FCC RF Test Report

APPLICANT	:	Amazon.com Services LLC
EQUIPMENT	:	Electronic Display Device
MODEL NAME	:	SA569P
FCC ID	:	2A4DH-5698
STANDARD	:	FCC Part 15 Subpart E §15.407
CLASSIFICATION	:	(NII) Unlicensed National Information Infrastructure
TEST DATE(S)	:	Jan. 09, 2024 ~ Jan. 23, 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.

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

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People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR391903-01D	Rev. 01	Initial issue of report	Mar. 08, 2024
FR391903-01D	Rev. 02	Updated the equipment list.	May 18, 2024
FR391903-01D	Rev. 03	Updated model name	Jul. 03, 2024

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 3.21 dB at 5150.000 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	15.207(a)	Pass	Under limit 19.50 dB at 0.551 MHz
3.6	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Discontinue Transmission	Pass	-
3.7	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

Amazon.com Services LLC
410 Terry Avenue N Seattle, WA 98109-5210 United States

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	Electronic Display Device
Model Name	SA569P
FCC ID	2A4DH-5698
SN Code	Conducted: PN43LB0134850405 Conduction: GN433W0435050018 Radiation: GN433W0435050037

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

1.3 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 : 15.00 dBm / 0.0316 W 802.11n HT20 : 14.79 dBm / 0.0301 W 802.11n HT40 : 14.85 dBm / 0.0305 W 802.11ac VHT20: 14.61 dBm / 0.0289 W 802.11ac VHT40: 13.63 dBm / 0.0231 W 802.11ac VHT80: 13.38 dBm / 0.0218 W **<5260 MHz ~ 5320 MHz>** 802.11a : 14.96 dBm / 0.0313 W 802.11n HT20 : 14.91 dBm / 0.0310 W 802.11n HT40 : 14.83 dBm / 0.0304 W 802.11ac VHT20: 14.85 dBm / 0.0305 W 802.11ac VHT40: 13.89 dBm / 0.0245 W 802.11ac VHT80: 13.56 dBm / 0.0227 W **<5500 MHz ~ 5720 MHz >** 802.11a : 14.72 dBm / 0.029 W 802.11n HT20 : 14.83 dBm / 0.0304 W 802.11n HT40 : 14.71 dBm / 0.0296 W 802.11ac VHT20: 14.72 dBm / 0.0296 W 802.11ac VHT40: 13.73 dBm / 0.0236 W 802.11ac VHT80: 13.46 dBm / 0.0222 W **<5745 MHz ~ 5825 MHz>** 802.11a : 14.66 dBm / 0.0292 W

	802.11n HT20 : 14.65 dBm / 0.0292 W 802.11n HT40 : 14.61 dBm / 0.0289 W 802.11ac VHT20: 14.61 dBm / 0.0289 W 802.11ac VHT40: 13.56 dBm / 0.0227 W 802.11ac VHT80: 13.36 dBm / 0.0217 W
99% Occupied Bandwidth	**<5180 MHz ~ 5240 MHz>** 802.11a : 17.223 MHz 802.11n HT20 : 18.102 MHz 802.11n HT40 : 36.444 MHz 802.11ac VHT80 : 75.445 MHz **<5260 MHz ~ 5320 MHz>** 802.11a : 17.143 MHz 802.11n HT20 : 18.142 MHz 802.11n HT40 : 36.364 MHz 802.11ac VHT80 : 75.604 MHz **<5500 MHz ~ 5720 MHz>** 802.11a : 17.143 MHz 802.11n HT20 : 18.182 MHz 802.11n HT40 : 36.523 MHz 802.11ac VHT80 : 75.445 MHz **<5745 MHz ~ 5825 MHz>** 802.11a : 17.183 MHz 802.11n HT20 : 18.142 MHz 802.11n HT40 : 36.523 MHz 802.11ac VHT80 : 75.445 MHz
Antenna Type / Gain	**<5180 MHz ~ 5240 MHz>**: PCB monopole Antenna with gain 4.00 dBi **<5260 MHz ~ 5320 MHz>**: PCB monopole Antenna with gain 4.00 dBi **<5500 MHz ~ 5720 MHz>**: PCB monopole Antenna with gain 4.00 dBi **<5745 MHz ~ 5825 MHz>**: PCB monopole Antenna with gain 4.00 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

Note: Note: For 802.11n HT20 / ac VHT20 and 802.11n HT40 / ac VHT40 mode, the whole testing have assessed only 802.11n HT20/HT40 by referring to their maximum conducted power.

1.4 Modification of EUT

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

1.5 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 TH01-KS	CN1257	314309

1.6 Test Software

Item	Site	Manufacturer	Name	Version
1.	TH01-KS	Tonscend	JS1120-3 test system China_210602	3.3.10
2.	03CH08-KS	AUDIX	E3	210616
3.	CO01-KS	AUDIX	E3	6.2009-8-24

1.7 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.
- FCC KDB 662911 D01 Multiple Transmitter Output 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.

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 (X plane) 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.

Modulation	Data Rate
802.11a	**6 Mbps**
802.11n HT20	**MCS0**
802.11n HT40	**MCS0**
802.11ac VHT80	**MCS0**

AC Conducted Emission	Mode 1 : WIFI(5G) Link + USB Cable(Charging from Adapter)
Remark: For Radiated Test Cases, the tests were performance with Adapter and USB Cable.	

RSE Co-location
802.11n HT40_CH38_5190MHz + 2400-2483.5_Bluetooth-LE _CH00_2402MHz

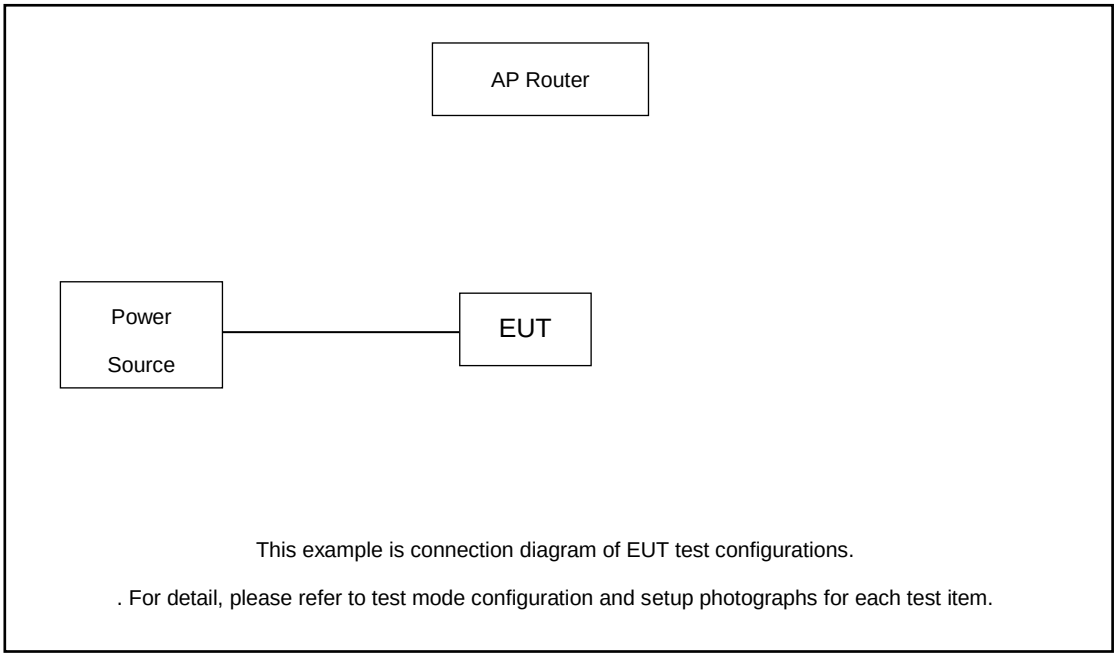
Ch. #		U-NII-1	U-NII-2A	U-NII-2C	U-NII-3
		20M BW	20M BW	20M BW	20M BW
L	Low	36	52	100	149
M	Middle	44	60	116	157
H	High	48	64	140	165
Straddle		-	-	144	-

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	-

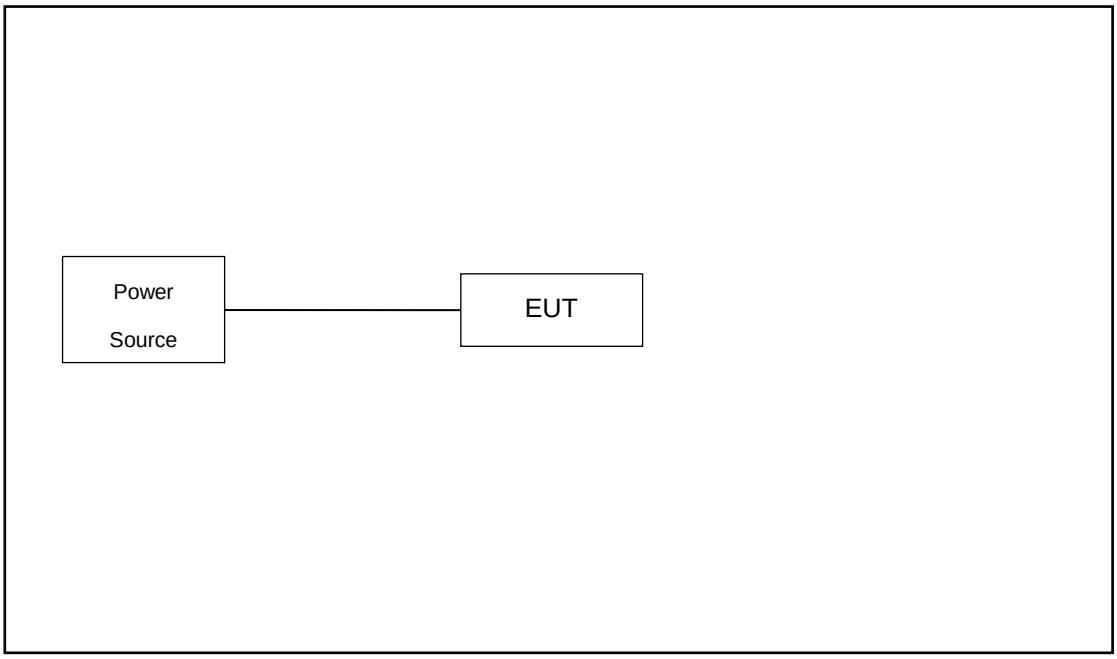
Ch. #		U-NII-1	U-NII-2A	U-NII-2C	U-NII-3
		80M BW	80M BW	80M BW	80M BW
L	Low	-	-	106	-
M	Middle	42	58	-	155
H	High	-	-	-	-
Straddle		-	-	138	-

2.3 Connection Diagram of Test System

AC Conducted Emission:



Radiated Emission:



2.4 Support Unit used in test configuration and system

Item	Equipment	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	DIR-655	KA21R655B1	N/A	Unshielded,1.8m
2.	Notebook	V130-15IKB005	N/A	N/A	shielded cable DC O/P 1.8m , Unshielded AC I/P cable 1.8m

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 7.50 dB

Offset(dB) = RF cable loss(dB)

= 7.50 (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

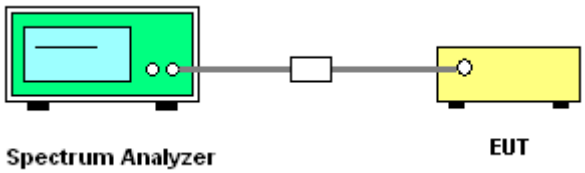
The measuring equipment is listed in the section 4 of this test report.

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 the 5.47–5.6 GHz and 5.65–5.725 GHz band, the maximum conducted output power shall not exceed 250 mW or 11 + 10 $\log_{10}$ B, dBm, whichever power is less. The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 $\log_{10}$ B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz.

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

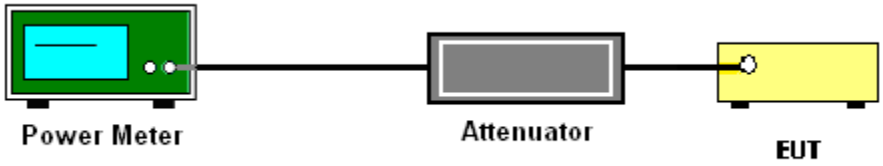
The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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

Please refer to Appendix A.

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.

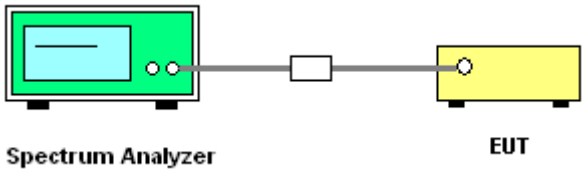
1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

Method (a): Measure and sum the spectra across the outputs.
The total final Power Spectral Density is the bin-by-bin summation to obtain the combined spectrum. For the device with 2 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points, the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 to obtain the value for the first frequency bin of the summed spectrum.

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.

Method (c): Measure and add 10 log(N_{ANT}) dB, where N_{ANT} is the number of outputs.
The measurement on each individual output were performed with the same span and number on each individual output. The quantity 10 log(N_{ANT}) dB is added to each spectrum value before comparing to the emission limit.

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

(4) ANSI C63.10-2013 clause 12.7.3 note 97

As specified by regulatory requirements, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit. However, an out-of-band emission that complies with both the average and peak general regulatory limits is not required to satisfy the peak emission limit.

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

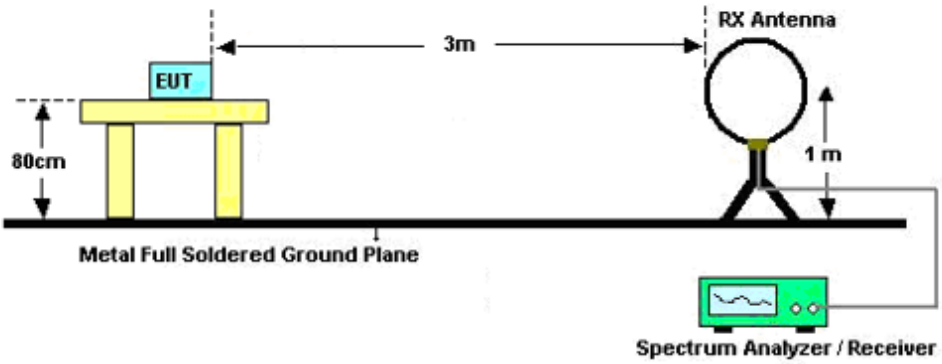
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

   - 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.

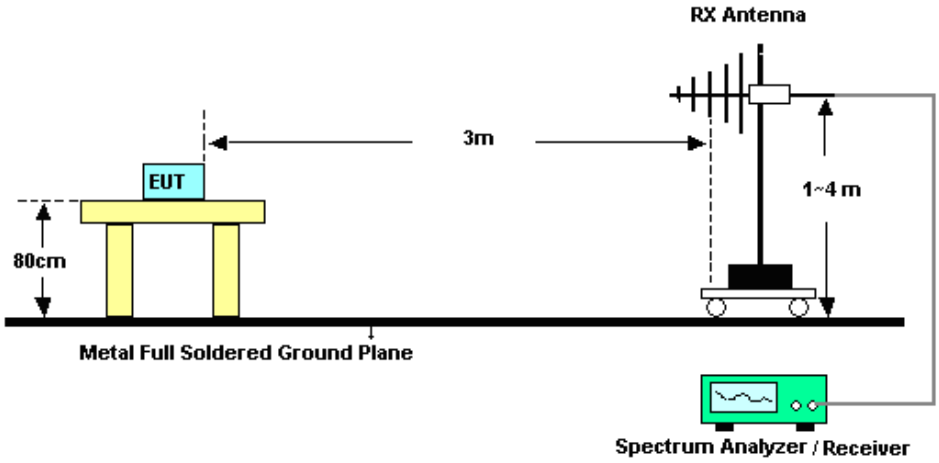
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

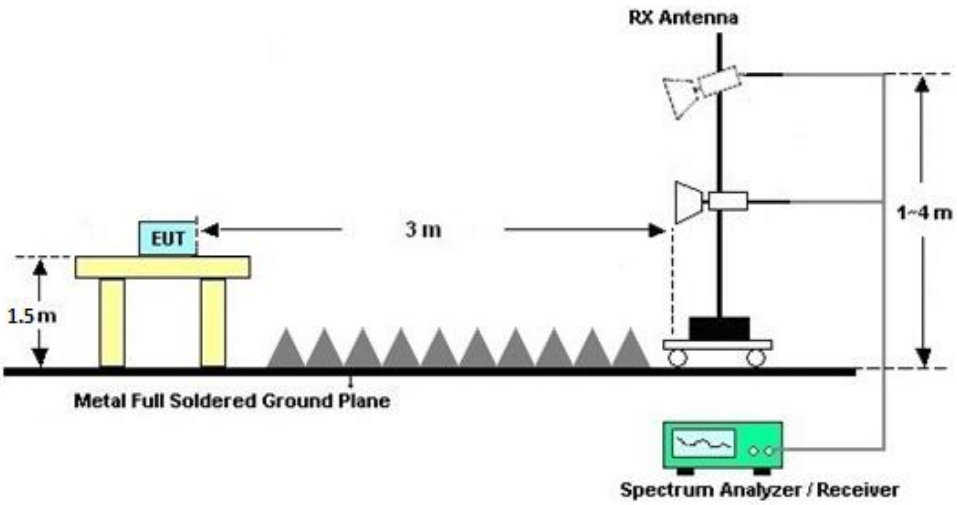
For radiated emissions below 30MHz



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.

