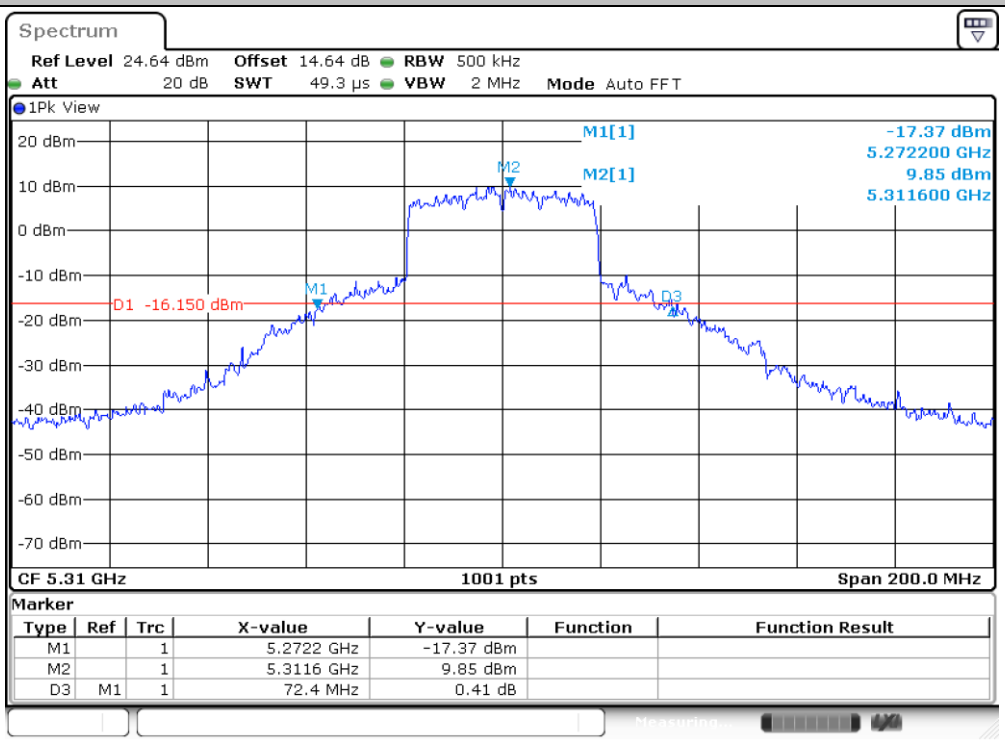

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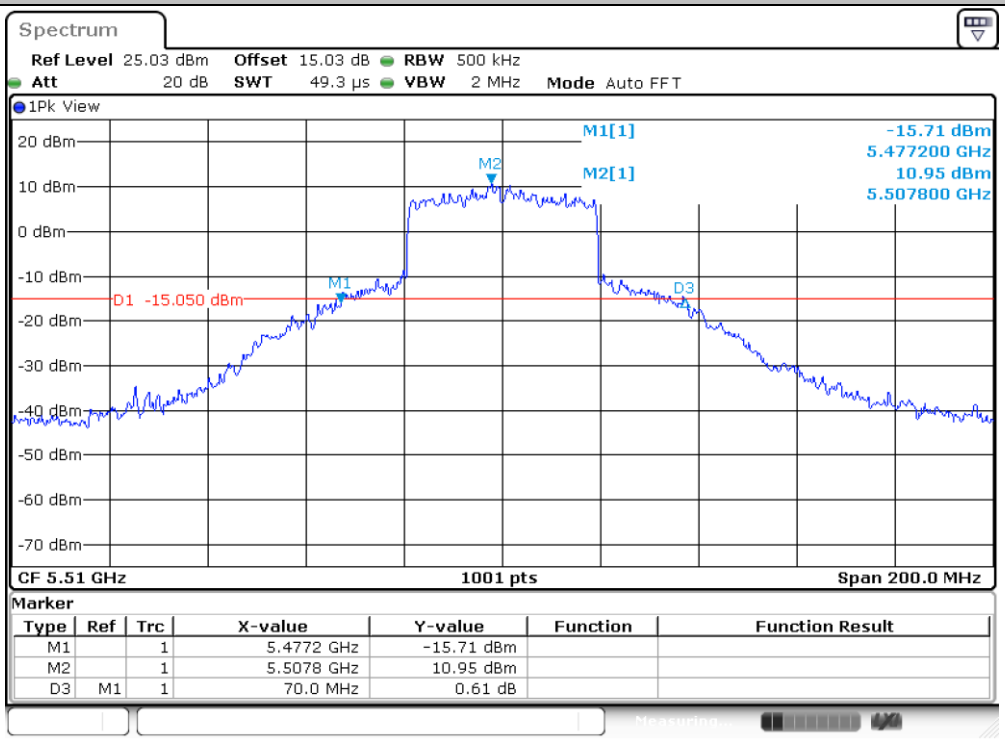

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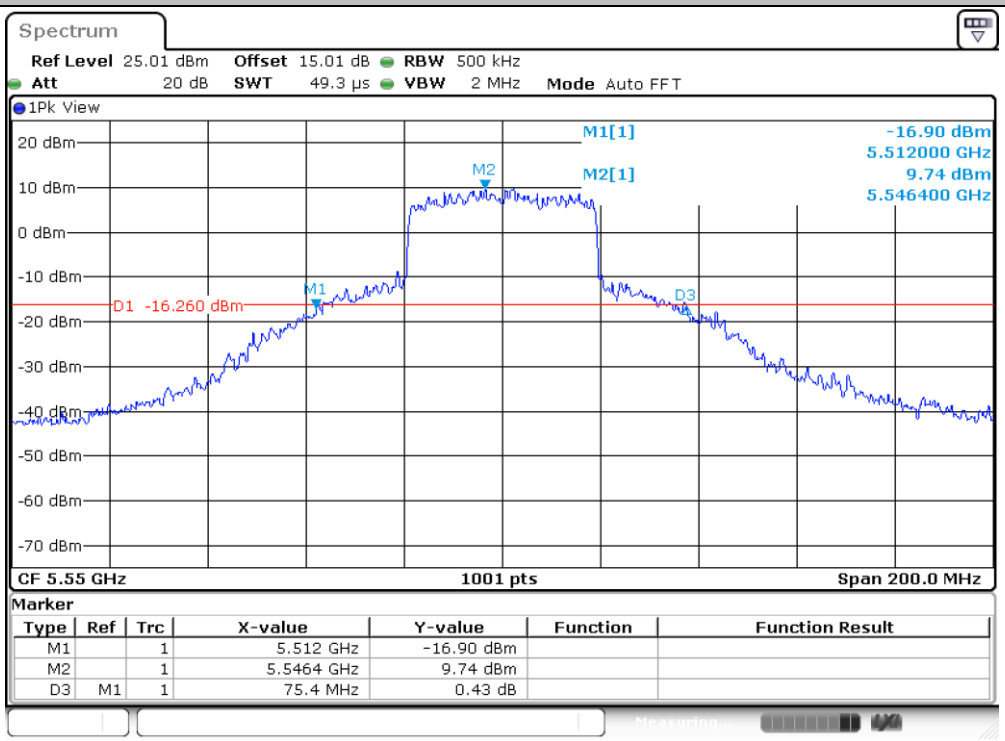

