FCC TEST REPORT

(PART 27)

Applicant:	HMD Global Oy
Address:	Bertel Jungin aukio 9,02600 Espoo, Finland

Manufacturer or Supplier:	HMD Global Oy
Address:	Bertel Jungin aukio 9,02600 Espoo, Finland
Product:	Smart phone
Brand Name:	HMD
Model Name:	TA-1600/TA-1688
FCC ID:	2AJOTTA-1600
Date of tests:	Apr. 08, 2024 ~ Jun. 18, 2024

The tests have been carried out according to the requirements of the following standard:

☒ **FCC Part 27** ☒ **ANSI/TIA/EIA-603-D**
☒ **FCC Part 2** ☒ **ANSI/TIA/EIA-603-E** ☒ **ANSI C63.26-2015**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Simon Wang Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
Simon Wang Date: Jun. 18, 2024	Luke Lu Date: Jun. 18, 2024

TABLE OF CONTENTS

5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB. 160

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
PSU-NQN2403180115RF09	Original release	Jun. 18, 2024

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 27 & PART 2			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**TEST LAB***
§2.1046	Conducted Output Power	Compliance	B
§27.50(h)(2) §27.50(d)(4)	Equivalent Isotropically Radiated Power (Band 7C) (Band 38C) (Band 41C) (Band 66B) (Band 66C)	Compliance	B
§2.1055 §27.54	Frequency Stability	Compliance	A
§2.1049	Occupied Bandwidth	Compliance	A
§2.1051 §27.53(g) §27.53(h) §27.53(m)(4)(6)	Conducted Band Edge Measurements (Band 7C) (Band 38C) (Band 41C) (Band 66B) (Band 66C)	Compliance	A
§2.1051 §27.53(g) §27.53(h) §27.53(m)(4)(6)	Conducted Spurious Emissions (Band 7C) (Band 38C) (Band 41C) (Band 66B) (Band 66C)	Compliance	A
§2.1053 §27.53(g) §27.53(h) §27.53(m)(4)(6)	Radiated Spurious Emissions (Band 7C) (Band 38C) (Band 41C) (Band 66B) (Band 66C)	Compliance	A
NA	Peak to average ratio	Compliance	A

***Test Lab Information Reference**

Lab A:
BV 7Layers Communications Technology (Shenzhen) Co. Ltd
Lab Address:
Room B37, Warehouse A5, No.3 Chiwan 4th Road, Zhaoshang Street, Nanshan District Shenzhen, Guangdong, People's Republic of China
Accredited Test Lab Cert 3939.01

The FCC Site Registration No. is 525120; The Designation No. is CN1171.

Lab B:
Huarui 7Layers High Technology (Suzhou) Co., Ltd.
Lab Address:
Tower N, Innovation Center, 88 Zhuyi Road, High-tech District, Suzhou City, Anhui Province
Accredited Test Lab Cert 6613.01

The FCC Site Registration No. is 434559; The Designation No. is CN1325.

1.1 MEASREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

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

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

1.2 TEST SITE AND INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 28,23	Mar. 27,24
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 27,24	Mar. 26,25
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May. 10,23	May. 09,24
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May. 09,24	May. 08,25
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep. 02,23	Sep. 01,24
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 17,24	Feb. 16,25
Horn Antenna	ETS-LINDGREN	3117	00168692	Feb. 17,24	Feb. 16,25
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Sep. 03,23	Sep. 03,24
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. 16,24	Feb. 15,25
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	Nov. 14,23	Nov. 13,26
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	JS1120	3.1.36	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SMA	50HF-010-SMA	May. 06,23	May. 05,24
10dB Attenuator	JFW/USA	50HF-010-SMA	50HF-010-SMA	May. 05,24	May. 04,25
Power Meter	Anritsu	ML2495A	1506002	Feb. 13,24	Feb. 12,25
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. 13,24	Feb. 12,25
Base station R&S CMW500	Rohde&Schwarz	CMW500	153085	May.10,23	May.09,24
Base station R&S CMW500	Rohde&Schwarz	CMW500	153085	May. 09,24	May.08,25
DC Source	Kikusui/JP	PMX18-5A	N/A	Aug. 11,23	Aug. 10,24

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.

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Pre-Amplifier	R&S	SCU18F1	100815	Aug.30,22	Aug.29,24
Pre-Amplifier	R&S	SCU08F1	101028	Sep.16,22	Sep.15,24
Vector Signal Generator	R&S	SMBV100B	102176	Feb.15,24	Feb.14,26
Signal Generator	R&S	SMB100A	182185	Feb.15,24	Feb.14,26
3m Fully-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-01Chamber	Nov.25,22	Nov.24,25
3m Semi-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-02Chamber	Nov.25,22	Nov.24,25
EMI TEST Receiver	R&S	ESR26	101734	Feb.24,24	Feb.23,26
EMI TEST Receiver	R&S	ESW44	101973	Feb.24,24	Feb.23,26
Bilog Antenna	SCHWARZBECK	VULB 9163	1264	Feb.27,24	Feb.26,26
Horn Antenna	ETS-LINDGREN	3117	227836	Aug.22,22	Aug.21,24
Horn Antenna (18GHz-40GHz)	Steatite Q-par Antennas	QMS 00880	23486	Feb.22,24	Feb.21,26
Horn Antenna	Steatite Q-par Antennas	QMS 00208	23485	Aug.22,22	Aug.21,24
Loop Antenna	SCHWARZ	HFH2-Z2/Z2E	100976	Feb.22,24	Feb.21,26
WIDEBANDRADIO COMMUNICATION TESTER	R&S	CMW500	169399	Jun.27,22	Jun.26,24
Test Software	EMC32	EMC32	N/A	N/A	N/A
Test Software	ELEKTRA	ELEKTRA4.32	N/A	N/A	N/A
Open Switch and Control Unit	R&S	OSP220	101964	Oct.01,22	Sep.30,24
DC Source	HYELEC	HY3010B	551016	Aug.31,22	Aug.30,24
Hygrothermograph	DELI	20210528	SZ014	Sep.06,22	Sep.05,24
PC	LENOVO	E14	HRSW0024	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-7.00M	N/A	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-4.00M	N/A	N/A	N/A
CABLE	R&S	W13.02	N/A	Apr.28,23	Apr.27,24
CABLE	R&S	W13.02	N/A	Apr.27,24	Apr.26,25
CABLE	R&S	W12.14	N/A	Apr.28,23	Apr.27,24
CABLE	R&S	W12.14	N/A	Apr.27,24	Apr.26,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Apr.28,23	Apr.27,24
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Apr.27,24	Apr.26,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.28,23	Apr.27,24
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.27,24	Apr.26,25

Temperature Chamber	votsch	VT4002	5856607810 0050	May.31,22	May.30,24
Temperature Chamber	votsch	VT4002	5856607810 0050	May.30,24	May.29,26

NOTE: 1. The calibration interval of the above test instruments is 12/ 24 / 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 434559; The Designation No. is CN1325.

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Smart phone	
BRAND NAME	HMD	
MODEL NAME	TA-1600/TA-1688	
NOMINAL VOLTAGE	5.0Vdc/9.0Vdc /12.0Vdc(adapter) 3.89Vdc (battery)	
MODULATION TECHNOLOGY	**LTE**	QPSK, 16QAM, 64QAM
FREQUENCY RANGE	**LTE Band CA_7C Channel Bandwidth: 10MHz+20MHz**	2505.5MHz ~ 2560MHz
	LTE Band CA_7C Channel Bandwidth: 15MHz+10MHz	2507.5MHz ~ 2564.7MHz
	LTE Band CA_7C Channel Bandwidth: 15MHz+15MHz	2507.5MHz ~ 2562.5MHz
	LTE Band CA_7C Channel Bandwidth: 15MHz+20MHz	2507.8MHz ~ 2560MHz
	LTE Band CA_7C Channel Bandwidth: 20MHz+10MHz	2510MHz ~ 2564.5MHz
	LTE Band CA_7C Channel Bandwidth: 20MHz+15MHz	2510MHz ~ 2562.2MHz
	LTE Band CA_7C Channel Bandwidth: 20MHz+20MHz	2510MHz ~ 2560MHz
	LTE Band CA_38C Channel Bandwidth: 15MHz+15MHz	2577.5MHz ~ 2612.5MHz
	LTE Band CA_38C Channel Bandwidth: 20MHz+20MHz	2580MHz ~ 2610MHz

FREQUENCY RANGE	**LTE Band CA_41C Channel Bandwidth: 5MHz+20MHz**	2499.3MHz ~ 2680MHz
	LTE Band CA_41C Channel Bandwidth: 10MHz+15MHz	2501.3MHz ~ 2682.5MHz
	LTE Band CA_41C Channel Bandwidth: 10MHz+20MHz	2501.5MHz ~ 2680MHz
	LTE Band CA_41C Channel Bandwidth:15MHz+10MHz	2503.5MHz ~ 2684.7MHz
	LTE Band CA_41C Channel Bandwidth15MHz+15MHz	2496MHz ~ 2682.5MHz
	LTE Band CA_41C Channel Bandwidth: 15MHz+20MHz	2503.8MHz ~ 2680MHz
	LTE Band CA_41C Channel Bandwidth: 20MHz+5MHz	2506MHz ~ 2686.7MHz
	LTE Band CA_41C Channel Bandwidth: 20MHz+10MHz	2506MHz ~ 2684.5MHz
	LTE Band CA_41C Channel Bandwidth: 20MHz+15MHz	2506MHz ~ 2682.2MHz
	LTE Band CA_41C Channel Bandwidth: 20MHz+20MHz	2506MHz ~ 2680MHz
	LTE Band CA_66B Channel Bandwidth: 10MHz+10MHz	1715MHz ~ 1775MHz
	LTE Band CA_66B Channel Bandwidth: 15MHz+5MHz	1717.5MHz ~ 1777MHz
	LTE Band CA_66B Channel Bandwidth: 5MHz+15MHz	1713MHz ~ 1772.5MHz
	LTE Band CA_66B Channel Bandwidth: 10MHz+5MHz	1715MHz ~ 1777.2MHz
	LTE Band CA_66B Channel Bandwidth: 5MHz+10MHz	1712.8MHz ~ 1775MHz
	LTE Band CA_66B Channel Bandwidth: 5MHz+5MHz	1712.5MHz ~ 1777.5MHz

FREQUENCY RANGE	**LTE Band CA_66C Channel Bandwidth: 20MHz+20MHz**	1720MHz ~ 1770MHz
	LTE Band CA_66C Channel Bandwidth: 20MHz+15MHz	1720MHz ~ 1772.2MHz
	LTE Band CA_66C Channel Bandwidth: 15MHz+20MHz	1717.8MHz ~ 1770MHz
	LTE Band CA_66C Channel Bandwidth: 20MHz+10MHz	1720MHz ~ 1774.5MHz
	LTE Band CA_66C Channel Bandwidth: 10MHz+20MHz	1715.5MHz ~ 1770MHz
	LTE Band CA_66C Channel Bandwidth: 15MHz+15MHz	1717.5MHz ~ 1772.5MHz
	LTE Band CA_66C Channel Bandwidth: 15MHz+10MHz	1717.5MHz ~ 1774.7MHz
	LTE Band CA_66C Channel Bandwidth: 20MHz+5MHz	1715.3MHz ~ 1772.5MHz
	LTE Band CA_66C Channel Bandwidth: 10MHz+15MHz	1720MHz ~ 1776.7MHz
	LTE Band CA_66C Channel Bandwidth: 5MHz+20MHz	1713.3MHz ~ 1770MHz
MAX. EIRP or EPR POWER	**LTE Band CA_7C Channel Bandwidth: 20MHz+20MHz**	174.18mW
	LTE Band CA_7C Channel Bandwidth: 20MHz+15MHz	170.61mW
	LTE Band CA_7C Channel Bandwidth: 15MHz+20MHz	173.78mW
	LTE Band CA_7C Channel Bandwidth: 20MHz+10MHz	168.27mW
	LTE Band CA_7C Channel Bandwidth: 10MHz+20MHz	166.72mW
	LTE Band CA_7C Channel Bandwidth: 15MHz+15MHz	170.22mW

MAX. EIRP or EPR POWER	**LTE Band CA_7C Channel Bandwidth: 15MHz+10MHz**	171.79mW
	LTE Band CA_38C Channel Bandwidth: 15MHz+15MHz	167.11mW
	LTE Band CA_38C Channel Bandwidth: 20MHz+20MHz	169.43mW
	LTE Band CA_41C Channel Bandwidth: 20M+20M	135.83mW
	LTE Band CA_41C Channel Bandwidth: 20M+15M	132.13mW
	LTE Band CA_41C Channel Bandwidth: 15M+20M	129.42mW
	LTE Band CA_41C Channel Bandwidth: 20M+10M	122.74mW
	LTE Band CA_41C Channel Bandwidth: 10M+20M	130.62mW
	LTE Band CA_41C Channel Bandwidth: 15M+15M	131.22mW
	LTE Band CA_41C Channel Bandwidth: 15M+10M	134.28mW
	LTE Band CA_41C Channel Bandwidth: 10M+15M	131.22mW
	LTE Band CA_41C Channel Bandwidth: 20M+5M	128.82mW
	LTE Band CA_41C Channel Bandwidth: 5M+20M	134.90mW

MAX. EIRP or EPR POWER	LTE Band CA_66B Channel Bandwidth: 10MHz+10MHz	164.06mW
	LTE Band CA_66B Channel Bandwidth: 15MHz+5MHz	159.59mW
	LTE Band CA_66B Channel Bandwidth: 5MHz+15MHz	161.44mW
	LTE Band CA_66B Channel Bandwidth: 10MHz+5MHz	162.18mW
	LTE Band CA_66B Channel Bandwidth: 5MHz+10MHz	162.18mW
	LTE Band CA_66B Channel Bandwidth: 5MHz+5MHz	121.90mW
	LTE Band CA_66C Channel Bandwidth: 20MHz+20MHz	175.39mW
	LTE Band CA_66C Channel Bandwidth: 20MHz+15MHz	173.78mW
	LTE Band CA_66C Channel Bandwidth: 15MHz+20MHz	172.58mW
	LTE Band CA_66C Channel Bandwidth: 20MHz+10MHz	174.18mW
	LTE Band CA_66C Channel Bandwidth: 10MHz+20MHz	172.58mW
	LTE Band CA_66C Channel Bandwidth: 15MHz+15MHz	171.40mW
	LTE Band CA_66C Channel Bandwidth: 15MHz+10MHz	172.19mW
	LTE Band CA_66C Channel Bandwidth: 20MHz+5MHz	172.19mW
	LTE Band CA_66C Channel Bandwidth: 10MHz+15MHz	172.98mW
	LTE Band CA_66C Channel Bandwidth: 5MHz+20MHz	171.79mW

