

FCC TEST REPORT

(PART 22)

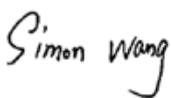
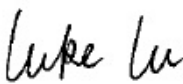
Applicant:	POINTMOBILE CO.,LTD
Address:	9F Kabul Great Valley, 32, Digital-ro 9-gil, Geumcheon-gu, Seoul, Korea 08512

Manufacturer or Supplier:	POINTMOBILE CO.,LTD
Address:	9F Kabul Great Valley, 32, Digital-ro 9-gil, Geumcheon-gu, Seoul, Korea 08512
Product:	Moblle 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 22, Subpart H** ☒ **FCC Part 2**
☒ **ANSI/TIA/EIA-603-D** ☒ **ANSI C63.26-2015**
☒ **ANSI/TIA/EIA-603-E**

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

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

TABLE OF CONTENTS

RELEASE CONTROL RECORD	5
1 SUMMARY OF TEST RESULTS	6
1.1 MEASUREMENT UNCERTAINTY	7
1.2 TEST SITE AND INSTRUMENTS	8
2 GENERAL INFORMATION	10
2.1 GENERAL DESCRIPTION OF EUT	10
2.2 CONFIGURATION OF SYSTEM UNDER TEST	14
2.3 DESCRIPTION OF SUPPORT UNITS	15
2.4 TEST ITEM AND TEST CONFIGURATION	15
2.5 EUT OPERATING CONDITIONS	19
2.6 GENERAL DESCRIPTION OF APPLIED STANDARDS	20
3 TEST TYPES AND RESULTS	21
3.1 OUTPUT POWER MEASUREMENT	21
3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT	21
3.1.2 TEST PROCEDURES	21
3.1.3 TEST SETUP	22
3.1.4 TEST RESULTS	22
3.2 FREQUENCY STABILITY MEASUREMENT	42
3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT	42
3.2.2 TEST PROCEDURE	42
3.2.3 TEST SETUP	42
3.2.4 TEST RESULTS	43
3.3 OCCUPIED BANDWIDTH MEASUREMENT	44
3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT	44
3.3.2 TEST SETUP	44
3.3.3 TEST PROCEDURES	44
3.3.4 TEST RESULTS	45
3.4 BAND EDGE MEASUREMENT	46
3.4.1 LIMITS OF BAND EDGE MEASUREMENT	46
3.4.2 TEST SETUP	46
3.4.3 TEST PROCEDURES	47
3.4.4 TEST RESULTS	48
3.5 CONDUCTED SPURIOUS EMISSIONS	49
3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT	49
3.5.2 TEST PROCEDURE	49
3.5.3 TEST SETUP	49
3.5.4 TEST RESULTS	50
3.6 RADIATED EMISSION MEASUREMENT	51
3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT	51
3.6.2 TEST PROCEDURES	51
3.6.3 DEVIATION FROM TEST STANDARD	51

3.6.4	TEST SETUP	52
3.6.5	TEST RESULTS	54
3.7	PEAK TO AVERAGE RATIO	88
3.7.1	LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT	88
3.7.2	TEST SETUP	88
3.7.3	TEST PROCEDURES	88
3.7.4	TEST RESULTS	89
4	PHOTOGRAPHS OF THE TEST CONFIGURATION	90
5	INFORMATION ON THE TESTING LABORATORIES	91
6	MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	92
7	APPENDIX:.....	93
	GSM850	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	99
	TEST RESULT	99
	TEST GRAPHS	100
	CONDUCTED SPURIOUS EMISSION	101
	TEST RESULT	101
	TEST GRAPHS	102
	FREQUENCY STABILITY	105
	TEST RESULT	105
	WCMDA BAND5	107
	PEAK-TO-AVERAGE RATIO	107
	TEST RESULT	107
	TEST GRAPHS	108
	26DB BANDWIDTH AND OCCUPIED BANDWIDTH	109
	TEST RESULT	109
	TEST GRAPHS	110
	BAND EDGE	111
	TEST RESULT	111
	TEST GRAPHS	112
	CONDUCTED SPURIOUS EMISSION	113
	TEST RESULT	113
	TEST GRAPHS	114
	FREQUENCY STABILITY	116
	TEST RESULT	116
	LTE BAND 26(824-849)	117
	PEAK-TO-AVERAGE RATIO(CCDF)	117



Test Report No.: W7L-P23120020RF01

TEST RESULT	117
TEST GRAPHS	118
26DB BANDWIDTH AND OCCUPIED BANDWIDTH	124
TEST RESULT	124
TEST GRAPHS	125
BAND EDGE	140
TEST RESULT	140
TEST GRAPHS	141
CONDUCTED SPURIOUS EMISSION	161
TEST RESULT	161
TEST GRAPHS	162
FREQUENCY STABILITY	177
TEST RESULT	177



Test Report No.: W7L-P23120020RF01

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P23120020RF01	Original release	May. 10, 2024

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 22 & Part 2			
STANDARD SECTION	TEST TYPE	RESULT	Test lab*
§2.1046	Coducted Output Power	Compliance	A
§22.913 (a)(5)	Equivalent Isotropic Radiated Power	Compliance	A
§2.1055 §22.355	Frequency Stability	Compliance	A
§2.1049	Occupied Bandwidth	Compliance	A
§22.913 (d)	Peak to average ratio*	Compliance	A
§2.1051 §22.917(a)	Band Edge Measurements	Compliance	A
§2.1051 §22.917(a)	Conducted Spurious Emissions	Compliance	A
§2.1053 §22.917(a)	Radiated Spurious Emissions	Compliance	A

* Refer to KDB 971168 D01 Power Meas License Digital Systems v03r01.

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. is 525120; The Designation No. is 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	$\pm 2.06\text{dB}$
Frequency Stability	$\pm 76.97\text{Hz}$
Radiated emissions (9KHz~30MHz)	$\pm 2.68\text{dB}$
Radiated emissions (30MHz~1GHz)	$\pm 4.98\text{dB}$
Radiated emissions (1GHz ~6GHz)	$\pm 4.70\text{dB}$
Radiated emissions (6GHz ~18GHz)	$\pm 4.60\text{dB}$
Radiated emissions (18GHz ~40GHz)	$\pm 4.12\text{dB}$
Conducted emissions	$\pm 4.01\text{dB}$
Occupied Channel Bandwidth	$\pm 43.58\text{KHz}$
Band Edge Measurements	$\pm 4.70\text{dB}$
Peak to average ratio	$\pm 0.76\text{dB}$

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



1.2 TEST SITE AND INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	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-CT0001143-1216	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 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&Schwarz	CMW500	153085	May.10,23	May.09,24
Base station R&S CMW500	Rohde&Schwarz	CMW500	153085	May.09,24	May.08,25

**Test Report No.: W7L-P23120020RF01**

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	Mobile computer	
BRAND NAME	Point mobile	
MODEL NAME	PM95	
NOMINAL VOLTAGE	5.0Vdc (adapter) 3.87Vdc (battery)	
MODULATION TYPE	GSM/EDGE	GMSK, 8PSK
	WCDMA	BPSK, QPSK
	LTE	QPSK, 16QAM, 64QAM, 256QAM
FREQUENCY RANGE	GSM/EDGE	824.2MHz ~ 848.8MHz
	WCDMA	826.4MHz ~ 846.6MHz
	LTE Band 5 (Channel Bandwidth: 1.4MHz)	824.7MHz ~ 848.3MHz
	LTE Band 5 (Channel Bandwidth: 3MHz)	825.5MHz ~ 847.5MHz
	LTE Band 5 (Channel Bandwidth: 5MHz)	826.5MHz ~ 846.5MHz
	LTE Band 5 (Channel Bandwidth: 10MHz)	829MHz ~ 844MHz
	LTE Band 26 (Channel Bandwidth: 1.4MHz)	824.7MHz ~ 848.3MHz
	LTE Band 26 (Channel Bandwidth: 3MHz)	825.5MHz ~ 847.5MHz
	LTE Band 26 (Channel Bandwidth: 5MHz)	826.5MHz ~ 846.5MHz
	LTE Band 26 (Channel Bandwidth: 10MHz)	829MHz ~ 844MHz
	LTE Band 26 (Channel Bandwidth: 15MHz)	831.5MHz ~ 841.5MHz



	LTE CA	The following only support downlink: CA_5A-25A CA_5A-38A CA_5A-41A CA_5A-48A CA_5A-5A CA_5A-66A CA_5A-7A CA_5B CA_5A-30A CA_5A-48A-66A CA_5A-5A-66A CA_5A-66A-66A
MAX. ERP POWER	GSM	82.99mW
	EDGE	33.73mW
	WCDMA	179.06mW
	LTE Band 5 (Channel Bandwidth: 1.4MHz)	57.41mW
	LTE Band 5 (Channel Bandwidth: 3MHz)	55.72mW
	LTE Band 5 (Channel Bandwidth: 5MHz)	57.02mW
	LTE Band 5 (Channel Bandwidth: 10MHz)	57.68mW
	LTE Band 26 (Channel Bandwidth: 1.4MHz)	57.81mW
	LTE Band 26 (Channel Bandwidth: 3MHz)	58.48mW
	LTE Band 26 (Channel Bandwidth: 5MHz)	58.08mW
	LTE Band 26 (Channel Bandwidth: 10MHz)	58.34mW
	LTE Band 26 (Channel Bandwidth: 15MHz)	58.88mW
EMISSION DESIGNATOR GOGN	GSM	246KGXW
	EDGE	248KG7W
	WCDMA	4M14F9W
	LTE Band 26 (Channel Bandwidth: 1.4MHz)	QPSK: 1M10G7D
		16QAM: 1M10W7D
	LTE Band 26 (Channel Bandwidth: 3MHz)	QPSK: 2M70G7D
		16QAM: 2M70W7D
	LTE Band 26	QPSK: 4M52G7D



	(Channel Bandwidth: 5MHz)	16QAM: 4M52W7D
	LTE Band 26	QPSK: 9M01G7D
	(Channel Bandwidth: 10MHz)	16QAM: 9M04W7D
	LTE Band 26	QPSK: 13M5G7D
	(Channel Bandwidth: 15MHz)	16QAM: 13M5W7D
ANTENNA TYPE	ANT0 Internal Antenna with -2.43dBi gain for GSM850 Internal Antenna with -2.26dBi gain for WCDMA V Internal Antenna with -2.9dBi gain for LTE B5 Internal Antenna with 2.24dBi gain for LTEB26	
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, 1.5 meter	
EXTREME TEMPERATURE	-20-60 °C	
EXTREME VOLTAGE	3.5V – 4.45V	

NOTE:

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

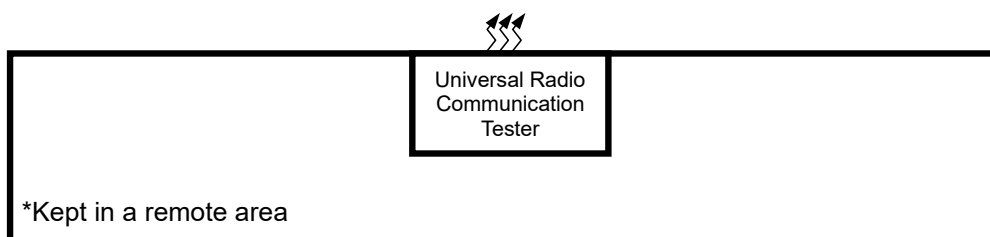
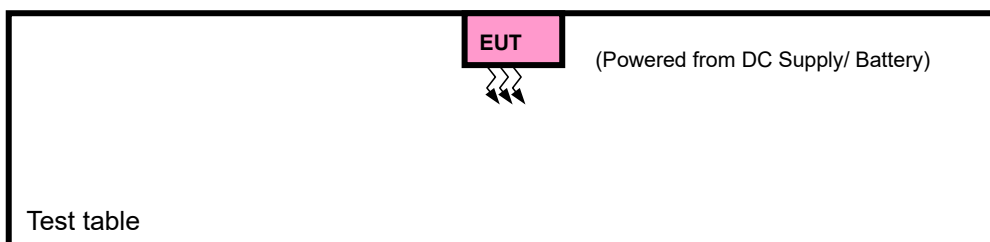
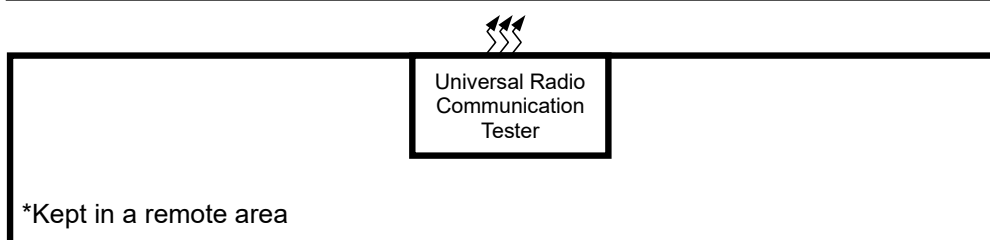
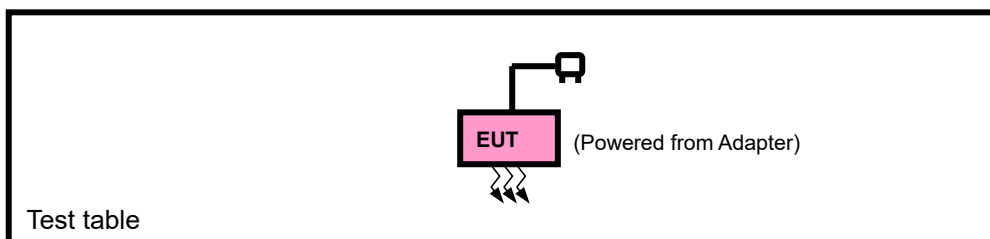
MODULATION MODE	TX FUNCTION
GSM/EDGE	1TX/2RX
WCDMA	1TX/2RX
LTE	1TX/2RX

- For the test results, the EUT had been tested with all conditions. But only the worst case was shown in the test report.
- 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



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 in ERP and radiated emission was found when positioned on X-plane for GSM /EDGE /LTE. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	DESCRIPTION
A	EUT + Adapter with WCDMA or LTE link
B	EUT + DC Supply /Battery with WCDMA or LTE link

GSM MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
A	ERP	128 to 251	128, 189, 251	GSM,EDGE
B	FREQUENCY STABILITY	128 to 251	128, 189, 251	GSM,EDGE
A	OCCUPIED BANDWIDTH	128 to 251	128, 189, 251	GSM,EDGE
A	BAND EDGE	128 to 251	128, 251	GSM,EDGE
A	CONDUCTED EMISSION	128 to 251	128, 189, 251	GSM,EDGE
A	RADIATED EMISSION	128 to 251	128, 189, 251	GSM,EDGE
A	PEAK TO AVERAGE RATIO	128 to 251	128, 189, 251	GSM,EDGE

WCDMA MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
A	ERP	4132 to 4233	4132, 4182, 4233	WCDMA
B	FREQUENCY STABILITY	4132 to 4233	4132, 4182, 4233	WCDMA
A	OCCUPIED BANDWIDTH	4132 to 4233	4132, 4182, 4233	WCDMA
A	BAND EDGE	4132 to 4233	4132, 4233	WCDMA
A	CONDCUETED EMISSION	4132 to 4233	4132, 4182, 4233	WCDMA
A	RADIATED EMISSION	4132 to 4233	4132, 4182, 4233	WCDMA
A	PEAK TO AVERAGE RATIO	4132 to 4233	4132, 4182, 4233	WCDMA

LTE BAND 5 MODE

EUT CONFIGURE MODE	TEST ITEM	Available Channel	Tested Channel	Channel bandwidth	modulation	mode
A	ERP	20407 to 20643	20407, 20525, 20643	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset

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

2. LTE Band 5 are covered by LTE Band 26, Because it is a subset of LTE Band 26 with the same output power and supported bandwidths, So the test data please refer to LTE Band 26

LTE BAND 26 MODE

EUT CONFIGURE MODE	TEST ITEM	Available Channel	Tested Channel	Channel bandwidth	modulation	mode
A	ERP	26797 to 27033	26797, 26915, 27033	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		26805 to 27025	26805, 26915, 27025	3MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		26815 to 27015	26815, 26915, 27015	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		26840 to 26990	26840, 26915, 26990	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		26865 to 26965	26865, 26915, 26965	15MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	26865 to 26965	26865, 26915, 26965	15MHz	QPSK	75 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	26797 to 27033	26797, 26915, 27033	1.4MHz	QPSK, 16QAM	6 RB / 0 RB Offset
		26805 to 27025	26805, 26915, 27025	3MHz	QPSK, 16QAM	15 RB / 0 RB Offset
		26815 to 27015	26815, 26915, 27015	5MHz	QPSK, 16QAM	25 RB / 0 RB Offset
		26840 to 26990	26840, 26915, 26990	10MHz	QPSK, 16QAM	50 RB / 0 RB Offset
		26865 to 26965	26865, 26915, 26965	15MHz	QPSK, 16QAM	75 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	26865 to 26965	26865, 26915, 26965	15MHz	QPSK, 16QAM	1 RB / 0 RB Offset 75 RB / 0 RB Offset
A	BAND EDGE	26797 to 27033	26797	1.4 MHz	QPSK, 16QAM	1 RB / 0 RB Offset 6 RB / 0 RB Offset
		26797 to 27033	27033	1.4 MHz	QPSK, 16QAM	1 RB / 5 RB Offset 6 RB / 0 RB Offset



		26805 to 27025	26805	3 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
						15 RB / 0 RB Offset
		26805 to 27025	27025	3 MHz	QPSK, 16QAM	1 RB / 14 RB Offset
						15 RB / 0 RB Offset
		26815 to 27015	26815	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset
						25 RB / 0 RB Offset
		26815 to 27015	27015	5MHz	QPSK, 16QAM	1 RB / 24 RB Offset
						25 RB / 0 RB Offset
		26840 to 26990	26840	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset
						50 RB / 0 RB Offset
		26840 to 26990	26990	10MHz	QPSK, 16QAM	1 RB / 49 RB Offset
						50 RB / 0 RB Offset
		26865 to 26965	26865	15MHz	QPSK, 16QAM	1 RB / 0 RB Offset
						75 RB / 0 RB Offset
		26865 to 26965	26965	15MHz	QPSK, 16QAM	1 RB / 74 RB Offset
						75 RB / 0 RB Offset
A	CONDCUDED EMISSION	26797 to 27033	26797, 26915, 27033	1.4MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26805 to 27025	26805, 26915, 27025	3MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26815 to 27015	26815, 26915, 27015	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26840 to 26990	26840, 26915, 26990	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26865 to 26965	26865, 26915, 26965	15MHz	QPSK, 16QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	26797 to 27033	26915	1.4MHz	QPSK	1 RB / 0 RB Offset
		26805 to 27025	26915	3MHz	QPSK	1 RB / 0 RB Offset
		26815 to 27015	26915	5MHz	QPSK	1 RB / 0 RB Offset
		26840 to 26990	26915	10MHz	QPSK	1 RB / 0 RB Offset
		26865 to 26965	26865, 26915, 26965	15MHz	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
ERP	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	James Fu
OCCUPIED BANDWIDTH	23deg. C, 70%RH	DC 5.0Vdc by Adapter	James Fu
BAND EDGE	23deg. C, 70%RH	DC 5.0Vdc by Adapter	James Fu
CONDUCTED EMISSION	23deg. C, 70%RH	DC 5.0Vdc by Adapter	James Fu
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	James Fu

2.5 EUT OPERATING CONDITIONS

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency

2.6 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 22

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI/TIA/EIA-603-D

ANSI/TIA/EIA-603-E

ANSI C63.26-2015

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

3 TEST TYPES AND RESULTS

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

Mobile / Portable station are limited to 7 watts e.r.p.

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.

