

RADIO TEST REPORT-LTE

47 CFR FCC Part 2&22&24&27&90

Client Information:

Applicant: Hyperconnect Lab Inc.

Applicant add.: 1259 El Camino Real #222 Menlo Park, CA 94025

Product Information:

Product Name: Pebble Tracker

Model No.: CS-PEBBLETRKR-01

Serial Model: N/A

Brand Name: Pebble

Report No.: AIT21091002W3

FCC ID: 2A25ICS-PEBBLETRKR

Prepared By:

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Date of Receipt: Sep. 10, 2021

Date of Test: Sep. 12, 2021~ Sep. 26, 2021

Date of Issue: Sep. 29, 2021

Test Result: Pass

This device described above has been tested by Dongguan Yaxu (AiT) Technology Limited and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Reviewed by: 
Simba Huang

Approved by: 
Seal.chen

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1. SUMMARY OF TEST

1.1 TEST FACILITY

The test facility is recognized, certified or accredited by the following organizations:

CNAS- Registration No: L6177

Dongguan Yaxu (AiT) technology Limited is accredited to ISO/IEC 17025:2017 general Requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation Criteria for the competence of testing and calibration laboratories) on Aug.04, 2020

FCC-Registration No.: 703111 Designation Number: CN1313

Dongguan Yaxu (AiT) technology Limited has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

IC —Registration No.: 6819A CAB identifier: CN0122

The 3m Semi-anechoic chamber of Dongguan Yaxu (AiT) technology Limited has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 6819A

A2LA-Lab Cert. No.: 6317.01

Dongguan Yaxu (AiT) technology Limited has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 1.20\text{dB}$
2	RF power,conducted	$\pm 0.16\text{dB}$
3	Spurious emissions,conducted	$\pm 0.21\text{dB}$
4	All emissions,radiated(<1G)	$\pm 3.75\text{dB}$
5	All emissions,radiated(>1G)	$\pm 3.88\text{dB}$
6	Temperature	$\pm 0.5^{\circ}\text{C}$
7	Humidity	$\pm 2\%$

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Manufacturer:	SHENZHEN CCFROM CO.,LIMITED
Manufacturer Address:	10/F.ChuangzhanCenter(ANHUIBuilding)Futian,shenzhen,China
Equipment :	Pebble Tracker
Trade Mark:	Pebble
Model Name:	CS-PEBBLETRKR-01
Serial Model:	N/A
CAT-M	
Support Band:	CAT-M FDD Band 2 CAT-M FDD Band 4 CAT-M FDD Band 26 CAT-M FDD Band 66
SIM CARD :	The EUT has one SIM Card sockets
Power Class:	E-UTRA :3
Modulation Mode:	QPSK, 16QAM
Antenna:	PIFA Antenna
H/W No.:	N/A
S/W No.:	N/A
Model different:	N/A

2.2 LIST OF TEST EQUIPMENTS

No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	Spectrum Analyzer	R&S	FSV40	101470	2021.08.30	2022.08.29
2	EMI Measuring Receiver	R&S	ESR	101160	2021.08.30	2022.08.29
3	Low Noise Pre Amplifier	HP	HP8447E	AiT-F01319	2021.08.30	2022.08.29
4	Low Noise Pre Amplifier	Tsj	MLA-0120-A02-34	2648A04738	2021.08.30	2022.08.29
5	Passive Loop	ETS	6512	00165355	2020.09.05	2022.09.04
6	TRILOG Super Broadband test Antenna	SCHWARZBECK	VULB9160	9160-3206	2021.08.28	2022.08.27
7	Broadband Horn Antenna	SCHWARZBECK	BBHA9120D	452	2021.08.28	2022.08.27
8	SHF-EHF Horn Antenna 15-40GHz	SCHWARZBECK	BBHA9170	BBHA9170367d	2020.11.24	2023.11.23
9	EMI Test Receiver	R&S	ESCI	100124	2021.08.30	2022.08.29
10	LISN	Kyoritsu	KNW-242	8-837-4	2021.08.30	2022.08.29
11	LISN	R&S	ESH3-Z2	0357.8810.54101161-S2	2021.08.30	2022.08.29
12	Pro.Temp&Humi.chamber	MENTEK	MHP-150-1C	MAA08112501	2021.08.30	2022.08.29
13	RF Automatic Test system	MW	MW100-RFCB	21033016	2021.08.30	2022.08.29
14	Wideband Radio communication tester	R&S	CMW500	1201.0002K50	2021.08.30	2022.08.29
15	DC power supply	ZHAOXIN	RXN-305D-2	28070002559	N/A	N/A
16	temporary antenna connector(Note)	NTS	R001	N/A	N/A	N/A
Note: The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.						

2.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

Product Specification Subjective To This Standard	
Tx Frequency	CAT-M Band 2:1850~1910MHz CAT-M Band 4:1710~1755MHz CAT-M Band 26:814~849MHz CAT-M Band 66:1710~1780MHz
Rx Frequency	CAT-M Band 2:1930 ~1990MHz CAT-M Band 4:2110~2155MHz CAT-M Band 26:859~894MHz CAT-M Band 66:2110~2200MHz
Bandwidth	CAT-M Band 2: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz CAT-M Band 4: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz /20MHz CAT-M Band 26: 1.4MHz / 3MHz / 5MHz / 10MHz/15MHz CAT-M Band 66: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz /20MHz
Maximum Power	CAT-M Band 2: 26.10 dBm CAT-M Band 4: 25.25 dBm CAT-M Band 26: 25.58 dBm CAT-M Band 66: 25.37 dBm
Type of Modulation	QPSK /16QAM

List of Frequencies under Test

2.4 TEST CONFIGURATION OF EQUIPMENT UNDER TEST

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 and ANSI C63.26 2015 Power Meas. License Digital Systems with maximum output power. Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

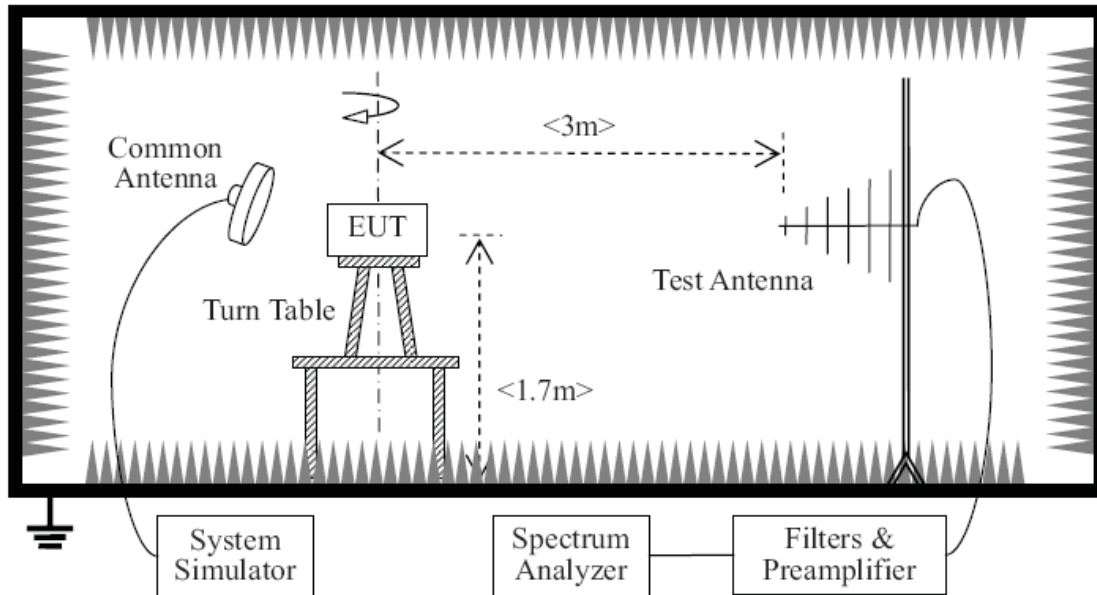
Remark:

1. The mark 'v' means that this configuration is chosen for testing
2. The mark '-' means that this bandwidth is not supported.
3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated

ITEMS	Band	Bandwidth (MHz)						Modulation		RB #		Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Full	L	M	H
Max. Output Power; E.R.P.& E.I.R.P.	2	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v
	26	v	v	v	v	v		v	v	v	v	v	v	v
	66	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	2	v	v	v	v	v	v	v	v		v		v	
	4	v	v	v	v	v	v	v	v		v		v	
	26	v	v	v	v	v		v	v		v		v	
	66	v	v	v	v	v	v	v	v		v		v	
26dB&99% Bandwidth	2	v	v	v	v	v	v	v	v		v		v	
	4	v	v	v	v	v	v	v	v		v		v	
	26	v	v	v	v	v		v	v		v		v	
	66	v	v	v	v	v	v	v	v		v		v	
Conducted Band Edge	2	v						v	v	v	v	v		v
	4	v						v	v	v	v	v		v
	26	v						v	v	v	v	v		v
	66	v						v	v	v	v	v		v
Conducted Spurious Emission	2	v						v	v	v		v	v	v
	4	v						v	v	v		v	v	v
	26	v						v	v	v		v	v	v
	66	v						v	v	v		v	v	v
Frequency Stability	2	v						v			v		v	
	4	v						v			v		v	
	26	v						v			v		v	
	66	v						v			v			
Radiated Spurious Emission	2	v						v	v	v		v	v	v
	4	v						v	v	v		v	v	v
	26	v						v	v	v		v	v	v
	66	v						v	v	v		v	v	v

2.5 TEST SETUP

1. Radiated Spurious Emission Test Setup



The EUT, which is powered by USB 5V, is located in a 3m Full-Anechoic Chamber; the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading.

