

FCC TEST REPORT

(PART 24)

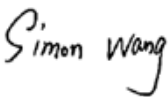
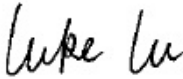
Applicant:	POINTMOBILE CO.,LTD
Address:	9F Kabul Great Valley, 32, Digital-ro 9-gil, Geumcheon-gu, Seoul, Korea 08512

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 24, Subpart E** ☒ **FCC PART 2**
☒ **ANSI/TIA/EIA-603-D** ☒ **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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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P23120020RF02	Original release	May. 10, 2024

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 24 & Part 2			
STANDARD SECTION	TEST TYPE	RESULT	Test lab*
§2.1046	Coducted Output Power	Compliance	A
§24.232(c)	Equivalent Isotropic Radiated Power	Compliance	A
§2.1055 §24.235	Frequency Stability	Compliance	A
§2.1049	Occupied Bandwidth	Compliance	A
§24.232(d)	Peak to average ratio*	Compliance	A
§24.238(a)(b)	Band Edge Measurements	Compliance	A
§2.1051 §24.238(a)(b)	Conducted Spurious Emissions	Compliance	A
§2.1053 §24.238(a)(b)	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
Frequency Stability	$\pm 76.97\text{Hz}$
Radiated emissions (9KHz~30MHz)	$\pm 2.68\text{dB}$
Radiated emissions & Radiated Power (30MHz~1GHz)	$\pm 4.98\text{dB}$
Radiated emissions & Radiated Power (1GHz ~6GHz)	$\pm 4.70\text{dB}$
Radiated emissions (6GHz ~18GHz)	$\pm 4.60\text{dB}$
Radiated emissions (18GHz ~40GHz)	$\pm 4.12\text{dB}$
Conducted emissions	$\pm 4.01\text{dB}$
Occupied Channel Bandwidth	$\pm 43.58\text{KHz}$
Conducted Output power	$\pm 2.06\text{dB}$
Band Edge Measurements	$\pm 4.70\text{dB}$
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- CT0001143-121 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 Microvave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 14,23	Feb. 13,24
MXG Analog Microvave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 13,24	Feb. 12,25
Base station R&S CMW500	Rohde&Schwa rz	CMW500	153085	May.10,23	May.09,24
Base station R&S	Rohde&Schwa	CMW500	153085	May.09,24	May.08,25



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CMW500	rz				
DC Source	Kikusui/JP	PMX18-5A	N/A	Aug. 11,23	Aug. 10,24
N9010B keysight SN	KEYSIGHT	N9010B	MY62170516	Aug. 01,23	Jul. 31, 24

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

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Moblie computer	
BRAND NAME	Point mobile	
MODEL NAME	PM95	
NOMINAL VOLTAGE	5.0Vdc (adapter) 3.87Vdc (battery)	
MODULATION TYPE	GSM/GPRS: GMSK EDGE: 8PSK WCDMA: BPSK, QPSK LTE Band 2/25: QPSK, 16QAM, 64QAM, 256QAM	
FREQUENCY RANGE	GPRS, EDGE	1850.2MHz ~ 1909.8MHz
	WCDMA	1852.4MHz ~ 1907.6MHz
	LTE Band 2 Channel Bandwidth: 1.4MHz	1850.7MHz ~ 1909.3MHz
	LTE Band 2 Channel Bandwidth: 3MHz	1851.5MHz ~ 1908.5MHz
	LTE Band 2 Channel Bandwidth: 5MHz	1852.5MHz ~ 1907.5MHz
	LTE Band 2 Channel Bandwidth: 10MHz	1855.0MHz ~ 1905.0MHz
	LTE Band 2 Channel Bandwidth: 15MHz	1857.5MHz ~ 1902.5MHz
	LTE Band 2 Channel Bandwidth: 20MHz	1860.0MHz ~ 1900.0MHz
	LTE Band 25 Channel Bandwidth: 1.4MHz	1850.7MHz ~ 1914.3MHz
	LTE Band 25 Channel Bandwidth: 3MHz	1851.5MHz ~ 1913.5MHz
	LTE Band 25 Channel Bandwidth: 5MHz	1852.5MHz ~ 1912.5MHz
	LTE Band 25 Channel Bandwidth: 10MHz	1855.0MHz ~ 1910.0MHz
	LTE Band 25 Channel Bandwidth: 15MHz	1857.5MHz ~ 1907.5MHz
	LTE Band 25 Channel Bandwidth: 20MHz	1860.0MHz ~ 1905.0MHz

FREQUENCY RANGE	LTE CA	The following only support downlink: CA_2A-12A CA_2A-13A CA_2A-14A CA_2A-17A CA_2A-29A CA_2A-2A CA_2A-48A CA_2A-4A CA_2A-5A CA_2A-66A CA_2A-71A CA_2A-7A CA_2C CA_2A-30A CA_2A-2A-29A CA_2A-2A-5A CA_2A-2A-71A CA_2A-4A-71A CA_2A-5A-5A CA_2A-5B CA_2A-66A-66A CA_2A-66A-71A CA_2C-29A CA_2C-5A CA_2A-13A-48A CA_2A-13A-66A CA_2A-2A-13A CA_2A-2A-4A CA_2A-2A-66A CA_2A-48A-48A CA_2A-4A-13A CA_2A-4A-4A CA_2A-4A-5A CA_2A-5A-48A CA_2A-5A-66A CA_2A-12A-66A-66A
-------------------------------	----------------------	--



		CA_2A-13A-66A-66A CA_2A-14A-66A-66A CA_2A-2A-4A-5A CA_2A-2A-5A-66A CA_2A-4A-4A-12A CA_2A-4A-4A-5A CA_25A-25A CA_25A-26A CA_25A-41A
MAX. EIRP POWER	GSM/GPRS	151.36mW
	EDGE	94.84mW
	WCDMA	145.21mW
	LTE Band 2 Channel Bandwidth: 1.4MHz	243.78mW
	LTE Band 2 Channel Bandwidth: 3MHz	242.1mW
	LTE Band 2 Channel Bandwidth: 5MHz	246.04mW
	LTE Band 2 Channel Bandwidth: 10MHz	245.47mW
	LTE Band 2 Channel Bandwidth: 15MHz	247.74mW
	LTE Band 2 Channel Bandwidth: 20MHz	249.46mW
	LTE Band 25 Channel Bandwidth: 1.4MHz	201.37mW
	LTE Band 25 Channel Bandwidth: 3MHz	242.66mW
	LTE Band 25 Channel Bandwidth: 5MHz	245.47mW
	LTE Band 25 Channel Bandwidth: 10MHz	246.04mW
	LTE Band 25 Channel Bandwidth: 15MHz	243.78mW
	LTE Band 25 Channel Bandwidth: 20MHz	249.46mW
	ENDC LTE Band 2 Channel Bandwidth: 1.4MHz	238.78mW
	ENDC LTE Band 2 Channel Bandwidth: 3MHz	234.96mW
	ENDC LTE Band 2 Channel Bandwidth: 5MHz	238.78mW
	ENDC LTE Band 2 Channel Bandwidth: 10MHz	238.78mW
	ENDC LTE Band 2 Channel Bandwidth: 15MHz	237.68mW
	ENDC LTE Band 2 Channel Bandwidth: 20MHz	242.66mW



EMISSION DESIGNATOR	GPRS	245KGXW
	EDGE	246KG7W
	WCDMA	4M15F9W
	LTE Band 25 Channel Bandwidth: 1.4MHz	QPSK: 1M10G7D 16QAM: 1M11W7D
	LTE Band 25 Channel Bandwidth: 3MHz	QPSK: 2M71G7D 16QAM: 2M71W7D
	LTE Band 25 Channel Bandwidth: 5MHz	QPSK: 4M53G7D 16QAM: 4M53W7D
	LTE Band 25 Channel Bandwidth: 10MHz	QPSK: 9M02G7D 16QAM: 9M03W7D
	LTE Band 25 Channel Bandwidth: 15MHz	QPSK: 13M5G7D 16QAM: 13M5W7D
	LTE Band 25 Channel Bandwidth: 20MHz	QPSK: 18M0G7D 16QAM: 18M0W7D
ANTENNA TYPE	ANT0 Internal Antenna with 0.71dBi gain for GSM1900 Internal Antenna with 1.41dBi gain for WCDMA II Internal Antenna with 1.41dBi gain for LTE B2/ LTE B25	
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 four receivers.

MODULATION MODE	TX FUNCTION
GSM/GPRS/EDGE	1TX/2RX
WCDMA	1TX/2RX
LTE	1TX/4RX



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3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
4. 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.

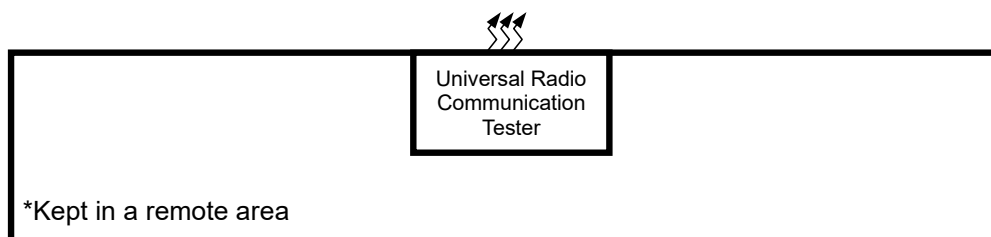
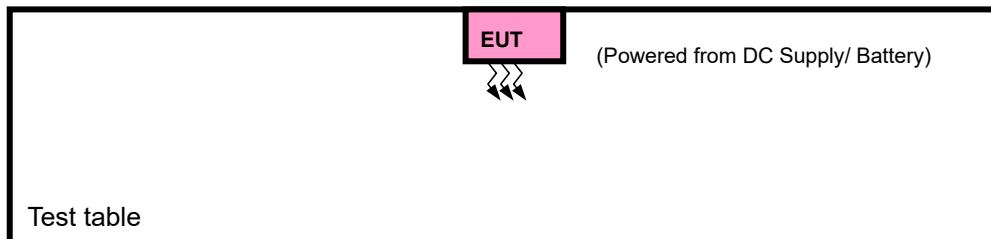
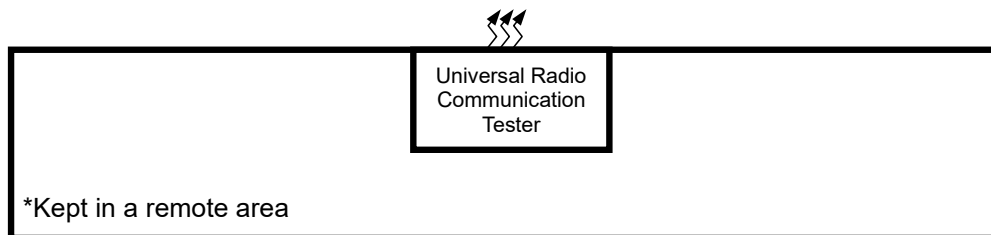
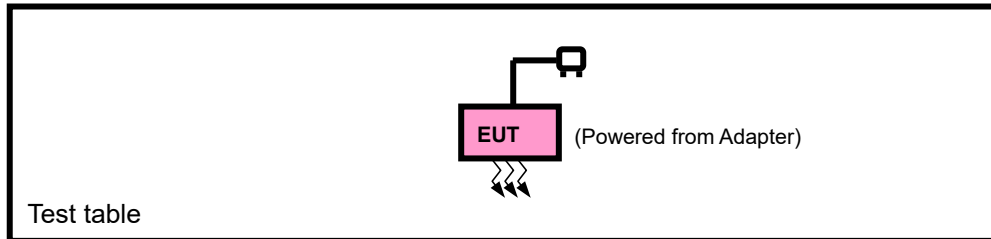
List of Accessory:

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 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 EIRP 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 GSM or 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	EIRP	512 to 810	512, 661, 810	GSM,EDGE
B	FREQUENCY STABILITY	512 to 810	512, 661, 810	GSM,EDGE
A	OCCUPIED BANDWIDTH	512 to 810	512, 661, 810	GSM,EDGE
A	PEAK TO AVERAGE RATIO	512 to 810	512, 661, 810	GSM,EDGE
A	BAND EDGE	512 to 810	512, 810	GSM,EDGE
A	CONDUCTED EMISSION	512 to 810	512, 661, 810	GSM,EDGE
A	RADIATED EMISSION	512 to 810	512, 661, 810	GSM,EDGE

WCDMA

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
A	EIRP	9262 to 9538	9262, 9400, 9538	WCDMA
B	FREQUENCY STABILITY	9262 to 9538	9262, 9400, 9538	WCDMA
A	OCCUPIED BANDWIDTH	9262 to 9538	9262, 9400, 9538	WCDMA
A	PEAK TO AVERAGE RATIO	9262 to 9538	9262, 9400, 9538	WCDMA
A	BAND EDGE	9262 to 9538	9262, 9538	WCDMA
A	CONDUCTED EMISSION	9262 to 9538	9262, 9400, 9538	WCDMA
A	RADIATED EMISSION	9262 to 9538	9262, 9400, 9538	WCDMA

LTE BAND 2 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		18700 to 19100	18700, 18900, 19100	20MHz	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 2 are covered by LTE Band 25, Because it is a subset of LTE Band 25 with the same output power and supported bandwidths, So the conducted test data and RSE test data please refer to LTE Band 25

LTE BAND 25 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	26047 to 26683	26047, 26365, 26683	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		26055 to 26675	26055, 26365, 26675	3MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		26065 to 26665	26065, 26365, 26665	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		26090 to 26640	26090, 26365, 26640	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		26115 to 26615	26115, 26365, 26615	15MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		26140 to 26590	26140, 26365, 26590	20MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	26140 to 26590	26140, 26365, 26590	20MHz	QPSK, 16QAM	100 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	26047 to 26683	26047, 26365, 26683	1.4MHz	QPSK, 16QAM	6 RB / 0 RB Offset
		26055 to 26675	26055, 26365, 26675	3MHz	QPSK, 16QAM	15 RB / 0 RB Offset
		26065 to 26665	26065, 26365, 26665	5MHz	QPSK, 16QAM	25 RB / 0 RB Offset
		26090 to 26640	26090, 26365, 26640	10MHz	QPSK, 16QAM	50 RB / 0 RB Offset
		26115 to 26615	26115, 26365, 26615	15MHz	QPSK, 16QAM	75 RB / 0 RB Offset
		26140 to 26590	26140, 26365, 26590	20MHz	QPSK, 16QAM	100 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	26140 to 26590	26140, 26365, 26590	20MHz	QPSK, 16QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
A	BAND EDGE	26047 to 26683	26047	1.4MHz	QPSK, 16QAM	1 RB / 0 RB Offset 6 RB / 0 RB Offset
			26683	1.4MHz	QPSK, 16QAM	1 RB / 5 RB Offset 6 RB / 0 RB Offset
		26055 to 26675	26055	3MHz	QPSK, 16QAM	1 RB / 0 RB Offset 15 RB / 0 RB Offset
			26675	3MHz	QPSK, 16QAM	1 RB / 14 RB Offset 15 RB / 0 RB Offset
		26065 to 26665	26065	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset 25 RB / 0 RB Offset
			26665	5MHz	QPSK, 16QAM	1 RB / 24 RB Offset 25 RB / 0 RB Offset
		26090 to 26640	26090	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset
			26640	10MHz	QPSK, 16QAM	1 RB / 49 RB Offset 50 RB / 0 RB Offset
		26115 to 26615	26115	15MHz	QPSK, 16QAM	1 RB / 0 RB Offset 75 RB / 0 RB Offset
		26047 to 26683	26047	1.4MHz	QPSK, 16QAM	1 RB / 0 RB Offset 6 RB / 0 RB Offset
		26055 to 26675	26055	3MHz	QPSK, 16QAM	1 RB / 0 RB Offset 15 RB / 0 RB Offset



			26615	15MHz	QPSK,16QAM	1 RB / 74 RB Offset
						75 RB / 0 RB Offset
		26140 to 26590	26140	20MHz	QPSK,16QAM	1 RB / 0 RB Offset
			26590	20MHz	QPSK,16QAM	100 RB / 0 RB Offset
A	CONDCUDED EMISSION	26047 to 26683	26047, 26365, 26683	1.4MHz	QPSK,16QAM	1 RB / 99 RB Offset
		26055 to 26675	26055, 26365, 26675	3MHz	QPSK,16QAM	100 RB / 0 RB Offset
		26065 to 26665	26065, 26365, 26665	5MHz	QPSK,16QAM	1 RB / 0 RB Offset
		26090 to 26640	26090, 26365 26640	10MHz	QPSK,16QAM	1 RB / 0 RB Offset
		26115 to 26615	26115, 26365, 26615	15MHz	QPSK,16QAM	1 RB / 0 RB Offset
		26140 to 26590	26140, 26365, 26590	20MHz	QPSK,16QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	26047 to 26683	26047, 26365, 26683	1.4MHz	QPSK	1 RB / 0 RB Offset
		26055 to 26675	26365	3MHz	QPSK	1 RB / 0 RB Offset
		26065 to 26665	26365	5MHz	QPSK	1 RB / 0 RB Offset
		26090 to 26640	26365	10MHz	QPSK	1 RB / 0 RB Offset
		26115 to 26615	26365	15MHz	QPSK	1 RB / 0 RB Offset
		26140 to 26590	26365	20MHz	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 24

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 and portable stations are limited to 2 watts EIRP.

3.1.2 TEST PROCEDURES

EIRP MEASUREMENT:

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

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

Where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively

(expressed in the same units as P_{Meas} , typically dBW or dBm);

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

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

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

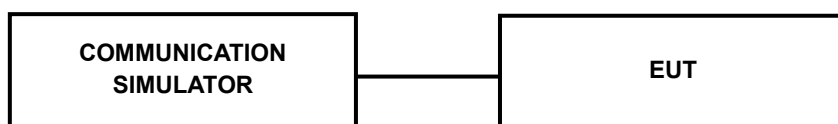
CONDUCTED POWER MEASUREMENT:

The EUT was set up for the maximum power with 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	GSM1900(ANT0)		
Channel	512	661	810
Frequency	1850.2	1880	1909.8
GSM	28.94	29.06	29.03
GPRS 1Tx Slot	28.93	29.05	29.01
GPRS 2Tx Slot	27.09	26.94	26.97
GPRS 3Tx Slot	25.12	25.05	24.95
GPRS 4Tx Slot	22.75	22.90	22.93
EDGE 1Tx Slot	25.47	25.46	25.27
EDGE 2Tx Slot	24.04	24.29	24.06
EDGE 3Tx Slot	22.90	23.17	22.98
EDGE 4Tx Slot	21.86	22.06	22.00

Band	WCDMA II(ANT0)		
TX Channel	9262	9400	9538
Rx Channel	9662	9800	9938
Frequency	1852.4	1880	1907.6
RMC 12.2K	22.98	22.97	22.87
HSDPA Subtest-1	22.06	22.02	22.05
HSDPA Subtest-2	21.96	22.06	21.97
HSDPA Subtest-3	21.55	21.49	21.36
HSDPA Subtest-4	21.51	21.50	21.46
DC-HSDPA Subtest-1	22.04	22.04	21.96
DC-HSDPA Subtest-2	22.00	22.06	22.03
DC-HSDPA Subtest-3	21.54	21.56	21.34
DC-HSDPA Subtest-4	21.54	21.42	21.35
HSUPA Subtest-1	21.97	22.02	21.85
HSUPA Subtest-2	19.94	20.04	19.82
HSUPA Subtest-3	21.03	20.95	20.93
HSUPA Subtest-4	20.00	20.03	19.82
HSUPA Subtest-5	22.06	22.04	21.95
HSPA+ Subtest-1	19.50	19.44	19.36



**BUREAU
VERITAS**

Test Report No.: W7L-P23120020RF02

MAIN ANT

LTE BAND 2(ANT0)

Band/BW	Modulation	RB Size	RB Offset	Low CH 18607	Mid CH 18900	High CH 19193
				Frequency 1850.7 MHz	Frequency 1880 MHz	Frequency 1909.3 MHz
2/ 1.4	QPSK	1	0	22.41	22.46	22.38
		1	2	22.45	22.43	22.27
		1	5	22.20	22.28	22.23
		3	0	22.27	22.14	22.19
		3	1	22.41	22.27	22.37
		3	3	22.35	22.24	22.29
		6	0	21.48	21.34	21.42
	16QAM	1	0	21.53	21.47	21.44
		1	2	21.47	21.41	21.40
		1	5	21.38	21.34	21.18
		3	0	21.42	21.51	21.42
		3	1	21.49	21.45	21.45
		3	3	21.47	21.51	21.34
		6	0	20.55	20.44	20.48
	64QAM	1	0	20.49	20.53	20.37
		1	2	20.43	20.34	20.32
		1	5	20.44	20.43	20.25
		3	0	20.49	20.42	20.32
		3	1	20.53	20.49	20.44
		3	3	20.49	20.40	20.38
		6	0	19.66	19.37	19.42
	256QAM	1	0	17.48	17.31	17.39
		1	2	17.30	17.35	17.24
		1	5	17.38	17.47	17.21
		3	0	17.40	17.27	17.26
		3	1	17.54	17.33	17.44
		3	3	17.40	17.34	17.26
		6	0	17.47	17.35	17.35

