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RADIO TEST REPORT

Report No.: STS2107141W02

Issued for

Telit Communications S.p.A.

Viale Stazione di Prosecco 5/b Trieste 34010 Italy

Product Name:	SE150A4-NA
Brand Name:	Telit
Model Name:	SE150A4-NA
Series Model:	N/A
FCC ID:	RI7SE150A4NA
Test Standard:	47 CFR Part 2, 24(E), 27, 90

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**TEST RESULT CERTIFICATION****Applicant's Name**: Telit Communications S.p.A.

Address: Viale Stazione di Prosecco 5/b Trieste 34010 Italy

Manufacturer's Name: Telit Communications S.p.A.

Address: Viale Stazione di Prosecco 5/b Trieste 34010 Italy

Product Description

Product Name: SE150A4-NA

Brand Name: Telit

Model Name: SE150A4-NA

Series Model: N/A

Test Standards.....: 47 CFR Part 2, 24(E), 27, 90

Test Procedure: KDB 971168 D01 v03r01, ANSI C63.26 2015

This device described above has been tested by STS, 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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Date of Test.....:

Date of receipt of test item.....: 20 July 2021

Date (s) of performance of tests.: 20 July 2021 ~ 09 Aug. 2021

Date of Issue: 09 Aug. 2021

Test Result: Pass

Testing Engineer :

(Chris Chen)

Technical Manager :

(Sean she)

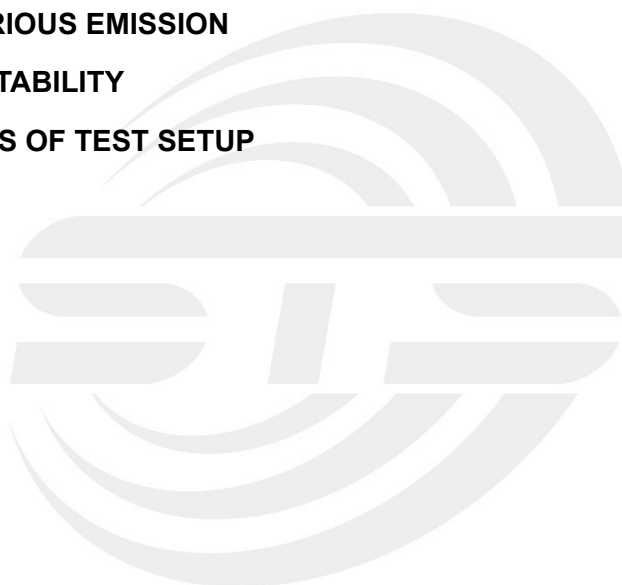
Authorized Signatory :

(Vita Li)





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**Revision History**

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	09 Aug. 2021	STS2107141W02	ALL	Initial Issue





1. TEST FACTORY & MEASUREMENT UNCERTAINTY

1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

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	RF output power, conducted	$\pm 0.68\text{dB}$
2	Unwanted Emissions, conducted	$\pm 2.988\text{dB}$
3	All emissions, radiated 9K-30MHz	$\pm 2.84\text{dB}$
4	All emissions, radiated 30M-1GHz	$\pm 4.39\text{dB}$
5	All emissions, radiated 1G-6GHz	$\pm 5.10\text{dB}$
6	All emissions, radiated >6G	$\pm 5.48\text{dB}$
7	Conducted Emission (9KHz-150KHz)	$\pm 2.79\text{dB}$
8	Conducted Emission (150KHz-30MHz)	$\pm 2.80\text{dB}$



2. GENERAL INFORMATION

2.1 TECHNICAL SPECIFICATIONS AND REGULATIONS

2.1.1 PRODUCT DESCRIPTION

A major technical description of EUT is described as following:

Product Name	SE150A4-NA
Trade Name	Telit
Model Name	SE150A4-NA
Series Model	N/A
Model Difference	N/A
Frequency Bands	U.S. Bands: LTE FDD Band 2 LTE FDD Band 4 LTE FDD Band 5 LTE FDD Band 7 LTE FDD Band 12 LTE FDD Band 13 LTE FDD Band 17 LTE FDD Band 17 LTE FDD Band 25 LTE FDD Band 26 LTE TDD Band 41 LTE FDD Band 66 LTE FDD Band 71
SIM Card	SIM 1 and SIM 2 is a chipset unit and tested as single chipset, SIM 1 is used to tested.
Antenna	PIFA
Antenna gain	B2/B25:1.87dBi, B4/B66:3.12dBi, B5:0.91dBi, B7:1.55dBi, B12/ B17:0.95dBi, B13:2.23dBi, B14:2.18dBi,; B26:1.40dBi, B71:-0.48dBi, B41:3.20dBi
Rating	Input: 3.8V
Extreme Vol. Limits	3.4V to 4.4V (Nominal 3.8V)
Extreme Temp. Tolerance	-30°C to +75°C
Hardware version number	V1.01
Software version number	M0M.100001

Note: The antenna information refer the manufacturer provide report, applicable only to the tested sa-mple identified in the report.



2.1.2 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

Product Specification Subjective To This Standard	
Tx Frequency	LTE Band 2:1850~1910MHz LTE Band 4:1710~1755MHz LTE Band 5:824~849MHz LTE Band 7:2500~2570MHz LTE Band 12:699~716MHz LTE Band 13:777~787MHz LTE Band 14:788~798MHz LTE Band 17:704~716MHz LTE Band 25:1850~1915MHz LTE Band 26:814~849MHz LTE Band 41:2555~2655MHz LTE Band 66:1710~1780MHz LTE Band 71:663~698MHz
Rx Frequency	LTE Band 2:1930 ~1990MHz LTE Band 4:2110~2155MHz LTE Band 5:869~894MHz LTE Band 7:2620~2690MHz LTE Band 12:729~746MHz LTE Band 13:746~756MHz LTE Band 14:758~768MHz LTE Band 17:734~746MHz LTE Band 25:1930~1995MHz LTE Band 26:859~894MHz LTE Band 41:2555~2655MHz LTE Band 66:2110~2200MHz LTE Band 71:617~652MHz
Bandwidth	LTE Band 2: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz /20MHz LTE Band 5: 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 7: 5MHz / 10MHz / 15MHz /20MHz LTE Band 12: 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 13: 5MHz / 10MHz LTE Band 14: 5MHz / 10MHz LTE Band 17: 5MHz / 10MHz LTE Band 25: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz /20MHz LTE Band 26: 1.4MHz / 3MHz / 5MHz / 10MHz/15MHz LTE Band 41: 5MHz / 10MHz / 15MHz /20MHz LTE Band 66: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz /20MHz LTE Band 71: 5MHz / 10MHz / 15MHz /20MHz
Maximum Output Power	LTE Band 2: 23.89 dBm LTE Band 4: 23.26 dBm LTE Band 5: 23.72 dBm LTE Band 7: 22.96 dBm LTE Band 12: 23.35 dBm LTE Band 13: 23.06 dBm LTE Band 14: 23.28 dBm LTE Band 17: 24.22 dBm LTE Band 25: 23.39 dBm LTE Band 26: 23.25 dBm LTE Band 41: 23.32 dBm LTE Band 66: 23.62 dBm LTE Band 71: 23.22 dBm



Type of Modulation	QPSK /16QAM
--------------------	-------------

The Bandwidth channel frequency division table for Band 26:

Part90				Part22			
TX	814MHz	-	824MHz	TX	824MHz	-	849MHz
RX	859MHz	-	869MHz	RX	869MHz	-	894MHz
Band26	BW	Channel	Frequency	Band26	BW	Channel	Frequency
Low	1.4M	26697	814.7	Low	1.4M	26797	824.7
	3M	26705	815.5		3M	26805	825.5
	5M	26715	816.5		5M	26815	826.5
Middle	1.4/3/5/10	26740	819	Middle	10M	26840	829
High	1.4M	26783	823.3		15M	26865	831.5
	3M	26775	822.5		1.4/3/5/10/15	26915	836.5
	5M	26765	821.5	High	1.4M	27033	848.3
					3M	27025	847.5
					5M	27015	846.5
					10M	26990	844
					15M	26965	841.5

RF Function	Band	UE Category UL	Modulation	Power Class	Ant Gain(dBi)	Ant Type	SIM Card
LTE	FDD:2/4/5 /7/12/13/1 4/17/25/26 /66/71	5	UL: QPSK, 16QAM DL: QPSK, 16QAM,64Q AM	3	B2: 1.87 B4: 3.12 B5: 0.91 B7: 1.55 B12: 0.95 B13: 2.23 B14: 2.18 B17: 0.95 B25: 1.87 B26: 1.4 B66: 3.12 B71: -0.48 B41: 3.2	External antenna	2 SIM 1 is used to tested.
	TDD:41						