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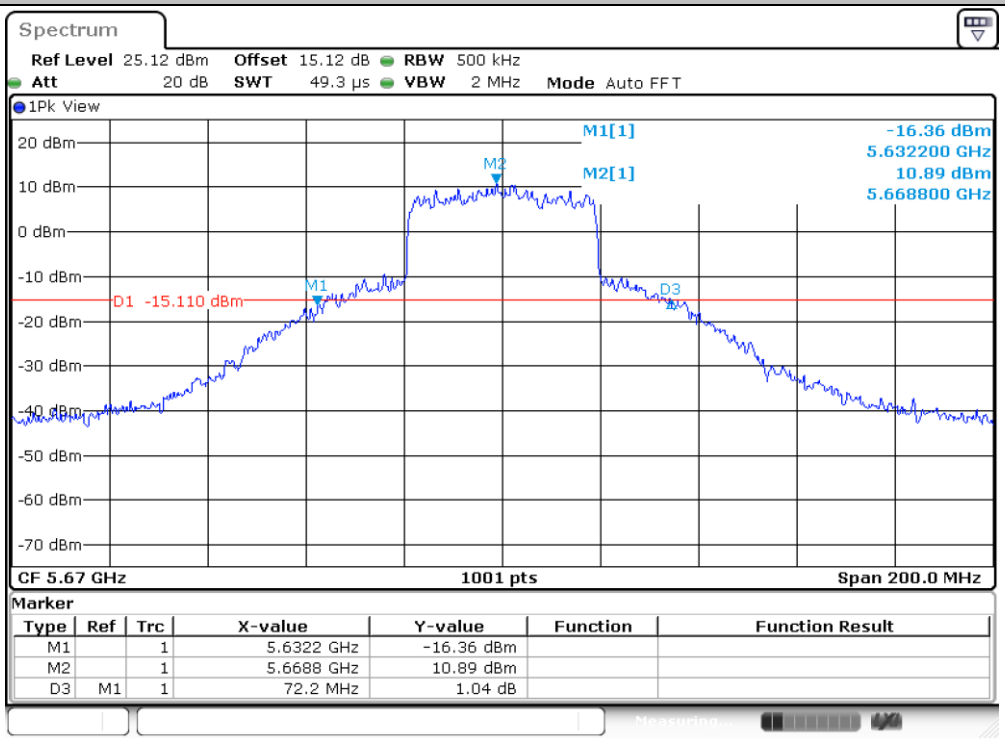

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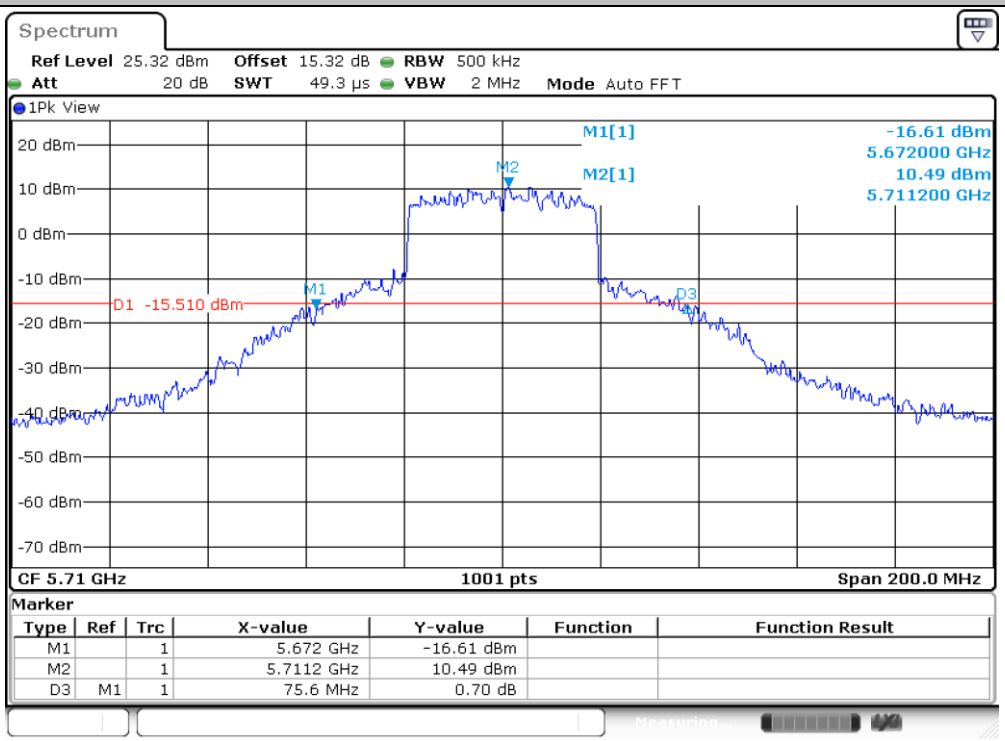

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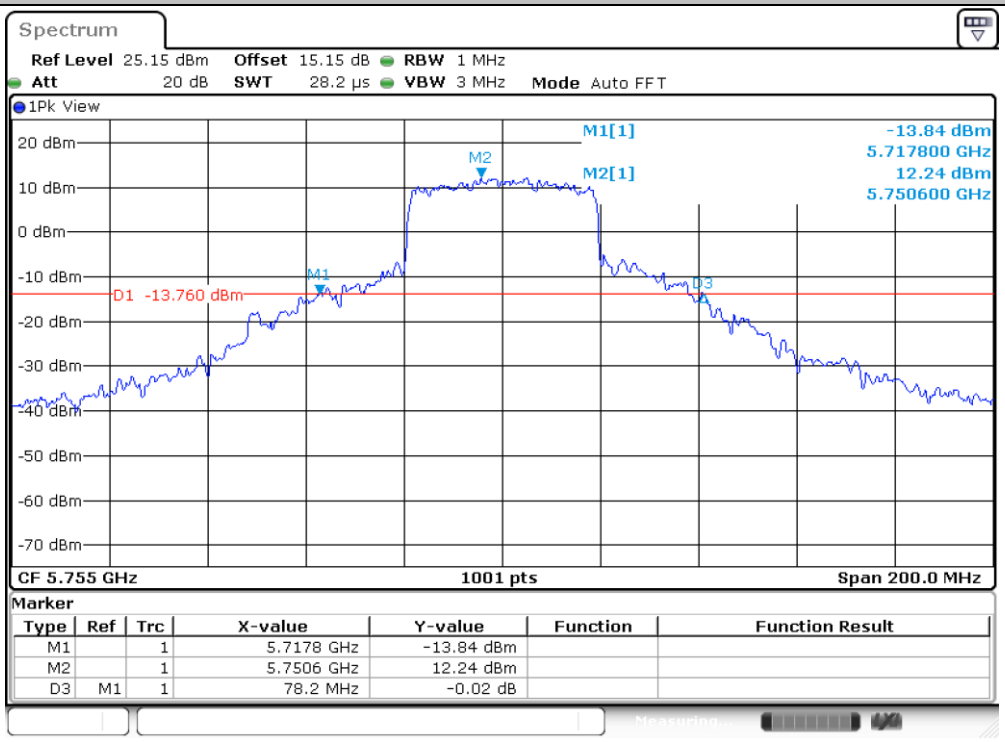

