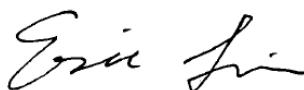


TEST REPORT

Application No.:	KSCR2212002520AT
FCC ID:	XYO-WB550
Applicant:	Asiatelco Technologies Co.
Address of Applicant:	#289 Bisheng Road, Building-8, 3F, Zhang jiang Hi-Tech Park, Pudong, Shanghai 201204, China
Manufacturer:	Asiatelco Technologies Co.
Address of Manufacturer:	#289 Bisheng Road, Building-8, 3F, Zhang jiang Hi-Tech Park, Pudong, Shanghai 201204, China
Equipment Under Test (EUT):	
EUT Name:	5G CPE
Model No.:	WB550-NA, WB550-EU
<input checked="" type="checkbox"/> Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.	
Trade Mark:	ATEL
Standard(s) :	47 CFR Part 2 47 CFR Part 96 subpart E
Date of Receipt:	2022-12-21
Date of Test:	2022-12-22 to 2023-01-05
Date of Issue:	2023-01-06
Test Result:	Pass

* In the configuration tested, the EUT complied with the standards specified above.



Eric Lin
Laboratory Manager



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Report No.: KSCR221200252001

Page: 2 of 22

Revision Record			
Version	Description	Date	Remark
00	Original	2023-01-06	/

Authorized for issue by:			
		Damon Zhou	
		Damon_Zhou/Project Engineer	
		Eric Lin	
		Eric Lin /Reviewer	

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2 Test Summary

Test Item	FCC Rule No.	Requirements	Verdict
Effective (Isotropic) Radiated Output Power Data	§2.1046 §96.41(b)	EIRP≤ 23dBm/10MHz	PASS
Field strength of spurious radiation	§2.1051 §96.41(e)	Refer to clause 6.6	PASS

Declaration of EUT Family Grouping:

Note: There are series models mentioned in this report, and they are the identical in electrical and electronic characters. Only the model WB550-NA was tested since their differences were the model number

Remark : The device using a wireless module 'FG360-NA' has been certified (FCC ID: ZMOFG360NA) . We just fully retest Effective (Isotropic) Radiated Output Power and Field Strength Of Spurious Radiation for this product, other test data reference to original module report SAR/2021/4000901



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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 12V
Hardware Version:	P1
Software Version:	CPE_WB550_NA00_VZW_v1.0.8.1
Operation Frequency Band:	LTE: Band 48
Modulation Type:	LTE: QPSK, 16QAM, 64QAM, 256QAM
LTE Power Class:	Level 3
Antenna Type:	Fixed Internal Antenna
Antenna Gain:	-0.13dBi(Provide by Manufacturer)

4.2 Test Frequency

Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 48	5	3552.5	3625.0	3697.5
	10	3555.0	3625.0	3695.0
	15	3557.5	3625.0	3692.5
	20	3560.0	3625.0	3690.0



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4.3 Test Environment

Environment Parameter	Selected Values During Tests	
Relative Humidity	52%	
Atmospheric Pressure:	1015Pa	
Temperature:	TL	-10°C
	TN	+20°C
	TH	+55°C
Voltage:	VL	11.6 V
	VN	12.0 V
	VH	12.6 V

NOTE: VL= lower extreme test voltage

VN= nominal voltage

VH= upper extreme test voltage

TL= lower extreme test temperature

TN= normal temperature

TH= upper extreme test temperature

4.4 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	$\pm 5.4 \times 10^{-8}$
2	Duty cycle	$\pm 0.3\%$
3	Occupied Bandwidth	$\pm 3\%$
4	RF conducted power	$\pm 0.8\text{dB}$
5	RF power density	$\pm 0.4\text{dB}$
6	Conducted Spurious emissions	$\pm 2.7\text{dB}$
7	Radiated Spurious emission test	$\pm 3.1\text{dB}$ (Below 1GHz) $\pm 4.4\text{dB}$ (Above 1GHz)
8	Temperature test	$\pm 1^\circ\text{C}$
9	Humidity test	$\pm 3\%$
10	Supply voltages	$\pm 1.5\%$
11	Time	$\pm 3\%$

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Compliance Certification Services (Kunshan) Inc.

Report No.: KSCR221200252001

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4.5 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1.SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).

2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).

