

Report No.: KSCR221000245701

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# DTEST REPORT

**Application No.:** KSCR2210002457AT FCC ID: 2APJ4-SRM825NNA

Applicant: MeiG Smart Technology Co., Ltd LTD.

Address of Applicant: 2nd Floor, Office Building, No.5 Lingxia Road, Fenghuang, Fuyong

Street, Bao'an District, Shenzhen

Manufacturer: MeiG Smart Technology Co., Ltd LTD.

Address of Manufacturer: 2nd Floor,Office Building,No.5 Lingxia Road,Fenghuang,Fuyong

Street, Bao'an District, Shenzhen

**Equipment Under Test (EUT):** 

**EUT Name: SRM825** 

Model No.: SRM825N-NA

**Trade Mark: MEIGLink** 

Standard(s): 47 CFR Part 2

47 CFR Part 96 subpart E

Date of Receipt: 2022-12-12

**Date of Test:** 2022-12-12 to 2023-02-15

Date of Issue: 2023-02-16

**Pass Test Result:** 

Eric Lin Laboratory Manager

Ina fin



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<sup>\*</sup> In the configuration tested, the EUT complied with the standards specified above.



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	Revision Record				
Version Description Date Remark					
00	Original	2023-02-16	/		

Authorized for issue by:			
	Damon zhou		
	Damon_Zhou/Project Engineer	-	
	Esia Li		
	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
Peak-Average Ratio	§96.41(g)	≤13dB	PASS
Modulation Characteristics	§2.1047	Digital modulation	PASS
Bandwidth	§2.1049(h)	OBW: No limit EBW: No limit	PASS
Band Edge Compliance	§96.41(e)	Refer to clause 6.4	PASS
Spurious emissions at antenna terminals	§96.41(e)	Refer to clause 6.5	PASS
Field strength of spurious radiation	§2.1051 §96.41(e)	Refer to clause 6.6	PASS
Frequency stability	§2.1055	≤ ±2.5ppm.	PASS



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# **General Information**

#### 4.1 Details of E.U.T.

DC 3.8V Power supply:

Hardware Version: SRM825WN\_X62\_V1.01 Software Version: SRM825N 6.0.3 EQ101

LTE: Band 48 Operation Frequency

Band: NR: n48

CA Under Test (up

link)

LTE:48C

LTE: QPSK, 16QAM, 64QAM, 256 QAM Modulation Type:

NR: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256 QAM

LTE Power Class: Level 3 SCS Information: 30KHz

Antenna Type: External Antenna

Antenna 1:3.1dBi(Provide by Manufacturer); Antenna Gain: Antenna 3:3.1dBi(Provide by Manufacturer)

#### 4.2 Test Frequency

	Nominal	RF Channel			
Test mode:	Bandwidth (MHz)	Low (L)	Middle (M)	High (H)	
		MHz	MHz	MHz	
LTE 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	

Test mode:	Nominal	RF Channel			
	Bandwidth	Low (L)	Middle (M)	High (H)	
	(MHz)	MHz	MHz	MHz	
	10MHz-20MHz	3555.5-3569.9	3615.6-3630.0	3675.6-3690.0	
	15MHz-20MHz	3557.8-3574.9	3557.8-3574.9	3672.9-3690.0	
	20MHz-10MHz	3560.0-3574.5	3620.1-3634.5	3680.1-3694.5	
LTE Band 48C	20MHz-15MHz	3560.0-3577.1	3617.6-3634.7	3675.1-3692.2	
	20MHz-20MHz	3560.0-3579.8	3615.1-3634.9	3670.2-3690.0	
	20MHz-5MHz	3560.0-3571.7	3622.5-3634.2	3685-3696.7	
	5MHz-20MHz	3553.3-3565	3615.8-3627.5	3678.3-3690	



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Test mode:	Nominal	RF Channel			
	Bandwidth	Low (L)	Middle (M)	High (H)	
	(MHz)	MHz	MHz	MHz	
	5	3552.51	3625.005	3697.50	
	10	3555.00	3624.99	3694.98	
NR n48	15	3557.52	3624.99	3692.49	
	20	3560.01	3624.99	3690.00	
	40	3570.00	3624.99	3679.98	

#### 4.3 Test Environment

Environment Parameter	Selected Va	Selected Values During Tests			
Relative Humidity		52%			
Atmospheric Pressure:	1015Pa				
Temperature:	TL	-40°C			
	TN	+20°C			
	TH	+75°C			
	VL	3.3 V			
Voltage:	VN	3.8 V			
	VH	4.4 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 Description of Support Units

The EUT has been tested independent unit.