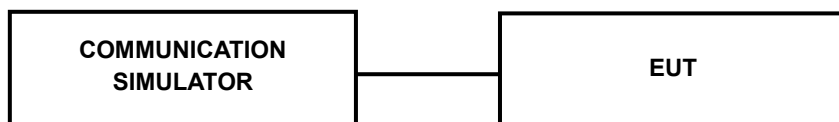
CONDUCTED POWER MEASUREMENT:

The EUT was set up for the maximum power with WCDMA 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

EIRP / ERP Measurement:

CONDUCTED POWER MEASUREMENT:



3.1.4 TEST RESULTS

CONDUCTED OUTPUT POWER (dBm):

Band	GSM850(ANT0)		
Channel	128	189	251
Frequency	824.2	836.4	848.8
GSM	31.77	31.70	31.68
GPRS 1Tx Slot	31.75	31.69	31.67
GPRS 2Tx Slot	29.54	29.77	29.54
GPRS 3Tx Slot	27.58	27.75	27.57
GPRS 4Tx Slot	25.56	25.73	25.58
EDGE 1Tx Slot	26.22	26.10	26.18
EDGE 2Tx Slot	25.01	24.98	24.82
EDGE 3Tx Slot	23.84	23.66	23.86
EDGE 4Tx Slot	22.79	22.86	22.82

Band	WCDMA V(ANT0)		
TX Channel	4132	4182	4233
Rx Channel	4357	4407	4458
Frequency	826.4	836.4	846.6
RMC 12.2K	22.87	22.94	22.88
HSDPA Subtest-1	21.95	21.91	21.91
HSDPA Subtest-2	21.93	21.88	21.99
HSDPA Subtest-3	21.42	21.40	21.46
HSDPA Subtest-4	21.45	21.47	21.35
DC-HSDPA Subtest-1	21.96	21.82	21.99
DC-HSDPA Subtest-2	21.89	21.89	21.94
DC-HSDPA Subtest-3	21.33	21.41	21.43
DC-HSDPA Subtest-4	21.36	21.39	21.38
HSUPA Subtest-1	21.95	21.98	21.94
HSUPA Subtest-2	19.92	19.93	19.95
HSUPA Subtest-3	20.84	20.92	20.89
HSUPA Subtest-4	19.96	19.99	19.93
HSUPA Subtest-5	21.85	22.00	21.84
HSPA+ Subtest-1	19.34	19.44	19.40



LTE Band 5(ANT0)

Band/BW	Modulation	RB Size	RB Offset	Low CH 20407	Mid CH 20525	High CH 20643
				Frequency 824.7 MHz	Frequency 836.5 MHz	Frequency 848.3 MHz
5/ 1.4	QPSK	1	0	22.37	22.45	22.64
		1	2	22.48	22.36	22.46
		1	5	22.43	22.46	22.49
		3	0	22.34	22.24	22.35
		3	1	22.19	22.26	22.37
		3	3	22.32	22.23	22.40
		6	0	21.61	21.60	21.51
	16QAM	1	0	21.78	21.68	21.76
		1	2	21.62	21.47	21.63
		1	5	21.64	21.65	21.53
		3	0	21.45	21.46	21.46
		3	1	21.62	21.43	21.61
		3	3	21.63	21.55	21.60
		6	0	20.57	20.43	20.58
	64QAM	1	0	20.55	20.51	20.71
		1	2	20.54	20.60	20.67
		1	5	20.58	20.46	20.44
		3	0	20.47	20.52	20.65
		3	1	20.46	20.50	20.49
		3	3	20.43	20.54	20.47
		6	0	19.34	19.45	19.56
	256QAM	1	0	17.57	17.49	17.63
		1	2	17.49	17.55	17.54
		1	5	17.34	17.42	17.37
		3	0	17.46	17.53	17.48
		3	1	17.31	17.47	17.47
		3	3	17.40	17.37	17.45
		6	0	17.40	17.38	17.30



Band/BW	Modulation	RB Size	RB Offset	Low CH 20415	Mid CH 20525	High CH 20635
				Frequency 825.5 MHz	Frequency 836.5 MHz	Frequency 847.5 MHz
5/ 3	QPSK	1	0	22.40	22.51	22.60
		1	7	22.44	22.36	22.38
		1	14	22.35	22.44	22.44
		8	0	21.42	21.46	21.42
		8	3	21.42	21.58	21.54
		8	7	21.57	21.46	21.54
		15	0	21.63	21.55	21.57
	16QAM	1	0	21.71	21.72	21.67
		1	7	21.58	21.50	21.55
		1	14	21.62	21.58	21.59
		8	0	20.50	20.50	20.53
		8	3	20.60	20.47	20.56
		8	7	20.58	20.66	20.70
		15	0	20.50	20.42	20.58
	64QAM	1	0	20.57	20.55	20.66
		1	7	20.61	20.59	20.72
		1	14	20.54	20.48	20.55
		8	0	19.45	19.54	19.60
		8	3	19.50	19.50	19.58
		8	7	19.50	19.47	19.49
		15	0	19.33	19.33	19.44
	256QAM	1	0	17.58	17.54	17.57
		1	7	17.46	17.53	17.61
		1	14	17.34	17.44	17.41
		8	0	17.45	17.51	17.48
		8	3	17.38	17.36	17.52
		8	7	17.42	17.46	17.50
		15	0	17.39	17.35	17.39



Band/BW	Modulation	RB Size	RB Offset	Low CH 20425	Mid CH 20525	High CH 20625
				Frequency 826.5 MHz	Frequency 836.5 MHz	Frequency 846.5 MHz
5/ 5	QPSK	1	0	22.35	22.51	22.61
		1	12	22.55	22.31	22.48
		1	24	22.32	22.39	22.47
		12	0	21.56	21.48	21.46
		12	6	21.43	21.55	21.51
		12	13	21.51	21.52	21.48
		25	0	21.55	21.50	21.57
	16QAM	1	0	21.76	21.58	21.73
		1	12	21.60	21.50	21.58
		1	24	21.66	21.56	21.63
		12	0	20.46	20.44	20.56
		12	6	20.65	20.42	20.60
		12	13	20.60	20.59	20.63
		25	0	20.52	20.49	20.59
	64QAM	1	0	20.56	20.57	20.68
		1	12	20.53	20.69	20.70
		1	24	20.59	20.46	20.52
		12	0	19.51	19.57	19.64
		12	6	19.52	19.48	19.50
		12	13	19.48	19.58	19.49
		25	0	19.38	19.38	19.45
	256QAM	1	0	17.58	17.51	17.57
		1	12	17.48	17.61	17.51
		1	24	17.42	17.42	17.29
		12	0	17.45	17.48	17.57
		12	6	17.32	17.39	17.42
		12	13	17.42	17.42	17.47
		25	0	17.35	17.34	17.41



Band/BW	Modulation	RB Size	RB Offset	Low CH 20450	Mid CH 20525	High CH 20600
				Frequency 829 MHz	Frequency 836.5 MHz	Frequency 844 MHz
5/ 10	QPSK	1	0	22.49	22.55	22.66
		1	24	22.58	22.45	22.49
		1	49	22.46	22.48	22.58
		25	0	21.57	21.49	21.57
		25	12	21.54	21.61	21.62
		25	25	21.65	21.53	21.61
		50	0	21.65	21.63	21.58
	16QAM	1	0	21.79	21.73	21.77
		1	24	21.70	21.61	21.67
		1	49	21.67	21.66	21.67
		25	0	20.52	20.53	20.59
		25	12	20.68	20.53	20.65
		25	25	20.70	20.67	20.73
		50	0	20.63	20.56	20.60
	64QAM	1	0	20.63	20.66	20.76
		1	24	20.67	20.73	20.76
		1	49	20.61	20.60	20.56
		25	0	19.58	19.59	19.69
		25	12	19.61	19.59	19.60
		25	25	19.57	19.60	19.62
		50	0	19.48	19.48	19.58
	256QAM	1	0	17.61	17.62	17.71
		1	24	17.57	17.65	17.64
		1	49	17.49	17.52	17.42
		25	0	17.50	17.57	17.62
		25	12	17.46	17.49	17.55
		25	25	17.51	17.48	17.59
		50	0	17.41	17.42	17.45



LTE BAND 26

Band/BW	Modulation	RB Size	RB Offset	Low CH 26797	Mid CH 26915	High CH 27033
				Frequency 824.7 MHz	Frequency 836.5 MHz	Frequency 848.3 MHz
26/ 1.4	QPSK	1	0	21.95	21.93	21.98
		1	2	21.96	21.95	22.01
		1	5	21.97	21.81	21.91
		3	0	21.78	21.73	21.85
		3	1	21.86	21.72	21.90
		3	3	21.97	21.81	22.00
		6	0	20.99	20.93	21.21
	16QAM	1	0	21.28	21.05	21.23
		1	2	21.13	21.17	21.05
		1	5	21.15	20.88	21.09
		3	0	21.06	20.92	21.04
		3	1	21.08	20.98	21.14
		3	3	21.21	21.05	21.22
		6	0	20.18	20.04	20.22
	64QAM	1	0	20.20	20.00	20.20
		1	2	20.11	20.10	20.25
		1	5	20.15	20.15	20.21
		3	0	20.17	19.99	20.06
		3	1	19.97	20.09	20.14
		3	3	20.21	19.81	20.20
		6	0	19.24	18.91	19.22
	256QAM	1	0	17.13	16.97	17.11
		1	2	17.00	17.09	17.28
		1	5	17.01	17.14	17.08
		3	0	17.11	16.97	17.03
		3	1	16.95	17.02	17.04
		3	3	17.00	16.86	17.11
		6	0	17.03	16.95	17.14



Band/BW	Modulation	RB Size	RB Offset	Low CH 26805	Mid CH 26915	High CH 27025
				Frequency 825.5 MHz	Frequency 836.5 MHz	Frequency 847.5 MHz
26/ 3	QPSK	1	0	21.93	21.98	22.05
		1	7	21.93	21.91	22.06
		1	14	21.98	21.86	22.04
		8	0	21.11	21.00	21.16
		8	3	21.06	20.96	21.09
		8	7	21.12	20.98	21.26
		15	0	21.02	20.92	21.18
	16QAM	1	0	21.27	21.07	21.14
		1	7	21.10	21.15	21.08
		1	14	21.21	20.89	21.13
		8	0	20.18	19.96	20.11
		8	3	20.13	20.04	20.08
		8	7	20.24	20.03	20.18
		15	0	20.18	20.07	20.25
	64QAM	1	0	20.28	20.02	20.19
		1	7	20.20	20.04	20.28
		1	14	20.15	20.11	20.14
		8	0	19.23	18.89	19.02
		8	3	19.06	19.06	19.14
		8	7	19.21	18.95	19.15
		15	0	19.23	18.95	19.17
	256QAM	1	0	17.02	16.99	17.12
		1	7	17.13	17.09	17.22
		1	14	17.05	17.13	17.09
		8	0	17.07	16.91	17.00
		8	3	16.92	16.97	17.13
		8	7	16.98	16.84	17.20
		15	0	17.09	17.02	17.04



Band/BW	Modulation	RB Size	RB Offset	Low CH 26815	Mid CH 26915	High CH 27015
				Frequency 826.5 MHz	Frequency 836.5 MHz	Frequency 846.5 MHz
26/ 5	QPSK	1	0	22.00	21.91	21.97
		1	12	22.03	21.93	21.96
		1	24	22.01	21.85	21.91
		12	0	20.98	21.02	21.12
		12	6	21.13	20.86	21.17
		12	13	21.20	21.07	21.14
		25	0	21.08	20.79	21.20
	16QAM	1	0	21.20	21.05	21.14
		1	12	21.17	21.03	21.04
		1	24	21.08	20.98	21.15
		12	0	20.07	19.91	20.07
		12	6	20.17	20.01	20.14
		12	13	20.21	19.98	20.24
		25	0	20.17	20.06	20.18
	64QAM	1	0	20.18	20.01	20.17
		1	12	20.11	20.03	20.26
		1	24	20.13	20.16	20.21
		12	0	19.19	18.96	19.04
		12	6	19.01	19.01	19.14
		12	13	19.25	18.92	19.11
		25	0	19.13	18.92	19.27
	256QAM	1	0	17.13	17.03	17.12
		1	12	17.11	17.06	17.20
		1	24	17.00	17.12	17.14
		12	0	17.13	16.95	17.01
		12	6	17.00	17.02	17.05
		12	13	17.07	16.91	17.09
		25	0	17.02	16.99	17.12



Band/BW	Modulation	RB Size	RB Offset	Low CH 26840	Mid CH 26915	High CH 26990
				Frequency 829 MHz	Frequency 836.5 MHz	Frequency 844 MHz
26/10	QPSK	1	0	21.99	21.99	22.05
		1	24	21.94	21.93	21.96
		1	49	22.00	21.83	22.04
		25	0	21.01	21.03	21.03
		25	12	21.02	20.86	21.14
		25	25	21.19	21.01	21.17
		50	0	20.99	20.82	21.14
	16QAM	1	0	21.27	21.06	21.19
		1	24	21.12	21.04	21.14
		1	49	21.17	20.98	21.16
		25	0	20.05	19.96	20.03
		25	12	20.07	19.97	20.07
		25	25	20.11	19.98	20.17
		50	0	20.17	20.01	20.12
	64QAM	1	0	20.19	20.04	20.25
		1	24	20.22	20.12	20.27
		1	49	20.23	20.16	20.14
		25	0	19.13	18.88	19.11
		25	12	19.10	19.11	19.05
		25	25	19.20	18.95	19.22
		50	0	19.18	19.05	19.17
	256QAM	1	0	17.08	17.03	17.05
		1	24	17.01	17.09	17.21
		1	49	17.07	17.13	17.16
		25	0	17.12	16.92	16.97
		25	12	17.05	17.07	17.02
		25	25	17.09	16.93	17.18
		50	0	16.97	17.02	17.06



Band/BW	Modulation	RB Size	RB Offset	Low CH 26865	Mid CH 26915	High CH 26965
				Frequency 831.5 MHz	Frequency 836.5 MHz	Frequency 841.5 MHz
26/ 15	QPSK	1	0	22.08	22.04	22.07
		1	37	22.08	22.00	22.09
		1	74	22.05	21.96	22.05
		36	0	21.13	21.04	21.18
		36	19	21.15	21.01	21.18
		36	39	21.26	21.10	21.28
		75	0	21.14	20.94	21.25
	16QAM	1	0	21.34	21.20	21.29
		1	37	21.23	21.18	21.18
		1	74	21.23	20.99	21.18
		36	0	20.19	20.02	20.17
		36	19	20.21	20.09	20.15
		36	39	20.25	20.11	20.28
		75	0	20.25	20.13	20.26
	64QAM	1	0	20.29	20.10	20.28
		1	37	20.24	20.17	20.37
		1	74	20.28	20.20	20.28
		36	0	19.24	19.01	19.17
		36	19	19.12	19.12	19.18
		36	39	19.26	18.96	19.26
		75	0	19.26	19.06	19.29
	256QAM	1	0	17.16	17.10	17.14
		1	37	17.14	17.17	17.33
		1	74	17.15	17.20	17.18
		36	0	17.21	17.01	17.06
		36	19	17.06	17.12	17.17
		36	39	17.12	16.96	17.23
		75	0	17.12	17.06	17.19



ERP POWER (dBm)

GSM 850

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
128	824.2	23.54	-2.43	18.96	78.7	7
189	836.4	23.77	-2.43	19.19	82.99	7
251	848.8	23.54	-2.43	18.96	78.7	7

EDGE 850

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
128	824.2	19.79	-2.43	15.21	33.19	7
189	836.4	19.86	-2.43	15.28	33.73	7
251	848.8	19.82	-2.43	15.24	33.42	7

WCDMA

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
4132	826.4	22.87	1.74	22.46	176.2	7
4182	836.4	22.94	1.74	22.53	179.06	7
4233	846.6	22.88	1.74	22.47	176.6	7

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



LTE BAND 5

CHANNEL BANDWIDTH: 1.4MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20407	824.7	22.48	-2.9	17.43	55.34	7
20525	836.5	22.46	-2.9	17.41	55.08	7
20643	848.3	22.64	-2.9	17.59	57.41	7

CHANNEL BANDWIDTH: 1.4MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20407	824.7	21.78	-2.9	16.73	47.1	7
20525	836.5	21.68	-2.9	16.63	46.03	7
20643	848.3	21.76	-2.9	16.71	46.88	7

CHANNEL BANDWIDTH: 1.4MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20407	824.7	20.58	-2.9	15.53	35.73	7
20525	836.5	20.6	-2.9	15.55	35.89	7
20643	848.3	20.71	-2.9	15.66	36.81	7

CHANNEL BANDWIDTH: 1.4MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20407	824.7	17.57	-2.9	12.52	17.86	7
20525	836.5	17.55	-2.9	12.5	17.78	7
20643	848.3	17.63	-2.9	12.58	18.11	7



CHANNEL BANDWIDTH: 3MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20415	825.5	22.44	-2.9	17.39	54.83	7
20525	836.5	22.51	-2.9	17.46	55.72	7
20635	847.5	22.6	-2.9	17.55	56.89	7

CHANNEL BANDWIDTH: 3MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20415	825.5	21.71	-2.9	16.66	46.34	7
20525	836.5	21.72	-2.9	16.67	46.45	7
20635	847.5	21.67	-2.9	16.62	45.92	7

CHANNEL BANDWIDTH: 3MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20415	825.5	20.61	-2.9	15.56	35.97	7
20525	836.5	20.59	-2.9	15.54	35.81	7
20635	847.5	20.72	-2.9	15.67	36.9	7

CHANNEL BANDWIDTH: 3MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20415	825.5	17.58	-2.9	12.53	17.91	7
20525	836.5	17.54	-2.9	12.49	17.74	7
20635	847.5	17.61	-2.9	12.56	18.03	7

**CHANNEL BANDWIDTH: 5MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20425	826.5	22.55	-2.9	17.5	56.23	7
20525	836.5	22.51	-2.9	17.46	55.72	7
20625	846.5	22.61	-2.9	17.56	57.02	7

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20425	826.5	21.76	-2.9	16.71	46.88	7
20525	836.5	21.58	-2.9	16.53	44.98	7
20625	846.5	21.73	-2.9	16.68	46.56	7

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20425	826.5	20.59	-2.9	15.54	35.81	7
20525	836.5	20.69	-2.9	15.64	36.64	7
20625	846.5	20.7	-2.9	15.65	36.73	7

CHANNEL BANDWIDTH: 5MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20425	826.5	17.58	-2.9	12.53	17.91	7
20525	836.5	17.61	-2.9	12.56	18.03	7
20625	846.5	17.57	-2.9	12.52	17.86	7

**CHANNEL BANDWIDTH: 10MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20450	829	22.58	-2.9	17.53	56.62	7
20525	836.5	22.55	-2.9	17.5	56.23	7
20600	844	22.66	-2.9	17.61	57.68	7

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20450	829	21.79	-2.9	16.74	47.21	7
20525	836.5	21.73	-2.9	16.68	46.56	7
20600	844	21.77	-2.9	16.72	46.99	7

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20450	829	20.67	-2.9	15.62	36.48	7
20525	836.5	20.73	-2.9	15.68	36.98	7
20600	844	20.76	-2.9	15.71	37.24	7

CHANNEL BANDWIDTH: 10MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20450	829	17.61	-2.9	12.56	18.03	7
20525	836.5	17.65	-2.9	12.6	18.2	7
20600	844	17.71	-2.9	12.66	18.45	7

REMARKS: ERP Output Power (dBm) = EIRP (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)
26797	824.7	21.97	-2.24	17.58	57.28	7
26915	836.5	21.95	-2.24	17.56	57.02	7
27033	848.3	22.01	-2.24	17.62	57.81	7

CHANNEL BANDWIDTH: 1.4MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26797	824.7	21.28	-2.24	16.89	48.87	7
26915	836.5	21.17	-2.24	16.78	47.64	7
27033	848.3	21.23	-2.24	16.84	48.31	7

CHANNEL BANDWIDTH: 1.4MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26797	824.7	20.21	-2.24	15.82	38.19	7
26915	836.5	20.15	-2.24	15.76	37.67	7
27033	848.3	20.25	-2.24	15.86	38.55	7

CHANNEL BANDWIDTH: 1.4MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26797	824.7	17.13	-2.24	12.74	18.79	7
26915	836.5	17.14	-2.24	12.75	18.84	7
27033	848.3	17.28	-2.24	12.89	19.45	7

CHANNEL BANDWIDTH: 3MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26805	825.5	21.98	-2.24	17.59	57.41	7
26915	836.5	21.98	-2.24	17.59	57.41	7
27025	847.5	22.06	-2.24	17.67	58.48	7

CHANNEL BANDWIDTH: 3MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26805	825.5	21.27	-2.24	16.88	48.75	7
26915	836.5	21.15	-2.24	16.76	47.42	7
27025	847.5	21.14	-2.24	16.75	47.32	7

CHANNEL BANDWIDTH: 3MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26805	825.5	20.28	-2.24	15.89	38.82	7
26915	836.5	20.11	-2.24	15.72	37.33	7
27025	847.5	20.28	-2.24	15.89	38.82	7

CHANNEL BANDWIDTH: 3MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26805	825.5	17.13	-2.24	12.74	18.79	7
26915	836.5	17.13	-2.24	12.74	18.79	7
27025	847.5	17.22	-2.24	12.83	19.19	7

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26815	826.5	22.03	-2.24	17.64	58.08	7
26915	836.5	21.93	-2.24	17.54	56.75	7
27015	846.5	21.97	-2.24	17.58	57.28	7

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26815	826.5	21.2	-2.24	16.81	47.97	7
26915	836.5	21.05	-2.24	16.66	46.34	7
27015	846.5	21.15	-2.24	16.76	47.42	7

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26815	826.5	20.18	-2.24	15.79	37.93	7
26915	836.5	20.16	-2.24	15.77	37.76	7
27015	846.5	20.26	-2.24	15.87	38.64	7

CHANNEL BANDWIDTH: 5MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26815	826.5	17.13	-2.24	12.74	18.79	7
26915	836.5	17.12	-2.24	12.73	18.75	7
27015	846.5	17.2	-2.24	12.81	19.1	7

**CHANNEL BANDWIDTH: 10MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26840	829	22	-2.24	17.61	57.68	7
26915	836.5	21.99	-2.24	17.6	57.54	7
26990	844	22.05	-2.24	17.66	58.34	7

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26840	829	21.27	-2.24	16.88	48.75	7
26915	836.5	21.06	-2.24	16.67	46.45	7
26990	844	21.19	-2.24	16.8	47.86	7

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26840	829	20.23	-2.24	15.84	38.37	7
26915	836.5	20.16	-2.24	15.77	37.76	7
26990	844	20.27	-2.24	15.88	38.73	7

CHANNEL BANDWIDTH: 10MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26840	829	17.12	-2.24	12.73	18.75	7
26915	836.5	17.13	-2.24	12.74	18.79	7
26990	844	17.21	-2.24	12.82	19.14	7

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26865	831.5	22.08	-2.24	17.69	58.75	7
26915	836.5	22.04	-2.24	17.65	58.21	7
26965	841.5	22.09	-2.24	17.7	58.88	7

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26865	831.5	21.34	-2.24	16.95	49.55	7
26915	836.5	21.2	-2.24	16.81	47.97	7
26965	841.5	21.29	-2.24	16.9	48.98	7

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26865	831.5	20.29	-2.24	15.9	38.9	7
26915	836.5	20.2	-2.24	15.81	38.11	7
26965	841.5	20.37	-2.24	15.98	39.63	7

CHANNEL BANDWIDTH: 15MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26865	831.5	17.21	-2.24	12.82	19.14	7
26915	836.5	17.2	-2.24	12.81	19.1	7
26965	841.5	17.33	-2.24	12.94	19.68	7

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

3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

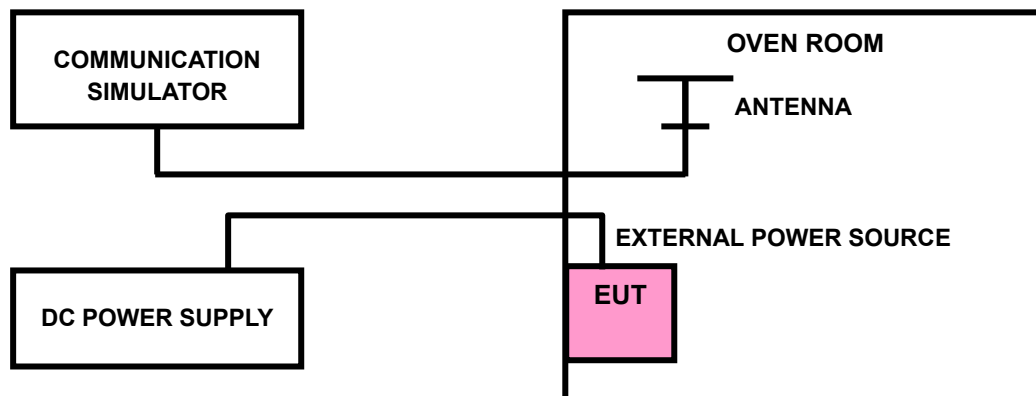
1.5 ppm is for base and fixed station. 2.5 ppm is for mobile station.