4.6 Test Facility

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

• A2LA

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

• FCC

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

• ISED

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

• VCCI

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4.7 Deviation from Standards

None

4.8 Abnormalities from Standard Conditions

None

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5 Equipment List

NO	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date	Cal. Due date
RF Conducted Test						
1	Spectrum Analyzer	Keysight	N9020A	KUS1911E004-2	08/22/2022	08/21/2023
2	Spectrum Analyzer	R&S	FSV40	KUS1806E003	08/22/2022	08/21/2023
3	Spectrum Analyzer	Keysight	N9030B	KSEM021-1	01/22/2022	01/21/2023
4	Signal Generator	R&S	SMW200A	KSEM020-1	08/22/2022	08/21/2023
5	Signal Generator	Agilent	N5182A	KUS2001M001-1	08/22/2022	08/21/2023
6	Radio Communication Test Station	Anritsu	MT8000A	KSEM001-1	08/22/2022	08/21/2023
7	Radio Communication Analyzer	Anritsu	MT8821C	KSEM002-1	08/22/2022	08/21/2023
8	Universal Radio Communication Tester	R&S	CMW500	KUS1911E004-1	08/22/2022	08/21/2023
9	Switcher	CCSRF	FY562	KUS2001M001-3	08/22/2022	08/21/2023
10	AC Power Source	EXTECH	6605	KS301178	N.C.R	N.C.R
11	DC Power Supply	Agilent	E3632A	KS301180	N.C.R	N.C.R
12	Conducted Test Cable	Thermax	RF01-RF04	CZ301111-CZ301120	01/16/2022	01/15/2023
13	Temp. / Humidity Chamber	TERCHY	MHK-120AK	KS301190	04/01/2021	03/31/2023
14	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-5	04/01/2021	03/31/2023
15	Software	BST	TST-PASS	/	N/A	N/A
RF Radiated Test						
1	Spectrum Analyzer	R&S	FSV40	KUS1806E003	08/22/2022	08/21/2023
2	Universal Radio Communication Tester	R&S	CMW500	KSEM009-1	04/01/2022	03/31/2023
3	Signal Generator	Agilent	E8257C	KS301066	08/22/2022	08/21/2023
4	Loop Antenna	COM-POWER	AL-130R	KUS1806E001	04/13/2021	04/12/2023
5	Bilog Antenna	TESEQ	CBL 6112D	KUS1806E005	06/29/2021	06/28/2023
6	Bilog Antenna	SCHWARZBEC K	VULB9160	CZ301016	04/13/2021	04/12/2024
7	Horn-antenna(1-18GHz)	Schwarzbeck	BBHA9120D	KS301079	04/02/2022	04/01/2024
8	Horn-antenna(1-18GHz)	ETS-LINDGREN	3117	KS301186	02/22/2021	02/21/2023
9	Horn Antenna(18-40GHz)	Schwarzbeck	BBHA9170	CZ301058	03/22/2022	03/21/2023
10	Amplifier(30MHz~18GHz)	PANSHAN TECHNOLOGY	LNA:1~18G	KSEM010-1	01/22/2022	01/21/2023
11	Amplifier(18~40GHz)	COM-POWER	PAM-840A	KUS1710E001	01/22/2022	01/21/2023
12	RE Test Cable	REBES MICROWAVE	/	CZ301097	11/14/2022	11/13/2023
13	Radio Communication Test Station	Anritsu	MT8000A	KSEM001-1	08/22/2022	08/21/2023
14	Radio Communication Analyzer	Anritsu	MT8821C	KSEM002-1	08/22/2022	08/21/2023
15	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-4	01/04/2022	31/03/2023
16	Software	Faratronic	EZ_EMCA-3A1	/	N/A	N/A

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6 Radio Spectrum Matter Test Results

6.1 Effective (Isotropic) Radiated Output Power Data

Test Requirement: §2.1046; §96.41(b)

Test Method: ANSI C63.26, KDB 971168 D01 v03

Limit: EIRP ≤ 23dBm/10MHz

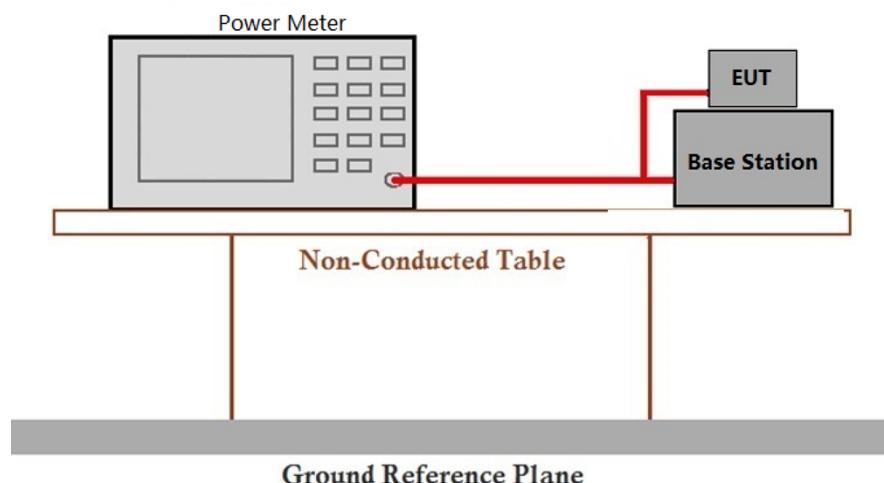
6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 21.5 °C Humidity: 53.5 % RH Atmospheric Pressure: 1020 mbar

Test mode Tx mode, Keep the EUT in transmitting mode.

