

ELEMENT WASHINGTON DC LLC

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PART 27 MEASUREMENT REPORT

Applicant Name:

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

Date of Testing:

9/12/2022 - 11/08/2022 **Test Report Issue Date:** 11/14/2022 **Test Site/Location:** Element lab., Columbia, MD, USA **Test Report Serial No.:** 1M2209010098-08-R1.A3L

FCC ID: APPLICANT:

A3LSMS918U

Samsung Electronics Co., Ltd.

Application Type: Model: Additional Model(s): EUT Type: FCC Classification: FCC Rule Part: Test Procedure(s):

Certification SM-S918U SM-S918U1 Portable Handset PCS Licensed Transmitter Held to Ear (PCE) 27 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.

Note: This revised Test Report (S/N: 1M2209010098-08-R1.A3L) supersedes and replaces the previously issued test report on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose of it accordingly

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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MEASUREMENT REPORT FCC Part 27

	Antenna-A							
		RP						
Mode	Bandwidth	Modulation Tx Frequency Range [MHz]		Max. Power [W] [dBm]		Emission Designator		
WCDMA1700	N/A	Spread Spectrum	1712.4 - 1752.6	0.324	25.10	4M18F9W		
	00 MILI-	QPSK	1720.0 - 1770.0	0.214	23.31	18M0G7D		
	20 MHz	16QAM	1720.0 - 1770.0	0.183	22.62	18M0W7D		
		QPSK	1717.5 - 1772.5	0.218	23.39	13M5G7D		
	15 MHz	16QAM	1717.5 - 1772.5	0.188	22.73	13M5W7D		
	10 MHz	QPSK	1715.0 - 1775.0	0.220	23.43	9M06G7D		
LTE Band 66/4		16QAM	1715.0 - 1775.0	0.203	23.08	9M03W7D		
LIE Dallu 00/4	5 MU-	QPSK	1712.5 - 1777.5	0.226	23.54	4M53G7D		
	5 MHz	16QAM	1712.5 - 1777.5	0.197	22.94	4M52W7D		
	3 MHz	QPSK	1711.5 - 1778.5	0.223	23.48	2M73G7D		
	3 IVIHZ	16QAM	1711.5 - 1778.5	0.191	22.80	2M71W7D		
	1.4 MHz	QPSK	1710.7 - 1779.3	0.205	23.12	1M10G7D		
		16QAM	1710.7 - 1779.3	0.177	22.48	1M11W7D		
		π/2 BPSK	1730.0 - 1760.0	0.264	24.22	38M7G7D		
	40 MHz	QPSK	1730.0 - 1760.0	0.252	24.01	38M8G7D		
		16QAM	1730.0 - 1760.0	0.211	23.23	38M8W7D		
		π/2 BPSK	1725.0 - 1765.0	0.266	24.26	28M8G7D		
	30 MHz	QPSK	1725.0 - 1765.0	0.255	24.07	28M7G7D		
		16QAM	1725.0 - 1765.0	0.210	23.22	28M7W7D		
		π/2 BPSK	1722.5 - 1767.5	0.293	24.67	23M0W7D		
	25 MHz	QPSK	1722.5 - 1767.5	0.260	24.15	23M0W7D		
		16QAM	1722.5 - 1767.5	0.221	23.45	23M9W7D		
		π/2 BPSK	1720.0 - 1770.0	0.269	24.29	18M0G7D		
NR Band n66	20 MHz	QPSK	1720.0 - 1770.0	0.256	24.08	19M0G7D		
		16QAM	1720.0 - 1770.0	0.209	23.21	19M0W7D		
		π/2 BPSK	1717.5 - 1772.5	0.265	24.23	13M5G7D		
	15 MHz	QPSK	1717.5 - 1772.5	0.258	24.11	14M2G7D		
		16QAM	1717.5 - 1772.5	0.226	23.54	14M2W7D		
		π/2 BPSK	1715.0 - 1775.0	0.265	24.23	9M01G7D		
	10 MHz	QPSK	1715.0 - 1775.0	0.253	24.03	9M34G7D		
		16QAM	1715.0 - 1775.0	0.202	23.06	9M34W7D		
		π/2 BPSK	1712.5 - 1777.5	0.260	24.15	4M54G7D		
	5 MHz	QPSK	1712.5 - 1777.5	0.243	23.86	4M53G7D		
		16QAM	1712.5 - 1777.5	0.207	23.17	4M51W7D		

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			Anten	na-A				
				EI	RP	El	RP	
Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	Max. Power [W]	Max. Power [dBm]	Max. Power [W]	Max. Power [dBm]	Emission Designator
	20 MHz	QPSK	673.0 - 688.0	0.063	18.02	0.104	20.17	17M9G7D
		16QAM	673.0 - 688.0	0.056	17.52	0.093	19.67	17M9W7D
	15 MHz	QPSK	670.5 - 690.5	0.064	18.06	0.105	20.21	13M5G7D
LTE Band 71		16QAM	670.5 - 690.5	0.058	17.63	0.095	19.78	13M5W7D
LIE Dallu / I	10 MHz	QPSK	668.0 - 693.0	0.068	18.31	0.111	20.46	9M03G7D
		16QAM	668.0 - 693.0	0.055	17.38	0.090	19.53	9M03W7D
	5 MHz	QPSK	665.5 - 695.5	0.067	18.23	0.109	20.38	4M52G7D
		16QAM	665.5 - 695.5	0.058	17.61	0.095	19.76	4M54W7D
	10 MHz	QPSK	704.0 - 711.0	0.064	18.04	0.104	20.19	9M00G7D
	10 10112	16QAM	704.0 - 711.0	0.056	17.46	0.091	19.61	9M02W7D
	5 M니~	QPSK	701.5 - 713.5	0.066	18.17	0.108	20.32	4M51G7D
LTE Band 12	5 MHz	16QAM	701.5 - 713.5	0.057	17.55	0.093	19.70	4M53W7D
	and 12 3 MHz	QPSK	700.5 - 714.5	0.062	17.92	0.102	20.07	2M73G7D
		16QAM	700.5 - 714.5	0.055	17.38	0.090	19.53	2M72W7D
1.4 MHz	QPSK	699.7 - 715.3	0.059	17.73	0.097	19.88	1M11G7D	
1.4 MHZ	16QAM	699.7 - 715.3	0.051	17.08	0.084	19.23	1M11W7D	
	10 MHz	QPSK	782.0	0.131	21.17	0.215	23.32	9M03G7D
LTE Band 13	10 10112	16QAM	782.0	0.107	20.30	0.176	22.45	9M05W7D
	QPSK	779.5 - 784.5	0.131	21.17	0.215	23.32	4M55G7D	
5 MHz	16QAM	779.5 - 784.5	0.106	20.25	0.174	22.40	4M53W7D	
		π/2 BPSK	673.0 - 688.0	0.053	17.26	0.087	19.41	18M0G7D
	20 MHz	QPSK	673.0 - 688.0	0.053	17.27	0.088	19.42	19M0G7D
	20 MHZ	16QAM	673.0 - 688.0	0.042	16.24	0.069	18.39	19M0W7D
		π/2 BPSK	670.5 - 690.5	0.054	17.36	0.089	19.51	13M5G7D
	15 MHz	QPSK	670.5 - 690.5	0.053	17.23	0.087	19.38	14M2G7D
NR Band n71		16QAM	670.5 - 690.5	0.042	16.22	0.069	18.37	14M2W7D
NIX Dana III I		π/2 BPSK	668.0 - 693.0	0.053	17.23	0.087	19.38	9M02G7D
	10 MHz	QPSK	668.0 - 693.0	0.054	17.33	0.089	19.48	9M36G7D
		16QAM	668.0 - 693.0	0.040	16.02	0.066	18.17	9M34W7D
		π/2 BPSK	665.5 - 695.5	0.051	17.08	0.084	19.23	4M53G7D
	5 MHz	QPSK	665.5 - 695.5	0.053	17.28	0.088	19.43	4M52G7D
	16QAM	665.5 - 695.5	0.040	16.06	0.066	18.21	4M51W7D	
15 MHz	π/2 BPSK	706.5 - 708.5	0.057	17.53	0.093	19.68	13M5G7D	
	15 MHz	QPSK	706.5 - 708.5	0.056	17.46	0.091	19.61	14M1G7D
		16QAM	706.5 - 708.5	0.045	16.56	0.074	18.71	14M1W7D
		π/2 BPSK	704.0 - 711.0	0.055	17.39	0.090	19.54	8M99G7D
NR Band n12	10 MHz	QPSK	704.0 - 711.0	0.053	17.23	0.087	19.38	9M34G7D
		16QAM	704.0 - 711.0	0.044	16.41	0.072	18.56	9M34W7D
		π/2 BPSK	701.5 - 713.5	0.056	17.50	0.092	19.65	4M53G7D
	5 MHz	QPSK	701.5 - 713.5	0.052	17.13	0.085	19.28	4M52G7D
	0 101112	16QAM	701.5 - 713.5	0.045	16.50	0.003	18.65	4M52W7D
		IUQAIN	101.5 - 113.5	0.045	10.50	0.075	10.00	41VI32VV7D

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	Antenna-F						
				EI	RP		
Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	Max. Power [W]	Max. Power [dBm]	Emission Designator	
	20 MH -	QPSK	1720.0 - 1770.0	0.146	21.65	18M1G7D	
	20 MHz	16QAM	1720.0 - 1770.0	0.122	20.87	18M0W7D	
		QPSK	1717.5 - 1772.5	0.150	21.75	13M5G7D	
	15 MHz	16QAM	1717.5 - 1772.5	0.123	20.88	13M5W7D	
	40 MU-	QPSK	1715.0 - 1775.0	0.150	21.75	9M02G7D	
	10 MHz	16QAM	1715.0 - 1775.0	0.130	21.14	9M02W7D	
LTE Band 66/4		QPSK	1712.5 - 1777.5	0.154	21.88	4M53G7D	
	5 MHz	16QAM	1712.5 - 1777.5	0.134	21.28	4M52W7D	
	0 MI I-	QPSK	1711.5 - 1778.5	0.150	21.77	2M73G7D	
	3 MHz	16QAM	1711.5 - 1778.5	0.133	21.25	2M72W7D	
		QPSK	1710.7 - 1779.3	0.153	21.84	1M11G7D	
	1.4 MHz	16QAM	1710.7 - 1779.3	0.131	21.18	1M11W7D	
	40 MHz	π/2 BPSK	1730.0 - 1760.0	0.165	22.17	38M7G7D	
		QPSK	1730.0 - 1760.0	0.162	22.11	38M8G7D	
		16QAM	1730.0 - 1760.0	0.131	21.17	38M8W7D	
		π/2 BPSK	1725.0 - 1765.0	0.166	22.21	28M8G7D	
	30 MHz	QPSK	1725.0 - 1765.0	0.172	22.35	28M7G7D	
		16QAM	1725.0 - 1765.0	0.130	21.14	28M7W7D	
		π/2 BPSK	1722.5 - 1767.5	0.173	22.39	23M0W7D	
	25 MHz	QPSK	1722.5 - 1767.5	0.164	22.16	23M8W7D	
		16QAM	1722.5 - 1767.5	0.135	21.30	23M9W7D	
		π/2 BPSK	1720.0 - 1770.0	0.164	22.14	18M0G7D	
NR Band n66	20 MHz	QPSK	1720.0 - 1770.0	0.168	22.26	19M0G7D	
		16QAM	1720.0 - 1770.0	0.136	21.33	19M0W7D	
		π/2 BPSK	1717.5 - 1772.5	0.169	22.28	13M5G7D	
	15 MHz	QPSK	1717.5 - 1772.5	0.169	22.28	14M2G7D	
		16QAM	1717.5 - 1772.5	0.140	21.45	14M2W7D	
		π/2 BPSK	1715.0 - 1775.0	0.175	22.44	9M02G7D	
	10 MHz	QPSK	1715.0 - 1775.0	0.166	22.21	9M38G7D	
		16QAM	1715.0 - 1775.0	0.137	21.36	9M35W7D	
		π/2 BPSK	1712.5 - 1777.5	0.168	22.24	4M53G7D	
	5 MHz	QPSK	1712.5 - 1777.5	0.165	22.18	4M53G7D	
		16QAM	1712.5 - 1777.5	0.148	21.71	4M50W7D	

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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

These measurement tests were conducted at the Element laboratory located at 7185 Oakland Mills Road, Columbia, MD 21046. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014.

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 (2451B) test laboratory with the site description on file with ISED.
- 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 Agreement.

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2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Samsung Portable Handset FCC ID: A3LSMS918U**. 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.

