

TEST REPORT

	CTK Co., Ltd. (Ho-dong), 113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea Tel: +82-31-339-9970 Fax: +82-31-624-9501	Report No.: CTK-2025-03736 Page (1) / (195) pages	
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1. Applicant

- Name : Samsung Electronics Co., Ltd.
- Address : 129, Samsung-ro, Yeongtong-gu, Suwon-si Gyeonggi-do, 16677, Korea
- Date of Receipt : 2025-11-19

2. Manufacturer

- Name : Samsung Electronics Co., Ltd.
- Address : 129, Samsung-ro, Yeongtong-gu, Suwon-si Gyeonggi-do, 16677, Korea

3. Use of Report : For FCC Original Equipment

4. Test Sample / Model: RRU (RA4401t) / RA4401t-77B

5. Date of Test : 2025-11-19 to 2025-12-22

6. Test Standard(method) used : FCC 47 CFR Part 24E, Part 27, ANSI C63.26-2015

7. Testing Environment: refer to 11 page

8. Test Results : Compliance

9. Location of Test : ☒ Permanent Testing Lab ☐ On Site Testing

(Address : 5, Dongbu-ro 221beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea)

The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This report cannot be reproduced or copied without the written consent of CTK.

Approval	Tested by Won-Jae Jang: (Signature)	Technical Manager Byung-Kwon In: (Signature)
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2025-12-26

CTK Co., Ltd.

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MEASUREMENT REPORT

FCC Rule Part 24E & 27

Mode	Tx Frequency (MHz)	Max. EIRP (dBm/MHz)	Max. EIRP (W/MHz)	Emission Designator	Modulation
LTE_B25_1C_5M	1 930 MHz to 1 995 MHz	26.90	0.49	4M52G7D	QPSK
		27.23	0.53	4M54W7D	QAM
LTE_B25_1C_10M		25.96	0.39	9M04G7D	QPSK
		26.35	0.43	9M09W7D	QAM
LTE_B25_1C_15M		24.29	0.27	13M6G7D	QPSK
		25.03	0.32	13M6W7D	QAM
LTE_B25_1C_20M		23.11	0.20	18M1G7D	QPSK
		23.35	0.22	18M2W7D	QAM
LTE_B25_2C_5M+5M		25.21	0.33	9M55G7D	QPSK
		25.60	0.36	9M56W7D	QAM
LTE_B25_4C_15M+15M+15M+15M		17.78	0.06	59M3G7D	QPSK
		18.05	0.06	59M4W7D	QAM
NR_n25_1C_5M		26.92	0.49	4M52G7D	QPSK
		27.16	0.52	4M54W7D	QAM
NR_n25_1C_10M		25.84	0.38	9M37G7D	QPSK
		26.52	0.45	9M39W7D	QAM
NR_n25_1C_15M		24.10	0.26	14M3G7D	QPSK
		25.46	0.35	14M3W7D	QAM
NR_n25_1C_20M		22.90	0.19	19M1G7D	QPSK
		24.66	0.29	19M2W7D	QAM
NR_n25_1C_25M		22.03	0.16	24M0G7D	QPSK
		23.46	0.22	24M1W7D	QAM
NR_n25_2C_5M+5M		25.71	0.37	9M55G7D	QPSK
		25.97	0.40	9M56W7D	QAM
NR_n25_4C_15M+15M+15M+15M		17.76	0.06	59M3G7D	QPSK
		19.13	0.08	59M5W7D	QAM
MSR_B/n25_2C_LTE_5M+NR_5M		25.41	0.35	9M52G7D	QPSK
		25.64	0.37	9M57W7D	QAM
MSR_B/n25_4C_LTE_15M+15M+NR_15M+15M		18.81	0.08	58M9G7D	QPSK
		19.91	0.10	59M1W7D	QAM

EUT Overview

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Mode	Tx Frequency (MHz)	Max. EIRP (dBm/MHz)	Max. EIRP (W/MHz)	Emission Designator	Modulation
LTE_B66_1C_5M	2 110 MHz to 2 180 MHz	28.09	0.64	4M52G7D	QPSK
		28.25	0.67	4M54W7D	QAM
LTE_B66_1C_10M		27.02	0.50	9M05G7D	QPSK
		27.39	0.55	9M11W7D	QAM
LTE_B66_1C_15M		25.29	0.34	13M6G7D	QPSK
		26.10	0.41	13M6W7D	QAM
LTE_B66_1C_20M		24.04	0.25	18M1G7D	QPSK
		24.42	0.28	18M2W7D	QAM
LTE_B66_2C_5M+5M		26.31	0.43	9M56G7D	QPSK
		26.74	0.47	9M57W7D	QAM
LTE_B66_4C_15M+15M+15M+ 15M		18.51	0.07	59M7G7D	QPSK
		19.12	0.08	59M8W7D	QAM
NR_n66_1C_5M		28.03	0.64	4M52G7D	QPSK
		28.08	0.64	4M53W7D	QAM
NR_n66_1C_10M		26.81	0.48	9M37G7D	QPSK
		27.54	0.57	9M40W7D	QAM
NR_n66_1C_15M		25.06	0.32	14M3G7D	QPSK
		26.56	0.45	14M3W7D	QAM
NR_n66_1C_20M		23.79	0.24	19M1G7D	QPSK
		25.42	0.35	19M2W7D	QAM
NR_n66_1C_25M		22.83	0.19	24M0G7D	QPSK
		24.17	0.26	24M1W7D	QAM
NR_n66_1C_30M		22.05	0.16	28M9G7D	QPSK
		23.68	0.23	28M8W7D	QAM
NR_n66_2C_5M+5M		26.14	0.41	9M55G7D	QPSK
		26.24	0.42	9M58W7D	QAM
NR_n66_4C_15M+15M+15M+1 5M		18.00	0.06	59M5G7D	QPSK
		19.50	0.09	59M8W7D	QAM
MSR_B/n66_2C_LTE_5M+NR_ 5M		26.58	0.45	9M52G7D	QPSK
		26.86	0.49	9M57W7D	QAM
MSR_B/n66_4C_LTE_15M+15 M+NR_15M+15M		18.95	0.08	58M9G7D	QPSK
		20.30	0.11	59M2W7D	QAM

EUT Overview



Mode	Tx Frequency (MHz)	Max. EIRP (dBm/MHz)	Max. EIRP (W/MHz)	Max Emission Designator	Modulation
NR_n77_1C_40M	3 700 MHz to 3 980 MHz	29.32	0.86	38M1G7D	QPSK
		31.30	1.35	38M3W7D	QAM
NR_n77_1C_60M		27.31	0.54	57M9G7D	QPSK
		28.89	0.77	58M1W7D	QAM
NR_n77_1C_80M		26.15	0.41	78M2G7D	QPSK
		27.96	0.63	78M6W7D	QAM
NR_n77_1C_100M		25.05	0.32	97M7G7D	QPSK
		26.82	0.48	97M7W7D	QAM
NR_n77_2C_40M+40M		26.08	0.41	77M9G7D	QPSK
		28.15	0.65	78M1W7D	QAM
NR_n77_4C_40M+60M+80M+ 100M		20.68	0.12	277MG7D	QPSK
		22.46	0.18	276MW7D	QAM

EUT Overview

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1.0 REVISION RECORD

Issue Number	Issued Date	Revision History
CTK-2025-03736	12/26/2025	Initial Issue

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2.0 INTRODUCTION

2.1 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.

2.2 Laboratory Accreditations and Listings

Country	Agency	Registration Number
USA	FCC	805871
CANADA	ISED	CN : 8737A CAB ID : KR0025
KOREA	NRRA	KR0025

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3.0 PRODUCT INFORMATION

3.1 Equipment Description

The Equipment Under Test (EUT) is the **Samsung RRU (RA4401t) FCC ID: A3LRA4401T-77B**. 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 24E and 27.

3.2 Device Capabilities

This device supports the following conditional features and filter information:

FCC ID:	A3LRA4401T-77B		
FCC Classification	PCS Licensed Transmitter		
EUT Type:	RRU (RA4401t)		
Model Name:	RA4401t-77B		
Device Capabilities:	LTE, 5G NR		
Operating Band/Frequency Range:	Band	Tx (Downlink)	Rx (Uplink)
	B/n25:	1 930 MHz to 1 995 MHz	1 850 MHz to 1 915 MHz
	B/n66:	2 110 MHz to 2 180 MHz	1 710 MHz to 1 780 MHz
	n77:	3 700 MHz to 3 980 MHz	3 700 MHz to 3 980 MHz
Supported Modulation:	QPSK, 16QAM, 64QAM, 256QAM		
B/n25_Supported Number of Carriers and Channel Bandwidth:	LTE supports 5/10/15/20 MHz bandwidth modes with up to 4CC max aggregated BW of 60 MHz NR supports 5/10/15/20/25 MHz bandwidth modes with up to 4CC max aggregated BW of 60 MHz		
B/n66_Supported Number of Carriers and Channel Bandwidth:	LTE supports 5/10/15/20 MHz bandwidth modes with up to 4CC max aggregated BW of 60 MHz NR supports 5/10/15/20/25/30 MHz bandwidth modes with up to 4CC max aggregated BW of 60 MHz		
n77_Supported Number of Carriers and Channel Bandwidth:	NR supports 40/60/80/100 MHz bandwidth modes with up to 4CC max aggregated BW of 280 MHz		
Supported Configurations:	Single carrier, Multi carrier, Multi-Band		
Maximum Output Power	B/n25: 23 dBm/path B/n66: 23 dBm/path n77: 26 dBm/path		
RF Chain:	B/n25: 2TRX Configuration B/n66: 2TRX Configuration n77: 4TRX Configuration		
Antenna Gain:	B/n25: 4.5 dBi $\pm$ 1 dB B/n66: 5.5 dBi $\pm$ 1 dB n77: 5.5 dBi $\pm$ 1 dB		
Input Voltage:	DC: 48V PoE: 46V		

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3.3 Test Configuration

The setup is as follows:

- The EUT ("RRU (RA4401t)") and a Data Unit (DU) are each powered by -48V DC power supply.
- The DU is connected to a test laptop via an ethernet cable acting as backhaul.
- DU connects to the EUT through a fiber optic cable.
- An RF cable connects the signal analyzer and the EUT Ports for respective measurement.

The EUT was tested per the guidance of ANSI C63.26-2015 and KDB 971168 D01 v03r01. See Section 8.0 of this test report for a description of the radiated and antenna port conducted emissions tests.

Distribution unit (DU) which were used in test, that authorized under the SDoC procedure.

The following information is about configurations of carrier frequency and output power per port declared by the manufacturer.

