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Report Template Version: V05

Report Template Revision Date: 2018-07-06

Test Report

Report No.: CQASZ20250200348E-02
Applicant: Shenzhen Chengyisheng Electronics Co., Ltd
Address of Applicant: 1901, Block A, Building 1, Anhongji Xingyao Plaza, No. 32 Huaxing Road, Tongsheng Community, Dalang Street, Longhua District, Shenzhen
Equipment Under Test (EUT):
Product: WIRELESS SMART PORTABLE MONITOR
Model No.: D156, D185, D210, 156UC, 185UC, ASM-20
Teat Model No.: D156, D185, D210
Brand Name: N/A
FCC ID: 2BM35-V1
Standards: 47 CFR Part 15, Subpart E
KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Date of Receipt: 2025-02-25
Date of Test: 2025-02-25 to 2025-06-05
Date of Issue: 2025-06-05
Test Result: **PASS***

*In the configuration tested, the EUT complied with the standards specified above.

Tested By:

Lewis Zhou

(Lewis Zhou)

Reviewed By:

Timo Lei

(Timo Lei)

Approved By:

Jack Ai

(Jack Ai)



1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20250200348E-02	Rev.01	Initial report	2025-06-05

2 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15 Subpart C Section 15.203	ANSI C63.10-2013; KDB789033	PASS
AC Power Line Conducted Emission	47 CFR Part 15 Subpart E Section 15.207	ANSI C63.10-2013; KDB789033	PASS
Maximum Conducted Output Power	47 CFR Part 15 Subpart C Section 15.407 (a)	ANSI C63.10-2013; KDB789033	PASS
Emission Bandwidth	47 CFR Part 15 Subpart C Section 15.407 (a)(e)	ANSI C63.10-2013; KDB789033	PASS
Maximum Power Spectral Density	47 CFR Part 15 Subpart E Section 15.407 (a)	ANSI C63.10-2013; KDB789033	PASS
Band Edge Measurements	47 CFR Part 15 Subpart C Section 15.209 & 15.407(b)	ANSI C63.10-2013; KDB789033	PASS
Frequency stability	47 CFR Part 15 Subpart E Section 15.407 (g)	ANSI C63.10-2013; KDB789033	PASS
Operation in the absence of information to the transmit	47 CFR Part 15 Subpart E Section 15.407 (c)	47 CFR Part 15 Subpart E	PASS
Radiated Spurious Emissions	47 CFR Part 15 Subpart E Section 15.407 (b)	ANSI C63.10-2013; KDB789033	PASS

Remark:

The tested sample(s) and the sample information are provided by the client.

Tx: In this whole report Tx (or tx) means Transmitter.

Rx: In this whole report Rx (or rx) means Receiver.

RF: In this whole report RF means Radiated Frequency.

CH: In this whole report CH means channel.

Volt: In this whole report Volt means Voltage.

Temp: In this whole report Temp means Temperature.

Humid: In this whole report Humid means humidity.

Press: In this whole report Press means Pressure.

N/A: In this whole report not application

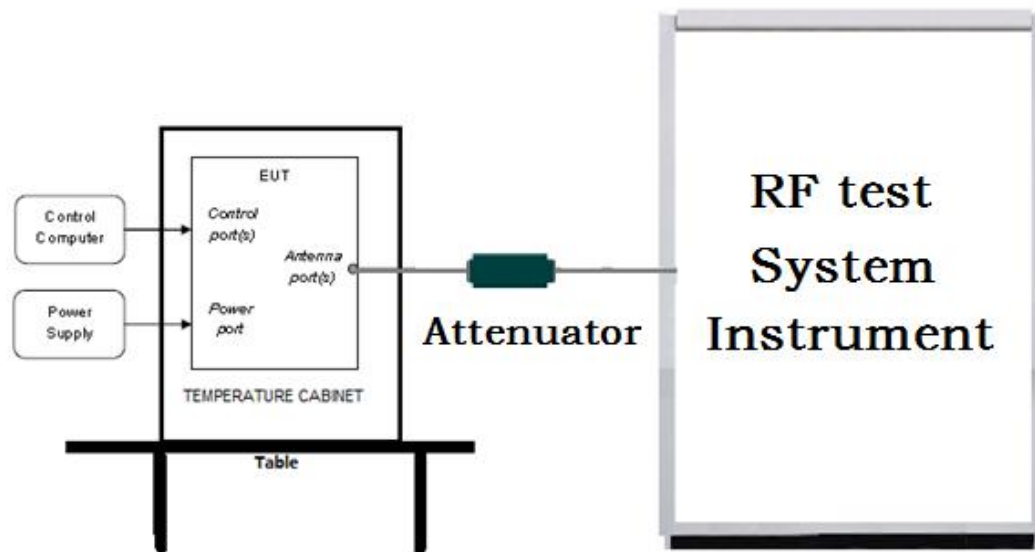
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4 Test Requirement

4.1 Test setup

4.1.1 For Conducted test setup



4.1.2 For Radiated Emissions test setup

Radiated Emissions setup:

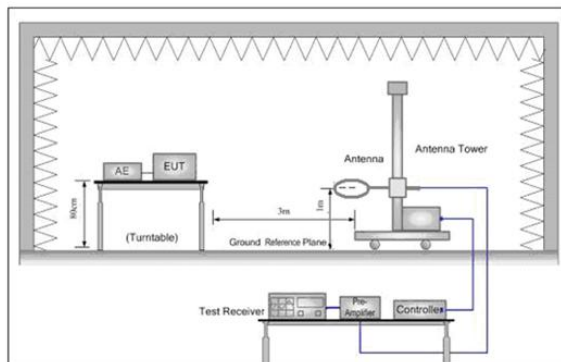


Figure 1. Below 30MHz

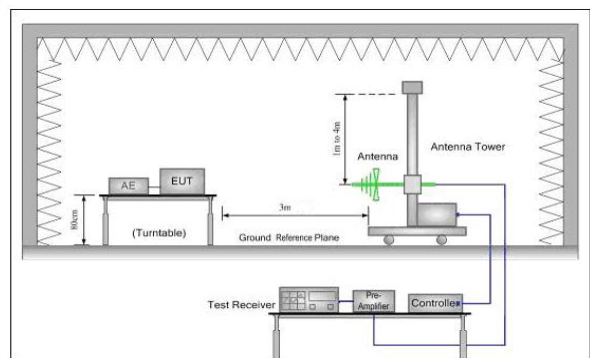


Figure 2. 30MHz to 1GHz

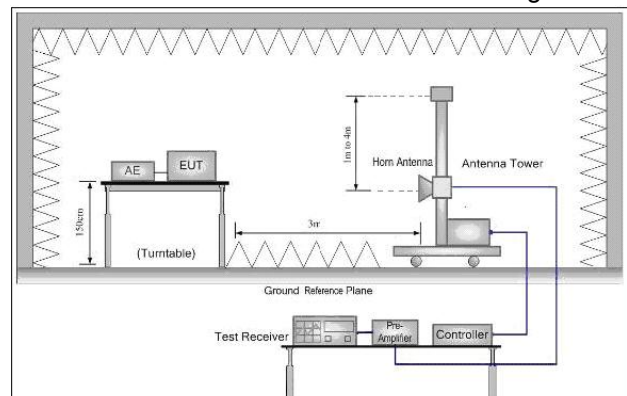
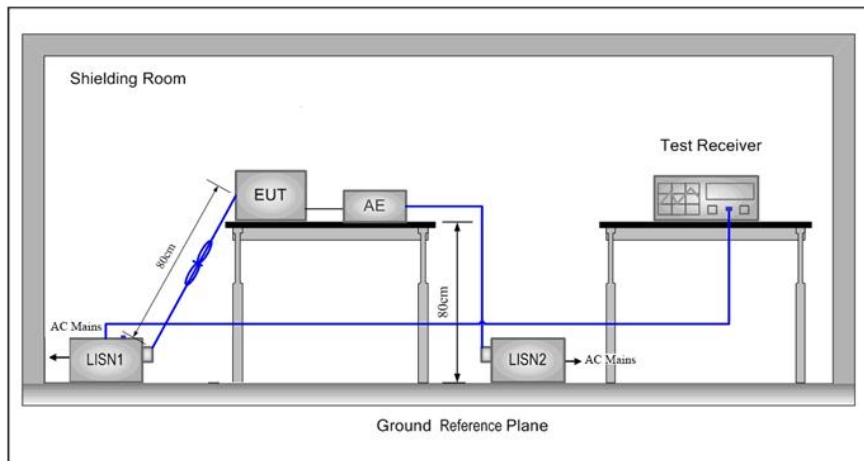


Figure 3. Above 1GHz

4.1.3 For Conducted Emissions test setup

Conducted Emissions setup



4.2 Test Environment

Operating Environment:		
Conducted Emissions:		
Temperature:	25.6 °C	
Humidity:	60 % RH	
Atmospheric Pressure:	1009 mbar	
Radiated Emissions:		
Temperature:	25.5 °C	
Humidity:	54 % RH	
Atmospheric Pressure:	1009mbar	
Radio conducted item test (RF Conducted test room):		
Temperature:	25.3 °C	
Humidity:	50 % RH	
Atmospheric Pressure:	1009 mbar	
Test Condition	Temperature (°C)	Voltage (V)
TN/VN	+15 to +35	12
TL/VL	-30	10.8
TH/VL	50	10.8
TL/VH	-30	13.2
TH/VH	50	13.2

Remark:

1)The EUT just work in such extreme temperature of -30 °C to 50 °C and the extreme voltage of 6.84V to 8.36V, so here the EUT is tested in the temperature of -30 °C to 50 °C and the voltage of 6.84V to 8.36V.

2)VN: Normal Voltage; TN: Normal Temperature;

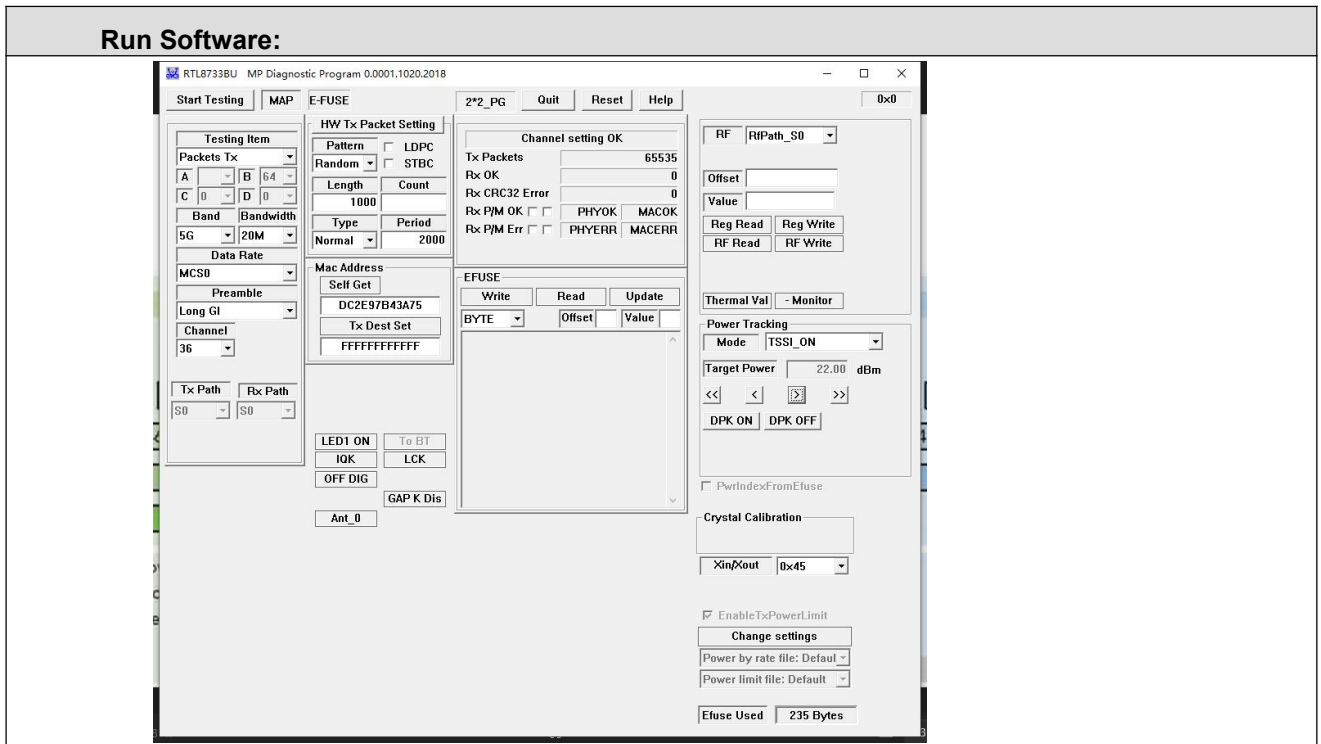
TL: Low Extreme Test Temperature; TH: High Extreme Test Temperature;

VL : Low Extreme Test Voltage; VH: High Extreme Test Voltage.

4.3 Test Condition

Test channel:

Test Mode	Tx/Rx	RF Channel		
		Low(L)	Middle(M)	High(H)
802.11a/n(20M)	5150MHz ~5250 MHz	Channel 36	Channel 40	Channel 48
		5180MHz	5200MHz	5240MHz
802.11n(40M)	5150MHz ~5250 MHz	Channel 38	N/A	Channel 46
		5190MHz	N/A	5230MHz
802.11a/n(20M)	5250MHz ~5350 MHz	Channel 52	Channel 56	Channel 64
		5260MHz	5280MHz	5320MHz
802.11n(40M)	5250MHz ~5350 MHz	Channel 54	N/A	Channel 62
		5270MHz	N/A	5310MHz
802.11a/n(20M)	5470MHz ~5725 MHz	Channel 100	Channel 116	Channel 140
		5500MHz	5580MHz	5700MHz
802.11n(40M)	5470MHz ~5725 MHz	Channel 102	Channel 110	Channel 134
		5510MHz	5550MHz	5670MHz
802.11a/n(20M)	5725MHz ~5850 MHz	Channel 149	Channel 157	Channel 165
		5745MHz	5785MHz	5825MHz
802.11n(40M)	5725MHz ~5850 MHz	Channel 151	N/A	Channel 159
		5755MHz	N/A	5795MHz



Test mode:

Pre-scan under all rate at lowest channel for Ant1

Through Pre-scan, 6Mbps is the worst case of 802.11a (20M); MCS0 is the worst case of 802.11n (20M); MCS0 is the worst case of 802.11n(40M)

