



FCC RF Test Report

APPLICANT : Quectel Wireless Solutions Co., Ltd.
EQUIPMENT : Wi-Fi & Bluetooth Module
BRAND NAME : Quectel
MODEL NAME : FCM962K
FCC ID : XMR2024FCM962K
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure
TEST DATE(S) : Aug. 31, 2024 ~ Dec. 06, 2024

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

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

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

Jason Jia

Approved by: Jason Jia



Sporton International Inc. (ShenZhen)

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People's Republic of China



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR481203D	Rev. 01	Initial issue of report	Dec. 18, 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 0.42 dB at 5350.00 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	15.207(a)	Pass	Under limit 7.54 dB at 0.16 MHz
3.6	15.203 & 15.407(a)	Antenna Requirement	15.203 & 15.407(a)	15.203 & 15.407(a)	Pass	-

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture 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

Quectel Wireless Solutions Co., Ltd.

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District,
Shanghai 200233, China

1.2 Manufacturer

Quectel Wireless Solutions Co., Ltd.

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District,
Shanghai 200233, China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Wi-Fi & Bluetooth Module
Brand Name	Quectel
Model Name	FCM962K
FCC ID	XMR2024FCM962K
SN Code	Conducted: E1M24G50D000071 Radiation/Conduction: E1M24G50D000085
HW Version	R1.0
SW Version	NA
EUT Stage	Identical Prototype

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



1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5700 MHz 5745 MHz ~ 5825 MHz
Maximum Output Power to Antenna	<5180 MHz ~ 5240 MHz> 802.11a : 18.16 dBm / 0.0655 W 802.11n HT20 : 17.76 dBm / 0.0597 W 802.11n HT40 : 17.83 dBm / 0.0607 W 802.11ac VHT20: 17.72 dBm / 0.0592 W 802.11ac VHT40: 17.79 dBm / 0.0601 W 802.11ax HE20: 17.82 dBm / 0.0605 W 802.11ax HE40: 17.44 dBm / 0.0555 W <5260 MHz ~ 5320 MHz> 802.11a : 17.71 dBm / 0.0590 W 802.11n HT20 : 17.32 dBm / 0.0540 W 802.11n HT40 : 17.35 dBm / 0.0543 W 802.11ac VHT20: 17.30 dBm / 0.0537 W 802.11ac VHT40: 17.28 dBm / 0.0535 W 802.11ax HE20: 17.37 dBm / 0.0546 W 802.11ax HE40: 17.33 dBm / 0.0541 W <5500 MHz ~ 5700 MHz > 802.11a : 18.31 dBm / 0.0678 W 802.11n HT20 : 17.87 dBm / 0.0612 W 802.11n HT40 : 17.79 dBm / 0.0601 W 802.11ac VHT20: 17.81 dBm / 0.0604 W 802.11ac VHT40: 17.76 dBm / 0.0597 W 802.11ax HE20: 17.92 dBm / 0.0619 W 802.11ax HE40: 17.77 dBm / 0.0598 W <5745 MHz ~ 5825 MHz> 802.11a : 17.87 dBm / 0.0612 W 802.11n HT20 : 17.64 dBm / 0.0581 W 802.11n HT40 : 17.62 dBm / 0.0578 W 802.11ac VHT20: 17.63 dBm / 0.0579 W 802.11ac VHT40: 17.58 dBm / 0.0573 W 802.11ax HE20: 17.69 dBm / 0.0587 W 802.11ax HE40: 17.61 dBm / 0.0577 W

99% Occupied Bandwidth	<5180 MHz ~ 5240 MHz> 802.11a : 18.473 MHz 802.11n HT20 : 19.491 MHz 802.11n HT40 : 37.527 MHz 802.11ax HE20: 19.636 MHz 802.11ax HE40: 38.473 MHz <5260 MHz ~ 5320 MHz> 802.11a : 18.291 MHz 802.11n HT20 : 19.309 MHz 802.11n HT40 : 37.455 MHz 802.11ax HE20: 19.709 MHz 802.11ax HE40: 38.545 MHz <5500 MHz ~ 5700 MHz> 802.11a : 18.618 MHz 802.11n HT20 : 19.745 MHz 802.11n HT40 : 37.964 MHz 802.11ax HE20: 19.855 MHz 802.11ax HE40: 38.909 MHz <5745 MHz ~ 5825 MHz> 802.11a : 18.545 MHz 802.11n HT20 : 19.673 MHz 802.11n HT40 : 37.964 MHz 802.11ax HE20: 19.891 MHz 802.11ax HE40: 38.909 MHz
Antenna Type / Gain	<5180 MHz ~ 5240 MHz> Dipole Antenna type with gain -0.70 dBi <5260 MHz ~ 5320 MHz> Dipole Antenna type with gain -0.80 dBi <5500 MHz ~ 5700 MHz> Dipole Antenna type with gain -1.20 dBi <5745 MHz ~ 5825 MHz> Dipole Antenna type with gain -1.50 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) 802.11ax : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM / 1024QAM)

Note:

1. WLAN operation in 5600 MHz ~ 5650 MHz is notched.
2. For 802.11n HT20 / ac VHT20 and 802.11n HT40 / ac VHT40 mode, the whole testing has assessed only 802.11n HT20/ HT40 by referring to their higher conducted power.

1.5 Modification of EUT

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



1.6 Testing Location

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

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

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

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

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	CO02-SZ ; 03CH01-SZ	CN1256	421272

1.7 Test Software

Item	Site	Manufacturer	Name	Version
1.	TH01-KS	Tonscend	JS1120-3 test system China_210602	3.3.10
2.	03CH01-SZ	AUDIX	E3	6.2009-8-24
3.	CO02-SZ	AUDIX	E3	6.120613b



1.8 Applicable Standards

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

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

Remark:

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



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)
5500-5700MHz 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

Note: The above Frequency and Channel in "*" are 40MHz bandwidth.

2.2 Test Mode

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

SISO Mode

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ax HE20	MCS0
802.11ax HE40	MCS0

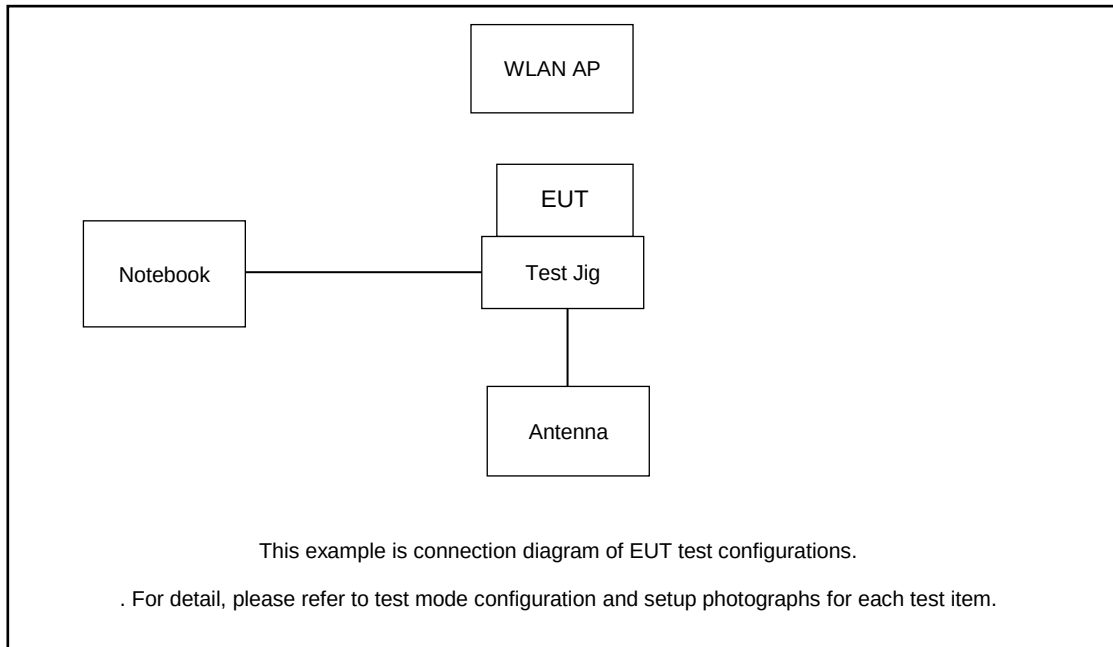
AC Conducted Emission	Mode 1 : WLAN Link(5G) + Charging from NB + Test Jig for sample 1 Mode 2 : Bluetooth Link + WLAN Link(5G) + Charging from NB + Test Jig for sample 2
Remark: 1. The worst case of conducted emission is mode 1; only the test data of it was reported. 2. For Radiated Test Cases, The tests were performance with Notebook.	

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

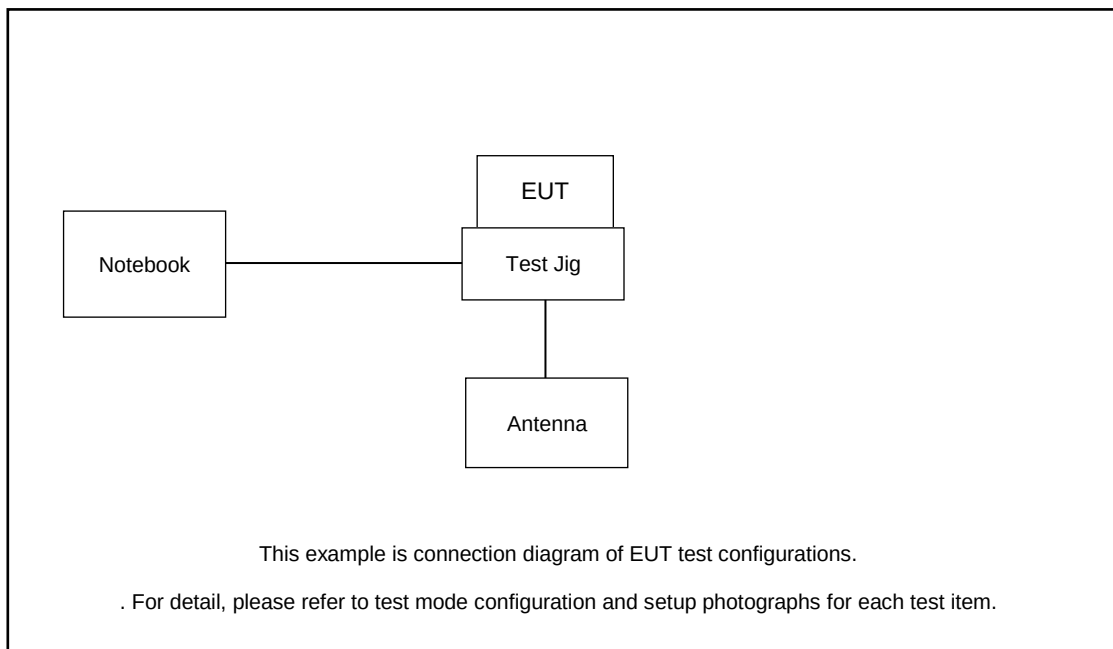
Ch. #		U-NII-1	U-NII-2A	U-NII-2C	U-NII-3
		40M BW	40M BW	40M BW	40M BW
L	Low	38	54	102	151
M	Middle	-	-	110	-
H	High	46	62	134	159

2.3 Connection Diagram of Test System

AC Conducted Emission:



Radiated Emission:



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	iPod	Apple	MC525 ZP/A	Fcc DoC	Shielded, 1.0m	N/A
2.	Notebook	Lenovo	E540	FCC DoC	N/A	AC I/P : Unshielded, 1.2m DC O/P : Shielded, 1.8m
3.	Antenna	N/A	N/A	N/A	N/A	N/A
4.	Test Jig	N/A	N/A	N/A	N/A	N/A
5.	WLAN AP	Dlink	DIR-820L	KA2IR820LA1	N/A	Unshielded,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.

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 14.28 dB and 10dB attenuator.

$$\begin{aligned}
 \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\
 &= 14.28 + 10 = 24.28 \text{ (dB)}
 \end{aligned}$$



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

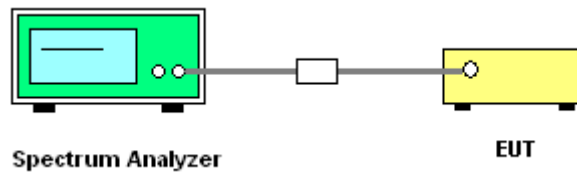
The measuring equipment is listed in the section 4 of this test report.

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) $\geq 3 * RBW$. 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 $\geq 3 * RBW$. 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 $11 \text{ dBm} + 10 \log_{10} B$, 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.

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.

3.2.2 Measuring Instruments

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

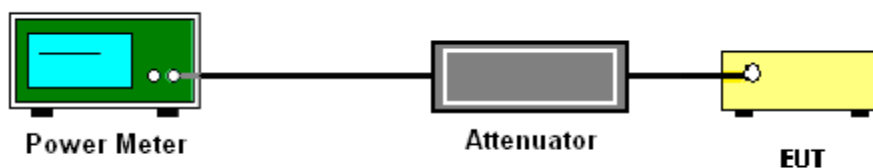
3.2.3 Test Procedures

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.

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

FCC <5180 MHz ~ 5250 MHz> single antenna										
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	0.30	15.17	24.00	-0.70	Pass	16
11a	6Mbps	1	44	5220	0.30	17.95	24.00	-0.70	Pass	18
11a	6Mbps	1	48	5240	0.30	18.16	24.00	-0.70	Pass	18
HT20	MCS0	1	36	5180	0.03	15.12	24.00	-0.70	Pass	16
HT20	MCS0	1	44	5220	0.03	17.62	24.00	-0.70	Pass	18
HT20	MCS0	1	48	5240	0.03	17.76	24.00	-0.70	Pass	18
HT40	MCS0	1	38	5190	0.09	15.18	24.00	-0.70	Pass	16
HT40	MCS0	1	46	5230	0.09	17.83	24.00	-0.70	Pass	18
VHT20	MCS0	1	36	5180	0.07	15.07	24.00	-0.70	Pass	16
VHT20	MCS0	1	44	5220	0.07	15.58	24.00	-0.70	Pass	18
VHT20	MCS0	1	48	5240	0.07	17.72	24.00	-0.70	Pass	18
VHT40	MCS0	1	38	5190	0.08	15.14	24.00	-0.70	Pass	16
VHT40	MCS0	1	46	5230	0.08	17.79	24.00	-0.70	Pass	18



FCC <5180 MHz ~ 5250 MHz> single antenna											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	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
HE20	MCS0	1	36	5180	Full	0.05	15.17	24.00	-0.70	Pass	16
HE20	MCS0	1	44	5220	Full	0.05	17.70	24.00	-0.70	Pass	18
HE20	MCS0	1	48	5240	Full	0.05	17.82	24.00	-0.70	Pass	18
HE40	MCS0	1	38	5190	Full	0.05	14.56	24.00	-0.70	Pass	15
HE40	MCS0	1	46	5230	Full	0.05	17.44	24.00	-0.70	Pass	18

FCC <5250 MHz ~ 5320 MHz>single antenna											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power with duty factor (dBm)	FCC 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	0.30	17.53	23.98	-0.80	26.99	Pass	18
11a	6Mbps	1	60	5300	0.30	17.71	23.98	-0.80	26.99	Pass	18
11a	6Mbps	1	64	5320	0.30	16.19	23.98	-0.80	26.99	Pass	17
HT20	MCS0	1	52	5260	0.03	17.32	23.98	-0.80	26.99	Pass	18
HT20	MCS0	1	60	5300	0.03	17.31	23.98	-0.80	26.99	Pass	18
HT20	MCS0	1	64	5320	0.03	16.18	23.98	-0.80	26.99	Pass	17
HT40	MCS0	1	54	5270	0.09	17.35	23.98	-0.80	26.99	Pass	18
HT40	MCS0	1	62	5310	0.09	15.12	23.98	-0.80	26.99	Pass	16
VHT20	MCS0	1	52	5260	0.07	17.30	23.98	-0.80	26.99	Pass	18
VHT20	MCS0	1	60	5300	0.07	17.26	23.98	-0.80	26.99	Pass	18
VHT20	MCS0	1	64	5320	0.07	16.14	23.98	-0.80	26.99	Pass	17
VHT40	MCS0	1	54	5270	0.08	17.28	23.98	-0.80	26.99	Pass	18
VHT40	MCS0	1	62	5310	0.08	15.07	23.98	-0.80	26.99	Pass	16



FCC <5250 MHz ~ 5320 MHz> single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)	Average Conducted Power with duty factor (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail	Power Setting
						Ant 1	Ant 1	Ant 1	Ant 1			Ant 1
HE20	MCS0	1	52	5260	Full	0.05	17.37	23.98	-0.80	26.99	Pass	18
HE20	MCS0	1	60	5300	Full	0.05	17.36	23.98	-0.80	26.99	Pass	18
HE20	MCS0	1	64	5320	Full	0.05	15.22	23.98	-0.80	26.99	Pass	16
HE40	MCS0	1	54	5270	Full	0.05	17.33	23.98	-0.80	26.99	Pass	18
HE40	MCS0	1	62	5310	Full	0.05	17.32	23.98	-0.80	26.99	Pass	18

FCC <5500 MHz ~ 5720 MHz > single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power with duty factor (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail	Power Setting	
					Ant 1	Ant 1	Ant 1	Ant 1			Ant 1	Ant 1
11a	6Mbps	1	100	5500	0.30	14.25	23.98	-1.20	26.99	Pass	14	14
11a	6Mbps	1	104	5520	0.30	18.31	23.98	-1.20	26.99	Pass	18	18
11a	6Mbps	1	116	5580	0.30	17.96	23.98	-1.20	26.99	Pass	18	18
11a	6Mbps	1	136	5680	0.30	17.82	23.98	-1.20	26.99	Pass	18	18
11a	6Mbps	1	140	5700	0.30	13.92	23.98	-1.20	26.99	Pass	14	14
HT20	MCS0	1	100	5500	0.03	16.28	23.98	-1.20	26.99	Pass	16	16
HT20	MCS0	1	116	5580	0.03	17.87	23.98	-1.20	26.99	Pass	18	18
HT20	MCS0	1	136	5680	0.03	17.70	23.98	-1.20	26.99	Pass	18	18
HT20	MCS0	1	140	5700	0.03	17.26	23.98	-1.20	26.99	Pass	13	13
HT40	MCS0	1	102	5510	0.09	14.40	23.98	-1.20	26.99	Pass	14	14
HT40	MCS0	1	110	5550	0.09	17.79	23.98	-1.20	26.99	Pass	18	18
HT40	MCS0	1	134	5670	0.09	17.48	23.98	-1.20	26.99	Pass	18	18
VHT20	MCS0	1	100	5500	0.07	16.22	23.98	-1.20	26.99	Pass	16	16
VHT20	MCS0	1	116	5580	0.07	17.81	23.98	-1.20	26.99	Pass	18	18
VHT20	MCS0	1	136	5680	0.07	17.68	23.98	-1.20	26.99	Pass	18	18