EMISSION DESIGNATOR	LTE Band CA_7C Channel Bandwidth: 10MHz+20MHz	QPSK: 27M9G7D
		16QAM: 27M9W7D
	LTE Band CA_7C Channel Bandwidth: 15MHz +10MHz	QPSK: 23M2G7D
		16QAM: 23M2W7D
	LTE Band CA_7C Channel Bandwidth: 15MHz +15MHz	QPSK: 28M5G7D
		16QAM: 28M4W7D
	LTE Band CA_7C Channel Bandwidth: 20MHz +10MHz	QPSK: 27M9G7D
		16QAM: 27M9W7D
	LTE Band CA_7C Channel Bandwidth: 20MHz +15MHz	QPSK: 32M8G7D
		16QAM: 32M8W7D
	LTE Band CA_7C Channel Bandwidth: 20MHz +20MHz	QPSK: 37M7G7D
		16QAM: 37M7W7D
	LTE Band CA_41C Channel Bandwidth: 5MHz+20MHz	QPSK: 23M0G7D
		16QAM: 23M0W7D
	LTE Band CA_41C Channel Bandwidth: 20MHz+5MHz	QPSK: 23M0G7D
		16QAM: 23M0W7D
	LTE Band CA_41C Channel Bandwidth: 10MHz+15MHz	QPSK: 23M2G7D
		16QAM: 23M2W7D
	LTE Band CA_41C Channel Bandwidth: 15MHz+10MHz	QPSK: 23M2G7D
		16QAM: 23M2W7D
	LTE Band CA_41C Channel Bandwidth: 15MHz+15MHz	QPSK: 28M4G7D
		16QAM: 28M4W7D
	LTE Band CA_41C Channel Bandwidth: 10MHz+20MHz	QPSK: 27M9G7D
		16QAM: 27M8W7D
	LTE Band CA_41C Channel Bandwidth: 15MHz+20MHz	QPSK: 32M7G7D
		16QAM: 32M7W7D
	LTE Band CA_41C Channel Bandwidth: 20MHz+10MHz	QPSK: 27M9G7D
		16QAM: 27M9W7D
	LTE Band CA_41C Channel Bandwidth: 20MHz+15MHz	QPSK: 32M8G7D
		16QAM: 32M7W7D

EMISSION DESIGNATOR	**LTE Band CA_41C Channel Bandwidth: 20MHz+20MHz**	QPSK: 37M6G7D
		16QAM: 37M6W7D
	LTE Band CA_66B Channel Bandwidth: 10MHz+10MHz	QPSK: 18M9G7D
		16QAM: 18M8W7D
	LTE Band CA_66B Channel Bandwidth: 15MHz+5MHz	QPSK: 18M3G7D
		16QAM: 18M3W7D
	LTE Band CA_66B Channel Bandwidth: 5MHz+15MHz	QPSK: 18M3G7D
		16QAM: 18M3W7D
	L LTE Band CA_66B Channel Bandwidth: 10MHz+5MHz	QPSK: 14M0G7D
		16QAM: 13M9W7D
	LTE Band CA_66B Channel Bandwidth: 5MHz+10MHz	QPSK: 14M0G7D
		16QAM: 13M9W7D
	LTE Band CA_66B Channel Bandwidth: 5MHz+5MHz	QPSK: 9M31G7D
		16QAM: 9M30W7D
	LTE Band CA_66C Channel Bandwidth: 20MHz+20MHz	QPSK: 37M7G7D
		16QAM: 37M7W7D
	LTE Band CA_66C Channel Bandwidth: 20MHz+15MHz	QPSK: 32M8G7D
		16QAM: 32M7W7D
	LTE Band CA_66C Channel Bandwidth: 15MHz+20MHz	QPSK: 32M8G7D
		16QAM: 32M7W7D
	LTE Band CA_66C Channel Bandwidth: 20MHz+10MHz	QPSK: 27M9G7D
		16QAM: 27M9W7D
	LTE Band CA_66C Channel Bandwidth: 10MHz+20MHz	QPSK: 27M8G7D
		16QAM: 27M8W7D
	LTE Band CA_66C Channel Bandwidth: 15MHz+15MHz	QPSK: 28M4G7D
		16QAM: 28M4W7D
	LTE Band CA_66C Channel Bandwidth: 15MHz+10MHz	QPSK: 23M3G7D
		16QAM: 23M2W7D

ANTENNA TYPE	ANT0: PIFA Antenna with -1.63dBi gain for LTE B7C PIFA Antenna with -1.63dBi gain for LTE B38C PIFA Antenna with -1.63dBi gain for LTE B41C ANT1: PIFA Antenna with -1.74dBi gain for LTE B66B/B66C ANT2: PIFA Antenna with -1.97dBi gain for LTE B41C ANT3: PIFA Antenna with -2.61dBi gain for LTE B41C PIFA Antenna with -2.56dBi gain for LTE B66B/B66C ANT5: PIFA Antenna with -4.1dBi gain for LTE B41C
HW VERSION	V2
SW VERSION	00WW_0_340
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A
EXTREME TEMPERATURE	-10-55℃
EXTREME VOLTAGE	3.5V - 4.48V

NOTE:

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

MODULATION MODE	TX FUNCTION
LTE	1TX/4RX

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
4. Antenna gain and EUT conducted cable loss are provided by the customer, and the laboratory will record the results based on these items that involve these two parameters.
5. For Band Edge and Emission Mask: The all BW combinations were tested.Combination pairs of the same BW are considered generally equivalent. The RB combinations were selected such that the signal is active closest to the band limit, as this is the worst case.
6. For Out of Band Emissions: The all combination was tested. The highest power RB combination was selected as worst case.
7. 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.

8 **List of Accessory:**

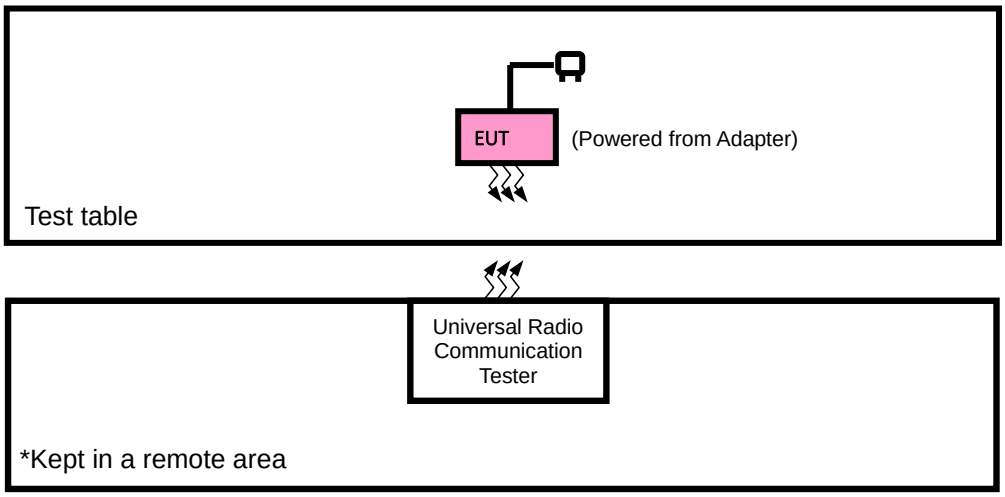
ACCESSORIES	BRAND	MANUFACTURER	MODEL	SPECIFICATION
LCD Panel	BOE	BOE	BF066XMM-TL4-F900	6.55inch, AMOLED;
Back cover	BIEL	BIEL	Panda-X	158 mm*73 mm*0.6 mm
Bezel	BIEL	BIEL	6103HG02-T6	160 mm_76 mm_8.5 mm
Photo Camera 1	AAC	AAC	P50AD01	50MP,AF
Photo Camera 2	AAC	AAC	W13FD02	13MP Ultra Wide, FF
Video Camera 1	AAC	AAC	T50AD01	50MP Tele, AF
Video Camera 2	AAC	AAC	MA8SD01	108MP+OIS, AF
CPU	Qualcomm	Qualcomm	SM-7435-1-PSP1026-TR-00-0-AB	Platform Baseband Chip_PSP_mmW_8 core_SMT
eMMC1 (=ROM1)	Samsung	Samsung	KM8L9001JM-B624T07	uMCP_254-ball FBGA_128GB_LPDD R4X_64Gb_SMT
eMMC2 (=ROM2)	Samsung	Samsung	KM8F9001JM-B813T07	uMCP_254-ball FBGA_256GB_LPDD R4X_64Gb_SMT
eMMC3 (=ROM3)	Samsung	Samsung	KM8F9001MM-B830T07	uMCP_254-ball FBGA_256GB_LPDD R4X_96Gb_SMT
Battery	HMD	Gaoyuan	HBA4633AA	RatedCapacity:4500mAh/17.51Wh

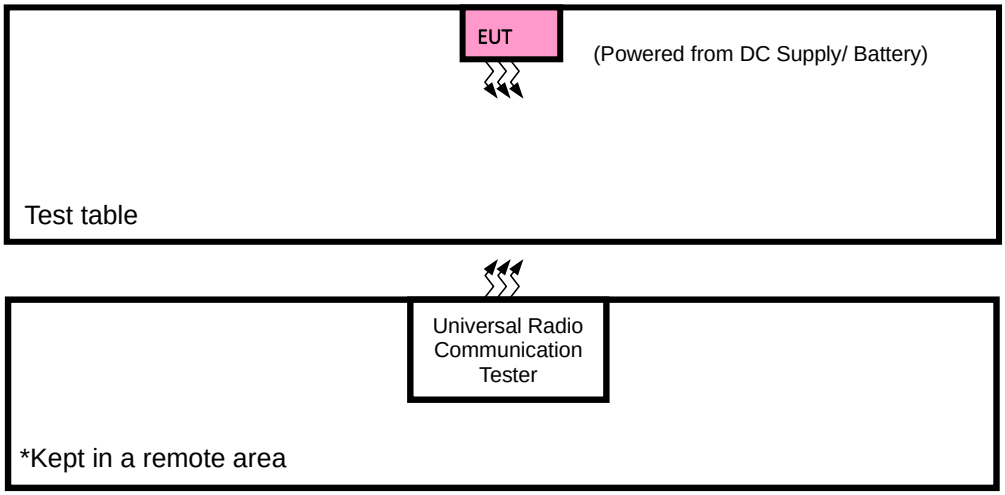
9 The differences between the first and second supply as follows and the specifications and RF parameters are the same.

Key Component list						
No.	Component	Description	First supply		Second supply	
			Supplier	Spec	Supplier	Spec
1	USB/ Analog audio headsets	Analog Audio Switch	Dioo	DIO4480WL25 Analog switch & MUX_WLCSP25_2.7-5.5V_3-Channel_1000MHz _SMT	Will	WAS4780C-25/TR Analog switch & MUX_CSP-25L_2.7-5.5V_2-Channel_950MHz_ SMT
2	Wireless charge	Load Switch	SGM	SGM2575ADYG/TR Load Switch_34 mΩ_11 W_WLCSP_SGM2575ADY G/TR_SGM	Dioo	DIO7290WL4 Load Switch_85 mΩ_11 W_WLCSP-4
3	Sensor	Barometer	Bosch	BMP580 Baroceptor _LGA-10_±0.05 hPa_48 bit_ SMT	Go er mic ro	SPL07-003 Baroceptor_10pin LGA_0.5Pa/°C_24 bit_SMT
4	Sensor	eCOMPASS	VTC	AF6837 Magnetic field sensor_WLCSP_10 LSB/μT_16 bit_I2C_SMT	Memsic	MMC5603NJL Ecompass_MMC56 03NJL_M EMSIC_MCOs
5	RF IC	LNA	Will	WS7916DF-6/TR RF_LNA_6-pin DFN_1150 MHz to 1615_SMT	Awinic	AW5005EDNR RF_LNA_AW5005 EDNR_Awi nic
6	Receiver	SP2T	Will	WS78022D-6/TR DFN-6_0.1GHz - 3.8GHz_SPDT_GPIO_SMT	Champ hill	QX8612GD 0.7 to 2.7GHz_SPDT_2 W_GPIO
7	USB connector	USB type-C connector	LETCON	15-16815-105-M1 USB TYPE C Connector_0.9 mm_16 pin_Female Head (elastic end)_Horizontal_None-waterproof_4.27 mm_Gold_SMT_480M	HRD	UC141-0B100DR0 USB TYPE C Connector_0.9 mm_16 pin_Female Head (elastic end)_Horizontal_No ne- waterproof_4.3 mm_Gold_SMT_48 0M

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 was found when positioned on Y-plane for EIRP and X-axis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	DESCRIPTION
A	EUT + Adapter + USB Cable with LTE link
B	EUT + DC Supply with LTE link

LTE BAND CA_7C MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE PCC CHANNEL	AVAILABLE SCC CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(PCC)	MODE(SCC)
A	EIRP	20805 to 21206	20949 to 21350	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		20825 to 21277	20945 to 21397	Low, Middle, High	15MHz+10MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		20825 to 21225	20975 to 21375	Low, Middle, High	15MHz+15MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		20828 to 21179	20999 to 21350	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		20850 to 21251	20994 to 21395	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		20850 to 21201	21201 to 21372	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		20850 to 21152	21048 to 21350	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
A	OCCUPIED BANDWIDTH	20805 to 21206	20949 to 21350	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM	50RB/ 0RB Offset	100RB/ 0RB Offset
		20825 to 21277	20945 to 21397	Low, Middle, High	15MHz+10MHz	QPSK, 16QAM	75RB/ 0RB Offset	50RB/ 0RB Offset
		20825 to 21225	20975 to 21375	Low, Middle, High	15MHz+15MHz	QPSK, 16QAM	75RB/ 0RB Offset	75RB/ 0RB Offset
		20828 to 21179	20999 to 21350	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM	75RB/ 0RB Offset	100RB/ 0RB Offset
		20850 to 21251	20994 to 21395	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM	100RB/ 0RB Offset	50RB/ 0RB Offset
		20850 to 21201	21201 to 21372	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM	100RB/ 0RB Offset	75RB/ 0RB Offset
		20850 to 21152	21048 to 21350	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM	100RB/ 0RB Offset	100RB/ 0RB Offset
A	BAND EDGE	20850 to 21152	21048 to 21350	Low	20MHz+20MHz	QPSK, 16QAM	1RB/ 25RB Offset	1RB/ 99RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	100RB/ 0RB Offset
				High	20MHz+20MHz	QPSK, 16QAM	1RB/ 0RB Offset	1RB/ 99RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	100RB/ 0RB Offset
A	CONDUCTED EMISSION	20850 to 21152	21048 to 21350	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
A	RADIATED EMISSION	20850 to 21152	21048 to 21350	Middle	20MHz+20MHz	QPSK	1RB/ 99RB Offset	1RB/ 0RB Offset