Band/BW	Modulation	RB Size	RB Offset	Low CH 18615	Mid CH 18900	High CH 19185
				Frequency 1851.5 MHz	Frequency 1880 MHz	Frequency 1908.5 MHz
2/ 3	QPSK	1	0	22.43	22.42	22.36
		1	7	22.43	22.33	22.25
		1	14	22.19	22.22	22.27
		8	0	21.51	21.47	21.26
		8	3	21.49	21.46	21.54
		8	7	21.55	21.42	21.46
		15	0	21.55	21.39	21.49
	16QAM	1	0	21.53	21.44	21.36
		1	7	21.55	21.43	21.46
		1	14	21.48	21.44	21.17
		8	0	20.52	20.43	20.38
		8	3	20.51	20.44	20.43
		8	7	20.49	20.54	20.34
		15	0	20.64	20.50	20.44
	64QAM	1	0	20.48	20.49	20.41
		1	7	20.48	20.43	20.32
		1	14	20.41	20.42	20.28
		8	0	19.39	19.45	19.31
		8	3	19.58	19.59	19.37
		8	7	19.43	19.51	19.36
		15	0	19.54	19.46	19.37
	256QAM	1	0	17.55	17.39	17.36
		1	7	17.31	17.36	17.28
		1	14	17.33	17.36	17.09
		8	0	17.28	17.27	17.32
		8	3	17.58	17.35	17.44
		8	7	17.36	17.41	17.25
		15	0	17.47	17.28	17.23



**BUREAU
VERITAS**

Test Report No.: W7L-P23120020RF02

Band/BW	Modulation	RB Size	RB Offset	Low CH 18625	Mid CH 18900	High CH 19175
				Frequency 1852.5 MHz	Frequency 1880 MHz	Frequency 1907.5 MHz
2/ 5	QPSK	1	0	22.42	22.50	22.38
		1	12	22.38	22.38	22.29
		1	24	22.21	22.31	22.18
		12	0	21.54	21.45	21.31
		12	6	21.52	21.44	21.44
		12	13	21.57	21.40	21.52
		25	0	21.48	21.36	21.43
	16QAM	1	0	21.48	21.48	21.36
		1	12	21.45	21.48	21.47
		1	24	21.36	21.31	21.24
		12	0	20.51	20.39	20.40
		12	6	20.51	20.46	20.36
		12	13	20.45	20.44	20.33
		25	0	20.61	20.56	20.54
	64QAM	1	0	20.44	20.50	20.43
		1	12	20.37	20.40	20.35
		1	24	20.44	20.38	20.31
		12	0	19.44	19.48	19.33
		12	6	19.54	19.53	19.50
		12	13	19.48	19.42	19.40
		25	0	19.65	19.37	19.44
	256QAM	1	0	17.46	17.34	17.45
		1	12	17.35	17.37	17.26
		1	24	17.28	17.47	17.17
		12	0	17.36	17.27	17.26
		12	6	17.61	17.33	17.36
		12	13	17.37	17.34	17.25
		25	0	17.54	17.30	17.35

Band/BW	Modulation	RB Size	RB Offset	Low CH 18650	Mid CH 18900	High CH 19150
				Frequency 1855 MHz	Frequency 1880 MHz	Frequency 1905 MHz
2/ 10	QPSK	1	0	22.47	22.49	22.30
		1	24	22.44	22.32	22.23
		1	49	22.19	22.17	22.16
		25	0	21.57	21.38	21.33
		25	12	21.63	21.48	21.51
		25	25	21.60	21.40	21.41
		50	0	21.44	21.45	21.46
	16QAM	1	0	21.45	21.40	21.33
		1	24	21.55	21.45	21.46
		1	49	21.43	21.38	21.30
		25	0	20.44	20.43	20.38
		25	12	20.52	20.44	20.39
		25	25	20.41	20.54	20.37
		50	0	20.56	20.46	20.54
	64QAM	1	0	20.48	20.46	20.38
		1	24	20.45	20.41	20.32
		1	49	20.34	20.47	20.20
		25	0	19.40	19.42	19.33
		25	12	19.65	19.61	19.39
		25	25	19.47	19.46	19.41
		50	0	19.54	19.35	19.37
	256QAM	1	0	17.54	17.39	17.41
		1	24	17.37	17.37	17.25
		1	49	17.37	17.39	17.07
		25	0	17.39	17.29	17.36
		25	12	17.61	17.35	17.45
		25	25	17.32	17.46	17.21
		50	0	17.41	17.37	17.30

Band/BW	Modulation	RB Size	RB Offset	Low CH 18675	Mid CH 18900	High CH 19125
				Frequency 1857.5 MHz	Frequency 1880 MHz	Frequency 1902.5 MHz
2/ 15	QPSK	1	0	22.53	22.43	22.35
		1	37	22.38	22.41	22.31
		1	74	22.27	22.18	22.23
		36	0	21.48	21.45	21.40
		36	19	21.59	21.49	21.43
		36	39	21.50	21.38	21.46
		75	0	21.44	21.35	21.45
	16QAM	1	0	21.46	21.45	21.35
		1	37	21.56	21.54	21.38
		1	74	21.44	21.34	21.29
		36	0	20.49	20.39	20.34
		36	19	20.53	20.51	20.33
		36	39	20.37	20.48	20.38
		75	0	20.64	20.54	20.49
	64QAM	1	0	20.44	20.51	20.42
		1	37	20.35	20.37	20.36
		1	74	20.47	20.40	20.33
		36	0	19.41	19.48	19.40
		36	19	19.57	19.52	19.38
		36	39	19.38	19.49	19.35
		75	0	19.57	19.42	19.39
	256QAM	1	0	17.53	17.40	17.45
		1	37	17.40	17.33	17.18
		1	74	17.33	17.36	17.18
		36	0	17.35	17.28	17.30
		36	19	17.57	17.47	17.39
		36	39	17.38	17.35	17.19
		75	0	17.44	17.34	17.35

Band/BW	Modulation	RB Size	RB Offset	Low CH 18700	Mid CH 18900	High CH 19100
				Frequency 1860 MHz	Frequency 1880 MHz	Frequency 1900 MHz
2/ 20	QPSK	1	0	22.56	22.52	22.42
		1	50	22.46	22.45	22.33
		1	99	22.28	22.32	22.30
		50	0	21.59	21.49	21.41
		50	25	21.64	21.53	21.58
		50	50	21.62	21.50	21.55
		100	0	21.59	21.48	21.52
	16QAM	1	0	21.54	21.51	21.48
		1	50	21.57	21.56	21.48
		1	99	21.49	21.45	21.32
		50	0	20.54	20.52	20.49
		50	25	20.62	20.56	20.48
		50	50	20.52	20.59	20.43
		100	0	20.66	20.58	20.57
	64QAM	1	0	20.59	20.57	20.52
		1	50	20.49	20.47	20.42
		1	99	20.48	20.50	20.35
		50	0	19.52	19.50	19.46
		50	25	19.68	19.63	19.52
		50	50	19.53	19.53	19.43
		100	0	19.68	19.49	19.46
	256QAM	1	0	17.56	17.45	17.49
		1	50	17.42	17.42	17.33
		1	99	17.41	17.48	17.22
		50	0	17.43	17.36	17.37
		50	25	17.67	17.48	17.46
		50	50	17.42	17.49	17.33
		100	0	17.56	17.40	17.38



**BUREAU
VERITAS**

Test Report No.: W7L-P23120020RF02

LTE BAND 25 (ANT0)

Band/BW	Modulation	RB Size	RB Offset	Low CH 26047	Mid CH 26365	High CH 26683
				Frequency 1850.7 MHz	Frequency 1882.5 MHz	Frequency 1914.3 MHz
25/ 1.4	QPSK	1	0	22.39	22.51	22.18
		1	2	22.43	22.51	22.27
		1	5	22.15	22.31	22.15
		3	0	22.30	22.41	22.27
		3	1	22.37	22.41	22.31
		3	3	22.21	22.23	22.18
		6	0	21.45	21.53	21.40
	16QAM	1	0	21.57	21.63	21.43
		1	2	21.42	21.55	21.36
		1	5	21.43	21.45	21.31
		3	0	21.50	21.49	21.25
		3	1	21.44	21.46	21.29
		3	3	21.44	21.43	21.39
		6	0	20.53	20.44	20.39
	64QAM	1	0	20.56	20.63	20.49
		1	2	20.31	20.41	20.29
		1	5	20.27	20.32	20.31
		3	0	20.49	20.48	20.28
		3	1	20.48	20.48	20.42
		3	3	20.48	20.49	20.30
		6	0	19.43	19.45	19.41
	256QAM	1	0	17.54	17.48	17.43
		1	2	17.33	17.21	17.27
		1	5	17.18	17.30	17.25
		3	0	17.44	17.33	17.14
		3	1	17.38	17.50	17.23
		3	3	17.34	17.42	17.35
		6	0	17.37	17.47	17.22

Band/BW	Modulation	RB Size	RB Offset	Low CH 26055	Mid CH 26365	High CH 26675
				Frequency 1851.5 MHz	Frequency 1882.5 MHz	Frequency 1913.5 MHz
25/ 3	QPSK	1	0	22.35	22.44	22.27
		1	7	22.38	22.41	22.24
		1	14	22.23	22.22	22.24
		8	0	21.47	21.55	21.36
		8	3	21.47	21.59	21.36
		8	7	21.41	21.38	21.33
		15	0	21.45	21.55	21.47
	16QAM	1	0	21.59	21.52	21.47
		1	7	21.45	21.55	21.38
		1	14	21.43	21.50	21.33
		8	0	20.47	20.48	20.32
		8	3	20.49	20.50	20.37
		8	7	20.46	20.45	20.30
		15	0	20.43	20.47	20.38
	64QAM	1	0	20.59	20.65	20.54
		1	7	20.41	20.36	20.24
		1	14	20.24	20.32	20.25
		8	0	19.47	19.49	19.24
		8	3	19.47	19.51	19.50
		8	7	19.40	19.38	19.36
		15	0	19.41	19.43	19.35
	256QAM	1	0	17.63	17.46	17.46
		1	7	17.36	17.19	17.22
		1	14	17.28	17.37	17.18
		8	0	17.42	17.35	17.15
		8	3	17.26	17.48	17.27
		8	7	17.46	17.35	17.37
		15	0	17.39	17.36	17.31

Band/BW	Modulation	RB Size	RB Offset	Low CH 26065	Mid CH 26365	High CH 26665
				Frequency 1852.5 MHz	Frequency 1882.5 MHz	Frequency 1912.5 MHz
25/ 5	QPSK	1	0	22.34	22.46	22.18
		1	12	22.41	22.49	22.33
		1	24	22.14	22.27	22.14
		12	0	21.38	21.46	21.36
		12	6	21.38	21.58	21.40
		12	13	21.34	21.38	21.34
		25	0	21.44	21.52	21.48
	16QAM	1	0	21.66	21.52	21.45
		1	12	21.48	21.59	21.39
		1	24	21.36	21.42	21.24
		12	0	20.49	20.46	20.32
		12	6	20.45	20.48	20.33
		12	13	20.45	20.40	20.29
		25	0	20.45	20.37	20.28
	64QAM	1	0	20.68	20.51	20.53
		1	12	20.39	20.40	20.31
		1	24	20.35	20.40	20.21
		12	0	19.48	19.46	19.31
		12	6	19.53	19.50	19.43
		12	13	19.48	19.50	19.40
		25	0	19.49	19.41	19.36
	256QAM	1	0	17.65	17.41	17.51
		1	12	17.34	17.31	17.17
		1	24	17.24	17.26	17.22
		12	0	17.40	17.36	17.13
		12	6	17.36	17.43	17.27
		12	13	17.42	17.37	17.40
		25	0	17.36	17.43	17.34

Band/BW	Modulation	RB Size	RB Offset	Low CH 26090	Mid CH 26365	High CH 26640
				Frequency 1855 MHz	Frequency 1882.5 MHz	Frequency 1910 MHz
25/ 10	QPSK	1	0	22.44	22.50	22.22
		1	24	22.40	22.37	22.26
		1	49	22.18	22.33	22.14
		25	0	21.51	21.53	21.30
		25	12	21.46	21.50	21.40
		25	25	21.31	21.39	21.24
		50	0	21.43	21.54	21.40
	16QAM	1	0	21.64	21.53	21.38
		1	24	21.56	21.57	21.38
		1	49	21.45	21.52	21.26
		25	0	20.52	20.47	20.35
		25	12	20.47	20.53	20.34
		25	25	20.44	20.41	20.30
		50	0	20.41	20.49	20.34
	64QAM	1	0	20.55	20.56	20.45
		1	24	20.39	20.42	20.23
		1	49	20.36	20.30	20.29
		25	0	19.47	19.47	19.29
		25	12	19.53	19.53	19.49
		25	25	19.41	19.38	19.31
		50	0	19.50	19.47	19.41
	256QAM	1	0	17.66	17.47	17.52
		1	24	17.32	17.29	17.21
		1	49	17.29	17.28	17.22
		25	0	17.40	17.40	17.25
		25	12	17.31	17.39	17.32
		25	25	17.37	17.43	17.34
		50	0	17.42	17.40	17.22

Band/BW	Modulation	RB Size	RB Offset	Low CH 26115	Mid CH 26365	High CH 26615
				Frequency 1857.5 MHz	Frequency 1882.5 MHz	Frequency 1907.5 MHz
25/ 15	QPSK	1	0	22.41	22.41	22.24
		1	37	22.37	22.46	22.28
		1	74	22.25	22.19	22.20
		36	0	21.39	21.55	21.44
		36	19	21.41	21.52	21.41
		36	39	21.31	21.37	21.35
		75	0	21.46	21.48	21.47
	16QAM	1	0	21.64	21.51	21.35
		1	37	21.47	21.49	21.39
		1	74	21.45	21.44	21.24
		36	0	20.46	20.40	20.34
		36	19	20.39	20.50	20.34
		36	39	20.37	20.40	20.37
		75	0	20.54	20.49	20.39
	64QAM	1	0	20.58	20.65	20.51
		1	37	20.42	20.33	20.30
		1	74	20.35	20.32	20.21
		36	0	19.52	19.48	19.22
		36	19	19.42	19.50	19.37
		36	39	19.52	19.49	19.38
		75	0	19.42	19.52	19.28
	256QAM	1	0	17.56	17.45	17.39
		1	37	17.42	17.31	17.17
		1	74	17.30	17.23	17.28
		36	0	17.39	17.31	17.14
		36	19	17.29	17.48	17.29
		36	39	17.42	17.39	17.34
		75	0	17.30	17.39	17.31



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Band/BW	Modulation	RB Size	RB Offset	Low CH 26140	Mid CH 26365	High CH 26590
				Frequency 1860 MHz	Frequency 1882.5 MHz	Frequency 1905 MHz
25/ 20	QPSK	1	0	22.47	22.56	22.39
		1	50	22.45	22.52	22.31
		1	99	22.28	22.34	22.27
		50	0	21.52	21.65	21.45
		50	25	21.49	21.58	21.42
		50	50	21.43	21.48	21.38
		100	0	21.52	21.61	21.54
	16QAM	1	0	21.67	21.64	21.49
		1	50	21.57	21.62	21.44
		1	99	21.49	21.56	21.39
		50	0	20.55	20.54	20.37
		50	25	20.51	20.55	20.40
		50	50	20.52	20.48	20.43
		100	0	20.56	20.51	20.41
	64QAM	1	0	20.70	20.66	20.56
		1	50	20.46	20.47	20.36
		1	99	20.37	20.41	20.34
		50	0	19.54	19.54	19.37
		50	25	19.54	19.54	19.52
		50	50	19.53	19.52	19.45
		100	0	19.51	19.53	19.42
	256QAM	1	0	17.68	17.53	17.54
		1	50	17.43	17.32	17.28
		1	99	17.33	17.38	17.29
		50	0	17.52	17.45	17.28
		50	25	17.41	17.53	17.37
		50	50	17.47	17.46	17.42
		100	0	17.45	17.49	17.36



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EIRP POWER (dBm)

GSM 1900

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
512	1850.2	21.09	0.71	21.8	151.36	2
661	1880	20.94	0.71	21.65	146.22	2
810	1909.8	20.97	0.71	21.68	147.23	2

EDGE 1900

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
512	1850.2	18.86	0.71	19.57	90.57	2
661	1880	19.06	0.71	19.77	94.84	2
810	1909.8	19	0.71	19.71	93.54	2

WCDMA

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
9262	1852.4	22.98	-1.36	21.62	145.21	2
9400	1880	22.97	-1.36	21.61	144.88	2
9538	1907.6	22.87	-1.36	21.51	141.58	2



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LTE BAND 2

CHANNEL BANDWIDTH: 1.4MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18607	1850.7	22.45	1.41	23.86	243.22	2
18900	1880.0	22.46	1.41	23.87	243.78	2
19193	1909.3	22.38	1.41	23.79	239.33	2

CHANNEL BANDWIDTH: 1.4MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18607	1850.7	21.53	1.41	22.94	196.79	2
18900	1880.0	21.51	1.41	22.92	195.88	2
19193	1909.3	21.45	1.41	22.86	193.2	2

CHANNEL BANDWIDTH: 1.4MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18607	1850.7	20.53	1.41	21.94	156.31	2
18900	1880	20.53	1.41	21.94	156.31	2
19193	1909.3	20.44	1.41	21.85	153.11	2

CHANNEL BANDWIDTH: 1.4MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18607	1850.7	17.54	1.41	18.95	78.52	2
18900	1880	17.47	1.41	18.88	77.27	2
19193	1909.3	17.44	1.41	18.85	76.74	2

CHANNEL BANDWIDTH: 3MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18615	1851.5	22.43	1.41	23.84	242.1	2
18900	1880	22.42	1.41	23.83	241.55	2
19185	1908.5	22.36	1.41	23.77	238.23	2

CHANNEL BANDWIDTH: 3MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18615	1851.5	21.55	1.41	22.96	197.7	2
18900	1880	21.44	1.41	22.85	192.75	2
19185	1908.5	21.46	1.41	22.87	193.64	2

CHANNEL BANDWIDTH: 3MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18615	1851.5	20.48	1.41	21.89	154.53	2
18900	1880	20.49	1.41	21.9	154.88	2
19185	1908.5	20.41	1.41	21.82	152.05	2

CHANNEL BANDWIDTH: 3MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18615	1851.5	17.58	1.41	18.99	79.25	2
18900	1880	17.41	1.41	18.82	76.21	2
19185	1908.5	17.44	1.41	18.85	76.74	2



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Test Report No.: W7L-P23120020RF02

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18625	1852.5	22.42	1.41	23.83	241.55	2
18900	1880	22.5	1.41	23.91	246.04	2
19175	1907.5	22.38	1.41	23.79	239.33	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18625	1852.5	21.48	1.41	22.89	194.54	2
18900	1880	21.48	1.41	22.89	194.54	2
19175	1907.5	21.47	1.41	22.88	194.09	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18625	1852.5	20.44	1.41	21.85	153.11	2
18900	1880	20.5	1.41	21.91	155.24	2
19175	1907.5	20.43	1.41	21.84	152.76	2

CHANNEL BANDWIDTH: 5MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18625	1852.5	17.61	1.41	19.02	79.8	2
18900	1880	17.47	1.41	18.88	77.27	2
19175	1907.5	17.45	1.41	18.86	76.91	2

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18650	1855	22.47	1.41	23.88	244.34	2
18900	1880	22.49	1.41	23.9	245.47	2
19150	1905	22.3	1.41	23.71	234.96	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18650	1855	21.55	1.41	22.96	197.7	2
18900	1880	21.45	1.41	22.86	193.2	2
19150	1905	21.46	1.41	22.87	193.64	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18650	1855	20.48	1.41	21.89	154.53	2
18900	1880	20.47	1.41	21.88	154.17	2
19150	1905	20.38	1.41	21.79	151.01	2

CHANNEL BANDWIDTH: 10MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18650	1855	17.61	1.41	19.02	79.8	2
18900	1880	17.46	1.41	18.87	77.09	2
19150	1905	17.45	1.41	18.86	76.91	2



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Test Report No.: W7L-P23120020RF02

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18675	1857.5	22.53	1.41	23.94	247.74	2
18900	1880	22.43	1.41	23.84	242.1	2
19125	1902.5	22.35	1.41	23.76	237.68	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18675	1857.5	21.56	1.41	22.97	198.15	2
18900	1880	21.54	1.41	22.95	197.24	2
19125	1902.5	21.38	1.41	22.79	190.11	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18675	1857.5	20.47	1.41	21.88	154.17	2
18900	1880	20.51	1.41	21.92	155.6	2
19125	1902.5	20.42	1.41	21.83	152.41	2

CHANNEL BANDWIDTH: 15MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18675	1857.5	17.57	1.41	18.98	79.07	2
18900	1880	17.47	1.41	18.88	77.27	2
19125	1902.5	17.45	1.41	18.86	76.91	2

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	22.56	1.41	23.97	249.46	2
18900	1880	22.52	1.41	23.93	247.17	2
19100	1900	22.42	1.41	23.83	241.55	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	21.57	1.41	22.98	198.61	2
18900	1880	21.56	1.41	22.97	198.15	2
19100	1900	21.48	1.41	22.89	194.54	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	20.59	1.41	22	158.49	2
18900	1880	20.57	1.41	21.98	157.76	2
19100	1900	20.52	1.41	21.93	155.96	2

CHANNEL BANDWIDTH: 20MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	17.67	1.41	19.08	80.91	2
18900	1880	17.49	1.41	18.9	77.62	2
19100	1900	17.49	1.41	18.9	77.62	2



