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PART 27 MEASUREMENT REPORT

Applicant Name:

Samsung Electronics Co., Ltd.
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Yeongtong-gu, Suwon-si
Gyeonggi-do, 16677, Korea

Date of Testing:

9/2/2025 - 10/31/2025

Test Report Issue Date:

12/11/2025

Test Site/Location:

Element Lab., Columbia, MD, USA

Test Report Serial No.:

1M2508270082-05.A3L

FCC ID:

A3LSMS948JPN

APPLICANT:

Samsung Electronics Co., Ltd.

Application Type:

Certification

Model:

SC-53G

Additional Model(s):

SCG37

EUT Type:

Portable Handset

FCC Classification:

PCS Licensed Transmitter Held to Ear (PCE)

FCC Rule Part:

27

Test Procedure(s):

ANSI C63.26-2015, KDB 648474 D03 v01r04

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in §2.947. Test results reported herein relate only to the item(s) tested.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

RJ Ortanez
Executive Vice President



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TEST REPORT REVISION HISTORY

Rev. No.	Report S/N	Description	Issue Date
-	1M2508270082-05.A3L	Initial Release	12/11/2025

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Antenna-1						
Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	EIRP		Emission Designator
				Max. Power [W]	Max. Power [dBm]	
LTE Band 41(PC3)	20 MHz	QPSK	2506.0 - 2680.0	0.213	23.29	18M0G7D
		16QAM	2506.0 - 2680.0	0.181	22.57	18M1W7D
	15 MHz	QPSK	2503.5 - 2682.5	0.181	22.58	13M6G7D
		16QAM	2503.5 - 2682.5	0.172	22.36	13M6W7D
	10 MHz	QPSK	2501.0 - 2685.0	0.184	22.65	9M07G7D
		16QAM	2501.0 - 2685.0	0.172	22.35	9M04W7D
	5 MHz	QPSK	2498.5 - 2687.5	0.183	22.64	4M53G7D
		16QAM	2498.5 - 2687.5	0.174	22.39	4M52W7D

Overview Table LTE Band Ant 1

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Antenna-1						
Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	EIRP		Emission Designator
				Max. Power [W]	Max. Power [dBm]	
NR Band n41(PC2)	100 MHz	$\pi/2$ BPSK	2546.0 - 2640.0	0.238	23.76	97M1G7D
		QPSK	2546.0 - 2640.0	0.244	23.87	96M6G7D
		16QAM	2546.0 - 2640.0	0.208	23.19	97M1W7D
	90 MHz	$\pi/2$ BPSK	2541.0 - 2645.0	0.257	24.10	87M3G7D
		QPSK	2541.0 - 2645.0	0.264	24.22	87M1G7D
		16QAM	2541.0 - 2645.0	0.202	23.06	87M3W7D
	80 MHz	$\pi/2$ BPSK	2536.0 - 2650.0	0.255	24.06	77M3G7D
		QPSK	2536.0 - 2650.0	0.259	24.13	77M4G7D
		16QAM	2536.0 - 2650.0	0.202	23.06	77M2W7D
	70 MHz	$\pi/2$ BPSK	2531.0 - 2655.0	0.249	23.97	64M4G7D
		QPSK	2531.0 - 2655.0	0.259	24.13	64M4G7D
		16QAM	2531.0 - 2655.0	0.204	23.09	64M6W7D
	60 MHz	$\pi/2$ BPSK	2526.0 - 2660.0	0.251	23.99	58M0G7D
		QPSK	2526.0 - 2660.0	0.266	24.25	58M0G7D
		16QAM	2526.0 - 2660.0	0.203	23.07	58M3W7D
	50 MHz	$\pi/2$ BPSK	2521.0 - 2665.0	0.262	24.19	45M9G7D
		QPSK	2521.0 - 2665.0	0.276	24.41	45M9G7D
		16QAM	2521.0 - 2665.0	0.214	23.31	46M0W7D
	45 MHz	$\pi/2$ BPSK	2518.5 - 2667.5	0.253	24.03	38M7G7D
		QPSK	2518.5 - 2667.5	0.262	24.18	38M7G7D
		16QAM	2518.5 - 2667.5	0.202	23.06	38M7W7D
	40 MHz	$\pi/2$ BPSK	2516.0 - 2670.0	0.254	24.04	35M8G7D
		QPSK	2516.0 - 2670.0	0.263	24.20	36M0G7D
		16QAM	2516.0 - 2670.0	0.201	23.03	35M9W7D
	35 MHz	$\pi/2$ BPSK	2513.5 - 2672.5	0.255	24.07	32M2G7D
		QPSK	2513.5 - 2672.5	0.264	24.22	32M3G7D
		16QAM	2513.5 - 2672.5	0.200	23.02	32M3W7D
	30 MHz	$\pi/2$ BPSK	2511.0 - 2675.0	0.269	24.29	27M0G7D
		QPSK	2511.0 - 2675.0	0.273	24.36	27M0G7D
		16QAM	2511.0 - 2675.0	0.209	23.20	27M0W7D
	25 MHz	$\pi/2$ BPSK	2508.5 - 2677.5	0.267	24.27	22M9G7D
		QPSK	2508.5 - 2677.5	0.276	24.41	23M0G7D
		16QAM	2508.5 - 2677.5	0.207	23.16	23M0W7D
	20 MHz	$\pi/2$ BPSK	2506.0 - 2680.0	0.260	24.15	18M0G7D
		QPSK	2506.0 - 2680.0	0.275	24.40	18M0G7D
		16QAM	2506.0 - 2680.0	0.215	23.33	18M0W7D
	15 MHz	$\pi/2$ BPSK	2503.5 - 2682.5	0.270	24.31	13M0G7D
		QPSK	2503.5 - 2682.5	0.276	24.41	13M0G7D
		16QAM	2503.5 - 2682.5	0.200	23.02	13M1W7D
	10 MHz	$\pi/2$ BPSK	2501.0 - 2685.0	0.255	24.07	8M71G7D
		QPSK	2501.0 - 2685.0	0.267	24.26	8M68G7D
		16QAM	2501.0 - 2685.0	0.214	23.31	8M67W7D

Overview Table NR Band n41 – Default SRS 1

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Antenna-2						
Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	EIRP		Emission Designator
				Max. Power [W]	Max. Power [dBm]	
LTE Band 41(PC3)	20 MHz	QPSK	2506.0 - 2680.0	0.214	23.31	18M1G7D
		16QAM	2506.0 - 2680.0	0.172	22.36	18M0W7D
	15 MHz	QPSK	2503.5 - 2682.5	0.205	23.11	13M5G7D
		16QAM	2503.5 - 2682.5	0.173	22.38	13M5W7D
	10 MHz	QPSK	2501.0 - 2685.0	0.211	23.25	9M05G7D
		16QAM	2501.0 - 2685.0	0.172	22.35	9M04W7D
	5 MHz	QPSK	2498.5 - 2687.5	0.207	23.16	4M54G7D
		16QAM	2498.5 - 2687.5	0.174	22.41	4M53W7D

Overview Table LTE Band Ant 2

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Antenna-2						
Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	EIRP		Emission Designator
				Max. Power [W]	Max. Power [dBm]	
NR Band n41(PC2)	100 MHz	$\pi/2$ BPSK	2546.0 - 2640.0	0.279	24.45	96M9G7D
		QPSK	2546.0 - 2640.0	0.247	23.93	96M7G7D
		16QAM	2546.0 - 2640.0	0.218	23.38	96M7W7D
	90 MHz	$\pi/2$ BPSK	2541.0 - 2645.0	0.262	24.18	87M1G7D
		QPSK	2541.0 - 2645.0	0.255	24.06	87M0G7D
		16QAM	2541.0 - 2645.0	0.217	23.37	87M3W7D
	80 MHz	$\pi/2$ BPSK	2536.0 - 2650.0	0.260	24.15	77M4G7D
		QPSK	2536.0 - 2650.0	0.255	24.07	77M5G7D
		16QAM	2536.0 - 2650.0	0.219	23.40	77M2W7D
	70 MHz	$\pi/2$ BPSK	2531.0 - 2655.0	0.268	24.29	64M4G7D
		QPSK	2531.0 - 2655.0	0.259	24.13	64M5G7D
		16QAM	2531.0 - 2655.0	0.224	23.51	64M6W7D
	60 MHz	$\pi/2$ BPSK	2526.0 - 2660.0	0.268	24.28	58M0G7D
		QPSK	2526.0 - 2660.0	0.261	24.17	58M2G7D
		16QAM	2526.0 - 2660.0	0.220	23.42	58M2W7D
	50 MHz	$\pi/2$ BPSK	2521.0 - 2665.0	0.275	24.40	45M9G7D
		QPSK	2521.0 - 2665.0	0.264	24.22	46M0G7D
		16QAM	2521.0 - 2665.0	0.233	23.67	46M1W7D
	45 MHz	$\pi/2$ BPSK	2518.5 - 2667.5	0.262	24.18	87M1G7D
		QPSK	2518.5 - 2667.5	0.252	24.01	87M0G7D
		16QAM	2518.5 - 2667.5	0.214	23.30	87M3W7D
	40 MHz	$\pi/2$ BPSK	2516.0 - 2670.0	0.261	24.16	77M4G7D
		QPSK	2516.0 - 2670.0	0.259	24.14	77M5G7D
		16QAM	2516.0 - 2670.0	0.212	23.26	77M2W7D
	35 MHz	$\pi/2$ BPSK	2513.5 - 2672.5	0.261	24.16	64M4G7D
		QPSK	2513.5 - 2672.5	0.245	23.89	64M5G7D
		16QAM	2513.5 - 2672.5	0.203	23.07	64M6W7D
	30 MHz	$\pi/2$ BPSK	2511.0 - 2675.0	0.275	24.39	32M2G7D
		QPSK	2511.0 - 2675.0	0.253	24.03	32M2G7D
		16QAM	2511.0 - 2675.0	0.217	23.36	32M3W7D
	25 MHz	$\pi/2$ BPSK	2508.5 - 2677.5	0.272	24.35	45M9G7D
		QPSK	2508.5 - 2677.5	0.258	24.12	46M0G7D
		16QAM	2508.5 - 2677.5	0.216	23.34	46M1W7D
	20 MHz	$\pi/2$ BPSK	2506.0 - 2680.0	0.270	24.32	38M8G7D
		QPSK	2506.0 - 2680.0	0.267	24.26	38M7G7D
		16QAM	2506.0 - 2680.0	0.219	23.40	38M8W7D
	15 MHz	$\pi/2$ BPSK	2503.5 - 2682.5	0.275	24.40	36M0G7D
		QPSK	2503.5 - 2682.5	0.248	23.95	36M0G7D
		16QAM	2503.5 - 2682.5	0.222	23.46	35M9W7D
	10 MHz	$\pi/2$ BPSK	2501.0 - 2685.0	0.268	24.29	8M72G7D
		QPSK	2501.0 - 2685.0	0.259	24.14	8M67G7D
		16QAM	2501.0 - 2685.0	0.223	23.48	8M71W7D

Overview Table NR Band n41 – Switch SRS 1

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1.0 INTRODUCTION

1.1 Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

1.2 Element Test Location

Measurements were conducted at the Element laboratory(ies) indicated in Section 1.3 below. All measurement facilities are compliant with the test site requirements specified in ANSI C63.4:2014 and KDB 414788 D01 v01r01.

1.3 Test Facility / Accreditations

Measurements were performed at Element lab located in Columbia, MD 21046, U.S.A.

- Element Washington DC LLC is an ISO 17025-2017 accredited test facility under the American Association for Laboratory Accreditation (A2LA) with Certificate number 2041.01 for Specific Absorption Rate (SAR), Hearing Aid Compatibility (HAC) testing, where applicable, and Electromagnetic Compatibility (EMC) testing for FCC and Innovation, Science, and Economic Development Canada rules.
- Element Washington DC LLC TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC 17065-2012 by A2LA (Certificate number 2041.03) in all scopes of FCC Rules and ISED Standards (RSS).
- Element Washington DC LLC facility is a registered test laboratory with the site description on file with ISED (Wireless Test Lab number 2451B) and FCC (Designation Number US1113).
- Element Washington DC LLC is a Recognized U.S. Certification Assessment Body (CAB # US0110) for ISED Canada as designated by NIST under the U.S. and Canada Mutual Recognition Agreements (MRAs).

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2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Samsung Portable Handset FCC ID: A3LSMS948JPN**. The test data contained in this report pertains only to the emissions due to the EUT's licensed transmitters that operate under the provisions of Part 27.

The authorization for this device utilize data referencing from FCC ID: A3LSMS948U as permitted per KDB 484596 D01 v03. Data referencing data test results are included in Appendix A of this report.

Test Device Serial No.: 0516M, 0502M, 0789M, 0532M, 0533M, 0545M, 0490M, 0523M, 0843M, 0853M

2.2 Device Capabilities

This device contains the following capabilities:

850/1900 GSM/GPRS/EDGE, 850 WCDMA/HSPA, Multi-band LTE, Multi-band 5G NR (FR1), 802.11b/g/n/ac/ax/be WLAN, 802.11a/n/ac/ax/be UNII (5GHz and 6GHz), Bluetooth (1x, EDR, LE), NFC, Wireless Power Transfer, UWB

This device supports Tx Device Hopping (ANT Switching) for the multiple 5G NR Bands and can operate on two distinct paths. The paths are labeled as either Main or Switching paths. Testing was done on both paths and is included in this report.

Band	Ant1	Ant2
LTE Band 41 PC3	Ant F	Ant B

Table 2-1. Antenna Report Naming Convention

Antenna SRS-Label	Alternate Label
NR Band n41 – Default – SRS-1	Ant F
NR Band n41 – Default – SRS-2	Ant B

Table 2-2. Antenna Labelling Scheme Correlation

2.3 Test Configuration

The EUT was tested per the guidance of ANSI C63.26:2015. See Section 7.0 of this test report for a description of the radiated and antenna port conducted emissions tests.

This device supports wireless charging capability and, thus, is subject to the test requirements of KDB 648474 D03 v01r04. Additional radiated spurious emission measurements were performed with the EUT lying flat on an authorized wireless charging pad (WCP) Model: 3.682 while operating under normal conditions in a simulated call or data transmission configuration. The worst case radiated emissions data is shown in this report.

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2.4 Duty Cycle Information

For all 5G NR and LTE operations in FDD mode, the EUT duty cycle was set to 100%.

For 5G NR operations, the EUT was set to transmit either via a Factory Test Mode (FTM) software provided by the manufacturer or in an online mode. The EUT duty cycle was set to 100% in all cases during FTM operation. During online operation the EUT duty cycle was set to an operational max using a callbox, where the max duty cycle was determined to be 20.0%. Gated and triggered measurement settings were used in this case. SRS and UL-MIMO operations were conducted using FTM while all other cases were conducted in an online mode.

For LTE TDD operation, a call box was used to force maximum transmission for each band. For LTE TDD bands, the maximum duty cycle is 63.3% for PC3 and 43.3% for PC2.

2.5 Software and Firmware

Testing was performed on device(s) using software/firmware version K778DOMU0AYHB installed on the EUT.

2.6 EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and no modifications were made during testing.

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3.0 DESCRIPTION OF TESTS

3.1 Evaluation Procedure

The measurement procedures described in the “American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services” (ANSI C63.26:2015) were used in the measurement of the EUT.

Deviation from Measurement Procedure.....None

3.2 Radiated Power and Radiated Spurious Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. The test site inside the chamber is a 6m x 5.2m elliptical, obstruction-free area in accordance with Figure 5.7 of Clause 5 in ANSI C63.4:2014. Absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections for measurements above 1GHz. For measurements below 1GHz, the absorbers are removed. A raised turntable is used for radiated measurement. The turn table is a continuously rotatable, remote-controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm tall test table made of Styrodur is placed on top of the turn table. A Styrodur pedestal is placed on top of the test table to bring the total table height to 1.5m.

The equipment under test was transmitting while connected to its integral antenna and is placed on a turntable 3 meters from the receive antenna. The receive antenna height is adjusted between 1 and 4 meter height, the turntable is rotated through 360 degrees, and the EUT is manipulated through all orthogonal planes representative of its typical use to achieve the highest reading on the receive spectrum analyzer.

For radiated power measurements, substitution method is used per the guidance of ANSI C63.26:2015. For emissions below 1GHz, a half-wave dipole is substituted in place of the EUT. For emissions above 1GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator with the level of the signal generator being adjusted to obtain the same receive spectrum analyzer level previously recorded from the spurious emission from the EUT. The power of the emission is calculated using the following formula:

$$P_d \text{ [dBm]} = P_g \text{ [dBm]} - \text{cable loss [dB]} + \text{antenna gain [dBd/dBi]};$$

where P_d is the dipole equivalent power, P_g is the generator output into the substitution antenna, and the antenna gain is the gain of the substitute antenna used relative to either a half-wave dipole (dBd) or an isotropic source (dBi). The substitute level is equal to $P_g \text{ [dBm]} - \text{cable loss [dB]}$.

For radiated spurious emissions measurements, the field strength conversion method is used per the formulas in Section 5.2.7 of ANSI C63.26:2015. Field Strength (EIRP) is calculated using the following formulas:

$$E_{\text{[dB}\mu\text{V/m]}} = \text{Measured amplitude level}_{\text{[dBm]}} + 107 + \text{Cable Loss}_{\text{[dB]}} + \text{Antenna Factor}_{\text{[dB/m]}}$$

And

$$\text{EIRP}_{\text{[dBm]}} = E_{\text{[dB}\mu\text{V/m]}} + 20\log D - 104.8; \text{ where } D \text{ is the measurement distance in meters.}$$

All radiated measurements are performed in a chamber that meets the site requirements per ANSI C63.4:2014. Additionally, radiated emissions below 30MHz are also validated on an Open Area Test Site to assert correlation with the chamber measurements per the requirements of KDB 414788 D01 v01r01.

Radiated power and radiated spurious emission levels are investigated with the receive antenna horizontally and vertically polarized per ANSI C63.26:2015.

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4.0 MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4:2014. All measurement uncertainty values are shown with a coverage factor of $k = 2$ to indicate a 95% level of confidence. The measurement uncertainty shown below meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Contribution	Expanded Uncertainty ($\pm$ dB)
Conducted Bench Top Measurements	1.13
Radiated Disturbance (<1GHz)	4.98
Radiated Disturbance (>1GHz)	5.07
Radiated Disturbance (>18GHz)	5.09

Table 4-1. Measurement Uncertainty Budget

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5.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST). Measurements antennas used during testing were calibrated in accordance to the requirements of ANSI C63.5-2017.

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
-	MD 1M 40	EMC Cable and Switch System	2/25/2025	Annual	2/25/2026	MD 1M 40
-	AP1-002	EMC Cable and Switch System	2/25/2025	Annual	2/25/2026	AP1-002
-	AP2-001	EMC Cable and Switch System	2/25/2025	Annual	2/25/2026	AP2-001
-	AP2-002	EMC Cable and Switch System	2/25/2025	Annual	2/25/2026	AP2-002
-	ETS-001	EMC Cable and Switch System	12/11/2024	Annual	12/11/2025	ETS-001
-	ETS-002	EMC Cable and Switch System	12/11/2024	Annual	12/11/2025	ETS-002
-	LTx4	Licensed Transmitter Cable Set	2/25/2025	Annual	2/25/2026	LTx4
-	LTx5	Licensed Transmitter Cable Set	2/25/2025	Annual	2/25/2026	LTx5
-	LTx6-40	Licensed Transmitter Cable Set	2/25/2025	Annual	2/25/2026	LTx6-40
-	WL40-1	Conducted Cable Set (40GHz)	2/25/2025	Annual	2/25/2026	WL40-1
-	WL40-2	Conducted Cable Set (40GHz)	2/25/2025	Annual	2/25/2026	WL40-2
Agilent	N9038A	MXE EMI Receiver	9/16/2024	Annual	11/22/2025	MY51210133
Anritsu	MT8000A	Radio Communication Test Station	6/4/2025	Annual	6/4/2026	6261914237
Anritsu	MT8821C	Radio Communication Analyze	9/15/2025	Annual	9/15/2026	6201381794
Anritsu	MT8821C	Radio Communication Analyze	3/14/2025	Annual	3/14/2026	6262044715
Anritsu	MA2411B	Pulse Power Sensor	7/3/2025	Annual	7/3/2026	1726261
EMCO	3115	Horn Antenna (1-18GHz)	9/6/2024	Biennial	9/6/2026	9704-5182
Espec	ESX-2CA	Environmental Chamber	11/20/2024	Biennial	11/20/2026	17620
ETS Lindgren	3117	1-18 GHz DRG Horn (Medium)	6/4/2025	Biennial	6/4/2027	125518
ETS-Lindgren	3164-05	Quad Ridge Horn (Small) 2 - 18GHz	6/4/2025	Biennial	6/4/2027	208255
ETS-Lindgren	3116C	DRG Horn Antenna	4/22/2025	Biennial	4/22/2027	218893
Keysight Technologies	N9030A	3Hz-44GHz PXA Signal Analyzer	9/15/2025	Annual	9/15/2026	MY49430494
Keysight Technologies	N9030A	3Hz-44GHz PXA Signal Analyzer	9/15/2025	Annual	9/15/2026	MY49430494
Keysight Technologies	N9038A	MXE EMI Receiver	9/16/2024	Annual	11/22/2025	MY51210133
Keysight Technologies	N9030A	PXA Signal Analyzer (44GHz)	6/6/2025	Annual	6/6/2026	MY52350166
Keysight Technologies	N9030A	PXA Signal Analyzer	6/16/2025	Annual	6/16/2026	MY55410501
Rohde & Schwarz	FSW67	Signal / Spectrum Analyzer	5/12/2025	Annual	5/12/2026	103200
Rohde & Schwarz	ESU40	EMI Test Receiver (40GHz)	11/25/2024	Annual	11/25/2025	100348
Rohde & Schwarz	ESW44	EMI Test Receiver 2Hz to 44 GHz	3/25/2025	Annual	3/25/2026	101716
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	6/18/2025	Annual	6/18/2026	140148
Sunol	JB5	Bi-Log Antenna (30M - 5GHz)	9/11/2024	Biennial	9/11/2026	A051107
Sunol	JB6	Bi-Log Antenna (30M - 5GHz)	3/24/2025	Biennial	3/24/2027	A082816
Sunol Sciences	DRH-118	Horn (Small)	2/13/2024	Biennial	2/13/2026	A042511

Table 5-1. Test Equipment Calibration Table

Notes:

- For equipment listed above that has a calibration date or calibration due date that falls within the test date range, care was taken to ensure that this equipment was used after the calibration date and before the calibration due date.
- Equipment with a calibration date of "N/A" shown in this list was not used to make direct calibrated measurements.

