

COMPLIANCE WORLDWIDE INC. TEST REPORT 192-24

In Accordance with the Requirements of
FCC PART 15.247, SUBPART C
ISED Canada RSS-247, Issue 3

Issued to

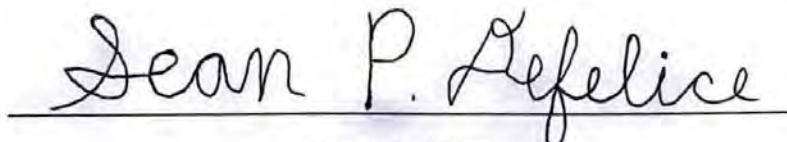
STATSports Group Ltd
Drumalane Mill, The Quays
Newry, Co Down BT35 8QS, United Kingdom

for the
ApexNXT
Model: V1.x

FCC ID: 2APHS-APX400
IC: 25854-APX400

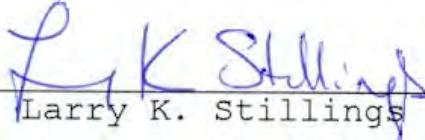
Report Issued on January 3, 2025

Tested by



Sean P. Defelice

Reviewed by



Larry K. Stillings

This test report shall not be reproduced, except in full, without written permission from Compliance Worldwide, Inc.

Table of Contents

1. Scope	3
2 .Product Details	3
2.1 Manufacturer.....	3
2.2 Model Number.....	3
2.3 Serial Number	3
2.4 Description	3
2.5 Power Source.....	3
2.6 Hardware Revision	3
2.7 Software Revision	3
2.8 Modulation Type.....	3
2.9 Operating Frequency.....	3
2.10 EMC Modifications	3
3. Product Configuration	3
3.1 Operational Characteristics & Software.....	3
3.2 EUT Hardware.....	3
3.3 EUT Cables/Transducers	3
3.4 Support Equipment.....	4
3.5 Block Diagram	4
4. Measurements Parameters	4
4.1 Measurement Equipment Used to Perform Test	4
4.2 Measurement Software	5
4.3 Measurement & Equipment Setup.....	5
4.4 Measurement Procedures	5
4.5 Measurement Uncertainty	5
5. Choice of Equipment for Test Suits	6
5.1 Choice of Model	6
5.2 Presentation	6
5.3 Choice of Operating Frequencies.....	6
5.4 Mode of Operation.....	6
5.5 EUT Position for Emissions Measurements	6
6. Measurement Summary	7
7. Measurement Data	8
7.1 Antenna Requirement	8
7.2 Minimum DTS Bandwidth	9
7.3 Maximum Peak Conducted Output Power	11
7.4 Operation with directional antenna gains greater than 6 dBi	13
7.5 Transmitter Spurious Radiated Emissions	14
7.6 Band Edge and Out of Band Measurements	16
7.7 Emissions in Non-restricted Frequency Bands.....	21
7.8 Peak Power Spectral Density	22
7.9 Conducted Emissions.....	25
7.10 Duty Cycle	28
7.11 99% (Occupied) Bandwidth.....	30
8. Test Setup Photographs	32
9. Test Site Description.....	40
Appendix A - Transmitter Spurious Radiated Emissions Test Data	41
Appendix B - Emissions in Non-restricted Frequency Bands.....	63

1. Scope

This test report certifies that the STATSports Group ApexNXT, as tested, meets the FCC Part 15, Subpart C and ISED Canada RSS-247, Issue 3 requirements. The scope of this test report is limited to the test sample provided by the client, only in as much as that sample represents other production units. If any significant changes are made to the unit, the changes shall be evaluated and a retest may be required. Measurement Uncertainty will not be applied to any of the measurement / testing results in this test report to determine pass/fail criteria per the Decision Rule as defined in ISO/IEC Guide 17025-2017 Clause 3.7.

2. Product Details

2.1. Manufacturer:	Statsports Group Ltd
2.2. Model Number:	ApexNXT V1.x
2.3 Serial Numbers:	AC0B791900F5
2.4 Description of EUT:	Wearable tracking sensor device
2.5 Power Source:	Lithium Battery
2.6 Hardware Revision:	N/A
2.7 Software Revision:	N/A
2.8. Modulation Type:	Gaussian frequency shift keying (GFSK)
2.9. Operating Frequencies:	2402 to 2480 MHz
2.10. EMC Modifications:	None

3. Product Configuration

3.1. EUT Hardware

Device	Manufacturer	Manufacturer p/n	Serial No.
Pod	STATSports	ApexNXT V1.x	AC0B791900F5
Microcontroller	NXP	MIMXRT1064DVL6B	TBD
BLE Coprocessor	Nordic Semiconductors	nRF52840	TBD
UWB Transceiver	Qorvo / Decawave	DW1000	TBD
GNSS Module	u-Blox	NEO-M9N	TBD
Lithium Polymer Battery	YOK Energy	YE652143E-600mAh	N/A

3.2. Support Equipment

Manufacturer	Model /Part # / Options	Serial Number	Input Voltage	Freq (Hz)	Description/Function
Lenovo	ThinkPad T440P	PB-031DX9	120	60	For controlling the board

3.3. Cables

Cable Type	Length	Shield	From	To
None				

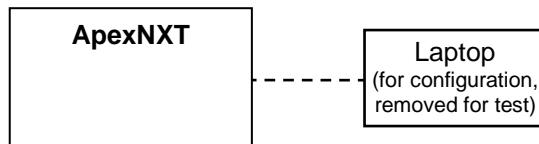
3. Product Configuration (continued)

3.4. Operational Characteristics & Software

Connect the ApexNXT to the laptop to configure operation for frequencies 2402, 2426 MHz or 2480 MHz.

Remove the laptop connection and perform the test.

3.5. Block Diagram



4. Measurements Parameters

4.1. Measurement Equipment Used to Perform Test

Device	Manufacturer	Model No.	Serial No.	Cal Due	Interval
EMI Test Receiver, 9 kHz - 7GHz ¹	Rohde & Schwarz	ESR7	101156	10/16/2024	3 Years
EMI Test Receiver, 10 Hz - 7GHz ¹	Rohde & Schwarz	ESR7	101770	7/23/2025	1 Year
EMI Test Receiver, 9 kHz - 26.5 GHz ¹	Rohde & Schwarz	ESR26	101693	6/26/2025	2 Years
Spectrum Analyzer, 2 Hz to 26.5 GHz ²	Rohde & Schwarz	FSW26	102057	7/19/2026	2 Years
Spectrum Analyzer, 9 kHz to 40 GHz ³	Rohde & Schwarz	FSV40	100899	6/27/2025	1 Year
Spectrum Analyzer 10 Hz – 40 GHz ¹	Rohde & Schwarz	FSVR40	100909	9/18/2024	4 Years
Loop Antenna 9 kHz - 30 MHz	EMCO	6512	9309-1139	4/14/2025	3 Years
Biconilog Antenna, 30 MHz - 2 GHz	Sunol Sciences	JB1	A050913	7/1/2025	4 Years
Dbl Ridged Guide Antenna 1- 18 GHz	ETS-Lindgren	3117	00143292	5/11/2025	3 Years
Dbl Ridged Guide Antenna 1 - 18 GHz	ETS-Lindgren	3117	00227631	4/21/2025	3 Years
Horn Antenna, 18 GHz to 40 GHz	Com-Power	AH-840	03075	4/4/2025	3 Years
Horn Antenna, 18 GHz to 40 GHz	Com-Power	AH-840	101032	1/25/2025	3 Years
Preamplifier, 1 GHz to 26.5 GHz	Hewlett Packard	8449B	3008A01323	3/5/2025	1 Year
Preamplifier, 1 GHz to 26.5 GHz	Hewlett Packard	8449B H02	3008A00329	4/9/2025	1 Year
Band Reject Filter (Notch), 2.4 GHz	Micro-Tronics	BRM50702	150	2/27/2025	1 Year
Digital Barometer	Control Company	4195	ID236	3/15/2025	1 Year
Barometric Pressure/Humidity & Temp Datalogger	Extech Instruments	SD700	Q590483	4/4/2025	1 Year

¹ ESR7/26 Firmware revision: V3.48 SP3, Date installed: 09/30/2020

² FSW26 Firmware revision: V4.71 SP1, Date installed: 11/16/2020

³ FSV40 Firmware revision: V2.30 SP4, Date installed: 05/04/2016

⁴ FSVR40 Firmware revision: V2.23 SP1, Date installed: 08/19/2016

Previous V3.48 SP2, installed 07/23/2020.

Previous V4.61, installed 08/11/2020.

Previous V2.30 SP1, installed 10/22/2014.

Previous V2.23, installed 10/22/2014.

4. Measurements Parameters

4.2. Measurement Software

Manufacturer	Software Description	Title or Model #	Rev.	Report Sections
Compliance Worldwide	Test Report Generation Software	Test Report Generator	1.0	7.9. Conducted Emissions

4.3. Measurement & Equipment Setup

Test Dates:	6/14/2024, 6/17/2025, 6/18/2025, 1/3/2025
Test Engineers:	Sean Defelice
Normal Site Temperature (15 - 35°C):	21.2
Relative Humidity (20 -75%RH):	35
Frequency Range:	30 kHz to 25 GHz
Measurement Distance:	3 Meters
EMI Receiver IF Bandwidth:	200 Hz – 9 to 150 kHz 9 kHz – 150 kHz to 30 MHz 120 kHz - 30 MHz to 1 GHz 1 MHz - Above 1 GHz
EMI Receiver Average Bandwidth:	>= 3 * IF (BW) or RBW
Detector Function:	Peak, Quasi-Peak & Average

4.4. Measurement Procedures

Test measurements were made in accordance FCC Part 15.247: Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, 5725 - 5850 MHz, and 24.0 - 24.25 GHz.

The measurement procedures in this report are in accordance with ANSI C63.10-2013: *American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices*. FCC OET Publication Number KDB 558074 D01 v05r02, *Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS), Frequency Hopping Spread Spectrum Systems, and Hybrid System Devices Operating Under §15.247*, dated April 2, 2019 and ISED RSS-247, Issue 3, Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and License-Exempt Local Area Network (LE-LAN) Devices, was also referenced for the test procedures used to generate the data in this report. All references to these publications refer to this versions and dates detailed in this paragraph.

4.5. Measurement Uncertainty

The following uncertainties are expressed for an expansion/coverage factor of K=2.

RF Frequency	± 1x10 ⁻⁸
Radiated Emission of Transmitter	± 4.55 dB
Radiated Emission of Receiver	± 4.55 dB
Temperature	± 0.91° C
Humidity	± 5%

5. Choice of Equipment for Test Suites

5.1 Choice of Model

This test report is based on the test samples supplied by the manufacturer and are reported by the manufacturer to be equivalent to the production units.

5.2 Presentation

This test sample was tested complete with all required ancillary equipment. Refer to Section 3 of this report for product equipment configuration.

5.3 Choice of Operating Frequencies

The EUT, as tested, operates on 40 channels, from channels 0 to 39 in the 2.4 GHz band.

In accordance with ANSI C63.10-2013, section 5.6, and FCC Part 15.31 (m), the choice of operating frequencies selected for the testing detailed in this report are outlined in the following table:

Channel	Frequency (MHz)						
37	2402	9	2422	18	2442	28	2462
0	2404	10	2424	19	2444	29	2464
1	2406	38	2426	20	2446	30	2466
2	2408	11	2428	21	2448	31	2468
3	2410	12	2430	22	2450	32	2470
4	2412	13	2432	23	2452	33	2472
5	2414	14	2434	24	2454	34	2474
6	2416	15	2436	25	2456	35	2476
7	2418	16	2438	26	2458	36	2478
8	2420	17	2440	27	2460	39	2480

5.4 Mode of Operation

Modulation type : GFSK

Payload pattern : PRB29

Payload Length : 37 bytes

For band edge measurements (section 7.6), the DTS bandwidth measurements were taken into consideration for the worse case examples.

5.5 EUT Position for Emissions Measurements

During all radiated emissions measurement testing, the product was mounted on a polystyrene form to facilitate rotating the device through three orthogonal axes, as required by ANSI C63.10, section 5.10.1, for a handheld or body worn device.

Test Number: 192-24
Issue Date: 1/3/2025

6. Measurement Summary

Test Requirement	FCC Rule Requirement	ISED Rule Requirement	Test Report Section	Result
Antenna Requirement	15.203	RSS-GEN 6.8	7.1	Compliant
Minimum DTS Bandwidth	15.247 (a) (2)	RSS-247 5.2 (a)	7.2	Compliant
Maximum Peak Conducted Output Power	15.247 (b) (1)	RSS-247 5.4 (d)	7.3	Compliant
Operation with directional antenna gains greater than 6 dBi	15.247 (b) (4)	---	7.4	Compliant
Spurious Radiated Emissions	15.247 (d)	RSS-GEN 6.13	7.5	Compliant
Spurious Radiated Emissions (> GHz) - Harmonic Measurements	15.247 (d)	RSS-GEN 6.13		Compliant
Band Edge and Out of Band Measurements	15.247 (d)	RSS-247 5.5	7.6	Compliant
Emissions in Non-restricted Frequency Bands	15.247(e)	RSS-247 5.5	7.7	Compliant
Peak Power Spectral Density	15.247(e)	RSS-247 5.2 (b)	7.8	Compliant
AC Power Line Conducted Emissions	15.207	RSS-GEN 7.2	7.9	Compliant
Duty Cycle	15.247	N/A	7.10	Compliant
99% (Occupied) Bandwidth	---	RSS-GEN 6.7	7.11	Compliant

7. Measurement Data

7.1. Antenna Requirement (Part 15.203, RSS-GEN 6.8)

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 shall be considered sufficient to comply with the provisions of this Section.

Results: The EUT utilizes a PCB chip antenna that is not user replaceable.

7. Measurement Data

7.2. Minimum DTS Bandwidth (15.247 (a) (2), ISED RSS-247 5.2 (a))

Requirement: (15.247 (a) (2))

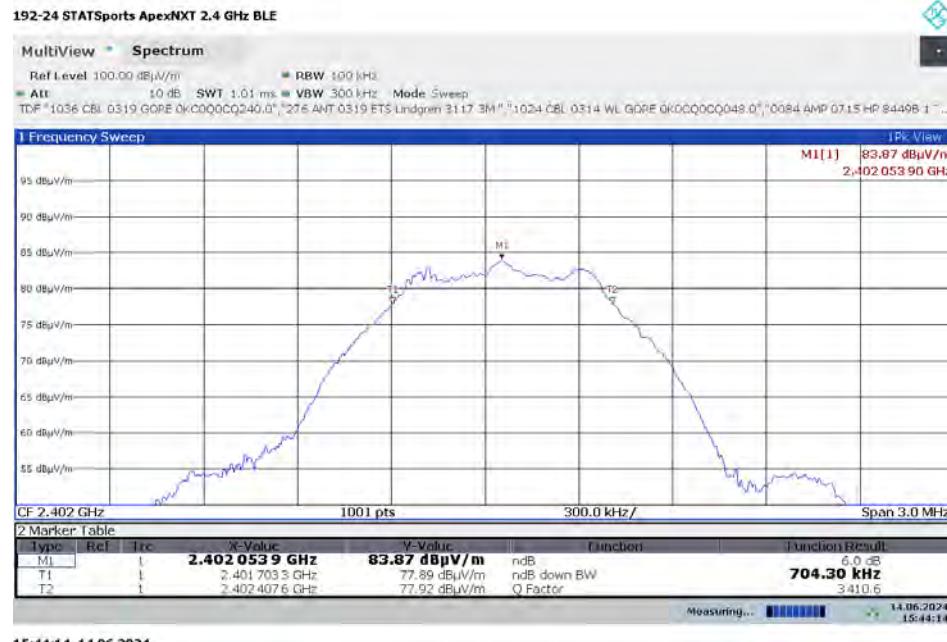
Systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Procedure: This test was performed in accordance with the procedure detailed in FCC OET publication number 558074, Section 8.1 Option 1, DTS (6 dB) Channel Bandwidth.

Results: The device under test meets the minimum 500 kHz DTS (6 dB) bandwidth requirement.

Channel	Frequency (MHz)	-6 dB Bandwidth (kHz)	Minimum -6 dB Bandwidth (kHz)	Result
37	2402	704.30	>500	Compliant
38	2426	701.30	>500	Compliant
39	2480	704.30	>500	Compliant

7.2.1. Low Channel – 37, 2402 MHz





Test Number: 192-24



Issue Date: 1/3/2025

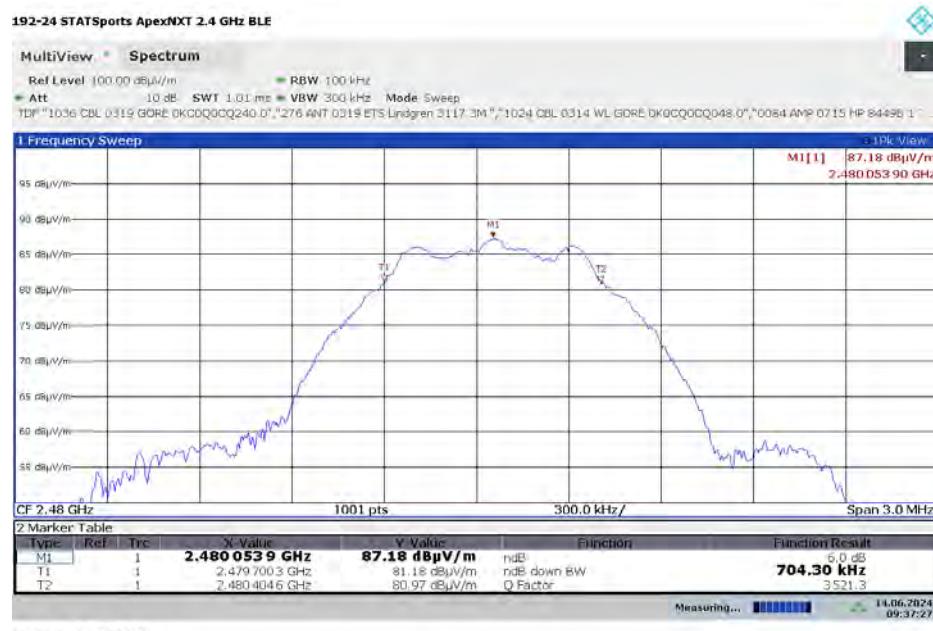
7. Measurement Data

7.2. Minimum DTS Bandwidth (15.247 (a) (2), ISED RSS-247 5.2 a) (continued)

7.2.2. Middle Channel – 38, 2426 MHz



7.2.3. High Channel – 39, 2480 MHz



7. Measurement Data (continued)

7.3. Maximum Peak Conducted Output Power (FCC 15.247 (b)(3), ISED RSS-247 5.4 (d))

Requirement: The maximum peak conducted output power of the intentional radiator shall not exceed the following: For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt (+30 dBm).

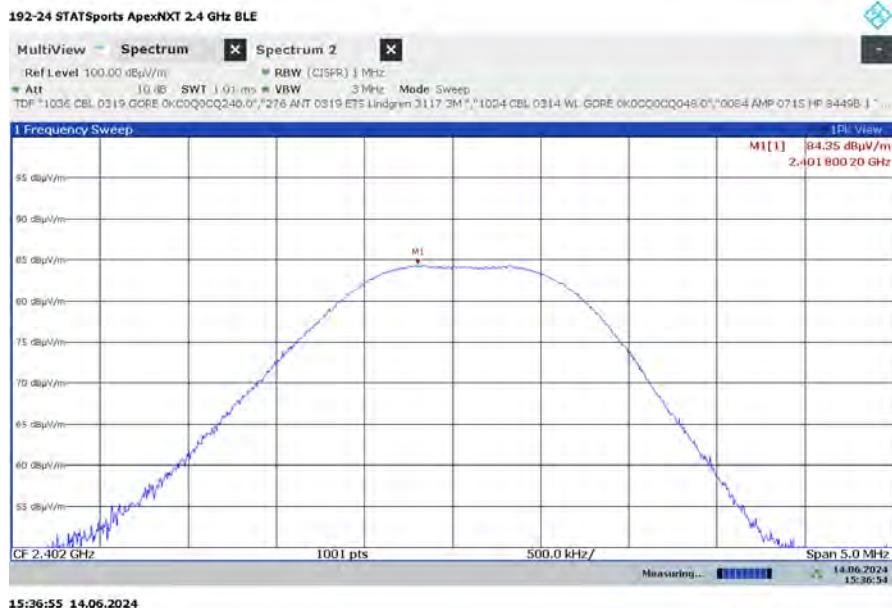
Procedure: This test was performed in accordance with the procedure detailed in FCC OET publication number KDB 558074, Section 9.1.1.

Test Notes: A spectrum analyzer resolution bandwidth of 1 MHz and a video bandwidth of 3 MHz were used to meet the requirements of FCC OET publication number 558074, Section 9.1.1 and the measured product DTS bandwidth. The field strength measured at 3 Meters was converted to dBm by subtracting 95.2. The maximum antenna gain of 2.00 dBi was additionally subtracted to determine the conducted output power.

Results: The device under test meets the required maximum peak conducted output power level of 1 Watt (30 dBm).

BLE Channel	Frequency	Maximum Peak Radiated Power	Antenna Gain (Peak)	Maximum Peak Conducted Output Power	Peak Limit	Margin	Result
		(MHz)		(dB μ V/m)			
37	2402	84.35	2.00	-12.85	30.00	-42.85	Compliant
38	2426	85.62	2.00	-11.58	30.00	-41.58	Compliant
39	2480	88.33	2.00	-8.87	30.00	-38.87	Compliant

7.3.1. Low Channel – 37, 2402 MHz





Test Number: 192-24

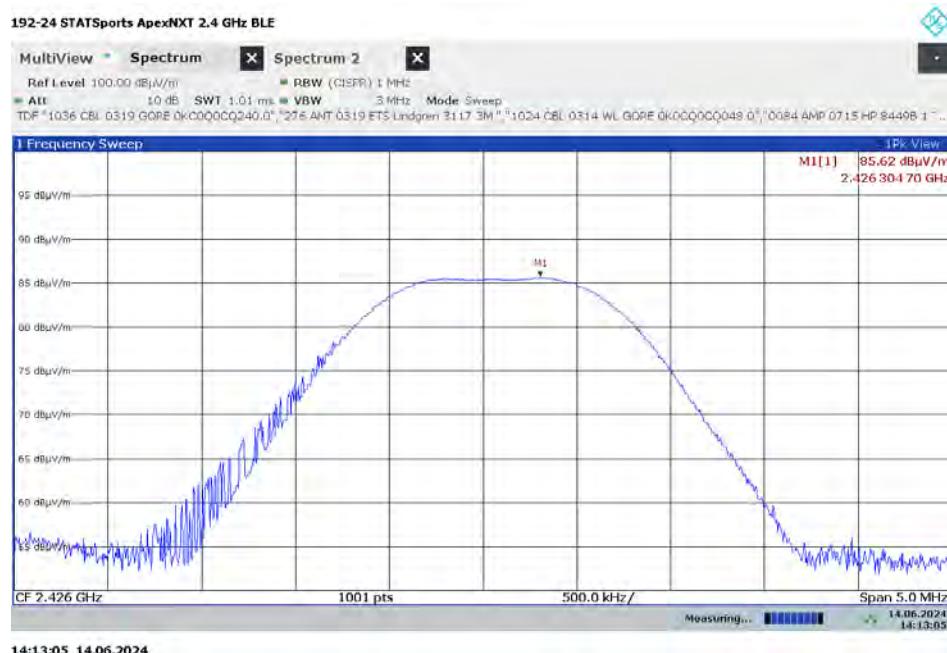


Issue Date: 1/3/2025

7. Measurement Data

7.3. Maximum Peak Conducted Output Power (continued)

7.3.2. Middle Channel – 38, 2426 MHz



7.3.3. High Channel – 39, 2480 MHz



7. Measurement Data

7.4. Operation with directional antenna gains greater than 6 dBi (15.247 (b)(4))

Requirement: 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 FCC Part 15.247, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Systems operating in the 2400 – 2483.5 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

Systems operating in the 5725 – 5850 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter peak output power.