A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power (i.e. LTE FDD band Power Control Level = 3), and only the test result of the maximum output power was recorded.

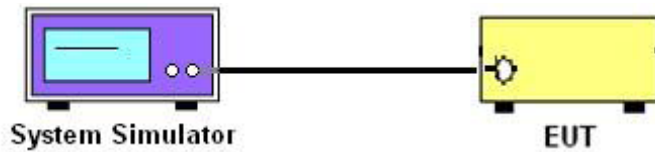
3. CONDUCTED OUTPUT POWER

3.1 DESCRIPTION OF THE CONDUCTED OUTPUT POWER MEASUREMENT

3.1.1 MEASUREMENT METHOD

A system simulator was used to establish communication with the eut. Its parameters were set to force the eut transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.
Configuration follows KDB 971168 D01 v03r01.

3.1.2 TEST SETUP



3.1.3 TEST PROCEDURES

1. The transmitter output port was connected to system simulator.
2. Set EUT at maximum power through the system simulator.
3. Select lowest/middle/highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.

Note: $ERP \text{ or } EIRP = P_{Meas} + G_T$

Where ERP or EIRP: effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas} , e.g. dBm)

P_{Meas} : measured transmitter output power, in dBm

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

3.1.4 TEST RESULTS

Band	BW [MHz]	Modulation	Channel	RB Size	RB Start	NBIndex	Result (dBm)	EIRP (dBm) (watts)		Limit (watts)	Verdict
Band 2	1.4	QPSK	Low	1	0	Low	24.74	25.80	0.38	2	PASS
Band 2	1.4		Low	6	0	Low	22.62	23.68	0.233	2	PASS
Band 2	3		Low	1	0	Low	24.57	25.63	0.366	2	PASS
Band 2	3		Low	6	0	Low	22.52	23.58	0.228	2	PASS
Band 2	5		Low	1	0	Low	24.09	25.15	0.327	2	PASS
Band 2	5		Low	6	0	Low	23.20	24.26	0.267	2	PASS
Band 2	10		Low	1	0	Low	24.56	25.62	0.365	2	PASS
Band 2	10		Low	6	0	Low	23.58	24.64	0.291	2	PASS
Band 2	15		Low	1	0	Low	24.51	25.57	0.361	2	PASS
Band 2	15		Low	6	0	Low	24.39	25.45	0.351	2	PASS
Band 2	20		Low	1	0	Low	24.53	25.59	0.362	2	PASS
Band 2	20		Low	6	0	Low	24.64	25.70	0.372	2	PASS
Band 2	1.4	16-QAM	Low	1	0	Low	23.33	24.39	0.275	2	PASS
Band 2	1.4		Low	5	0	Low	22.61	23.67	0.233	2	PASS
Band 2	3		Low	1	0	Low	23.46	24.52	0.283	2	PASS
Band 2	3		Low	5	0	Low	22.39	23.45	0.221	2	PASS
Band 2	5		Low	1	0	Low	24.52	25.58	0.361	2	PASS
Band 2	5		Low	5	0	Low	22.37	23.43	0.22	2	PASS
Band 2	10		Low	1	0	Low	24.62	25.68	0.37	2	PASS
Band 2	10		Low	5	0	Low	23.53	24.59	0.288	2	PASS
Band 2	15		Low	1	0	Low	24.38	25.44	0.35	2	PASS
Band 2	15		Low	5	0	Low	24.57	25.63	0.366	2	PASS
Band 2	20		Low	1	0	Low	24.56	25.62	0.365	2	PASS
Band 2	20		Low	5	0	Low	25.04	26.10	0.407	2	PASS
Band 2	1.4	QPSK	Middle	1	0	Low	24.36	25.42	0.348	2	PASS
Band 2	1.4		Middle	6	0	Low	22.37	23.43	0.22	2	PASS
Band 2	3		Middle	1	0	Low	24.67	25.73	0.374	2	PASS
Band 2	3		Middle	6	0	Low	22.37	23.43	0.22	2	PASS
Band 2	5		Middle	1	0	Low	24.39	25.45	0.351	2	PASS
Band 2	5		Middle	6	0	Low	23.38	24.44	0.278	2	PASS
Band 2	10		Middle	1	0	Low	24.46	25.52	0.356	2	PASS
Band 2	10		Middle	6	0	Low	23.45	24.51	0.282	2	PASS
Band 2	15		Middle	1	0	Low	24.50	25.56	0.36	2	PASS
Band 2	15		Middle	6	0	Low	24.45	25.51	0.356	2	PASS
Band 2	20		Middle	1	0	Low	24.47	25.53	0.357	2	PASS
Band 2	20		Middle	6	0	Low	24.52	25.58	0.361	2	PASS
Band 2	1.4	16-QAM	Middle	1	0	Low	23.42	24.48	0.281	2	PASS
Band 2	1.4		Middle	5	0	Low	22.34	23.40	0.219	2	PASS
Band 2	3		Middle	1	0	Low	23.47	24.53	0.284	2	PASS
Band 2	3		Middle	5	0	Low	22.40	23.46	0.222	2	PASS
Band 2	5		Middle	1	0	Low	24.36	25.42	0.348	2	PASS
Band 2	5		Middle	5	0	Low	22.58	23.64	0.231	2	PASS
Band 2	10		Middle	1	0	Low	24.43	25.49	0.354	2	PASS
Band 2	10		Middle	5	0	Low	23.66	24.72	0.296	2	PASS
Band 2	15		Middle	1	0	Low	24.46	25.52	0.356	2	PASS
Band 2	15		Middle	5	0	Low	24.78	25.84	0.384	2	PASS
Band 2	20		Middle	1	0	Low	24.44	25.50	0.355	2	PASS
Band 2	20		Middle	5	0	Low	24.77	25.83	0.383	2	PASS
Band 2	1.4	QPSK	High	1	5	High	24.77	25.83	0.383	2	PASS
Band 2	1.4		High	6	0	High	22.48	23.54	0.226	2	PASS
Band 2	3		High	1	5	High	24.91	25.97	0.395	2	PASS
Band 2	3		High	6	0	High	22.31	23.37	0.217	2	PASS
Band 2	5		High	1	5	High	24.68	25.74	0.375	2	PASS
Band 2	5		High	3	3	High	23.29	24.35	0.272	2	PASS
Band 2	10		High	1	5	High	24.63	25.69	0.371	2	PASS
Band 2	10		High	6	0	High	23.52	24.58	0.287	2	PASS
Band 2	15		High	1	5	High	24.72	25.78	0.378	2	PASS
Band 2	15		High	6	0	High	24.32	25.38	0.345	2	PASS
Band 2	20		High	1	5	High	24.59	25.65	0.367	2	PASS
Band 2	20		High	6	0	High	24.52	25.58	0.361	2	PASS
Band 2	1.4	16-QAM	High	1	5	High	23.25	24.31	0.27	2	PASS
Band 2	1.4		High	5	1	High	22.64	23.70	0.234	2	PASS
Band 2	3		High	1	5	High	23.35	24.41	0.276	2	PASS
Band 2	3		High	5	1	High	22.23	23.29	0.213	2	PASS
Band 2	5		High	1	5	High	24.38	25.44	0.35	2	PASS
Band 2	5		High	3	3	High	22.36	23.42	0.22	2	PASS
Band 2	10		High	1	5	High	24.51	25.57	0.361	2	PASS
Band 2	10		High	5	1	High	23.50	24.56	0.286	2	PASS
Band 2	15		High	1	5	High	24.29	25.35	0.343	2	PASS
Band 2	15		High	5	1	High	24.79	25.85	0.385	2	PASS
Band 2	20		High	1	5	High	24.58	25.64	0.366	2	PASS
Band 2	20		High	5	1	High	24.69	25.75	0.376	2	PASS