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Component	Serial Number
MegaPhase Cable, Model: TM40-K1K1-36	18160102 001
MCL 10dB Attenuator, Model: BW-K10 2W44+	1902

Table 5-2. WL40-1 Conducted Cable Set Components

Component	Serial Number
MegaPhase Cable, Model: TM40-K1K1-30	18165902 001
MCL 10dB Attenuator, Model: BW-K10 2W44+	2108

Table 5-3. WL40-2 Conducted Cable Set Components

Component	Serial Number
Keysight Directional Coupler, Model: 87300C	55300518
MCL 6dB Attenuator, Model: BW-K62W44+	2013
MegaPhase Cable, Model: TM40-K1K1-36	19026201 002

Table 5-4. LTx4 Conducted Cable Set Components

Component	Serial Number
Keysight Directional Coupler, Model: 87300C	55300519
MCL 6dB Attenuator, Model: BW-K62W44+	1905
MegaPhase Cable, Model: TM40-K1K1-36	19026201 001

Table 5-5. LTx5 Conducted Cable Set Components

Component	Serial Number
Fairview Microwave Directional Coupler, FM2CP1122-10	2122
MCL 6dB Attenuator, Model: BW-K6 2W44+	2013
MegaPhase Cable, Model: TM40-K1K1-30	20233002 003

Table 5-6. LTx6-40 Conducted Cable Set Components

Component	Serial Number
Pasternack Cable RG214/U	111815
MegaPhase (CAGE 1GVT4) Cable GR18-N5N5-24	14042714 001

Table 5-7. ETS-001 EMC Cable and Switch System Components

Component	Serial Number
MegaPhase (CAGE 1GVT4) Cable GR18-N5N5-24	14042714 001
MegaPhase (CAGE 1GVT4) Cable NC29-N1N1-324	20502201 001
Rohde & Schwarz SF Unit	102134
Minicircuits Cable CBL=0.5M-NMNM+	15440

Table 5-8. ETS-002 EMC Cable and Switch System Components

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Component	Serial Number
Sucoflex 106A Cable	501992
MegaPhase Cable N29-N1N1-324	20335606 001
Rohde & Schwarz SF Unit	102133
MiniCircuits Cable CBL-2FT-SMSM+	77745
MegaPhase Cable 10511-1	15034701 001
MiniCircuits Switch RC 2SPDT-A18	11703270 041
Sucoflex 104 Cable	320259/4
Sucoflex 104 Cable	321999/4
Sucoflex 104 Cable	321995/4

Table 5-9. AP1-002 EMC Cable and Switch System Components

Component	Serial Number
Flex Cable	P2A-0001
Micro-Coax Utilflex Cable UFB311A-Q-3346-50U50U MFR 64639	231978-003
Chamber Passthrough	CP4/X12
Micro-Coax Utilflex Cable UFB311A-1-0629-50U50U MFR 64639	231986-003
Micro-Coax Utilflex Cable UFB142A-0-0629-5GU200 MFR 6463	232069-001
Rohde & Schwarz TS-PR8 Pre-Amplifier	102335
Rohde & Schwarz OSP130 Open Switch and Control Unit	101181

Table 5-10. AP2-001 EMC Cable and Switch System Components

Component	Serial Number
MiniCircuits Cable CBL-0.5M-SMNM+	47261
Micro-Coax Utilflex Cable UFB311A-Q-3346-50U50U MFR 64639	231978-001
Micro-Coax Utilflex Cable UFB311A-1-0629-50U50U MFR 64639	231986-002
MegaPhase (CAGE 1GVT4) Cable NC29-N1N1-324	19046401 001
Megaphase (CAGE 1GVT4) Flex Cable 10511-1	15044701-006
Micro-Coax Utilflex Cable UFB311A-Q-3346-50U50U MFR 64639	231978-002
Micro-Coax Utilflex Cable UFB311A-1-0629-50U50U MFR 64639	231986-004
Micro-Coax Utilflex Cable UFB142A-0-0629-5GU200 MFR 64639	232069-001
Rohde & Schwarz SF Unit	102138
Rohde & Schwarz OSP130 Open Switch and Control Unit	101181
Micro-Coax Utilflex Cable UFB311A-Q-3346-50U50U MFR 64639	231978-003
Micro-Coax Utilflex Cable UFB311A-1-0629-50U50U MFR 64639	231986-003
Rohde & Schwarz TS-PR8 Pre-Amplifier	102335

Table 5-11. AP2-002 EMC Cable and Switch System Components

Component	Serial Number
MegaPhase Cable TM40-K1K1-30	20233002-004
UTIPLEX Cable, 64639	232063-001
Rohde & Schwarz Pre-amp TS-PR1840 18G-40G	9037.7670.02

Table 5-12. MD 1M 18-40 EMC Cable and Switch System Components

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6.0 SAMPLE EMISSION DESIGNATORS

QPSK Modulation

Emission Designator = 8M62G7D

LTE BW = 8.62 MHz

G = Phase Modulation

7 = Quantized/Digital Info

D = Data transmission, telemetry, telecommand

QAM Modulation

Emission Designator = 8M45W7D

LTE BW = 8.45 MHz

W = Amplitude/Angle Modulated

7 = Quantized/Digital Info

D = Data transmission, telemetry, telecommand

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7.0 TEST RESULTS

7.1 Summary

Company Name: Samsung Electronics Co., Ltd.
 FCC ID: A3LSMS948JPN
 FCC Classification: PCS Licensed Transmitter Held to Ear (PCE)
 Mode(s): LTE/NR

Test Condition	Test Description	FCC Part Section(s)	Test Limit	Test Result	Reference	Data Referencing
CONDUCTED	Transmitter Conducted Output Power*	2.1046(a), 2.1046(c)	N/A	PASS	Section 7.2	LTE: Yes NR: No
	Occupied Bandwidth	2.1049(h)	N/A	PASS	Section 7.3	LTE: Yes NR: No
	Conducted Band Edge / Spurious Emissions (LTE Band 41; NR Band n41)	2.1051, 27.53(m)(4)	Undesirable emissions must meet the limits detailed in 27.53(m)(4)	PASS	Sections 7.4, 7.5	LTE: Yes NR: No
	Frequency Stability	2.1055, 27.54	Fundamental emissions stay within authorized frequency block	PASS	Section 7.8	Yes
RADIATED	Equivalent Isotropic Radiated Power (LTE Band 41; NR Band n41)	27.50(h)(2)	≤ 2 Watts max. EIRP	PASS	Section 7.6	LTE: Yes NR: No
	Radiated Spurious Emissions (LTE Band 41; NR Band n41)	2.1053, 27.53(m)	Undesirable emissions must meet the limits detailed in 27.53(m)	PASS	Section 7.7	Yes

Table 7-1. Summary of Test Results

Notes:

- 1) All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.
- 2) The analyzer plots were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables, directional couplers, and attenuators used as part of the system to maintain a link between the call box and the EUT at all frequencies of interest.
- 3) All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables, attenuators, and couplers.
- 4) All conducted emissions measurements are performed with automated test software to capture the corresponding plots necessary to show compliance. The measurement software utilized is EMC Software Tool v2.3.0.
- 5) Data was referenced from model SM-S948U for the certification of SM-S948D. See Section 9.0 for spotcheck results.

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7.2 Conducted Output Power Data

Test Overview

All emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst-case configuration. All modes of operation were investigated and the worst-case configuration results are reported in this section.

A-MPR is implemented in this device when operating at Power Class 2 in LTE Band 41 per the A-MPR specification in 3GPP TS 36.101. The conducted powers are shown herein to cover the different A-MPR levels specified in the standard. Measurement equipment was set up with triggering/gating on the spectrum analyzer such that powers were measured only during the on-time of the signal.

Test Procedure Used

ANSI C63.26:2015 – Section 5.2

Test Settings

1. Span = 2 x OBW to 3 x OBW
2. Detector = RMS
3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
4. Sweep time = auto couple
5. The trace was allowed to stabilize
6. Please see test notes below for RBW and VBW settings

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

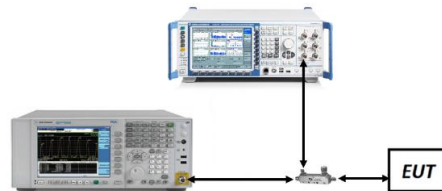


Figure 7-1. Test Instrument & Measurement Setup

Test Notes

1. Conducted power measurements were evaluated using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device.
2. All other conducted power measurements are contained in the RF exposure report for this filing.
3. Conducted power was found to reduce for the higher order QAM modulations when compared to 16QAM. Due to this trend, only the worst-case QAM (16QAM) powers are included in this section.

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Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]	
100 MHz	11/2 BPSK		505202	2546.01	1 / 1	25.73
			518598	2592.99	1 / 271	25.46
			528000	2640.00	1 / 271	25.36
			505202	2546.01	1 / 1	25.71
	QPSK		518598	2592.99	1 / 271	25.40
			528000	2640.00	1 / 271	25.36
			505202	2546.01	1 / 1	24.40
			518598	2592.99	1 / 271	24.29
	16-QAM		528000	2640.00	1 / 271	24.21
			505202	2541.00	1 / 1	25.58
			518598	2592.99	1 / 1	25.53
			528996	2644.98	1 / 1	25.56
90 MHz	11/2 BPSK		506200	2541.00	1 / 1	25.58
			518598	2592.99	1 / 243	25.49
			528996	2644.98	1 / 122	25.48
			506200	2541.00	1 / 1	24.38
	QPSK		518598	2592.99	1 / 243	24.52
			528996	2644.98	1 / 243	24.48
			507204	2536.02	1 / 1	25.79
			518598	2592.99	1 / 108	25.45
	16-QAM		528996	2649.99	1 / 1	25.44
			507204	2536.02	1 / 1	25.69
			518598	2592.99	1 / 215	25.42
			529598	2649.99	1 / 1	25.40
80 MHz	11/2 BPSK		507204	2536.02	1 / 215	24.81
			518598	2592.99	1 / 215	24.83
			529598	2649.99	1 / 215	24.66
			529598	2649.99	1 / 215	24.66
	QPSK		506202	2531.01	1 / 1	25.66
			518598	2592.99	1 / 187	25.53
			531000	2655.00	1 / 1	25.47
			506202	2531.01	1 / 1	25.64
	16-QAM		518598	2592.99	1 / 187	25.44
			531000	2655.00	1 / 1	25.41
			506202	2531.01	1 / 1	24.54
			518598	2592.99	1 / 187	24.35
70 MHz	11/2 BPSK		506200	2526.00	1 / 1	24.28
			531996	2659.98	1 / 1	25.30
			505200	2526.00	1 / 1	24.28
			518598	2592.99	1 / 180	24.25
	QPSK		531996	2659.98	1 / 1	24.17
			504204	2521.02	1 / 1	25.61
			518598	2592.99	1 / 131	25.70
			532998	2664.99	1 / 131	25.61
	16-QAM		504204	2521.02	1 / 1	25.77
			518598	2592.99	1 / 131	25.61
			532998	2664.99	1 / 131	25.53
			504204	2521.02	1 / 1	24.64
60 MHz	11/2 BPSK		503703	2518.50	1 / 1	25.77
			518598	2592.99	1 / 117	25.65
			533449	2667.50	1 / 117	25.48
			503703	2518.50	1 / 1	25.72
	QPSK		518598	2592.99	1 / 117	25.59
			533449	2667.50	1 / 1	25.41
			503703	2518.50	1 / 1	24.59
			518598	2592.99	1 / 117	24.45
	16-QAM		533449	2667.50	1 / 117	24.45
			533449	2667.50	1 / 117	24.45
			533449	2667.50	1 / 117	24.45
			533449	2667.50	1 / 117	24.45
50 MHz	11/2 BPSK		503202	2516.01	1 / 1	25.61
			518598	2592.99	1 / 104	25.43
			534000	2670.00	1 / 53	25.24
			503202	2516.01	1 / 1	24.41
	QPSK		518598	2592.99	1 / 104	24.33
			534000	2670.00	1 / 53	24.17
			502701	2513.50	1 / 46	25.78
			518598	2592.99	1 / 46	25.55
	16-QAM		534448	2672.50	1 / 46	25.49
			502701	2513.50	1 / 1	25.66
			518598	2592.99	1 / 80	25.48
			534448	2672.50	1 / 46	25.40
45 MHz	11/2 BPSK		502701	2513.50	1 / 46	25.40
			518598	2592.99	1 / 76	25.57
			534996	2674.98	1 / 1	25.55
			502200	2511.00	1 / 1	25.74
	QPSK		518598	2592.99	1 / 76	25.51
			534996	2674.98	1 / 1	25.50
			502200	2511.00	1 / 1	24.47
			518598	2592.99	1 / 76	24.32
	16-QAM		534996	2674.98	1 / 1	24.19
			501702	2508.50	1 / 32	25.82
			518598	2592.99	1 / 32	25.56
			535497	2677.50	1 / 1	25.51
40 MHz	11/2 BPSK		501702	2508.50	1 / 1	25.70
			518598	2592.99	1 / 63	25.49
			535497	2677.50	1 / 1	25.48
			501702	2508.50	1 / 1	24.40
	QPSK		518598	2592.99	1 / 63	24.20
			535497	2677.50	1 / 1	24.11
			501204	2506.02	1 / 25	25.62
			518598	2592.99	1 / 25	25.49
	16-QAM		535998	2679.99	1 / 25	25.42
			501204	2506.02	1 / 25	25.52
			518598	2592.99	1 / 49	25.32
			535998	2679.99	1 / 49	24.36
35 MHz	11/2 BPSK		535998	2679.99	1 / 49	24.18
			500706	2503.50	1 / 19	25.70
			518598	2592.99	1 / 1	25.51
			536449	2682.50	1 / 1	25.47
	QPSK		500706	2503.50	1 / 19	25.64
			518598	2592.99	1 / 36	25.42
			536449	2682.50	1 / 19	25.39
			500706	2503.50	1 / 19	24.46
	16-QAM		518598	2592.99	1 / 36	24.28
			536449	2682.50	1 / 36	24.29
			500208	2501.00	1 / 22	25.74
			518598	2592.99	1 / 1	25.62
30 MHz	11/2 BPSK		537000	2685.00	1 / 1	25.44
			500208	2501.00	1 / 22	25.66
			518598	2592.99	1 / 1	25.34
			537000	2685.00	1 / 1	25.32
	QPSK		500208	2501.00	1 / 1	24.47
			518598	2592.99	1 / 1	24.21
			537000	2685.00	1 / 1	24.20
			500208	2501.00	1 / 1	24.20

Table 7-2. Conducted Power Results – NR Band n41 – Main – Ant1

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Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]	
100 MHz	W/2 BPSK		509202	2546.01	1 / 271	25.46
			518598	2592.99	1 / 271	25.77
			528000	2640.00	1 / 1	25.55
			509202	2546.01	1 / 271	25.40
	QPSK		518598	2592.99	1 / 271	25.80
			528000	2640.00	1 / 1	25.50
			509202	2546.01	1 / 271	24.34
			518598	2592.99	1 / 271	24.54
	15-QAM		528000	2640.00	1 / 1	24.41
			509202	2541.00	1 / 243	25.36
			518598	2592.99	1 / 243	25.71
			528000	2644.98	1 / 1	25.63
90 MHz	W/2 BPSK		508200	2541.00	1 / 243	25.40
			518598	2592.99	1 / 243	25.63
			528000	2644.98	1 / 1	25.53
			508200	2541.00	1 / 243	24.28
	QPSK		518598	2592.99	1 / 243	24.46
			528000	2644.98	1 / 1	24.45
			507204	2536.02	1 / 1	25.28
			518598	2592.99	1 / 215	25.70
	15-QAM		528000	2649.99	1 / 1	25.64
			507204	2536.02	1 / 1	25.26
			518598	2592.99	1 / 215	25.55
			528000	2649.99	1 / 1	24.58
80 MHz	W/2 BPSK		528000	2649.99	1 / 215	24.53
			507204	2536.02	1 / 1	24.44
			518598	2592.99	1 / 215	25.28
			528000	2649.99	1 / 215	25.70
	QPSK		528000	2649.99	1 / 215	25.68
			507204	2536.02	1 / 1	25.26
			518598	2592.99	1 / 215	25.55
			528000	2649.99	1 / 215	24.08
	15-QAM		506202	2531.01	1 / 215	24.53
			528000	2649.99	1 / 1	24.54
			506202	2531.01	1 / 184	25.20
			518598	2592.99	1 / 187	25.68
70 MHz	W/2 BPSK		518598	2592.99	1 / 187	25.68
			531000	2655.00	1 / 1	25.67
			506202	2531.01	1 / 184	25.19
			518598	2592.99	1 / 187	25.73
	QPSK		531000	2655.00	1 / 1	25.63
			506202	2531.01	1 / 187	24.17
			518598	2592.99	1 / 187	24.57
			531000	2655.00	1 / 1	24.50
	15-QAM		506200	2536.00	1 / 1	25.16
			518598	2592.99	1 / 160	25.85
			531000	2659.98	1 / 160	25.08
			506200	2536.00	1 / 1	23.98
60 MHz	W/2 BPSK		518598	2592.99	1 / 160	24.30
			531000	2659.98	1 / 160	24.24
			504204	2521.02	1 / 131	25.50
			518598	2592.99	1 / 131	25.81
	QPSK		532998	2664.99	1 / 1	25.61
			504204	2521.02	1 / 131	25.46
			518598	2592.99	1 / 131	25.75
			532998	2664.99	1 / 1	25.55
	15-QAM		504204	2521.02	1 / 131	24.19
			518598	2592.99	1 / 131	24.57
			532998	2664.99	1 / 1	24.27
			503703	2518.50	1 / 117	25.46
45 MHz	W/2 BPSK		518598	2592.99	1 / 117	25.80
			533440	2667.50	1 / 1	25.65
			503703	2518.50	1 / 117	25.44
			518598	2592.99	1 / 117	25.72
	QPSK		533440	2667.50	1 / 1	25.54
			503703	2518.50	1 / 117	24.14
			518598	2592.99	1 / 117	24.61
			533440	2667.50	1 / 1	24.43
	15-QAM		503202	2516.01	1 / 53	25.16
			518598	2592.99	1 / 104	25.59
			534000	2670.00	1 / 1	25.33
			503202	2516.01	1 / 1	25.15
40 MHz	W/2 BPSK		518598	2592.99	1 / 104	25.55
			534000	2670.00	1 / 1	25.28
			503202	2516.01	1 / 1	23.99
			518598	2592.99	1 / 104	24.40
	QPSK		534000	2670.00	1 / 1	24.14
			502701	2513.50	1 / 46	25.40
			518598	2592.99	1 / 90	25.67
			534448	2672.50	1 / 1	25.42
	15-QAM		502701	2513.50	1 / 46	25.34
			518598	2592.99	1 / 90	25.62
			534448	2672.50	1 / 1	25.36
			502701	2513.50	1 / 90	24.10
35 MHz	W/2 BPSK		518598	2592.99	1 / 90	24.44
			534448	2672.50	1 / 1	24.22
			502200	2511.00	1 / 1	25.37
			518598	2592.99	1 / 76	25.72
	QPSK		534996	2674.98	1 / 1	25.40
			502200	2511.00	1 / 1	25.29
			518598	2592.99	1 / 76	25.66
			534996	2674.98	1 / 1	25.32
	15-QAM		502200	2511.00	1 / 76	23.98
			518598	2592.99	1 / 76	24.35
			534996	2674.98	1 / 1	24.21
			501702	2508.50	1 / 1	25.34
30 MHz	W/2 BPSK		518598	2592.99	1 / 63	25.68
			535497	2677.50	1 / 1	25.35
			501702	2508.50	1 / 32	25.27
			518598	2592.99	1 / 63	25.60
	QPSK		535497	2677.50	1 / 1	25.29
			501702	2508.50	1 / 1	23.97
			518598	2592.99	1 / 63	24.31
			535497	2677.50	1 / 1	24.06
	15-QAM		501204	2506.02	1 / 1	25.30
			518598	2592.99	1 / 25	25.36
			535998	2679.99	1 / 1	25.25
			501204	2506.02	1 / 1	25.23
25 MHz	W/2 BPSK		518598	2592.99	1 / 25	25.49
			535998	2679.99	1 / 1	25.13
			501204	2506.02	1 / 25	24.06
			518598	2592.99	1 / 25	24.35
	QPSK		535998	2679.99	1 / 1	24.00
			500706	2503.50	1 / 36	25.37
			518598	2592.99	1 / 36	25.63
			536449	2682.50	1 / 1	25.24
	15-QAM		500706	2503.50	1 / 19	25.29
			518598	2592.99	1 / 36	25.49
			536449	2682.50	1 / 1	25.15
			500706	2503.50	1 / 1	24.15
20 MHz	W/2 BPSK		518598	2592.99	1 / 36	24.39
			536449	2682.50	1 / 1	24.05
			500208	2501.00	1 / 1	25.24
			518598	2592.99	1 / 22	25.64
	QPSK		537000	2685.00	1 / 22	25.14
			500208	2501.00	1 / 22	25.22
			518598	2592.99	1 / 1	25.49
			537000	2685.00	1 / 22	25.06
	15-QAM		500208	2501.00	1 / 22	23.97
			518598	2592.99	1 / 1	24.38
			537000	2685.00	1 / 22	23.78
			500208	2501.00	1 / 22	23.78

Table 7-3. Conducted Power Results – NR Band n41 – Switch – Ant1

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 20 of 120

Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
20 MHz	QPSK	39750	2506.0	1 / 50	24.91
		40620	2593.0	1 / 0	24.86
		41490	2680.0	1 / 0	24.73
	16-QAM	39750	2506.0	1 / 50	23.35
15 MHz	QPSK	39725	2503.5	1 / 74	24.08
		40620	2593.0	1 / 37	24.44
		41515	2682.5	1 / 37	24.25
	16-QAM	39725	2503.5	1 / 74	23.13
10 MHz	QPSK	39700	2501.0	1 / 49	23.98
		40620	2593.0	1 / 25	24.51
		41540	2685.0	1 / 25	24.25
	16-QAM	40620	2593.0	1 / 25	23.55
5 MHz	QPSK	39675	2498.5	1 / 12	24.09
		40620	2593.0	1 / 12	24.50
		41565	2687.5	1 / 12	24.30
	16-QAM	40620	2593.0	1 / 12	23.59

Table 7-4. Conducted Power Results – LTE Band 41 PC3– Ant1

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 21 of 120

7.3 Occupied Bandwidth

Test Overview

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Procedure Used

ANSI C63.26:2015 – Section 5.4.4

Test Settings

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth and the 26dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 1 – 5% of the expected OBW
3. VBW $\geq 3 \times$ RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. The trace was allowed to stabilize
8. If necessary, steps 2 – 7 were repeated after changing the RBW such that it would be within 1 – 5% of the 99% occupied bandwidth observed in Step 7

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

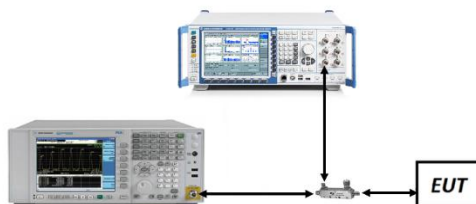


Figure 7-2. Test Instrument & Measurement Setup

Test Notes

Only the highest target power SRS-1 antenna for n41 default (Antenna F) and n41 switching (Antenna B) are reported for the overall n41 SRS worst case.

