

Global Product Compliance Laboratory  
600-700 Mountain Avenue  
Room 5B-108  
Murray Hill, New Jersey 07974-0636 USA



# **Title 47 Code of Federal Regulations Test Report**

Regulation:  
FCC Part 2 and 27

Client:  
NOKIA SOLUTIONS AND NETWORKS OY

Product Evaluated:  
AWHHF Airscale Micro RRH 4T4R 5G n41 1C LTE

Report Number:  
TR-2020-0040-FCC2-27  
Issue 1

Date Issued:  
March 25, 2020

This report shall not be reproduced, in whole or in part without the approval of Nokia Global Product Compliance Laboratory. This report must not be used by the recipient to claim product endorsement by NVLAP or any other agency of the U.S. Government.

## Table of Contents

<b>1. SYSTEM INFORMATION AND REQUIREMENTS .....</b>	<b>4</b>
1.1 INTRODUCTION .....	5
1.2 PURPOSE AND SCOPE .....	5
1.3 EUT DETAILS .....	5
1.4 TEST REQUIREMENTS.....	9
1.5 STANDARDS & PROCEDURES .....	9
1.6 EXECUTIVE SUMMARY .....	11
1.7 TEST CONFIGURATION FOR ALL ANTENNA PORT MEASUREMENTS. ....	11
<b>2. FCC SECTION 2.1046 - RF POWER OUTPUT .....</b>	<b>12</b>
2.1 RF POWER OUTPUT.....	12
<b>3. FCC SECTION 2.1047 - MODULATION CHARACTERISTICS .....</b>	<b>18</b>
3.1 MODULATION CHARACTERISTICS.....	18
<b>4. FCC SECTION 2.1049 – OCCUPIED BANDWIDTH/EDGE OF BAND EMISSIONS.....</b>	<b>20</b>
4.1 OCCUPIED BANDWIDTH.....	20
4.2 EDGE OF BAND EMISSIONS.....	23
<b>5. FCC SECTION 2.1051 - SPURIOUS EMISSIONS AT TRANSMIT ANTENNA PORT.....</b>	<b>25</b>
5.1 MEASUREMENT OF SPURIOUS EMISSIONS AT TRANSMIT ANTENNA PORT.....	25
<b>6. FCC SECTION 2.1053 - FIELD STRENGTH OF SPURIOUS RADIATION .....</b>	<b>30</b>
6.1 SECTION 2.1053 FIELD STRENGTH OF SPURIOUS EMISSIONS .....	30
6.2 FIELD STRENGTH OF SPURIOUS EMISSIONS - LIMITS .....	30
<b>7. NVLAP CERTIFICATE OF ACCREDITATION .....</b>	<b>31</b>

**Revisions**

Date	Revision	Section	Change
3/25/20	0		Initial Release
3/25/20	1		Cover Page Client Name

*Nokia Global Product Compliance Laboratories is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP®) for specific services, listed on the Scope of Accreditation, for: Electromagnetic Compatibility and Telecommunications. This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009). NVLAP LAB CODE: 100275-0.*

*Nokia Global Product Compliance Laboratory represents to the client that the laboratory's accreditation or any of its calibration or test reports in no way constitutes or implies product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.*

Prepared By:

Signed:



3/25/2020

Ann Chang  
Compliance Engineer  
NVLAP Signatory  
Ann.chang@nokia-bell-labs.com

Approved By:

Signed:



3/25/2020

Raymond Johnson  
Technical Manager  
NVLAP Signatory  
ray.johnson@nokia-bell-labs.com

Reviewed By:

Signed:



3/25/2020

Steve Gordon  
EMC Engineer  
NVLAP Signatory  
steve.gordon@nokia-bell-labs.com

## 1. System Information and Requirements

Report copies and other information not contained in this report are held by either the product engineer or in an identified file at the Global Product Compliance Laboratory in Murray-Hill, NJ.

<b>Equipment Under Test (EUT):</b>	AWHHF Airscale Micro RRH 4T4R 5G n41 1C LTE
<b>Serial Number:</b>	EB193661018
<b>FCC ID:</b>	2AD8UAWHHF01
<b>Hardware Version:</b>	475181A.X22
<b>Software Version:</b>	5G19A
<b>Frequency Range:</b>	2496-2690 MHz
<b>GPCL Project Number:</b>	2020-0040
<b>Manufacturer:</b>	NOKIA SOLUTIONS AND NETWORKS OY KARAPORTTI 3, FI-02610 ESPOO FINLAND
<b>Test Requirement(s):</b>	Title 47 CFR Parts 2 and 27
<b>Test Standards:</b>	<ul style="list-style-type: none"> <li>• Title 47 CFR Parts 2 and 27</li> <li>• KDB 971168 D01 Power Measurement License Digital Systems v03r01 April 9, 2018.</li> <li>• KDB 662911 D01 Multiple Transmitter Output v02r01 Oct 2013</li> <li>• ANSI C63.26 (2015)</li> <li>• ANSI C63.4 (2014)</li> </ul>
<b>Measurement Procedure(s):</b>	<ul style="list-style-type: none"> <li>• FCC-IC-OB - GPCL Occupied Bandwidth and Power Measurement Test Procedure 12-4-2017</li> <li>• FCC-IC-SE - GPCL Spurious Emissions Test Procedure 12-4-2017</li> </ul>
<b>Test Date(s):</b>	2/27/2020 – 3/12/2020
<b>Test Performed By:</b>	Nokia Global Product Compliance Laboratory 600-700 Mountain Ave. P.O. Box 636 Murray Hill, NJ 07974-0636
<b>Product Engineer(s):</b>	Jeff Webb
<b>Lead Engineer:</b>	Steve Gordon
<b>Test Engineer (s):</b>	Steve Gordon
<b>Test Results:</b> The EUT, <i>as tested</i> met the above listed requirements. Report copies and other information not contained in this report are held by either the product engineer or in an identified file at the Global Product Compliance Laboratory in New Providence, NJ.	

## 1.1 Introduction

This Conformity test report applies to the AWHHF Airscale Micro RRH 4T4R 5G n41 1C LTE, hereinafter referred to as the Equipment Under Test (EUT).

## 1.2 Purpose and Scope

The purpose of this document is to provide the testing data required for qualifying the EUT in compliance with FCC Parts 2 and 27 measured in accordance with the procedures set out in Section 2.1033 (c) (14) of the Rules.

Previous approvals included 5G NR Single carrier 40, and LTE 20+20, and 20+20+20 MHz LTE under FCC ID: 2AD8UAWHHF01 in GPCL Project 2019-0189.

This testing is being performed to demonstrate the Single Carrier 20 MHz LTE Carrier and requires a Class II Permissive change.

## 1.3 EUT Details

### 1.3.1 Specifications

Specification Items	Description
Radio Access Technology	LTE-TDD, 5G NR
Duplex Mode	Time Division Duplex (TDD)
Modulation Type(s)	QPSK 16QAM 64QAM 256QAM
Operation Frequency Range	2496-2690 MHz
Channel Bandwidth	20 MHz
Number of Tx Ports per Unit	4
MIMO	Yes
Deployment Environment	Outdoor
Supply Voltage	-48.0 VDC

### 1.3.2 Photographs

Front View



Rear View



Left View



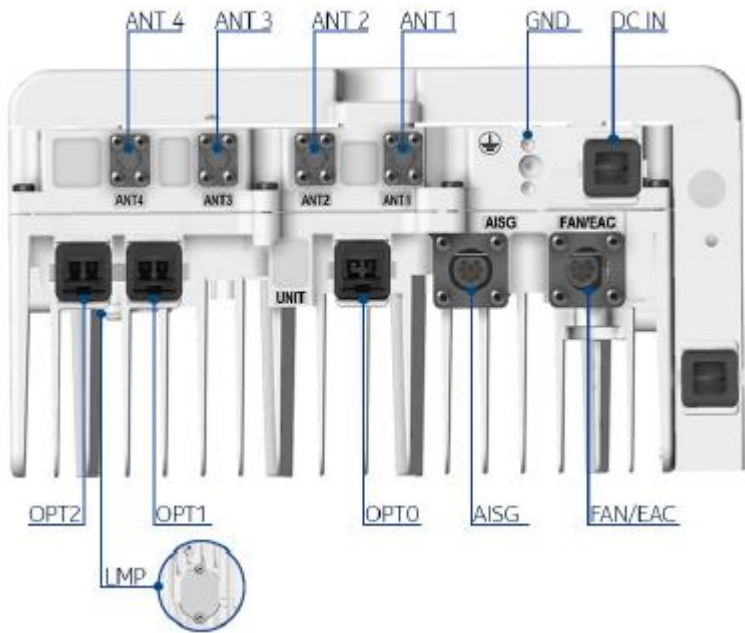
Right View




Top View



Bottom View



Interface	Label on the HW	Number of interfaces	Connector type	Additional info
Power Connector	DC IN	1	DC OCTIS Plug Kit	Hot insert not supported
Antenna connector	ANT	4	NEX 10	-
External Alarm Connection/Fan	EAC/FAN	1	CIRC 8F IP67 Flange	Two external alarms supported
Optical interface	OPT	3	OCTIS Plug Kit SFP/SFP+	9.8 Gbps, CPRI
Ethernet	RJ	1	RJ45	-
Grounding		1	M8 or dual M5 screws	-
AISG connector	AISG	1	8-pin circular	-
Local Management Port (LMP)	-	1	2x20-pin female header	-