2.1.3 EMISSION DESIGNATOR

LTE Band 2	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M10G7D	1M30W7D
3	2M69G7D	2M68W7D
5	4M52G7D	4M53W7D
10	8M93G7D	8M93W7D
15	13M5G7D	13M5W7D
20	17M9G7D	17M9W7D
LTE Band 4	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M10G7D	1M10W7D
3	2M69G7D	2M68W7D
5	4M52G7D	4M53W7D
10	8M93G7D	8M93W7D
15	13M4G7D	13M4W7D
20	17M9G7D	17M9W7D
LTE Band 5	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M11G7D	1M10W7D
3	2M69G7D	2M68W7D
5	4M51G7D	4M52W7D
10	8M95G7D	8M94W7D
LTE Band 7	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
5	4M52G7D	4M52W7D
10	8M93G7D	8M92W7D
15	13M5G7D	13M5W7D
20	17M9G7D	17M9W7D
LTE Band 12	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M10G7D	1M10W7D
3	2M69G7D	2M68W7D
5	4M51G7D	4M53W7D
10	8M94G7D	8M93W7D
LTE Band 13	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
5	4M53G7D	4M54W7D
10	8M90G7D	8M91W7D
LTE Band 14	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
5	4M52G7D	4M52W7D
10	8M91G7D	8M90W7D
LTE Band 17	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
5	4M51G7D	4M53W7D
10	8M91G7D	8M92W7D



LTE Band 25	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M10G7D	1M10W7D
3	2M69G7D	2M68W7D
5	4M52G7D	4M53W7D
10	8M93G7D	8M93W7D
15	13M4G7D	13M5W7D
20	17M9G7D	17M9W7D
LTE Band 26 (Part 22)	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M10G7D	1M10W7D
3	2M68G7D	2M68W7D
5	4M51G7D	4M53W7D
10	7M95G7D	7M95W7D
15	13M5G7D	13M5W7D
LTE Band 26 (Part 90)	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M11G7D	1M10W7D
3	2M69G7D	2M68W7D
5	4M52G7D	4M52W7D
10	8M91G7D	8M89W7D
LTE Band 41	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
5	4M51G7D	4M51W7D
10	8M93G7D	8M93W7D
15	13M5G7D	13M5W7D
20	17M9G7D	17M9W7D
LTE Band 66	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
1.4	1M11G7D	1M10W7D
3	2M69G7D	2M68W7D
5	4M52G7D	4M53W7D
10	8M94G7D	8M93W7D
15	13M5G7D	13M5W7D
20	17M9G7D	17M9W7D
LTE Band 71	Emission Designator	Emission Designator
BW(MHz)	(99%OBW)QPSK	(99%OBW)16QAM
5	4M52G7D	4M53W7D
10	8M94G7D	8M94W7D
15	13M5G7D	13M5W7D
20	17M9G7D	17M9W7D



2.1.4 TEST CONFIGURATION OF EQUIPMENT UNDER TEST

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 v03r01 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	Half	Full	L	M	H
Max. Output Power	2	v	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	v
	5	v	v	v	v			v	v	v	v	v	v	v	v
	7			v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v			v	v	v	v	v	v	v	v
	13			v	v			v	v	v	v	v		v	
	14			v	v			v	v	v	v	v		v	
	17			v	v			v	v	v	v	v	v	v	v
	25	v	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	v
	41			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	v
	71			v	v	v	v	v	v	v	v	v	v	v	v
Peak&Avera Ratio	2						v	v	v	v		v	v	v	v
	4						v	v	v	v		v	v	v	v
	5				v			v	v	v		v	v	v	v
	7						v	v	v	v		v	v	v	v
	12				v			v	v	v		v	v	v	v
	13				v			v	v	v		v		v	
	14				v			v	v	v		v		v	
	17				v			v	v	v		v	v	v	v
	25						v	v	v	v		v	v	v	v
	26					v		v	v	v		v	v	v	v
	41						v	v	v	v		v	v	v	v
	66						v	v	v	v		v	v	v	v
	71						v	v	v	v		v	v	v	v
26dB&99% Bandwidth	2	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
	5	v	v	v	v			v	v			v	v	v	v
	7			v	v	v	v	v	v			v	v	v	v
	12	v	v	v	v			v	v			v	v	v	v
	13			v	v			v	v			v		v	



	14			v	v			v	v			v		v	
	17			v	v			v	v			v	v	v	v
	25	v	v	v	v	v	v	v	v			v	v	v	v
	26	v	v	v	v	v		v	v			v	v	v	v
	41			v	v	v	v	v	v			v	v	v	v
	66	v	v	v	v	v	v	v	v			v	v	v	v
	71			v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	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
	5	v	v	v	v			v	v	v		v	v	v	v
	7			v	v	v	v	v	v	v		v	v	v	v
	12	v	v	v	v			v	v	v		v	v	v	v
	13			v	v			v	v	v		v		v	
	14			v	v			v	v	v		v		v	
	17			v	v			v	v	v		v	v	v	v
	25	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
	41			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
	71			v	v	v	v	v	v	v		v	v	v	v
Conducted Spurious Emission	2	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
	5	v	v	v	v			v	v	v			v	v	v
	7			v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v			v	v	v			v	v	v
	13			v	v			v	v	v				v	
	14			v	v			v	v	v				v	
	17			v	v			v	v	v			v	v	v
	25	v	v	v	v	v	v	v	v	v			v	v	v
	26	v	v	v	v	v		v	v	v			v	v	v
	41			v	v	v	v	v	v	v			v	v	v
	66	v	v	v	v	v	v	v	v	v			v	v	v
	71			v	v	v	v	v	v	v			v	v	v
Frequency Stability	2				v			v				v		v	
	4				v			v				v		v	
	5				v			v				v		v	
	7				v			v				v		v	
	12				v			v				v		v	
	13				v			v				v		v	
	14				v			v				v		v	
	17				v			v				v		v	
	25				v			v				v		v	



	26				v			v				v		v	
	41				v			v				v		v	
	66				v			v				v		v	
	71				v			v				v		v	
E.R.P.& E.I.R.P.	2	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
	5	v	v	v	v			v	v	v			v	v	v
	7			v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v			v	v	v			v	v	v
	13			v	v			v	v	v				v	
	14			v	v			v	v	v				v	
	17			v	v			v	v	v			v	v	v
	25	v	v	v	v	v	v	v	v	v			v	v	v
	26	v	v	v	v	v		v	v	v			v	v	v
	41			v	v	v	v	v	v	v			v	v	v
	66	v	v	v	v	v	v	v	v	v			v	v	v
	71			v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	2	v	v	v	v	v	v	v		v			v	v	v
	4	v	v	v	v	v	v	v		v			v	v	v
	5	v	v	v	v			v		v			v	v	v
	7			v	v	v	v	v		v			v	v	v
	12	v	v	v	v			v		v			v	v	v
	13			v	v			v		v				v	
	14			v	v			v		v				v	
	17			v	v			v		v			v	v	v
	25	v	v	v	v	v	v	v		v			v	v	v
	26	v	v	v	v	v		v		v			v	v	v
	41			v	v	v	v	v		v			v	v	v
	66	v	v	v	v	v	v	v		v			v	v	v
	71			v	v	v	v	v		v			v	v	v



2.1.5 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for filing to comply with the 47 CFR Part 2, 22, 24(E), 27, 90.

2.1.6 SPECIAL ACCESSORIES

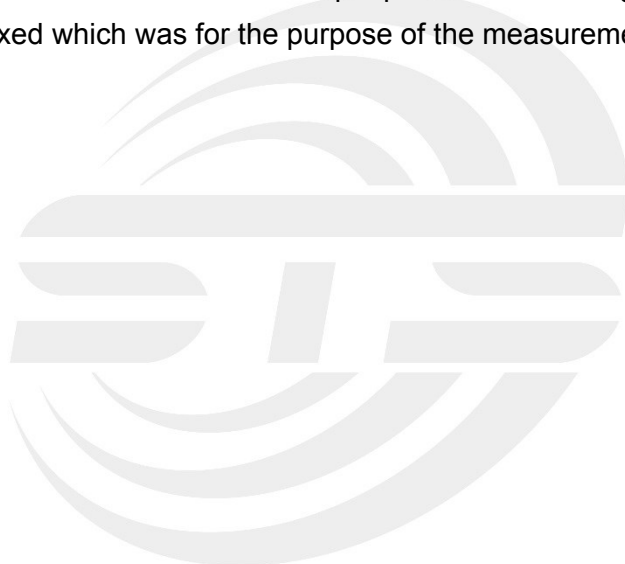
The battery and the charger, earphone supplied by the applicant were used as accessories and being tested with eut intended for fcc grant together.

