

Prüfbericht-Nr.: Test report no.:	CN25ZF89 001	Auftrags-Nr.: Order no.:	168531160	Seite 1 von 23 Page 1 of 23
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2025-01-16	
Auftraggeber: Client:	FUJIAN LANDI COMMERCIAL EQUIPMENT CO., LTD. Building 17, Section A, Software Park, No 89 Software Road, Gulou District, Fuzhou, Fujian 350003, P.R. China			
Prüfgegenstand: Test item:	POS Terminal			
Bezeichnung / Typ-Nr.: Identification / Type no.:	C20DS (Trademark: N/A)			
Auftrags-Inhalt: Order content:	Test Report			
Prüfgrundlage: Test specification:	CFR Title 47 FCC Part 15, Subpart E, Section 15.407 CFR Title 47 FCC Part 15, Subpart C, Section 15.207 CFR Title 47 FCC Part 15, Subpart C, Section 15.209 RSS-247 Issue 3 August 2023 RSS-Gen Issue 5 February 2021			
Wareneingangsdatum: Date of sample receipt:	2025-01-23	Please refer to Photo Document		
Prüfmuster-Nr.: Test sample no.:	A003911736-001~005 A003913858-001~016			
Prüfzeitraum: Testing period:	2025-02-13 - 2025-03-29			
Ort der Prüfung: Place of testing:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:	X <u>Bell Hu</u>		genehmigt von: authorized by:	X <u>Hardy Suo</u>
Datum: Date:	2025-04-03		Ausstellungsdatum: Issue date:	2025-04-03
Stellung / Position:	Sachverständige(r)/Expert		Stellung / Position:	Sachverständige(r)/Expert
Sonstiges / Other:	This report is for 5GHz Wi-Fi. FCC ID: 2AG6N-C20DS IC: 23725-C20DS HVIN: C20DS			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged			
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet			
* Legend:	P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested			
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

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Anmerkungen
Remarks

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3	Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt. <i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i>
4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. <i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i>

Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 MAXIMUM CONDUCTED OUTPUT POWER

RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY

RESULT: Pass

5.1.4 FREQUENCY STABILITY

RESULT: Pass

5.1.5 26dB BANDWIDTH AND 99% BANDWIDTH

RESULT: Pass

5.1.6 6dB BANDWIDTH

RESULT: Pass

5.1.7 RADIATED SPURIOUS EMISSION

RESULT: Pass

5.1.8 DYNAMIC FREQUENCY SELECTION (DFS)

RESULT: Pass

5.1.9 CONDUCTED EMISSION ON AC MAINS

RESULT: Pass

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Test Results of 5GHz Wi-Fi

Appendix B: Photographs of the Test Set-up

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, People's Republic of China

A2LA Certificate Number: 5162.01

FCC Registration No.: 694916

ISED Wireless Device Testing Laboratory: 25069

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing (SRD-Tonscend)					
Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. until
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY60241175	2024-09-26	2025-09-25
MXG X-Series RF Vector Signal Generator	Keysight	N5182B	MY61250137	2024-09-26	2025-09-25
EXG X-Series Microwave Analog Signal Generator	Keysight	N5173B	MY61250141	2024-09-26	2025-09-25
DC power supply	Keysight	E3642A	MY61276100	2024-09-26	2025-09-25
Power Control Unit	Tonscend	JS0806-4ADC	N/A	2024-09-26	2025-09-25
Automation Control Unit	Tonscend	JS0806-2	21C8060396	2024-09-26	2025-09-25
Test Software	Tonscend	JS1120-3	N/A	N/A	N/A
Control PC	Lenovo	TianYi510S-071MB	YLX23JMF	N/A	N/A
Shielding Room	Albatross	SR1	APC17151-SR1	2024-09-14	2027-09-13

Unwanted Emission Testing (TS9975)

Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. until
EMI Test Receiver	R&S	ESR 7	102021	2024-09-29	2025-09-28
Signal Analyzer	R&S	FSV 40	101439	2024-09-29	2025-09-28
System Controller Interface	R&S	SCI-100	S10010038	N/A	N/A
Filterbank	R&S	Wlan	100759	2024-09-29	2025-09-28
OSP	R&S	OSP 120	102040	N/A	N/A
Pre-amplifier	R&S	SCU08F1	08320031	2024-09-29	2025-09-28
Amplifier	R&S	SCU-18F	180070	2024-09-29	2025-09-28
Amplifier	R&S	SCU40A	100475	2024-09-29	2025-09-28
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	2024-09-28	2025-09-27
Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	2024-09-28	2025-09-27
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	2024-09-28	2025-09-27
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	2024-09-28	2025-09-27
Test software	R&S	EMC32 (V10.60.10)	N/A	N/A	N/A
Control PC	Dell	OptiPlex 7050	36NV9P2	N/A	N/A
3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	2024-09-14	2027-09-13

Conducted Emission

Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
EMI Test Receiver	R&S	ESR3	102680	2026-02-09
Artificial Mains Network	R&S	ENV216	102333	2025-07-22
Artificial Mains Network	R&S	ENV216	101445	2026-02-09
LISN ENV216-Receiver cable in SR3	Calibration frequency range: 9 kHz~30 MHz			2025-12-20
EMC32 test software	R&S	EMC32(Ver.10.50.00)	N/A	N/A

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Table 2: Measurement Uncertainty

Parameter	Uncertainty (k=2)
RF output power, conducted	± 0.99 dB
Occupied Channel Bandwidth	± 2.08 %
RF power density, conducted	± 0.99 dB
Unwanted Emissions, conducted	± 0.89 dB
All emissions, radiated	± 4.17 dB
Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz)	± 3.70 dB / ± 3.30 dB

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) Co., Ltd. File for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, People's Republic of China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The Product is a POS Terminal which supports Bluetooth dual mode, 2.4 GHz Wi-Fi, 5GHz Wi-Fi and NFC functions.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment:	POS Terminal
Type Designation:	C20DS
Trademark:	N/A
Operating Voltage:	AC/DC adapter (120V AC/60Hz) or Powered by POE
Operating Temperature Range:	0 °C ~ +40 °C
AC/DC Adapter 1#:	Model: PA-1400-76 Input: 100-240V, 50/60Hz Output: DC 19V, 2.1A
AC/DC Adapter 2#:	Model: PA-1450-26 Input: 100-240V, 50/60Hz Output: DC 19V, 2.37A
Technical Specification of 5GHz Wi-Fi	
Operating Frequency:	5180-5240MHz, 5260-5320MHz, 5500-5700MHz, 5745-5825MHz
Channel Number:	5180-5240MHz 4CHs, 802.11 a/n20/ac20/ax20 2CHs, 802.11 n40/ac40/ax40 1CH, 802.11 ac80/ax80 5260-5320MHz 4CHs, 802.11 a/n20/ac20/ax20 2CHs, 802.11 n40/ac40/ax40 1CH, 802.11 ac80/ax80 5500-5700MHz 11CHs, 802.11 a/n20/ac20/ax20 5CHs, 802.11 n40/ac40/ax40 2CH, 802.11 ac80/ax80 5745-5825MHz 5 channels for 802.11a/n20/ac20/ax20 2 channels for 802.11n40/ac40/ax40 1 channel for 802.11ac80/ax80
Type of Modulation:	OFDM(BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM)
Data Rate:	6/9/12/18/24/36/48/54 Mbps for 802.11a MCS0~MCS7 for 802.11n MCS0~MCS9 for 802.11ac MCS0~MCS11 for 802.11ax
Channel Separation:	20MHz, 40MHz, 80MHz
Type of Device:	DFS save device without radar detection

Antenna Type:	Integral Antenna
Antenna Number:	1Tx1RX
Antenna Gain:	5.15 dBi max. for 5150-5350MHz, 5.61 dBi max. for 5470-5725MHz 4.44 dBi max. for 5725-5875MHz (Provided by the Client)

Note: The correctness of all data provided by customer in the test report is ensured and responsible of the customer. Any misjudgment of the test results caused by the use of incorrect data provided by customer shall be borne by the customer.

Table 4: RF Channel and Frequency of 5GHz Wi-Fi

U-NII-1					
20MHz Bandwidth		40MHz Bandwidth		80MHz Bandwidth	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230		
44	5220				
48	5240				

U-NII-2A					
20MHz Bandwidth		40MHz Bandwidth		80MHz Bandwidth	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	54	5270	58	5290
56	5280	62	5310		
60	5300				
64	5320				

U-NII-2C					
20MHz Bandwidth		40MHz Bandwidth		80MHz Bandwidth	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	102	5510	106	5530
104	5520	110	5550	122	5610
108	5540	118	5590		
112	5560	126	5630		
116	5580	134	5670		
120	5600				
124	5620				
128	5640				
132	5660				
136	5680				
140	5700				

U-NII-3					
20MHz Bandwidth		40MHz Bandwidth		80MHz Bandwidth	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795		
157	5785				
161	5805				
165	5825				

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, 5G Wi-Fi wireless transmitting mode
 - 1. Low channel
 - 2. Middle channel
 - 3. High channel
- B. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- | | |
|------------------------------|-------------------------|
| - Application Form | - User Manual |
| - ID Label and Location Info | - Operation Description |

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.10: 2013.