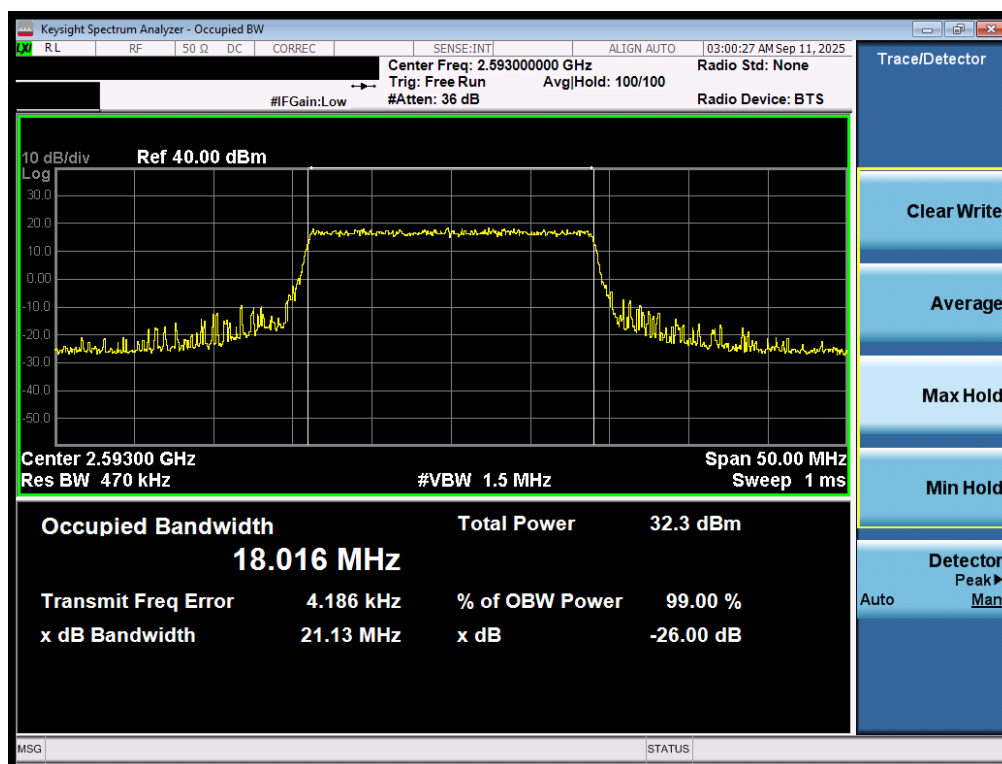
FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 22 of 120

Mode	Bandwidth	Modulation	OBW [MHz]
LTE-B41PC3	20MHz	QPSK	18.02
		16QAM	18.07
	15MHz	QPSK	13.55
		16QAM	13.57
	10MHz	QPSK	9.07
		16QAM	9.04
	5MHz	QPSK	4.53
		16QAM	4.52

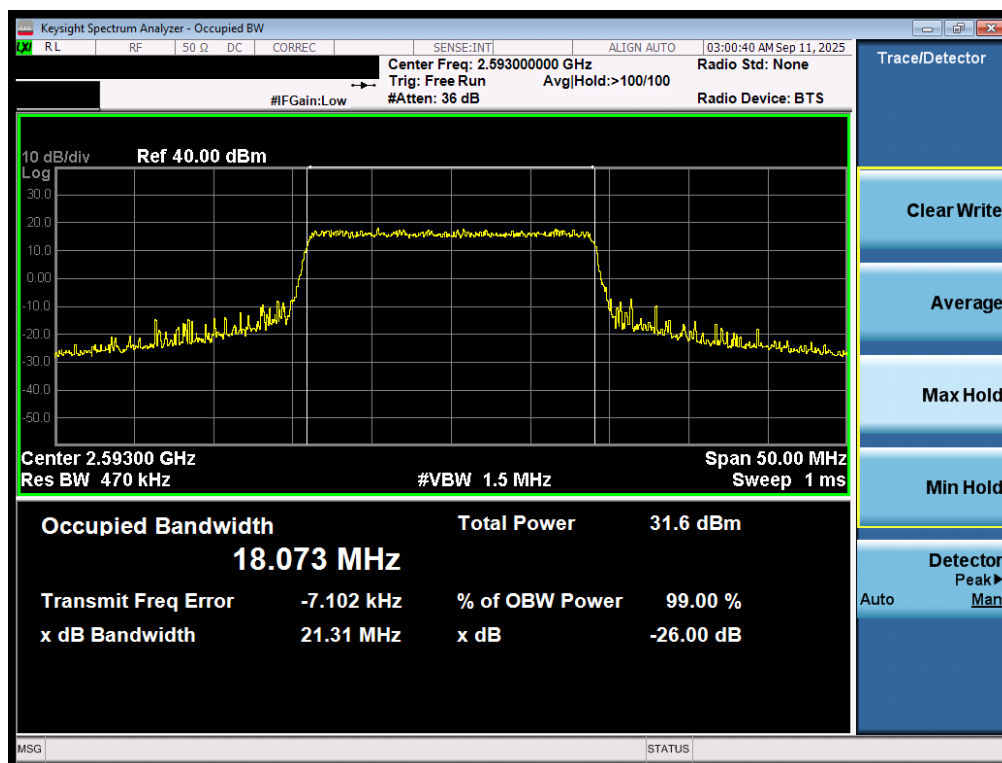
Table 7-5. Occupied Bandwidth Test Results – LTE – Ant 1

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 23 of 120

LTE Band 41(PC3) – Ant1

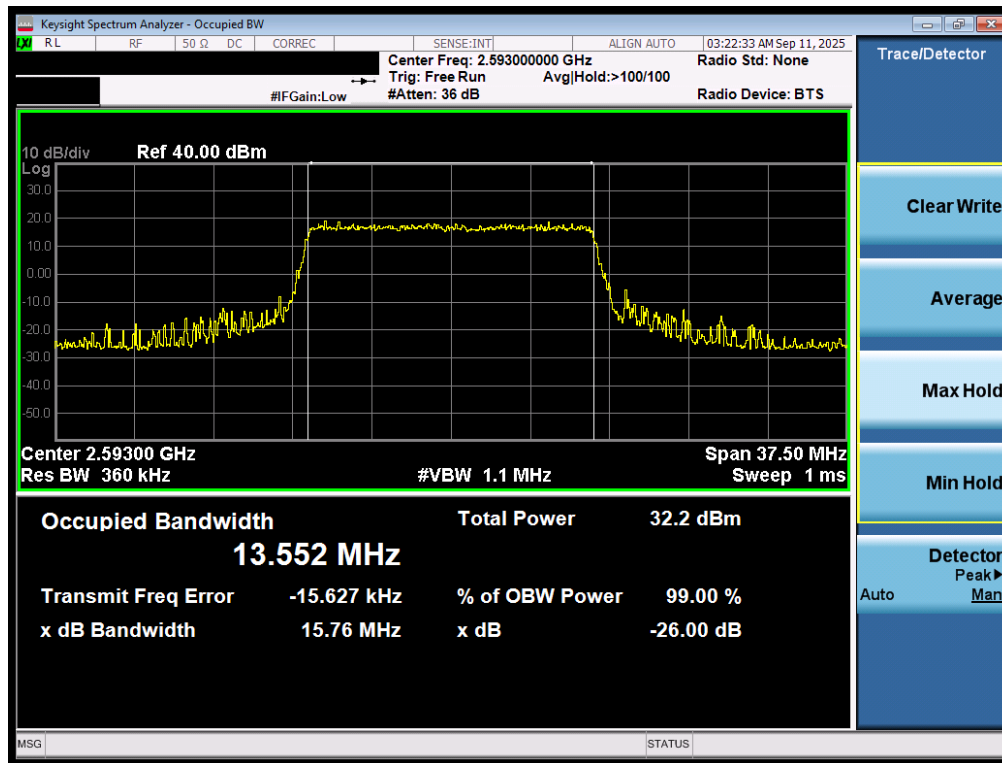


Plot 7-1. Occupied Bandwidth Plot (LTE Band 41(PC3) - 20MHz QPSK - Full RB - Ant1)

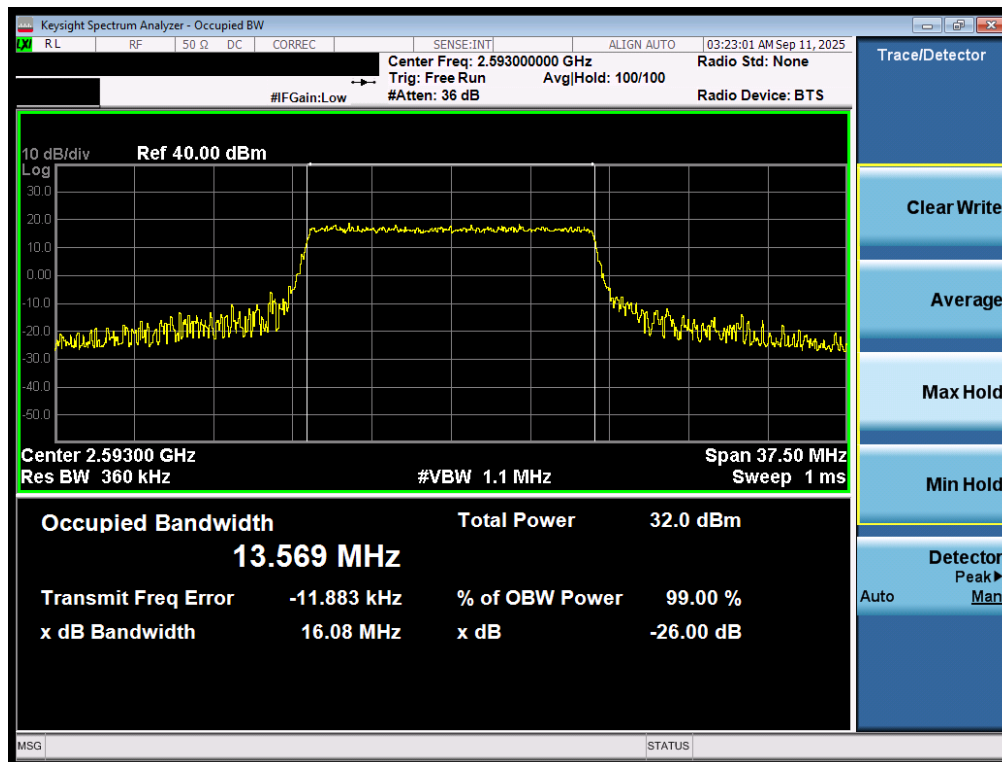


Plot 7-2. Occupied Bandwidth Plot (LTE Band 41(PC3) - 20MHz 16-QAM - Full RB - Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 24 of 120



Plot 7-3. Occupied Bandwidth Plot (LTE Band 41(PC3) - 15MHz QPSK - Full RB - Ant1)



Plot 7-4. Occupied Bandwidth Plot (LTE Band 41(PC3) - 15MHz 16-QAM - Full RB - Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 25 of 120



Plot 7-5. Occupied Bandwidth Plot (LTE Band 41(PC3) - 10MHz QPSK - Full RB - Ant1)

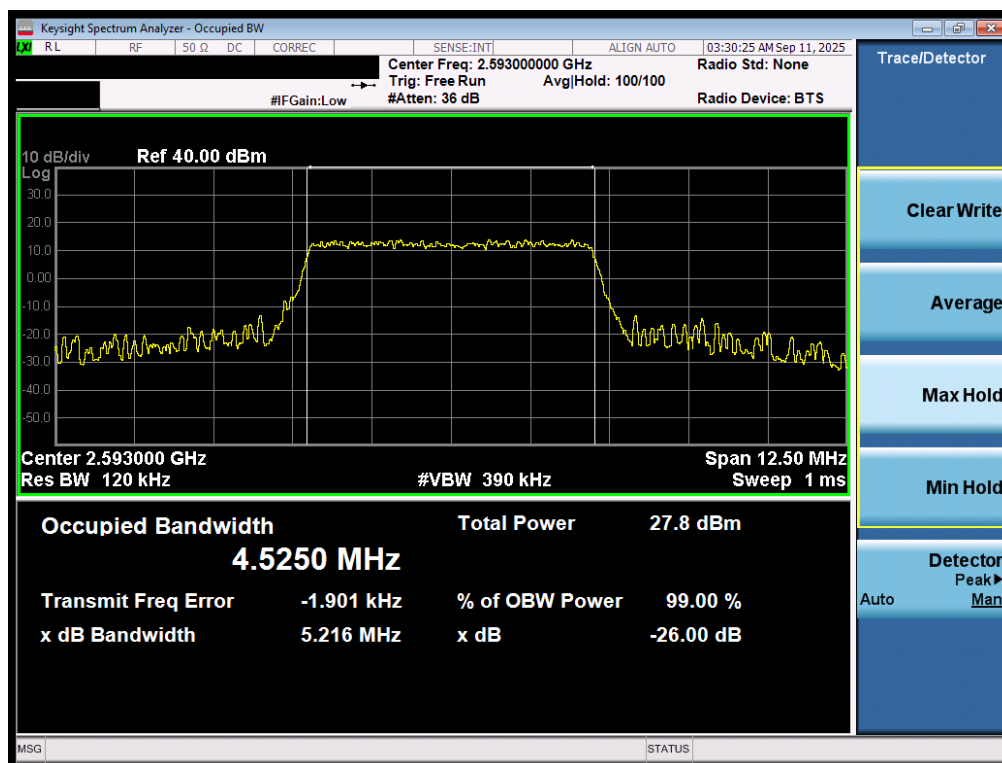


Plot 7-6. Occupied Bandwidth Plot (LTE Band 41(PC3) - 10MHz 16-QAM - Full RB - Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-7. Occupied Bandwidth Plot (LTE Band 41(PC3) - 5MHz QPSK - Full RB - Ant1)



Plot 7-8. Occupied Bandwidth Plot (LTE Band 41(PC3) - 5MHz 16-QAM - Full RB - Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 27 of 120

Mode	Bandwidth	Modulation	OBW [MHz]
NR-n41PC2	100MHz	$\pi/2$ BPSK	97.07
		QPSK	96.64
		16QAM	97.08
	90MHz	$\pi/2$ BPSK	87.31
		QPSK	87.11
		16QAM	87.26
	80MHz	$\pi/2$ BPSK	77.31
		QPSK	77.41
		16QAM	77.22
	70MHz	$\pi/2$ BPSK	64.40
		QPSK	64.38
		16QAM	64.57
	60MHz	$\pi/2$ BPSK	57.99
		QPSK	58.01
		16QAM	58.35
	50MHz	$\pi/2$ BPSK	45.90
		QPSK	45.94
		16QAM	46.05
	45MHz	$\pi/2$ BPSK	38.71
		QPSK	38.75
		16QAM	38.74
	40MHz	$\pi/2$ BPSK	35.85
		QPSK	35.98
		16QAM	35.87
	35MHz	$\pi/2$ BPSK	32.33
		QPSK	33.00
		16QAM	32.98
	30MHz	$\pi/2$ BPSK	27.00
		QPSK	27.01
		16QAM	27.03
	25MHz	$\pi/2$ BPSK	22.94
		QPSK	23.31
		16QAM	23.32
	20MHz	$\pi/2$ BPSK	18.01
		QPSK	18.04
		16QAM	18.03
	15MHz	$\pi/2$ BPSK	13.01
		QPSK	13.02
		16QAM	13.05
	10MHz	$\pi/2$ BPSK	8.71
		QPSK	8.68
		16QAM	8.67

Table 7-6. Occupied Bandwidth Test Results – NR n41 Default – Ant 1

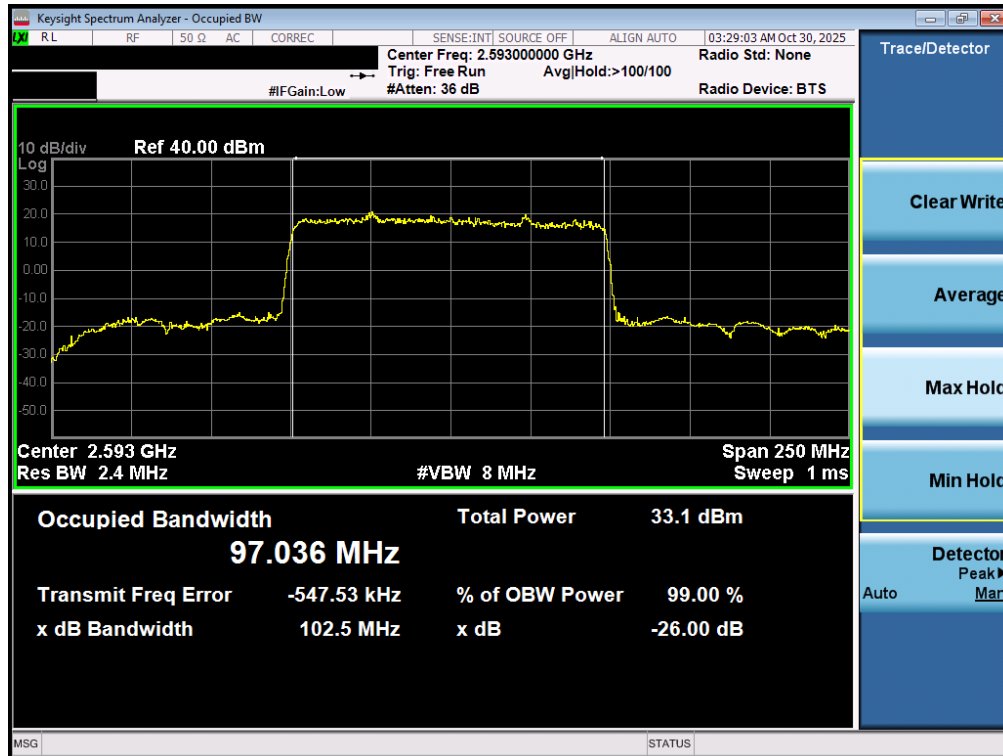
FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 28 of 120

Mode	Bandwidth	Modulation	OBW [MHz]
NR-n41PC2	100MHz	$\pi/2$ BPSK	96.87
		QPSK	96.69
		16QAM	96.71
	90MHz	$\pi/2$ BPSK	87.14
		QPSK	86.98
		16QAM	87.27
	80MHz	$\pi/2$ BPSK	77.39
		QPSK	77.54
		16QAM	77.24
	70MHz	$\pi/2$ BPSK	64.38
		QPSK	64.47
		16QAM	64.62
	60MHz	$\pi/2$ BPSK	57.95
		QPSK	58.18
		16QAM	58.20
	50MHz	$\pi/2$ BPSK	45.93
		QPSK	46.02
		16QAM	46.13
	45MHz	$\pi/2$ BPSK	38.78
		QPSK	38.70
		16QAM	38.84
	40MHz	$\pi/2$ BPSK	35.96
		QPSK	35.98
		16QAM	35.89
	35MHz	$\pi/2$ BPSK	32.33
		QPSK	33.00
		16QAM	32.98
	30MHz	$\pi/2$ BPSK	27.03
		QPSK	27.03
		16QAM	27.00
	25MHz	$\pi/2$ BPSK	22.94
		QPSK	23.31
		16QAM	23.32
	20MHz	$\pi/2$ BPSK	18.00
		QPSK	18.02
		16QAM	18.03
	15MHz	$\pi/2$ BPSK	13.01
		QPSK	13.00
		16QAM	13.05
	10MHz	$\pi/2$ BPSK	8.72
		QPSK	8.67
		16QAM	8.71

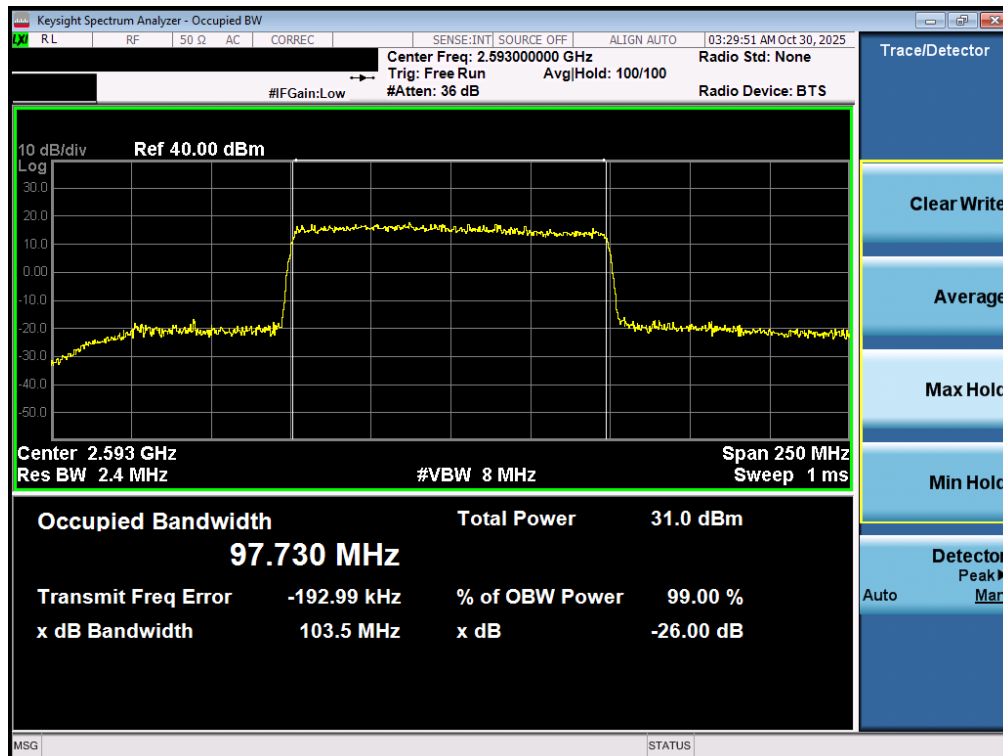
Table 7-7. Occupied Bandwidth Test Results – NR n41 switch – Ant 1