LTE BAND 25

CHANNEL BANDWIDTH: 1.4MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26047	1850.7	22.43	1.41	23.84	242.1	2
26340	1880	22.51	1.41	23.92	246.6	2
26683	1914.3	22.31	1.41	23.72	235.5	2

CHANNEL BANDWIDTH: 1.4MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26047	1850.7	21.57	1.41	22.98	198.61	2
26340	1880	21.63	1.41	23.04	201.37	2
26683	1914.3	21.43	1.41	22.84	192.31	2

CHANNEL BANDWIDTH: 1.4MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26047	1850.7	20.56	1.41	21.97	157.4	2
26340	1880	20.63	1.41	22.04	159.96	2
26683	1914.3	20.49	1.41	21.9	154.88	2

CHANNEL BANDWIDTH: 1.4MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26047	1850.7	17.54	1.41	18.95	78.52	2
26340	1880	17.5	1.41	18.91	77.8	2
26683	1914.3	17.43	1.41	18.84	76.56	2

CHANNEL BANDWIDTH: 3MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26055	1851.5	22.38	1.41	23.79	239.33	2
26340	1880	22.44	1.41	23.85	242.66	2
26675	1913.5	22.27	1.41	23.68	233.35	2

CHANNEL BANDWIDTH: 3MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26055	1851.5	21.59	1.41	23	199.53	2
26340	1880	21.55	1.41	22.96	197.7	2
26675	1913.5	21.47	1.41	22.88	194.09	2

CHANNEL BANDWIDTH: 3MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26055	1851.5	20.59	1.41	22	158.49	2
26340	1880	20.65	1.41	22.06	160.69	2
26675	1913.5	20.54	1.41	21.95	156.68	2

CHANNEL BANDWIDTH: 3MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26055	1851.5	17.63	1.41	19.04	80.17	2
26340	1880	17.48	1.41	18.89	77.45	2
26675	1913.5	17.46	1.41	18.87	77.09	2



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CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26065	1852.5	22.41	1.41	23.82	240.99	2
26340	1880	22.49	1.41	23.9	245.47	2
26665	1912.5	22.33	1.41	23.74	236.59	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26065	1852.5	21.66	1.41	23.07	202.77	2
26340	1880	21.59	1.41	23	199.53	2
26665	1912.5	21.45	1.41	22.86	193.2	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26065	1852.5	20.68	1.41	22.09	161.81	2
26340	1880	20.51	1.41	21.92	155.6	2
26665	1912.5	20.53	1.41	21.94	156.31	2

CHANNEL BANDWIDTH: 5MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26065	1852.5	17.65	1.41	19.06	80.54	2
26340	1880	17.43	1.41	18.84	76.56	2
26665	1912.5	17.51	1.41	18.92	77.98	2

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26090	1855	22.44	1.41	23.85	242.66	2
26340	1880	22.5	1.41	23.91	246.04	2
26640	1910	22.26	1.41	23.67	232.81	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26090	1855	21.64	1.41	23.05	201.84	2
26340	1880	21.57	1.41	22.98	198.61	2
26640	1910	21.38	1.41	22.79	190.11	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26090	1855	20.55	1.41	21.96	157.04	2
26340	1880	20.56	1.41	21.97	157.4	2
26640	1910	20.45	1.41	21.86	153.46	2

CHANNEL BANDWIDTH: 10MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26090	1855	17.66	1.41	19.07	80.72	2
26340	1880	17.47	1.41	18.88	77.27	2
26640	1910	17.52	1.41	18.93	78.16	2



**BUREAU
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Test Report No.: W7L-P23120020RF02

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26115	1857.5	22.41	1.41	23.82	240.99	2
26340	1880	22.46	1.41	23.87	243.78	2
26615	1907.5	22.28	1.41	23.69	233.88	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26115	1857.5	21.64	1.41	23.05	201.84	2
26340	1880	21.51	1.41	22.92	195.88	2
26615	1907.5	21.39	1.41	22.8	190.55	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26115	1857.5	20.58	1.41	21.99	158.12	2
26340	1880	20.65	1.41	22.06	160.69	2
26615	1907.5	20.51	1.41	21.92	155.6	2

CHANNEL BANDWIDTH: 15MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26115	1857.5	17.56	1.41	18.97	78.89	2
26340	1880	17.48	1.41	18.89	77.45	2
26615	1907.5	17.39	1.41	18.8	75.86	2

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26140	1860	22.47	1.41	23.88	244.34	2
26340	1880	22.56	1.41	23.97	249.46	2
26590	1905	22.39	1.41	23.8	239.88	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26140	1860	21.67	1.41	23.08	203.24	2
26340	1880	21.64	1.41	23.05	201.84	2
26590	1905	21.49	1.41	22.9	194.98	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26140	1860	20.7	1.41	22.11	162.55	2
26340	1880	20.66	1.41	22.07	161.06	2
26590	1905	20.56	1.41	21.97	157.4	2

CHANNEL BANDWIDTH: 20MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-L_C} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26140	1860	17.68	1.41	19.09	81.1	2
26340	1880	17.53	1.41	18.94	78.34	2
26590	1905	17.54	1.41	18.95	78.52	2

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



3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

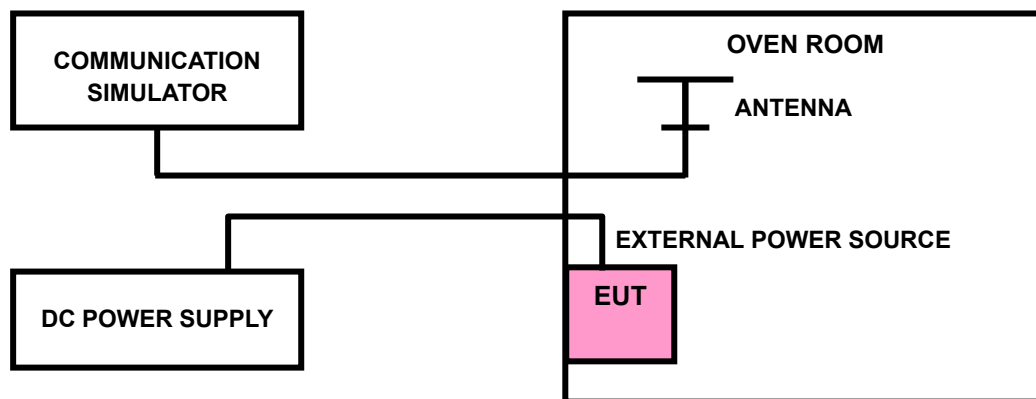
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

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-P23120020RF02

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)

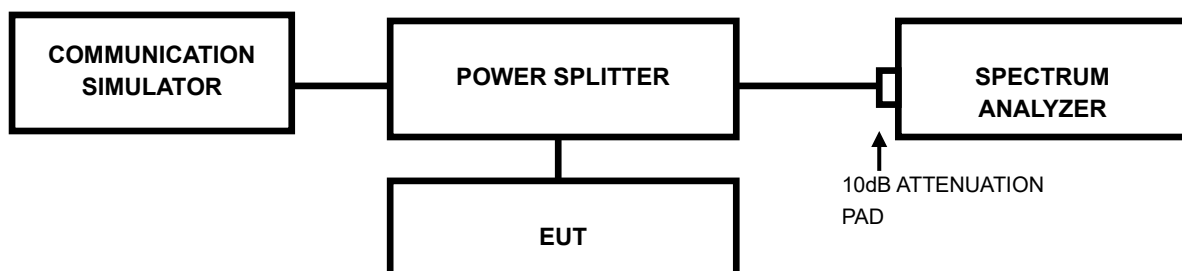


3.3 OCCUPIED BANDWIDTH MEASUREMENT

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-P23120020RF02

3.3.4 TEST RESULTS

Please Refer to Appendix Of this test report.

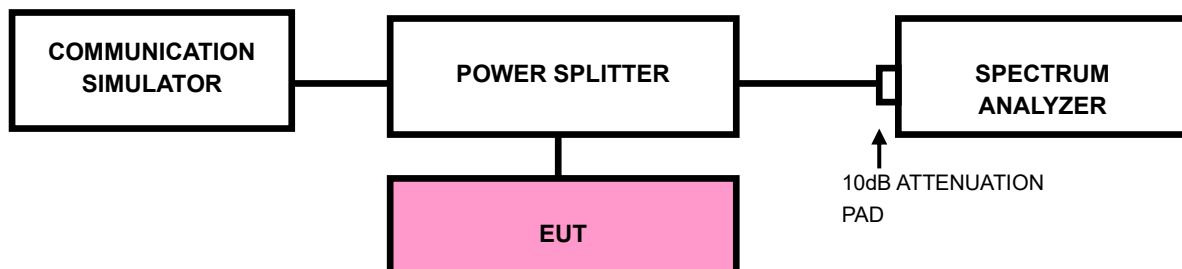


3.4 BAND EDGE MEASUREMENTC

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-P23120020RF02

3.4.4. TEST RESULTS

Please Refer to Appendix Of this test report.



3.5 CONDUCTED SPURIOUS EMISSIONS

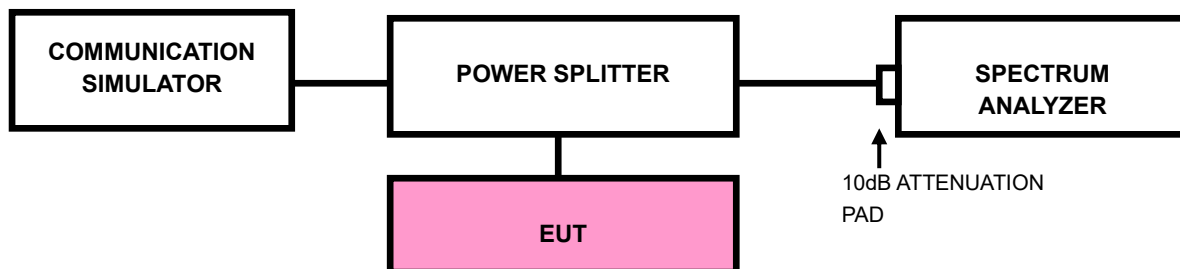
3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

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

- The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- Measuring frequency range is from 30MHz 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-P23120020RF02

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. $\text{EIRP} = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}.$

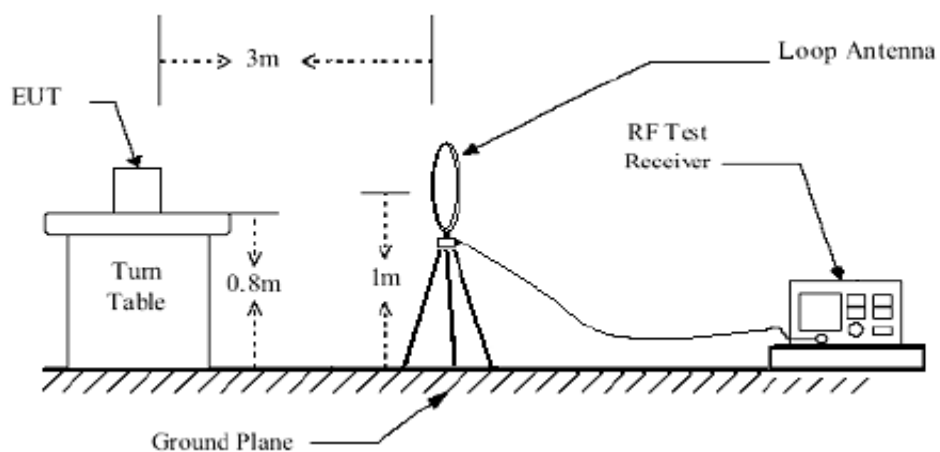
NOTE: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

3.6.3 DEVIATION FROM TEST STANDARD

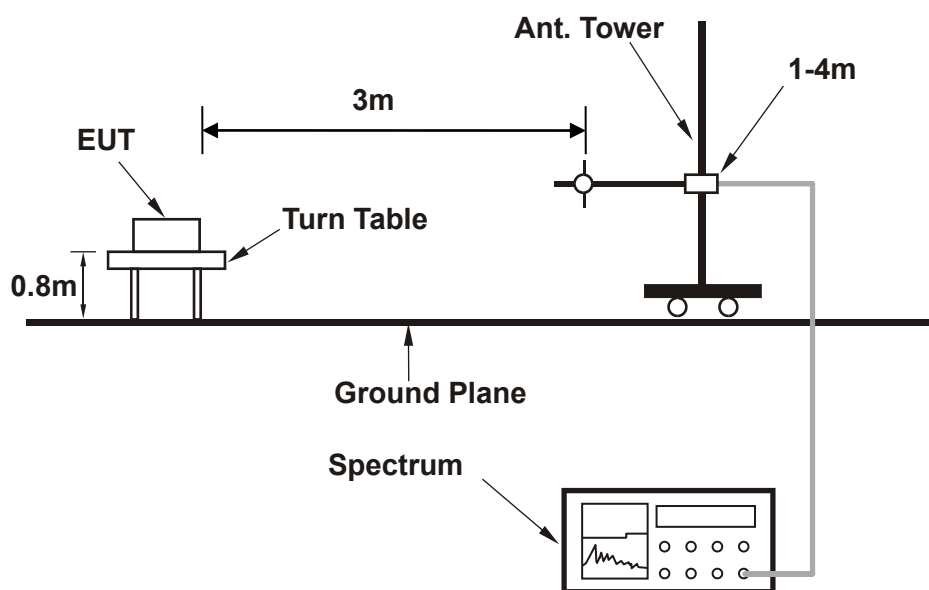
No deviation

3.6.4 TEST SETUP

< Frequency Range below 30MHz >



< Frequency Range 30MHz~1GHz >

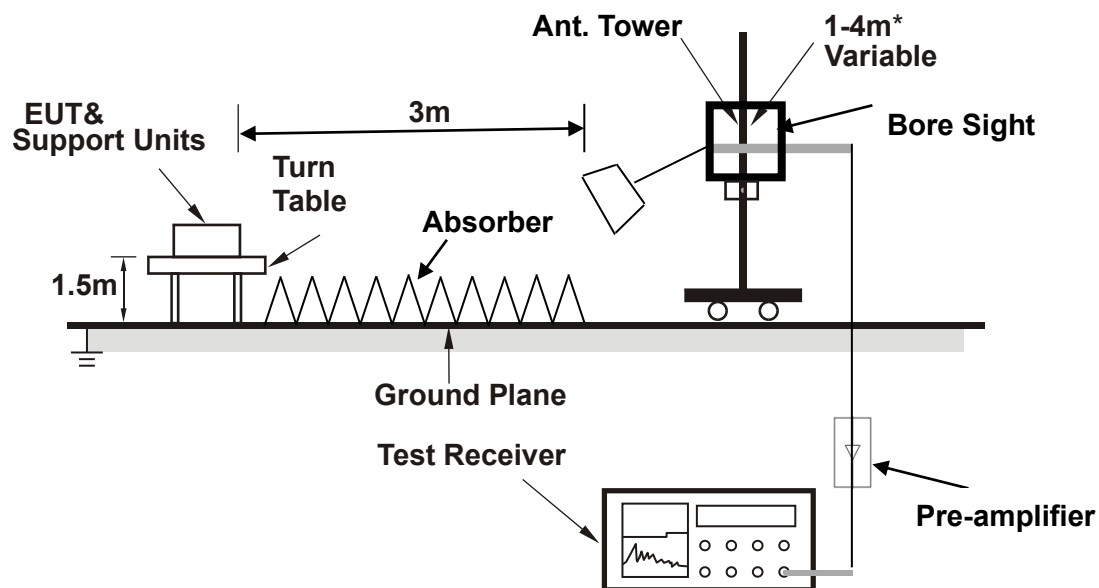




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Test Report No.: W7L-P23120020RF02

<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).



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Test Report No.: W7L-P23120020RF02

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

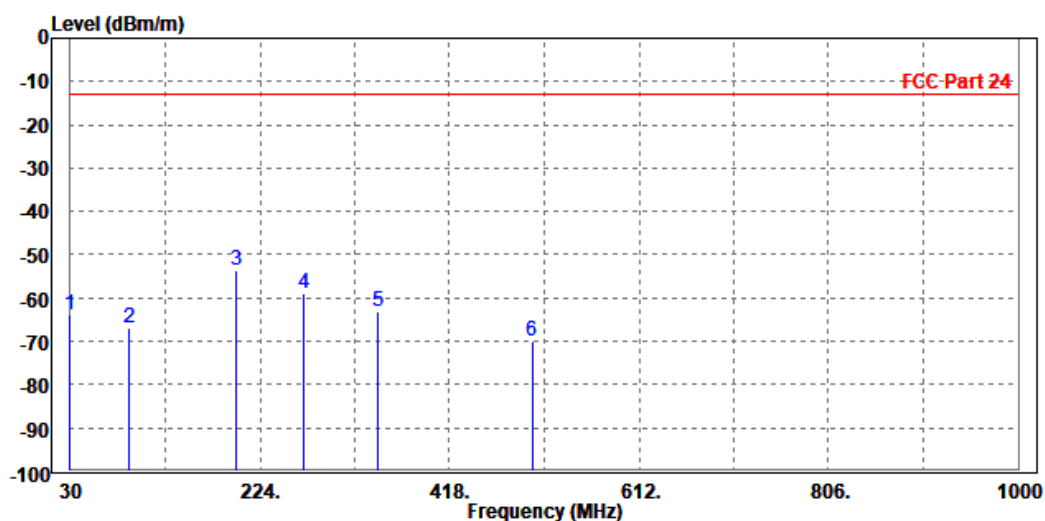
30 MHz – 1GHz data:

GSM 1900:

CHANNEL BANDWIDTH:

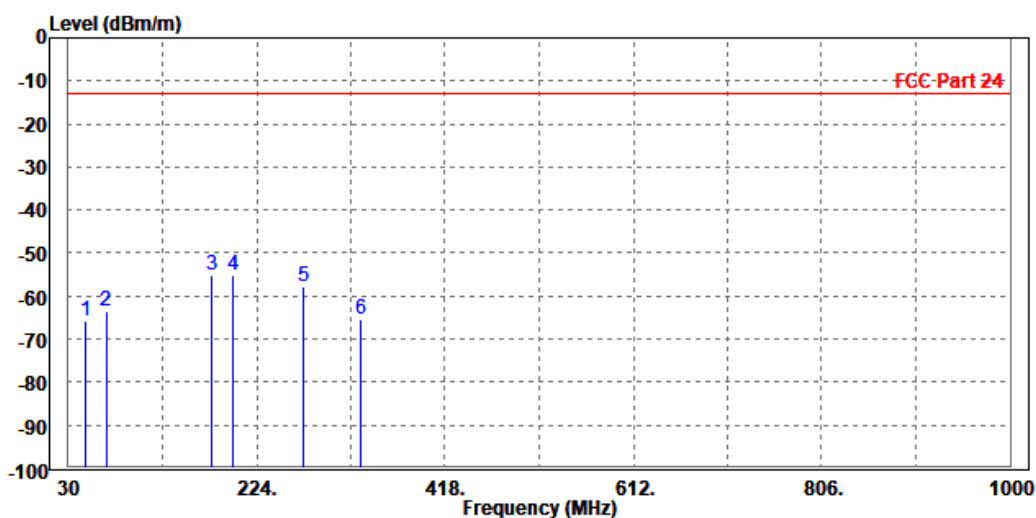
MODE	TX channel 810	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	30.000	-63.73	-61.75	-13.00	-50.73	-1.98	Peak	Horizontal
2	90.140	-66.77	-54.04	-13.00	-53.77	-12.73	Peak	Horizontal
3 PP	198.780	-53.76	-38.34	-13.00	-40.76	-15.42	Peak	Horizontal
4	268.620	-58.86	-48.56	-13.00	-45.86	-10.30	Peak	Horizontal
5	344.280	-63.05	-55.08	-13.00	-50.05	-7.97	Peak	Horizontal
6	502.390	-70.04	-65.07	-13.00	-57.04	-4.97	Peak	Horizontal



MODE	TX channel 810	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	48.430	-65.96	-45.47	-13.00	-52.96	-20.49	Peak	Vertical
2	68.800	-63.45	-43.16	-13.00	-50.45	-20.29	Peak	Vertical
3 PP	177.440	-55.00	-44.42	-13.00	-42.00	-10.58	Peak	Vertical
4	198.780	-55.31	-46.46	-13.00	-42.31	-8.85	Peak	Vertical
5	271.530	-57.64	-54.04	-13.00	-44.64	-3.60	Peak	Vertical
6	331.670	-65.46	-61.82	-13.00	-52.46	-3.64	Peak	Vertical





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Test Report No.: W7L-P23120020RF02

ABOVE 1GHz DATA

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

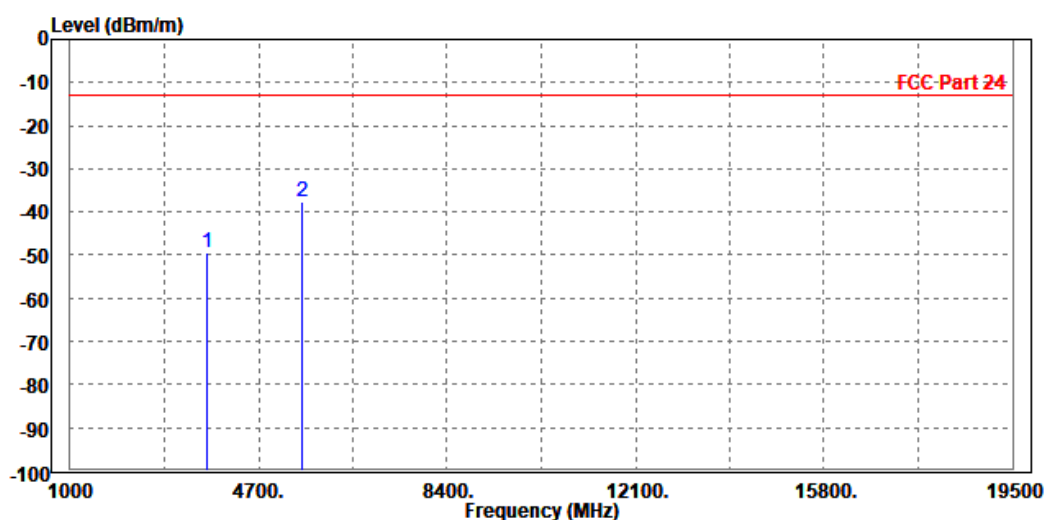
WORST-CASE DATA

GSM 1900:

CH 512

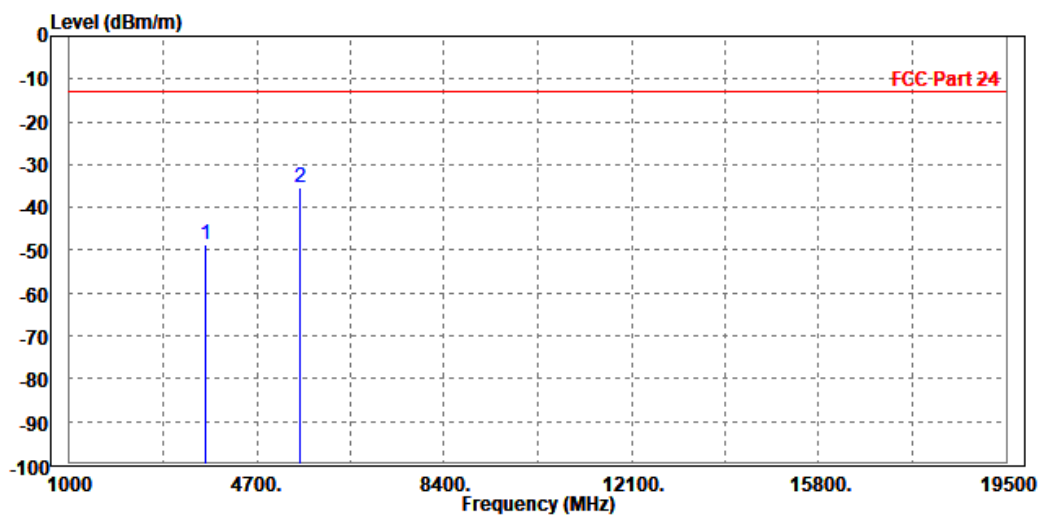
MODE	TX channel 512	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3701.000	-49.43	-57.83	-13.00	-36.43	8.40	Peak	Horizontal
2 PP	5550.600	-37.73	-49.53	-13.00	-24.73	11.80	Peak	Horizontal



MODE	TX channel 512	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			

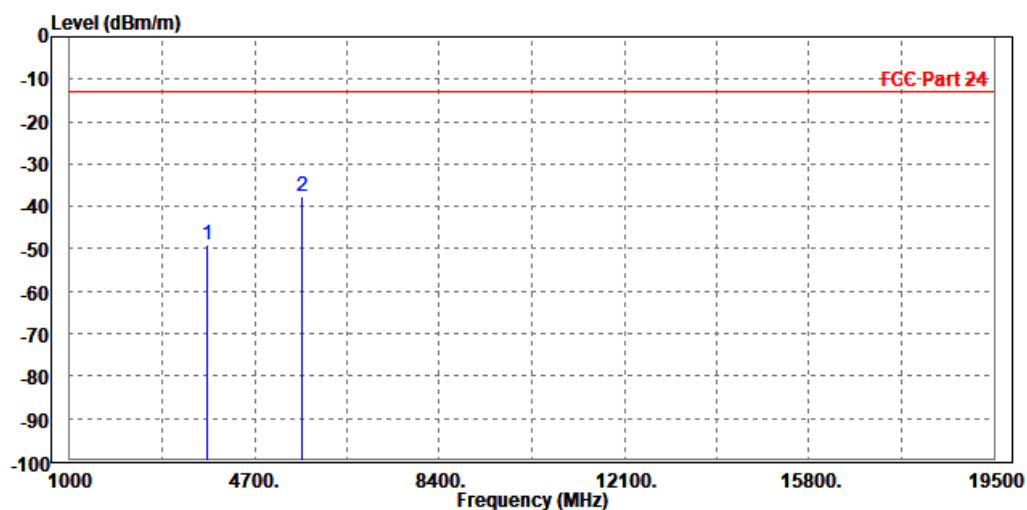
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3700.400	-48.64	-57.27	-13.00	-35.64	8.63	Peak	Vertical
2 PP	5551.000	-35.45	-47.78	-13.00	-22.45	12.33	Peak	Vertical



CH 661

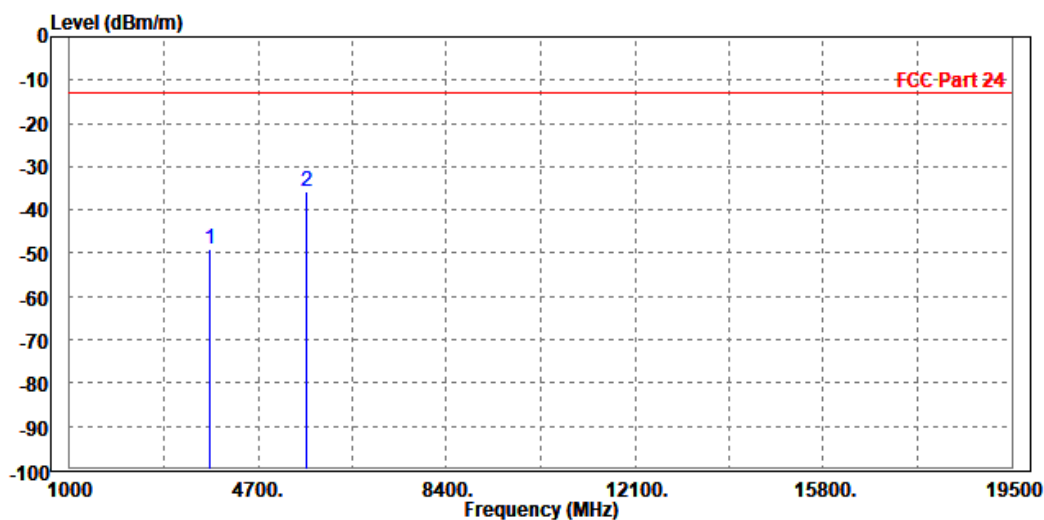
MODE	TX channel 661	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3760.000	-49.13	-57.48	-13.00	-36.13	8.35	Peak	Horizontal
2 PP	5643.500	-37.58	-49.39	-13.00	-24.58	11.81	Peak	Horizontal



MODE	TX channel 661	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			

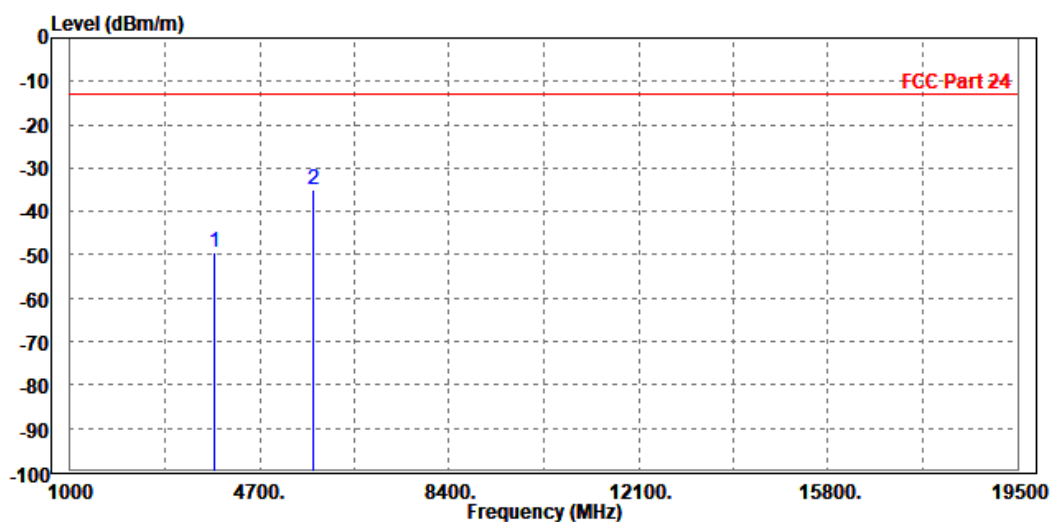
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3756.500	-49.16	-57.79	-13.00	-36.16	8.63	Peak	Vertical
2 PP	5640.000	-35.64	-47.96	-13.00	-22.64	12.32	Peak	Vertical



CH 810

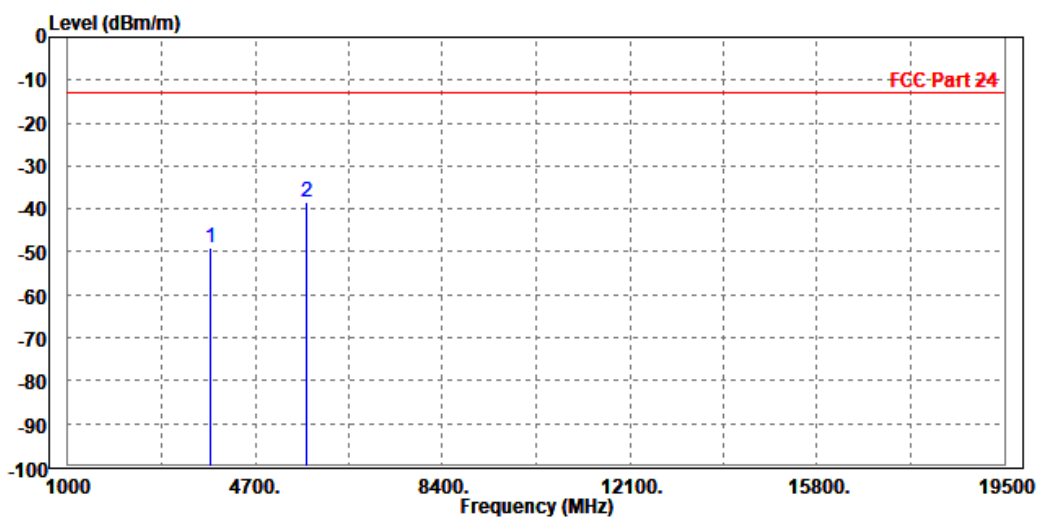
MODE	TX channel 810	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3819.600	-49.62	-57.92	-13.00	-36.62	8.30	Peak	Horizontal
2 PP	5736.000	-35.02	-46.84	-13.00	-22.02	11.82	Peak	Horizontal



MODE	TX channel 810	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	3812.000	-48.86	-57.49	-13.00	-35.86	8.63	Peak	Vertical
2 PP	5729.400	-38.42	-50.73	-13.00	-25.42	12.31	Peak	Vertical

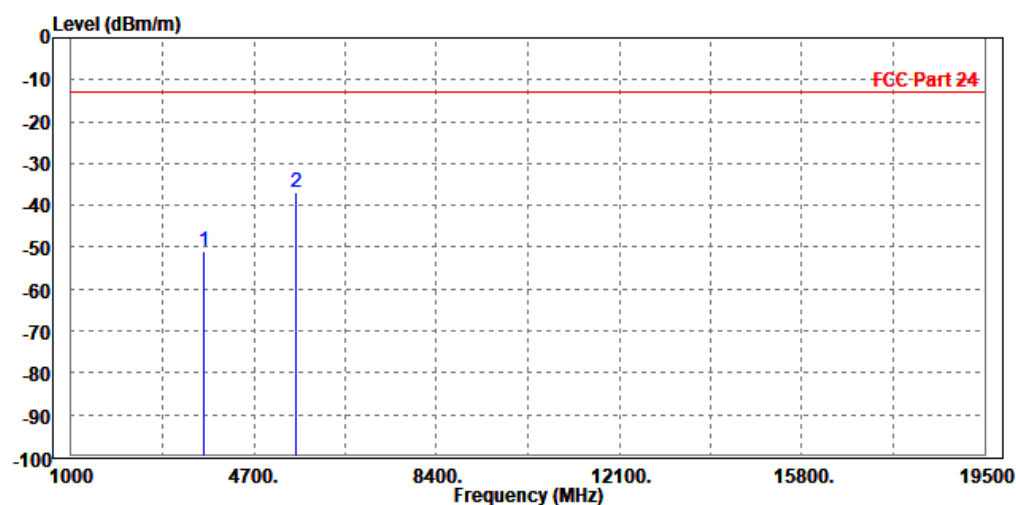


EDGE 1900:

CH 512

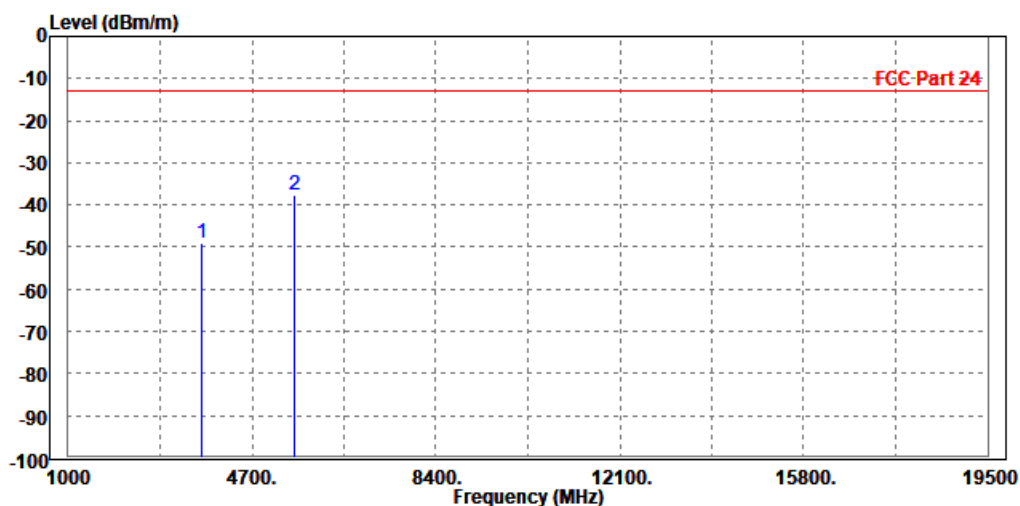
MODE	TX channel 512	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3700.400	-50.96	-59.36	-13.00	-37.96	8.40	Peak	Horizontal
2 PP	5551.000	-37.07	-48.87	-13.00	-24.07	11.80	Peak	Horizontal



MODE	TX channel 512	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			

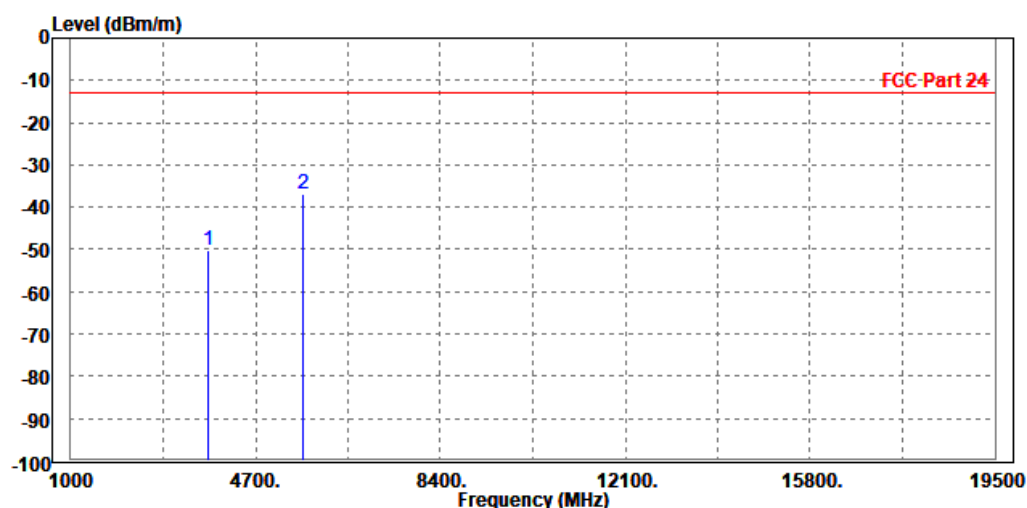
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3701.000	-49.04	-57.67	-13.00	-36.04	8.63	Peak	Vertical
2 PP	5550.600	-37.69	-50.02	-13.00	-24.69	12.33	Peak	Vertical



CH 661

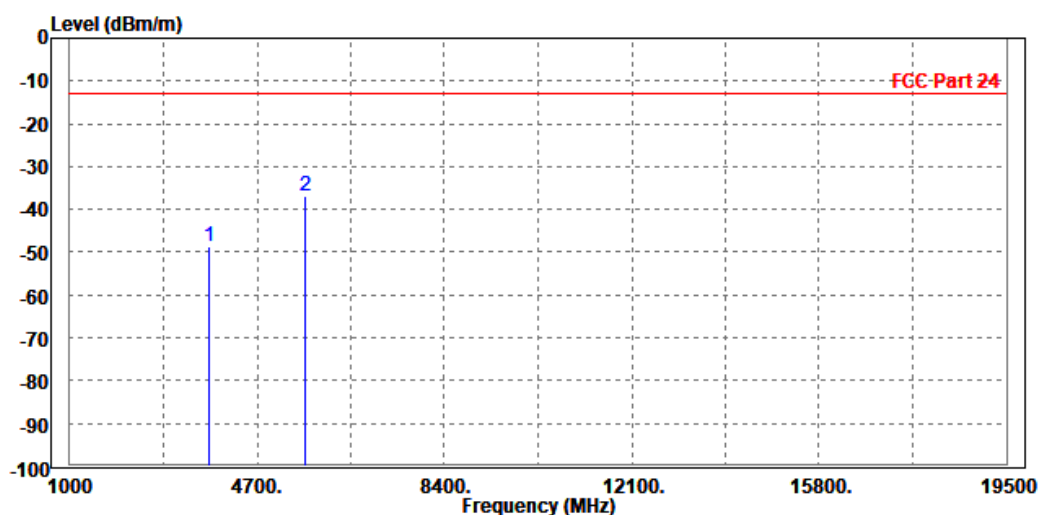
MODE	TX channel 661	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3756.500	-50.25	-58.60	-13.00	-37.25	8.35	Peak	Horizontal
2 PP	5640.000	-37.03	-48.84	-13.00	-24.03	11.81	Peak	Horizontal



MODE	TX channel 661	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	3760.000	-48.71	-57.34	-13.00	-35.71	8.63	Peak	Vertical
2 PP	5643.500	-37.03	-49.35	-13.00	-24.03	12.32	Peak	Vertical





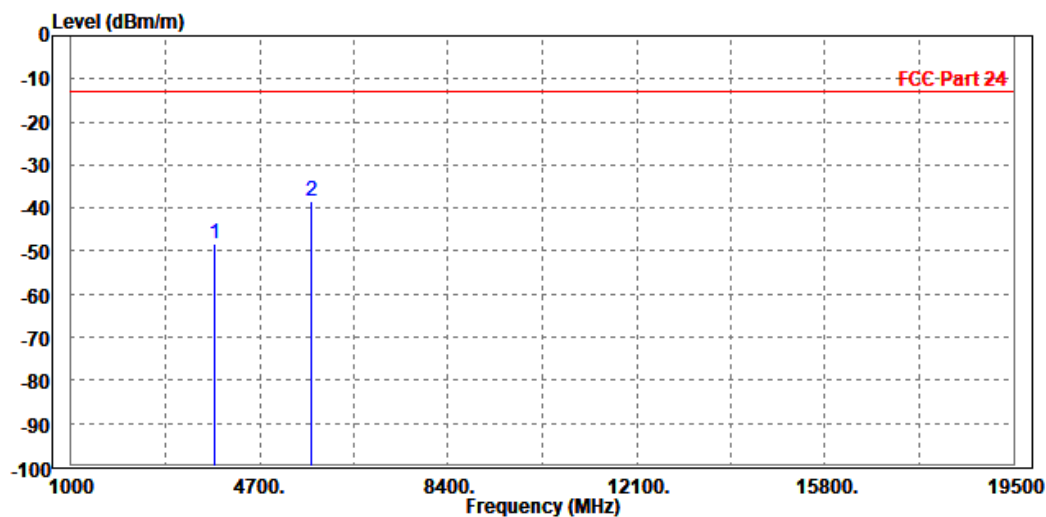
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Test Report No.: W7L-P23120020RF02