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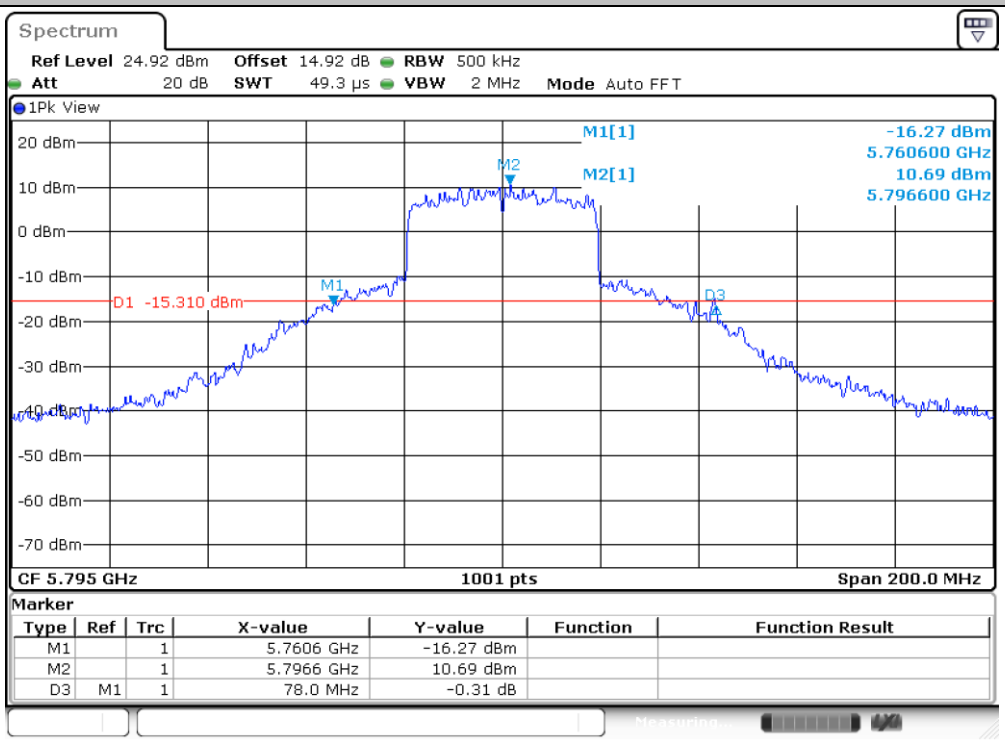

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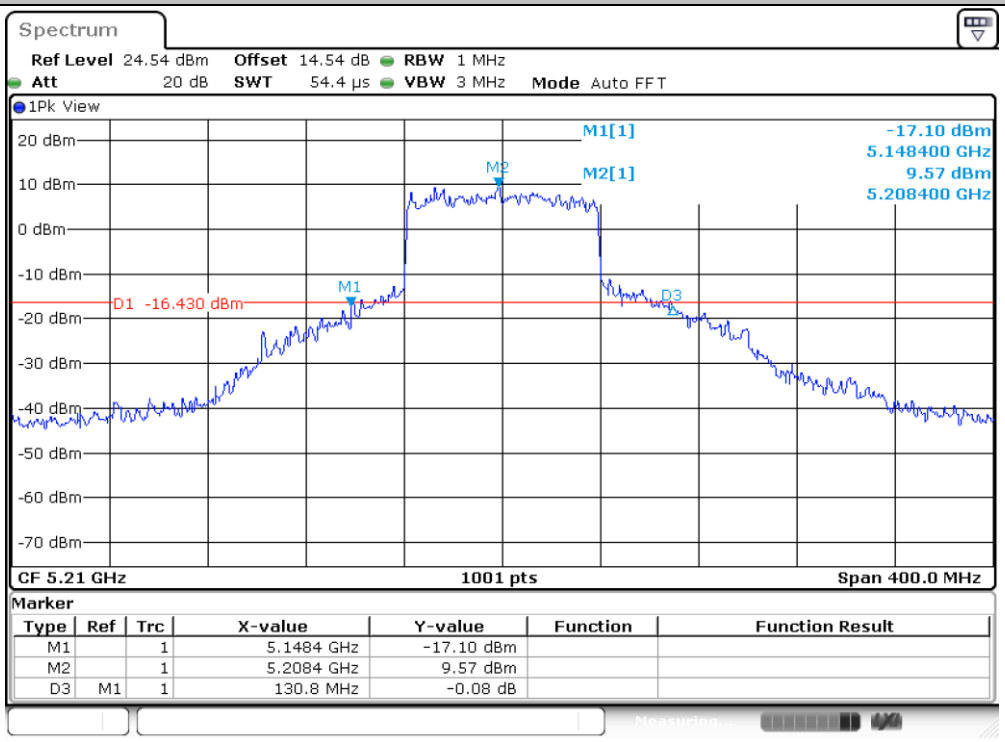

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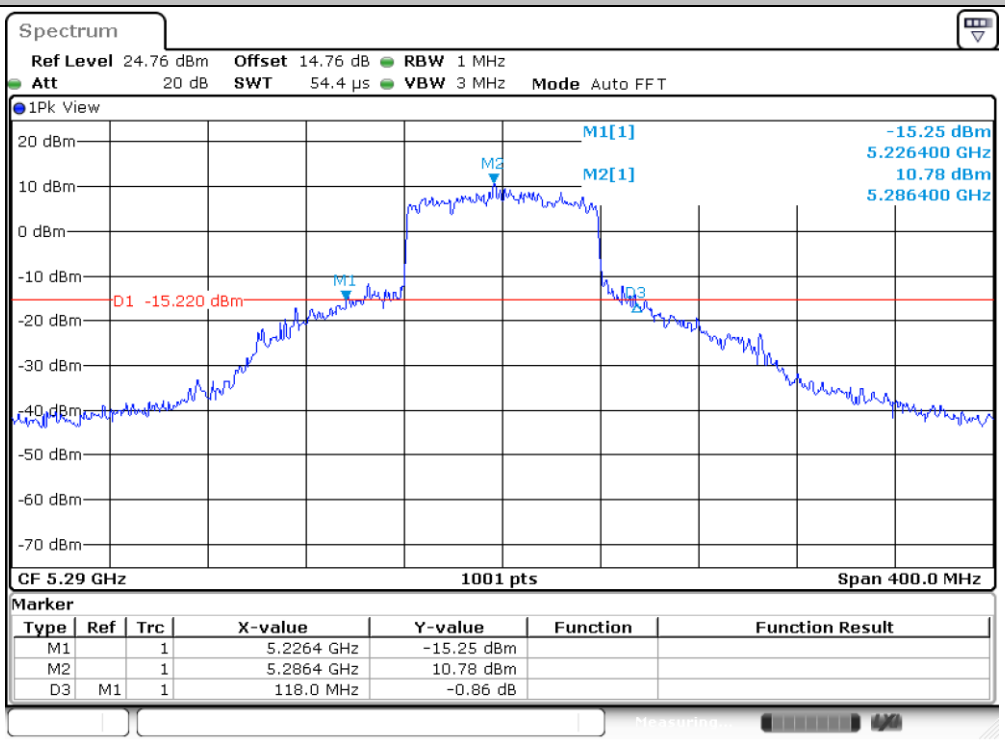

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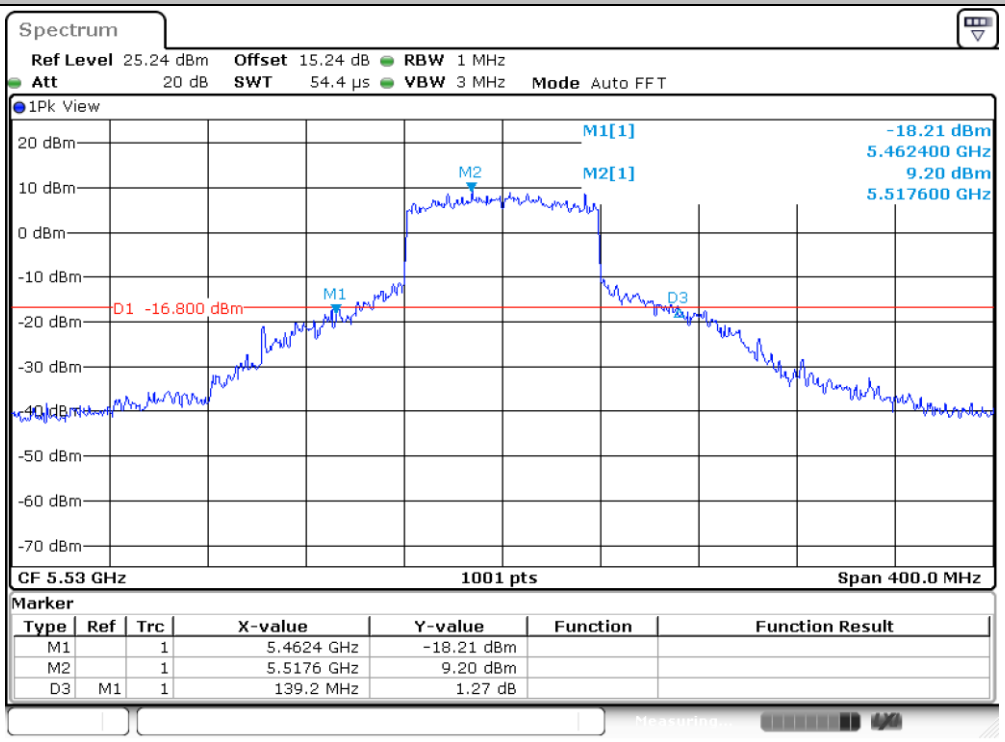

