FCC TEST REPORT

(PART 24)

Applicant:	DataRemote Incorporated
Address:	18001 Old Cutler Rd. Suite 600, Miami, FL 33157

Manufacturer or Supplier:	DataRemote Incorporated
Address:	18001 Old Cutler Rd. Suite 600, Miami, FL 33157
Product:	Cellular Backup Router
Brand Name:	DATAREMOTE
Model Name:	90X1
FCC ID:	2AJLF-90X1
Date of tests:	Jul. 17, 2023 ~ Aug. 25, 2023

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
Simon Wang Date: Aug. 25, 2023	Luke Lu Date: Aug. 25, 2023

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

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P23070006RF02	Original release	Aug. 25, 2023

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**
§2.1046	Conducted Output Power	See Note1
§24.232(c)	Equivalent Isotropic Radiated Power	Compliance
§2.1055 §24.235	Frequency Stability	See Note1
§2.1049	Occupied Bandwidth	See Note1
§24.232(d)	Peak to average ratio	See Note1
§24.238(a)(b)	Band Edge Measurements	See Note1
§2.1051 §24.238(a)(b)	Conducted Spurious Emissions	See Note1
§2.1053 §24.238(a)(b)	Radiated Spurious Emissions	Compliance See Note2

Note:

1. Please refer to the module report SEWA2204000008RG01(FCC ID: XMR2022RM520NGL)
2. For Inter-CA band, the report only show the worst mode RSE data of original module report, because the antenna type of module and EUT is all the same, and the power of single LTE band is larger than that in CA, so single LTE band can cover the RSE risk of CA part.

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
Radiated emissions (9KHz~30MHz)	±2.68dB
Radiated emissions & Radiated Power (30MHz~1GHz)	±4.98dB
Radiated emissions & Radiated Power (1GHz ~6GHz)	±4.70dB
Radiated emissions (6GHz ~18GHz)	±4.60dB
Radiated emissions (18GHz ~40GHz)	±4.12dB
Conducted Output power	±2.06dB

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
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.14,23	May.13,24
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.03,22	Sep.02,23
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 18,23	Feb. 17,24
Horn Antenna	ETS-LINDGREN	3117	00168692	Feb. 18,23	Feb. 17,24
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Sep.04, 22	Sep.03, 23
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 14,23	Feb. 13,24
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May. 06,23	May. 05,24
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.12,23	May.11,24
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 17,23	Feb.16,24
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	May. 19,23	May. 18,26
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
Power Meter	Anritsu	ML2495A	1506002	Feb. 14,23	Feb. 13,24
Power Sensor	Anritsu	MA2411B	1339352	Feb. 14,23	Feb. 13,24
Temperature Chamber	ESPEC	SH-242	93000855	May. 06,23	May. 05,24
MXG Analog Microvave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 14,23	Feb. 13,24
Base station R&S CMW500	Rohde&Schwarz	CMW500	153085	May.12,23	May.11,24
DC Source	Kikusui/JP	PMX18-5A	N/A	Aug. 12,22	Aug. 11,23
DC Source	Kikusui/JP	PMX18-5A	N/A	Aug. 11,23	Aug. 10,24

NOTE: 1. The calibration interval of the above test instruments is 12 months or 36 months and the calibrations are traceable to CEPREI/CHINA, 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	Cellular Backup Router	
BRAND NAME	DATAREMOTE	
MODEL NAME	90X1	
NOMINAL VOLTAGE	19Vdc(adapter or host equipment) 11.1Vdc (Li-ion, battery)	
MODULATION TYPE	**WCDMA:** BPSK, QPSK **LTE :** QPSK, 16QAM, 64QAM, 256QAM	
FREQUENCY RANGE	**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 CA 2C Channel Bandwidth: 5+20MHz	1853.3 MHz ~ 1900 MHz
	LTE Band CA 2C Channel Bandwidth: 20+5MHz	1860 MHz ~ 1906.7 MHz
	LTE Band CA 2C Channel Bandwidth: 10+15MHz	1855.3 MHz ~ 1902.5 MHz
	LTE Band CA 2C Channel Bandwidth: 15+10MHz	1857.5 MHz ~ 1904.7 MHz
	LTE Band CA 2C Channel Bandwidth: 10+20MHz	1855.5 MHz ~1900 MHz
	LTE Band CA 2C Channel Bandwidth: 20+10MHz	1860 MHz ~1904.5 MHz
	LTE Band CA 2C Channel Bandwidth: 15+15MHz	1857.5 MHz ~1902.5 MHz
	LTE Band CA 2C Channel Bandwidth: 15+20MHz	1857.8 MHz ~1900 MHz
	LTE Band CA 2C Channel Bandwidth: 20+15MHz	1860 MHz ~ 1902.2 MHz
	LTE Band CA 2C Channel Bandwidth: 20+20MHz	1860 MHz ~1900 MHz

	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
MAX. EIRP POWER	**WCDMA**	642.69mW
	LTE Band 2 Channel Bandwidth: 1.4MHz	603.95mW
	LTE Band 2 Channel Bandwidth: 3MHz	625.17mW
	LTE Band 2 Channel Bandwidth: 5MHz	626.61mW
	LTE Band 2 Channel Bandwidth: 10MHz	625.17mW
	LTE Band 2 Channel Bandwidth: 15MHz	602.56mW
	LTE Band 2 Channel Bandwidth: 20MHz	615.18mW
	LTE Band CA 2C Channel Bandwidth: 5+20MHz	571.48mW
	LTE Band CA 2C Channel Bandwidth: 20+5MHz	606.74mW
	LTE Band CA 2C Channel Bandwidth: 10+15MHz	598.41mW
	LTE Band CA 2C Channel Bandwidth: 15+10MHz	612.35mW
	LTE Band CA 2C Channel Bandwidth: 15+15MHz	625.17mW
	LTE Band CA 2C Channel Bandwidth: 10+20MHz	557.19mW
	LTE Band CA 2C Channel Bandwidth: 20+10MHz	578.10mW
	LTE Band CA 2C Channel Bandwidth: 15+20MHz	632.41mW
	LTE Band CA 2C Channel Bandwidth: 20+15MHz	591.56mW

	LTE Band CA 2C Channel Bandwidth: 20+20MHz	590.20mW
	LTE Band 25 Channel Bandwidth: 1.4MHz	636.8mW
	LTE Band 25 Channel Bandwidth: 3MHz	633.87mW
	LTE Band 25 Channel Bandwidth: 5MHz	644.17mW
	LTE Band 25 Channel Bandwidth: 10MHz	623.73mW
	LTE Band 25 Channel Bandwidth: 15MHz	644.17mW
	LTE Band 25 Channel Bandwidth: 20MHz	644.17mW
EMISSION DESIGNATOR	**WCDMA**	4M17F9W
	LTE Band 2 Channel Bandwidth: 1.4MHz	QPSK: 1M11G7D
		16QAM: 1M11W7D
		64QAM: 1M11W7D
		256QAM: 1M11W7D
	LTE Band 2 Channel Bandwidth: 3MHz	QPSK: 2M70G7D
		16QAM: 2M70W7D
		64QAM: 2M70W7D
		256QAM: 2M70W7D
	LTE Band 2 Channel Bandwidth: 5MHz	QPSK: 4M48G7D
		16QAM: 4M49W7D
		64QAM: 4M48W7D
		256QAM: 4M49W7D
	LTE Band 2 Channel Bandwidth: 10MHz	QPSK: 8M95G7D
		16QAM: 8M95W7D
		64QAM: 8M96W7D
		256QAM: 8M96W7D
	LTE Band 2 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
		256QAM: 13M5W7D

EMISSION DESIGNATOR	LTE Band 2 Channel Bandwidth: 20MHz	QPSK: 17M9G7D
		16QAM: 17M9W7D
		64QAM: 17M9W7D
		256QAM: 17M9W7D
	LTE Band 25 Channel Bandwidth: 1.4MHz	QPSK: 1M11G7D
		16QAM: 1M11W7D
		64QAM: 1M11W7D
		256QAM: 1M11W7D
	LTE Band 25 Channel Bandwidth: 3MHz	QPSK: 2M70G7D
		16QAM: 2M70W7D
		64QAM: 2M70W7D
		256QAM: 2M70W7D
	LTE Band 25 Channel Bandwidth: 5MHz	QPSK: 4M48G7D
		16QAM: 4M48W7D
		64QAM: 4M48W7D
		256QAM: 4M49W7D
	LTE Band 25 Channel Bandwidth: 10MHz	QPSK: 8M95G7D
		16QAM: 8M95W7D
		64QAM: 8M94W7D
		256QAM: 8M95W7D
	LTE Band 25 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
		256QAM: 13M5W7D
	LTE Band 25 Channel Bandwidth: 20MHz	QPSK: 17M9G7D
		16QAM: 17M9W7D
		64QAM: 17M9W7D
		256QAM: 17M9W7D
	LTE Band CA 2C Channel Bandwidth: 5+20MHz	QPSK: 22M9G7D
		16QAM: 22M9W7D
		64QAM: 22M9W7D
		256QAM: 22M9W7D

EMISSION DESIGNATOR	LTE Band CA 2C Channel Bandwidth: 20+5MHz	QPSK: 23M0G7D
		16QAM: 22M9W7D
		64QAM: 22M9W7D
		256QAM: 23M0W7D
	LTE Band CA 2C Channel Bandwidth: 10+15MHz	QPSK: 23M2G7D
		16QAM: 23M1W7D
		64QAM: 23M2W7D
		256QAM: 23M1W7D
	LTE Band CA 2C Channel Bandwidth: 15+10MHz	QPSK: 23M2G7D
		16QAM: 23M2W7D
		64QAM: 23M2W7D
		256QAM: 23M2W7D
	LTE Band CA 2C Channel Bandwidth: 10+20MHz	QPSK: 27M7G7D
		16QAM: 27M7W7D
		64QAM: 27M8W7D
		256QAM: 27M8W7D
	LTE Band CA 2C Channel Bandwidth: 20+10MHz	QPSK: 27M8G7D
		16QAM: 27M8W7D
		64QAM: 27M7W7D
		256QAM: 27M8W7D
	LTE Band CA 2C Channel Bandwidth: 15+15MHz	QPSK: 28M3G7D
		16QAM: 28M3W7D
		64QAM: 28M3W7D
		256QAM: 28M3W7D
	LTE Band CA 2C Channel Bandwidth: 15+20MHz	QPSK: 32M6G7D
		16QAM: 32M6W7D
		64QAM: 32M6W7D
		256QAM: 32M6W7D
	LTE Band CA 2C Channel Bandwidth: 20+15MHz	QPSK: 32M6G7D
		16QAM: 32M6W7D
		64QAM: 32M6W7D
		256QAM: 32M6W7D
	LTE Band CA 2C	QPSK: 37M8G7D

	Channel Bandwidth: 20+20MHz	16QAM: 37M7W7D
		64QAM: 37M7W7D
		256QAM: 37M8W7D
ANTENNA TYPE	Monopole Antenna with 3.10dBi gain for WCDMA II/LTE B2/ LTE B25/LTE CA 2C	
HW VERSION	1.0	
SW VERSION	1.0	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	Ethernet Cable: non-shielded cable, with w/o ferrite core, 1.5 meter Phone Cable: non-shielded cable, with w/o ferrite core, 1.5 meter	
EXTREME TEMPERATURE	0-40 ℃	
EXTREME VOLTAGE	3.6V - 24V	

NOTE:

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

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

MODULATION MODE	TX FUNCTION
WCDMA	1TX/1RX
LTE	1TX/1RX

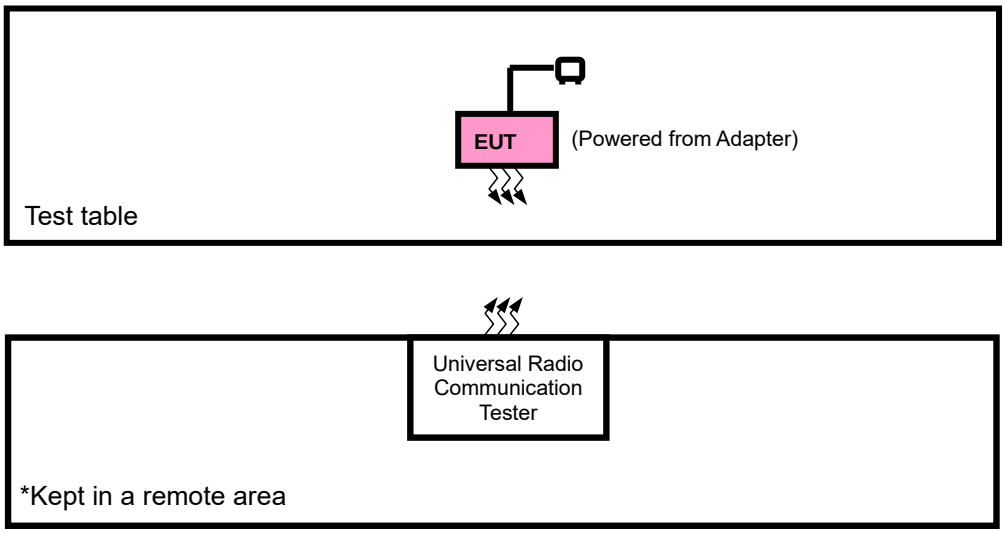
3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

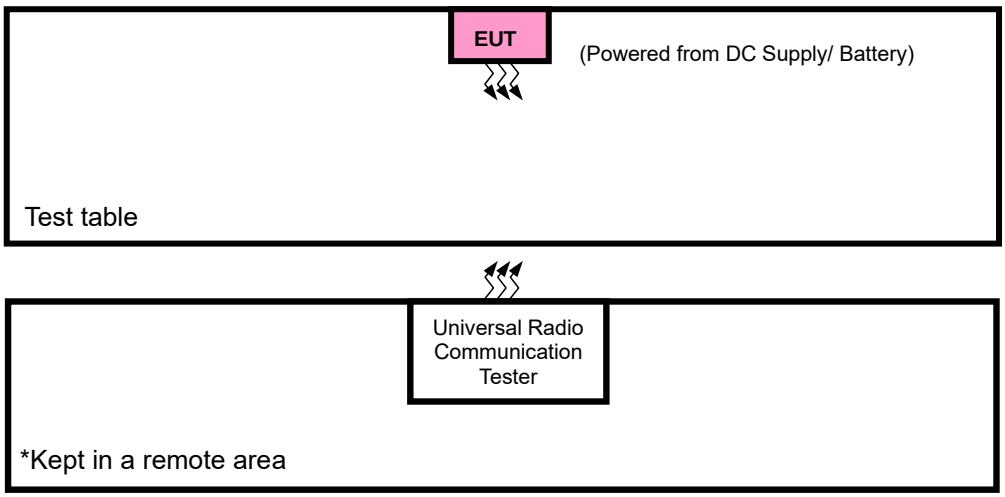
List of Accessory:

ACCESSORIES	MANUFACTURER	MODEL	SPECIFICATION
AC Adapter	Moso Power Supply Technology Co., Ltd.	MS-V3420R190-065L0-US	I/P: 100-240Vac, 1.5A, O/P: 19Vdc, 3.42A
Battery	EVE ENERGY CO., LTD.	DRI18650-3S6P	Capacity：10.8Vdc, 15300mAh
Ethernet Cable	Wujiang Eksong Electronics Co., LTD.	HQ01-C727	Signal Line,1.5meter
Phone Cable	Wujiang Eksong Electronics Co., LTD.	HQ01-C697	Signal Line,1.5meter

2.2 CONFIGURATION OF SYSTEM UNDER TEST

FOR RADIATION EMISSION TEST





2.3 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	DC source	Kikusui/JP	PMX18-5A	0000001	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	DC Line: Unshielded, Detachable 1.0m

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 WCDMA/ 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 with WCDMA or LTE link

WCDMA

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
A	EIRP	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 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
A	RADIATED EMISSION	26047 to 26683	26365	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	26090, 26365, 26640	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.