VHT20	MCS0	1	140	5700	0.07	12.64	23.98	-1.20	26.99	Pass	13
VHT40	MCS0	1	102	5510	0.08	14.36	23.98	-1.20	26.99	Pass	14
VHT40	MCS0	1	110	5550	0.08	17.76	23.98	-1.20	26.99	Pass	18
VHT40	MCS0	1	134	5670	0.08	17.43	23.98	-1.20	26.99	Pass	18

FCC <5500 MHz ~ 5720 MHz > single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)	Average Conducted Power with duty factor (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail	Power Setting
						Ant 1	Ant 1	Ant 1	Ant 1			Ant 1
HE20	MCS0	1	100	5500	Full	0.05	14.62	23.98	-1.20	26.99	Pass	14
HE20	MCS0	1	104	5520	Full	0.05	17.61	23.98	-1.20	26.99	Pass	18
HE20	MCS0	1	116	5580	Full	0.05	17.92	23.98	-1.20	26.99	Pass	18
HE20	MCS0	1	136	5680	Full	0.05	17.68	23.98	-1.20	26.99	Pass	18
HE20	MCS0	1	140	5700	Full	0.05	14.86	23.98	-1.20	26.99	Pass	15
HE40	MCS0	1	102	5510	Full	0.05	14.43	23.98	-1.20	26.99	Pass	14
HE40	MCS0	1	110	5550	Full	0.05	17.77	23.98	-1.20	26.99	Pass	18
HE40	MCS0	1	134	5670	Full	0.05	17.48	23.98	-1.20	26.99	Pass	18



<5745 MHz ~ 5825 MHz> single antenna										
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
11a	6Mbps	1	149	5745	0.30	17.87	30.00	-1.50	Pass	18
11a	6Mbps	1	157	5785	0.30	17.69	30.00	-1.50	Pass	18
11a	6Mbps	1	165	5825	0.30	17.52	30.00	-1.50	Pass	18
HT20	MCS0	1	149	5745	0.03	17.64	30.00	-1.50	Pass	18
HT20	MCS0	1	157	5785	0.03	17.42	30.00	-1.50	Pass	18
HT20	MCS0	1	165	5825	0.03	17.34	30.00	-1.50	Pass	18
HT40	MCS0	1	151	5755	0.09	17.62	30.00	-1.50	Pass	18
HT40	MCS0	1	159	5795	0.09	17.41	30.00	-1.50	Pass	18
VHT20	MCS0	1	149	5745	0.07	17.63	30.00	-1.50	Pass	18
VHT20	MCS0	1	157	5785	0.07	17.40	30.00	-1.50	Pass	18
VHT20	MCS0	1	165	5825	0.07	17.36	30.00	-1.50	Pass	18
VHT40	MCS0	1	151	5755	0.08	17.58	30.00	-1.50	Pass	18
VHT40	MCS0	1	159	5795	0.08	17.36	30.00	-1.50	Pass	18

<5745 MHz ~ 5825 MHz> single antenna											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	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		
HE20	MCS0	1	149	5745	Full	0.00	17.69	30.00	-1.50	Pass	18
HE20	MCS0	1	157	5785	Full	0.00	17.49	30.00	-1.50	Pass	18
HE20	MCS0	1	165	5825	Full	0.00	17.40	30.00	-1.50	Pass	18
HE40	MCS0	1	151	5755	Full	0.00	17.61	30.00	-1.50	Pass	18
HE40	MCS0	1	159	5795	Full	0.00	17.41	30.00	-1.50	Pass	18



3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

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

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

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

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 $\geq$ 3 MHz.
- Number of points in sweep $\geq$ 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

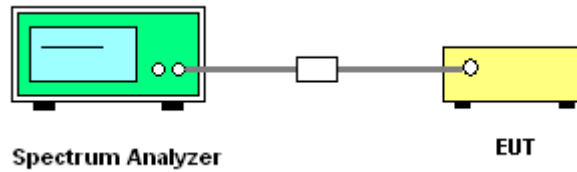
Method SA-2

(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 $\geq$ 1 MHz.
- Number of points in sweep $\geq$ 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 $10 \log(500\text{kHz}/\text{RBW})$ to the test result.
- Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add $10 \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.

1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

3.4 Unwanted Emissions Measurement

This section as specified in FCC Part 15.407(b) is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement. The unwanted emissions shall comply with 15.407(b)(1) to (6), and restricted bands per FCC Part 15.205.

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.

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

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

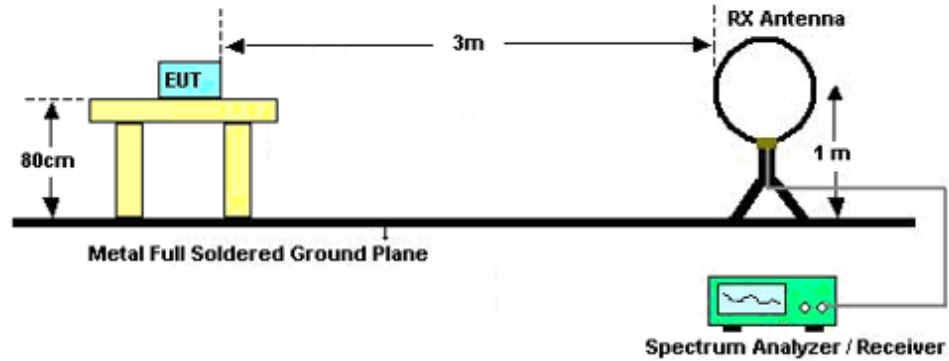
The measuring equipment is listed in the section 4 of this test report.

3.4.3 Test Procedures

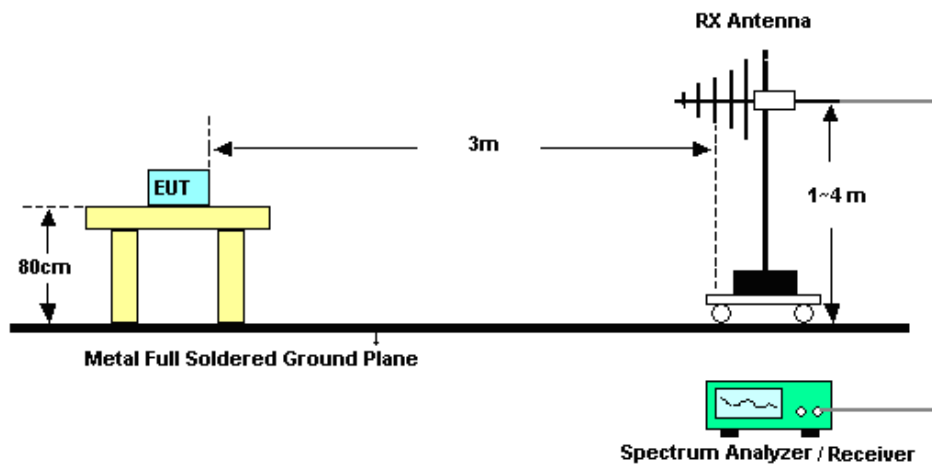
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.
Section G) Unwanted emissions measurement.
 - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
 - RBW = 120 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Trace mode = max hold
 - (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
 - RBW = 1 MHz
 - VBW $\geq$ 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 $\geq$ 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

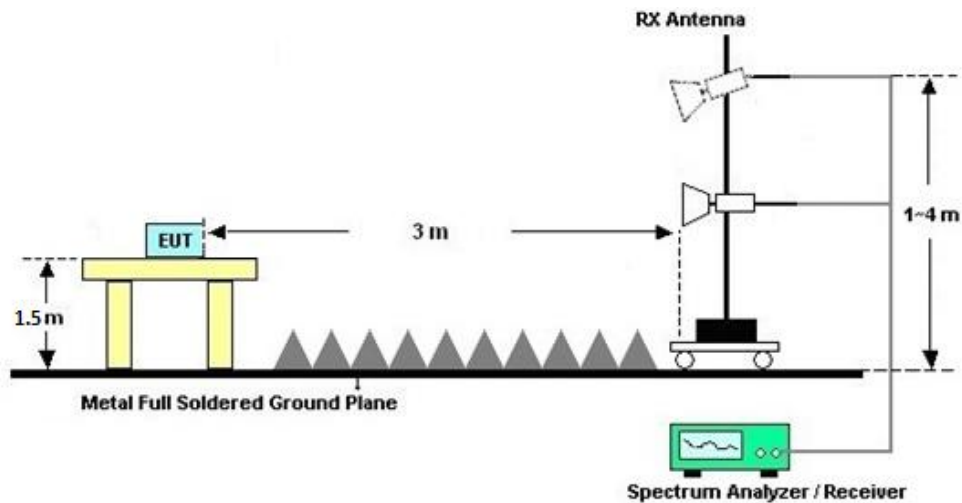
For radiated emissions below 30MHz



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 (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

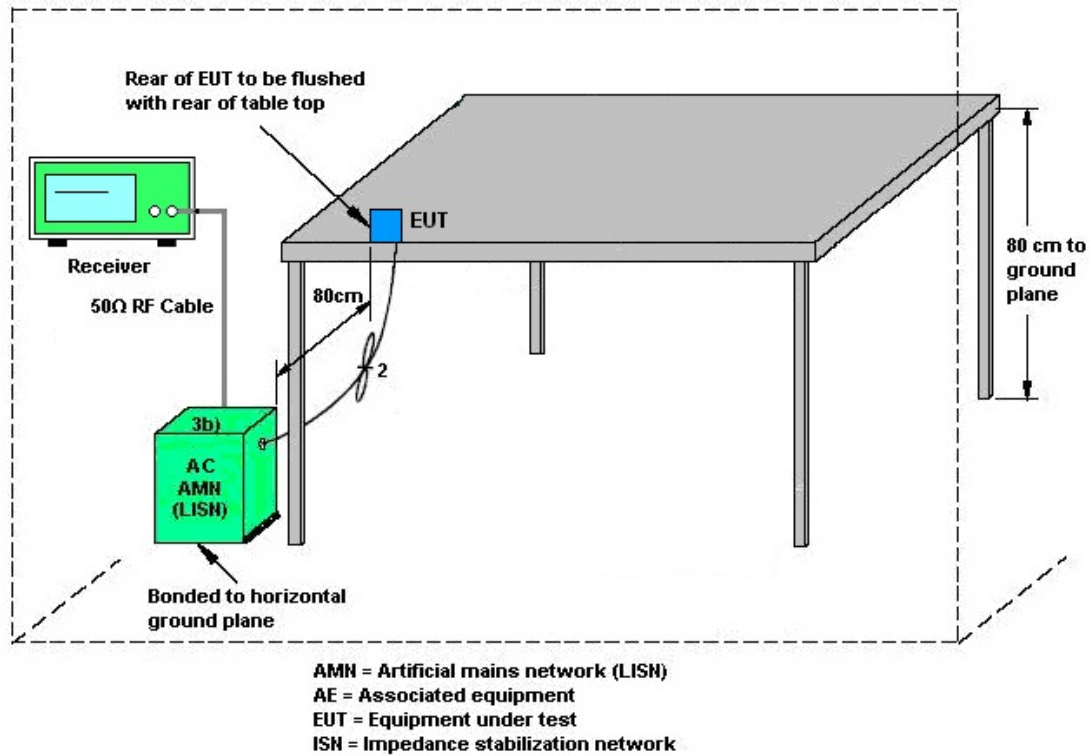
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.



3.6 Antenna Requirements

3.6.1 Standard Applicable

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

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.6.3 Antenna Gain

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



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 11, 2023	Aug. 31, 2024~ Dec. 06, 2024	Oct. 10, 2024	Conducted (TH01-KS)
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 10, 2024		Oct. 09, 2025	Conducted (TH01-KS)
Pulse Power Sensor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 02, 2024	Aug. 31, 2024~ Dec. 06, 2024	Jan. 01, 2025	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 02, 2024	Aug. 31, 2024~ Dec. 06, 2024	Jan. 01, 2025	Conducted (TH01-KS)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 27, 2023	Sep. 11, 2024~ Nov. 29, 2024	Dec. 26, 2024	Radiation (03CH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 03, 2024	Sep. 11, 2024~ Nov. 29, 2024	Jul. 02, 2025	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2E	101141	9kHz~30MHz	Dec. 29, 2023	Sep. 11, 2024~ Nov. 29, 2024	Dec. 28, 2024	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz~2GHz	Oct. 24, 2023	Sep. 11, 2024~ Nov. 29, 2024	Oct. 23, 2025	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 04, 2024	Sep. 11, 2024~ Nov. 29, 2024	Jul. 03, 2025	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Apr. 09, 2024	Sep. 11, 2024~ Nov. 29, 2024	Apr. 08, 2025	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 09, 2024	Sep. 11, 2024~ Nov. 29, 2024	Apr. 08, 2025	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-0010 1800-30-10P-R	1943528	1GHz~18GHz	Apr. 09, 2024	Sep. 11, 2024~ Nov. 29, 2024	Apr. 08, 2025	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5GHz	Apr. 09, 2024	Sep. 11, 2024~ Nov. 29, 2024	Apr. 08, 2025	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 03, 2024	Sep. 11, 2024~ Nov. 29, 2024	Jul. 02, 2025	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	Jul. 04, 2024	Sep. 11, 2024~ Nov. 29, 2024	Jul. 03, 2025	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Sep. 11, 2024~ Nov. 29, 2024	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Sep. 11, 2024~ Nov. 29, 2024	NCR	Radiation (03CH01-SZ)
EMI Receiver	R&S	ESR7	102297	9kHz~7GHz;	Jul. 03, 2024	Oct. 19, 2024	Jul. 02, 2025	Conduction (CO02-SZ)
AC LISN	R&S	ENV216	101499	9kHz~30MHz	Jul. 03, 2024	Oct. 19, 2024	Jul. 02, 2025	Conduction (CO02-SZ)
AC Power Source	CHROMA	61601	616010002470	100Vac~250Vac	Dec.25, 2022	Oct. 19, 2024	Dec. 24, 2024	Conduction (CO02-SZ)

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	± 2.22 dB
Occupied Channel Bandwidth	$\pm 0.1\%$
Conducted Power	± 0.50 dB
Conducted Power Spectral Density	± 0.90 dB
Frequency	± 0.04 Hz

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.5 dB
--	--------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.8 dB
--	--------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	4.2 dB
--	--------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	5.0 dB
--	--------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	4.3 dB
--	--------

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



Appendix A. Conducted Test Results



Ambient Condition: 25 °C, 45 %RH

Test Date: 2024.8.31~2024.12.6

Test Engineer: Jiang Jun

Emission Bandwidth

Test Result

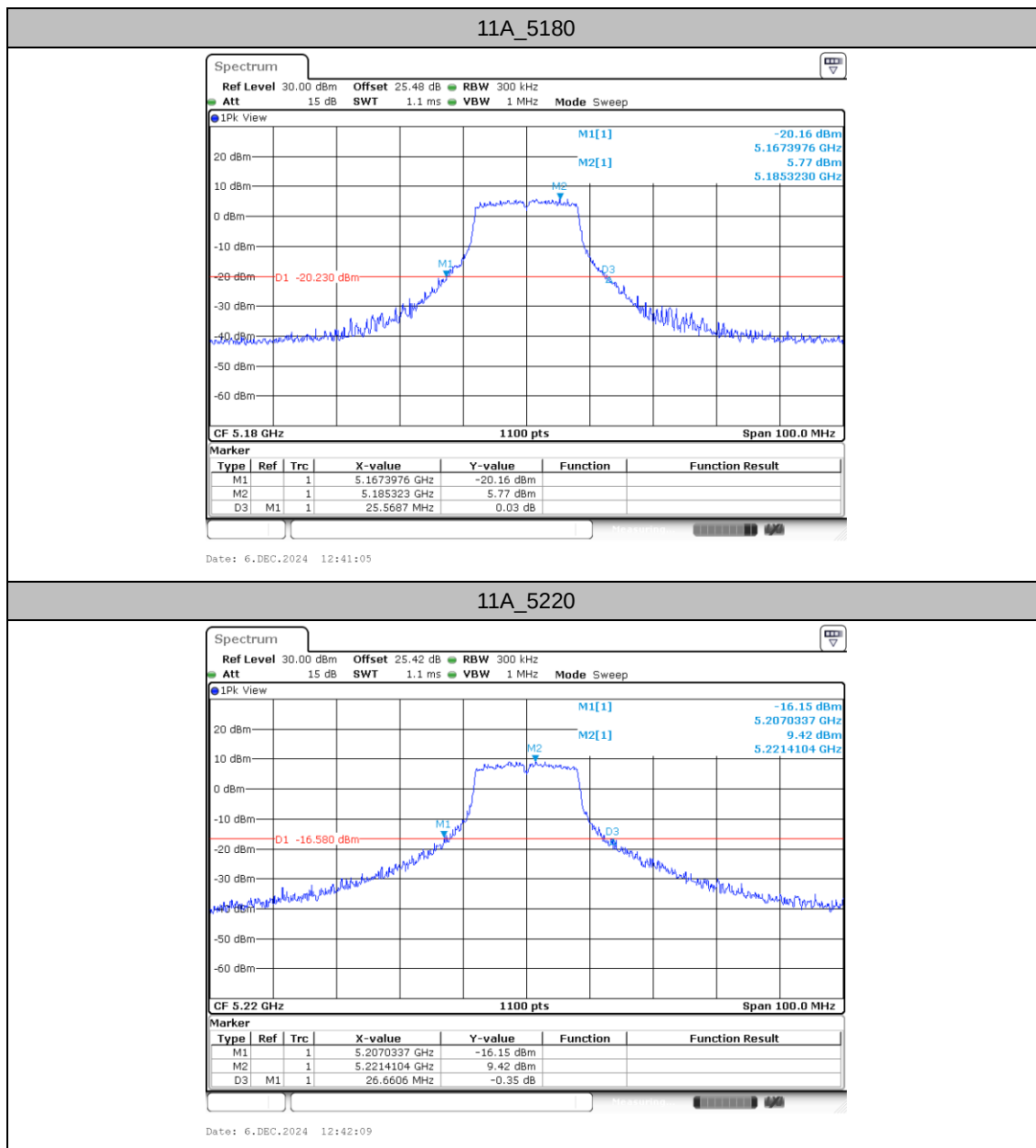
TestMode	Antenna	Freq(MHz)	26dB EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	25.57	5167.40	5192.97	---	---
		5220	26.66	5207.03	5233.69	---	---
		5240	26.84	5225.76	5252.60	---	---
		5260	25.57	5246.67	5272.24	---	---
		5300	25.75	5286.76	5312.51	---	---
		5320	25.39	5307.12	5332.51	---	---
		5500	26.39	5486.76	5513.15	---	---
		5520	30.85	5505.12	5535.97	---	---
		5580	27.12	5565.76	5592.88	---	---
		5680	27.21	5665.67	5692.88	---	---
		5700	27.12	5686.03	5713.15	---	---
		5745	25.75	5732.22	5757.97	---	---
		5785	26.02	5771.76	5797.78	---	---
		5825	25.20	5812.31	5837.51	---	---
11N20SISO	Ant1	5180	26.11	5167.12	5193.24	---	---
		5220	26.30	5206.76	5233.06	---	---
		5240	27.66	5226.67	5254.33	---	---
		5260	25.93	5246.76	5272.69	---	---
		5300	26.21	5286.67	5312.88	---	---
		5320	26.39	5306.85	5333.24	---	---
		5500	27.39	5486.67	5514.06	---	---
		5580	27.30	5566.03	5593.33	---	---
		5680	27.48	5666.21	5693.69	---	---
		5700	27.02	5686.67	5713.69	---	---
		5745	28.66	5729.49	5758.15	---	---
		5785	28.94	5770.30	5799.24	---	---
		5825	27.12	5811.40	5838.51	---	---
11N40SISO	Ant1	5190	46.59	5167.34	5213.93	---	---
		5230	53.50	5205.89	5259.39	---	---
		5270	48.04	5245.71	5293.75	---	---
		5310	46.77	5286.80	5333.57	---	---
		5510	47.68	5486.62	5534.29	---	---
		5550	54.23	5521.34	5575.57	---	---
		5670	49.32	5645.34	5694.66	---	---
		5755	47.50	5730.89	5778.38	---	---

