FCC TEST REPORT

(PART 27)

Applicant:	POINTMOBILE CO.,LTD
Address:	9F Kabul Great Valley, 32, Digital-ro 9-gil, Geumcheon-gu, Seoul, Korea 08512

Manufacturer or Supplier:	POINTMOBILE CO.,LTD
Address:	9F Kabul Great Valley, 32, Digital-ro 9-gil, Geumcheon-gu, Seoul, Korea 08512
Product:	Moblie computer
Brand Name:	Point mobile
Model Name:	PM95
FCC ID:	V2X-PM95
Date of tests:	Jan. 08, 2024 ~ May. 10, 2024

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
Simon Wang Date: May. 10, 2024	Luke Lu Date: May. 10, 2024

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

Room B37, Warehouse A5, No.3 Chiwan 4th Road, Zhaoshang Street, Nanshan District Shenzhen, Guangdong, People's Republic of China

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P23120020RF10	Original release	May. 10, 2024

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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(a)(3)	Equivalent Isotropically Radiated Power	Compliance	A
§2.1055 §27.54	Frequency Stability	Compliance	A
§2.1049	Occupied Bandwidth	Compliance	A
§2.1051 §27.53(a)(4)	Conducted Band Edge Measurements	Compliance	A
§2.1051 §27.53(a)(4)	Conducted Spurious Emissions	Compliance	A
§2.1053 §27.53(a)(4)	Radiated Spurious Emissions	Compliance	A/B
NA	Peak to average ratio	Compliance	A

***Test Lab Information Reference**
Lab A:
BV 7Layers Communications Technology (Shenzhen) Co., Ltd
Lab Address:
Room B37, Warehouse A5, No.3 Chiwan 4th Road, Zhaoshang Street, Nanshan District Shenzhen, Guangdong, People's Republic of China
Accredited Test Lab Cert 3939.01
The FCC Site Registration No. : 525120; Designation No. : CN1171;

1.1 MEASREMENT 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	±76.97Hz
Radiated emissions (9KHz~30MHz)	±2.68dB
Radiated emissions & Radiated Power (30MHz~1GHz)	±4.98dB
Radiated emissions & Radiated Power (1GHz ~6GHz)	±4.70dB
Radiated emissions (6GHz ~18GHz)	±4.60dB
Radiated emissions (18GHz ~40GHz)	±4.12dB
Conducted emissions	±4.01dB
Occupied Channel Bandwidth	±43.58KHz
Conducted Output power	±2.06dB
Band Edge Measurements	±4.70dB

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	Mar. 28,23	Mar. 27,24
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 27,24	Mar. 26,25
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.10,23	May.09,24
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.09,24	May.08,25
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.02,23	Sep.01,24
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 18,23	Feb. 17,24
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 17,24	Feb. 16,25
Horn Antenna	ETS-LINDGREN	3117	00168692	Feb. 18,23	Feb. 17,24
Horn Antenna	ETS-LINDGREN	3117	00168692	Feb. 17,24	Feb. 16,25
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Sep.03, 23	Sep.02, 24
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 14,23	Feb. 13,24
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 13,24	Feb. 12,25
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May. 06,23	May. 05,24
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May. 05,24	May. 04,25
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.10,23	May.09,24
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.09,24	May.08,25
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 17,23	Feb.16,24
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb.16,24	Feb.15,25
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	Nov. 14,23	Nov. 13,26
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	50HF-010-SMA	May. 06,23	May. 05,24
10dB Attenuator	JFW/USA	50HF-010-SMA	50HF-010-SMA	May. 05,24	May. 04,25
Power Meter	Anritsu	ML2495A	1506002	Feb. 14,23	Feb. 13,24
Power Meter	Anritsu	ML2495A	1506002	Feb. 13,24	Feb. 12,25
Power Sensor	Anritsu	MA2411B	1339352	Feb. 14,23	Feb. 13,24
Power Sensor	Anritsu	MA2411B	1339352	Feb. 13,24	Feb. 12,25
Temperature Chamber	ESPEC	SH-242	93000855	May. 06,23	May. 05,24
Temperature Chamber	ESPEC	SH-242	93000855	May. 05,24	May. 04,25
MXG Analog Microvave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 14,23	Feb. 13,24
MXG Analog Microvave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 13,24	Feb. 12,25

Base station R&S CMW500	Rohde&Schwarz	CMW500	153085	May.10,23	May.09,24
Base station R&S CMW500	Rohde&Schwarz	CMW500	153085	May.09,24	May.08,25
DC Source	Kikusui/JP	PMX18-5A	N/A	Aug. 11,23	Aug. 10,24
N9010B keysight SN	KEYSIGHT	N9010B	MY62170516	Aug. 01,23	Jul. 31, 24

NOTE: 1. The calibration interval of the above test instruments is 12/ 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/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.

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Moblie computer	
BRAND NAME	Point mobile	
MODEL NAME	PM95	
NOMINAL VOLTAGE	5.0Vdc (adapter) 3.87Vdc (battery)	
MODULATION TECHNOLOGY	**LTE**	QPSK, 16QAM, 64QAM, 256QAM
	5G NR	DFT-s-OFDM(Pi/2BPSK,QPSK,16QAM,64QAM,256QAM); CP-OFDM(QPSK,16QAM,64QAM,256QAM);
FREQUENCY RANGE	**LTE Band 30 Channel Bandwidth: 5MHz**	2307.5MHz ~ 2312.5MHz
	LTE Band 30 Channel Bandwidth: 10MHz	2310MHz
	NR Band n30	2307.5MHz ~ 2312.5MHz
MAX. EIRP POWER	**LTE Band 30 Channel Bandwidth: 5MHz**	221.82mW
	LTE Band 30 Channel Bandwidth: 10MHz	239.88mW
	NR Band n30 Channel Bandwidth: 5MHz	479.73mW
	NR Band n30 Channel Bandwidth: 10MHz	486.41mW
EMISSION DESIGNATOR	**LTE Band 30 Channel Bandwidth: 5MHz**	QPSK: 4M53G7D
		16QAM: 4M52W7D
	LTE Band 30 Channel Bandwidth: 10MHz	QPSK: 9M02G7D
		16QAM: 9M03W7D
	NR Band n30 Channel Bandwidth: 5MHz	QPSK: 4M46G7D 16QAM: 4M47W7D 64QAM: 4M48W7D 256QAM: 4M48W7D Pi/2BPSK: 4M47G7D

	NR Band n30 Channel Bandwidth: 10MHz	QPSK: 8M92G7D 16QAM: 8M94W7D 64QAM: 8M92W7D 256QAM: 8M91W7D Pi/2BPSK: 8M92G7D
ANTENNA TYPE	ANT10: Internal Antenna with 3.28dBi gain for LTE B30 Internal Antenna with 3.28 dBi gain for NR Band n30	
HW VERSION	MP	
SW VERSION	95.00	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	USB cable: non-shielded cable, with w/o ferrite core, 1.5meter	
EXTREME TEMPERATURE	-20-60 ℃	
EXTREME VOLTAGE	3.5V – 4.45V	

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. The EUT incorporates a SISO function. Physically, the EUT provides one completed transmitter and four receivers.

MODULATION MODE	TX FUNCTION
LTE	1TX/4RX

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
4. Antenna gain and EUT conducted cable loss are provided by the customer, and the laboratory will record the results based on these items that involve these two parameters.

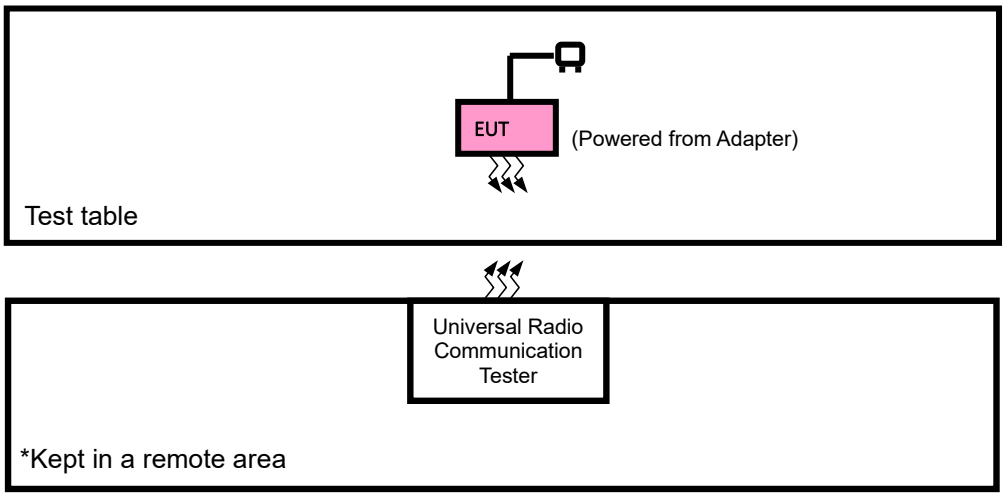
5. The worst-case scenario for all measurements is based on an engineering evaluation made on different modulations. Then, QPSK and 16QAM were observed as the worst mode to LTE bands respectively and set for all conducted and radiated. Output power measurements were measured on QPSK, 16QAM, 64QAM, and 256QAM modulations, and tests other than output power are performed only in worse-case QPSK and 16QAM modulations.

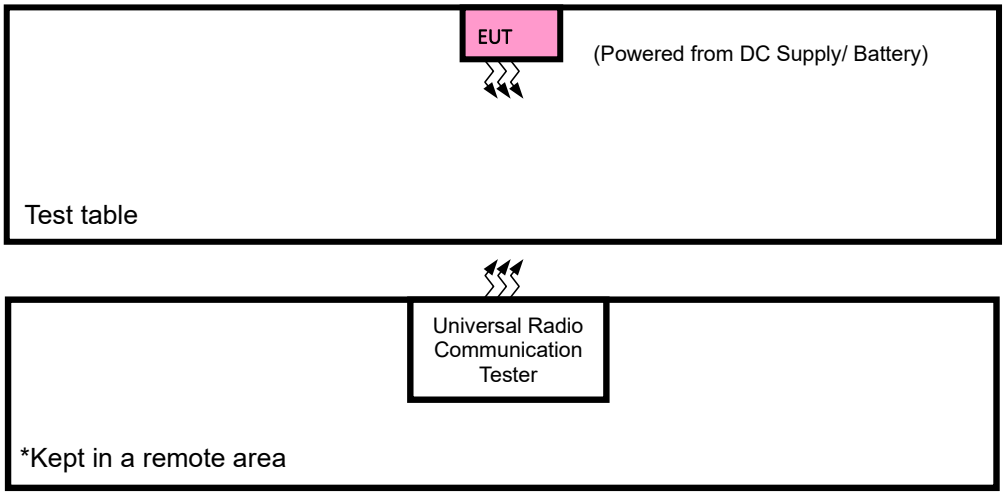
List of Accessory:

ACCESSORIES	BRAND	MANUFACTURER	MODEL	SPECIFICATION
Battery	N/A	Shenzhen Guangwei Electronic Technology CO., LTD	95-BTSC	Capacity：3.87Vdc, 4820mAh
AC Adapter 1	N/A	Shenzhen Shi Ying Yuan Electronics Co Ltd	ICP12-050-2000D(ICP12-xxx-yyyyf)	I/P: 100-240Vac, 0.3mA, O/P: 5.0Vdc, 2A
AC Adapter 2	N/A	SHENZHEN AQUILSTAR TECHNOLOGY CO.,LTD.	ASUC71w-050912300	I/P: 100-240V~50/60Hz, 0.7A O/P: 5.0Vdc, 3A or 9.0Vdc, 2A or 12.0Vdc, 1.5A
USB Cable	N/A	Dongguan DAWEI PRECISION Technology Co., Ltd.	SC-109B205	USB3.0, 1.5m

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	N/A	N/A	N/A	N/A	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	USB Line: Unshielded, Detachable, 1.5m;

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 or 5G NR link
B	EUT + DC Supply /Battery with or 5G NR LTE link

LTE BAND 30

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	ERP	27685 to 27735	27685, 27710, 27735	5MHz	QPSK,16QAM,64QAM,256QAM	1 RB / 0 RB Offset
		27710	27710	10MHz	QPSK,16QAM,64QAM,256QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	27710	27710	10MHz	QPSK,16QAM	50 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	27685 to 27735	27685, 27710, 27735	5MHz	QPSK,16QAM	25 RB / 0 RB Offset
		27710	27710	10MHz	QPSK,16QAM	50 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	27710	27710	10MHz	QPSK,16QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset
A	BAND EDGE	27685 to 27735	27685	5MHz	QPSK,16QAM	1 RB / 0 RB Offset
						25 RB / 0 RB Offset
			27735	5MHz	QPSK,16QAM	1 RB / 24 RB Offset
						25 RB / 0 RB Offset
		27710	27710	10MHz	QPSK,16QAM	1 RB / 0 RB Offset
						50 RB / 0 RB Offset
						1 RB / 49 RB Offset
						/
A	CONDUCTED EMISSION	27685 to 27735	27685, 27710, 27735	5MHz	QPSK	1 RB / 0 RB Offset
		27710	27710	10MHz	QPSK	1 RB / 0 RB Offset
A	RADIATED EMISSION	27685 to 27735	27685, 27710, 27735	5MHz	QPSK	1 RB / 0 RB Offset
		27710	27710	10MHz	QPSK	1 RB / 0 RB Offset

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

5G NR n30 MODE (SA_n30)

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CP-OFDM CHANNEL	AVAILABLE DFT-S-OFDM CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S-OFDM) (INCLUDE CP-OFDM)
A	EIRP	461500 to 462500	461500 to 462500	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
		462000	462000	Middle	10MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	1RB/ 0RB Offset
B	FREQUENCY STABILITY	461500 to 462500	461500 to 462500	Middle	5MHz	QPSK	Outer_ Full
A	PEAK TO AVERAGE RATIO	461500 to 462500	461500 to 462500	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
							Outer_ Full
A	OCCUPIED BANDWIDTH	461500 to 462500	461500 to 462500	Middle	5MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		462000	462000	Middle	10MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
A	BAND EDGE	461500 to 462500	461500 to 462500	Low	5MHz	QPSK	1RB/ 0RB Offset
							Outer_ Full
				High	5MHz	QPSK	1RB/ 24RB Offset
							Outer_ Full
		462000	462000	Middle	10MHz	QPSK	1RB/ 0RB Offset
				Middle	10MHz	QPSK	1RB/ 78RB Offset
							Outer_ Full
A	CONDUCTED EMISSION	461500 to 462500	461500 to 462500	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
		462000	462000	Middle	10MHz	QPSK	1RB/ 0RB Offset
A	RADIATED EMISSION	461500 to 462500	461500 to 462500	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
		462000	462000	Middle	10MHz	QPSK	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. The test data presented in the report from worst SA _n30.

TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ERP&EIRP	23deg. C, 70%RH	DC 5.0Vdc by Adapter	Jace Hu
FREQUENCY STABILITY	23deg. C, 70%RH	DC 3.5V/ 3.87V/ 4.45V By Battery	Jace Hu
OCCUPIED BANDWIDTH	23deg. C, 70%RH	DC 5.0Vdc by Adapter	Jace Hu
BAND EDGE	23deg. C, 70%RH	DC 5.0Vdc by Adapter	Jace Hu
CONDUCTED EMISSION	23deg. C, 70%RH	DC 5.0Vdc by Adapter	Jace Hu
RADIATED EMISSION	23deg. C, 70%RH	DC 5.0Vdc by Adapter	Jace Hu
PEAK TO AVERAGE RATIO	23deg. C, 70%RH	DC 5.0Vdc by Adapter	Jace Hu

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 AND EIRP MEASUREMENT

3.1.1 LIMITS OF OUTPUT POWER AND EIRP MEASUREMENT

For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth.For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305-2315 MHz and 2350-2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305-2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.

3.1.2 TEST PROCEDURES

EIRP MEASUREMENT:

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. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
d. E.R.P power can be calculated from E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.P.R power - 2.15dBi.

CONDUCTED POWER MEASUREMENT:

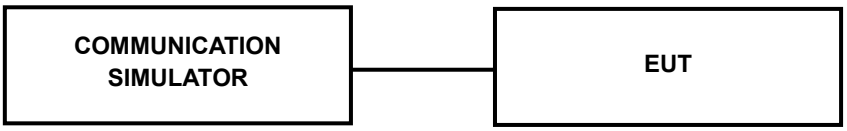
a. The EUT was set up for the maximum power with LTE link data modulation and link

up with simulator.