5 General Information

5.1 Client Information

Applicant:	Shenzhen Chengyisheng Electronics Co., Ltd
Address of Applicant:	1901, Block A, Building 1, Anhongji Xingyao Plaza, No. 32 Huaxing Road, Tongsheng Community, Dalang Street, Longhua District, Shenzhen
Manufacturer:	Shenzhen Chengyisheng Electronics Co., Ltd
Address of Manufacturer:	1901, Block A, Building 1, Anhongji Xingyao Plaza, No. 32 Huaxing Road, Tongsheng Community, Dalang Street, Longhua District, Shenzhen
Factory:	Huizhou Chengyisheng Electronics Co., Ltd
Address of Factory:	5th Floor, Building 19 and 6th Floor, Buildings 19-20, No.8 Renluoliu Road, Shuikou Street, Huicheng District, Huizhou City 516055

5.2 General Description of EUT

Product Name:	WIRELESS SMART PORTABLE MONITOR
Model No.:	D156, D185, D210, 156UC, 185UC, ASM-20
Test Model No.:	D156, D185, D210
Trade Mark:	N/A
Software Version:	HC16D3000V20-2502270834
Hardware Version:	CYS-WD-2K-LVDS-V1.11
EUT Power Supply:	Power supply DC12V form adapter
EUT Supports Radios application:	U-NII-1: 5.15-5.25GHz; U-NII-2a: 5.25-5.35GHz U-NII-2c: 5.47-5.725GHz; U-NII-3: 5.725-5.850GHz
EUT Type:	Client devices

5.3 Product Specification subjective to this standard

Operation Frequency:	IEEE 802.11a/n(20M): 5150MHz ~5250 MHz IEEE802.11n(40M): 5150MHz ~5250 MHz IEEE 802.11a/n(20M): 5250MHz ~5350 MHz IEEE802.11n(40M): 5250MHz ~5350 MHz IEEE 802.11a/n(20M): 5470MHz ~5725 MHz IEEE802.11n(40M): 5470MHz ~5725 MHz IEEE 802.11a/n(20M): 5725MHz ~5850 MHz IEEE802.11n(40M): 5725MHz ~5850 MHz
Channel Numbers:	IEEE 802.11a/n(20M): 5150MHz ~5250MHz/ 4 channel IEEE 802.11n(40M): 5150MHz ~5250MHz/ 2 channel IEEE 802.11a/n(20M): 5250MHz ~5350MHz/ 4 channel IEEE 802.11n(40M): 5250MHz ~5350MHz/ 2 channel IEEE 802.11a/n(20M): 5470MHz ~5725MHz/ 8 channel IEEE 802.11n(40M): 5470MHz ~5725MHz/ 3 channel IEEE 802.11a/n(20M): 5725MHz ~5850MHz/ 5 channel IEEE 802.11n(40M): 5725MHz ~5850MHz/ 2 channel
Type of Modulation:	OFDM
Sample Type:	☒ Mobile ☐ Portable
Test Software of EUT:	RTL8733BU
Antenna Type:	FPC antenna
Antenna gain:	2.69dBi
Cable loss:	1.0 dB

Operation Frequency each of channel

(U-NII-1) 5180MHz-5240MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	36	5180	40	5200
	44	5220	48	5240
40MHz	38	5190	46	5230
(U-NII-2A) 5260MHz-5320MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	52	5260	56	5280
	60	5300	64	5320
40MHz	54	5270	62	5310
(U-NII-2C) 5500MHz-5700MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	100	5500	104	5520
	108	5540	112	5560
	116	5580	/	/
	132	5660	136	5680
	140	5700	/	/
40MHz	102	5510	110	5550
	134	5670	/	/
(U-NII-3) 5745MHz-5825MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	149	5745	153	5765
	157	5785	161	5805
	165	5825		
40MHz	151	5755	159	5795

5.4 Description of Support Units

The EUT has been tested with associated equipment below.

Description	Manufacturer	Model No.	Certification	Supplied by
/	/	/	/	/

5.5 Test Location

All tests were performed at:

Shenzhen Huaxia Testing Technology Co., Ltd.

1F., Block A of Tongsheng Technology Building, Huahui Road, Dalang Street, Longhua New District, Shenzhen, Guangdong, China

5.6 Test Facility

• **A2LA (Certificate No. 4742.01)**

Shenzhen Huaxia Testing Technology Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 4742.01.

• **FCC Registration No.: 522263**

Shenzhen Huaxia Testing Technology Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.:522263

5.7 Deviation from Standards

None.

5.8 Abnormalities from Standard Conditions

None.

5.9 Other Information Requested by the Customer

None.

5.10 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Radio Frequency	3×10^{-8}
2	RF power, conducted	0.86dB
3	Radiated Spurious emission test	5.12dB (Below 1GHz)
		4.6dB (Above 1GHz)
4	Conduction emission	3.5dB (9kHz to 150kHz)
		3.1dB (150kHz to 30MHz)
5	Temperature test	0.8°C
6	Humidity test	2.0%
7	DC power voltages	0.5%

6 Equipment List

Test Equipment	Manufacturer	Model No.	Instrument No.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR7	CQA-005	2024/9/2	2025/9/1
Spectrum analyzer	R&S	FSU26	CQA-038	2024/9/2	2025/9/1
Spectrum analyzer	R&S	FSU40	CQA-075	2024/9/2	2025/9/1
Preamplifier	MITEQ	AFS4-00010300-18-10P-4	CQA-035	2024/9/2	2025/9/1
Preamplifier	MITEQ	AMF-6D-02001800-29-20P	CQA-036	2024/9/2	2025/9/1
Preamplifier	EMCI	EMC184055SE	CQA-089	2024/9/2	2025/9/1
Loop antenna	Schwarzbeck	FMZB1516	CQA-060	2023/9/8	2026/9/7
Bilog Antenna	R&S	HL562	CQA-011	2023/11/01	2026/10/31
Horn Antenna	R&S	HF906	CQA-012	2023/11/01	2026/10/31
Horn Antenna	Schwarzbeck	BBHA 9170	CQA-088	2023/9/7	2026/9/6
Coaxial Cable (Above 1GHz)	CQA	N/A	C007	2024/9/2	2025/9/1
Coaxial Cable (Below 1GHz)	CQA	N/A	C013	2024/9/2	2025/9/1
RF cable(9KHz~40GHz)	CQA	RF-01	CQA-079	2024/9/2	2025/9/1
Antenna Connector	CQA	RFC-01	CQA-080	2024/9/2	2025/9/1
Power Sensor	KEYSIGHT	U2021XA	CQA-30	2024/9/2	2025/9/1
N1918A Power Analysis Manager Power Panel	Agilent	N1918A	CQA-074	2024/9/2	2025/9/1
Power meter	R&S	NRVD	CQA-029	2024/9/2	2025/9/1
Power divider	MIDWEST	PWD-2533-02-SMA-79	CQA-067	2024/9/2	2025/9/1
EMI Test Receiver	R&S	ESR7	CQA-005	2024/9/2	2025/9/1
LISN	R&S	ENV216	CQA-003	2024/9/2	2025/9/1
Coaxial cable	CQA	N/A	CQA-C009	2024/9/2	2025/9/1
DC power	KEYSIGHT	E3631A	CQA-028	2024/9/2	2025/9/1

Test software:

	Manufacturer	Software brand
Radiated Emissions test software	Tonscend	JS1120-3
Conducted Emissions test software	Audix	e3
RF Conducted test software	Audix	e3

7 Radio Technical Requirements Specification

Reference documents for testing:

No.	Identity	Document Title
1	FCC Part15E	Subpart C-Intentional Radiators
2	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices
3	KDB 789033 D02 General U-NII Test Procedures New Rules v02r01	Guidelines for compliance testing of unlicensed national information infrastructure (U-NII) device part 15, subpart E

Appendix A): Emission Bandwidth

26dB Emission bandwidth

Test Requirement: 47 CFR Part 15, Subpart C 15.407 (a)

Test Method: KDB 789033 D02 II C 1

6 dB bandwidth (5.725-5.85 GHz band)

Test Requirement 47 CFR Part 15, Subpart C 15.407 (e)

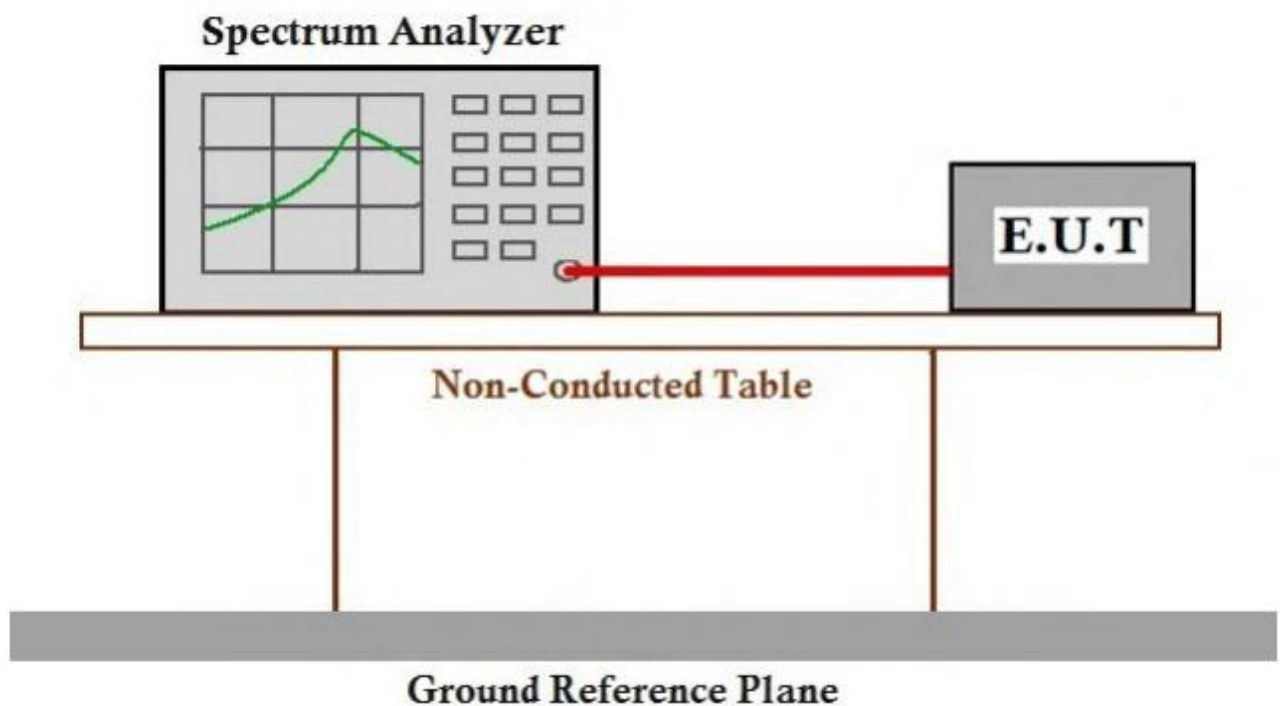
Test Method: KDB 789033 D02 II C 2

Limit: ≥ 500 kHz

Test Procedure:

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the maximum 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%.

Test Setup Diagram



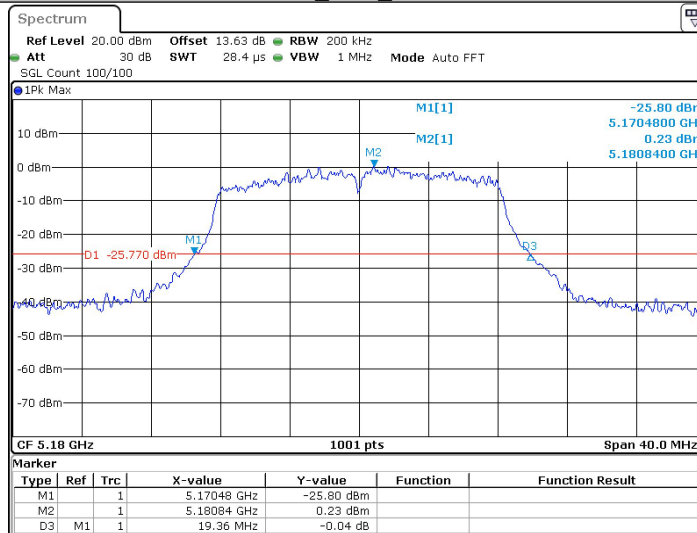
Result Table

TestMode	Freq(MHz)	26db EBW [MHz]	FL[MHz]	FH[MHz]
11A	5180	19.36	5170.48	5189.84
	5200	18.56	5190.52	5209.08
	5240	18.20	5231.00	5249.20
	5260	19.52	5250.04	5269.56
	5280	19.44	5270.12	5289.56
	5320	19.00	5310.44	5329.44
	5500	19.16	5490.48	5509.64
	5580	20.00	5570.28	5590.28
	5700	20.16	5689.88	5710.04
11N20SISO	5180	19.96	5170.20	5190.16
	5200	19.68	5189.80	5209.48
	5240	19.84	5230.48	5250.32
	5260	20.24	5249.56	5269.80
	5280	19.56	5270.04	5289.60
	5320	19.72	5309.96	5329.68
	5500	20.84	5489.76	5510.60
	5580	19.88	5570.16	5590.04
	5700	21.12	5689.16	5710.28
11N40SISO	5190	37.76	5171.04	5208.80
	5230	38.40	5210.96	5249.36
	5270	38.48	5250.40	5288.88
	5310	38.08	5291.04	5329.12
	5510	38.08	5490.96	5529.04
	5550	38.16	5530.88	5569.04
	5670	38.40	5650.72	5689.12

TestMode	Freq(MHz)	6db EBW [MHz]	Limit[MHz]	Verdict
11A	5745	13.16	0.5	PASS
	5785	13.16	0.5	PASS
	5825	16.24	0.5	PASS
11N20SISO	5745	14.48	0.5	PASS
	5785	12.52	0.5	PASS
	5825	15.28	0.5	PASS
11N40SISO	5755	28.24	0.5	PASS
	5795	15.04	0.5	PASS

