SHENZHEN HUAXIA TESTING TECHNOLOGY CO., LTD

102A, 102B, Building 2, Shanghenglang New Industrial Zone, Shanghenglang Community, Dalang Street, Longhua District, Shenzhen, Guangdong, People's Republic of China, 518000

Telephone: +86-755-26648640
Fax: +86-755-26648637
Website: www.cqa-cert.com

Report Template Version: V06
Report Template Revision Date: 2026-01-30

Test Report

Report No.:	CQASZ20260300608E-03
Applicant:	Shenzhen Interthings Technology Co.,Ltd.
Address of Applicant:	701, Building 1, Lechuanghui Building, No. 1211 Guanguang Road, Longhua District, Shenzhen, China
Equipment Under Test (EUT):	
Product:	Smart PTZ Camera
Model No.:	IPC267,HUVIPC213
Teat Model No.:	IPC267
Brand Name:	N/A
FCC ID:	2AQ7B-IPC267
Standards:	47 CFR Part 15, Subpart E
	KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Date of Receipt:	2026-03-26
Date of Test:	2026-03-26 to 2026-07-30
Date of Issue:	2026-07-30
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)

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CQA, this report can't be reproduced except in full.

1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20260300608E-03	Rev.01	Initial report	2026-07-30

2 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15 Subpart C Section 15.203	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; KDB789033	PASS
AC Power Line Conducted Emission	47 CFR Part 15 Subpart E Section 15.207	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; KDB789033	PASS
Maximum Conducted Output Power	47 CFR Part 15 Subpart C Section 15.407 (a)	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; KDB789033	PASS
Emission Bandwidth	47 CFR Part 15 Subpart C Section 15.407 (a)(e)	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; KDB789033	PASS
Maximum Power Spectral Density	47 CFR Part 15 Subpart E Section 15.407 (a)	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; KDB789033	PASS
Band Edge Measurements	47 CFR Part 15 Subpart C Section 15.209 &15.407(b)	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; KDB789033	PASS
Frequency stability	47 CFR Part 15 Subpart E Section 15.407 (g)	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; 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 C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; 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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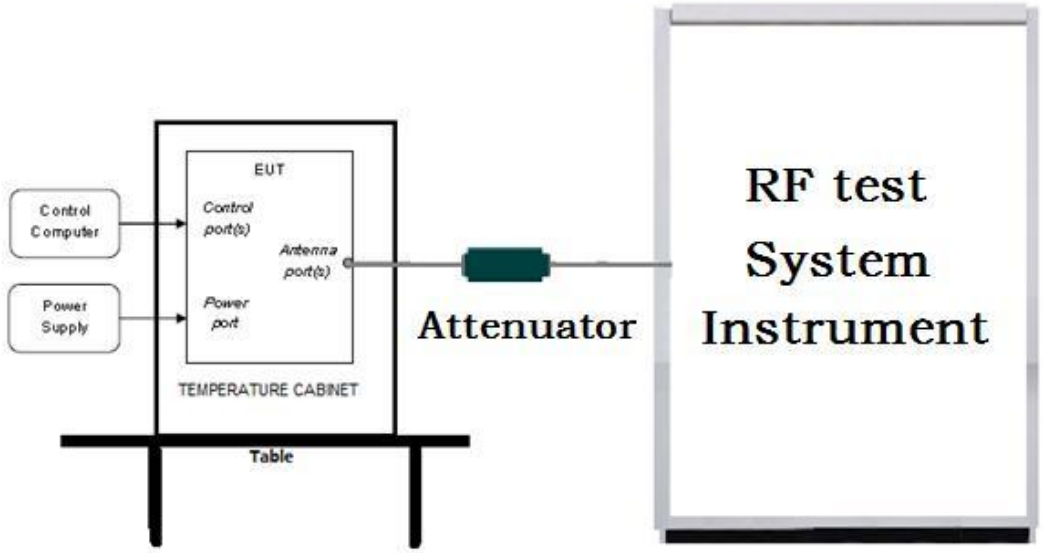
3 Test Requirement

3.1 Test setup

3.1.1 For Conducted test setup



3.1.2 For Radiated Emissions test setup

Radiated Emissions setup:

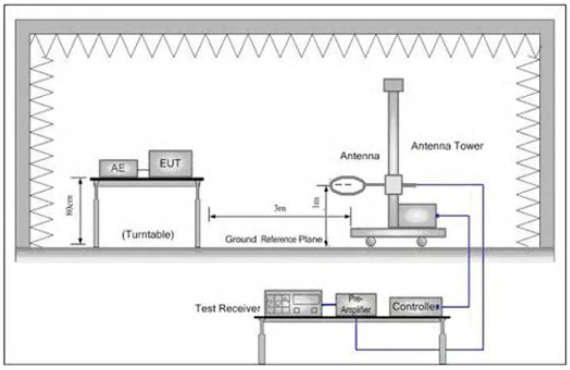


Figure 1. Below 30MHz

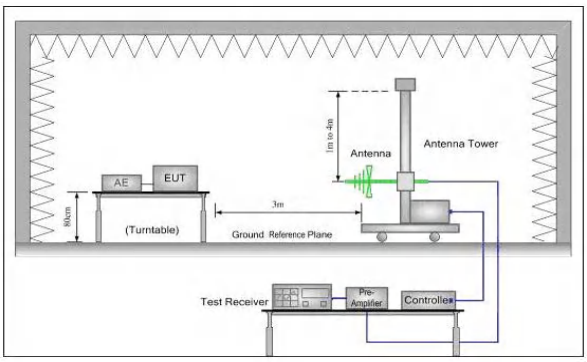


Figure 2. 30MHz to 1GHz

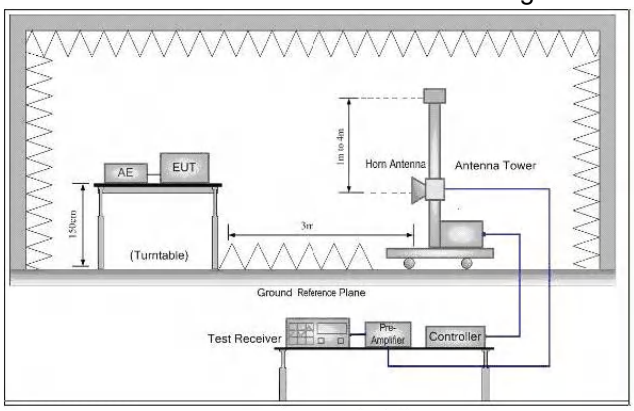
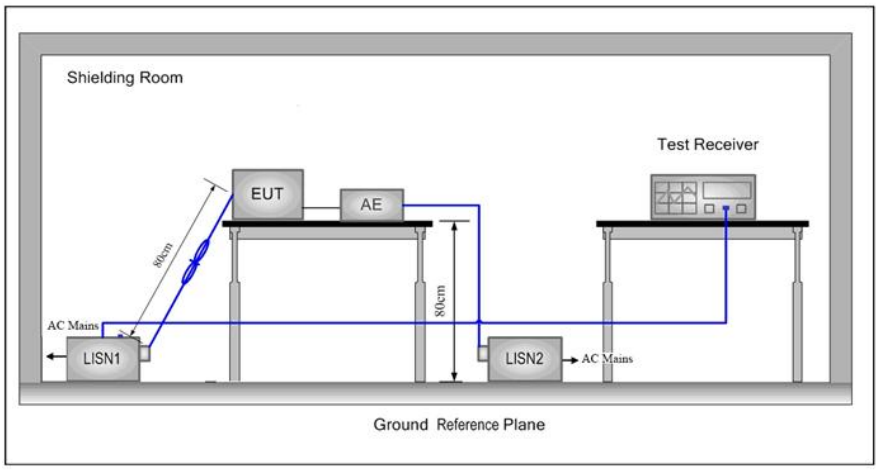


Figure 3. Above 1GHz

3.1.3 For Conducted Emissions test setup

Conducted Emissions setup



3.2 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	5
TL/VL	-30	4.5
TH/VL	50	4.5
TL/VH	-30	5.5
TH/VH	50	5.5

Remark:

1)The EUT just work in such extreme temperature of -30 °C to 50 °C and the extreme voltage of 4.5V to 5.5V, so here the EUT is tested in the temperature of -30 °C to 50 °C and the voltage of 4.5V to 5.5V.

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

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

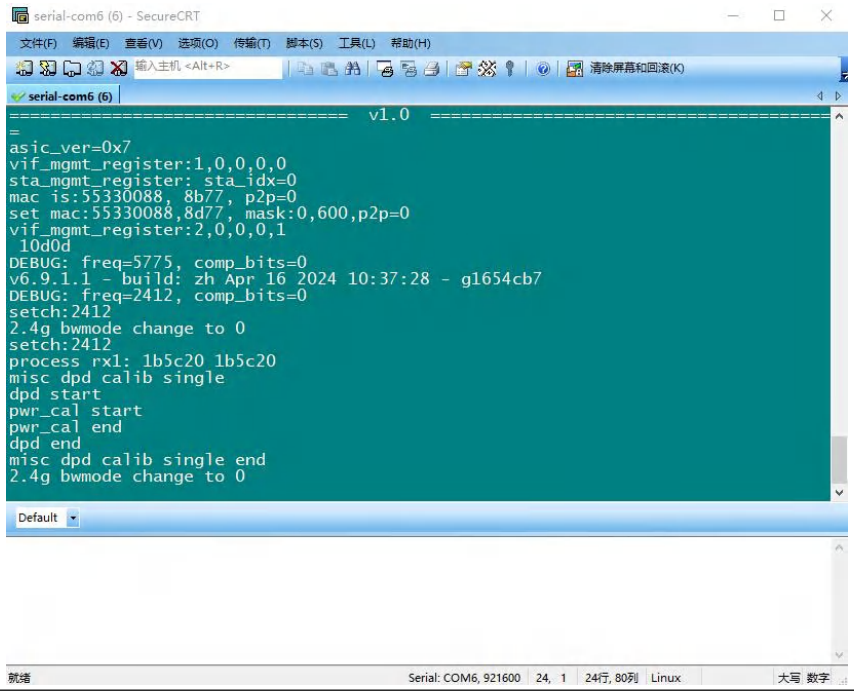
VL: Low Extreme Test Voltage; VH: High Extreme Test Voltage.

3.3 Test Condition

Test channel:

Test Mode	Tx/Rx	RF Channel		
		Low(L)	Middle(M)	High(H)
802.11a/n/ac(20M)	5150MHz ~5250 MHz	Channel 36	Channel 40	Channel 48
		5180MHz	5200MHz	5240MHz
802.11n/ac(40M)	5150MHz ~5250 MHz	Channel 38	N/A	Channel 46
		5190MHz	N/A	5230MHz
802.11a/n/ac(20M)	5725MHz ~5850 MHz	Channel 149	Channel 157	Channel 165
		5745MHz	5785MHz	5825MHz
802.11n/ac(40M)	5725MHz ~5850 MHz	Channel 151	N/A	Channel 159
		5755MHz	N/A	5795MHz

Run Software:



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 802.11ac (20M); MCS0 is the worst case of 802.11ac (20M);MCS0 is the worst case of 802.11n(40M); .

4 General Information

4.1 Client Information

Applicant:	Shenzhen Interthings Technology Co.,Ltd.
Address of Applicant:	701, Building 1, Lechuanghui Building, No. 1211 Guanguang Road, Longhua District, Shenzhen, China
Manufacturer:	Shenzhen Interthings Technology Co.,Ltd.
Address of Manufacturer:	701, Building 1, Lechuanghui Building, No. 1211 Guanguang Road, Longhua District, Shenzhen, China
Factory:	Shenzhen Interthings Technology Co.,Ltd.
Address of Factory:	701, Building 1, Lechuanghui Building, No. 1211 Guanguang Road, Longhua District, Shenzhen, China

4.2 General Description of EUT

Product Name:	Smart PTZ Camera
Model No.:	IPC267,HUVIPC213
Test Model No.:	IPC267
Trade Mark:	N/A
Software Version:	V1.0
Hardware Version:	V1.0
EUT Power Supply:	Powered by DC 5V for adapter
EUT Supports Radios application:	U-NII-1: 5.15-5.25GHz; U-NII-3: 5.725-5.850GHz
EUT Type:	Client devices

4.3 Product Specification subjective to this standard

Operation Frequency:	IEEE 802.11a/n/ac(20M): 5150MHz ~5250 MHz IEEE802.11n/ac(40M): 5150MHz ~5250 MHz IEEE 802.11a/n/ac(20M): 5725MHz ~5850 MHz IEEE802.11n/ac(40M): 5725MHz ~5850 MHz
Channel Numbers:	IEEE 802.11a/n/ac(20M): 5150MHz ~5250MHz/ 4 channel IEEE 802.11n/ac(40M): 5150MHz ~5250MHz/ 2 channel IEEE 802.11a/n/ac(20M): 5725MHz ~5850MHz/ 5 channel IEEE 802.11n/ac(40M): 5725MHz ~5850MHz/ 2 channel
Type of Modulation:	IEEE for 802.11a/n/ac: OFDM(256QAM, 64QAM, 16QAM, QPSK, BPSK)
Sample Type:	☒ Mobile ☐ Portable
Test Software of EUT:	SecureCRT
Antenna Type:	PCB antenna
Antenna gain:	2.78dBi

