


**ELECTROMAGNETIC EMISSIONS  
COMPLIANCE REPORT**

**Applicant:** Telit Communications S.p.A.  
Via Stazione di Prosecco 5/b 34010 Sgonico - Trieste, Italy

**Manufacturer:** Telit Wireless Solutions. Co. Ltd.  
13th Fl., Shinyoung Securities Bld, 6, Gukjegeumyung-ro 8-gil,  
Yeongdeungpo-gu, Seoul, 07330, South Korea

**Product Name:** 5G Radio Module

**Brand Name:** Telit Cinterion or 

**Model No.:** FE910C04-WW

**Family Model No.:** FE910C04-WWD

**Model Difference:** FE910C04-WW and FE910C04-WWD are the same, except for that FE910C04-WWD is Data only module obtained by different SW configuration.

**Report Number:** TERF2503001152ER

**FCC ID** RI7FE910C04WW

**Date of EUT Received:** March 25, 2025

**Date of Test:** March 26, 2025~June 4, 2025

**Issue Date:** July 2, 2025

Approved By

**Jim Chang****We hereby certify that:**

The above equipment was tested by SGS Taiwan Ltd. Central RF Lab The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.26-2015 and the energy emitted by the sample EUT comply with FCC rule part 2, 96.

The results of this report relate only to the sample identified in this report.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.  
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## Revision History

Report Number	Revision	Description	Issue Date	Revised By	Remark
TERF2503001152ER	00	Original	June 19, 2025	Susan Lin	
TERF2503001152ER	01	Update section 13.4	July 2, 2025	Susan Lin	*

**Note:**

- 1、The remark "\*" indicates modification of the report upon requests from certification body.
- 2、Variant information of model numbers is provided by the applicant, test results of this report are applicable to the sample EUT(s) received. And are assessed as electrically identical in RF characteristics, therefore, no further assessment required for the variant(s).

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## 1 GENERAL PRODUCT INFORMATION

### 1.1 Product Description

Product Name:	5G Radio Module
Brand Name:	Telit Cinterion or 
Model No.:	FE910C04-WW
Family Model No.:	FE910C04-WWD
Model Difference:	FE910C04-WW and FE910C04-WWD are the same, except for that FE910C04-WWD is Data only module obtained by different SW configuration.
Hardware Version:	1.00
Firmware Version:	M0V.031001
EUT Series No.:	355781700005719, 355781700007690
Power Supply:	3.8Vdc
Test Software (Name/Version):	Connected with Callbox

### 1.2 Antenna Designation

Antenna Type	Antenna Model No.
Monopole	TG.55.8113
<b>Note:</b> Transmission frequencies in this test report are only available by the above antenna(s).	

LTE Band	Frequency (MHz)	Antenna Gain (dBi)	Insertion Loss (dB)	Final Gain (dBi)
LTE Band 42	3400 ~ 3600	1.51	1.1	0.41
LTE Band 43	3600 ~ 3800	1.51	1.1	0.41
LTE Band 48	3550 ~ 3700	1.51	1.1	0.41

5G NR Band	Frequency (MHz)	Antenna Gain (dBi)	Insertion Loss (dB)	Final Gain (dBi)
n48	3550 ~ 3700	1.51	1.1	0.41

**Note:** The antenna information is provided by the applicant, and the laboratory shall not be held liable for the accuracy, completeness, or reliability of any applicant-supplied data.

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### 1.3 Operation Frequencies

LTE Band 42 Part 96			
BW (MHz)	Operation Frequency (MHz)		
5	3552.5	-	3597.5
10	3555.0	-	3595.0
15	3557.5	-	3592.5
20	3560.0	-	3590.0

LTE Band 43 Part 96			
BW (MHz)	Operation Frequency (MHz)		
5	3602.5	-	3697.5
10	3605.0	-	3695.0
15	3607.5	-	3692.5
20	3610.0	-	3690.0

LTE Band 48			
BW (MHz)	Operation Frequency (MHz)		
5	3552.5	-	3697.5
10	3555.0	-	3695.0
15	3557.5	-	3692.5
20	3560.0	-	3690.0

NR Band 48			
BW (MHz)	Operation Frequency (MHz)		
10	3555.0	-	3695.0
15	3557.5	-	3692.5
20	3560.0	-	3690.0

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#### 1.4 Maximum ERP/EIRP

LTE Band	BW	Frequency		Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
48	5	3552.5	3697.5	QPSK	21.80	EIRP	0.151	4.4996	4M50G7D
				16QAM	21.11	EIRP	0.129	4.4912	4M49D7W
				64QAM	19.92	EIRP	0.098	4.4933	4M49D7W
				256QAM	16.69	EIRP	0.047	4.4983	4M50D7W
48	10	3555.0	3695.0	QPSK	21.86	EIRP	0.153	8.9872	8M99G7D
				16QAM	21.15	EIRP	0.130	8.9973	9M00D7W
				64QAM	19.95	EIRP	0.099	8.9685	8M97D7W
				256QAM	16.71	EIRP	0.047	8.9918	8M99D7W
48	15	3557.5	3692.5	QPSK	21.95	EIRP	0.157	13.4590	13M5G7D
				16QAM	21.13	EIRP	0.130	13.4430	13M4D7W
				64QAM	20.06	EIRP	0.101	13.4630	13M5D7W
				256QAM	16.74	EIRP	<b>0.047</b>	13.4420	13M4D7W
48	20	3560.0	3690.0	QPSK	21.99	EIRP	<b>0.158</b>	17.9240	17M9G7D
				16QAM	21.16	EIRP	<b>0.131</b>	17.9310	17M9D7W
				64QAM	20.07	EIRP	<b>0.102</b>	17.9310	17M9D7W
				256QAM	16.64	EIRP	0.046	17.9060	17M9D7W

#### with 10MHz

LTE Band	BW	Frequency		Modulation	ERP / EIRP (dBm/10MHz)		(W)	99%	Type of Emission
48	5	3552.5	3697.5	QPSK	21.80	EIRP	0.151	4.4996	4M50G7D
				16QAM	21.11	EIRP	0.129	4.4912	4M49D7W
				64QAM	19.92	EIRP	0.098	4.4933	4M49D7W
				256QAM	16.69	EIRP	0.047	4.4983	4M50D7W
48	10	3555.0	3695.0	QPSK	21.86	EIRP	<b>0.153</b>	8.9872	8M99G7D
				16QAM	21.15	EIRP	<b>0.130</b>	8.9973	9M00D7W
				64QAM	19.95	EIRP	<b>0.099</b>	8.9685	8M97D7W
				256QAM	16.71	EIRP	<b>0.047</b>	8.9918	8M99D7W
48	15	3557.5	3692.5	QPSK	20.19	EIRP	0.104	13.4590	13M5G7D
				16QAM	19.37	EIRP	0.086	13.4430	13M4D7W
				64QAM	18.30	EIRP	0.068	13.4630	13M5D7W
				256QAM	14.98	EIRP	0.031	13.4420	13M4D7W
48	20	3560.0	3690.0	QPSK	18.98	EIRP	0.079	17.9240	17M9G7D
				16QAM	18.15	EIRP	0.065	17.9310	17M9D7W
				64QAM	17.06	EIRP	0.051	17.9310	17M9D7W
				256QAM	13.63	EIRP	0.023	17.9060	17M9D7W

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## 5G NR Band n48\_Part96\_Uplink frequency band : 3550 to 3700 MHz

Bandwidth (MHz)	Low Frequency (MHz)	Upper Frequency (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	99% BW (kHz)	Type of Emission
10	3555	3694.98	DFT-s PI/2 BPSK	22.53	22.94	0.197	8.6427	8642.7	8M64G7W
			DFT-s QPSK	22.49	22.90	0.195	8.6305	8630.5	8M63G7W
			DFT-s QAM	21.41	21.82	0.152	8.6386	8638.6	8M64D7W
			CP QPSK	20.94	21.35	0.136	8.6305	8630.5	8M63G7W
			CP QAM	20.29	20.70	0.117	8.6386	8638.6	8M64D7W
15	3557.52	3692.49	DFT-s PI/2 BPSK	22.44	22.85	0.193	12.937	12937.0	12M9G7W
			DFT-s QPSK	22.34	22.75	0.188	12.93	12930.0	12M9G7W
			DFT-s QAM	21.43	21.84	0.153	12.986	12986.0	13M0D7W
			CP QPSK	20.89	21.30	0.135	12.93	12930.0	12M9G7W
			CP QAM	20.24	20.65	0.116	12.986	12986.0	13M0D7W
20	3560.01	3690	DFT-s PI/2 BPSK	22.54	22.95	0.197	17.914	17914.0	17M9G7W
			DFT-s QPSK	22.34	22.75	0.188	17.977	17977.0	18M0G7W
			DFT-s QAM	21.47	21.88	0.154	18.025	18025.0	18M0D7W
			CP QPSK	20.94	21.35	0.136	17.977	17977.0	18M0G7W
			CP QAM	20.47	20.88	0.122	18.025	18025.0	18M0D7W

## with 10MHz

## 5G NR Band n48\_Part96\_Uplink frequency band : 3550 to 3700 MHz

Bandwidth (MHz)	Low Frequency (MHz)	Upper Frequency (MHz)	Modulation	Conducted Average (dBm/10MHz)	EIRP Average (dBm/10MHz)	EIRP Average (W)	99% BW (MHz)	99% BW (kHz)	Type of Emission
10	3555	3694.98	DFT-s PI/2 BPSK	22.53	22.94	0.197	8.6427	8642.7	8M64G7W
			DFT-s QPSK	22.49	22.90	0.195	8.6305	8630.5	8M63G7W
			DFT-s QAM	21.41	21.82	0.152	8.6386	8638.6	8M64D7W
			CP QPSK	20.94	21.35	0.136	8.6305	8630.5	8M63G7W
			CP QAM	20.29	20.70	0.117	8.6386	8638.6	8M64D7W
15	3557.52	3692.49	DFT-s PI/2 BPSK	20.68	21.09	0.129	12.937	12937.0	12M9G7W
			DFT-s QPSK	20.58	20.99	0.126	12.93	12930.0	12M9G7W
			DFT-s QAM	19.67	20.08	0.102	12.986	12986.0	13M0D7W
			CP QPSK	19.13	19.54	0.090	12.93	12930.0	12M9G7W
			CP QAM	18.48	18.89	0.077	12.986	12986.0	13M0D7W
20	3560.01	3690	DFT-s PI/2 BPSK	19.53	19.94	0.099	17.914	17914.0	17M9G7W
			DFT-s QPSK	19.33	19.74	0.094	17.977	17977.0	18M0G7W
			DFT-s QAM	18.46	18.87	0.077	18.025	18025.0	18M0D7W
			CP QPSK	17.93	18.34	0.068	17.977	17977.0	18M0G7W
			CP QAM	17.46	17.87	0.061	18.025	18025.0	18M0D7W

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## 1.5 Test Methodology of Applied Standards

FCC 47 CFR Part 2, Part 96E

ANSI C63.26-2015

ANSI/ITA C603-E.2016

KDB 971168 D01 Power Meas license Digital System v03r01

KDB 940660 D01 Part 96 CBRS Eqpt v02

KDB 412172 D01 Determining ERP and EIRP V01r01

## 1.6 Test Facility

Laboratory	Test Site Address	Test Site Name	FCC Designation number	IC CAB identifier
SGS Taiwan Ltd. Central RF Lab. (TAF code 3702)	No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan.	SAC 1	TW0027	TW3702
		SAC 2		
		SAC 3		
		Conduction 1		
		Conducted 1		
		Conducted 2		
		Conducted 3		
		Conducted 4		
		Conducted 5		
		Conducted 6		
	No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333	Conduction C	TW0028	
		SAC C		
		SAC D		
		SAC G		
		Conducted A		
		Conducted B		
		Conducted C		
		Conducted D		
		Conducted E		
		Conducted F		
Conducted G				
<b>Note:</b> Test site name is remarked on the equipment list in each section of this report as an indication where measurements occurred in specific test site and address.				

## 1.7 Special Accessories

No special accessories were used during testing.

## 1.8 Equipment Modifications

There was no modifications incorporated into the EUT.

## 1.9 Radiated Emission Test Sites For Measurements From 9 kHz To 30 MHz

Radiated emission below 30MHz is measured in a 9m\*9m\*6m semi-anechoic chamber, the measurements correspond to those obtained at an open-field test site.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

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## 2 SYSTEM TEST CONFIGURATION

### 2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

### 2.2 EUT Exercise

The EUT (Transmitter) was operated in the continuous transmission mode employed with the simulator of the Base Station that fixates at test default channels to fix the Tx frequency which was for the purpose of the measurements.

### 2.3 Test Procedure

#### 2.3.1 Conducted Measurement at Antenna Port

The EUT is placed on a table which is 0.8 m above ground plane. A low loss of RF cable was used to connect the antenna port of EUT to measurement equipment.

#### 2.3.2 Radiated Emissions (ERP/EIRP)

The EUT is placed on a turn table, for emission measurements below 1 GHz is 0.8 m above ground plane, for emission measurements above 1 GHz, the table height shall be 1.5 m. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both Horizontal and Vertical. In order to find out the max. emission, the relative positions of this transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.

### 2.4 Measurement Results Explanation Example

#### For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuation factor between EUT conducted port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly EUT RF output level.