Test Device Serial No.: 0208M, 1449M, 0179M, 0161M, 1460M, 1523M, 0178M

2.2 Device Capabilities

This device contains the following capabilities:

850/1900 GSM/GPRS/EDGE, 850/1700/1900 WCDMA/HSPA, Multi-band LTE, Multi-band 5G NR (FR1 and FR2), 802.11b/g/n/ax WLAN, 802.11a/n/ac/ax UNII (5GHz and 6GHz), Bluetooth (1x, EDR, LE), NFC, UWB, Wireless Power Transfer

This device uses a tuner circuit that dynamically updates the antenna impedance parameters to optimize antenna performance for certain bands and modes of operation. The tuner for this device was set to simulate a "free space" condition where the transmit antenna is matched to the medium into which it is transmitting and, thus, the power is at its maximum level.

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: EP-N5100 while operating under normal conditions in a simulated call or data transmission configuration. The worst case radiated emissions data is shown in this report.

2.4 Software and Firmware

Testing was performed on device(s) using software/firmware version S918USQU0AVJH installed on the EUT.

2.5 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:

 $P_{d [dBm]} = P_{g [dBm]} - cable loss [dB] + antenna gain [dBd/dBi];$

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 $P_{g \text{ [dBm]}}$ – 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:

 $E_{[dB\mu V/m]} =$ Measured amplitude level_[dBm] + 107 + Cable Loss_[dB] + Antenna Factor_[dB/m] And EIRP_[dBm] = E_[dB\mu V/m] + 20logD - 104.8; where D 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 (±dB)
Conducted Bench Top Measurements	1.13
Radiated Disturbance (<1GHz)	4.98
Radiated Disturbance (>1GHz)	5.07
Radiated Disturbance (>18GHz)	5.09

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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
-	AP2	EMC Cable and Switch System	8/11/2022	Annual	8/11/2023	AP2
-	AP1	EMC Cable and Switch System	8/15/2022	Annual	8/15/2023	AP1
-	ETS	EMC Cable and Switch System	8/11/2022	Annual	8/11/2023	ETS
-	LTx1	Licensed Transmitter Cable Set	7/29/2022	Annual	7/29/2023	LTx1
-	LTx2	Licensed Transmitter Cable Set	8/15/2022	Annual	8/15/2023	LTx2
-	LTx3	LIcensed Transmitter Cable Set	8/15/2022	Annual	8/15/2023	LTx3
-	LTx4	Licensed Transmitter Cable Set	7/29/2022	Annual	7/29/2023	LTx4
-	LTx5	LIcensed Transmitter Cable Set	7/29/2022	Annual	7/29/2023	LTx5
Agilent	E5515C	Wireless Communications Test Set		N/A		GB45360985
Agilent	E5515C	Wireless Communications Test Set		N/A		GB46310798
Anritsu	MT8820C	Radio Communication Analyzer		N/A		6201300731
Anritsu	MT8821C	Radio Communication Analyzer		N/A		6201381794
Anritsu	MT8821C	Radio Communication Analyzer		6200901190		
Anritsu	MT8821C	Radio Communication Analyzer	N/A			6201525694
Com-Power	AL-130R	Active Loop Antenna	1/19/2022 Biennial 1/19/2024		121085	
Emco	3115	Horn Antenna (1-18GHz)	8/8/2022	Biennial	8/8/2024	9704-5182
Espec	ESX-2CA	Environmental Chamber	5/25/2022	Biennial	5/25/2024	17620
ETS Lindgren	3117	1-18 GHz DRG Horn (Medium)	4/20/2021	Biennial	4/20/2023	00125518
ETS Lindgren	3164-10	Quad Ridge Horn 400MHz - 10000MHz	5/10/2021	Biennial	5/10/2023	00166283
ETS Lindgren	3816/2NM	LISN	8/11/2022	Biennial	8/11/2024	00114451
Keysight Technologies	N9020A	MXA Signal Analyzer	3/15/2022	Annual	3/15/2023	MY54500644
Keysight Technologies	N9030A	PXA Signal Analyzer (44GHz)	8/18/2022	Annual	8/18/2023	MY49430494
Keysight Technologies	N9030A	PXA Signal Analyzer (44GHz)	2/14/2022	Annual	2/14/2023	MY52350166
Mini-Circuits	SSG-4000HP	Synthesized Signal Generator		N/A		11208010032
Mini-Circuits	SSG-4000HP	Synthesized Signal Generator	N/A			11403100002
Rohde & Schwarz	CMW500	Radio Communication Tester	N/A			100976
Rohde & Schwarz	CMW500	Radio Communication Tester	N/A			112347
Rohde & Schwarz	ESU26	EMI Test Receiver (26.5GHz)	8/29/2022 Annual 8/29/2023		100342	
Rohde & Schwarz	ESU40	EMI Test Receiver (40GHz)	8/25/2022 Annual 8/25/2023		100348	
Rohde & Schwarz	ESW44	EMI Test Receiver 2Hz to 44 GHz	3/28/2022 Annual 3/28/2023		101716	
Rohde & Schwarz	FSW26	2Hz-26.5GHz Signal and Spectrum Analyzer 4/14/2022		Annual	4/14/2023	103187
Sunol	JB6	LB6 Antenna	11/13/2020	Biennial	11/13/2022	A082816

Table 5-1. Test Equipment

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. Equipment with a calibration date of "N/A" shown in this list was not used to make direct calibrated measurements.

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6.0 SAMPLE CALCULATIONS

Emission Designator

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

Spurious Radiated Emission – LTE Band

Example: Middle Channel LTE Mode 2nd Harmonic (1564 MHz)

The average spectrum analyzer reading at 3 meters with the EUT on the turntable was -81.0 dBm. The gain of the substituted antenna is 8.1 dBi. The signal generator connected to the substituted antenna terminals is adjusted to produce a reading of -81.0 dBm on the spectrum analzyer. The loss of the cable between the signal generator and the terminals of the substituted antenna is 2.0 dB at 1564 MHz. So 6.1 dB is added to the signal generator reading of -30.9 dBm yielding -24.80 dBm. The fundamental EIRP was 25.501 dBm so this harmonic was 25.501 dBm – (-24.80) = 50.3 dBc.

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7.0 TEST RESULTS

7.1 Summary

Company Name:	Samsung Electronics Co., Ltd.
FCC ID:	A3LSMS918U
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
Mode(s):	WCDMA/LTE/NR

Test Condition	Test Description	FCC Part Section(s)	Test Limit	Test Result	Reference
	Transmitter Conducted Output Power*	2.1046(a), 2.1046(c)	N/A	PASS	Section 7.2
CONDUCTED	Occupied Bandwidth	2.1049(h)	N/A	PASS	Section 7.3
	Conducted Band Edge / Spurious Emissions (LTE Band 13)	2.1051, 27.53(c), 27.53(f)	Undesirable emissions must meet the limits detailed in sections 27.53(c) and 27.53(f)	PASS	Sections 7.4, 7.5
	Conducted Band Edge / Spurious Emissions (LTE Band 12, 17, 71; NR Band n12, n71)	2.1051, 27.53(g)	≥43 + 10 log (P[Watts]) dB of attenuation below transmitter power	PASS	Sections 7.4, 7.5
S	Conducted Band Edge / Spurious Emissions (WCDMA AWS; LTE Band 4, 66; NR Band n66)	2.1051, 27.53(h)	≥43 + 10 log (P[Watts]) dB of attenuation below transmitter power	PASS	Sections 7.4, 7.5
	Peak-to-Average Ratio (WCDMA AWS; LTE Band 4, 66; NR Band n66)	27.50(d)(5)	≤ 13 dB	PASS	Section 7.6
	Frequency Stability	2.1055, 27.54	Fundamental emissions stay within authorized frequency block	PASS	Section 7.9
	Effective Radiated Power (LTE Band 13)	27.50(b)(10)	≤ 3 Watts max. ERP	PASS	Section 7.7
	Effective Radiated Power (LTE Band 12, 17, 71; NR Band n12, n71)	27.50(c)(10)	≤ 3 Watts max. ERP	PASS	Section 7.7
ATED	Equivalent Isotropic Radiated Power (WCDMA AWS; LTE Band 4, 66; NR Band n66)	27.50(d)(4)	≤ 1 Watt max. EIRP	PASS	Section 7.7
R	Radiated Spurious Emissions (LTE Band 13)	2.1053, 27.53(c), 27.53(f)	Undesirable emissions must meet the limits detailed in sections 27.53(c) and 27.53(f)	PASS	Section 7.8
	Radiated Spurious Emissions (LTE Band 12, 17, 71; NR Band n12, n71)	2.1053, 27.53(g)	≥ 43 + 10 log (P[Watts]) dB of attenuation below transmitter power	PASS	Section 7.8
* The sub-	Radiated Spurious Emissions (WCDMA AWS; LTE Band 4, 66; NR Band n66)	2.1053, 27.53(h)(1)	≥ 43 + 10 log (P[Watts]) dB of attenuation below transmitter power	PASS	Section 7.8

* The only transmitter output conducted powers included in this report are those where the Pmax value, per the tune-up document, is higher than any of the DSI power levels. For the remaining conducted power measurements, see the **RF Exposure Report**.

Table 7-1. Summary of Test Results

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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 shown in Section 7.0 were 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) For conducted spurious emissions, automated test software was used to measure emissions and capture the corresponding plots necessary to show compliance. The measurement software utilized is EMC Software Tool v1.1.

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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.

Test Procedure Used

ANSI C63.26-2015 - Section 5.2

Test Settings

- 1. Detector = RMS
- 2. Trace mode = trace average for continuous emissions, max hold for pulse emissions
- 3. Sweep time = auto couple
- 4. The trace was allowed to stabilize
- 5. 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. Uplink carrier aggregation is only supported in this EUT while operating in Power Class 3.
- 2. 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.
- 3. All other conducted power measurements are contained in the RF exposure report for this filing.

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Power State B		Bandwidth	PCC					scc					ULCA Tx.					
	Band	(PCC + SCC)	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Power [dBm]					
			B66 20MHz + 20MHz	20MHz + 20MHz					132072	1720.0	1	99		132270	1739.8	1	0	23.66
					QPSK	132322	1745.0	1	99	QPSK	132520	1764.8	1	0	23.53			
					20MHz + 20MHz		132572	1770.0	1	0	1	132374	1750.2	1	99	23.62		
Max	Max LTE B66	LTE B66				20MHz + 20MHz	20MHz + 20MHz	QPSK	132072	1720	100	0	QPSK	132270	1739.8	100	0	21.81
										16-QAM	132072	1720	100	0	16-QAM	132270	1739.8	100
1				64-QAM	132072	1720	100	0	64-QAM	132270	1739.8	100	0	20.81				
1			256-QAM	132072	1720	100	0	256-QAM	132270	1739.8	100	0	18.83					

Table 7-2. Conducted Powers (Uplink CA LTE Band 66B/C - Ant A)

Power State		Bandwidth (PCC + SCC)	PCC				SCC					ULCA Tx.					
	Band		Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Power [dBm]				
		TE B66 20MHz + 20MHz	6 20MHz + 20MHz	20MHz + 20MHz					132072 1720.0 1 99	132270	1739.8	1	0	23.59			
					QPSK	132322	1745.0	1	99	QPSK	132520	1764.8	1	0	23.46		
					6 20MHz + 20MHz	20MHz + 20MHz		132572	1770.0	1	0		132374	1750.2	1	99	23.63
Max	Max LTE B66						QPSK	132572	1770	100	0	QPSK	132374	1750.2	100	0	21.72
									16-QAM	132572	1770	100	0	16-QAM	132374	1750.2	100
			64-QAM	132572	1770	100	0	64-QAM	132374	1750.2	100	0	20.7				
1			256-QAM	132572	1770	100	0	256-QAM	132374	1750.2	100	0	18.73				

Table 7-3. Conducted Powers (Uplink CA LTE Band 66B/C - Ant F)

Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
N		132072	1720.0	1/0	23.90
НИ	QPSK	132322	1745.0	1 / 50	23.77
20 MHz		132572	1770.0	1 / 50	23.70
7	16-QAM	132572	1770.0	1 / 50	23.32
N		132047	1717.5	1 / 74	23.98
15 MHz	QPSK	132322	1745.0	1/0	23.87
5 1		132597	1772.5	1/0	23.72
-	16-QAM	132047	1717.5	1 / 74	23.00
N		132022	1715.0	1 / 49	23.93
НИ	QPSK	132322	1745.0	1/0	23.87
10 MHz		132622	1775.0	1 / 25	23.94
-	16-QAM	132322	1745.0	1/0	23.18
N		131997	1712.5	1/0	24.09
MHz	QPSK	132322	1745.0	1 / 12	24.00
5 N		132647	1777.5	1 / 12	23.93
4,	16-QAM	132322	1745.0	1 / 12	23.32
N		131987	1711.5	1 / 14	24.08
3 MHz	QPSK	132322	1745.0	1/7	23.89
N N		132657	1778.5	1/7	23.87
	16-QAM	132322	1745.0	1/7	23.29
N		131979	1710.7	1/3	24.07
₩ _	QPSK	132322	1745.0	1/3	23.96
1.4 MHz		132665	1779.3	1/3	24.01
-	16-QAM	131979	1710.7	1/3	23.31