6.1.2 Test Setup Diagram



6.1.3 Measurement Data



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Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	EIRP(dBm)	Limit(dBm)	Verdict
Band48	5MHz	QPSK	55265	1RB#0	20.03	19.9	23	PASS
Band48	5MHz	QPSK	55265	1RB#12	20.09	19.96	23	PASS
Band48	5MHz	QPSK	55265	1RB#24	20.05	19.92	23	PASS
Band48	5MHz	QPSK	55265	25RB#0	19.22	19.09	23	PASS
Band48	5MHz	QPSK	55990	1RB#0	19.27	19.14	23	PASS
Band48	5MHz	QPSK	55990	1RB#12	20.15	20.02	23	PASS
Band48	5MHz	QPSK	55990	1RB#24	20.14	20.01	23	PASS
Band48	5MHz	QPSK	55990	25RB#0	19.3	19.17	23	PASS
Band48	5MHz	QPSK	56715	1RB#0	19.88	19.75	23	PASS
Band48	5MHz	QPSK	56715	1RB#12	20.96	20.83	23	PASS
Band48	5MHz	QPSK	56715	1RB#24	20.92	20.79	23	PASS
Band48	5MHz	QPSK	56715	25RB#0	19.94	19.81	23	PASS
Band48	5MHz	16QAM	55265	1RB#0	19.46	19.33	23	PASS
Band48	5MHz	16QAM	55265	1RB#12	19.42	19.29	23	PASS
Band48	5MHz	16QAM	55265	1RB#24	19.46	19.33	23	PASS
Band48	5MHz	16QAM	55265	25RB#0	18.18	18.05	23	PASS
Band48	5MHz	16QAM	55990	1RB#0	19.45	19.32	23	PASS
Band48	5MHz	16QAM	55990	1RB#12	19.49	19.36	23	PASS
Band48	5MHz	16QAM	55990	1RB#24	19.56	19.43	23	PASS
Band48	5MHz	16QAM	55990	25RB#0	18.22	18.09	23	PASS
Band48	5MHz	16QAM	56715	1RB#0	20.06	19.93	23	PASS
Band48	5MHz	16QAM	56715	1RB#12	20.17	20.04	23	PASS
Band48	5MHz	16QAM	56715	1RB#24	20.13	20	23	PASS
Band48	5MHz	16QAM	56715	25RB#0	19.01	18.88	23	PASS
Band48	5MHz	64QAM	55265	1RB#0	18.17	18.04	23	PASS
Band48	5MHz	64QAM	55265	1RB#12	18.2	18.07	23	PASS
Band48	5MHz	64QAM	55265	1RB#24	18.17	18.04	23	PASS
Band48	5MHz	64QAM	55265	25RB#0	17.19	17.06	23	PASS
Band48	5MHz	64QAM	55990	1RB#0	18.19	18.06	23	PASS

