

FCC TEST REPORT

(PART 90)

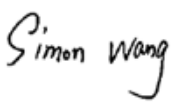
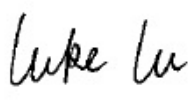
Applicant:	POINTMOBILE CO.,LTD
Address:	9F Kabul Great Valley, 32, Digital-ro 9-gil, Geumcheon-gu, Seoul, Korea 08512

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 90, Subpart R, S** ☒ **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: May. 10, 2024	Date: May. 10, 2024

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TABLE OF CONTENTS

RELEASE CONTROL RECORD	4
1 SUMMARY OF TEST RESULTS	5
1.1 MEASUREMENT UNCERTAINTY	6
1.2 TEST SITE AND INSTRUMENTS	7
2 GENERAL INFORMATION.....	9
2.1 GENERAL DESCRIPTION OF EUT	9
2.2 CONFIGURATION OF SYSTEM UNDER TEST	12
2.3 DESCRIPTION OF SUPPORT UNITS	13
2.4 DESCRIPTION OF TEST MODES.....	13
2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS	17
3 TEST TYPES AND RESULTS	18
3.1 OUTPUT POWER MEASUREMENT	18
3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT	18
3.1.2 TEST PROCEDURES	18
3.1.3 TEST SETUP	19
3.1.4 TEST RESULTS	20
3.2 FREQUENCY STABILITY MEASUREMENT	32
3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT	32
3.2.2 TEST PROCEDURE	32
3.2.3 TEST SETUP	32
3.2.4 TEST RESULTS	33
3.3 OCCUPIED BANDWIDTH MEASUREMENT	34
3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT	34
3.3.2 TEST SETUP	34
3.3.3 TEST PROCEDURES	34
3.3.4 TEST RESULTS	35
3.4 EMISSION MASK MEASUREMENT.....	36
3.4.1 LIMITS OF EMISSION MASK MEASUREMENT	36
3.4.2 TEST SETUP	37
3.4.3 TEST PROCEDURES	38
3.4.4 TEST RESULTS	39
3.5 CONDUCTED SPURIOUS EMISSIONS.....	40
3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT	40
3.5.2 TEST PROCEDURE	40
3.5.3 TEST SETUP	40
3.5.4 TEST RESULTS	41
3.6 RADIATED EMISSION MEASUREMENT	42
3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT	42
3.6.2 TEST PROCEDURES	42
3.6.3 DEVIATION FROM TEST STANDARD	42
3.6.4 TEST SETUP	43
3.6.5 TEST RESULTS	45
3.7 PEAK TO AVERAGE RATIO	67
3.7.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT	67
3.7.2 TEST SETUP	67
3.7.3 TEST PROCEDURES	67
3.7.4 TEST RESULTS	68

4	INFORMATION ON THE TESTING LABORATORIES	69
5	MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	70
6	APPENDIX	71
	LTE BAND14	71
	PEAK-TO-AVERAGE RATIO(CCDF)	71
	TEST RESULT	71
	TEST GRAPHS	72
	26DB BANDWIDTH AND OCCUPIED BANDWIDTH	74
	TEST RESULT	74
	TEST GRAPHS	75
	BAND EDGE	79
	TEST RESULT	79
	TEST GRAPHS	80
	CONDUCTED SPURIOUS EMISSION	87
	TEST RESULT	87
	TEST GRAPHS	88
	FREQUENCY STABILITY	92
	TEST RESULT	92
	LTE BAND26(814-824)	93
	PEAK-TO-AVERAGE RATIO(CCDF)	93
	TEST RESULT	93
	TEST GRAPHS	94
	26DB BANDWIDTH AND OCCUPIED BANDWIDTH	96
	TEST RESULT	96
	TEST GRAPHS	97
	BAND EDGE	107
	TEST RESULT	107
	TEST GRAPHS	108
	CONDUCTED SPURIOUS EMISSION	123
	TEST RESULT	123
	TEST GRAPHS	124
	FREQUENCY STABILITY	134
	TEST RESULT	134



Test Report No.: W7L-P23120020RF05

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P23120020RF05	Original release	May. 10, 2024

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 90 & Part 2			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	TEST LAB*
§2.1046 §90.635(b)	Conducted Output Power (Band26)	PASS	A
§ 90.541(d)	Effective Radiated Power (Band14)	PASS	A
§2.1055 §90.213 §90.539	Frequency Stability	PASS	A
§2.1049 §90.209	Occupied Bandwidth	PASS	A
§2.1051 §90.543(e)(f) §90.691(a)	Emission Masks	PASS	A
§2.1051 §90.543(e)(f) §90.691(a)	Conducted Spurious Emissions	PASS	A
§2.1053 §90.691	Radiated Spurious Emissions	PASS	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 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
Maximum Peak Output Power	±2.06dB
Frequency Stability	±76.97Hz
Radiated emissions (9KHz~30MHz)	±2.68dB
Radiated emissions (30MHz~1GHz)	±4.98dB
Radiated emissions (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
Band Edge Measurements	±4.70dB
Peak to average ratio	±0.76dB

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-LINDGRE N	3143B	00161965	Feb. 18,23	Feb. 17,24
Bilog Antenna	ETS-LINDGRE N	3143B	00161965	Feb. 17,24	Feb. 16,25
Horn Antenna	ETS-LINDGRE N	3117	00168692	Feb. 18,23	Feb. 17,24
Horn Antenna	ETS-LINDGRE N	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-LINDGRE N	9m*6m*6m	Euroshieldpn- CT0001143-121 6	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 Microwave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 14,23	Feb. 13,24
MXG Analog Microwave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 13,24	Feb. 12,25
Base station R&S CMW500	Rohde&Schwa rz	CMW500	153085	May.10,23	May.09,24
Base station R&S CMW500	Rohde&Schwa rz	CMW500	153085	May.09,24	May.08,25
DC Source	Kikusui/JP	PMX18-5A	N/A	Aug. 11,23	Aug. 10,24



BUREAU
VERITAS

Test Report No.: W7L-P23120020RF05

N9010B keysight SN	KEYSIGHT	N9010B	MY62170516	Aug. 01,23	Jul. 31, 24
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- 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	Mobile computer	
BRAND NAME	Point mobile	
MODEL NAME	PM95	
NOMINAL VOLTAGE	5.0Vdc (adapter) 3.87Vdc (battery)	
MODULATION TECHNOLOGY	LTE	QPSK, 16QAM, 64QAM, 256QAM
FREQUENCY RANGE	LTE Band 14 Channel Bandwidth: 5MHz	790.5MHz ~ 795.5MHz
	LTE Band 14 Channel Bandwidth: 10MHz	793MHz
	LTE Band 26 (Channel Bandwidth: 1.4MHz)	814.7MHz ~ 823.3MHz
	LTE Band 26 (Channel Bandwidth: 3MHz)	815.5MHz ~ 822.5MHz
	LTE Band 26 (Channel Bandwidth: 5MHz)	816.5MHz ~ 821.5MHz
	LTE Band 26 (Channel Bandwidth: 10MHz)	819MHz
	LTE CA	The following only support downlink: CA_14A-66A
EMISSION DESIGNATOR	LTE Band 14 Channel Bandwidth: 5MHz	QPSK: 4M52G7D 16QAM: 4M53W7D
	LTE Band 14 Channel Bandwidth: 10MHz	QPSK: 8M99G7D 16QAM: 9M00W7D
	LTE Band 26 (Channel Bandwidth: 1.4MHz)	QPSK: 1M11G7D 16QAM: 1M11W7D
	LTE Band 26 (Channel Bandwidth: 3MHz)	QPSK: 2M71G7D 16QAM: 2M71W7D
	LTE Band 26 (Channel Bandwidth: 5MHz)	QPSK: 4M54G7D 16QAM: 4M53W7D
	LTE Band 26 (Channel Bandwidth: 10MHz)	QPSK: 9M01G7D 16QAM: 9M02W7D
	LTE Band 26 (Channel Bandwidth: 1.4MHz)	68.39mW
MAX. EIRP POWER	LTE Band 14 Channel Bandwidth: 10MHz	68.87mW
	LTE Band 26 (Channel Bandwidth: 1.4MHz)	59.84mW



**BUREAU
VERITAS**

Test Report No.: W7L-P23120020RF05

	LTE Band 26 (Channel Bandwidth: 3MHz)	60.39mW
	LTE Band 26 (Channel Bandwidth: 5MHz)	59.84mW
	LTE Band 26 (Channel Bandwidth: 10MHz)	59.57mW
ANTENNA TYPE	Internal Antenna	
ANTENNA GAIN	ANT0: Internal Antenna with -2.18dBi gain for LTE Band 14 Internal Antenna with -2.24dBi gain for LTE Band 26	
HW VERSION	MP	
SW VERSION	95.00	
I/O PORTS	Refer to user's manual	
DATA CABLE	USB cable: non-shielded cable, with w/o ferrite core, 1.5meter	
EXTREME TEMPERATURE	-20-60 °C	
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 two receivers.

MODULATION MODE	TX FUNCTION
LTE	1TX/2RX

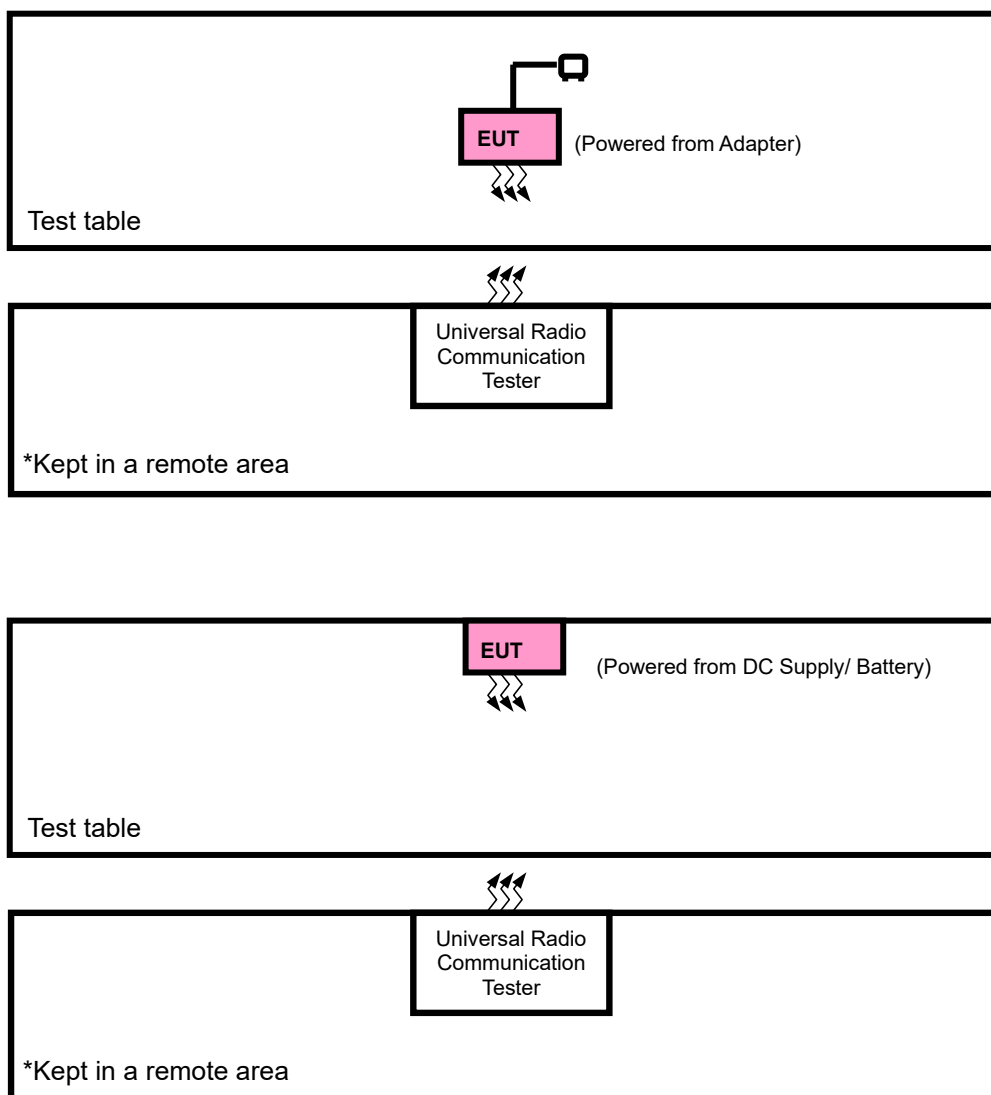
3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
4. Antenna gain and EUT conducted cable loss are provided by the customer, and the laboratory will record the results based on these items that involve these two parameters.
5. The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

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 in ERP/EIRP and radiated emission was found when positioned on X-plane for LTE. 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 /Battery with LTE link

LTE BAND 14 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	ERP	23305 to 23355	23305, 23330, 23355	5MHz	QPSK,16QAM,64QAM,256QAM	1 RB / 0 RB Offset
		23330	23330	10MHz	QPSK,16QAM,64QAM,256QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	23330	23330	10MHz	QPSK,16QAM	50 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	23305 to 23355	23305, 23330, 23355	5MHz	QPSK,16QAM	25 RB / 0 RB Offset
		23330	23330	10MHz	QPSK,16QAM	50 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	23330	23330	10MHz	QPSK,16QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset
A	BAND EDGE	23305 to 23355	23305	5MHz	QPSK,16QAM	1 RB / 0 RB Offset
						25 RB / 0 RB Offset
			23355	5MHz	QPSK,16QAM	1 RB / 24 RB Offset
						25 RB / 0 RB Offset
		23300	23330	10MHz	QPSK,16QAM	1 RB / 0 RB Offset
						50 RB / 0 RB Offset
						1 RB / 49 RB Offset
						/
A	CONDUCTED EMISSION	23305 to 23355	23305, 23330, 23355	5MHz	QPSK,16QAM	1 RB / 0 RB Offset
		23330	23330	10MHz	QPSK,16QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	23305 to 23355	23305, 23330, 23355	5MHz	QPSK	1 RB / 0 RB Offset
		23330	23330	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.

LTE BAND 26 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	ERP	26697 to 26783	26697, 26740, 26783	1.4MHz	QPSK,16QAM,64QAM,256QAM	1 RB / 0 RB Offset
		26705 to 26775	26705, 26740, 26775	3MHz	QPSK,16QAM,64QAM,256QAM	1 RB / 0 RB Offset
		26715 to 26765	26715, 26740, 26765	5MHz	QPSK,16QAM,64QAM,256QAM	1 RB / 0 RB Offset
		26740	26740	10MHz	QPSK,16QAM,64QAM,256QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	26740	26740	10MHz	QPSK,16QAM	50 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	26697 to 26783	26697, 26740, 26783	1.4MHz	QPSK,16QAM	6 RB / 0 RB Offset
		26705 to 26775	26705, 26740, 26775	3MHz	QPSK,16QAM	15 RB / 0 RB Offset
		26715 to 26765	26715, 26740, 26765	5MHz	QPSK,16QAM	25 RB / 0 RB Offset
		26740	26740	10MHz	QPSK,16QAM	50 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	26740	26740	10MHz	QPSK,16QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset
A	BAND EDGE	26697 to 26783	26697	1.4MHz	QPSK,16QAM	1 RB / 0 RB Offset 6 RB / 0 RB Offset
			26783	1.4MHz	QPSK,16QAM	1 RB / 5 RB Offset 6 RB / 0 RB Offset
		26705 to 26775	26705	3MHz	QPSK,16QAM	1 RB / 0 RB Offset 15 RB / 0 RB Offset
			26775	3MHz	QPSK,16QAM	1 RB / 14 RB Offset 15 RB / 0 RB Offset
		26715 to 26765	26715	5MHz	QPSK,16QAM	1 RB / 0 RB Offset 25 RB / 0 RB Offset
			26765	5MHz	QPSK,16QAM	1 RB / 24 RB Offset 25 RB / 0 RB Offset
		26740	26740	10MHz	QPSK,16QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset
			26740	10MHz	QPSK,16QAM	1 RB / 49 RB Offset 50 RB / 0 RB Offset
A	CONDUCTED EMISSION	26697 to 26783	26697, 26740, 26783	1.4MHz	QPSK,16QAM	1 RB / 0 RB Offset
		26705 to 26775	26705, 26740, 26775	3MHz	QPSK,16QAM	1 RB / 0 RB Offset
		26715 to 26765	26715, 26740, 26765	5MHz	QPSK,16QAM	1 RB / 0 RB Offset
		26740	26740	10MHz	QPSK,16QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	26697 to 26783	26740	1.4MHz	QPSK	1 RB / 0 RB Offset
		26705 to 26775	26705, 26740, 26775	3MHz	QPSK	1 RB / 0 RB Offset



Test Report No.: W7L-P23120020RF05

		26715 to 26765	26740	5MHz	QPSK	1 RB / 0 RB Offset
		26740	26740	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.

TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
EIRP(ERP)	24deg. C, 60%RH	DC 5.0Vdc by Adapter	Jace Hu
FREQUENCY STABILITY	24deg. C, 61%RH	DC 3.5V/ 3.87V/ 4.45V By Battery	James Fu
OCCUPIED BANDWIDTH	24deg. C, 61%RH	DC 5.0Vdc by Adapter	James Fu
BAND EDGE	24deg. C, 61%RH	DC 5.0Vdc by Adapter	James Fu
CONDUCTED EMISSION	24deg. C, 61%RH	DC 5.0Vdc by Adapter	James Fu
RADIATED EMISSION	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 90

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

47 CFR 90.542(a)(6)

Control stations and mobile stations transmitting in the 758–768 MHz band and the 788–798 MHz band are limited to 30 watts ERP.

47 CFR 90.542(a)(7)

Portable stations (hand-held devices) transmitting in the 758–768 MHz band and the 788–798 MHz band are limited to 3 watts ERP.

