

TEST REPORT

PART 96 MEASUREMENT REPORT

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

Date of Testing:
 01/22/2024 – 04/02/2024
Test Site/Location:
 Element Lab., Suwon,
 Yongin-si, Gyeonggi-do, Korea
Test Report Serial No.:
 8K24010501-00.A3L

FCC ID:	A3LMT6402-48A
APPLICANT:	Samsung Electronics Co., Ltd.

Application Type: Class III Permissive Change
Model: MT6402-48A
EUT Type: MMU (MT6402)
FCC Classification: Citizens Band Category B Devices (CBD)
FCC Rule Part(s): 96
Test Procedure(s): ANSI C63.26-2015, KDB 971168 D01 v03r01,
 KDB 940660 D01 v03, KDB 662911 D01 v02r01

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.




Prepared by Jonathan Jang
 Test Engineer





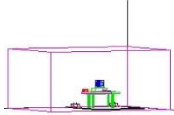
Reviewed by Jayden Kwak
 Technical Manager

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T A B L E O F C O N T E N T S

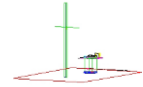
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MEASUREMENT REPORT

FCC Rule Part 96





Mode	Total Bandwidth (MHz)	Max. PSD (dBm/1MHz)	Max. EIRP (dBm/10MHz)	Max. EIRP /Entire Band Width (dBm)	Max. EIRP /Entire Band Width (W)	Emission Designator	Modulation
LTE_1C_10M	10	36.86	45.84	45.84	38.37	9M03G7D	QPSK
		36.87	45.85	45.85	38.46	9M03W7D	QAM
LTE_1C_20M	20	36.88	46.14	48.69	73.96	18M0G7D	QPSK
		36.90	46.66	49.03	79.98	18M0W7D	QAM
LTE_2C_20M+20M	40	36.79	46.87	52.12	162.93	37M9G7D	QPSK
		36.38	46.19	51.55	142.89	37M9W7D	QAM
LTE_3C_10M+10M+10M	30	36.83	46.64	51.05	127.35	28M9G7D	QPSK
		36.68	45.84	50.49	111.94	28M9W7D	QAM
LTE_3C_10M+20M+20M	50	36.89	46.67	52.97	198.15	48M3G7D	QPSK
		36.87	45.98	52.47	176.60	48M3W7D	QAM
LTE_3C_20M+20M+20M	60	36.78	46.87	53.59	228.56	57M7G7D	QPSK
		36.57	46.38	53.24	210.86	57M6W7D	QAM
NR_1C_20M	20	36.76	46.25	48.81	76.03	18M4G7D	QPSK
		36.79	46.30	48.84	76.56	18M4W7D	QAM
NR_1C_40M	40	36.38	45.63	51.65	146.22	38M1G7D	QPSK
		36.40	46.06	51.48	140.60	38M1W7D	QAM
NR_2C_20M+40M	60	36.53	45.84	53.22	209.89	58M0G7D	QPSK
		36.79	46.14	53.17	207.49	58M0W7D	QAM
NR_2C_40M+40M	80	36.30	46.04	54.56	285.76	77M7G7D	QPSK
		36.49	45.77	54.63	290.40	77M7W7D	QAM

EUT Overview

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1.0 REVISION RECORD

Issue Number	Issued Date	Revision History
8K24010501-00.A3L	04/02/2024	Initial Issue

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2.0 INTRODUCTION

2.1 Scope

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



2.2 Element Test Location

These measurement tests were conducted at the Element Materials Technology Suwon. Ltd. facility located at (P136) 13, Heungdeok 1-ro, Giheung-gu, Yongin-si, Gyeonggi-do 16954, Korea.

2.3 Test Facility / Accreditation

Measurements were performed at Element Materials Technology Suwon Lab located in Yongin-si, Gyeonggi, Korea.

- Element Materials Technology Suwon is an ISO 17025-2017 accredited test facility under the American Association for Laboratory Accreditation(A2LA) with Certificate number 2041.04 for Specific Absorption Rate (SAR), where applicable, and Electromagnetic Compatibility (EMC) testing for FCC and Innovation, Science, and Economic Development Canada rules.
- Element Materials Technology Suwon facility is accredited, designated, and recognized in accordance with the provision of Radio Wave Act and International Standard ISO/IEC 17025:2017 under the National Radio Research Agency.
 - Designation Number / CABID: KR0169
 - Test Firm Registration Number of FCC: 417945
 - Test Firm Registration Number of IC: 26168

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3.0 PRODUCT INFORMATION



3.1 Equipment Description

The Equipment Under Test (EUT) is the **Samsung MMU (MT6402) FCC ID: A3LMT6402-48A**.
 Per FCC Part 96, this device is evaluated under Citizens Band Category B Devices (CBD).
 A Class III permissive change on the original filing is being pursued to increase maximum output power.

3.2 Device Capabilities

This device supports the following conditional features and filter information:

EUT Type:	MMU (MT6402)		
Model Name:	MT6402-48A		
Test Device Serial No:	S525948436		
Device Capabilities:	5G NR, LTE		
Operating Band/Frequency Range:	Band	Tx (Downlink)	Rx (Uplink)
	B48/n48:	3550 MHz to 3700 MHz	3550 MHz to 3700 MHz
Supported Modulation:	QPSK, 16QAM, 64QAM, 256QAM		
LTE Supported Number of Carriers and Channel Bandwidth:	10,20 MHz bandwidth modes for LTE B48 with up to 3CC aggregated of Max. Bandwidth 60 MHz.		
NR Supported Number of Carriers and Channel Bandwidth:	20, 40 MHz bandwidth modes for NR n48 with up to 2CC aggregated of Max. Bandwidth 80 MHz.		
Supported Configurations:	Single carrier, Multi-carrier		
Maximum Equivalent Isotropic Radiated Power:	46.3 dBm/10MHz per unit		
Antenna Configuration:	SU beam / MU beam / Common beam		
Number of Antenna ports:	8		
Antenna Gain:	SU, MU beam : 23.5dBi Common beam : 14.45dBi (Antenna Gains provided by the client.)		

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3.3 Test Configuration

The setup is as follows:

- a) The EUT " MT6402-48A " is powered by a 48VDC power supply.
- b) The EUT is connected to a test laptop via an ethernet cable acting as backhaul.
- c) An RF cable connects the signal analyzer and the EUT Ports for respective measurement.

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



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

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

* Abbreviations:

- 1C: 1 carrier
- 2C: Contiguous 2 carriers in multi-carrier operation
- 2NC: Non-contiguous 2 carriers in multi-carrier operation
- 3C: Contiguous 2 carriers in multi-carrier operation
- 3NC: Non-contiguous 2 carriers in multi-carrier operation

Configuration	No. of Carriers	Total Carrier Bandwidth (MHz)	Carrier Frequency Configuration (MHz)			Rated Conducted Power (dBm/path)
			Lowest	Middle	Highest	
LTE_1C_10M	1	10	3555.0	3625.0	3695.0	12.8 dBm/path
LTE_1C_20M	1	20	3560.0	3625.0	3690.0	15.8 dBm/path
LTE_2C_20M+20M	2	40	3570.0	3625.0	3680.0	18.8 dBm/path
LTE_2NC_20M+20M			3560.0 + 3690.0			
LTE_3C_10M+10M+10M	3	30	3565.0	3625.0	3685.0	17.6 dBm/path
LTE_3NC_10M+10M+10M			3555.0 + 3625.0 + 3695.0			
LTE_3C_10M+20M+20M	3	50	3575.0	3625.0	3675.0	19.8 dBm/path
LTE_3NC_10M+20M+20M			3555.0			
LTE_3C_20M+20M+20M	3	60	3580.0	3625.0	3670.0	20.6 dBm/path
LTE_3NC_20M+20M+20M			3560.0 + 3625.0 + 3690.0			

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Configuration	No. of Carriers	Total Carrier Bandwidth (MHz)	Carrier Frequency Configuration (MHz)			Rated Conducted Power (dBm/path)
			Lowest	Middle	Highest	
NR_1C_20M	1	20	3560.0	3625.0	3690.0	15.8 dBm/path
NR_1C_40M	1	40	3570.0	3625.0	3680.0	18.8 dBm/path
NR_2C_20M+40M	2	60	3580.0	3625.0	3670.0	20.6 dBm/path
NR_2NC_20M+40M			3560.0 + 3680.0			
NR_2C_40M+40M	3	80	3570.0	3605.0	3640.0	21.8 dBm/path
NR_2NC_40M+40M			3570.0 + 3680.0			

Notes:

1. For Class III Permissive Change test, Increase maximum output power per carrier. (Increased Target e.i.r.p. From 45.5 dBm/10MHz to 46.3 dBm/10MHz) And add 5G NR Radio Access Technology

3.4 EMI Suppression Device(s)/Modifications

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

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4.0 DESCRIPTION OF TESTS

4.1 Measurement Procedure

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

Occupied Bandwidth:

KDB 971168 D01 v03r01 – Section 4.3
ANSI C63.26-2015 – Section 5.4.4

Modulation Characteristics:

ANSI C63.26 - Section 5.3

Conducted Power Measurement and EIRP and PSD

KDB 971168 D01 v03r01 – Section 5.3
KDB 971168 D01 v03r01 – Section 5.4
KDB 662911 D01 v02r01 – Section E)1) In-Band Power Measurements
ANSI C63.26-2015 – Section 5.2.5
ANSI C63.26-2015 – Section 5.2.4

Peak-to-Average Power Ratio:

KDB 971168 D01 v03r01 – Section 5.7
ANSI C63.26-2015 – Section 5.2.3.4

Channel Edge Emissions at Antenna Terminal

KDB 971168 D01 v03r01 – Section 6
KDB 662911 D01 v02r01 – Section E)3) Out-of-Band and Spurious Emission Measurements
a) Absolute Emission Limits
iii) Measure and add 10 log(N_{ANT}) dB

ANSI C63.26-2015 – Section 5.7

Spurious and Harmonic Emissions at Antenna Terminal

KDB 971168 D01 v03r01 – Section 6
KDB 662911 D01 v02r01 – Section E)3) Out-of-Band and Spurious Emission Measurements
a) Absolute Emission Limits
iii) Measure and add 10 log(N_{ANT}) dB



ANSI C63.26-2015 – Section 5.7

Radiated unwanted emission

KDB 971168 D01 v03r01 – Section 7
ANSI C63.26-2015 – Section 5.8

Frequency Stability / Temperature Variation

KDB 971168 D01 v03r01 – Section 9
ANSI C63.26-2015 – Section 5.6

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4.2 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.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower. For frequencies above 1GHz, linearly polarized Vivaldi antennas were used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, mode of operation, turntable azimuth, and receive antenna height was noted for each frequency found.



Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and Vivaldi antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the polarity of the receive antenna to produce the worst-case emissions

4.3 Measurement Software

Test item	Name	Version
Conducted Measurement	Node B automation	1.0

4.4 Environmental Conditions



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

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5.0 MEASUREMENT UNCERTAINTY

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

Contribution	Expanded Uncertainty (\pm dB)
Conducted Bench Top Measurements	1.95
Radiated Disturbance (<1GHz)	4.10
Radiated Disturbance (>1GHz)	4.82
Radiated Disturbance (>18GHz)	4.96

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6.0 TEST EQUIPMENT CALIBRATION DATA



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

Manufacture	Model	Description	Cal Date	Cal interval	Cal Due	Serial Number
KEYSIGHT	N9030B	PXA Signal Analyzer	04/06/2023	Annual	04/05/2024	MY57142018
KEYSIGHT	N9020B	MXA Signal Analyzer	10/12/2023	Annua	10/11/2024	MY55470135
Rohde & Schwarz	ESW	EMI Test Receiver	07/05/2023	Annual	07/04/2024	101761
Rohde & Schwarz	TS-SFUNIT-Rx	Shielded Filter Unit	01/11/2024	Annual	01/10/2025	102151
Schwarzbeck	VULB9162	Broadband TRILOG Antenna	06/01/2023	Biennial	05/31/2025	9162-217
Sunol sciences	DRH-118	Horn Antenna	07/13/2023	Annual	07/12/2025	A102416-1
NARDA	180-442A-KF	Horn Antenna	11/23/2022	Biennial	11/22/2024	T058701-03
RF One	RFHB1810SC10	Attenuator	01/10/2024	Annual	01/09/2025	RFHB0001 to RFHB0034 (33EA)
Qualwave	QFA1820	Attenuator	07/04/2023	Annual	07/03/2024	22265083 to 22265116 (33EA)

Table 6-1. 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. All testing was performed before the calibration due date.

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7.0 SAMPLE CALCULATIONS

Emission Designator

QPSK Modulation

Emission Designator = 9M03G7D

Occupied Bandwidth = 9.03 MHz

G = Phase Modulation

7 = Quantized/Digital Info

D = Data transmission, telemetry, telecommand

QAM Modulation



Emission Designator = 9M03W7D

Occupied Bandwidth = 9.03 MHz

W = Amplitude/Angle Modulated

7 = Quantized/Digital Info

D = Data transmission, telemetry, telecommand

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8.0 TEST RESULTS

8.1 Summary



Company Name: SAMSUNG Electronics Co., Ltd.
 FCC ID: A3LMT6402-48A
 Type of Radio Equipment: Citizens Band Category B Devices (CBD)
 Mode(s): LTE, 5G NR

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
2.1049	Occupied Bandwidth	N/A	CONDUCTED	PASS	Section 8.2
2.1046 96.41(a)	Modulation Characteristics	Digital modulation		-	Note 4
2.1046 96.41(b)	Power Spectral Density (PSD)	37 dBm/MHz (PSD)		PASS	Section 8.3
2.1046 96.41(b)	Equivalent Isotropic Radiated Power (EIRP)	47 dBm/10MHz (EIRP)		PASS	Section 8.4
96.41(g)	Peak-Average Ratio	≤ 13 dB		PASS	Section 8.5
2.1051 96.41(e)	Out of Band Emissions	Within 0 MHz to 10 MHz above and below the assigned channel ≤ -13 dBm/MHz Greater than 10 MHz above and below the assigned channel ≤ -25 dBm/MHz Any emission below 3530 MHz and above 3720 MHz ≤ -40 dBm/MHz		PASS	Section 8.6 Section 8.7
2.1055 96.41(e)	Frequency Stability	Fundamental emissions stay within authorized frequency block		-	Note 4
2.1051 96.41(e)	Radiated unwanted emission	< -40dBm/MHz	Radiated	PASS	Section 8.8

Table 8-1. Summary of Test Results

Notes:

- 1) All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.
- 2) The analyzer plots were all taken with a correction table loaded into the analyzer.
- 3) All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables and attenuators.
- 4) This is a variant report for Carrier power changed by software without hardware change. The test item does not affect those operation. And it was performed in the original report.

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8.2 Occupied Bandwidth

Test Overview

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

Test Procedure Used

ANSI C63.26 - Section 5.4.4
KDB 971168 D01 v03r01 - Section 4.3

Test Setting

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

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth. 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.

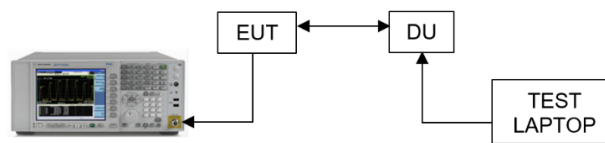




Figure 8-1. Test Instrument & Measurement Setup



Limit

The occupied bandwidth shall not exceed the equipment's channel bandwidth, which is declared by the manufacturer.