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Band48	5MHz	64QAM	55990	1RB#12	18.25	18.12	23	PASS
Band48	5MHz	64QAM	55990	1RB#24	18.27	18.14	23	PASS
Band48	5MHz	64QAM	55990	25RB#0	17.27	17.14	23	PASS
Band48	5MHz	64QAM	56715	1RB#0	18.99	18.86	23	PASS
Band48	5MHz	64QAM	56715	1RB#12	19.05	18.92	23	PASS
Band48	5MHz	64QAM	56715	1RB#24	19.04	18.91	23	PASS
Band48	5MHz	64QAM	56715	25RB#0	18.08	17.95	23	PASS
Band48	5MHz	256QAM	55265	1RB#0	15.19	15.06	23	PASS
Band48	5MHz	256QAM	55265	1RB#12	15.21	15.08	23	PASS
Band48	5MHz	256QAM	55265	1RB#24	15.17	15.04	23	PASS
Band48	5MHz	256QAM	55265	25RB#0	15.22	15.09	23	PASS
Band48	5MHz	256QAM	55990	1RB#0	15.19	15.06	23	PASS
Band48	5MHz	256QAM	55990	1RB#12	15.24	15.11	23	PASS
Band48	5MHz	256QAM	55990	1RB#24	15.26	15.13	23	PASS
Band48	5MHz	256QAM	55990	25RB#0	15.26	15.13	23	PASS
Band48	5MHz	256QAM	56715	1RB#0	15.97	15.84	23	PASS
Band48	5MHz	256QAM	56715	1RB#12	16.06	15.93	23	PASS
Band48	5MHz	256QAM	56715	1RB#24	16.04	15.91	23	PASS
Band48	5MHz	256QAM	56715	25RB#0	16.1	15.97	23	PASS
Band48	10MHz	QPSK	55290	1RB#0	20.04	19.91	23	PASS
Band48	10MHz	QPSK	55290	1RB#24	20.08	19.95	23	PASS
Band48	10MHz	QPSK	55290	1RB#49	20.06	19.93	23	PASS
Band48	10MHz	QPSK	55290	50RB#0	19.3	19.17	23	PASS
Band48	10MHz	QPSK	55990	1RB#0	19.29	19.16	23	PASS
Band48	10MHz	QPSK	55990	1RB#24	20.15	20.02	23	PASS
Band48	10MHz	QPSK	55990	1RB#49	20.24	20.11	23	PASS
Band48	10MHz	QPSK	55990	50RB#0	19.37	19.24	23	PASS
Band48	10MHz	QPSK	56690	1RB#0	19.88	19.75	23	PASS
Band48	10MHz	QPSK	56690	1RB#24	20.92	20.79	23	PASS
Band48	10MHz	QPSK	56690	1RB#49	20.95	20.82	23	PASS

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Band48	10MHz	QPSK	56690	50RB#0	19.93	19.8	23	PASS
Band48	10MHz	16QAM	55290	1RB#0	19.43	19.3	23	PASS
Band48	10MHz	16QAM	55290	1RB#24	19.49	19.36	23	PASS
Band48	10MHz	16QAM	55290	1RB#49	19.47	19.34	23	PASS
Band48	10MHz	16QAM	55290	50RB#0	18.28	18.15	23	PASS
Band48	10MHz	16QAM	55990	1RB#0	19.42	19.29	23	PASS
Band48	10MHz	16QAM	55990	1RB#24	19.55	19.42	23	PASS
Band48	10MHz	16QAM	55990	1RB#49	19.66	19.53	23	PASS
Band48	10MHz	16QAM	55990	50RB#0	18.37	18.24	23	PASS
Band48	10MHz	16QAM	56690	1RB#0	20.03	19.9	23	PASS
Band48	10MHz	16QAM	56690	1RB#24	20.14	20.01	23	PASS
Band48	10MHz	16QAM	56690	1RB#49	20.14	20.01	23	PASS
Band48	10MHz	16QAM	56690	50RB#0	19.1	18.97	23	PASS
Band48	10MHz	64QAM	55290	1RB#0	18.18	18.05	23	PASS
Band48	10MHz	64QAM	55290	1RB#24	18.22	18.09	23	PASS
Band48	10MHz	64QAM	55290	1RB#49	18.2	18.07	23	PASS
Band48	10MHz	64QAM	55290	50RB#0	17.3	17.17	23	PASS
Band48	10MHz	64QAM	55990	1RB#0	18.17	18.04	23	PASS
Band48	10MHz	64QAM	55990	1RB#24	18.28	18.15	23	PASS
Band48	10MHz	64QAM	55990	1RB#49	18.4	18.27	23	PASS
Band48	10MHz	64QAM	55990	50RB#0	17.38	17.25	23	PASS
Band48	10MHz	64QAM	56690	1RB#0	18.96	18.83	23	PASS
Band48	10MHz	64QAM	56690	1RB#24	19.05	18.92	23	PASS
Band48	10MHz	64QAM	56690	1RB#49	19.09	18.96	23	PASS
Band48	10MHz	64QAM	56690	50RB#0	18.11	17.98	23	PASS
Band48	10MHz	256QAM	55290	1RB#0	15.15	15.02	23	PASS
Band48	10MHz	256QAM	55290	1RB#24	15.2	15.07	23	PASS
Band48	10MHz	256QAM	55290	1RB#49	15.17	15.04	23	PASS
Band48	10MHz	256QAM	55290	50RB#0	15.27	15.14	23	PASS
Band48	10MHz	256QAM	55990	1RB#0	15.13	15	23	PASS