Table 7-4. Conducted Powers (LTE Band 66/4 - Ant F)

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Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]	
		346000	1730.0	1 / 161	22.58	
	π/2 BPSK	349000	1745.0	1 / 161	22.70	
Hz		352000	1760.0	1 / 54	22.61	
40 MHz		346000	1730.0	1 / 161	22.53	
40	QPSK	349000	1745.0	1 / 108	22.59	
		352000	1760.0	1 / 54	22.62	
	16-QAM	346000	1730.0	1 / 161	21.60	
		345000	1725.0	1 / 40	22.62	
	π/2 BPSK	349000	1745.0	1 / 80	22.52	
30 MHz		353000	1765.0	1 / 119	22.51	
M		345000	1725.0	1 / 40	22.78	
30	QPSK	349000	1745.0	1 / 80	22.56	
		353000	1765.0	1 / 80	22.33	
	16-QAM	349000	1745.0	1 / 40	21.68	
		344500	1722.5	1 / 33	22.80	
	π/2 BPSK	349000	1745.0	1 / 33	22.62	
Ηz		353500	1767.5	1 / 33	22.30	
25 MHz		344500	1722.5	1 / 33	22.58	
25	QPSK	349000	1745.0	1 / 33	22.32	
		353500	1767.5	1 / 33	22.23	
	16-QAM	344500	1722.5	1 / 33	21.73	
		344000	1720.0	1 / 79	22.55	
	π/2 BPSK	349000	1745.0	1 / 26	22.57	
ħ		354000	1770.0	1 / 79	22.62	
20 MHz		344000	1720.0	1 / 26	22.68	
20	QPSK	349000	1745.0	1 / 26	22.48	
		354000	1770.0	1 / 79	22.48	
	16-QAM	344000	1720.0	1 / 26	21.76	
		343500	1717.5	1 / 58	22.69	
	π/2 BPSK	349000	1745.0	1 / 58	22.62	
Hz		354500	1772.5	1 / 39	22.69	
15 MHz		343500	1717.5	1 / 58	22.71	
15	QPSK	349000	1745.0	1 / 39	22.45	
		354500	1772.5	1 / 20	22.61	
	16-QAM	343500	1717.5	1 / 58	21.88	
		343000	1715.0	1 / 26	22.85	
	π/2 BPSK	349000	1745.0	1 / 38	22.41	
Ηz		355000	1775.0	1 / 26	22.54	
10 MHz		343000	1715.0	1 / 38	22.63	
10	QPSK	349000	1745.0	1 / 26	22.48	
		355000	1775.0	1 / 26	22.46	
	16-QAM	343000	1715.0	1 / 26	21.79	
		342500	1712.5	1 / 12	22.65	
	π/2 BPSK	349000	1745.0	1 / 18	22.54	
Ŗ		355500	1777.5	1 / 18	22.73	
MHz		342500	1712.5	1 / 12	22.60	
5	QPSK	349000	1745.0	1 / 18	22.47	
		355500	1777.5	1 / 18	22.48	
	16-QAM	342500	1712.5	1/6	22.14	

Table 7-5. Conducted Powers (NR Band n66/4 – Ant F)

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		NR (S	CS 15kHz)	-					LTE	-		NR	LTE	EN-DC
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
				QPSK	100/0					QPSK	100/0	20.08	23.08	24.84
				QPSK	100/0					QPSK	1/50	19.03	23.48	24.81
n71	20	Mid	680.5	QPSK	1/53	B2	20	Mid	1880	QPSK	100/0	19.99	23.08	24.81
				QPSK	1/53					QPSK	1/50	19.89	23.51	25.08
				16Q	100/0					16Q	1/50	18.88	23.44	24.74

Table 7-6. Conducted Powers (EN-DC Combo n71-B2)

	NR (SCS 15kHz)								LTE			NR	LTE	EN-DC
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Power	Conducted Power [dBm]	Total Tx. Power [dBm]
				QPSK	100/0					QPSK	100/0	20.77	20.59	23.69
				QPSK	100/0					QPSK	1/50	19.11	21.64	23.57
n71	20	Mid	680.5	QPSK	1/53	48	20	Mid	3625	QPSK	100/0	20.72	20.66	23.70
				QPSK	1/53					QPSK	1/50	19.47	21.69	23.73
				16Q	1/53					16Q	1/50	19.25	21.69	23.65

Table 7-7. Conducted Powers (EN-DC Combo n71-B48)

		NR (S	CS 15kHz)						LTE			NR	LTE	EN-DC
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
				QPSK	75/0					QPSK	100/0	20.50	23.11	25.01
				QPSK	75/0					QPSK	1/50	19.48	23.47	24.93
n12	15	Mid	707.5	QPSK	1/39	B66	20	Mid	1745	QPSK	100/0	20.16	23.03	24.84
				QPSK	1/39					QPSK	1/50	19.42	23.62	25.02
				16Q	75/0					16Q	1/50	19.89	23.07	24.78

Table 7-8. Conducted Powers (EN-DC Combo n12-B66)

	NR (SCS 15kHz)								LTE			NR	LTE	EN-DC
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
				QPSK	75/0					QPSK	100/0	19.22	20.42	22.87
				QPSK	75/0					QPSK	1/50	19.21	21.64	23.60
n12	15	Mid	707.5	QPSK	1/39	B48	20	Mid	3625	QPSK	100/0	20.75	20.66	23.72
				QPSK	1/39					QPSK	1/50	19.52	21.70	23.76
				16Q						16Q	1/50	19.35	21.68	23.68

Table 7-9. Conducted Powers (EN-DC Combo n12-B48)

	NR (SCS 15kHz)									NR	LTE	EN-DC		
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
				QPSK	216/0					QPSK	50/0	17.35	23.11	24.13
				QPSK	216/0					QPSK	1/25	17.33	23.17	24.18
n66	40	Mid	1745	QPSK	1/108	B5	10	Mid	836.5	QPSK	50/0	17.11	23.10	24.08
				QPSK	1/108					QPSK	1/25	17.07	23.15	24.11
				16Q	1/108					16Q	1/25	17.42	23.58	24.52

Table 7-10. Conducted Powers (EN-DC Combo n66-B5)

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		NR (S	CS 15kHz)						LTE			NR	LTE	EN-DC
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
				QPSK	216/0					QPSK	50/0	19.72	17.88	21.91
				QPSK	216/0					QPSK	1/25	17.81	18.18	21.01
n66	40	Mid	1745	QPSK	1/108	B30	10	Mid	2310	QPSK	50/0	19.74	17.88	21.92
				QPSK	1/108					QPSK	1/25	18.21	18.10	21.17
				16Q	1/108					16Q	1/25	18.17	17.99	21.09

Table 7-11. Conducted Powers (EN-DC Combo n66-B30)

		NR (S	CS 15kHz)	-				-	LTE			NR	LTE	EN-DC
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
				QPSK	100/0					QPSK	100/0	20.26	22.45	24.50
				QPSK	100/0					QPSK	1/50	19.18	23.53	24.89
n71	20	Mid	680.5	QPSK	1/53	B2	20	Mid	1880	QPSK	100/0	20.02	22.45	24.41
				QPSK	1/53					QPSK	1/50	19.03	23.52	24.84
				16Q	1/53					16Q	1/50	20.37	22.83	24.78

Table 7-12. Conducted Powers (EN-DC Combo n71-B2)

	NR (SCS 15kHz)								LTE			NR	LTE	EN-DC
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
				QPSK	75/0	75/0				QPSK	100/0	20.38	22.40	24.52
		0	QPSK	75/0					QPSK	1/50	19.32	23.50	24.90	
n12	15	Mid	707.5	QPSK	1/39	B2	20	Mid	1880	QPSK	100/0	20.28	22.45	24.51
				QPSK	1/39					QPSK	1/50	19.19	23.48	24.85
				16Q	75/0					16Q	1/50	20.48	22.69	24.73

Table 7-13. Conducted Powers (EN-DC Combo n12-B2)

		NR (S	CS 15kHz)							NR	LTE	EN-DC		
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
			1745	QPSK	216/0		10	Mid	836.5	QPSK	50/0	17.35	23.11	24.13
				QPSK	216/0					QPSK	1/25	17.33	23.17	24.18
n66	40	Mid		QPSK	1/108	B5				QPSK	50/0	17.11	23.10	24.08
				QPSK	1/108					QPSK	1/25	17.07	23.15	24.11
				16Q	1/108					16Q	1/25	17.42	23.58	24.52

Table 7-14. Conducted Powers (EN-DC Combo n66-B5)

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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 x 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

None.

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LTE Band 71 – Ant A



Plot 7-1. Occupied Bandwidth Plot (LTE Band 71 - 20MHz QPSK - Full RB - Ant A)



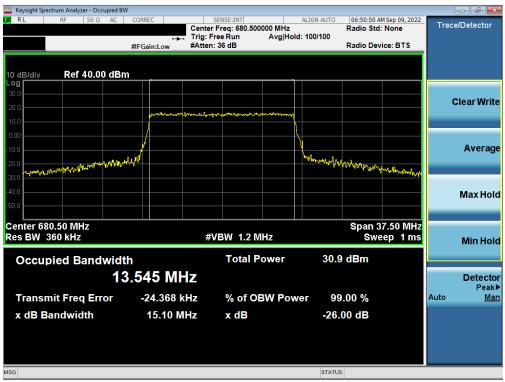
Plot 7-2. Occupied Bandwidth Plot (LTE Band 71 - 20MHz 16-QAM - Full RB - Ant A)

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🔤 Keysight Spectrum Analyzer - Occupied					
LX/ RL RF 50Ω AC	CORREC	SENSE:INT Center Freq: 680.500000 N	ALIGN AUTO	06:50:41 AM Sep 09, 2022 Radio Std: None	Trace/Detector
			g Hold: 100/100	Radio Device: BTS	
	#IFGain:Low	#Atten: 36 db		Radio Device: B 1 S	ī
10 dB/div Ref 40.00 dl	Bm				
30.0					Clear Write
20.0	Multin	humant washer in the for	have		Clear write
10.0	i				
0.00	/		<u>\</u>		
-10.0			- <u>}.</u>		Average
-20.0	uhw'w'		Port hiter way	and a proving the france of the second second	
-30.0					
-40.0					Max Hold
-50.0					
Center 680.50 MHz				Span 37.50 MHz	
Res BW 360 kHz		#VBW 1.2 MHz		Sweep 1 ms	
					Wiin Hold
Occupied Bandwi		Total Powe	er 31.	9 dBm	
	13.537 M⊦	Z			Detector
Transmit Freq Error	-12.368 k	Hz % of OBW	Bower 0	9.00 %	Peak► Auto Man
· · · ·					Mato <u>Man</u>
x dB Bandwidth	15.09 M	Hz x dB	-26	.00 dB	
MSG			STATU	IS	

Plot 7-3. Occupied Bandwidth Plot (LTE Band 71 - 15MHz QPSK - Full RB - Ant A)



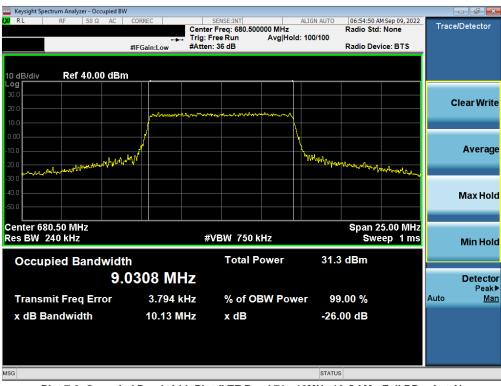
Plot 7-4. Occupied Bandwidth Plot (LTE Band 71 - 15MHz 16-QAM - Full RB - Ant A)