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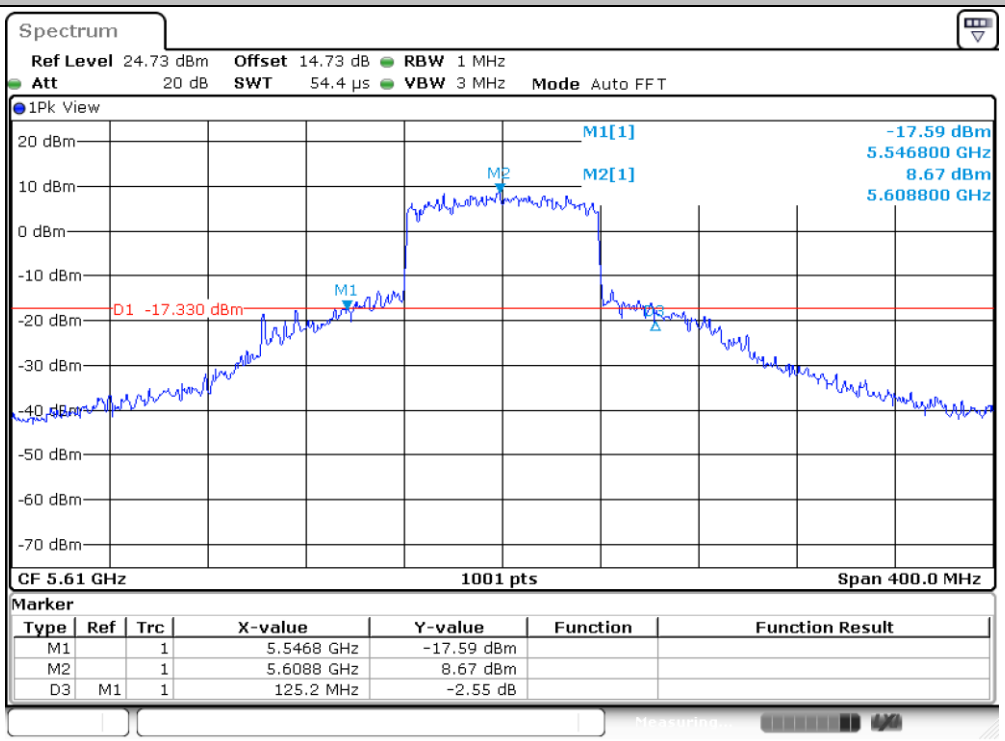

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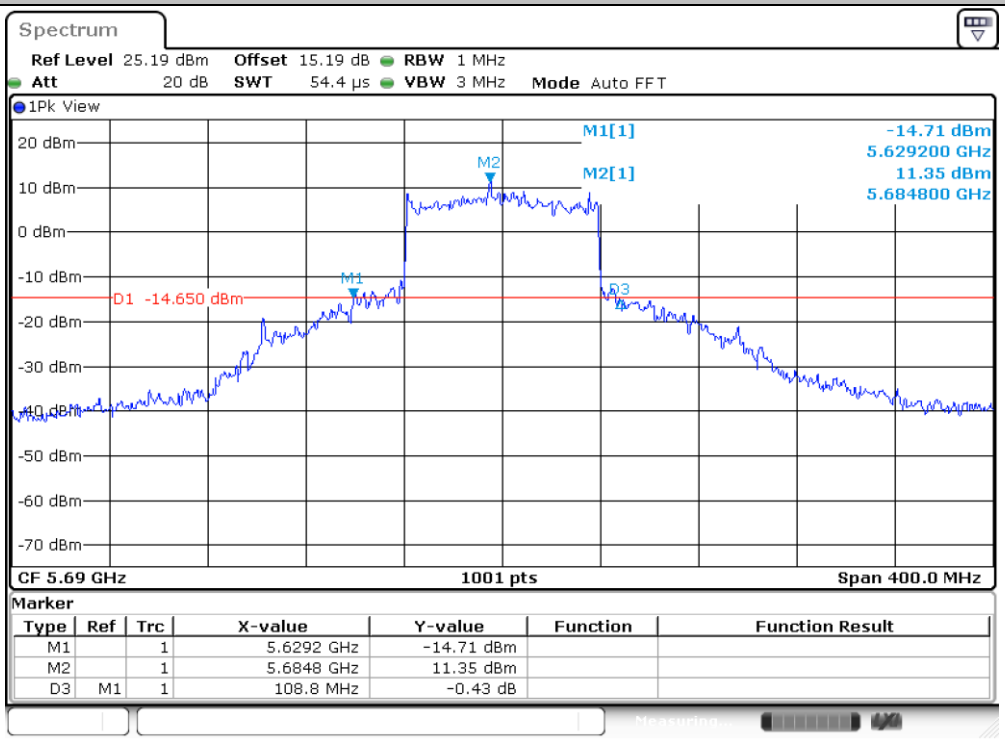

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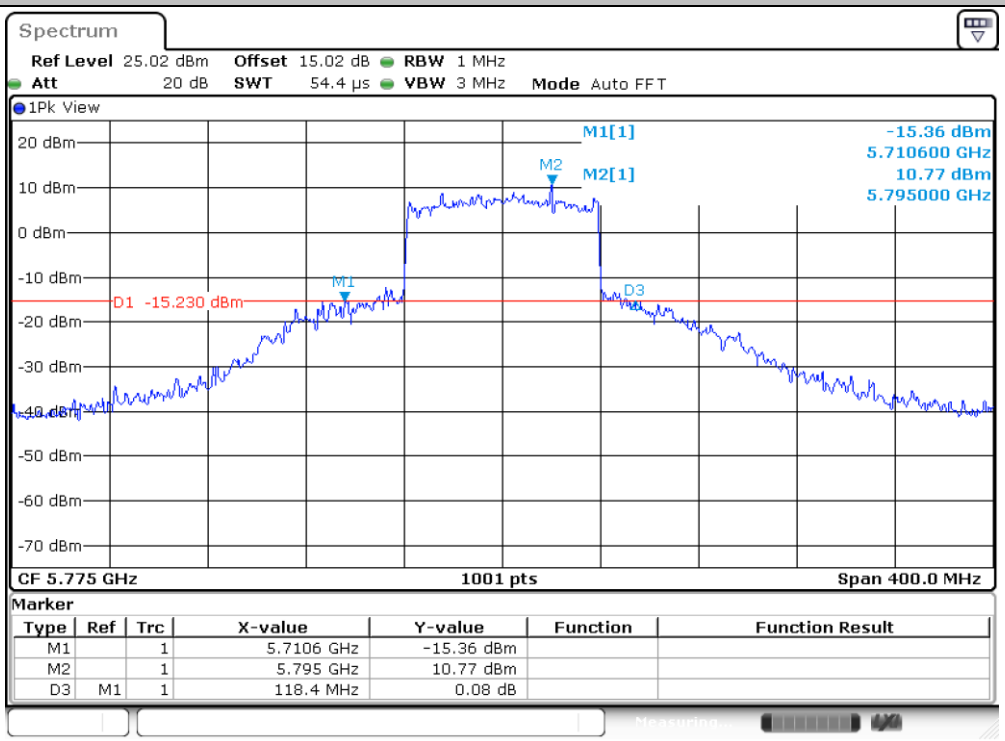


