

PCTEST ENGINEERING LABORATORY, INC.

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MEASUREMENT REPORT

LTE

Applicant Name:

LG Electronics USA, Inc. 1000 Sylvan Avenue Englewood Cliffs, NJ 07632 United States

Date of Testing: 7/8 - 7/23/2019 Test Site/Location: PCTEST Lab. Columbia, MD, USA Test Report Serial No.: 1M1907050112-03.ZNF

FCC ID:

ZNFT600US

APPLICANT:

LG Electronics USA, Inc.

Application Type: Model: Additional Model(s): EUT Type: FCC Classification: FCC Rule Part(s): Test Procedure(s): Certification LM-T600US LMT600US, T600US, LM-T600QS, LMT600QS, T600QS Portable Tablet PCS Licensed Transmitter (PCB) 22, 24, & 27 ANSI C63.26-2015, ANSI/TIA-603-E-2016, KDB 971168 D01 v03r01

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

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





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MEASUREMENT REPORT FCC Part 22, 24, & 27



Mode FCC Rule Part Tx Frequency (MHz) Max. Power (M) Max. Power (M)				E	RP	EI	RP		
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LTE Band 12 27 701.5 - 713.5 0.046 16.63 0.076 18.78 4M55W7D 64QAM LTE Band 12 27 704 - 711 0.072 18.60 0.119 20.75 9M04G7D QPSK LTE Band 12 27 704 - 711 0.059 17.69 0.096 19.84 9M02W7D 64QAM LTE Band 12 27 704 - 711 0.048 16.79 0.078 18.94 9M02W7D 64QAM LTE Band 13 27 779.5 - 784.5 0.067 18.27 0.110 20.42 4M52W7D 16QAM LTE Band 13 27 779.5 - 784.5 0.067 17.58 0.094 19.73 4M54W7D 64QAM LTE Band 13 27 782 0.067 17.55 0.093 19.70 8M98W7D 16QAM LTE Band 13 27 782 0.062 17.94 0.102 20.09 8M96W7D 16QAM LTE Band 26/5 22H 824.7 - 848.3 0.065 19.27 0.133	LTE Band 12	27	701.5 - 713.5	0.050	17.03	0.083	19.18	4M54W7D	16QAM
LTE Band 12 27 704 - 711 0.072 18.60 0.119 20.75 9M04G7D QPSK LTE Band 12 27 704 - 711 0.059 17.69 0.096 19.84 9M02W7D 160AM LTE Band 12 27 704 - 711 0.048 16.79 0.078 18.94 9M02W7D 64QAM LTE Band 13 27 779.5 - 784.5 0.086 19.32 0.140 21.47 4M55G7D QPSK LTE Band 13 27 779.5 - 784.5 0.086 19.32 0.140 21.47 4M52W7D 16QAM LTE Band 13 27 779.5 - 784.5 0.057 17.58 0.094 19.73 4M54W7D 64QAM LTE Band 13 27 782 0.062 17.94 0.102 20.09 8M96W7D 16QAM LTE Band 26/5 22H 824.7 - 848.3 0.093 19.70 8M98W7D 64QAM LTE Band 26/5 22H 824.7 - 848.3 0.093 19.70 8M98W7D 64QAM	LTE Band 12			0.046	16.63	0.076		4M55W7D	64QAM
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EUT Overview (<1 GHz)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		
1M1907050112-03.ZNF	7/8 - 7/23/2019	Portable Tablet		Page 3 of 232
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Mode LTE Band 66/4 LTE Band 66/4 LTE Band 66/4	FCC Rule Part 27 27 27 27 27 27	Tx Frequency (MHz) 1710.7 - 1779.3 1710.7 - 1779.3 1710.7 - 1779.3	Max. Power (W) 0.213 0.166	Max. Power (dBm) 23.28	Emission Designator 1M10G7D	Modulation
LTE Band 66/4	27 27 27 27	1710.7 - 1779.3 1710.7 - 1779.3			1M10G7D	
LTE Band 66/4	27 27 27 27	1710.7 - 1779.3 1710.7 - 1779.3				QPSK
	27 27	1710.7 - 1779.3		22.21	1M10W7D	16QAM
	27		0.150	21.77	1M10W7D	64QAM
LTE Band 66/4		1711.5 - 1778.5	0.205	23.12	2M72G7D	QPSK
LTE Band 66/4	27	1711.5 - 1778.5	0.173	22.37	2M71W7D	16QAM
LTE Band 66/4	27	1711.5 - 1778.5	0.139	21.43	2M70W7D	64QAM
LTE Band 66/4	27	1712.5 - 1777.5	0.215	23.32	4M56G7D	QPSK
LTE Band 66/4	27	1712.5 - 1777.5	0.176	22.45	4M52W7D	16QAM
LTE Band 66/4	27	1712.5 - 1777.5	0.136	21.35	4M53W7D	64QAM
LTE Band 66/4	27	1715 - 1775	0.201	23.03	9M02G7D	QPSK
LTE Band 66/4	27	1715 - 1775	0.189	22.76	9M03W7D	16QAM
LTE Band 66/4	27	1715 - 1775	0.134	21.27	9M00W7D	64QAM
LTE Band 66/4	27	1717.5 - 1772.5	0.209	23.20	13M5G7D	QPSK
LTE Band 66/4	27	1717.5 - 1772.5	0.188	22.74	13M5W7D	16QAM
LTE Band 66/4	27	1717.5 - 1772.5	0.136	21.35	13M5W7D	64QAM
LTE Band 66/4	27	1720 - 1770	0.206	23.14	18M0G7D	QPSK
LTE Band 66/4	27	1720 - 1770	0.168	22.25	18M0W7D	16QAM
LTE Band 66/4	27	1720 - 1770	0.164	22.15	18M0W7D	64QAM
LTE Band 25/2	24E	1850.7 - 1914.3	0.247	23.93	1M10G7D	QPSK
LTE Band 25/2	24E	1850.7 - 1914.3	0.055	17.41	1M10W7D	16QAM
LTE Band 25/2	24E	1850.7 - 1914.3	0.016	12.17	1M09W7D	64QAM
LTE Band 25/2	24E	1851.5 - 1913.5	0.237	23.74	2M71G7D	QPSK
LTE Band 25/2	24E	1851.5 - 1913.5	0.074	18.71	2M71W7D	16QAM
LTE Band 25/2	24E	1851.5 - 1913.5	0.028	14.46	2M70W7D	64QAM
LTE Band 25/2	24E	1852.5 - 1912.5	0.238	23.77	4M56G7D	QPSK
LTE Band 25/2	24E	1852.5 - 1912.5	0.094	19.74	4M52W7D	16QAM
LTE Band 25/2	24E	1852.5 - 1912.5	0.045	16.51	4M52W7D	64QAM
LTE Band 25/2	24E	1855 - 1910	0.246	23.91	9M00G7D	QPSK
LTE Band 25/2	24E	1855 - 1910	0.123	20.90	9M00W7D	16QAM
LTE Band 25/2	24E	1855 - 1910	0.074	18.68	9M02W7D	64QAM
LTE Band 25/2	24E	1857.5 - 1907.5	0.234	23.70	13M5G7D	QPSK
LTE Band 25/2	24E	1857.5 - 1907.5	0.173	22.37	13M5W7D	16QAM
LTE Band 25/2	24E	1857.5 - 1907.5	0.131	21.16	13M5W7D	64QAM
LTE Band 25/2	24E	1860 - 1905	0.264	24.21	18M0G7D	QPSK
LTE Band 25/2	24E	1860 - 1905	0.215	23.32	18M1W7D	16QAM
LTE Band 25/2	24E	1860 - 1905	0.204	23.10	18M0W7D	64QAM

EUT Overview (Mid Bands)

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EIF				RP		
Mode	FCC Rule Part	Tx Frequency (MHz)	Max. Power (W)	Max. Power (dBm)	Emission Designator	Modulation
LTE Band 7	27	2502.5 - 2567.5	0.139	21.43	4M52G7D	QPSK
LTE Band 7	27	2502.5 - 2567.5	0.056	17.47	4M52W7D	16QAM
LTE Band 7	27	2502.5 - 2567.5	0.026	14.18	4M53W7D	64QAM
LTE Band 7	27	2505 - 2565	0.143	21.56	9M04G7D	QPSK
LTE Band 7	27	2505 - 2565	0.073	18.65	9M00W7D	16QAM
LTE Band 7	27	2505 - 2565	0.043	16.36	9M01W7D	64QAM
LTE Band 7	27	2507.5 - 2562.5	0.145	21.61	13M5G7D	QPSK
LTE Band 7	27	2507.5 - 2562.5	0.092	19.63	13M5W7D	16QAM
LTE Band 7	27	2507.5 - 2562.5	0.072	18.55	13M5W7D	64QAM
LTE Band 7	27	2510 - 2560	0.144	21.59	18M0G7D	QPSK
LTE Band 7	27	2510 - 2560	0.122	20.85	18M1W7D	16QAM
LTE Band 7	27	2510 - 2560	0.114	20.56	18M0W7D	64QAM
LTE Band 41 (PC3)	27	2498.5 - 2687.5	0.232	23.66	4M54G7D	QPSK
LTE Band 41 (PC3)	27	2498.5 - 2687.5	0.224	23.50	4M52W7D	16QAM
LTE Band 41 (PC3)	27	2498.5 - 2687.5	0.204	23.09	4M51W7D	64QAM
LTE Band 41 (PC3)	27	2501 - 2685	0.229	23.59	9M01G7D	QPSK
LTE Band 41 (PC3)	27	2501 - 2685	0.197	22.94	9M05W7D	16QAM
LTE Band 41 (PC3)	27	2501 - 2685	0.173	22.37	9M03W7D	64QAM
LTE Band 41 (PC3)	27	2503.5 - 2682.5	0.247	23.92	13M5G7D	QPSK
LTE Band 41 (PC3)	27	2503.5 - 2682.5	0.189	22.77	13M5W7D	16QAM
LTE Band 41 (PC3)	27	2503.5 - 2682.5	0.147	21.67	13M5W7D	64QAM
LTE Band 41 (PC3)	27	2506 - 2680	0.274	24.38	18M1G7D	QPSK
LTE Band 41 (PC3)	27	2506 - 2680	0.230	23.61	18M1W7D	16QAM
LTE Band 41 (PC3)	27	2506 - 2680	0.216	23.34	18M0W7D	64QAM

EUT Overview (High Bands)

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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 PCTEST Test Location

These measurement tests were conducted at the PCTEST Engineering Laboratory, Inc. facility 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 PCTEST Engineering Lab located in Columbia, MD 21046, U.S.A.

- PCTEST is an ISO 17025-2005 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.
- PCTEST 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).
- PCTEST facility is a registered (2451B) test laboratory with the site description on file with ISED.

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2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **LGE Portable Tablet FCC ID: ZNFT600US**. The test data contained in this report pertains only to the emissions due to the EUT's LTE function.

Test Device Serial No.: 00574, 00566

2.2 Device Capabilities

This device contains the following capabilities:

850/1700/1900 WCDMA/HSPA, Multi-band LTE, 802.11b/g/n WLAN, 802.11a/n/ac UNII, Bluetooth (1x, EDR, LE)

LTE Band 26 (814.7 – 849 MHz) overlaps the entire frequency range of LTE Band 5 (824 – 849 MHz). Therefore, test data provided in this report covers Band 5 and the portion of Band 26 subject to Part 22.