Band	BW [MHz]	Modulation	Channel	RB Size	RB Start	NBIndex	Result (dBm)	EIRP (dBm) (watts)		Limit (watts)	Verdict
Band 4	1.4	QPSK	Low	1	0	Low	23.89	24.95	0.313	1	PASS
Band 4	1.4		Low	6	0	Low	22.17	23.23	0.21	1	PASS
Band 4	3		Low	1	0	Low	23.89	24.95	0.313	1	PASS
Band 4	3		Low	6	0	Low	21.77	22.83	0.192	1	PASS
Band 4	5		Low	1	0	Low	23.96	25.02	0.318	1	PASS
Band 4	5		Low	6	0	Low	23.14	24.20	0.263	1	PASS
Band 4	10		Low	1	0	Low	24.05	25.11	0.324	1	PASS
Band 4	10		Low	6	0	Low	22.84	23.90	0.245	1	PASS
Band 4	15		Low	1	0	Low	23.77	24.83	0.304	1	PASS
Band 4	15		Low	6	0	Low	23.68	24.74	0.298	1	PASS
Band 4	20		Low	1	0	Low	23.85	24.91	0.31	1	PASS
Band 4	20		Low	6	0	Low	23.86	24.92	0.31	1	PASS
Band 4	1.4	16-QAM	Low	1	0	Low	22.74	23.80	0.24	1	PASS
Band 4	1.4		Low	5	0	Low	21.97	23.03	0.201	1	PASS
Band 4	3		Low	1	0	Low	23.36	24.42	0.277	1	PASS
Band 4	3		Low	5	0	Low	21.95	23.01	0.2	1	PASS
Band 4	5		Low	1	0	Low	23.94	25.00	0.316	1	PASS
Band 4	5		Low	5	0	Low	21.94	23.00	0.2	1	PASS
Band 4	10		Low	1	0	Low	23.90	24.96	0.313	1	PASS
Band 4	10		Low	5	0	Low	22.99	24.05	0.254	1	PASS
Band 4	15		Low	1	0	Low	23.90	24.96	0.313	1	PASS
Band 4	15		Low	5	0	Low	24.12	25.18	0.33	1	PASS
Band 4	20		Low	1	0	Low	24.15	25.21	0.332	1	PASS
Band 4	20		Low	5	0	Low	23.87	24.93	0.311	1	PASS
Band 4	1.4	QPSK	Middle	1	0	Low	24.00	25.06	0.321	1	PASS
Band 4	1.4		Middle	6	0	Low	21.97	23.03	0.201	1	PASS
Band 4	3		Middle	1	0	Low	24.14	25.20	0.331	1	PASS
Band 4	3		Middle	6	0	Low	21.92	22.98	0.199	1	PASS
Band 4	5		Middle	1	0	Low	23.91	24.97	0.314	1	PASS
Band 4	5		Middle	6	0	Low	23.09	24.15	0.26	1	PASS
Band 4	10		Middle	1	0	Low	23.92	24.98	0.315	1	PASS
Band 4	10		Middle	6	0	Low	23.00	24.06	0.255	1	PASS
Band 4	15		Middle	1	0	Low	23.90	24.96	0.313	1	PASS
Band 4	15		Middle	6	0	Low	23.97	25.03	0.318	1	PASS
Band 4	20		Middle	1	0	Low	23.99	25.05	0.32	1	PASS
Band 4	20		Middle	6	0	Low	23.93	24.99	0.316	1	PASS
Band 4	1.4	16-QAM	Middle	1	0	Low	22.97	24.03	0.253	1	PASS
Band 4	1.4		Middle	5	0	Low	21.83	22.89	0.195	1	PASS
Band 4	3		Middle	1	0	Low	23.32	24.38	0.274	1	PASS
Band 4	3		Middle	5	0	Low	21.87	22.93	0.196	1	PASS
Band 4	5		Middle	1	0	Low	24.00	25.06	0.321	1	PASS
Band 4	5		Middle	5	0	Low	22.03	23.09	0.204	1	PASS
Band 4	10		Middle	1	0	Low	23.91	24.97	0.314	1	PASS
Band 4	10		Middle	5	0	Low	23.16	24.22	0.264	1	PASS
Band 4	15		Middle	1	0	Low	23.98	25.04	0.319	1	PASS
Band 4	15		Middle	5	0	Low	23.89	24.95	0.313	1	PASS
Band 4	20		Middle	1	0	Low	23.90	24.96	0.313	1	PASS
Band 4	20		Middle	5	0	Low	24.02	25.08	0.322	1	PASS
Band 4	1.4	QPSK	High	1	5	High	24.14	25.20	0.331	1	PASS
Band 4	1.4		High	6	0	High	22.13	23.19	0.208	1	PASS
Band 4	3		High	1	5	High	24.19	25.25	0.335	1	PASS
Band 4	3		High	6	0	High	22.02	23.08	0.203	1	PASS
Band 4	5		High	1	5	High	23.89	24.95	0.313	1	PASS
Band 4	5		High	3	3	High	23.28	24.34	0.272	1	PASS
Band 4	10		High	1	5	High	23.78	24.84	0.305	1	PASS
Band 4	10		High	6	0	High	22.95	24.01	0.252	1	PASS
Band 4	15		High	1	5	High	23.70	24.76	0.299	1	PASS
Band 4	15		High	6	0	High	24.03	25.09	0.323	1	PASS
Band 4	20		High	1	5	High	23.86	24.92	0.31	1	PASS
Band 4	20		High	6	0	High	24.11	25.17	0.329	1	PASS
Band 4	1.4	16-QAM	High	1	5	High	23.11	24.17	0.261	1	PASS
Band 4	1.4		High	5	1	High	21.91	22.97	0.198	1	PASS
Band 4	3		High	1	5	High	23.49	24.55	0.285	1	PASS
Band 4	3		High	5	1	High	21.97	23.03	0.201	1	PASS
Band 4	5		High	1	5	High	24.04	25.10	0.324	1	PASS
Band 4	5		High	3	3	High	22.03	23.09	0.204	1	PASS
Band 4	10		High	1	5	High	23.89	24.95	0.313	1	PASS
Band 4	10		High	5	1	High	23.30	24.36	0.273	1	PASS
Band 4	15		High	1	5	High	23.99	25.05	0.32	1	PASS
Band 4	15		High	5	1	High	23.83	24.89	0.308	1	PASS
Band 4	20		High	1	5	High	23.90	24.96	0.313	1	PASS
Band 4	20		High	5	1	High	24.02	25.08	0.322	1	PASS

Band 26 (Part 22)

Band	BW [MHz]	Modulation	Channel	RB Size	RB Start	NBIndex	Result (dBm)	EIRP (dBm) (watts)		Limit (watts)	Verdict
Band 26	1.4	QPSK	Low	1	0	Low	23.48	24.54	0.284	7	PASS
Band 26	1.4		Low	6	0	Low	22.52	23.58	0.228	7	PASS
Band 26	3		Low	1	0	Low	23.53	24.59	0.288	7	PASS
Band 26	3		Low	6	0	Low	22.18	23.24	0.211	7	PASS
Band 26	5		Low	1	0	Low	24.36	25.42	0.348	7	PASS
Band 26	5		Low	6	0	Low	23.38	24.44	0.278	7	PASS
Band 26	10		Low	1	0	Low	24.08	25.14	0.327	7	PASS
Band 26	10		Low	6	0	Low	22.68	23.74	0.237	7	PASS
Band 26	15		Low	1	0	Low	24.31	25.37	0.344	7	PASS
Band 26	15		Low	6	0	Low	23.99	25.05	0.320	7	PASS
Band 26	1.4	16-QAM	Low	1	0	Low	22.53	23.59	0.229	7	PASS
Band 26	1.4		Low	5	0	Low	21.93	22.99	0.199	7	PASS
Band 26	3		Low	1	0	Low	23.27	24.33	0.271	7	PASS
Band 26	3		Low	5	0	Low	21.8	22.86	0.193	7	PASS
Band 26	5		Low	1	0	Low	23.56	24.62	0.290	7	PASS
Band 26	5		Low	5	0	Low	22.2	23.26	0.212	7	PASS
Band 26	10		Low	1	0	Low	24.44	25.5	0.355	7	PASS
Band 26	10		Low	5	0	Low	22.87	23.93	0.247	7	PASS
Band 26	15		Low	1	0	Low	23.33	24.39	0.275	7	PASS
Band 26	15		Low	5	0	Low	24	25.06	0.321	7	PASS
Band 26	1.4	QPSK	Middle	1	0	Low	23.71	24.77	0.300	7	PASS
Band 26	1.4		Middle	6	0	Low	21.8	22.86	0.193	7	PASS
Band 26	3		Middle	1	0	Low	24.11	25.17	0.329	7	PASS
Band 26	3		Middle	6	0	Low	21.75	22.81	0.191	7	PASS
Band 26	5		Middle	1	0	Low	24.35	25.41	0.348	7	PASS
Band 26	5		Middle	6	0	Low	22.45	23.51	0.224	7	PASS
Band 26	10		Middle	1	0	Low	24.23	25.29	0.338	7	PASS
Band 26	10		Middle	6	0	Low	22.76	23.82	0.241	7	PASS
Band 26	15		Middle	1	0	Low	24.44	25.5	0.355	7	PASS
Band 26	15		Middle	6	0	Low	24.16	25.22	0.333	7	PASS
Band 26	1.4	16-QAM	Middle	1	0	Low	23.34	24.4	0.275	7	PASS
Band 26	1.4		Middle	5	0	Low	21.37	22.43	0.175	7	PASS
Band 26	3		Middle	1	0	Low	23.13	24.19	0.262	7	PASS
Band 26	3		Middle	5	0	Low	21.9	22.96	0.198	7	PASS
Band 26	5		Middle	1	0	Low	23.97	25.03	0.318	7	PASS
Band 26	5		Middle	5	0	Low	22.1	23.16	0.207	7	PASS
Band 26	10		Middle	1	0	Low	24.08	25.14	0.327	7	PASS
Band 26	10		Middle	5	0	Low	23.53	24.59	0.288	7	PASS
Band 26	15		Middle	1	0	Low	23.7	24.76	0.299	7	PASS
Band 26	15		Middle	5	0	Low	24.52	25.58	0.361	7	PASS
Band 26	1.4	QPSK	High	1	5	High	23.48	24.54	0.284	7	PASS
Band 26	1.4		High	6	0	High	22.34	23.4	0.219	7	PASS
Band 26	3		High	1	5	High	24.03	25.09	0.323	7	PASS
Band 26	3		High	6	0	High	22.15	23.21	0.209	7	PASS
Band 26	5		High	1	5	High	23.95	25.01	0.317	7	PASS
Band 26	5		High	3	3	High	22.93	23.99	0.251	7	PASS
Band 26	10		High	1	5	High	24.7	25.76	0.377	7	PASS
Band 26	10		High	6	0	High	23.17	24.23	0.265	7	PASS
Band 26	15		High	1	5	High	24.08	25.14	0.327	7	PASS
Band 26	15		High	6	0	High	23.88	24.94	0.312	7	PASS
Band 26	1.4	16-QAM	High	1	5	High	23.11	24.17	0.261	7	PASS
Band 26	1.4		High	5	1	High	21.53	22.59	0.182	7	PASS
Band 26	3		High	1	5	High	23.18	24.24	0.265	7	PASS
Band 26	3		High	5	1	High	21.99	23.05	0.202	7	PASS
Band 26	5		High	1	5	High	23.86	24.92	0.310	7	PASS
Band 26	5		High	3	3	High	21.96	23.02	0.200	7	PASS
Band 26	10		High	1	5	High	23.92	24.98	0.315	7	PASS
Band 26	10		High	5	1	High	23.22	24.28	0.268	7	PASS
Band 26	15		High	1	5	High	23.69	24.75	0.299	7	PASS
Band 26	15		High	5	1	High	23.28	24.34	0.272	7	PASS