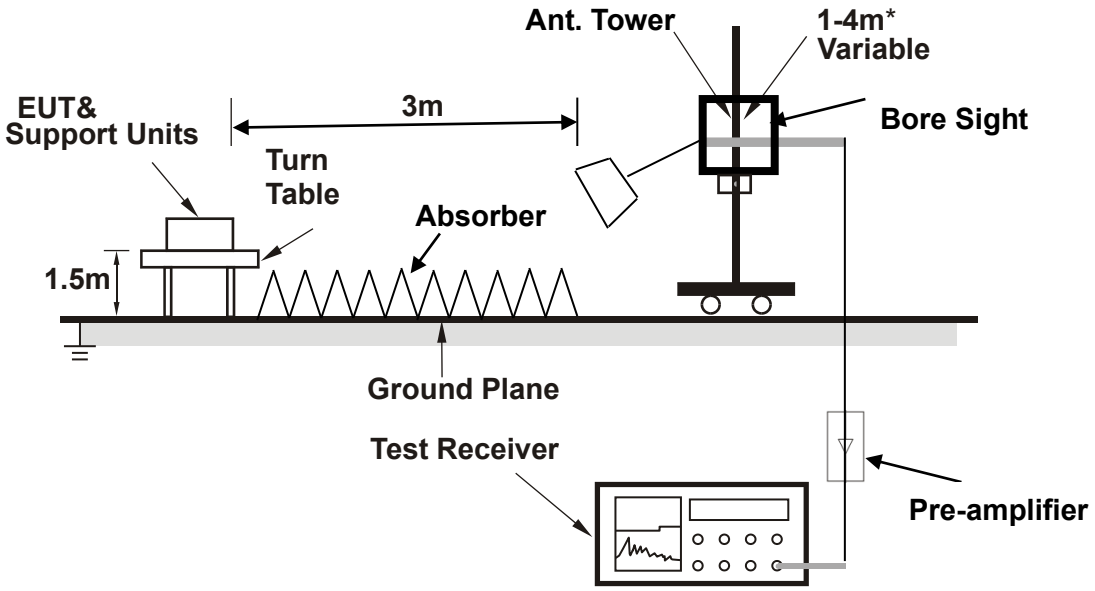
b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

3.1.3 TEST SETUP

FOR CONDUCTED POWER MEASUREMENT:



FOR EIRP MEASUREMENT:



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

3.1.4 TEST RESULTS

CONDUCTED OUTPUT POWER (dBm)

LTE Band 30(ANT10)

Band/BW	Modulation	RB Size	RB Offset	Low CH 27685 2307.5 MHz	Mid CH 27710 2310.0 MHz	High CH 27735 2312.5 MHz
30/ 5	QPSK	1	0	23.01	22.99	23.03
		1	12	23.02	23.15	23.08
		1	24	22.99	23.07	22.97
		12	0	22.10	22.06	22.00
		12	6	22.03	22.07	21.99
		12	13	22.07	21.99	22.00
		25	0	22.01	22.00	22.09
	16QAM	1	0	22.23	22.19	22.21
		1	12	22.35	22.23	22.29
		1	24	22.09	22.18	22.10
		12	0	21.01	21.12	21.08
		12	6	21.16	21.12	21.16
		12	13	21.03	21.10	20.99
		25	0	21.08	21.11	21.05
	64QAM	1	0	21.12	21.10	21.07
		1	12	21.21	21.21	21.26
		1	24	21.18	21.16	21.13
		12	0	20.08	20.01	20.11
		12	6	20.09	20.12	20.14
		12	13	20.13	19.99	20.07
		25	0	20.08	20.11	20.01
	256QAM	1	0	18.16	18.16	18.13
		1	12	18.20	18.27	18.19
		1	24	18.17	18.15	18.18
		12	0	18.08	18.09	17.97
		12	6	18.09	18.08	18.01
		12	13	17.92	17.99	18.01
		25	0	17.94	18.02	17.94

Band/BW	Modulation	RB Size	RB Offset	/	Mid CH 27710	/
				/	2310.0 MHz	/
30/ 10	QPSK	1	0	/	23.08	/
		1	24	/	**23.16**	/
		1	49	/	23.09	/
		25	0	/	22.11	/
		25	12	/	22.13	/
		25	25	/	22.12	/
		50	0	/	22.11	/
	16QAM	1	0	/	22.27	/
		1	24	/	22.36	/
		1	49	/	22.24	/
		25	0	/	21.15	/
		25	12	/	21.20	/
		25	25	/	21.13	/
		50	0	/	21.13	/
	64QAM	1	0		21.21	
		1	24		21.31	
		1	49		21.25	
		25	0		20.14	
		25	12		20.19	
		25	25		20.14	
		50	0		20.12	
	256QAM	1	0	/	18.20	/
		1	24	/	18.29	/
		1	49	/	18.22	/
		25	0	/	18.10	/
		25	12	/	18.14	/
		25	25	/	18.02	/
		50	0	/	18.08	/

N30

BW	MCS Index	RB Size	RB Offset	Low CH 461500	Mid CH 462000	High CH 462500
				Frequency 2307.5MHz	Frequency 2310MHz	Frequency 2312.5MHz
5M	DFT-s-OFDM QPSK	1	1	23.53	23.47	23.46

BW	MCS Index	RB Size	RB Offset	/	Mid CH 462000	/
				/	Frequency 2310MHz	/
10M	DFT-s-OFDM Pi/2 BPSK	1	1	/	23.53	/
		1	25	/	23.55	/
		1	50	/	23.49	/
		25	0	/	22.96	/
		25	14	/	23.41	/
		25	27	/	22.96	/
		50	0	/	23.01	/
	DFT-s-OFDM QPSK	1	1	/	23.59	/
		1	25	/	23.58	/
		1	50	/	23.58	/
		25	0	/	22.49	/
		25	14	/	23.46	/
		25	27	/	22.46	/
		50	0	/	22.45	/
	DFT-s-OFDM 16QAM	1	1	/	22.71	/
	DFT-s-OFDM 64QAM	1	1	/	21.21	/
	DFT-s-OFDM 256QAM	1	1	/	19.06	/

EIRP
LTE BAND 30
CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
27685	2307.5	23.21	209.41	0.25
27710	2310	23.46	221.82	0.25
27735	2312.5	23.03	200.91	0.25

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
-	-	-	-	-
27710	2310	23.8	239.88	0.25
-	-	-	-	-

N30

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
461500	2307.5	23.53	225.42	0.25
462000	2310	21.35	136.46	0.25
462500	2312.5	23.46	221.82	0.25

CHANNEL BANDWIDTH: 10MHz Pi/2 BPSK

Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
462000	2310	22.91	195.43	0.25

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
462000	2310	22.54	179.47	0.25

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
462000	2310	21.21	132.13	0.25

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W/5MHz)
462000	2310	20.44	110.66	0.25

CHANNEL BANDWIDTH: 10MHz 256QAM

Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W/5MHz)
462000	2310	20.26	106.17	0.25

3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILIITY MEASUREMENT

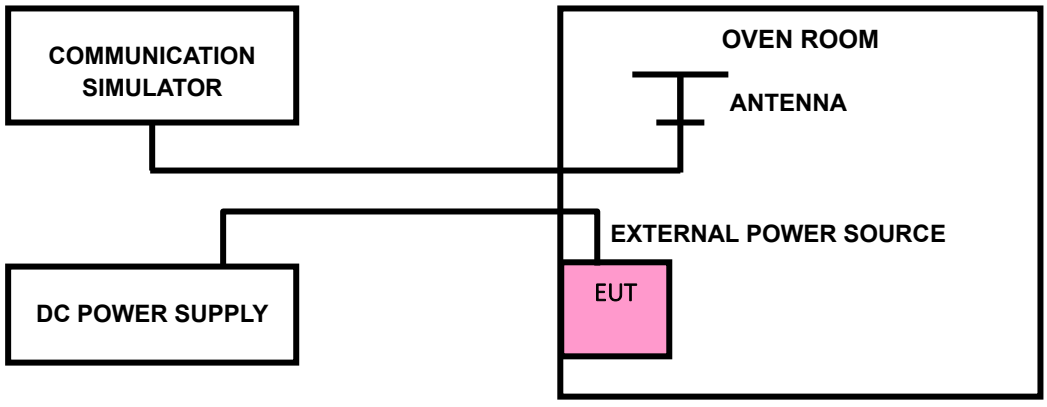
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

3.2.2 TEST PROCEDURE

a. 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.
b. 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.
c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ±0.5℃ 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.

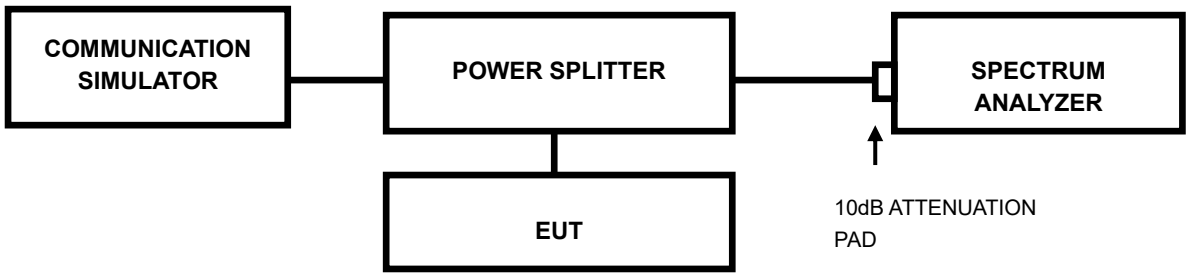
Note: VL = Low voltage(3.5V); VN/NV = Normal voltage(3.87V); VH = High voltage(4.45V);
NT = Normal temperature (25℃)

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

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

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

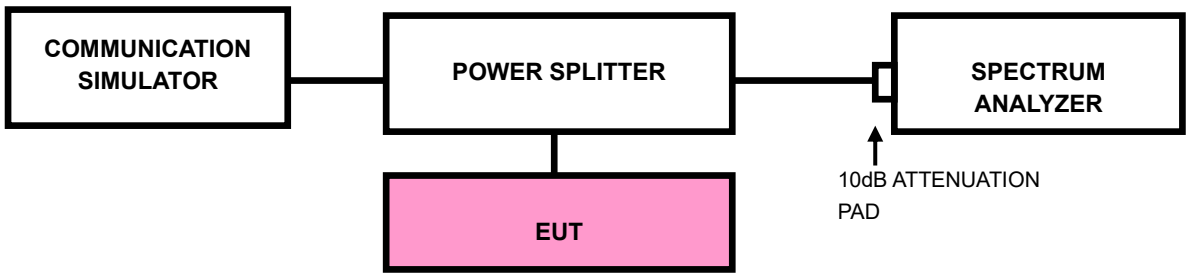
According to FCC 27.53(a)(4) specified that For mobile and portable stations operating in the 2305-2315 MHz and 2350-2360 MHz bands:

(i) By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337 MHz;

(ii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 55 + 10 log (P) dB on all frequencies between 2296 and 2300 MHz, 61 + 10 log (P) dB on all frequencies between 2292 and 2296 MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292 MHz, and 70 + 10 log (P) dB below 2288 MHz;

(iii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365 MHz, and not less than 70 + 10 log (P) dB above 2365 MHz.

3.4.2 TEST SETUP



3.4.3 TEST PROCEDURES

a) All measurements were done at low and high operational frequency range

b) Connect the transmitter to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.

c) Tune the analyzer to the nominal center frequency of the emission bandwidth

(EBW)

d) .Set the resolution bandwidth (RBW) ≧ 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.

e) Beyond the 1MHz band from the band edge, RBW=1MHz was used.

f) Set the video bandwidth (VBW) to ≧3 x RBW.

g) Select the average power (RMS) display detector.

h) Set the number of measurement points to ≧ 1001.

i) Use auto-coupled sweep time.

j) Perform the measurement over an interval of time when the transmission is continuous and at its maximum power level.

k) The RF fundamental frequency should be excluded against the limit line in the operating frequency band and use RBW is 10KHz or 100KHz.

l) 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

For: LTE Band30

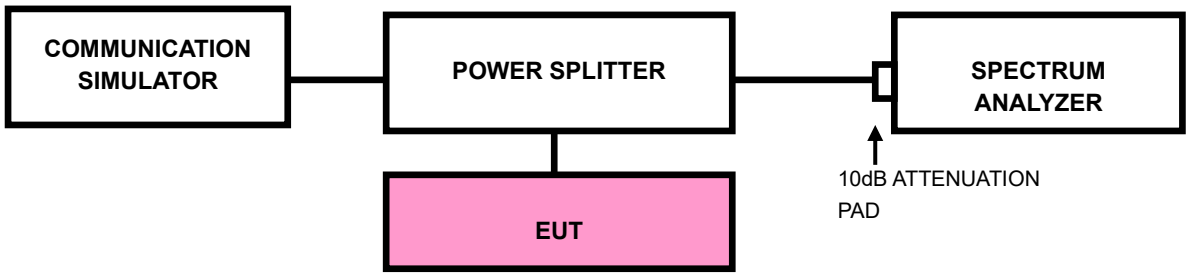
The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 70 +10 log10(P) dB. The limit of emission is equal to -40dBm.

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



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.

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

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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.

.

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. EIRP = Output power level of S.G – TX cable loss + 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, E.R.P power = E.I.P.R power - 2.15dBi.

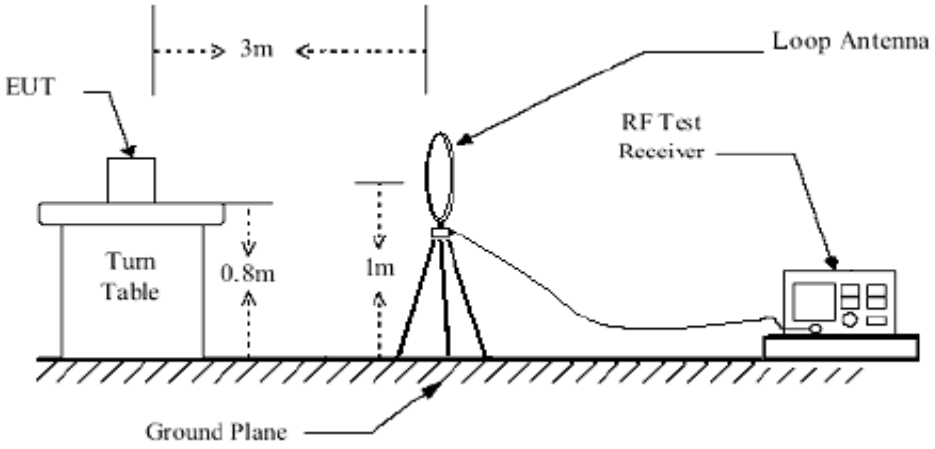
NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

3.6.3 DEVIATION FROM TEST STANDARD

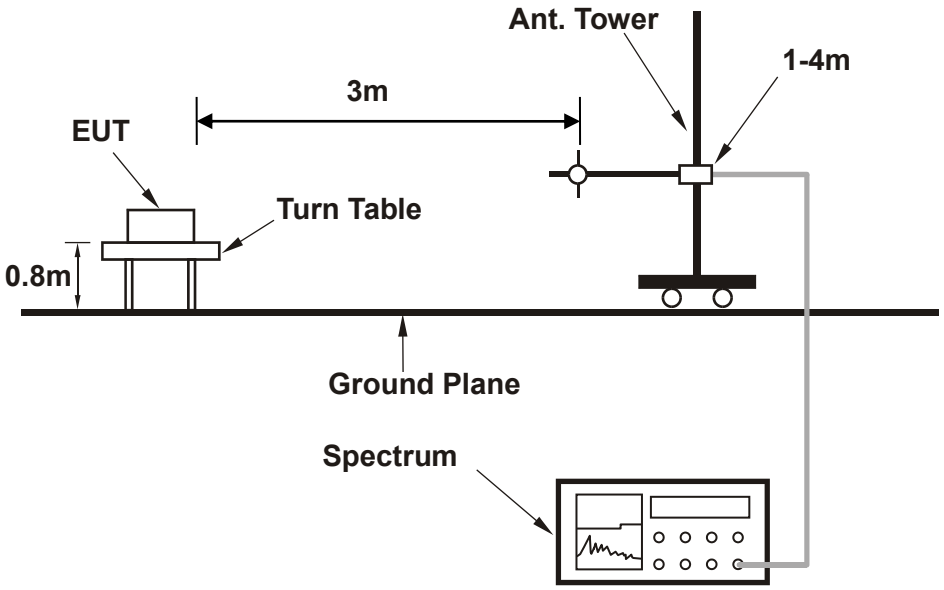
No deviation

3.6.4 TEST SETUP

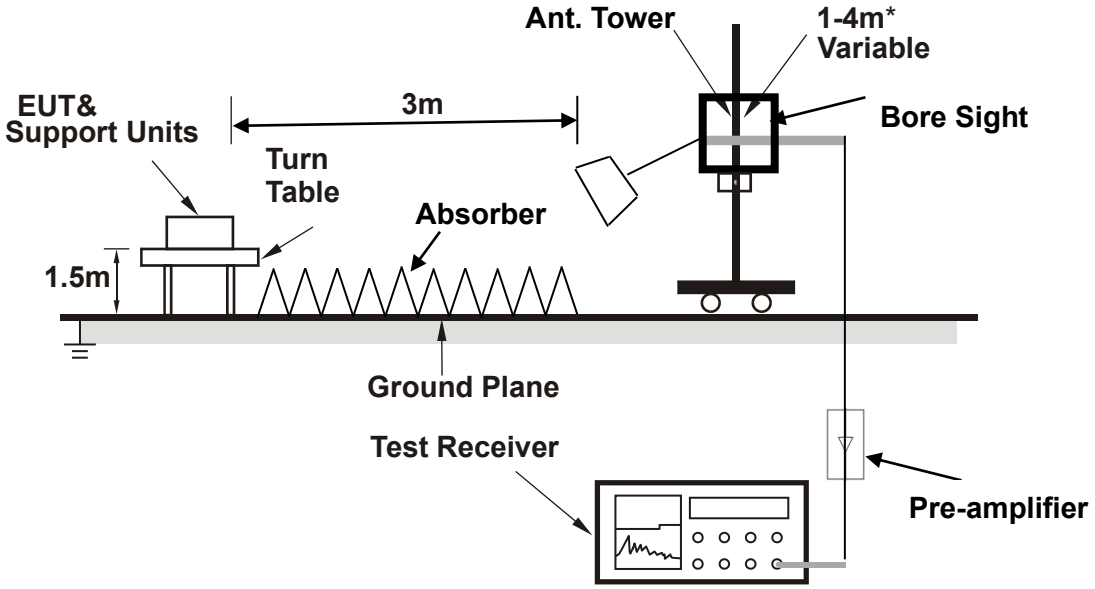
< Frequency Range below 30MHz >



< 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.

