



427 West 12800 South
Draper, UT 84020

Test Report Certification

FCC ID	SWX-WAVEML6
ISED ID	6545A-WAVEML6
Equipment Under Test	Wave-MLO6
Test Report Serial Number	TR10548_02
Date of Test(s)	13-19 November 2025
Report Issue Date	21 November 2025

Test Specification	Applicant
47 CFR FCC Part 15, Subpart E RSS-248 Issue 3 (October 2024)	Ubiquiti Inc. 685 Third Avenue New York, NY 10017 U.S.A.



NVLAP LAB CODE 600241-0

Certification of Engineering Report

This report has been prepared by Unified Compliance Laboratory (UCL) to document compliance of the device described below with the requirement of Federal Communication Commissions (FCC) Part 15, Subpart E and RSS-248 Issue 3. This report may be reproduced in full. Partial reproduction of this report may only be made with the written consent of the laboratory. The results in this report apply only to the sample tested with the specifications provided by the manufacturer.

Applicant	Ubiquiti Inc.
Manufacturer	Ubiquiti Inc.
Brand Name	UBIQUITI
Model Number	Wave-MLO6
FCC ID	SWX-WAVEML6
ISED ID	6545A-WAVEML6

On this 21st day of November 2025, I individually and for Unified Compliance Laboratory certify that the statements made in this engineering report are true, complete, and correct to the best of my knowledge and are made in good faith. Unified Compliance laboratory is not responsible for incorrect information provided by the manufacturer.

Although NVLAP has accredited the Unified Compliance Laboratory testing facilities, this report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. federal government.

Unified Compliance Laboratory


Written By: Evan J. Hartzell
Reviewed By: Kimberly DeBole

Revision History		
Revision	Description	Date
01	Original Report Release	21 November 2025
02	Added FCC Registration Number in Section 3.5	9 December 2025

Table of Contents

1	Client Information.....	5
1.1	Applicant.....	5
1.2	Manufacturer.....	5
2	Equipment Under Test (EUT).....	6
2.1	Identification of EUT	6
2.2	Description of EUT	6
2.3	EUT and Support Equipment	6
2.4	Interface Ports on EUT	7
2.5	Operating Environment.....	7
2.6	Operating Modes.....	7
2.7	EUT Exercise Software.....	7
2.8	Block Diagram of Test Configuration	8
2.9	Modification Incorporated/Special Accessories on EUT.....	9
2.10	Deviation, Opinions Additional Information or Interpretations from Test Standard.....	9
3	Test Specification, Method and Procedures.....	10
3.1	Test Specification.....	10
3.2	Methods & Procedures.....	10
3.3	FCC Part 15, Subpart E.....	10
3.4	Results.....	10
3.5	Test Location	11
4	Test Equipment	12
4.1	Direct Connect at the Antenna Port Tests.....	12
4.2	Equipment Calibration	12
4.3	Measurement Uncertainty.....	12
5	Test Results.....	13
5.1	§15.407 Successful Registration and Spectrum Access Request	13
5.2	Unsuccessful Spectrum Access Request.....	20
5.3	Successful Spectrum Access Update	20
5.4	Unsuccessful Spectrum Access Update	22
5.5	Unsuccessful Server Validation.....	22

1 Client Information

1.1 Applicant

Company	Ubiquiti Inc. 685 Third Avenue New York, NY 10017 U.S.A.
Contact Name	Alex Macon
Title	Compliance

1.2 Manufacturer

Company	Ubiquiti Inc. 685 Third Avenue New York, NY 10017 U.S.A.
Contact Name	Alex Macon
Title	Compliance

2 Equipment Under Test (EUT)

2.1 Identification of EUT

Brand Name	UBIQUITI
Model Number	Wave-MLO6
Serial Number	2FE39D
Dimensions (cm)	24.9 x 8.2 x 4.8

2.2 Description of EUT

The Wave-MLO6 is a 5 GHz and 6 GHz point-to-point customer premise equipment which features wave technology with a high throughput rate. The 5 GHz radio supports U-NII-1, U-NII-2 and U-NII-3 bands. The 6 GHz radio support U-NII-5 and U-NII-7 bands. The Wave-MLO6 has Bluetooth LE transceiver for system management. The Wave-MLO6 is an outdoor device and has an Ethernet port which is used for data transfer and is powered using a Model U-POE++ 48-volt PoE power adapter.

This report covers the circuitry of the device subject to FCC Part 15, Subpart E. The circuitry of the device subject to FCC Part 15 Subpart B was found to be compliant and is covered under a separate 5975Unified Compliance Laboratory test report.

2.3 EUT and Support Equipment

The EUT and support equipment used during the test are listed below.

Brand Name Model Number Serial Number	Description	Name of Interface Ports / Interface Cables
BN: UBIQUITI MN: Wave-MLO6 (Note 1) SN: 2FE39D	Wireless Point-to-Point	See Section 2.4
BN: UBIQUITI MN: U-POE-at SN: N/A	PoE Power Adapter	Shielded or Un-shielded Cat 5e cable (Note 2)
BN: UBIQUITI MN: UDR SN: N/A	Desktop Gateway	(4) GbE RJ45 LAN ports (1) GbE RJ45 WAN port
BN: Dell MN: XPS 13 SN: N/A	Laptop Personal Computer	Shielded or Un-shielded Cat 5e cable (Note 2)
BN: WiFi Alliance MN: v2.0.65.184 SN: N/A	AFC DUT Test Harness	Unshielded Cat 5 / 1 meter

BN: UBIQUITI MN: Wave-MLO6 SN: 2FE28F	Client	See Section 2.4
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Notes: (1) EUT

(2) Interface port connected to EUT (See Section 2.4)

The support equipment listed above was not modified in order to achieve compliance with this standard.

2.4 Interface Ports on EUT

Name of Ports	No. of Ports Fitted to EUT	Cable Description/Length
PoE Input	1	7m Shielded Cat 5E
PoE Output (PoE Injector)	1	7m Shielded Cat 5E to Wave-MLO6 PoE Input
LAN (PoE Injector)	1	unshielded Cat 5E to Laptop PC
AC (PoE Injector)	1	3 Conductor power cord to AC mains/80cm

2.5 Operating Environment

Power Supply	120 Volts AC Mains to 48 Volts PoE
AC Mains Frequency	60 Hz
Temperature	18.1 – 24.2 °C
Humidity	24 – 36 %
Barometric Pressure	1020 mBar

2.6 Operating Modes

The Wave-MLO6 was tested using test software in order to enable constant transmission.