Date: 29.DEC.2024 20:23:06

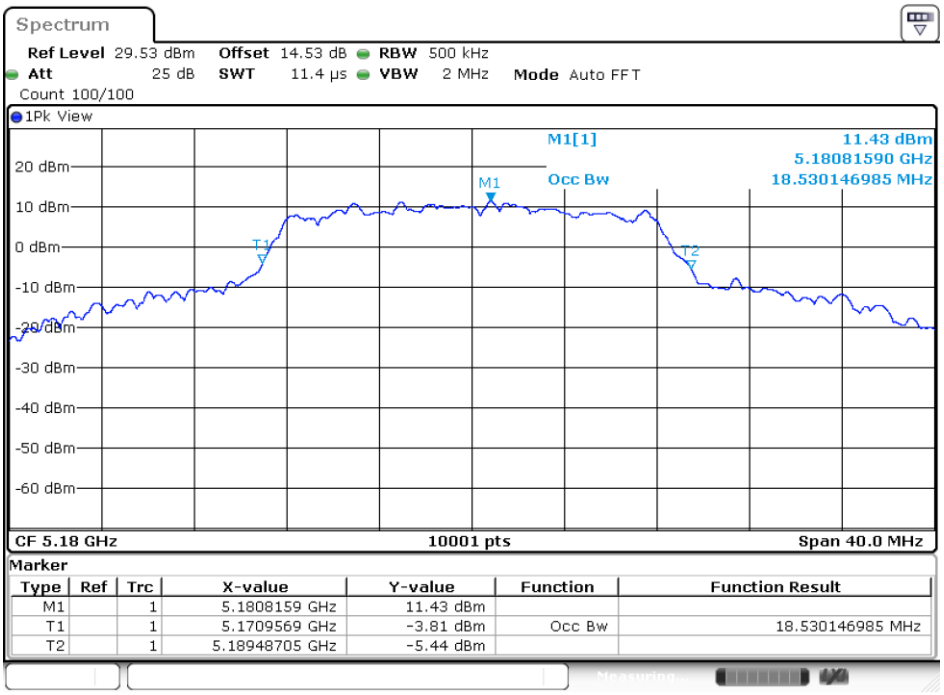
Occupied channel bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]
11A	Ant4	5180	18.53	5170.9569	5189.4871
		5220	19.31	5210.5289	5229.8390
		5240	19.022	5230.3170	5249.3391
		5260	19.082	5250.4730	5269.5550
		5300	19.622	5290.4490	5310.0710
		5320	18.862	5310.4610	5329.3231
		5500	19.59	5490.5809	5510.1710
		5580	19.654	5570.2010	5589.8550
		5700	18.854	5690.5009	5709.3551
		5720	19.67	5710.2490	5729.9190
		5745	19.802	5735.7649	5755.5669
		5785	18.998	5775.6009	5794.5990
		5825	19.678	5814.6330	5834.3111
11AX20SISO	Ant4	5180	19.938	5170.0810	5190.0190
		5220	19.906	5209.9610	5229.8670
		5240	19.694	5230.0890	5249.7830
		5260	19.814	5250.0170	5269.8310
		5300	19.898	5290.1530	5310.0510
		5320	19.57	5310.2410	5329.8110
		5500	19.57	5490.1410	5509.7110
		5580	19.846	5570.0930	5589.9390
		5700	19.958	5689.8490	5709.8070
		5720	19.606	5710.2410	5729.8470
		5745	19.77	5735.1290	5754.8990
		5785	19.91	5775.1490	5795.0590
		5825	19.81	5814.9530	5834.7630
11AX40SISO	Ant4	5190	38.724	5170.7379	5209.4621
		5230	38.924	5210.5619	5249.4861
		5270	38.46	5250.8099	5289.2701
		5310	38.98	5290.4340	5329.4141
		5510	39.148	5490.4500	5529.5980
		5550	38.972	5530.4500	5569.4221
		5670	39.468	5650.2980	5689.7660
		5710	39.476	5690.1860	5729.6620
		5755	38.78	5735.7539	5774.5340
		5795	39.004	5775.6179	5814.6220
11AX80SISO	Ant4	5210	78.6	5170.8839	5249.4841
		5290	78.888	5250.6439	5329.5320
		5530	78.648	5490.8199	5569.4681
		5610	78.28	5570.7879	5649.0681
		5690	78.28	5650.7719	5729.0521
		5775	78.408	5735.6919	5814.1001

Test Graphs

11A_Ant4_5180



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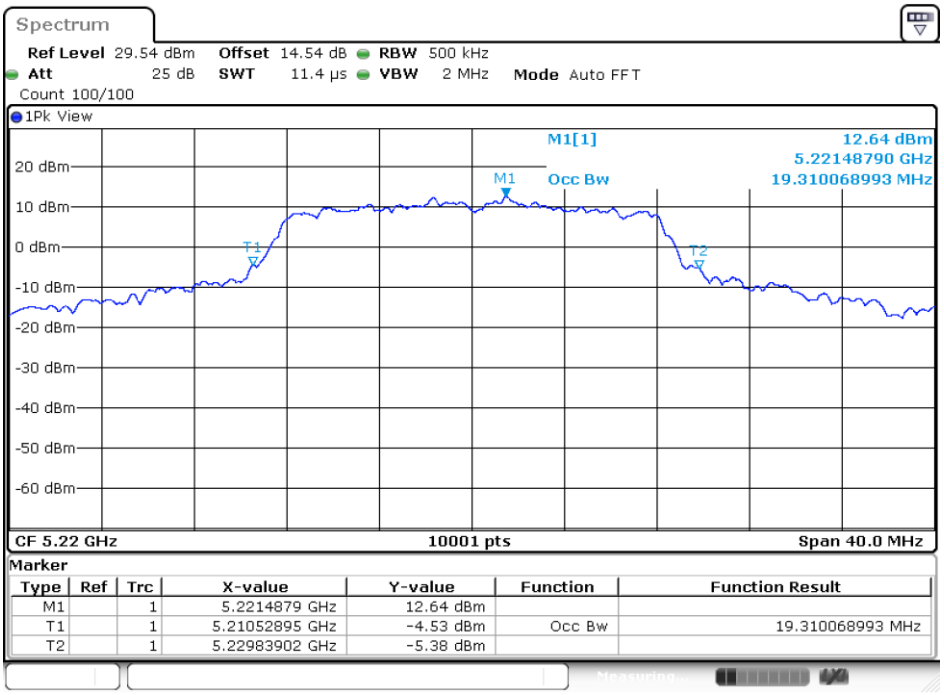