Procedure: Not applicable for the device under test.

DUT Status: The DUT utilizes a chip antenna with a peak gain of 2.00 dBi and therefore is exempt from this requirement.

7. Measurement Data (continued)
7.5. Transmitter Spurious Radiated Emissions (30 kHz to 40 GHz) (FCC 15.209, ISED RSS-GEN 6.13)
7.5.1 Transmitter Spurious Radiated Emissions

Requirement: (15.209) The Emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency Range (MHz)	Distance (Meters)	Limit (dB μ V/m) ¹
0.009 to 0.490	3	128.5 to 93.8
0.490 to 1.705	3	73.8 to 63.0
1.705 to 30	3	69.5
30 to 88	3	40.0
88 to 216	3	43.5
216 to 960	3	46.0
>960	3	54.0

¹ Measurements in the 9 to 90 kHz, 110 to 490 kHz and above 1000 MHz ranges employ an average detector. Otherwise a quasi-peak detector is used.

Procedure: This test was performed in accordance with the procedure detailed in FCC OET publication number 558074, Section 12.0: Emissions in restricted frequency bands and FCC 47CFR Part 15.209: Radiated Emission Limits; General Requirements.

The test methods used to generate the data in this test report is in accordance with ANSI C63.10:2013, American National Standard for Testing Unlicensed Wireless Devices.

Test Notes: Measurements were made from the lowest oscillator frequency as stated by the manufacturer (32.768 kHz) to the 10th harmonic of the highest transmitter frequency or 40 GHz, whichever is lower.

Reference FCC Part 15.33(a) and FCC Part 15.33(a)(1).

Each of the test modes documented within the test report were evaluated and the worst case of each of the test modes is detailed in this section. A full set of measurement scans are presented in Appendix A of this test report. Channel 39 is representative of worst-case for all channels.

Results: The Emissions from the DUT did not exceed the field strength levels specified in the above table.

Sample Calculation: Final Result (dB μ V/m) = Measurement Value (dB μ V) + Antenna Factor (dB/m) + Cable Loss (dB) – Pre-amplifier Gain (dB) Internal or External.

Note: All correction factors are loaded into the measurement instrument prior to testing to determine the final result.

Test Number: 192-24
Issue Date: 1/3/2025

7. Measurement Data (continued)

7.5. Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz) (FCC 15.209, ISED RSS-GEN 6.13)

7.5.2. Transmitter Spurious Radiated Emissions (Harmonic Meas.) Test Results

Worst case measurements of Harmonics that fall into the restricted bands.

Freq. (MHz)	Field Strength (dB μ V/m) ¹		Limit (dB μ V/m)		Margin (dB μ V/m)		Antenna Polarity (H/V)	Result
	Peak	Average	Peak	Average	Peak	Average		
4804	53.91	36.30	74.00	54.00	-20.09	-17.70	V	Compliant
4852	52.23	36.08	74.00	54.00	-21.77	-17.92	V	Compliant
4960	51.48	36.02	74.00	54.00	-22.52	-17.98	H	Compliant
7278	64.68	39.83	74.00	54.00	-9.32	-14.17	H	Compliant
7440	57.90	39.20	74.00	54.00	-16.10	-14.80	H	Compliant
12010	58.87	46.53	74.00	54.00	-15.13	-7.47	H	Compliant
12130	59.82	46.69	74.00	54.00	-14.18	-7.31	H	Compliant
12400	58.03	45.65	74.00	54.00	-15.97	-8.35	H	Compliant
19216	58.39	46.58	74.00	54.00	-15.61	-7.42	H	Compliant
19408	59.58	47.29	74.00	54.00	-14.42	-6.71	H	Compliant
19840	58.87	46.69	74.00	54.00	-15.13	-7.31	V	Compliant
22320	60.72	48.32	74.00	54.00	-13.28	-5.68	H	Compliant

¹ All correction factors are stored in the spectrum analyzer and applied to these column entries.

7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (FCC 15.209, ISED RSS-GEN 6.13)

Requirement: 15.247(d) 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 (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Procedure: For the lower band edge, this measurement was performed in accordance with the procedure detailed in FCC OET publication number 558074, Section 11: Emissions in non-restricted frequency bands.

For the upper band edge, this measurement was performed as a typical restricted band radiated emissions measurement above 1 GHz. Peak and CISPR average detectors and a 1 MHz resolution and 3 MHz video bandwidth were utilized.

Test Note: The radiated band edge and worst case out of band measurements in this report represent the measurements made with the worst case receive antenna polarity. In addition, the DTS bandwidth measurements were taken into consideration for the worst-case examples.

Results: The DUT met the 20 dB requirement at the lower band edge and the Part 15.209 requirements at the upper band edge.

7.6.1. Lower Band Edge

Band Edge Frequency (MHz)	Lowest Transmitter Frequency (MHz)	Maximum PSD (100 kHz) (dB μ V/m)	Band Edge Delta to Max PSD (100 kHz) (dB μ V/m)	Minimum Required Delta (dB)	Result
2400	2402	83.33	37.24	-20	Compliant

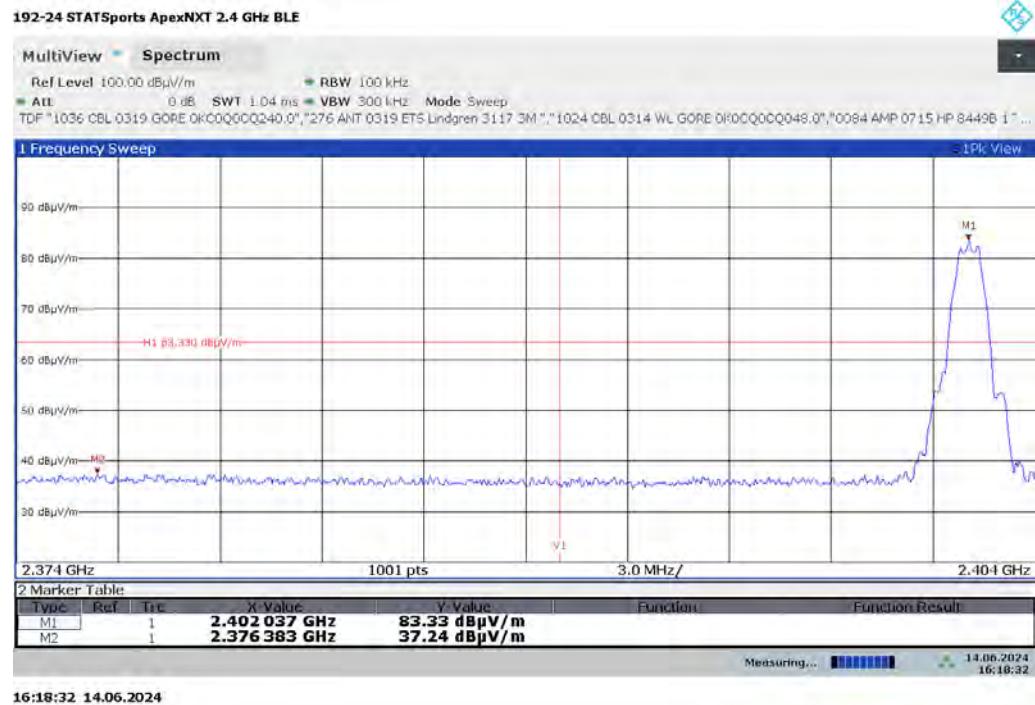
Note: Reference the plot on the following page.

Test Number: 192-24
Issue Date: 1/3/2025

7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

Lower Band Edge



7.6.2. Upper Band Edge and Worst Case Out of Band

Upper Band Edge

Band Edge Frequency	Field Strength (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)		Result
	(MHz)	Peak	Average	Peak	Average	Peak	Average
2483.5	46.52	32.45	74	54	-27.48	-21.55	Compliant

Note: Reference the plot on the following page.



Test Number: 192-24

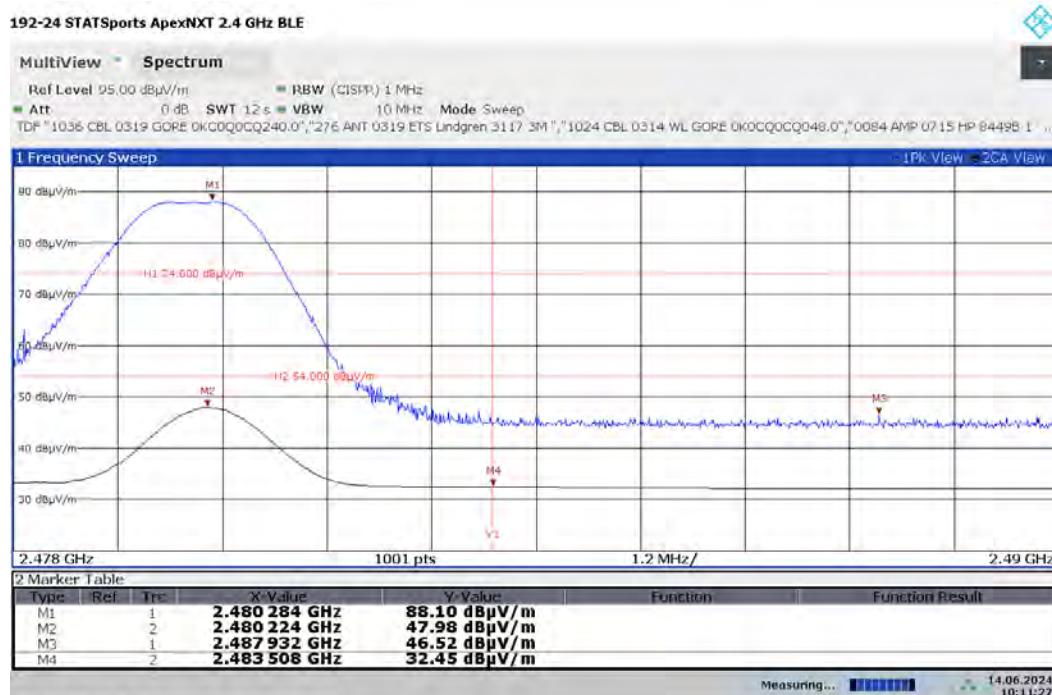


Issue Date: 1/3/2025

7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

Upper Band Edge and Worst Case Out of Band



7.6.3. Lower Restricted Band, 2310 MHz to 2390 MHz

Frequency (MHz)	Field Strength (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)		Result
	Peak	Average	Peak	Average	Peak	Average	
2375	47.17	33.10	74	54	-26.83	-20.90	Compliant

Reference the plot on the following page.

7.6.4. Upper Restricted Band, 2483.5 MHz, to 2500 MHz

Frequency (MHz)	Field Strength (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)		Result
	Peak	Average	Peak	Average	Peak	Average	
2489.4	46.27	32.76	74	54	-27.73	-21.24	Compliant

Reference the plot on the following, following page.

Test Number: 192-24
Issue Date: 1/3/2025

7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

Lower Restricted Band, 2310 MHz, to 2390 MHz


Note about the non-EUT transmissions in this band:

The emissions in enclosed in vertical markers were due to transmissions in the Wireless Communications Service (WCS) A and/or B Blocks (2310 MHz to 2315 MHz and/or 2350 MHz to 2360 MHz). A real-time observation of the Lower Restricted Band confirmed that there were no emissions contributed by the EUT in either of these WCS Blocks during the absence of the ambient signals. However, due to the time requirements of the CISPR average detector, this could not be realized on the spectrum analyzer display. Markers 1 and 2 represent the peak and CISPR average values of the worst-case emission contributed by the EUT.

Test Number: 192-24

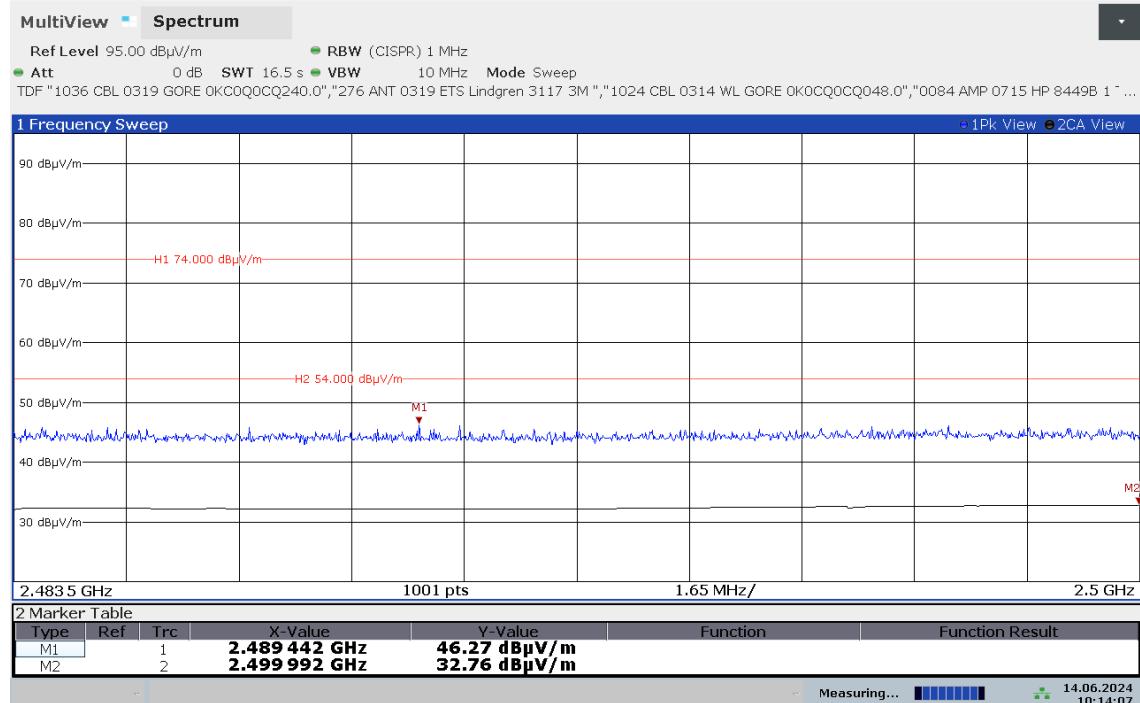
Issue Date: 1/3/2025

7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

Upper Restricted Band, 2483.5 MHz, to 2500 MHz

192-24 STASTSports ApexNXT 2.4 GHz BLE



10:14:07 14.06.2024

7. Measurement Data (continued)

7.7. Emissions in Non-restricted Frequency Bands

Requirement: 15.247(d) 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.

Test Notes: Peak in-band measurements were taken at the time the DTS (-6 dB) bandwidth measurements were made. These values were used as the reference levels for the following measurements. Refer to section 7.2 of this report for these values.

Reference Appendix B for the measurement data used for this test section.

Results: The DUT met the 20 dB requirement emission level delta requirement in the non restricted frequency bands.

Emissions in Non-restricted Frequency Bands

Maximum PSD (100 kHz) In-Band ¹ (dB μ V/m)	Worst Case Out-of-Band Frequency (MHz)	Maximum PSD (100 kHz) Out-of-Band (dB μ V/m)	Delta to Maximum PSD (dB)	Minimum Required Delta (dB)	Result
87.18	7206.19	54.58	-32.60	-20 dB	Compliant

¹Taken from Section 7.2 - DTS Bandwidth

7. Measurement Data (continued)

7.8. Peak Power Spectral Density (FCC 15.247(e), ISED RSS-247, 5.2 (b))

Requirement: 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. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of FCC Part 15.247. The same method of determining the conducted output power shall be used to determine the power spectral density.

Procedure: FCC OET publication number 558074, Section 10.2: Method PKPSD (peak PSD). FCC OET 662911 was referenced to determine the procedure for measuring in-band power spectral density of transmitters with multiple outputs in the same band. The field strength measured at 3 Meters was converted to dBm by subtracting 95.2.

Results: The DUT met the required power spectral density limit at the tested frequencies.

Measurement Results in 2400 MHz to 2483.5 MHz Band

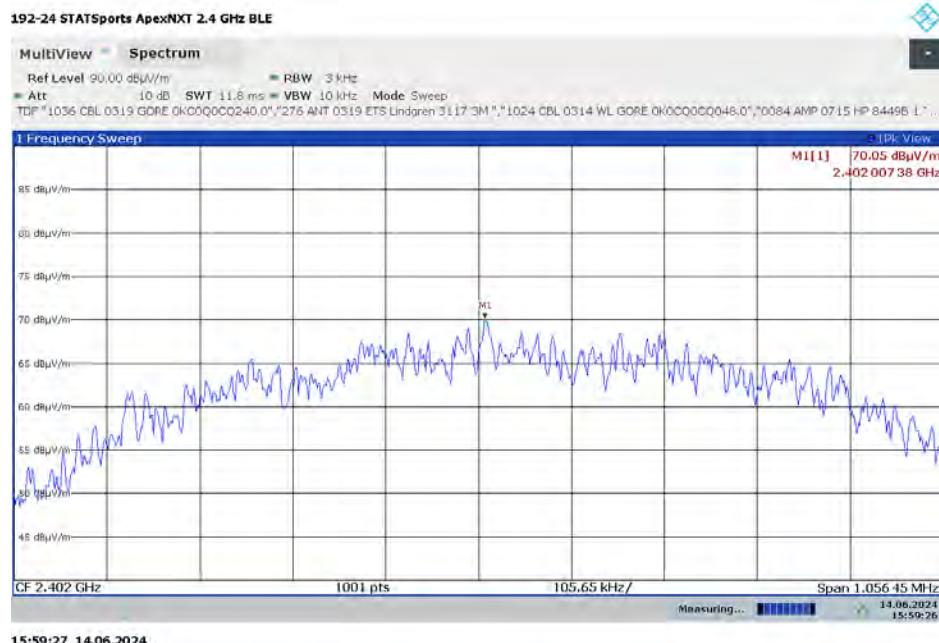
Channel	Frequency	Maximum PSD Frequency	Maximum Power Spectral Density	Maximum Power Spectral Density	Limit	Margin	Result
	(MHz)	(MHz)	(dB μ V/m)	(dBm)			
37	2402	2402.00738	70.05	-25.15	8	-33.15	Compliant
38	2426	2425.88333	72.04	-23.16	8	-31.16	Compliant
39	2480	2480.19208	72.39	-22.81	8	-30.81	Compliant

Test Number: 192-24
Issue Date: 1/3/2025

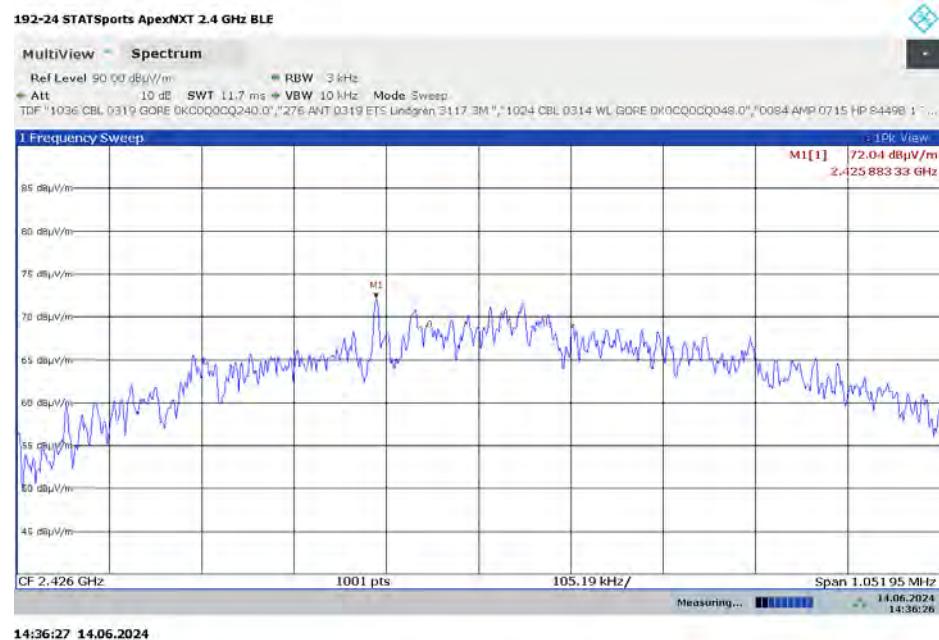
7. Measurement Data (continued)

7.8. Peak Power Spectral Density (15.247(e)), ISED RSS-247, 5.2 (b)) (continued)

7.8.1. Low Channel – 37, 2402 MHz



7.8.2. Middle Channel – 38, 2426 MHz



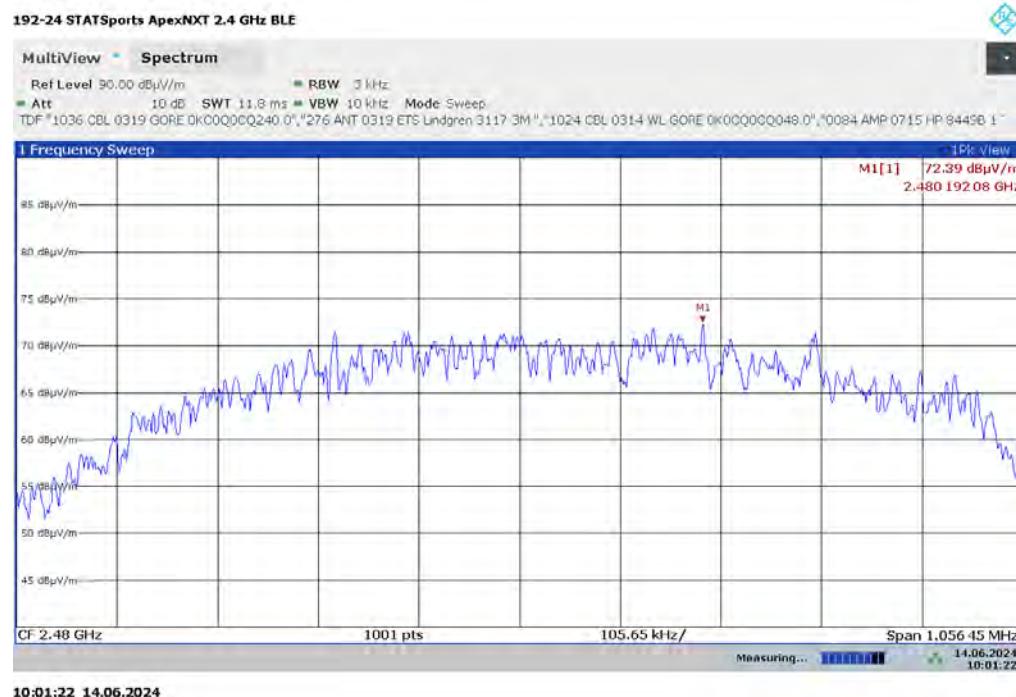
Test Number: 192-24

Issue Date: 1/3/2025

7. Measurement Data

7.8. Peak Power Spectral Density (15.247(e)), ISED RSS-247, 5.2 (b)) (continued)

7.8.3. High Channel – 39, 2480 MHz



7. Measurement Data (continued)

7.9. Conducted Emissions (FCC Part 15.207, ISED RSS-GEN 7.2)

Requirement: With certain exceptions, an intentional radiator 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, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN).

Frequency Range (MHz)	Limits (dB μ V)	
	Quasi-Peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5.0	56	46
5.0 to 30.0	60	50

* Decreases with the logarithm of the frequency.

