

TEST REPORT

Applicant: SHARP CORPORATION
EUT Description: Smartphone
Model: APYHRO00343
Brand: SHARP
FCC ID: APYHRO00343
Standards: FCC 47 CFR Part 15 Subpart C
Date of Receipt: 2026/04/13
Date of Test: 2026/04/13 to 2026/05/21
Date of Issue: 2026/05/21

TOWE. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

the results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of the model are manufactured with identical electrical and mechanical components. All sample tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise. without written approval of TOWE, the test report shall not be reproduced except in full.



Jim Huang
Approved By:



Carey Chen
Reviewed By:

Revision History

Rev.	Issue Date	Description	Revised by
01	2026/05/21	Original	Carey Chen

Summary of Test Results

Clause	FCC Part	Test Items	Result
4.1	§15.203/15.247(b)	Antenna Requirement	PASS
4.2	§15.207	AC Power Line Conducted Emission	PASS
4.3	§15.247 (b)(3)	Output Power	PASS
4.4	§15.247 (a)(2)	Occupied Bandwidth	Reporting purposes only
4.5	§15.247 (e)	Power Spectral Density	PASS
4.6	§15.247(d)	Band Edge for Conducted Emissions	PASS
4.7	§15.247(d)	Spurious RF Conducted Emissions	PASS
4.8	§15.205/15.209	Radiated Spurious emissions and Band Edge	PASS
Test Method: ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, KDB 558074 D01 15.247 Mesa Guidance v05r02. Remark: Pass is EUT meets standard requirements.			

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1 General Description

1.1 Lab Information

1.1.1 Testing Location

These measurements tests were conducted at the Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. facility located at F401 and F101, Building E, Hongwei Industrial Zone, Liuxian 3rd Road, Bao'an District, Shenzhen, China. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014
Tel.: +86-755-27212361
Contact Email: info@towewireless.com

1.1.2 Test Facility / Accreditations

A2LA (Certificate Number: 7088.01)

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

FCC Designation No.: CN1353

Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. has been recognized as an accredited testing laboratory.
Test Firm Registration Number: 684095
Designation Number: CN1353.

ISED CAB identifier: CN0152

Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. has been recognized by ISED as an accredited testing laboratory.
CAB identifier: CN0152
Company Number: 31000

1.2 Client Information

1.2.1 Applicant

Applicant:	SHARP CORPORATION
Address:	2-1-25, Kyutaromachi, Chuo-ku, Osaka city, Osaka 541-8522, JAPAN

1.2.2 Manufacturer

Manufacturer:	SHARP CORPORATION
Address:	2-1-25, Kyutaromachi, Chuo-ku, Osaka city, Osaka 541-8522, JAPAN

1.3 Product Information

EUT Description:	Smartphone	
Model No.:	APYHRO00343	
Brand:	SHARP	
Hardware Version:	DVT	
Software Version:	BIN_SECBOOT_RAMBA_16_S4220_v6R3V_2026_EED3	
IMEI:	RF Conducted	004401232213674
	RSE & AC power line	004401232211520
Modulation Type:	802.11b:	DSSS-DBPSK, DQPSK, CCK
	802.11g/n:	OFDM-BPSK, QPSK, 16QAM, 64QAM
	802.11VHT:	OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM
Smart System:	☒ SISO	802.11b/g/n/VHT
Frequency Range:	2400 ~ 2483.5MHz	
Channel Frequency:	20M bandwidth Channel: 2412 ~ 2462MHz 40M bandwidth Channel: 2422 ~ 2452MHz	
Channel Number:	11:	802.11b/g/n20/VHT20
	7:	802.11n40/VHT40
Antenna Type:	☐ External, ☒ Integrated	
Antenna Gain:	Ant6(dBi)	
	-0.3	
Remark: The above EUT's information was declared by applicant, please refer to the specifications or user's manual for more detailed description.		

2 Test Configuration

2.1 Test Channel

Frequency Channels							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz	/	
Remark:							
In section 15.31(m), regards to the operating frequency range over 10 MHz, the selected channel see below:							
Modulation Type		Test Channel		Test Frequency			
802.11b/g/n20/ VHT20		The Lowest channel (CH1)		2412MHz			
		The Middle channel (CH6)		2437MHz			
		The Highest channel (CH11)		2462MHz			
Modulation Type		Test Channel		Test Frequency			
802.11n40/ VHT40		The Lowest channel (CH3)		2422MHz			
		The channel (CH4)		2427MHz			
		The channel (CH5)		2432MHz			
		The Middle channel (CH6)		2437MHz			
		The channel (CH7)		2442MHz			
		The channel (CH8)		2447MHz			
		The Highest channel (CH9)		2452MHz			

2.2 Worst-case configuration and Mode

Modulation Type	SISO - Data Rate
802.11b	1 Mbps
802.11g	6 Mbps
802.11n20	MCS0 (6.5 Mbps)
802.11n40	MCS0 (13.5 Mbps)
802.11VHT20	MCS0 (6.5 Mbps)
802.11VHT40	MCS0 (13.5 Mbps)
Transmitting mode:	Keep the EUT was programmed to be in continuously transmitting mode.
Normal Link:	Keep the EUT operation to normal function.

2.3 Support Unit used in test

The EUT has been tested as an independent unit.

2.4 Test Environment

Temperature:	Normal: 15°C ~ 35°C
Humidity:	45 ~ 56 % RH Ambient
Voltage:	DC 3.91V
AC Voltage:	AC 120V/60Hz for Conducted Emissions
Remark: The testing environment is within the scope of the EUT user manual and meets the requirements of the standard testing environment.	

2.5 Test RF Cable

For all conducted test items: The offset level is set spectrum analyzer to compensate the RF cable loss and attenuator factor between RF conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level will be exactly the RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

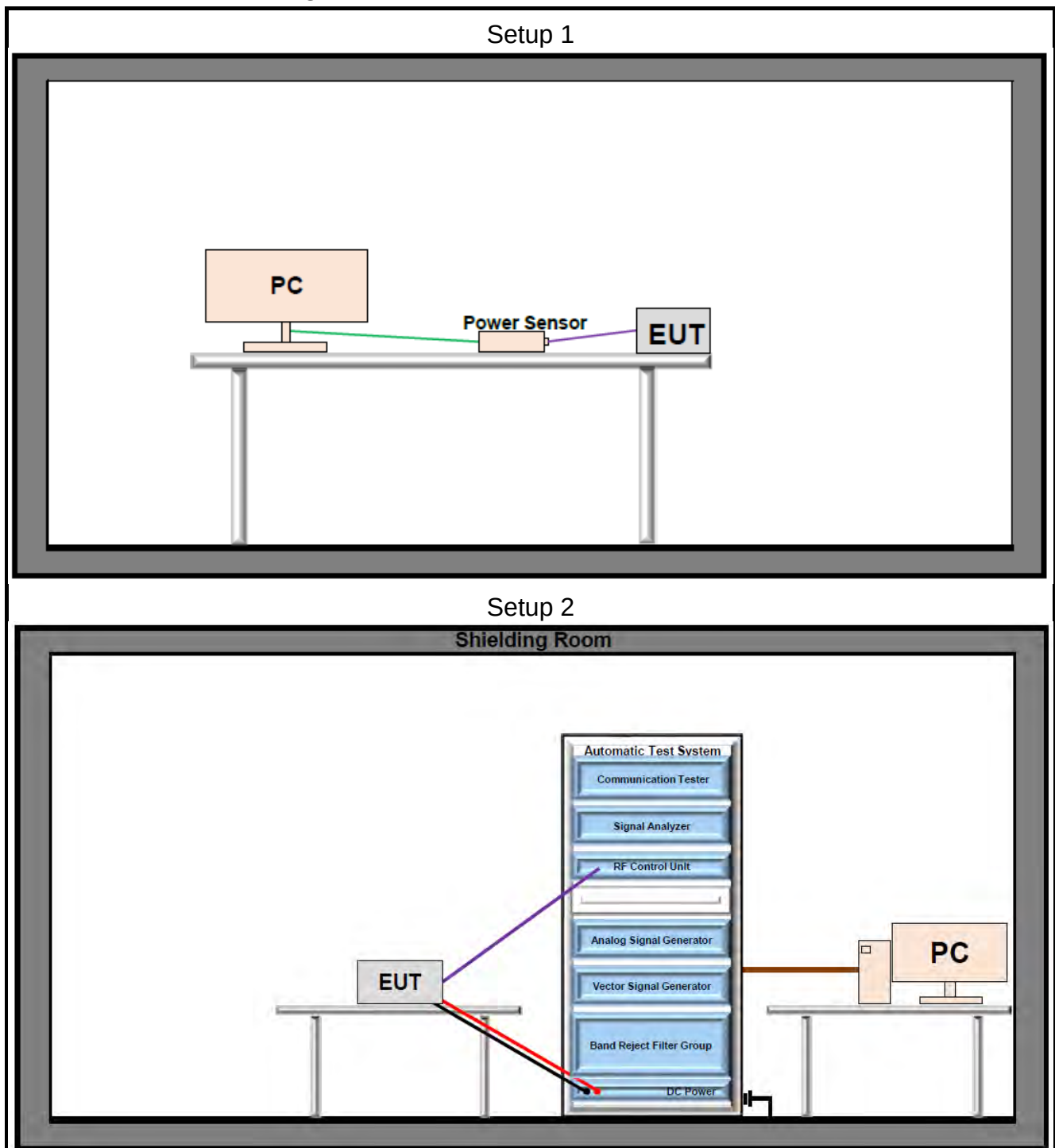
Offset = RF cable loss + attenuator factor.

2.6 Modifications

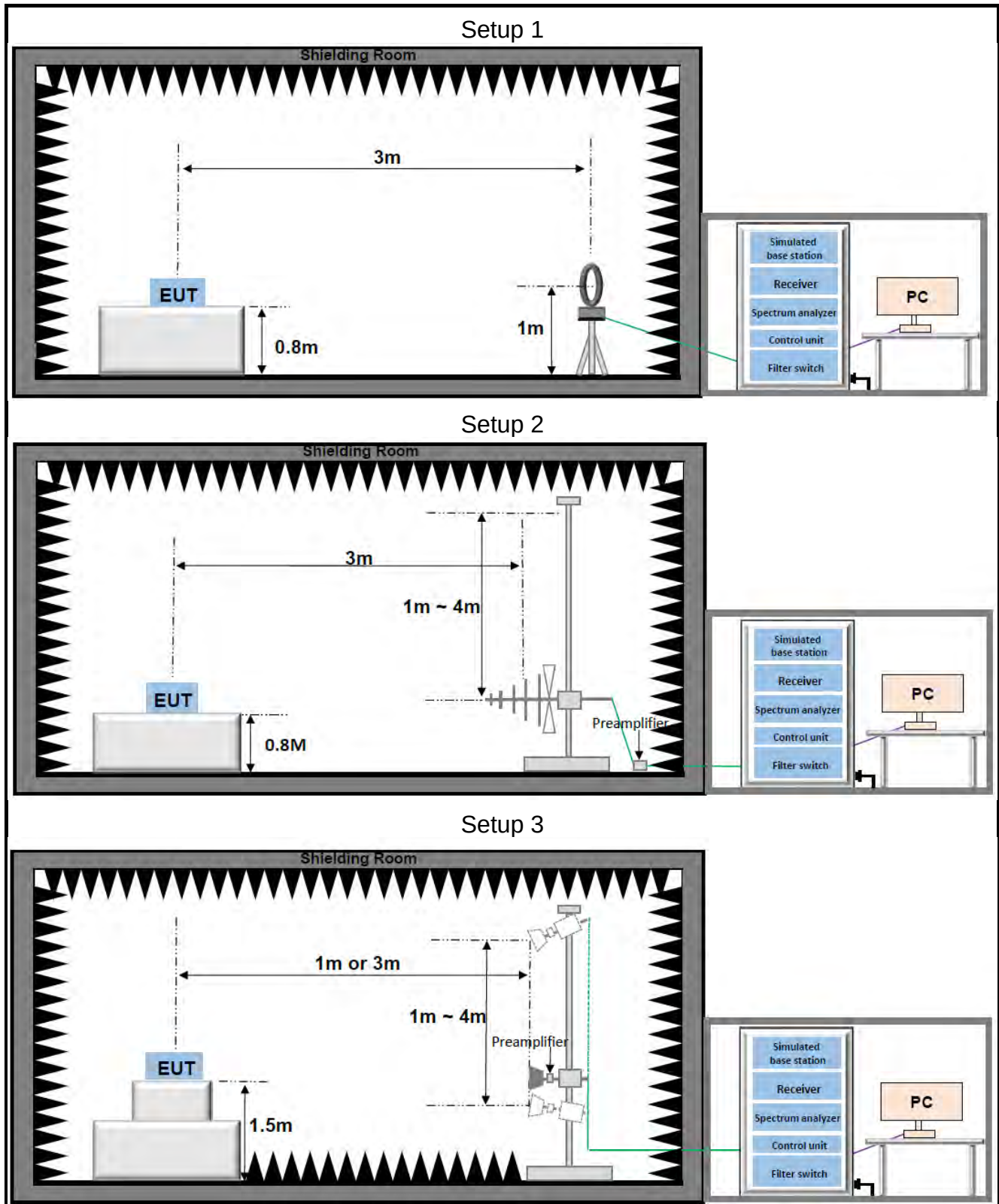
No modifications were made during testing.

2.7 Test Setup Diagram

2.7.1 Conducted Configuration



2.7.2 Radiated Configuration



3 Equipment and Measurement Uncertainty

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, whichever is less, and where applicable is traceable to recognized national standards.

