TEST REPORT

Application No.:	KSCR2207001310AT
Applicant:	Quectel Wireless Solutions Co., Ltd.
Address of Applicant:	Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China 200233
Manufacturer:	Quectel Wireless Solutions Co., Ltd.
Address of Manufacturer:	Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China 200233
Equipment Under Test (EUT):	
EUT Name:	5G Module
Model No.:	AG550Q-NA
Trade Mark:	Quectel
FCC ID:	XMR2022AG550QNA
Standard(s) :	47 CFR Part 2 47 CFR Part 96 subpart E
Date of Receipt:	2022-04-29
Date of Test:	2022-06-10 to 2022-08-10
Date of Issue:	2022-08-17
Test Result:	**Pass**

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

Eric Lin
Laboratory Manager

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Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2022-08-17		Original

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
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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3 Contents

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4 General Information

4.1 Details of E.U.T.

Power supply:	DC4.3V
Hardware Version:	R1.0
Software Version:	AG550QNAABR03A03M8G_OCPU
Operation Frequency Band:	LTE: Band 48 NR: n48
Modulation Type:	LTE: QPSK, 16QAM, 64QAM NR: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256 QAM
LTE Power Class:	Level 3
SCS Information:	30KHz
Antenna Type:	External Antenna
Antenna Gain:	-3.65dBi

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

Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
NR FDD n48	20	3560.0	3625.0	3690.0
	40	3570.0	3625.0	3680.0

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4.3 Test Environment

Environment Parameter	Selected Values During Tests	
Relative Humidity	52%	
Atmospheric Pressure:	1015Pa	
Temperature:	TL	-35°C
	TN	+20°C
	TH	+75°C
Voltage:	VL	3.3 V
	VN	3.8 V
	VH	4.3 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.

4.5 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	± 5.4 x 10^{-8}
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	Radiated Spurious emission test	± 3.1dB (Below 1GHz)
		± 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:

• CNAS (No. CNAS L4354)

CNAS has accredited Compliance Certification Services (Kunshan) Inc. to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• A2LA (Certificate No. 2541.01)

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

• FCC (Designation Number: CN1172)

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

Designation Number: CN1172.

• ISED (CAB identifier: CN0072)

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 (Member No.: 1938)

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

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4.9 Abnormalities from Standard Conditions

None

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5 Equipment List

RF Conducted Test						
1	Spectrum Analyzer	Keysight	N9020A	KUS1911E004-2	10/11/2021	10/10/2022
2	Spectrum Analyzer	R&S	FSV40	KUS1806E003	10/11/2021	10/10/2022
3	Spectrum Analyzer	Keysight	N9030B	KSEM021-1	01/22/2022	01/21/2023
4	Signal Generator	R&S	SMW200A	KSEM020-1	10/12/2021	10/11/2022
5	Signal Generator	Agilent	N5182A	KUS2001M001-1	08/27/2021	08/26/2022
6	Radio Communication Test Station	Anritsu	MT8000A	KSEM001-1	09/23/2021	09/22/2022
7	Radio Communication Analyzer	Anritsu	MT8821C	KSEM002-1	04/01/2022	03/31/2023
8	Universal Radio Communication Tester	R&S	CMW500	KUS1911E004-1	10/12/2021	10/11/2022
9	Switcher	CCSRF	FY562	KUS2001M001-3	10/12/2021	10/11/2022
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	01/15/2023
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	10/11/2021	10/10/2022
2	Universal Radio Communication Tester	R&S	CMW500	KSEM009-1	04/01/2022	03/31/2023
3	Signal Generator	Agilent	E8257C	KS301066	10/18/2021	10/17/2022
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	SCHWARZBECK	VULB9160	CZ301016	04/13/2021	04/12/2024
7	Horn-antenna(1-18GHz)	Schwarzbeck	BBHA9120D	KS301079	10/26/2020	10/25/2022
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	11/14/2021	11/13/2022
13	Radio Communication Test Station	Anritsu	MT8000A	KSEM001-1	09/23/2021	09/22/2022
14	Radio Communication Analyzer	Anritsu	MT8821C	KSEM002-1	04/01/2022	03/31/2023
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	/	N/A	N/A

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6 Radio Spectrum Matter Test Results