## 1.4 Test Requirements

Each required measurement is listed below:

47 CFR FCC Sections	Description of Tests	Test Required
2.1046, 27.53	RF Power Output	Yes
2.1047, 27.53	Modulation Characteristics	Yes
2.1049, 27.53	(a) Occupied Bandwidth (b) Out-of-Band Emissions	Yes
2.1051, 27.53	Spurious Emissions at Antenna Terminals	Yes
2.1053, 27.53	Field Strength of Spurious Radiation	Yes
2.1055, 27.53	Frequency Stability	No

## 1.5 Standards & Procedures

### 1.5.1 Standards

- Title 47 Code of Federal Regulations, Federal Communications Commission Part 2.
- Title 47 Code of Federal Regulations, Federal Communications Commission Part 27.
- ANSI C63.26, American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

### 1.5.2 Procedures

1. FCC-IC-OB and FCC-IC-SE
2. ANSI C63.4 (2014) entitled: "American National Standard for Methods of Measurement of Radio-Noise Emissions from Low Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40 GHz", American National Standards Institute, Institute of Electrical and Electronic Engineers, Inc., New York, NY 10017-2394, USA.
3. FCC KDB 971168 D01 Power Measurement License Digital Systems v03r01 April 9, 2018.  
FCC KDB 662911 D01 Multiple Transmitter Output v02r01 Oct 2013

### 1.5.3 MEASUREMENT UNCERTAINTY

The results of the calculations to estimate uncertainties for the several test methods and standards are shown in the Table below. These are the worst-case values.

**Worst-Case Estimated Measurement Uncertainties**

Standard, Method or Procedure	Condition	Frequency MHz	Expanded Uncertainty (k=2)
a. Classical Emissions, ( <i>e.g.</i> , ANSI C63.4, CISPR 11, 14, 22, <i>etc.</i> , using ESHS 30,	Conducted Emissions	0.009 - 30	±3.5 dB
	Radiated Emissions (AR-6 Semi-Anechoic Chamber)	30 MHz – 200MHz H	±5.1 dB
		30 MHz – 200 MHz V	±5.1 dB
		200 MHz – 1000 MHz H	±4.7 dB
		200 MHz – 1000 MHz V	±4.7 dB
		1 GHz - 18 GHz	±3.3 dB

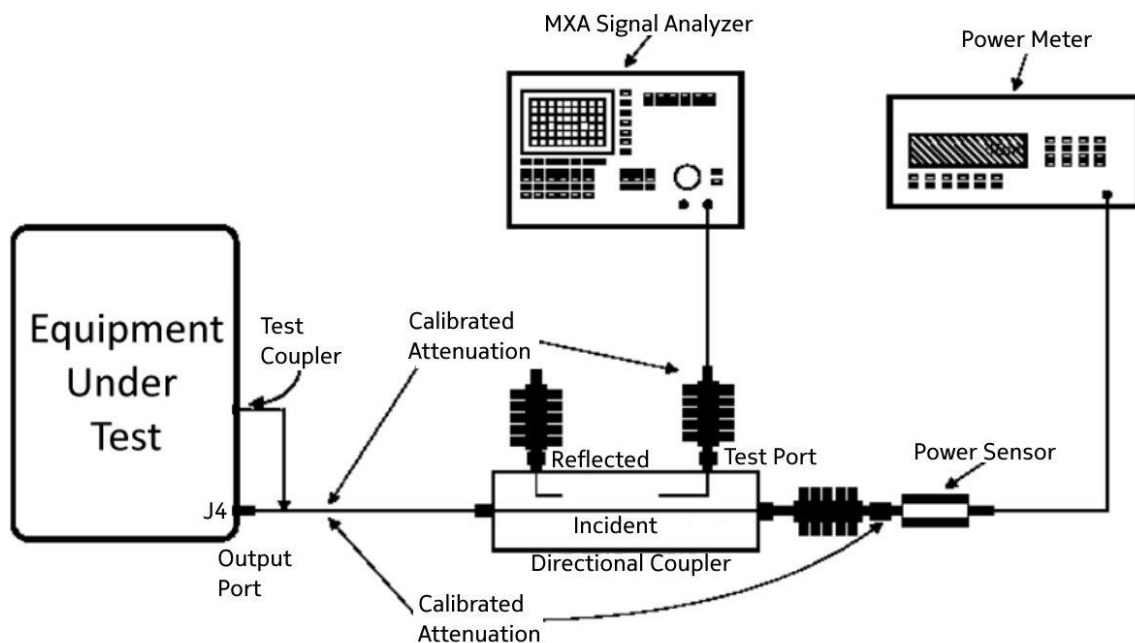
Antenna Port Test	Signal Bandwidth	Frequency Range	Expanded Uncertainty (k=2), Amplitude
Occupied Bandwidth, Edge of Band, Conducted Spurious Emissions	10 Hz 100 Hz 10 kHz to 1 MHz 1MHz	9 kHz to 20 MHz 20 MHz to 1 GHz 1 GHz to 10 GHz 10 GHz to 40 GHz:	1.78 dB
RF Power	10 Hz to 20 MHz	50 MHz to 18 GHz	0.5 dB

## 1.6 Executive Summary

Requirement	Description	Result
47 CFR FCC Parts 2 and 27		
2.1046, 27.53	RF Power Output Peak to Average Power Ratio	COMPLIES
2.1047, 27.53	Modulation Characteristics	COMPLIES
2.1049, 27.53	(a) Occupied Bandwidth (b) Edge of Band Emissions	COMPLIES
2.1051, 27.53	Spurious Emissions at Antenna Terminals	COMPLIES
2.1053, 27.53	Field Strength of Spurious Radiation	COMPLIES
2.1055, 27.53	Frequency Stability	N/A

1. **COMPLIES** - Passed all applicable tests.
2. **N/A** – Not Applicable.
3. **NT** – Not Tested.

## 1.7 Test Configuration for all Antenna Port Measurements.



## 2. FCC Section 2.1046 - RF Power Output

### 2.1 RF Power Output

This test is a measurement of the total RF power level transmitted at the antenna-transmitting terminal. The product was configured for test as shown in section above and allowed to warm up and stabilize per KDB 971168 D01 and ANSI C63.26.

Power measurements were made with an MXA Signal Analyzer.

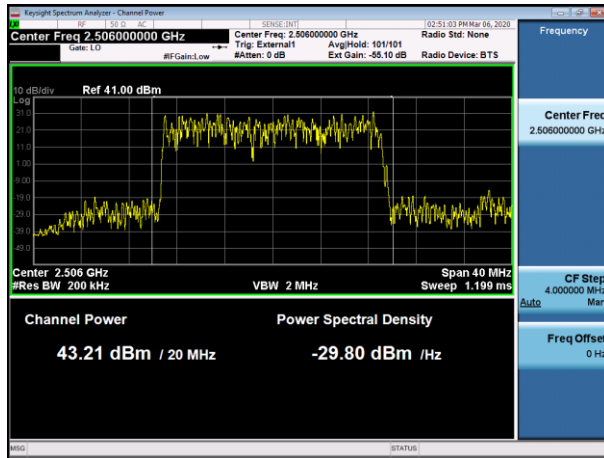
Tabular Data – 1Carrier Channel RF Power

TM	TX	Channel Frequency MHz	Signal BW MHz	Modulation	Channel Power dBm
3.2	1	2506	20	QPSK/16QAM	43.21
3.2	2	2506	20	QPSK/16QAM	42.86
3.2	3	2506	20	QPSK/16QAM	42.83
3.2	4	2506	20	QPSK/16QAM	42.87
3.2	1	2593	20	QPSK/16QAM	42.69
3.2	2	2593	20	QPSK/16QAM	42.41
3.2	3	2593	20	QPSK/16QAM	42.38
3.1	4	2593	20	64QAM	43.22
3.1a	1	2680	20	256QAM	42.91
3.1a	2	2680	20	256QAM	42.24
3.1a	3	2680	20	256QAM	42.24
3.1a	4	2680	20	256QAM	42.74