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Port	OBW (MHz)			
	QPSK	16QAM	64QAM	256QAM
0	8.99	8.99	8.99	9.00
1	8.98	8.97	9.01	8.98
2	9.00	9.02	8.98	9.00
3	8.96	8.98	9.00	9.00
4	8.98	9.01	8.99	9.00
5	9.00	8.97	8.99	8.98
6	8.99	8.99	8.99	8.99
7	9.00	8.98	9.00	8.97
8	9.02	9.02	9.02	8.98
9	9.00	9.01	9.00	8.99
10	9.03	9.00	9.00	8.99
11	9.00	9.00	8.98	8.99
12	8.99	8.99	8.98	8.98
13	8.97	9.00	8.98	9.01
14	8.98	8.99	8.98	8.99
15	8.96	9.03	9.00	9.00
16	8.99	8.98	9.01	8.98
17	9.00	8.99	9.00	9.01
18	9.01	8.97	9.00	8.98
19	9.01	9.00	8.99	9.02
20	8.98	8.99	9.01	9.00
21	8.98	9.00	9.00	9.01
22	8.99	9.00	8.99	8.97
23	8.98	8.99	9.01	9.00
24	8.98	8.98	9.00	8.97
25	8.99	8.97	9.01	8.98
26	9.01	8.98	9.00	8.98
27	8.99	9.00	8.97	8.99
28	8.99	9.00	9.00	8.98
29	8.99	9.01	9.00	9.00
30	8.97	8.98	9.00	9.00
31	9.01	9.03	8.98	8.99
32	8.98	9.01	8.97	8.98
33	9.00	9.03	8.97	8.99
34	9.01	8.98	8.99	9.00
35	9.01	8.98	9.00	8.98
36	9.00	9.00	9.01	8.98
37	8.99	8.98	8.97	8.97
38	8.98	9.01	8.99	8.98
39	8.99	8.97	9.00	9.00
40	9.02	8.97	9.01	8.98
41	8.97	9.00	8.99	8.98
42	8.98	8.99	9.01	8.99
43	9.01	9.01	9.00	8.99
44	9.00	8.98	8.98	8.99
45	9.02	9.01	8.98	9.00
46	9.00	9.00	8.99	9.00
47	9.01	9.02	8.97	9.01
48	8.98	8.99	9.01	9.00
49	8.98	8.98	8.97	9.03
50	8.97	9.02	9.02	8.98
51	8.97	9.02	8.96	9.00
52	9.01	8.97	9.00	9.00
53	8.99	9.00	8.99	8.99
54	9.01	9.00	8.99	8.99
55	8.98	9.00	8.98	9.01
56	9.01	8.96	9.01	9.00
57	8.99	8.98	8.97	9.00
58	8.96	8.99	8.97	8.99
59	8.99	8.99	9.00	8.99
60	9.01	9.02	8.98	9.00
61	8.98	9.00	9.01	8.99
62	8.98	8.98	9.01	8.98
63	9.00	8.97	9.00	8.98

Table 8-2. Occupied Bandwidth Table (LTE_1C_10M)

FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)		Approved by: Technical Manager
Test Report S/N: 8K24010501-00.A3L	Test Dates: 01/22/2024 – 04/02/2024	EUT Type: MMU (MT6402)		Page 16 of 315



Port	OBW (MHz)			
	QPSK	16QAM	64QAM	256QAM
0	17.97	17.95	17.93	17.97
1	17.98	17.95	17.96	17.93
2	17.91	18.03	17.93	17.94
3	17.91	17.97	17.93	17.96
4	17.94	17.92	17.96	17.95
5	17.95	17.95	17.95	17.94
6	17.96	17.93	17.92	17.91
7	17.95	18.02	17.93	17.92
8	17.94	17.95	17.96	17.97
9	17.91	17.99	17.93	17.94
10	17.95	17.98	17.95	17.96
11	17.94	17.98	17.97	17.96
12	17.93	17.96	17.95	17.97
13	17.96	17.99	17.95	17.95
14	17.94	17.93	17.92	17.95
15	18.01	17.94	17.92	17.95
16	17.92	17.97	17.89	17.94
17	17.92	17.94	17.93	17.99
18	17.92	17.96	17.96	17.92
19	17.98	17.95	17.94	17.95
20	17.90	17.98	17.96	17.96
21	17.92	17.93	17.88	17.96
22	17.91	17.97	18.00	17.95
23	17.94	17.95	17.90	17.92
24	17.94	17.95	17.95	17.96
25	17.99	17.93	17.92	17.94
26	17.95	17.99	17.93	17.97
27	17.95	17.92	17.95	17.96
28	17.99	17.96	17.92	17.93
29	17.97	17.92	17.93	17.89
30	17.96	17.97	17.94	17.93
31	17.97	17.98	17.96	18.00
32	17.96	17.95	17.94	17.99
33	17.99	17.95	17.92	17.94
34	18.00	17.98	17.94	17.94
35	17.95	17.92	17.96	17.96
36	17.91	17.91	17.92	17.92
37	17.93	17.95	17.92	17.95
38	17.93	17.93	17.93	17.94
39	17.96	17.97	17.97	17.94
40	17.90	18.00	17.94	17.93
41	17.96	17.94	17.95	17.89
42	17.95	17.94	17.95	17.99
43	17.93	17.95	17.97	17.95
44	17.97	17.97	17.95	17.94
45	17.98	17.98	17.93	17.97
46	17.98	18.04	17.96	17.95
47	17.95	17.91	17.96	18.02
48	17.95	17.94	17.94	17.94
49	17.93	17.94	17.97	17.99
50	17.93	17.90	17.94	17.93
51	17.98	17.93	17.94	17.98
52	17.98	17.99	17.90	17.95
53	17.94	17.98	17.90	17.95
54	17.97	17.95	17.96	17.94
55	17.90	17.95	17.95	17.95
56	17.95	17.95	17.95	17.97
57	17.97	18.01	17.91	17.93
58	18.00	17.95	17.95	17.91
59	17.92	17.93	17.96	17.93
60	18.02	17.95	17.93	17.93
61	17.99	17.95	17.95	17.92
62	17.98	17.95	17.97	17.92
63	17.95	17.96	17.93	17.91

Table 8-3. Occupied Bandwidth Table (LTE_1C_20M)

FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)		Approved by: Technical Manager
Test Report S/N: 8K24010501-00.A3L	Test Dates: 01/22/2024 – 04/02/2024	EUT Type: MMU (MT6402)		Page 17 of 315



Port	OBW (MHz)							
	LTE_2C_ 20M+20M		LTE_3C_ 10M+10M+10M		LTE_3C_ 10M+20M+20M		LTE_3C_ 20M+20M+20M	
	QPSK	QAM	QPSK	QAM	QPSK	QAM	QPSK	QAM
0	37.86	37.84	28.88	28.91	48.31	48.32	57.68	57.64

Table 8-4. Occupied Bandwidth Table (LTE_Multi-carrier)

FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)		Approved by: Technical Manager
Test Report S/N: 8K24010501-00.A3L	Test Dates: 01/22/2024 – 04/02/2024	EUT Type: MMU (MT6402)	Page 18 of 315	



Port	OBW (MHz)			
	QPSK	16QAM	64QAM	256QAM
0	18.30	18.29	18.29	18.30
1	18.33	18.30	18.35	18.34
2	18.32	18.28	18.31	18.34
3	18.29	18.33	18.37	18.32
4	18.33	18.30	18.35	18.35
5	18.30	18.33	18.34	18.34
6	18.28	18.32	18.29	18.30
7	18.27	18.32	18.37	18.29
8	18.31	18.26	18.27	18.31
9	18.30	18.31	18.28	18.27
10	18.39	18.27	18.29	18.35
11	18.30	18.33	18.35	18.28
12	18.30	18.29	18.29	18.27
13	18.33	18.28	18.36	18.31
14	18.35	18.32	18.32	18.29
15	18.34	18.34	18.31	18.31
16	18.32	18.32	18.37	18.33
17	18.29	18.28	18.32	18.30
18	18.33	18.29	18.32	18.29
19	18.29	18.33	18.28	18.29
20	18.35	18.28	18.33	18.26
21	18.24	18.29	18.31	18.28
22	18.30	18.28	18.33	18.32
23	18.34	18.33	18.28	18.28
24	18.31	18.28	18.31	18.29
25	18.30	18.31	18.36	18.33
26	18.29	18.30	18.34	18.30
27	18.35	18.31	18.31	18.32
28	18.33	18.31	18.30	18.31
29	18.30	18.30	18.33	18.31
30	18.29	18.29	18.32	18.31
31	18.30	18.32	18.35	18.25
32	18.32	18.29	18.31	18.32
33	18.32	18.27	18.30	18.25
34	18.28	18.31	18.34	18.31
35	18.31	18.31	18.30	18.29
36	18.27	18.29	18.28	18.32
37	18.31	18.33	18.34	18.42
38	18.31	18.31	18.39	18.27
39	18.32	18.33	18.29	18.33
40	18.32	18.31	18.34	18.33
41	18.34	18.33	18.33	18.32
42	18.32	18.31	18.33	18.30
43	18.32	18.28	18.36	18.31
44	18.32	18.30	18.34	18.32
45	18.27	18.28	18.36	18.34
46	18.28	18.31	18.36	18.33
47	18.30	18.30	18.34	18.30
48	18.30	18.32	18.33	18.30
49	18.31	18.31	18.29	18.32
50	18.34	18.26	18.31	18.33
51	18.35	18.29	18.32	18.31
52	18.25	18.33	18.33	18.31
53	18.27	18.29	18.28	18.32
54	18.31	18.32	18.32	18.31
55	18.33	18.33	18.35	18.34
56	18.31	18.34	18.32	18.30
57	18.32	18.29	18.27	18.27
58	18.31	18.28	18.31	18.30
59	18.31	18.32	18.37	18.28
60	18.34	18.28	18.31	18.33
61	18.28	18.32	18.35	18.31
62	18.33	18.33	18.36	18.33
63	18.32	18.33	18.32	18.33

Table 8-5. Occupied Bandwidth Table (NR_1C_20M)

FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)		Approved by: Technical Manager
Test Report S/N: 8K24010501-00.A3L	Test Dates: 01/22/2024 – 04/02/2024	EUT Type: MMU (MT6402)		Page 19 of 315



Port	OBW (MHz)			
	QPSK	16QAM	64QAM	256QAM
0	38.00	37.97	37.94	37.86
1	38.02	38.01	37.98	37.91
2	37.98	37.94	38.03	37.96
3	37.99	38.02	37.94	37.96
4	38.01	37.94	37.90	37.96
5	37.98	37.98	38.06	37.92
6	37.95	37.93	38.00	38.04
7	38.00	38.01	38.00	38.02
8	38.00	37.99	37.99	37.93
9	37.94	38.01	38.03	37.92
10	37.96	37.94	37.92	37.91
11	37.96	37.98	37.97	37.87
12	37.97	37.98	38.04	37.98
13	37.95	37.98	38.01	37.92
14	38.00	37.91	38.06	38.01
15	37.95	37.97	38.03	37.97
16	38.07	37.99	38.05	37.95
17	37.92	37.99	37.94	37.91
18	37.88	37.94	38.04	38.01
19	38.00	37.97	37.99	37.93
20	37.95	38.06	37.98	37.92
21	37.98	38.04	37.99	37.98
22	37.94	38.00	37.95	37.98
23	37.92	38.02	37.96	37.97
24	37.93	37.92	37.94	37.99
25	37.93	37.91	37.96	37.99
26	37.97	37.93	37.92	37.93
27	37.95	38.05	38.09	37.89
28	37.95	38.00	38.03	37.91
29	38.03	37.94	37.94	37.92
30	37.95	37.97	37.93	38.01
31	37.94	38.02	37.98	38.07
32	37.96	37.98	37.96	38.00
33	37.97	37.99	37.95	37.92
34	37.97	37.98	38.05	37.91
35	37.92	38.02	38.00	37.99
36	37.92	37.97	37.95	37.92
37	37.97	37.97	37.94	38.01
38	37.96	37.99	38.04	37.99
39	37.90	37.97	37.96	37.86
40	37.97	37.96	37.93	37.92
41	37.97	37.93	37.99	37.99
42	37.94	37.96	37.89	37.95
43	37.94	38.01	37.95	37.96
44	37.96	37.97	38.05	37.99
45	37.96	37.98	37.96	38.00
46	37.98	38.02	38.00	37.92
47	37.93	37.96	37.96	37.96
48	37.96	38.03	38.01	38.01
49	37.98	37.95	37.97	38.06
50	37.97	38.03	37.92	38.02
51	37.99	37.92	37.97	37.88
52	37.97	37.91	37.94	37.96
53	37.97	37.95	38.02	37.96
54	37.93	37.97	37.99	37.91
55	37.95	38.02	37.98	38.03
56	37.97	38.03	37.99	37.94
57	37.95	37.97	37.91	38.02
58	37.97	38.06	37.97	37.95
59	38.04	38.00	38.00	37.94
60	38.06	37.89	38.00	37.97
61	37.91	38.02	37.99	37.90
62	37.94	37.88	37.98	38.00
63	38.04	37.97	37.98	38.03

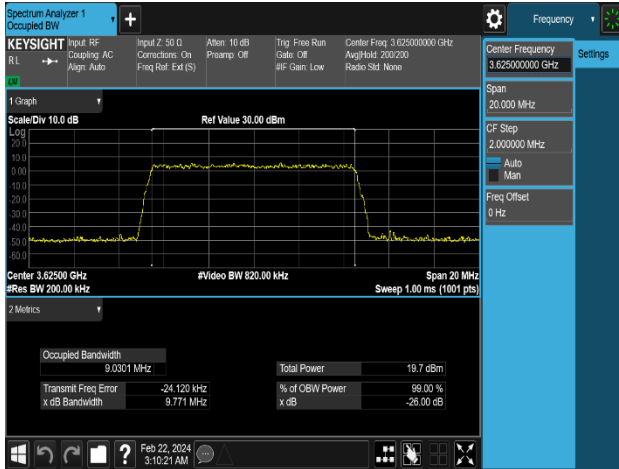
Table 8-6. Occupied Bandwidth Table (NR_1C_40M)

FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)		Approved by: Technical Manager
Test Report S/N: 8K24010501-00.A3L	Test Dates: 01/22/2024 – 04/02/2024	EUT Type: MMU (MT6402)		Page 20 of 315

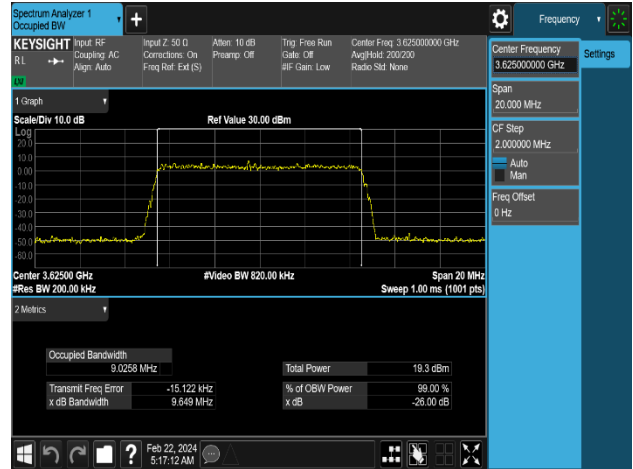
Port	OBW (MHz)			
	NR_2C_20M+40M		NR_2C_40M+40M	
	QPSK	QAM	QPSK	QAM
0	57.99	57.95	77.68	77.73

Table 8-7. Occupied Bandwidth Table (NR_Multi-carrier)

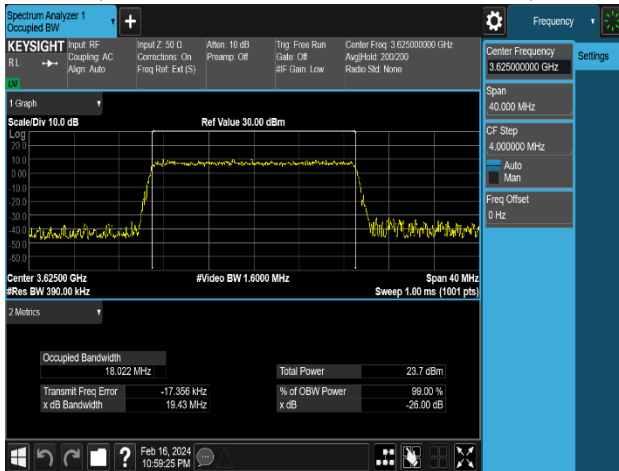
FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)		Approved by: Technical Manager
Test Report S/N: 8K24010501-00.A3L	Test Dates: 01/22/2024 – 04/02/2024	EUT Type: MMU (MT6402)	Page 21 of 315	



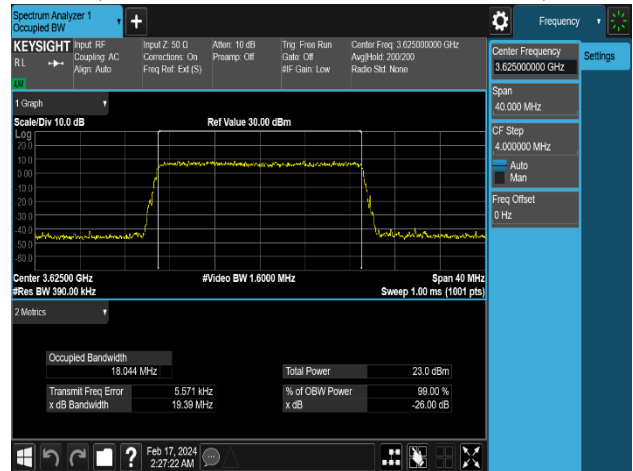
Plot 8-1. Occupied Bandwidth Plot
(LTE_1C_10M_QPSK – Mid Channel, Port 10)



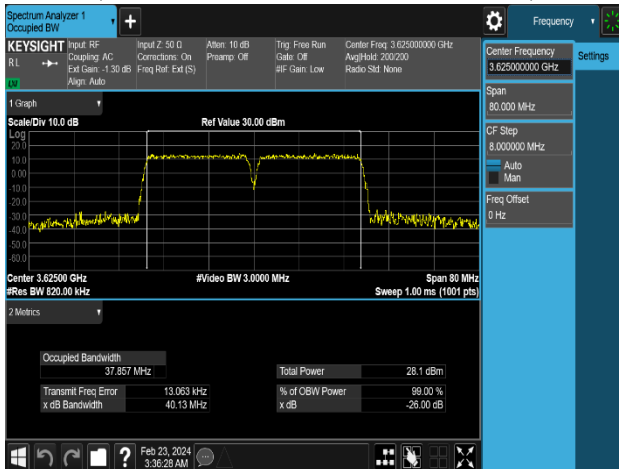
Plot 8-2. Occupied Bandwidth Plot
(LTE_1C_10M_16QAM – Mid Channel, Port 15)