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 29 of 120

NR Band n41 PC2 – Default – Ant1

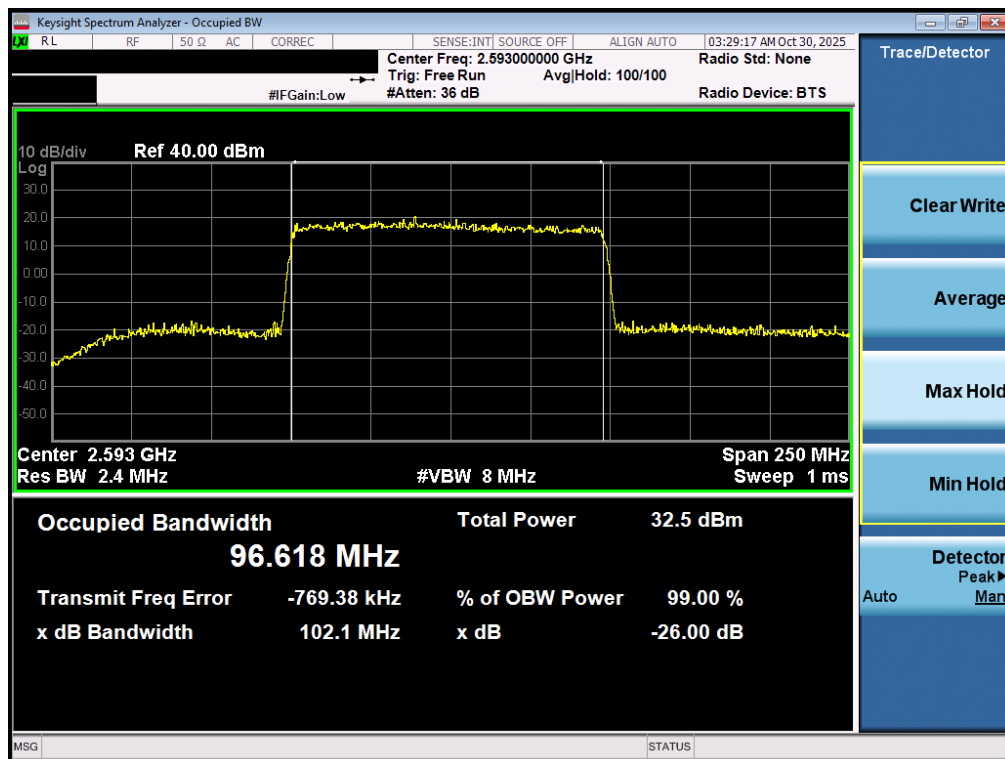


Plot 7-9. Occupied Bandwidth Plot (NR Band n41 PC2 – 100MHz $\pi/2$ BPSK – Full RB – Default – Ant1)

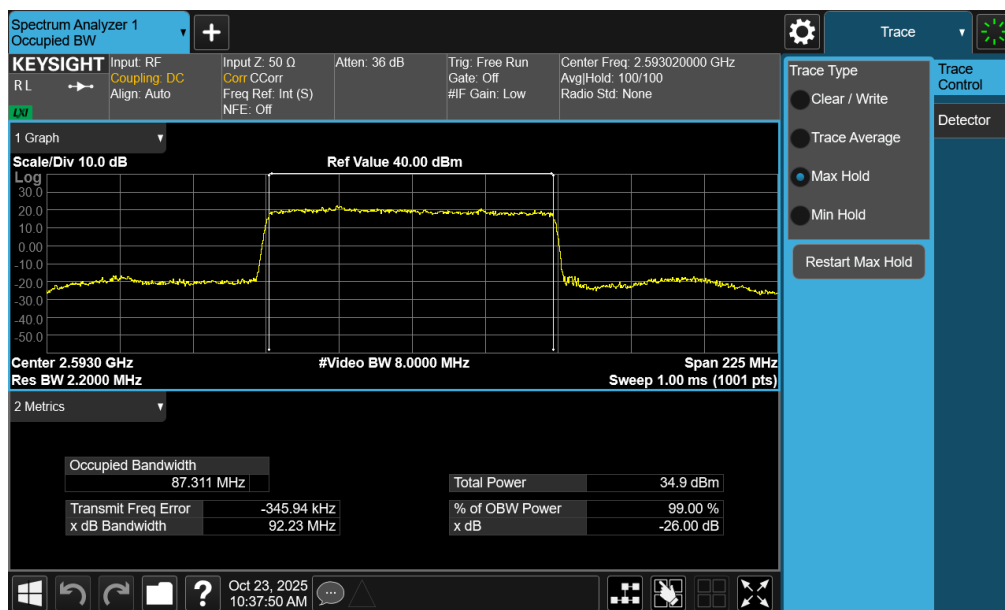


Plot 7-10. Occupied Bandwidth Plot (NR Band n41 PC2 – 100MHz QPSK – Full RB – Default – Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 30 of 120

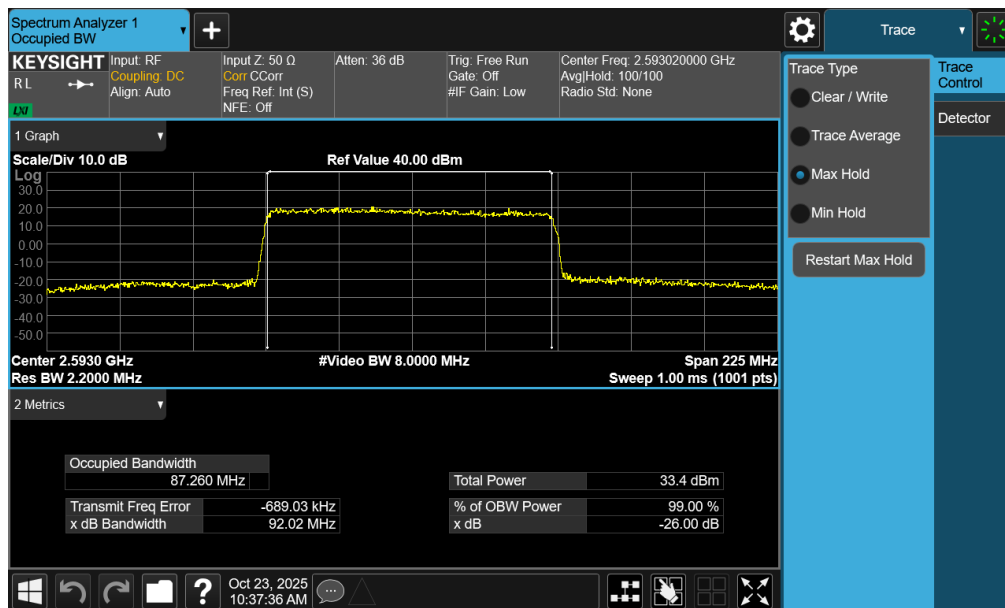
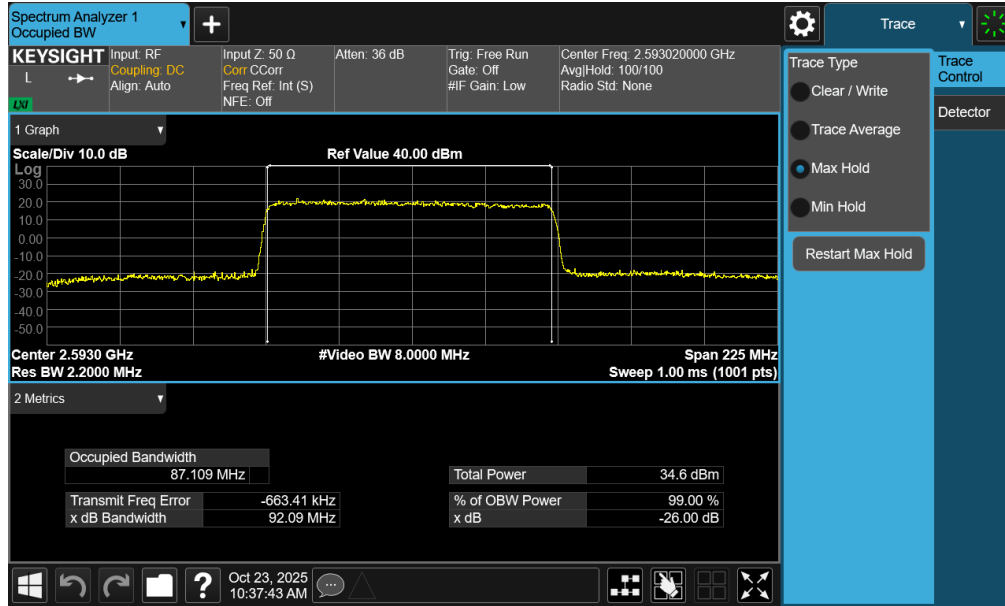


Plot 7-11. Occupied Bandwidth Plot (NR Band n41 PC2 – 100MHz 16-QAM – Full RB – Default – Ant1)

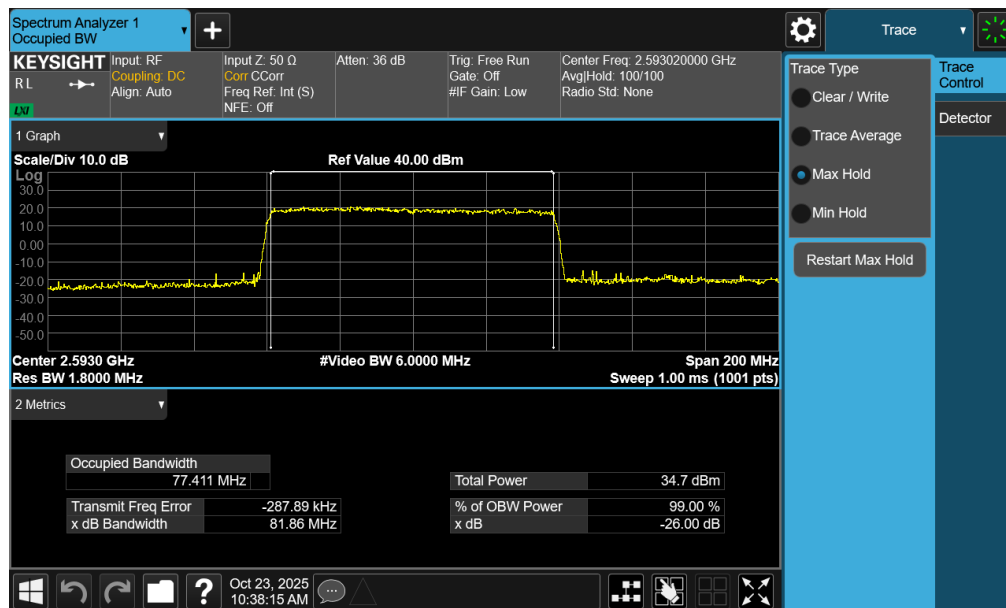
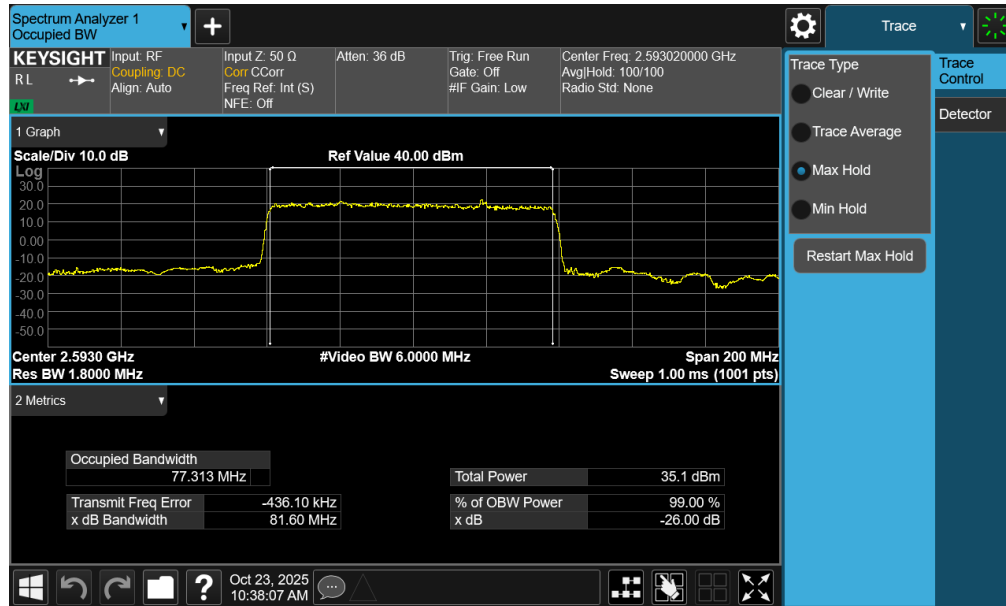


Plot 7-12. Occupied Bandwidth Plot (NR Band n41 PC2 – 90MHz $\pi/2$ BPSK – Full RB – Default – Ant1)

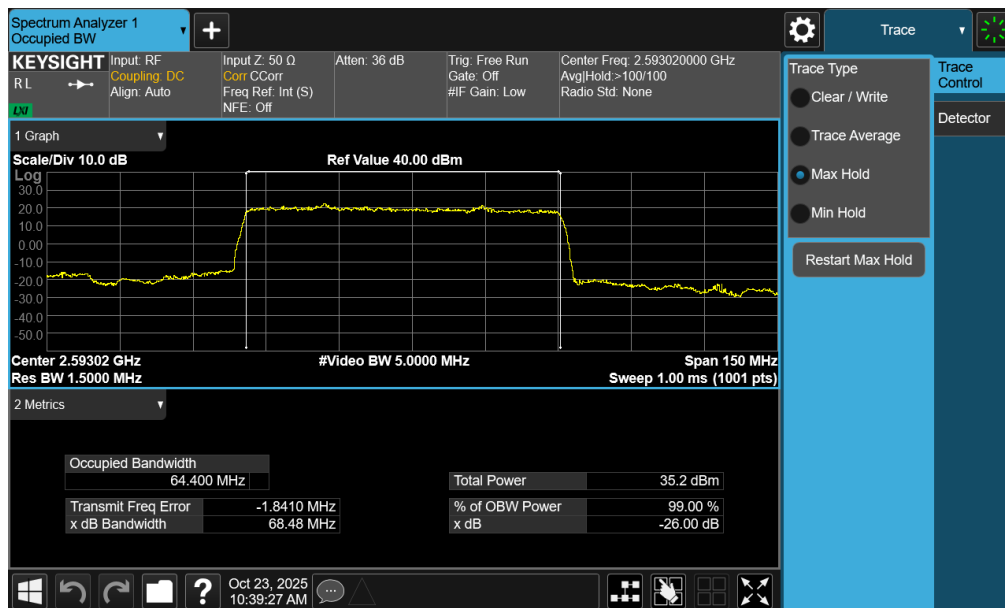
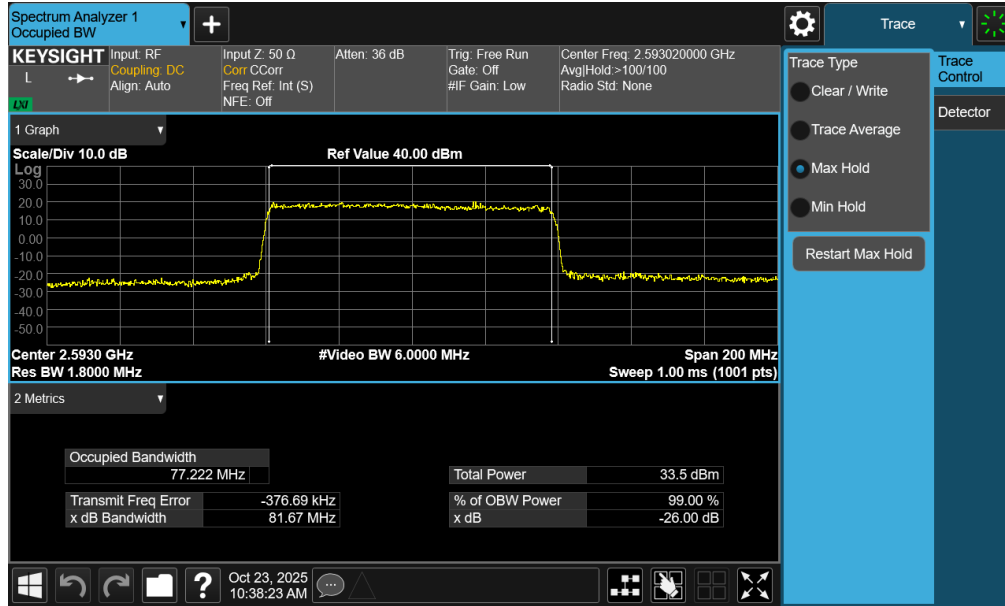
FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 31 of 120



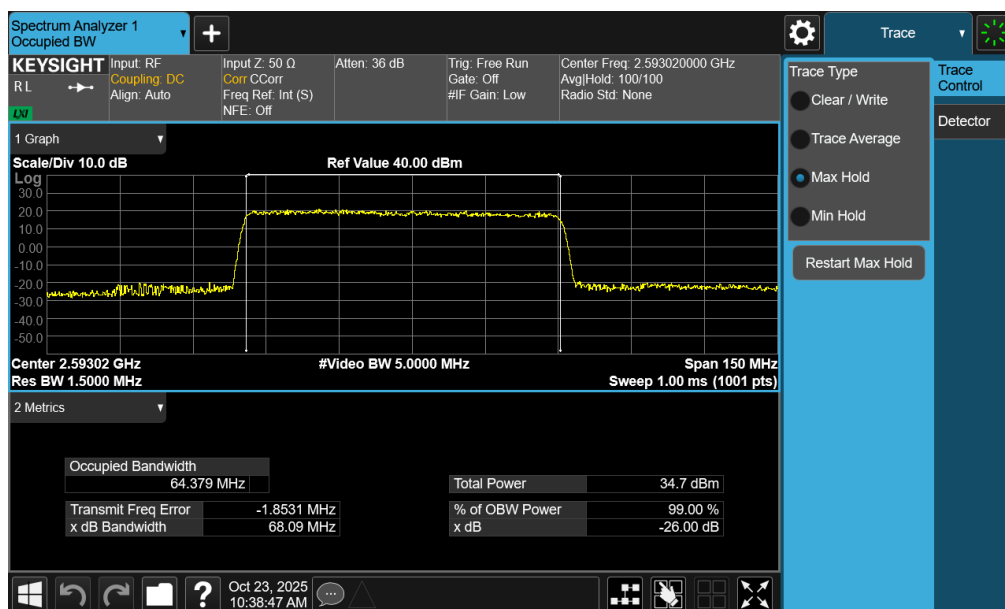
FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 32 of 120



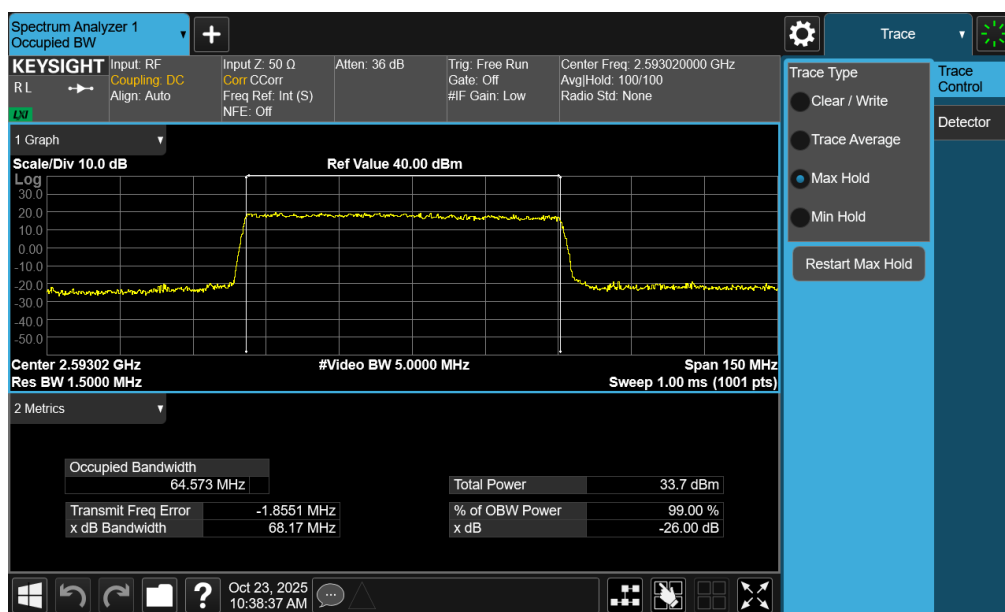
FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 33 of 120



FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 34 of 120

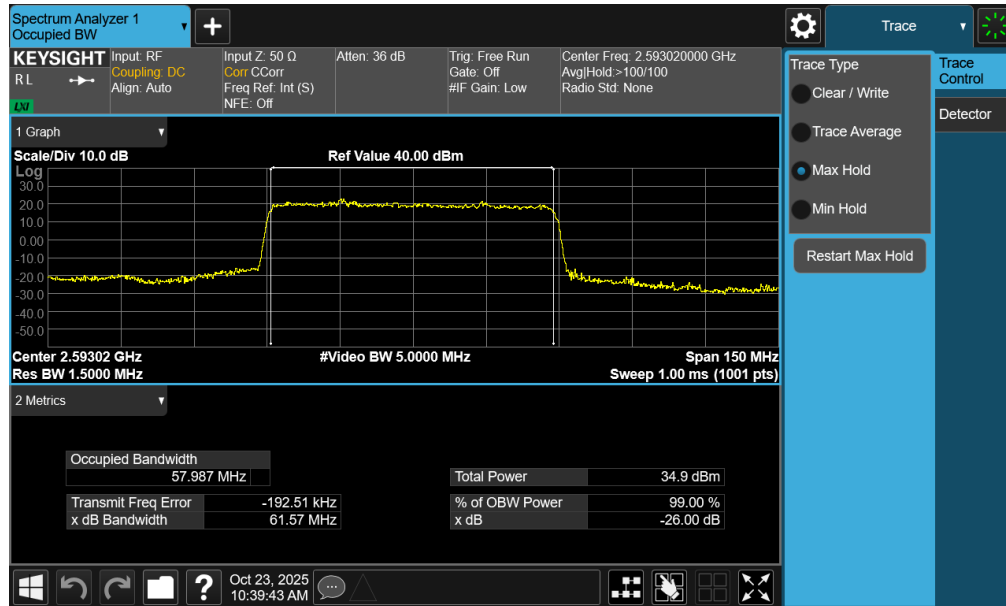


Plot 7-19. Occupied Bandwidth Plot (NR Band n41 PC2 – 70MHz QPSK – Full RB – Default – Ant1)

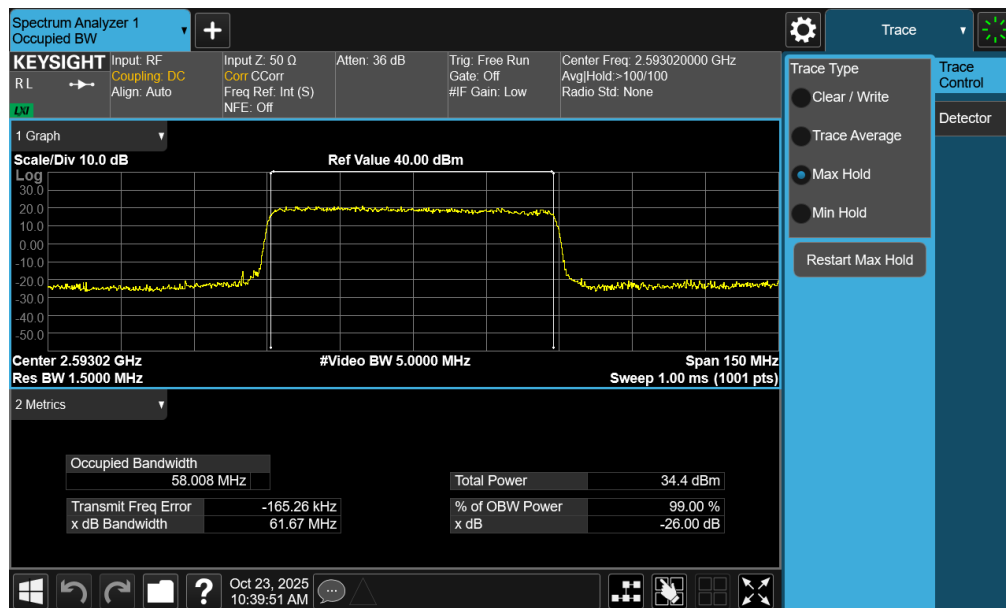


Plot 7-20. Occupied Bandwidth Plot (NR Band n41 PC2 – 70MHz 16-QAM – Full RB – Default – Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 35 of 120