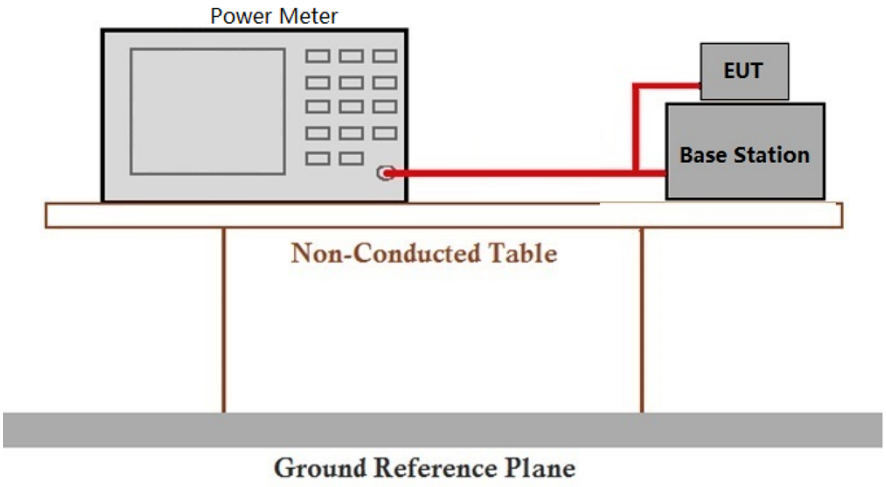
6.1 Effective (Isotropic) Radiated Output Power Data

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

Please refer to Appendix for LTE test data.
Please refer to Appendix for NR test data.

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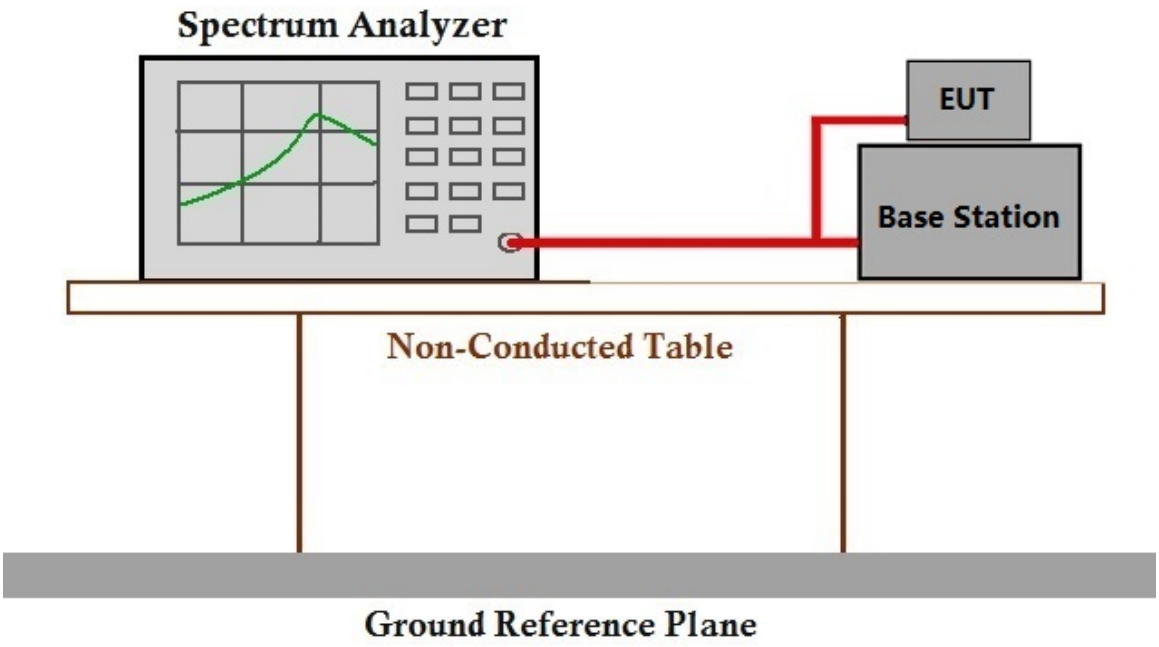
6.2 Peak-Average Ratio

Test Requirement: §96.41(g)
Test Method: ANSI C63.26, KDB 971168 D01 v03
Limit: ≤13dB

6.2.1 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.