2.7 EUT Exercise Software

EUT firmware version 1.0 was used to operate the transmitter using a constant transmit mode.

2.8 Block Diagram of Test Configuration

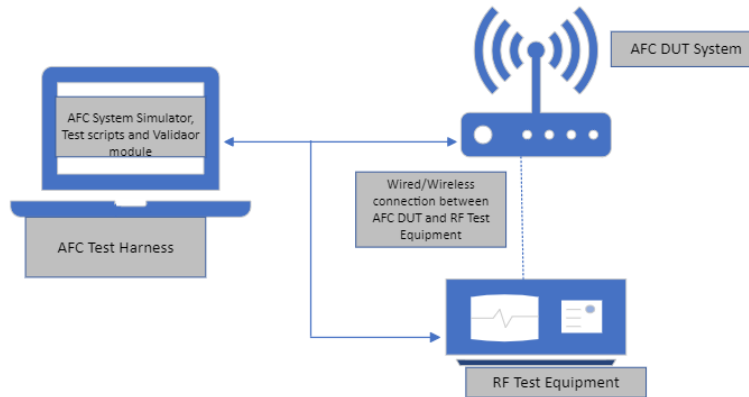


Diagram 1: AFC DUT Setup for Standard Power Access Point- Standalone

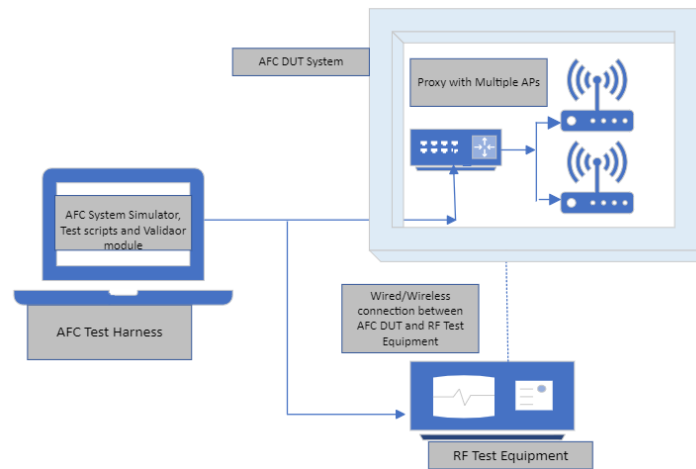


Diagram 2: AFC DUT Setup for Standard Power Access Point (non-standalone) with Proxy

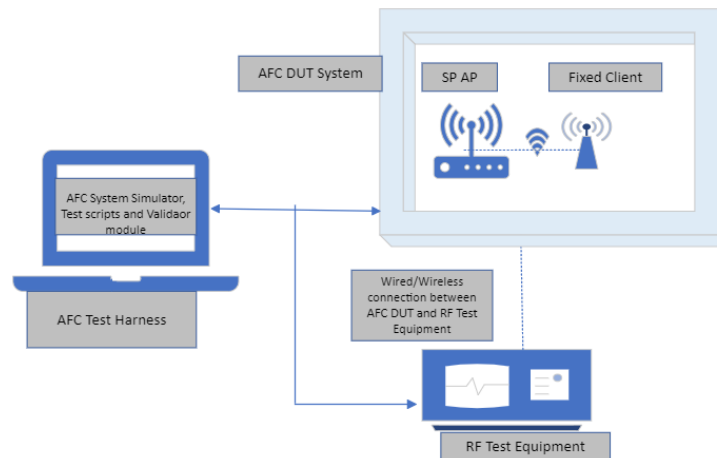


Diagram 3: AFC DUT Setup for Fixed Client

2.9 Modification Incorporated/Special Accessories on EUT

There were no modifications made to the EUT during testing to comply with the specification.

2.10 Deviation, Opinions Additional Information or Interpretations from Test Standard

There were no deviations, opinions, additional information or interpretations from the test specification.

3 Test Specification, Method and Procedures

3.1 Test Specification

Title	47 CFR FCC Part 15, Subpart E, Section 15.407 Limits and methods of measurement of radio interference characteristics of Unlicensed National Information Infrastructure Devices
Purpose of Test	The tests were performed to demonstrate initial compliance

3.2 Methods & Procedures

3.2.1 47 CFR FCC Part 15 Section 15.407

See test standard for details.

3.3 FCC Part 15, Subpart E

3.3.1 Summary of Tests

FCC Section	ISED Section	Environmental Phenomena	Frequency Range (MHZ)	Result
15.407(k)	RSS-248 Section 6	AFCDRSA31_FrequencyChannel	5955 to 6885	Compliant
15.407(k)	RSS-248 Section 6	AFCDUSA32_FrequencyChannel	5955 to 6885	Compliant
15.407(k)	RSS-248 Section 6	AFCDSAU33_FrequencyChannel	5955 to 6885	Compliant
15.407(k)	RSS-248 Section 6	AFCDUAU34_FrequencyChannel	5955 to 6885	Compliant
15.407(k)	RSS-248 Section 6	ServerValidation_AFCDUSV35	N/A	Compliant

The testing was performed according to the procedures in ANSI C63.10-2013, KDB 789033, KDB 987594 and 47 CFR Part 15. Where applicable, KDB 662911 was followed to sum required measurements.

Note ¹: AFC plots provided represent worst case data for each channel tested.

3.4 Results

In the configuration tested, the EUT complied with the requirements of the specification.

3.5 Test Location

Testing was performed at the Unified Compliance Laboratory located at 427 West 12800 South, Draper, UT 84020. Unified Compliance Laboratory is accredited by National Voluntary Laboratory Accreditation Program (NVLAP); NVLAP Code 600241-0 which is effective until 30 June 2026. This site has also been registered with Innovations, Science and Economic Development (ISED) department as was accepted under Appendix B, Phase 1 procedures of the APEC Tel MRA for Canadian recognition. ISED No.: 25346, effective until 30 June 2026.

Unified Compliance Laboratory has been assigned Registration Number 376708 by the FCC, MRA Designation Number US5037 and Conformity Assessment Number US0223 by ISED.