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🔤 Keysight Spectrum Analyzer - Occi	upied BW						- 0 ×
LX RL RF 50 Ω	AC CORREC	SENSE:INT enter Freq: 680.500000 MH	ALIGN AUTO	06:54:41 Al Radio Std:	4 Sep 09, 2022	Trace	Detector
			⊐z Hold:>100/100	Radio Std:	None		
	#IFGain:Low #	Atten: 36 dB		Radio Dev	ice: BTS		
10 dB/div Ref 40.00) dBm						
Log							
30.0						c	lear Write
20.0		least marging marging mark	www.				
10.0	/						
0.00	/						
-10.0			<u>\</u>				Average
-20.0	merreter		William	-			
-30.0					Vm hand and the		
-40.0							
							Max Hold
-50.0						_	
Center 680.50 MHz				Span 2	5.00 MHz		
Res BW 240 kHz		#VBW 750 kHz			ep 1 ms		Min Hold
							Minitiona
Occupied Band	width	Total Power	r 32.1	dBm			
	9.0269 MHz						Detector
							Peak▶
Transmit Freq Err	or 13.372 kHz	% of OBW P	ower 99	.00 %		Auto	<u>Man</u>
x dB Bandwidth	10.25 MHz	x dB	-26.	00 dB			
MSG			STATUS	5			

Plot 7-5. Occupied Bandwidth Plot (LTE Band 71 - 10MHz QPSK - Full RB - Ant A)



Plot 7-6. Occupied Bandwidth Plot (LTE Band 71 - 10MHz 16-QAM - Full RB - Ant A)

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🔤 Keysight Spectrum Analyzer - Occu	upied BW					
LX/ RL RF 50Ω	AC CORREC	SENSE:INT Center Freq: 680.50000	ALIGN AUTO	06:59:19 AM Radio Std:	Sep 09, 2022	Trace/Detector
	· •	Trig: Free Run	Avg Hold: 100/100	Radio Stu. I	NONE	
	#IFGain:Low	#Atten: 36 dB		Radio Devid	e: BTS	
10 dB/div Ref 40.00	dBm					
Log						
30.0						Clear Write
20.0	mm	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
10.0			<u>\</u>			
0.00	/		<u>\</u>			
-10.0						Average
-20.0	Manner		J. J. Marian	Sand Concerned	www.	
-30.0					Area Build	
-40.0						Max Hold
-50.0						Maxiton
Center 680.500 MHz					.50 MHz	
Res BW 120 kHz		VBW 1.2 MHz		Swee	ep 1ms	Min Hold
Occupied Bandy	width	Total Po	wer 32.1	dBm		
Occupied Ballow			0211			
	4.5242 MH	Z				Detector Peak
Transmit Freq Erro	or 3.551 kH	z % of OB	N Power 99	.00 %		Auto <u>Mar</u>
x dB Bandwidth	5.247 MH	z xdB	-26.	00 dB		
			201			
MSG			STATUS	6		

Plot 7-7. Occupied Bandwidth Plot (LTE Band 71 - 5MHz QPSK - Full RB - Ant A)



Plot 7-8. Occupied Bandwidth Plot (LTE Band 71 - 5MHz 16-QAM - Full RB - Ant A)

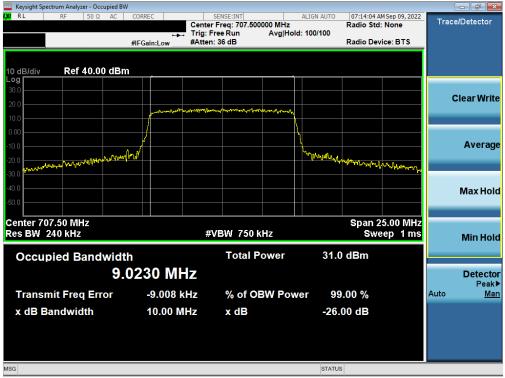
FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT					
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LTE Band 12 – Ant A

🔤 Keysight Spectrum Analyz														
LXI RL RF	50 Ω	AC	CORRE	C	Ce		NSE:INT eq: 707.50	0000 MHz		ALIGN AUTO	07:13:57	AM Sep 09, 2022	Trac	e/Detector
				+	. Tri	g: Free	Run			>100/100				
			#IFGa	in:Low	#A	tten: 3	6 dB				Radio De	vice: BTS		
10 dB/div Ref	40.00	dBm		·				_	-		1			
30.0														
20.0							مرجوا والمراجع							Clear Write
10.0				Constant and a second s			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	1 Mg of Long mind Strange	~					
0.00			f						<u> </u>					
-10.0			1							ì				Average
-20.0	mbook	which	الس							What when the states	and the set of the set	aluca march		
-30.0												n		
-40.0														Max Hold
-50.0														Maxinoia
Center 707.50 MH Res BW 240 kHz	Z					#\/E	W 750					25.00 MHz eep 1 ms		
Kes DW 240 KH2						# V E	WV 750	NΠZ			3₩	eep mis		Min Hold
Occupied Ba	and	vidth					Total F	ower		32.0) dBm			
				6 M	H7									Detector
														Peak▶
Transmit Free	 Err o	or	1	0.096	kHz		% of O	BW Po	we	r 99	0.00 %		Auto	<u>Man</u>
x dB Bandwid	lth		•	10.03 N	ИHz		x dB			-26.	00 dB			
MSG										STATU	5			

Plot 7-9. Occupied Bandwidth Plot (LTE Band 12 - 10MHz QPSK - Full RB - Ant A)



Plot 7-10. Occupied Bandwidth Plot (LTE Band 12 - 10MHz 16-QAM - Full RB - Ant A)

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Keysight Spectrum Analyzer - Occupied BW	I				
LXI RL RF 50 Ω AC		SENSE:INT Center Freq: 707.5000 Trig: Free Run	ALIGN AUTO 00 MHz Avg Hold:>100/100	08:07:08 AM Sep 09, 2022 Radio Std: None	Trace/Detector
	#IFGain:Low	#Atten: 36 dB		Radio Device: BTS	-
10 dB/div Ref 40.00 dBm	۱ <u> </u>				
30.0					
20.0	Substan	an and the second	moren		Clear Write
10.0					
-10.0	/		N _n		Average
-20.0	*·//*		Jum	m man man man	June
-30.0				and the contraction of the contr	
-40.0					Max Hold
-50.0					
Center 707.500 MHz Res BW 120 kHz		#VBW 390 kH	17	Span 12.50 MHz Sweep 1 ms	
					Min Hold
Occupied Bandwidt		Total Po	wer 31.9	dBm	
4.	5138 MH	Z			Detector Peak►
Transmit Freq Error	-4.212 kł	Iz % of OB	W Power 99	.00 %	Auto <u>Man</u>
x dB Bandwidth	5.150 MH	lz xdB	-26.	00 dB	
MSG			STATUS	3	

Plot 7-11. Occupied Bandwidth Plot (LTE Band 12 - 5MHz QPSK - Full RB - Ant A)



Plot 7-12. Occupied Bandwidth Plot (LTE Band 12 - 5MHz 16-QAM - Full RB - Ant A)

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Keysight Spectrum Analyzer - Occupied BW	1				d7
KL RF 50Ω AC		SENSE:INT Freq: 707.500000 MHz		4 AM Sep 09, 2022	Trace/Detector
		ree Run Avg Hold:		ata: None	
	#IFGain:Low #Atten			evice: BTS	
10 dB/div Ref 40.00 dBm	n				
Log					
30.0					Clear Write
20.0	Anthony	4734 mar 164 Mar 164 Mar 16 10 10 10 10 10 10 10 10 10 10 10 10 10			Clear write
10.0					
0.00	/				
-10.0			ل <u>م</u>		Average
	al and		What was a start water		J
a day of a grant have a			Les parties and	Mun Mary Karwy	
-30.0					
-40.0					Max Hold
-50.0					
Center 707.500 MHz			Snar	7.500 MHz	
#Res BW 75 kHz	#\	VBW 240 kHz		eep 3.8 ms	
					Min Hold
Occupied Bandwidt	h	Total Power	31.5 dBm		
2	7252 MHz				Detector
2.					Peak►
Transmit Freq Error	-162 Hz	% of OBW Powe	er 99.00 %		Auto <u>Man</u>
x dB Bandwidth	3.072 MHz	x dB	-26.00 dB		
	5.07 Z MITIZ	X UD	-20.00 dB		
MSG			STATUS		

Plot 7-13. Occupied Bandwidth Plot (LTE Band 12 - 3MHz QPSK - Full RB - Ant A)



Plot 7-14. Occupied Bandwidth Plot (LTE Band 12 - 3MHz 16-QAM - Full RB - Ant A)

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Plot 7-15. Occupied Bandwidth Plot (LTE Band 12 - 1.4MHz QPSK - Full RB - Ant A)



Plot 7-16. Occupied Bandwidth Plot (LTE Band 12 – 1.4MHz 16-QAM - Full RB – Ant A)

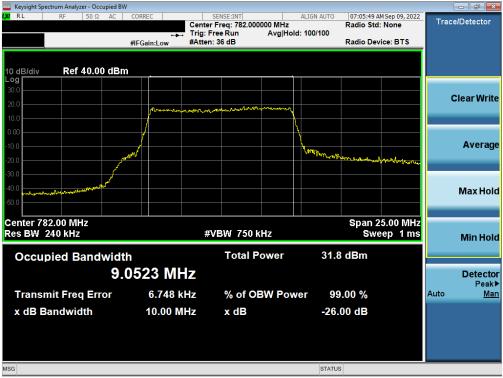
FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT	
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LTE Band 13 – Ant A



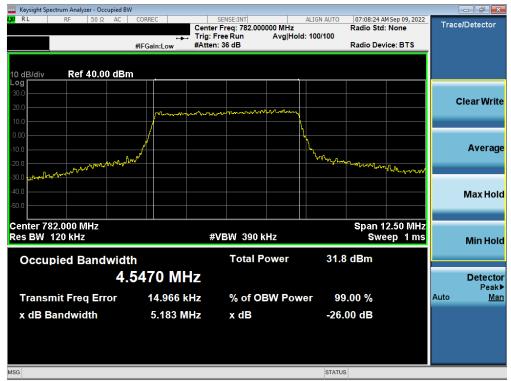
Plot 7-17. Occupied Bandwidth Plot (LTE Band 13 - 10MHz QPSK - Full RB - Ant A)



Plot 7-18. Occupied Bandwidth Plot (LTE Band 13 - 10MHz 16-QAM - Full RB - Ant A)

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Plot 7-19. Occupied Bandwidth Plot (LTE Band 13 - 5MHz QPSK - Full RB - Ant A)



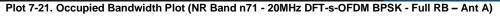
Plot 7-20. Occupied Bandwidth Plot (LTE Band 13 - 5MHz 16-QAM - Full RB - Ant A)

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NR Band n71 – Ant A

Spectrum Analyzer 1 Occupied BW	+			Frequency	・絵
RL ++++ Auto	Input Z: 50 Ω Atten: 36 dB Corr CCorr Freq Ref: Int (S) NFE: Off		req: 680.500000 MHz :>100/100 1: None	Center Frequency 680.500000 MHz	Settings
1 Graph V	10 2. 00			Span 50.000 MHz	
Scale/Div 10.0 dB Log 25 0 5 00 -5 00 -	Ref Value 35		Span 50 MHz	CF Step 5.00000 MHz Auto Man Freq Offset 0 Hz	
Res BW 470.00 kHz			Sweep 1.00 ms (1001 pts)		
Occupied Bandwid	.982 MHz	Total Power % of OBW Power x dB	32.2 dBm 99.00 % -26.00 dB		





Plot 7-22. Occupied Bandwidth Plot (NR Band n71 - 20MHz CP-OFDM QPSK - Full RB - Ant A)

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Spectrum Analyzer 1	+			Frequer	icy 🔻 🛃
KEYSIGHT Input: RF R L ↔ Coupling: DC Align: Auto Align: Auto	Input Z: 50 Ω Atten: 36 dE Corr CCorr Freq Ref: Int (S) NFE: Off	3 Trig: Free Run Gate: Off #IF Gain: Low	Center Freq: 680.500000 MHz Avg Hold: 100/100 Radio Std: None	Center Frequency 680.500000 MHz	Settings
1 Graph V				Span 50.000 MHz	
Scale/Div 10.0 dB	Ref Value 3			CF Step 5.000000 MHz	
0.00 -10.0 -20.0 -30.0	norman and a second sec		Martin and a superior	Man Freq Offset 0 Hz	
-40.0					
Center 680.50 MHz Res BW 470.00 kHz	#Video BW 1	.6000 MHz	Span 50 M Sweep 1.00 ms (1001 p		
2 Metrics					
Occupied Bandwidth 19.01	4 MHz	Total Power	30.4 dBm		
Transmit Freq Error x dB Bandwidth	-11.069 kHz 20.38 MHz	% of OBW Pow x dB	ver 99.00 % -26.00 dB		
1507	Sep 13, 2022				