Per FCC Part 90.635(a)(b)

The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

3.1.2 TEST PROCEDURES

EIRP / ERP 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);

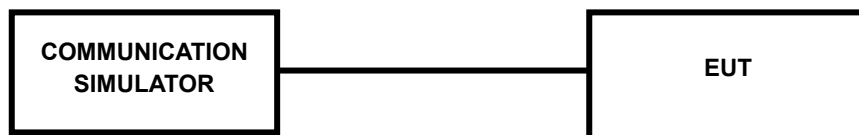
L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB

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

CONDUCTED OUTPUT POWER (dBm)

LTE Band 14(ANT0)

Band/BW	Modulation	RB Size	RB Offset	Low CH 23305	Mid CH 23330	High CH 23355
				Frequency 790.5 MHz	Frequency 793 MHz	Frequency 795.5 MHz
14/ 5	QPSK	1	0	22.54	22.65	22.61
		1	12	22.68	22.68	22.57
		1	24	22.46	22.50	22.50
		12	0	21.57	21.58	21.59
		12	6	21.55	21.56	21.50
		12	13	21.51	21.53	21.64
		25	0	21.49	21.54	21.56
	16QAM	1	0	21.61	21.67	21.69
		1	12	21.84	21.77	21.73
		1	24	21.54	21.62	21.58
		12	0	20.60	20.54	20.60
		12	6	20.53	20.56	20.60
		12	13	20.59	20.52	20.65
		25	0	20.64	20.61	20.55
	64QAM	1	0	20.79	20.74	20.76
		1	12	20.78	20.85	20.74
		1	24	20.75	20.65	20.75
		12	0	19.59	19.53	19.63
		12	6	19.57	19.55	19.62
		12	13	19.57	19.59	19.67
		25	0	19.47	19.60	19.60
	256QAM	1	0	17.77	17.64	17.64
		1	12	17.71	17.71	17.75
		1	24	17.63	17.63	17.66
		12	0	17.43	17.47	17.52
		12	6	17.55	17.52	17.48
		12	13	17.47	17.60	17.50
		25	0	17.40	17.44	17.38

Band/BW	Modulation	RB Size	RB Offset	/	Mid CH 23330	/
				/	Frequency 793 MHz	/
14/ 10	QPSK	1	0	/	22.66	/
		1	24	/	22.71	/
		1	49	/	22.56	/
		25	0	/	21.63	/
		25	12	/	21.61	/
		25	25	/	21.65	/
		50	0	/	21.60	/
	16QAM	1	0	/	21.75	/
		1	24	/	21.85	/
		1	49	/	21.64	/
		25	0	/	20.65	/
		25	12	/	20.67	/
		25	25	/	20.66	/
		50	0	/	20.69	/
	64QAM	1	0	/	20.84	/
		1	24	/	20.86	/
		1	49	/	20.77	/
		25	0	/	19.64	/
		25	12	/	19.65	/
		25	25	/	19.68	/
		50	0	/	19.61	/
	256QAM	1	0	/	17.78	/
		1	24	/	17.85	/
		1	49	/	17.72	/
		25	0	/	17.54	/
		25	12	/	17.58	/
		25	25	/	17.62	/
		50	0	/	17.51	/

LTE Band 26

Band/BW	Modulation	RB Size	RB Offset	Low CHG 26697	Mid CH 26740	High CH 26783
				Frequency 814.7 MHz	Frequency 819 MHz	Frequency 823.3 MHz
26/ 1.4	QPSK	1	0	22.16	22.00	21.92
		1	2	22.12	21.98	21.91
		1	5	22.02	21.82	21.95
		3	0	21.91	21.77	21.71
		3	1	21.84	21.77	21.77
		3	3	21.88	21.82	21.86
		6	0	21.13	21.15	20.93
	16QAM	1	0	21.28	21.16	21.19
		1	2	21.24	21.10	21.18
		1	5	21.04	21.12	20.91
		3	0	21.16	21.08	21.15
		3	1	21.13	20.96	21.08
		3	3	21.17	21.00	21.18
		6	0	20.17	20.20	20.12
	64QAM	1	0	20.19	20.10	20.22
		1	2	20.32	20.24	20.22
		1	5	20.26	20.13	20.18
		3	0	20.08	19.88	19.90
		3	1	20.09	20.11	20.09
		3	3	20.10	20.09	19.97
		6	0	19.29	19.17	19.15
	256QAM	1	0	17.17	17.09	17.12
		1	2	17.11	17.07	17.22
		1	5	17.27	17.22	17.23
		3	0	16.96	16.85	16.92
		3	1	17.08	16.89	16.92
		3	3	17.02	16.91	16.89
		6	0	17.08	17.05	17.09

Band/BW	Modulation	RB Size	RB Offset	Low CHG 26705	Mid CH 26740	High CH 26775
				Frequency 815.5 MHz	Frequency 819 MHz	Frequency 822.5 MHz
26/ 3	QPSK	1	0	22.20	22.05	22.01
		1	7	22.14	21.93	21.96
		1	14	22.00	21.83	21.95
		8	0	20.99	21.02	21.00
		8	3	21.05	21.00	21.01
		8	7	21.16	21.06	20.99
		15	0	21.12	21.15	20.98
	16QAM	1	0	21.23	21.28	21.29
		1	7	21.29	21.14	21.20
		1	14	21.17	21.09	20.90
		8	0	20.16	20.16	20.12
		8	3	20.17	20.08	20.09
		8	7	20.12	20.10	20.21
		15	0	20.12	20.10	20.10
	64QAM	1	0	20.16	20.06	20.13
		1	7	20.28	20.14	20.19
		1	14	20.29	20.17	20.08
		8	0	19.06	18.88	18.97
		8	3	19.13	19.08	18.99
		8	7	19.18	18.99	18.94
		15	0	19.28	19.18	19.14
	256QAM	1	0	17.16	17.06	17.19
		1	7	17.22	16.97	17.11
		1	14	17.23	17.08	17.25
		8	0	16.88	16.84	16.95
		8	3	16.96	16.98	16.95
		8	7	16.96	16.93	16.87
		15	0	17.11	17.09	17.02

Band/BW	Modulation	RB Size	RB Offset	Low CHG 26715	Mid CH 26740	High CH 26765
				Frequency 816.5 MHz	Frequency 819 MHz	Frequency 821.5 MHz
26/ 5	QPSK	1	0	22.16	22.01	22.02
		1	12	22.03	21.94	21.98
		1	24	21.97	21.81	22.00
		12	0	21.10	20.93	21.04
		12	6	21.06	21.03	20.98
		12	13	21.03	21.12	21.01
		25	0	21.12	21.07	20.95
	16QAM	1	0	21.28	21.22	21.24
		1	12	21.25	21.18	21.19
		1	24	21.09	21.09	20.91
		12	0	20.10	20.16	20.05
		12	6	20.15	20.08	20.02
		12	13	20.15	20.07	20.08
		25	0	20.19	20.09	20.08
	64QAM	1	0	20.18	20.07	20.19
		1	12	20.27	20.13	20.12
		1	24	20.27	20.21	20.12
		12	0	19.11	18.95	18.99
		12	6	19.14	19.13	19.03
		12	13	19.08	19.00	19.03
		25	0	19.24	19.20	19.19
	256QAM	1	0	17.13	16.99	17.20
		1	12	17.22	17.02	17.22
		1	24	17.21	17.13	17.16
		12	0	16.99	16.87	16.88
		12	6	16.97	16.99	16.90
		12	13	17.02	16.96	16.87
		25	0	17.10	16.97	17.11

Band/BW	Modulation	RB Size	RB Offset	/	Mid CH 26740	/
				/	Frequency 819 MHz	/
26/ 10	QPSK	1	0	/	22.14	/
		1	24	/	22.05	/
		1	49	/	21.95	/
		25	0	/	21.04	/
		25	12	/	21.09	/
		25	25	/	21.17	/
		50	0	/	21.19	/
	16QAM	1	0	/	21.29	/
		1	24	/	21.25	/
		1	49	/	21.15	/
		25	0	/	20.18	/
		25	12	/	20.09	/
		25	25	/	20.14	/
		50	0	/	20.22	/
	64QAM	1	0	/	20.13	/
		1	24	/	20.26	/
		1	49	/	20.28	/
		25	0	/	19.03	/
		25	12	/	19.14	/
		25	25	/	19.11	/
		50	0	/	19.24	/
	256QAM	1	0	/	17.10	/
		1	24	/	17.12	/
		1	49	/	17.23	/
		25	0	/	16.98	/
		25	12	/	17.02	/
		25	25	/	17.05	/
		50	0	/	17.11	/

ERP

LTE BAND 14

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23305	790.5	22.68	-2.18	18.35	68.39	3
23330	793	22.68	-2.18	18.35	68.39	3
23355	795.5	22.61	-2.18	18.28	67.3	3

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23305	790.5	21.84	-2.18	17.51	56.36	3
23330	793	21.77	-2.18	17.44	55.46	3
23355	795.5	21.73	-2.18	17.4	54.95	3

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23305	790.5	20.79	-2.18	16.46	44.26	3
23330	793	20.85	-2.18	16.52	44.87	3
23355	795.5	20.76	-2.18	16.43	43.95	3

CHANNEL BANDWIDTH: 5MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23305	790.5	17.77	-2.18	13.44	22.08	3
23330	793	17.71	-2.18	13.38	21.78	3
23355	795.5	17.75	-2.18	13.42	21.98	3

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
23330	793	22.71	-2.18	18.38	68.87	3
-	-	-	-	-	-	-

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
23330	793	21.85	-2.18	17.52	56.49	3
-	-	-	-	-	-	-

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
23330	793	20.86	-2.18	16.53	44.98	3
-	-	-	-	-	-	-

CHANNEL BANDWIDTH: 10MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
23330	793	17.85	-2.18	13.52	22.49	3
-	-	-	-	-	-	-

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

LTE BAND 26

CHANNEL BANDWIDTH: 1.4MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26697	814.7	22.16	-2.24	17.77	59.84	100
26740	819	22	-2.24	17.61	57.68	100
26783	823.3	21.95	-2.24	17.56	57.02	100

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

CHANNEL BANDWIDTH: 1.4MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26697	814.7	21.28	-2.24	16.89	48.87	100
26740	819	21.16	-2.24	16.77	47.53	100
26783	823.3	21.19	-2.24	16.8	47.86	100

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

CHANNEL BANDWIDTH: 1.4MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26697	814.7	20.32	-2.24	15.93	39.17	100
26740	819	20.24	-2.24	15.85	38.46	100
26783	823.3	20.22	-2.24	15.83	38.28	100

CHANNEL BANDWIDTH: 1.4MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26697	814.7	17.27	-2.24	12.88	19.41	100
26740	819	17.22	-2.24	12.83	19.19	100
26783	823.3	17.23	-2.24	12.84	19.23	100

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

CHANNEL BANDWIDTH: 3MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26705	815.5	22.2	-2.24	17.81	60.39	100
26740	819	22.05	-2.24	17.66	58.34	100
26775	822.5	22.01	-2.24	17.62	57.81	100

CHANNEL BANDWIDTH: 3MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26705	815.5	21.29	-2.24	16.9	48.98	100
26740	819	21.28	-2.24	16.89	48.87	100
26775	822.5	21.29	-2.24	16.9	48.98	100

CHANNEL BANDWIDTH: 3MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26705	815.5	20.29	-2.24	15.9	38.9	100
26740	819	20.17	-2.24	15.78	37.84	100
26775	822.5	20.19	-2.24	15.8	38.02	100

CHANNEL BANDWIDTH: 3MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26705	815.5	17.23	-2.24	12.84	19.23	100
26740	819	17.09	-2.24	12.7	18.62	100
26775	822.5	17.25	-2.24	12.86	19.32	100

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

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26715	816.5	22.16	-2.24	17.77	59.84	100
26740	819	22.01	-2.24	17.62	57.81	100
26765	821.5	22.02	-2.24	17.63	57.94	100

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26715	816.5	21.28	-2.24	16.89	48.87	100
26740	819	21.22	-2.24	16.83	48.19	100
26765	821.5	21.24	-2.24	16.85	48.42	100

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26715	816.5	20.27	-2.24	15.88	38.73	100
26740	819	20.21	-2.24	15.82	38.19	100
26765	821.5	20.19	-2.24	15.8	38.02	100

CHANNEL BANDWIDTH: 5MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26715	816.5	17.22	-2.24	12.83	19.19	100
26740	819	17.13	-2.24	12.74	18.79	100
26765	821.5	17.22	-2.24	12.83	19.19	100

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

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
26740	819	22.14	-2.24	17.75	59.57	22.14
-	-	-	-	-	-	-

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
26740	819	21.29	-2.24	16.9	48.98	100
-	-	-	-	-	-	-

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
26740	819	20.28	-2.24	15.89	38.82	100
-	-	-	-	-	-	-

CHANNEL BANDWIDTH: 10MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
26740	819	17.23	-2.24	12.84	19.23	100
-	-	-	-	-	-	-

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

3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

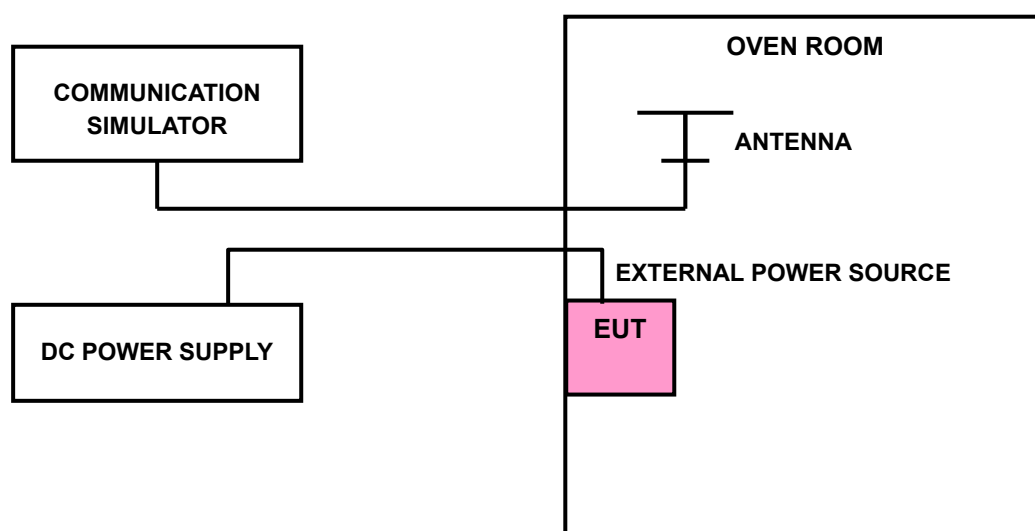
The frequency stability of mobile, portable and control transmitters operating in the wideband segment must be 1.25 parts per million or better when AFC is locked to a base station, and 5 parts per million or better when AFC is not locked.

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





Test Report No.: W7L-P23120020RF05

3.2.4 TEST RESULTS

Please Refer to Appendix Of this test report.

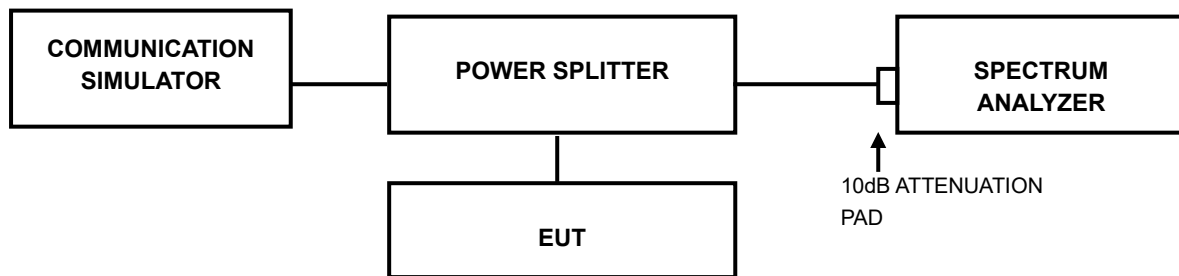
Note: VL = Low voltage(3.5V); VN/NV = Normal voltage(3.87V); VH = High voltage(4.45V);
NT = Normal temperature (25°C)

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.



Test Report No.: W7L-P23120020RF05

3.3.4 TEST RESULTS

Please Refer to Appendix Of this test report.

3.4 EMISSION MASK MEASUREMENT

3.4.1 LIMITS OF EMISSION MASK MEASUREMENT

LTE Band14:

According to FCC part 90.543(e) shall be tested the emission mask.

(e) For operations in the 758–768 MHz and the 788–798 MHz bands, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

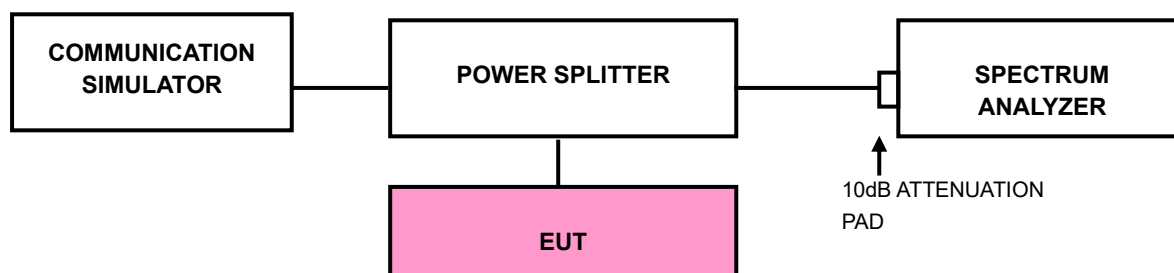
- (1) On all frequencies between 769–775 MHz and 799–805 MHz, by a factor not less than $76 + 10 \log (P)$ dB in a 6.25 kHz band segment, for base and fixed stations.
- (2) On all frequencies between 769–775 MHz and 799–805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations.
- (3) On any frequency between 775–788 MHz, above 805 MHz, and below 758 MHz, by at least $43 + 10 \log (P)$ dB.
- (4) Compliance with the provisions of paragraphs (e)(1) and (2) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.
- (5) Compliance with the provisions of paragraph (e)(3) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of 30 kHz may be employed.

LTE Band26:

According to FCC part 90.691 shall be tested the emission mask. For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 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.