CH 810

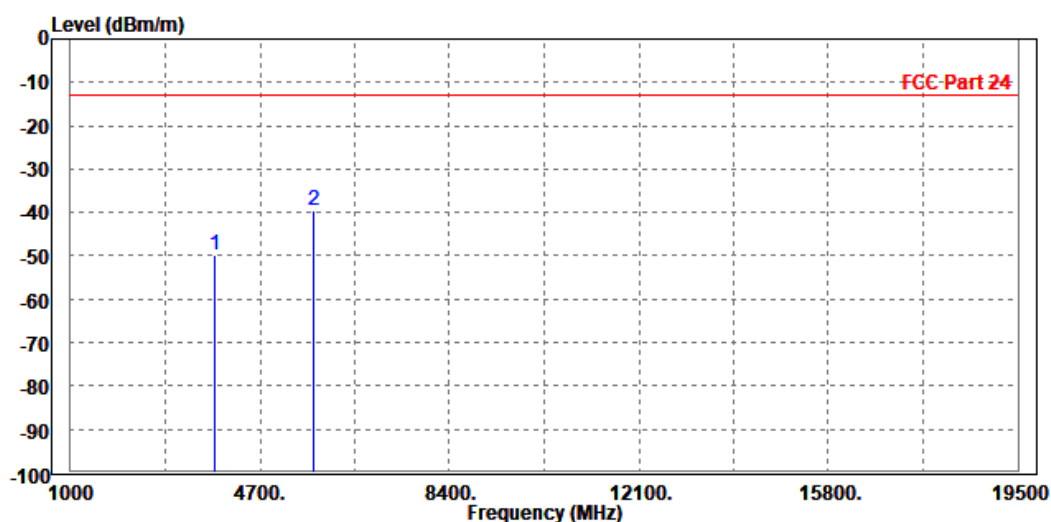
MODE	TX channel 810	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3812.000	-48.30	-56.61	-13.00	-35.30	8.31	Peak	Horizontal
2 PP	5729.400	-38.40	-50.22	-13.00	-25.40	11.82	Peak	Horizontal



MODE	TX channel 810	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	3819.600	-49.63	-58.26	-13.00	-36.63	8.63	Peak	Vertical
2 PP	5736.000	-39.65	-51.96	-13.00	-26.65	12.31	Peak	Vertical





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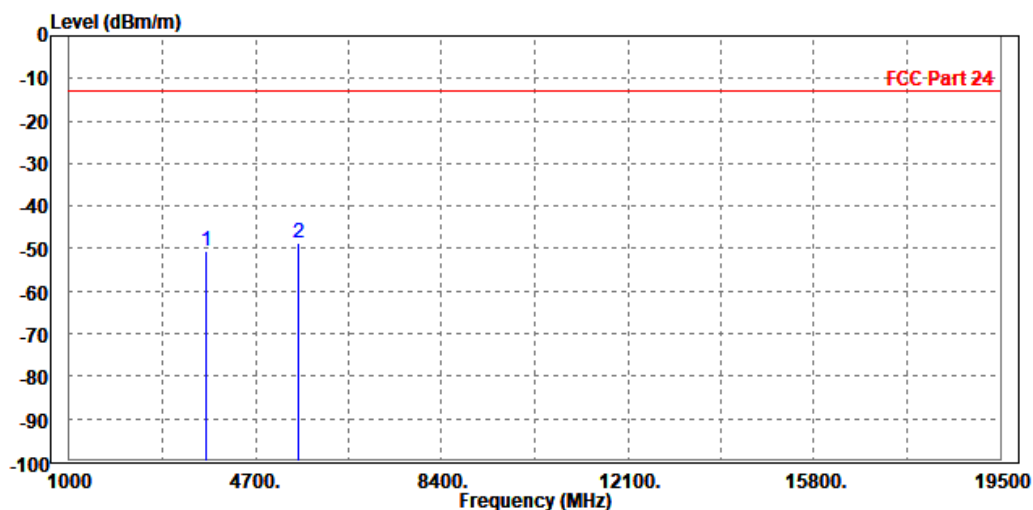
Test Report No.: W7L-P23120020RF02

WCDMA Band II

CH 9262

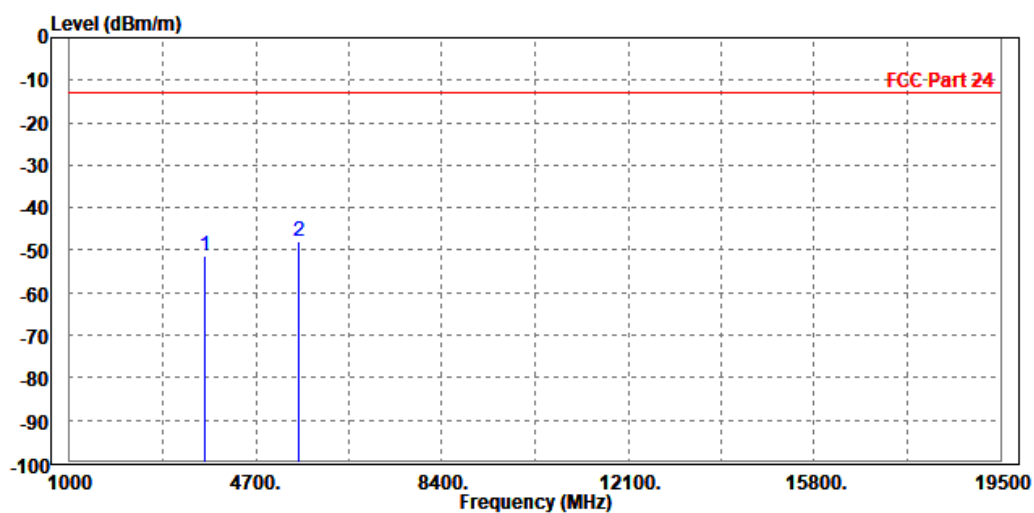
MODE	TX channel 9262	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3704.800	-50.73	-59.13	-13.00	-37.73	8.40	Peak	Horizontal
2 PP	5551.000	-48.67	-60.47	-13.00	-35.67	11.80	Peak	Horizontal



MODE	TX channel 9262	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			

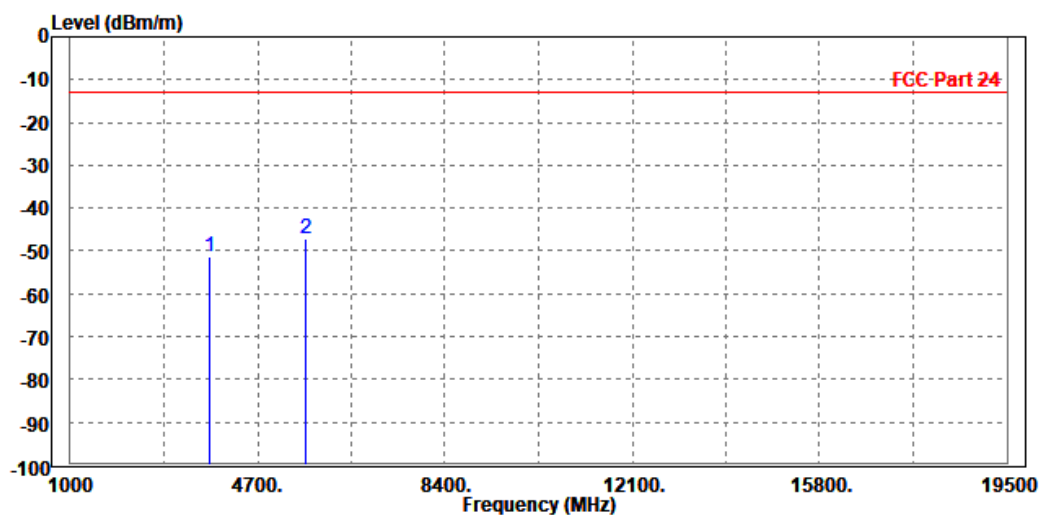
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3701.000	-51.41	-60.04	-13.00	-38.41	8.63	Peak	Vertical
2 PP	5557.200	-48.04	-60.37	-13.00	-35.04	12.33	Peak	Vertical



CH 9400

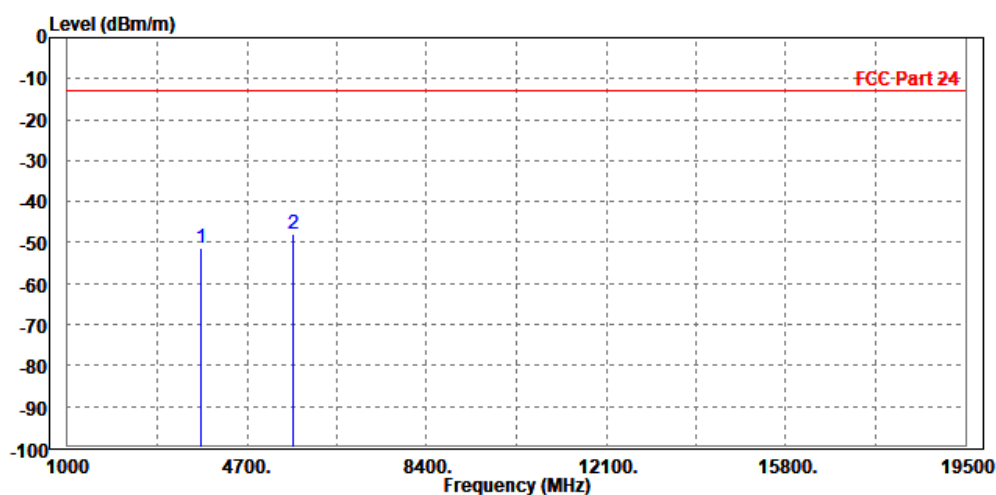
MODE	TX channel 9400	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3756.500	-51.32	-59.67	-13.00	-38.32	8.35	Peak	Horizontal
2 PP	5640.000	-47.13	-58.94	-13.00	-34.13	11.81	Peak	Horizontal



MODE	TX channel 9400	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			

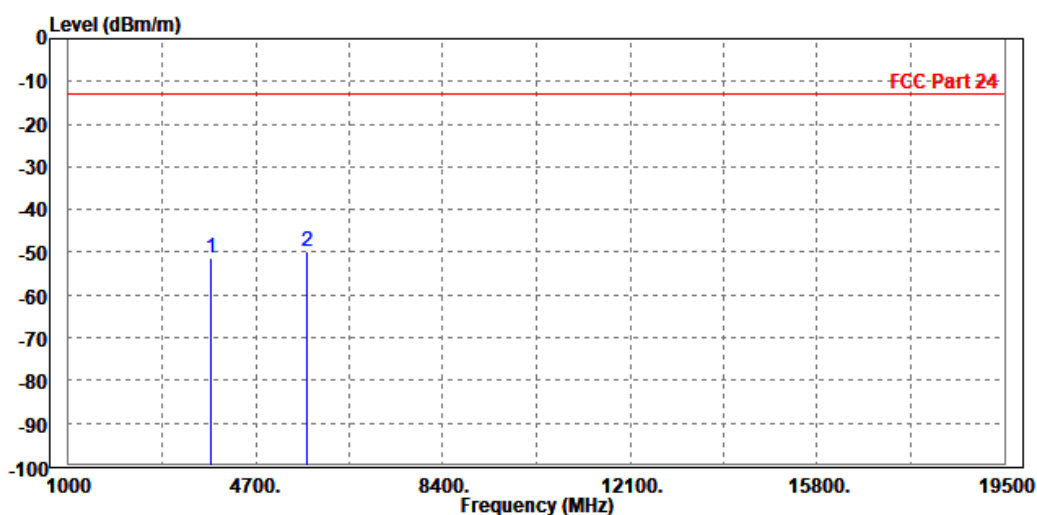
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3760.000	-51.44	-60.07	-13.00	-38.44	8.63	Peak	Vertical
2	PP 5643.500	-48.04	-60.36	-13.00	-35.04	12.32	Peak	Vertical



CH 9538

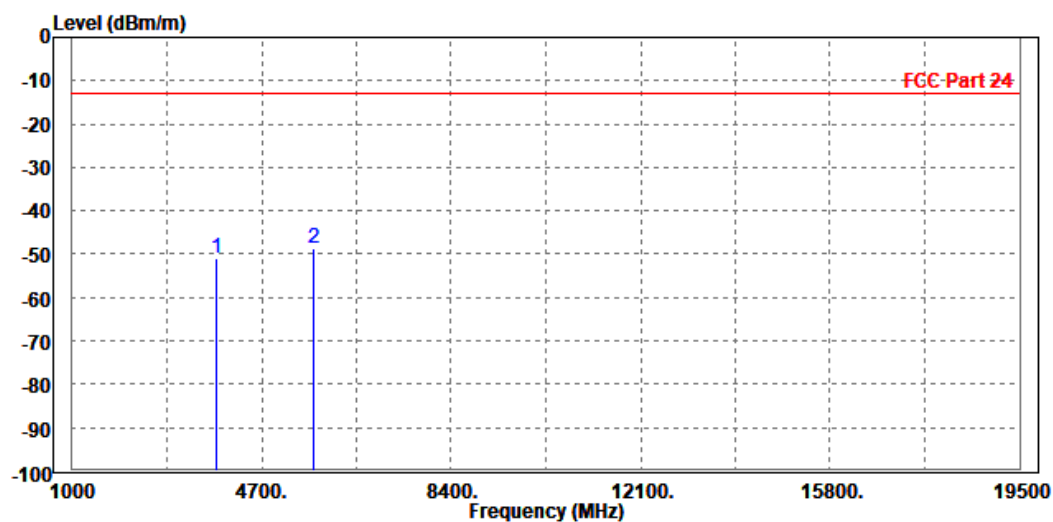
MODE	TX channel 9538	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3812.000	-51.50	-59.81	-13.00	-38.50	8.31	Peak	Horizontal
2 PP	5717.500	-49.99	-61.81	-13.00	-36.99	11.82	Peak	Horizontal



MODE	TX channel 9538	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	3815.200	-51.13	-59.76	-13.00	-38.13	8.63	Peak	Vertical
2 PP	5717.500	-48.75	-61.06	-13.00	-35.75	12.31	Peak	Vertical

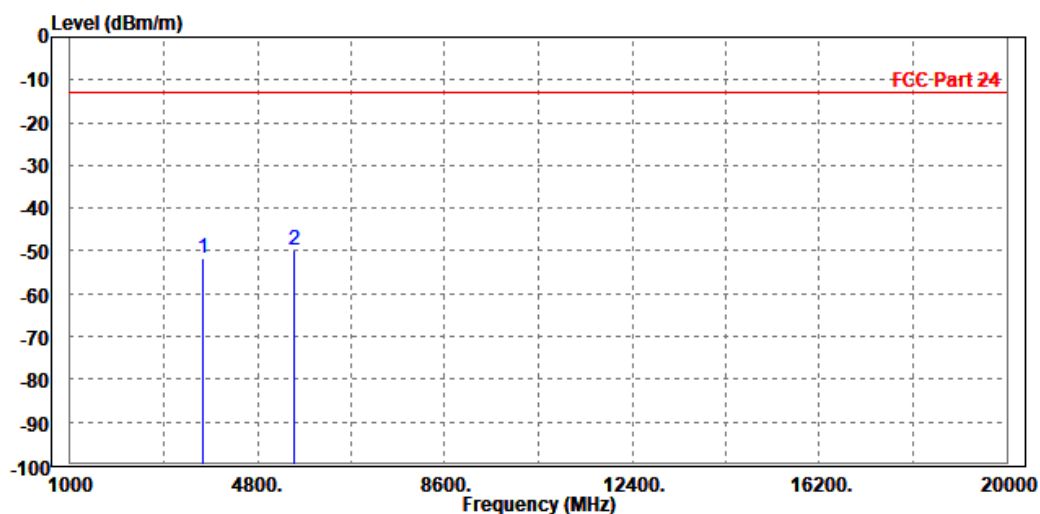


LTE Band 25

CHANNEL BANDWIDTH: 1.4MHz / QPSK

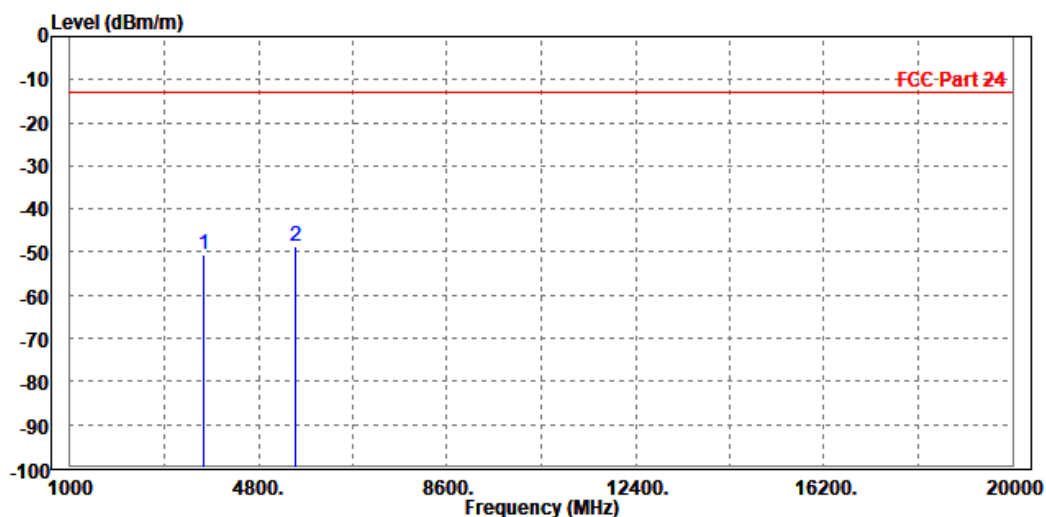
MODE	TX channel 26047	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3701.400	-51.79	-60.19	-13.00	-38.79	8.40	Peak	Horizontal
2 PP	5560.000	-49.79	-61.59	-13.00	-36.79	11.80	Peak	Horizontal



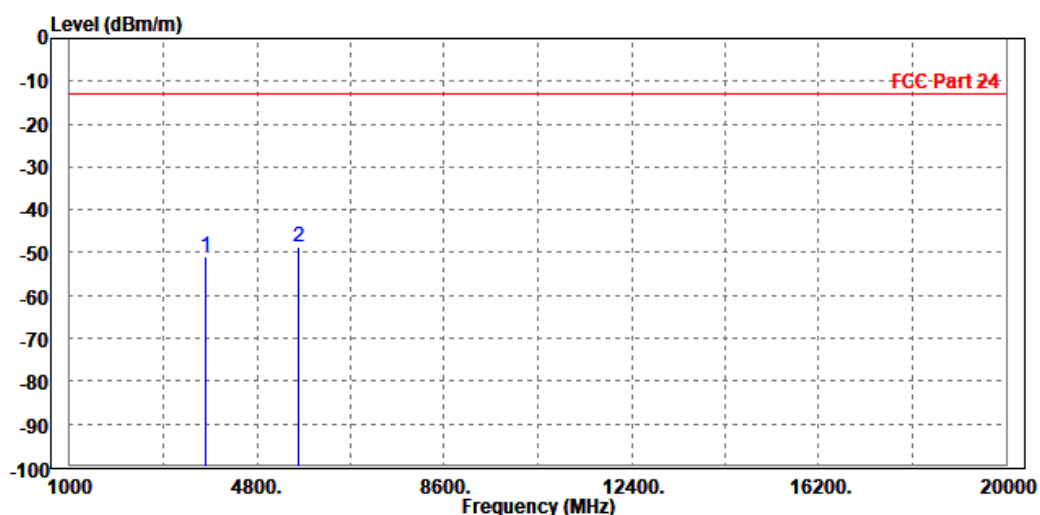
MODE	TX channel 26047	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3698.000	-50.70	-59.33	-13.00	-37.70	8.63	Peak	Vertical
2 PP	5552.100	-48.72	-61.05	-13.00	-35.72	12.33	Peak	Vertical



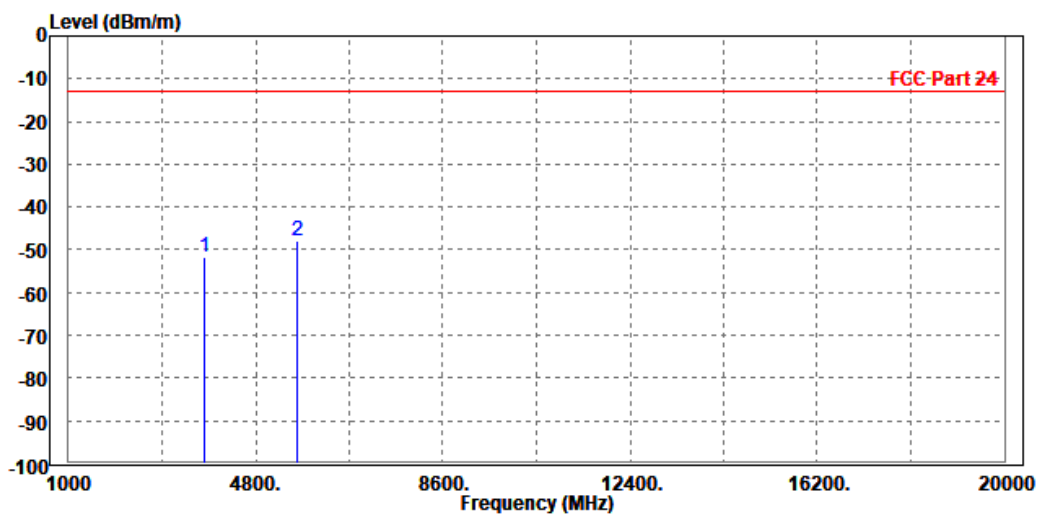
MODE	TX channel 26365	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3774.000	-50.94	-59.28	-13.00	-37.94	8.34	Peak	Horizontal
2 PP	5647.500	-48.74	-60.55	-13.00	-35.74	11.81	Peak	Horizontal