Band 26 (Part 90)

Band	BW [MHz]	Modulation	Channel	RB Size	RB Start	NBIndex	Result (dBm)	Power (watts)	Limit (watts)	Verdict
Band 26	1.4	QPSK	Low	1	0	Low	23.91	0.246	100	PASS
Band 26	1.4		Low	6	0	Low	22.1	0.162	100	PASS
Band 26	3		Low	1	0	Low	24.48	0.281	100	PASS
Band 26	3		Low	6	0	Low	21.85	0.153	100	PASS
Band 26	5		Low	1	0	Low	24.1	0.257	100	PASS
Band 26	5		Low	6	0	Low	22.97	0.198	100	PASS
Band 26	10		Low	1	0	Low	24.44	0.278	100	PASS
Band 26	10		Low	6	0	Low	23.31	0.214	100	PASS
Band 26	1.4	16-QAM	Low	1	0	Low	23.13	0.206	100	PASS
Band 26	1.4		Low	5	0	Low	22.04	0.16	100	PASS
Band 26	3		Low	1	0	Low	23.1	0.204	100	PASS
Band 26	3		Low	5	0	Low	22.02	0.159	100	PASS
Band 26	5		Low	1	0	Low	24.2	0.263	100	PASS
Band 26	5		Low	5	0	Low	22.61	0.182	100	PASS
Band 26	10		Low	1	0	Low	24.5	0.282	100	PASS
Band 26	10		Low	5	0	Low	23.37	0.217	100	PASS
Band 26	1.4	QPSK	Middle	1	0	Low	23.93	0.247	100	PASS
Band 26	1.4		Middle	6	0	Low	21.97	0.157	100	PASS
Band 26	3		Middle	1	0	Low	24.25	0.266	100	PASS
Band 26	3		Middle	6	0	Low	22.05	0.16	100	PASS
Band 26	5		Middle	1	0	Low	24.16	0.261	100	PASS
Band 26	5		Middle	6	0	Low	23.05	0.202	100	PASS
Band 26	10		Middle	1	0	Low	24.15	0.26	100	PASS
Band 26	10		Middle	6	0	Low	23.07	0.203	100	PASS
Band 26	1.4	16-QAM	Middle	1	0	Low	23.1	0.204	100	PASS
Band 26	1.4		Middle	5	0	Low	21.97	0.157	100	PASS
Band 26	3		Middle	1	0	Low	23.18	0.208	100	PASS
Band 26	3		Middle	5	0	Low	21.96	0.157	100	PASS
Band 26	5		Middle	1	0	Low	24.25	0.266	100	PASS
Band 26	5		Middle	5	0	Low	22.43	0.175	100	PASS
Band 26	10		Middle	1	0	Low	24.3	0.269	100	PASS
Band 26	10		Middle	5	0	Low	23.35	0.216	100	PASS
Band 26	1.4	QPSK	High	1	5	High	24.19	0.262	100	PASS
Band 26	1.4		High	6	0	High	21.91	0.155	100	PASS
Band 26	3		High	1	5	High	24.3	0.269	100	PASS
Band 26	3		High	6	0	High	21.84	0.153	100	PASS
Band 26	5		High	1	5	High	24.28	0.268	100	PASS
Band 26	5		High	3	3	High	23.05	0.202	100	PASS
Band 26	10		High	1	5	High	23.95	0.248	100	PASS
Band 26	10		High	6	0	High	23.07	0.203	100	PASS
Band 26	1.4	16-QAM	High	1	5	High	23.11	0.205	100	PASS
Band 26	1.4		High	5	1	High	21.93	0.156	100	PASS
Band 26	3		High	1	5	High	23.18	0.208	100	PASS
Band 26	3		High	5	1	High	21.9	0.155	100	PASS
Band 26	5		High	1	5	High	24.11	0.258	100	PASS
Band 26	5		High	3	3	High	22.47	0.177	100	PASS
Band 26	10		High	1	5	High	24.49	0.281	100	PASS
Band 26	10		High	5	1	High	23.37	0.217	100	PASS

Band	BW [MHz]	Modulation	Channel	RB Size	RB Start	NBIndex	Result (dBm)	EIRP (dBm) (watts)	Limit (watts)	Verdict
Band 66	1.4	QPSK	Low	1	0	Low	23.90	24.96 0.313	1	PASS
Band 66	1.4		Low	6	0	Low	21.90	22.96 0.198	1	PASS
Band 66	3		Low	1	0	Low	24.10	25.16 0.328	1	PASS
Band 66	3		Low	6	0	Low	21.92	22.98 0.199	1	PASS
Band 66	5		Low	1	0	Low	23.99	25.05 0.32	1	PASS
Band 66	5		Low	6	0	Low	23.08	24.14 0.259	1	PASS
Band 66	10		Low	1	0	Low	23.90	24.96 0.313	1	PASS
Band 66	10		Low	6	0	Low	23.15	24.21 0.264	1	PASS
Band 66	15		Low	1	0	Low	24.31	25.37 0.344	1	PASS
Band 66	15		Low	6	0	Low	23.97	25.03 0.318	1	PASS
Band 66	20		Low	1	0	Low	23.75	24.81 0.303	1	PASS
Band 66	20		Low	6	0	Low	23.97	25.03 0.318	1	PASS
Band 66	1.4	16-QAM	Low	1	0	Low	23.01	24.07 0.255	1	PASS
Band 66	1.4		Low	5	0	Low	21.83	22.89 0.195	1	PASS
Band 66	3		Low	1	0	Low	23.01	24.07 0.255	1	PASS
Band 66	3		Low	5	0	Low	22.15	23.21 0.209	1	PASS
Band 66	5		Low	1	0	Low	23.92	24.98 0.315	1	PASS
Band 66	5		Low	5	0	Low	21.82	22.88 0.194	1	PASS
Band 66	10		Low	1	0	Low	24.04	25.10 0.324	1	PASS
Band 66	10		Low	5	0	Low	23.14	24.20 0.263	1	PASS
Band 66	15		Low	1	0	Low	24.22	25.28 0.337	1	PASS
Band 66	15		Low	5	0	Low	23.96	25.02 0.318	1	PASS
Band 66	20		Low	1	0	Low	23.90	24.96 0.313	1	PASS
Band 66	20		Low	5	0	Low	23.98	25.04 0.319	1	PASS
Band 66	1.4	QPSK	Middle	1	0	Low	23.94	25.00 0.316	1	PASS
Band 66	1.4		Middle	6	0	Low	22.08	23.14 0.206	1	PASS
Band 66	3		Middle	1	0	Low	24.10	25.16 0.328	1	PASS
Band 66	3		Middle	6	0	Low	22.03	23.09 0.204	1	PASS
Band 66	5		Middle	1	0	Low	23.89	24.95 0.313	1	PASS
Band 66	5		Middle	6	0	Low	23.08	24.14 0.259	1	PASS
Band 66	10		Middle	1	0	Low	23.89	24.95 0.313	1	PASS
Band 66	10		Middle	6	0	Low	23.01	24.07 0.255	1	PASS
Band 66	15		Middle	1	0	Low	24.03	25.09 0.323	1	PASS
Band 66	15		Middle	6	0	Low	24.07	25.13 0.326	1	PASS
Band 66	20		Middle	1	0	Low	24.01	25.07 0.321	1	PASS
Band 66	20		Middle	6	0	Low	24.06	25.12 0.325	1	PASS
Band 66	1.4	16-QAM	Middle	1	0	Low	22.99	24.05 0.254	1	PASS
Band 66	1.4		Middle	5	0	Low	21.91	22.97 0.198	1	PASS
Band 66	3		Middle	1	0	Low	22.98	24.04 0.254	1	PASS
Band 66	3		Middle	5	0	Low	21.97	23.03 0.201	1	PASS
Band 66	5		Middle	1	0	Low	23.95	25.01 0.317	1	PASS
Band 66	5		Middle	5	0	Low	22.12	23.18 0.208	1	PASS
Band 66	10		Middle	1	0	Low	23.98	25.04 0.319	1	PASS
Band 66	10		Middle	5	0	Low	23.20	24.26 0.267	1	PASS
Band 66	15		Middle	1	0	Low	24.17	25.23 0.333	1	PASS
Band 66	15		Middle	5	0	Low	24.16	25.22 0.333	1	PASS
Band 66	20		Middle	1	0	Low	24.06	25.12 0.325	1	PASS
Band 66	20		Middle	5	0	Low	24.17	25.23 0.333	1	PASS
Band 66	1.4	QPSK	High	1	5	High	24.02	25.08 0.322	1	PASS
Band 66	1.4		High	6	0	High	22.11	23.17 0.207	1	PASS
Band 66	3		High	1	5	High	24.10	25.16 0.328	1	PASS
Band 66	3		High	6	0	High	21.99	23.05 0.202	1	PASS
Band 66	5		High	1	5	High	23.85	24.91 0.31	1	PASS
Band 66	5		High	3	3	High	23.24	24.30 0.269	1	PASS
Band 66	10		High	1	5	High	23.89	24.95 0.313	1	PASS
Band 66	10		High	6	0	High	22.76	23.82 0.241	1	PASS
Band 66	15		High	1	5	High	24.13	25.19 0.33	1	PASS
Band 66	15		High	6	0	High	24.02	25.08 0.322	1	PASS
Band 66	20		High	1	5	High	24.00	25.06 0.321	1	PASS
Band 66	20		High	6	0	High	24.13	25.19 0.33	1	PASS
Band 66	1.4	16-QAM	High	1	5	High	22.79	23.85 0.243	1	PASS
Band 66	1.4		High	5	1	High	22.05	23.11 0.205	1	PASS
Band 66	3		High	1	5	High	23.20	24.26 0.267	1	PASS
Band 66	3		High	5	1	High	21.84	22.90 0.195	1	PASS
Band 66	5		High	1	5	High	23.96	25.02 0.318	1	PASS
Band 66	5		High	3	3	High	22.01	23.07 0.203	1	PASS
Band 66	10		High	1	5	High	23.79	24.85 0.305	1	PASS
Band 66	10		High	5	1	High	23.25	24.31 0.27	1	PASS
Band 66	15		High	1	5	High	23.98	25.04 0.319	1	PASS
Band 66	15		High	5	1	High	24.09	25.15 0.327	1	PASS
Band 66	20		High	1	5	High	23.90	24.96 0.313	1	PASS
Band 66	20		High	5	1	High	24.18	25.24 0.334	1	PASS

