

TEST REPORT



Dt&C Co., Ltd.

42, Yurim-ro, 154Beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea, 17042
Tel : 031-321-2664, Fax : 031-321-1664

1. Report No : DRTFCC2312-0179

2. Customer

- Name (FCC) : LG Electronics USA, Inc. / Name (IC) : LG ELECTRONICS INC.
- Address (FCC) : 111 Sylvan Avenue North Building Englewood Cliffs New Jersey United States 07632
Address (IC) : 222, LG-ro, Jinwi-myeon Pyeongtaek-si, Gyeonggi-do 451-713 Korea (Republic Of)

3. Use of Report : FCC & IC Certification

4. Product Name / Model Name : Telematics(24CY DCM 5G) / TF24IENE
FCC ID : BEJTF24IENE2
IC : 2703H-TF24IENE2

5. FCC Regulation(s): Part 22, 24, 27, 90

IC Standard(s): RSS-Gen Issue 5, 130 Issue 2, 132 Issue 4, 133 Issue 6, 139 Issue 4, 140 Issue 1
Test Method Used : KDB971168 D01v03, ANSI/TIA-603-E-2016, ANSI C63.26-2015

6. Date of Test : 2023.11.10 ~ 2023.12.19



7. Location of Test : Permanent Testing Lab On Site Testing

8. Testing Environment : See appended test report.

9. Test Result : Refer to the attached test result.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.

This test report is not related to KOLAS accreditation.

Affirmation	Tested by	Technical Manager
	Name : SeokHo Han  (Signature)	Name : JaeJin Lee  (Signature)

2023 . 12 . 28 .

Dt&C Co., Ltd.

If this report is required to confirmation of authenticity, please contact to report@dtnc.net

Test Report Version

Test Report No.	Date	Description	Revised by	Reviewed by
DRTFCC2312-0179	Dec. 28, 2023	Initial issue	SeokHo Han	JaeJin Lee

Table of Contents

1. GENERAL INFORMATION	4
2. INTRODUCTION	5
2.1. EUT DESCRIPTION	5
2.2. TESTING ENVIRONMENT	5
2.3. MEASURING INSTRUMENT CALIBRATION.....	5
2.4. MEASUREMENT UNCERTAINTY	5
2.5. TEST FACILITY.....	5
3. DESCRIPTION OF TESTS.....	6
3.1. ERP & EIRP (Effective Radiated Power & Equivalent Isotropic Radiated Power)	6
3.2. UNDESIRABLE EMISSIONS	8
4. LIST OF TEST EQUIPMENT	9
5. SUMMARY OF TEST RESULTS	10
6. SAMPLE CALCULATION	11
7. TEST DATA.....	12
7.1. ERP & EIRP	12
7.1.1. LTE Band 12.....	12
7.1.2. LTE Band 14.....	14
7.1.3. LTE Band 5.....	15
7.1.4. LTE Band 66(4)	17
7.1.5. LTE Band 2.....	19
7.2. UNDESIRABLE EMISSIONS (Radiated).....	21
7.2.1. LTE Band 12.....	21
7.2.2. LTE Band 14.....	22
7.2.3. LTE Band 5.....	23
7.2.4. LTE Band 66(4)	24
7.2.5. LTE Band 2.....	25

1. GENERAL INFORMATION

Equipment Class	PCS Licensed Transmitter (PCB)
Product Name	Telematics(24CY DCM 5G)
Model Name	TF24IENE
Add Model Name	-
PMN(Product Marketing Name)	TF24IENE
FVIN(Firmware Version Identification Number)	N/A
EUT Serial Number	No Specified
Supplying power	DC 12 V

Band	Antenna Gain(dBi)	
	Antenna 1 (Sharkfin Antenna)	Antenna 2 (Pannel Antenna)
B12	-0.9	-3.0
B14	-0.3	-3.4
B5	-0.7	-2.1
B66(4)	0.1	0.5
B2	-0.9	-2.2

Note: The antenna gain was corrected for path loss from the conducted feed point to the antenna terminal.

2. INTRODUCTION

2.1. EUT DESCRIPTION

This device supports the following capabilities:
 Multi-Band LTE, LTE up-link carrier aggregation, 5G NR(FR1) and ENDC
 5G NR supports SCS 15 kHz for FDD Band and SCS 30 kHz for TDD Band.
 This device has 2 antennas and RF switch circuit.

LTE Band	Antenna 1	Antenna 2
B12, B14, B5, B66(4), B2	Support	Support

The device does not support MIMO technology.

2.2. TESTING ENVIRONMENT

Ambient Condition	
▪ Temperature	+21 °C ~ +23 °C
▪ Relative Humidity	42 % ~ 45 %

2.3. MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

2.4. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with requirements of ANSI C 63.4-2014. All measurement uncertainty values are shown with a coverage factor of $k = 2$ to indicate a 95 % level of confidence.

Parameter	Measurement uncertainty
Radiated Disturbance (Below 1 GHz)	4.8 dB (The confidence level is about 95 %, $k = 2$)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.0 dB (The confidence level is about 95 %, $k = 2$)
Radiated Disturbance (Above 18 GHz)	5.2 dB (The confidence level is about 95 %, $k = 2$)