LTE Band 66 (1710 - 1780 MHz) overlaps the entire frequency range of LTE Band 4 (1710 - 1755 MHz). Therefore, test data provided in this report covers Band 4 as well as Band 66.

LTE Band 25 (1850 - 1915 MHz) overlaps the entire frequency range of LTE Band 2 (1850 - 1910 MHz). Therefore, test data provided in this report covers Band 2 as well as Band 25.

2.3 Test Configuration

The EUT was tested per the guidance of ANSI/TIA-603-E-2016 and KDB 971168 D01 v03r01. See Section 7.0 of this test report for a description of the radiated and antenna port conducted emissions tests.

2.4 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 Measurement Procedure

The measurement procedures described in the document titled "Land Mobile FM or PM – Communications Equipment – Measurements and Performance Standards" (ANSI/TIA-603-E-2016) and "Procedures for Compliance Measurement of the Fundamental Emission Power of Licensed Wideband (> 1 MHz) Digital Transmission Systems" (KDB 971168 D01 v03r01) were used in the measurement of the EUT.

3.2 Block C Frequency Range

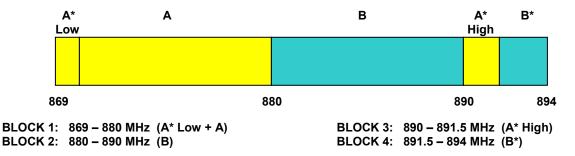
Two paired channels of 11 megahertz each are available for assignment in Block C in the 746-757 MHz and 776-787 MHz bands. In the event that no licenses for two channels in this Block C are assigned based on the results of the first auction in which such licenses were offered because the auction results do not satisfy the applicable reserve price, the spectrum in the 746-757 MHz and 776-787 MHz bands will instead be made available for assignment at a subsequent auction as follows: (i) Two paired channels of 6 megahertz each available for assignment in Block C1 in the 746-752 MHz and 776-782 MHz bands. (ii) Two paired channels of 5 megahertz each available for assignment in Block C2 in the 752-757 MHz and 782-787 MHz bands.

3.3 Block A Frequency Range

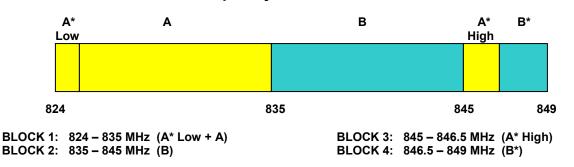
<u>698-746 MHz band</u>. The following frequencies are available for licensing pursuant to this part in the 698-746 MHz band: (1) Three paired channel blocks of 12 megahertz each are available for assignment as follows:

Block A: 698-704 MHz and 728-734 MHz; Block B: 704-710 MHz and 734-740 MHz; and Block C: 710-716 MHz and 740-746 MHz.

3.4 Cellular - Base Frequency Blocks



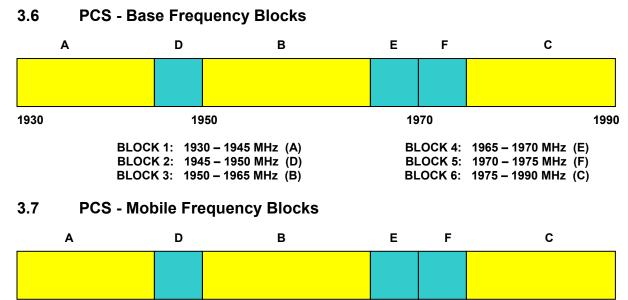
3.5 Cellular - Mobile Frequency Blocks



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1850

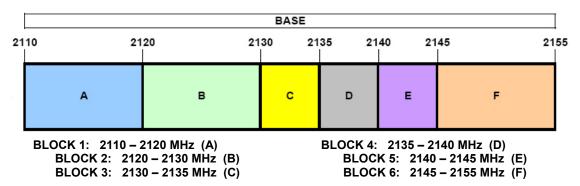


BLOCK 1:	1850 – 1865 MHz (A)
BLOCK 2:	1865 – 1870 MHz (Ď)
BLOCK 3:	1870 – 1885 MHz (B)

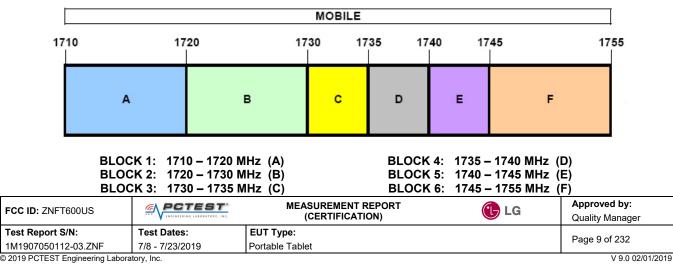
1870



3.8 AWS - Base Frequency Blocks

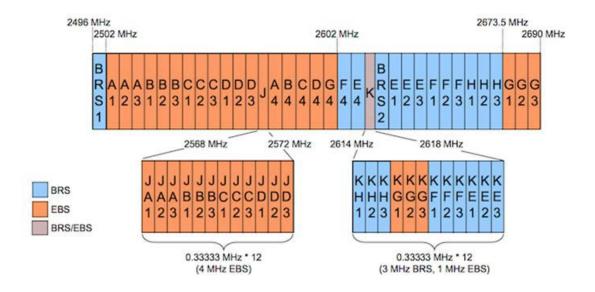


3.9 AWS - Mobile Frequency Blocks





3.10 BRS/EBS Frequency Block



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3.11 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. Radiated power levels are also investigated with the receive antenna horizontally and vertically polarized. The maximized power level is recorded using the spectrum analyzer "Channel Power" function with the integration band set to the emissions' occupied bandwidth, a RMS detector, RBW = 100kHz, VBW = 300kHz, and a 1 second sweep time over a minimum of 10 sweeps, per the guidelines of KDB 971168 D01 v03r01.

Per the guidance of ANSI/TIA-603-E-2016, a half-wave dipole is then 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 $P_{g [dBm]}$ – cable loss [dB].

The calculated P_d levels are then compared to the absolute spurious emission limit of -13dBm which is equivalent to the required minimum attenuation of 43 + 10 log₁₀(Power [Watts]). For Band 7 and 41, the calculated P_d levels are compared to the absolute spurious emission limit of -25dBm which is equivalent to the required minimum attenuation of 55 + 10 log₁₀(Power [Watts]).

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 474788 D01.

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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
-	LTx1	Licensed Transmitter Cable Set	8/23/2018	Annual	8/23/2019	LTx1
-	LTx2	Licensed Transmitter Cable Set	8/23/2018	Annual	8/23/2019	LTx2
Agilent	N9030A	PXA Signal Analyzer (44GHz)	6/12/2019	Annual	6/12/2020	MY52350166
Com-Power	AL-130	9kHz - 30MHz Loop Antenna	10/10/2017	Biennial	10/10/2019	121034
Com-Power	PAM-103	Pre-Amplifier (1-1000MHz)	9/17/2018	Annual	9/17/2019	441119
Com-Power	PAM-103	Pre-Amplifier (1-1000MHz)	8/8/2018	Annual	8/8/2019	441128
Emco	3115	Horn Antenna (1-18GHz)	3/28/2018	Biennial	3/28/2020	9704-5182
Emco	3116	Horn Antenna (18 - 40GHz)	6/7/2018	Triennial	6/7/2021	9203-2178
Emco	3160-09	Small Horn (18 - 26.5GHz)	8/9/2018	Biennial	8/9/2020	00135427
ETS Lindgren	3164-08	Quad Ridge Horn Antenna	2/22/2019	Biennial	2/22/2021	00128338
ETS Lindgren	3164-08	Quad Ridge Horn Antenna	3/28/2018	Biennial	3/28/2020	128337
Mini-Circuits	SSG-4000HP	Synthesized Signal Generator		N/A	-	11403100002
Mini-Circuits	SSG-4000HP	Synthesized Signal Generator		N/A		11208010032
Rohde & Schwarz	CMW500	Radio Communication Tester		N/A		100976
Rohde & Schwarz	CMW500	Radio Communication Tester		N/A		112347
Rohde & Schwarz	CMW500	Radio Communication Tester		N/A		102060
Rohde & Schwarz	ESU40	EMI Test Receiver (40GHz)	8/9/2018	Annual	8/9/2019	100348
Rohde & Schwarz	TS-PR26	18-26.5 GHz Pre-Amplifier	9/19/2018	Annual	9/19/2019	100040
Sunol	JB5	Bi-Log Antenna (30M - 5GHz)	4/19/2018	Biennial	4/19/2020	A051107

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 analyzer. 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).

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TEST RESULTS 7.0

7.1 Summary

Company Name:	LG Electronics USA, Inc.
FCC ID:	ZNFT600US
FCC Classification:	PCS Licensed Transmitter (PCB)
Mode(s):	LTE

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
2.1049	Occupied Bandwidth	N/A			Section 7.2
2.1051 22.917(a) 24.238(a) 27.53(c) 27.53(g) 27.53(h)	Out of Band Emissions	> 43 + 10 log ₁₀ (P[Watts]) at Band Edge and for all out-of- band emissions			Section 7.3, 7.4
27.53(m)	Out of Band Emissions	Undesirable emissions must meet the limits detailed in 27.53(m)			Section 7.3, 7.4
24.232(d)	Peak-Average Ratio	< 13 dB	CONDUCTED	PASS	Section 7.5
2.1046	Transmitter Conducted Output Power	N/A			See RF Exposure Report
2.1055 22.355 24.235 27.54	Frequency Stability	< 2.5 ppm (Part 22) and fundamental emissions stay within authorized frequency block (Part 24, 27)			Section 7.8

Table 7-1. Summary of Conducted Test Results

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FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
22.913(a)(5)	Effective Radiated Power / Equivalent Isotropic Radiated Power (Band 5/26)	< 7 Watts max. ERP			Section 7.6
27.50(b)(10) 27.50(c)(10)	Effective Radiated Power / Equivalent Isotropic Radiated Power (Band 71, 12, 13)	< 3 Watts max. ERP			Section 7.6
24.232(c) 27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 2/25, 7, 41)	< 2 Watts max. EIRP			Section 7.6
27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4/66)	< 1 Watts max. EIRP	RADIATED	PASS	Section 7.6
2.1053 22.917(a) 24.238(a) 27.53(c) 27.53(g) 27.53(h)	Undesirable Emissions (Band 12, 13, 26/5, 66/4, 25/2)	> 43 + 10 log ₁₀ (P[Watts]) for all out-of-band emissions			Section 7.7
27.53(f)	Undesirable Emissions (Band 13)	 -70 dBW/MHz (for wideband signals) -80 dBW (for discrete emissions less than 700Hz BW) For all emissions in the band 1559 – 1610 MHz 			Section 7.7
27.53(m)	Undesirable Emissions (Band 7, 41)	Undesirable emissions must meet the limits detailed in 27.53(m)			Section 7.7

Table 7-2. Summary of Radiated 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 (Sections 7.2, 0, 7.4, 7.5) were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables, directional couplers, and attenuators used as part of the system to maintain a link between the call box and the EUT at all frequencies of interest.
- 3) All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables, attenuators, and couplers.
- 4) 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 PCTEST "LTE Automation," Version 4.8.