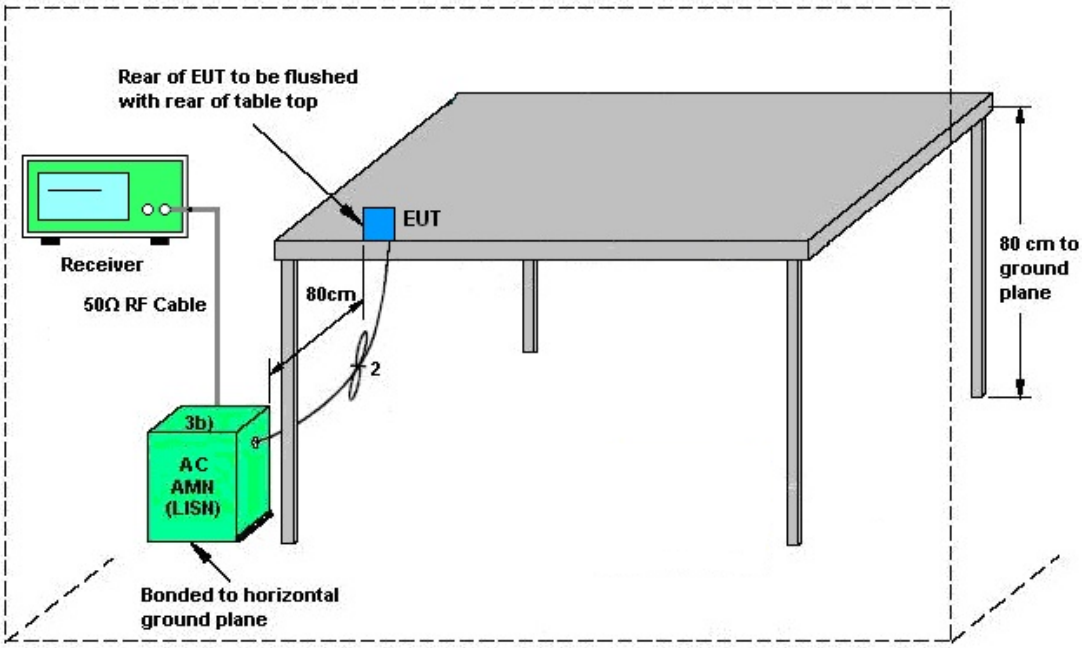
3.5.2 Measuring Instruments

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



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

3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Automatically Discontinue Transmission

3.6.1 Limit of Automatically Discontinue Transmission

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

3.6.2 Measuring Instruments

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

3.6.3 Test Result of Automatically Discontinue Transmission

EUT is verified this characteristic during the function check of normal sample associated with an access point:

A. Information start: make EUT supply information to the access point.

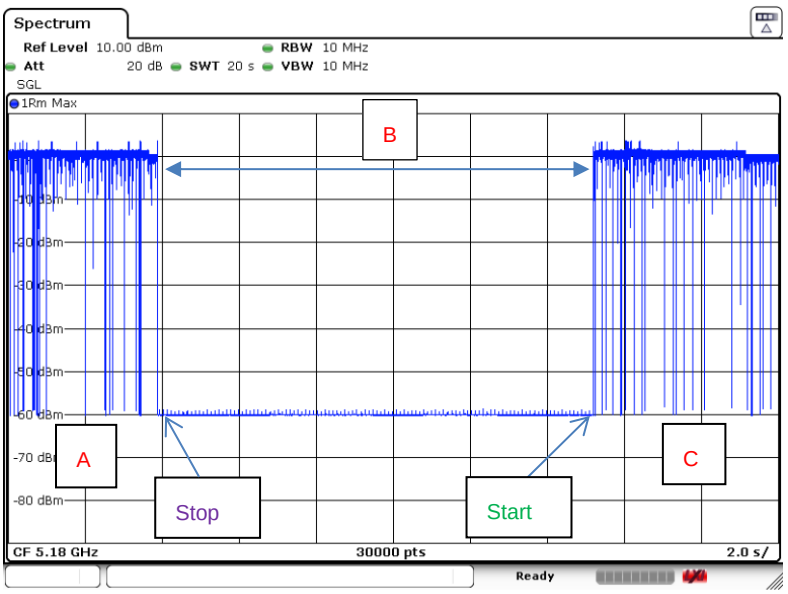
B. Information stop: stop supplying information to the access point.

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving.

C. Information start: make EUT supply information to the access point again.

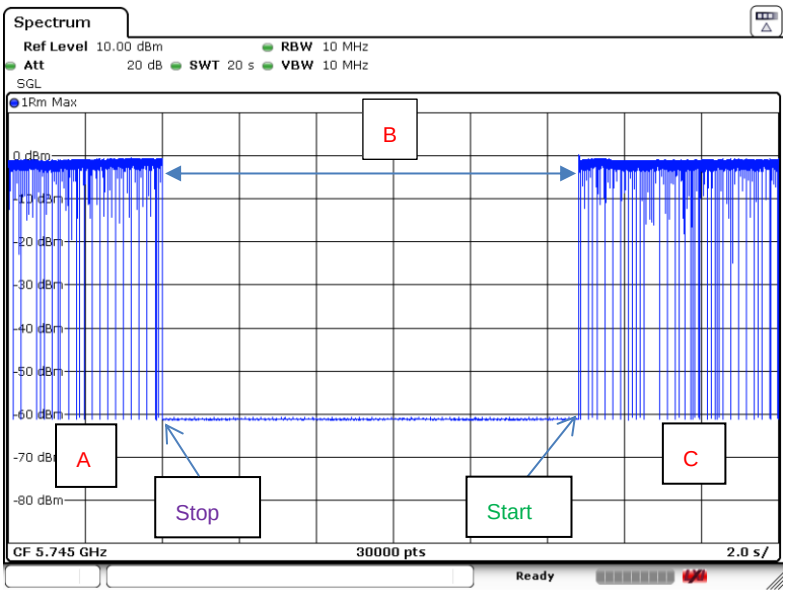
The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

5180MHz



Note : The control / signaling information during the period B is precluded.

5745MHz



Note : The control / signaling information during the period B is precluded.

3.7 Antenna Requirements

3.7.1 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.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 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	FSV30	101338	10Hz~30GHz	May 16, 2023	Jan. 09, 2024~ Jan. 23, 2024	May 15, 2024	Conducted (TH01-KS)
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 11, 2023	Jan. 09, 2024~ Jan. 23, 2024	Oct. 10, 2024	Conducted (TH01-KS)
Pulse Power Senor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 02, 2024	Jan. 09, 2024~ Jan. 23, 2024	Jan. 01, 2025	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 02, 2024	Jan. 09, 2024~ Jan. 23, 2024	Jan. 01, 2025	Conducted (TH01-KS)
RF Test System	Tonscend	TS1120-3	N/A	N/A	NCR	Jan. 09, 2024~ Jan. 23, 2024	NCR	Conducted (TH01-KS)
automation control unit	Tonscend	JS0806-2	21H8060473	N/A	NCR	Jan. 09, 2024~ Jan. 23, 2024	NCR	Conducted (TH01-KS)
power control unit	Tonscend	JS0806-4ADC	21J8060495	N/A	NCR	Jan. 09, 2024~ Jan. 23, 2024	NCR	Conducted (TH01-KS)
EMI Test Receiver	Keysight	N9038A	MY56400023	3Hz~8.5GHz;Max 30dBm	Jan. 04, 2024	Jan. 10, 2024	Jan. 03, 2025	Radiation (03CH08-KS)
Spectrum Analyzer	R&S	FSV40	101932	10kHz~40GHz; Max 30dBm	Oct. 10, 2023	Jan. 10, 2024	Oct. 09, 2024	Radiation (03CH08-KS)
Loop Antenna	R&S	HFH2-Z2E	101125	9kHz~30MHz	Oct. 10, 2023	Jan. 10, 2024	Oct. 09, 2024	Radiation (03CH08-KS)
Bilog Antenna	TESEQ& VGT	CBL 61110	59915	30MHz-1GHz	Aug. 12, 2023	Jan. 10, 2024	Aug. 11, 2024	Radiation (03CH08-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75959	1GHz~18GHz	Mar. 18, 2023	Jan. 10, 2024	Mar. 17, 2024	Radiation (03CH08-KS)
high gain Amplifier	EM	EM01G18GA	060845	1Ghz-18Ghz	Jan. 05, 2024	Jan. 10, 2024	Jan. 04, 2025	Radiation (03CH08-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2024	Jan. 10, 2024	Jan. 04, 2025	Radiation (03CH08-KS)
Amplifier	SONOMA	310N	413741	9KHz-1GHz	Jan. 05, 2024	Jan. 10, 2024	Jan. 04, 2025	Radiation (03CH08-KS)
Amplifier	EM	EM01G18GA	060834	1Ghz-18Ghz	Oct. 10, 2023	Jan. 10, 2024	Oct. 09, 2024	Radiation (03CH08-KS)
Amplifier	MITEQ	EM18G40GGA	060728	18~40GHz	Jan. 04, 2024	Jan. 10, 2024	Jan. 03, 2025	Radiation (03CH08-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Jan. 10, 2024	NCR	Radiation (03CH08-KS)
Turn Table	EM	EM 1000-T	N/A	0~360 degree	NCR	Jan. 10, 2024	NCR	Radiation (03CH08-KS)
Antenna Mast	EM	EM 1000-A	N/A	1 m~4 m	NCR	Jan. 10, 2024	NCR	Radiation (03CH08-KS)
6db attenuator	TOJOIN	SMA(JK)	EMC01	2W/DC-18G	Jan. 10, 2023	Jan. 10, 2024	Jan. 09, 2024	Radiation (03CH08-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	May 16, 2023	Jan. 14, 2024~ Jan. 17, 2024	May 15, 2024	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Oct. 11, 2023	Jan. 14, 2024~ Jan. 17, 2024	Oct. 10, 2024	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	May 16, 2023	Jan. 14, 2024~ Jan. 17, 2024	May 15, 2024	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 11, 2023	Jan. 14, 2024~ Jan. 17, 2024	Oct. 10, 2024	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

Conducted Spurious Emission & Bandedge	**±2.26 dB**
Occupied Channel Bandwidth	**±0.1%**
Conducted Power	**±0.46 dB**
Conducted Power Spectral Density	**±0.88 dB**
Frequency	**±0.4 Hz**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.94dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.32dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**6.28dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.90dB**

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

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

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

Appendix A. Conducted Test Results

A1. Conducted Test Results

Test Engineer:	Long Wu	Temperature:	21~25	°C
Test Date:	2024.1.9`2024.1.23	Relative Humidity:	51~54	%

TEST RESULTS DATA
Average Power Table

U-NII-1											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power with duty factor (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail	Power Setting
					Ant 1	Ant 1	Ant 1	Ant 1			Ant 1
11a	6Mbps	1	36	5180	0.00	15.00	24.00	4.00		Pass	16
11a	6Mbps	1	44	5220	0.00	14.85	24.00	4.00		Pass	16
11a	6Mbps	1	48	5240	0.00	14.68	24.00	4.00		Pass	16
HT20	MCS0	1	36	5180	0.00	14.66	24.00	4.00		Pass	16
HT20	MCS0	1	44	5220	0.00	14.79	24.00	4.00		Pass	16
HT20	MCS0	1	48	5240	0.00	14.62	24.00	4.00		Pass	16
HT40	MCS0	1	38	5190	0.00	14.66	24.00	4.00		Pass	16
HT40	MCS0	1	46	5230	0.00	14.85	24.00	4.00		Pass	16
VHT20	MCS0	1	36	5180	0.00	14.46	24.00	4.00		Pass	16
VHT20	MCS0	1	44	5220	0.00	14.61	24.00	4.00		Pass	16
VHT20	MCS0	1	48	5240	0.00	14.54	24.00	4.00		Pass	16
VHT40	MCS0	1	38	5190	0.00	13.31	24.00	4.00		Pass	15
VHT40	MCS0	1	46	5230	0.00	13.63	24.00	4.00		Pass	15
VHT80	MCS0	1	42	5210	0.00	13.38	24.00	4.00		Pass	15

TEST RESULTS DATA
Average Power Table

U-NII-2A											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power with duty factor	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail	Power Setting
					Ant 1	Ant 1	Ant 1	Ant 1			Ant 1
11a	6Mbps	1	52	5260	0.00	14.96	23.98	4.00	26.99	Pass	16
11a	6Mbps	1	60	5300	0.00	14.79	23.98	4.00	26.99	Pass	16
11a	6Mbps	1	64	5320	0.00	14.89	23.98	4.00	26.99	Pass	16
HT20	MCS0	1	52	5260	0.00	14.91	23.98	4.00	26.99	Pass	16
HT20	MCS0	1	60	5300	0.00	14.82	23.98	4.00	26.99	Pass	16
HT20	MCS0	1	64	5320	0.00	14.62	23.98	4.00	26.99	Pass	16
HT40	MCS0	1	54	5270	0.00	14.83	23.98	4.00	26.99	Pass	16
HT40	MCS0	1	62	5310	0.00	14.67	23.98	4.00	26.99	Pass	16
VHT20	MCS0	1	52	5260	0.00	14.85	23.98	4.00	26.99	Pass	16
VHT20	MCS0	1	60	5300	0.00	14.72	23.98	4.00	26.99	Pass	16
VHT20	MCS0	1	64	5320	0.00	14.58	23.98	4.00	26.99	Pass	16
VHT40	MCS0	1	54	5270	0.00	13.83	23.98	4.00	26.99	Pass	15
VHT40	MCS0	1	62	5310	0.00	13.89	23.98	4.00	26.99	Pass	15
VHT80	MCS0	1	58	5290	0.00	13.56	23.98	4.00	26.99	Pass	15

TEST RESULTS DATA
Average Power Table

U-NII-2C											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power with duty factor	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail	Power Setting
					Ant 1	Ant 1	Ant 1	Ant 1			Ant 1
11a	6Mbps	1	100	5500	0.00	14.72	23.98	4.00	26.99	Pass	16
11a	6Mbps	1	116	5580	0.00	14.66	23.98	4.00	26.99	Pass	16
11a	6Mbps	1	140	5700	0.00	14.49	23.98	4.00	26.99	Pass	16
HT20	MCS0	1	100	5500	0.00	14.83	23.98	4.00	26.99	Pass	16
HT20	MCS0	1	116	5580	0.00	14.76	23.98	4.00	26.99	Pass	16
HT20	MCS0	1	140	5700	0.00	14.68	23.98	4.00	26.99	Pass	16
HT40	MCS0	1	102	5510	0.00	14.61	23.98	4.00	26.99	Pass	16
HT40	MCS0	1	110	5550	0.00	14.71	23.98	4.00	26.99	Pass	16
HT40	MCS0	1	134	5670	0.00	14.55	23.98	4.00	26.99	Pass	16
VHT20	MCS0	1	100	5500	0.00	14.72	23.98	4.00	26.99	Pass	16
VHT20	MCS0	1	116	5580	0.00	14.71	23.98	4.00	26.99	Pass	16
VHT20	MCS0	1	140	5700	0.00	14.62	23.98	4.00	26.99	Pass	16
VHT40	MCS0	1	102	5510	0.00	13.72	23.98	4.00	26.99	Pass	15
VHT40	MCS0	1	110	5550	0.00	13.73	23.98	4.00	26.99	Pass	15
VHT40	MCS0	1	134	5670	0.00	13.56	23.98	4.00	26.99	Pass	15
VHT80	MCS0	1	106	5530	0.00	13.46	23.98	4.00	26.99	Pass	15
VHT80	MCS0	1	122	5610	0.00	13.44	23.98	4.00	26.99	Pass	15

U-NII-2C											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power with duty factor	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail	Power Setting
					Ant 1	Ant 1	Ant 1	Ant 1			Ant 1
11a	6Mbps	1	144	5720	0.00	14.65	23.98	4.00	26.99	Pass	16
HT20	MCS0	1	144	5720	0.00	14.61	23.98	4.00	26.99	Pass	16
HT40	MCS0	1	142	5710	0.00	14.51	23.98	4.00	26.99	Pass	16
VHT20	MCS0	1	144	5720	0.00	14.59	23.98	4.00	26.99	Pass	16
VHT40	MCS0	1	142	5710	0.00	13.50	23.98	4.00	26.99	Pass	15
VHT80	MCS0	1	138	5690	0.00	13.36	23.98	4.00	26.99	Pass	15