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#### 4.5 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	± 5.4 x 10 <sup>-8</sup>
2	Duty cycle	± 0.3%
3	Occupied Bandwidth	± 3%
4	RF conducted power	± 0.8dB
5	RF power density	± 0.4dB
6	Conducted Spurious emissions	± 2.7dB
7	Dedicted Spurious emission test	± 3.1dB (Below 1GHz)
/	Radiated Spurious emission test	± 4.4dB (Above 1GHz)
8	Temperature test	± 1°C
9	Humidity test	± 3%
10	Supply voltages	± 1.5%
11	Time	± 3%



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#### 4.6 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).

#### 4.7 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.

#### 4.8 Deviation from Standards

None

#### 4.9 Abnormalities from Standard Conditions

None



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# **Equipment List**

NO	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date	Cal. Due date
RF Co	nducted 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	Aglient	E3632A	KS301180	N.C.R	N.C.R
12	Conducted Test Cable	Thermax	RF01-RF04	CZ301111- CZ301120	01/16/2022 01/14/2023	01/15/2023 01/13/2024
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	1	N/A	N/A
RF Ra	diated 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	01/17/2022 01/15/2023	01/16/2023 01/14/2024
11	Amplifier(18~40GHz)	COM-POWER	PAM-840A	KUS1710E001	01/22/2022	01/21/2023
12	RE Test Cable	REBES MICROWAVE	1	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_EMC-v 3A1	1	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

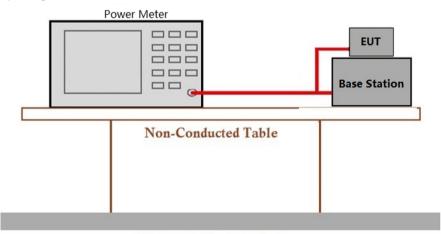
#### 6.1.1 E.U.T. Operation

**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



**Ground Reference Plane** 

#### 6.1.3 Measurement Data

Please refer to

Appendix A for KSCR2212002457AT-LTE-band 48 ANT1;

Appendix B for KSCR2212002457AT-LTE-band\_48\_ANT3;

Appendix C for KSCR2212002457AT-LTE-48C;

Appendix D for KSCR2212002457AT-FCC-NR48-ANT1;

Appendix E for KSCR2212002457AT-FCC-NR48-ANT3



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#### 6.2 Peak-Average Ratio

§96.41(g) Test Requirement:

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

Limit: ≤13dB

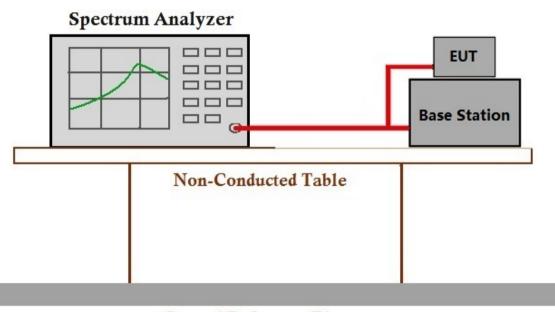
#### 6.2.1 E.U.T. Operation

Operating Environment:

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

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

#### 6.2.2 Test Setup Diagram



#### Ground Reference Plane

#### 6.2.3 Measurement Data

Please refer to

Appendix A for KSCR2212002457AT-LTE-band 48 ANT1;

Appendix B for KSCR2212002457AT-LTE-band 48 ANT3;

Appendix C for KSCR2212002457AT-LTE-48C;

Appendix D for KSCR2212002457AT-FCC-NR48-ANT1;

Appendix E for KSCR2212002457AT-FCC-NR48-ANT3

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#### 6.3 Bandwidth

Test Requirement: §2.1049(h)

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

OBW: No limit I imit

EBW: No limit

#### 6.3.1 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.

#### 6.3.2 Test Setup Diagram

# Spectrum Analyzer **EUT Base Station** Non-Conducted Table

#### Ground Reference Plane

#### 6.3.3 Measurement Data

Please refer to

Appendix A for KSCR2212002457AT-LTE-band 48 ANT1;

Appendix B for KSCR2212002457AT-LTE-band 48 ANT3;

Appendix C for KSCR2212002457AT-LTE-48C;

Appendix D for KSCR2212002457AT-FCC-NR48-ANT1;

Appendix E for KSCR2212002457AT-FCC-NR48-ANT3



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#### 6.4 Band Edge Compliance

§2.1051, §96.41(e) Test Requirement:

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

Emission outside the fundamental emission (whether in or outside of the Limit:

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 CBSDassigned 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