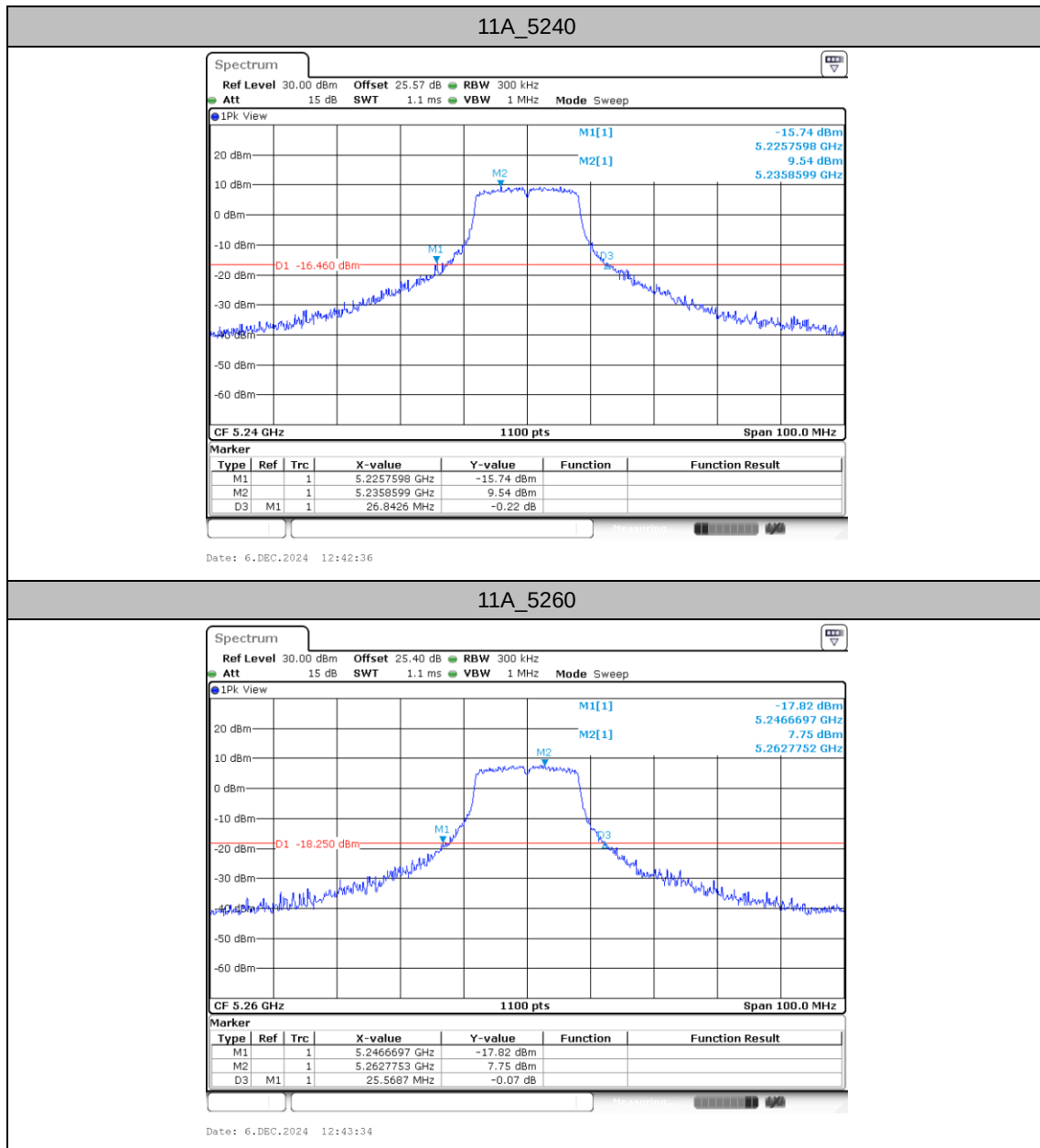


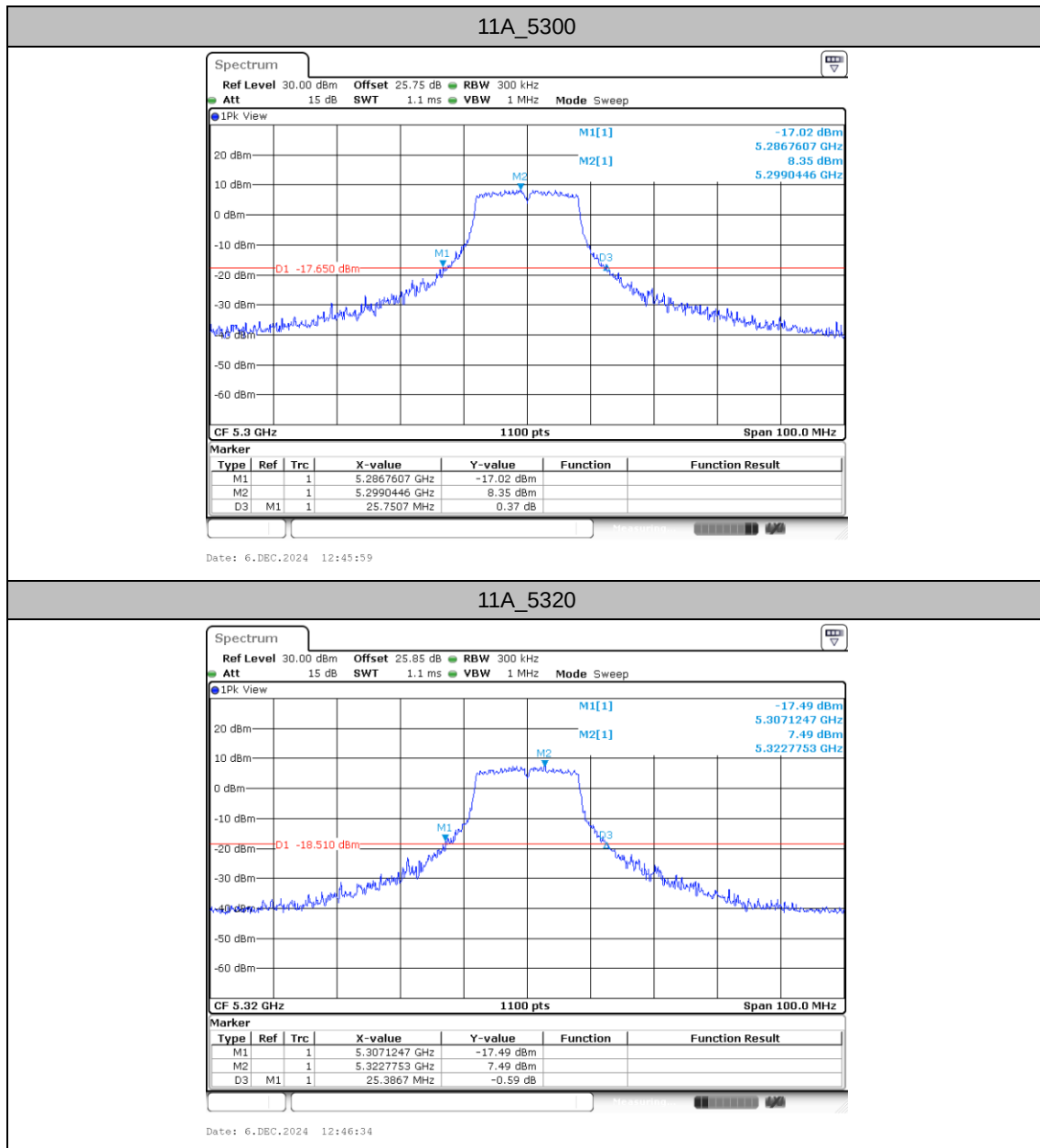
		5795	48.41	5770.71	5819.11	---	---
11AX20SISO	Ant1	5180	24.29	5167.85	5192.15	---	---
		5220	26.75	5206.94	5233.69	---	---
		5240	25.02	5227.31	5252.33	---	---
		5260	25.48	5247.49	5272.97	---	---
		5300	25.48	5286.85	5312.33	---	---
		5320	28.12	5305.67	5333.79	---	---
		5500	26.39	5486.58	5512.97	---	---
		5520	26.39	5507.12	5533.51	---	---
		5580	25.93	5566.67	5592.60	---	---
		5680	26.21	5667.03	5693.24	---	---
		5700	27.48	5686.03	5713.51	---	---
		5745	26.11	5731.76	5757.88	---	---
		5785	26.11	5771.31	5797.42	---	---
		5825	27.66	5810.67	5838.33	---	---
11AX40SISO	Ant1	5190	44.95	5168.07	5213.02	---	---
		5230	44.59	5207.89	5252.47	---	---
		5270	46.04	5247.16	5293.20	---	---
		5310	47.32	5286.07	5333.38	---	---
		5510	46.59	5486.43	5533.02	---	---
		5550	46.22	5527.16	5573.38	---	---
		5670	46.59	5646.98	5693.57	---	---
		5755	45.86	5732.16	5778.02	---	---
		5795	47.50	5771.98	5819.48	---	---