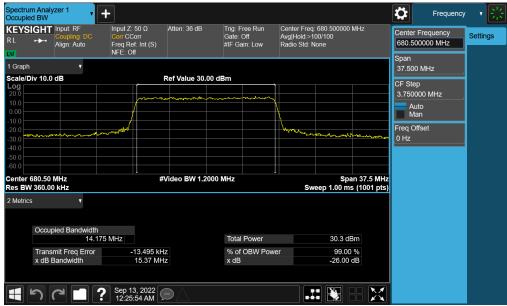
Plot 7-23. Occupied Bandwidth Plot (NR Band n71 - 20MHz CP-OFDM 16-QAM - Full RB – Ant A)

Spectrum A Occupied B		+					Frequency	- * 亲
RL ↔	HT Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corr CCorr Freq Ref: Int (S)	Atten: 36 dB	Trig: Free Run Gate: Off #IF Gain: Low	Center Freq: Avg Hold: 100 Radio Std: No		Center Frequency 680.500000 MHz	Settings
LVI 1 Graph	•	NFE: Off					Span 37.500 MHz	
Scale/Div 1 Log 30.0 20.0	0.0 dB		Ref Value 40.00 c	iBm			CF Step 3.750000 MHz	
10.0							Man Freq Offset	
-20.0 -30.0	man man grain and May M	ment			Johnmyshman	- Martin - Marine	0 Hz	
-50.0 Center 680		#	Video BW 1.2000	MHz		Span 37.5 MHz		
Res BW 36 2 Metrics	0.00 KHZ				Swe	ep 1.00 ms (1001 pts)		
O	ccupied Bandwidth			T-4-1 D				
	13.5 ansmit Freq Error dB Bandwidth	50 MHz -375.84 kH 14.65 MH		Total Power % of OBW Pow x dB	ver	32.2 dBm 99.00 % -26.00 dB		
		Sep 13, 2022						
		? Sep 13, 2022 12:26:17 AM	$\square \Delta$					

Plot 7-24. Occupied Bandwidth Plot (NR Band n71 - 15MHz DFT-s-OFDM BPSK - Full RB – Ant A)

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Plot 7-25. Occupied Bandwidth Plot (NR Band n71 - 15MHz QPSK - Full RB - Ant A)

Spectrur Occupie		zer 1 ,	+									Frequency	- * 器
RL		Input: RF Coupling: DC Align: Auto	Input Z: Corr CC Freq Re NFE: Of	orr f: Int (S)	Atten: 36 dB	Gate:	Free Run Off ain: Low	Center Free Avg Hold: 1 Radio Std:		MHz		requency 000 MHz	Settings
1 Graph		•			1						Span _37.500 M	ИНz	
Scale/D	iv 10.0	dB		F	Ref Value 40.	00 dBm					CF Step		
Log 30.0											3.75000	0 MHz	
20.0				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	ᡣᡌᠬ᠇ᢇᠧ		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	v			Auto Man		
0.00 -10.0 -20.0	s.4/s	A	and the second states of the s					Jul and	halfin		Freq Offs 0 Hz	et	
-30.0 -40.0 -50.0	1 18 1 10	Action of the second							hand the second se	the particular the second			
Center 6				! #\	/ideo BW 1.2	000 MHz				n 37.5 MHz			
Res BW 2 Metrics		KHZ V						51	veep 1.00 ms	(1001 pts)			
	Occup	ied Bandwic	ith 4.189 MHz			Tota	Power		30.3 dB	m			
	Transr	nit Freg Erro		-7.385 kHz	-		OBW Pow	/er	99.00				
		andwidth		15.25 MHz		x dB			-26.00 0				
			Sep 12	2022									
	า (12:26:	s, 2022 02 AM									

Plot 7-26. Occupied Bandwidth Plot (NR Band n71 - 15MHz CP-OFDM 16-QAM - Full RB – Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT		
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Plot 7-27. Occupied Bandwidth Plot (NR Band n71 - 10MHz DFT-s-OFDM BPSK - Full RB – Ant A)



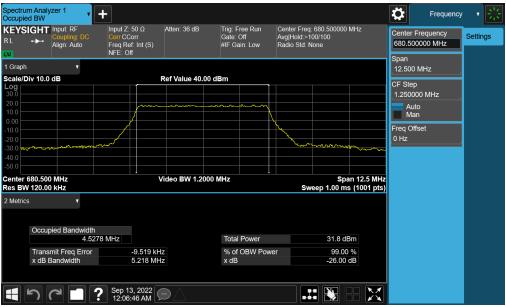
Plot 7-28. Occupied Bandwidth Plot (NR Band n71 - 10MHz CP-OFDM QPSK - Full RB - Ant A)

FCC ID: A3LSMS918U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Page 33 of 316	
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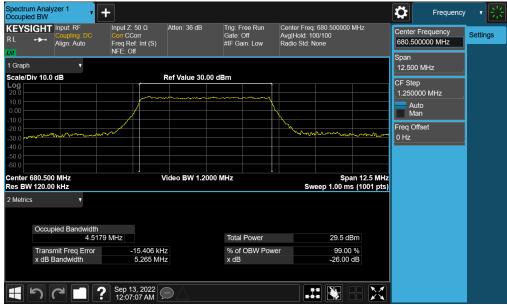
Plot 7-29. Occupied Bandwidth Plot (NR Band n71 - 10MHz CP-OFDM 16-QAM - Full RB – Ant A)



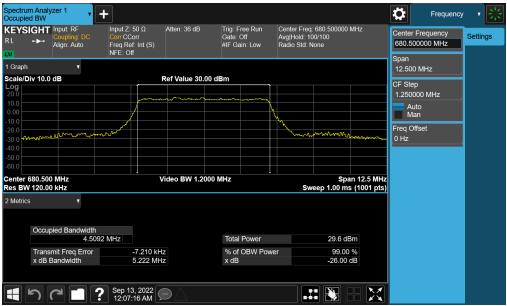
Plot 7-30. Occupied Bandwidth Plot (NR Band n71 - 5MHz DFT-s-OFDM BPSK - Full RB - Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT		
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Plot 7-31. Occupied Bandwidth Plot (NR Band n71 - 5MHz CP-OFDM QPSK - Full RB - Ant A)



Plot 7-32. Occupied Bandwidth Plot (NR Band n71 - 5MHz CP-OFDM 16-QAM - Full RB – Ant A)

FCC ID: A3LSMS918U		Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:	Page 35 of 316	
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NR Band n12 – Ant A



Plot 7-33. Occupied Bandwidth Plot (NR Band n12 - 15MHz DFT-s-OFDM BPSK - Full RB – Ant A)



Plot 7-34. Occupied Bandwidth Plot (NR Band n12 - 15MHz CP-OFDM QPSK - Full RB - Ant A)

FCC ID: A3LSMS918U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager	
Test Report S/N:	Test Dates: EUT Type:		Dogo 26 of 216	
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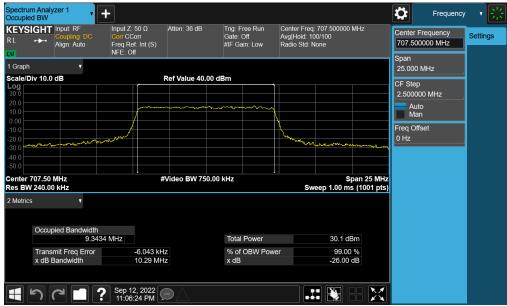
Plot 7-35. Occupied Bandwidth Plot (NR Band n12 - 15MHz CP-OFDM 16-QAM - Full RB – Ant A)

Spectrum Occupied	Analyzer 1 BW	+				₽	Frequency	 ▼ [*]/₁[*]
RL •	GHT Input: RF Coupling: DC Align: Auto	Input Ζ: 50 Ω Corr CCorr Freq Ref: Int (S) NFE: Off	Atten: 36 dB	Trig: Free Run Gate: Off #IF Gain: Low	Center Freq: 707.500000 Mł Avg Hold:>100/100 Radio Std: None	Cente	er Frequency 500000 MHz	Settings
1 Graph Scale/Div	(10.0 dB		Ref Value 40.00 d	IBm		Span 25.0	00 MHz	
Log 30.0 20.0 10.0			www.www.www.www.www.www.www.www.www.ww				tep 0000 MHz Auto Man	
0.00 -10.0 -20.0 -30.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	manna			mahan	Freq	Offset	
	07.50 MHz		Video BW 750.00	kHz	Spa	n 25 MHz		
Res BW 2 2 Metrics	240.00 kHz v				Sweep 1.00 ms (1001 pts)		
C	Occupied Bandwidth 8.988	34 MHz		Total Power	31.9 dBm	1		
	Transmit Freq Error x dB Bandwidth	-190.37 kH 9.872 MH		% of OBW Pow x dB	ver 99.00 % -26.00 dB			
		Sep 12, 2022 11:06:13 PM				X		

Plot 7-36. Occupied Bandwidth Plot (NR Band n12 - 10MHz DFT-s-OFDM BPSK - Full RB – Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT		
Test Report S/N:	Test Dates:	EUT Type:	Dogo 27 of 216	
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Plot 7-37. Occupied Bandwidth Plot (NR Band n12 - 10MHz CP-OFDM QPSK - Full RB – Ant A)

Spectrum /		+				Frequency	、
RL ⊷	HT Input: RF ► Coupling: DC Align: Auto	Input Ζ: 50 Ω Corr CCorr Freq Ref: Int (S) NFF ⁻ Off	Atten: 36 dB	Trig: Free Run Gate: Off #IF Gain: Low	Center Freq: 707.500000 MHz Avg Hold: 100/100 Radio Std: None	Center Frequency 707.500000 MHz	Settings
1 Graph	T					Span 25.000 MHz	
Scale/Div Log 30.0 20.0			Ref Value 40.00 c			CF Step 2.500000 MHz	
10.0 0.00 -10.0					4n -	Man Freq Offset 0 Hz	
-20.0 -30.0 -40.0 -50.0	Alamana						
Center 70 Res BW 2		#	Video BW 750.00) kHz	Span 25 M Sweep 1.00 ms (1001		
2 Metrics	۲						
C	Dccupied Bandwidth 9.338	31 MHz		Total Power	30.2 dBm		
	Transmit Freq Error dB Bandwidth	-28.818 kH 10.16 MH		% of OBW Pow x dB	er 99.00 % -26.00 dB		
•		Sep 12, 2022 11:06:34 PM					

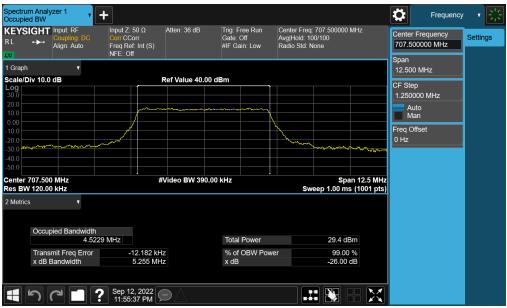
Plot 7-38. Occupied Bandwidth Plot (NR Band n12 - 10MHz CP-OFDM 16-QAM - Full RB - Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT				
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Plot 7-39. Occupied Bandwidth Plot (NR Band n12 - 5MHz DFT-s-OFDM BPSK - Full RB – Ant A)



Plot 7-40. Occupied Bandwidth Plot (NR Band n12 - 5MHz CP-OFDM QPSK - Full RB – Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT		
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pectrum Analyzer 1	+							Frequenc	y y 🖸
KEYSIGHT Input: RF RL ↔ Coupling: DC Align: Auto Align: Auto	Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) NFE: Off	Atten: 36 dB	Trig: Free Run Gate: Off #IF Gain: Low	Center Fred Avg Hold: 1 Radio Std: I		łz		requency 000 MHz	Settings
xu Graph v	NFE. UII						Span 12.500 I	ИНz	
cale/Div 10.0 dB		Ref Value 40.00	dBm				CF Step		
.0g 30.0							1.25000	0 MHz	
20.0							Auto Mar		
	^/			h			Freq Offs	set	1
20.0					mm	m	0 Hz		
40.0									
50.0									
enter 707.500 MHz es BW 120.00 kHz	#	Video BW 390.0	00 kHz	6	Span () veep 1.00 ms	12.5 MHz			
Metrics v						<u> </u>			
	10 MHz		Total Power		29.6 dBm				
Transmit Freq Error	1.529 k⊢		% of OBW Pov	ver	99.00 %				
x dB Bandwidth	5.258 MF	z	x dB		-26.00 dB				
1500	Sep 12, 2022 11:55:50 PM								

Plot 7-41. Occupied Bandwidth Plot (NR Band n12 - 5MHz CP-OFDM 16-QAM - Full RB - Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT			
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WCDMA AWS - Ant A



Plot 7-42. Occupied Bandwidth Plot (WCDMA, Ch. 1413 - Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT			
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LTE Band 66/4 - Ant A

