

SZEMC-TRF-01 Rev A/1

Report No.: SZCR240400147805 Page: 1 of 37

# TEST REPORT

**Application No.:** SZCR2404001478AT

FIH Co.,LTD Applicant:

Address of Applicant: No.4, Mingsheng St., Tu-Cheng Dist., New Taipei City 23679, Taiwan

Manufacturer: FIH Co..LTD

Address of Manufacturer: No.4, Mingsheng St., Tu-Cheng Dist., New Taipei City 23679, Taiwan

Factory: Futaijing Precision Electronics (Beijing)co., Ltd.

Address of Factory: No.9 JinXiu Street, Beijing Economic & Technological Development Area,

Beijing 100176, China

**Equipment Under Test (EUT):** 

**EUT Name:** 4G Module Model No.: 31PHBM2000A FCC ID: RYQ31PHBM2000A 47 CFR Part 2 Standard(s):

47 CFR Part 22 subpart H 47 CFR Part 24 subpart E 47 CFR Part 27 subpart C 47 CFR Part 90 subpart S

2024-04-23 Date of Receipt:

2024-05-05 to 2024-05-29 Date of Test:

2024-06-08 Date of Issue:

**Pass Test Result:** 

Keny Xu **EMC Laboratory Manager** 



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



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 2 of 37

	Revision Record					
Version	Chapter	Date	Modifier	Remark		
01		2024-06-08		Original		

Authorized for issue by:		
	Calvin Weng	
	Calvin Weng/Project Engineer	
	Exic Fu	
	Eric Fu/Reviewer	



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 3 of 37

#### 2 **Test Summary**

Test Item	FCC Rule No.	Requirements	Verdict
Effective (Isotropic) Radiated Output Power Data	\$2.1046 \$22.913 \$24.232 \$27.50(b) \$27.50(c) \$27.50(d) \$27.50(h) \$90.635	ERP≤ 7W(LTE Band 5,26b)  EIRP≤ 2W(LTE Band 2,25)  ERP≤ 3W(LTE Band 13)  ERP≤ 3W(LTE Band 12,17,71)  EIRP≤ 1W(LTE Band 4,66)  EIRP≤ 2W(LTE Band 7)  ERP≤ 100W(LTE Band 26a, 26c)	PASS
Peak-Average Ratio	\$22.913 \$24.232 \$27.50(a) \$27.50(d) \$96.41(g)	≤13dB	PASS
Bandwidth	§2.1049(h)	OBW: No limit EBW: No limit	PASS
Band Edge Compliance	\$2.1051 \$22.917 \$24.238 \$27.50(g) \$27.50(h) \$27.50(m) \$27.53(c) \$90.691	≤ -13dBm (LTE Band5,26b) ≤ -13dBm (LTE Band2,25) ≤ -13dBm (LTE Band12,17,71) ≤ -13dBm (LTE Band4,66) Refer to clause 6.4 for LTE Band7 Refer to clause 6.4 for LTE Band13 Refer to clause 6.4 for LTE Band26a,26c	PASS
Spurious emissions at antenna terminals	\$2.1051 \$22.917 \$24.238 \$27.50(g) \$27.50(h) \$27.50(m) \$27.53(c) \$90.691	≤ -13dBm (LTE Band5,26b) ≤ -13dBm (LTE Band2,25) ≤ -13dBm (LTE Band12,17,71) ≤ -13dBm (LTE Band4,66) Refer to clause 6.5 for LTE Band7 Refer to clause 6.5 for LTE Band13 Refer to clause 6.5 for LTE Band26a,26c	PASS
Field strength of spurious radiation	\$2.1051 \$22.917 \$24.238 \$27.50(g) \$27.50(h) \$27.50(m) \$27.53(c) \$90.691	≤ -13dBm (LTE Band5,26b) ≤ -13dBm (LTE Band2,25) ≤ -13dBm (LTE Band12,17,71) ≤ -13dBm (LTE Band4,66) Refer to clause 6.6 for LTE Band7 Refer to clause 6.6 for LTE Band13 Refer to clause 6.6 for LTE Band26a,26c	PASS