TEST RESULTS DATA
Average Power Table

U-NII-3										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power with duty factor	Conducted Power Limit (dBm)	DG (dBi)	Pass/Fail	Power Setting
					Ant 1	Ant 1	Ant 1	Ant 1		Ant 1
11a	6Mbps	1	149	5745	0.00	14.58	30.00	4.00	Pass	16
11a	6Mbps	1	157	5785	0.00	14.62	30.00	4.00	Pass	16
11a	6Mbps	1	165	5825	0.00	14.66	30.00	4.00	Pass	16
HT20	MCS0	1	149	5745	0.00	14.55	30.00	4.00	Pass	16
HT20	MCS0	1	157	5785	0.00	14.65	30.00	4.00	Pass	16
HT20	MCS0	1	165	5825	0.00	14.49	30.00	4.00	Pass	16
HT40	MCS0	1	151	5755	0.00	14.49	30.00	4.00	Pass	16
HT40	MCS0	1	159	5795	0.00	14.61	30.00	4.00	Pass	16
VHT20	MCS0	1	149	5745	0.00	14.50	30.00	4.00	Pass	16
VHT20	MCS0	1	157	5785	0.00	14.61	30.00	4.00	Pass	16
VHT20	MCS0	1	165	5825	0.00	14.42	30.00	4.00	Pass	16
VHT40	MCS0	1	151	5755	0.00	13.46	30.00	4.00	Pass	15
VHT40	MCS0	1	159	5795	0.00	13.56	30.00	4.00	Pass	15
VHT80	MCS0	1	155	5775	0.00	13.36	30.00	4.00	Pass	15

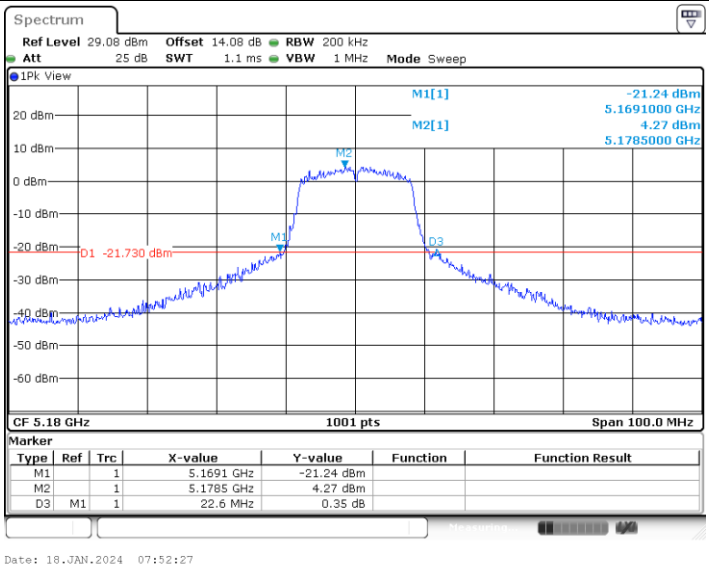
Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	26dB EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	22.60	5169.10	5191.70	---	---
		5220	19.90	5210.20	5230.10	---	---
		5240	20.10	5230.00	5250.10	---	---
		5260	19.80	5250.20	5270.00	---	---
		5300	19.90	5290.00	5309.90	---	---
		5320	19.90	5310.10	5330.00	---	---
		5500	20.00	5490.00	5510.00	---	---
		5580	19.90	5570.10	5590.00	---	---
		5700	19.80	5690.20	5710.00	---	---
		5720	20.00	5710.00	5730.00	---	---
		5745	19.90	5735.10	5755.00	---	---
		5785	20.00	5775.00	5795.00	---	---
		5825	19.90	5815.10	5835.00	---	---
11N20SISO	Ant1	5180	20.10	5170.00	5190.10	---	---
		5220	20.30	5209.80	5230.10	---	---
		5240	20.20	5230.00	5250.20	---	---
		5260	20.20	5249.90	5270.10	---	---
		5300	20.50	5289.80	5310.30	---	---
		5320	20.30	5310.00	5330.30	---	---
		5500	20.30	5489.90	5510.20	---	---
		5580	20.20	5570.00	5590.20	---	---
		5700	20.40	5689.80	5710.20	---	---
		5720	20.40	5709.90	5730.30	---	---
		5745	20.30	5734.90	5755.20	---	---
		5785	20.40	5774.80	5795.20	---	---
		5825	20.30	5814.90	5835.20	---	---
11N40SISO	Ant1	5190	40.40	5169.80	5210.20	---	---
		5230	40.40	5210.20	5250.60	---	---
		5270	40.60	5249.80	5290.40	---	---
		5310	40.80	5289.60	5330.40	---	---
		5510	40.20	5490.00	5530.20	---	---
		5550	40.60	5530.00	5570.60	---	---
		5670	41.20	5649.40	5690.60	---	---
		5710	40.40	5690.00	5730.40	---	---
		5755	40.60	5734.80	5775.40	---	---
		5795	40.80	5774.80	5815.60	---	---
11AC80SISO	Ant1	5210	81.20	5169.60	5250.80	---	---
		5290	81.20	5249.60	5330.80	---	---
		5530	80.80	5489.60	5570.40	---	---
		5610	80.40	5570.00	5650.40	---	---
		5690	81.20	5649.60	5730.80	---	---
		5775	80.80	5735.00	5815.80	---	---

Test Graphs

11A_5180



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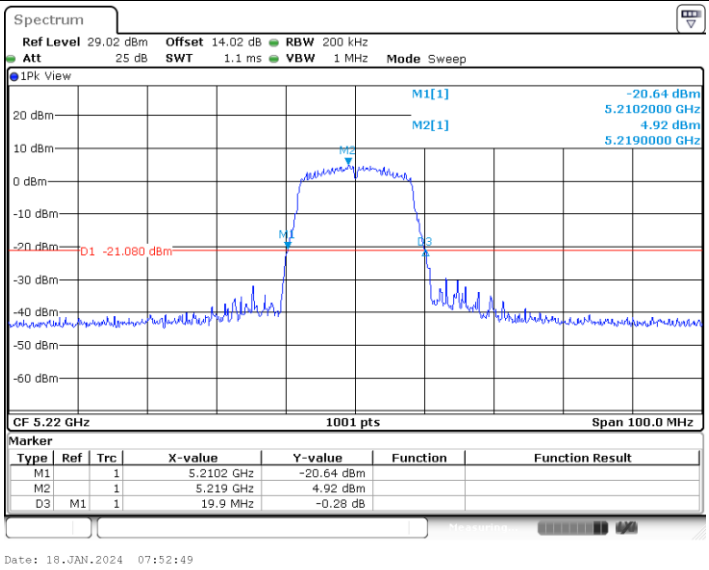

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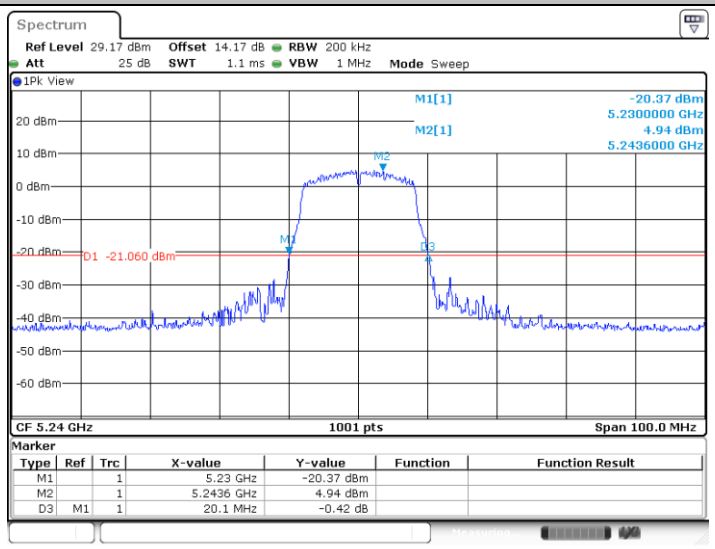

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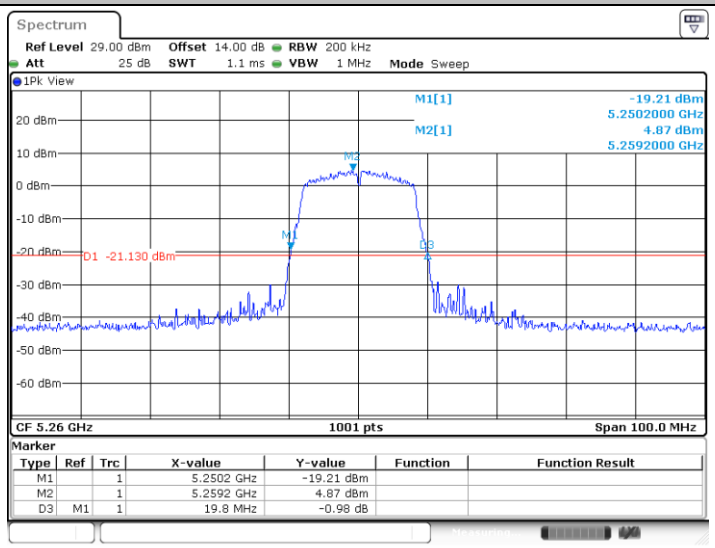

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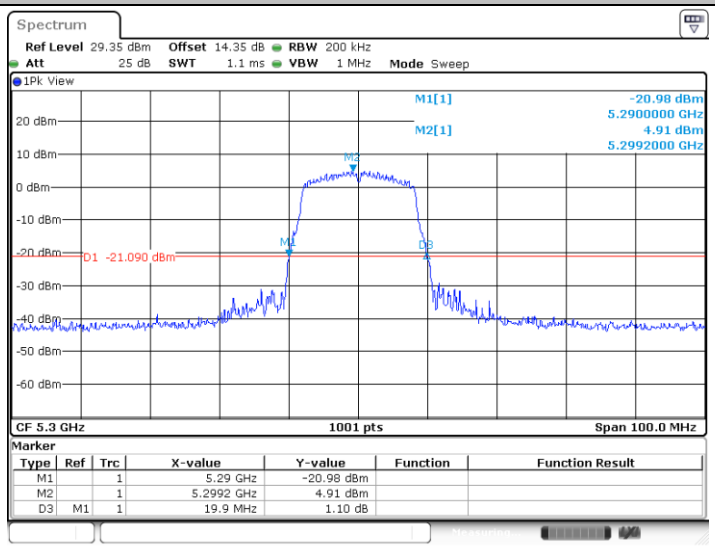

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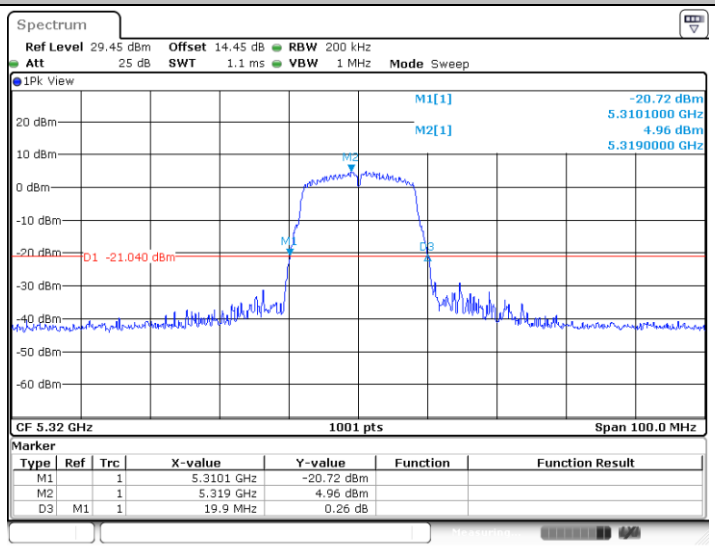

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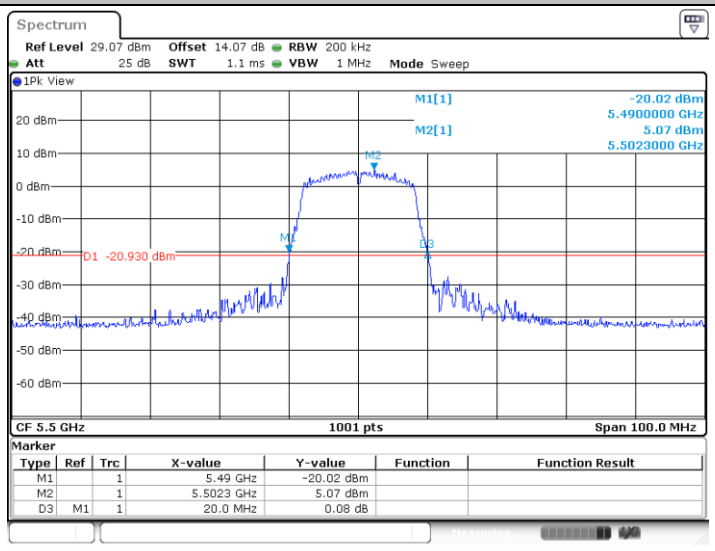

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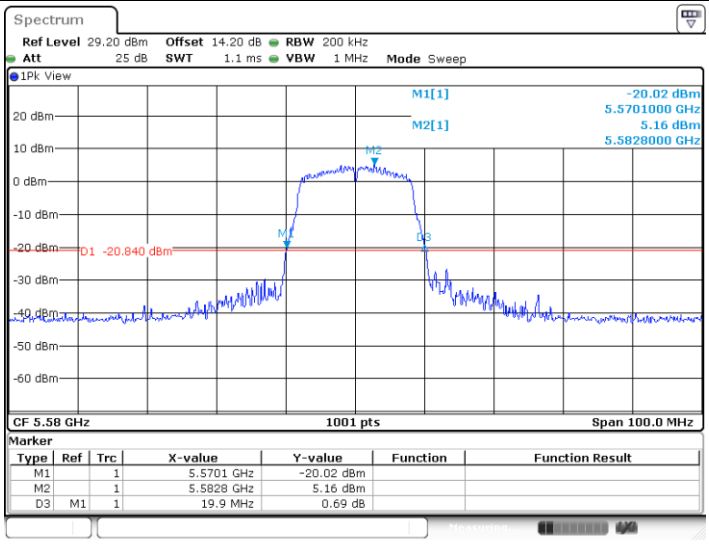

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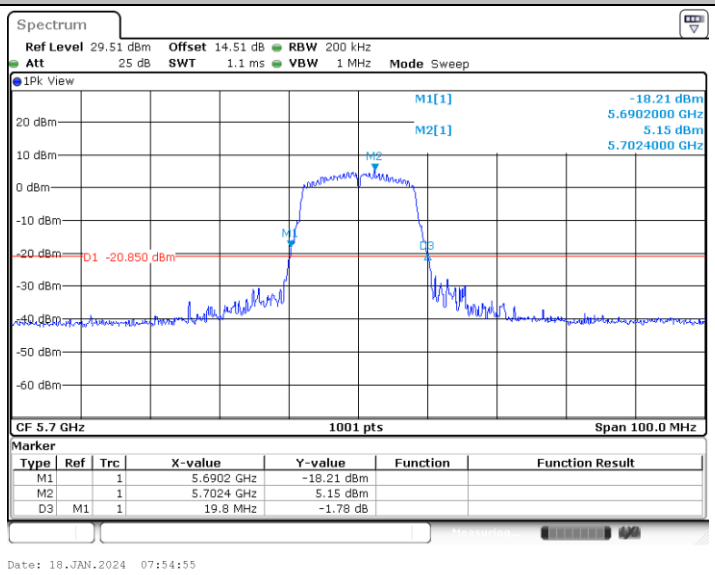

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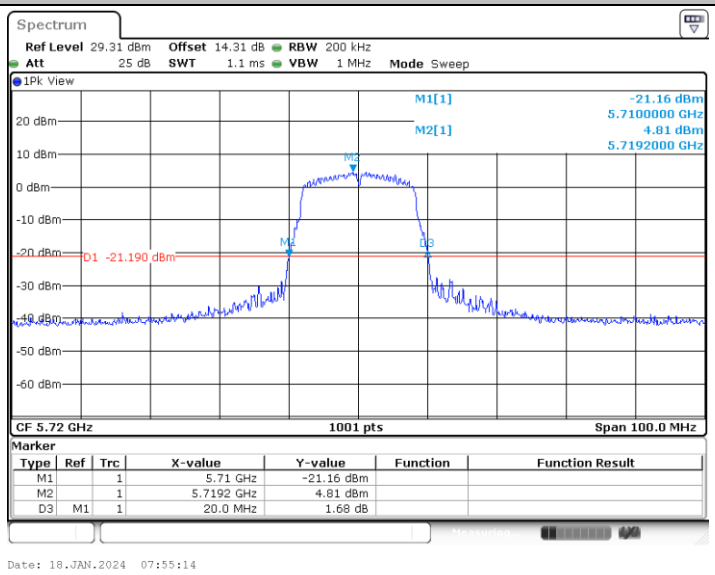

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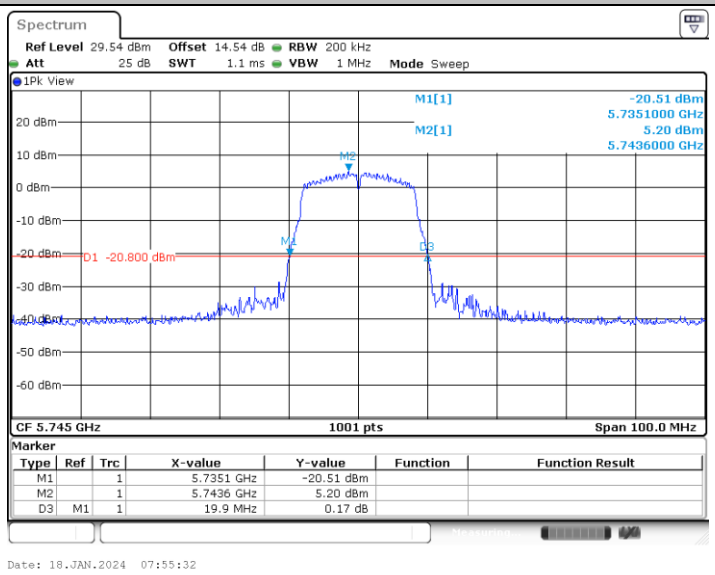