* Abbreviations:

- 1C: Single carrier
- 2C: Contiguous 2 carriers in multi-carrier operation
- 2NC: Non-Contiguous 2 carriers in multi-carrier operation
- 4C: Contiguous 4 carriers in multi-carrier operation
- 4NC: Non-Contiguous 4 carriers in multi-carrier operation

PCS Configuration	No. of Carriers	Total Bandwidth (MHz)	Carrier Frequency Configuration (MHz)			Rated Power (dBm/path)
			Lowest	Middle	Highest	
LTE_B25_1C_5M	1	5	1 932.5	1 962.5	1 992.5	21.0
LTE_B25_1C_10M	1	10	1 935.0	1 962.5	1 990.0	23.0
LTE_B25_1C_15M	1	15	1 937.5	1 962.5	1 987.5	
LTE_B25_1C_20M	1	20	1 940.0	1 962.5	1 985.0	
LTE_B25_2C_5M+5M	2	10	1 935.0	1 962.5	1 990.0	
LTE_B25_2NC_5M+5M			1 932.5 + 1 992.5			
LTE_B25_4C_15M+15M+15M+15M	4	60	1 960.0	1 962.5	1 965.0	
LTE_B25_4NC_15M+15M+15M+15M			1 937.5 + 1 952.5 + 1 967.5 + 1 982.5			
NR_n25_1C_5M	1	5	1 932.5	1 962.5	1 992.5	21.0
NR_n25_1C_10M	1	10	1 935.0	1 962.5	1 990.0	23.0
NR_n25_1C_15M	1	15	1 937.5	1 962.5	1 987.5	
NR_n25_1C_20M	1	20	1 940.0	1 962.5	1 985.0	
NR_n25_1C_25M	1	25	1 942.5	1 962.5	1 982.5	
NR_n25_2C_5M+5M	2	10	1 935.0	1 962.5	1 990.0	
NR_n25_2NC_5M+5M			1 932.5 + 1 992.5			
NR_n25_4C_15M+15M+15M+15M	4	60	1 937.5 + 1 952.5 + 1 967.5 + 1 982.5			

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AWS Configuration	No. of Carriers	Total Bandwidth (MHz)	Carrier Frequency Configuration (MHz)			Rated Power (dBm/path)
			Lowest	Middle	Highest	
LTE_B66_1C_5M	1	5	2 112.5	2 145.0	2 177.5	21.0
LTE_B66_1C_10M	1	10	2 115.0	2 145.0	2 175.0	23.0
LTE_B66_1C_15M	1	15	2 117.5	2 145.0	2 172.5	
LTE_B66_1C_20M	1	20	2 120.0	2 145.0	2 170.0	
LTE_B66_2C_5M+5M	2	20	2 115.0	2 145.0	2 175.0	
LTE_B66_2NC_5M+5M			2 112.5 + 2 177.5			
LTE_B66_4C_15M+15M+15M+15M	4	60	2 140.0	2 145.0	2150.0	
LTE_B66_4NC_15M+15M+15M+15M			2 117.5 + 2 132.5 + 2 147.5 + 2 162.5			
NR_n66_1C_5M	1	5	2 112.5	2 145.0	2 177.5	21.0
NR_n66_1C_10M	1	10	2 115.0	2 145.0	2 175.0	23.0
NR_n66_1C_15M	1	15	2 117.5	2 145.0	2 172.5	
NR_n66_1C_20M	1	20	2 120.0	2 145.0	2 170.0	
NR_n66_1C_25M	1	25	2 122.5	2 145.0	2 167.5	
NR_n66_1C_30M	1	30	2 125.0	2 145.0	2 165.0	
NR_n66_2C_5M+5M	2	10	2 115.0	2 145.0	2 175.0	
NR_n66_2NC_5M+5M			2 112.5 + 2 177.5			
NR_n66_4C_15M+15M+15M+15M	4	60	2 140.0	2 145.0	2150.0	
NR_n66_4NC_15M+15M+15M+15M			2 117.5 + 2 132.5 + 2 147.5 + 2 162.5			

C-band Configuration	No. of Carriers	Total Bandwidth (MHz)	Carrier Frequency Configuration (MHz)			Rated Power (dBm/path)
			Lowest	Middle	Highest	
NR_n77_1C_40M	1	40	3 720.0	3 840.0	3 960.0	26.0
NR_n77_1C_60M	1	60	3 730.0	3 840.0	3 950.0	
NR_n77_1C_80M	1	80	3 740.0	3 840.0	3 940.0	
NR_n77_1C_100M	1	100	3 750.0	3 840.0	3 930.0	
NR_n66_2C_40M+40M	2	80	3 740.0	3 840.0	3 940.0	
NR_n66_2NC_40M+40M			3 740.0 + 3 940.0			
NR_n66_4C_40M+60M+80M+100M	4	280	3 720.0 + 3 770.0 + 3 840.0 + 3 930.0			

3.4 EMI Suppression Device(s)/Modifications

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

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4.0 DESCRIPTION OF TESTS

4.1 Measurement Procedure

The measurement procedures described in the document titled “American National Standard for Compliance Testing of Transmitter Used in Licensed Radio Service” (ANSI C63.26-2015) and the guidance provided in KDB 971168 D01 v03r01, and KDB 662911 D01 v02r01 and KDB 940660 D01 v03 were used in the measurement of the EUT.

Occupied Bandwidth:

KDB 971168 D01 v03r01 – Section 4.3

ANSI C63.26-2015 – Section 5.4.4

Modulation Characteristics:

ANSI C63.26 - Section 5.3

Conducted Power Measurement and EIRP and PSD

KDB 971168 D01 v03r01 – Section 5.3

KDB 971168 D01 v03r01 – Section 5.4

KDB 662911 D01 v02r01 – Section E)2) In-Band Power Spectral Density (PSD) Measurements
b) Measure and sum spectral maxima across the outputs

ANSI C63.26-2015 – Section 5.2.5

ANSI C63.26-2015 – Section 5.2.4

Peak-to-Average Power Ratio:

KDB 971168 D01 v03r01 – Section 5.7

ANSI C63.26-2015 – Section 5.2.3.4

Channel Edge Emissions at Antenna Terminal

KDB 971168 D01 v03r01 – Section 6

KDB 662911 D01 v02r01 – Section E)3) Out-of-Band and Spurious Emission Measurements
a) Absolute Emission Limits
ii) Measure and sum spectral maxima across the outputs

ANSI C63.26-2015 – Section 5.7

Spurious and Harmonic Emissions at Antenna Terminal

KDB 971168 D01 v03r01 – Section 6

KDB 662911 D01 v02r01 – Section E)3) Out-of-Band and Spurious Emission Measurements
a) Absolute Emission Limits
ii) Measure and sum spectral maxima across the outputs

ANSI C63.26-2015 – Section 5.7

Radiated unwanted emission

KDB 971168 D01 v03r01 – Section 7

ANSI C63.26-2015 – Section 5.8

Frequency Stability / Temperature Variation

KDB 971168 D01 v03r01 – Section 9

ANSI C63.26-2015 – Section 5.6

4.2 Measurement Software

Test item	Name	Version
Conducted Measurement	Node B automation	1.0
Radiated Measurement	EP5RE	6.0.1.0
	ES10	10.001

4.3 Environmental Conditions

The temperature is controlled within the range of 15°C to 35°C. The relative humidity is controlled within the range of 10% to 75%. The atmospheric pressure is monitored within the range 86-106kPa (860-1060mbar).

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5.0 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.

Description	Uncertainty
Conducted Power Measurement and EIRP	1.5 dB (C.L. : Approx. 95%, $k = 2$)
Occupied bandwidth	0.1 MHz (C.L. : Approx. 95%, $k = 2$)
Peak-to-average power ratio	1.0 dB (C.L. : Approx. 95%, $k = 2$)
Band Edge Emissions at Antenna Terminal	3.0 dB (C.L. : Approx. 95%, $k = 2$)
Spurious and Harmonic Emissions at Antenna Terminal	3.0 dB (C.L. : Approx. 95%, $k = 2$)
Radiated Emissions ($f \leq 1$ GHz)	4.11 dB (C.L. : Approx. 95%, $k = 2$)
Radiated Emissions ($f > 1$ GHz)	4.64 dB (C.L. : Approx. 95%, $k = 2$)
Frequency Stability	0.1 kHz (C.L. : Approx. 95%, $k = 2$)

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6.0 TEST EQUIPMENT CALIBRATION DATA

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

Manufacture	Model	Description	Cal Date	Cal interval	Cal Due	Serial Number
Rohde & Schwarz	FSV30	SIGNAL ANALYZER	2025-11-25	Annual	2026-11-25	100925
Rohde & Schwarz	FSV40	SPECTRUM ANALYZER	2025-01-10	Annual	2026-01-10	101574
Rohde & Schwarz	ESW44	EMI TEST RECEIVER	2025-04-28	Annual	2026-04-28	102039
TESEQ	CBL6111D	Bilog Antenna	2025-08-21	Annual	2027-08-21	60654
PASTERNAK	PE7AP006-06	ATTENUATOR	2026-07-28	Annual	2026-07-28	L20210504000023
SONOMA	310N	AMPLIFIER	2025-07-28	Annual	2026-07-28	411011
ETS-Lindgren	3115	Double Ridged Guide Antenna	2025-03-13	Annual	2026-03-13	00078895
Agilent	8449B	Preamplifier	2025-03-11	Annual	2026-03-11	3008A00620
TESTEK	TK-PA1840H	AMPLIFIER	2025-09-30	Annual	2026-09-30	210124-L
SCHWARZBECK	BBHA9170	HORN ANTENNA	2025-09-30	Annual	2026-09-30	01153
Rohde & Schwarz	FSW	Signal Analyzer	2025-03-28	Annual	2026-03-28	101250
Keysight	N9020B	Signal Analyzer	2025-03-14	Annual	2026-03-14	MY57431080
Keysight	N9020B	Signal Analyzer	2025-11-19	Annual	2026-11-19	MY55470135
Keysight	N9030B	Signal Analyzer	2025-03-28	Annual	2026-03-28	MY57142018
T&M System	TMX81D	RF Switch System	2025-11-11	Annual	2026-11-11	TM20100001
T&M System	TMX81D	RF Switch System	2025-11-11	Annual	2026-11-11	TM20100002
CENTRIC RF	C411-20	ATTENUATOR	2025-03-14	Annual	2026-03-14	ey20db002
CENTRIC RF	C411-20	ATTENUATOR	2025-03-14	Annual	2026-03-14	ey20db003
Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265085
Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265089
Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265111
Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265097
Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265091
Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265093
Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265103
Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265109
Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265112
Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265083
Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265086
Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265108



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Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265094
Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265087
Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265107
Qualwave	QFA1820-18-10-S	ATTENUATOR	2025-08-08	Annual	2026-08-08	22265096
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0004
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0005
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0008
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0009
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0010
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0012
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0016
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0017
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0019
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0020
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0022
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0024
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0026
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0028
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0029
RF ONE	RFHB1810SC10	ATTENUATOR	2025-10-10	Annual	2026-10-10	RFHB1810SC10-0031
WAINWRIGHT	WHW-1300018000-4000040CC	High Pass Filter	2025-03-14	Annual	2026-03-14	0002
Wainwright Instruments	WHKX3.0/18G-10SS	High Pass Filter	2025-11-10	Annual	2026-11-10	78
K&L MICROWAVE	11SH10-6200/T18000-O/O	HIGH PASS FILTER	2025-07-04	Annual	2026-07-04	00002
ESPEC	EBE2E20W6P3 T38	Temperature Chamber	2025-04-28	Annual	2026-04-28	3015007507
Agilent	6674A	DC Power Supply	2025-03-13	Annual	2026-03-13	US36372372

Table 6-1. Summary of Test Results

Notes:

1. 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.
2. All testing was performed before the calibration due date.

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7.0 SAMPLE CALCULATIONS

Emission Designator

QPSK Modulation

Emission Designator = 4M52G7D

Occupied Bandwidth = 4.52 MHz

G = Phase Modulation

7 = Quantized/Digital Info

D = Data transmission, telemetry, telecommand

QAM Modulation

Emission Designator = 4M54W7D

Occupied Bandwidth = 4.54 MHz

W = Amplitude/Angle Modulated

7 = Quantized/Digital Info

D = Data transmission, telemetry, telecommand

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8.0 TEST RESULTS

8.1 Summary

Company Name: SAMSUNG Electronics Co., Ltd.
FCC ID: A3LRA4401T-77B
FCC Classification: PCS Licensed Transmitter
Mode(s): LTE, NR

FCC Part Section(s)	Test Description	Limit	Test Condition	Test Result	Reference
§ 2.1046	Conducted Average Output Power	N/A	CONDUCTED	PASS	Annex A
§ 2.1049	Occupied Bandwidth	N/A		PASS	Section 8.2
§ 2.1046, § 24.232, § 27.50(d) § 27.50(j)	Equivalent Isotropic Radiated Power	< 1640 W/MHz		PASS	Section 8.3
§ 2.1046, § 24.232, § 27.50(d) § 27.50(l)	Peak-to-average ratio	≤ 13 dB		PASS	Section 8.4
§ 2.1051, § 24.238, § 27.53(h) § 27.50(l)	Band Edge Emissions at Antenna Terminal	< 43 + log10(P[Watts]) at Band Edge and all out-of-band emissions		PASS	Section 8.5
§ 2.1051, § 24.238, § 27.53(h) § 27.53(l)	Spurious and Harmonic Emissions at Antenna Terminal			PASS	Section 8.6
§ 2.1055 § 24.235 § 27.54	Frequency Stability	Fundamental emissions stay within authorized frequency block		PASS	Section 8.7
§ 2.1055, § 24.238, § 27.53(h) § 27.53(l)	Radiated unwanted emission	< 43 + log10(P[Watts]) at Band Edge and all out-of-band emissions	RADIATED	PASS	Section 8.8

Table 8-1. 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.
- 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 and attenuators.