#### Note:

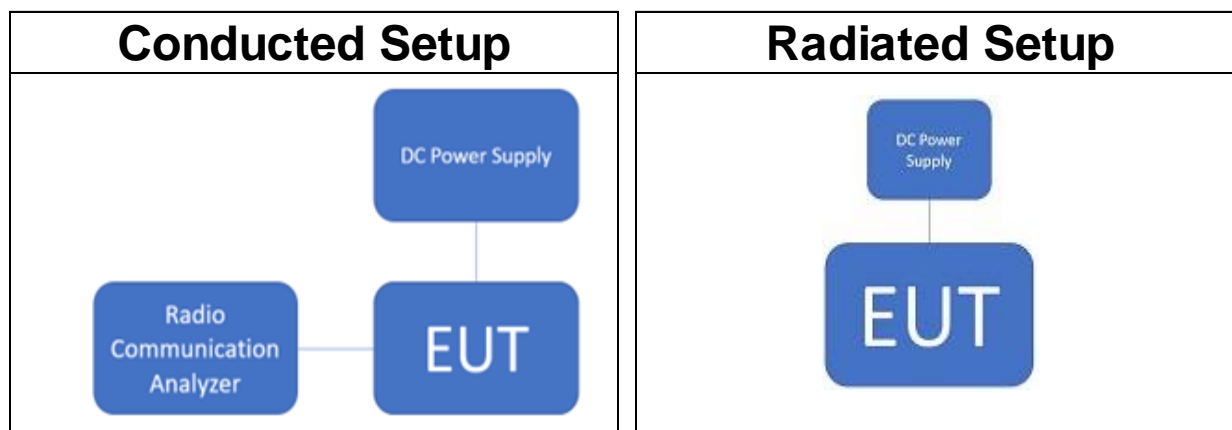
The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

## 2.5 Final Amplifier Voltage and Current Information:

LTE Band 48		
Test Mode	DC voltage (V)	DC current (mA)
LTE Band 48_20M QPSK	3.8	320

5G NR BAND n48 Part96		
CP-OFDM_SCS 30 kHz		
Test mode	DC voltage (V)	DC current (mA)
Bandwidth:10MHz Mod:256QAM	3.8	167
Bandwidth:15MHz Mod:256QAM	3.8	171
Bandwidth:20MHz Mod:256QAM	3.8	165

## 2.6 Test Configuration



**Note:** Radio Communication Analyzer is placed in remote side for radiated test.

## 2.7 Control Unit(s)

N/A

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### 3 SUMMARY OF TEST RESULTS

FCC Rules	Description Of Test	Result
§2.1046(a) §96.41(b)	Maximum Power Output	Compliant
§2.1046, §96.41(b)	Maximum Power Density	Compliant
§2.1053, §96.41(e)	Field Strength Of Spurious Radiation	Compliant
§2.1051 §96.41(e)	Out Of Band Emission At Antenna	Compliant
§2.1049,(h)	Occupied Bandwidth	Compliant
§2.1055(a)	Frequency Stability	Compliant

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## 4 DESCRIPTION OF TEST MODES

### 4.1 The Worst Test Modes and Channel Details

1. The EUT has been tested under operating condition.
2. Pre-Scan has been conducted to determine the worst-case scenario from all possible combinations among available modulations, data rates and antenna ports, the worst case configurations listed below for the final test.
3. The field strength of radiated emission was measured as the EUT positioned in different orthogonal planes (E1/E2/H) based on actual usage of the EUT to pre-scan the emissions for determining the worst case scenario.

### 4.2 Measurement Configuration

#### LTE

Test Items				Max. Output Power												
Band	Test Channel			Bandwidth (MHz)						Modulation				RB #		
	L	M	H	1.4	3	5	10	15	20	QPSK	16QAM	64QAM	256QAM	1	Half	Full
48	V	V	V	-	-	V	V	V	V	V	V	V	V	V	V	V
Test Items				Frequency Stability												
48	-	V	-	-	-	-	V	-	-	V	-	-	-	-	-	V

Test Items				26dB and 99% Bandwidth												
Band	Test Channel			Bandwidth (MHz)						Modulation				RB #		
	L	M	H	1.4	3	5	10	15	20	QPSK	16QAM	64QAM	256QAM	1	Half	Full
48	V	V	V	-	-	V	V	V	V	V	V	V	V	-	-	V
Test Items				Peak-to-Average Ratio												
48	V	V	V	-	-	V	V	V	V	-	-	-	V	-	-	V

Test Items				Band Edge												
Band	Test Channel			Bandwidth (MHz)						Modulation				RB #		
	L	M	H	1.4	3	5	10	15	20	QPSK	16QAM	64QAM	256QAM	1	Half	Full
48	V	-	V	-	-	V	V	V	V	V	-	-	-	V	-	V
Test Items				Conducted Emission												
48	V	V	V	-	-	-	-	-	V	V	-	-	-	V	-	-

Test Items				Radiated Emission												
Band	Test Channel			Bandwidth (MHz)						Modulation				RB #		
	L	M	H	1.4	3	5	10	15	20	QPSK	16QAM	64QAM	256QAM	1	Half	Full
48	V	V	V	-	-				V	V				V		

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## NR

Test Items	Band	Test Channel			Bandwidth (MHz)																Modulation DFT-s-OFDM					Modulation CP-OFDM				RB #					
		L	M	H	5	10	15	20	25	30	40	45	50	60	70	80	90	100	BPSK	QPSK	16 QAM	64 QAM	256 QAM	QPSK	16 QAM	64 QAM	256 QAM	Edge 1RB_Left	Edge 1RB_Right	Inner 1RB_Left	Inner 1RB_Right	Inner Full	Outer Full		
Conducted Power	48 (part96)	v	v	v		v	v	v											v	v	v	v	v	v	v	v	v					v	v	v	v
Frequency Stability			v					v																	v										v
Occupied Bandwidth		v	v	v		v	v	v											v	v	v	v	v												v
Bandedge		v		v		v	v	v																	v			v	v						v
Mask																																			
Conducted Emission		v	v	v		v	v	v											v												v				
CCDF		v	v	v		v	v	v															v												v
Radiated Emission		v	v	v				v											v												v				

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## 5 MEASUREMENT UNCERTAINTY

Test Items	Uncertainty
Power Density	+/- 0.61 dB
Output Power measurement	+/- 0.97 dB
ERP/ EIRP measurement	+/- 2.16 dB
	+/- 2.16 dB
Emission Bandwidth	+/- 1.38 Hz
Out of Band Emissions at Antenna Terminals and Band Edge	+/- 0.77 dB
Peak to Average Ratio	+/- 0.97 dB
Frequency Stability vs. Temperature	+/- 1.48 Hz
Frequency Stability vs. Voltage	+/- 1.48 Hz
Temperature	+/- 0.6 °C
Humidity	+/- 3 %
DC / AC Power Source	+/- 1 %

Radiated Spurious Emission Measurement Uncertainty			
Polarization: Vertical	+/-	1.89 dB	9kHz~30MHz
	+/-	4.1 dB	30MHz - 1000MHz
	+/-	3.37 dB	1GHz - 18GHz
	+/-	3.83 dB	18GHz - 40GHz
Polarization: Horizontal	+/-	1.89 dB	9kHz~30MHz
	+/-	4.1 dB	30MHz - 1000MHz
	+/-	3.37 dB	1GHz - 18GHz
	+/-	3.83 dB	18GHz - 40GHz
Radiated Spurious Emission	+/-	2 dB	33GHz-50GHz
	+/-	1.59 dB	50GHz-60GHz
	+/-	1.71 dB	60GHz-90GHz
	+/-	1.64 dB	90GHz-140GHz
	+/-	3.84 dB	140GHz-220GHz

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

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## 6 MEASUREMENT EQUIPMENT USED

### 6.1 Conducted Measurement

#### LTE

Conducted Emission Test Site: Conducted 3					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
Attenuator	Mini-Circuits	BW-S10W2+	12	12/11/2024	12/10/2025
DC Block	Mini-Circuits	BLK-18-S+	12	12/11/2024	12/10/2025
DC Power Supply	Gwinstek	SPS-3610	GEV856761	09/13/2024	09/12/2025
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY60240503	12/16/2024	12/15/2025
PXA Spectrum Analyzer	Agilent	N9030A	MY53120760	04/25/2025	04/24/2026
Radio Communication Analyzer	Anritsu	MT8821C	6262044751	11/04/2024	11/03/2025
Splitter	RF-Lambda	RFLT2W1G18G	11-JSPF412-017	12/11/2024	12/10/2025
Temperature Chamber	Giant Force	GTH-150-40-CP-AR	MAA0512-018	06/05/2024	06/04/2025
Test Software	SGS	Radio Test Software	Ver. 21	N.C.R	N.C.R

#### NR

Conducted Emission Test Site: Conducted 3					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
Attenuator	Mini-Circuits	BW-S10W2+	12	12/11/2024	12/10/2025
DC Block	Mini-Circuits	BLK-18-S+	12	12/11/2024	12/10/2025
DC Power Supply	Gwinstek	SPS-3610	GEV856761	09/13/2024	09/12/2025
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY60240503	12/16/2024	12/15/2025
PXA Spectrum Analyzer	Agilent	N9030A	MY53120760	04/25/2025	04/24/2026
PXA Spectrum Analyzer	Keysight	N9030B	MY61330494	04/16/2025	04/15/2026
Radio Communication Analyzer	KEYSIGHT	E7515B	MY59321566	02/12/2025	02/11/2026
Splitter	RF-Lambda	RFLT2W1G18G	11-JSPF412-017	12/11/2024	12/10/2025
Temperature Chamber	Giant Force	GTH-150-40-CP-AR	MAA0512-018	06/05/2024	06/04/2025
Test Software	SGS	Radio Test Software	Ver. 21	N.C.R	N.C.R

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## 6.2 Radiated Measurement

### LTE

Radiated Emission Test Site: SAC 1					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
1.3G High Pass Filter	Woken	WHKX10-1066	19	12/11/2024	12/10/2025
Band Reject Filter 635-920	Titan	T04N63592050S01	23040703-4	12/11/2024	12/10/2025
Bi-log Antenna	SCHWARZBECK	VULB9168	1208	07/17/2024	07/16/2025
Bi-log Antenna	TESEO	CBL 6112D	35242 & AT-N0555	12/09/2024	12/08/2025
Coaxial Cable	EMCI	EMC104-SM-SM-8000+EMC106-SM-SM-7600	RX Cable 9K-18G(160125+150817)	08/30/2024	08/29/2025
Coaxial Cables	Huber Suhner	SUCOFLEX 102	RX Cable 18G-40G MY2630/2+805062/2	08/30/2024	08/29/2025
Coaxial Cables	Huber Suhner	SUCOFLEX 102+SUCOFLEX 106	TX Cable 30M-40G 23051/2+76096/6+22962/2	08/30/2024	08/29/2025
DC Power Supply	HILA	DP-3003N	11233K1019035	03/24/2025	03/23/2026
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY60242081	10/23/2024	10/22/2025
Horn Antenna	RF SPIN	DRH0844	LE2D05A0844	07/10/2024	07/09/2025
Horn Antenna	SCHWARZBECK	BBHA9120D	603	05/20/2025	05/19/2026
Horn Antenna	SCHWARZBECK	BBHA9120D	D803	01/09/2025	01/08/2026
Horn Antenna	SCHWARZBECK	BBHA9170	184	12/20/2024	12/19/2025
Network Analyzer	Anritsu	MS4644A	1216312	12/25/2024	12/24/2025
Pre-Amplifier	EMCI	EMC118A45SEE	980933	08/30/2024	08/29/2025
Pre-Amplifier	EMCI	EMC184045SEE	9080939	08/30/2024	08/29/2025
Pre-Amplifier	HP	8447D	2944A09469	08/30/2024	08/29/2025
Radio Communication Analyzer	Anritsu	MT8821C	6261786084	12/31/2024	12/30/2025
Site Cal	SGS	SAC 1	N/A	08/30/2024	08/29/2025
Test Software	Audix	e3	Ver. 9.210616	N.C.R	N.C.R

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## NR

Radiated Emission Test Site: SAC 2					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
4G High Pass Filter	WI	WHKX4.0	23	12/11/2024	12/10/2025
6G High Pass Filter	WI	WHKX6.0	54	12/11/2024	12/10/2025
Band Reject Filter 2240-2700	Titan	T04N2240270050S 01	23040703-12	12/11/2024	12/10/2025
Band Reject Filter 3300-3900	WI	WRCGV3400/3800- 3300/3900- 40/12SS	1	12/11/2024	12/10/2025
Bi-log Antenna	SCHWARZBECK	VULB9168	1208	07/17/2024	07/16/2025
Bi-log Antenna	SCHWARZBECK	VULB9168	9168-1278	03/10/2025	03/09/2026
Coaxial Cables	EMCI	EMC104-SM-SM- 600 +EMC105-SM-SM- 2000 +EMC105-SM-SM- 1500 +EMC105-SM-SM- 10000	RX Cable 9K-18G (220237+220909+2 20906+240801)	08/30/2024	08/29/2025
Coaxial Cables	Huber Suhner	SUCOFLEX 102	RX Cable 18G-40G MY2630/2+805062 /2	08/30/2024	08/29/2025
Coaxial Cables	Huber Suhner	SUCOFLEX 102+SUCOFLEX 106	TX Cable 30M-40G 23051/2+76096/6+ 22962/2	08/30/2024	08/29/2025
DC Power Supply	HILA	DP-3003N	11233K1019035	03/24/2025	03/23/2026
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY60242392	12/24/2024	12/23/2025
Horn Antenna	SCHWARZBECK	BBHA9120D	603	05/20/2025	05/19/2026
Horn Antenna	RF SPIN	DRH0844	LE2D05A0844	07/10/2024	07/09/2025
Horn Antenna	RF SPIN	DRH18-E	210303A18-ES	02/20/2025	02/19/2026
Horn Antenna	SCHWARZBECK	BBHA9170	184	12/20/2024	12/19/2025
Network Analyzer	Anritsu	MS4644A	1216312	12/25/2024	12/24/2025
Pre-Amplifier	EMCI	EMC118A45SEE	980867	08/30/2024	08/29/2025
Pre-Amplifier	EMCI	EMC184045SEE	9080939	08/30/2024	08/29/2025
Pre-Amplifier	EMCI	EMC330N	980826	08/30/2024	08/29/2025
Radio Communication Analyzer	KEYSIGHT	E7515B	MY59321561	07/11/2024	07/10/2025
Site Cal	SGS	SAC 2	N/A	08/30/2024	08/29/2025
Test Software	Audix	e3	Ver. 9.210616	N.C.R	N.C.R