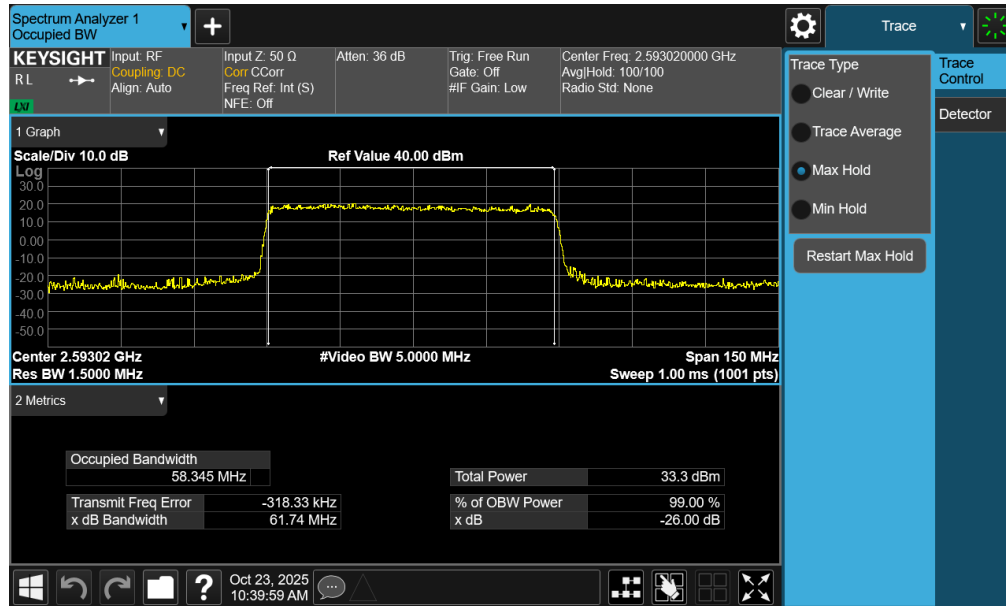


Plot 7-21. Occupied Bandwidth Plot (NR Band n41 PC2 – 60MHz $\pi/2$ BPSK – Full RB – Default – Ant1)

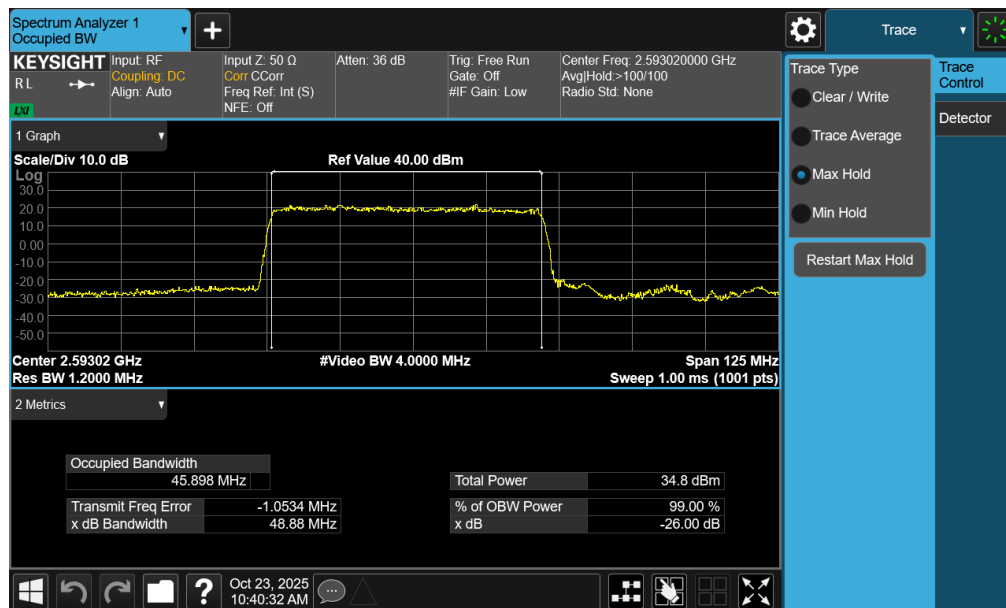


Plot 7-22. Occupied Bandwidth Plot (NR Band n41 PC2 – 60MHz QPSK – Full RB – Default – Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05.A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 36 of 120

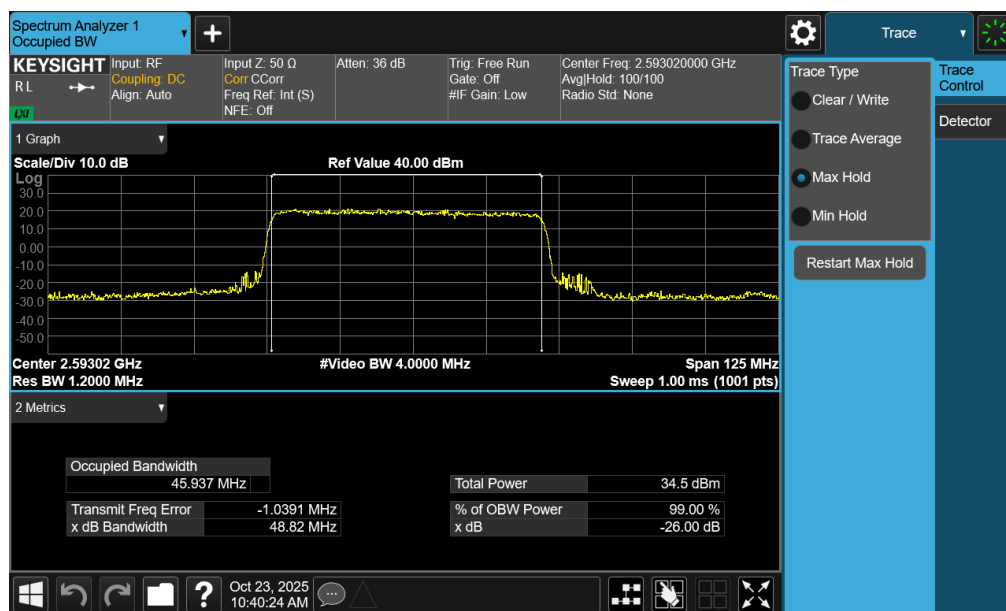


Plot 7-23. Occupied Bandwidth Plot (NR Band n41 PC2 – 60MHz 16-QAM – Full RB – Default – Ant1)

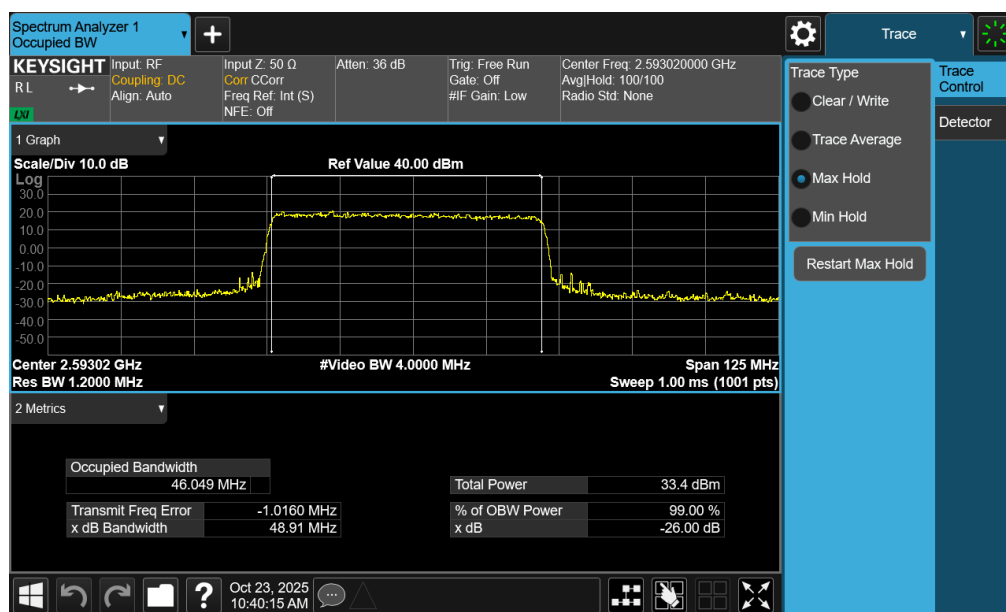


Plot 7-24. Occupied Bandwidth Plot (NR Band n41 PC2 – 50MHz $\pi/2$ BPSK – Full RB – Default – Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508270082-05_A3L	Test Dates: 9/2/2025 - 10/31/2025	EUT Type: Portable Handset	Page 37 of 120

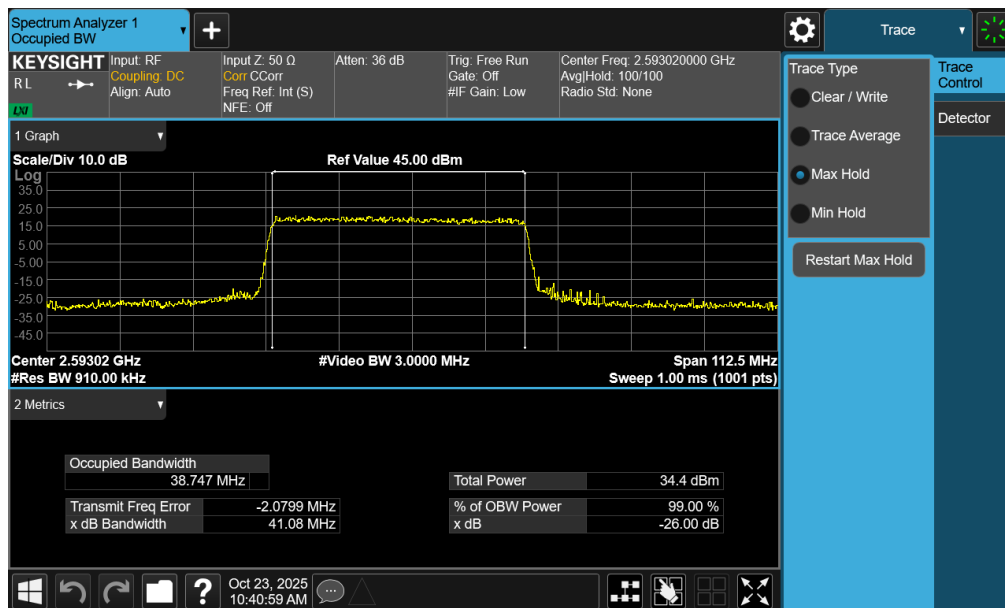
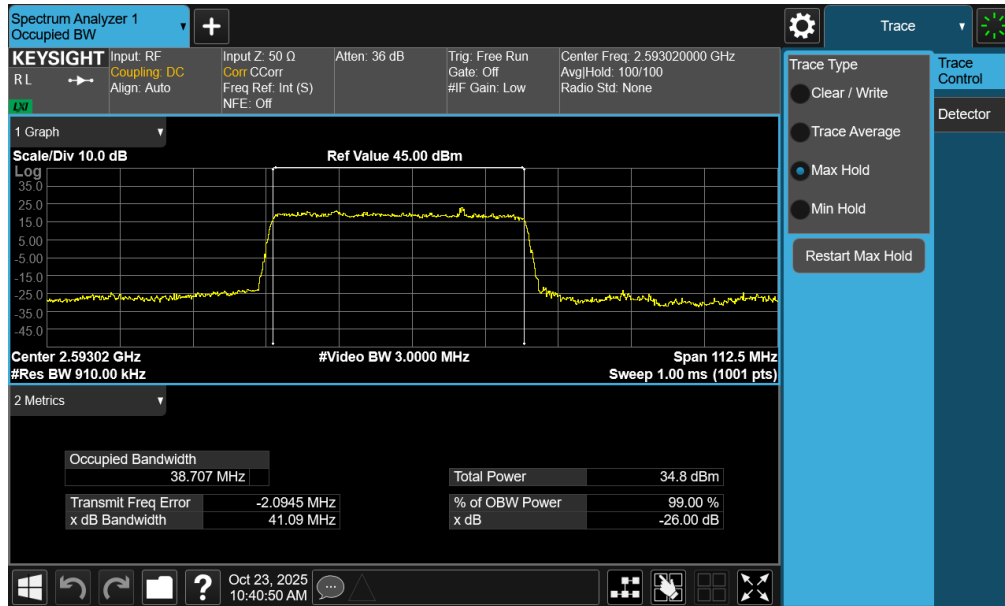


Plot 7-25. Occupied Bandwidth Plot (NR Band n41 PC2 – 50MHz QPSK – Full RB – Default – Ant1)

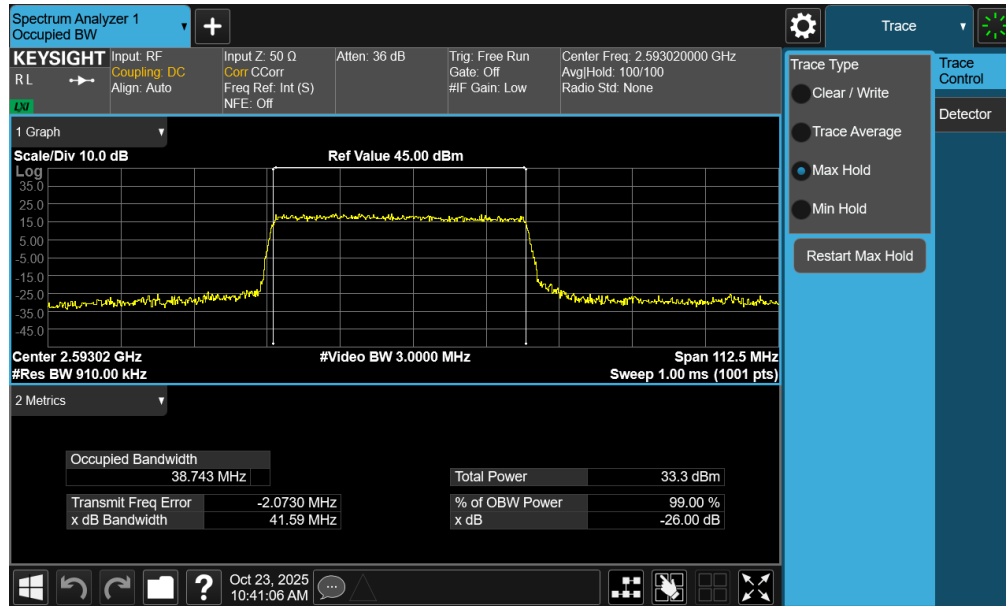


Plot 7-26. Occupied Bandwidth Plot (NR Band n41 PC2 – 50MHz 16-QAM – Full RB – Default – Ant1)

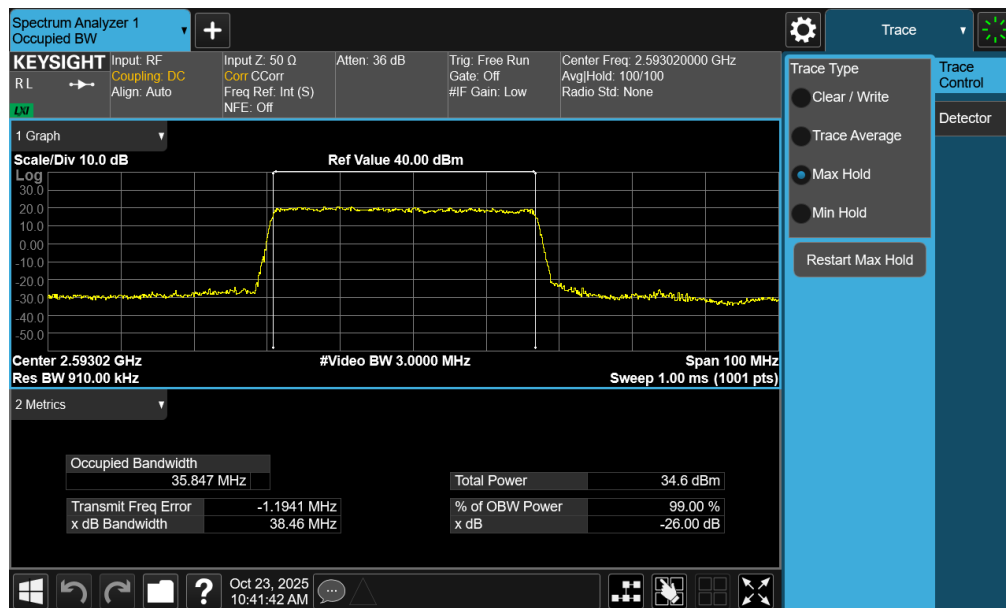
FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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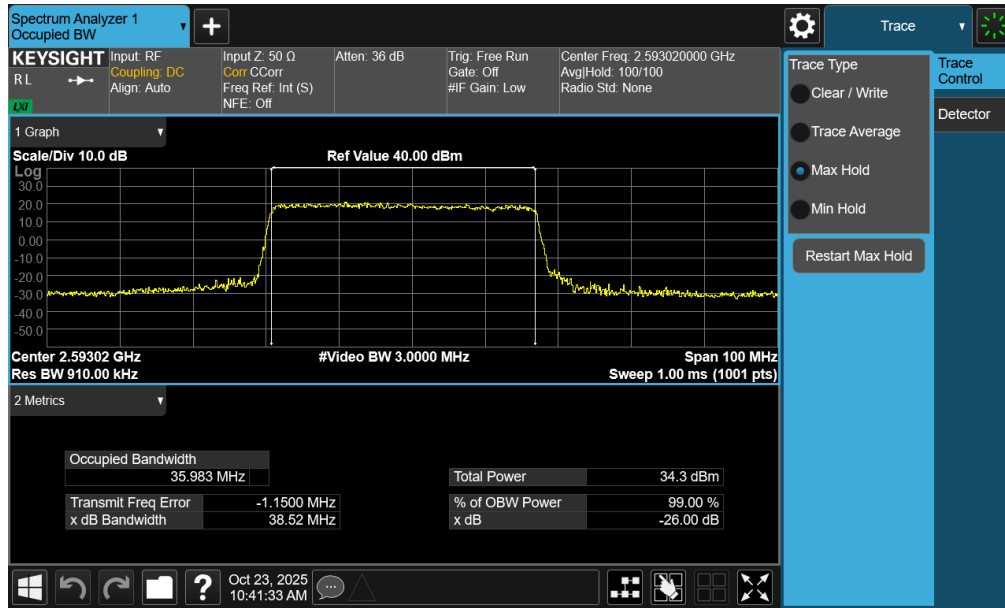


Plot 7-29. Occupied Bandwidth Plot (NR Band n41 PC2 – 45MHz 16-QAM – Full RB – Default – Ant1)

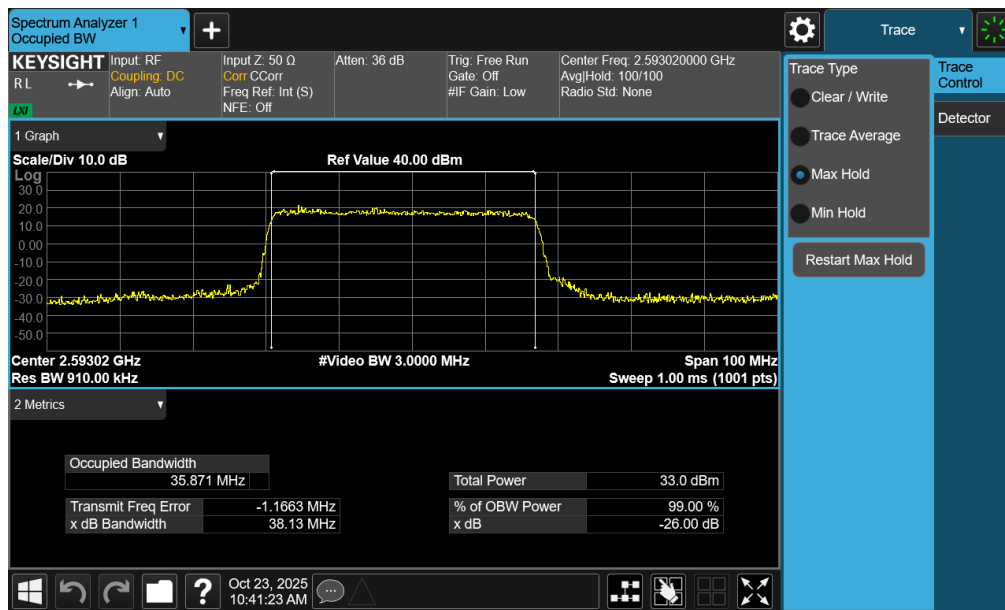


Plot 7-30. Occupied Bandwidth Plot (NR Band n41 PC2 – 40MHz $\pi/2$ BPSK – Full RB – Default – Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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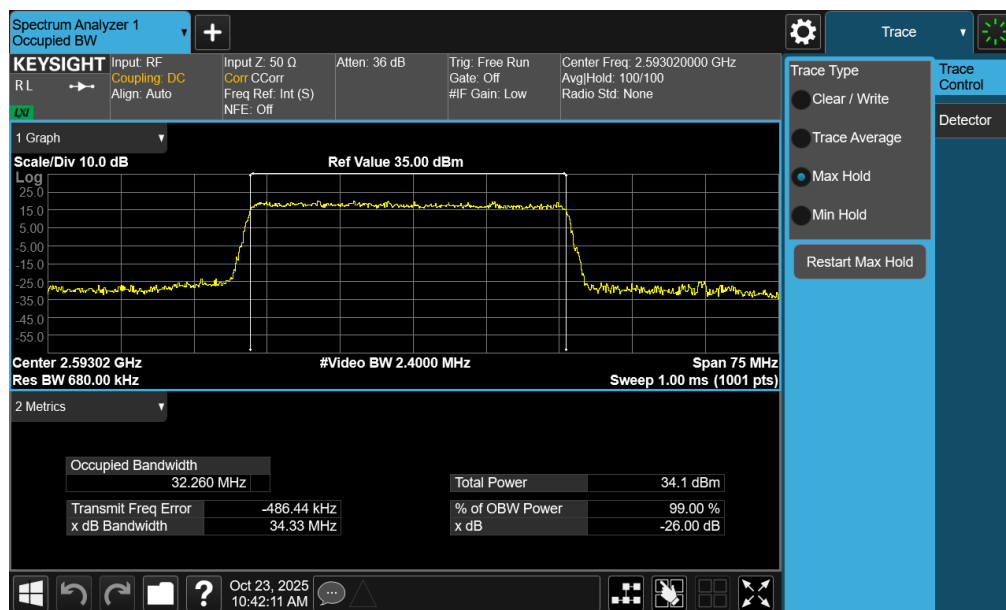
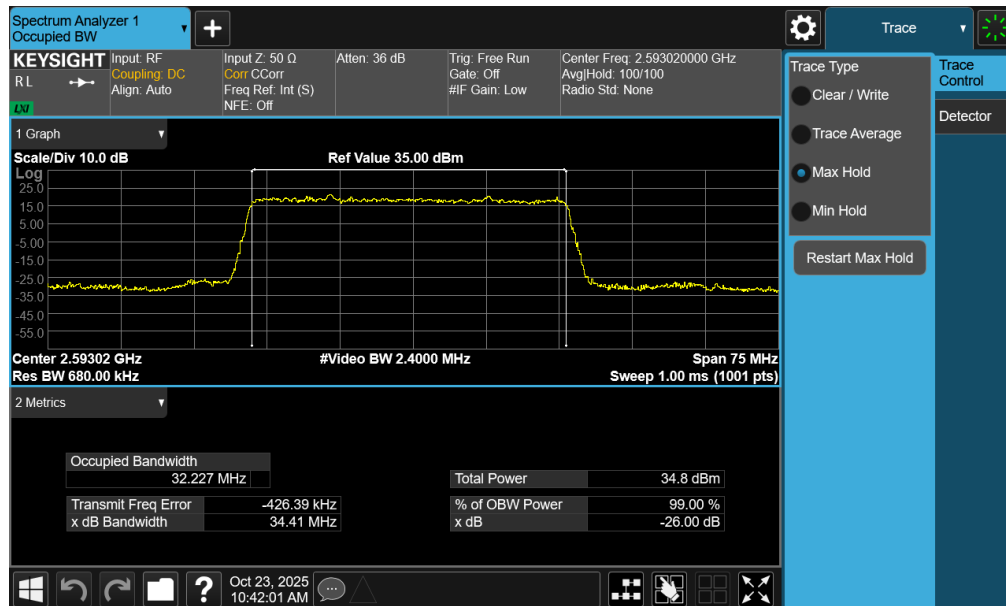