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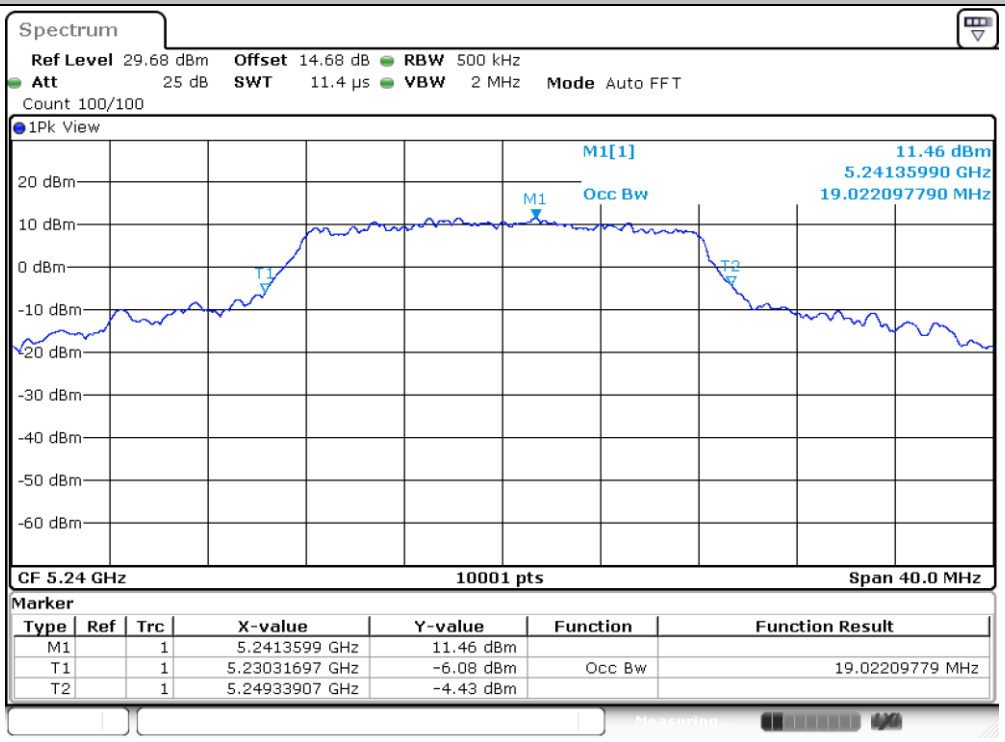

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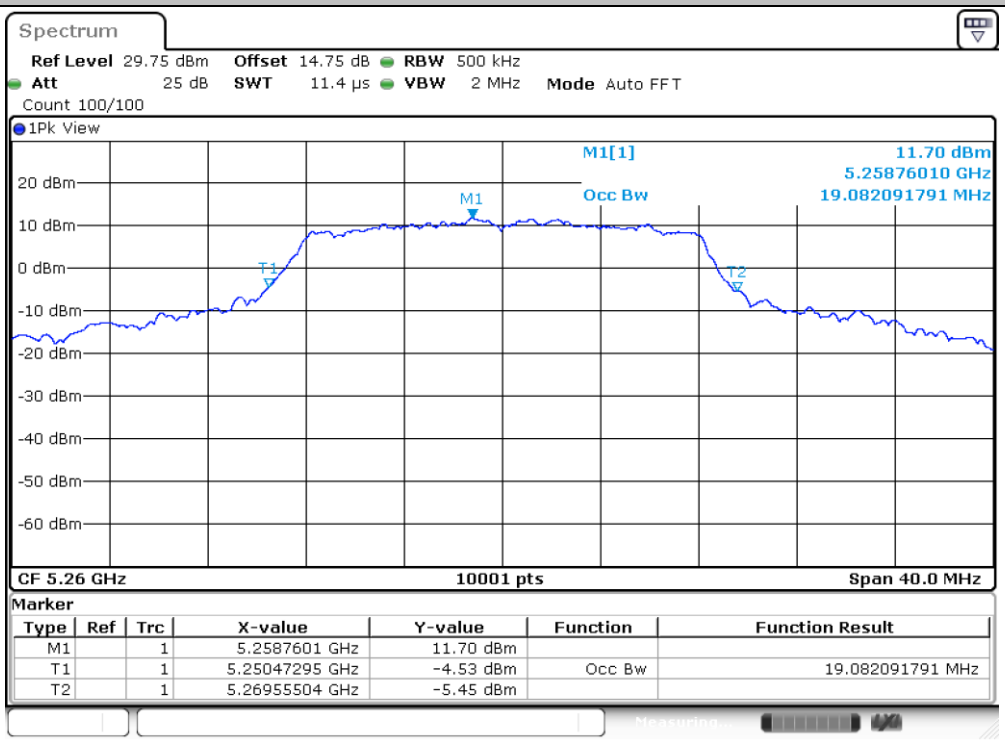

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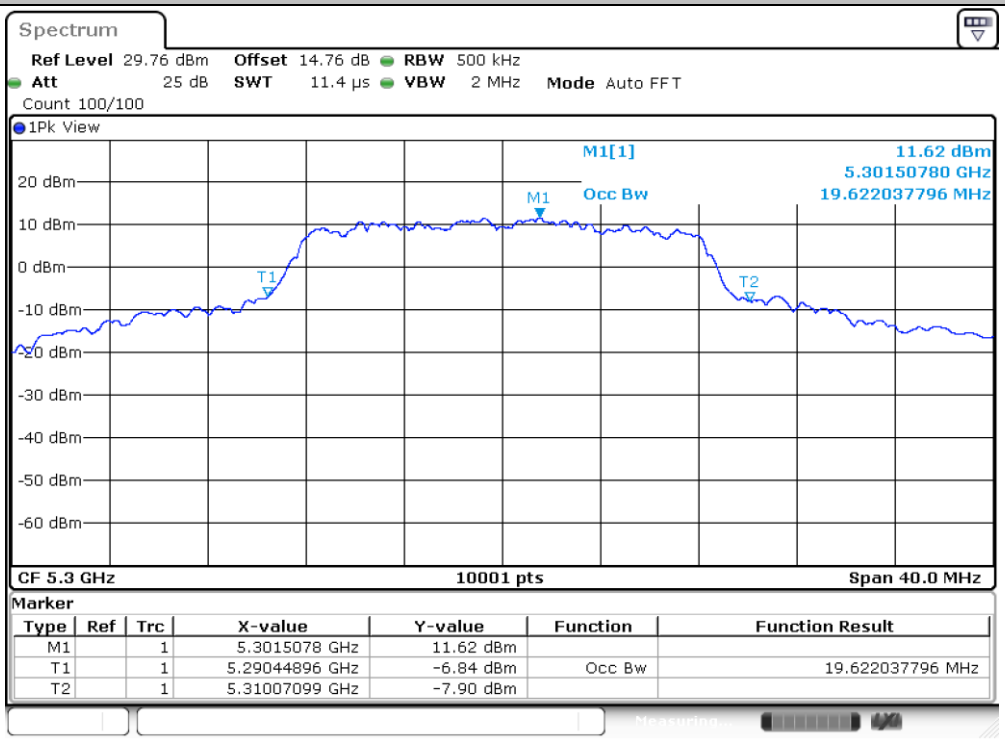

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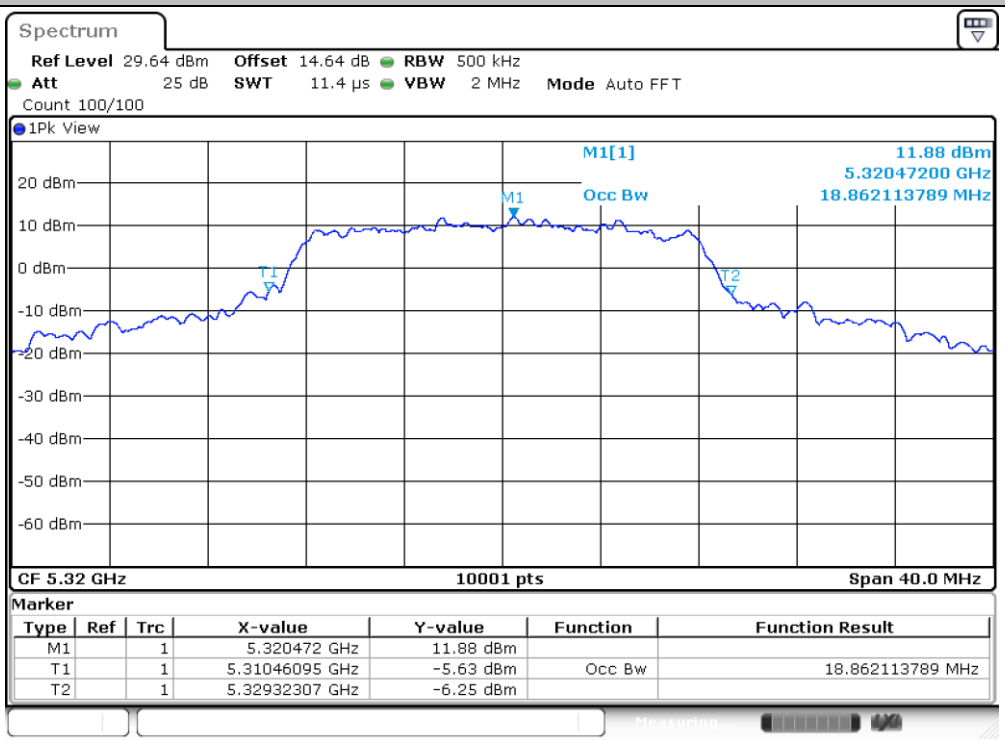