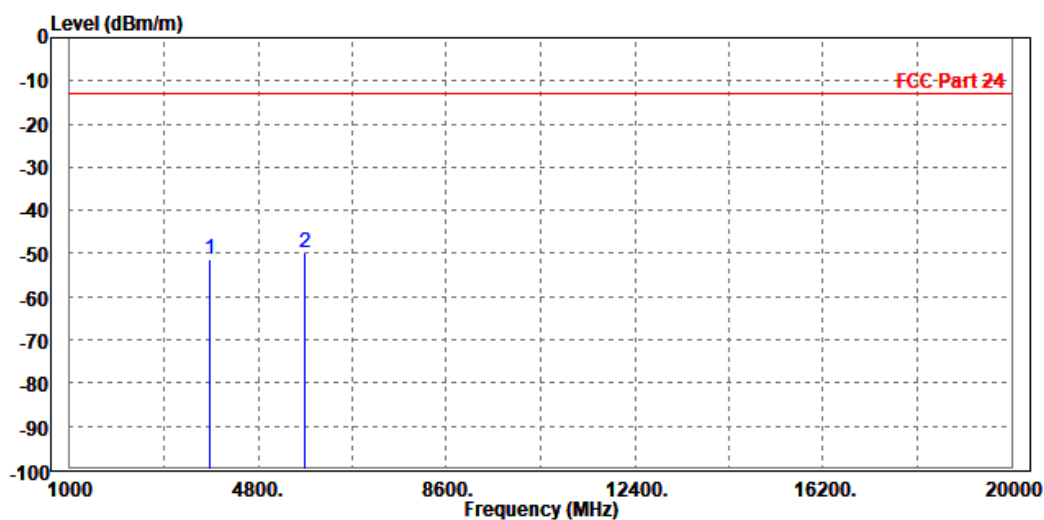
MODE	TX channel 26365	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3765.000	-51.65	-60.28	-13.00	-38.65	8.63	Peak	Vertical
2 PP	5655.000	-47.97	-60.29	-13.00	-34.97	12.32	Peak	Vertical



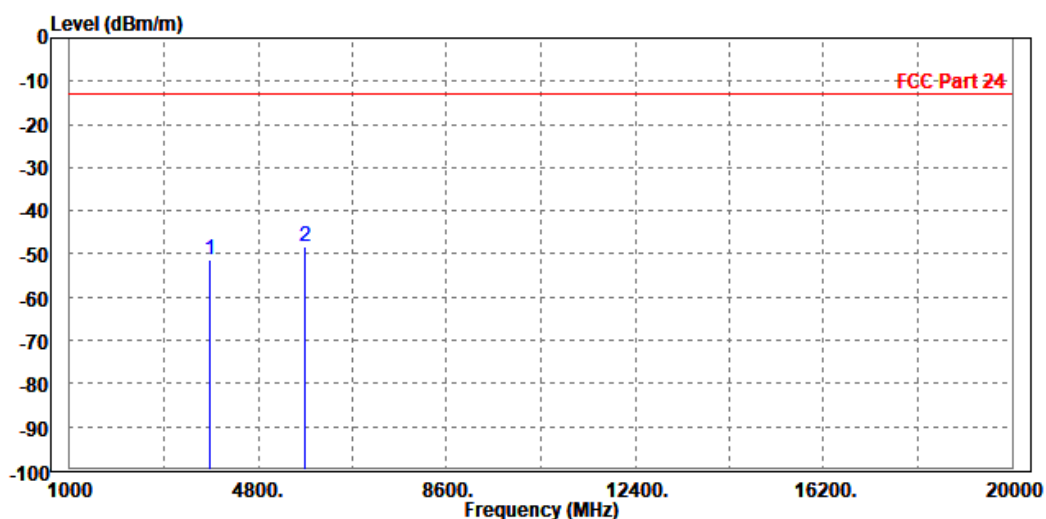
MODE	TX channel 26683	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3831.000	-51.23	-59.53	-13.00	-38.23	8.30	Peak	Horizontal
2 PP	5742.900	-49.62	-61.44	-13.00	-36.62	11.82	Peak	Horizontal



MODE	TX channel 26683	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	3828.600	-51.33	-59.96	-13.00	-38.33	8.63	Peak	Vertical
2 PP	5750.000	-48.34	-60.65	-13.00	-35.34	12.31	Peak	Vertical





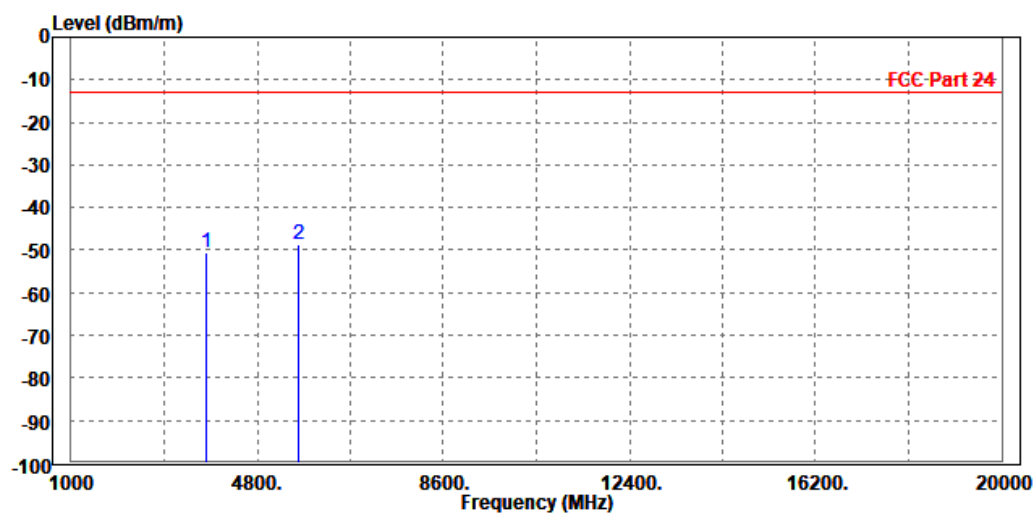
BUREAU
VERITAS

Test Report No.: W7L-P23120020RF02

CHANNEL BANDWIDTH: 3MHz / QPSK

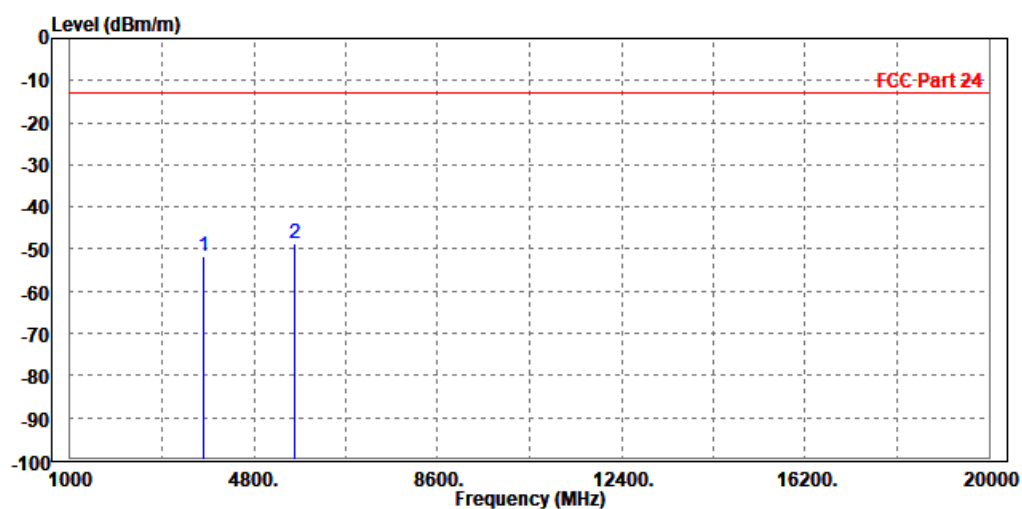
MODE	TX channel 26365	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3765.000	-50.46	-58.81	-13.00	-37.46	8.35	Peak	Horizontal
2 PP	5655.000	-48.75	-60.56	-13.00	-35.75	11.81	Peak	Horizontal



MODE	TX channel 26365	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	3774.000	-51.57	-60.20	-13.00	-38.57	8.63	Peak	Vertical
2 PP	5647.500	-48.70	-61.02	-13.00	-35.70	12.32	Peak	Vertical



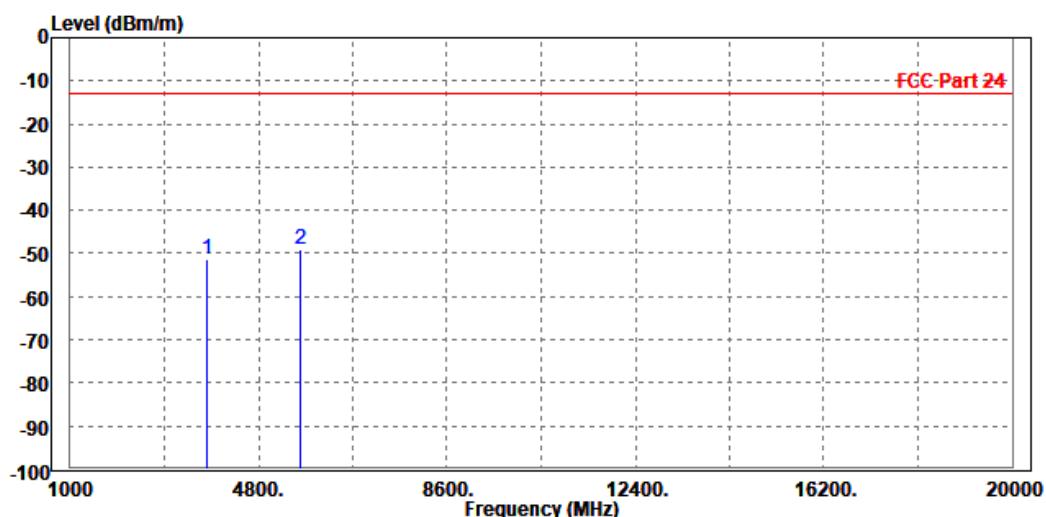


Test Report No.: W7L-P23120020RF02

CHANNEL BANDWIDTH: 5MHz / QPSK

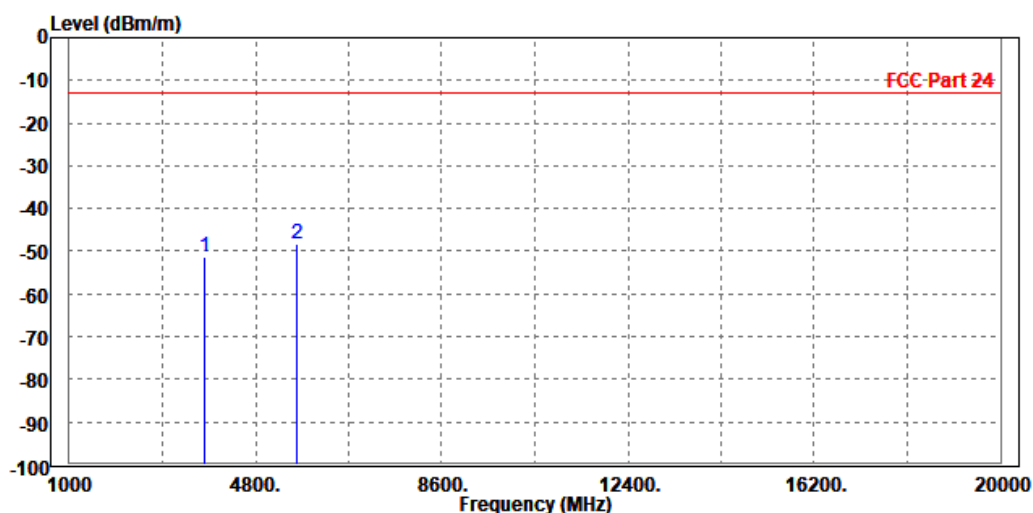
MODE	TX channel 26365	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3774.000	-51.45	-59.79	-13.00	-38.45	8.34	Peak	Horizontal
2 PP	5647.500	-49.24	-61.05	-13.00	-36.24	11.81	Peak	Horizontal



MODE	TX channel 26365	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			

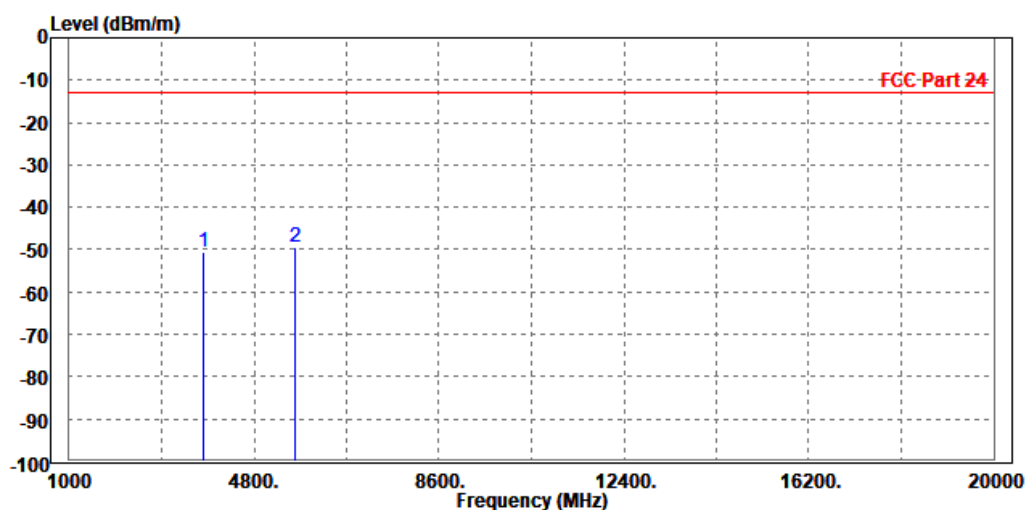
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3765.000	-51.47	-60.10	-13.00	-38.47	8.63	Peak	Vertical
2 PP	5655.000	-48.18	-60.50	-13.00	-35.18	12.32	Peak	Vertical



CHANNEL BANDWIDTH: 10MHz / QPSK

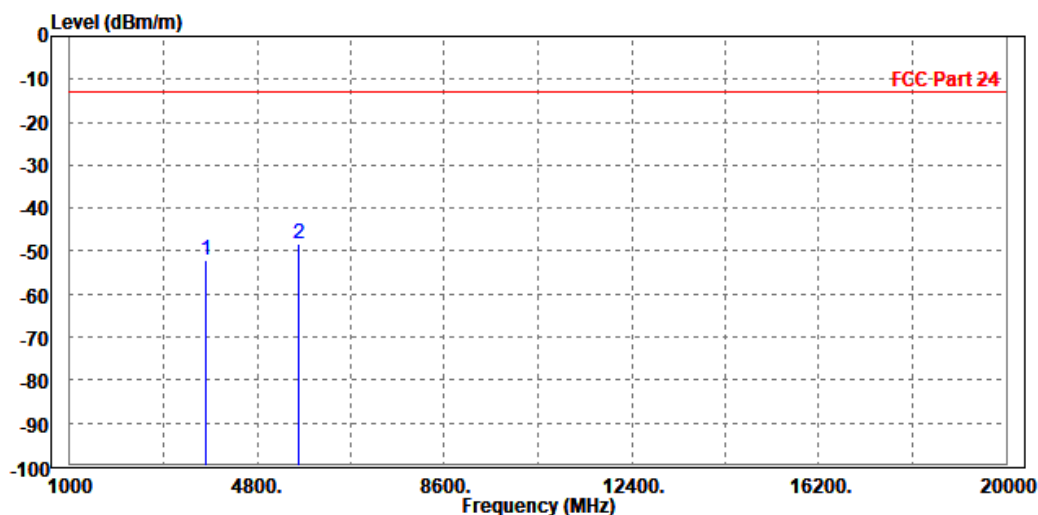
MODE	TX channel 26365	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3765.000	-50.45	-58.80	-13.00	-37.45	8.35	Peak	Horizontal
2 PP	5655.000	-49.35	-61.16	-13.00	-36.35	11.81	Peak	Horizontal



MODE	TX channel 26365	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			

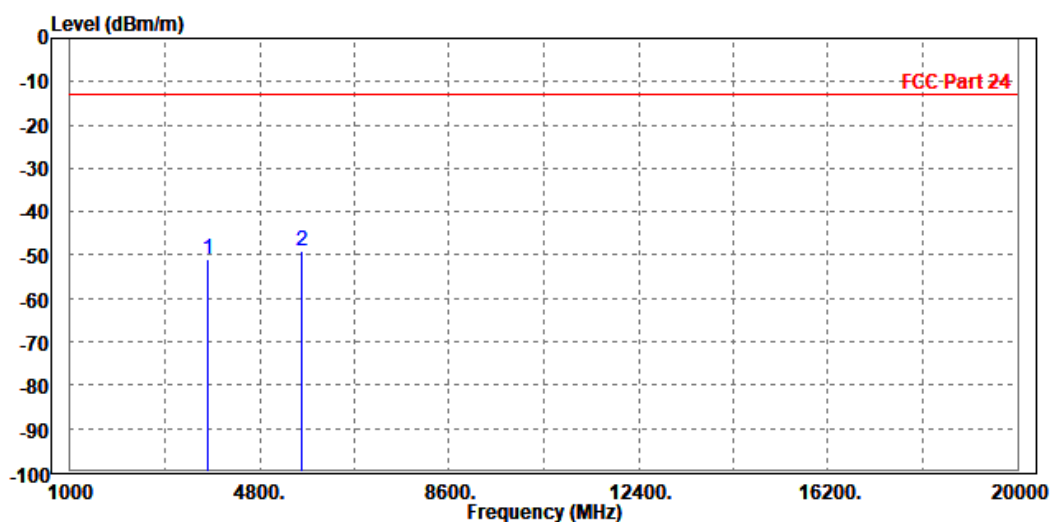
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3774.000	-52.16	-60.79	-13.00	-39.16	8.63	Peak	Vertical
2 PP	5647.500	-48.45	-60.77	-13.00	-35.45	12.32	Peak	Vertical



CHANNEL BANDWIDTH: 15MHz / QPSK

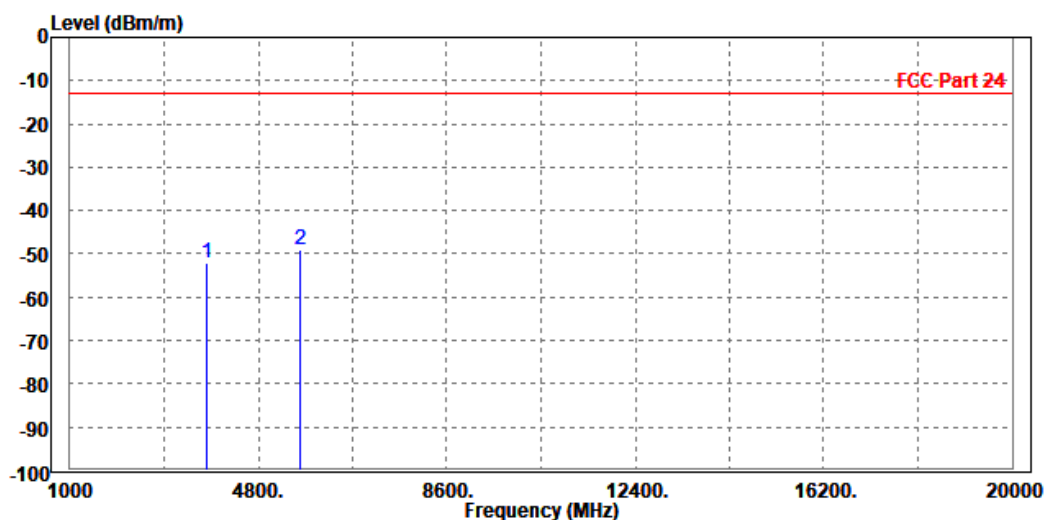
MODE	TX channel 26365	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3765.000	-50.95	-59.30	-13.00	-37.95	8.35	Peak	Horizontal
2 PP	5655.000	-49.19	-61.00	-13.00	-36.19	11.81	Peak	Horizontal



MODE	TX channel 26365	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			

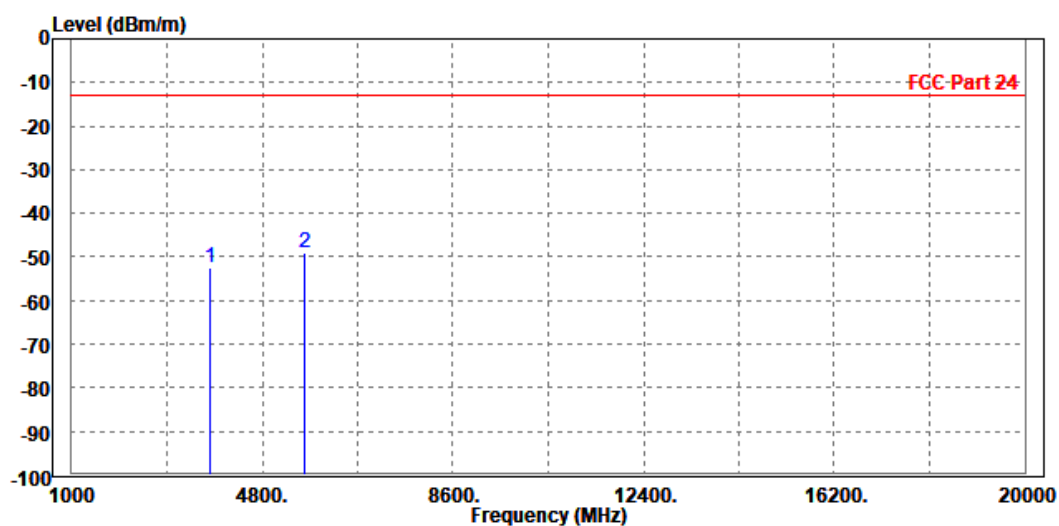
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3774.000	-51.98	-60.61	-13.00	-38.98	8.63	Peak	Vertical
2	PP 5647.500	-49.09	-61.41	-13.00	-36.09	12.32	Peak	Vertical