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

LTE BAND CA_38C MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE PCC CHANNEL	AVAILABLE SCC CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(PCC)	MODE(SCC)
A	EIRP	37825 to 38025	37975 to 38175	Low, Middle, High	15MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		37850 to 37952	38048 to 38150	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset

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

2. LTE Band 38C are covered by LTE Band 41C, Because it is a subset of LTE Band 41C with the same output power and supported bandwidths, So the conducted test data and RSE test data please refer to LTE Band 41C

LTE BAND CA_41C MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE PCC CHANNEL	AVAILABLE SCC CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(PCC)	MODE(SCC)
A	EIRP	39750 to 41341	39921 to 41512	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		39728 to 41319	39899 to 41490	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		39750 to 41391	39894 to 41535	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		39705 to 41346	39849 to 41490	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		39725 to 41365	39875 to 41515	Low, Middle, High	15MHz +15MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		39725 to 41417	39845 to 41537	Low, Middle, High	15MHz +10MHz	QPSK, 16QAM, 64QAM,256QAM	1RB / 74RB Offset	1RB / 0RB Offset
		39703 to 41395	39823 to 41515	Low, Middle, High	10MHz +15MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		39750 to 41440	39867 to 41557	Low, Middle, High	20MHz +5MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		39683 to 41373	39800 to 41490	Low, Middle, High	5MHz +20MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 24RB Offset	1RB/ 0RB Offset
		39750 to 41292	39948 to 41490	Low, Middle, High	20MHz +20MHz	QPSK, 16QAM, 64QAM,256QAM	1RB / 99RB Offset 1RB / 0RB Offset	1RB/ 0RB Offset
A	OCCUPIED BANDWIDTH	39750 to 41341	39921 to 41512	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM	100RB/ 0RB Offset	75RB/ 0RB Offset
		39728 to 41319	39899 to 41490	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM	75RB/ 0RB Offset	100RB/ 0RB Offset
		39750 to 41391	39894 to 41535	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM	100RB/ 0RB Offset	50RB/ 0RB Offset
		39705 to 41346	39849 to 41490	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM	50RB/ 0RB Offset	100RB/ 0RB Offset
		39725 to 41365	39875 to 41515	Low, Middle, High	15MHz +15MHz	QPSK, 16QAM	75RB/ 0RB Offset	75RB/ 0RB Offset
		39725 to 41417	39845 to 41537	Low, Middle, High	15MHz +10MHz	QPSK, 16QAM	75RB/ 0RB Offset	50RB/ 0RB Offset
		39703 to 41395	39823 to 41515	Low, Middle, High	10MHz +15MHz	QPSK, 16QAM	50RB/ 0RB Offset	75RB/ 0RB Offset
		39750 to 41440	39867 to 41557	Low, Middle, High	20MHz +5MHz	QPSK, 16QAM	100RB/ 0RB Offset	25RB/ 0RB Offset
		39683 to 41373	39800 to 41490	Low, Middle, High	5MHz +20MHz	QPSK, 16QAM	25RB/ 0RB Offset	100RB/ 0RB Offset

A	OCCUPIED BANDWIDTH	39750 to 41292	39948 to 41490	Low, Middle, High	20MHz +20MHz	QPSK, 16QAM	100RB/ 0RB Offset	100RB/ 0RB Offset
A	BAND EDGE	39750 to 41292	39948 to 41490	Low	20MHz+20MHz	QPSK, 16QAM,	1RB/ 0RB Offset	1RB/ 99RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	100RB/ 0RB Offset
				High	20MHz+20MHz		1RB/ 0RB Offset	1RB/ 99RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	100RB/ 0RB Offset
A	CONDUCTED EMISSION	39750 to 41292	39948 to 41490	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
A	RADIATED EMISSION	39750 to 41292	39948 to 41490	Middle	20MHz+20MHz	QPSK	1RB / 99RB Offset	1RB/ 0RB Offset

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

LTE BAND CA_66B MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE PCC CHANNEL	AVAILABLE SCC CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(PCC)	MODE(SCC)
A	EIRP	132022 to 132523	132121 to 132622	Low, Middle, High	10MHz+10MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		132047 to 132549	132140 to 132642	Low, Middle, High	15MHz+5MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		132002to 132504	132095 to 132597	Low, Middle, High	5MHz+15MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 24RB Offset	1RB/ 0RB Offset
		132022 to 132572	132094 to 132644	Low, Middle, High	10MHz+5MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		132022to 132572	132094 to 132644	Low, Middle, High	5MHz +10MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 24RB Offset	1RB/ 0RB Offset
		131997 to 132599	132045 to 132647	Low, Middle, High	5MHz +5MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 24RB Offset	1RB/ 0RB Offset
A	OCCUPIED BANDWIDTH	132022 to 132523	132121 to 132622	Low, Middle, High	10MHz+10MHz	QPSK, 16QAM	1RB/ 50RB Offset	1RB/ 0RB Offset
		132047 to 132549	132140 to 132642	Low, Middle, High	15MHz+5MHz	QPSK, 16QAM	1RB/ 75RB Offset	1RB/ 25RB Offset
		132002to 132504	132095 to 132597	Low, Middle, High	5MHz+15MHz	QPSK, 16QAM	1RB/ 25RB Offset	1RB/ 75RB Offset
		132022 to 132572	132094 to 132644	Low, Middle, High	10MHz+5MHz	QPSK, 16QAM	1RB/ 50RB Offset	1RB/ 25RB Offset
		132022to 132572	132094 to 132644	Low, Middle, High	5MHz +10MHz	QPSK, 16QAM	1RB/ 25RB Offset	1RB/ 50RB Offset
		131997 to 132599	132045 to 132647	Low, Middle, High	5MHz +5MHz	QPSK, 16QAM	1RB/ 25RB Offset	1RB/ 25RB Offset
A	BAND EDGE	132022 to 132523	132121 to 132622	Low	10MHz+10MHz	QPSK, 16QAM	1RB/ 0RB Offset	50RB/ 0RB Offset
							1RB/ 49RB Offset	50RB/ 0RB Offset
							50RB/ 0RB Offset	50RB/ 0RB Offset
				High	10MHz+10MHz		1RB/ 0RB Offset	50RB/ 0RB Offset
							1RB/ 49RB Offset	50RB/ 0RB Offset
							50RB/ 0RB Offset	50RB/ 0RB Offset
A	CONDUCTED EMISSION	132022 to 132523	132121 to 132622	Low, Middle, High	10MHz+10MHz	QPSK, 16QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
A	RADIATED EMISSION	132022 to 132523	132121 to 132622	Middle	10MHz+10MHz	QPSK,	1RB/ 49RB Offset	1RB/ 0RB Offset

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

LTE BAND CA_66C MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE PCC CHANNEL	AVAILABLE SCC CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(PCC)	MODE(SCC)
A	EIRP	132072 to 132374	132270 to 132572	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		132072 to 132423	132243 to 132594	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		132050to 132401	132221 to 132572	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		132072 to 132473	132216 to 132617	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		132027 to 132428	132171 to 132572	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		132047 to 132447	132197 to 132597	Low, Middle, High	15MHz+15MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		132047 to 132499	132167 to 132619	Low, Middle, High	15MHz+10MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		132025 to 132477	132145 to 132597	Low, Middle, High	10MHz+15MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		132072 to 132522	132189 to 132639	Low, Middle, High	20MHz +5MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		132005 to 132455	132122 to 132572	Low, Middle, High	5MHz +20MHz	QPSK, 16QAM, 64QAM,256QAM	1RB/ 24RB Offset	1RB/ 0RB Offset
A	OCCUPIED BANDWIDTH	132072 to 132374	132270 to 132572	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM,	100RB/ 0RB Offset	100RB/ 0RB Offset
		132072 to 132423	132243 to 132594	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM,	100RB/ 0RB Offset	75RB/ 0RB Offset
		132050to 132401	132221 to 132572	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM,	75RB/ 0RB Offset	100RB/ 0RB Offset
		132072 to 132473	132216 to 132617	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM,	100RB/ 0RB Offset	50RB/ 0RB Offset
		132027 to 132428	132171 to 132572	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM,	50RB/ 0RB Offset	100RB/ 0RB Offset
		132047 to 132447	132197 to 132597	Low, Middle, High	15MHz+15MHz	QPSK, 16QAM,	75RB/ 0RB Offset	75RB/ 0RB Offset

A	OCCUPIED BANDWIDTH	132047 to 132499	132167 to 132619	Low, Middle, High	15MHz+10MHz	QPSK, 16QAM,	75RB/ 0RB Offset	50RB/ 0RB Offset
		132025 to 132477	132145 to 132597	Low, Middle, High	10MHz+15MHz	QPSK, 16QAM,	50RB/ 0RB Offset	75RB/ 0RB Offset
		132072 to 132522	132189 to 132639	Low, Middle, High	20MHz +5MHz	QPSK, 16QAM,	100RB/ 0RB Offset	25RB/ 0RB Offset
		132005 to 132455	132122 to 132572	Low, Middle, High	5MHz +20MHz	QPSK, 16QAM,	25RB/ 0RB Offset	100RB/ 0RB Offset
A	BAND EDGE	132072 to 132374	132270 to 132572	Low	20MHz+20MHz	QPSK, 16QAM,	1RB/ 0RB Offset	1RB/ 99RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	100RB/ 0RB Offset
				High	20MHz+20MHz		1RB/ 0RB Offset	1RB/ 99RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	100RB/ 0RB Offset
A	CONDUCTED EMISSION	132072 to 132374	132270 to 132572	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM,	1RB/ 99RB Offset	1RB/ 0RB Offset
A	RADIATED EMISSION	39750 to 41292	39948 to 41490	Middle	20MHz+20MHz	QPSK,	1RB/ 99RB Offset	1RB/ 0RB 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&EIRP	23deg. C, 70%RH	DC 5.0V/9.0V /12.0VBy Adapter	Jace Hu
FREQUENCY STABILITY	23deg. C, 70%RH	DC 3.5V/3.89V/4.48V By DC Supply	James Fu
OCCUPIED BANDWIDTH	23deg. C, 70%RH	DC 5.0V/9.0V /12.0VBy Adapter	James Fu
BAND EDGE	23deg. C, 70%RH	DC 5.0V/9.0V /12.0VBy Adapter	James Fu
CONDUCTED EMISSION	23deg. C, 70%RH	DC 5.0V/9.0V /12.0VBy Adapter	James Fu
RADIATED EMISSION	23deg. C, 70%RH	DC 5.0V/9.0V /12.0VBy Adapter	Jace Hu
PEAK TO AVERAGE RATIO	23deg. C, 70%RH	DC 5.0V/9.0V /12.0VBy Adapter	James Fu

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2

FCC 47 CFR Part 27

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI/TIA/EIA-603-D

ANSI/TIA/EIA-603-E

ANSI C63.26-2015

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

3 TEST TYPES AND RESULTS

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

The radiated peak output power shall be according to the specific rule Part 27.50(h)(2) that “User stations are limited to 2 watts” and 27.50(i) specific that “Peak transmit power must be measure over any interval of continuous transmission using instrumentation calibration in terms of rms-equivalent voltage.”

According to the specific rule Part 27.50(c)(10) Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

According to the specific rule Part 27.50(d)(4) Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt 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);

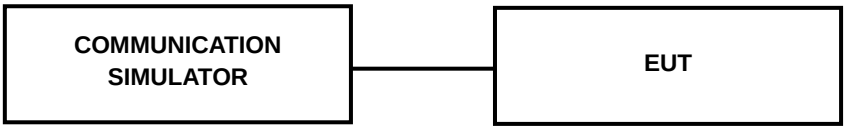
L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

CONDUCTED POWER MEASUREMENT:

a. The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.
b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

3.1.3 TEST SETUP

CONDUCTED POWER MEASUREMENT:



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

3.1.4 TEST RESULTS

CONDUCTED OUTPUT POWER (dBm)

LTE Band CA_7C

CA_7C Ant0										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
20850	2510	21048	2529.8	QPSK	1	99	1	0	23.91	25
				16QAM	1	99	1	0	23.47	24
				64QAM	1	99	1	0	22.13	23
21001	2525.1	21199	2544.9	QPSK	1	99	1	0	23.74	25
				16QAM	1	99	1	0	23.35	24
				64QAM	1	99	1	0	22.10	23
21152	2540.2	21350	2560	QPSK	1	99	1	0	**24.04**	25
				16QAM	1	99	1	0	23.42	24
				64QAM	1	99	1	0	21.93	23

Combination 20MHz+15MHz (100RB+75RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
20850	2510	21021	2527.1	QPSK	1	99	1	0	23.80	25
				16QAM	1	99	1	0	23.34	24
				64QAM	1	99	1	0	22.10	23
21026	2527.6	21197	2544.7	QPSK	1	99	1	0	23.62	25
				16QAM	1	99	1	0	23.23	24
				64QAM	1	99	1	0	21.96	23
21201	2545.1	21372	2562.2	QPSK	1	99	1	0	23.95	25
				16QAM	1	99	1	0	23.39	24
				64QAM	1	99	1	0	21.83	23