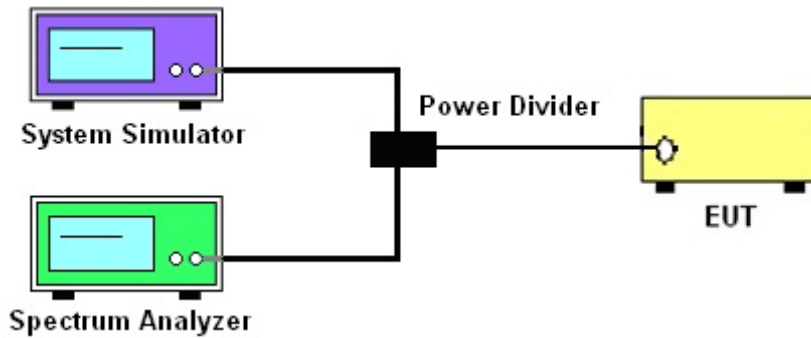
4. PEAK-TO-AVERAGE RATIO

4.1 DESCRIPTION OF THE CONDUCTED OUTPUT POWER MEASUREMENT

4.1.1 MEASUREMENT METHOD

Use one of the procedures presented in 4.1.3 to measure the total peak power and record as PPK. Use one of the applicable procedures presented 4.1.3 to measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from:
 $PAPR (dB) = PPK (dBm) - PAvg (dBm)$.

4.1.2 TEST SETUP



4.1.3 TEST PROCEDURES

1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.7 and ANSI C63.26 2015 Section 5.2.6
2. The EUT was connected to spectrum and system simulator via a power divider
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Set the test probe and measure the peak and average power of the spectrum analyzer
5. Record the deviation as Peak to Average Ratio.

LTE BW	1.4M	3M	5M	10M	15M	20M
Span	3MHz	6MHz	10MHz	20MHz	30MHz	40MHz
RBW	30kHz	30kHz	100kHz	100kHz	300kHz	300kHz
VBW	100kHz	100kHz	300kHz	300kHz	1000kHz	1000kHz
Detector	PK/AVG	PK/AVG	PK/AVG	PK/AVG	PK/AVG	PK/AVG
Trace	Max	Max	Max	Max	Max	Max
Sweep Count	Auto	Auto	Auto	Auto	Auto	Auto

4.1.4 TEST RESULTS

Band	BW [MHz]	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band 2	1.4	QPSK	Middle	6	0	Low	5.11	<=13	PASS
Band 2	3		Middle	6	0	Low	5.14	<=13	PASS
Band 2	5		Middle	6	0	Low	5.56	<=13	PASS
Band 2	10		Middle	6	0	Low	5.49	<=13	PASS
Band 2	15		Middle	6	0	Low	5.55	<=13	PASS
Band 2	20		Middle	6	0	Low	5.59	<=13	PASS
Band 2	1.4	16-QAM	Middle	5	0	Low	6.29	<=13	PASS
Band 2	3		Middle	5	0	Low	6.27	<=13	PASS
Band 2	5		Middle	5	0	Low	6.20	<=13	PASS
Band 2	10		Middle	5	0	Low	6.30	<=13	PASS
Band 2	15		Middle	5	0	Low	6.29	<=13	PASS
Band 2	20		Middle	5	0	Low	6.32	<=13	PASS

Band	BW [MHz]	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band 4	1.4	QPSK	Middle	6	0	Low	4.98	<=13	PASS
Band 4	3		Middle	6	0	Low	4.97	<=13	PASS
Band 4	5		Middle	6	0	Low	5.27	<=13	PASS
Band 4	10		Middle	6	0	Low	5.24	<=13	PASS
Band 4	15		Middle	6	0	Low	5.17	<=13	PASS
Band 4	20		Middle	6	0	Low	5.2	<=13	PASS
Band 4	1.4	16-QAM	Middle	5	0	Low	6.03	<=13	PASS
Band 4	3		Middle	5	0	Low	6.03	<=13	PASS
Band 4	5		Middle	5	0	Low	5.99	<=13	PASS
Band 4	10		Middle	5	0	Low	5.94	<=13	PASS
Band 4	15		Middle	5	0	Low	5.87	<=13	PASS
Band 4	20		Middle	5	0	Low	5.91	<=13	PASS

Band	BW [MHz]	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band 26 (Part 22)	1.4	QPSK	Middle	6	0	Low	4.6	<=13	PASS
Band 26 (Part 22)	3		Middle	6	0	Low	4.5	<=13	PASS
Band 26 (Part 22)	5		Middle	6	0	Low	4.7	<=13	PASS
Band 26 (Part 22)	10		Middle	6	0	Low	4.63	<=13	PASS
Band 26 (Part 22)	15		Middle	6	0	Low	4.6	<=13	PASS
Band 26 (Part 22)	1.4	16-QAM	Middle	5	0	Low	5.47	<=13	PASS
Band 26 (Part 22)	3		Middle	5	0	Low	5.49	<=13	PASS
Band 26 (Part 22)	5		Middle	5	0	Low	5.41	<=13	PASS
Band 26 (Part 22)	10		Middle	5	0	Low	5.44	<=13	PASS
Band 26 (Part 22)	15		Middle	5	0	Low	5.33	<=13	PASS

Band	BW [MHz]	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band 26 (Part 90)	1.4	QPSK	Middle	6	0	Low	4.51	<=13	PASS
Band 26 (Part 90)	3		Middle	6	0	Low	4.5	<=13	PASS
Band 26 (Part 90)	5		Middle	6	0	Low	4.65	<=13	PASS
Band 26 (Part 90)	10		Middle	6	0	Low	4.66	<=13	PASS
Band 26 (Part 90)	1.4	16-QAM	Middle	5	0	Low	5.54	<=13	PASS
Band 26 (Part 90)	3		Middle	5	0	Low	5.51	<=13	PASS
Band 26 (Part 90)	5		Middle	5	0	Low	5.42	<=13	PASS
Band 26 (Part 90)	10		Middle	5	0	Low	5.7	<=13	PASS

Band	BW [MHz]	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band 66	1.4	QPSK	Middle	6	0	Low	4.95	<=13	PASS
Band 66	3		Middle	6	0	Low	4.96	<=13	PASS
Band 66	5		Middle	6	0	Low	5.27	<=13	PASS
Band 66	10		Middle	6	0	Low	5.19	<=13	PASS
Band 66	15		Middle	6	0	Low	5.30	<=13	PASS
Band 66	20		Middle	6	0	Low	5.22	<=13	PASS
Band 66	1.4	16-QAM	Middle	5	0	Low	5.99	<=13	PASS
Band 66	3		Middle	5	0	Low	6.16	<=13	PASS
Band 66	5		Middle	5	0	Low	5.98	<=13	PASS
Band 66	10		Middle	5	0	Low	5.92	<=13	PASS
Band 66	15		Middle	5	0	Low	5.45	<=13	PASS
Band 66	20		Middle	5	0	Low	5.56	<=13	PASS

Note: Test chart See Appendix 3

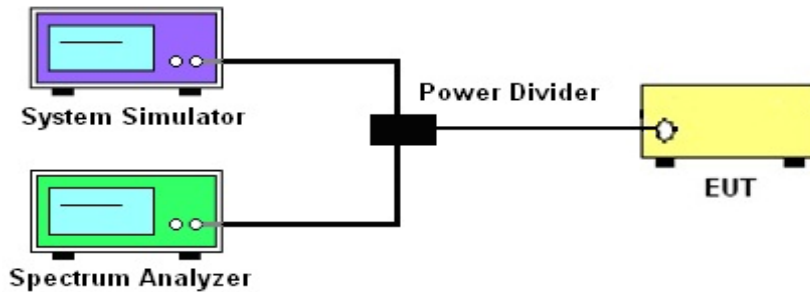
5. OCCUPIED BANDWIDTH

5.1 DESCRIPTION OF OCCUPIED BANDWIDTH MEASUREMENT

5.1.1 MEASUREMENT METHOD

1. The occupied bandwidth is 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 transmitted power.
2. The 26 db emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 db below the maximum in-band spectral density of the modulated signal. spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

5.1.2 TEST SETUP



5.1.3 TEST PROCEDURES

1. The testing follows FCC KDB 971168 D01 v03r01 Section 4.2 and 4.3.
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Set the test probe and measure the Occupied Bandwidth of the spectrum analyzer.
5. Measure and record the Occupied Bandwidth from the Spectrum Analyzer.