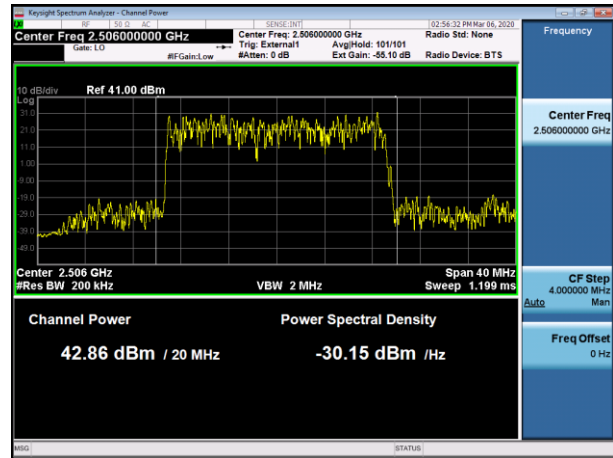
## 2.1.1 Channel RF Power - Plots

## Channel Frequency 2506 MHz

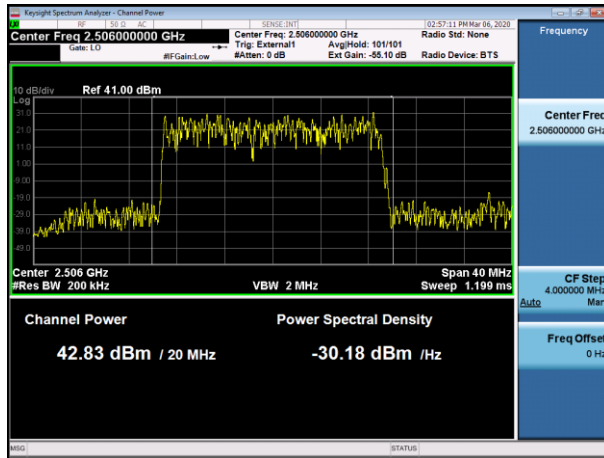
TX1



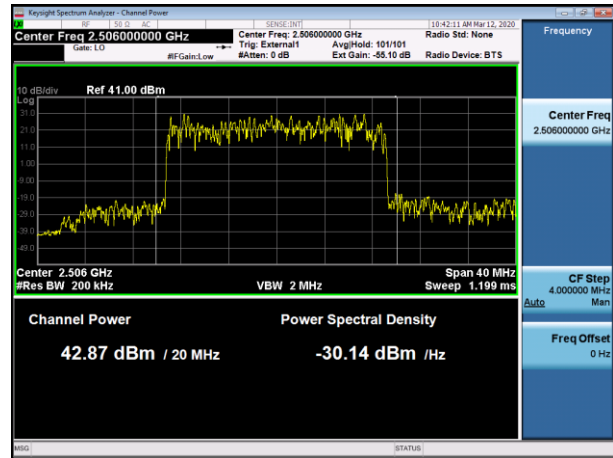
TX2



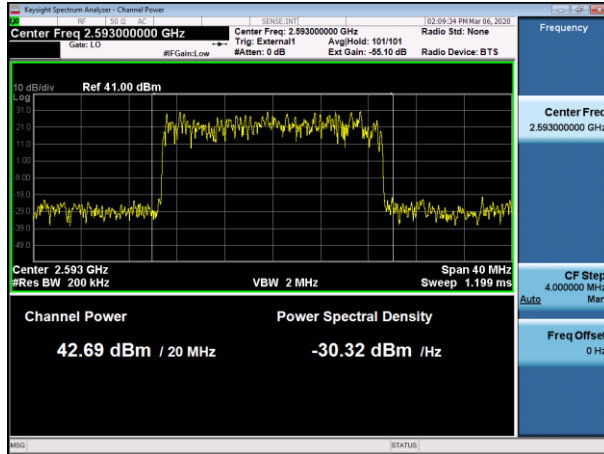
TX3



TX4



## TX1

[illegible]

The screenshot displays the Keysight Spectrum Analyzer interface. At the top, the title bar reads "Keysight Spectrum Analyzer - Channel Power". The main display area is divided into two sections. The top section shows the "Channel Power" measurement, with a center frequency of 2.593000000 GHz, a resolution bandwidth of 200 kHz, and a channel power of 42.38 dBm. The bottom section shows the "Power Spectral Density" measurement, with a center frequency of 2.593000000 GHz, a resolution bandwidth of 200 kHz, and a power spectral density of -30.63 dBm/Hz. The background of the main display area is a grid with a yellow signal trace. The right side of the interface shows various settings and controls, including "Sweep", "Auto", "Manual", "Frequency", "Center Freq", "Span", "Sweep", "CF Step", "Freq Offset", and "0 Hz".

Keysight Spectrum Analyzer - Channel Power

RF SP BW AC 1 SENSE ONT [11:00:53 AM Mar 12, 2020]

Center Freq 2.593000000 GHz Center Freq 2.593000000 GHz Radio Std: None  
Gate: LO Trig: External Avg: Hold: 101/101  
#Gain: 1.0 dB #Atten: 0 dB Ext Gain: -55.10 dB Radio Device: BTS

10 dB/div Ref 41.00 dBm

Log

Center 2.593 GHz Span 40 MHz  
#Res BW 200 kHz VBW 2 MHz Sweep 1.199 ms

Channel Power Power Spectral Density

43.22 dBm / 20 MHz -29.79 dBm /Hz

Frequency

Center Freq  
2.593000000 GHz

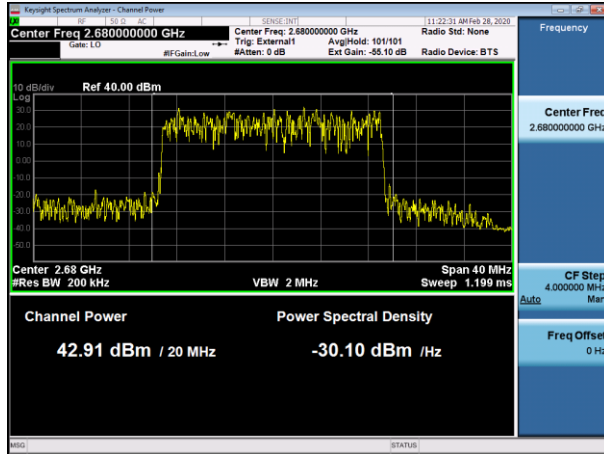
CF Step  
4.000000 MHz  
Auto Man

Freq Offset  
0 Hz

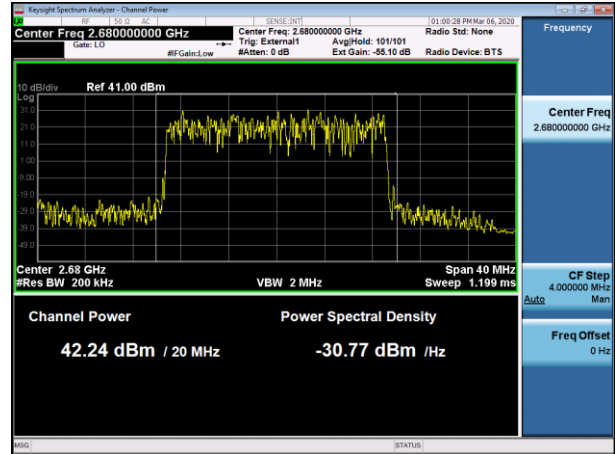
MISC (STATUS)

