



Test Report No.: W7L-P23100014RF08



VARIANT FCC TEST REPORT

(PART 27)

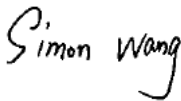
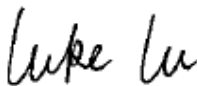
Applicant:	Nokia of America Corp
Address:	3201, Olympus Blvd, Dallas, TX 75019, USA

Manufacturer or Supplier:	Power Idea Technology (Shenzhen) Co., Ltd.
Address:	4th Floor, A Section, Languang Science&technology Building, No.7 Xinxi RD, Hi-Tech Industrial Park North, Nanshan District, ShenZhen, P.R.C.
Product:	Nokia Industrial 5G handheld HHRA501x
Brand Name:	Nokia
Model Name:	HHRA501a
Marketing Name:	Nokia Industrial 5G handheld HHRA501a
FCC ID:	2AVO2-HHRA501A
Date of tests:	Nov. 24, 2022 ~ Feb. 03, 2023

The tests have been carried out according to the requirements of the following standard:

☒ FCC Part 27 ☒ ANSI/TIA/EIA-603-D
☒ FCC Part 2 ☒ ANSI/TIA/EIA-603-E ☒ ANSI C63.26-2015

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Simon Wang Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
	
Date: Oct. 23, 2023	Date: Oct. 23, 2023

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P22110036RF08	Original release	Feb. 03, 2023
W7L-P23100014RF08	Based on the original product changing the model name and FCC ID, brand name, marketing name, product name, battery model, applicant and manufacturer information.	Oct. 23, 2023

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 27 & PART 2			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	TEST LAB*
§2.1046	Conducted Output Power	Compliance	A
§27.50(h)(2) §27.50(k)(3)	Equivalent Isotropically Radiated Power (Band 7C) (Band 38C) (Band 41C) (Band 42C)	Compliance	A
§2.1055 §27.54	Frequency Stability	Compliance	A
§2.1049	Occupied Bandwidth	Compliance	A
§2.1051 §27.53(m)(4)(6) §27.53(n)(2)	Conducted Band Edge Measurements (Band 7C) (Band 38C) (Band 41C) (Band 42C)	Compliance	A
§2.1051 §27.53(m)(4)(6) §27.53(n)(2)	Conducted Spurious Emissions (Band 7C) (Band 38C) (Band 41C) (Band 42C)	Compliance	A
§2.1051 §27.53(m)(4)(6) §27.53(n)(2)	Radiated Spurious Emissions (Band 7C) (Band 38C) (Band 41C) (Band 42C)	Compliance	A/B
NA	Peak to average ratio	Compliance	A



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***Test Lab Information Reference**

Lab A:

BV 7Layers Communications Technology (Shenzhen) Co., Ltd

Lab Address:

No.B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, China

Accredited Test Lab Cert 3939.01

FCC Site Registration No. : 525120; Designation No. : CN1171;

Lab B:

Huarui 7Layers High Technology (Suzhou) Co., Ltd.

Lab Address:

Tower N, Innovation Center, 88 Zhuyi Road, High-tech District, Suzhou City, Anhui Province

Accredited Test Lab Cert 6613.01

The FCC Site Registration No. is 434559; The Designation No. is CN1325.

1.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	UNCERTAINTY
Frequency Stability	$\pm 76.97\text{Hz}$
Radiated emissions (9KHz~30MHz)	$\pm 2.68\text{dB}$
Radiated emissions & Radiated Power (30MHz~1GHz)	$\pm 4.98\text{dB}$
Radiated emissions & Radiated Power (1GHz ~6GHz)	$\pm 4.70\text{dB}$
Radiated emissions (6GHz ~18GHz)	$\pm 4.60\text{dB}$
Radiated emissions (18GHz ~40GHz)	$\pm 4.12\text{dB}$
Conducted emissions	$\pm 4.01\text{dB}$
Occupied Channel Bandwidth	$\pm 43.58\text{KHz}$
Conducted Output power	$\pm 2.06\text{dB}$
Band Edge Measurements	$\pm 4.70\text{dB}$

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

1.2 TEST SITE AND INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Feb. 21,22	Feb. 20,23
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.15,22	May.14,23
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.04,22	Sep.03,23
Bilog Antenna	ETS-LINDGRE N	3143B	00161965	Mar. 06,22	Mar. 05,23
Horn Antenna	ETS-LINDGRE N	3117	00168692	Mar. 06,22	Mar. 05,23
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K- SG/QMS-00361	15433	Aug. 24, 22	Aug. 23, 23
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 15,22	Feb. 14,23
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May.12,22	May.11,23
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.12,22	May.11,23
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 21,22	Feb.20,23
3m Semi-anechoic Chamber	ETS-LINDGRE N	9m*6m*6m	Euroshieldpn- CT0001143-121 6	May. 19,20	May. 18,23
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	JS1120	3.1.36	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SMA	1505	May. 07,22	May. 06,23
Power Meter	Anritsu	ML2495A	1506002	Feb. 22,22	Feb. 21,23
Power Sensor	Anritsu	MA2411B	1339352	May. 07,22	May. 06,23
Temperature Chamber	ESPEC	SH-242	93000855	May. 12,22	May. 11,23
MXG Analog Microvave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 18,22	Feb. 17,23
Base station R&S CMW500	Rohde&Schwa rz	CMW500	153085	May.12,22	May.11,23
DC Source	Kikusui/JP	PMX18-5A	0000001	Aug. 24,22	Aug. 23,23

- NOTE:**
1. The calibration interval of the above test instruments is 12 months or 36 months and the calibrations are traceable to CEPREI/CHINA, GREGT/CHINA and NIM/CHINA.
 2. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.
 3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
 4. The FCC Site Registration No. is 525120; The Designation No. is CN1171.

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Pre-Amplifier	R&S	SCU18F1	100815	Aug.30,22	Aug.29,24
Pre-Amplifier	R&S	SCU08F1	101028	Sep.16,22	Sep.15,24
Vector Signal Generator	R&S	SMBV100B	102176	Feb.16,22	Feb.15,24
Signal Generator	R&S	SMB100A	182185	Feb.16,22	Feb.15,24
3m Fully-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-01Chamber	Nov.25,22	Nov.24,25
3m Semi-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-02Chamber	Nov.25,22	Nov.24,25
EMI TEST Receiver	R&S	ESR26	101734	Feb.25,22	Feb.24,24
EMI TEST Receiver	R&S	ESW44	101973	Feb.25,22	Feb.24,24
Bilog Antenna	SCHWARZBECK	VULB 9163	1264	Feb.28,22	Feb.27,24
Horn Antenna	ETS-LINDGREN	3117	227836	Aug.22,22	Aug.21,24
Horn Antenna (18GHz-40GHz)	Steatite Q-par Antennas	QMS 00880	23486	Feb.23,22	Feb.22,24
Horn Antenna	Steatite Q-par Antennas	QMS 00208	23485	Aug.22,22	Aug.21,24
Loop Antenna	SCHWARZ	HFH2-Z2/Z2E	100976	Feb.23,22	Feb.22,24
WIDEBANDRADIO COMMUNICATION TESTER	R&S	CMW500	169399	Jun.27,22	Jun.26,24
Test Software	EMC32	EMC32	N/A	N/A	N/A
Test Software	ELEKTRA	ELEKTRA4.32	N/A	N/A	N/A
Open Switch and Control Unit	R&S	OSP220	101964	Oct.01,22	Sep.30,24
DC Source	HYELEC	HY3010B	551016	Aug.31,22	Aug.30,24
Hygrothermograph	DELI	20210528	SZ014	Sep.06,22	Sep.05,24
PC	LENOVO	E14	HRSW0024	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-7.00M	N/A	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-4.00M	N/A	N/A	N/A
CABLE	R&S	W13.02	N/A	Oct.31,22	Apr.29,23
CABLE	R&S	W12.14	N/A	Oct.31,22	Apr.29,23
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Oct.31,22	Apr.29,23
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Oct.31,22	Apr.29,23
Temperature Chamber	votsch	VT4002	58566078100050	May.31,22	May.30,24

- NOTE:**
1. The calibration interval of the above test instruments is 12 months or 36 months and the calibrations are traceable to CEPREI/CHINA, GREGT/CHINA and NIM/CHINA.
 2. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.
 3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
 4. The FCC Site Registration No. is 434559; The Designation No. is CN1325.

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Nokia Industrial 5G handheld HHRA501x	
BRAND NAME	Nokia	
MODEL NAME	HHRA501a	
MARKETING NAME	Nokia Industrial 5G handheld HHRA501a	
NOMINAL VOLTAGE	5.0Vdc(adapter or host equipment) 3.7Vdc (Li-ion, battery)	
MODULATION TECHNOLOGY	LTE	QPSK, 16QAM, 64QAM
FREQUENCY RANGE	LTE Band CA_7C Channel Bandwidth: 10MHz+20MHz	2505.5MHz ~ 2560MHz
	LTE Band CA_7C Channel Bandwidth: 15MHz+10MHz	2507.5MHz ~ 2564.7MHz
	LTE Band CA_7C Channel Bandwidth: 15MHz+15MHz	2507.5MHz ~ 2562.5MHz
	LTE Band CA_7C Channel Bandwidth: 15MHz+20MHz	2507.8MHz ~ 2560MHz
	LTE Band CA_7C Channel Bandwidth: 20MHz+10MHz	2510MHz ~ 2564.5MHz
	LTE Band CA_7C Channel Bandwidth: 20MHz+15MHz	2510MHz ~ 2562.2MHz
	LTE Band CA_7C Channel Bandwidth: 20MHz+20MHz	2510MHz ~ 2560MHz
	LTE Band CA_38C Channel Bandwidth: 15MHz+15MHz	2577.5MHz ~ 2612.5MHz
	LTE Band CA_38C Channel Bandwidth: 20MHz+20MHz	2580.5MHz ~ 2610MHz
	LTE Band CA_41C Channel Bandwidth: 5MHz+20MHz	2499.3MHz ~ 2680MHz
	LTE Band CA_41C Channel Bandwidth: 10MHz+15MHz	2501.3MHz ~ 2682.5MHz

FREQUENCY RANGE	LTE Band CA_41C Channel Bandwidth: 10MHz+20MHz	2501.5MHz ~ 2680MHz
	LTE Band CA_41C Channel Bandwidth: 15MHz+10MHz	2503.5MHz ~ 2684.7MHz
	LTE Band CA_41C Channel Bandwidth: 15MHz+15MHz	2496MHz ~ 2682.5MHz
	LTE Band CA_41C Channel Bandwidth: 15MHz+20MHz	2503.8MHz ~ 2680MHz
	LTE Band CA_41C Channel Bandwidth: 20MHz+5MHz	2506MHz ~ 2686.7MHz
	LTE Band CA_41C Channel Bandwidth: 20MHz+10MHz	2506MHz ~ 2684.5MHz
	LTE Band CA_41C Channel Bandwidth: 20MHz+15MHz	2506MHz ~ 2682.2MHz
	LTE Band CA_41C Channel Bandwidth: 20MHz+20MHz	2506MHz ~ 2680MHz
	LTE Band CA_42C Channel Bandwidth: 5MHz+20MHz	3453.3MHz ~ 3540MHz
	LTE Band CA_42C Channel Bandwidth: 20MHz +5MHz	3460MHz ~ 3546.7MHz
	LTE Band CA_42C Channel Bandwidth: 10MHz +20MHz	3455.5MHz ~ 3540MHz
	LTE Band CA_42C Channel Bandwidth: 20MHz +10MHz	3460MHz ~ 3544.5MHz
	LTE Band CA_42C Channel Bandwidth: 15MHz +20MHz	3457.8MHz ~ 3540MHz
	LTE Band CA_42C Channel Bandwidth: 20MHz +15MHz	3460MHz ~ 3542.2MHz
	LTE Band CA_42C Channel Bandwidth: 20MHz +20MHz	3460MHz ~ 3540MHz
MAX. EIRP or EPR POWER	LTE Band CA_7C Channel Bandwidth: 10MHz+20MHz	148.25mW

MAX. EIRP or EPR POWER	LTE Band CA_7C Channel Bandwidth: 15MHz+10MHz	144.88mW
	LTE Band CA_7C Channel Bandwidth: 15MHz+15MHz	147.57mW
	LTE Band CA_7C Channel Bandwidth: 15MHz+20MHz	149.62mW
	LTE Band CA_7C Channel Bandwidth: 20MHz+10MHz	149.28mW
	LTE Band CA_7C Channel Bandwidth: 20MHz+15MHz	152.41mW
	LTE Band CA_7C Channel Bandwidth: 20MHz+20MHz	153.11mW
	LTE Band CA_38C Channel Bandwidth: 15MHz+15MHz	133.05mW
	LTE Band CA_38C Channel Bandwidth: 20MHz+20MHz	135.21mW
	LTE Band CA_41C Channel Bandwidth: 5MHz+20MHz	129.72mW
	LTE Band CA_41C Channel Bandwidth: 20MHz+5MHz	130.32mW
	LTE Band CA_41C Channel Bandwidth: 10MHz+15MHz	129.72mW
	LTE Band CA_41C Channel Bandwidth: 15MHz+10MHz	131.52mW
	LTE Band CA_41C Channel Bandwidth: 15MHz+15MHz	130.62mW
	LTE Band CA_41C Channel Bandwidth: 10MHz+20MHz	130.02mW
	LTE Band CA_41C Channel Bandwidth: 20MHz+10MHz	130.62mW
	LTE Band CA_41C Channel Bandwidth: 15MHz+20MHz	129.72mW

MAX. EIRP or EPR POWER	LTE Band CA_41C Channel Bandwidth: 20MHz+15MHz	131.22mW
	LTE Band CA_41C Channel Bandwidth: 20MHz+20MHz	132.13mW
	LTE Band CA_42C Channel Bandwidth: 5MHz+20MHz	135.52mW
	LTE Band CA_42C Channel Bandwidth: 20MHz +5MHz	134.28mW
	LTE Band CA_42C Channel Bandwidth: 10MHz +20MHz	135.52mW
	LTE Band CA_42C Channel Bandwidth: 20MHz +10MHz	135.21mW
	LTE Band CA_42C Channel Bandwidth: 15MHz +20MHz	133.97mW
	LTE Band CA_42C Channel Bandwidth: 20MHz +15MHz	134.59mW
	LTE Band CA_42C Channel Bandwidth: 20MHz +20MHz	137.09mW
EMISSION DESIGNATOR	LTE Band CA_7C Channel Bandwidth: 10MHz+20MHz	QPSK: 28M0G7D
		16QAM: 28M0W7D
		64QAM: 28M0W7D
	LTE Band CA_7C Channel Bandwidth: 15MHz +10MHz	QPSK: 23M5G7D
		16QAM: 23M5W7D
		64QAM: 23M5W7D
	LTE Band CA_7C Channel Bandwidth: 15MHz +15MHz	QPSK: 28M6G7D
		16QAM: 28M7W7D
		64QAM: 28M6W7D
	LTE Band CA_7C Channel Bandwidth: 15MHz +20MHz	QPSK: 32M9G7D
		16QAM: 33M0W7D
		64QAM: 33M0W7D
	LTE Band CA_7C Channel Bandwidth: 20MHz +10MHz	QPSK: 28M1G7D
		16QAM: 28M1W7D
		64QAM: 28M1W7D

EMISSION DESIGNATOR	LTE Band CA_7C Channel Bandwidth: 20MHz +15MHz	QPSK: 32M9G7D
		16QAM: 32M9W7D
		64QAM: 32M9W7D
	LTE Band CA_7C Channel Bandwidth: 20MHz +20MHz	QPSK: 37M7G7D
		16QAM: 37M7W7D
		64QAM: 37M7W7D
	LTE Band CA_41C Channel Bandwidth: 5MHz+20MHz	QPSK: 22M7G7D
		16QAM: 22M7W7D
		64QAM: 22M7W7D
	LTE Band CA_41C Channel Bandwidth: 20MHz+5MHz	QPSK: 22M9G7D
		16QAM: 22M9W7D
		64QAM: 22M9W7D
	LTE Band CA_41C Channel Bandwidth: 10MHz+15MHz	QPSK: 23M0G7D
		16QAM: 23M0W7D
		64QAM: 23M0W7D
	LTE Band CA_41C Channel Bandwidth: 15MHz+10MHz	QPSK: 23M1G7D
		16QAM: 23M1W7D
		64QAM: 23M1W7D
	LTE Band CA_41C Channel Bandwidth: 15MHz+15MHz	QPSK: 28M2G7D
		16QAM: 28M2W7D
		64QAM: 28M3W7D
	LTE Band CA_41C Channel Bandwidth: 10MHz+20MHz	QPSK: 27M6G7D
		16QAM: 27M6W7D
		64QAM: 27M6W7D

EMISSION DESIGNATOR	LTE Band CA_41C Channel Bandwidth: 20MHz+10MHz	QPSK: 27M7G7D
		16QAM: 27M7W7D
		64QAM: 27M7W7D
	LTE Band CA_41C Channel Bandwidth: 15MHz+20MHz	QPSK: 32M5G7D
		16QAM: 32M5W7D
		64QAM: 32M5W7D
	LTE Band CA_41C Channel Bandwidth: 20MHz+15MHz	QPSK: 32M6G7D
		16QAM: 32M6W7D
		64QAM: 32M6W7D
	LTE Band CA_41C Channel Bandwidth: 20MHz+20MHz	QPSK: 37M4G7D
		16QAM: 37M7W7D
		64QAM: 37M4W7D
	LTE Band CA_42C Channel Bandwidth: 5MHz+20MHz	QPSK: 22M6G7D
		16QAM: 22M7W7D
		64QAM: 22M6W7D
	LTE Band CA_42C Channel Bandwidth: 20MHz +5MHz	QPSK: 22M9G7D
		16QAM: 22M9W7D
		64QAM: 22M9W7D
	LTE Band CA_42C Channel Bandwidth: 10MHz +20MHz	QPSK: 27M5G7D
		16QAM: 27M5W7D
		64QAM: 27M5W7D
	LTE Band CA_42C Channel Bandwidth: 20MHz +10MHz	QPSK: 27M7G7D
		16QAM: 27M7W7D
		64QAM: 27M7W7D
	LTE Band CA_42C Channel Bandwidth: 15MHz +20MHz	QPSK: 32M4G7D
		16QAM: 32M4W7D
		64QAM: 32M4W7D
	LTE Band CA_42C Channel Bandwidth: 20MHz +15MHz	QPSK: 32M5G7D
		16QAM: 32M5W7D
		64QAM: 32M5W7D
	LTE Band CA_42C Channel Bandwidth: 20MHz +20MHz	QPSK: 37M4G7D
		16QAM: 37M3W7D
		64QAM: 37M3W7D

ANTENNA TYPE	PIFA Antenna with -1.5dBi gain for LTE7C PIFA Antenna with -1.5dBi gain for LTE38C PIFA Antenna with -1.5dBi gain for LTE41C PIFA Antenna with -1.3dBi gain for LTE42C
HW VERSION	V02
SW VERSION	IS540_ROW_00.00_1_20221017
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	USB cable1: non-shielded cable, with w/o ferrite core, 1.0 meter USB cable2: non-shielded cable, with w/o ferrite core, 1.0 meter
EXTREME TEMPERATURE	-10-50 °C
EXTREME VOLTAGE	3.6V - 4.2V

NOTE:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- The EUT incorporates a SISO function. Physically, the EUT provides one completed transmitter and one receiver.

MODULATION MODE	TX FUNCTION
LTE	1TX/1RX

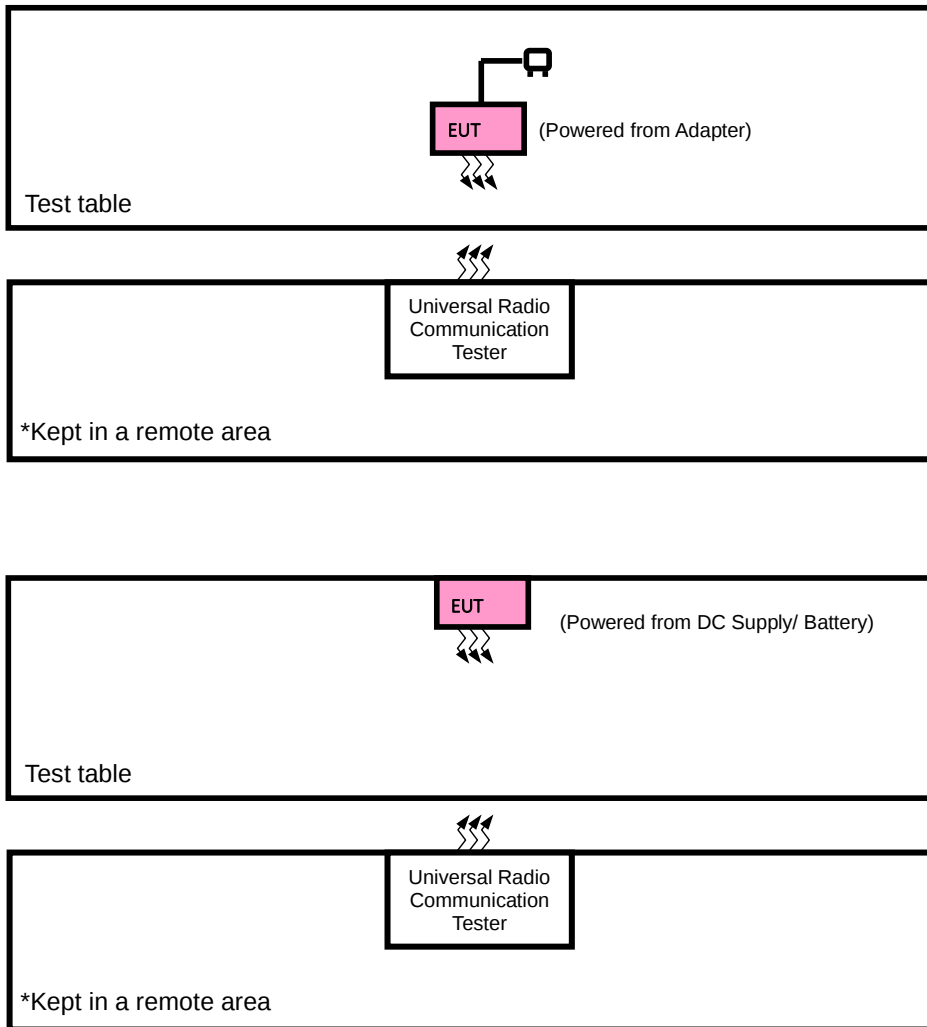
- For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
- For Band Edge and Emission Mask: The all BW combinations were tested. Combination pairs of the same BW are considered generally equivalent. The RB combinations were selected such that the signal is active closest to the band limit, as this is the worst case.
- For Out of Band Emissions: The all combination was tested. The highest power RB combination was selected as worst case.

List of Accessory:

ACCESSORIES	BRAND	MANUFACTURER	MODEL	SPECIFICATION
Battery	N/A	FPR Connectivity Technology Inc.	BL440ACP	Capacity: 3.7Vdc, 4400mAh
AC Adapter	N/A	SHENZHEN SHI YINGYUAN POWER SUPPLY TECHNOLOGY CO., LTD.	ICP12-050-2000B	I/P: 100-240Vac, 0.3A, O/P: 5.0Vdc, 2A
USB Cable 1	N/A	Winpower Technology Co., LTD	PROTECTOR 2.0	Signal Line,1.0meter
USB Cable 2	N/A	Winpower Technology Co., LTD	USB2.0	Signal Line,1.0meter

2.2 CONFIGURATION OF SYSTEM UNDER TEST

FOR RADIATION EMISSION TEST



2.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	DC source	LONG WEI	PS-6403D	010934269	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	DC Line: Unshielded, Detachable 1.8m

2.4 TEST ITEM AND TEST CONFIGURATION

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports. The worst case was found when positioned on Y-plane for EIRP and X-axis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	DESCRIPTION
A	EUT + Adapter + USB Cable with LTE link
B	EUT + DC Supply with LTE link

LTE BAND CA_7C MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABL E PCC CHANNEL	AVAILABL E SCC CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(PCC)	MODE(SCC)
A	EIRP	20805 to 21206	20949 to 21350	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		20825 to 21277	20945 to 21397	Low, Middle, High	15MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		20825 to 21225	20975 to 21375	Low, Middle, High	15MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		20828 to 21179	20999 to 21350	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		20850 to 21251	20994 to 21395	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		20850 to 21201	21201 to 21372	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		20850 to 21152	21048 to 21350	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
A	OCCUPIED BANDWIDTH	20805 to 21206	20949 to 21350	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM, 64QAM	50RB/ 0RB Offset	100RB/ 0RB Offset
		20825 to 21277	20945 to 21397	Low, Middle, High	15MHz+10MHz	QPSK, 16QAM, 64QAM	75RB/ 0RB Offset	50RB/ 0RB Offset
		20825 to 21225	20975 to 21375	Low, Middle, High	15MHz+15MHz	QPSK, 16QAM, 64QAM	75RB/ 0RB Offset	75RB/ 0RB Offset
		20828 to 21179	20999 to 21350	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM, 64QAM	75RB/ 0RB Offset	100RB/ 0RB Offset
		20850 to 21251	20994 to 21395	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM, 64QAM	100RB/ 0RB Offset	50RB/ 0RB Offset
		20850 to 21201	21201 to 21372	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM, 64QAM	100RB/ 0RB Offset	75RB/ 0RB Offset
		20850 to 21152	21048 to 21350	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM, 64QAM	100RB/ 0RB Offset	100RB/ 0RB Offset
A	BAND EDGE	20850 to 21152	21048 to 21350	Low	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 99RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	100RB/ 0RB Offset
				High	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 99RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	100RB/ 0RB Offset
A	CONDCUDE TED EMISSION	20850 to 21152	21048 to 21350	Low, Middle, High	20MHz+20MHz	QPSK	1RB/ 99RB Offset	1RB/ 0RB Offset
A	RADIATED EMISSION	20805 to 21206	20949 to 21350	Middle	10MHz+20MHz	QPSK	1RB/ 49RB Offset	1RB/ 0RB Offset
		20825 to 21277	20945 to 21397	Middle	15MHz+10MHz	QPSK	1RB/ 74RB Offset	1RB/ 0RB Offset
		20825 to 21225	20975 to 21375	Middle	15MHz+15MHz	QPSK	1RB/ 74RB Offset	1RB/ 0RB Offset
		20828 to 21179	20999 to 21350	Middle	15MHz+20MHz	QPSK	1RB/ 74RB Offset	1RB/ 0RB Offset
		20850 to 21251	20994 to 21395	Middle	20MHz+10MHz	QPSK	1RB/ 99RB Offset	1RB/ 0RB Offset
		20850 to 21201	21201 to 21372	Middle	20MHz+15MHz	QPSK	1RB/ 99RB Offset	1RB/ 0RB Offset
		20850 to 21152	21048 to 21350	Low, Middle, High	20MHz+20MHz	QPSK	1RB/ 99RB Offset	1RB/ 0RB Offset



Test Report No.: W7L-P23100014RF08

Note: 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

LTE BAND CA_38C MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABL E PCC CHANNEL	AVAILABL E SCC CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(PCC)	MODE(SCC)
A	EIRP	37825 to 38025	37975 to 38175	Low, Middle, High	15MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		37850 to 37952	38048 to 38150	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset

Note: 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. LTE Band 38C are covered by LTE Band 41C, Because it is a subset of LTE Band 41C with the same output power and supported bandwidths, So the conducted test data and RSE test data please refer to LTE Band 41C

LTE BAND CA_41C MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE PCC CHANNEL	AVAILABLE SCC CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(PCC)	MODE(SCC)
A	EIRP	39750 to 41341	39921 to 41512	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		39728 to 41319	39899 to 41490	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		39750 to 41391	39894 to 41535	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		39705 to 41346	39849 to 41490	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		39725 to 41365	39875 to 41515	Low, Middle, High	15MHz +15MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		39725 to 41417	39845 to 41537	Low, Middle, High	15MHz +10MHz	QPSK, 16QAM, 64QAM	1RB / 74RB Offset	1RB / 0RB Offset
		39703 to 41395	39823 to 41515	Low, Middle, High	10MHz +15MHz	QPSK, 16QAM, 64QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		39750 to 41440	39867 to 41557	Low, Middle, High	20MHz +5MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		39683 to 41373	39800 to 41490	Low, Middle, High	5MHz +20MHz	QPSK, 16QAM, 64QAM	1RB/ 24RB Offset	1RB/ 0RB Offset
		39750 to 41292	39948 to 41490	Low, Middle, High	20MHz +20MHz	QPSK, 16QAM, 64QAM	1RB / 99RB Offset 1RB / 0RB Offset	1RB/ 0RB Offset
A	OCCUPIED BANDWIDTH	39750 to 41341	39921 to 41512	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM, 64QAM	100RB/ 0RB Offset	75RB/ 0RB Offset
		39728 to 41319	39899 to 41490	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM, 64QAM	75RB/ 0RB Offset	100RB/ 0RB Offset
		39750 to 41391	39894 to 41535	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM, 64QAM	100RB/ 0RB Offset	50RB/ 0RB Offset
		39705 to 41346	39849 to 41490	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM, 64QAM	50RB/ 0RB Offset	100RB/ 0RB Offset
		39725 to 41365	39875 to 41515	Low, Middle, High	15MHz +15MHz	QPSK, 16QAM, 64QAM	75RB/ 0RB Offset	75RB/ 0RB Offset
		39725 to 41417	39845 to 41537	Low, Middle, High	15MHz +10MHz	QPSK, 16QAM, 64QAM	75RB/ 0RB Offset	50RB/ 0RB Offset
		39703 to 41395	39823 to 41515	Low, Middle, High	10MHz +15MHz	QPSK, 16QAM, 64QAM	50RB/ 0RB Offset	75RB/ 0RB Offset
		39750 to 41440	39867 to 41557	Low, Middle, High	20MHz +5MHz	QPSK, 16QAM, 64QAM	100RB/ 0RB Offset	25RB/ 0RB Offset
		39683 to 41373	39800 to 41490	Low, Middle, High	5MHz +20MHz	QPSK, 16QAM, 64QAM	25RB/ 0RB Offset	100RB/ 0RB Offset

A	OCCUPIED BANDWIDTH	39750 to 41292	39948 to 41490	Low, Middle, High	20MHz +20MHz	QPSK, 16QAM, 64QAM	100RB/ 0RB Offset	100RB/ 0RB Offset
A	BAND EDGE	39750 to 41292	39948 to 41490	Low	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 99RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	100RB/ 0RB Offset
				High	20MHz+20MHz		1RB/ 0RB Offset	1RB/ 99RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	100RB/ 0RB Offset
A	CONDCUDETED EMISSION	39750 to 41292	39948 to 41490	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
A	RADIATED EMISSION	39750 to 41341	39921 to 41512	Middle	20MHz+15MHz	QPSK,	1RB/ 99RB Offset	1RB/ 0RB Offset
		39728 to 41319	39899 to 41490	Middle,	15MHz+20MHz	QPSK,	1RB/ 74RB Offset	1RB/ 0RB Offset
		39750 to 41391	39894 to 41535	Middle	20MHz+10MHz	QPSK,	1RB/ 99RB Offset	1RB/ 0RB Offset
		39705 to 41346	39849 to 41490	Middle	10MHz+20MHz	QPSK,	1RB/ 49RB Offset	1RB/ 0RB Offset
		39725 to 41365	39875 to 41515	Middle,	15MHz +15MHz	QPSK,	1RB/ 74RB Offset	1RB/ 0RB Offset
		39725 to 41417	39845 to 41537	Middle	15MHz +10MHz	QPSK,	1RB / 74RB Offset	1RB / 0RB Offset
		39703 to 41395	39823 to 41515	Middle	10MHz +15MHz	QPSK,	1RB/ 49RB Offset	1RB/ 0RB Offset
		39750 to 41440	39867 to 41557	Middle,	20MHz +5MHz	QPSK,	1RB/ 99RB Offset	1RB/ 0RB Offset
		39683 to 41373	39800 to 41490	Low, Middle, High	5MHz +20MHz	QPSK,	1RB/ 24RB Offset	1RB/ 0RB Offset
		39750 to 41341	39921 to 41512	Middle	20MHz+15MHz	QPSK,	1RB / 99RB Offset	1RB/ 0RB Offset
		39750 to 41292	39948 to 41490	Middle	20MHz+20MHz	QPSK,	1RB / 99RB Offset	1RB/ 0RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

LTE BAND CA_42C MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE PCC CHANNEL	AVAILABLE SCC CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(PCC)	MODE(SCC)
A	EIRP	41690 to 43341	41861 to 43512	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		41668 to 43319	41839 to 43490	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		41690 to 43391	41834 to 43535	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		41645 to 43346	41789 to 43490	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		41690 to 43440	41807 to 43557	Low, Middle, High	20MHz +5MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		41623 to 43373	41740 to 43490	Low, Middle, High	5MHz +20MHz	QPSK, 16QAM, 64QAM	1RB / 24RB Offset	1RB / 0RB Offset
		41690 to 43292	41888 to 43490	Low, Middle, High	20MHz +20MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
A	OCCUPIED BANDWIDTH	41690 to 43341	41861 to 43512	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM, 64QAM	100RB/ 0RB Offset	75RB/ 0RB Offset
		41668 to 43319	41839 to 43490	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM, 64QAM	75RB/ 0RB Offset	100RB/ 0RB Offset
		41690 to 43391	41834 to 43535	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM, 64QAM	100RB/ 0RB Offset	50RB/ 0RB Offset
		41645 to 43346	41789 to 43490	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM, 64QAM	50RB/ 0RB Offset	100RB/ 0RB Offset
		41690 to 43440	41807 to 43557	Low, Middle, High	20MHz +5MHz	QPSK, 16QAM, 64QAM	100RB/ 0RB Offset	50RB/ 0RB Offset
		41623 to 43373	41740 to 43490	Low, Middle, High	5MHz +20MHz	QPSK, 16QAM, 64QAM	50RB/ 0RB Offset	100RB/ 0RB Offset
		41690 to 43292	41888 to 43490	Low, Middle, High	20MHz +20MHz	QPSK, 16QAM, 64QAM	100RB/ 0RB Offset	100RB/ 0RB Offset
A	BAND EDGE	41690 to 43292	41888 to 43490	Low	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 99RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	100RB/ 0RB Offset
				High	20MHz+20MHz		1RB/ 0RB Offset	1RB/ 99RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	100RB/ 0RB Offset
A	CONDCUDED EMISSION	41690 to 43292	41888 to 43490	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB / 99RB Offset 1RB / 0RB Offset	1RB/ 0RB Offset

A	RADIATED EMISSION	41690 to 43341	41861 to 43512	Middle	20MHz+15MHz	QPSK,	1RB/ 99RB Offset	1RB/ 0RB Offset
		41668 to 43319	41839 to 43490	Low, Middle, High,	15MHz+20MHz	QPSK,	1RB/ 74RB Offset	1RB/ 0RB Offset
		41690 to 43391	41834 to 43535	Middle	20MHz+10MHz	QPSK,	1RB/ 99RB Offset	1RB/ 0RB Offset
		41645 to 43346	41789 to 43490	Middle	10MHz+20MHz	QPSK,	1RB/ 49RB Offset	1RB/ 0RB Offset
		41690 to 43440	41807 to 43557	Middle,	20MHz +5MHz	QPSK,	1RB/ 99RB Offset	1RB/ 0RB Offset
		41623 to 43373	41740 to 43490	Middle	5MHz +20MHz	QPSK,	1RB/ 24RB Offset	1RB/ 0RB Offset
		41690 to 43292	41888 to 43490	Middle,	20MHz+20MHz	QPSK,	1RB / 99RB Offset 1RB / 0RB Offset	1RB/ 0RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.



Test Report No.: W7L-P23100014RF08

TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ERP&EIRP	23deg. C, 70%RH	DC5V By Adapter	Jace Hu
FREQUENCY STABILITY	23deg. C, 70%RH	DC 3.6V/3.7V/4.2V By DC Supply	James Fu
OCCUPIED BANDWIDTH	23deg. C, 70%RH	DC5V By Adapter	James Fu
BAND EDGE	23deg. C, 70%RH	DC5V By Adapter	James Fu
CONDCUDETED EMISSION	23deg. C, 70%RH	DC5V By Adapter	James Fu
RADIATED EMISSION	23deg. C, 70%RH	DC5V By Adapter	Jace Hu
PEAK TO AVERAGE RATIO	23deg. C, 70%RH	DC5V By Adapter	James Fu



Test Report No.: W7L-P23100014RF08

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2

FCC 47 CFR Part 27

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI/TIA/EIA-603-D

ANSI/TIA/EIA-603-E

ANSI C63.26-2015

NOTE: All test items have been performed and recorded as per the above standards.

3 TEST TYPES AND RESULTS

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

The radiated peak output power shall be according to the specific rule Part 27.50(h)(2) that “User stations are limited to 2 watts” and 27.50(i) specific that “Peak transmit power must be measure over any interval of continuous transmission using instrumentation calibration in terms of rms-equivalent voltage.”