8.2 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 Procedures Used

KDB 971168 D01 v03r01 – Section 4.3

ANSI C63.26-2015 – Section 5.4.4

Test Setting

The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The spectrum analyzer settings were as follows:

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.

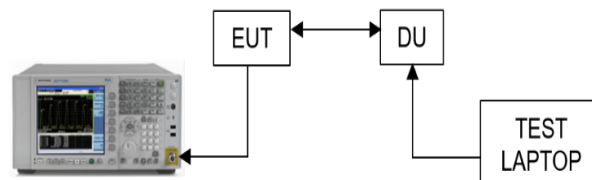


Figure 8-1. Test Instrument & Measurement Setup

Test Notes

None

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Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	2	4.51	4.51	4.53	4.54
	3	4.52	4.52	4.52	4.52
Middle	2	4.51	4.51	4.52	4.52
	3	4.52	4.50	4.52	4.52
High	2	4.52	4.49	4.52	4.54
	3	4.51	4.50	4.52	4.53

Table 8-2. Occupied Bandwidth Summary Data (LTE_B25_1C_5M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	2	9.02	9.07	9.00	9.04
	3	9.02	9.09	9.01	9.05
Middle	2	9.01	9.05	9.04	9.04
	3	9.02	9.07	9.06	9.04
High	2	9.03	9.08	9.09	9.05
	3	9.04	9.07	9.05	9.05

Table 8-3. Occupied Bandwidth Summary Data (LTE_B25_1C_10M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	2	13.55	13.60	13.56	13.55
	3	13.55	13.61	13.54	13.53
Middle	2	13.57	13.60	13.56	13.55
	3	13.59	13.57	13.56	13.55
High	2	13.58	13.64	13.56	13.57
	3	13.60	13.60	13.58	13.52

Table 8-4. Occupied Bandwidth Summary Data (LTE_B25_1C_15M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	2	18.01	18.14	18.04	18.02
	3	18.02	18.12	18.02	18.03
Middle	2	18.07	18.16	18.05	18.05
	3	18.07	18.11	18.07	18.06
High	2	18.06	18.22	18.06	18.07
	3	18.04	18.12	18.06	18.04

Table 8-5. Occupied Bandwidth Summary Data (LTE_B25_1C_20M)

Channel	Port	OBW (MHz)			
		LTE_B25_2C_5M+5M		LTE_B25_4C_15M+15M+15M+15M	
		QPSK	16QAM	QPSK	16QAM
Low	2	9.53	9.55	59.04	58.99
	3	9.54	9.52	58.89	59.00
Middle	2	9.53	9.55	59.26	59.41
	3	9.55	9.55	59.20	59.19
High	2	9.54	9.54	59.24	59.41
	3	9.54	9.56	59.14	59.19

Table 8-6. Occupied Bandwidth Summary Data (LTE_B25_Multi carrier)

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Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	2	4.50	4.53	4.52	4.52
	3	4.51	4.53	4.52	4.51
Middle	2	4.51	4.52	4.50	4.52
	3	4.51	4.53	4.51	4.49
High	2	4.50	4.52	4.51	4.50
	3	4.52	4.54	4.51	4.51

Table 8-7. Occupied Bandwidth Summary Data (NR_n25_1C_5M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	2	9.34	9.30	9.37	9.37
	3	9.35	9.28	9.35	9.36
Middle	2	9.35	9.30	9.36	9.39
	3	9.36	9.28	9.36	9.36
High	2	9.37	9.29	9.35	9.37
	3	9.33	9.28	9.38	9.36

Table 8-8. Occupied Bandwidth Summary Data (NR_n25_1C_10M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	2	14.23	14.29	14.23	14.25
	3	14.21	14.29	14.22	14.20
Middle	2	14.26	14.30	14.25	14.28
	3	14.23	14.27	14.25	14.26
High	2	14.24	14.28	14.23	14.23
	3	14.22	14.33	14.25	14.24

Table 8-9. Occupied Bandwidth Summary Data (NR_n25_1C_15M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	2	19.06	19.15	19.09	19.09
	3	19.05	19.15	19.09	19.06
Middle	2	19.10	19.16	19.12	19.13
	3	19.10	19.17	19.11	19.07
High	2	19.13	19.21	19.09	19.09
	3	19.10	19.22	19.11	19.12

Table 8-10. Occupied Bandwidth Summary Data (NR_n25_1C_20M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	2	23.90	23.98	23.87	23.87
	3	23.88	24.00	23.92	23.84
Middle	2	23.91	24.02	23.96	23.91
	3	24.00	24.07	23.95	23.94
High	2	23.95	24.02	23.98	23.91
	3	23.93	24.06	23.94	23.92

Table 8-11. Occupied Bandwidth Summary Data (NR_n25_1C_25M)

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Channel	Port	OBW (MHz)			
		NR_n25_2C_5M+5M		NR_n25_4C_15M+15M+15M+15M	
		QPSK	16QAM	QPSK	16QAM
Low	2	9.51	9.56	59.01	59.18
	3	9.54	9.56	59.06	59.33
Middle	2	9.53	9.55	59.26	59.54
	3	9.54	9.56	59.24	59.38
High	2	9.55	9.55	59.26	59.53
	3	9.53	9.55	59.25	59.39

Table 8-12. Occupied Bandwidth Summary Data (NR_n25_ Multi carrier)

Channel	Port	OBW (MHz)			
		MSR_B/n25_2C_LTE 5M+NR 5M		MSR_B/n25_4C_LTE 15M+15M+NR 15M+15M	
		QPSK	16QAM	QPSK	16QAM
Low	2	9.51	9.54	58.71	58.98
	3	9.50	9.55	58.82	58.98
Middle	2	9.52	9.57	58.87	58.94
	3	9.52	9.55	58.77	59.02
High	2	9.51	9.54	58.91	59.02
	3	9.51	9.53	58.82	59.05

Table 8-13. Occupied Bandwidth Summary Data (B/n25_ MSR_ Multi carrier)

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Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	4.52	4.52	4.52	4.52
	1	4.51	4.50	4.51	4.53
Middle	0	4.52	4.52	4.53	4.54
	1	4.51	4.50	4.52	4.52
High	0	4.52	4.51	4.53	4.53
	1	4.52	4.48	4.54	4.53

Table 8-14. Occupied Bandwidth Summary Data (LTE_B66_1C_5M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	9.03	9.09	9.02	9.03
	1	9.03	9.11	9.03	9.02
Middle	0	9.05	9.07	9.01	9.05
	1	9.05	9.04	9.03	9.04
High	0	9.05	9.04	9.07	9.04
	1	9.00	9.10	9.06	9.06

Table 8-15. Occupied Bandwidth Summary Data (LTE_B66_1C_10M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	13.55	13.63	13.57	13.54
	1	13.54	13.58	13.57	13.56
Middle	0	13.55	13.61	13.57	13.55
	1	13.57	13.61	13.56	13.53
High	0	13.57	13.63	13.55	13.57
	1	13.58	13.60	13.57	13.55

Table 8-16. Occupied Bandwidth Summary Data (LTE_B66_1C_15M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	18.03	18.12	18.03	18.02
	1	18.02	18.14	18.07	18.02
Middle	0	18.06	18.08	18.06	18.10
	1	18.08	18.16	18.05	18.03
High	0	18.06	18.03	18.09	18.05
	1	18.03	18.14	18.06	18.03

Table 8-17. Occupied Bandwidth Summary Data (LTE_B66_1C_20M)

Channel	Port	OBW (MHz)			
		LTE_B66_2C_5M+5M		LTE_B66_4C_15M+15M+15M+15M	
		QPSK	16QAM	QPSK	16QAM
Low	0	9.53	9.53	59.24	59.23
	1	9.56	9.56	59.25	59.39
Middle	0	9.56	9.54	59.72	59.76
	1	9.54	9.54	59.69	59.81
High	0	9.55	9.52	59.74	59.79
	1	9.54	9.57	59.68	59.69

Table 8-18. Occupied Bandwidth Summary Data (LTE_B66_ Multi carrier)

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Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	4.50	4.52	4.50	4.53
	1	4.51	4.53	4.52	4.50
Middle	0	4.52	4.53	4.52	4.52
	1	4.51	4.53	4.51	4.50
High	0	4.52	4.53	4.52	4.52
	1	4.51	4.52	4.51	4.51

Table 8-19. Occupied Bandwidth Summary Data (NR_n66_1C_5M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	9.36	9.30	9.37	9.37
	1	9.34	9.30	9.38	9.36
Middle	0	9.37	9.30	9.38	9.37
	1	9.36	9.29	9.37	9.38
High	0	9.37	9.30	9.40	9.36
	1	9.36	9.29	9.37	9.37

Table 8-20. Occupied Bandwidth Summary Data (NR_n66_1C_10M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	14.25	14.30	14.24	14.25
	1	14.25	14.28	14.24	14.23
Middle	0	14.24	14.28	14.24	14.23
	1	14.25	14.29	14.22	14.25
High	0	14.27	14.30	14.25	14.24
	1	14.22	14.33	14.25	14.23

Table 8-21. Occupied Bandwidth Summary Data (NR_n66_1C_15M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	19.06	19.16	19.10	19.10
	1	19.10	19.18	19.08	19.12
Middle	0	19.09	19.18	19.06	19.09
	1	19.07	19.19	19.09	19.07
High	0	19.08	19.16	19.05	19.10
	1	19.10	19.18	19.08	19.11

Table 8-22. Occupied Bandwidth Summary Data (NR_n66_1C_20M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	23.97	24.01	23.94	23.95
	1	23.91	24.03	23.95	23.98
Middle	0	23.90	24.01	23.92	23.94
	1	23.89	24.05	24.01	23.95
High	0	23.95	23.98	23.95	23.98
	1	23.98	24.05	23.93	23.91

Table 8-23. Occupied Bandwidth Summary Data (NR_n66_1C_25M)

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Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	28.85	28.56	28.78	28.79
	1	28.72	28.56	28.78	28.75
Middle	0	28.83	28.52	28.79	28.76
	1	28.79	28.55	28.80	28.84
High	0	28.82	28.57	28.84	28.79
	1	28.79	28.46	28.83	28.81

Table 8-24. Occupied Bandwidth Summary Data (NR_n66_1C_30M)

Channel	Port	OBW (MHz)			
		NR_n66_2C_5M+5M		NR_n66_4C_15M+15M+15M+15M	
		QPSK	16QAM	QPSK	16QAM
Low	0	9.54	9.57	59.19	59.44
	1	9.52	9.57	59.18	59.52
Middle	0	9.55	9.56	59.43	59.69
	1	9.53	9.58	59.52	59.68
High	0	9.52	9.58	59.08	59.79
	1	9.55	9.57	59.09	59.73

Table 8-25. Occupied Bandwidth Summary Data (NR_n66_Multi carrier)

Channel	Port	OBW (MHz)			
		MSR_B/n66_2C_LTE 5M+NR 5M		MSR_B/n66_2C_LTE 15M+15M+NR 15M+15M	
		QPSK	16QAM	QPSK	16QAM
Low	0	9.52	9.54	58.80	59.01
	1	9.52	9.56	58.91	59.00
Middle	0	9.50	9.57	58.84	59.18
	1	9.52	9.56	58.92	59.05
High	0	9.50	9.55	58.78	59.07
	1	9.51	9.57	58.86	59.07

Table 8-26. Occupied Bandwidth Summary Data (B/n66_MSR_Multi carrier)