3.1 Test Equipment List

RF Conducted					
Description	Manufacturer	Model	S.N.	Last Due	Cal Due
Signal Analyzer	Keysight	N9020A	US46470429	2026/03/05	2027/03/04
Signal Generator	R&S	SMR20	101027	2026/03/05	2027/03/04
Vector Signal Generator	R&S	SMM100A	549353	2025/05/29	2026/05/28
Power Sensor	Anritsu	MA24408A	12520	2025/05/29	2026/05/28
RF Control Unit	Tonscend	JS0806-2	23C80620671	2025/05/29	2026/05/28
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY63440541	2025/05/29	2026/05/28
Attenuator	Yin Saige	SMA-10dBm	N/A	N/A	N/A
Measurement Software	Tonscend	TS1120-3	10659	N/A	N/A

Radiated Emission					
Description	Manufacturer	Model	S.N.	Last Due	Cal Due
Biconic Logarithmic Periodic Antennas	Schwarzbeck	VULB9163	1643	2023/06/25	2026/06/24
Double-Ridged Horn Antennas	Schwarzbeck	BBHA 9120D	2809	2023/06/25	2026/06/24
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	1290	2023/06/25	2026/06/24
Loop Antenna	Schwarzbeck	FMZB 1519C	1519C-028	2023/06/29	2026/06/28
Signal Analyzer	Keysight	N9020A	MY49100252	2026/04/03	2027/04/02
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY63440541	2025/05/29	2026/05/28
Wideband Radio Communication Tester	R&S	CMW500	150645	2026/03/06	2027/03/05
Low Noise Amplifier	Tonscend	TAP9K3G40	AP23A8060273	2025/03/11	2027/03/10
Low Noise Amplifier	Tonscend	TAP01018050	AP22G806258	2025/03/11	2027/03/10
Low Noise Amplifier	Tonscend	TAP18040048	AP22G806247	2025/03/11	2027/03/10
Hygrometer	BINGYU	HTC-1	N/A	2025/07/25	2026/07/24
Band Reject Filter Group	Townshend	JS0806-F	23A806F0652	N/A	N/A
Test Software	Tonscend	TS+	Version: 5.0.0	N/A	N/A

Conducted Emission					
Description	Manufacturer	Model	S.N.	Last Due	Cal Due
EMI Tester Receiver	Rohde & Schwarz	ESR3	103108	2025/05/29	2026/05/28
LISN	Rohde & Schwarz	ENV 216	102836	2026/01/19	2027/01/18
Test software	Rohde & Schwarz	ELEKTRA V4.61	N/A	N/A	N/A

3.2 Measurement Uncertainty

Parameter	U _{lab}
Frequency Error	679.98Hz
Output Power	0.76dB
Conducted Spurious Emissions	2.22dB
Conducted Emissions(150kHz~30MHz)	2.43dB
Radiated Emissions(9kHz~30MHz)	2.40dB
Radiated Emissions(30MHz~1000MHz)	4.66dB
Radiated Emissions(1GHz~18GHz)	5.42dB
Radiated Emissions(18GHz~40GHz)	5.46dB

Uncertainty figures are valid to a confidence level of 95%

4 Test Results

4.1 Antenna Requirement

Standard Applicable:	47 CFR Part 15C Section 15.203 /247(b)
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. 15.247(b) (4) requirement: The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.	
The antenna gain and type as provided by the manufacturer are as follows: The antenna Type is Integrated. With Antenna gain is -0.3dBi. Antenna Anti-Replacement Construction: An embedded-in antenna design is used.	

4.2 AC Power Line Conducted Emissions

Limits

Frequency range (MHz)	Limit (dBuV)	
	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.

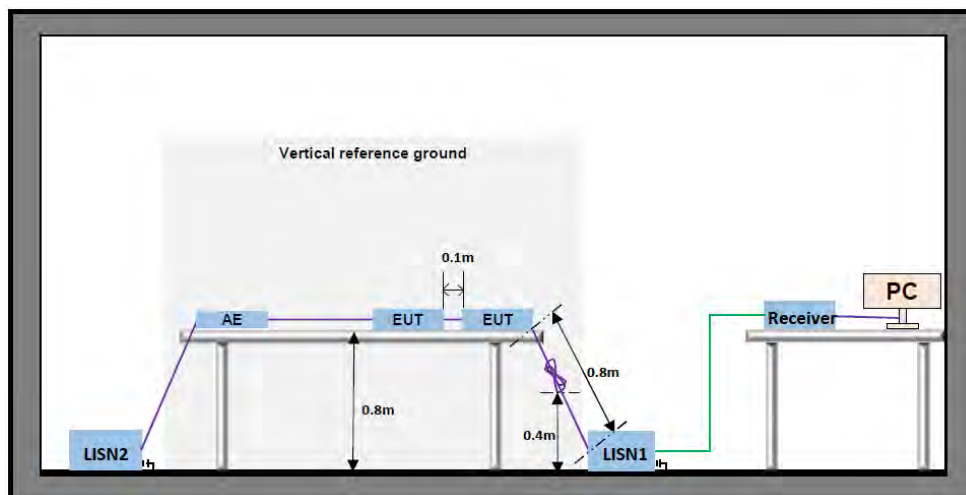
Test Procedure

ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, Section 6.2.

Test Settings

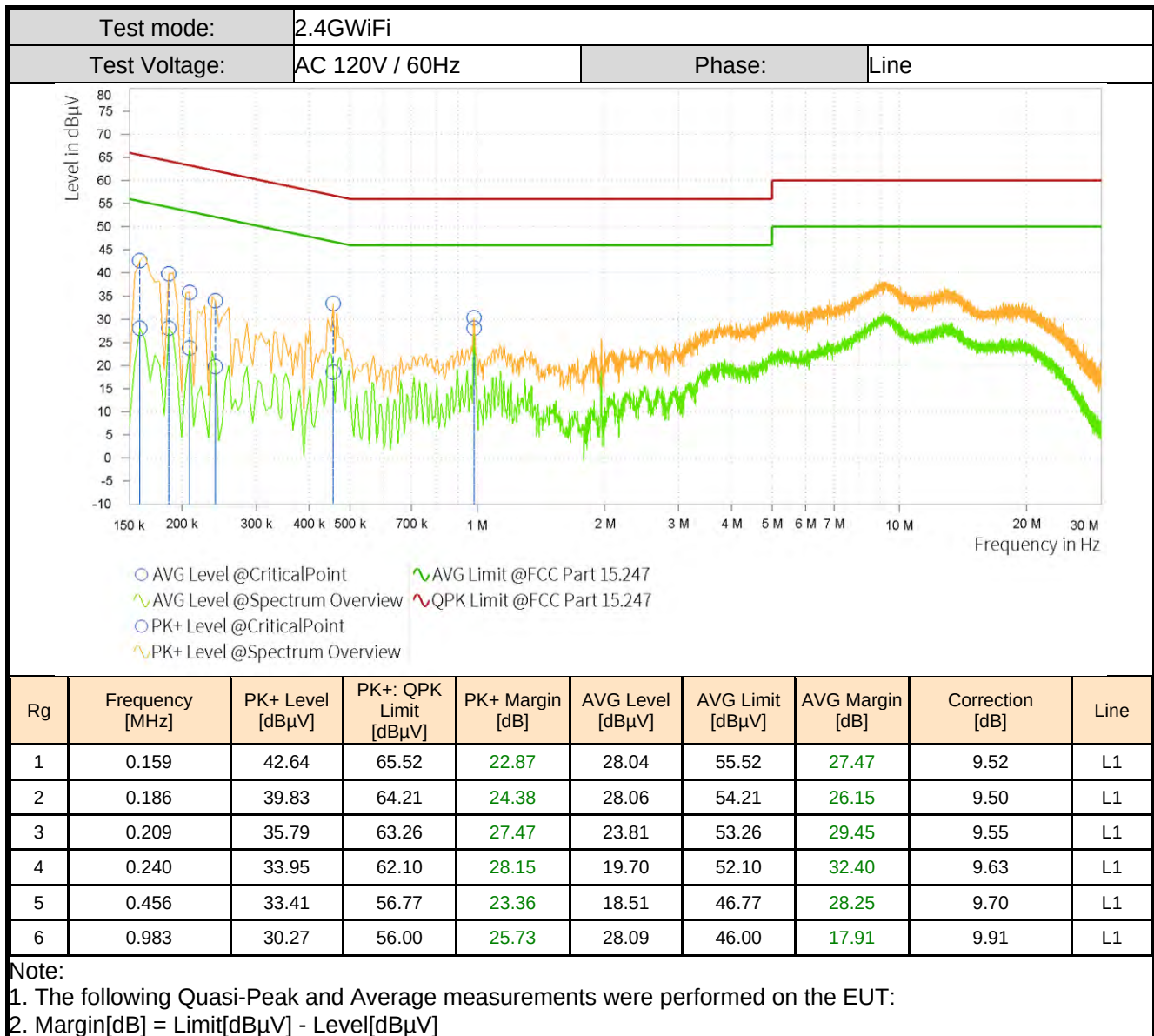
1. The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a $50\Omega/50\mu\text{H} + 5\Omega$ linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
2. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane.
3. The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
4. Set the test-receiver system to Peak detect function and specified bandwidth (if bandwidth =9kHz) with maximum hold mode. Then measurement is also conducted by average detector and Quasi-Peak detector function respectively.
5. Both sides of AC line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

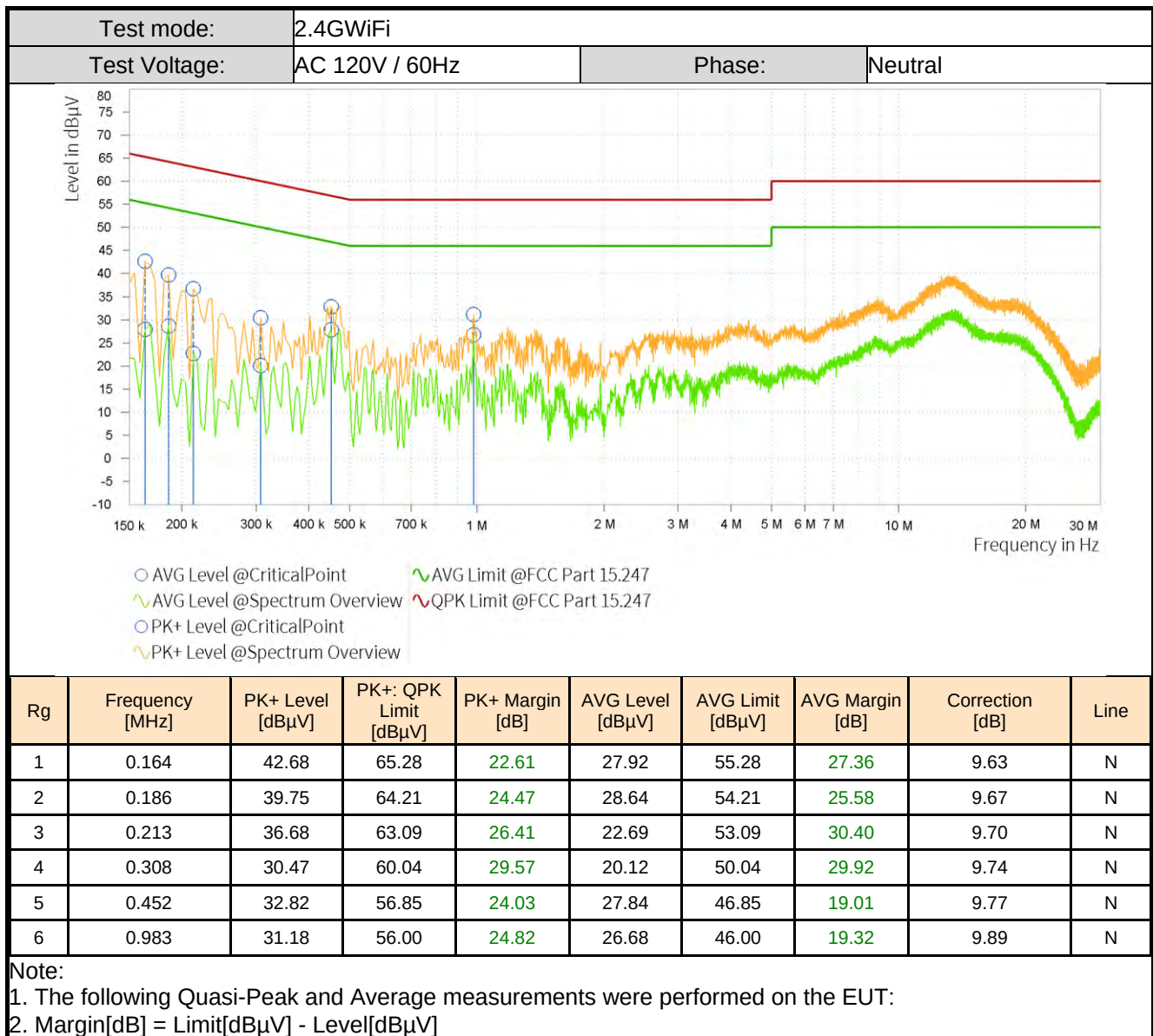
Test Setup



Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

Test Result:



4.3 Output Power

Limits

If with directional antenna gains less than 6 dBi, the limit is 30dBm.

Test Procedure

ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 Section 11.9.1.2(PKPM1) or 11.9.2.3.2(AVGPM-G)

Test Settings

1. Set to the maximum power setting and enable the EUT transmit continuously.
2. The power output was measured on the EUT antenna port using RF Cable with an attenuator connected to a power sensor. Output power was read directly from the power sensor.
3. Measure and record the results in the test report.

Test Setup

Refer to section 2.7.1 Setup 1 for details.

Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

Test Result

The detailed test data see: **Appendix**.

4.4 Occupied Bandwidth

Limits

DTSBW: The minimum 6 dB bandwidth shall be at least 500 kHz.