Operation Frequency each of channel

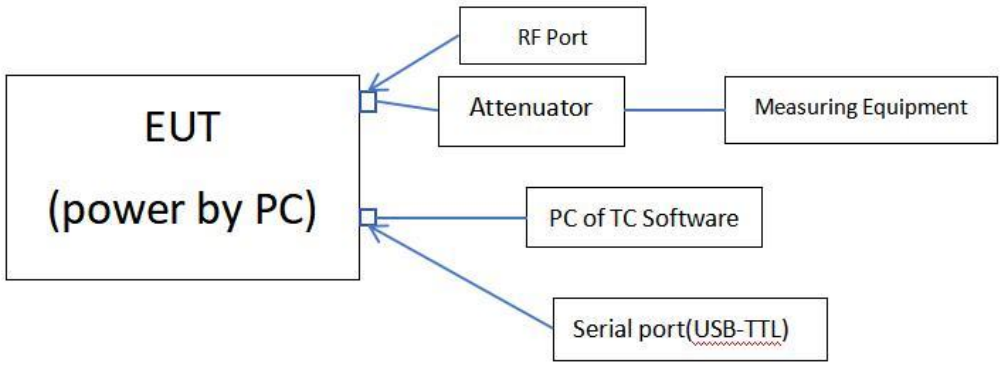
(U-NII-1) 5180MHz-5240MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	36	5180	40	5200
	44	5220	48	5240
40MHz	38	5190	46	5230
(U-NII-3) 5745MHz-5825MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	149	5745	153	5765
	157	5785	161	5805
	165	5825	/	/
40MHz	151	5755	159	5795

4.4 Description of Support Units

The EUT has been tested with associated equipment below.

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

4.5 Test configuration



4.6 Test Location

All tests were performed at:

SHENZHEN HUAXIA TESTING TECHNOLOGY CO., LTD

102A, 102B, Building 2, Shanghenglang New Industrial Zone, Shanghenglang Community, Dalang Street, Longhua District, Shenzhen, Guangdong, People's Republic of China, 518000

4.7 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

4.8 Deviation from Standards

None.

4.9 Abnormalities from Standard Conditions

None.

4.10 Other Information Requested by the Customer

None.

4.11 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%

5 Equipment List

Test Equipment	Manufacturer	Model No.	Instrument No.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR7	CQA-005	2025/9/1	2026/8/31
Spectrum analyzer	R&S	FSU26	CQA-038	2025/9/1	2026/8/31
Spectrum analyzer	R&S	FSU40	CQA-075	2025/9/1	2026/8/31
Preamplifier	MITEQ	AFS4-00010300-18-10P-4	CQA-035	2025/9/1	2026/8/31
Preamplifier	MITEQ	AMF-6D-02001800-29-20P	CQA-036	2025/9/1	2026/8/31
Preamplifier	EMCI	EMC184055SE	CQA-089	2025/9/1	2026/8/31
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	2025/9/1	2026/8/31
Coaxial Cable (Below 1GHz)	CQA	N/A	C013	2025/9/1	2026/8/31
Antenna Connector	CQA	RFC-01	CQA-080	2025/9/1	2026/8/31
RF cable(9KHz~40GHz)	CQA	RF-01	CQA-079	2025/9/1	2026/8/31
Power meter	R&S	NRVD	CQA-029	2025/9/1	2026/8/31
Power divider	MIDWEST	PWD-2533-02-SMA-79	CQA-067	2025/9/1	2026/8/31
EMI Test Receiver	R&S	ESR7	CQA-005	2025/9/1	2026/8/31
LISN	R&S	ENV216	CQA-003	2025/9/1	2026/8/31
Coaxial cable	CQA	N/A	CQA-C009	2025/9/1	2026/8/31
DC power	KEYSIGHT	E3631A	CQA-028	2025/9/1	2026/8/31

Test software:

	Manufacturer	Software brand	Software version
Radiated Emissions test software	Tonscend	JS1120-3	Version:8
Conducted Emissions test software	Audix	e3	Version:9
RF Conducted test software	Audix	e3	V3.5.39

Note:

The temporary antenna connector is soldered on the pcb board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.

6 Radio Technical Requirements Specification

Reference documents for testing:

No.	Identity	Document Title
1	FCC Part15E	Subpart C-Intentional Radiators
2	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024	American National Standard for Testing Unlicesed 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:

a) Set RBW = approximately 1% of the emission bandwidth.

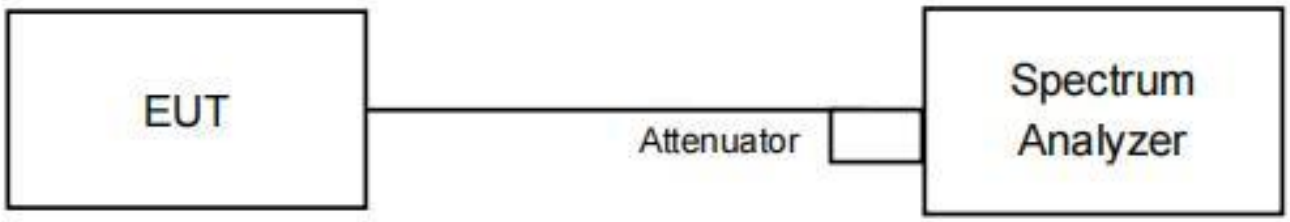
b) Set the VBW > RBW.

c) Detector = Peak.

d) Trace mode = max hold.