Test Report No.: W7L-P23120020RF05

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

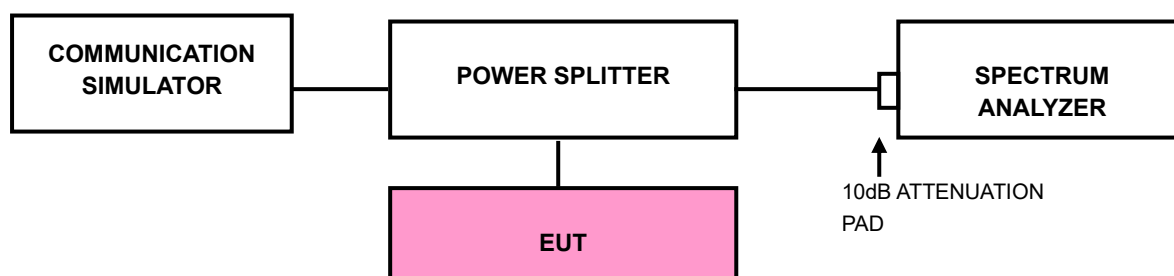
(1) The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB. The limit of emission equal to -13dBm

(2) For operations in the 763–775 MHz and 793–805 MHz bands, all emissions including harmonics in the band 1559– 1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

3.5.2 TEST PROCEDURE

- a. The EUT makes a phone call to the communication simulator. All measurements were done at middle operational frequency range.
- b. Measuring frequency range is from 9kHz up to a frequency including its 10^{th} 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-P23120020RF05

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

(1) The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB. The limit of emission equal to -13dBm

(2) For operations in the 763–775 MHz and 793–805 MHz bands, all emissions including harmonics in the band 1559–1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

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, $\text{E.R.P power} = \text{E.I.P.R power} - 2.15\text{dBi}.$

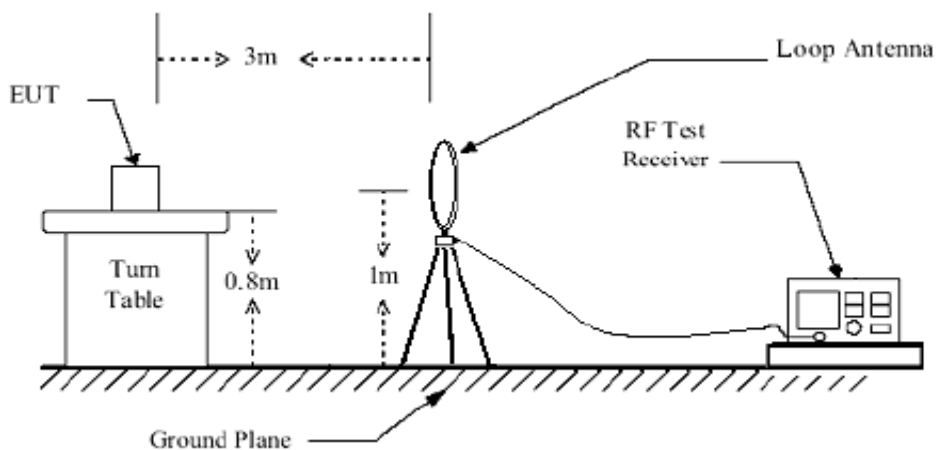
NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

3.6.3 DEVIATION FROM TEST STANDARD

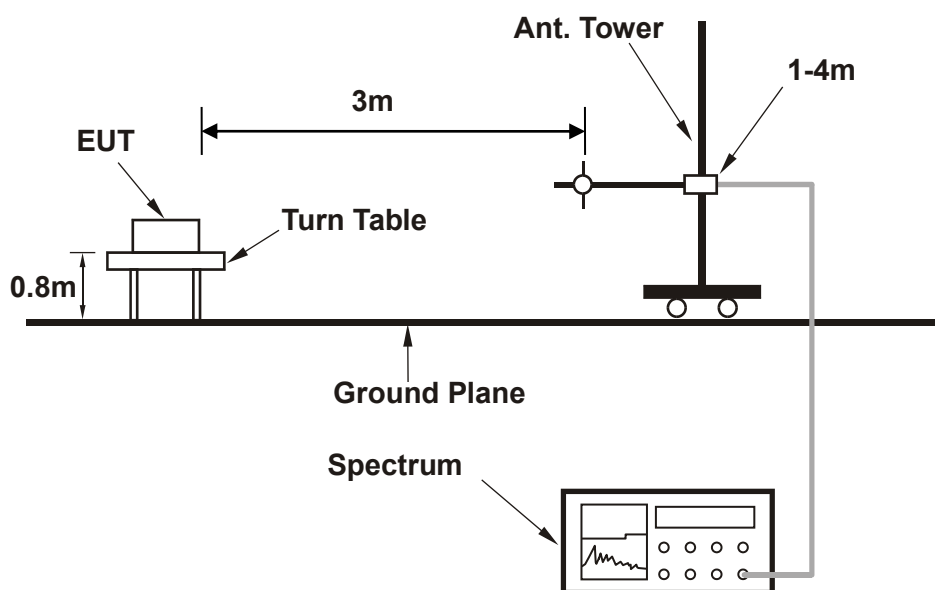
No deviation

3.6.4 TEST SETUP

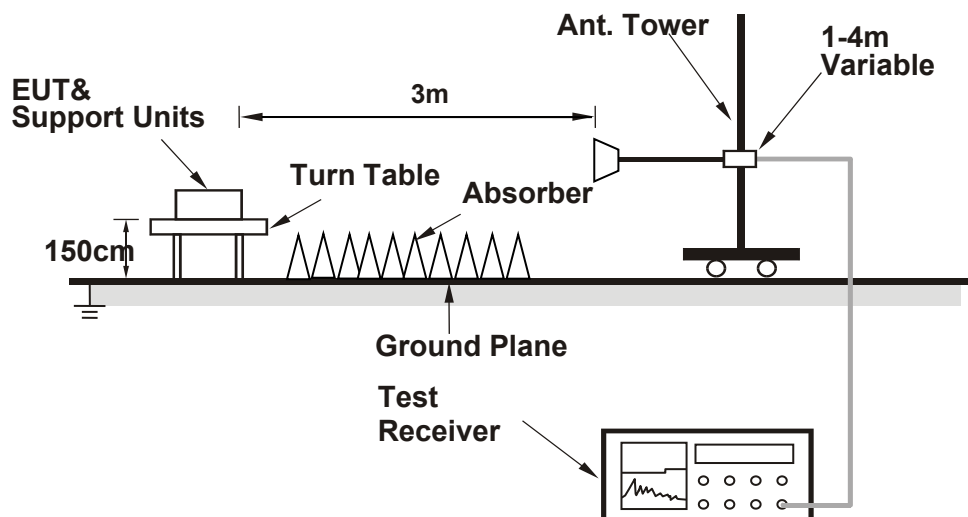
<Below 30MHz>



< Frequency Range 30MHz~1GHz >



< Frequency Range above 1GHz >



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

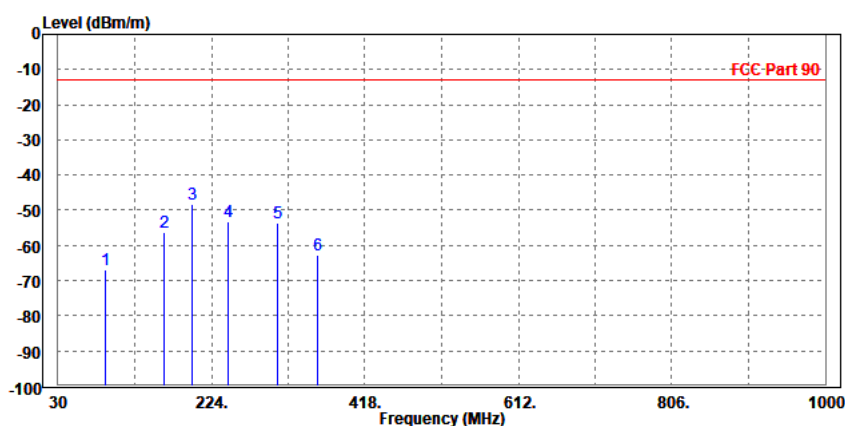
30 MHz – 1GHz data:

LTE Band 14:

CHANNEL BANDWIDTH: 5MHz / QPSK

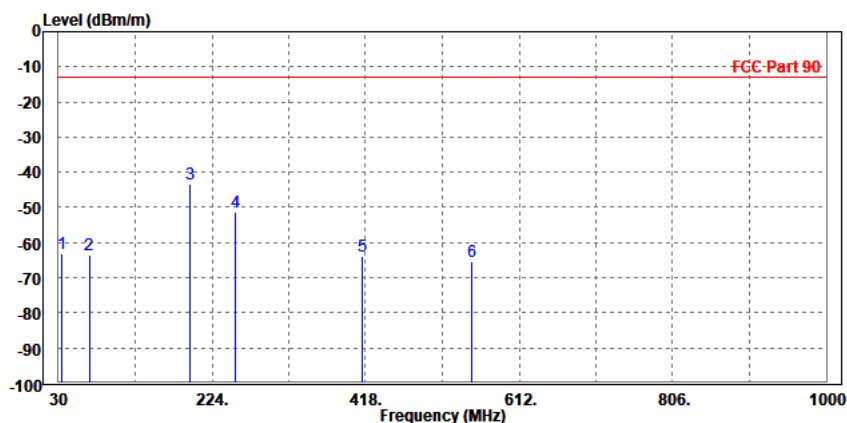
MODE	TX channel 23355	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace HU		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	89.170	-66.88	-54.15	-13.00	-53.88	-12.73	Peak	Horizontal
2	164.830	-56.22	-40.22	-13.00	-43.22	-16.00	Peak	Horizontal
3 PP	199.750	-48.20	-32.83	-13.00	-35.20	-15.37	Peak	Horizontal
4	244.370	-53.24	-41.58	-13.00	-40.24	-11.66	Peak	Horizontal
5	307.420	-53.69	-45.03	-13.00	-40.69	-8.66	Peak	Horizontal
6	357.860	-62.85	-55.13	-13.00	-49.85	-7.72	Peak	Horizontal



MODE	TX channel 23355	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	33.880	-63.10	-41.99	-13.00	-50.10	-21.11	Peak	Vertical
2	68.800	-63.47	-43.18	-13.00	-50.47	-20.29	Peak	Vertical
3 PP	196.840	-43.48	-35.15	-13.00	-30.48	-8.33	Peak	Vertical
4	254.070	-51.15	-47.44	-13.00	-38.15	-3.71	Peak	Vertical
5	413.150	-64.01	-59.72	-13.00	-51.01	-4.29	Peak	Vertical
6	551.860	-65.22	-62.17	-13.00	-52.22	-3.05	Peak	Vertical





Test Report No.: W7L-P23120020RF05

ABOVE 1GHz

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

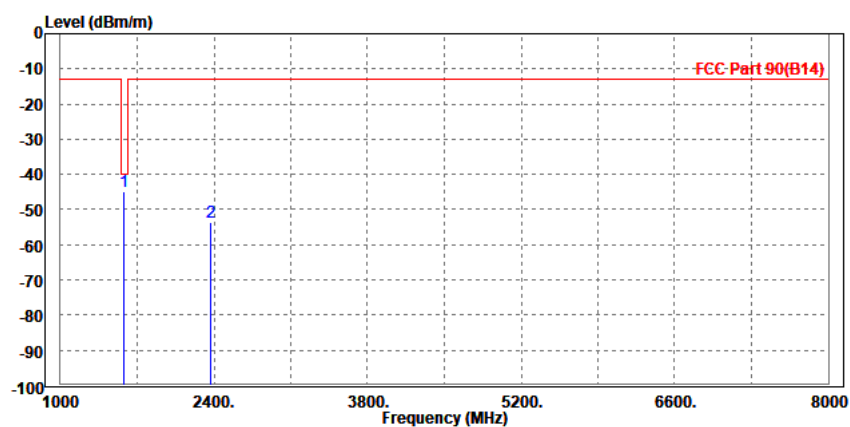
LTE B14

CHANNEL BANDWIDTH: 5MHz / QPSK

CH23305

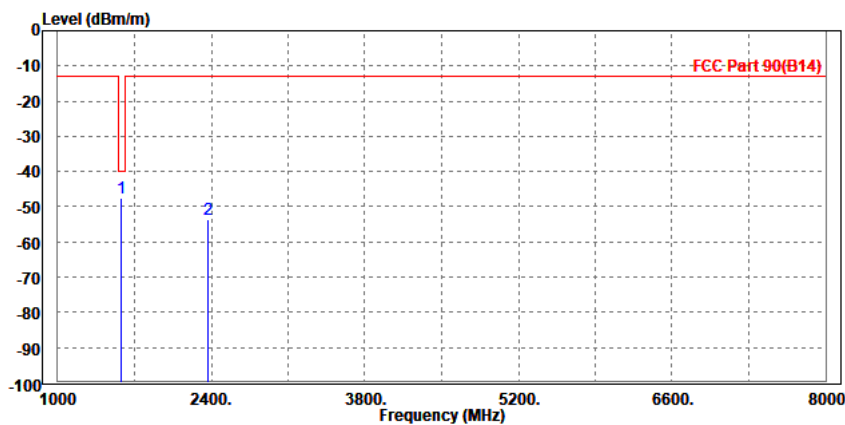
MODE	TX channel 23305	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1581.000	-44.72	-48.17	-40.00	-4.72	3.45	Peak	Horizontal
2	2371.500	-53.67	-59.42	-13.00	-40.67	5.75	Peak	Horizontal



MODE	TX channel 23305	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			

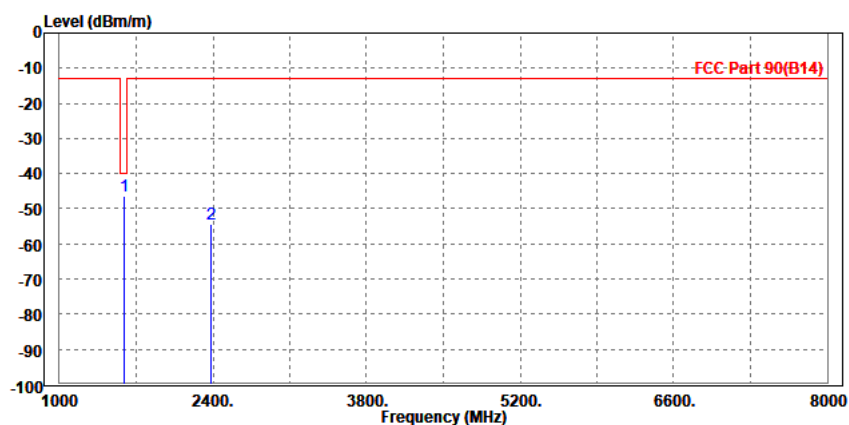
		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1581.000	-47.44	-50.71	-40.00	-7.44	3.27	Peak	Vertical
2		2372.000	-53.70	-59.02	-13.00	-40.70	5.32	Peak	Vertical



CH23330

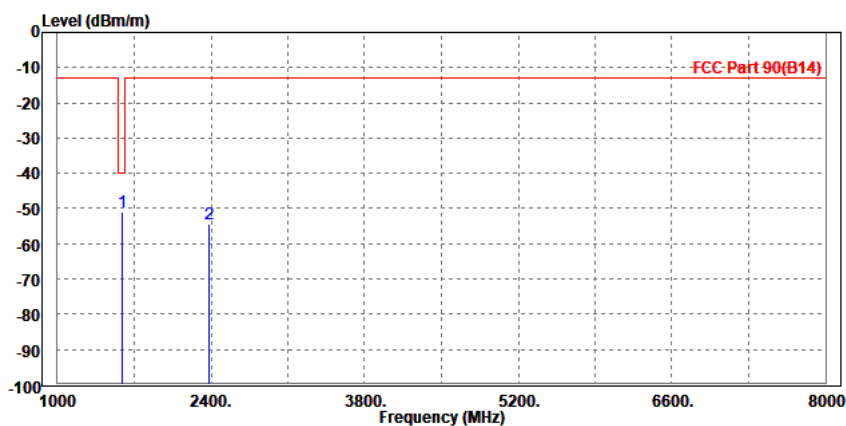
MODE	TX channel 23330	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1586.000	-46.40	-49.87	-40.00	-6.40	3.47	Peak	Horizontal
2		2379.000	-54.32	-60.09	-13.00	-41.32	5.77	Peak	Horizontal



MODE	TX channel 23330	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			

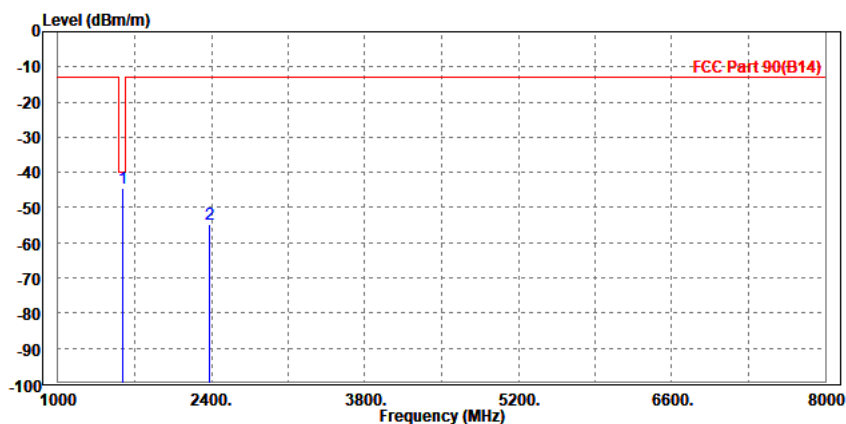
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 1588.000	-51.09	-54.37	-40.00	-11.09	3.28	Peak	Vertical
2	2379.000	-54.53	-59.88	-13.00	-41.53	5.35	Peak	Vertical



CH23355

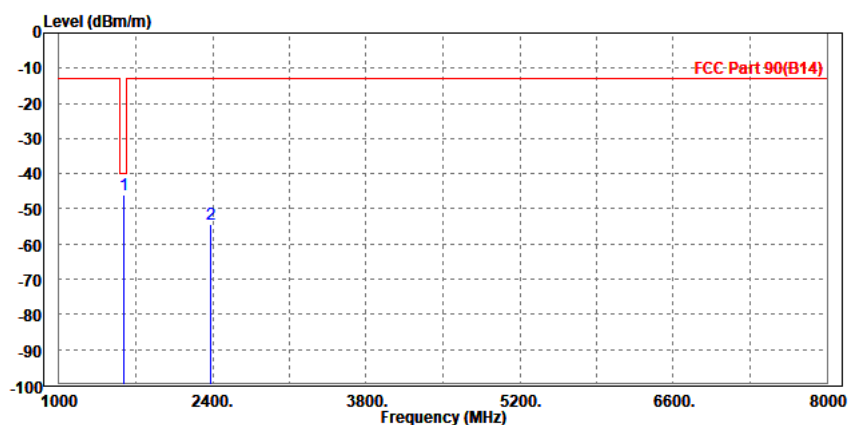
MODE	TX channel 23355	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 1591.000	-44.57	-48.05	-40.00	-4.57	3.48	Peak	Horizontal
2	2386.000	-54.68	-60.47	-13.00	-41.68	5.79	Peak	Horizontal