Procedure: This test was performed in accordance with the procedure detailed in ANSI C63.10-2013, Section 6.2: Standard test method for ac power-line conducted emissions from unlicensed wireless devices.

Test Notes: The device was tested using an apple charger.

Results: The device under test meets the FCC Part 15.207 & RSS-GEN 7.2 test requirements.

Measurement & Equipment Setup

Test Date:	1/2/2025
Test Engineer:	Sean Defelice
Site Temperature (°C):	21
Relative Humidity (%RH):	35
Frequency Range:	0.15 MHz to 30 MHz
EMI Receiver IF Bandwidth:	9 kHz
EMI Receiver Avg Bandwidth:	>= 3 * IF BW (RBW)
Detector Functions:	Peak, Quasi-Peak & Average

Sample Calculation: Final Result (dB μ V) = Measurement Value (dB μ V) + LISN Insertion Loss (dB) + Cable Loss (dB).

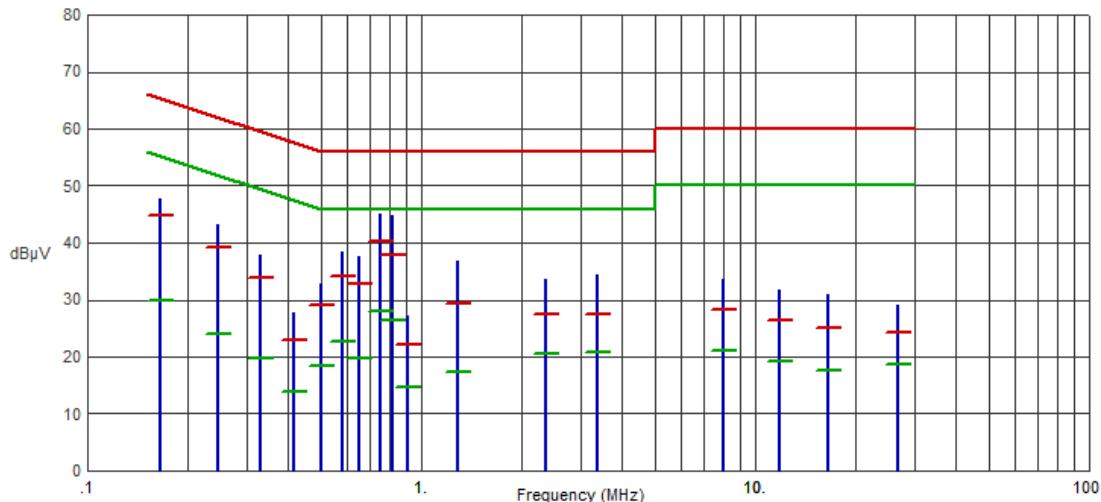
Note: All correction factors are loaded into the measurement instrument prior to testing to determine the final result.

Test Number: 192-24
Issue Date: 1/3/2025

7. Conducted Emissions Test Results

7.9. Conducted Emissions (FCC Part 15.207, ISED RSS-GEN 7.2 continued)

7.9.1. 120 Volts, 60 Hz Phase

Test No.: 194-24, 120 Volts, 60 Hz Phase
FCC, Class B


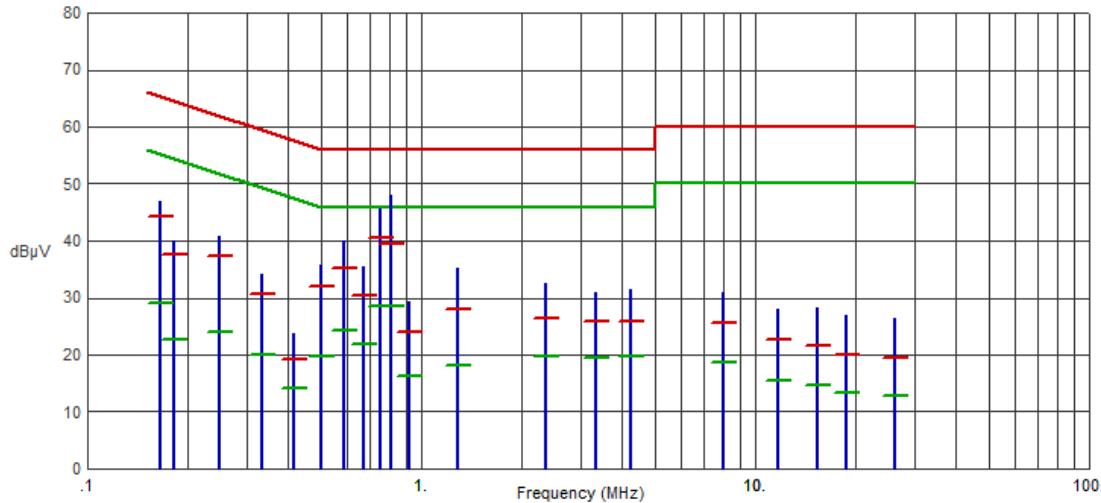
Frequency (MHz)	Pk Amp (dB μ V)	QP Amp (dB μ V)	QP Limit (dB μ V)	QP Margin (dB)	Avg Amp (dB μ V)	Avg Limit (dB μ V)	Avg Margin (dB)	Comments
.1658	47.73	44.93	65.17	-20.24	29.93	55.17	-25.24	
.2468	43.13	39.07	61.86	-22.79	24.04	51.86	-27.82	
.3300	37.81	33.74	59.45	-25.71	19.65	49.45	-29.80	
.4133	27.81	23.06	57.58	-34.52	13.78	47.58	-33.80	
.4988	32.73	29.07	56.02	-26.95	18.31	46.02	-27.71	
.5820	38.28	34.25	56.00	-21.75	22.54	46.00	-23.46	
.6540	37.72	32.68	56.00	-23.32	19.60	46.00	-26.40	
.7530	45.17	40.38	56.00	-15.62	27.99	46.00	-18.01	
.8205	44.77	37.90	56.00	-18.10	26.53	46.00	-19.47	
.9128	27.22	22.17	56.00	-33.83	14.73	46.00	-31.27	
1.2818	36.73	29.23	56.00	-26.77	17.43	46.00	-28.57	
2.3573	33.59	27.44	56.00	-28.56	20.61	46.00	-25.39	
3.3653	34.35	27.40	56.00	-28.60	20.72	46.00	-25.28	
8.0520	33.63	28.33	60.00	-31.67	21.16	50.00	-28.84	
11.7713	31.81	26.40	60.00	-33.60	19.23	50.00	-30.77	
16.5278	31.02	24.98	60.00	-35.02	17.69	50.00	-32.31	
26.6415	29.06	24.26	60.00	-35.74	18.56	50.00	-31.44	

Test Number: 192-24
Issue Date: 1/3/2025

7. Conducted Emissions Test Results

7.9. Conducted Emissions (FCC Part 15.207, ISED RSS-GEN 7.2 continued)

7.9.2. 120 Volts, 60 Hz Neutral

Test No.: 194-24, 120 Volts, 60 Hz Neutral
FCC, Class B


Frequency (MHz)	Pk Amp (dB μ V)	QP Amp (dB μ V)	QP Limit (dB μ V)	QP Margin (dB)	Avg Amp (dB μ V)	Avg Limit (dB μ V)	Avg Margin (dB)	Comments
.1658	47.03	44.22	65.17	-20.95	29.04	55.17	-26.13	
.1815	40.01	37.57	64.42	-26.85	22.72	54.42	-31.70	
.2490	40.72	37.41	61.79	-24.38	24.11	51.79	-27.68	
.3323	34.06	30.68	59.39	-28.71	20.09	49.39	-29.30	
.4133	23.79	19.27	57.58	-38.31	14.24	47.58	-33.34	
.5010	35.83	32.10	56.00	-23.90	19.73	46.00	-26.27	
.5843	40.03	35.29	56.00	-20.71	24.17	46.00	-21.83	
.6698	35.52	30.32	56.00	-25.68	21.90	46.00	-24.10	
.7575	45.55	40.63	56.00	-15.37	28.60	46.00	-17.40	
.8070	47.95	39.48	56.00	-16.52	28.46	46.00	-17.54	
.9195	29.21	24.00	56.00	-32.00	16.36	46.00	-29.64	
1.2908	35.27	27.97	56.00	-28.03	18.04	46.00	-27.96	
2.3685	32.49	26.48	56.00	-29.52	19.61	46.00	-26.39	
3.3450	30.82	25.85	56.00	-30.15	19.42	46.00	-26.58	
4.2180	31.51	25.94	56.00	-30.06	19.83	46.00	-26.17	
7.9868	30.90	25.73	60.00	-34.27	18.60	50.00	-31.40	
11.6858	28.06	22.68	60.00	-37.32	15.55	50.00	-34.45	
15.3713	28.22	21.49	60.00	-38.51	14.56	50.00	-35.44	
18.7553	26.87	20.03	60.00	-39.97	13.23	50.00	-36.77	
26.0745	26.35	19.50	60.00	-40.50	12.84	50.00	-37.16	

Test Number: 192-24
Issue Date: 1/3/2025

7. Measurement Data (continued)

7.10. Duty Cycle

Requirement: (FCC OET publication number 558074)

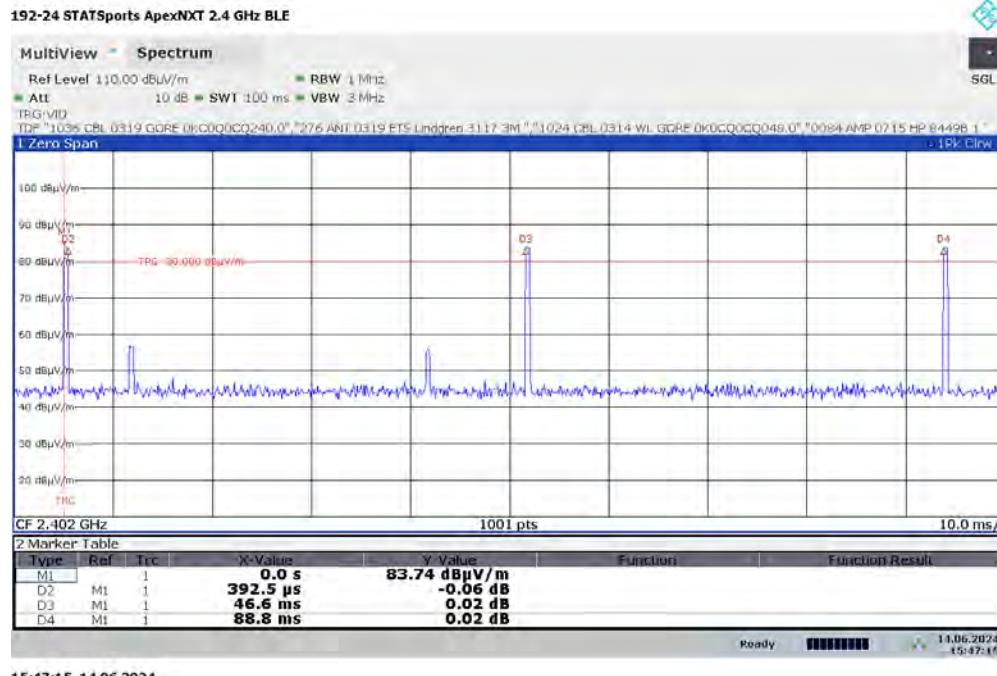
Preferably, all measurements of maximum conducted (average) output power will be performed with the EUT transmitting continuously (i.e., with a duty cycle of greater than or equal to 98%).

Procedure: Duty cycle measurements were made according to the procedure detailed ANSI C63.10-2013, Section 11.6(b). Various spans were analyzed to determine if there was any off time. 1 mS span was used.

Results: Duty cycle measurements are listed in the following table, Max held Peak detection was used for measurements.

Channel	Frequency	Time High	Time per Period	Duty Cycle	
	(MHz)	(mS)	(mS)	(Numeric)	(%)
37	2402	0.392	46.600	0.00841	0.84
38	2426	0.392	43.000	0.00912	0.91
39	2480	0.392	41.200	0.00951	0.95

7.10.1. Low Channel – 37, 2402 MHz

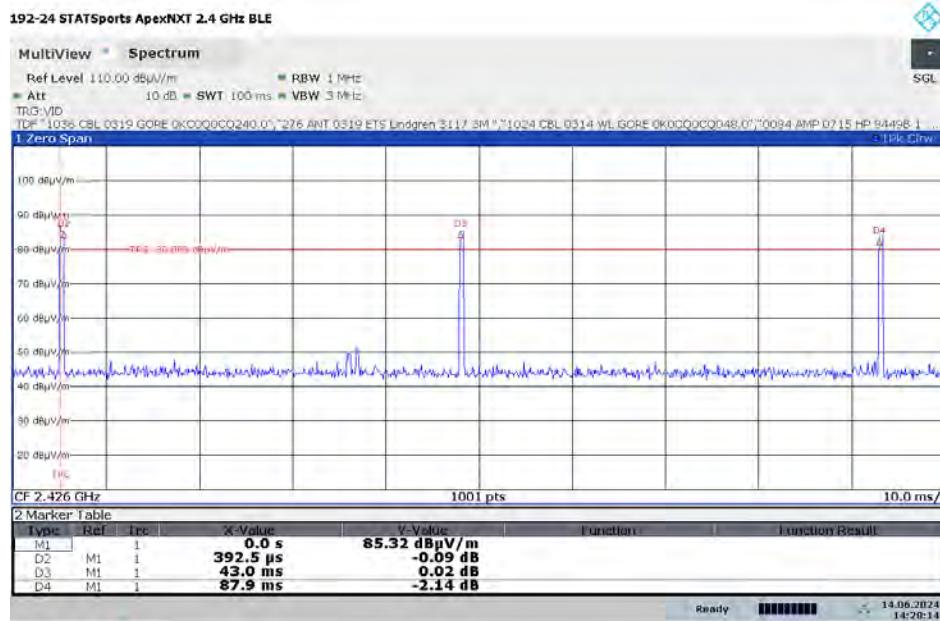


Test Number: 192-24
Issue Date: 1/3/2025

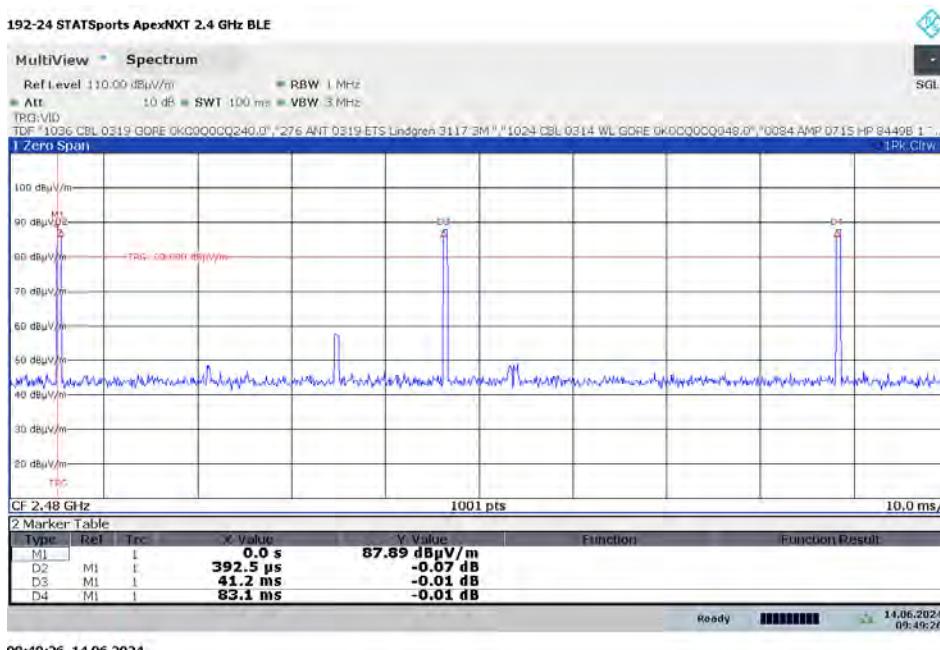
7. Measurement Data (continued)

7.10. Duty Cycle (continued)

7.10.2. Middle Channel – 38, 2426 MHz



7.10.3. High Channel – 39, 2480 MHz



7. Measurement Data (continued)

7.11. 99% (Occupied) Bandwidth (RSS-GEN 6.7)

Requirement: The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value.

The sample detector of the spectrum analyzer shall be used to make the measurement.

7.11.1. Measurement Results

Channel	Channel Frequency (MHz)	99% Power Bandwidth (MHz)
Low	2402	1058.139
Middle	2426	1065.399
High	2480	1061.693

7.11.1.1. 99% Power Bandwidth – Low Frequency (2402 MHz)



Test Number: 192-24
Issue Date: 1/3/2025

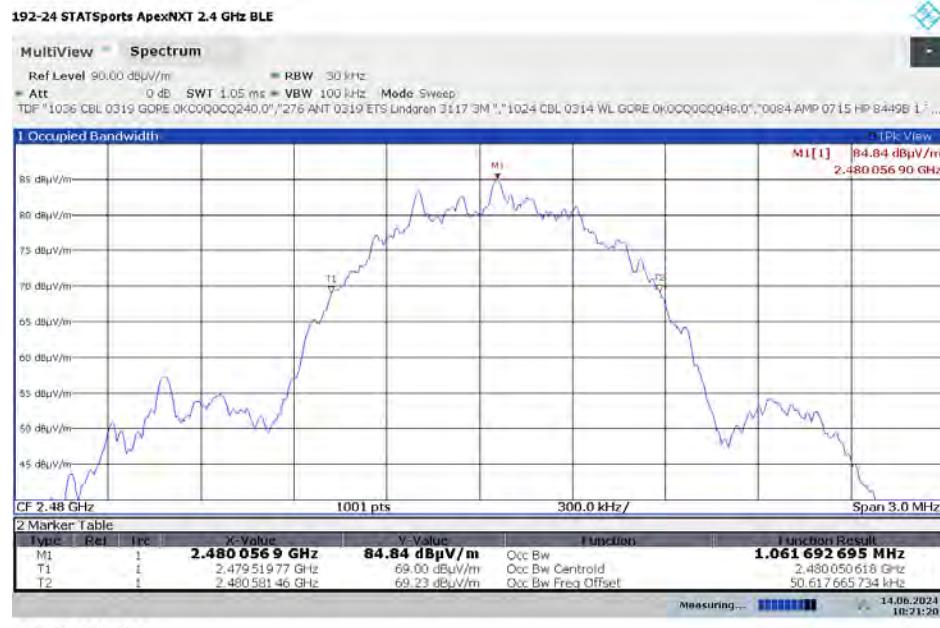
7. Measurement Data (continued)

7.11. 99% (Occupied) Bandwidth (RSS-GEN 6.7)

7.11.1.2. 99% Power Bandwidth – Middle Frequency (2426 MHz)



7.11.1.3. 99% Power Bandwidth – High Frequency (2480 MHz)



8. Test Setup Photographs

8.1. Spurious Radiated Emissions, 30 kHz to 30 MHz – Front



8. Test Setup Photographs

8.2. Spurious Radiated Emissions, 30 MHz to 1 GHz – Front



8. Test Setup Photographs

8.3. Spurious Radiated Emissions, 30 MHz to 1 GHz – Rear View



8. Test Setup Photographs

8.4. Radiated Emissions Above 1 GHz – Front



8. Test Setup Photographs

8.5. Radiated Emissions 1 to 18 GHz – Rear



8. Test Setup Photographs

8.6. Radiated Emissions Above 18 GHz – Rear



8. Test Setup Photographs

8.7. Conducted Emissions Measurements - Front



8. Test Setup Photographs

8.8. Conducted Emissions Measurements - Rear





Test Number: 192-24



Issue Date: 1/3/2025

9. Test Site Description

Compliance Worldwide is located at 357 Main Street in Sandown, New Hampshire. The test sites at Compliance Worldwide are used for conducted and radiated emissions testing in accordance with the Federal Communications Commission (FCC) and Innovation Science and Economic Development Canada (ISED) standards. Through our American Association for Laboratory Accreditation (A2LA) ISO Guide 17025 Accreditation our test sites are designated with the FCC (designation number **US1091**) and Industry Canada (file number **IC 3023A-1**).

Compliance Worldwide is also designated as a Phase 1 CAB under APEC-MRA (US0132) for Australia/New Zealand AS/NZS CISPR 11, AS/NZS CISPR 14-1, AS/NZS CISPR 15, AS/NZS CISPR 32, Chinese-Taipei (Taiwan) BSMI CNS 15936 and Korea (RRA) KS C 9811, KS C 9814-1, KS C 9815, KS C 9832, KS C 9610-6-3 & KS C 9610-6-4.

The radiated emissions test site is a 3- and 10-meter enclosed open area test site (OATS). Personnel, support equipment and test equipment are located in the basement beneath the OATS ground plane.

The conducted emissions site is part of a 16' x 20' x 12' ferrite tile chamber and uses one of the walls for the vertical ground plane required by EN 55022. A second conducted emissions site is also located in the basement of the OATS site with a 2.3 x 2.5-meter ground plane and a 2.4 x 2.4 meter vertical wall.

The radiated emissions test site for measurements above 1GHz is a 3 Meter open area test site (OATS) with a 3.6 by 3.6-meter anechoic absorber floor patch to achieve a quasi-free space measurement environment per ANSI C63.4/C63.10 and CISPR 16-1-4 standards.

The sites are designed to test products or systems 1.5 meters W x 1.5 meters L x 2.0 meters H, floor standing or tabletop.