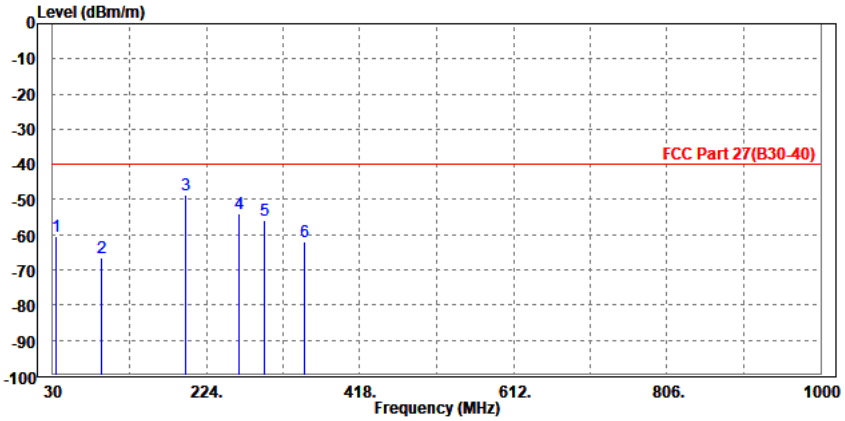
BELOW 1GHz WORST-CASE DATA

30 MHz – 1GHz data:

LTE Band 30
CHANNEL BANDWIDTH: 10MHz / QPSK

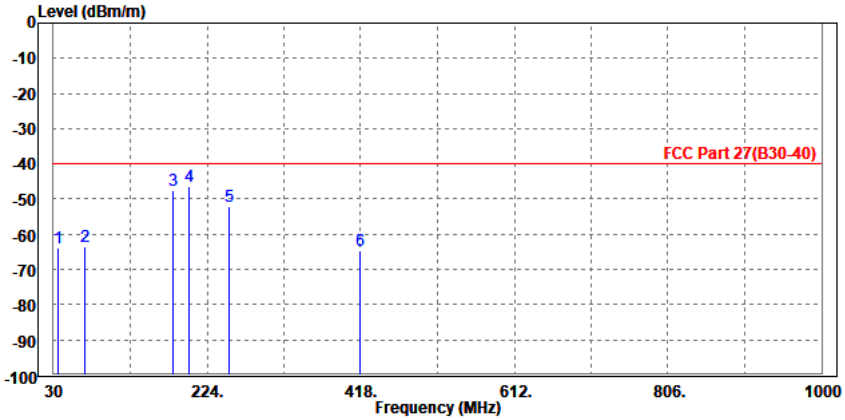
MODE	TX channel 27710	**FREQUENCY RANGE**	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	33.880	-60.28	-56.18	-40.00	-20.28	-4.10	Peak	Horizontal
2	91.110	-66.55	-53.79	-40.00	-26.55	-12.76	Peak	Horizontal
3 PP	197.810	-48.64	-33.17	-40.00	-8.64	-15.47	Peak	Horizontal
4	265.710	-53.97	-43.53	-40.00	-13.97	-10.44	Peak	Horizontal
5	297.720	-55.73	-46.82	-40.00	-15.73	-8.91	Peak	Horizontal
6	348.160	-62.13	-54.23	-40.00	-22.13	-7.90	Peak	Horizontal



MODE	TX channel 27710	FREQUENCY RANGE	Below 1000MHz
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		35.820	-63.86	-43.04	-40.00	-23.86	-20.82	Peak	Vertical
2		69.770	-63.37	-42.85	-40.00	-23.37	-20.52	Peak	Vertical
3		181.320	-47.57	-37.66	-40.00	-7.57	-9.91	Peak	Vertical
4	PP	200.720	-46.31	-37.22	-40.00	-6.31	-9.09	Peak	Vertical
5		251.160	-52.14	-48.41	-40.00	-12.14	-3.73	Peak	Vertical
6		418.000	-64.51	-60.16	-40.00	-24.51	-4.35	Peak	Vertical



ABOVE 1GHz

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

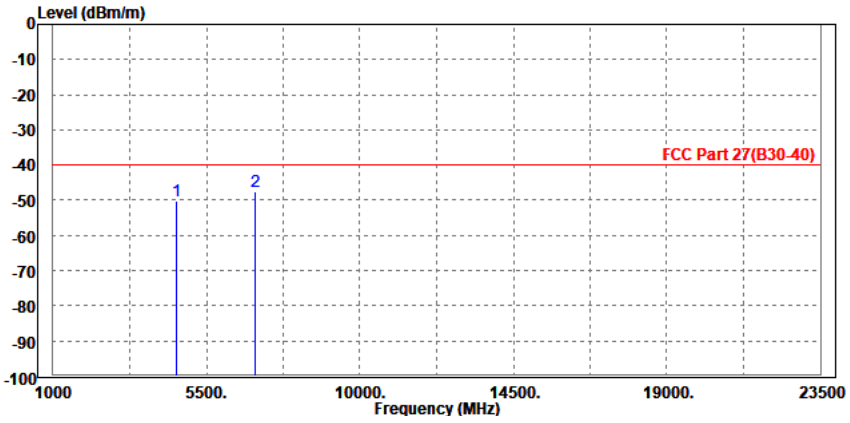
LTE B30

CHANNEL BANDWIDTH: 5MHz / QPSK

CH27685

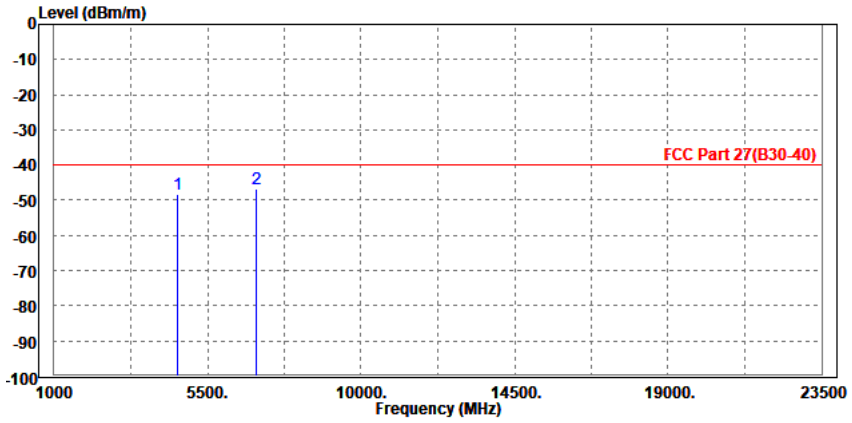
MODE	TX channel 27685	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	4615.000	-50.05	-60.26	-40.00	-10.05	10.21	Peak	Horizontal
2 PP	6917.500	-47.37	-60.95	-40.00	-7.37	13.58	Peak	Horizontal



MODE	TX channel 27685	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

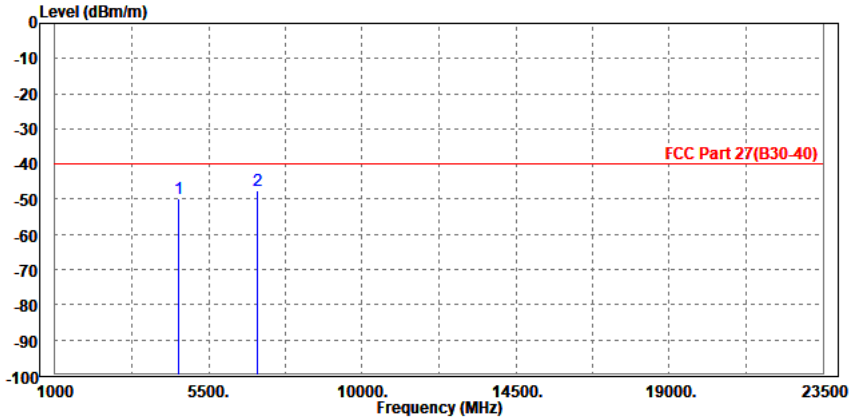
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	4622.500	-48.40	-59.07	-40.00	-8.40	10.67	Peak	Vertical
2 PP	6922.500	-46.66	-61.06	-40.00	-6.66	14.40	Peak	Vertical



CH27710

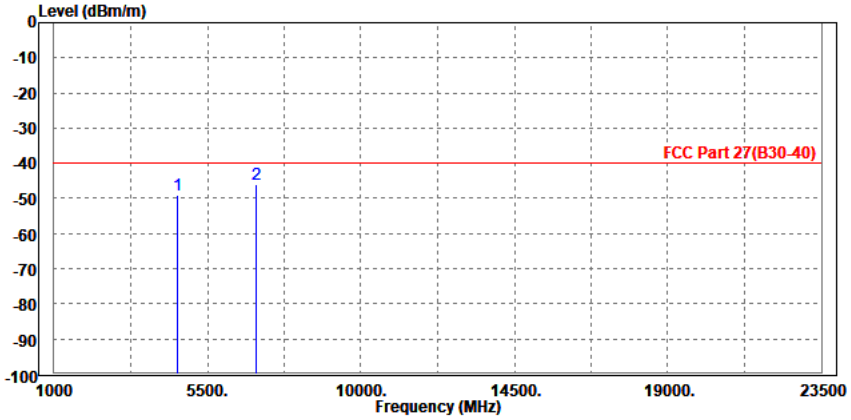
MODE	TX channel 27710	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	4622.500	-49.65	-59.87	-40.00	-9.65	10.22	Peak	Horizontal
2 PP	6930.000	-47.36	-60.97	-40.00	-7.36	13.61	Peak	Horizontal



MODE	TX channel 27710	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

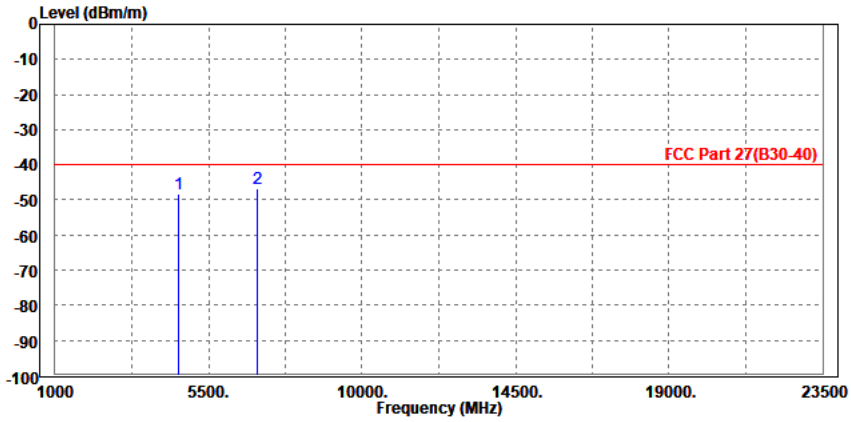
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	4620.000	-48.90	-59.56	-40.00	-8.90	10.66	Peak	Vertical
2 PP	6940.000	-45.92	-60.36	-40.00	-5.92	14.44	Peak	Vertical



CH27735

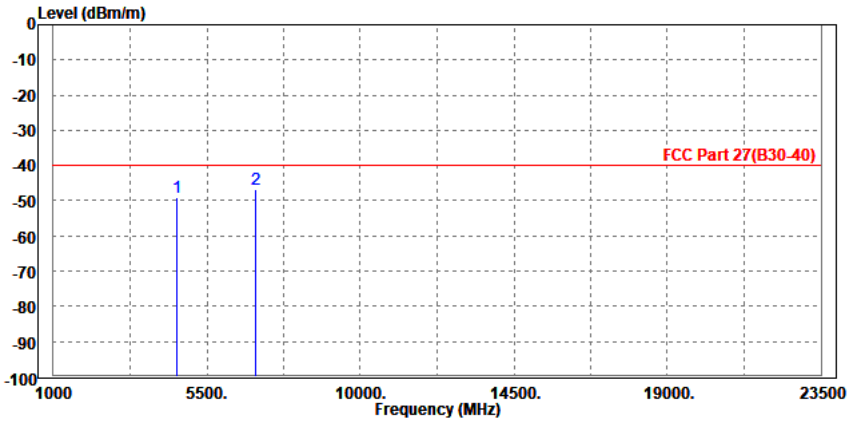
MODE	TX channel 27735	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	4622.500	-48.28	-58.50	-40.00	-8.28	10.22	Peak	Horizontal
2 PP	6937.500	-46.85	-60.48	-40.00	-6.85	13.63	Peak	Horizontal



MODE	TX channel 27735	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

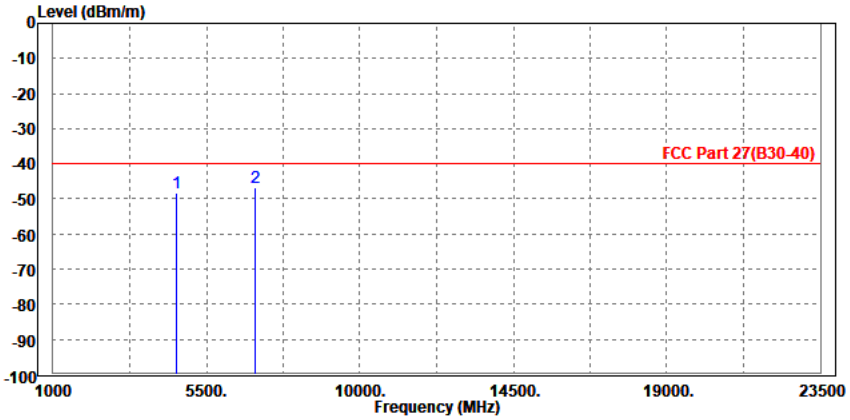
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	4625.000	-48.98	-59.65	-40.00	-8.98	10.67	Peak	Vertical
2 PP	6940.000	-46.61	-61.05	-40.00	-6.61	14.44	Peak	Vertical



CHANNEL BANDWIDTH: 10MHz / QPSK

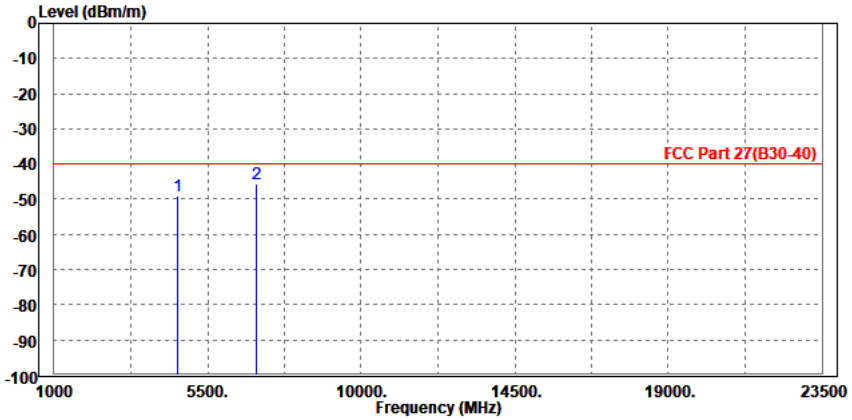
MODE	TX channel 27710	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	4622.500	-48.46	-58.68	-40.00	-8.46	10.22	Peak	Horizontal
2 PP	6930.000	-46.92	-60.53	-40.00	-6.92	13.61	Peak	Horizontal



MODE	TX channel 27710	FREQUENCY RANGE	Above 1000MHz
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	4620.000	-49.12	-59.78	-40.00	-9.12	10.66	Peak	Vertical
2 PP	6940.000	-45.44	-59.88	-40.00	-5.44	14.44	Peak	Vertical

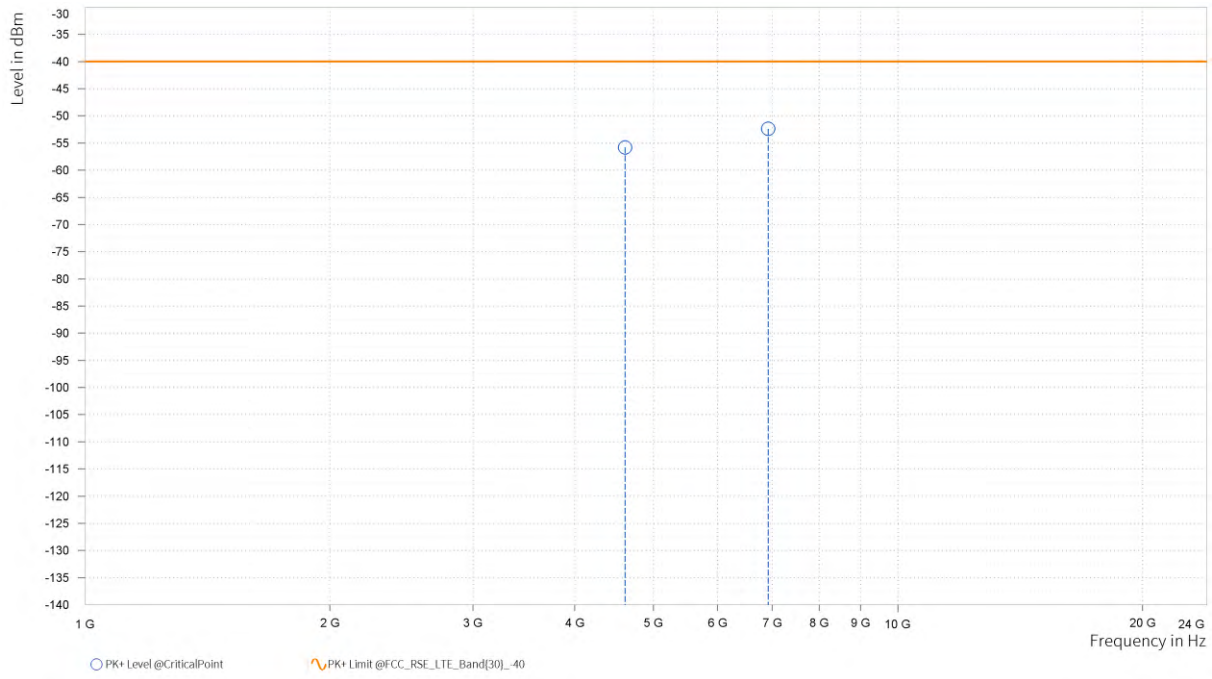


N30

CHANNEL BANDWIDTH: 5MHz / QPSK

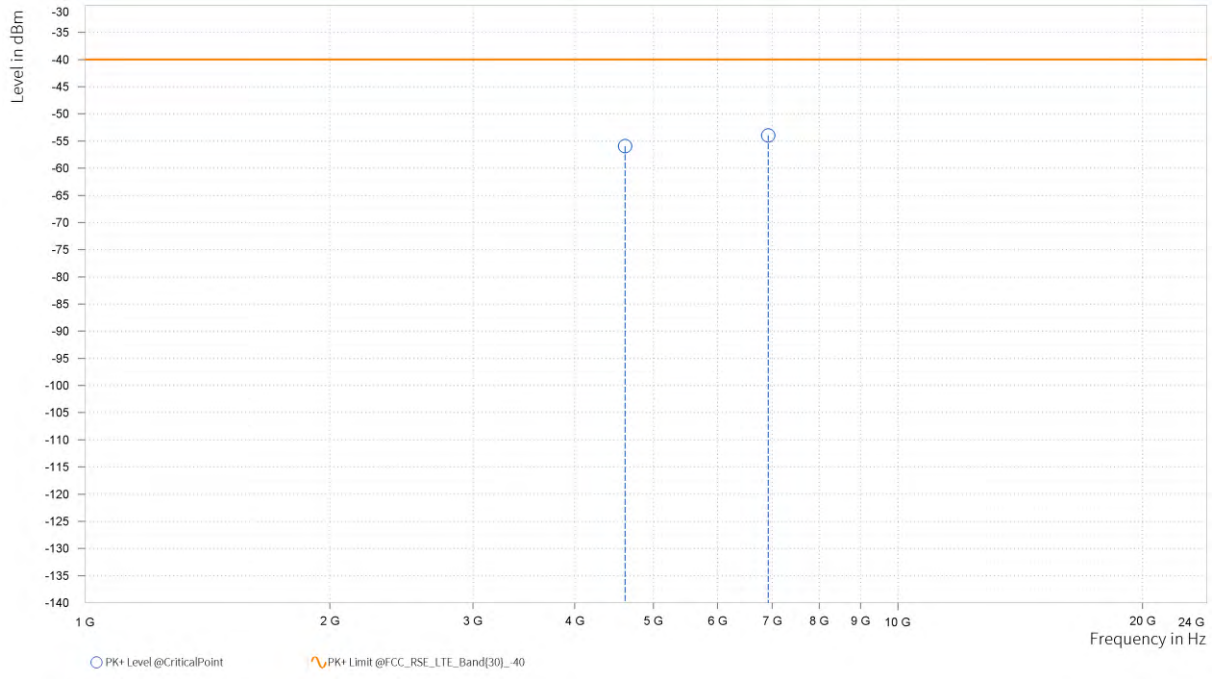
MODE	TX channel 462000	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Hanwen Xu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	4,615.500	-55.79	-40.00	15.79	16.03	H	359	2.00
4	6,923.000	-52.39	-40.00	12.39	20.41	H	0.9	2.00