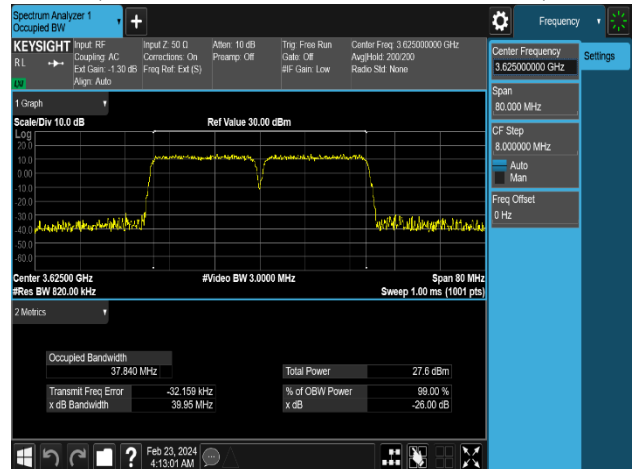
Plot 8-3. Occupied Bandwidth Plot
(LTE_1C_20M_QPSK – Mid Channel, Port 60)



Plot 8-4. Occupied Bandwidth Plot
(LTE_1C_20M_16QAM – Mid Channel, Port 46)

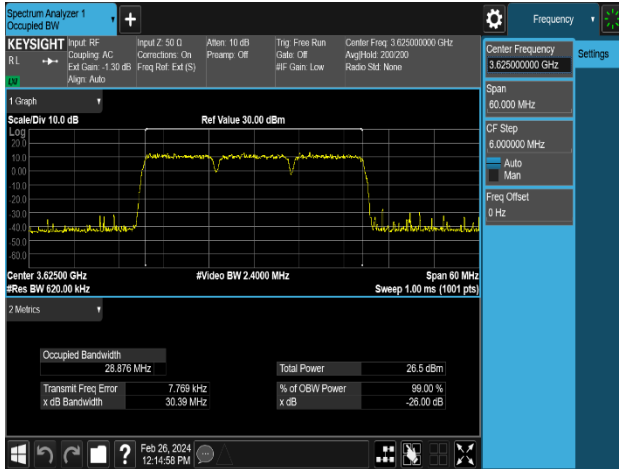


Plot 8-5. Occupied Bandwidth Plot
(LTE_2C_20M+20M_QPSK – Mid Channel, Port 0)

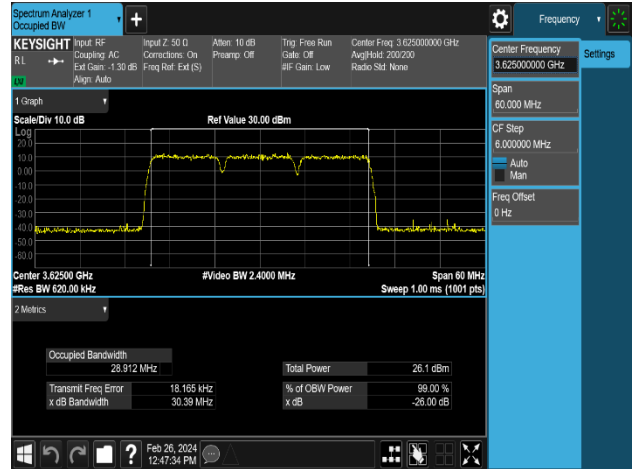


Plot 8-6. Occupied Bandwidth Plot
(LTE_2C_20M+20M_16QAM – Mid Channel, Port 0)

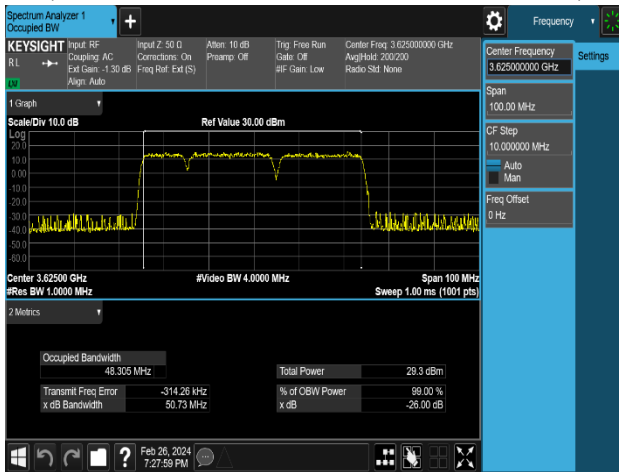
FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)		Approved by: Technical Manager
Test Report S/N: 8K24010501-00.A3L	Test Dates: 01/22/2024 – 04/02/2024	EUT Type: MMU (MT6402)		Page 22 of 315



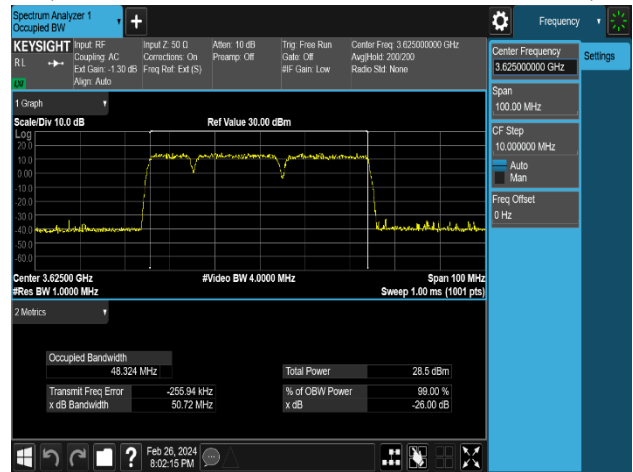
Plot 8-7. Occupied Bandwidth Plot
(LTE_3C_10M+10M+10M_QPSK – Mid Channel, Port 0)



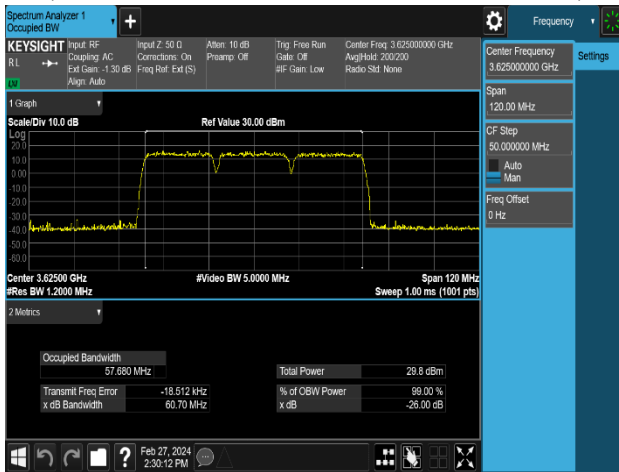
Plot 8-8. Occupied Bandwidth Plot
(LTE_3C_10M+10M+10M_16QAM – Mid Channel, Port 0)



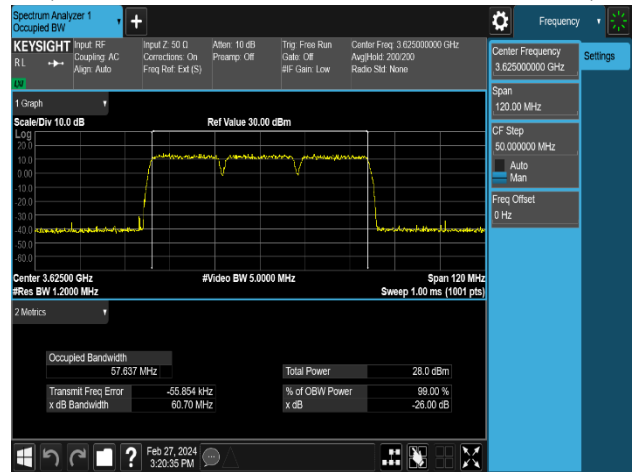
Plot 8-9. Occupied Bandwidth Plot
(LTE_3C_10M+20M+20M_QPSK – Mid Channel, Port 0)



Plot 8-10. Occupied Bandwidth Plot
(LTE_3C_10M+20M+20M_16QAM – Mid Channel, Port 0)

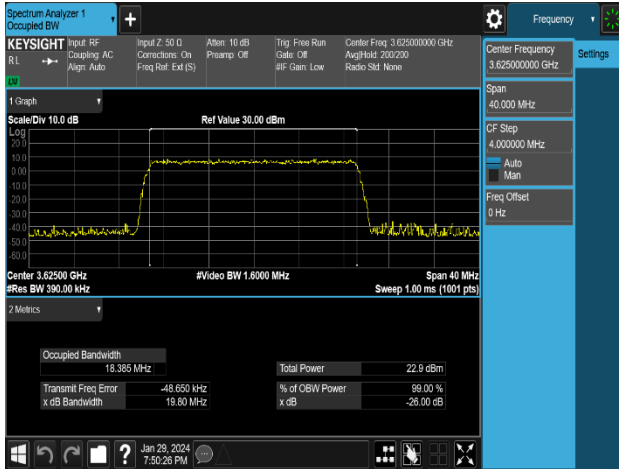


Plot 8-11. Occupied Bandwidth Plot
(LTE_3C_20M+20M+20M_QPSK – Mid Channel, Port 0)

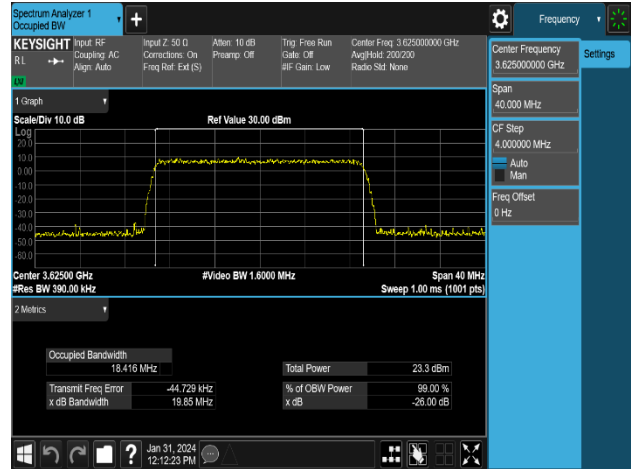


Plot 8-12. Occupied Bandwidth Plot
(LTE_3C_20M+20M+20M_16QAM – Mid Channel, Port 0)

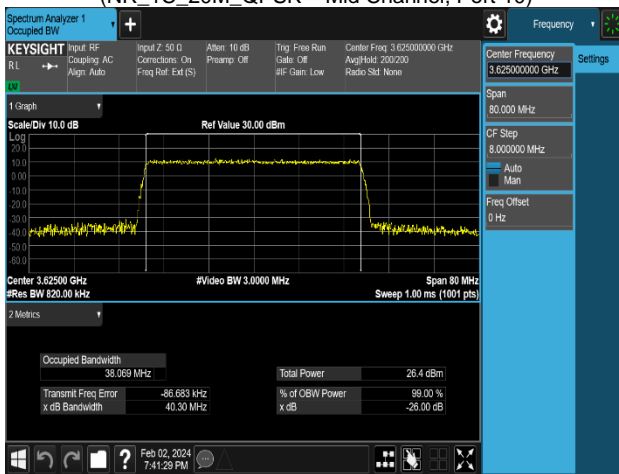
FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)		Approved by: Technical Manager
Test Report S/N: 8K24010501-00.A3L	Test Dates: 01/22/2024 – 04/02/2024	EUT Type: MMU (MT6402)		Page 23 of 315



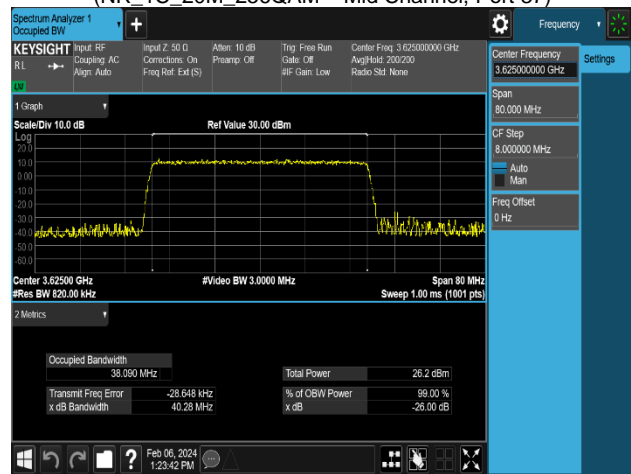
Plot 8-13. Occupied Bandwidth Plot (NR_1C_20M_QPSK – Mid Channel, Port 10)



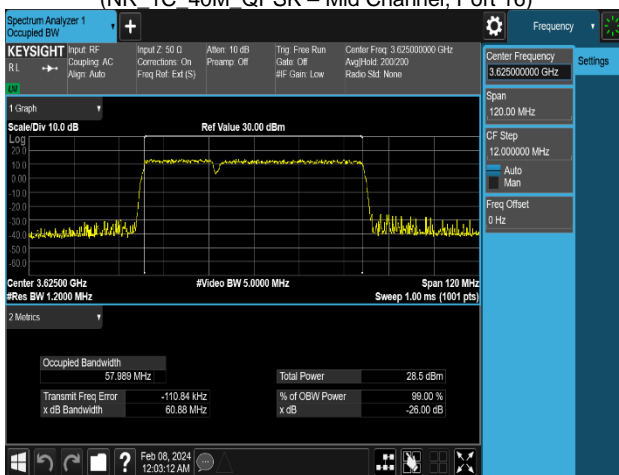
Plot 8-14. Occupied Bandwidth Plot (NR_1C_20M_256QAM – Mid Channel, Port 37)



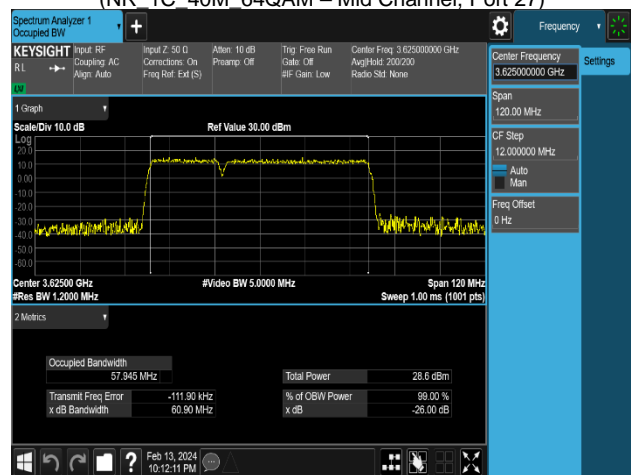
Plot 8-15. Occupied Bandwidth Plot (NR_1C_40M_QPSK – Mid Channel, Port 16)



Plot 8-16. Occupied Bandwidth Plot (NR_1C_40M_64QAM – Mid Channel, Port 27)

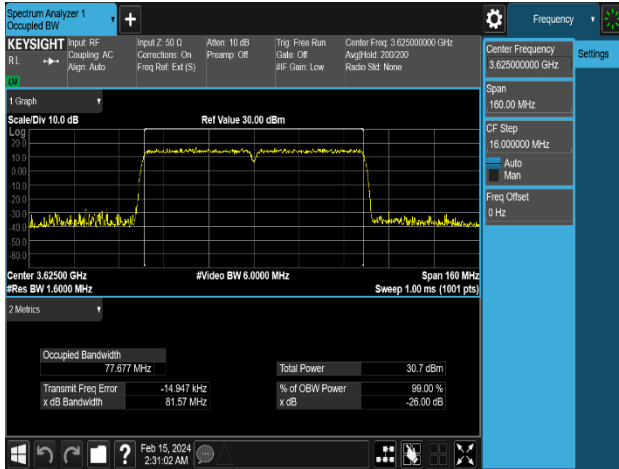


Plot 8-17. Occupied Bandwidth Plot (NR_2C_20M+40M_QPSK – Mid Channel, Port 0)

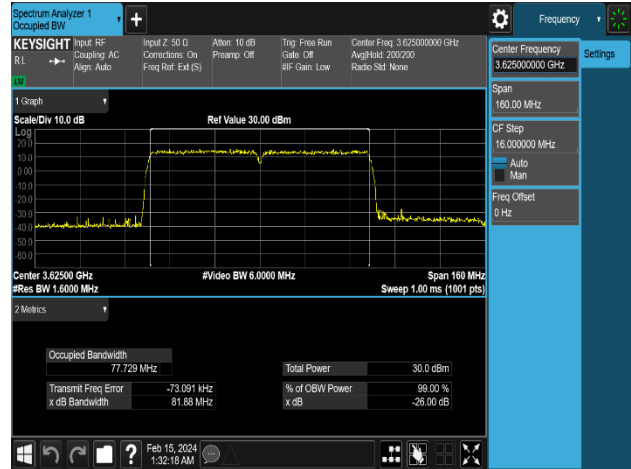


Plot 8-18. Occupied Bandwidth Plot (NR_2C_20M+40M_16QAM – Mid Channel, Port 0)

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Plot 8-19. Occupied Bandwidth Plot
(NR_2C_40M+40M_QPSK – Mid Channel, Port 0)



Plot 8-20. Occupied Bandwidth Plot
(NR_2C_40M+40M_16QAM – Mid Channel, Port 0)

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8.3 Power Spectral Density

Test Overview

A transmitter port of EUT is connected to the input of a signal analyzer. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

Test Procedure Used

ANSI C63.26 - Section 5.2.4
 ANSI C63.26 - Section 5.2.5
 KDB 971168 D01 v03r01 - Section 5.3

ANSI C63.26 - Section 6.4.3.2.3
 KDB 662911 D01 v02r01
 - Section E)2) In-Band Power Spectral Density (PSD) Measurements
 b) Measure and sum spectral maxima across the outputs.