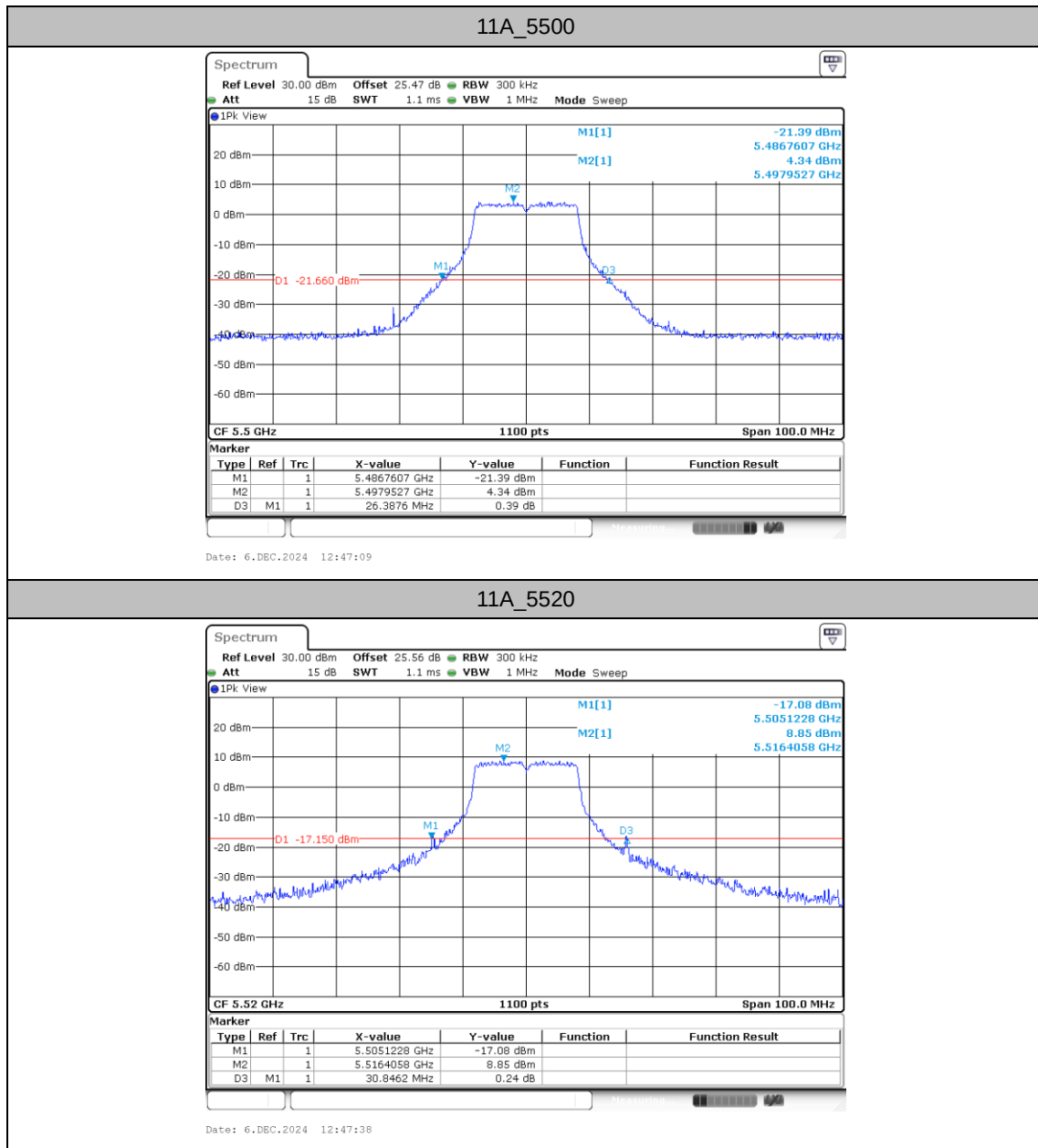


Test Graphs





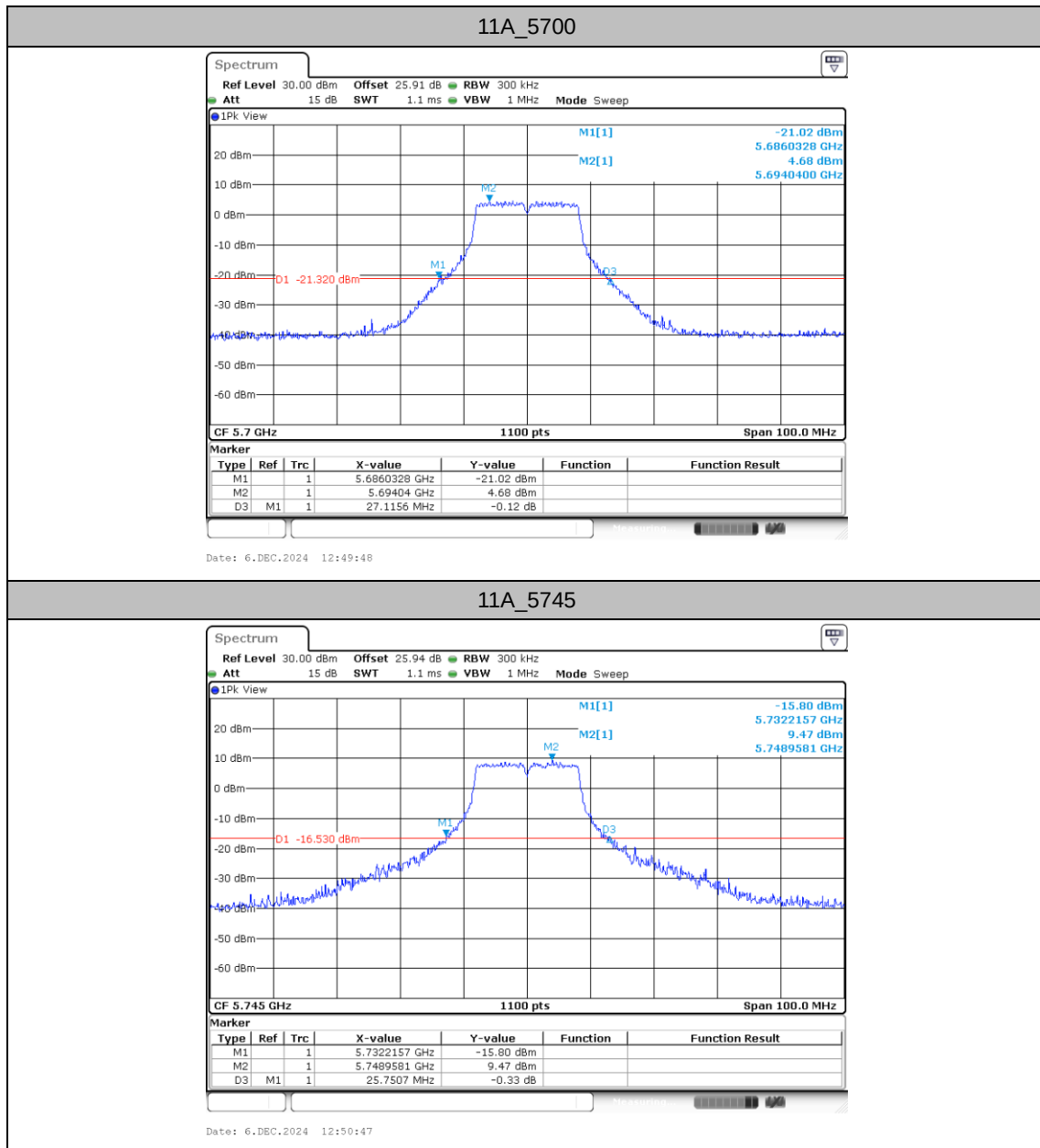


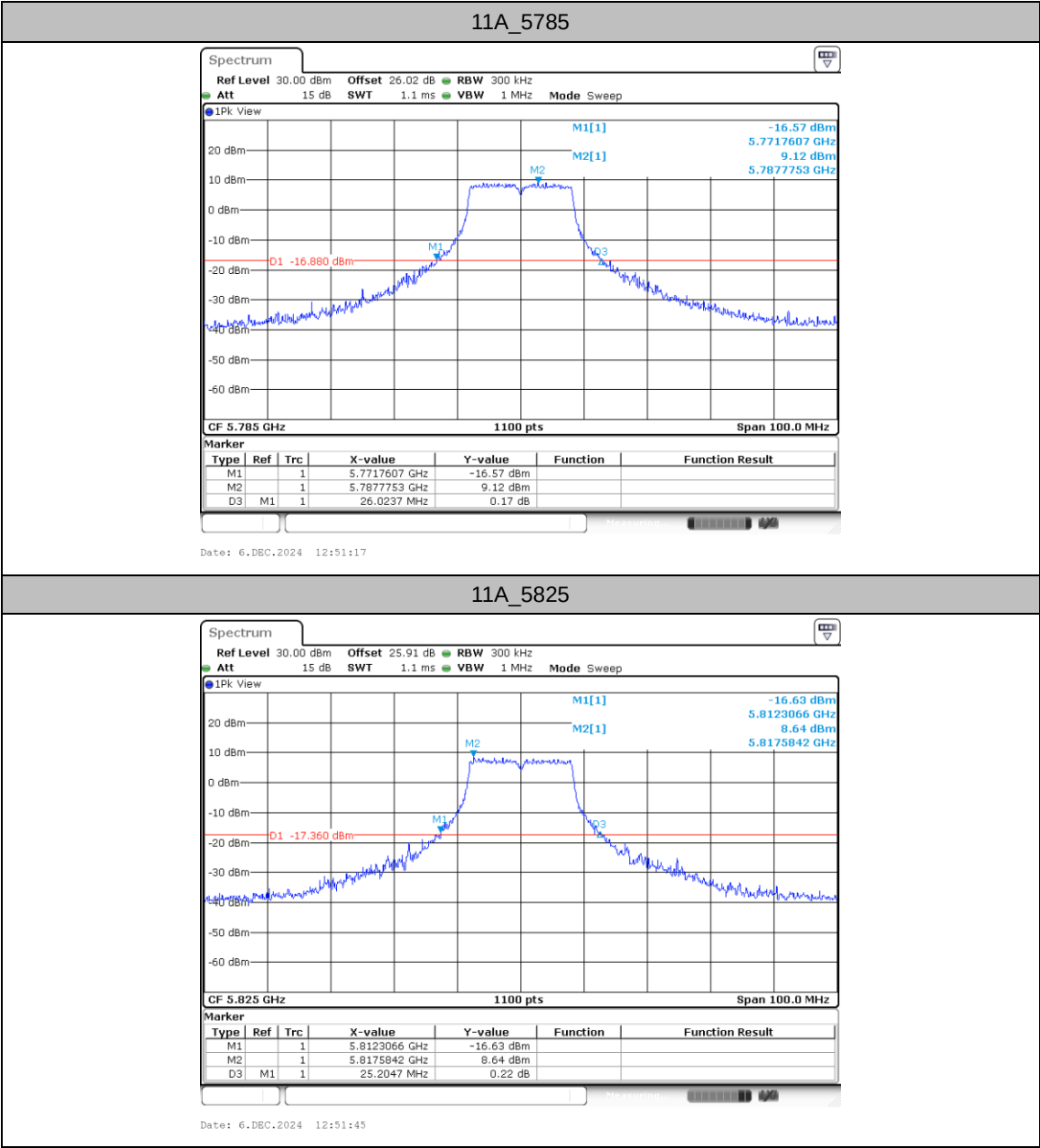


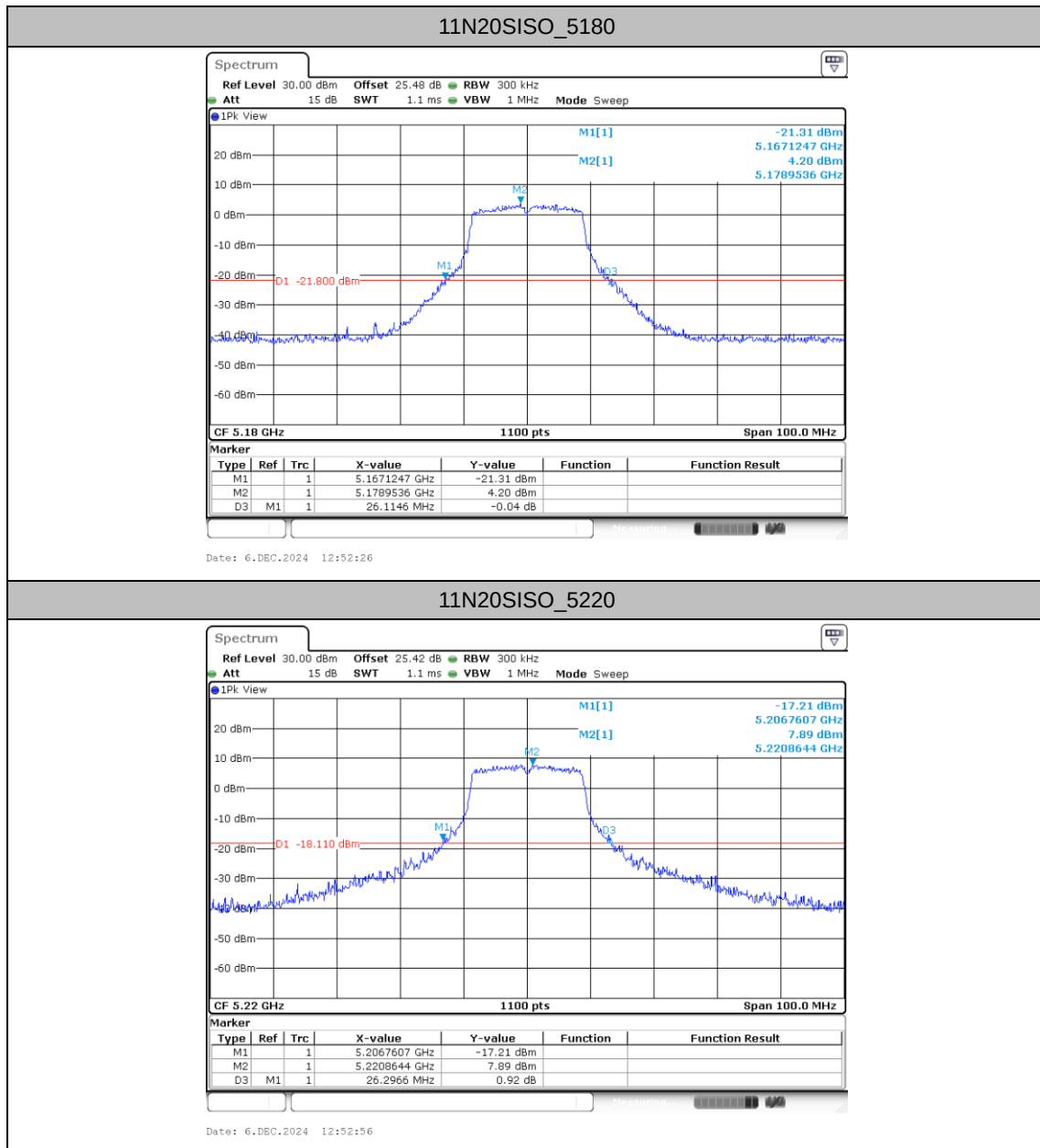


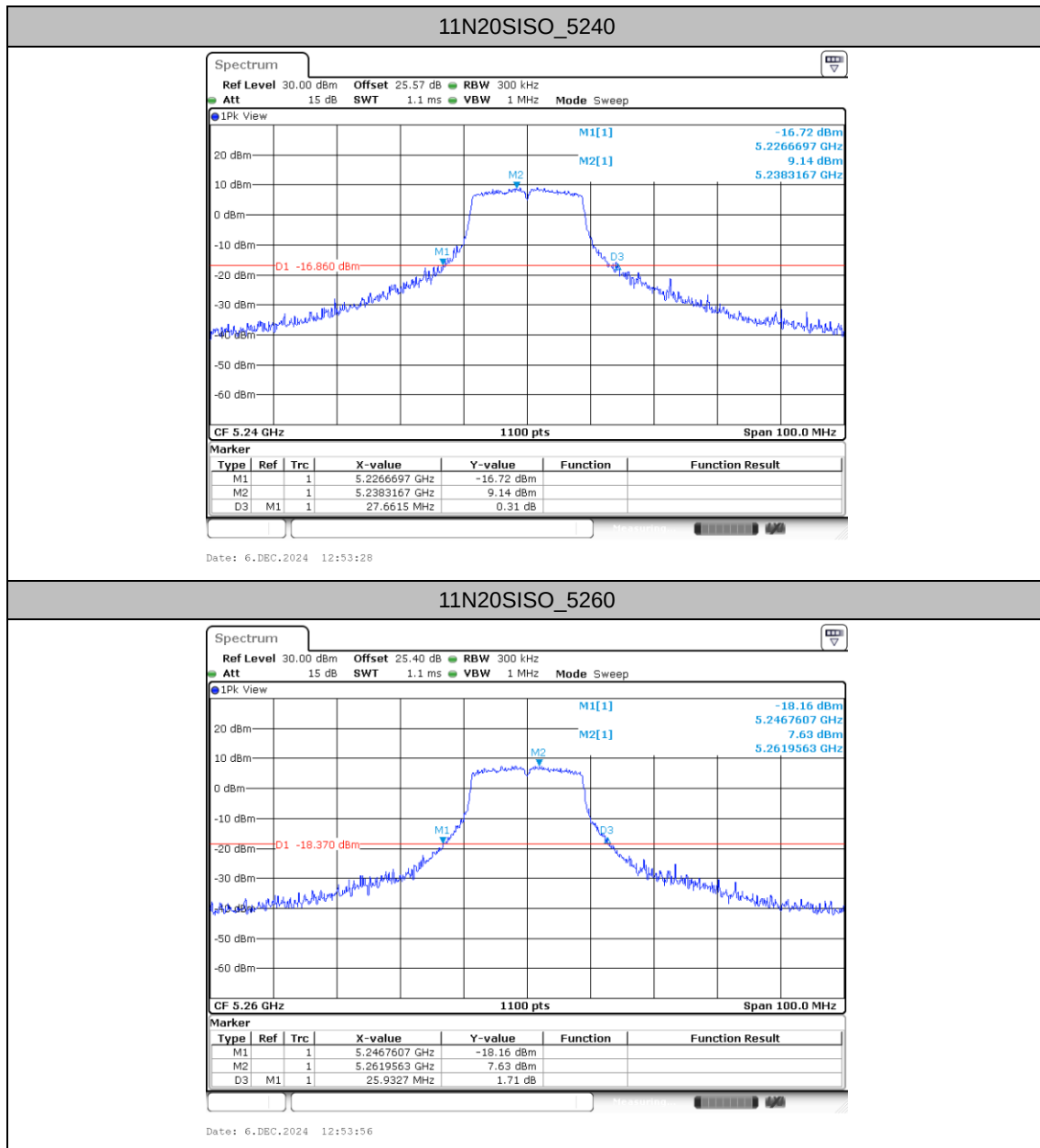
11A_5680

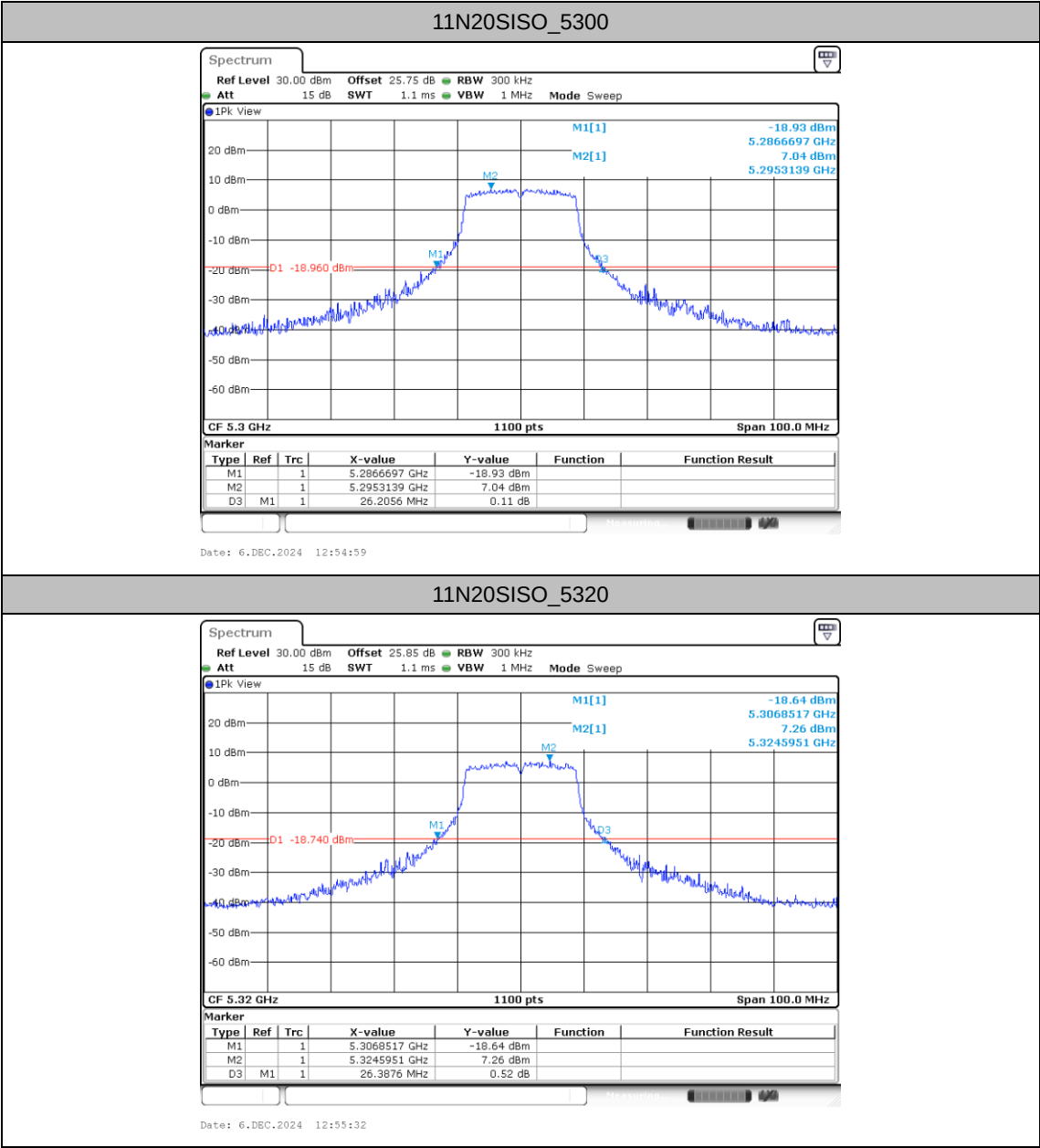


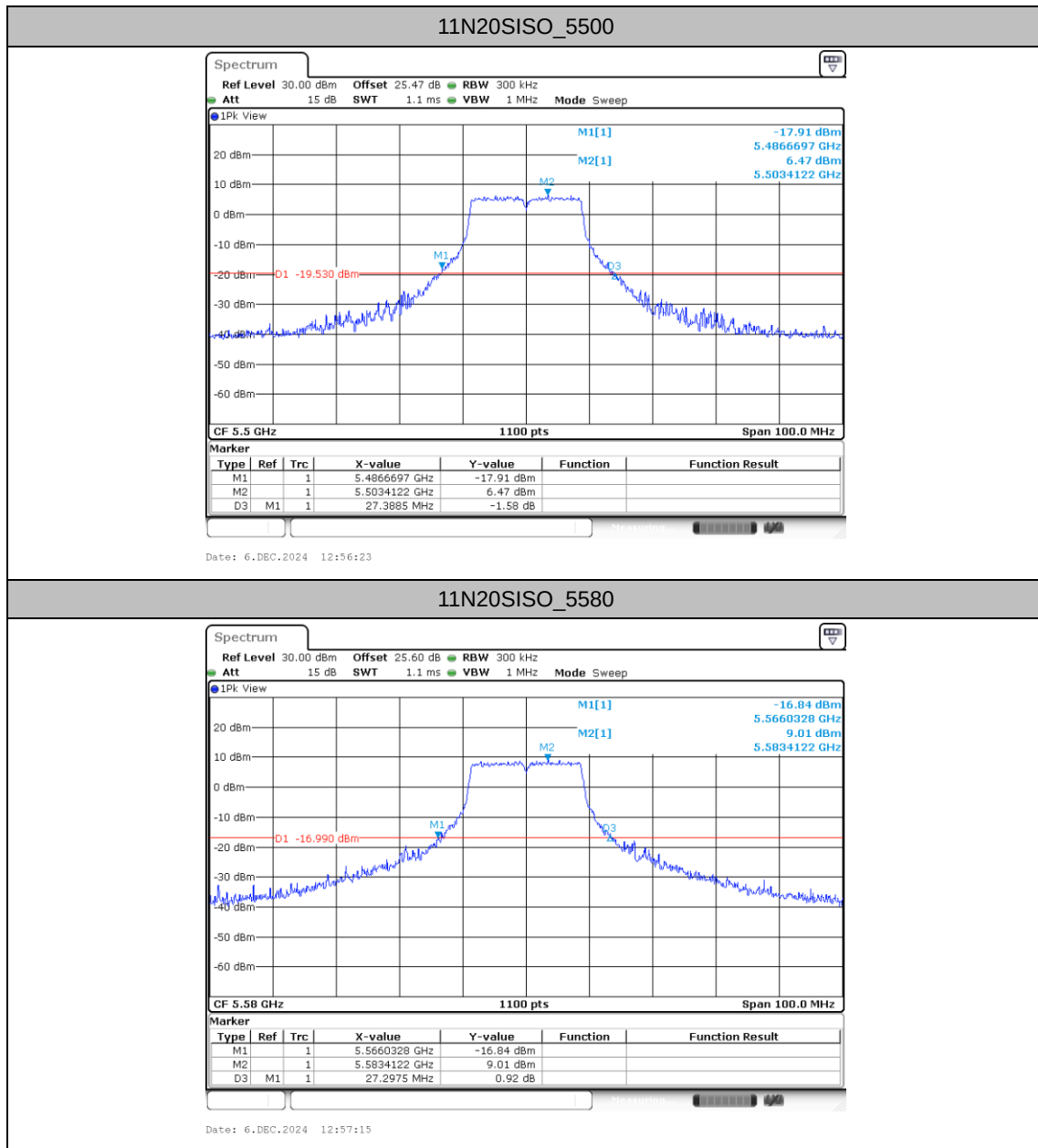


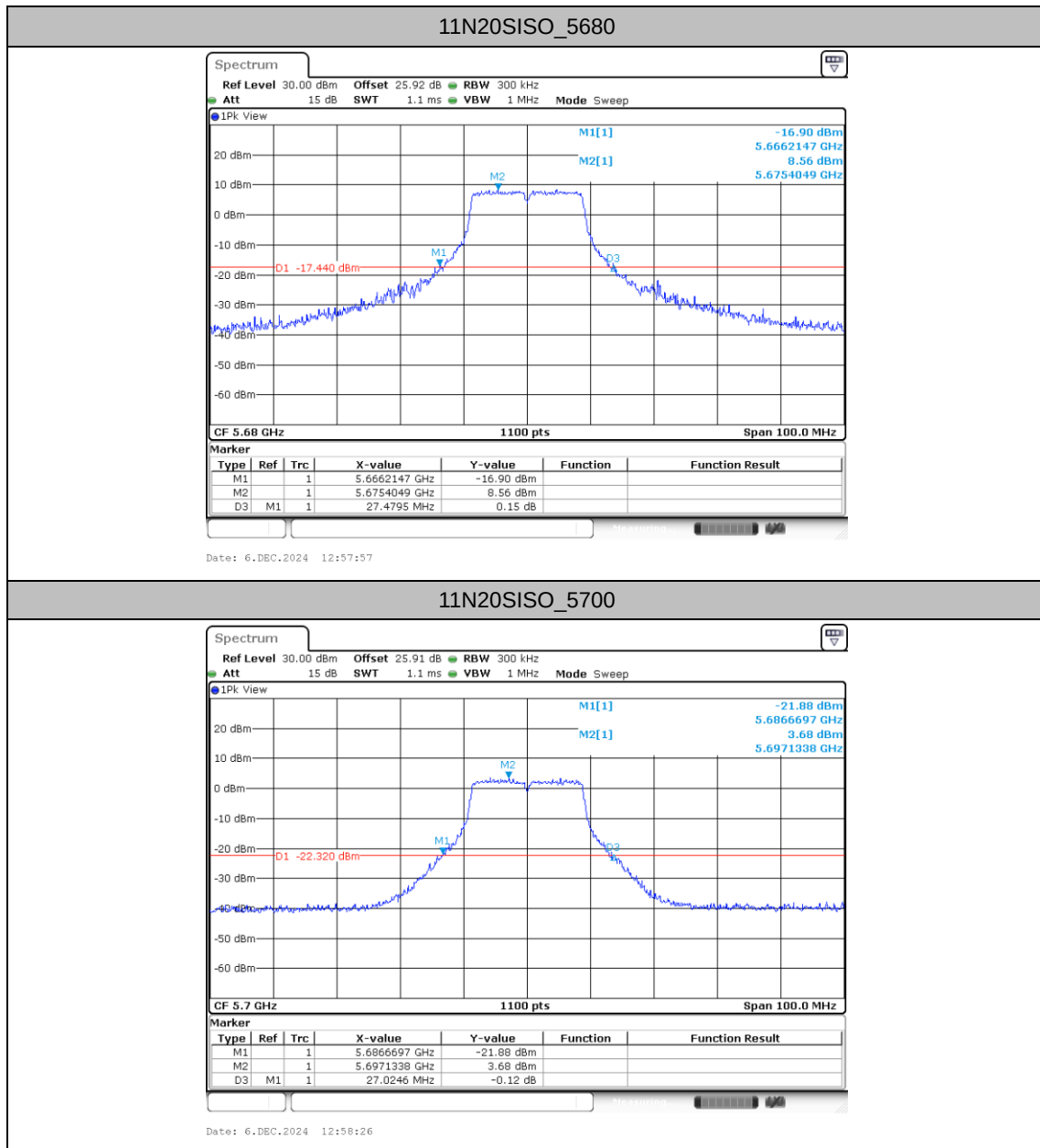


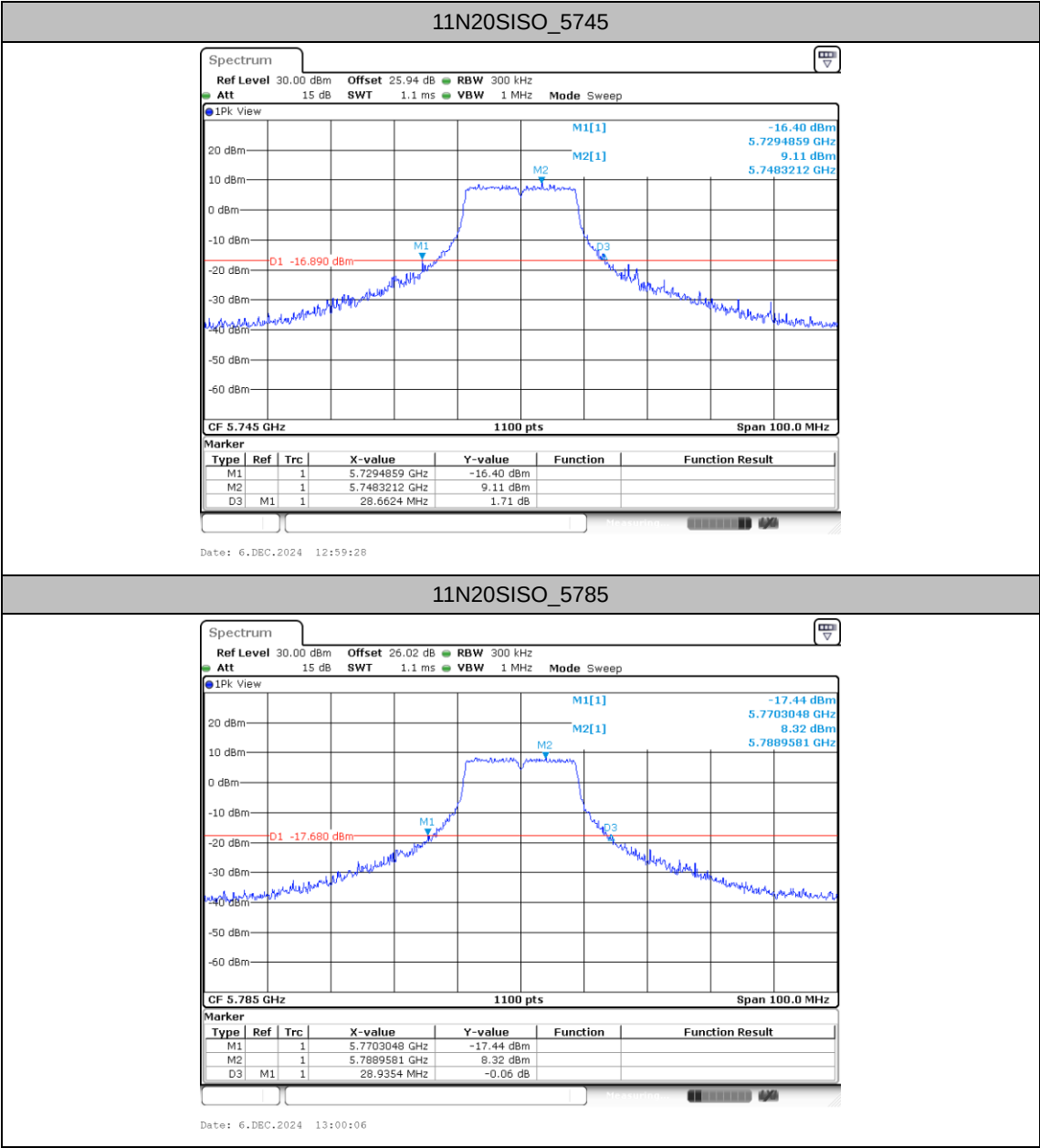


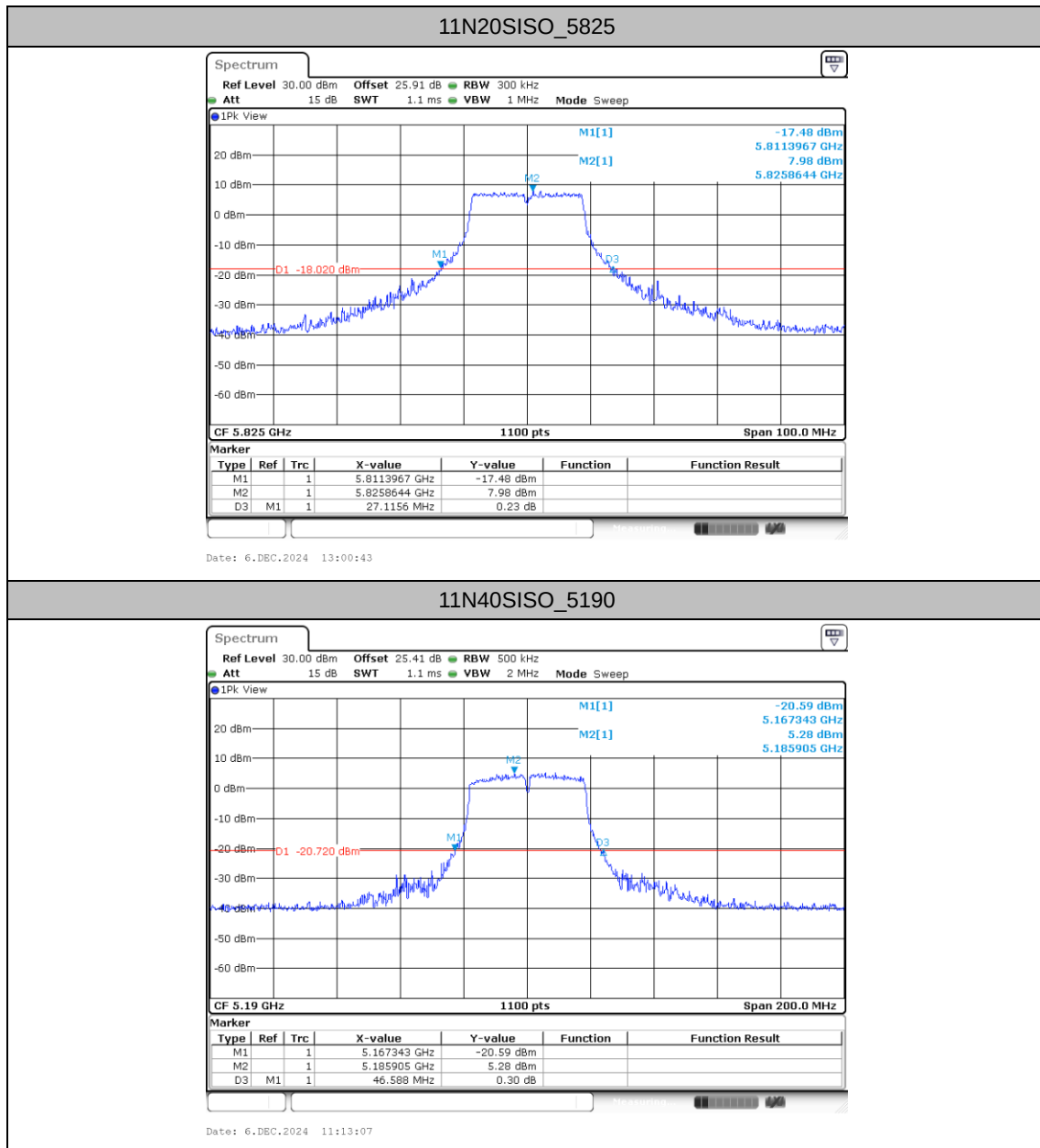


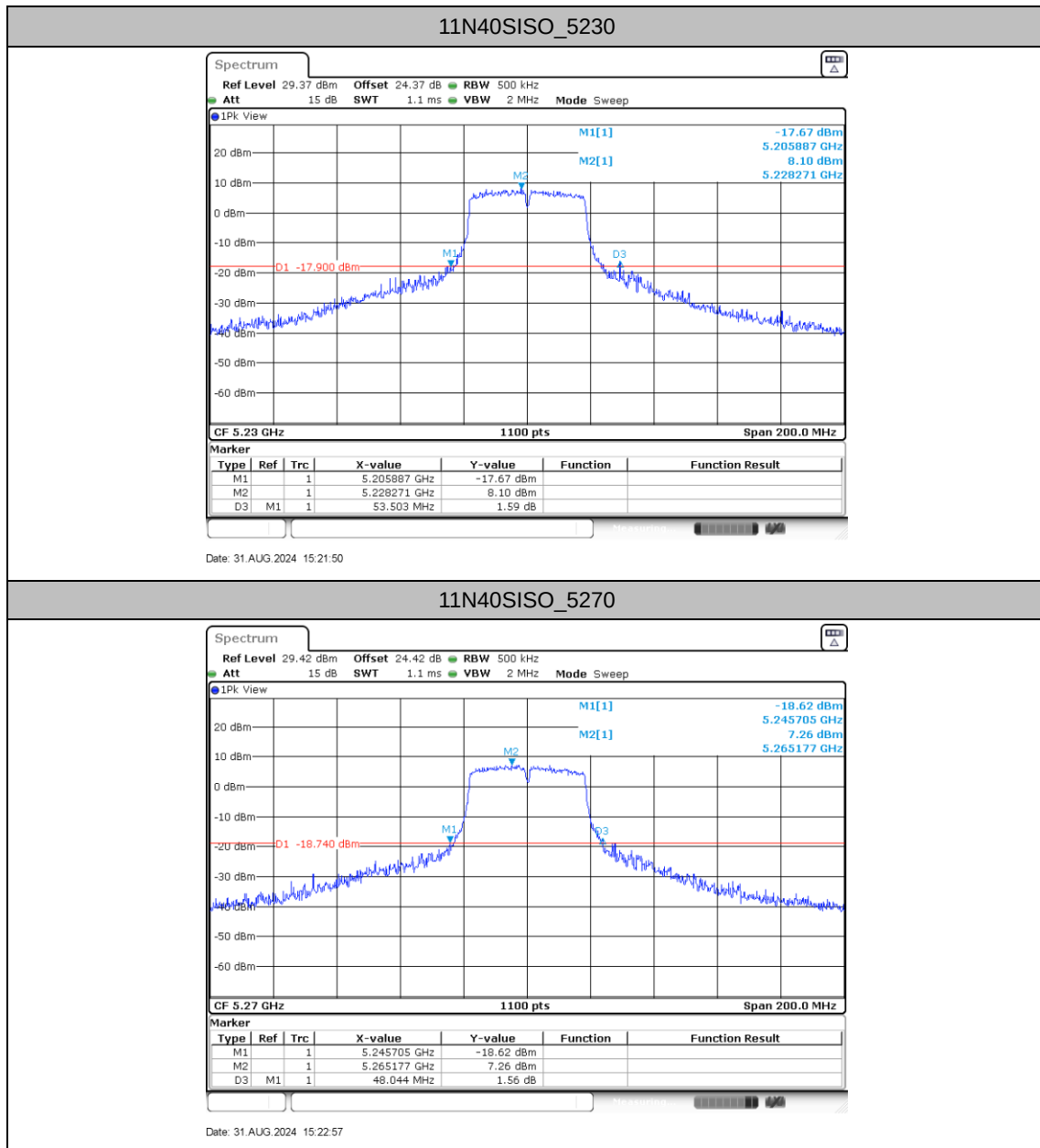


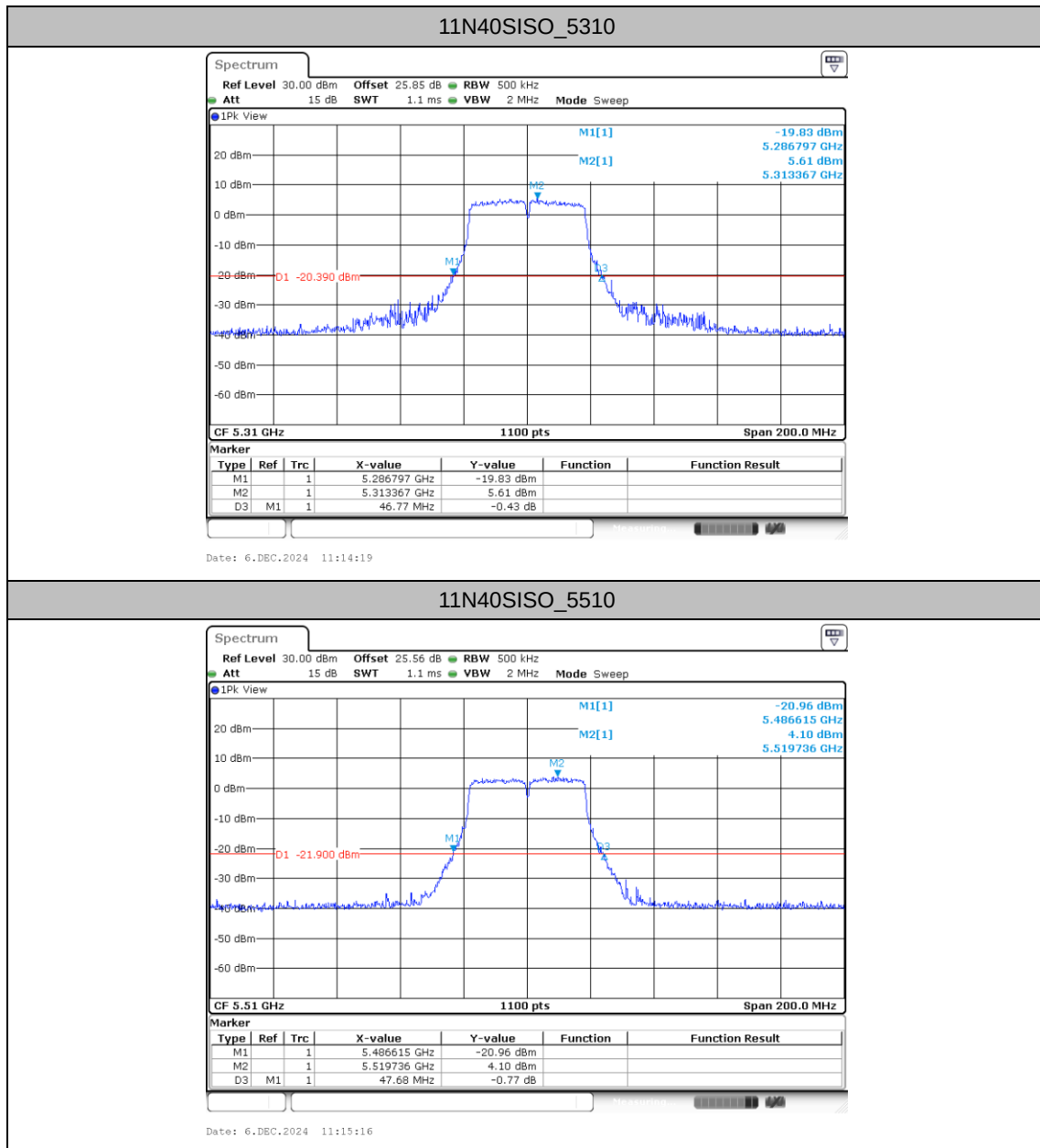


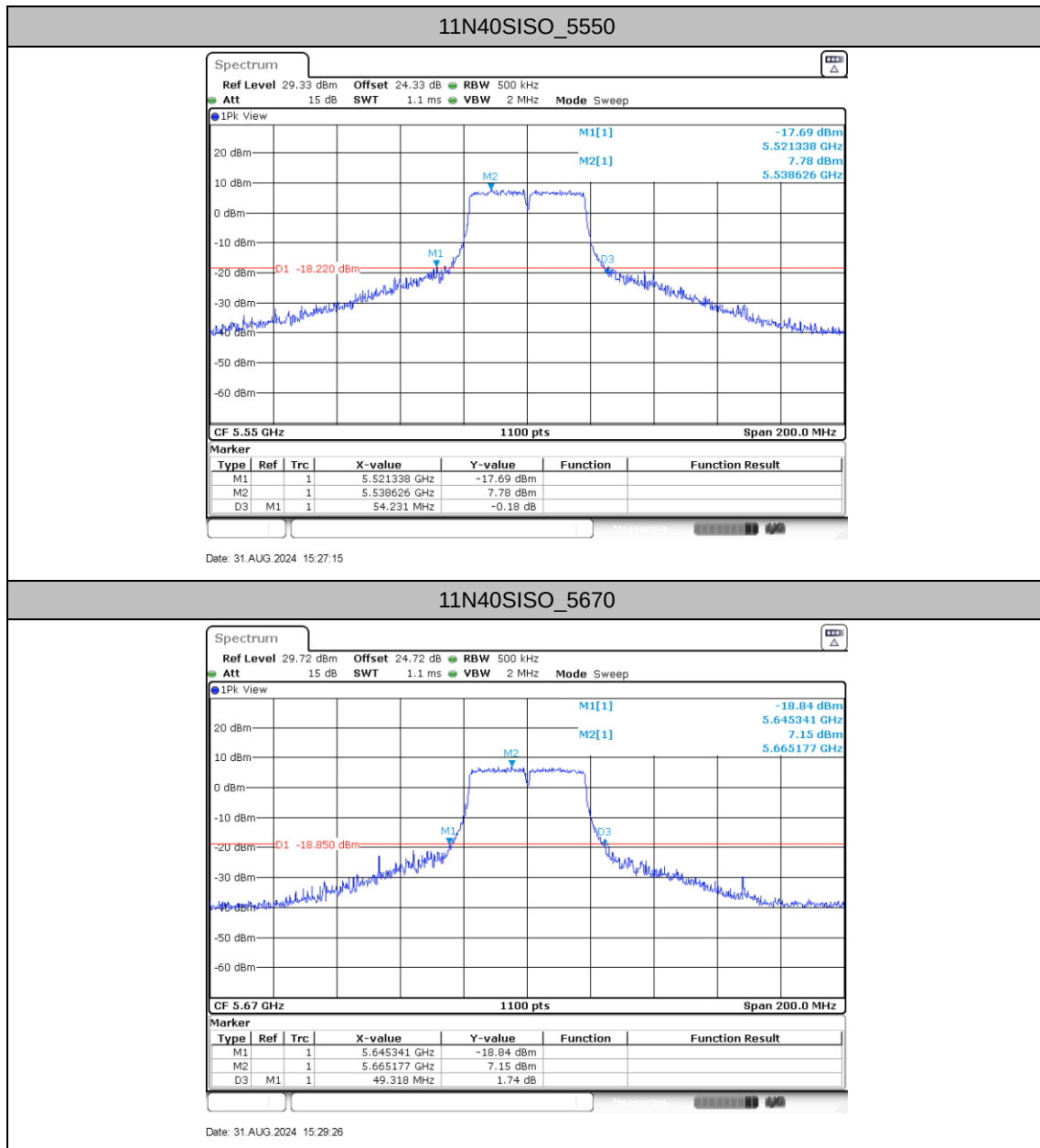


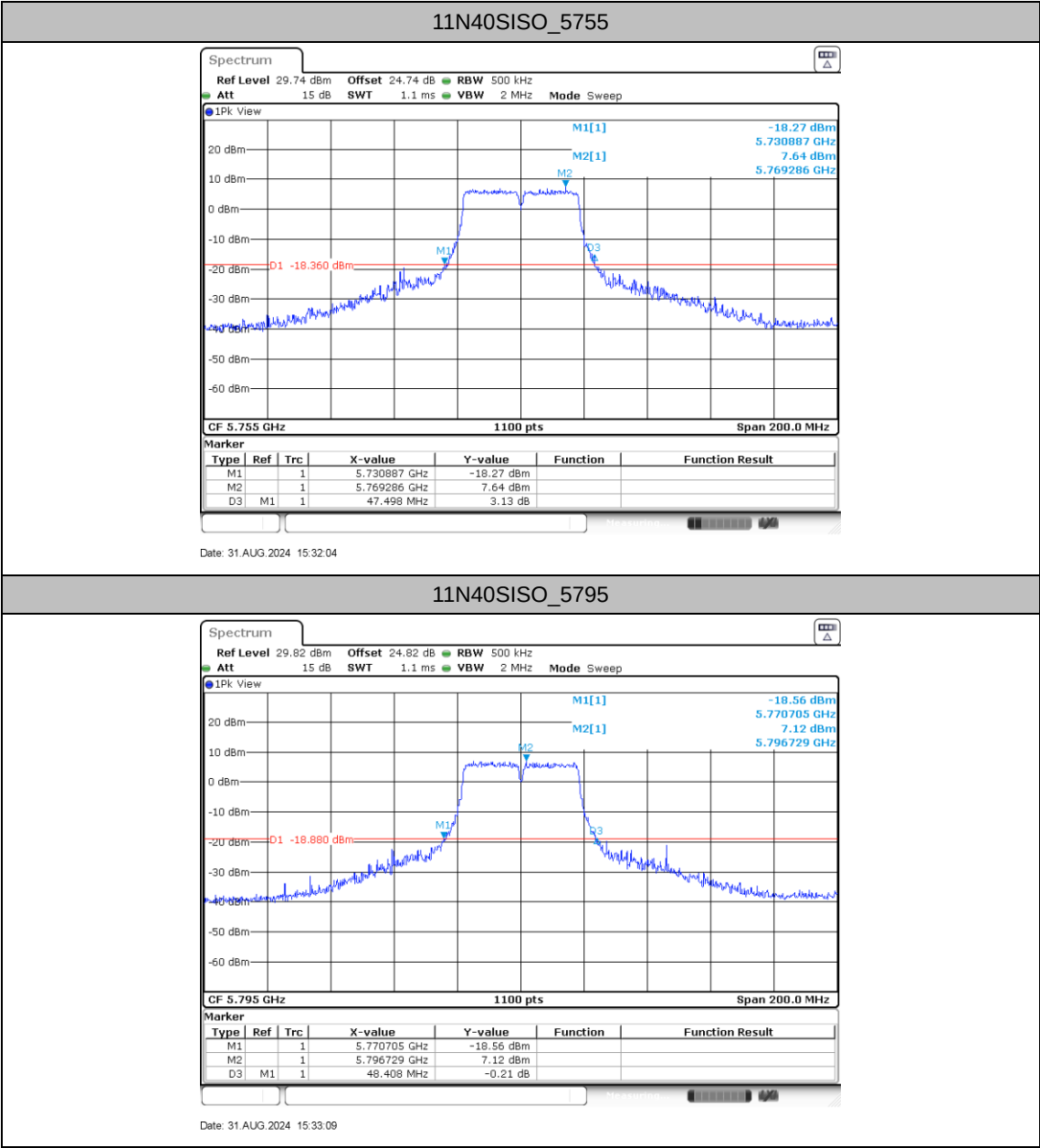


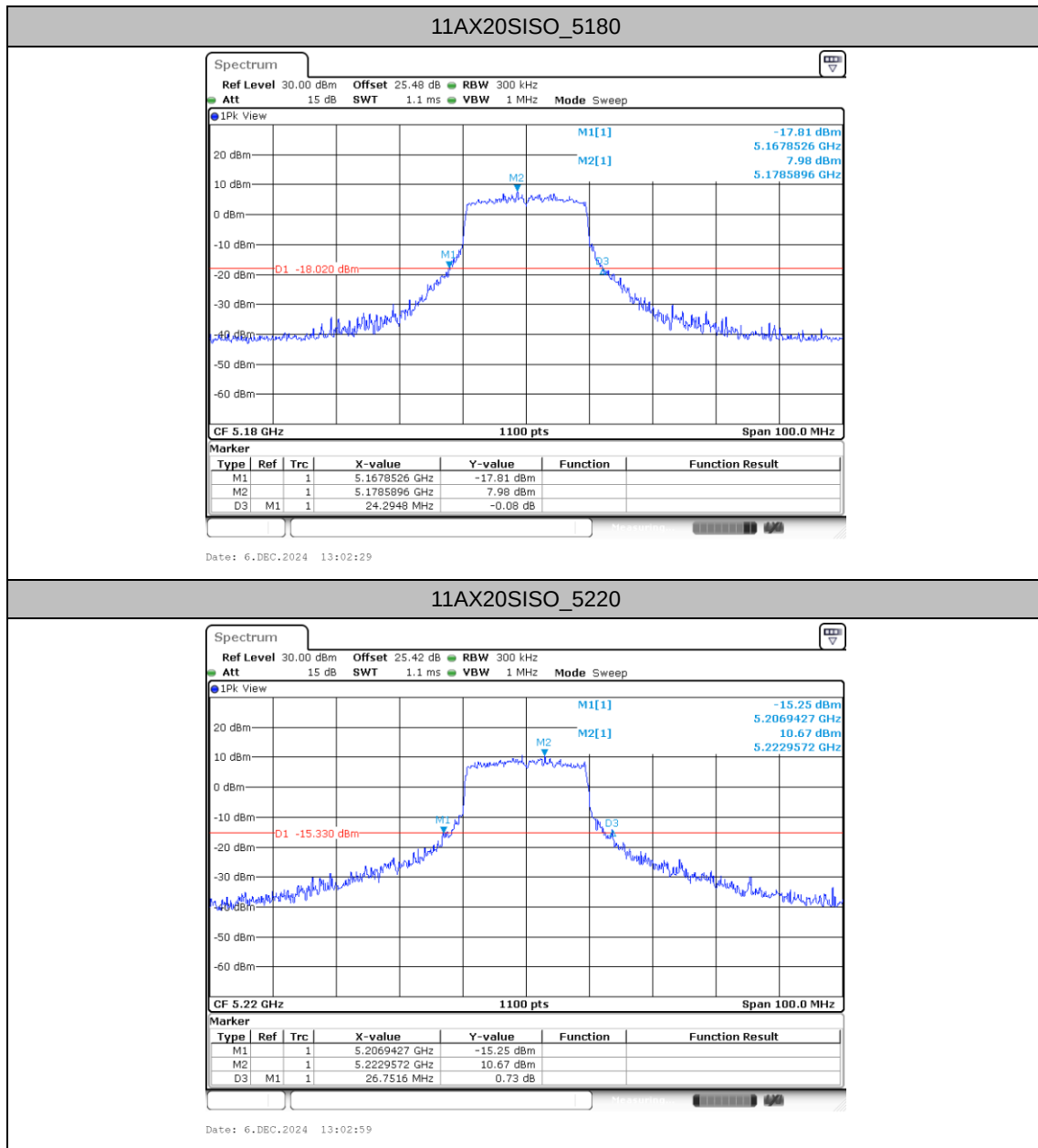


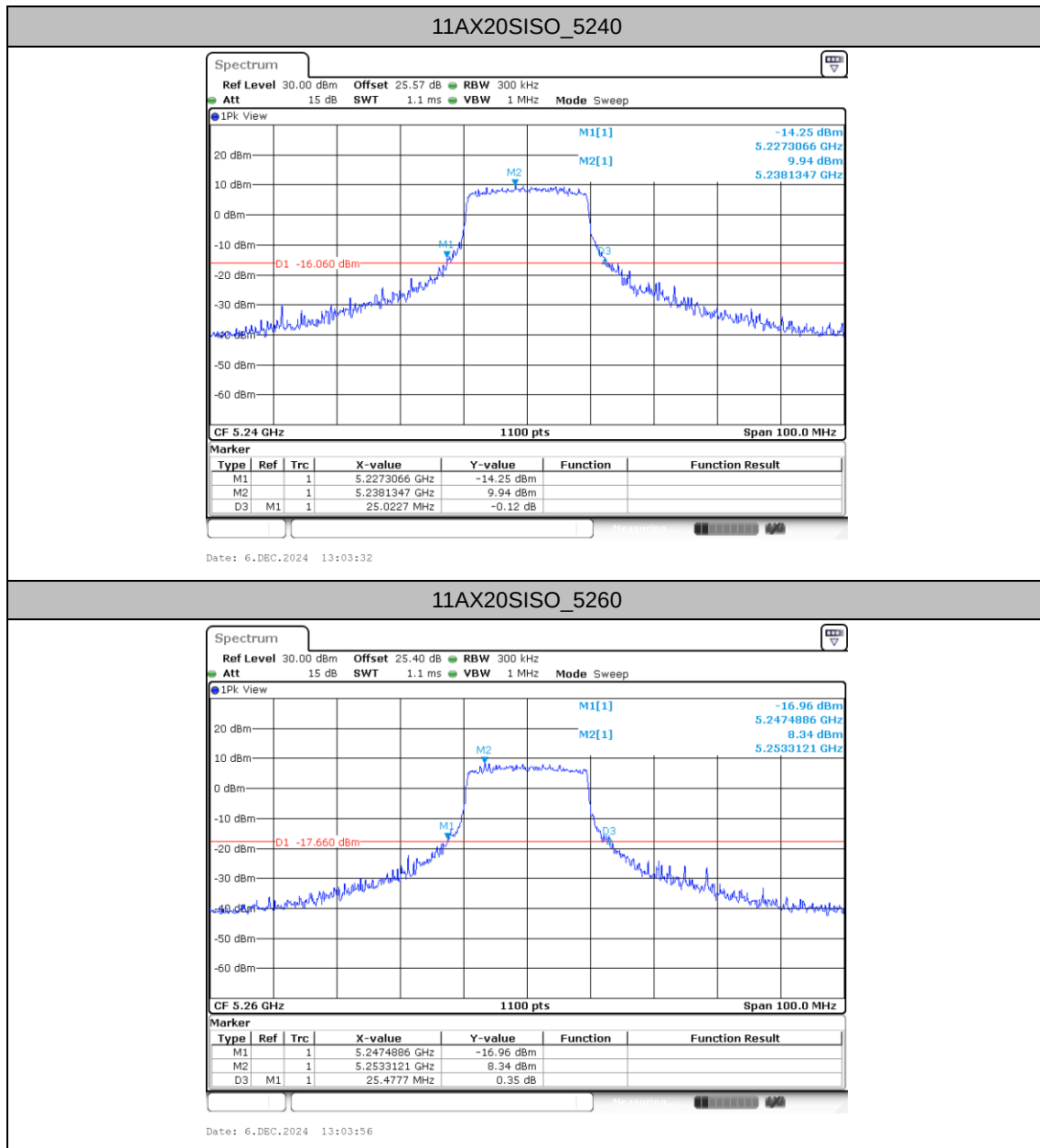