According to the specific rule Part 27.50 (k)(3) Mobile devices are limited to 1Watt (30 dBm) EIRP, Mobile devices operating in these bands must employ a means for limiting power to the minimum necessary for successful communications

3.1.2 TEST PROCEDURES

EIRP MEASUREMENT:

Per KDB 971168 D01 Power Meas License Digital Systems v03r01 or subclause 5.2.5.5 of ANSI C63.26-2015, the relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_T - L_C$$

Where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively
(expressed in the same units as P_{Meas} , typically dBW or dBm);

P_{Meas} = measured transmitter output power or PSD, in dBm or dBW;

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

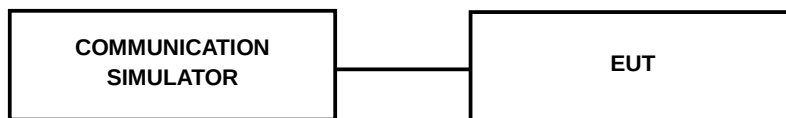
L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

CONDUCTED POWER MEASUREMENT:

- The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.
- Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

3.1.3 TEST SETUP

CONDUCTED POWER MEASUREMENT:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

3.1.4 TEST RESULTS

AVERAGE CONDUCTED OUTPUT POWER (dBm)

LTE Band CA_7C

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20805	21048	QPSK	1	99	0	0	1	23.26
		16QAM	1	99	0	0	1	22.51
		64QAM	1	99	0	0	1	21.34
21100	21298	QPSK	1	99	0	0	1	23.27
		16QAM	1	99	0	0	1	22.36
		64QAM	1	99	0	0	1	21.48
21350	21152	QPSK	1	99	0	0	1	23.17
		16QAM	1	99	0	0	1	22.35
		64QAM	1	99	0	0	1	21.28

LTE Band CA_38C

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	0	0	0	1	22.81
		16QAM	1	0	0	0	1	22.08
		64QAM	1	0	0	0	1	20.77
37901	38099	QPSK	1	0	0	0	1	22.66
		16QAM	1	0	0	0	1	21.82
		64QAM	1	0	0	0	1	20.53
38150	37952	QPSK	1	0	0	0	1	22.51
		16QAM	1	0	0	0	1	21.70
		64QAM	1	0	0	0	1	20.68

LTE Band CA_41C

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	0	0	0	1	22.71
		16QAM	1	0	0	0	1	21.84
		64QAM	1	0	0	0	1	20.37
40620	40818	QPSK	1	0	0	0	1	22.51
		16QAM	1	0	0	0	1	21.73
		64QAM	1	0	0	0	1	20.17
41490	41292	QPSK	1	0	0	0	1	21.99
		16QAM	1	0	0	0	1	21.15
		64QAM	1	0	0	0	1	19.69

LTE Band CA_42C

CA_42C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
42190	42388	QPSK	1	0	0	0	1	22.50
		16QAM	1	0	0	0	1	21.73
		64QAM	1	0	0	0	1	20.21
42590	42392	QPSK	1	0	0	0	1	22.63
		16QAM	1	0	0	0	1	21.71
		64QAM	1	0	0	0	1	20.09
42990	42792	QPSK	1	0	0	0	1	22.51
		16QAM	1	0	0	0	1	21.69
		64QAM	1	0	0	0	1	20.14

ERP/EIRP

LTE BAND CA_7C

CHANNEL BANDWIDTH: 10MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20805	2505.5	20949	2519.9	23.13	-1.5	21.63	145.55	2
21006	2525.6	21150	2540.0	23.21	-1.5	21.71	148.25	2
21206	2545.6	21350	2560.0	23.13	-1.5	21.63	145.55	2

CHANNEL BANDWIDTH: 10MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20805	2505.5	20949	2519.9	22.31	-1.5	20.81	120.50	2
21006	2525.6	21150	2540.0	22.2	-1.5	20.70	117.49	2
21206	2545.6	21350	2560.0	22.1	-1.5	20.60	114.82	2

CHANNEL BANDWIDTH: 10MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20805	2505.5	20949	2519.9	21.17	-1.5	19.67	92.68	2
21006	2525.6	21150	2540.0	21.33	-1.5	19.83	96.16	2
21206	2545.6	21350	2560.0	21.19	-1.5	19.69	93.11	2

CHANNEL BANDWIDTH: 15MHz+10MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20945	2519.5	23.04	-1.5	21.54	142.56	2
21051	2530.1	21171	2542.1	23.11	-1.5	21.61	144.88	2
21227	2552.7	21397	2564.7	23.07	-1.5	21.57	143.55	2

CHANNEL BANDWIDTH: 15MHz+10MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20945	2519.5	22.23	-1.5	20.73	118.30	2
21051	2530.1	21171	2542.1	22.16	-1.5	20.66	116.41	2
21227	2552.7	21397	2564.7	22.06	-1.5	20.56	113.76	2

CHANNEL BANDWIDTH: 15MHz+10MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20945	2519.5	21.13	-1.5	19.63	91.83	2
21051	2530.1	21171	2542.1	21.17	-1.5	19.67	92.68	2
21227	2552.7	21397	2564.7	21.07	-1.5	19.57	90.57	2

CHANNEL BANDWIDTH: 15MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20975	2522.5	23.06	-1.5	21.56	143.22	2
21025	2527.5	21175	2542.5	23.19	-1.5	21.69	147.57	2
21225	2547.5	21375	2562.5	23.1	-1.5	21.60	144.54	2

CHANNEL BANDWIDTH: 15MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20975	2522.5	22.29	-1.5	20.79	119.95	2
21025	2527.5	21175	2542.5	22.18	-1.5	20.68	116.95	2
21225	2547.5	21375	2562.5	22.08	-1.5	20.58	114.29	2

CHANNEL BANDWIDTH: 15MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20975	2522.5	21.15	-1.5	19.65	92.26	2
21025	2527.5	21175	2542.5	21.25	-1.5	19.75	94.41	2
21225	2547.5	21375	2562.5	21.13	-1.5	19.63	91.83	2

CHANNEL BANDWIDTH: 15MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20828	2507.8	20999	2524.9	23.22	-1.5	21.72	148.59	2
21003	2525.3	21174	2542.4	23.25	-1.5	21.75	149.62	2
21179	2542.9	21350	2560.0	23.15	-1.5	21.65	146.22	2

CHANNEL BANDWIDTH: 15MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20828	2507.8	20999	2524.9	22.38	-1.5	20.88	122.46	2
21003	2525.3	21174	2542.4	22.27	-1.5	20.77	119.40	2
21179	2542.9	21350	2560.0	22.22	-1.5	20.72	118.03	2

CHANNEL BANDWIDTH: 15MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20828	2507.8	20999	2524.9	21.27	-1.5	19.77	94.84	2
21003	2525.3	21174	2542.4	21.41	-1.5	19.91	97.95	2
21179	2542.9	21350	2560.0	21.23	-1.5	19.73	93.97	2

CHANNEL BANDWIDTH: 20MHz+10MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	20994	2524.4	23.21	-1.5	21.71	148.25	2
21051	2530.1	21195	2544.5	23.24	-1.5	21.74	149.28	2
21251	2550.1	21395	2564.5	23.14	-1.5	21.64	145.88	2

CHANNEL BANDWIDTH: 20MHz+10MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	20994	2524.4	22.33	-1.5	20.83	121.06	2
21051	2530.1	21195	2544.5	22.22	-1.5	20.72	118.03	2
21251	2550.1	21395	2564.5	22.15	-1.5	20.65	116.14	2

CHANNEL BANDWIDTH: 20MHz+10MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	20994	2524.4	21.25	-1.5	19.75	94.41	2
21051	2530.1	21195	2544.5	21.39	-1.5	19.89	97.50	2
21251	2550.1	21395	2564.5	21.2	-1.5	19.70	93.33	2

CHANNEL BANDWIDTH: 20MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21021	2527.1	23.24	-1.5	21.74	149.28	2
21026	2527.6	21197	2544.7	23.33	-1.5	21.83	152.41	2
21201	2545.1	21372	2562.2	23.2	-1.5	21.70	147.91	2

CHANNEL BANDWIDTH: 20MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21021	2527.1	22.43	-1.5	20.93	123.88	2
21026	2527.6	21197	2544.7	22.33	-1.5	20.83	121.06	2
21201	2545.1	21372	2562.2	22.29	-1.5	20.79	119.95	2

CHANNEL BANDWIDTH: 20MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21021	2527.1	21.29	-1.5	19.79	95.28	2
21026	2527.6	21197	2544.7	21.43	-1.5	19.93	98.40	2
21201	2545.1	21372	2562.2	21.28	-1.5	19.78	95.06	2

CHANNEL BANDWIDTH: 20MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21048	2529.8	23.26	-1.5	21.76	149.97	2
21001	2525.1	21199	2544.9	23.35	-1.5	21.85	153.11	2
21206	2540.2	21350	2560.0	23.22	-1.5	21.72	148.59	2

CHANNEL BANDWIDTH: 20MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21048	2529.8	22.51	-1.5	21.01	126.18	2
21001	2525.1	21199	2544.9	22.41	-1.5	20.91	123.31	2
21206	2540.2	21350	2560.0	22.37	-1.5	20.87	122.18	2

CHANNEL BANDWIDTH: 20MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21048	2529.8	21.34	-1.5	19.84	96.38	2
21001	2525.1	21199	2544.9	21.49	-1.5	19.99	99.77	2
21206	2540.2	21350	2560.0	21.33	-1.5	19.83	96.16	2

LTE BAND CA_38C

CHANNEL BANDWIDTH: 15MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	37975	2592.5	22.74	-1.5	21.24	133.05	2
37925	2587.5	38075	2602.5	22.62	-1.5	21.12	129.42	2
38025	2597.5	38175	2612.5	22.49	-1.5	20.99	125.60	2

CHANNEL BANDWIDTH: 15MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	37975	2592.5	22	-1.5	20.50	112.20	2
37925	2587.5	38075	2602.5	21.74	-1.5	20.24	105.68	2
38025	2597.5	38175	2612.5	21.62	-1.5	20.12	102.80	2

CHANNEL BANDWIDTH: 15MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	37975	2592.5	20.69	-1.5	19.19	82.99	2
37925	2587.5	38075	2602.5	20.48	-1.5	18.98	79.07	2
38025	2597.5	38175	2612.5	20.65	-1.5	19.15	82.22	2

CHANNEL BANDWIDTH: 20MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	38048	2599.8	22.81	-1.5	21.31	135.21	2
37901	2585.1	38099	2604.9	22.66	-1.5	21.16	130.62	2
37952	2590.2	38150	2610	22.51	-1.5	21.01	126.18	2

CHANNEL BANDWIDTH: 20MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	38048	2599.8	22.08	-1.5	20.58	114.29	2
37901	2585.1	38099	2604.9	21.82	-1.5	20.32	107.65	2
37952	2590.2	38150	2610	21.7	-1.5	20.20	104.71	2

CHANNEL BANDWIDTH: 20MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	38048	2599.8	20.77	-1.5	19.27	84.53	2
37901	2585.1	38099	2604.9	20.53	-1.5	19.03	79.98	2
37952	2590.2	38150	2610	20.68	-1.5	19.18	82.79	2

LTE BAND CA_41C

LTE BAND CA_41C 5M+20M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39683	2499.3	39800	2511	22.63	-1.5	21.13	129.72	2
40528	2583.8	40645	2595.5	22.48	-1.5	20.98	125.31	2
41373	2668.3	41490	2680	21.99	-1.5	20.49	111.94	2
LTE BAND CA_41C 5M+20M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39683	2499.3	39800	2511	21.8	-1.5	20.30	107.15	2
40528	2583.8	40645	2595.5	21.71	-1.5	20.21	104.95	2
41373	2668.3	41490	2680	21.11	-1.5	19.61	91.41	2
LTE BAND CA_41C 5M+20M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39683	2499.3	39800	2511	20.33	-1.5	18.83	76.38	2
40528	2583.8	40645	2595.5	20.22	-1.5	18.72	74.47	2
41373	2668.3	41490	2680	19.75	-1.5	18.25	66.83	2

LTE BAND CA_41C 20M+5M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39750	2506	39867	2517.7	22.65	-1.5	21.15	130.32	2
40595	2590.5	40712	2602.2	22.53	-1.5	21.03	126.77	2
41440	2675	41557	2686.7	22.02	-1.5	20.52	112.72	2
LTE BAND CA_41C 20M+5M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39750	2506	39867	2517.7	21.73	-1.5	20.23	105.44	2
40595	2590.5	40712	2602.2	21.74	-1.5	20.24	105.68	2
41440	2675	41557	2686.7	21.15	-1.5	19.65	92.26	2
LTE BAND CA_41C 20M+5M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39750	2506	39867	2517.7	20.31	-1.5	18.81	76.03	2
40595	2590.5	40712	2602.2	20.17	-1.5	18.67	73.62	2
41440	2675	41557	2686.7	19.76	-1.5	18.26	66.99	2

LTE BAND CA_41C 10M+15M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39703	2501.3	39823	2513.3	22.63	-1.5	21.13	129.72	2
40549	2585.9	40669	2597.9	22.48	-1.5	20.98	125.31	2
41395	2670.5	41515	2682.5	22.03	-1.5	20.53	112.98	2
LTE BAND CA_41C 10M+15M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39703	2501.3	39823	2513.3	21.76	-1.5	20.26	106.17	2
40549	2585.9	40669	2597.9	21.71	-1.5	20.21	104.95	2
41395	2670.5	41515	2682.5	21.05	-1.5	19.55	90.16	2
LTE BAND CA_41C 10M+15M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39703	2501.3	39823	2513.3	20.31	-1.5	18.81	76.03	2
40549	2585.9	40669	2597.9	20.16	-1.5	18.66	73.45	2
41395	2670.5	41515	2682.5	19.73	-1.5	18.23	66.53	2

LTE BAND CA_41C 15M+10M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39725	2503.5	39845	2515.5	22.69	-1.5	21.19	131.52	2
40571	2588.1	40691	2600.1	22.54	-1.5	21.04	127.06	2
41417	2672.7	41537	2684.7	22.01	-1.5	20.51	112.46	2
LTE BAND CA_41C 15M+10M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39725	2503.5	39845	2515.5	21.83	-1.5	20.33	107.89	2
40571	2588.1	40691	2600.1	21.74	-1.5	20.24	105.68	2
41417	2672.7	41537	2684.7	21.09	-1.5	19.59	90.99	2
LTE BAND CA_41C 15M+10M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39725	2503.5	39845	2515.5	20.32	-1.5	18.82	76.21	2
40571	2588.1	40691	2600.1	20.22	-1.5	18.72	74.47	2
41417	2672.7	41537	2684.7	19.73	-1.5	18.23	66.53	2

LTE BAND CA_41C 15M+15M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39725	2496	39875	2511	22.66	-1.5	21.16	130.62	2
40545	2585.5	40695	2600.5	22.53	-1.5	21.03	126.77	2
41365	2667.5	41515	2682.5	21.99	-1.5	20.49	111.94	2
LTE BAND CA_41C 15M+15M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39725	2496	39875	2511	21.83	-1.5	20.33	107.89	2
40545	2585.5	40695	2600.5	21.74	-1.5	20.24	105.68	2
41365	2667.5	41515	2682.5	21.11	-1.5	19.61	91.41	2
LTE BAND CA_41C 15M+15M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39725	2496	39875	2511	20.32	-1.5	18.82	76.21	2
40545	2585.5	40695	2600.5	20.22	-1.5	18.72	74.47	2
41365	2667.5	41515	2682.5	19.75	-1.5	18.25	66.83	2

LTE BAND CA_41C 10M+20M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39705	2501.5	39849	2515.9	22.64	-1.5	21.14	130.02	2
40526	2583.6	40670	2598	22.47	-1.5	20.97	125.03	2
41346	2665.6	41490	2680	21.99	-1.5	20.49	111.94	2
LTE BAND CA_41C 10M+20M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39705	2501.5	39849	2515.9	21.76	-1.5	20.26	106.17	2
40526	2583.6	40670	2598	21.78	-1.5	20.28	106.66	2
41346	2665.6	41490	2680	21.16	-1.5	19.66	92.47	2
LTE BAND CA_41C 10M+20M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39705	2501.5	39849	2515.9	20.35	-1.5	18.85	76.74	2
40526	2583.6	40670	2598	20.16	-1.5	18.66	73.45	2
41346	2665.6	41490	2680	19.76	-1.5	18.26	66.99	2

LTE BAND CA_41C 20M+10M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39750	2506	39894	2520.4	22.66	-1.5	21.16	130.62	2
40571	2588.1	40715	2602.5	22.51	-1.5	21.01	126.18	2
41391	2670.1	41535	2684.5	22.05	-1.5	20.55	113.50	2
LTE BAND CA_41C 20M+10M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39750	2506	39894	2520.4	21.82	-1.5	20.32	107.65	2
40571	2588.1	40715	2602.5	21.78	-1.5	20.28	106.66	2
41391	2670.1	41535	2684.5	21.09	-1.5	19.59	90.99	2
LTE BAND CA_41C 20M+10M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39750	2506	39894	2520.4	20.3	-1.5	18.80	75.86	2
40571	2588.1	40715	2602.5	20.19	-1.5	18.69	73.96	2
41391	2670.1	41535	2684.5	19.73	-1.5	18.23	66.53	2

LTE BAND CA_41C 15M+20M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39728	2503.8	39899	2520.9	22.63	-1.5	21.13	129.72	2
40523	2583.3	40694	2600.4	22.5	-1.5	21.00	125.89	2
41319	2662.9	41490	2680	22.05	-1.5	20.55	113.50	2
LTE BAND CA_41C 15M+20M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39728	2503.8	39899	2520.9	21.79	-1.5	20.29	106.91	2
40523	2583.3	40694	2600.4	21.77	-1.5	20.27	106.41	2
41319	2662.9	41490	2680	21.09	-1.5	19.59	90.99	2
LTE BAND CA_41C 15M+20M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39728	2503.8	39899	2520.9	20.36	-1.5	18.86	76.91	2
40523	2583.3	40694	2600.4	20.19	-1.5	18.69	73.96	2
41319	2662.9	41490	2680	19.71	-1.5	18.21	66.22	2

LTE BAND CA_41C 20M+15M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39750	2506	39921	2523.1	22.68	-1.5	21.18	131.22	2
40546	2585.6	40717	2602.7	22.55	-1.5	21.05	127.35	2
41341	2665.1	41512	2682.2	22.07	-1.5	20.57	114.02	2
LTE BAND CA_41C 20M+15M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39750	2506	39921	2523.1	21.81	-1.5	20.31	107.40	2
40546	2585.6	40717	2602.7	21.78	-1.5	20.28	106.66	2
41341	2665.1	41512	2682.2	21.15	-1.5	19.65	92.26	2
LTE BAND CA_41C 20M+15M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39750	2506	39921	2523.1	20.37	-1.5	18.87	77.09	2
40546	2585.6	40717	2602.7	20.24	-1.5	18.74	74.82	2
41341	2665.1	41512	2682.2	19.73	-1.5	18.23	66.53	2

LTE BAND CA_41C 20M+20M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39750	2506	39948	2525.8	22.71	-1.5	21.21	132.13	2
40521	2583.1	40719	2602.9	22.55	-1.5	21.05	127.35	2
41292	2660.2	41490	2680	22.07	-1.5	20.57	114.02	2
LTE BAND CA_41C 20M+20M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39750	2506	39948	2525.8	21.84	-1.5	20.34	108.14	2
40521	2583.1	40719	2602.9	21.79	-1.5	20.29	106.91	2
41292	2660.2	41490	2680	21.17	-1.5	19.67	92.68	2
LTE BAND CA_41C 20M+20M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
39750	2506	39948	2525.8	20.37	-1.5	18.87	77.09	2
40521	2583.1	40719	2602.9	20.24	-1.5	18.74	74.82	2
41292	2660.2	41490	2680	19.77	-1.5	18.27	67.14	2

LTE BAND CA_42C

LTE BAND CA_42C 5M+20M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42123	3453.3	42240	3465.0	22.48	-1.3	21.18	131.22	23
42498	3490.8	42615	3502.5	22.62	-1.3	21.32	135.52	23
42873	3528.3	42990	3540.0	22.47	-1.3	21.17	130.92	23
LTE BAND CA_42C 5M+20M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42123	3453.3	42240	3465.0	21.72	-1.3	20.42	110.15	23
42498	3490.8	42615	3502.5	21.66	-1.3	20.36	108.64	23
42873	3528.3	42990	3540.0	21.63	-1.3	20.33	107.89	23
LTE BAND CA_42C 5M+20M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42123	3453.3	42240	3465.0	20.16	-1.3	18.86	76.91	23
42498	3490.8	42615	3502.5	20.01	-1.3	18.71	74.30	23
42873	3528.3	42990	3540.0	20.07	-1.3	18.77	75.34	23

LTE BAND CA_42C 20M+5M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42190	3460.0	42307	3471.7	22.42	-1.3	21.12	129.42	23
42565	3497.5	42682	3509.2	22.58	-1.3	21.28	134.28	23
42940	3535.0	43057	3546.7	22.49	-1.3	21.19	131.52	23
LTE BAND CA_42C 20M+5M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42190	3460.0	42307	3471.7	21.67	-1.3	20.37	108.89	23
42565	3497.5	42682	3509.2	21.64	-1.3	20.34	108.14	23
42940	3535.0	43057	3546.7	21.68	-1.3	20.38	109.14	23
LTE BAND CA_42C 20M+5M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42190	3460.0	42307	3471.7	20.19	-1.3	18.89	77.45	23
42565	3497.5	42682	3509.2	20.04	-1.3	18.74	74.82	23
42940	3535.0	43057	3546.7	20.09	-1.3	18.79	75.68	23

LTE BAND CA_42C 10M+20M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42145	3455.5	42289	3469.9	22.48	-1.3	21.18	131.22	23
42496	3490.6	42640	3505.0	22.62	-1.3	21.32	135.52	23
42846	3525.6	42990	3540.0	22.43	-1.3	21.13	129.72	23
LTE BAND CA_42C 10M+20M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42145	3455.5	42289	3469.9	21.72	-1.3	20.42	110.15	23
42496	3490.6	42640	3505.0	21.66	-1.3	20.36	108.64	23
42846	3525.6	42990	3540.0	21.68	-1.3	20.38	109.14	23
LTE BAND CA_42C 10M+20M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42145	3455.5	42289	3469.9	20.16	-1.3	18.86	76.91	23
42496	3490.6	42640	3505.0	20.07	-1.3	18.77	75.34	23
42846	3525.6	42990	3540.0	20.09	-1.3	18.79	75.68	23

LTE BAND CA_42C 20M+10M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42190	3460.0	42334	3474.4	22.47	-1.3	21.17	130.92	23
42541	3495.1	42685	3509.5	22.61	-1.3	21.31	135.21	23
42891	3530.1	43035	3544.5	22.43	-1.3	21.13	129.72	23
LTE BAND CA_42C 20M+10M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42190	3460.0	42334	3474.4	21.71	-1.3	20.41	109.90	23
42541	3495.1	42685	3509.5	21.66	-1.3	21.31	135.21	23
42891	3530.1	43035	3544.5	21.63	-1.3	21.13	129.72	23
LTE BAND CA_42C 20M+10M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42190	3460.0	42334	3474.4	20.13	-1.3	18.83	76.38	23
42541	3495.1	42685	3509.5	20.07	-1.3	18.77	75.34	23
42891	3530.1	43035	3544.5	20.12	-1.3	18.82	76.21	23

LTE BAND CA_42C 15M+20M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42168	3457.8	42339	3474.9	22.45	-1.3	21.15	130.32	23
42493	3490.3	42664	3507.4	22.57	-1.3	21.27	133.97	23
42819	3522.9	42990	3540.0	22.49	-1.3	21.19	131.52	23
LTE BAND CA_42C 15M+20M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42168	3457.8	42339	3474.9	21.71	-1.3	20.41	109.90	23
42493	3490.3	42664	3507.4	21.69	-1.3	20.39	109.40	23
42819	3522.9	42990	3540.0	21.63	-1.3	20.33	107.89	23
LTE BAND CA_42C 15M+20M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42168	3457.8	42339	3474.9	20.13	-1.3	18.83	76.38	23
42493	3490.3	42664	3507.4	20.04	-1.3	18.74	74.82	23
42819	3522.9	42990	3540.0	20.12	-1.3	18.82	76.21	23

LTE BAND CA_42C 20M+15M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42190	3460.0	42361	3477.1	22.43	-1.3	21.13	129.72	23
42516	3492.6	42687	3509.7	22.59	-1.3	21.29	134.59	23
42841	3525.1	43012	3542.2	22.49	-1.3	21.19	131.52	23
LTE BAND CA_42C 20M+15M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42190	3460.0	42361	3477.1	21.67	-1.3	20.37	108.89	23
42516	3492.6	42687	3509.7	21.71	-1.3	20.41	109.90	23
42841	3525.1	43012	3542.2	21.72	-1.3	20.42	110.15	23
LTE BAND CA_42C 20M+15M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42190	3460.0	42361	3477.1	20.14	-1.3	18.84	76.56	23
42516	3492.6	42687	3509.7	20.09	-1.3	18.79	75.68	23
42841	3525.1	43012	3542.2	20.16	-1.3	18.86	76.91	23

LTE BAND CA_42C 20M+20M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42190	3460.0	42388	3479.8	22.5	-1.3	21.20	131.83	23
42491	3490.1	42689	3509.9	22.67	-1.3	21.37	137.09	23
42792	3520.2	42990	3540.0	22.57	-1.3	21.27	133.97	23
LTE BAND CA_42C 20M+20M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42190	3460.0	42388	3479.8	21.73	-1.3	20.43	110.41	23
42491	3490.1	42689	3509.9	21.79	-1.3	20.49	111.94	23
42792	3520.2	42990	3540.0	21.76	-1.3	20.46	111.17	23
LTE BAND CA_42C 20M+20M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
42190	3460.0	42388	3479.8	20.21	-1.3	18.91	77.80	23
42491	3490.1	42689	3509.9	20.13	-1.3	18.83	76.38	23
42792	3520.2	42990	3540.0	20.22	-1.3	18.92	77.98	23

REMARKS: ERP Output Power (dBm) = EIRP (dBm) -2.15(dB).

3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

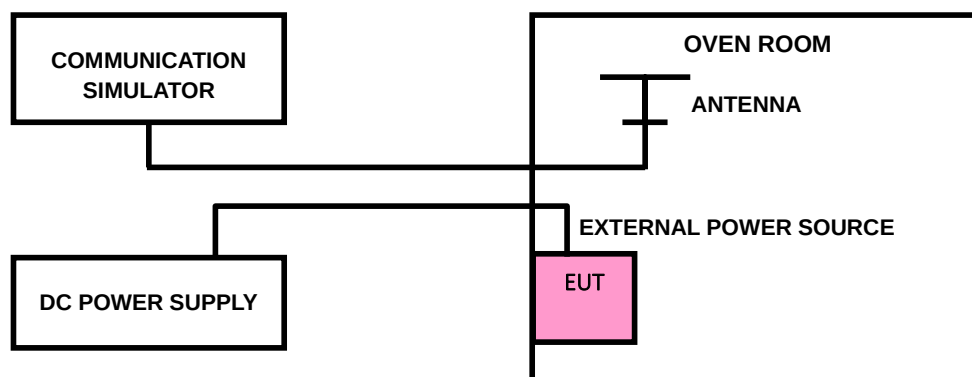
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

3.2.2 TEST PROCEDURE

- Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^{\circ}\text{C}$ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

NOTE: The frequency error was recorded frequency error from the communication simulator.

3.2.3 TEST SETUP



3.2.4 TEST RESULTS

Please Refer to Appendix Of this test report.

LTE BAND CA_7C

LTE BAND CA_7C channel and Frequency List					
BW(MHz)	Channel/Frequency(MHz)		Lowest	Middle	Highest
10+20	PCC	channel	20805	21006	21206
		Frequency	2505.5	2525.6	2545.6
	SCC	channel	20949	21150	21350
		Frequency	2519.9	2540	2560
15+10	PCC	channel	20825	21051	21277
		Frequency	2507.5	2530.1	2552.7
	SCC	channel	20945	21171	21397
		Frequency	2519.5	2542.1	2564.7
15+15	PCC	channel	20825	21025	21225
		Frequency	2507.5	2527.5	2547.5
	SCC	channel	20975	21175	21375
		Frequency	2522.5	2542.5	2562.5
15+20	PCC	channel	20828	21003	21179
		Frequency	2507.8	2525.3	2542.9
	SCC	channel	20999	21174	21350
		Frequency	2524.9	2542.4	2560
20+10	PCC	channel	20850	21051	21251
		Frequency	2510	2530.1	2550.1
	SCC	channel	20994	21195	21395
		Frequency	2524.4	2544.5	2564.5
20+15	PCC	channel	20850	21026	21201
		Frequency	2510	2527.6	2545.1
	SCC	channel	21021	21197	21372
		Frequency	2527.1	2544.7	2562.2
20+20	PCC	channel	20850	21001	21152
		Frequency	2510	2525.1	2540.2
	SCC	channel	21048	21199	21350
		Frequency	2529.8	2544.9	2560

LTE BAND CA_38C

LTE BAND CA_38C channel and Frequency List					
BW(MHz)	Channel/Frequency(MHz)		Lowest	Middle	Highest
15+15	PCC	channel	37825	37925	38025
		Frequency	2577.5	2587.5	2597.5
	SCC	channel	37975	38075	38175
		Frequency	2592.5	2602.5	2612.5
20+20	PCC	channel	37850	37901	37952
		Frequency	2580.0	2585.1	2590.2
	SCC	channel	38048	38099	38150
		Frequency	2599.8	2604.9	2610

LTE BAND CA_41C

LTE BAND CA_41C channel and Frequency List					
BW(MHz)	Channel/Frequency(MHz)		Lowest	Middle	Highest
5+20	PCC	channel	39683	40528	41373
		Frequency	2499.3	2583.8	2668.3
	SCC	channel	39800	40645	41490
		Frequency	2511	2595.5	2680
10+15	PCC	channel	39703	40549	41395
		Frequency	2501.3	2585.9	2670.5
	SCC	channel	39823	40669	41515
		Frequency	2513.3	2597.9	2682.5
10+20	PCC	channel	39705	40526	41346
		Frequency	2501.5	2583.6	2665.6
	SCC	channel	39849	40670	41490
		Frequency	2515.9	2598.0	2680
15+10	PCC	channel	39725	40571	41417
		Frequency	2503.5	2588.1	2672.7
	SCC	channel	39845	40691	41537
		Frequency	2515.5	2600.1	2684.7

15+15	PCC	channel	39725	40545	41365
		Frequncy	2503.5	2585.5	2667.5
	SCC	channel	39875	40695	41515
		Frequncy	2518.5	2600.5	2682.5
15+20	PCC	channel	39728	40523	41319
		Frequncy	2503.8	2583.3	2662.9
	SCC	channel	39899	40694	41490
		Frequncy	2520.9	2600.4	2680
20+5	PCC	channel	39750	40595	41440
		Frequncy	2506	2590.5	2675
	SCC	channel	39867	40712	41557
		Frequncy	2517.7	2602.2	2686.7
20+10	PCC	channel	39750	40571	41391
		Frequncy	2506	2588.1	2670.1
	SCC	channel	39894	40715	41535
		Frequncy	2520.4	2602.5	2684.5
20+15	PCC	channel	39750	40546	41341
		Frequncy	2506	2585.6	2665.1
	SCC	channel	39921	40717	41512
		Frequncy	2523.1	2602.7	2682.2
20+20	PCC	channel	39750	40521	41292
		Frequncy	2506	2583.1	2660.2
	SCC	channel	39948	40719	41490
		Frequncy	2525.8	2602.9	2680

LTE BAND CA_42C

LTE BAND CA_42C channel and Frequency List					
BW(MHz)	Channel/Frequency(MHz)		Lowest	Middle	Highest
5+20	PCC	channel	42123	42498	42873
		Frequency	3453.3	3490.8	3528.3
	SCC	channel	42240	42615	42990
		Frequency	3465	3502.5	3540
10+20	PCC	channel	42145	42496	42846
		Frequency	3455.5	3490.6	3525.6
	SCC	channel	42289	42640	42990
		Frequency	3469.9	3505	3540
15+20	PCC	channel	42168	42493	42819
		Frequency	3457.8	3490.3	3522.9
	SCC	channel	42339	42664	42990
		Frequency	3474.9	3507.4	3540
20+5	PCC	channel	41290	42565	42940
		Frequency	3460	3497.5	3535
	SCC	channel	42307	42682	43057
		Frequency	3471.7	3509.2	3546.7
20+10	PCC	channel	42190	42541	42891
		Frequency	3460	3495.1	3530.1
	SCC	channel	42334	42685	43035
		Frequency	3474.4	3509.5	3544.5
20+15	PCC	channel	42190	42516	42841
		Frequency	3460	3492.6	3525.1
	SCC	channel	42361	42687	43012
		Frequency	3477.1	3509.7	3542.2
20+20	PCC	channel	42190	42491	42792
		Frequency	3460	3490.1	3520.2
	SCC	channel	42388	42689	42990
		Frequency	3479.8	3509.9	3540

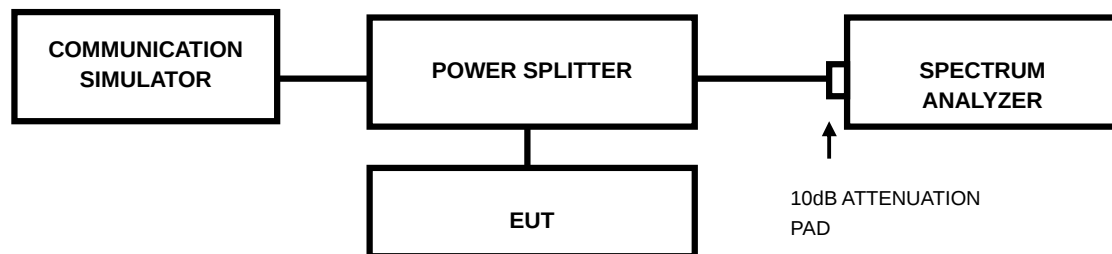
Note: VL = Low voltage(3.6V); VN/NV = Normal voltage(3.7V); VH = High voltage(4.2V);
NT = Normal temperature (25°C)

3.3 OCCUPIED BANDWIDTH MEASUREMENT

3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

3.3.2 TEST SETUP



3.3.3 TEST PROCEDURES

- The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.



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3.3.4 TEST RESULTS

Please Refer to Appendix Of this test report.

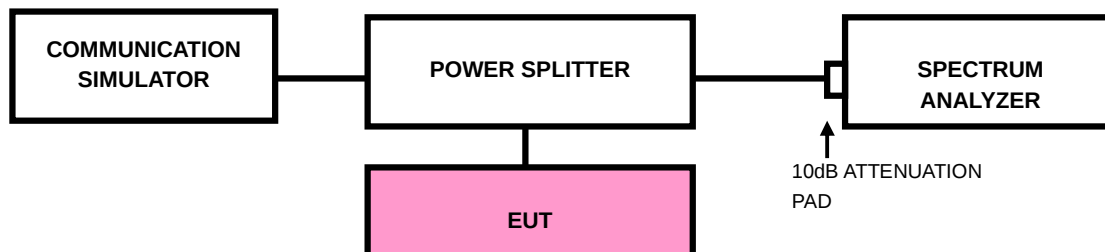
3.4 BAND EDGE MEASUREMENT

3.4.1 LIMITS OF BAND EDGE MEASUREMENT

According to FCC 27.53(m)(4) specified that For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. For mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed.

According to FCC Part 27.53 (n)(2)For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed-13 dBm/MHz.Compliance with this paragraph is based on the use of measurement instrumentation employing a lresolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz.

3.4.2 TEST SETUP



3.4.3 TEST PROCEDURES

- a) Connect the transmitter to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
- b) Tune the analyzer to the nominal center frequency of the emission bandwidth (EBW).
- c) Set the resolution bandwidth (RBW) $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
- d) Beyond the 1MHz band from the band edge, RBW=1MHz was used.
- e) Set the video bandwidth (VBW) to $\geq 3 \times$ RBW.
- f) Select the average power (RMS) display detector.
- g) Set the number of measurement points to ≥ 1001 .
- h) Use auto-coupled sweep time.
- i) Perform the measurement over an interval of time when the transmission is continuous and at its maximum power level.
- j) The RF fundamental frequency should be excluded against the limit line in the operating frequency band and use RBW is 10KHz or 100KHz.
- k) Record the max trace plot into the test report.

3.4.4 TEST RESULTS

Please Refer to Appendix Of this test report.

3.5 CONDUCTED SPURIOUS EMISSIONS

3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm .

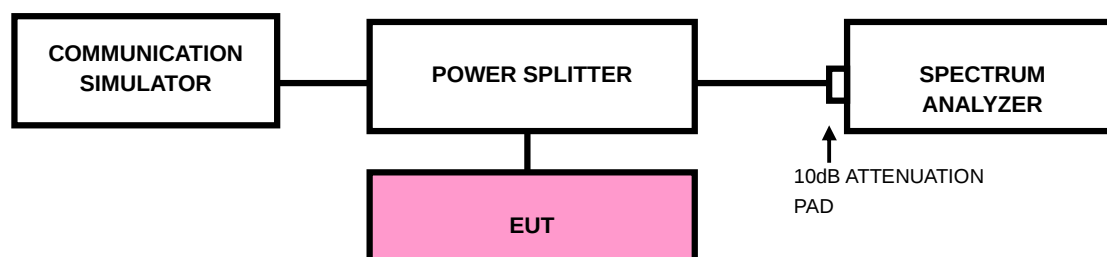
For: LTE Band7C/Band41C

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $55 + 10 \log_{10}(P)$ dB. The limit of emission is equal to -25dBm .

3.5.2 TEST PROCEDURE

- a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- b. Measuring frequency range is from 9kHz up to a frequency including its 10th harmonic. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

3.5.3 TEST SETUP





Test Report No.: W7L-P23100014RF08

3.5.4 TEST RESULTS

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

Please Refer to Appendix Of this test report.

3.6 RADIATED EMISSION MEASUREMENT

3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm .

For: LTE Band7/ Band41

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $55 + 10 \log_{10}(P)$ dB. The limit of emission is equal to -25dBm .

3.6.2 TEST PROCEDURES

- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- b. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value " of step a. Record the power level of S.G.
- c. $\text{EIRP} = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$.
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole,
 $\text{E.R.P power} = \text{E.I.P.R power} - 2.15\text{dBi}$.