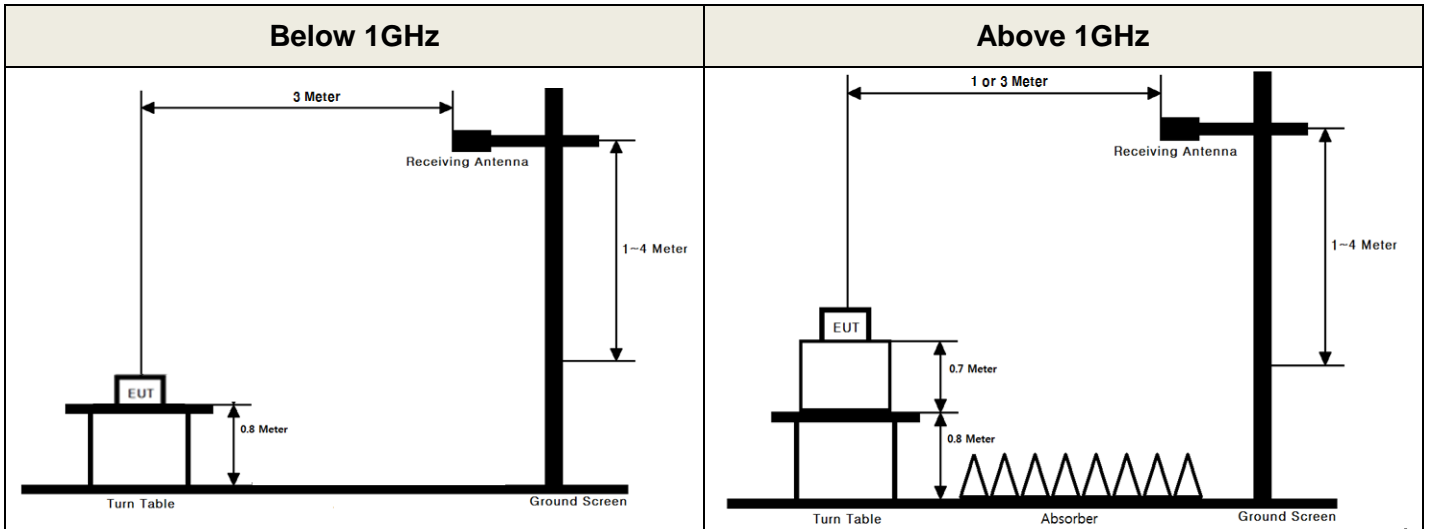
2.5. TEST FACILITY

Dt&C Co., Ltd.		
The 3 m test site and conducted measurement facility used to collect the radiated data are located at the 42, Yurim-ro, 154beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea 17042.		
The test site complies with the requirements of Part 2.948 according to ANSI C63.4-2014.		
- FCC & IC MRA Designation No. : KR0034		
- ISED#: 5740A		
www.dtnet.net		
Telephone	:	+ 82-31-321-2664
FAX	:	+ 82-31-321-1664

3. DESCRIPTION OF TESTS

3.1. ERP & EIRP (Effective Radiated Power & Equivalent Isotropic Radiated Power)

Test Set-up



These measurements were performed at 3 m test site. The equipment under test is placed on a non-conductive table 0.8 or 1.5-meters above a turntable which is flush with the ground plane and 3 meters from the receive antenna. For measurements above 1GHz absorbers are placed on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1 GHz, the absorbers are removed.

Test Procedure

- ANSI/TIA-603-E-2016 - Section 2.2.17
- KDB971168 D01v03 - Section 5.2.2
- ANSI C63.26-2015 – Section 5.2.4.4.1

Test setting

1. Set span to 2 x to 3 x the OBW.
2. Set RBW = 1 % to 5 % of the OBW.
3. Set VBW \geq 3 x RBW.
4. Set number of points in sweep \geq 2 x span / RBW.
5. Sweep time:
 - 1) Set = auto-couple, or
 - 2) Set \geq $[10 \times (\text{number of points in sweep}) \times (\text{transmission period})]$ for single sweep (automation-compatible) measurement. Transmission period is the on and off time of the transmitter.
6. Detector = power averaging (rms).
7. If the EUT can be configured to transmit continuously, then set the trigger to free run.
8. If the EUT cannot be configured to transmit continuously, then use a sweep trigger with the level set to enable triggering only on full power bursts and configure the EUT to transmit at full power for the entire duration of each sweep. Verify that the sweep time is less than or equal to the transmission burst duration. Time gating can also be used under similar constraints (i.e., configured such that measurement data is collected only during active full-power transmissions).
9. Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. To accurately determine the average power over multiple symbols, it can be necessary to increase the number of traces to be averaged above 100 or, if using a manually configured sweep time, increase the sweep time.

10. Compute the power by integrating the spectrum across the OBW of the signal using the instrument's band or channel power measurement function, with the band/channel limits set equal to the OBW band edges. If the instrument does not have a band or channel power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

The receiver antenna height and turntable rotations were adjusted for the highest reading on the receive spectrum analyzer.

A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. The conducted power at the terminal of the substitute antenna is measured.

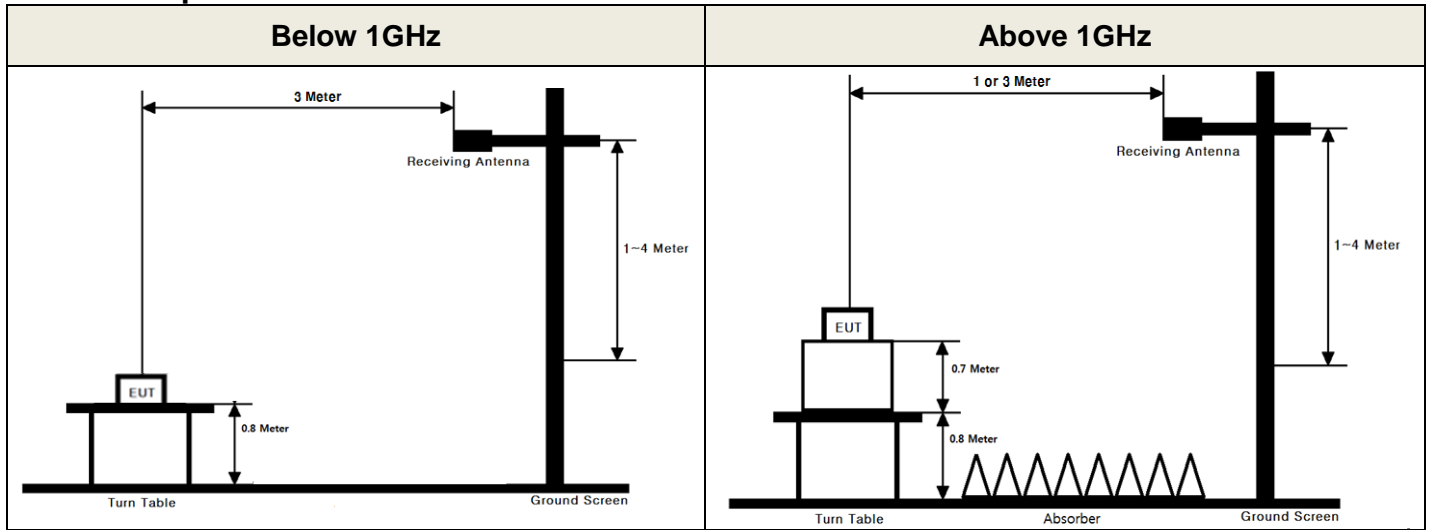
The ERP/EIRP is calculated using the following formula:

ERP/EIRP = The conducted power at the substitute antenna's terminal [dBm] + Substitute Antenna gain [dBd for ERP , dBi for EIRP]

For readings above 1 GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn antenna and an isotropic antenna are taken into consideration.

3.2. UNDESIRABLE EMISSIONS

Test Set-up



These measurements were performed at 3 test site. The equipment under test is placed on a non-conductive table 0.8 or 1.5 meters above a turntable which is flush with the ground plane and 3 meters from the receive antenna. For measurements above 1 GHz absorbers are placed on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1 GHz, the absorbers are removed.

Test Procedure

- ANSI/TIA-603-E-2016 - Section 2.2.12
- KDB971168 D01v03 - Section 5.8
- ANSI C63.26-2015 – Section 5.5

Test setting

1. RBW = 100 kHz for below 1 GHz and 1 MHz for above 1 GHz / VBW \geq 3 X RBW
2. Detector = RMS & Trace mode = Max hold
3. Sweep time = Auto couple
4. Number of sweep point \geq 2 X span / RBW
5. The trace was allowed to stabilize

The receive antenna height and turntable rotations were adjusted for the highest reading on the receive spectrum analyzer. For radiated power measurements below 1 GHz, a half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading.