**NOTE:** N.C.R refers to Not Calibrated Required.

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## 7 MAXIMUM OUTPUT POWER MEASUREMENT

### 7.1 Standard Applicable

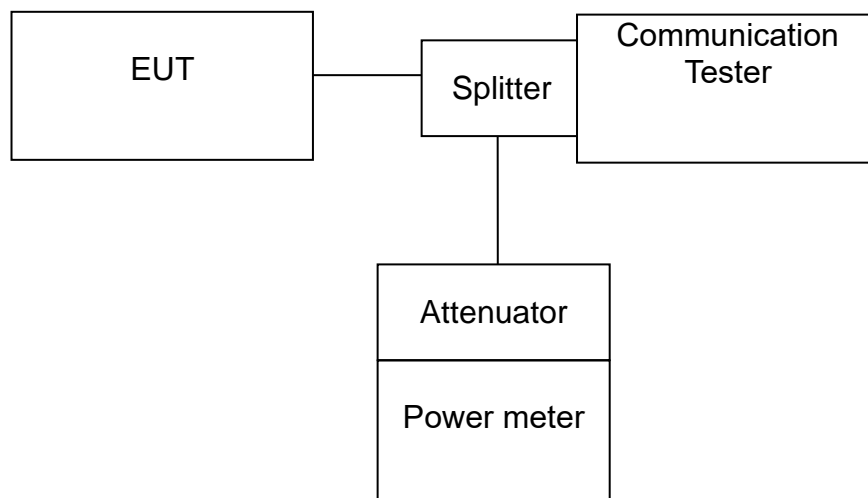
FCC §2.1046 & 96.41

- (a) FCC 96.41(a) Digital modulation. Systems operating in the Citizens Broadband Radio Service must use digital modulation techniques.
- (b) FCC 96.41(b) Power limits. Unless otherwise specified in this section, the maximum effective isotropic radiated power (EIRP) of any CBSD and End User Device must comply with the limits shown in the table in this paragraph (b):

Device	Maximum EIRP (dBm/10 MHz)
End User Device	23
Category A CBSD	30
Category B CBSD <sup>1</sup>	47

Category B CBSDs will only be authorized for use after an ESC is approved and commercially deployed consistent with §§96.15 and 96.67.

### 7.2 Test Set-up



**Note:** Measurement setup for testing on Antenna connector

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### 7.3 Measurement Procedure

The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a power meter. Transmitter output was read off the power meter in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to the power meter reading.

#### **Determining ERP and/or EIRP from conducted RF output power measurements**

$$\text{ERP/EIRP} = \text{PMeas} + \text{GT-LC}$$

Where:

ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMeas, typically dBW or dBm);

PMeas = measured transmitter output power or PSD, in dBm or dBW;

GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

For devices utilizing multiple antennas, KDB 662911 provides guidance for determining the effective array transmit antenna gain term to be used in the above equation.

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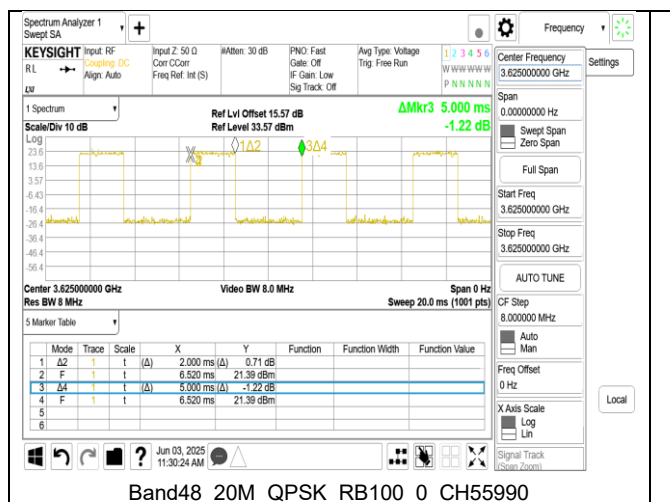
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## 7.4 Measurement Result:

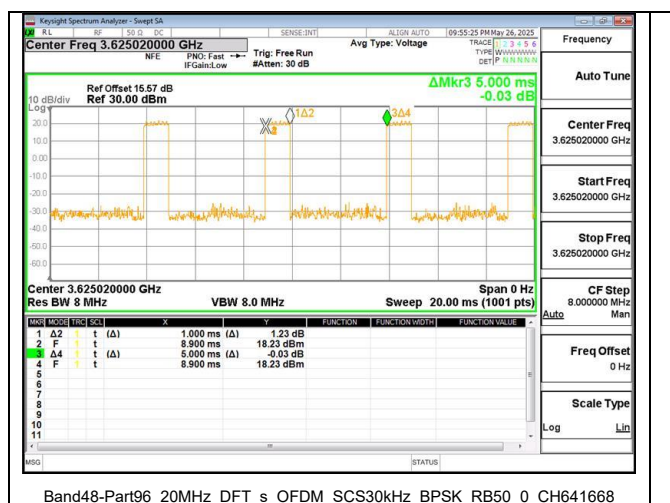
### LTE

Mode	Duty Cycle (%) =Ton / (Ton+Toff)	Duty Factor (dB) =10*log ( 1/Duty Cycle )
(TDD)LTE_Band48_20MHz_QPSK	40.00	3.98



### NR

Mode	Duty Cycle (%) =Ton / (Ton+Toff)	Duty Factor (dB) =10*log ( 1/Duty Cycle )
(TDD)NR_n48	20.00	6.99



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Antenna gain (dBi)		0.41					
LTE Band 48_Uplink frequency band : 3550 to 3700 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)
5	55265	3552.5	QPSK	1	0	21.39	21.80
				1	24	21.38	21.79
				12	6	20.45	20.86
				25	0	20.43	20.84
	55990	3625	QPSK	1	0	21.26	21.67
				1	24	21.21	21.62
				12	6	20.27	20.68
				25	0	20.25	20.66
	56715	3697.5	QPSK	1	0	21.36	21.77
				1	24	21.37	21.78
				12	6	20.34	20.75
				25	0	20.36	20.77
5	55265	3552.5	16QAM	1	0	20.70	21.11
				1	24	20.67	21.08
				12	6	19.49	19.90
				25	0	19.45	19.86
	55990	3625	16QAM	1	0	20.39	20.80
				1	24	20.39	20.80
				12	6	19.30	19.71
				25	0	19.30	19.71
	56715	3697.5	16QAM	1	0	20.57	20.98
				1	24	20.68	21.09
				12	6	19.38	19.79
				25	0	19.37	19.78
5	55265	3552.5	64QAM	1	0	19.51	19.92
				1	24	19.49	19.90
				12	6	18.46	18.87
				25	0	18.47	18.88
	55990	3625	64QAM	1	0	19.39	19.80
				1	24	19.36	19.77
				12	6	18.25	18.66
				25	0	18.32	18.73
	56715	3697.5	64QAM	1	0	19.38	19.79
				1	24	19.36	19.77
				12	6	18.40	18.81
				25	0	18.40	18.81
5	55265	3552.5	256QAM	1	0	16.28	16.69
				1	24	16.26	16.67
				12	6	16.22	16.63
				25	0	16.19	16.60
	55990	3625	256QAM	1	0	16.13	16.54
				1	24	16.12	16.53
				12	6	16.12	16.53
				25	0	16.04	16.45
	56715	3697.5	256QAM	1	0	16.21	16.62
				1	24	16.22	16.63
				12	6	16.17	16.58
				25	0	16.14	16.55

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Antenna gain (dBi)		0.41					
LTE Band 48_Uplink frequency band : 3550 to 3700 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)
10	55290	3555	QPSK	1	0	21.45	21.86
				1	49	21.44	21.85
				25	12	20.36	20.77
				50	0	20.45	20.86
	55990	3625	QPSK	1	0	21.27	21.68
				1	49	21.20	21.61
				25	12	20.17	20.58
				50	0	20.25	20.66
	56690	3695	QPSK	1	0	21.24	21.65
				1	49	21.33	21.74
				25	12	20.32	20.73
				50	0	20.39	20.80
10	55290	3555	16QAM	1	0	20.74	21.15
				1	49	20.58	20.99
				25	12	19.33	19.74
				50	0	19.42	19.83
	55990	3625	16QAM	1	0	20.57	20.98
				1	49	20.49	20.90
				25	12	19.17	19.58
				50	0	19.28	19.69
	56690	3695	16QAM	1	0	20.50	20.91
				1	49	20.70	21.11
				25	12	19.30	19.71
				50	0	19.43	19.84
10	55290	3555	64QAM	1	0	19.54	19.95
				1	49	19.48	19.89
				25	12	18.39	18.80
				50	0	18.44	18.85
	55990	3625	64QAM	1	0	19.49	19.90
				1	49	19.50	19.91
				25	12	18.15	18.56
				50	0	18.24	18.65
	56690	3695	64QAM	1	0	19.49	19.90
				1	49	19.53	19.94
				25	12	18.29	18.70
				50	0	18.37	18.78
10	55290	3555	256QAM	1	0	16.30	16.71
				1	49	16.23	16.64
				25	12	16.23	16.64
				50	0	16.18	16.59
	55990	3625	256QAM	1	0	16.18	16.59
				1	49	16.19	16.60
				25	12	16.14	16.55
				50	0	16.10	16.51
	56690	3695	256QAM	1	0	16.15	16.56
				1	49	16.27	16.68
				25	12	16.23	16.64
				50	0	16.14	16.55

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f (886-2) 2298-0488

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Antenna gain (dBi)		0.41					
LTE Band 48_Uplink frequency band : 3550 to 3700 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)
15	55315	3557.5	QPSK	1	0	21.54	21.95
				1	74	21.52	21.93
				36	18	20.31	20.72
				75	0	20.41	20.82
	55990	3625	QPSK	1	0	21.40	21.81
				1	74	21.31	21.72
				36	18	20.08	20.49
				75	0	20.23	20.64
	56665	3692.5	QPSK	1	0	21.35	21.76
				1	74	21.45	21.86
				36	18	20.17	20.58
				75	0	20.30	20.71
15	55315	3557.5	16QAM	1	0	20.72	21.13
				1	74	20.65	21.06
				36	18	19.30	19.71
				75	0	19.42	19.83
	55990	3625	16QAM	1	0	20.44	20.85
				1	74	20.30	20.71
				36	18	19.19	19.60
				75	0	19.26	19.67
	56665	3692.5	16QAM	1	0	20.64	21.05
				1	74	20.65	21.06
				36	18	19.10	19.51
				75	0	19.30	19.71
15	55315	3557.5	64QAM	1	0	19.65	20.06
				1	74	19.53	19.94
				36	18	18.23	18.64
				75	0	18.42	18.83
	55990	3625	64QAM	1	0	19.47	19.88
				1	74	19.49	19.90
				36	18	18.16	18.57
				75	0	18.23	18.64
	56665	3692.5	64QAM	1	0	19.39	19.80
				1	74	19.45	19.86
				36	18	18.18	18.59
				75	0	18.29	18.70
15	55315	3557.5	256QAM	1	0	16.33	16.74
				1	74	16.15	16.56
				36	18	16.18	16.59
				75	0	16.22	16.63
	55990	3625	256QAM	1	0	16.16	16.57
				1	74	16.10	16.51
				36	18	16.10	16.51
				75	0	16.10	16.51
	56665	3692.5	256QAM	1	0	16.16	16.57
				1	74	16.13	16.54
				36	18	16.10	16.51
				75	0	16.10	16.51

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LTE Band 48_Uplink frequency band : 3550 to 3700 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)
20	55340	3560	QPSK	1	0	21.58	21.99
				1	99	21.56	21.97
				50	25	20.48	20.89
				100	0	20.38	20.79
	55990	3625	QPSK	1	0	21.39	21.80
				1	99	21.32	21.73
				50	25	20.29	20.70
				100	0	20.23	20.64
	56640	3690	QPSK	1	0	21.42	21.83
				1	99	21.53	21.94
				50	25	20.35	20.76
				100	0	20.26	20.67
20	55340	3560	16QAM	1	0	20.75	21.16
				1	99	20.59	21.00
				50	25	19.50	19.91
				100	0	19.43	19.84
	55990	3625	16QAM	1	0	20.44	20.85
				1	99	20.39	20.80
				50	25	19.31	19.72
				100	0	19.20	19.61
	56640	3690	16QAM	1	0	20.58	20.99
				1	99	20.72	21.13
				50	25	19.38	19.79
				100	0	19.27	19.68
20	55340	3560	64QAM	1	0	19.56	19.97
				1	99	19.57	19.98
				50	25	18.53	18.94
				100	0	18.34	18.75
	55990	3625	64QAM	1	0	19.45	19.86
				1	99	19.31	19.72
				50	25	18.32	18.73
				100	0	18.20	18.61
	56640	3690	64QAM	1	0	19.66	20.07
				1	99	19.58	19.99
				50	25	18.33	18.74
				100	0	18.21	18.62
20	55340	3560	256QAM	1	0	16.23	16.64
				1	99	16.12	16.53
				50	25	16.12	16.53
				100	0	16.19	16.60
	55990	3625	256QAM	1	0	16.14	16.55
				1	99	16.06	16.47
				50	25	16.11	16.52
				100	0	16.04	16.45
	56640	3690	256QAM	1	0	16.10	16.51
				1	99	16.17	16.58
				50	25	16.05	16.46
				100	0	16.03	16.44