According to clause 3.1, all tests were performed on model C20DS in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 5: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N
Laptop	Lenovo	T480	PF-16A6N8
Portable Laptop	Lenovo	ThinkPad T480	10Q67059
POE Gigabit Unmanaged Switch	NETGEAR INTERNATIONAL LTD	GS108PP	5WT119D3511DC
POE Adapter	Ruijie Networks Co., Ltd.	RG-POE-50-60W-MG	N/A

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

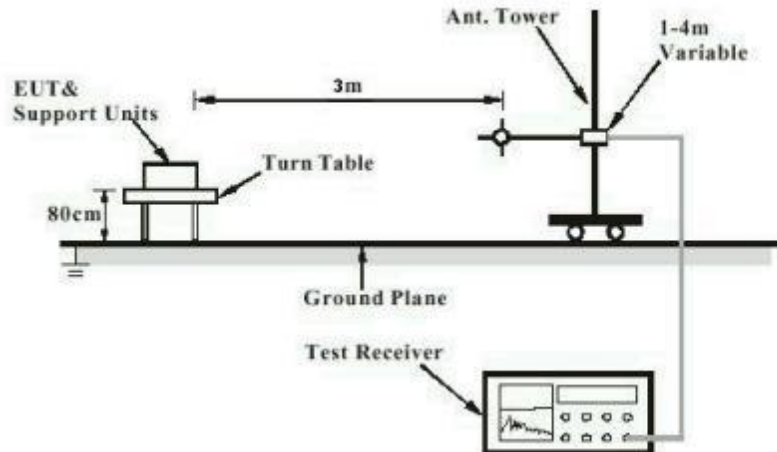


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

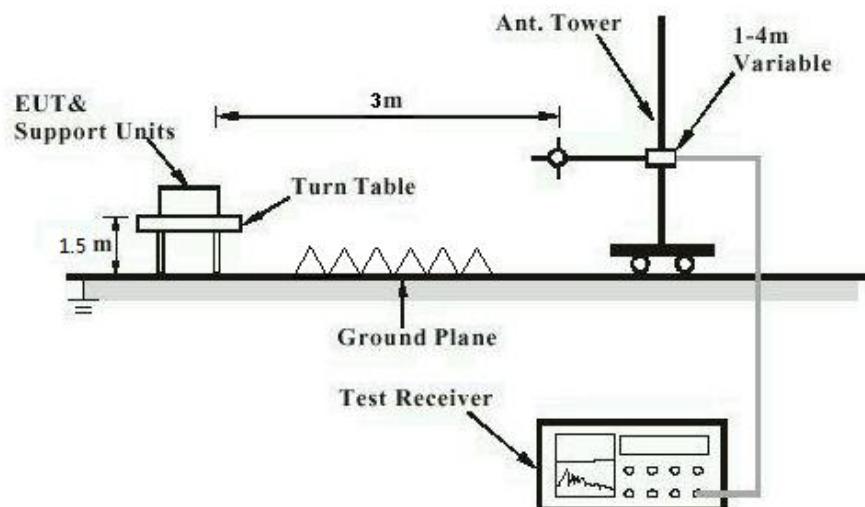


Diagram of Measurement Configuration for Mains Conduction Measurement

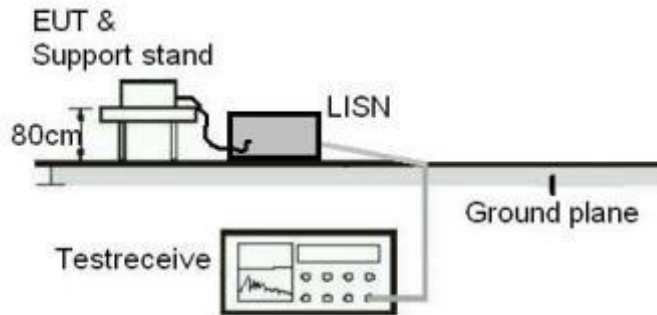


Diagram of Measurement Configuration for Conducted Transmitter Measurement

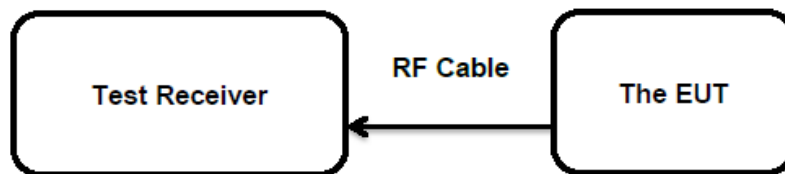
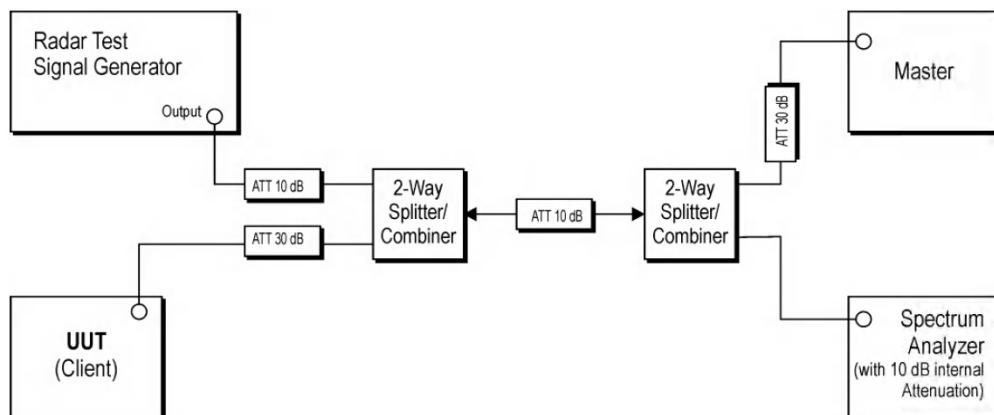


Diagram of Measurement Configuration for Dynamic Frequency Selection (DFS)



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.203
RSS-247 clause 6.8

According to the manufacturer declared, the EUT has an Integral antenna, permanent attachment and no consideration of replacement, refer to section 3.2 for details.

Therefore, the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

5.1.2 Maximum Conducted Output Power

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.407(a)(1)&(2)&(4) RSS-247 clause 6.2
Basic standard	: ANSI C63.10: 2013
Limits	: FCC: <250mW (24dBm) (5150-5250MHz) * <250mW (24dBm) (5250-5350MHz, 5470-5725MHz) * 250 mW (24dBm) or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz, where is lesser. <1W (30dBm) (5725-5850MHz) IC: * Max e.i.r.p. < 200mW (23dBm) (5150-5250MHz) * 200 mW (23dBm) or 10 dBm + 10 log B, where B is the 99% emission bandwidth in MHz, where is lesser. * Max conducted output power < 250mW (24dBm) (5250-5350MHz) * 250 mW (24dBm) or 11 dBm + 10 log B, where B is the 99% emission bandwidth in MHz, where is lesser. * Max e.i.r.p. < 1W (30dBm) (5250-5350MHz, 5470-5600MHz, 5650-5725MHz) * 1 W (30dBm) or 17 dBm + 10 log B, where B is the 99% emission bandwidth in MHz, where is lesser. Max conducted output power < 1W (30dBm) (5725-5850MHz)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2025-02-19 to 2025-02-21
Input voltage	: AC 120V, 60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24.8 °C
Relative humidity	: 55 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

Note: Per RSS-247 section 6.2.3, transmission on channels which overlap 5600-5650MHz is prohibited. This device is not support 5600-5650MHz radio-frequency operating band.

5.1.3 Conducted Power Spectral Density

RESULT:**Pass****Test Specification**

Test standard	: FCC part 15.407(a) RSS-247 clause 6.2
Basic standard	: ANSI C63.10: 2013 KDB 789033 D02 v01r03
Limits	: FCC: <11dBm/MHz (5150-5250MHz 5250-5350MHz, 5470-5725MHz) <30dBm/500kHz (5725-5850MHz) IC: e.i.r.p. spectral density <10dBm/MHz (5150-5250MHz) <11dBm/1MHz (5250-5350MHz) <30dBm/500kHz (5725-5850MHz)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2025-02-19 to 2025-02-21
Input voltage	: AC 120V, 60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24.8 °C
Relative humidity	: 55 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

5.1.4 Frequency Stability

RESULT:**Pass****Test Specification**

Test standard : FCC Part 15.407(g)
RSS-Gen Clause 6.11
Basic standard : ANSI C63.10: 2013
Limits : Within assigned bands
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-02-19 to 2025-02-21
Input voltage : AC 120V, 60Hz
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 24.8 °C
Relative humidity : 55 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix A.

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5.1.5 26dB Bandwidth and 99% Bandwidth

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.407(e)
RSS-Gen Clause 6.6
Basic standard : ANSI C63.10: 2013
Limits : N/A
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-02-19 to 2025-02-21
Input voltage : AC 120V, 60Hz
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 24.8 °C
Relative humidity : 55 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix A.