Spectrum	n Analyz d BW	er 1 🔻	+									₽	Frequency	- * 詳
RL		nput: RF Coupling: DC Align: Auto	Input Z: Corr CC Freq Re NFE: Of	orr f: Int (S)	Atten: 36 dB	Gat	: Free Run e: Off Gain: Low		Center Fred Avg Hold: 1 Radio Std: I		10 GHz	Center Fro 1.745000 Span	equency 0000 GHz	Settings
1 Graph		•										50.000 M	IHz	
Scale/Di	iv 10.0 d	IB			Ref Value 40	.00 dBm						CF Step		
Log 30.0								-				5.000000	MHz	
20.0				formation	nanan ang ang ang ang ang ang ang ang an		nampin nahativa	ľ				Auto Man		
0.00 -10.0 -20.0		with the set of many the state of the set	Jura gunar M	/				ł	Sod Marson	Almala		Freq Offse 0 Hz	et	
-50.0	_{Գա} ու _{տուս} ին	all have a second s						╞		- Warner	allahaan waxaa ya ka			
-40.0								L						
Center 1 Res BW				. #	Video BW 1.6	5000 MHz		1	Sv		ipan 50 MHz s (1001 pts)			
2 Metrics		•												
	Occupie	ed Bandwidtl 18.	h 015 MHz			То	tal Power			31.3 d	Bm			
		nit Freq Error		19.085 k⊦			of OBW Po	we	۲	99.00				
	x an na	andwidth		19.81 MF	Z	xc	B			-26.00	dВ			
	า (? Sep 13 1:22:4	3, 2022 47 AM										

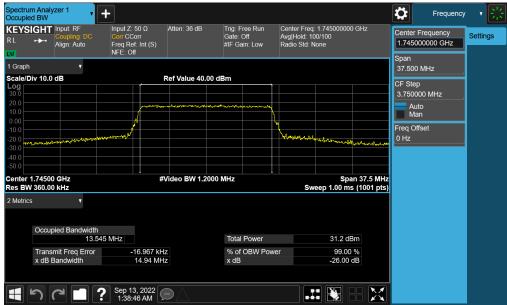
Plot 7-43. Occupied Bandwidth Plot (LTE Band 66/4 - 20MHz QPSK - Full RB - Ant A)



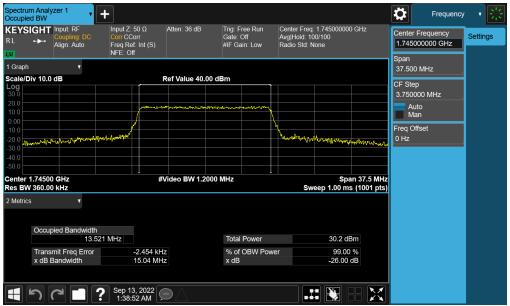
Plot 7-44. Occupied Bandwidth Plot (LTE Band 66/4 - 20MHz 16-QAM - Full RB - Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT		
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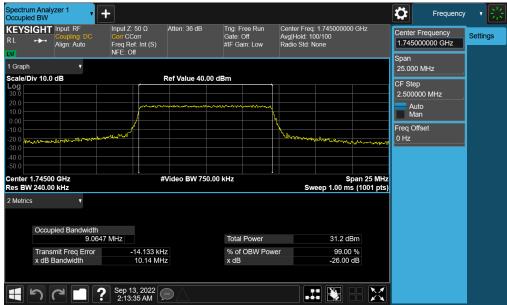
Plot 7-45. Occupied Bandwidth Plot (LTE Band 66/4 - 15MHz QPSK - Full RB - Ant A)



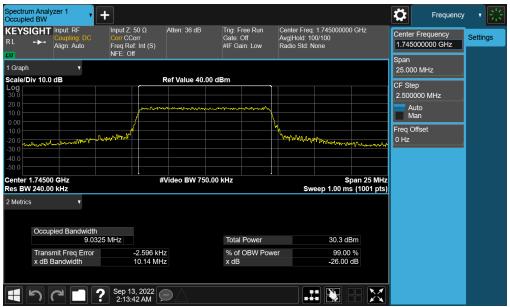
Plot 7-46. Occupied Bandwidth Plot (LTE Band 66/4 - 15MHz 16-QAM - Full RB - Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT		
Test Report S/N:	Test Dates:	EUT Type:	Page 43 of 316	
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© 2022 ELEMENT	•		V11.0 9/14/2022	





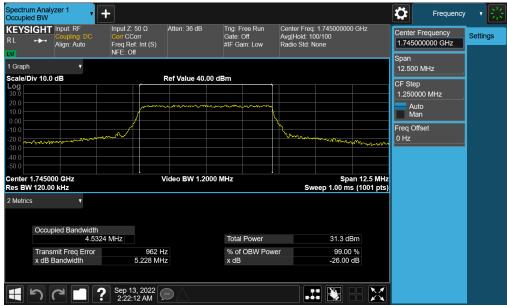
Plot 7-47. Occupied Bandwidth Plot (LTE Band 66/4 - 10MHz QPSK - Full RB - Ant A)



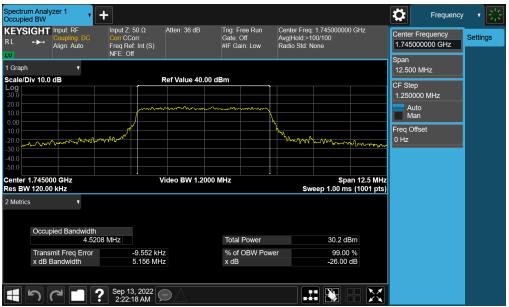
Plot 7-48. Occupied Bandwidth Plot (LTE Band 66/4 - 10MHz 16-QAM - Full RB - Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT		
Test Report S/N:	Test Dates:	EUT Type:	Page 44 of 316	
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© 2022 ELEMENT	·		V11.0 9/14/2022	





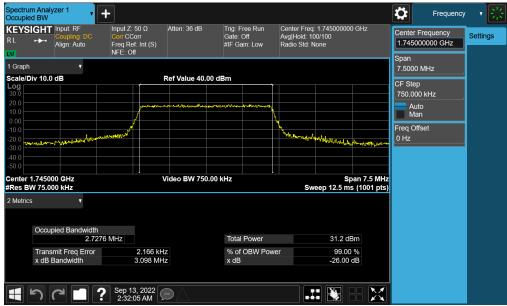
Plot 7-49. Occupied Bandwidth Plot (LTE Band 66/4 - 5MHz QPSK - Full RB - Ant A)



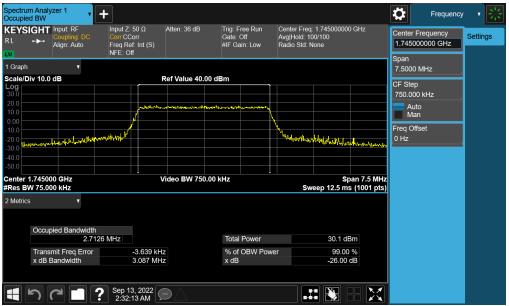
Plot 7-50. Occupied Bandwidth Plot (LTE Band 66/4 - 5MHz 16-QAM - Full RB - Ant A)

FCC ID: A3LSMS918U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager	
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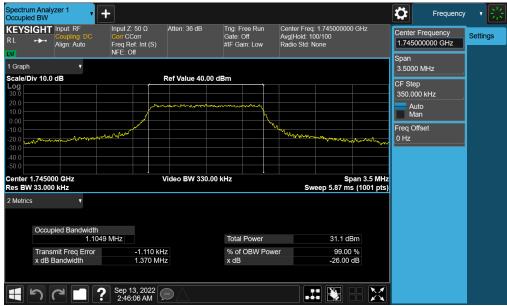
Plot 7-51. Occupied Bandwidth Plot (LTE Band 66/4 - 3MHz QPSK - Full RB - Ant A)



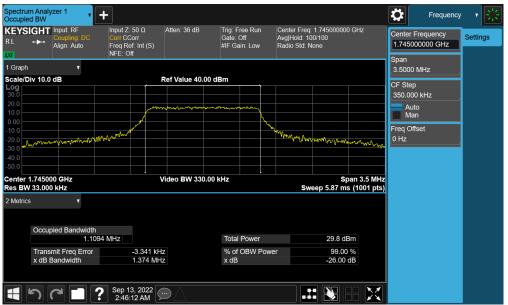
Plot 7-52. Occupied Bandwidth Plot (LTE Band 66/4 - 3MHz 16-QAM - Full RB - Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT	
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Plot 7-53. Occupied Bandwidth Plot (LTE Band 66/4 - 1.4MHz QPSK - Full RB - Ant A)



Plot 7-54. Occupied Bandwidth Plot (LTE Band 66/4 - 1.4MHz 16-QAM - Full RB - Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT		
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NR Band n66 – Ant A



Plot 7-55. Occupied Bandwidth Plot (NR Band n66 - 40.0MHz DFT-s-OFDM BPSK - Full RB - Ant A)

🔤 Keysight Spectrum Analyzer - Occupied BW					
			Rad 1: 100/100	::49::43 PM Sep 12, 2022 dio Std: None dio Device: BTS	Trace/Detector
10 dB/div Ref 30.00 dBm					
20.0		Rear and Sound of the second o			Clear Write
-10.0 -20.0 -30.0			Mary's Allening	Man Marthart	Average
-40.0 -50.0 -60.0					Max Hold
Center 1.74500 GHz #Res BW 1 MHz	#VE	3W 3 MHz	S	pan 100.0 MHz Sweep 1 ms	Min Hold
Occupied Bandwidth 38.8	321 MHz	Total Power	29.7 dE	3m	Detector Peak▶
Transmit Freq Error	22.038 kHz	% of OBW Pow	er 99.00	%	Auto <u>Man</u>
x dB Bandwidth	41.06 MHz	x dB	-26.00 (dB	
MSG			STATUS		

Plot 7-56. Occupied Bandwidth Plot (NR Band n66 - 40.0MHz CP-OFDM QPSK - Full RB - Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT	
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Plot 7-57. Occupied Bandwidth Plot (NR Band n66 - 40.0MHz CP-OFDM 16QAM - Full RB – Ant A)



Plot 7-58. Occupied Bandwidth Plot (NR Band n66 - 30.0MHz DFT-s-OFDM BPSK - Full RB – Ant A)

FCC ID: A3LSMS918U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager	
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Plot 7-59. Occupied Bandwidth Plot (NR Band n66 - 30.0MHz CP-OFDM QPSK - Full RB – Ant A)



Plot 7-60. Occupied Bandwidth Plot (NR Band n66 - 30.0MHz CP-OFDM 16QAM - Full RB - Ant A)

FCC ID: A3LSMS918U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Keysight Spectrum Analyzer - Occupied BW							
L <mark>X/</mark> RL RF 50Ω DC C	ORREC	SENSE:INT Center Freq: 1.745000		I AUTO 06:52:06 PM Radio Std:	Nov 29, 2022	Trace	/Detector
		Trig: Free Run	Avg Hold: 100/	/100			
#	FGain:Low #	#Atten: 36 dB		Radio Devi	ce: BTS		
10 dB/div Ref 35.00 dBm							
25.0							
15.0	and the second state	· · · · · · · · · · · · · · · · · · ·				С	lear Write
5.00							
-5.00							
							Average
-15.0							Average
-25.0				, h.			
			~~	Anger and the second second second	when all all and the		
-45.0							Max Hold
-55.0							
Center 1.74500 GHz				Snap 6	2.60 MHz		
Center 1.74500 GHZ Res BW 620 kHz		#VBW 1.6 M	Hz		2.50 MHz ep 1 ms		- Conclusion
							Min Hold
Occupied Bandwidth		Total Po	ower	30.7 dBm			
	983 MHz						Detector
							Peak
Transmit Freq Error	-496.33 kH	z % of OE	BW Power	99.00 %		Auto	<u>Man</u>
x dB Bandwidth	24.39 MH	z xdB		-26.00 dB			
				20100-412			
				1			
MSG				STATUS			

Plot 7-61. Occupied Bandwidth Plot (NR Band n66 - 25.0MHz DFT-s-OFDM BPSK - Full RB - Ant A)



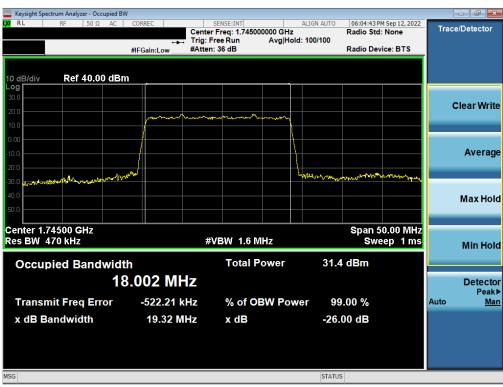
Plot 7-62. Occupied Bandwidth Plot (NR Band n66 - 25.0MHz CP-OFDM QPSK - Full RB – Ant A)