LTE BAND CA 2C

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(PCC)	MODE(SCC)
A	EIRP	18633/ 18750 to 18983/ 19100	18633/ 18750 18808/ 18925 18983/ 19100	5+20MHz	QPSK,16QAM,64QAM, 256QAM	1 RB / 24 RB Offset	1 RB / 0 RB Offset
		18700/ 18817 to 19050/ 19167	18700/ 18817 18875/ 18992 19050/ 19167	20+5MHz	QPSK,16QAM,64QAM, 256QAM	1 RB / 99 RB Offset	1 RB / 0 RB Offset
		18653/ 18773 to 19005/ 19125	18653/ 18773 18829/ 18949 19005/ 19125	10+15MHz	QPSK,16QAM,64QAM, 256QAM	1 RB / 49 RB Offset	1 RB / 0 RB Offset
		18675/ 18795 to 19027/ 19147	18675/ 18795 18851/ 18971 19027/ 19147	15+10MHz	QPSK,16QAM,64QAM, 256QAM	1 RB / 74 RB Offset	1 RB / 0 RB Offset
		18655/ 18799 to 18956/ 19100	18655/ 18799 18806/ 18950 18956/ 19100	10+20MHz	QPSK,16QAM,64QAM, 256QAM	1 RB / 49 RB Offset	1 RB / 0 RB Offset
		18700/ 18844 to 19001/ 19145	18700/ 18844 18851/ 18995 19001/ 19145	20+10MHz	QPSK,16QAM,64QAM, 256QAM	1 RB / 99 RB Offset	1 RB / 0 RB Offset
		18675/ 18825 to 18975/ 19125	18675/ 18825 18825/ 18975 18975/ 19125	15+15MHz	QPSK,16QAM,64QAM, 256QAM	1 RB / 74 RB Offset	1 RB / 0 RB Offset
		18678/ 18849 to 18929/ 19100	18678/ 18849 18803/ 18974 18929/ 19100	15+20MHz	QPSK,16QAM,64QAM, 256QAM	1 RB / 74 RB Offset	1 RB / 0 RB Offset
		18700/ 18871 to 18951/ 19122	18700/ 18871 18826/ 18997 18951/ 19122	20+15MHz	QPSK,16QAM,64QAM, 256QAM	1 RB / 99 RB Offset	1 RB / 0 RB Offset
		18700/ 18898 to 18902/ 19100	18700/ 18898 18801/ 18999 18902/ 19100	20+20MHz	QPSK,16QAM,64QAM, 256QAM	1 RB / 99 RB Offset	1 RB / 0 RB Offset
A	RADIATED EMISSION	18700/ 18898 to 18902/ 19100	18700/ 18898 18801/ 18999 18902/ 19100	20+20MHz	QPSK	1 RB / 99 RB Offset	1 RB / 0 RB Offset

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

TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
EIRP	25deg. C, 57%RH	DC 19V By Adapter	Jace Hu
RADIATED EMISSION	23deg. C, 70%RH	DC19V By Adapter	Jace Hu

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 determing the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

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

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.

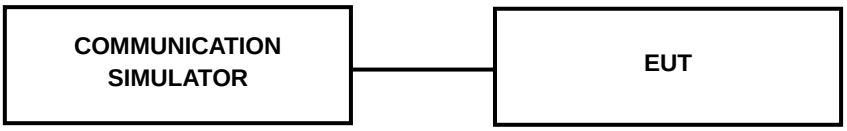
CONDUCTED POWER MEASUREMENT:

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

EIRP POWER (dBm)

WCDMA

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
9262	1852.4	24.52	3.1	27.62	578.1	2
9400	1880	24.98	3.1	28.08	642.69	2
9538	1907.6	23.85	3.1	26.95	495.45	2

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	24.19	3.1	27.29	535.8	2
18900	1880.0	24.71	3.1	27.81	603.95	2
19193	1909.3	24.63	3.1	27.73	592.93	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	22.86	3.1	25.96	394.46	2
18900	1880.0	24.38	3.1	27.48	559.76	2
19193	1909.3	24.06	3.1	27.16	520	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	21.69	3.1	24.79	301.3	2
18900	1880.0	23.32	3.1	26.42	438.53	2
19193	1908.3	22.71	3.1	25.81	381.07	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	19.49	3.1	22.59	181.55	2
18900	1880.0	20.35	3.1	23.45	221.31	2
19193	1908.3	20.69	3.1	23.79	239.33	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	23.9	3.1	27	501.19	2
18900	1880.0	24.86	3.1	27.96	625.17	2
19185	1908.5	24.52	3.1	27.62	578.1	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	22.59	3.1	25.69	370.68	2
18900	1880.0	24.18	3.1	27.28	534.56	2
19185	1908.5	24.27	3.1	27.37	545.76	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	21.44	3.1	24.54	284.45	2
18900	1880.0	23.15	3.1	26.25	421.7	2
19185	1908.5	23.02	3.1	26.12	409.26	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	19.4	3.1	22.5	177.83	2
18900	1880.0	20.39	3.1	23.49	223.36	2
19185	1908.5	20.56	3.1	23.66	232.27	2

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18625	1852.5	23.94	3.1	27.04	505.82	2
18900	1880.0	24.87	3.1	27.97	626.61	2
19175	1907.5	24.32	3.1	27.42	552.08	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	22.68	3.1	25.78	378.44	2
18900	1880.0	24.3	3.1	27.4	549.54	2
19175	1907.5	24.27	3.1	27.37	545.76	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	21.61	3.1	24.71	295.8	2
18900	1880.0	23.36	3.1	26.46	442.59	2
19175	1907.5	23.07	3.1	26.17	414	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	19.55	3.1	22.65	184.08	2
18900	1880.0	20.28	3.1	23.38	217.77	2
19175	1907.5	20.56	3.1	23.66	232.27	2

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18650	1855.0	24.12	3.1	27.22	527.23	2
18900	1880.0	24.86	3.1	27.96	625.17	2
19150	1905.0	24.41	3.1	27.51	563.64	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18650	1855.0	23.07	3.1	26.17	414	2
18900	1880.0	24.39	3.1	27.49	561.05	2
19150	1905.0	24.15	3.1	27.25	530.88	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18650	1855.0	22.04	3.1	25.14	326.59	2
18900	1880.0	23.68	3.1	26.78	476.43	2
19150	1905.0	22.84	3.1	25.94	392.64	2

CHANNEL BANDWIDTH: 10MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18650	1855.0	20.13	3.1	23.23	210.38	2
18900	1880.0	20.31	3.1	23.41	219.28	2
19150	1905.0	20.82	3.1	23.92	246.6	2

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18675	1857.5	24.65	3.1	27.75	595.66	2
18900	1880.0	24.7	3.1	27.8	602.56	2
19125	1902.5	24.52	3.1	27.62	578.1	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	23.74	3.1	26.84	483.06	2
18900	1880.0	24.02	3.1	27.12	515.23	2
19125	1902.5	24.43	3.1	27.53	566.24	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	22.95	3.1	26.05	402.72	2
18900	1880.0	22.8	3.1	25.9	389.05	2
19125	1902.5	23.17	3.1	26.27	423.64	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	19.85	3.1	22.95	197.24	2
18900	1880.0	20.31	3.1	23.41	219.28	2
19125	1902.5	20.79	3.1	23.89	244.91	2

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	24.6	3.1	27.7	588.84	2
18900	1880	24.72	3.1	27.82	605.34	2
19100	1900	24.79	3.1	27.89	615.18	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	23.74	3.1	26.84	483.06	2
18900	1880	24.11	3.1	27.21	526.02	2
19100	1900	24.51	3.1	27.61	576.77	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	22.66	3.1	25.76	376.7	2
18900	1880	23.2	3.1	26.3	426.58	2
19100	1900	23.08	3.1	26.18	414.95	2

CHANNEL BANDWIDTH: 20MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	20.17	3.1	23.27	212.32	2
18900	1880	20.42	3.1	23.52	224.91	2
19100	1900	20.62	3.1	23.72	235.5	2

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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	24.58	3.1	27.68	586.14	2
26365	1882.5	24.94	3.1	28.04	636.8	2
26683	1914.3	24.52	3.1	27.62	578.1	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	24.12	3.1	27.22	527.23	2
26365	1882.5	24.28	3.1	27.38	547.02	2
26683	1914.3	23.88	3.1	26.98	498.88	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	23.34	3.1	26.44	440.55	2
26365	1882.5	23.28	3.1	26.38	434.51	2
26683	1914.3	22.65	3.1	25.75	375.84	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	20.46	3.1	23.56	226.99	2
26365	1882.5	20.3	3.1	23.4	218.78	2
26683	1914.3	20.14	3.1	23.24	210.86	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	24.37	3.1	27.47	558.47	2
26365	1882.5	24.92	3.1	28.02	633.87	2
26675	1913.5	24.36	3.1	27.46	557.19	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	23.91	3.1	27.01	502.34	2
26365	1882.5	24.22	3.1	27.32	539.51	2
26675	1913.5	24.13	3.1	27.23	528.45	2

CHANNEL BANDWIDTH: 3MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26047	1851.5	22.75	3.1	25.85	384.59	2
26365	1882.5	23.41	3.1	26.51	447.71	2
26683	1913.5	23.09	3.1	26.19	415.91	2

CHANNEL BANDWIDTH: 3MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26047	1851.5	20.4	3.1	23.5	223.87	2
26365	1882.5	20.26	3.1	23.36	216.77	2
26683	1913.5	20.15	3.1	23.25	211.35	2

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26065	1852.5	24.55	3.1	27.65	582.1	2
26365	1882.5	24.99	3.1	28.09	644.17	2
26665	1912.5	24.51	3.1	27.61	576.77	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	24.06	3.1	27.16	520	2
26365	1882.5	24.38	3.1	27.48	559.76	2
26665	1912.5	24.14	3.1	27.24	529.66	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	22.95	3.1	26.05	402.72	2
26365	1882.5	23.49	3.1	26.59	456.04	2
26665	1912.5	22.98	3.1	26.08	405.51	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	20.36	3.1	23.46	221.82	2
26365	1882.5	20.39	3.1	23.49	223.36	2
26665	1912.5	20.38	3.1	23.48	222.84	2

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26090	1855	24.85	3.1	27.95	623.73	2
26365	1882.5	24.36	3.1	27.46	557.19	2
26640	1910	24.52	3.1	27.62	578.1	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26090	1855	24.08	3.1	27.18	522.4	2
26365	1882.5	24.24	3.1	27.34	542	2
26640	1910	24.17	3.1	27.27	533.33	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26090	1855	23.06	3.1	26.16	413.05	2
26365	1882.5	23.45	3.1	26.55	451.86	2
26640	1910	22.75	3.1	25.85	384.59	2

CHANNEL BANDWIDTH: 10MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26090	1855	20.31	3.1	23.41	219.28	2
26365	1882.5	20.34	3.1	23.44	220.8	2
26640	1910	20.27	3.1	23.37	217.27	2

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26115	1857.5	24.94	3.1	28.04	636.8	2
26365	1882.5	24.99	3.1	28.09	644.17	2
26615	1907.5	24.51	3.1	27.61	576.77	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	23.98	3.1	27.08	510.5	2
26365	1882.5	24.09	3.1	27.19	523.6	2
26615	1907.5	24.17	3.1	27.27	533.33	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	23.23	3.1	26.33	429.54	2
26365	1882.5	23.16	3.1	26.26	422.67	2
26615	1907.5	22.73	3.1	25.83	382.82	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	20.43	3.1	23.53	225.42	2
26365	1882.5	20.42	3.1	23.52	224.91	2
26615	1907.5	20.13	3.1	23.23	210.38	2

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26140	1860	24.83	3.1	27.93	620.87	2
26365	1882.5	24.99	3.1	28.09	644.17	2
26590	1905	24.51	3.1	27.61	576.77	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26140	1860	23.9	3.1	27	501.19	2
26365	1882.5	24.29	3.1	27.39	548.28	2
26590	1905	24.03	3.1	27.13	516.42	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26140	1860	23.08	3.1	26.18	414.95	2
26365	1882.5	23.15	3.1	26.25	421.7	2
26590	1905	23.2	3.1	26.3	426.58	2

CHANNEL BANDWIDTH: 20MHz 256QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
26140	1860	20.29	3.1	23.39	218.27	2
26365	1882.5	20.77	3.1	23.87	243.78	2
26590	1905	20.25	3.1	23.35	216.27	2