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7.2 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 Procedure Used

KDB 971168 D01 v03r01 - Section 4.2

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 7-1. Test Instrument & Measurement Setup

Test Notes

None.

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🔤 Keysight Spectrum Analyzer - Occup	pied BW				
ΙΧί R L RF 50 Ω	-+-			37 PM Jul 11, 2019 Std: None	Trace/Detector
	#IFGain:Low	#Atten: 36 dB	Radio	Device: BTS	
10 dB/div Ref 30.00	dBm				
20.0					
10.0					Clear Write
0.00					
-10.0					
-20.0 mm	mm		man Man Marine	10.7760 MAD 00 - m	Average
-30.0					
-40.0					
-50.0					Max Hold
-60.0					
Center 680.5 MHz			Cn	an 12.5 MHz	
Res BW 120 kHz		#VBW 390 kHz		weep 1 ms	Min Hold
Occupied Bandw	vidth	Total Pow	er 32.5 dBm		
Bullar	4.5244 MH	-			Detector
	4.3244 MIN				Detector Peak▶
Transmit Freq Erro	or -2.491 kH	Iz % of OBW	Power 99.00 %		Auto <u>Man</u>
x dB Bandwidth	5.027 MH	z xdB	-26.00 dB		
MSG			STATUS		

Plot 7-1. Occupied Bandwidth Plot (Band 71 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-2. Occupied Bandwidth Plot (Band 71 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BW					
LXIRL RF 50Ω AC		SENSE:INT Freq: 680.500000 MHz	09:25:02 Radio St	PM Jul 17, 2019	Trace/Detector
	Trig: F	ree Run Avg Hold:	>100/100		
	#IFGain:Low #Atten	: 36 dB	Radio De	evice: BTS	
10 dB/div Ref 30.00 dBm					
20.0					
10.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	man man			Clear Write
0.00		l l			
-10.0					
-20.0	~				Average
-30.0				mm mm	
-40.0					
-50.0					Max Hold
-60.0					
Center 680.5 MHz			C row	40 5 MUL-	
Res BW 120 kHz	#\	VBW 390 kHz		n 12.5 MHz /eep 1 ms	
	"	IBW 000 KHZ			Min Hold
Occupied Bandwidt	h	Total Power	26.8 dBm		
	5327 MHz				Detector
					Peak►
Transmit Freq Error	2.617 kHz	% of OBW Powe	er 99.00 %		Auto <u>Man</u>
x dB Bandwidth	5.021 MHz	x dB	-26.00 dB		
MSG			STATUS		

Plot 7-3. Occupied Bandwidth Plot (Band 71 - 5.0MHz 64-QAM - Full RB Configuration)



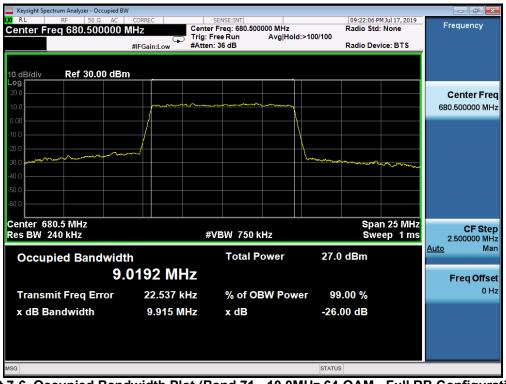
Plot 7-4. Occupied Bandwidth Plot (Band 71 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BW						
X RL RF 50 Ω AC	+++ Trig:	SENSE:INT er Freq: 680.500000 MHz Free Run Avg H n: 36 dB	Radio old: 100/100	7:02 PM Jul 11, 2019 Std: None Device: BTS	Trace/[Detector
10 dB/div Ref 30.00 dBm	an Guin.cow	n. 36 dB	Radio	Device. B13		
20.0	hormon	miliamiliana	1 1		Cl	ear Write
0.00 -10.0 -20.0	~		Jumm honor	Martine Arra Jow		Average
-30.0					,	Max Hold
Center 680.5 MHz Res BW 240 kHz	#	∜BW 750 kHz		Span 25 MHz Sweep 1 ms		Min Hold
Occupied Bandwidt		Total Power	31.0 dBn	n		
8.3 Transmit Freq Error	9837 MHz 2.410 kHz	% of OBW Po	wer 99.00 %	6	Auto	Detector Peak≱ <u>Mar</u>
x dB Bandwidth	9.898 MHz	x dB	-26.00 dl	3		
MSG			STATUS			

Plot 7-5. Occupied Bandwidth Plot (Band 71 - 10.0MHz 16-QAM - Full RB Configuration)



Plot 7-6. Occupied Bandwidth Plot (Band 71 - 10.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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🚾 Keysight Spectrum Analyzer - Occupi				
<mark>Χ/</mark> RL RF 50Ω 4		SENSE:INT r Freg: 680.500000 MHz	03:10:26 PM Jul 11, 2019 Radio Std: None	Trace/Detector
	🛶 Trig: I	Free Run Avg Hold: 100 n: 36 dB	/100 Radio Device: BTS	
	#IFGain:Low #Atter	1: 30 ab	Radio Device: B13	
	ID			
10 dB/div Ref 40.00 c				
30.0				Clear Write
20.0	and a later of the second second	monoration		
10.0				
0.00	/			
-10.0				Average
-20.0 www.marchaneter	and the second s		and and the any work of a second	
-30.0				
-40.0				Max Hold
-50.0				
Center 680.5 MHz			Span 37.5 MHz	
Res BW 360 kHz	#	VBW 1.1 MHz	Sweep 1 ms	Min Hold
	-141-	Total Power	32.3 dBm	
Occupied Bandw		TOTALLEOWEI	52.5 UBIII	
	13.528 MHz			Detector
Transmit Freq Error	7.263 kHz	% of OBW Power	99.00 %	Auto <u>Mar</u>
x dB Bandwidth	14.88 MHz	x dB	-26.00 dB	
	14.00 MI12		-20.00 ub	
MSG			STATUS	

Plot 7-7. Occupied Bandwidth Plot (Band 71 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-8. Occupied Bandwidth Plot (Band 71 - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BW					
XX RL RF 50Ω AC	Center	SENSE:INT Freq: 680.500000 MHz	Radio Std	M Jul 17, 2019 : None	Trace/Detector
		ree Run Avg Hold:> : 36 dB	100/100 Radio Dev	ice: BTS	
10 dB/div Ref 30.00 dBm					
20.0					
10.0		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			Clear Write
0.00					
-10.0					
-20.0					Average
-30.0 malanter Marine marine	~(mennen	the second	
-40.0				· · ·····	
-50.0					Max Hold
-60.0					Max Hold
				07.5.1411	
Center 680.5 MHz Res BW 360 kHz	#1	VBW 1.1 MHz		37.5 MHz ep 1 ms	
	"				Min Hold
Occupied Bandwidth	า	Total Power	26.8 dBm		
13	.534 MHz				Detector
Transmit Freg Error	1.196 kHz	% of OBW Power	99.00 %		Peak▶ Auto Man
x dB Bandwidth	14.81 MHz	x dB	-26.00 dB		
MSG			STATUS		

Plot 7-9. Occupied Bandwidth Plot (Band 71 - 15.0MHz 64-QAM - Full RB Configuration)



Plot 7-10. Occupied Bandwidth Plot (Band 71 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	_G	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BW							d X
LXI RE S0Ω AC	CORREC	SENSE:INT r Freq: 680.500000 MHz		03:13:22 PM Radio Std:	1 Jul 11, 2019 None	Trace/D	etector
		FreeRun Avg Holo n:36 dB	d: 100/100	Radio Devi	ice: BTS		
	#IFGaIN:LOW #Atter	1. 00 UB		Radio Devi	ice. DTS		
10 dB/div Ref 40.00 dBm							
Log							
30.0						Cle	ar Writ
20.0		manworkermontopert				U IC	
10.0			1				
0.00							
-10.0	rhand -					,	Averag
-20.0			\lefor afgeter worked by	door Alemanda	mon		
-30.0							
-40.0 puter						м	ax Hole
-50.0						_	_
Center 680.5 MHz				Spar	n 50 MHz		
Res BW 470 kHz	#	VBW 1.5 MHz		Swe	ep 1 ms	N	lin Hol
Occupied Bandwidth		Total Power	31.5	dBm			
	.998 MHz						Detecto
11	.990 MINZ					L L	Peak
Transmit Freq Error	2.332 kHz	% of OBW Pow	ver 99.	.00 %		Auto	<u>Ma</u>
x dB Bandwidth	19.56 MHz	x dB	-26.0	00 dB			
ISG			STATUS				

Plot 7-11. Occupied Bandwidth Plot (Band 71 - 20.0MHz 16-QAM - Full RB Configuration)



Plot 7-12. Occupied Bandwidth Plot (Band 71 - 20.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager	
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Plot 7-13. Occupied Bandwidth Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-14. Occupied Bandwidth Plot (Band 12 - 1.4MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 04 of 020	
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Plot 7-15. Occupied Bandwidth Plot (Band 12 - 1.4MHz 64-QAM - Full RB Configuration)



Plot 7-16. Occupied Bandwidth Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager	
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Keysight Spectrum Analyzer - Occupied BW					- ē 🛃
XIRL RF 50Ω AC	Center	SENSE:INT r Freq: 707.500000 MHz	Radio Std	M Jul 11, 2019 : None	Trace/Detector
		Free Run Avg Hold: 1:36 dB	100/100 Radio Dev	rice: BTS	
	Wi Gam.Low				
10 dB/div Ref 40.00 dBm					
Log 30.0					
20.0					Clear Writ
10.0	nother manual	man water man the man			
0.00	/	\			
-10.0	/				Averag
-20.0 pytherogen al month month			any test stor down	manner	
-30.0					
-40.0					Max Hol
-50.0					
Center 707.5 MHz			Spar	n 7.5 MHz	
Res BW 68 kHz	#	VBW 220 kHz	Sweep	12.53 ms	Min Hol
Occupied Bandwidt		Total Power	30.9 dBm		
	, 102 MHz				Detecto
Ζ.,					Peak
Transmit Freq Error	-6.411 kHz	% of OBW Powe	r 99.00 %		Auto <u>Ma</u>
x dB Bandwidth	3.033 MHz	x dB	-26.00 dB		
ISG			STATUS		

Plot 7-17. Occupied Bandwidth Plot (Band 12 - 3.0MHz 16-QAM - Full RB Configuration)



Plot 7-18. Occupied Bandwidth Plot (Band 12 - 3.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BV RL RF 50 Ω AC	CORREC	SENSE:INT	02,24,01 0	W1v111 2010	
KL RF 5052 AC	Cente	r Freq: 707.500000 MHz	Radio Std	M Jul 11, 2019 : None	Trace/Detector
		Free Run Avg Hold n: 36 dB	: 100/100 Radio Dev	vice: BTS	
10 dB/div Ref 40.00 dBr	n				
30.0					
20.0		Mundunany margane			Clear Write
10.0					
0.00					.
-10.0	~~~		human	ma wash	Average
-30.0					
-40.0					Max Hold
-50.0					Max Hold
Center 707.5 MHz			Span	12.5 MHz	
Res BW 120 kHz	#	VBW 390 kHz		eep 1 ms	Min Hold
Occupied Bandwidt	h	Total Power	32.6 dBm		
	5571 MHz		02.0 4811		Datasta
4.					Detector Peak▶
Transmit Freq Error	-6.340 kHz	% of OBW Pow	er 99.00 %		Auto <u>Mar</u>
x dB Bandwidth	5.042 MHz	x dB	-26.00 dB		
MSG			STATUS		
100			514105		