FCC ID: A3LSMS918U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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🔤 Keysight Spectrum Analyzer - Occupied BW	
X RL RF 50 Ω CORREC SENSE:INT ALIGN AUTO 06:51:12 PM Nov 29, 2022 Center Freq: 1.745000000 GHz Radio Std: None	Trace/Detector
Trig: Free Run Avg Hold: 100/100	
#IFGain:Low #Atten: 36 dB Radio Device: BTS	
10 dB/div Ref 35.00 dBm	
15.0	Clear Write
.500	
-15.0	Average
	· · · · · · · · · · · · · · · · · · ·
-25.0 24/9/14/24/14/14/24/14/14/24/14/14/24/14/24/14/24/14/24/14/24/14/24/14/24/14/24/14/24/14/24/14/24/14/24/	
45.0	
-400	Max Hold
-55.0	
Center 1.74500 GHz Span 62.50 MHz	
Res BW 620 kHz #VBW 1.6 MHz Sweep 1 ms	Min Hold
Occupied Bandwidth Total Power 28.5 dBm	
23.853 MHz	Detector Peak►
Transmit Freq Error -36.600 kHz % of OBW Power 99.00 %	Auto <u>Man</u>
x dB Bandwidth 25.44 MHz x dB -26.00 dB	
MSG STATUS	

Plot 7-63. Occupied Bandwidth Plot (NR Band n66 - 25.0MHz CP-OFDM 16QAM - Full RB – Ant A)



Plot 7-64. Occupied Bandwidth Plot (NR Band n66 - 20.0MHz DFT-s-OFDM BPSK - Full RB – Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT		
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Plot 7-65. Occupied Bandwidth Plot (NR Band n66 - 20.0MHz CP-OFDM QPSK - Full RB – Ant A)



Plot 7-66. Occupied Bandwidth Plot (NR Band n66 - 20.0MHz CP-OFDM 16QAM - Full RB - Ant A)

FCC ID: A3LSMS918U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Keysight Spectrum Analyzer - Occupied BV	V					
LXI RL RF 50Ω AC	CORREC	SENSE:INT enter Freq: 1.745000000 G	ALIGN AUTO	06:08:45 P	M Sep 12, 2022	Trace/Detector
	😛 Tr	ig: Free Run Avg	Hold: 100/100			
	#IFGain:Low #A	tten: 36 dB		Radio Dev	ice: BTS	
10 dB/div Ref 35.00 dBn Log	n					
25.0						
15.0	and	many	x			Clear Write
5.00	1					
-5.00			\ \			
-15.0			\ \			Average
-25.0	/					7.1. e. u.ge
25.0	and the second s		Mannon	Anger Mary		
-35.0						
-45.0						Max Hold
-55.0						
Center 1.74500 GHz					7.50 MHz	
Res BW 360 kHz		#VBW 1.2 MHz		Swe	ep 1ms	Min Hold
Occupied Bandwidt		Total Power	21	2 dBm		
Occupied Bandwidt			51.			
13	3.504 MHz					Detector
Transmit Freq Error	-355.84 kHz	% of OBW P	ower 9	9.00 %		Peak▶ Auto <u>Man</u>
x dB Bandwidth	14.73 MHz	x dB	-26	.00 dB		
MSG			STATU			

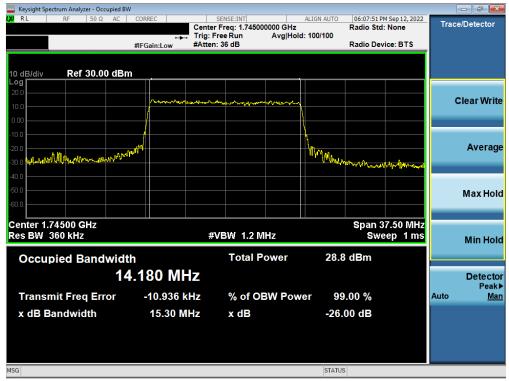
Plot 7-67. Occupied Bandwidth Plot (NR Band n66 - 15.0MHz DFT-s-OFDM BPSK - Full RB - Ant A)



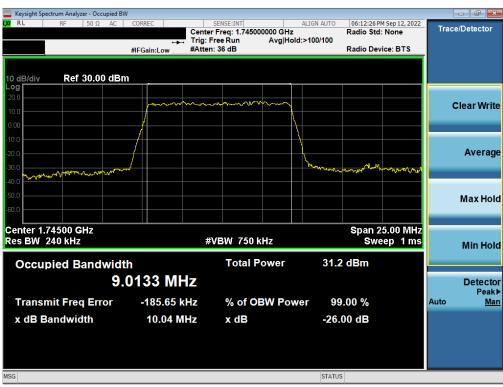
Plot 7-68. Occupied Bandwidth Plot (NR Band n66 - 15.0MHz CP-OFDM QPSK - Full RB - Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT	
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Plot 7-69. Occupied Bandwidth Plot (NR Band n66 - 15.0MHz CP-OFDM 16QAM - Full RB - Ant A)



Plot 7-70. Occupied Bandwidth Plot (NR Band n66 - 10.0MHz DFT-s-OFDM BPSK - Full RB – Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT	
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Plot 7-71. Occupied Bandwidth Plot (NR Band n66 - 10.0MHz CP-OFDM QPSK - Full RB – Ant A)



Plot 7-72. Occupied Bandwidth Plot (NR Band n66 - 10.0MHz CP-OFDM 16QAM - Full RB - Ant A)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT	
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Plot 7-73. Occupied Bandwidth Plot (NR Band n66 - 5.0MHz DFT-s-OFDM BPSK - Full RB – Ant A)



Plot 7-74. Occupied Bandwidth Plot (NR Band n66 - 5.0MHz CP-OFDM QPSK - Full RB – Ant A)

FCC ID: A3LSMS918U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Center Freq: 1.74500000 GHz Radio Std: None Image: Std: None Trace/Detector Image: Std: None Radio Device: BTS Image: Std: None Radio Device: BTS		BW				
10 dB/div Ref 30.00 dBm 200 100 100<	ΙΧΙ RE 50 Ω AC	Ce	enter Freq: 1.745000000 GHz ig: Free Run Avg Ho	Ra 2011:>100/100	dio Std: None	Trace/Detector
Log Image: Clear Write 100 Image: Clear Write 101 Image: Clear Write 102 Image: Clear Write 103 Image: Clear Write 104 Image: Clear Write 105 Image: Clear Write 106 Image: Clear Write 107 Image: Clear Write <td< td=""><td></td><td>#IFGain:Low #A</td><td>Atten: 36 dB</td><td>Ra</td><td>dio Device: BTS</td><td></td></td<>		#IFGain:Low #A	Atten: 36 dB	Ra	dio Device: BTS	
200 Image: Clear Write 100 Image: Clear Write 100 Image: Clear Write 100 Image: Clear Write 200 Image: Clear Write 201 Image: Clear Write 202 Image: Clear Write 203 Image: Clear Write 204 Image: Clear Write 205 Image: Clear Write 206 Image: Clear Write 200 Image: Clear Write <td< td=""><td></td><td>3m</td><td></td><td></td><td></td><td></td></td<>		3m				
100 2	20.0		www.annew			Clear Write
40 0	-10.0			h h h h h h h h h h h h h h h h h h h		Average
Center 1.745000 GHz Res BW 120 kHz VBW 1.2 MHz Span 12.50 MHz Sweep 1 ms Min Hold Occupied Bandwidth 4.5122 MHz Total Power 28.0 dBm Detector Peak Transmit Freq Error -2.965 kHz % of OBW Power 99.00 % x dB Bandwidth 5.131 MHz x dB -26.00 dB	-40.0				werderformethouse for the second second	Maxilaid
Res BW 120 kHz VBW 1.2 MHz Sweep 1 ms Occupied Bandwidth Total Power 28.0 dBm 4.5122 MHz Detector Transmit Freq Error -2.965 kHz % of OBW Power 99.00 % x dB Bandwidth 5.131 MHz x dB -26.00 dB				s	pan 12.50 MHz	Max Hold
4.5122 MHz Transmit Freq Error -2.965 kHz % of OBW Power 99.00 % x dB Bandwidth 5.131 MHz x dB -26.00 dB		dth			Sweep 1 ms	Min Hold
x dB Bandwidth 5.131 MHz x dB -26.00 dB				20.0 42		
	Transmit Freq Error	-2.965 kHz	% of OBW Pov	wer 99.00	%	Auto <u>Man</u>
MSG	x dB Bandwidth	5.131 MHz	x dB	-26.00	dB	
	MSG			STATUS		

Plot 7-75. Occupied Bandwidth Plot (NR Band n66 - 5.0MHz CP-OFDM 16QAM - Full RB - Ant A)

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LTE Band 66/4 - Ant F

Keysight Spectrum Analyzer - Occupied BW - - - - - - **-** - **-** X SENSE:INT SOURCE OFF ALIGN AUTO 10:36:51 AM Oct 03, 2022 Radio Std: None Trace/Detector Trig: Free Run #Atten: 36 dB Avg|Hold: 100/100 #IFGain:Low Radio Device: BTS Ref 40.00 dBm 10 dB/div og **Clear Write** Average an M halden to Manufacture la the part Max Hold Center 1.745 GHz Res BW 470 kHz Span 50 MHz #VBW 1.6 MHz Sweep 1 ms Min Hold 31.5 dBm Occupied Bandwidth **Total Power** 18.082 MHz Detector Peak Auto 43.188 kHz **Transmit Freq Error** % of OBW Power 99.00 % Man x dB Bandwidth 19.72 MHz x dB -26.00 dB STATUS ASG

Plot 7-76. Occupied Bandwidth Plot (LTE Band 66/4 - 20MHz QPSK - Full RB - Ant F)



Plot 7-77. Occupied Bandwidth Plot (LTE Band 66/4 - 20MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT	
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🔤 Keysight Spectrum Analyzer - Occu	upied BW				
LXI RL RF 50 Ω	AC CORREC C	SENSE:INT SOURCE OFF A	ALIGN AUTO 10:41:30 AM Radio Std:	M Oct 03, 2022	Trace/Detector
	T	rig: Free Run Avg Hold:	>100/100		
	#IFGain:Low#	Atten: 36 dB	Radio Devi	ice: BTS	
10 dB/div Ref 40.00	dBm				
30.0					
20.0					Clear Write
10.0		- An and a second literary and a literary and			
0.00	و و المحال				
-10.0					Average
-20.0	matrick		Lypp - how a some		
-20.0 -30.0	<u>د مع الک</u> ت		- Warder and a start of the second	Whenterner	
-40.0					
-50.0					Max Hold
Center 1.745 GHz				37.5 MHz	
Res BW 360 kHz		#VBW 1.2 MHz	Swe	ep 1 ms	Min Hold
Occupied Bandy	width	Total Power	31.3 dBm		
	13.539 MHz				Detector
	13.559 WHZ				Detector Peak▶
Transmit Freq Erro	or 37.288 kHz	z % of OBW Powe	er 99.00 %		Auto <u>Man</u>
x dB Bandwidth	14.97 MHz	z xdB	-26.00 dB		
A db Bullawiaa					
NGO			STATUS		
MSG			STATUS		

Plot 7-78. Occupied Bandwidth Plot (LTE Band 66/4 - 15MHz QPSK - Full RB - Ant F)



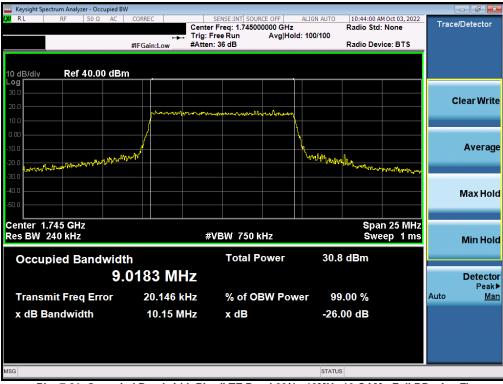
Plot 7-79. Occupied Bandwidth Plot (LTE Band 66/4 - 15MHz 16-QAM - Full RB - Ant F)

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Keysight Spectrum Analyzer - Occupied	IBW				
LXI RL RF 50Ω AC		SENSE:INT SOURCE OFF ter Freg: 1.745000000 GHz		AM Oct 03, 2022	Trace/Detector
	Trig	: Free Run Avg Ho	ld: 100/100		
,	#IFGain:Low #Att	ten: 36 dB	Radio D	evice: BTS	
10 dB/div Ref 40.00 dB	3m				
Log 30.0					
20.0					Clear Write
10.0	wewmin	many and a second and a second second			
0.00					
	Ń				Average
-10.0	- Jush and and		but and a		Average
-20.0 www.maphershimmen			by mansahardrath	Marlamonala	
-30.0					
-40.0					Max Hold
-50.0					
Center 1.745 GHz			Sn	an 25 MHz	
Res BW 240 kHz		#VBW 750 kHz		veep 1 ms	Min Hold
					Minifiord
Occupied Bandwid	dth	Total Power	31.2 dBm		
9	0.0202 MHz				Detector
			~~ ~~ ~		Peak►
Transmit Freq Error	34.177 kHz	% of OBW Pov	ver 99.00 %		Auto <u>Man</u>
x dB Bandwidth	10.08 MHz	x dB	-26.00 dB		
MSG			STATUS		