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 4 of 37

Frequency stability	\$2.1055 \$22.355 \$24.235 \$27.54 \$90.213	≤ ±2.5ppm.	PASS
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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 5 of 37

## 3 Contents

	A Course Borns	Page						
1	<u> </u>							
2	Test Summary3							
3	3 Contents	5						
4	4 General Information	7						
	4.1 Details of E.U.T.	7						
	4.2 Test Frequency							
	4.3 Test Environment							
	4.4 Description of Support Units							
	4.5 Measurement Uncertainty							
	4.6 Test Location							
	4.7 Test Facility							
	4.8 Deviation from Standards							
	4.9 Abnormalities from Standard Conditions							
5	5 Equipment List	13						
6	•							
	6.1 Effective (Isotropic) Radiated Output Power Data							
	6.1.1 E.U.T. Operation							
	6.1.2 Test Setup Diagram							
	6.1.3 Measurement Data							
	6.2 Peak-Average Ratio							
	6.2.1 E.U.T. Operation							
	6.2.2 Test Setup Diagram							
	6.2.3 Measurement Data							
	6.3 Bandwidth							
	6.3.1 E.U.T. Operation							
	6.3.2 Test Setup Diagram							
	6.3.3 Measurement Data							
	6.4 Band Edge Compliance							
	6.4.1 E.U.T. Operation							
	6.4.2 Test Setup Diagram							
	6.4.3 Measurement Data							
	6.5 Spurious emissions at antenna terminals							
	6.5.1 E.U.T. Operation							
	6.5.2 Test Setup Diagram							
	6.5.3 Measurement Data							
	6.6 Field strength of spurious radiation							
	6.6.1 E.U.T. Operation							
	6.6.2 Test Setup Diagram							
	6.6.3 Measurement Procedure and Data							
	6.7 Frequency stability							
	6.7.1 E.U.T. Operation	36						



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SZEMC-TRF-01	Rev A/1	Report No:
02EIVIO-11(1-01	1101.71	KEDOH NO:

Report No.: SZCR2	40400147805
Page.	6 of 3

			Page:	6 of 37
	6.7.2	Test Setup Diagram		36
		Measurement Data		
7	Test S	Setup Photo		37
8	EUT (	Constructional Details (EUT Photos)		37



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SZEMC-TRF-01 Rev. A/1 Report No.: SZCR240400147805

Page: 7 of 37

## 4 General Information

## 4.1 Details of E.U.T.

Power supply: DC12V

Cable Loss (for RF conducted

test):

Below 1GHz: 4.5dB, 1GHz~2.4GHz:4.7dB, Above 2.4GHz: 5.2dB

Sample Type: Mobile production

LTE Operation Frequency Band: LTE B2/4/5/7/12/13/17/25/26/66/71

Modulation Type: QPSK, 16QAM

LTE Power Class: Level 3

Antenna Type: Dipole Antenna

LTE B2:4dBi; B4: 3dBi; B5:1.5dBi, B7:5.1dBi, B12:0.7dBi,

Antenna Gain: B13:1.1dBi, B17: 1.3dBi, B25: 4dBi; B26:1.5dBi; B66:3.7dBi,

B71:0.4dBi

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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 8 of 37