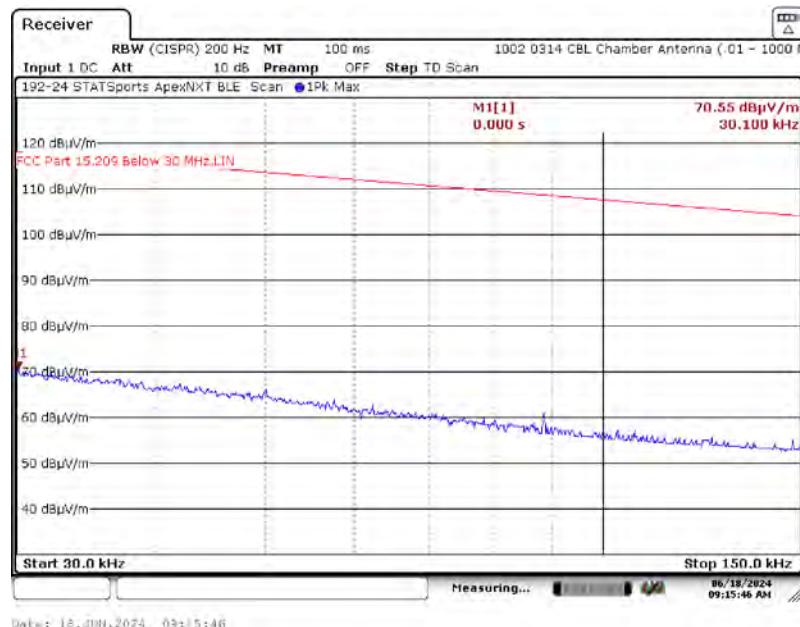
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

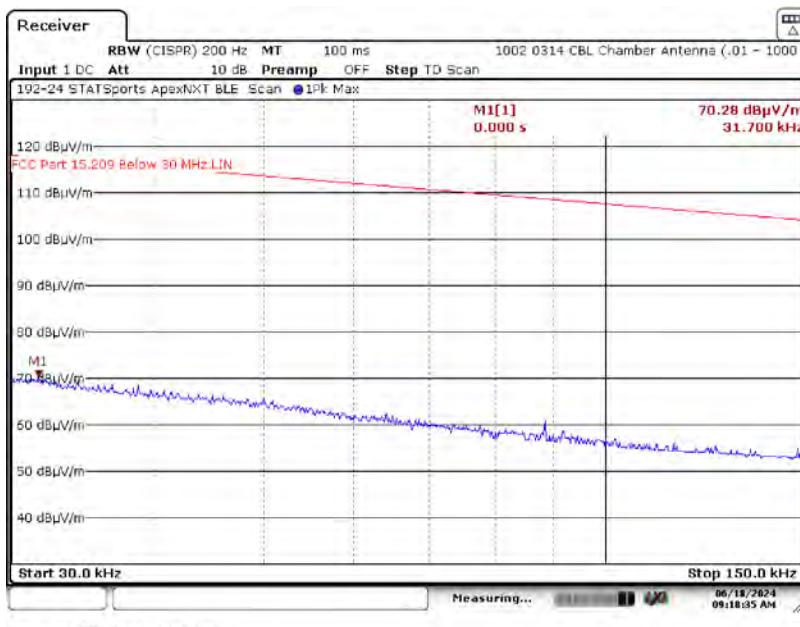
A1. Spurious Radiated Emissions (30 kHz – 150 kHz) Test Results

A1.1. Channel 39, 2480 MHz – X-Axis

A1.1.1. Measurement Results: Parallel Antenna



A1.1.2. Measurement Results: Perpendicular Antenna



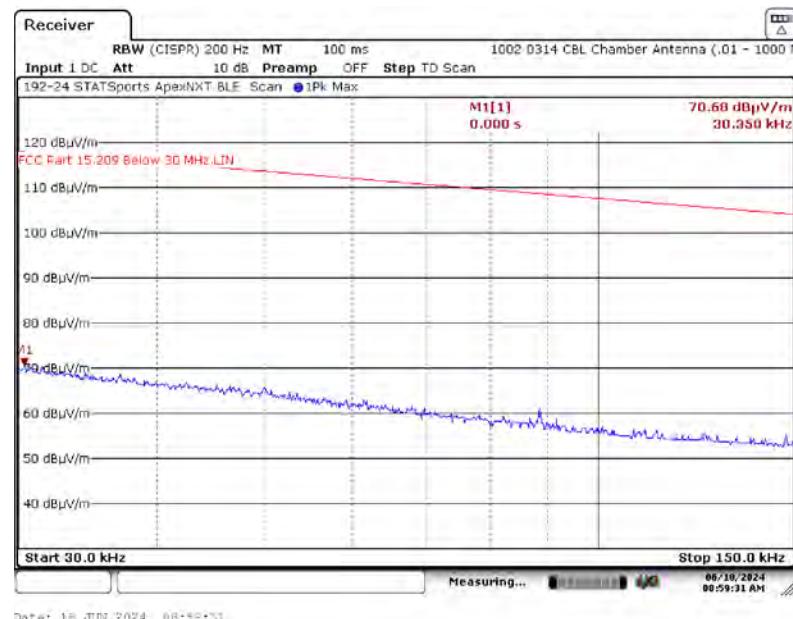
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

A1. Spurious Radiated Emissions (30 kHz – 150 kHz) Test Results

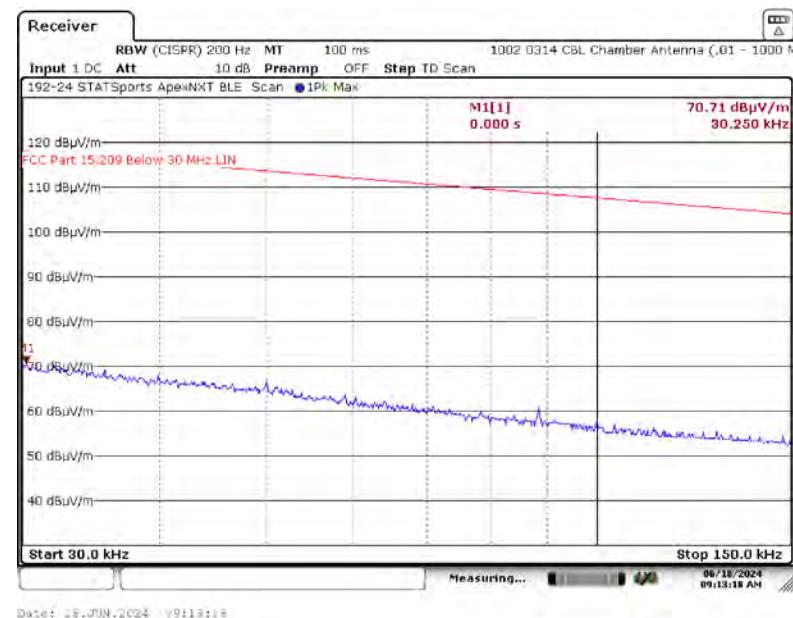
A1.1. Channel 39, 2480 MHz – X Axis

A1.1.3. Measurement Results: Ground-Parallel Antenna



A1.2. Channel 39, 2480 MHz – Y-Axis

A1.2.1. Measurement Results: Parallel Antenna



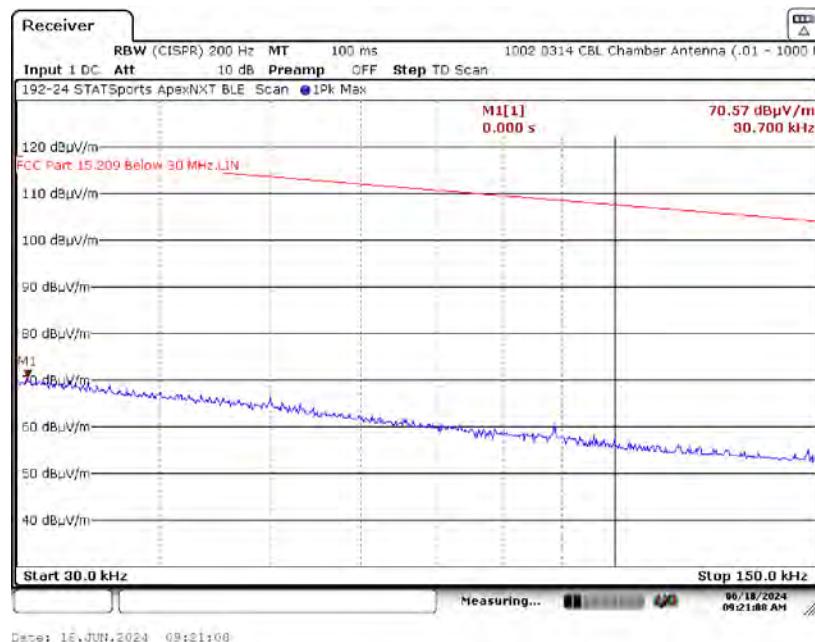
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

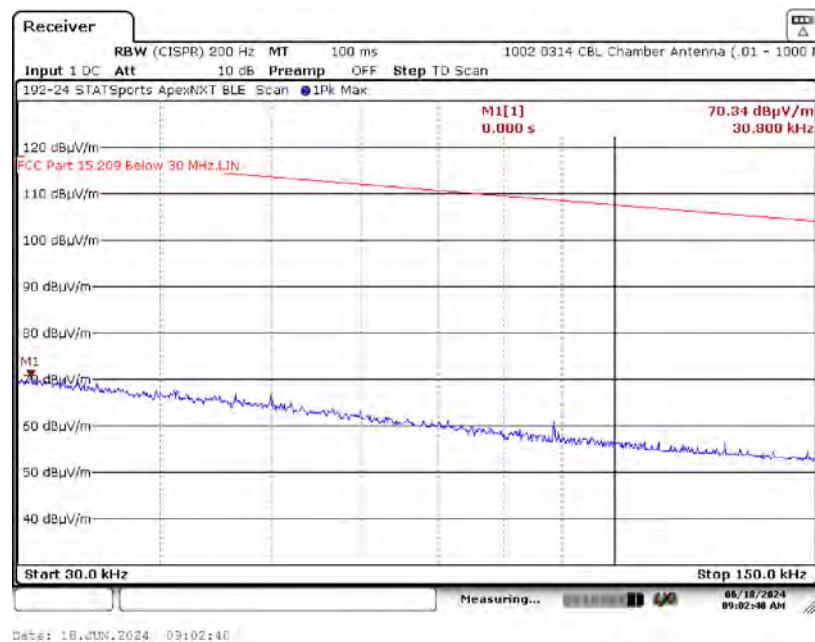
A1. Spurious Radiated Emissions (30 kHz – 150 kHz) Test Results

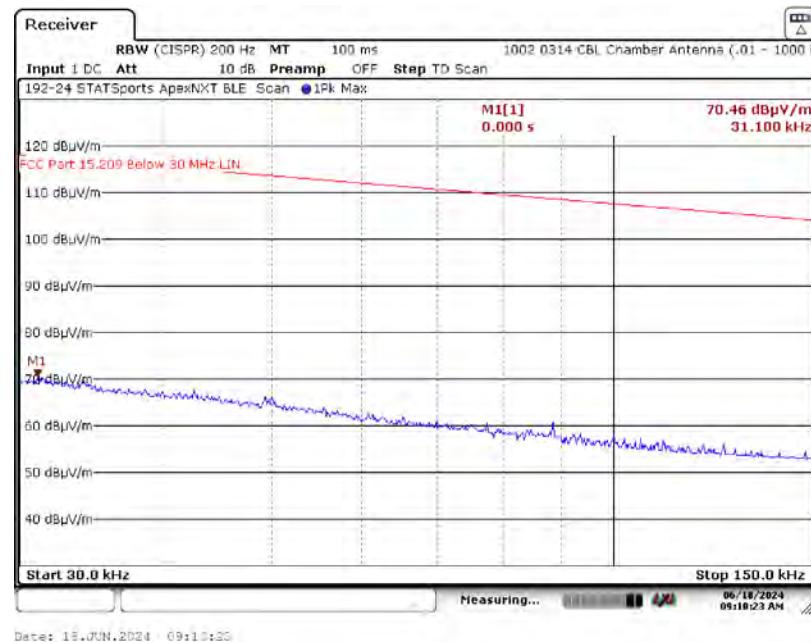
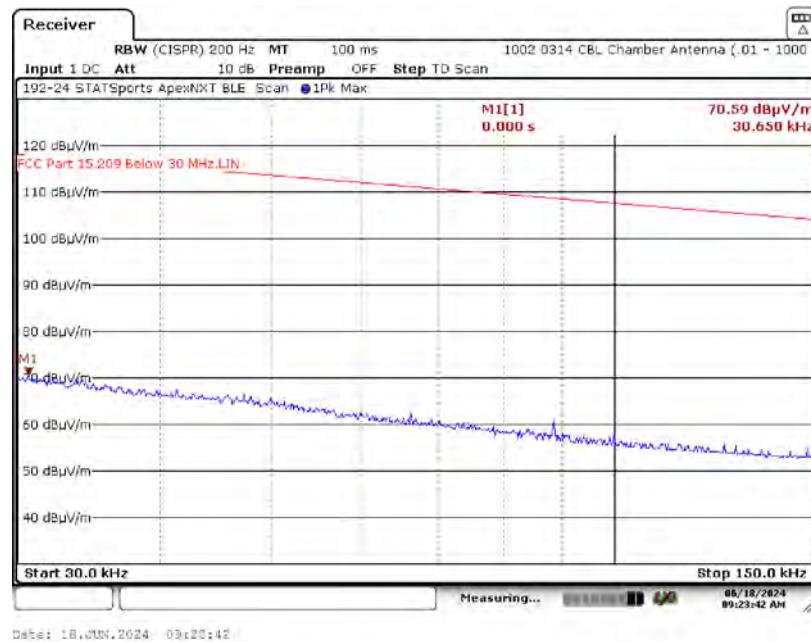
A1.2. Channel 39, 2480 MHz – Y Axis

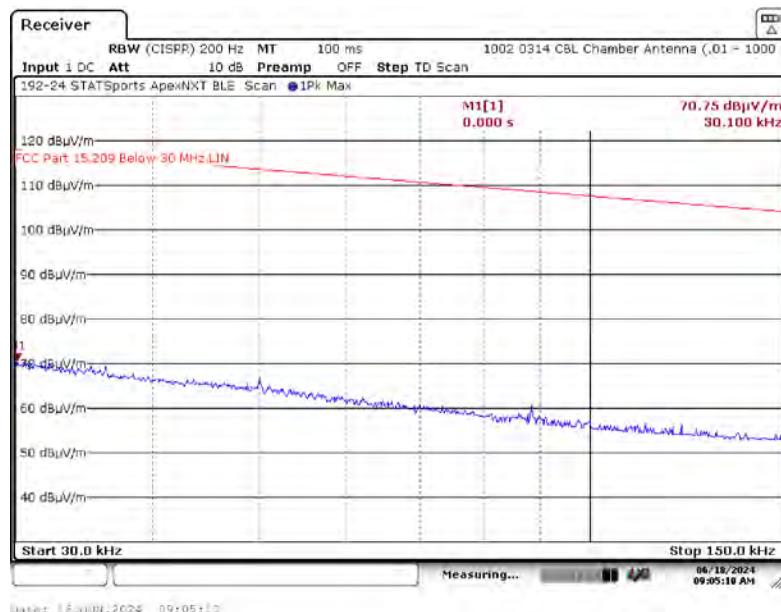
A1.2.2. Measurement Results: Perpendicular Antenna



A1.2.3. Measurement Results: Ground-Parallel Antenna



Test Number: 192-24
Issue Date: 1/3/2025
Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)
A1. Spurious Radiated Emissions (30 kHz – 150 kHz) Test Results
A1.3. Channel 39, 2480 MHz – Z-Axis
A1.3.1. Measurement Results: Parallel Antenna

A1.3.2. Measurement Results: Perpendicular Antenna


Test Number: 192-24
Issue Date: 1/3/2025
Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)
A1. Spurious Radiated Emissions (30 kHz – 150 kHz) Test Results
A1.3. Channel 39, 2480 MHz – Z Axis
A1.3.3. Measurement Results: Ground-Parallel Antenna


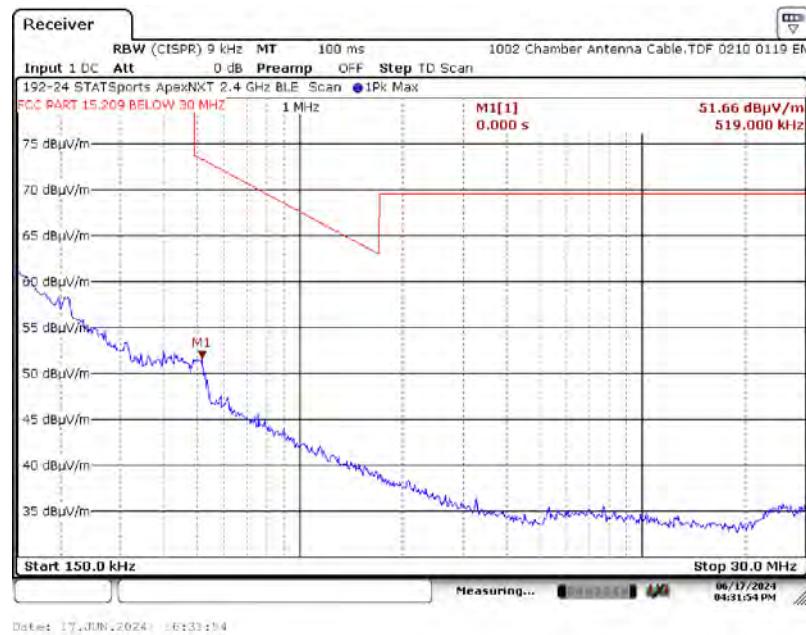
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

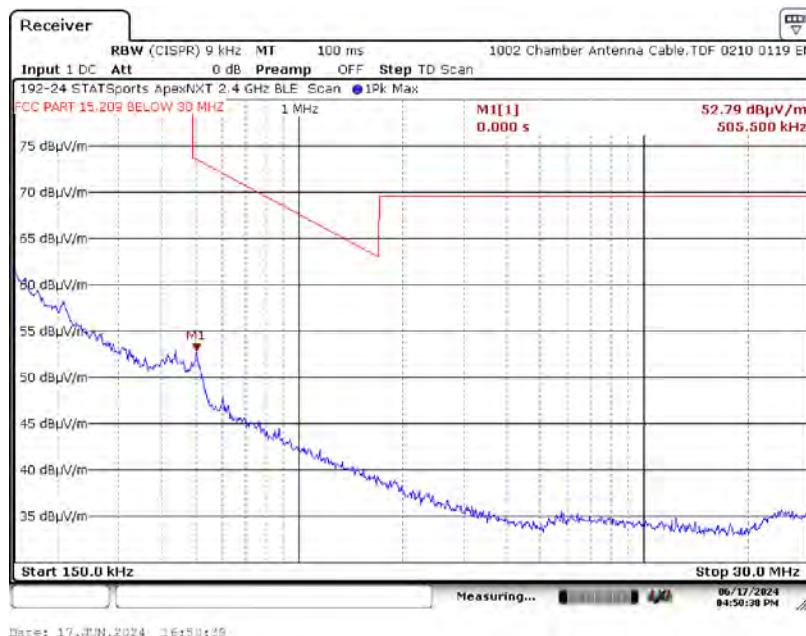
A2. Spurious Radiated Emissions (150 kHz – 30 MHz) Test Results

A2.1. Channel 39, 2480 MHz- X Axis

A2.1.1. Measurement Results: Parallel Antenna



A2.1.2. Measurement Results: Perpendicular Antenna



Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

A2. Spurious Radiated Emissions (150 kHz – 30 MHz) Test Results

A2.1. Channel 39, 2480 MHz – X Axis

A2.1.3. Measurement Results: Ground-Parallel Antenna



A2.2. Channel 39, 2480 MHz – Y Axis

A2.2.1. Measurement Results: Parallel Antenna



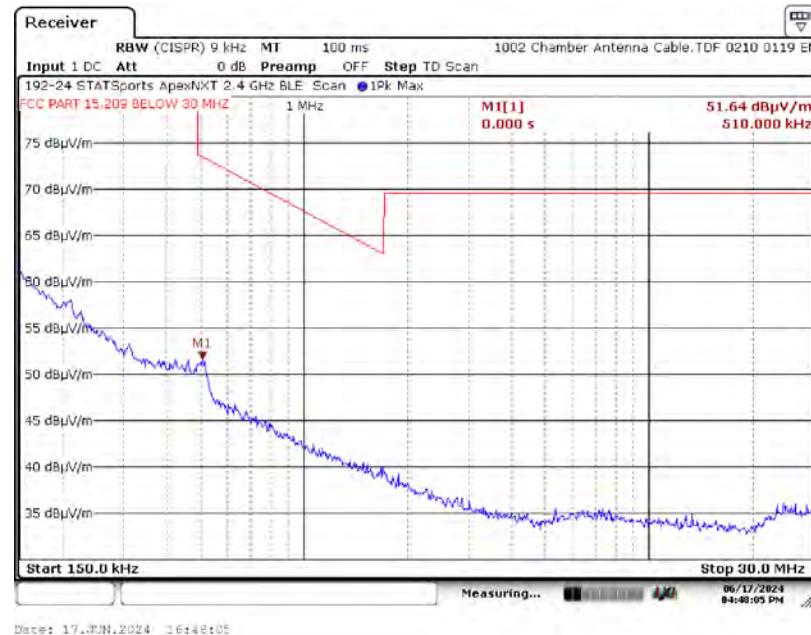
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

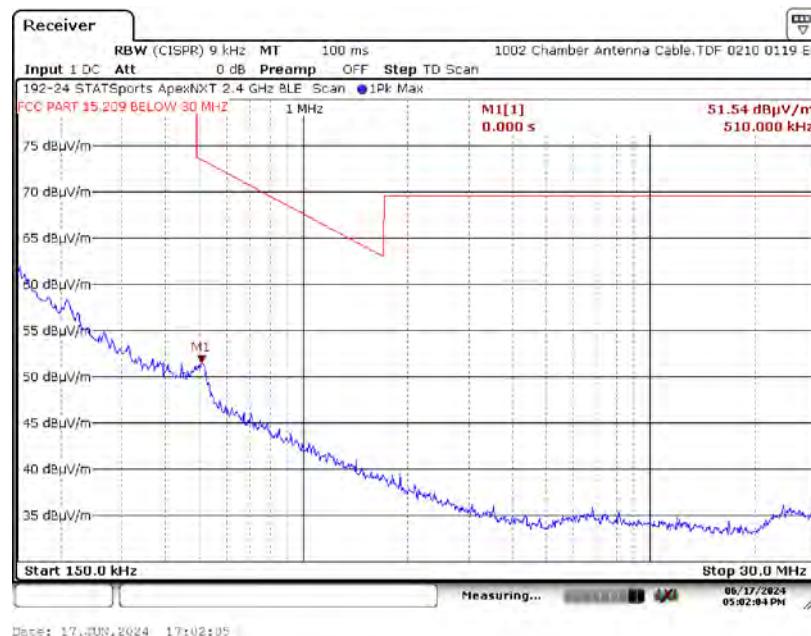
A2. Spurious Radiated Emissions (150 kHz – 30 MHz) Test Results

A2.2. Channel 39, 2480 MHz – Y Axis

A2.2.2. Measurement Results: Perpendicular Antenna



A2.2.3. Measurement Results: Ground-Parallel Antenna



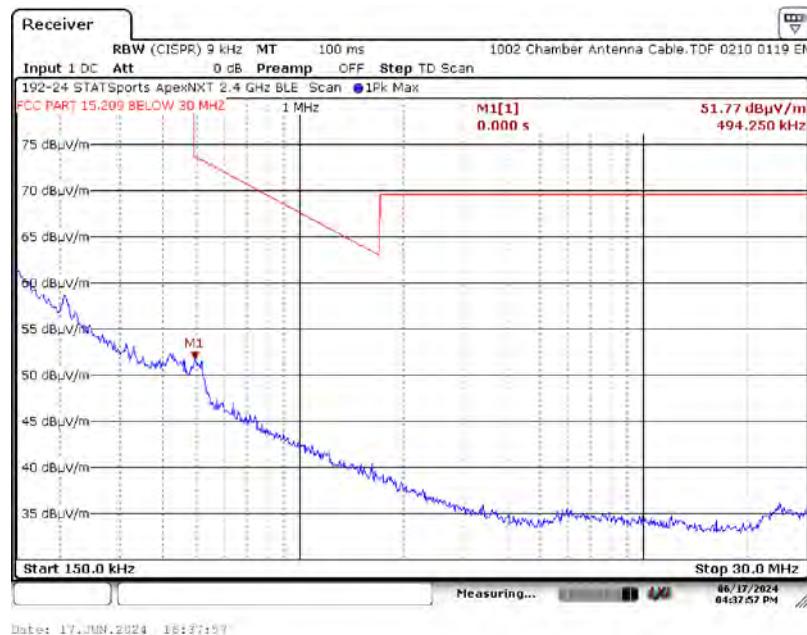
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

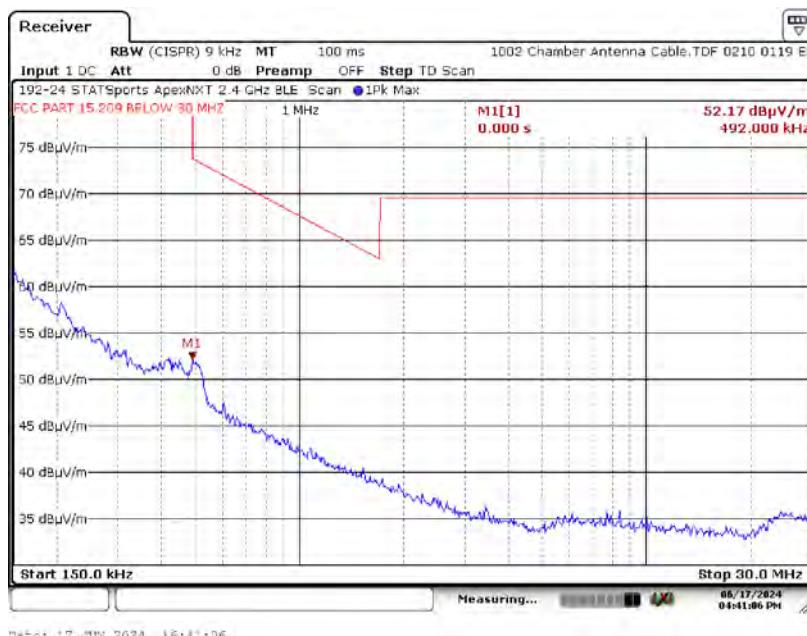
A2. Spurious Radiated Emissions (150 kHz – 30 MHz) Test Results