MODE	TX channel 23355	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			

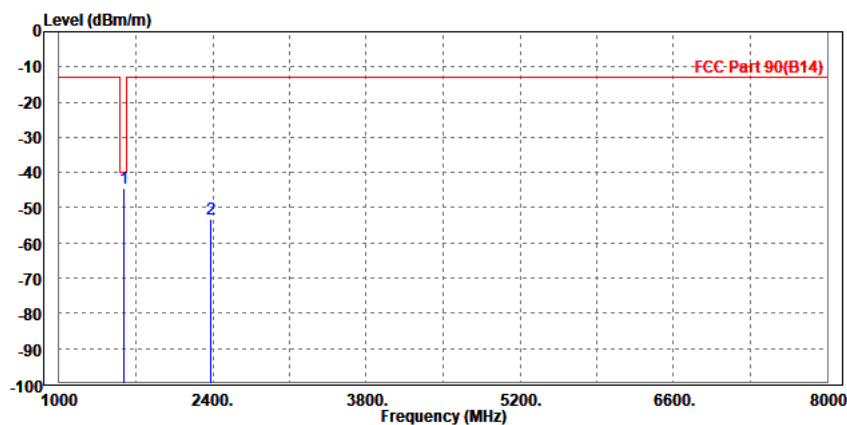
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1588.000	-45.92	-49.20	-40.00	-5.92	3.28	Peak	Vertical
2	2386.500	-54.36	-59.74	-13.00	-41.36	5.38	Peak	Vertical



CHANNEL BANDWIDTH: 10MHz / QPSK

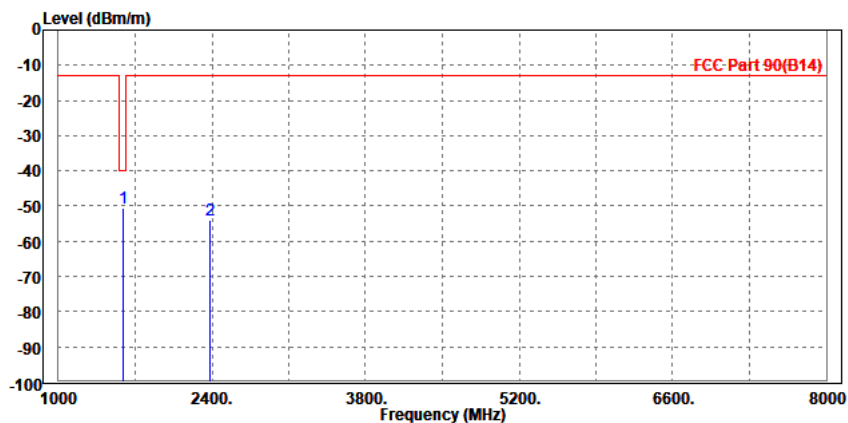
MODE	TX channel 23330	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

			Read	Limit	Over			
Freq	Level	Level	Level	Line	Limit	Factor	Remark	Pol/Phase
MHz	dBm/m	dBm	dBm/m		dB	dB/m		
1 PP 1588.000	-44.56	-48.03	-40.00		-4.56	3.47	Peak	Horizontal
2 2379.000	-53.13	-58.90	-13.00		-40.13	5.77	Peak	Horizontal



MODE	TX channel 23330	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 PP	1586.000	-50.54	-53.82	-40.00	-10.54	3.28	Peak	Vertical
2	2379.000	-53.82	-59.17	-13.00	-40.82	5.35	Peak	Vertical





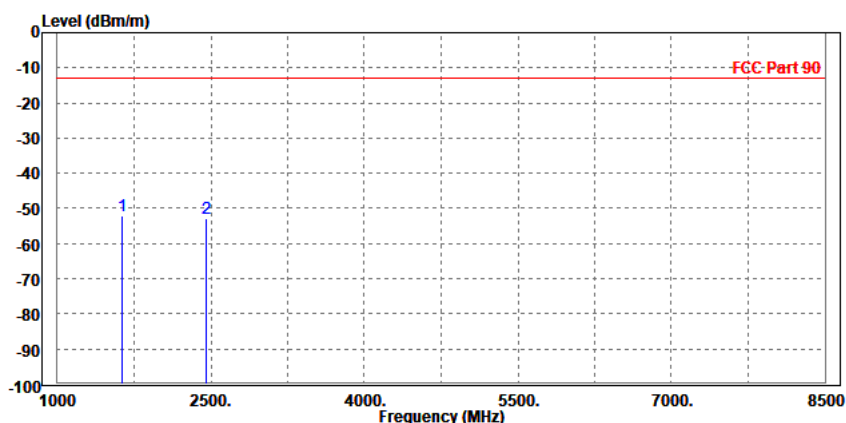
Test Report No.: W7L-P23120020RF05

LTE BAND 26

CHANNEL BANDWIDTH: 1.4MHz / QPSK

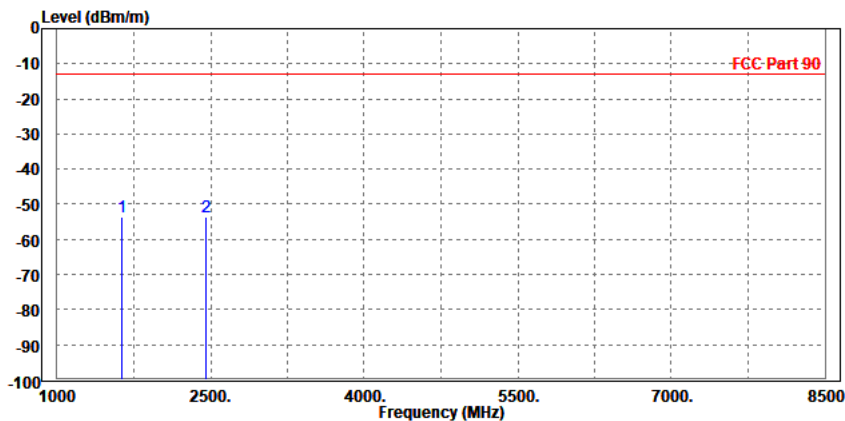
MODE	TX channel 26697	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1637.500	-52.26	-55.89	-13.00	-39.26	3.63	Peak	Horizontal
2		2455.000	-52.76	-58.74	-13.00	-39.76	5.98	Peak	Horizontal



MODE	TX channel 26697	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			

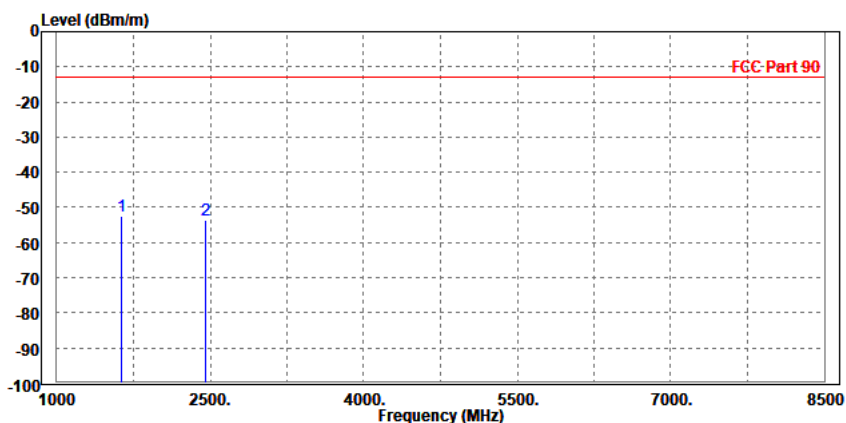
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1637.500	-53.52	-56.89	-13.00	-40.52	3.37	Peak	Vertical
2	2457.000	-53.67	-59.30	-13.00	-40.67	5.63	Peak	Vertical



CHANNEL BANDWIDTH: 3MHz / QPSK

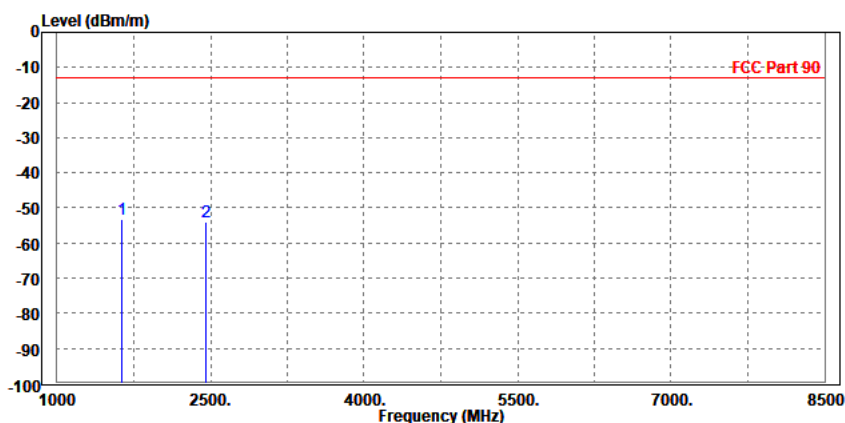
MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 1637.500	-52.60	-56.23	-13.00	-39.60	3.63	Peak	Horizontal
2	2457.000	-53.74	-59.72	-13.00	-40.74	5.98	Peak	Horizontal



MODE	TX channel 26740	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 PP	1637.500	-53.16	-56.53	-13.00	-40.16	3.37	Peak	Vertical
2	2455.000	-54.14	-59.76	-13.00	-41.14	5.62	Peak	Vertical

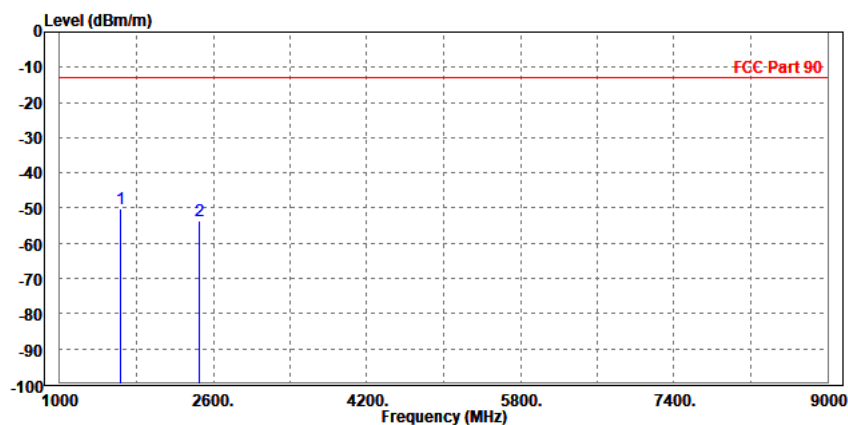


CHANNEL BANDWIDTH: 5MHz / QPSK

CH26740

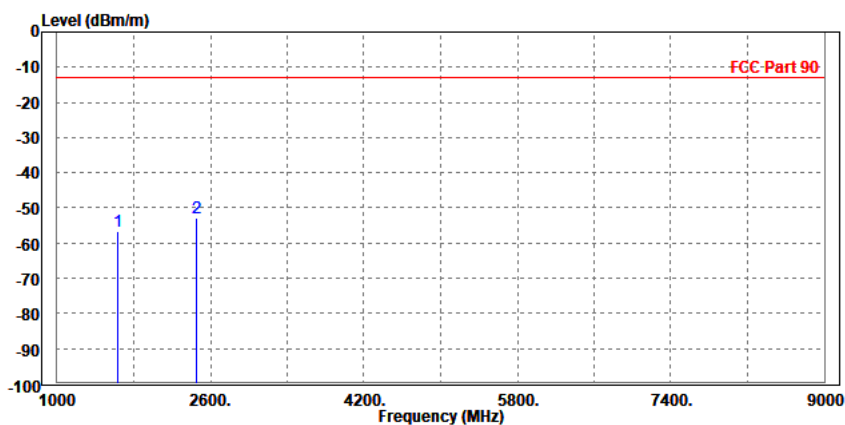
MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

			Read	Limit	Over			
	Freq	Level	Level	Line	Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1632.000	-50.34	-53.95	-13.00	-37.34	3.61	Peak	Horizontal
2	2449.500	-53.43	-59.39	-13.00	-40.43	5.96	Peak	Horizontal



MODE	TX channel 26740	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	1633.000	-56.62	-59.98	-13.00	-43.62	3.36	Peak	Vertical
2 PP	2448.000	-52.99	-58.58	-13.00	-39.99	5.59	Peak	Vertical



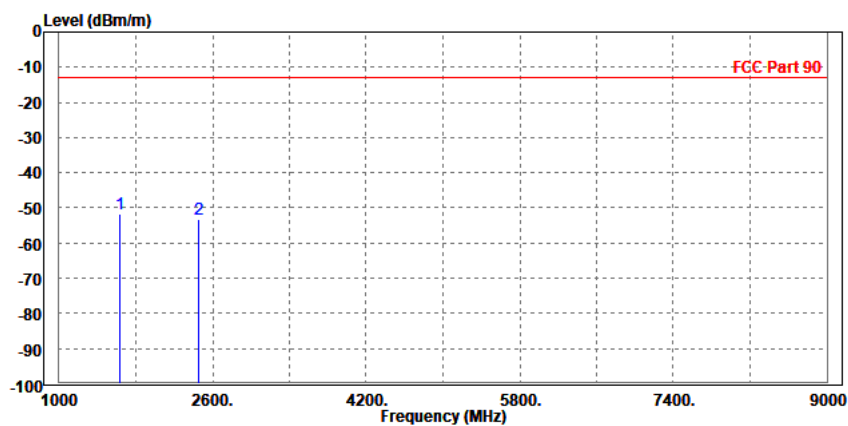


Test Report No.: W7L-P23120020RF05

CH26740

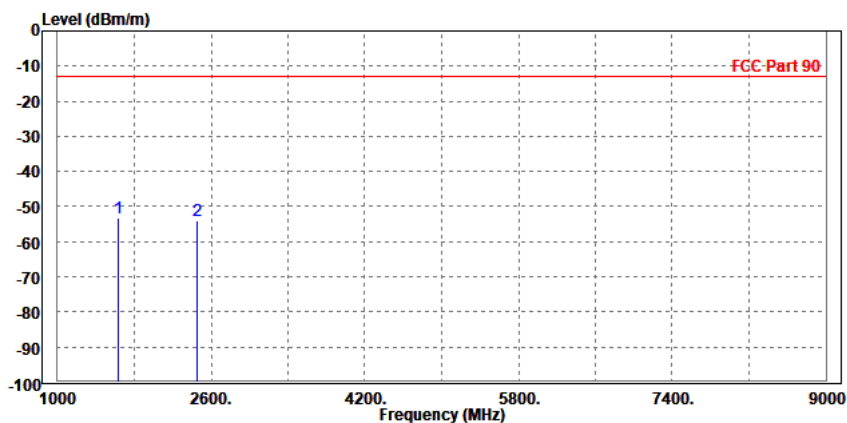
MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1638.000	-51.83	-55.46	-13.00	-38.83	3.63	Peak	Horizontal
2	2456.000	-53.07	-59.05	-13.00	-40.07	5.98	Peak	Horizontal



MODE	TX channel 26740	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			

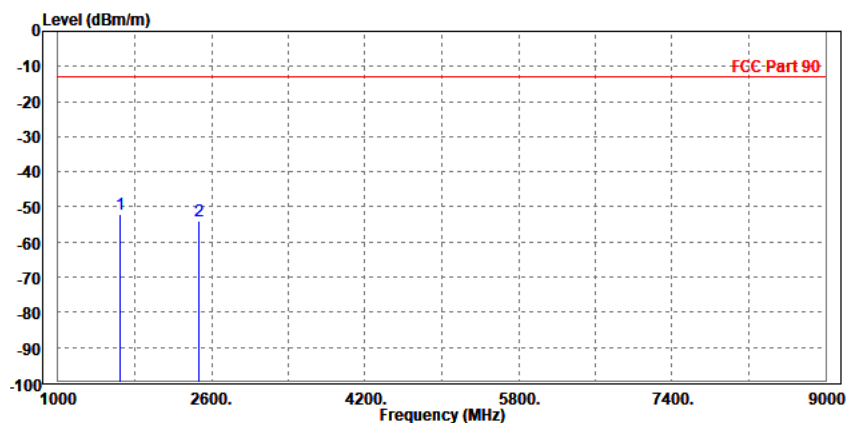
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1640.000	-53.20	-56.57	-13.00	-40.20	3.37	Peak	Vertical
2	2457.000	-54.06	-59.69	-13.00	-41.06	5.63	Peak	Vertical



CH26740

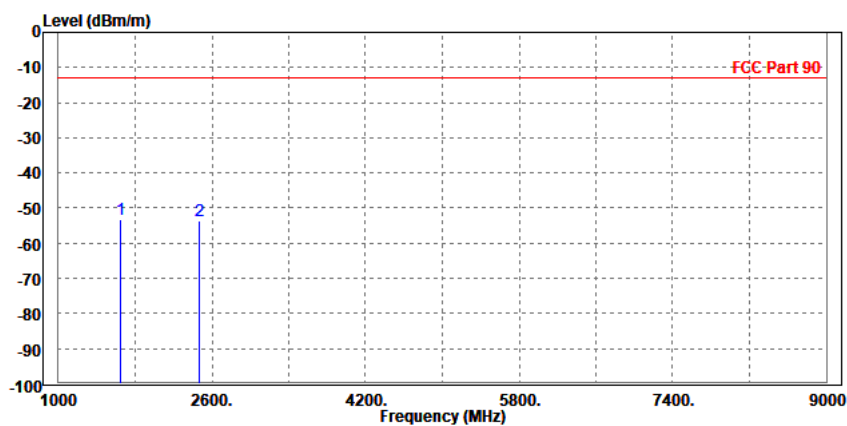
MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1643.000	-52.25	-55.89	-13.00	-39.25	3.64	Peak	Horizontal
2		2464.000	-54.01	-60.01	-13.00	-41.01	6.00	Peak	Horizontal



MODE	TX channel 26740	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	PP 1643.000	-53.07	-56.45	-13.00	-40.07	3.38	Peak	Vertical
2	2464.500	-53.75	-59.40	-13.00	-40.75	5.65	Peak	Vertical