LTE BAND CA 2C

CHANNEL BANDWIDTH: 5MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18633	1853.3	18750	1865	24.09	3.10	27.19	523.60	2
18808	1870.8	18925	1882.5	24.45	3.10	27.55	568.85	2
18983	1888.3	19100	1900	24.47	3.10	27.57	571.48	2

CHANNEL BANDWIDTH: 5MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18633	1853.3	18750	1865	22.54	3.10	25.64	366.44	2
18808	1870.8	18925	1882.5	23.19	3.10	26.29	425.60	2
18983	1888.3	19100	1900	23.11	3.10	26.21	417.83	2

CHANNEL BANDWIDTH: 5MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18633	1853.3	18750	1865	21.50	3.10	24.60	288.40	2
18808	1870.8	18925	1882.5	21.84	3.10	24.94	311.89	2
18983	1888.3	19100	1900	21.90	3.10	25.00	316.23	2

CHANNEL BANDWIDTH: 5MHz+20MHz 256QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18633	1853.3	18750	1865	18.54	3.10	21.64	145.88	2
18808	1870.8	18925	1882.5	19.15	3.10	22.25	167.88	2
18983	1888.3	19100	1900	19.19	3.10	22.29	169.43	2

CHANNEL BANDWIDTH: 20MHz+5MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18817	1871.7	24.36	3.10	27.46	557.19	2
18875	1877.5	18992	1889.2	24.73	3.10	27.83	606.74	2
19050	1895	19167	1906.7	24.54	3.10	27.64	580.76	2

CHANNEL BANDWIDTH: 20MHz+5MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18817	1871.7	22.76	3.10	25.86	385.48	2
18875	1877.5	18992	1889.2	23.18	3.10	26.28	424.62	2
19050	1895	19167	1906.7	22.92	3.10	26.02	399.94	2

CHANNEL BANDWIDTH: 20MHz+5MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18817	1871.7	21.45	3.10	24.55	285.10	2
18875	1877.5	18992	1889.2	21.95	3.10	25.05	319.89	2
19050	1895	19167	1906.7	22.04	3.10	25.14	326.59	2

CHANNEL BANDWIDTH: 20MHz+5MHz 256QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18817	1871.7	18.84	3.10	21.94	156.31	2
18875	1877.5	18992	1889.2	19.23	3.10	22.33	171.00	2
19050	1895	19167	1906.7	19.25	3.10	22.35	171.79	2

CHANNEL BANDWIDTH: 10MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18653	1855.3	18773	1867.3	24.39	3.10	27.49	561.05	2
18829	1872.9	18949	1884.9	24.61	3.10	27.71	590.20	2
19005	1890.5	19125	1902.5	24.67	3.10	27.77	598.41	2

CHANNEL BANDWIDTH: 10MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18653	1855.3	18773	1867.3	22.79	3.10	25.89	388.15	2
18829	1872.9	18949	1884.9	23.10	3.10	26.20	416.87	2
19005	1890.5	19125	1902.5	23.18	3.10	26.28	424.62	2

CHANNEL BANDWIDTH: 10MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18653	1855.3	18773	1867.3	21.45	3.10	24.55	285.10	2
18829	1872.9	18949	1884.9	22.10	3.10	25.20	331.13	2
19005	1890.5	19125	1902.5	22.23	3.10	25.33	341.19	2

CHANNEL BANDWIDTH: 10MHz+15MHz 256QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18653	1855.3	18773	1867.3	18.60	3.10	21.70	147.91	2
18829	1872.9	18949	1884.9	19.18	3.10	22.28	169.04	2
19005	1890.5	19125	1902.5	19.24	3.10	22.34	171.40	2

CHANNEL BANDWIDTH: 15MHz+10MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18675	1857.5	18795	1869.5	24.77	3.10	27.87	612.35	2
18851	1875.1	18971	1887.1	24.64	3.10	27.74	594.29	2
19027	1892.7	19147	1904.7	24.33	3.10	27.43	553.35	2

CHANNEL BANDWIDTH: 15MHz+10MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18675	1857.5	18795	1869.5	22.97	3.10	26.07	404.58	2
18851	1875.1	18971	1887.1	23.05	3.10	26.15	412.10	2
19027	1892.7	19147	1904.7	22.99	3.10	26.09	406.44	2

CHANNEL BANDWIDTH: 15MHz+10MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18675	1857.5	18795	1869.5	21.61	3.10	24.71	295.80	2
18851	1875.1	18971	1887.1	22.02	3.10	25.12	325.09	2
19027	1892.7	19147	1904.7	21.90	3.10	25.00	316.23	2

CHANNEL BANDWIDTH: 15MHz+10MHz 256QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18675	1857.5	18795	1869.5	18.49	3.10	21.59	144.21	2
18851	1875.1	18971	1887.1	19.18	3.10	22.28	169.04	2
19027	1892.7	19147	1904.7	19.15	3.10	22.25	167.88	2

CHANNEL BANDWIDTH: 15MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18675	1857.5	18825	1872.5	24.50	3.10	27.60	575.44	2
18825	1872.5	18975	1887.5	24.86	3.10	27.96	625.17	2
18975	1887.5	19125	1902.5	24.44	3.10	27.54	567.54	2

CHANNEL BANDWIDTH: 15MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18675	1857.5	18825	1872.5	22.79	3.10	25.89	388.15	2
18825	1872.5	18975	1887.5	23.21	3.10	26.31	427.56	2
18975	1887.5	19125	1902.5	23.03	3.10	26.13	410.20	2

CHANNEL BANDWIDTH: 15MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18675	1857.5	18825	1872.5	21.53	3.10	24.63	290.40	2
18825	1872.5	18975	1887.5	22.01	3.10	25.11	324.34	2
18975	1887.5	19125	1902.5	22.00	3.10	25.10	323.59	2

CHANNEL BANDWIDTH: 15MHz+15MHz 256QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18675	1857.5	18825	1872.5	18.75	3.10	21.85	153.11	2
18825	1872.5	18975	1887.5	19.17	3.10	22.27	168.66	2
18975	1887.5	19125	1902.5	19.29	3.10	22.39	173.38	2

CHANNEL BANDWIDTH: 10MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18655	1855.5	18799	1869.9	24.15	3.10	27.25	530.88	2
18806	1870.6	18950	1885	24.19	3.10	27.29	535.80	2
18956	1885.6	19100	1900	24.36	3.10	27.46	557.19	2

CHANNEL BANDWIDTH: 10MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18655	1855.5	18799	1869.9	22.56	3.10	25.66	368.13	2
18806	1870.6	18950	1885	22.85	3.10	25.95	393.55	2
18956	1885.6	19100	1900	22.96	3.10	26.06	403.65	2

CHANNEL BANDWIDTH: 10MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18655	1855.5	18799	1869.9	21.38	3.10	24.48	280.54	2
18806	1870.6	18950	1885	21.79	3.10	24.89	308.32	2
18956	1885.6	19100	1900	21.90	3.10	25.00	316.23	2

CHANNEL BANDWIDTH: 10MHz+20MHz 256QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18655	1855.5	18799	1869.9	18.48	3.10	21.58	143.88	2
18806	1870.6	18950	1885	18.93	3.10	22.03	159.59	2
18956	1885.6	19100	1900	19.12	3.10	22.22	166.72	2

CHANNEL BANDWIDTH: 20MHz+10MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18844	1874.4	24.32	3.10	27.42	552.08	2
18851	1875.1	18995	1889.5	24.52	3.10	27.62	578.10	2
19001	1890.1	19145	1904.5	22.73	3.10	25.83	382.82	2

CHANNEL BANDWIDTH: 20MHz+10MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18844	1874.4	22.62	3.10	25.72	373.25	2
18851	1875.1	18995	1889.5	22.94	3.10	26.04	401.79	2
19001	1890.1	19145	1904.5	23.19	3.10	26.29	425.60	2

CHANNEL BANDWIDTH: 20MHz+10MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18844	1874.4	21.41	3.10	24.51	282.49	2
18851	1875.1	18995	1889.5	21.95	3.10	25.05	319.89	2
19001	1890.1	19145	1904.5	21.85	3.10	24.95	312.61	2

CHANNEL BANDWIDTH: 20MHz+10MHz 256QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18844	1874.4	18.72	3.10	21.82	152.05	2
18851	1875.1	18995	1889.5	19.11	3.10	22.21	166.34	2
19001	1890.1	19145	1904.5	19.17	3.10	22.27	168.66	2

CHANNEL BANDWIDTH: 15MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18678	1857.8	18849	1874.9	24.13	3.10	27.23	528.45	2
18803	1870.3	18974	1887.4	24.37	3.10	27.47	558.47	2
18929	1882.9	19100	1900	24.91	3.10	28.01	632.41	2

CHANNEL BANDWIDTH: 15MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18678	1857.8	18849	1874.9	22.64	3.10	25.74	374.97	2
18803	1870.3	18974	1887.4	22.86	3.10	25.96	394.46	2
18929	1882.9	19100	1900	23.40	3.10	26.50	446.68	2

CHANNEL BANDWIDTH: 15MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18678	1857.8	18849	1874.9	21.48	3.10	24.58	287.08	2
18803	1870.3	18974	1887.4	21.83	3.10	24.93	311.17	2
18929	1882.9	19100	1900	22.13	3.10	25.23	333.43	2

CHANNEL BANDWIDTH: 15MHz+20MHz 256QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18678	1857.8	18849	1874.9	18.77	3.10	21.87	153.82	2
18803	1870.3	18974	1887.4	19.06	3.10	22.16	164.44	2
18929	1882.9	19100	1900	19.23	3.10	22.33	171.00	2

CHANNEL BANDWIDTH: 20MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18871	1877.1	24.16	3.10	27.26	532.11	2
18826	1872.6	18997	1889.7	24.62	3.10	27.72	591.56	2
18951	1885.1	19122	1902.2	24.46	3.10	27.56	570.16	2

CHANNEL BANDWIDTH: 20MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18871	1877.1	22.50	3.10	25.60	363.08	2
18826	1872.6	18997	1889.7	23.02	3.10	26.12	409.26	2
18951	1885.1	19122	1902.2	23.10	3.10	26.20	416.87	2

CHANNEL BANDWIDTH: 20MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18871	1877.1	21.49	3.10	24.59	287.74	2
18826	1872.6	18997	1889.7	21.91	3.10	25.01	316.96	2
18951	1885.1	19122	1902.2	22.07	3.10	25.17	328.85	2

CHANNEL BANDWIDTH: 20MHz+15MHz 256QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18871	1877.1	18.84	3.10	21.94	156.31	2
18826	1872.6	18997	1889.7	19.23	3.10	22.33	171.00	2
18951	1885.1	19122	1902.2	19.36	3.10	22.46	176.20	2

CHANNEL BANDWIDTH: 20MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18898	1879.8	24.41	3.10	27.51	563.64	2
18801	1870.1	18999	1889.9	24.61	3.10	27.71	590.20	2
18902	1880.2	19100	1900	24.09	3.10	27.19	523.60	2

CHANNEL BANDWIDTH: 20MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18898	1879.8	22.77	3.10	25.87	386.37	2
18801	1870.1	18999	1889.9	22.94	3.10	26.04	401.79	2
18902	1880.2	19100	1900	23.28	3.10	26.38	434.51	2

CHANNEL BANDWIDTH: 20MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18898	1879.8	21.43	3.10	24.53	283.79	2
18801	1870.1	18999	1889.9	21.85	3.10	24.95	312.61	2
18902	1880.2	19100	1900	22.13	3.10	25.23	333.43	2

CHANNEL BANDWIDTH: 20MHz+20MHz 256QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
18700	1860	18898	1879.8	18.86	3.10	21.96	157.04	2
18801	1870.1	18999	1889.9	19.04	3.10	22.14	163.68	2
18902	1880.2	19100	1900	19.33	3.10	22.43	174.98	2

3.2 RADIATED EMISSION MEASUREMENT

3.2.1 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.

3.2.2 TEST PROCEDURES

a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.

b. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value " of step a. Record the power level of S.G

c. EIRP = Output power level of S.G - TX cable loss + Antenna gain of substitution horn.

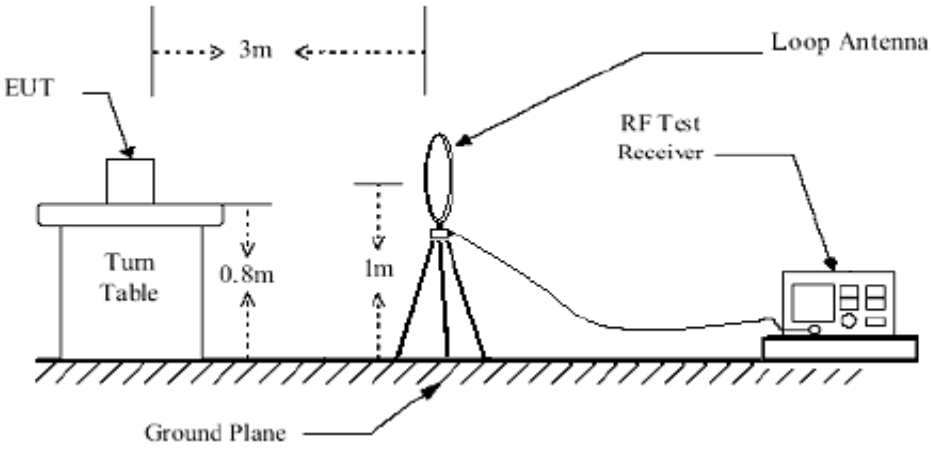
NOTE: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