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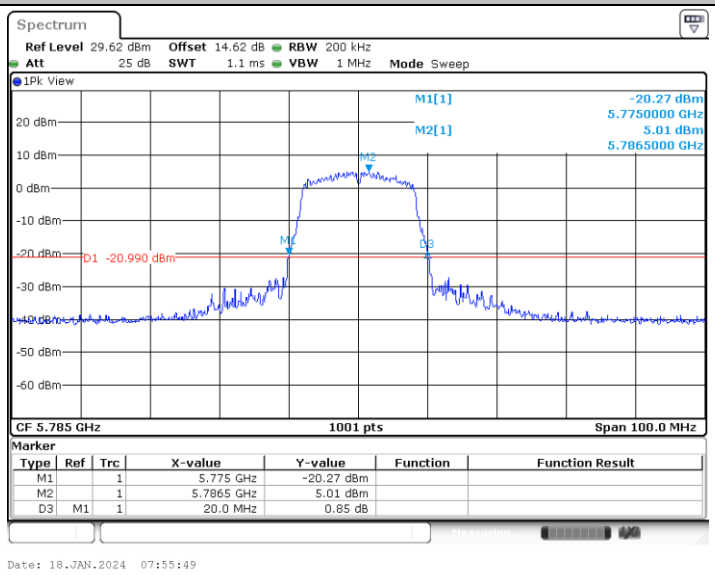

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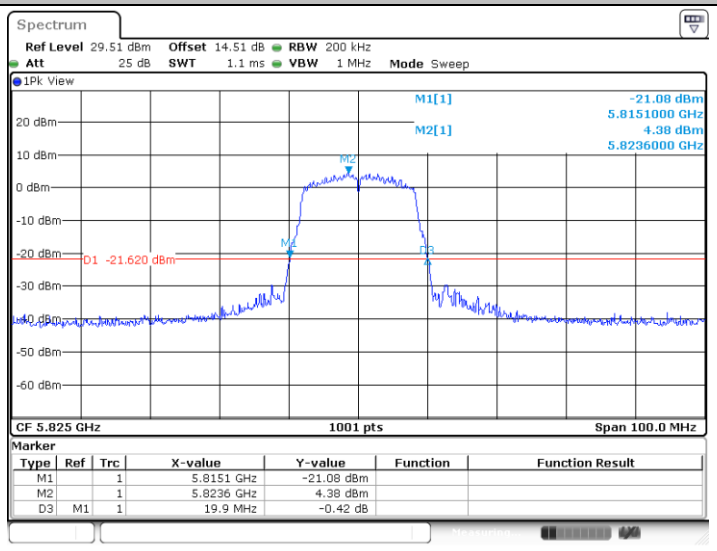

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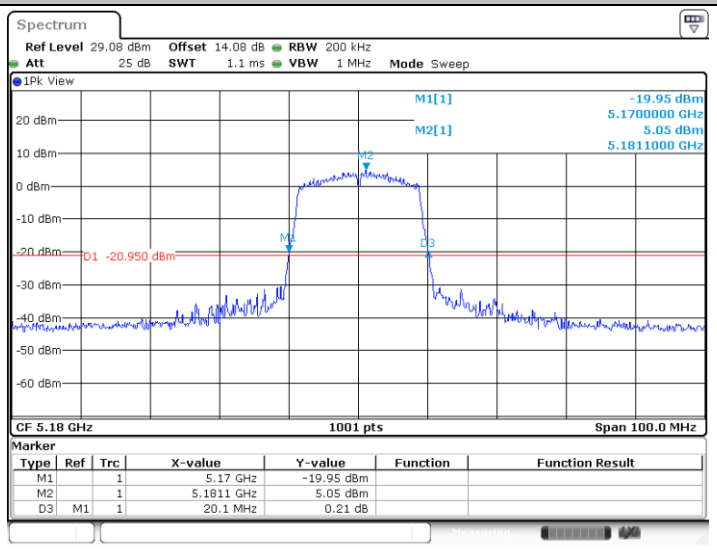

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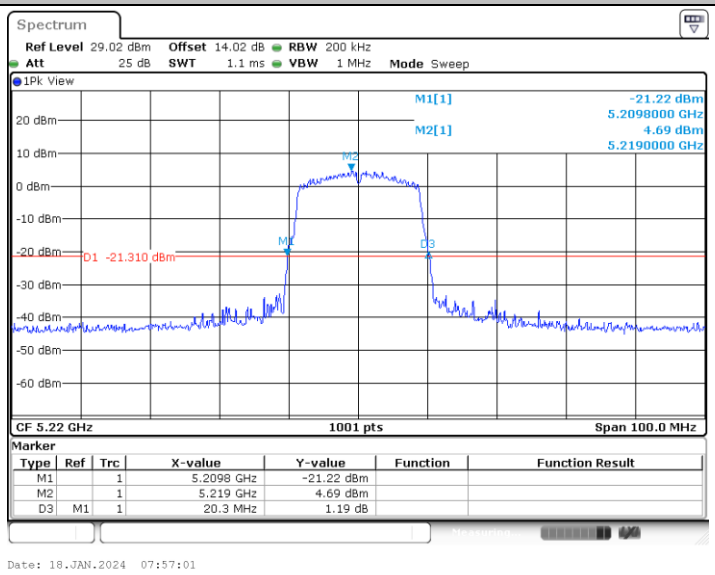

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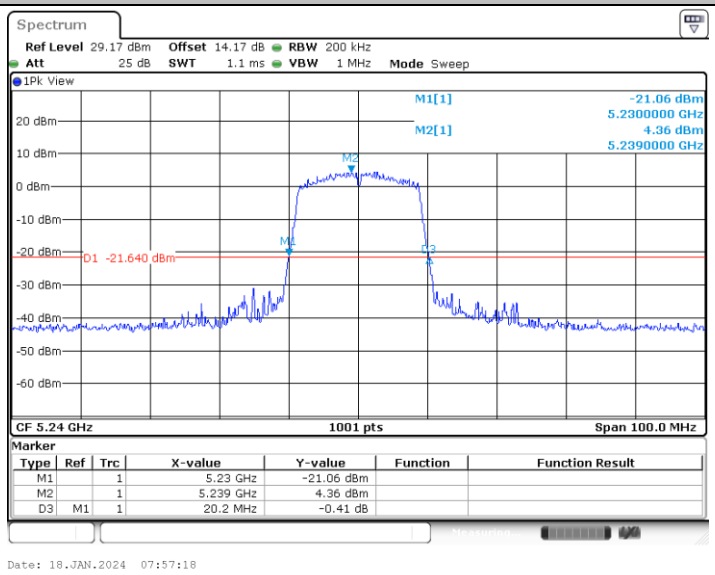

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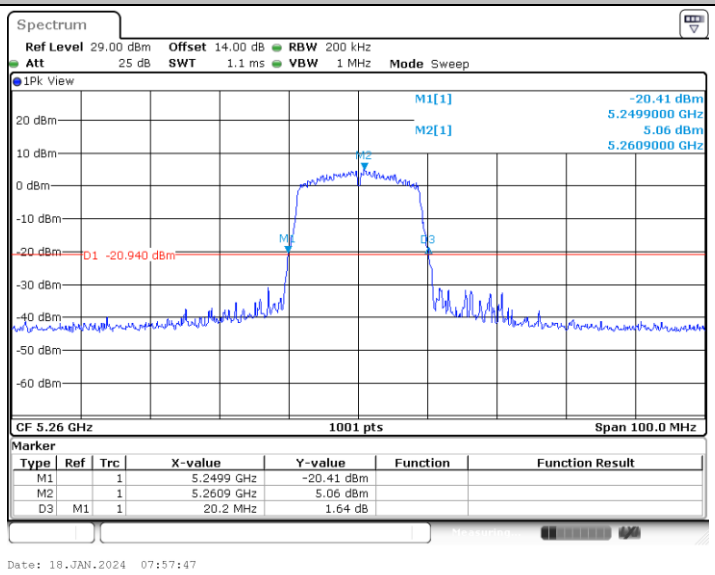

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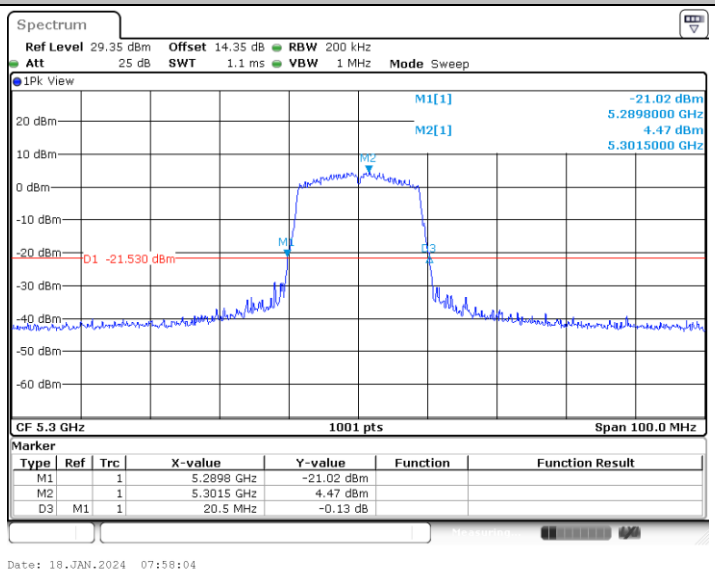

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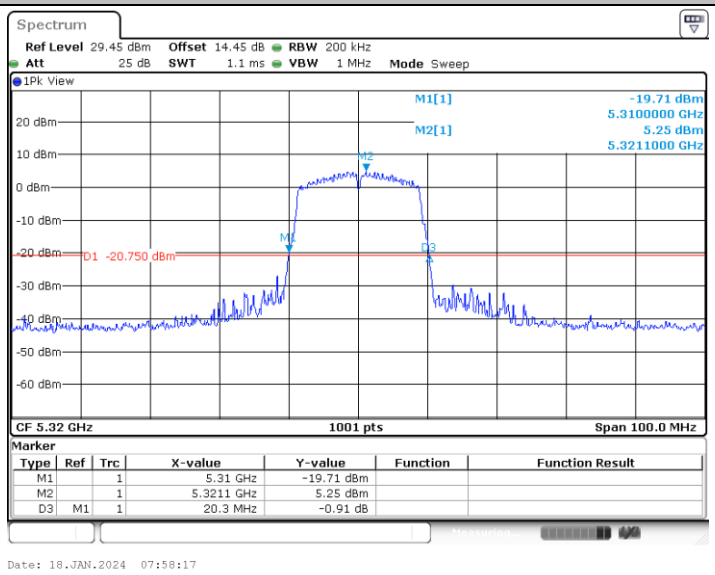

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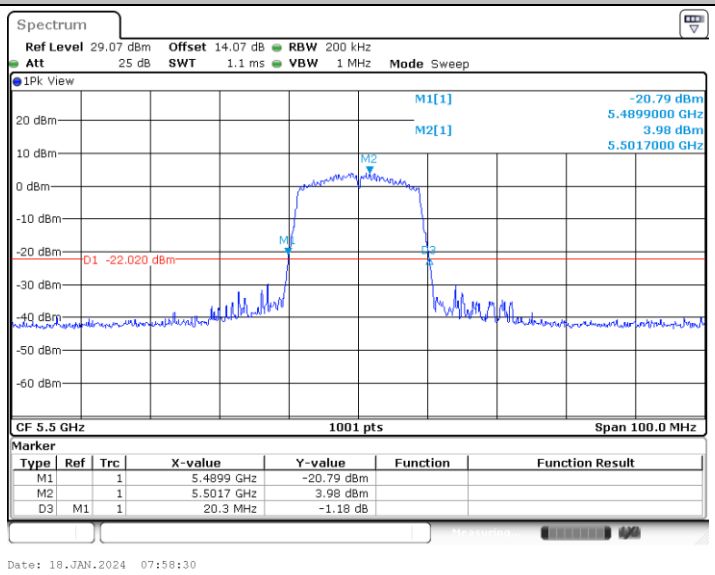

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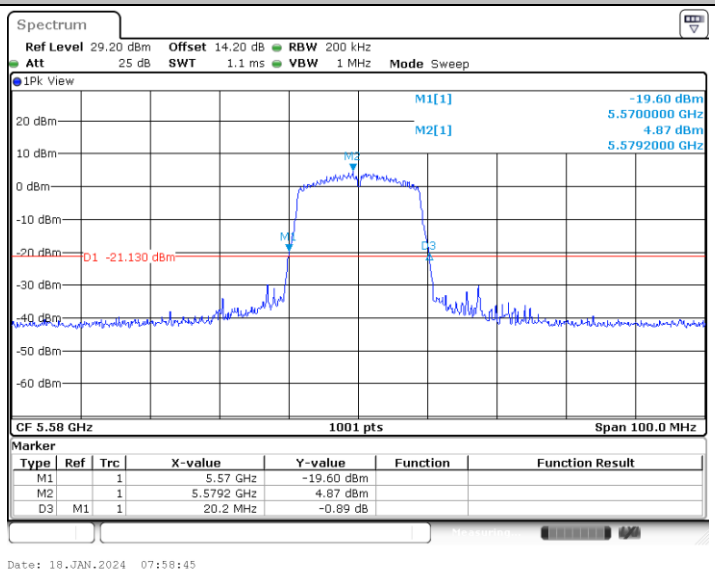

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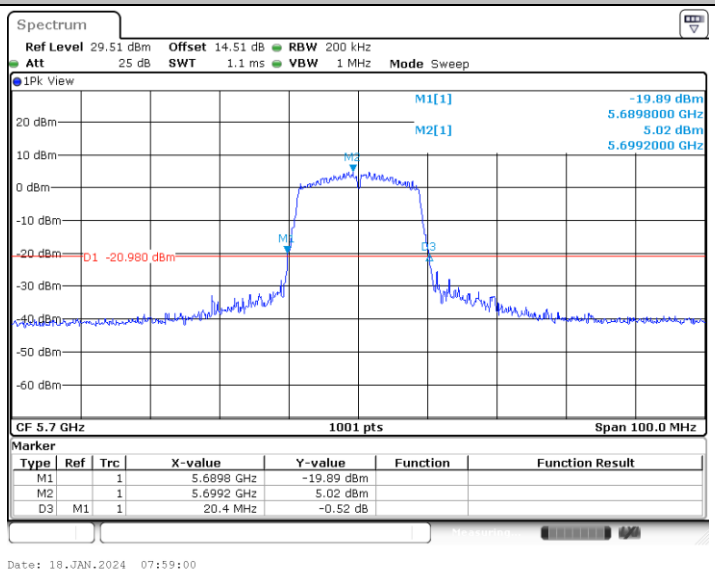

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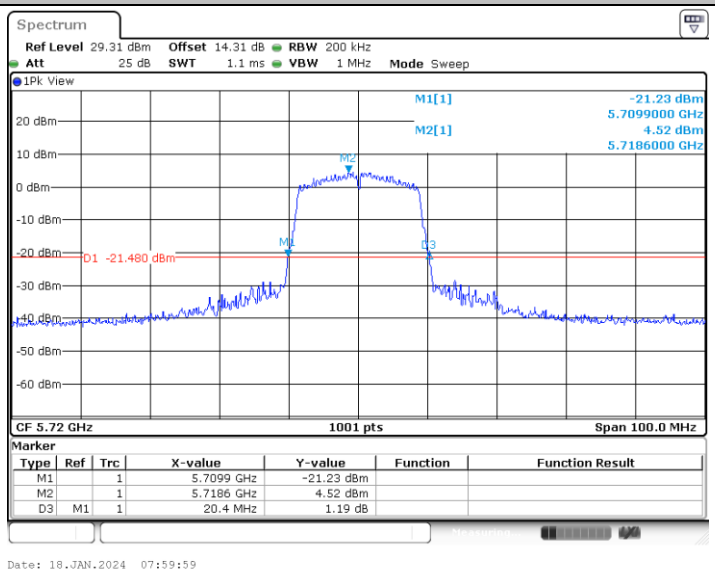

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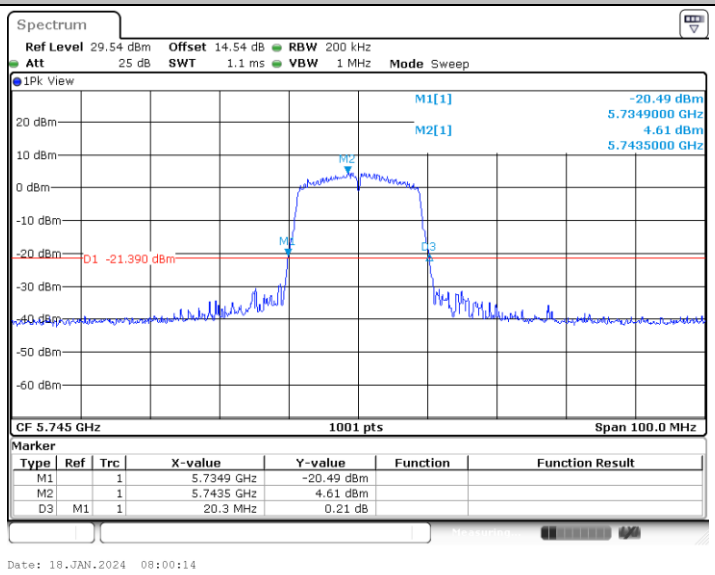