2.1.7 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.1.8 EUT EXERCISE

The Transmitter was operated in the maximum output power mode through Communication Tester. The TX frequency was fixed which was for the purpose of the measurements.





2.1.9 CONFIGURATION OF EUT SYSTEM

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

E-1
EUT

Table 2-1 Equipment Used in EUT System

Item	Equipment	Model No.	Length	Note
N/A	N/A	N/A	N/A	N/A

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (2) “YES” is means “with core”; “NO” is means “without core”.



2.1.10 MEASUREMENT INSTRUMENTS

The radiated emission testing was performed according to the procedures of ANSI C63.26 2015 and FCC CFR 47 rules of 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055, 2.1057.

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2020.10.12	2021.10.11
Signal Analyzer	R&S	FSV 40-N	101823	2020.10.10	2021.10.09
Signal Generator	Agilent	83752A	3610A02740	2020.10.10	2021.10.09
Wireless Communications Test Set	R&S	CMW 500	133884	2021.03.04	2022.03.03
Bilog Antenna	TESEQ	CBL6111D	34678	2020.10.12	2022.10.11
Horn Antenna	SCHWARZBECK	BBHA 9120D	02014	2019.10.15	2021.10.14
Bilog Antenna	TESEQ	CBL6111D	45873	2020.10.12	2022.10.11
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1343	2020.10.12	2022.10.11
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	J211020657	2020.10.12	2022.10.11
Pre-Amplifier (0.1M-3GHz)	EM	EM330	060665	2020.10.12	2021.10.11
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2020.10.12	2021.10.11
Pre-Amplifier (18G-40GHz)	SKET	LNPA-1840-50	SK2018101801	2020.10.10	2021.10.09
Turn table	EM	SC100_1	60531	N/A	N/A
Antenna mast	EM	SC100	N/A	N/A	N/A
Temperature & Humidity	HH660	Mieo	N/A	2020.10.13	2021.10.12
Test SW	BALUN	BL410-E/18.905			

RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Universal Radio communication tester	R&S	CMU200	119907	2020.10.12	2021.10.11
Wireless Communications Test Set	R&S	CMW 500	133884	2021.03.04	2022.03.03
Signal Analyzer	Agilent	N9020A	MY52440124	2021.03.04	2022.03.03
Temperature & Humidity test chamber	Safety test	AG80L	171200018	2021.03.04	2022.03.03
Programmable power supply	Agilent	E3642A	MY40002025	2020.10.12	2021.10.11
Temperature & Humidity	SW-108	SuWei	N/A	2021.03.04	2022.03.03



2.1.11 MEASUREMENT RESULTS EXPLANATION EXAMPLE

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF Cable Loss + Attenuator Factor.



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.



3.1.4 TEST RESULTS

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.65	23.61	23.41
1.4	1	2		23.36	23.37	23.16
1.4	1	5		23.13	23.15	22.88
1.4	3	0		22.85	22.87	22.64
1.4	3	1		22.63	22.60	22.40
1.4	3	2		22.42	22.34	22.10
1.4	6	0		22.13	22.08	21.82
1.4	1	0	16-QAM	23.44	23.41	23.17
1.4	1	2		23.19	23.20	22.92
1.4	1	5		22.90	22.97	22.71
1.4	3	0		22.61	22.71	22.47
1.4	3	1		22.38	22.43	22.20
1.4	3	2		22.15	22.20	21.91
1.4	6	0		21.90	22.00	21.68
3	1	0	QPSK	22.99	22.90	22.77
3	1	7		22.76	22.65	22.56
3	1	14		22.46	22.37	22.31
3	8	0		22.16	22.14	22.08
3	8	4		21.91	21.90	21.80
3	8	7		21.66	21.69	21.56
3	15	0		21.36	21.43	21.27
3	1	0	16-QAM	22.72	22.68	22.53
3	1	7		22.42	22.40	22.28
3	1	14		22.21	22.17	22.02
3	8	0		21.98	21.89	21.73
3	8	4		21.72	21.64	21.44
3	8	7		21.50	21.40	21.14
3	15	0		21.29	21.19	20.91



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.71	22.73	22.63
5	1	12		22.49	22.45	22.41
5	1	24		22.23	22.21	22.18
5	12	0		21.99	21.99	21.89
5	12	6		21.70	21.71	21.68
5	12	11		21.48	21.49	21.42
5	25	0		21.23	21.23	21.16
5	1	0	16-QAM	22.48	22.51	22.35
5	1	12		22.27	22.27	22.11
5	1	24		22.00	22.05	21.85
5	12	0		21.73	21.83	21.63
5	12	6		21.43	21.60	21.38
5	12	11		21.20	21.39	21.16
5	25	0		20.99	21.16	20.93
10	1	0	QPSK	22.61	22.68	22.52
10	1	24		22.33	22.38	22.32
10	1	49		22.06	22.10	22.08
10	25	0		21.80	21.81	21.86
10	25	12		21.51	21.52	21.60
10	25	24		21.27	21.23	21.31
10	50	0		21.00	20.99	21.10
10	1	0	16-QAM	22.36	22.41	22.29
10	1	24		22.06	22.14	22.01
10	1	49		21.79	21.89	21.72
10	25	0		21.58	21.67	21.46
10	25	12		21.36	21.42	21.22
10	25	24		21.09	21.14	20.98
10	50	0		20.80	20.94	20.76



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.75	23.69	23.72
15	1	37		23.47	23.43	23.52
15	1	74		23.24	23.20	23.25
15	36	0		23.03	22.98	22.99
15	36	18		22.83	22.72	22.75
15	36	39		22.59	22.46	22.50
15	75	0		22.32	22.20	22.22
15	1	0	16-QAM	23.55	23.46	23.42
15	1	38		23.28	23.21	23.18
15	1	75		23.04	22.95	22.89
15	36	0		22.75	22.69	22.63
15	36	18		22.49	22.46	22.40
15	36	39		22.23	22.21	22.11
15	75	0		22.02	21.98	21.84
20	1	0	QPSK	23.89	23.84	23.82
20	1	49		23.66	23.55	23.60
20	1	99		23.38	23.29	23.35
20	50	0		23.16	23.07	23.14
20	50	24		22.87	22.82	22.89
20	50	49		22.66	22.56	22.67
20	100	0		22.39	22.36	22.41
20	1	0	16-QAM	23.65	23.55	23.60
20	1	49		23.39	23.32	23.35
20	1	99		23.14	23.11	23.06
20	50	0		22.86	22.89	22.83
20	50	24		22.58	22.65	22.54
20	50	49		22.33	22.40	22.33
20	100	0		22.12	22.16	22.08



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.82	22.99	22.95
1.4	1	2		22.61	22.72	22.66
1.4	1	5		22.31	22.42	22.41
1.4	3	0		22.09	22.15	22.13
1.4	3	1		21.86	21.92	21.87
1.4	3	2		21.62	21.70	21.58
1.4	6	0		21.34	21.47	21.38
1.4	1	0	16-QAM	22.59	22.72	22.73
1.4	1	2		22.33	22.47	22.51
1.4	1	5		22.07	22.22	22.30
1.4	3	0		21.84	21.93	22.08
1.4	3	1		21.58	21.71	21.83
1.4	3	2		21.37	21.48	21.56
1.4	6	0		21.08	21.19	21.28
3	1	0	QPSK	22.59	22.67	22.72
3	1	7		22.33	22.45	22.44
3	1	14		22.03	22.25	22.16
3	8	0		21.75	22.03	21.91
3	8	4		21.47	21.82	21.71
3	8	7		21.26	21.62	21.48
3	15	0		21.02	21.35	21.21
3	1	0	16-QAM	22.35	22.40	22.43
3	1	7		22.06	22.13	22.22
3	1	14		21.78	21.83	21.95
3	8	0		21.55	21.55	21.72
3	8	4		21.30	21.34	21.43
3	8	7		21.00	21.12	21.20
3	15	0		20.77	20.90	20.94