MODE	TX channel 462000	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Hanwen Xu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

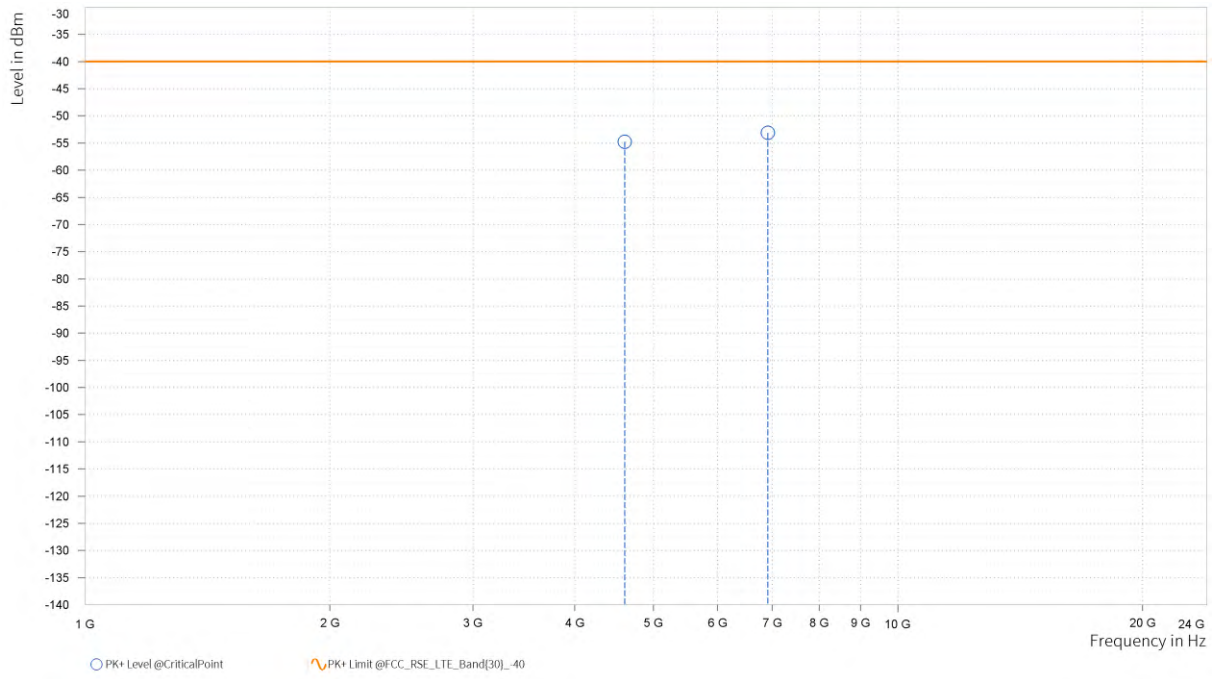
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	4,615.500	-55.95	-40.00	15.95	16.03	V	352.6	1.00
4	6,923.000	-53.95	-40.00	13.95	20.41	V	152.2	1.00



CHANNEL BANDWIDTH: 10MHz / QPSK

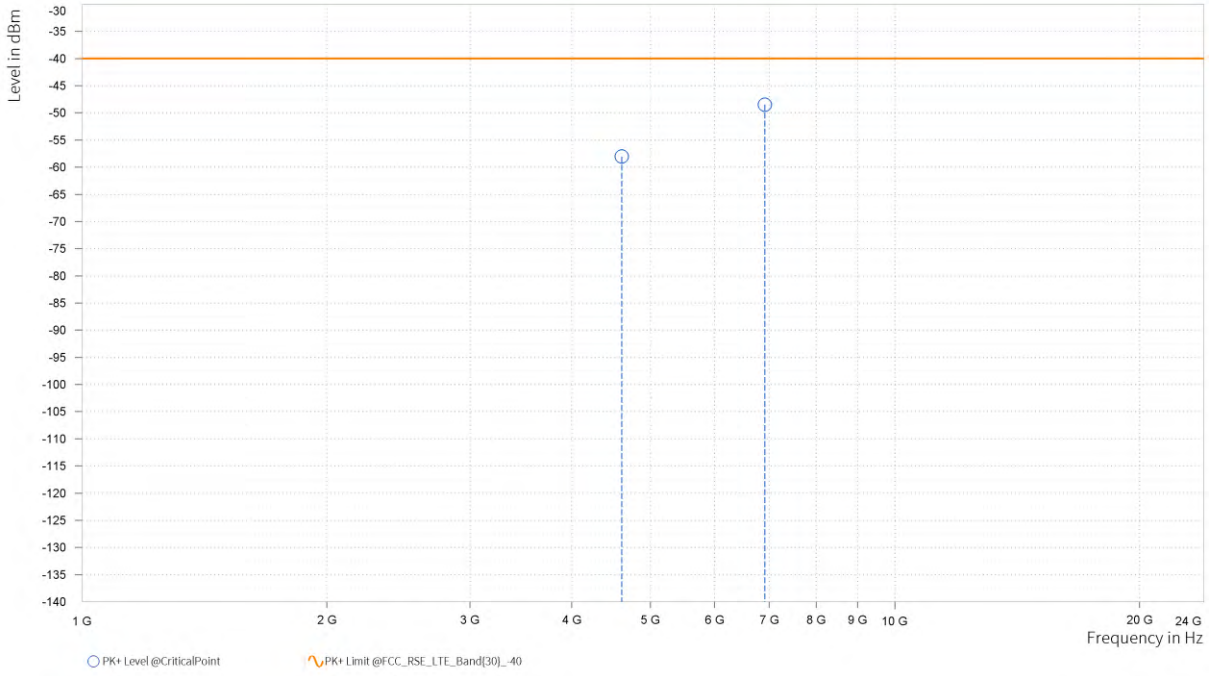
MODE	TX channel 462000	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Hanwen Xu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	4,611.000	-54.74	-40.00	14.74	16.06	H	359	2.00
4	6,916.500	-53.12	-40.00	13.12	20.39	H	1	1.00



MODE	TX channel 462000	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Hanwen Xu		
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	4,611.000	-58.03	-40.00	18.03	16.06	V	6.2	2.00
4	6,916.500	-48.50	-40.00	8.50	20.39	V	358.8	1.00

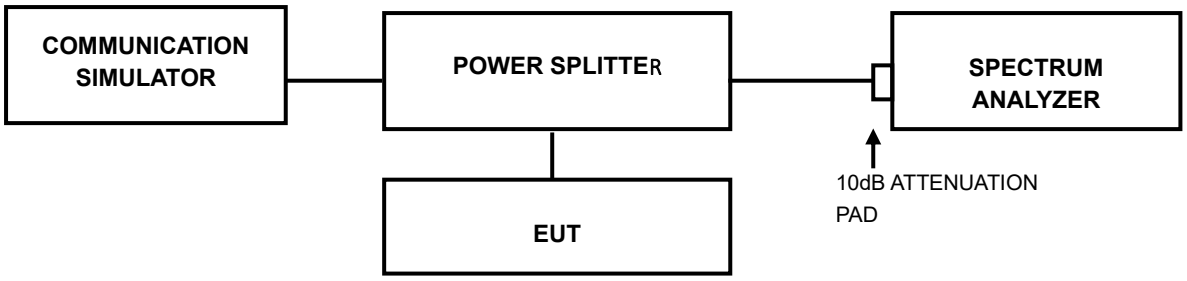


3.7 PEAK TO AVERAGE RATIO

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 ≥ 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%.

3.7.4 TEST RESULTS

Please Refer to Appendix Of this test report.

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:

Shenzhen EMC/RF Lab:
Tel: +86-755-88696566
Fax: +86-755-88696577

Email: customerservice.sw@cn.bureauveritas.com
Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.

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

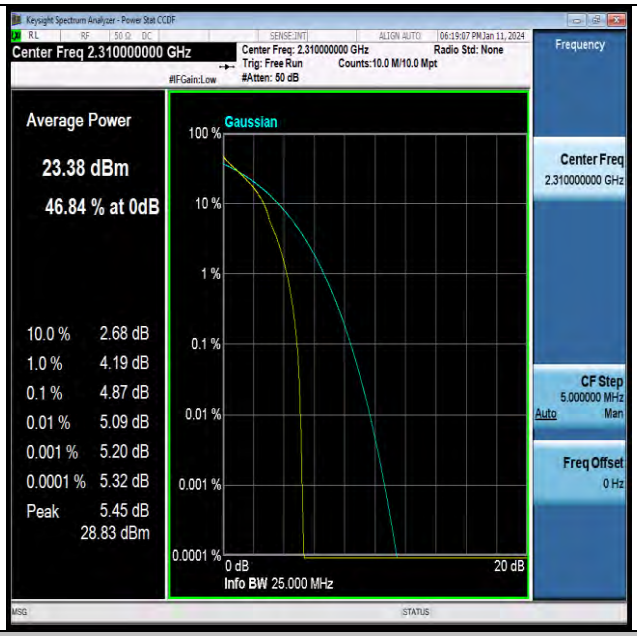
LTE BAND30

PEAK-TO-AVERAGE RATIO(CCDF)

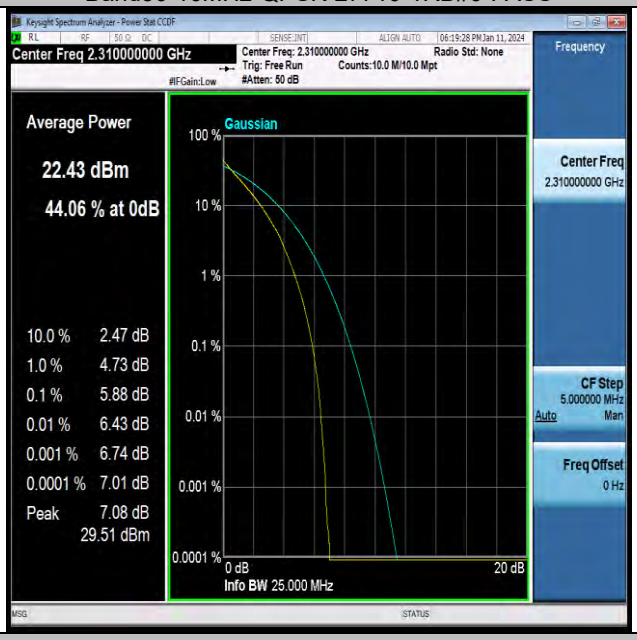
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band30	10MHz	QPSK	27710	1RB#0	4.87	13	PASS
Band30	10MHz	QPSK	27710	50RB#0	5.88	13	PASS
Band30	10MHz	16QAM	27710	1RB#0	5.77	13	PASS
Band30	10MHz	16QAM	27710	50RB#0	6.72	13	PASS

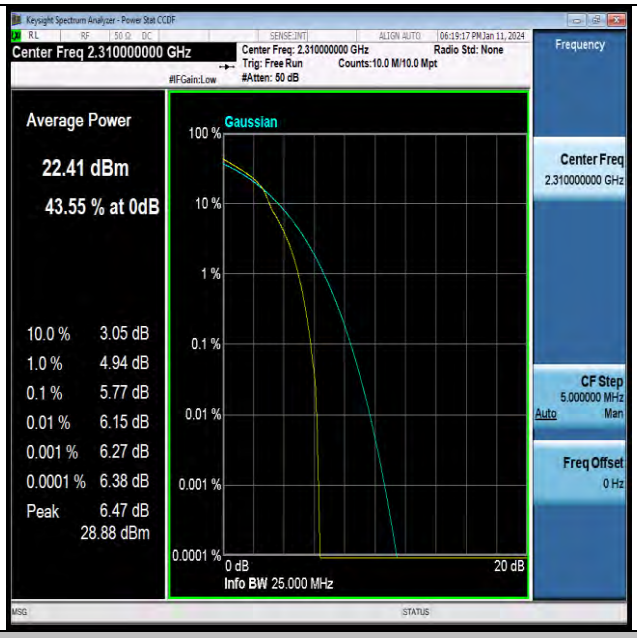
Test Graphs



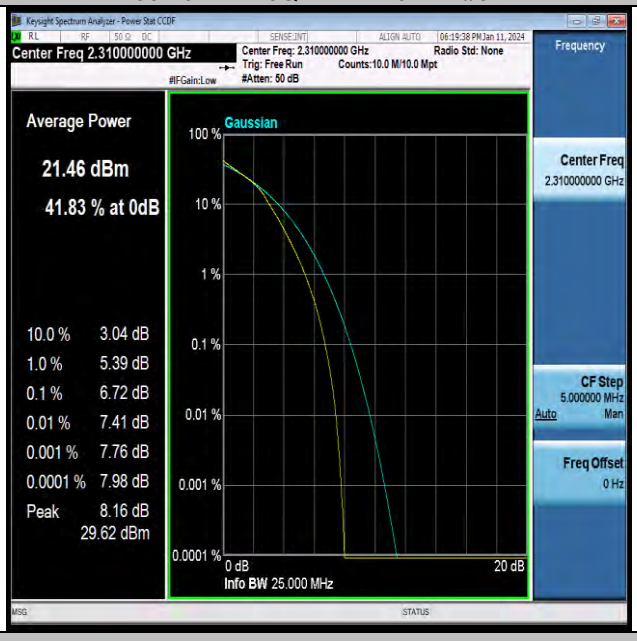
Band30-10MHz-QPSK-27710-1RB#0-PASS



Band30-10MHz-QPSK-27710-50RB#0-PASS



Band30-10MHz-16QAM-27710-1RB#0-PASS



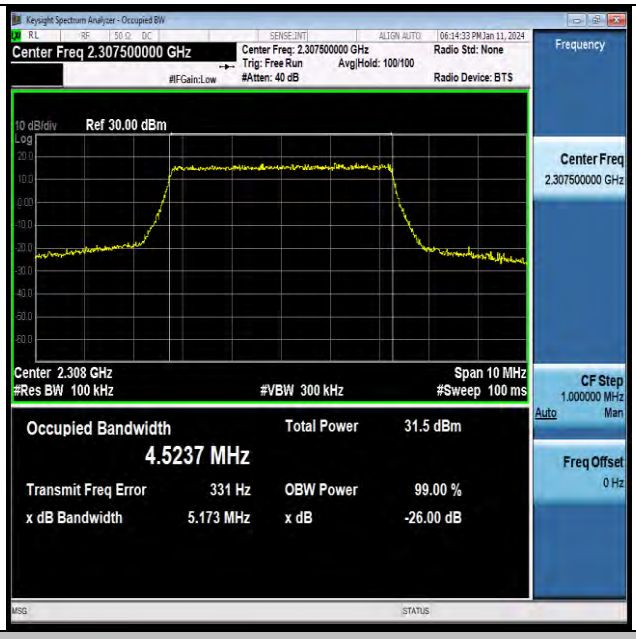
Band30-10MHz-16QAM-27710-50RB#0-PASS

26DB BANDWIDTH AND OCCUPIED BANDWIDTH

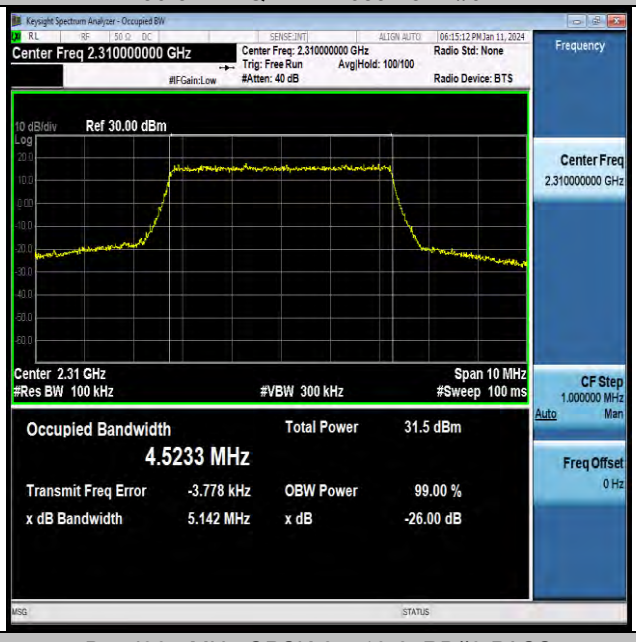
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band30	5MHz	QPSK	27685	25RB#0	4.5237	5.173	PASS
Band30	5MHz	QPSK	27710	25RB#0	4.5233	5.142	PASS
Band30	5MHz	QPSK	27735	25RB#0	4.5233	5.149	PASS
Band30	5MHz	16QAM	27685	25RB#0	4.5163	5.155	PASS
Band30	5MHz	16QAM	27710	25RB#0	4.5211	5.133	PASS
Band30	5MHz	16QAM	27735	25RB#0	4.5228	5.172	PASS
Band30	10MHz	QPSK	27710	50RB#0	9.0052	9.975	PASS
Band30	10MHz	16QAM	27710	50RB#0	9.0088	10.02	PASS