6.2.2 Test Setup Diagram



6.2.3 Measurement Data

Please refer to Appendix for LTE test data.
Please refer to Appendix for NR test data.

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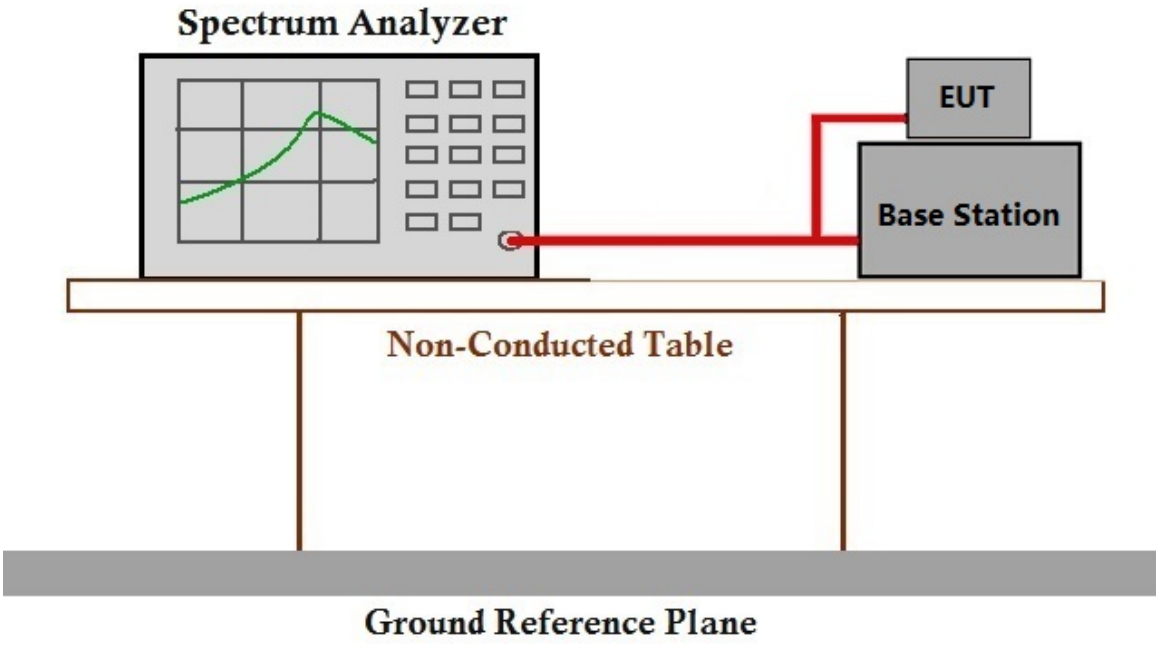
6.3 Bandwidth

Test Requirement: §2.1049(h)
Test Method: ANSI C63.26, KDB 971168 D01 v03
Limit: OBW: No limit
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



6.3.3 Measurement Data

Please refer to Appendix for LTE test data.
Please refer to Appendix for NR test data.