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## LTE with 10MHz

Antenna gain (dBi)		0.41							
LTE Band 48_Uplink frequency band : 3550 to 3700 MHz									
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm/10MHz)	EIRP Average (dBm/10MHz)	EIRP Limit (dBm/10MHz)	Margin (dBm/10MHz)
5	55265	3552.5	QPSK	1	0	21.39	21.80	23	-1.2
				1	24	21.38	21.79	23	-1.21
				12	6	20.45	20.86	23	-2.14
				25	0	20.43	20.84	23	-2.16
	55990	3625	QPSK	1	0	21.26	21.67	23	-1.33
				1	24	21.21	21.62	23	-1.38
				12	6	20.27	20.68	23	-2.32
				25	0	20.25	20.66	23	-2.34
	56715	3697.5	QPSK	1	0	21.36	21.77	23	-1.23
				1	24	21.37	21.78	23	-1.22
				12	6	20.34	20.75	23	-2.25
				25	0	20.36	20.77	23	-2.23
5	55265	3552.5	16QAM	1	0	20.70	21.11	23	-1.89
				1	24	20.67	21.08	23	-1.92
				12	6	19.49	19.90	23	-3.1
				25	0	19.45	19.86	23	-3.14
	55990	3625	16QAM	1	0	20.39	20.80	23	-2.2
				1	24	20.39	20.80	23	-2.2
				12	6	19.30	19.71	23	-3.29
				25	0	19.30	19.71	23	-3.29
	56715	3697.5	16QAM	1	0	20.57	20.98	23	-2.02
				1	24	20.68	21.09	23	-1.91
				12	6	19.38	19.79	23	-3.21
				25	0	19.37	19.78	23	-3.22
5	55265	3552.5	64QAM	1	0	19.51	19.92	23	-3.08
				1	24	19.49	19.90	23	-3.1
				12	6	18.46	18.87	23	-4.13
				25	0	18.47	18.88	23	-4.12
	55990	3625	64QAM	1	0	19.39	19.80	23	-3.2
				1	24	19.36	19.77	23	-3.23
				12	6	18.25	18.66	23	-4.34
				25	0	18.32	18.73	23	-4.27
	56715	3697.5	64QAM	1	0	19.38	19.79	23	-3.21
				1	24	19.36	19.77	23	-3.23
				12	6	18.40	18.81	23	-4.19
				25	0	18.40	18.81	23	-4.19
5	55265	3552.5	256QAM	1	0	16.28	16.69	23	-6.31
				1	24	16.26	16.67	23	-6.33
				12	6	16.22	16.63	23	-6.37
				25	0	16.19	16.60	23	-6.4
	55990	3625	256QAM	1	0	16.13	16.54	23	-6.46
				1	24	16.12	16.53	23	-6.47
				12	6	16.12	16.53	23	-6.47
				25	0	16.04	16.45	23	-6.55
	56715	3697.5	256QAM	1	0	16.21	16.62	23	-6.38
				1	24	16.22	16.63	23	-6.37
				12	6	16.17	16.58	23	-6.42
				25	0	16.14	16.55	23	-6.45

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台灣檢驗科技股份有限公司

t (886-2) 2299-3279

f (886-2) 2298-0488

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Antenna gain (dBi)		0.41							
LTE Band 48_Uplink frequency band : 3550 to 3700 MHz									
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm/10MHz)	EIRP Average (dBm/10MHz)	EIRP Limit (dBm/10MHz)	Margin (dBm/10MHz)
10	55290	3555	QPSK	1	0	21.45	21.86	23	-1.14
				1	49	21.44	21.85	23	-1.15
				25	12	20.36	20.77	23	-2.23
				50	0	20.45	20.86	23	-2.14
	55990	3625	QPSK	1	0	21.27	21.68	23	-1.32
				1	49	21.20	21.61	23	-1.39
				25	12	20.17	20.58	23	-2.42
				50	0	20.25	20.66	23	-2.34
	56690	3695	QPSK	1	0	21.24	21.65	23	-1.35
				1	49	21.33	21.74	23	-1.26
				25	12	20.32	20.73	23	-2.27
				50	0	20.39	20.80	23	-2.2
10	55290	3555	16QAM	1	0	20.74	21.15	23	-1.85
				1	49	20.58	20.99	23	-2.01
				25	12	19.33	19.74	23	-3.26
				50	0	19.42	19.83	23	-3.17
	55990	3625	16QAM	1	0	20.57	20.98	23	-2.02
				1	49	20.49	20.90	23	-2.1
				25	12	19.17	19.58	23	-3.42
				50	0	19.28	19.69	23	-3.31
	56690	3695	16QAM	1	0	20.50	20.91	23	-2.09
				1	49	20.70	21.11	23	-1.89
				25	12	19.30	19.71	23	-3.29
				50	0	19.43	19.84	23	-3.16
10	55290	3555	64QAM	1	0	19.54	19.95	23	-3.05
				1	49	19.48	19.89	23	-3.11
				25	12	18.39	18.80	23	-4.2
				50	0	18.44	18.85	23	-4.15
	55990	3625	64QAM	1	0	19.49	19.90	23	-3.1
				1	49	19.50	19.91	23	-3.09
				25	12	18.15	18.56	23	-4.44
				50	0	18.24	18.65	23	-4.35
	56690	3695	64QAM	1	0	19.49	19.90	23	-3.1
				1	49	19.53	19.94	23	-3.06
				25	12	18.29	18.70	23	-4.3
				50	0	18.37	18.78	23	-4.22
10	55290	3555	256QAM	1	0	16.30	16.71	23	-6.29
				1	49	16.23	16.64	23	-6.36
				25	12	16.23	16.64	23	-6.36
				50	0	16.18	16.59	23	-6.41
	55990	3625	256QAM	1	0	16.18	16.59	23	-6.41
				1	49	16.19	16.60	23	-6.4
				25	12	16.14	16.55	23	-6.45
				50	0	16.10	16.51	23	-6.49
	56690	3695	256QAM	1	0	16.15	16.56	23	-6.44
				1	49	16.27	16.68	23	-6.32
				25	12	16.23	16.64	23	-6.36
				50	0	16.14	16.55	23	-6.45

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f (886-2) 2298-0488

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Antenna gain (dBi)		0.41							
LTE Band 48_Uplink frequency band : 3550 to 3700 MHz									
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm/10MHz)	EIRP Average (dBm/10MHz)	EIRP Limit (dBm/10MHz)	Margin (dBm/10MHz)
15	55315	3557.5	QPSK	1	0	19.78	20.19	23	-2.81
				1	74	19.76	20.17	23	-2.83
				36	18	18.55	18.96	23	-4.04
				75	0	18.65	19.06	23	-3.94
	55990	3625	QPSK	1	0	19.64	20.05	23	-2.95
				1	74	19.55	19.96	23	-3.04
				36	18	18.32	18.73	23	-4.27
				75	0	18.47	18.88	23	-4.12
	56665	3692.5	QPSK	1	0	19.59	20.00	23	-3.00
				1	74	19.69	20.10	23	-2.90
				36	18	18.41	18.82	23	-4.18
				75	0	18.54	18.95	23	-4.05
15	55315	3557.5	16QAM	1	0	18.96	19.37	23	-3.63
				1	74	18.89	19.30	23	-3.70
				36	18	17.54	17.95	23	-5.05
				75	0	17.66	18.07	23	-4.93
	55990	3625	16QAM	1	0	18.68	19.09	23	-3.91
				1	74	18.54	18.95	23	-4.05
				36	18	17.43	17.84	23	-5.16
				75	0	17.50	17.91	23	-5.09
	56665	3692.5	16QAM	1	0	18.88	19.29	23	-3.71
				1	74	18.89	19.30	23	-3.70
				36	18	17.34	17.75	23	-5.25
				75	0	17.54	17.95	23	-5.05
15	55315	3557.5	64QAM	1	0	17.89	18.30	23	-4.70
				1	74	17.77	18.18	23	-4.82
				36	18	16.47	16.88	23	-6.12
				75	0	16.66	17.07	23	-5.93
	55990	3625	64QAM	1	0	17.71	18.12	23	-4.88
				1	74	17.73	18.14	23	-4.86
				36	18	16.40	16.81	23	-6.19
				75	0	16.47	16.88	23	-6.12
	56665	3692.5	64QAM	1	0	17.63	18.04	23	-4.96
				1	74	17.69	18.10	23	-4.90
				36	18	16.42	16.83	23	-6.17
				75	0	16.53	16.94	23	-6.06
15	55315	3557.5	256QAM	1	0	14.57	14.98	23	-8.02
				1	74	14.39	14.80	23	-8.20
				36	18	14.42	14.83	23	-8.17
				75	0	14.46	14.87	23	-8.13
	55990	3625	256QAM	1	0	14.40	14.81	23	-8.19
				1	74	14.34	14.75	23	-8.25
				36	18	14.34	14.75	23	-8.25
				75	0	14.34	14.75	23	-8.25
	56665	3692.5	256QAM	1	0	14.40	14.81	23	-8.19
				1	74	14.37	14.78	23	-8.22
				36	18	14.34	14.75	23	-8.25
				75	0	14.34	14.75	23	-8.25

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Antenna gain (dBi)		0.41							
LTE Band 48_Uplink frequency band : 3550 to 3700 MHz									
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm/10MHz)	EIRP Average (dBm/10MHz)	EIRP Limit (dBm/10MHz)	Margin (dBm/10MHz)
20	55340	3560	QPSK	1	0	18.57	18.98	23	-4.02
				1	99	18.55	18.96	23	-4.04
				50	25	17.47	17.88	23	-5.12
				100	0	17.37	17.78	23	-5.22
	55990	3625	QPSK	1	0	18.38	18.79	23	-4.21
				1	99	18.31	18.72	23	-4.28
				50	25	17.28	17.69	23	-5.31
				100	0	17.22	17.63	23	-5.37
	56640	3690	QPSK	1	0	18.41	18.82	23	-4.18
				1	99	18.52	18.93	23	-4.07
				50	25	17.34	17.75	23	-5.25
				100	0	17.25	17.66	23	-5.34
20	55340	3560	16QAM	1	0	17.74	18.15	23	-4.85
				1	99	17.58	17.99	23	-5.01
				50	25	16.49	16.90	23	-6.10
				100	0	16.42	16.83	23	-6.17
	55990	3625	16QAM	1	0	17.43	17.84	23	-5.16
				1	99	17.38	17.79	23	-5.21
				50	25	16.30	16.71	23	-6.29
				100	0	16.19	16.60	23	-6.40
	56640	3690	16QAM	1	0	17.57	17.98	23	-5.02
				1	99	17.71	18.12	23	-4.88
				50	25	16.37	16.78	23	-6.22
				100	0	16.26	16.67	23	-6.33
20	55340	3560	64QAM	1	0	16.55	16.96	23	-6.04
				1	99	16.56	16.97	23	-6.03
				50	25	15.52	15.93	23	-7.07
				100	0	15.33	15.74	23	-7.26
	55990	3625	64QAM	1	0	16.44	16.85	23	-6.15
				1	99	16.30	16.71	23	-6.29
				50	25	15.31	15.72	23	-7.28
				100	0	15.19	15.60	23	-7.40
	56640	3690	64QAM	1	0	16.65	17.06	23	-5.94
				1	99	16.57	16.98	23	-6.02
				50	25	15.32	15.73	23	-7.27
				100	0	15.20	15.61	23	-7.39
20	55340	3560	256QAM	1	0	13.22	13.63	23	-9.37
				1	99	13.11	13.52	23	-9.48
				50	25	13.11	13.52	23	-9.48
				100	0	13.18	13.59	23	-9.41
	55990	3625	256QAM	1	0	13.13	13.54	23	-9.46
				1	99	13.05	13.46	23	-9.54
				50	25	13.10	13.51	23	-9.49
				100	0	13.03	13.44	23	-9.56
	56640	3690	256QAM	1	0	13.09	13.50	23	-9.50
				1	99	13.16	13.57	23	-9.43
				50	25	13.04	13.45	23	-9.55
				100	0	13.02	13.43	23	-9.57

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## NR

5G NR Band n48_part96: 3550 to 3700 MHz					Conducted Average (dBm)			EIRP (dBm)		
Antenna Gain(dBi)			0.41		Channel (ARFCH)/ Frequency(MHz)			Channel (ARFCH)/ Frequency(MHz)		
					Low	Mid	High	Low	Mid	High
BW (MHz)	SCS (kHz)	Modulation	RB Allocation	RB Offset	637000	641668	646332	637000	641668	646332
					3555	3625.02	3694.98	3555	3625.02	3694.98
10	30	DFT-s PI/2 BPSK	1	1	22.35	22.41	22.32	22.76	22.82	22.73
			1	22	22.39	22.32	22.23	22.80	22.73	22.64
			12	6	22.53	22.27	22.23	22.94	22.68	22.64
			24	0	22.03	21.90	21.67	22.44	22.31	22.08
		DFT-s QPSK	1	1	22.44	22.41	22.15	22.85	22.82	22.56
			1	22	22.07	22.20	22.43	22.48	22.61	22.84
			12	6	22.49	22.23	22.19	22.90	22.64	22.60
			24	0	21.48	21.37	21.09	21.89	21.78	21.50
		DFT-s 16QAM	12	6	21.41	21.35	20.99	21.82	21.76	21.40
		DFT-s 64QAM	12	6	19.65	19.56	19.46	20.06	19.97	19.87
		DFT-s 256QAM	12	6	18.28	18.16	17.34	18.69	18.57	17.75
		CP QPSK	12	6	20.94	20.76	20.62	21.35	21.17	21.03
		CP 16QAM	12	6	20.29	20.09	20.02	20.70	20.50	20.43
		CP 64QAM	12	6	18.65	18.67	18.34	19.06	19.08	18.75
		CP 256QAM	12	6	16.39	16.48	15.73	16.80	16.89	16.14
5G NR Band n48_part96: 3550 to 3700 MHz					Conducted Average (dBm)			EIRP (dBm)		
Antenna Gain(dBi)			0.41		Channel (ARFCH)/ Frequency(MHz)			Channel (ARFCH)/ Frequency(MHz)		
					Low	Mid	High	Low	Mid	High
BW (MHz)	SCS (kHz)	Modulation	RB Allocation	RB Offset	637168	641668	646166	637168	641668	646166
					3557.52	3625.02	3692.49	3557.52	3625.02	3692.49
15	30	DFT-s PI/2 BPSK	1	1	22.42	22.16	21.91	22.83	22.57	22.32
			1	36	22.44	22.35	22.16	22.85	22.76	22.57
			18	9	22.37	22.35	22.15	22.78	22.76	22.56
			36	0	21.86	21.78	21.65	22.27	22.19	22.06
		DFT-s QPSK	1	1	22.26	22.25	21.94	22.67	22.66	22.35
			1	36	22.22	22.18	22.12	22.63	22.59	22.53
			18	9	22.34	22.33	22.16	22.75	22.74	22.57
			36	0	21.35	21.37	21.06	21.76	21.78	21.47
		DFT-s 16QAM	1	36	21.07	21.43	21.28	21.48	21.84	21.69
		DFT-s 64QAM	1	36	19.37	20.19	19.89	19.78	20.60	20.30
		DFT-s 256QAM	1	36	17.57	18.08	17.73	17.98	18.49	18.14
		CP QPSK	1	36	20.89	20.47	20.75	21.30	20.88	21.16
		CP 16QAM	1	36	20.24	20.23	19.96	20.65	20.64	20.37
		CP 64QAM	1	36	18.23	19.45	18.57	18.64	19.86	18.98
		CP 256QAM	1	36	15.88	15.89	15.34	16.29	16.30	15.75