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Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	4	38.02	38.13	37.98	38.02
	5	37.98	38.19	38.01	37.98
	6	38.02	38.15	37.96	37.96
	7	38.07	38.12	38.05	38.02
Middle	4	38.00	38.15	38.10	38.03
	5	38.07	38.20	38.02	38.04
	6	37.99	38.23	38.06	38.01
	7	38.06	38.30	38.00	38.07
High	4	38.02	38.15	38.02	38.05
	5	38.10	38.19	38.03	38.02
	6	38.05	38.18	38.01	38.06
	7	38.05	38.22	38.01	38.06

Table 8-27. Occupied Bandwidth Summary Data (NR_n77_1C_40M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	4	57.83	57.96	57.76	57.80
	5	57.76	57.96	57.84	57.92
	6	57.84	57.96	57.87	57.89
	7	57.81	57.87	57.85	57.81
Middle	4	57.84	58.06	57.90	57.80
	5	57.86	57.98	57.86	57.84
	6	57.81	58.05	57.88	57.83
	7	57.84	57.94	57.85	57.83
High	4	57.88	58.02	57.91	57.84
	5	57.85	58.06	57.80	57.83
	6	57.94	58.05	57.89	57.86
	7	57.81	58.01	57.74	57.70

Table 8-28. Occupied Bandwidth Summary Data (NR_n77_1C_60M)

Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	4	78.03	78.35	78.07	78.10
	5	78.14	78.43	78.08	78.09
	6	78.06	78.36	78.06	78.12
	7	78.03	78.36	78.09	78.03
Middle	4	78.18	78.38	78.05	78.18
	5	78.09	78.46	78.11	78.24
	6	78.07	78.44	78.15	78.18
	7	78.03	78.48	78.14	78.08
High	4	78.11	78.43	78.08	78.14
	5	78.13	78.50	78.00	78.21
	6	78.16	78.57	78.05	78.16
	7	78.09	78.43	78.11	78.17

Table 8-29. Occupied Bandwidth Summary Data (NR_n77_1C_80M)



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Channel	Port	OBW (MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	4	97.44	97.55	97.43	97.54
	5	97.54	97.49	97.52	97.48
	6	97.59	97.51	97.46	97.42
	7	97.65	97.58	97.52	97.59
Middle	4	97.58	97.56	97.51	97.38
	5	97.68	97.24	97.56	97.44
	6	97.42	97.36	97.51	97.41
	7	97.37	97.34	97.55	97.67
High	4	97.50	97.53	97.50	97.43
	5	97.41	97.66	97.49	97.51
	6	97.56	97.45	97.46	97.57
	7	97.47	97.59	97.62	97.55

Table 8-30. Occupied Bandwidth Summary Data (NR_n77_1C_100M)

Channel	Port	OBW (MHz)			
		NR_n77_2C_40M+40M		NR_n77_4C_40M+60M+80M+100M	
		QPSK	16QAM	QPSK	16QAM
Low	4	77.76	77.96		
	5	77.70	77.81		
	6	77.57	77.83		
	7	77.72	77.79		
Middle	4	77.94	78.02	276.50	275.71
	5	77.93	77.84	276.39	275.74
	6	77.92	78.13	276.76	275.38
	7	77.79	78.08	276.53	275.41
High	4	77.78	77.87		
	5	77.68	77.97		
	6	77.78	78.00		
	7	77.72	77.75		

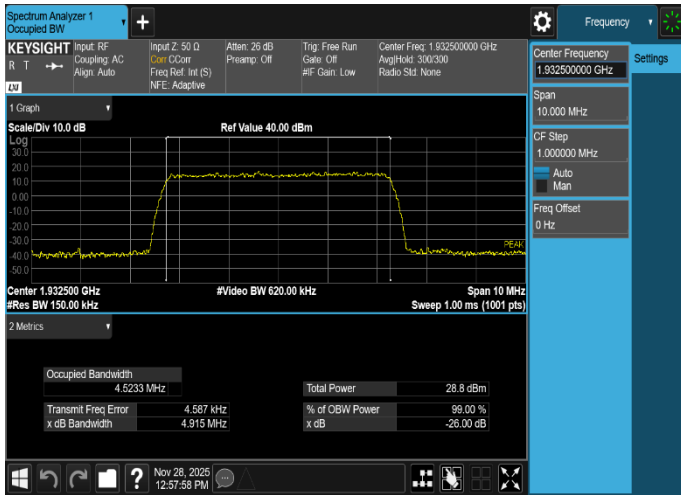
Table 8-31. Occupied Bandwidth Summary Data (n77_Multi carrier)



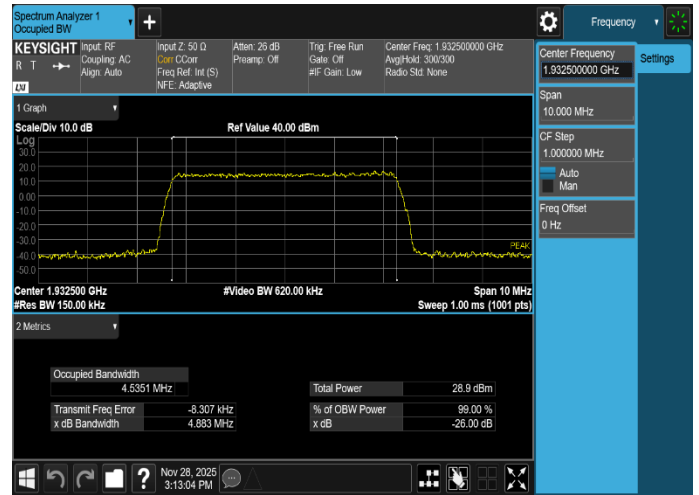
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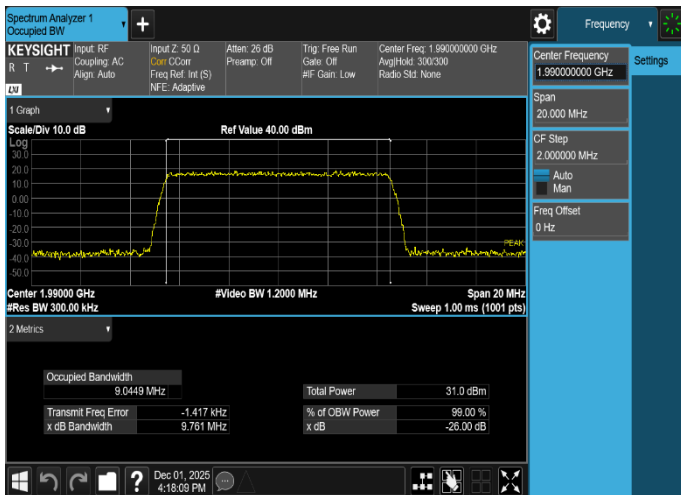
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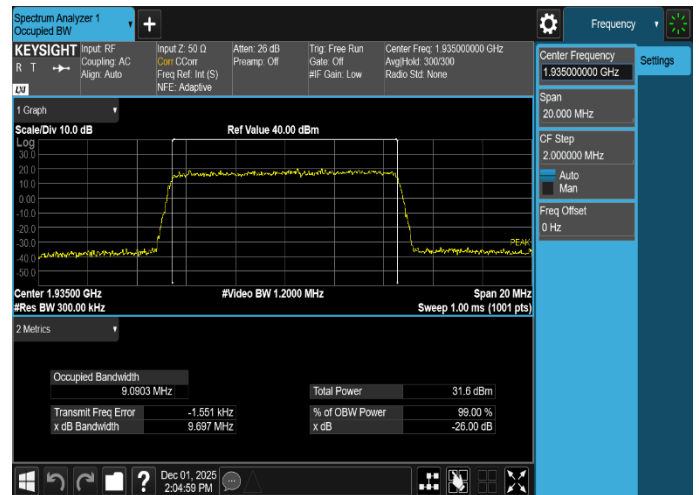
Plot 8-1. Occupied Bandwidth Plot
(LTE_B25_1C_5M_QPSK - Low Channel, Port 3)



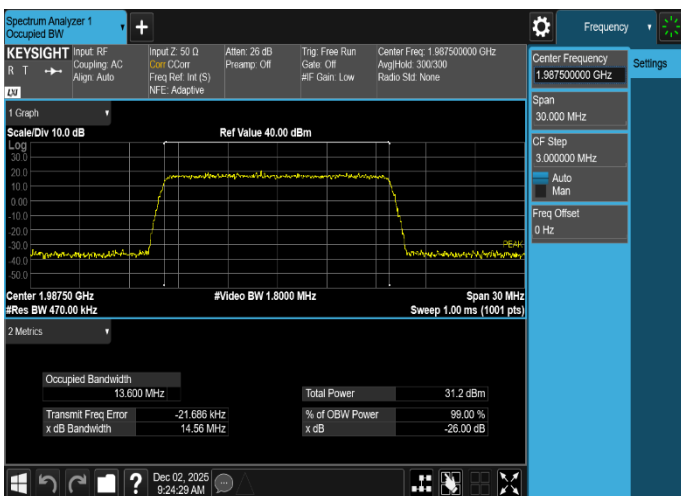
Plot 8-2. Occupied Bandwidth Plot
(LTE_B25_1C_5M_256QAM - Low Channel, Port 2)



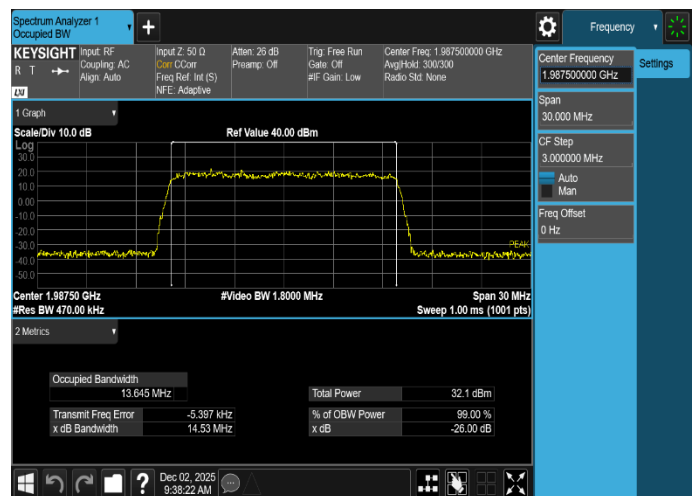
Plot 8-3. Occupied Bandwidth Plot
(LTE_B25_1C_10M_QPSK - High Channel, Port 3)



Plot 8-4. Occupied Bandwidth Plot
(LTE_B25_1C_10M_16QAM - Low Channel, Port 3)



Plot 8-5. Occupied Bandwidth Plot
(LTE_B25_1C_15M_QPSK - High Channel, Port 3)



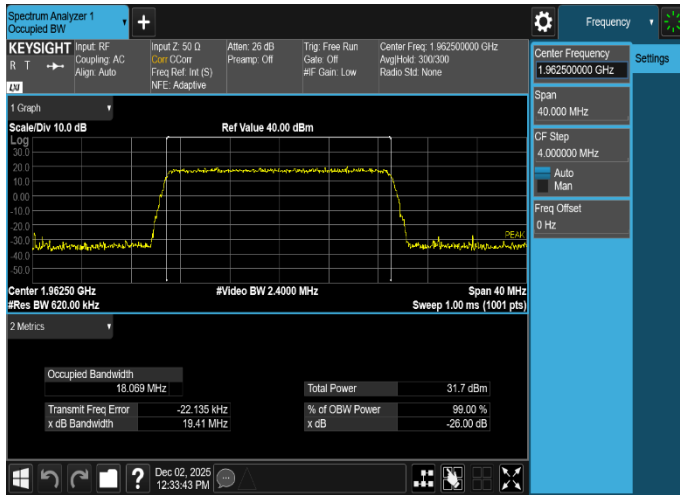
Plot 8-6. Occupied Bandwidth Plot
(LTE_B25_1C_15M_16QAM - High Channel, Port 2)