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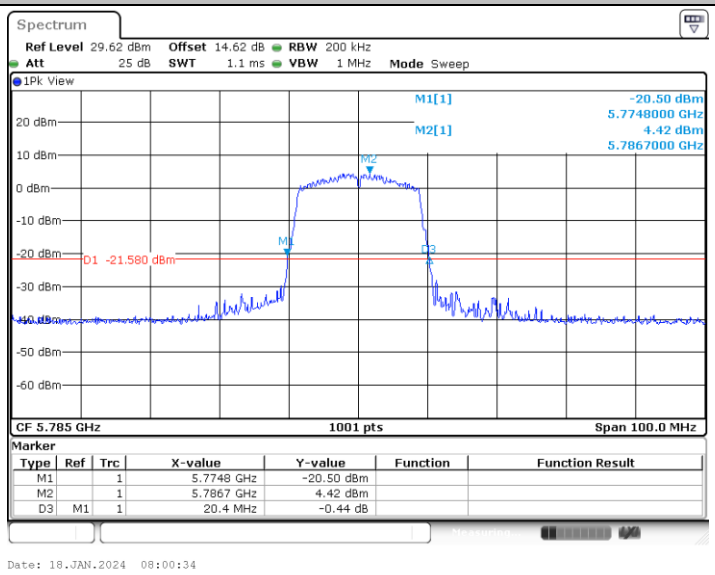

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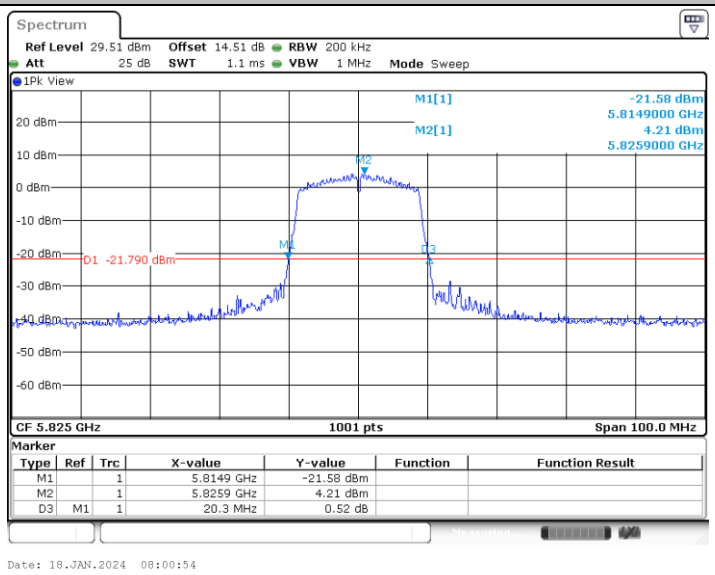

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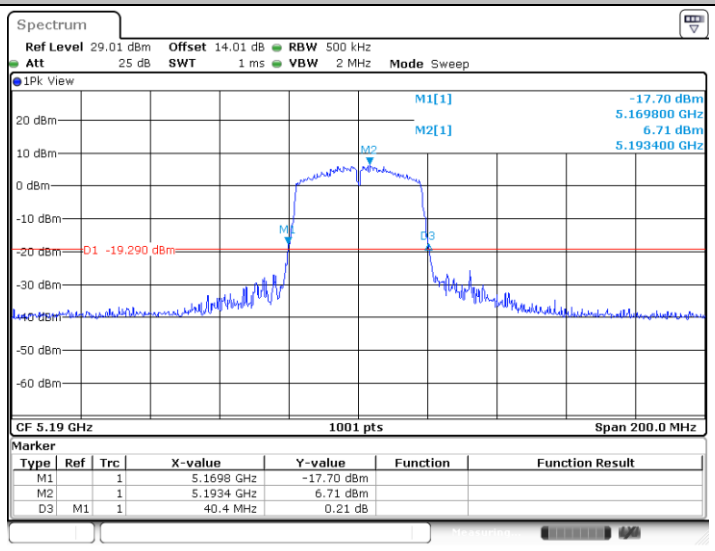

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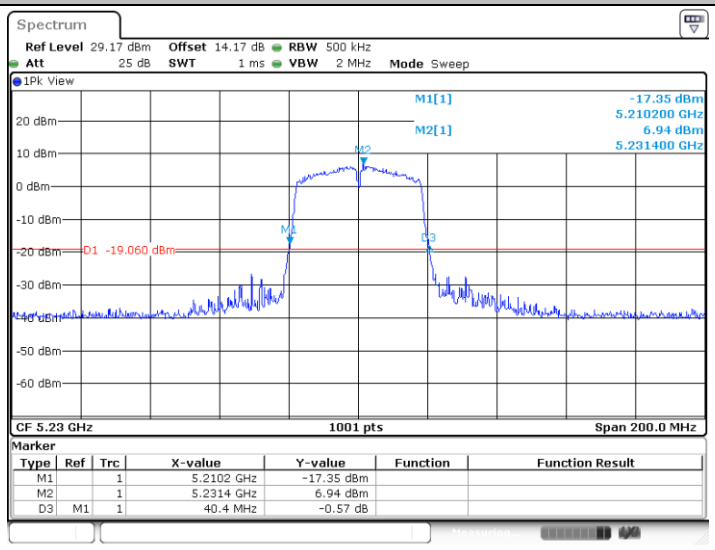

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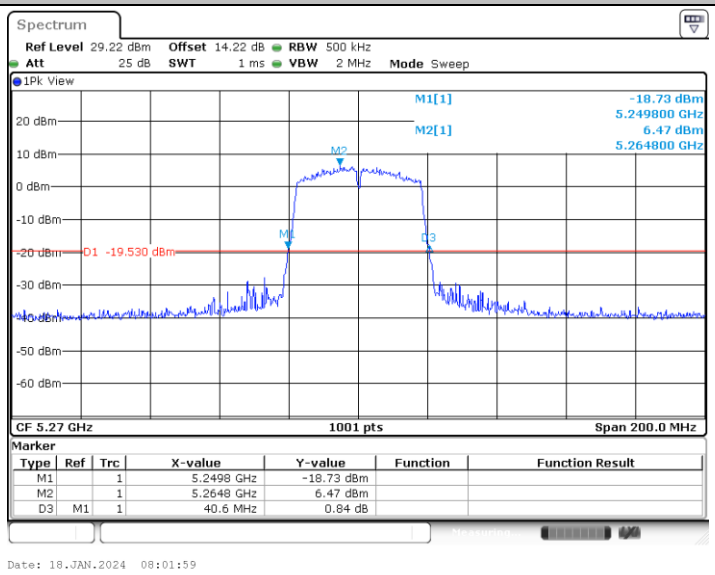

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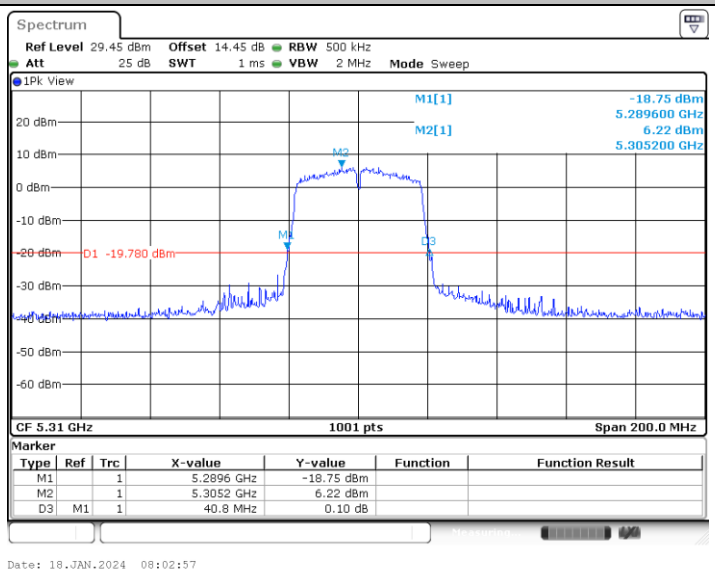

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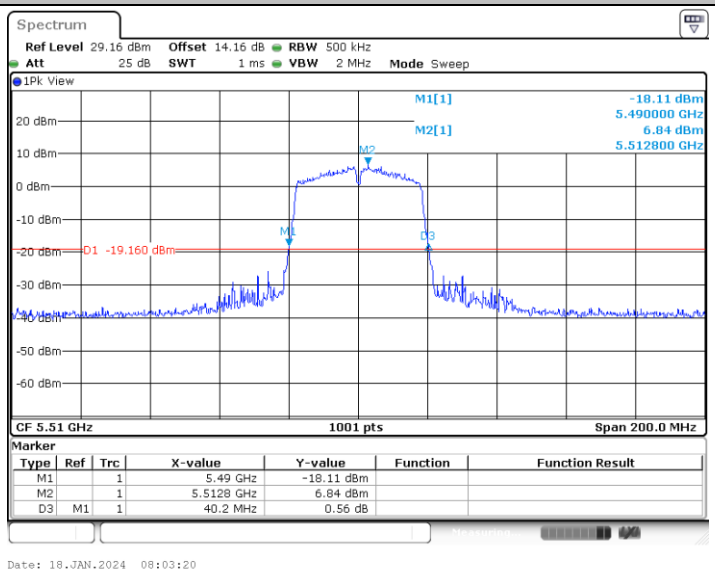

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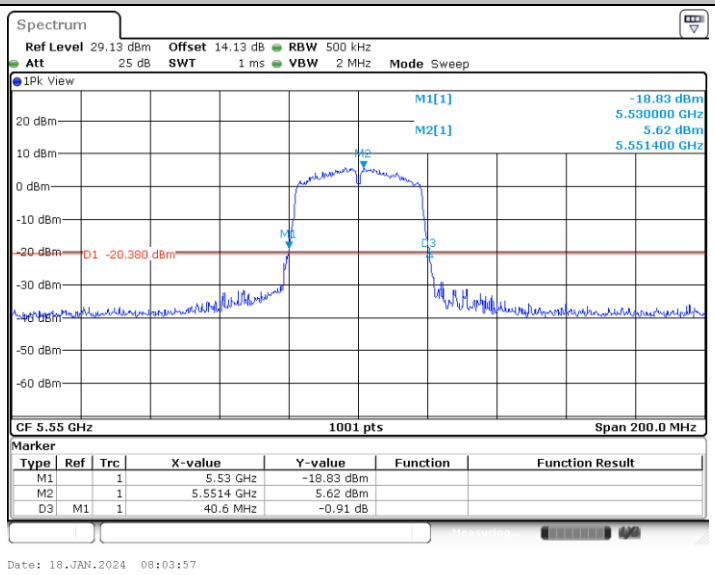

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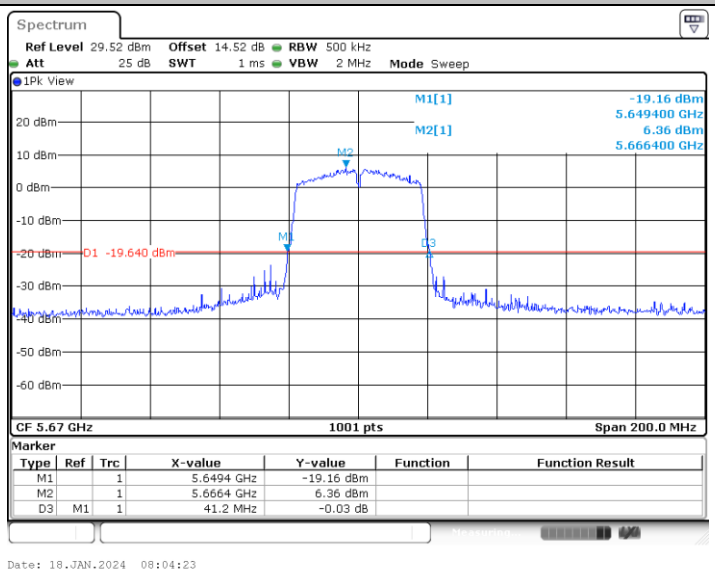

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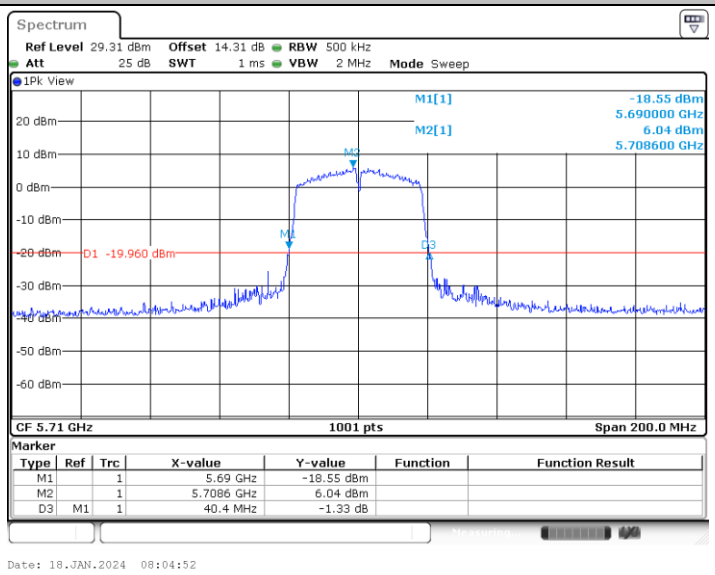

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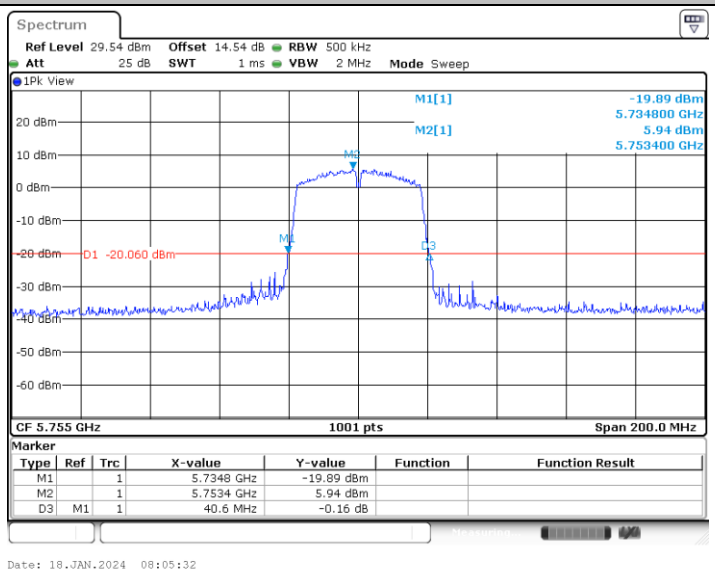

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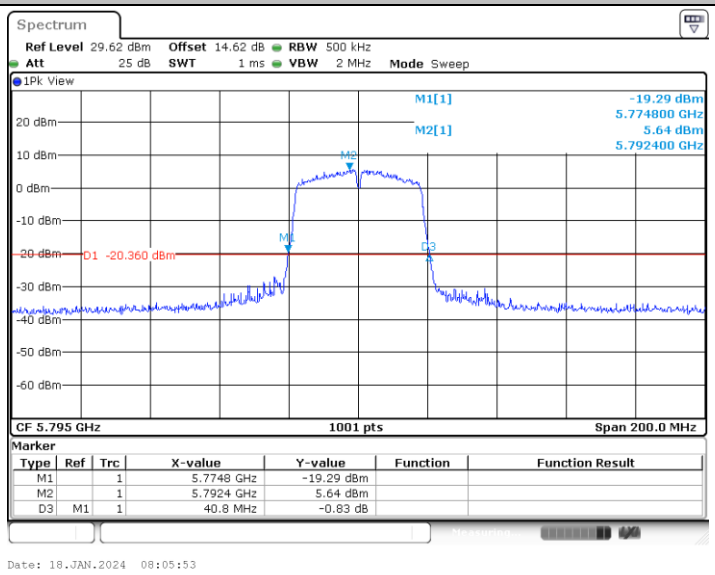

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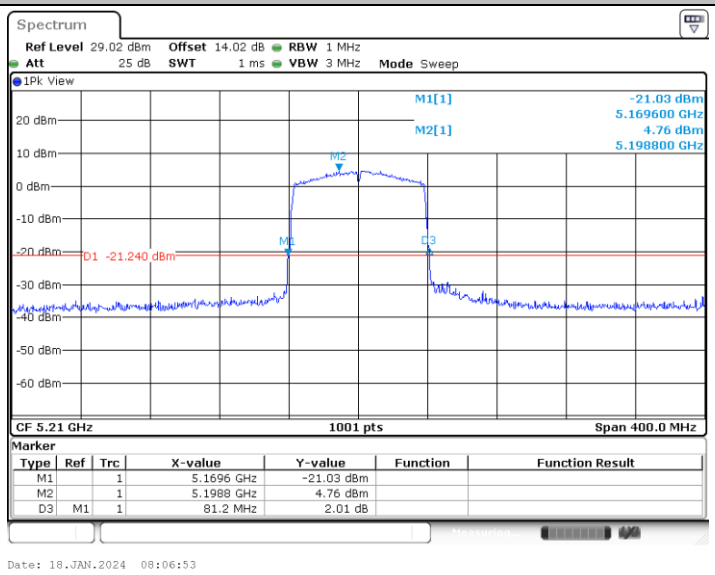