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-P23120020RF01

3.2.4 TEST RESULTS

Please Refer to Appendix Of this test report.

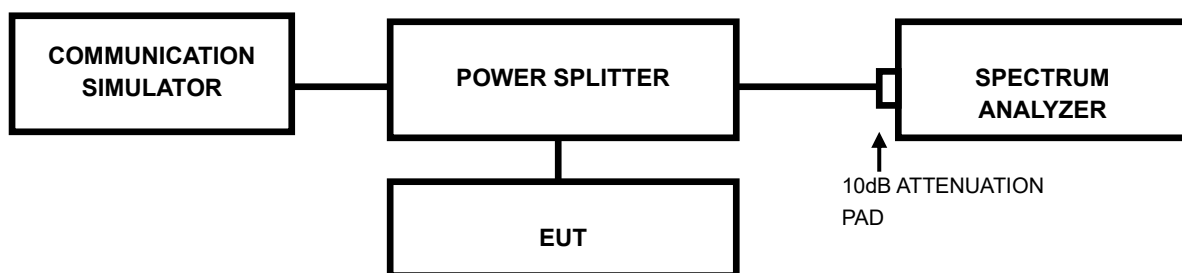
Note: VL = Low voltage(3.5V); VN/NV = Normal voltage(3.87V); VH = High voltage(4.45V);
NT = Normal temperature (25°C)

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-P23120020RF01

3.3.4 TEST RESULTS

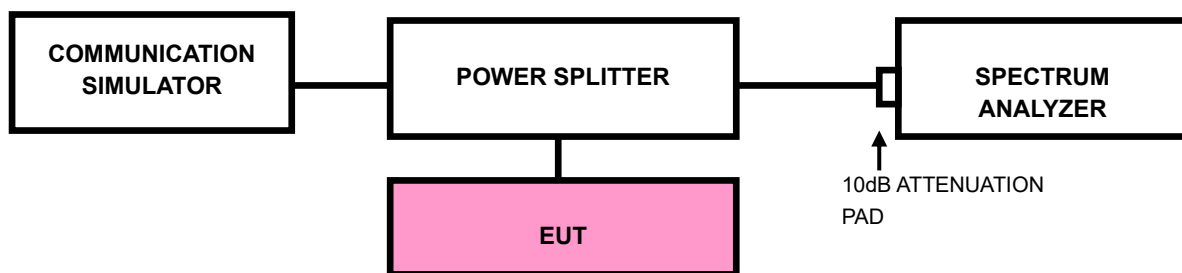
Please Refer to Appendix Of this test report.

3.4 BAND EDGE MEASUREMENT

3.4.1 LIMITS OF BAND EDGE MEASUREMENT

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. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

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) $\geq 1\%$ 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 $\geq 3 \times$ 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.



Test Report No.: W7L-P23120020RF01

3.4.4 TEST RESULTS

Please Refer to Appendix Of this test report.

3.5 CONDUCTED SPURIOUS EMISSIONS

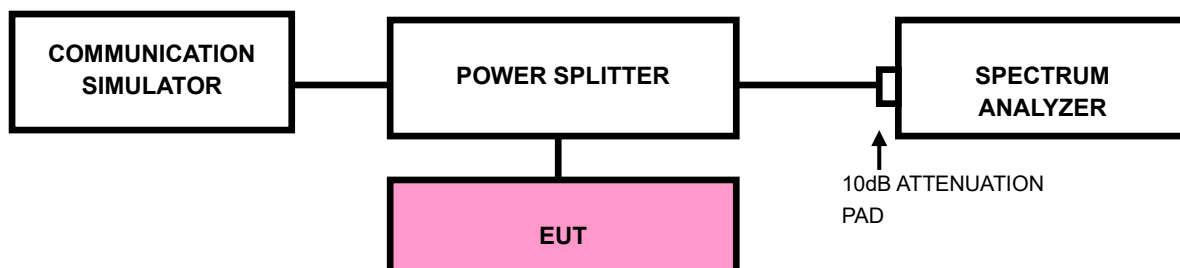
3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

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

3.5.2 TEST PROCEDURE

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

3.5.3 TEST SETUP





Test Report No.: W7L-P23120020RF01

3.5.4 TEST RESULTS

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

Please Refer to Appendix Of this test report.

3.6 RADIATED EMISSION MEASUREMENT

3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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

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 and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

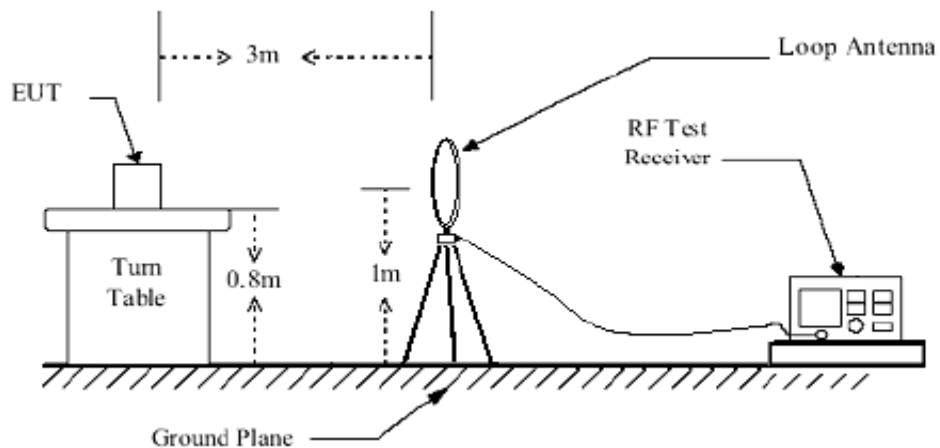
3.6.3 DEVIATION FROM TEST STANDARD

No deviation

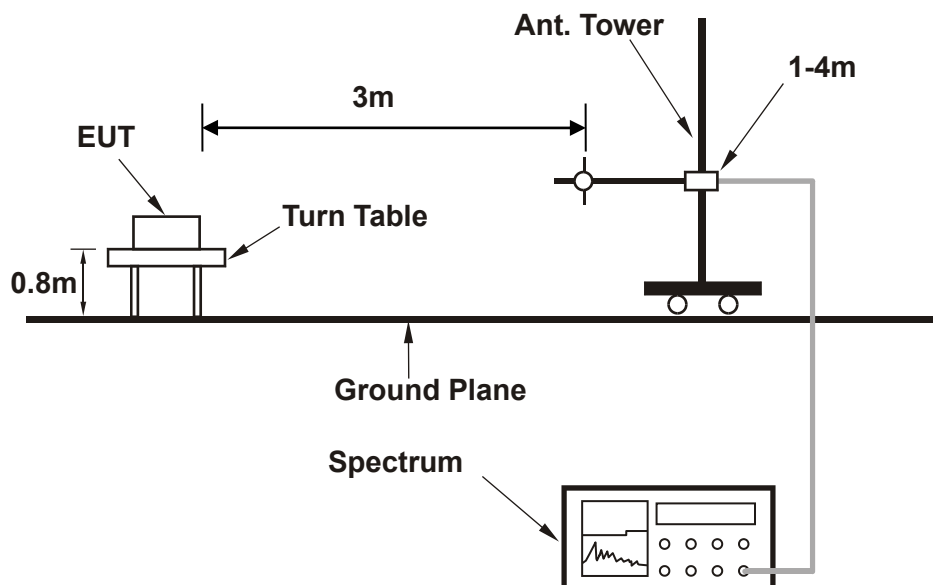


3.6.4 TEST SETUP

< Frequency Range below 30MHz >

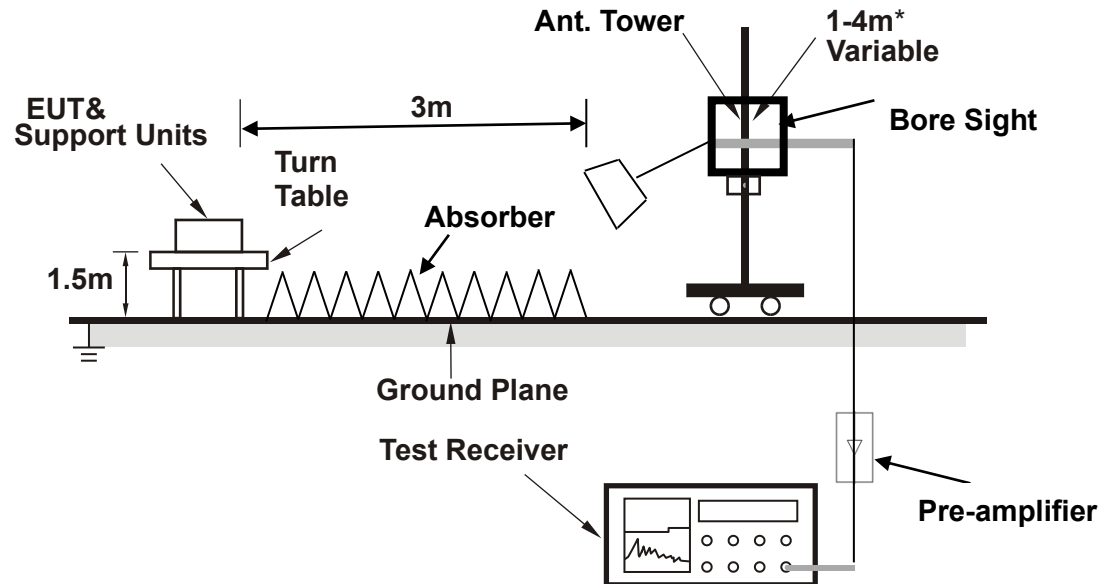


< Frequency Range 30MHz~1GHz >





<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

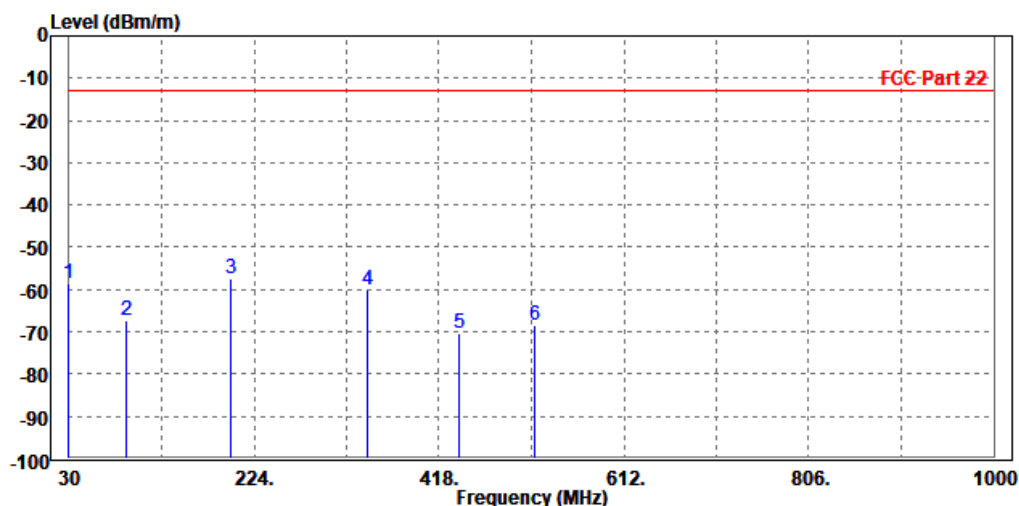
30 MHz – 1GHz data:

GSM 850 :

CHANNEL BANDWIDTH: 128 ~ 251

MODE	TX channel 251	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

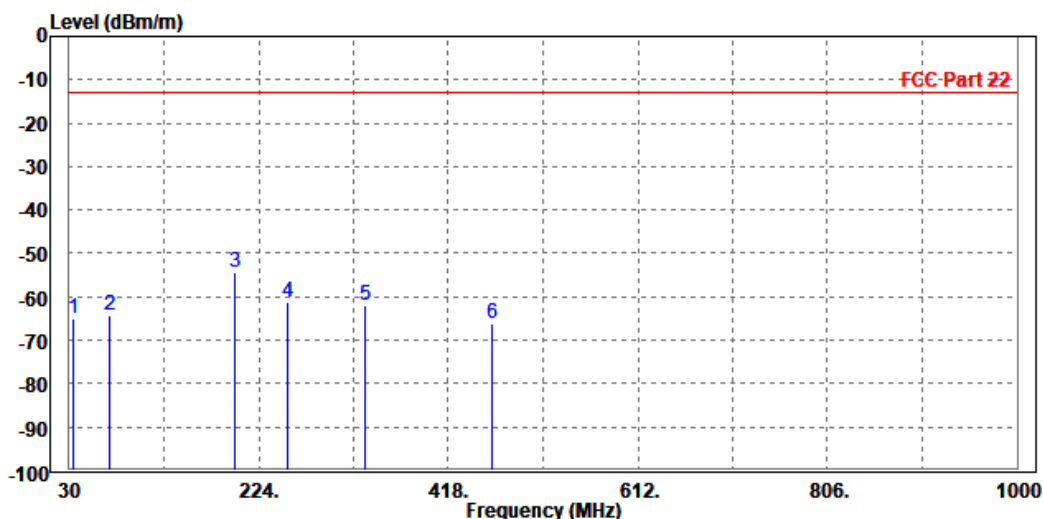
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	30.000	-58.52	-56.54	-13.00	-45.52	-1.98	Peak	Horizontal
2	89.170	-67.20	-54.47	-13.00	-54.20	-12.73	Peak	Horizontal
3 PP	198.780	-57.57	-42.15	-13.00	-44.57	-15.42	Peak	Horizontal
4	342.340	-60.11	-52.10	-13.00	-47.11	-8.01	Peak	Horizontal
5	438.370	-70.48	-64.29	-13.00	-57.48	-6.19	Peak	Horizontal
6	518.880	-68.51	-63.65	-13.00	-55.51	-4.86	Peak	Horizontal





MODE	TX channel 251	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	34.850	-65.10	-44.13	-13.00	-52.10	-20.97	Peak	Vertical
2	70.740	-64.10	-43.65	-13.00	-51.10	-20.45	Peak	Vertical
3 PP	198.780	-54.24	-45.39	-13.00	-41.24	-8.85	Peak	Vertical
4	253.100	-61.22	-57.50	-13.00	-48.22	-3.72	Peak	Vertical
5	332.640	-62.11	-58.46	-13.00	-49.11	-3.65	Peak	Vertical
6	462.620	-66.23	-61.40	-13.00	-53.23	-4.83	Peak	Vertical





ABOVE 1GHz DATA

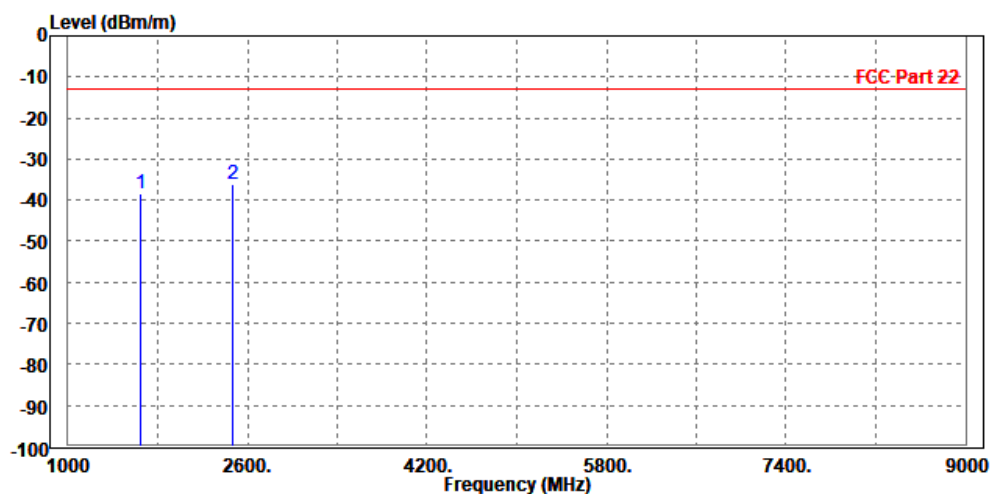
Note: For higher frequency, the emission is too low to be detected.

GSM 850

CH 128:

MODE	TX channel 128	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	1648.000	-38.47	-42.13	-13.00	-25.47	3.66	Peak	Horizontal
2 PP	2472.000	-35.97	-41.99	-13.00	-22.97	6.02	Peak	Horizontal



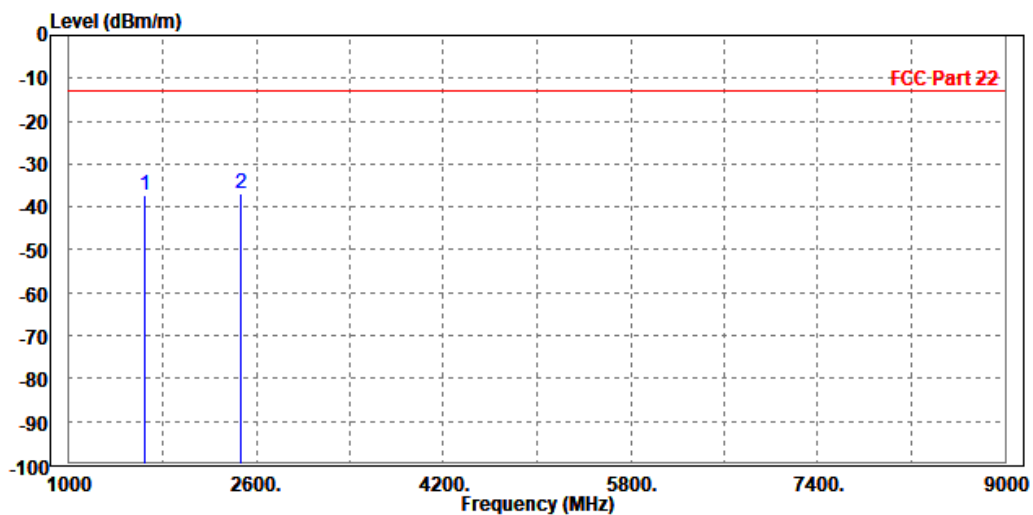


BUREAU
VERITAS

Test Report No.: W7L-P23120020RF01

MODE	TX channel 128	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	1648.000	-37.21	-40.60	-13.00	-24.21	3.39	Peak	Vertical
2 PP	2472.600	-37.05	-42.73	-13.00	-24.05	5.68	Peak	Vertical

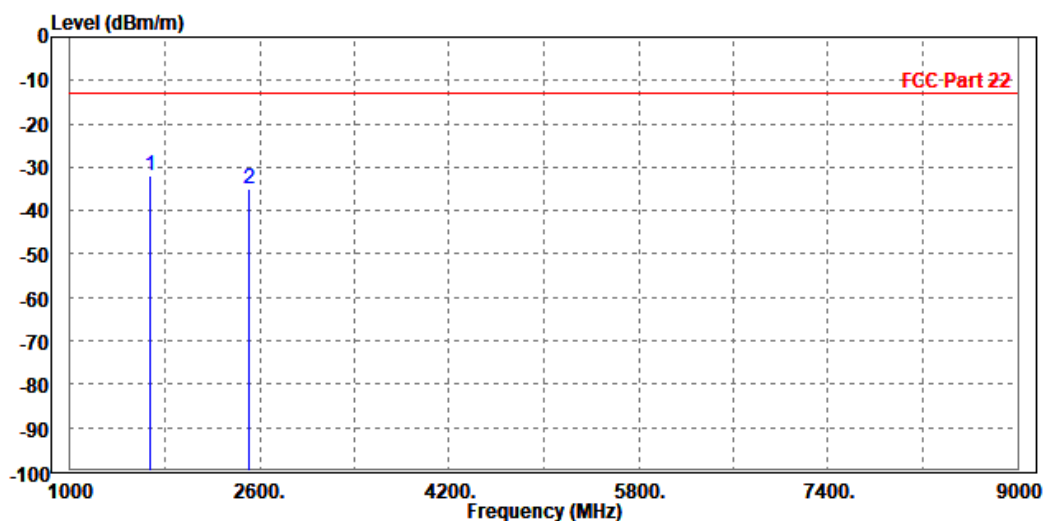




CH 189:

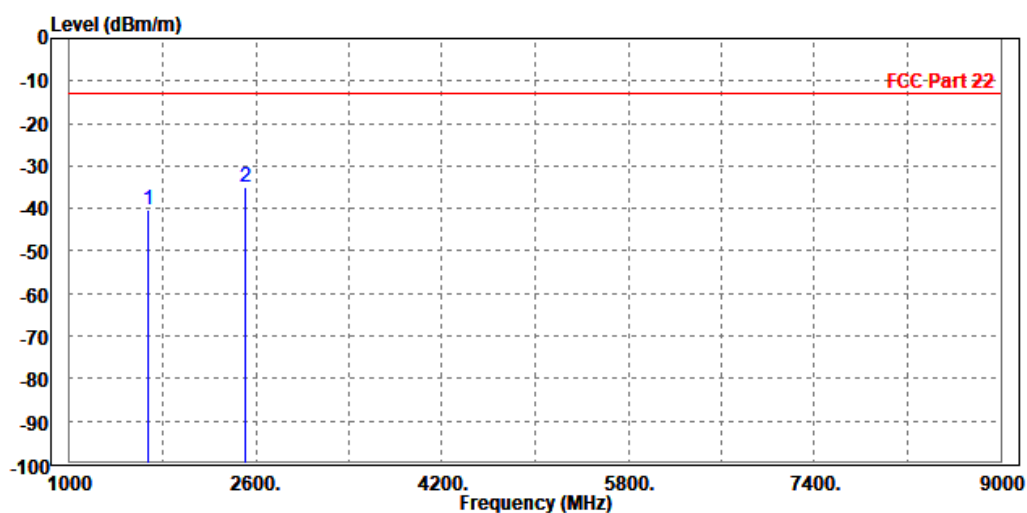
MODE	TX channel 189	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1672.000	-31.88	-35.61	-13.00	-18.88	3.73	Peak	Horizontal
2	2512.000	-35.07	-41.22	-13.00	-22.07	6.15	Peak	Horizontal