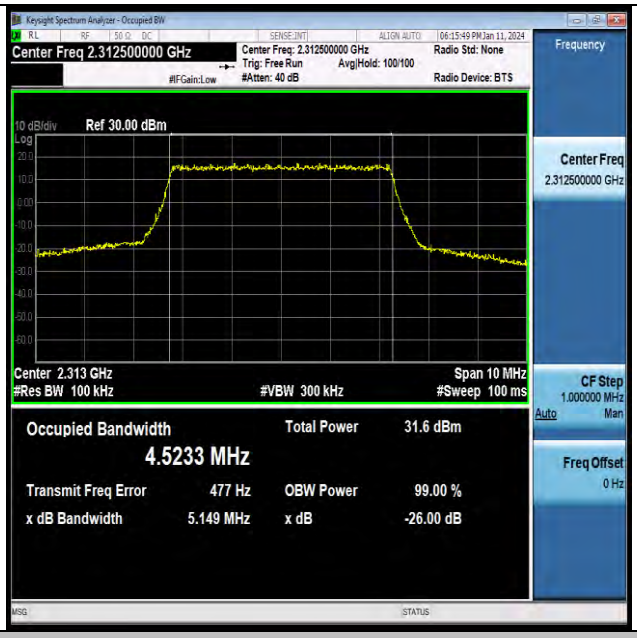
Test Graphs



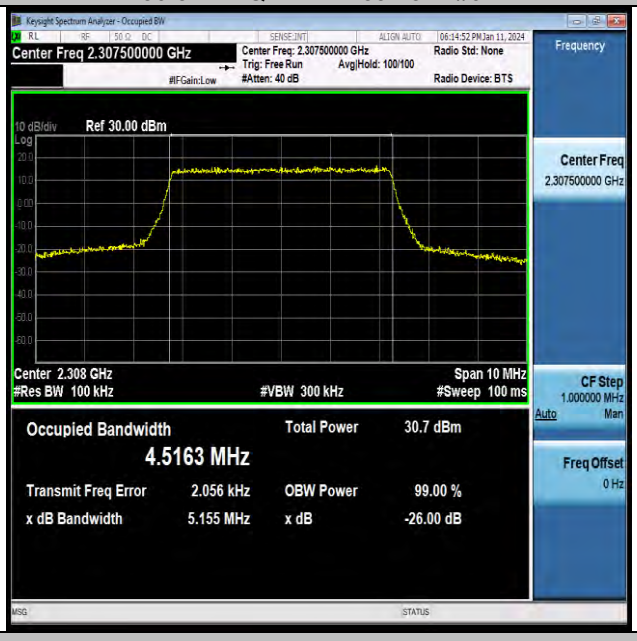
Band30-5MHz-QPSK-27685-25RB#0-PASS



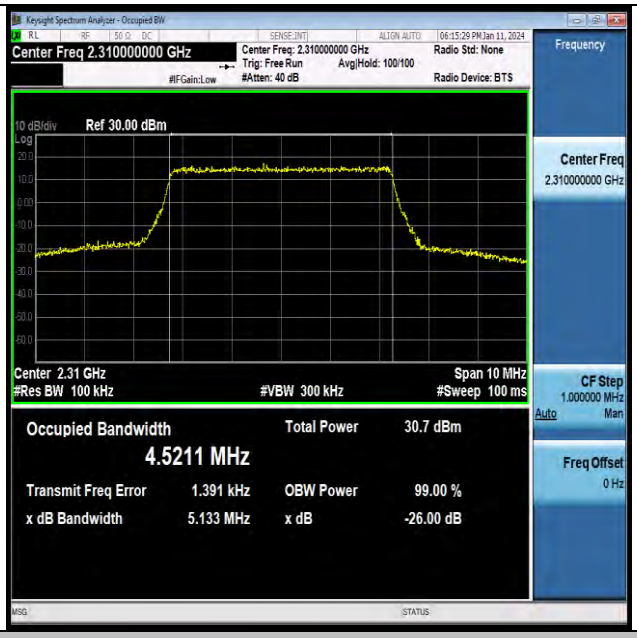
Band30-5MHz-QPSK-27710-25RB#0-PASS



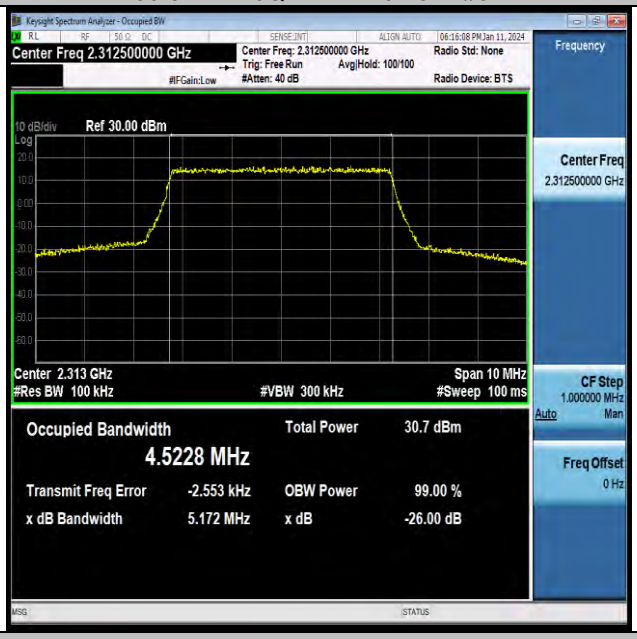
Band30-5MHz-QPSK-27735-25RB#0-PASS



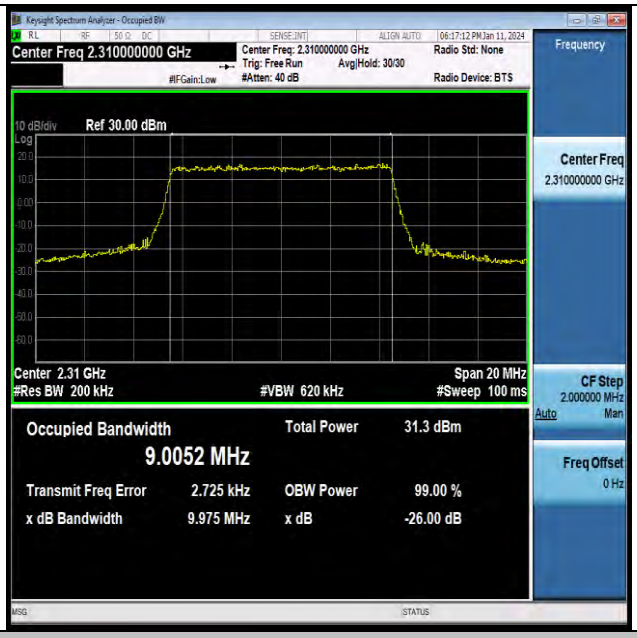
Band30-5MHz-16QAM-27685-25RB#0-PASS



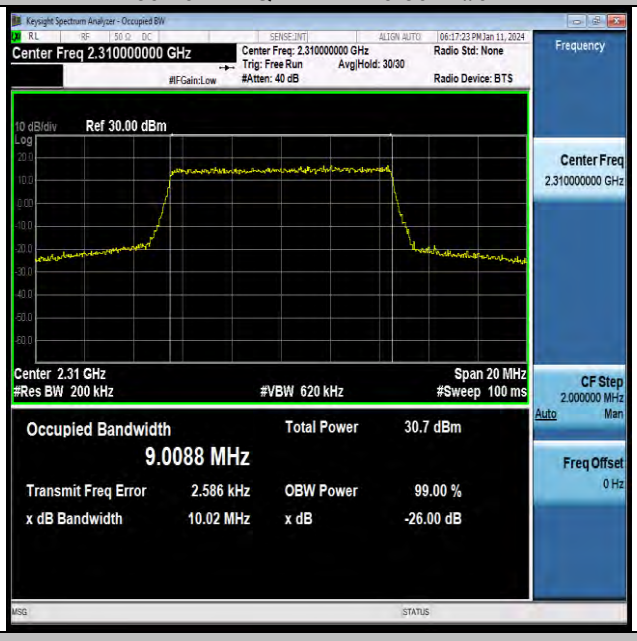
Band30-5MHz-16QAM-27710-25RB#0-PASS



Band30-5MHz-16QAM-27735-25RB#0-PASS



Band30-10MHz-QPSK-27710-50RB#0-PASS



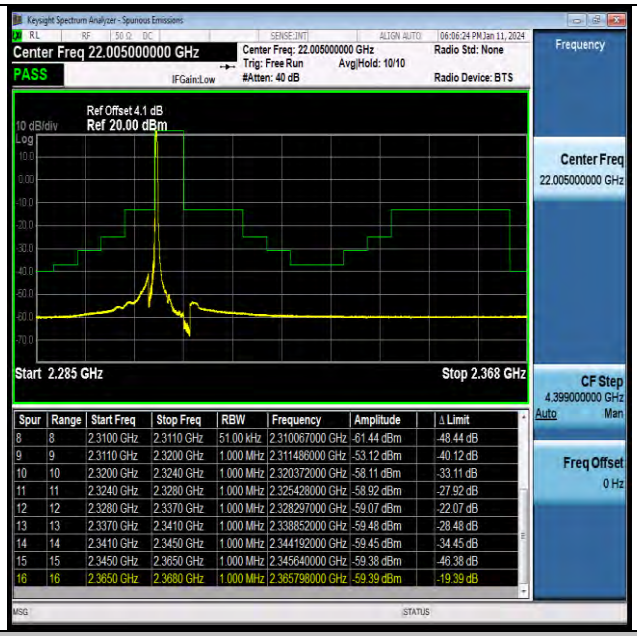
Band30-10MHz-16QAM-27710-50RB#0-PASS

BAND EDGE

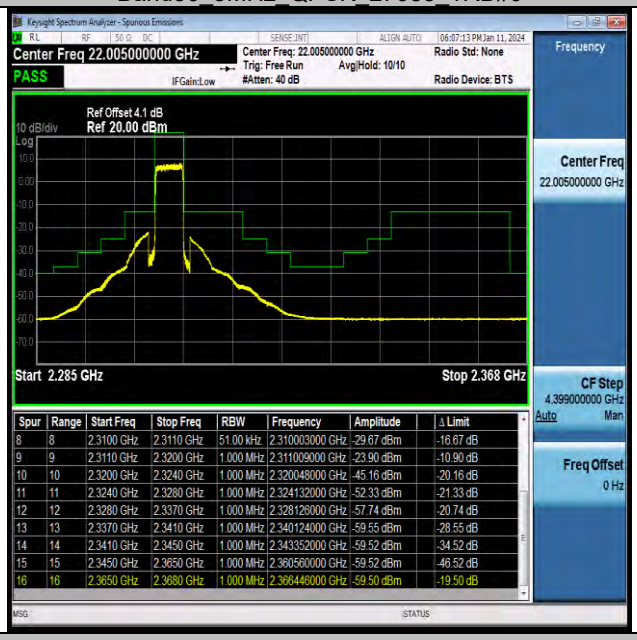
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band30	5MHz	QPSK	27685	1RB#0	-27.30	PASS
Band30	5MHz	QPSK	27685	25RB#0	-21.80	PASS
Band30	5MHz	QPSK	27735	1RB#24	-27.83	PASS
Band30	5MHz	QPSK	27735	25RB#0	-20.81	PASS
Band30	5MHz	16QAM	27685	1RB#0	-27.25	PASS
Band30	5MHz	16QAM	27685	25RB#0	-21.33	PASS
Band30	5MHz	16QAM	27735	1RB#24	-29.41	PASS
Band30	5MHz	16QAM	27735	25RB#0	-20.49	PASS
Band30	10MHz	QPSK	27710	1RB#0	-59.32	PASS
Band30	10MHz	QPSK	27710	1RB#49	-59.46	PASS
Band30	10MHz	QPSK	27710	50RB#0	-30.04	PASS
Band30	10MHz	16QAM	27710	1RB#0	-59.43	PASS
Band30	10MHz	16QAM	27710	1RB#49	-59.41	PASS
Band30	10MHz	16QAM	27710	50RB#0	-30.18	PASS

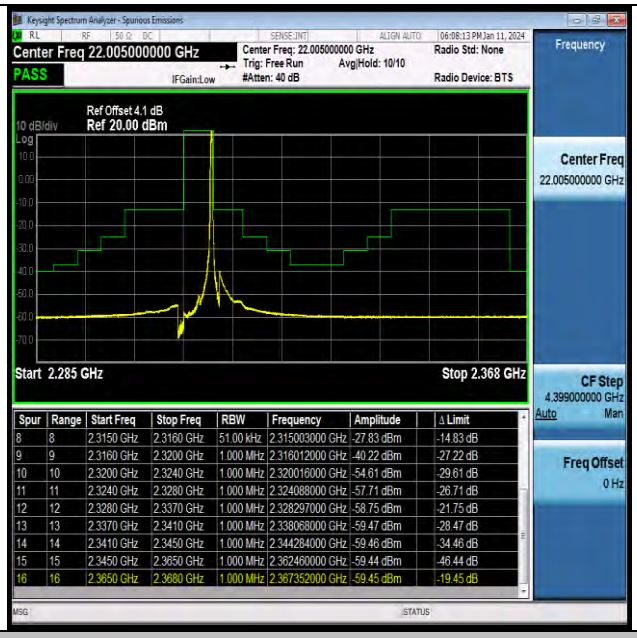
Test Graphs



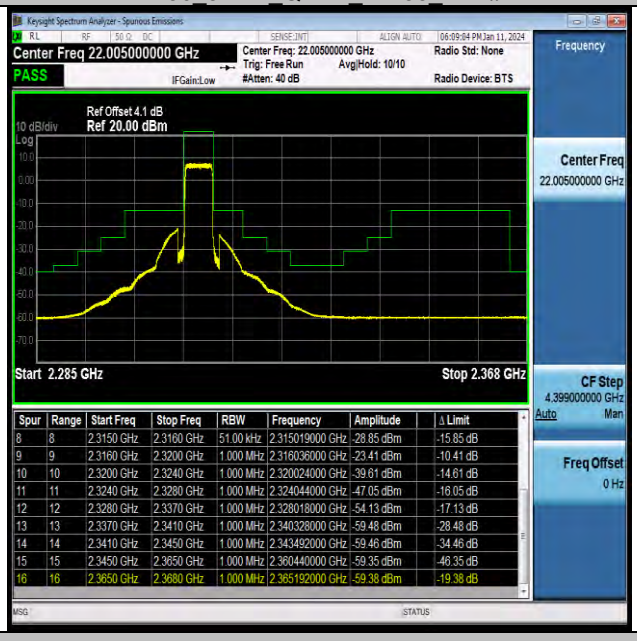
Band30_5MHz_QPSK_27685_1RB#0



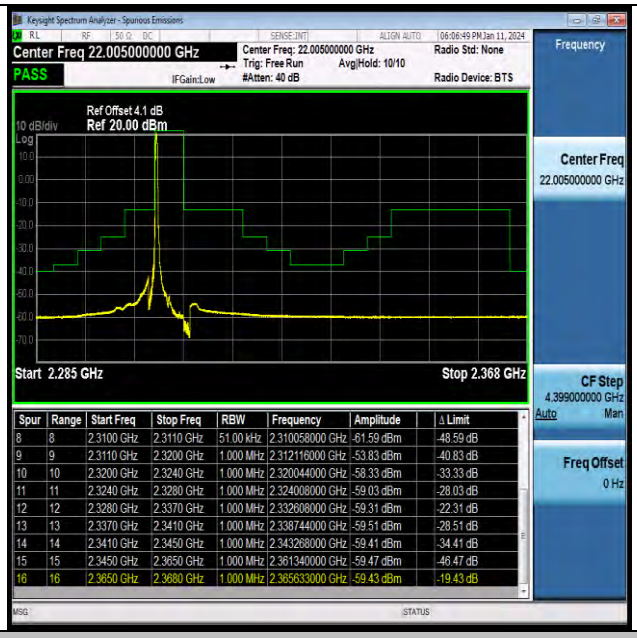
Band30_5MHz_QPSK_27685_25RB#0



Band30_5MHz_QPSK_27735_1RB#24

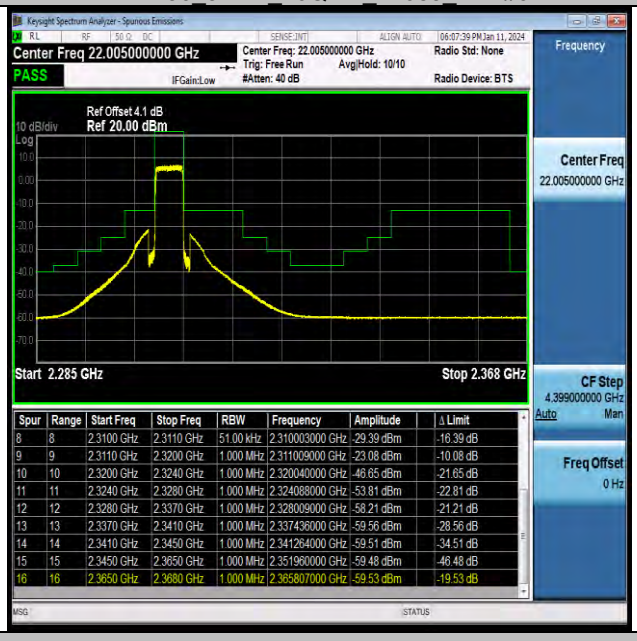


Band30_5MHz_QPSK_27735_25RB#0



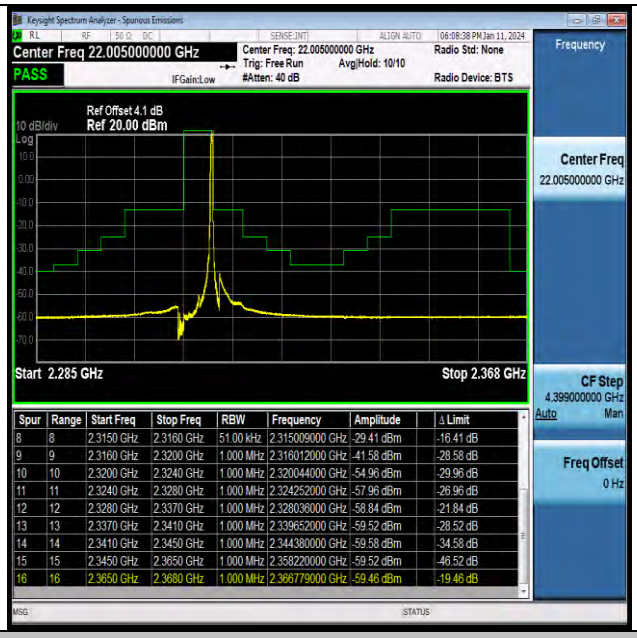
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
8	8	2.3100 GHz	2.3110 GHz	51.00 kHz	2.310058000 GHz	-61.59 dBm	-48.59 dB
9	9	2.3110 GHz	2.3200 GHz	1.000 MHz	2.312116000 GHz	-53.83 dBm	-40.83 dB
10	10	2.3200 GHz	2.3240 GHz	1.000 MHz	2.320044000 GHz	-58.33 dBm	-33.33 dB
11	11	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324008000 GHz	-59.03 dBm	-28.03 dB
12	12	2.3280 GHz	2.3370 GHz	1.000 MHz	2.332608000 GHz	-59.31 dBm	-22.31 dB
13	13	2.3370 GHz	2.3410 GHz	1.000 MHz	2.338744000 GHz	-59.51 dBm	-28.51 dB
14	14	2.3410 GHz	2.3450 GHz	1.000 MHz	2.343268000 GHz	-59.41 dBm	-34.41 dB
15	15	2.3450 GHz	2.3650 GHz	1.000 MHz	2.361340000 GHz	-59.47 dBm	-46.47 dB
16	16	2.3650 GHz	2.3680 GHz	1.000 MHz	2.365633000 GHz	-59.43 dBm	-19.43 dB