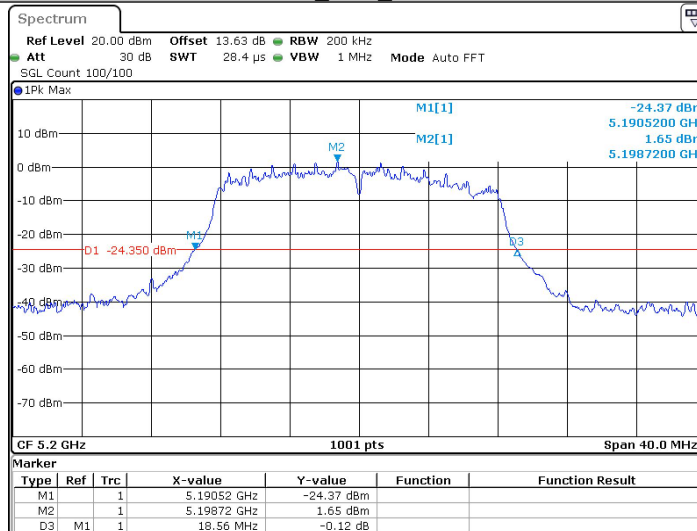
Test Graph

11A_Ant1_5180



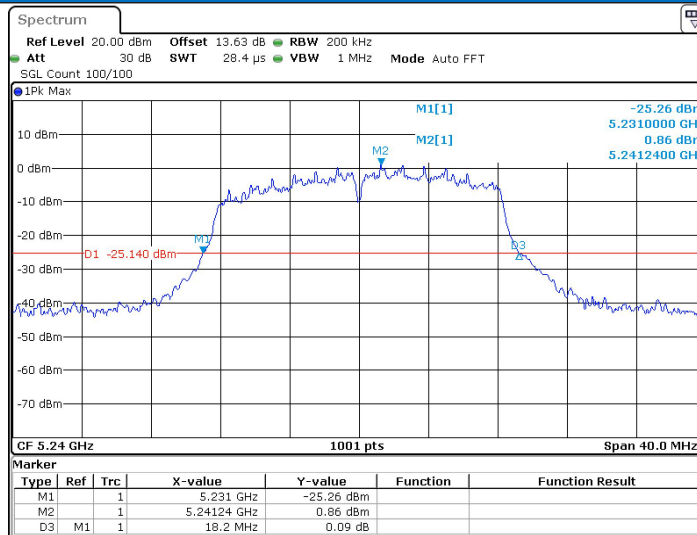
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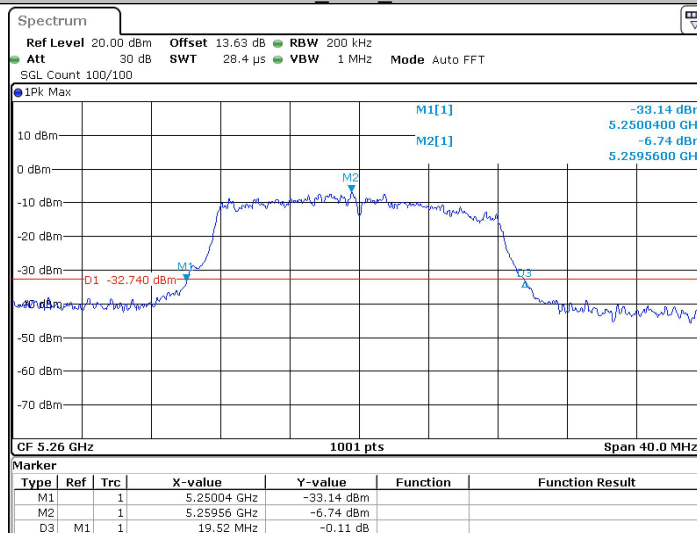
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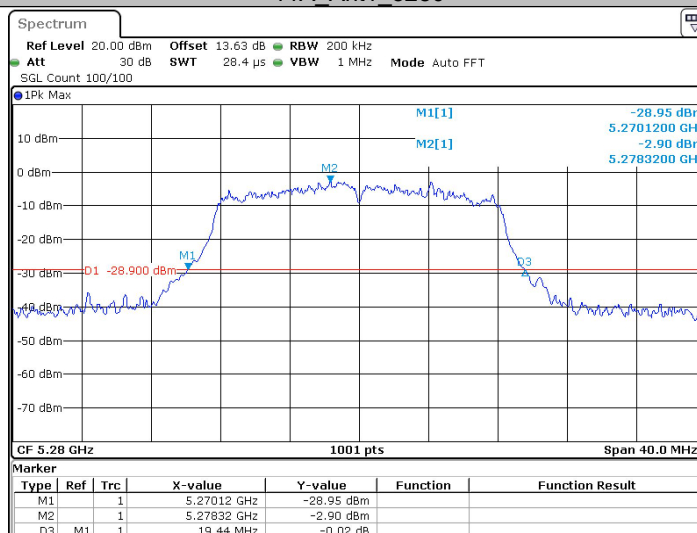
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11A_Ant1_5260



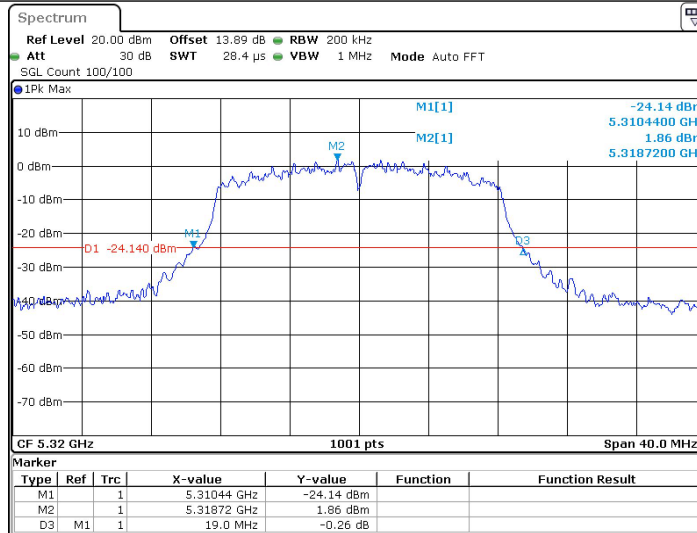
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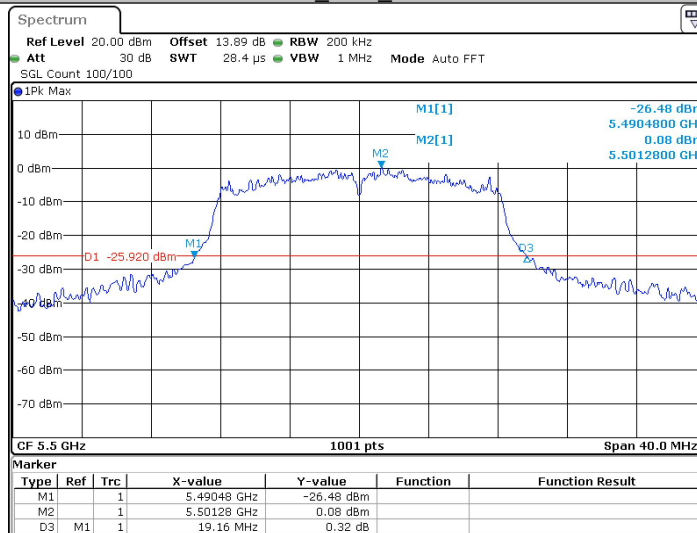
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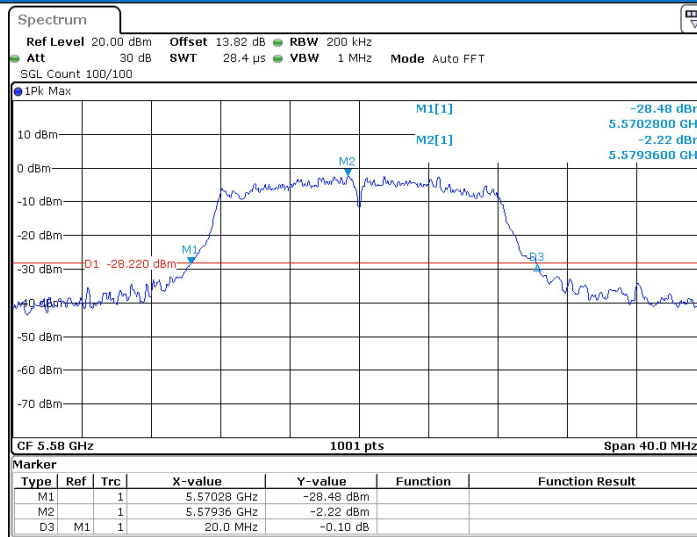
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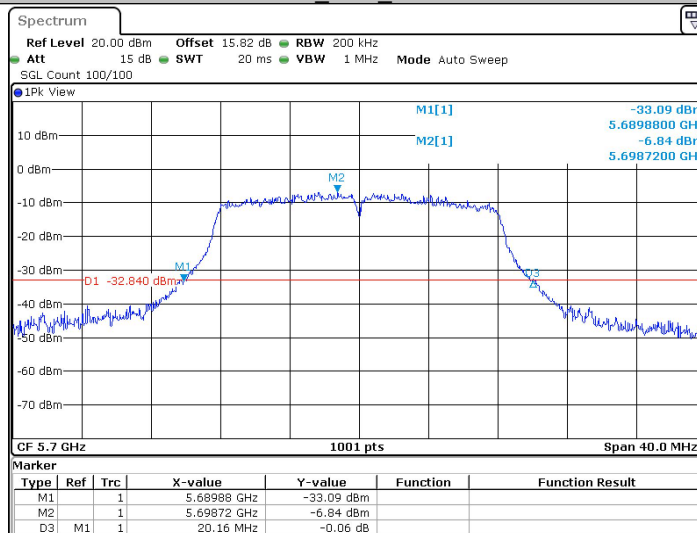
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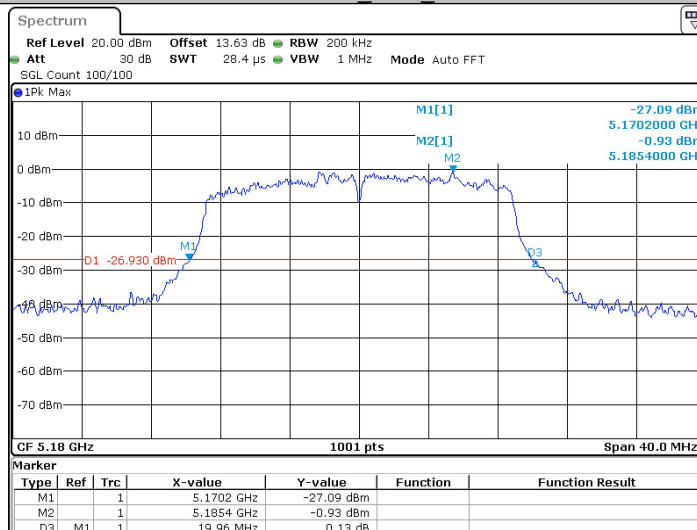
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11A_Ant1_5700