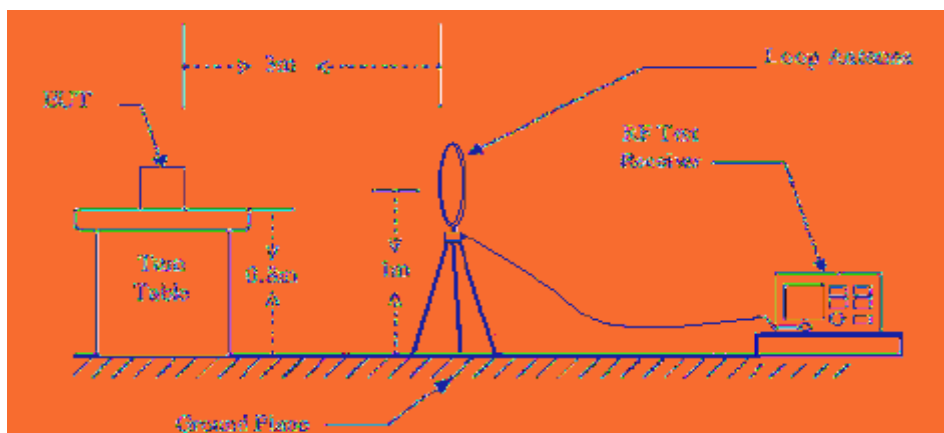
NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

3.6.3 DEVIATION FROM TEST STANDARD

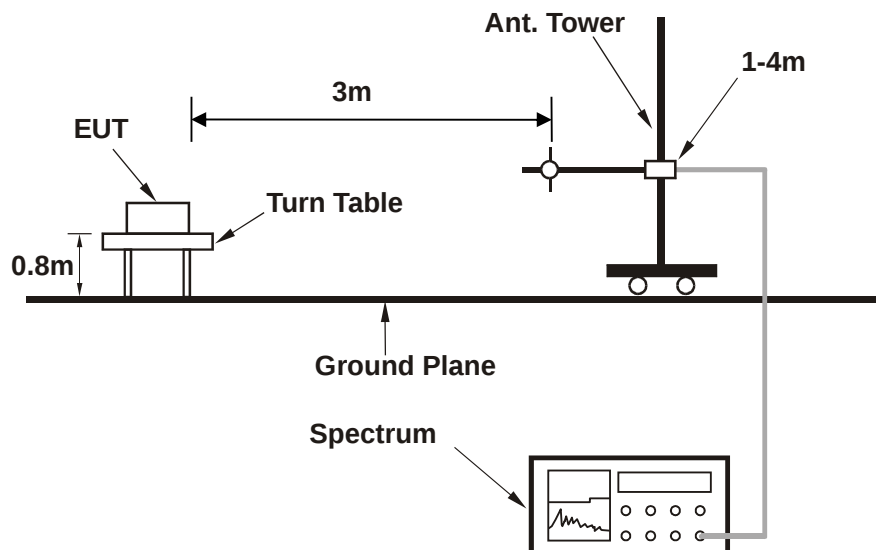
No deviation

3.6.4 TEST SETUP

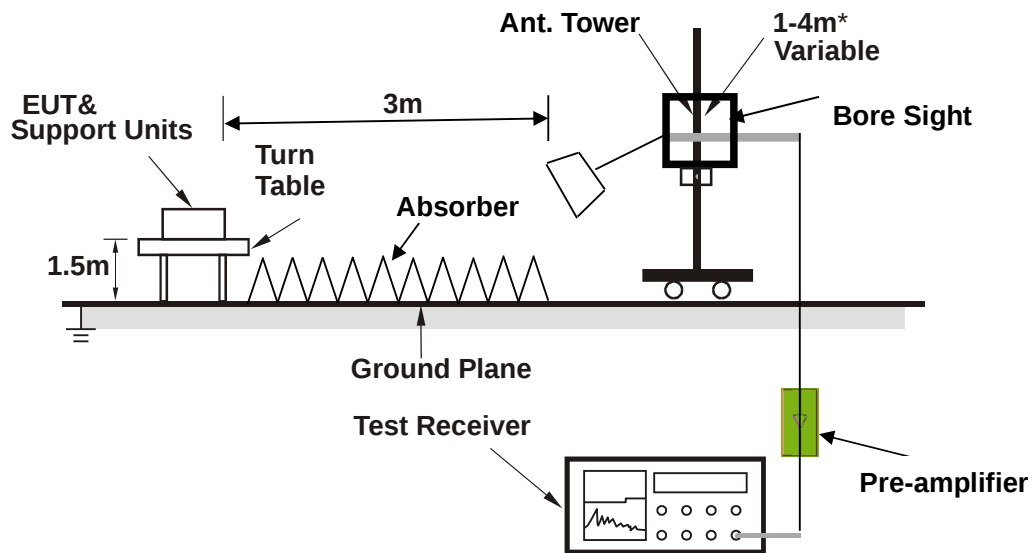
< Frequency Range below 30MHz >



< Frequency Range 30MHz~1GHz >



<Frequency Range above 1GHz>



Note: Above 1G is a directional antenna depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

3.6.5 TEST RESULTS

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

BELOW 1GHz WORST-CASE DATA

30 MHz – 1GHz data:

LTE Band CA_38C

CHANNEL BANDWIDTH: (15+15) MHz / QPSK

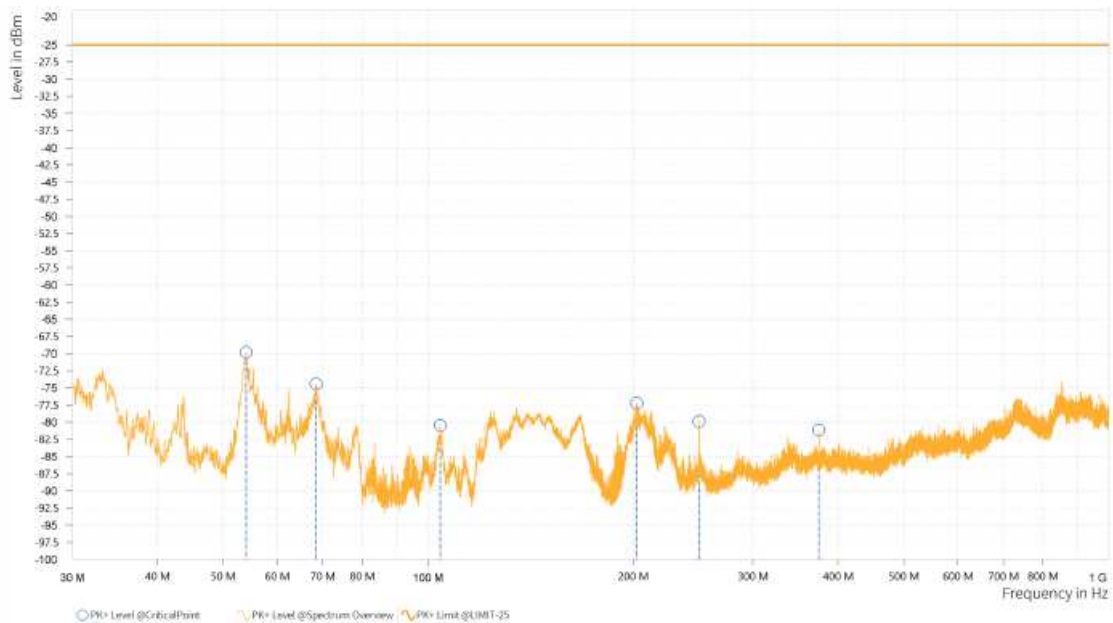
MODE	TX channel PCC 37925	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 38075		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	33.550	-78.64	-25.00	53.64	-9.38	H	5.1	1
1	53.850	-70.87	-25.00	45.87	-6.95	H	359.1	1
1	125.050	-77.01	-25.00	52.01	-14.42	H	1	1
1	224.100	-72.88	-25.00	47.88	-8.30	H	0.9	2
1	351.700	-79.18	-25.00	54.18	-7.33	H	357.6	1
2	670.046	-77.98	-25.00	52.98	-0.69	H	359.1	1



MODE	TX channel PCC 37925	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 38075		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	54.050	-69.82	-25.00	44.82	-6.44	V	355.4	2
1	68.450	-74.45	-25.00	49.45	-2.66	V	1	1
1	104.250	-80.48	-25.00	55.48	-9.00	V	2.3	2
1	202.500	-77.23	-25.00	52.23	-10.86	V	359	2
1	250.050	-79.88	-25.00	54.88	-9.48	V	359	2
1	375.050	-81.14	-25.00	56.14	-5.96	V	1	1



ABOVE 1GHz

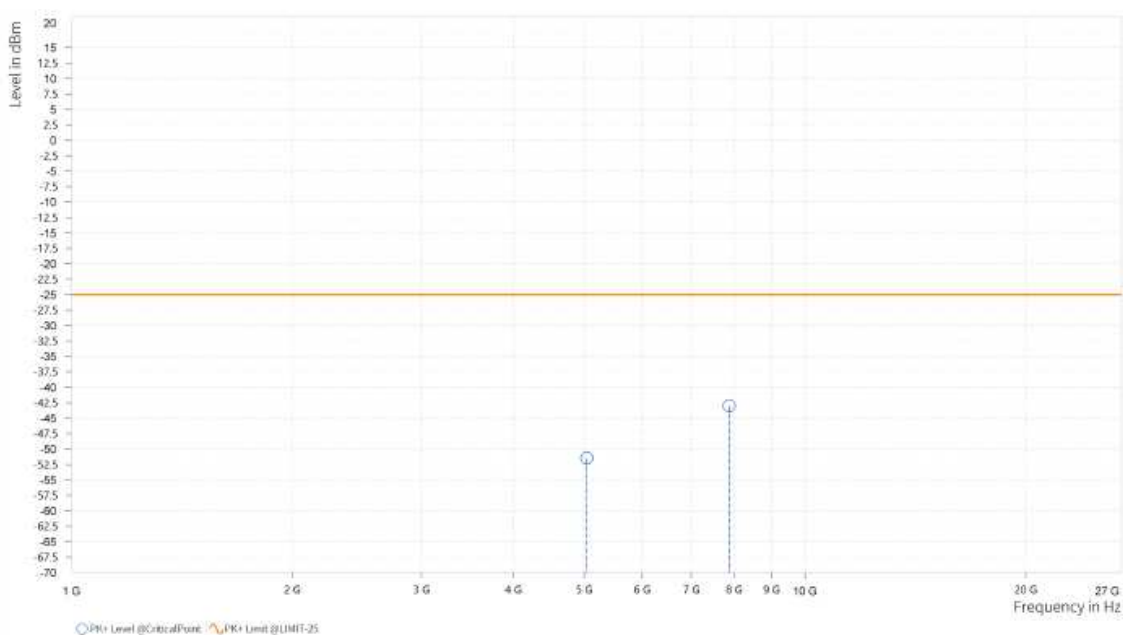
Note: For higher frequency, the emission is too low to be detected.

LTE Band CA_7C

CHANNEL BANDWIDTH: 10 MHz + 20MHz

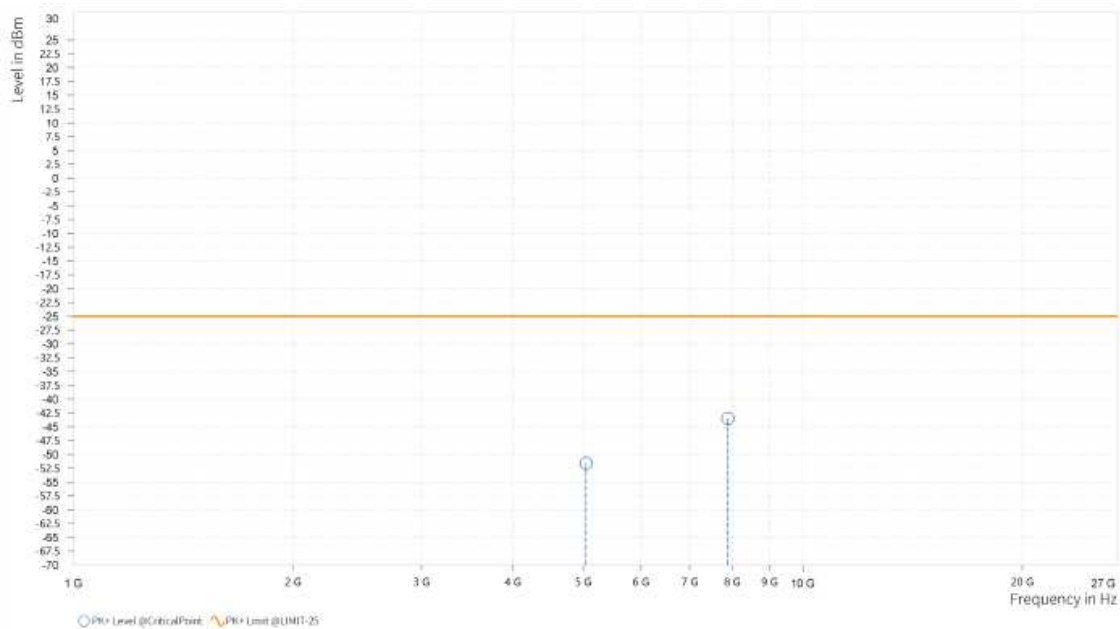
MODE	TX channel PCC 21006	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21150		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,042.500	-51.45	-25.00	26.45	25.66	H	208.8	1
5	7,884.000	-43.00	-25.00	18.00	33.01	H	359	2



MODE	TX channel PCC 21006	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21150		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

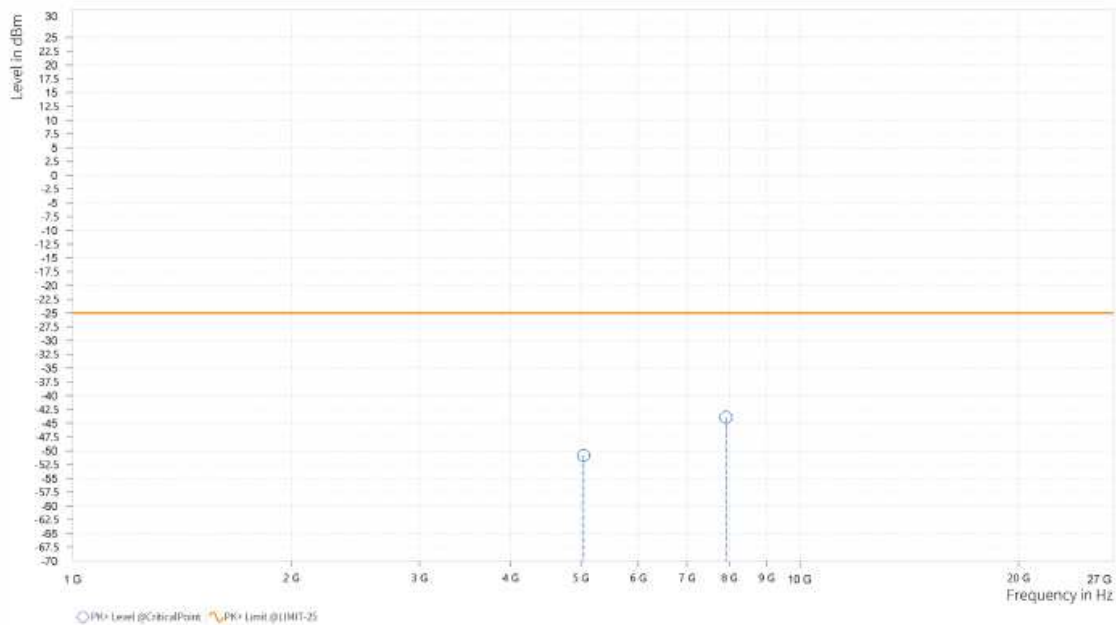
Eq	Frequency [MHz]	PL Limit [dBm]	PR Limit [dBm]	PR Margin [dB]	Correction [dB]	Polarization	Antenna Azimuth [deg]	Antenna Height [m]
4	5.893.000	-51.83	-25.00	26.83	25.40	V	184.8	1
5	7.880.000	-43.47	-25.00	18.47	33.05	V	1	1



CHANNEL BANDWIDTH: 15MHz + 10MHz

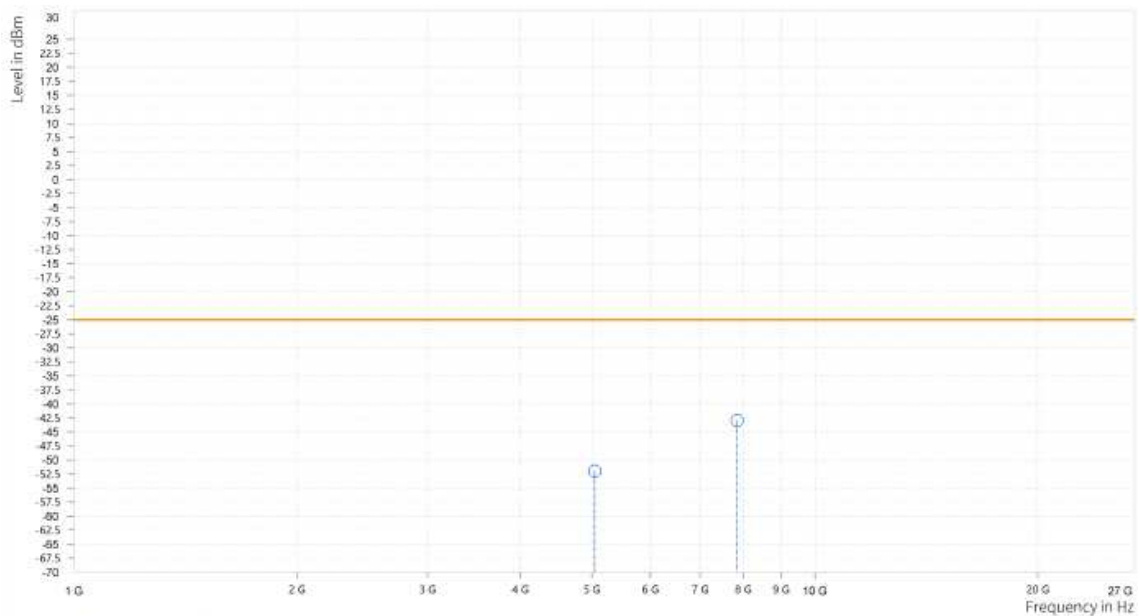
MODE	TX channel PCC 21051	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21171		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,046.000	-50.88	-25.00	25.88	25.66	H	198	1
5	7,918.000	-43.95	-25.00	18.95	33.01	H	281.7	1



MODE	TX channel PCC 21051	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21171		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

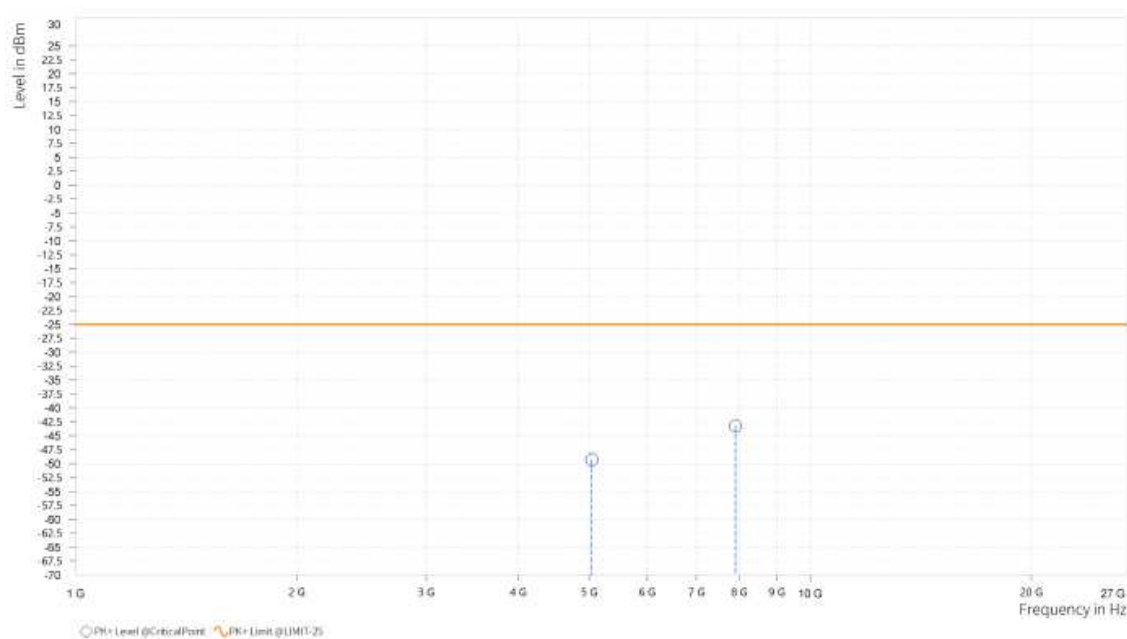
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,045.500	-51.95	-25.00	26.95	25.49	V	1	1
5	7,856.000	-42.99	-25.00	17.99	33.06	V	359	2



CHANNEL BANDWIDTH: 15MHz + 15MHz

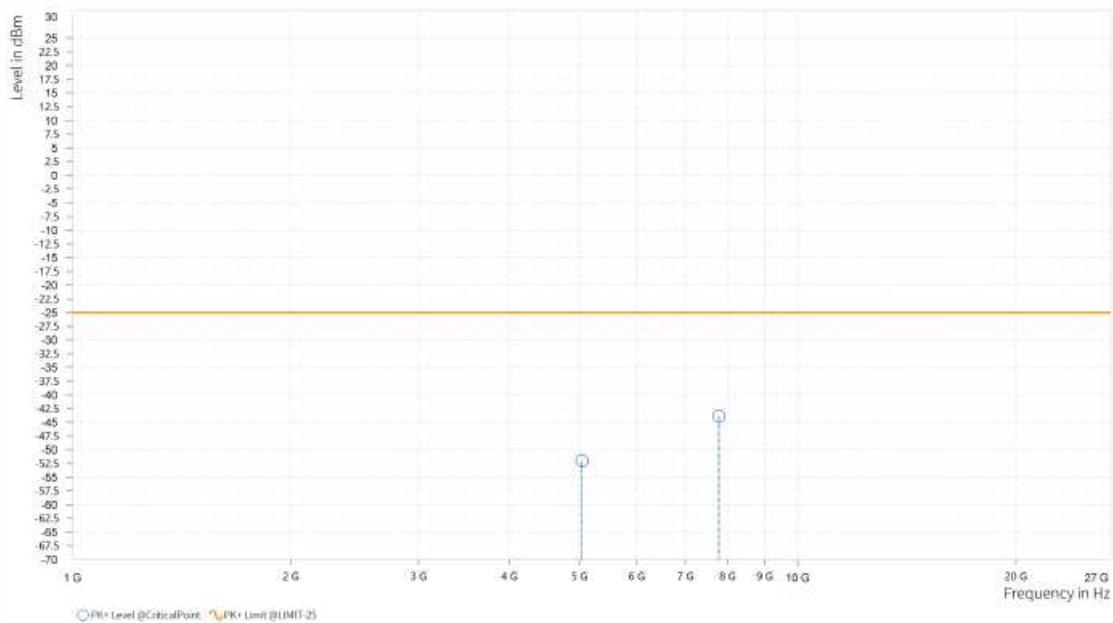
MODE	TX channel PCC 21025	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21175		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,041.500	-49.32	-25.00	24.32	25.65	H	359.1	1
5	7,908.500	-43.25	-25.00	18.25	33.01	H	359.1	1



MODE	TX channel PCC 21025	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21175		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

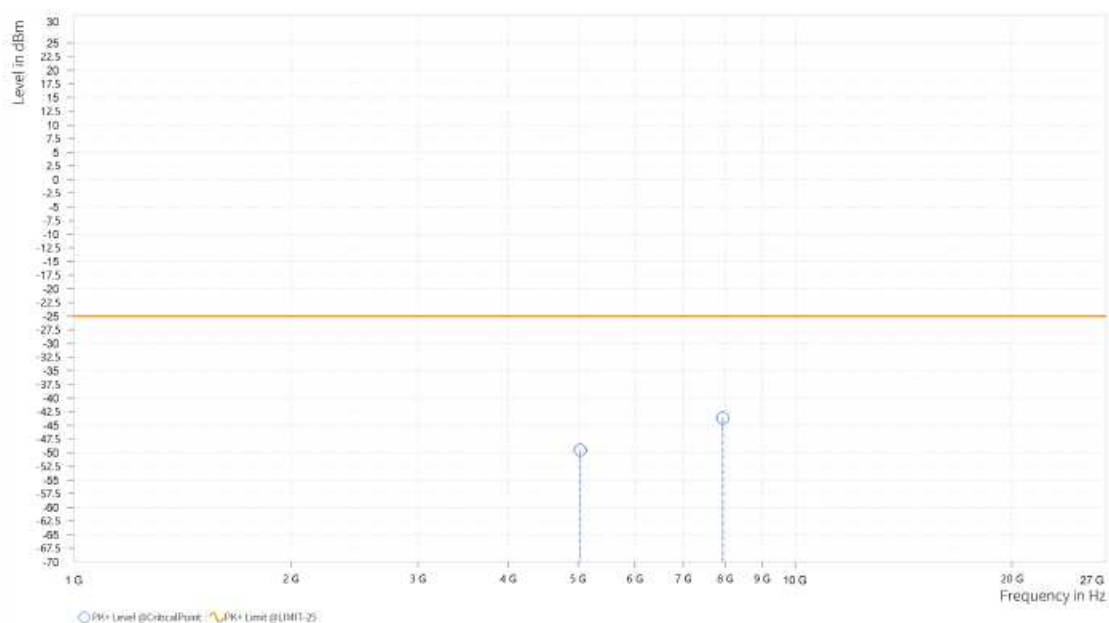
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,041.000	-52.02	-25.00	27.02	25.48	V	184.7	1
5	7,784.000	-43.89	-25.00	18.89	33.04	V	1	1



CHANNEL BANDWIDTH: 15MHz + 20MHz

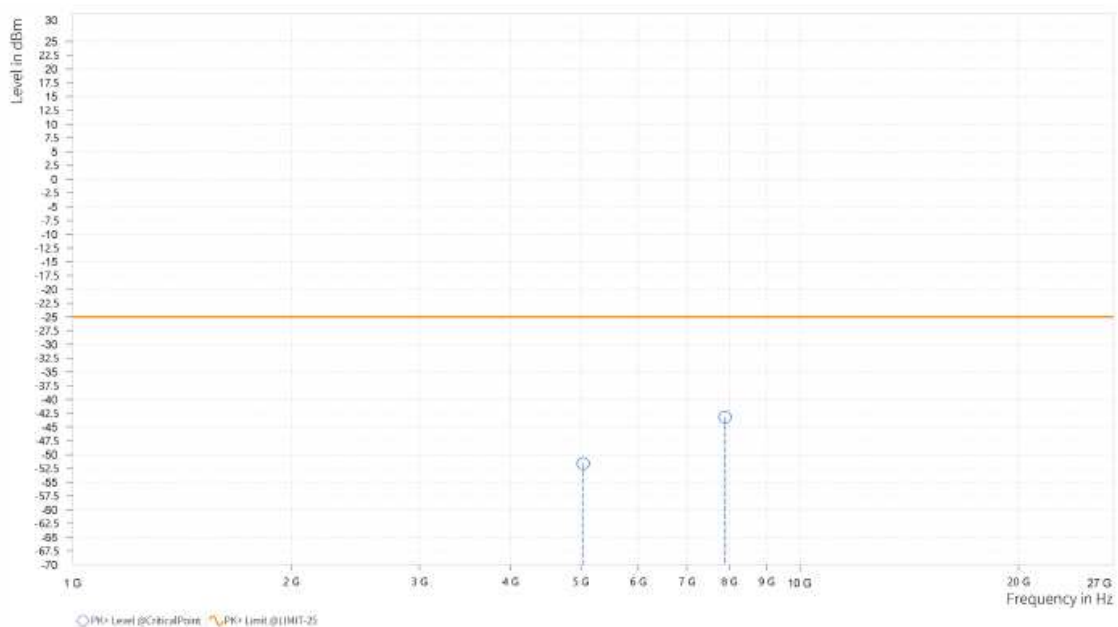
MODE	TX channel PCC 21003	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21174		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,037.500	-49.51	-25.00	24.51	25.65	H	1	1
5	7,939.000	-43.64	-25.00	18.64	32.99	H	77.1	2



MODE	TX channel PCC 21003	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21174		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

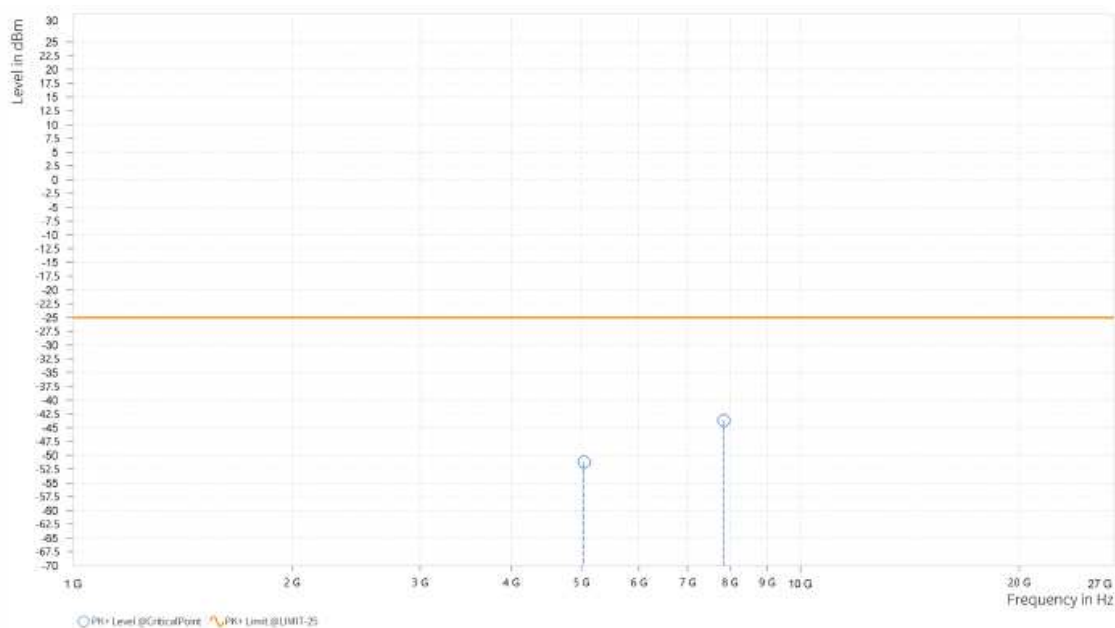
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,037.500	-51.60	-25.00	26.60	25.48	V	1	1
5	7,897.500	-43.17	-25.00	18.17	33.05	V	1	2



CHANNEL BANDWIDTH: 20MHz + 10MHz

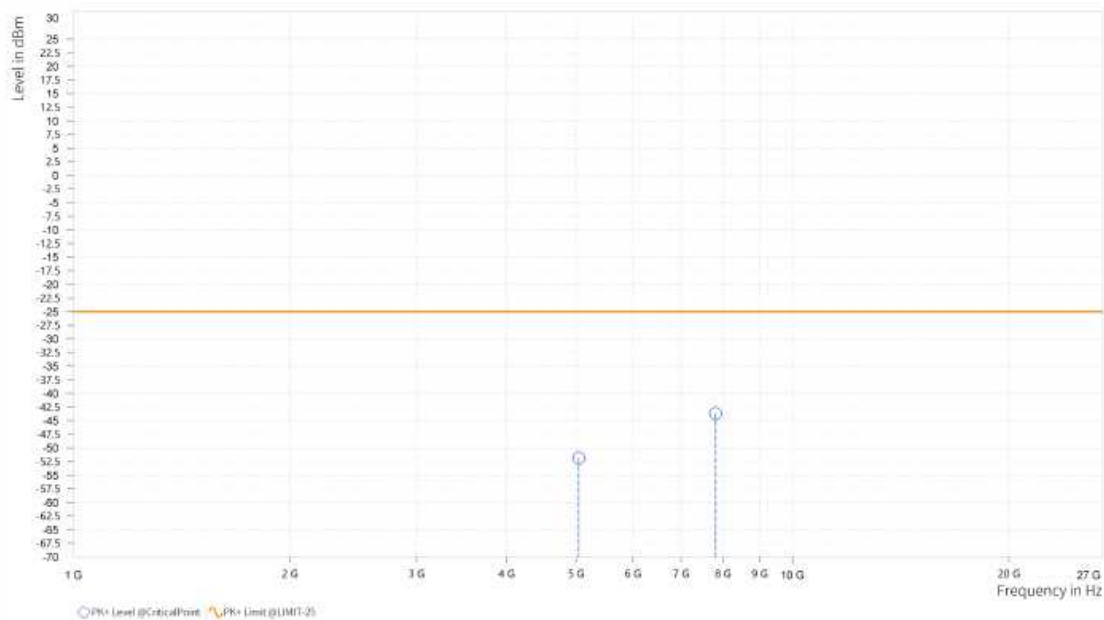
MODE	TX channel PCC 21051	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21195		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,042.500	-51.26	-25.00	26.26	25.66	H	359.1	1
5	7,846.000	-43.70	-25.00	18.70	32.97	H	359	2



MODE	TX channel PCC 21051	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21195		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

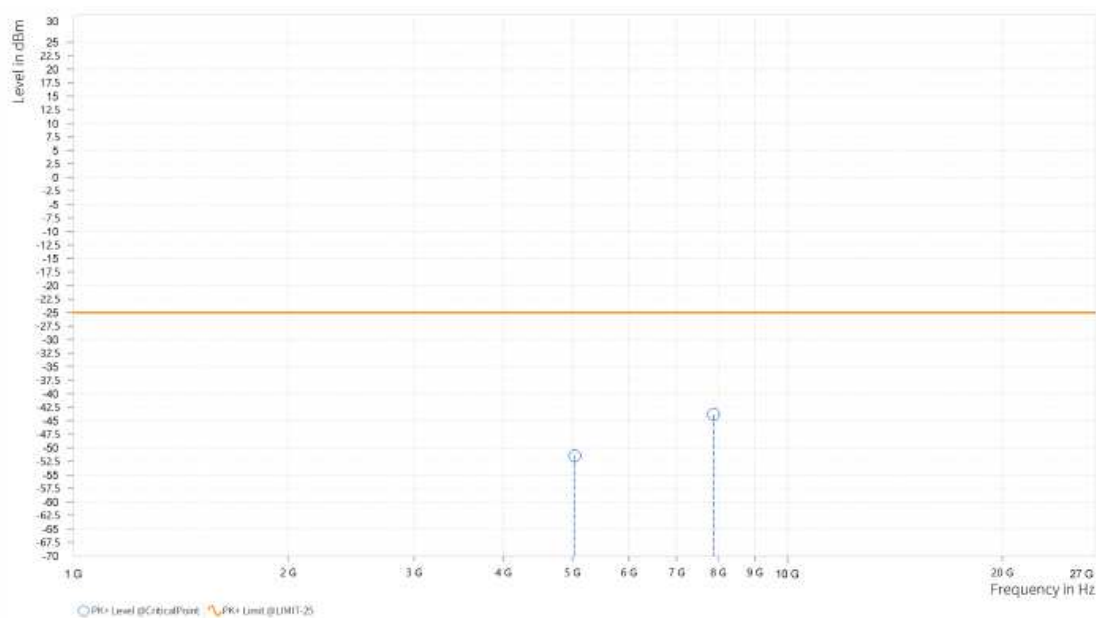
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,043.500	-51.88	-25.00	26.88	25.49	V	173.9	2
5	7,813.500	-43.69	-25.00	18.69	33.07	V	269.7	1



CHANNEL BANDWIDTH: 20MHz + 15MHz

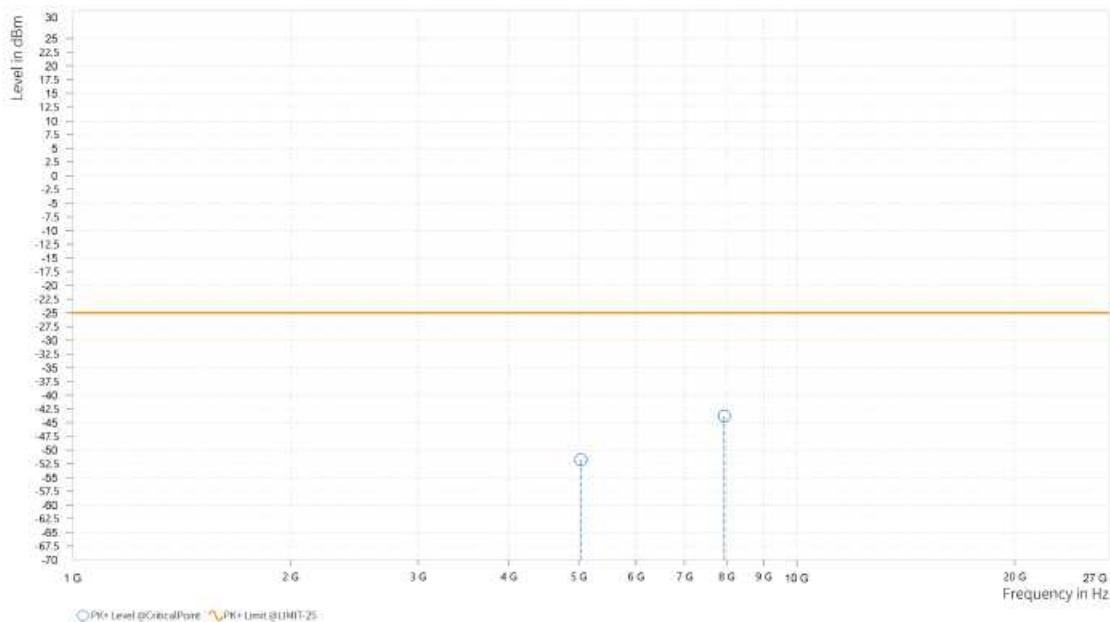
MODE	TX channel PCC 21026	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21197		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,036.500	-51.48	-25.00	26.48	25.65	H	359	1
5	7,884.000	-43.80	-25.00	18.80	33.01	H	1	1



MODE	TX channel PCC 21026	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21197		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

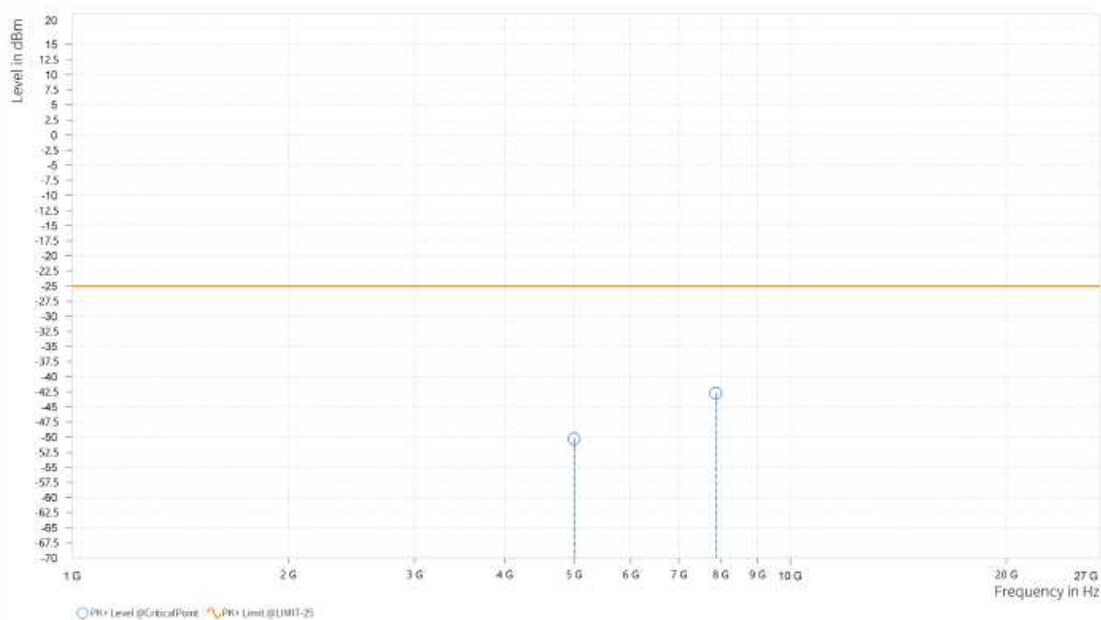
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,034.500	-51.75	-25.00	26.75	25.48	V	1	1
5	7,938.500	-43.77	-25.00	18.77	33.18	V	359	2