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.03	21.97	22.15
5	1	12		21.81	21.75	21.94
5	1	24		21.55	21.51	21.72
5	12	0		21.29	21.31	21.43
5	12	6		21.09	21.08	21.19
5	12	11		20.85	20.87	20.95
5	25	0		20.57	20.62	20.73
5	1	0	16-QAM	21.73	21.71	21.94
5	1	12		21.50	21.43	21.65
5	1	24		21.25	21.18	21.38
5	12	0		21.02	20.91	21.12
5	12	6		20.75	20.69	20.90
5	12	11		20.48	20.49	20.65
5	25	0		20.26	20.25	20.41
10	1	0	QPSK	21.98	21.95	21.99
10	1	24		21.70	21.71	21.70
10	1	49		21.46	21.50	21.48
10	25	0		21.18	21.30	21.23
10	25	12		20.94	21.04	21.01
10	25	24		20.70	20.82	20.80
10	50	0		20.44	20.57	20.58
10	1	0	16-QAM	21.77	21.66	21.71
10	1	24		21.55	21.36	21.41
10	1	49		21.29	21.16	21.16
10	25	0		20.99	20.91	20.89
10	25	12		20.75	20.63	20.65
10	25	24		20.50	20.41	20.39
10	50	0		20.28	20.14	20.13



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.92	23.02	22.98
15	1	37		22.62	22.77	22.72
15	1	74		22.40	22.48	22.50
15	36	0		22.13	22.22	22.22
15	36	18		21.91	21.94	21.95
15	36	39		21.69	21.72	21.70
15	75	0		21.47	21.45	21.49
15	1	0	16-QAM	22.71	22.80	22.75
15	1	38		22.51	22.59	22.50
15	1	75		22.26	22.33	22.29
15	36	0		22.04	22.03	22.07
15	36	18		21.82	21.74	21.82
15	36	39		21.56	21.53	21.59
15	75	0		21.27	21.25	21.37
20	1	0	QPSK	23.12	23.26	23.13
20	1	49		22.84	22.99	22.86
20	1	99		22.60	22.77	22.65
20	50	0		22.35	22.54	22.45
20	50	24		22.14	22.26	22.17
20	50	49		21.87	22.02	21.94
20	100	0		21.63	21.76	21.67
20	1	0	16-QAM	22.89	23.00	22.93
20	1	49		22.68	22.77	22.69
20	1	99		22.46	22.53	22.39
20	50	0		22.17	22.24	22.15
20	50	24		21.87	21.99	21.89
20	50	49		21.62	21.72	21.60
20	100	0		21.33	21.47	21.38



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.12	23.05	23.21
1.4	1	2		22.87	22.76	22.92
1.4	1	5		22.65	22.53	22.70
1.4	3	0		22.36	22.24	22.46
1.4	3	1		22.09	21.98	22.16
1.4	3	2		21.83	21.70	21.88
1.4	6	0		21.53	21.48	21.59
1.4	1	0	16-QAM	22.92	22.83	22.96
1.4	1	2		22.72	22.56	22.71
1.4	1	5		22.42	22.35	22.49
1.4	3	0		22.12	22.14	22.26
1.4	3	1		21.89	21.90	22.00
1.4	3	2		21.64	21.70	21.77
1.4	6	0		21.37	21.43	21.54
3	1	0	QPSK	22.98	22.89	22.85
3	1	7		22.69	22.65	22.58
3	1	14		22.43	22.41	22.34
3	8	0		22.13	22.16	22.13
3	8	4		21.83	21.93	21.86
3	8	7		21.60	21.66	21.56
3	15	0		21.38	21.40	21.34
3	1	0	16-QAM	22.77	22.68	22.58
3	1	7		22.50	22.46	22.37
3	1	14		22.26	22.17	22.16
3	8	0		22.00	21.93	21.87
3	8	4		21.77	21.65	21.66
3	8	7		21.53	21.40	21.38
3	15	0		21.27	21.18	21.15



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.26	22.23	22.15
5	1	12		22.02	22.00	21.89
5	1	24		21.81	21.74	21.62
5	12	0		21.54	21.50	21.38
5	12	6		21.25	21.24	21.10
5	12	11		21.03	21.00	20.87
5	25	0		20.79	20.72	20.61
5	1	0	16-QAM	21.98	21.98	21.90
5	1	12		21.72	21.76	21.68
5	1	24		21.49	21.53	21.39
5	12	0		21.28	21.26	21.19
5	12	6		21.01	20.96	20.92
5	12	11		20.73	20.72	20.66
5	25	0		20.47	20.47	20.45
10	1	0	QPSK	23.56	23.72	23.51
10	1	24		23.27	23.45	23.28
10	1	49		23.04	23.24	23.07
10	25	0		22.82	23.00	22.80
10	25	12		22.60	22.71	22.53
10	25	24		22.40	22.48	22.23
10	50	0		22.14	22.20	21.95
10	1	0	16-QAM	23.33	23.52	23.31
10	1	24		23.06	23.27	23.06
10	1	49		22.80	23.06	22.82
10	25	0		22.55	22.81	22.57
10	25	12		22.33	22.58	22.28
10	25	24		22.08	22.36	21.99
10	50	0		21.84	22.12	21.77



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.12	22.23	22.32
5	1	12		21.90	21.98	22.11
5	1	24		21.64	21.76	21.88
5	12	0		21.38	21.52	21.60
5	12	6		21.15	21.25	21.39
5	12	11		20.87	20.96	21.19
5	25	0		20.60	20.67	20.90
5	1	0	16-QAM	21.84	21.94	22.08
5	1	12		21.59	21.71	21.81
5	1	24		21.34	21.43	21.55
5	12	0		21.07	21.22	21.25
5	12	6		20.86	21.01	20.98
5	12	11		20.60	20.77	20.78
5	25	0		20.36	20.47	20.49
10	1	0	QPSK	22.02	22.12	22.13
10	1	24		21.82	21.85	21.85
10	1	49		21.59	21.55	21.57
10	25	0		21.35	21.35	21.36
10	25	12		21.05	21.10	21.13
10	25	24		20.83	20.87	20.83
10	50	0		20.54	20.64	20.59
10	1	0	16-QAM	21.78	21.91	21.86
10	1	24		21.48	21.65	21.64
10	1	49		21.23	21.40	21.41
10	25	0		20.96	21.16	21.17
10	25	12		20.68	20.87	20.88
10	25	24		20.47	20.58	20.63
10	50	0		20.19	20.30	20.36



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.26	22.35	22.42
15	1	37		22.03	22.10	22.21
15	1	74		21.75	21.89	21.94
15	36	0		21.51	21.64	21.67
15	36	18		21.29	21.36	21.46
15	36	39		21.08	21.10	21.24
15	75	0		20.85	20.86	20.96
15	1	0	16-QAM	21.96	22.11	22.20
15	1	38		21.70	21.85	21.95
15	1	75		21.45	21.59	21.67
15	36	0		21.17	21.39	21.38
15	36	18		20.88	21.18	21.10
15	36	39		20.64	20.97	20.84
15	75	0		20.40	20.76	20.60
20	1	0	QPSK	22.89	22.92	22.96
20	1	49		22.64	22.69	22.70
20	1	99		22.35	22.45	22.45
20	50	0		22.12	22.15	22.18
20	50	24		21.84	21.88	21.92
20	50	49		21.58	21.58	21.71
20	100	0		21.30	21.32	21.45
20	1	0	16-QAM	22.65	22.68	22.67
20	1	49		22.37	22.39	22.37
20	1	99		22.10	22.19	22.13
20	50	0		21.82	21.93	21.85
20	50	24		21.58	21.67	21.63
20	50	49		21.33	21.43	21.38
20	100	0		21.04	21.23	21.09



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.15	22.32	22.29
1.4	1	2		21.94	22.04	22.02
1.4	1	5		21.73	21.77	21.81
1.4	3	0		21.44	21.47	21.59
1.4	3	1		21.17	21.24	21.36
1.4	3	2		20.95	20.96	21.13
1.4	6	0		20.72	20.70	20.85
1.4	1	0	16-QAM	21.94	22.03	22.06
1.4	1	2		21.70	21.77	21.79
1.4	1	5		21.46	21.55	21.53
1.4	3	0		21.25	21.27	21.23
1.4	3	1		21.00	20.99	20.98
1.4	3	2		20.72	20.78	20.78
1.4	6	0		20.42	20.51	20.50
3	1	0	QPSK	22.05	22.14	22.09
3	1	7		21.83	21.84	21.82
3	1	14		21.62	21.63	21.60
3	8	0		21.35	21.40	21.37
3	8	4		21.06	21.14	21.08
3	8	7		20.80	20.91	20.87
3	15	0		20.56	20.67	20.60
3	1	0	16-QAM	21.84	21.84	21.82
3	1	7		21.56	21.59	21.52
3	1	14		21.33	21.30	21.30
3	8	0		21.09	21.03	21.01
3	8	4		20.88	20.77	20.76
3	8	7		20.65	20.52	20.55
3	15	0		20.43	20.25	20.29