4 Test Equipment

4.1 Direct Connect at the Antenna Port Tests

Type of Equipment	Manufacturer	Model Number	Asset Number	Date of Last Calibration	Due Date of Calibration
Spectrum Analyzer	Keysight	N9010B	UCL-7069	5/20/2025	5/20/2026

Table 1: List of equipment used for Direct Connect at the Antenna Port

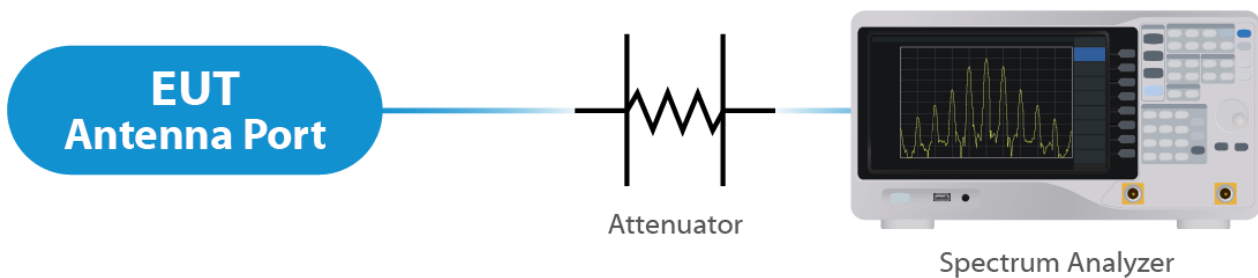


Figure 1: Direct Connect at the Antenna Port Test

4.2 Equipment Calibration

All applicable equipment is calibrated using either an independent calibration laboratory or Unified Compliance Laboratory personnel at intervals defined in ANSI C63.4:2014 following outlined calibration procedures. All measurement instrumentation is traceable to the National Institute of Standards and Technology (NIST). Supporting documentation relative to traceability is on file and is available for examination upon request.

4.3 Measurement Uncertainty

Test	Uncertainty ($\pm$ dB)	Confidence (%)
Conducted Emissions	1.44	95
Radiated Emissions (9 kHz to 30 MHz)	2.50	95
Radiated Emissions (30 MHz to 1 GHz)	4.38	95
Radiated Emissions (1 GHz to 18 GHz)	4.37	95
Radiated Emissions (18 GHz to 40 GHz)	3.93	95
Direct Connect Tests	K Factor	Value
Emissions Bandwidth	2	2.0%
Output Power	2	1.0 dB
Peak Power Spectral Density	2	1.3 dB
Band Edge	2	0.8 dB
Transmitter Spurious Emissions	2	1.8 dB

5 Test Results

5.1 §15.407 Successful Registration and Spectrum Access Request

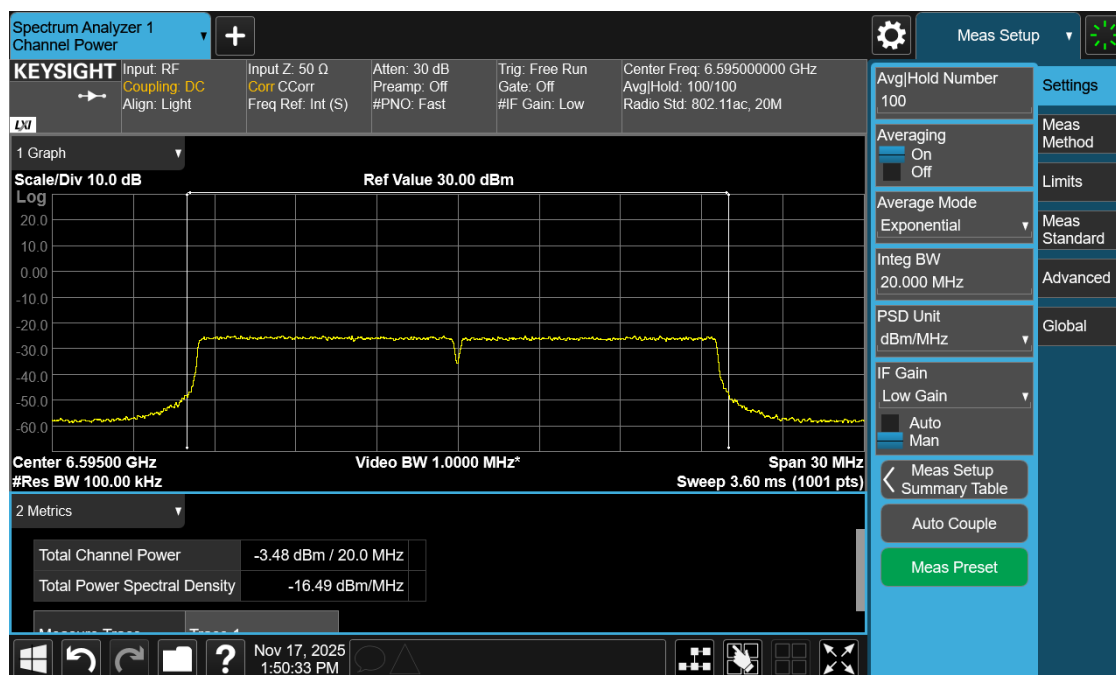
5.1.1 20 MHz Bandwidth

Modulation (BW)	Frequency (MHz)	Power Mode	Power Chain 0	Power Chain 1	Power EIRP	Power Limit
EHT 20	5955	SP	6.26	6.13	28.21	30.7
EHT 20	6595	SP	-3.7	-3.48	18.42	21.8

Modulation (BW)	Frequency (MHz)	Power Mode	PSD Chain 0	PSD Chain 1	PSD EIRP	PSD Limit
EHT 20	5955	SP	-6.75	-6.88	15.20	17.7
EHT 20	6595	SP	-16.71	-16.49	5.41	8.8