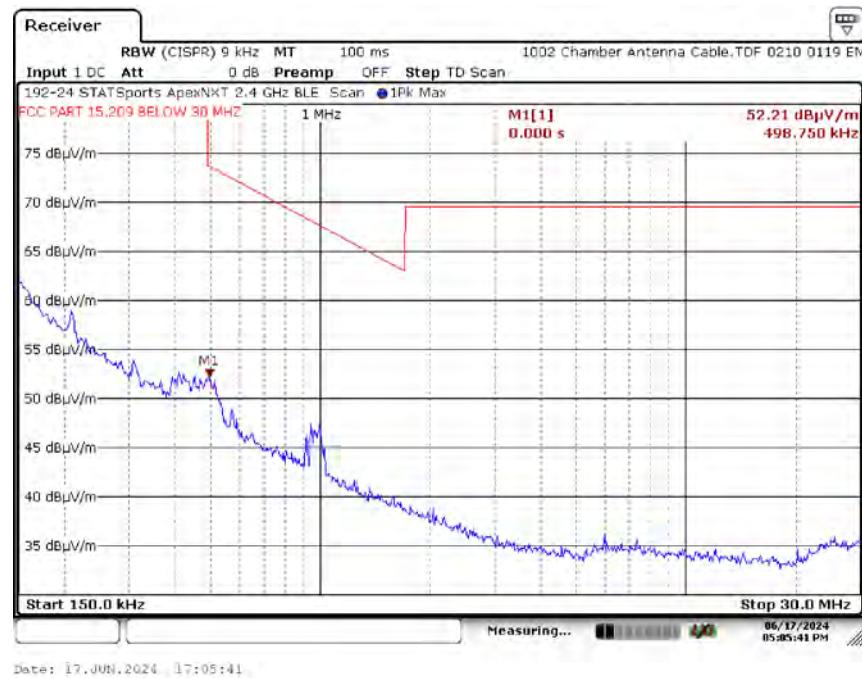
A2.3. Channel 39, 2480 MHz – Z Axis

A2.3.1. Measurement Results: Parallel Antenna



A2.3.2. Measurement Results: Perpendicular Antenna



Test Number: 192-24
Issue Date: 1/3/2025
Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)
A2. Spurious Radiated Emissions (150 kHz – 30 MHz) Test Results
A2.3. Channel 39, 2480 MHz – Z Axis
A2.3.3. Measurement Results: Ground-Parallel Antenna


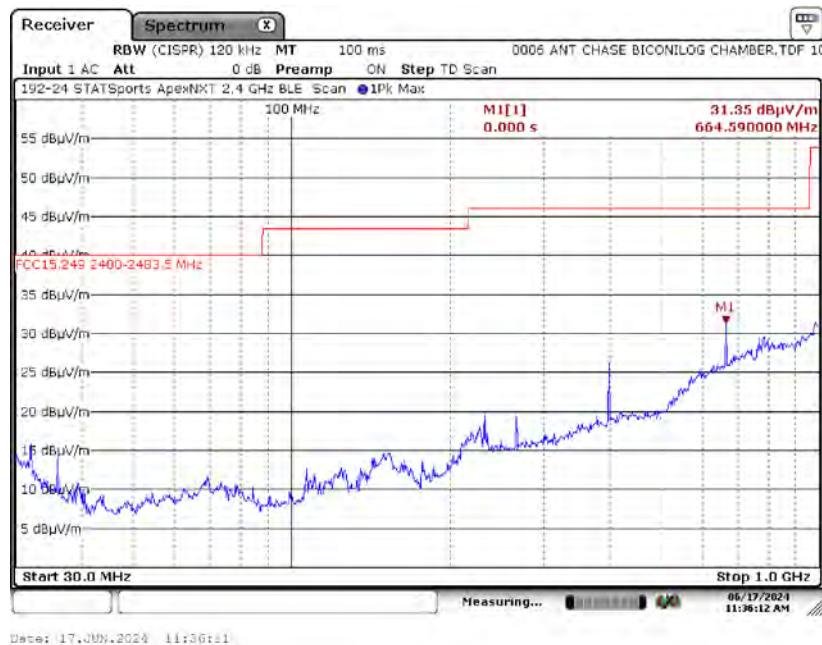
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

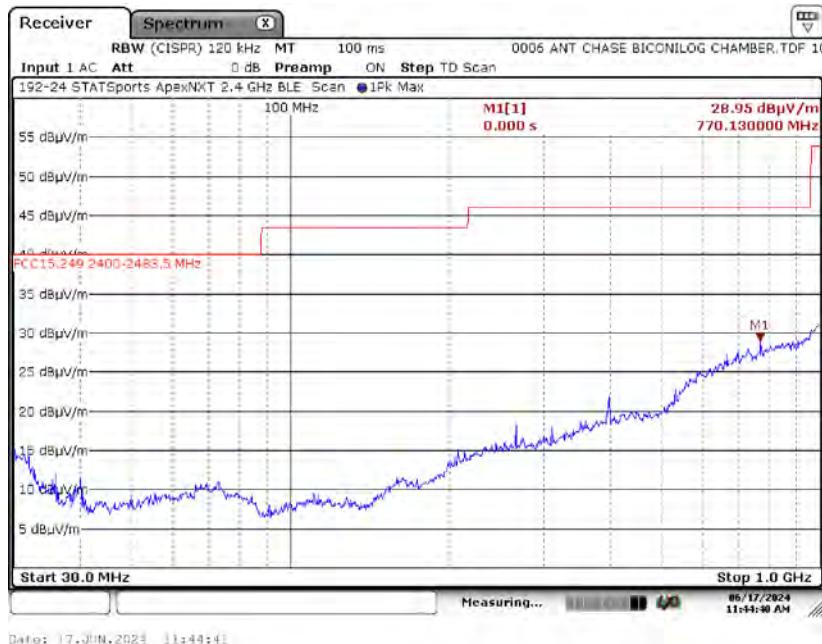
A3. Spurious Radiated Emissions (30 MHz – 1 GHz) Test Results

A3.1. Channel 39, 2480 MHz – X Axis

A3.1.1. Measurement Results: Horizontal Antenna



A3.1.2. Measurement Results: Vertical Antenna



Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

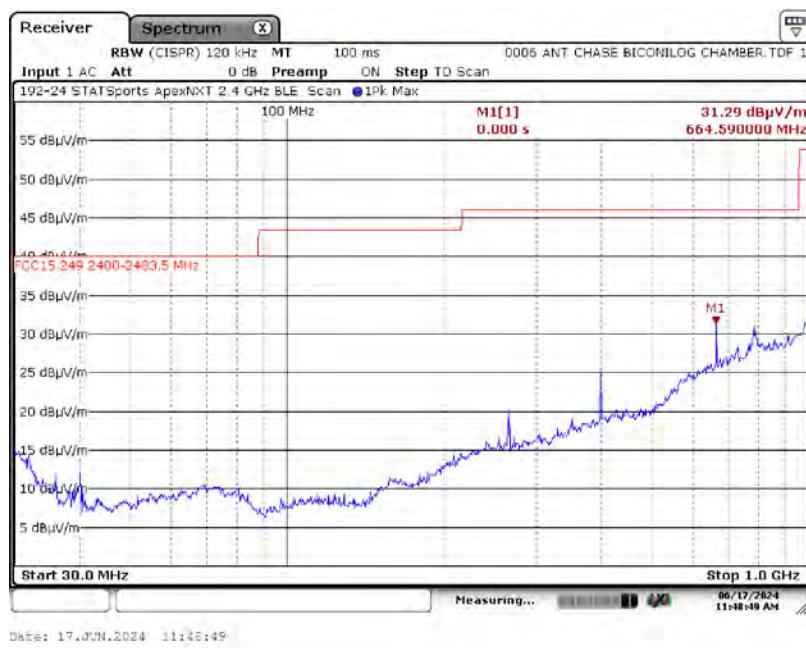
A3. Spurious Radiated Emissions (30 MHz – 1 GHz) Test Results

A3.2. Channel 39, 2480 MHz – Y Axis

A3.2.1. Measurement Results: Horizontal Antenna



A3.2.2. Measurement Results: Vertical Antenna



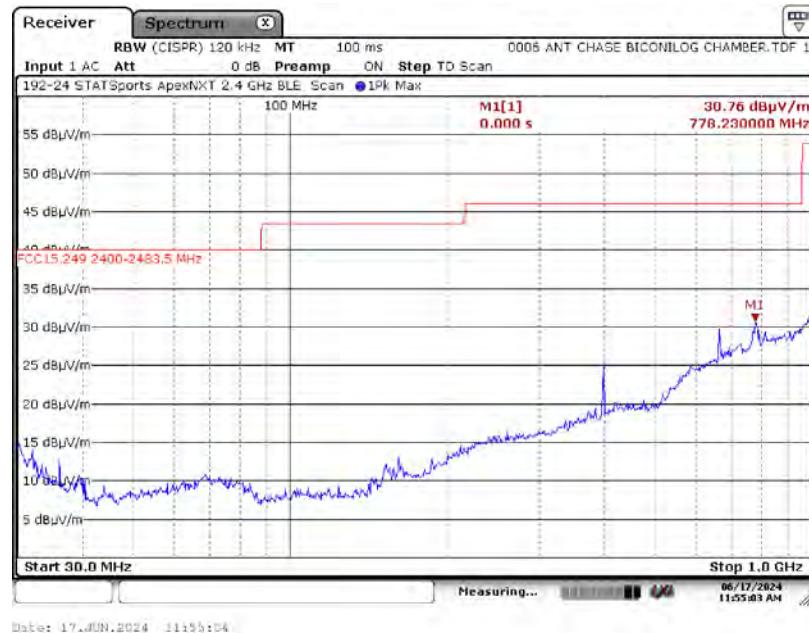
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

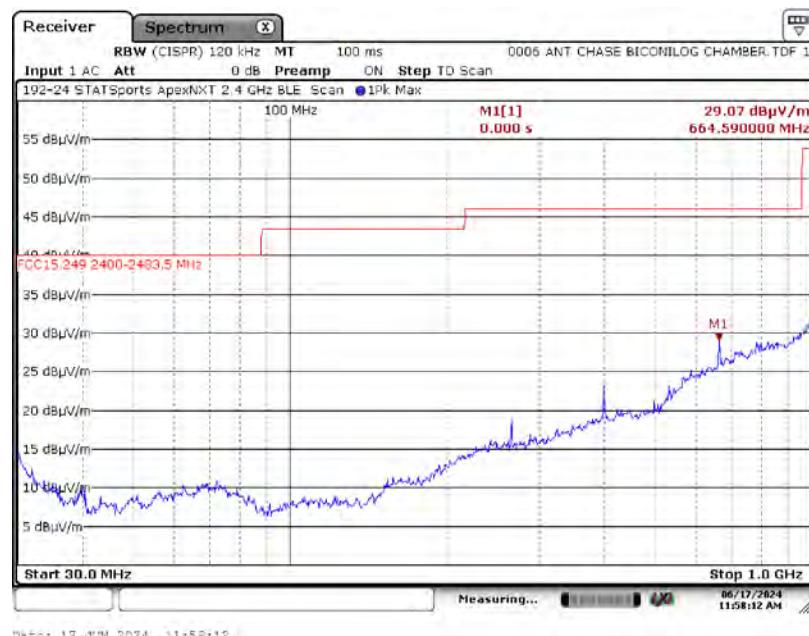
A3. Spurious Radiated Emissions (30 MHz – 1 GHz) Test Results

A3.3. Channel 39, 2480 MHz – Z Axis

A3.3.1. Measurement Results: Horizontal Antenna



A3.3.2. Measurement Results: Vertical Antenna



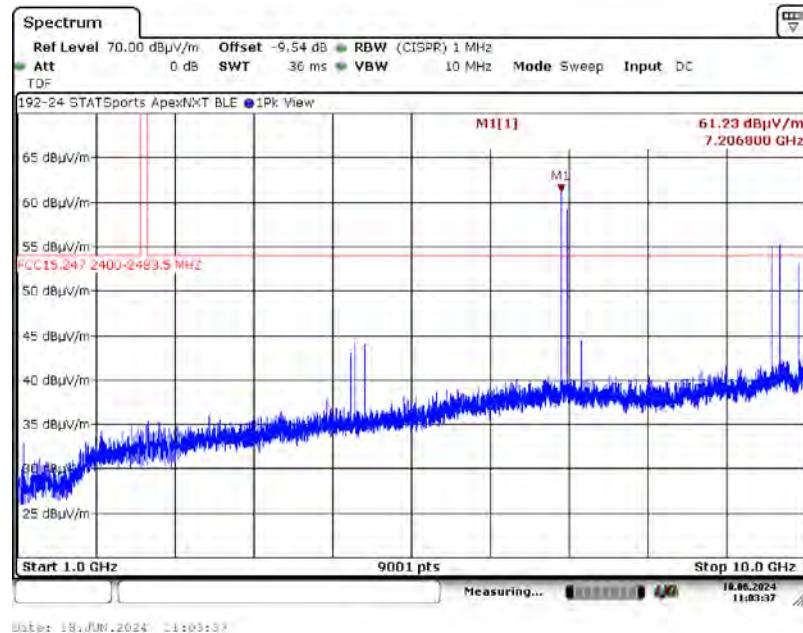
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

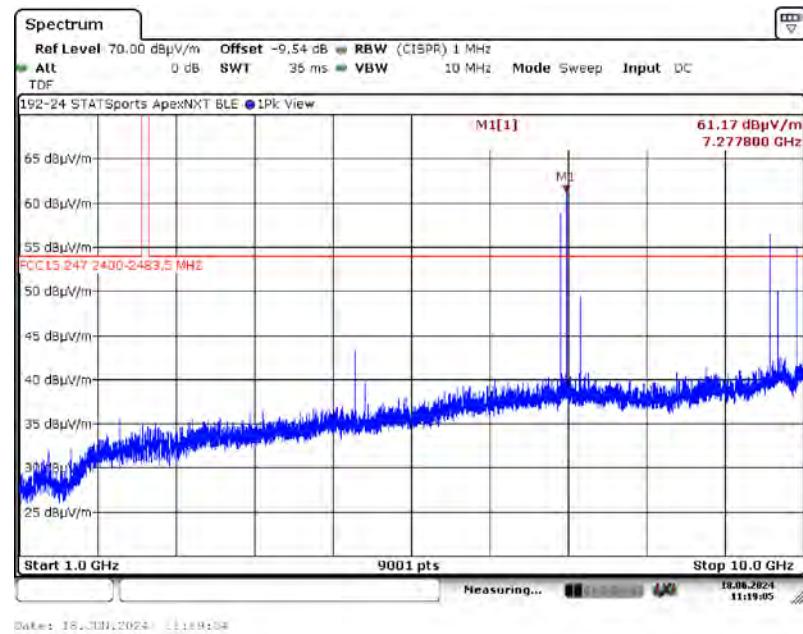
A4. Spurious Radiated Emissions (1 GHz – 10 GHz) Test Results

A4.1. Channel 39, 2480 MHz – X Axis

A4.1.1. Measurement Results: Horizontal Antenna



A4.1.2. Measurement Results: Vertical Antenna



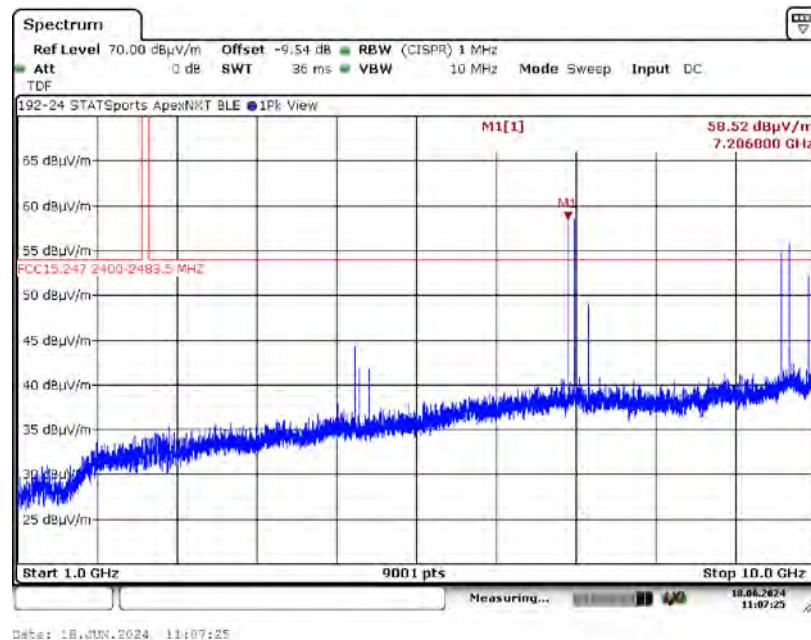
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

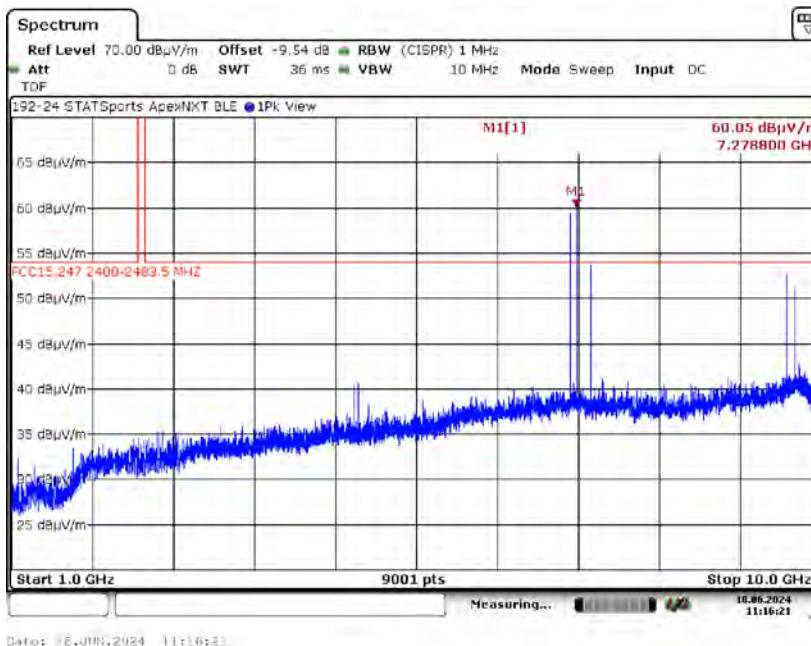
A4. Spurious Radiated Emissions 1 GHz – 10 GHz) Test Results

A4.2. Channel 39, 2480 MHz – Y Axis

A4.2.1. Measurement Results: Horizontal Antenna



A4.2.2. Measurement Results: Vertical Antenna



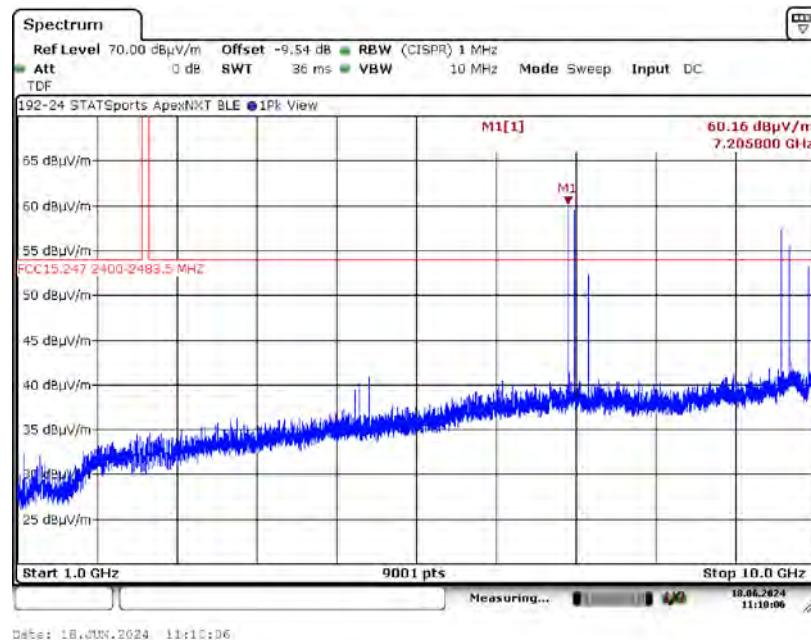
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

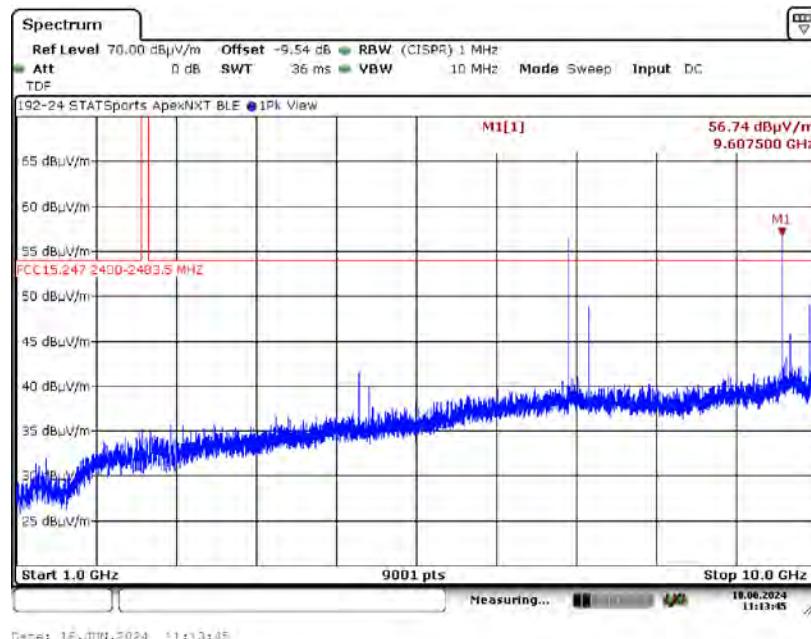
A4. Spurious Radiated Emissions (1 GHz – 10 GHz) Test Results

A4.3. Channel 39, 2480 MHz – Z Axis

A4.3.1. Measurement Results: Horizontal Antenna



A4.3.2. Measurement Results: Vertical Antenna



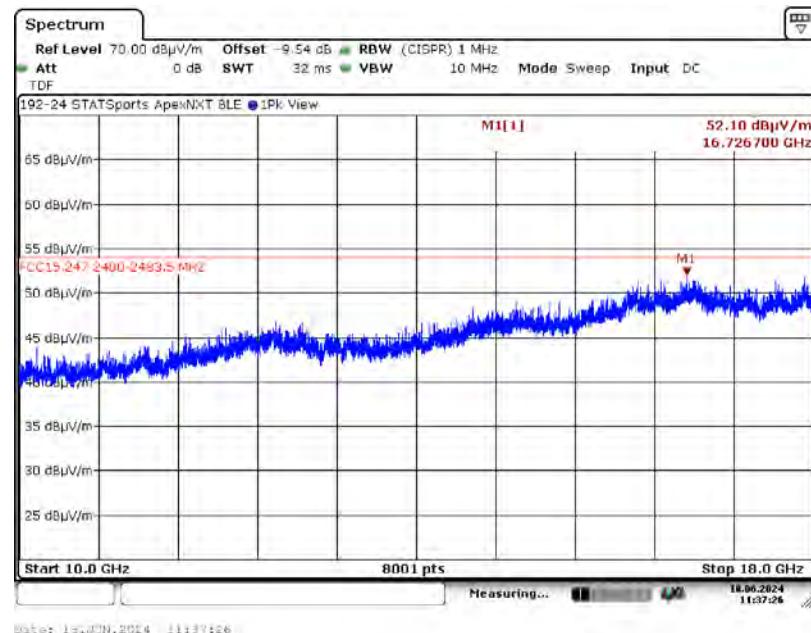
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