3.2.3 DEVIATION FROM TEST STANDARD

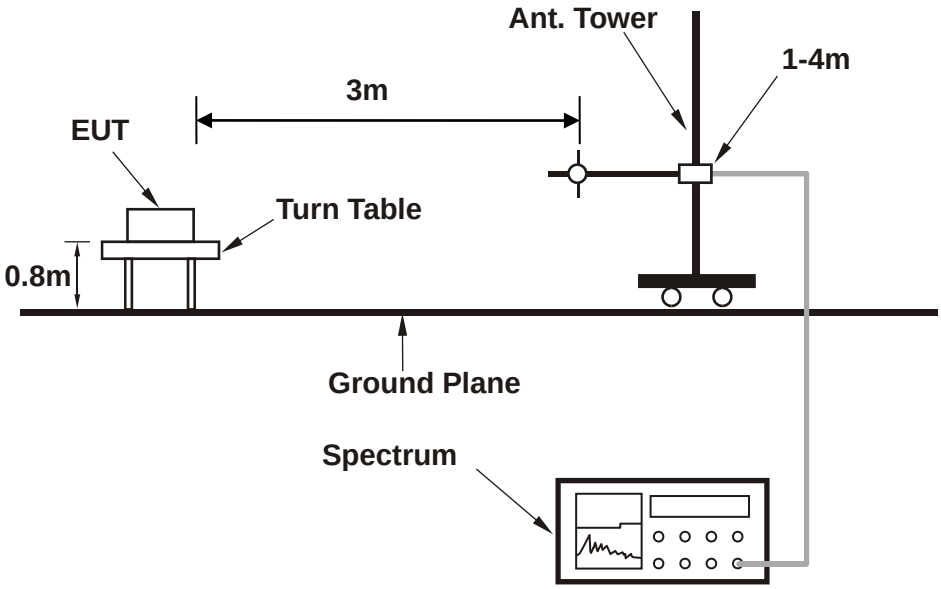
No deviation

3.2.4 TEST SETUP

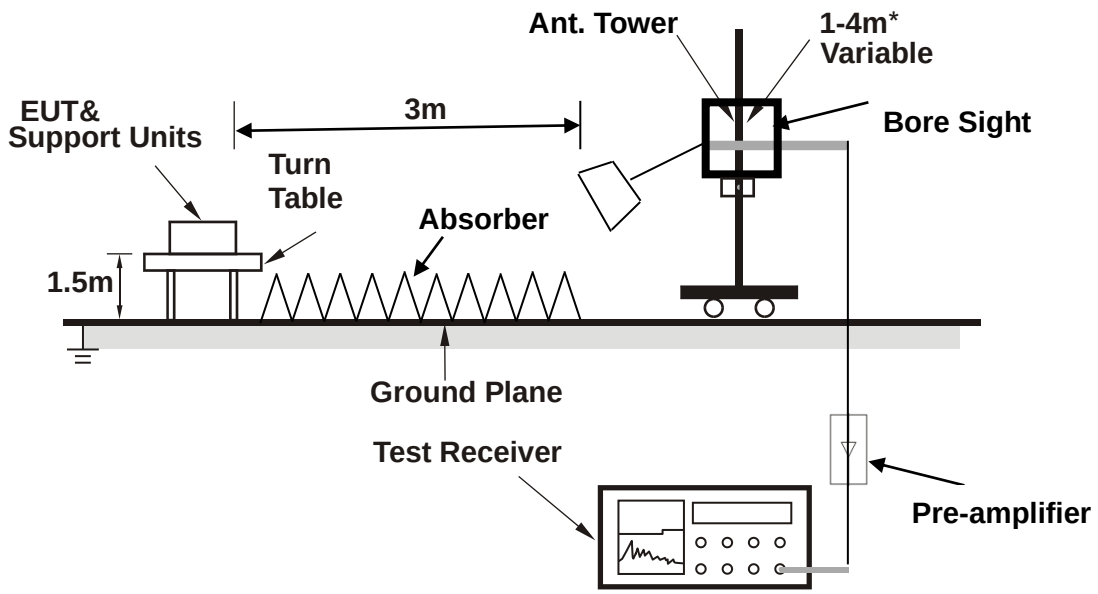
< Frequency Range below 30MHz >



< 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).

3.2.5 TEST RESULTS

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

BELOW 1GHz WORST-CASE DATA

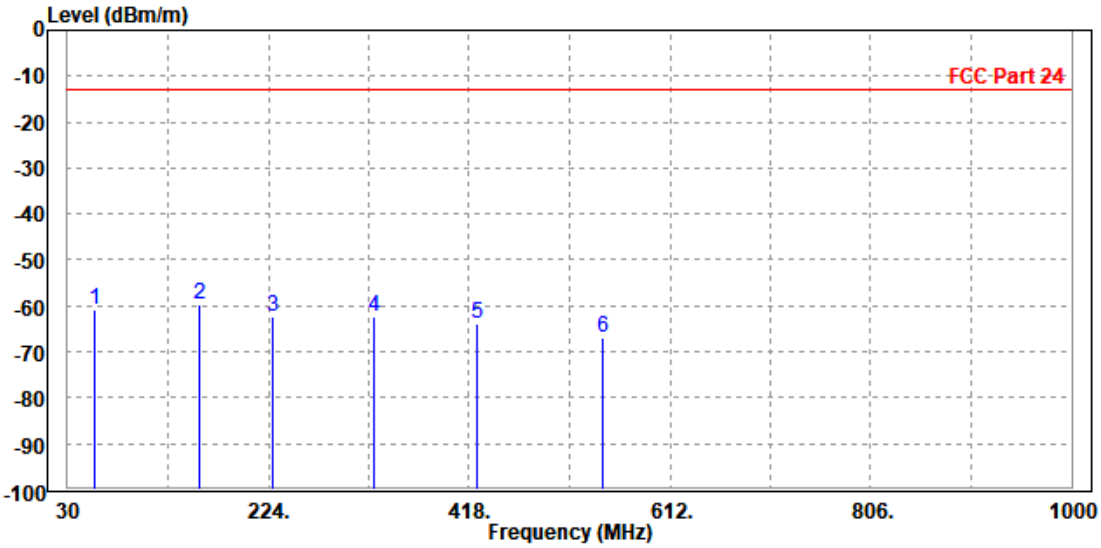
30 MHz – 1GHz data:

LTE Band 25:

CHANNEL BANDWIDTH: 10MHz / QPSK

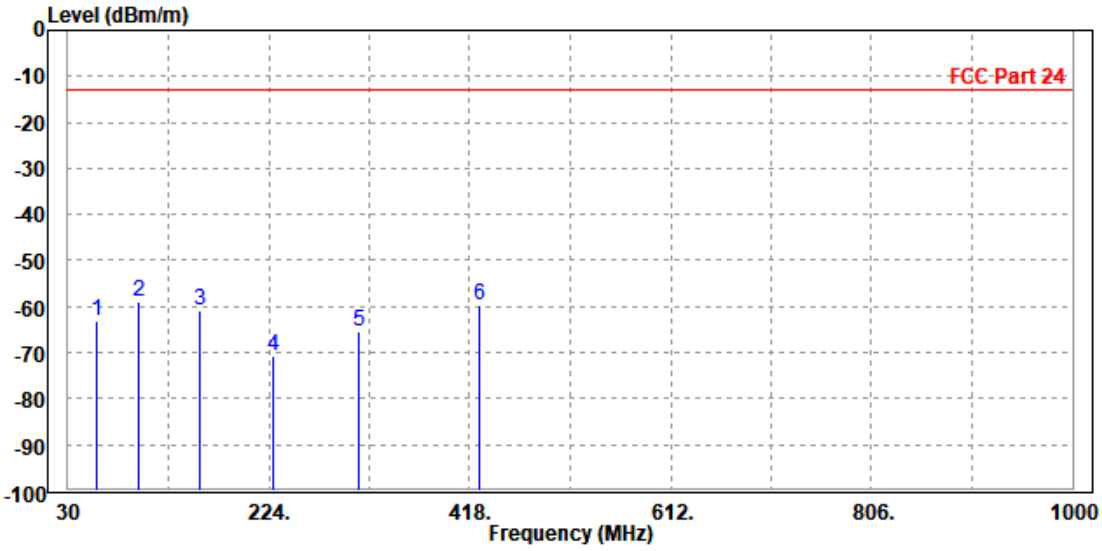
MODE	TX channel 26640	**FREQUENCY RANGE**	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1		56.190	-60.92	-42.84	-13.00	-47.92	-18.08	Peak	Horizontal
2	PP	158.040	-59.75	-43.27	-13.00	-46.75	-16.48	Peak	Horizontal
3		227.880	-62.33	-48.24	-13.00	-49.33	-14.09	Peak	Horizontal
4		326.820	-62.45	-50.64	-13.00	-49.45	-11.81	Peak	Horizontal
5		425.760	-64.06	-54.49	-13.00	-51.06	-9.57	Peak	Horizontal
6		547.010	-67.07	-60.80	-13.00	-54.07	-6.27	Peak	Horizontal



MODE	TX channel 26640	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	57.160	-63.20	-39.38	-13.00	-50.20	-23.82	Peak	Vertical
2 PP	98.870	-58.83	-51.41	-13.00	-45.83	-7.42	Peak	Vertical
3	157.070	-60.88	-43.66	-13.00	-47.88	-17.22	Peak	Vertical
4	228.850	-70.82	-55.35	-13.00	-57.82	-15.47	Peak	Vertical
5	311.300	-65.56	-54.95	-13.00	-52.56	-10.61	Peak	Vertical
6	426.730	-59.54	-50.79	-13.00	-46.54	-8.75	Peak	Vertical



ABOVE 1GHz DATA

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

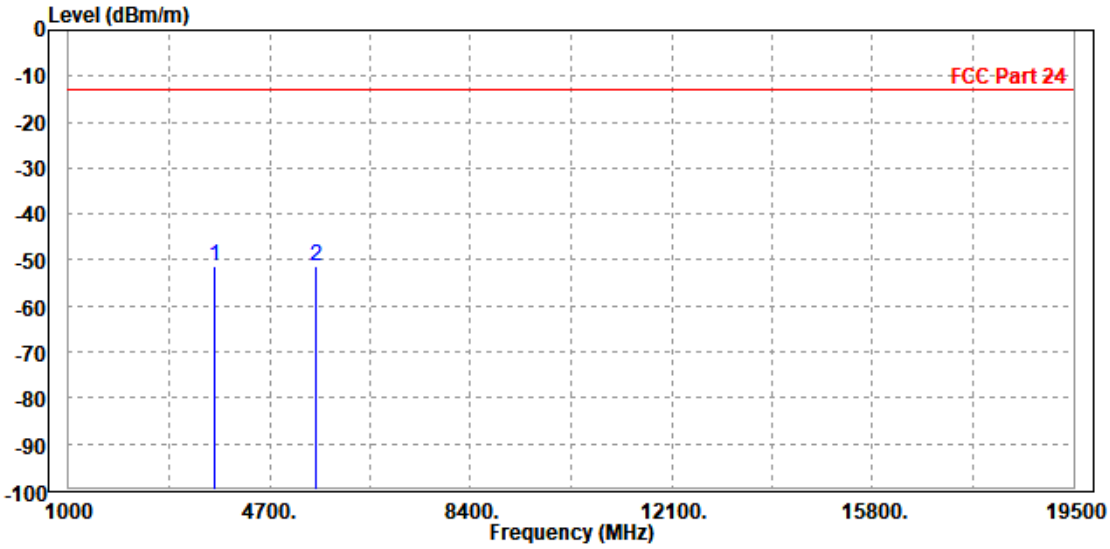
WORST-CASE DATA

WCDMA Band II

CH 9262

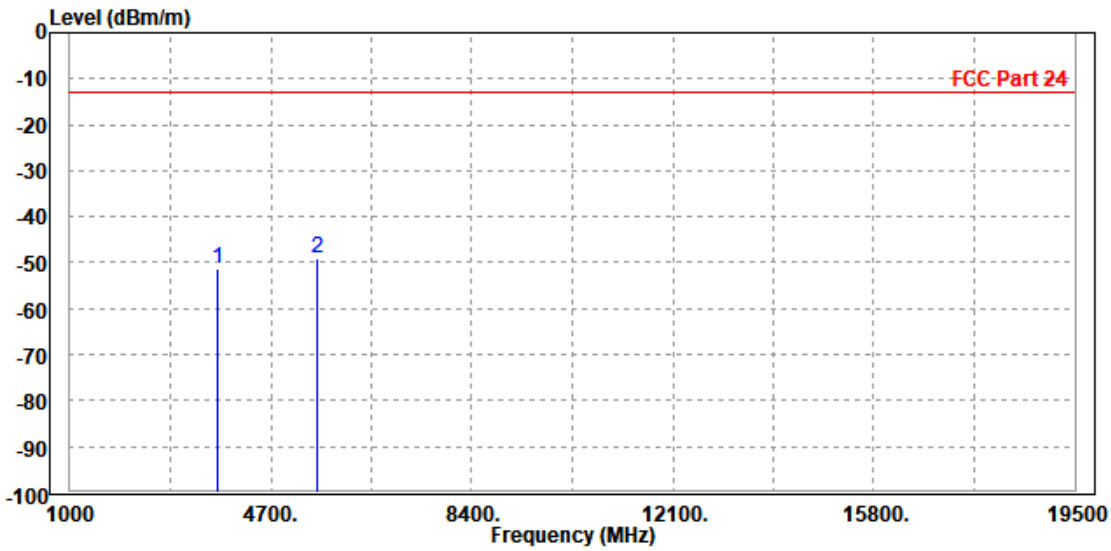
MODE	TX channel 9262	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3701.000	-51.34	-59.18	-13.00	-38.34	7.84	Peak	Horizontal
2 PP	5557.200	-51.26	-61.84	-13.00	-38.26	10.58	Peak	Horizontal



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

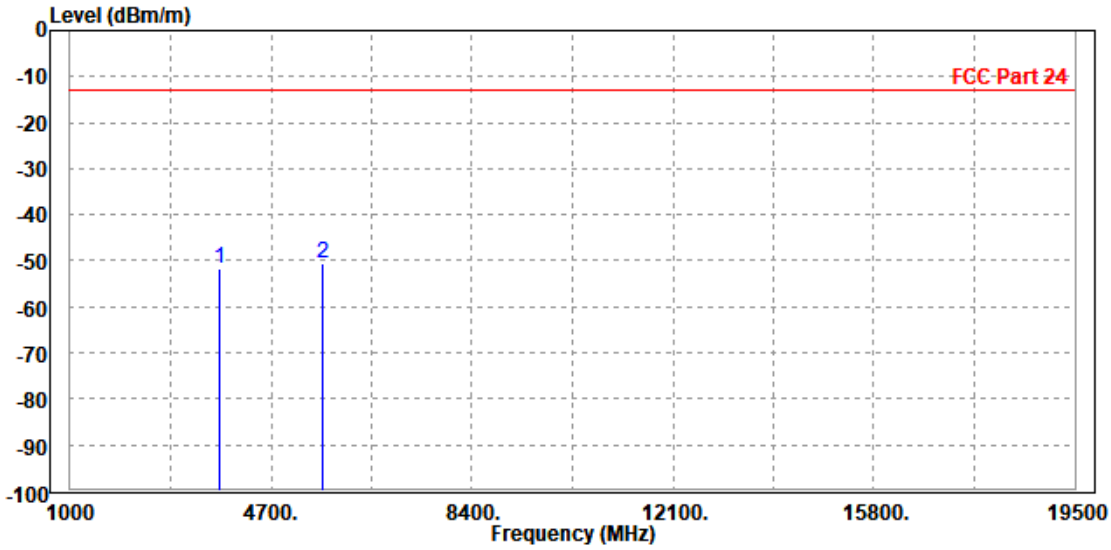
		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1		3704.800	-51.32	-58.94	-13.00	-38.32	7.62	Peak	Vertical
2	PP	5551.000	-48.95	-59.82	-13.00	-35.95	10.87	Peak	Vertical