Band30_5MHz_16QAM_27685_1RB#0



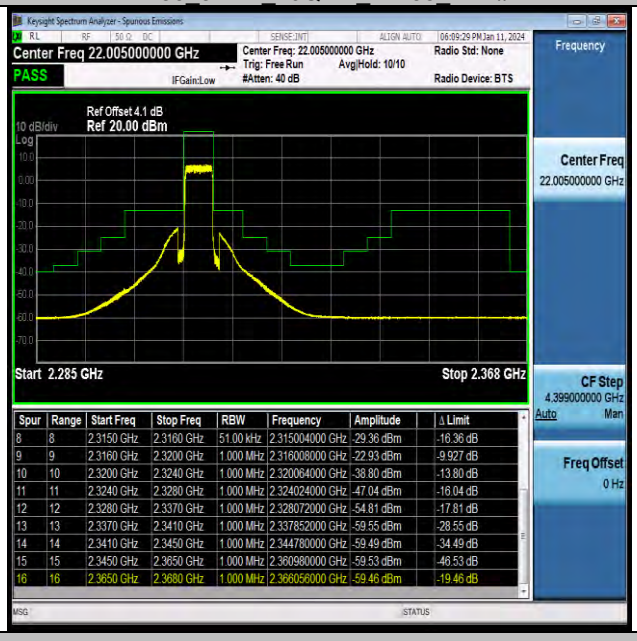
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
8	8	2.3100 GHz	2.3110 GHz	51.00 kHz	2.310003000 GHz	-29.39 dBm	-16.39 dB
9	9	2.3110 GHz	2.3200 GHz	1.000 MHz	2.311009000 GHz	-23.08 dBm	-10.08 dB
10	10	2.3200 GHz	2.3240 GHz	1.000 MHz	2.320040000 GHz	-46.65 dBm	-21.65 dB
11	11	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324088000 GHz	-53.81 dBm	-22.81 dB
12	12	2.3280 GHz	2.3370 GHz	1.000 MHz	2.328009000 GHz	-58.21 dBm	-21.21 dB
13	13	2.3370 GHz	2.3410 GHz	1.000 MHz	2.337436000 GHz	-59.56 dBm	-28.56 dB
14	14	2.3410 GHz	2.3450 GHz	1.000 MHz	2.341264000 GHz	-59.51 dBm	-34.51 dB
15	15	2.3450 GHz	2.3650 GHz	1.000 MHz	2.351960000 GHz	-59.48 dBm	-46.48 dB
16	16	2.3650 GHz	2.3680 GHz	1.000 MHz	2.365807000 GHz	-59.53 dBm	-19.53 dB

Band30_5MHz_16QAM_27685_25RB#0



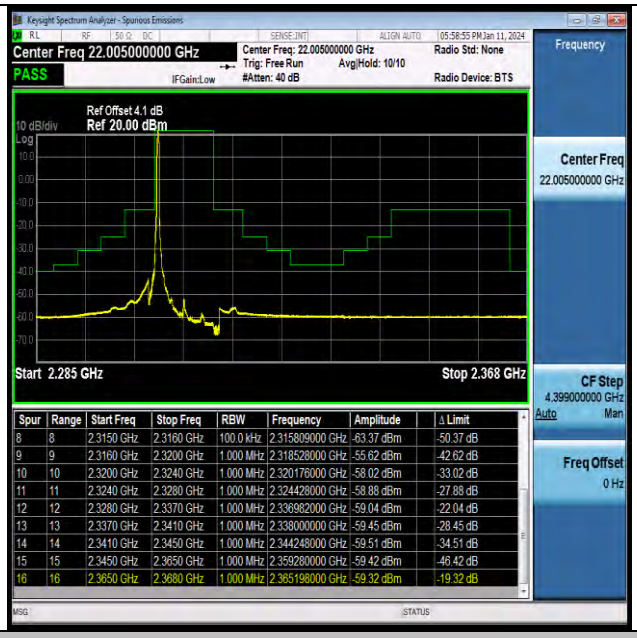
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
8	8	2.3150 GHz	2.3160 GHz	51.00 kHz	2.315009000 GHz	-29.41 dBm	-16.41 dB
9	9	2.3160 GHz	2.3200 GHz	1.000 MHz	2.316012000 GHz	-41.58 dBm	-28.58 dB
10	10	2.3200 GHz	2.3240 GHz	1.000 MHz	2.320044000 GHz	-54.96 dBm	-29.96 dB
11	11	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324252000 GHz	-57.96 dBm	-26.96 dB
12	12	2.3280 GHz	2.3370 GHz	1.000 MHz	2.328036000 GHz	-58.84 dBm	-21.84 dB
13	13	2.3370 GHz	2.3410 GHz	1.000 MHz	2.339652000 GHz	-59.52 dBm	-28.52 dB
14	14	2.3410 GHz	2.3450 GHz	1.000 MHz	2.344380000 GHz	-59.58 dBm	-34.58 dB
15	15	2.3450 GHz	2.3650 GHz	1.000 MHz	2.358220000 GHz	-59.52 dBm	-46.52 dB
16	16	2.3650 GHz	2.3680 GHz	1.000 MHz	2.366779000 GHz	-59.46 dBm	-19.46 dB

Band30_5MHz_16QAM_27735_1RB#24



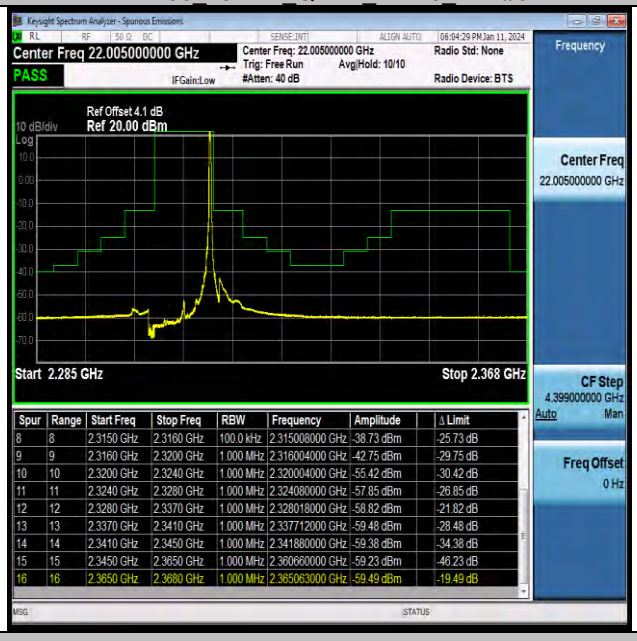
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
8	8	2.3150 GHz	2.3160 GHz	51.00 kHz	2.315004000 GHz	-29.36 dBm	-16.36 dB
9	9	2.3160 GHz	2.3200 GHz	1.000 MHz	2.316008000 GHz	-22.93 dBm	-9.927 dB
10	10	2.3200 GHz	2.3240 GHz	1.000 MHz	2.320064000 GHz	-38.80 dBm	-13.80 dB
11	11	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324024000 GHz	-47.04 dBm	-16.04 dB
12	12	2.3280 GHz	2.3370 GHz	1.000 MHz	2.328072000 GHz	-54.81 dBm	-17.81 dB
13	13	2.3370 GHz	2.3410 GHz	1.000 MHz	2.337852000 GHz	-59.55 dBm	-28.55 dB
14	14	2.3410 GHz	2.3450 GHz	1.000 MHz	2.344780000 GHz	-59.49 dBm	-34.49 dB
15	15	2.3450 GHz	2.3650 GHz	1.000 MHz	2.360980000 GHz	-59.53 dBm	-46.53 dB
16	16	2.3650 GHz	2.3680 GHz	1.000 MHz	2.366056000 GHz	-59.46 dBm	-19.46 dB

Band30_5MHz_16QAM_27735_25RB#0



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
8	8	2.3150 GHz	2.3160 GHz	100.0 kHz	2.315809000 GHz	-63.37 dBm	-50.37 dB
9	9	2.3160 GHz	2.3200 GHz	1.000 MHz	2.318528000 GHz	-55.62 dBm	-42.62 dB
10	10	2.3200 GHz	2.3240 GHz	1.000 MHz	2.320176000 GHz	-58.02 dBm	-33.02 dB
11	11	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324428000 GHz	-58.88 dBm	-27.88 dB
12	12	2.3280 GHz	2.3370 GHz	1.000 MHz	2.336982000 GHz	-59.04 dBm	-22.04 dB
13	13	2.3370 GHz	2.3410 GHz	1.000 MHz	2.338000000 GHz	-59.45 dBm	-28.45 dB
14	14	2.3410 GHz	2.3450 GHz	1.000 MHz	2.344248000 GHz	-59.51 dBm	-34.51 dB
15	15	2.3450 GHz	2.3650 GHz	1.000 MHz	2.359280000 GHz	-59.42 dBm	-46.42 dB
16	16	2.3650 GHz	2.3680 GHz	1.000 MHz	2.365198000 GHz	-59.32 dBm	-19.32 dB

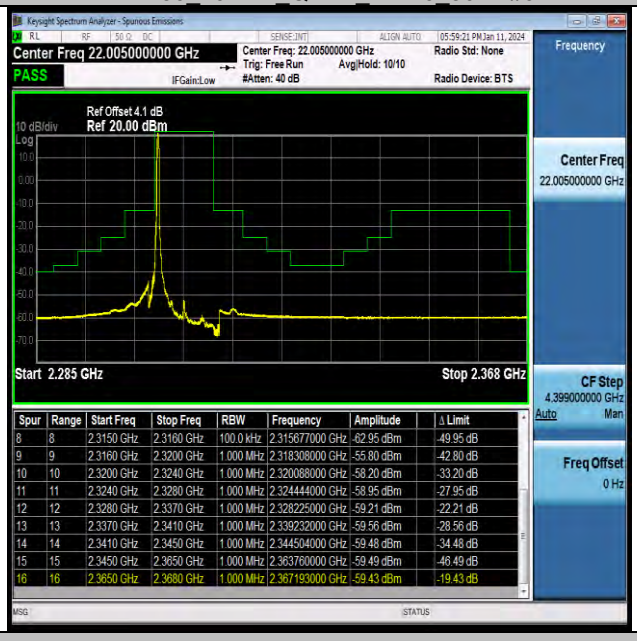
Band30_10MHz_QPSK_27710_1RB#0



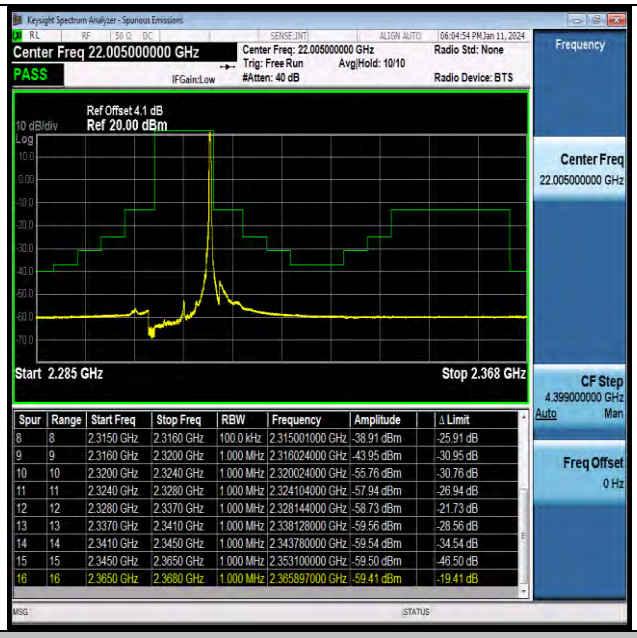
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
8	8	2.3150 GHz	2.3160 GHz	100.0 kHz	2.315008000 GHz	-38.73 dBm	-25.73 dB
9	9	2.3160 GHz	2.3200 GHz	1.000 MHz	2.316004000 GHz	-42.75 dBm	-29.75 dB
10	10	2.3200 GHz	2.3240 GHz	1.000 MHz	2.320004000 GHz	-55.42 dBm	-30.42 dB
11	11	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324080000 GHz	-57.85 dBm	-26.85 dB
12	12	2.3280 GHz	2.3370 GHz	1.000 MHz	2.328018000 GHz	-58.82 dBm	-21.82 dB
13	13	2.3370 GHz	2.3410 GHz	1.000 MHz	2.337712000 GHz	-59.48 dBm	-28.48 dB
14	14	2.3410 GHz	2.3450 GHz	1.000 MHz	2.341880000 GHz	-59.38 dBm	-34.38 dB
15	15	2.3450 GHz	2.3650 GHz	1.000 MHz	2.360660000 GHz	-59.23 dBm	-46.23 dB
16	16	2.3650 GHz	2.3680 GHz	1.000 MHz	2.365063000 GHz	-59.49 dBm	-19.49 dB

Band30_10MHz_QPSK_27710_1RB#49

Band30_10MHz_QPSK_27710_50RB#0



Band30_10MHz_16QAM_27710_1RB#0



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
8	8	2.3150 GHz	2.3160 GHz	100.0 kHz	2.315001000 GHz	-38.91 dBm	-25.91 dB
9	9	2.3160 GHz	2.3200 GHz	1.000 MHz	2.316024000 GHz	-43.95 dBm	-30.95 dB
10	10	2.3200 GHz	2.3240 GHz	1.000 MHz	2.320024000 GHz	-55.76 dBm	-30.76 dB
11	11	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324104000 GHz	-57.94 dBm	-26.94 dB
12	12	2.3280 GHz	2.3370 GHz	1.000 MHz	2.328144000 GHz	-58.73 dBm	-21.73 dB
13	13	2.3370 GHz	2.3410 GHz	1.000 MHz	2.338128000 GHz	-59.56 dBm	-28.56 dB
14	14	2.3410 GHz	2.3450 GHz	1.000 MHz	2.343780000 GHz	-59.54 dBm	-34.54 dB
15	15	2.3450 GHz	2.3650 GHz	1.000 MHz	2.353100000 GHz	-59.50 dBm	-46.50 dB
16	16	2.3650 GHz	2.3680 GHz	1.000 MHz	2.365897000 GHz	-59.41 dBm	-19.41 dB

Band30_10MHz_16QAM_27710_1RB#49

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
8	8	2.3150 GHz	2.3160 GHz	100.0 kHz	2.315069000 GHz	-32.38 dBm	-19.38 dB
9	9	2.3160 GHz	2.3200 GHz	1.000 MHz	2.316016000 GHz	-25.82 dBm	-12.82 dB
10	10	2.3200 GHz	2.3240 GHz	1.000 MHz	2.320028000 GHz	-30.39 dBm	-5.387 dB
11	11	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324032000 GHz	-40.69 dBm	-9.687 dB
12	12	2.3280 GHz	2.3370 GHz	1.000 MHz	2.328054000 GHz	-47.37 dBm	-10.37 dB
13	13	2.3370 GHz	2.3410 GHz	1.000 MHz	2.337092000 GHz	-58.88 dBm	-27.88 dB
14	14	2.3410 GHz	2.3450 GHz	1.000 MHz	2.343452000 GHz	-59.61 dBm	-34.61 dB
15	15	2.3450 GHz	2.3650 GHz	1.000 MHz	2.361360000 GHz	-59.50 dBm	-46.50 dB
16	16	2.3650 GHz	2.3680 GHz	1.000 MHz	2.366569000 GHz	-59.39 dBm	-19.39 dB

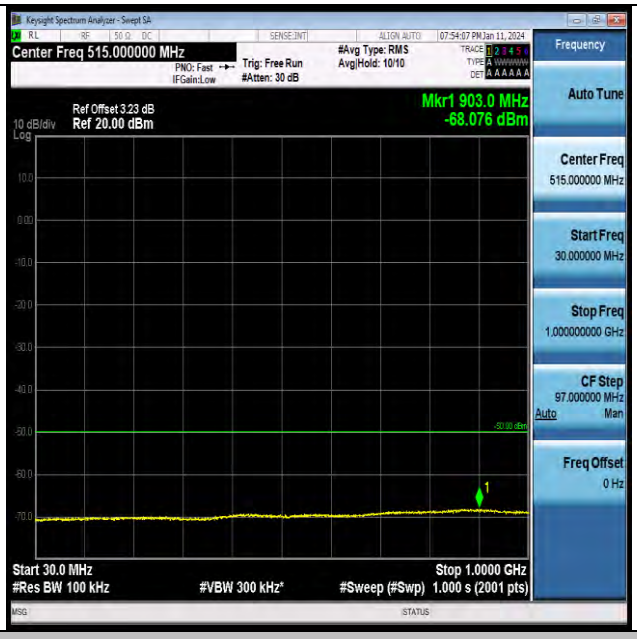
Band30_10MHz_16QAM_27710_50RB#0

CONDUCTED SPURIOUS EMISSION

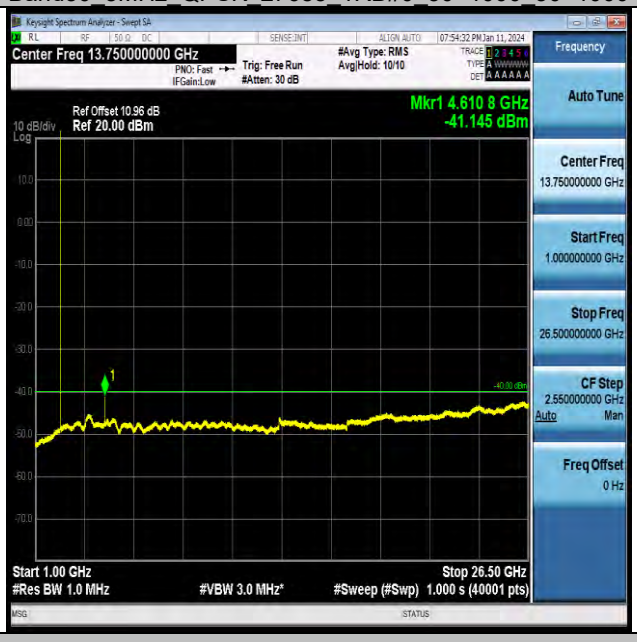
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band30	5MHz	QPSK	27685	1RB#0	30~1000	-68.08	PASS
Band30	5MHz	QPSK	27685	1RB#0	1000~26500	-41.15	PASS
Band30	5MHz	QPSK	27710	1RB#0	30~1000	-67.96	PASS
Band30	5MHz	QPSK	27710	1RB#0	1000~26500	-42.01	PASS
Band30	5MHz	QPSK	27735	1RB#0	30~1000	-68.03	PASS
Band30	5MHz	QPSK	27735	1RB#0	1000~26500	-42.10	PASS
Band30	10MHz	QPSK	27710	1RB#0	30~1000	-68.59	PASS
Band30	10MHz	QPSK	27710	1RB#0	1000~26500	-42.89	PASS