# Channel Frequency 2680 MHz

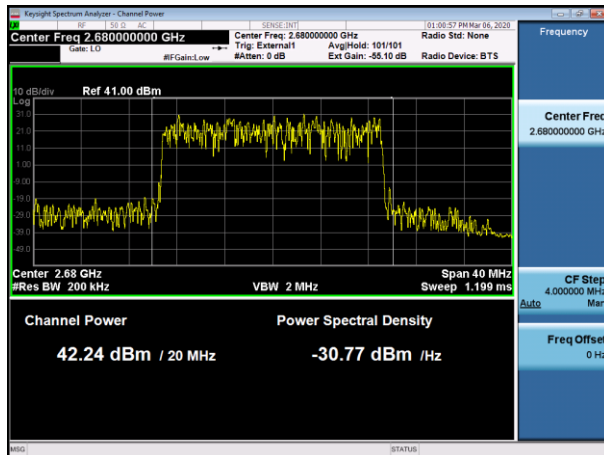
TX1



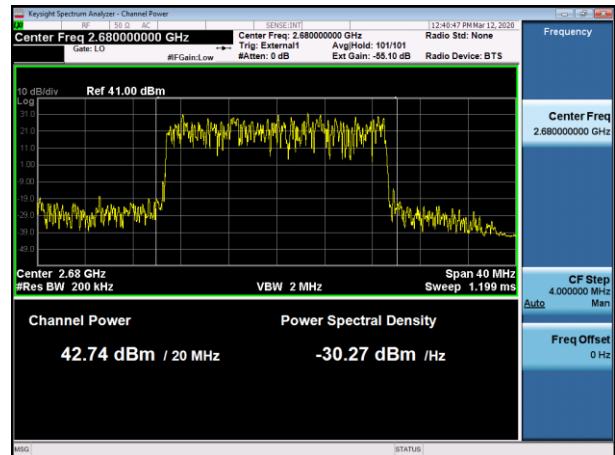
TX2



TX3

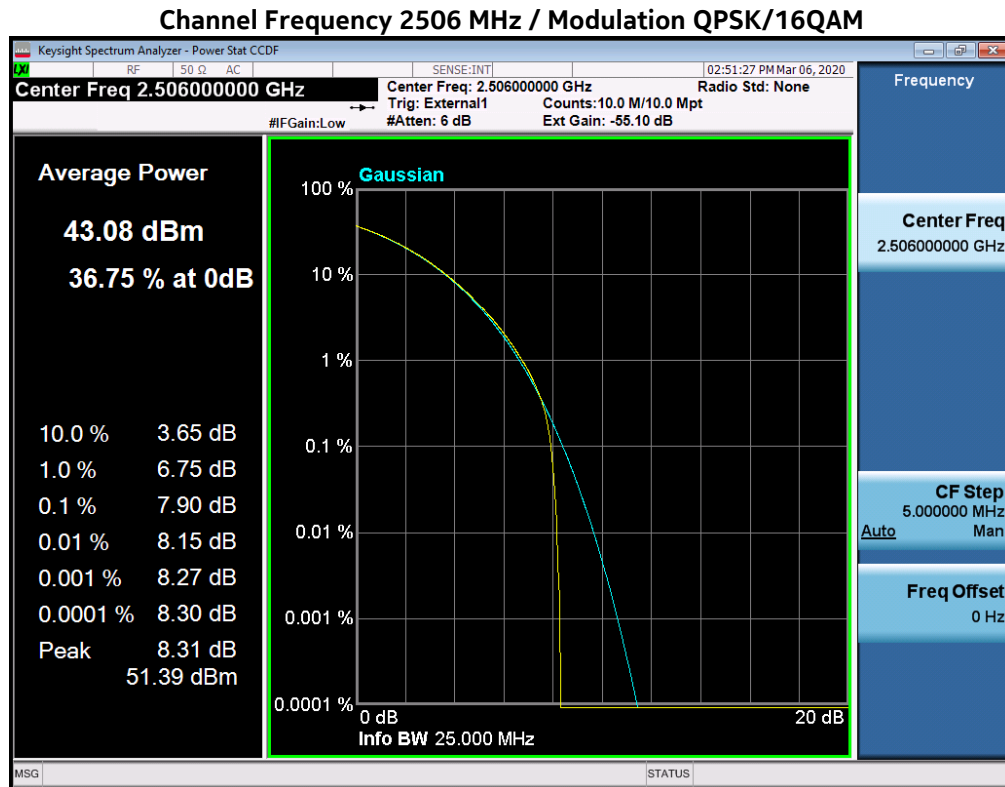


TX4



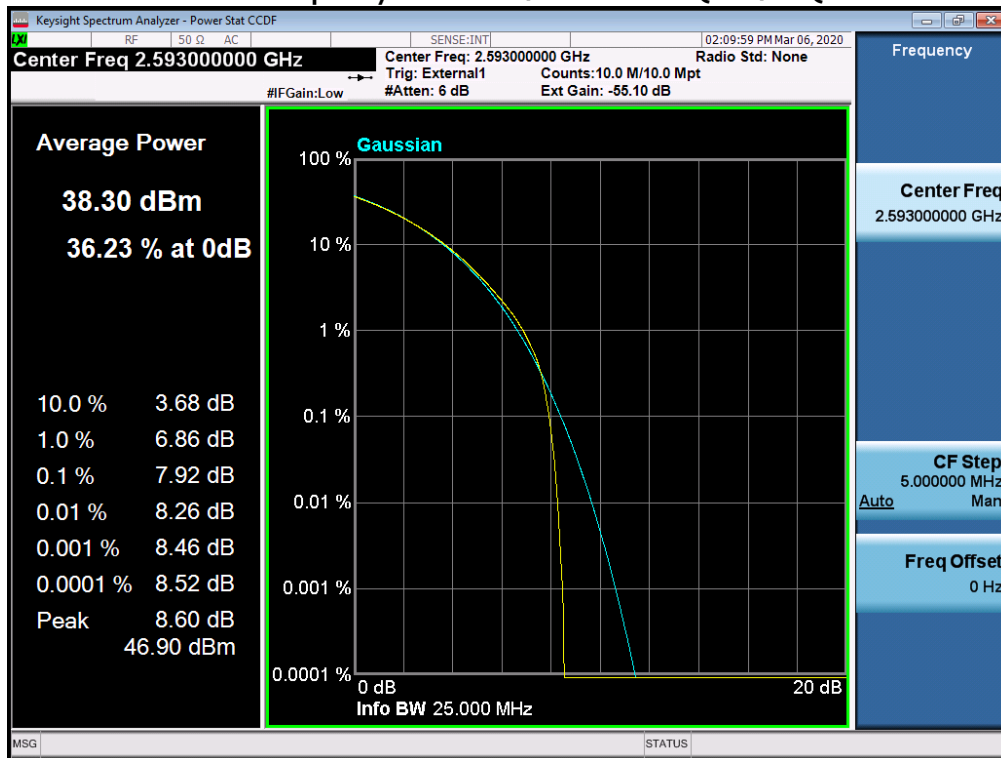
### 2.1.2 Peak-to-Average Power Ratio (PAPR) – Plots

The Peak-to-Average Power Ratio (PAPR) was evaluated per KDB 971168 for 20MHz bandwidths. The PAPR values of all carriers measured are below 13dB.