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Band48	10MHz	256QAM	55990	1RB#24	15.26	15.13	23	PASS
Band48	10MHz	256QAM	55990	1RB#49	15.36	15.23	23	PASS
Band48	10MHz	256QAM	55990	50RB#0	15.33	15.2	23	PASS
Band48	10MHz	256QAM	56690	1RB#0	15.95	15.82	23	PASS
Band48	10MHz	256QAM	56690	1RB#24	16.03	15.9	23	PASS
Band48	10MHz	256QAM	56690	1RB#49	16.06	15.93	23	PASS
Band48	10MHz	256QAM	56690	50RB#0	16.12	15.99	23	PASS
Band48	15MHz	QPSK	55315	1RB#0	19.96	19.83	23	PASS
Band48	15MHz	QPSK	55315	1RB#38	20.12	19.99	23	PASS
Band48	15MHz	QPSK	55315	1RB#74	20.08	19.95	23	PASS
Band48	15MHz	QPSK	55315	75RB#0	19.31	19.18	23	PASS
Band48	15MHz	QPSK	55990	1RB#0	19.27	19.14	23	PASS
Band48	15MHz	QPSK	55990	1RB#38	20.15	20.02	23	PASS
Band48	15MHz	QPSK	55990	1RB#74	20.24	20.11	23	PASS
Band48	15MHz	QPSK	55990	75RB#0	19.34	19.21	23	PASS
Band48	15MHz	QPSK	56665	1RB#0	19.88	19.75	23	PASS
Band48	15MHz	QPSK	56665	1RB#38	20.91	20.78	23	PASS
Band48	15MHz	QPSK	56665	75RB#0	19.92	19.79	23	PASS
Band48	15MHz	16QAM	55315	1RB#0	19.38	19.25	23	PASS
Band48	15MHz	16QAM	55315	1RB#38	19.52	19.39	23	PASS
Band48	15MHz	16QAM	55315	1RB#74	19.53	19.4	23	PASS
Band48	15MHz	16QAM	55315	75RB#0	18.31	18.18	23	PASS
Band48	15MHz	16QAM	55990	1RB#0	19.37	19.24	23	PASS
Band48	15MHz	16QAM	55990	1RB#38	19.57	19.44	23	PASS
Band48	15MHz	16QAM	55990	1RB#74	19.7	19.57	23	PASS
Band48	15MHz	16QAM	55990	75RB#0	18.36	18.23	23	PASS
Band48	15MHz	16QAM	56665	1RB#0	19.94	19.81	23	PASS
Band48	15MHz	16QAM	56665	1RB#38	20.13	20	23	PASS
Band48	15MHz	16QAM	56665	1RB#74	20.15	20.02	23	PASS

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Band48	15MHz	16QAM	56665	75RB#0	19.08	18.95	23	PASS
Band48	15MHz	64QAM	55315	1RB#0	18.13	18	23	PASS
Band48	15MHz	64QAM	55315	1RB#38	18.26	18.13	23	PASS
Band48	15MHz	64QAM	55315	1RB#74	18.26	18.13	23	PASS
Band48	15MHz	64QAM	55315	75RB#0	17.3	17.17	23	PASS
Band48	15MHz	64QAM	55990	1RB#0	18.11	17.98	23	PASS
Band48	15MHz	64QAM	55990	1RB#38	18.29	18.16	23	PASS
Band48	15MHz	64QAM	55990	1RB#74	18.41	18.28	23	PASS
Band48	15MHz	64QAM	55990	75RB#0	17.33	17.2	23	PASS
Band48	15MHz	64QAM	56665	1RB#0	18.86	18.73	23	PASS
Band48	15MHz	64QAM	56665	1RB#38	19.05	18.92	23	PASS
Band48	15MHz	64QAM	56665	1RB#74	19.07	18.94	23	PASS
Band48	15MHz	64QAM	56665	75RB#0	18.09	17.96	23	PASS
Band48	15MHz	256QAM	55315	1RB#0	15.36	15.23	23	PASS
Band48	15MHz	256QAM	55315	1RB#38	15.24	15.11	23	PASS
Band48	15MHz	256QAM	55315	1RB#74	15.23	15.1	23	PASS
Band48	15MHz	256QAM	55315	75RB#0	15.28	15.15	23	PASS
Band48	15MHz	256QAM	55990	1RB#0	15.08	14.95	23	PASS
Band48	15MHz	256QAM	55990	1RB#38	15.29	15.16	23	PASS
Band48	15MHz	256QAM	55990	1RB#74	15.39	15.26	23	PASS
Band48	15MHz	256QAM	55990	75RB#0	15.31	15.18	23	PASS
Band48	15MHz	256QAM	56665	1RB#0	15.82	15.69	23	PASS
Band48	15MHz	256QAM	56665	1RB#38	16.01	15.88	23	PASS
Band48	15MHz	256QAM	56665	1RB#74	16.03	15.9	23	PASS
Band48	15MHz	256QAM	56665	75RB#0	16.07	15.94	23	PASS
Band48	20MHz	QPSK	55340	1RB#0	19.97	19.84	23	PASS
Band48	20MHz	QPSK	55340	1RB#49	20.16	20.03	23	PASS
Band48	20MHz	QPSK	55340	1RB#99	20.17	20.04	23	PASS
Band48	20MHz	QPSK	55340	100RB#0	19.36	19.23	23	PASS
Band48	20MHz	QPSK	55990	1RB#0	19.35	19.22	23	PASS