MODE	TX channel 189	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

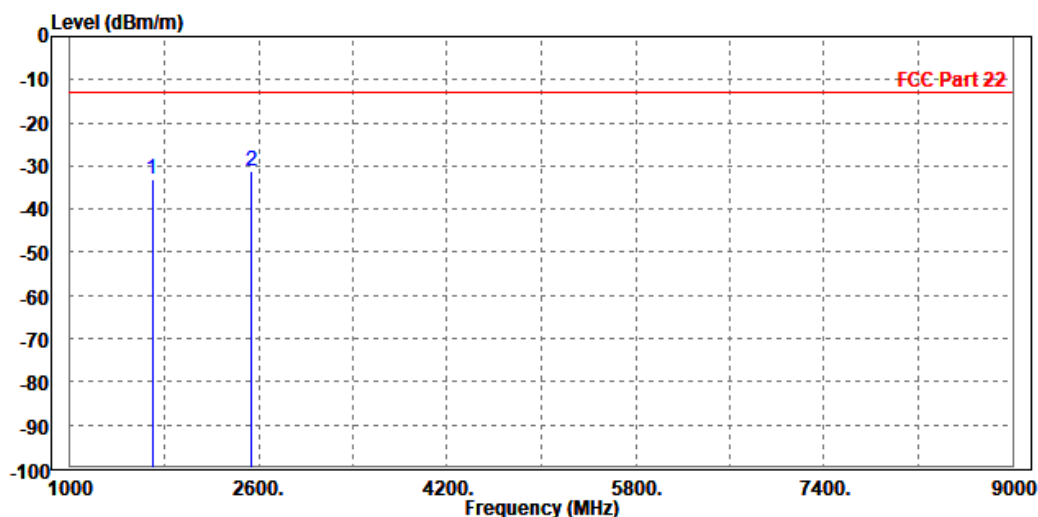
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1672.000	-40.38	-43.81	-13.00	-27.38	3.43	Peak	Vertical
2 PP	2512.000	-34.85	-40.70	-13.00	-21.85	5.85	Peak	Vertical



CH 251:

MODE	TX channel 251	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

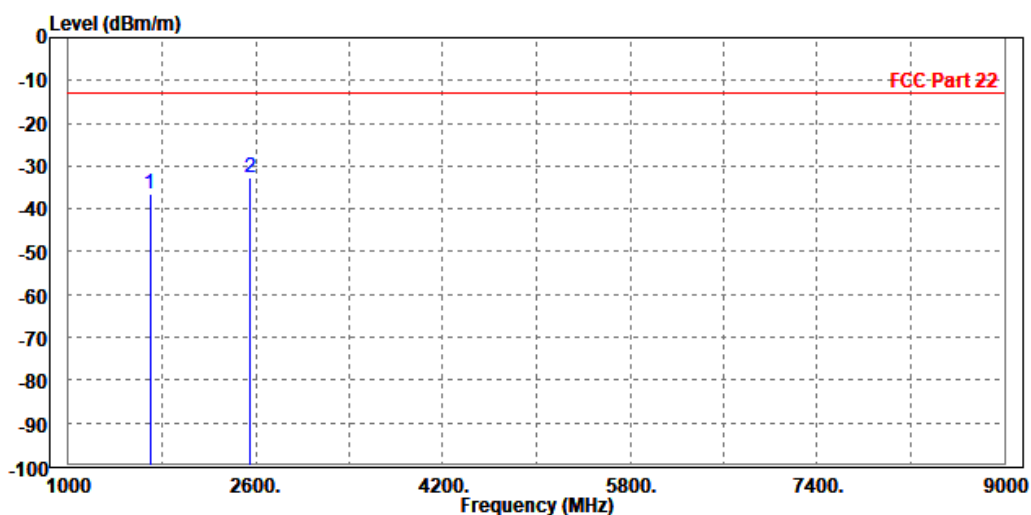
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1696.000	-33.00	-36.81	-13.00	-20.00	3.81	Peak	Horizontal
2 PP	2544.000	-31.16	-37.45	-13.00	-18.16	6.29	Peak	Horizontal





MODE	TX channel 251	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	1696.000	-36.41	-39.88	-13.00	-23.41	3.47	Peak	Vertical
2 PP	2546.400	-32.51	-38.57	-13.00	-19.51	6.06	Peak	Vertical

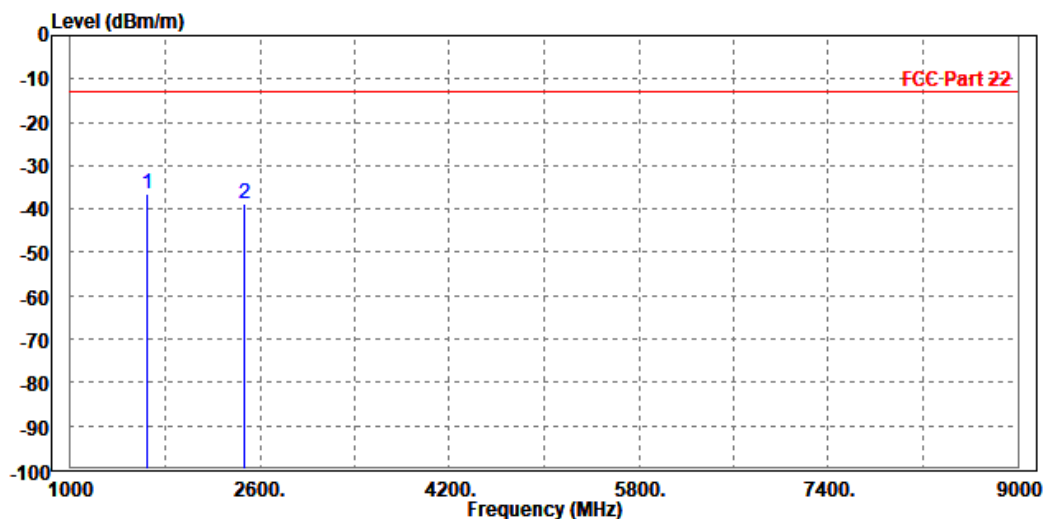


EDGE 850:

CH 128:

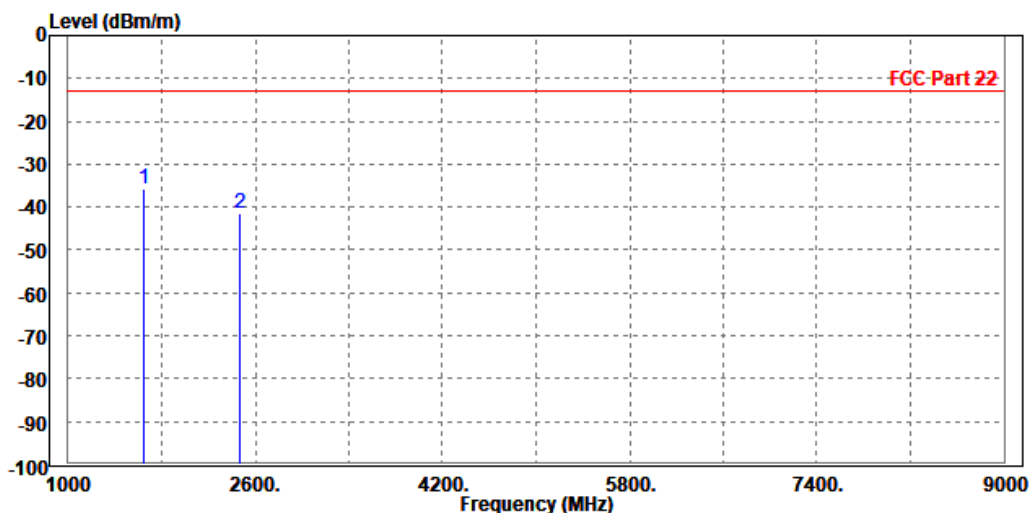
MODE	TX channel 128	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1648.000	-36.62	-40.28	-13.00	-23.62	3.66	Peak	Horizontal
2		2472.000	-38.73	-44.75	-13.00	-25.73	6.02	Peak	Horizontal



MODE	TX channel 128	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

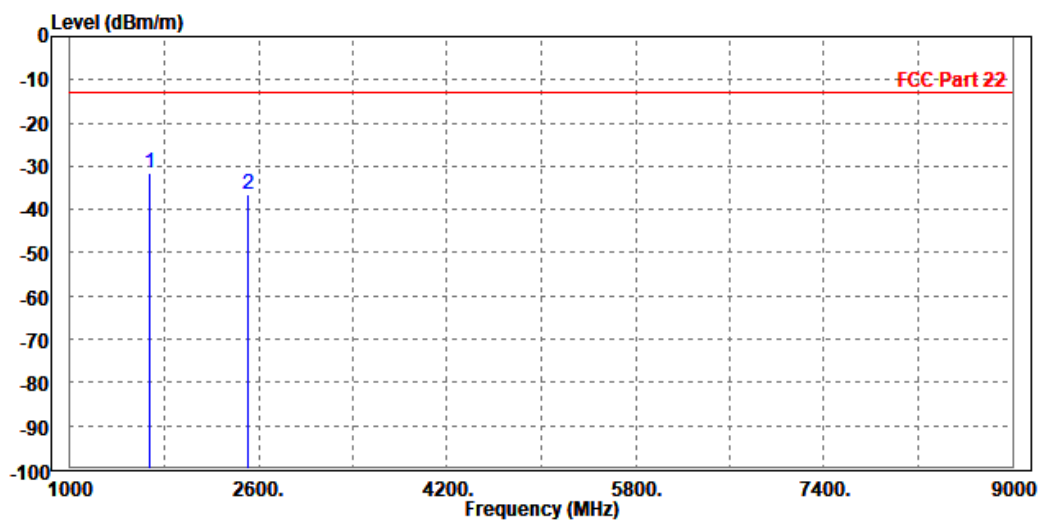
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1648.000	-35.78	-39.17	-13.00	-22.78	3.39	Peak	Vertical
2	2472.000	-41.63	-47.31	-13.00	-28.63	5.68	Peak	Vertical



CH 189:

MODE	TX channel 189	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	1672.000	-31.72	-35.45	-13.00	-18.72	3.73	Peak	Horizontal
2	2512.000	-36.39	-42.54	-13.00	-23.39	6.15	Peak	Horizontal



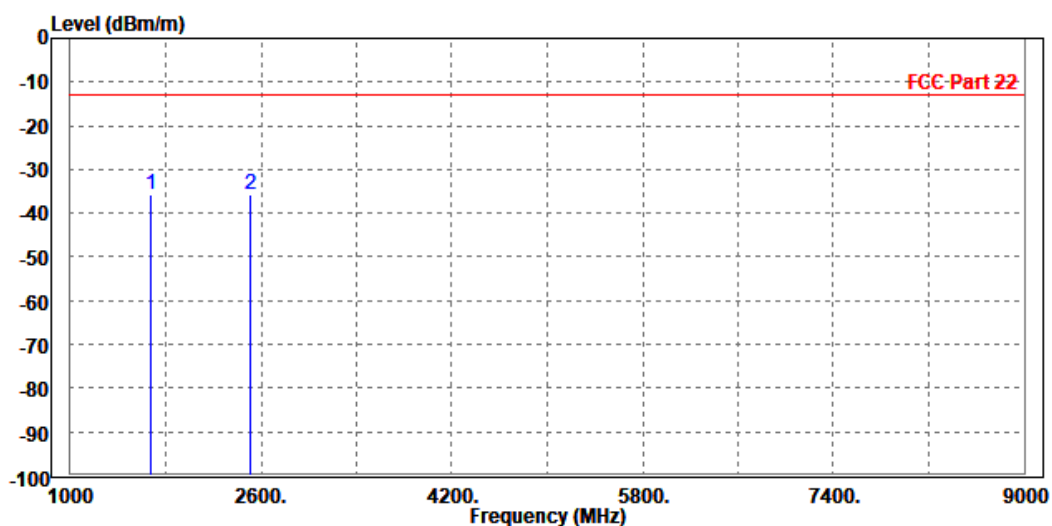


BUREAU
VERITAS

Test Report No.: W7L-P23120020RF01

MODE	TX channel 189	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	1672.000	-35.80	-39.23	-13.00	-22.80	3.43	Peak	Vertical
2		2509.200	-35.89	-41.73	-13.00	-22.89	5.84	Peak	Vertical

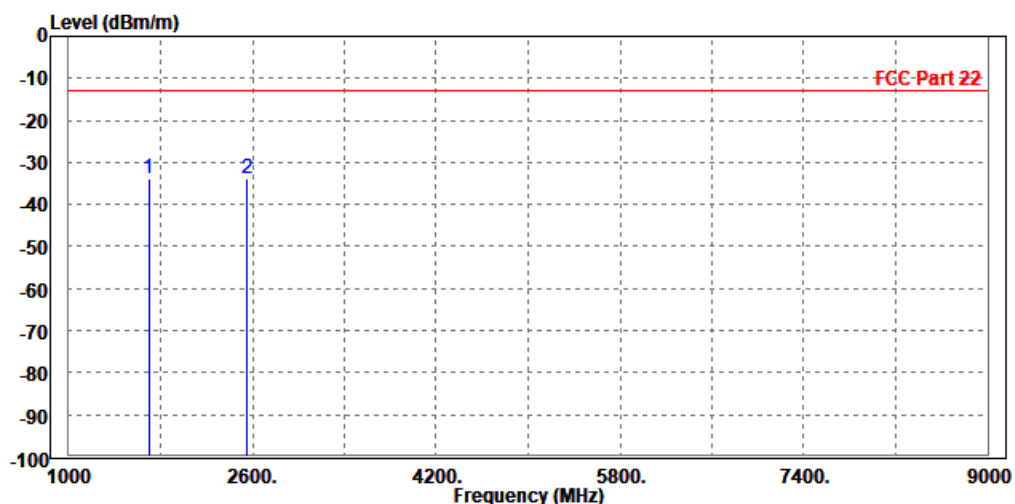




CH 251:

MODE	TX channel 251	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

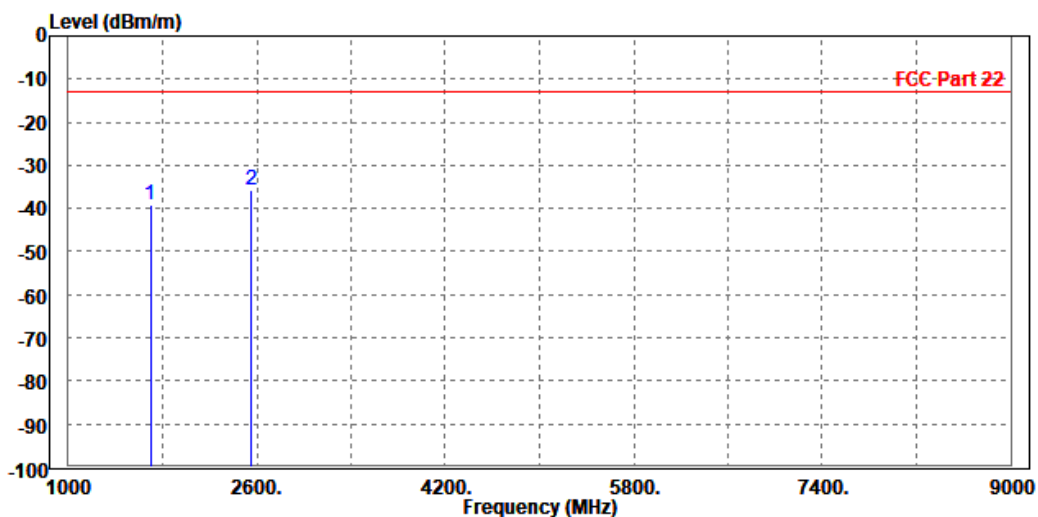
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1696.000	-33.99	-37.80	-13.00	-20.99	3.81	Peak	Horizontal
2 PP	2546.400	-33.95	-40.25	-13.00	-20.95	6.30	Peak	Horizontal





MODE	TX channel 251	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	1696.000	-39.20	-42.67	-13.00	-26.20	3.47	Peak	Vertical
2 PP	2546.400	-35.59	-41.65	-13.00	-22.59	6.06	Peak	Vertical

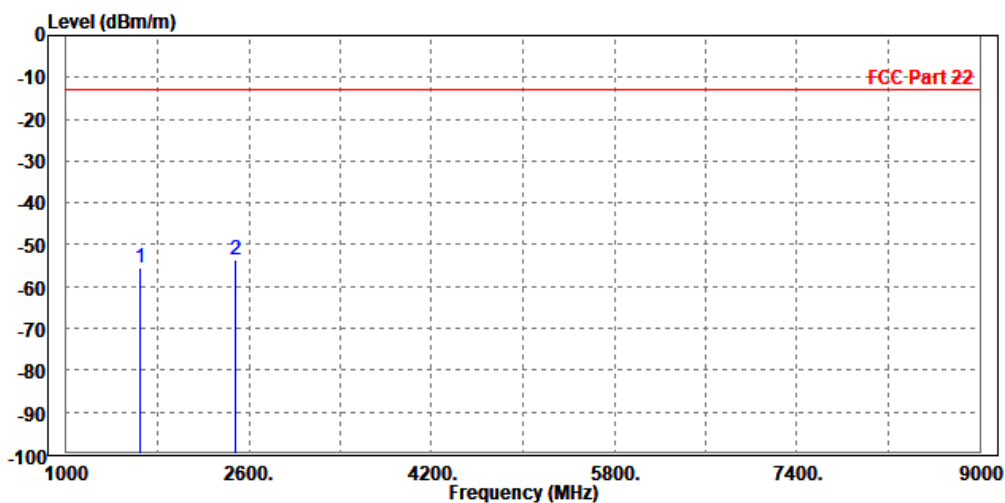


WCDMA Band V:

CH 4132:

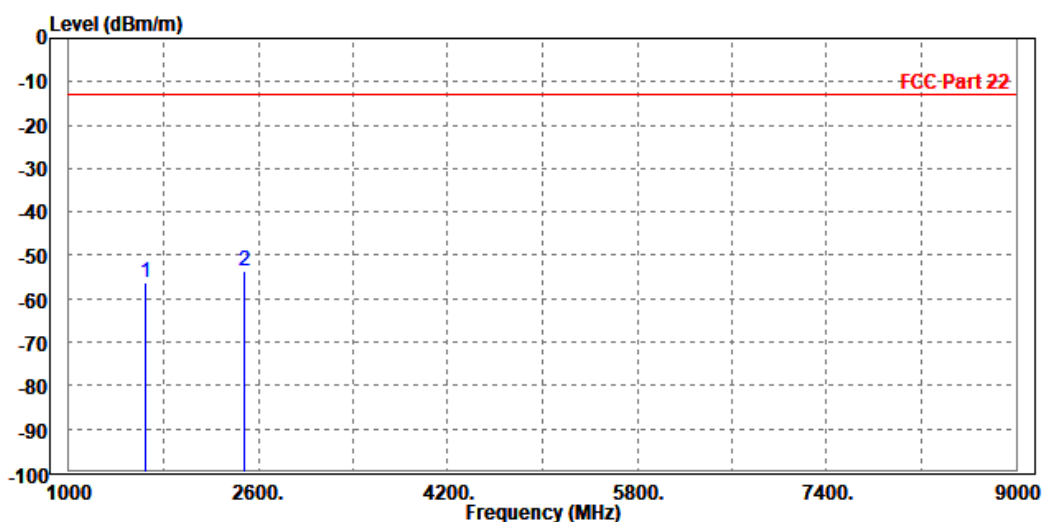
MODE	TX channel 4132	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1652.800	-55.63	-59.30	-13.00	-42.63	3.67	Peak	Horizontal
2 PP	2480.000	-53.42	-59.47	-13.00	-40.42	6.05	Peak	Horizontal



MODE	TX channel 4132	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

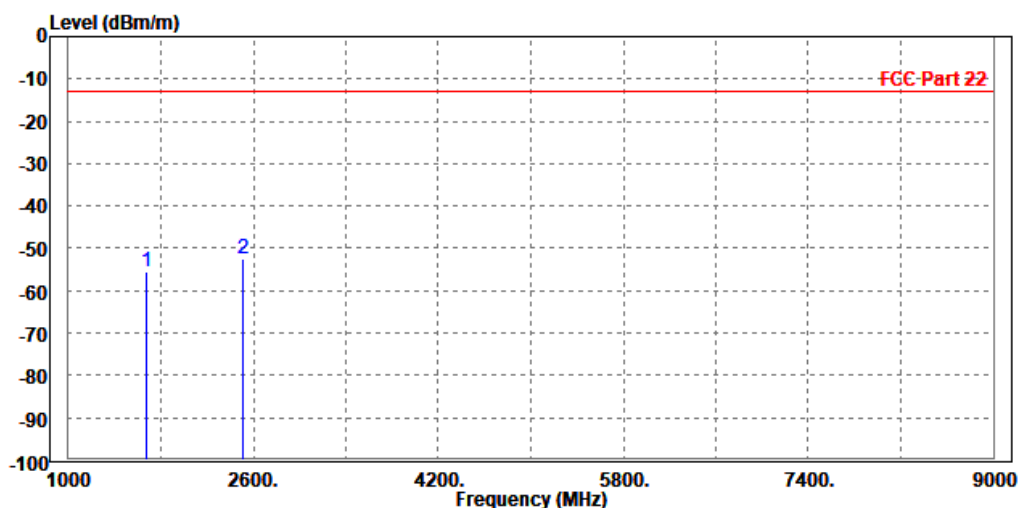
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1652.800	-56.31	-59.71	-13.00	-43.31	3.40	Peak	Vertical
2 PP	2479.200	-53.58	-59.29	-13.00	-40.58	5.71	Peak	Vertical



CH 4182:

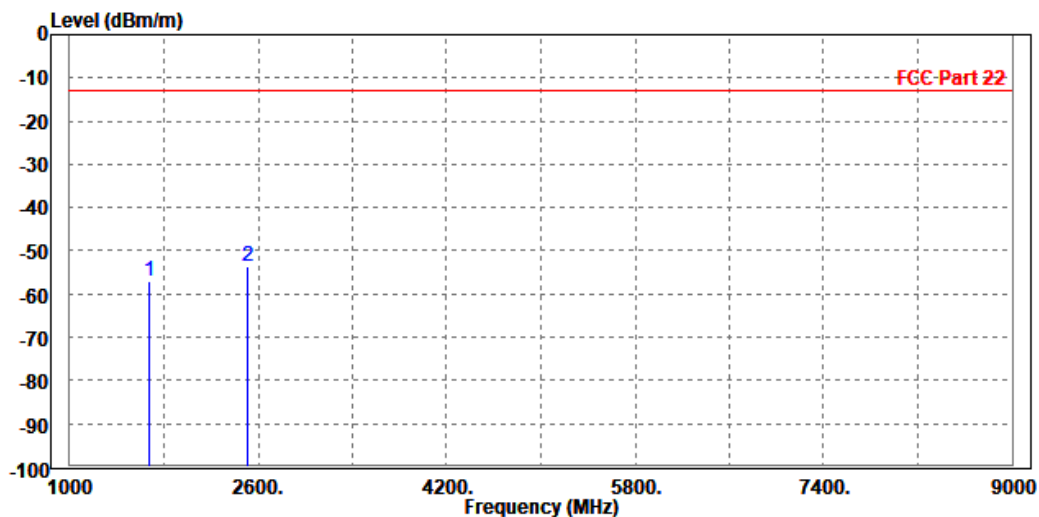
MODE	TX channel 4182	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1672.000	-55.44	-59.17	-13.00	-42.44	3.73	Peak	Horizontal
2 PP	2509.200	-52.59	-58.73	-13.00	-39.59	6.14	Peak	Horizontal



MODE	TX channel 4182	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

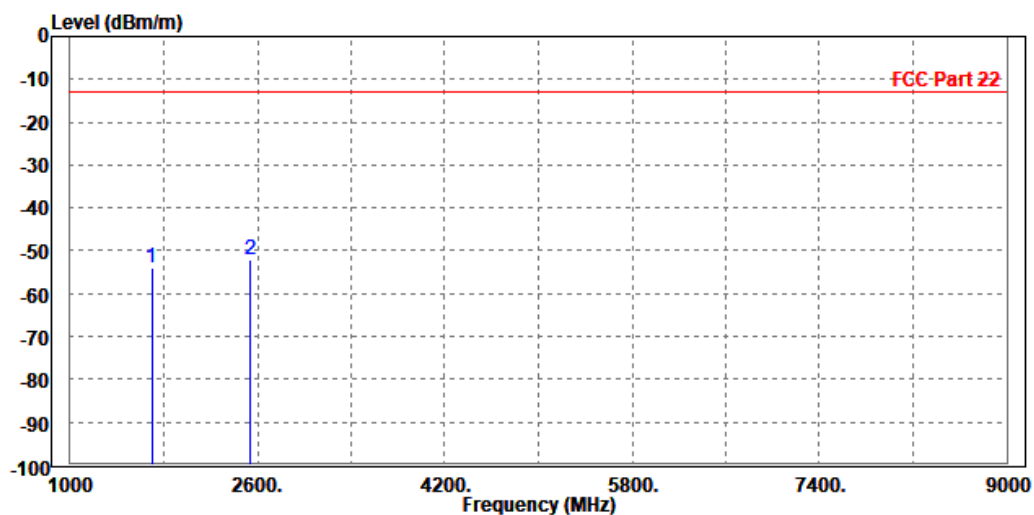
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1672.800	-56.85	-60.28	-13.00	-43.85	3.43	Peak	Vertical
2 PP	2512.000	-53.75	-59.60	-13.00	-40.75	5.85	Peak	Vertical



CH 4233:

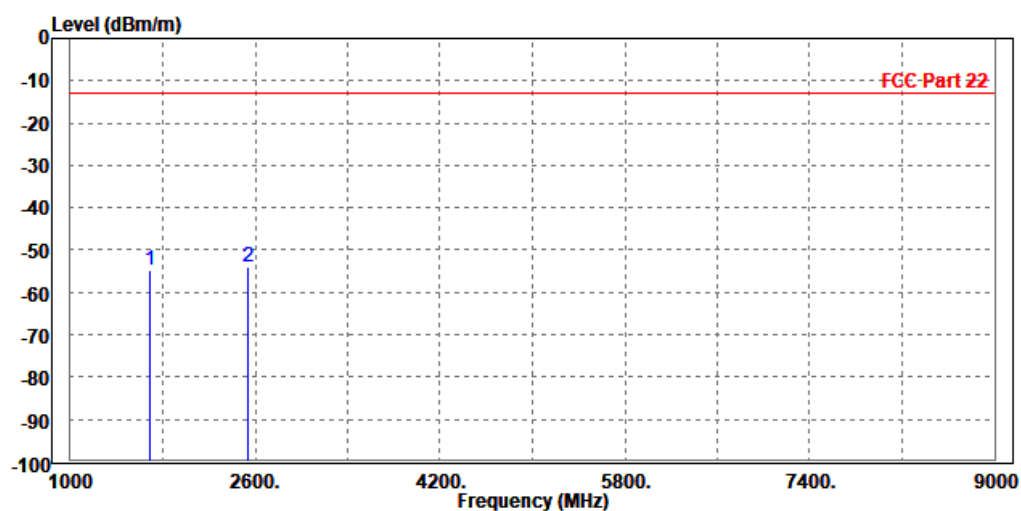
MODE	TX channel 4233	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1696.000	-54.16	-57.97	-13.00	-41.16	3.81	Peak	Horizontal
2 PP	2539.800	-52.22	-58.49	-13.00	-39.22	6.27	Peak	Horizontal



MODE	TX channel 4233	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	1693.200	-54.88	-58.35	-13.00	-41.88	3.47	Peak	Vertical
2 PP	2539.800	-54.05	-60.07	-13.00	-41.05	6.02	Peak	Vertical





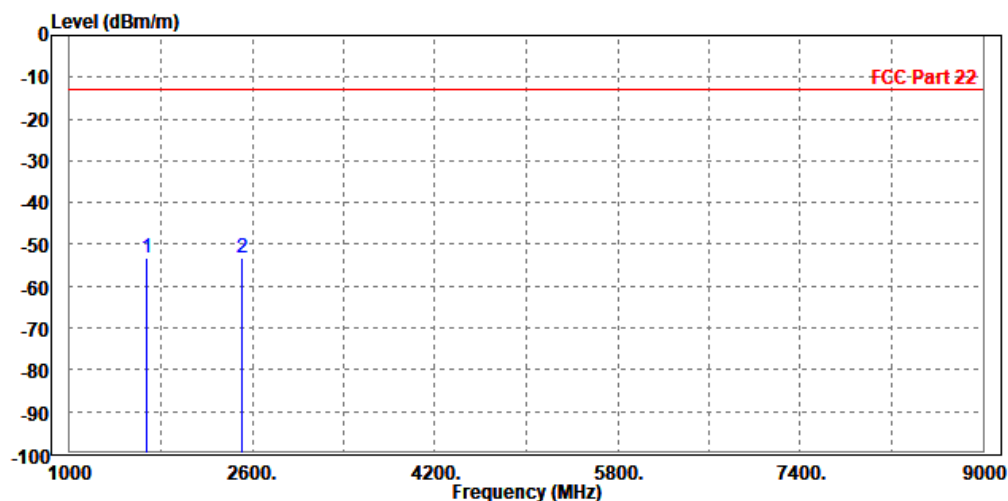
LTE Band 26

CHANNEL BANDWIDTH: 1.4MHz / QPSK

CH26915

MODE	TX channel 26915	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	1672.000	-53.25	-56.98	-13.00	-40.25	3.73	Peak	Horizontal
2		2509.500	-53.35	-59.49	-13.00	-40.35	6.14	Peak	Horizontal



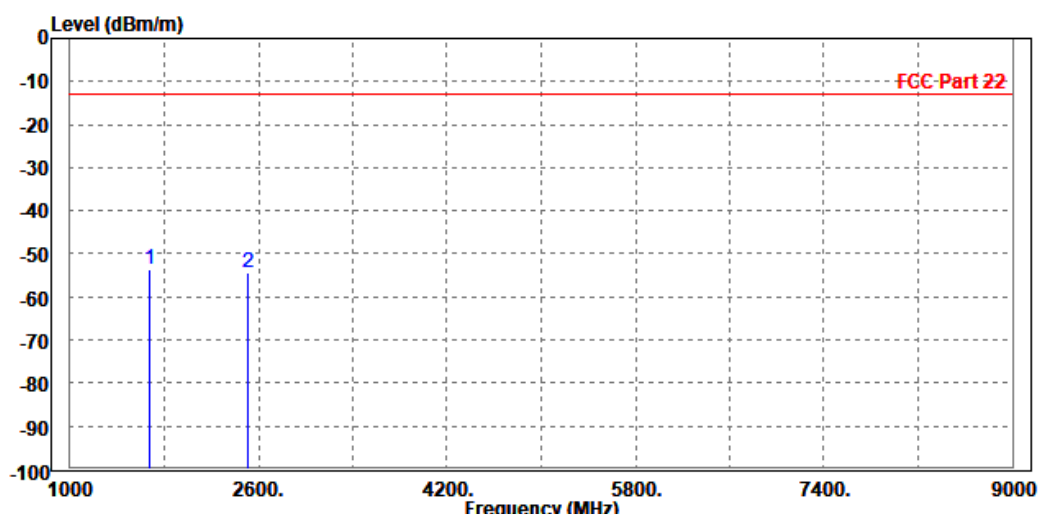


**BUREAU
VERITAS**

Test Report No.: W7L-P23120020RF01

MODE	TX channel 26915	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

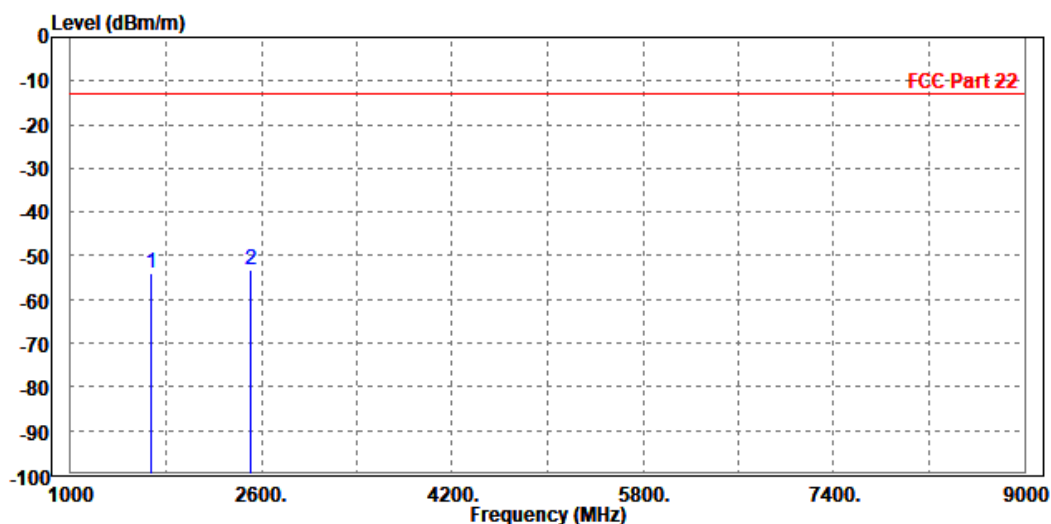
		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1673.000	-53.74	-57.17	-13.00	-40.74	3.43	Peak	Vertical
2		2512.000	-54.22	-60.07	-13.00	-41.22	5.85	Peak	Vertical



CHANNEL BANDWIDTH: 3MHz / QPSK

MODE	TX channel 26915	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

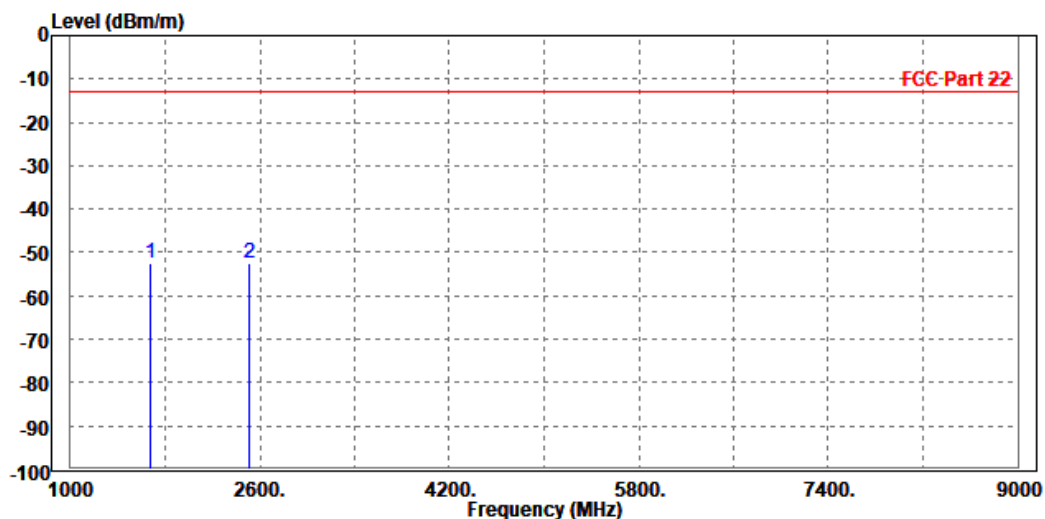
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1673.000	-54.07	-57.81	-13.00	-41.07	3.74	Peak	Horizontal
2 PP	2512.000	-53.20	-59.35	-13.00	-40.20	6.15	Peak	Horizontal





MODE	TX channel 26915	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	1672.000	-52.51	-55.94	-13.00	-39.51	3.43	Peak	Vertical
2 PP	2509.500	-52.38	-58.22	-13.00	-39.38	5.84	Peak	Vertical

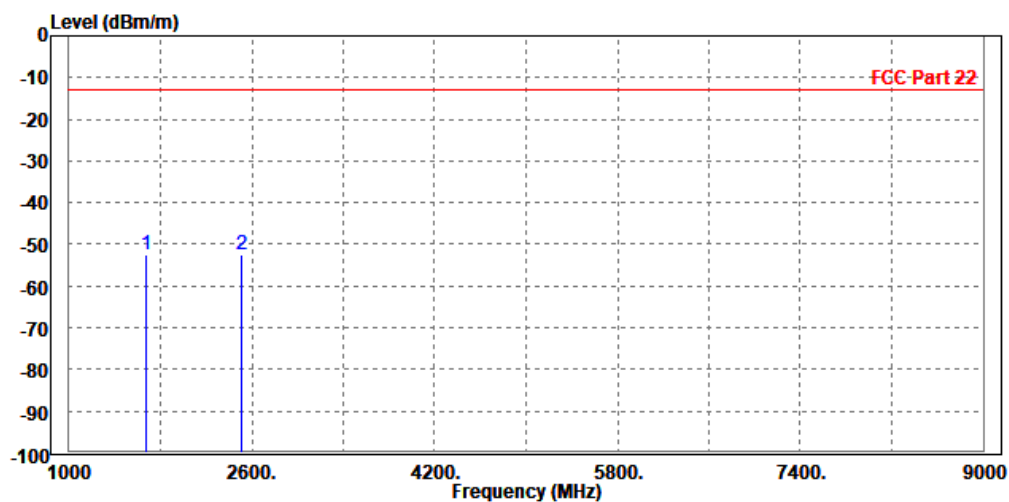




CHANNEL BANDWIDTH: 5MHz / QPSK

MODE	TX channel 26915	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	1672.000	-52.53	-56.26	-13.00	-39.53	3.73	Peak	Horizontal
2	2509.500	-52.54	-58.68	-13.00	-39.54	6.14	Peak	Horizontal



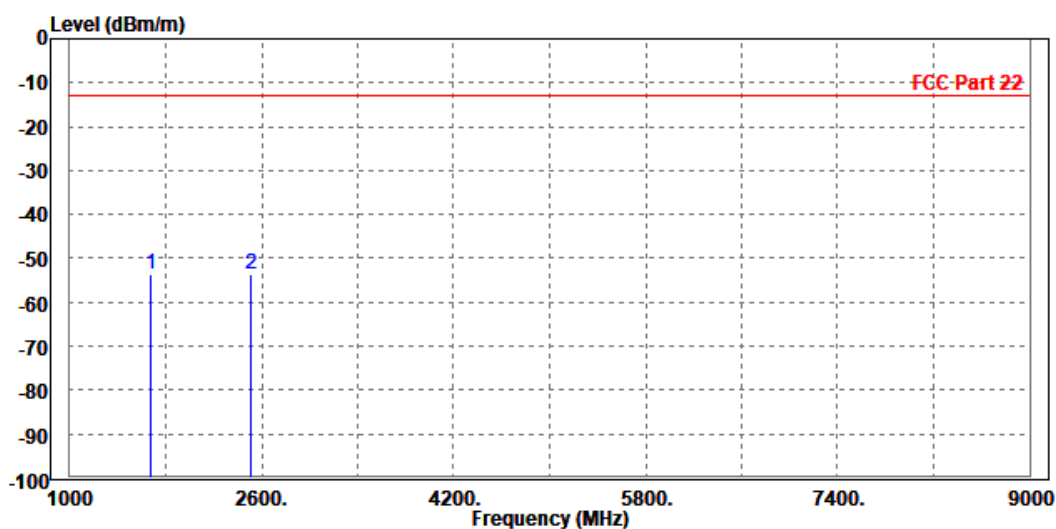


**BUREAU
VERITAS**

Test Report No.: W7L-P23120020RF01

MODE	TX channel 26915	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

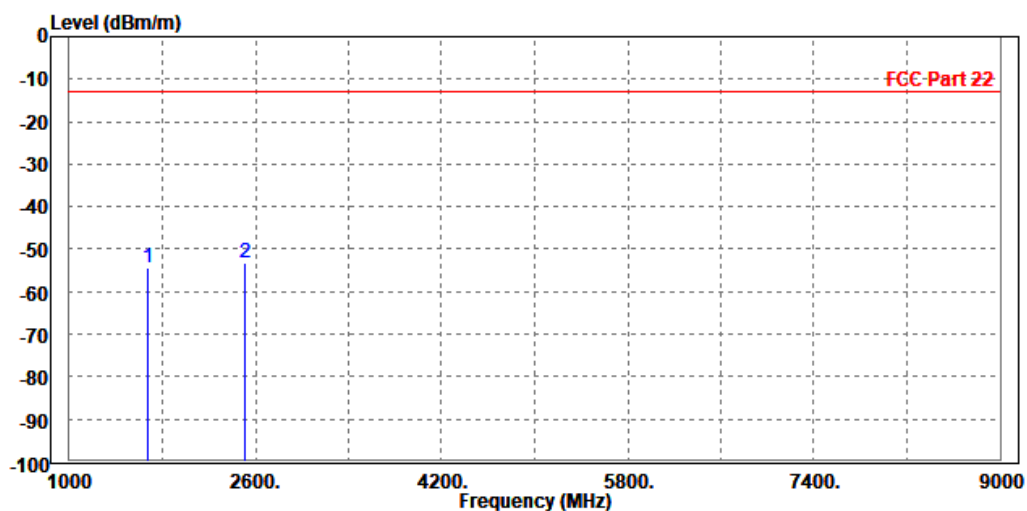
			Read	Limit	Over			
	Freq	Level	Level	Line	Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 1673.000	-53.71	-57.14	-13.00	-40.71	3.43	Peak	Vertical
2	2512.000	-53.77	-59.62	-13.00	-40.77	5.85	Peak	Vertical



CHANNEL BANDWIDTH: 10MHz / QPSK

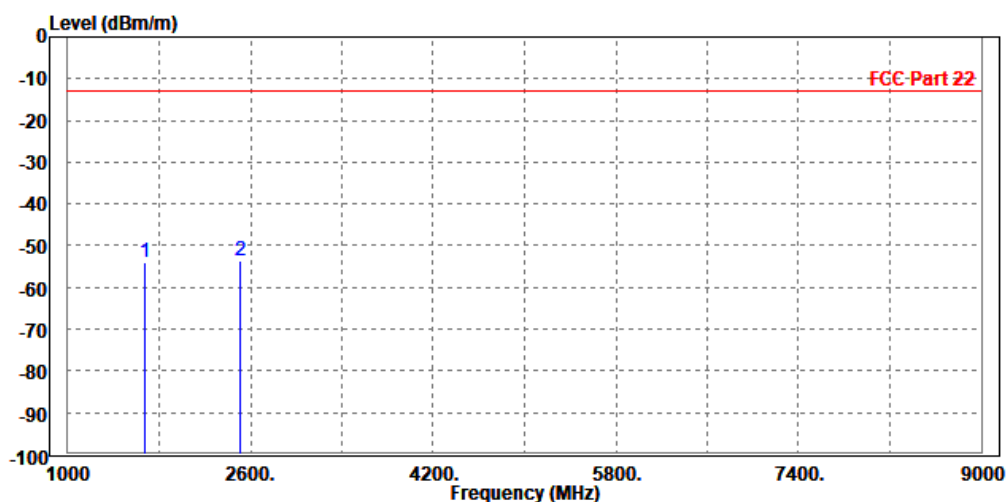
MODE	TX channel 26915	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1673.000	-54.54	-58.28	-13.00	-41.54	3.74	Peak	Horizontal
2 PP	2512.000	-53.33	-59.48	-13.00	-40.33	6.15	Peak	Horizontal



MODE	TX channel 26915	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	1672.000	-53.95	-57.38	-13.00	-40.95	3.43	Peak	Vertical
2 PP	2509.500	-53.62	-59.46	-13.00	-40.62	5.84	Peak	Vertical