Plot 7-31. Occupied Bandwidth Plot (NR Band n41 PC2 – 40MHz QPSK – Full RB – Default – Ant1)

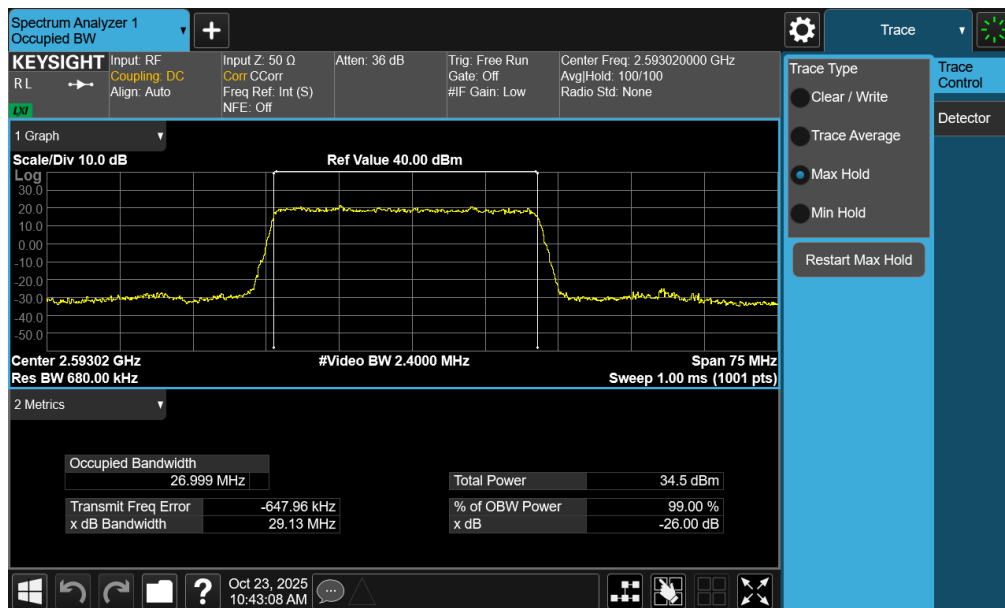
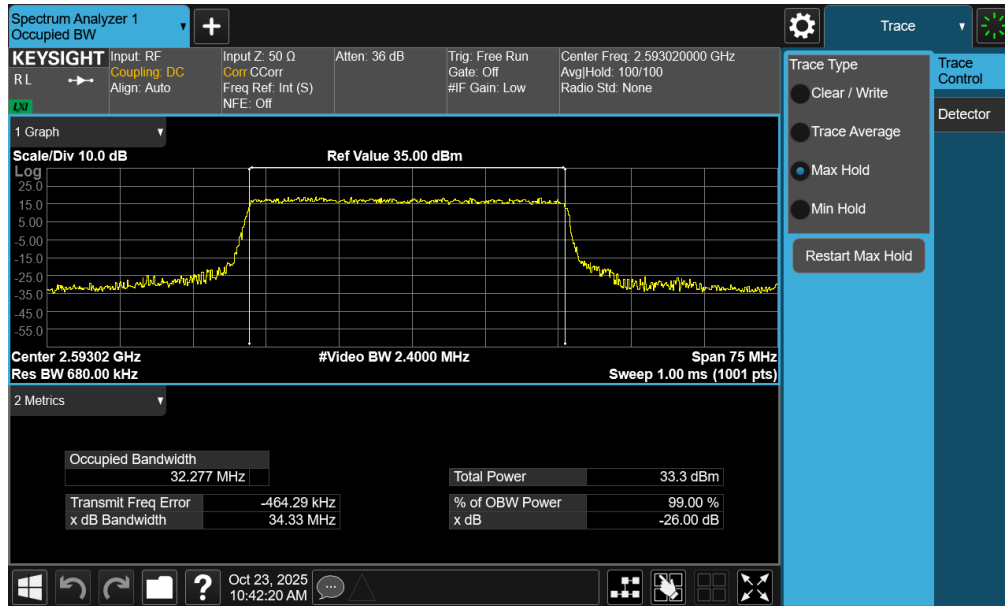


Plot 7-32. Occupied Bandwidth Plot (NR Band n41 PC2 – 40MHz 16-QAM – Full RB – Default – Ant1)

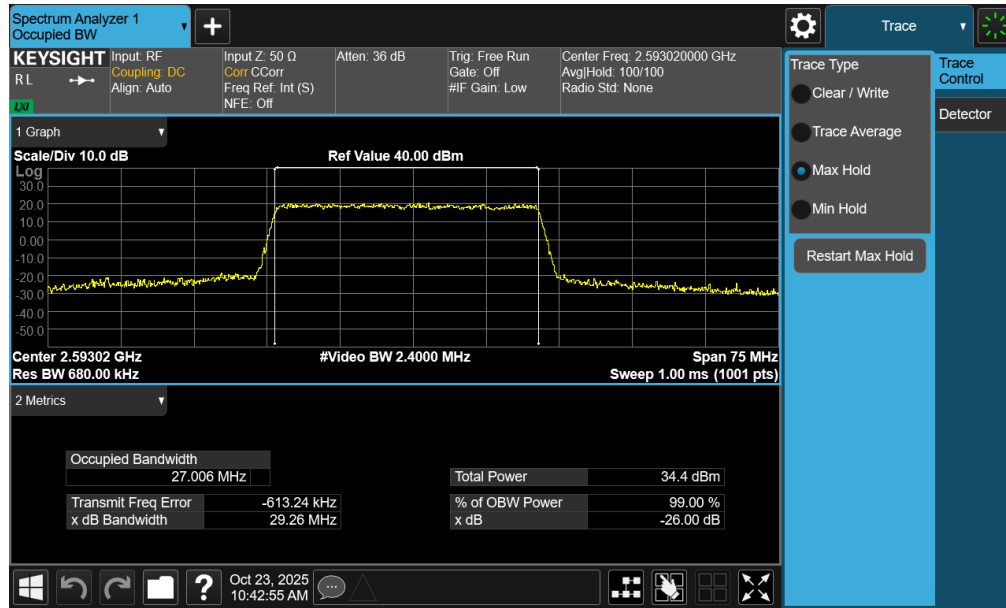
FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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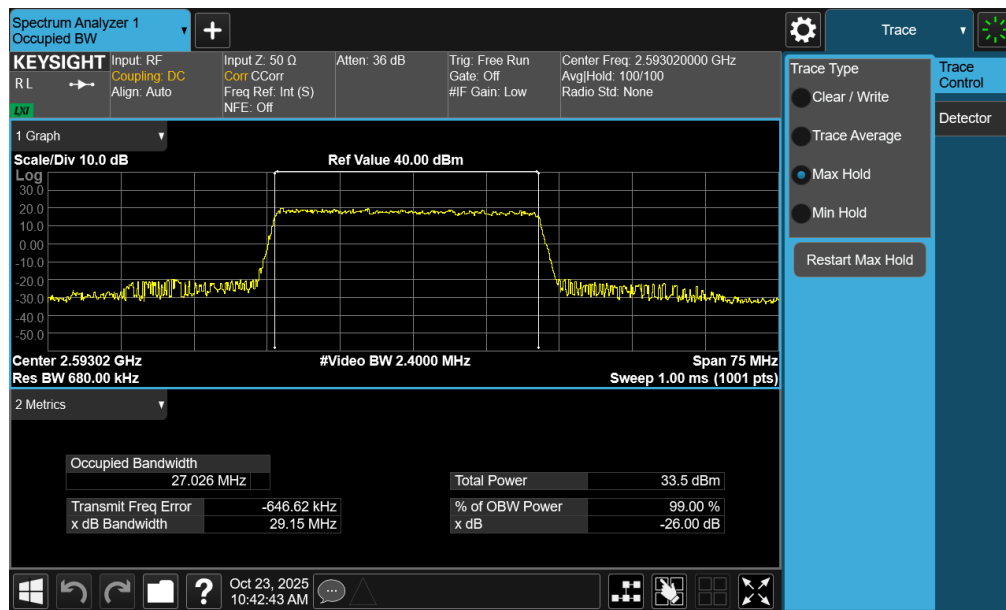
FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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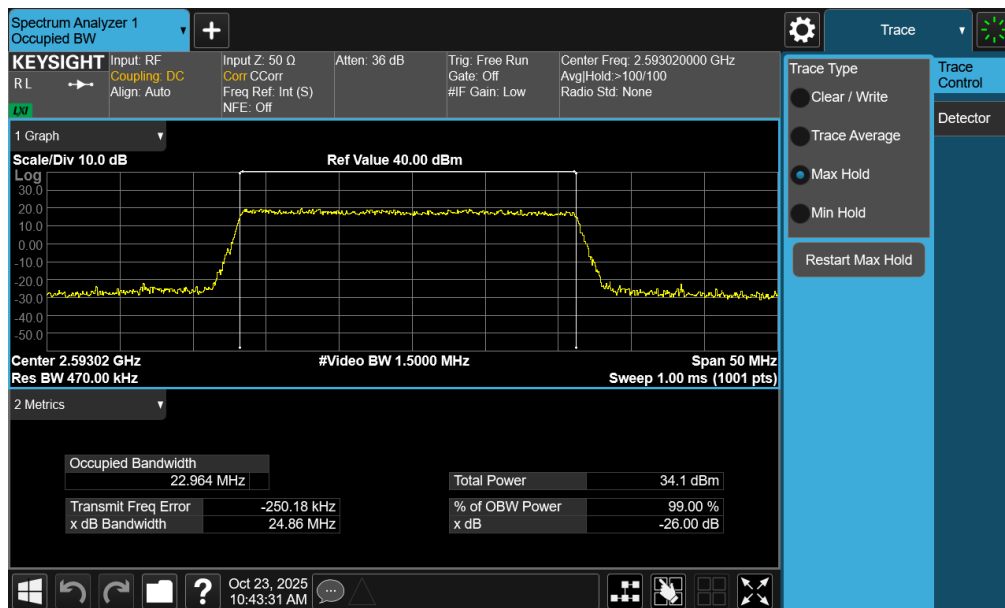
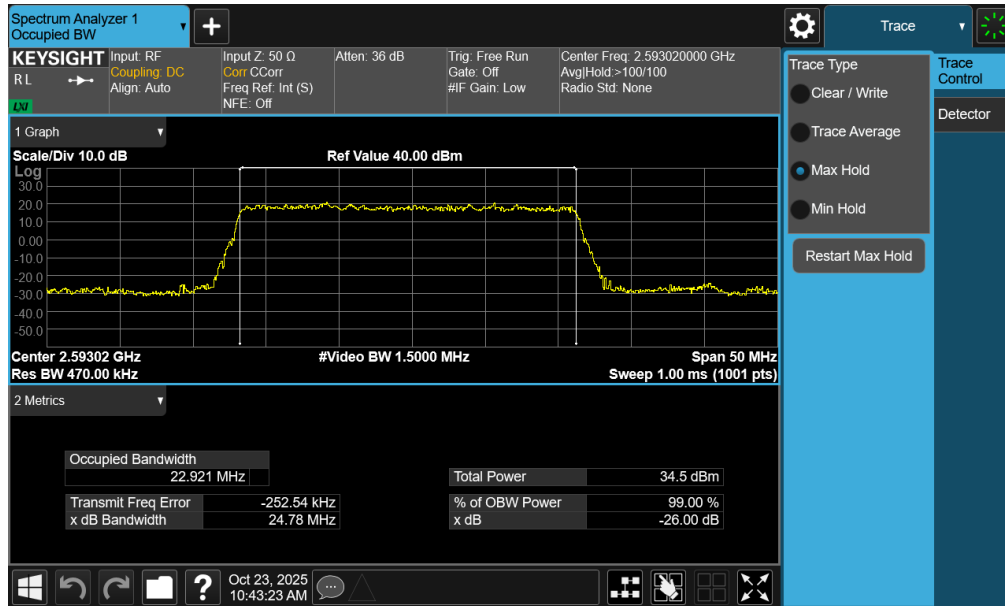


Plot 7-37. Occupied Bandwidth Plot (NR Band n41 PC2 – 30MHz QPSK – Full RB – Default – Ant1)

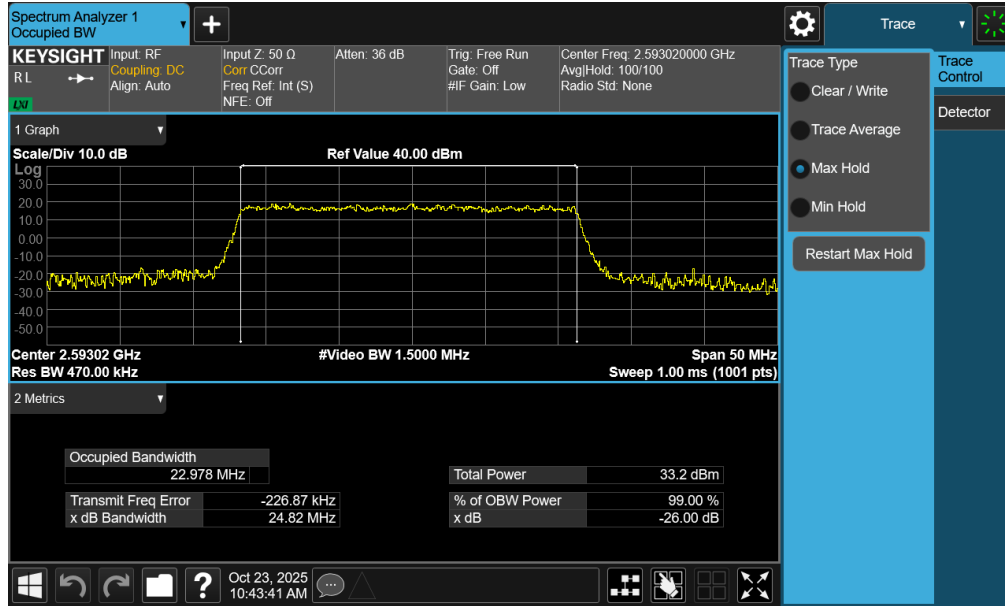


Plot 7-38. Occupied Bandwidth Plot (NR Band n41 PC2 – 30MHz 16-QAM – Full RB – Default – Ant1)

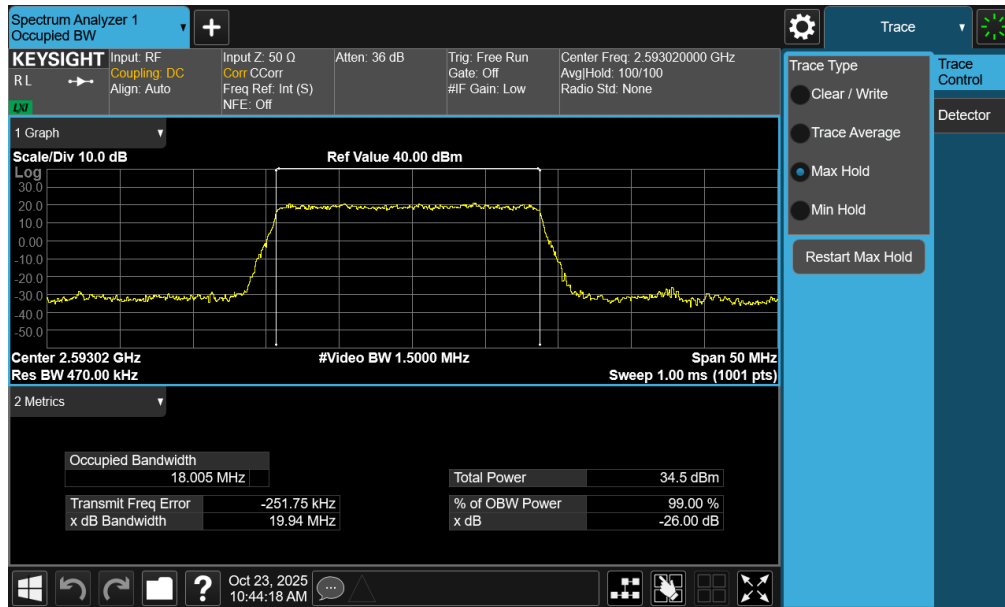
FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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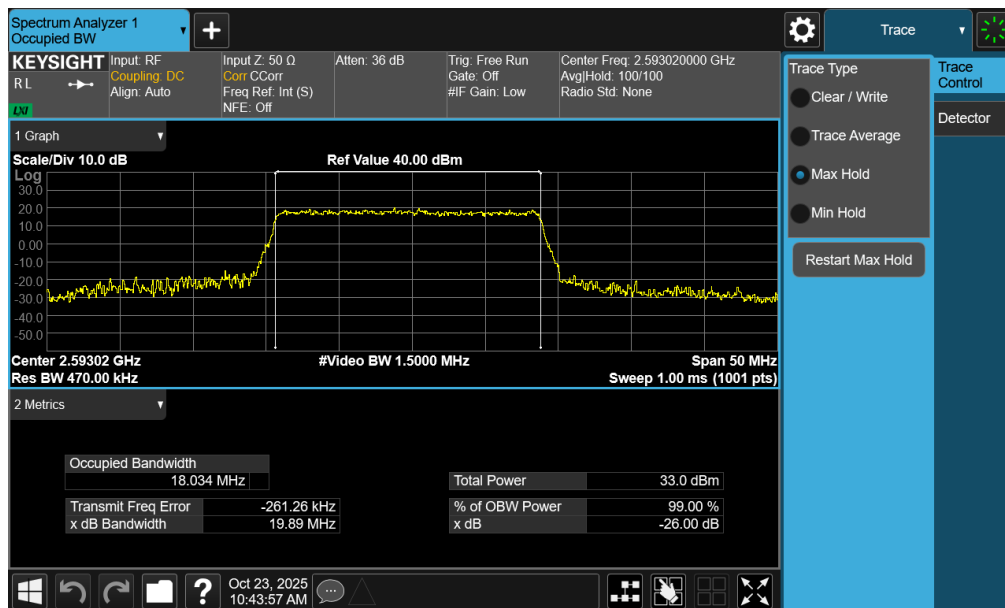
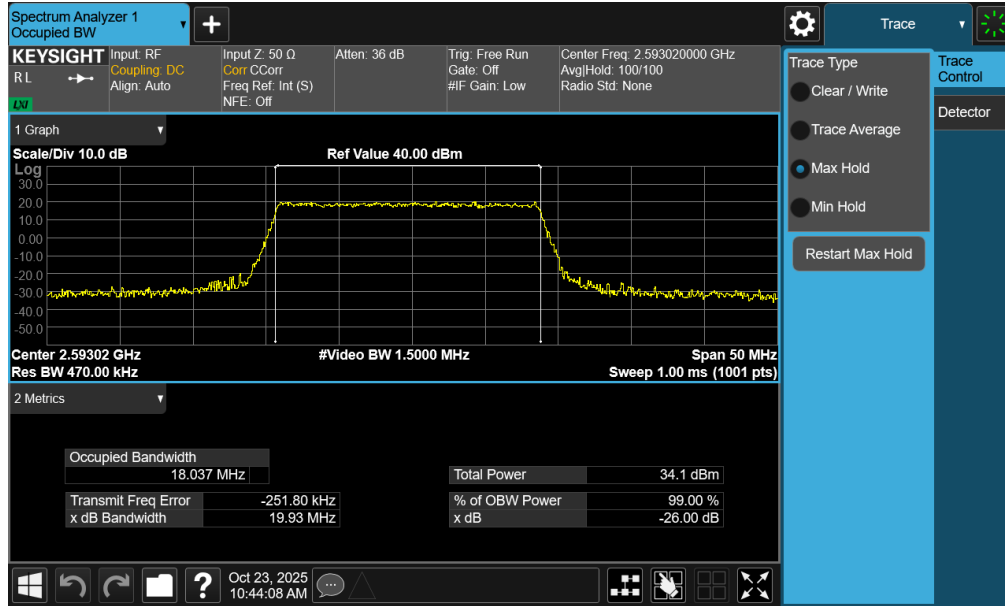


Plot 7-41. Occupied Bandwidth Plot (NR Band n41 PC2 – 25MHz 16-QAM – Full RB – Default – Ant1)