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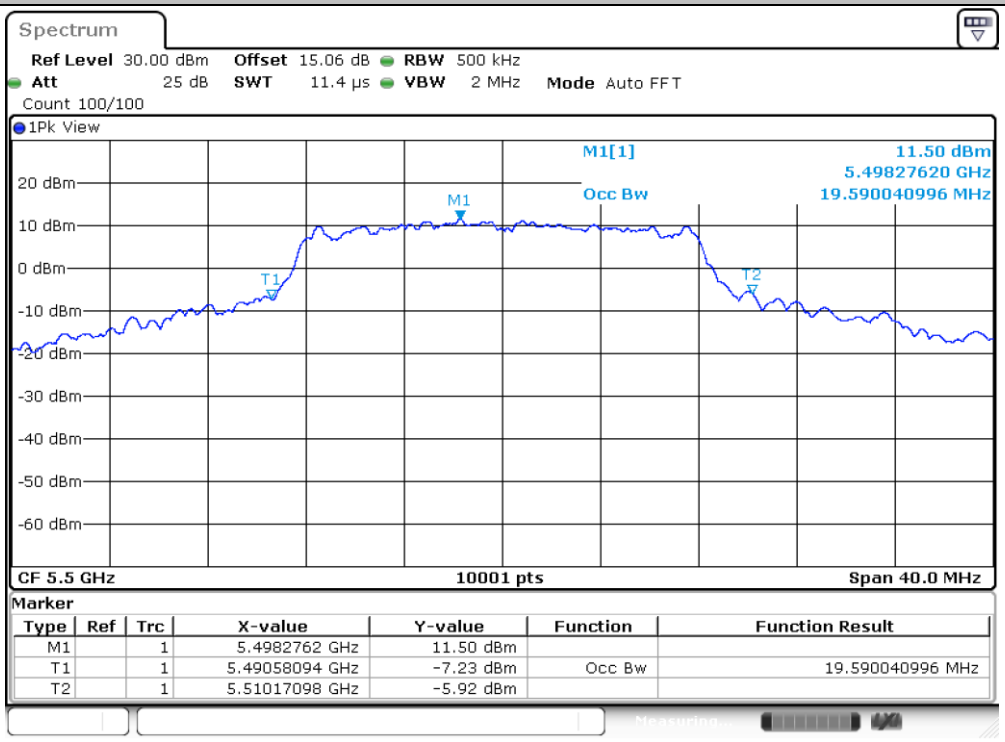

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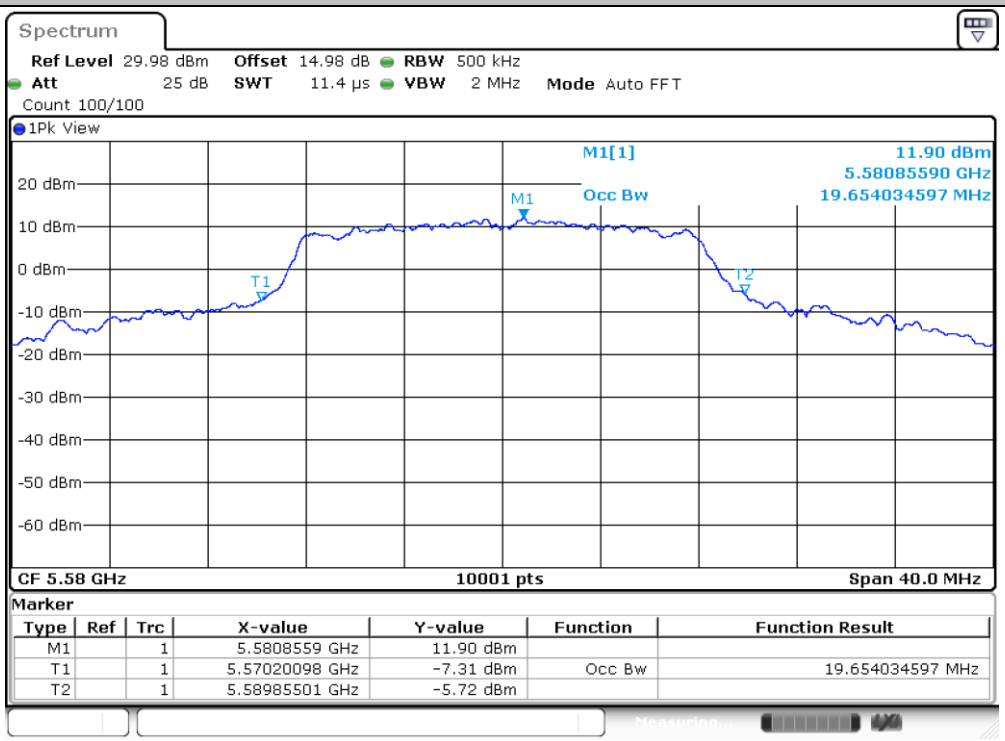

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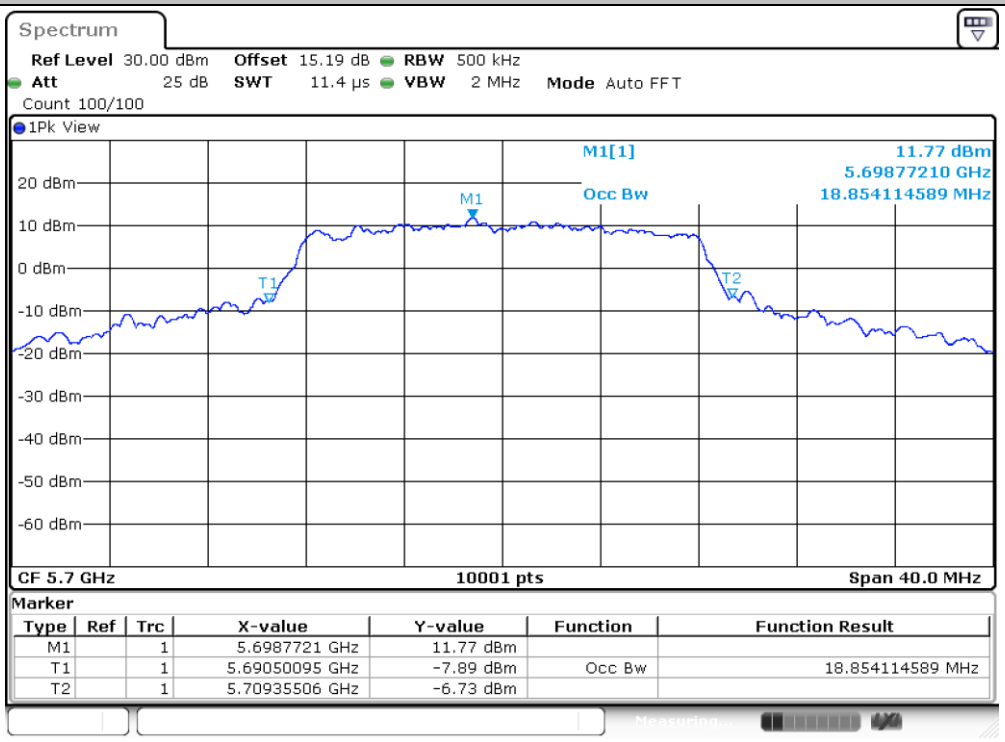