Plot 1: Power and PSD for Standard Power – 5955 MHz

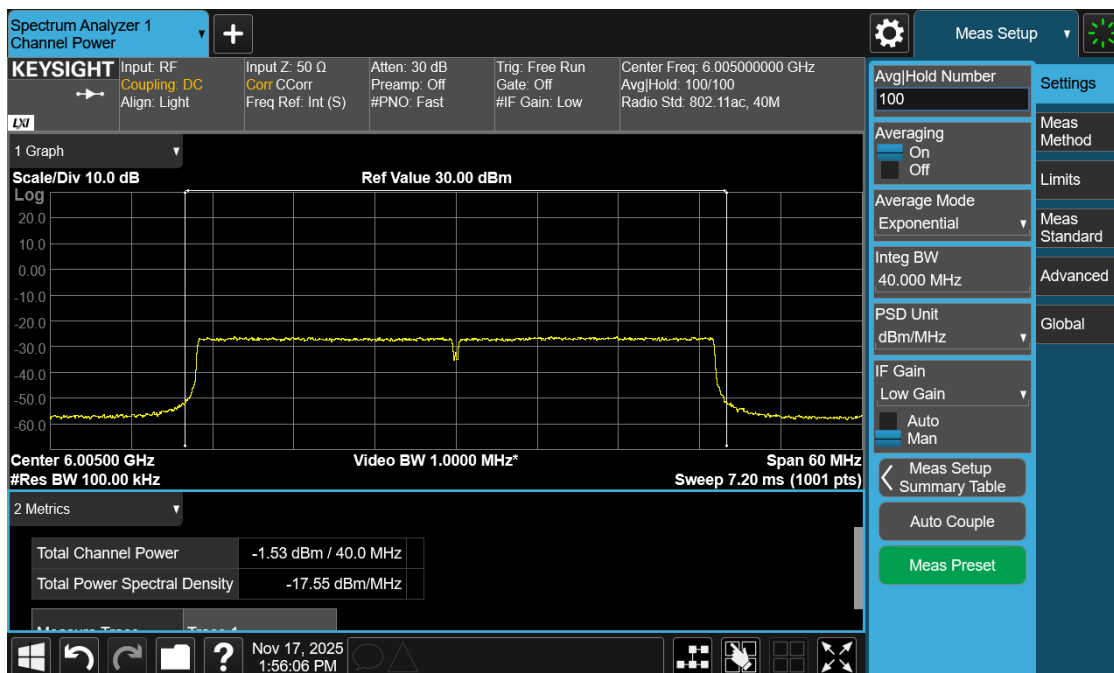


Plot 2: Power and PSD for Standard Power – 6595 MHz

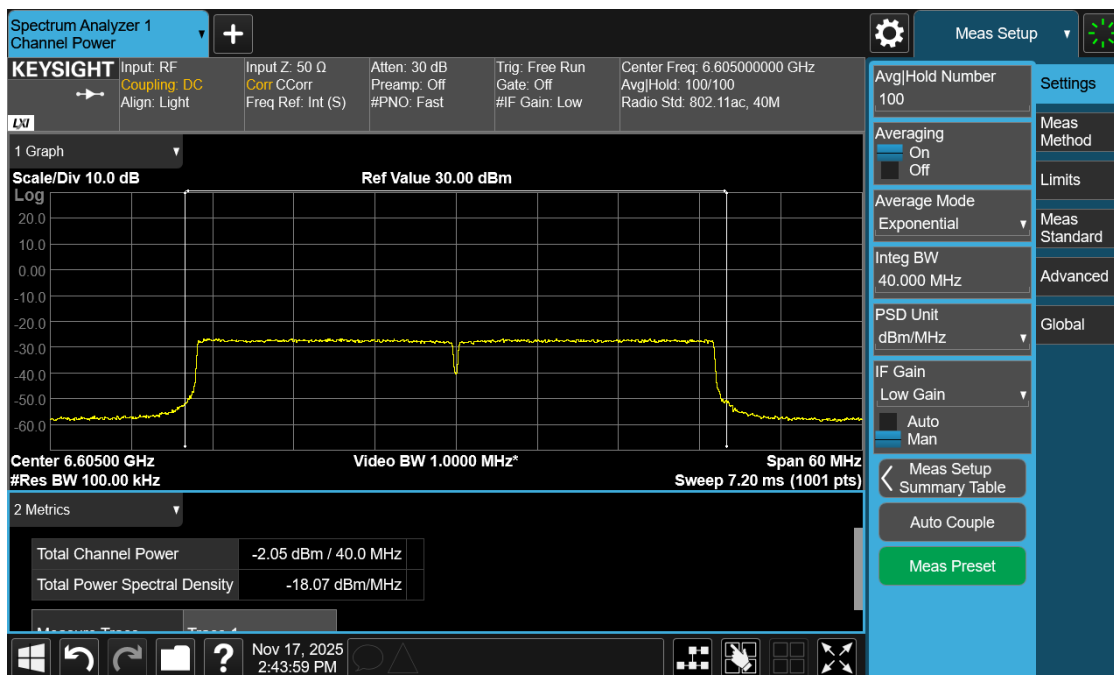
5.1.2 40 MHz Bandwidth

Modulation (BW)	Frequency (MHz)	Power Mode	Power Chain 0	Power Chain 1	Power EIRP	Power Limit
EHT 40	6005	SP	-1.99	-1.53	20.26	26.8
EHT 40	6605	SP	-2.32	-2.05	19.83	33.8

Modulation (BW)	Frequency (MHz)	Power Mode	PSD Chain 0	PSD Chain 1	PSD EIRP	PSD Limit
EHT 40	6365	SP	-18.01	-17.55	4.00	10.8
EHT 40	6045	SP	-18.34	-18.07	3.81	17.8