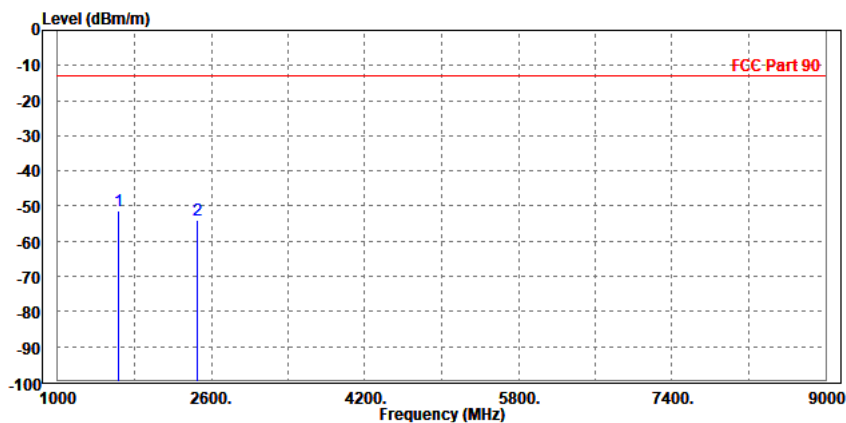


Test Report No.: W7L-P23120020RF05

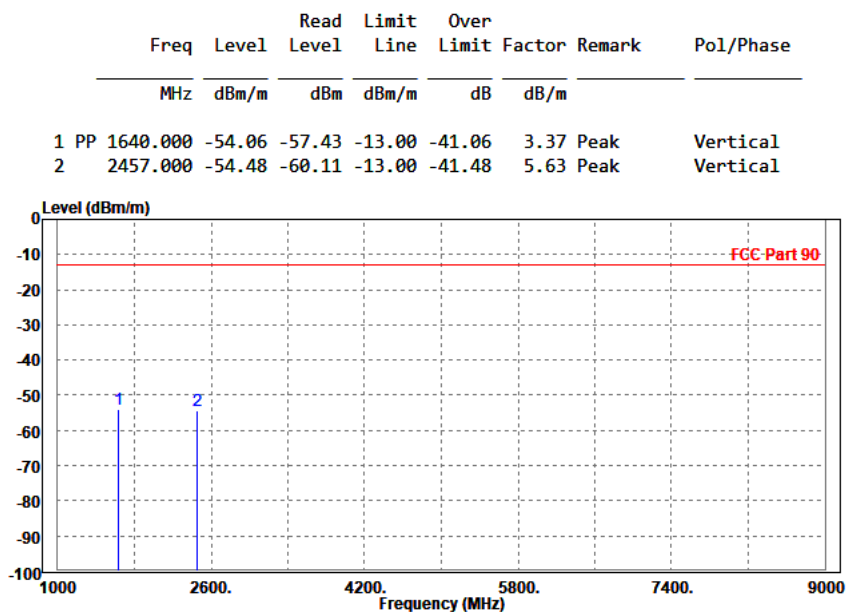
CHANNEL BANDWIDTH: 10MHz / QPSK

MODE	TX channel 26740	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 PP	1638.000	-51.20	-54.83	-13.00	-38.20	3.63	Peak	Horizontal
2	2456.000	-53.97	-59.95	-13.00	-40.97	5.98	Peak	Horizontal



MODE	TX channel 26740	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			

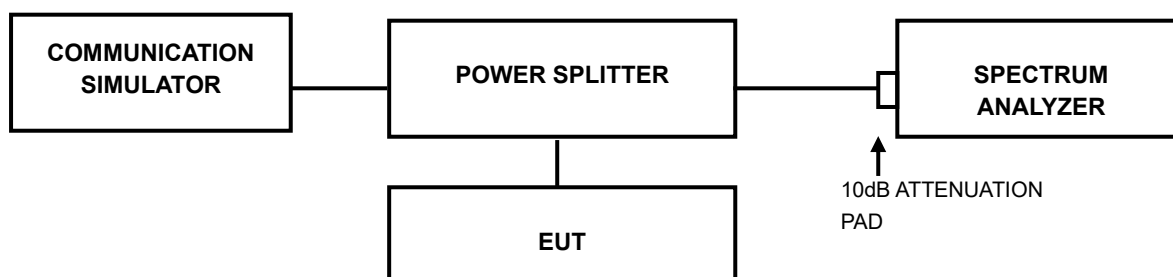


3.7 PEAK TO AVERAGE RATIO

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%.



Test Report No.: W7L-P23120020RF05

3.7.4 TEST RESULTS

Please Refer to Appendix Of this test report.



Test Report No.: W7L-P23120020RF05

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@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.



Test Report No.: W7L-P23120020RF05

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

No modifications were made to the EUT by the lab during the test.

6 APPENDIX

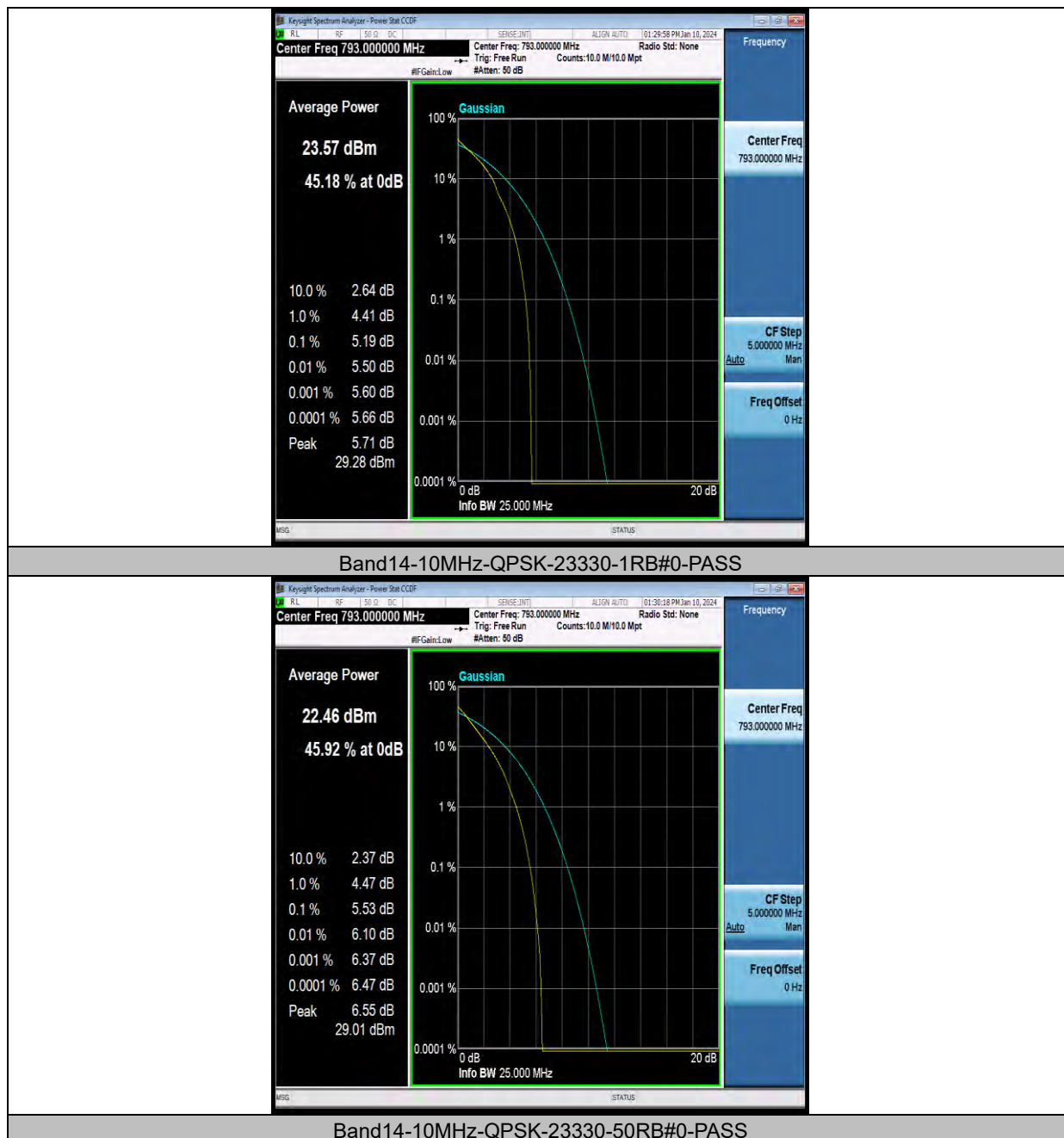
LTE BAND14

PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band14	10MHz	QPSK	23330	1RB#0	5.19	13	PASS
Band14	10MHz	QPSK	23330	50RB#0	5.53	13	PASS
Band14	10MHz	16QAM	23330	1RB#0	6.08	13	PASS
Band14	10MHz	16QAM	23330	50RB#0	6.34	13	PASS

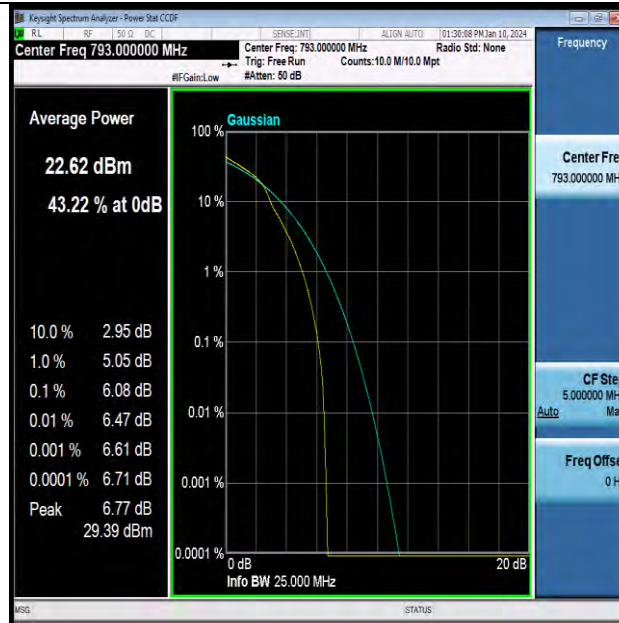
Test Graphs



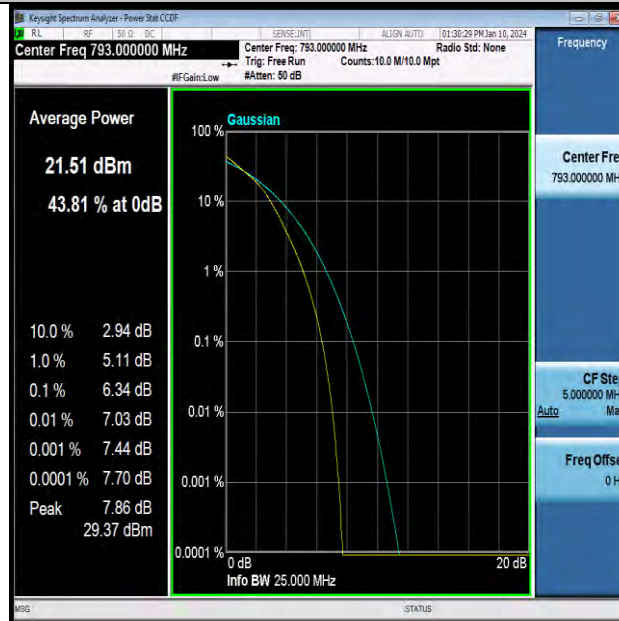


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Test Report No.: W7L-P23120020RF05



Band14-10MHz-16QAM-23330-1RB#0-PASS



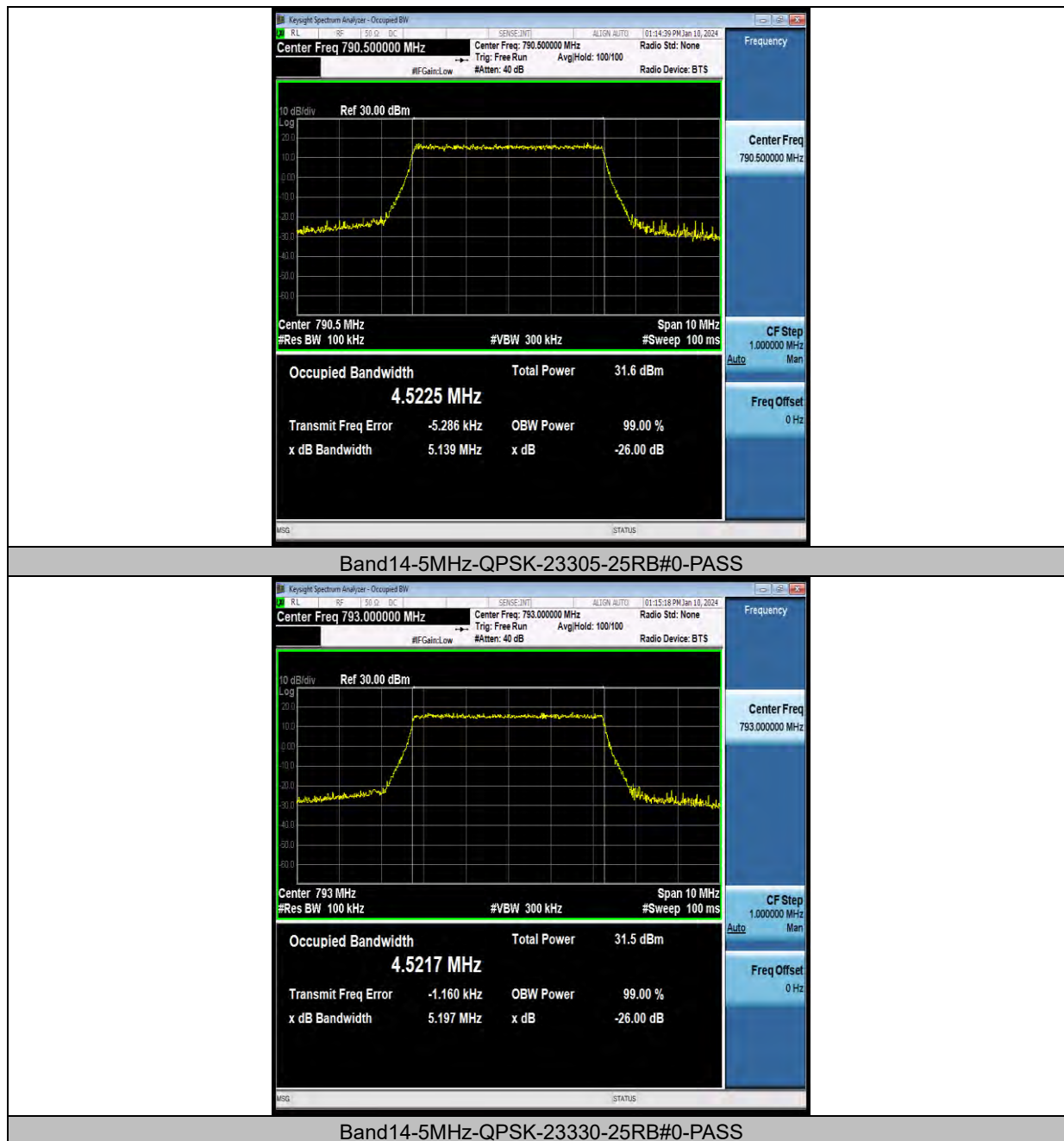
Band14-10MHz-16QAM-23330-50RB#0-PASS

26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band14	5MHz	QPSK	23305	25RB#0	4.5225	5.139	PASS
Band14	5MHz	QPSK	23330	25RB#0	4.5217	5.197	PASS
Band14	5MHz	QPSK	23355	25RB#0	4.5147	5.121	PASS
Band14	5MHz	16QAM	23305	25RB#0	4.5281	5.139	PASS
Band14	5MHz	16QAM	23330	25RB#0	4.5178	5.207	PASS
Band14	5MHz	16QAM	23355	25RB#0	4.5092	5.177	PASS
Band14	10MHz	QPSK	23330	50RB#0	8.9872	9.925	PASS
Band14	10MHz	16QAM	23330	50RB#0	8.9973	10.03	PASS

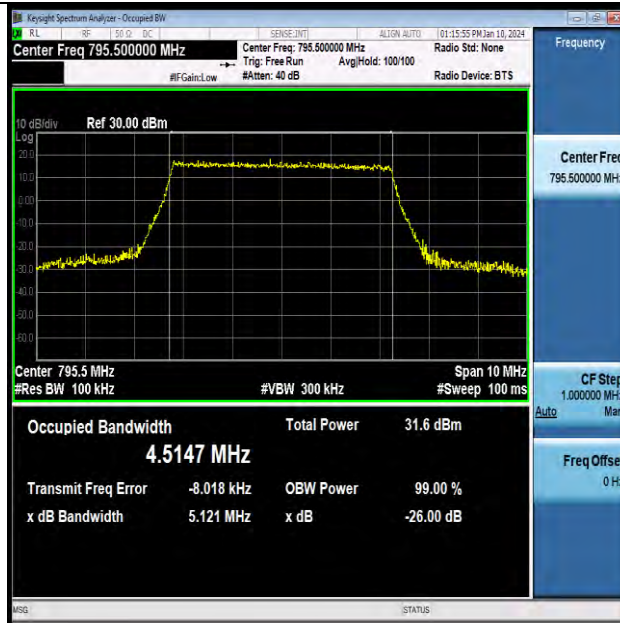
Test Graphs





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Test Report No.: W7L-P23120020RF05



Band14-5MHz-QPSK-23355-25RB#0-PASS



Band14-5MHz-16QAM-23305-25RB#0-PASS

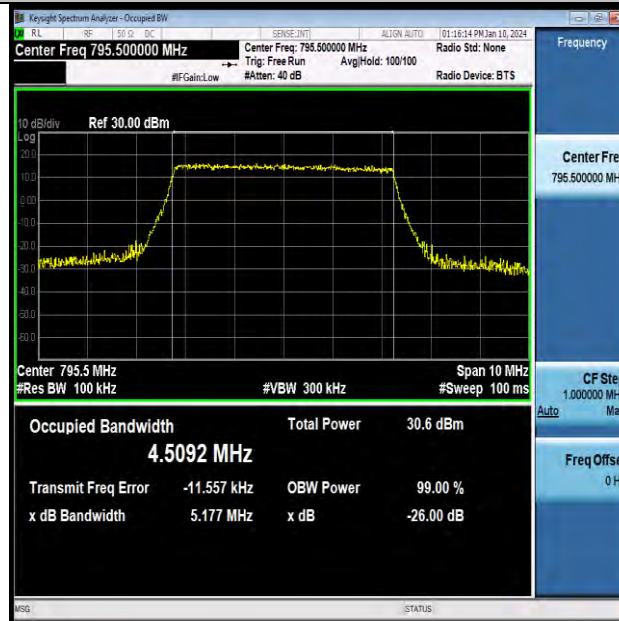


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Test Report No.: W7L-P23120020RF05