e) 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



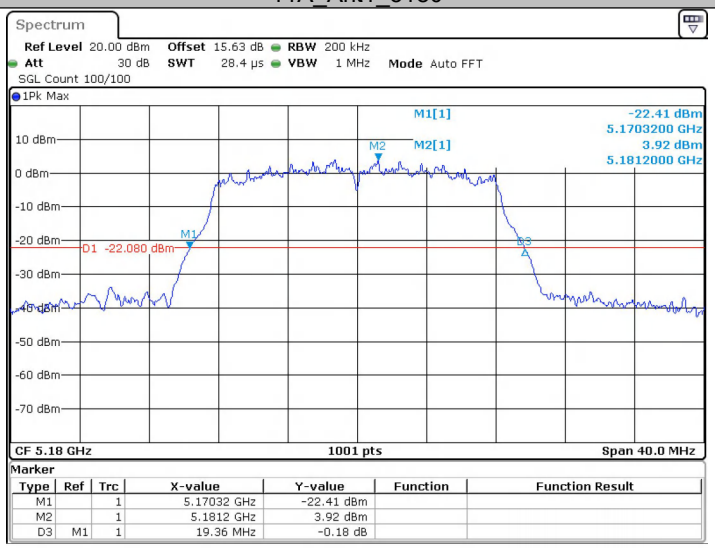
Result Table

TestMode	Freq(MHz)	26db EBW [MHz]	FL[MHz]	FH[MHz]
11A	5180	19.36	5170.32	5189.68
	5200	19.52	5190.24	5209.76
	5240	20.16	5229.80	5249.96
	5745	19.60	5735.24	5754.84
	5785	19.44	5775.08	5794.52
	5825	19.84	5815.08	5834.92
11N20SISO	5180	19.80	5170.00	5189.80
	5200	19.76	5190.12	5209.88
	5240	19.96	5230.12	5250.08
	5745	19.88	5735.04	5754.92
	5785	20.28	5774.92	5795.20
	5825	20.08	5814.96	5835.04
11N40SISO	5190	40.64	5169.44	5210.08
	5230	40.32	5209.76	5250.08
	5755	40.32	5734.60	5774.92
	5795	40.48	5774.84	5815.32
11AC20SISO	5180	19.80	5170.04	5189.84
	5200	19.96	5189.96	5209.92
	5240	19.84	5230.04	5249.88
	5745	20.28	5734.72	5755.00
	5785	19.96	5774.92	5794.88
	5825	19.84	5815.08	5834.92
11AC40SISO	5190	40.56	5169.60	5210.16
	5230	40.48	5209.92	5250.40
	5755	40.00	5734.68	5774.68
	5795	40.08	5774.60	5814.68

TestMode	Freq(MHz)	6db EBW [MHz]	Limit[MHz]	Verdict
11A	5745	16.32	0.5	PASS
	5785	15.72	0.5	PASS
	5825	16.36	0.5	PASS
11N20SISO	5745	17.60	0.5	PASS
	5785	17.32	0.5	PASS
	5825	14.08	0.5	PASS
11N40SISO	5755	24.64	0.5	PASS
	5795	34.80	0.5	PASS
11AC20SISO	5745	17.32	0.5	PASS
	5785	13.88	0.5	PASS
	5825	13.88	0.5	PASS
11AC40SISO	5755	28.88	0.5	PASS
	5795	35.12	0.5	PASS

Test Graph

11A_Ant1_5180



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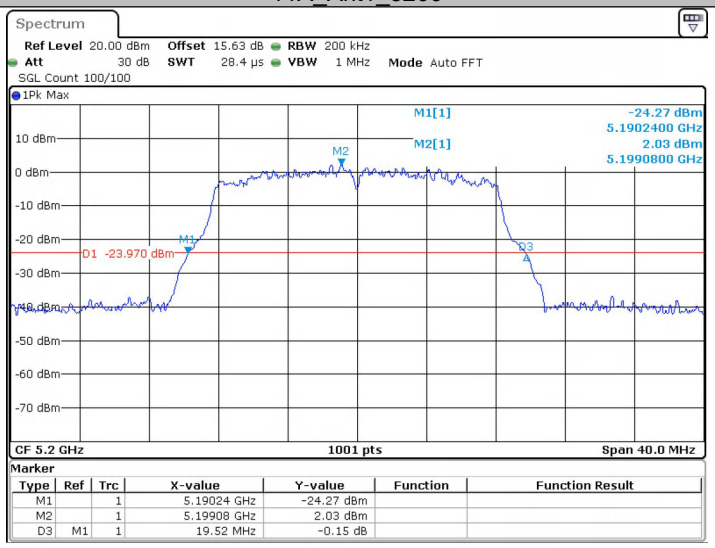

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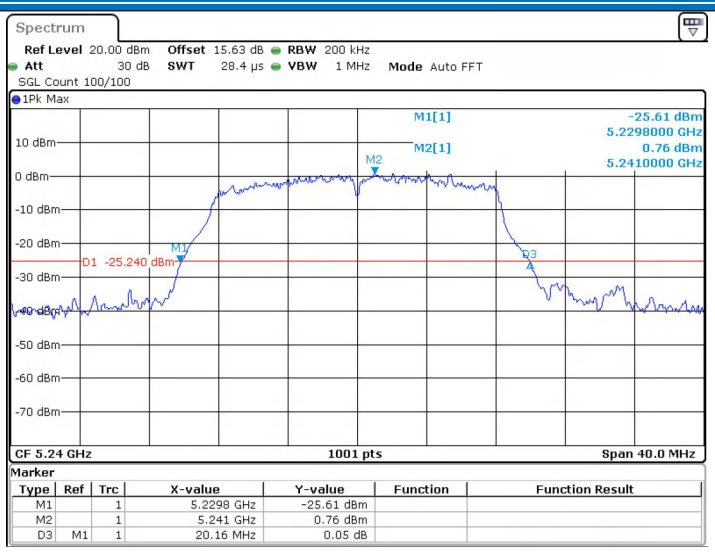

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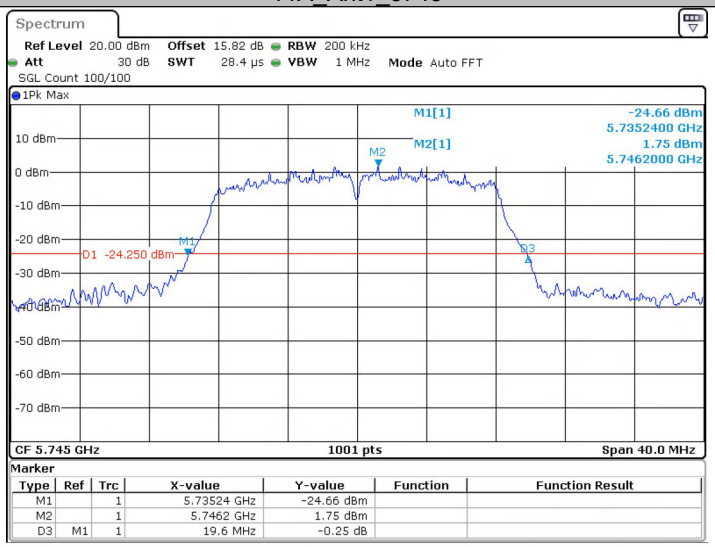

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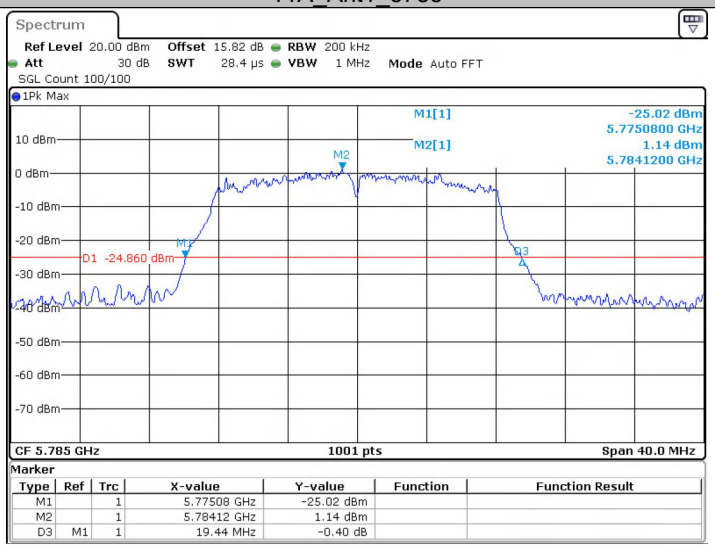