5.1.6 6dB Bandwidth

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.407(e) RSS-Gen Clause 6.6
Basic standard	: ANSI C63.10: 2013
Limits	: At least 500kHz (5725-5850MHz)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2025-02-19 to 2025-02-21
Input voltage	: AC 120V, 60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24.8 °C
Relative humidity	: 55 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

5.1.7 Radiated Spurious Emission

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.407(b) & FCC Part 15.205 & FCC Part 15.209 RSS-247 clause 6.2 & RSS-GEN clause 8.9 and 8.10
Basic standard	: ANSI C63.10: 2013 KDB 789033 D02 v01r03
Limits	: • For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. • For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. • For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. Emissions outside the band 5470-5600 MHz and 5650-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p. • For transmitters operating in the 5.725-5.85 GHz band: 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. • Restricted Bands meet the requirement of 15.209 limit and RSS-GEN
Kind of test site	: 3m Semi-anechoic Chamber

Test Setup

Date of testing	: 2025-02-18 to 2025-02-21
Input voltage	: AC 120V, 60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: Refer to test result
Relative humidity	: Refer to test result
Atmospheric pressure	: 101 kPa

Remark:

Testing was carried out within frequency range 9kHz to the tenth harmonics. Only the worst case spurious emissions configuration of the each mode were reported.

For the measurement records, refer to the appendix A.

5.1.8 Dynamic Frequency Selection (DFS)

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.407(h) RSS-247 clause 6.3
Basic standard	: ANSI C63.10: 2013
Limits	: 5250-5350MHz, 5470-5725MHz Channel Move Time: Within 10 seconds. Channel Closing Transmission Time: 200ms+aggregate of 60ms over remaining 10s period; Non-Occupancy Period: at least 30 minutes.
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2025-02-19 to 2025-02-21
Input voltage	: AC 120V, 60Hz
Operation mode	: A
Ambient temperature	: 24.8 °C
Relative humidity	: 55 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

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5.1.9 Conducted Emission on AC Mains

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.207(a) RSS-Gen Section 8.8
Basic standard	: ANSI C63.10: 2013
Frequency range	: 0.15 – 30MHz
Limits	: FCC Part 15.207(a) RSS-Gen Table 4
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2025-02-13
Input voltage	: AC 120V, 60Hz
Operation mode	: A
Ambient temperature	: 24.0 °C
Relative humidity	: 50.4 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix B.

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Appendix A.1: Test Results of Maximum Output Power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5180	14.48	≤23.98	PASS
		5200	14.26	≤23.98	PASS
		5240	14.63	≤23.98	PASS
		5260	14.05	≤23.98	PASS
		5280	14.00	≤23.98	PASS
		5320	12.79	≤23.98	PASS
		5500	13.09	≤23.98	PASS
		5580	13.45	≤23.98	PASS
		5700	12.59	≤23.98	PASS
		5745	9.21	≤30.00	PASS
		5785	9.77	≤30.00	PASS
		5825	9.79	≤30.00	PASS
11N20SISO	Ant1	5180	14.28	≤23.98	PASS
		5200	14.18	≤23.98	PASS
		5240	14.41	≤23.98	PASS
		5260	13.74	≤23.98	PASS
		5280	13.69	≤23.98	PASS
		5320	13.57	≤23.98	PASS
		5500	12.98	≤23.98	PASS
		5580	13.33	≤23.98	PASS
		5700	12.46	≤23.98	PASS
		5745	8.90	≤30.00	PASS
		5785	8.93	≤30.00	PASS
		5825	8.88	≤30.00	PASS
11N40SISO	Ant1	5190	14.80	≤23.98	PASS
		5230	14.98	≤23.98	PASS
		5270	13.53	≤23.98	PASS
		5310	13.53	≤23.98	PASS
		5510	12.02	≤23.98	PASS
		5550	11.72	≤23.98	PASS
		5670	11.86	≤23.98	PASS
		5755	9.63	≤30.00	PASS
		5795	8.75	≤30.00	PASS
11AC20SISO	Ant1	5180	14.72	≤23.98	PASS
		5200	15.03	≤23.98	PASS
		5240	14.34	≤23.98	PASS
		5260	13.92	≤23.98	PASS
		5280	13.69	≤23.98	PASS
		5320	13.55	≤23.98	PASS
		5500	12.15	≤23.98	PASS
		5580	13.26	≤23.98	PASS
		5700	12.32	≤23.98	PASS
		5745	9.66	≤30.00	PASS
		5785	8.80	≤30.00	PASS
		5825	9.57	≤30.00	PASS
11AC40SISO	Ant1	5190	13.44	≤23.98	PASS
		5230	13.72	≤23.98	PASS
		5270	13.54	≤23.98	PASS
		5310	13.49	≤23.98	PASS
		5510	12.06	≤23.98	PASS
		5550	12.45	≤23.98	PASS
		5670	11.91	≤23.98	PASS

		5755	9.61	≤30.00	PASS
		5795	8.69	≤30.00	PASS
11AC80SISO	Ant1	5210	14.40	≤23.98	PASS
		5290	13.29	≤23.98	PASS
		5530	12.35	≤23.98	PASS
		5610	13.34	≤23.98	PASS
		5775	9.15	≤30.00	PASS
11AX20SISO	Ant1	5180	13.57	≤23.98	PASS
		5200	14.12	≤23.98	PASS
		5240	14.37	≤23.98	PASS
		5260	13.80	≤23.98	PASS
		5280	13.94	≤23.98	PASS
		5320	13.35	≤23.98	PASS
		5500	11.95	≤23.98	PASS
		5580	12.66	≤23.98	PASS
		5700	11.48	≤23.98	PASS
		5745	8.10	≤30.00	PASS
		5785	7.91	≤30.00	PASS
		5825	8.91	≤30.00	PASS
11AX40SISO	Ant1	5190	12.82	≤23.98	PASS
		5230	13.60	≤23.98	PASS
		5270	12.85	≤23.98	PASS
		5310	13.10	≤23.98	PASS
		5510	12.00	≤23.98	PASS
		5550	12.33	≤23.98	PASS
		5670	11.09	≤23.98	PASS
		5755	8.70	≤30.00	PASS
		5795	8.63	≤30.00	PASS
11AX80SISO	Ant1	5210	14.13	≤23.98	PASS
		5290	13.81	≤23.98	PASS
		5530	12.50	≤23.98	PASS
		5610	12.07	≤23.98	PASS
		5775	7.91	≤30.00	PASS

Note:

1. The Duty Cycle Factor is compensated in the graph.
2. Max. e.i.r.p.=15.03dBm+5.15dBi=20.18dBm, which is less than 36dBm=4W.

Appendix A.2: Test Results of Conducted Power Spectral Density

Test Result

TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	3.79	≤11.00	PASS
		5200	4.43	≤11.00	PASS
		5240	3.96	≤11.00	PASS
		5260	2.74	≤11.00	PASS
		5280	2.59	≤11.00	PASS
		5320	1.97	≤11.00	PASS
		5500	1.83	≤11.00	PASS
		5580	2.35	≤11.00	PASS
		5700	2.46	≤11.00	PASS
		5745	-4.23	≤30.00	PASS
		5785	-3.32	≤30.00	PASS
11N20SISO	Ant1	5825	-4.07	≤30.00	PASS
		5180	3.55	≤11.00	PASS
		5200	3.74	≤11.00	PASS
		5240	3.94	≤11.00	PASS
		5260	2.32	≤11.00	PASS
		5280	2.58	≤11.00	PASS
		5320	2.34	≤11.00	PASS
		5500	1.35	≤11.00	PASS
		5580	2.11	≤11.00	PASS
		5700	1.20	≤11.00	PASS
		5745	-3.99	≤30.00	PASS
11N40SISO	Ant1	5785	-4.18	≤30.00	PASS
		5825	-4.57	≤30.00	PASS
		5190	1.26	≤11.00	PASS
		5230	1.29	≤11.00	PASS
		5270	-0.25	≤11.00	PASS
		5310	-0.54	≤11.00	PASS
		5510	-1.68	≤11.00	PASS
		5550	-1.54	≤11.00	PASS
11AC20SISO	Ant1	5670	-0.81	≤11.00	PASS
		5755	-6.99	≤30.00	PASS
		5795	-7.52	≤30.00	PASS
		5180	3.90	≤11.00	PASS
		5200	3.12	≤11.00	PASS
		5240	4.70	≤11.00	PASS
		5260	2.78	≤11.00	PASS
		5280	2.64	≤11.00	PASS
		5320	2.40	≤11.00	PASS
		5500	0.98	≤11.00	PASS
		5580	1.98	≤11.00	PASS
11AC40SISO	Ant1	5700	1.31	≤11.00	PASS
		5745	-4.39	≤30.00	PASS
		5785	-4.47	≤30.00	PASS
		5825	-4.60	≤30.00	PASS
		5190	0.56	≤11.00	PASS
		5230	0.98	≤11.00	PASS
		5270	-0.80	≤11.00	PASS
		5310	-0.52	≤11.00	PASS
11AC80SISO	Ant1	5510	-1.63	≤11.00	PASS
		5550	-1.78	≤11.00	PASS
		5670	-0.96	≤11.00	PASS
	Ant1	5755	-7.20	≤30.00	PASS
		5795	-7.41	≤30.00	PASS
		5210	-2.68	≤11.00	PASS
	Ant1	5290	-3.97	≤11.00	PASS
		5530	-5.08	≤11.00	PASS