LTE BW	1.4M	3M	5M	10M	15M	20M
Span	3MHz	6MHz	10MHz	20MHz	30MHz	40MHz
RBW	30kHz	30kHz	100kHz	100kHz	300kHz	300kHz
VBW	100kHz	100kHz	300kHz	300kHz	1000kHz	1000kHz
Detector	PK	PK	PK	PK	PK	PK
Trace	Max	Max	Max	Max	Max	Max
Sweep Count	Auto	Auto	Auto	Auto	Auto	Auto

5.1.4 MEASUREMENT RESULT

LTE Band 2 Bandwidth [MHz]						
BW [MHz]	Modulation	RB Size	RB Start	NBIndex	Middle Channel	
					99% BW	26dB BW

1.4	QPSK	6	0	Low	1.09	1.291
3	QPSK	6	0	Low	1.0952	1.27
5	QPSK	6	0	Low	1.1012	1.309
10	QPSK	6	0	Low	1.1012	1.298
15	QPSK	6	0	Low	1.1004	1.303
20	QPSK	6	0	Low	1.1025	1.301
1.4	16-QAM	5	0	Low	0.923	1.272
3	16-QAM	5	0	Low	0.926	1.233
5	16-QAM	5	0	Low	0.923	1.123
10	16-QAM	5	0	Low	0.922	1.12
15	16-QAM	5	0	Low	0.934	1.123
20	16-QAM	5	0	Low	0.924	1.114

LTE Band 4 Bandwidth [MHz]

BW [MHz]	Modulation	RB Size	RB Start	NBIndex	Middle Channel	
					99% BW	26dB BW
1.4	QPSK	6	0	Low	1.0904	1.264
3	QPSK	6	0	Low	1.095	1.276
5	QPSK	6	0	Low	1.101	1.281
10	QPSK	6	0	Low	1.0967	1.268
15	QPSK	6	0	Low	1.098	1.29
20	QPSK	6	0	Low	1.1026	1.305
1.4	16-QAM	5	0	Low	0.925	1.12
3	16-QAM	5	0	Low	0.93	1.135
5	16-QAM	5	0	Low	0.932	1.143
10	16-QAM	5	0	Low	0.94	1.142
15	16-QAM	5	0	Low	0.929	1.106
20	16-QAM	5	0	Low	0.926	1.096

LTE Band 26 (Part 22) Bandwidth [MHz]

BW [MHz]	Modulation	RB Size	RB Start	NBIndex	Middle Channel	
					99% BW	26dB BW
1.4	QPSK	6	0	Low	1.0909	1.282
3	QPSK	6	0	Low	1.095	1.278
5	QPSK	6	0	Low	1.0951	1.281
10	QPSK	6	0	Low	1.1	1.289
15	QPSK	6	0	Low	1.096	1.279
1.4	16-QAM	5	0	Low	0.927	1.133
3	16-QAM	5	0	Low	0.929	1.122
5	16-QAM	5	0	Low	0.925	1.119
10	16-QAM	5	0	Low	0.931	1.14
15	16-QAM	5	0	Low	0.926	1.107

LTE Band 26 (Part 90) Bandwidth [MHz]						
BW [MHz]	Modulation	RB Size	RB Start	NBIndex	Middle Channel	
					99% BW	26dB BW
1.4	QPSK	6	0	Low	1.0906	1.286
3	QPSK	6	0	Low	1.094	1.285
5	QPSK	6	0	Low	1.094	1.282
10	QPSK	6	0	Low	1.101	1.283
1.4	16-QAM	5	0	Low	0.923	1.176
3	16-QAM	5	0	Low	0.925	1.119
5	16-QAM	5	0	Low	0.923	1.115
10	16-QAM	5	0	Low	0.925	1.134
LTE Band 66 Bandwidth [MHz]						
BW [MHz]	Modulation	RB Size	RB Start	NBIndex	Middle Channel	
					99% BW	26dB BW
1.4	QPSK	6	0	Low	1.09	1.282
3	QPSK	6	0	Low	1.094	1.286
5	QPSK	6	0	Low	1.101	1.291
10	QPSK	6	0	Low	1.0951	1.268
15	QPSK	6	0	Low	1.1088	1.272
20	QPSK	6	0	Low	1.1	1.291
1.4	16-QAM	5	0	Low	0.92462	1.185
3	16-QAM	5	0	Low	0.93384	1.293
5	16-QAM	5	0	Low	1.103	1.287
10	16-QAM	5	0	Low	0.933	1.155
15	16-QAM	5	0	Low	0.927	1.161
20	16-QAM	5	0	Low	0.933	1.144

Note: Test chart See Appendix 1

6. CONDUCTED BAND EDGE

6.1 DESCRIPTION OF CONDUCTED BAND EDGE MEASUREMENT

6.1.1 MEASUREMENT METHOD

1. §22.917(a) For operations in the 824 – 849 MHz band, the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ in a 100kHz bandwidth. However, in the 1MHz 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.

2. §24.238 (a)

For operations in the 1850-1910 and 1930-1990 MHz band, the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ in a 1MHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed

3. §27.53 (h)

For operations in the 1710 – 1755 MHz band, the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ in a 1 MHz bandwidth. However, in the 1MHz 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.

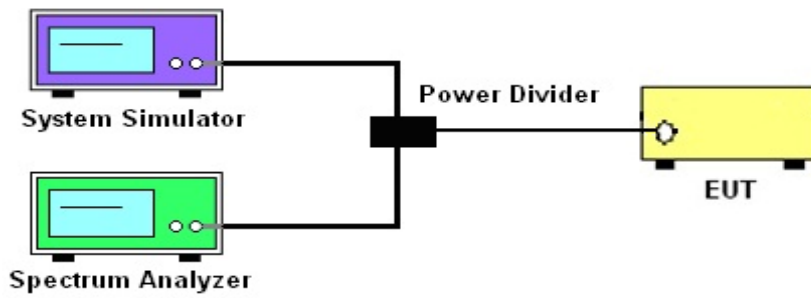
4. §27.53(m)(4)

For operations in the 2500 MHz ~ 2570 MHz band this section, 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 than $43 + 10 \log (P)$ 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.

5. §27.53 (g)

For operations in the 698 -746 MHz band, the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ in a 100 kHz bandwidth. 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.

6.1.2 TEST SETUP



6.1.3 TEST PROCEDURES

1. The testing FCC KDB 971168 D01 v03r01 Section 6.0 and ANSI C63.26 2015 Section 5.7.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured. Set RBW $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
4. Set spectrum analyzer with RMS/AVG detector.
5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
6. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
 $= -13$ dBm.

Band 7:

$$\begin{aligned}
 &= P(W) - [55 + 10\log(P)] \text{ (dB)} \\
 &= [30 + 10\log(P)] \text{ (dBm)} - [55 + 10\log(P)] \text{ (dB)} \\
 &= -25 \text{ dBm.}
 \end{aligned}$$

	LTE					
LTE BW	1.4M	3M	5M	10M	15M	20M
Span	12MHz	13MHz	15MHz	20MHz	25MHz	30MHz
RBW	30kHz	30kHz	100kHz	100kHz	300kHz	300kHz
VBW	100kHz	100kHz	300kHz	300kHz	1000kHz	1000kHz
Detector	RMS	RMS	RMS	RMS	RMS	RMS
Trace	Max	Max	Max	Max	Max	Max
Sweep Count	Auto	Auto	Auto	Auto	Auto	Auto

6.1.4 MEASUREMENT RESULT

Note: Test chart See Appendix 1

7. CONDUCTED SPURIOUS EMISSION

7.1 DESCRIPTION OF CONDUCTED SPURIOUS EMISSION MEASUREMENT

7.1.1 MEASUREMENT METHOD

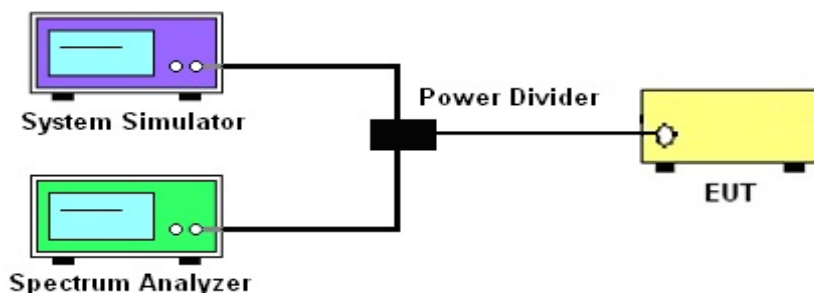
The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least $43 + 10 \log(P)$ dB.