For radiated power measurements above 1 GHz, a Horn antenna was substituted in place of the EUT. This Horn antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. The difference between the gain of the horn and an isotropic antenna are taken into consideration. This measurement was performed with the EUT oriented in 3 orthogonal axis.

4. LIST OF TEST EQUIPMENT

Type	Manufacturer	Model	Cal.Date (yy/mm/dd)	Next.Cal. Date (yy/mm/dd)	S/N
Spectrum Analyzer	Agilent Technologies	N9020A	22/12/16	23/12/16	MY50110097
			23/12/15	24/12/15	
Multimeter	FLUKE	17B+	22/12/16	23/12/16	36390701WS
			23/12/15	24/12/15	
Radio Communication Analyzer	Anritsu	MT8820C	23/06/23	24/06/23	6200951873
Radio Communication Analyzer	KEYSIGHT	E7515B	23/06/23	24/06/23	MY60192461
Thermohygrometer	BODYCOM	BJ5478	22/12/16	23/12/16	120612-2
			23/12/15	24/12/15	
Signal Generator	Rohde Schwarz	SMBV100A	22/12/16	23/12/16	255571
			23/12/15	24/12/15	
Signal Generator	ANRITSU	MG3695C	22/12/16	23/12/16	173501
			23/12/15	24/12/15	
Hybrid Antenna	Schwarzbeck	VULB 9160	22/12/16	23/12/16	3362
			23/12/15	24/12/15	
Dipole Antenna	Schwarzbeck	UHA9105	22/12/16	23/12/16	2262
			23/12/15	24/12/15	
Horn Antenna	ETS-Lindgren	3117	22/12/16	23/12/16	00140394
			23/12/15	24/12/15	
Horn Antenna	A.H.Systems Inc.	SAS-574	23/06/23	24/06/23	155
PreAmplifier	H.P	8447D	22/12/16	23/12/16	2944A07774
			23/12/15	24/12/15	
PreAmplifier	Agilent	8449B	22/12/16	23/12/16	3008A02108
			23/12/15	24/12/15	
PreAmplifier	tsj	MLA-1840-J02-45	23/06/23	24/06/23	16966-10728
Band Reject Fliter	Wainwright	WTRCTV5-1710-2000-20-60-40SSM	23/06/23	24/06/23	1
High Pass Filter	Wainwright Instruments	WHKX12-935-1000-15000-40SS	23/06/23	24/06/23	7
High Pass Filter	Wainwright Instruments	WHKX10-2838-3300-18000-60SS	23/06/23	24/06/23	2
High Pass Filter	Wainwright Instruments	WHKX6-6320-8000-26500-40CC	23/06/23	24/06/23	2
Cable	HUBER+SUHNER	SUCOFLEX100	23/01/04	24/01/04	M-1
Cable	HUBER+SUHNER	SUCOFLEX100	23/01/04	24/01/04	M-2
Cable	Junkosha	MWX241/B	23/01/04	24/01/04	M-3
Cable	Junkosha	MWX221	23/01/04	24/01/04	M-4
Cable	Junkosha	MWX221	23/01/04	24/01/04	M-5
Cable	JUNFLON	J12J101757-00	23/01/04	24/01/04	M-7
Cable	HUBER+SUHNER	SUCOFLEX104	23/01/04	24/01/04	M-8
Cable	HUBER+SUHNER	SUCOFLEX106	23/01/04	24/01/04	M-9
Cable	Junkosha	MWX315	23/01/04	24/01/04	M-10
Cable	DTNC	Cable	23/01/04	24/01/04	RFC-44
Cable	JUNKOSHA	MWX241	23/01/03	24/01/03	mmW-1
Cable	JUNKOSHA	MWX241	23/01/03	24/01/03	mmW-4

Note1: The measurement antennas were calibrated in accordance to the requirements of ANSI C63.5-2017.

Note2: The cable is not a regular calibration item, so it has been calibrated by Dt&C itself.

5. SUMMARY OF TEST RESULTS

FCC Part Section(s)	RSS Section(s)	Test Description	Test Limit	Test Condition	Status <small>Note 1</small>
27.50(c.9) 90.542(a.6)	RSS-130 [4.6] RSS-140 [4.3]	Radiated Output Power (B12, 14)	For mobile equipment: < 3 Watts max. ERP	Radiated	C
22.913(a.5)	RSS-132 [5.4]	Radiated Output Power (B5)	For mobile equipment: < 7 Watts max. ERP		C
27.50(d.4)	RSS-139 [5.5]	Radiated Output Power (B66, 4)	For mobile equipment: < 1 Watts max. EIRP		C
24.232(c)	RSS-133 [6.4]	Radiated Output Power (B2)	For mobile equipment: < 2 Watts max. EIRP		C
2.1053 22.917(a) 24.238(a) 27.53(g) 27.53(h) 90.543(e)	RSS-130 [4.7] RSS-132 [5.5] RSS-133 [6.5] RSS-139 [5.6] RSS-140 [4.4]	Undesirable Emissions	> 43 + 10log ₁₀ (P) dB for all out-of-band emissions		C
90.543(f)	RSS-140[4.4]	Undesirable Emissions in 1559 ~ 1610 MHz	< -70 dBW/MHz (for wideband signals) < -80 dBW (for discrete emissions of less than 700 Hz bandwidth)		C
Note 1: C =Comply NC =Not Comply NT =Not Tested NA =Not Applicable Note 2: This test item was performed in three orthogonal EUT positions and the worst case data was reported. Note 3: This device uses the certified module.(FCC ID: BEJTM15FNNATY0, IC: 2703H-TM15FNNATY0) Please refer to the module test report for conducted signal test items. The conducted output power was verified to be the same as module. Note 4: All antenna configuration were investigated and worst case data were reported.					

6. SAMPLE CALCULATION

A. Emission Designator

- 1) The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1 GHz respectively above ground.
- 2) The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
- 3) During the test, the turn table is rotated until the maximum signal is found.
- 4) Record the field strength meter's level. (ex. Spectrum reading level is -8.5 dBm)
- 5) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.
- 6) Increase the signal generator output till the field strength meter's level is equal to the item (4).
(ex. Signal generator level is -18.04 dBm)
- 7) The gain of the cable and amplifier between the signal generator and terminals of substituted antenna is 46.92 dB at test frequency.
- 8) Record the level at substituted antenna terminal. (ex. 28.88dBm)
- 9) The result is calculated as below;

$$\text{EIRP(dBm)} = \text{LEVLE@ANTENNA TERMINAL} + \text{TX Antenna Gain (dBi)}$$

$$\text{ERP(dBm)} = \text{LEVLE@ANTENNA TERMINAL} + \text{TX Antenna Gain (dBd)}$$

$$\text{Where, TX Antenna Gain (dBd)} = \text{TX Antenna Gain (dBi)} - 2.15 \text{ dB}$$

7. TEST DATA

7.1. ERP & EIRP

- Test Notes

- 1) This is device was tested under all bandwidths, modulations and RB configurations and the worst case data are reported in the below table.