Plot 3: Power and PSD for Standard Power – 6005 MHz

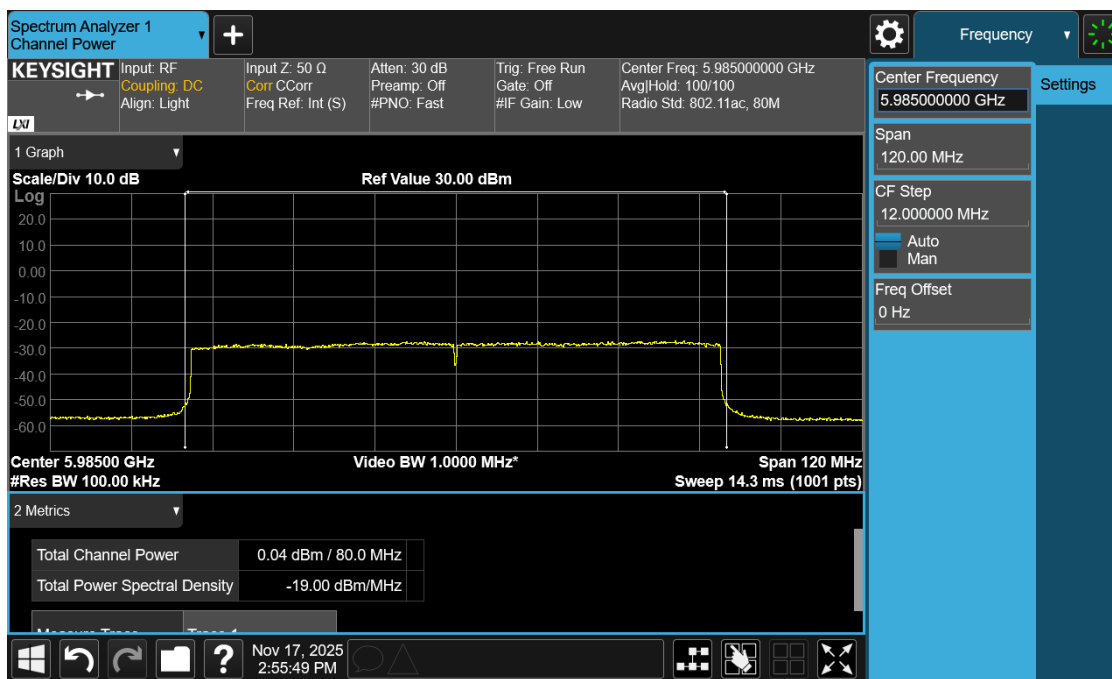


Plot 4: Power and PSD for Standard Power – 6605 MHz

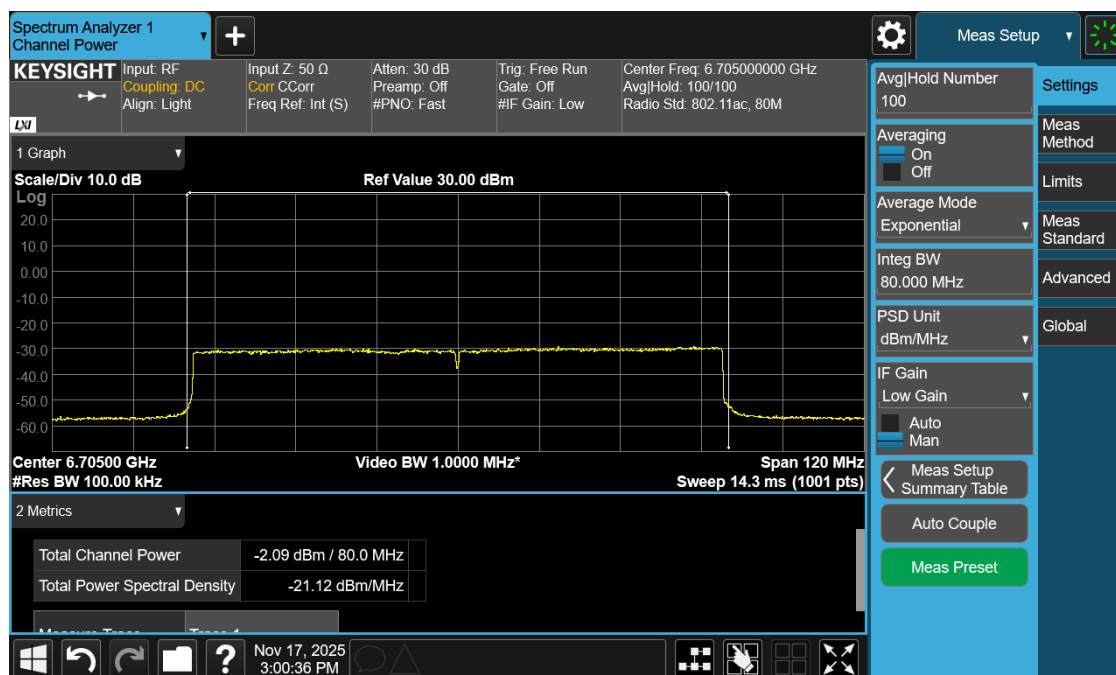
5.1.3 80 MHz Bandwidth

Modulation (BW)	Frequency (MHz)	Power Mode	Power Chain 0	Power Chain 1	Power EIRP	Power Limit
EHT 80	5985	SP	-0.05	0.04	22.01	31.6
EHT 80	6705	SP	-2.09	-2.19	19.87	29.3

Modulation (BW)	Frequency (MHz)	Power Mode	PSD Chain 0	PSD Chain 1	PSD EIRP	PSD Limit
EHT 80	5985	SP	-19.08	-19.00	2.97	12.6
EHT 80	6705	SP	-21.12	-21.22	0.84	10.3