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5G NR Band n48_part96: 3550 to 3700 MHz					Conducted Average (dBm)			EIRP (dBm)		
Antenna Gain(dBi)			0.41		Channel (ARFCH)/ Frequency(MHz)			Channel (ARFCH)/ Frequency(MHz)		
					Low	Mid	High	Low	Mid	High
BW (MHz)	SCS (kHz)	Modulation	RB Allocation	RB Offset	637334 3560.01	641668 3625.02	646000 3690	637334 3560.01	641668 3625.02	646000 3690
20	30	DFT-s PI/2 BPSK	1	1	22.54	22.29	21.97	22.95	22.70	22.38
			1	49	22.38	22.08	22.10	22.79	22.49	22.51
			25	12	22.29	22.24	22.05	22.70	22.65	22.46
			50	0	21.86	21.78	21.43	22.27	22.19	21.84
		DFT-s QPSK	1	1	22.18	22.24	22.05	22.59	22.65	22.46
			1	49	22.31	22.16	22.12	22.72	22.57	22.53
			25	12	22.34	22.21	21.93	22.75	22.62	22.34
			50	0	21.34	21.26	21.07	21.75	21.67	21.48
		DFT-s 16QAM	1	1	21.47	21.17	21.09	21.88	21.58	21.50
		DFT-s 64QAM	1	1	19.99	19.75	20.06	20.40	20.16	20.47
		DFT-s 256QAM	1	1	17.83	17.59	17.52	18.24	18.00	17.93
		CP QPSK	1	1	20.94	20.75	20.43	21.35	21.16	20.84
		CP 16QAM	1	1	20.47	20.13	20.02	20.88	20.54	20.43
		CP 64QAM	1	1	18.96	18.76	18.84	19.37	19.17	19.25
		CP 256QAM	1	1	15.94	15.73	15.55	16.35	16.14	15.96

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## NR with 10MHz

5G NR Band n48_part96: 3550 to 3700 MHz					Conducted Average (dBm/10MHz)			EIRP (dBm/10MHz)		
Antenna Gain(dBi)			0.41		Channel (ARFCH)/ Frequency(MHz)			Channel (ARFCH)/ Frequency(MHz)		
EIRP Limit (dBm)			23dBm/10MHz		Low	Mid	High	Low	Mid	High
BW (MHz)	SCS (kHz)	Modulation	RB Allocation	RB Offset	637000	641668	646332	637000	641668	646332
					3555	3625.02	3694.98	3555	3625.02	3694.98
10	30	DFT-s PI/2 BPSK	1	1	22.35	22.41	22.32	22.76	22.82	22.73
			1	22	22.39	22.32	22.23	22.80	22.73	22.64
			12	6	22.53	22.27	22.23	22.94	22.68	22.64
			24	0	22.03	21.90	21.67	22.44	22.31	22.08
		DFT-s QPSK	1	1	22.44	22.41	22.15	22.85	22.82	22.56
			1	22	22.07	22.20	22.43	22.48	22.61	22.84
			12	6	22.49	22.23	22.19	22.90	22.64	22.60
			24	0	21.48	21.37	21.09	21.89	21.78	21.50
		DFT-s 16QAM	12	6	21.41	21.35	20.99	21.82	21.76	21.40
		DFT-s 64QAM	12	6	19.65	19.56	19.46	20.06	19.97	19.87
		DFT-s 256QAM	12	6	18.28	18.16	17.34	18.69	18.57	17.75
		CP QPSK	12	6	20.94	20.76	20.62	21.35	21.17	21.03
		CP 16QAM	12	6	20.29	20.09	20.02	20.70	20.50	20.43
		CP 64QAM	12	6	18.65	18.67	18.34	19.06	19.08	18.75
		CP 256QAM	12	6	16.39	16.48	15.73	16.80	16.89	16.14
5G NR Band n48_part96: 3550 to 3700 MHz					Conducted Average (dBm/10MHz)			EIRP (dBm/10MHz)		
Antenna Gain(dBi)			0.41		Channel (ARFCH)/ Frequency(MHz)			Channel (ARFCH)/ Frequency(MHz)		
EIRP Limit (dBm)			23dBm/10MHz		Low	Mid	High	Low	Mid	High
BW (MHz)	SCS (kHz)	Modulation	RB Allocation	RB Offset	637168	641668	646166	637168	641668	646166
					3557.52	3625.02	3692.49	3557.52	3625.02	3692.49
15	30	DFT-s PI/2 BPSK	1	1	20.66	20.40	20.15	21.07	20.81	20.56
			1	36	20.68	20.59	20.40	21.09	21.00	20.81
			18	9	20.61	20.59	20.39	21.02	21.00	20.80
			36	0	20.10	20.02	19.89	20.51	20.43	20.30
		DFT-s QPSK	1	1	20.50	20.49	20.18	20.91	20.90	20.59
			1	36	20.46	20.42	20.36	20.87	20.83	20.77
			18	9	20.58	20.57	20.40	20.99	20.98	20.81
			36	0	19.59	19.61	19.30	20.00	20.02	19.71
		DFT-s 16QAM	1	36	19.31	19.67	19.52	19.72	20.08	19.93
		DFT-s 64QAM	1	36	17.61	18.43	18.13	18.02	18.84	18.54
		DFT-s 256QAM	1	36	15.81	16.32	15.97	16.22	16.73	16.38
		CP QPSK	1	36	19.13	18.71	18.99	19.54	19.12	19.40
		CP 16QAM	1	36	18.48	18.47	18.20	18.89	18.88	18.61
		CP 64QAM	1	36	16.47	17.69	16.81	16.88	18.10	17.22
		CP 256QAM	1	36	14.12	14.13	13.58	14.53	14.54	13.99

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Antenna Gain(dBi)		0.41			Channel (ARFCH)/ Frequency(MHz)			Channel (ARFCH)/ Frequency(MHz)		
EIRP Limit (dBm)		23dBm/10MHz			Low	Mid	High	Low	Mid	High
BW (MHz)	SCS (kHz)	Modulation	RB Allocation	RB Offset	637334	641668	646000	637334	641668	646000
					3560.01	3625.02	3690	3560.01	3625.02	3690
20	30	DFT-s PI/2 BPSK	1	1	19.53	19.28	18.96	<b>19.94</b>	19.69	19.37
			1	49	19.37	19.07	19.09	19.78	19.48	19.50
			25	12	19.28	19.23	19.04	19.69	19.64	19.45
			50	0	18.85	18.77	18.42	19.26	19.18	18.83
		DFT-s QPSK	1	1	19.17	19.23	19.04	19.58	19.64	19.45
			1	49	19.30	19.15	19.11	19.71	19.56	19.52
			25	12	19.33	19.20	18.92	<b>19.74</b>	19.61	19.33
			50	0	18.33	18.25	18.06	18.74	18.66	18.47
		DFT-s 16QAM	1	1	18.46	18.16	18.08	<b>18.87</b>	18.57	18.49
		DFT-s 64QAM	1	1	16.98	16.74	17.05	17.39	17.15	17.46
		DFT-s 256QAM	1	1	14.82	14.58	14.51	15.23	14.99	14.92
		CP QPSK	1	1	17.93	17.74	17.42	<b>18.34</b>	18.15	17.83
		CP 16QAM	1	1	17.46	17.12	17.01	<b>17.87</b>	17.53	17.42
		CP 64QAM	1	1	15.95	15.75	15.83	16.36	16.16	16.24
		CP 256QAM	1	1	12.93	12.72	12.54	13.34	13.13	12.95

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## 8 MAXIMUM POWER DENSITY MEASUREMENT

### 8.1 Standard Applicable

FCC §2.1046 & 96.41

- (a) FCC 96.41(a) Digital modulation. Systems operating in the Citizens Broadband Radio Service must use digital modulation techniques.
- (b) FCC 96.41(b) Power limits. Unless otherwise specified in this section, the maximum effective isotropic radiated power (EIRP) of any CBSD and End User Device must comply with the limits shown in the table in this paragraph (b):

Device	Maximum PSD (dBm/MHz)
End User Device	n/a
Category A CBSD	20
Category B CBSD <sup>1</sup>	37

Category B CBSDs will only be authorized for use after an ESC is approved and commercially deployed consistent with §§96.15 and 96.67.

- (c) Power management. CBSDs and End User Devices shall limit their operating power to the minimum necessary for successful operations
- (1) CBSDs must support transmit power control capability and the capability to limit their maximum EIRP and the maximum EIRP of associated End User Devices in response to instructions from an SAS.
- (2) End User Devices shall include transmit power control capability and the capability to limit their maximum EIRP in response to instructions from their associated CBSDs.

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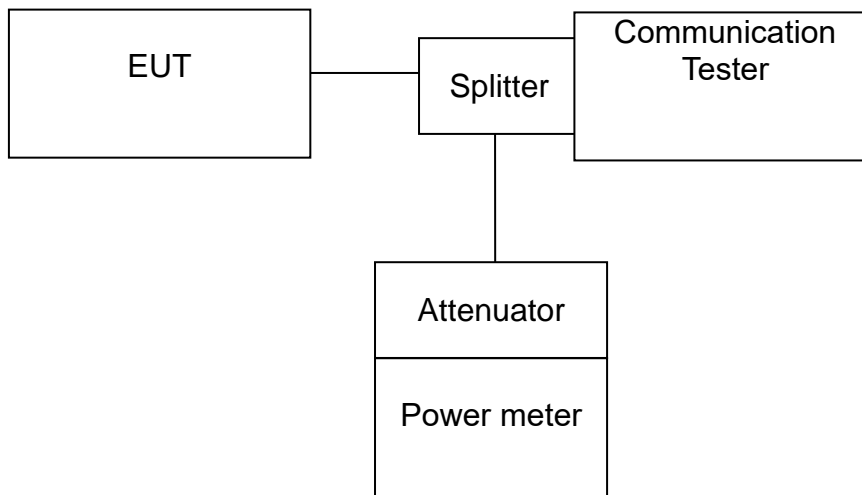
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## 8.2 Test Set-up



**Note:** Measurement setup for testing on Antenna connector

## 8.3 Measurement Procedure

1. Set instrument center frequency to OBW center frequency.
2. Set span to at least 1.5 times the OBW.
3. Set the RBW to the specified reference bandwidth (often 1 MHz).
4. Set VBW  $\geq 3 \times$  RBW.
5. Detector = RMS (power averaging).
6. Ensure that the number of measurement points in the sweep  $\geq 2 \times$  span/RBW.
7. Sweep time = auto couple.
8. Employ trace averaging (RMS) mode over a minimum of 100 traces.
9. Use the peak marker function to determine the maximum amplitude level within the reference bandwidth (PSD).
10. Determine the EIRP by adding the effective antenna gain to the adjusted power level.

## 8.4 Measurement Result

### Peak Power Density Results:

N/A, this is an End user device.

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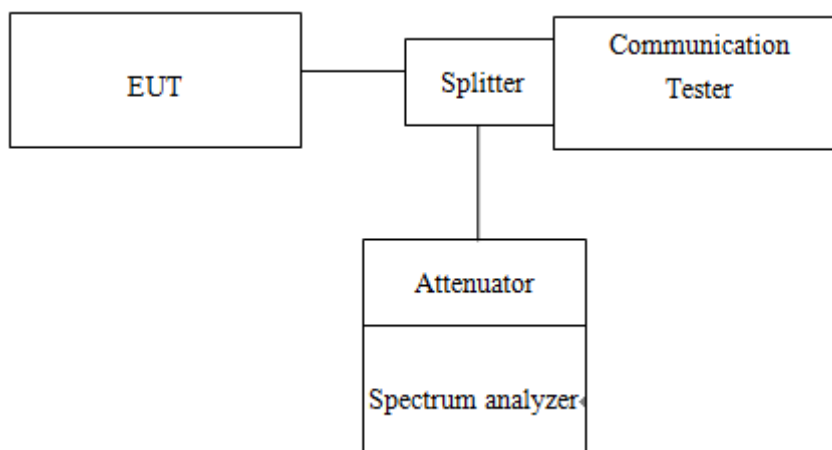
## 9 OCCUPIED BANDWIDTH MEASUREMENT

### 9.1 Standard Applicable

FCC Part 2.1049(h)

The occupied bandwidth 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.

### 9.2 Test Set-up



### 9.3 Measurement Procedure

#### **99% & 26dB Bandwidth with detector peak**

The EUT's output RF connector was connected with a short cable to the spectrum analyzer, RBW was set to about 1% of emission BW, VBW= 3 times RBW, -26dBc display line was placed on the screen (or 26dB bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace. Then set RBW to 99% bandwidth, RBW= 1% ~ 5%, VBW  $\geq$  3 RBW, with span  $>$  2 \* Signal BW, set % Power = 99%.