CHANNEL BANDWIDTH: 20MHz + 20MHz

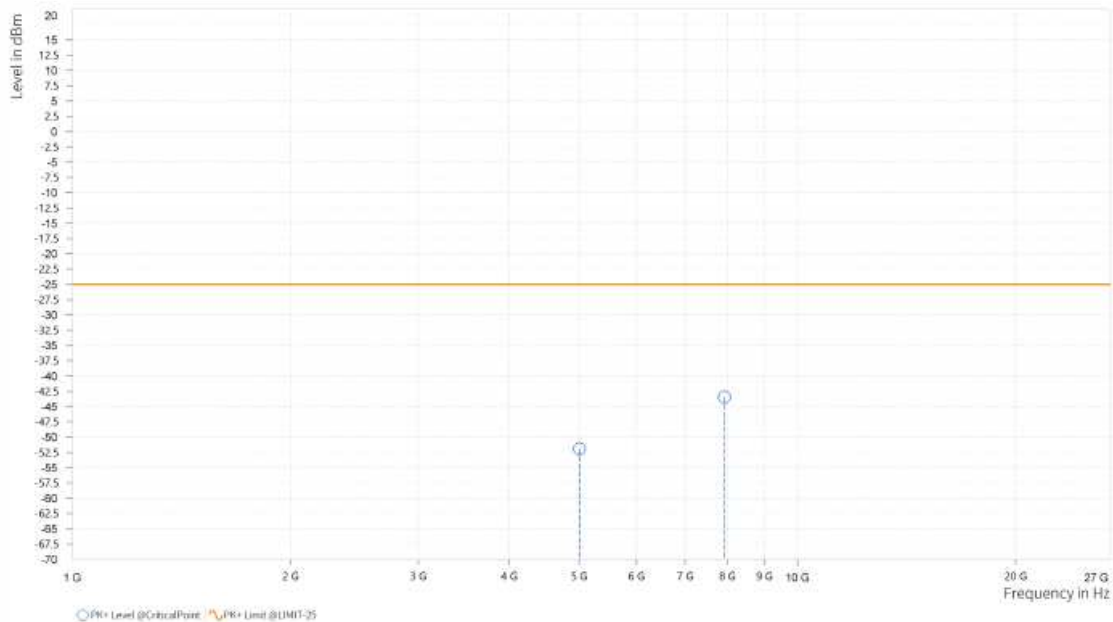
MODE	TX channel PCC 20850	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21048		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,003.000	-50.28	-25.00	25.28	25.52	H	359	2
5	7,878.500	-42.73	-25.00	17.73	33.00	H	268.6	1



MODE	TX channel PCC 20850	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21048		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

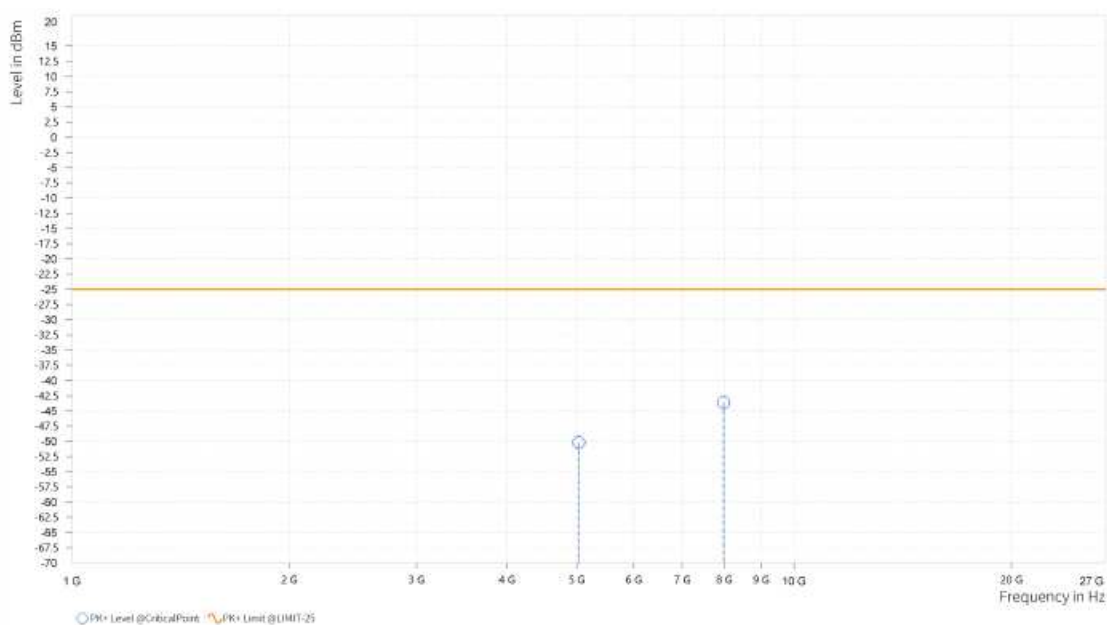
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,002.500	-51.89	-25.00	26.89	25.35	V	359	2
5	7,927.500	-43.45	-25.00	18.45	33.15	V	0.9	2



CHANNEL BANDWIDTH: 20MHz + 20MHz

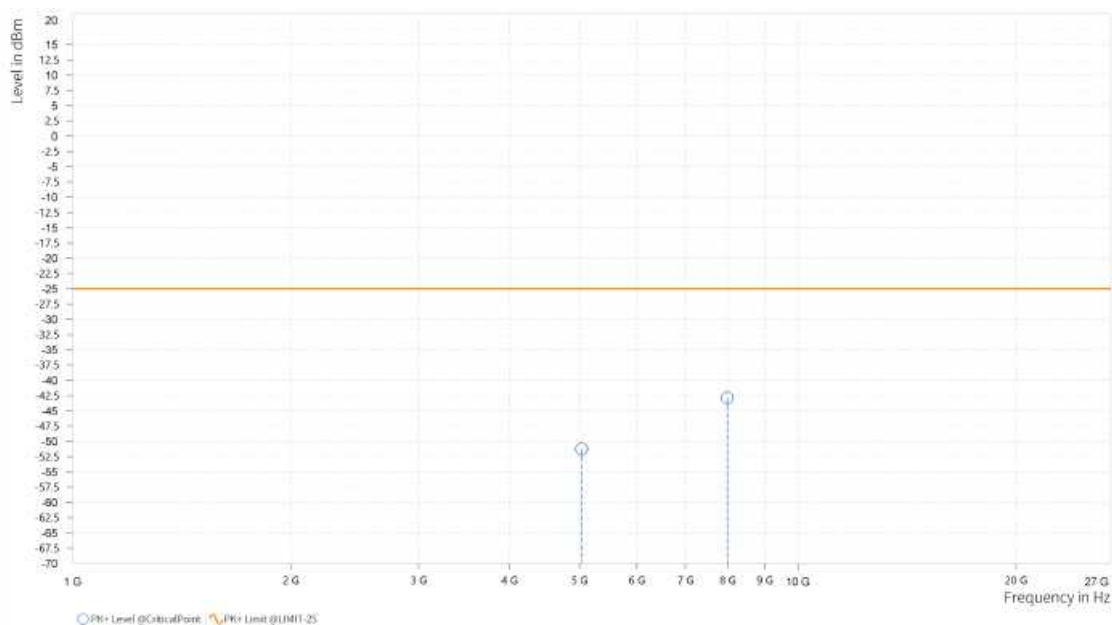
MODE	TX channel PCC 21001	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21199		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5.033.500	-50.20	-25.00	25.20	25.64	H	250	1
5	7.089.500	-43.69	-25.00	18.69	23.08	H	1	1



MODE	TX channel PCC 21001	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21199		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

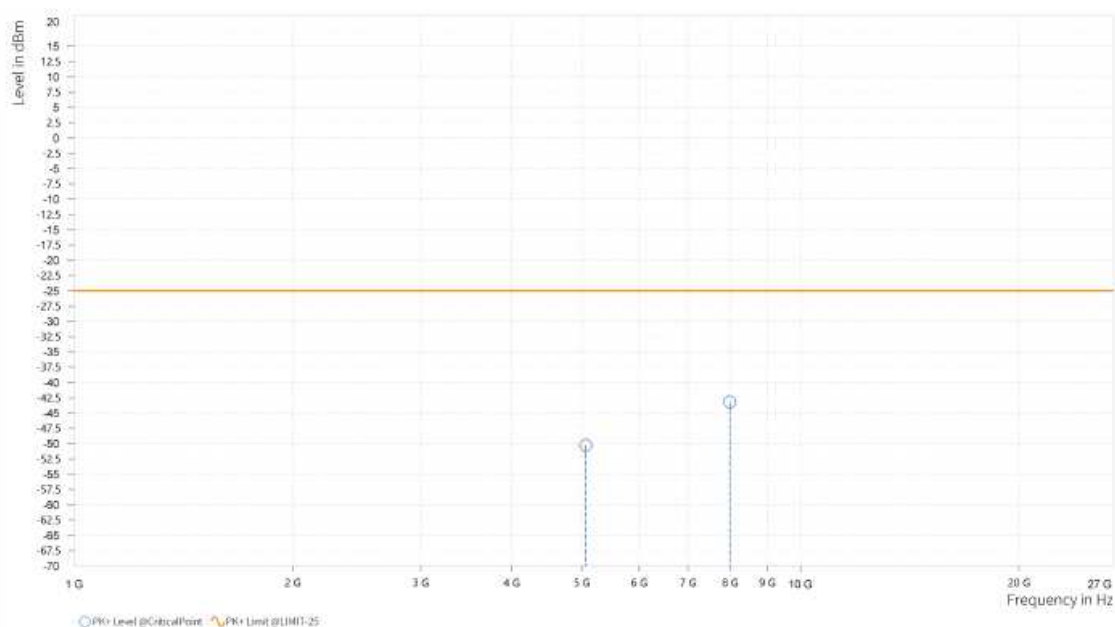
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,032.000	-51.27	-25.00	26.27	25.48	V	1	2
5	7,991.500	-42.90	-25.00	17.90	33.33	V	92.6	2



CHANNEL BANDWIDTH: 20MHz + 20MHz

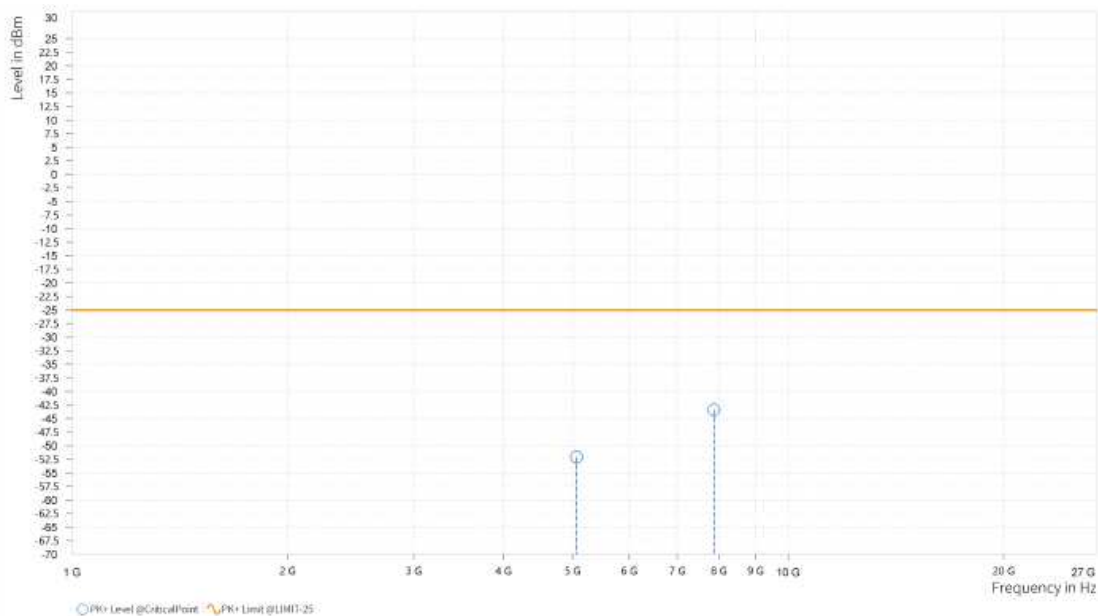
MODE	TX channel PCC 21152	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21350		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,062.500	-50.29	-25.00	25.29	25.70	H	1	1
5	7,992.000	-43.17	-25.00	18.17	33.11	H	359	2



MODE	TX channel PCC 21152	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 21350		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,062.000	-52.10	-25.00	27.10	25.60	V	1	1
5	7,878.000	-43.39	-25.00	18.39	33.05	V	1	1

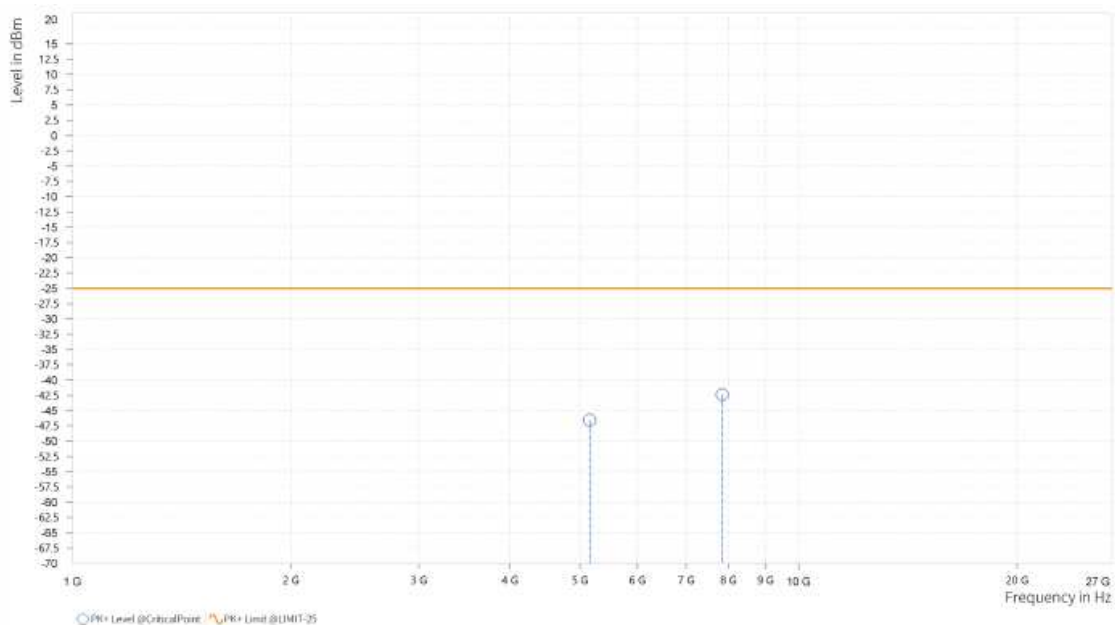


LTE CA_38C

CHANNEL BANDWIDTH: (15+15) MHz / QPSK

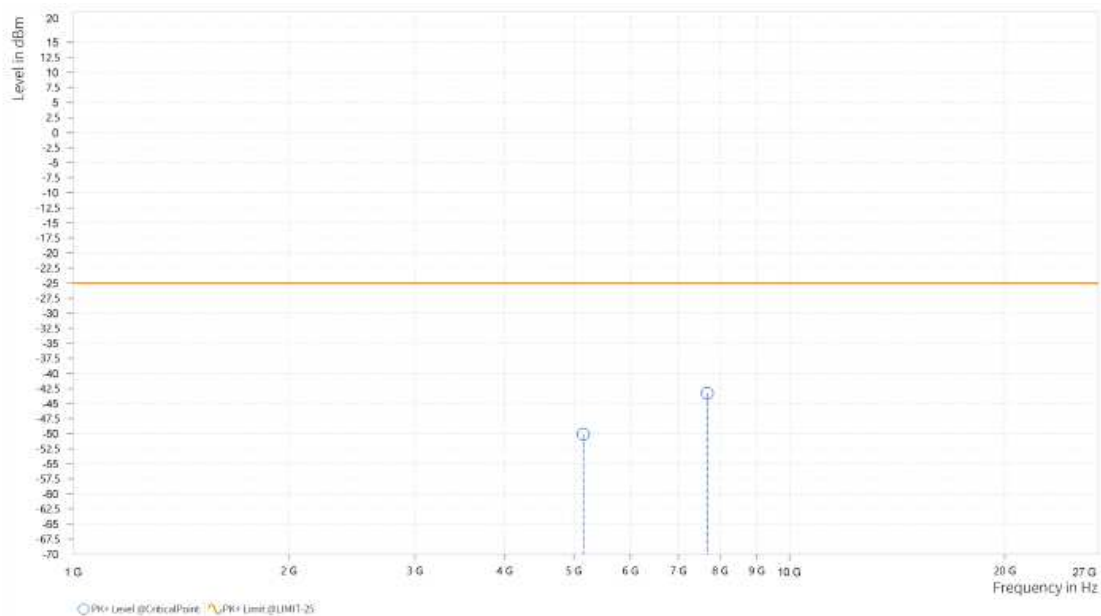
MODE	TX channel PCC 37825	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 37975		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,157.000	-46.57	-25.00	21.57	26.22	H	359.1	1
5	7,848.500	-42.38	-25.00	17.38	32.98	H	90.2	2



MODE	TX channel PCC 37825	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 37975		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

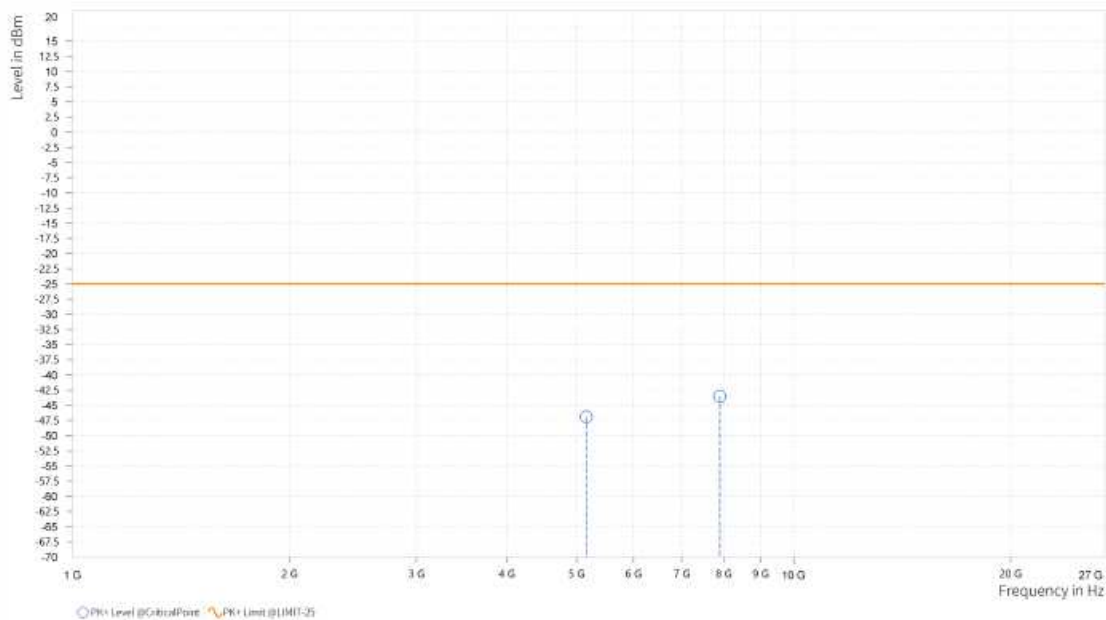
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,156.000	-50.09	-25.00	25.09	26.15	V	359	1
5	7,678.000	-43.29	-25.00	18.29	32.74	V	0.9	2



CHANNEL BANDWIDTH: (15+15) MHz / QPSK

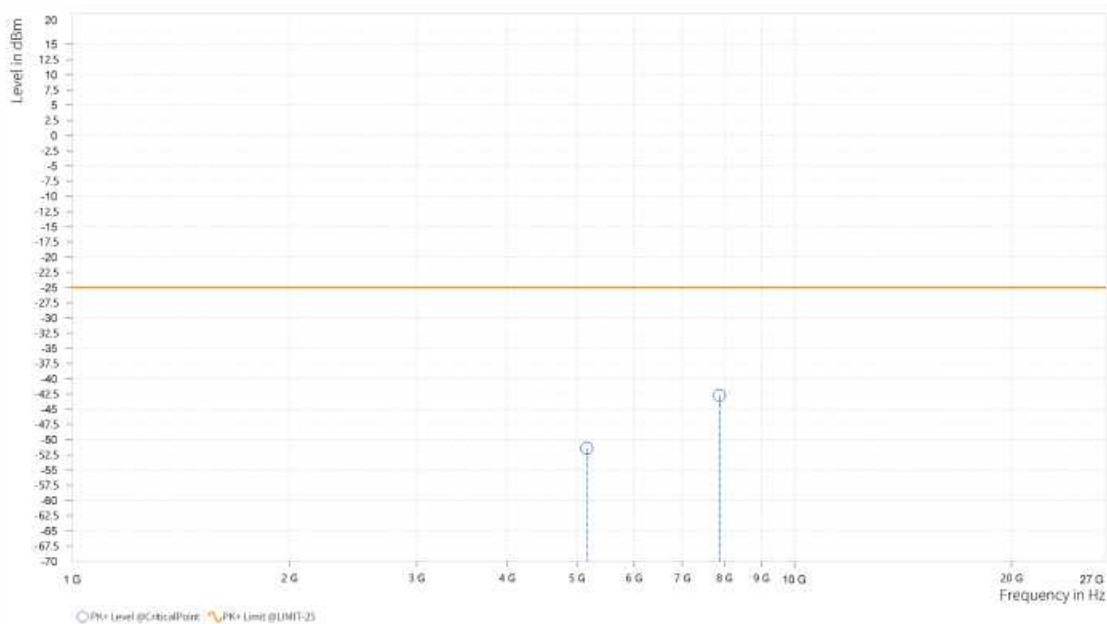
MODE	TX channel PCC 37925	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 38075		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,162.000	-46.87	-25.00	21.87	26.21	H	359	1
5	7,903.000	-43.54	-25.00	18.54	33.01	H	1	2



MODE	TX channel PCC 37925	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 38075		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

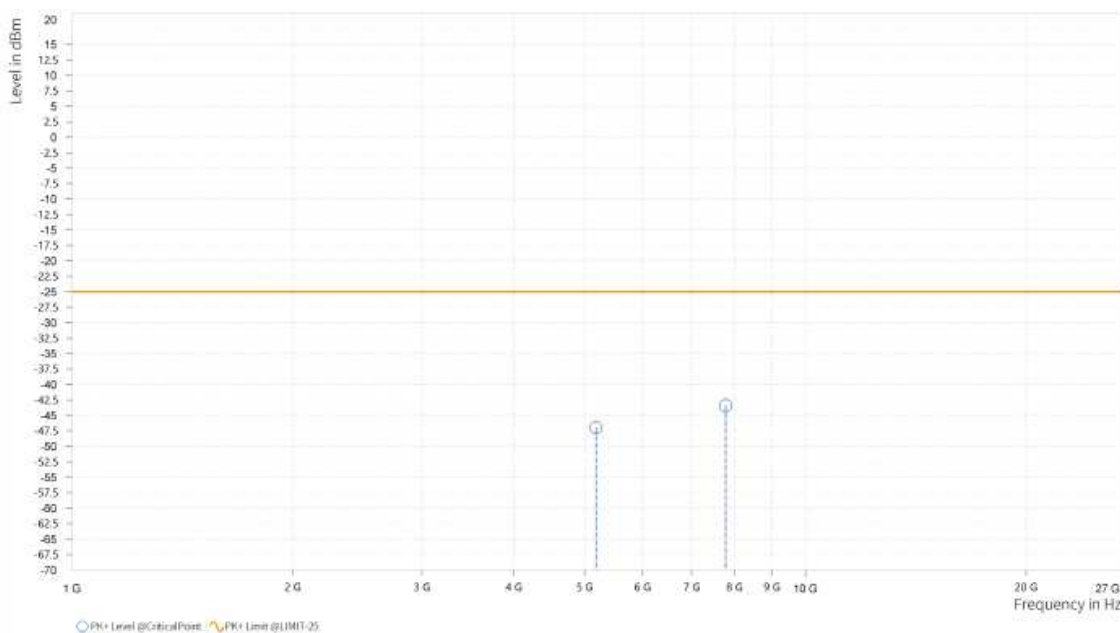
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,161.500	-51.44	-25.00	26.44	26.12	V	1	2
5	7,875.500	-42.72	-25.00	17.72	33.05	V	77.2	2



CHANNEL BANDWIDTH: (15+15) MHz / QPSK

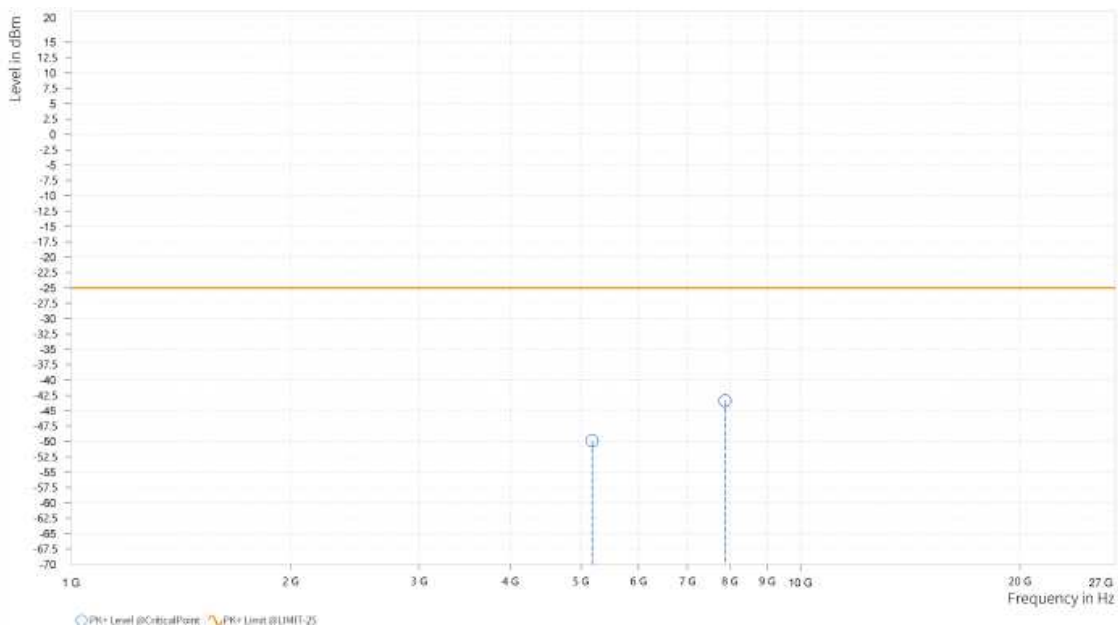
MODE	TX channel PCC 38025	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 38175		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,181.500	-46.95	-25.00	21.95	26.11	H	359	1
5	7,787.500	-43.42	-25.00	18.42	32.88	H	91.4	2



MODE	TX channel PCC 38025	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 38175		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

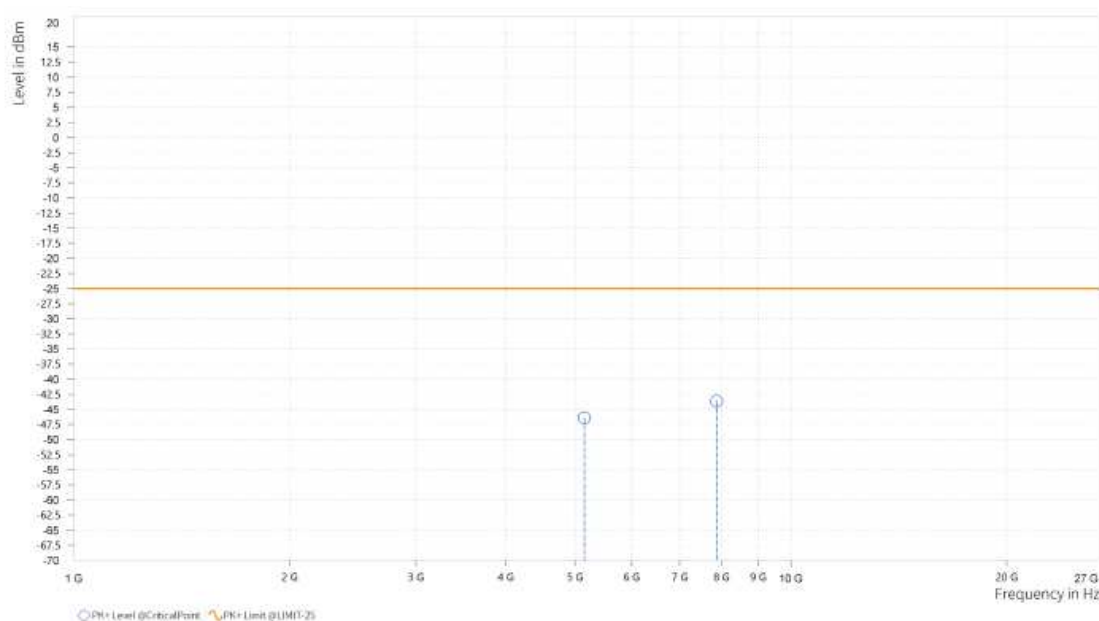
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,182.000	-49.92	-25.00	24.92	25.90	V	359	2
5	7,884.000	-43.36	-25.00	18.36	33.04	V	268.6	1



CHANNEL BANDWIDTH: 20MHz + 20MHz

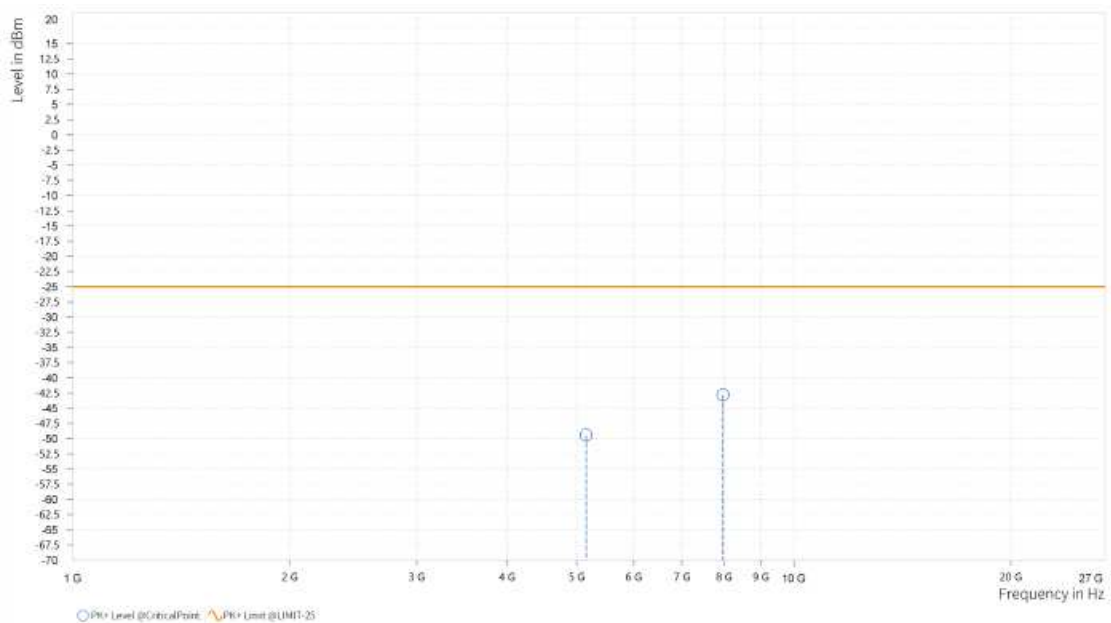
MODE	TX channel PCC 37901	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 38099		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,152.500	-46.39	-25.00	21.39	26.22	H	359	1
5	7,877.500	-43.62	-25.00	18.62	33.00	H	268.6	1



MODE	TX channel PCC 37901	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 38099		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,152.500	-49.42	-25.00	24.42	26.18	V	0.9	2
5	7,977.000	-42.82	-25.00	17.82	33.29	V	0.9	2

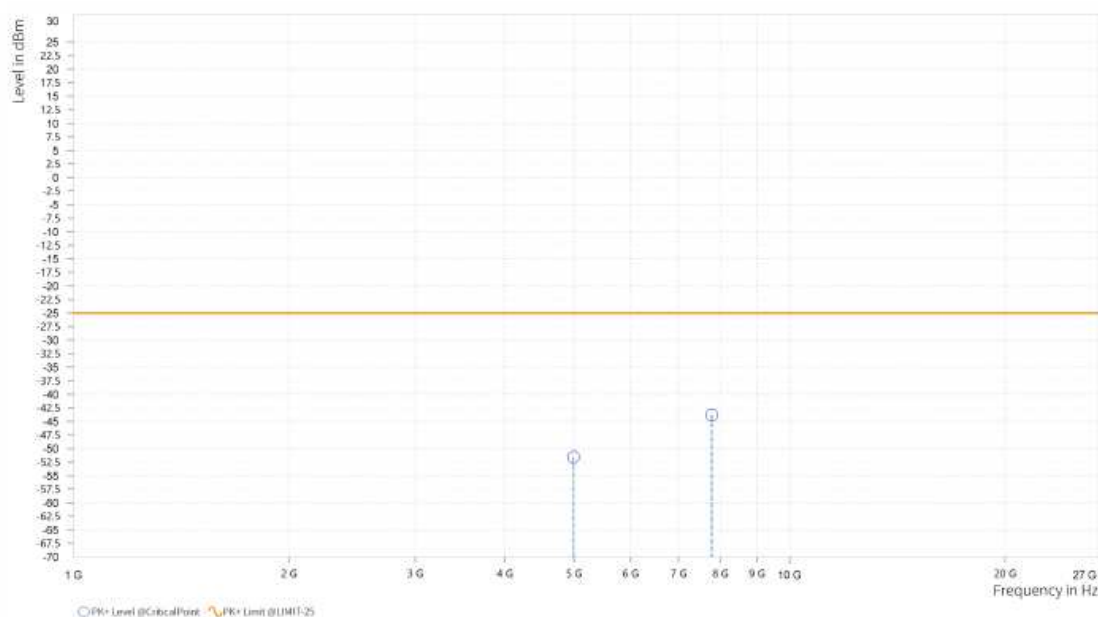


LTE Band CA_41C

CHANNEL BANDWIDTH: 5MHz + 20MHz

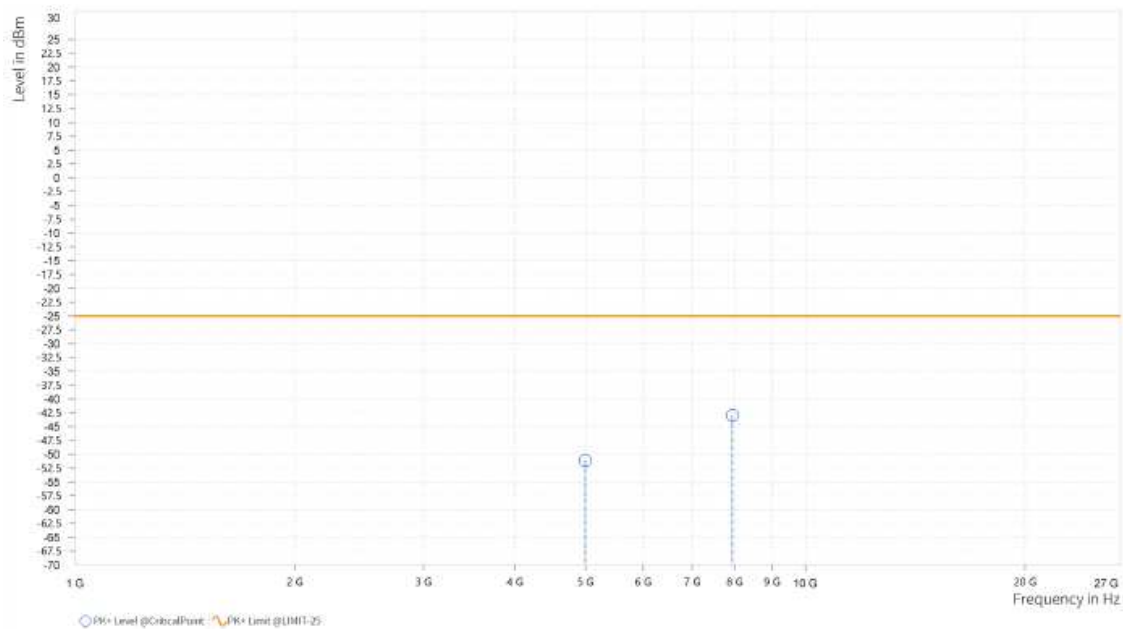
MODE	TX channel PCC 39683	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 39800		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	4,994.500	-51.59	-25.00	26.59	25.47	H	359.1	1
5	7,784.000	-43.83	-25.00	18.83	32.87	H	359	2



MODE	TX channel PCC 39683	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 39800		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

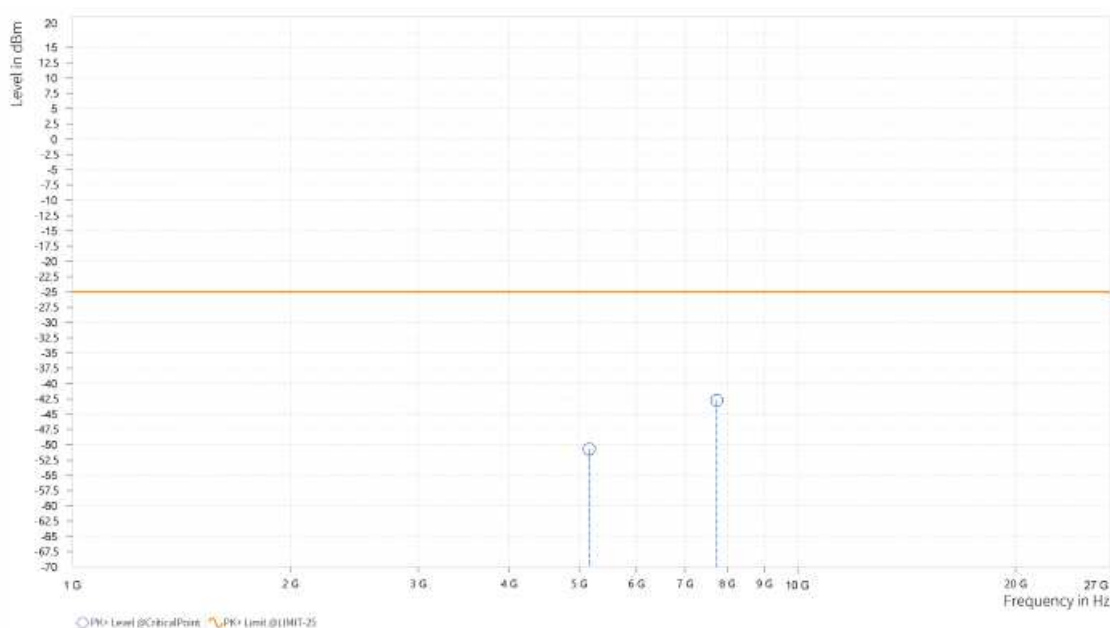
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	4,995.500	-51.17	-25.00	26.17	25.30	V	1	1
5	7,938.500	-42.98	-25.00	17.98	33.18	V	1	1