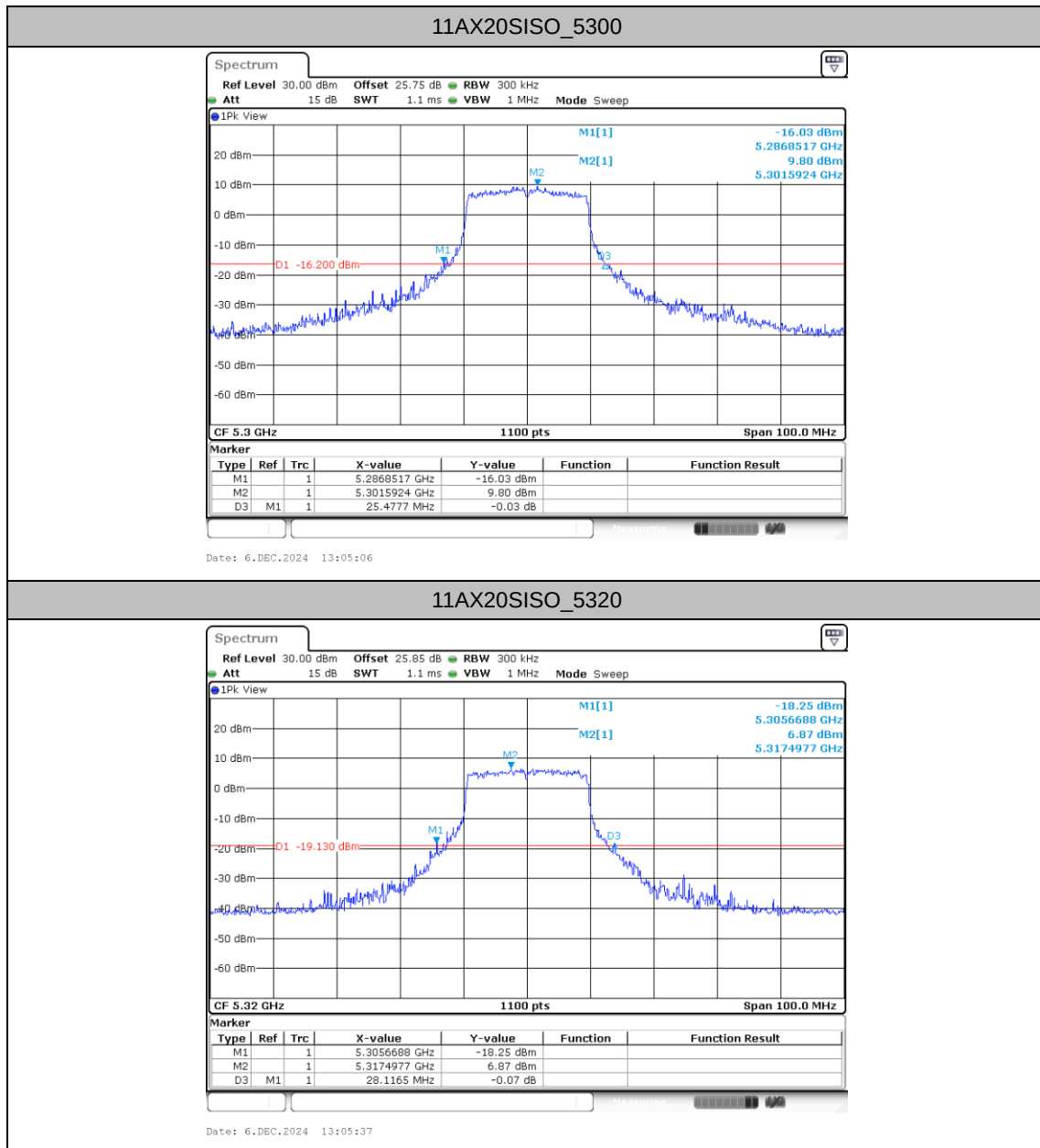


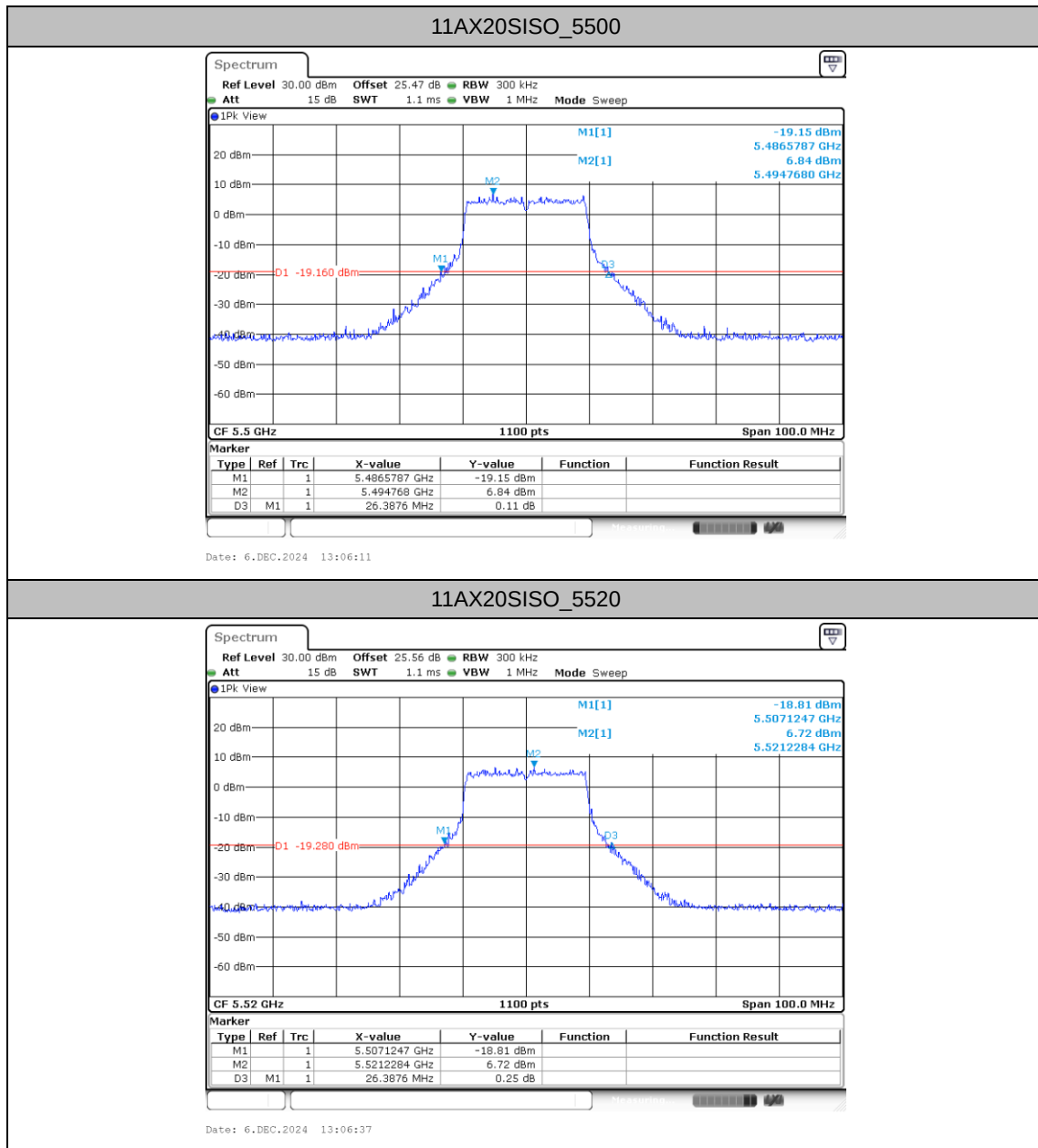


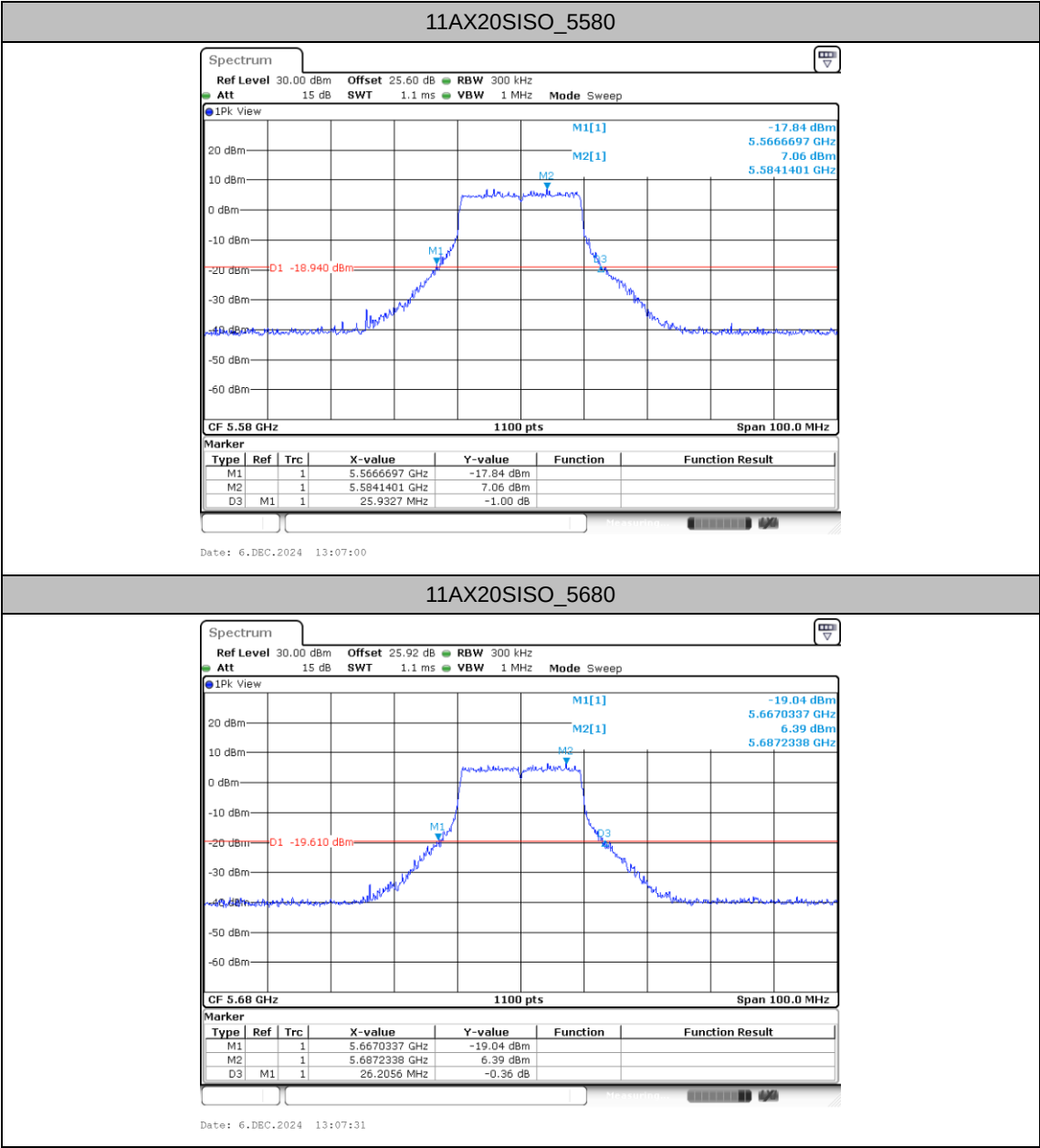


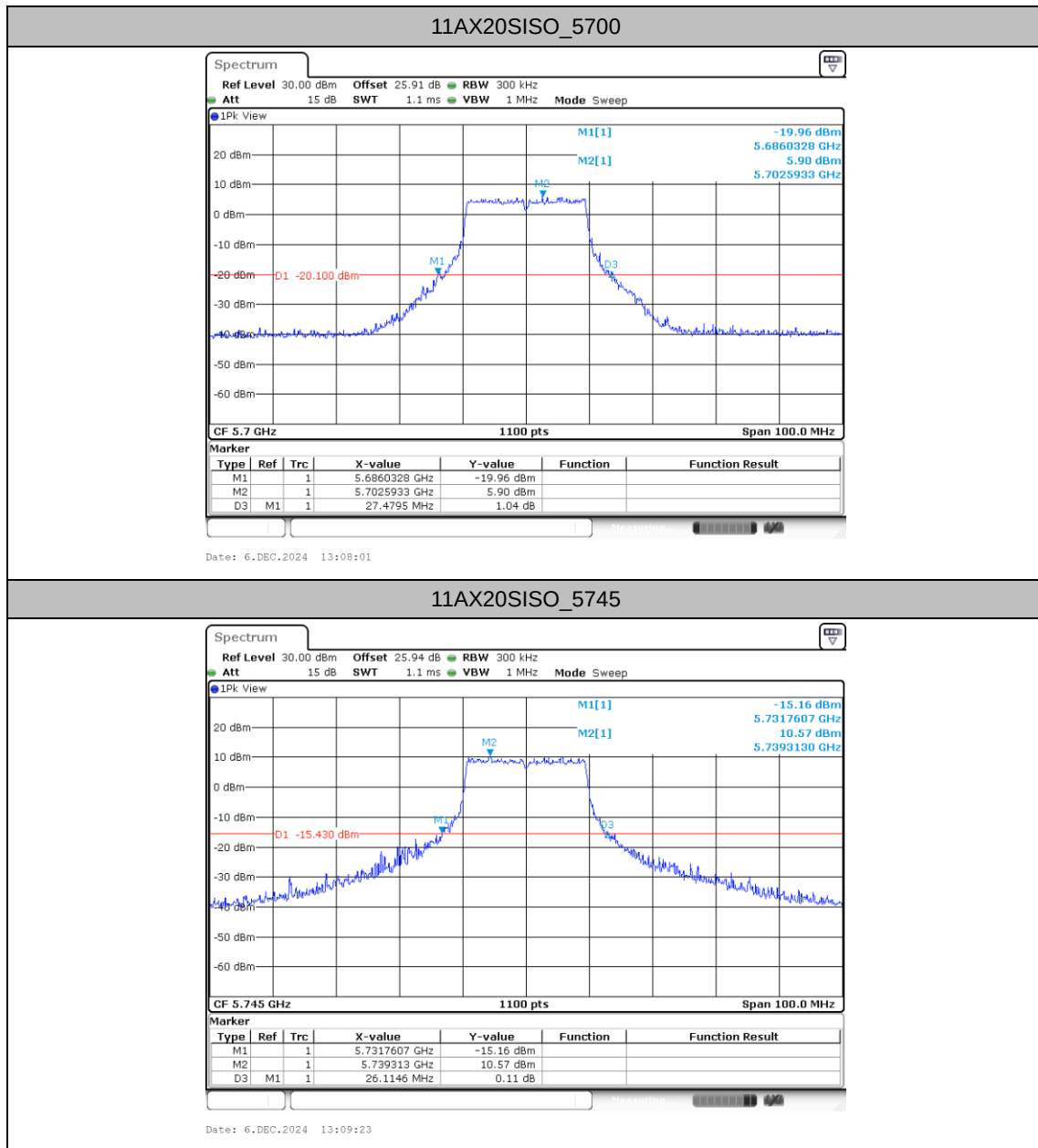


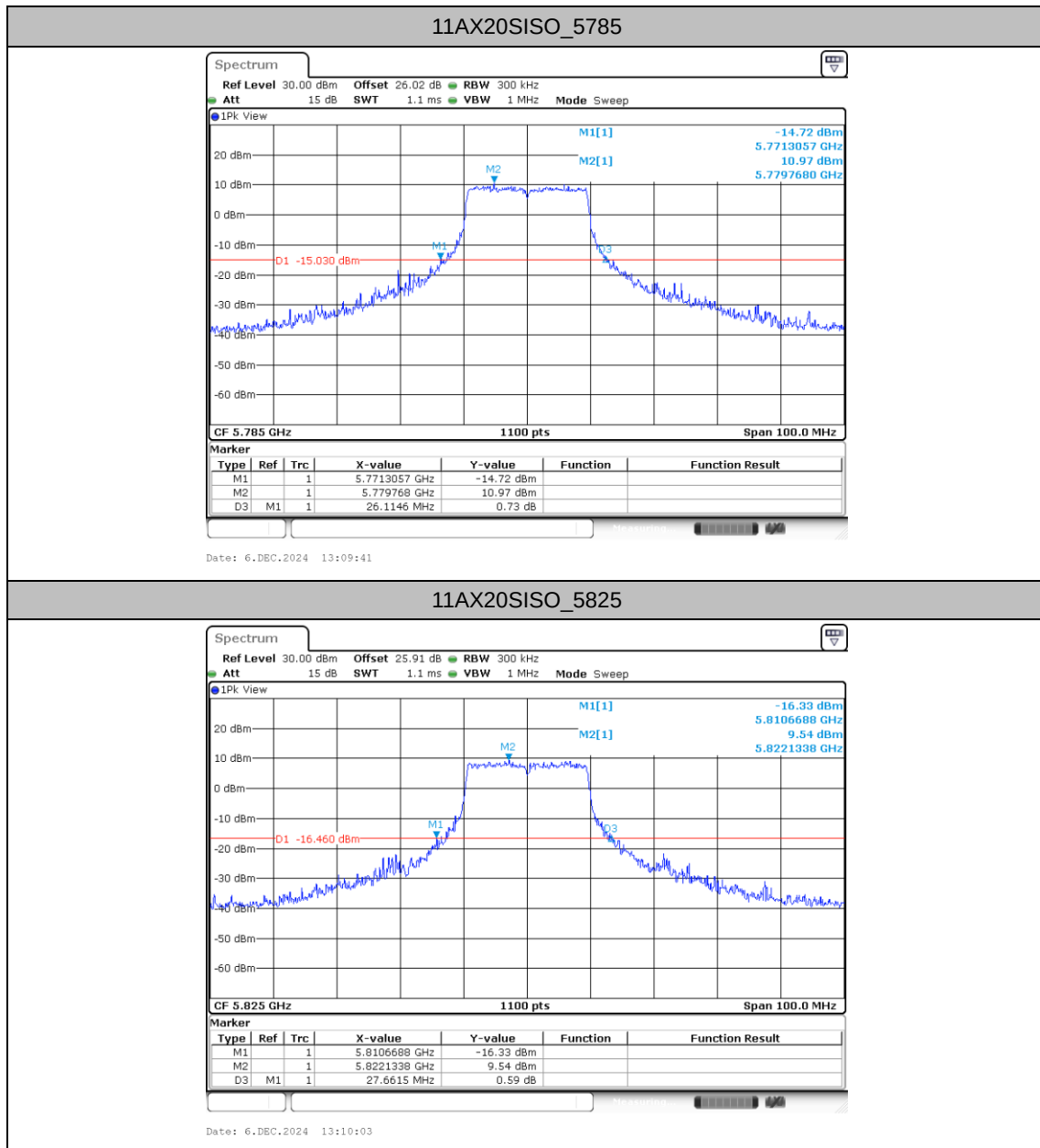


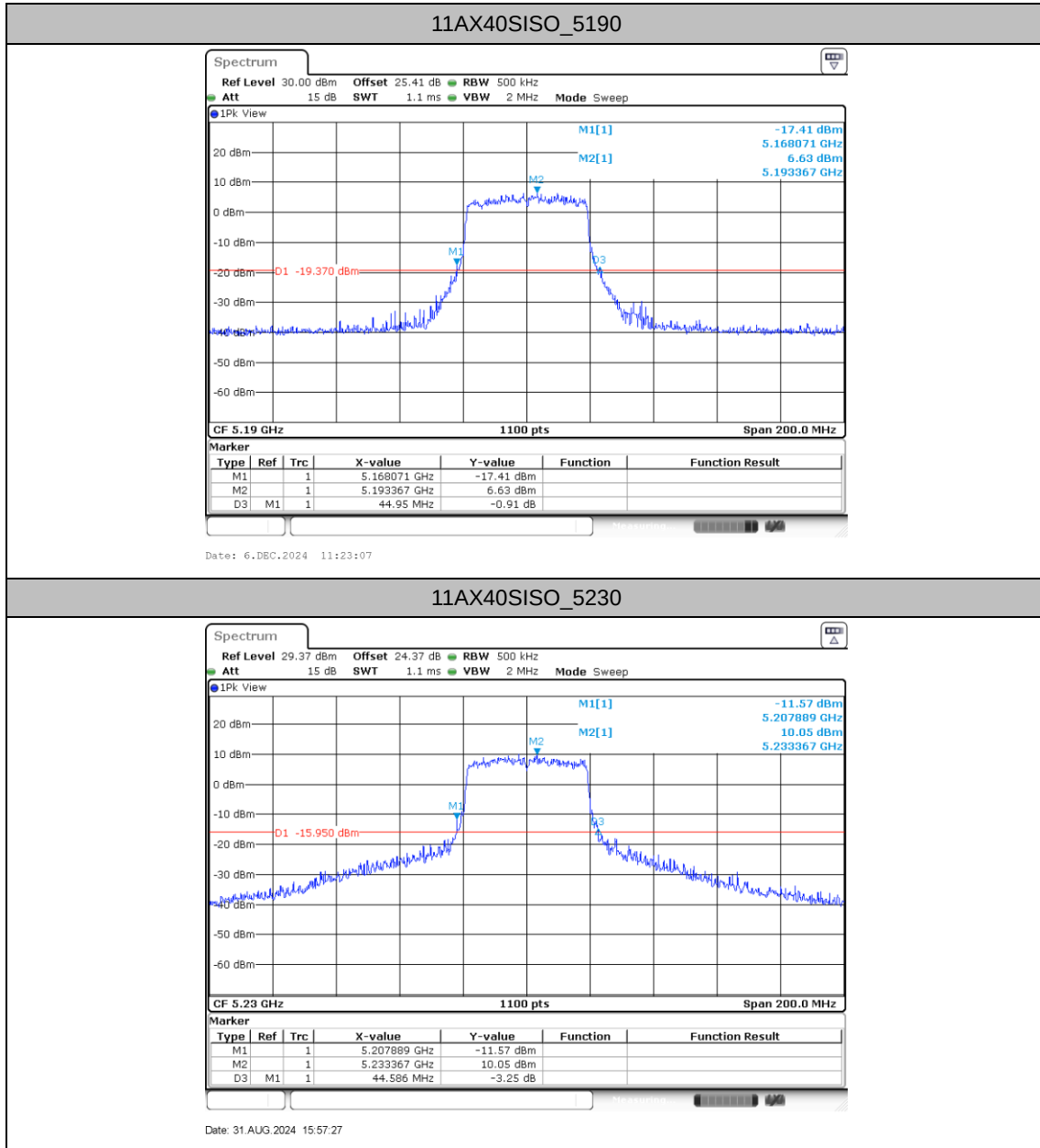


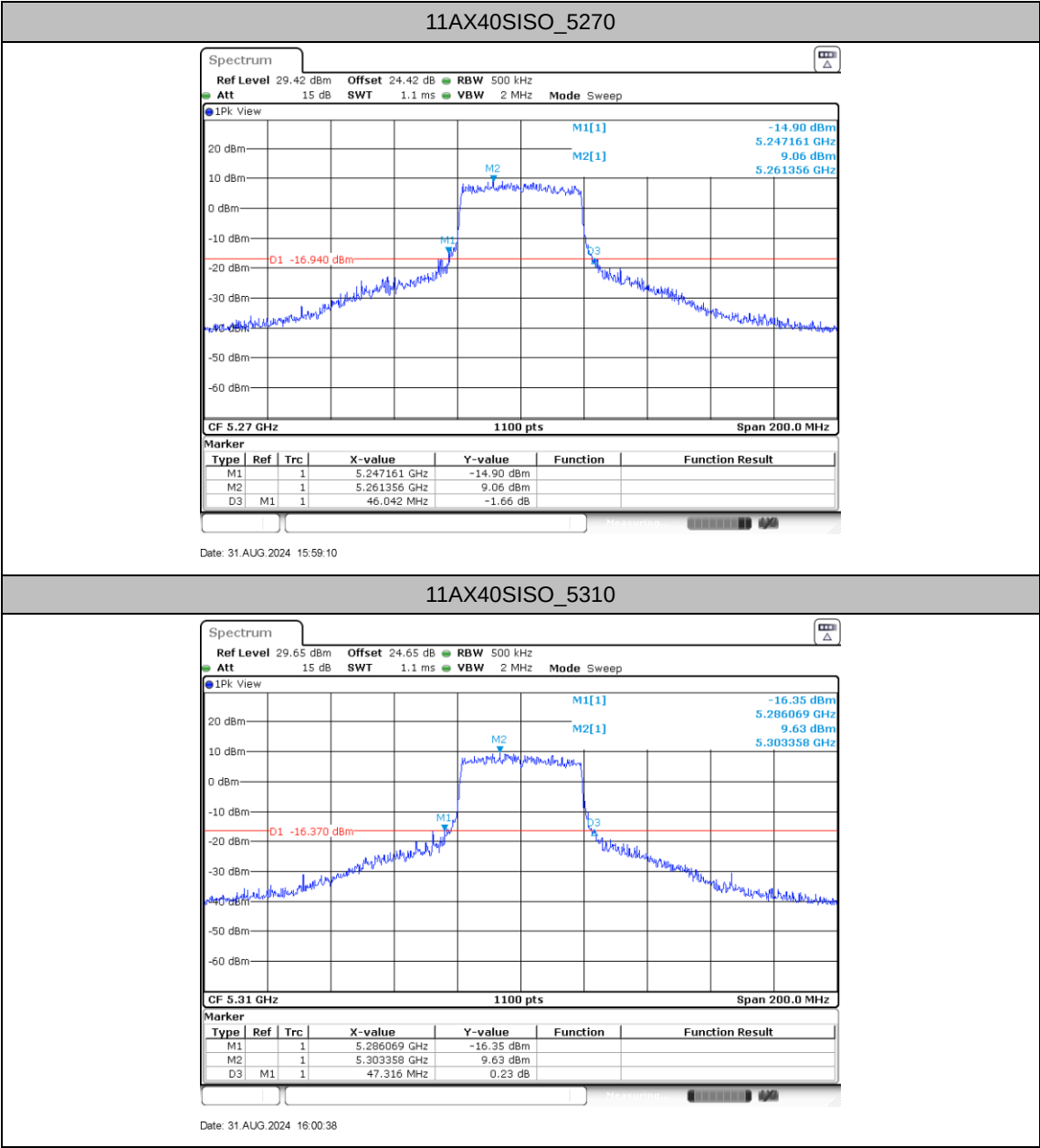


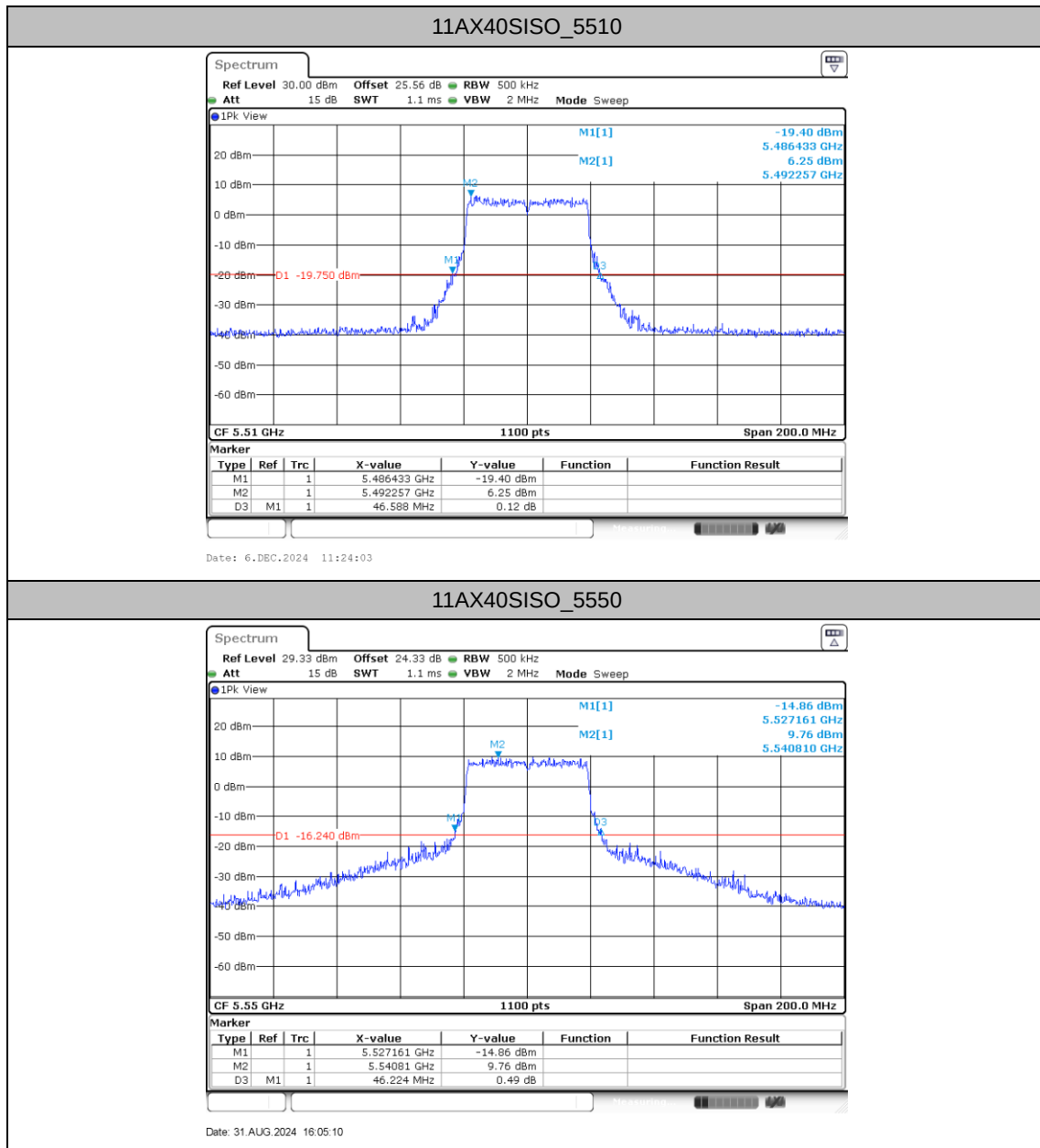


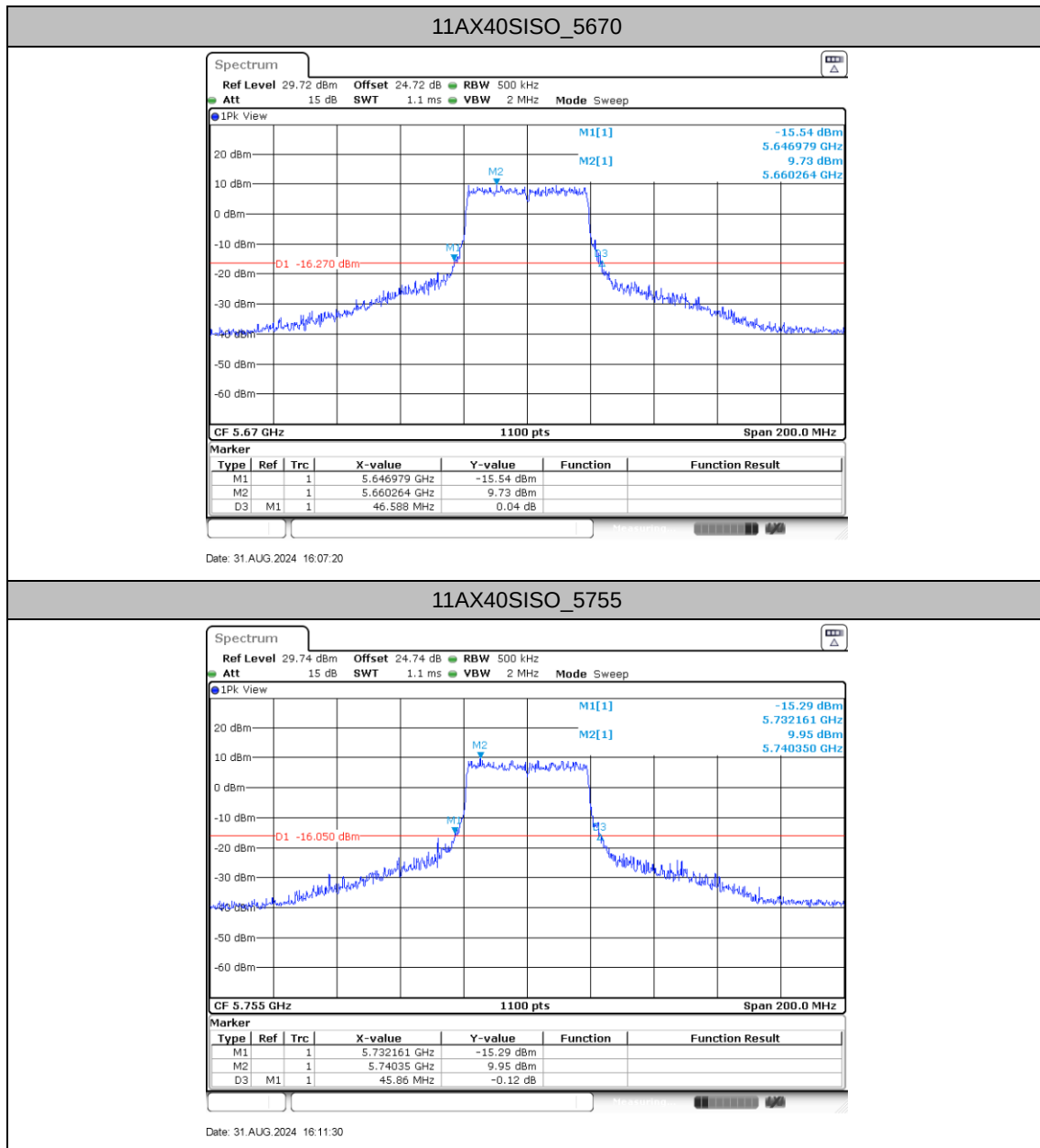


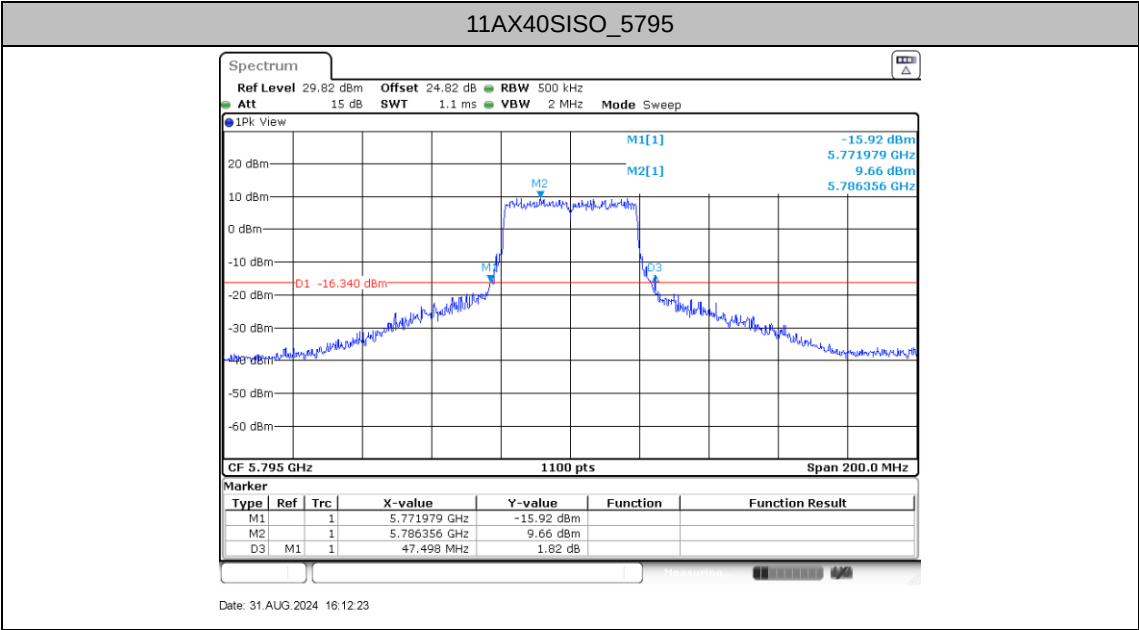














Occupied channel bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	18.073	5170.9636	5189.0364	---	---
		5220	18.218	5210.8182	5229.0364	---	---
		5240	18.473	5230.6727	5249.1455	---	---
		5260	18.182	5250.8182	5269.0000	---	---
		5300	18.218	5290.7455	5308.9636	---	---
		5320	18.291	5310.7455	5329.0364	---	---