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6.4 Band Edge Compliance

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

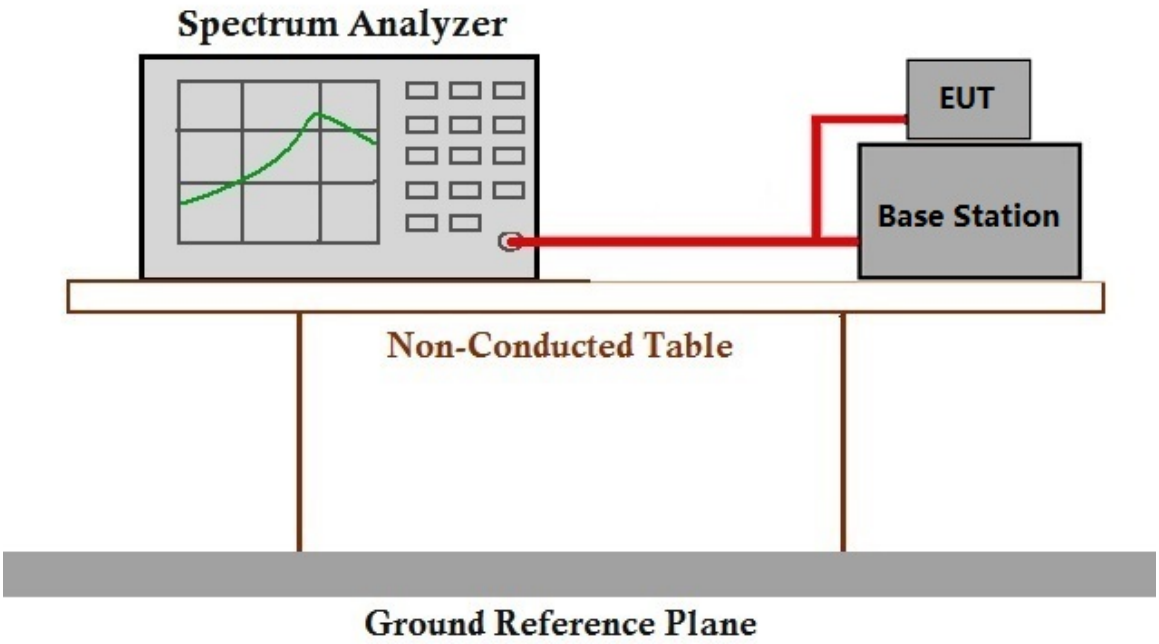
6.4.1 E.U.T. Operation

Operating Environment:

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

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

6.4.2 Test Setup Diagram



6.4.3 Measurement Data

Please refer to Appendix for LTE test data.

Please refer to Appendix for NR test data.

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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

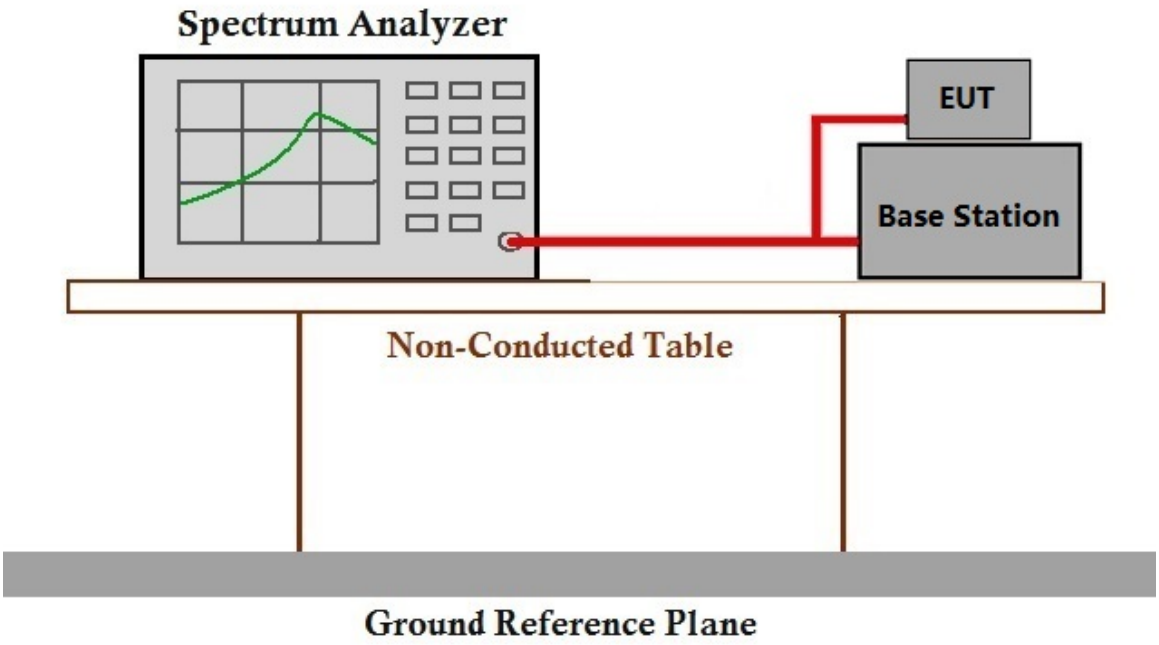
6.5.1 E.U.T. Operation

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.

6.5.2 Test Setup Diagram



6.5.3 Measurement Data

Please refer to Appendix for LTE test data.

Please refer to Appendix for NR test data.