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## 9.4 Measurement Result

## LTE

LTE BAND 48 Channel bandwidth: 5MHz									
Freq. (MHz)	CH	99% BW (MHz)				26 dB BW (MHz)			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
3552.5	55265	4.4996	4.4912	4.4933	4.4983	5.091	5.287	4.990	5.139
3625.0	55990	4.4777	4.4576	4.4890	4.4900	4.862	4.903	4.996	4.911
3697.5	56715	4.4881	4.4825	4.4576	4.4548	4.937	4.871	4.924	4.899

LTE BAND 48 Channel bandwidth: 10MHz									
Freq. (MHz)	CH	99% BW (MHz)				26 dB BW (MHz)			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
3555.0	55290	8.9872	8.9973	8.9685	8.9481	9.878	9.906	10.630	10.180
3625.0	55990	8.9320	8.8812	8.9518	8.9918	9.537	9.481	9.667	9.647
3695.0	56690	8.8993	8.9056	8.9273	8.9552	9.384	9.490	9.549	9.664

LTE BAND 48 Channel bandwidth: 15MHz									
Freq. (MHz)	CH	99% BW (MHz)				26 dB BW (MHz)			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
3557.5	55315	13.4590	13.4430	13.4630	13.4330	15.090	14.850	14.960	15.080
3625.0	55990	13.3610	13.4110	13.3370	13.4060	14.310	14.050	14.590	14.400
3692.5	56665	13.4070	13.4350	13.4160	13.4420	14.140	14.230	14.320	14.240

LTE BAND 48 Channel bandwidth: 20MHz									
Freq. (MHz)	CH	99% BW (MHz)				26 dB BW (MHz)			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
3650.0	55340	17.8960	17.8920	17.9200	17.9060	20.070	19.660	19.570	19.510
3625.0	55990	17.9240	17.9310	17.8230	17.8560	18.650	18.690	18.890	18.950
3690.0	56640	17.8150	17.8410	17.9310	17.8930	19.100	18.800	19.370	19.380

## NR

5G NR BAND n48_Part96 Channel bandwidth: 10MHz(3550 to 3700 MHz)											
DFT-S-OFDM_SCS 30 kHz											
Freq. (MHz)	CH	99% BW (MHz)					26 dB BW (MHz)				
		BPSK	QPSK	16QAM	64QAM	256QAM	BPSK	QPSK	16QAM	64QAM	256QAM
3555	637000	8.5724	8.6305	8.6205	8.6189	8.6079	9.6250	9.8120	10.0300	9.9230	9.6890
3625.02	641668	8.6427	8.5210	8.5973	8.6005	8.5983	9.1220	9.3790	9.4250	9.4590	9.2730
3694.98	646332	8.6359	8.6144	8.5952	8.5530	8.6386	9.8210	9.0620	9.2380	9.4440	9.7970

5G NR BAND n48_Part96 Channel bandwidth: 15MHz(3550 to 3700 MHz)											
DFT-S-OFDM_SCS 30 kHz											
Freq. (MHz)	CH	99% BW (MHz)					26 dB BW (MHz)				
		BPSK	QPSK	16QAM	64QAM	256QAM	BPSK	QPSK	16QAM	64QAM	256QAM
3557.52	637168	12.8590	12.9300	12.9860	12.9330	12.9010	14.0000	14.1900	14.4500	14.1000	14.1200
3625.02	641668	12.8040	12.8400	12.8180	12.8880	12.7560	13.6400	13.5600	13.6700	13.7600	13.6900
3692.49	646166	12.9370	12.7710	12.9110	12.8930	12.9010	13.4600	13.7200	13.9000	13.7900	13.7100

5G NR BAND n48_Part96 Channel bandwidth: 20MHz(3550 to 3700 MHz)											
DFT-S-OFDM_SCS 30 kHz											
Freq. (MHz)	CH	99% BW (MHz)					26 dB BW (MHz)				
		BPSK	QPSK	16QAM	64QAM	256QAM	BPSK	QPSK	16QAM	64QAM	256QAM
3560.01	637334	17.8710	17.9370	17.9140	17.8430	17.8300	19.3300	19.6800	19.5500	19.3700	19.4600
3625.02	641668	17.9140	17.9770	17.8280	17.9590	18.0250	18.6800	18.5800	18.6500	18.8600	19.0500
3690	646000	17.8460	17.8630	17.8560	17.6470	17.8540	18.7200	18.9200	18.9400	18.7100	18.5900

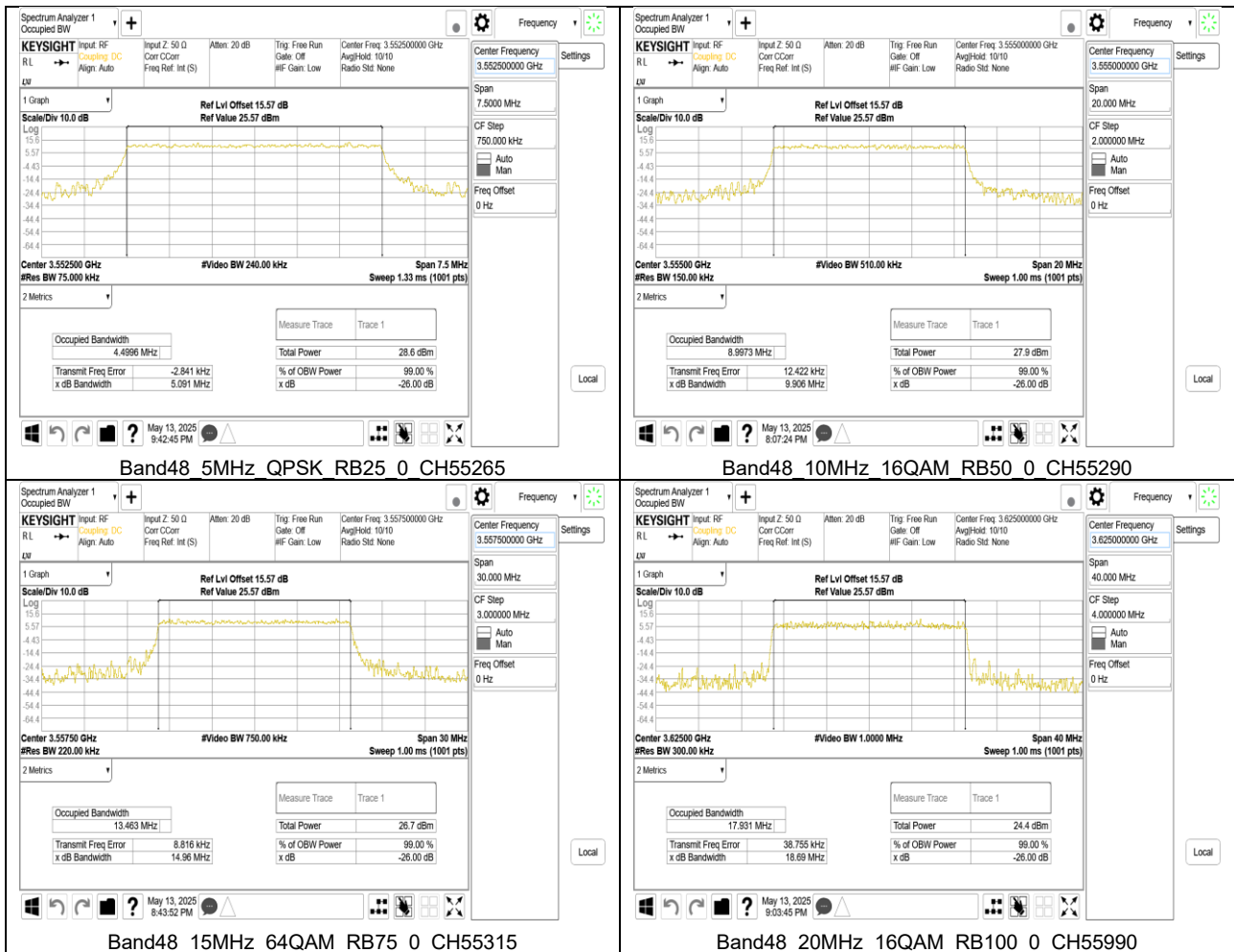
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## LTE



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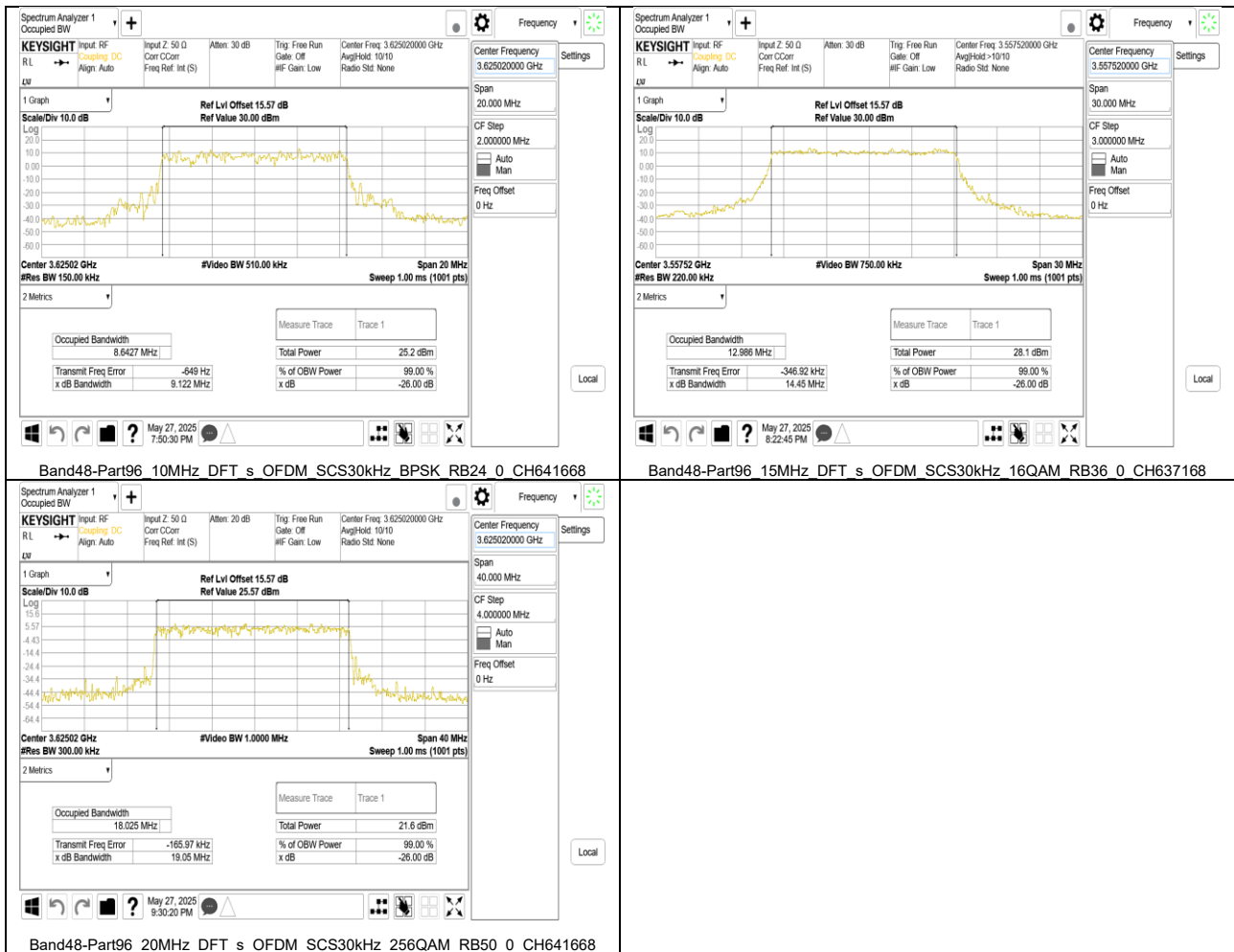
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NR



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## 10 OUT OF BAND EMISSION AT ANTENNA TERMINALS

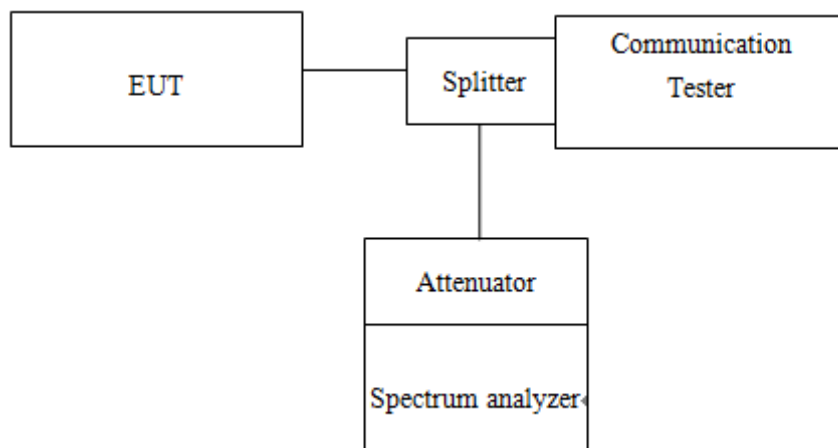
### 10.1 Standard Applicable

FCC Part 2.1051, Part 96.41, C63.26 Clause 5.7.

For channel and frequency assignments made by the SAS to CBSDs, the conducted power of any CBSD emission outside the fundamental emission bandwidth as specified in paragraph (e)(3) of this section (whether the emission is inside or outside of the authorized band) shall not exceed  $-13$  dBm/MHz within 0-10 megahertz above the upper SAS-assigned channel edge and within 0-10 megahertz below the lower SAS-assigned channel edge. At all frequencies greater than 10 megahertz above the upper SAS assigned channel edge and less than 10 MHz below the lower SAS assigned channel edge, the conducted power of any CBSD emission shall not exceed  $-25$  dBm/MHz. The upper and lower SAS assigned channel edges are the upper and lower limits of any channel assigned to a CBSD by an SAS, or in the case of multiple contiguous channels, the upper and lower limits of the combined contiguous channels.

For CBSDs and End User Devices, the conducted power of emissions below 3540 MHz or above 3710 MHz shall not exceed  $-25$  dBm/MHz, and the conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed  $-40$  dBm/MHz.