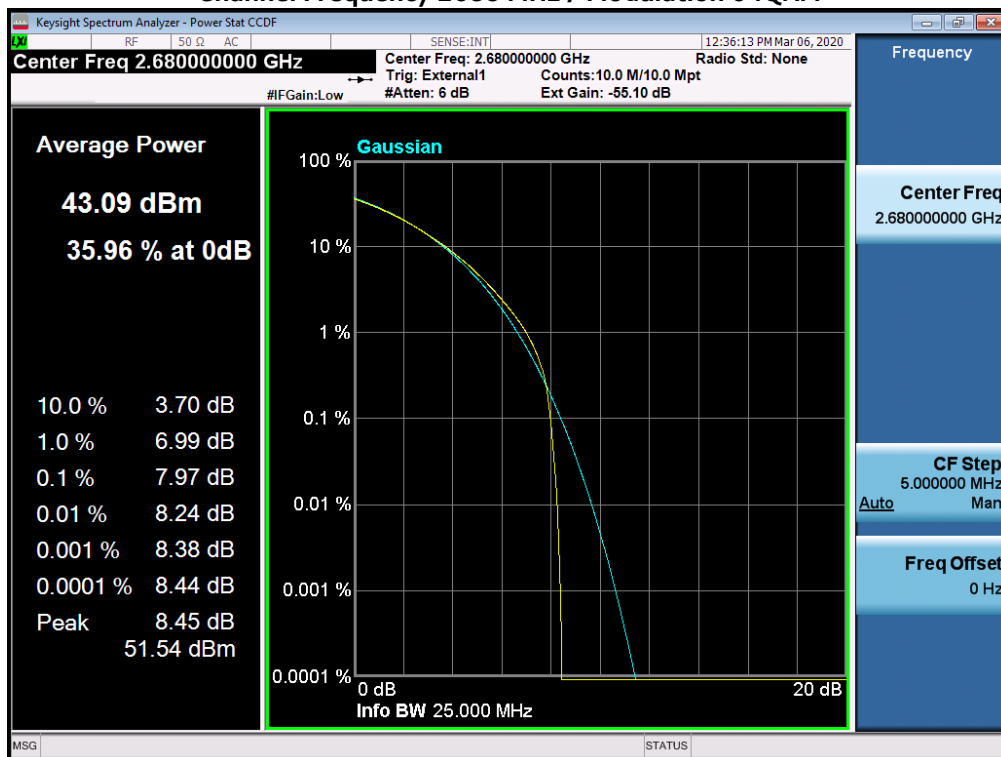




## Channel Frequency 2593 MHz / Modulation QPSK/16QAM



## Channel Frequency 2680 MHz / Modulation 64QAM

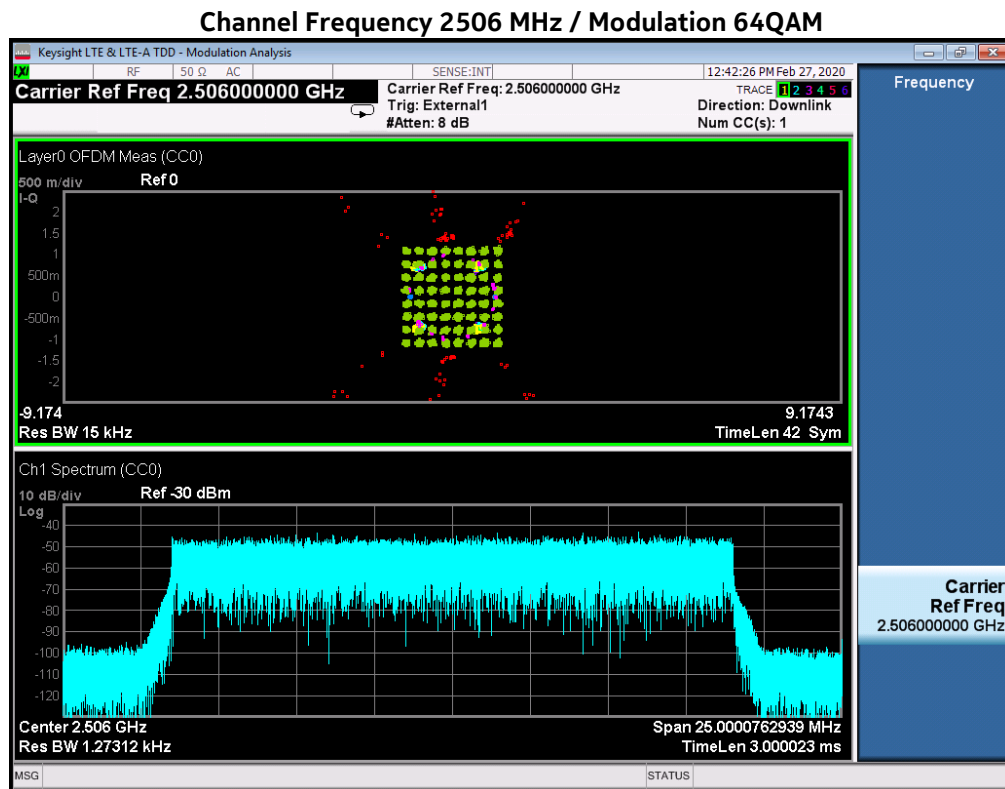


### 3. FCC Section 2.1047 - Modulation Characteristics

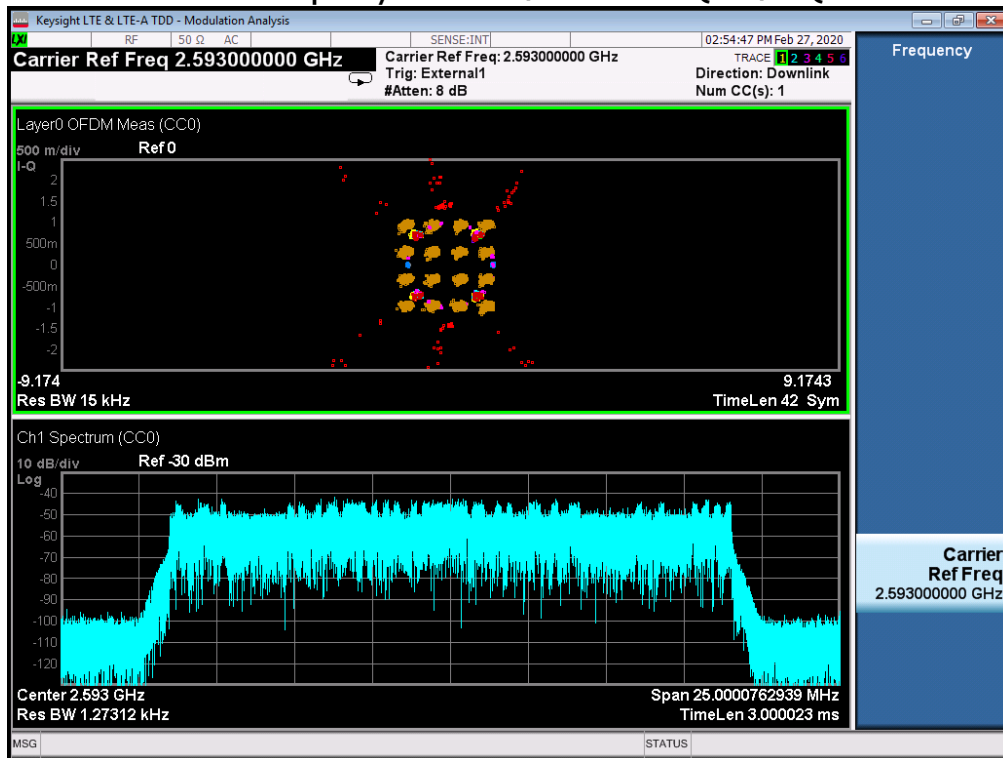
#### 3.1 Modulation Characteristics

The RF signal at the antenna port was demodulated and verified for correctness of the modulation signal used before each test was performed.

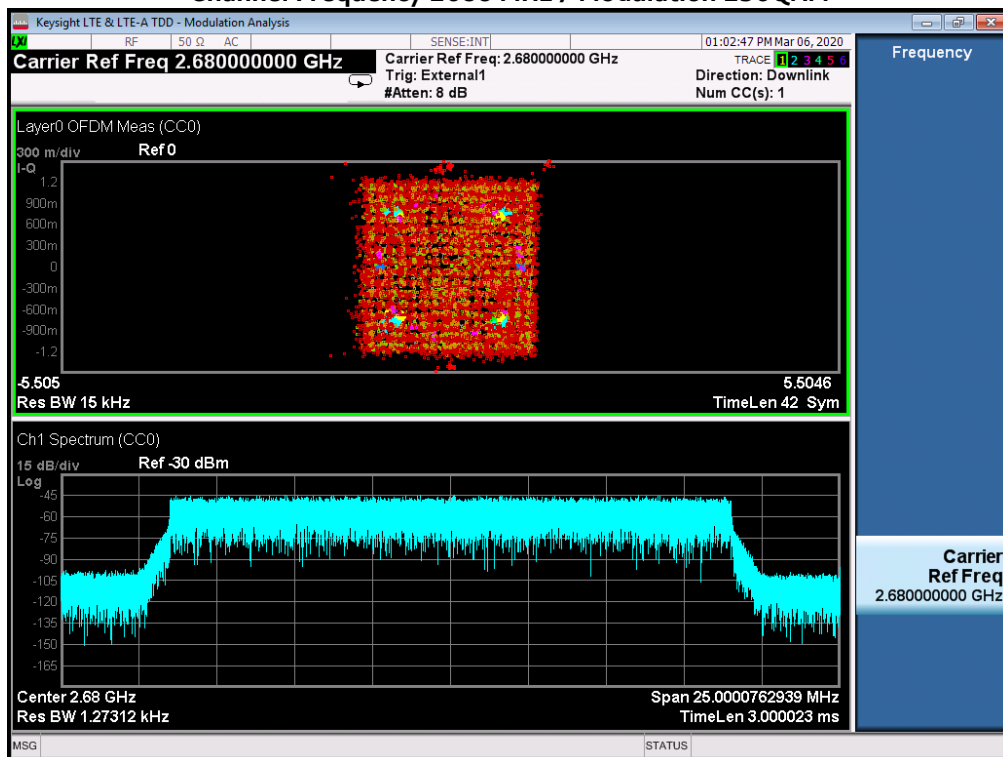
##### 3.1.1 Modulation Characteristics – Plots



## Channel Frequency 2593 MHz / Modulation QPSK/16QAM



## Channel Frequency 2680 MHz / Modulation 256QAM



## 4. FCC Section 2.1049 – Occupied Bandwidth/Edge of Band Emissions

### 4.1 Occupied Bandwidth

In 47CFR 2.1049 the FCC requires:

“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 under the following conditions as applicable.”

This required measurement is the 99% Occupied Bandwidth, also called the designated signal bandwidth and needs to be within the parameters of the products specified emissions designator. During these measurements it is customary to evaluate the Edge of Band emissions at block/band edges.

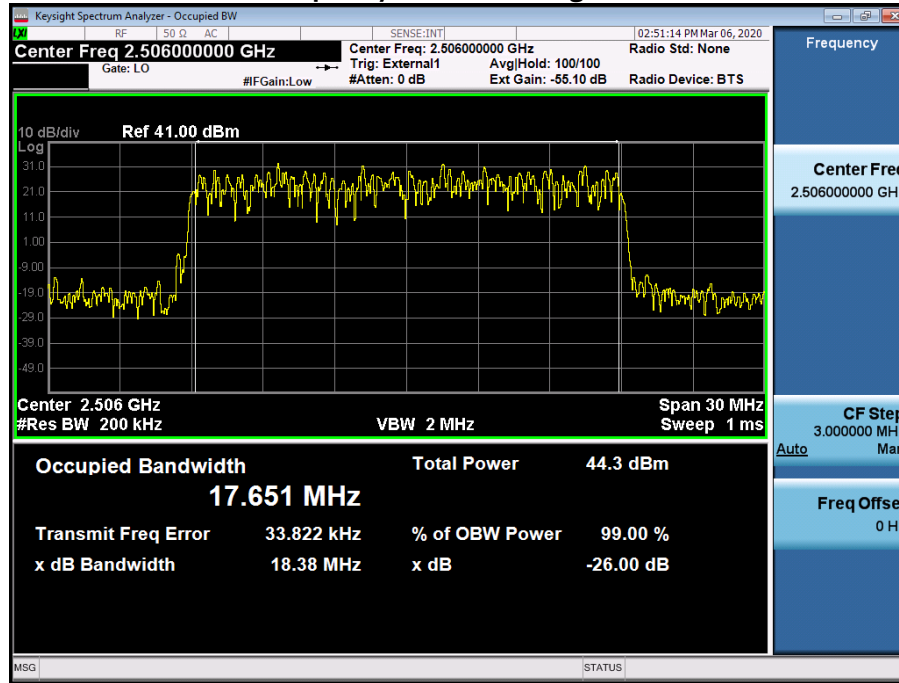
The transmitted signal occupied bandwidth was measured using a Keysight MXA Signal Analyzer. All emissions were within the parameters as required.