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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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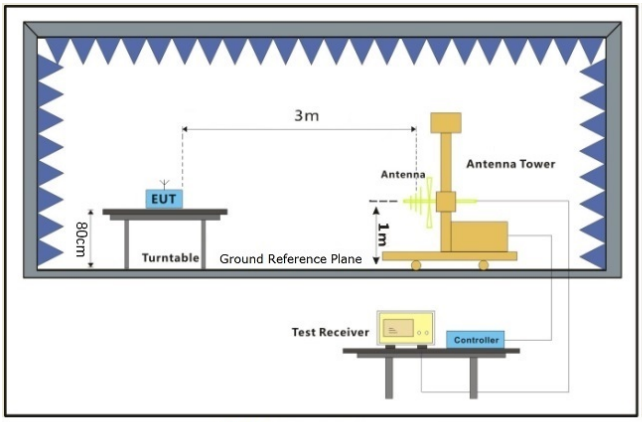
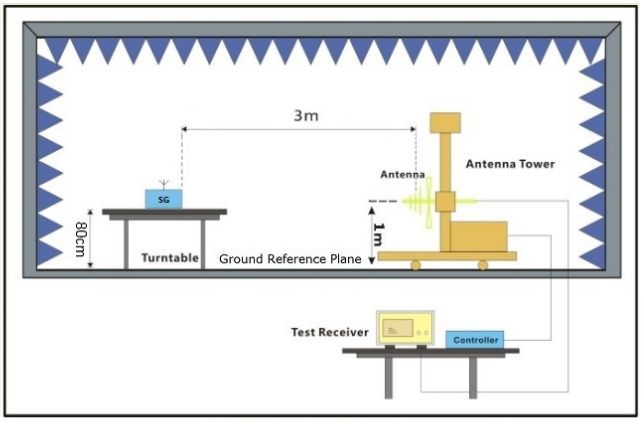
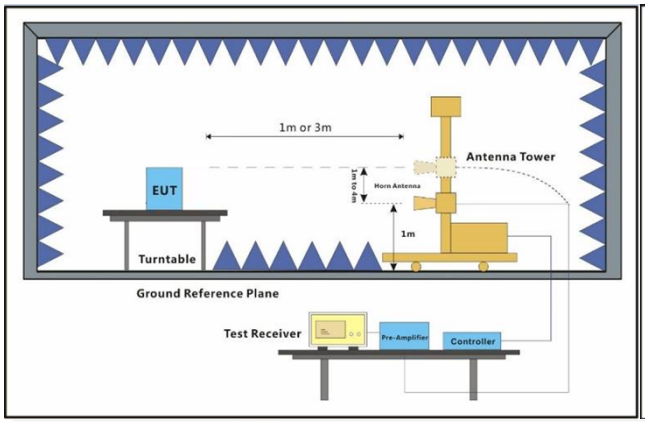
6.6.2 Test Setup Diagram



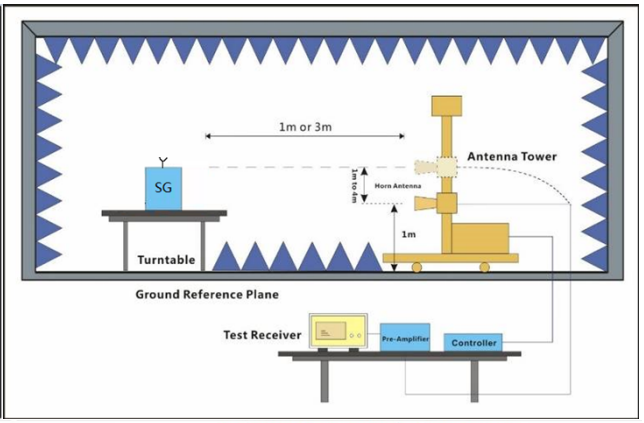
EUT



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.
(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 [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7102.1800	47.81	-43.66	36.35	-54.76	-40.00	14.76	154	59	Horizontal
10653.2700	42.39	-37.73	39.10	-51.50	-40.00	11.50	195	29	Horizontal
11417.4	43.00	-37.34	39.09	-50.51	-40.00	10.51	172	178	Horizontal
14204.3600	38.96	-35.33	40.23	-51.41	-40.00	11.41	153	2	Horizontal
15796.025	40.82	-33.07	38.20	-49.30	-40.00	9.30	236	316	Horizontal
17755.4500	37.34	-33.78	40.53	-51.16	-40.00	11.16	191	270	Horizontal