		5610	-3.68	≤11.00	PASS
		5775	-9.97	≤30.00	PASS
11AX20SISO	Ant1	5180	3.49	≤11.00	PASS
		5200	3.69	≤11.00	PASS
		5240	2.96	≤11.00	PASS
		5260	3.70	≤11.00	PASS
		5280	3.39	≤11.00	PASS
		5320	2.91	≤11.00	PASS
		5500	0.87	≤11.00	PASS
		5580	2.48	≤11.00	PASS
		5700	1.12	≤11.00	PASS
		5745	-4.67	≤30.00	PASS
		5785	-5.59	≤30.00	PASS
		5825	-4.77	≤30.00	PASS
11AX40SISO	Ant1	5190	0.02	≤11.00	PASS
		5230	0.50	≤11.00	PASS
		5270	-0.50	≤11.00	PASS
		5310	-0.65	≤11.00	PASS
		5510	-2.01	≤11.00	PASS
		5550	-1.03	≤11.00	PASS
		5670	-1.39	≤11.00	PASS
		5755	-8.15	≤30.00	PASS
		5795	-9.01	≤30.00	PASS
11AX80SISO	Ant1	5210	-1.27	≤11.00	PASS
		5290	-2.34	≤11.00	PASS
		5530	-3.78	≤11.00	PASS
		5610	-3.89	≤11.00	PASS
		5775	-11.09	≤30.00	PASS

Note:

- 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725 - 5.85 GHz.
- 2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

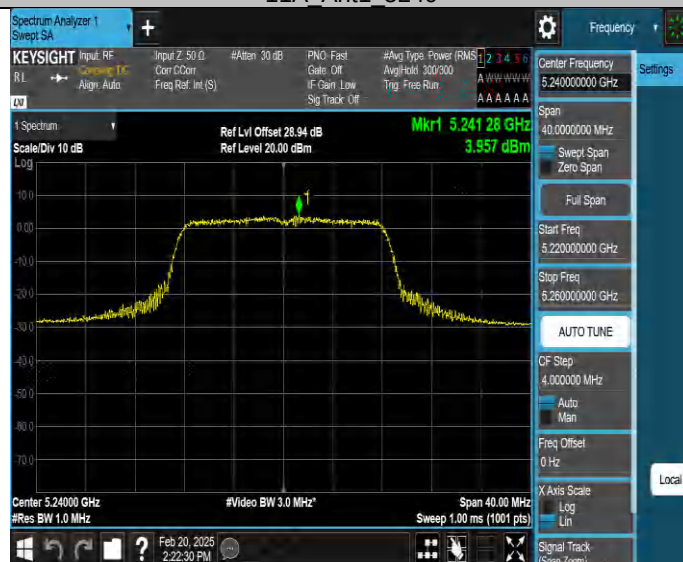
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11A Ant1 5280



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11A Ant1 5580



11A Ant1 5700



11A Ant1 5745



11A Ant1 5785



11A Ant1 5825



11N20SISO Ant1 5180



11N20SISO Ant1 5200



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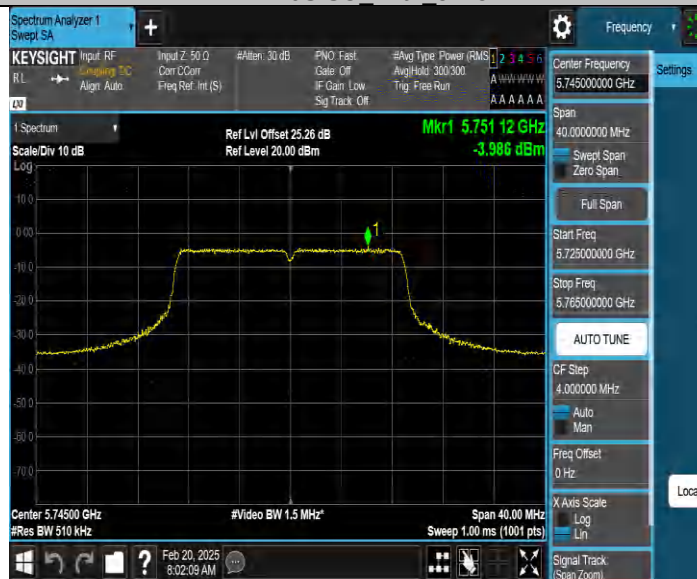
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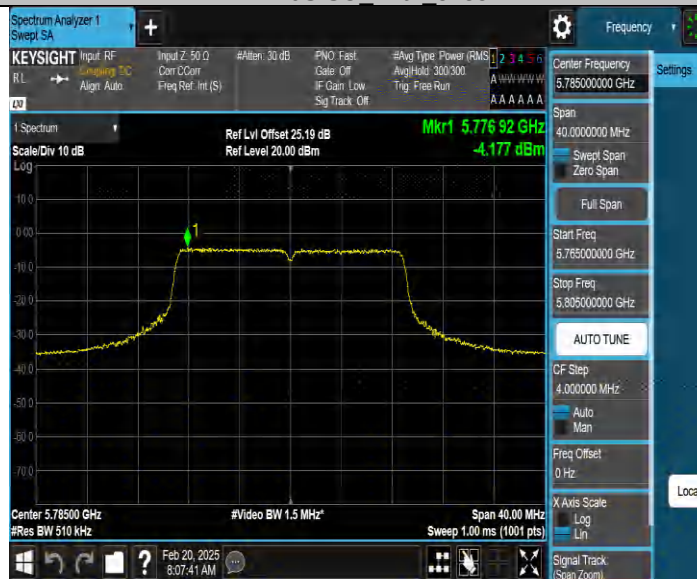
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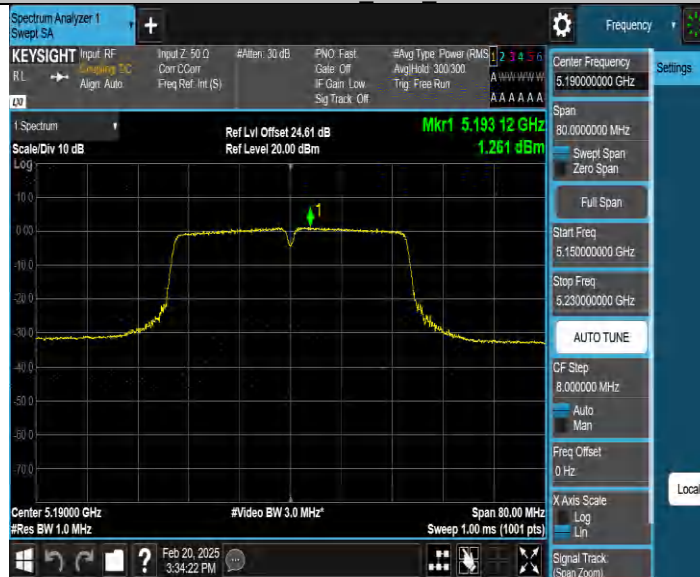
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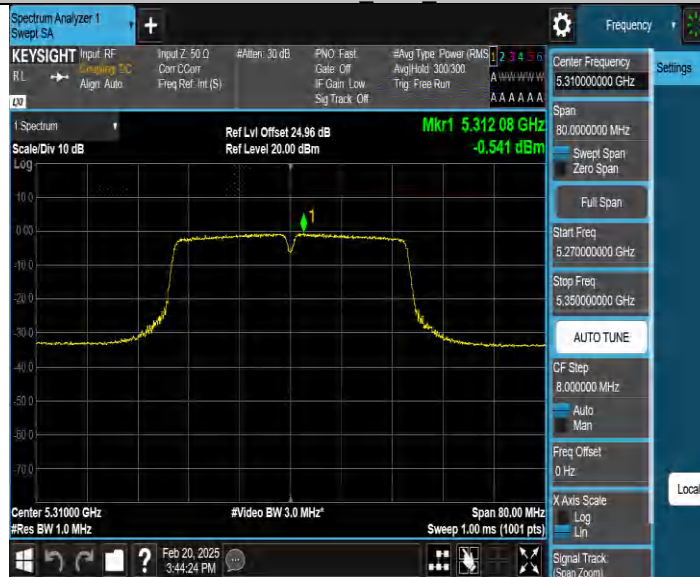
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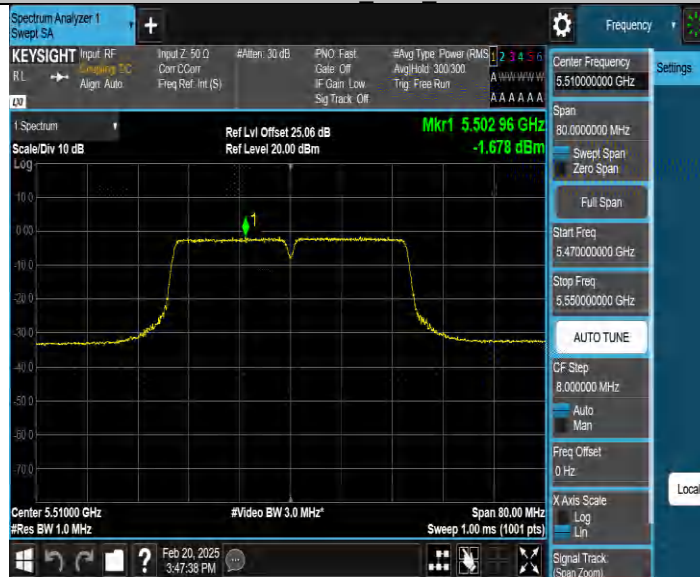
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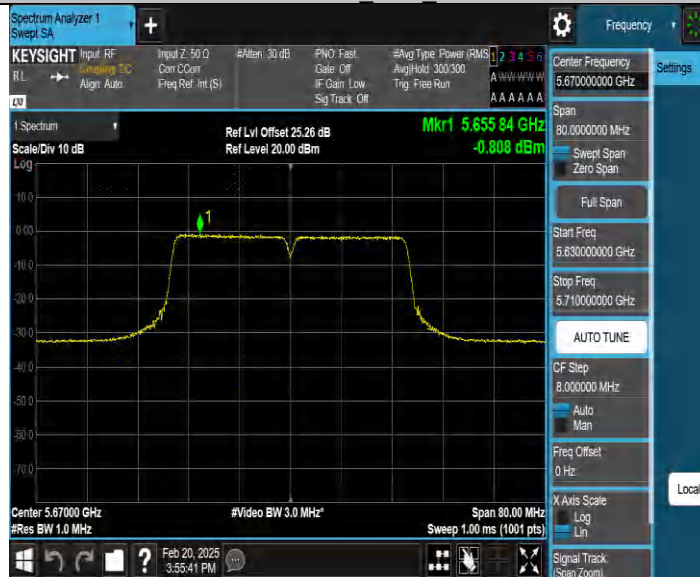
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11N40SISO Ant1 5755