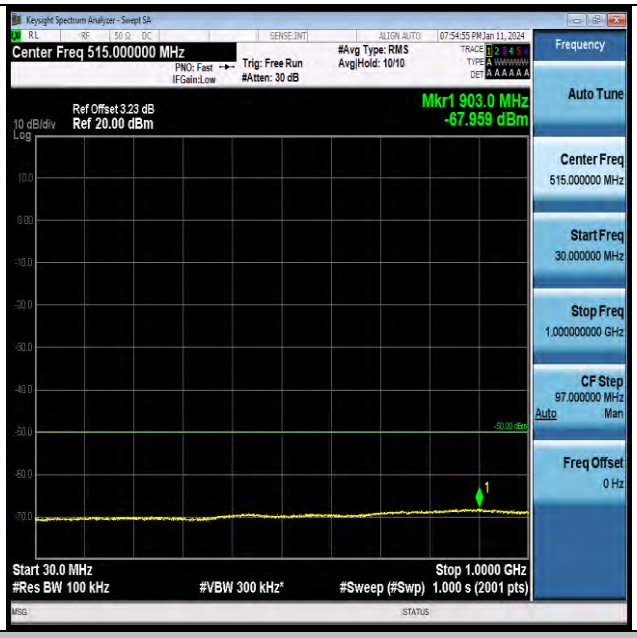
Test Graphs



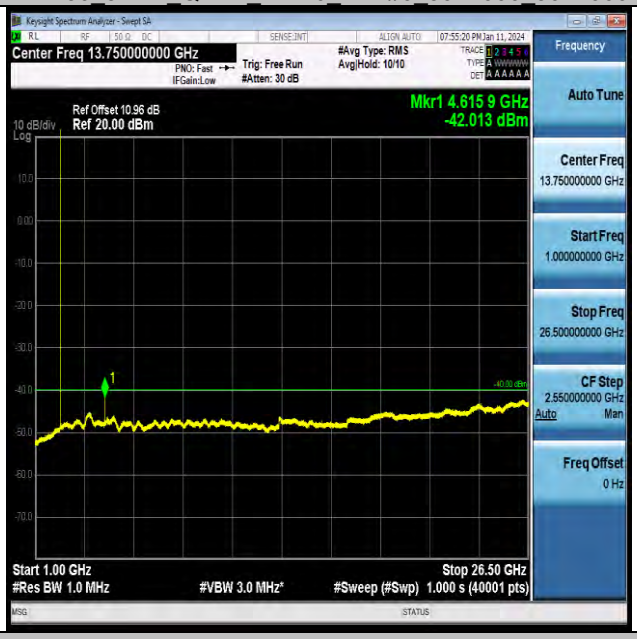
Band30_5MHz_QPSK_27685_1RB#0_30~1000_30~1000



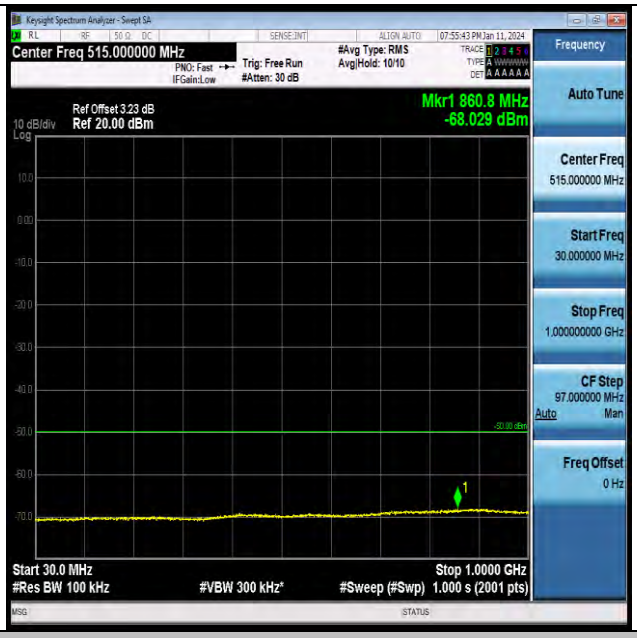
Band30_5MHz_QPSK_27685_1RB#0_1000~26500_1000~26500



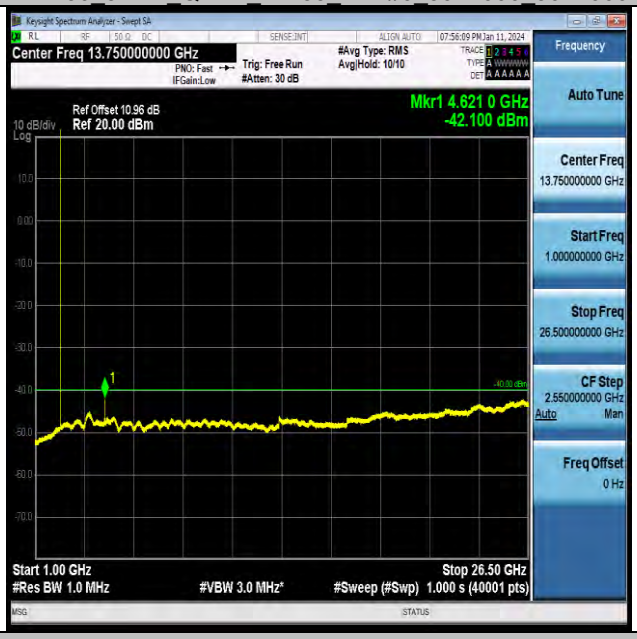
Band30_5MHz_QPSK_27710_1RB#0_30~1000_30~1000



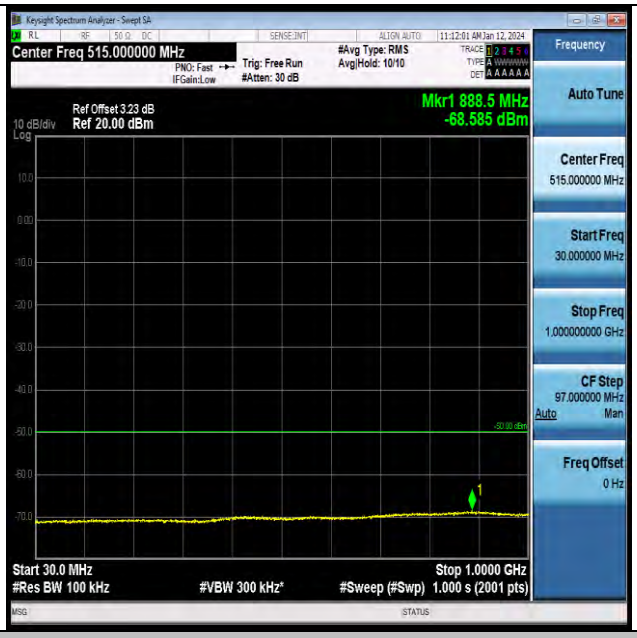
Band30_5MHz_QPSK_27710_1RB#0_1000~26500_1000~26500



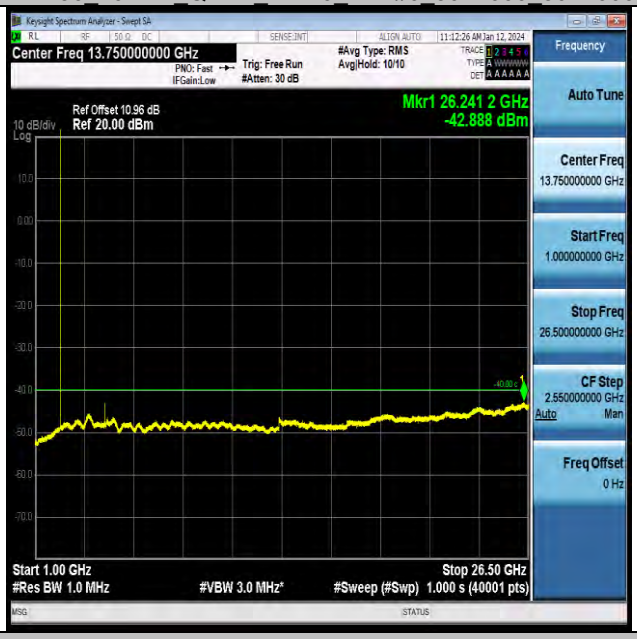
Band30_5MHz_QPSK_27735_1RB#0_30~1000_30~1000



Band30_5MHz_QPSK_27735_1RB#0_1000~26500_1000~26500



Band30_10MHz_QPSK_27710_1RB#0_30~1000_30~1000



Band30_10MHz_QPSK_27710_1RB#0_1000~26500_1000~26500

FREQUENCY STABILITY

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band30	10MHz	QPSK	27710	50RB#0	VN	NT	-9.84	-0.004260	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	VL	NT	-13.63	-0.005900	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	VH	NT	-9.23	-0.003996	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band30	10MHz	QPSK	27710	50RB#0	NV	-30	-8.08	-0.003498	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	-20	-11.52	-0.004987	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	-10	-12.13	-0.005251	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	0	-13.26	-0.005740	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	10	-11.09	-0.004801	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	20	-10.21	-0.004420	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	30	-10.69	-0.004628	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	40	-8.53	-0.003693	±2.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	50	-9.11	-0.003944	±2.5	PASS

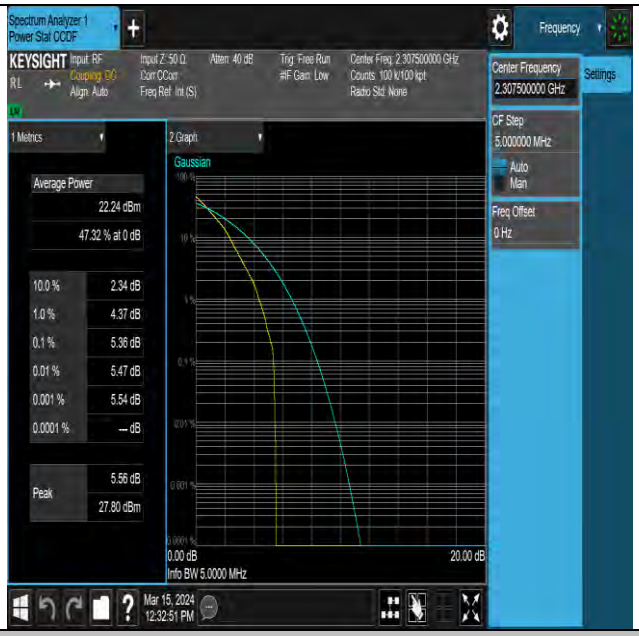
N30

PEAK-TO-AVERAGE RATIO(CCDF)

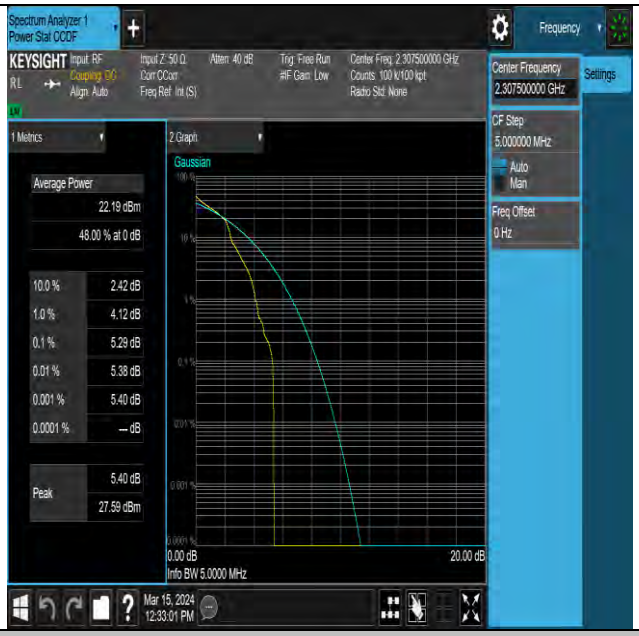
Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Limit	Verdict
N30	15	5	DFT-QPSK	L	Outer_Full	5.36	≤13	PASS
N30	15	5	DFT-QPSK	L	Edge_1RB_Left	5.29	≤13	PASS
N30	15	5	DFT-QPSK	M	Outer_Full	5.54	≤13	PASS
N30	15	5	DFT-QPSK	M	Edge_1RB_Left	5.09	≤13	PASS
N30	15	5	DFT-QPSK	H	Outer_Full	5.58	≤13	PASS
N30	15	5	DFT-QPSK	H	Edge_1RB_Left	5.19	≤13	PASS

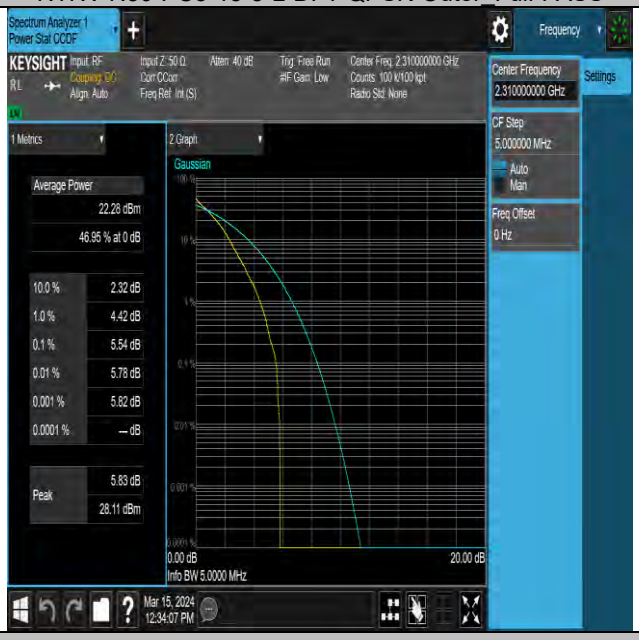
Test Graphs



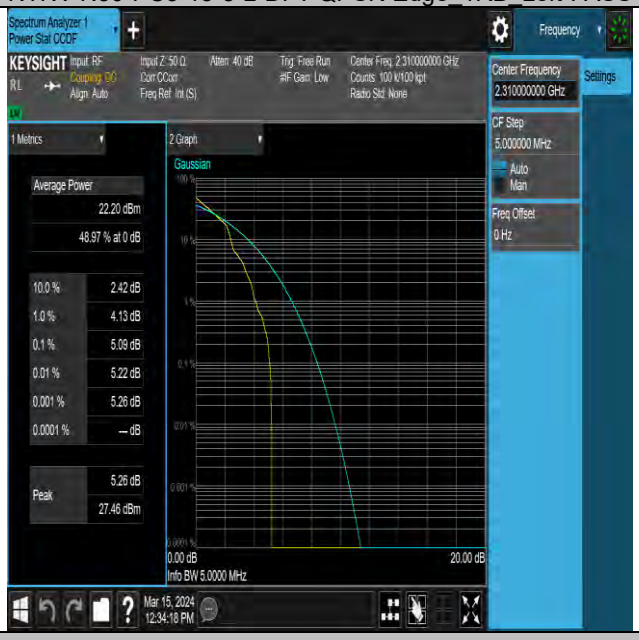
NTNV-N30-PC3-15-5-L-DFT-QPSK-Outer_Full-PASS



NTNV-N30-PC3-15-5-L-DFT-QPSK-Edge_1RB_Left-PASS



NTNV-N30-PC3-15-5-M-DFT-QPSK-Outer_Full-PASS



NTNV-N30-PC3-15-5-M-DFT-QPSK-Edge_1RB_Left-PASS

NTNV-N30-PC3-15-5-H-DFT-QPSK-Outer_Full-PASS

NTNV-N30-PC3-15-5-H-DFT-QPSK-Edge_1RB_Left-PASS

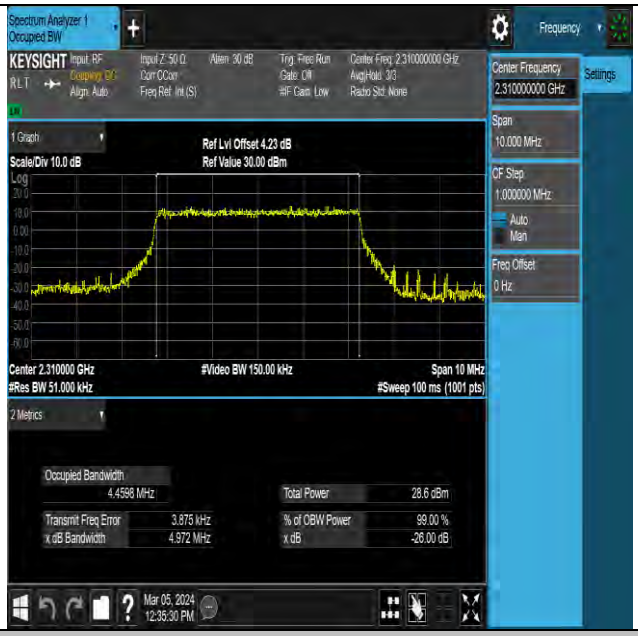
26DB BANDWIDTH AND OCCUPIED BANDWIDTH FOR SA

Test Result

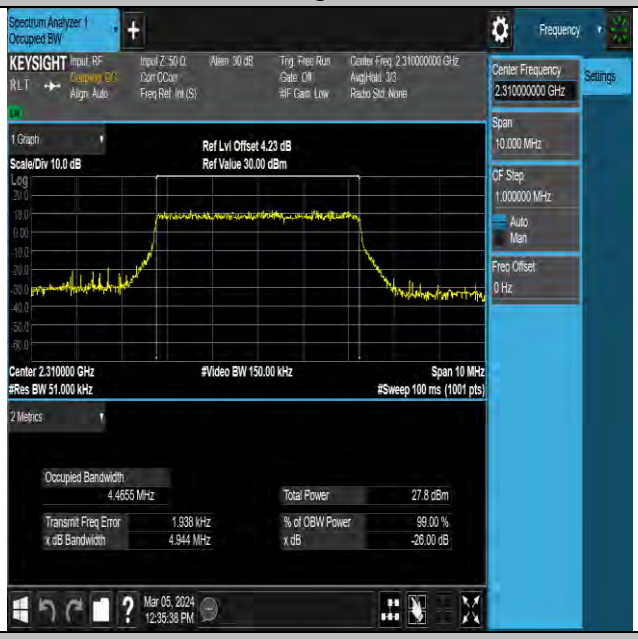
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result (99%)	Result (26dB)	Verdict
N30	15	5	DFT-PI2BPSK	M	Outer_Full	4.4718	4.888	PASS
N30	15	5	DFT-QPSK	M	Outer_Full	4.4598	4.972	PASS
N30	15	5	DFT-16QAM	M	Outer_Full	4.4655	4.944	PASS
N30	15	5	DFT-64QAM	M	Outer_Full	4.4809	4.984	PASS
N30	15	5	DFT-256QAM	M	Outer_Full	4.4816	5.035	PASS
N30	15	10	DFT-PI2BPSK	M	Outer_Full	8.9153	9.595	PASS
N30	15	10	DFT-QPSK	M	Outer_Full	8.9186	9.605	PASS
N30	15	10	DFT-16QAM	M	Outer_Full	8.9369	9.566	PASS
N30	15	10	DFT-64QAM	M	Outer_Full	8.9162	9.679	PASS
N30	15	10	DFT-256QAM	M	Outer_Full	8.9123	9.498	PASS