LTE Band 48 _ Low Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7102.1800	47.74	-43.66	36.35	-54.83	-40.00	14.83	125	357	Vertical
9003.55	48.63	-40.85	38.20	-49.28	-40.00	9.28	184	181	Vertical
10653.2700	41.65	-37.73	39.10	-52.24	-40.00	12.24	176	166	Vertical
14204.3600	40.25	-35.33	40.23	-50.12	-40.00	10.12	136	0	Vertical
15865.025	41.75	-33.76	38.09	-49.18	-40.00	9.18	152	30	Vertical
17755.4500	40.71	-33.78	40.53	-47.79	-40.00	7.79	194	357	Vertical

LTE Band 48_ Mid Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7231.975	54.77	-43.52	36.58	-47.43	-40.00	7.43	211	268	Horizontal
9143.275	48.10	-40.21	38.30	-49.07	-40.00	9.07	236	0	Horizontal
10848.2700	41.15	-38.15	39.18	-53.07	-40.00	13.07	194	357	Horizontal
12218.95	42.60	-37.02	39.12	-50.56	-40.00	10.56	172	316	Horizontal
14464.3600	39.23	-34.53	40.03	-50.52	-40.00	10.52	180	133	Horizontal
16966.15	43.76	-33.82	38.48	-46.83	-40.00	6.83	166	74	Horizontal

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LTE Band 48_ Mid Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7232.1800	48.51	-43.52	36.58	-53.69	-40.00	13.69	215	25	Vertical
8579.2	49.31	-41.08	37.71	-49.32	-40.00	9.32	142	237	Vertical
10848.2700	43.40	-38.15	39.18	-50.82	-40.00	10.82	331	346	Vertical
12278.175	43.19	-36.74	39.11	-49.71	-40.00	9.71	195	252	Vertical
14464.3600	39.41	-34.53	40.03	-50.34	-40.00	10.34	172	272	Vertical
16502.7	42.75	-34.29	37.93	-48.87	-40.00	8.87	180	252	Vertical

LTE Band 48_ High Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7361.925	52.22	-43.00	36.51	-49.52	-40.00	9.52	211	56	Horizontal
9268.05	47.63	-40.03	38.39	-49.27	-40.00	9.27	236	148	Horizontal
11043.2700	40.65	-37.66	39.08	-53.19	-40.00	13.19	254	134	Horizontal
13761.1	43.07	-36.15	40.00	-48.34	-40.00	8.34	169	16	Horizontal
14724.3600	37.83	-34.82	39.77	-52.48	-40.00	12.48	184	225	Horizontal
16977.65	42.74	-33.78	38.49	-47.81	-40.00	7.81	172	211	Horizontal

LTE Band 48_High Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7362.1800	49.16	-42.99	36.51	-52.58	-40.00	12.58	155	125	Vertical
8350.925	49.82	-41.62	37.27	-49.79	-40.00	9.79	145	269	Vertical
11043.2700	40.78	-37.66	39.08	-53.06	-40.00	13.06	126	29	Vertical
12869.85	42.68	-36.79	39.70	-49.67	-40.00	9.67	236	73	Vertical
14724.3600	38.06	-34.82	39.77	-52.25	-40.00	12.25	191	226	Vertical
16983.975	43.34	-33.75	38.49	-47.18	-40.00	7.18	172	104	Vertical

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n48_ Low Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7010.1800	48.19	-43.06	36.11	-54.02	-40.00	14.02	215	4	Horizontal
8400.375	48.93	-41.37	37.33	-50.37	-40.00	10.37	148	206	Horizontal
10515.2700	40.46	-38.64	38.98	-54.47	-40.00	14.47	175	14	Horizontal
14020.3600	35.20	-35.04	40.15	-54.95	-40.00	14.95	136	14	Horizontal
16644.725	40.29	-34.66	38.19	-51.44	-40.00	11.44	191	37	Horizontal
17525.4500	37.99	-33.81	39.28	-51.80	-40.00	11.80	145	360	Horizontal