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11AC20SISO Ant1 5200



11AC20SISO Ant1 5240



11AC20SISO Ant1 5260



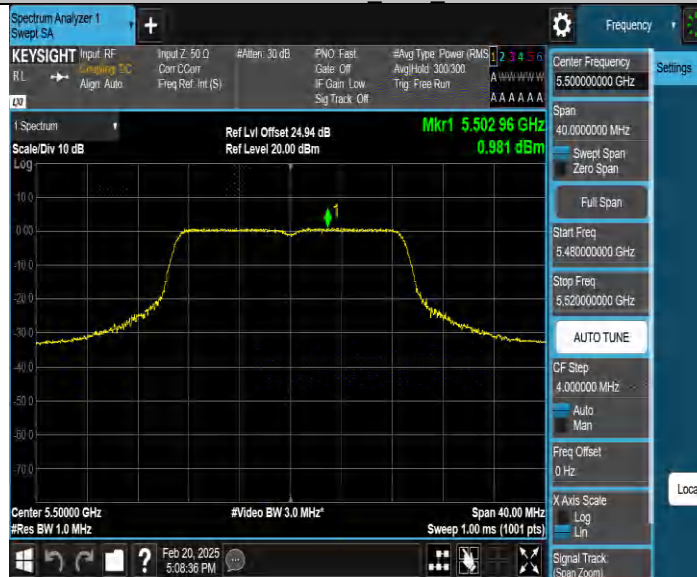
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11AC20SISO Ant1 5500



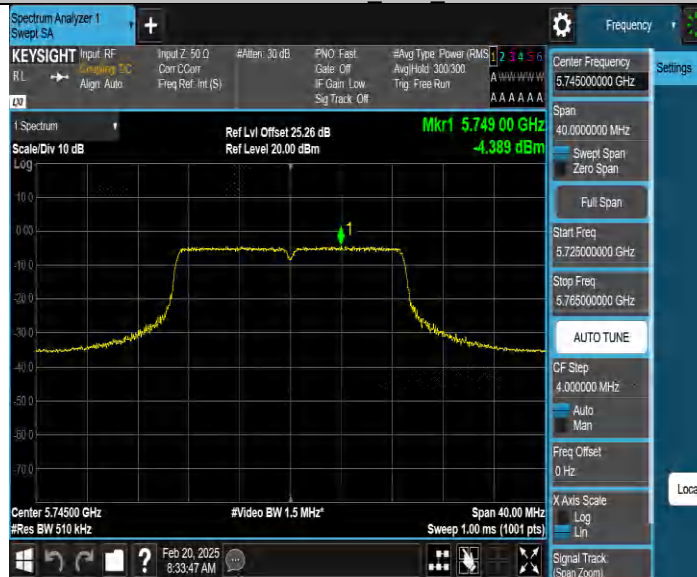
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11AC40SISO Ant1 5230



11AC40SISO Ant1 5270





11AC40SISO Ant1 5670



11AC40SISO Ant1 5755



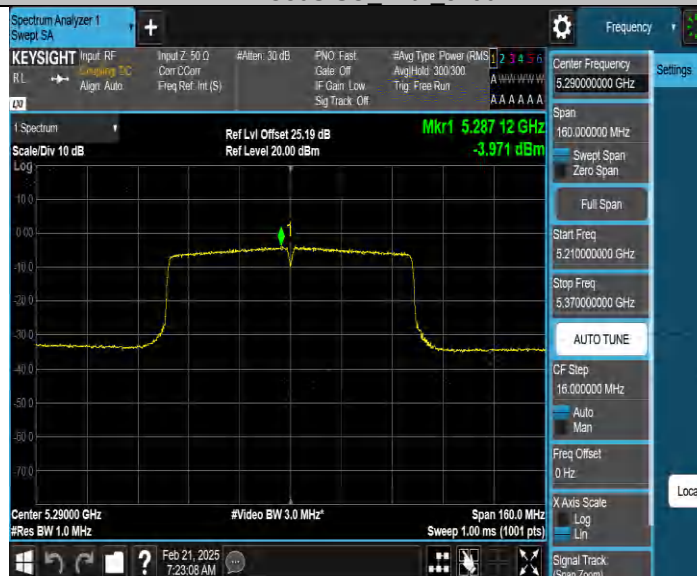
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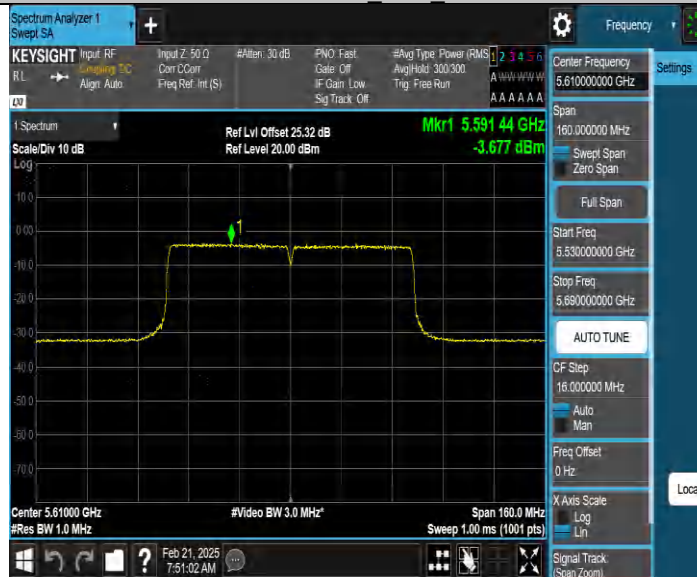
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11AC80SISO Ant1 5775



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11AX20SISO Ant1 5240



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11AX20SISO Ant1 5280



11AX20SISO Ant1 5320



11AX20SISO Ant1 5500



11AX20SISO Ant1 5580



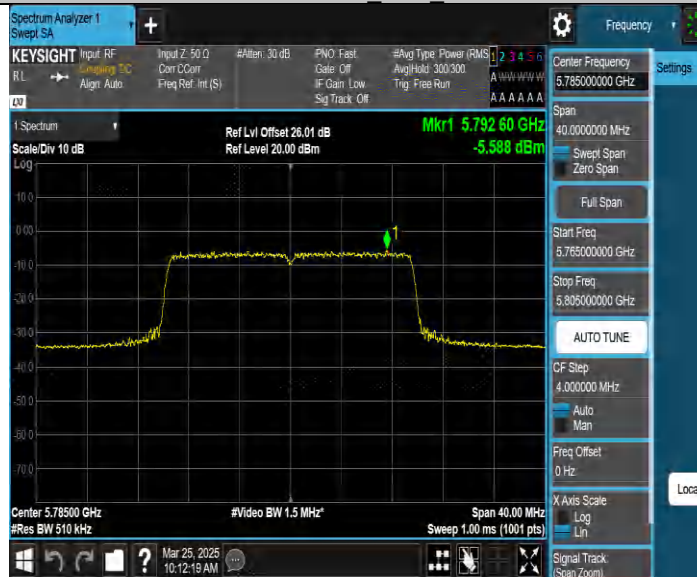
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11AX40SISO Ant1 5550



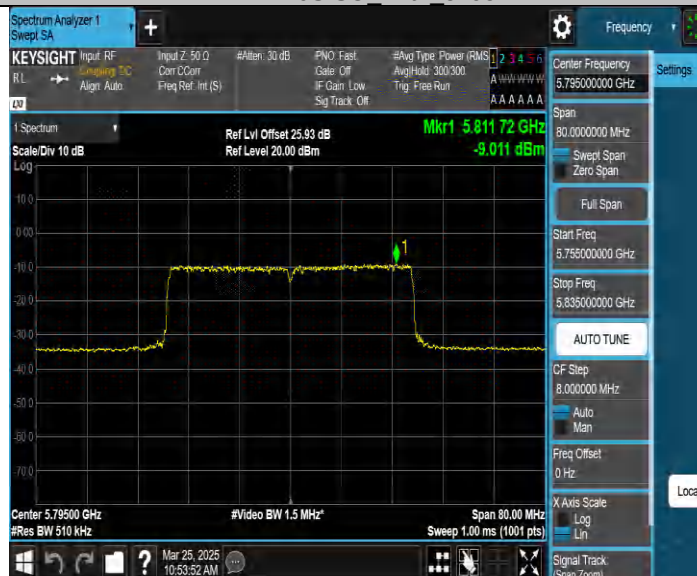
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11AX80SISO Ant1 5210