CH 9400

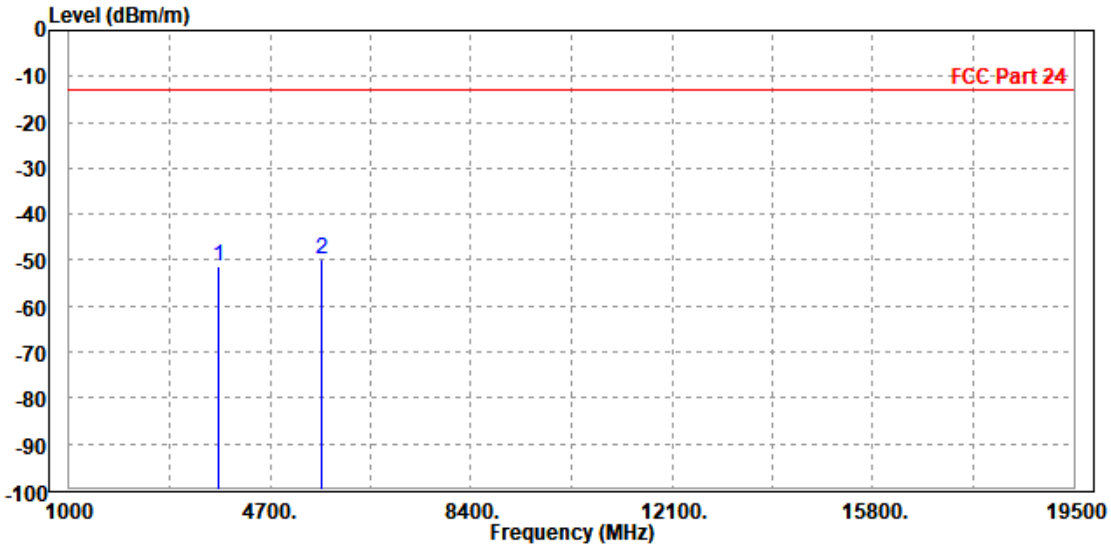
MODE	TX channel 9400	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3760.000	-51.57	-59.56	-13.00	-38.57	7.99	Peak	Horizontal
2 PP	5643.500	-50.68	-61.43	-13.00	-37.68	10.75	Peak	Horizontal



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

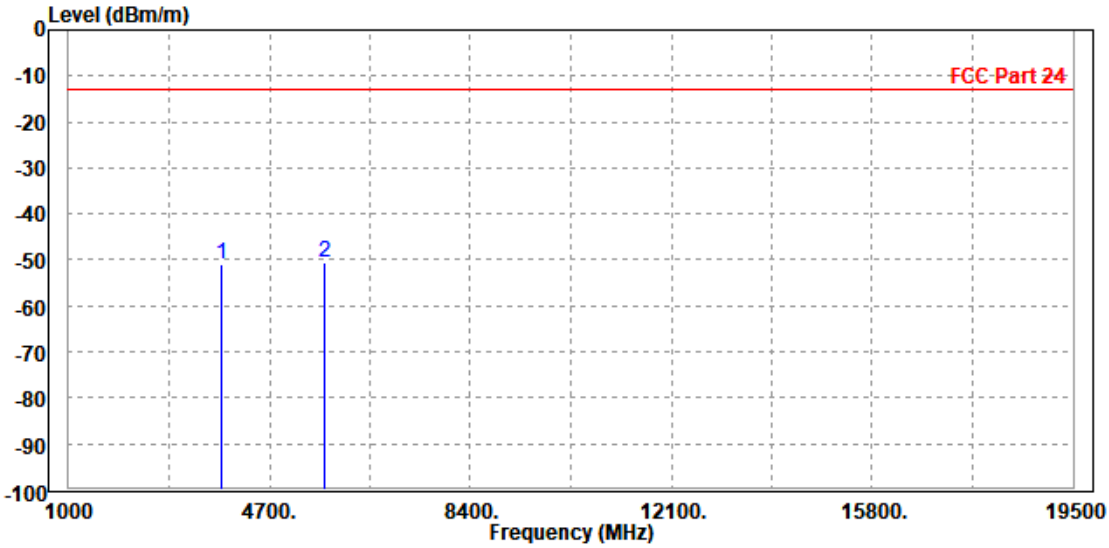
		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1		3756.500	-51.30	-58.99	-13.00	-38.30	7.69	Peak	Vertical
2	PP	5640.000	-49.78	-60.91	-13.00	-36.78	11.13	Peak	Vertical



CH 9538

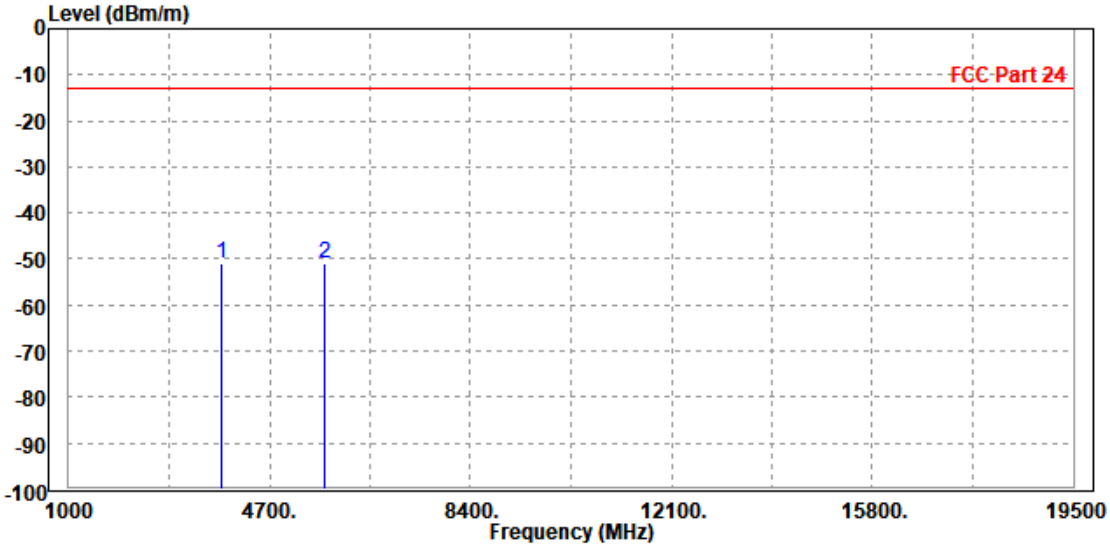
MODE	TX channel 9538	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3815.200	-51.12	-59.25	-13.00	-38.12	8.13	Peak	Horizontal
2 PP	5717.500	-50.54	-61.43	-13.00	-37.54	10.89	Peak	Horizontal



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

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	3812.000	-50.88	-58.65	-13.00	-37.88	7.77	Peak	Vertical
2		5722.800	-51.00	-62.36	-13.00	-38.00	11.36	Peak	Vertical

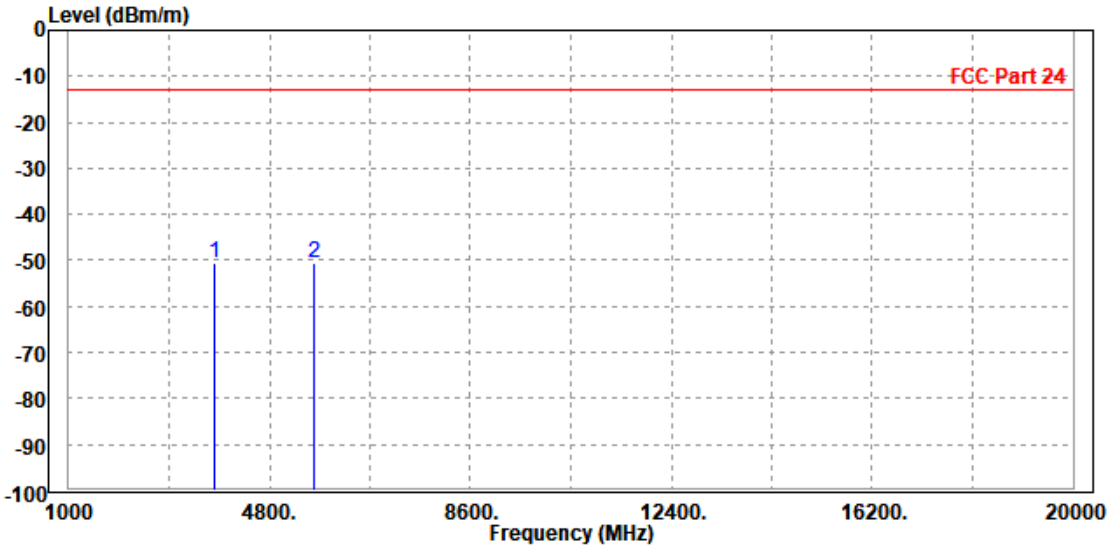


LTE Band 25

CHANNEL BANDWIDTH: 1.4MHz / QPSK

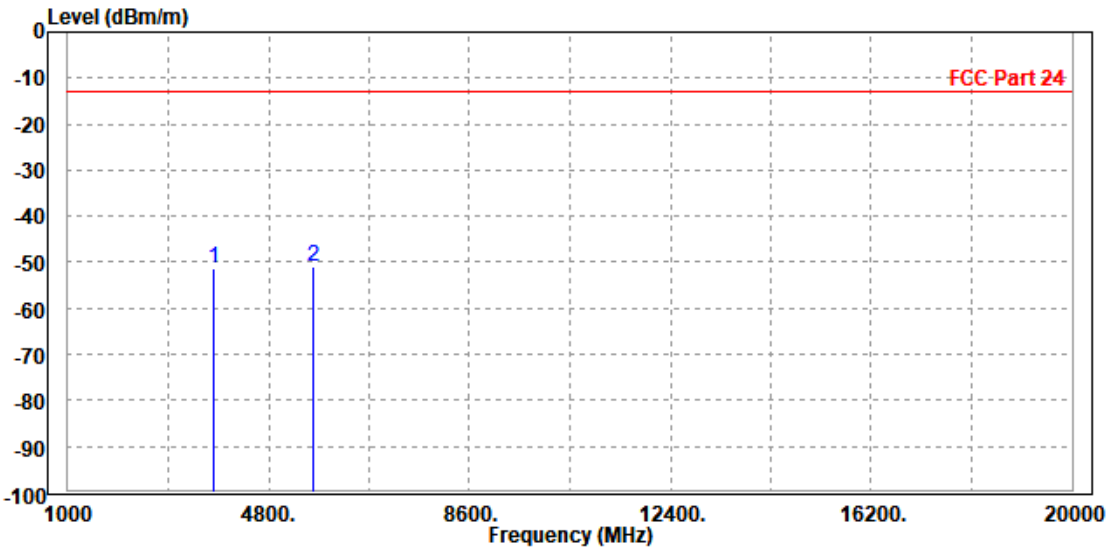
MODE	TX channel 26365	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3774.000	-50.75	-58.77	-13.00	-37.75	8.02	Peak	Horizontal
2 PP	5647.500	-50.39	-61.15	-13.00	-37.39	10.76	Peak	Horizontal



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

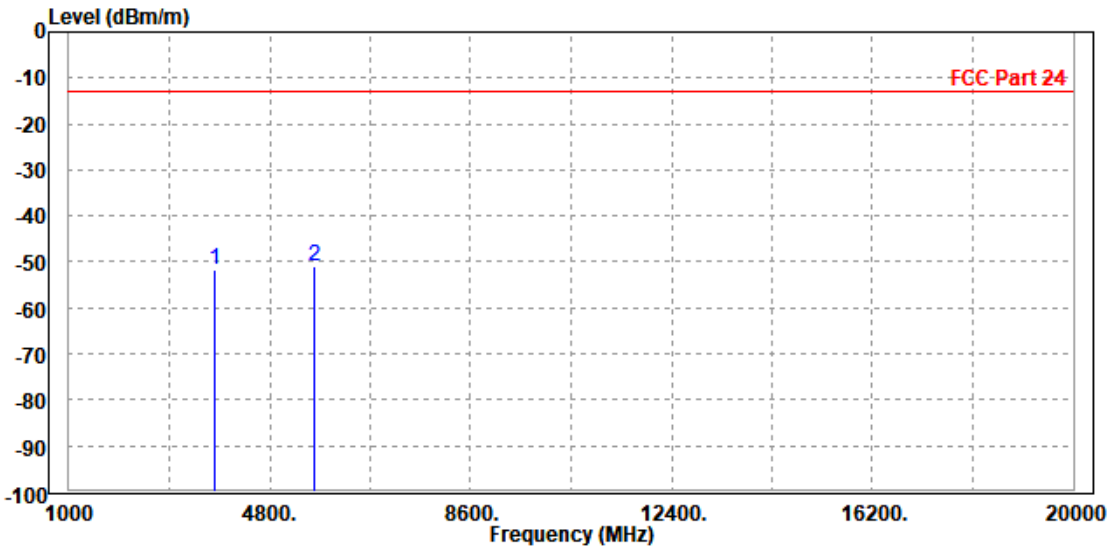
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3765.000	-51.48	-59.18	-13.00	-38.48	7.70	Peak	Vertical
2 PP	5655.000	-50.91	-62.08	-13.00	-37.91	11.17	Peak	Vertical