Test Setting

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



The PSD is measured following the same procedures described in 5.2.4.4 of ANSI C63.26 for measuring the total average power, but with the RBW set to the reference bandwidth specified by the applicable regulatory requirement, and by using the marker function to identify the maximum PSD instead of summing the power across the OBW. If the fundamental measurement condition cannot be realized, then one of the alternative procedures in 5.2.4.4.2 or 5.2.4.4.3 should be selected, based on whether the transmitter duty cycle is constant (variations $\leq \pm 2\%$) or non-constant (variations $> \pm 2\%$), respectively.

1. Conducted power measurements are performed using the signal analyzer's "SA mode" measurement capability for signals with continuous operation.
2. Set span to $2 \times$ to $3 \times$ the OBW.
3. Set RBW = 1 MHz (the reference bandwidth)
4. Set VBW $\geq 3 \times$ RBW.
5. Set number of measurement points in sweep $\geq 2 \times$ span / RBW.
6. Sweep time:
 - a) Set \geq auto-couple, and enable trace averaging, or
 - b) Set $\geq [10 \times (\text{number of points in sweep}) \times (\text{transmission symbol period})]$ and enable a single sweep (automation-compatible) measurement. The sweep time should never be faster than the auto-coupled sweep time.
7. Detector = power averaging (rms).
8. The trace was allowed to stabilize
9. Use the peak marker function to determine the maximum amplitude level. ($=P_{\text{Meas}}$)
10. The relevant equation for determining the maximum EIRP from the measured RF output power is given in Equation as follows:

$$\text{EIRP} = P_{\text{Meas}} + G_T$$

where

G_T : gain of the transmitting antenna, in dBi (EIRP).

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Test Setup

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

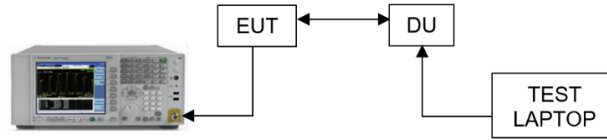


Figure 8-2. Test Instrument & Measurement Setup

Limit

§ 96.41 (b)
Category B CBSD : 37 dBm/MHz

Test Notes

1. Consider the following factors for MIMO Power Spectral Density:
The power spectral density is measured as dBm / MHz, with the resolution bandwidth of 1 MHz PSDs are summed up in linear using the measure-and-sum technique defined in KDB 971168 D01 v03r01 - Section E) 2).
2. Periodic trigger was used with gating ON. Gate sweep time, Gate delay and gate length were set accordingly to capture ON time of the transmission.
3. PSD per port (dBm/MHz) is converted to a linear value (mW). A summation of linear powers for all ports gives us the total MIMO conducted Power (mW). We convert this back to logarithmic scale for further PSD calculations.
4. Tested for Common beam mode to perform RF testing that can get maximum Tx power setting.
5. Applied antenna gain as below:

MT6402	LTE 10MHz			LTE/NR 20MHz			NR 40MHz		
	SU	MU	Common	SU	MU	Common	SU	MU	Common
Tx Power Max (dBm)	22.8	19.8	31.9	25.8	22.8	34.9	28.8	25.8	37.9
Max. Gain (dBi)	23.5	23.5	14.45	23.5	23.5	14.45	23.5	23.5	14.45
Max. EIRP (dBm)	46.3	46.3	46.3	49.3	49.3	49.3	52.3	52.3	52.3

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6. Sample Calculation:

Let us assume the following numbers:



Total MIMO Conducted PSD as 174.18 mW

Antenna Gain = 14.45 dBi



Factors		Value	Unit
Summed MIMO Conducted PSD (linear sum)		174.18	mW
Summed MIMO Conducted PSD (dBm)	= 10 * log (174.18) =	22.41	dBm/MHz
Antenna Gain		14.45	dB
e.i.r.p PSD		36.86	dBm/MHz

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Low Channel	Port	QPSK	16QAM	64QAM	256QAM
Conducted Power (dBm/MHz)	0	4.11	3.87	4.45	3.80
	1	4.47	3.96	4.30	4.28
	2	4.52	4.25	4.40	4.41
	3	4.32	4.02	4.50	4.06
	4	4.56	4.22	4.30	4.32
	5	4.35	4.08	4.20	4.32
	6	4.19	3.84	4.42	4.03
	7	4.31	4.01	4.49	4.48
	8	4.10	3.89	4.29	3.81
	9	4.36	3.91	4.44	4.12
	10	4.22	3.84	4.39	4.12
	11	4.27	3.91	4.43	4.12
	12	4.27	3.78	4.35	4.00
	13	4.29	3.87	4.46	4.08
	14	4.43	4.01	4.50	4.18
	15	4.19	3.93	4.39	4.02
	16	4.57	4.08	4.15	4.25
	17	4.50	4.03	4.22	4.40
	18	4.30	4.02	4.49	4.09
	19	4.49	4.01	4.48	4.18
	20	4.60	4.15	4.50	4.28
	21	4.21	3.87	4.39	4.28
	22	4.20	3.87	4.38	4.00
	23	4.25	3.94	4.34	4.46
	24	4.18	3.88	4.35	3.93
	25	4.62	4.09	4.33	4.46
	26	4.38	4.03	4.24	4.26
	27	4.47	3.99	4.45	4.23
	28	4.54	4.12	4.23	4.32
	29	4.59	4.15	4.46	4.10
	30	4.33	3.99	4.40	4.10
	31	4.77	4.21	4.34	4.69
	32	3.90	3.27	3.98	3.67
	33	4.33	4.13	4.42	4.24
	34	4.86	4.66	4.24	3.86
	35	4.00	3.91	4.10	3.92
	36	4.13	3.91	4.23	3.94
	37	4.26	4.18	4.44	4.23
	38	4.38	4.31	4.60	4.38
	39	4.30	4.14	4.41	4.50
	40	4.19	3.86	4.39	4.02
	41	4.56	4.06	3.90	4.34
	42	4.15	3.77	4.36	4.10
	43	4.07	3.72	4.26	4.04
	44	4.09	3.80	4.29	3.93
	45	4.16	3.87	4.36	3.97
	46	4.49	3.91	4.50	4.39
	47	4.15	3.84	4.35	4.32
	48	4.24	3.85	4.34	3.94
	49	4.36	3.84	4.45	4.40
	50	4.24	3.94	4.43	4.05
	51	4.17	3.82	4.27	3.88
	52	4.43	3.79	4.41	4.22
	53	4.38	3.78	4.47	4.41
	54	4.41	3.93	4.41	4.22
	55	4.26	3.91	4.36	4.09
	56	4.47	4.40	4.47	4.33
	57	4.39	4.11	4.49	4.30
	58	4.29	3.84	4.38	4.12
	59	4.49	4.22	4.17	4.43
	60	4.21	4.04	4.29	4.00
	61	4.56	4.19	4.23	3.95
	62	4.41	4.16	4.28	4.29
63	4.88	4.31	4.49	3.87	
MIMO Power (dBm/MHz)		22.41	22.05	22.42	22.23
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		36.86	36.50	36.87	36.68
e.i.r.p Limit (dBm/MHz)		37.00			



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Mid Channel	Port	QPSK	16QAM	64QAM	256QAM
Conducted Power (dBm/MHz)	0	4.36	3.26	4.50	4.06
	1	4.43	3.33	4.58	4.31
	2	4.30	3.32	4.44	4.18
	3	4.32	3.33	4.34	4.08
	4	4.51	3.59	4.65	4.24
	5	4.33	3.58	4.46	4.17
	6	4.26	3.63	4.38	4.12
	7	4.25	3.38	4.35	3.90
	8	4.00	3.24	4.13	3.86
	9	4.21	3.11	4.22	3.74
	10	4.37	3.39	4.36	3.97
	11	4.05	3.37	4.16	3.88
	12	4.49	3.55	4.58	4.34
	13	4.19	3.31	4.30	4.01
	14	4.27	3.39	4.40	4.09
	15	4.15	3.34	4.25	3.96
	16	4.16	3.37	4.27	4.04
	17	4.26	3.28	4.32	4.05
	18	4.09	3.24	4.18	3.88
	19	4.35	3.52	4.44	4.16
	20	4.62	3.67	4.70	4.44
	21	3.98	3.13	4.05	3.77
	22	4.26	3.46	4.26	4.08
	23	4.15	3.25	4.24	3.95
	24	4.23	3.26	4.21	3.95
	25	4.23	3.22	4.32	4.04
	26	4.13	3.23	4.22	3.95
	27	4.07	3.19	4.16	3.88
	28	4.26	3.40	4.37	4.16
	29	4.06	2.92	4.13	3.85
	30	4.22	3.34	4.31	4.00
	31	4.11	3.27	4.20	3.95
	32	4.17	3.32	4.26	4.01
	33	3.95	3.08	4.05	3.76
	34	4.81	4.04	4.89	4.59
	35	4.25	3.62	4.33	4.00
	36	4.28	3.55	4.34	4.08
	37	4.49	3.61	4.64	4.27
	38	4.13	3.49	4.26	4.00
	39	4.08	3.35	4.15	3.76
	40	4.10	2.86	4.20	3.92
	41	4.16	3.02	4.29	4.04
	42	4.24	3.11	4.31	4.01
	43	4.09	3.07	4.16	3.89
	44	4.54	3.37	4.61	4.34
	45	4.09	2.97	4.15	3.84
	46	4.33	3.20	4.43	4.07
	47	4.23	3.15	4.18	3.97
	48	4.21	3.10	4.28	4.00
	49	4.34	3.19	4.42	4.14
	50	4.01	2.97	4.12	3.82
	51	4.14	3.08	4.21	3.94
	52	4.45	3.20	4.53	4.16
	53	2.72	2.76	3.86	3.60
	54	4.33	3.40	4.44	4.21
	55	4.02	3.17	4.10	3.86
	56	4.49	3.94	4.58	4.35
	57	4.12	3.29	4.19	3.97
	58	4.29	3.50	4.35	4.04
	59	4.57	3.81	4.65	4.40
	60	4.47	3.44	4.53	4.15
	61	4.41	3.36	4.45	4.19
	62	4.27	3.56	4.35	3.96
63	4.66	3.74	4.75	4.36	
MIMO Power (dBm/MHz)		22.31	21.40	22.40	22.11
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		36.76	35.85	36.85	36.56
e.i.r.p Limit (dBm/MHz)		37.00			



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High Channel	Port	QPSK	16QAM	64QAM	256QAM
Conducted Power (dBm/MHz)	0	3.49	3.24	3.55	3.48
	1	3.72	3.39	3.77	3.70
	2	3.83	3.47	3.88	3.82
	3	3.81	3.37	3.86	3.79
	4	4.29	3.89	4.32	4.27
	5	3.74	3.35	3.79	3.72
	6	3.91	3.93	3.97	3.91
	7	3.79	3.67	3.83	3.78
	8	3.68	3.51	3.73	3.67
	9	3.69	3.49	3.74	3.67
	10	3.83	3.67	3.88	3.82
	11	3.78	3.61	3.84	3.78
	12	3.88	3.83	3.93	3.82
	13	3.50	3.39	3.55	3.48
	14	3.86	3.70	3.93	3.80
	15	3.69	3.59	3.76	3.65
	16	4.23	4.04	4.29	4.23
	17	3.66	3.44	3.82	3.73
	18	3.74	3.54	3.82	3.76
	19	3.88	3.69	3.96	3.78
	20	3.80	3.72	3.86	3.74
	21	3.59	3.48	3.65	3.55
	22	3.84	3.68	3.90	3.79
	23	3.66	3.57	3.72	3.61
	24	3.79	3.56	3.83	3.71
	25	3.62	3.32	3.68	3.68
	26	3.69	3.71	3.75	3.68
	27	3.75	3.58	3.80	3.63
	28	4.11	3.94	4.16	4.03
	29	3.79	3.52	3.87	3.78
	30	3.77	3.57	3.83	3.83
	31	3.82	3.58	3.87	3.80
	32	3.78	3.92	3.84	4.07
	33	3.86	4.07	3.93	4.06
	34	4.27	4.44	4.34	4.31
	35	3.74	4.04	3.81	3.67
	36	3.68	3.81	3.74	3.71
	37	3.72	3.96	3.78	3.75
	38	3.98	4.25	4.05	4.03
	39	3.63	3.98	3.72	3.67
	40	3.95	3.61	4.02	3.90
	41	4.07	3.70	4.04	4.01
	42	3.63	3.33	3.68	3.66
	43	3.86	3.60	3.94	3.91
	44	3.65	3.34	3.71	3.65
	45	3.53	3.08	3.58	3.51
	46	3.99	3.74	4.06	3.98
	47	3.87	3.47	3.94	3.87
	48	3.82	3.47	3.88	3.77
	49	3.61	3.25	3.66	3.71
	50	3.66	3.33	3.72	3.61
	51	3.66	3.38	3.72	3.59
	52	3.77	3.30	3.83	3.71
	53	3.86	3.42	3.92	3.88
	54	4.00	3.65	4.07	3.94
	55	3.90	3.52	3.96	3.83
	56	3.78	3.95	3.83	3.78
	57	3.70	3.90	3.77	3.74
	58	3.92	4.17	3.98	3.97
	59	4.13	4.15	4.19	4.17
	60	3.93	4.01	4.00	3.88
	61	4.05	4.11	4.11	4.31
	62	3.70	3.97	3.78	3.69
63	4.23	4.27	4.29	4.22	
MIMO Power (dBm/MHz)		21.88	21.75	21.94	21.88
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		36.33	36.20	36.39	36.33
e.i.r.p Limit (dBm/MHz)		37.00			



Table 8-8. Power Spectral Density Table (LTE_1C_10M)

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Low Channel	Port	QPSK	16QAM	64QAM	256QAM
Conducted Power (dBm/MHz)	0	4.12	3.93	4.20	4.40
	1	4.41	4.22	3.96	4.51
	2	4.35	4.23	4.43	4.40
	3	4.34	4.27	4.44	4.45
	4	4.61	4.40	3.79	3.70
	5	4.48	4.18	3.96	4.58
	6	4.22	4.06	4.31	4.33
	7	4.32	4.06	4.42	4.39
	8	4.15	3.79	4.24	4.40
	9	4.29	4.09	4.47	4.45
	10	4.30	4.07	4.40	4.39
	11	4.37	4.11	4.40	4.39
	12	4.30	4.04	4.49	4.49
	13	4.32	4.07	4.44	4.43
	14	4.40	4.13	4.46	4.51
	15	4.28	3.93	4.40	4.45
	16	4.56	4.35	3.86	4.65
	17	4.54	4.23	3.78	4.67
	18	4.22	4.07	4.43	4.36
	19	4.37	4.20	3.67	4.53
	20	4.42	4.22	4.48	4.57
	21	4.21	3.99	4.35	4.44
	22	4.38	4.14	3.68	4.51
	23	4.28	3.95	4.40	4.43
	24	4.33	4.02	4.48	4.47
	25	4.46	4.18	4.50	4.58
	26	4.34	4.02	4.46	4.47
	27	4.40	4.24	4.52	4.57
	28	4.57	4.32	3.93	3.94
	29	4.38	4.16	4.48	4.56
	30	4.27	3.99	4.41	4.44
	31	4.41	4.18	4.67	4.65
	32	4.12	4.32	4.27	4.45
	33	4.37	4.69	4.41	4.50
	34	4.56	4.15	3.86	3.97
	35	4.07	4.08	4.20	4.27
	36	4.24	4.61	4.39	4.44
	37	4.35	4.67	4.47	4.48
	38	4.78	4.88	4.61	4.19
	39	4.18	4.38	4.32	4.37
	40	4.18	3.75	4.31	4.38
	41	4.58	4.20	3.84	3.85
	42	4.30	3.95	4.44	4.47
	43	4.18	3.71	4.31	4.39
	44	4.21	3.81	4.37	4.50
	45	4.16	3.81	4.39	4.44
	46	4.75	4.29	4.05	4.11
	47	4.35	3.87	4.48	4.50
	48	4.17	3.89	4.39	4.44
	49	4.32	3.96	4.43	4.50
	50	4.19	3.88	4.43	4.42
	51	4.15	3.85	4.28	4.34
	52	4.43	3.96	4.46	4.57
	53	4.42	4.12	4.57	3.81
	54	4.59	4.24	4.63	3.81
	55	4.50	4.07	4.50	4.54
	56	4.91	3.97	3.80	4.58
	57	4.68	4.73	4.50	4.61
	58	4.38	4.55	4.52	4.53
	59	4.53	4.61	3.94	4.48
	60	4.24	4.62	4.49	4.52
	61	4.52	4.92	4.49	3.79
	62	4.33	4.59	4.47	4.42
63	4.39	4.73	3.70	3.71	
MIMO Power (dBm/MHz)		22.43	22.25	22.37	22.45
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		36.88	36.70	36.82	36.90
e.i.r.p Limit (dBm/MHz)		37.00			