### 10.2 Test SET-UP



### 10.3 Measurement Procedure

#### 10.3.1 Conducted Emission

The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 1MHz, sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic.

To connect Antenna Port of EUT to Spectrum.

Set RBW = 1MHz & VBW = 1MHz on Spectrum.

Allow trace to fully stabilize

Repeat above procedures until all default test channel measured were complete.

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### 10.3.2 Band Edge

1. To connect Antenna Port of EUT to Spectrum.
2. The band edge of low and high channels for the highest RF powers was measured.  
Setting RBW  $\geq$  1% EBW.
3. Allow trace to fully stabilize
4. Repeat above procedures until all default test channel measured were complete.

### 10.4 Test Results:

Refer to next page for test plots.

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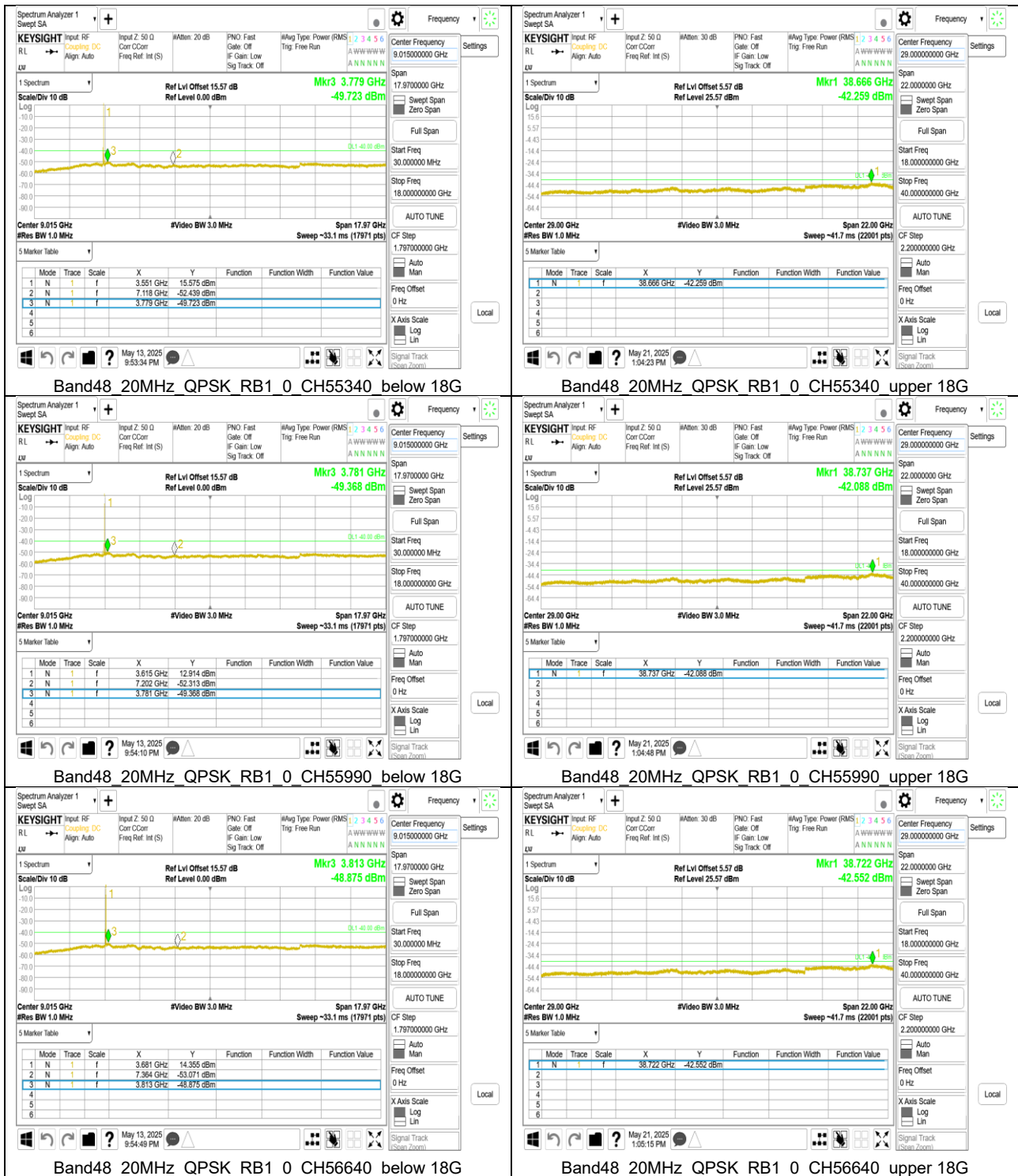
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## 10.4.1 Unwanted Emission LTE

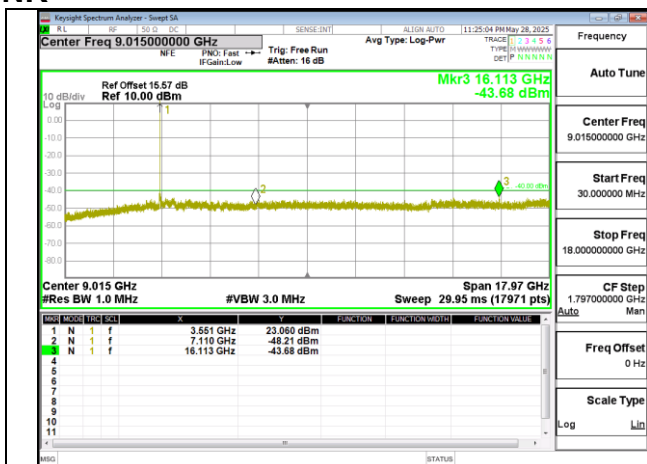


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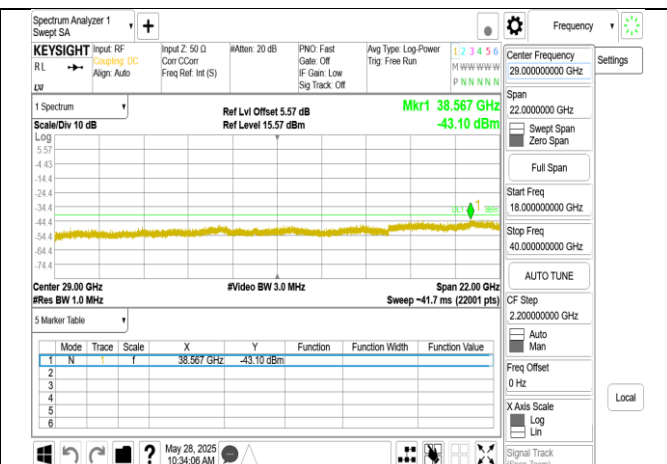
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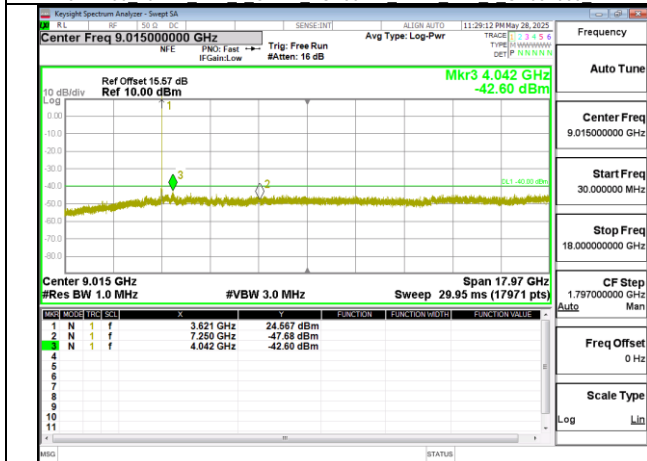
NR



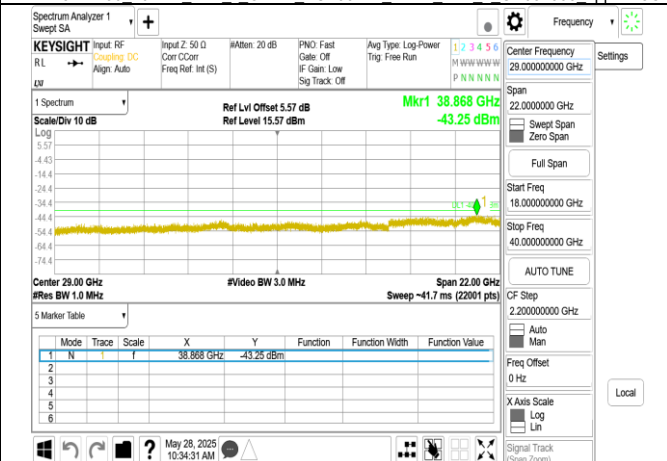
Band48-Part96 10MHz DFT s OFDM SCS30kHz BPSK RB1 1 CH637000 below 18G



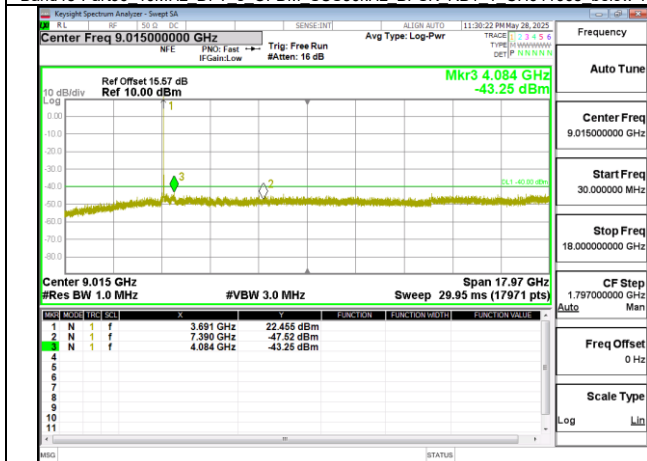
Band48-Part96 10MHz DFT s OFDM SCS30kHz BPSK RB1 1 CH637000 upper 18G



Band48-Part96 10MHz DFT s OFDM SCS30kHz BPSK RB1 1 CH641668 below 18G



Band48-Part96 10MHz DFT s OFDM SCS30kHz BPSK RB1 1 CH641668 upper 18G



Band48-Part96 10MHz DFT s OFDM SCS30kHz BPSK RB1 1 CH646332 below 18G



Band48-Part96 10MHz DFT s OFDM SCS30kHz BPSK RB1 1 CH646332 upper 18G

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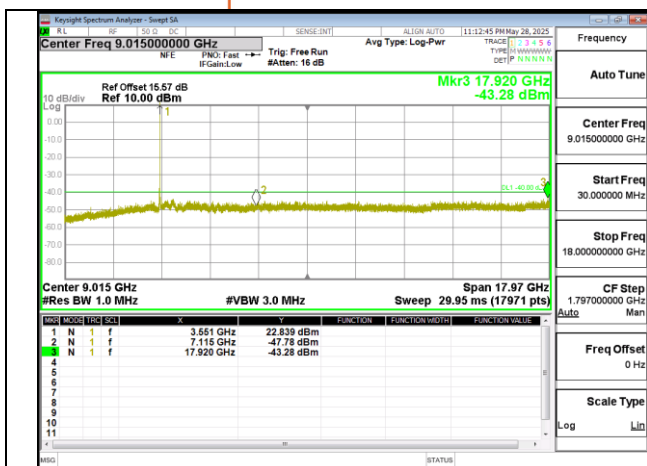
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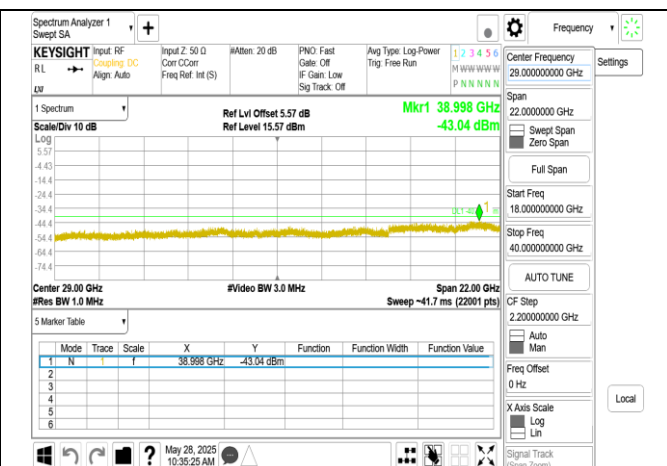
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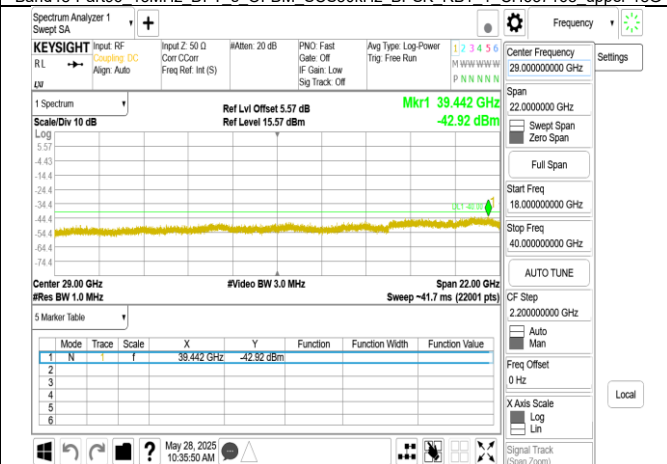
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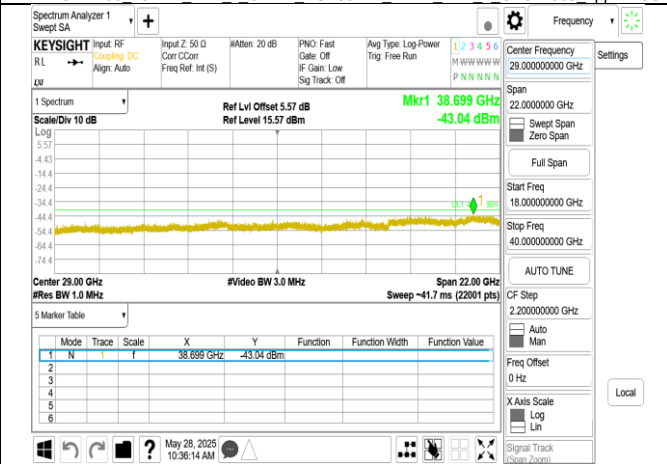
Band48-Part96 15MHz DFT s OFDM SCS30kHz BPSK RB1 1 CH641668 below 18G