CHANNEL BANDWIDTH: 3MHz / QPSK

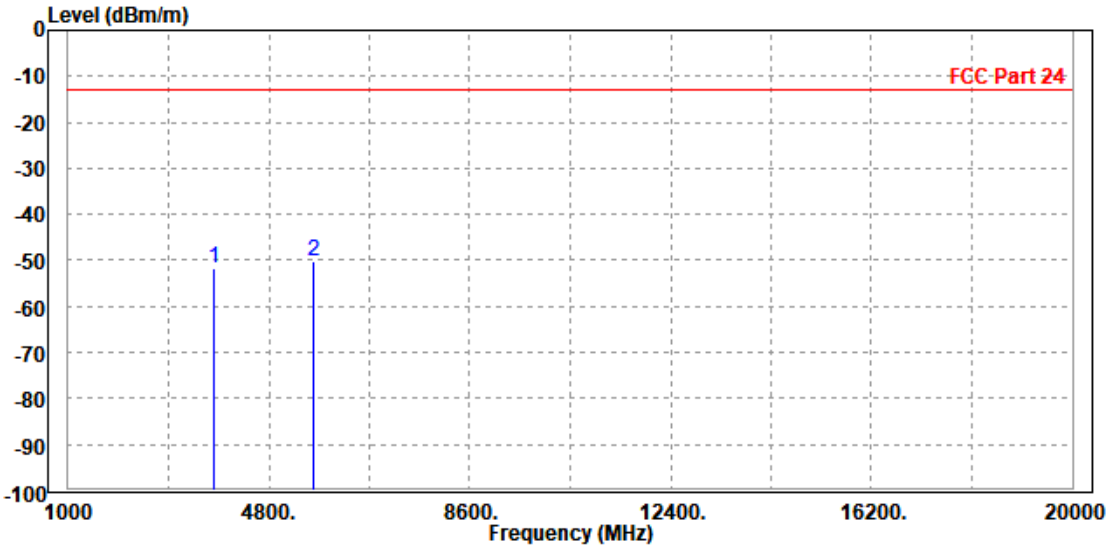
MODE	TX channel 26365	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1		3765.000	-51.65	-59.65	-13.00	-38.65	8.00	Peak	Horizontal
2	PP	5655.000	-51.11	-61.88	-13.00	-38.11	10.77	Peak	Horizontal



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

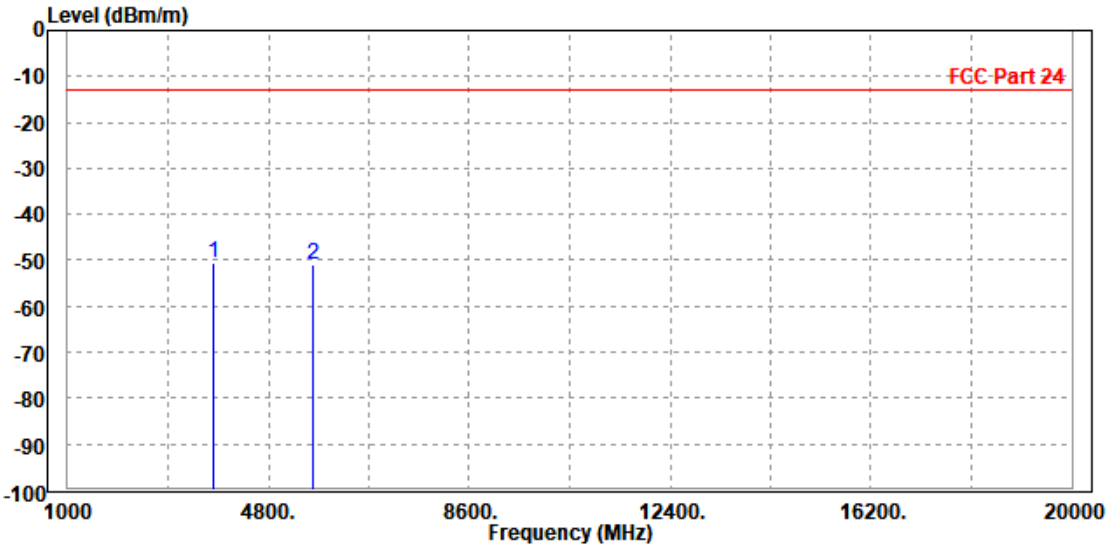
		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1		3774.000	-51.84	-59.56	-13.00	-38.84	7.72	Peak	Vertical
2	PP	5647.500	-50.34	-61.49	-13.00	-37.34	11.15	Peak	Vertical



CHANNEL BANDWIDTH: 5MHz / QPSK

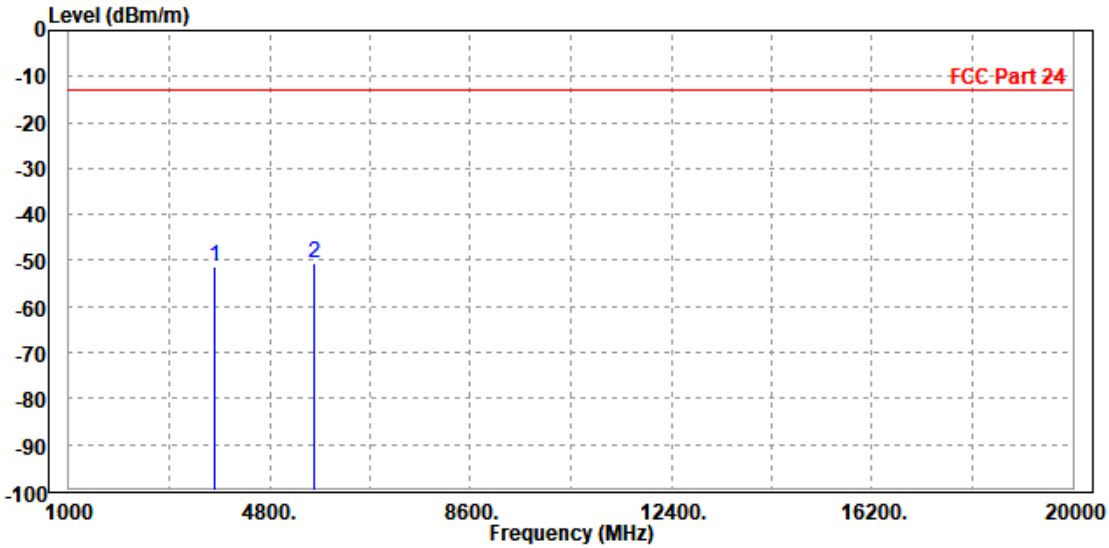
MODE	TX channel 26365	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	3774.000	-50.50	-58.52	-13.00	-37.50	8.02	Peak	Horizontal
2		5647.500	-50.94	-61.70	-13.00	-37.94	10.76	Peak	Horizontal



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

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3765.000	-51.25	-58.95	-13.00	-38.25	7.70	Peak	Vertical
2 PP	5655.000	-50.57	-61.74	-13.00	-37.57	11.17	Peak	Vertical

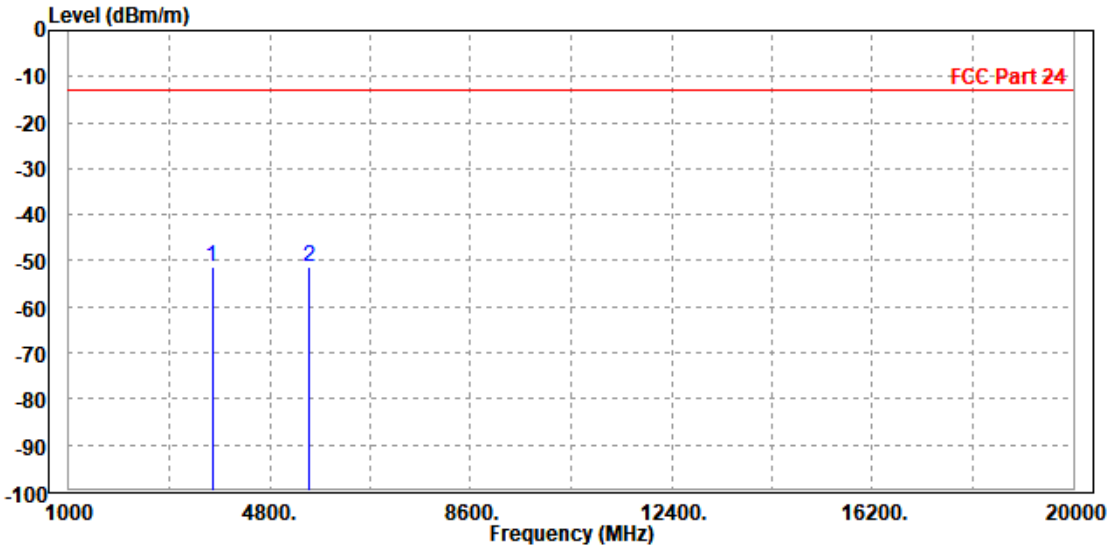


CHANNEL BANDWIDTH: 10MHz / QPSK

CH26090

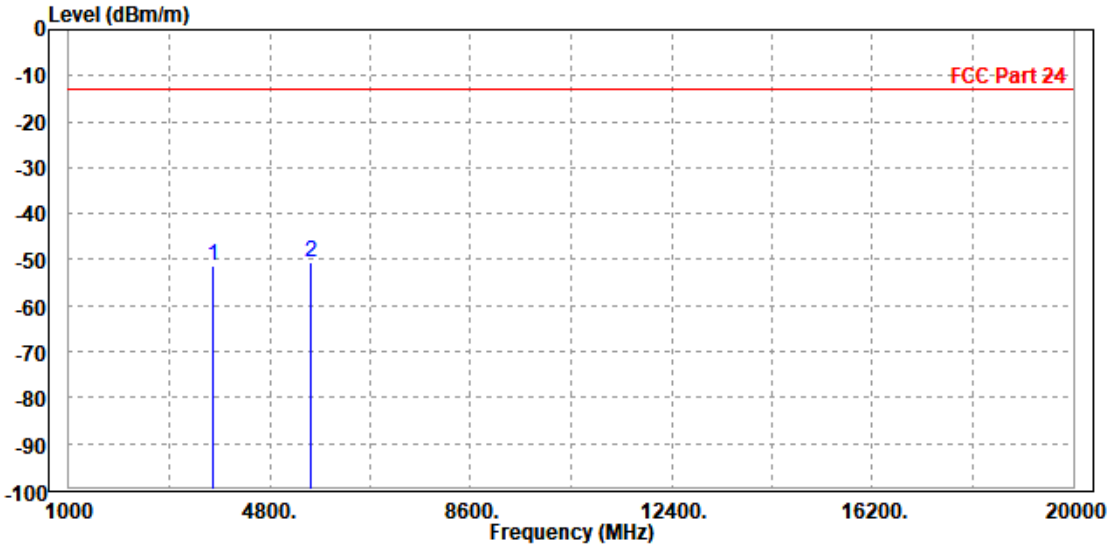
MODE	TX channel 26090	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3710.000	-51.41	-59.27	-13.00	-38.41	7.86	Peak	Horizontal
2 PP	5560.000	-51.18	-61.77	-13.00	-38.18	10.59	Peak	Horizontal



MODE	TX channel 26090	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

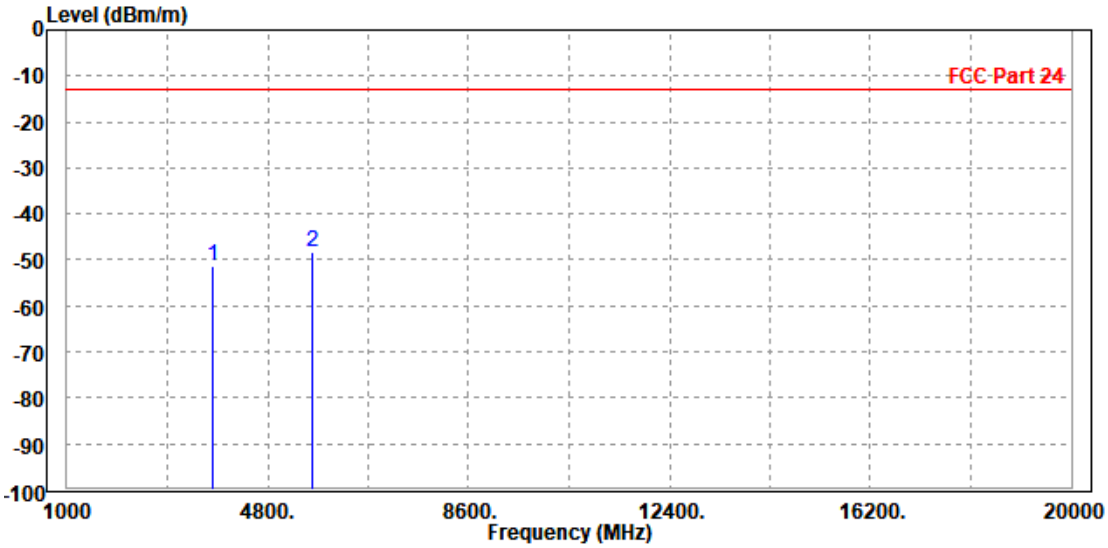
		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1		3717.000	-51.43	-59.06	-13.00	-38.43	7.63	Peak	Vertical
2	PP	5565.000	-50.66	-61.57	-13.00	-37.66	10.91	Peak	Vertical