Plot 7-19. Occupied Bandwidth Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-20. Occupied Bandwidth Plot (Band 12 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BW							
LXIRL RF 50Ω AC		SENSE:INT r Freq: 707.500000 MHz		09:36:37 P	M Jul 17, 2019	Trace	e/Detector
	Trig: F		ld:>100/100	Radio Dev			
	#IFGain:Low #Atter	1: 36 dB		Radio Dev	ICE: BIS		
10 dB/div Ref 30.00 dBm Log							
20.0							
10.0		man man				C	Clear Write
0.00	<mark>/</mark>		\				
-10.0							
-20.0							Average
-30.0	~		- marine	and the second s	Manality a		
-40.0							
-50.0							Max Hold
-60.0							
				6			
Center 707.5 MHz Res BW 120 kHz	#	VBW 390 kHz			12.5 MHz ep 1 ms		
	"			OIN	op i mo		Min Hold
Occupied Bandwidt	h	Total Power	26.5	dBm			
4	5537 MHz						Detector
							Peak►
Transmit Freq Error	1.601 kHz	% of OBW Pov	ver 99.	.00 %		Auto	Man
x dB Bandwidth	5.038 MHz	x dB	-26.0)0 dB			
MSG			STATUS				

Plot 7-21. Occupied Bandwidth Plot (Band 12 - 5.0MHz 64-QAM - Full RB Configuration)



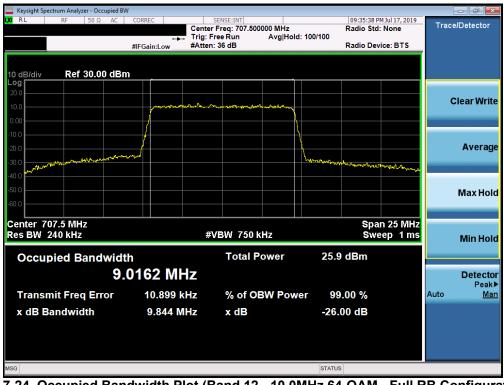
Plot 7-22. Occupied Bandwidth Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager	
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Keysight Spectrum Analyzer - Occupied B					
ΙΧΙ RF 50Ω AC		SENSE:INT r Freq: 707.500000 MHz	Radio Std	M Jul 11, 2019 : None	Trace/Detector
		Free Run Avg Hold: ^ h: 36 dB	100/100 Radio Dev	rice: BTS	
	an ouncon				
10 dB/div Ref 40.00 dB	m				
Log 30.0					
20.0					Clear Write
10.0	patronalite	whom who who who			
0.00	/	\\\\\\\			
-10.0					Averag
-20.0 Molow Malus Man Mar Mar	n n n n n n n n n n n n n n n n n n n		an marken and the second and the sec	and the grade the	
-30.0					
-40.0					Max Hole
-50.0					
Center 707.5 MHz			Spa	n 25 MHz	
Res BW 240 kHz	#	VBW 750 kHz	Swe	eep 1 ms	Min Hol
Occupied Bandwid	th	Total Power	30.8 dBm		
	.0244 MHz				Detecto
					Peak
Transmit Freq Error	-1.231 kHz	% of OBW Power	r 99.00 %		Auto <u>Ma</u>
x dB Bandwidth	9.885 MHz	x dB	-26.00 dB		
			074740		
MSG			STATUS		

Plot 7-23. Occupied Bandwidth Plot (Band 12 - 10.0MHz 16-QAM - Full RB Configuration)



Plot 7-24. Occupied Bandwidth Plot (Band 12 - 10.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BW						
RL RF 50Ω AC	🛶 Trig:	SENSE:INT er Freq: 782.000000 MHz Free Run Avg Hold n: 36 dB	Radio St 1: 100/100	PMJul 11, 2019 d: None evice: BTS	Trace/De	tector
	#IFGain:Low #Atte	n: 36 dB	Radio De	VICE: DIS		
IO dB/div Ref 30.00 dBm						
- °g 20.0						
10.0		- South Street - Stre			Clea	ar Writ
	_/					
0.0					_	
20.0 30.0	~		monormon	mon	4	verag
0.0 mmm						
0.0					м	ax Hol
60.0						
enter 782 MHz			Span	12.5 MHz		
les BW 120 kHz	#	¢VBW 390 kHz		eep 1ms	м	in Hol
Occupied Bandwidth	ı	Total Power	32.4 dBm			
	5503 MHz				D	etecto
	-1.393 kHz	% of OBW Pow	er 99.00 %		Auto	Peak Ma
Transmit Freq Error					Auto	IVIA
x dB Bandwidth	5.018 MHz	x dB	-26.00 dB			
G			STATUS			

Plot 7-25. Occupied Bandwidth Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-26. Occupied Bandwidth Plot (Band 13 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-27. Occupied Bandwidth Plot (Band 13 - 5.0MHz 64-QAM - Full RB Configuration)



Plot 7-28. Occupied Bandwidth Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-29. Occupied Bandwidth Plot (Band 13 - 10.0MHz 16-QAM - Full RB Configuration)



Plot 7-30. Occupied Bandwidth Plot (Band 13 - 10.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-31. Occupied Bandwidth Plot (Band 26/5 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-32. Occupied Bandwidth Plot (Band 26/5 - 1.4MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-33. Occupied Bandwidth Plot (Band 26/5 - 1.4MHz 64-QAM - Full RB Configuration)



Plot 7-34. Occupied Bandwidth Plot (Band 26/5 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BW	CORREC	SENSE:INT		06,17,21.0	M3-411 2010	-	
RE RE SUSZ AC		Center Freq: 836.500		Radio Std	M Jul 11, 2019 : None	Trace/	Detector
	#IFGain:Low	Trig: Free Run #Atten: 36 dB	Avg Hold: 1	Radio Dev	ice: BTS		
10 dB/div Ref 40.00 dBm	•						
30.0							
20.0	and the mant	Longbourgerade/volkers/	a Hiranah			CI	ear Write
10.0							
0.00			\sim				Average
-10.0							Average
-20.0				www.www.www.www.www.www.www.www.www.ww	- Carlon Martin		
-40.0							Max Hold
-50.0							
Center 836.5 MHz				Snar	1 7.5 MHz		
Res BW 68 kHz		#VBW 220 k	Hz		12.53 ms		Min Hold
Occupied Bandwidt	h	Total P	ower	30.8 dBm			
	,, 7084 MH			oolo abiii			D. t. t.
Ζ.,		Z					Detector Peak▶
Transmit Freq Error	-4.089 kH	Iz % of OE	BW Power	99.00 %		Auto	<u>Man</u>
x dB Bandwidth	3.027 MH	lz xdB		-26.00 dB			
MSG				STATUS			
154				JIATOJ			

Plot 7-35. Occupied Bandwidth Plot (Band 26/5 - 3.0MHz 16-QAM - Full RB Configuration)



Plot 7-36. Occupied Bandwidth Plot (Band 26/5 - 3.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BV			1		
🗶 RL RF 50Ω AC		SENSE:INT r Freq: 836.500000 MHz	Radio	23 PM Jul 11, 2019 Std: None	Trace/Detector
		Free Run Avg Hol n: 36 dB	d: 100/100 Radio	Device: BTS	
10 dB/div Ref 30.00 dBr	n				
20.0					
10.0	Jumm	man han har			Clear Writ
0.00	/				
-10.0	/				
-20.0	~~~·		hanne		Averaç
-30.0				and a second and a second a se	
-40.0					
-50.0					Max Ho
-60.0					
Center 836.5 MHz				an 12.5 MHz	
Res BW 120 kHz	#	VBW 390 kHz		Sweep 1ms	Min Ho
Occupied Bandwidt	h	Total Power	32.4 dBm		
	5605 MHz				Detect
					Peak
Transmit Freq Error	104.74 kHz	% of OBW Pow	ver 99.00 %		Auto <u>Ma</u>
x dB Bandwidth	5.026 MHz	x dB	-26.00 dB	}	
			1		
ISG			STATUS		

Plot 7-37. Occupied Bandwidth Plot (Band 26/5 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-38. Occupied Bandwidth Plot (Band 26/5 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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www.www.www.www.www.www.www.www.www.ww						
LX/RL RF 50Ω AC	CORREC Center	SENSE:INT r Freg: 836.500000 MHz	04:27:23 P Radio Std	M Jul 30, 2019 : None	Trace/I	Detector
NFE		Free Run Avg Hold: 1:36 dB	100/100 Radio Dev	vice: BTS		
	#IFGain:Low #Atter	1. 30 dB	Radio Dev	Ace. DT3		
10 dB/div Ref 30.00 dBm						
Log						
20.0	mann	where have a start where			Cle	ear Write
10.0					0.	
0.00						
-10.0						
-20.0			Lowman			Average
			V	M. Mr. S. Sharen and		
-40.0						
-60.0					n I	lax Hold
-60.0						
Center 836.5 MHz				12.5 MHz		
Res BW 120 kHz	#	VBW 390 kHz	Swe	eep 1 ms	I	Min Hold
Occupied Bandwidt	h	Total Power	30.5 dBm			
	5216 MHz					Detector
						Peak
Transmit Freq Error	3.073 kHz	% of OBW Powe	r 99.00 %		Auto	Man
x dB Bandwidth	4.973 MHz	x dB	-26.00 dB			
MSG			STATUS			

Plot 7-39. Occupied Bandwidth Plot (Band 26/5 - 5.0MHz 64-QAM - Full RB Configuration)



Plot 7-40. Occupied Bandwidth Plot (Band 26/5 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied B ¹	W					- 6 💌
LXU RL RF 50Ω AC	CORREC	SENSE:INT		M Jul 11, 2019	Trace	/Detector
		er Freq: 836.500000 MHz Free Run Avg Hold	Radio Std d:>100/100	: None	maco	Detector
		n: 36 dB	Radio De	vice: BTS		
10 dB/div Ref 40.00 dBr Log	m					
30.0						
					с	lear Write
20.0	Antonon	manner				
10.0						
0.00						
-10.0	/					Average
20.0	mon					Ŭ
ally and a second and a second			mannan wernen de	manno		
-30.0			Ť.	and the state of the		
-40.0						Max Hold
-50.0						
Center 836.5 MHz				ın 25 MHz		
Res BW 240 kHz	#	≇VBW 750 kHz	Sw	eep 1 ms		Min Hold
Occupied Bandwid	th	Total Power	31.6 dBm			
9	.0386 MHz					Detector
						Peak▶
Transmit Freq Error	129.07 kHz	% of OBW Pow	er 99.00 %		Auto	Man
x dB Bandwidth	9.905 MHz	x dB	-26.00 dB			
MSG			STATUS			