CHANNEL BANDWIDTH: 5MHz + 20MHz

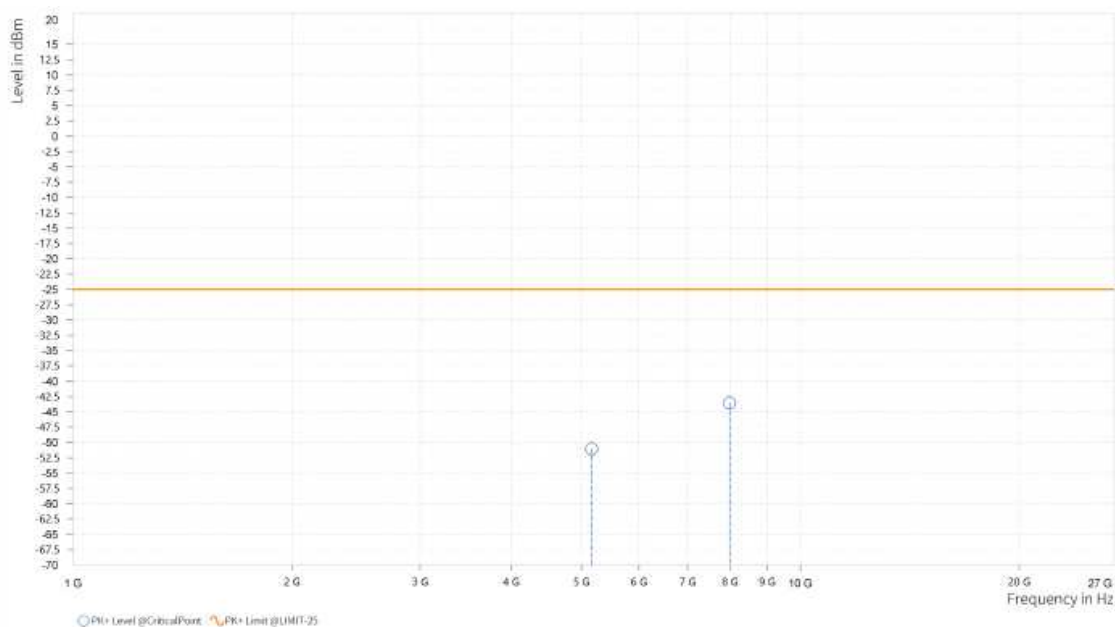
MODE	TX channel PCC 40528	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40645		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,164.000	-50.74	-25.00	25.74	26.21	H	359	1
5	7,739.500	-42.79	-25.00	17.79	32.82	H	1	1



MODE	TX channel PCC 40528	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40645		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

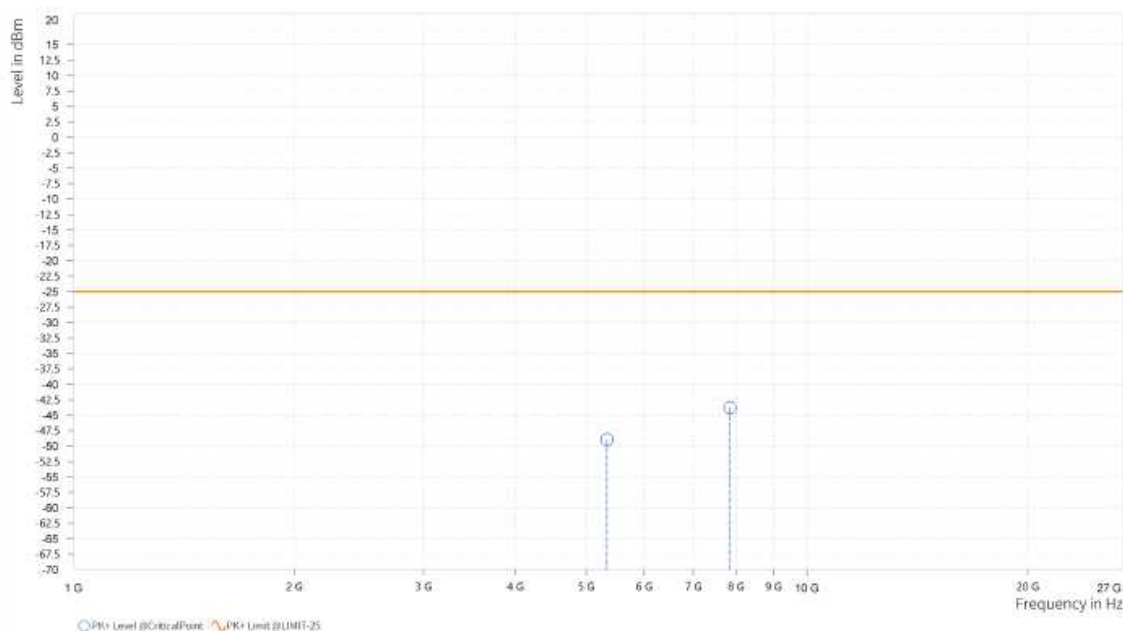
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,163.000	-51.04	-25.00	26.04	26.11	V	1	2
5	7,992.000	-43.57	-25.00	18.57	33.33	V	1	2



CHANNEL BANDWIDTH: 5MHz + 20MHz

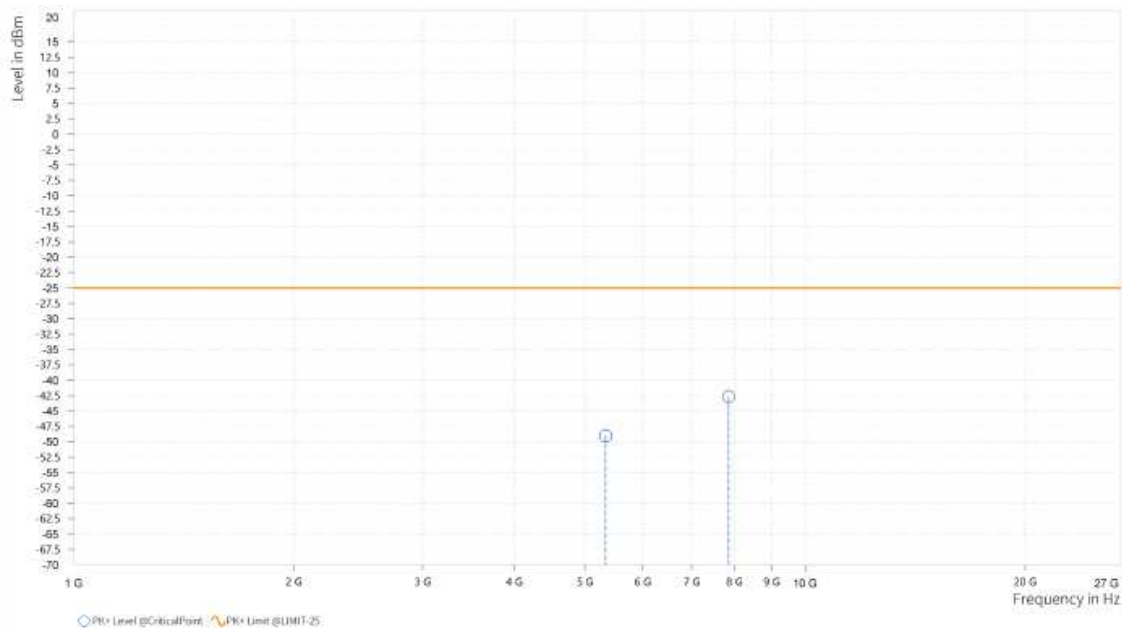
MODE	TX channel PCC 41373	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 41490		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,337.500	-48.97	-25.00	23.97	27.24	H	359.1	1
5	7,856.000	-43.78	-25.00	18.78	32.98	H	77.1	2



MODE	TX channel PCC 41373	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 41490		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

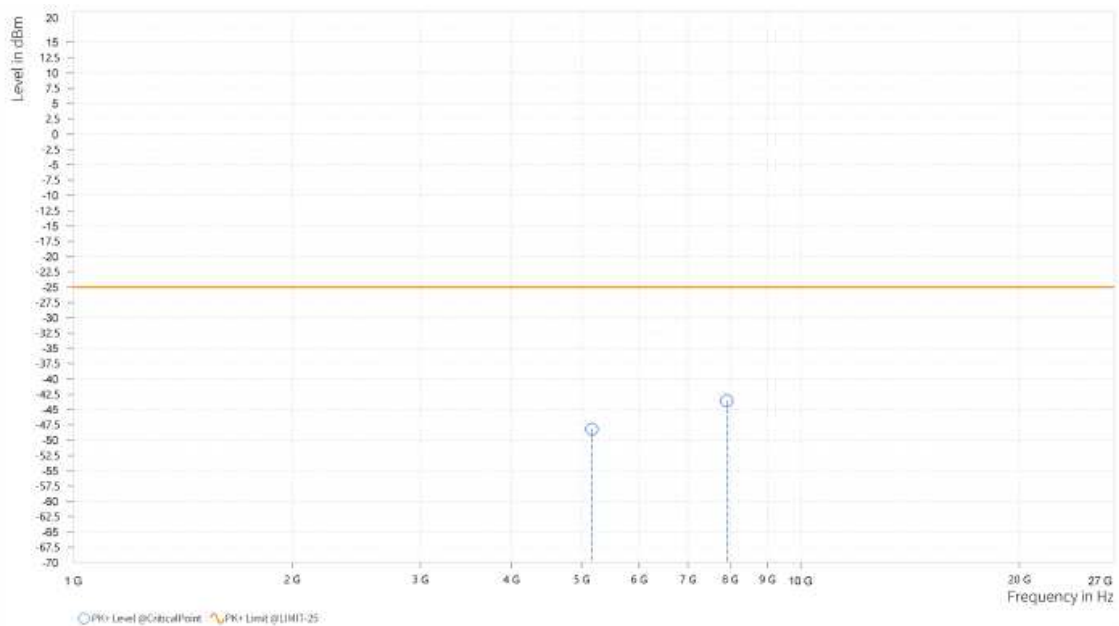
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,337.500	-49.02	-25.00	24.02	26.62	V	359	2
5	7,861.000	-42.65	-25.00	17.65	33.05	V	359	1



CHANNEL BANDWIDTH: 10 MHz + 15MHz

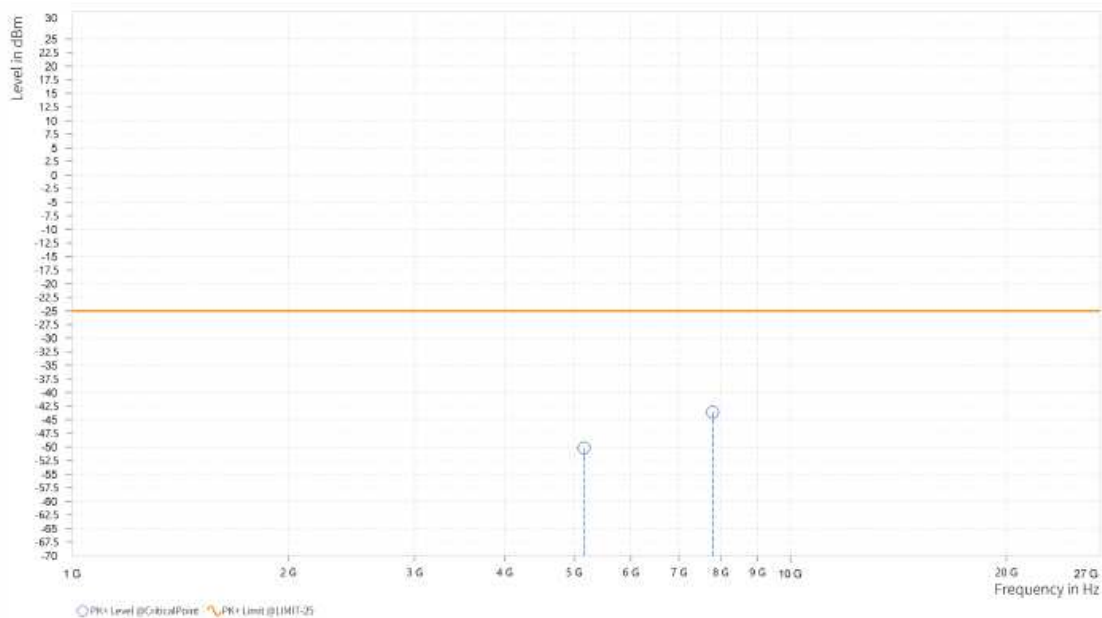
MODE	TX channel PCC 40549	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40669		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,163.500	-48.21	-25.00	23.21	26.21	H	1	2
5	7,918.000	-43.56	-25.00	18.56	33.01	H	91.4	2



MODE	TX channel PCC 40549	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40669		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

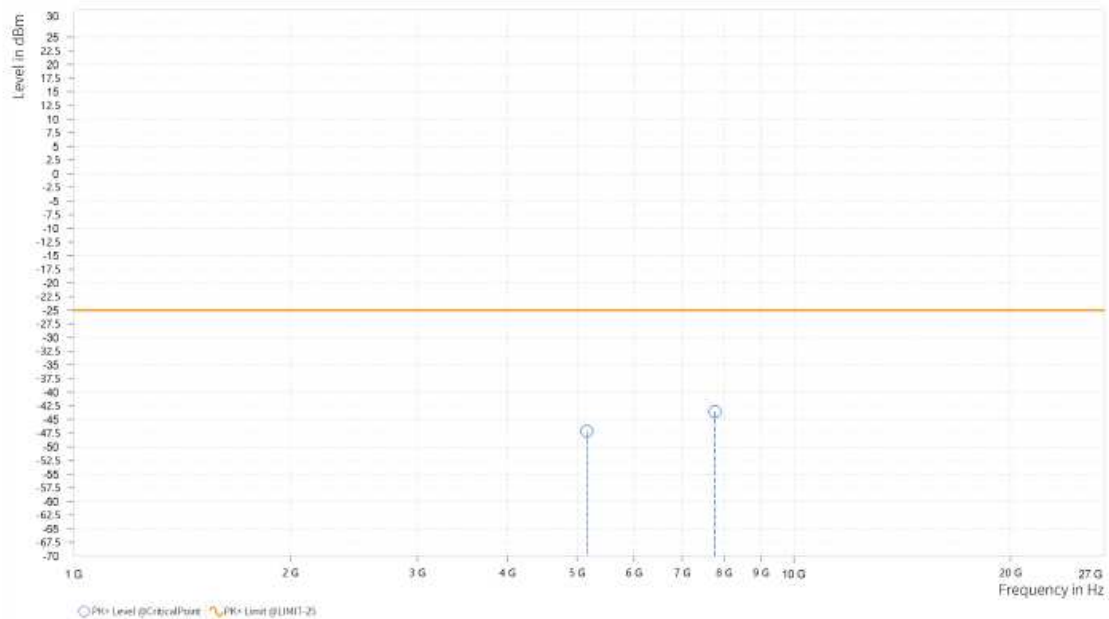
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,163.000	-50.20	-25.00	25.20	26.11	V	0.9	2
5	7,794.500	-43.61	-25.00	18.61	33.05	V	359	1



CHANNEL BANDWIDTH: 10 MHz + 20MHz

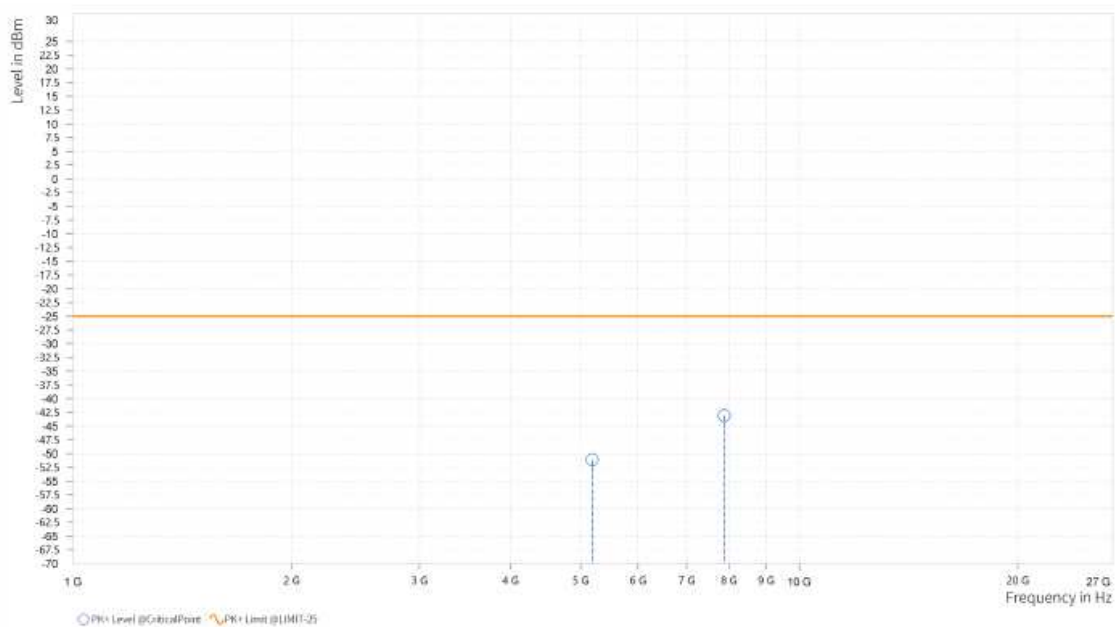
MODE	TX channel PCC 40526	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40670		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,158.500	-47.16	-25.00	22.16	26.22	H	0.9	2
5	7,770.000	-43.56	-25.00	18.56	32.84	H	1	1



MODE	TX channel PCC 40526	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40670		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

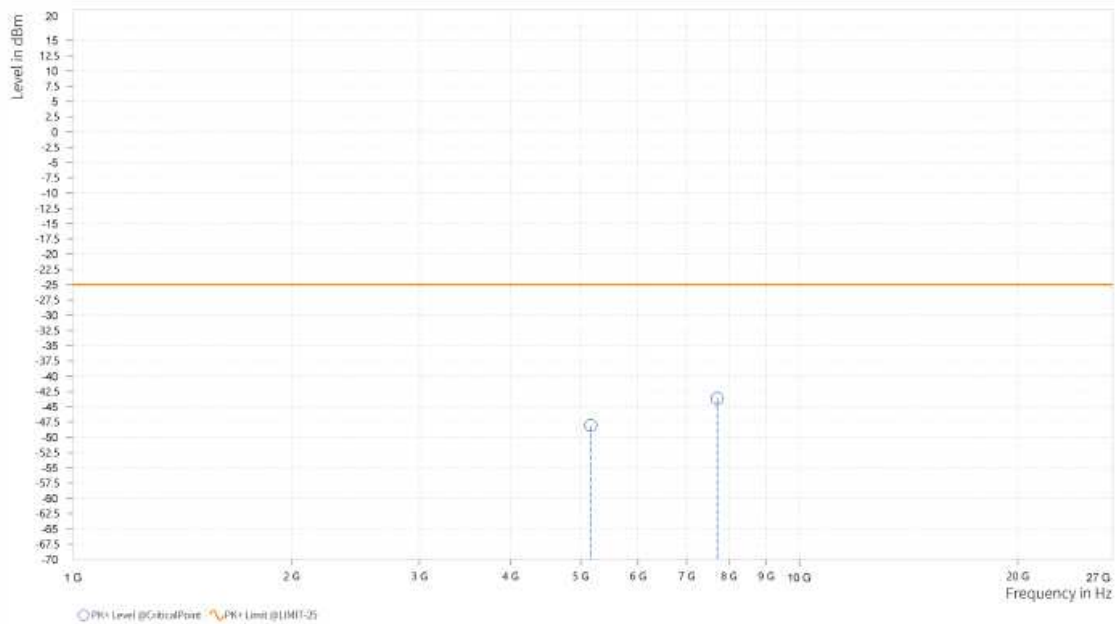
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,188.500	-51.07	-25.00	26.07	25.83	V	198	1
5	7,885.500	-43.06	-25.00	18.06	33.04	V	74.8	2



CHANNEL BANDWIDTH: 15MHz + 10MHz

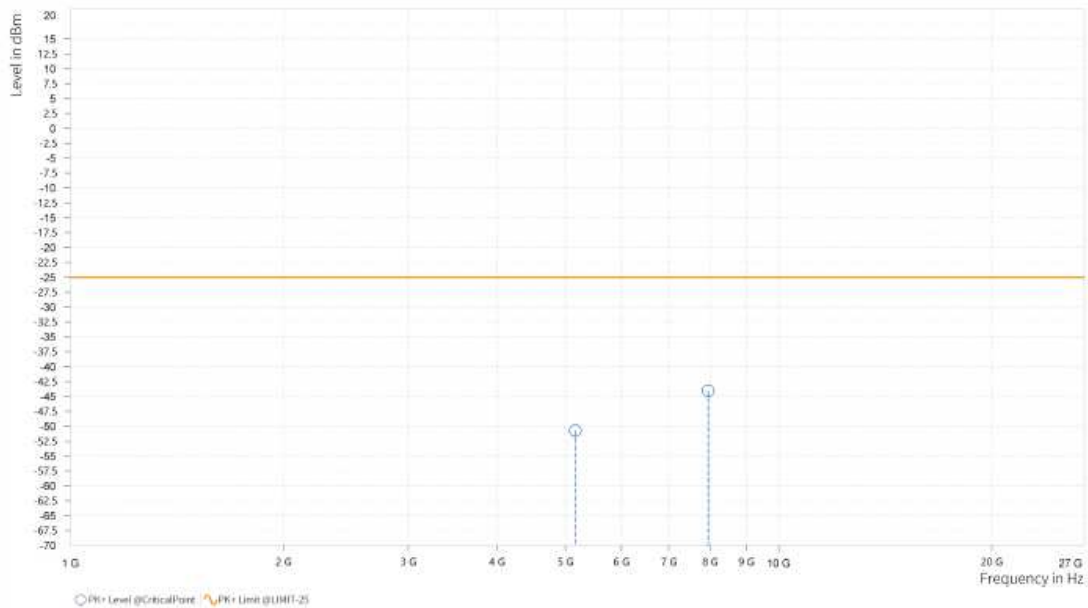
MODE	TX channel PCC 40571	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40691		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,163.000	-48.07	-25.00	23.07	26.21	H	1	1
5	7,712.500	-43.65	-25.00	18.65	32.76	H	359.1	1



MODE	TX channel PCC 40571	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40691		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

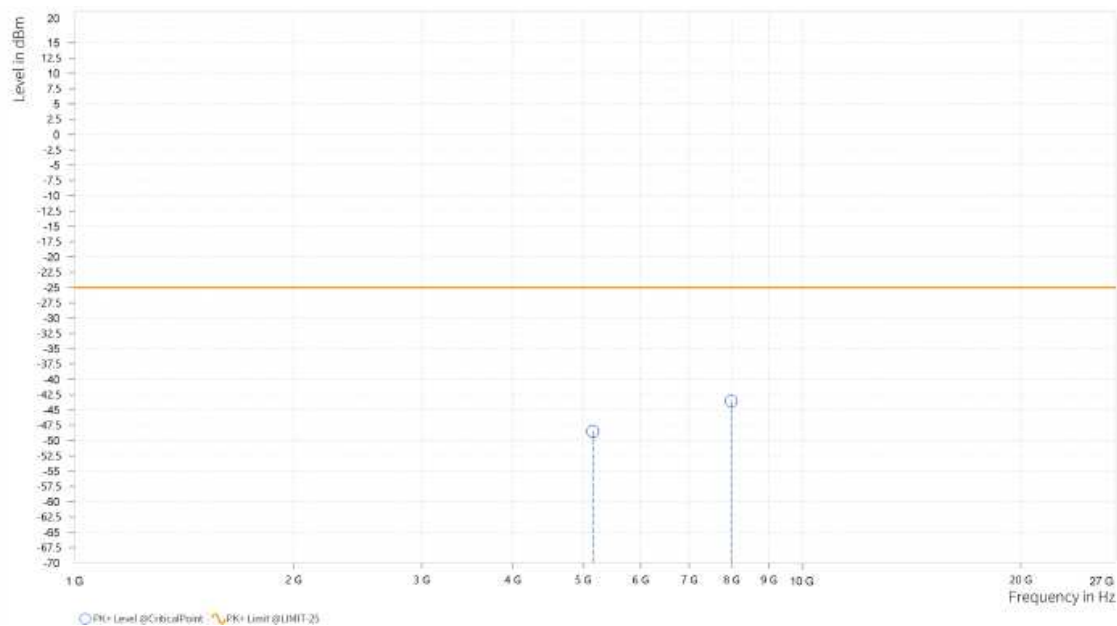
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,164.000	-50.75	-25.00	25.75	26.10	V	359	2
5	7,951.500	-44.05	-25.00	19.05	33.22	V	0.9	2



CHANNEL BANDWIDTH: 15MHz + 15MHz

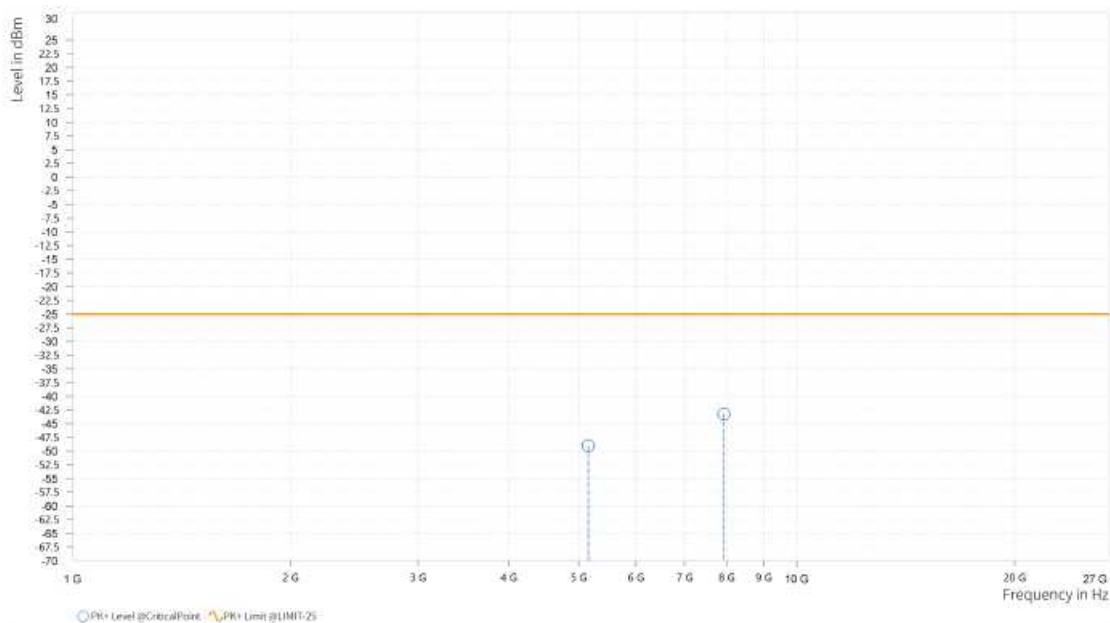
MODE	TX channel PCC 40545	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40695		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,157.500	-48.52	-25.00	23.52	26.22	H	359	1
5	7,992.000	-43.55	-25.00	18.55	33.11	H	1	1



MODE	TX channel PCC 40545	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40695		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

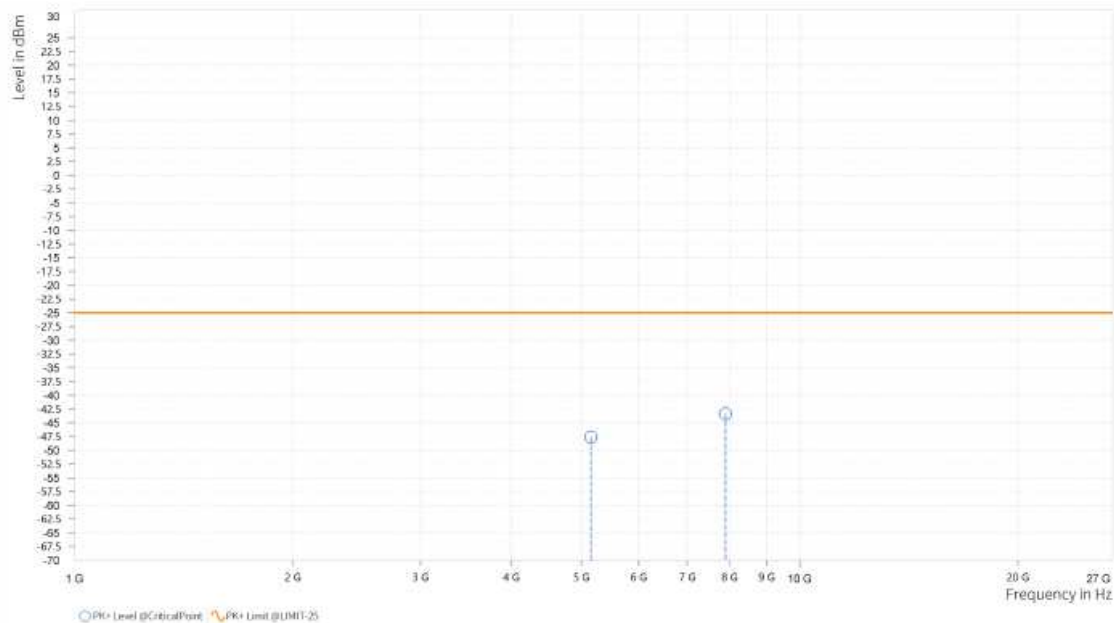
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,152.500	-49.01	-25.00	24.01	26.18	V	1	1
5	7,931.500	-43.24	-25.00	18.24	33.16	V	359	1



CHANNEL BANDWIDTH: 15MHz + 20MHz

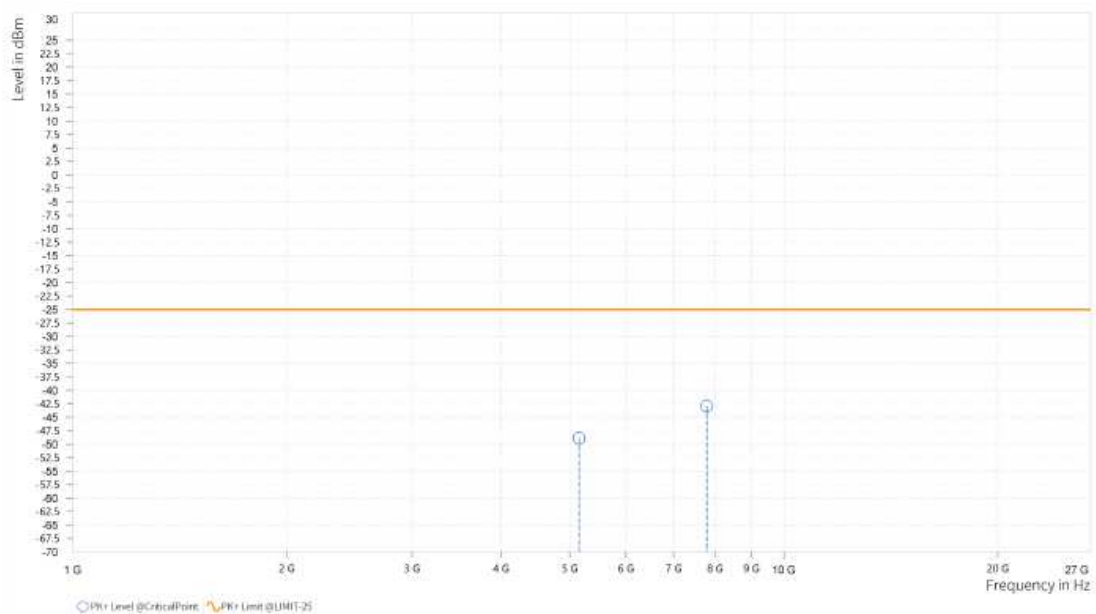
MODE	TX channel PCC 40523	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40694		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,153.500	-47.59	-25.00	22.59	26.22	H	1	1
5	7,901.500	-43.34	-25.00	18.34	33.01	H	74.8	2



MODE	TX channel PCC 40523	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40694		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

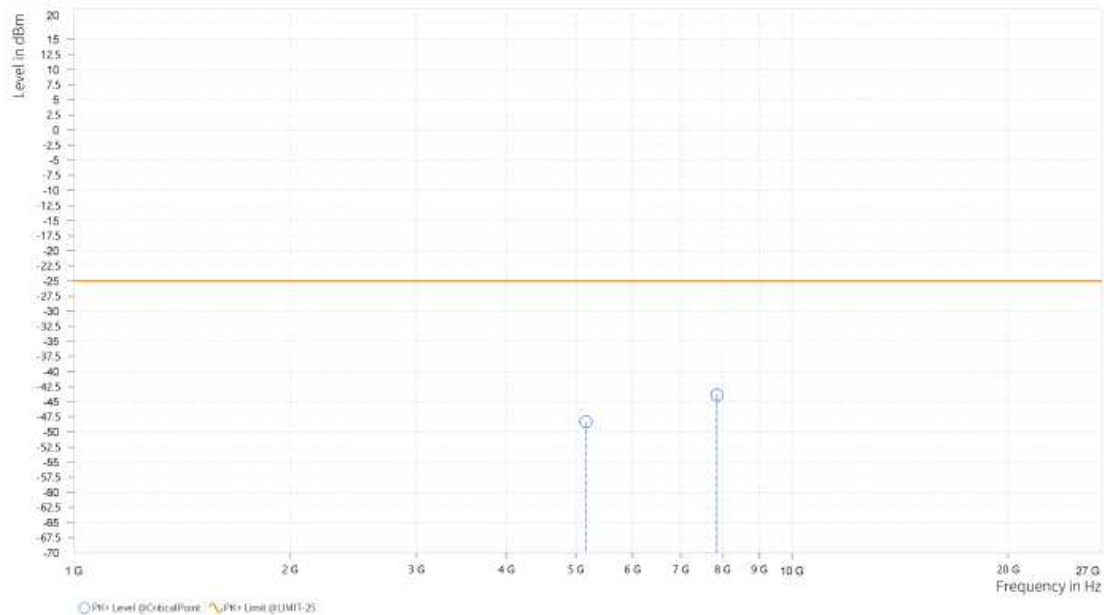
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,153.500	-48.88	-25.00	23.88	26.17	V	0.9	2
5	7,790.000	-42.91	-25.00	17.91	33.04	V	291.3	1



CHANNEL BANDWIDTH: 20MHz + 5MHz

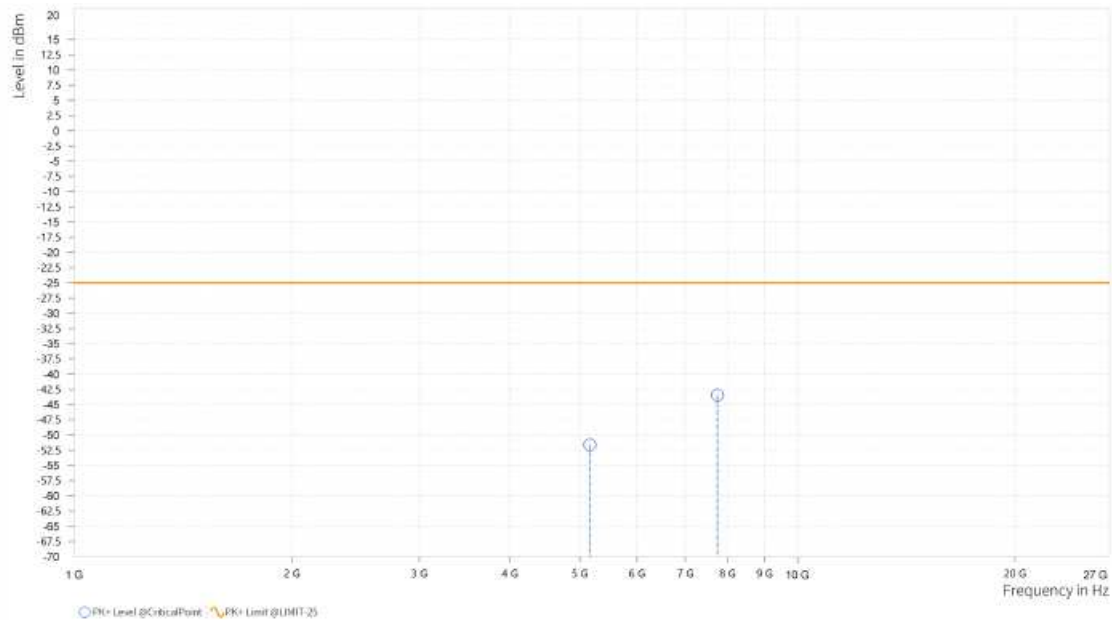
MODE	TX channel PCC 40595	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40712		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,163.000	-48.32	-25.00	23.32	26.21	H	359	1
5	7,861.000	-43.89	-25.00	18.89	32.99	H	284.1	1



MODE	TX channel PCC 40595	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40712		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

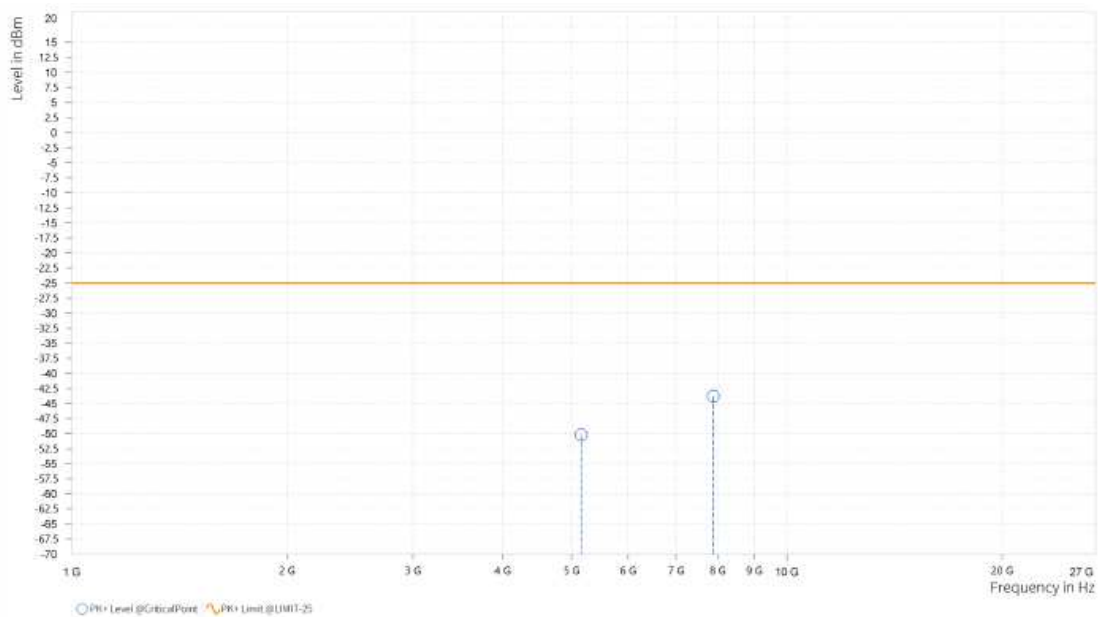
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,163.500	-51.61	-25.00	26.61	26.10	V	161.9	2
5	7,753.500	-43.44	-25.00	18.44	33.03	V	1	2