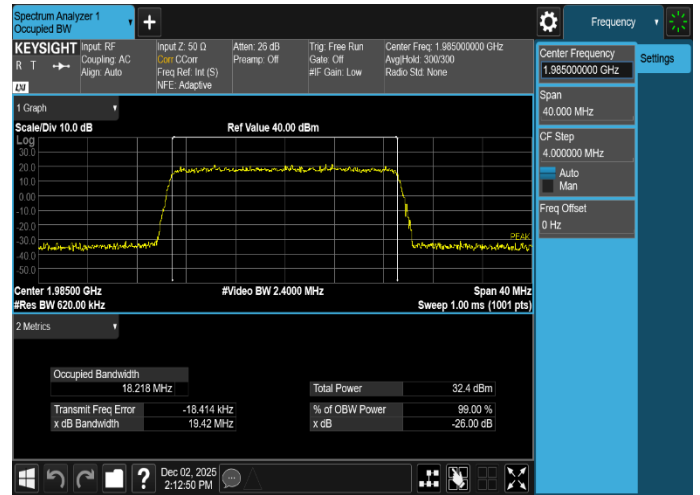
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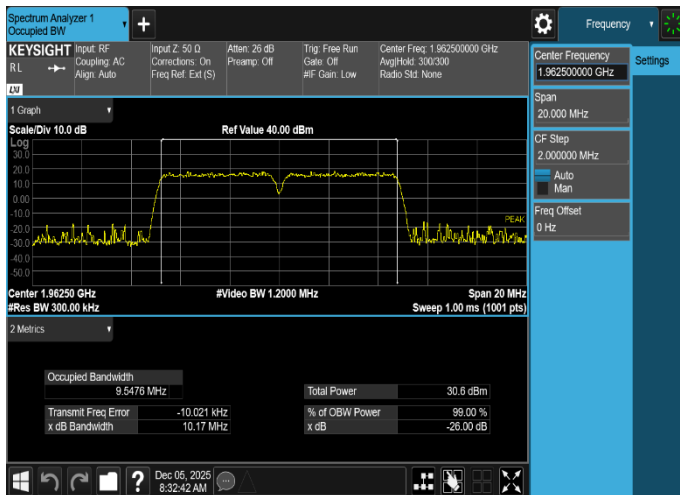
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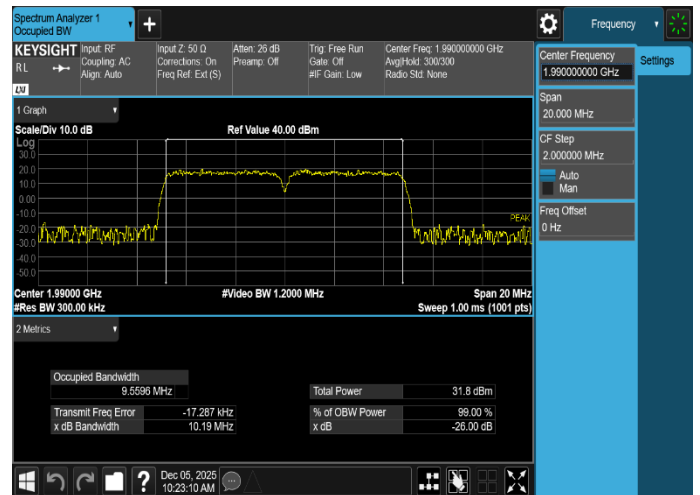
Plot 8-7. Occupied Bandwidth Plot
(LTE_B25_1C_20M_QPSK - Mid Channel, Port 3)



Plot 8-8. Occupied Bandwidth Plot
(LTE_B25_1C_20M_16QAM - High Channel, Port 2)



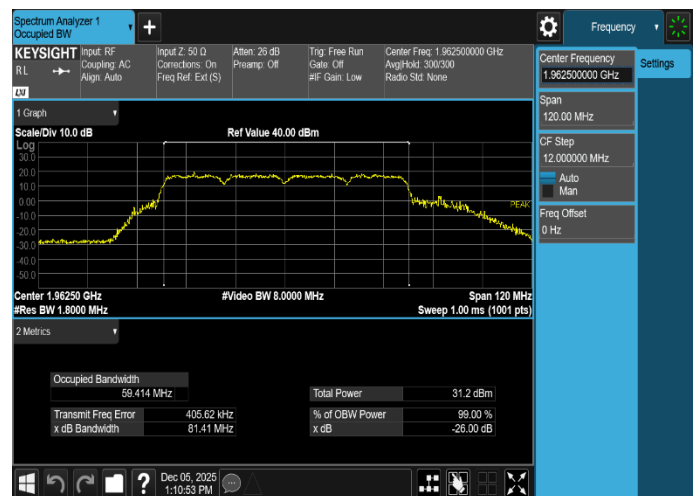
Plot 8-9. Occupied Bandwidth Plot
(LTE_B25_2C_5M+5M_QPSK - Mid Channel, Port 3)



Plot 8-10. Occupied Bandwidth Plot
(LTE_B25_2C_5M+5M_16QAM - High Channel, Port 3)



Plot 8-11. Occupied Bandwidth Plot
(LTE_B25_4C_15M+15M+15M+15M_QPSK - Mid Channel, Port 2)



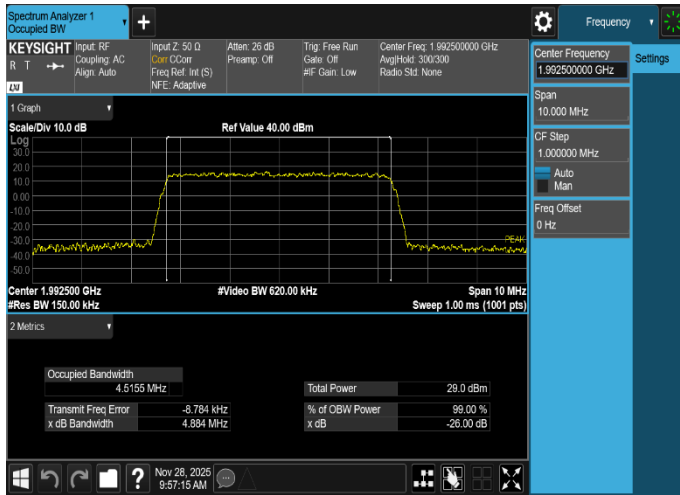
Plot 8-12. Occupied Bandwidth Plot
(LTE_B25_4C_15M+15M+15M+15M_16QAM - Mid Channel, Port 2)



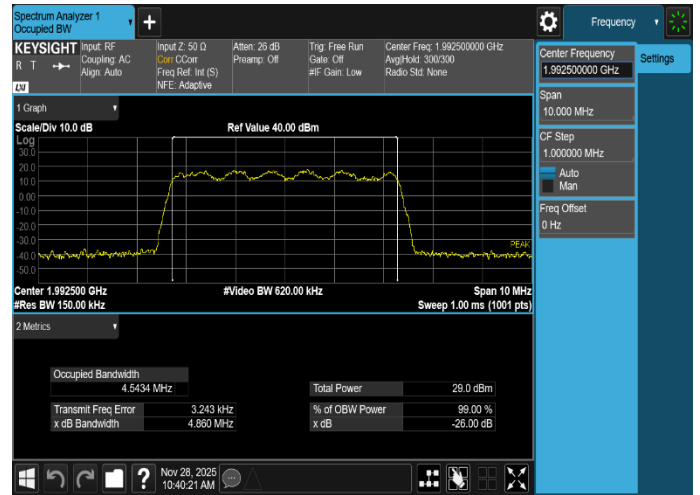
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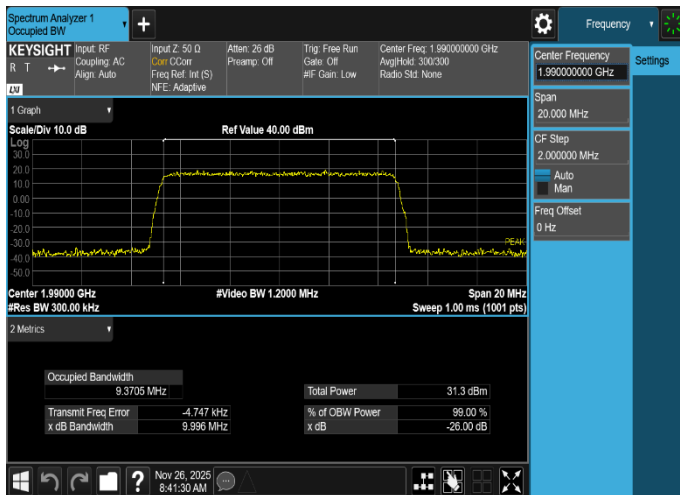
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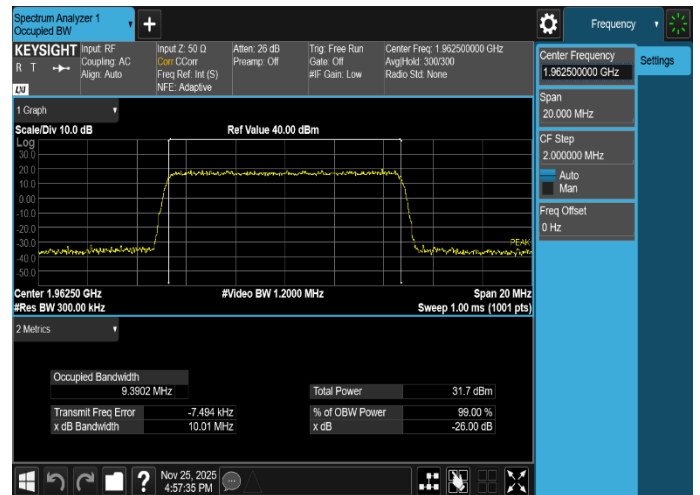
Plot 8-13. Occupied Bandwidth Plot
(NR_n25_1C_5M_QPSK - High Channel, Port 3)



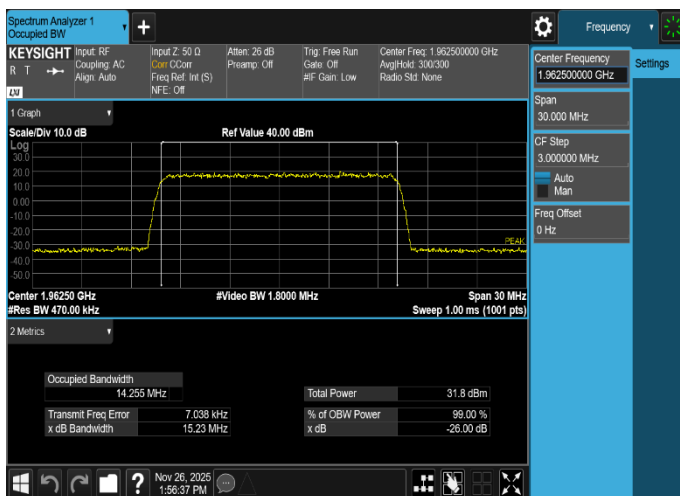
Plot 8-14. Occupied Bandwidth Plot
(NR_n25_1C_5M_16QAM - High Channel, Port 3)



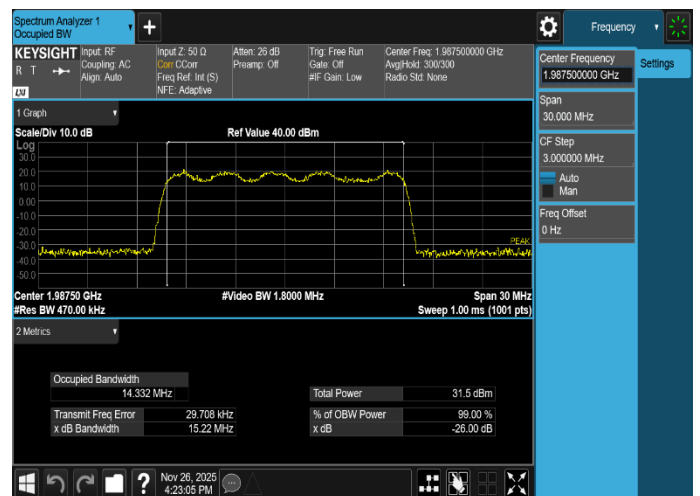
Plot 8-15. Occupied Bandwidth Plot
(NR_n25_1C_10M_QPSK - High Channel, Port 2)