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Band48-Part96 15MHz DFT s OFDM SCS30kHz BPSK RB1 1 CH646166 below 18G

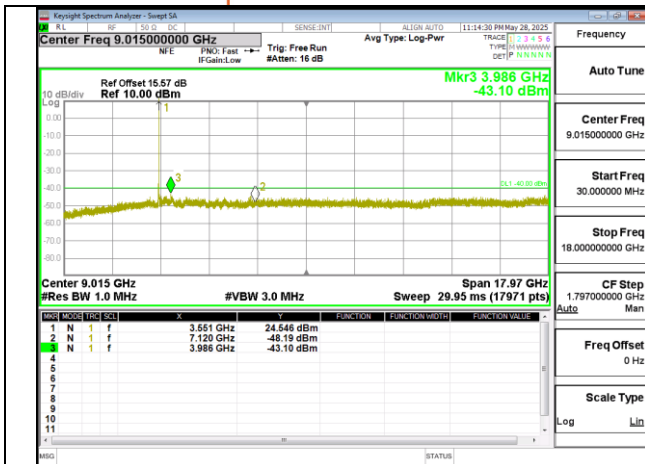


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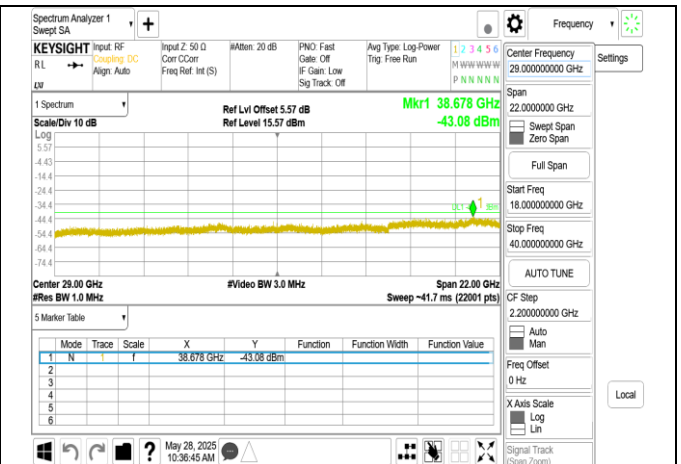
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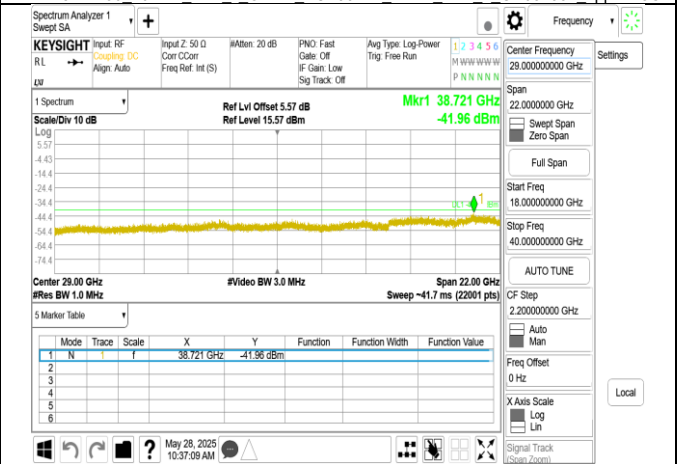
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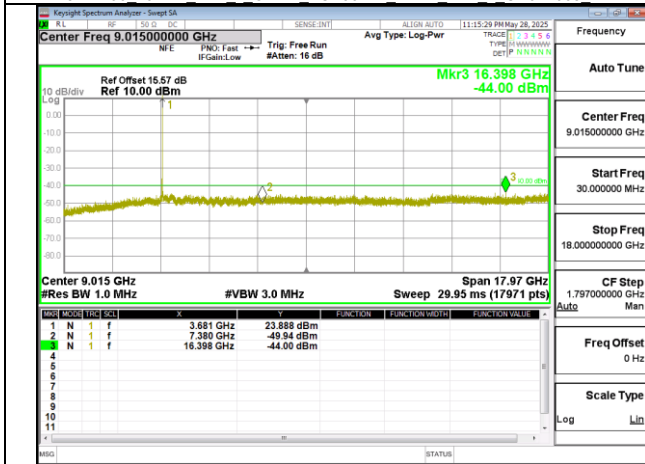
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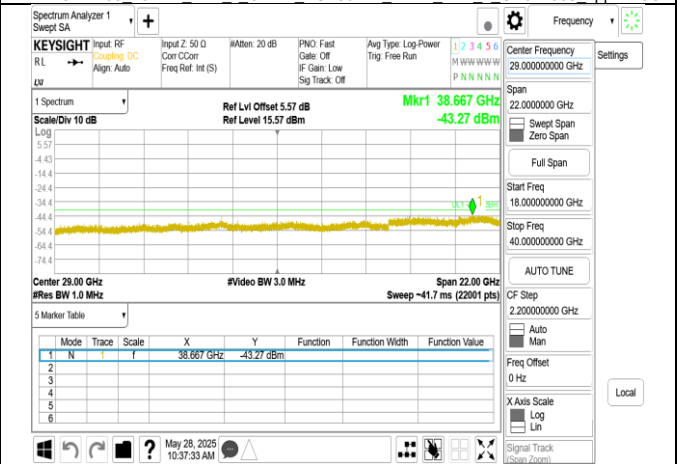
Band48-Part96 20MHz DFT s OFDM SCS30kHz BPSK RB1 1 CH641668 below 18G



Band48-Part96 20MHz DFT s OFDM SCS30kHz BPSK RB1 1 CH641668 upper 18G



Band48-Part96 20MHz DFT s OFDM SCS30kHz BPSK RB1 1 CH646000 below 18G



Band48-Part96 20MHz DFT s OFDM SCS30kHz BPSK RB1 1 CH646000 upper 18G

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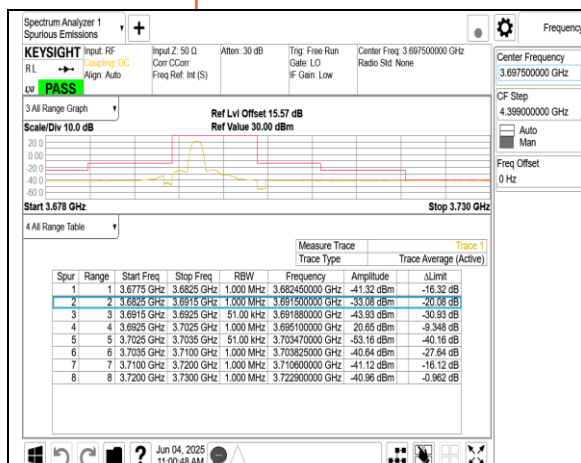


10.4.2 Band Edge  
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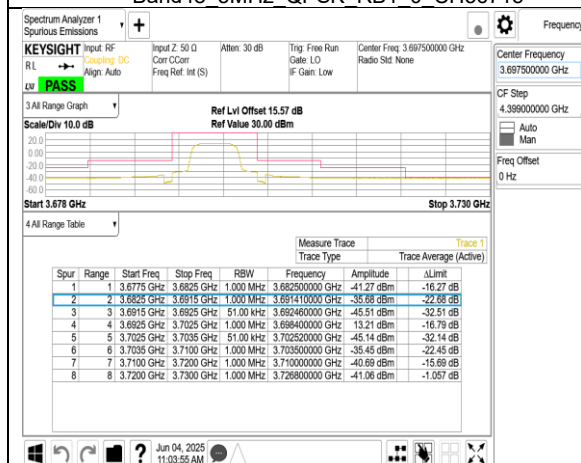
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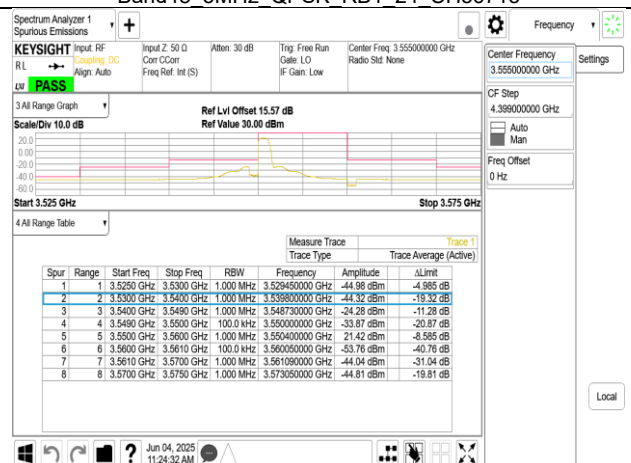
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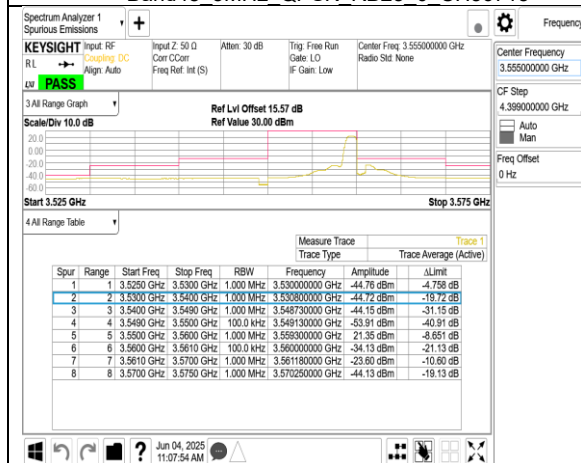
Band48 5MHz QPSK RB1 24 CH56715



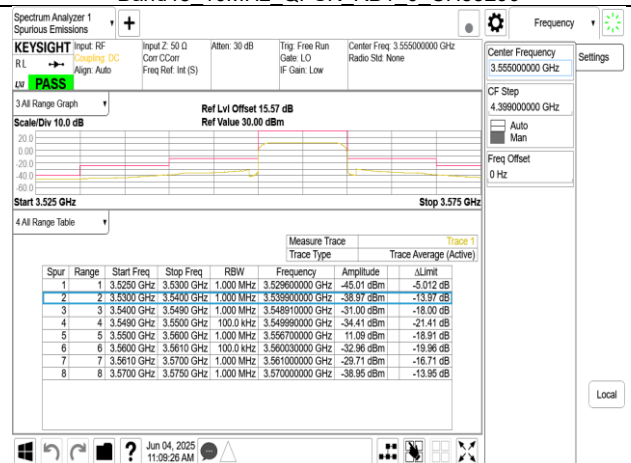
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Band48 10MHz QPSK RB1 0 CH55290



Band48 10MHz QPSK RB1 49 CH55290

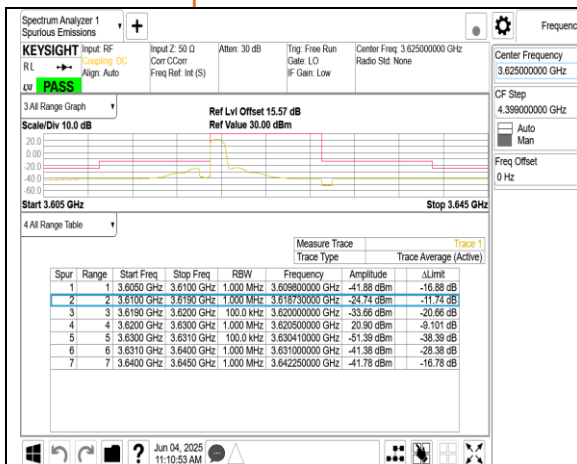


Band48 10MHz QPSK RB50 0 CH55290

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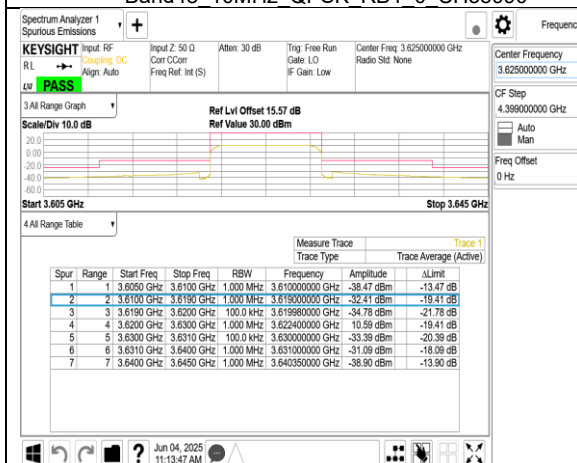
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Band48 10MHz QPSK RB1 0 CH55990



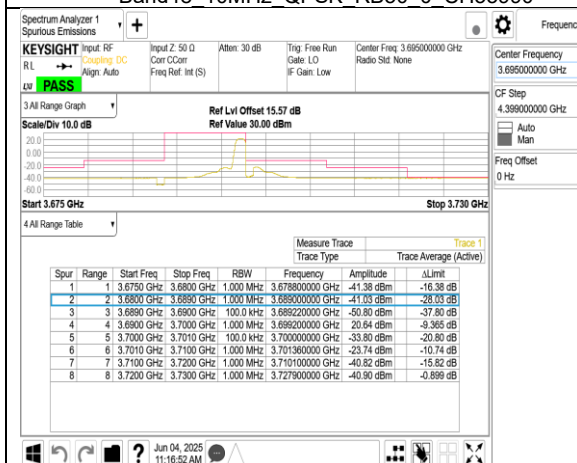
Band48 10MHz QPSK RB1 49 CH55990



Band48 10MHz QPSK RB50 0 CH55990



Band48 10MHz QPSK RB1 0 CH56690



Band48 10MHz QPSK RB1 49 CH56690



Band48 10MHz QPSK RB50 0 CH56690

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