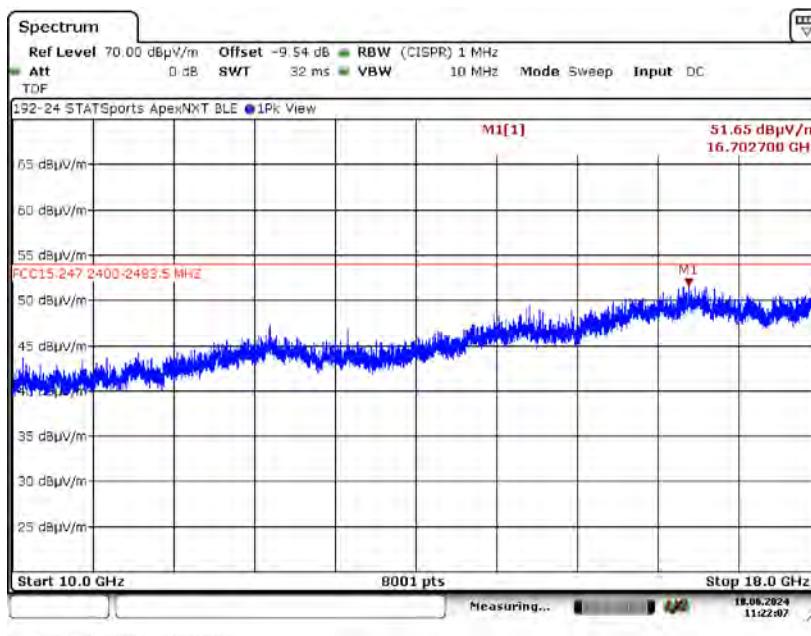
A5. Spurious Radiated Emissions (10 – 18 GHz) Test Results

A5.1. Channel 39, 2480 MHz – X Axis

A5.1.1. Measurement Results: Horizontal Antenna



A5.1.2. Measurement Results: Vertical Antenna



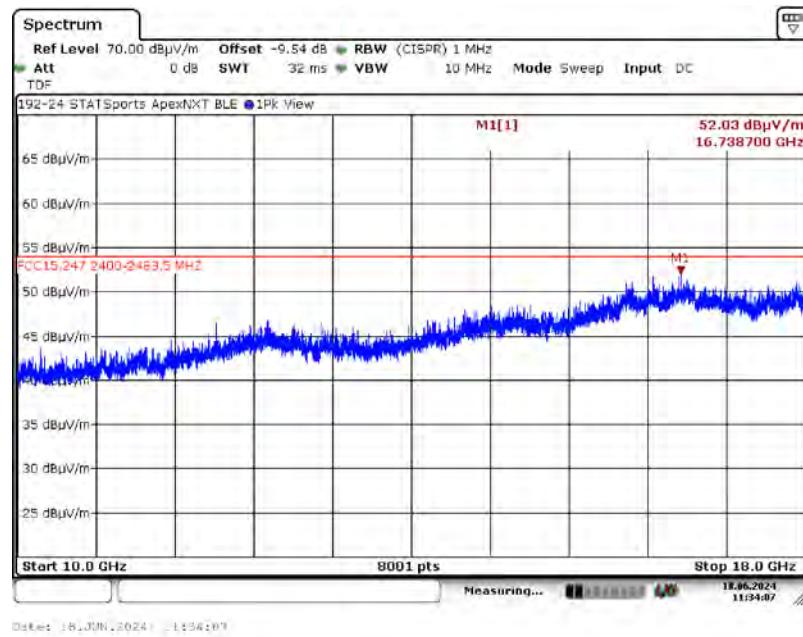
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

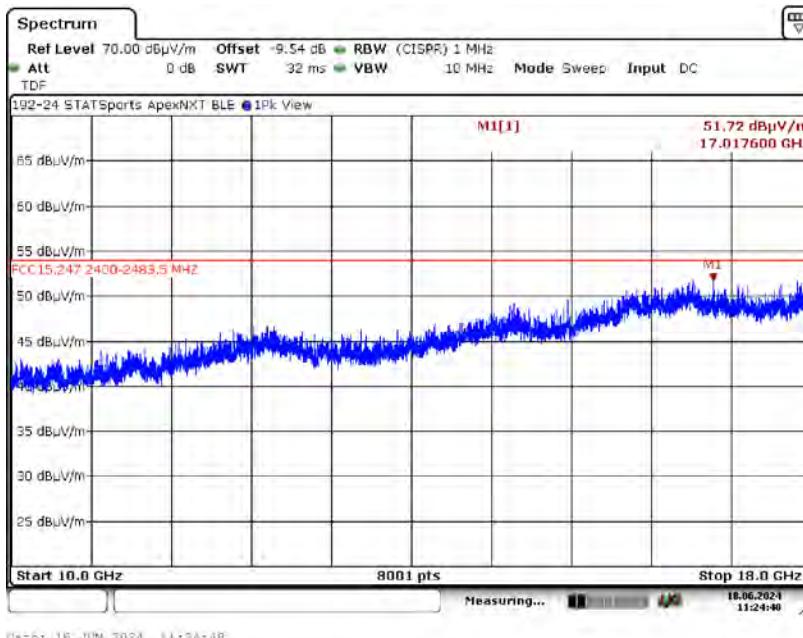
A5. Spurious Radiated Emissions (10 – 18 GHz) Test Results

A5.2. Channel 39, 2480 MHz – Y Axis

A5.2.1. Measurement Results: Horizontal Antenna



A5.2.2. Measurement Results: Vertical Antenna



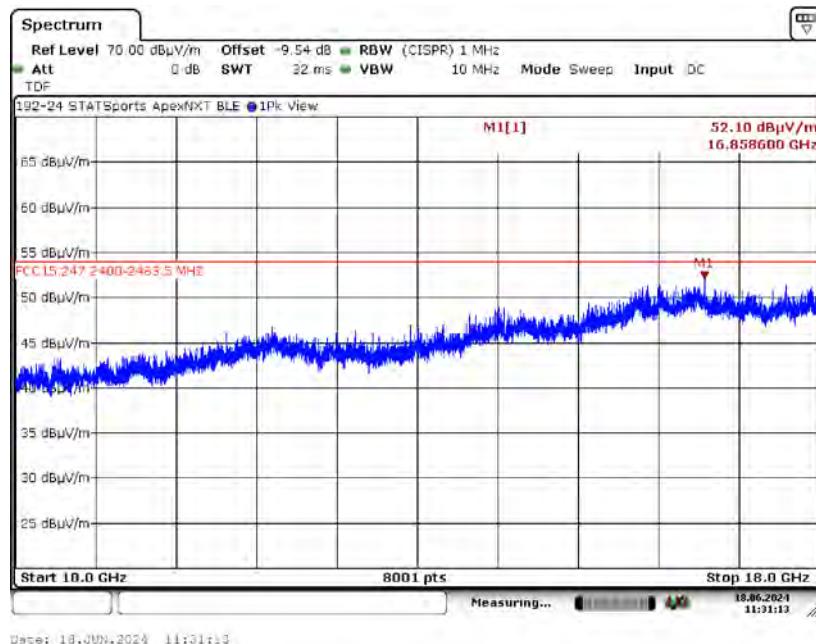
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

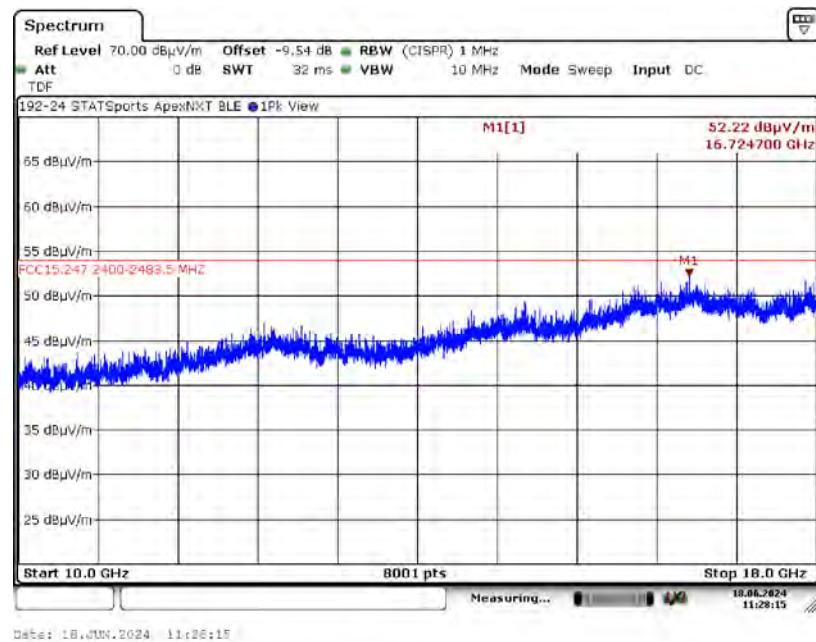
A5. Spurious Radiated Emissions (10 – 18 GHz) Test Results

A5.3. Channel 39, 2480 MHz – Z Axis

A5.3.1. Measurement Results: Horizontal Antenna



A5.3.2. Measurement Results: Vertical Antenna



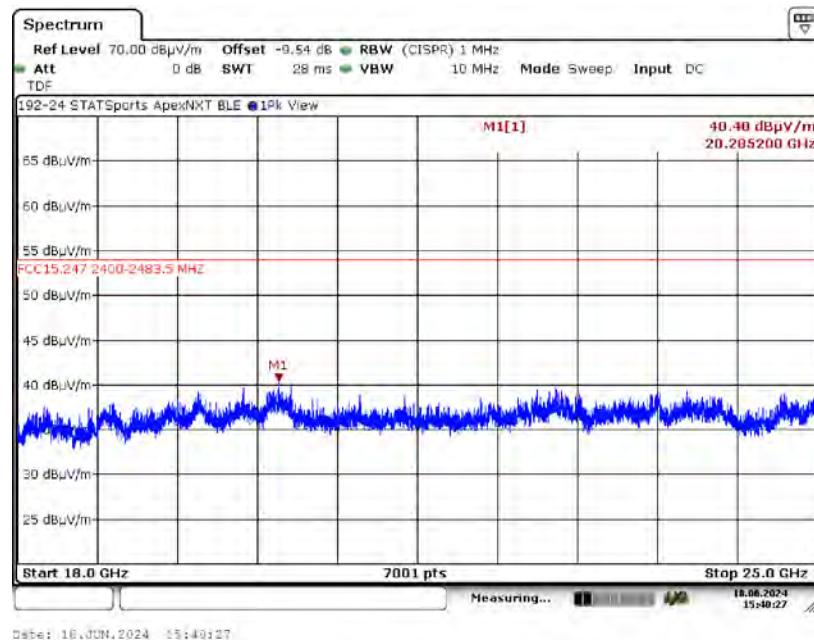
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

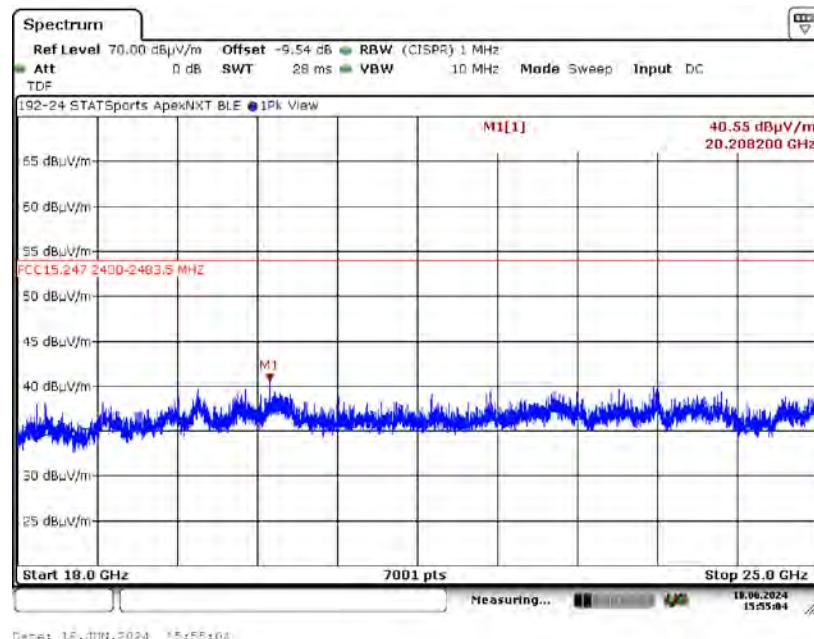
A6. Spurious Radiated Emissions (18 – 25 GHz) Test Results

A6.1. Channel 39, 2480 MHz – X Axis

A6.1.1. Measurement Results: Horizontal Antenna



A6.1.2. Measurement Results: Vertical Antenna



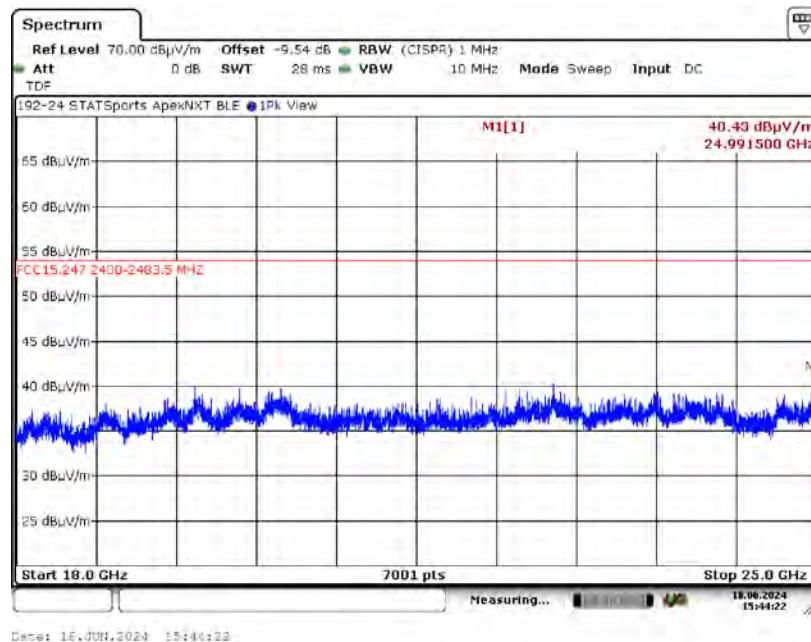
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

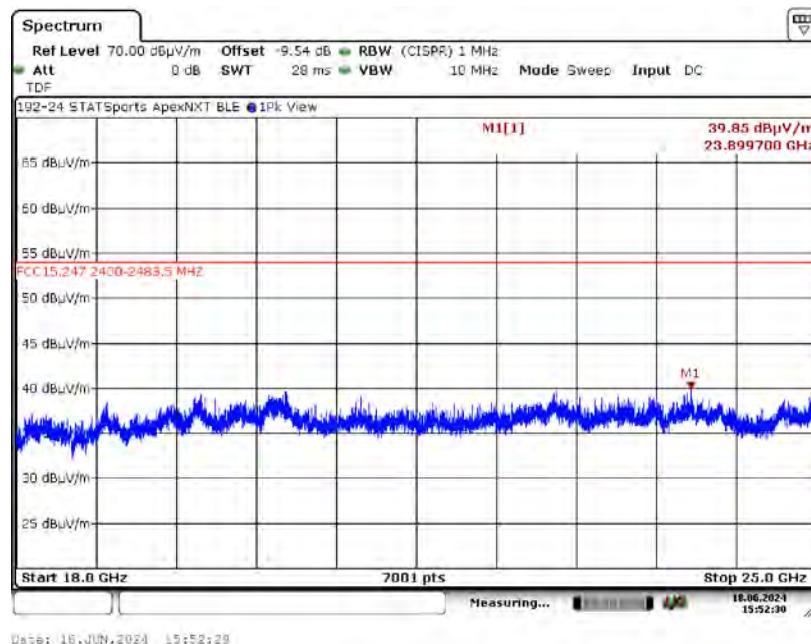
A6. Spurious Radiated Emissions (18 – 25 GHz) Test Results

A6.2. Channel 39, 2480 MHz – Y Axis

A6.2.1. Measurement Results: Horizontal Antenna



A6.2.2. Measurement Results: Vertical Antenna



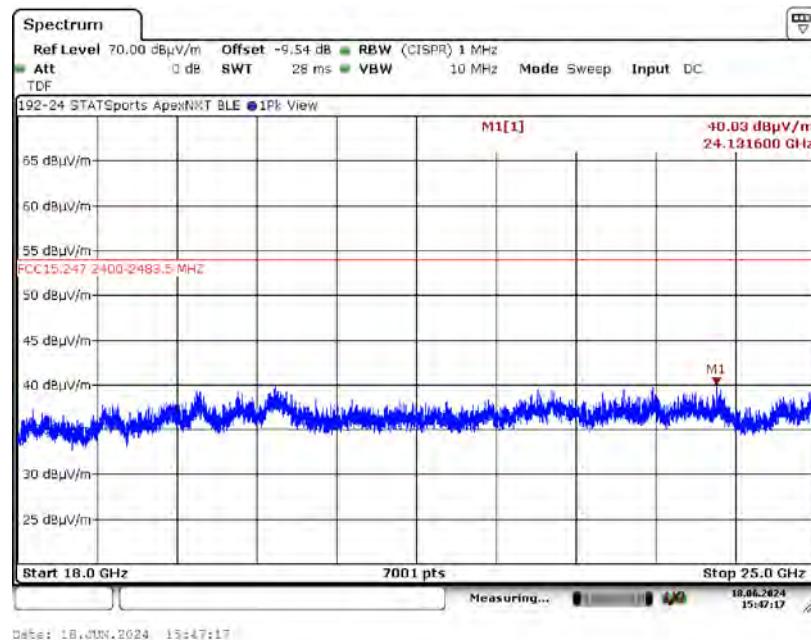
Test Number: 192-24
Issue Date: 1/3/2025

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

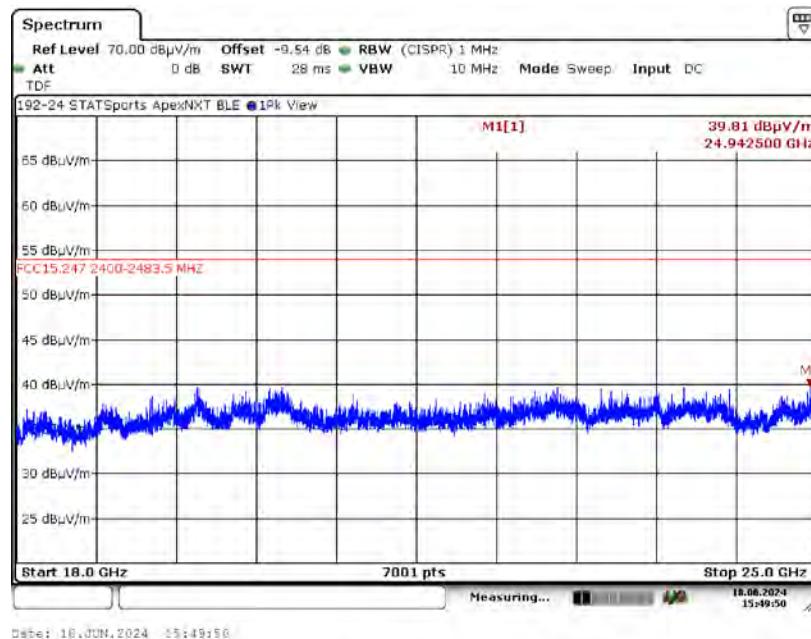
A6. Spurious Radiated Emissions (18 – 25 GHz) Test Results

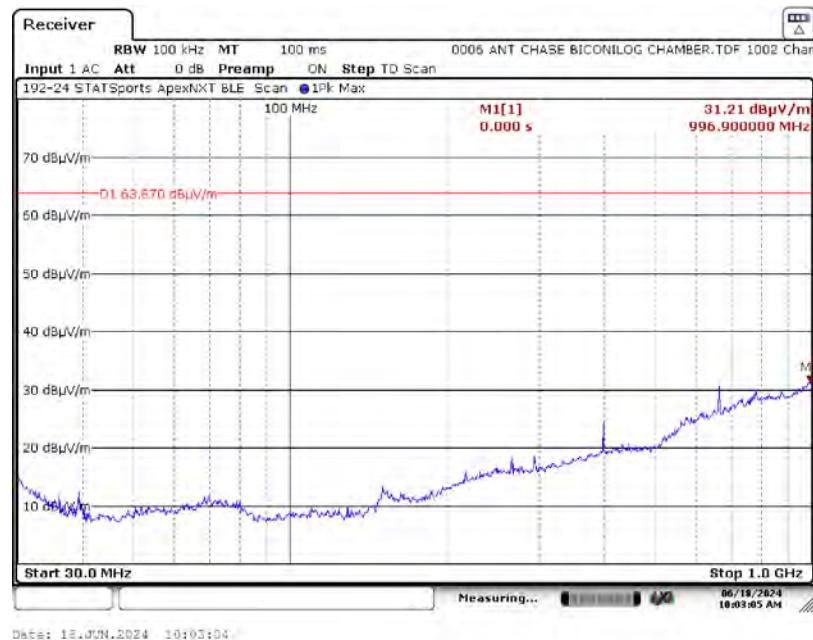
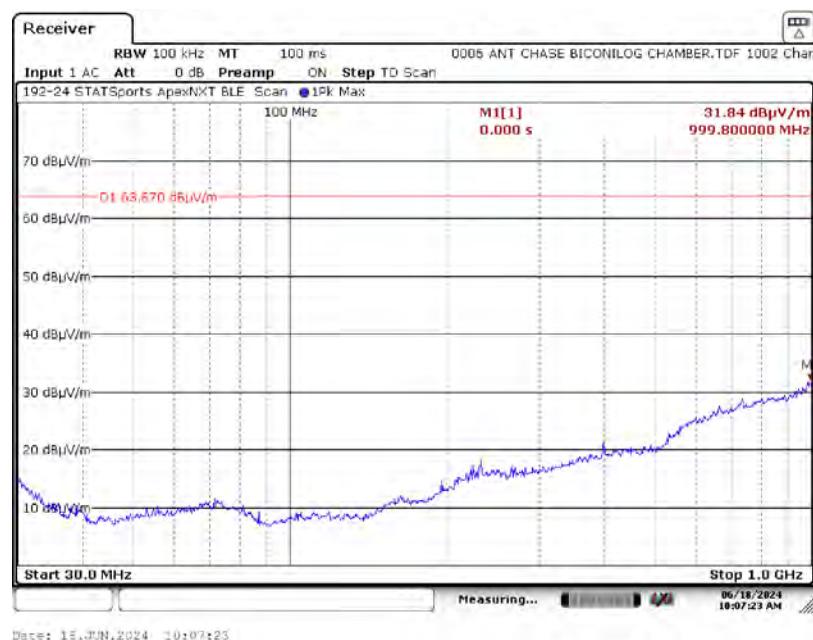
A6.3. Channel 39, 2480 MHz – Z Axis