7.1.1. LTE Band 12

<Test case: ANT 2>

Channel Bandwidth (MHz)	Test Frequency (MHz)	Test Mode	RB Size/ Offset	Ant Pol (H/V)	Level(dBm) @ Ant Terminal	TX Ant Gain (dBd)	ERP (dBm)	ERP (W)
10	704	QPSK	1/49	H	20.12	-1.28	18.84	0.077
		16QAM	1/49	H	19.29	-1.28	18.01	0.063
		64QAM	1/49	H	18.51	-1.28	17.23	0.053
	711	QPSK	1/25	H	20.61	-1.36	19.25	0.084
		16QAM	1/25	H	20.14	-1.36	18.78	0.076
		64QAM	1/25	H	19.16	-1.36	17.80	0.060
5	701.5	QPSK	1/24	H	18.00	-1.26	16.74	0.047
		16QAM	1/24	H	17.32	-1.26	16.06	0.040
		64QAM	1/24	H	16.47	-1.26	15.21	0.033
	707.5	QPSK	1/24	H	20.37	-1.32	19.05	0.080
		16QAM	1/24	H	19.87	-1.32	18.55	0.072
		64QAM	1/24	H	18.82	-1.32	17.50	0.056
	713.5	QPSK	1/12	H	20.73	-1.39	19.34	0.086
		16QAM	1/12	H	20.24	-1.39	18.85	0.077
		64QAM	1/12	H	18.96	-1.39	17.57	0.057
3	700.5	QPSK	1/14	H	18.65	-1.25	17.40	0.055
		16QAM	1/14	H	18.00	-1.25	16.75	0.047
		64QAM	1/14	H	16.89	-1.25	15.64	0.037
	707.5	QPSK	1/14	H	20.31	-1.32	18.99	0.079
		16QAM	1/14	H	19.73	-1.32	18.41	0.069
		64QAM	1/14	H	18.66	-1.32	17.34	0.054
	714.5	QPSK	1/0	H	20.99	-1.40	19.59	0.091
		16QAM	1/0	H	20.33	-1.40	18.93	0.078
		64QAM	1/0	H	19.25	-1.40	17.85	0.061
1.4	699.7	QPSK	1/5	H	18.22	-1.24	16.98	0.050
		16QAM	1/5	H	17.66	-1.24	16.42	0.044
		64QAM	1/5	H	16.56	-1.24	15.32	0.034
	707.5	QPSK	1/5	H	20.02	-1.32	18.70	0.074
		16QAM	1/5	H	19.27	-1.32	17.95	0.062
		64QAM	1/5	H	18.24	-1.32	16.92	0.049
	715.3	QPSK	1/0	H	20.57	-1.41	19.16	0.082
		16QAM	1/0	H	19.74	-1.41	18.33	0.068
		64QAM	1/0	H	18.80	-1.41	17.39	0.055

<Test case: ANT 1>

Channel Bandwidth (MHz)	Test Frequency (MHz)	Test Mode	RB Size/ Offset	Ant Pol (H/V)	Level(dBm) @ Ant Terminal	TX Ant Gain (dBd)	ERP (dBm)	ERP (W)
10	704	QPSK	1/0	V	15.56	-1.28	14.28	0.027
		16QAM	1/0	V	14.80	-1.28	13.52	0.022
		64QAM	1/0	V	13.72	-1.28	12.44	0.018
	711	QPSK	1/49	V	16.42	-1.36	15.06	0.032
		16QAM	1/49	V	15.91	-1.36	14.55	0.029
		64QAM	1/49	V	14.81	-1.36	13.45	0.022

7.1.2 LTE Band 14
<Test case: ANT 2>

Channel Bandwidth (MHz)	Test Frequency (MHz)	Test Mode	RB Size/ Offset	Ant Pol (H/V)	Level(dBm) @ Ant Terminal	TX Ant Gain (dBd)	ERP (dBm)	ERP (W)
10	793	QPSK	1/0	H	19.52	-1.40	18.12	0.065
		16QAM	1/0	H	18.67	-1.40	17.27	0.053
		64QAM	1/0	H	17.73	-1.40	16.33	0.043
5	790.5	QPSK	1/0	H	19.43	-1.40	18.03	0.064
		16QAM	1/0	H	18.91	-1.40	17.51	0.056
		64QAM	1/0	H	17.71	-1.40	16.31	0.043
	795.5	QPSK	1/0	H	19.19	-1.40	17.79	0.060
		16QAM	1/0	H	18.60	-1.40	17.20	0.052
		64QAM	1/0	H	17.40	-1.40	16.00	0.040

<Test case: ANT 1>

Channel Bandwidth (MHz)	Test Frequency (MHz)	Test Mode	RB Size/ Offset	Ant Pol (H/V)	Level(dBm) @ Ant Terminal	TX Ant Gain (dBd)	ERP (dBm)	ERP (W)
10	793	QPSK	1/25	V	15.84	-1.40	14.44	0.028
		16QAM	1/25	V	15.25	-1.40	13.85	0.024
		64QAM	1/25	V	14.06	-1.40	12.66	0.018

7.1.3. LTE Band 5
<Test case: ANT 2>

Channel Bandwidth (MHz)	Test Frequency (MHz)	Test Mode	RB Size/ Offset	Ant Pol (H/V)	Level(dBm) @ Ant Terminal	TX Ant Gain (dBd)	ERP (dBm)	ERP (W)
10	829	QPSK	1/25	H	20.14	-1.43	18.71	0.074
		16QAM	1/25	H	19.48	-1.43	18.05	0.064
		64QAM	1/25	H	18.45	-1.43	17.02	0.050
	836.5	QPSK	1/0	H	20.43	-1.44	18.99	0.079
		16QAM	1/0	H	19.73	-1.44	18.29	0.067
		64QAM	1/0	H	18.43	-1.44	16.99	0.050
	844	QPSK	1/0	H	19.28	-1.45	17.83	0.061
		16QAM	1/0	H	18.53	-1.45	17.08	0.051
		64QAM	1/0	H	17.49	-1.45	16.04	0.040
5	826.5	QPSK	1/24	H	19.69	-1.43	18.26	0.067
		16QAM	1/24	H	19.04	-1.43	17.61	0.058
		64QAM	1/24	H	17.81	-1.43	16.38	0.043
	836.5	QPSK	1/0	H	19.62	-1.44	18.18	0.066
		16QAM	1/0	H	19.18	-1.44	17.74	0.059
		64QAM	1/0	H	17.81	-1.44	16.37	0.043
	846.5	QPSK	1/0	H	17.55	-1.46	16.09	0.041
		16QAM	1/0	H	16.72	-1.46	15.26	0.034
		64QAM	1/0	H	15.33	-1.46	13.87	0.024
3	825.5	QPSK	1/14	H	19.68	-1.43	18.25	0.067
		16QAM	1/14	H	19.25	-1.43	17.82	0.061
		64QAM	1/14	H	17.91	-1.43	16.48	0.044
	836.5	QPSK	1/0	H	19.86	-1.44	18.42	0.070
		16QAM	1/0	H	19.11	-1.44	17.67	0.058
		64QAM	1/0	H	17.96	-1.44	16.52	0.045
	847.5	QPSK	1/0	H	17.89	-1.46	16.43	0.044
		16QAM	1/0	H	17.18	-1.46	15.72	0.037
		64QAM	1/0	H	16.14	-1.46	14.68	0.029
1.4	824.7	QPSK	1/5	H	18.87	-1.43	17.44	0.055
		16QAM	1/5	H	18.14	-1.43	16.71	0.047
		64QAM	1/5	H	16.75	-1.43	15.32	0.034
	836.5	QPSK	1/0	H	19.06	-1.44	17.62	0.058
		16QAM	1/0	H	18.57	-1.44	17.13	0.052
		64QAM	1/0	H	17.55	-1.44	16.11	0.041
	848.3	QPSK	1/2	H	16.62	-1.46	15.16	0.033
		16QAM	1/2	H	15.77	-1.46	14.31	0.027
		64QAM	1/2	H	14.95	-1.46	13.49	0.022