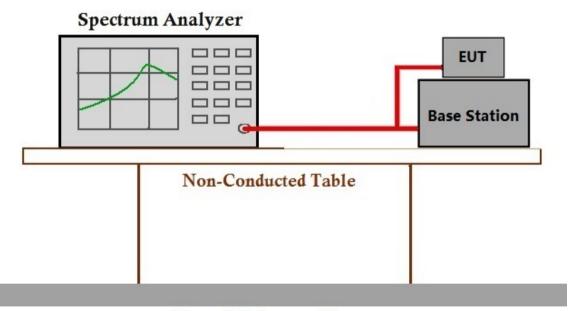
#### 6.4.1 E.U.T. Operation

**Operating Environment:** 

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

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

#### 6.4.2 Test Setup Diagram



#### Ground Reference Plane



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#### 6.4.3 Measurement Data

Please refer to

Appendix A for KSCR2212002457AT-LTE-band\_48\_ANT1;

Appendix B for KSCR2212002457AT-LTE-band\_48\_ANT3;

Appendix C for KSCR2212002457AT-LTE-48C;

Appendix D for KSCR2212002457AT-FCC-NR48-ANT1;

Appendix E for KSCR2212002457AT-FCC-NR48-ANT3

#### 6.5 Spurious emissions at antenna terminals

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

#### 6.5.1 E.U.T. Operation

Operating Environment:

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

Test mode 30: Tx mode, Keep the EUT in transmitting mode.



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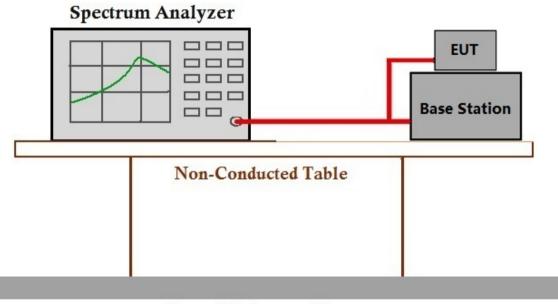
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#### 6.5.2 Test Setup Diagram



#### Ground Reference Plane

#### 6.5.3 Measurement Data

Please refer to

Appendix A for KSCR2212002457AT-LTE-band\_48\_ANT1;

Appendix B for KSCR2212002457AT-LTE-band\_48\_ANT3;

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Appendix C for KSCR2212002457AT-LTE-48C;

Appendix D for KSCR2212002457AT-FCC-NR48-ANT1;

Appendix E for KSCR2212002457AT-FCC-NR48-ANT3



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#### 6.6 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

#### 6.6.1 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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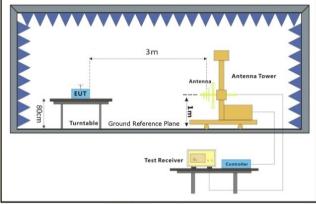
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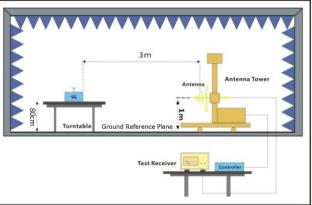


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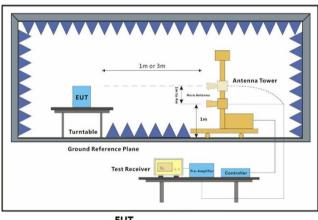
#### 6.6.2 Test Setup Diagram

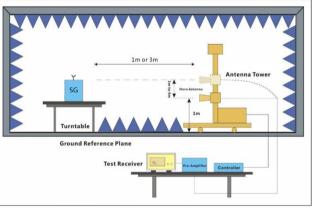




EUT

Substiute Antenna+Signal Generator





EUT

Substiute Antenna+Signal Generator



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#### 6.6.3 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 than 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.

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- (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 Ant1					
Frequency	Level	Limit	Over Limit	Dolovization	
(MHz)	(dBm)	(dBm)	(dB)	Polarization	
7120.000	-56.00	-40	-16.00	Horizontal	
10680.000	-55.98	-40	-15.98	Horizontal	
14240.000	-51.86	-40	-11.86	Horizontal	
7120.000	-55.52	-40	-15.52	Vertical	
10680.000	-52.30	-40	-12.30	Vertical	
14240.000	-50.28	-40	-10.28	Vertical	

LTE Band 48-Middle channel Ant1					
Frequency	Level	Limit	Over Limit	Polarization	
(MHz)	(dBm)	(dBm)	(dB)	Polarization	
7250.000	-57.95	-40	-17.95	Horizontal	
10875.000	-54.02	-40	-14.02	Horizontal	
14500.000	-49.92	-40	-9.92	Horizontal	
7250.000	-54.99	-40	-14.99	Vertical	
10875.000	-51.84	-40	-11.84	Vertical	
14500.000	-50.37	-40	-10.37	Vertical	