Plot 7-41. Occupied Bandwidth Plot (Band 26/5 - 10.0MHz 16-QAM - Full RB Configuration)



Plot 7-42. Occupied Bandwidth Plot (Band 26/5 - 10.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Interpretation of the second s
Macon Contraction Contraction
Clear Write
Average
Max Hold
Span 37.5 MHz
Sweep 1 ms Min Hold
r 32.6 dBm
Detector
Peak) Power 99.00 % Auto Mar
-26.00 dB
STATUS
e

Plot 7-43. Occupied Bandwidth Plot (Band 26 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-44. Occupied Bandwidth Plot (Band 26 - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied Β\ RL RF 50.Ω AC		orange tart			
RL RF 50Ω AC	CORREC	SENSE:INT Freq: 836.500000 MHz	F	04:25:12 PM Jul 30, 2019 Radio Std: None	Trace/Detector
NFE		Free Run Avg Hol n: 36 dB	d: 100/100	Radio Device: BTS	
	#IFGain:Low #Atte	n: 36 dB		Radio Device: B13	T
0 dB/div Ref 30.00 dBr	n				
20.0					
10.0	portunation	marker and the second and the second			Clear Wri
).00					
0.0			1		
	mad				Avera
0.0 MUWHU Wwwww.			lementer	mar when the second and the second se	
0.0				and here	
0.0				×	
0.0					Max Ho
0.0					
enter 836.5 MHz				Span 37.5 MHz	
es BW 360 kHz	#	¢VBW 1.1 MHz		Sweep 1 ms	Min Ho
Occupied Bandwidt	h	Total Power	30.3 c	IBm	
			00.00		
1	3.516 MHz				Detect Pea
Transmit Freq Error	26.406 kHz	% of OBW Pow	ver 99.0	00 %	Auto M
x dB Bandwidth	14.77 MHz	x dB	-26.00) dB	
	14.77 WITZ	X UD	-20.00		
G			STATUS		

Plot 7-45. Occupied Bandwidth Plot (Band 26 - 15.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Plot 7-46. Occupied Bandwidth Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-47. Occupied Bandwidth Plot (Band 66/4 - 1.4MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Plot 7-48. Occupied Bandwidth Plot (Band 66/4 - 1.4MHz 64-QAM - Full RB Configuration)



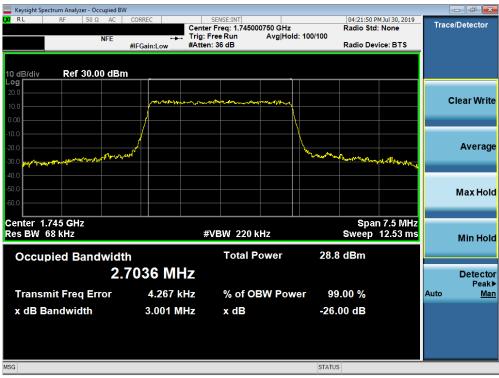
Plot 7-49. Occupied Bandwidth Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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SENSE:INT Center Freg: 1.745000000 GHz	05:04:09 PM Jul 11, 2019 Radio Std: None	Trace/Detector
bw #Atten: 36 dB	Radio Device. B13	
Delbalor of the second se		Clear Write
		Clear Write
	Mary Wather and the for the for the second	Average
		Max Hold
	Span 7.5 MHz	
#VBW 220 kHz	Sweep 12.53 ms	Min Hold
Total Power	29.9 dBm	
MHZ		Detector Peak▶
940 kHz % of OBW Power	99.00 %	Auto <u>Man</u>
29 MHz x dB	-26.00 dB	
	STATUS	
	Center Freq: 1.745000000 GHz Trig: Free Run Avg Hold: 10 #Atten: 36 dB #Atten: 36 dB #WW 220 kHz Total Power MHz 940 kHz % of OBW Power	Center Freq: 1.74500000 GHz Trig: Free Run Avg Hold: 100/100 #Atten: 36 dB Radio Device: BTS Radio Device: BTS Radio Device: BTS Radio Device: BTS Span 7.5 MHz Span 7.5 MHz Sweep 12.53 ms Total Power 29.9 dBm MHz P40 kHz % of OBW Power 99.00 % 29 MHz x dB -26.00 dB

Plot 7-50. Occupied Bandwidth Plot (Band 66/4 - 3.0MHz 16-QAM - Full RB Configuration)



Plot 7-51. Occupied Bandwidth Plot (Band 66/4 - 3.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	à	Approved by: Quality Manager
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www.www.www.analyzer - Occupied BW				
LXI RL RF 50Ω AC	CORREC	SENSE:INT r Freq: 1.745000000 GHz	05:00:53 PM Jul 11, 2019 Radio Std: None	Trace/Detector
		Free Run Avg Hold: 10 1: 36 dB	00/100 Radio Device: BTS	
	#il Gam.Low tabl			ī
10 dB/div Ref 30.00 dBm	1			
Log				
10.0	mann	monton		Clear Write
0.00	/			
-10.0				
	m	\	man	Average
-20.0			- me manufally and	·····g-
-40.0				
-50.0				Max Hold
-60.0				
			Out and 40 C Mills	
Center 1.745 GHz Res BW 120 kHz	#	VBW 390 kHz	Span 12.5 MHz Sweep 1 ms	
				Min Hold
Occupied Bandwidt		Total Power	31.4 dBm	
4.	5592 MHz			Detector
Transmit Freq Error	-4.771 kHz	% of OBW Power	99.00 %	Peak≯ Auto Man
				nuto <u>mun</u>
x dB Bandwidth	5.056 MHz	x dB	-26.00 dB	
MSG			STATUS	
mod			514105	

Plot 7-52. Occupied Bandwidth Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-53. Occupied Bandwidth Plot (Band 66/4 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BW						
IX RL RF 50Ω AC		SENSE:INT r Freq: 1.745000000 GHz	Radio Sto	M Jul 30, 2019 I: None	Trace/	Detector
NFE		Free Run Avg Hold: h: 36 dB	100/100 Radio De	vice: BTS		
10 dB/div Ref 30.00 dBm						
20.0						
10.0		monorman			CI	ear Write
0.00						
-10.0						
-20.0			Margh ar all and and			Average
-30.0 more and how how				Ben pro and and		
-40.0						
-50.0					1	Max Hold
-60.0						
Center 1.745 GHz		VBW 390 kHz		12.5 MHz		
Res BW 120 kHz	#	VBW 390 KHZ	SW	eep 1 ms		Min Hold
Occupied Bandwidth	h	Total Power	29.2 dBm			
4.5	5258 MHz					Detector
Transmit Freg Error	-7.022 kHz	% of OBW Powe	r 99.00 %		Auto	Peak▶ Man
· · · · ·					Auto	man
x dB Bandwidth	5.002 MHz	x dB	-26.00 dB			
MSG			STATUS			

Plot 7-54. Occupied Bandwidth Plot (Band 66/4 - 5.0MHz 64-QAM - Full RB Configuration)



Plot 7-55. Occupied Bandwidth Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BW				
LXIRL RF 50ΩAC		SENSE:INT ter Freq: 1.745000000 GHz : Free Run Avg Hold:>1	04:57:53 PM Jul 11, 2019 Radio Std: None 00/100	Trace/Detector
		en: 36 dB	Radio Device: BTS	_
10 dB/div Ref 40.00 dBm Log	<u>ا</u>			
30.0				
20.0		-		Clear Write
10.0				
0.00		\ \		
-10.0				Average
-20.0	N_N.		whether the way have a fairly the share and the	
-40.0				
-50.0				Max Hold
Center 1.745 GHz Res BW 240 kHz		#VBW 750 kHz	Span 25 MHz Sweep 1 ms	Min Hold
Occupied Bandwidt	h	Total Power	30.4 dBm	
				Detector
5.				Detector Peak►
Transmit Freq Error	-7.024 kHz	% of OBW Power	99.00 %	Auto <u>Man</u>
x dB Bandwidth	9.947 MHz	x dB	-26.00 dB	
MSG			STATUS	

Plot 7-56. Occupied Bandwidth Plot (Band 66/4 - 10.0MHz 16-QAM - Full RB Configuration)



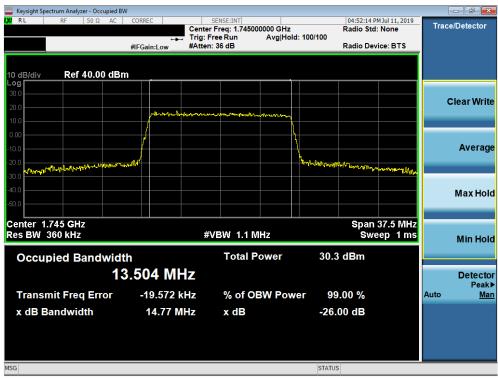
Plot 7-57. Occupied Bandwidth Plot (Band 66/4 - 10.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BV RL RF 50 Ω AC	CORREC	SENSE:INT	04-53-02.0	M Jul 11, 2019	
RF 50.52 AC		r Freq: 1.745000000 GHz	Radio Std		Trace/Detector
		Free Run Avg Hold: 1			
	#IFGain:Low #Atter	n: 36 dB	Radio Dev	lice: BTS	
I0 dB/div Ref 40.00 dBn	n				
- og 30.0					
					Clear Writ
20.0	manuna	manabonnon			
10.0					
0.00					
10.0					Averag
20.0 20.0 10 mark and a molecular	~~~~		where the second and the second	Margar Margar Margar	
30.0					
40.0					Max Ho
50.0					
Center 1.745 GHz				37.5 MHz	
Res BW 360 kHz	#	VBW 1.1 MHz	Swe	eep 1 ms	Min Ho
		Total Power	31.8 dBm		
Occupied Bandwidt		I Otal FOwer	51.0 UBIII		
13	3.545 MHz				Detecto
Transmit From Freeze	22.206 611-		00 00 %	Aut	Peak
Transmit Freq Error	-22.206 kHz	% of OBW Power	99.00 %	Au	to <u>Ma</u>
x dB Bandwidth	14.84 MHz	x dB	-26.00 dB		

Plot 7-58. Occupied Bandwidth Plot (Band 66/4 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-59. Occupied Bandwidth Plot (Band 66/4 - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BW					- á ×
X RL RF 50Ω AC	CORREC Center	SENSE:INT Freg: 1.745000000 GHz	04:18:57 P Radio Std	M Jul 30, 2019 None	Frequency
NFE	Trig: F	ree Run Avg Hold: : 36 dB	: 100/100 Radio Dev	ice: BTS	
	#IFGain:Low #Atten	. 30 00	Radio Dev	ICE. DT3	
10 dB/div Ref 30.00 dBm					
Log					
20.0		way wall and marked and			Center Fred
10.0					1.745000000 GH
0.00					
-10.0					
-20.0	^		man manungan	Malaman Be	
-30.0				and another	
-50.0					
-60.0					
Center 1.745 GHz Res BW 360 kHz	-44	VBW 1.1 MHz		37.5 MHz ep 1 ms	CF Step
Kes DW JOUKHZ	#		Swe	ep mis	3.750000 MHz Auto Man
Occupied Bandwidt	h	Total Power	28.8 dBm		
13	.500 MHz				Freq Offset
		0/ - f ODW/ D	- 00.00.0/		0 Hz
Transmit Freq Error	2.359 kHz	% of OBW Powe			
x dB Bandwidth	14.80 MHz	x dB	-26.00 dB		
			071710		
ISG			STATUS		