99%BW: None, for reporting purposes only.

Test Procedure

ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 Section 11.8.2 and 6.9.3

Test Settings

1. Set to the maximum power setting and enable the EUT transmit continuously.
2. The transmitter output is connected to a spectrum analyzer:
3. RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz(DTS)
4. RBW = 1% - 5%(99%BW)
5. VBW $\geq$ 3 times the RBW
6. Sweep = Auto
7. Detector = Peak
8. Trace = Max hold
9. The trace was allowed to stabilize
10. Measure and record the results in the test report.

Test Notes

DTS: The signal analyzers' automatic bandwidth measurement capability of the spectrum analyzer was used to perform the 6dB bandwidth measurement. The "X" dB bandwidth parameter was set to X= 6. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.

Test Setup

Refer to section 2.7.1 Setup 2 for details.

Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

Test Result

The detailed test data see: **Appendix**.

4.5 Power Spectral Density

Limits

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

Test Procedure

ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 Section 11.10.2(PKPSD)

Test Settings

1. Set to the maximum power setting and enable the EUT transmit continuously
2. The transmitter output is connected to a spectrum analyzer
3. $3\text{kHz} \leq \text{RBW} \leq 100\text{ kHz}$
(If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.)
4. $\text{VBW} \geq 3$ times the RBW
5. Span = 1.5 times the DTS bandwidth
6. Sweep = Auto
7. Detector = Peak
8. Trace = Max hold
9. The trace was allowed to stabilize
10. Measure and record the results in the test report.

Test Setup

Refer to section 2.7.1 Setup 2 for details.

Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

Test Result

The detailed test data see: **Appendix**.

4.6 Band Edge for Conducted Emissions

Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph 15.247(b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Test Procedure

ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 Section 11.11.3

Test Settings

1. Set to the maximum power setting and enable the EUT transmit continuously
2. The transmitter output is connected to a spectrum analyzer
3. RBW = 100kHz
4. VBW = 300kHz
5. Point $\geq 2 \times \text{span/RBW}$
6. Sweep = Auto
7. Detector = Peak
8. Trace = Max hold
9. The trace was allowed to stabilize
10. Measure and record the results in the test report

Test Setup

Refer to section 2.7.1 Setup 2 for details.

Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

Test Result

The detailed test data see: **Appendix**.

4.7 Spurious RF Conducted Emissions

Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph 15.247(b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Test Procedure

ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 Section 11.11.3

Test Settings

1. Set to the maximum power setting and enable the EUT transmit continuously.
2. Activate frequency hopping function if necessary.
3. The transmitter output is connected to a spectrum analyzer
4. The spectrum from 30MHz - 26.5GHz
5. RBW = 100kHz
6. VBW = 300kHz
7. Sweep = Auto
8. Detector = Peak
9. Trace = Max hold
10. The trace was allowed to stabilize
11. Measure and record the results in the test report

Test Setup

Refer to section 2.7.1 Setup 2 for details.

Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

Test Result

The detailed test data see: **Appendix**.

4.8 Radiated Spurious Emissions and Band Edge

Limits

Spurious emissions are permitted in an of the frequency bands:

MHz	MHz	MHz	MHz	GHz	GHz
0.090 - 0.110	12.29 - 12.293	149.9 - 150.05	1660 - 1710	4.5 - 5.15	14.47 - 14.5
0.495 - 0.505	12.51975 - 12.52025	156.52475 - 156.52525	1718.8 - 1722.2	5.35 - 5.46	15.35 - 16.2
2.1735 - 2.1905	12.5767 - 12.57725	156.7 - 156.9	2200 - 2300	7.25 - 7.75	17.7 - 21.4
4.125 - 128	13.36 - 13.41	162.0125 - 167.17	2310 - 2390	8.025 - 8.5	22.01 - 23.12
4.17725 - 4.17775	16.42 - 16.423	167.72 - 173.2	2483.5 - 2500	9.0 - 9.2	23.6 - 24.0
4.20725 - 4.20775	16.69475 - 16.69525	240 - 285	2655 - 2900	9.3 - 9.5	31.2 - 31.8
6.215 - 6.218	1680425 - 1680475	322 - 335.4	3260 - 3267	10.6 - 12.7	36.43 - 36.5
6.26775 - 6.26825	25.5 - 25.67	399.9 - 410	3332 - 3339	13.25 - 13.4	
6.31175 - 6.31225	37.5 - 38.25	608 - 614	3345.8 - 3358		
8.291 - 8.294	73 - 74.6	960 - 1240	3600 - 4400		
8.362 - 8.366	74.8 - 75.2	1300 - 1427			
8.37625 - 8.38675	108 - 121.94	1435 - 1626.5			
8.41425 - 8.41475	123 - 138	1645.5 - 1646.5			

Radiated disturbance of an intentional radiator:

Frequency	Field strength (μV/m)	Limit (dBμV/m)	Remark	Measurement distance (m)
0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
1.705MHz-30MHz	30	-	-	30
30MHz-88MHz	100	40.0	Quasi-peak	3
88MHz-216MHz	150	43.5	Quasi-peak	3
216MHz-960MHz	200	46.0	Quasi-peak	3
960MHz-1GHz	500	54.0	Quasi-peak	3
Above 1GHz	500	74.0	Peak	3
		54.0	Average	

Test Procedure

ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 Section 6.4 & 6.5 & 6.6

Test Settings

- For radiated emissions measurements performed at frequencies less than or equal to 1GHz, the EUT shall be placed on a RF-transparent table or support at a nominal height of 80cm above the reference ground plane.
- For radiated emissions measurements performed at frequencies above 1GHz, the EUT shall be placed on a RF-transparent table or support at a nominal height of 150cm above the ground plane.
- Radiated measurements shall be made with the measurement antenna positioned in both horizontal and vertical polarization. The measurement antenna shall be varied from 1m to 4m in height above the reference ground in a search for the relative positioning that produces the maximum radiated signal level (i.e, field strength or received power), when orienting the measurement antenna in vertical polarization, the minimum height of the lowest element of the antenna shall clear the site reference ground plane by at least 25cm.
- For each suspected emission, the EUT was ranged its worst case and then tune the antenna tower(from 1~4m) and turntable(from 0~360°) find the maximum reading. Preamplifier and a high pass filter are used for the test in order get better signal level comply with the guidelines.
- Set to the maximum power setting and enable the EUT transmit continuously.
- The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
- spectrum analyzer setting:
Measurements 30MHz ~ 1000MHz: RBW = 120 kHz; VBW ≥ 300 kHz; Detector = Peak

Measurements Above 1000MHz: RBW = 1 MHz; VBW $\geq$ 3 MHz; Detector = Peak

Average Measurements Above 1000MHz:

RBW = 1 MHz, VBW $\geq$ 1/T, with peak detector for average measurements.

8. The field strength is calculated by adding the Antenna Factor, Cable Factor. The basic equation with a sample calculation is as follows:

Level = Reading(dB μ V) + Factor(dB):

Factor = Cable Factor(dB) + AF(dB/m) - Preamplifier gain(dB)

AF = Antenna Factor(dB/m)

Margin = Limit(dB μ V/m) – Level(dB μ V/m)

9. Repeat above procedures until all frequencies measured was complete.
10. Measure and record the results in the test report.

Test Notes

1. Emissions below 18GHz were measured at a 3-meter test distance while emissions above 18GHz were measured at a 1-meter test distance with the application of a distance correction factor.
2. Radiated spurious emissions were investigated from 9kHz to 30MHz, 30MHz-1GHz and above 1GHz. the disturbance between 9kHz to 30MHz and 18GHz to 40GHz was very low. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be recorded, so only the harmonics had been displayed.
3. These frequencies which near "-" should be ignored because they are Fundamental frequency.

Test Setup

Refer to section 2.7.2 for details.

Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

Test Result

The detailed test data see: **Appendix.**

5 Test Setup Photos

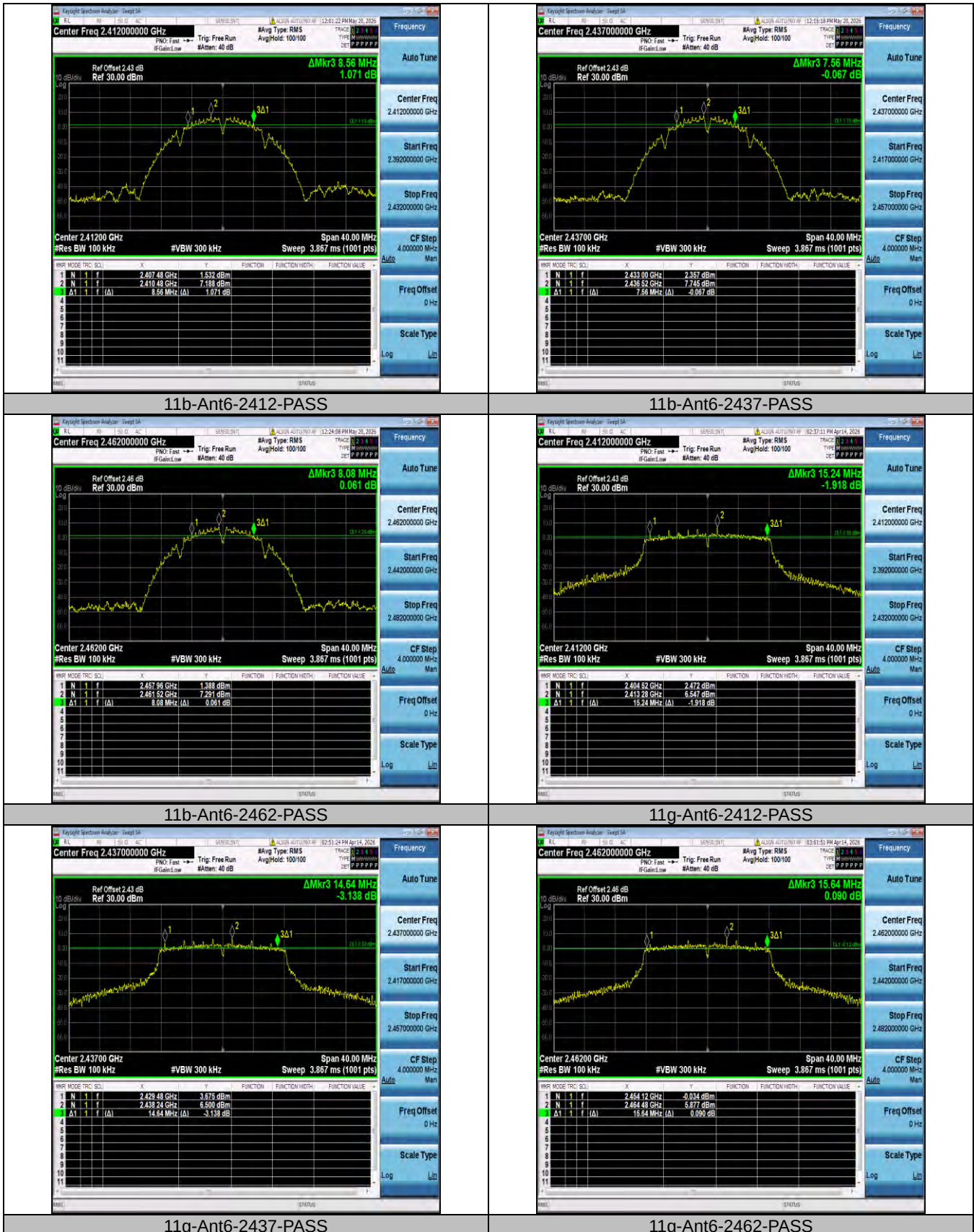
The detailed test data see: **Appendix-E BTWIFI Setup Photos**