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Band48	20MHz	QPSK	55990	1RB#49	20.21	20.08	23	PASS
Band48	20MHz	QPSK	55990	1RB#99	20.31	20.18	23	PASS
Band48	20MHz	QPSK	55990	100RB#0	19.38	19.25	23	PASS
Band48	20MHz	QPSK	56640	1RB#0	19.9	19.77	23	PASS
Band48	20MHz	QPSK	56640	1RB#49	20.94	20.81	23	PASS
Band48	20MHz	QPSK	56640	1RB#99	20.91	20.78	23	PASS
Band48	20MHz	QPSK	56640	100RB#0	19.86	19.73	23	PASS
Band48	20MHz	16QAM	55340	1RB#0	19.39	19.26	23	PASS
Band48	20MHz	16QAM	55340	1RB#49	19.56	19.43	23	PASS
Band48	20MHz	16QAM	55340	1RB#99	19.6	19.47	23	PASS
Band48	20MHz	16QAM	55340	100RB#0	18.38	18.25	23	PASS
Band48	20MHz	16QAM	55990	1RB#0	19.35	19.22	23	PASS
Band48	20MHz	16QAM	55990	1RB#49	19.62	19.49	23	PASS
Band48	20MHz	16QAM	55990	1RB#99	19.72	19.59	23	PASS
Band48	20MHz	16QAM	55990	100RB#0	18.4	18.27	23	PASS
Band48	20MHz	16QAM	56640	1RB#0	19.88	19.75	23	PASS
Band48	20MHz	16QAM	56640	1RB#49	20.14	20.01	23	PASS
Band48	20MHz	16QAM	56640	1RB#99	20.12	19.99	23	PASS
Band48	20MHz	16QAM	56640	100RB#0	19.1	18.97	23	PASS
Band48	20MHz	64QAM	55340	1RB#0	18.15	18.02	23	PASS
Band48	20MHz	64QAM	55340	1RB#49	18.29	18.16	23	PASS
Band48	20MHz	64QAM	55340	1RB#99	18.34	18.21	23	PASS
Band48	20MHz	64QAM	55340	100RB#0	17.34	17.21	23	PASS
Band48	20MHz	64QAM	55990	1RB#0	18.09	17.96	23	PASS
Band48	20MHz	64QAM	55990	1RB#49	18.35	18.22	23	PASS
Band48	20MHz	64QAM	55990	1RB#99	18.46	18.33	23	PASS
Band48	20MHz	64QAM	55990	100RB#0	17.35	17.22	23	PASS
Band48	20MHz	64QAM	56640	1RB#0	18.82	18.69	23	PASS
Band48	20MHz	64QAM	56640	1RB#49	19.03	18.9	23	PASS
Band48	20MHz	64QAM	56640	1RB#99	19.07	18.94	23	PASS

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Band48	20MHz	64QAM	56640	100RB#0	18.05	17.92	23	PASS
Band48	20MHz	256QAM	55340	1RB#0	15.12	14.99	23	PASS
Band48	20MHz	256QAM	55340	1RB#49	15.29	15.16	23	PASS
Band48	20MHz	256QAM	55340	1RB#99	15.33	15.2	23	PASS
Band48	20MHz	256QAM	55340	100RB#0	15.32	15.19	23	PASS
Band48	20MHz	256QAM	55990	1RB#0	15.08	14.95	23	PASS
Band48	20MHz	256QAM	55990	1RB#49	15.31	15.18	23	PASS
Band48	20MHz	256QAM	55990	1RB#99	15.45	15.32	23	PASS
Band48	20MHz	256QAM	55990	100RB#0	15.32	15.19	23	PASS
Band48	20MHz	256QAM	56640	1RB#0	15.81	15.68	23	PASS
Band48	20MHz	256QAM	56640	1RB#49	16.03	15.9	23	PASS
Band48	20MHz	256QAM	56640	1RB#99	16.04	15.91	23	PASS
Band48	20MHz	256QAM	56640	100RB#0	16.01	15.88	23	PASS

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6.2 Field strength of spurious radiation

Test Requirement: §2.1051, §96.41(e)

Test Method: ANSI C63.26, KDB 971168 D01 v03

Limit: Emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed -13 dBm/MHz within 0 to B megahertz (where B is the bandwidth in megahertz)

At all frequencies greater than B megahertz above the upper CBSD-assigned channel edge and less than B megahertz below the lower CBSD-assigned channel edge, the conducted power of any End User Device emission shall not exceed -25 dBm/MHz

Emissions below 3530MHz or above 3720 MHz shall not exceed -40dBm/MHz

6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 18.5 °C Humidity: 39.5 % RH Atmospheric Pressure: 1020 mbar

Test mode Tx mode, Keep the EUT in transmitting mode.