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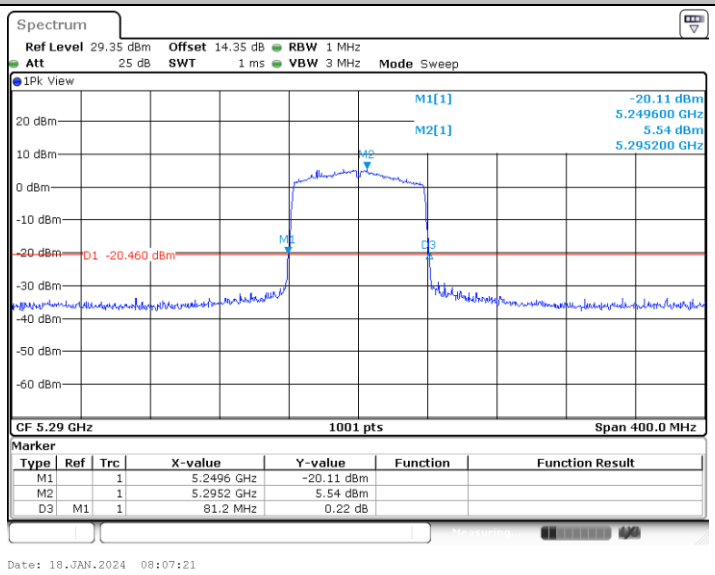

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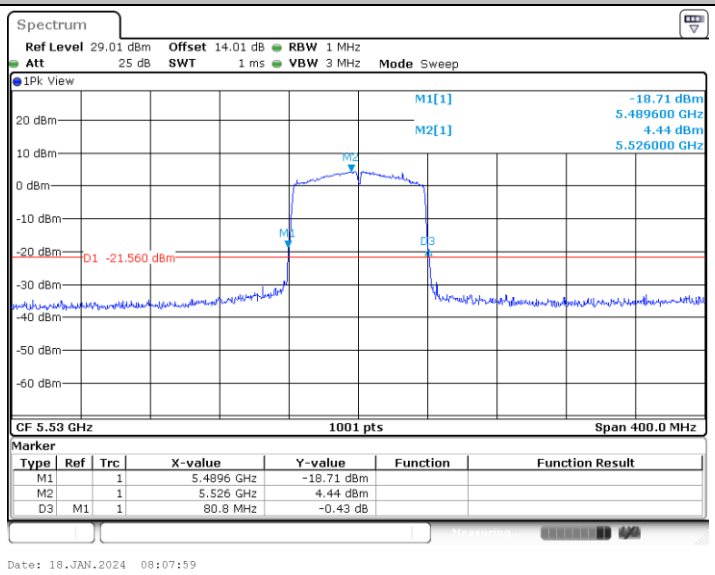

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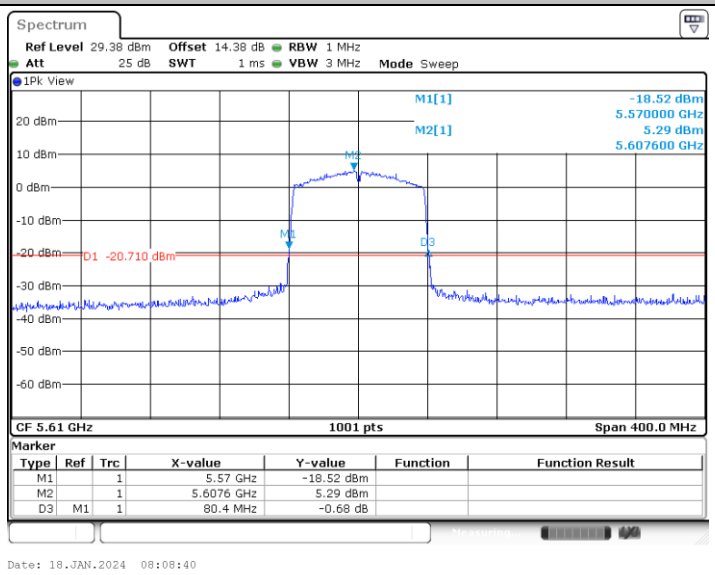

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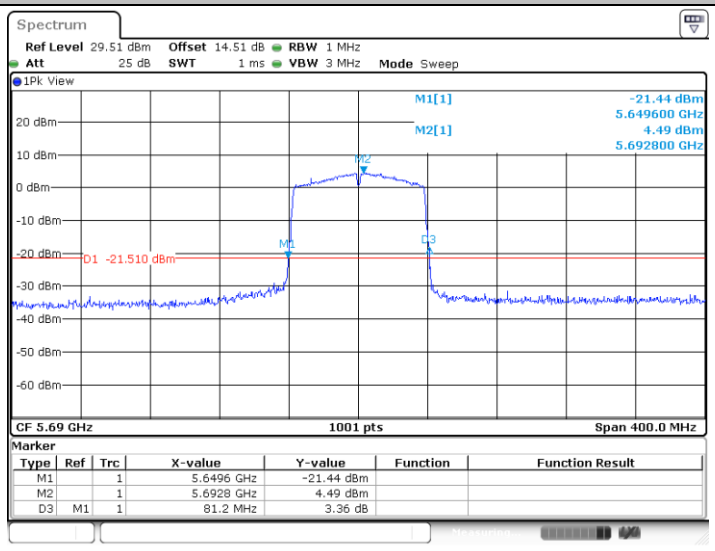

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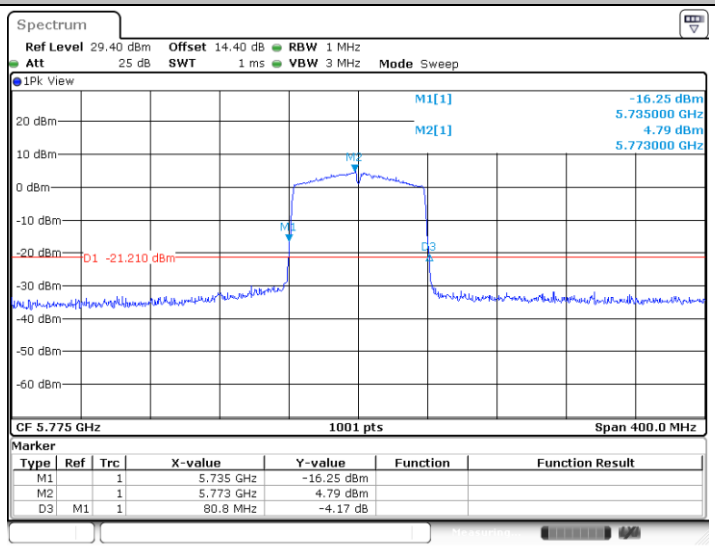


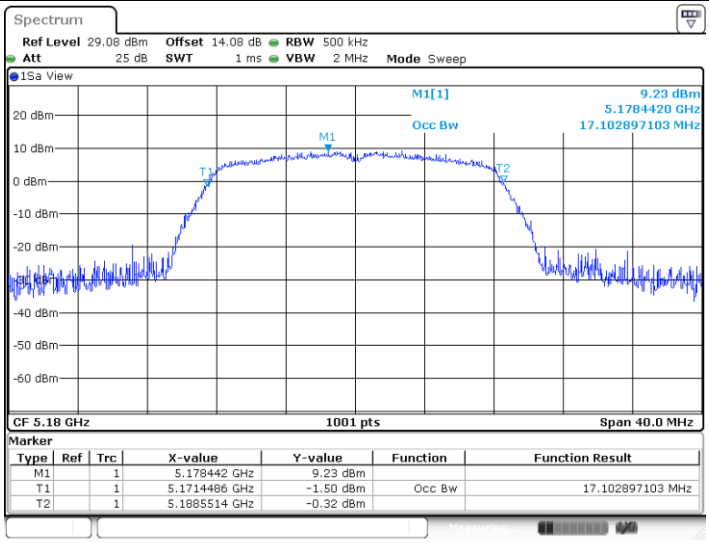
Occupied channel bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.103	5171.4486	5188.5514	---	---
		5220	17.183	5211.4086	5228.5914	---	---
		5240	17.223	5231.4086	5248.6314	---	---
		5260	17.103	5251.4486	5268.5514	---	---
		5300	17.103	5291.4486	5308.5514	---	---
		5320	17.143	5311.4486	5328.5914	---	---
		5500	16.663	5491.6484	5508.3117	---	---
		5580	17.143	5571.4486	5588.5914	---	---
		5700	17.103	5691.4885	5708.5914	---	---
		5720	17.143	5711.4486	5728.5914	---	---
		5745	17.143	5736.4086	5753.5514	---	---
		5785	17.143	5776.4086	5793.5514	---	---
		5825	17.183	5816.4086	5833.5914	---	---
11N20SISO	Ant1	5180	18.062	5170.9690	5189.0310	---	---
		5220	18.062	5210.9690	5229.0310	---	---
		5240	18.102	5230.9690	5249.0709	---	---
		5260	18.062	5250.9690	5269.0310	---	---
		5300	18.102	5290.9291	5309.0310	---	---
		5320	18.142	5310.9291	5329.0709	---	---
		5500	18.142	5490.9291	5509.0709	---	---
		5580	18.182	5570.8891	5589.0709	---	---
		5700	18.142	5690.9690	5709.1109	---	---
		5720	18.102	5710.9690	5729.0709	---	---
		5745	18.102	5735.9291	5754.0310	---	---
		5785	18.102	5775.9291	5794.0310	---	---
		5825	18.142	5815.8891	5834.0310	---	---
11N40SISO	Ant1	5190	36.364	5171.8581	5208.2218	---	---
		5230	36.444	5211.7782	5248.2218	---	---
		5270	36.364	5251.8581	5288.2218	---	---
		5310	36.364	5291.7782	5328.1419	---	---
		5510	36.523	5491.6983	5528.2218	---	---
		5550	36.364	5531.7782	5568.1419	---	---
		5670	36.523	5651.6983	5688.2218	---	---
		5710	36.444	5691.8581	5728.3017	---	---
		5755	36.444	5736.6983	5773.1419	---	---
		5795	36.523	5776.6983	5813.2218	---	---
11AC80SISO	Ant1	5210	75.445	5172.2777	5247.7223	---	---
		5290	75.604	5252.1179	5327.7223	---	---
		5530	75.604	5492.1179	5567.7223	---	---
		5610	75.285	5572.2777	5647.5624	---	---
		5690	75.445	5652.2777	5727.7223	---	---
		5775	75.445	5737.1179	5812.5624	---	---

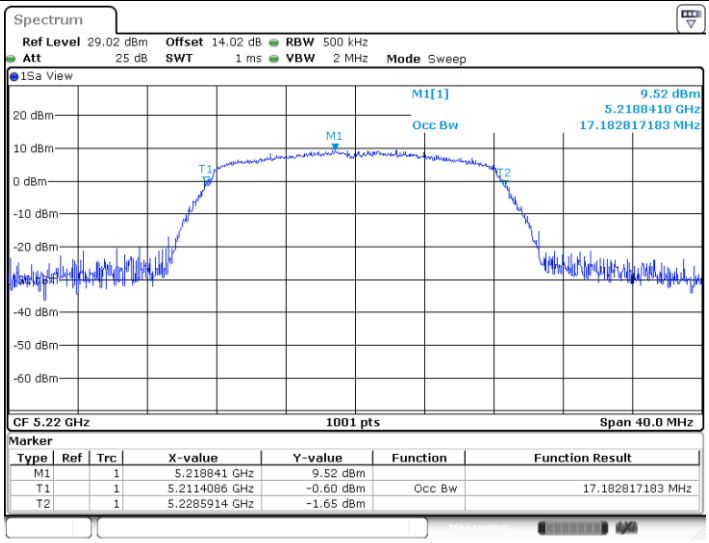
Test Graphs

11A_5180



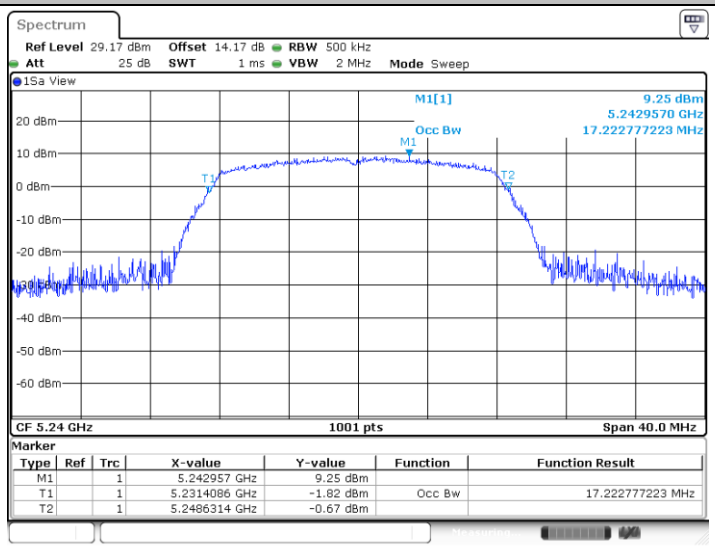
Date: 8.JAN.2024 23:58:18

11A_5220

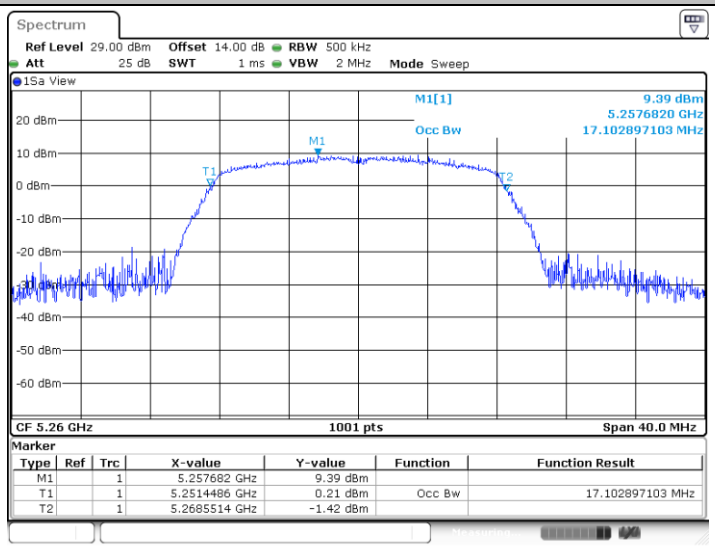


Date: 8.JAN.2024 23:59:26

11A_5240



11A_5260



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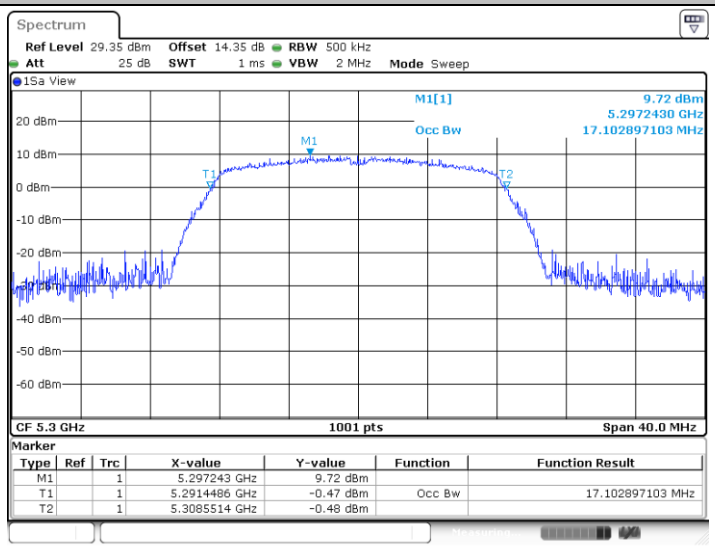

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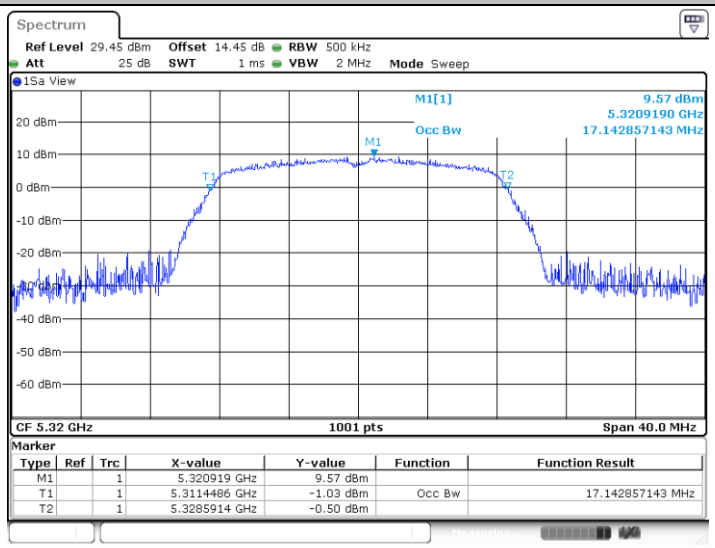