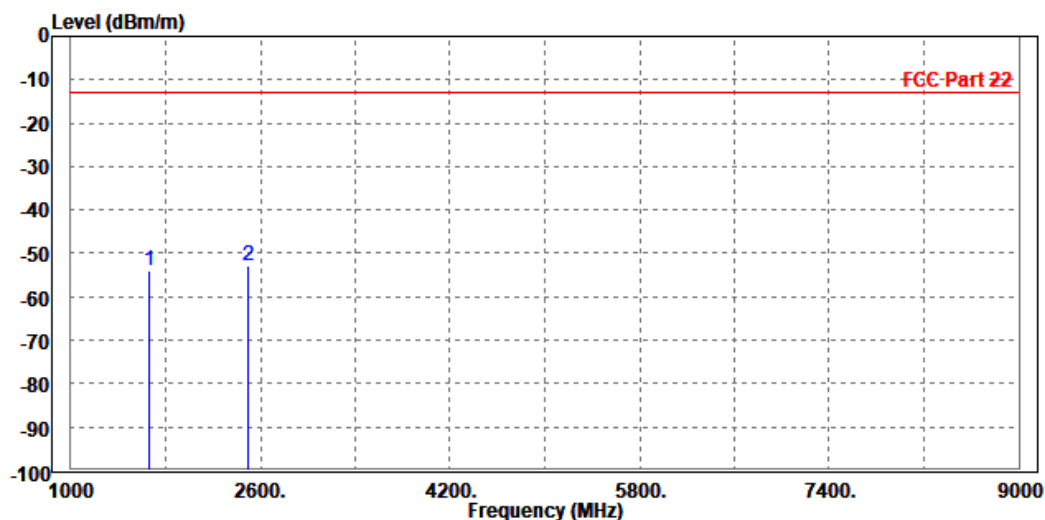


CHANNEL BANDWIDTH: 15MHz / QPSK

CH26865

MODE	TX channel 26865	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	1663.000	-54.14	-57.85	-13.00	-41.14	3.71	Peak	Horizontal
2 PP	2496.000	-52.86	-58.95	-13.00	-39.86	6.09	Peak	Horizontal



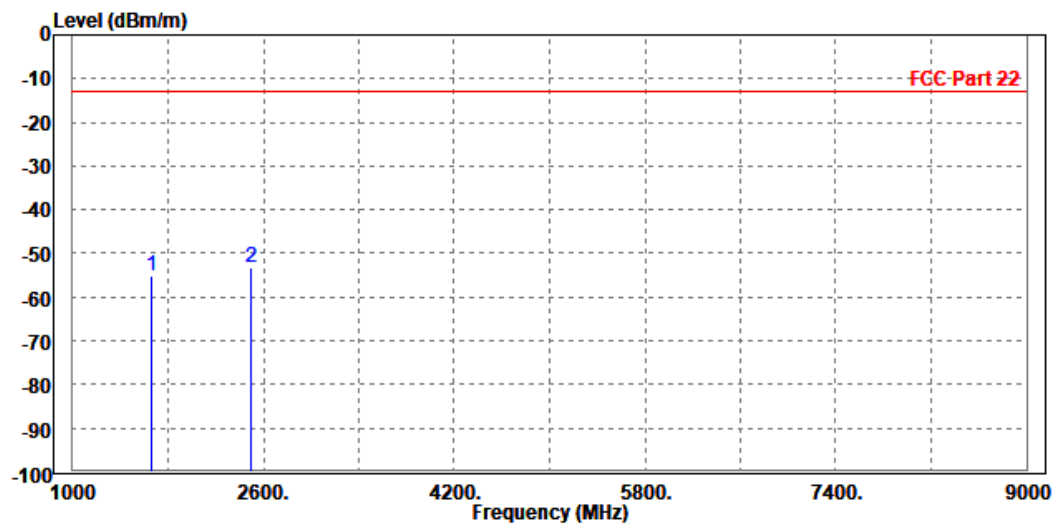


**BUREAU
VERITAS**

Test Report No.: W7L-P23120020RF01

MODE	TX channel 26865	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

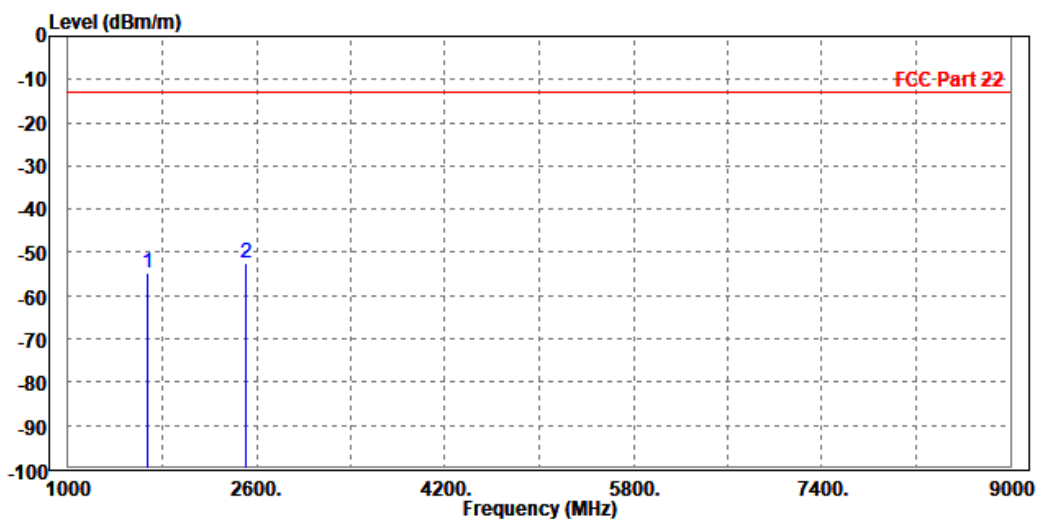
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1664.000	-54.95	-58.37	-13.00	-41.95	3.42	Peak	Vertical
2 PP	2494.500	-53.07	-58.83	-13.00	-40.07	5.76	Peak	Vertical



CH26915

MODE	TX channel 26915	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	1673.000	-54.59	-58.33	-13.00	-41.59	3.74	Peak	Horizontal
2 PP	2512.000	-52.34	-58.49	-13.00	-39.34	6.15	Peak	Horizontal



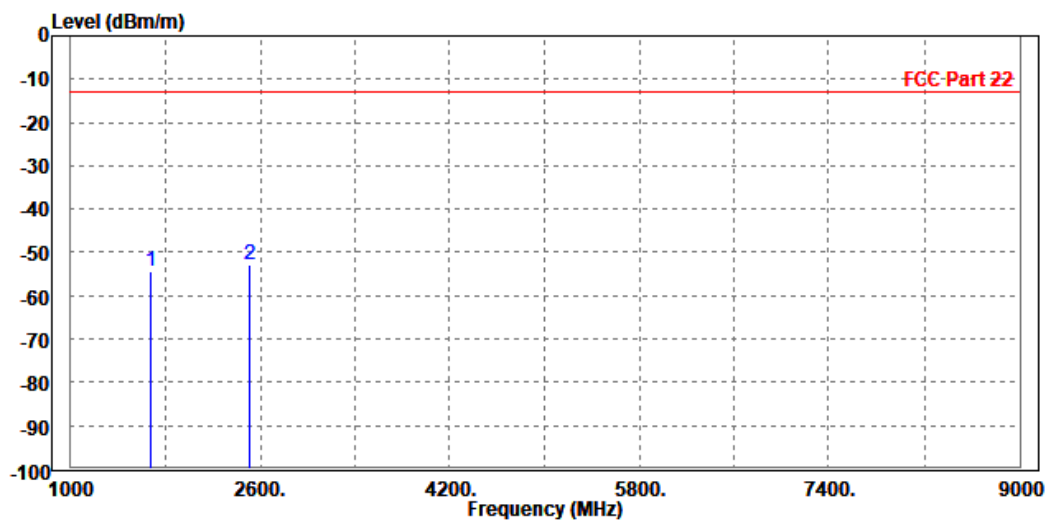


BUREAU
VERITAS

Test Report No.: W7L-P23120020RF01

MODE	TX channel 26915	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	1672.000	-54.33	-57.76	-13.00	-41.33	3.43	Peak	Vertical
2 PP	2509.500	-52.75	-58.59	-13.00	-39.75	5.84	Peak	Vertical





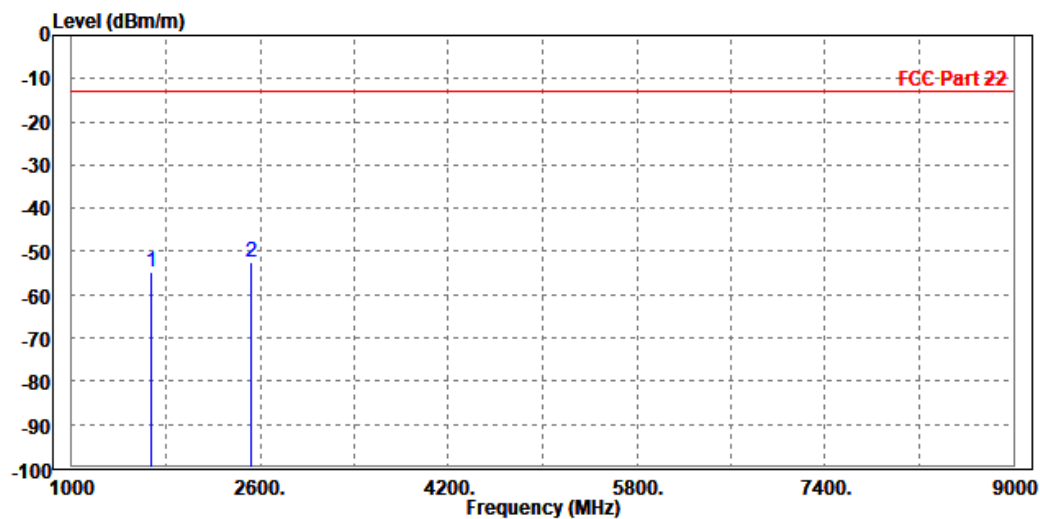
**BUREAU
VERITAS**

Test Report No.: W7L-P23120020RF01

CH26965

MODE	TX channel 26965	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

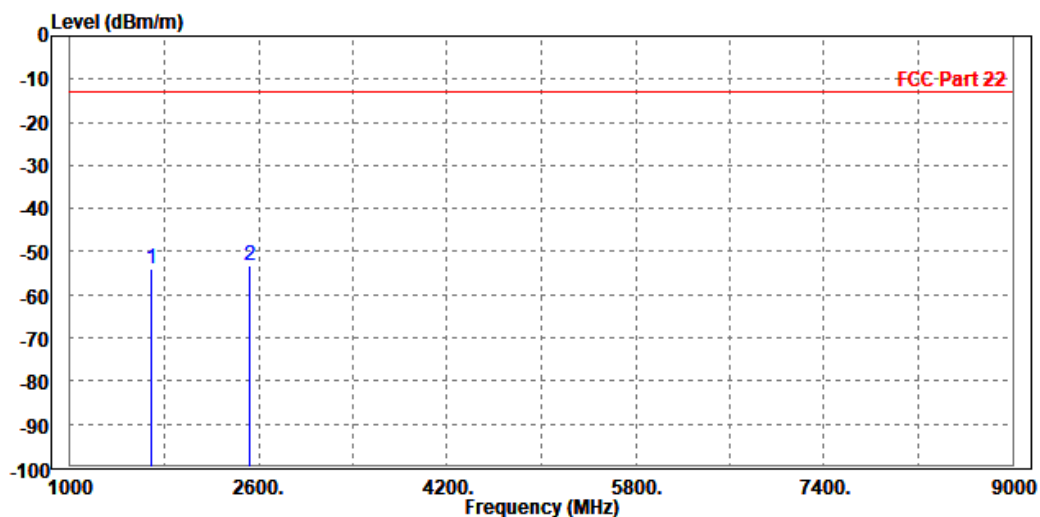
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1680.000	-54.62	-58.38	-13.00	-41.62	3.76	Peak	Horizontal
2 PP	2524.500	-52.54	-58.75	-13.00	-39.54	6.21	Peak	Horizontal





MODE	TX channel 26965	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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	1683.000	-54.00	-57.45	-13.00	-41.00	3.45	Peak	Vertical
2 PP	2528.000	-53.27	-59.22	-13.00	-40.27	5.95	Peak	Vertical

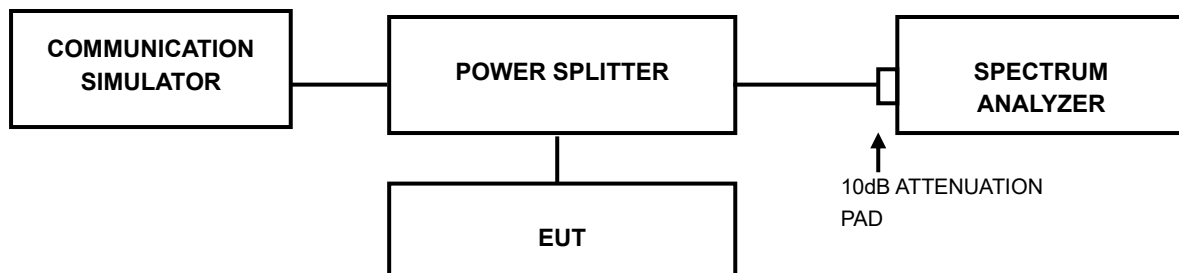


3.7 PEAK TO AVERAGE RATIO

3.7.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT

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

3.7.2 TEST SETUP



3.7.3 TEST PROCEDURES

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



Test Report No.: W7L-P23120020RF01

3.7.4 TEST RESULTS

Please Refer to Appendix Of this test report.



Test Report No.: W7L-P23120020RF01

4 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

5 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.



Test Report No.: W7L-P23120020RF01

6 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.



Test Report No.: W7L-P23120020RF01

7 APPENDIX:

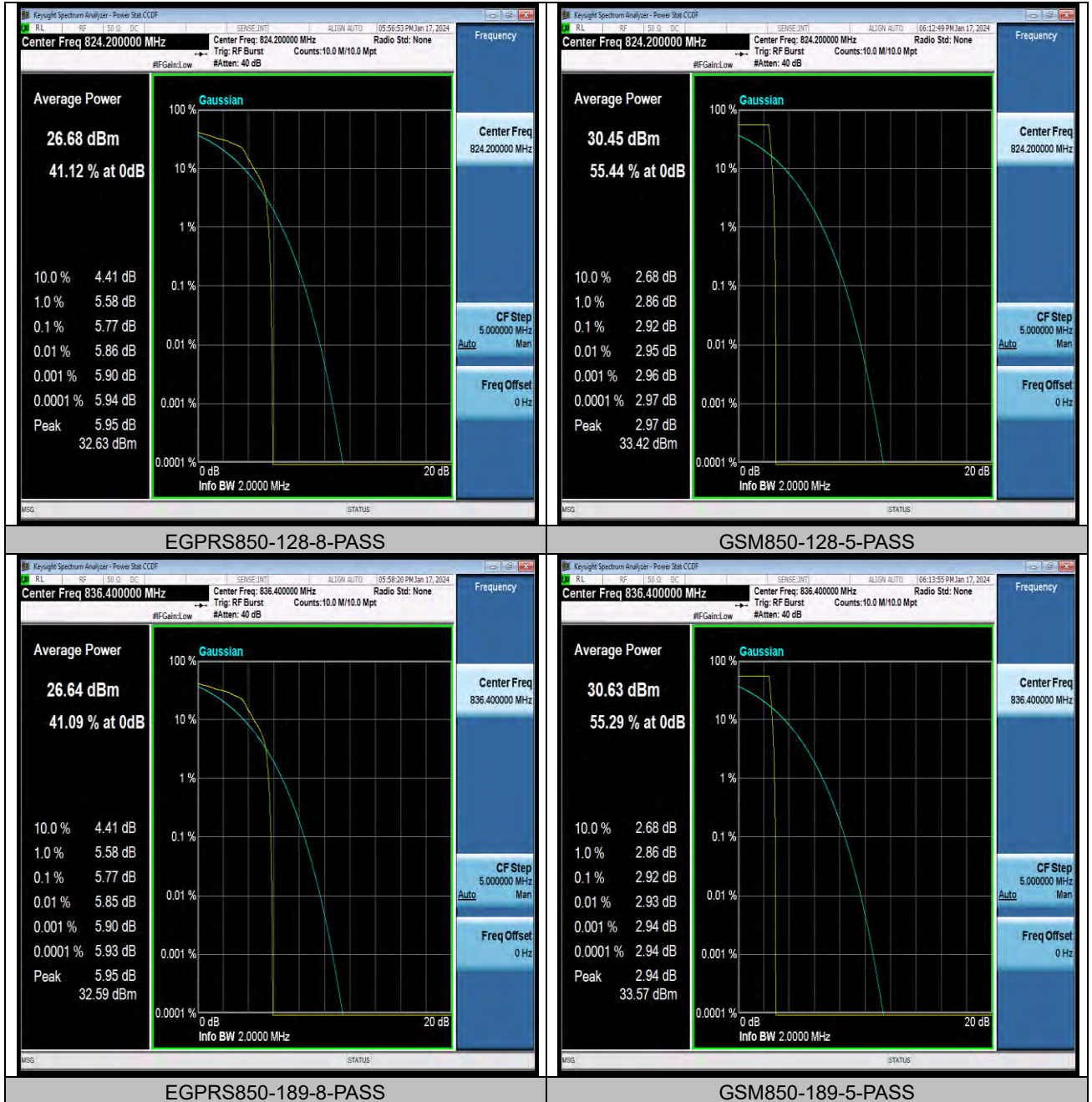
GSM850

PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

Band	Channel	Result(dB)	Limit(dB)	Verdict
EGPRS850	128	5.77	13	PASS
GSM850	128	2.92	13	PASS
EGPRS850	189	5.77	13	PASS
GSM850	189	2.92	13	PASS
EGPRS850	251	5.73	13	PASS
GSM850	251	2.90	13	PASS

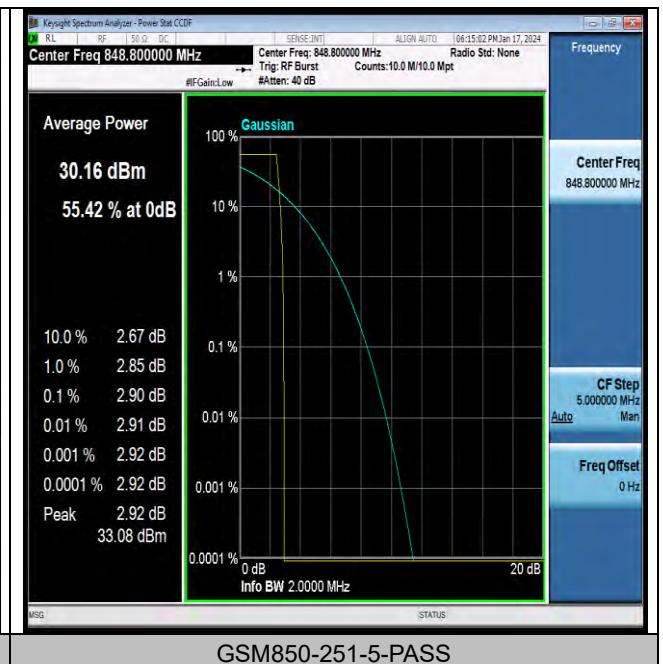
Test Graphs





BUREAU
VERITAS

Test Report No.: W7L-P23120020RF01



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

Tel: +86 755 8869 6566

Fax: +86 755 8869 6577

Email:

customerservice.sw@bureauveritas.com



26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

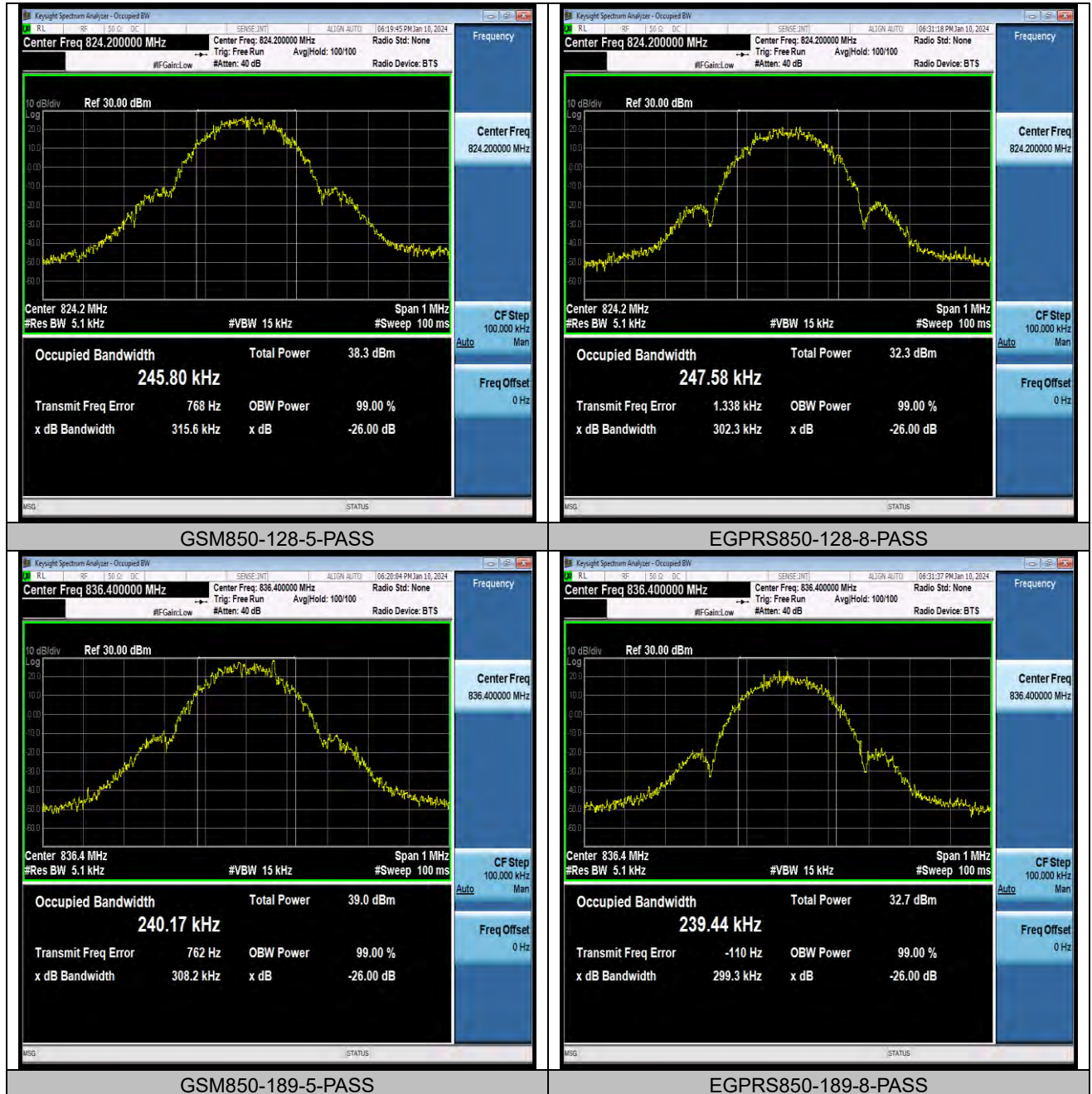
Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	0.24580	0.3156	---	PASS
EGPRS850	128	0.24758	0.3023	---	PASS
GSM850	189	0.24017	0.3082	---	PASS
EGPRS850	189	0.23944	0.2993	---	PASS
GSM850	251	0.24486	0.3078	---	PASS
EGPRS850	251	0.24130	0.3057	---	PASS