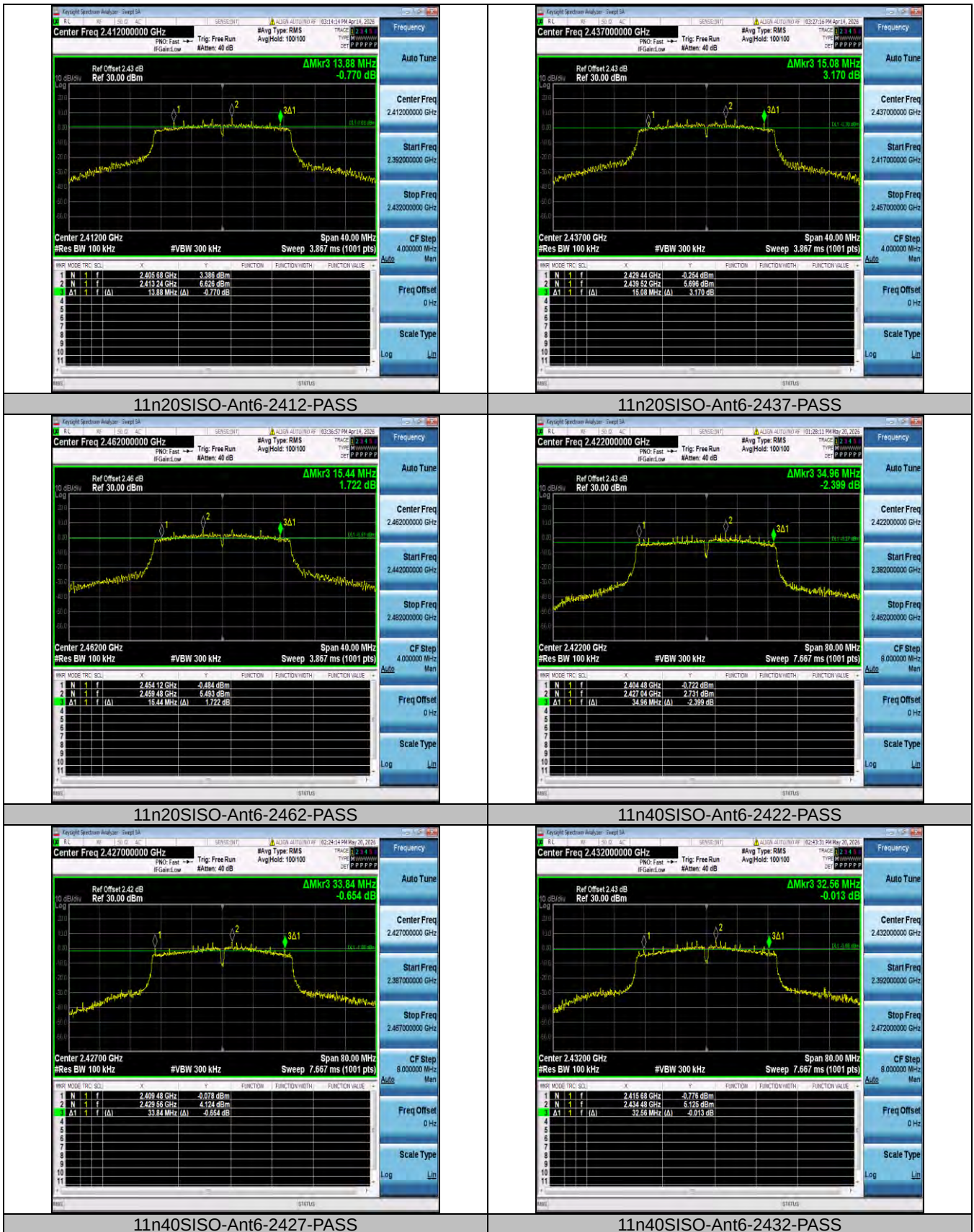
Appendix

DTS Bandwidth Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11b	Ant6	2412	8.560	2407.480	2416.040	0.5	PASS
11b	Ant6	2437	7.560	2433.000	2440.560	0.5	PASS
11b	Ant6	2462	8.080	2457.960	2466.040	0.5	PASS
11g	Ant6	2412	15.240	2404.520	2419.760	0.5	PASS
11g	Ant6	2437	14.640	2429.480	2444.120	0.5	PASS
11g	Ant6	2462	15.640	2454.120	2469.760	0.5	PASS
11n20SISO	Ant6	2412	13.880	2405.680	2419.560	0.5	PASS
11n20SISO	Ant6	2437	15.080	2429.440	2444.520	0.5	PASS
11n20SISO	Ant6	2462	15.440	2454.120	2469.560	0.5	PASS
11n40SISO	Ant6	2422	34.960	2404.480	2439.440	0.5	PASS
11n40SISO	Ant6	2427	33.840	2409.480	2443.320	0.5	PASS
11n40SISO	Ant6	2432	32.560	2415.680	2448.240	0.5	PASS
11n40SISO	Ant6	2437	32.640	2421.960	2454.600	0.5	PASS
11n40SISO	Ant6	2442	33.840	2425.760	2459.600	0.5	PASS
11n40SISO	Ant6	2447	35.440	2429.480	2464.920	0.5	PASS
11n40SISO	Ant6	2452	35.280	2434.240	2469.520	0.5	PASS
11VHT20SISO	Ant6	2412	17.600	2403.200	2420.800	0.5	PASS
11VHT20SISO	Ant6	2437	15.640	2429.400	2445.040	0.5	PASS
11VHT20SISO	Ant6	2462	15.280	2453.880	2469.160	0.5	PASS
11VHT40SISO	Ant6	2422	32.640	2404.800	2437.440	0.5	PASS
11VHT40SISO	Ant6	2427	32.400	2409.480	2441.880	0.5	PASS
11VHT40SISO	Ant6	2432	30.080	2416.960	2447.040	0.5	PASS
11VHT40SISO	Ant6	2437	35.280	2419.480	2454.760	0.5	PASS
11VHT40SISO	Ant6	2442	34.800	2425.360	2460.160	0.5	PASS
11VHT40SISO	Ant6	2447	34.480	2430.680	2465.160	0.5	PASS
11VHT40SISO	Ant6	2452	35.360	2434.400	2469.760	0.5	PASS