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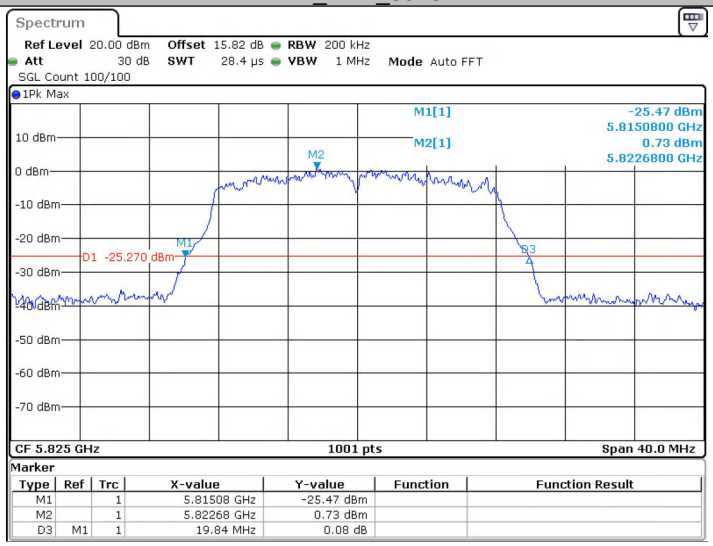

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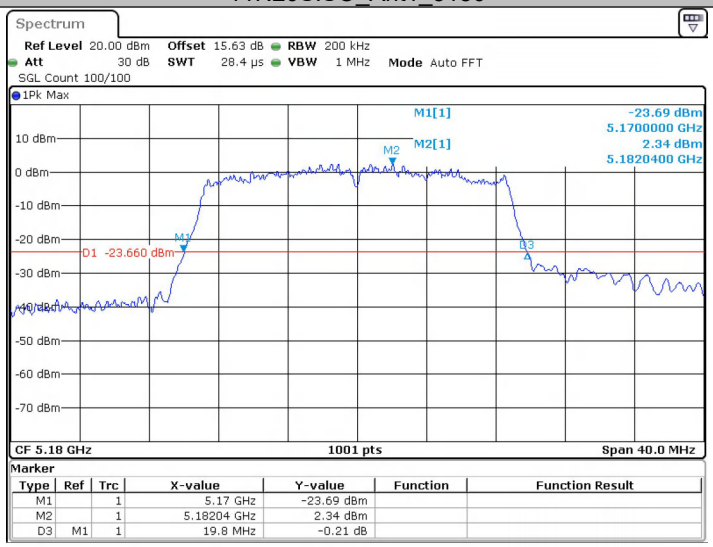
11N20SISO_Ant1_5180



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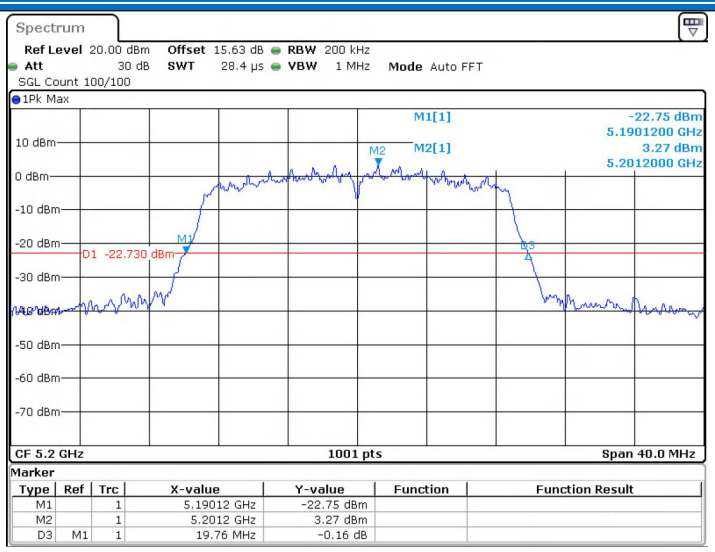

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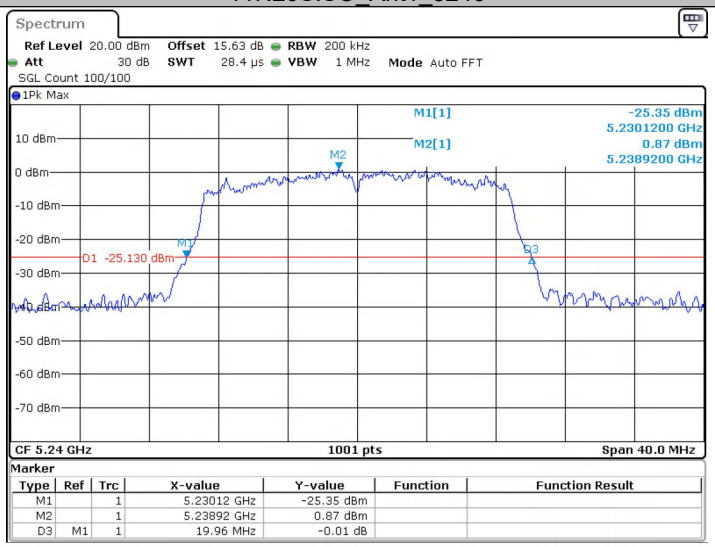
11N20SISO_Ant1_5240



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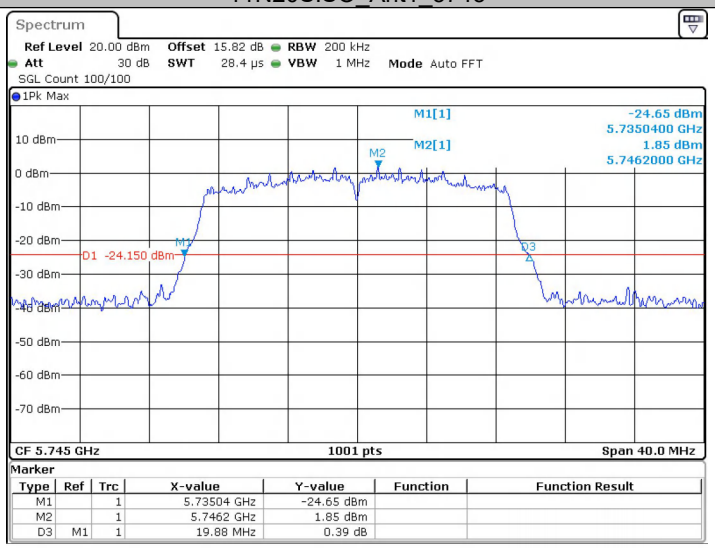