CH26365

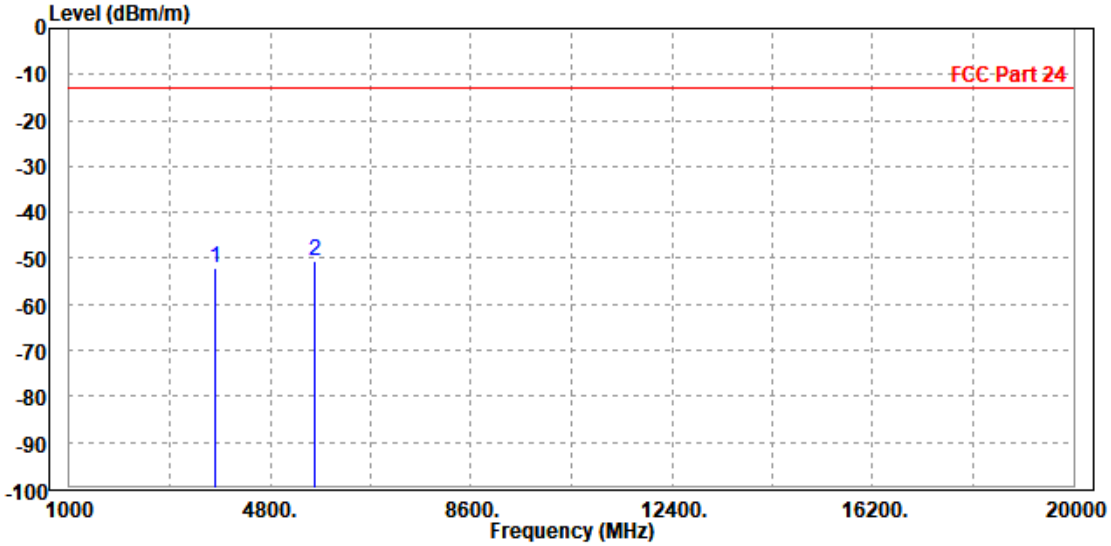
MODE	TX channel 26365	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3765.000	-51.28	-59.28	-13.00	-38.28	8.00	Peak	Horizontal
2 PP	5655.000	-48.14	-58.91	-13.00	-35.14	10.77	Peak	Horizontal



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

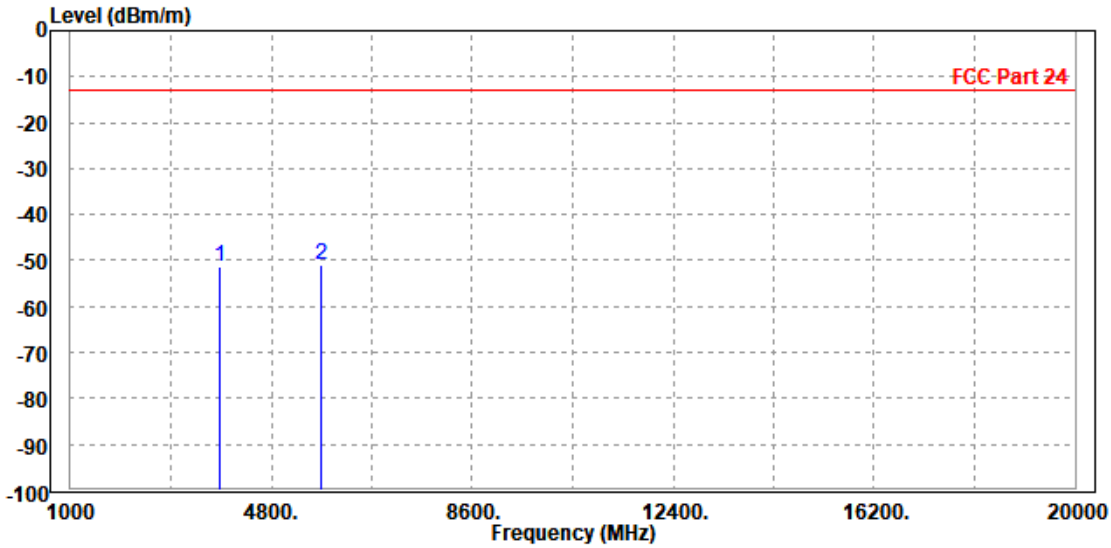
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3774.000	-52.15	-59.87	-13.00	-39.15	7.72	Peak	Vertical
2 PP	5647.500	-50.57	-61.72	-13.00	-37.57	11.15	Peak	Vertical



CH26640

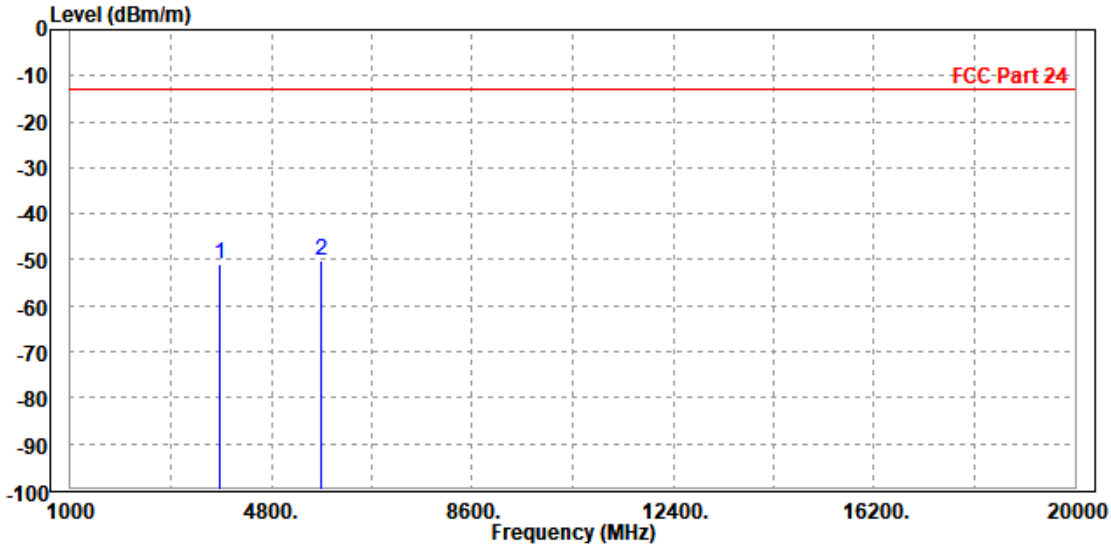
MODE	TX channel 26640	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3812.000	-51.39	-59.51	-13.00	-38.39	8.12	Peak	Horizontal
2 PP	5730.000	-50.87	-61.78	-13.00	-37.87	10.91	Peak	Horizontal



MODE	TX channel 26640	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

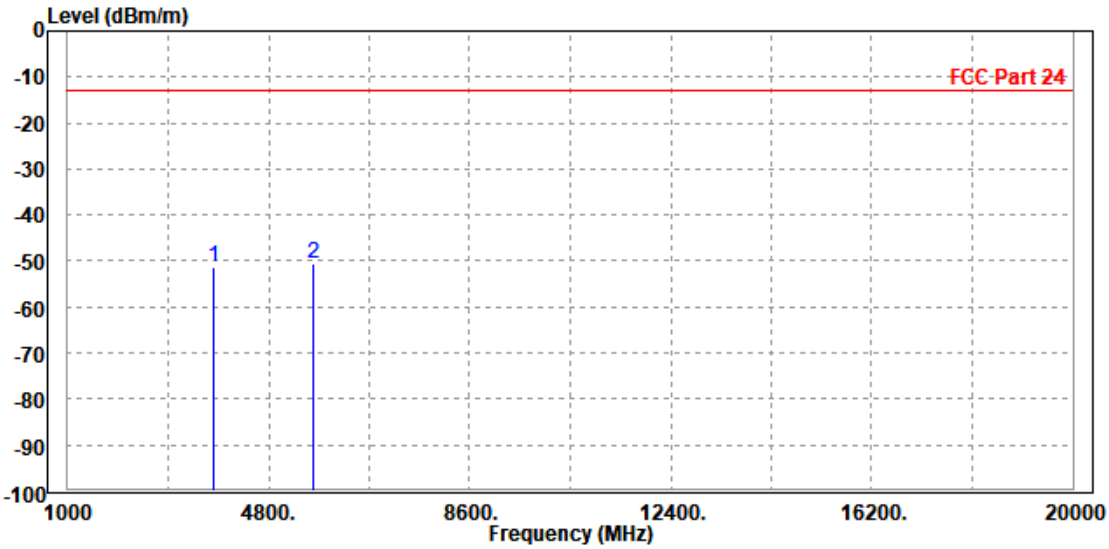
		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1		3820.000	-51.11	-58.89	-13.00	-38.11	7.78	Peak	Vertical
2	PP	5731.000	-50.15	-61.54	-13.00	-37.15	11.39	Peak	Vertical



CHANNEL BANDWIDTH: 15MHz / QPSK

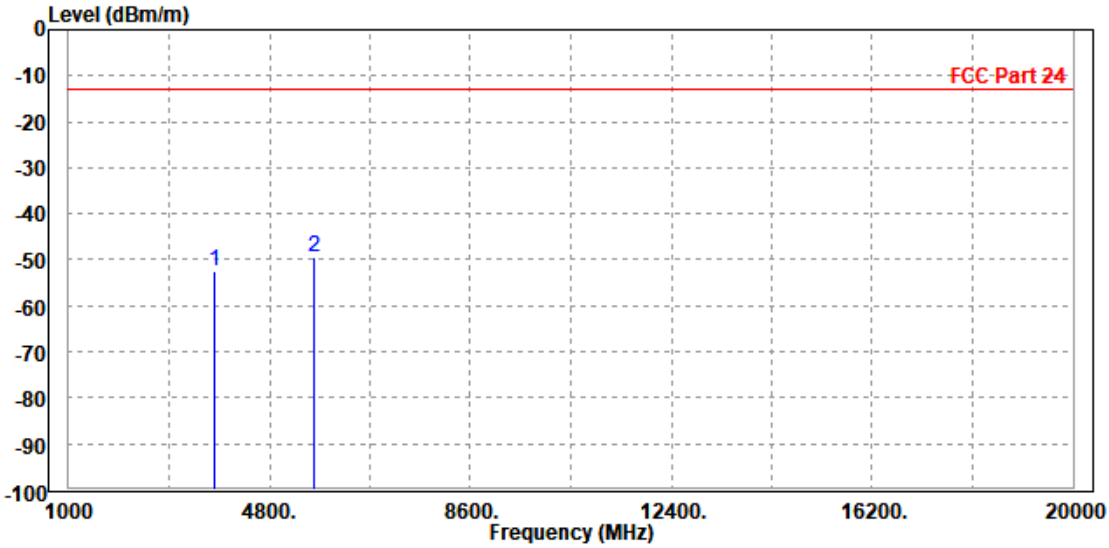
MODE	TX channel 26365	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3765.000	-51.23	-59.23	-13.00	-38.23	8.00	Peak	Horizontal
2 PP	5655.000	-50.56	-61.33	-13.00	-37.56	10.77	Peak	Horizontal



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

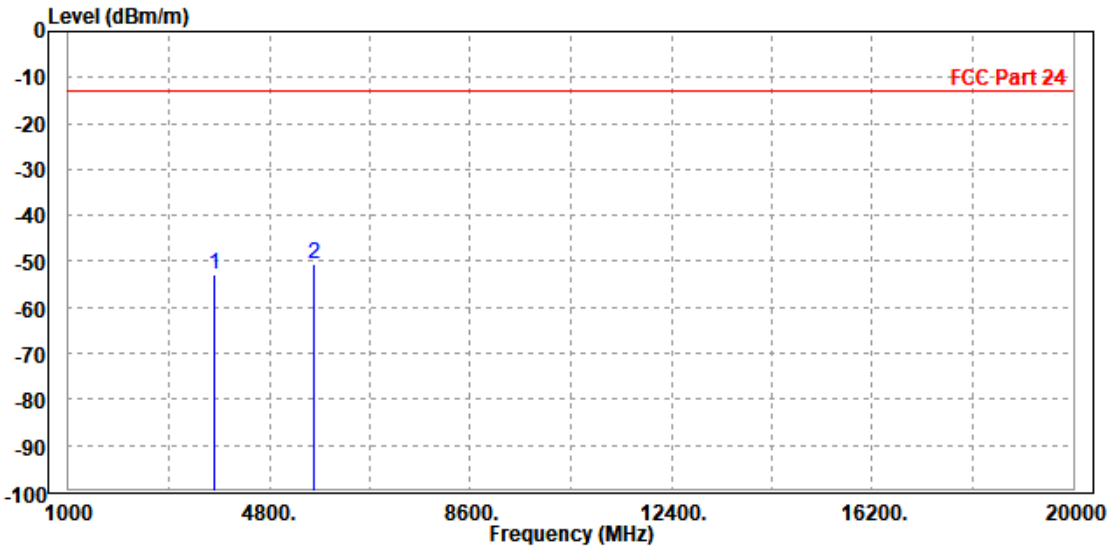
		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1		3774.000	-52.29	-60.01	-13.00	-39.29	7.72	Peak	Vertical
2	PP	5647.500	-49.32	-60.47	-13.00	-36.32	11.15	Peak	Vertical



CHANNEL BANDWIDTH: 20MHz / QPSK

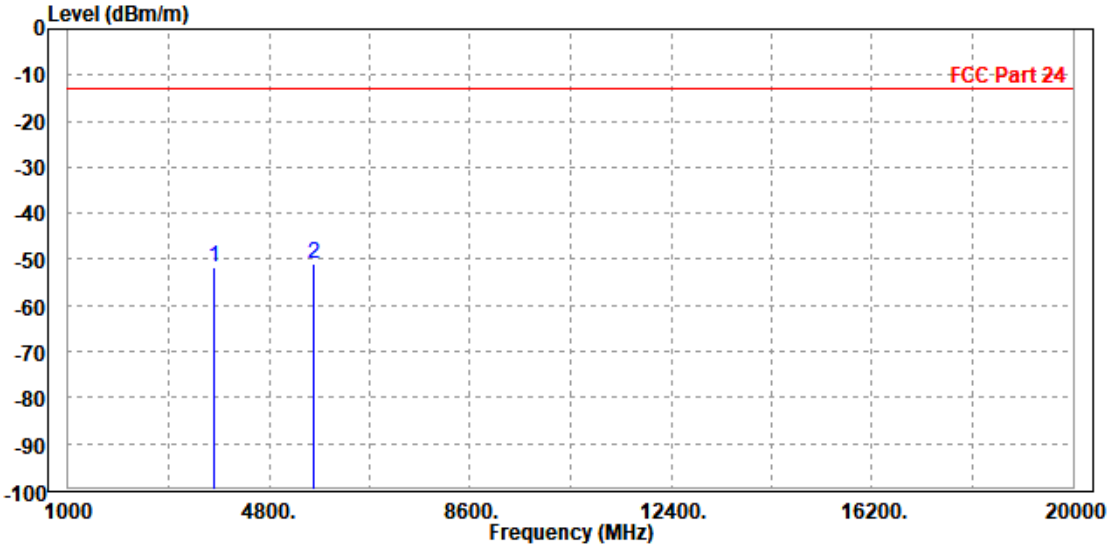
MODE	TX channel 26365	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3774.000	-52.66	-60.68	-13.00	-39.66	8.02	Peak	Horizontal
2 PP	5647.500	-50.73	-61.49	-13.00	-37.73	10.76	Peak	Horizontal