<Test case: ANT 1>

Channel Bandwidth (MHz)	Test Frequency (MHz)	Test Mode	RB Size/ Offset	Ant Pol (H/V)	Level(dBm) @ Ant Terminal	TX Ant Gain (dBd)	ERP (dBm)	ERP (W)
10	829	QPSK	1/25	V	18.23	-1.43	16.80	0.048
		16QAM	1/25	V	17.58	-1.43	16.15	0.041
		64QAM	1/25	V	16.25	-1.43	14.82	0.030
	836.5	QPSK	1/0	V	19.09	-1.44	17.65	0.058
		16QAM	1/0	V	18.17	-1.44	16.73	0.047
		64QAM	1/0	V	17.08	-1.44	15.64	0.037
	844	QPSK	1/0	V	19.00	-1.45	17.55	0.057
		16QAM	1/0	V	18.29	-1.45	16.84	0.048
		64QAM	1/0	V	17.21	-1.45	15.76	0.038

7.1.4. LTE Band 66(4)
<Test case: ANT 2>

Channel Bandwidth (MHz)	Test Frequency (MHz)	Test Mode	RB Size/ Offset	Ant Pol (H/V)	Level(dBm) @ Ant Terminal	TX Ant Gain (dBi)	EIRP (dBm)	EIRP (W)
20	1 720	QPSK	1/50	H	19.57	5.86	25.43	0.349
		16QAM	1/50	H	18.81	5.86	24.67	0.293
		64QAM	1/50	H	17.64	5.86	23.50	0.224
	1 745	QPSK	1/0	H	19.90	5.60	25.50	0.355
		16QAM	1/0	H	19.24	5.60	24.84	0.305
		64QAM	1/0	H	18.30	5.60	23.90	0.245
	1 770	QPSK	1/0	H	19.72	5.29	25.01	0.317
		16QAM	1/0	H	19.24	5.29	24.53	0.284
		64QAM	1/0	H	18.17	5.29	23.46	0.222
15	1 717.5	QPSK	1/37	H	19.31	5.89	25.20	0.331
		16QAM	1/37	H	18.68	5.89	24.57	0.286
		64QAM	1/37	H	17.36	5.89	23.25	0.211
	1 745	QPSK	1/0	H	19.49	5.60	25.09	0.323
		16QAM	1/0	H	18.77	5.60	24.37	0.274
		64QAM	1/0	H	17.85	5.60	23.45	0.221
	1 772.5	QPSK	1/0	H	19.45	5.26	24.71	0.296
		16QAM	1/0	H	18.82	5.26	24.08	0.256
		64QAM	1/0	H	17.79	5.26	23.05	0.202
10	1 715	QPSK	1/49	H	19.01	5.91	24.92	0.310
		16QAM	1/49	H	18.53	5.91	24.44	0.278
		64QAM	1/49	H	17.58	5.91	23.49	0.223
	1 745	QPSK	1/0	H	19.27	5.60	24.87	0.307
		16QAM	1/0	H	18.52	5.60	24.12	0.258
		64QAM	1/0	H	17.42	5.60	23.02	0.200
	1 775	QPSK	1/0	H	18.61	5.23	23.84	0.242
		16QAM	1/0	H	18.01	5.23	23.24	0.211
		64QAM	1/0	H	16.94	5.23	22.17	0.165
5	1 712.5	QPSK	1/24	H	18.99	5.94	24.93	0.311
		16QAM	1/24	H	18.45	5.94	24.39	0.275
		64QAM	1/24	H	17.24	5.94	23.18	0.208
	1 745	QPSK	1/0	H	18.69	5.60	24.29	0.269
		16QAM	1/0	H	18.21	5.60	23.81	0.240
		64QAM	1/0	H	16.95	5.60	22.55	0.180
	1 777.5	QPSK	1/12	H	19.04	5.20	24.24	0.265
		16QAM	1/12	H	18.59	5.20	23.79	0.239
		64QAM	1/12	H	17.28	5.20	22.48	0.177

Channel Bandwidth (MHz)	Test Frequency (MHz)	Test Mode	RB Size/ Offset	Ant Pol (H/V)	Level(dBm) @ Ant Terminal	TX Ant Gain (dBi)	EIRP (dBm)	EIRP (W)
3	1 711.5	QPSK	1/0	H	18.46	5.95	24.41	0.276
		16QAM	1/0	H	17.91	5.95	23.86	0.243
		64QAM	1/0	H	16.75	5.95	22.70	0.186
	1 745	QPSK	1/0	H	18.74	5.60	24.34	0.272
		16QAM	1/0	H	18.12	5.60	23.72	0.236
		64QAM	1/0	H	16.93	5.60	22.53	0.179
	1 778.5	QPSK	1/0	H	19.32	5.19	24.51	0.282
		16QAM	1/0	H	18.57	5.19	23.76	0.238
		64QAM	1/0	H	17.68	5.19	22.87	0.194
1.4	1 710.7	QPSK	1/2	H	18.53	5.95	24.48	0.281
		16QAM	1/2	H	17.84	5.95	23.79	0.239
		64QAM	1/2	H	16.78	5.95	22.73	0.187
	1 745	QPSK	1/0	H	18.37	5.60	23.97	0.249
		16QAM	1/0	H	17.83	5.60	23.43	0.220
		64QAM	1/0	H	16.60	5.60	22.20	0.166
	1 779.3	QPSK	1/5	H	19.38	5.18	24.56	0.286
		16QAM	1/5	H	18.67	5.18	23.85	0.243
		64QAM	1/5	H	17.69	5.18	22.87	0.194