Band14-5MHz-16QAM-23330-25RB#0-PASS

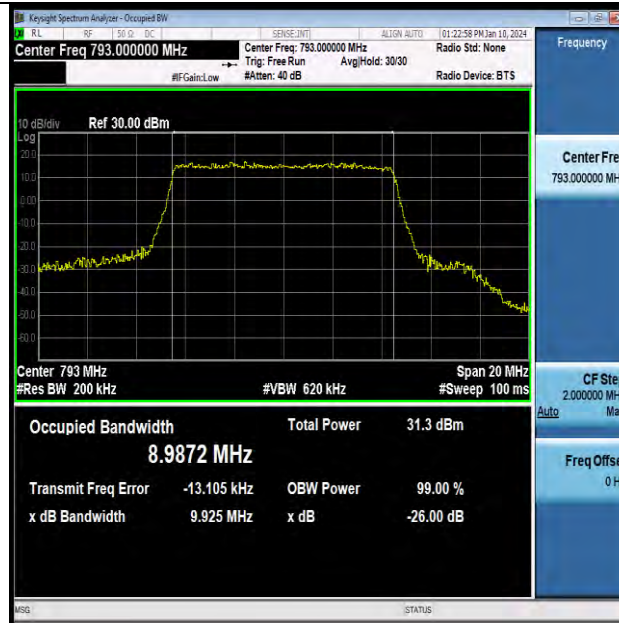


Band14-5MHz-16QAM-23355-25RB#0-PASS

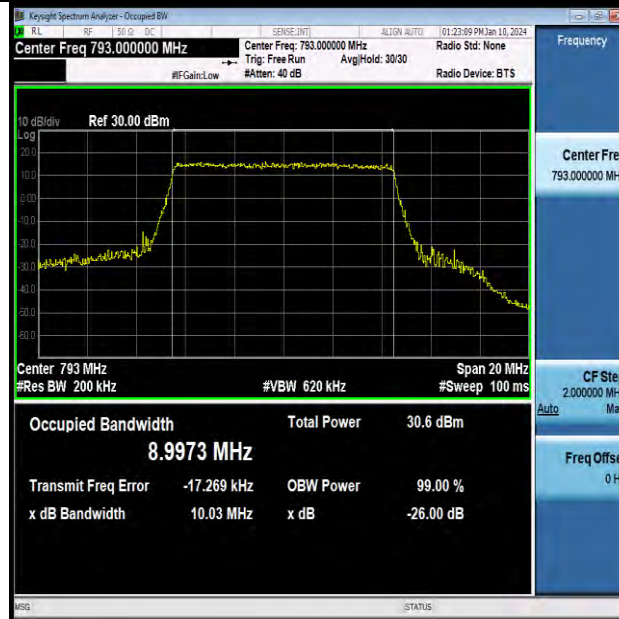


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Test Report No.: W7L-P23120020RF05



Band14-10MHz-QPSK-23330-50RB#0-PASS



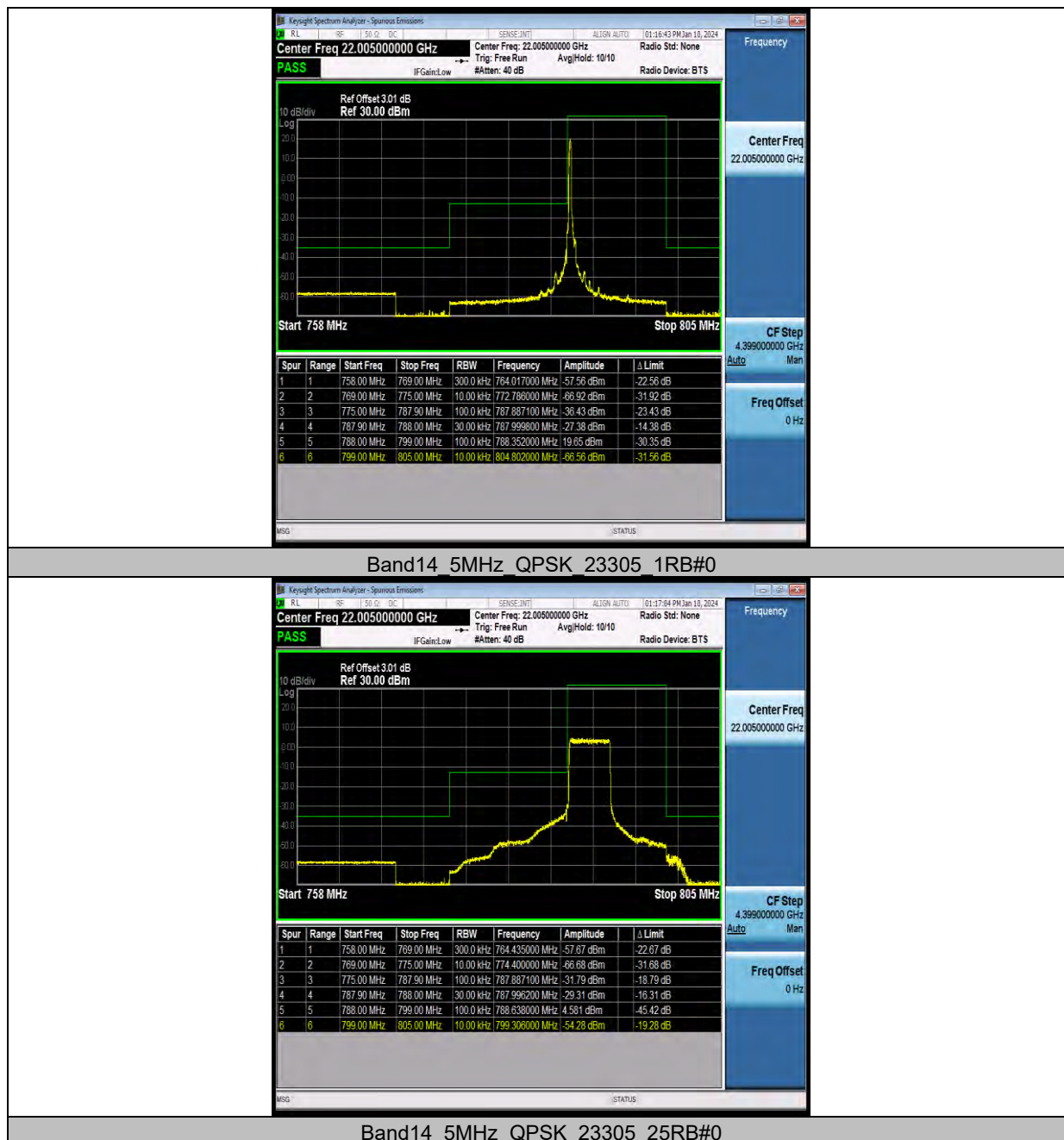
Band14-10MHz-16QAM-23330-50RB#0-PASS

BAND EDGE

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band14	5MHz	QPSK	23305	1RB#0	-27.38	PASS
Band14	5MHz	QPSK	23305	25RB#0	-29.31	PASS
Band14	5MHz	QPSK	23355	1RB#24	-54.33	PASS
Band14	5MHz	QPSK	23355	25RB#0	-49.24	PASS
Band14	5MHz	16QAM	23305	1RB#0	-28.47	PASS
Band14	5MHz	16QAM	23305	25RB#0	-30.73	PASS
Band14	5MHz	16QAM	23355	1RB#24	-54.05	PASS
Band14	5MHz	16QAM	23355	25RB#0	-50.45	PASS
Band14	10MHz	QPSK	23330	1RB#0	-57.49	PASS
Band14	10MHz	QPSK	23330	1RB#49	-53.64	PASS
Band14	10MHz	QPSK	23330	50RB#0	-52.37	PASS
Band14	10MHz	16QAM	23330	1RB#0	-57.51	PASS
Band14	10MHz	16QAM	23330	1RB#49	-55.83	PASS
Band14	10MHz	16QAM	23330	50RB#0	-51.64	PASS

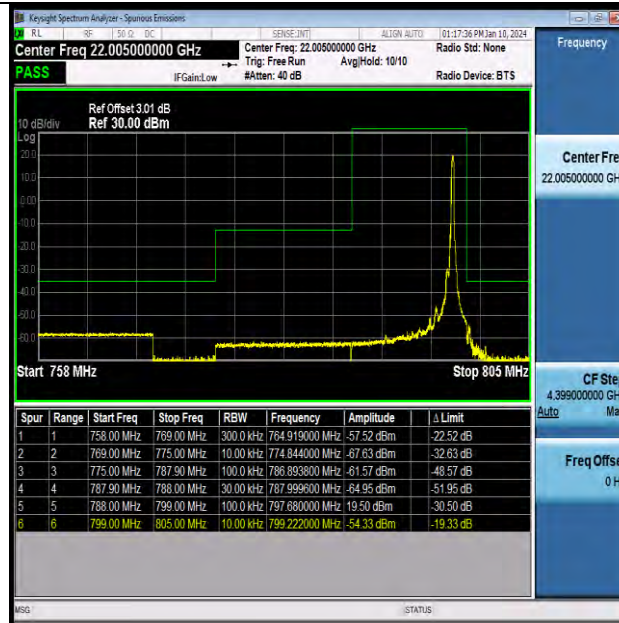
Test Graphs



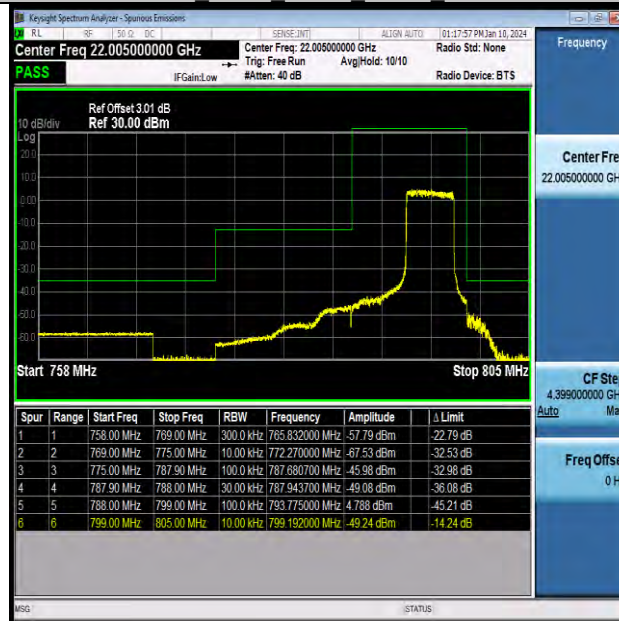


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VERITAS

Test Report No.: W7L-P23120020RF05



Band14 5MHz QPSK 23355 1RB#24

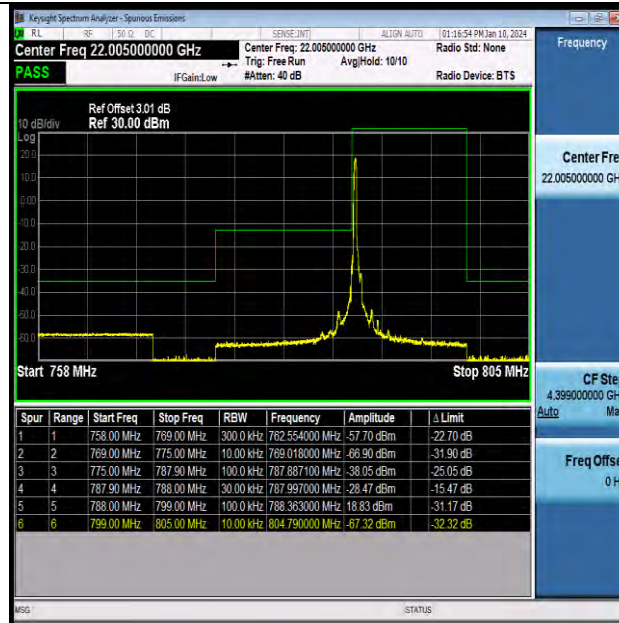


Band14 5MHz QPSK 23355 25RB#0

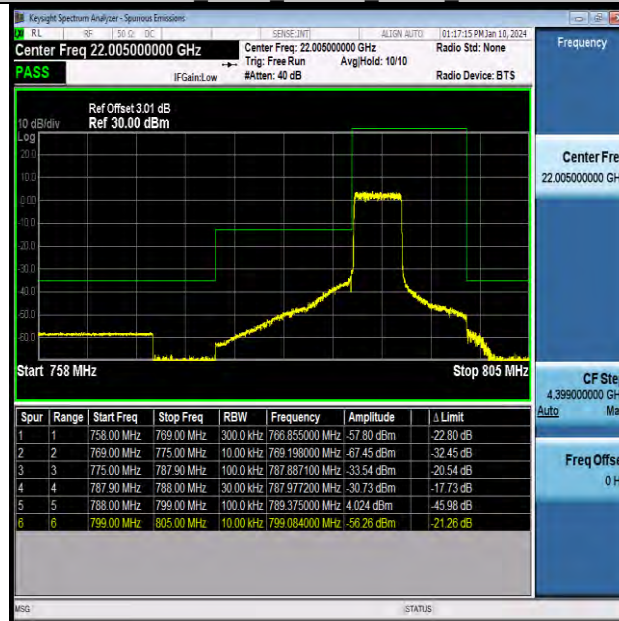


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Test Report No.: W7L-P23120020RF05



Band14 5MHz 16QAM 23305 1RB#0

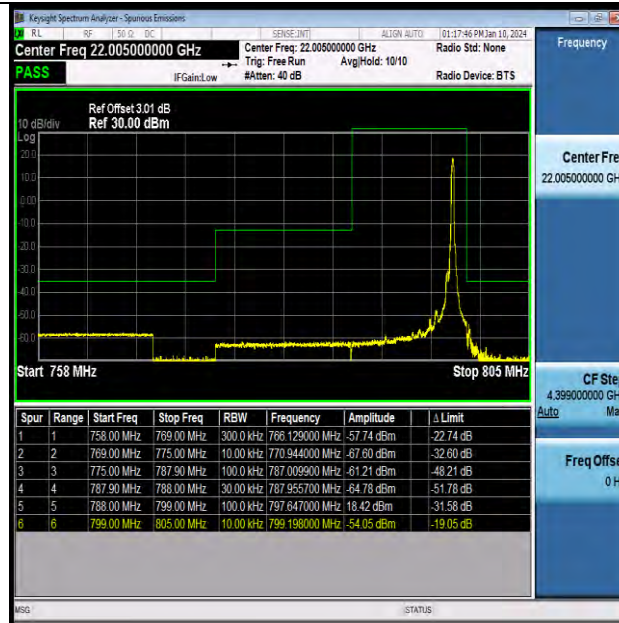


Band14 5MHz 16QAM 23305 25RB#0

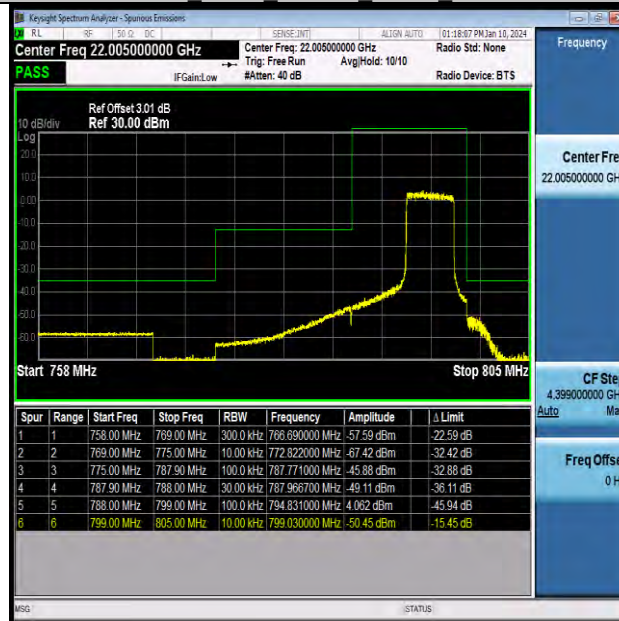


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Test Report No.: W7L-P23120020RF05



Band14 5MHz 16QAM 23355 1RB#24

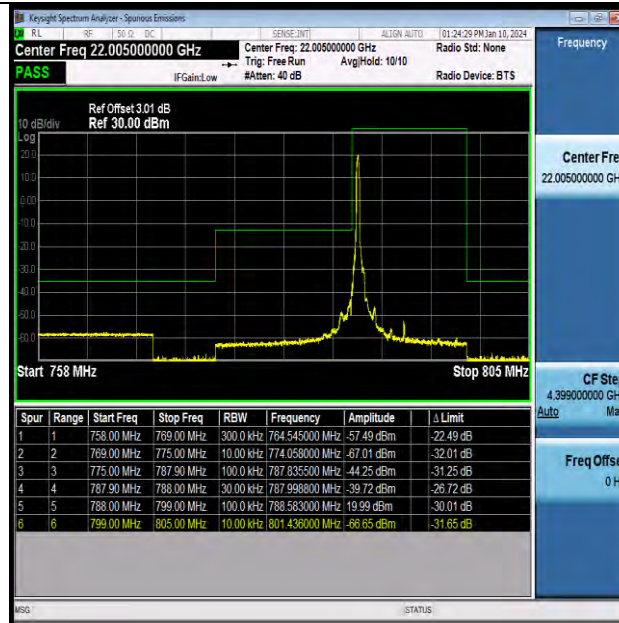


Band14 5MHz 16QAM 23355 25RB#0

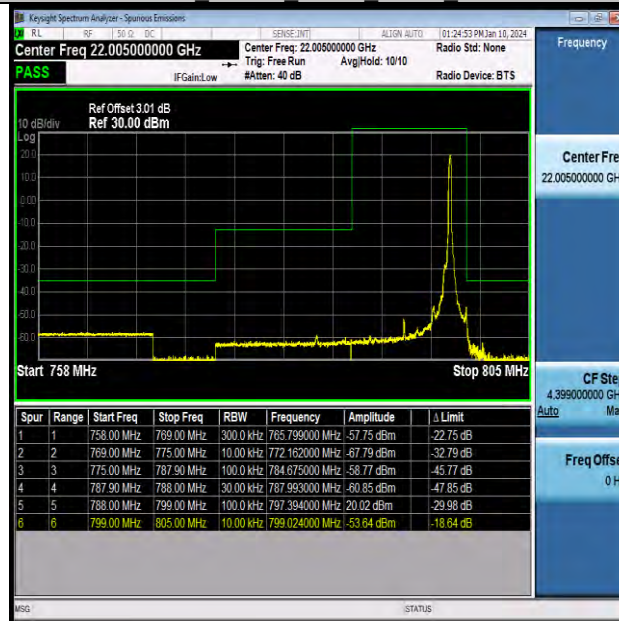


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Test Report No.: W7L-P23120020RF05