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

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3765.000	-51.61	-59.31	-13.00	-38.61	7.70	Peak	Vertical
2 PP	5655.000	-50.93	-62.10	-13.00	-37.93	11.17	Peak	Vertical



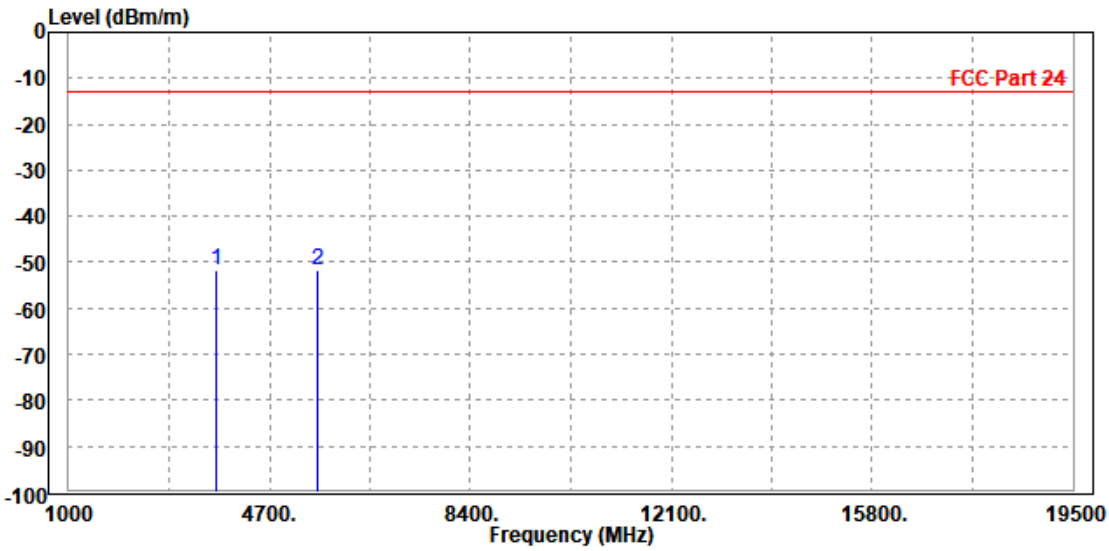
LTE BAND CA 2C

CHANNEL BANDWIDTH: 20+20MHz / QPSK

CH 18700/ 18898

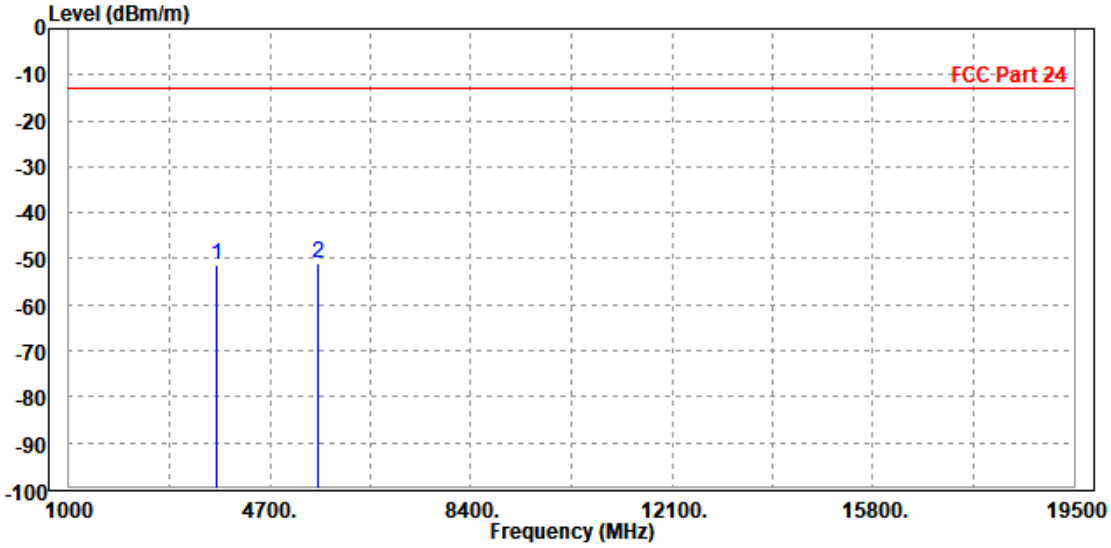
MODE	TX channel 18700/ 18898	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1		3719.500	-51.72	-59.60	-13.00	-38.72	7.88	Peak	Horizontal
2	PP	5580.000	-51.70	-62.33	-13.00	-38.70	10.63	Peak	Horizontal



MODE	TX channel 18700/ 18898	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

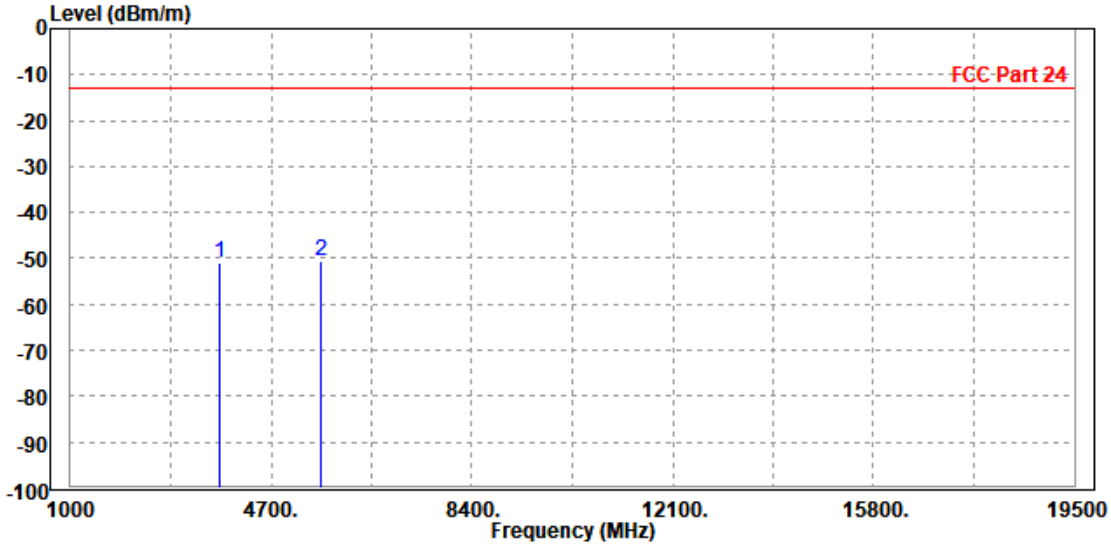
		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1		3720.000	-51.51	-59.15	-13.00	-38.51	7.64	Peak	Vertical
2	PP	5588.000	-50.80	-61.78	-13.00	-37.80	10.98	Peak	Vertical



CH 18801/ 18999

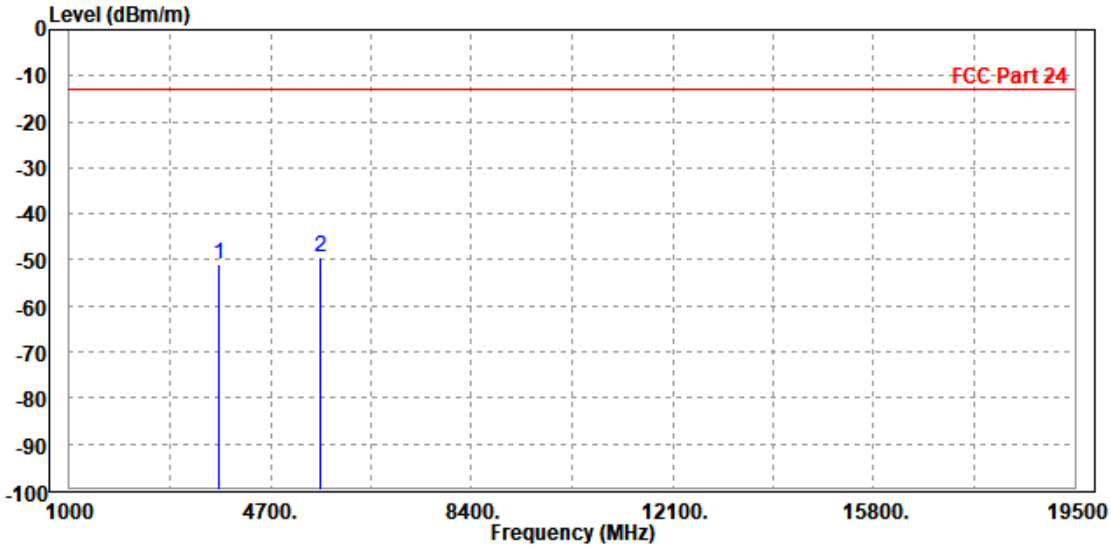
MODE	TX channel 18801/ 18999	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3738.000	-50.87	-58.80	-13.00	-37.87	7.93	Peak	Horizontal
2 PP	5610.300	-50.43	-61.11	-13.00	-37.43	10.68	Peak	Horizontal



MODE	TX channel 18801/ 18999	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

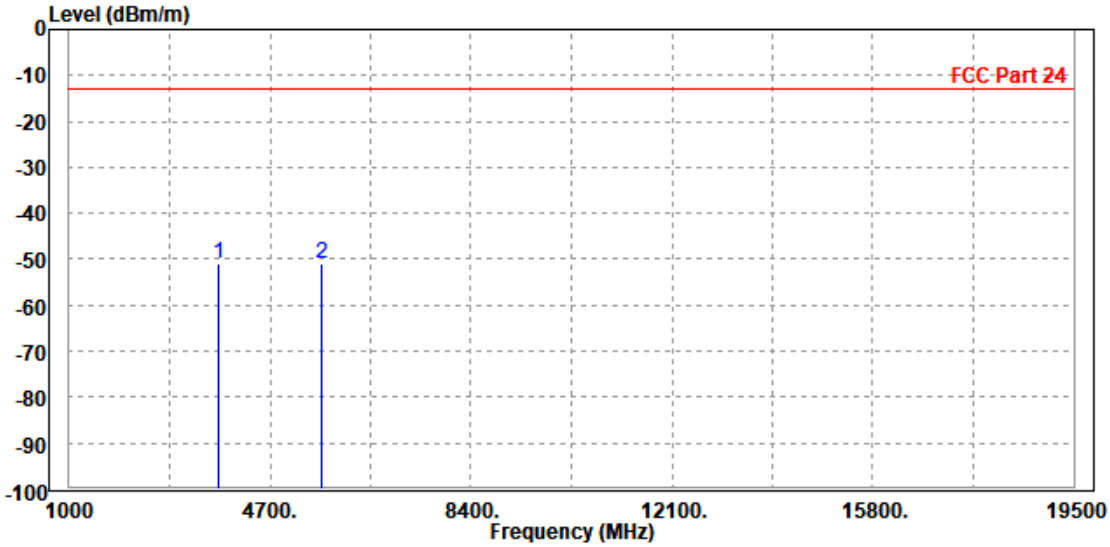
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3738.000	-50.95	-58.61	-13.00	-37.95	7.66	Peak	Vertical
2 PP	5610.300	-49.62	-60.66	-13.00	-36.62	11.04	Peak	Vertical



CH 18902/ 19100

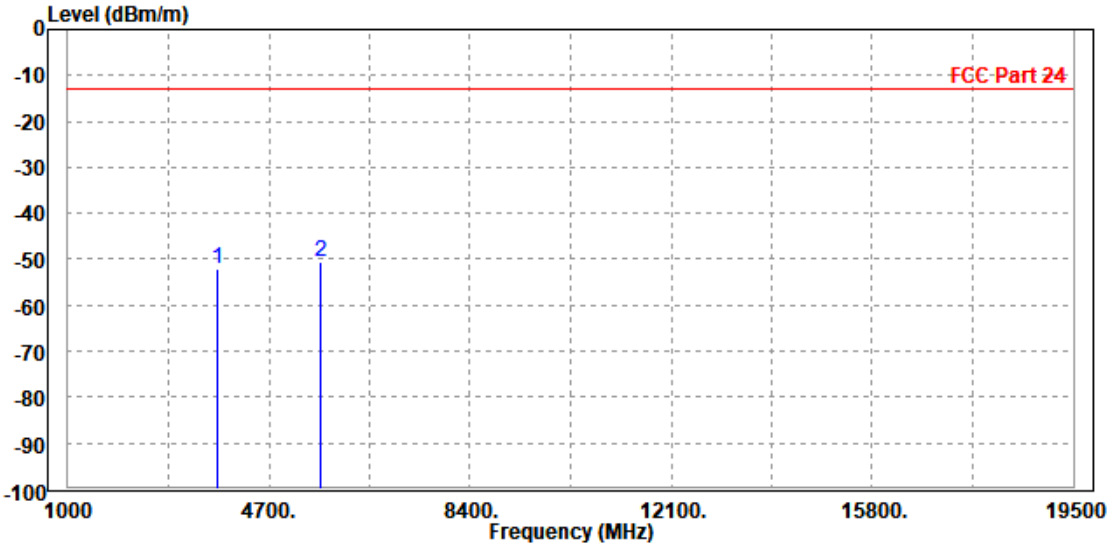
MODE	TX channel 18902/ 19100	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	3760.400	-50.92	-58.91	-13.00	-37.92	7.99	Peak	Horizontal
2		5643.500	-51.12	-61.87	-13.00	-38.12	10.75	Peak	Horizontal



MODE	TX channel 18902/ 19100	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1		3756.500	-52.08	-59.77	-13.00	-39.08	7.69	Peak	Vertical
2	PP	5640.600	-50.46	-61.59	-13.00	-37.46	11.13	Peak	Vertical



4 INFORMATION ON THE TESTING LABORATORIES

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

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

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

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

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.

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