CHANNEL BANDWIDTH: 20MHz + 10MHz

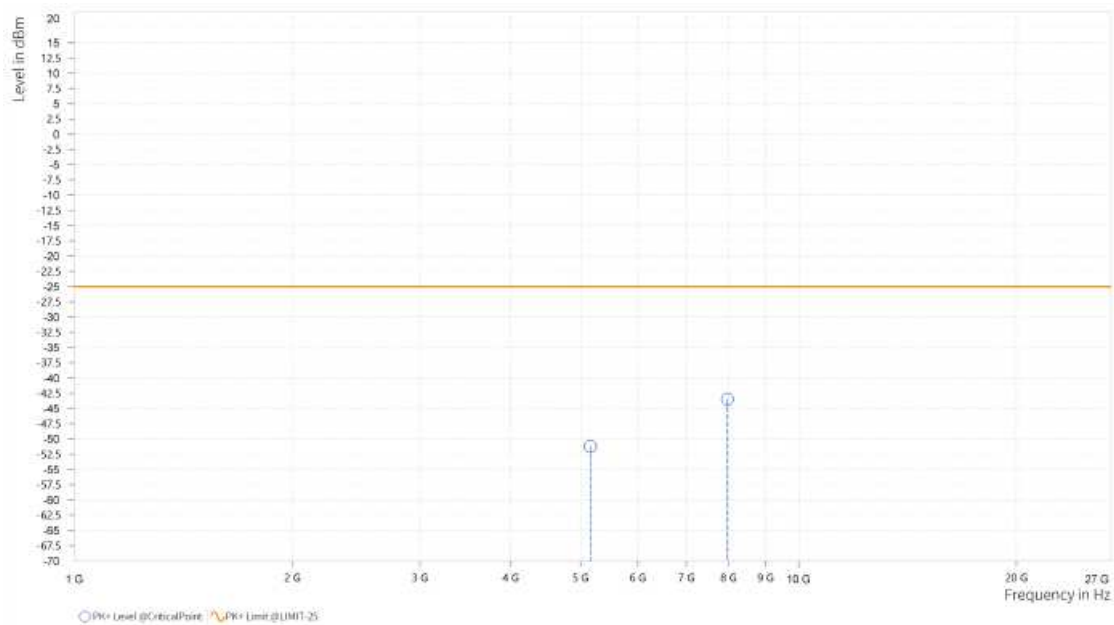
MODE	TX channel PCC 40571	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40715		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,158.000	-50.21	-25.00	25.21	26.22	H	1	2
5	7,886.500	-43.80	-25.00	18.80	33.01	H	1	1



MODE	TX channel PCC 40571	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40715		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

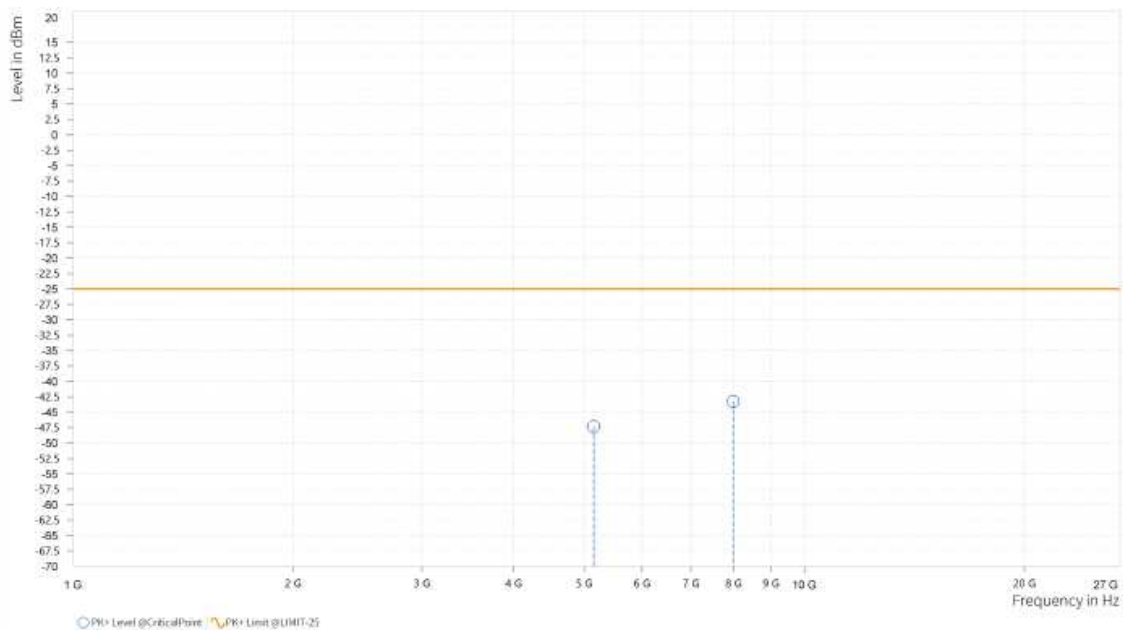
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,158.500	-51.22	-25.00	26.22	26.14	V	175.2	2
5	7,978.000	-43.48	-25.00	18.48	33.29	V	359	2



CHANNEL BANDWIDTH: 20MHz + 15MHz

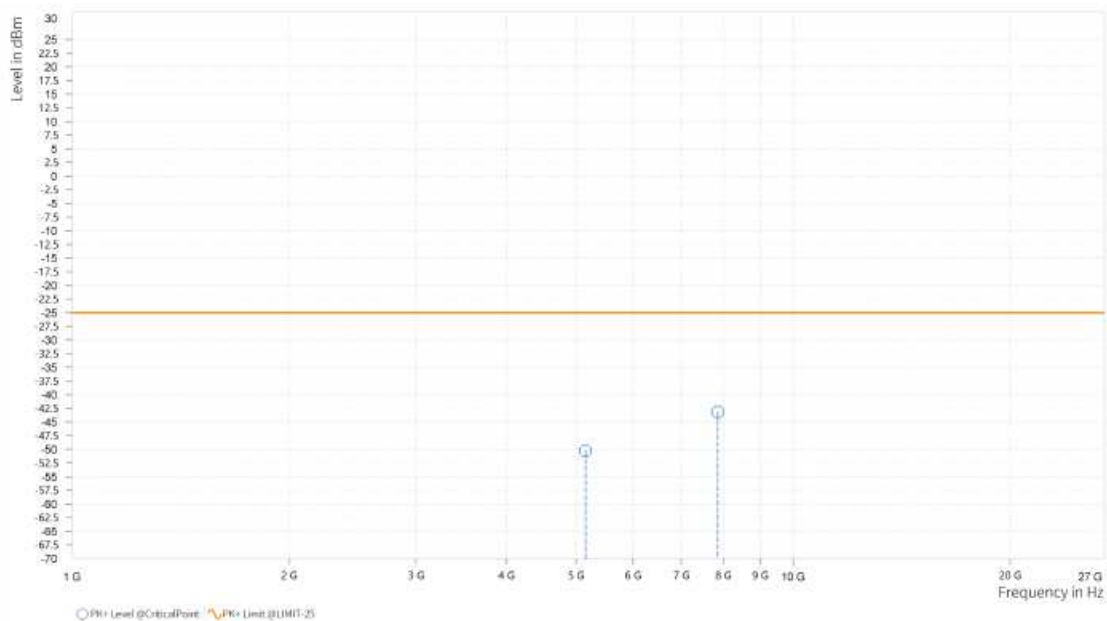
MODE	TX channel PCC 40546	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40717		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,153.500	-47.35	-25.00	22.35	26.22	H	1	1
5	7,992.500	-43.27	-25.00	18.27	33.11	H	359	2



MODE	TX channel PCC 40546	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40717		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

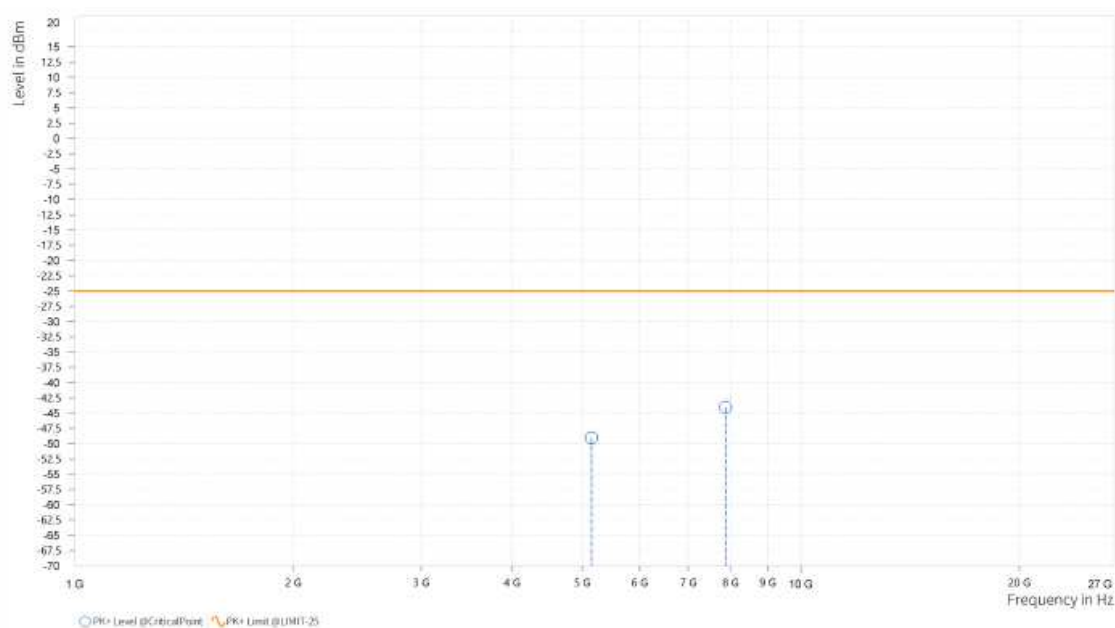
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,153.000	-50.27	-25.00	25.27	26.17	V	0.9	2
5	7,863.000	-43.16	-25.00	18.16	33.05	V	359	2



CHANNEL BANDWIDTH: 20MHz + 20MHz

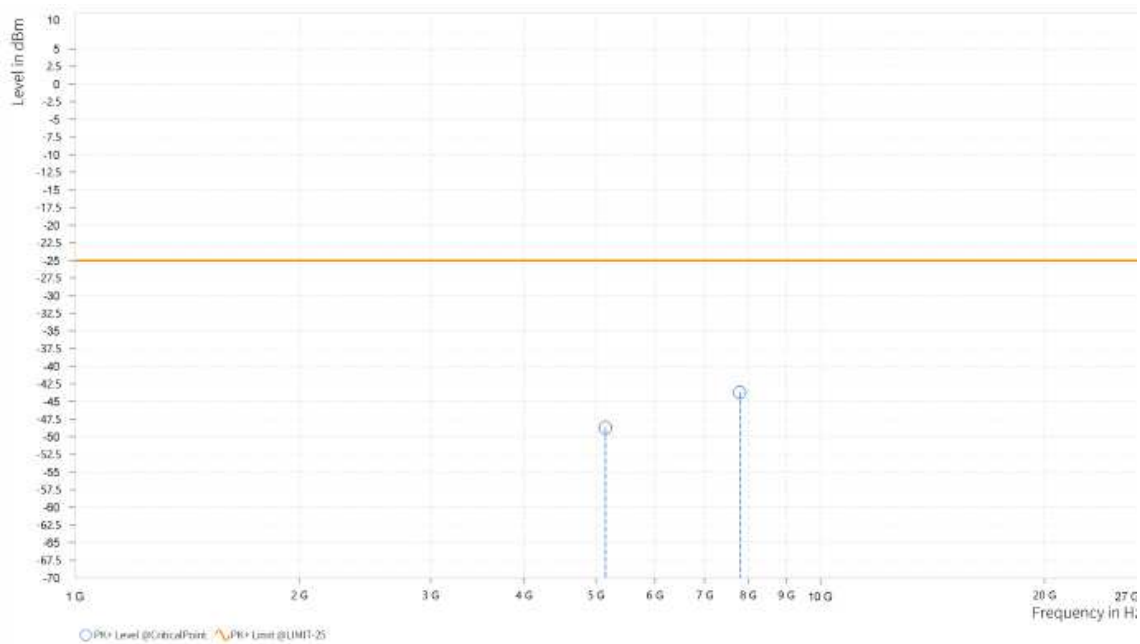
MODE	TX channel PCC 40521	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40719		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,148.500	-49.06	-25.00	24.06	26.23	H	1	2
5	7,879.500	-44.05	-25.00	19.05	33.00	H	268.6	1



MODE	TX channel PCC 40521	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40719		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,148.000	-48.73	-25.00	23.73	26.20	V	128.6	2
5	7,795.000	-43.71	-25.00	18.71	33.05	V	359.1	1



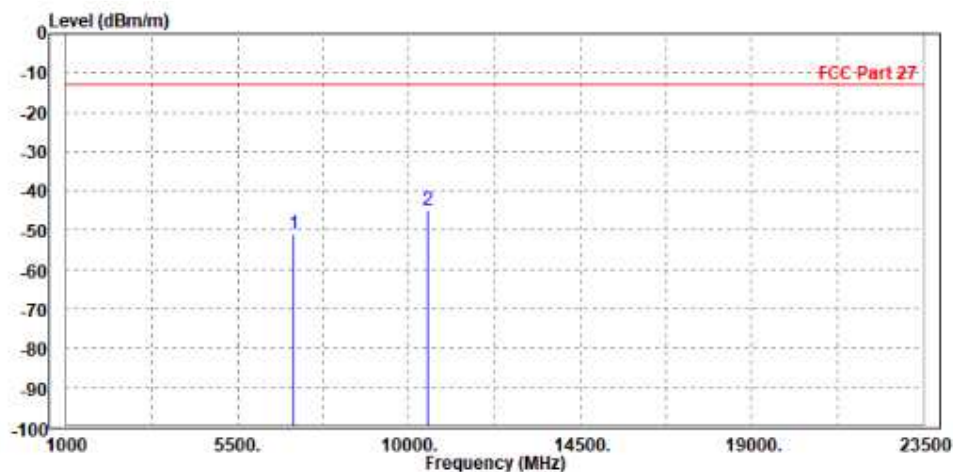
LTE Band CA_42C

Note: For frequency above 23.5GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.

CHANNEL BANDWIDTH: 5 MHz + 20MHz

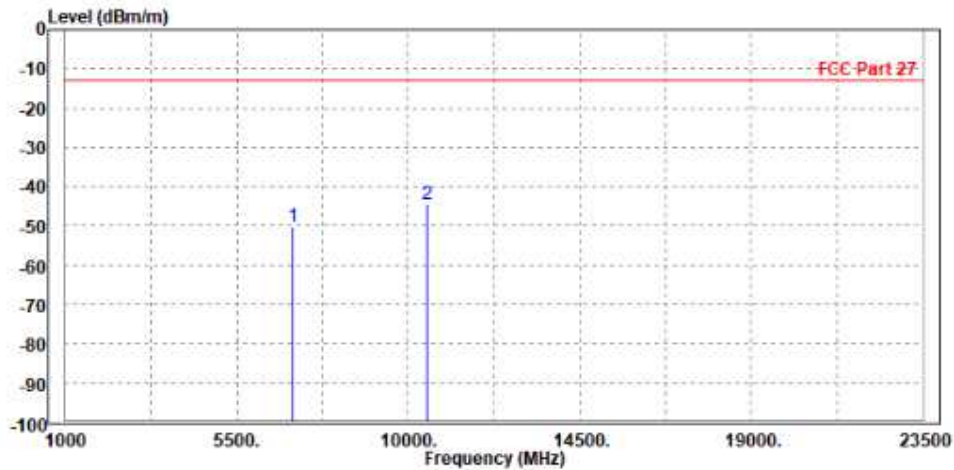
MODE	TX channel PCC 42498	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 42615		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6981.600	-50.85	-63.06	-13.00	-37.85	12.21	Peak	Horizontal
2	PP10472.500	-44.91	-63.53	-13.00	-31.91	18.62	Peak	Horizontal



MODE	TX channel PCC 42498	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 42615		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

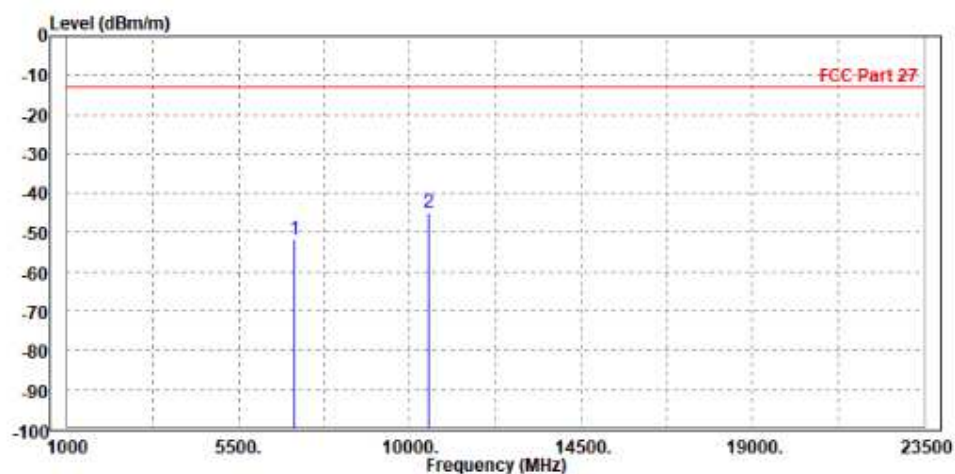
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6985.000	-50.10	-62.82	-13.00	-37.10	12.72	Peak	Vertical
2	PP10472.400	-44.45	-62.36	-13.00	-31.45	17.91	Peak	Vertical



CHANNEL BANDWIDTH: 10MHz + 20MHz

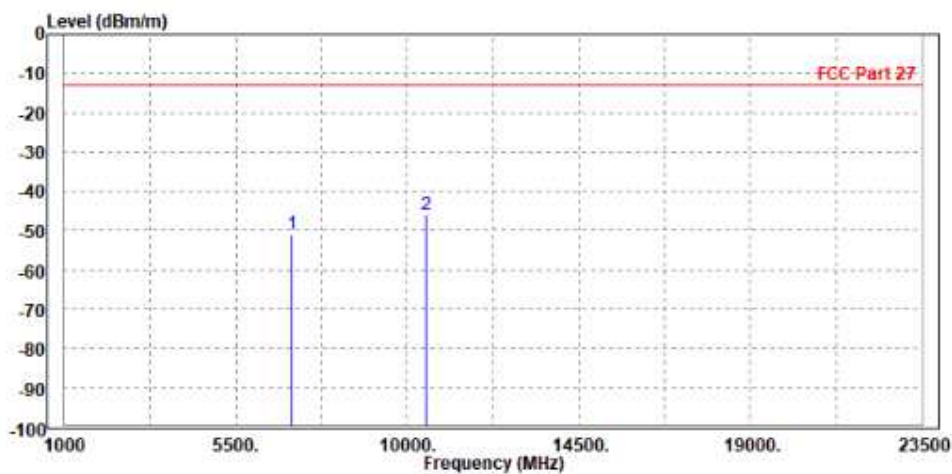
MODE	TX channel PCC 42496	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 42640		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6981.200	-51.66	-63.87	-13.00	-38.66	12.21	Peak	Horizontal
2	PP10472.500	-44.99	-63.61	-13.00	-31.99	18.62	Peak	Horizontal



MODE	TX channel PCC 42496	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 42640		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

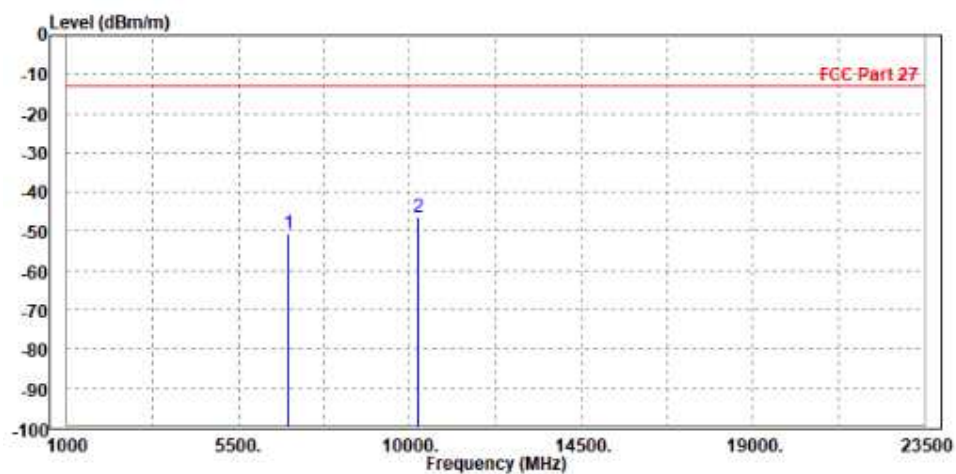
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6985.000	-50.85	-63.57	-13.00	-37.85	12.72	Peak	Vertical
2	PP10471.800	-45.99	-63.90	-13.00	-32.99	17.91	Peak	Vertical



CHANNEL BANDWIDTH: 15MHz + 20MHz

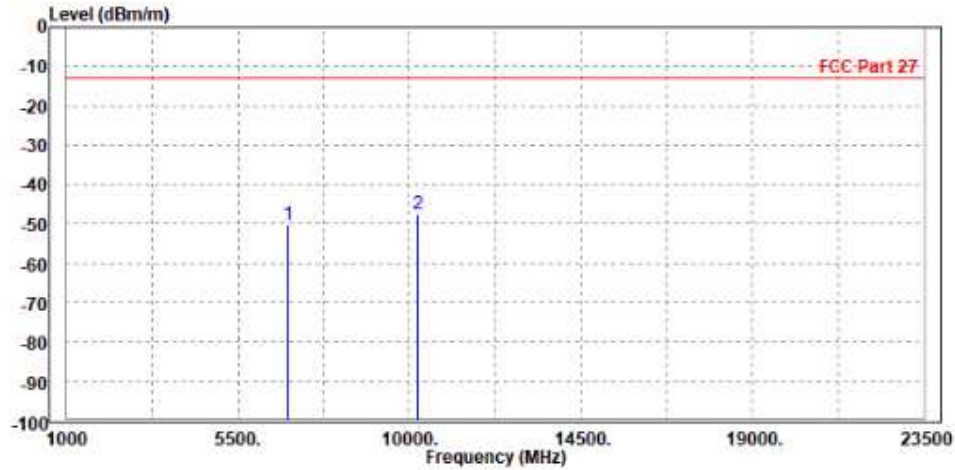
MODE	TX channel PCC 41668	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 41839		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6815.600	-50.72	-62.72	-13.00	-37.72	12.00	Peak	Horizontal
2	PP10225.000	-46.50	-65.35	-13.00	-33.50	18.85	Peak	Horizontal



MODE	TX channel PCC 41668	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 41839		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

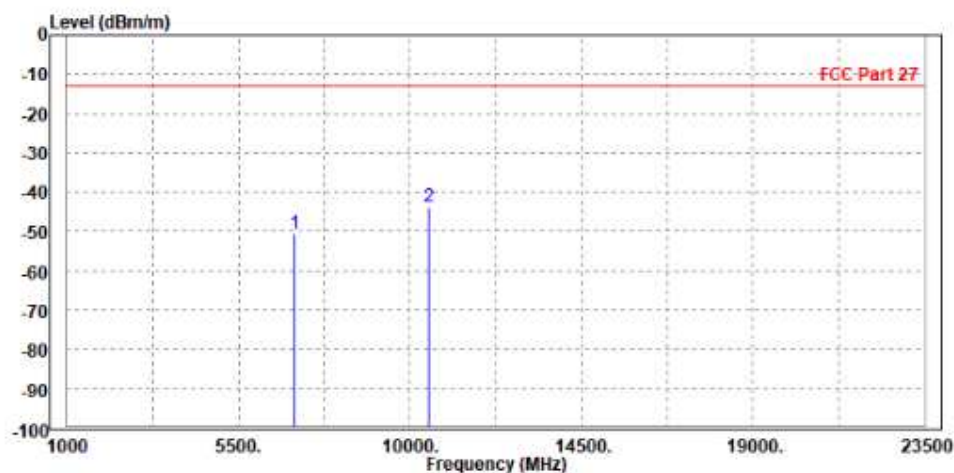
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6805.000	-50.33	-62.97	-13.00	-37.33	12.64	Peak	Vertical
2	PP10223.400	-47.60	-65.50	-13.00	-34.60	17.90	Peak	Vertical



CHANNEL BANDWIDTH: 15MHz + 20MHz

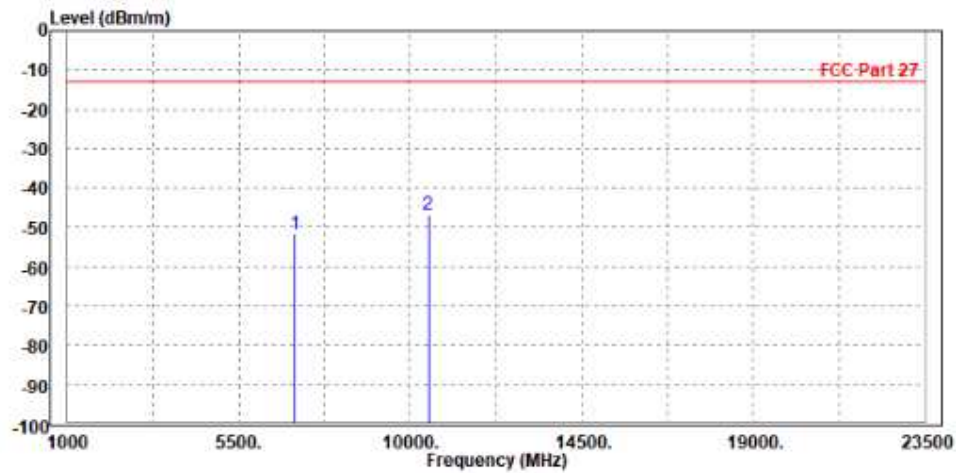
MODE	TX channel PCC 42493	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 42664		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6980.600	-50.56	-62.77	-13.00	-37.56	12.21	Peak	Horizontal
2	PP10472.500	-43.78	-62.40	-13.00	-30.78	18.62	Peak	Horizontal



MODE	TX channel PCC 42493	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 42664		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

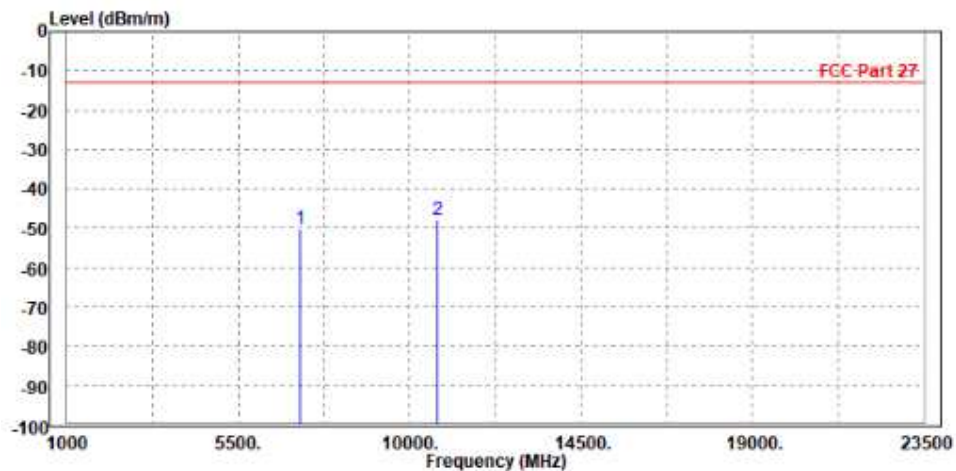
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6985.000	-51.53	-64.25	-13.00	-38.53	12.72	Peak	Vertical
2	PP10470.900	-46.65	-64.56	-13.00	-33.65	17.91	Peak	Vertical



CHANNEL BANDWIDTH: 15MHz + 20MHz

MODE	TX channel PCC 43319	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 43490		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

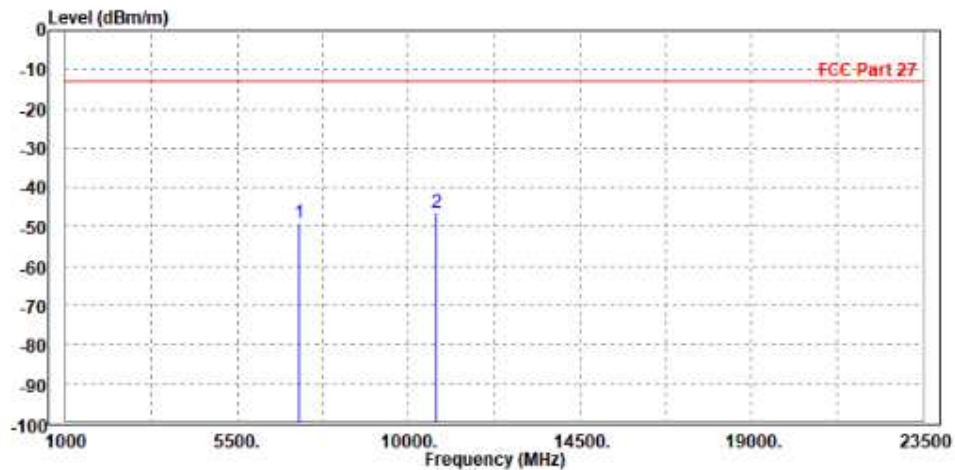
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7142.500	-50.03	-62.03	-13.00	-37.03	12.00	Peak	Horizontal
2	PP10718.700	-48.08	-67.27	-13.00	-35.08	19.19	Peak	Horizontal



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MODE	TX channel PCC 43319	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 43490		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

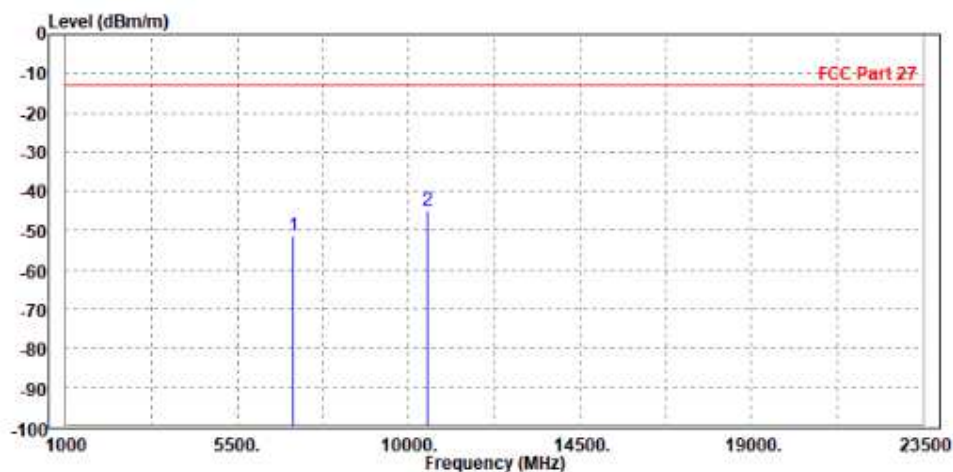
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7142.500	-48.97	-62.26	-13.00	-35.97	13.29	Peak	Vertical
2	PP10718.700	-46.31	-65.25	-13.00	-33.31	18.94	Peak	Vertical



CHANNEL BANDWIDTH: 20MHz + 5MHz

MODE	TX channel PCC 42565	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 42682		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6985.000	-51.17	-63.38	-13.00	-38.17	12.21	Peak	Horizontal
2	PP10492.500	-44.88	-63.48	-13.00	-31.88	18.60	Peak	Horizontal

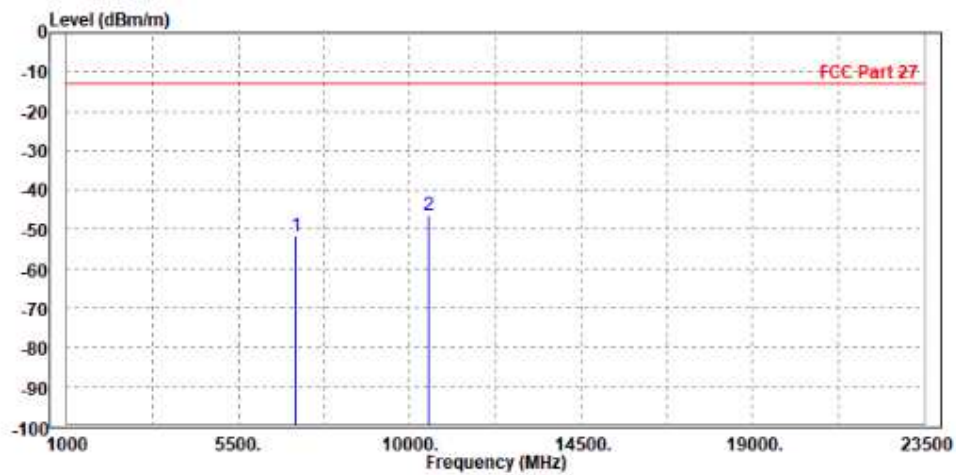




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MODE	TX channel PCC 42565	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 42682		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

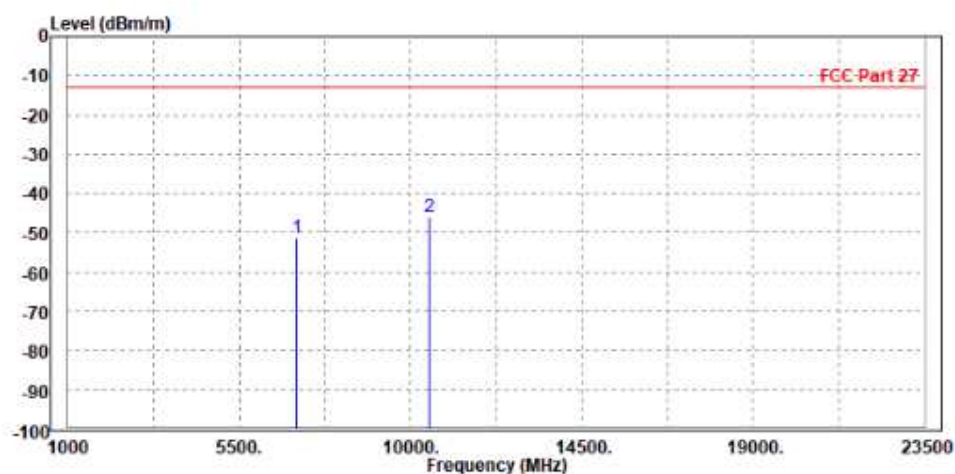
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6995.000	-51.74	-64.47	-13.00	-38.74	12.73	Peak	Vertical
2	PP10495.000	-46.54	-64.45	-13.00	-33.54	17.91	Peak	Vertical



CHANNEL BANDWIDTH: 20MHz + 10MHz

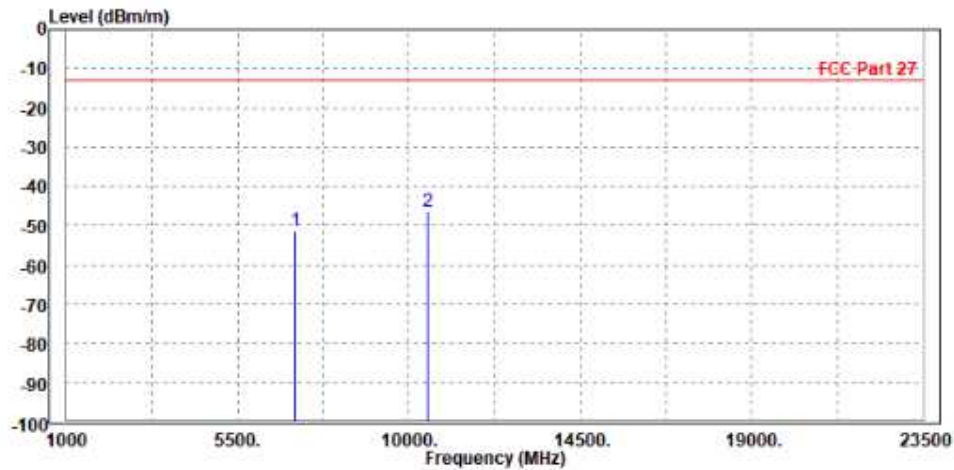
MODE	TX channel PCC 42541	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 42685		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6990.200	-51.23	-63.45	-13.00	-38.23	12.22	Peak	Horizontal
2	PP10485.300	-45.93	-64.54	-13.00	-32.93	18.61	Peak	Horizontal



MODE	TX channel PCC 42541	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 42685		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6990.200	-51.47	-64.20	-13.00	-38.47	12.73	Peak	Vertical
2	PP10495.000	-46.22	-64.13	-13.00	-33.22	17.91	Peak	Vertical



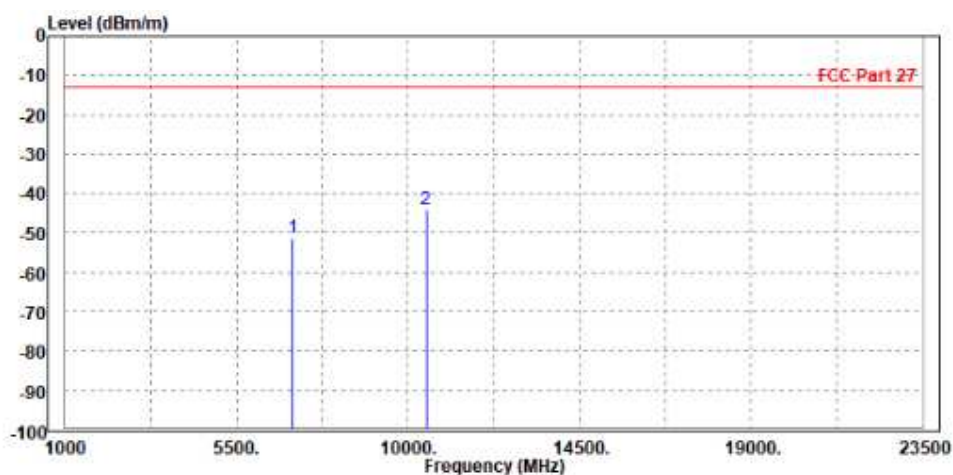


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CHANNEL BANDWIDTH: 20MHz + 15MHz

MODE	TX channel PCC 42516	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 42687		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

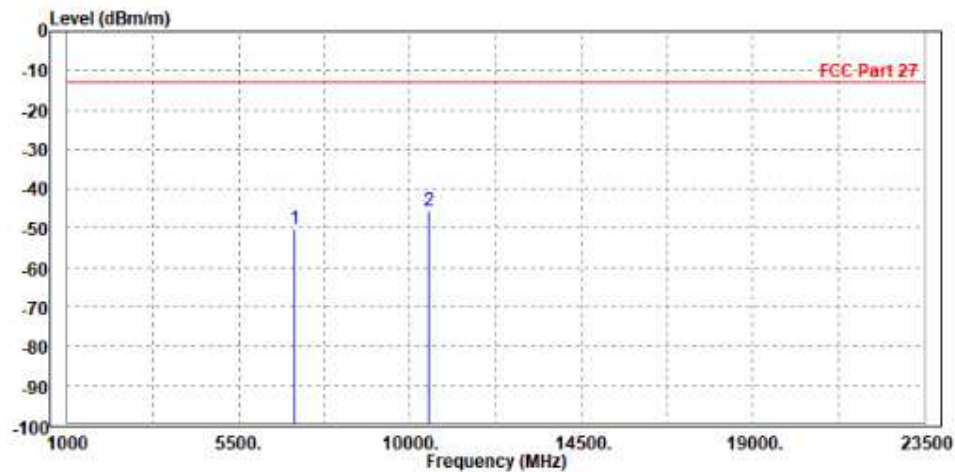
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6985.000	-51.15	-63.36	-13.00	-38.15	12.21	Peak	Horizontal
2	PP10470.300	-44.26	-62.88	-13.00	-31.26	18.62	Peak	Horizontal



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MODE	TX channel PCC 42516	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 42687		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

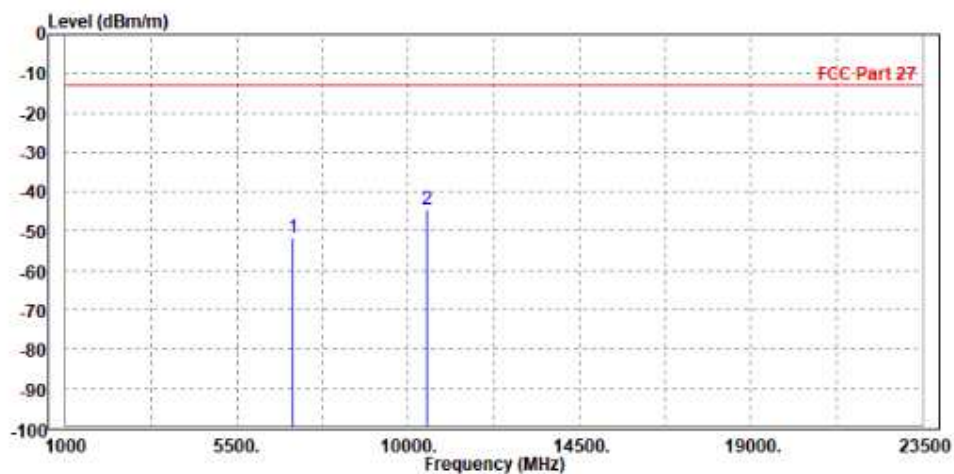
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6980.600	-50.37	-63.09	-13.00	-37.37	12.72	Peak	Vertical
2	PP10472.500	-45.80	-63.71	-13.00	-32.80	17.91	Peak	Vertical



CHANNEL BANDWIDTH: 20MHz + 20MHz

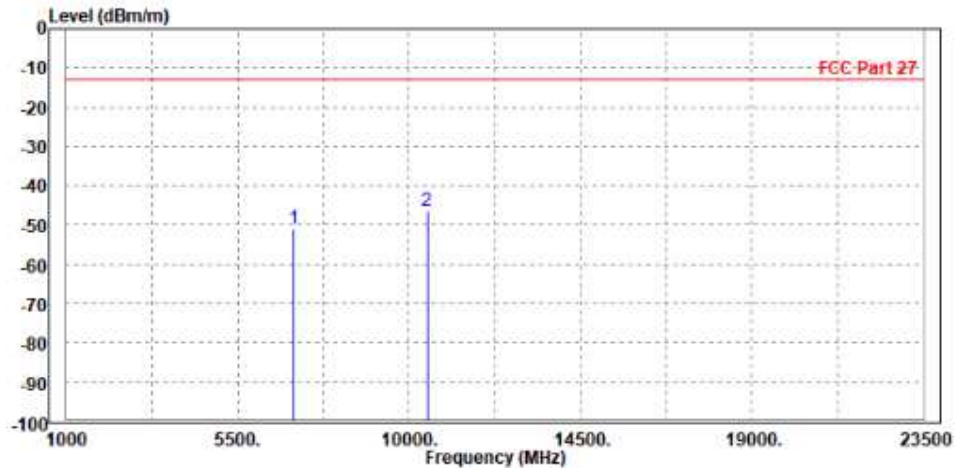
MODE	TX channel PCC 42491	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 42689		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6980.200	-51.86	-64.07	-13.00	-38.86	12.21	Peak	Horizontal
2	PP10472.500	-44.47	-63.09	-13.00	-31.47	18.62	Peak	Horizontal



MODE	TX channel PCC 42491	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 42689		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6985.000	-50.83	-63.55	-13.00	-37.83	12.72	Peak	Vertical
2	PP10470.300	-46.23	-64.14	-13.00	-33.23	17.91	Peak	Vertical

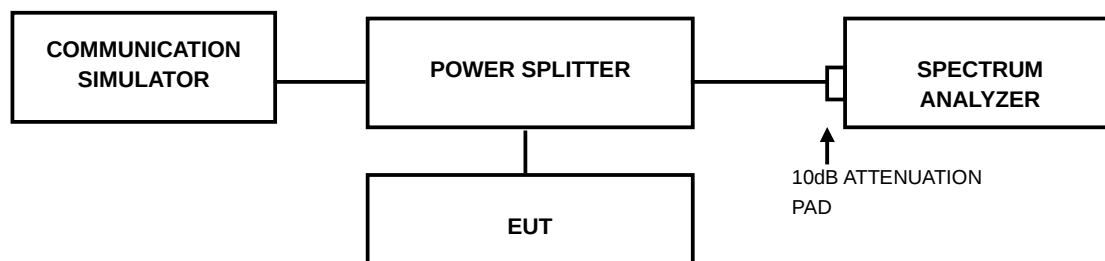


3.7 PEAK TO AVERAGE RATIO

3.7.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB

3.7.2 TEST SETUP



3.7.3 TEST PROCEDURES

1. Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1%.