Combination 15MHz+20MHz (75RB+100RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
20828	2507.8	20999	2524.9	QPSK	1	74	1	0	23.90	25
				16QAM	1	74	1	0	23.33	24
				64QAM	1	74	1	0	21.86	23
21003	2525.3	21174	2542.4	QPSK	1	74	1	0	23.95	25
				16QAM	1	74	1	0	23.43	24
				64QAM	1	74	1	0	22.24	23
21179	2542.9	21350	2560	QPSK	1	74	1	0	24.03	25
				16QAM	1	74	1	0	23.50	24
				64QAM	1	74	1	0	21.98	23

Combination 20MHz+10MHz (100RB+50RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
20850	2510	20994	2524.4	QPSK	1	99	1	0	23.78	25
				16QAM	1	99	1	0	23.34	24
				64QAM	1	99	1	0	22.10	23
21051	2530.1	21195	2544.5	QPSK	1	99	1	0	23.63	25
				16QAM	1	99	1	0	23.30	24
				64QAM	1	99	1	0	22.07	23
21251	2550.1	21395	2564.5	QPSK	1	99	1	0	23.89	25
				16QAM	1	99	1	0	23.37	24
				64QAM	1	99	1	0	21.92	23

Combination 10MHz+20MHz (50RB+100RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
20805	2505.5	20949	2519.9	QPSK	1	49	1	0	23.78	25
				16QAM	1	49	1	0	23.31	24
				64QAM	1	49	1	0	22.08	23
21006	2525.6	21150	2540	QPSK	1	49	1	0	23.85	25
				16QAM	1	49	1	0	23.27	24
				64QAM	1	49	1	0	22.18	23
21206	21206	21350	21220	QPSK	1	49	1	0	23.84	25
				16QAM	1	49	1	0	23.31	24
				64QAM	1	49	1	0	21.93	23

Combination 15MHz+15MHz (75RB+75RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
20825	2507.5	20975	2522.5	QPSK	1	74	1	0	23.85	25
				16QAM	1	74	1	0	23.44	24
				64QAM	1	74	1	0	22.00	23
21025	2527.5	21175	2542.5	QPSK	1	74	1	0	23.71	25
				16QAM	1	74	1	0	23.29	24
				64QAM	1	74	1	0	22.03	23
21225	2547.5	21375	2562.5	QPSK	1	74	1	0	23.94	25
				16QAM	1	74	1	0	23.28	24
				64QAM	1	74	1	0	21.84	23

Combination 15MHz+10MHz (75RB+50RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
20825	2507.5	20945	2519.5	QPSK	1	74	1	0	23.86	25
				16QAM	1	74	1	0	23.43	24
				64QAM	1	74	1	0	22.00	23
21051	2530.1	21171	2542.1	QPSK	1	74	1	0	23.59	25
				16QAM	1	74	1	0	23.34	24
				64QAM	1	74	1	0	22.03	23
21277	2552.7	21397	2564.7	QPSK	1	74	1	0	23.98	25
				16QAM	1	74	1	0	23.40	24
				64QAM	1	74	1	0	21.84	23

LTE Band CA_38C

CA_38C Ant0									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
37850	2580	38048	2599.8	QPSK	1	99	1	0	**23.92**	25
				16QAM	1	99	1	0	22.90	24
				64QAM	1	99	1	0	21.80	23
37901	2585.1	38099	2604.9	QPSK	1	99	1	0	23.68	25
				16QAM	1	99	1	0	22.82	24
				64QAM	1	99	1	0	21.77	23
37952	2590.2	38150	2610	QPSK	1	99	1	0	23.56	25
				16QAM	1	99	1	0	22.87	24
				64QAM	1	99	1	0	21.76	23

Combination 15MHz+15MHz (75RB+75RB)									
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
37825	2577.5	37975	2592.5	QPSK	1	74	1	0	23.86	25
				16QAM	1	74	1	0	22.95	24
				64QAM	1	74	1	0	21.88	23
37925	2587.5	38075	2602.5	QPSK	1	74	1	0	23.71	25
				16QAM	1	74	1	0	22.85	24
				64QAM	1	74	1	0	21.76	23
38025	2597.5	38175	2612.5	QPSK	1	74	1	0	23.57	25
				16QAM	1	74	1	0	22.76	24
				64QAM	1	74	1	0	21.67	23

LTE Band CA_41C

CA_41C Ant0										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
39750	2506	39948	2525.8	QPSK	1	99	1	0	22.87	24
				16QAM	1	99	1	0	21.85	23
				64QAM	1	99	1	0	20.76	22
40521	2583.1	40719	2602.9	QPSK	1	99	1	0	**22.96**	24
				16QAM	1	99	1	0	21.89	23
				64QAM	1	99	1	0	20.82	22
41292	2660.2	41490	2680	QPSK	1	99	1	0	22.37	24
				16QAM	1	99	1	0	21.55	23
				64QAM	1	99	1	0	20.48	22

Combination 20MHz+15MHz (100RB+75RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
39750	2506	39921	2523.1	QPSK	1	99	1	0	22.67	24
				16QAM	1	99	1	0	21.86	23
				64QAM	1	99	1	0	20.75	22
40546	2585.6	40717	2602.7	QPSK	1	99	1	0	22.84	24
				16QAM	1	99	1	0	21.85	23
				64QAM	1	99	1	0	20.85	22
41341	2665.1	41512	2682.2	QPSK	1	99	1	0	22.44	24
				16QAM	1	99	1	0	21.59	23
				64QAM	1	99	1	0	20.44	22

Combination 15MHz+20MHz (75RB+100RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
39728	2503.8	39899	2520.9	QPSK	1	74	1	0	22.74	24
				16QAM	1	74	1	0	21.85	23
				64QAM	1	74	1	0	20.91	22
40523	2583.3	40694	2600.4	QPSK	1	74	1	0	22.75	24
				16QAM	1	74	1	0	21.81	23
				64QAM	1	74	1	0	20.86	22
41319	2662.9	41490	2680	QPSK	1	74	1	0	22.41	24
				16QAM	1	74	1	0	21.45	23
				64QAM	1	74	1	0	20.53	22

Combination 15MHz+15MHz (75RB+75RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
39725	2503.5	39875	2518.5	QPSK	1	74	1	0	22.79	24
				16QAM	1	74	1	0	21.80	23
				64QAM	1	74	1	0	20.70	22
40545	2585.5	40695	2600.5	QPSK	1	74	1	0	22.81	24
				16QAM	1	74	1	0	21.92	23
				64QAM	1	74	1	0	20.97	22
41365	2667.5	41515	2682.5	QPSK	1	74	1	0	22.38	24
				16QAM	1	74	1	0	21.50	23
				64QAM	1	74	1	0	20.48	22

Combination 20MHz+10MHz (100RB+50RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
39750	2506	39894	2520.4	QPSK	1	99	1	0	22.66	24
				16QAM	1	99	1	0	21.86	23
				64QAM	1	99	1	0	20.80	22
40571	2588.1	40715	2602.5	QPSK	1	99	1	0	22.78	24
				16QAM	1	99	1	0	21.85	23
				64QAM	1	99	1	0	20.93	22
41391	2670.1	41535	2684.5	QPSK	1	99	1	0	22.47	24
				16QAM	1	99	1	0	21.53	23
				64QAM	1	99	1	0	20.46	22

Combination 10MHz+20MHz (50RB+100RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
39705	2501.5	39849	2515.9	QPSK	1	49	1	0	22.75	24
				16QAM	1	49	1	0	21.87	23
				64QAM	1	49	1	0	20.78	22
40526	2583.6	40670	2598	QPSK	1	49	1	0	22.79	24
				16QAM	1	49	1	0	21.95	23
				64QAM	1	49	1	0	20.86	22
41346	2665.6	41490	2680	QPSK	1	49	1	0	22.42	24
				16QAM	1	49	1	0	21.64	23
				64QAM	1	49	1	0	20.56	22

Combination 15MHz+10MHz (75RB+50RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
39725	2503.5	39845	2515.5	QPSK	1	74	1	0	22.79	24
				16QAM	1	74	1	0	21.82	23
				64QAM	1	74	1	0	20.81	22
40571	2588.1	40691	2600.1	QPSK	1	74	1	0	22.91	24
				16QAM	1	74	1	0	21.90	23
				64QAM	1	74	1	0	20.85	22
41417	2672.7	41537	2684.7	QPSK	1	74	1	0	22.37	24
				16QAM	1	74	1	0	21.56	23
				64QAM	1	74	1	0	20.50	22

Combination 10MHz+15MHz (50RB+75RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
39703	2501.3	39823	2513.3	QPSK	1	49	1	0	22.80	24
				16QAM	1	49	1	0	21.73	23
				64QAM	1	49	1	0	20.82	22
40549	2585.9	40669	2597.9	QPSK	1	49	1	0	22.81	24
				16QAM	1	49	1	0	21.85	23
				64QAM	1	49	1	0	20.95	22
41395	2670.5	41515	2682.5	QPSK	1	49	1	0	22.49	24
				16QAM	1	49	1	0	21.54	23
				64QAM	1	49	1	0	20.43	22

Combination 20MHz+5MHz (100RB+25RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
39750	2506	39867	2517.7	QPSK	1	99	1	0	22.73	24
				16QAM	1	99	1	0	21.81	23
				64QAM	1	99	1	0	20.77	22
40595	2590.5	40712	2602.2	QPSK	1	99	1	0	22.62	24
				16QAM	1	99	1	0	21.70	23
				64QAM	1	99	1	0	20.84	22
41440	2675	41557	2686.7	QPSK	1	99	1	0	22.40	24
				16QAM	1	99	1	0	21.31	23
				64QAM	1	99	1	0	20.38	22

Combination 5MHz+20MHz (25RB+100RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
39683	2499.3	39800	2511	QPSK	1	24	1	0	22.81	24
				16QAM	1	24	1	0	21.87	23
				64QAM	1	24	1	0	20.85	22
40528	2583.8	40645	2595.5	QPSK	1	24	1	0	22.93	24
				16QAM	1	24	1	0	21.95	23
				64QAM	1	24	1	0	20.98	22
41373	2668.3	41490	2680	QPSK	1	24	1	0	22.50	24
				16QAM	1	24	1	0	21.63	23
				64QAM	1	24	1	0	20.51	22

LTE Band CA_ 66B

CA_66B Ant1										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
132022	1715	132121	1724.9	QPSK	1	49	1	0	23.72	25
				16QAM	1	49	1	0	22.76	24
				64QAM	1	49	1	0	21.67	23
132373	1750.1	132472	1760	QPSK	1	49	1	0	23.85	25
				16QAM	1	49	1	0	22.67	24
				64QAM	1	49	1	0	21.72	23
132523	1765.1	132622	1775	QPSK	1	49	1	0	**23.89**	25
				16QAM	1	49	1	0	22.82	24
				64QAM	1	49	1	0	21.79	23

Combination 15MHz+5MHz (75RB+25RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
132047	1717.5	132140	1726.8	QPSK	1	74	1	0	23.67	25
				16QAM	1	74	1	0	22.70	24
				64QAM	1	74	1	0	21.53	23
132398	1752.6	132491	1761.9	QPSK	1	74	1	0	23.71	25
				16QAM	1	74	1	0	22.56	24
				64QAM	1	74	1	0	21.63	23
132549	1767.7	132642	1777	QPSK	1	74	1	0	23.77	25
				16QAM	1	74	1	0	22.76	24
				64QAM	1	74	1	0	21.75	23

Combination 5MHz+15MHz (25RB+75RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
132002	1713	132095	1722.3	QPSK	1	24	1	0	23.64	25
				16QAM	1	24	1	0	22.61	24
				64QAM	1	24	1	0	21.63	23
132353	1748.1	132446	1757.4	QPSK	1	24	1	0	23.77	25
				16QAM	1	24	1	0	22.65	24
				64QAM	1	24	1	0	21.68	23
132504	1763.2	132597	1772.5	QPSK	1	24	1	0	23.82	25
				16QAM	1	24	1	0	22.78	24
				64QAM	1	24	1	0	21.67	23

Combination 10MHz+5MHz (50RB+25RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
132022	1715	132094	1722.2	QPSK	1	49	1	0	23.58	25
				16QAM	1	49	1	0	22.71	24
				64QAM	1	49	1	0	21.56	23
132397	1752.5	132469	1759.7	QPSK	1	49	1	0	23.84	25
				16QAM	1	49	1	0	22.57	24
				64QAM	1	49	1	0	21.58	23
132572	1770	132644	1777.2	QPSK	1	49	1	0	23.75	25
				16QAM	1	49	1	0	22.73	24
				64QAM	1	49	1	0	21.69	23

Combination 5MHz+10MHz (25RB+50RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
132000	1712.8	132072	1720	QPSK	1	24	1	0	23.63	25
				16QAM	1	24	1	0	22.67	24
				64QAM	1	24	1	0	21.57	23
132375	1750.3	132447	1757.5	QPSK	1	24	1	0	23.79	25
				16QAM	1	24	1	0	22.66	24
				64QAM	1	24	1	0	21.59	23
132550	1767.8	132622	1775	QPSK	1	24	1	0	23.84	25
				16QAM	1	24	1	0	22.77	24
				64QAM	1	24	1	0	21.77	23

Combination 5MHz+5MHz (25RB+25RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
131997	1712.5	132045	1717.3	QPSK	1	24	1	0	23.70	25
				16QAM	1	24	1	0	22.71	24
				64QAM	1	24	1	0	21.63	23
132398	1777.5	132446	1782.3	QPSK	1	24	1	0	23.81	25
				16QAM	1	24	1	0	22.61	24
				64QAM	1	24	1	0	21.67	23
132599	1772.7	132647	1777.5	QPSK	1	24	1	0	23.74	25
				16QAM	1	24	1	0	22.74	24
				64QAM	1	24	1	0	21.65	23

LTE Band CA_ 66C

CA_66C Ant1

Combination 20MHz+20MHz (100RB+100RB)

PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
132072	1720	132270	1739.8	QPSK	1	99	1	0	24.15	25
				16QAM	1	99	1	0	23.34	24
				64QAM	1	99	1	0	22.64	23
132323	1745	132521	1764.9	QPSK	1	99	1	0	24.10	25
				16QAM	1	99	1	0	23.48	24
				64QAM	1	99	1	0	22.21	23
132374	1750	132572	1770	QPSK	1	99	1	0	**24.18**	25
				16QAM	1	99	1	0	23.21	24
				64QAM	1	99	1	0	22.19	23

Combination 20MHz+15MHz (100RB+75RB)

PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
132072	1720	132243	1737.1	QPSK	1	99	1	0	24.10	25
				16QAM	1	99	1	0	23.29	24
				64QAM	1	99	1	0	22.56	23
132348	1748	132519	1764.7	QPSK	1	99	1	0	24.09	25
				16QAM	1	99	1	0	23.43	24
				64QAM	1	99	1	0	22.19	23
132423	1755	132594	1772.2	QPSK	1	99	1	0	24.14	25
				16QAM	1	99	1	0	23.14	24
				64QAM	1	99	1	0	22.06	23

Combination 15MHz+20MHz (75RB+100RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
132050	1718	132221	1734.9	QPSK	1	74	1	0	24.03	25
				16QAM	1	74	1	0	23.31	24
				64QAM	1	74	1	0	22.52	23
132325	1745	132496	1762.4	QPSK	1	74	1	0	24.03	25
				16QAM	1	74	1	0	23.40	24
				64QAM	1	74	1	0	22.14	23
132401	1753	132572	1770	QPSK	1	74	1	0	24.11	25
				16QAM	1	74	1	0	23.12	24
				64QAM	1	74	1	0	22.12	23

Combination 20MHz+10MHz (100RB+50RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
132072	1720	132216	1734.4	QPSK	1	99	1	0	24.15	25
				16QAM	1	99	1	0	23.33	24
				64QAM	1	99	1	0	22.52	23
132373	1750	132517	1764.5	QPSK	1	99	1	0	24.09	25
				16QAM	1	99	1	0	23.34	24
				64QAM	1	99	1	0	22.20	23
132473	1760	132617	1774.5	QPSK	1	99	1	0	24.01	25
				16QAM	1	99	1	0	23.12	24
				64QAM	1	99	1	0	22.04	23

Combination 10MHz+20MHz (50RB+100RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
132027	1716	132171	1729.9	QPSK	1	49	1	0	24.07	25
				16QAM	1	49	1	0	23.21	24
				64QAM	1	49	1	0	22.63	23
132328	1746	132472	1760	QPSK	1	49	1	0	24.06	25
				16QAM	1	49	1	0	23.45	24
				64QAM	1	49	1	0	22.18	23
132428	1756	132572	1770	QPSK	1	49	1	0	24.11	25
				16QAM	1	49	1	0	23.14	24
				64QAM	1	49	1	0	22.14	23

Combination 15MHz+15MHz (75RB+75RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
132047	1718	132197	1732.5	QPSK	1	74	1	0	24.07	25
				16QAM	1	74	1	0	23.24	24
				64QAM	1	74	1	0	22.56	23
132347	1748	132497	1762.5	QPSK	1	74	1	0	24.08	25
				16QAM	1	74	1	0	23.45	24
				64QAM	1	74	1	0	22.07	23
132447	1758	132597	1772.5	QPSK	1	74	1	0	24.05	25
				16QAM	1	74	1	0	23.16	24
				64QAM	1	74	1	0	22.17	23

Combination 15MHz+10MHz (75RB+50RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
132047	1718	132167	1729.5	QPSK	1	74	1	0	24.10	25
				16QAM	1	74	1	0	23.24	24
				64QAM	1	74	1	0	22.60	23
132373	1750	132493	1762.1	QPSK	1	74	1	0	24.07	25
				16QAM	1	74	1	0	23.41	24
				64QAM	1	74	1	0	22.08	23
132499	1763	132619	1774.7	QPSK	1	74	1	0	24.09	25
				16QAM	1	74	1	0	23.19	24
				64QAM	1	74	1	0	22.10	23

Combination 10MHz+15MHz (50RB+75RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
132025	1715	132145	1727.3	QPSK	1	49	1	0	24.05	25
				16QAM	1	49	1	0	23.32	24
				64QAM	1	49	1	0	22.57	23
132351	1748	132471	1759.9	QPSK	1	49	1	0	24.09	25
				16QAM	1	49	1	0	23.41	24
				64QAM	1	49	1	0	22.17	23
132477	1761	132597	1772.5	QPSK	1	49	1	0	24.10	25
				16QAM	1	49	1	0	23.14	24
				64QAM	1	49	1	0	22.05	23

Combination 20MHz+5MHz (100RB+25RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
132072	1720	132189	1731.7	QPSK	1	99	1	0	24.12	25
				16QAM	1	99	1	0	23.22	24
				64QAM	1	99	1	0	22.60	23
132397	1753	132514	1764.2	QPSK	1	99	1	0	23.95	25
				16QAM	1	99	1	0	23.36	24
				64QAM	1	99	1	0	22.18	23
132522	1765	132639	1776.7	QPSK	1	99	1	0	24.06	25
				16QAM	1	99	1	0	23.12	24
				64QAM	1	99	1	0	22.10	23

Combination 5MHz+20MHz (25RB+100RB)										
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Max Tune-up (dBm)
					RB Size	RB offset	RB Size	RB offset		
132005	1713	132122	1725	QPSK	1	24	1	0	24.09	25
				16QAM	1	24	1	0	23.26	24
				64QAM	1	24	1	0	22.56	23
132330	1746	132447	1757.5	QPSK	1	24	1	0	24.02	25
				16QAM	1	24	1	0	23.42	24
				64QAM	1	24	1	0	22.14	23
132455	1758	132572	1770	QPSK	1	24	1	0	24.01	25
				16QAM	1	24	1	0	23.16	24
				64QAM	1	24	1	0	22.13	23

EIRP/ERP

CA_7C

CA_7C													
Combination 20MHz+20MHz (100RB+100RB)													
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit （W）
					RB Size	RB offset	RB Size	RB offset					
20850	2510	21048	2529.8	QPSK	1	99	1	0	23.91	-1.63	22.28	169.04	2
				16QAM	1	99	1	0	23.47	-1.63	21.84	152.76	2
				64QAM	1	99	1	0	22.13	-1.63	20.50	112.20	2
21001	2525.1	21199	2544.9	QPSK	1	99	1	0	23.74	-1.63	22.11	162.55	2
				16QAM	1	99	1	0	23.35	-1.63	21.72	148.59	2
				64QAM	1	99	1	0	22.10	-1.63	20.47	111.43	2
21152	2540.2	21350	2560	QPSK	1	99	1	0	24.04	-1.63	22.41	174.18	2
				16QAM	1	99	1	0	23.42	-1.63	21.79	151.01	2
				64QAM	1	99	1	0	21.93	-1.63	20.30	107.15	2

Combination 20MHz+15MHz (100RB+75RB)													
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit （W）
					RB Size	RB offset	RB Size	RB offset					
20850	2510	21021	2527.1	QPSK	1	99	1	0	23.80	-1.63	22.17	164.82	2
				16QAM	1	99	1	0	23.34	-1.63	21.71	148.25	2
				64QAM	1	99	1	0	22.10	-1.63	20.47	111.43	2
21026	2527.6	21197	2544.7	QPSK	1	99	1	0	23.62	-1.63	21.99	158.12	2
				16QAM	1	99	1	0	23.23	-1.63	21.60	144.54	2
				64QAM	1	99	1	0	21.96	-1.63	20.33	107.89	2
21201	2545.1	21372	2562.2	QPSK	1	99	1	0	23.95	-1.63	22.32	170.61	2
				16QAM	1	99	1	0	23.39	-1.63	21.76	149.97	2
				64QAM	1	99	1	0	21.83	-1.63	20.20	104.71	2

Combination 15MHz+20MHz (75RB+100RB)													
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit （W）
					RB Size	RB offset	RB Size	RB offset					
20828	2507.8	20999	2524.9	QPSK	1	74	1	0	23.90	-1.63	22.27	168.66	2
				16QAM	1	74	1	0	23.33	-1.63	21.70	147.91	2
				64QAM	1	74	1	0	21.86	-1.63	20.23	105.44	2
21003	2525.3	21174	2542.4	QPSK	1	74	1	0	23.95	-1.63	22.32	170.61	2
				16QAM	1	74	1	0	23.43	-1.63	21.80	151.36	2
				64QAM	1	74	1	0	22.24	-1.63	20.61	115.08	2
21179	2542.9	21350	2560	QPSK	1	74	1	0	24.03	-1.63	22.40	173.78	2
				16QAM	1	74	1	0	23.50	-1.63	21.87	153.82	2
				64QAM	1	74	1	0	21.98	-1.63	20.35	108.39	2

Combination 20MHz+10MHz (100RB+50RB)													
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit （W）
					RB Size	RB offset	RB Size	RB offset					
20850	2510	20994	2524.4	QPSK	1	99	1	0	23.78	-1.63	22.15	164.06	2
				16QAM	1	99	1	0	23.34	-1.63	21.71	148.25	2
				64QAM	1	99	1	0	22.10	-1.63	20.47	111.43	2
21051	2530.1	21195	2544.5	QPSK	1	99	1	0	23.63	-1.63	22.00	158.49	2
				16QAM	1	99	1	0	23.30	-1.63	21.67	146.89	2
				64QAM	1	99	1	0	22.07	-1.63	20.44	110.66	2
21251	2550.1	21395	2564.5	QPSK	1	99	1	0	23.89	-1.63	22.26	168.27	2
				16QAM	1	99	1	0	23.37	-1.63	21.74	149.28	2
				64QAM	1	99	1	0	21.92	-1.63	20.29	106.91	2

Combination 10MHz+20MHz (50RB+100RB)													
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit （W）
					RB Size	RB offset	RB Size	RB offset					
20805	2505.5	20949	2519.9	QPSK	1	49	1	0	23.78	-1.63	22.15	164.06	2
				16QAM	1	49	1	0	23.31	-1.63	21.68	147.23	2
				64QAM	1	49	1	0	22.08	-1.63	20.45	110.92	2
21006	2525.6	21150	2540	QPSK	1	49	1	0	23.85	-1.63	22.22	166.72	2
				16QAM	1	49	1	0	23.27	-1.63	21.64	145.88	2
				64QAM	1	49	1	0	22.18	-1.63	20.55	113.50	2
21206	21206	21350	21220.4	QPSK	1	49	1	0	23.84	-1.63	22.21	166.34	2
				16QAM	1	49	1	0	23.31	-1.63	21.68	147.23	2
				64QAM	1	49	1	0	21.93	-1.63	20.30	107.15	2

Combination 15MHz+15MHz (75RB+75RB)													
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit （W）
					RB Size	RB offset	RB Size	RB offset					
20825	2507.5	20975	2522.5	QPSK	1	74	1	0	23.85	-1.63	22.22	166.72	2
				16QAM	1	74	1	0	23.44	-1.63	21.81	151.71	2
				64QAM	1	74	1	0	22.00	-1.63	20.37	108.89	2
21025	2527.5	21175	2542.5	QPSK	1	74	1	0	23.71	-1.63	22.08	161.44	2
				16QAM	1	74	1	0	23.29	-1.63	21.66	146.55	2
				64QAM	1	74	1	0	22.03	-1.63	20.40	109.65	2
21225	2547.5	21375	2562.5	QPSK	1	74	1	0	23.94	-1.63	22.31	170.22	2
				16QAM	1	74	1	0	23.28	-1.63	21.65	146.22	2
				64QAM	1	74	1	0	21.84	-1.63	20.21	104.95	2

Combination 15MHz+10MHz (75RB+50RB)													
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit （W）
					RB Size	RB offset	RB Size	RB offset					
20825	2507.5	20945	2519.5	QPSK	1	74	1	0	23.86	-1.63	22.23	167.11	2
				16QAM	1	74	1	0	23.43	-1.63	21.80	151.36	2
				64QAM	1	74	1	0	22.00	-1.63	20.37	108.89	2
21051	2530.1	21171	2542.1	QPSK	1	74	1	0	23.59	-1.63	21.96	157.04	2
				16QAM	1	74	1	0	23.34	-1.63	21.71	148.25	2
				64QAM	1	74	1	0	22.03	-1.63	20.40	109.65	2
21277	2552.7	21397	2564.7	QPSK	1	74	1	0	23.98	-1.63	22.35	171.79	2
				16QAM	1	74	1	0	23.40	-1.63	21.77	150.31	2
				64QAM	1	74	1	0	21.84	-1.63	20.21	104.95	2

CA_38C

CA_38C												
Combination 20MHz+20MHz (100RB+100RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
37850	2580	38048	2599.8	QPSK	1	99	1	0	23.92	-1.63	22.29	169.43	2
				16QAM	1	99	1	0	22.90	-1.63	21.27	133.97	2
				64QAM	1	99	1	0	21.80	-1.63	20.17	103.99	2
37901	2585.1	38099	2604.9	QPSK	1	99	1	0	23.68	-1.63	22.05	160.32	2
				16QAM	1	99	1	0	22.82	-1.63	21.19	131.52	2
				64QAM	1	99	1	0	21.77	-1.63	20.14	103.28	2
37952	2590.2	38150	2610	QPSK	1	99	1	0	23.56	-1.63	21.93	155.96	2
				16QAM	1	99	1	0	22.87	-1.63	21.24	133.05	2
				64QAM	1	99	1	0	21.76	-1.63	20.13	103.04	2
Combination 15MHz+15MHz (75RB+75RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
37825	2577.5	37975	2592.5	QPSK	1	74	1	0	23.86	-1.63	22.23	167.11	2
				16QAM	1	74	1	0	22.95	-1.63	21.32	135.52	2
				64QAM	1	74	1	0	21.88	-1.63	20.25	105.93	2
37925	2587.5	38075	2602.5	QPSK	1	74	1	0	23.71	-1.63	22.08	161.44	2
				16QAM	1	74	1	0	22.85	-1.63	21.22	132.43	2
				64QAM	1	74	1	0	21.76	-1.63	20.13	103.04	2
38025	2597.5	38175	2612.5	QPSK	1	74	1	0	23.57	-1.63	21.94	156.31	2
				16QAM	1	74	1	0	22.76	-1.63	21.13	129.72	2
				64QAM	1	74	1	0	21.67	-1.63	20.04	100.93	2