Tabular Data – 1 Carrier Occupied Bandwidth

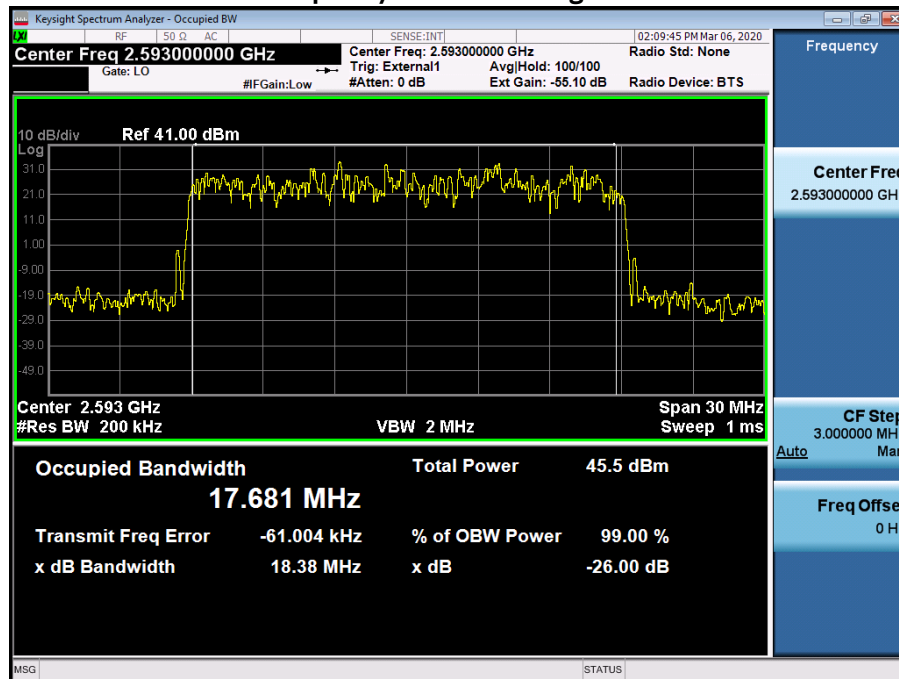
TM	TX	Channel Frequency MHz	Signal BW MHz	Modulation	Occupied BW MHz
3.2	1	2506	20	QPSK/16QAM	17.651
3.2	1	2593	20	QPSK/16QAM	17.681
3.1	1	2680	20	64QAM	17.784

## 4.1.1 Occupied Bandwidth – Plots

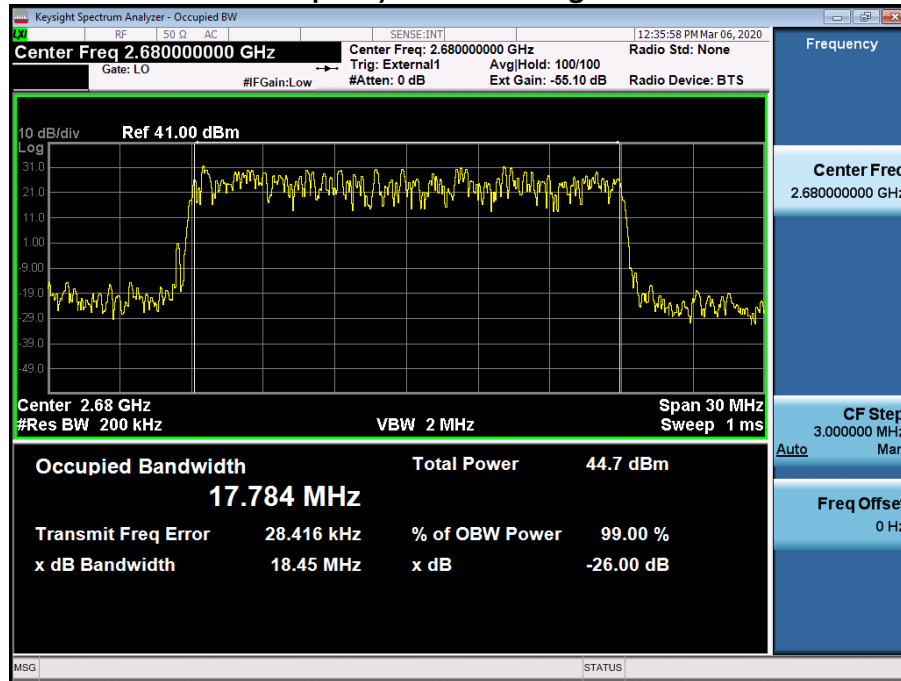
Channel Frequency 2506 MHz / Signal BW 20 MHz



Channel Frequency 2593 MHz / Signal BW 20 MHz



## Channel Frequency 2680 MHz / Signal BW 20 MHz

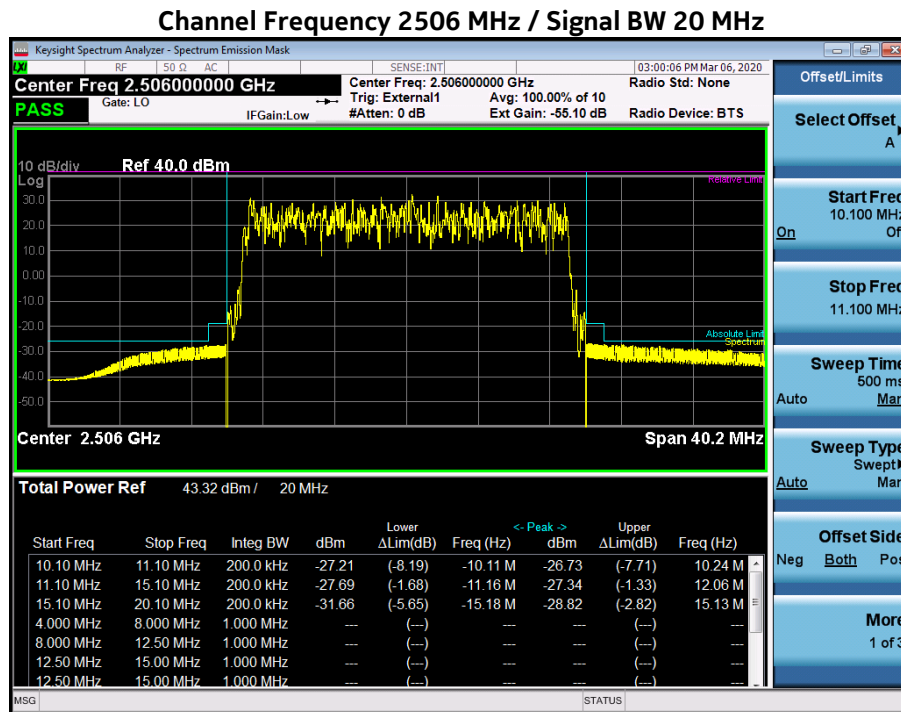


## 4.2 Edge of band Emissions

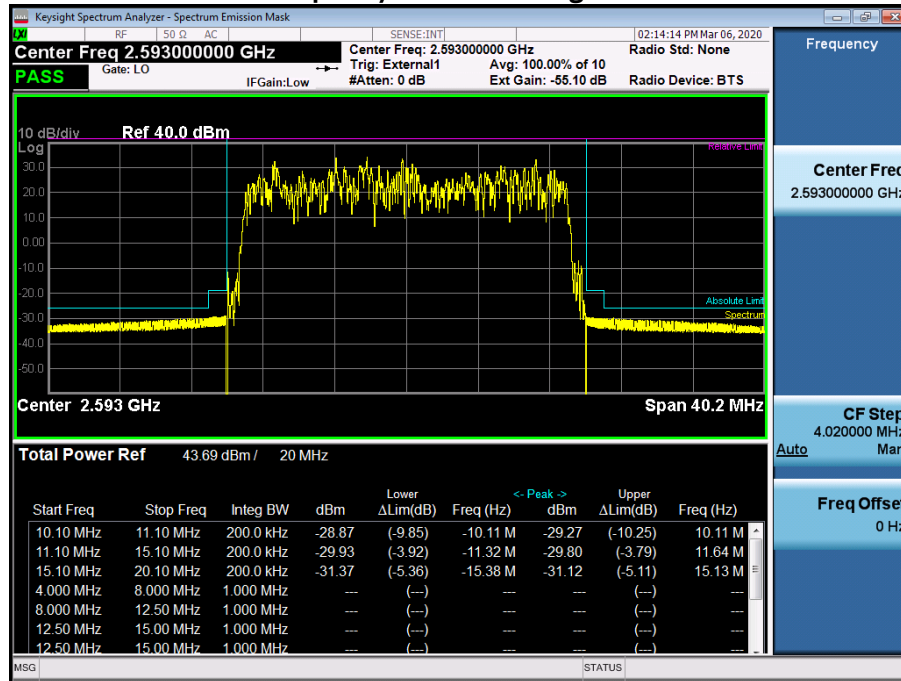
The Edge of Band emissions of the EUT at the external antenna connector (EAC) were measured using a Keysight MXA Signal Analyzer. The RF power level was continuously measured using a RF broadband power meter. The RF output from the EAC port to signal analyzer was reduced (to an amplitude usable by the signal analyzer) by using a calibrated attenuator and test coupler. The path attenuation was offset on the display and the signal for the carrier was adjusted to the corrected RF power level for the resolution bandwidth used for the transmit signal. All mask values were adjusted based upon the designated signal bandwidth and measurement bandwidths. The Top of Mask corresponds to the set rated power level as confirmed by the RF power meter.

### 4.2.1 Edge of Band Emissions - Plots.

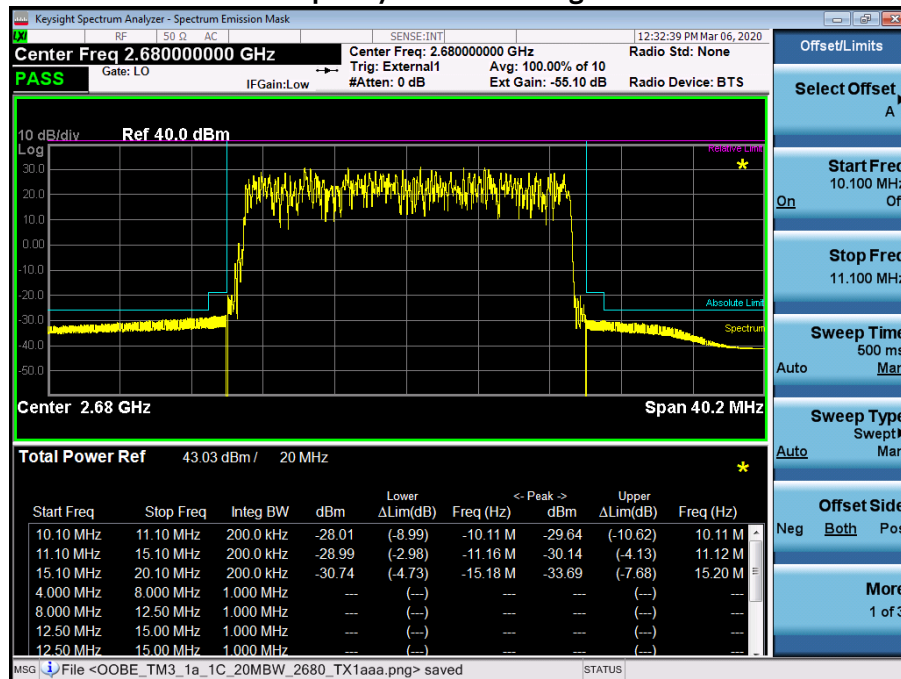
All of the measurements met the requirements of Part 27.53 when measured per Part 2.1049.