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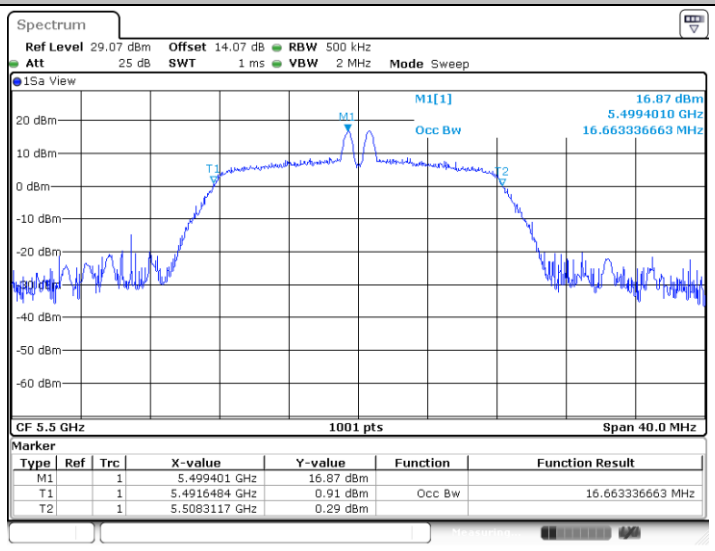

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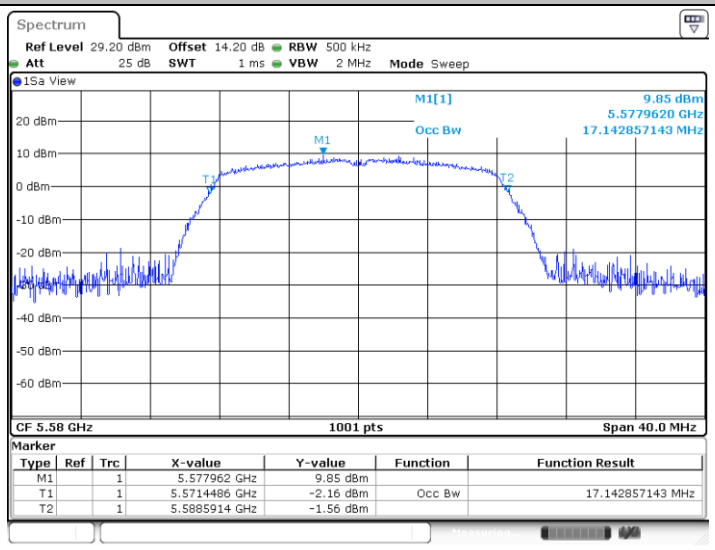
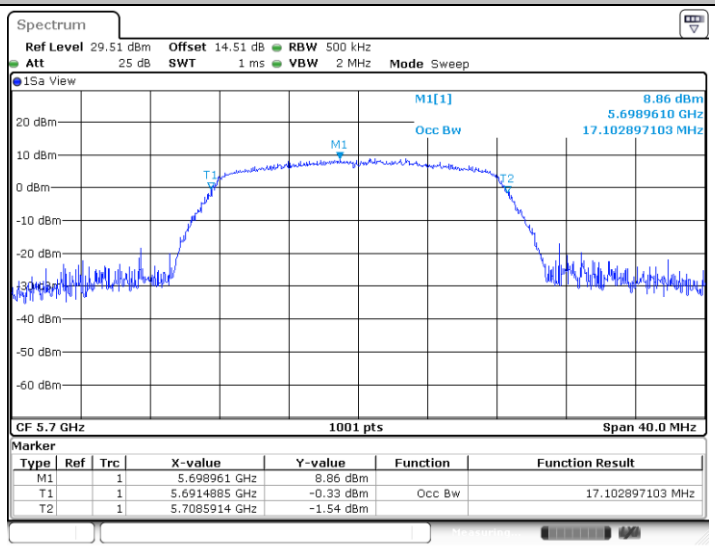


11A_5700



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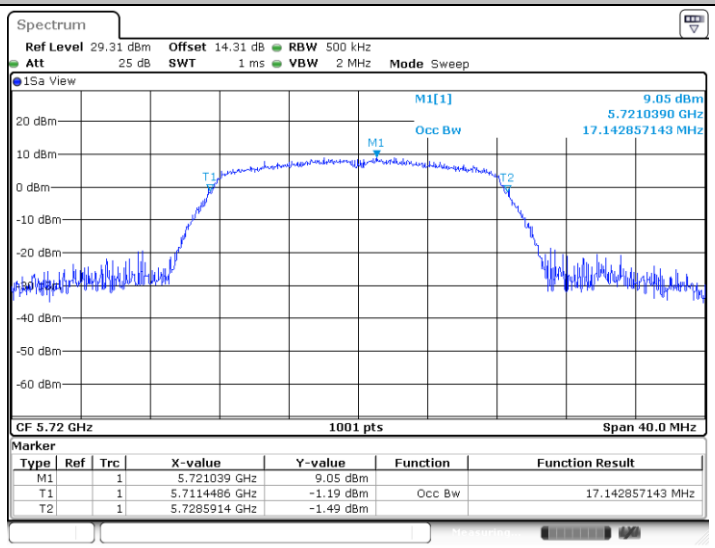

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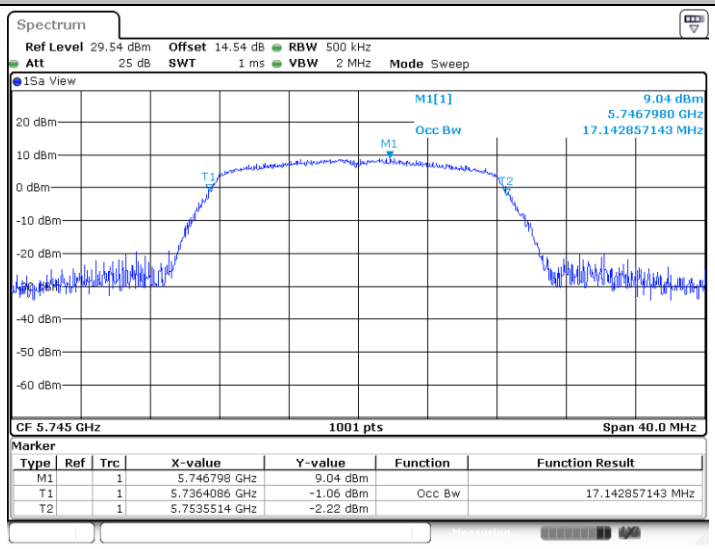

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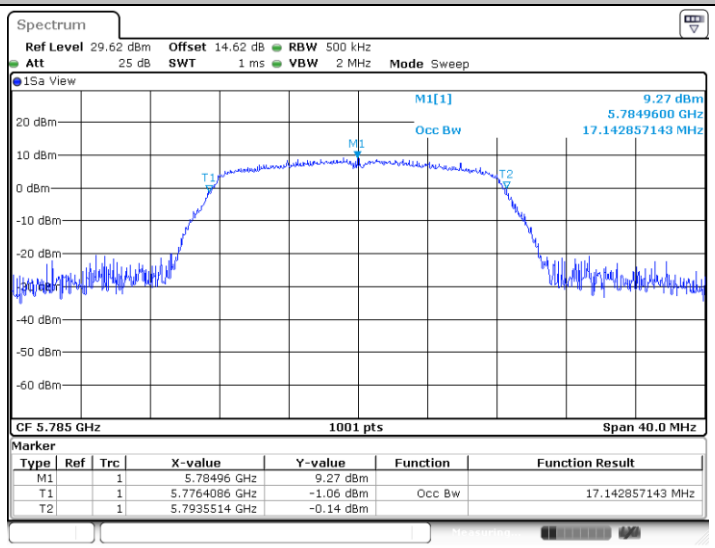

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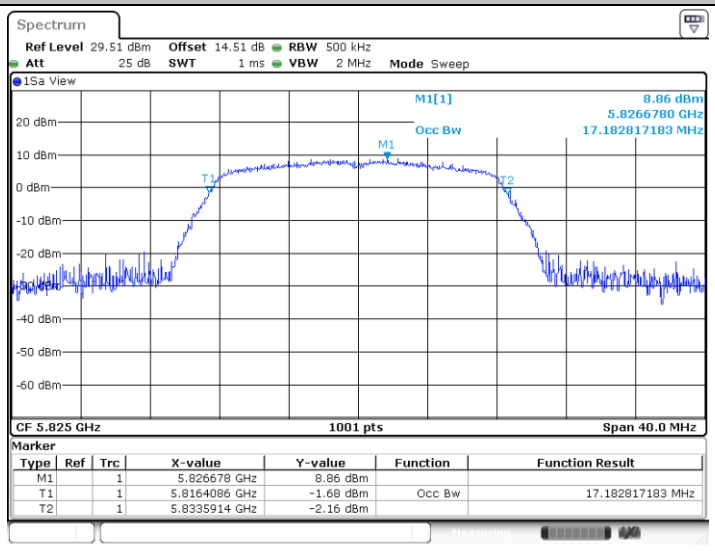

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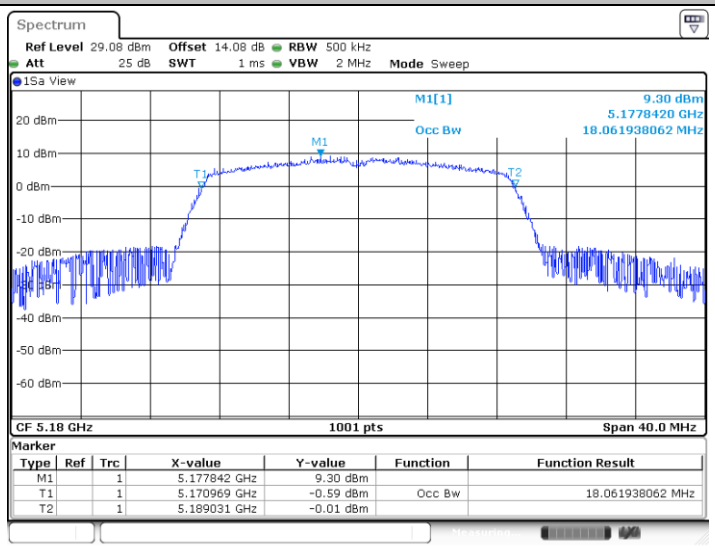

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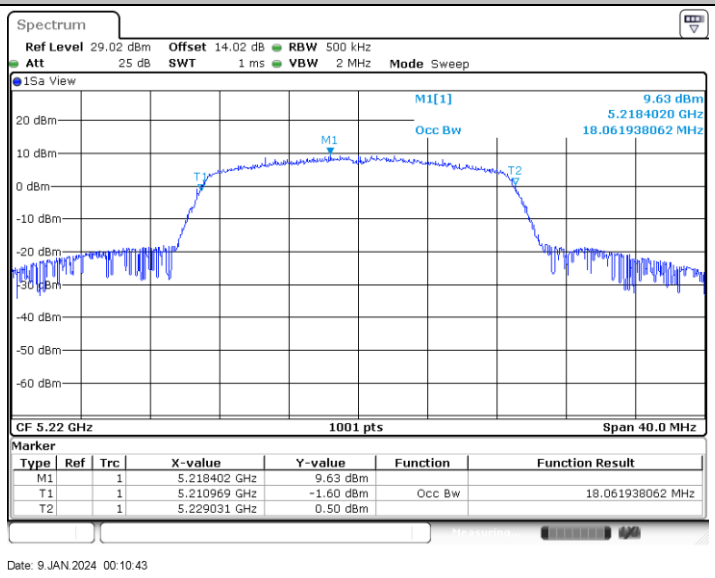

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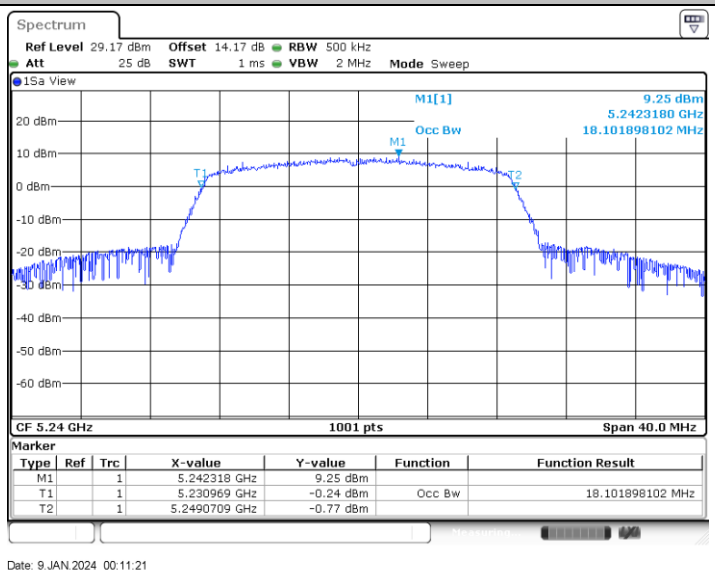

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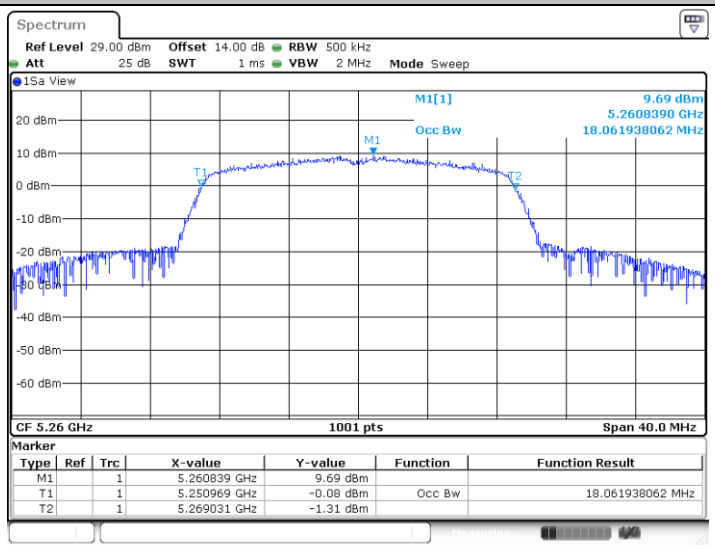

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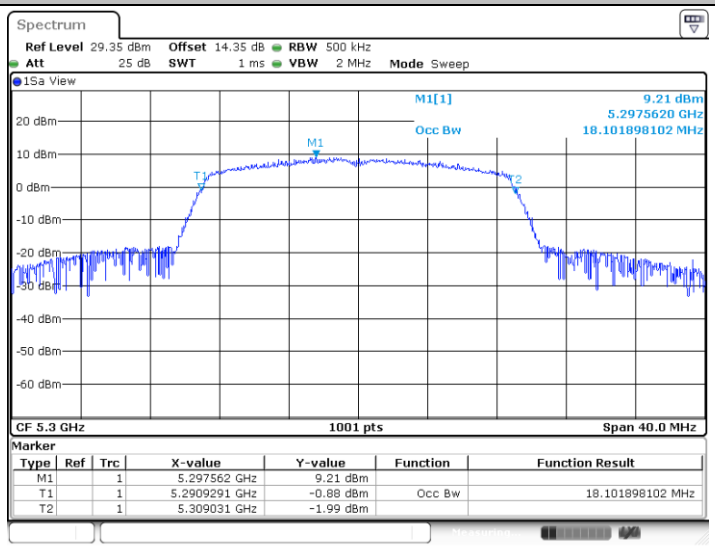

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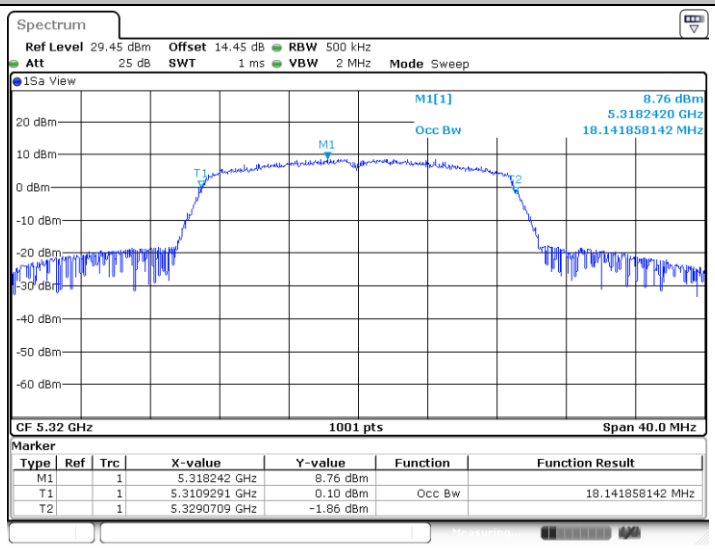

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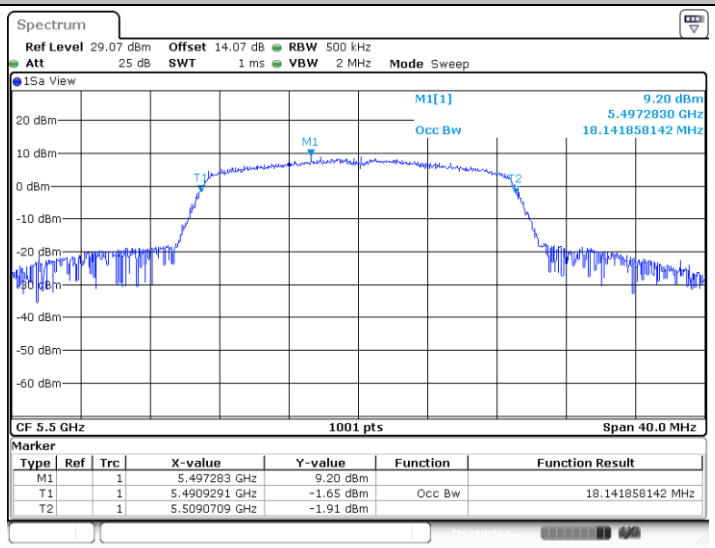