Plot 7-80. Occupied Bandwidth Plot (LTE Band 66/4 - 10MHz QPSK - Full RB - Ant F)



Plot 7-81. Occupied Bandwidth Plot (LTE Band 66/4 - 10MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT	
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🧫 Keysight Spectrum Analyzer - Occupied	BW				
LXI RL RF 50Ω AC	CORREC	SENSE:INT SOURCE OFF	ALIGN AUTO 10:46:02	M Oct 03, 2022	Trace/Detector
		Free Run Avg Hold	: 100/100		
	#IFGain:Low #Atter	n: 36 dB	Radio De	vice: BTS	
10 dB/div Ref 40.00 dE	sm				
Log 30.0					
20.0					Clear Write
	man	many			
10.0					
0.00					_
-10.0	- NV		North Contraction of the second secon		Average
-20.0 man hand have			honowhen	man	
-30.0					
-40.0					Max Hold
-50.0					
Center 1.745 GHz Res BW 120 kHz	1	/BW 1.2 MHz		12.5 MHz eep 1 ms	
Kes DVV 120 KHZ			3	eep mis	Min Hold
Occupied Bandwic	ith	Total Power	31.5 dBm		
	.5284 MHz				Detector
-					Peak►
Transmit Freq Error	9.161 kHz	% of OBW Powe	er 99.00 %		Auto <u>Man</u>
x dB Bandwidth	5.242 MHz	x dB	-26.00 dB		
			20100 42		
MSG			STATUS		

Plot 7-82. Occupied Bandwidth Plot (LTE Band 66/4 - 5MHz QPSK - Full RB - Ant F)



Plot 7-83. Occupied Bandwidth Plot (LTE Band 66/4 - 5MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS918U		Approved by: Technical Manager		
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Keysight Spectrum Analyzer - Occup	·						
LXI RL RF 50 Ω	AC CORREC	SENSE:INT SOUR		10:47:35 A Radio Std	M Oct 03, 2022	Trac	e/Detector
		Trig: Free Run	Avg Hold: 100/100				
	#IFGain:Low	#Atten: 36 dB		Radio Dev	vice: BTS		
10 dB/div Ref 40.00	dBm						
Log 30.0							
20.0						(Clear Write
10.0	mm	Mr. Mr. Marine	m				
0.00							
-10.0	4		X				Average
-20.0	mm		march	0			Arenuge
Mun man Min Min Min Min Min Min Min Min Min Mi				all and a second	man		
-30.0							
-40.0							Max Hold
-50.0						_	
Center 1.745 GHz				Spa	n 7.5 MHz		
#Res BW 75 kHz		VBW 750 kH	z		1.267 ms		Min Hold
		Total D		3 dBm			
Occupied Bandy		Total Po	ower 31.	dBm			
	2.7324 M⊦	Z					Detector
Transmit Freq Erro	or -1.390 k		W Power 99	.00 %		Auto	Peak▶ Man
						Auto	man
x dB Bandwidth	3.083 M	Hz x dB	-26.	00 dB			
MSG			STATU	5			

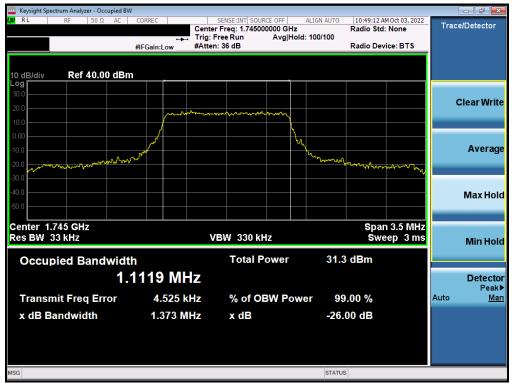
Plot 7-84. Occupied Bandwidth Plot (LTE Band 66/4 - 3MHz QPSK - Full RB - Ant F)



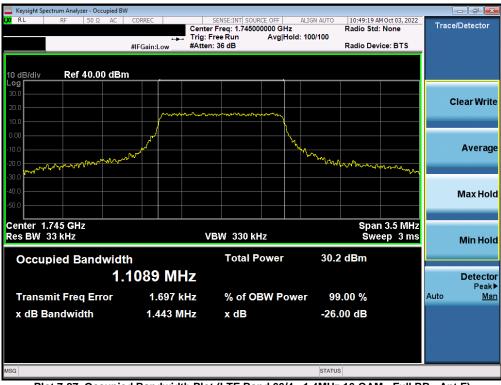
Plot 7-85. Occupied Bandwidth Plot (LTE Band 66/4 - 3MHz 16-QAM - Full RB - Ant F)

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Plot 7-86. Occupied Bandwidth Plot (LTE Band 66/4 - 1.4MHz QPSK - Full RB - Ant F)



Plot 7-87. Occupied Bandwidth Plot (LTE Band 66/4 - 1.4MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT	
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NR Band n66 – Ant F

Keysight Spectrum Analyzer - Occupied BV	V				
XIRL RF 50Ω AC		SENSE:INT Center Freq: 1.745000000 GHz Trig: Free Run Avg Hold #Atten: 36 dB	ALIGN AUTO	10:46:28 AM Oct 03, 2022 Radio Std: None Radio Device: BTS	Trace/Detector
10 dB/div Ref 40.00 dBn	n				
30.0 20.0 10.0	par and m	mmm			Clear Write
0.00					Average
40.0 50.0				Ale and a second and	Max Hol
Center 1.74500 GHz Res BW 1 MHz		#VBW 3 MHz		Span 100.0 MHz Sweep 1 ms	Min Hol
Occupied Bandwidt	^h 3.707 MHz	Total Power Z	30.7	dBm	Detecto
Transmit Freq Error x dB Bandwidth	2.079 kH 40.98 MH			.00 % 00 dB	Auto <u>Ma</u>

Plot 7-88. Occupied Bandwidth Plot (NR Band n66 - 40.0MHz DFT-s-OFDM BPSK - Full RB - Ant F)

Keysight Spectrum Analyzer - Occupied BW	CORREC	SENSE:INT	ALIGN AUTO	10:46:42 AM Oct 03, 20	
KL NF SUS2 AU	Cent ++- Trig	ter Freq: 1.7450000		Radio Device: BTS	Trace/Detector
	In Guilleow				
10 dB/div Ref 30.00 dBm					
20.0					Clear Write
0.00	half a short and a short of a short and a short a shor	and other of the second s			
-10.0					
-20.0	J		w.M.M	when and share	Average
-30.0				, , , , , history (1997)	hat
-50.0					Max Hold
-60.0					
Center 1.74500 GHz				Span 100.0 M	
#Res BW 1 MHz		#VBW 3 MHz		Sweep 1 n	ns Min Hold
Occupied Bandwidth		Total Pov	ver 28.6	dBm	
38	.752 MHz				Detector Peak
Transmit Freq Error	19.798 kHz	% of OBV	Power 99	.00 %	Auto <u>Mar</u>
x dB Bandwidth	41.05 MHz	x dB	-26.	00 dB	
ISG			STATUS	6	

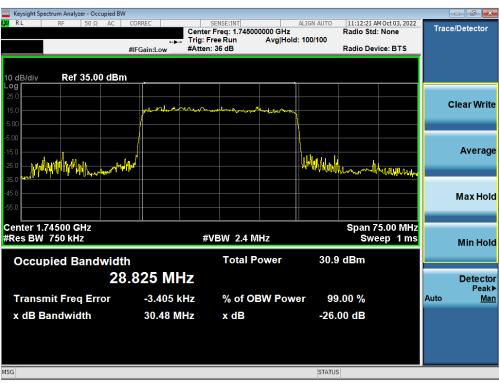
Plot 7-89. Occupied Bandwidth Plot (NR Band n66 - 40.0MHz CP-OFDM QPSK - Full RB - Ant F)

FCC ID: A3LSMS918U		PART 27 MEASUREMENT REPORT		
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Plot 7-90. Occupied Bandwidth Plot (NR Band n66 - 40.0MHz CP-OFDM 16QAM - Full RB - Ant F)



Plot 7-91. Occupied Bandwidth Plot (NR Band n66 - 30.0MHz DFT-s-OFDM BPSK - Full RB - Ant F)

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🔤 Keysight Spectrum Analyzer - Occi	upied BW						a X
LX/ RL RF 50Ω	AC CORREC	SENSE:INT Center Freg: 1.7450	ALIGN AUTO	11:12:33 AM (Radio Std: N		Trace/Det	ector
	⊢	🕂 Trig: Free Run	Avg Hold: 100/100	Radio Stu. F	lone		
	#IFGain:Low	#Atten: 36 dB		Radio Devic	e: BTS		
10 dB/div Ref 30.00) dBm						l I
20.0							
	and shall been	an who have the and				Clea	r Write
10.0	1						
0.00							
-10.0							
-20.0	i i i i i i i i i i i i i i i i i i i					A	verage
-30.0 where the method of the start of the s	, adapted the first		W-4 Wala	white where		_	
-40.0					10-10-1 - N		
-50.0						Ма	x Hold
-60.0						ma	ATTOIG
Center 1.74500 GHz			AL 1_	Span 75			
#Res BW 750 kHz		#VBW 2.4 I	VIHZ	Swee	p 1 ms	Mi	n Hold
Occupied Band	width	Total	Power 27.	5 dBm			_
	28.664 M	HZ				De	etector Peak▶
Transmit Freq Erre	or -21.658	kHz % of O	BW Power 9	9.00 %		Auto	Man
x dB Bandwidth	30.40	MHz xdB	-26	.00 dB			
MSG			STATU	15			

Plot 7-92. Occupied Bandwidth Plot (NR Band n66 - 30.0MHz CP-OFDM QPSK - Full RB – Ant F)



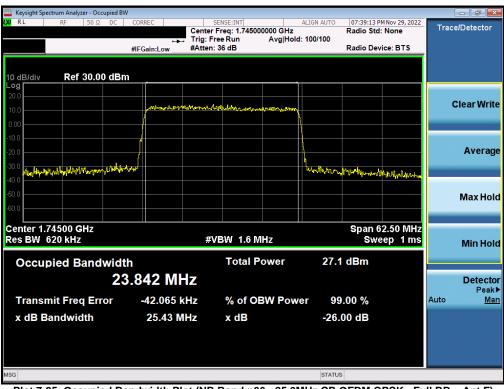
Plot 7-93. Occupied Bandwidth Plot (NR Band n66 - 30.0MHz CP-OFDM 16QAM - Full RB - Ant F)

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Keysight Spectrum Analyzer - Occ	upied BW								
LXI RL RF 50 Ω	DC CORREC		ENSE:INT Freg: 1.74500	0000 GHz	ALIGN AUTO	07:38:41 P Radio Std	MNov 29, 2022	Trac	e/Detector
		Trig: Fre	ee Run		d: 100/100				
	#IFGain:L	ow #Atten:	36 dB			Radio Dev	ice: BIS		
D .6.00.00									
10 dB/div Ref 30.00	0 dBm								
20.0									
10.0		m-Vala-frontonen	hard harden when	minun					Clear Write
0.00									
-10.0									
-20.0									Average
-30.0 Highlyryg Mehron Martin	window when				Way Rong way	a for and the	mandalan		
-40.0					همتكل		A Day in the second		
-50.0	كالكس								Max Hold
-60.0	كالكس								III u A
						0 0			
Center 1.74500 GHz Res BW 620 kHz		#V	'BW 1.6 M	H7			2.50 MHz ep 1 ms		
			DVY 110 III	112					Min Hold
Occupied Band	width		Total P	ower	29.4	dBm			
	22.985	MHz							Detector
									Peak►
Transmit Freq Err	or -511	.18 kHz	% of OE	BW Pow	er 99	.00 %		Auto	<u>Man</u>
x dB Bandwidth	24.	35 MHz	x dB		-26.	00 dB			
MSG					STATUS				

Plot 7-94. Occupied Bandwidth Plot (NR Band n66 - 25.0MHz DFT-s-OFDM BPSK - Full RB - Ant F)



Plot 7-95. Occupied Bandwidth Plot (NR Band n66 - 25.0MHz CP-OFDM QPSK - Full RB - Ant F)

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