CHANNEL BANDWIDTH: 20MHz / QPSK

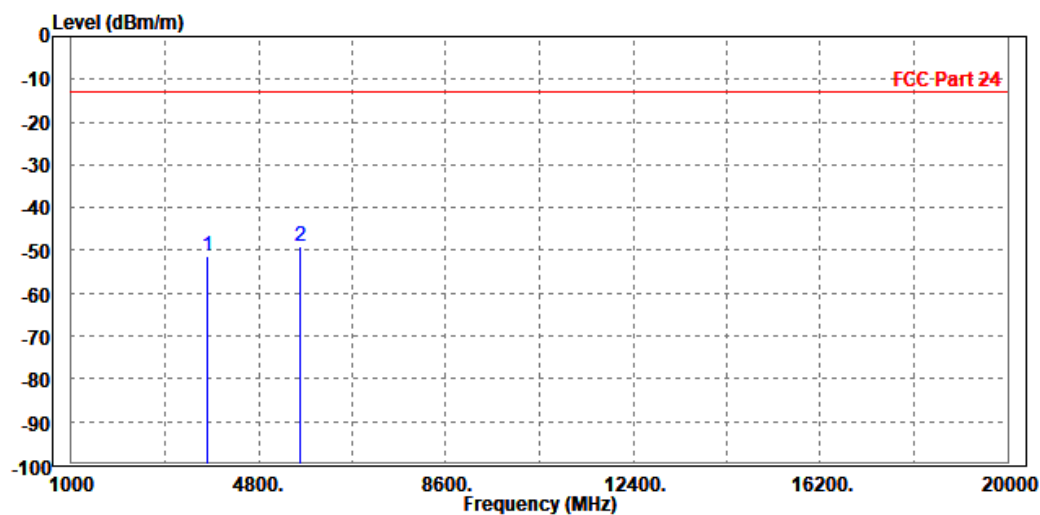
MODE	TX channel 26365	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3774.000	-52.31	-60.65	-13.00	-39.31	8.34	Peak	Horizontal
2 PP	5647.500	-49.20	-61.01	-13.00	-36.20	11.81	Peak	Horizontal



MODE	TX channel 26365	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	3765.000	-51.42	-60.05	-13.00	-38.42	8.63	Peak	Vertical
2 PP	5655.000	-49.09	-61.41	-13.00	-36.09	12.32	Peak	Vertical

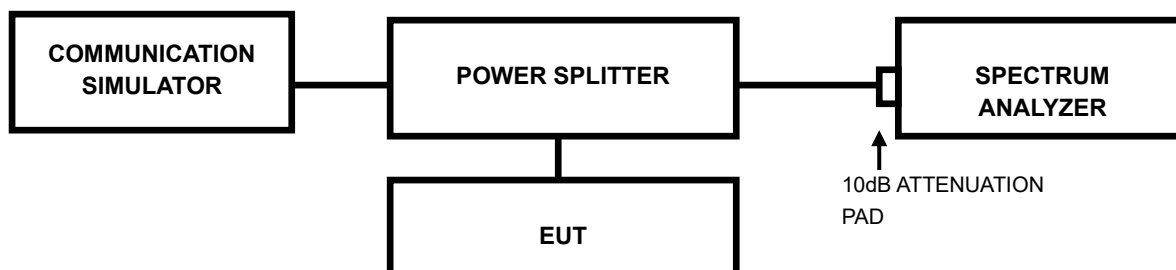


3.7 PEAK TO AVERAGE RATIO

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-P23120020RF02

3.7.4 TEST RESULTS

Please Refer to Appendix Of this test report.



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Test Report No.: W7L-P23120020RF02

4 INFORMATION ON THE TESTING LABORATORIES

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

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

Shenzhen EMC/RF Lab:

Tel: +86-755-88696566

Fax: +86-755-88696577

Email: customerservice.sw@cn.bureauveritas.com

Web Site: www.adt.com.tw

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



Test Report No.: W7L-P23120020RF02

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

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

6 Appendix

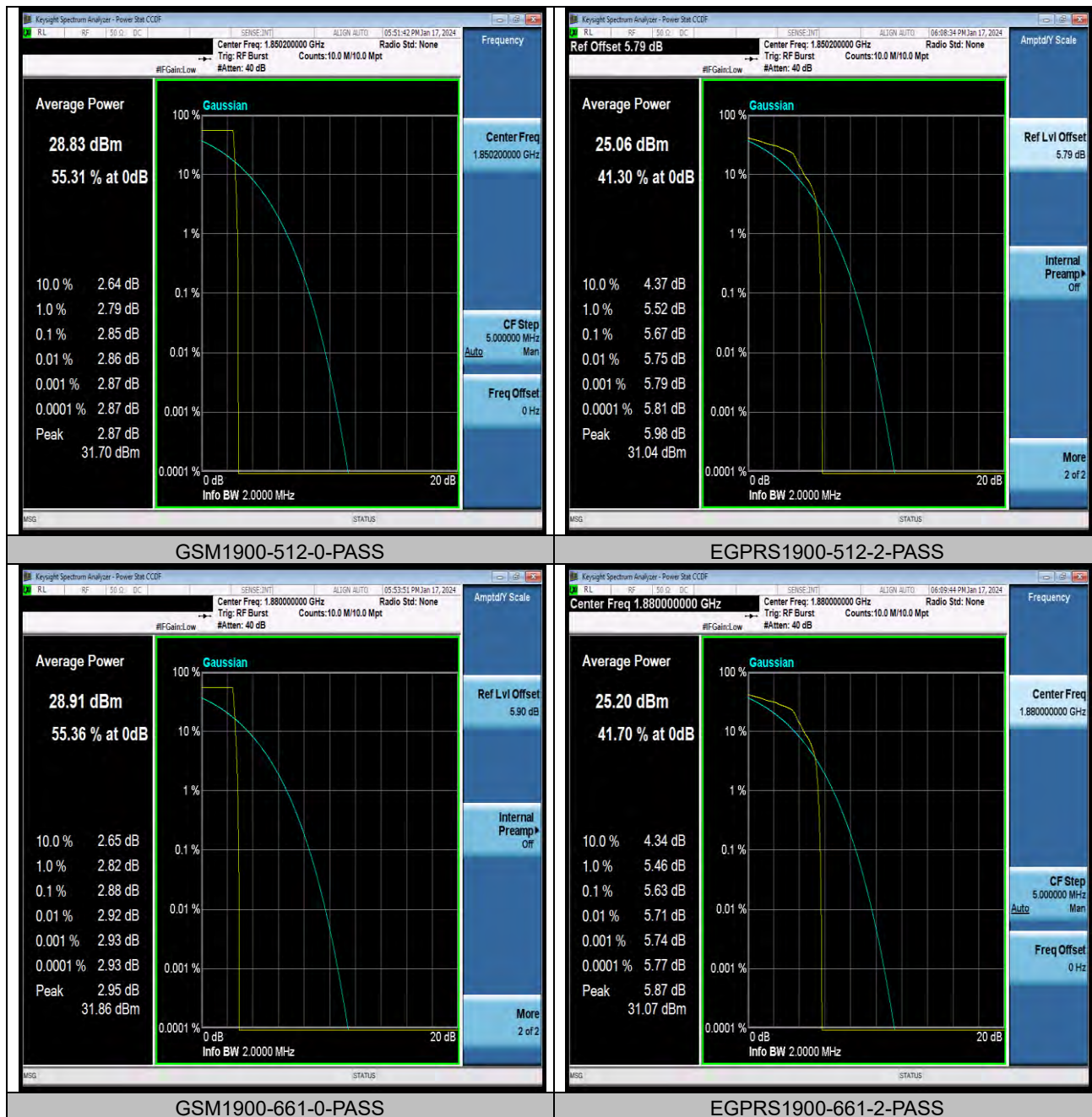
GSM 1900

PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM1900	512	2.85	13	PASS
EGPRS1900	512	5.67	13	PASS
GSM1900	661	2.88	13	PASS
EGPRS1900	661	5.63	13	PASS
GSM1900	810	2.90	13	PASS
EGPRS1900	810	5.66	13	PASS

Test Graphs





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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

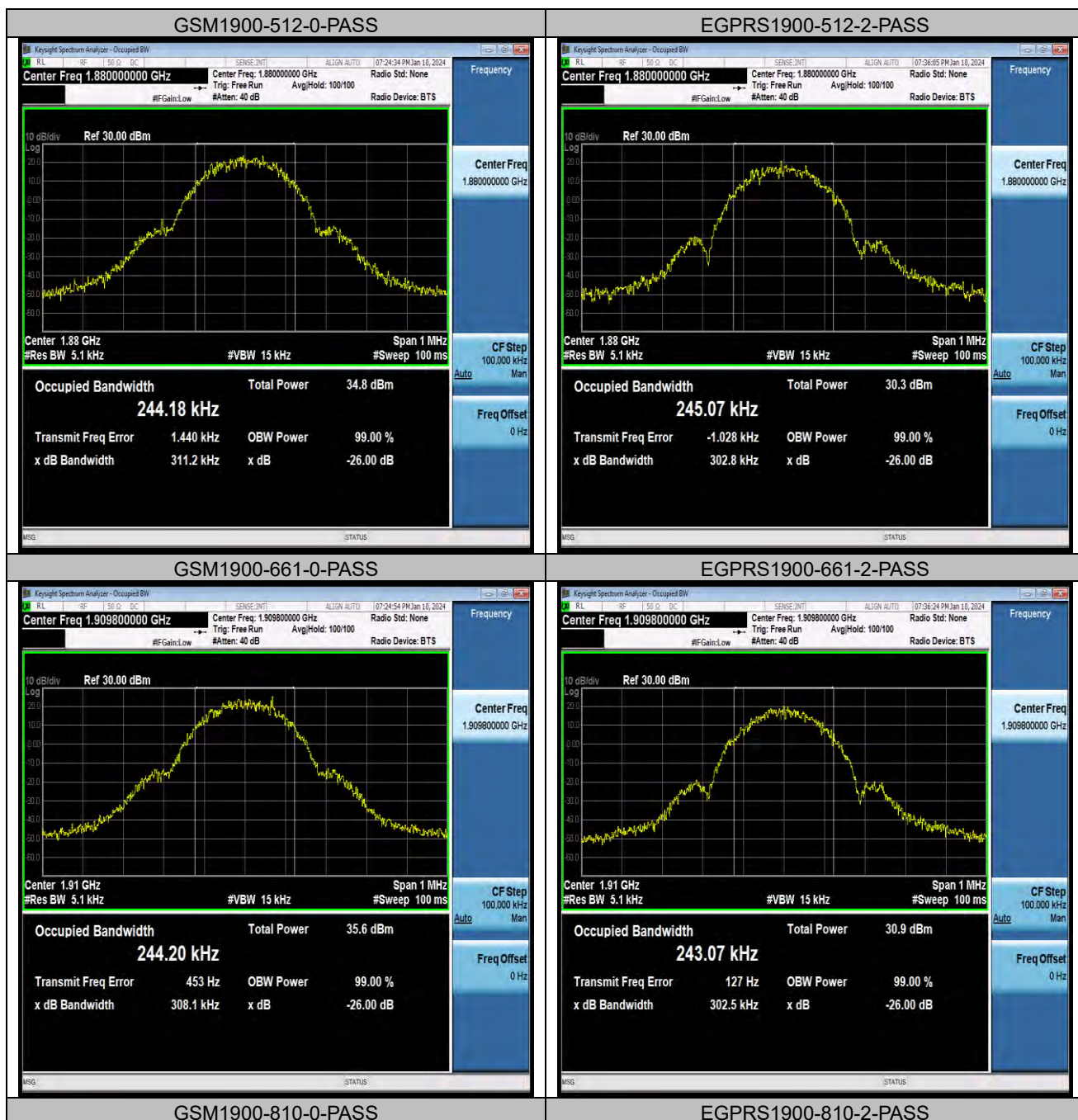
Tel: +86 755 8869 6566
Fax: +86 755 8869 6577
Email:
customerservice.sw@bureauveritas.com

26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM1900	512	0.24451	0.3120	---	PASS
EGPRS1900	512	0.24597	0.3061	---	PASS
GSM1900	661	0.24418	0.3112	---	PASS
EGPRS1900	661	0.24507	0.3028	---	PASS
GSM1900	810	0.24420	0.3081	---	PASS
EGPRS1900	810	0.24307	0.3025	---	PASS

Test Graphs





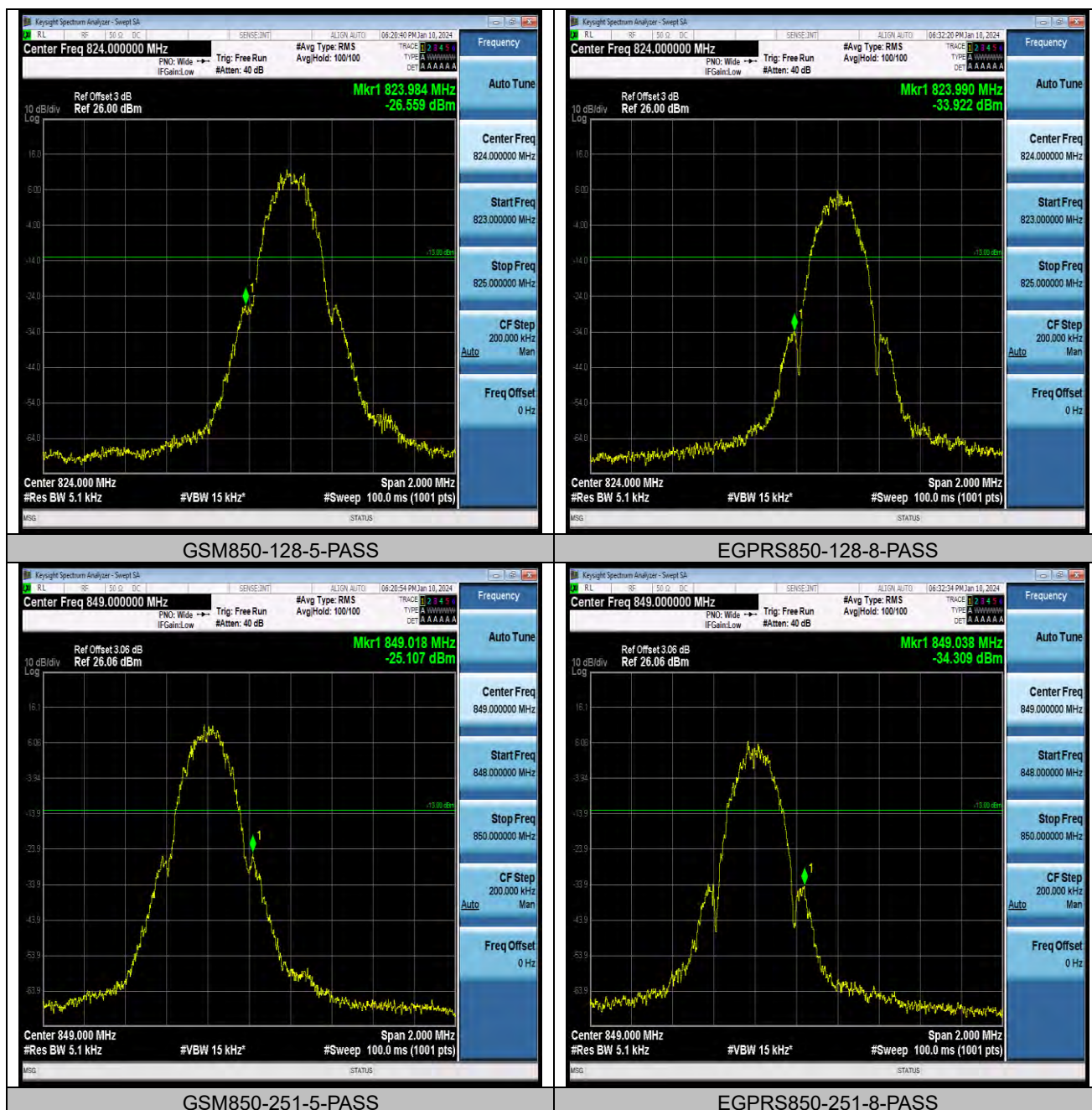
Test Report No.: W7L-P23120020RF02

BAND EDGE

Test Result

Band	Channel	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM1900	512	1849.99	-28.04	-13	PASS
EGPRS1900	512	1849.99	-34.09	-13	PASS
GSM1900	810	1910.02	-27.79	-13	PASS
EGPRS1900	810	1910.02	-35.94	-13	PASS

Test Graphs

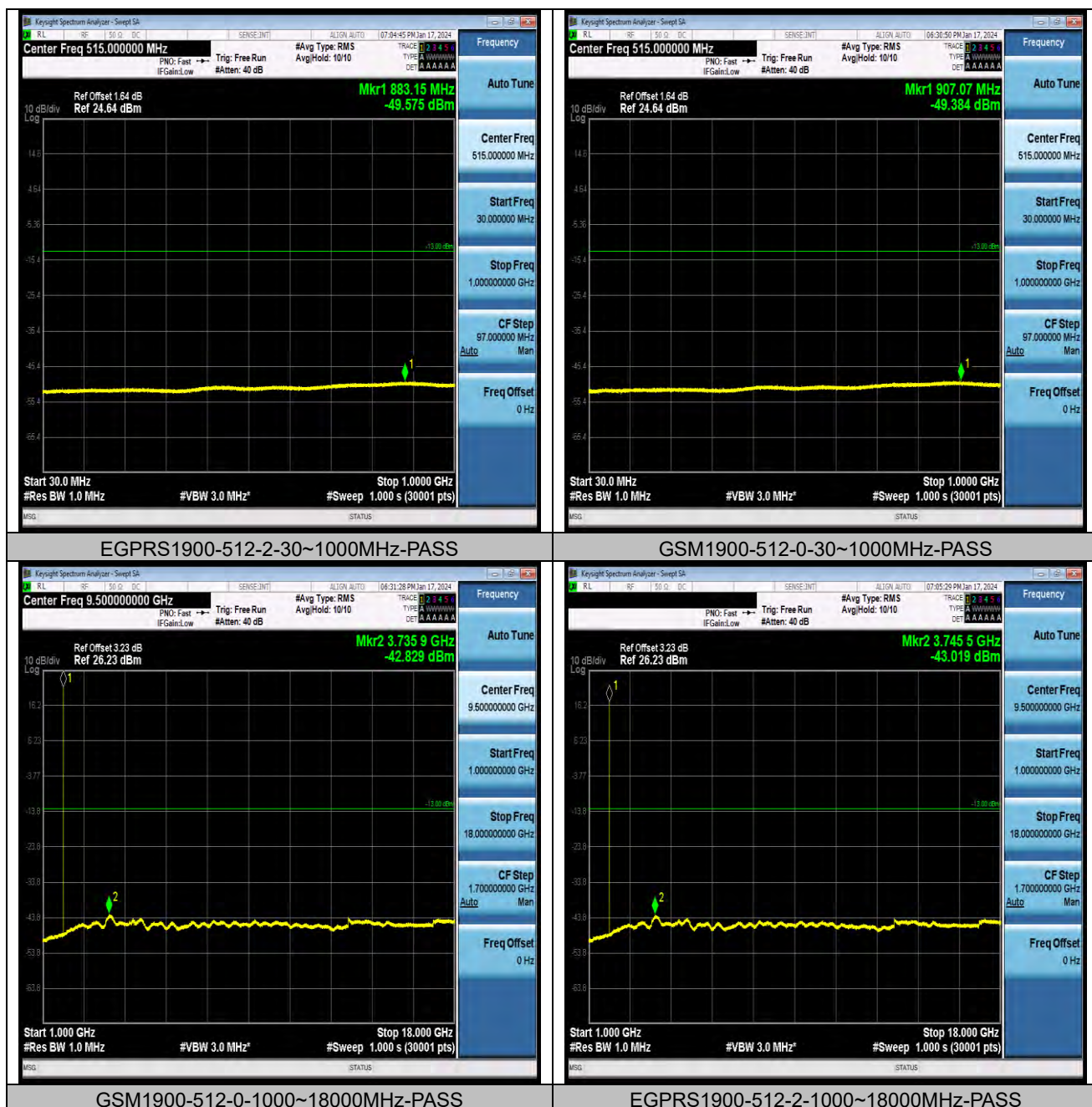


CONDUCTED SPURIOUS EMISSION

Test Result

Band	Channel	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
EGPRS1900	512	30~1000MHz	883.15	-49.58	-13	PASS
GSM1900	512	30~1000MHz	907.07	-49.38	-13	PASS
GSM1900	512	1000~18000MHz	3735.87	-42.83	-13	PASS
EGPRS1900	512	1000~18000MHz	3745.5	-43.02	-13	PASS
GSM1900	661	30~1000MHz	893.24	-49.51	-13	PASS
EGPRS1900	661	30~1000MHz	900.12	-49.62	-13	PASS
GSM1900	661	1000~18000MHz	3781.77	-42.89	-13	PASS
EGPRS1900	661	1000~18000MHz	3831.07	-42.95	-13	PASS
GSM1900	810	30~1000MHz	892.23	-49.51	-13	PASS
EGPRS1900	810	30~1000MHz	897.92	-49.56	-13	PASS
EGPRS1900	810	1000~18000MHz	3747.2	-43.17	-13	PASS
GSM1900	810	1000~18000MHz	3798.2	-42.85	-13	PASS