Plot 8-16. Occupied Bandwidth Plot
(NR_n25_1C_10M_256QAM - Mid Channel, Port 2)



Plot 8-17. Occupied Bandwidth Plot
(NR_n25_1C_15M_QPSK - Mid Channel, Port 2)



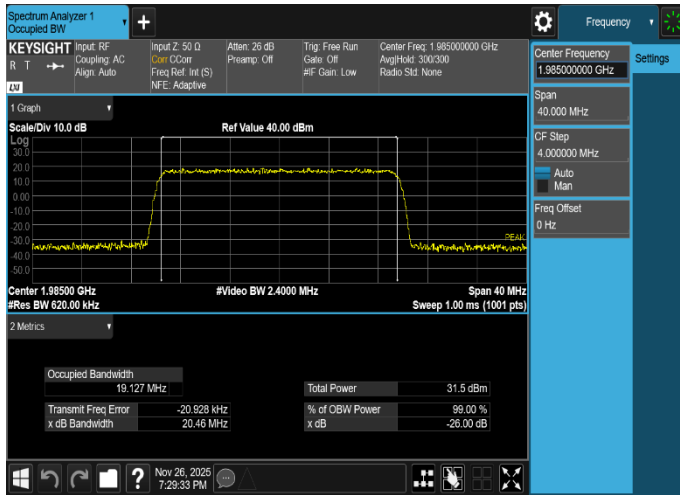
Plot 8-18. Occupied Bandwidth Plot
(NR_n25_1C_15M_16QAM - High Channel, Port 3)



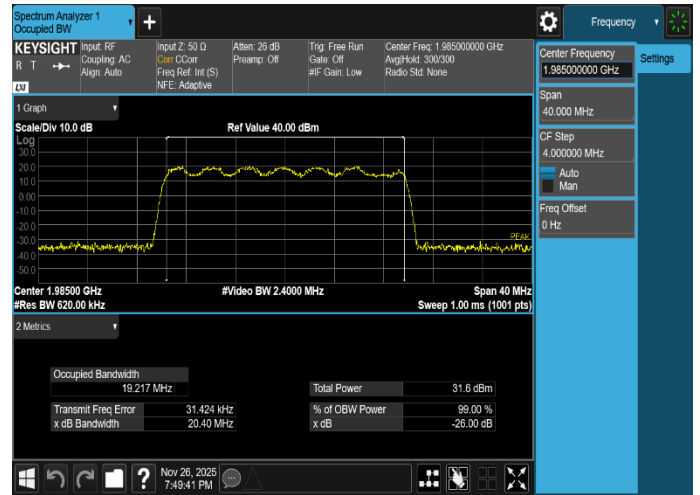
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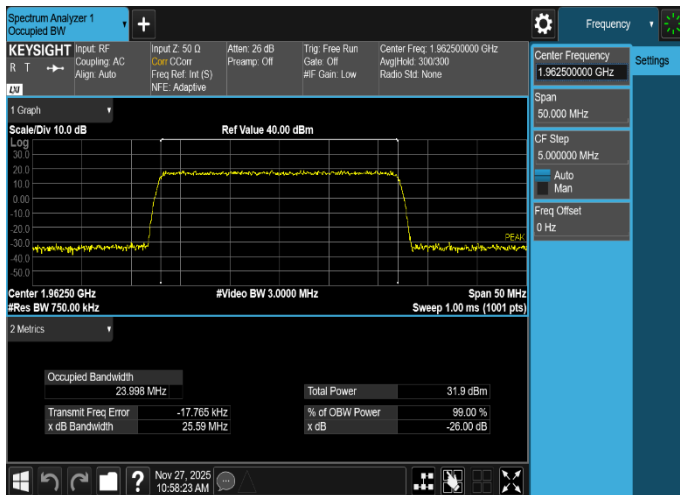
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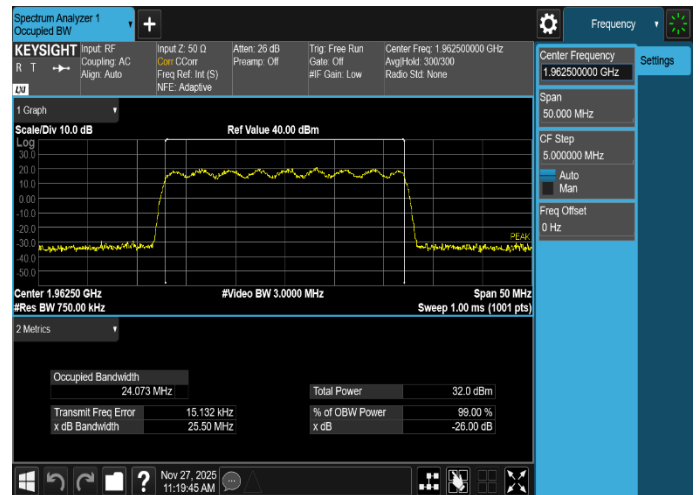
Plot 8-19. Occupied Bandwidth Plot
(NR_n25_1C_20M_QPSK - High Channel, Port 2)



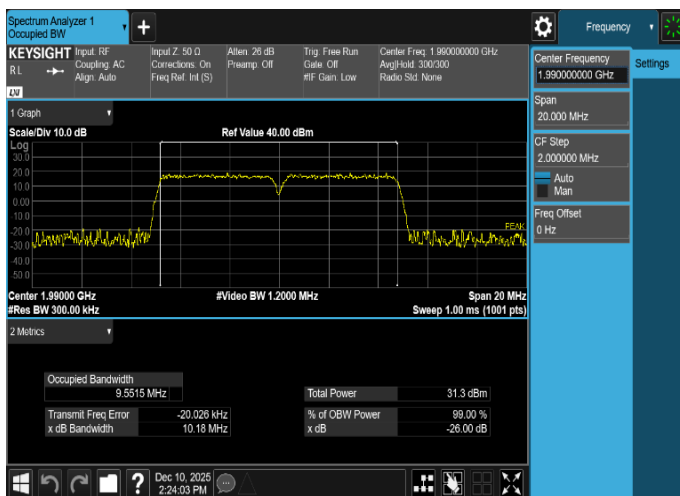
Plot 8-20. Occupied Bandwidth Plot
(NR_n25_1C_20M_16QAM - High Channel, Port 3)



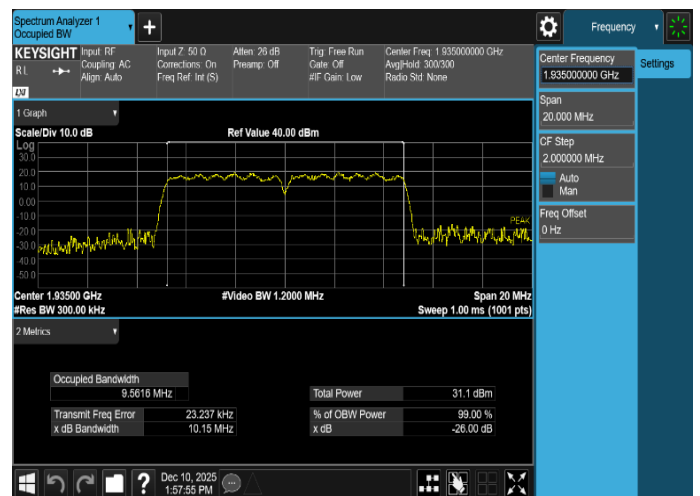
Plot 8-21. Occupied Bandwidth Plot
(NR_n25_1C_25M_QPSK - Mid Channel, Port 3)



Plot 8-22. Occupied Bandwidth Plot
(NR_n25_1C_25M_16QAM - Mid Channel, Port 3)



Plot 8-23. Occupied Bandwidth Plot
(NR_n25_2C_5M+5M_QPSK - High Channel, Port 2)



Plot 8-24. Occupied Bandwidth Plot
(NR_n25_2C_5M+5M_16QAM - Low Channel, Port 2)



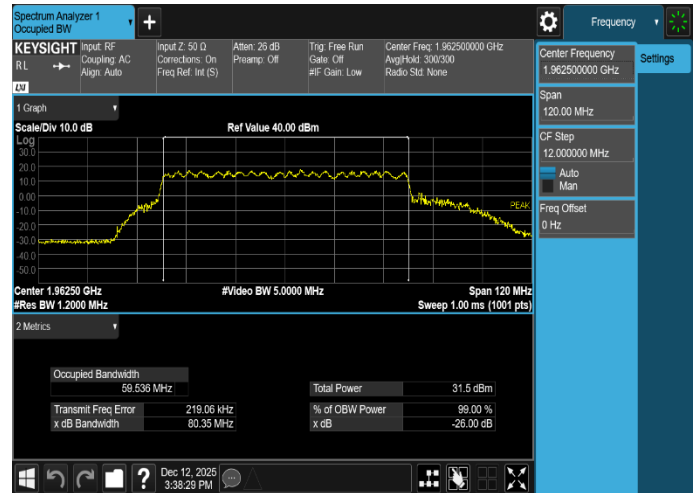
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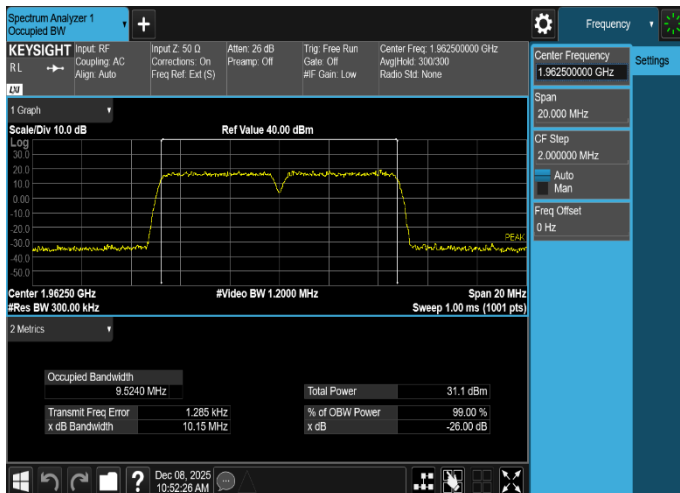
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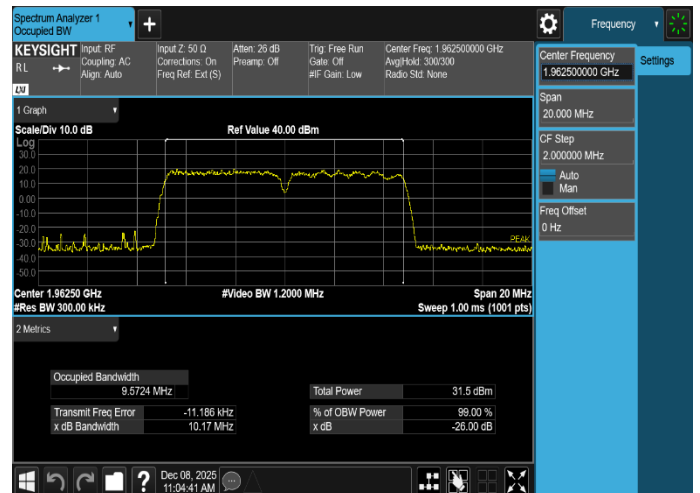
Plot 8-25. Occupied Bandwidth Plot
(NR_n25_4C_15M+15M+15M+15M_QPSK - Mid Channel,
Port 2)