CA_41C PC3

CA_41C												
Combination 20MHz+20MHz (100RB+100RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
39750	2506	39948	2525.8	QPSK	1	99	1	0	22.87	-1.63	21.24	133.05	2
				16QAM	1	99	1	0	21.85	-1.63	20.22	105.20	2
				64QAM	1	99	1	0	20.76	-1.63	19.13	81.85	2
40521	2583.1	40719	2602.9	QPSK	1	99	1	0	22.96	-1.63	21.33	135.83	2
				16QAM	1	99	1	0	21.89	-1.63	20.26	106.17	2
				64QAM	1	99	1	0	20.82	-1.63	19.19	82.99	2
41292	2660.2	41490	2680	QPSK	1	99	1	0	22.37	-1.63	20.74	118.58	2
				16QAM	1	99	1	0	21.55	-1.63	19.92	98.17	2
				64QAM	1	99	1	0	20.48	-1.63	18.85	76.74	2

Combination 20MHz+15MHz (100RB+75RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
39750	2506	39921	2523.1	QPSK	1	99	1	0	22.67	-1.63	21.04	127.06	2
				16QAM	1	99	1	0	21.86	-1.63	20.23	105.44	2
				64QAM	1	99	1	0	20.75	-1.63	19.12	81.66	2
40546	2585.6	40717	2602.7	QPSK	1	99	1	0	22.84	-1.63	21.21	132.13	2
				16QAM	1	99	1	0	21.85	-1.63	20.22	105.20	2
				64QAM	1	99	1	0	20.85	-1.63	19.22	83.56	2
41341	2665.1	41512	2682.2	QPSK	1	99	1	0	22.44	-1.63	20.81	120.50	2
				16QAM	1	99	1	0	21.59	-1.63	19.96	99.08	2
				64QAM	1	99	1	0	20.44	-1.63	18.81	76.03	2
Combination 15MHz+20MHz (75RB+100RB)													
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
39728	2503.8	39899	2520.9	QPSK	1	74	1	0	22.74	-1.63	21.11	129.12	2
				16QAM	1	74	1	0	21.85	-1.63	20.22	105.20	2
				64QAM	1	74	1	0	20.91	-1.63	19.28	84.72	2
40523	2583.3	40694	2600.4	QPSK	1	74	1	0	22.75	-1.63	21.12	129.42	2
				16QAM	1	74	1	0	21.81	-1.63	20.18	104.23	2
				64QAM	1	74	1	0	20.86	-1.63	19.23	83.75	2
41319	2662.9	41490	2680	QPSK	1	74	1	0	22.41	-1.63	20.78	119.67	2
				16QAM	1	74	1	0	21.45	-1.63	19.82	95.94	2
				64QAM	1	74	1	0	20.53	-1.63	18.90	77.62	2

Combination 20MHz+10MHz (100RB+50RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
39750	2506	39894	2520.4	QPSK	1	99	1	0	22.52	-1.63	20.89	122.74	2
				16QAM	1	99	1	0	21.53	-1.63	19.90	97.72	2
				64QAM	1	99	1	0	20.51	-1.63	18.88	77.27	2
40571	2588.1	40715	2602.5	QPSK	1	99	1	0	22.21	-1.63	20.58	114.29	2
				16QAM	1	99	1	0	21.10	-1.63	19.47	88.51	2
				64QAM	1	99	1	0	20.10	-1.63	18.47	70.31	2
41391	2670.1	41535	2684.5	QPSK	1	99	1	0	21.78	-1.63	20.15	103.51	2
				16QAM	1	99	1	0	20.66	-1.63	19.03	79.98	2
				64QAM	1	99	1	0	19.96	-1.63	18.33	68.08	2

Combination 10MHz+20MHz (50RB+100RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
39705	2501.5	39849	2515.9	QPSK	1	49	1	0	22.75	-1.63	21.12	129.42	2
				16QAM	1	49	1	0	21.87	-1.63	20.24	105.68	2
				64QAM	1	49	1	0	20.78	-1.63	19.15	82.22	2
40526	2583.6	40670	2598	QPSK	1	49	1	0	22.79	-1.63	21.16	130.62	2
				16QAM	1	49	1	0	21.95	-1.63	20.32	107.65	2
				64QAM	1	49	1	0	20.86	-1.63	19.23	83.75	2
41346	2665.6	41490	2680	QPSK	1	49	1	0	22.42	-1.63	20.79	119.95	2
				16QAM	1	49	1	0	21.64	-1.63	20.01	100.23	2
				64QAM	1	49	1	0	20.56	-1.63	18.93	78.16	2

Combination 15MHz+15MHz (75RB+75RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
39725	2503.5	39875	2518.5	QPSK	1	74	1	0	22.79	-1.63	21.16	130.62	2
				16QAM	1	74	1	0	21.80	-1.63	20.17	103.99	2
				64QAM	1	74	1	0	20.70	-1.63	19.07	80.72	2
40545	2585.5	40695	2600.5	QPSK	1	74	1	0	22.81	-1.63	21.18	131.22	2
				16QAM	1	74	1	0	21.92	-1.63	20.29	106.91	2
				64QAM	1	74	1	0	20.97	-1.63	19.34	85.90	2
41365	2667.5	41515	2682.5	QPSK	1	74	1	0	22.38	-1.63	20.75	118.85	2
				16QAM	1	74	1	0	21.50	-1.63	19.87	97.05	2
				64QAM	1	74	1	0	20.48	-1.63	18.85	76.74	2

Combination 15MHz+10MHz (75RB+50RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
39725	2503.5	39845	2515.5	QPSK	1	74	1	0	22.79	-1.63	21.16	130.62	2
				16QAM	1	74	1	0	21.82	-1.63	20.19	104.47	2
				64QAM	1	74	1	0	20.81	-1.63	19.18	82.79	2
40571	2588.1	40691	2600.1	QPSK	1	74	1	0	22.91	-1.63	21.28	134.28	2
				16QAM	1	74	1	0	21.90	-1.63	20.27	106.41	2
				64QAM	1	74	1	0	20.85	-1.63	19.22	83.56	2
41417	2672.7	41537	2684.7	QPSK	1	74	1	0	22.37	-1.63	20.74	118.58	2
				16QAM	1	74	1	0	21.56	-1.63	19.93	98.40	2
				64QAM	1	74	1	0	20.50	-1.63	18.87	77.09	2

Combination 10MHz+15MHz (50RB+75RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
39703	2501.3	39823	2513.3	QPSK	1	49	1	0	22.80	-1.63	21.17	130.92	2
				16QAM	1	49	1	0	21.73	-1.63	20.10	102.33	2
				64QAM	1	49	1	0	20.82	-1.63	19.19	82.99	2
40549	2585.9	40669	2597.9	QPSK	1	49	1	0	22.81	-1.63	21.18	131.22	2
				16QAM	1	49	1	0	21.85	-1.63	20.22	105.20	2
				64QAM	1	49	1	0	20.95	-1.63	19.32	85.51	2
41395	2670.5	41515	2682.5	QPSK	1	49	1	0	22.49	-1.63	20.86	121.90	2
				16QAM	1	49	1	0	21.54	-1.63	19.91	97.95	2
				64QAM	1	49	1	0	20.43	-1.63	18.80	75.86	2

Combination 20MHz+5MHz (100RB+25RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
39750	2506	39867	2517.7	QPSK	1	99	1	0	22.73	-1.63	21.10	128.82	2
				16QAM	1	99	1	0	21.81	-1.63	20.18	104.23	2
				64QAM	1	99	1	0	20.77	-1.63	19.14	82.04	2
40595	2590.5	40712	2602.2	QPSK	1	99	1	0	22.62	-1.63	20.99	125.60	2
				16QAM	1	99	1	0	21.70	-1.63	20.07	101.62	2
				64QAM	1	99	1	0	20.84	-1.63	19.21	83.37	2
41440	2675	41557	2686.7	QPSK	1	99	1	0	22.40	-1.63	20.77	119.40	2
				16QAM	1	99	1	0	21.31	-1.63	19.68	92.90	2
				64QAM	1	99	1	0	20.38	-1.63	18.75	74.99	2

Combination 5MHz+20MHz (25RB+100RB)													
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
39683	2499.3	39800	2511	QPSK	1	24	1	0	22.81	-1.63	21.18	131.22	2
				16QAM	1	24	1	0	21.87	-1.63	20.24	105.68	2
				64QAM	1	24	1	0	20.85	-1.63	19.22	83.56	2
40528	2583.8	40645	2595.5	QPSK	1	24	1	0	22.93	-1.63	21.30	134.90	2
				16QAM	1	24	1	0	21.95	-1.63	20.32	107.65	2
				64QAM	1	24	1	0	20.98	-1.63	19.35	86.10	2
41373	2668.3	41490	2680	QPSK	1	24	1	0	22.50	-1.63	20.87	122.18	2
				16QAM	1	24	1	0	21.63	-1.63	20.00	100.00	2
				64QAM	1	24	1	0	20.51	-1.63	18.88	77.27	2

CA-66B

CA_66B												
Combination 10MHz+10MHz (50RB+50RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
132022	1715	132121	1724.9	QPSK	1	49	1	0	23.72	-1.74	21.98	157.76	1
				16QAM	1	49	1	0	22.76	-1.74	21.02	126.47	1
				64QAM	1	49	1	0	21.67	-1.74	19.93	98.40	1
132373	1750.1	132472	1760	QPSK	1	49	1	0	23.85	-1.74	22.11	162.55	1
				16QAM	1	49	1	0	22.67	-1.74	20.93	123.88	1
				64QAM	1	49	1	0	21.72	-1.74	19.98	99.54	1
132523	1765.1	132622	1775	QPSK	1	49	1	0	23.89	-1.74	22.15	164.06	1
				16QAM	1	49	1	0	22.82	-1.74	21.08	128.23	1
				64QAM	1	49	1	0	21.79	-1.74	20.05	101.16	1
Combination 15MHz+5MHz (75RB+25RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
132047	1717.5	132140	1726.8	QPSK	1	74	1	0	23.67	-1.74	21.93	155.96	1
				16QAM	1	74	1	0	22.70	-1.74	20.96	124.74	1
				64QAM	1	74	1	0	21.53	-1.74	19.79	95.28	1
132398	1752.6	132491	1761.9	QPSK	1	74	1	0	23.71	-1.74	21.97	157.40	1
				16QAM	1	74	1	0	22.56	-1.74	20.82	120.78	1
				64QAM	1	74	1	0	21.63	-1.74	19.89	97.50	1
132549	1767.7	132642	1777	QPSK	1	74	1	0	23.77	-1.74	22.03	159.59	1
				16QAM	1	74	1	0	22.76	-1.74	21.02	126.47	1
				64QAM	1	74	1	0	21.75	-1.74	20.01	100.23	1

Combination 5MHz+15MHz (25RB+75RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
132002	1713	132095	1722.3	QPSK	1	24	1	0	23.64	-1.74	21.90	154.88	1
				16QAM	1	24	1	0	22.61	-1.74	20.87	122.18	1
				64QAM	1	24	1	0	21.63	-1.74	19.89	97.50	1
132353	1748.1	132446	1757.4	QPSK	1	24	1	0	23.77	-1.74	22.03	159.59	1
				16QAM	1	24	1	0	22.65	-1.74	20.91	123.31	1
				64QAM	1	24	1	0	21.68	-1.74	19.94	98.63	1
132504	1763.2	132597	1772.5	QPSK	1	24	1	0	23.82	-1.74	22.08	161.44	1
				16QAM	1	24	1	0	22.78	-1.74	21.04	127.06	1
				64QAM	1	24	1	0	21.67	-1.74	19.93	98.40	1

Combination 10MHz+5MHz (50RB+25RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
132022	1715	132094	1722.2	QPSK	1	49	1	0	23.58	-1.74	21.84	152.76	1
				16QAM	1	49	1	0	22.71	-1.74	20.97	125.03	1
				64QAM	1	49	1	0	21.56	-1.74	19.82	95.94	1
132397	1752.5	132469	1759.7	QPSK	1	49	1	0	23.84	-1.74	22.10	162.18	1
				16QAM	1	49	1	0	22.57	-1.74	20.83	121.06	1
				64QAM	1	49	1	0	21.58	-1.74	19.84	96.38	1
132572	1770	132644	1777.2	QPSK	1	49	1	0	23.75	-1.74	22.01	158.85	1
				16QAM	1	49	1	0	22.73	-1.74	20.99	125.60	1
				64QAM	1	49	1	0	21.69	-1.74	19.95	98.86	1

Combination 5MHz+10MHz (25RB+50RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
132000	1712.8	132072	1720	QPSK	1	24	1	0	23.63	-1.74	21.89	154.53	1
				16QAM	1	24	1	0	22.67	-1.74	20.93	123.88	1
				64QAM	1	24	1	0	21.57	-1.74	19.83	96.16	1
132375	1750.3	132447	1757.5	QPSK	1	24	1	0	23.79	-1.74	22.05	160.32	1
				16QAM	1	24	1	0	22.66	-1.74	20.92	123.59	1
				64QAM	1	24	1	0	21.59	-1.74	19.85	96.61	1
132550	1767.8	132622	1775	QPSK	1	24	1	0	23.84	-1.74	22.10	162.18	1
				16QAM	1	24	1	0	22.77	-1.74	21.03	126.77	1
				64QAM	1	24	1	0	21.77	-1.74	20.03	100.69	1

Combination 5MHz+5MHz (25RB+25RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
131997	1712.5	132045	1717.3	QPSK	1	24	1	0	22.60	-1.74	20.86	121.90	1
				16QAM	1	24	1	0	21.94	-1.74	20.20	104.71	1
				64QAM	1	24	1	0	21.29	-1.74	19.55	90.16	1
132398	1777.5	132446	1782.3	QPSK	1	24	1	0	22.42	-1.74	20.68	116.95	1
				16QAM	1	24	1	0	21.48	-1.74	19.74	94.19	1
				64QAM	1	24	1	0	20.98	-1.74	19.24	83.95	1
132599	1772.7	132647	1777.5	QPSK	1	24	1	0	22.59	-1.74	20.85	121.62	1
				16QAM	1	24	1	0	21.86	-1.74	20.12	102.80	1
				64QAM	1	24	1	0	21.32	-1.74	19.58	90.78	1