Appendix A.3: Test Results of Frequency Stability

Test Result

TestMode	Antenna	Channel	Voltage		Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
			Voltage [Vdc]	Temperature (°C)				
11AC20SISO	Ant1	5180	NV	NT	-15000.00	-2.895753	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	-15000.00	-2.895753	20	PASS
		5200	NV	NT	0.00	0.000000	20	PASS
			LV	NT	-15000.00	-2.884615	20	PASS
			HV	NT	-15000.00	-2.884615	20	PASS
		5240	NV	NT	-15000.00	-2.862595	20	PASS
			LV	NT	-15000.00	-2.862595	20	PASS
			HV	NT	-15000.00	-2.862595	20	PASS
		5260	NV	NT	0.00	0.000000	20	PASS
			LV	NT	-15000.00	-2.851711	20	PASS
			HV	NT	-15000.00	-2.851711	20	PASS
		5280	NV	NT	-15000.00	-2.840909	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5320	NV	NT	-15000.00	-2.819549	20	PASS
			LV	NT	-15000.00	-2.819549	20	PASS
			HV	NT	-15000.00	-2.819549	20	PASS
		5500	NV	NT	-15000.00	-2.727273	20	PASS
			LV	NT	-15000.00	-2.727273	20	PASS
			HV	NT	-15000.00	-2.727273	20	PASS
		5580	NV	NT	-30000.00	-5.376344	20	PASS
			LV	NT	-15000.00	-2.688172	20	PASS
			HV	NT	-15000.00	-2.688172	20	PASS
		5700	NV	NT	-15000.00	-2.631579	20	PASS
			LV	NT	-15000.00	-2.631579	20	PASS
			HV	NT	-15000.00	-2.631579	20	PASS
		5745	NV	NT	-15000.00	-2.610966	20	PASS
			LV	NT	-30000.00	-5.221932	20	PASS
			HV	NT	-15000.00	-2.610966	20	PASS
		5785	NV	NT	-15000.00	-2.592913	20	PASS
			LV	NT	-15000.00	-2.592913	20	PASS
			HV	NT	-15000.00	-2.592913	20	PASS
		5825	NV	NT	-15000.00	-2.575107	20	PASS
			LV	NT	-15000.00	-2.575107	20	PASS
			HV	NT	-15000.00	-2.575107	20	PASS
11AC40SISO	Ant1	5190	NV	NT	-30000.00	-5.780347	20	PASS
			LV	NT	-30000.00	-5.780347	20	PASS
			HV	NT	-30000.00	-5.780347	20	PASS
		5230	NV	NT	-30000.00	-5.736138	20	PASS
			LV	NT	-30000.00	-5.736138	20	PASS
			HV	NT	-30000.00	-5.736138	20	PASS
		5270	NV	NT	-30000.00	-5.692600	20	PASS
			LV	NT	-30000.00	-5.692600	20	PASS
			HV	NT	-30000.00	-5.692600	20	PASS
		5310	NV	NT	-30000.00	-5.649718	20	PASS
			LV	NT	-30000.00	-5.649718	20	PASS
			HV	NT	-30000.00	-5.649718	20	PASS
		5510	NV	NT	0.00	0.000000	20	PASS
			LV	NT	-30000.00	-5.444646	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5670	NV	NT	0.00	0.000000	20	PASS
			LV	NT	-30000.00	-5.291005	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5755	NV	NT	0.00	0.000000	20	PASS

		5795	LV	NT	0.00	0.000000	20	PASS
			HV	NT	-30000.00	-5.212858	20	PASS
			NV	NT	-30000.00	-5.176877	20	PASS
			LV	NT	-90000.00	-15.530630	20	PASS
11AC80SISO	Ant1	5210	HV	NT	0.00	0.000000	20	PASS
			NV	NT	60000.00	11.516315	20	PASS
			LV	NT	60000.00	11.516315	20	PASS
		5290	HV	NT	60000.00	11.516315	20	PASS
			NV	NT	0.00	0.000000	20	PASS
			LV	NT	60000.00	11.342155	20	PASS
		5530	HV	NT	0.00	0.000000	20	PASS
			NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
		5610	HV	NT	0.00	0.000000	20	PASS
			NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
		5775	HV	NT	0.00	0.000000	20	PASS
			NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS

Temperature								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20SISO	Ant1	5180	NV	-30	-15000.00	-2.895753	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	-30000.00	-5.791506	20	PASS
			NV	10	-15000.00	-2.895753	20	PASS
			NV	20	-15000.00	-2.895753	20	PASS
			NV	30	-15000.00	-2.895753	20	PASS
			NV	40	-15000.00	-2.895753	20	PASS
		5200	NV	50	0.00	0.000000	20	PASS
			NV	-30	-15000.00	-2.884615	20	PASS
			NV	-20	-15000.00	-2.884615	20	PASS
			NV	-10	-15000.00	-2.884615	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	-15000.00	-2.884615	20	PASS
			NV	20	-15000.00	-2.884615	20	PASS
			NV	30	-15000.00	-2.884615	20	PASS
		5240	NV	40	-15000.00	-2.884615	20	PASS
			NV	50	-15000.00	-2.884615	20	PASS
			NV	-30	-15000.00	-2.862595	20	PASS
			NV	-20	-15000.00	-2.862595	20	PASS
			NV	-10	-15000.00	-2.862595	20	PASS
			NV	0	-30000.00	-5.725191	20	PASS
			NV	10	-15000.00	-2.862595	20	PASS
			NV	20	-15000.00	-2.862595	20	PASS
		5260	NV	30	-15000.00	-2.862595	20	PASS
			NV	40	-15000.00	-2.862595	20	PASS
			NV	50	-30000.00	-5.725191	20	PASS
			NV	-30	0.00	0.000000	20	PASS
			NV	-20	-15000.00	-2.851711	20	PASS
			NV	-10	-15000.00	-2.851711	20	PASS
			NV	0	-15000.00	-2.851711	20	PASS
			NV	10	-30000.00	-5.703422	20	PASS
		5280	NV	20	-15000.00	-2.851711	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	-15000.00	-2.851711	20	PASS
			NV	50	-15000.00	-2.851711	20	PASS
		5280	NV	-30	0.00	0.000000	20	PASS
			NV	-20	-15000.00	-2.840909	20	PASS

			NV	-10	-15000.00	-2.840909	20	PASS
			NV	0	-15000.00	-2.840909	20	PASS
			NV	10	-15000.00	-2.840909	20	PASS
			NV	20	-15000.00	-2.840909	20	PASS
			NV	30	-15000.00	-2.840909	20	PASS
			NV	40	0.00	0.000000	20	PASS
		5320	NV	50	-30000.00	-5.681818	20	PASS
			NV	-30	-15000.00	-2.819549	20	PASS
			NV	-20	-15000.00	-2.819549	20	PASS
			NV	-10	-15000.00	-2.819549	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	-30000.00	-5.639098	20	PASS
			NV	20	-15000.00	-2.819549	20	PASS
			NV	30	-15000.00	-2.819549	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5500	NV	-30	-15000.00	-2.727273	20	PASS
			NV	-20	-15000.00	-2.727273	20	PASS
			NV	-10	-15000.00	-2.727273	20	PASS
			NV	0	-30000.00	-5.454545	20	PASS
			NV	10	-15000.00	-2.727273	20	PASS
			NV	20	-15000.00	-2.727273	20	PASS
			NV	30	-15000.00	-2.727273	20	PASS
			NV	40	-15000.00	-2.727273	20	PASS
			NV	50	-15000.00	-2.727273	20	PASS
		5580	NV	-30	-15000.00	-2.688172	20	PASS
			NV	-20	-15000.00	-2.688172	20	PASS
			NV	-10	-15000.00	-2.688172	20	PASS
			NV	0	-15000.00	-2.688172	20	PASS
			NV	10	-15000.00	-2.688172	20	PASS
			NV	20	-15000.00	-2.688172	20	PASS
			NV	30	-15000.00	-2.688172	20	PASS
			NV	40	-30000.00	-5.376344	20	PASS
			NV	50	-15000.00	-2.688172	20	PASS
		5700	NV	-30	-15000.00	-2.631579	20	PASS
			NV	-20	-15000.00	-2.631579	20	PASS
			NV	-10	-15000.00	-2.631579	20	PASS
			NV	0	-15000.00	-2.631579	20	PASS
			NV	10	-30000.00	-5.263158	20	PASS
			NV	20	-15000.00	-2.631579	20	PASS
			NV	30	-15000.00	-2.631579	20	PASS
			NV	40	-15000.00	-2.631579	20	PASS
			NV	50	-30000.00	-5.263158	20	PASS
		5745	NV	-30	-15000.00	-2.610966	20	PASS
			NV	-20	-15000.00	-2.610966	20	PASS
			NV	-10	-15000.00	-2.610966	20	PASS
			NV	0	-15000.00	-2.610966	20	PASS
			NV	10	-15000.00	-2.610966	20	PASS
			NV	20	-15000.00	-2.610966	20	PASS
			NV	30	-15000.00	-2.610966	20	PASS
			NV	40	-15000.00	-2.610966	20	PASS
			NV	50	-30000.00	-5.221932	20	PASS
		5785	NV	-30	-15000.00	-2.592913	20	PASS
			NV	-20	-30000.00	-5.185825	20	PASS
			NV	-10	-15000.00	-2.592913	20	PASS
			NV	0	-15000.00	-2.592913	20	PASS
			NV	10	-15000.00	-2.592913	20	PASS
			NV	20	-15000.00	-2.592913	20	PASS
			NV	30	30000.00	5.185825	20	PASS
			NV	40	-15000.00	-2.592913	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5825	NV	-30	-30000.00	-5.150215	20	PASS
			NV	-20	-15000.00	-2.575107	20	PASS