Band14 10MHz QPSK 23330 1RB#0



Band14 10MHz QPSK 23330 1RB#49

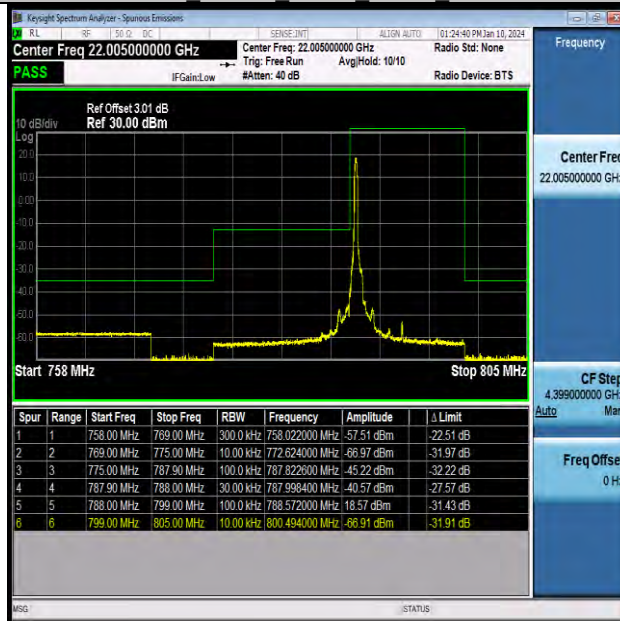


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Test Report No.: W7L-P23120020RF05



Band14 10MHz QPSK 23330 50RB#0

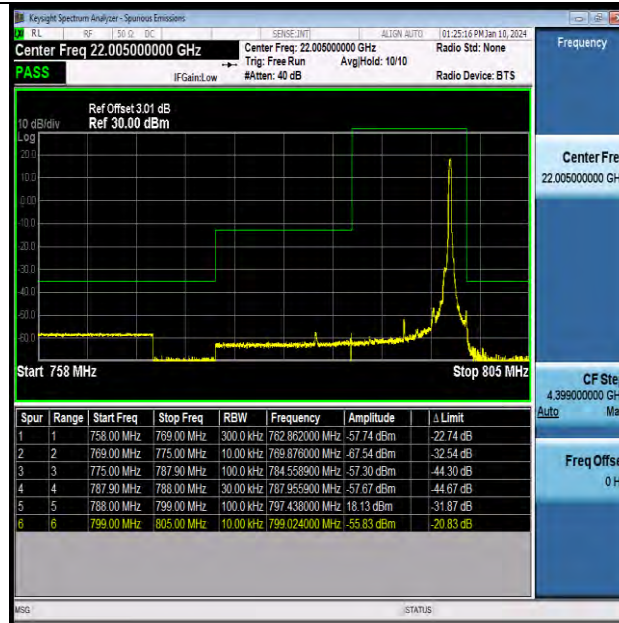


Band14 10MHz 16QAM 23330 1RB#0



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Test Report No.: W7L-P23120020RF05



Band14 10MHz 16QAM 23330 1RB#49



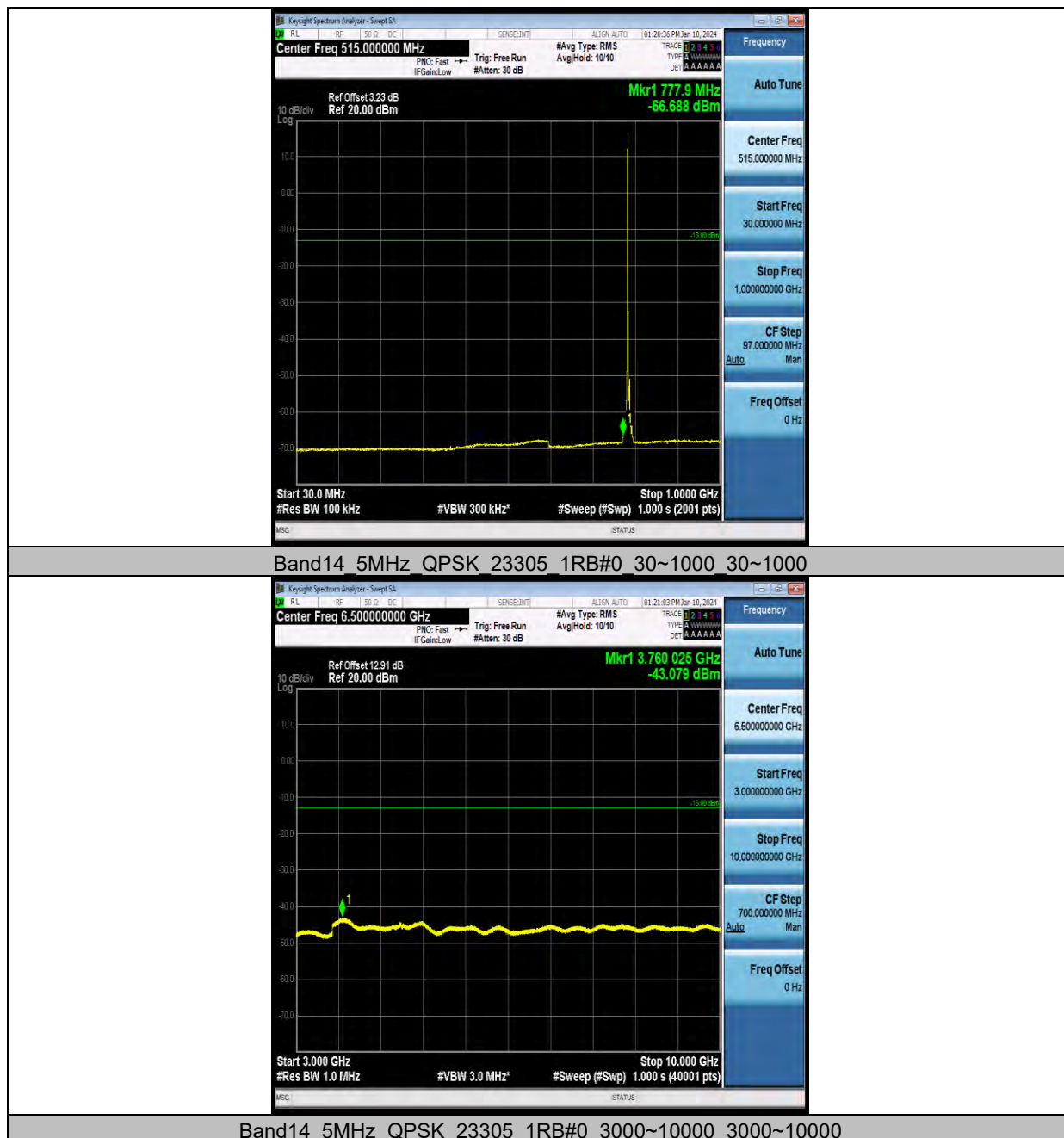
Band14 10MHz 16QAM 23330 50RB#0

CONDUCTED SPURIOUS EMISSION

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band14	5MHz	QPSK	23305	1RB#0	30~1000	-66.69	PASS
Band14	5MHz	QPSK	23305	1RB#0	3000~10000	-43.08	PASS
Band14	5MHz	QPSK	23330	1RB#0	30~1000	-66.39	PASS
Band14	5MHz	QPSK	23330	1RB#0	3000~10000	-43.24	PASS
Band14	5MHz	QPSK	23355	1RB#0	30~1000	-66.45	PASS
Band14	5MHz	QPSK	23355	1RB#0	3000~10000	-43.02	PASS
Band14	10MHz	QPSK	23330	1RB#0	30~1000	-67.60	PASS
Band14	10MHz	QPSK	23330	1RB#0	3000~10000	-43.03	PASS

Test Graphs



Band14_5MHz_QPSK_23305_1RB#0_3000~10000_3000~10000

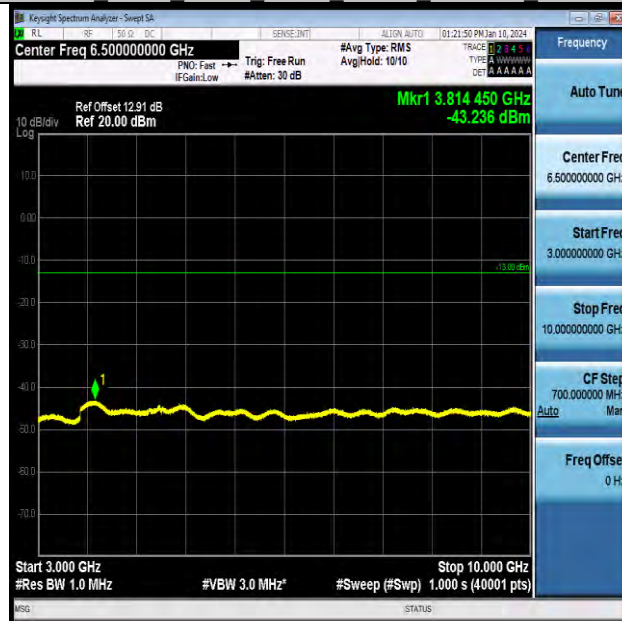


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VERITAS

Test Report No.: W7L-P23120020RF05



Band14 5MHz QPSK 23330 1RB#0 30~1000 30~1000



Band14 5MHz QPSK 23330 1RB#0 3000~10000 3000~10000

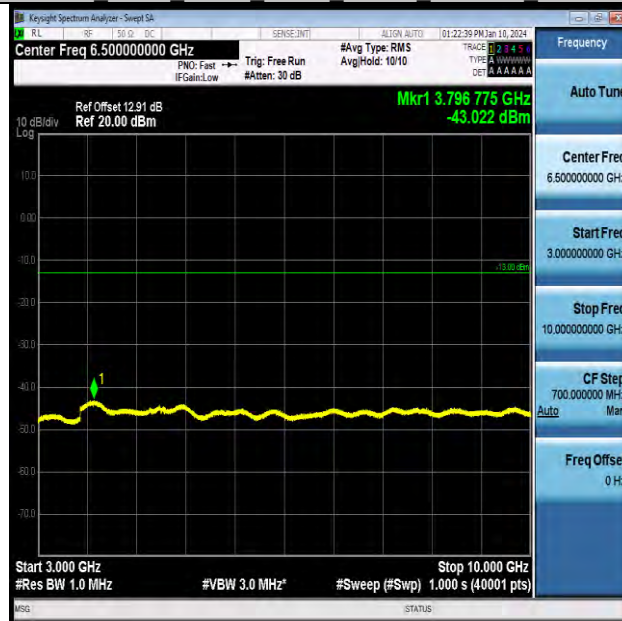


BUREAU
VERITAS

Test Report No.: W7L-P23120020RF05



Band14 5MHz QPSK 23355 1RB#0 30~1000 30~1000

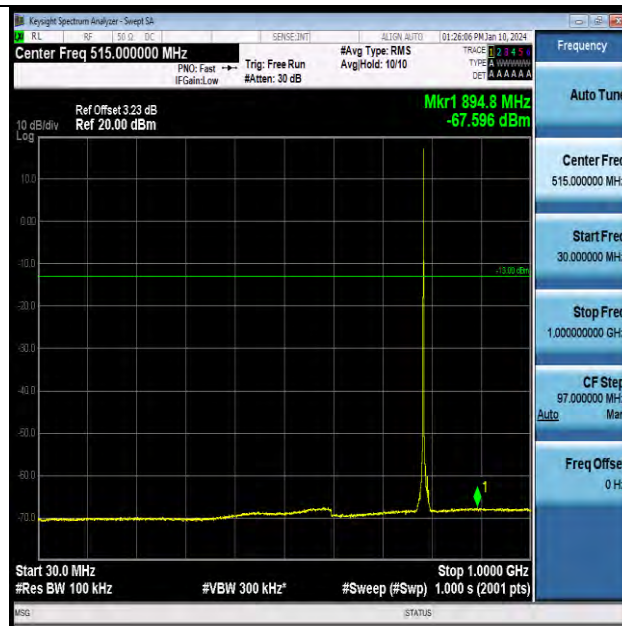


Band14 5MHz QPSK 23355 1RB#0 3000~10000 3000~10000

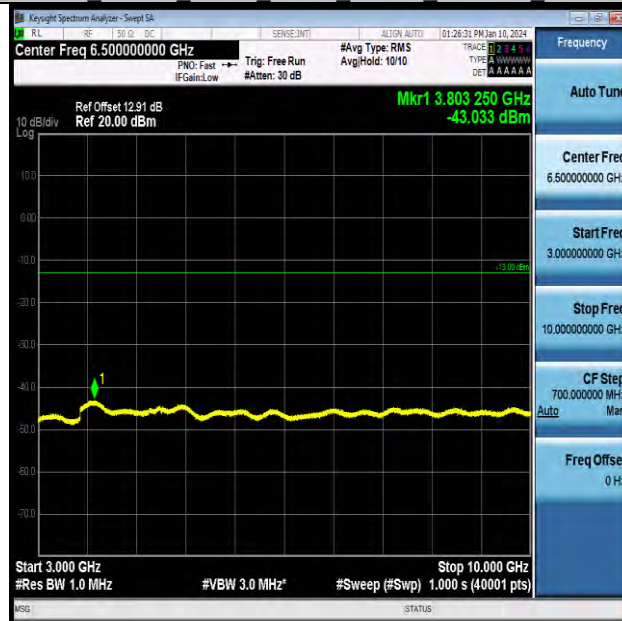


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VERITAS

Test Report No.: W7L-P23120020RF05



Band14 10MHz QPSK 23330 1RB#0 30~1000 30~1000



Band14 10MHz QPSK 23330 1RB#0 3000~10000 3000~10000

FREQUENCY STABILITY

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band14	10MHz	QPSK	23330	50RB#0	VN	NT	2.68	0.003380	±2.5	PASS
Band14	10MHz	QPSK	23330	50RB#0	VL	NT	5.91	0.007453	±2.5	PASS
Band14	10MHz	QPSK	23330	50RB#0	VH	NT	-6.01	-0.007579	±2.5	PASS
Band14	10MHz	16QAM	23330	50RB#0	VN	NT	-3.53	-0.004451	±2.5	PASS
Band14	10MHz	16QAM	23330	50RB#0	VL	NT	2.83	0.003569	±2.5	PASS
Band14	10MHz	16QAM	23330	50RB#0	VH	NT	-4.71	-0.005939	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band14	10MHz	QPSK	23330	50RB#0	NV	-30	1.49	0.001879	±2.5	PASS
Band14	10MHz	QPSK	23330	50RB#0	NV	-20	-2.92	-0.003682	±2.5	PASS
Band14	10MHz	QPSK	23330	50RB#0	NV	-10	-1.86	-0.002346	±2.5	PASS
Band14	10MHz	QPSK	23330	50RB#0	NV	0	8.64	0.010895	±2.5	PASS
Band14	10MHz	QPSK	23330	50RB#0	NV	10	6.78	0.008550	±2.5	PASS
Band14	10MHz	QPSK	23330	50RB#0	NV	20	-4.51	-0.005687	±2.5	PASS
Band14	10MHz	QPSK	23330	50RB#0	NV	30	-1.27	-0.001602	±2.5	PASS
Band14	10MHz	QPSK	23330	50RB#0	NV	40	-1.66	-0.002093	±2.5	PASS
Band14	10MHz	QPSK	23330	50RB#0	NV	50	-1.90	-0.002396	±2.5	PASS
Band14	10MHz	16QAM	23330	50RB#0	NV	-30	6.42	0.008096	±2.5	PASS
Band14	10MHz	16QAM	23330	50RB#0	NV	-20	-2.70	-0.003405	±2.5	PASS
Band14	10MHz	16QAM	23330	50RB#0	NV	-10	-6.54	-0.008247	±2.5	PASS
Band14	10MHz	16QAM	23330	50RB#0	NV	0	2.30	0.002900	±2.5	PASS
Band14	10MHz	16QAM	23330	50RB#0	NV	10	-6.12	-0.007718	±2.5	PASS
Band14	10MHz	16QAM	23330	50RB#0	NV	20	2.80	0.003531	±2.5	PASS
Band14	10MHz	16QAM	23330	50RB#0	NV	30	-3.55	-0.004477	±2.5	PASS
Band14	10MHz	16QAM	23330	50RB#0	NV	40	-5.21	-0.006570	±2.5	PASS
Band14	10MHz	16QAM	23330	50RB#0	NV	50	1.89	0.002383	±2.5	PASS