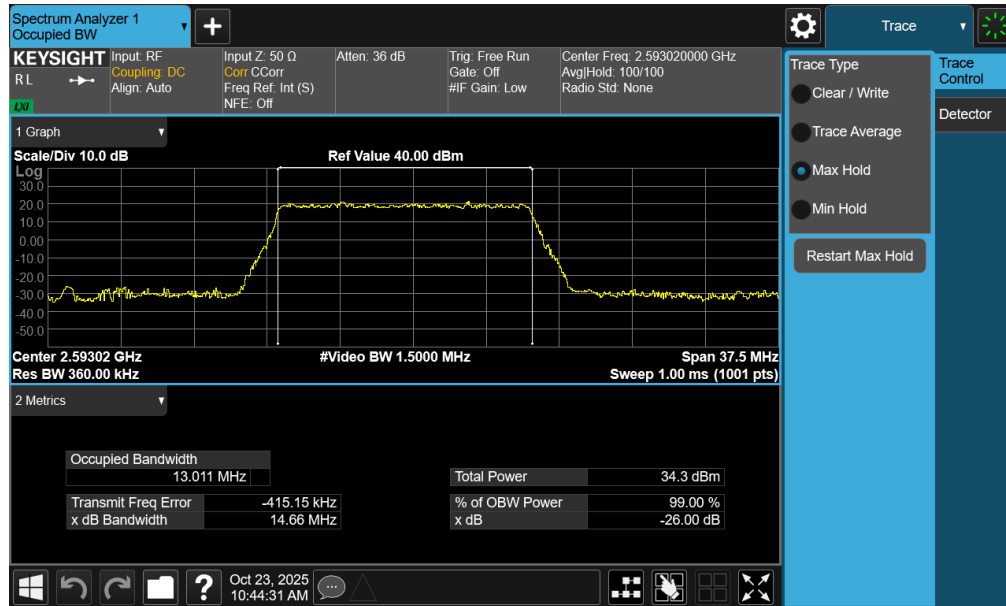


Plot 7-42. Occupied Bandwidth Plot (NR Band n41 PC2 – 20MHz $\pi/2$ BPSK – Full RB – Default – Ant1)

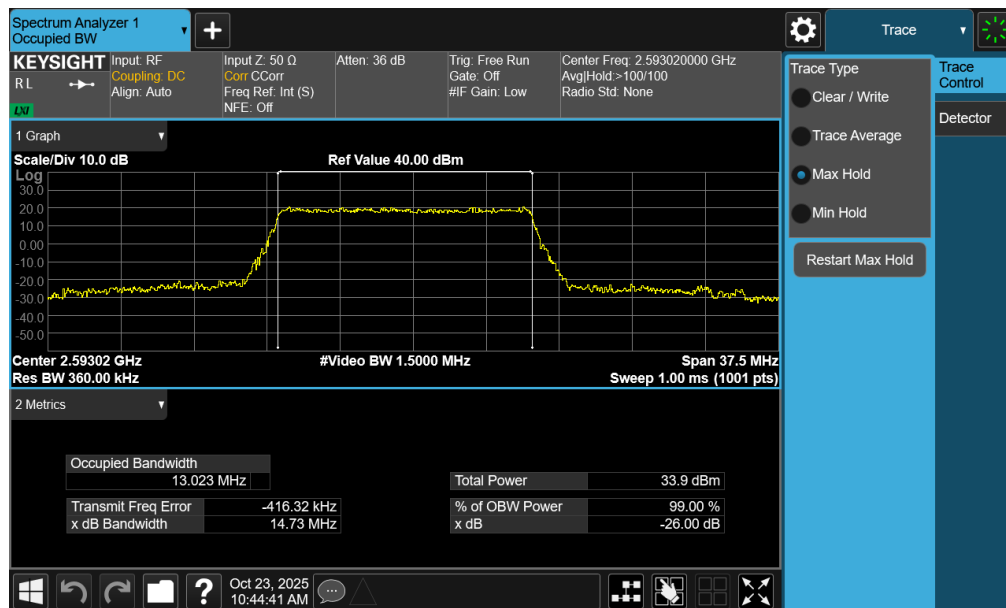
FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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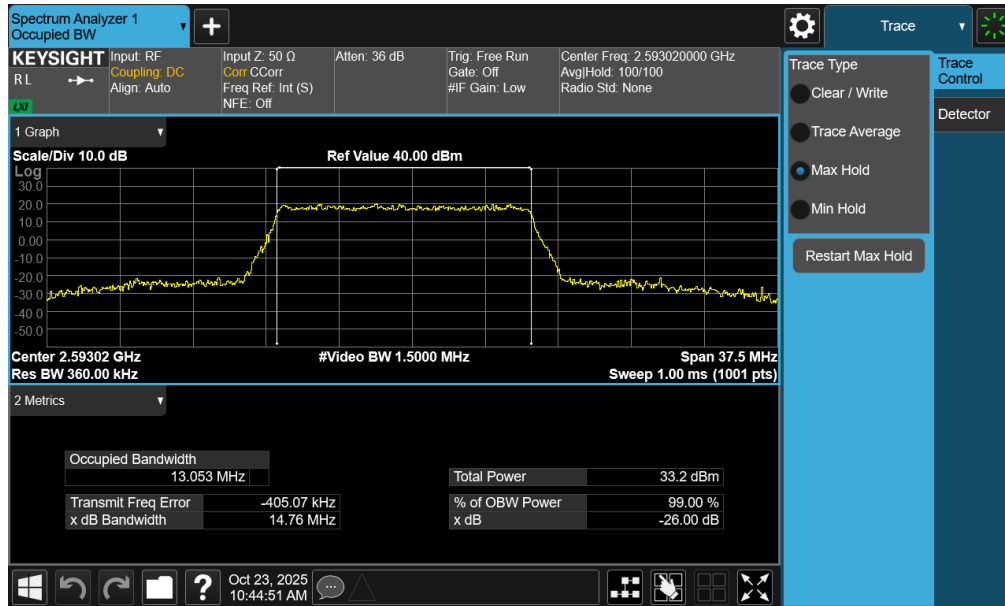


Plot 7-45. Occupied Bandwidth Plot (NR Band n41 PC2 – 15MHz $\pi/2$ BPSK – Full RB – Default – Ant1)

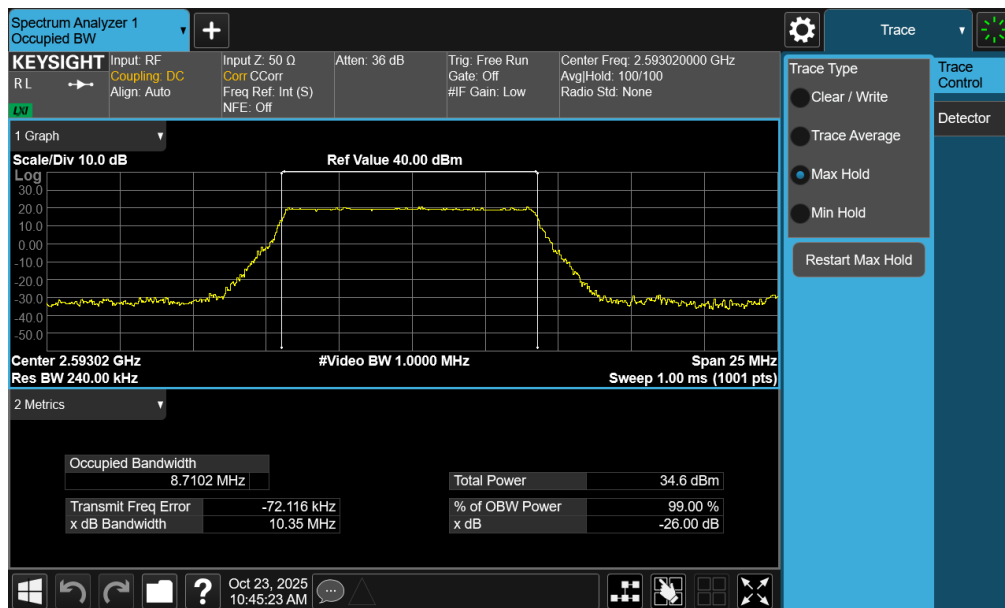


Plot 7-46. Occupied Bandwidth Plot (NR Band n41 PC2 – 15MHz QPSK – Full RB – Default – Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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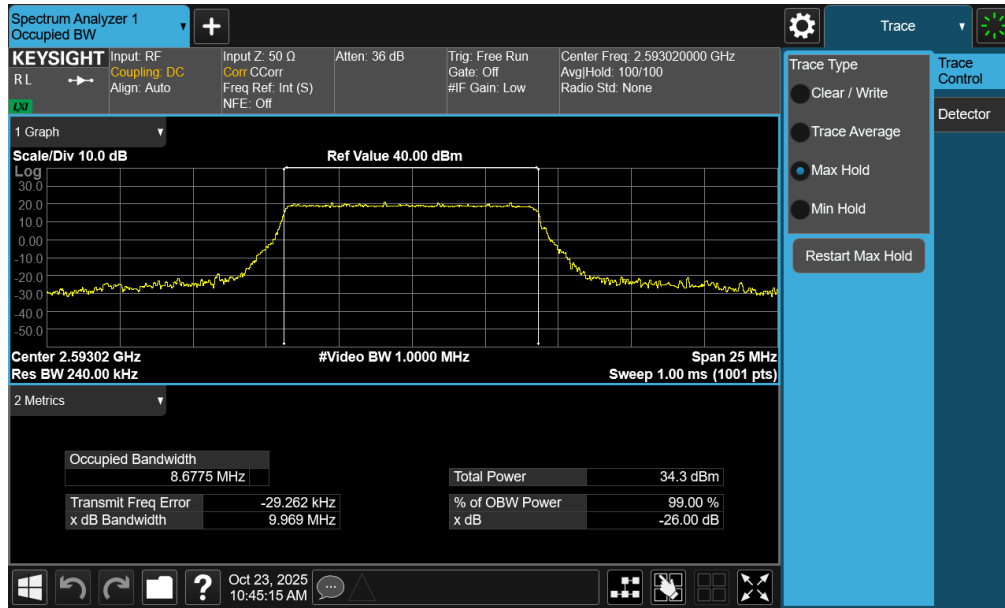


Plot 7-47. Occupied Bandwidth Plot (NR Band n41 PC2 – 15MHz 16-QAM – Full RB – Default – Ant1)

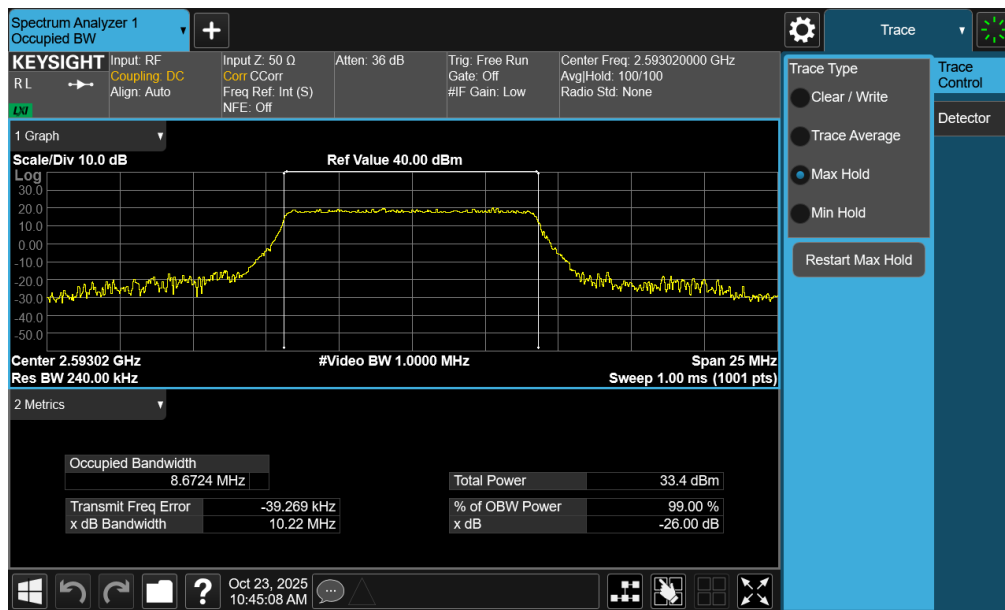


Plot 7-48. Occupied Bandwidth Plot (NR Band n41 PC2 – 10MHz $\pi/2$ BPSK – Full RB – Default – Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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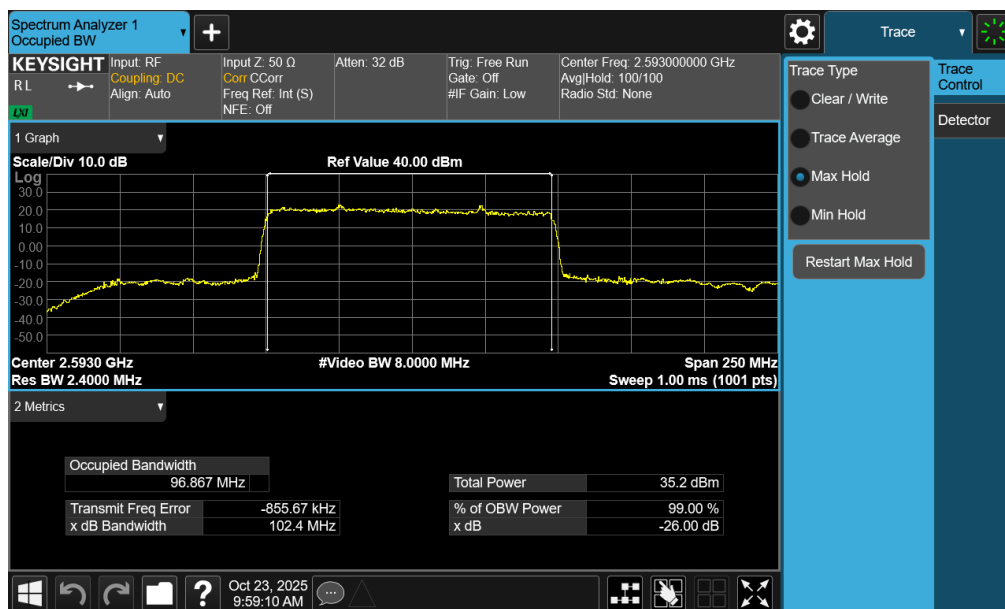
Plot 7-49. Occupied Bandwidth Plot (NR Band n41 PC2 – 10MHz QPSK – Full RB – Default – Ant1)



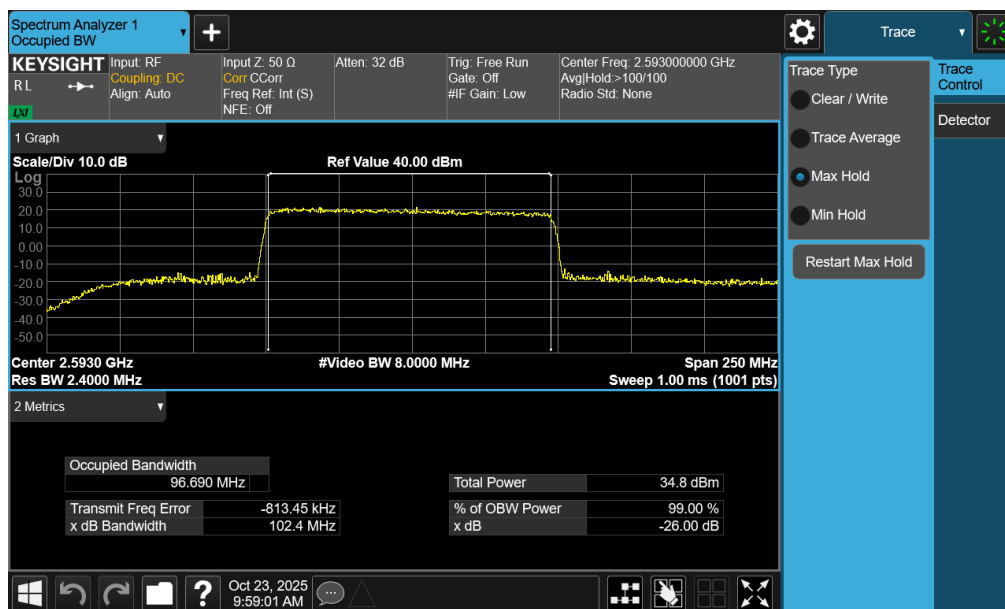
Plot 7-50. Occupied Bandwidth Plot (NR Band n41 PC2 – 10MHz 16-QAM – Full RB – Default – Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n41 PC2 – Switch – Ant1

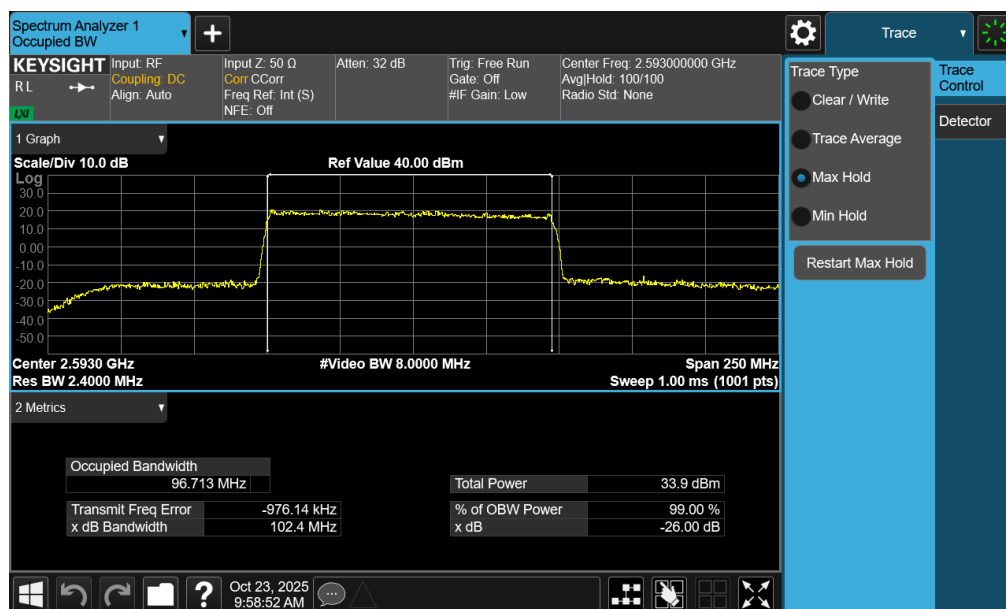


Plot 7-51. Occupied Bandwidth Plot (NR Band n41 PC2 – 100MHz $\pi/2$ BPSK – Full RB – Switch – Ant1)

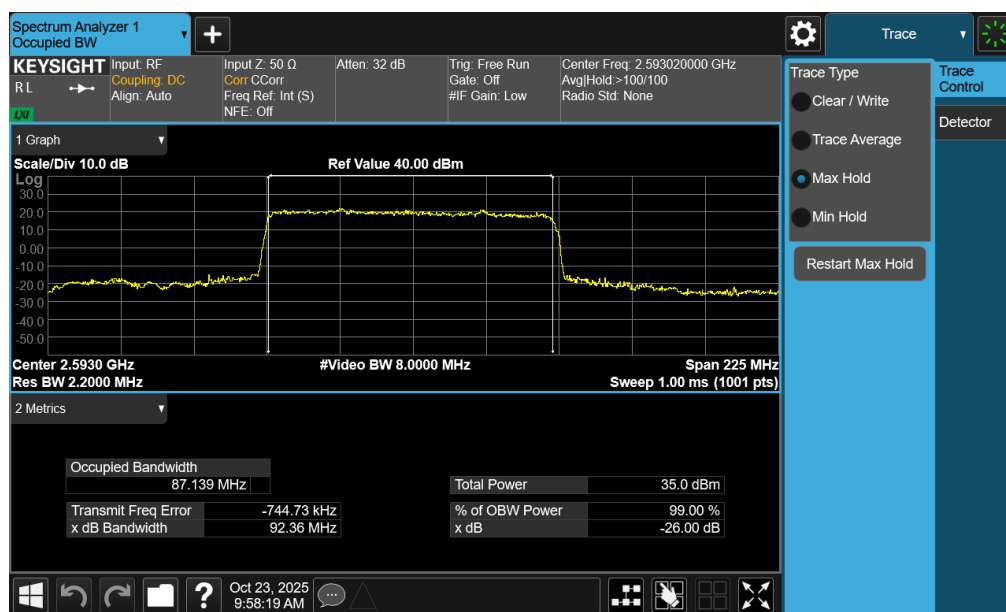


Plot 7-52. Occupied Bandwidth Plot (NR Band n41 PC2 – 100MHz QPSK – Full RB – Switch – Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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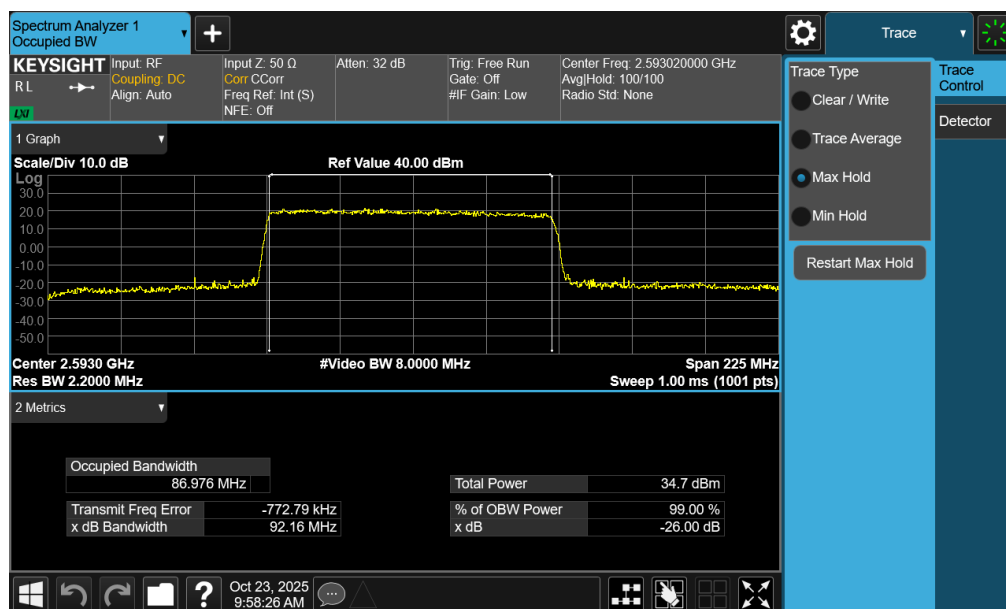


Plot 7-53. Occupied Bandwidth Plot (NR Band n41 PC2 – 100MHz 16-QAM – Full RB – Switch – Ant1)