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Mid Channel	Port	QPSK	16QAM	64QAM	256QAM
Conducted Power (dBm/MHz)	0	3.59	2.96	3.62	3.65
	1	3.86	3.09	3.80	3.83
	2	3.51	3.02	3.57	3.59
	3	3.62	2.92	3.67	3.69
	4	3.84	3.16	3.78	3.81
	5	3.92	3.27	3.84	3.85
	6	3.81	3.11	3.78	3.79
	7	3.66	2.94	3.60	3.62
	8	3.43	2.88	3.46	3.47
	9	3.51	2.79	3.47	3.39
	10	3.64	3.04	3.69	3.60
	11	3.57	2.85	3.42	3.45
	12	3.97	3.29	3.78	3.80
	13	3.58	3.07	3.49	3.50
	14	3.59	3.44	3.54	3.56
	15	3.51	3.26	3.47	3.48
	16	3.72	3.21	3.53	3.55
	17	3.68	3.26	3.53	3.54
	18	3.47	3.27	3.42	3.44
	19	3.73	3.43	3.63	3.64
	20	4.10	3.70	3.95	3.97
	21	3.33	3.04	3.27	3.26
	22	3.64	3.43	3.57	3.59
	23	3.56	3.06	3.41	3.42
	24	3.62	3.37	3.53	3.56
	25	3.72	3.20	3.52	3.53
	26	3.58	3.26	3.41	3.44
	27	3.50	3.09	3.35	3.36
	28	3.80	3.39	3.60	3.63
	29	3.49	3.20	3.47	3.46
	30	3.61	3.13	3.45	3.47
	31	3.62	3.19	3.47	3.48
	32	3.61	3.68	3.52	3.49
	33	3.23	3.41	3.29	3.31
	34	3.87	4.22	3.94	3.83
	35	3.50	3.73	3.53	3.54
	36	3.55	3.71	3.53	3.54
	37	3.95	3.96	3.74	3.75
	38	3.90	3.67	3.82	3.83
	39	3.43	3.53	3.33	3.33
	40	3.58	3.02	3.34	3.36
	41	3.67	3.11	3.47	3.47
	42	3.53	3.22	3.53	3.47
	43	3.54	3.01	3.34	3.35
	44	4.01	3.38	3.80	3.80
	45	3.44	2.96	3.38	3.37
	46	3.97	3.48	3.88	3.87
	47	3.53	2.99	3.51	3.51
	48	3.67	3.21	3.52	3.51
	49	3.75	3.36	3.61	3.62
	50	3.45	2.97	3.35	3.36
	51	3.56	2.96	3.36	3.37
	52	3.89	3.34	3.69	3.70
	53	3.31	2.85	3.14	3.13
	54	3.78	3.36	3.64	3.65
	55	3.79	3.23	3.61	3.60
	56	4.33	4.11	4.16	4.11
	57	3.88	3.69	3.56	3.73
	58	3.68	3.83	3.42	3.59
	59	3.80	3.91	3.44	3.72
	60	3.82	3.73	3.50	3.83
	61	3.79	3.84	3.54	3.69
	62	3.54	3.69	3.34	3.52
63	3.60	3.94	3.39	3.59	
MIMO Power (dBm/MHz)		21.73	21.39	21.62	21.64
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		36.18	35.84	36.07	36.09
e.i.r.p Limit (dBm/MHz)		37.00			

FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)			Approved by: Technical Manager
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High Channel	Port	QPSK	16QAM	64QAM	256QAM
Conducted Power (dBm/MHz)	0	3.33	3.42	3.41	3.37
	1	3.54	3.62	3.71	3.63
	2	3.76	3.60	3.82	3.74
	3	3.68	3.65	3.77	3.69
	4	3.95	3.95	4.02	3.94
	5	3.56	3.60	3.63	3.55
	6	3.81	3.80	3.88	3.78
	7	3.58	3.54	3.64	3.60
	8	3.50	3.52	3.56	3.53
	9	3.57	3.44	3.65	3.58
	10	3.68	3.60	3.74	3.66
	11	3.65	3.60	3.73	3.66
	12	3.73	3.72	3.81	3.75
	13	3.47	3.40	3.53	3.44
	14	3.73	3.76	3.82	3.80
	15	3.58	3.54	3.67	3.63
	16	3.84	3.88	3.92	3.90
	17	3.60	3.60	3.66	3.58
	18	3.61	3.55	3.68	3.66
	19	3.77	3.77	3.87	3.80
	20	3.69	3.70	3.77	3.80
	21	3.46	3.42	3.51	3.48
	22	3.65	3.66	3.73	3.71
	23	3.50	3.52	3.59	3.57
	24	3.57	3.67	3.65	3.63
	25	3.50	3.40	3.55	3.56
	26	3.61	3.48	3.67	3.64
	27	3.49	3.52	3.58	3.55
	28	3.72	3.71	3.82	3.74
	29	3.64	3.60	3.71	3.66
	30	3.59	3.53	3.69	3.66
	31	3.44	3.47	3.54	3.56
	32	3.68	3.61	3.75	3.71
	33	3.93	3.78	3.90	3.75
	34	3.58	4.25	3.68	3.64
	35	3.56	3.65	3.74	3.71
	36	3.48	3.55	3.58	3.60
	37	3.60	3.56	3.67	3.64
	38	3.90	4.03	3.99	3.95
	39	3.52	3.49	3.58	3.54
	40	3.68	3.42	3.77	3.70
	41	3.66	3.44	3.74	3.71
	42	3.46	3.18	3.52	3.47
	43	3.75	3.55	3.83	3.75
	44	3.48	3.21	3.58	3.59
	45	3.49	3.19	3.57	3.43
	46	3.70	3.56	3.80	3.76
	47	3.76	3.43	3.85	3.77
	48	3.65	3.55	3.74	3.66
	49	3.42	3.28	3.51	3.48
	50	3.52	3.33	3.60	3.50
	51	3.55	3.32	3.65	3.62
	52	3.64	3.43	3.74	3.68
	53	3.56	3.40	3.63	3.59
	54	3.75	3.61	3.84	3.85
	55	3.70	3.45	3.79	3.71
	56	3.71	3.70	3.81	3.73
	57	3.69	3.66	3.89	3.74
	58	3.76	3.81	3.84	3.81
	59	3.80	3.91	3.91	3.88
	60	3.69	3.64	3.90	3.77
	61	3.64	3.95	3.94	3.69
	62	3.55	3.52	3.64	3.65
63	3.65	4.08	3.82	3.68	
MIMO Power (dBm/MHz)		21.69	21.66	21.78	21.73
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		36.14	36.11	36.23	36.18
e.i.r.p Limit (dBm/MHz)		37.00			

Table 8-9. Power Spectral Density Table (LTE_1C_20M)

FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)			Approved by: Technical Manager
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Low Channel	Port	LTE_2C_20M+20M		LTE_3C_10M+10M+10M		LTE_3C_10M+20M+20M		LTE_3C_20M+20M+20M	
		QPSK	QAM	QPSK	QAM	QPSK	QAM	QPSK	QAM
Conducted Power (dBm/MHz)	0	4.01	3.31	4.21	3.93	4.43	4.16	3.88	3.74
	1	4.36	3.61	4.53	4.19	4.34	4.44	4.24	4.14
	2	4.26	3.59	4.19	4.61	4.55	4.05	4.25	4.02
	3	4.20	3.58	4.54	4.23	4.54	4.01	4.26	4.14
	4	4.64	4.29	3.76	4.51	4.47	4.20	4.64	4.44
	5	4.43	4.19	4.53	4.37	4.37	4.44	4.26	4.24
	6	4.09	4.00	4.46	4.22	4.49	4.43	4.06	3.98
	7	4.18	4.06	3.95	4.43	4.24	4.54	4.21	4.03
	8	4.06	3.82	4.23	4.01	4.36	4.26	4.04	3.90
	9	4.25	4.07	4.51	4.18	4.25	4.51	4.21	4.11
	10	4.19	3.69	4.52	4.33	4.19	4.04	4.13	3.98
	11	4.18	3.79	4.52	4.32	4.55	4.56	4.19	3.98
	12	4.25	3.82	4.30	4.06	4.41	4.31	4.15	4.00
	13	4.24	3.91	4.44	4.19	4.54	4.34	4.09	3.99
	14	4.21	3.75	4.00	4.45	4.35	4.52	4.27	4.14
	15	4.06	3.52	4.47	4.33	4.51	4.44	4.16	3.88
	16	4.56	3.99	4.58	4.34	4.41	4.16	4.51	4.33
	17	4.39	3.79	4.01	4.35	4.39	4.12	4.36	4.28
	18	4.14	3.63	4.51	4.32	4.31	4.49	4.17	3.93
	19	4.30	3.75	4.59	4.51	4.39	4.57	4.28	4.14
	20	4.31	3.81	4.58	4.42	4.37	4.21	4.25	4.04
	21	4.21	3.58	4.40	4.20	4.56	4.40	4.13	3.89
	22	4.30	3.67	4.59	4.46	4.08	4.44	4.29	4.10
	23	4.10	3.55	4.46	4.36	4.54	4.56	4.14	3.89
	24	4.22	3.61	4.32	4.14	4.48	4.25	4.12	4.02
	25	4.36	3.70	4.57	4.50	4.52	4.39	4.19	4.02
	26	4.18	3.75	3.98	4.36	4.37	4.01	4.20	4.03
	27	4.32	3.73	3.94	4.28	4.40	4.58	4.19	3.96
	28	4.70	4.04	3.96	4.44	4.45	4.15	4.67	4.38
	29	4.38	3.76	4.56	4.41	4.37	4.56	4.34	4.08
	30	4.18	3.67	4.49	4.36	4.21	4.43	4.14	4.01
	31	4.43	3.84	4.19	4.66	4.53	4.32	4.48	4.12
	32	3.87	3.97	4.24	3.52	4.34	4.35	4.08	3.86
	33	4.24	4.14	4.42	3.75	4.13	4.58	4.24	4.10
	34	4.82	4.79	4.09	3.93	4.59	4.71	4.83	4.63
	35	3.96	3.99	4.30	3.61	4.33	4.32	3.99	3.74
	36	4.12	3.96	4.30	3.61	4.39	4.33	4.14	3.87
	37	4.29	4.09	4.40	3.84	4.07	4.65	4.20	4.03
	38	4.42	4.56	4.42	4.36	4.45	4.31	4.48	4.23
	39	4.08	4.24	3.97	3.84	4.29	4.51	4.17	3.88
	40	4.14	3.53	4.40	3.92	4.13	4.19	4.09	3.81
	41	4.65	3.88	3.82	4.22	4.49	4.60	4.52	4.36
	42	4.15	3.51	4.52	4.34	4.22	4.15	4.16	3.93
	43	3.99	3.33	4.38	4.03	4.38	4.11	4.00	3.76
	44	4.11	3.42	4.22	3.86	4.45	3.97	4.18	3.82
	45	4.16	3.50	4.35	4.03	4.16	4.10	4.14	3.75
	46	4.54	3.95	4.33	4.58	4.59	4.20	4.62	4.35
	47	4.18	3.39	4.48	4.16	4.54	4.33	4.21	3.78
	48	4.15	3.48	4.30	3.83	4.53	4.10	4.22	3.81
	49	4.26	3.52	4.45	4.25	4.19	4.27	4.15	4.18
	50	4.15	3.47	4.55	4.21	4.30	4.26	4.16	3.83
	51	4.06	3.37	4.47	3.98	4.55	4.14	4.12	3.74
	52	4.33	3.43	4.53	4.03	4.27	4.19	4.33	3.90
	53	4.40	3.66	4.52	4.19	4.36	4.18	4.37	4.05
	54	4.45	3.88	3.96	4.41	4.45	4.57	4.46	4.06
	55	4.33	3.69	4.56	4.19	4.28	4.21	4.39	4.05
	56	4.57	4.63	3.81	3.87	4.51	4.62	4.61	4.53
	57	4.35	4.27	4.49	4.17	4.17	4.57	4.26	4.20
	58	4.24	4.12	4.01	3.95	4.24	4.54	4.25	4.00
	59	4.39	4.56	4.17	4.01	4.52	4.66	4.42	4.20
	60	4.18	4.17	4.30	3.64	3.99	4.52	4.22	4.09
	61	4.49	4.35	4.59	3.84	4.22	4.59	4.46	4.40
	62	4.19	4.16	4.09	4.02	4.39	4.23	4.19	3.97
63	4.64	4.56	3.92	3.81	4.49	4.47	4.62	4.45	
MIMO Power (dBm/MHz)		22.34	21.93	22.38	22.23	22.44	22.42	22.33	22.12
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45	14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		36.79	36.38	36.83	36.68	36.89	36.87	36.78	36.57
e.i.r.p Limit (dBm/MHz)		37.00							

FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)			Approved by: Technical Manager
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Mid Channel	Port	LTE_2C_20M+20M		LTE_3C_10M+10M+10M		LTE_3C_10M+20M+20M		LTE_3C_20M+20M+20M	
		QPSK	QAM	QPSK	QAM	QPSK	QAM	QPSK	QAM
Conducted Power (dBm/MHz)	0	3.66	2.92	3.56	3.33	3.67	3.40	3.54	3.00
	1	3.84	3.18	3.66	3.57	3.86	3.66	3.68	3.34
	2	3.61	3.09	3.81	3.50	3.82	3.58	3.62	3.06
	3	3.45	2.97	3.61	3.44	3.74	3.41	3.63	3.05
	4	3.87	3.26	3.87	3.62	3.75	3.66	3.85	3.40
	5	3.69	3.11	3.75	3.36	3.98	3.64	3.86	3.36
	6	3.53	3.16	3.63	3.45	3.73	3.54	3.65	3.22
	7	3.50	2.88	3.77	3.45	3.63	3.41	3.56	3.07
	8	3.49	2.83	3.35	3.14	3.44	3.32	3.48	2.98
	9	3.58	2.82	3.41	3.17	3.56	3.41	3.52	3.04
	10	3.49	2.94	3.63	3.39	3.69	3.49	3.61	3.11
	11	3.50	2.83	3.76	3.50	3.71	3.40	3.54	3.04
	12	3.78	3.11	3.80	3.46	3.80	3.64	3.81	3.46
	13	3.55	2.83	3.53	3.30	3.67	3.46	3.57	2.96
	14	3.67	2.98	3.72	3.54	3.90	3.65	3.61	3.20
	15	3.49	2.71	3.54	3.36	3.57	3.28	3.52	2.96
	16	3.61	2.91	3.56	3.32	3.77	3.56	3.59	3.22
	17	3.59	2.83	3.57	3.36	3.68	3.46	3.57	3.14
	18	3.46	2.74	3.50	3.16	3.58	3.31	3.56	2.90
	19	3.49	3.00	3.75	3.48	3.73	3.48	3.64	3.37
	20	3.96	3.26	3.88	3.51	3.95	3.68	3.91	3.34
	21	3.26	2.69	3.30	3.07	3.48	3.13	3.20	2.84
	22	3.51	3.13	3.75	3.48	3.82	3.49	3.66	3.09
	23	3.45	2.88	3.53	3.31	3.53	3.23	3.51	3.01
	24	3.60	3.16	3.79	3.40	3.86	3.61	3.69	3.21
	25	3.73	3.00	3.44	3.25	3.59	3.41	3.52	3.03
	26	3.42	3.19	3.44	3.26	3.64	3.35	3.44	3.23
	27	3.49	3.00	3.57	3.40	3.73	3.45	3.58	3.17
	28	3.82	3.16	3.63	3.46	3.93	3.53	3.75	3.31
	29	3.49	2.88	3.45	3.06	3.56	3.19	3.30	2.80
	30	3.51	2.99	3.63	3.48	3.77	3.46	3.52	2.98
	31	3.49	3.01	3.75	3.50	3.58	3.42	3.59	3.10
	32	3.50	3.48	3.67	2.99	3.81	3.80	3.63	3.53
	33	3.51	3.29	3.29	2.75	3.75	3.69	3.47	3.45
	34	4.14	4.18	4.31	3.02	4.18	4.33	4.12	4.01
	35	3.45	3.63	3.81	3.05	3.83	3.84	3.64	3.55
	36	3.61	3.63	3.56	3.13	3.66	3.74	3.52	3.25
	37	3.83	3.51	3.70	3.13	3.98	4.02	3.79	3.64
	38	3.62	3.64	3.65	3.13	3.86	4.03	3.79	3.37
	39	3.32	3.43	3.52	2.82	3.52	3.47	3.48	3.20
	40	3.40	2.51	3.33	2.89	3.39	3.03	3.33	2.70
	41	3.66	2.98	3.55	3.18	3.86	3.36	3.83	3.37
	42	3.52	2.97	3.63	3.17	3.64	3.20	3.57	2.85
	43	3.40	2.75	3.53	3.12	3.56	3.08	3.40	2.66
	44	3.75	3.16	3.88	3.18	3.78	3.53	3.79	3.10
	45	3.47	2.97	3.60	3.04	3.53	3.09	3.35	2.72
	46	3.65	3.05	3.74	3.34	3.80	3.50	3.75	2.99
	47	3.47	3.10	3.54	3.11	3.66	3.19	3.54	2.79
	48	3.67	2.96	3.43	3.06	3.75	3.23	3.49	3.05
	49	3.74	3.08	3.61	3.38	3.89	3.49	3.62	3.20
	50	3.45	2.96	3.56	3.17	3.55	3.28	3.52	2.83
	51	3.42	3.01	3.58	3.25	3.82	3.31	3.58	3.03
	52	3.67	3.06	3.59	3.09	3.85	3.37	3.68	3.11
	53	3.30	2.73	3.35	2.91	3.40	2.96	3.53	2.79
	54	3.64	3.13	3.91	3.45	3.94	3.48	3.95	3.24
	55	3.54	2.83	3.66	3.17	3.63	3.29	3.69	2.98
	56	4.00	3.81	3.87	3.49	4.14	4.22	3.99	3.82
	57	3.57	3.38	3.47	2.89	3.50	3.83	3.63	3.38
	58	3.65	3.61	3.84	3.21	3.80	3.83	3.67	3.48
	59	3.90	3.79	3.88	3.01	4.08	3.96	3.91	3.73
	60	3.70	3.48	3.83	3.03	3.77	3.94	3.57	3.67
	61	3.84	3.65	3.80	3.14	3.83	3.80	3.66	3.71
	62	3.59	3.51	3.56	2.98	3.66	3.66	3.49	3.42
63	3.86	3.85	4.08	3.34	4.00	4.04	3.93	3.78	
MIMO Power (dBm/MHz)		21.66	21.21	21.71	21.31	21.80	21.59	21.69	21.26
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45	14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		36.11	35.66	36.16	35.76	36.25	36.04	36.14	35.71
e.i.r.p Limit (dBm/MHz)		37.00							