n48_ Low Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7010.1800	46.98	-43.06	36.11	-55.23	-40.00	15.23	215	294	Vertical
8418.2	48.79	-41.45	37.37	-50.55	-40.00	10.55	236	125	Vertical
10515.2700	40.50	-38.64	38.98	-54.43	-40.00	14.43	191	35	Vertical
12871	39.97	-36.80	39.70	-52.39	-40.00	12.39	174	3	Vertical
14020.3600	34.71	-35.04	40.15	-55.44	-40.00	15.44	152	359	Vertical
17525.4500	38.49	-33.81	39.28	-51.30	-40.00	11.30	188	181	Vertical

n48_ Mid Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7160.1800	47.96	-43.63	36.50	-54.43	-40.00	14.43	184	15	Horizontal
8407.85	48.19	-41.40	37.35	-51.13	-40.00	11.13	195	82	Horizontal
10740.2700	39.44	-37.89	39.17	-54.54	-40.00	14.54	172	206	Horizontal
14320.3600	38.24	-35.70	40.14	-52.58	-40.00	12.58	236	37	Horizontal
16532.025	40.31	-34.36	37.99	-51.32	-40.00	11.32	261	193	Horizontal
17900.4500	39.05	-34.80	41.54	-49.47	-40.00	9.47	201	159	Horizontal

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n48_ Mid Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7160.1800	47.42	-43.63	36.50	-54.97	-40.00	14.97	215	149	Vertical
8452.7	48.43	-41.60	37.44	-50.99	-40.00	10.99	198	204	Vertical
10740.2700	40.85	-37.89	39.17	-53.13	-40.00	13.13	178	114	Vertical
13664.5	40.61	-36.01	40.09	-50.57	-40.00	10.57	145	360	Vertical
14320.3600	35.92	-35.70	40.14	-54.90	-40.00	14.90	165	136	Vertical
17900.4500	39.80	-34.80	41.54	-48.72	-40.00	8.72	230	136	Vertical

n48_ High Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7310.1800	46.67	-43.27	36.54	-55.32	-40.00	15.32	281	161	Horizontal
8099.65	47.13	-41.34	37.04	-52.43	-40.00	12.43	294	240	Horizontal
10965.2700	39.33	-37.67	39.10	-54.50	-40.00	14.50	176	161	Horizontal
13926.7	38.77	-35.36	40.07	-51.78	-40.00	11.78	258	360	Horizontal
14620.3600	35.68	-35.23	39.91	-54.90	-40.00	14.90	211	230	Horizontal
16954.075	39.83	-33.86	38.47	-50.81	-40.00	10.81	233	285	Horizontal

n48_ High Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7310.1800	47.14	-43.27	36.54	-54.85	-40.00	14.85	251	296	Vertical
8407.275	48.17	-41.40	37.35	-51.15	-40.00	11.15	211	359	Vertical
10965.2700	39.70	-37.67	39.10	-54.13	-40.00	14.13	102	359	Vertical
13937.05	39.62	-35.28	40.08	-50.83	-40.00	10.83	196	229	Vertical
14620.3600	35.19	-35.23	39.91	-55.39	-40.00	15.39	175	161	Vertical
16964.425	39.94	-33.82	38.48	-50.66	-40.00	10.66	258	273	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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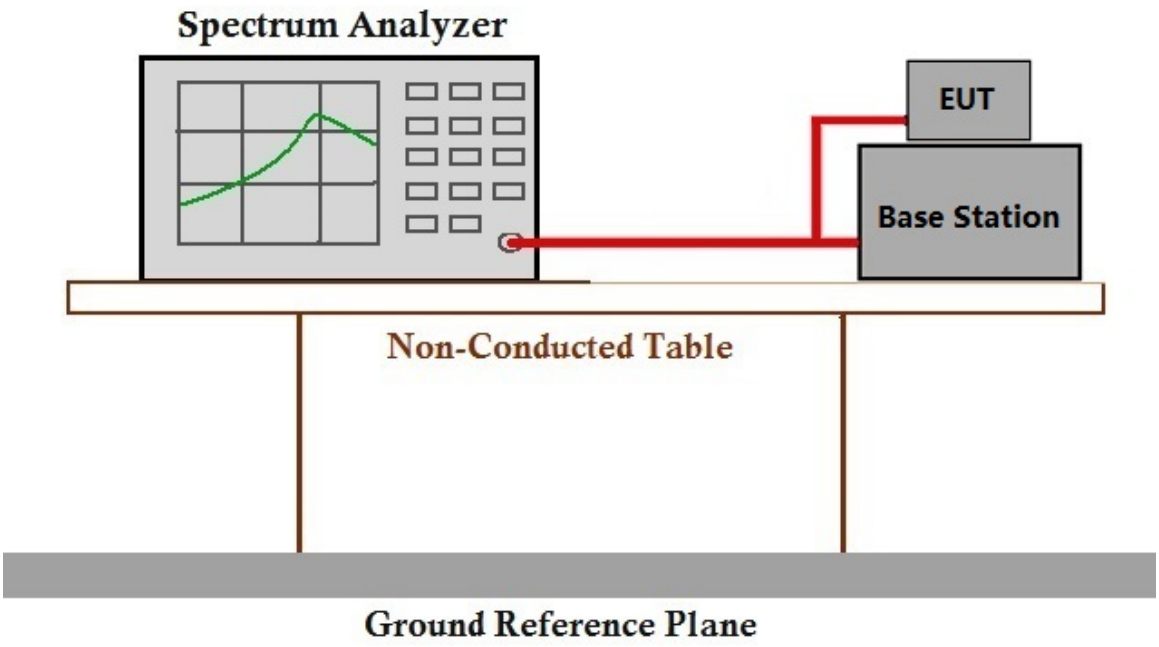
6.7 Frequency stability