BUREAU
VERITAS

Test Report No.: W7L-P23120020RF01

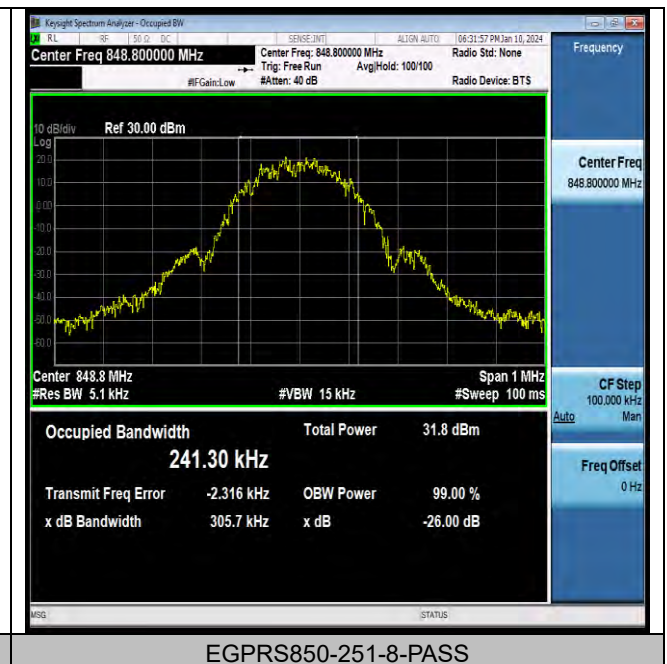
Test Graphs





BUREAU
VERITAS

Test Report No.: W7L-P23120020RF01



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

Tel: +86 755 8869 6566
Fax: +86 755 8869 6577
Email:
customerservice.sw@bureauveritas.com



Test Report No.: W7L-P23120020RF01

BAND EDGE

Test Result

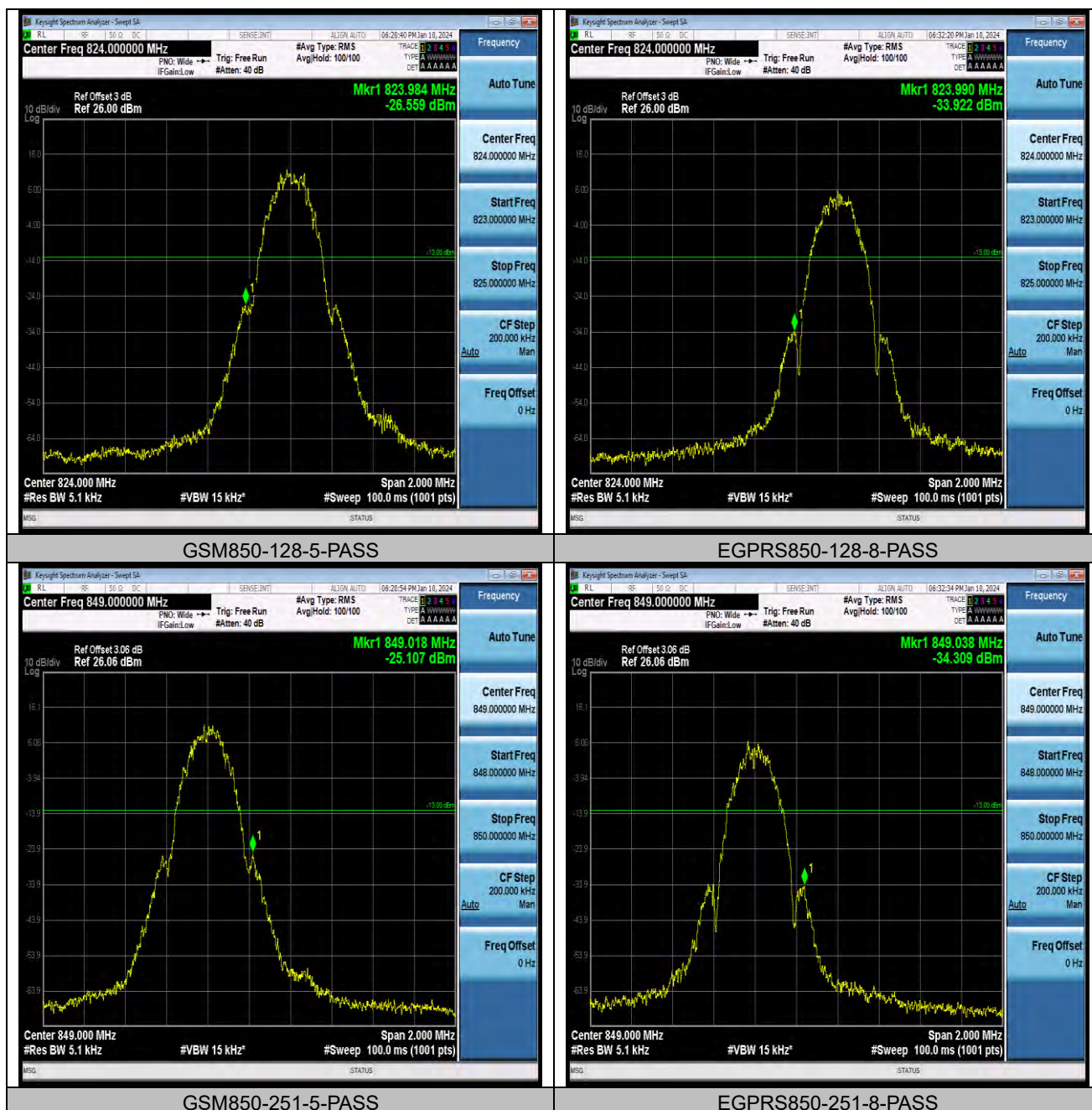
Band	Channel	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	823.98	-26.56	-13	PASS
EGPRS850	128	823.99	-33.92	-13	PASS
GSM850	251	849.02	-25.11	-13	PASS
EGPRS850	251	849.04	-34.31	-13	PASS



BUREAU
VERITAS

Test Report No.: W7L-P23120020RF01

Test Graphs



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

Tel: +86 755 8869 6566
Fax: +86 755 8869 6577
Email:
customerservice.sw@bureauveritas.com



CONDUCTED SPURIOUS EMISSION

Test Result

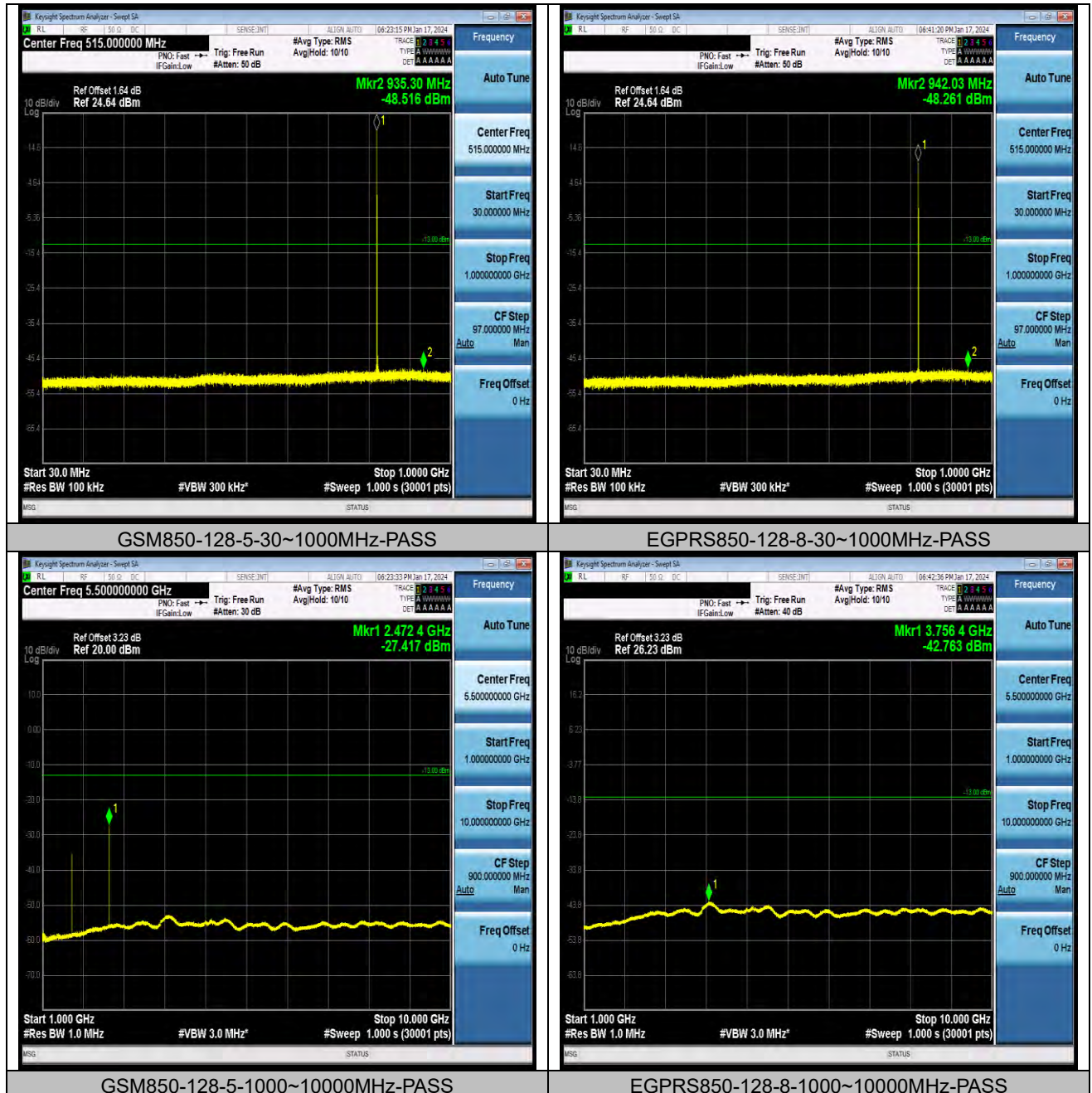
Band	Channel	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	30~1000MHz	935.3	-48.52	-13	PASS
EGPRS850	128	30~1000MHz	942.03	-48.26	-13	PASS
GSM850	128	1000~10000MHz	2472.4	-27.42	-13	PASS
EGPRS850	128	1000~10000MHz	3756.4	-42.76	-13	PASS
EGPRS850	189	30~1000MHz	942.96	-48.78	-13	PASS
GSM850	189	30~1000MHz	953.21	-48.46	-13	PASS
GSM850	189	1000~10000MHz	2509.3	-25.67	-13	PASS
EGPRS850	189	1000~10000MHz	3816.1	-43	-13	PASS
EGPRS850	251	30~1000MHz	731.31	-48.64	-13	PASS
GSM850	251	30~1000MHz	950.47	-48.19	-13	PASS
GSM850	251	1000~10000MHz	2546.2	-29.22	-13	PASS
EGPRS850	251	1000~10000MHz	3774.7	-42.95	-13	PASS



BUREAU
VERITAS

Test Report No.: W7L-P23120020RF01

Test Graphs



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

Tel: +86 755 8869 6566

Fax: +86 755 8869 6577

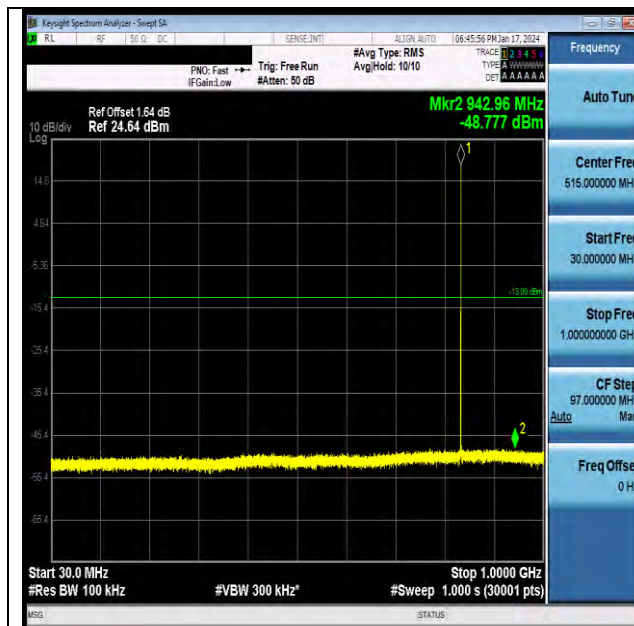
Email:

customerservice.sw@bureauveritas.com

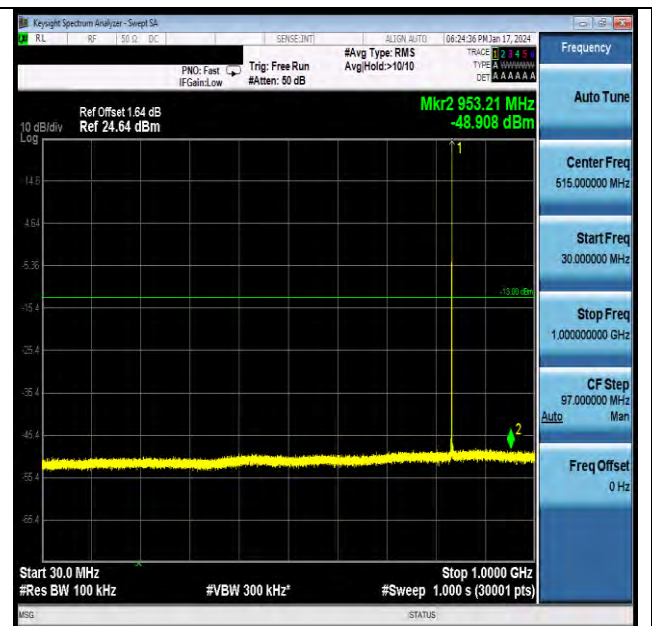


BUREAU
VERITAS

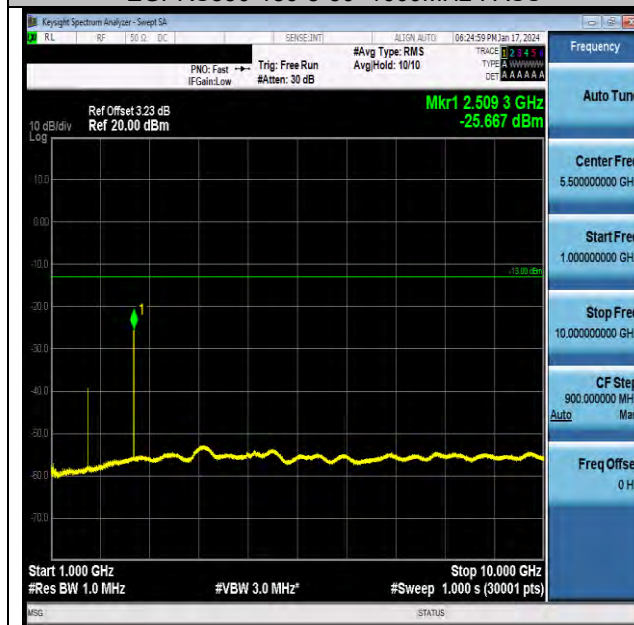
Test Report No.: W7L-P23120020RF01



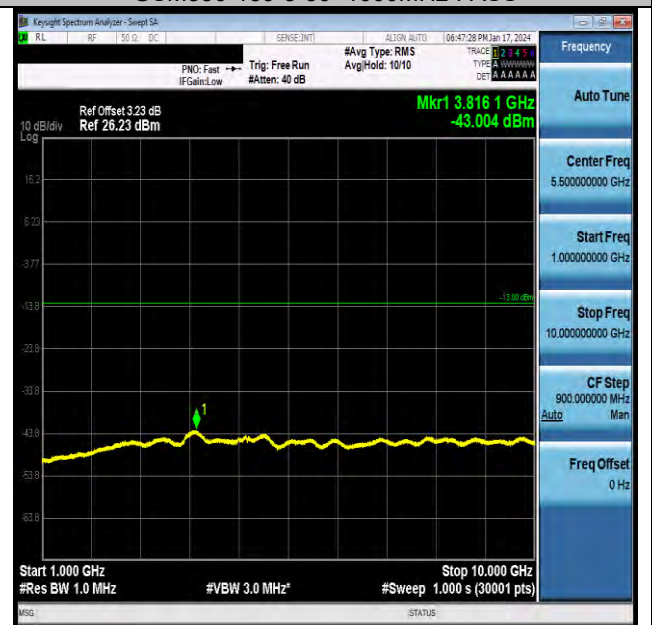
EGPRS850-189-8-30~1000MHz-PASS



GSM850-189-5-30~1000MHz-PASS



GSM850-189-5-1000~10000MHz-PASS



EGPRS850-189-8-1000~10000MHz-PASS

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

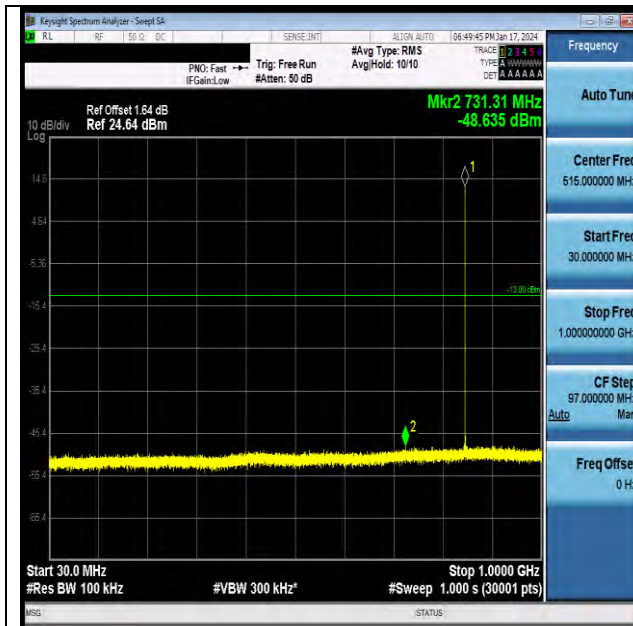
Room B37, Warehouse A5, No.3 Chiwan 4th Road,
Zhaoshang Street, Nanshan District Shenzhen,
Guangdong, People's Republic of China

Tel: +86 755 8869 6566
Fax: +86 755 8869 6577
Email:
customerservice.sw@bureauveritas.com

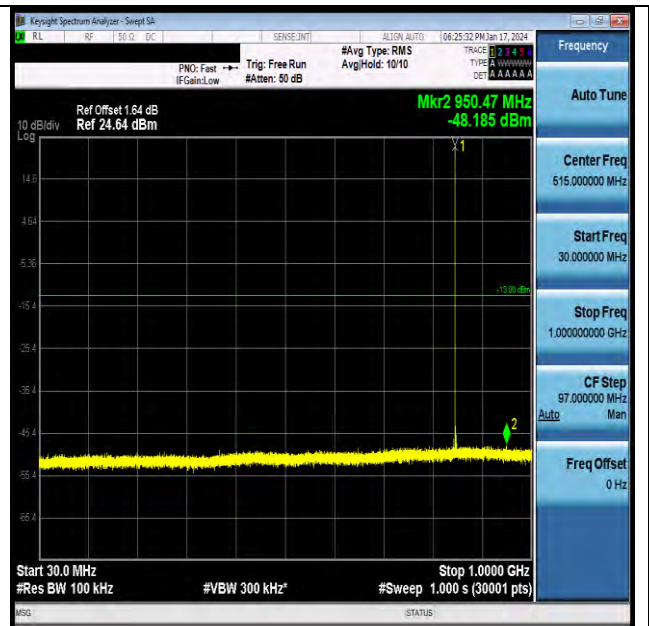


BUREAU
VERITAS

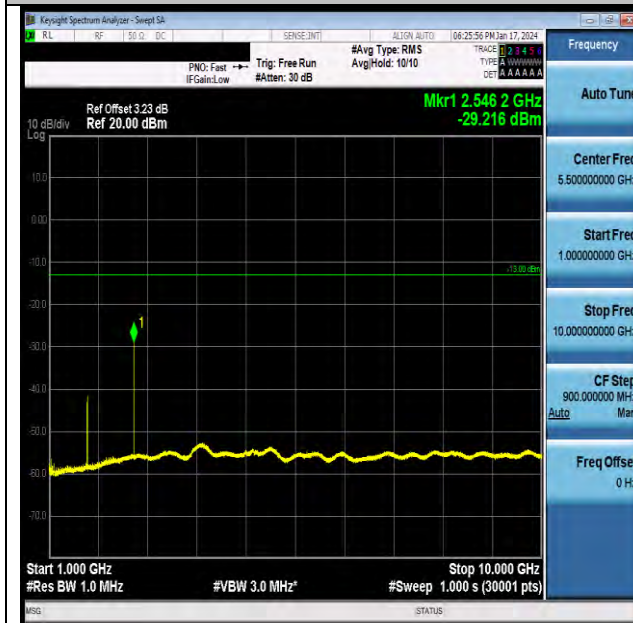
Test Report No.: W7L-P23120020RF01



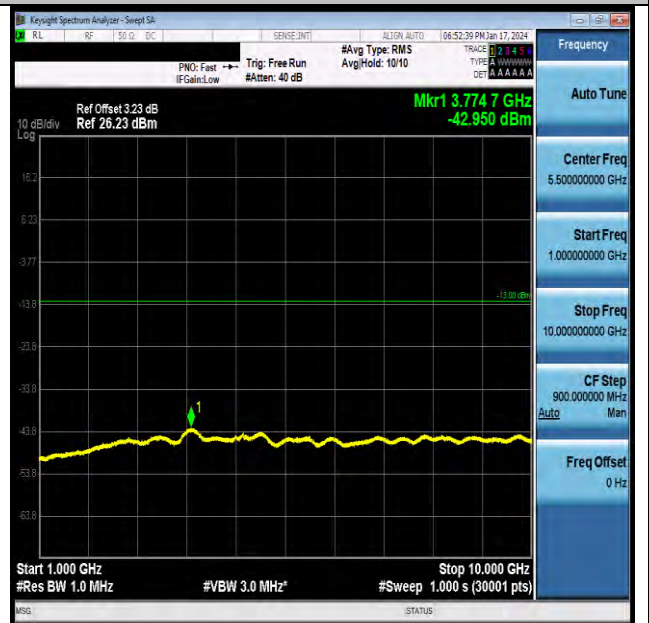
EGPRS850-251-8-30~1000MHz-PASS



GSM850-251-5-30~1000MHz-PASS



GSM850-251-5-1000~10000MHz-PASS



EGPRS850-251-8-1000~10000MHz-PASS

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

Tel: +86 755 8869 6566
Fax: +86 755 8869 6577
Email:
customerservice.sw@bureauveritas.com