Test Graphs





11n20SISO-Ant6-2412-PASS

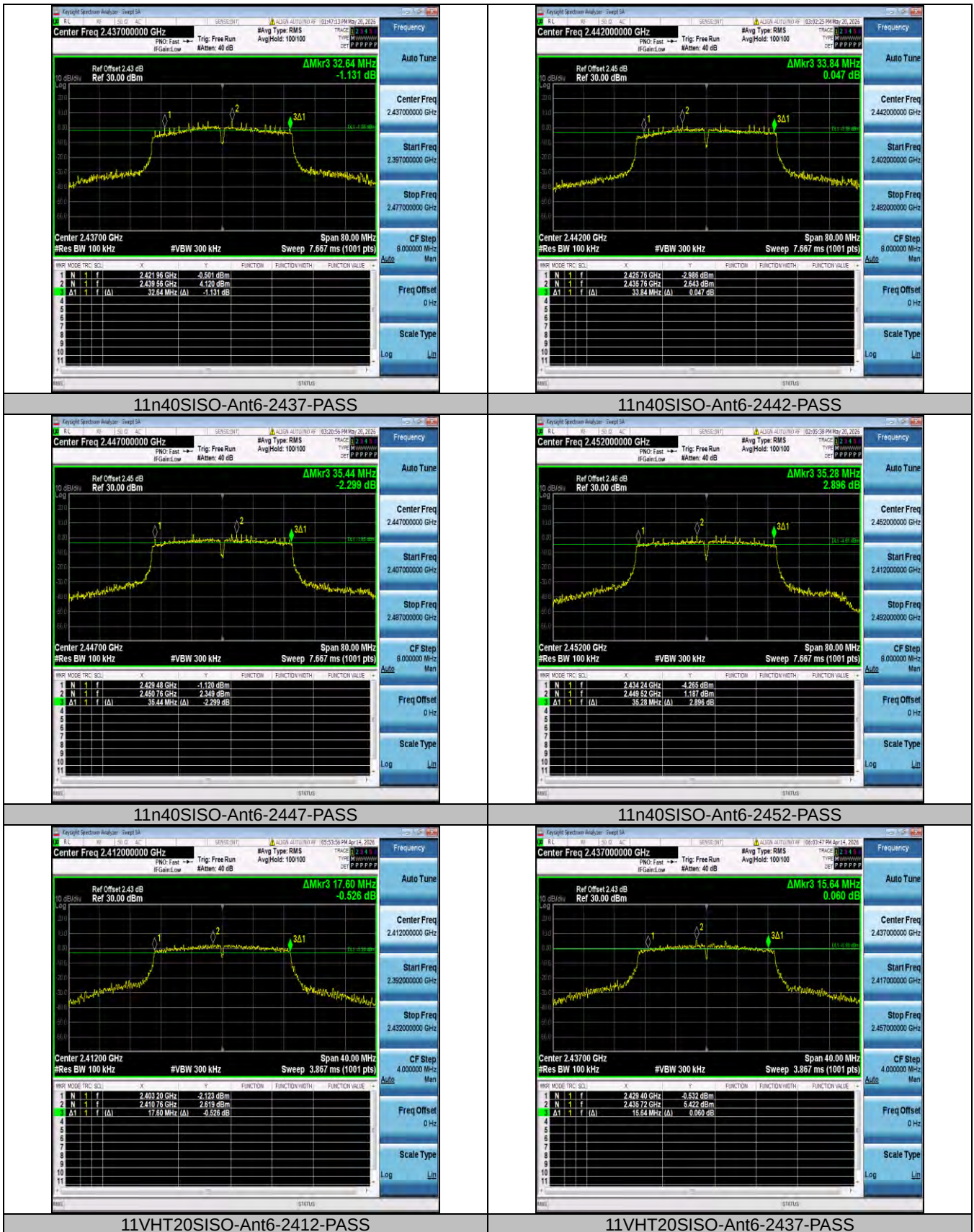
11n20SISO-Ant6-2437-PASS

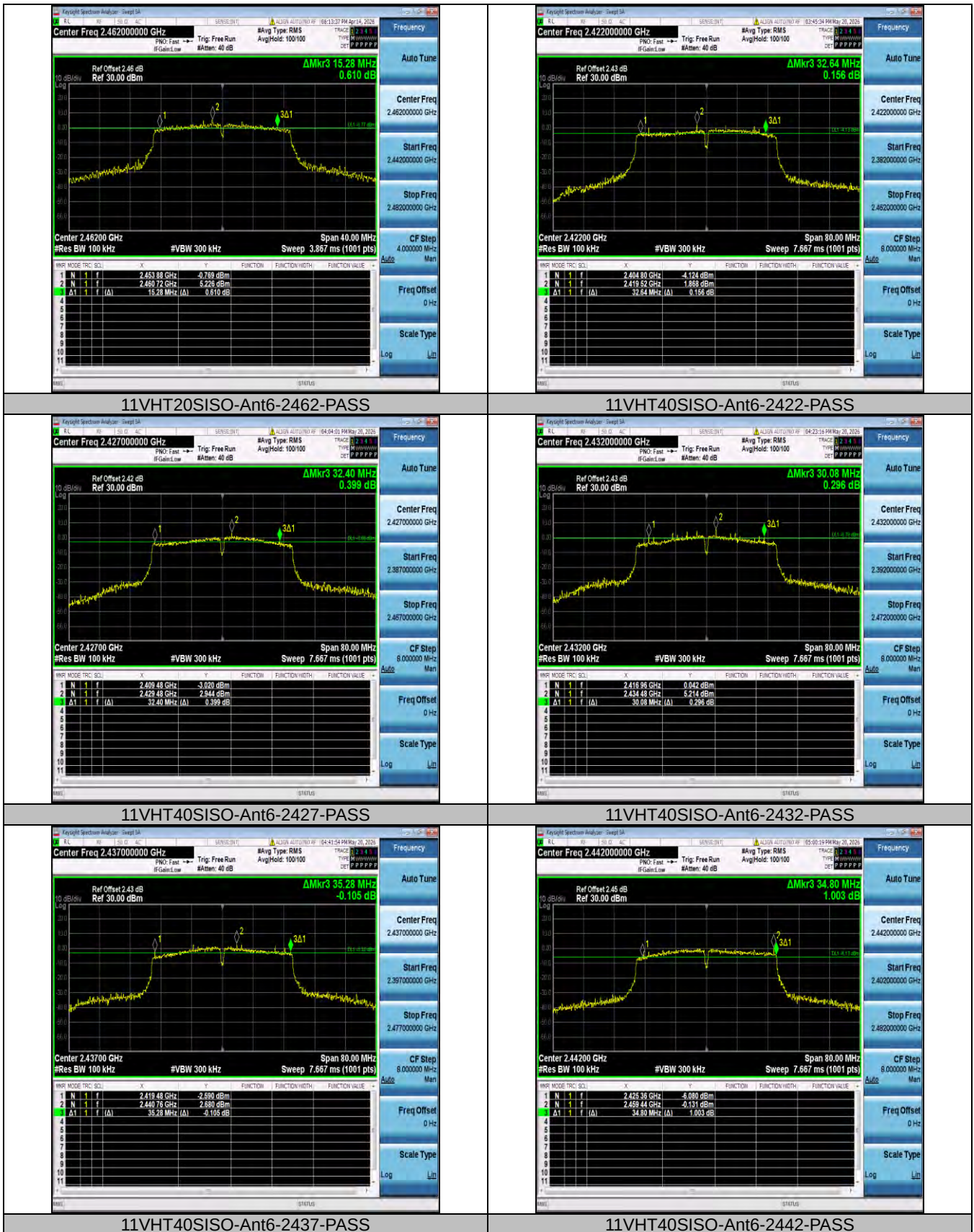
11n20SISO-Ant6-2462-PASS

11n40SISO-Ant6-2422-PASS

11n40SISO-Ant6-2427-PASS

11n40SISO-Ant6-2432-PASS



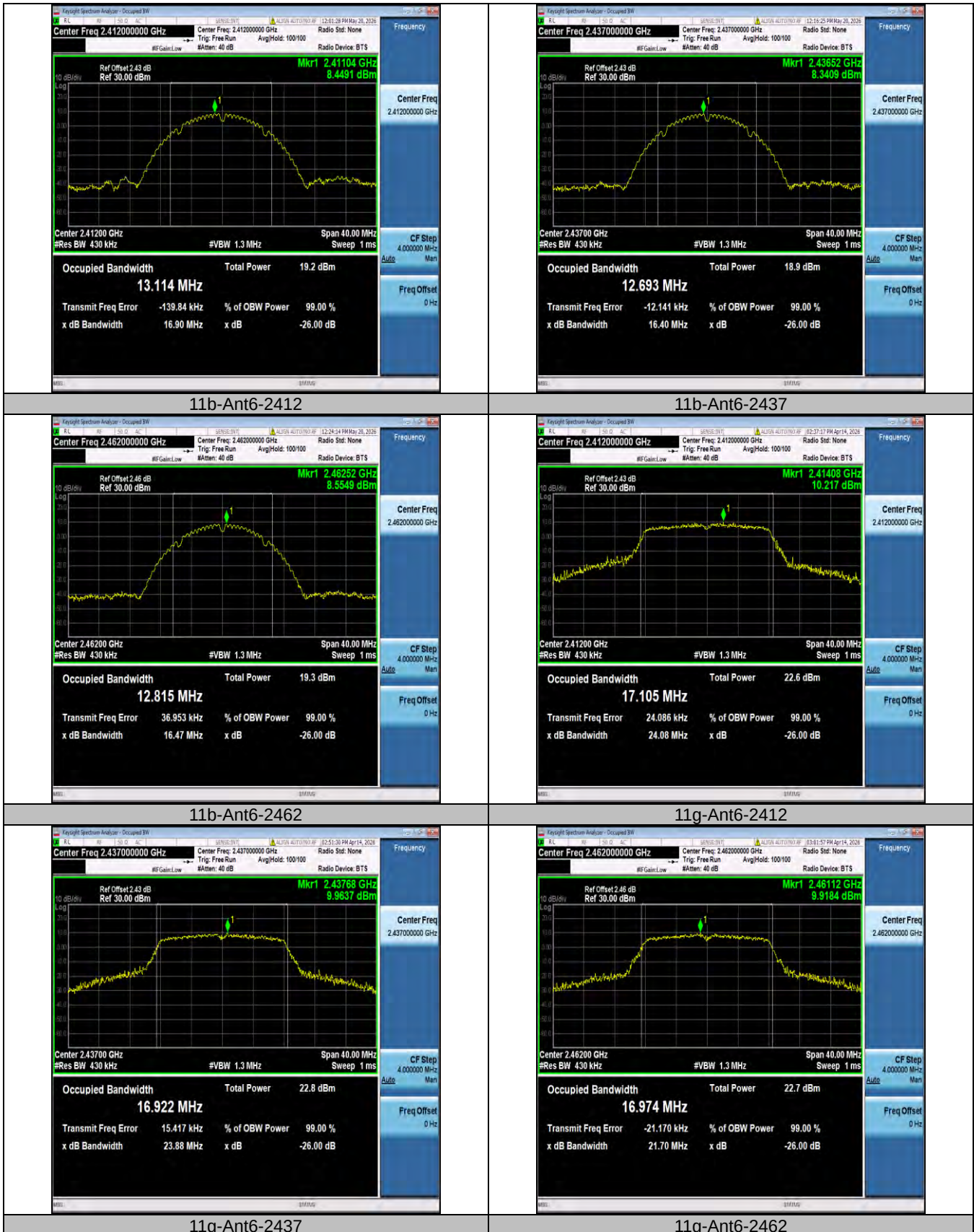


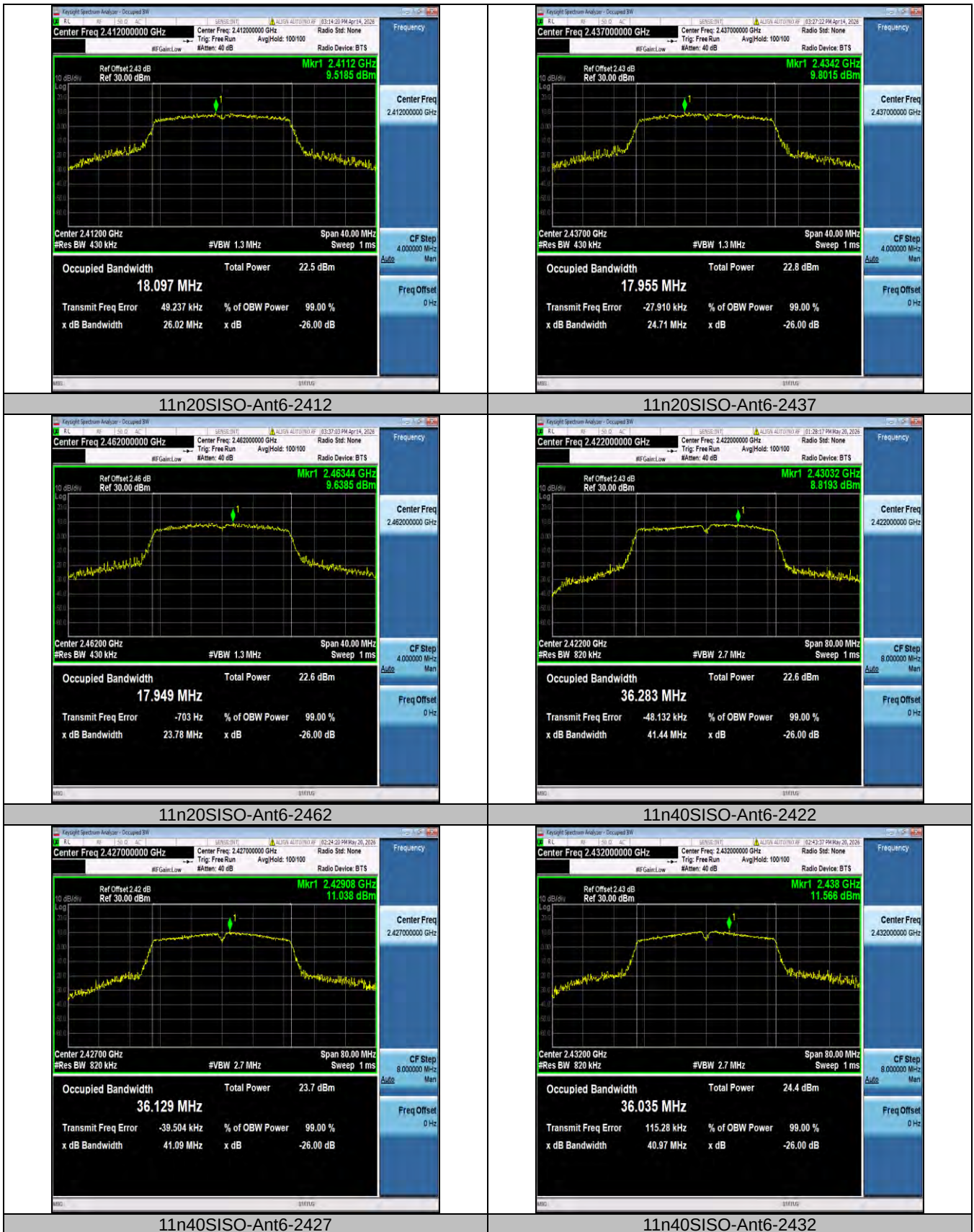


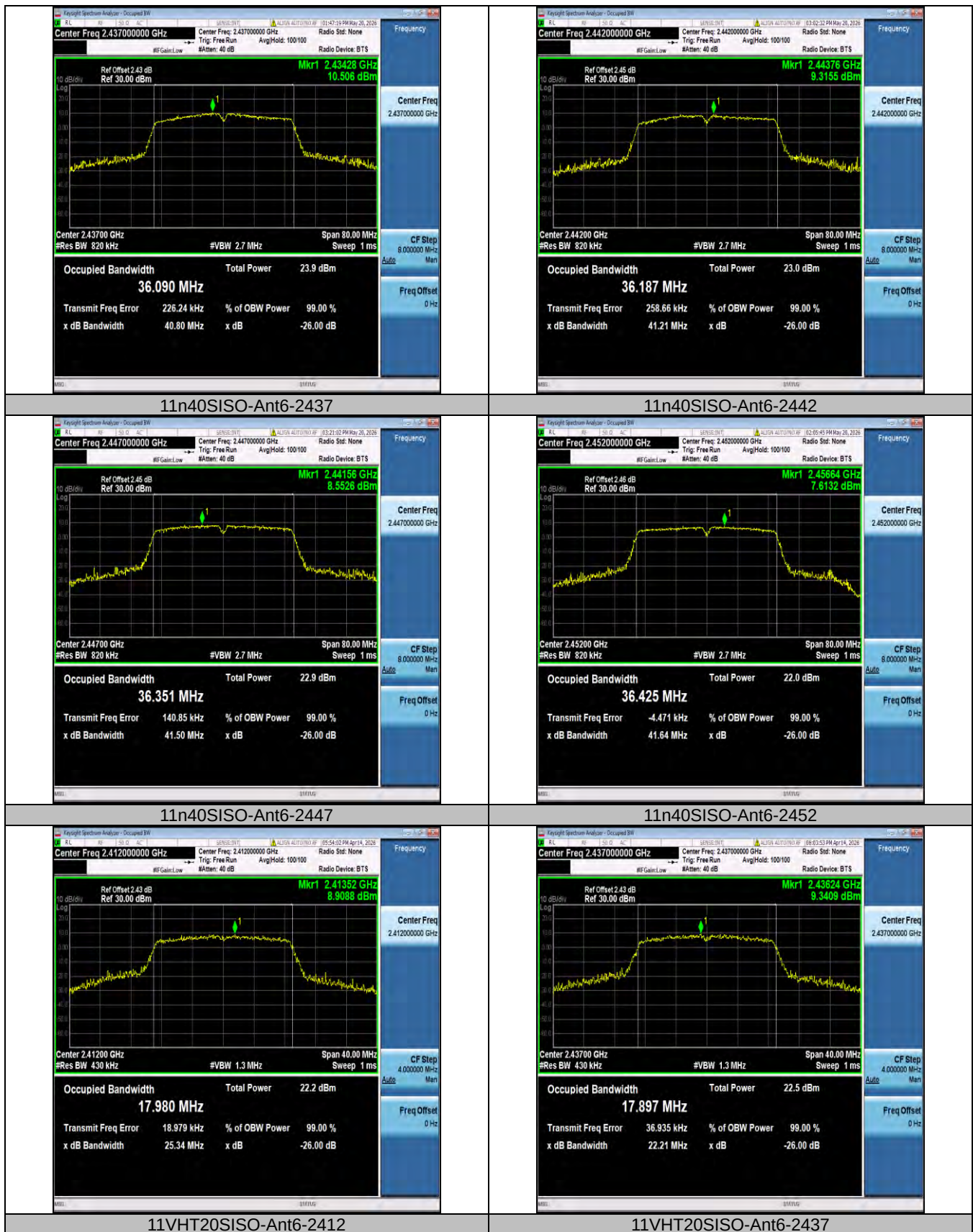
Occupied Channel Bandwidth Test Result

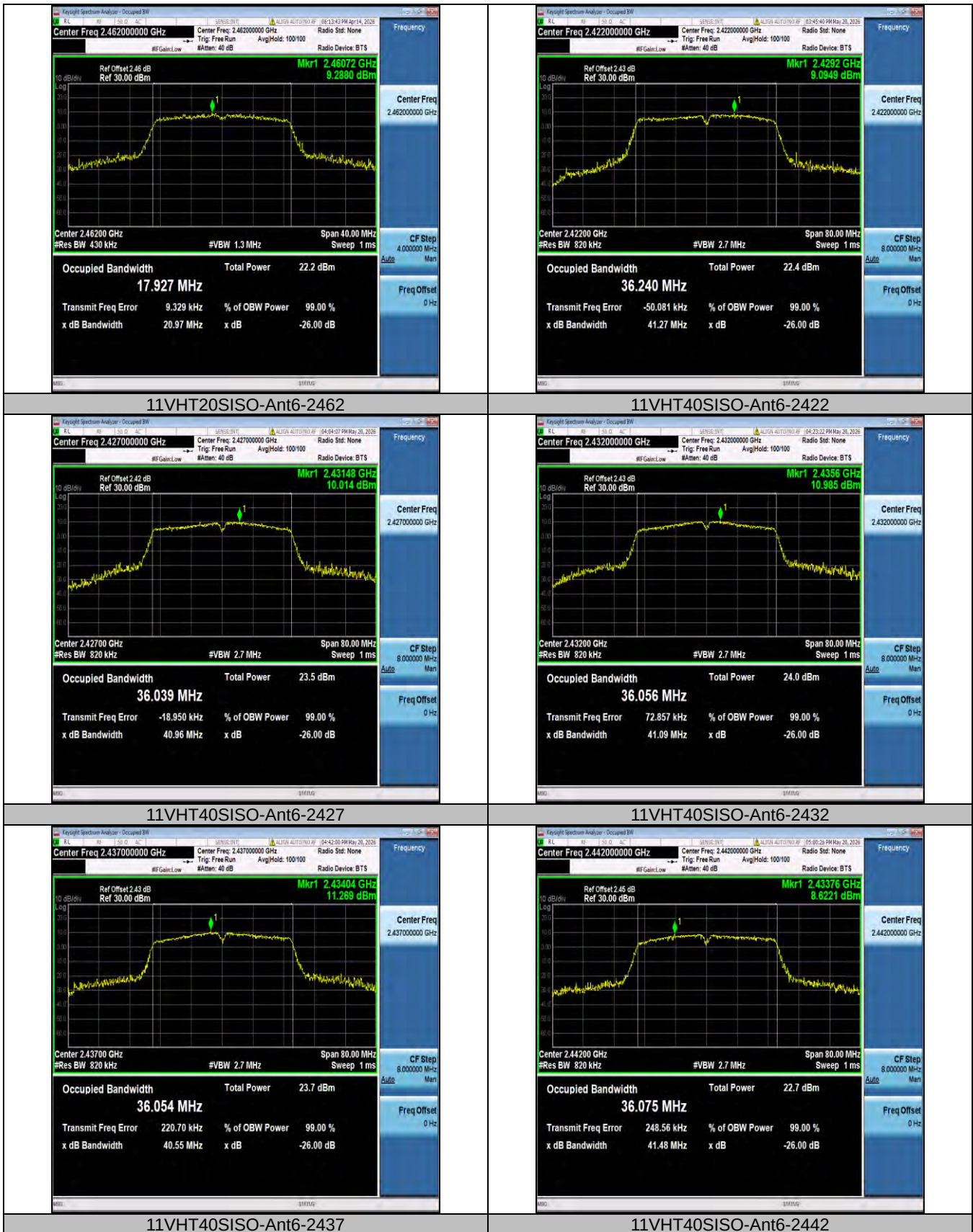
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11b	Ant6	2412	13.114	2405.3032	2418.4172	---	---
11b	Ant6	2437	12.693	2430.6414	2443.3344	---	---
11b	Ant6	2462	12.815	2455.6295	2468.4445	---	---
11g	Ant6	2412	17.105	2403.4716	2420.5766	---	---
11g	Ant6	2437	16.922	2428.5544	2445.4764	---	---
11g	Ant6	2462	16.974	2453.4918	2470.4658	---	---
11n20SISO	Ant6	2412	18.097	2403.0007	2421.0977	---	---
11n20SISO	Ant6	2437	17.955	2427.9946	2445.9496	---	---
11n20SISO	Ant6	2462	17.949	2453.0248	2470.9738	---	---
11n40SISO	Ant6	2422	36.283	2403.8104	2440.0934	---	---
11n40SISO	Ant6	2427	36.129	2408.8960	2445.0250	---	---
11n40SISO	Ant6	2432	36.035	2414.0978	2450.1328	---	---
11n40SISO	Ant6	2437	36.090	2419.1812	2455.2712	---	---
11n40SISO	Ant6	2442	36.187	2424.1652	2460.3522	---	---
11n40SISO	Ant6	2447	36.351	2428.9654	2465.3164	---	---
11n40SISO	Ant6	2452	36.425	2433.7830	2470.2080	---	---
11VHT20SISO	Ant6	2412	17.980	2403.0290	2421.0090	---	---
11VHT20SISO	Ant6	2437	17.897	2428.0884	2445.9854	---	---
11VHT20SISO	Ant6	2462	17.927	2453.0458	2470.9728	---	---
11VHT40SISO	Ant6	2422	36.240	2403.8299	2440.0699	---	---
11VHT40SISO	Ant6	2427	36.039	2408.9616	2445.0006	---	---
11VHT40SISO	Ant6	2432	36.056	2414.0449	2450.1009	---	---
11VHT40SISO	Ant6	2437	36.054	2419.1937	2455.2477	---	---
11VHT40SISO	Ant6	2442	36.075	2424.2111	2460.2861	---	---
11VHT40SISO	Ant6	2447	36.144	2429.0780	2465.2220	---	---
11VHT40SISO	Ant6	2452	36.251	2433.8792	2470.1302	---	---