Plot 5: Power and PSD for Standard Power – 5985 MHz

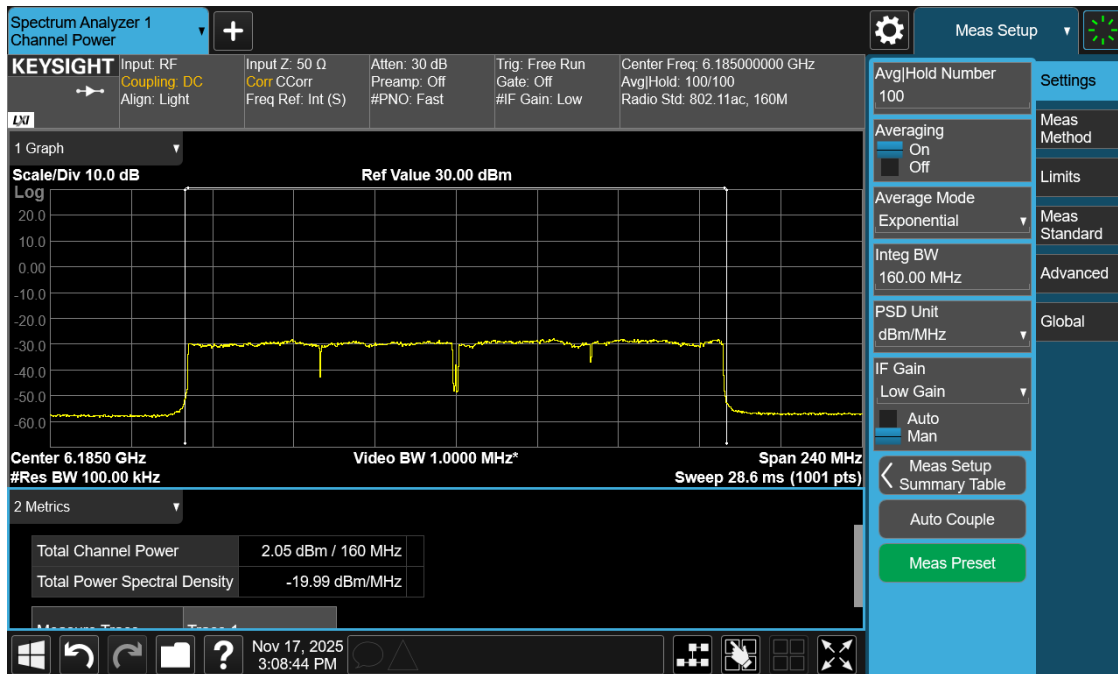


Plot 6: Power and PSD for Standard Power – 6705 MHz

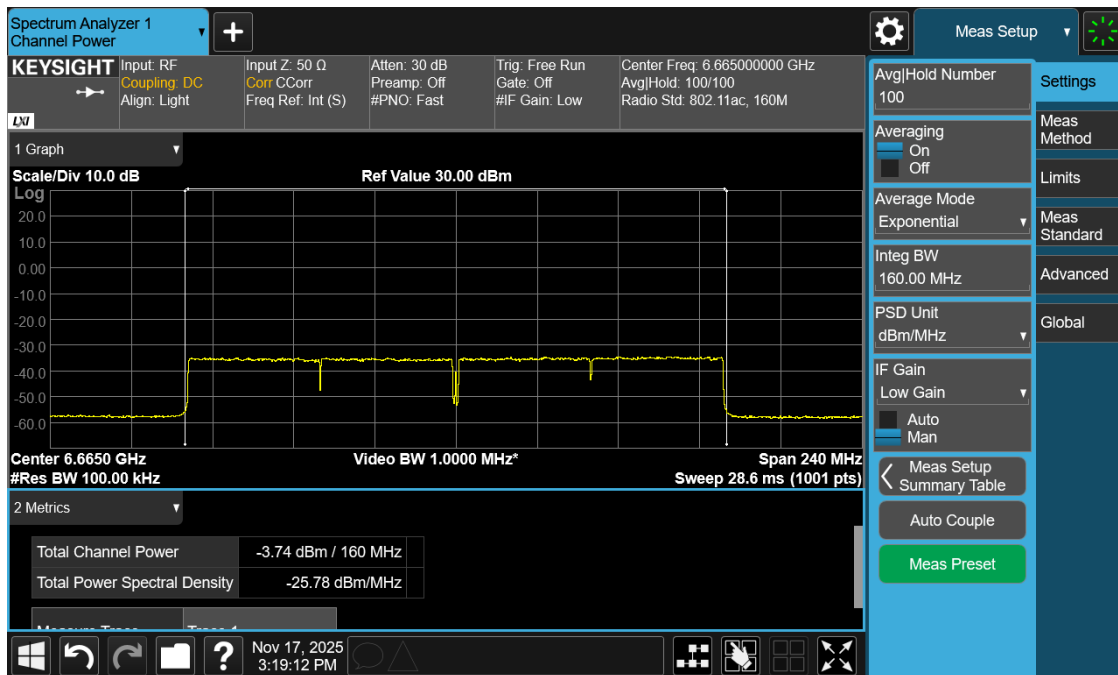
5.1.4 160 MHz Bandwidth

Modulation (BW)	Frequency (MHz)	Power Mode	Power Chain 0	Power Chain 1	Power EIRP	Power Limit
EHT 160	6185	SP	1.58	2.05	23.83	31.2
EHT 160	6665	SP	-3.83	-3.74	18.23	30.7

Modulation (BW)	Frequency (MHz)	Power Mode	PSD Chain 0	PSD Chain 1	PSD EIRP	PSD Limit
EHT 160	6185	SP	-20.46	-19.99	1.79	9.2
EHT 160	6665	SP	-25.87	-25.78	-3.81	8.7