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.85	22.56	22.78
5	1	12		22.62	22.34	22.57
5	1	24		22.34	22.10	22.36
5	12	0		22.07	21.89	22.13
5	12	6		21.81	21.64	21.88
5	12	11		21.58	21.43	21.67
5	25	0		21.37	21.20	21.46
5	1	0	16-QAM	22.64	22.34	22.50
5	1	12		22.41	22.10	22.22
5	1	24		22.20	21.88	21.95
5	12	0		22.00	21.58	21.71
5	12	6		21.73	21.33	21.43
5	12	11		21.45	21.05	21.14
5	25	0		21.23	20.76	20.84
10	1	0	QPSK	23.16	23.25	23.35
10	1	24		22.91	22.99	23.13
10	1	49		22.61	22.75	22.92
10	25	0		22.31	22.54	22.64
10	25	12		22.07	22.27	22.43
10	25	24		21.77	22.02	22.23
10	50	0		21.49	21.81	21.95
10	1	0	16-QAM	22.95	23.01	23.12
10	1	24		22.71	22.78	22.89
10	1	49		22.49	22.48	22.63
10	25	0		22.23	22.18	22.39
10	25	12		22.02	21.93	22.09
10	25	24		21.76	21.63	21.87
10	50	0		21.50	21.42	21.65



LTE Band 13 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.15	22.32	22.36
5	1	12		21.92	22.04	22.14
5	1	24		21.62	21.75	21.94
5	12	0		21.34	21.49	21.66
5	12	6		21.09	21.26	21.45
5	12	11		20.88	20.96	21.24
5	25	0		20.62	20.69	20.96
5	1	0	16-QAM	21.90	22.03	22.07
5	1	12		21.64	21.80	21.82
5	1	24		21.42	21.57	21.61
5	12	0		21.16	21.30	21.35
5	12	6		20.96	21.04	21.06
5	12	11		20.69	20.77	20.76
5	25	0		20.39	20.49	20.51
10	1	0	QPSK	N/A	23.06	N/A
10	1	24		N/A	22.85	N/A
10	1	49		N/A	22.59	N/A
10	25	0		N/A	22.38	N/A
10	25	12		N/A	22.12	N/A
10	25	24		N/A	21.90	N/A
10	50	0		N/A	21.67	N/A
10	1	0	16-QAM	N/A	22.82	N/A
10	1	24		N/A	22.53	N/A
10	1	49		N/A	22.30	N/A
10	25	0		N/A	22.05	N/A
10	25	12		N/A	21.76	N/A
10	25	24		N/A	21.47	N/A
10	50	0		N/A	21.26	N/A



LTE Band 14 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.15	22.26	22.35
5	1	12		21.87	22.03	22.06
5	1	24		21.65	21.82	21.79
5	12	0		21.45	21.57	21.50
5	12	6		21.18	21.33	21.22
5	12	11		20.93	21.11	20.93
5	25	0		20.68	20.82	20.69
5	1	0	16-QAM	21.89	21.98	22.07
5	1	12		21.66	21.76	21.83
5	1	24		21.38	21.54	21.55
5	12	0		21.09	21.27	21.33
5	12	6		20.83	21.04	21.04
5	12	11		20.61	20.76	20.74
5	25	0		20.35	20.51	20.46
10	1	0	QPSK	N/A	23.28	N/A
10	1	24		N/A	23.01	N/A
10	1	49		N/A	22.73	N/A
10	25	0		N/A	22.49	N/A
10	25	12		N/A	22.25	N/A
10	25	24		N/A	21.98	N/A
10	50	0		N/A	21.73	N/A
10	1	0	16-QAM	N/A	22.98	N/A
10	1	24		N/A	22.69	N/A
10	1	49		N/A	22.44	N/A
10	25	0		N/A	22.16	N/A
10	25	12		N/A	21.92	N/A
10	25	24		N/A	21.68	N/A
10	50	0		N/A	21.45	N/A



LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.21	23.26	23.38
5	1	12		22.95	22.96	23.13
5	1	24		22.70	22.72	22.85
5	12	0		22.44	22.48	22.59
5	12	6		22.23	22.19	22.38
5	12	11		22.03	21.95	22.14
5	25	0		21.77	21.68	21.84
5	1	0	16-QAM	23.01	23.00	23.17
5	1	12		22.80	22.71	22.90
5	1	24		22.56	22.49	22.60
5	12	0		22.32	22.27	22.32
5	12	6		22.10	22.06	22.10
5	12	11		21.83	21.81	21.81
5	25	0		21.62	21.53	21.54
10	1	0	QPSK	23.98	24.12	24.22
10	1	24		23.73	23.84	23.94
10	1	49		23.50	23.58	23.69
10	25	0		23.28	23.36	23.46
10	25	12		23.05	23.07	23.16
10	25	24		22.77	22.78	22.88
10	50	0		22.51	22.56	22.59
10	1	0	16-QAM	23.78	23.90	23.96
10	1	24		23.53	23.62	23.71
10	1	49		23.31	23.35	23.44
10	25	0		23.09	23.08	23.22
10	25	12		22.84	22.84	22.97
10	25	24		22.58	22.58	22.74
10	50	0		22.31	22.30	22.51



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.23	22.35	22.42
1.4	1	2		22.00	22.14	22.15
1.4	1	5		21.75	21.88	21.93
1.4	3	0		21.49	21.59	21.64
1.4	3	1		21.26	21.34	21.34
1.4	3	2		21.05	21.06	21.08
1.4	6	0		20.80	20.82	20.85
1.4	1	0	16-QAM	21.99	22.05	22.19
1.4	1	2		21.71	21.76	21.98
1.4	1	5		21.46	21.47	21.72
1.4	3	0		21.25	21.18	21.49
1.4	3	1		21.04	20.91	21.21
1.4	3	2		20.78	20.69	20.93
1.4	6	0		20.52	20.42	20.69
3	1	0	QPSK	22.06	22.12	22.15
3	1	7		21.84	21.91	21.90
3	1	14		21.56	21.63	21.66
3	8	0		21.31	21.35	21.42
3	8	4		21.01	21.11	21.21
3	8	7		20.75	20.88	20.93
3	15	0		20.52	20.63	20.63
3	1	0	16-QAM	21.78	21.85	21.87
3	1	7		21.53	21.64	21.58
3	1	14		21.32	21.38	21.30
3	8	0		21.08	21.13	21.06
3	8	4		20.85	20.84	20.79
3	8	7		20.58	20.63	20.50
3	15	0		20.29	20.41	20.23



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.05	22.09	22.06
5	1	12		21.81	21.85	21.78
5	1	24		21.55	21.64	21.53
5	12	0		21.30	21.37	21.29
5	12	6		21.03	21.16	21.02
5	12	11		20.81	20.87	20.77
5	25	0		20.60	20.65	20.53
5	1	0	16-QAM	21.75	21.87	21.80
5	1	12		21.47	21.63	21.54
5	1	24		21.23	21.34	21.25
5	12	0		20.95	21.07	20.96
5	12	6		20.73	20.82	20.74
5	12	11		20.51	20.56	20.49
5	25	0		20.29	20.30	20.27
10	1	0	QPSK	22.02	22.03	22.01
10	1	24		21.80	21.82	21.73
10	1	49		21.60	21.62	21.44
10	25	0		21.38	21.34	21.21
10	25	12		21.15	21.09	20.92
10	25	24		20.93	20.85	20.65
10	50	0		20.68	20.63	20.40
10	1	0	16-QAM	21.78	21.73	21.75
10	1	24		21.51	21.44	21.46
10	1	49		21.22	21.16	21.19
10	25	0		21.02	20.91	20.91
10	25	12		20.76	20.70	20.61
10	25	24		20.47	20.40	20.39
10	50	0		20.24	20.19	20.14



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.59	22.64	22.75
15	1	37		22.31	22.36	22.52
15	1	74		22.02	22.06	22.32
15	36	0		21.74	21.81	22.10
15	36	18		21.50	21.52	21.88
15	36	39		21.25	21.27	21.63
15	75	0		21.04	21.05	21.36
15	1	0	16-QAM	22.38	22.35	22.45
15	1	38		22.09	22.07	22.23
15	1	75		21.82	21.79	22.03
15	36	0		21.53	21.57	21.81
15	36	18		21.28	21.31	21.56
15	36	39		21.04	21.08	21.32
15	75	0		20.75	20.83	21.04
20	1	0	QPSK	23.29	23.32	23.39
20	1	49		23.02	23.10	23.17
20	1	99		22.73	22.80	22.94
20	50	0		22.49	22.51	22.66
20	50	24		22.21	22.27	22.45
20	50	49		21.95	22.04	22.22
20	100	0		21.66	21.78	21.94
20	1	0	16-QAM	23.08	23.10	23.15
20	1	49		22.81	22.82	22.93
20	1	99		22.57	22.61	22.70
20	50	0		22.31	22.32	22.44
20	50	24		22.07	22.05	22.19
20	50	49		21.83	21.78	21.92
20	100	0		21.60	21.57	21.69