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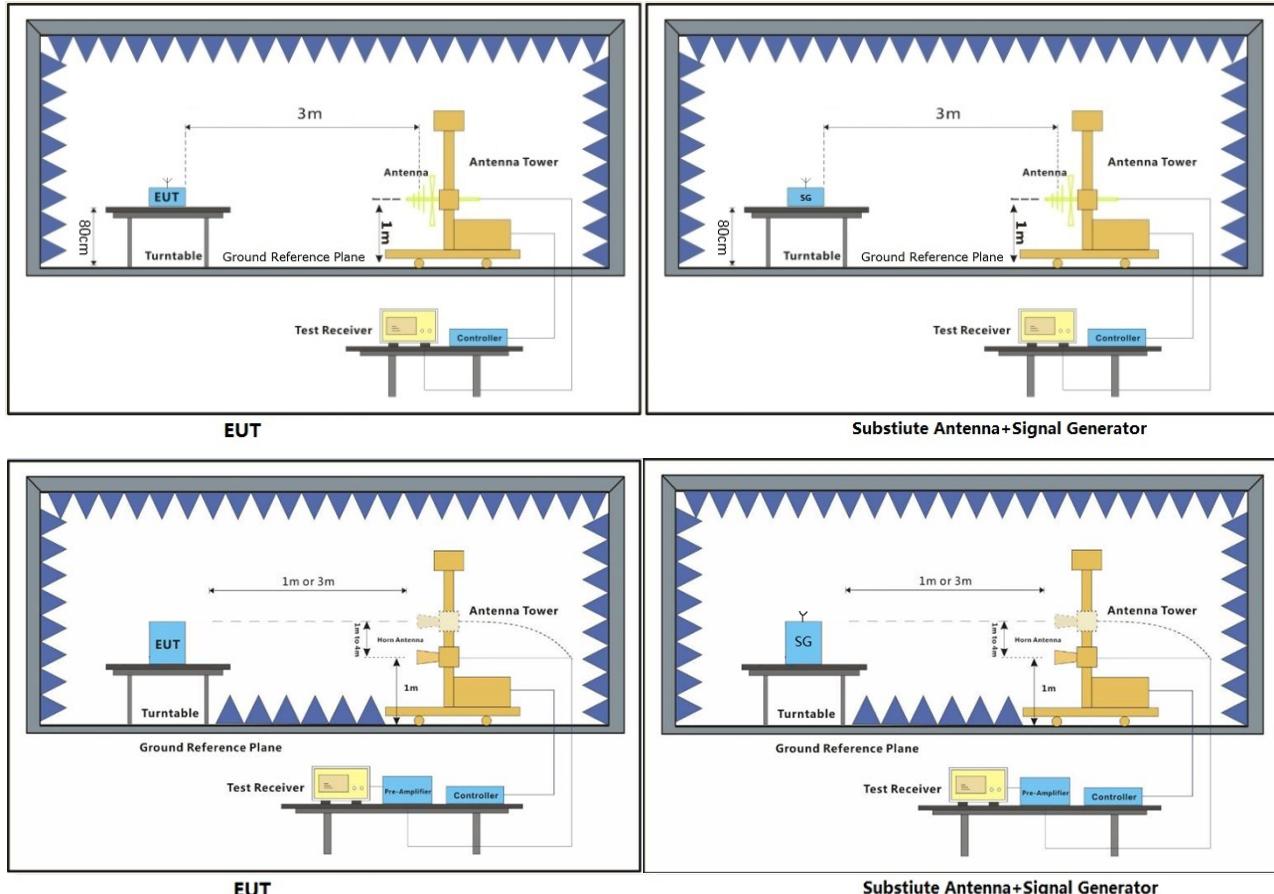


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6.2.2 Test Setup Diagram



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6.2.3 Measurement Procedure and Data

Test Procedure:

- (1)On a test site, the EUT shall be placed on a turntable and in the position closest to the normal use as declared by the user.
- (2)The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.
- (3)The output of the antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
- (4)The transmitter shall be switched on; if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
- (5)The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.
- (6)The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- (7)The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.
- (8)The maximum signal level detected by the measuring receiver shall be noted.
- (9)The measurement shall be repeated with the test antenna set to horizontal polarization.
- (10) Replace the antenna with a proper Antenna (substitution antenna).
- (11)The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.
- (12)The substitution antenna shall be connected to a calibrated signal generator.
- (13)If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- (14)The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
- (15)The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
- (16)The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
- (17)The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.