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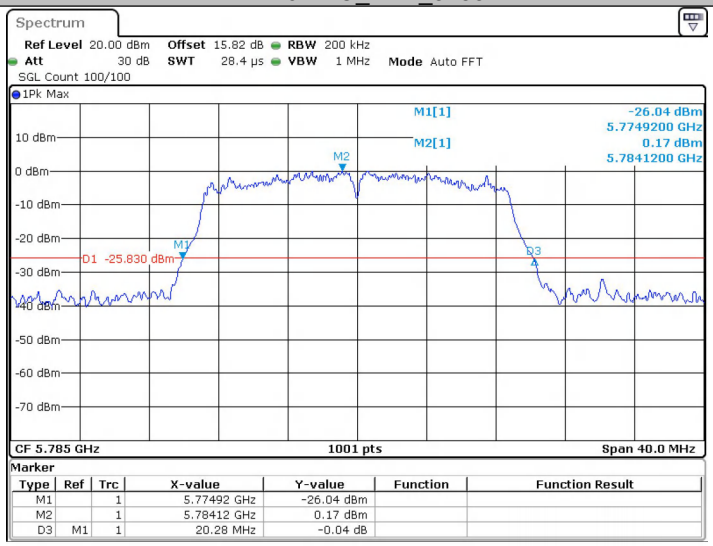

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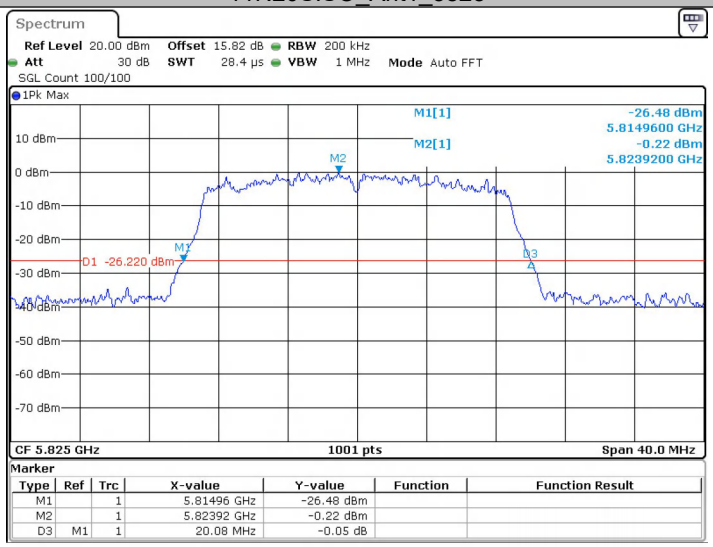
11N20SISO_Ant1_5825



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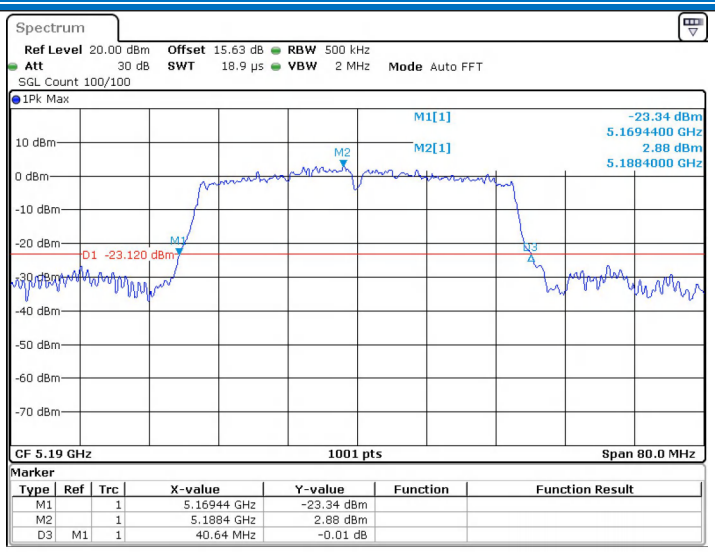
11N40SISO_Ant1_5190



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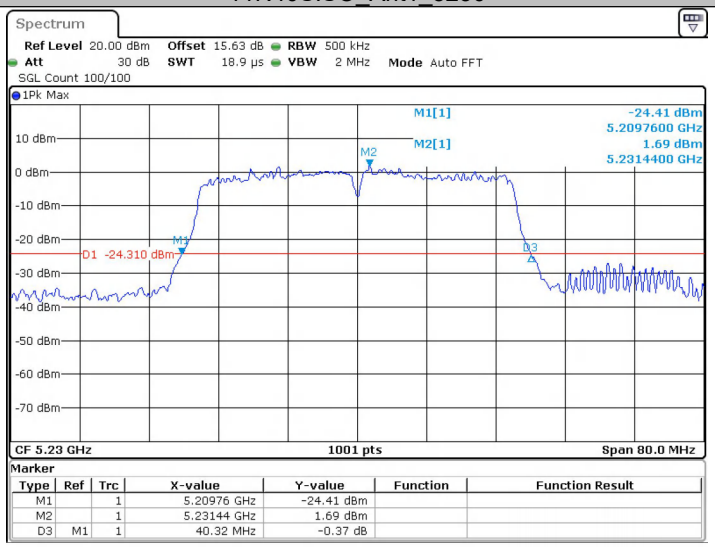

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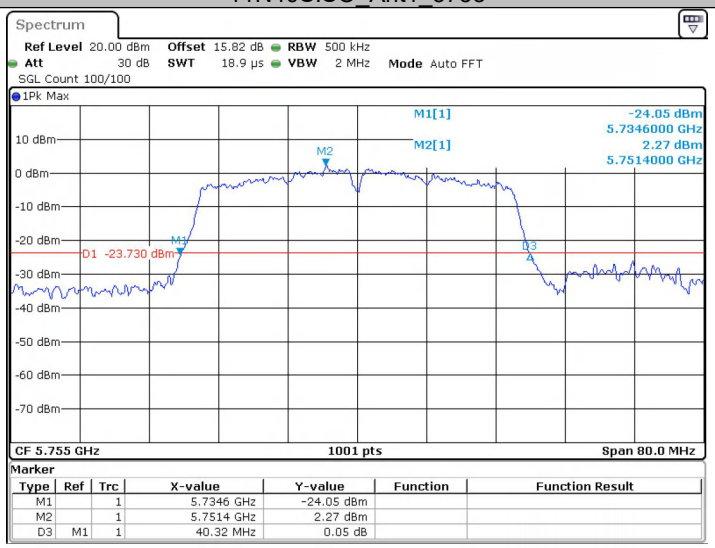