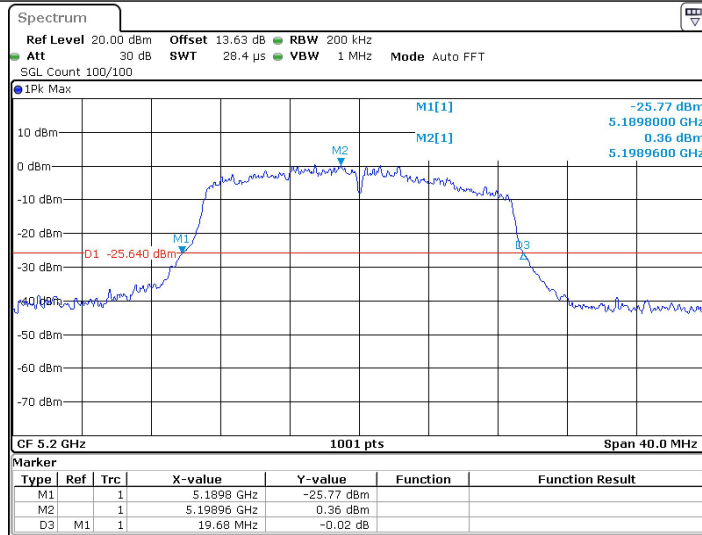
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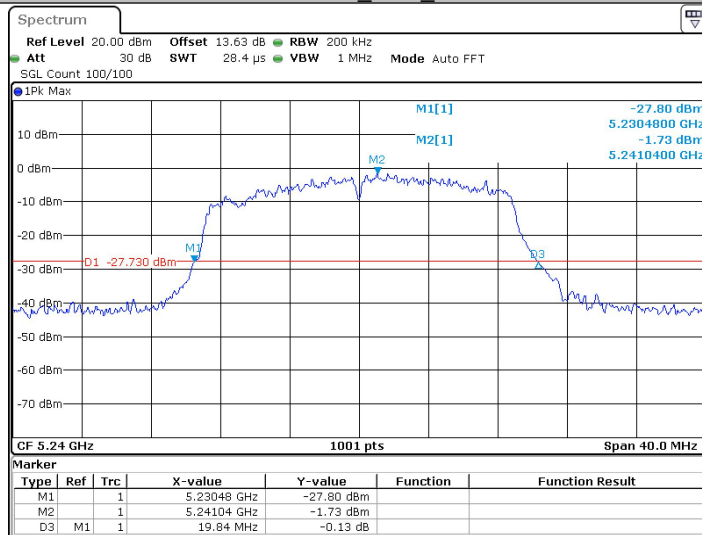
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11N20SISO_Ant1_5200



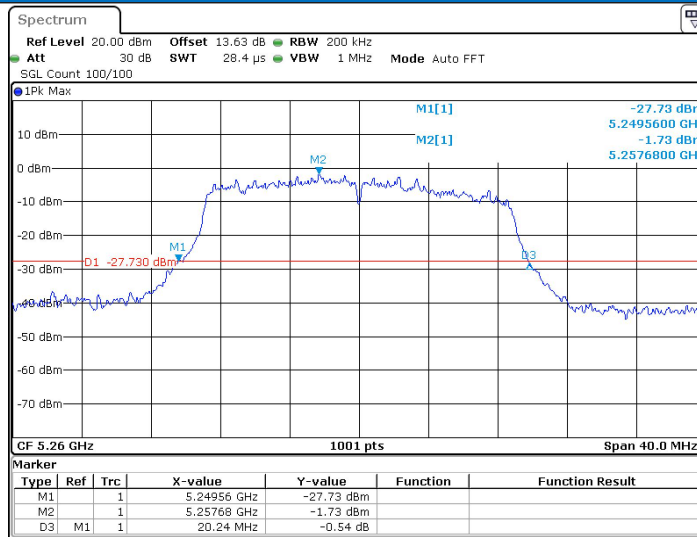
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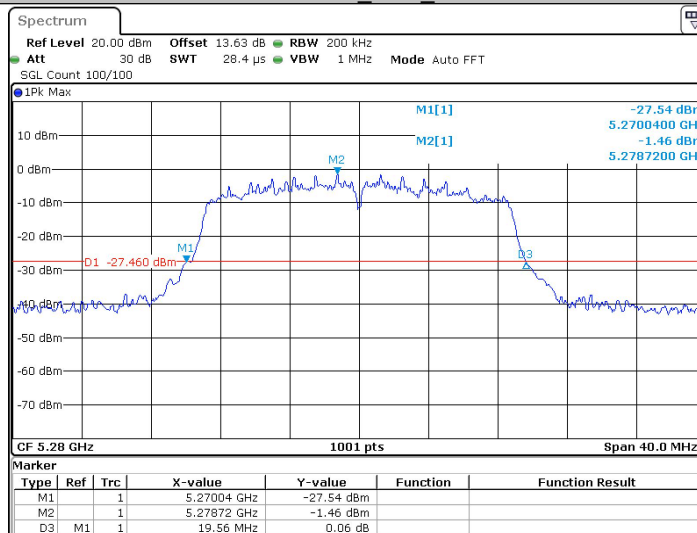
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11N20SISO_Ant1_5260