## Channel Frequency 2593 MHz / Signal BW 20 MHz



## Channel Frequency 2680 MHz / Signal BW 20 MHz





## 5. FCC Section 2.1051 - Spurious Emissions at Transmit Antenna Port

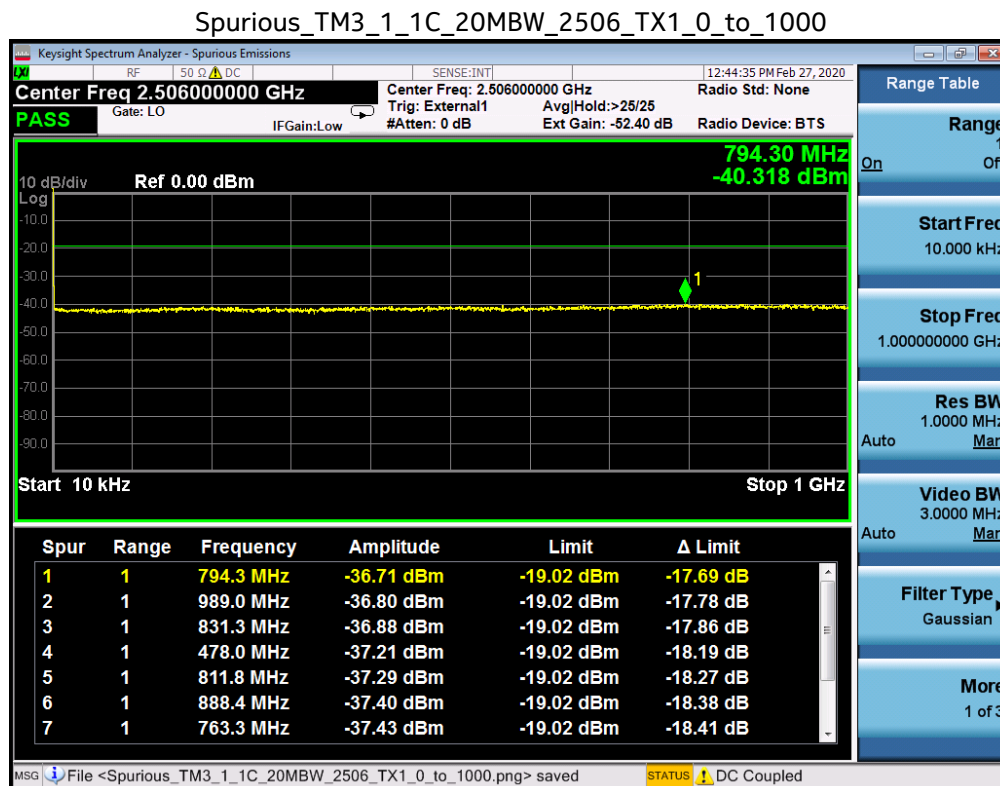
### 5.1 Measurement of Spurious Emissions at Transmit Antenna Port

Spurious Emissions at the transmit-antenna terminals were investigated over the frequency range of 10 MHz to beyond the 10th harmonic of the specific transmit band. Carrier Bandwidth is exempt. For this band of operation, the measurements were performed up to 10 GHz. Measurements were made using a Keysight MXA Signal Analyzer. The RF output from the transmitter was reduced (to an amplitude usable by the receivers) using calibrated attenuators. The RF power level was continuously monitored via a coupled RF Power Meter.

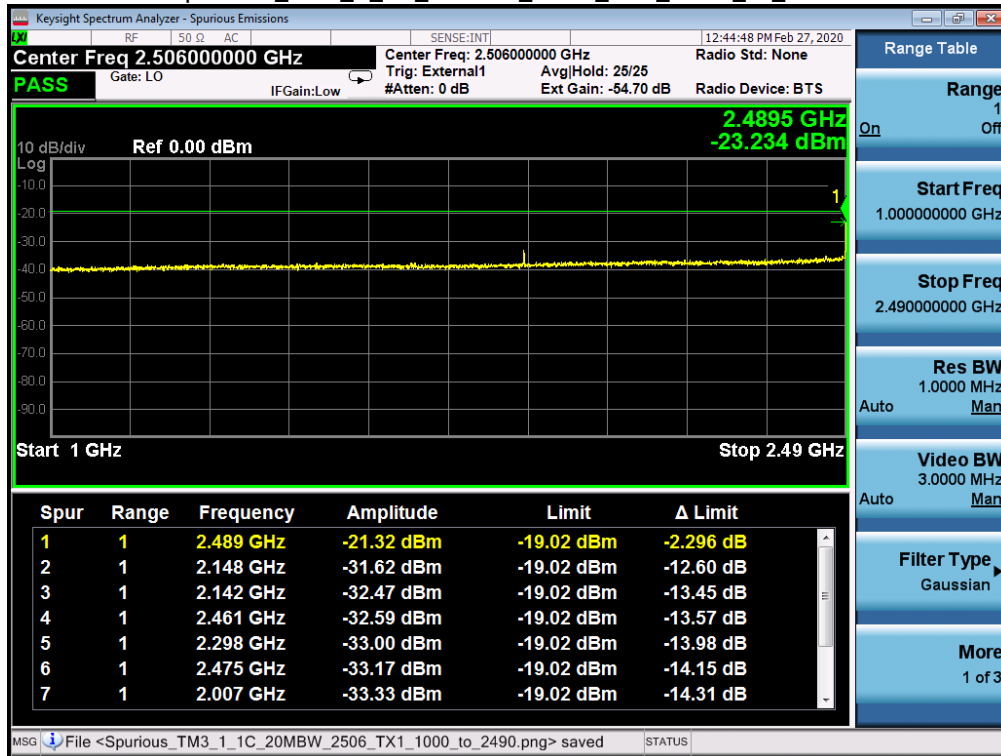
The required emission limitation is specified as appropriate in 27.53. The measured spurious emission levels were plotted for the frequency range as specified in 2.1057. There were no reportable emissions. Data below documents performance up to 27 GHz.

#### 5.1.1 Spurious Emissions at Tx Port - Plots

NOTE: Only a sample of the plots are used in this report. The full suite of raw data resides at the MH, New Jersey location.



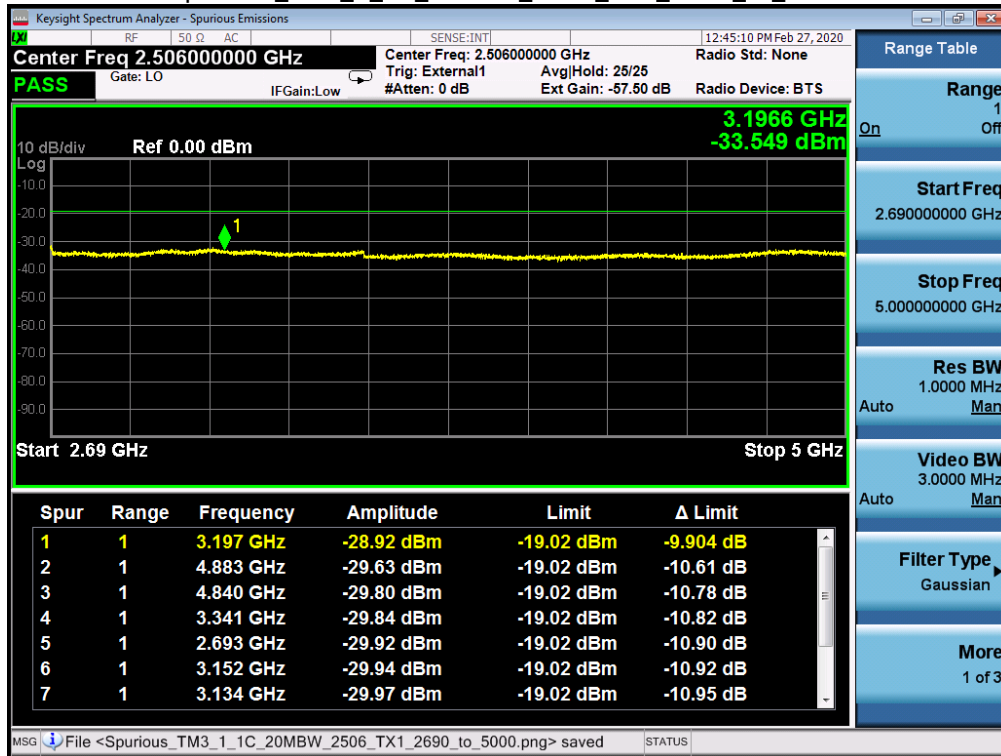
## Spurious\_TM3\_1\_1C\_20MBW\_2506\_TX1\_1000\_to\_2490