Test Report No.: W7L-P23120020RF05

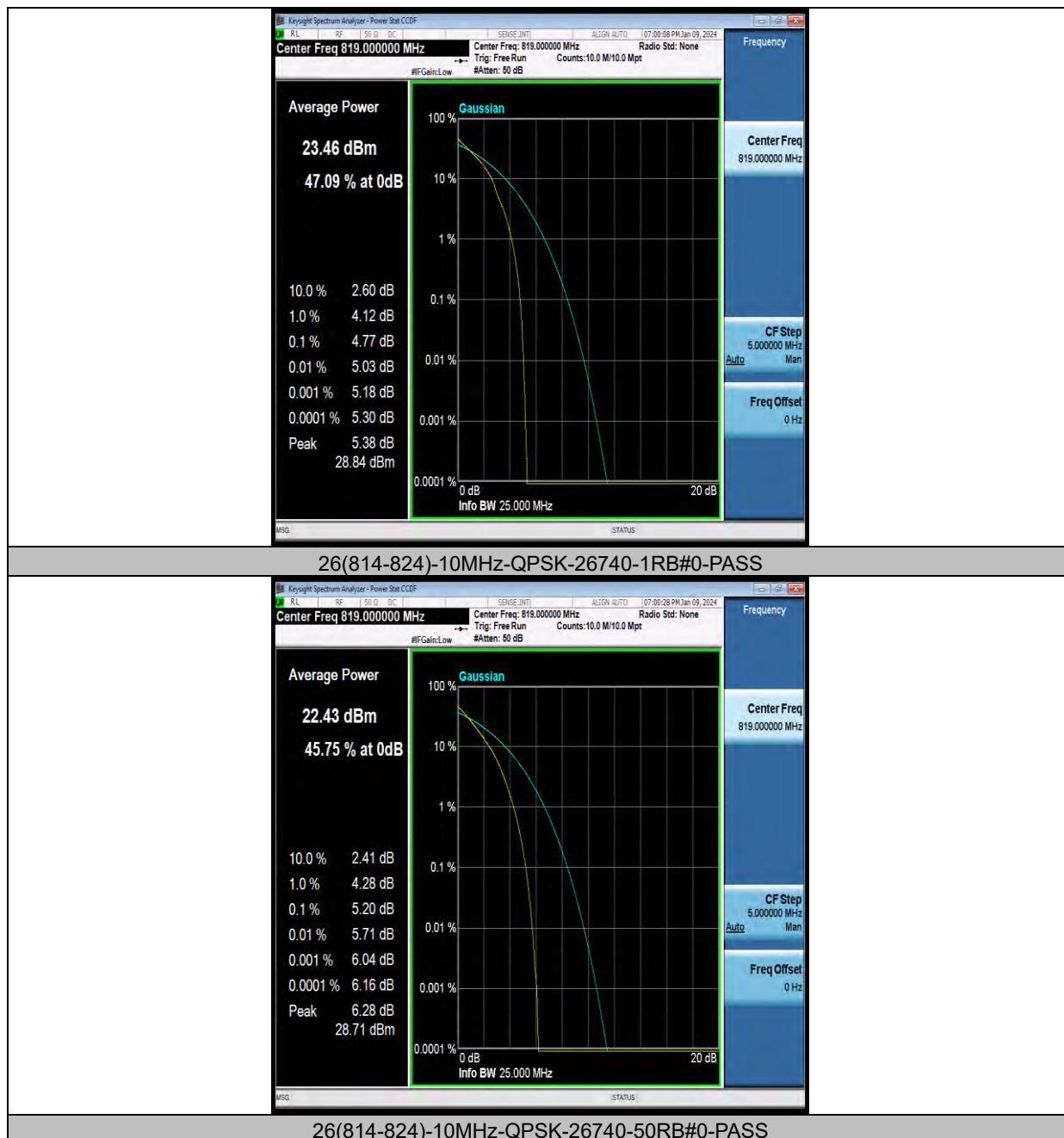
LTE BAND26(814-824)

PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
26(814-824)	10MHz	QPSK	26740	1RB#0	4.77	13	PASS
26(814-824)	10MHz	QPSK	26740	50RB#0	5.20	13	PASS
26(814-824)	10MHz	16QAM	26740	1RB#0	5.70	13	PASS
26(814-824)	10MHz	16QAM	26740	50RB#0	5.93	13	PASS

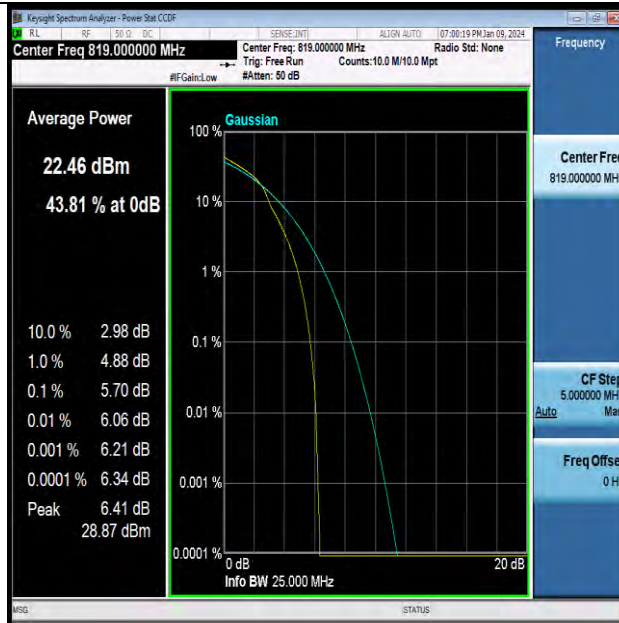
Test Graphs



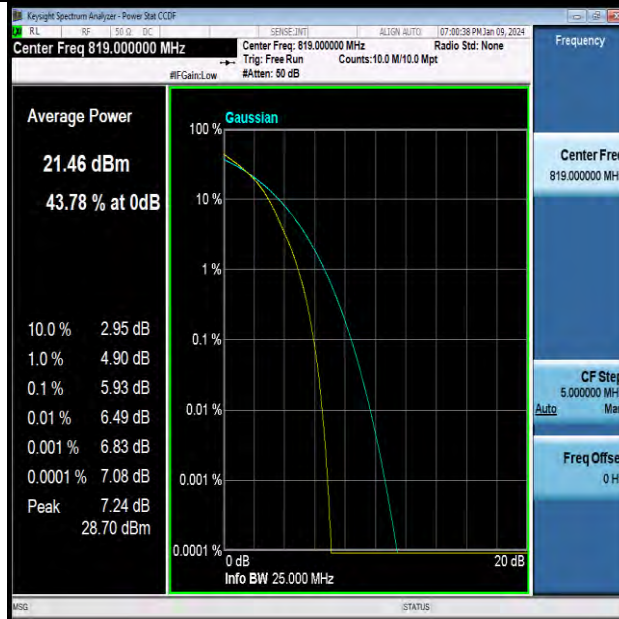


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Test Report No.: W7L-P23120020RF05



26(814-824)-10MHz-16QAM-26740-1RB#0-PASS



26(814-824)-10MHz-16QAM-26740-50RB#0-PASS

26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
26(814-824)	1.4MHz	QPSK	26697	6RB#0	1.1051	1.356	PASS
26(814-824)	1.4MHz	QPSK	26740	6RB#0	1.1037	1.380	PASS
26(814-824)	1.4MHz	QPSK	26783	6RB#0	1.1037	1.349	PASS
26(814-824)	1.4MHz	16QAM	26697	6RB#0	1.1020	1.344	PASS
26(814-824)	1.4MHz	16QAM	26740	6RB#0	1.1052	1.357	PASS
26(814-824)	1.4MHz	16QAM	26783	6RB#0	1.1031	1.341	PASS
26(814-824)	3MHz	QPSK	26705	15RB#0	2.6976	3.041	PASS
26(814-824)	3MHz	QPSK	26740	15RB#0	2.7069	3.045	PASS
26(814-824)	3MHz	QPSK	26775	15RB#0	2.7052	3.038	PASS
26(814-824)	3MHz	16QAM	26705	15RB#0	2.7001	3.024	PASS
26(814-824)	3MHz	16QAM	26740	15RB#0	2.7098	3.025	PASS
26(814-824)	3MHz	16QAM	26775	15RB#0	2.7054	3.057	PASS
26(814-824)	5MHz	QPSK	26715	25RB#0	4.5112	5.164	PASS
26(814-824)	5MHz	QPSK	26740	25RB#0	4.5427	5.216	PASS
26(814-824)	5MHz	QPSK	26765	25RB#0	4.5265	5.205	PASS
26(814-824)	5MHz	16QAM	26715	25RB#0	4.5185	5.117	PASS
26(814-824)	5MHz	16QAM	26740	25RB#0	4.5316	5.262	PASS
26(814-824)	5MHz	16QAM	26765	25RB#0	4.5337	5.214	PASS
26(814-824)	10MHz	QPSK	26740	50RB#0	9.0144	9.982	PASS
26(814-824)	10MHz	16QAM	26740	50RB#0	9.0217	10.07	PASS

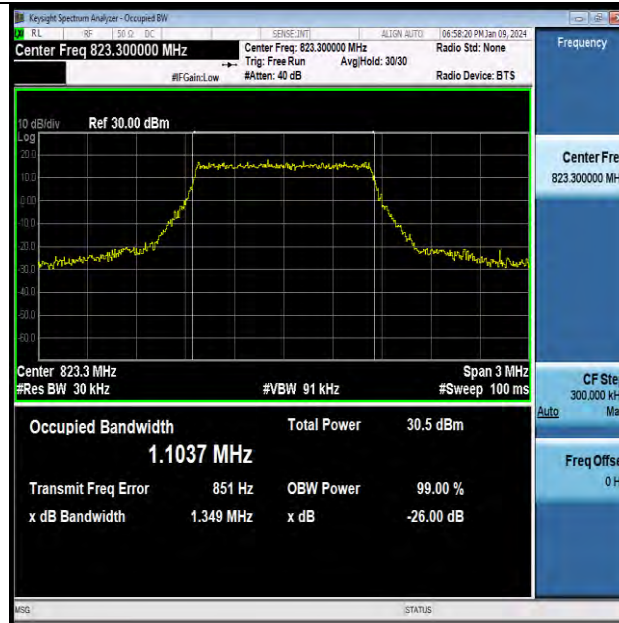
Test Graphs



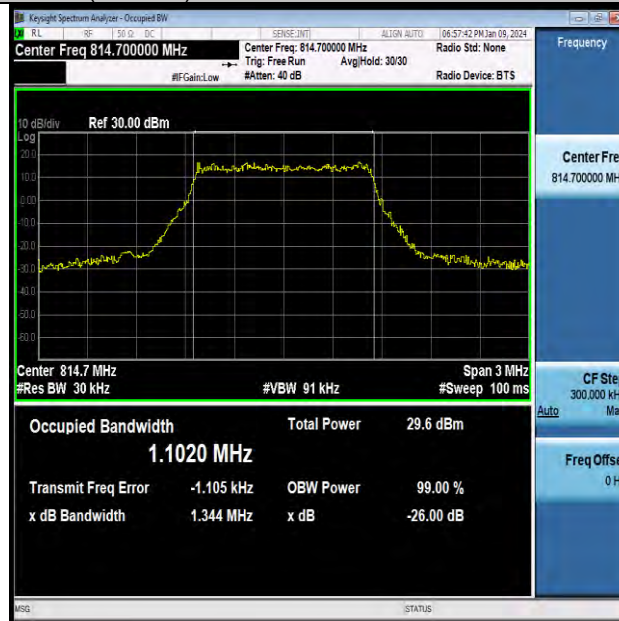


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Test Report No.: W7L-P23120020RF05



26(814-824)-1.4MHz-QPSK-26783-6RB#0-PASS

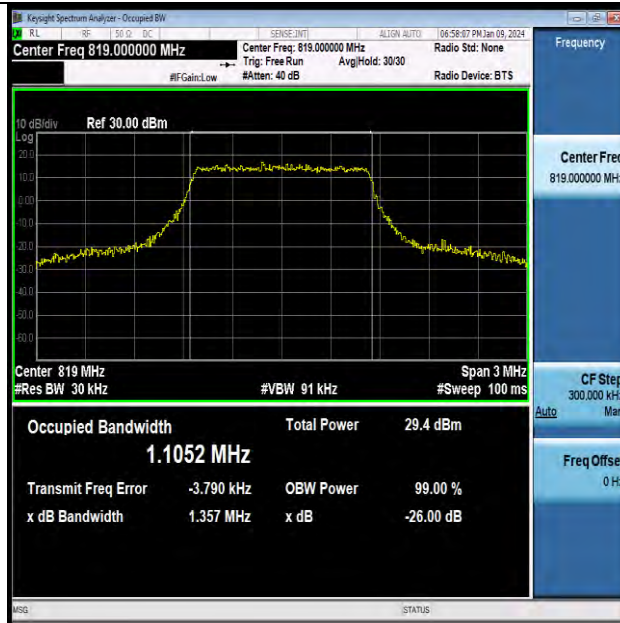


26(814-824)-1.4MHz-16QAM-26697-6RB#0-PASS



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VERITAS

Test Report No.: W7L-P23120020RF05



26(814-824)-1.4MHz-16QAM-26740-6RB#0-PASS

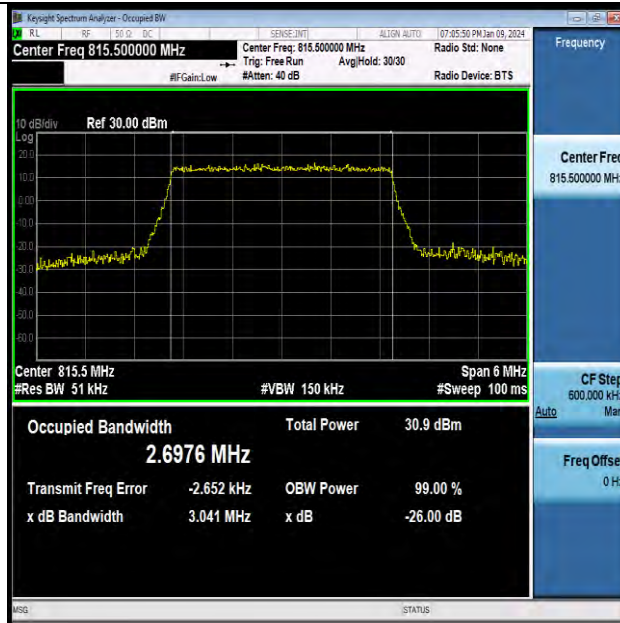


26(814-824)-1.4MHz-16QAM-26783-6RB#0-PASS



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VERITAS

Test Report No.: W7L-P23120020RF05



26(814-824)-3MHz-QPSK-26705-15RB#0-PASS



26(814-824)-3MHz-QPSK-26740-15RB#0-PASS



BUREAU
VERITAS

Test Report No.: W7L-P23120020RF05



26(814-824)-3MHz-QPSK-26775-15RB#0-PASS



26(814-824)-3MHz-16QAM-26705-15RB#0-PASS

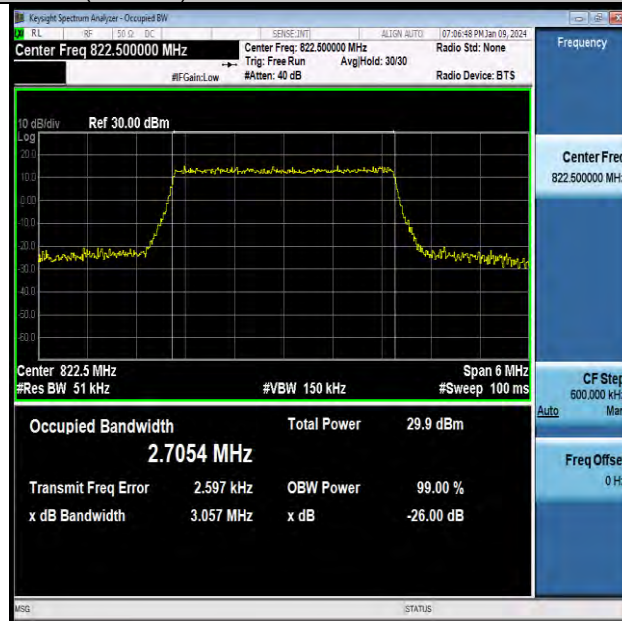


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VERITAS

Test Report No.: W7L-P23120020RF05



26(814-824)-3MHz-16QAM-26740-15RB#0-PASS

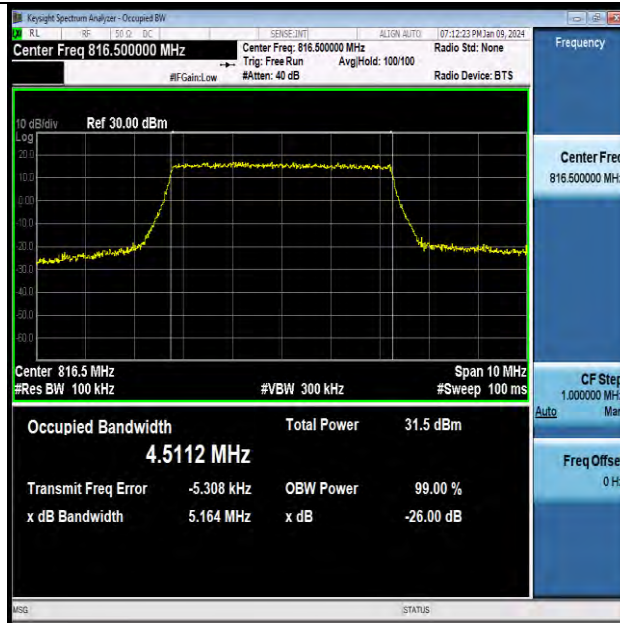


26(814-824)-3MHz-16QAM-26775-15RB#0-PASS



BUREAU
VERITAS

Test Report No.: W7L-P23120020RF05



26(814-824)-5MHz-QPSK-26715-25RB#0-PASS



26(814-824)-5MHz-QPSK-26740-25RB#0-PASS

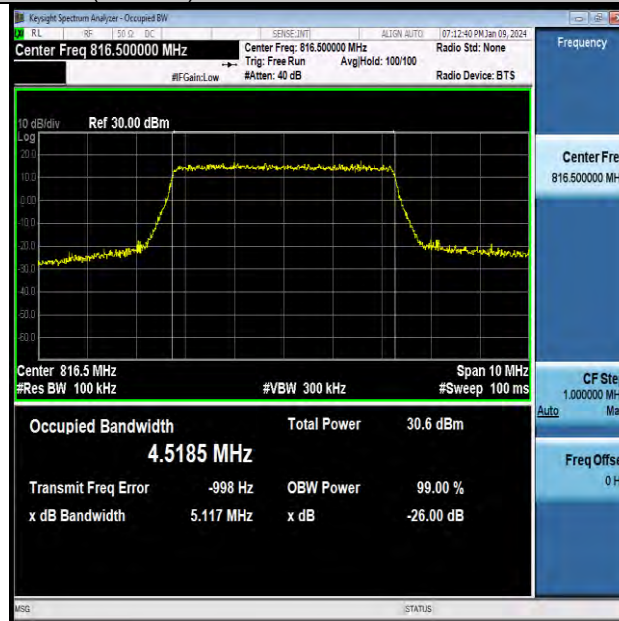


BUREAU
VERITAS

Test Report No.: W7L-P23120020RF05



26(814-824)-5MHz-QPSK-26765-25RB#0-PASS



26(814-824)-5MHz-16QAM-26715-25RB#0-PASS



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VERITAS

Test Report No.: W7L-P23120020RF05



26(814-824)-5MHz-16QAM-26740-25RB#0-PASS



26(814-824)-5MHz-16QAM-26765-25RB#0-PASS



BUREAU
VERITAS

Test Report No.: W7L-P23120020RF05



26(814-824)-10MHz-QPSK-26740-50RB#0-PASS



26(814-824)-10MHz-16QAM-26740-50RB#0-PASS