LTE Band 26(Part 22) Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.23	22.31	22.18
1.4	1	2		22.02	22.03	21.98
1.4	1	5		21.78	21.82	21.73
1.4	3	0		21.53	21.57	21.47
1.4	3	1		21.25	21.31	21.25
1.4	3	2		21.00	21.11	21.04
1.4	6	0		20.77	20.85	20.75
1.4	1	0	16-QAM	22.02	22.09	21.97
1.4	1	2		21.75	21.87	21.67
1.4	1	5		21.54	21.62	21.43
1.4	3	0		21.26	21.32	21.16
1.4	3	1		21.00	21.09	20.88
1.4	3	2		20.79	20.80	20.60
1.4	6	0		20.55	20.50	20.35
3	1	0	QPSK	22.15	22.24	22.11
3	1	7		21.94	22.00	21.85
3	1	14		21.73	21.73	21.64
3	8	0		21.51	21.53	21.40
3	8	4		21.24	21.24	21.20
3	8	7		20.98	21.02	20.96
3	15	0		20.70	20.78	20.71
3	1	0	16-QAM	21.90	22.01	21.86
3	1	7		21.63	21.78	21.61
3	1	14		21.39	21.57	21.31
3	8	0		21.13	21.31	21.07
3	8	4		20.92	21.07	20.84
3	8	7		20.68	20.81	20.58
3	15	0		20.39	20.55	20.30



LTE Band 26(Part 22) Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.06	22.09	22.01
5	1	12		21.82	21.83	21.81
5	1	24		21.61	21.58	21.55
5	12	0		21.38	21.32	21.31
5	12	6		21.10	21.11	21.07
5	12	11		20.87	20.87	20.83
5	25	0		20.67	20.61	20.62
5	1	0	16-QAM	21.80	21.82	21.75
5	1	12		21.56	21.54	21.50
5	1	24		21.29	21.27	21.23
5	12	0		21.00	20.99	21.00
5	12	6		20.76	20.77	20.71
5	12	11		20.52	20.50	20.45
5	25	0		20.29	20.23	20.24
10	1	0	QPSK	22.01	22.05	22.00
10	1	24		21.75	21.77	21.74
10	1	49		21.54	21.48	21.50
10	25	0		21.32	21.27	21.21
10	25	12		21.11	20.98	20.95
10	25	24		20.81	20.70	20.68
10	50	0		20.52	20.49	20.45
10	1	0	16-QAM	21.79	21.75	21.76
10	1	24		21.51	21.54	21.54
10	1	49		21.29	21.29	21.27
10	25	0		21.07	21.00	21.06
10	25	12		20.83	20.71	20.83
10	25	24		20.56	20.48	20.62
10	50	0		20.36	20.20	20.40



LTE Band 26(Part 22) Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.02	23.12	23.25
15	1	37		22.79	22.88	23.00
15	1	74		22.50	22.59	22.71
15	36	0		22.23	22.35	22.43
15	36	18		21.96	22.14	22.20
15	36	39		21.66	21.92	21.95
15	75	0		21.46	21.70	21.66
15	1	0	16-QAM	22.78	22.92	23.03
15	1	38		22.53	22.67	22.82
15	1	75		22.24	22.39	22.58
15	36	0		22.03	22.10	22.34
15	36	18		21.76	21.90	22.11
15	36	39		21.46	21.66	21.84
15	75	0		21.20	21.44	21.57





LTE Band 26(Part 90) Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.12	22.31	22.26
1.4	1	2		21.84	22.08	22.01
1.4	1	5		21.63	21.82	21.76
1.4	3	0		21.39	21.58	21.52
1.4	3	1		21.14	21.31	21.30
1.4	3	2		20.84	21.08	21.02
1.4	6	0		20.63	20.86	20.79
1.4	1	0	16-QAM	21.89	22.02	22.00
1.4	1	2		21.61	21.78	21.79
1.4	1	5		21.39	21.54	21.59
1.4	3	0		21.12	21.24	21.35
1.4	3	1		20.86	21.03	21.09
1.4	3	2		20.60	20.73	20.85
1.4	6	0		20.32	20.44	20.64
3	1	0	QPSK	22.08	22.15	22.13
3	1	7		21.82	21.94	21.83
3	1	14		21.53	21.68	21.58
3	8	0		21.27	21.48	21.37
3	8	4		20.97	21.18	21.12
3	8	7		20.74	20.91	20.87
3	15	0		20.49	20.63	20.62
3	1	0	16-QAM	21.87	21.85	21.88
3	1	7		21.67	21.56	21.66
3	1	14		21.40	21.29	21.43
3	8	0		21.16	21.04	21.17
3	8	4		20.92	20.82	20.94
3	8	7		20.70	20.54	20.70
3	15	0		20.41	20.29	20.47



LTE Band 26(Part 90) Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.56	22.49	22.37
5	1	12		22.31	22.23	22.08
5	1	24		22.04	21.94	21.81
5	12	0		21.84	21.70	21.59
5	12	6		21.61	21.46	21.36
5	12	11		21.37	21.21	21.12
5	25	0		21.09	20.94	20.92
5	1	0	16-QAM	22.35	22.26	22.15
5	1	12		22.12	22.01	21.87
5	1	24		21.88	21.72	21.65
5	12	0		21.67	21.47	21.44
5	12	6		21.47	21.21	21.19
5	12	11		21.20	20.93	20.92
5	25	0		21.00	20.70	20.67
10	1	0	QPSK	N/A	23.09	N/A
10	1	24		N/A	22.86	N/A
10	1	49		N/A	22.56	N/A
10	25	0		N/A	22.30	N/A
10	25	12		N/A	22.10	N/A
10	25	24		N/A	21.90	N/A
10	50	0		N/A	21.68	N/A
10	1	0	16-QAM	N/A	22.80	N/A
10	1	24		N/A	22.54	N/A
10	1	49		N/A	22.29	N/A
10	25	0		N/A	22.04	N/A
10	25	12		N/A	21.82	N/A
10	25	24		N/A	21.52	N/A
10	50	0		N/A	21.25	N/A



LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.35	22.46	22.52
5	1	12		22.07	22.17	22.23
5	1	24		21.86	21.95	21.96
5	12	0		21.65	21.70	21.68
5	12	6		21.37	21.42	21.39
5	12	11		21.11	21.19	21.16
5	25	0		20.88	20.91	20.87
5	1	0	16-QAM	22.10	22.19	22.27
5	1	12		21.81	21.91	22.04
5	1	24		21.56	21.66	21.75
5	12	0		21.30	21.39	21.53
5	12	6		21.06	21.11	21.24
5	12	11		20.80	20.84	20.99
5	25	0		20.56	20.57	20.77
10	1	0	QPSK	22.23	22.32	22.36
10	1	24		21.99	22.06	22.11
10	1	49		21.72	21.82	21.82
10	25	0		21.49	21.57	21.56
10	25	12		21.29	21.35	21.34
10	25	24		21.01	21.06	21.10
10	50	0		20.79	20.77	20.84
10	1	0	16-QAM	21.96	22.07	22.09
10	1	24		21.67	21.84	21.85
10	1	49		21.46	21.56	21.63
10	25	0		21.21	21.30	21.36
10	25	12		20.95	21.01	21.14
10	25	24		20.67	20.71	20.91
10	50	0		20.39	20.46	20.70



LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.59	22.67	22.85
15	1	37		22.35	22.40	22.59
15	1	74		22.12	22.20	22.36
15	36	0		21.89	21.97	22.06
15	36	18		21.63	21.70	21.85
15	36	39		21.42	21.42	21.57
15	75	0		21.17	21.19	21.36
15	1	0	16-QAM	22.32	22.47	22.59
15	1	38		22.05	22.22	22.35
15	1	75		21.82	22.01	22.10
15	36	0		21.55	21.79	21.80
15	36	18		21.31	21.53	21.53
15	36	39		21.05	21.24	21.30
15	75	0		20.85	21.00	21.06
20	1	0	QPSK	23.06	23.12	23.32
20	1	49		22.84	22.83	23.11
20	1	99		22.63	22.56	22.84
20	50	0		22.42	22.35	22.60
20	50	24		22.14	22.11	22.39
20	50	49		21.91	21.85	22.17
20	100	0		21.68	21.57	21.88
20	1	0	16-QAM	22.82	22.86	23.04
20	1	49		22.61	22.60	22.81
20	1	99		22.34	22.34	22.61
20	50	0		22.13	22.11	22.35
20	50	24		21.88	21.82	22.07
20	50	49		21.62	21.60	21.86
20	100	0		21.32	21.39	21.62



LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.23	22.19	22.33
1.4	1	2		21.98	21.94	22.11
1.4	1	5		21.72	21.66	21.83
1.4	3	0		21.45	21.37	21.55
1.4	3	1		21.16	21.12	21.32
1.4	3	2		20.87	20.85	21.02
1.4	6	0		20.57	20.60	20.75
1.4	1	0	16-QAM	21.97	21.94	22.10
1.4	1	2		21.72	21.69	21.87
1.4	1	5		21.43	21.40	21.66
1.4	3	0		21.14	21.19	21.37
1.4	3	1		20.87	20.93	21.13
1.4	3	2		20.62	20.72	20.87
1.4	6	0		20.36	20.48	20.60
3	1	0	QPSK	22.12	22.09	22.19
3	1	7		21.88	21.82	21.98
3	1	14		21.67	21.62	21.76
3	8	0		21.46	21.37	21.49
3	8	4		21.22	21.14	21.20
3	8	7		21.00	20.85	20.99
3	15	0		20.76	20.61	20.75
3	1	0	16-QAM	21.85	21.84	21.92
3	1	7		21.64	21.60	21.70
3	1	14		21.42	21.36	21.45
3	8	0		21.17	21.12	21.24
3	8	4		20.88	20.84	20.94
3	8	7		20.67	20.55	20.64
3	15	0		20.46	20.33	20.40



LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.09	22.06	22.12
5	1	12		21.83	21.86	21.89
5	1	24		21.60	21.64	21.60
5	12	0		21.31	21.35	21.36
5	12	6		21.02	21.11	21.12
5	12	11		20.73	20.84	20.91
5	25	0		20.44	20.57	20.70
5	1	0	16-QAM	21.79	21.81	21.87
5	1	12		21.52	21.54	21.59
5	1	24		21.30	21.32	21.35
5	12	0		21.06	21.08	21.09
5	12	6		20.86	20.87	20.80
5	12	11		20.60	20.59	20.50
5	25	0		20.30	20.38	20.22
10	1	0	QPSK	22.05	22.02	22.06
10	1	24		21.84	21.78	21.79
10	1	49		21.60	21.56	21.56
10	25	0		21.36	21.34	21.31
10	25	12		21.09	21.12	21.01
10	25	24		20.80	20.87	20.74
10	50	0		20.52	20.67	20.50
10	1	0	16-QAM	21.77	21.76	21.81
10	1	24		21.52	21.53	21.52
10	1	49		21.27	21.28	21.25
10	25	0		20.99	21.03	21.04
10	25	12		20.75	20.77	20.75
10	25	24		20.47	20.55	20.46
10	50	0		20.19	20.33	20.25



LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.06	23.12	23.22
15	1	37		22.82	22.83	22.94
15	1	74		22.61	22.56	22.74
15	36	0		22.38	22.33	22.50
15	36	18		22.11	22.08	22.29
15	36	39		21.89	21.83	22.05
15	75	0		21.67	21.62	21.82
15	1	0	16-QAM	22.81	22.82	22.98
15	1	38		22.60	22.58	22.73
15	1	75		22.33	22.31	22.48
15	36	0		22.12	22.10	22.24
15	36	18		21.91	21.90	22.03
15	36	39		21.61	21.65	21.75
15	75	0		21.39	21.40	21.54
20	1	0	QPSK	23.45	23.62	23.58
20	1	49		23.21	23.32	23.31
20	1	99		22.92	23.10	23.11
20	50	0		22.65	22.83	22.87
20	50	24		22.39	22.57	22.62
20	50	49		22.19	22.28	22.34
20	100	0		21.92	22.05	22.07
20	1	0	16-QAM	23.20	23.32	23.34
20	1	49		22.91	23.10	23.04
20	1	99		22.66	22.81	22.77
20	50	0		22.43	22.57	22.53
20	50	24		22.14	22.27	22.27
20	50	49		21.92	22.01	21.97
20	100	0		21.64	21.80	21.73



LTE Band 71 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.15	22.21	22.36
5	1	12		21.93	21.93	22.15
5	1	24		21.68	21.70	21.93
5	12	0		21.42	21.46	21.65
5	12	6		21.18	21.18	21.43
5	12	11		20.89	20.94	21.19
5	25	0		20.62	20.67	20.95
5	1	0	16-QAM	21.87	21.91	22.09
5	1	12		21.57	21.62	21.89
5	1	24		21.34	21.34	21.61
5	12	0		21.09	21.12	21.34
5	12	6		20.81	20.84	21.09
5	12	11		20.59	20.62	20.88
5	25	0		20.36	20.39	20.64
10	1	0	QPSK	22.09	22.12	22.23
10	1	24		21.84	21.85	22.00
10	1	49		21.56	21.57	21.77
10	25	0		21.29	21.34	21.48
10	25	12		21.03	21.07	21.23
10	25	24		20.79	20.85	20.95
10	50	0		20.56	20.57	20.73
10	1	0	16-QAM	21.84	21.85	22.00
10	1	24		21.61	21.63	21.74
10	1	49		21.39	21.42	21.48
10	25	0		21.17	21.17	21.20
10	25	12		20.90	20.95	20.90
10	25	24		20.64	20.65	20.65
10	50	0		20.35	20.41	20.42



LTE Band 71 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.56	22.61	22.58
15	1	37		22.32	22.31	22.33
15	1	74		22.12	22.05	22.04
15	36	0		21.87	21.83	21.77
15	36	18		21.64	21.57	21.51
15	36	39		21.37	21.37	21.26
15	75	0		21.14	21.07	20.97
15	1	0	16-QAM	22.26	22.39	22.31
15	1	38		21.98	22.19	22.09
15	1	75		21.72	21.95	21.86
15	36	0		21.48	21.71	21.60
15	36	18		21.22	21.45	21.31
15	36	39		20.94	21.20	21.02
15	75	0		20.67	20.97	20.74
20	1	0	QPSK	23.12	23.06	23.22
20	1	49		22.89	22.83	22.93
20	1	99		22.64	22.55	22.73
20	50	0		22.39	22.34	22.43
20	50	24		22.13	22.11	22.22
20	50	49		21.90	21.86	21.99
20	100	0		21.65	21.61	21.70
20	1	0	16-QAM	22.84	22.83	22.98
20	1	49		22.64	22.60	22.72
20	1	99		22.39	22.35	22.43
20	50	0		22.18	22.14	22.17
20	50	24		21.97	21.86	21.95
20	50	49		21.67	21.61	21.73
20	100	0		21.44	21.38	21.45

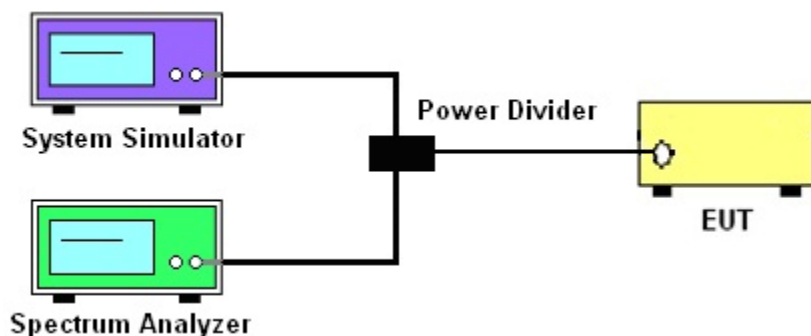
4. PEAK-TO-AVERAGE RATIO

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					
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

LTE Band 2 PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
20	1	QPSK	3.04	3.08	3.02
20	100		4.21	4.33	4.31
20	1	16-QAM	3.66	3.94	3.89
20	100		5.05	5.05	5.11
Limit			≤13dB		

LTE Band 4 PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
20	1	QPSK	3.04	3	3.18
20	100		4.37	4.35	4.43
20	1	16-QAM	4.08	3.83	3.89
20	100		5.19	5.19	5.27
Limit			≤13dB		

LTE Band 5 PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
10	1	QPSK	4.47	4.63	4.35
10	50		5.47	5.16	5.44
10	1	16-QAM	5.28	5.35	5.11
10	50		6.21	6.01	6.24
Limit			≤13dB		