Plot 7: Power and PSD for Standard Power – 6185 MHz

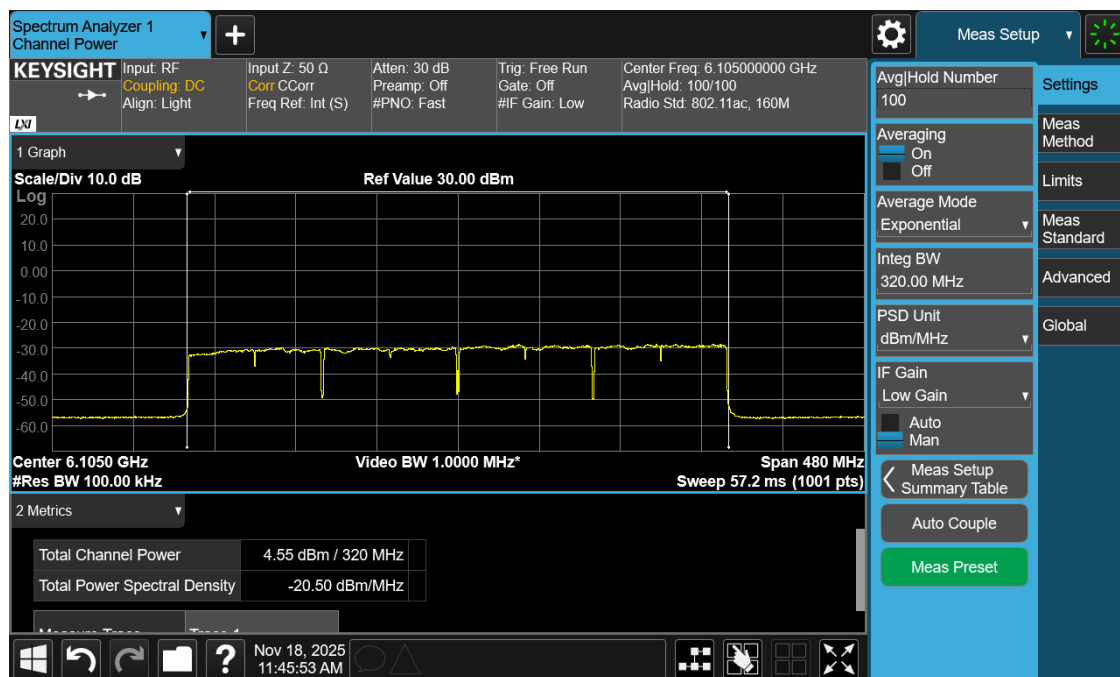


Plot 8: Power and PSD for Standard Power – 6665 MHz

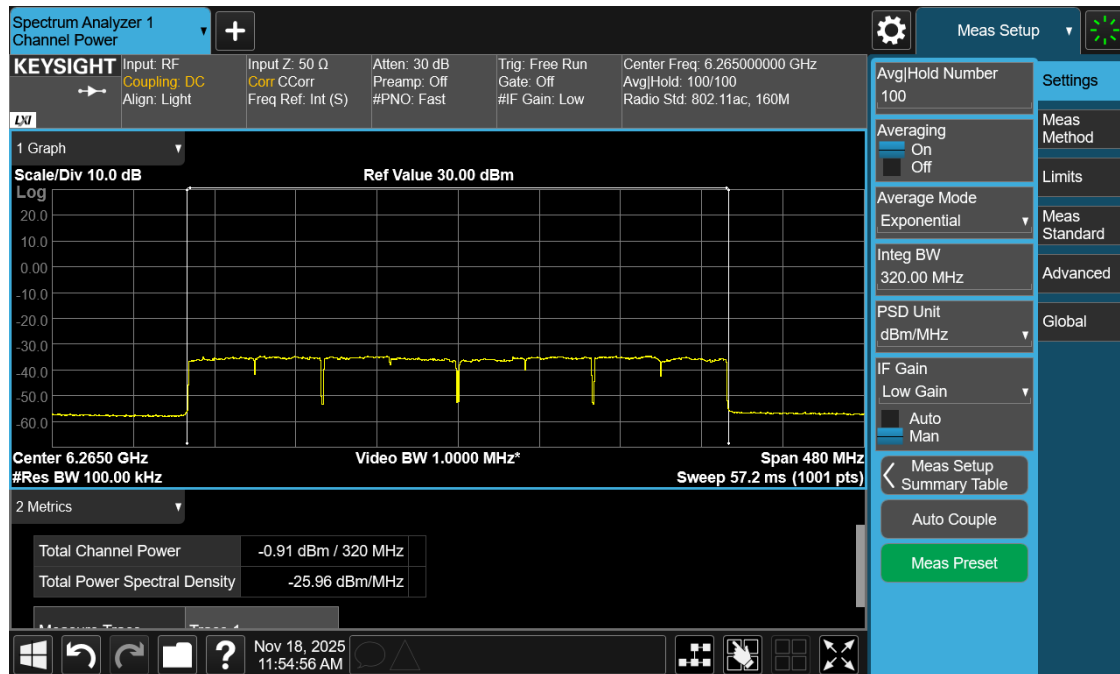
5.1.5 320 MHz Bandwidth

Modulation (BW)	Frequency (MHz)	Power Mode	Power Chain 0	Power Chain 1	Power EIRP	Power Limit
EHT 320	6105	SP	3.59	4.55	26.11	34.3
EHT 320	6265	SP	-0.91	-1.14	20.99	33.9

Modulation (BW)	Frequency (MHz)	Power Mode	PSD Chain 0	PSD Chain 1	PSD EIRP	PSD Limit
EHT 320	6105	SP	-21.46	-20.50	1.06	9.2
EHT 320	6265	SP	-25.96	-26.21	-4.07	8.8



Plot 9: Power and PSD for Standard Power – 6105 MHz



Plot 10: Power and PSD for Standard Power – 6265 MHz

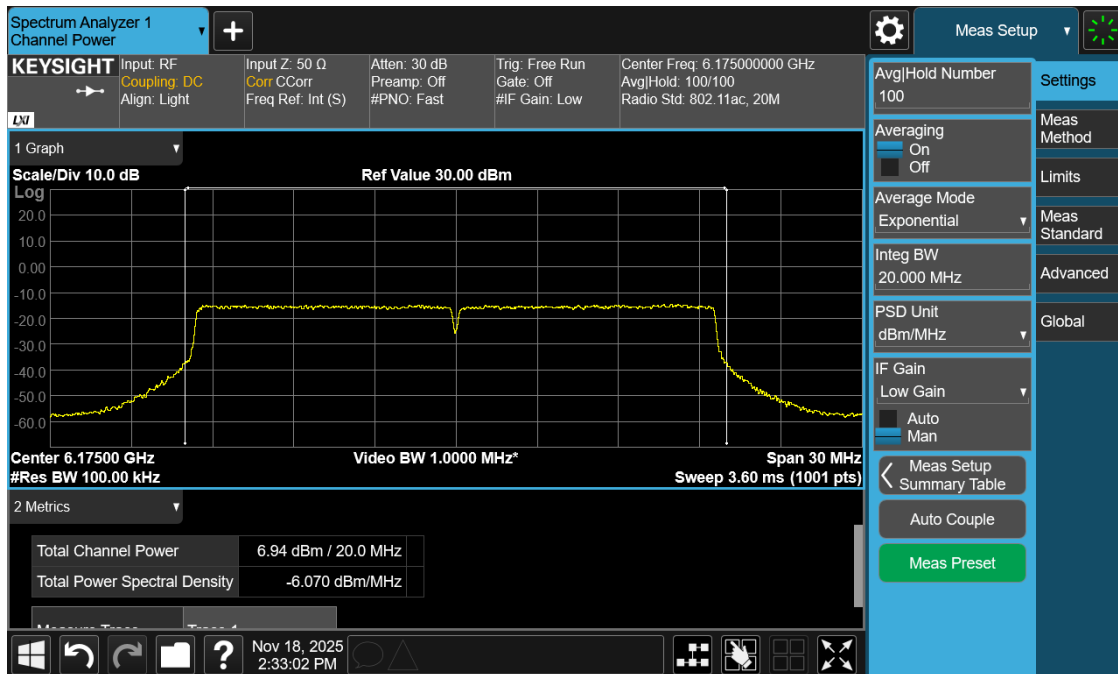
5.2 Unsuccessful Spectrum Access Request

See associated Annex for Unsuccessful Spectrum Access Request report.