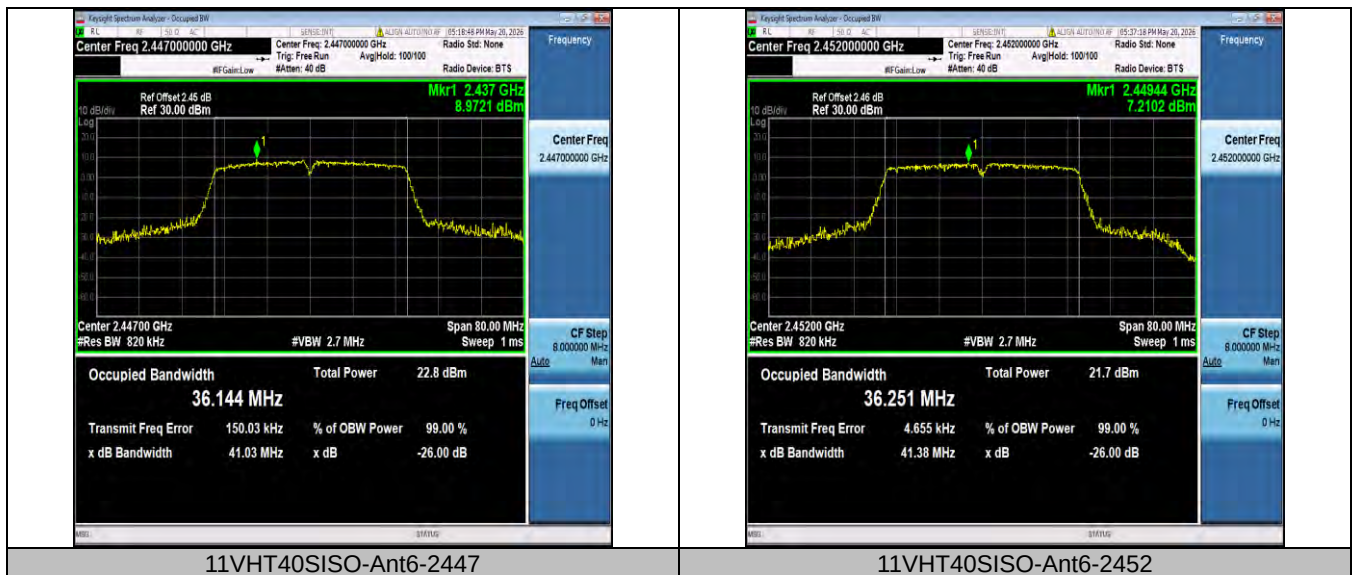
Test Graphs











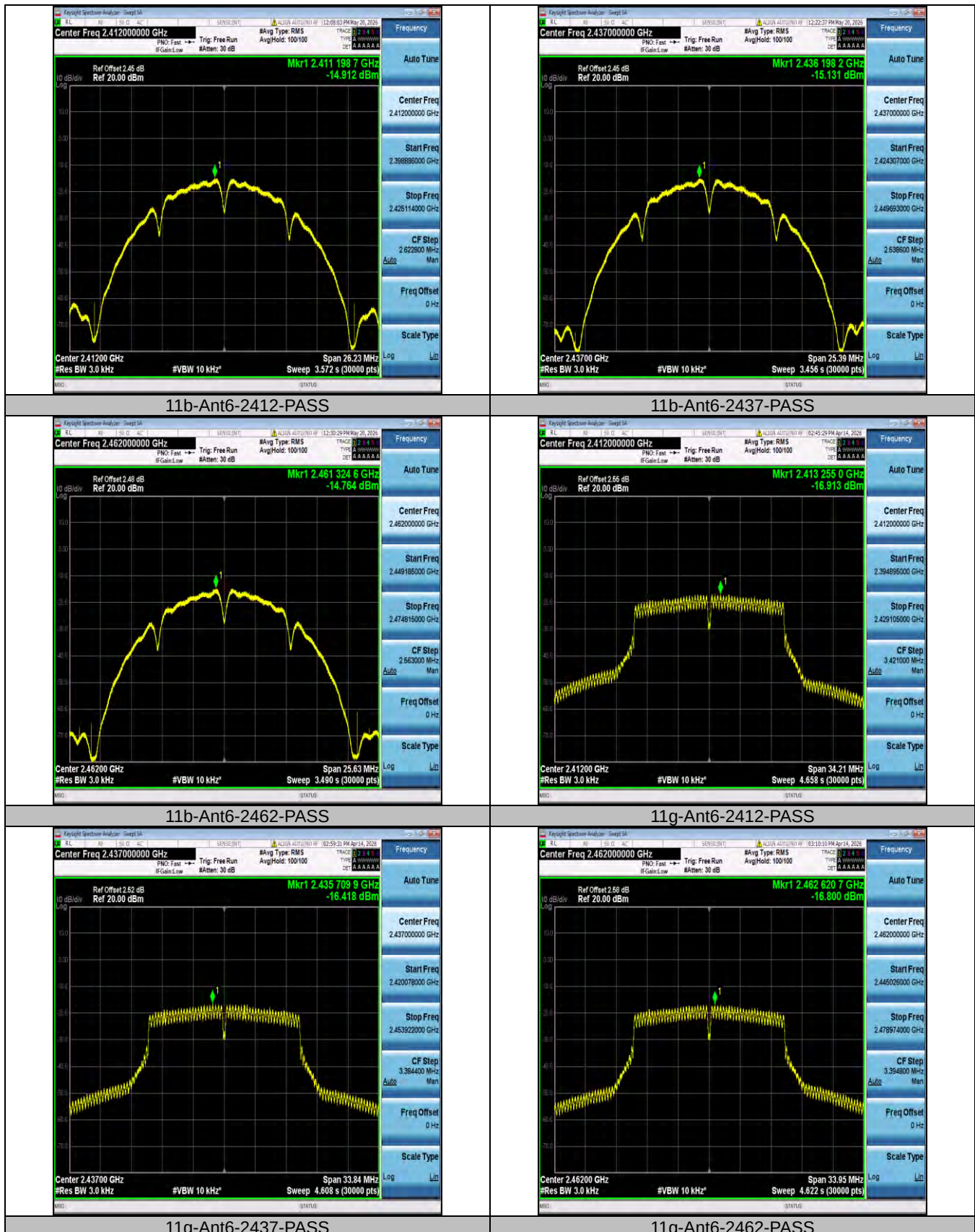
**Maximum conducted output power
Test Result**

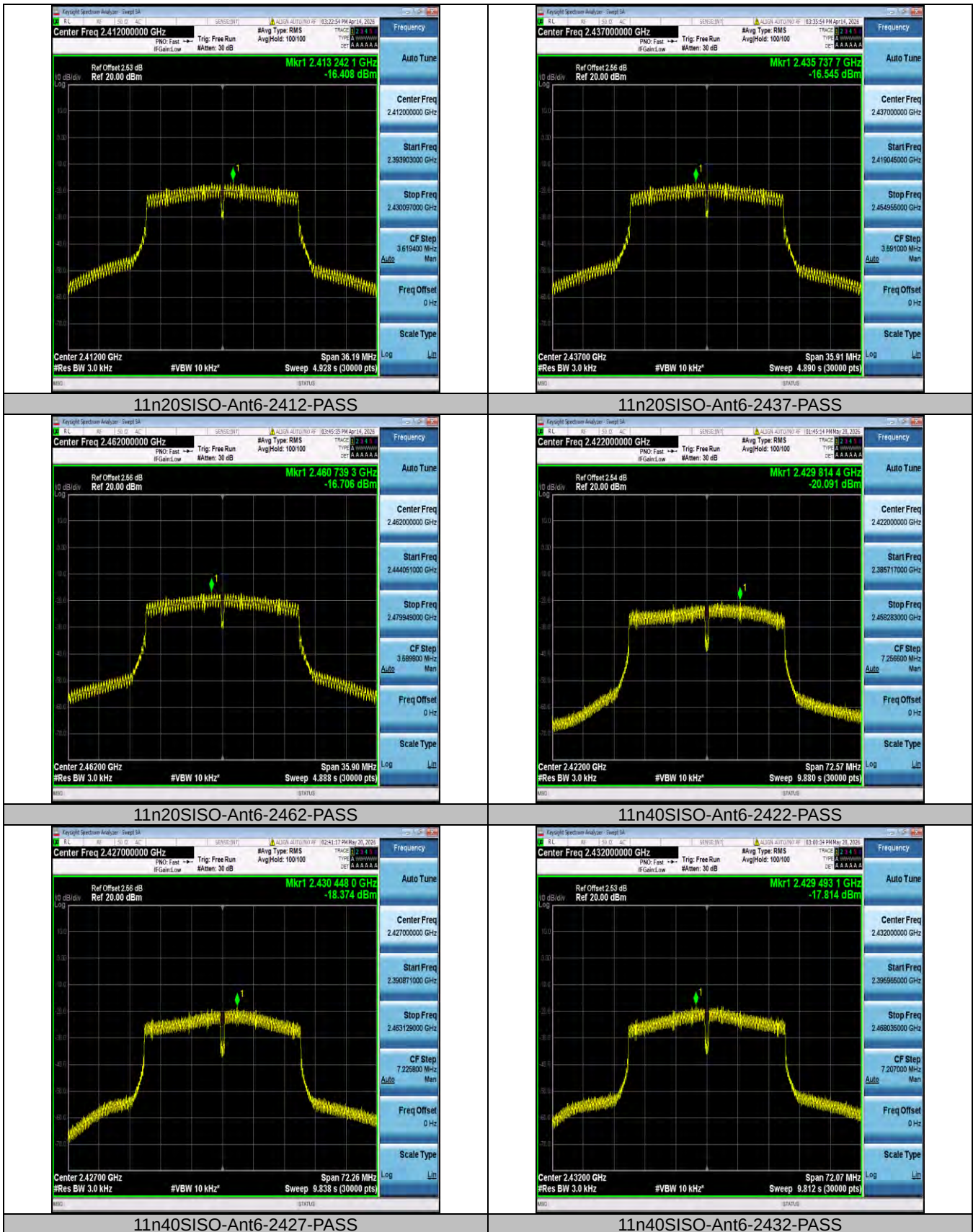
Test Mode	Frequency[MHz]	Average (dBm)	Peak (dBm)	Limit (dBm)	Verdict
11b	2412	16.391	18.769	≤30.00	Pass
	2437	15.911	18.554	≤30.00	Pass
	2462	16.167	18.708	≤30.00	Pass
11g	2412	16.779	24.065	≤30.00	Pass
	2437	16.958	24.361	≤30.00	Pass
	2462	16.691	24.273	≤30.00	Pass
11n20SISO	2412	16.682	24.272	≤30.00	Pass
	2437	16.846	24.447	≤30.00	Pass
	2462	16.682	24.319	≤30.00	Pass
11n40SISO	2422	15.533	24.428	≤30.00	Pass
	2427	16.634	24.645	≤30.00	Pass
	2432	17.298	24.798	≤30.00	Pass
	2437	16.789	24.888	≤30.00	Pass
	2442	15.849	24.614	≤30.00	Pass
	2447	15.856	24.817	≤30.00	Pass
	2452	14.779	24.099	≤30.00	Pass
11VHT20SISO	2412	16.654	24.019	≤30.00	Pass
	2437	16.811	24.447	≤30.00	Pass
	2462	16.695	24.285	≤30.00	Pass
11VHT40SISO	2422	15.498	24.488	≤30.00	Pass
	2427	16.671	24.748	≤30.00	Pass
	2432	17.286	24.852	≤30.00	Pass
	2437	16.777	24.808	≤30.00	Pass
	2442	15.843	24.793	≤30.00	Pass
	2447	15.854	24.447	≤30.00	Pass
	2452	14.778	23.789	≤30.00	Pass