<Test case: ANT 1>

Channel Bandwidth (MHz)	Test Frequency (MHz)	Test Mode	RB Size/ Offset	Ant Pol (H/V)	Level(dBm) @ Ant Terminal	TX Ant Gain (dBi)	EIRP (dBm)	EIRP (W)
20	1 720	QPSK	1/0	V	13.84	5.86	19.70	0.093
		16QAM	1/0	V	13.13	5.86	18.99	0.079
		64QAM	1/0	V	11.91	5.86	17.77	0.060
	1 745	QPSK	1/0	V	15.43	5.60	21.03	0.127
		16QAM	1/0	V	15.04	5.60	20.64	0.116
		64QAM	1/0	V	13.72	5.60	19.32	0.086
	1 770	QPSK	1/0	V	16.66	5.29	21.95	0.157
		16QAM	1/0	V	16.04	5.29	21.33	0.136
		64QAM	1/0	V	15.12	5.29	20.41	0.110

7.1.5. LTE Band 2
<Test case: ANT 2>

Channel Bandwidth (MHz)	Test Frequency (MHz)	Test Mode	RB Size/ Offset	Ant Pol (H/V)	Level(dBm) @ Ant Terminal	TX Ant Gain (dBi)	EIRP (dBm)	EIRP (W)
20	1 860	QPSK	1/50	H	19.83	4.31	24.14	0.259
		16QAM	1/50	H	19.35	4.31	23.66	0.232
		64QAM	1/50	H	18.39	4.31	22.70	0.186
	1 880	QPSK	1/0	H	18.55	4.26	22.81	0.191
		16QAM	1/0	H	18.24	4.26	22.50	0.178
		64QAM	1/0	H	17.12	4.26	21.38	0.137
	1 900	QPSK	1/50	H	18.82	4.20	23.02	0.200
		16QAM	1/50	H	17.80	4.20	22.00	0.158
		64QAM	1/50	H	16.97	4.20	21.17	0.131
15	1 857.5	QPSK	1/37	H	19.68	4.32	24.00	0.251
		16QAM	1/37	H	19.21	4.32	23.53	0.225
		64QAM	1/37	H	18.08	4.32	22.40	0.174
	1 880	QPSK	1/0	H	18.28	4.26	22.54	0.179
		16QAM	1/0	H	17.91	4.26	22.17	0.165
		64QAM	1/0	H	16.81	4.26	21.07	0.128
	1 902.5	QPSK	1/37	H	18.65	4.21	22.86	0.193
		16QAM	1/37	H	17.93	4.21	22.14	0.164
		64QAM	1/37	H	16.97	4.21	21.18	0.131
10	1 855	QPSK	1/49	H	19.63	4.33	23.96	0.249
		16QAM	1/49	H	19.20	4.33	23.53	0.225
		64QAM	1/49	H	18.09	4.33	22.42	0.175
	1 880	QPSK	1/0	H	18.25	4.26	22.51	0.178
		16QAM	1/0	H	17.47	4.26	21.73	0.149
		64QAM	1/0	H	16.28	4.26	20.54	0.113
	1 905	QPSK	1/0	H	18.79	4.22	23.01	0.200
		16QAM	1/0	H	17.94	4.22	22.16	0.164
		64QAM	1/0	H	16.89	4.22	21.11	0.129
5	1 852.5	QPSK	1/24	H	19.36	4.33	23.69	0.234
		16QAM	1/24	H	18.90	4.33	23.23	0.210
		64QAM	1/24	H	17.59	4.33	21.92	0.156
	1 880	QPSK	1/0	H	17.23	4.26	21.49	0.141
		16QAM	1/0	H	16.65	4.26	20.91	0.123
		64QAM	1/0	H	15.65	4.26	19.91	0.098
	1 907.5	QPSK	1/12	H	18.72	4.23	22.95	0.197
		16QAM	1/12	H	18.03	4.23	22.26	0.168
		64QAM	1/12	H	17.25	4.23	21.48	0.141

Channel Bandwidth (MHz)	Test Frequency (MHz)	Test Mode	RB Size/ Offset	Ant Pol (H/V)	Level(dBm) @ Ant Terminal	TX Ant Gain (dBi)	EIRP (dBm)	EIRP (W)
3	1 851.5	QPSK	1/14	H	19.11	4.34	23.45	0.221
		16QAM	1/14	H	18.44	4.34	22.78	0.190
		64QAM	1/14	H	17.56	4.34	21.90	0.155
	1 880	QPSK	1/0	H	17.42	4.26	21.68	0.147
		16QAM	1/0	H	16.82	4.26	21.08	0.128
		64QAM	1/0	H	15.80	4.26	20.06	0.101
	1 908.5	QPSK	1/0	H	18.41	4.23	22.64	0.184
		16QAM	1/0	H	17.69	4.23	21.92	0.156
		64QAM	1/0	H	16.74	4.23	20.97	0.125
1.4	1 850.7	QPSK	1/5	H	18.78	4.34	23.12	0.205
		16QAM	1/5	H	18.06	4.34	22.40	0.174
		64QAM	1/5	H	17.18	4.34	21.52	0.142
	1 880	QPSK	1/0	H	17.32	4.26	21.58	0.144
		16QAM	1/0	H	16.80	4.26	21.06	0.128
		64QAM	1/0	H	15.72	4.26	19.98	0.100
	1 909.3	QPSK	1/2	H	18.75	4.24	22.99	0.199
		16QAM	1/2	H	18.11	4.24	22.35	0.172
		64QAM	1/2	H	16.97	4.24	21.21	0.132

<Test case: ANT 1>

Channel Bandwidth (MHz)	Test Frequency (MHz)	Test Mode	RB Size/ Offset	Ant Pol (H/V)	Level(dBm) @ Ant Terminal	TX Ant Gain (dBi)	EIRP (dBm)	EIRP (W)
20	1 860	QPSK	1/0	V	16.84	4.31	21.15	0.130
		16QAM	1/0	V	16.09	4.31	20.40	0.110
		64QAM	1/0	V	15.01	4.31	19.32	0.086
	1 880	QPSK	1/0	V	17.60	4.26	21.86	0.153
		16QAM	1/0	V	16.79	4.26	21.05	0.127
		64QAM	1/0	V	15.79	4.26	20.05	0.101
	1 900	QPSK	1/0	V	16.04	4.20	20.24	0.106
		16QAM	1/0	V	15.62	4.20	19.82	0.096
		64QAM	1/0	V	14.24	4.20	18.44	0.070

7.2. UNDESIRABLE EMISSIONS (Radiated)

- Test Notes

- 1) This device was tested under all bandwidths, modulations and RB configurations and the worst case data are reported.
- 2) The frequency spectrum is examined from 9 kHz to the 10th harmonic of the fundamental frequency of the transmitter.
No other spurious and harmonic emissions were reported greater than listed emissions.
- 3) Limit for Band 2/66(4)/12/14/5 = -13dBm
Limit for 1 559 MHz ~ 1 610 MHz in Band 14 = -40 dBm/MHz
(equivalent isotropically radiated power for wideband signals)