CA-66C

CA_66C												
Combination 20MHz+20MHz (100RB+100RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
132072	1720	132270	1739.8	QPSK	1	99	1	0	24.15	-1.74	22.41	174.18	1
				16QAM	1	99	1	0	23.34	-1.74	21.60	144.54	1
				64QAM	1	99	1	0	22.64	-1.74	20.90	123.03	1
132323	1745.1	132521	1764.9	QPSK	1	99	1	0	24.10	-1.74	22.36	172.19	1
				16QAM	1	99	1	0	23.48	-1.74	21.74	149.28	1
				64QAM	1	99	1	0	22.21	-1.74	20.47	111.43	1
132374	1750.2	132572	1770	QPSK	1	99	1	0	24.18	-1.74	22.44	175.39	1
				16QAM	1	99	1	0	23.21	-1.74	21.47	140.28	1
				64QAM	1	99	1	0	22.19	-1.74	20.45	110.92	1

Combination 20MHz+15MHz (100RB+75RB)													
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
132072	1720	132243	1737.1	QPSK	1	99	1	0	24.10	-1.74	22.36	172.19	1
				16QAM	1	99	1	0	23.29	-1.74	21.55	142.89	1
				64QAM	1	99	1	0	22.56	-1.74	20.82	120.78	1
132348	1747.6	132519	1764.7	QPSK	1	99	1	0	24.09	-1.74	22.35	171.79	1
				16QAM	1	99	1	0	23.43	-1.74	21.69	147.57	1
				64QAM	1	99	1	0	22.19	-1.74	20.45	110.92	1
132423	1755.1	132594	1772.2	QPSK	1	99	1	0	24.14	-1.74	22.40	173.78	1
				16QAM	1	99	1	0	23.14	-1.74	21.40	138.04	1
				64QAM	1	99	1	0	22.06	-1.74	20.32	107.65	1

Combination 15MHz+20MHz (75RB+100RB)													
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
132050	1717.8	132221	1734.9	QPSK	1	74	1	0	24.03	-1.74	22.29	169.43	1
				16QAM	1	74	1	0	23.31	-1.74	21.57	143.55	1
				64QAM	1	74	1	0	22.52	-1.74	20.78	119.67	1
132325	1745.3	132496	1762.4	QPSK	1	74	1	0	24.03	-1.74	22.29	169.43	1
				16QAM	1	74	1	0	23.40	-1.74	21.66	146.55	1
				64QAM	1	74	1	0	22.14	-1.74	20.40	109.65	1
132401	1752.9	132572	1770	QPSK	1	74	1	0	24.11	-1.74	22.37	172.58	1
				16QAM	1	74	1	0	23.12	-1.74	21.38	137.40	1
				64QAM	1	74	1	0	22.12	-1.74	20.38	109.14	1

Combination 20MHz+10MHz (100RB+50RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
132072	1720	132216	1734.4	QPSK	1	99	1	0	24.15	-1.74	22.41	174.18	1
				16QAM	1	99	1	0	23.33	-1.74	21.59	144.21	1
				64QAM	1	99	1	0	22.52	-1.74	20.78	119.67	1
132373	1750.1	132517	1764.5	QPSK	1	99	1	0	24.09	-1.74	22.35	171.79	1
				16QAM	1	99	1	0	23.34	-1.74	21.60	144.54	1
				64QAM	1	99	1	0	22.20	-1.74	20.46	111.17	1
132473	1760.1	132617	1774.5	QPSK	1	99	1	0	24.01	-1.74	22.27	168.66	1
				16QAM	1	99	1	0	23.12	-1.74	21.38	137.40	1
				64QAM	1	99	1	0	22.04	-1.74	20.30	107.15	1

Combination 10MHz+20MHz (50RB+100RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
132027	1715.5	132171	1729.9	QPSK	1	49	1	0	24.07	-1.74	22.33	171.00	1
				16QAM	1	49	1	0	23.21	-1.74	21.47	140.28	1
				64QAM	1	49	1	0	22.63	-1.74	20.89	122.74	1
132328	1745.6	132472	1760	QPSK	1	49	1	0	24.06	-1.74	22.32	170.61	1
				16QAM	1	49	1	0	23.45	-1.74	21.71	148.25	1
				64QAM	1	49	1	0	22.18	-1.74	20.44	110.66	1
132428	1755.6	132572	1770	QPSK	1	49	1	0	24.11	-1.74	22.37	172.58	1
				16QAM	1	49	1	0	23.14	-1.74	21.40	138.04	1
				64QAM	1	49	1	0	22.14	-1.74	20.40	109.65	1

Combination 15MHz+15MHz (75RB+75RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
132047	1717.5	132197	1732.5	QPSK	1	74	1	0	24.07	-1.74	22.33	171.00	1
				16QAM	1	74	1	0	23.24	-1.74	21.50	141.25	1
				64QAM	1	74	1	0	22.56	-1.74	20.82	120.78	1
132347	1747.5	132497	1762.5	QPSK	1	74	1	0	24.08	-1.74	22.34	171.40	1
				16QAM	1	74	1	0	23.45	-1.74	21.71	148.25	1
				64QAM	1	74	1	0	22.07	-1.74	20.33	107.89	1
132447	1757.5	132597	1772.5	QPSK	1	74	1	0	24.05	-1.74	22.31	170.22	1
				16QAM	1	74	1	0	23.16	-1.74	21.42	138.68	1
				64QAM	1	74	1	0	22.17	-1.74	20.43	110.41	1

Combination 15MHz+10MHz (75RB+50RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
132047	1717.5	132167	1729.5	QPSK	1	74	1	0	24.10	-1.74	22.36	172.19	1
				16QAM	1	74	1	0	23.24	-1.74	21.50	141.25	1
				64QAM	1	74	1	0	22.60	-1.74	20.86	121.90	1
132373	1750.1	132493	1762.1	QPSK	1	74	1	0	24.07	-1.74	22.33	171.00	1
				16QAM	1	74	1	0	23.41	-1.74	21.67	146.89	1
				64QAM	1	74	1	0	22.08	-1.74	20.34	108.14	1
132499	1762.7	132619	1774.7	QPSK	1	74	1	0	24.09	-1.74	22.35	171.79	1
				16QAM	1	74	1	0	23.19	-1.74	21.45	139.64	1
				64QAM	1	74	1	0	22.10	-1.74	20.36	108.64	1

Combination 10MHz+15MHz (50RB+75RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
132025	1715.3	132145	1727.3	QPSK	1	49	1	0	24.05	-1.74	22.31	170.22	1
				16QAM	1	49	1	0	23.32	-1.74	21.58	143.88	1
				64QAM	1	49	1	0	22.57	-1.74	20.83	121.06	1
132351	1747.9	132471	1759.9	QPSK	1	49	1	0	24.09	-1.74	22.35	171.79	1
				16QAM	1	49	1	0	23.41	-1.74	21.67	146.89	1
				64QAM	1	49	1	0	22.17	-1.74	20.43	110.41	1
132477	1760.5	132597	1772.5	QPSK	1	49	1	0	24.10	-1.74	22.36	172.19	1
				16QAM	1	49	1	0	23.14	-1.74	21.40	138.04	1
				64QAM	1	49	1	0	22.05	-1.74	20.31	107.40	1

Combination 20MHz+5MHz (100RB+25RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
132072	1720	132189	1731.7	QPSK	1	99	1	0	24.12	-1.74	22.38	172.98	1
				16QAM	1	99	1	0	23.22	-1.74	21.48	140.60	1
				64QAM	1	99	1	0	22.60	-1.74	20.86	121.90	1
132397	1752.5	132514	1764.2	QPSK	1	99	1	0	23.95	-1.74	22.21	166.34	1
				16QAM	1	99	1	0	23.36	-1.74	21.62	145.21	1
				64QAM	1	99	1	0	22.18	-1.74	20.44	110.66	1
132522	1765	132639	1776.7	QPSK	1	99	1	0	24.06	-1.74	22.32	170.61	1
				16QAM	1	99	1	0	23.12	-1.74	21.38	137.40	1
				64QAM	1	99	1	0	22.10	-1.74	20.36	108.64	1

Combination 5MHz+20MHz (25RB+100RB)												
PCC Channel	PCC Frequency (MHz)	SCC Channel	SCC Frequency (MHz)	Modulation	PCC		SCC		Measured Power (dBm)	Gain (dBi)	EIRP(dBm)	EIRP(mW)	Limit（W）
					RB Size	RB offset	RB Size	RB offset					
132005	1713.3	132122	1725	QPSK	1	24	1	0	24.09	-1.74	22.35	171.79	1
				16QAM	1	24	1	0	23.26	-1.74	21.52	141.91	1
				64QAM	1	24	1	0	22.56	-1.74	20.82	120.78	1
132330	1745.8	132447	1757.5	QPSK	1	24	1	0	24.02	-1.74	22.28	169.04	1
				16QAM	1	24	1	0	23.42	-1.74	21.68	147.23	1
				64QAM	1	24	1	0	22.14	-1.74	20.40	109.65	1
132455	1758.3	132572	1770	QPSK	1	24	1	0	24.01	-1.74	22.27	168.66	1
				16QAM	1	24	1	0	23.16	-1.74	21.42	138.68	1
				64QAM	1	24	1	0	22.13	-1.74	20.39	109.40	1

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

3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILIITY MEASUREMENT

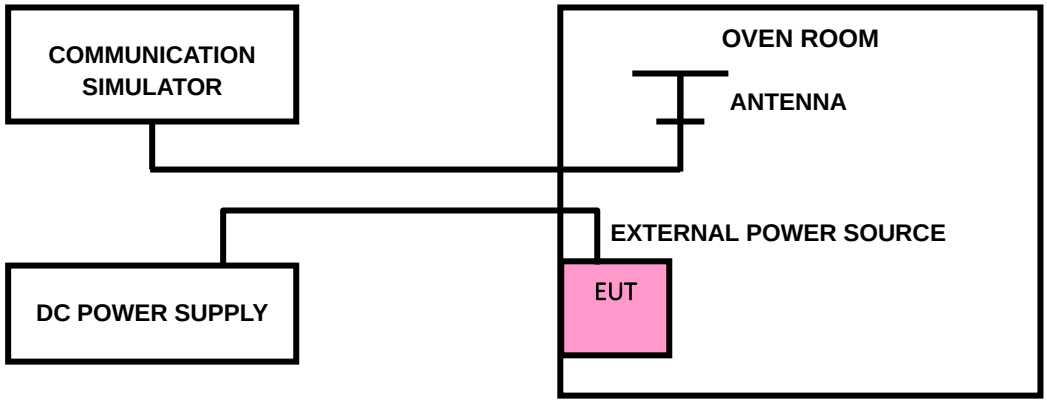
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

3.2.2 TEST PROCEDURE

a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
b. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ±0.5℃ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

NOTE: The frequency error was recorded frequency error from the communication simulator.

3.2.3 TEST SETUP



3.2.4 TEST RESULTS

LTE BAND CA_7C

LTE BAND CA_7C channel and Frequency List					
BW(MHz)	**Channel/Frequcncy(MHz)**		**Lowest**	**Middle**	**Highest**
10+20	PCC	channel	20805	21006	21206
		Frequcncy	2505.5	2525.6	2545.6
	SCC	channel	20949	21150	21350
		Frequcncy	2519.9	2540	2560
15+10	PCC	channel	20825	21051	21277
		Frequcncy	2507.5	2530.1	2552.7
	SCC	channel	20945	21171	21397
		Frequcncy	2519.5	2542.1	2564.7
15+15	PCC	channel	20825	21025	21225
		Frequcncy	2507.5	2527.5	2547.5
	SCC	channel	20975	21175	21375
		Frequcncy	2522.5	2542.5	2562.5
15+20	PCC	channel	20828	21003	21179
		Frequcncy	2507.8	2525.3	2542.9
	SCC	channel	20999	21174	21350
		Frequcncy	2524.9	2542.4	2560
20+10	PCC	channel	20850	21051	21251
		Frequcncy	2510	2530.1	2550.1
	SCC	channel	20994	21195	21395
		Frequcncy	2524.4	2544.5	2564.5
20+15	PCC	channel	20850	21026	21201
		Frequcncy	2510	2527.6	2545.1
	SCC	channel	21021	21197	21372
		Frequcncy	2527.1	2544.7	2562.2
20+20	PCC	channel	20850	21001	21152
		Frequcncy	2510	2525.1	2540.2
	SCC	channel	21048	21199	21350
		Frequcncy	2529.8	2544.9	2560

LTE BAND CA_38C

LTE BAND CA_38C channel and Frequency List					
BW(MHz)	Channel/Frequcncy(MHz)		Lowest	Middle	Highest
15+15	PCC	channel	37825	37925	38025
		Frequcncy	2577.5	2587.5	2597.5
	SCC	channel	37975	38075	38175
		Frequcncy	2592.5	2602.5	2612.5
20+20	PCC	channel	37850	37901	37952
		Frequcncy	2580.0	2585.1	2590.2
	SCC	channel	38048	38099	38150
		Frequcncy	2599.8	2604.9	2610

LTE BAND CA_41C

LTE BAND CA_41C channel and Frequency List					
BW(MHz)	Channel/Frequcncy(MHz)		Lowest	Middle	Highest
5+20	PCC	channel	39683	40528	41373
		Frequcncy	2499.3	2583.8	2668.3
	SCC	channel	39800	40645	41490
		Frequcncy	2511	2595.5	2680
10+15	PCC	channel	39703	40549	41395
		Frequcncy	2501.3	2585.9	2670.5
	SCC	channel	39823	40669	41515
		Frequcncy	2513.3	2597.9	2682.5
10+20	PCC	channel	39705	40526	41346
		Frequcncy	2501.5	2583.6	2665.6
	SCC	channel	39849	40670	41490
		Frequcncy	2515.9	2598.0	2680
15+10	PCC	channel	39725	40571	41417
		Frequcncy	2503.5	2588.1	2672.7
	SCC	channel	39845	40691	41537
		Frequcncy	2515.5	2600.1	2684.7

15+15	PCC	channel	39725	40545	41365
		Frequcncy	2503.5	2585.5	2667.5
	SCC	channel	39875	40695	41515
		Frequcncy	2518.5	2600.5	2682.5
15+20	PCC	channel	39728	40523	41319
		Frequcncy	2503.8	2583.3	2662.9
	SCC	channel	39899	40694	41490
		Frequcncy	2520.9	2600.4	2680
20+5	PCC	channel	39750	40595	41440
		Frequcncy	2506	2590.5	2675
	SCC	channel	39867	40712	41557
		Frequcncy	2517.7	2602.2	2686.7
20+10	PCC	channel	39750	40571	41391
		Frequcncy	2506	2588.1	2670.1
	SCC	channel	39894	40715	41535
		Frequcncy	2520.4	2602.5	2684.5
20+15	PCC	channel	39750	40546	41341
		Frequcncy	2506	2585.6	2665.1
	SCC	channel	39921	40717	41512
		Frequcncy	2523.1	2602.7	2682.2
20+20	PCC	channel	39750	40521	41292
		Frequcncy	2506	2583.1	2660.2
	SCC	channel	39948	40719	41490
		Frequcncy	2525.8	2602.9	2680