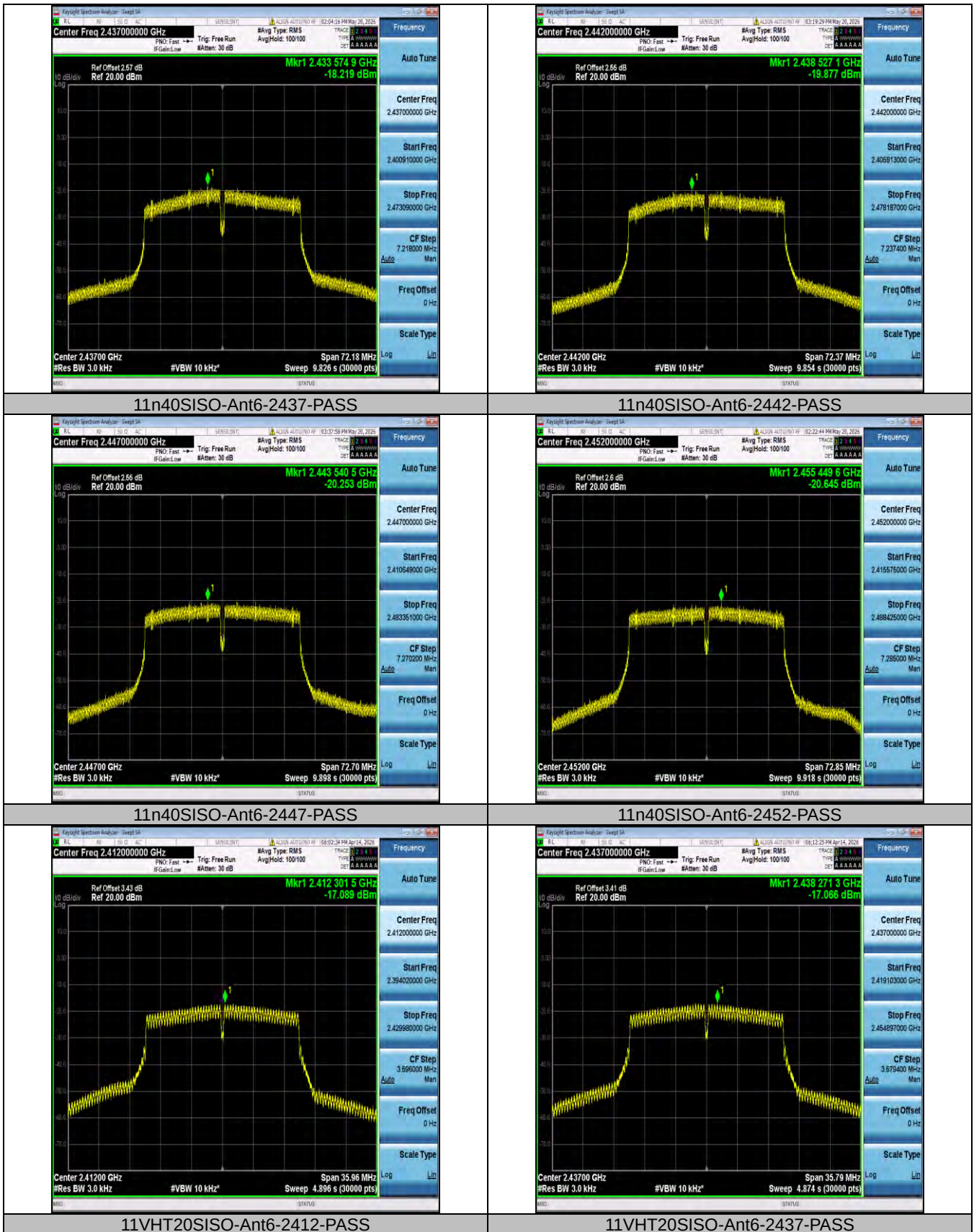
Maximum power spectral density Test Result

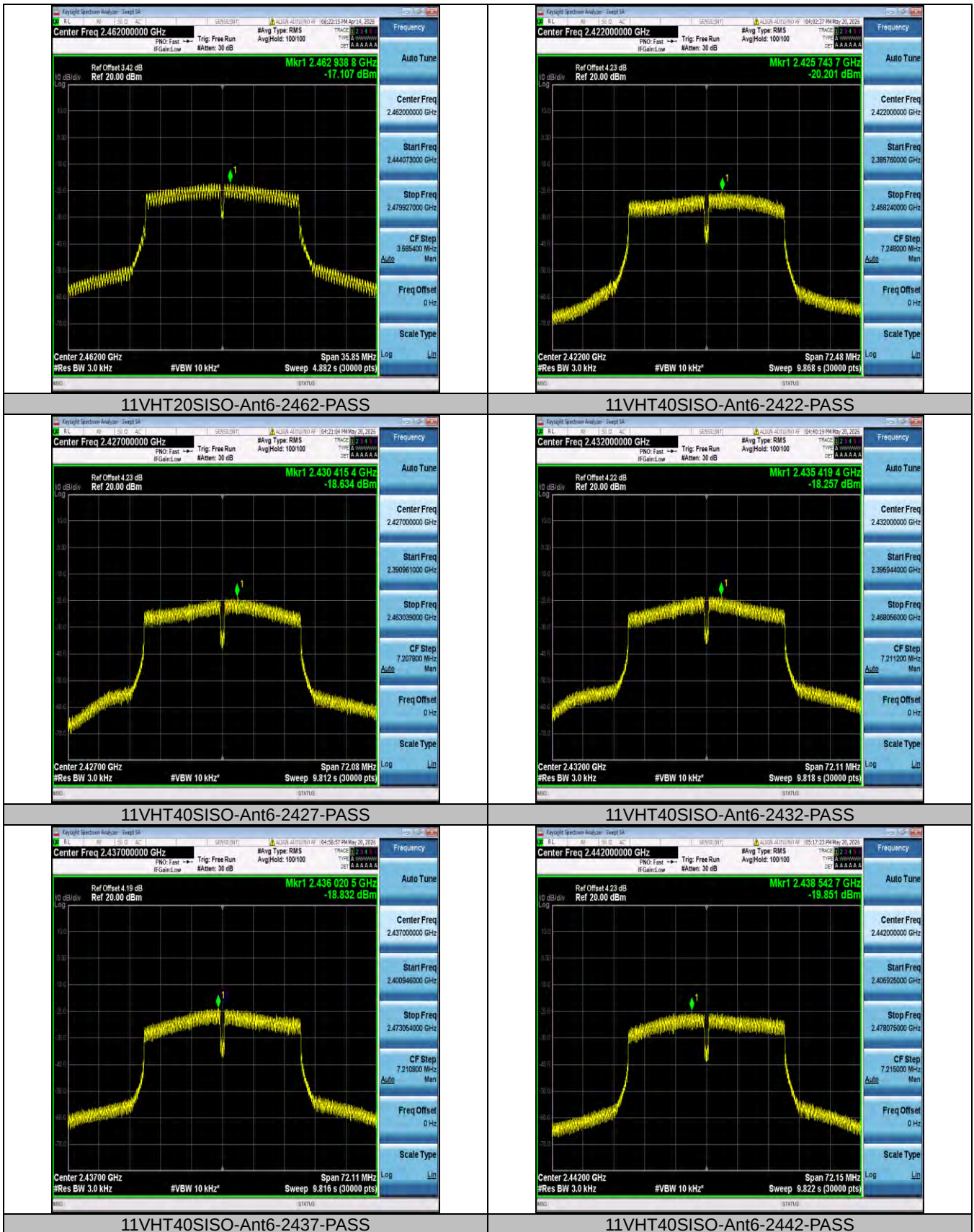
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11b	Ant6	2412	-14.91	≤8.00	PASS
11b	Ant6	2437	-15.13	≤8.00	PASS
11b	Ant6	2462	-14.76	≤8.00	PASS
11g	Ant6	2412	-16.91	≤8.00	PASS
11g	Ant6	2437	-16.42	≤8.00	PASS
11g	Ant6	2462	-16.80	≤8.00	PASS
11n20SISO	Ant6	2412	-16.41	≤8.00	PASS
11n20SISO	Ant6	2437	-16.55	≤8.00	PASS
11n20SISO	Ant6	2462	-16.71	≤8.00	PASS
11n40SISO	Ant6	2422	-20.09	≤8.00	PASS
11n40SISO	Ant6	2427	-18.37	≤8.00	PASS
11n40SISO	Ant6	2432	-17.81	≤8.00	PASS
11n40SISO	Ant6	2437	-18.22	≤8.00	PASS
11n40SISO	Ant6	2442	-19.88	≤8.00	PASS
11n40SISO	Ant6	2447	-20.25	≤8.00	PASS
11n40SISO	Ant6	2452	-20.65	≤8.00	PASS
11VHT20SISO	Ant6	2412	-17.09	≤8.00	PASS
11VHT20SISO	Ant6	2437	-17.07	≤8.00	PASS
11VHT20SISO	Ant6	2462	-17.11	≤8.00	PASS
11VHT40SISO	Ant6	2422	-20.20	≤8.00	PASS
11VHT40SISO	Ant6	2427	-18.63	≤8.00	PASS
11VHT40SISO	Ant6	2432	-18.26	≤8.00	PASS
11VHT40SISO	Ant6	2437	-18.83	≤8.00	PASS
11VHT40SISO	Ant6	2442	-19.85	≤8.00	PASS
11VHT40SISO	Ant6	2447	-20.55	≤8.00	PASS
11VHT40SISO	Ant6	2452	-21.70	≤8.00	PASS