Plot 7-60. Occupied Bandwidth Plot (Band 66/4 - 15.0MHz 64-QAM - Full RB Configuration)



Plot 7-61. Occupied Bandwidth Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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00 RL RF 50 D AC CORREC SENSE:INT [04:34:32 PM:M11,2019] Radio Std: None Radio Std	Keysight Spectrum Analyzer - Occupied BW							- • •
Image: Contract right r	LX RL RF 50 Ω AC CORRE						Trac	e/Detector
#IFGain:Low #Atten: 36 dB Radio Device: BTS 10 dB/div Ref 40.00 dBm Image: Clear Write 200 Image: Clear Write Image: Clear Write 200 Image: Clear Write Image: Clear Write 100 Image: Clear Write Image: Clear Write <t< td=""><td></td><td></td><td></td><td></td><td>Radio Std:</td><td>None</td><td>ITac</td><td>erDetector</td></t<>					Radio Std:	None	ITac	erDetector
10 dB/div Ref 40.00 dBm 200 200 200<	#150				Radio Devi	ce BTS		
Log 300 300 300 300 300 300 300 30	#IFGa	In:Low #Atten: 00			tadio Devi	ce. DTS		
Log 300 300 300 300 300 300 300 30								
300 1	10 dB/div Ref 40.00 dBm							
20.0 Clear Write 20.1 Max Hold 20.1 Max Hold 20.1 Min Hold 20.1 Clear Write 20.1 Max Hold 20.1 Min Hold 20.1 Clear Write 20.1 Min Hold 20.1 Clear Write 20.1 Min Hold 20.1 Clear Write								
200 100	30.0							
100 100	20.0							Clear write
0.00 0.00	10.0	an an a second a second	have been all and a second				_	
100 Average 200 Average 201 Average 202 Average 203 Average 204 Average 205 Average 206 Average 207 Average 208 Average 209 Average 200 Average 201 Average 202 Average 203 Average 204 Average 205 Average 206 Average 207 Average 208 Average 209 Average 200 Average 201 Average 202 Average 203 Average 204 Average 205 Average 206 Average 207 Max Hold 208 Average 209 Average 200 Average 201 Average								
20.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.00							
40.0 1 <td>-10.0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Average</td>	-10.0							Average
40.0 1 <td>-20.0</td> <td></td> <td></td> <td>Whentower</td> <td></td> <td></td> <td></td> <td></td>	-20.0			Whentower				
40.0 1 <td>Marthan Mitter Ver drafty and shi war into</td> <td></td> <td></td> <td>a latte advoktadore</td> <td>www.www.www.</td> <td>W-hl Www.</td> <td></td> <td></td>	Marthan Mitter Ver drafty and shi war into			a latte advoktadore	www.www.www.	W-hl Www.		
20.0	-30.0							
Center 1.745 GHz Res BW 470 kHz Span 50 MHz Sweep 1 ms Min Hold Occupied Bandwidth 17.977 MHz Total Power 30.1 dBm Detector Peak≻ Auto Detector Peak≻ Man	-40.0							Max Hold
Res BW 470 kHz #VBW 1.5 MHz Sweep 1 ms Occupied Bandwidth Total Power 30.1 dBm 17.977 MHz Detector Transmit Freq Error -28.326 kHz % of OBW Power 99.00 %	-50.0							
Res BW 470 kHz #VBW 1.5 MHz Sweep 1 ms Occupied Bandwidth Total Power 30.1 dBm 17.977 MHz Detector Transmit Freq Error -28.326 kHz % of OBW Power 99.00 %								
Res BW 470 kHz #VBW 1.5 MHz Sweep 1 ms Occupied Bandwidth Total Power 30.1 dBm 17.977 MHz Detector Transmit Freq Error -28.326 kHz % of OBW Power 99.00 %	Center 1.745 GHz				Spar	ז 50 MHz		
Occupied Bandwidth Total Power 30.1 dBm 17.977 MHz Detector Transmit Freq Error -28.326 kHz % of OBW Power 99.00 %	Res BW 470 kHz	#VB	W 1.5 MHz					Min Hold
17.977 MHz Detector Transmit Freq Error -28.326 kHz % of OBW Power 99.00 %								Minitiona
17.977 MHz Detector Transmit Freq Error -28.326 kHz % of OBW Power 99.00 %	Occupied Bandwidth		Total Power	30.1 0	lBm			
Transmit Freq Error -28.326 kHz % of OBW Power 99.00 %		7 8411-						
Transmit Freq Error -28.326 kHz % of OBW Power 99.00 %	17.97	/ WHZ						
	T	0.000	/ - f ODW D	00 0	0.0/		A 4 -	
x dB Bandwidth 19.69 MHz x dB -26.00 dB	Transmit Freq Error -2	8.320 KHZ	% of OBW Pow	er 99.0	JU %		Auto	ivian
	x dB Bandwidth	19.69 MHz	x dB	-26.00) dB			
MSG STATUS	MSG			STATUS			-	

Plot 7-62. Occupied Bandwidth Plot (Band 66/4 - 20.0MHz 16-QAM - Full RB Configuration)



Plot 7-63. Occupied Bandwidth Plot (Band 66/4 - 20.0MHz 64-QAM - Full RB Configuration)

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Plot 7-64. Occupied Bandwidth Plot (Band 25/2 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-65. Occupied Bandwidth Plot (Band 25/2 - 1.4MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
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Plot 7-66. Occupied Bandwidth Plot (Band 25/2 - 1.4MHz 64-QAM - Full RB Configuration)



Plot 7-67. Occupied Bandwidth Plot (Band 25/2 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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🚾 Keysight Spectrum Analyzer - Occupied BW				
LX RL RF 50Ω AC		SENSE:INT Freq: 1.882500000 GHz	04:20:33 PM Jul 1 Radio Std: Nor	
		ree Run Avg Hold:> : 36 dB	100/100 Radio Device: I	ats.
	#PGall.Low #/tech		Rudio Bernoe. I	
10 dB/div Ref 30.00 dBm				
Log				
20.0	multiturenande	way mark the share of the state		Clear Write
10.0				
-10.0		× 1		
-20.0				Average
-30.0 - January lung mon well and well	w th		have a representation of the second of the	Average
-40.0				
-50.0				Max Hold
-60.0				Max Hold
Center 1.883 GHz Res BW 68 kHz	#	VBW 220 kHz	Span 7.5 Sweep 12.5	52 mo
	"		0 weep 12.	55 Min Hold
Occupied Bandwidt	n	Total Power	28.9 dBm	
2.	7081 MHz			Detector
	-4.974 kHz	% of OBW Power	99.00 %	Peak▶ Auto Man
Transmit Freq Error				Auto <u>Man</u>
x dB Bandwidth	3.001 MHz	x dB	-26.00 dB	
MSG			STATUS	
mod			514105	

Plot 7-68. Occupied Bandwidth Plot (Band 25/2 - 3.0MHz 16-QAM - Full RB Configuration)



Plot 7-69. Occupied Bandwidth Plot (Band 25/2 - 3.0MHz 64-QAM - Full RB Configuration)

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Keysight Spectrum Analyzer - Occupied BW					
LX/RL RF 50Ω AC	CORREC	SENSE:INT Freg: 1.882500000 GHz	04:15:30 P Radio Std	M Jul 11, 2019 : None	Trace/Detector
	🛶 Trig: F	ree Run Avg Hold: : 36 dB	100/100 Radio Dev	iaa, BTS	
	#IFGain:Low #Atten	: 36 dB	Radio Dev	ICE: DIS	
10 dB/div Ref 30.00 dBm Log					
20.0					
10.0	man	mannon			Clear Write
0.00					
-10.0					
-20.0			\		Average
-30.0 monthe month and	~		mannon	www.www	
-40.0					
-50.0					Max Hole
-60.0					muxmon
Center 1.883 GHz Res BW 120 kHz	#	VBW 390 kHz		12.5 MHz ep 1 ms	
	"				Min Hole
Occupied Bandwidth	1	Total Power	30.7 dBm		
4 !	5576 MHz				Detecto
					Peak
Transmit Freq Error	279 Hz	% of OBW Powe	r 99.00 %		Auto <u>Mar</u>
x dB Bandwidth	5.041 MHz	x dB	-26.00 dB		
MSG			STATUS		

Plot 7-70. Occupied Bandwidth Plot (Band 25/2 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-71. Occupied Bandwidth Plot (Band 25/2 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dama 52 -f 020
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Keysight Spectrum Analyzer - Occupied BW					- P	x
KL RF 50Ω AC	Center	SENSE:INT r Freq: 1.882500000 GHz	Radio Std:	Jul 30, 2019 None	Trace/Detect	tor
NFE		Free Run Avg Hold: ^ h: 36 dB	100/100 Radio Devi	ce: BTS		
	an ounce of					
10 dB/div Ref 30.00 dBm						
Log						
20.0	man	Mary Mary			Clear W	Vrite
0.00						
-10.0		N N				
-20.0					Aver	rage
-30.0	~J	\	mannon			age
-40.0						
-50.0					MaxH	
-60.0					Waxr	1010
Center 1.883 GHz Res BW 120 kHz	#	VBW 390 kHz		12.5 MHz ep 1 ms		
					Min H	loid
Occupied Bandwidt		Total Power	28.6 dBm			
4.	5243 MHz				Dete	
Transmit Freq Error	-6.748 kHz	% of OBW Powe	r 99.00 %			eak▶ Man
					Auto	man
x dB Bandwidth	5.030 MHz	x dB	-26.00 dB			
ISG			STATUS			
154			514105			

Plot 7-72. Occupied Bandwidth Plot (Band 25/2 - 5.0MHz 64-QAM - Full RB Configuration)



Plot 7-73. Occupied Bandwidth Plot (Band 25/2 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dege E4 of 222
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Keysight Spectrum Analyzer - Occupied						a X
X RL RF 50Ω AC	CORREC	SENSE:INT r Freg: 1.882500000 GHz	04:12:12 P Radio Std	M Jul 11, 2019 : None	Trace/De	etector
		Free Run Avg Hold: 1 n: 36 dB	100/100 Radio Dev	vice: BTS		
	#IFGain:Low #Atter	1. 30 0.0	Radio Dev	ice. DT3		
10 dB/div Ref 30.00 dB	n 2					
20.0	APRA Providente	will and a stand with the stand of the stand			Cle	ar Writ
10.0					Cici	
0.00						
-10.0						
-20.0	mary		-	halfmann -	4	verag
-30.0 Manager Standard Manager Manager						
-40.0						
-50.0					М	ax Holo
-80.0						_
Center 1.883 GHz				n 25 MHz		
Res BW 240 kHz	#	VBW 750 kHz	SWe	eep 1 ms	N	lin Hol
Occupied Bandwid	lth	Total Power	29.3 dBm			
	.0042 MHz				F	etecto
					-	Peak
Transmit Freq Error	-10.451 kHz	% of OBW Power	r 99.00 %		Auto	<u>Ma</u>
x dB Bandwidth	9.964 MHz	x dB	-26.00 dB			
ISG			STATUS			