7.2.1. LTE Band 12

<Test case: ANT 2>

Channel Bandwidth (MHz)	Test Freq. (MHz)	RB Size/ Offset	Test Mode	Freq.(MHz)	Ant Pol (H/V)	Level at Antenna Terminal(dBm)	Substitute Antenna Gain(dBd)	Result (dBm)	Limit (dBm)	Margin (dB)
10	704	1/49	QPSK	1 418.23	H	-69.74	3.19	-66.55	-13.00	53.55
			16QAM	1 418.05	H	-69.75	3.19	-66.56	-13.00	53.56
			64QAM	1 417.80	H	-69.63	3.19	-66.44	-13.00	53.44
	711	1/25	QPSK	1 422.17	H	-69.61	3.22	-66.39	-13.00	53.39
			16QAM	1 422.13	H	-69.63	3.22	-66.41	-13.00	53.41
			64QAM	1 422.22	H	-69.78	3.22	-66.56	-13.00	53.56

<Test case: ANT 1>

Channel Bandwidth (MHz)	Test Freq. (MHz)	RB Size/ Offset	Test Mode	Freq.(MHz)	Ant Pol (H/V)	Level at Antenna Terminal(dBm)	Substitute Antenna Gain(dBd)	Result (dBm)	Limit (dBm)	Margin (dB)
10	704	1/49	QPSK	1 418.30	H	-69.59	3.20	-66.39	-13.00	53.39
			16QAM	1 418.19	H	-69.72	3.19	-66.53	-13.00	53.53
			64QAM	1 418.18	H	-69.50	3.19	-66.31	-13.00	53.31
	711	1/25	QPSK	1 422.12	H	-69.37	3.22	-66.15	-13.00	53.15
			16QAM	1 422.33	H	-69.40	3.23	-66.17	-13.00	53.17
			64QAM	1 421.84	H	-69.45	3.22	-66.23	-13.00	53.23

7.2.2 LTE Band 14

<Test case: ANT 2>

Channel Bandwidth (MHz)	Test Freq. (MHz)	RB Size/ Offset	Test Mode	Freq.(MHz)	Ant Pol (H/V)	Level at Antenna Terminal(dBm)	Substitute Antenna Gain(dBi)	Result (dBm)	Limit (dBm)	Margin (dB)
10	793	1/0	QPSK	1577.41	H	-70.41	6.05	-64.36	-40.00	24.36
			16QAM	1577.16	H	-70.41	6.05	-64.36	-40.00	24.36
			64QAM	1577.18	H	-70.36	6.05	-64.31	-40.00	24.31
5	795.5	1/0	QPSK	1586.77	H	-69.46	6.11	-63.35	-40.00	23.35
			16QAM	1586.75	H	-69.42	6.11	-63.31	-40.00	23.31
			64QAM	1586.86	H	-69.99	6.12	-63.87	-40.00	23.87

<Test case: ANT 1>

Channel Bandwidth (MHz)	Test Freq. (MHz)	RB Size/ Offset	Test Mode	Freq.(MHz)	Ant Pol (H/V)	Level at Antenna Terminal(dBm)	Substitute Antenna Gain(dBi)	Result (dBm)	Limit (dBm)	Margin (dB)
10	793	1/0	QPSK	1577.21	H	-70.14	6.05	-64.09	-40.00	24.09
			16QAM	1577.12	H	-69.99	6.05	-63.94	-40.00	23.94
			64QAM	1577.39	H	-70.37	6.05	-64.32	-40.00	24.32

7.2.3 LTE Band 5

<Test case: ANT 2>

Channel Bandwidth (MHz)	Test Freq. (MHz)	RB Size/ Offset	Test Mode	Freq.(MHz)	Ant Pol (H/V)	Level at Antenna Terminal(dBm)	Substitute Antenna Gain(dBd)	Result (dBm)	Limit (dBm)	Margin (dB)
10	829	1/25	QPSK	1 656.19	H	-69.58	4.07	-65.51	-13.00	52.51
			16QAM	1 656.25	H	-69.67	4.07	-65.60	-13.00	52.60
			64QAM	1 656.20	H	-69.59	4.07	-65.52	-13.00	52.52
	836.5	1/0	QPSK	1 664.44	H	-69.48	4.04	-65.44	-13.00	52.44
			16QAM	1 664.44	H	-69.55	4.04	-65.51	-13.00	52.51
			64QAM	1 664.55	H	-69.44	4.04	-65.40	-13.00	52.40
	844	1/0	QPSK	1 679.42	H	-69.66	3.98	-65.68	-13.00	52.68
			16QAM	1 679.62	H	-69.58	3.98	-65.60	-13.00	52.60
			64QAM	1 679.50	H	-69.83	3.98	-65.85	-13.00	52.85

<Test case: ANT 1>

Channel Bandwidth (MHz)	Test Freq. (MHz)	RB Size/ Offset	Test Mode	Freq.(MHz)	Ant Pol (H/V)	Level at Antenna Terminal(dBm)	Substitute Antenna Gain(dBd)	Result (dBm)	Limit (dBm)	Margin (dB)
10	829	1/25	QPSK	1 656.70	H	-69.31	4.07	-65.24	-13.00	52.24
			16QAM	1 656.46	H	-69.37	4.07	-65.30	-13.00	52.30
			64QAM	1 656.76	H	-69.38	4.07	-65.31	-13.00	52.31
	836.5	1/0	QPSK	1 663.98	H	-69.34	4.04	-65.30	-13.00	52.30
			16QAM	1 664.29	H	-69.26	4.04	-65.22	-13.00	52.22
			64QAM	1 664.36	H	-69.35	4.04	-65.31	-13.00	52.31
	844	1/0	QPSK	1 679.14	H	-69.07	3.99	-65.08	-13.00	52.08
			16QAM	1 679.22	H	-69.28	3.98	-65.30	-13.00	52.30
			64QAM	1 679.04	H	-69.41	3.99	-65.42	-13.00	52.42

7.2.4. LTE Band 66(4)
<Test case: ANT 2>

Channel Bandwidth (MHz)	Test Freq. (MHz)	RB Size/ Offset	Test Mode	Freq.(MHz)	Ant Pol (H/V)	Level at Antenna Terminal(dBm)	Substitute Antenna Gain(dBi)	Result (dBm)	Limit (dBm)	Margin (dB)
20	1 720	1/50	QPSK	3 440.16	H	-64.17	8.23	-55.94	-13.00	42.94
			16QAM	3 440.06	H	-64.08	8.23	-55.85	-13.00	42.85
			64QAM	3 440.21	H	-64.50	8.23	-56.27	-13.00	43.27
	1 745	1/0	QPSK	3 472.13	H	-66.59	8.36	-58.23	-13.00	45.23
			16QAM	3 472.15	H	-66.36	8.36	-58.00	-13.00	45.00
			64QAM	3 472.18	H	-66.26	8.36	-57.90	-13.00	44.90
	1 770	1/0	QPSK	3 522.19	H	-62.89	8.47	-54.42	-13.00	41.42
			16QAM	3 522.13	H	-63.21	8.47	-54.74	-13.00	41.74
			64QAM	3 522.11	H	-63.80	8.47	-55.33	-13.00	42.33