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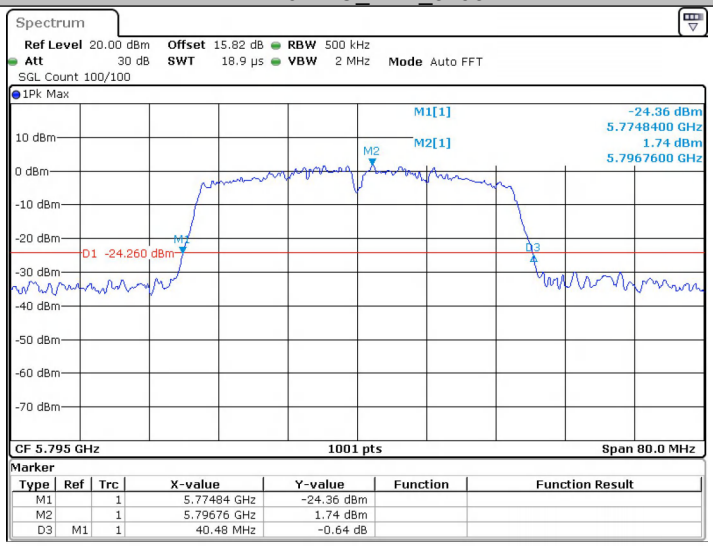

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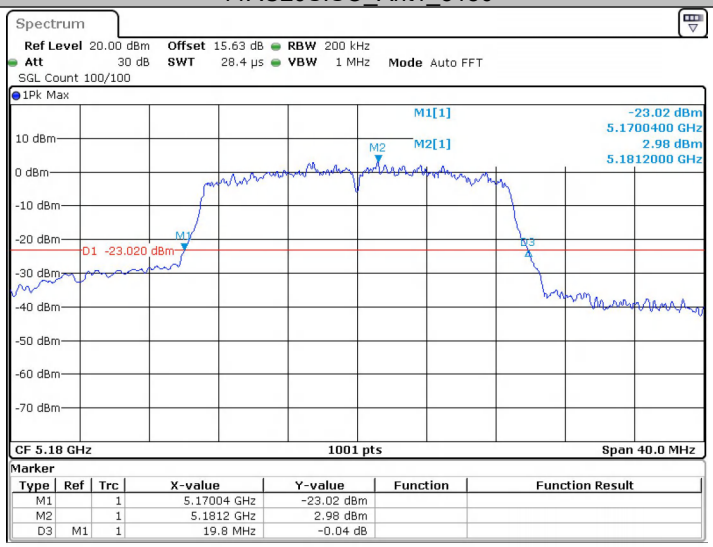
11AC20SISO_Ant1_5180



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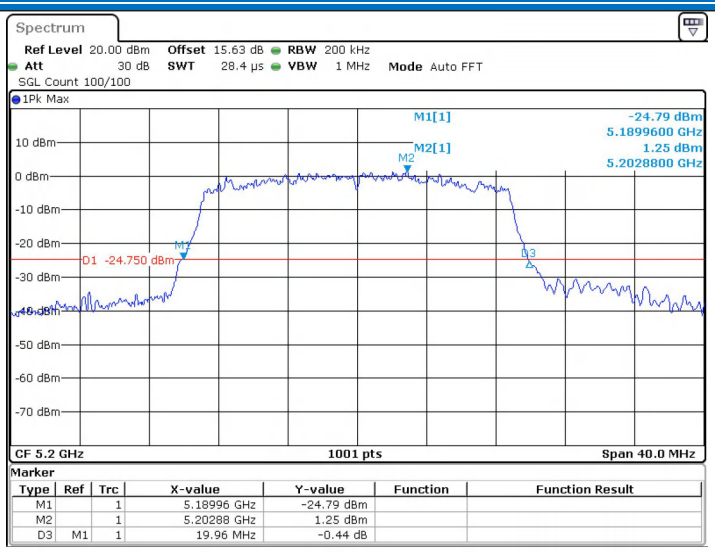

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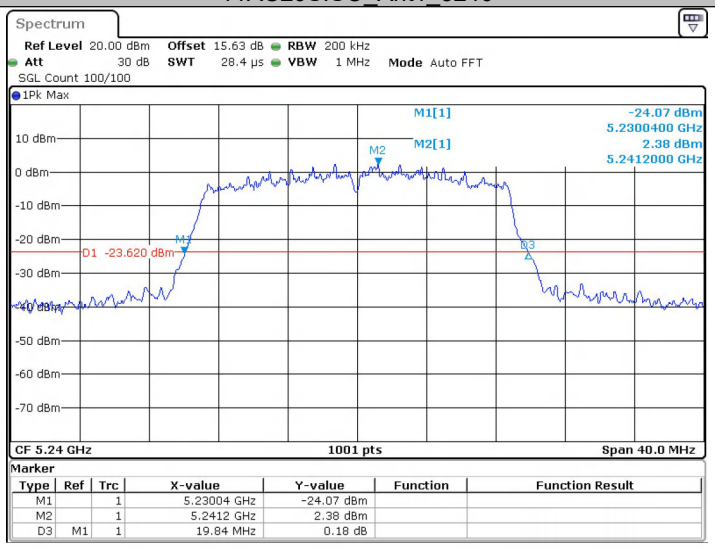
11AC20SISO_Ant1_5240



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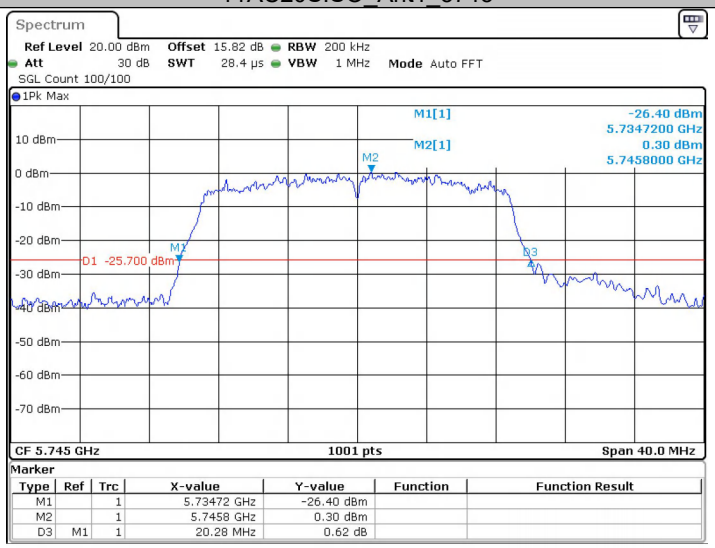