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3.7.4 TEST RESULTS

Please Refer to Appendix Of this test report.



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4 INFORMATION ON THE TESTING LABORATORIES

We, BV 7LAYERS COMMUNICATIONS TECHNOLOGY (SHENZHEN) CO. LTD., were founded in 2015 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Test Report No.: W7L-P23100014RF08

5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

6 APPENDIX

LTE BAND CA_7C

26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

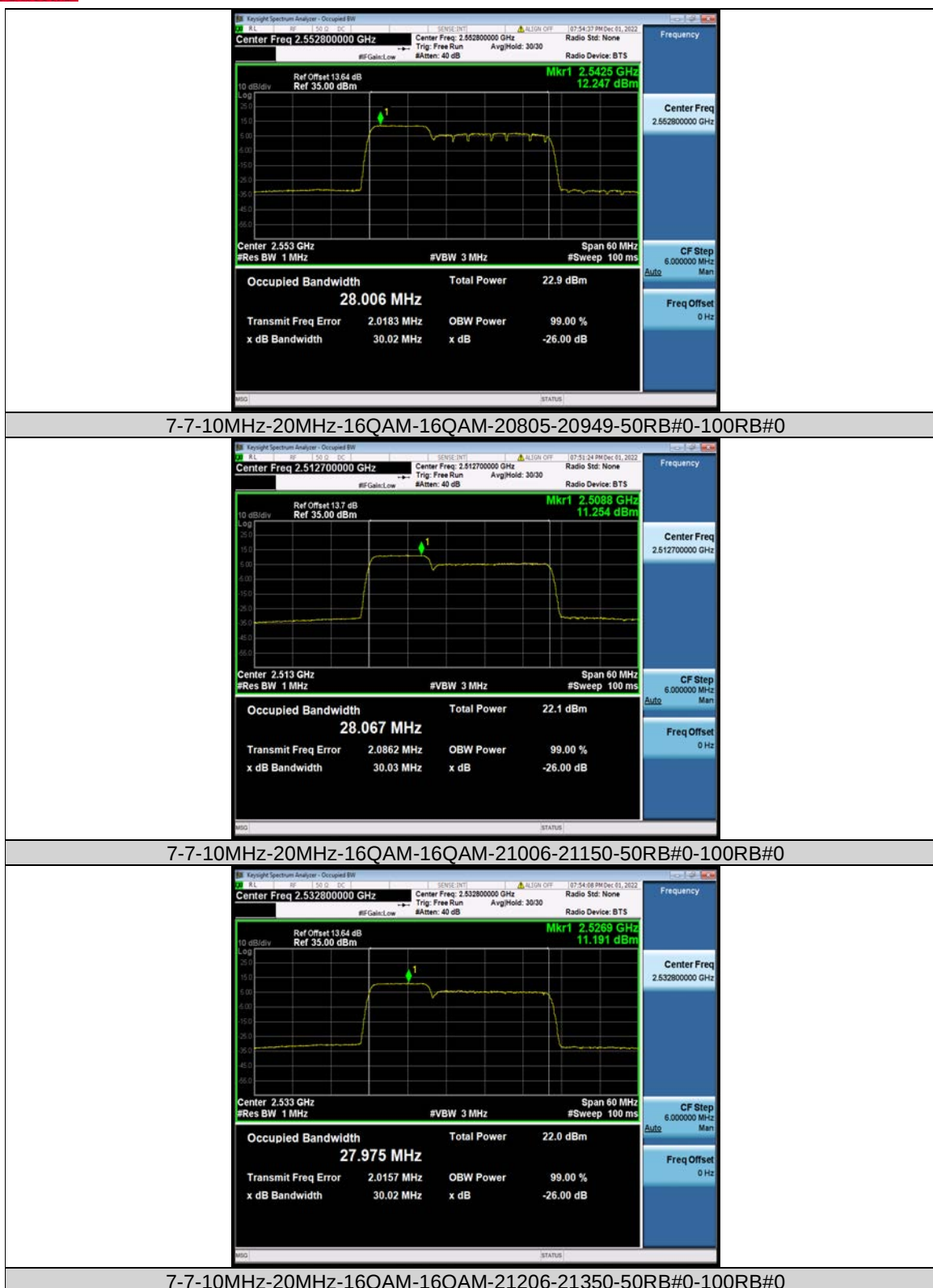
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
7-7	10MHz-20MHz	QPSK-QPSK	20805-20949	50RB#0-100RB#0	28.023	30.03	PASS
7-7	10MHz-20MHz	QPSK-QPSK	21006-21150	50RB#0-100RB#0	27.990	30.03	PASS
7-7	10MHz-20MHz	QPSK-QPSK	21206-21350	50RB#0-100RB#0	28.006	30.02	PASS
7-7	10MHz-20MHz	16QAM-16QAM	20805-20949	50RB#0-100RB#0	28.067	30.03	PASS
7-7	10MHz-20MHz	16QAM-16QAM	21006-21150	50RB#0-100RB#0	27.975	30.02	PASS
7-7	10MHz-20MHz	16QAM-16QAM	21206-21350	50RB#0-100RB#0	27.995	30.05	PASS
7-7	10MHz-20MHz	64QAM-64QAM	20805-20949	50RB#0-100RB#0	27.925	30.04	PASS
7-7	10MHz-20MHz	64QAM-64QAM	21006-21150	50RB#0-100RB#0	27.992	30.03	PASS
7-7	10MHz-20MHz	64QAM-64QAM	21206-21350	50RB#0-100RB#0	27.936	30.06	PASS
7-7	15MHz-10MHz	QPSK-QPSK	20825-20945	75RB#0-50RB#0	23.489	25.52	PASS
7-7	15MHz-10MHz	QPSK-QPSK	21051-21171	75RB#0-50RB#0	23.513	25.49	PASS
7-7	15MHz-10MHz	QPSK-QPSK	21277-21397	75RB#0-50RB#0	23.469	25.53	PASS
7-7	15MHz-10MHz	16QAM-16QAM	20825-20945	75RB#0-50RB#0	23.508	25.54	PASS
7-7	15MHz-10MHz	16QAM-16QAM	21051-21171	75RB#0-50RB#0	23.493	25.53	PASS
7-7	15MHz-10MHz	16QAM-16QAM	21277-21397	75RB#0-50RB#0	23.454	25.49	PASS
7-7	15MHz-10MHz	64QAM-64QAM	20825-20945	75RB#0-50RB#0	23.537	25.55	PASS
7-7	15MHz-10MHz	64QAM-64QAM	21051-21171	75RB#0-50RB#0	23.526	25.52	PASS
7-7	15MHz-10MHz	64QAM-64QAM	21277-21397	75RB#0-50RB#0	23.425	25.48	PASS
7-7	15MHz-15MHz	QPSK-QPSK	20825-20975	75RB#0-75RB#0	28.622	30.74	PASS
7-7	15MHz-15MHz	QPSK-QPSK	21025-21175	75RB#0-75RB#0	28.636	30.75	PASS
7-7	15MHz-15MHz	QPSK-QPSK	21225-21375	75RB#0-75RB#0	28.567	30.71	PASS
7-7	15MHz-15MHz	16QAM-16QAM	20825-20975	75RB#0-75RB#0	28.656	30.74	PASS
7-7	15MHz-15MHz	16QAM-16QAM	21025-21175	75RB#0-75RB#0	28.652	30.74	PASS
7-7	15MHz-15MHz	16QAM-16QAM	21225-21375	75RB#0-75RB#0	28.563	30.70	PASS
7-7	15MHz-15MHz	64QAM-64QAM	20825-20975	75RB#0-75RB#0	28.623	30.75	PASS
7-7	15MHz-15MHz	64QAM-64QAM	21025-21175	75RB#0-75RB#0	28.649	30.78	PASS
7-7	15MHz-15MHz	64QAM-64QAM	21225-21375	75RB#0-75RB#0	28.586	30.71	PASS
7-7	15MHz-20MHz	QPSK-QPSK	20825-20945	75RB#0-100RB#0	32.869	35.06	PASS
7-7	15MHz-20MHz	QPSK-QPSK	21051-21171	75RB#0-100RB#0	32.914	35.08	PASS
7-7	15MHz-20MHz	QPSK-QPSK	21277-21397	75RB#0-100RB#0	32.974	35.09	PASS
7-7	15MHz-20MHz	16QAM-16QAM	20825-20945	75RB#0-100RB#0	32.895	35.05	PASS
7-7	15MHz-20MHz	16QAM-16QAM	21051-21171	75RB#0-100RB#0	32.916	35.08	PASS
7-7	15MHz-20MHz	16QAM-16QAM	21277-21397	75RB#0-100RB#0	32.973	35.10	PASS
7-7	15MHz-20MHz	64QAM-64QAM	20825-20945	75RB#0-100RB#0	32.827	35.04	PASS
7-7	15MHz-20MHz	64QAM-64QAM	21051-21171	75RB#0-100RB#0	32.894	35.10	PASS
7-7	15MHz-20MHz	64QAM-64QAM	21277-21397	75RB#0-100RB#0	32.963	35.07	PASS
7-7	20MHz-10MHz	QPSK-QPSK	20850-20994	100RB#0-50RB#0	28.051	30.20	PASS
7-7	20MHz-10MHz	QPSK-QPSK	21051-21195	100RB#0-50RB#0	28.061	30.20	PASS
7-7	20MHz-10MHz	QPSK-QPSK	21251-21395	100RB#0-50RB#0	27.991	30.20	PASS
7-7	20MHz-10MHz	16QAM-16QAM	20850-20994	100RB#0-50RB#0	27.933	30.21	PASS

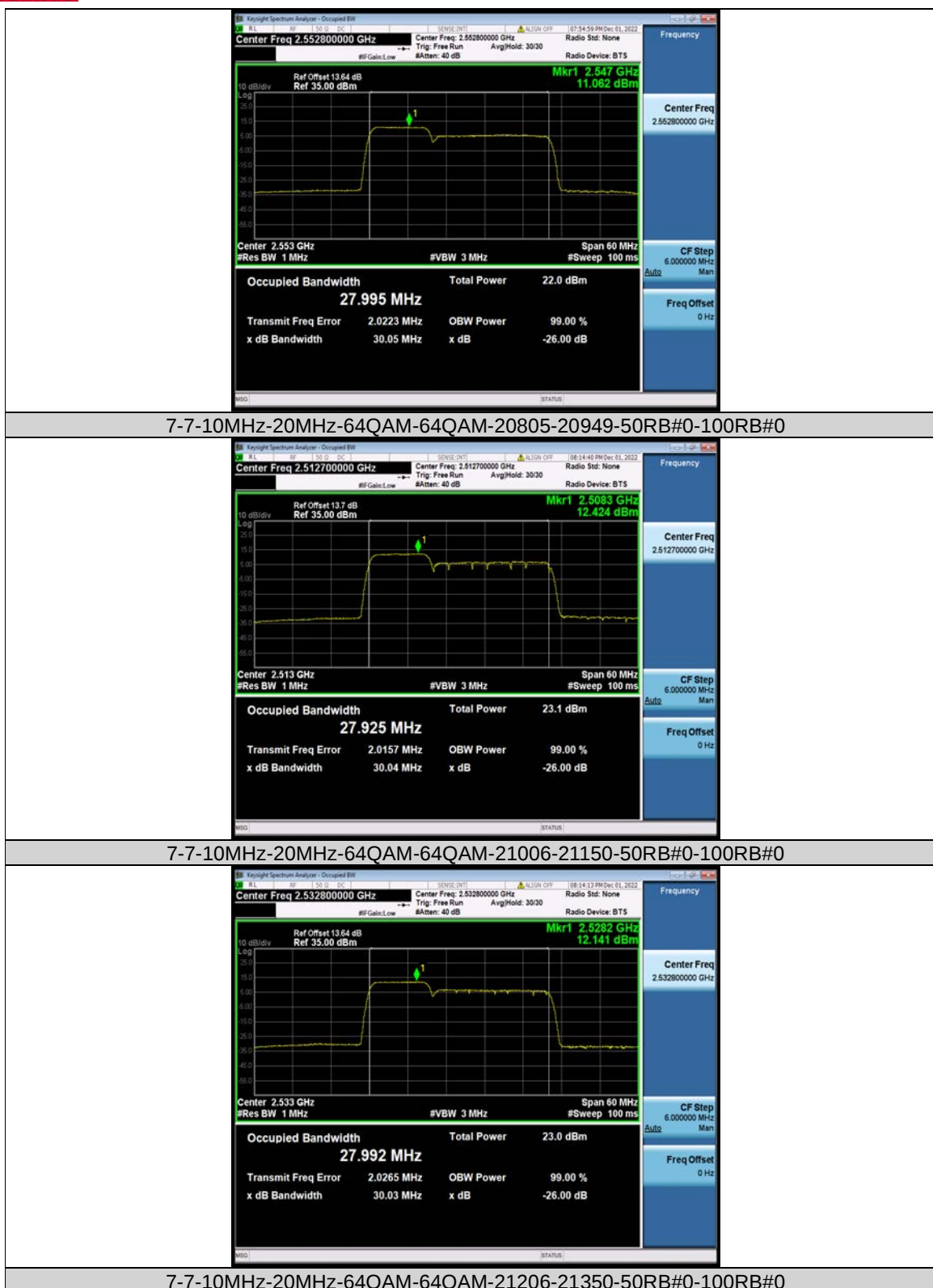
**Test Report No.: W7L-P23100014RF08**

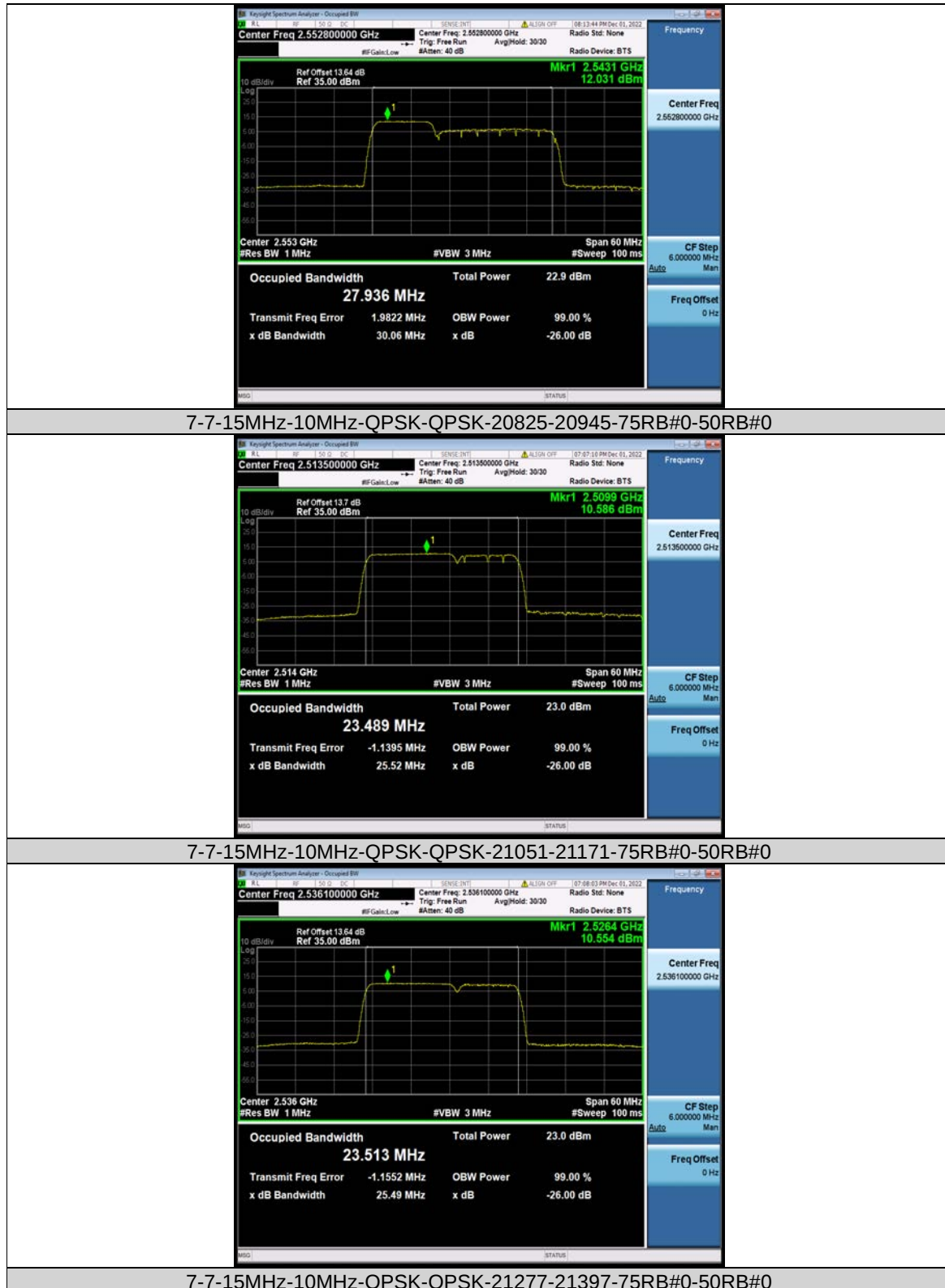
7-7	20MHz-10MHz	16QAM-16QAM	21051-21195	100RB#0-50RB#0	28.101	30.20	PASS
7-7	20MHz-10MHz	16QAM-16QAM	21251-21395	100RB#0-50RB#0	28.023	30.16	PASS
7-7	20MHz-10MHz	64QAM-64QAM	20850-20994	100RB#0-50RB#0	28.063	30.21	PASS
7-7	20MHz-10MHz	64QAM-64QAM	21051-21195	100RB#0-50RB#0	28.068	30.21	PASS
7-7	20MHz-10MHz	64QAM-64QAM	21251-21395	100RB#0-50RB#0	28.022	30.13	PASS
7-7	20MHz-15MHz	QPSK-QPSK	20850-21021	100RB#0-75RB#0	32.886	35.10	PASS
7-7	20MHz-15MHz	QPSK-QPSK	21026-21197	100RB#0-75RB#0	32.873	35.11	PASS
7-7	20MHz-15MHz	QPSK-QPSK	21201-21372	100RB#0-75RB#0	32.823	35.12	PASS
7-7	20MHz-15MHz	16QAM-16QAM	20850-21021	100RB#0-75RB#0	32.849	35.08	PASS
7-7	20MHz-15MHz	16QAM-16QAM	21026-21197	100RB#0-75RB#0	32.880	35.10	PASS
7-7	20MHz-15MHz	16QAM-16QAM	21201-21372	100RB#0-75RB#0	32.893	35.15	PASS
7-7	20MHz-15MHz	64QAM-64QAM	20850-21021	100RB#0-75RB#0	32.880	35.08	PASS
7-7	20MHz-15MHz	64QAM-64QAM	21026-21197	100RB#0-75RB#0	32.866	35.13	PASS
7-7	20MHz-15MHz	64QAM-64QAM	21201-21372	100RB#0-75RB#0	32.869	35.14	PASS
7-7	20MHz-20MHz	QPSK-QPSK	20850-21048	100RB#0-100RB#0	37.686	40.02	PASS
7-7	20MHz-20MHz	QPSK-QPSK	21001-21199	100RB#0-100RB#0	37.689	40.08	PASS
7-7	20MHz-20MHz	QPSK-QPSK	21152-21350	100RB#0-100RB#0	37.687	40.04	PASS
7-7	20MHz-20MHz	16QAM-16QAM	20850-21048	100RB#0-100RB#0	37.623	40.03	PASS
7-7	20MHz-20MHz	16QAM-16QAM	21001-21199	100RB#0-100RB#0	37.732	40.07	PASS
7-7	20MHz-20MHz	16QAM-16QAM	21152-21350	100RB#0-100RB#0	37.698	40.05	PASS
7-7	20MHz-20MHz	64QAM-64QAM	20850-21048	100RB#0-100RB#0	37.665	40.04	PASS
7-7	20MHz-20MHz	64QAM-64QAM	21001-21199	100RB#0-100RB#0	37.599	40.04	PASS
7-7	20MHz-20MHz	64QAM-64QAM	21152-21350	100RB#0-100RB#0	37.684	40.05	PASS