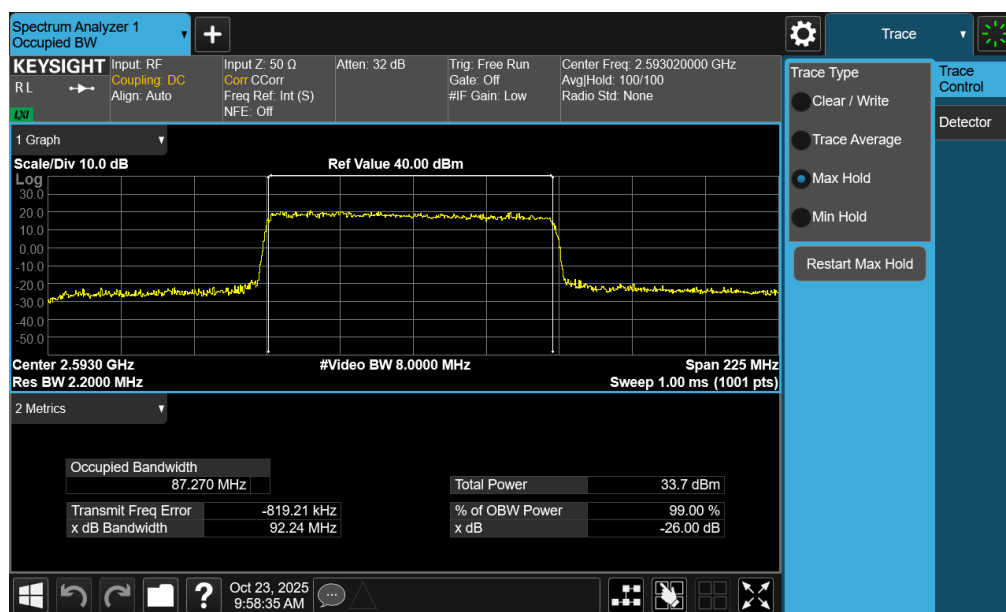


Plot 7-54. Occupied Bandwidth Plot (NR Band n41 PC2 – 90MHz $\pi/2$ BPSK – Full RB – Switch – Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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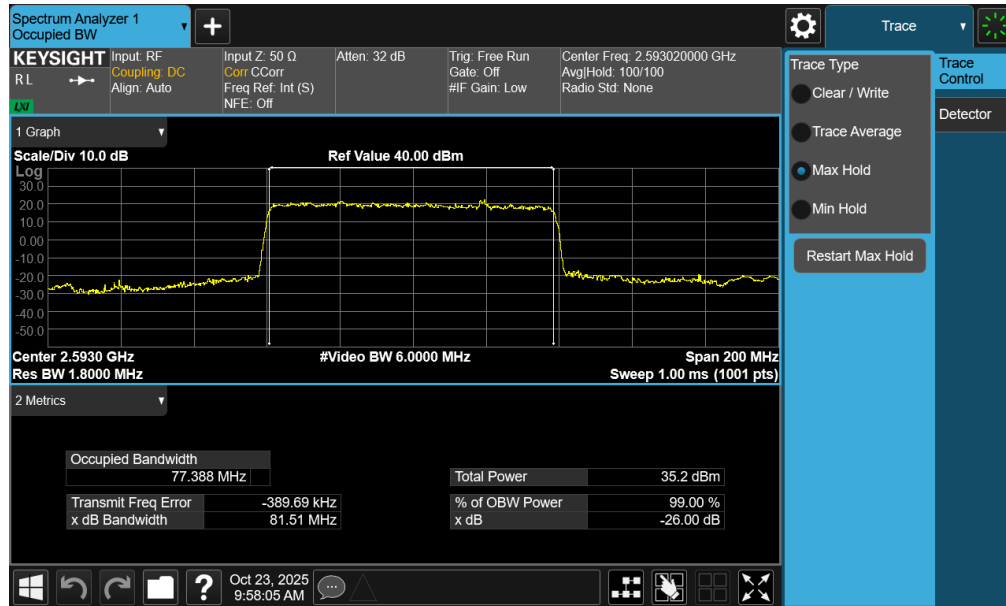


Plot 7-55. Occupied Bandwidth Plot (NR Band n41 PC2 – 90MHz QPSK – Full RB – Switch – Ant1)

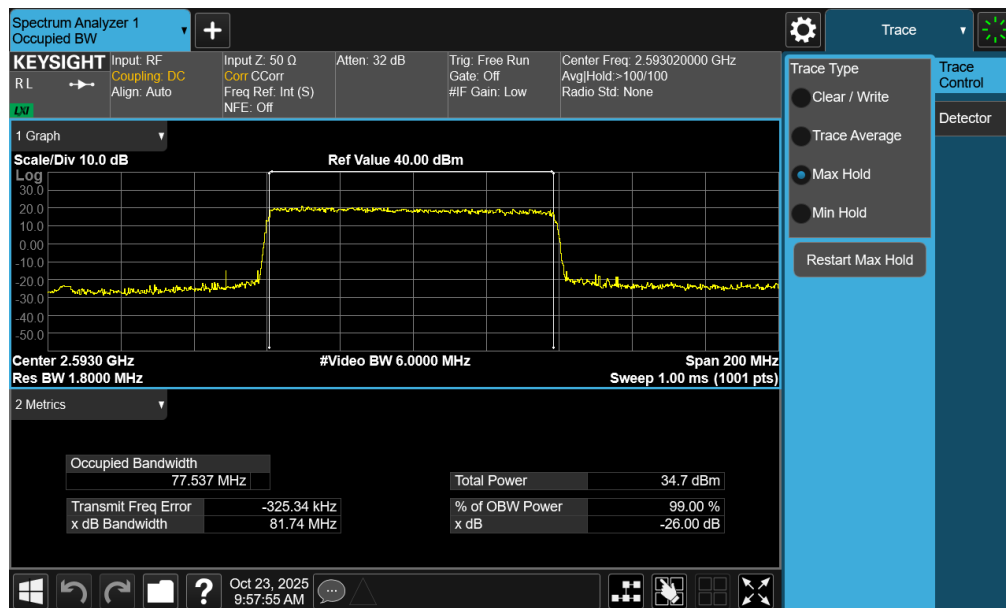


Plot 7-56. Occupied Bandwidth Plot (NR Band n41 PC2 – 90MHz 16-QAM – Full RB – Switch – Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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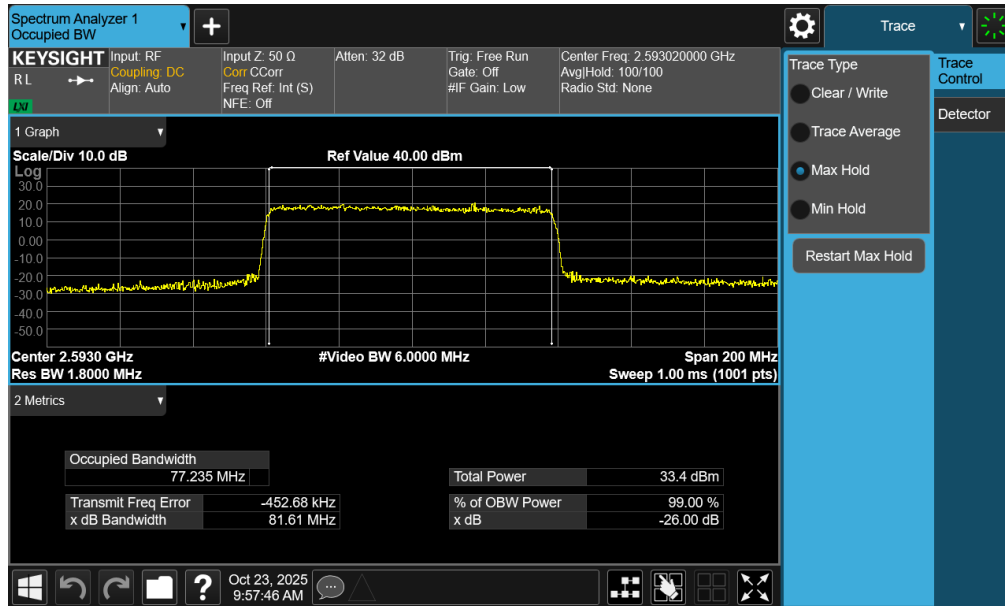


Plot 7-57. Occupied Bandwidth Plot (NR Band n41 PC2 – 80MHz $\pi/2$ BPSK – Full RB – Switch – Ant1)

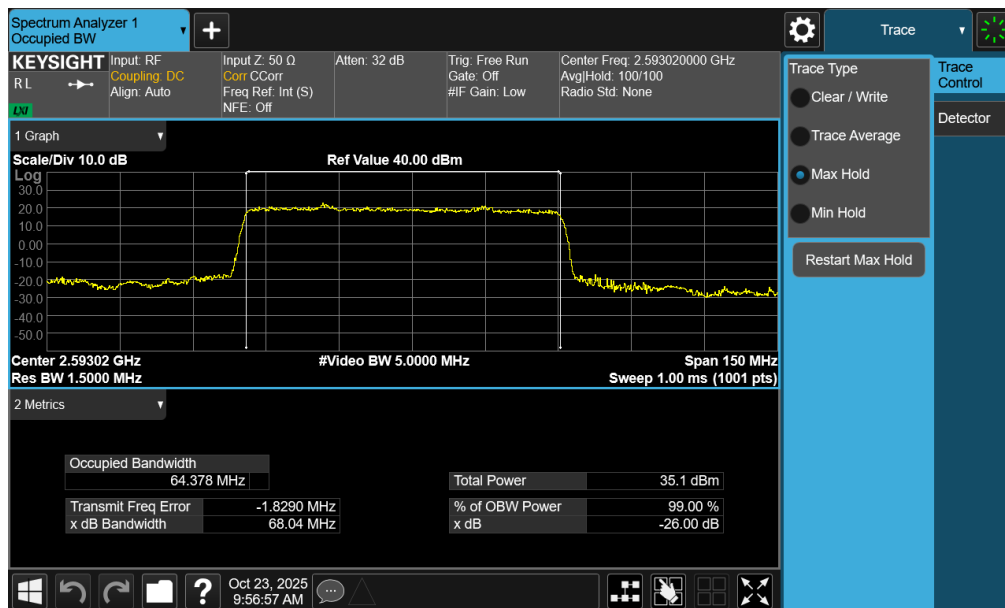


Plot 7-58. Occupied Bandwidth Plot (NR Band n41 PC2 – 80MHz QPSK – Full RB – Switch – Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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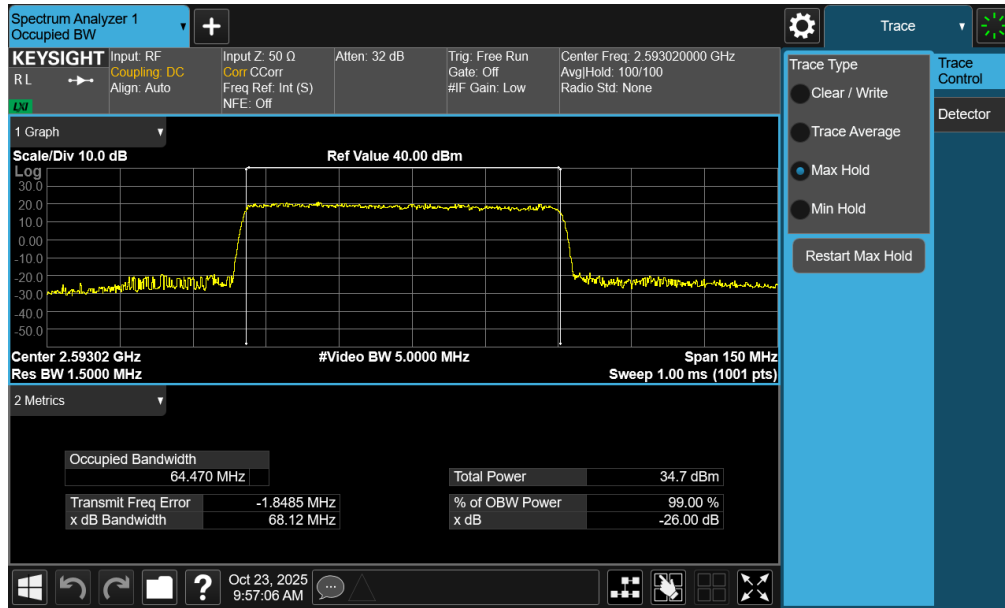


Plot 7-59. Occupied Bandwidth Plot (NR Band n41 PC2 – 80MHz 16-QAM – Full RB – Switch – Ant1)

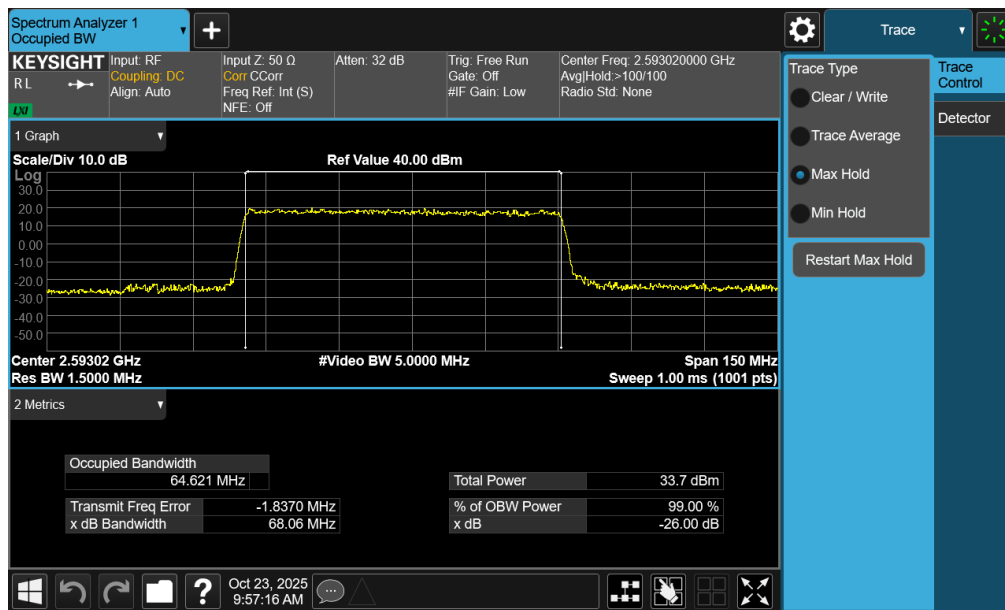


Plot 7-60. Occupied Bandwidth Plot (NR Band n41 PC2 – 70MHz $\pi/2$ BPSK – Full RB – Switch – Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-61. Occupied Bandwidth Plot (NR Band n41 PC2 – 70MHz QPSK – Full RB – Switch – Ant1)



Plot 7-62. Occupied Bandwidth Plot (NR Band n41 PC2 – 70MHz 16-QAM – Full RB – Switch – Ant1)

FCC ID: A3LSMS948JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Spectrum Analyzer 1
Occupied BW

KEYSIGHT Input: RF Coupling: DC Corr: C Corr Freq Ref: Int (S) NFE: Off Atten: 32 dB Trig: Free Run Gate: Off #IF Gain: Low Center Freq: 2.593020000 GHz Avg/Hold: 100/100 Radio Std: None

1 Graph

Scale/Div 10.0 dB

Ref Value 40.00 dBm

Center 2.59302 GHz Res BW 1.50000 MHz Span 150 MHz Sweep 1.00 ms (1001 pts)

2 Metrics

Occupied Bandwidth	58.177 MHz	Total Power	34.5 dBm
Transmit Freq Error	-133.02 kHz	% of OBW Power	99.00 %
x dB Bandwidth	61.74 MHz	x dB	-26.00 dB

Trace Type

- ☐ Clear / Write
- ☐ Trace Average
- ☒ Max Hold
- ☐ Min Hold

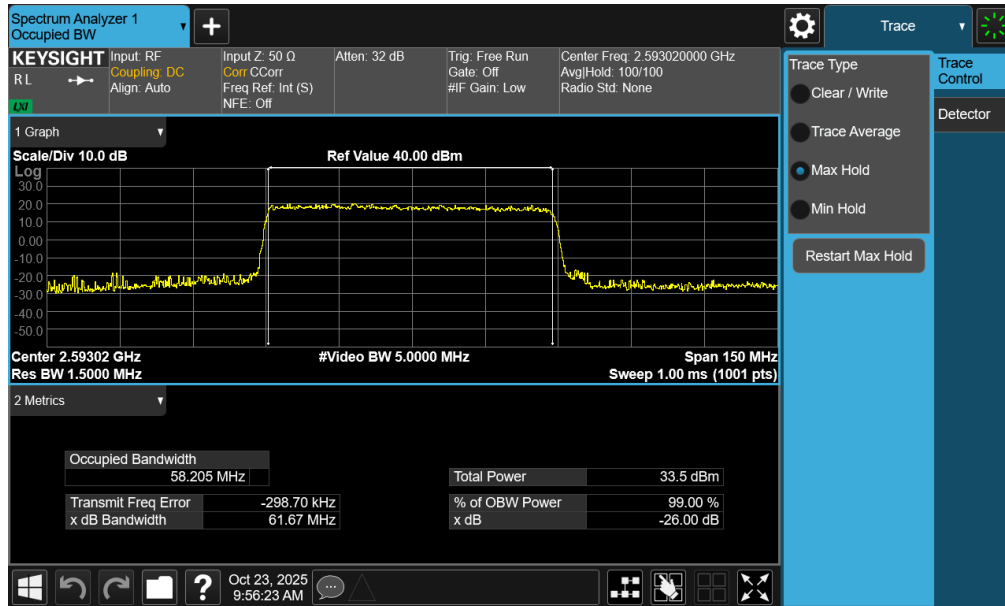
Restart Max Hold

Trace Control

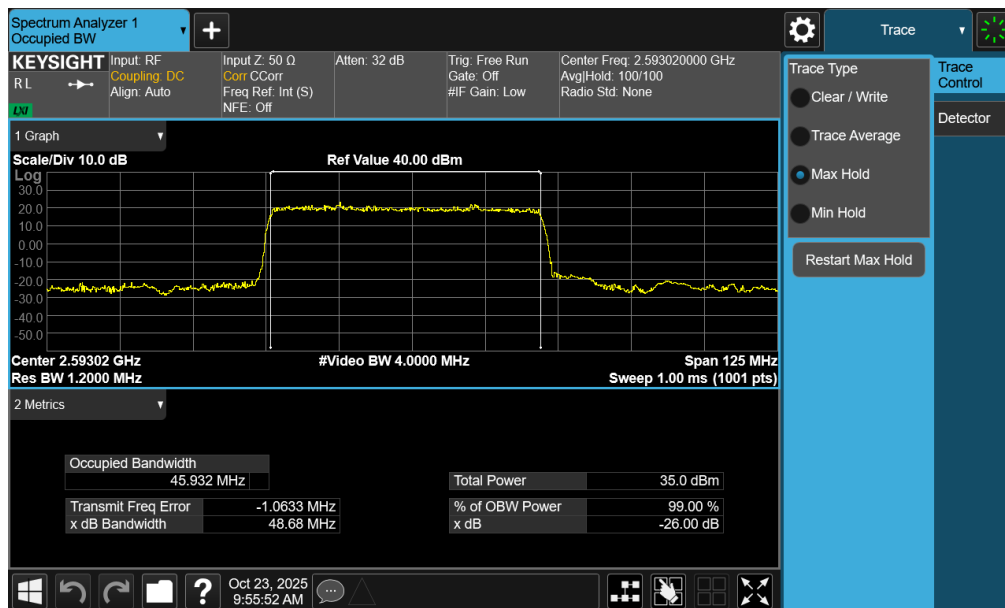
Detector

Windows Taskbar: Oct 23, 2025 9:56:31 AM

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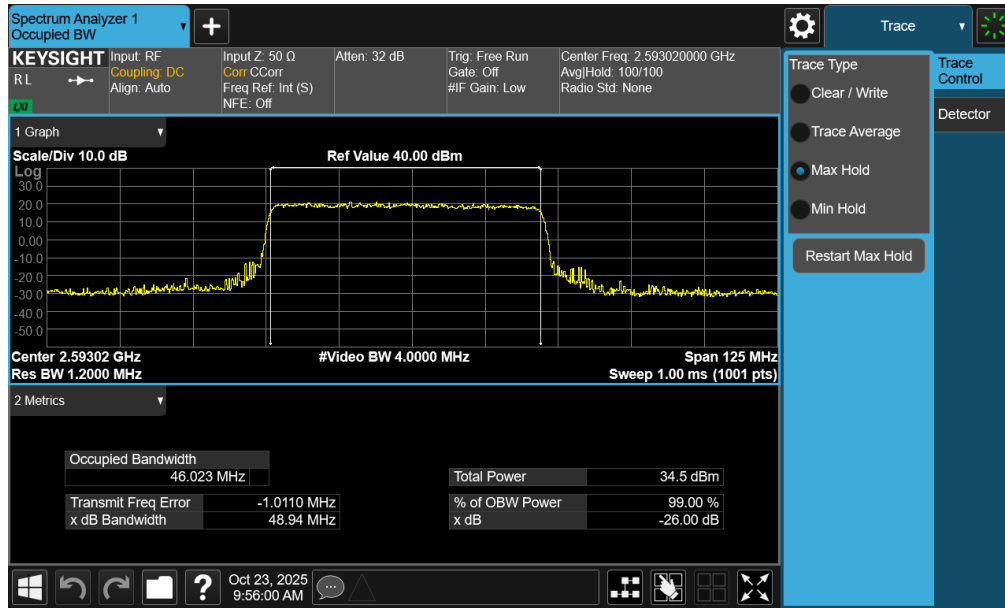


Plot 7-65. Occupied Bandwidth Plot (NR Band n41 PC2 – 60MHz 16-QAM – Full RB – Switch – Ant1)

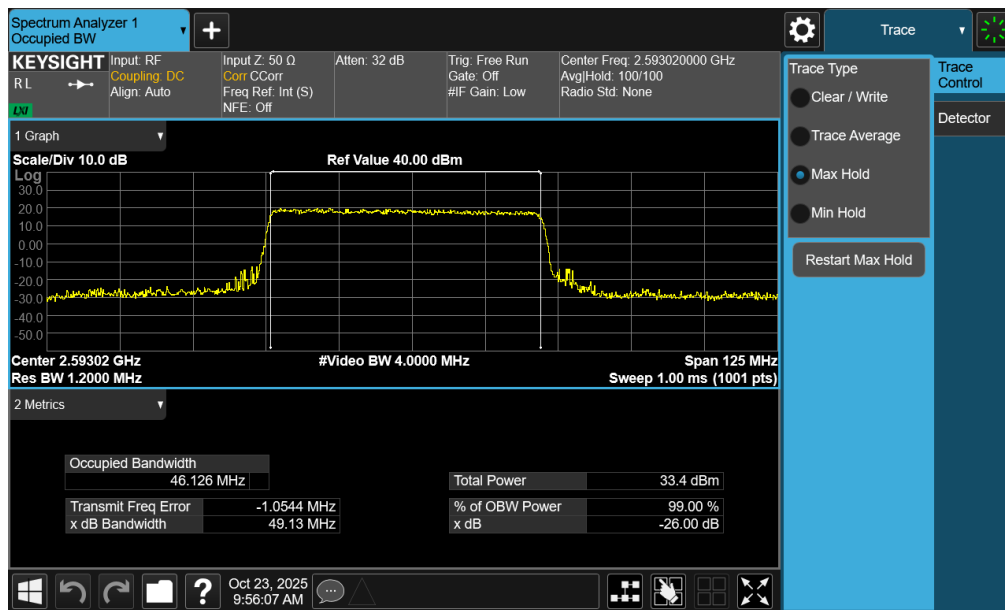


Plot 7-66. Occupied Bandwidth Plot (NR Band n41 PC2 – 50MHz $\pi/2$ BPSK – Full RB – Switch – Ant1)

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Plot 7-67. Occupied Bandwidth Plot (NR Band n41 PC2 – 50MHz QPSK – Full RB – Switch – Ant1)



Plot 7-68. Occupied Bandwidth Plot (NR Band n41 PC2 – 50MHz 16-QAM – Full RB – Switch – Ant1)

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