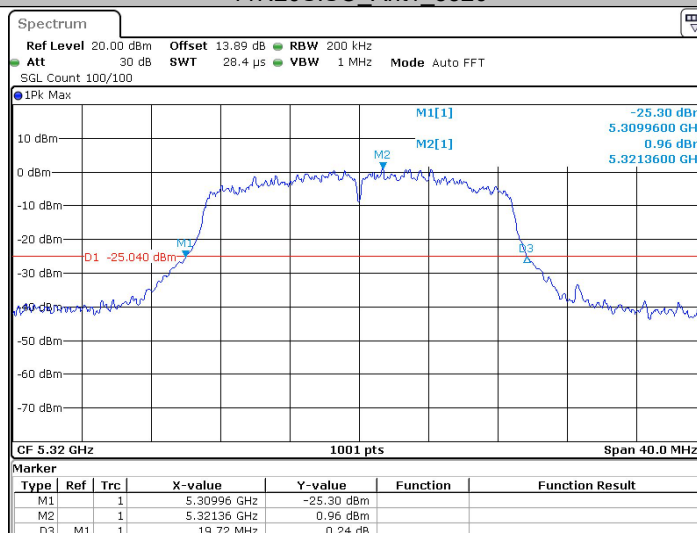
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11N20SISO_Ant1_5280