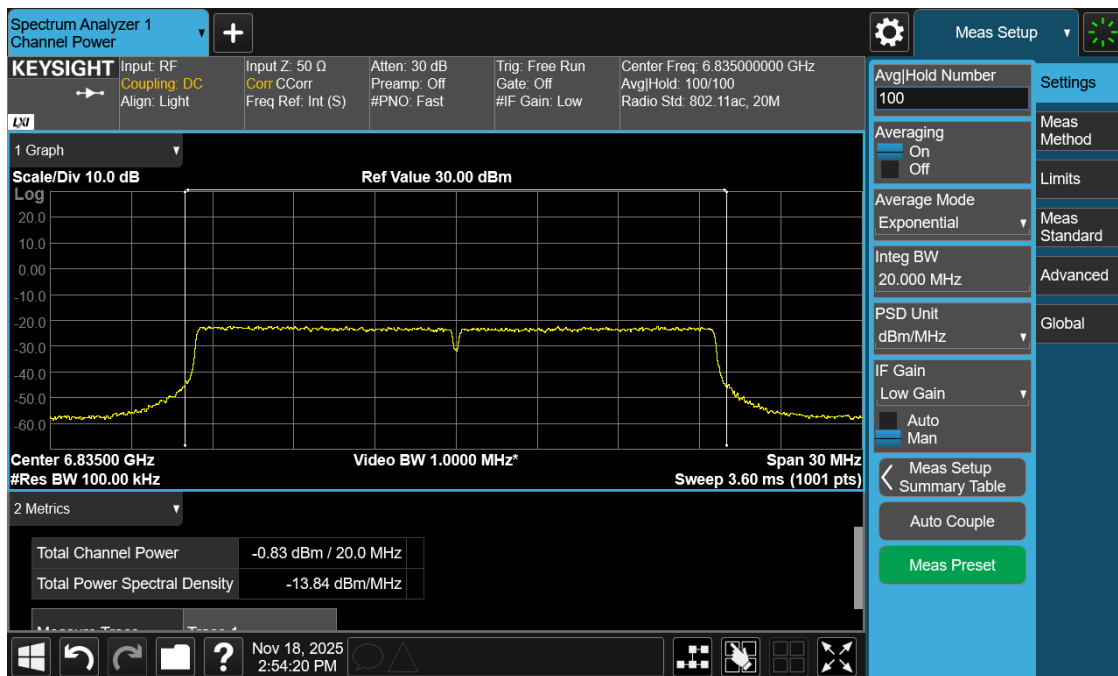
5.3 Successful Spectrum Access Update

Modulation (BW)	Frequency (MHz)	Power Mode	Power Chain 0	Power Chain 1	Power EIRP	Power Limit
EHT 20	6175	SP	5.96	6.94	28.49	33.5
EHT 20	6835	SP	-0.83	-0.99	21.10	32.4

Modulation (BW)	Frequency (MHz)	Power Mode	PSD Chain 0	PSD Chain 1	PSD EIRP	PSD Limit
EHT 20	6175	SP	-7.05	-6.07	15.48	20.5
EHT 20	6835	SP	-13.84	-14.00	8.09	19.4



Plot 11: Power and PSD for Standard Power – 6175 MHz

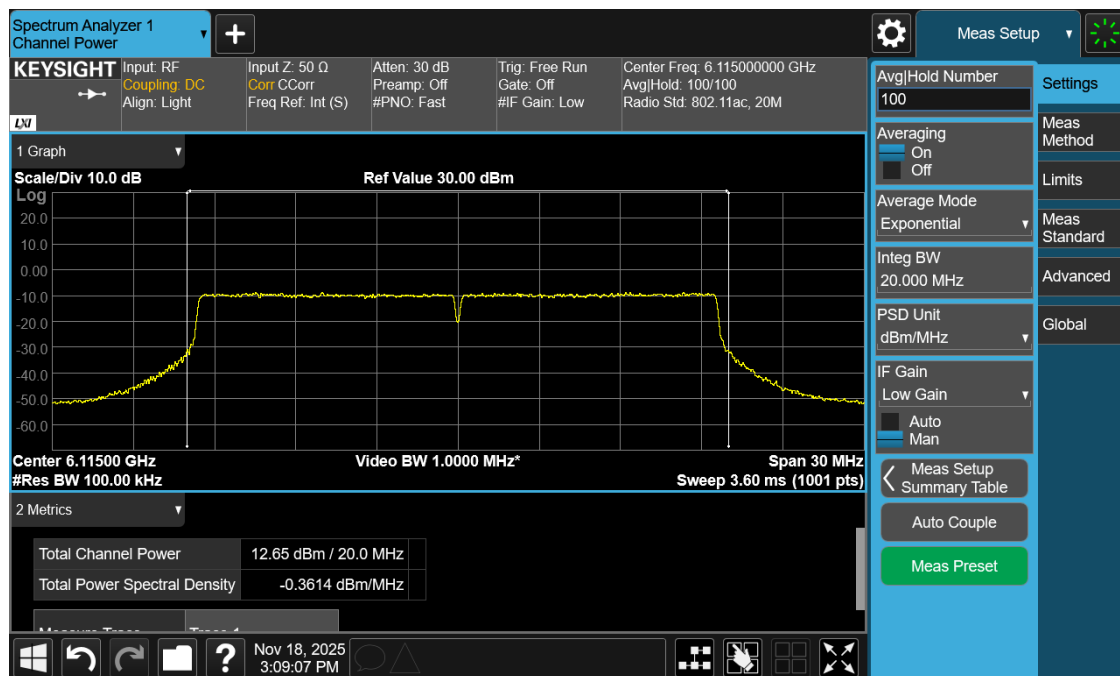


Plot 12: Power and PSD for Standard Power– 6835 MHz

5.4 Unsuccessful Spectrum Access Update

Modulation (BW)	Frequency (MHz)	Power Mode	Power Chain 0	Power Chain 1	Power EIRP	Power Limit
EHT 20	6115	SP	12.00	12.65	34.35	36

Modulation (BW)	Frequency (MHz)	Power Mode	PSD Chain 0	PSD Chain 1	PSD EIRP	PSD Limit
EHT 20	6115	SP	-1.01	-0.36	21.34	23



Plot 13: Power and PSD for Standard Power– 6115 MHz

Result

The EUT complied with the specification limit.

5.5 Unsuccessful Server Validation

See associated Annex for Unsuccessful Server Validation reports.

-- End of Test Report --