LTE Band 48-High channel Ant1					
Frequency	Level	Limit	Over Limit	Delevization	
(MHz)	(dBm)	(dBm)	(dB)	Polarization	
7380.000	-58.60	-40	-18.60	Horizontal	
11070.000	-55.28	-40	-15.28	Horizontal	
14760.000	-51.42	-40	-11.42	Horizontal	
7380.000	-56.96	-40	-16.96	Vertical	
11070.000	-54.04	-40	-14.04	Vertical	
14760.000	-50.10	-40	-10.10	Vertical	



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	LTE Band 48-Low channel Ant3					
Frequency	Level	Limit	Over Limit	Delevization		
(MHz)	(dBm)	(dBm)	(dB)	Polarization		
7120.000	-59.23	-40	-19.23	Horizontal		
10680.000	-54.10	-40	-14.10	Horizontal		
14240.000	-51.55	-40	-11.55	Horizontal		
7120.000	-58.48	-40	-18.48	Vertical		
10680.000	-55.20	-40	-15.20	Vertical		
14240.000	-50.72	-40	-10.72	Vertical		

LTE Band 48-Middle channel Ant3					
Frequency	Level	Limit	Over Limit	Polarization	
(MHz)	(dBm)	(dBm)	(dB)	Polatization	
7250.000	-58.90	-40	-18.90	Horizontal	
10875.000	-56.21	-40	-16.21	Horizontal	
14500.000	-50.75	-40	-10.75	Horizontal	
7250.000	-57.33	-40	-17.33	Vertical	
10875.000	-53.61	-40	-13.61	Vertical	
14500.000	-50.87	-40	-10.87	Vertical	

LTE Band 48-High channel Ant3					
Frequency	Level	Limit	Over Limit	Polarization	
(MHz)	(dBm)	(dBm)	(dB)	Folalization	
7380.000	-58.94	-40	-18.94	Horizontal	
11070.000	-55.86	-40	-15.86	Horizontal	
14760.000	-51.71	-40	-11.71	Horizontal	
7380.000	-59.53	-40	-19.53	Vertical	
11070.000	-56.59	-40	-16.59	Vertical	
14760.000	-49.31	-40	-9.31	Vertical	



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LTE Band 48C- Low Channel					
Frequency	Level	Limit	Over Limit	Polarization	
(MHz)	(dBm)	(dBm)	(dB)	Polarization	
7120	-54.96	-40	-14.96	Horizontal	
10680	-51.07	-40	-11.07	Horizontal	
14240	-49.36	-40	-9.36	Horizontal	
7120	-53.70	-40	-13.70	Horizontal	
10680	-50.47	-40	-10.47	Horizontal	
14240	-48.36	-40	-8.36	Horizontal	
7120	-53.68	-40	-13.68	Vertical	
10680	-50.20	-40	-10.20	Vertical	
14240	-48.15	-40	-8.15	Vertical	
7120	-52.90	-40	-12.90	Vertical	
10680	-49.83	-40	-9.83	Vertical	
14240	-48.07	-40	-8.07	Vertical	

LTE Band 48C-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
7230.2	-52.74	-40	-12.74	Horizontal
10845.3	-50.48	-40	-10.48	Horizontal
14460.4	-48.87	-40	-8.87	Horizontal
7230.2	-51.10	-40	-11.10	Horizontal
10845.3	-49.29	-40	-9.29	Horizontal
14460.4	-48.53	-40	-8.53	Horizontal
7230.2	-53.77	-40	-13.77	Vertical
10845.3	-51.28	-40	-11.28	Vertical
14460.4	-49.89	-40	-9.89	Vertical
7230.2	-52.17	-40	-12.17	Vertical
10845.3	-50.87	-40	-10.87	Vertical
14460.4	-49.47	-40	-9.47	Vertical



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LTE Band 48C-High channel					
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization	
7340.4	-53.90	-40	-13.90	Horizontal	
11010.6	-51.72	-40	-11.72	Horizontal	
14680.8	-48.03	-40	-8.03	Horizontal	
7340.4	-54.25	-40	-14.25	Horizontal	
11010.6	-50.87	-40	-10.87	Horizontal	
14680.8	-49.33	-40	-9.33	Horizontal	
7340.4	-52.54	-40	-12.54	Vertical	
11010.6	-50.28	-40	-10.28	Vertical	
14680.8	-49.61	-40	-9.61	Vertical	
7340.4	-53.75	-40	-13.75	Vertical	
11010.6	-51.14	-40	-11.14	Vertical	
14680.8	-49.17	-40	-9.17	Vertical	