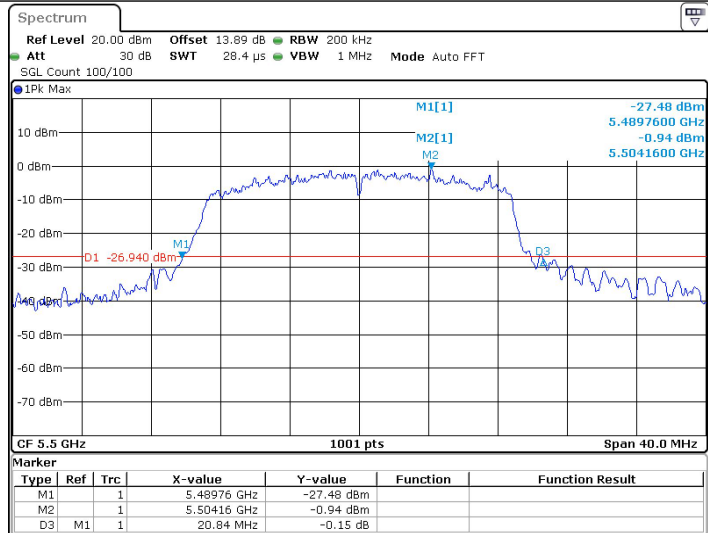
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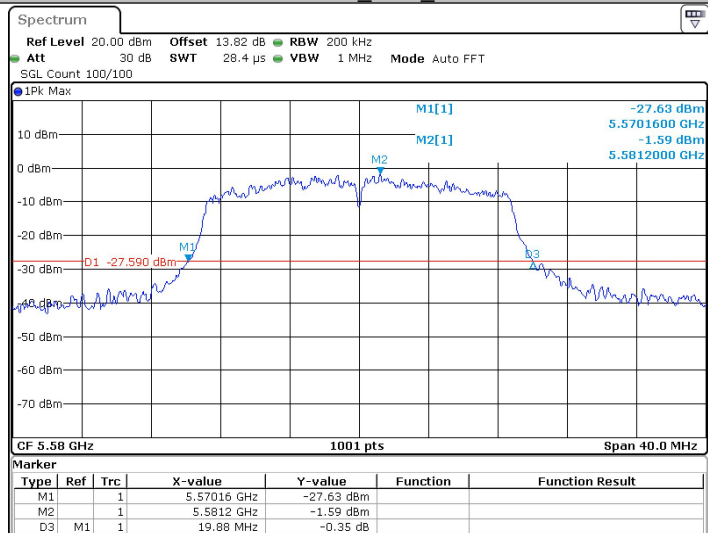
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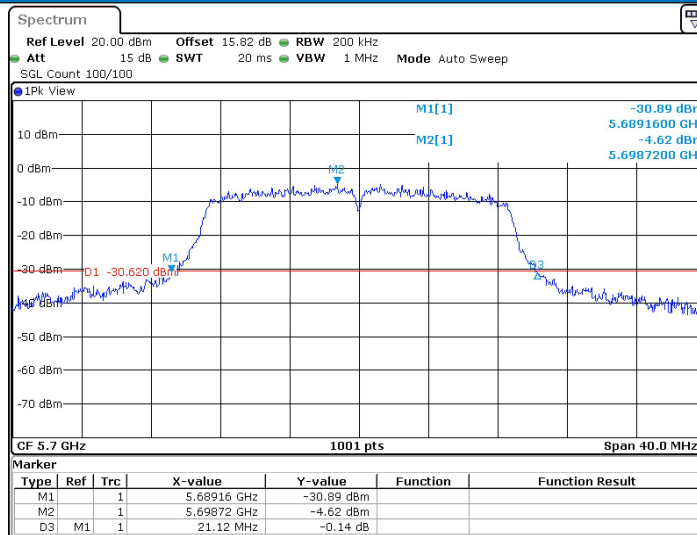
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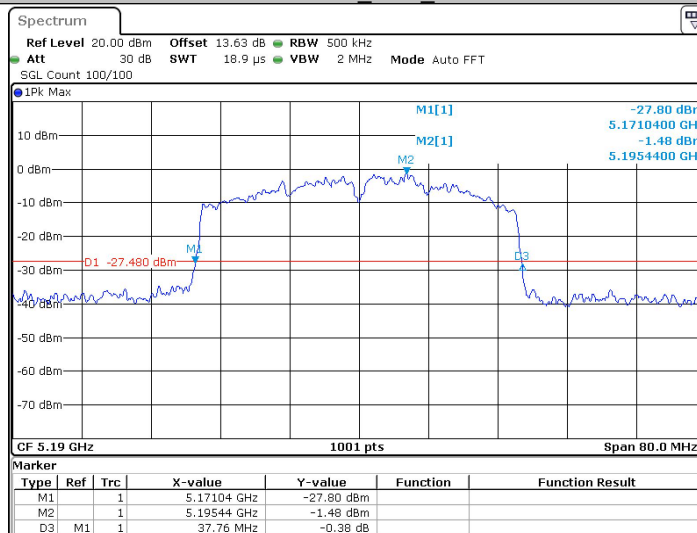
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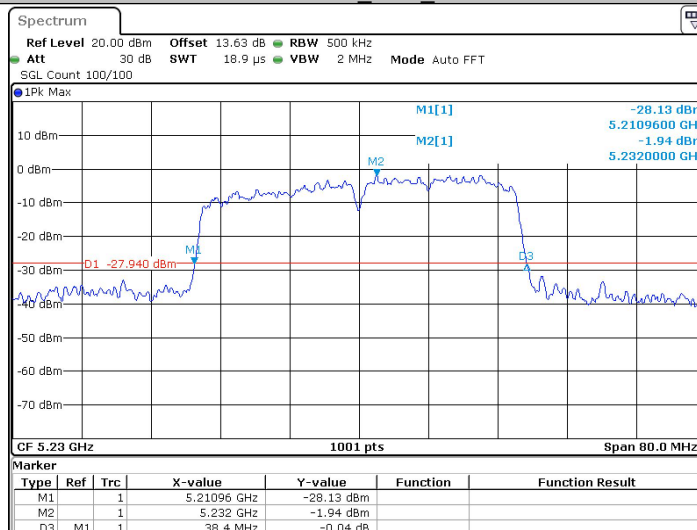
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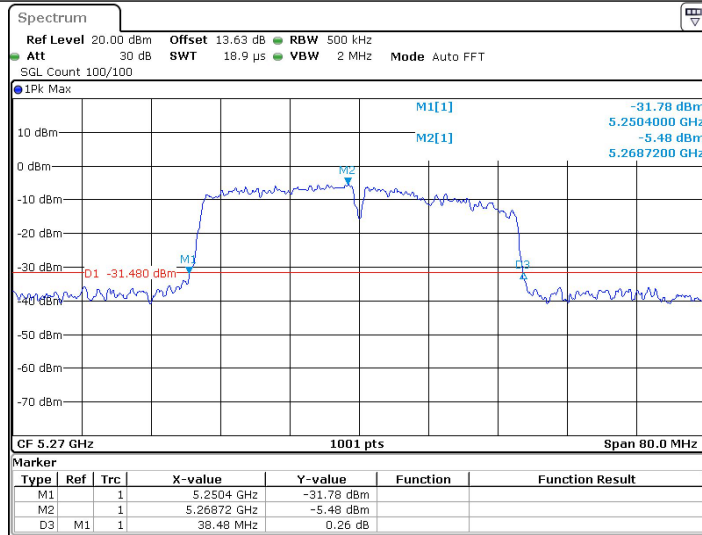
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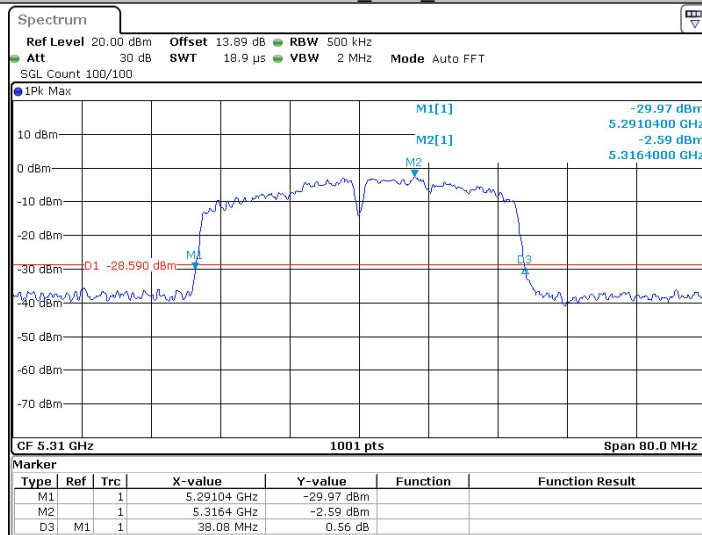
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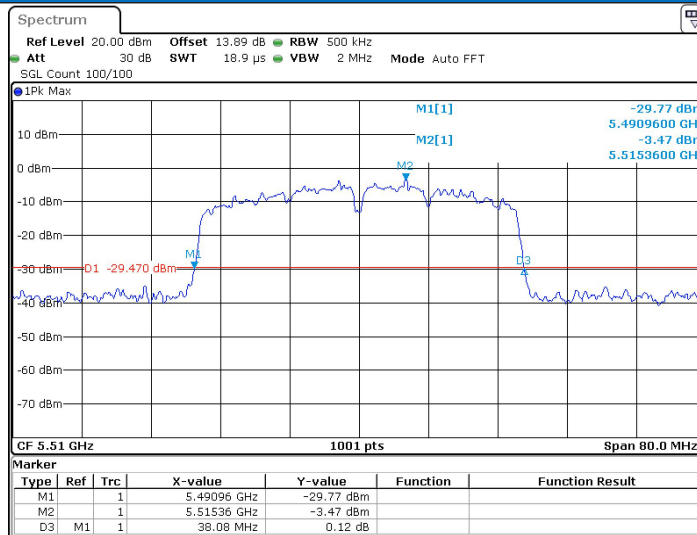
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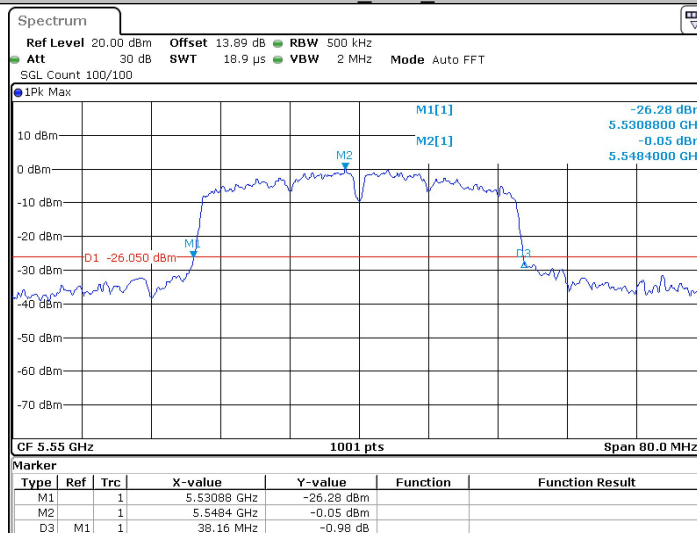
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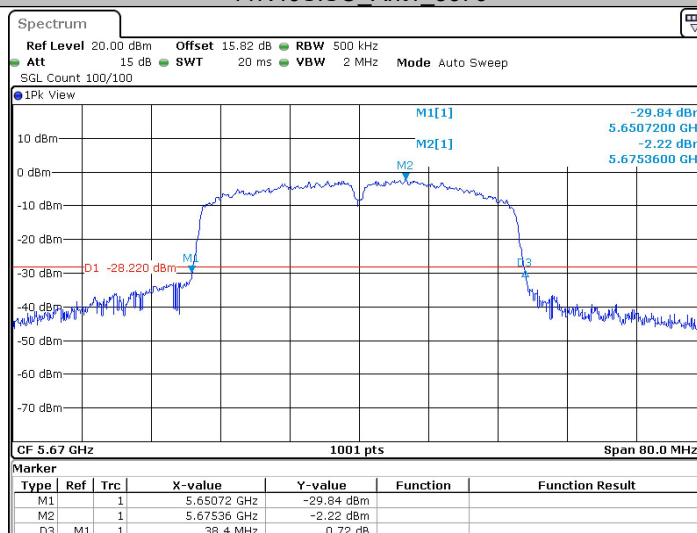
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11N40SISO_Ant1_5670



Date: 5 JUN 2025 10:46:10