FREQUENCY STABILITY

Test Result

Voltage							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	VN	NT	16.50	0.020019	±2.5	PASS
GSM850	128	VL	NT	13.79	0.016731	±2.5	PASS
GSM850	128	VH	NT	16.18	0.019631	±2.5	PASS
EGPRS850	128	VN	NT	33.25	0.040342	±2.5	PASS
EGPRS850	128	VL	NT	32.38	0.039287	±2.5	PASS
EGPRS850	128	VH	NT	34.74	0.042150	±2.5	PASS
GSM850	189	VN	NT	18.50	0.022119	±2.5	PASS
GSM850	189	VL	NT	21.28	0.025442	±2.5	PASS
GSM850	189	VH	NT	20.05	0.023972	±2.5	PASS
EGPRS850	189	VN	NT	31.54	0.037709	±2.5	PASS
EGPRS850	189	VL	NT	31.19	0.037291	±2.5	PASS
EGPRS850	189	VH	NT	34.38	0.041105	±2.5	PASS
GSM850	251	VN	NT	24.05	0.028334	±2.5	PASS
GSM850	251	VL	NT	26.31	0.030997	±2.5	PASS
GSM850	251	VH	NT	22.12	0.026060	±2.5	PASS
EGPRS850	251	VN	NT	34.87	0.041082	±2.5	PASS
EGPRS850	251	VL	NT	33.84	0.039868	±2.5	PASS
EGPRS850	251	VH	NT	32.87	0.038725	±2.5	PASS

Temperature							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	NV	-30	16.72	0.020286	±2.5	PASS
GSM850	128	NV	-20	16.98	0.020602	±2.5	PASS
GSM850	128	NV	-10	20.31	0.024642	±2.5	PASS
GSM850	128	NV	0	18.63	0.022604	±2.5	PASS
GSM850	128	NV	10	17.47	0.021196	±2.5	PASS
GSM850	128	NV	20	19.79	0.024011	±2.5	PASS
GSM850	128	NV	30	20.99	0.025467	±2.5	PASS
GSM850	128	NV	40	19.98	0.024242	±2.5	PASS
GSM850	128	NV	50	18.24	0.022131	±2.5	PASS
EGPRS850	128	NV	-30	34.16	0.041446	±2.5	PASS
EGPRS850	128	NV	-20	32.54	0.039481	±2.5	PASS
EGPRS850	128	NV	-10	34.16	0.041446	±2.5	PASS
EGPRS850	128	NV	0	30.45	0.036945	±2.5	PASS
EGPRS850	128	NV	10	31.03	0.037649	±2.5	PASS
EGPRS850	128	NV	20	31.51	0.038231	±2.5	PASS
EGPRS850	128	NV	30	32.61	0.039566	±2.5	PASS
EGPRS850	128	NV	40	31.70	0.038462	±2.5	PASS



EGPRS850	128	NV	50	34.61	0.041992	±2.5	PASS
GSM850	189	NV	-30	20.99	0.025096	±2.5	PASS
GSM850	189	NV	-20	20.37	0.024354	±2.5	PASS
GSM850	189	NV	-10	15.05	0.017994	±2.5	PASS
GSM850	189	NV	0	21.44	0.025634	±2.5	PASS
GSM850	189	NV	10	21.41	0.025598	±2.5	PASS
GSM850	189	NV	20	17.95	0.021461	±2.5	PASS
GSM850	189	NV	30	20.70	0.024749	±2.5	PASS
GSM850	189	NV	40	18.53	0.022154	±2.5	PASS
GSM850	189	NV	50	19.76	0.023625	±2.5	PASS
EGPRS850	189	NV	-30	30.93	0.036980	±2.5	PASS
EGPRS850	189	NV	-20	33.84	0.040459	±2.5	PASS
EGPRS850	189	NV	-10	30.83	0.036860	±2.5	PASS
EGPRS850	189	NV	0	32.22	0.038522	±2.5	PASS
EGPRS850	189	NV	10	34.45	0.041188	±2.5	PASS
EGPRS850	189	NV	20	33.74	0.040340	±2.5	PASS
EGPRS850	189	NV	30	34.16	0.040842	±2.5	PASS
EGPRS850	189	NV	40	32.48	0.038833	±2.5	PASS
EGPRS850	189	NV	50	34.45	0.041188	±2.5	PASS
GSM850	251	NV	-30	21.92	0.025825	±2.5	PASS
GSM850	251	NV	-20	27.83	0.032787	±2.5	PASS
GSM850	251	NV	-10	23.50	0.027686	±2.5	PASS
GSM850	251	NV	0	23.86	0.028110	±2.5	PASS
GSM850	251	NV	10	24.76	0.029171	±2.5	PASS
GSM850	251	NV	20	22.12	0.026060	±2.5	PASS
GSM850	251	NV	30	24.28	0.028605	±2.5	PASS
GSM850	251	NV	40	22.54	0.026555	±2.5	PASS
GSM850	251	NV	50	21.08	0.024835	±2.5	PASS
EGPRS850	251	NV	-30	33.51	0.039479	±2.5	PASS
EGPRS850	251	NV	-20	35.74	0.042107	±2.5	PASS
EGPRS850	251	NV	-10	36.58	0.043096	±2.5	PASS
EGPRS850	251	NV	0	35.61	0.041953	±2.5	PASS
EGPRS850	251	NV	10	35.64	0.041989	±2.5	PASS
EGPRS850	251	NV	20	35.09	0.041341	±2.5	PASS
EGPRS850	251	NV	30	36.16	0.042601	±2.5	PASS
EGPRS850	251	NV	40	35.64	0.041989	±2.5	PASS
EGPRS850	251	NV	50	33.45	0.039409	±2.5	PASS

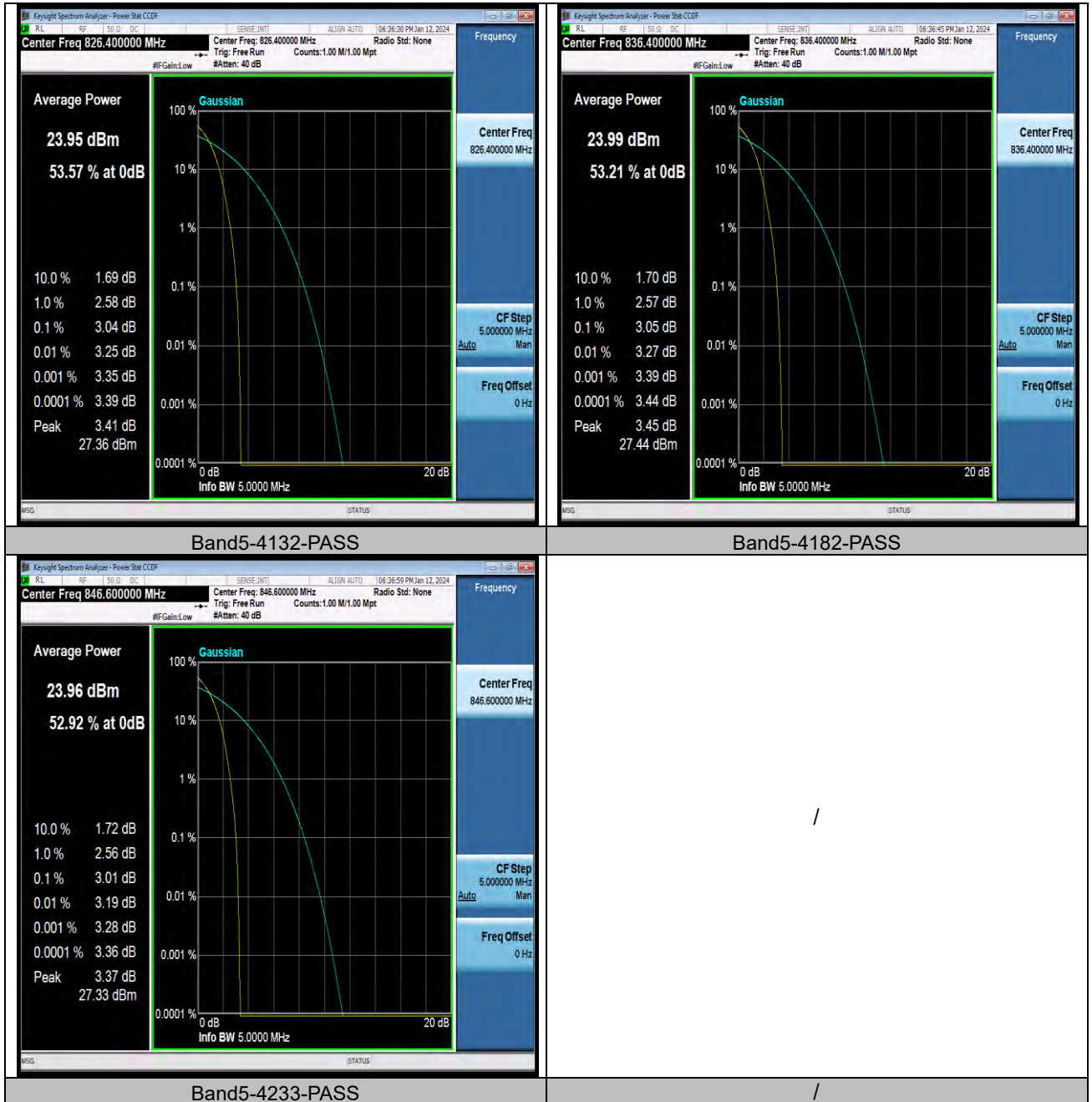
WCMDA BAND5

PEAK-TO-AVERAGE RATIO

Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
Band5	4132	3.04	13	PASS
Band5	4182	3.05	13	PASS
Band5	4233	3.01	13	PASS

Test Graphs

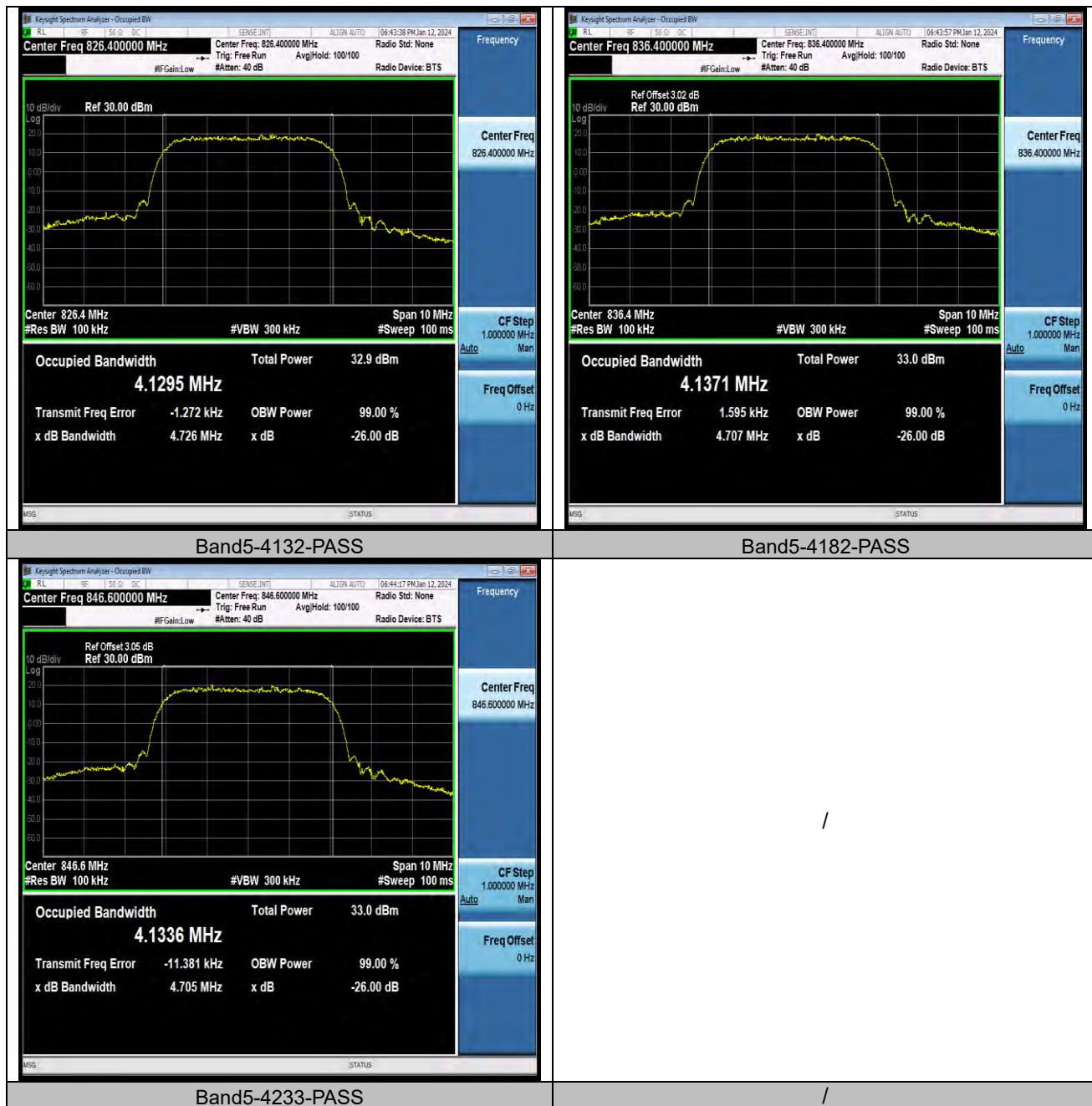


26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
Band5	4132	4.1295	4.726	---	PASS
Band5	4182	4.1371	4.707	---	PASS
Band5	4233	4.1336	4.705	---	PASS

Test Graphs



BAND EDGE

Test Result

Band	Channel	Frequency (MHz)	Result (dBm)	Limit(dBm)	Verdict
Band5	4132	823.85	-26.14	-13	PASS
Band5	4233	849.00	-26.81	-13	PASS



BUREAU
VERITAS

Test Report No.: W7L-P23120020RF01

Test Graphs



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

Tel: +86 755 8869 6566
Fax: +86 755 8869 6577
Email:
customerservice.sw@bureauveritas.com

CONDUCTED SPURIOUS EMISSION

Test Result

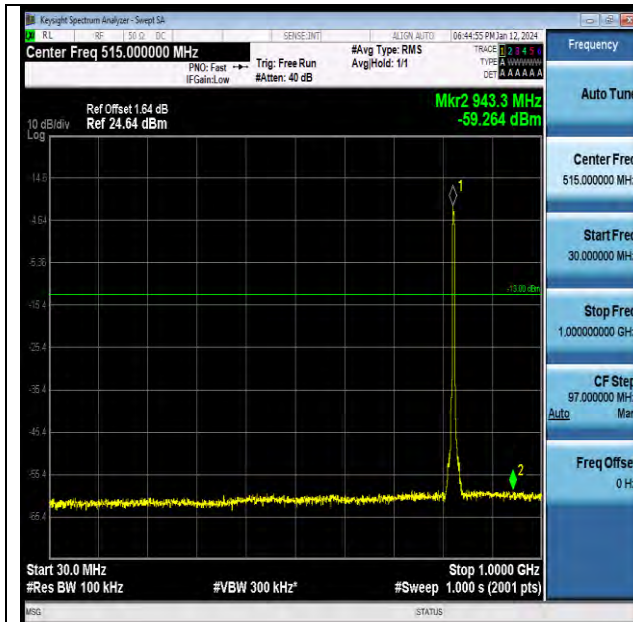
Band	Channel	Frequency Range (Mhz)	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band5	4132	30~1000MHz	943.26	-59.26	-13	PASS
Band5	4132	1000~10000MHz	3823.3	-42.12	-13	PASS
Band5	4182	30~1000MHz	946.65	-58.93	-13	PASS
Band5	4182	1000~10000MHz	3741.85	-41.87	-13	PASS
Band5	4233	30~1000MHz	978.18	-59.43	-13	PASS
Band5	4233	1000~10000MHz	3726.1	-42.3	-13	PASS



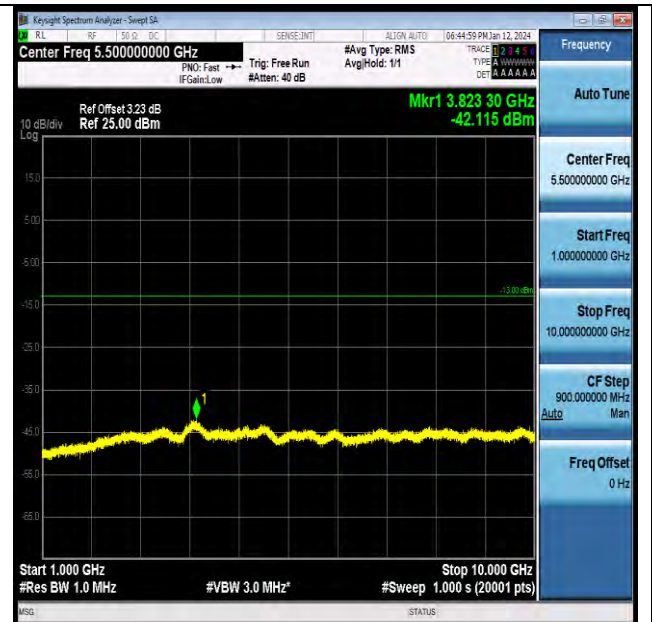
BUREAU
VERITAS

Test Report No.: W7L-P23120020RF01

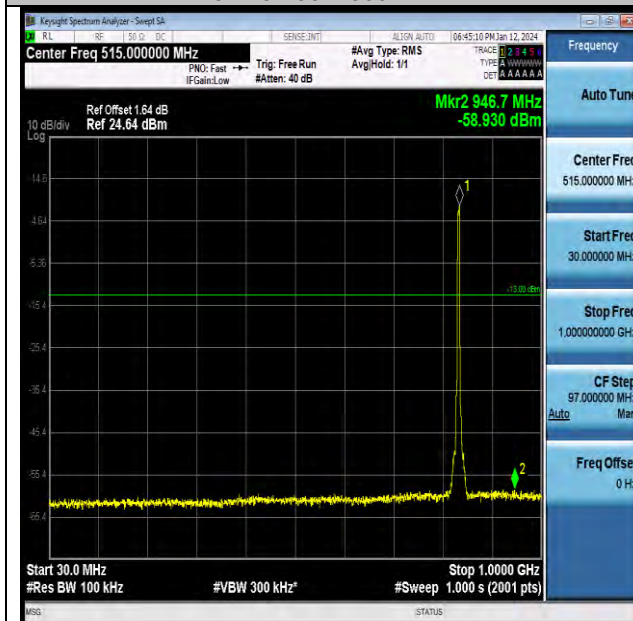
Test Graphs



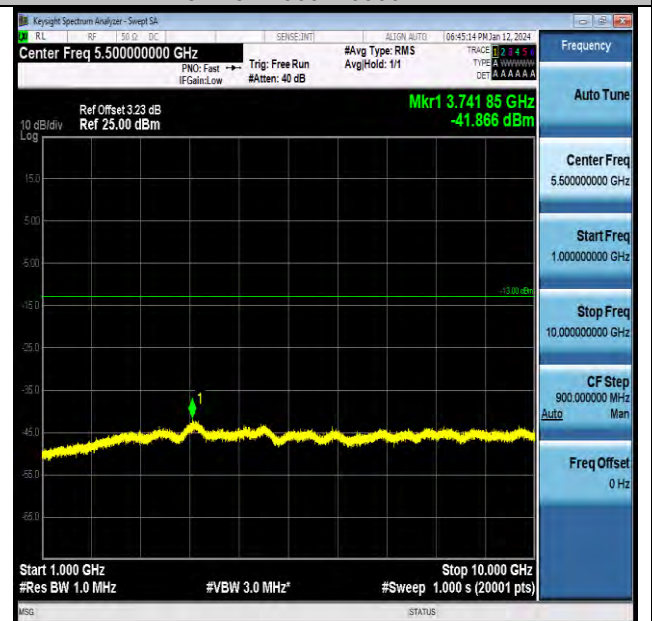
Band5-4132-30~1000MHz-PASS



Band5-4132-1000~10000MHz-PASS



Band5-4182-30~1000MHz-PASS



Band5-4182-1000~10000MHz-PASS

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

Tel: +86 755 8869 6566

Fax: +86 755 8869 6577

Email:

customerservice.sw@bureauveritas.com