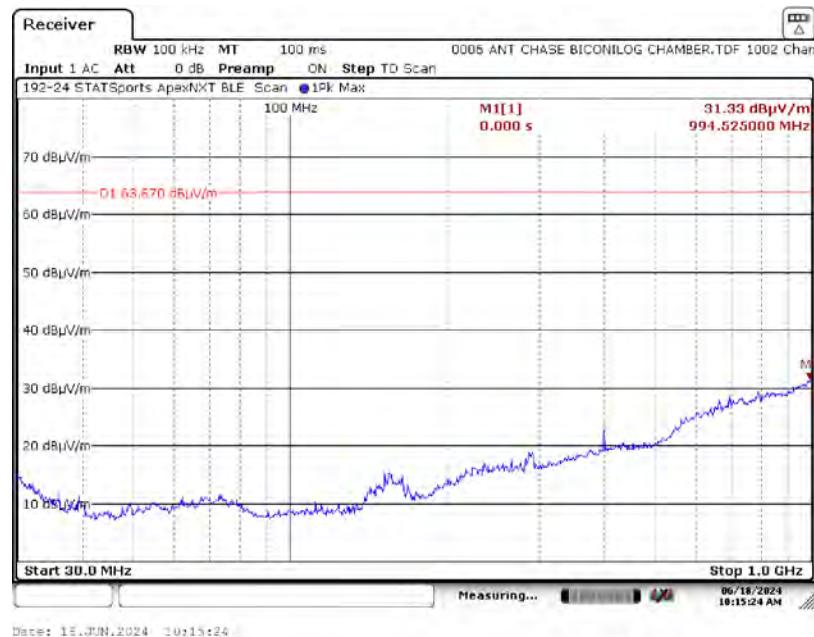
A6.3.1. Measurement Results: Horizontal Antenna



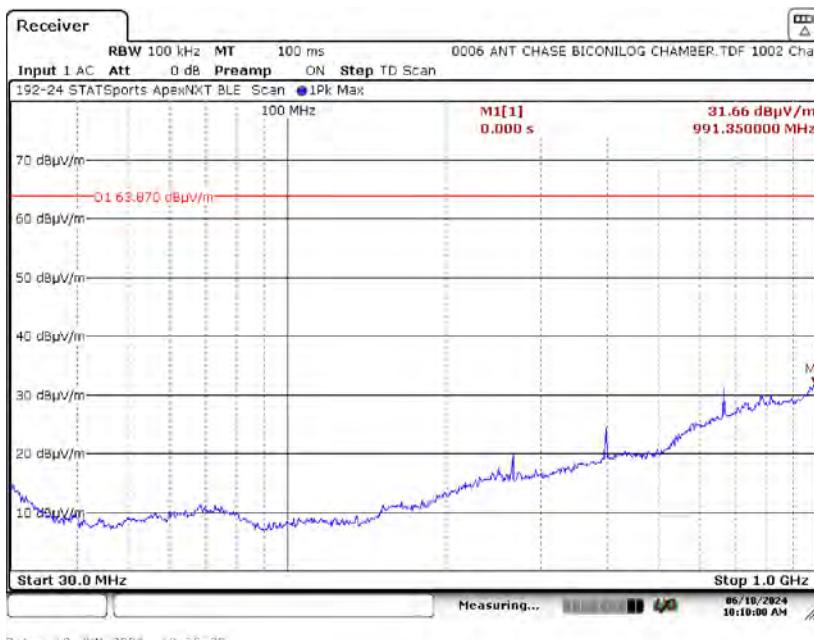
A6.3.2. Measurement Results: Vertical Antenna



Test Number: 192-24
Issue Date: 1/3/2025
Appendix B
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)
B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results
B1.1.1. Measurement Results, 2480 MHz, 30 MHz – 1 GHz, Horizontal, X-Axis

B1.1.2. Measurement Results, 2480 MHz, 30 MHz – 1 GHz, Vertical, X-Axis


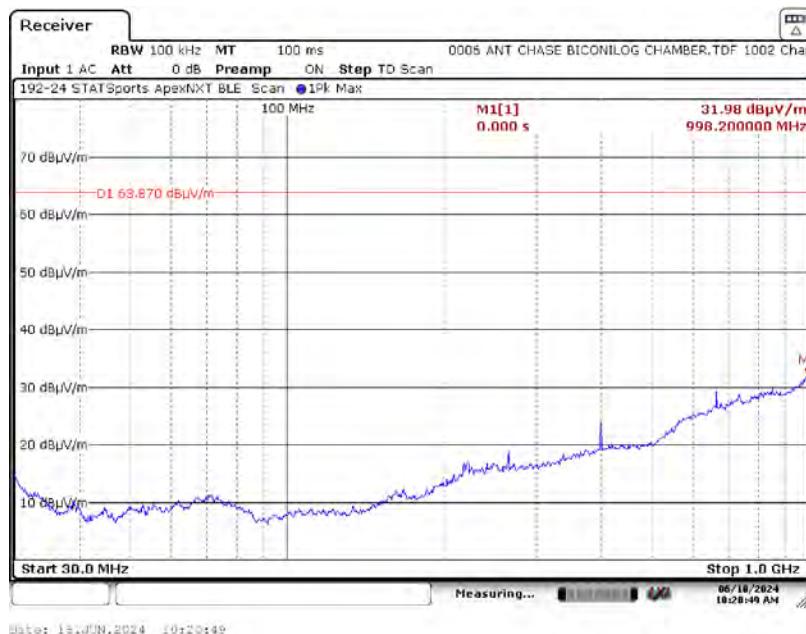
Test Number: 192-24
Issue Date: 1/3/2025
Appendix B
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)
B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results
B1.1.3. Measurement Results, 2480 MHz, 30 MHz – 1 GHz, Horizontal, Y-Axis


Date: 16.JUN.2024 10:15:24

B1.1.4. Measurement Results, 2480 MHz, 30 MHz – 1 GHz, Vertical, Y-Axis


Date: 16.JUN.2024 10:16:00

Test Number: 192-24
Issue Date: 1/3/2025
Appendix B
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)
B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results
B1.1.5. Measurement Results, 2480 MHz, 30 MHz – 1 GHz, Horizontal, Z-Axis

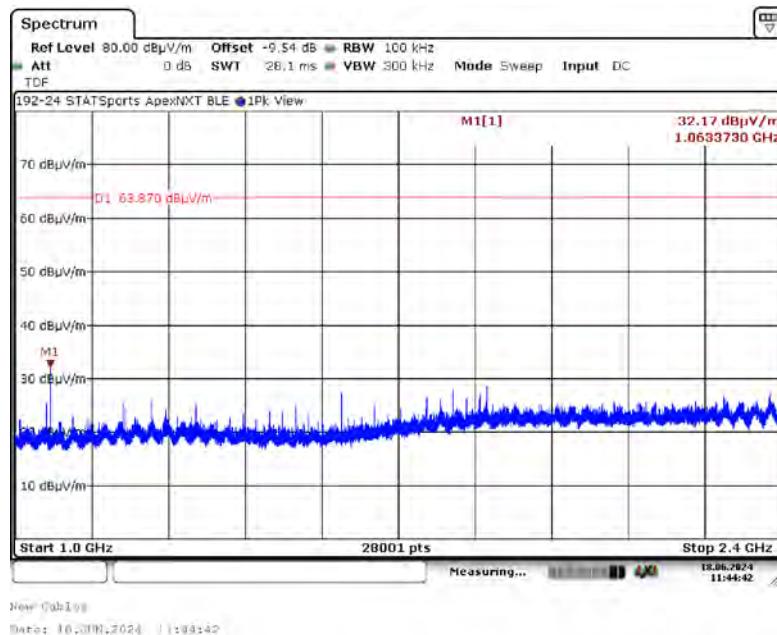
B1.1.6. Measurement Results, 2480 MHz, 30 MHz – 1 GHz, Vertical, Z-Axis


Appendix B

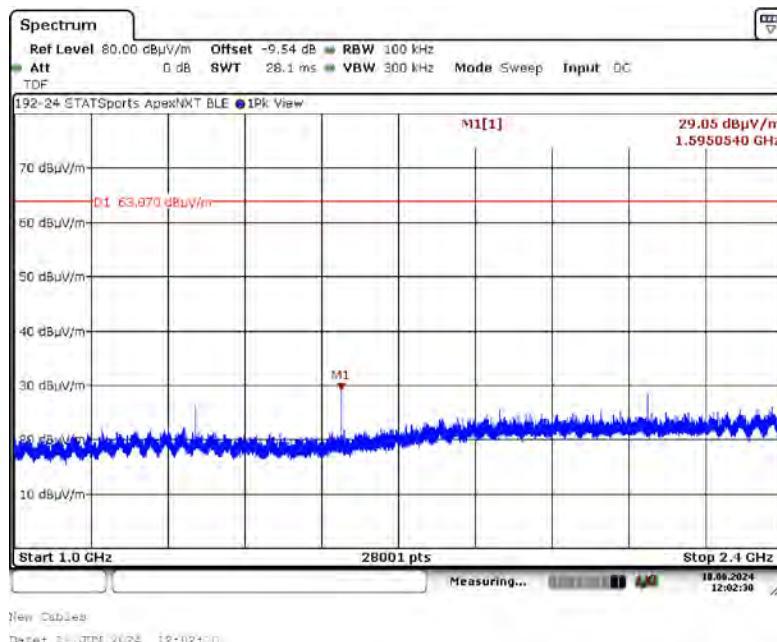
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)

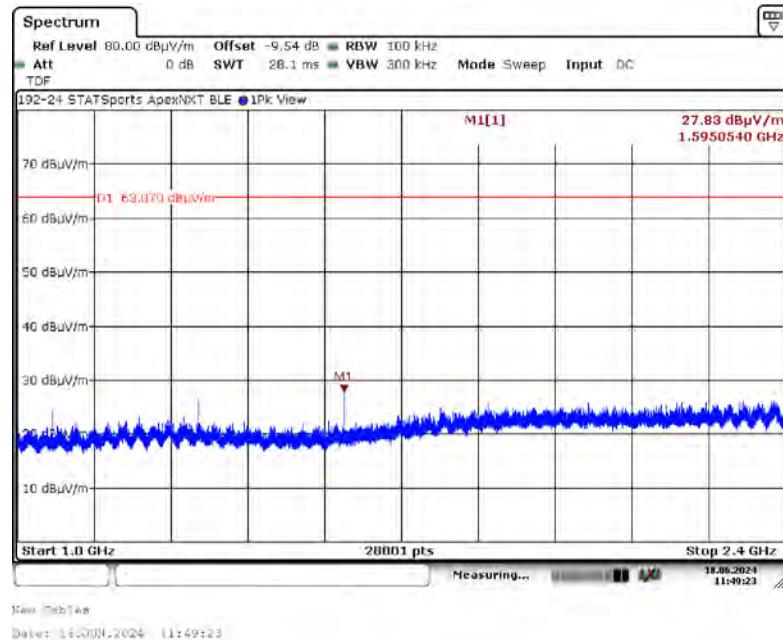
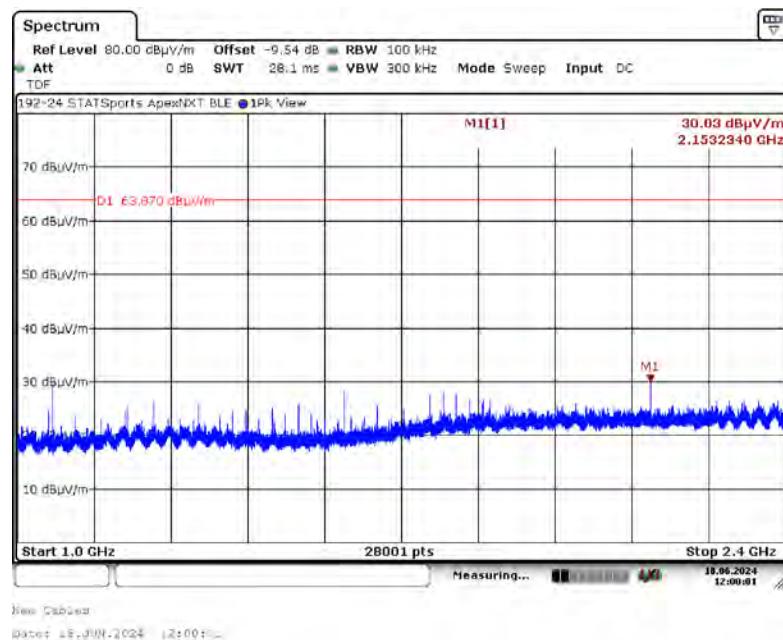
B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results

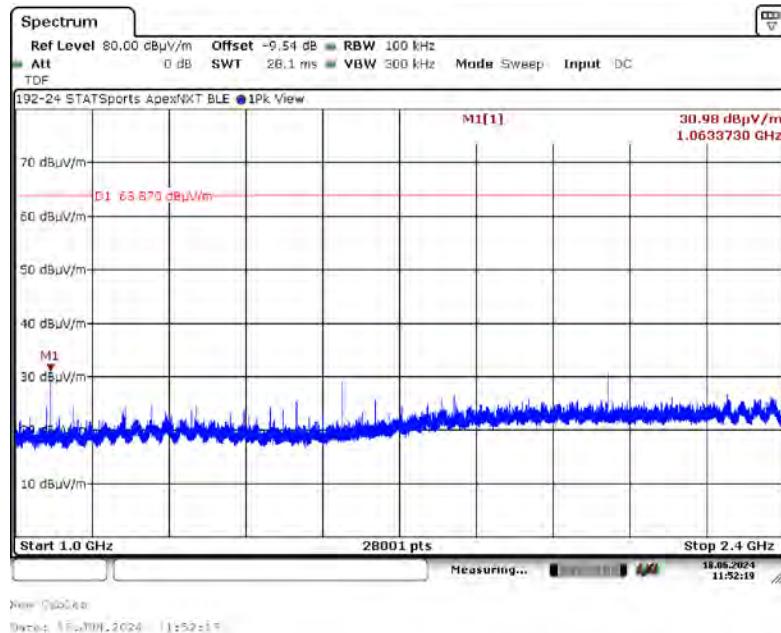
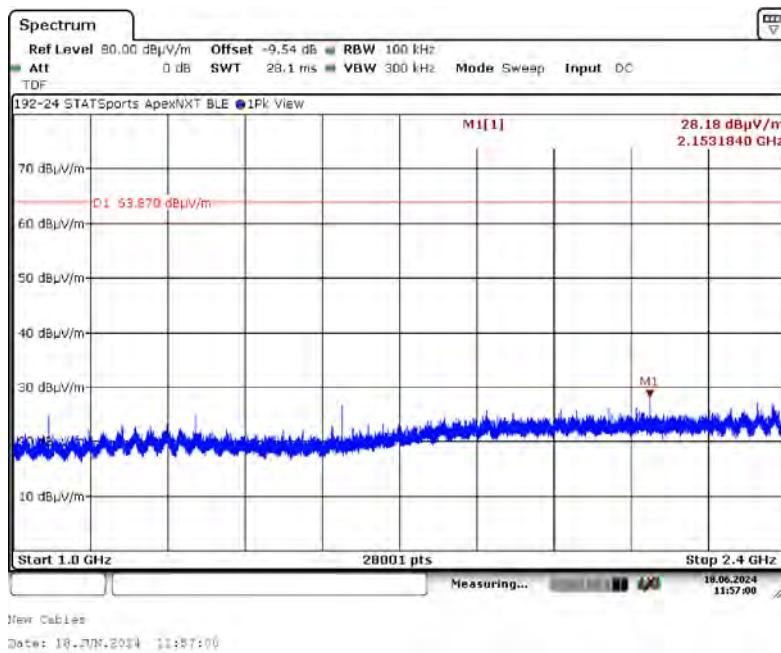
B1.1.7. Measurement Results, 2480 MHz, 1 – 2.4 GHz, Horizontal, X-Axis

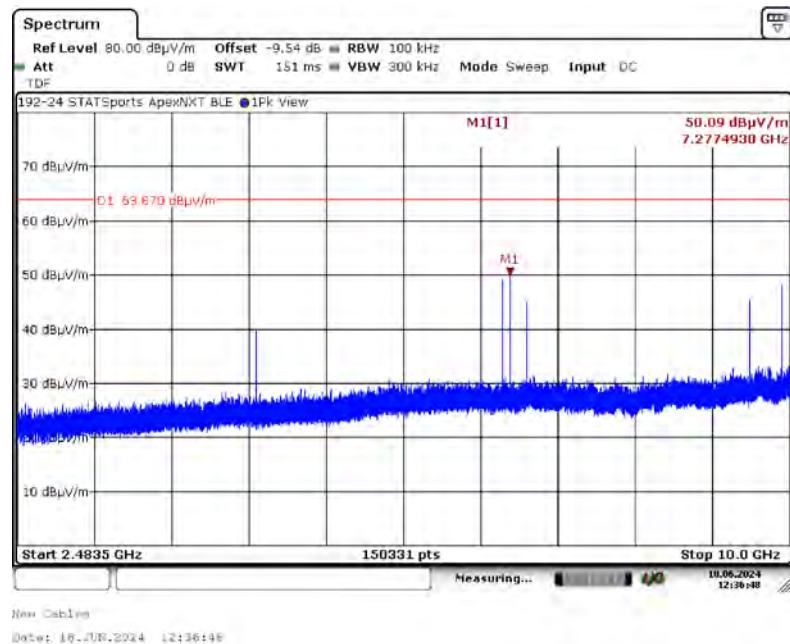
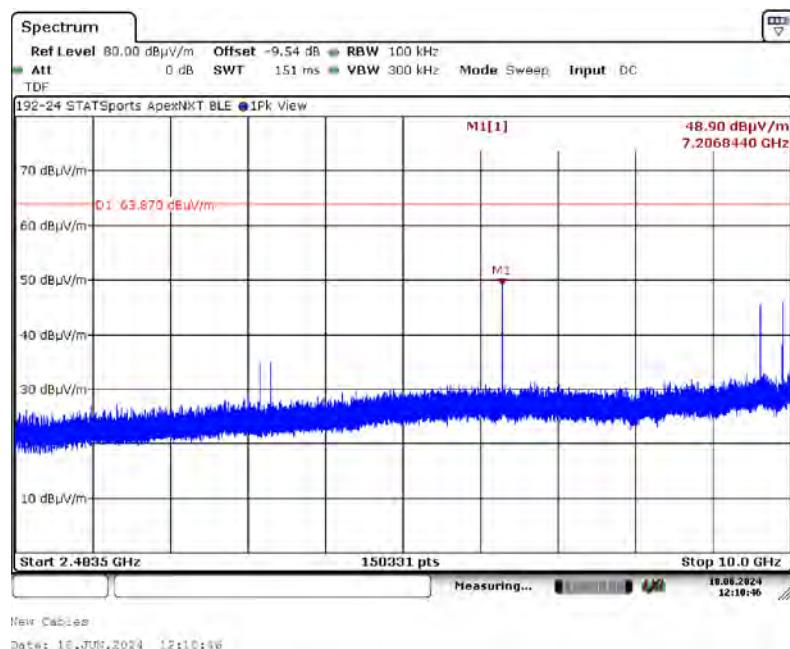


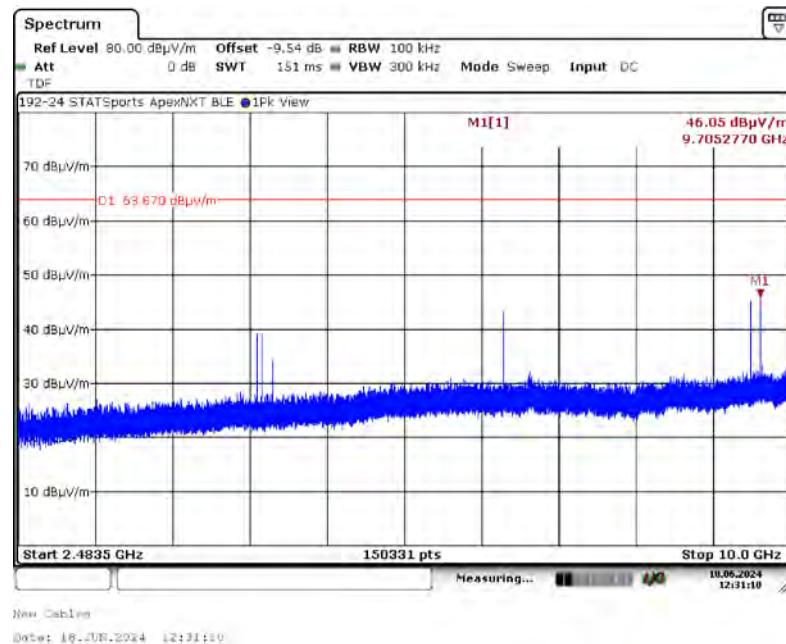
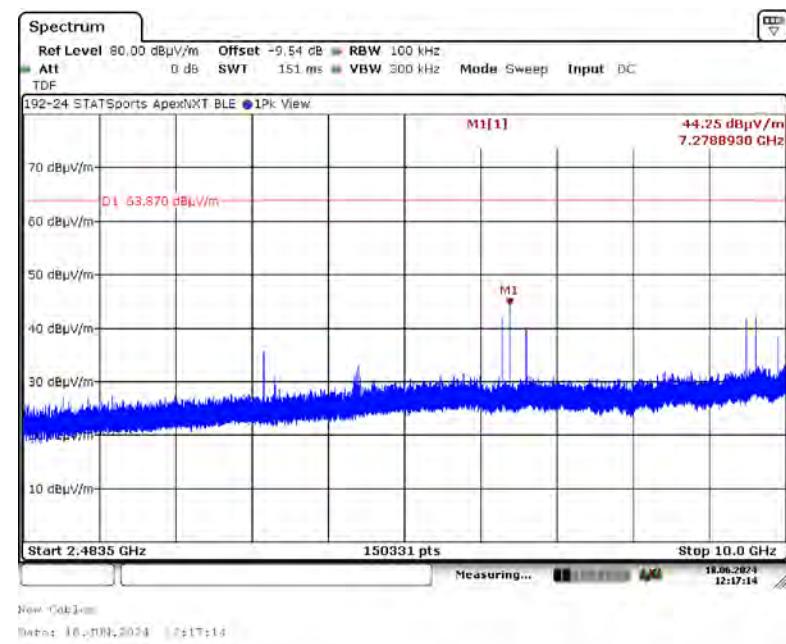
B1.1.8. Measurement Results, 2480 MHz, 1 – 2.4 GHz, Vertical, X-Axis