NR Band 48-Low channel					
Frequency	Level	Limit	Over Limit	Polarization	
(MHz)	(dBm)	(dBm)	(dB)	Polarization	
7140.000	-57.28	-40	-17.28	Horizontal	
10710.000	-56.61	-40	-16.61	Horizontal	
14280.000	-50.89	-40	-10.89	Horizontal	
7140.000	-56.82	-40	-16.82	Vertical	
10710.000	-53.61	-40	-13.61	Vertical	
14280.000	-49.65	-40	-9.65	Vertical	

NR Band 48-Middle channel					
Frequency	Level	Limit	Over Limit	Polarization	
(MHz)	(dBm)	(dBm)	(dB)	Polarization	
7249.980	-57.02	-40	-17.02	Horizontal	
10874.970	-55.96	-40	-15.96	Horizontal	
14499.960	-51.85	-40	-11.85	Horizontal	
7249.980	-58.43	-40	-18.43	Vertical	
10874.970	-54.46	-40	-14.46	Vertical	
14499.960	-48.96	-40	-8.96	Vertical	



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NR Band 48-High channel					
Frequency	Level	Limit	Over Limit	Polarization	
(MHz)	(dBm)	(dBm)	(dB)	Polatization	
7359.960	-56.16	-40	-16.16	Horizontal	
11039.940	-50.29	-40	-10.29	Horizontal	
14719.92	-49.75	-40	-9.75	Horizontal	
7359.960	-58.23	-40	-18.23	Vertical	
11039.940	-55.28	-40	-15.28	Vertical	
14719.92	-50.41	-40	-10.41	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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#### 6.7 Frequency stability

Test Requirement: §2.1055

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

Limit:  $\leq$  ±2.5ppm.

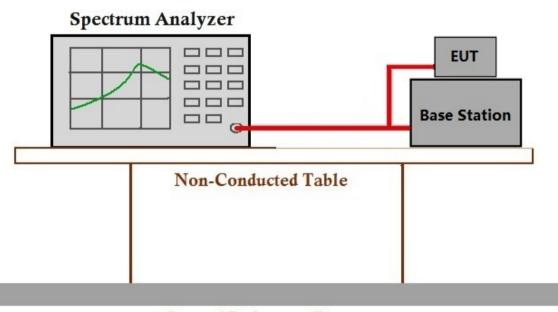
#### 6.7.1 E.U.T. Operation

Operating Environment:

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

Test mode 30: Tx mode, Keep the EUT in transmitting mode.

#### 6.7.2 Test Setup Diagram



#### Ground Reference Plane

#### 6.7.3 Measurement Data

Please refer to

Appendix A for KSCR2212002457AT-LTE-band 48 ANT1;

Appendix B for KSCR2212002457AT-LTE-band 48 ANT3;

Appendix C for KSCR2212002457AT-LTE-48C;

Appendix D for KSCR2212002457AT-FCC-NR48-ANT1;

Appendix E for KSCR2212002457AT-FCC-NR48-ANT3



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#### 6.8 Modulation Characteristics

Test Requirement: §2.1047

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

Limit: Digital modulation

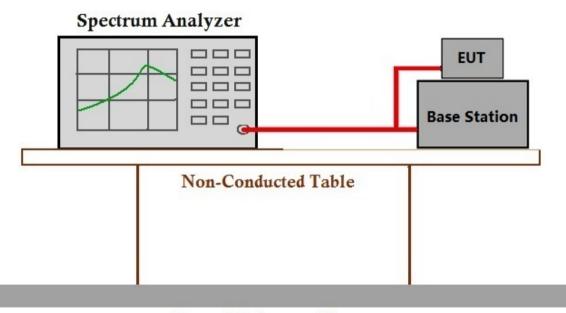
#### 6.8.1 E.U.T. Operation

**Operating Environment:** 

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

Test mode 30: Tx mode, Keep the EUT in transmitting mode.

#### 6.8.2 Test Setup Diagram



#### Ground Reference Plane

#### 6.8.3 Measurement Data

Please refer to

Appendix A for KSCR2212002457AT-LTE-band\_48\_ANT1;

Appendix B for KSCR2212002457AT-LTE-band\_48\_ANT3;

Appendix C for KSCR2212002457AT-LTE-48C;

Appendix D for KSCR2212002457AT-FCC-NR48-ANT1;

Appendix E for KSCR2212002457AT-FCC-NR48-ANT3



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#### **Test Setup Photographs** 7

Refer to the < Test Setup photos>.

- End of the Report -



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