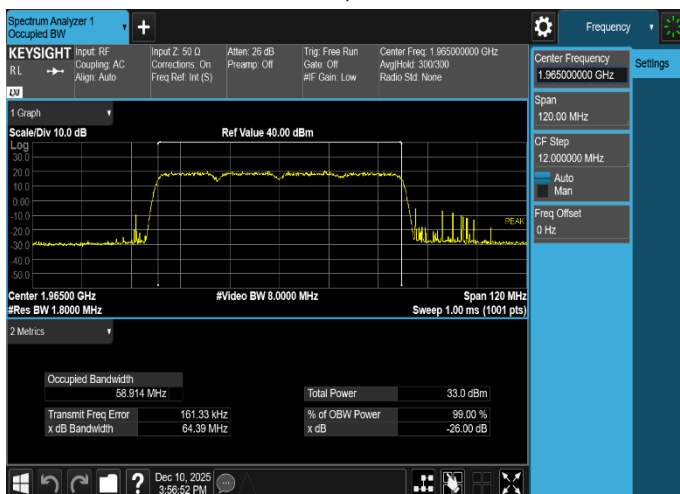
Plot 8-26. Occupied Bandwidth Plot
(NR_n25_4C_15M+15M+15M+15M_16QAM - Mid Channel,
Port 2)



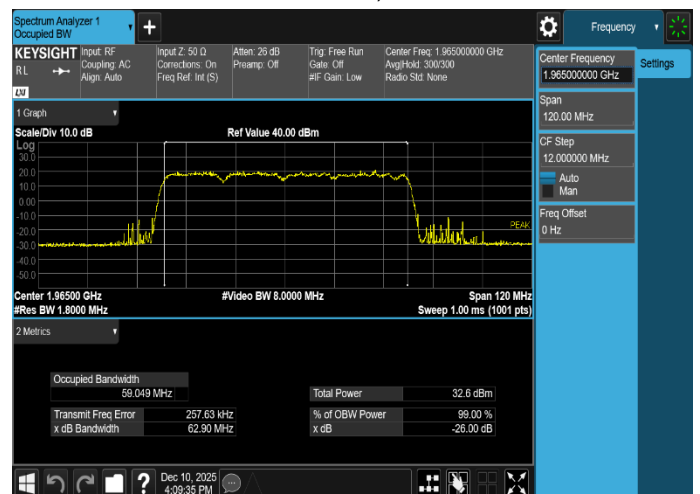
Plot 8-27. Occupied Bandwidth Plot
(MSR_B/n25_2C_LTE 5M+NR 5M_QPSK - Mid Channel, Port
3)



Plot 8-28. Occupied Bandwidth Plot
(MSR_B/n25_2C_LTE 5M+NR 5M_16QAM - Mid Channel,
Port 2)



Plot 8-29. Occupied Bandwidth Plot
(MSR_B/n25_4C_LTE 15M+15M+NR 15M+15M_QPSK - High
Channel, Port 2)



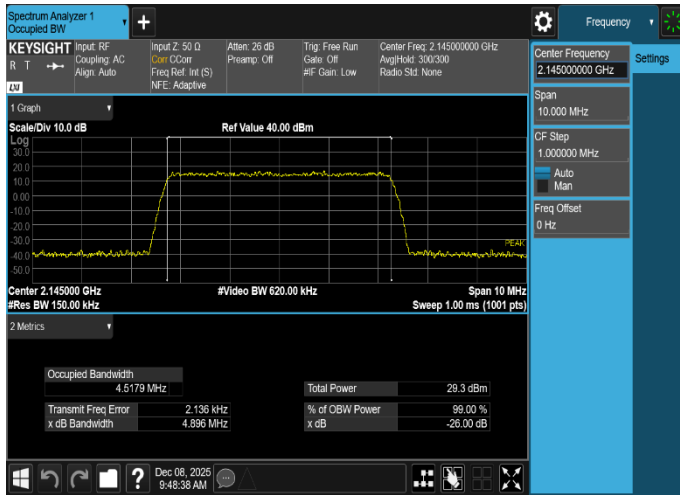
Plot 8-30. Occupied Bandwidth Plot
(MSR_B/n25_4C_LTE 15M+15M+NR 15M+15M_16QAM -
High Channel, Port 3)



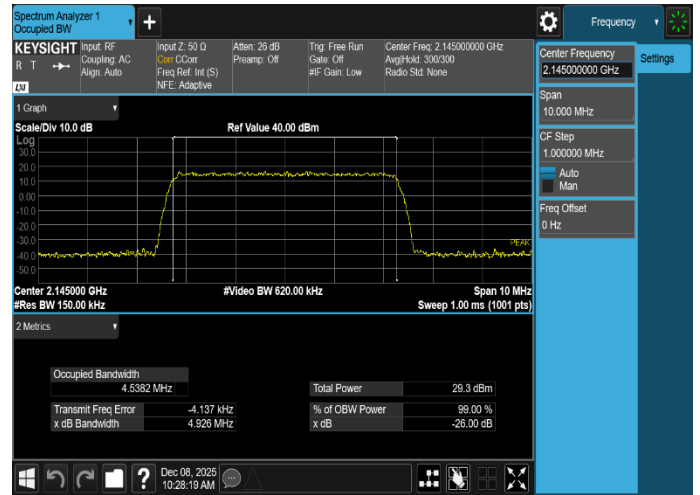
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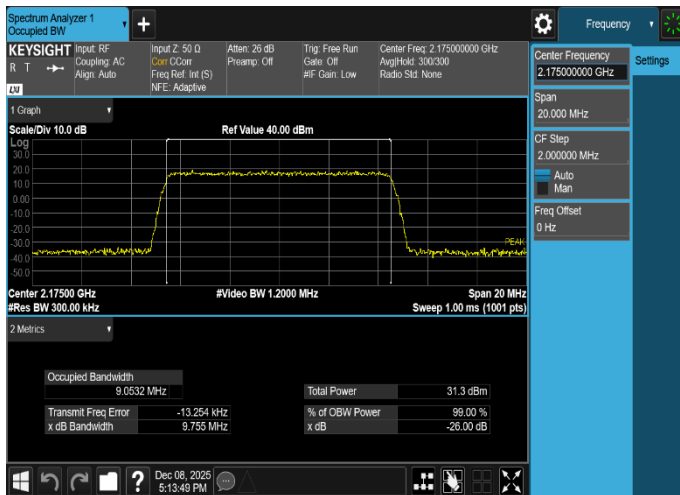
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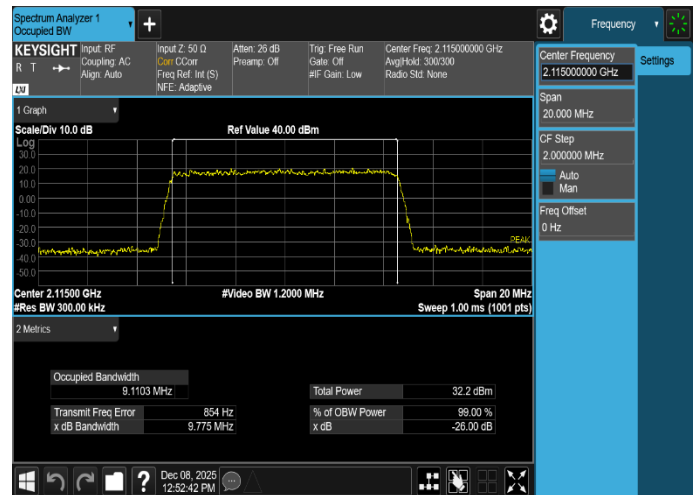
Plot 8-31. Occupied Bandwidth Plot
(LTE_B66_1C_5M_QPSK - Mid Channel, Port 0)



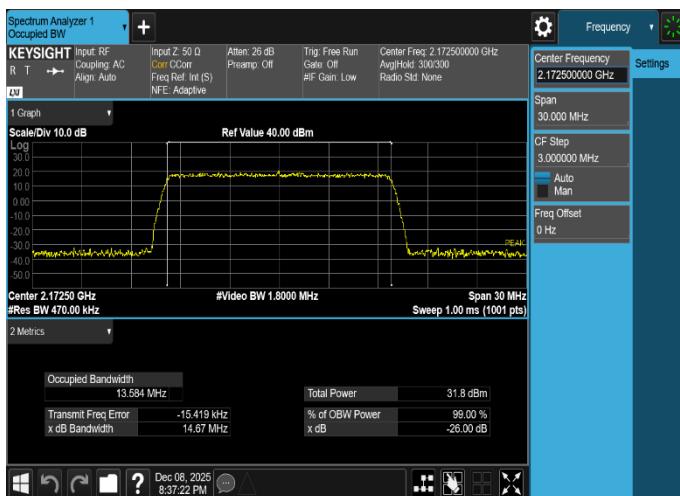
Plot 8-32. Occupied Bandwidth Plot
(LTE_B66_1C_5M_256QAM - Mid Channel, Port 0)



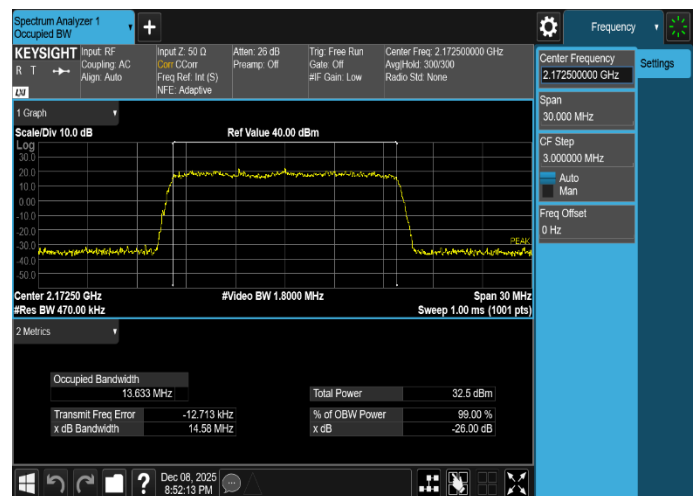
Plot 8-33. Occupied Bandwidth Plot
(LTE_B66_1C_10M_QPSK - High Channel, Port 0)



Plot 8-34. Occupied Bandwidth Plot
(LTE_B66_1C_10M_16QAM - Low Channel, Port 1)



Plot 8-35. Occupied Bandwidth Plot
(LTE_B66_1C_15M_QPSK - High Channel, Port 1)



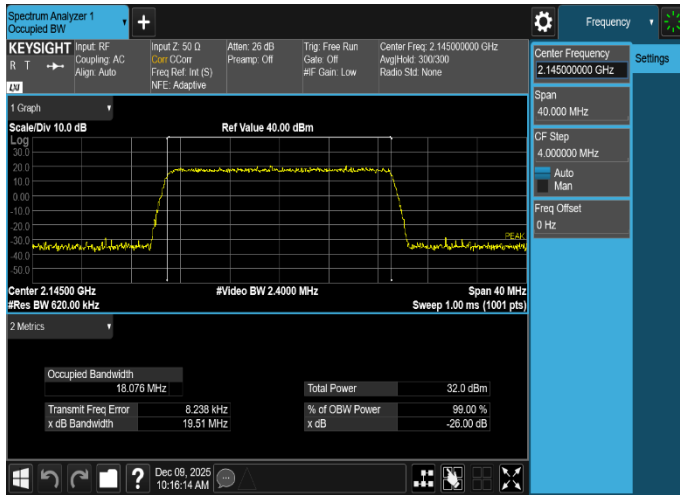
Plot 8-36. Occupied Bandwidth Plot
(LTE_B66_1C_15M_16QAM - High Channel, Port 0)