LTE BAND CA_66B

LTE BAND CA_66B channel and Frequency List					
BW(MHz)	**Channel/Frequcncy(MHz)**		**Lowest**	**Middle**	**Highest**
10+10	PCC	channel	132022	132373	132523
		Frequcncy	1715	1750.1	1765.1
	SCC	channel	132121	132472	132622
		Frequcncy	1724.9	1760	1775
15+5	PCC	channel	132002	132353	132504
		Frequcncy	1713	1748.1	1763.2
	SCC	channel	132095	132446	132597
		Frequcncy	1722.3	1757.4	1772.5
10+5	PCC	channel	132022	132397	132572
		Frequcncy	1715	1752.5	1770
	SCC	channel	132094	132469	132644
		Frequcncy	1722.2	1759.7	1777.2
5+10	PCC	channel	132000	132375	132550
		Frequcncy	1712.8	1750.3	1767.8
	SCC	channel	132072	132447	132622
		Frequcncy	1720	1757.5	1775
5+5	PCC	channel	131997	132398	132599
		Frequcncy	1712.5	1777.5	1772.7
	SCC	channel	132045	132446	132647
		Frequcncy	1717.3	1782.3	1777.5

LTE BAND CA_66C

LTE BAND CA_66B channel and Frequency List					
BW(MHz)	**Channel/Frequcncy(MHz)**		**Lowest**	**Middle**	**Highest**
20+20	PCC	channel	132072	132323	132374
		Frequcncy	1720	1745.1	1750.2
	SCC	channel	132270	132521	132572
		Frequcncy	1739.8	1764.9	1770
20+15	PCC	channel	132072	132348	132423
		Frequcncy	1720	1747.6	1755.1
	SCC	channel	132243	132519	132594
		Frequcncy	1737.1	1764.7	1772.2
15+20	PCC	channel	132050	132325	132401
		Frequcncy	1717.8	1745.3	1752.9
	SCC	channel	132221	132496	132572
		Frequcncy	1734.9	1762.4	1770
20+10	PCC	channel	132072	132373	132473
		Frequcncy	1720	1750.1	1760.1
	SCC	channel	132216	132517	132617
		Frequcncy	1734.4	1764.5	1774.5
10+20	PCC	channel	132027	132328	132428
		Frequcncy	1715.5	1745.6	1755.6
	SCC	channel	132171	132472	132572
		Frequcncy	1729.9	1760	1770
15+15	PCC	channel	132047	132347	132447
		Frequcncy	1717.5	1747.5	1757.5
	SCC	channel	132197	132497	132597
		Frequcncy	1732.5	1762.5	1772.5
15+10	PCC	channel	132047	132373	132499
		Frequcncy	1717.5	1750.1	1762.7
	SCC	channel	132167	132493	132619
		Frequcncy	1729.5	1762.1	1774.7
10+15	PCC	channel	132025	132351	132477
		Frequcncy	1715.3	1747.9	1760.5
	SCC	channel	132145	132471	132597

		Frequcncy	1727.3	1759.9	1772.5
20+5	PCC	channel	132072	132397	132522
		Frequcncy	1720	1752.5	1765
	SCC	channel	132189	132514	132639
		Frequcncy	1731.7	1764.2	1776.7
5+20	PCC	channel	132005	132330	132455
		Frequcncy	1713.3	1745.8	1758.3
	SCC	channel	132122	132447	132572
		Frequcncy	1725	1757.5	1770

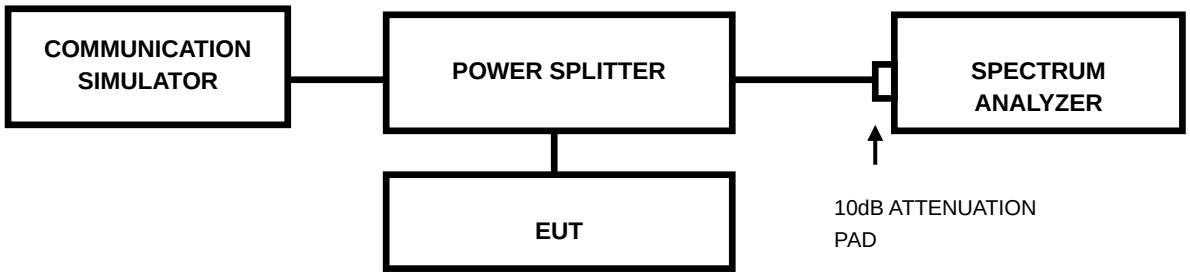
Note: VL = Low voltage(3.5V); VN/NV = Normal voltage(3.89V); VH = High voltage(4.48V);
NT = Normal temperature (25℃)

3.3 OCCUPIED BANDWIDTH MEASUREMENT

3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

3.3.2 TEST SETUP



3.3.3 TEST PROCEDURES

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

3.3.4 TEST RESULTS

Please Refer to Appendix I Of this test report.

3.4 BAND EDGE MEASUREMENT

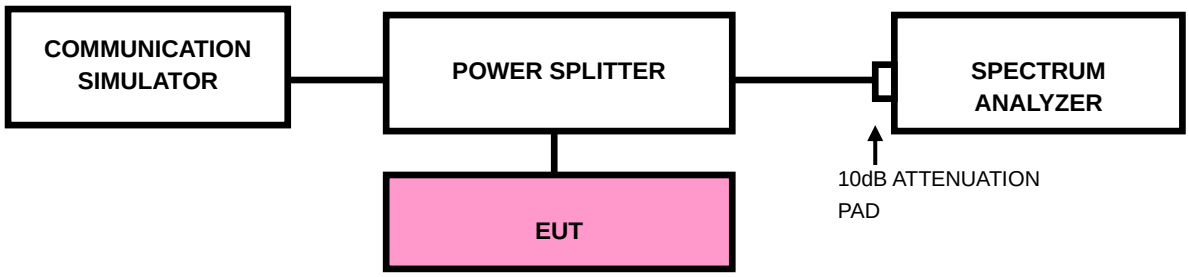
3.4.1 LIMITS OF BAND EDGE MEASUREMENT

According to FCC 27.53(g) specified that For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

According to FCC 27.53(h) specified that For operations in the 1710-1755 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

According to FCC 27.53(m)(4) specified that For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. For mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed.

3.4.2 TEST SETUP



3.4.3 TEST PROCEDURES

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

b) Tune the analyzer to the nominal center frequency of the emission bandwidth (EBW).

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

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

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

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

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

h) Use auto-coupled sweep time.

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

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

k) Record the max trace plot into the test report.

3.4.4 TEST RESULTS

Please Refer to Appendix I 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.

For: LTE Band7C/Band41C

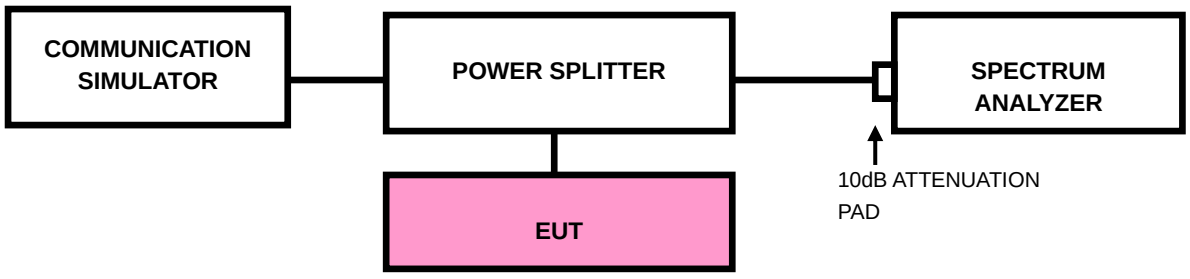
The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 55 +10 log10(P) dB. The limit of emission is equal to -25dBm.

3.5.2 TEST PROCEDURE

a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.

b. Measuring frequency range is from 9kHz up to a frequency including its 10th harmonic. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

3.5.3 TEST SETUP



3.5.4 TEST RESULTS

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

Please Refer to Appendix I 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.

For: LTE Band7C/ Band41C

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 55 +10 log10(P) dB. The limit of emission is equal to -25dBm.

.

3.6.2 TEST PROCEDURES

a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
b. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value “ of step a. Record the power level of S.G.
c. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.P.R power - 2.15dBi.

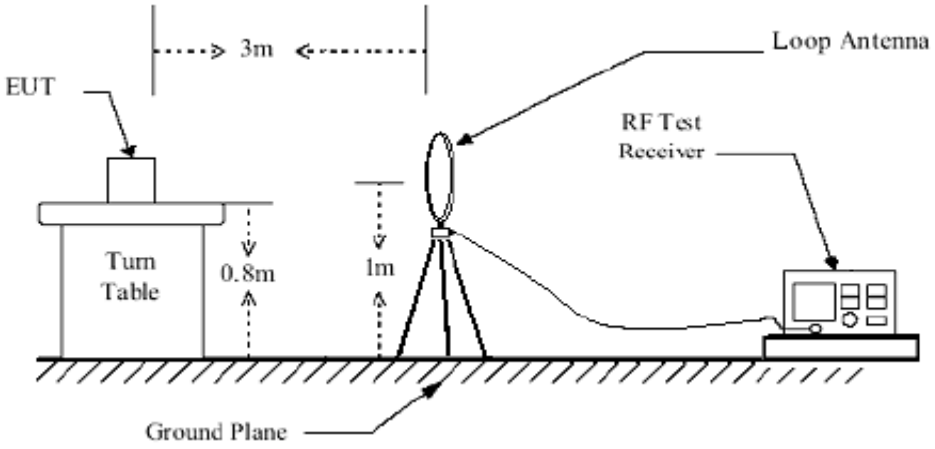
NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

3.6.3 DEVIATION FROM TEST STANDARD

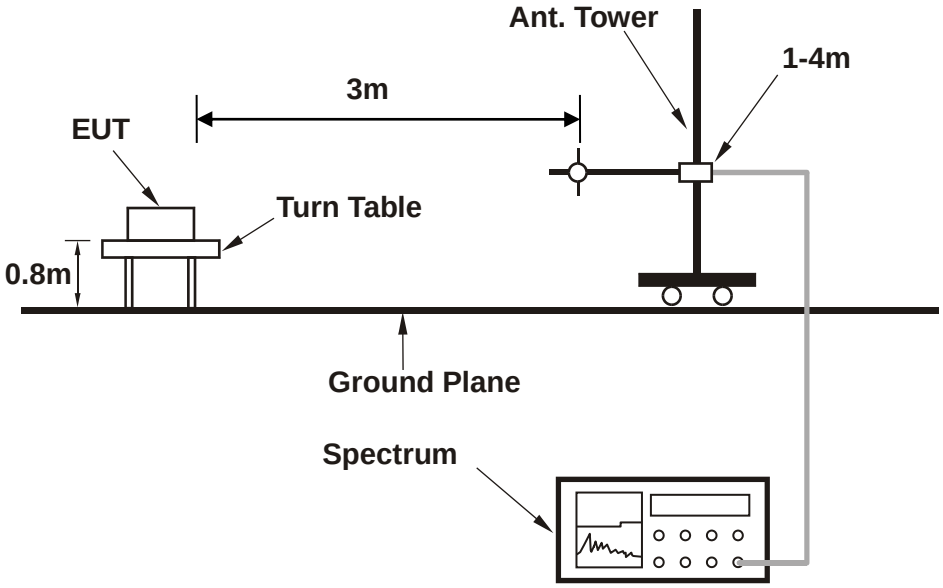
No deviation

3.6.4 TEST SETUP

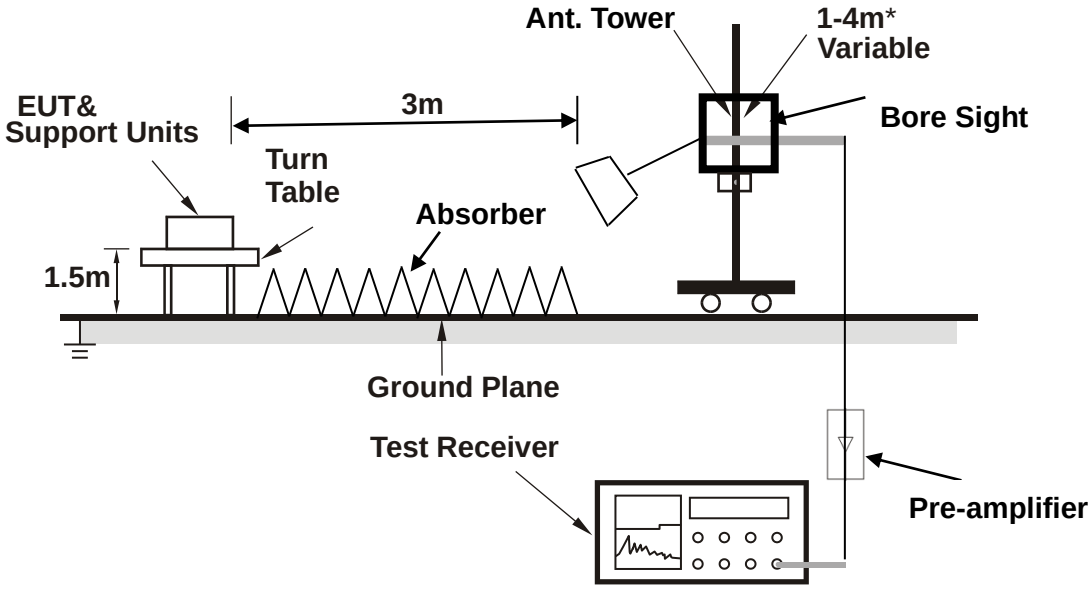
< Frequency Range below 30MHz >



< Frequency Range 30MHz~1GHz >



<Frequency Range above 1GHz>



Note: Above 1G is a directional antenna depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

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