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High Channel	Port	LTE_2C_20M+20M		LTE_3C_10M+10M+10M		LTE_3C_10M+20M+20M		LTE_3C_20M+20M+20M	
		QPSK	QAM	QPSK	QAM	QPSK	QAM	QPSK	QAM
Conducted Power (dBm/MHz)	0	3.87	3.45	3.69	3.09	3.81	3.60	3.71	3.54
	1	3.90	3.45	3.86	3.13	3.81	3.53	3.78	3.55
	2	3.98	3.56	4.01	3.28	3.95	3.77	3.98	3.56
	3	3.99	3.49	3.96	3.31	3.97	3.68	3.91	3.57
	4	4.52	3.95	4.41	3.78	4.29	4.10	4.28	4.11
	5	4.17	3.52	3.94	3.24	3.92	3.74	3.84	3.67
	6	4.00	3.59	4.12	3.37	3.94	3.75	4.01	3.60
	7	4.00	3.47	4.00	3.33	3.96	3.77	3.88	3.56
	8	3.72	3.56	3.85	3.23	3.94	3.77	3.85	3.63
	9	3.56	3.41	3.90	3.18	3.83	3.72	3.77	3.58
	10	3.41	3.49	4.00	3.24	3.83	3.61	3.91	3.51
	11	3.50	3.55	4.03	3.38	3.89	3.67	3.95	3.55
	12	3.75	3.62	4.01	3.38	4.07	3.83	3.99	3.71
	13	3.40	3.35	3.75	3.14	3.80	3.55	3.74	3.39
	14	3.65	3.58	4.12	3.40	4.07	3.86	4.04	3.68
	15	3.44	3.44	3.92	3.18	3.88	3.61	3.85	3.54
	16	3.93	3.85	4.44	3.81	4.18	3.98	4.32	4.05
	17	3.54	3.42	3.89	3.16	3.95	3.73	3.85	3.62
	18	3.51	3.50	3.95	3.27	3.96	3.68	3.90	3.59
	19	3.59	3.51	4.09	3.35	3.95	3.81	3.94	3.62
	20	3.68	3.65	3.95	3.34	4.09	3.84	4.01	3.76
	21	3.40	3.25	3.77	3.01	3.71	3.58	3.68	3.47
	22	3.63	3.60	4.02	3.36	3.95	3.73	3.97	3.75
	23	3.35	3.36	3.86	3.27	3.61	3.53	3.70	3.38
	24	3.61	3.53	3.95	3.21	3.86	3.68	3.79	3.62
	25	3.53	3.34	3.84	3.15	3.81	3.59	3.71	3.47
	26	3.57	3.43	3.95	3.25	3.91	3.62	3.89	3.47
	27	3.41	3.42	3.90	3.32	3.78	3.49	3.67	3.43
	28	3.91	3.73	4.21	3.51	4.10	3.90	4.11	3.85
	29	3.47	3.40	3.92	3.22	3.77	3.61	3.75	3.42
	30	3.59	3.52	4.04	3.42	3.90	3.62	3.85	3.72
	31	3.64	3.47	3.99	3.43	3.86	3.80	3.89	3.68
	32	3.69	3.94	4.05	3.97	4.06	4.22	4.00	3.67
	33	3.63	3.84	3.99	3.97	3.73	3.89	3.78	3.64
	34	4.08	4.38	4.54	4.34	4.30	4.41	4.43	4.10
	35	3.47	3.91	3.95	3.80	3.84	4.04	3.86	3.63
	36	3.66	3.95	3.83	3.79	3.89	3.95	3.86	3.50
	37	3.67	3.88	3.83	3.73	3.88	3.99	3.74	3.52
	38	3.83	4.32	4.22	4.06	4.14	4.37	4.25	3.87
	39	3.40	3.77	3.86	3.91	3.66	3.94	3.69	3.55
	40	3.95	3.39	4.04	3.46	3.86	3.50	3.82	3.48
	41	4.11	3.50	4.17	3.31	4.03	3.69	4.09	3.62
	42	3.66	3.26	3.78	2.86	3.75	3.32	3.65	3.34
	43	3.91	3.39	4.13	3.34	3.99	3.65	3.98	3.61
	44	4.00	3.52	3.76	3.12	3.94	3.57	3.86	3.59
	45	3.70	3.14	3.69	2.83	3.82	3.31	3.69	3.45
	46	3.95	3.56	4.29	3.29	4.07	3.70	4.11	3.62
	47	3.88	3.37	4.03	3.03	3.90	3.65	3.88	3.45
	48	3.78	3.39	3.96	3.18	3.83	3.60	3.81	3.49
	49	3.75	3.32	3.80	3.02	3.83	3.44	3.74	3.47
	50	3.66	3.23	3.89	3.14	3.83	3.46	3.76	3.31
	51	3.74	3.20	3.94	3.14	3.83	3.46	3.72	3.25
	52	3.90	3.33	3.95	3.07	3.88	3.44	3.89	3.48
	53	3.91	3.29	4.02	3.16	3.89	3.53	3.95	3.41
	54	4.19	3.57	4.33	3.35	4.21	3.83	4.30	3.56
	55	3.87	3.41	3.99	3.21	3.87	3.63	4.01	3.40
	56	3.86	4.01	3.90	3.90	3.92	4.19	3.92	3.69
	57	3.78	3.85	3.86	3.83	3.72	3.94	3.84	3.56
	58	3.99	4.11	4.17	4.02	4.04	4.17	3.99	3.80
	59	4.21	4.33	4.25	4.27	4.21	4.38	4.29	4.00
	60	3.81	3.95	4.07	4.04	3.84	4.04	3.82	3.55
	61	4.27	4.11	4.15	4.15	4.04	4.25	4.13	3.80
	62	3.75	3.88	3.94	3.79	3.80	4.06	3.81	3.49
63	4.41	4.40	4.34	4.35	4.32	4.61	4.34	4.13	
MIMO Power (dBm/MHz)		21.85	21.68	22.07	21.52	21.99	21.85	21.98	21.67
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45	14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		36.30	36.13	36.52	35.97	36.44	36.30	36.43	36.12
e.i.r.p Limit (dBm/MHz)		37.00							



Table 8-10. Power Spectral Density Table (LTE Multi-carrier)

FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)			Approved by: Technical Manager
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Low Channel	Port	QPSK	16QAM	64QAM	256QAM
Conducted Power (dBm/MHz)	0	3.90	4.04	4.04	4.12
	1	4.33	4.44	4.44	4.50
	2	4.22	4.35	4.29	4.26
	3	4.22	4.35	4.29	4.30
	4	4.21	4.36	4.28	4.37
	5	4.34	4.47	4.42	4.49
	6	4.16	4.23	4.17	4.14
	7	4.22	4.29	4.20	4.27
	8	4.08	4.15	4.07	4.10
	9	4.27	4.35	4.29	4.31
	10	4.27	4.22	4.23	4.30
	11	4.23	4.25	4.24	4.21
	12	4.18	4.29	4.23	4.30
	13	4.23	4.32	4.21	4.28
	14	4.35	4.29	4.37	4.39
	15	4.09	4.03	4.12	4.09
	16	4.42	4.51	4.52	4.50
	17	4.46	4.53	4.46	4.48
	18	4.21	4.16	4.20	4.17
	19	4.39	4.33	4.33	4.36
	20	4.38	4.39	4.32	4.35
	21	4.19	4.19	4.23	4.20
	22	4.32	4.36	4.32	4.29
	23	4.24	4.19	4.12	4.14
	24	4.20	4.26	4.22	4.25
	25	4.43	4.47	4.35	4.43
	26	4.24	4.34	4.18	4.30
	27	4.33	4.40	4.26	4.33
	28	4.44	4.62	4.48	4.56
	29	4.37	4.48	4.40	4.44
	30	4.10	4.22	4.19	4.16
	31	4.39	4.42	4.31	4.39
	32	3.85	3.87	3.79	3.84
	33	4.33	4.24	4.25	4.28
	34	4.48	4.42	4.36	4.40
	35	4.04	3.94	3.93	3.94
	36	4.13	4.19	4.08	4.16
	37	4.28	4.31	4.25	4.21
	38	4.28	4.67	4.64	4.60
	39	4.08	4.12	4.10	4.01
	40	4.06	4.17	4.13	4.09
	41	4.24	4.33	4.28	4.26
	42	4.25	4.23	4.26	4.17
	43	3.98	3.98	3.96	3.97
	44	4.14	4.11	4.17	4.14
	45	4.13	4.18	4.10	4.12
	46	4.44	4.59	4.48	4.45
	47	4.21	4.10	4.12	4.13
	48	4.16	4.20	4.19	4.15
	49	4.24	4.25	4.29	4.21
	50	4.20	4.12	4.12	4.08
	51	4.13	4.01	4.05	4.01
	52	4.28	4.38	4.38	4.31
	53	4.35	4.36	4.33	4.40
	54	4.22	4.20	4.26	4.23
	55	4.17	4.16	4.21	4.20
	56	4.30	4.28	4.33	4.31
	57	4.49	4.57	4.59	4.55
	58	4.24	4.24	4.26	4.24
	59	4.28	4.14	4.20	4.17
	60	4.24	4.19	4.24	4.21
	61	4.34	4.40	4.39	4.40
	62	4.21	4.23	4.26	4.17
63	4.34	4.36	4.23	4.25	
MIMO Power (dBm/MHz)		22.31	22.34	22.31	22.32
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		36.76	36.79	36.76	36.77
e.i.r.p Limit (dBm/MHz)		37.00			



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Mid Channel	Port	QPSK	16QAM	64QAM	256QAM
Conducted Power (dBm/MHz)	0	3.37	3.53	3.26	3.44
	1	3.55	3.73	3.49	3.72
	2	3.34	3.50	3.16	3.43
	3	3.25	3.48	3.18	3.47
	4	3.27	3.49	3.14	3.42
	5	3.55	3.69	3.49	3.73
	6	3.43	3.61	3.28	3.47
	7	3.17	3.42	3.08	3.36
	8	3.11	3.35	3.13	3.36
	9	3.20	3.37	3.06	3.35
	10	3.31	3.51	3.24	3.40
	11	3.15	3.38	3.05	3.27
	12	3.63	3.89	3.54	3.76
	13	3.38	3.58	3.31	3.53
	14	3.32	3.53	3.26	3.52
	15	3.11	3.39	3.13	3.34
	16	3.32	3.56	3.27	3.49
	17	3.37	3.58	3.35	3.57
	18	3.19	3.46	3.09	3.34
	19	3.38	3.62	3.28	3.56
	20	3.72	3.97	3.65	3.94
	21	3.08	3.28	3.05	3.25
	22	3.39	3.64	3.33	3.53
	23	3.13	3.36	3.07	3.27
	24	3.32	3.58	3.30	3.54
	25	3.39	3.65	3.30	3.48
	26	3.16	3.44	3.13	3.31
	27	3.15	3.35	3.04	3.30
	28	3.47	3.70	3.36	3.59
	29	3.30	3.50	3.20	3.37
	30	3.29	3.53	3.23	3.45
	31	3.23	3.50	3.12	3.37
	32	3.07	3.34	2.83	3.15
	33	3.10	3.33	2.91	3.10
	34	3.39	3.59	3.19	3.39
	35	3.19	3.42	3.10	3.26
	36	3.32	3.62	3.20	3.39
	37	3.56	3.86	3.43	3.64
	38	3.51	3.73	3.43	3.52
	39	2.99	3.28	2.96	3.13
	40	3.09	3.35	3.15	3.29
	41	3.05	3.29	2.98	3.19
	42	3.21	3.53	3.27	3.40
	43	3.02	3.32	3.07	3.17
	44	3.54	3.85	3.58	3.73
	45	3.19	3.44	3.21	3.33
	46	3.40	3.64	3.32	3.48
	47	3.15	3.22	3.11	3.28
	48	3.26	3.33	3.31	3.45
	49	3.41	3.41	3.42	3.55
	50	3.13	3.15	3.12	3.22
	51	3.09	3.08	3.06	3.26
	52	3.47	3.52	3.45	3.66
	53	2.83	2.93	2.88	3.04
	54	3.13	3.20	3.01	3.25
	55	2.93	2.96	2.88	3.13
	56	3.32	3.33	3.21	3.43
	57	3.45	3.45	3.44	3.54
	58	3.24	3.34	3.31	3.38
	59	3.23	3.23	3.17	3.41
	60	3.33	3.42	3.40	3.52
	61	3.45	3.50	3.42	3.50
	62	3.20	3.28	3.17	3.37
63	3.25	3.26	3.31	3.37	
MIMO Power (dBm/MHz)		21.34	21.52	21.28	21.48
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		35.79	35.97	35.73	35.93
e.i.r.p Limit (dBm/MHz)		37.00			



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High Channel	Port	QPSK	16QAM	64QAM	256QAM
Conducted Power (dBm/MHz)	0	3.28	3.46	3.26	3.25
	1	3.59	3.77	3.55	3.53
	2	3.68	3.85	3.73	3.63
	3	3.54	3.83	3.59	3.64
	4	3.77	3.91	3.77	3.70
	5	3.47	3.84	3.54	3.55
	6	3.73	4.01	3.77	3.76
	7	3.51	3.82	3.53	3.54
	8	3.35	3.70	3.41	3.41
	9	3.61	3.87	3.63	3.55
	10	3.54	3.89	3.68	3.63
	11	3.55	3.85	3.52	3.53
	12	3.69	3.95	3.72	3.73
	13	3.37	3.71	3.47	3.43
	14	3.61	4.04	3.70	3.65
	15	3.33	3.70	3.46	3.38
	16	3.79	4.17	3.86	3.78
	17	3.51	3.85	3.57	3.58
	18	3.43	3.83	3.58	3.57
	19	3.68	4.01	3.76	3.73
	20	3.62	3.96	3.68	3.67
	21	3.29	3.68	3.44	3.40
	22	3.50	3.91	3.61	3.65
	23	3.26	3.73	3.52	3.41
	24	3.40	3.78	3.53	3.48
	25	3.34	3.73	3.43	3.43
	26	3.34	3.78	3.54	3.53
	27	3.24	3.75	3.40	3.44
	28	3.54	3.93	3.65	3.58
	29	3.40	3.90	3.59	3.58
	30	3.37	3.82	3.52	3.50
	31	3.24	3.76	3.46	3.44
	32	3.14	3.52	3.31	3.27
	33	3.39	3.78	3.51	3.44
	34	3.45	3.81	3.56	3.49
	35	3.31	3.75	3.50	3.42
	36	3.28	3.67	3.36	3.35
	37	3.37	3.69	3.45	3.39
	38	3.59	4.11	3.78	3.78
	39	3.15	3.57	3.36	3.23
	40	3.33	3.83	3.54	3.52
	41	3.28	3.82	3.47	3.47
	42	3.15	3.45	3.30	3.19
	43	3.37	3.82	3.46	3.48
	44	3.22	3.59	3.33	3.29
	45	3.14	3.53	3.34	3.20
	46	3.56	3.95	3.70	3.61
	47	3.32	3.79	3.48	3.48
	48	3.36	3.78	3.47	3.44
	49	3.23	3.60	3.33	3.27
	50	3.16	3.64	3.37	3.27
	51	3.14	3.64	3.26	3.30
	52	3.34	3.74	3.39	3.36
	53	3.29	3.69	3.37	3.37
	54	3.39	3.81	3.52	3.46
	55	3.26	3.63	3.37	3.32
	56	3.17	3.45	3.27	3.14
	57	3.32	3.69	3.40	3.38
	58	3.43	3.85	3.52	3.50
	59	3.25	3.88	3.63	3.58
	60	3.45	3.84	3.49	3.50
	61	3.37	3.80	3.44	3.46
	62	3.22	3.75	3.38	3.35
63	3.27	3.76	3.43	3.40	
MIMO Power (dBm/MHz)		21.46	21.85	21.57	21.54
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		35.91	36.30	36.02	35.99
e.i.r.p Limit (dBm/MHz)		37.00			



Table 8-11. Power Spectral Density Table (NR_1C_20M)

FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)			Approved by: Technical Manager
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Low Channel	Port	QPSK	16QAM	64QAM	256QAM
Conducted Power (dBm/MHz)	0	3.61	3.71	3.66	3.69
	1	4.01	4.20	4.07	4.10
	2	3.72	3.86	3.80	3.84
	3	3.66	3.86	3.81	3.86
	4	3.93	4.08	3.97	4.13
	5	3.92	4.14	4.06	4.08
	6	3.88	4.10	3.91	3.98
	7	3.67	3.83	3.65	3.74
	8	3.55	3.66	3.54	3.58
	9	3.78	3.92	3.73	3.87
	10	4.08	4.20	4.06	4.19
	11	3.75	3.87	3.76	3.85
	12	3.87	3.96	3.85	3.89
	13	3.92	4.02	3.86	4.02
	14	3.92	4.06	3.91	4.05
	15	3.53	3.67	3.59	3.67
	16	4.03	4.19	4.08	4.14
	17	3.97	4.19	4.05	4.10
	18	3.60	3.74	3.64	3.70
	19	3.94	4.12	3.94	4.06
	20	3.89	4.02	3.92	3.97
	21	3.67	3.79	3.72	3.71
	22	4.21	4.41	4.25	4.30
	23	3.70	3.82	3.68	3.84
	24	3.90	4.04	3.90	4.01
	25	3.93	4.09	4.00	4.10
	26	3.80	3.85	3.75	3.90
	27	3.80	3.99	3.91	4.00
	28	4.16	4.35	4.20	4.22
	29	3.84	4.02	3.88	3.77
	30	3.69	3.89	3.73	3.56
	31	3.94	4.07	3.91	3.75
	32	3.36	3.59	3.42	3.18
	33	3.85	4.08	3.96	3.73
	34	4.24	4.45	4.26	4.06
	35	3.54	3.67	3.56	3.28
	36	3.78	3.69	3.83	3.61
	37	4.00	3.81	3.90	3.80
	38	4.22	3.99	4.17	3.99
	39	3.49	3.33	3.44	3.28
	40	3.50	3.37	3.53	3.32
	41	3.96	3.92	3.89	3.78
	42	4.10	3.96	4.04	3.93
	43	3.62	3.42	3.55	3.38
	44	3.71	3.67	3.73	3.55
	45	3.79	3.61	3.69	3.61
	46	4.59	4.54	4.62	4.41
	47	3.66	3.47	3.60	3.44
	48	3.82	3.73	3.64	3.70
	49	3.94	3.76	3.70	3.72
	50	3.72	3.37	3.29	3.43
	51	3.67	3.44	3.35	3.71
	52	3.89	3.70	3.65	3.87
	53	3.94	3.62	3.61	3.85
	54	4.06	3.93	3.73	3.99
	55	3.91	3.86	3.67	3.92
	56	3.98	3.96	3.77	4.01
	57	4.12	3.95	3.86	4.06
	58	4.26	3.91	3.85	4.11
	59	4.02	3.76	3.74	3.97
	60	3.92	3.84	3.68	3.94
	61	4.10	3.81	3.82	3.98
	62	3.71	3.46	3.38	3.64
63	4.05	3.84	3.74	3.91	
MIMO Power (dBm/MHz)		21.93	21.95	21.87	21.91
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		36.38	36.40	36.32	36.36
e.i.r.p Limit (dBm/MHz)		37.00			



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Mid Channel	Port	QPSK	16QAM	64QAM	256QAM
Conducted Power (dBm/MHz)	0	3.20	3.35	3.17	3.30
	1	3.35	3.59	3.29	3.59
	2	3.13	3.35	3.07	3.30
	3	3.20	3.31	3.15	3.31
	4	3.06	3.28	2.96	3.17
	5	3.43	3.61	3.39	3.60
	6	3.12	3.42	3.18	3.41
	7	3.00	3.33	3.13	3.27
	8	2.97	3.26	2.96	3.15
	9	2.89	3.24	2.96	3.22
	10	3.08	3.40	3.17	3.29
	11	2.95	3.20	3.04	3.24
	12	3.36	3.67	3.42	3.56
	13	3.21	3.34	3.19	3.37
	14	3.16	3.39	3.26	3.37
	15	2.94	3.19	3.06	3.23
	16	3.20	3.31	3.08	3.24
	17	3.21	3.32	3.18	3.29
	18	3.04	3.24	2.99	3.21
	19	3.20	3.40	3.21	3.32
	20	3.57	3.73	3.51	3.70
	21	2.89	2.99	2.87	2.97
	22	3.25	3.31	3.21	3.24
	23	2.81	3.13	2.98	3.10
	24	2.99	3.32	3.12	3.28
	25	2.95	3.25	3.06	3.27
	26	2.91	3.24	3.06	3.17
	27	2.74	3.12	2.90	3.04
	28	2.94	3.31	3.13	3.33
	29	2.88	3.25	3.10	3.17
	30	2.88	3.25	3.08	3.28
	31	2.82	3.18	3.03	3.17
	32	2.67	3.01	2.73	2.98
	33	2.63	2.91	2.75	2.85
	34	2.99	3.35	3.15	3.30
	35	2.79	3.17	2.91	3.19
	36	2.85	3.26	3.04	3.18
	37	3.12	3.43	3.28	3.42
	38	3.11	3.45	3.31	3.38
	39	2.68	2.95	2.81	3.03
	40	2.71	3.00	2.89	2.96
	41	2.66	2.91	2.83	2.91
	42	2.83	3.23	3.07	3.15
	43	2.63	2.98	2.90	2.94
	44	3.13	3.43	3.27	3.46
	45	2.80	3.10	2.96	3.08
	46	2.96	3.37	3.24	3.35
	47	2.80	3.12	2.96	3.08
	48	2.81	3.22	3.05	3.15
	49	2.93	3.28	3.15	3.25
	50	2.65	2.99	2.95	3.02
	51	2.66	3.00	2.90	2.99
	52	3.03	3.44	3.28	3.41
	53	2.54	2.91	2.77	2.84
	54	2.73	2.97	2.88	2.98
	55	2.59	2.86	2.75	2.94
	56	2.93	3.14	3.09	3.19
	57	3.03	3.29	3.18	3.32
	58	2.90	3.26	3.11	3.23
	59	3.10	3.49	3.11	3.39
	60	2.95	3.30	3.15	3.34
	61	3.09	3.39	3.26	3.42
	62	2.87	3.16	3.07	3.14
63	2.93	3.22	3.11	3.15	
MIMO Power (dBm/MHz)		21.03	21.31	21.14	21.29
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		35.48	35.76	35.59	35.74
e.i.r.p Limit (dBm/MHz)		37.00			

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High Channel	Port	QPSK	16QAM	64QAM	256QAM
Conducted Power (dBm/MHz)	0	2.95	3.38	3.21	3.33
	1	3.04	3.54	3.37	3.39
	2	3.27	3.70	3.50	3.67
	3	3.11	3.59	3.39	3.51
	4	3.37	3.62	3.38	3.56
	5	3.30	3.60	3.48	3.54
	6	3.29	3.61	3.43	3.59
	7	3.30	3.57	3.35	3.51
	8	3.19	3.48	3.31	3.45
	9	3.19	3.54	3.36	3.49
	10	3.30	3.52	3.34	3.56
	11	3.21	3.50	3.36	3.54
	12	3.31	3.60	3.52	3.56
	13	3.16	3.37	3.30	3.34
	14	3.38	3.77	3.40	3.60
	15	3.19	3.26	3.13	3.31
	16	3.56	3.66	3.67	3.64
	17	3.31	3.50	3.44	3.47
	18	3.35	3.45	3.38	3.43
	19	3.37	3.54	3.57	3.61
	20	3.41	3.49	3.52	3.61
	21	3.18	3.26	3.28	3.42
	22	3.34	3.51	3.44	3.61
	23	3.13	3.29	3.21	3.39
	24	3.25	3.34	3.39	3.47
	25	3.26	3.37	3.37	3.50
	26	3.30	3.39	3.39	3.47
	27	3.12	3.22	3.18	3.16
	28	3.37	3.53	3.70	3.45
	29	3.33	3.46	3.43	3.45
	30	3.30	3.33	3.43	3.34
	31	3.14	3.22	3.31	3.19
	32	3.15	2.63	3.04	2.83
	33	3.19	2.79	3.04	2.84
	34	3.10	2.67	2.95	2.73
	35	3.21	2.86	2.96	2.86
	36	3.19	2.91	3.05	2.93
	37	3.21	3.00	3.22	3.02
	38	3.56	3.33	3.47	3.23
	39	3.03	2.70	2.93	2.72
	40	3.26	3.42	3.25	3.34
	41	3.05	3.13	3.22	3.15
	42	3.15	3.19	3.04	3.23
	43	3.33	3.47	3.19	3.45
	44	3.28	3.33	3.09	3.32
	45	3.21	3.28	3.00	3.27
	46	3.47	3.37	3.12	3.44
	47	3.26	3.35	3.12	3.40
	48	3.35	3.44	3.19	3.43
	49	3.10	3.25	2.91	3.19
	50	3.10	3.23	2.95	3.18
	51	3.09	3.25	2.95	2.99
	52	3.33	3.47	3.17	3.11
	53	3.35	3.29	3.04	3.00
	54	3.17	3.25	3.01	2.97
	55	3.01	3.12	3.06	2.76
	56	2.99	3.09	2.88	2.84
	57	3.28	3.36	3.15	3.14
	58	3.45	3.54	3.28	3.24
	59	3.59	3.62	3.21	3.26
	60	3.36	3.47	3.11	3.17
	61	3.31	3.43	3.20	3.16
	62	3.14	3.26	2.96	3.09
63	3.18	3.34	2.99	3.06	
MIMO Power (dBm/MHz)		21.31	21.41	21.31	21.36
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		35.76	35.86	35.76	35.81
e.i.r.p Limit (dBm/MHz)				37.00	



Table 8-12. Power Spectral Density Table (LTE_1C_40M)

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Low Channel	Port	NR_2C_20M+40M		NR_2C_40M+40M	
		QPSK	QAM	QPSK	QAM
Conducted Power (dBm/MHz)	0	3.86	4.11	3.60	3.62
	1	4.17	4.41	3.89	3.99
	2	4.12	4.31	3.66	3.78
	3	4.10	4.39	3.67	3.83
	4	4.10	4.28	3.95	4.13
	5	4.15	4.43	3.90	3.97
	6	3.95	4.22	3.85	3.90
	7	4.01	4.27	3.67	3.81
	8	3.87	4.08	3.43	3.60
	9	4.10	4.28	3.68	3.82
	10	4.10	4.26	4.00	4.08
	11	4.06	4.25	3.73	3.80
	12	4.03	4.29	3.80	3.92
	13	4.04	4.26	3.81	3.94
	14	4.16	4.37	3.79	3.92
	15	3.94	4.18	3.50	3.60
	16	4.28	4.51	3.98	4.12
	17	4.23	4.54	3.89	3.95
	18	3.97	4.23	3.48	3.57
	19	4.11	4.42	3.83	4.01
	20	4.08	4.36	3.82	3.92
	21	4.03	4.25	3.50	3.67
	22	4.11	4.39	4.18	4.26
	23	3.99	4.24	3.58	3.67
	24	4.02	4.26	3.81	3.91
	25	4.09	4.37	3.79	4.01
	26	4.07	4.30	3.66	3.77
	27	4.09	4.31	3.73	3.93
	28	4.32	4.67	4.03	4.25
	29	4.14	4.39	3.72	3.90
	30	3.94	4.21	3.63	3.81
	31	4.21	4.42	3.84	4.05
	32	3.49	3.77	3.32	3.73
	33	3.96	4.19	3.78	4.03
	34	4.23	4.43	4.11	4.55
	35	3.70	3.99	3.33	3.73
	36	3.88	4.05	3.66	4.03
	37	3.98	4.17	3.89	4.05
	38	4.37	4.68	4.07	4.44
	39	3.85	4.10	3.36	3.65
	40	3.77	4.16	3.54	3.73
	41	4.07	4.32	3.94	4.17
	42	3.98	4.21	4.01	4.21
	43	3.70	4.00	3.54	3.73
	44	3.82	4.15	3.68	4.00
	45	3.79	4.08	3.69	3.89
	46	4.23	4.55	4.64	4.85
	47	3.90	4.18	3.63	3.77
	48	3.81	4.10	3.83	4.02
	49	3.98	4.21	3.79	4.00
	50	3.83	4.27	3.57	3.82
	51	3.79	4.04	3.61	3.81
	52	3.99	4.34	3.89	4.10
	53	4.06	4.38	3.89	4.08
	54	3.98	4.26	3.90	4.32
	55	3.96	4.22	3.90	4.15
	56	4.13	4.35	4.01	4.28
	57	4.29	4.56	3.95	4.26
	58	4.04	4.25	4.01	4.27
	59	4.11	4.38	3.92	4.10
	60	3.97	4.29	3.88	4.04
	61	4.11	4.34	3.95	4.20
	62	3.98	4.25	3.57	3.84
63	4.10	4.33	3.95	4.07	
MIMO Power (dBm/MHz)		22.08	22.34	21.85	22.04
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		36.53	36.79	36.30	36.49
e.i.r.p Limit (dBm/MHz)		37.00			



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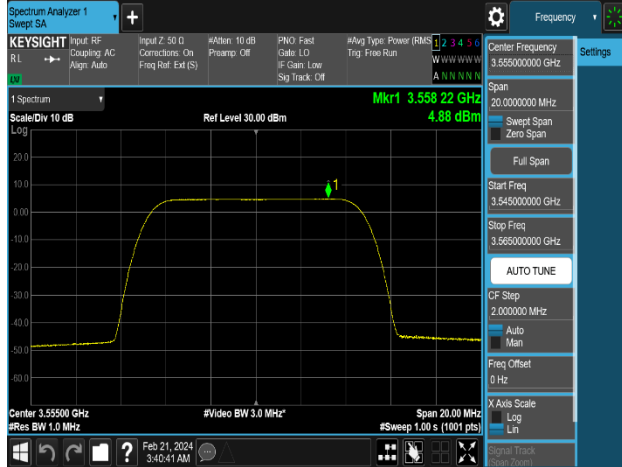
Mid Channel	Port	NR_2C_20M+40M		NR_2C_40M+40M	
		QPSK	QAM	QPSK	QAM
Conducted Power (dBm/MHz)	0	3.49	3.41	3.43	3.33
	1	3.67	3.61	3.67	3.70
	2	3.51	3.49	3.45	3.49
	3	3.45	3.37	3.55	3.48
	4	3.29	3.26	3.59	3.41
	5	3.53	3.46	3.71	3.66
	6	3.51	3.38	3.74	3.48
	7	3.40	3.44	3.54	3.46
	8	3.18	3.14	3.59	3.42
	9	3.33	3.30	3.50	3.39
	10	3.56	3.48	3.45	3.45
	11	3.40	3.34	3.52	3.52
	12	3.53	3.57	3.91	3.78
	13	3.46	3.41	3.46	3.46
	14	3.66	3.58	3.65	3.59
	15	3.27	3.24	3.44	3.36
	16	3.61	3.56	3.49	3.54
	17	3.49	3.47	3.68	3.57
	18	3.36	3.33	3.49	3.40
	19	3.36	3.40	3.64	3.45
	20	3.56	3.53	4.08	3.88
	21	3.03	3.03	3.15	3.06
	22	3.54	3.53	3.52	3.53
	23	3.31	3.20	3.40	3.37
	24	3.53	3.53	3.53	3.47
	25	3.45	3.45	3.61	3.42
	26	3.36	3.29	3.45	3.39
	27	3.41	3.27	3.68	3.56
	28	3.58	3.49	3.66	3.57
	29	3.28	3.15	3.46	3.32
	30	3.46	3.40	3.61	3.42
	31	3.44	3.36	3.46	3.42
	32	3.21	3.15	3.27	3.33
	33	3.22	3.25	3.19	3.33
	34	3.43	3.32	3.45	3.56
	35	3.31	3.28	3.63	3.62
	36	3.35	3.32	3.50	3.49
	37	3.51	3.52	3.55	3.66
	38	3.69	3.69	3.85	3.84
	39	3.19	3.18	3.38	3.40
	40	2.96	2.96	3.34	3.34
	41	3.26	3.15	3.46	3.49
	42	3.26	3.27	3.46	3.50
	43	3.13	3.09	3.42	3.47
	44	3.42	3.44	3.65	3.73
	45	3.22	3.18	3.40	3.30
	46	3.58	3.58	3.62	3.67
	47	3.24	3.21	3.50	3.45
	48	3.29	3.27	3.40	3.43
	49	3.42	3.46	3.55	3.54
	50	3.20	3.23	3.40	3.41
	51	3.25	3.19	3.35	3.52
	52	3.45	3.37	3.70	3.72
	53	3.14	3.12	3.37	3.28
	54	3.37	3.41	3.50	3.51
	55	3.10	3.20	3.30	3.35
	56	3.22	3.38	3.43	3.42
	57	3.43	3.47	3.63	3.67
	58	3.43	3.58	3.58	3.66
	59	3.44	3.62	3.72	3.82
	60	3.46	3.49	3.67	3.61
	61	3.47	3.61	3.57	3.57
	62	3.33	3.40	3.53	3.52
63	3.35	3.45	3.45	3.45	
MIMO Power (dBm/MHz)		21.44	21.43	21.59	21.56
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		35.89	35.88	36.04	36.01
e.i.r.p Limit (dBm/MHz)		37.00			