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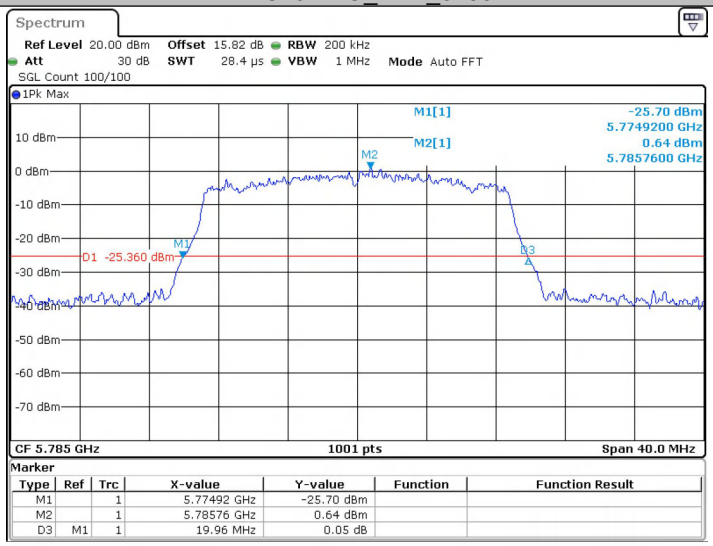

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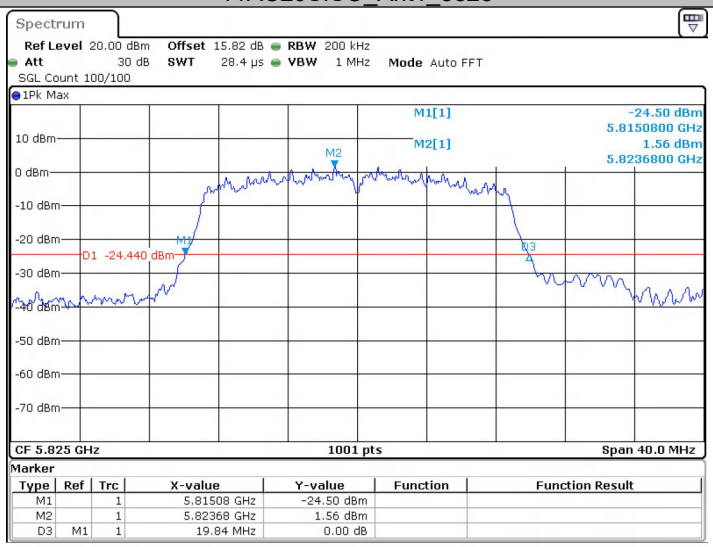

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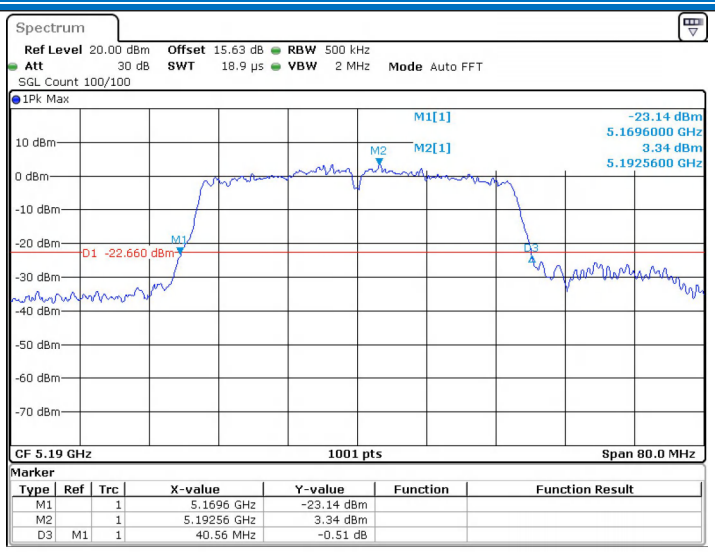

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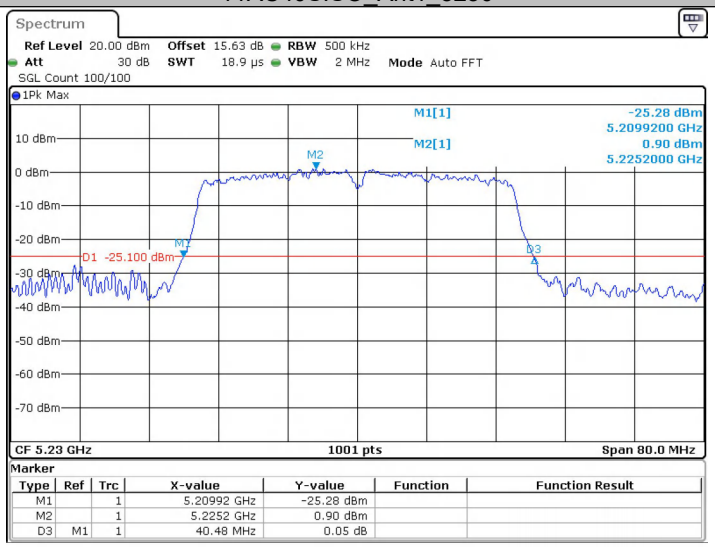

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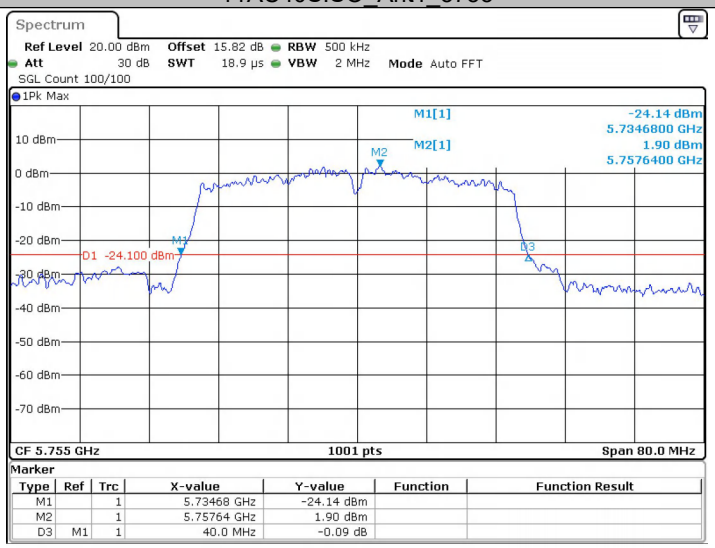

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