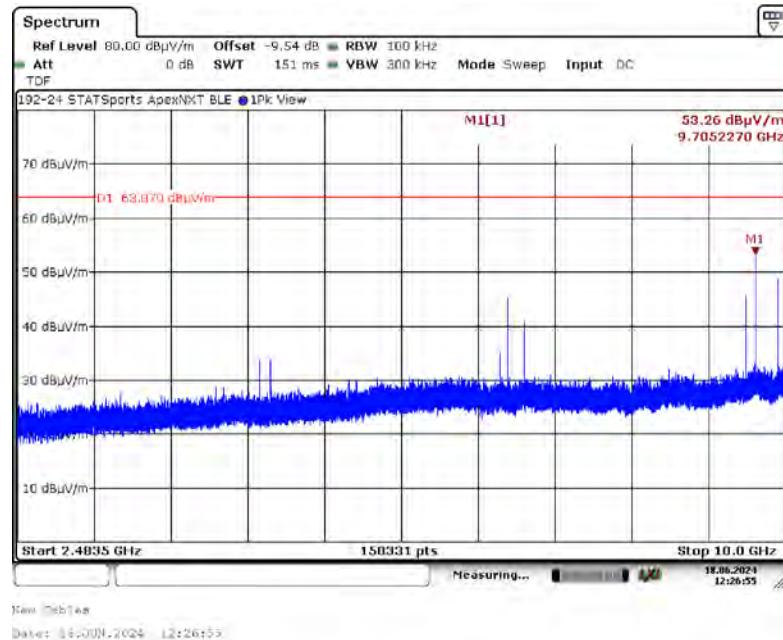
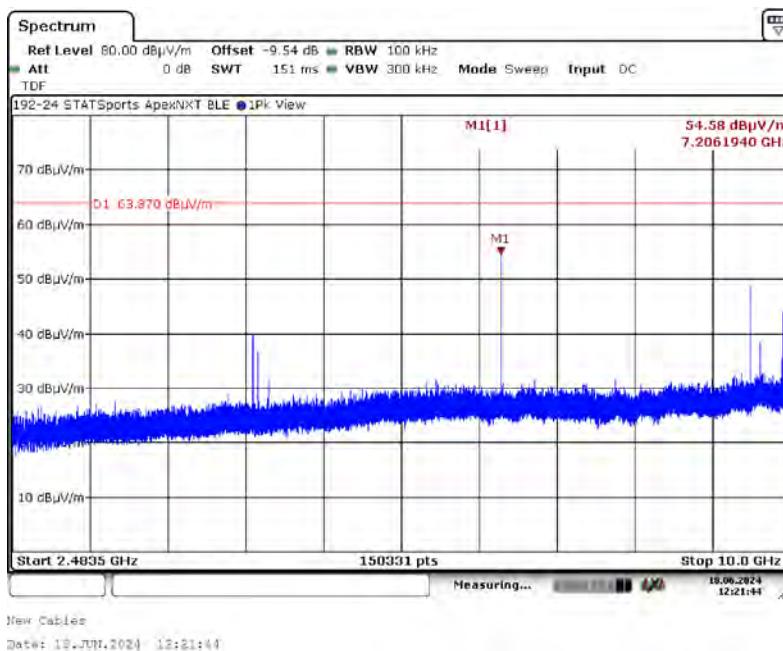


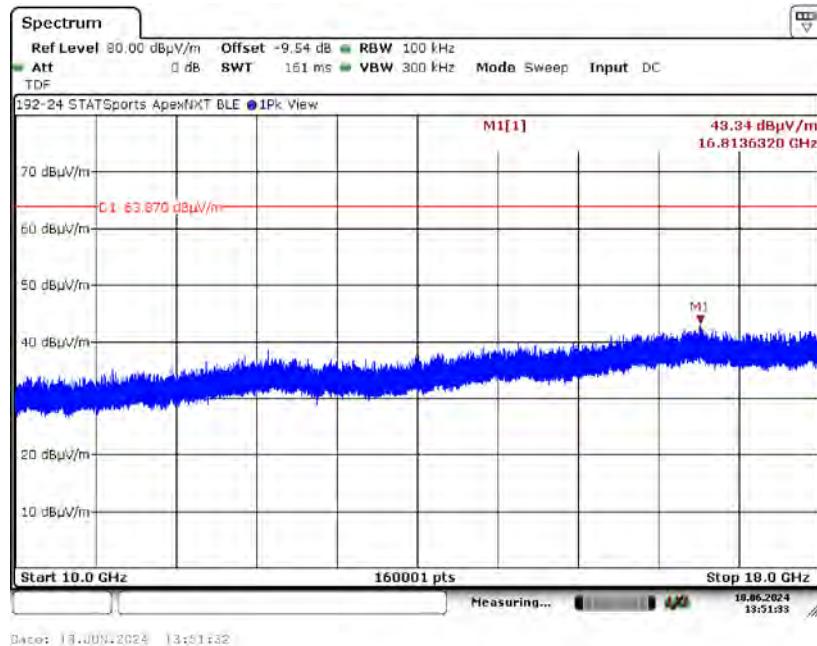
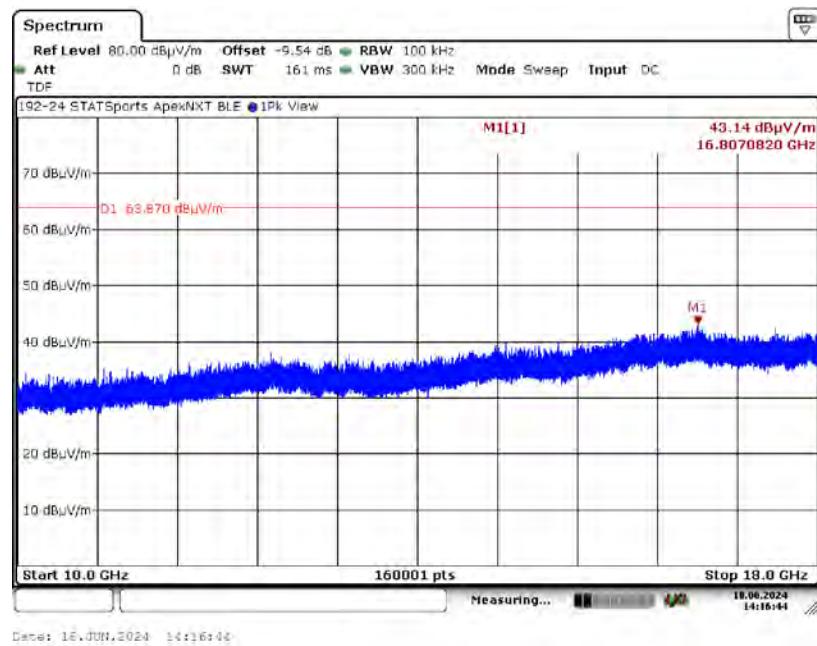
Appendix B
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)
B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results
B1.1.9. Measurement Results, 2480 MHz, 1 – 2.4 GHz, Horizontal, Y-Axis

B1.1.10. Measurement Results, 2480 MHz, 1 – 2.4 GHz, Vertical, Y-Axis


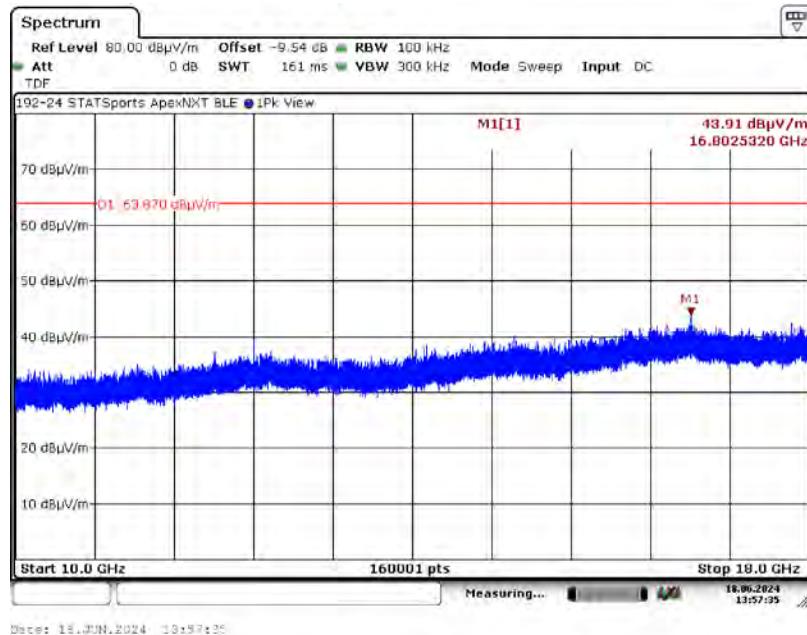
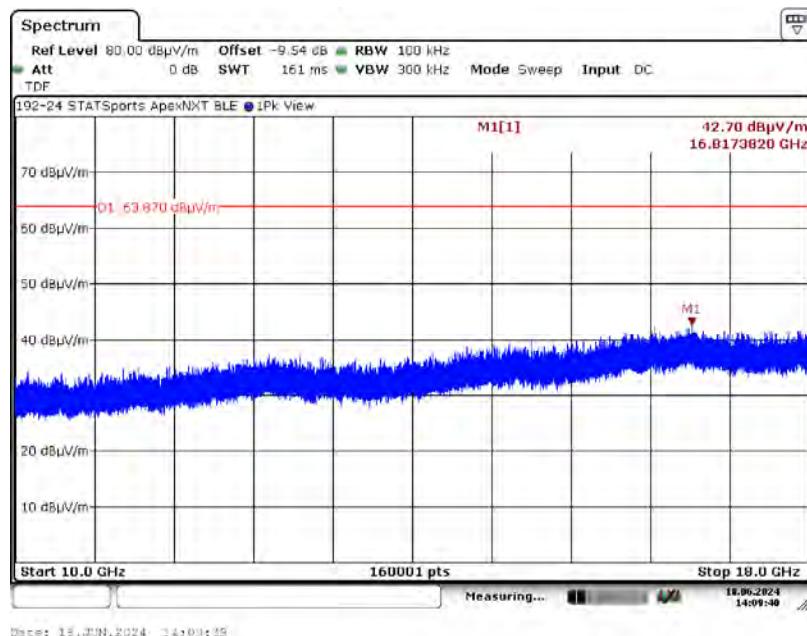
Appendix B
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)
B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results
B1.1.11. Measurement Results, 2480 MHz, 1 – 2.4 GHz, Horizontal, Z-Axis

B1.1.12. Measurement Results, 2480 MHz, 1 – 2.4 GHz, Vertical, Z-Axis


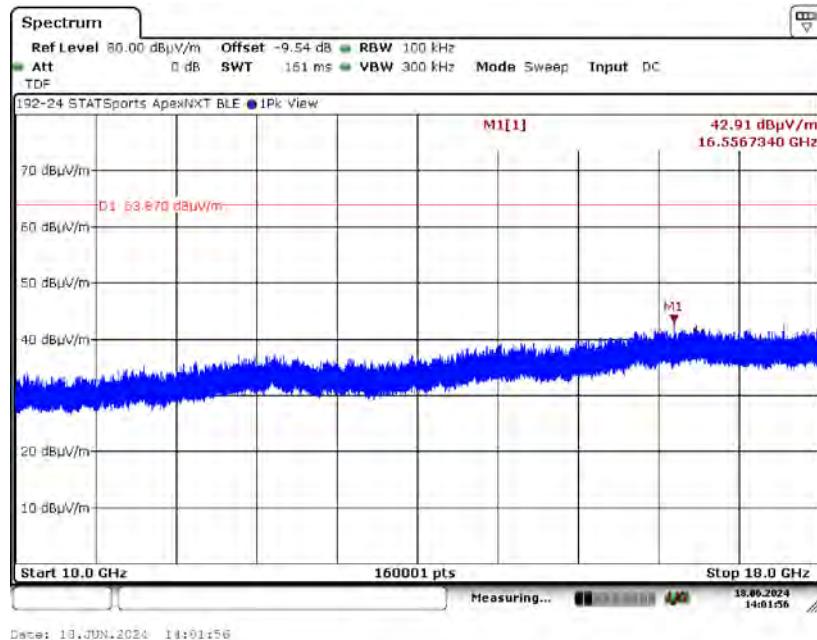
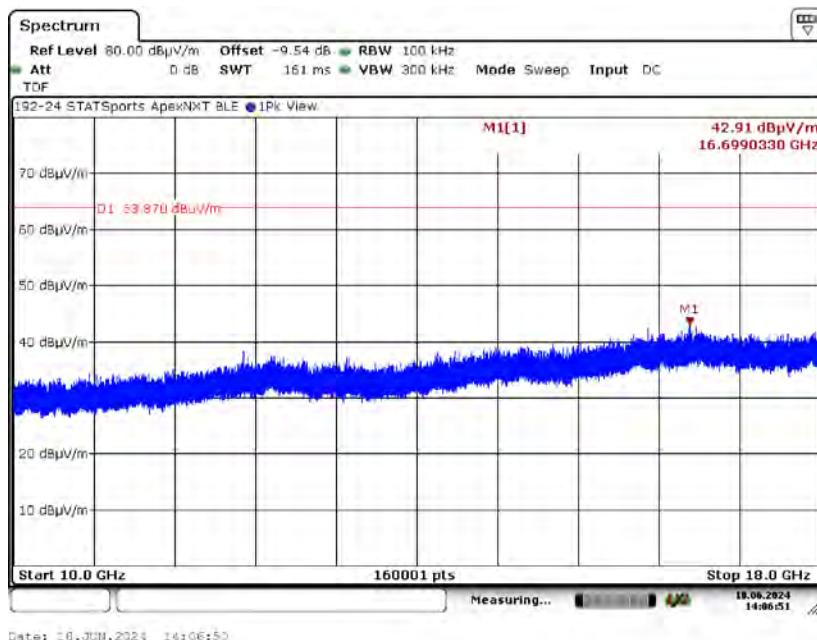
Appendix B
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)
B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results
B1.1.13. Measurement Results, 2480 MHz, 2.4835 – 10 GHz, Horizontal, X-Axis

B1.1.14. Measurement Results, 2480 MHz, 2.4835 – 10 GHz, Vertical, X-Axis


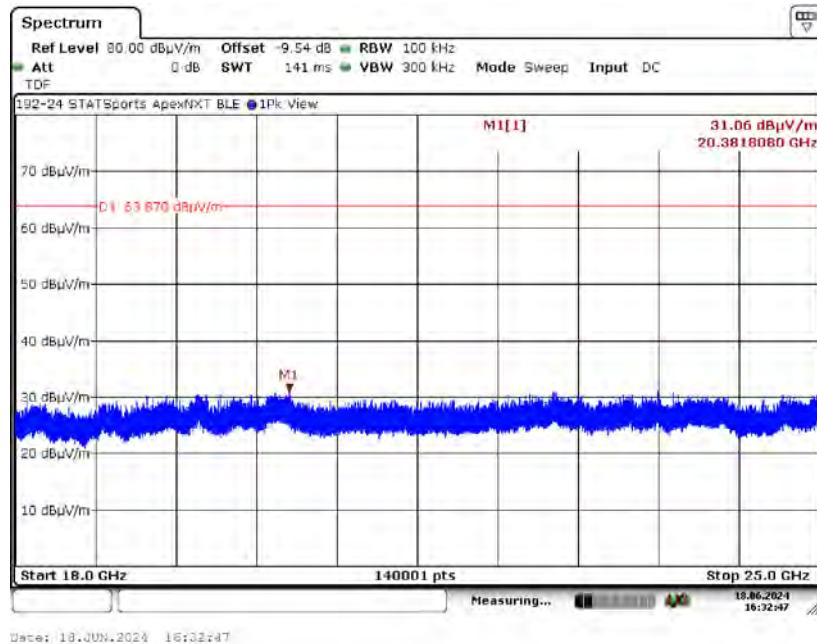
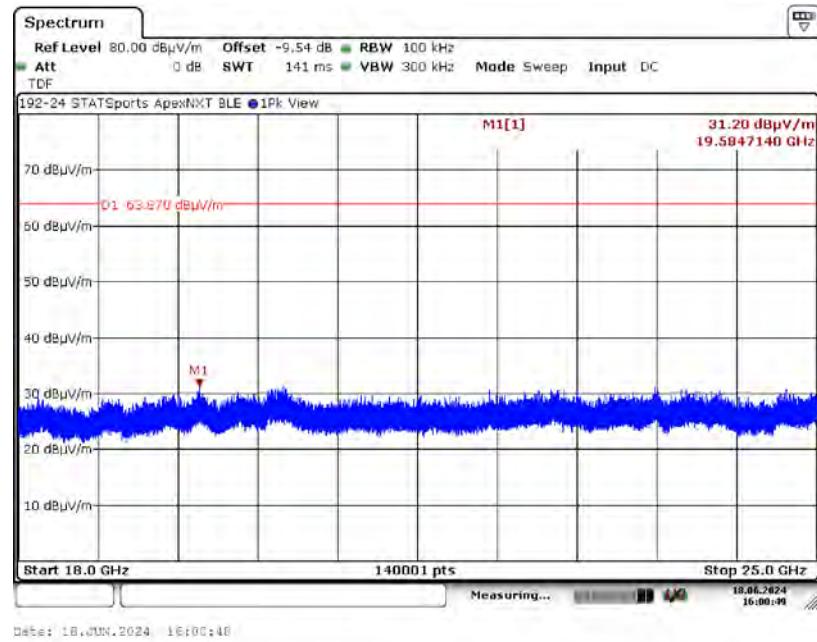
Appendix B
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)
B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results
B1.1.15. Measurement Results, 2480 MHz, 2.4835 – 10 GHz, Horizontal, Y-Axis

B1.1.16. Measurement Results, 2480 MHz, 2.4835 – 10 GHz, Vertical, Y-Axis


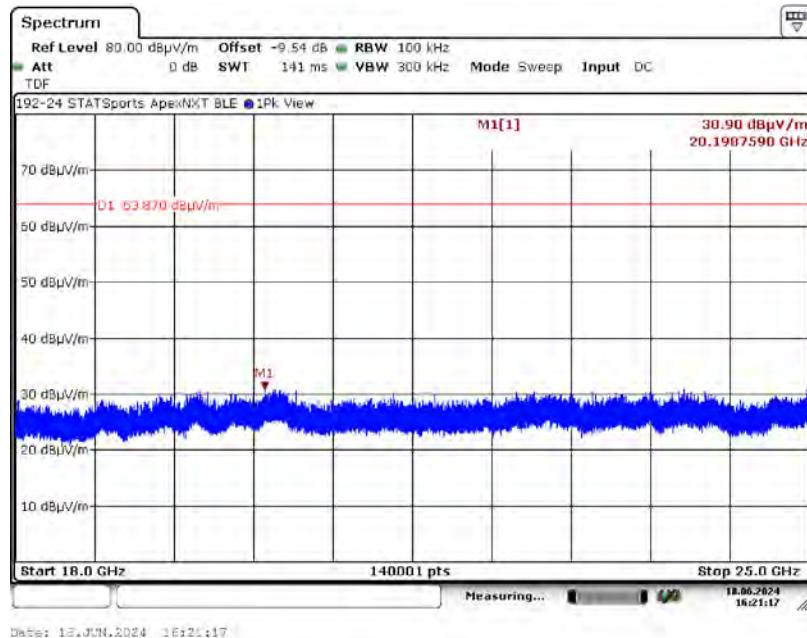
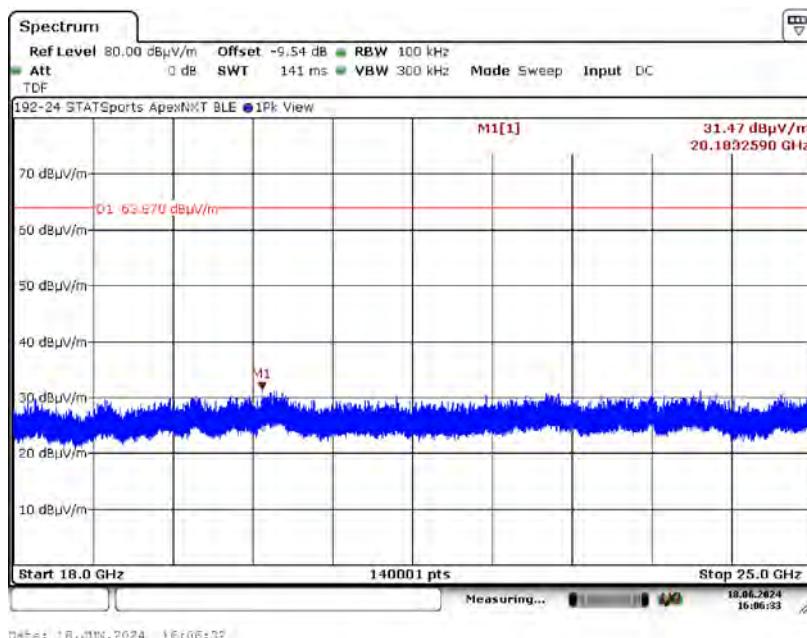
Test Number: 192-24
Issue Date: 1/3/2025
Appendix B
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)
B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results
B1.1.17. Measurement Results, 2480 MHz, 2.4835 – 10 GHz, Horizontal, Z-Axis

B1.1.18. Measurement Results, 2480 MHz, 2.4835 – 10 GHz, Vertical, Z-Axis


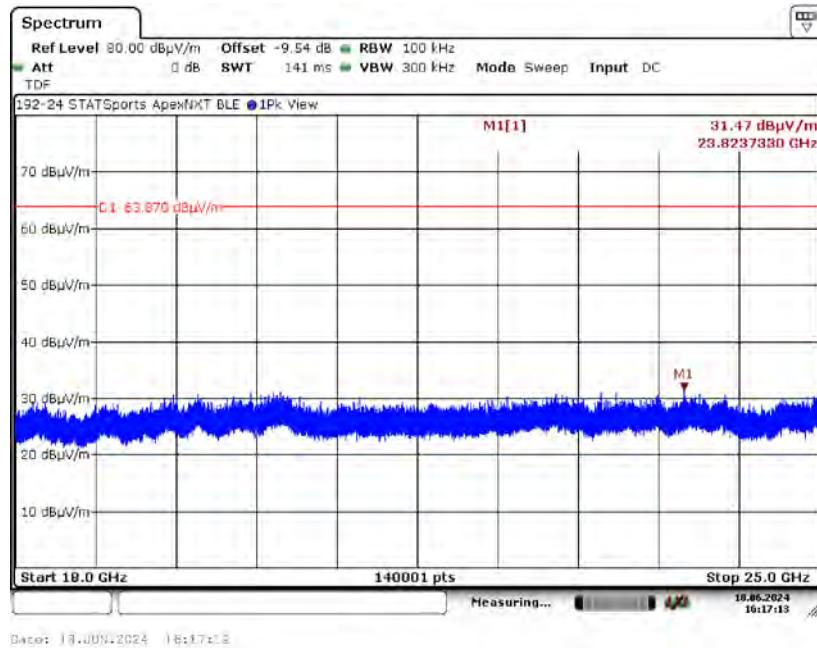
Test Number: 192-24
Issue Date: 1/3/2025
Appendix B
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)
B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results
B1.1.19. Measurement Results, 2480 MHz, 10 – 18 GHz, Horizontal, X-Axis

B1.1.20. Measurement Results, 2480 MHz, 10 – 18 GHz, Vertical, X-Axis


Test Number: 192-24
Issue Date: 1/3/2025
Appendix B
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)
B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results
B1.1.21. Measurement Results, 2480 MHz, 10 – 18 GHz, Horizontal, Y-Axis

B1.1.22. Measurement Results, 2480 MHz, 10 – 18 GHz, Vertical, Y-Axis


Test Number: 192-24
Issue Date: 1/3/2025
Appendix B
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)
B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results
B1.1.23. Measurement Results, 2480 MHz, 10 – 18 GHz, Horizontal, Z-Axis

B1.1.24. Measurement Results, 2480 MHz, 10 – 18 GHz, Vertical, Z-Axis


Test Number: 192-24
Issue Date: 1/3/2025
Appendix B
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)
B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results
B1.1.25. Measurement Results, 2480 MHz, 18 – 25 GHz, Horizontal, X-Axis

B1.1.26. Measurement Results, 2480 MHz, 18 – 25 GHz, Vertical, X-Axis


Test Number: 192-24
Issue Date: 1/3/2025
Appendix B
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)
B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results
B1.1.27. Measurement Results, 2480 MHz, 18 – 25 GHz, Horizontal, Y-Axis

B1.1.28. Measurement Results, 2480 MHz, 18 – 25 GHz, Vertical, Y-Axis


Test Number: 192-24
Issue Date: 1/3/2025
Appendix B
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)
B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results
B1.1.29. Measurement Results, 2480 MHz, 18 – 25 GHz, Horizontal, Z-Axis

B1.1.30. Measurement Results, 2480 MHz, 18 – 25 GHz, Vertical, Z-Axis