Test Graphs

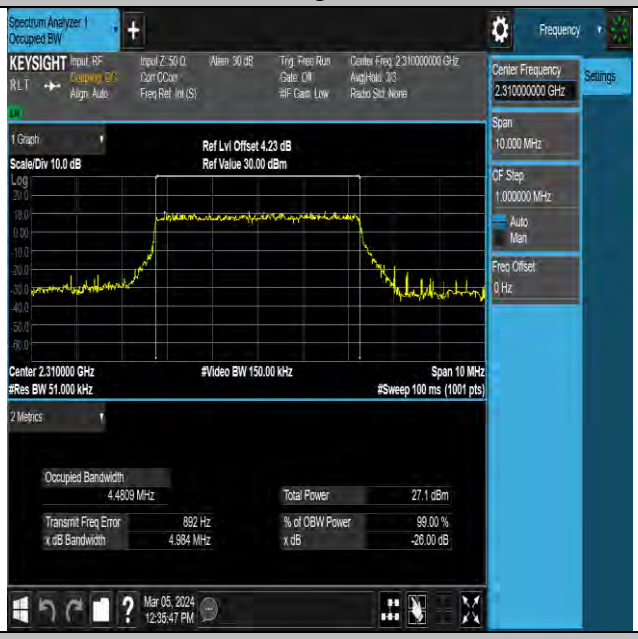
NTNV-N30-PC3-15-5-M-DFT-PI2BPSK-Outer_Full-Ant10-PASS



NTNV-N30-PC3-15-5-M-DFT-QPSK-Outer_Full-Ant10-PASS



NTNV-N30-PC3-15-5-M-DFT-16QAM-Outer_Full-Ant10-PASS

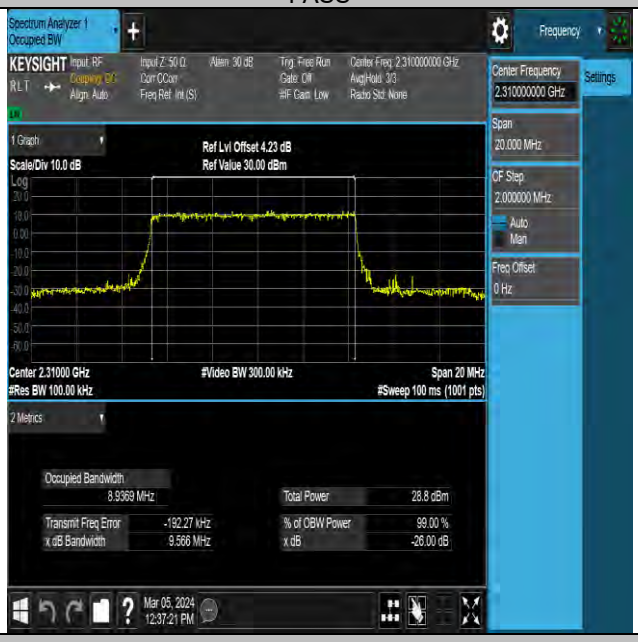


NTNV-N30-PC3-15-5-M-DFT-64QAM-Outer_Full-Ant10-PASS

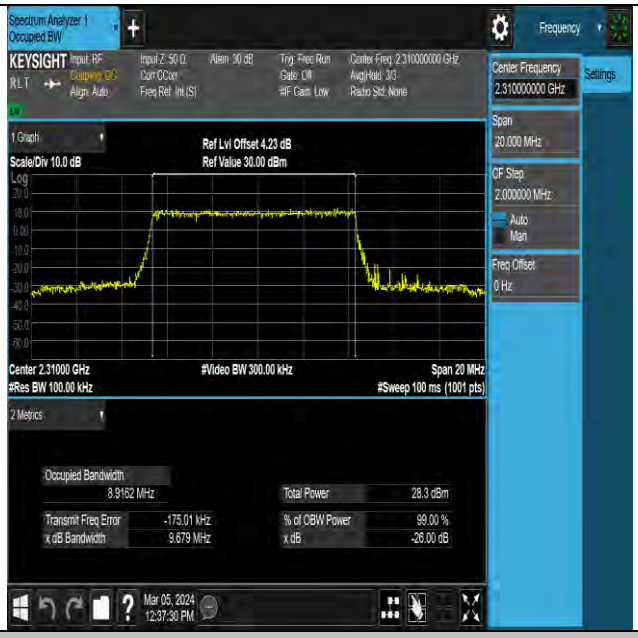
NTNV-N30-PC3-15-5-M-DFT-256QAM-Outer_Full-Ant10-PASS

NTNV-N30-PC3-15-10-M-DFT-PI2BPSK-Outer_Full-Ant10-PASS

NTNV-N30-PC3-15-10-M-DFT-QPSK-Outer_Full-Ant10-PASS



NTNV-N30-PC3-15-10-M-DFT-16QAM-Outer_Full-Ant10-PASS

	
NTNV-N30-PC3-15-10-M-DFT-64QAM-Outer_Full-Ant10-PASS	NTNV-N30-PC3-15-10-M-DFT-256QAM-Outer_Full-Ant10-PASS

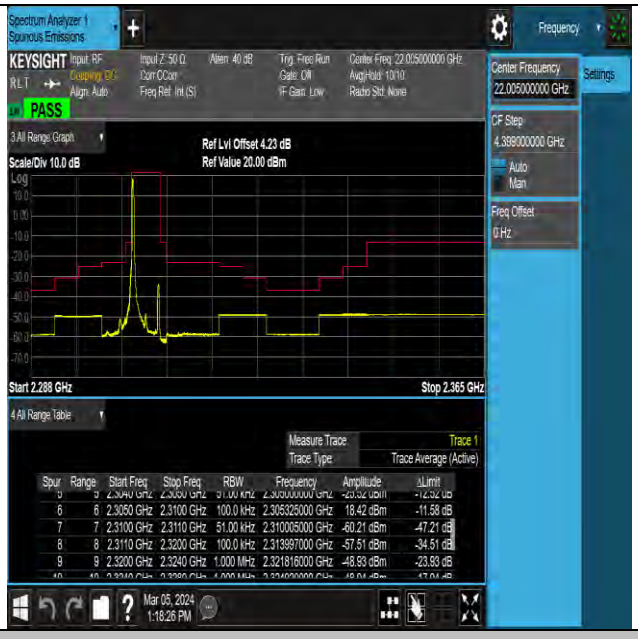
BAND EDGE FOR SA

Test Result

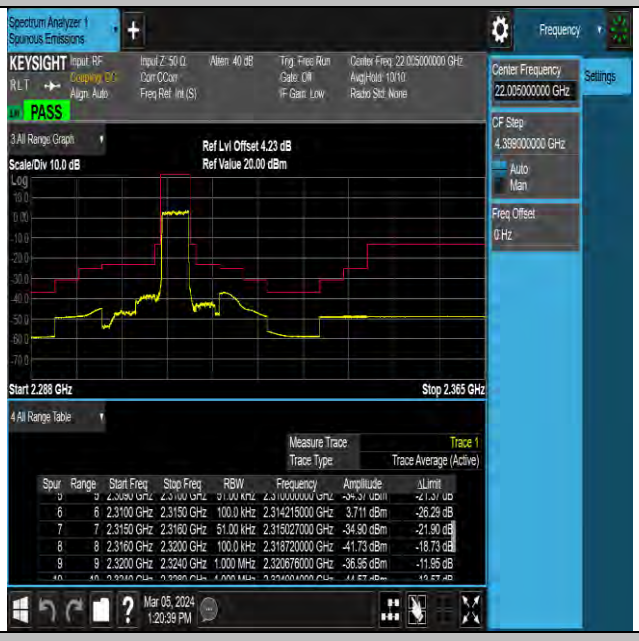
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Verdict
N30	15	5	DFT-QPSK	L	Outer_Full	-36.80	PASS
N30	15	5	DFT-QPSK	L	Edge_1RB_Left	-25.52	PASS
N30	15	5	DFT-QPSK	H	Outer_Full	-36.95	PASS
N30	15	5	DFT-QPSK	H	Edge_1RB_Right	-25.49	PASS
N30	15	10	DFT-QPSK	M	Outer_Full	-43.11	PASS
N30	15	10	DFT-QPSK	M	Edge_1RB_Left	-28.55	PASS
N30	15	10	DFT-QPSK	M	Edge_1RB_Right	-29.77	PASS

Test Graphs

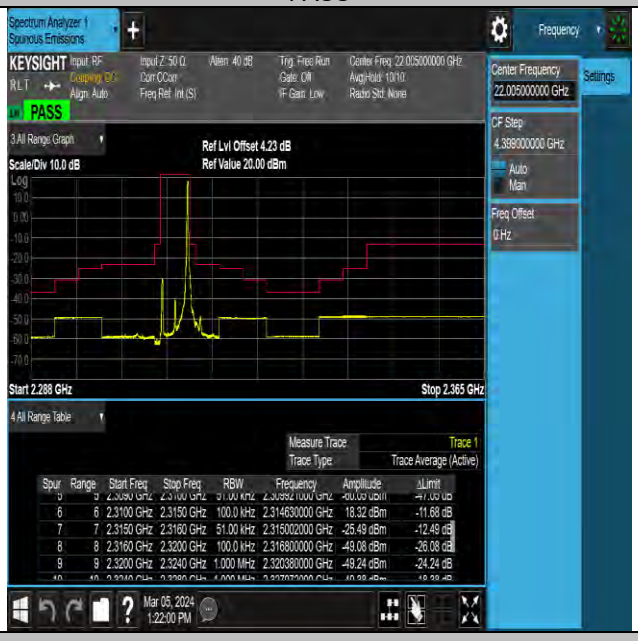
NTNV-N30-PC3-15-5-L-DFT-QPSK-Outer_Full-Ant10-PASS



NTNV-N30-PC3-15-5-L-DFT-QPSK-Edge_1RB_Left-Ant10-PASS

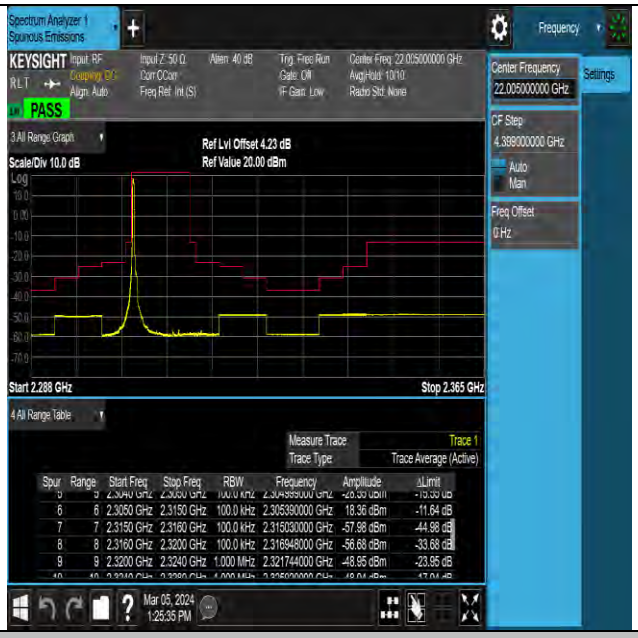


NTNV-N30-PC3-15-5-H-DFT-QPSK-Outer_Full-Ant10-PASS



NTNV-N30-PC3-15-5-H-DFT-QPSK-Edge_1RB_Right-Ant10-PASS

NTNV-N30-PC3-15-10-M-DFT-QPSK-Outer_Full-Ant10-PASS



NTNV-N30-PC3-15-10-M-DFT-QPSK-Edge_1RB_Left-Ant10-PASS

NTNV-N30-PC3-15-10-M-DFT-QPSK-Edge_1RB_Right-Ant10-PASS

CONDUCTED SPURIOUS EMISSION FOR SA

Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	StartFreq	StopFreq	Result	Limit	Verdict
N30	15	5	DFT-QPSK	L	Edge_1RB_Left	30	1000	-48.22	-40	PASS
N30	15	5	DFT-QPSK	L	Edge_1RB_Left	1000	3000	-43.91	-40	PASS
N30	15	5	DFT-QPSK	L	Edge_1RB_Left	3000	24000	-43.26	-40	PASS
N30	15	5	DFT-QPSK	M	Edge_1RB_Left	30	1000	-48.17	-40	PASS
N30	15	5	DFT-QPSK	M	Edge_1RB_Left	1000	3000	-43.85	-40	PASS
N30	15	5	DFT-QPSK	M	Edge_1RB_Left	3000	24000	-43.17	-40	PASS
N30	15	5	DFT-QPSK	H	Edge_1RB_Left	30	1000	-48.26	-40	PASS
N30	15	5	DFT-QPSK	H	Edge_1RB_Left	1000	3000	-43.72	-40	PASS
N30	15	5	DFT-QPSK	H	Edge_1RB_Left	3000	24000	-43.25	-40	PASS
N30	15	10	DFT-QPSK	M	Edge_1RB_Left	30	1000	-48.20	-40	PASS
N30	15	10	DFT-QPSK	M	Edge_1RB_Left	1000	3000	-43.86	-40	PASS
N30	15	10	DFT-QPSK	M	Edge_1RB_Left	3000	24000	-43.31	-40	PASS

Test Graphs

NTNV-N30-PC3-15-5-L-DFT-QPSK-Edge_1RB_Left-Ant10-PASS

NTNV-N30-PC3-15-5-L-DFT-QPSK-Edge_1RB_Left-Ant10-PASS

NTNV-N30-PC3-15-5-L-DFT-QPSK-Edge_1RB_Left-Ant10-PASS

NTNV-N30-PC3-15-5-M-DFT-QPSK-Edge_1RB_Left-Ant10-PASS

NTNV-N30-PC3-15-5-M-DFT-QPSK-Edge_1RB_Left-Ant10-PASS

NTNV-N30-PC3-15-5-M-DFT-QPSK-Edge_1RB_Left-Ant10-PASS

NTNV-N30-PC3-15-5-H-DFT-QPSK-Edge_1RB_Left-Ant10-PASS

NTNV-N30-PC3-15-5-H-DFT-QPSK-Edge_1RB_Left-Ant10-PASS

NTNV-N30-PC3-15-5-H-DFT-QPSK-Edge_1RB_Left-Ant10-PASS

NTNV-N30-PC3-15-10-M-DFT-QPSK-Edge_1RB_Left-Ant10-PASS

NTNV-N30-PC3-15-10-M-DFT-QPSK-Edge_1RB_Left-Ant10-PASS

NTNV-N30-PC3-15-10-M-DFT-QPSK-Edge_1RB_Left-Ant10-PASS

FREQUENCY STABILITY FOR SA

Test Result

Frequency Error VS. Voltage

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
N30	15	5	DFT-QPSK	L	Outer_Full	VL	NT	3.000000	0.001300	PASS
N30	15	5	DFT-QPSK	L	Outer_Full	VN	NT	9.000000	0.003900	PASS
N30	15	5	DFT-QPSK	L	Outer_Full	VH	NT	18.000000	0.007801	PASS
N30	15	5	DFT-QPSK	M	Outer_Full	VL	NT	7.000000	0.003030	PASS
N30	15	5	DFT-QPSK	M	Outer_Full	VN	NT	9.000000	0.003896	PASS
N30	15	5	DFT-QPSK	M	Outer_Full	VH	NT	3.000000	0.001299	PASS
N30	15	5	DFT-QPSK	H	Outer_Full	VL	NT	12.000000	0.005189	PASS
N30	15	5	DFT-QPSK	H	Outer_Full	VN	NT	3.000000	0.001297	PASS
N30	15	5	DFT-QPSK	H	Outer_Full	VH	NT	12.000000	0.005189	PASS

Frequency Error VS. Temperature

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
N30	15	5	DFT-QPSK	L	Outer_Full	NV	-30	15.000000	0.006501	PASS
N30	15	5	DFT-QPSK	L	Outer_Full	NV	-20	16.000000	0.006934	PASS
N30	15	5	DFT-QPSK	L	Outer_Full	NV	-10	3.000000	0.001300	PASS
N30	15	5	DFT-QPSK	L	Outer_Full	NV	0	16.000000	0.006934	PASS
N30	15	5	DFT-QPSK	L	Outer_Full	NV	10	6.000000	0.002600	PASS
N30	15	5	DFT-QPSK	L	Outer_Full	NV	20	19.000000	0.008234	PASS
N30	15	5	DFT-QPSK	L	Outer_Full	NV	30	9.000000	0.003900	PASS
N30	15	5	DFT-QPSK	L	Outer_Full	NV	40	3.000000	0.001300	PASS
N30	15	5	DFT-QPSK	L	Outer_Full	NV	50	12.000000	0.005200	PASS
N30	15	5	DFT-QPSK	M	Outer_Full	NV	-30	16.000000	0.006926	PASS
N30	15	5	DFT-QPSK	M	Outer_Full	NV	-20	18.000000	0.007792	PASS
N30	15	5	DFT-QPSK	M	Outer_Full	NV	-10	19.000000	0.008225	PASS
N30	15	5	DFT-QPSK	M	Outer_Full	NV	0	9.000000	0.003896	PASS
N30	15	5	DFT-QPSK	M	Outer_Full	NV	10	19.000000	0.008225	PASS
N30	15	5	DFT-QPSK	M	Outer_Full	NV	20	12.000000	0.005195	PASS
N30	15	5	DFT-QPSK	M	Outer_Full	NV	30	3.000000	0.001299	PASS
N30	15	5	DFT-QPSK	M	Outer_Full	NV	40	15.000000	0.006494	PASS
N30	15	5	DFT-QPSK	M	Outer_Full	NV	50	18.000000	0.007792	PASS
N30	15	5	DFT-QPSK	H	Outer_Full	NV	-30	6.000000	0.002595	PASS
N30	15	5	DFT-QPSK	H	Outer_Full	NV	-20	15.000000	0.006486	PASS

N30	15	5	DFT-QPSK	H	Outer_Full	NV	-10	16.000000	0.006919	PASS
N30	15	5	DFT-QPSK	H	Outer_Full	NV	0	6.000000	0.002595	PASS
N30	15	5	DFT-QPSK	H	Outer_Full	NV	10	16.000000	0.006919	PASS
N30	15	5	DFT-QPSK	H	Outer_Full	NV	20	6.000000	0.002595	PASS
N30	15	5	DFT-QPSK	H	Outer_Full	NV	30	7.000000	0.003027	PASS
N30	15	5	DFT-QPSK	H	Outer_Full	NV	40	13.000000	0.005622	PASS
N30	15	5	DFT-QPSK	H	Outer_Full	NV	50	7.000000	0.003027	PASS

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