For Band 7:

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least $55 + 10 \log(P)$ dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

7.1.2 TEST SETUP



7.1.3 TEST PROCEDURES

1. The testing FCC KDB 971168 D01 v03r01 Section 6.0 and ANSI C63.26 2015 Section 5.7.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement
4. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
6. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)] \text{ (dB)} = [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$
 $= -13\text{dBm}.$
For Band 7: $P(W) - [43 + 10\log(P)] \text{ (dB)} = -25\text{dBm}$

	LTE					
LTE BW	1.4M	3M	5M	10M	15M	20M
Span	Auto	Auto	Auto	Auto	Auto	Auto
RBW	1000kHz	1000kHz	1000kHz	1000kHz	1000kHz	1000kHz
VBW	3000kHz	3000kHz	3000kHz	3000kHz	3000kHz	3000kHz
Detector	PK	PK	PK	PK	PK	PK
Trace	Max	Max	Max	Max	Max	Max

7.1.4 TEST RESULTS

Note: Test chart See Appendix 2

8. RADIATED SPURIOUS EMISSION

8.1 DESCRIPTION OF RADIATED SPURIOUS EMISSION

8.1.1 MEASUREMENT METHOD

The radiated spurious emission was measured by substitution method according to ANSI C63.26 2015. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB. For Band 7 The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $55 + 10 \log (P)$ dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

8.1.2 TEST SETUP

The procedure of radiated spurious emissions is as follows:

a) Pre-calibration With pre-calibration method, the Radiated Spurious Emissions(RSE) is calculated as, $RSE = Rx \text{ (dBuV)} + CL \text{ (dB)} + SA \text{ (dB)} + Gain \text{ (dBi)} - 107 \text{ (dBuV to dBm)}$ The SA is calibrated using following setup.

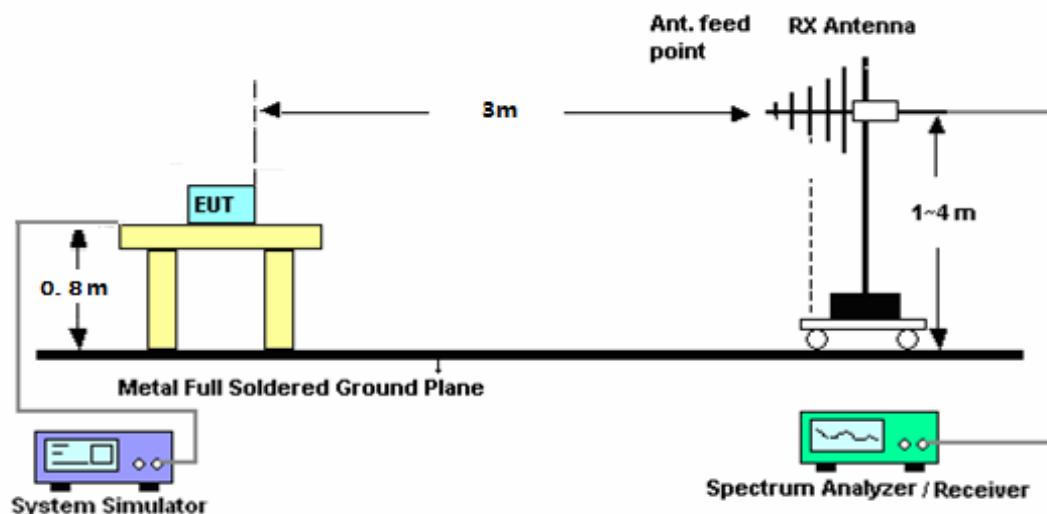
b) EUT was placed on 1.5 m non-conductive stand at a 3 m test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 m from the test item for emission measurements. The height of receiving antenna is 0.8m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the test item and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic measured with peak detector and 1MHz bandwidth.

Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of any band into any of the other blocks.

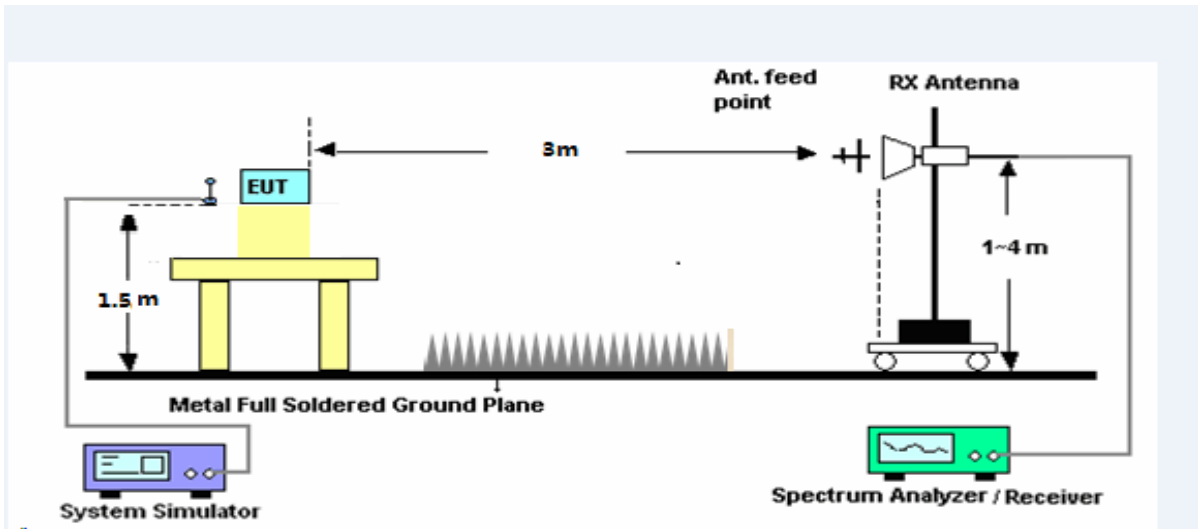
The substitution method is used. Substitution values at each frequency are measured before and saved to the test software. A "reference path loss" is established and the ARpl is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss and the air loss. The measurement results are obtained as described below:

Power=PMea+ARpl

For radiated test from 30MHz to 1GHz



For radiated test from above 1GHz



8.1.3 TEST PROCEDURES

1. The testing FCC KDB 971168 D01 Section 7 and ANSI C63.26 2015 Section 5.5.
2. The EUT was placed on a rotatable wooden table with 1.5 meter above ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
9. Taking the record of output power at antenna port.
10. Repeat step 7 to step 8 for another polarization.
11. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
 $= -13$ dBm

8.1.4 TEST RESULTS

Note: Test data See Appendix 4

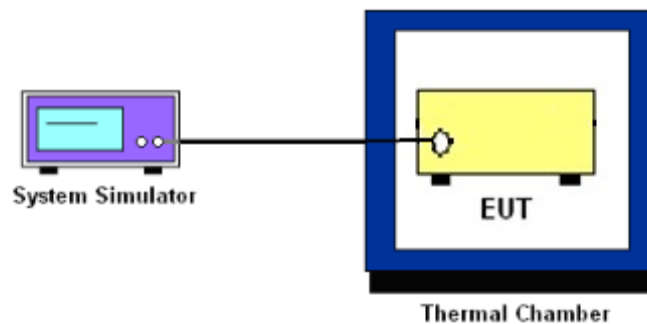
9. FREQUENCY STABILITY

9.1 DESCRIPTION OF FREQUENCY STABILITY MEASUREMENT

9.1.1 MEASUREMENT METHOD

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) of the center frequency.

9.1.2 TEST SETUP



9.1.3 TEST PROCEDURES FOR TEMPERATURE VARIATION

1. The EUT was set up in the thermal chamber and connected with the system simulator.
2. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in 10°C step up to 50°C . The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

9.1.4 TEST PROCEDURES FOR VOLTAGE VARIATION

1. The testing follows FCC KDB 971168 D01v01r03 Section 9.
2. The EUT was placed in a temperature chamber at $25 \pm 5^{\circ}\text{C}$ and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
4. The variation in frequency was measured for the worst case.