<Test case: ANT 1>

Channel Bandwidth (MHz)	Test Freq. (MHz)	RB Size/ Offset	Test Mode	Freq.(MHz)	Ant Pol (H/V)	Level at Antenna Terminal(dBm)	Substitute Antenna Gain(dBi)	Result (dBm)	Limit (dBm)	Margin (dB)
20	1 720	1/50	QPSK	3 440.30	H	-64.21	8.24	-55.97	-13.00	42.97
			16QAM	3 440.04	H	-64.51	8.23	-56.28	-13.00	43.28
			64QAM	3 440.24	H	-64.50	8.23	-56.27	-13.00	43.27
	1 745	1/0	QPSK	3 472.13	H	-65.56	8.36	-57.20	-13.00	44.20
			16QAM	3 472.14	H	-65.48	8.36	-57.12	-13.00	44.12
			64QAM	3 472.25	H	-65.47	8.36	-57.11	-13.00	44.11
	1 770	1/0	QPSK	3 522.10	H	-62.66	8.47	-54.19	-13.00	41.19
			16QAM	3 522.15	H	-62.81	8.47	-54.34	-13.00	41.34
			64QAM	3 522.16	H	-63.54	8.47	-55.07	-13.00	42.07

7.2.5. LTE Band 2
<Test case: ANT 2>

Channel Bandwidth (MHz)	Test Freq. (MHz)	RB Size/ Offset	Test Mode	Freq.(MHz)	Ant Pol (H/V)	Level at Antenna Terminal(dBm)	Substitute Antenna Gain(dBi)	Result (dBm)	Limit (dBm)	Margin (dB)
20	1 860	1/50	QPSK	3 720.28	H	-64.24	8.32	-55.92	-13.00	42.92
			16QAM	3 720.21	H	-64.49	8.32	-56.17	-13.00	43.17
			64QAM	3 720.16	H	-64.99	8.32	-56.67	-13.00	43.67
	1 880	1/0	QPSK	3 742.30	H	-65.96	8.29	-57.67	-13.00	44.67
			16QAM	3 742.07	H	-66.01	8.29	-57.72	-13.00	44.72
			64QAM	3 742.14	H	-66.17	8.29	-57.88	-13.00	44.88
	1 900	1/50	QPSK	3 800.20	H	-65.80	8.48	-57.32	-13.00	44.32
			16QAM	3 800.24	H	-65.77	8.48	-57.29	-13.00	44.29
			64QAM	3 800.30	H	-66.03	8.48	-57.55	-13.00	44.55

<Test case: ANT 1>

Channel Bandwidth (MHz)	Test Freq. (MHz)	RB Size/ Offset	Test Mode	Freq.(MHz)	Ant Pol (H/V)	Level at Antenna Terminal(dBm)	Substitute Antenna Gain(dBi)	Result (dBm)	Limit (dBm)	Margin (dB)
20	1 860	1/50	QPSK	3 720.20	H	-64.86	8.32	-56.54	-13.00	43.54
			16QAM	3 720.13	H	-65.09	8.32	-56.77	-13.00	43.77
			64QAM	3 720.16	H	-65.52	8.32	-57.20	-13.00	44.20
	1 880	1/0	QPSK	3 742.21	H	-65.39	8.29	-57.10	-13.00	44.10
			16QAM	3 742.34	H	-65.59	8.29	-57.30	-13.00	44.30
			64QAM	3 742.09	H	-65.59	8.29	-57.30	-13.00	44.30
	1 900	1/0	QPSK	3 800.21	H	-65.42	8.48	-56.94	-13.00	43.94
			16QAM	3 800.24	H	-65.59	8.48	-57.11	-13.00	44.11
			64QAM	3 800.09	H	-65.90	8.48	-57.42	-13.00	44.42

Inter Band CA(PCC: 2A, SCC: 5A)

Band	Channel Bandwidth (MHz)	Test Freq. (MHz)	RB Size/Offset	Test Mode
2	20	1 860	1/50	QPSK
5	10	836.5	1/0	QPSK

Freq.(MHz)	Ant Pol (H/V)	Level at Antenna Terminal (dBm)	Substitute Antenna Gain(dBd)	Substitute Antenna Gain(dBi)	Result (dBm)	Limit (dBm)	Margin (dB)
1 664.33	H	-69.29	4.04	-	-65.25	-13.00	52.25
3 720.27	H	-66.05	-	8.32	-57.73	-13.00	44.73
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

Inter Band CA(PCC: 2A, SCC: 12A)

Band	Channel Bandwidth (MHz)	Test Freq. (MHz)	RB Size/Offset	Test Mode
2	20	1 860	1/50	QPSK
12	5	713.5	1/12	QPSK

Freq.(MHz)	Ant Pol (H/V)	Level at Antenna Terminal (dBm)	Substitute Antenna Gain(dBd)	Substitute Antenna Gain(dBi)	Result (dBm)	Limit (dBm)	Margin (dB)
1 428.95	H	-70.48	3.27	-	-67.21	-13.00	54.21
3 720.20	H	-66.18	-	8.32	-57.86	-13.00	44.86
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

Inter Band CA(PCC: 5A, SCC: 66A)

Band	Channel Bandwidth (MHz)	Test Freq. (MHz)	RB Size/Offset	Test Mode
5	10	836.5	1/0	QPSK
66	20	1 745	1/0	QPSK

Freq.(MHz)	Ant Pol (H/V)	Level at Antenna Terminal (dBm)	Substitute Antenna Gain(dBd)	Substitute Antenna Gain(dBi)	Result (dBm)	Limit (dBm)	Margin (dB)
1 663.95	H	-69.94	4.04	-	-65.90	-13.00	52.90
3 472.19	H	-66.11	-	8.36	-57.75	-13.00	44.75
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

Inter Band CA(PCC: 12A, SCC: 66A)

Band	Channel Bandwidth (MHz)	Test Freq. (MHz)	RB Size/ Offset	Test Mode
12	5	713.5	1/12	QPSK
66	20	1 745	1/0	QPSK

Freq.(MHz)	Ant Pol (H/V)	Level at Antenna Terminal (dBm)	Substitute Antenna Gain(dBd)	Substitute Antenna Gain(dBi)	Result (dBm)	Limit (dBm)	Margin (dB)
1 427.27	H	-70.36	3.26	-	-67.10	-13.00	54.10
3 472.14	H	-65.78	-	8.36	-57.42	-13.00	44.42
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-