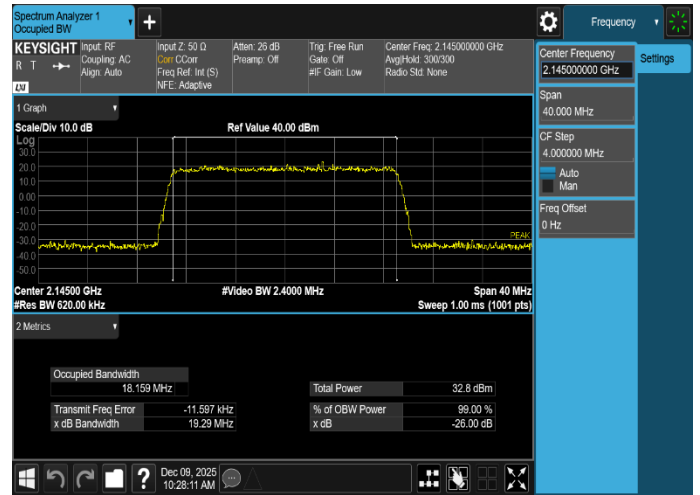
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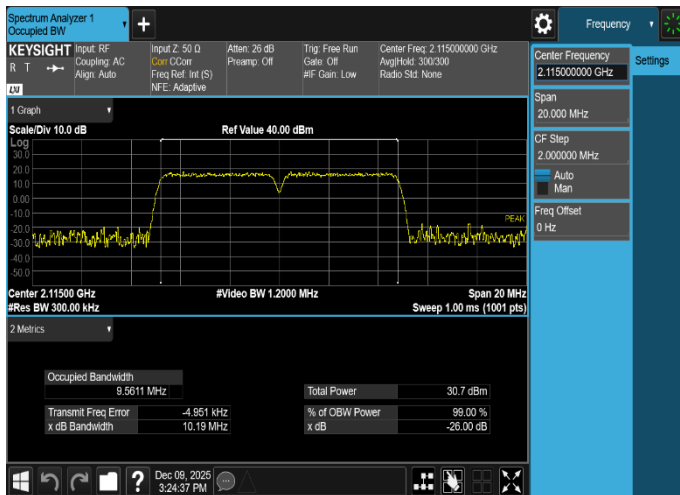
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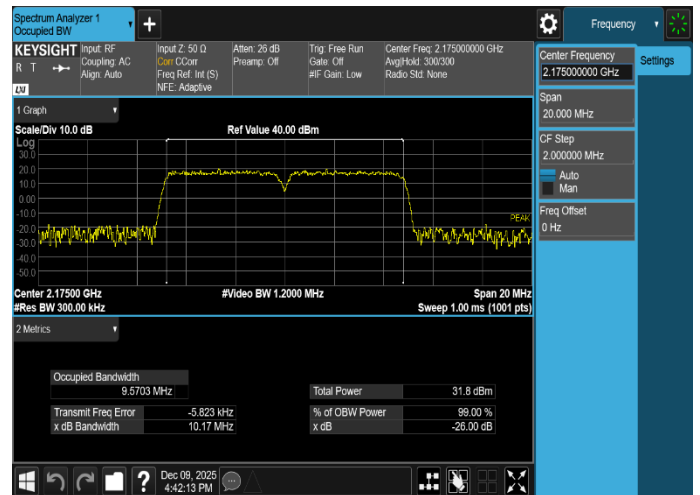
Plot 8-37. Occupied Bandwidth Plot
(LTE_B66_1C_20M_QPSK - Mid Channel, Port 1)



Plot 8-38. Occupied Bandwidth Plot
(LTE_B66_1C_20M_16QAM - Mid Channel, Port 1)



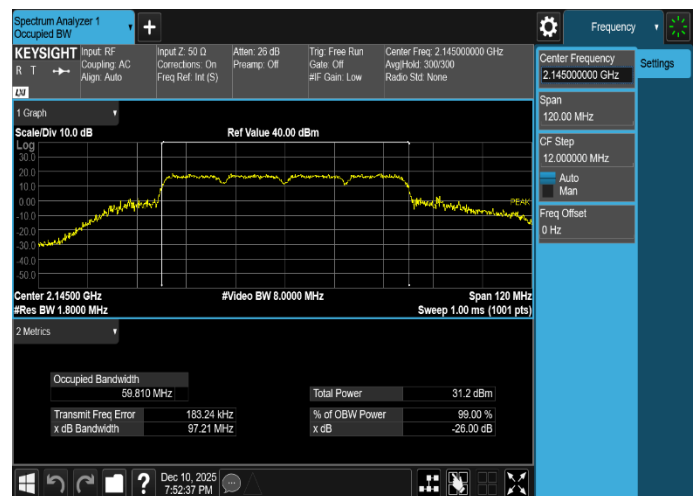
Plot 8-39. Occupied Bandwidth Plot
(LTE_B66_2C_5M+5M_QPSK - Low Channel, Port 1)



Plot 8-40. Occupied Bandwidth Plot
(LTE_B66_2C_5M+5M_16QAM - High Channel, Port 1)



Plot 8-41. Occupied Bandwidth Plot
(LTE_B66_4C_15M+15M+15M+15M_QPSK - High Channel,
Port 0)



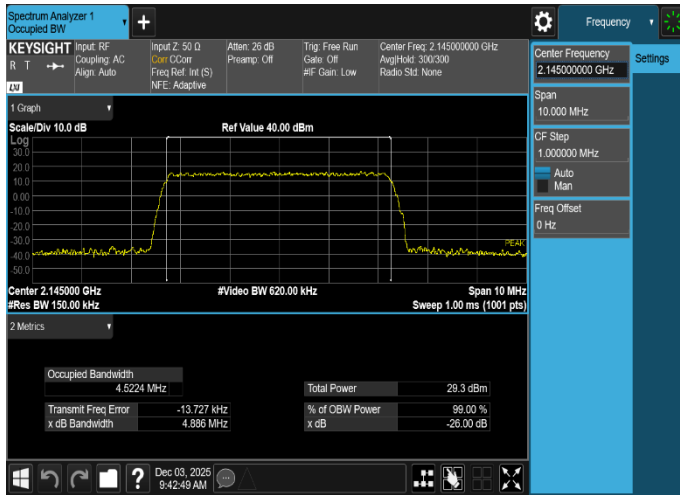
Plot 8-42. Occupied Bandwidth Plot
(LTE_B66_4C_15M+15M+15M+15M_16QAM - Mid Channel,
Port 1)



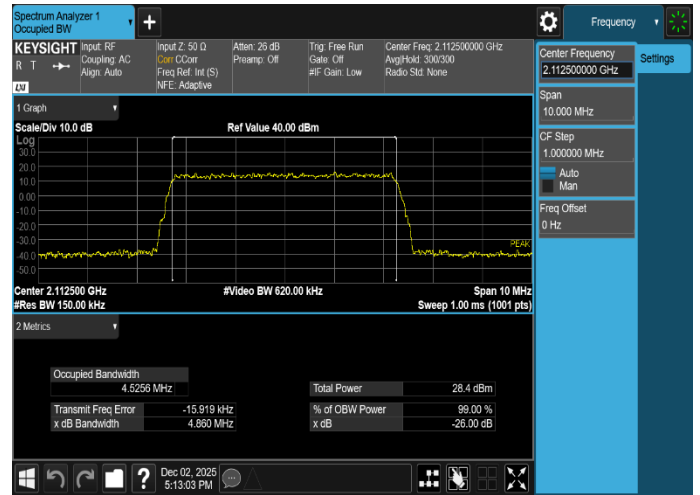
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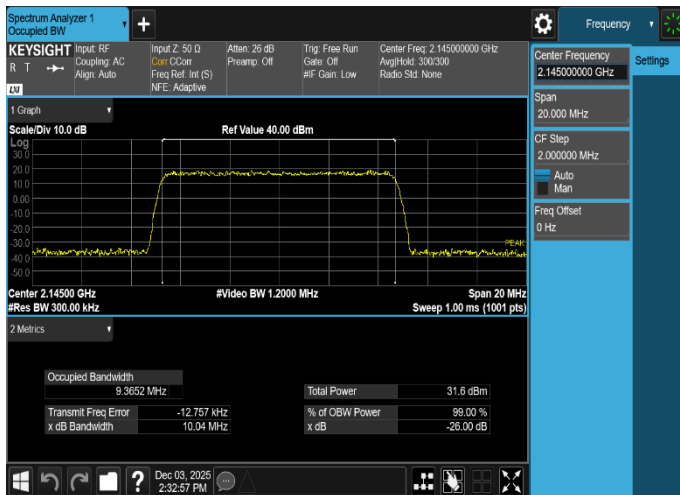
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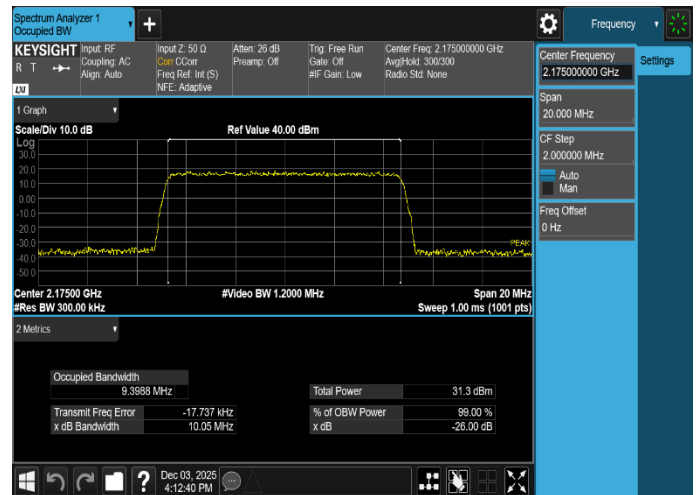
Plot 8-43. Occupied Bandwidth Plot
(NR_n66_1C_5M_QPSK - Mid Channel, Port 0)



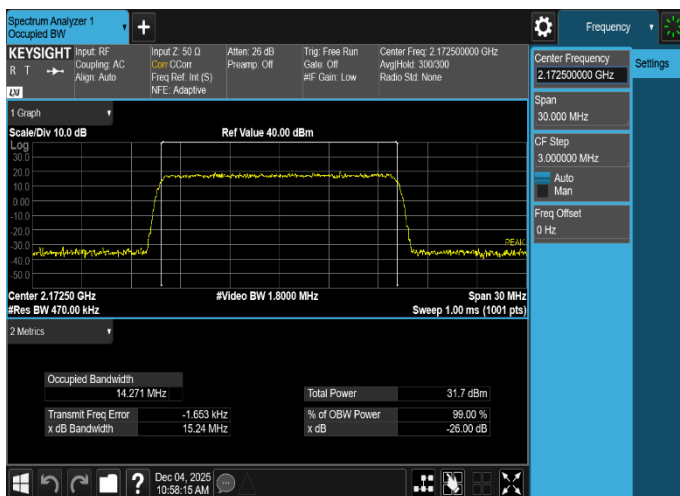
Plot 8-44. Occupied Bandwidth Plot
(NR_n66_1C_5M_256QAM - Low Channel, Port 0)



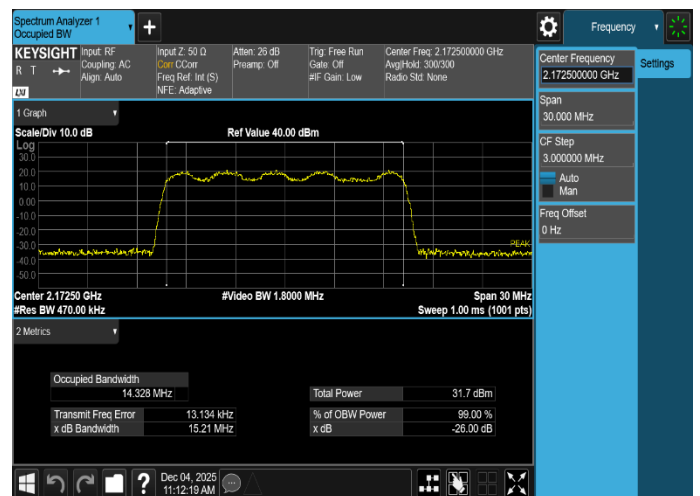
Plot 8-45. Occupied Bandwidth Plot
(NR_n66_1C_10M_QPSK - Mid Channel, Port 0)



Plot 8-46. Occupied Bandwidth Plot
(NR_n66_1C_10M_64QAM - High Channel, Port 0)



Plot 8-47. Occupied Bandwidth Plot
(NR_n66_1C_15M_QPSK - High Channel, Port 0)



Plot 8-48. Occupied Bandwidth Plot
(NR_n66_1C_15M_16QAM - High Channel, Port 0)