Test Requirement: §2.1055
Test Method: ANSI C63.26, KDB 971168 D01 v03
Limit: ≤ ±2.5ppm.

6.7.1 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.

6.7.2 Test Setup Diagram



6.7.3 Measurement Data

Please refer to Appendix for LTE test data.
Please refer to Appendix for NR test data.

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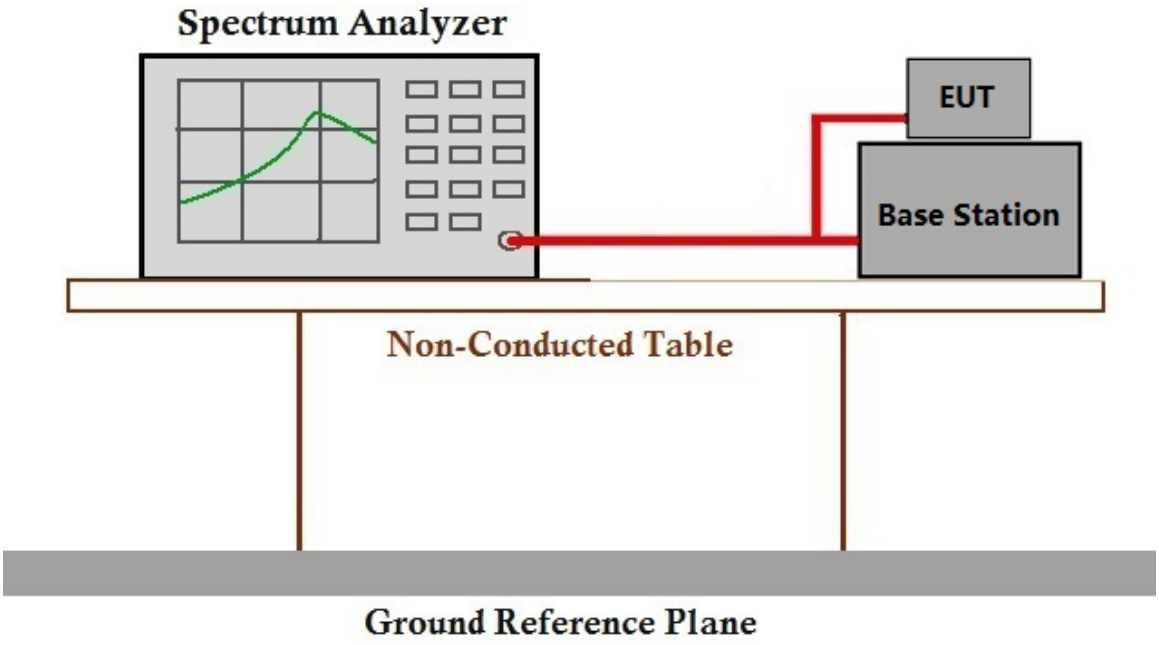
6.8 Modulation Characteristics

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



6.8.3 Measurement Data

Please refer to Appendix for LTE test data.
Please refer to Appendix for NR test data.

- End of the Report -

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