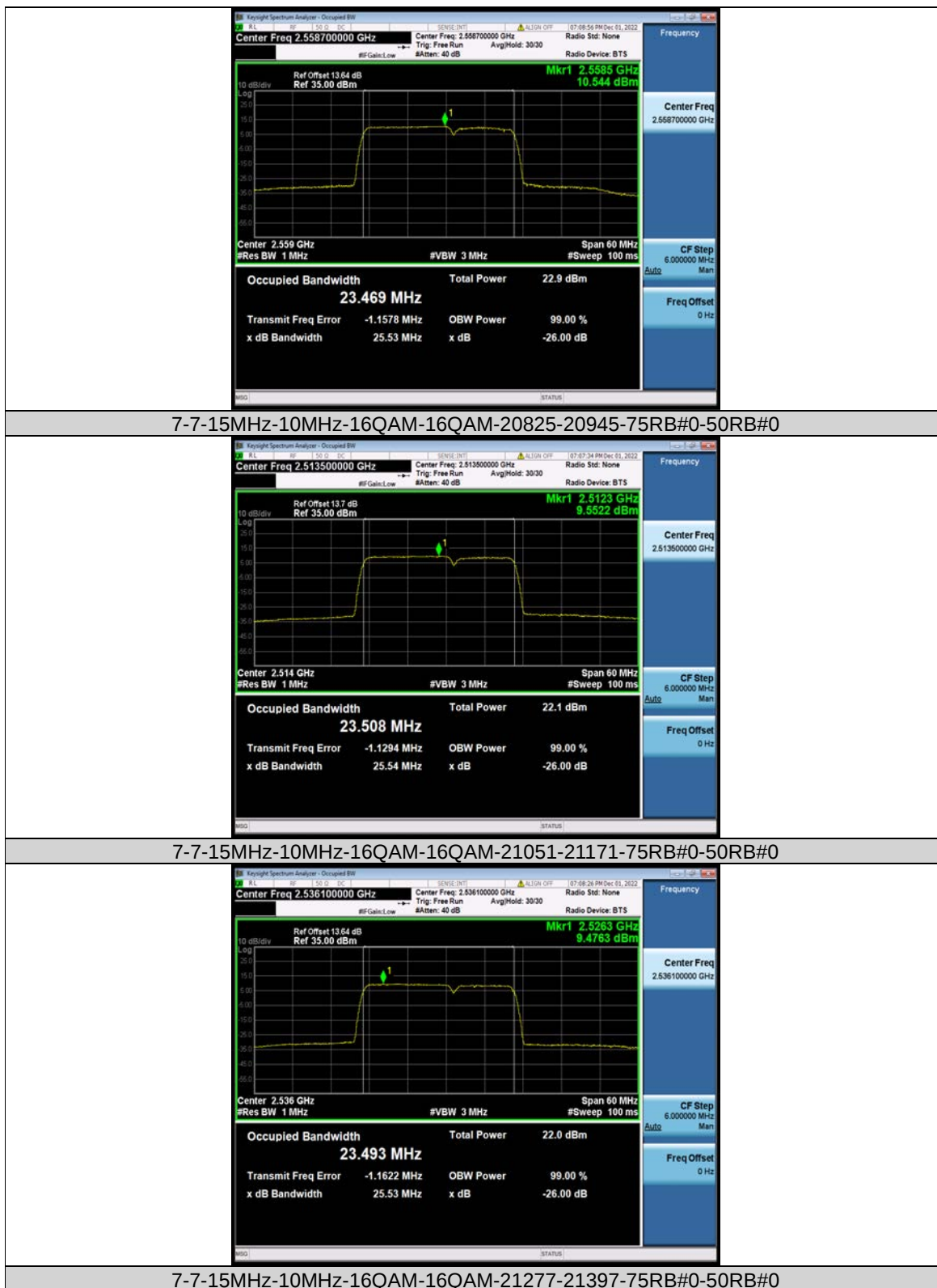
Test Graphs

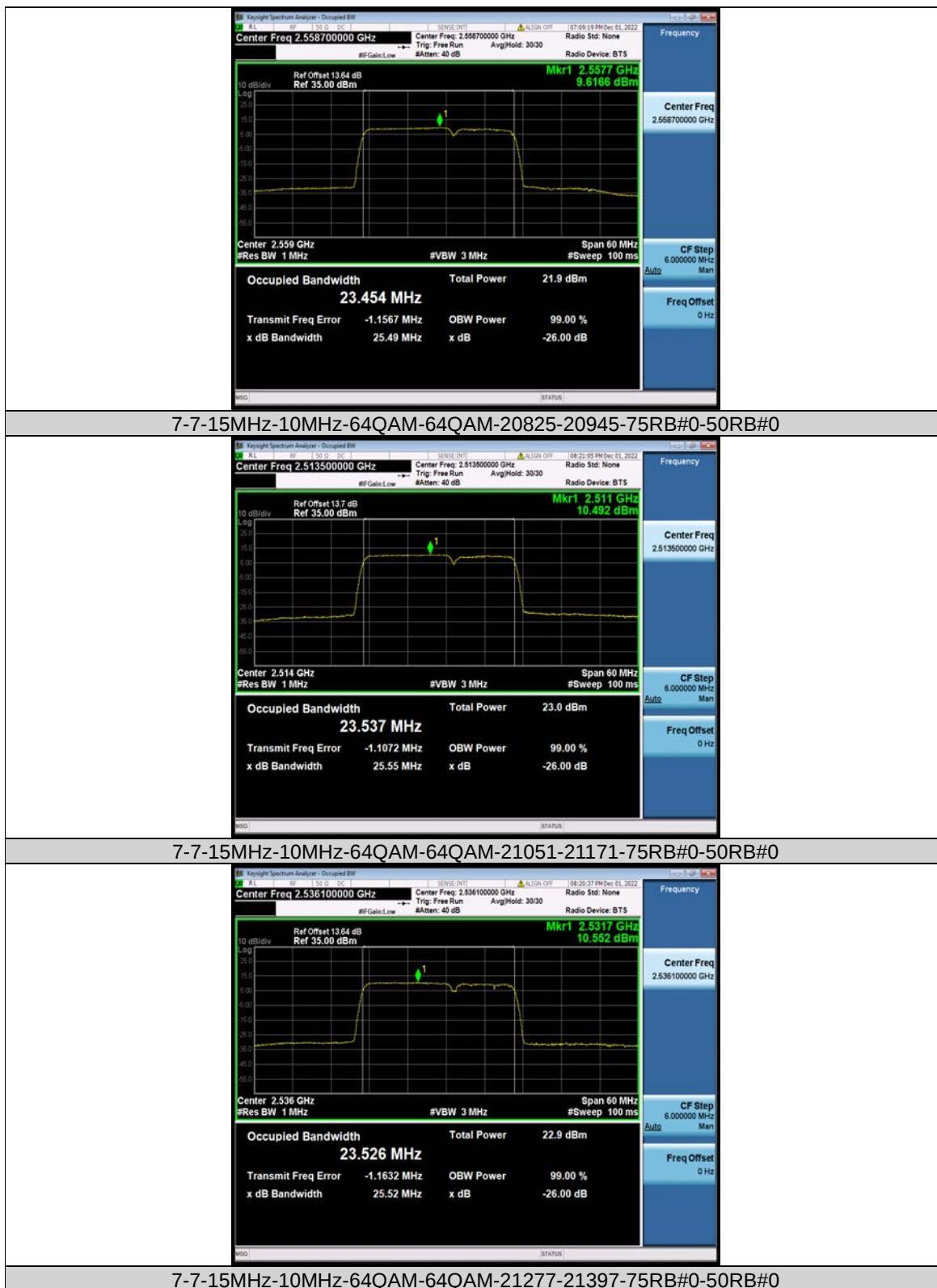






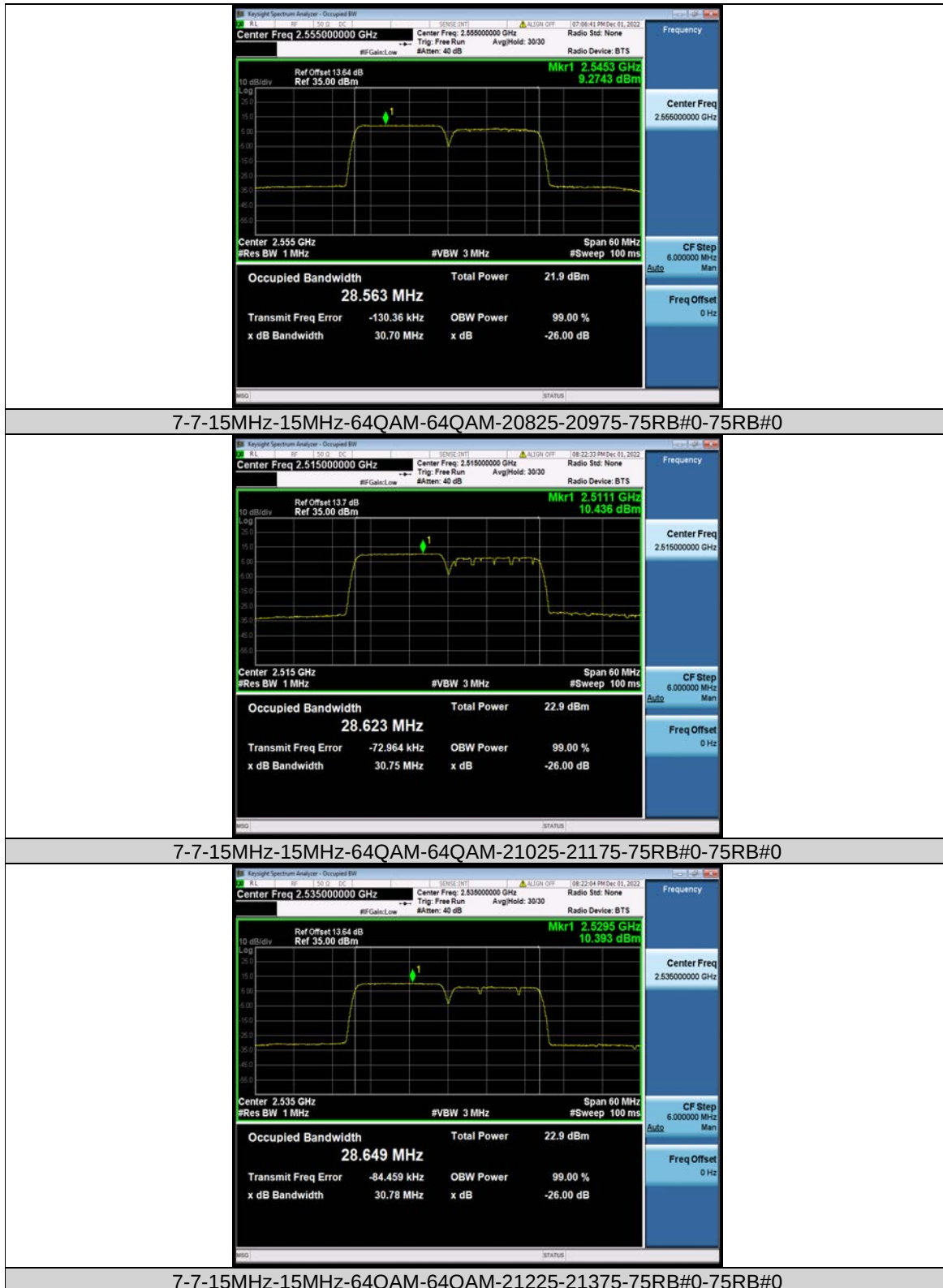


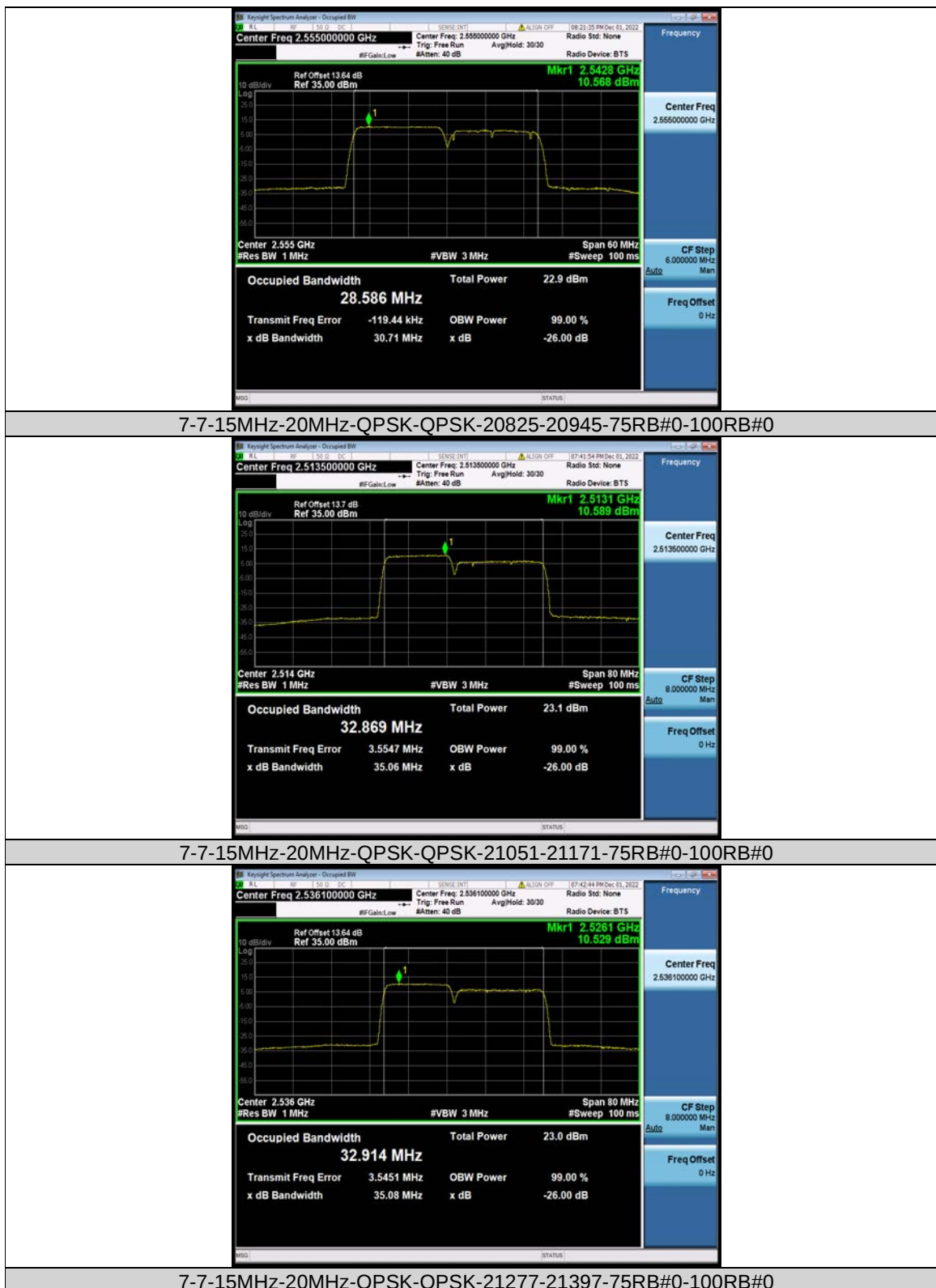


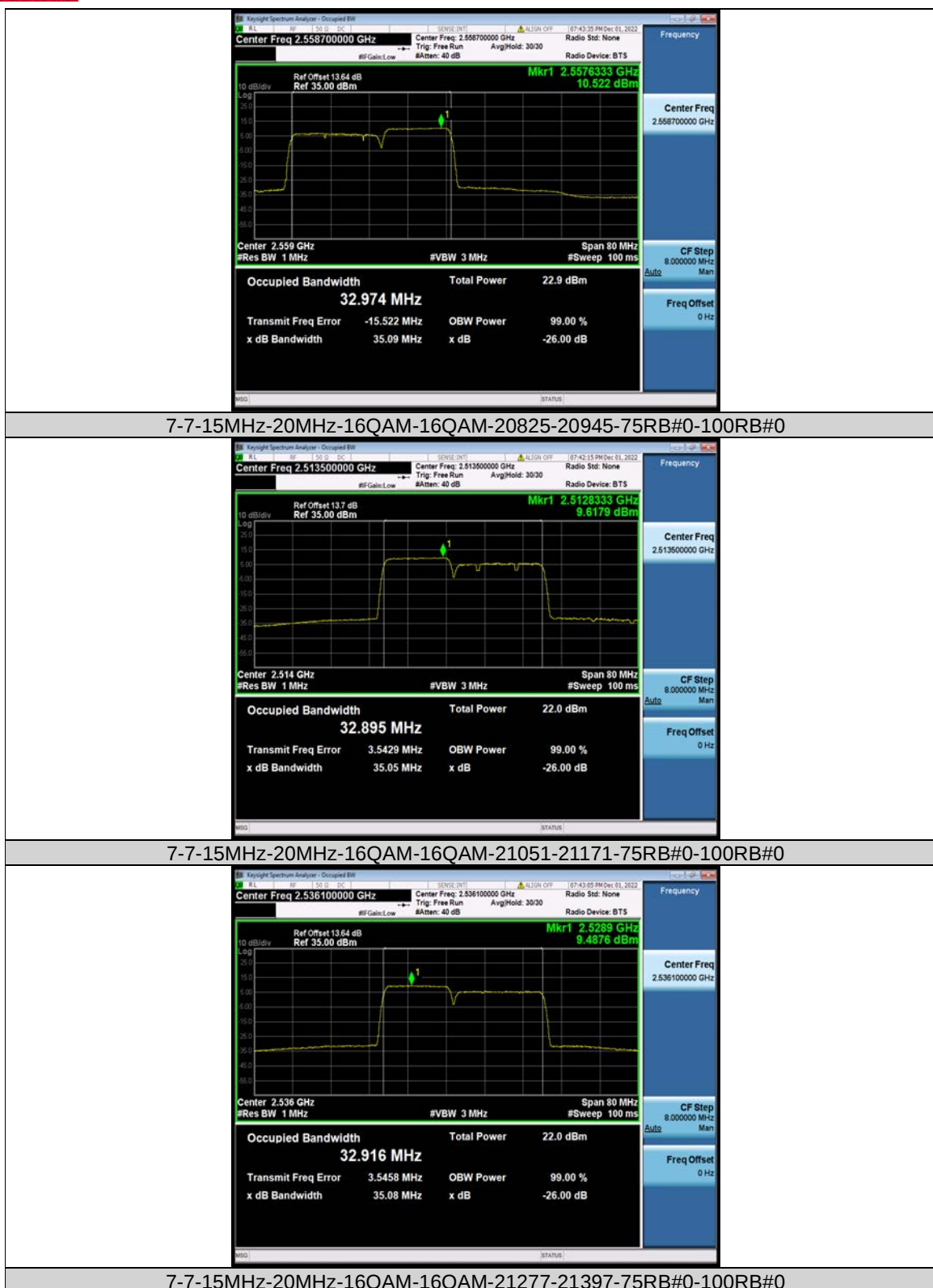


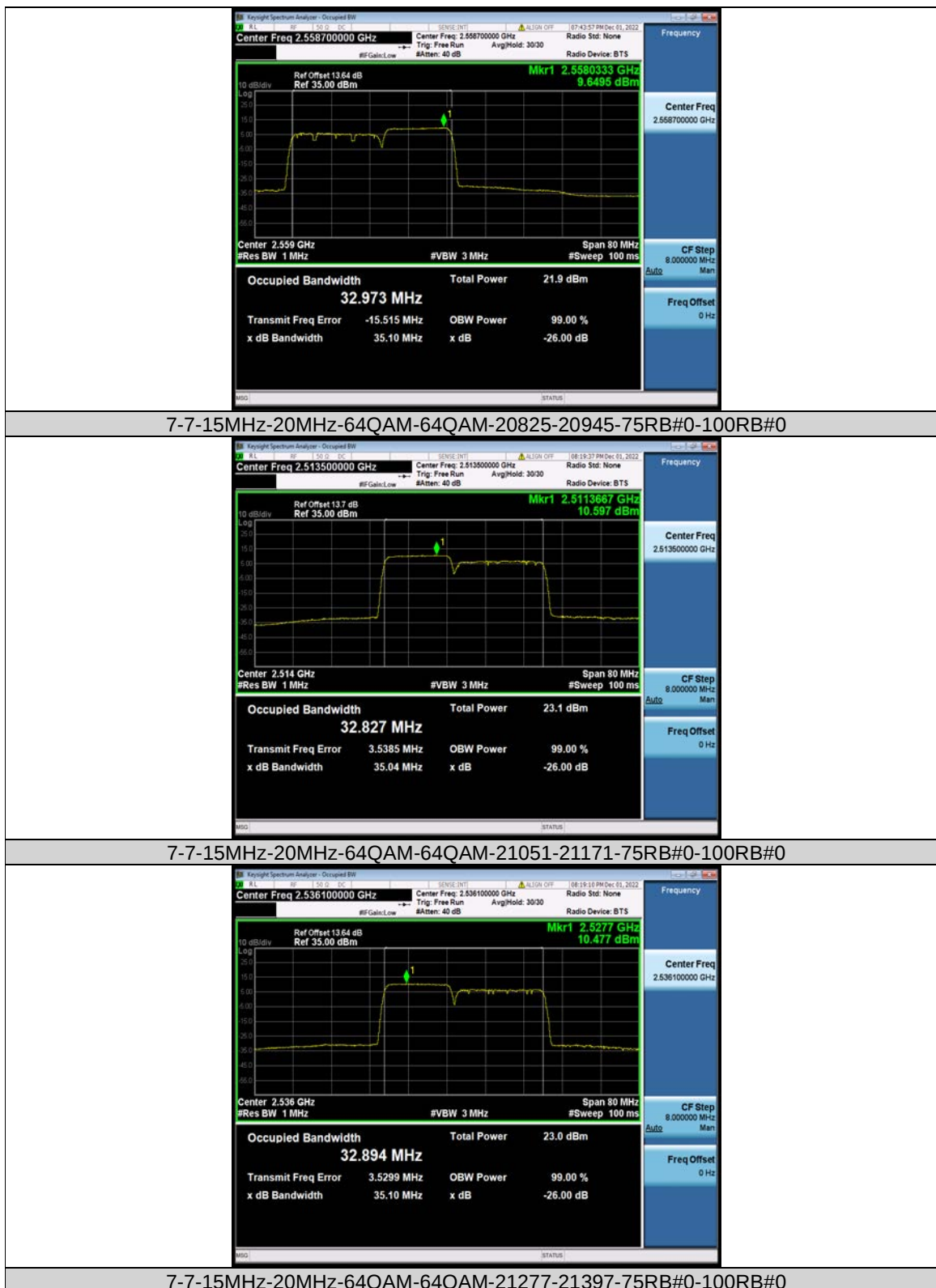


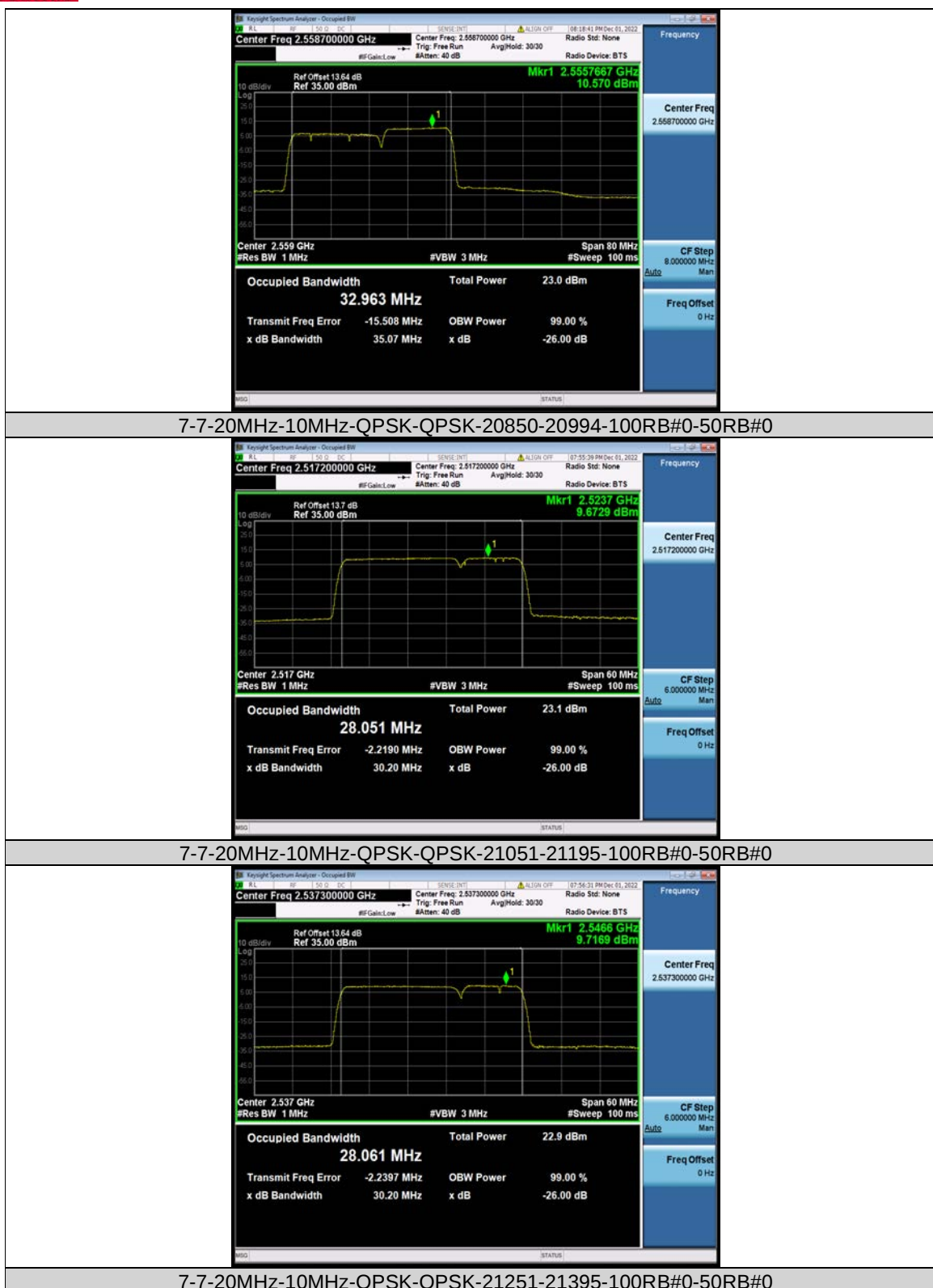


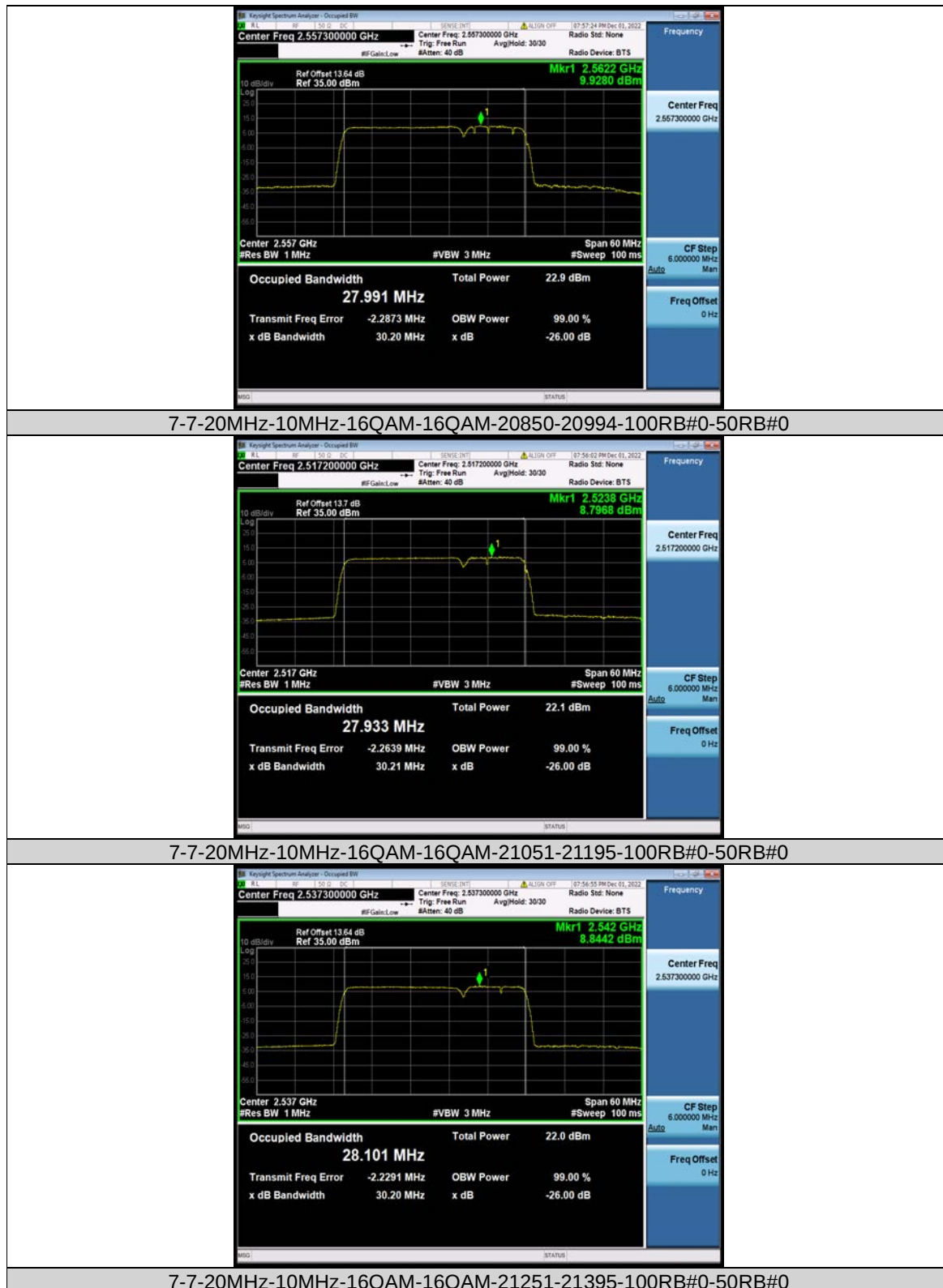




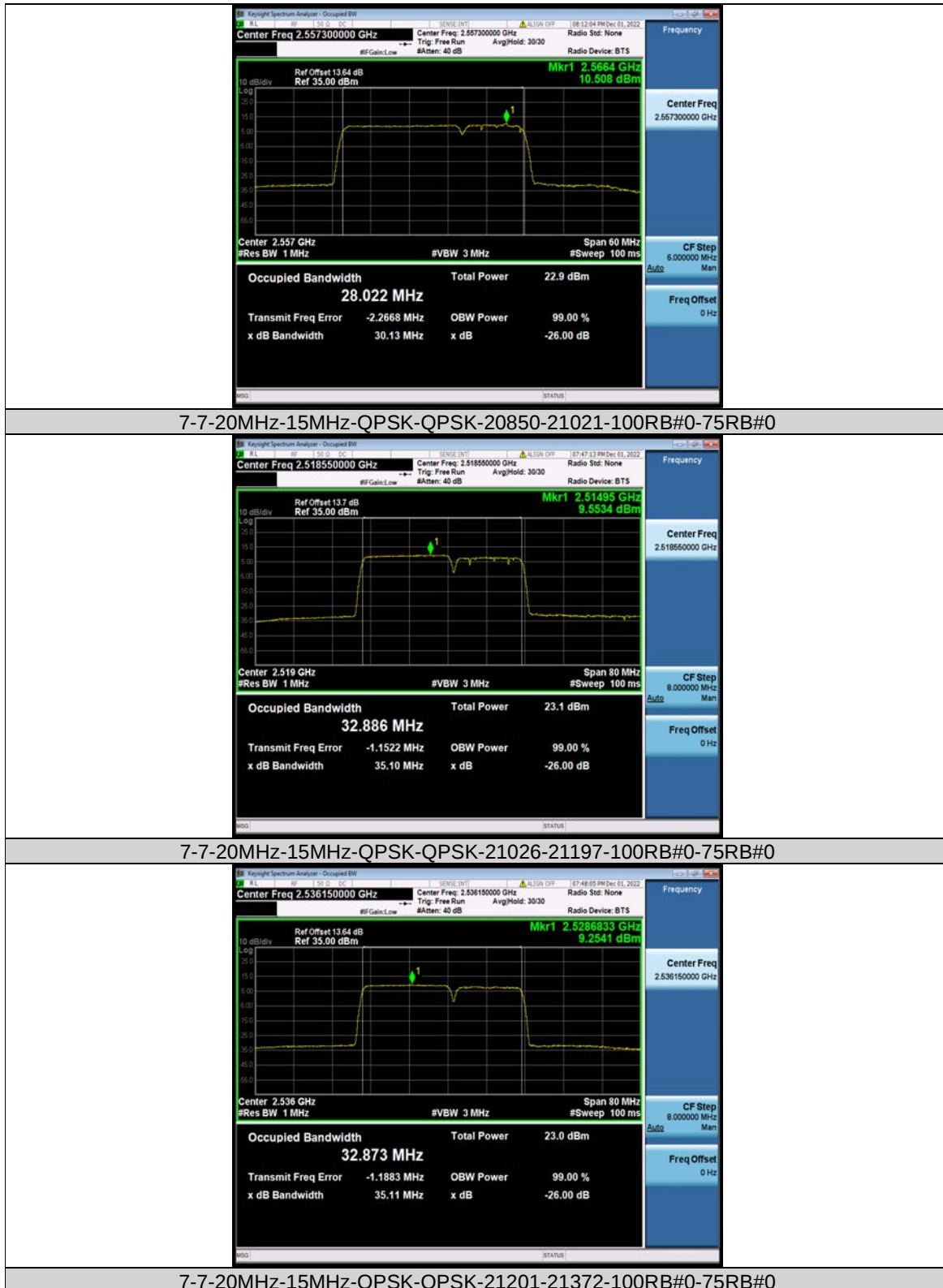




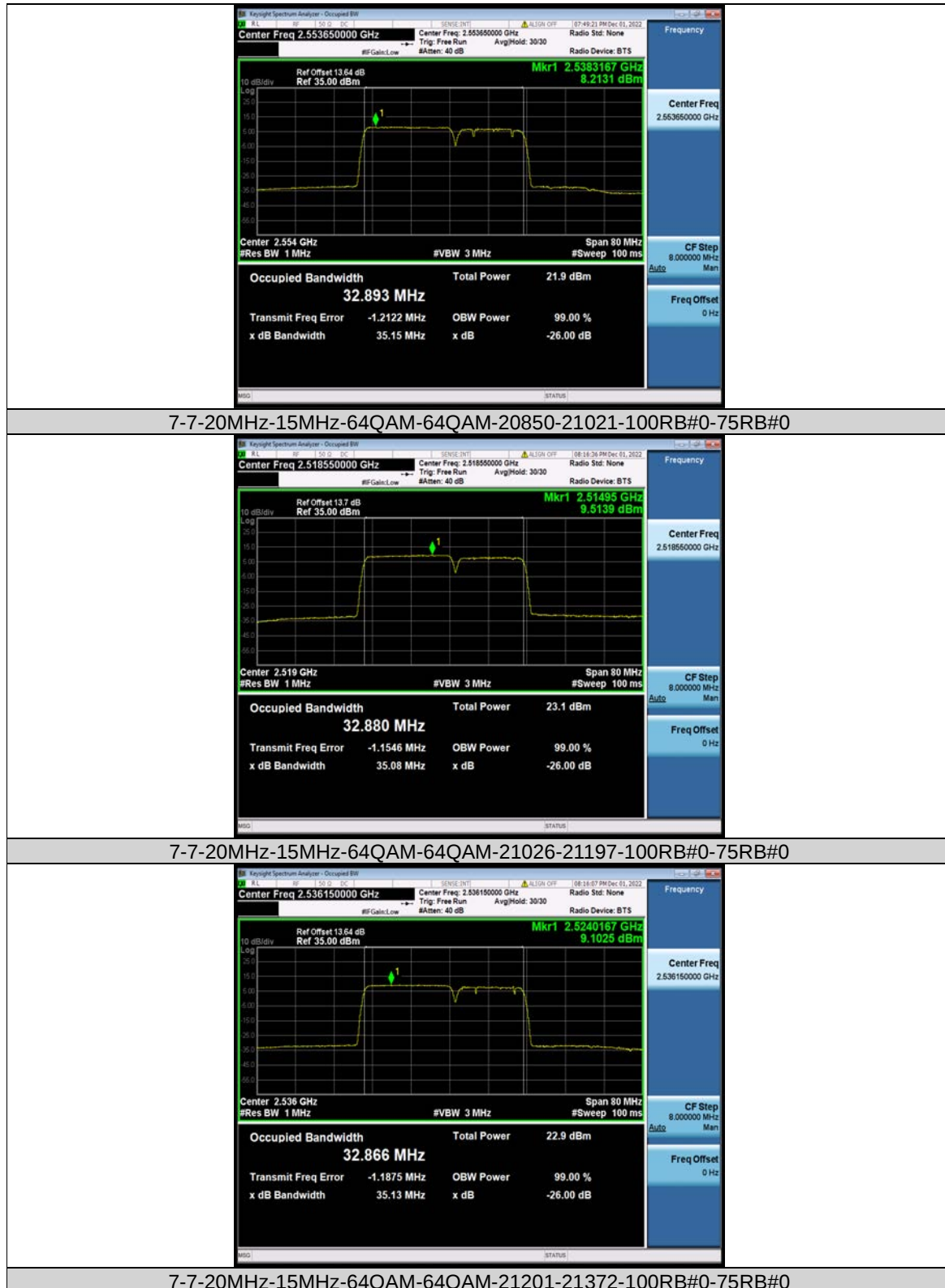


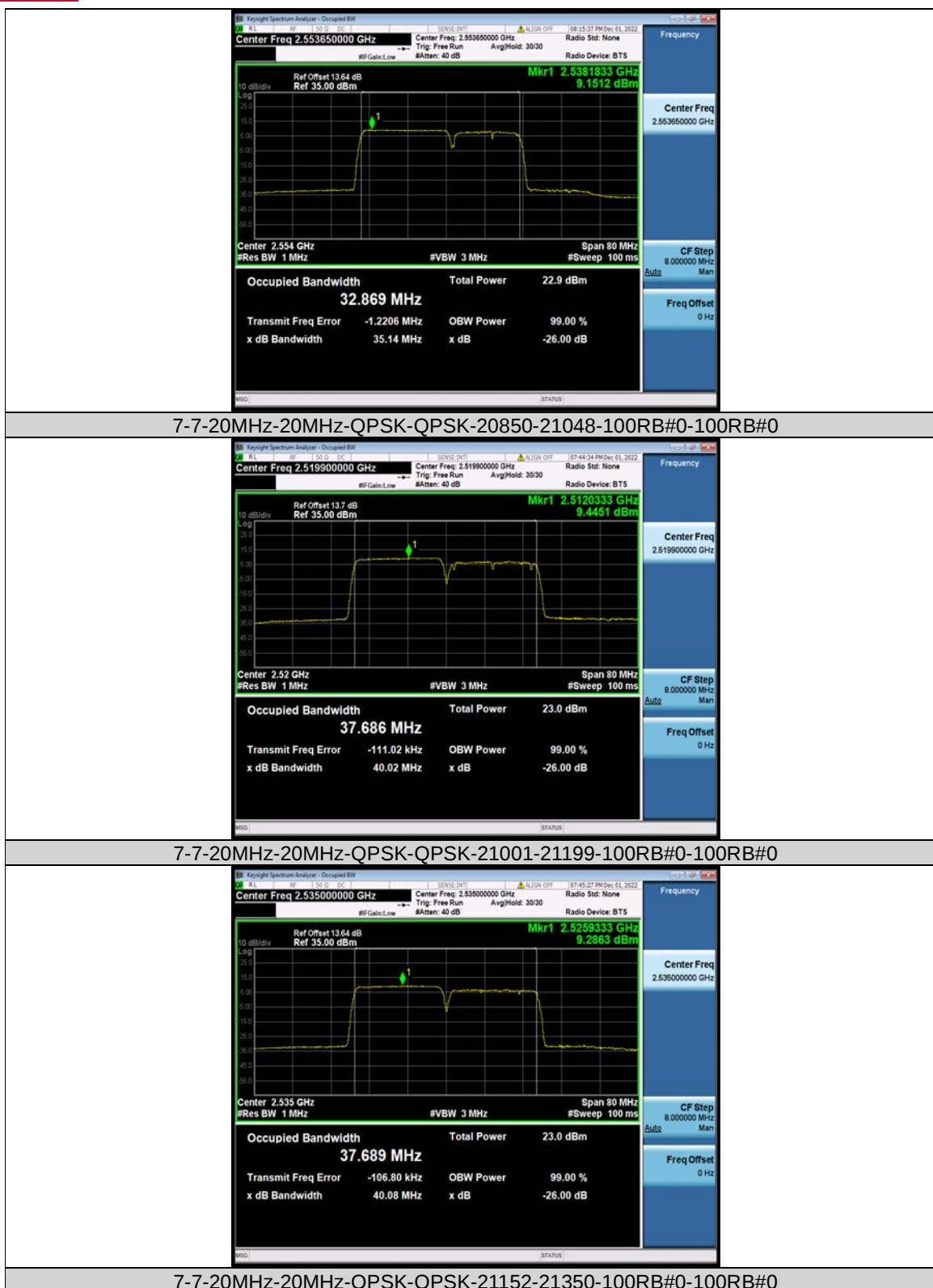


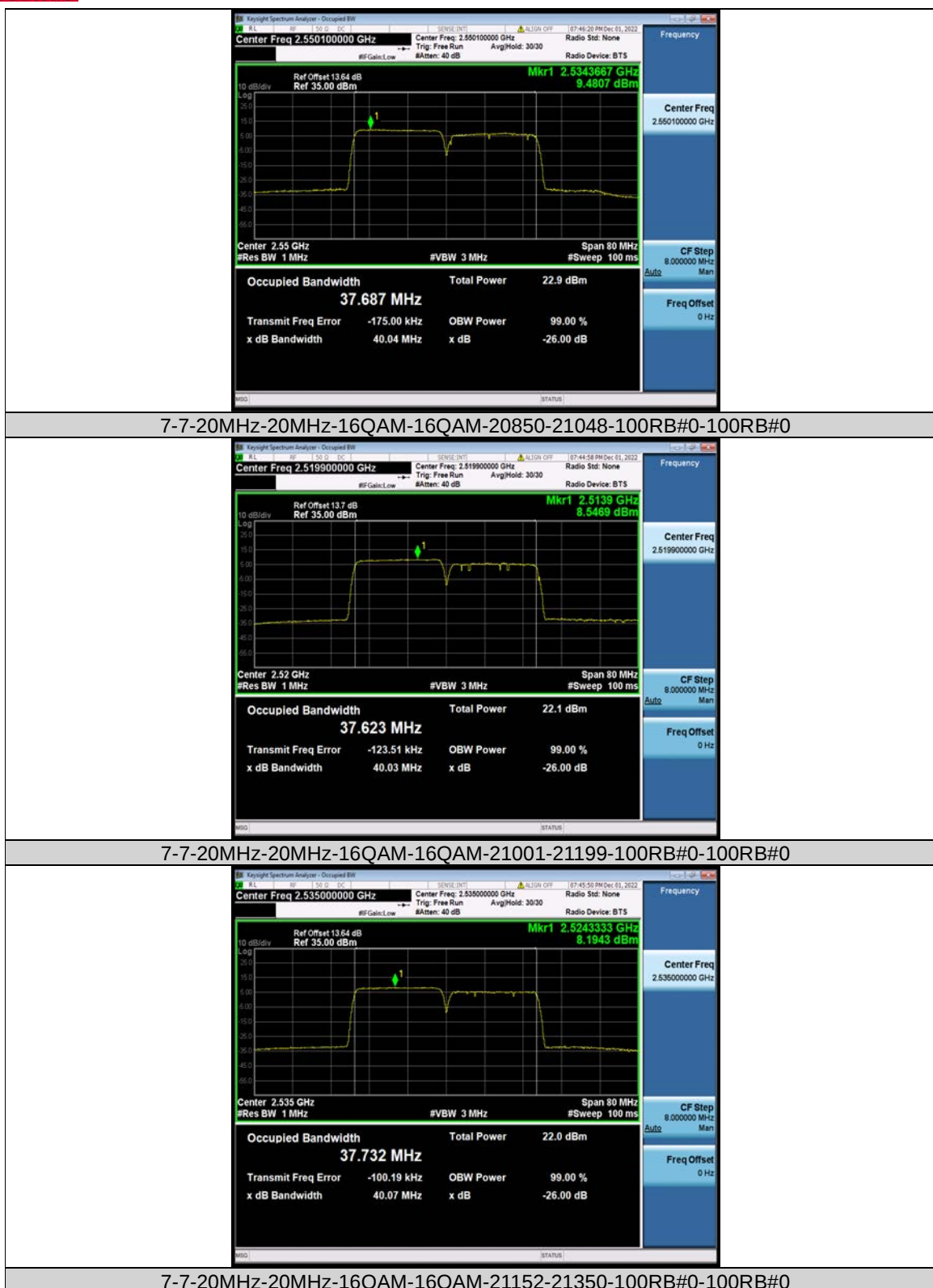


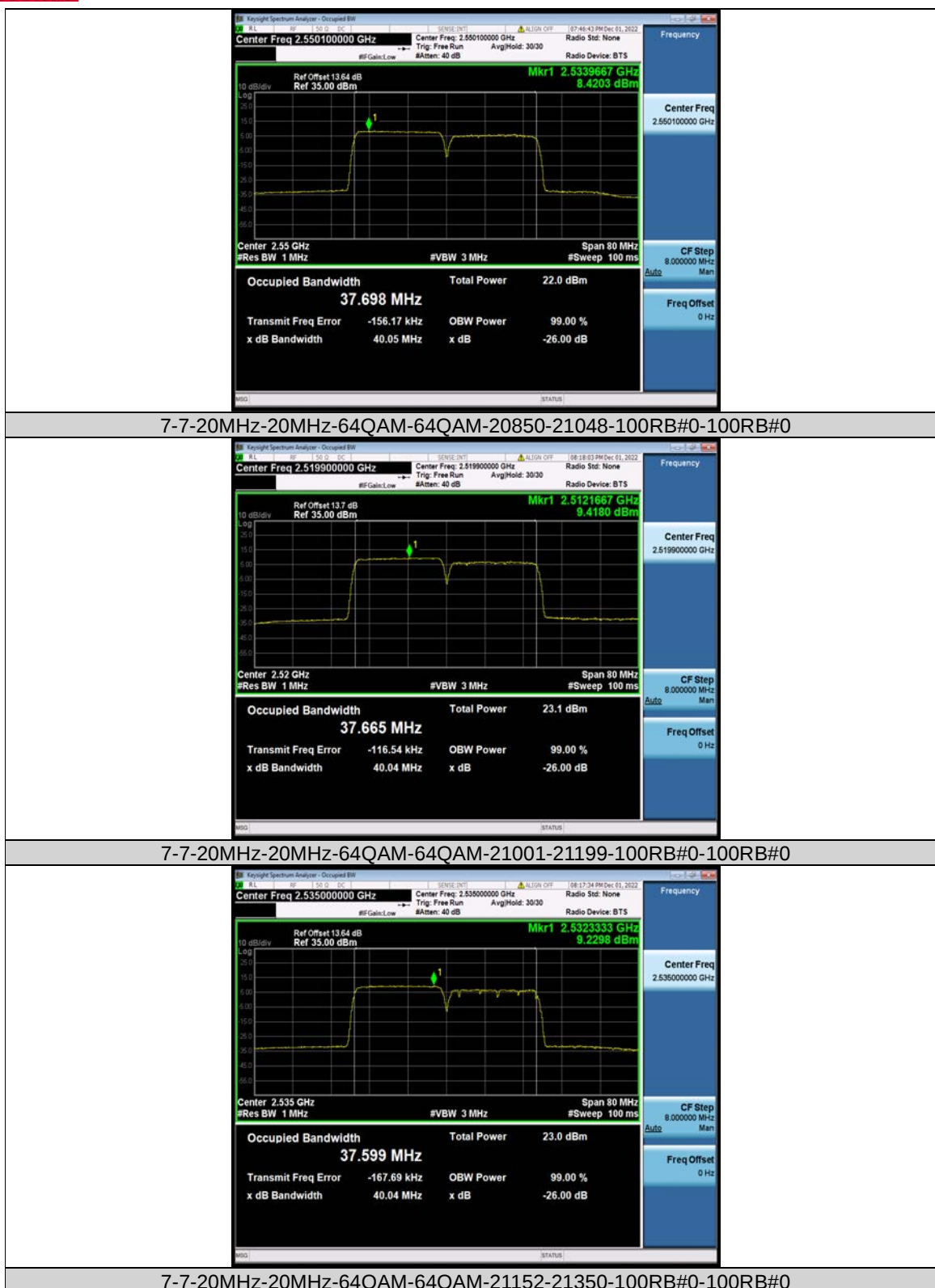














BAND EDGE

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
7-7	20MHz-20MHz	QPSK-QPSK	20850-21048	100RB#0-100RB#0	-39.25,-37.57,-37.29,-34.67	PASS
7-7	20MHz-20MHz	QPSK-QPSK	20850-21048	1RB#0-1RB#99	-52.40,-51.97,-50.55,-43.08	PASS
7-7	20MHz-20MHz	QPSK-QPSK	20850-21048	1RB#99-1RB#0	-52.40,-52.08,-52.18,-51.83	PASS
7-7	20MHz-20MHz	QPSK-QPSK	21152-21350	100RB#0-100RB#0	-37.41,-39.04,-52.25,-52.41	PASS
7-7	20MHz-20MHz	QPSK-QPSK	21152-21350	1RB#0-1RB#99	-46.94,-51.82,-52.25,-52.38	PASS
7-7	20MHz-20MHz	QPSK-QPSK	21152-21350	1RB#99-1RB#0	-52.15,-52.09,-52.23,-52.39	PASS
7-7	20MHz-20MHz	16QAM-16QAM	20850-21048	100RB#0-100RB#0	-52.45,-41.26,-39.07,-36.63	PASS
7-7	20MHz-20MHz	16QAM-16QAM	20850-21048	1RB#0-1RB#99	-52.26,-51.95,-50.55,-43.54	PASS
7-7	20MHz-20MHz	16QAM-16QAM	20850-21048	1RB#99-1RB#0	-52.34,-52.28,-52.17,-52.10	PASS
7-7	20MHz-20MHz	16QAM-16QAM	21152-21350	100RB#0-100RB#0	-40.04,-41.07,-41.93,-52.41	PASS
7-7	20MHz-20MHz	16QAM-16QAM	21152-21350	1RB#0-1RB#99	-48.19,-51.74,-52.11,-52.42	PASS
7-7	20MHz-20MHz	16QAM-16QAM	21152-21350	1RB#99-1RB#0	-52.20,-52.30,-52.24,-52.38	PASS
7-7	20MHz-20MHz	64QAM-64QAM	20850-21048	100RB#0-100RB#0	-41.34,-40.20,-39.81,-37.80	PASS
7-7	20MHz-20MHz	64QAM-64QAM	20850-21048	1RB#0-1RB#99	-52.38,-52.06,-50.57,-43.68	PASS
7-7	20MHz-20MHz	64QAM-64QAM	20850-21048	1RB#99-1RB#0	-52.45,-52.43,-52.17,-52.16	PASS
7-7	20MHz-20MHz	64QAM-64QAM	21152-21350	100RB#0-100RB#0	-39.67,-41.30,-42.13,-52.41	PASS
7-7	20MHz-20MHz	64QAM-64QAM	21152-21350	1RB#0-1RB#99	-47.53,-51.70,-52.15,-52.35	PASS
7-7	20MHz-20MHz	64QAM-64QAM	21152-21350	1RB#99-1RB#0	-52.27,-52.25,-52.06,-52.41	PASS

Test Graphs