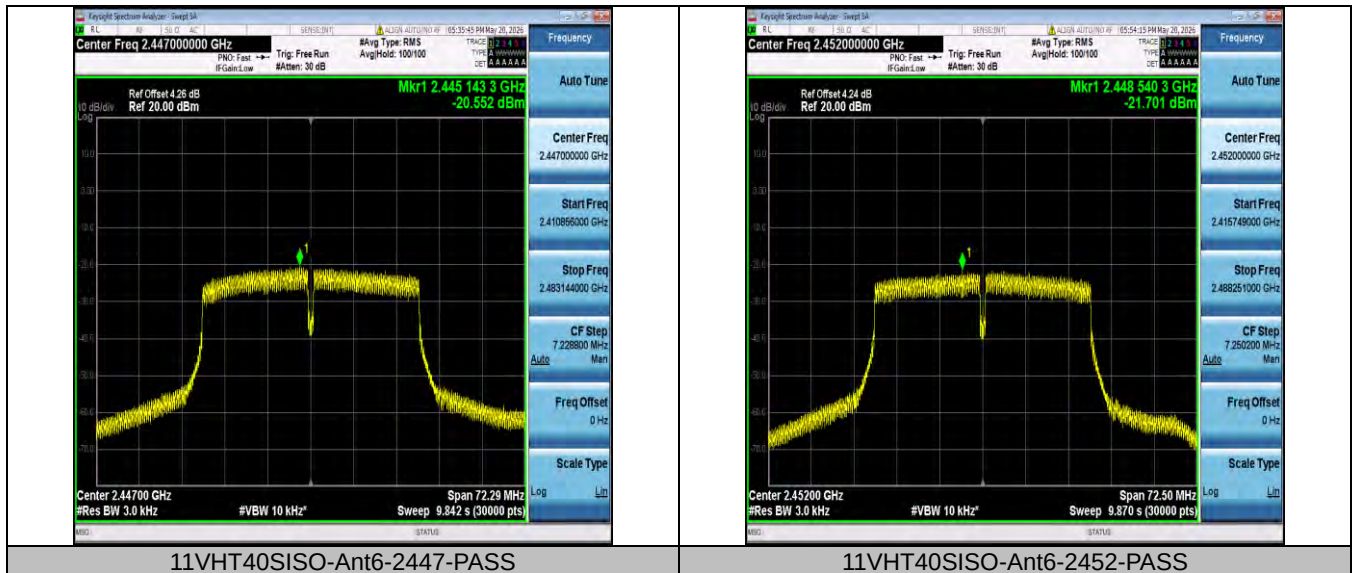
Test Graphs









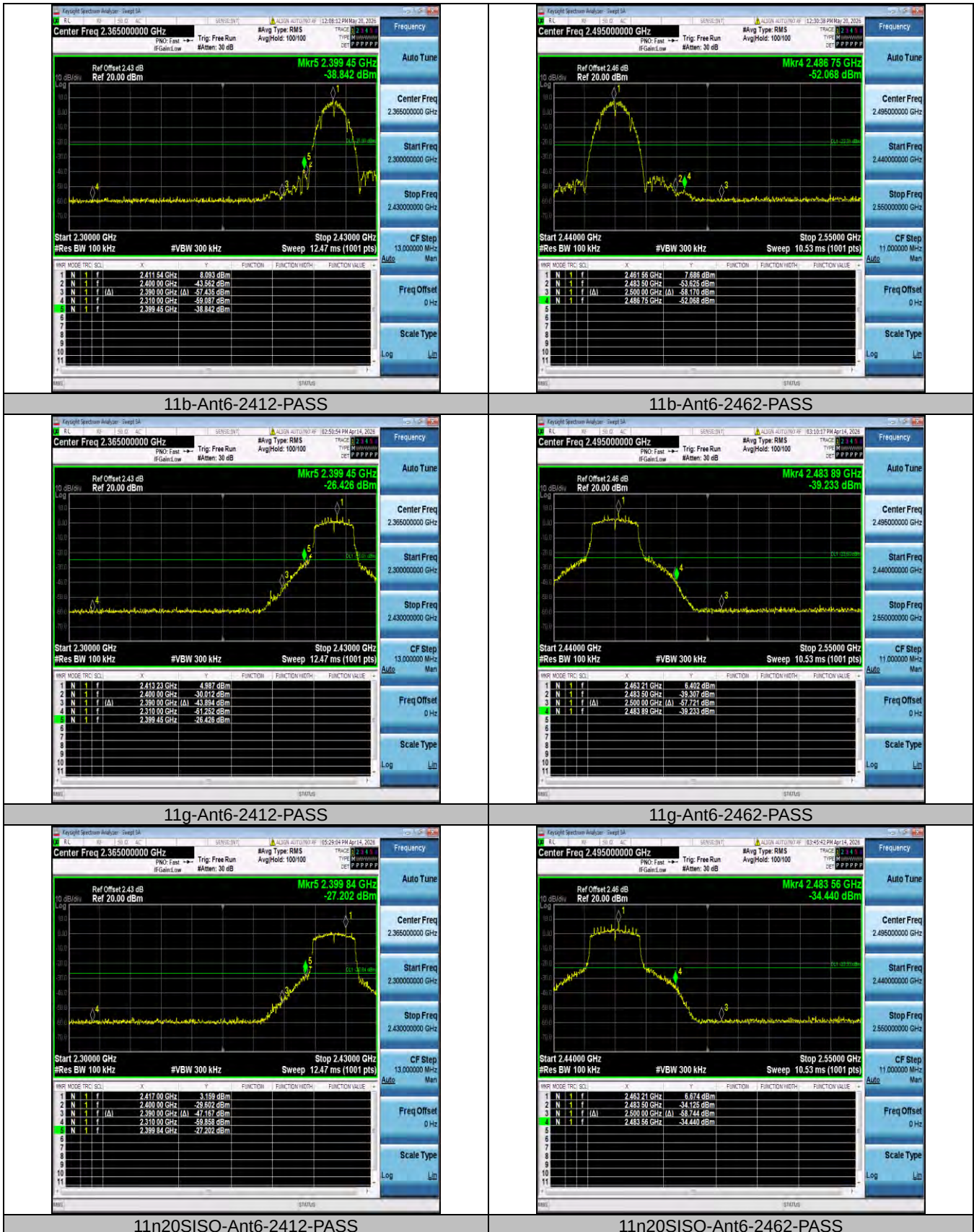


Band edge measurements

Test Result

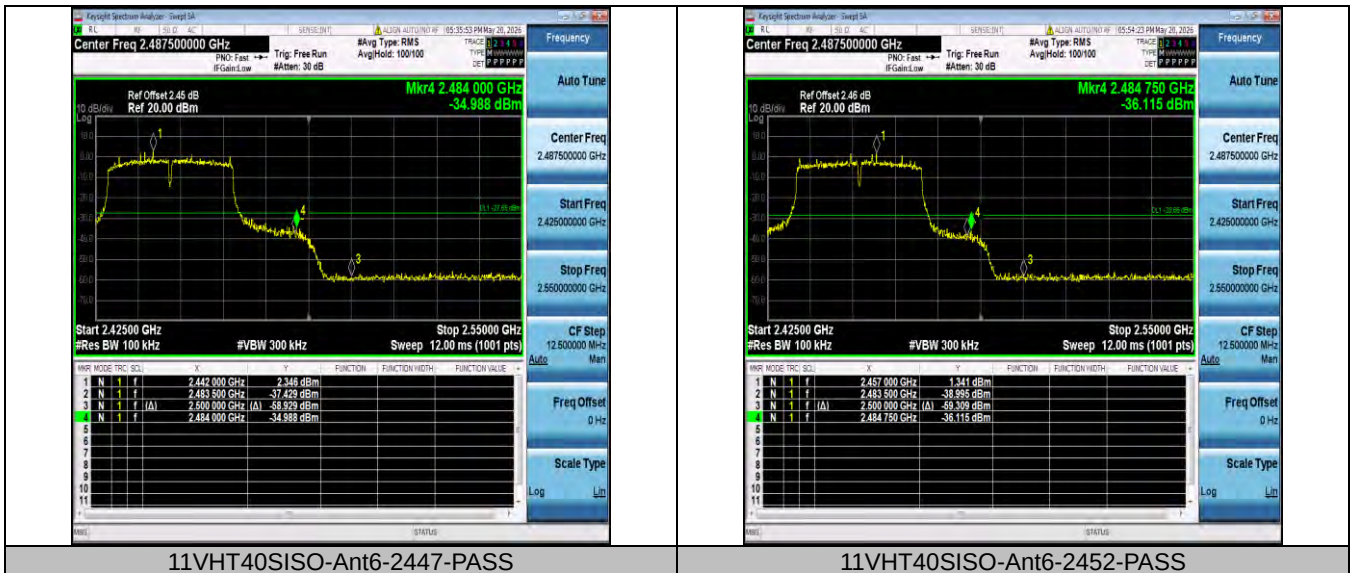
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11b	Ant6	Low	2412	8.09	-38.84	≤-21.91	PASS
11b	Ant6	High	2462	7.69	-52.07	≤-22.31	PASS
11g	Ant6	Low	2412	4.99	-26.43	≤-25.01	PASS
11g	Ant6	High	2462	6.40	-39.23	≤-23.6	PASS
11n20SISO	Ant6	Low	2412	3.16	-27.2	≤-26.84	PASS
11n20SISO	Ant6	High	2462	6.67	-34.44	≤-23.33	PASS
11n40SISO	Ant6	Low	2422	1.17	-31.11	≤-28.83	PASS
11n40SISO	Ant6	Low	2427	4.48	-28.11	≤-25.52	PASS
11n40SISO	Ant6	Low	2432	4.90	-31.09	≤-25.1	PASS
11n40SISO	Ant6	High	2442	2.35	-38.48	≤-27.65	PASS
11n40SISO	Ant6	High	2447	2.38	-32.5	≤-27.62	PASS
11n40SISO	Ant6	High	2452	1.57	-34.98	≤-28.43	PASS
11VHT20SISO	Ant6	Low	2412	4.34	-26.29	≤-25.66	PASS
11VHT20SISO	Ant6	High	2462	4.67	-35.05	≤-25.33	PASS
11VHT40SISO	Ant6	Low	2422	2.68	-31.89	≤-27.32	PASS
11VHT40SISO	Ant6	Low	2427	4.34	-31.94	≤-25.66	PASS
11VHT40SISO	Ant6	Low	2432	4.87	-32.54	≤-25.13	PASS
11VHT40SISO	Ant6	High	2442	2.76	-39.81	≤-27.24	PASS
11VHT40SISO	Ant6	High	2447	2.35	-34.99	≤-27.65	PASS
11VHT40SISO	Ant6	High	2452	1.34	-36.12	≤-28.66	PASS

Test Graphs









Conducted Spurious Emission Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11b	Ant6	2412	0~Reference	7.92	7.92	---	PASS
11b	Ant6	2412	30~1000	7.92	-67.86	≤-22.08	PASS
11b	Ant6	2412	1000~26500	7.92	-51.43	≤-22.08	PASS
11b	Ant6	2437	0~Reference	6.89	6.89	---	PASS
11b	Ant6	2437	30~1000	6.89	-67.46	≤-23.11	PASS
11b	Ant6	2437	1000~26500	6.89	-51.79	≤-23.11	PASS
11b	Ant6	2462	0~Reference	7.95	7.95	---	PASS
11b	Ant6	2462	30~1000	7.95	-68.54	≤-22.05	PASS
11b	Ant6	2462	1000~26500	7.95	-51.36	≤-22.05	PASS
11g	Ant6	2412	0~Reference	5.80	5.80	---	PASS
11g	Ant6	2412	30~1000	5.80	-51.96	≤-24.2	PASS
11g	Ant6	2412	1000~26500	5.80	-35.24	≤-24.2	PASS
11g	Ant6	2437	0~Reference	6.09	6.09	---	PASS
11g	Ant6	2437	30~1000	6.09	-52.89	≤-23.91	PASS
11g	Ant6	2437	1000~26500	6.09	-35.54	≤-23.91	PASS
11g	Ant6	2462	0~Reference	5.38	5.38	---	PASS
11g	Ant6	2462	30~1000	5.38	-52.16	≤-24.62	PASS
11g	Ant6	2462	1000~26500	5.38	-34.9	≤-24.62	PASS
11n20SISO	Ant6	2412	0~Reference	6.37	6.37	---	PASS
11n20SISO	Ant6	2412	30~1000	6.37	-52.84	≤-23.63	PASS
11n20SISO	Ant6	2412	1000~26500	6.37	-35.54	≤-23.63	PASS
11n20SISO	Ant6	2437	0~Reference	5.30	5.30	---	PASS
11n20SISO	Ant6	2437	30~1000	5.30	-52.45	≤-24.7	PASS
11n20SISO	Ant6	2437	1000~26500	5.30	-35.26	≤-24.7	PASS
11n20SISO	Ant6	2462	0~Reference	6.56	6.56	---	PASS
11n20SISO	Ant6	2462	30~1000	6.56	-52.58	≤-23.44	PASS
11n20SISO	Ant6	2462	1000~26500	6.56	-35.58	≤-23.44	PASS
11n40SISO	Ant6	2422	0~Reference	2.73	2.73	---	PASS
11n40SISO	Ant6	2422	30~1000	2.73	-68.84	≤-27.27	PASS
11n40SISO	Ant6	2422	1000~26500	2.73	-52.17	≤-27.27	PASS
11n40SISO	Ant6	2427	0~Reference	4.58	4.58	---	PASS
11n40SISO	Ant6	2427	30~1000	4.58	-68.27	≤-25.42	PASS
11n40SISO	Ant6	2427	1000~26500	4.58	-52.02	≤-25.42	PASS
11n40SISO	Ant6	2432	0~Reference	4.46	4.46	---	PASS
11n40SISO	Ant6	2432	30~1000	4.46	-59.37	≤-25.54	PASS
11n40SISO	Ant6	2432	1000~26500	4.46	-51.88	≤-25.54	PASS
11n40SISO	Ant6	2437	0~Reference	4.47	4.47	---	PASS
11n40SISO	Ant6	2437	30~1000	4.47	-68.88	≤-25.53	PASS
11n40SISO	Ant6	2437	1000~26500	4.47	-51.72	≤-25.53	PASS
11n40SISO	Ant6	2442	0~Reference	2.55	2.55	---	PASS
11n40SISO	Ant6	2442	30~1000	2.55	-57.28	≤-27.45	PASS
11n40SISO	Ant6	2442	1000~26500	2.55	-51.66	≤-27.45	PASS
11n40SISO	Ant6	2447	0~Reference	2.32	2.32	---	PASS
11n40SISO	Ant6	2447	30~1000	2.32	-64.66	≤-27.68	PASS
11n40SISO	Ant6	2447	1000~26500	2.32	-51.59	≤-27.68	PASS
11n40SISO	Ant6	2452	0~Reference	0.18	0.18	---	PASS
11n40SISO	Ant6	2452	30~1000	0.18	-68.77	≤-29.82	PASS
11n40SISO	Ant6	2452	1000~26500	0.18	-51.5	≤-29.82	PASS
11VHT20SISO	Ant6	2412	0~Reference	5.11	5.11	---	PASS
11VHT20SISO	Ant6	2412	30~1000	5.11	-52.21	≤-24.89	PASS
11VHT20SISO	Ant6	2412	1000~26500	5.11	-35.29	≤-24.89	PASS
11VHT20SISO	Ant6	2437	0~Reference	5.97	5.97	---	PASS
11VHT20SISO	Ant6	2437	30~1000	5.97	-52.51	≤-24.03	PASS
11VHT20SISO	Ant6	2437	1000~26500	5.97	-35.35	≤-24.03	PASS
11VHT20SISO	Ant6	2462	0~Reference	4.68	4.68	---	PASS
11VHT20SISO	Ant6	2462	30~1000	4.68	-52.49	≤-25.32	PASS
11VHT20SISO	Ant6	2462	1000~26500	4.68	-35.8	≤-25.32	PASS
11VHT40SISO	Ant6	2422	0~Reference	2.52	2.52	---	PASS
11VHT40SISO	Ant6	2422	30~1000	2.52	-67.7	≤-27.48	PASS
11VHT40SISO	Ant6	2422	1000~26500	2.52	-51.73	≤-27.48	PASS
11VHT40SISO	Ant6	2427	0~Reference	4.40	4.40	---	PASS
11VHT40SISO	Ant6	2427	30~1000	4.40	-68	≤-25.6	PASS

11VHT40SISO	Ant6	2427	1000~26500	4.40	-52.71	≤-25.6	PASS
11VHT40SISO	Ant6	2432	0~Reference	3.59	3.59	---	PASS
11VHT40SISO	Ant6	2432	30~1000	3.59	-68.51	≤-26.41	PASS
11VHT40SISO	Ant6	2432	1000~26500	3.59	-52.49	≤-26.41	PASS
11VHT40SISO	Ant6	2437	0~Reference	4.34	4.34	---	PASS
11VHT40SISO	Ant6	2437	30~1000	4.34	-67.92	≤-25.66	PASS
11VHT40SISO	Ant6	2437	1000~26500	4.34	-51.56	≤-25.66	PASS
11VHT40SISO	Ant6	2442	0~Reference	2.35	2.35	---	PASS
11VHT40SISO	Ant6	2442	30~1000	2.35	-68.89	≤-27.65	PASS
11VHT40SISO	Ant6	2442	1000~26500	2.35	-51.65	≤-27.65	PASS
11VHT40SISO	Ant6	2447	0~Reference	2.34	2.34	---	PASS
11VHT40SISO	Ant6	2447	30~1000	2.34	-68.5	≤-27.66	PASS
11VHT40SISO	Ant6	2447	1000~26500	2.34	-52.22	≤-27.66	PASS
11VHT40SISO	Ant6	2452	0~Reference	1.45	1.45	---	PASS
11VHT40SISO	Ant6	2452	30~1000	1.45	-69.23	≤-28.55	PASS
11VHT40SISO	Ant6	2452	1000~26500	1.45	-52.62	≤-28.55	PASS

Test Graphs