Plot 7-74. Occupied Bandwidth Plot (Band 25/2 - 10.0MHz 16-QAM - Full RB Configuration)



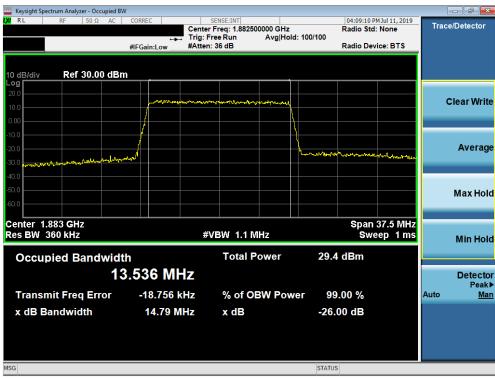
Plot 7-75. Occupied Bandwidth Plot (Band 25/2 - 10.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied E				
XV RL RF 50Ω AC	CORREC	SENSE:INT r Freg: 1.882500000 GHz	04:08:59 PM Jul 11, 2019 Radio Std: None	Trace/Detector
	Trig: F	Free Run Avg Hold:>1 n: 36 dB	00/100 Radio Device: BTS	
	#IFGain:Low #Atter	1. 36 UB	Radio Device. B 13	-
10 dB/div Ref 30.00 dB				
20.0	and a market of the second	hur hur war war for fly me		Clear Write
10.0				
0.00				
-10.0				
-20.0			with woman and and the	Average
-30.0 Barthater Barthater and a start and a start				
-40.0				
-50.0				Max Hold
-60.0				
Center 1.883 GHz		· · · ·	Span 37.5 MH	
Res BW 360 kHz	#	VBW 1.1 MHz	Sweep 1 m	s Min Hold
Occupied Bandwid	th	Total Power	30.6 dBm	
	3.514 MHz			Detector
	3.314 MITZ			Detector Peak
Transmit Freq Error	-7.458 kHz	% of OBW Power	99.00 %	Auto <u>Mar</u>
x dB Bandwidth	14.73 MHz	x dB	-26.00 dB	
MSG			STATUS	

Plot 7-76. Occupied Bandwidth Plot (Band 25/2 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-77. Occupied Bandwidth Plot (Band 25/2 - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage FC of 222	
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Keysight Spectrum Analyzer - Occupied BW					-	a x
XIRL RF 50Ω AC	CORREC	SENSE:INT r Freg: 1.882500000 GHz	03:57:59 P Radio Std	M Jul 30, 2019 : None	Trace/D	etector
NFE	Trig: F	Free Run Avg Hold:> 1:36 dB	100/100 Radio Dev	ioo: BTS		
	#IFGain:Low #Atten	i. 36 dB	Radio Del	Ace. BT3		
10 dB/div Ref 30.00 dBm						
20.0					Cle	ar Write
10.0					Cic	
0.00						
-10.0						
-20.0	hand		un han he have	montoman	'	Average
-30.0 months manufactures and the second sec						
-40.0						
-60.0					M	ax Hold
						_
Center 1.883 GHz				37.5 MHz		
Res BW 360 kHz	#	VBW 1.1 MHz	SWO	eep 1 ms	N	lin Hold
Occupied Bandwidt	h	Total Power	28.6 dBm			
	.514 MHz					Detector
						Peak▶
Transmit Freq Error	-8.663 kHz	% of OBW Power	99.00 %		Auto	Man
x dB Bandwidth	14.88 MHz	x dB	-26.00 dB			
ISG			STATUS			

Plot 7-78. Occupied Bandwidth Plot (Band 25/2 - 15.0MHz 64-QAM - Full RB Configuration)



Plot 7-79. Occupied Bandwidth Plot (Band 25/2 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BV						ð X
X/RL RF 50Ω AC	CORREC Center	SENSE:INT Freg: 1.882500000 GHz	04:03:38 F Radio Std	MJul 11, 2019 : None	Trace/Det	ector
		Free Run Avg Hold: :: 36 dB	100/100 Radio Dev	vice: BTS		
	#IFGain:Low #Atten		Radio De	ice. DTS		
10 dB/div Ref 30.00 dBn	n					
Log						
20.0	monterportendance	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			Clear	Write
10.0						
0.00						
-10.0					Δ.	erage
-20.0	www.		mon manufacture of the second	wellman	~	erage
-30.0 Age-gog-al-brown-absorbergergergergergergergergergergergergerge						
-60.0					Ма	x Hold
						_
Center 1.883 GHz Res BW 470 kHz	#	VBW 1.5 MHz	Spa	n 50 MHz eep 1 ms		
	π		300	eep mis	Mi	n Hold
Occupied Bandwidt	h	Total Power	29.5 dBm			_
18	3.050 MHz				De	tector
		0/ -f 00W 0	- 00.00.0/		A	Peak▶
Transmit Freq Error	-4.312 kHz	% of OBW Powe			Auto	Man
x dB Bandwidth	19.51 MHz	x dB	-26.00 dB			
ISG			STATUS			

Plot 7-80. Occupied Bandwidth Plot (Band 25/2 - 20.0MHz 16-QAM - Full RB Configuration)



Plot 7-81. Occupied Bandwidth Plot (Band 25/2 - 20.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Band 7

Keysight Spectrum Analyzer - Occu	pied BW				
	AC CORREC	SENSE:INT Center Freq: 2.53500 Trig: Free Run #Atten: 36 dB	0000 GHz Avg Hold:>100/100	04:46:52 PMJul 19, 2019 Radio Std: None Radio Device: BTS	Trace/Detector
	#IFGaIN:LOW	#Atten: 00 dB		Radio Device. D13	Ĩ
10 dB/div Ref 30.00	dBm				
20.0		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			Clear Write
0.00	/				
-10.0 -20.0	~~~~		how	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Average
-30.0					
-50.0					Max Hold
-60.0					
Center 2.535 GHz Res BW 120 kHz		#VBW 390 k	Hz	Span 12.5 MHz Sweep 1 ms	
Occupied Bandy	vidth	Total P	ower 30.4	l dBm	
	4.5227 M	lz			Detector Peak▶
Transmit Freq Erro	or -2.408 k	Hz % of OE	BW Power 99	0.00 %	Auto <u>Man</u>
x dB Bandwidth	5.046 M	lHz x dB	-26.	00 dB	
				-	
MSG			STATUS	5	

Plot 7-82. Occupied Bandwidth Plot (Band 7 – 5.0MHz QPSK - Full RB Configuration)



Plot 7-83. Occupied Bandwidth Plot (Band 7 – 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied	BW				
LX RL RF 50 Ω AC	CORREC	SENSE:INT	04:47:16 P Radio Std	MJul 19, 2019	Trace/Detector
NFE		r Freq: 2.535000000 GHz Free Run Avg Hold		: None	
NFE		n: 36 dB	Radio Dev	vice: BTS	
10 dB/div Ref 30.00 dB	m				
Log					
20.0					
10.0	monorm	manna			Clear Write
0.00					
-10.0					
20.0					Average
and marker and an and	www.		how	- March march	Average
-30.0					
-40.0					
-50.0					Max Hold
-60.0					
Center 2.535 GHz				12.5 MHz	
Res BW 120 kHz	#	VBW 390 kHz	SW	eep 1 ms	Min Hold
Occupied Rendwid	ith	Total Power	28.3 dBm		
Occupied Bandwid			20.5 0.5		
4	.5285 MHz				Detector
T	7 0 4 4 1-11-	0/ - f ODW/ D	00 00 %		Peak►
Transmit Freq Error	-7.844 kHz	% of OBW Powe	er 99.00 %		Auto <u>Man</u>
x dB Bandwidth	4.995 MHz	x dB	-26.00 dB		
			0.0.1.0.10		
MSG			STATUS		

Plot 7-84. Occupied Bandwidth Plot (Band 7 – 5.0MHz 64-QAM - Full RB Configuration)



Plot 7-85. Occupied Bandwidth Plot (Band 7 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BW					
X RL RF 50Ω AC	CORREC	SENSE:INT r Freg: 2.535000000 GHz		:18 PM Jul 19, 2019 Std: None	Trace/Detector
NFE	· · · · ·	Free Run Avg Hold n: 36 dB		Device: BTS	
	#IFGain:Low #Atter	1: 30 db	Radio	Device: B13	
10 dB/div Ref 30.00 dBm Log					
20.0					
10.0	hor and a second	mary manager washing			Clear Write
0.00					
-10.0					
-20.0	~~		Journanter	my allen allen	Average
-30.0					
-40.0					
-50.0					Max Hold
-60.0					
Center 2.535 GHz				Span 25 MHz	
Res BW 240 kHz	#	VBW 750 kHz		Sweep 1 ms	Min Hole
		Total Power	29.2 dBn		
Occupied Bandwidt		Total Power	29.2 UBI		
9.	0031 MHz				Detecto Peak
Transmit Freq Error	5.002 kHz	% of OBW Pow	er 99.00 %	, 0	Auto Mai
x dB Bandwidth	9.867 MHz	x dB	-26.00 dE		
	3.007 WI12	X UD	-20.00 ui		
ISG			STATUS		
55			018100		

Plot 7-86. Occupied Bandwidth Plot (Band 7 - 10.0MHz 16-QAM - Full RB Configuration)



Plot 7-87. Occupied Bandwidth Plot (Band 7 - 10.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied	BW			- # -
<mark>X/</mark> RL RF 50Ω AC	CORREC	SENSE:INT r Freg: 2.535000000 GHz	05:09:08 PM Jul 19, Radio Std: None	Trace/Detector
NFE		Free Run Avg Hold: 10 h: 36 dB	00/100 Radio Device: BT	
	#IFGain:Low #Atter	1: 30 db	Radio Device: B I	3
10 dB/div Ref 30.00 dE	sm			
20.0	a Completion of the standard			
10.0				Clear Writ
0.00	/			
-10.0				
-20.0	-m/mlh/d		man and have a south and a south and the south a	Averag
-30.0				
-40.0				
-50.0				Max Hol
-60.0				
Center 2.535 GHz			Span 37.5 I	MHZ
Res BW 360 kHz	#	VBW 1.1 MHz	Sweep 1	
		Total Power	30.5 dBm	
Occupied Bandwic		lotal Power	30.5 aBM	
1	3.535 MHz			Detecto
Transmit Freq Error	7.725 kHz	% of OBW Power	99.00 %	Peak Auto Ma
x dB Bandwidth	14.86 MHz	x dB	-26.00 dB	
	14.00 MITZ	X UB	-20.00 UB	
ISG			STATUS	
100			51M105	

Plot 7-88. Occupied Bandwidth Plot (Band 7 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-89. Occupied Bandwidth Plot (Band 7 - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BW					
X RL RF 50Ω AC	CORREC	SENSE:INT er Freg: 2.535000000 GHz	05:09:28 Radio St	PMJul 19, 2019 d: None	Trace/Detector
NFE		:Free Run Avg Hold en: 36 dB	l: 100/100 Redio De	vice: BTS	
	#IFGain:Low #Atte	en: 36 dB	Radio De	VICE: DIS	
10 dB/div Ref 30.00 dBm Log					
20.0					
10.0		man to a share			Clear Write
0.00					
-10.0	/		<u>\</u>		
-20.0			hammen makety and and		Averag
-30.0				ad and the second second	
-40.0					
-50.0					Max Hold
-60.0					
Center 2.535 GHz			Snar	37.5 MHz	
Res BW 360 kHz		#VBW 1.1 MHz		eep 1 ms	Min Hole
			00 4 15		
Occupied Bandwidt		Total Power	28.4 dBm		
13	6.514 MHz				Detecto
Transmit Freq Error	-3.959 kHz	% of OBW Pow	er 99.00 %		Peak Auto Ma
x dB Bandwidth	14.90 MHz	x dB	-26.00 dB		
			071710		
ISG			STATUS		