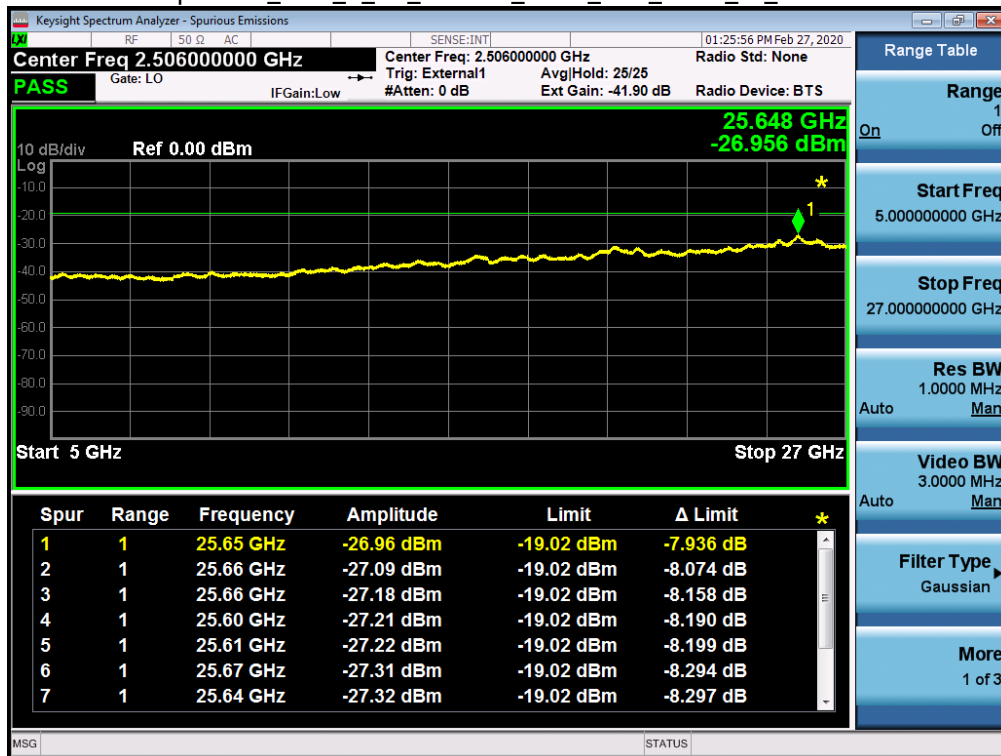
## Spurious\_TM3\_2\_1C\_20MBW\_2506\_TX1\_2526\_to\_2690



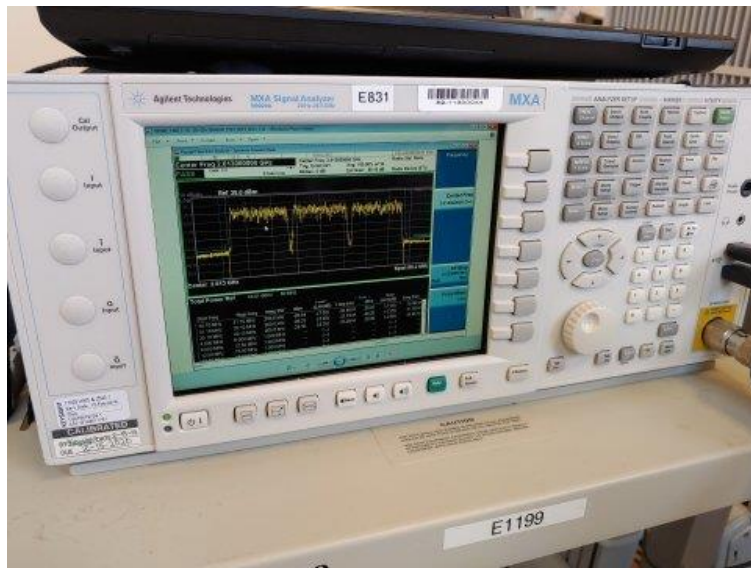
## Spurious\_TM3\_1\_1C\_20MBW\_2506\_TX1\_2690\_to\_5000



## Spurious\_TM3\_1\_1C\_20MBW\_2506\_TX1\_5000\_to\_27000



## Photographs



## Test Equipment

Asset ID	Manufacturer	Type	Description	Model	Serial	Calibration Date	Calibration Due
E831	Agilent Technologies	MXA Signal Analyzer	20Hz-26.5GHz	N9020A	MY48011791	2018-02-15	2020-03-15
E896	Agilent Technologies	Network Analyzer	10 MHz - 40 GHz	N5230C	MY49000897	2019-01-31	2021-01-31
E1360	Fairview Microwave	Attenuator	10 dB, DC - 40 GHz, 20 watt	SA4023-10	N/A	CNR	CNR
E1235	RLC Electronics Inc	High Pass Filter	High Pass filter 5GHz to 26GHz	F-19413	1446-006	CNR-V	CNR-V
E1022	Weinschel	Attenuator	10dB DC-18GHz 25W	46-10-34-LIM	BN3118	CNR-V	CNR-V
E1454	Weinschel	Attenuator	DC-18 GHz 40dB 150W	66-40-43	BK4085	CNR	CNR

CNR: Calibration Not Required

CNR-V: Calibration Not Required, must be Verified

## 6. FCC Section 2.1053 - Field strength of spurious radiation

### 6.1 Section 2.1053 Field Strength of Spurious Emissions

Field strength measurements of radiated spurious emissions were made in an FCC registered 3m Semi-Anechoic Chamber which is maintained by Nokia Bell Labs in Murray Hill, New Jersey. A complete description and full measurement data for the site is on file with the Commission (Site Registration Number: 515091).

The spectrum from 30 MHz to beyond the tenth harmonic of the carrier, 10 GHz, was searched for spurious radiation. Measurements were made using both horizontally and vertically polarized broadband antennas. Per FCC regulations, the comparison of out of band spurious emissions directly to the limit is appropriately made using the substitution method. However, when the emissions are more than 20 dB below the specification limit, the use of field strength measurements for compliance determination is acceptable and those emissions are considered not reportable (Section 2.1053 and the FCC Interpretive database for 2.1053). For this case the evaluation of acceptable radiated field strength is as follows.

### 6.2 Field Strength of Spurious Emissions - Limits

Sections 2.1053 and 27.53 contain the requirements for the levels of spurious radiation as a function of the level of the unmodulated carrier. The reference level for the unmodulated carrier is calculated as the field produced by an ideal dipole excited by the transmitter output power according to the following relation taken from Reference Data for Radio Engineers, page 676, 4<sup>th</sup> edition, IT&T Corp.

$$E = [(30 \cdot P)^{1/2}] / R$$

$$20 \log (E \cdot 10^6) - (43 + 10 \log P) = 82.23 \text{ dB}\mu\text{V/meter}$$

Where:

E = Field Intensity in Volts/meter

P = Transmitted Power in Watts

R = Measurement distance in meters = 3 m

The Part 27 Limit is 82.23 dBuV/m at 3m and 91.77 dBuV/m at 1m

The Part 27 non-report level is 62.23 dBuV/m at 3m.

The calculated emission levels were found by:

$$\text{Measured level (dB}\mu\text{V)} + \text{Cable Loss(dB)} + \text{Antenna Factor(dB)} = \text{Field Strength (dB}\mu\text{V/m)}$$

#### RESULTS:

For compliance with 47CFR Parts 2 and 27, the field strength of any spurious radiation, measured at 3m, is required to be less than 82.23 dB $\mu$ V/meter (82.23 @ 3m). Emissions equal to or less than 62.23 dB $\mu$ V/meter at 3m are not reportable and may be verified using field strength measurements and broadband antennas. Over the out of band spectrum investigated from 30 MHz to beyond the tenth harmonic of the carrier (up to 10 GHz), no reportable spurious emissions were detected.

## 7. NVLAP Certificate of Accreditation

<p>United States Department of Commerce National Institute of Standards and Technology</p> <p><b>NVLAP<sup>®</sup></b></p> <hr/> <p><b>Certificate of Accreditation to ISO/IEC 17025:2005</b></p> <hr/> <p>NVLAP LAB CODE: 100275-0</p> <p><b>Nokia, Global Product Compliance Lab</b> Murray Hill, NJ</p> <p><i>is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:</i></p> <p><b>Electromagnetic Compatibility &amp; Telecommunications</b></p> <p><i>This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).</i></p> <table><tr><td><p>2019-09-20 through 2020-09-30</p><hr/><p>Effective Dates</p></td><td></td><td><p></p><hr/><p>For the National Voluntary Laboratory Accreditation Program</p></td></tr></table>			<p>2019-09-20 through 2020-09-30</p> <hr/> <p>Effective Dates</p>		<p></p> <hr/> <p>For the National Voluntary Laboratory Accreditation Program</p>
<p>2019-09-20 through 2020-09-30</p> <hr/> <p>Effective Dates</p>		<p></p> <hr/> <p>For the National Voluntary Laboratory Accreditation Program</p>			