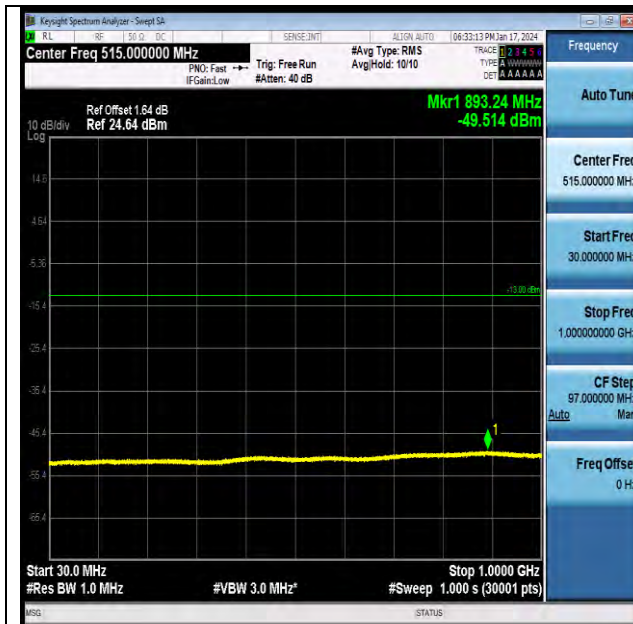
Test Graphs



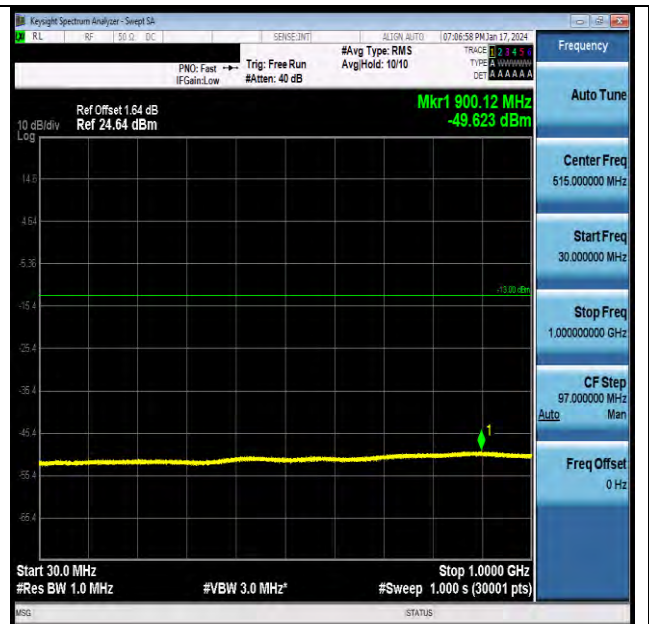


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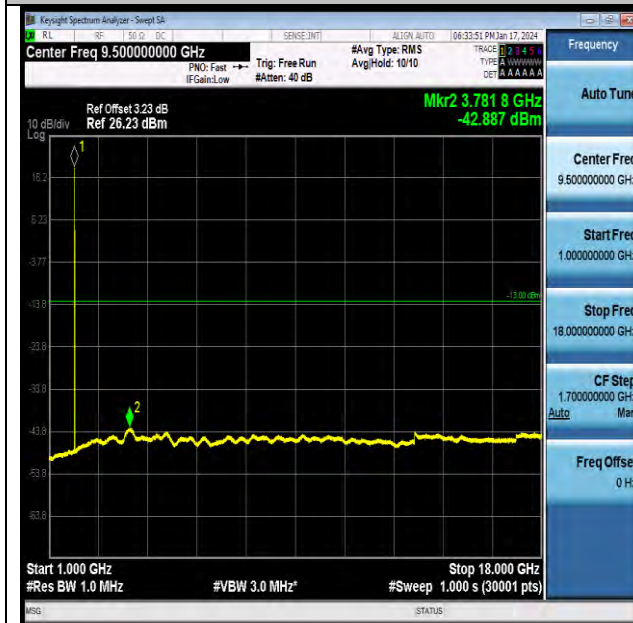
Test Report No.: W7L-P23120020RF02



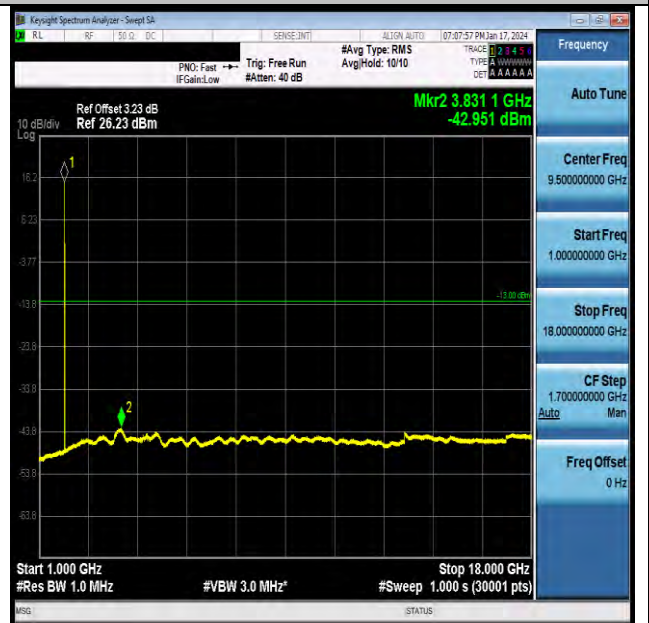
GSM1900-661-0-30~1000MHz-PASS



EGPRS1900-661-2-30~1000MHz-PASS



GSM1900-661-0-1000~18000MHz-PASS



EGPRS1900-661-2-1000~18000MHz-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

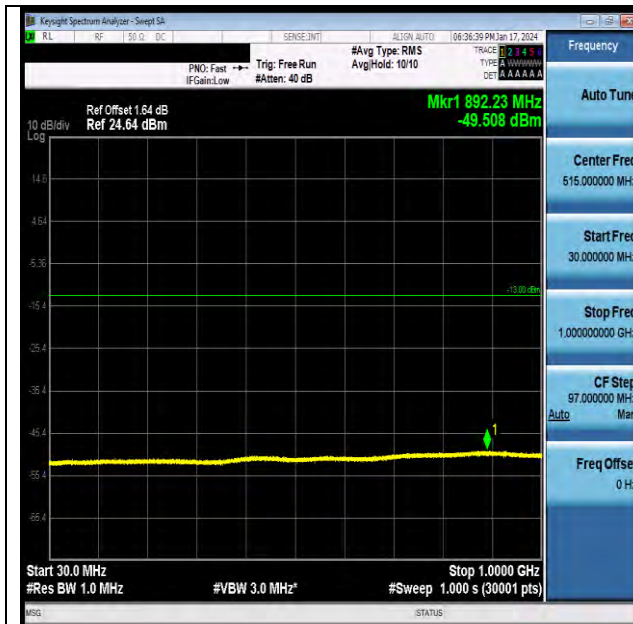
Email:

customerservice.sw@bureauveritas.com

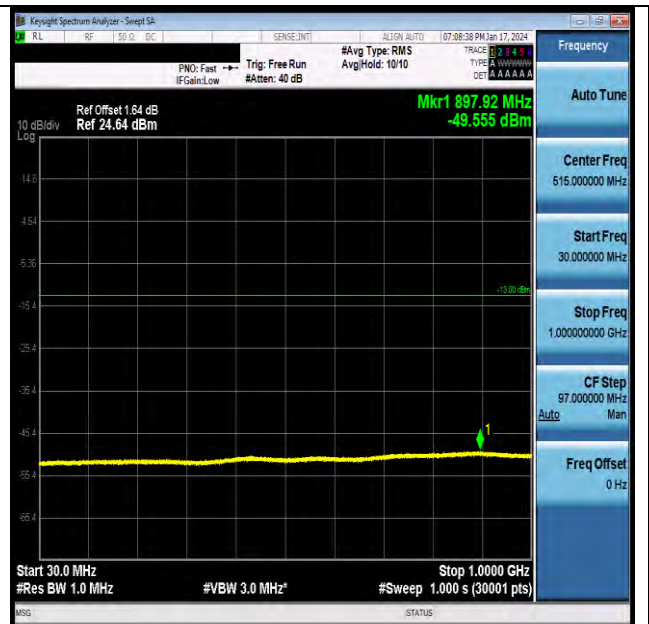


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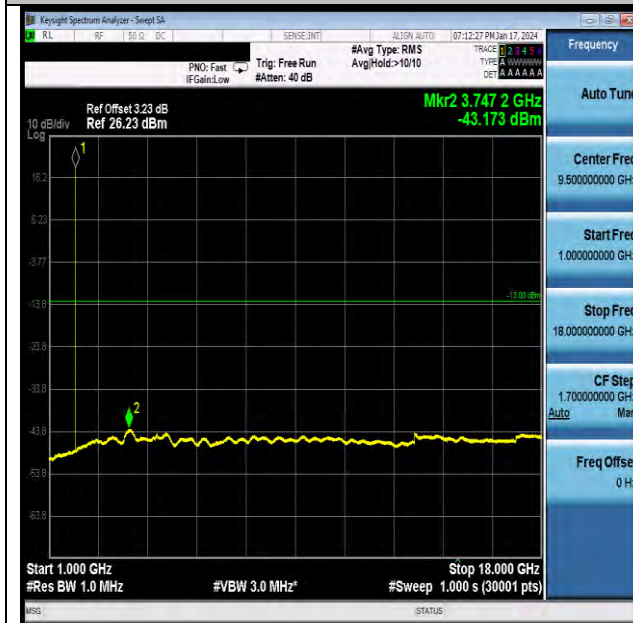
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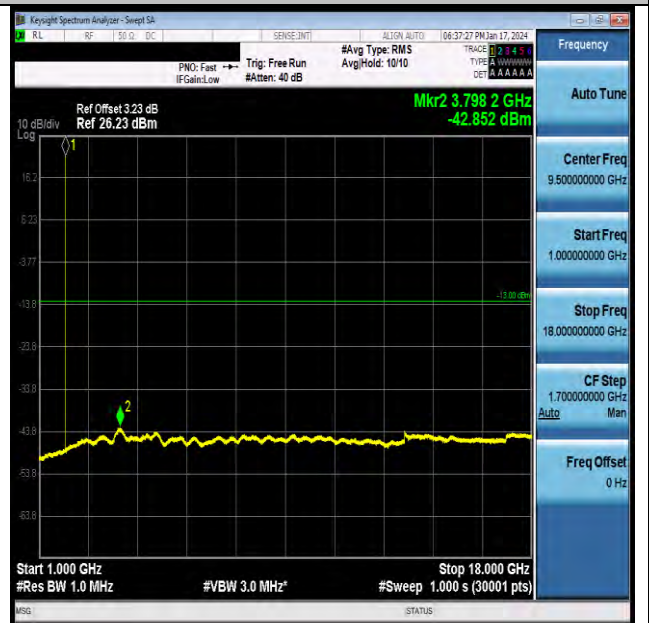
GSM1900-810-0-30~1000MHz-PASS



EGPRS1900-810-2-30~1000MHz-PASS



EGPRS1900-810-2-1000~18000MHz-PASS



GSM1900-810-0-1000~18000MHz-PASS

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Room B37, Warehouse A5, No.3 Chiwan 4th Road,
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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
GSM1900	512	VN	NT	6.07	0.003281	±2.5	PASS
GSM1900	512	VL	NT	16.76	0.009058	±2.5	PASS
GSM1900	512	VH	NT	17.50	0.009458	±2.5	PASS
EGPRS1900	512	VN	NT	24.21	0.013085	±2.5	PASS
EGPRS1900	512	VL	NT	27.25	0.014728	±2.5	PASS
EGPRS1900	512	VH	NT	26.02	0.014063	±2.5	PASS
GSM1900	661	VN	NT	19.79	0.010527	±2.5	PASS
GSM1900	661	VL	NT	17.89	0.009516	±2.5	PASS
GSM1900	661	VH	NT	17.50	0.009309	±2.5	PASS
EGPRS1900	661	VN	NT	22.92	0.012191	±2.5	PASS
EGPRS1900	661	VL	NT	19.02	0.010117	±2.5	PASS
EGPRS1900	661	VH	NT	26.57	0.014133	±2.5	PASS
GSM1900	810	VN	NT	15.79	0.008268	±2.5	PASS
GSM1900	810	VL	NT	15.76	0.008252	±2.5	PASS
GSM1900	810	VH	NT	13.79	0.007221	±2.5	PASS
EGPRS1900	810	VN	NT	27.22	0.014253	±2.5	PASS
EGPRS1900	810	VL	NT	24.63	0.012897	±2.5	PASS
EGPRS1900	810	VH	NT	25.63	0.013420	±2.5	PASS

Temperature							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM1900	512	NV	-30	14.30	0.007729	±2.5	PASS
GSM1900	512	NV	-20	15.50	0.008377	±2.5	PASS
GSM1900	512	NV	-10	17.72	0.009577	±2.5	PASS
GSM1900	512	NV	0	15.11	0.008167	±2.5	PASS
GSM1900	512	NV	10	19.76	0.010680	±2.5	PASS
GSM1900	512	NV	20	17.95	0.009702	±2.5	PASS
GSM1900	512	NV	30	15.34	0.008291	±2.5	PASS
GSM1900	512	NV	40	14.56	0.007869	±2.5	PASS
GSM1900	512	NV	50	20.28	0.010961	±2.5	PASS
EGPRS1900	512	NV	-30	25.76	0.013923	±2.5	PASS
EGPRS1900	512	NV	-20	21.18	0.011447	±2.5	PASS
EGPRS1900	512	NV	-10	27.70	0.014971	±2.5	PASS
EGPRS1900	512	NV	0	26.02	0.014063	±2.5	PASS
EGPRS1900	512	NV	10	22.79	0.012318	±2.5	PASS
EGPRS1900	512	NV	20	28.28	0.015285	±2.5	PASS
EGPRS1900	512	NV	30	27.35	0.014782	±2.5	PASS
EGPRS1900	512	NV	40	23.63	0.012772	±2.5	PASS



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EGPRS1900	512	NV	50	26.35	0.014242	±2.5	PASS
GSM1900	661	NV	-30	16.82	0.008947	±2.5	PASS
GSM1900	661	NV	-20	11.95	0.006356	±2.5	PASS
GSM1900	661	NV	-10	16.79	0.008931	±2.5	PASS
GSM1900	661	NV	0	16.27	0.008654	±2.5	PASS
GSM1900	661	NV	10	12.30	0.006543	±2.5	PASS
GSM1900	661	NV	20	15.66	0.008330	±2.5	PASS
GSM1900	661	NV	30	16.37	0.008707	±2.5	PASS
GSM1900	661	NV	40	14.33	0.007622	±2.5	PASS
GSM1900	661	NV	50	16.27	0.008654	±2.5	PASS
EGPRS1900	661	NV	-30	22.63	0.012037	±2.5	PASS
EGPRS1900	661	NV	-20	24.70	0.013138	±2.5	PASS
EGPRS1900	661	NV	-10	25.54	0.013585	±2.5	PASS
EGPRS1900	661	NV	0	20.99	0.011165	±2.5	PASS
EGPRS1900	661	NV	10	22.63	0.012037	±2.5	PASS
EGPRS1900	661	NV	20	24.63	0.013101	±2.5	PASS
EGPRS1900	661	NV	30	24.89	0.013239	±2.5	PASS
EGPRS1900	661	NV	40	23.18	0.012330	±2.5	PASS
EGPRS1900	661	NV	50	23.05	0.012261	±2.5	PASS
GSM1900	810	NV	-30	16.89	0.008844	±2.5	PASS
GSM1900	810	NV	-20	12.11	0.006341	±2.5	PASS
GSM1900	810	NV	-10	19.57	0.010247	±2.5	PASS
GSM1900	810	NV	0	17.18	0.008996	±2.5	PASS
GSM1900	810	NV	10	21.63	0.011326	±2.5	PASS
GSM1900	810	NV	20	18.50	0.009687	±2.5	PASS
GSM1900	810	NV	30	13.53	0.007085	±2.5	PASS
GSM1900	810	NV	40	15.05	0.007880	±2.5	PASS
GSM1900	810	NV	50	17.43	0.009127	±2.5	PASS
EGPRS1900	810	NV	-30	21.89	0.011462	±2.5	PASS
EGPRS1900	810	NV	-20	23.08	0.012085	±2.5	PASS
EGPRS1900	810	NV	-10	27.48	0.014389	±2.5	PASS
EGPRS1900	810	NV	0	25.28	0.013237	±2.5	PASS
EGPRS1900	810	NV	10	25.51	0.013357	±2.5	PASS
EGPRS1900	810	NV	20	23.83	0.012478	±2.5	PASS
EGPRS1900	810	NV	30	24.02	0.012577	±2.5	PASS
EGPRS1900	810	NV	40	24.60	0.012881	±2.5	PASS
EGPRS1900	810	NV	50	26.28	0.013761	±2.5	PASS



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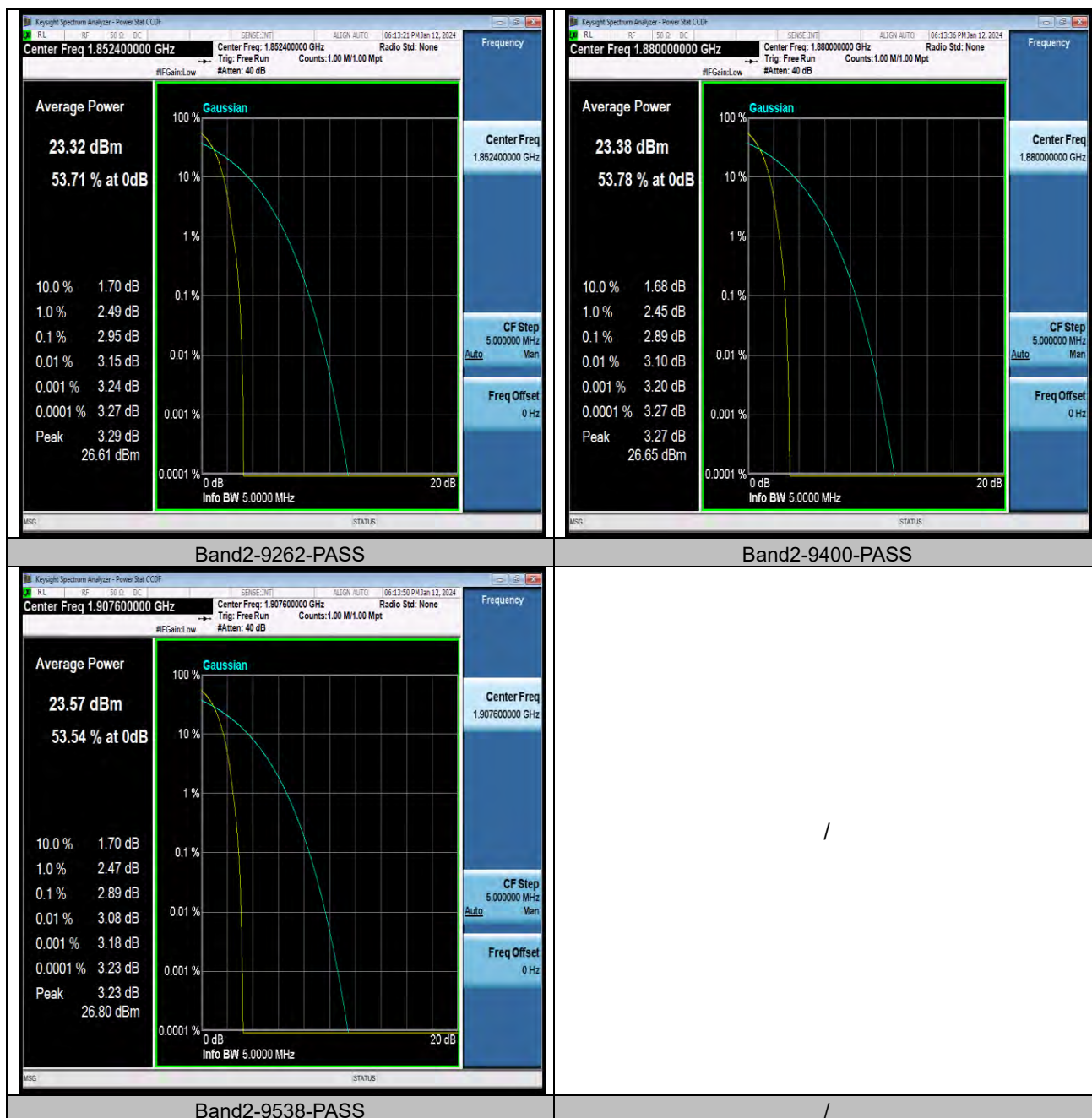
WCDMA BAND2

PEAK-TO-AVERAGE RATIO

Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
Band2	9262	2.95	13	PASS
Band2	9400	2.89	13	PASS
Band2	9538	2.89	13	PASS

Test Graphs



26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
Band2	9262	4.1492	4.728	---	PASS
Band2	9400	4.1513	4.735	---	PASS
Band2	9538	4.1507	4.726	---	PASS