9.1.5 TEST RESULTS

LTE Band 2 (QPSK) / 1880MHz / BW 1.4M								
Temperature (°C)	Voltage	RB Size	RB Start	NBIndex	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)				(Hz)	(ppm)		
85	Normal Voltage	1	0	Low	9.96	0.005	±2.5ppm	PASS
80		1	0	Low	-18.21	-0.010		
70		1	0	Low	9.28	0.005		
60		1	0	Low	-12.65	-0.007		
50		1	0	Low	-14.79	-0.008		
40		1	0	Low	-20.74	-0.011		
30		1	0	Low	-17.60	-0.009		
20		1	0	Low	-9.83	-0.005		
10		1	0	Low	9.21	0.005		
0		1	0	Low	14.28	0.008		
-10		1	0	Low	14.42	0.008		
-20		1	0	Low	14.69	0.008		
-30		1	0	Low	16.42	0.009		
-40		1	0	Low	14.99	0.008		
NT	Maximum Voltage	1	0	Low	8.80	0.005		
NT	BEP	1	0	Low	8.53	0.005		

LTE Band 2 (16QAM) / 1880MHz / BW 1.4M								
Temperature (°C)	Voltage	RB Size	RB Start	NBIndex	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)				(Hz)	(ppm)		
85	Normal Voltage	1	0	Low	12.36	0.007	±2.5ppm	PASS
80		1	0	Low	-17.14	-0.009		
70		1	0	Low	16.88	0.009		
60		1	0	Low	-17.32	-0.009		
50		1	0	Low	24.13	0.013		
40		1	0	Low	-27.17	-0.014		
30		1	0	Low	-23.76	-0.013		
20		1	0	Low	-7.38	-0.004		
10		1	0	Low	-9.04	-0.005		
0		1	0	Low	20.51	0.011		
-10		1	0	Low	21.56	0.011		
-20		1	0	Low	16.12	0.009		
-30		1	0	Low	18.20	0.010		
-40		1	0	Low	17.58	0.009		
NT	Maximum Voltage	1	0	Low	14.13	0.008		
NT	BEP	1	0	Low	9.42	0.005		

LTE Band 4 (QPSK) / 1732.5MHz / BW 1.4M								
Temperature (°C)	Voltage	RB Size	RB Start	NBIndex	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)				(Hz)	(ppm)		
85	Normal Voltage	1	0	Low	-13.36	-0.007	±2.5ppm	PASS
80		1	0	Low	-9.76	-0.005		
70		1	0	Low	13.38	0.007		
60		1	0	Low	14.96	0.008		
50		1	0	Low	-16.22	-0.009		
40		1	0	Low	-20.46	-0.011		
30		1	0	Low	8.65	0.005		
20		1	0	Low	10.71	0.006		
10		1	0	Low	-25.52	-0.014		
0		1	0	Low	12.70	0.007		
-10		1	0	Low	15.98	0.009		
-20		1	0	Low	15.15	0.008		
-30		1	0	Low	14.38	0.008		
-40		1	0	Low	13.28	0.007		
NT	Maximum Voltage	1	0	Low	-24.81	-0.013		
NT	BEP	1	0	Low	-31.44	-0.017		

LTE Band 4 (16QAM) / 1732.5MHz / BW 1.4M								
Temperature (°C)	Voltage	RB Size	RB Start	NBIndex	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)				(Hz)	(ppm)		
85	Normal Voltage	1	0	Low	-11.20	-0.006	±2.5ppm	PASS
80		1	0	Low	-9.11	-0.005		
70		1	0	Low	-14.85	-0.008		
60		1	0	Low	7.90	0.004		
50		1	0	Low	-29.51	-0.016		
40		1	0	Low	21.10	0.011		
30		1	0	Low	-9.06	-0.005		
20		1	0	Low	10.74	0.006		
10		1	0	Low	-22.23	-0.012		
0		1	0	Low	14.63	0.008		
-10		1	0	Low	15.31	0.008		
-20		1	0	Low	17.88	0.010		
-30		1	0	Low	18.34	0.010		
-40		1	0	Low	15.19	0.008		
NT	Maximum Voltage	1	0	Low	-28.07	-0.015		
NT	BEP	1	0	Low	-19.76	-0.011		

LTE Band 26(Part 22)/ (QPSK) / 836.5MHz / BW 1.4M								
Temperature (°C)	Voltage	RB Size	RB Start	NBIndex	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)				(Hz)	(ppm)		
85	Normal Voltage	1	0	Low	-5.23	-0.003	±2.5ppm	PASS
80		1	0	Low	-5.95	-0.003		
70		1	0	Low	-4.54	-0.002		
60		1	0	Low	-13.18	-0.007		
50		1	0	Low	5.41	0.003		
40		1	0	Low	-11.61	-0.006		
30		1	0	Low	-6.01	-0.003		
20		1	0	Low	-19.95	-0.011		
10		1	0	Low	6.04	0.003		
0		1	0	Low	6.45	0.003		
-10		1	0	Low	9.86	0.005		
-20		1	0	Low	9.47	0.005		
-30		1	0	Low	7.3	0.004		
-40		1	0	Low	9.48	0.005		
NT	Maximum Voltage	1	0	Low	-7.79	-0.004		
NT	BEP	1	0	Low	-7.45	-0.004		

LTE Band 26(Part 22)/ (16QAM) / 836.5MHz / BW 1.4M								
Temperature (°C)	Voltage	RB Size	RB Start	NBIndex	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)				(Hz)	(ppm)		
85	Normal Voltage	1	0	Low	-5.94	-0.003	±2.5ppm	PASS
80		1	0	Low	-6.51	-0.003		
70		1	0	Low	4.65	0.002		
60		1	0	Low	-10.78	-0.006		
50		1	0	Low	2.86	0.002		
40		1	0	Low	-13.48	-0.007		
30		1	0	Low	-6.63	-0.004		
20		1	0	Low	-16.18	-0.009		
10		1	0	Low	6.06	0.003		
0		1	0	Low	8.54	0.005		
-10		1	0	Low	7.45	0.004		
-20		1	0	Low	7.37	0.004		
-30		1	0	Low	9.12	0.005		
-40		1	0	Low	9.44	0.005		
NT	Maximum Voltage	1	0	Low	-5.66	-0.003		
NT	BEP	1	0	Low	-4.42	-0.002		

LTE Band 26(Part 90)/ (QPSK) / 819MHz / BW 1.4M								
Temperature (°C)	Voltage	RB Size	RB Start	NBIndex	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)				(Hz)	(ppm)		
85	Normal Voltage	1	0	Low	-4.59	-0.002	±2.5ppm	PASS
80		1	0	Low	-6.21	-0.003		
70		1	0	Low	-4.35	-0.002		
60		1	0	Low	-11.04	-0.006		
50		1	0	Low	5.54	0.003		
40		1	0	Low	-11.59	-0.006		
30		1	0	Low	-5.95	-0.003		
20		1	0	Low	-18.95	-0.010		
10		1	0	Low	4.98	0.003		
0		1	0	Low	5.64	0.003		
-10		1	0	Low	7.25	0.004		
-20		1	0	Low	7.62	0.004		
-30		1	0	Low	7.31	0.004		
-40		1	0	Low	9.80	0.005		
NT	Maximum Voltage	1	0	Low	-8.85	-0.005		
NT	BEP	1	0	Low	-5.46	-0.003		

LTE Band 26(Part 90)/ (16QAM) / 819MHz / BW 1.4M								
Temperature (°C)	Voltage	RB Size	RB Start	NBIndex	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)				(Hz)	(ppm)		
85	Normal Voltage	1	0	Low	-5.95	-0.003	±2.5ppm	PASS
80		1	0	Low	-5.51	-0.003		
70		1	0	Low	5.04	0.003		
60		1	0	Low	-11.36	-0.006		
50		1	0	Low	4.45	0.002		
40		1	0	Low	-12.86	-0.007		
30		1	0	Low	-7.08	-0.004		
20		1	0	Low	-15.72	-0.008		
10		1	0	Low	6.09	0.003		
0		1	0	Low	6.52	0.003		
-10		1	0	Low	7.82	0.004		
-20		1	0	Low	7.48	0.004		
-30		1	0	Low	7.58	0.004		
-40		1	0	Low	8.30	0.004		
NT	Maximum Voltage	1	0	Low	-4.86	-0.003		
NT	BEP	1	0	Low	-6.57	-0.003		

LTE Band 66 (QPSK) / 1745MHz / BW 1.4M								
Temperature (°C)	Voltage	RB Size	RB Start	NBIndex	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)				(Hz)	(ppm)		
85	Normal Voltage	1	0	Low	-15.74	-0.008	±2.5ppm	PASS
80		1	0	Low	-13.93	-0.007		
70		1	0	Low	-18.37	-0.010		
60		1	0	Low	-18.41	-0.010		
50		1	0	Low	-22.24	-0.012		
40		1	0	Low	-15.18	-0.008		
30		1	0	Low	-21.90	-0.012		
20		1	0	Low	-26.02	-0.014		
10		1	0	Low	-13.46	-0.007		
0		1	0	Low	-14.51	-0.008		
-10		1	0	Low	-9.23	-0.005		
-20		1	0	Low	13.65	0.007		
-30		1	0	Low	-11.52	-0.006		
-40		1	0	Low	12.39	0.007		
NT	Maximum Voltage	1	0	Low	-17.28	-0.009		
NT	BEP	1	0	Low	-14.23	-0.008		

LTE Band 66 (16QAM) / 1745MHz / BW 1.4M								
Temperature (°C)	Voltage	RB Size	RB Start	NBIndex	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)				(Hz)	(ppm)		
85	Normal Voltage	1	0	Low	-9.73	-0.005	±2.5ppm	PASS
80		1	0	Low	11.27	0.006		
70		1	0	Low	-19.51	-0.010		
60		1	0	Low	15.85	0.008		
50		1	0	Low	-26.12	-0.014		
40		1	0	Low	-12.73	-0.007		
30		1	0	Low	-25.41	-0.014		
20		1	0	Low	-15.29	-0.008		
10		1	0	Low	8.43	0.004		
0		1	0	Low	10.76	0.006		
-10		1	0	Low	-9.38	-0.005		
-20		1	0	Low	12.95	0.007		
-30		1	0	Low	-11.86	-0.006		
-40		1	0	Low	-15.16	-0.008		
NT	Maximum Voltage	1	0	Low	-23.65	-0.013		
NT	BEP	1	0	Low	-12.00	-0.006		

APPENDIX —PHOTOS OF TEST SETUP

SPURIOUS EMISSION TEST SETUP (BELOW 1GHZ)**SPURIOUS EMISSION TEST SETUP (ABOVE 1GHZ)**

****End of report****