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LTE Band 48_ Low Channel									
Frequency [MHz]	Reading [dB μ V]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7102.1800	39.37	-43.66	36.35	-63.20	-40.00	23.20	147	120	Horizontal
8349.2	39.42	-41.62	37.27	-60.20	-40.00	20.20	195	43	Horizontal
9016.775	38.22	-40.79	38.21	-59.62	-40.00	19.62	146	25	Horizontal
10653.2700	33.37	-37.73	39.10	-60.52	-40.00	20.52	129	13	Horizontal
14204.3600	29.75	-35.33	40.23	-60.62	-40.00	20.62	321	359	Horizontal
17755.4500	32.75	-33.78	40.53	-55.75	-40.00	15.75	105	120	Horizontal

LTE Band 48_ Low Channel									
Frequency [MHz]	Reading [dB μ V]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7102.1800	39.60	-43.66	36.35	-62.97	-40.00	22.97	245	335	Vertical
8404.4	39.21	-41.39	37.34	-60.10	-40.00	20.10	163	228	Vertical
9163.4	37.07	-40.12	38.31	-59.99	-40.00	19.99	259	359	Vertical
10653.2700	34.12	-37.73	39.10	-59.77	-40.00	19.77	191	346	Vertical
14204.3600	29.88	-35.33	40.23	-60.49	-40.00	20.49	147	260	Vertical
17755.4500	33.13	-33.78	40.53	-55.37	-40.00	15.37	152	3	Vertical

LTE Band 48_ Mid Channel									
Frequency [MHz]	Reading [dB μ V]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7232.1800	38.77	-43.52	36.58	-63.43	-40.00	23.43	215	16	Horizontal
8403.25	40.22	-41.38	37.34	-59.09	-40.00	19.09	145	4	Horizontal
9182.95	37.17	-40.03	38.33	-59.79	-40.00	19.79	196	348	Horizontal
10848.2700	31.89	-38.15	39.18	-62.33	-40.00	22.33	253	108	Horizontal
12840.525	33.06	-36.72	39.67	-59.25	-40.00	19.25	261	338	Horizontal
14464.3600	30.12	-34.53	40.03	-59.63	-40.00	19.63	148	139	Horizontal



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LTE Band 48_Mid Channel									
Frequency [MHz]	Reading [dB μ V]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7232.1800	39.09	-43.52	36.58	-63.11	-40.00	23.11	254	215	Vertical
8410.725	39.46	-41.42	37.35	-59.86	-40.00	19.86	126	44	Vertical
9260	37.12	-40.02	38.39	-59.78	-40.00	19.78	235	355	Vertical
10848.2700	32.74	-38.15	39.18	-61.48	-40.00	21.48	148	244	Vertical
12804.875	33.34	-36.63	39.63	-58.92	-40.00	18.92	195	61	Vertical
14464.3600	29.69	-34.53	40.03	-60.06	-40.00	20.06	175	290	Vertical

LTE Band 48_High Channel									
Frequency [MHz]	Reading [dB μ V]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7362.1800	39.57	-42.99	36.51	-62.17	-40.00	22.17	174	251	Horizontal
8414.75	39.48	-41.43	37.36	-59.85	-40.00	19.85	168	16	Horizontal
9258.275	36.98	-40.02	38.38	-59.92	-40.00	19.92	192	136	Horizontal
11043.2700	32.13	-37.66	39.08	-61.71	-40.00	21.71	145	25	Horizontal
12768.65	33.06	-36.69	39.58	-59.31	-40.00	19.31	128	11	Horizontal
14724.3600	29.87	-34.82	39.77	-60.44	-40.00	20.44	130	322	Horizontal

LTE Band 48_High Channel									
Frequency [MHz]	Reading [dB μ V]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7362.1800	40.04	-42.99	36.51	-61.70	-40.00	21.70	199	46	Vertical
8400.95	39.20	-41.37	37.33	-60.10	-40.00	20.10	147	25	Vertical
9596.375	36.22	-39.23	38.44	-59.83	-40.00	19.83	121	4	Vertical
11043.2700	32.25	-37.66	39.08	-61.59	-40.00	21.59	182	136	Vertical
12804.3	32.75	-36.63	39.63	-59.51	-40.00	19.51	143	354	Vertical
14724.3600	30.58	-34.82	39.77	-59.73	-40.00	19.73	261	111	Vertical

Remark:

1) Pretest was performed at the EUT in required band,channel,modulation,bandwidth, and only the data of the worst case showed in the test report.



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7 Test Setup Photographs

Refer to Appendix - Test Setup Photo for KSCR2212002520AT



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