Plot 7-90. Occupied Bandwidth Plot (Band 7 - 15.0MHz 64-QAM - Full RB Configuration)



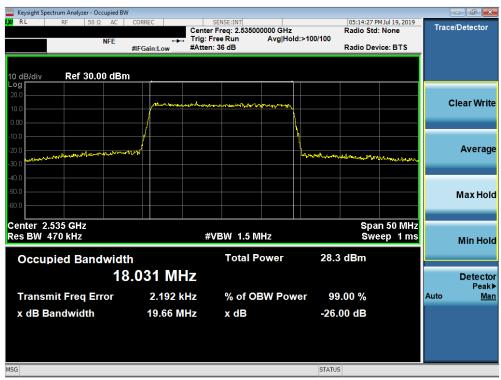
Plot 7-91. Occupied Bandwidth Plot (Band 7 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:	Daga 62 of 000	
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🔤 Keysight Spectrum Ana		W							
XI RL RF	50 Ω AC	CORREC	SENSE: Center Freg:	NT 2.535000000 GH	z	05:14:18 F Radio Std	MJul 19, 2019	Trace	/Detector
	NFE		Trig: Free Ru #Atten: 36 dB		old: 100/10	0 Radio Dev			
		#IFGain:Low	#Atten: 36 dt)		Radio Dev	/ice: B13		
	5 00 00 JB								
10 dB/div Re	ef 30.00 dBi	n							
20.0									lear Write
10.0			a Address and a state	and represented and the find graph of	<u>~</u>				
0.00					1				
-10.0									
-20.0	and a second and a second	Դ _Ս(դ-Դ -			whown	unuupuumun	miltyment		Average
-30.0									
-40.0									
-50.0									Max Hold
-60.0								_	_
Center 2.535 G							in 50 MHz		
ResBW 470 kH	Z		#VBW	1.5 MHz		Swe	eep 1 ms		Min Hold
Occupied	Bandwid	th	Т	otal Power	2	29.4 dBm			
		B.069 M	47						Detector
									Peak
Transmit Fr	eq Error	-20.081	kHz %	of OBW Po	wer	99.00 %		Auto	<u>Mar</u>
x dB Bandw	vidth	19.57 I	MHz x	dB	-	26.00 dB			
ISG					S	TATUS			

Plot 7-92. Occupied Bandwidth Plot (Band 7 - 20.0MHz 16-QAM - Full RB Configuration)



Plot 7-93. Occupied Bandwidth Plot (Band 7 - 20.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-94. Occupied Bandwidth Plot (Band 41 PC3- 5.0MHz QPSK - Full RB Configuration)



Plot 7-95. Occupied Bandwidth Plot (Band 41 PC3 – 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
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Plot 7-96. Occupied Bandwidth Plot (Band 41 PC3 – 5.0MHz 64-QAM - Full RB Configuration)



Plot 7-97. Occupied Bandwidth Plot (Band 41 PC3 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
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Plot 7-98. Occupied Bandwidth Plot (Band 41 PC3 - 10.0MHz 16-QAM - Full RB Configuration)



Plot 7-99. Occupied Bandwidth Plot (Band 41 PC3 - 10.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager	
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Plot 7-100. Occupied Bandwidth Plot (Band 41 PC3 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-101. Occupied Bandwidth Plot (Band 41 PC3 - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
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Keysight Spectrum Analyzer - Occupied BW					- ē 🔀
UX RL RF 50 Ω AC	Center	SENSE:INT Freq: 2.593000000 GHz iree Run Avg Hold : 36 dB	Radio Sto 1: 100/100	PMJul 22, 2019 d: None vice: BTS	Trace/Detector
Log 20.0 10.0 0.00	Masthing for Million				Clear Write
-10.0 -20.0 -30.0	N ^r		n MMM Muluker manualy	Yhlmannih Pp	Average
-40.0 -50.0 -60.0					Max Hold
Center 2.593 GHz Res BW 360 kHz		VBW 1.1 MHz Total Power		37.5 MHz eep 1 ms	Min Hold
	.500 MHz				Detector Peak▶
Transmit Freq Error x dB Bandwidth	-1.394 kHz 14.82 MHz	% of OBW Pow x dB	er 99.00 % -26.00 dB		Auto <u>Man</u>
MSG			STATUS		

Plot 7-102. Occupied Bandwidth Plot (Band 41 PC3 - 15.0MHz 64-QAM - Full RB Configuration)



Plot 7-103. Occupied Bandwidth Plot (Band 41 PC3 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFT600US		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-104. Occupied Bandwidth Plot (Band 41 PC3 - 20.0MHz 16-QAM - Full RB Configuration)



Plot 7-105. Occupied Bandwidth Plot (Band 41 PC3 - 20.0MHz 64-QAM - Full RB Configuration)

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7.3 Spurious and Harmonic Emissions at Antenna Terminal

Test Overview

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band 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.

The minimum permissible attenuation level of any spurious emission is $43 + 10 \log_{10}(P_{[Watts]})$, where P is the transmitter power in Watts.

For Band 7 and 41, the minimum permissible attenuation level of any spurious emission is $55 + 10 \log_{10}(P_{[Watts]})$.

Test Procedure Used

KDB 971168 D01 v03r01 - Section 6.0

Test Settings

- 1. Start frequency was set to 30MHz and stop frequency was set to at least 10 * the fundamental frequency (separated into at least two plots per channel)
- 2. Detector = RMS
- 3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
- 4. Sweep time = auto couple
- 5. The trace was allowed to stabilize
- 6. Please see test notes below for RBW and VBW settings

Test Setup

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



Figure 7-2. Test Instrument & Measurement Setup

Test Notes

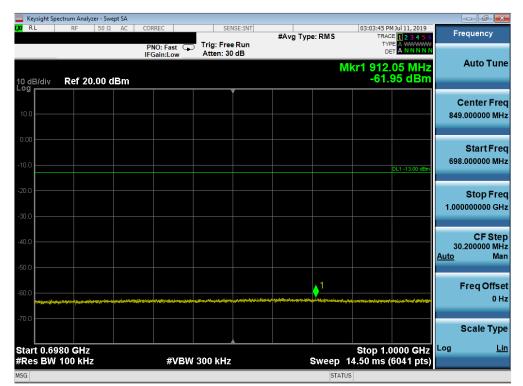
Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than 1 GHz. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.

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RL	1	<mark>m Analyz</mark> RF	50 Ω	AC	CORREC	:		SENSE:	INT				03:03:38 P	M Jul 11, 2019		
					PNO: IFGain	Fast ⊂ ∷Low		: Free Ri en: 30 dE		#Avg T	ype: RMS		TY	CE 1 2 3 4 5 6 PE A WWWWW ET A NNNNN	F	requency
dB/di	iv R	ef 20	.00 d	Bm								Mkr	1 661 -42.	.35 MHz 22 dBm		Auto Tu
D.O																Center Fr 6.000000 M
.00 <u> </u>														DL1 -13.00 dBm	3	Start Fr 0.000000 M
0.0															66	Stop Fr 2.000000 M
0.0 <u> </u>														1	6 <u>Auto</u>	CF St 3.200000 M M
0.0							in in the second second						and an and a state			Freq Offs 0
																Scale Ty
	0.0 MH W 100					#VB	V 300 I	kH7			Sween	30.3	Stop 6 4 ms (1	62.0 MHz 2641 pts)	Log	ļ

Plot 7-106. Conducted Spurious Plot (Band 71 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



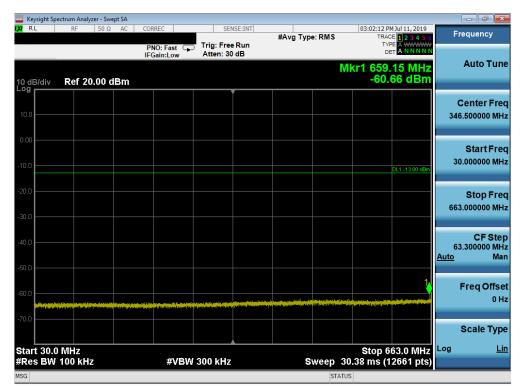
Plot 7-107. Conducted Spurious Plot (Band 71 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

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	Spectrum Analyzer									
LX/RL	RF 5	0Ω AC	CORREC	SEN	ISE:INT	#Avg Typ	e: RMS		PM Jul 11, 2019 ACE 1 2 3 4 5 6	Frequency
	_		PNO: Fast G	Trig: Free #Atten: 28		• //		т	YPE A WWWWW DET A NNNNN	
10 dB/div Log	Ref 0.00	dBm						Mkr1 9.99 -45	94 0 GHz .18 dBm	Auto Tune
										Center Freq
-10.0									DL1 -13.00 dBm	5.500000000 GHz
-20.0										Start Freq
-30.0										1.000000000 GHz
-40.0									1	Stop Freq
-50.0	I formation	No.								10.00000000 GHz
										CF Step
-60.0										900.000000 MHz <u>Auto</u> Man
-70.0										
-80.0										Freq Offset 0 Hz
-90.0										
										Scale Type
Start 1.0 #Res BV	00 GHz V 1.0 MHz		#VBW	3.0 MHz		s	weep	Stop 1 15.60 ms (0.000 GHz 18001 pts)	Log <u>Lin</u>
MSG							ST	ATUS		

Plot 7-108. Conducted Spurious Plot (Band 71 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-109. Conducted Spurious Plot (Band 71 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

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	ectrum Analyzer - S					1		1		
L <mark>XI</mark> RL	RF 50	Ω AC	CORREC			#Avg Typ	e:RMS	TRAC	M Jul 11, 2019 DE 1 2 3 4 5 6 DE A WWWWW	Frequency
10 dB/div Log	Ref 20.00	dBm	PNO: Fast IFGain:Low				Γ	DI Mkr1 887.		Auto Tune
10.0										Center Freq 849.000000 MHz
-10.0									DL1 -13.00 dBm	Start Freq 698.000000 MHz
-20.0										Stop Freq 1.000000000 GHz
-40.0										CF Step 30.200000 MHz <u>Auto</u> Man
-60.0	and the state of the	de la génerative de la composition de la	4449,000 p. 600.000 p. 70	k-skeral transformation	يون ورون ورون ورون ورون ورون ورون ورون و	1 	en an	a filmen for the first state of the state of	the state of the s	Freq Offset 0 Hz
-70.0 Start 0.69								Stop 1.0	0000 GHz	Scale Type Log <u>Lin</u>
#Res BW	100 kHz		#V	BW 300 kHz	-		Sweep	14.50 ms (6041 pts)	
							STAT			

Plot 7-110. Conducted Spurious Plot (Band 71 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



Plot 7-111. Conducted Spurious Plot (Band 71 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

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