		5500	18.618	5490.6000	5509.2182	---	---
		5520	18.436	5510.6727	5529.1091	---	---
		5580	18.582	5570.6364	5589.2182	---	---
		5680	18.436	5670.6727	5689.1091	---	---
		5700	18.473	5690.6364	5709.1091	---	---
		5745	18.473	5735.6364	5754.1091	---	---
		5785	18.545	5775.6000	5794.1455	---	---
		5825	18.473	5815.6364	5834.1091	---	---
11N20SISO	Ant1	5180	19.127	5170.4909	5189.6182	---	---
		5220	19.236	5210.3818	5229.6182	---	---
		5240	19.491	5230.2364	5249.7273	---	---
		5260	19.2	5250.3091	5269.5091	---	---
		5300	19.236	5290.3091	5309.5455	---	---
		5320	19.309	5310.3455	5329.6545	---	---
		5500	19.6	5490.2000	5509.8000	---	---
		5580	19.745	5570.1273	5589.8727	---	---
		5700	19.6	5690.1636	5709.7636	---	---
		5745	19.6	5735.1636	5754.7636	---	---
		5785	19.527	5775.1636	5794.6909	---	---
		5825	19.673	5815.1273	5834.8000	---	---
11N40SISO	Ant1	5190	37.236	5171.4182	5208.6545	---	---
		5230	37.527	5211.2727	5248.8000	---	---
		5270	37.455	5251.2000	5288.6545	---	---
		5310	37.382	5291.2727	5328.6545	---	---
		5510	37.891	5491.0545	5528.9455	---	---
		5550	37.964	5530.9818	5568.9455	---	---
		5670	37.964	5651.0545	5689.0182	---	---
		5755	37.964	5735.9818	5773.9455	---	---
		5795	37.964	5775.9818	5813.9455	---	---
11AX20SISO	Ant1	5180	19.6	5170.2364	5189.8364	---	---
		5220	19.6	5210.2000	5229.8000	---	---



		5240	19.636	5230.2000	5249.8364	---	---
		5260	19.6	5250.1636	5269.7636	---	---
		5300	19.564	5290.2000	5309.7636	---	---
		5320	19.709	5310.1273	5329.8364	---	---
		5500	19.818	5490.0909	5509.9091	---	---
		5580	19.855	5570.0909	5589.9455	---	---
		5680	19.855	5670.0909	5689.9455	---	---
		5700	19.855	5690.0182	5709.8727	---	---
		5745	19.818	5735.0545	5754.8727	---	---
		5785	19.891	5775.0545	5794.9455	---	---
		5825	19.818	5815.0909	5834.9091	---	---
11AX40SISO	Ant1	5190	38.473	5170.7636	5209.2364	---	---
		5230	38.4	5210.8364	5249.2364	---	---
		5270	38.473	5250.7636	5289.2364	---	---
		5310	38.545	5290.6909	5329.2364	---	---
		5510	38.909	5490.5455	5529.4545	---	---
		5550	38.764	5530.6182	5569.3818	---	---
		5670	38.764	5650.6182	5689.3818	---	---
		5755	38.909	5735.5455	5774.4545	---	---
		5795	38.836	5775.5455	5814.3818	---	---



Test Graphs