			NV	-10	-15000.00	-2.575107	20	PASS
			NV	0	-15000.00	-2.575107	20	PASS
			NV	10	-15000.00	-2.575107	20	PASS
			NV	20	-15000.00	-2.575107	20	PASS
			NV	30	-30000.00	-5.150215	20	PASS
			NV	40	-15000.00	-2.575107	20	PASS
			NV	50	-15000.00	-2.575107	20	PASS
			NV	-30	-30000.00	-5.780347	20	PASS
			NV	-20	-30000.00	-5.780347	20	PASS
			NV	-10	-30000.00	-5.780347	20	PASS
11AC40SISO	Ant1	5190	NV	0	-30000.00	-5.780347	20	PASS
			NV	10	-30000.00	-5.780347	20	PASS
			NV	20	-30000.00	-5.780347	20	PASS
			NV	30	-30000.00	-5.780347	20	PASS
			NV	40	-30000.00	-5.780347	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5230	NV	-30	-30000.00	-5.736138	20	PASS
			NV	-20	-30000.00	-5.736138	20	PASS
			NV	-10	-30000.00	-5.736138	20	PASS
			NV	0	-30000.00	-5.736138	20	PASS
			NV	10	-30000.00	-5.736138	20	PASS
			NV	20	-30000.00	-5.736138	20	PASS
			NV	30	-30000.00	-5.736138	20	PASS
			NV	40	-30000.00	-5.736138	20	PASS
			NV	50	-30000.00	-5.736138	20	PASS
		5270	NV	-30	-30000.00	-5.692600	20	PASS
			NV	-20	-30000.00	-5.692600	20	PASS
			NV	-10	-30000.00	-5.692600	20	PASS
			NV	0	-30000.00	-5.692600	20	PASS
			NV	10	-30000.00	-5.692600	20	PASS
			NV	20	-30000.00	-5.692600	20	PASS
			NV	30	-30000.00	-5.692600	20	PASS
			NV	40	-30000.00	-5.692600	20	PASS
			NV	50	-30000.00	-5.692600	20	PASS
		5310	NV	-30	-30000.00	-5.649718	20	PASS
			NV	-20	-30000.00	-5.649718	20	PASS
			NV	-10	-30000.00	-5.649718	20	PASS
			NV	0	-30000.00	-5.649718	20	PASS
			NV	10	-30000.00	-5.649718	20	PASS
			NV	20	-30000.00	-5.649718	20	PASS
			NV	30	-30000.00	-5.649718	20	PASS
			NV	40	-30000.00	-5.649718	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5510	NV	-30	-30000.00	-5.444646	20	PASS
			NV	-20	-30000.00	-5.444646	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	-30000.00	-5.444646	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	-30000.00	-5.444646	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5670	NV	-30	-30000.00	-5.291005	20	PASS
			NV	-20	-30000.00	-5.291005	20	PASS
			NV	-10	-30000.00	-5.291005	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	-30000.00	-5.291005	20	PASS
		5755	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS

			NV	-10	0.00	0.000000	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	-30000.00	-5.212858	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	-30000.00	-5.212858	20	PASS
		5795	NV	50	0.00	0.000000	20	PASS
			NV	-30	0.00	0.000000	20	PASS
			NV	-20	-30000.00	-5.176877	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	-30000.00	-5.176877	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	-30000.00	-5.176877	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	-30000.00	-5.176877	20	PASS
			NV	50	0.00	0.000000	20	PASS
11AC80SISO	Ant1	5210	NV	-30	60000.00	11.516315	20	PASS
			NV	-20	60000.00	11.516315	20	PASS
			NV	-10	60000.00	11.516315	20	PASS
			NV	0	60000.00	11.516315	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	60000.00	11.516315	20	PASS
			NV	30	60000.00	11.516315	20	PASS
			NV	40	0.00	0.000000	20	PASS
		5290	NV	50	60000.00	11.516315	20	PASS
			NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	60000.00	11.342155	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5530	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5610	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5775	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	-60000.00	-10.389610	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS

Appendix A.4: Test Results of 26dB Bandwidth

Test Result

TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	22.640	5169.040	5191.680	---	PASS
		5200	23.520	5188.120	5211.640	---	PASS
		5240	23.160	5228.520	5251.680	---	PASS
		5260	21.640	5249.440	5271.080	---	PASS
		5280	23.160	5268.720	5291.880	---	PASS
		5320	22.840	5308.760	5331.600	---	PASS
		5500	23.160	5488.480	5511.640	---	PASS
		5580	23.720	5568.880	5592.600	---	PASS
		5700	23.000	5688.280	5711.280	---	PASS
11N20SISO	Ant1	5180	24.480	5168.040	5192.520	---	PASS
		5200	24.080	5188.080	5212.160	---	PASS
		5240	24.200	5228.160	5252.360	---	PASS
		5260	26.280	5246.760	5273.040	---	PASS
		5280	25.200	5267.360	5292.560	---	PASS
		5320	24.440	5307.720	5332.160	---	PASS
		5500	25.360	5487.080	5512.440	---	PASS
		5580	25.400	5566.920	5592.320	---	PASS
		5700	24.680	5687.760	5712.440	---	PASS
11N40SISO	Ant1	5190	46.080	5166.320	5212.400	---	PASS
		5230	44.640	5207.680	5252.320	---	PASS
		5270	46.560	5247.360	5293.920	---	PASS
		5310	42.720	5288.960	5331.680	---	PASS
		5510	45.840	5487.200	5533.040	---	PASS
		5550	45.360	5527.280	5572.640	---	PASS
		5670	45.760	5646.880	5692.640	---	PASS
11AC20SISO	Ant1	5180	26.400	5166.920	5193.320	---	PASS
		5200	25.360	5187.840	5213.200	---	PASS
		5240	25.200	5227.040	5252.240	---	PASS
		5260	23.760	5247.880	5271.640	---	PASS
		5280	24.760	5267.440	5292.200	---	PASS
		5320	25.360	5307.760	5333.120	---	PASS
		5500	24.640	5487.640	5512.280	---	PASS
		5580	25.000	5567.080	5592.080	---	PASS
		5700	26.680	5686.640	5713.320	---	PASS
11AC40SISO	Ant1	5190	46.080	5166.960	5213.040	---	PASS
		5230	45.120	5207.280	5252.400	---	PASS
		5270	47.120	5247.840	5294.960	---	PASS
		5310	46.720	5287.040	5333.760	---	PASS
		5510	46.320	5486.560	5532.880	---	PASS
		5550	46.640	5527.520	5574.160	---	PASS
		5670	46.560	5646.640	5693.200	---	PASS
11AC80SISO	Ant1	5210	86.880	5167.120	5254.000	---	PASS
		5290	88.000	5245.680	5333.680	---	PASS
		5530	89.280	5485.360	5574.640	---	PASS
		5610	88.640	5565.520	5654.160	---	PASS
11AX20SISO	Ant1	5180	24.760	5167.600	5192.360	---	PASS
		5200	24.240	5187.440	5211.680	---	PASS
		5240	22.560	5228.560	5251.120	---	PASS
		5260	22.120	5248.560	5270.680	---	PASS
		5280	22.000	5268.680	5290.680	---	PASS
		5320	23.040	5308.320	5331.360	---	PASS
		5500	24.320	5487.440	5511.760	---	PASS
		5580	26.000	5567.320	5593.320	---	PASS
		5700	24.800	5687.200	5712.000	---	PASS
11AX40SISO	Ant1	5190	43.280	5168.480	5211.760	---	PASS
		5230	43.920	5209.120	5253.040	---	PASS
		5270	43.680	5247.760	5291.440	---	PASS

		5310	43.200	5288.400	5331.600	---	PASS
		5510	44.560	5487.920	5532.480	---	PASS
		5550	43.520	5528.080	5571.600	---	PASS
		5670	41.920	5649.280	5691.200	---	PASS
11AX80SISO	Ant1	5210	84.160	5168.400	5252.560	---	PASS
		5290	82.880	5249.040	5331.920	---	PASS
		5530	81.440	5489.200	5570.640	---	PASS
		5610	83.520	5567.760	5651.280	---	PASS