LTE Band 7 PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
20	1	QPSK	3.46	3.37	2.84
20	100		5.09	4.98	5
20	1	16-QAM	4.33	4.43	3.64
20	100		5.86	5.77	5.81
Limit			≤13dB		

LTE Band 12 PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
10	1	QPSK	3.49	3.32	3.51
10	50		5.17	5.18	4.93
10	1	16-QAM	4.28	4.22	4.31
10	50		5.88	6	5.82
Limit			≤13dB		



LTE Band 13 PAR [dBm]			
BW [MHz]	RB Size	Modulation	Middle
			P-A
10	1	QPSK	3.55
10	50		4.97
10	1	16-QAM	4.44
10	50		5.78
Limit			≤13dB

LTE Band 14 PAR [dBm]			
BW [MHz]	RB Size	Modulation	Middle
			P-A
10	1	QPSK	4.3
10	50		5.08
10	1	16-QAM	5.23
10	50		5.94
Limit			≤13dB

LTE Band 17 PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
10	1	QPSK	4.22	4.31	4.33
10	50		5.11	5.02	4.92
10	1	16-QAM	5.22	5.3	5.27
10	50		5.9	5.91	5.83
Limit			≤13dB		

LTE Band 25 PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
20	1	QPSK	4.45	3.97	3.44
20	100		4.97	5.04	4.92
20	1	16-QAM	5.11	4.97	4.55
20	100		5.85	5.93	5.74
Limit			≤13dB		

LTE Band 26(Part 22) PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
15	1	QPSK	4.48	4.59	4.28
15	75		5.69	5.12	5.48
15	1	16-QAM	5.02	5.48	4.93
15	75		6.31	6.01	6.22
Limit			≤13dB		



LTE Band 26(Part 90) PAR [dBm]			
BW [MHz]	RB Size	Modulation	Middle
			P-A
10	1	QPSK	4.62
10	50		5.13
10	1	16-QAM	5.45
10	50		5.96
Limit			≤13dB

LTE Band 41PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
20	1	QPSK	4.05	3.42	3.63
20	100		6.32	5.23	4.57
20	1	16-QAM	4.64	5.35	4.1
20	100		5.41	5.42	6.59
Limit			≤13dB		

LTE Band 66 PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
20	1	QPSK	4.31	4.31	3.79
20	100		5.04	5.12	4.78
20	1	16-QAM	5.32	4.81	4.81
20	100		5.97	5.97	5.71
Limit			≤13dB		

LTE Band 71 PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
20	1	QPSK	4.42	4.22	4.3
20	100		4.91	5.2	5.11
20	1	16-QAM	5.09	5.38	5.2
20	100		5.79	6.01	5.96
Limit			≤13dB		

Note: Test chart See Appendix D

5. RADIATED POWER AND EFFECTIVE ISOTROPIC RADIATED POWER

5.1 DESCRIPTION OF THE ERP/EIRP MEASUREMENT

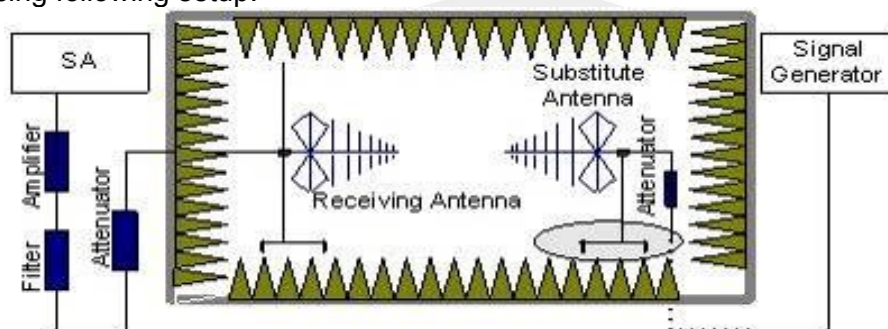
5.1.1 MEASUREMENT METHOD

Effective radiated power output measurements by substitution method according to ANSI C63.26 2015, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems. Mobile and portable (hand-held) stations operating are limited to average ERP, Equivalent isotropic radiated power output measurements by substitution method according to ANSI C63.26 2015, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas, Mobile and portable (hand-held) stations operating are limited to average EIRP.

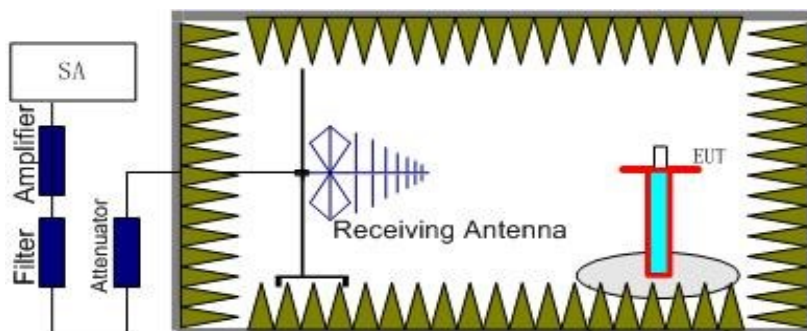
5.1.2 TEST SETUP

The procedure of radiated spurious emissions is as follows:

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



b) EUT was placed on a 1.5m 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



5.1.3 TEST PROCEDURES

1. The testing follows FCC KDB 971168 D01v03r01 Section 5.6 and ANSI C63.26 2015 Section 5.2.
2. The EUT was placed on a non-conductive rotating platform 1.5 meters high in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with Peak detector.
3. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power. The maximum emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 m in both horizontally and vertically polarized orientations.
4. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to ANSI C63.26 2015. The EUT was replaced by dipole antenna (substitution antenna) at same location and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. $EIRP = S.G \text{ Level} + \text{Gain} - \text{Cable loss}$; $ERP = S.G \text{ Level} + \text{Gain} - \text{Cable loss} - 2.15$.
5. RB Set greater than bandwidth, VB Set spectrum analyzer Maximum support.





5.1.4 TEST RESULTS

Note: Test is divided into three directions, X/Y/Z. X pattern for the worst.

Radiated Power (EIRP) for LTE Band 2 / 1.4M									
Modulation	RB		Channel	Result					Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I. R.P(dBm)	Polarization Of Max. EIRP	
QPSK	1	0	Lowest	12.95	2.37	10.40	20.98	Horizontal	Pass
	1	0	Middle	12.94	2.39	10.42	20.97	Horizontal	Pass
	1	0	Highest	12.69	2.40	10.44	20.73	Horizontal	Pass
	1	0	Lowest	14.42	2.37	10.40	22.45	Vertical	Pass
	1	0	Middle	14.28	2.39	10.42	22.31	Vertical	Pass
	1	0	Highest	14.15	2.40	10.44	22.19	Vertical	Pass
16QAM	1	0	Lowest	12.72	2.37	10.40	20.75	Horizontal	Pass
	1	0	Middle	12.58	2.39	10.42	20.61	Horizontal	Pass
	1	0	Highest	12.57	2.40	10.44	20.61	Horizontal	Pass
	1	0	Lowest	14.17	2.37	10.40	22.20	Vertical	Pass
	1	0	Middle	14.03	2.39	10.42	22.06	Vertical	Pass
	1	0	Highest	13.93	2.40	10.44	21.97	Vertical	Pass
Limit	EIRP<2W=33dBm								

Radiated Power (EIRP) for LTE Band 2 / 3M									
Modulation	RB		Channel	Result					Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I. R.P(dBm)	Polarization Of Max. EIRP	
QPSK	1	0	Lowest	12.11	2.37	10.40	20.14	Horizontal	Pass
	1	0	Middle	12.3	2.39	10.42	20.33	Horizontal	Pass
	1	0	Highest	11.99	2.40	10.44	20.03	Horizontal	Pass
	1	0	Lowest	13.57	2.37	10.40	21.60	Vertical	Pass
	1	0	Middle	13.63	2.39	10.42	21.66	Vertical	Pass
	1	0	Highest	13.48	2.40	10.44	21.52	Vertical	Pass
16QAM	1	0	Lowest	11.97	2.37	10.40	20.00	Horizontal	Pass
	1	0	Middle	11.86	2.39	10.42	19.89	Horizontal	Pass
	1	0	Highest	11.65	2.40	10.44	19.69	Horizontal	Pass
	1	0	Lowest	13.45	2.37	10.40	21.48	Vertical	Pass
	1	0	Middle	13.27	2.39	10.42	21.30	Vertical	Pass
	1	0	Highest	13.1	2.40	10.44	21.14	Vertical	Pass
Limit	EIRP<2W=33dBm								