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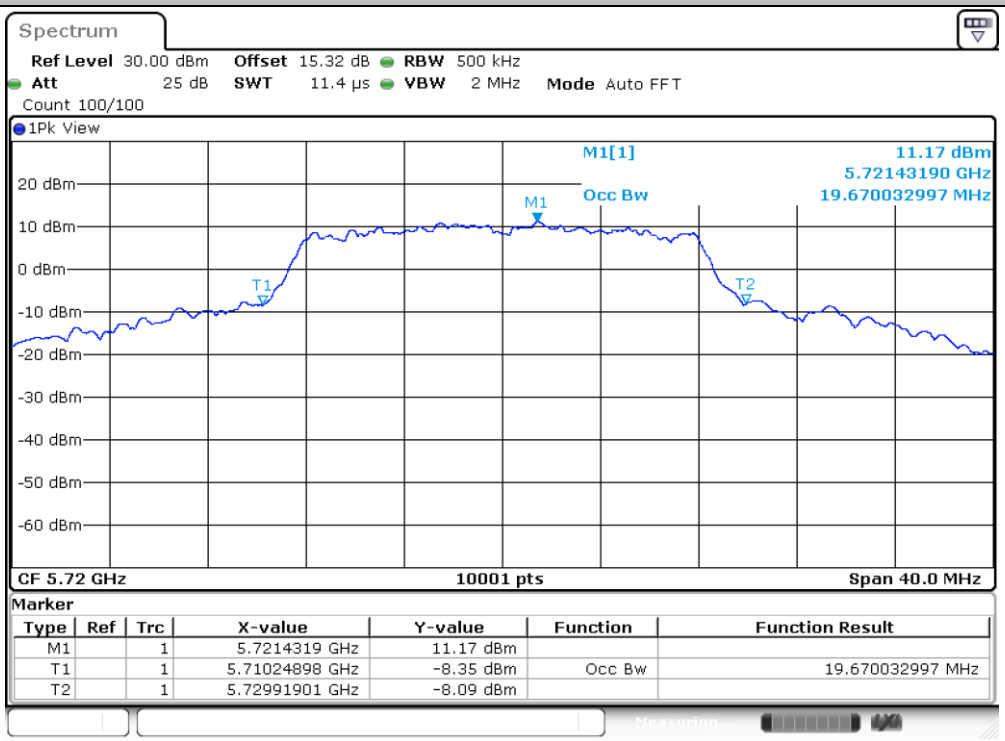

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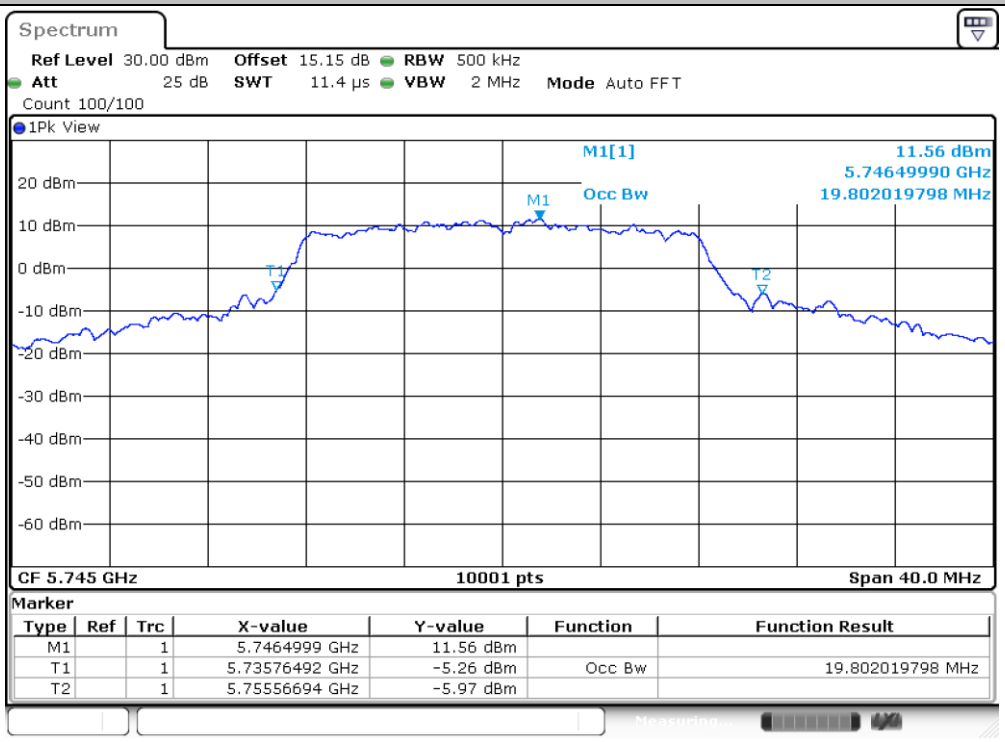

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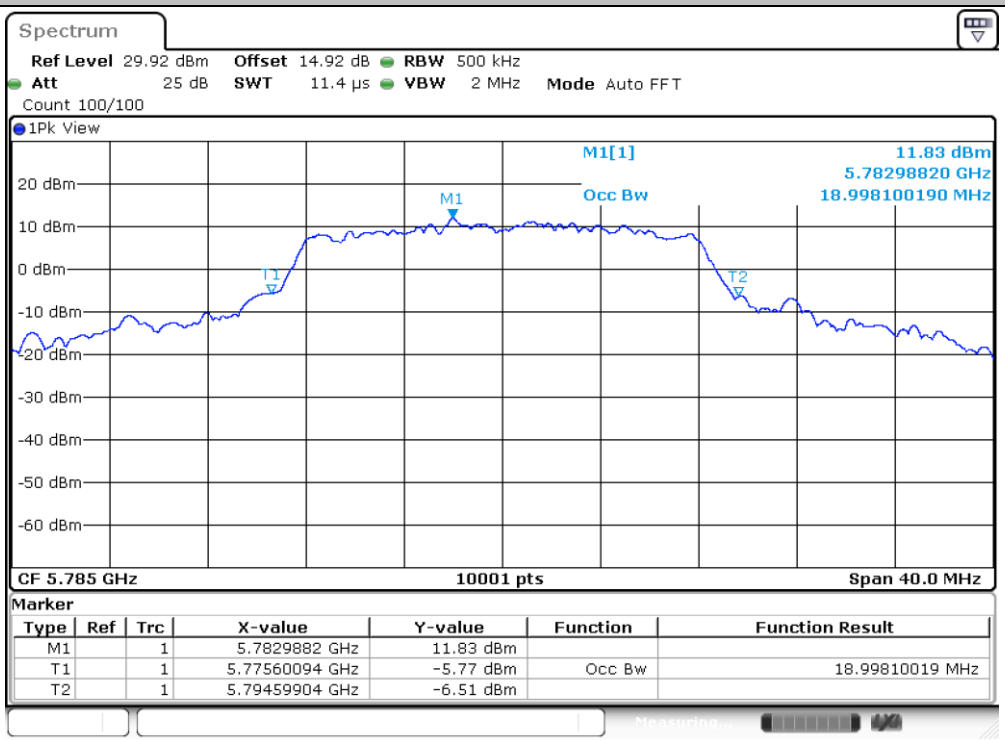

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