Test Graphs

11A Ant1 5180



11A Ant1 5200



11A Ant1 5240



11A Ant1 5260



11A Ant1 5280



11A Ant1 5320



11A Ant1 5500



11A Ant1 5580



11A Ant1 5700



11N20SISO Ant1 5180



11N20SISO Ant1 5200



11N20SISO Ant1 5240



11N20SISO Ant1 5260



11N20SISO Ant1 5280



11N20SISO Ant1 5320



11N20SISO Ant1 5500



11N20SISO Ant1 5580



11N20SISO Ant1 5700



11N40SISO Ant1 5190



11N40SISO Ant1 5230



11N40SISO Ant1 5270





11N40SISO Ant1 5670



11AC20SISO Ant1 5180



11AC20SISO Ant1 5200



11AC20SISO Ant1 5240



11AC20SISO Ant1 5260



11AC20SISO Ant1 5280



11AC20SISO Ant1 5320



11AC20SISO Ant1 5500



11AC20SISO Ant1 5580



11AC20SISO Ant1 5700



11AC40SISO Ant1 5190



11AC40SISO Ant1 5230



11AC40SISO Ant1 5270



11AC40SISO Ant1 5310



11AC40SISO Ant1 5510



11AC40SISO Ant1 5550



11AC40SISO Ant1 5670



11AC80SISO Ant1 5210



11AC80SISO Ant1 5290



11AC80SISO Ant1 5530



11AC80SISO Ant1 5610



11AX20SISO Ant1 5180



11AX20SISO_Ant1_5200



11AX20SISO_Ant1_5240



11AX20SISO_Ant1_5260









11AX40SISO_Ant1_5510



11AX40SISO_Ant1_5550



11AX40SISO_Ant1_5670





Appendix A.5: Test Results of 99% Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.179	5171.4260	5188.6050	---	PASS
		5200	17.137	5191.3563	5208.4933	---	PASS
		5240	17.023	5231.4567	5248.4797	---	PASS
		5260	17.076	5251.4111	5268.4871	---	PASS
		5280	17.083	5271.4366	5288.5196	---	PASS
		5320	17.081	5311.5106	5328.5916	---	PASS
		5500	17.264	5491.3946	5508.6586	---	PASS
		5580	17.289	5571.2362	5588.5252	---	PASS
		5700	17.205	5691.3421	5708.5471	---	PASS
		5745	17.680	5736.1822	5753.8622	---	PASS
		5785	17.599	5776.1091	5793.7081	---	PASS
		5825	17.141	5816.4084	5833.5494	---	PASS
11N20SISO	Ant1	5180	18.340	5170.8327	5189.1727	---	PASS
		5200	18.363	5190.8273	5209.1903	---	PASS
		5240	18.291	5230.8351	5249.1261	---	PASS
		5260	18.393	5250.7564	5269.1494	---	PASS
		5280	18.443	5270.7538	5289.1968	---	PASS
		5320	18.491	5310.7811	5329.2721	---	PASS
		5500	18.591	5490.7169	5509.3079	---	PASS
		5580	18.557	5570.6849	5589.2419	---	PASS
		5700	18.598	5690.6317	5709.2297	---	PASS
		5745	18.635	5735.6733	5754.3083	---	PASS
		5785	18.741	5775.5946	5794.3356	---	PASS
		5825	18.718	5815.5878	5834.3058	---	PASS
11N40SISO	Ant1	5190	36.769	5171.6230	5208.3920	---	PASS
		5230	36.568	5211.7148	5248.2828	---	PASS
		5270	36.737	5251.5977	5288.3347	---	PASS
		5310	36.665	5291.6439	5328.3089	---	PASS
		5510	36.983	5491.5526	5528.5356	---	PASS
		5550	37.084	5531.4213	5568.5053	---	PASS
		5670	37.077	5651.4124	5688.4894	---	PASS
		5755	37.225	5736.2722	5773.4972	---	PASS
		5795	37.004	5776.5297	5813.5337	---	PASS
11AC20SISO	Ant1	5180	18.351	5170.7983	5189.1493	---	PASS
		5200	18.463	5190.7652	5209.2282	---	PASS
		5240	18.360	5230.8369	5249.1969	---	PASS
		5260	18.367	5250.8482	5269.2152	---	PASS
		5280	18.436	5270.8189	5289.2549	---	PASS
		5320	18.472	5310.7914	5329.2634	---	PASS
		5500	18.619	5490.6966	5509.3156	---	PASS
		5580	18.591	5570.6869	5589.2779	---	PASS
		5700	18.512	5690.6913	5709.2033	---	PASS
		5745	18.548	5735.7019	5754.2499	---	PASS
		5785	18.697	5775.6067	5794.3037	---	PASS
		5825	18.536	5815.7230	5834.2590	---	PASS
11AC40SISO	Ant1	5190	36.764	5171.6914	5208.4554	---	PASS
		5230	36.679	5211.6484	5248.3274	---	PASS
		5270	36.918	5251.5299	5288.4479	---	PASS
		5310	36.919	5291.4837	5328.4027	---	PASS
		5510	36.891	5491.5404	5528.4314	---	PASS
		5550	36.901	5531.6165	5568.5175	---	PASS
		5670	36.984	5651.4508	5688.4348	---	PASS
		5755	37.129	5736.4951	5773.6241	---	PASS
		5795	37.387	5776.2434	5813.6304	---	PASS
11AC80SISO	Ant1	5210	76.112	5172.0092	5248.1212	---	PASS
		5290	76.255	5251.8988	5328.1538	---	PASS
		5530	76.475	5491.7712	5568.2462	---	PASS

		5610	76.727	5571.6197	5648.3467	---	PASS
		5775	76.788	5736.7008	5813.4888	---	PASS
11AX20SISO	Ant1	5180	19.205	5170.4567	5189.6617	---	PASS
		5200	19.222	5190.4103	5209.6323	---	PASS
		5240	19.247	5230.3574	5249.6044	---	PASS
		5260	19.267	5250.3525	5269.6195	---	PASS
		5280	19.129	5270.4286	5289.5576	---	PASS
		5320	19.094	5310.4518	5329.5458	---	PASS
		5500	19.225	5490.4025	5509.6275	---	PASS
		5580	19.198	5570.3975	5589.5955	---	PASS
		5700	19.231	5690.3384	5709.5694	---	PASS
		5745	19.331	5735.3386	5754.6696	---	PASS
		5785	19.325	5775.2828	5794.6078	---	PASS
		5825	19.327	5815.3638	5834.6908	---	PASS
11AX40SISO	Ant1	5190	37.988	5171.0941	5209.0821	---	PASS
		5230	38.106	5211.0252	5249.1312	---	PASS
		5270	38.001	5250.9829	5288.9839	---	PASS
		5310	38.054	5290.9753	5329.0293	---	PASS
		5510	38.287	5490.8895	5529.1765	---	PASS
		5550	38.127	5530.9409	5569.0679	---	PASS
		5670	38.358	5650.8064	5689.1644	---	PASS
		5755	38.205	5735.9146	5774.1196	---	PASS
		5795	38.170	5775.9464	5814.1164	---	PASS
11AX80SISO	Ant1	5210	77.545	5171.4689	5249.0139	---	PASS
		5290	77.567	5251.1646	5328.7316	---	PASS
		5530	77.689	5491.1545	5568.8435	---	PASS
		5610	78.184	5570.9026	5649.0866	---	PASS
		5775	78.198	5736.0210	5814.2190	---	PASS

Test Graphs

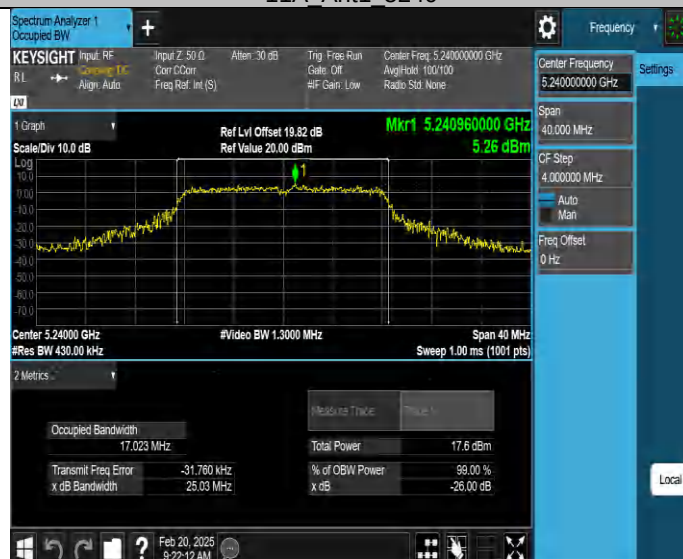
11A Ant1 5180



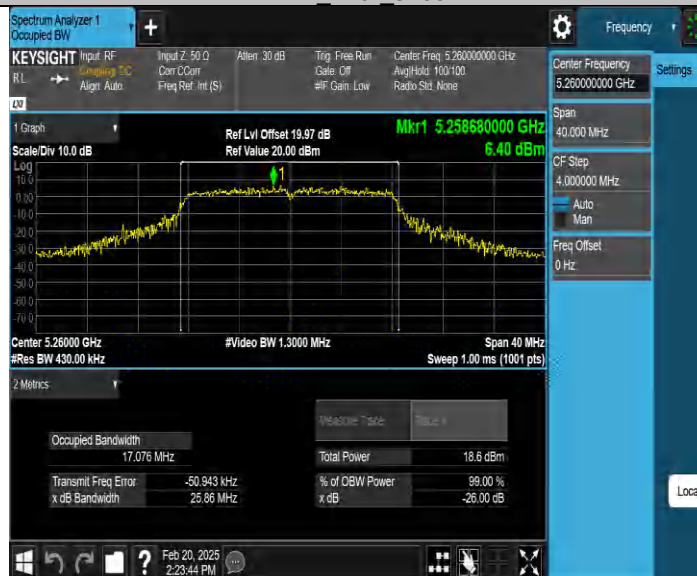
11A Ant1 5200



11A Ant1 5240



11A Ant1 5260



11A Ant1 5280



11A Ant1 5320