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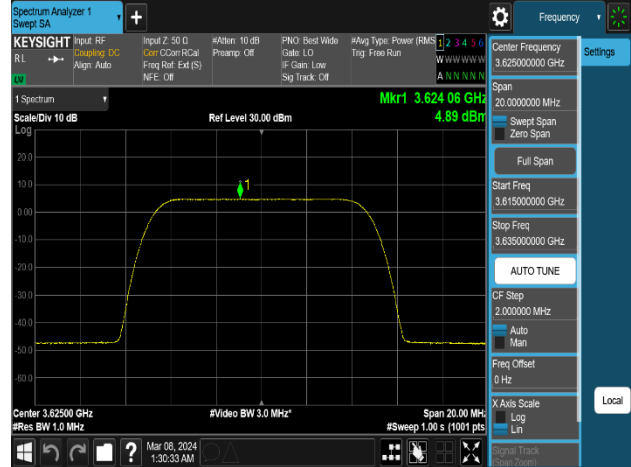
High Channel	Port	NR_2C_20M+40M		NR_2C_40M+40M	
		QPSK	QAM	QPSK	QAM
Conducted Power (dBm/MHz)	0	3.58	3.79	3.42	3.51
	1	3.62	3.89	3.60	3.52
	2	3.85	4.00	3.74	3.80
	3	3.93	4.03	3.55	3.64
	4	3.75	4.01	3.68	3.80
	5	4.00	4.17	3.70	3.70
	6	3.97	4.03	3.69	3.72
	7	3.74	3.94	3.61	3.60
	8	3.74	3.89	3.64	3.67
	9	3.68	3.90	3.64	3.62
	10	3.71	3.97	3.66	3.67
	11	3.76	3.98	3.62	3.60
	12	4.04	4.25	3.73	3.81
	13	3.77	3.92	3.59	3.59
	14	3.91	4.14	3.79	3.84
	15	3.69	3.90	3.52	3.56
	16	3.95	4.17	3.93	3.94
	17	3.78	4.06	3.70	3.72
	18	3.74	3.93	3.74	3.67
	19	3.82	3.97	3.76	3.78
	20	4.17	4.43	3.78	3.90
	21	3.58	3.73	3.53	3.48
	22	3.80	4.02	3.75	3.66
	23	3.56	3.85	3.48	3.47
	24	3.71	3.93	3.65	3.61
	25	3.66	3.84	3.61	3.62
	26	3.72	4.04	3.72	3.68
	27	3.76	4.05	3.44	3.46
	28	3.86	4.19	3.76	3.71
	29	3.69	3.94	3.65	3.72
	30	3.66	4.07	3.64	3.58
	31	3.59	3.84	3.45	3.49
	32	3.74	3.95	3.70	3.21
	33	3.62	3.90	3.58	3.31
	34	3.67	4.00	3.53	3.35
	35	3.71	4.03	3.58	3.30
	36	4.03	3.99	3.64	3.36
	37	3.91	4.03	3.73	3.57
	38	4.09	4.30	3.98	3.78
	39	3.68	3.89	3.43	3.19
	40	3.80	4.01	3.68	3.72
	41	3.58	3.97	3.42	3.56
	42	3.63	3.90	3.48	3.54
	43	3.83	4.09	3.79	3.80
	44	3.81	4.07	3.65	3.72
	45	3.66	3.92	3.56	3.54
	46	3.69	4.04	3.92	3.88
	47	3.70	3.96	3.70	3.64
	48	3.80	4.05	3.74	3.74
	49	3.67	4.07	3.70	3.58
	50	3.61	3.89	3.52	3.57
	51	3.58	3.90	3.53	3.53
	52	3.81	4.08	3.77	3.69
	53	3.64	3.93	3.66	3.60
	54	3.70	4.00	3.58	3.72
	55	3.46	3.85	3.38	3.52
	56	3.59	3.96	3.39	3.53
	57	3.77	4.12	3.65	3.65
	58	3.84	4.15	3.84	3.86
	59	4.01	4.15	3.83	3.93
	60	3.64	3.98	3.62	3.67
	61	3.71	3.96	3.71	3.64
	62	3.67	4.00	3.55	3.64
63	3.61	3.85	3.60	3.60	
MIMO Power (dBm/MHz)		21.82	22.06	21.71	21.69
Common Ant. Gain (dBi)		14.45	14.45	14.45	14.45
e.i.r.p PSD (dBm/MHz)		36.27	36.51	36.16	36.14
e.i.r.p Limit (dBm/MHz)		37.00			

Table 8-13. Power Spectral Density Table (NR_Multi-carrier)

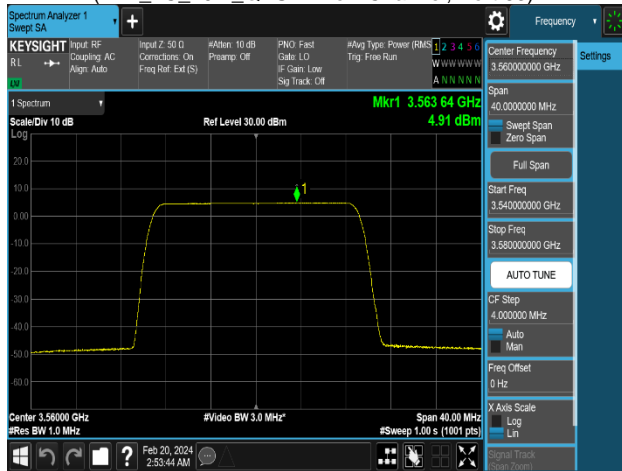
FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)			Approved by: Technical Manager
Test Report S/N: 8K24010501-00.A3L	Test Dates: 01/22/2024 – 04/02/2024	EUT Type: MMU (MT6402)		Page 46 of 315	



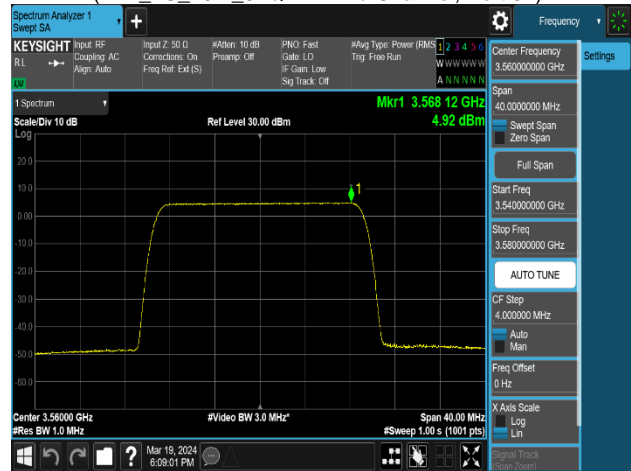
Plot 8-21. Power Spectral Density Plot
(LTE_1C_10M_QPSK - Low Channel, Port 63)



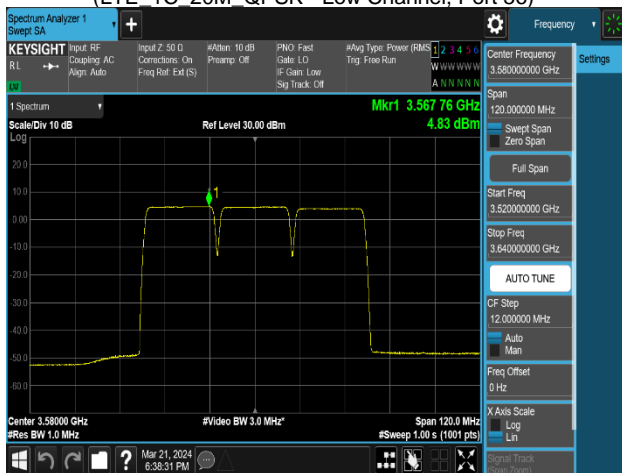
Plot 8-22. Power Spectral Density Plot
(LTE_1C_10M_64QAM - Mid Channel, Port 34)



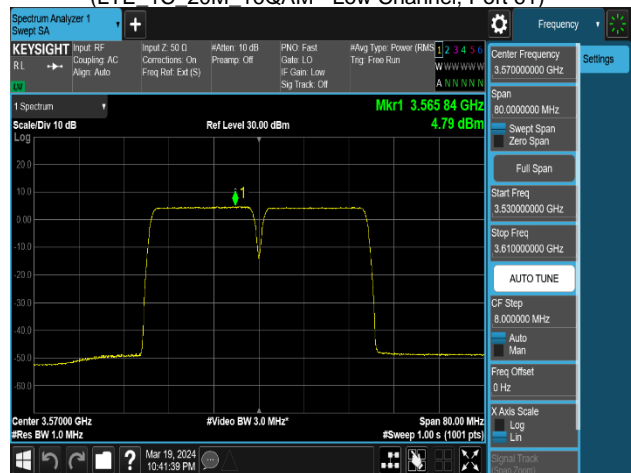
Plot 8-23. Power Spectral Density Plot
(LTE_1C_20M_QPSK - Low Channel, Port 56)



Plot 8-24. Power Spectral Density Plot
(LTE_1C_20M_16QAM - Low Channel, Port 61)

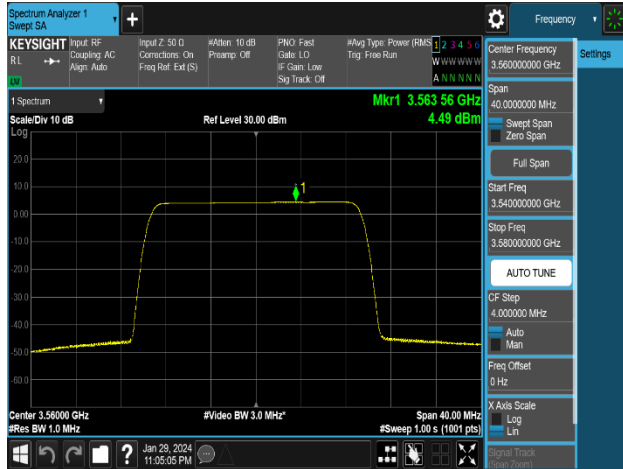


Plot 8-25. Power Spectral Density Plot
(LTE_3C_20M+20M+20M_QPSK - Low Channel, Port 34)

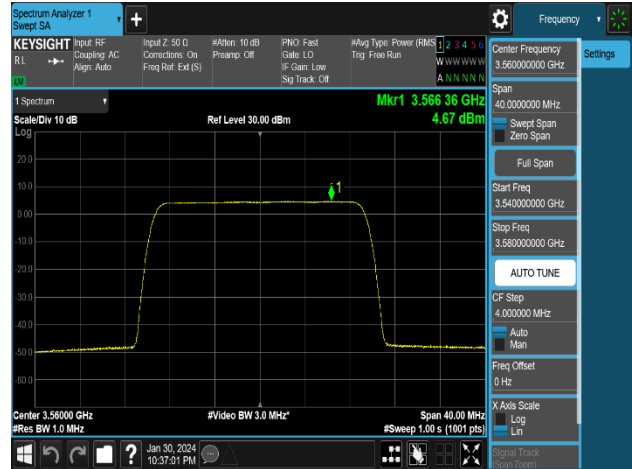


Plot 8-26. Power Spectral Density Plot
(Multi-RAT_2C_20M+20M_16QAM - Low Channel, Port 34)

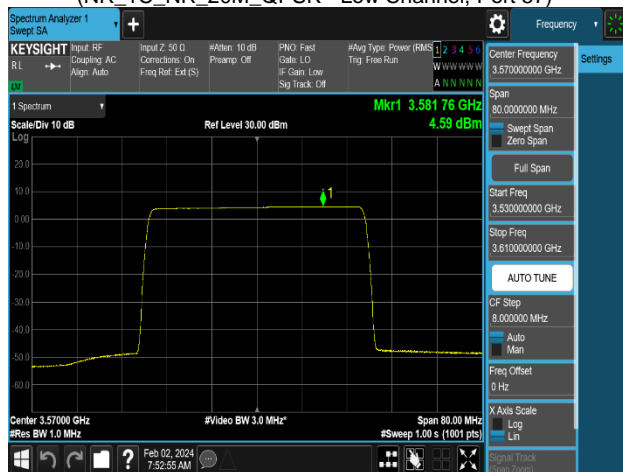
FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)		Approved by: Technical Manager
Test Report S/N: 8K24010501-00.A3L	Test Dates: 01/22/2024 - 04/02/2024	EUT Type: MMU (MT6402)		Page 47 of 315



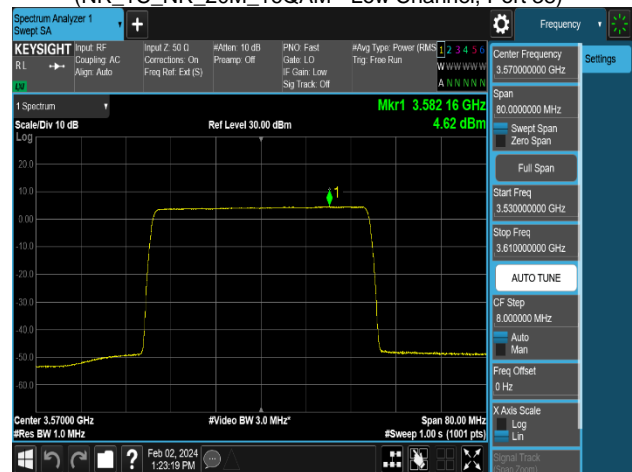
Plot 8-27. Power Spectral Density Plot (NR_1C_NR_20M_QPSK - Low Channel, Port 57)



Plot 8-28. Power Spectral Density Plot (NR_1C_NR_20M_16QAM - Low Channel, Port 38)



Plot 8-29. Power Spectral Density Plot (NR_1C_NR_40M_QPSK - Low Channel, Port 46)



Plot 8-30. Power Spectral Density Plot (NR_1C_NR_40M_16QAM - Low Channel, Port 46)



Plot 8-31. Power Spectral Density Plot (NR_2C_40M+40M_QPSK - Low Channel, Port 46)



Plot 8-32. Power Spectral Density Plot (NR_2C_40M+40M_16QAM - Low Channel, Port 46)

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8.4 Equivalent Isotropic Radiated Power (EIRP)

Test Overview

A transmitter port of EUT is connected to the input of a signal analyzer. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

Test Description

KDB 971168 D01 v03r01 – Section 5.4

KDB 662911 D01 v02r01 – Section E)1) In-Band Power Measurements

ANSI C63.26-2015 – Section 5.2.4

ANSI C63.26 - Section 5.2.5

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

1. Conducted power measurements are performed using the signal analyzer’s “channel power” measurement capability for signals with continuous operation.
2. IBW = 10 MHz (the reference bandwidth)
3. RBW = 1 ~ 5% of the expected OBW
4. VBW $\geq 3 \times$ RBW
5. Span = 2 ~ 3 x OBW
6. No. of sweep points $\geq 2 \times$ span / RBW
7. Detector = RMS
8. Trace mode = Trace-Averaging (RMS) set to average over 100 sweeps
9. The trace was allowed to stabilize

Test Setup

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

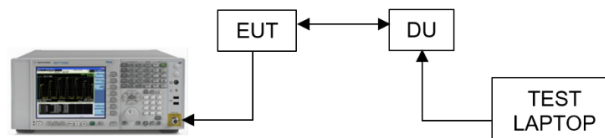




Figure 8-3. Test Instrument & Measurement Setup

Limit

§ 96.41 (b)

Category B CBSD: 47dBm/10 MHz

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Note

1. Periodic trigger was used with gating ON. Gate sweep time, Gate delay and gate length were set accordingly to capture ON time of the transmission.
2. For Multi carriers, conducted power for each carrier is measured to compare the 1st carrier result and the result of 2nd carrier. After compared, worst measured value is listed on report.
3. MIMO Calculations are done considering output channel power for all ports and respective margins are calculated according to procedures in section 6.4 of ANSI C63.26 and section D of KDB 971168 D01 v03r01.
4. Consider the following factors for MIMO Power:
 - c) Conducted power for each port is measured in dBm.
 - d) Powers are summed up in linear using the measure-and-sum technique defined in KDB 971168 D01 v03r01- Section D.
 - e) Conducted power per port (dBm) is converted to a linear value (mW). A summation of linear powers for all ports gives us the total MIMO conducted power in milliWatts (mW).
5. Tested for Common beam mode to perform RF testing that can get maximum Tx power setting.
6. Applied antenna gain as below:



MT6402	LTE 10MHz			LTE/NR 20MHz			NR 40MHz		
	SU	MU	Common	SU	MU	Common	SU	MU	Common
Tx Power Max (dBm)	22.8	19.8	31.9	25.8	22.8	34.9	28.8	25.8	37.9
Max. Gain (dBi)	23.5	23.5	14.45	23.5	23.5	14.45	23.5	23.5	14.45
Max. EIRP (dBm)	46.3	46.3	46.3	49.3	49.3	49.3	52.3	52.3	52.3

7. Sample Calculation:

Let us assume the following numbers:

- a) Total MIMO Conducted Power as 1364.58 mW
- b) Antenna Gain = 14.45 dBi

Factors	Value	Unit
Summed MIMO Conducted Power (linear sum)	1364.85	mW
Summed MIMO Conducted Power (dBm) = $10 * \log(1364.58) =$	31.35	dBm/10MHz
Antenna Gain	14.45	dBi
e.i.r.p	45.80	dBm/10MHz

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