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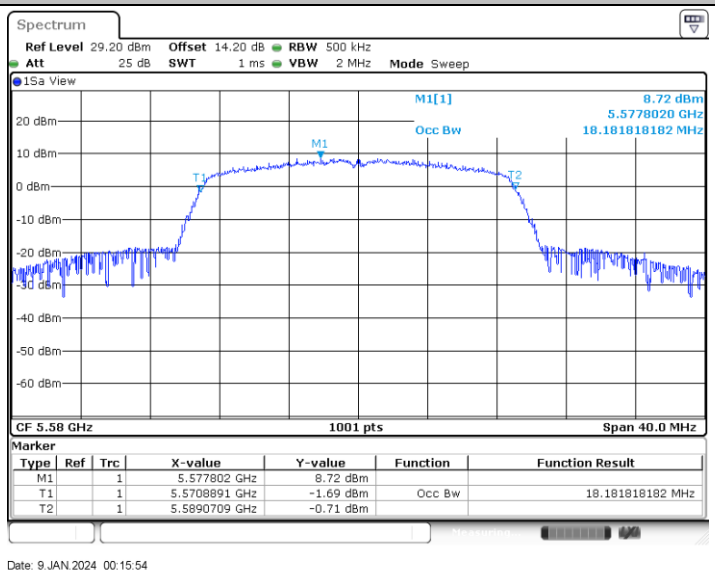

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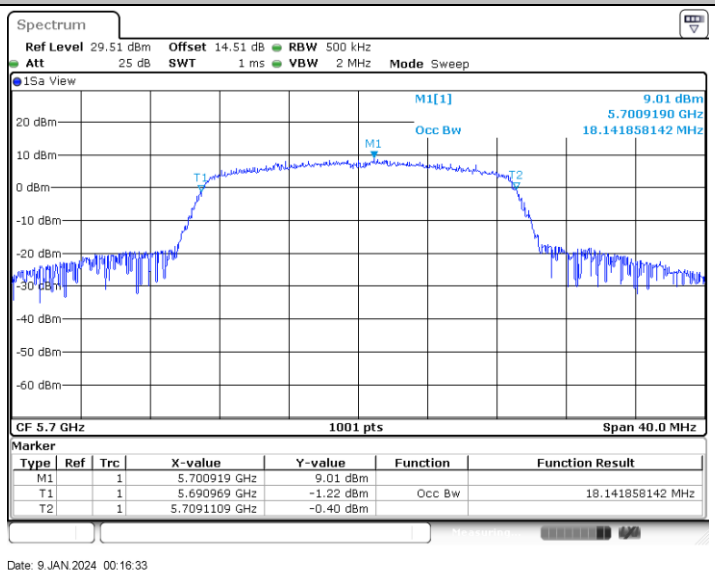

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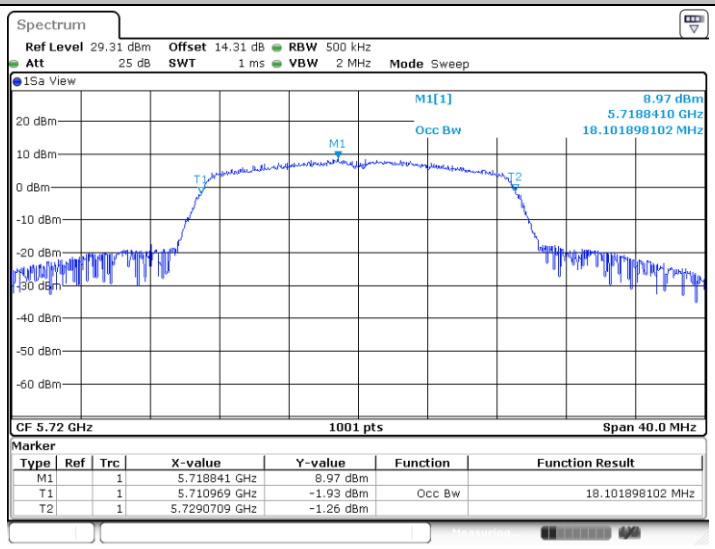

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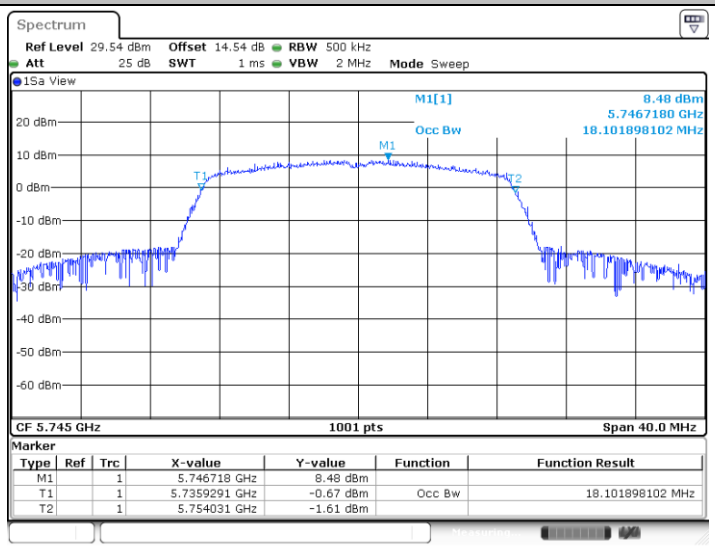

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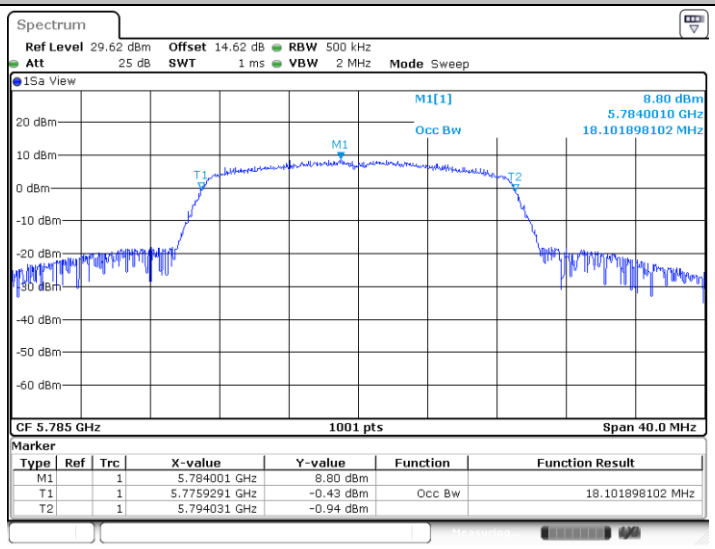

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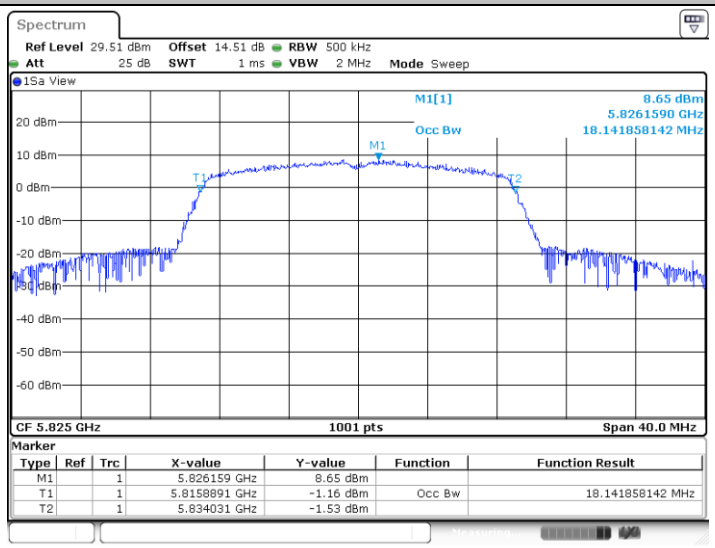

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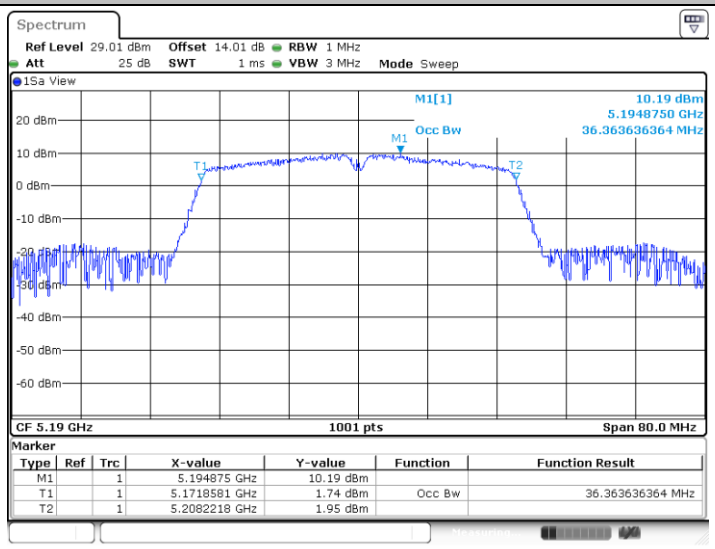

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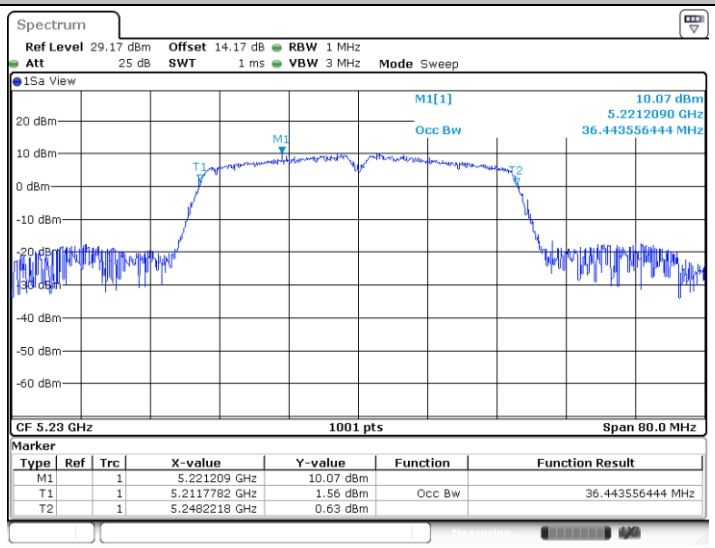

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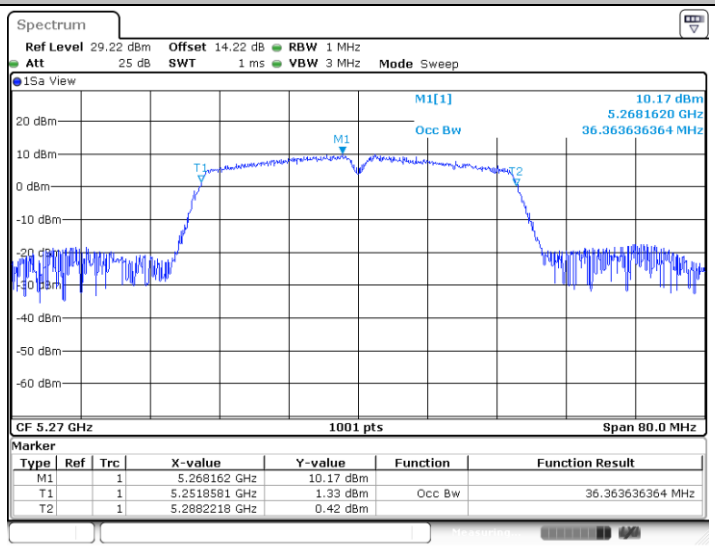

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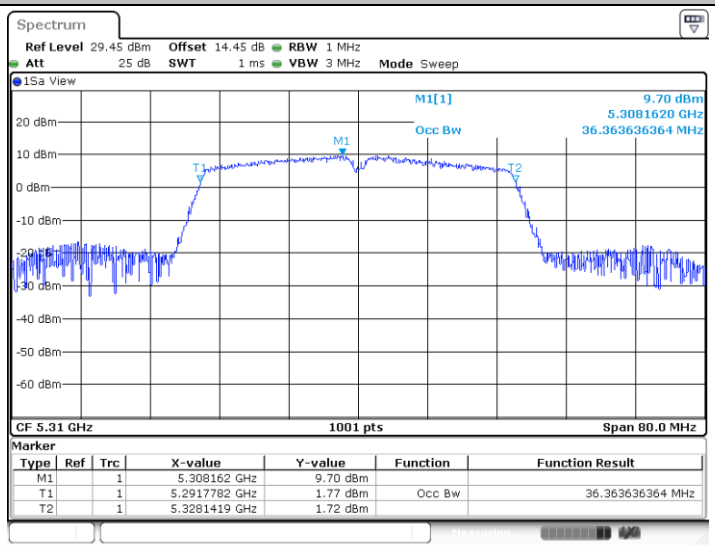

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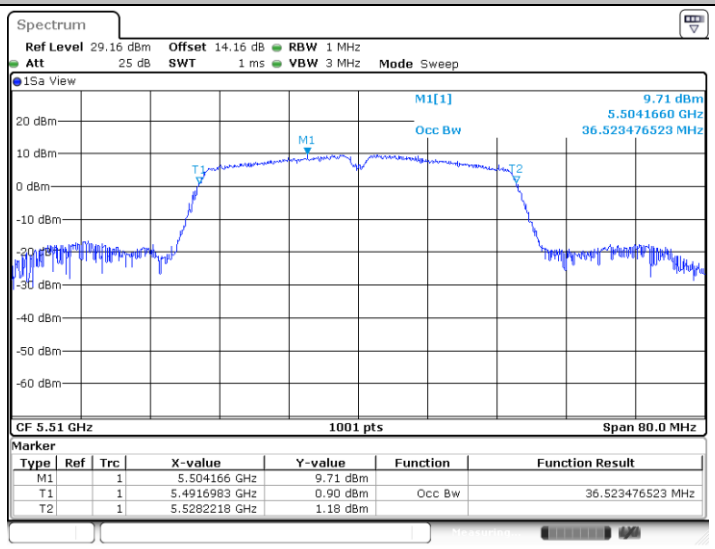

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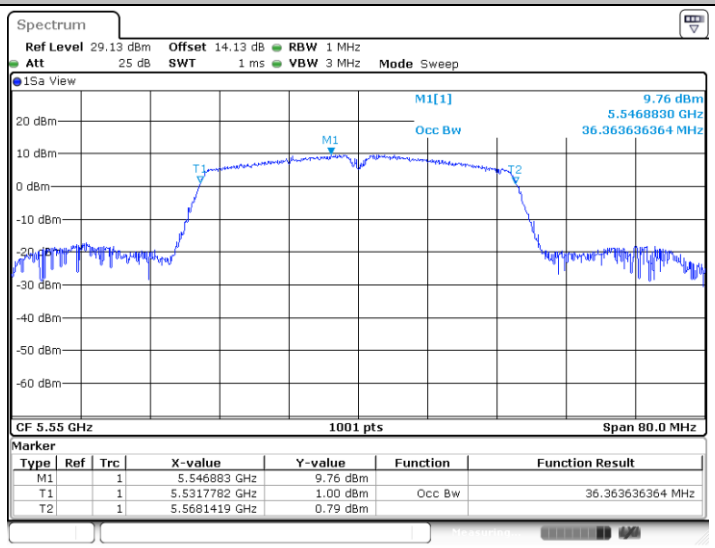

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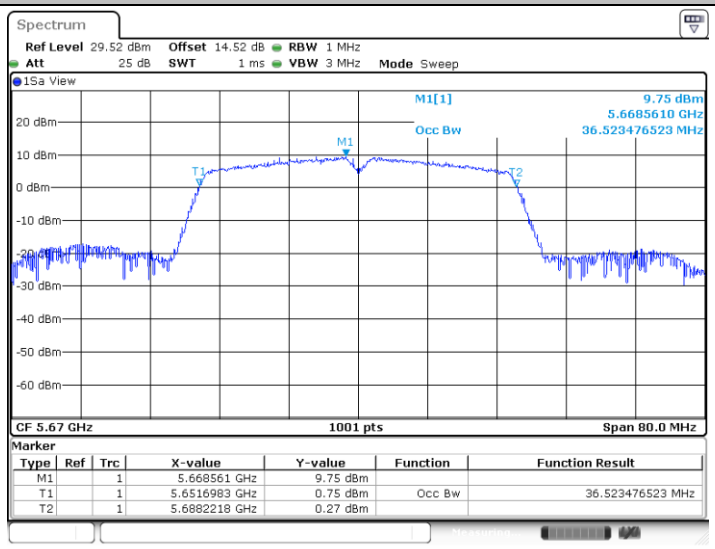

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