## 4.2 Test Frequency

	Nominal	RF Channel			
Test mode:	Bandwidth (MHz)	Low (L)	Middle (M)	High (H)	
		MHz	MHz	MHz	
	1.4	1850.7	1880	1909.3	
	3	1851.5	1880	1908.5	
LTE FDD	5	1852.5	1880	1907.5	
Band 2	10	1855.0	1880	1905.0	
	15	1857.5	1880	1902.5	
	20	1860.0	1880	1900.0	
	Nominal		RF Channel		
Test mode:	Bandwidth	Low (L)	Middle (M)	High (H)	
	(MHz)	MHz	MHz	MHz	
	1.4	1710.7	1732.5	1754.3	
	3	1711.5	1732.5	1751.5	
LTE FDD	5	1712.5	1732.5	1752.5	
Band 4	10	1715.0	1732.5	1750.0	
	15	1717.5	1732.5	1747.5	
	20	1720.0	1732.5	1745.0	
	Nominal	RF Channel			
Test mode:	Bandwidth (MHz)	Low (L)	Middle (M)	High (H)	
		MHz	MHz	MHz	
	1.4	824.7	836.5	848.3	
LTE FDD	3	825.5	836.5	847.5	
Band 5	5	826.5	836.5	846.5	
	10	829.0	836.5	844.0	
	Nominal		RF Channel		
Test mode:	Bandwidth (MHz)	Low (L)	Middle (M)	High (H)	
	(1411 12)	MHz	MHz	MHz	
	5	2502.5	2535.0	2567.5	
LTE FDD	10	2505.0	2535.0	2565.0	
Band 7	15	2507.5	2535.0	2562.5	
	20	2510.0	2535.0	2560.0	



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 9 of 37

	Nominal		RF Channel	
Test mode:	Bandwidth	Low (L)	Middle (M)	High (H)
	(MHz)	MHz	MHz	MHz
	1.4	699.7	707.5	715.3
LTE FDD	3	700.5	707.5	714.5
Band 12	5	701.5	707.5	713.5
	10	704.0	707.5	711.0
	Nominal		RF Channel	
Test mode:	Bandwidth	Low (L)	Middle (M)	High (H)
	(MHz)	MHz	MHz	MHz
LTE FDD	5	779.5	782.0	784.5
Band 13	10	/	782.0	/
	Nominal		RF Channel	
Test mode:	Bandwidth (MHz)	Low (L)	Middle (M)	High (H)
	(1411 12)	MHz	MHz	MHz
LTE FDD	5	706.5	710.0	713.5
Band 17	10	709.0	710.0	711.0
	Nominal Bandwidth (MHz)	RF Channel		
Test mode:		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
	1.4	1850.7	1882.5	1914.3
	3	1851.5	1882.5	1913.5
LTE FDD	5	1852.5	1882.5	1912.5
Band 25	10	1855.0	1882.5	1910.0
	15	1857.5	1882.5	1907.5
	20	1860.0	1882.5	1905.0
	Nominal		RF Channel	
Test mode:	Bandwidth (MHz)	Low (L)	Middle (M)	High (H)
	(1411 12)	MHz	MHz	MHz
	1.4	814.7	819.0	823.3
LTE FDD	3	815.5	819.0	822.5
Band 26a	5	816.5	819.0	822.2
	10	/	819.0	/



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Report No.: SZCR240400147805 Page: 10 of 37

	Nominal		RF Channel		
Test mode:	Bandwidth	Low (L)	Middle (M)	High (H)	
	(MHz)	MHz	MHz	MHz	
	1.4	824.7	836.5	848.3	
. == ===	3	825.5	836.5	847.5	
LTE FDD Band 26b	5	826.5	836.5	846.5	
Bana 200	10	829.0	836.5	844.0	
	15	831.5	836.5	841.5	
	Nominal		RF Channel		
Test mode:	Bandwidth (MHz)	Low (L)	Middle (M)	High (H)	
	(IVITIZ)	MHz	MHz	MHz	
LTE FDD Band 26c	15	821.5	831.5	841.5	
	Nominal Bandwidth (MHz)	RF Channel			
Test mode:		Low (L)	Middle (M)	High (H)	
		MHz	MHz	MHz	
	1.4	1710.7	1745.0	1779.3	
	3	1711.5	1745.0	1778.5	
LTE FDD	5	1712.5	1745.0	1777.5	
Band 66	10	1715.0	1745.0	1775.0	
	15	1717.5	1745.0	1772.5	
	20	1720.0	1745.0	1770.0	
	Nominal		RF Channel		
Test mode:	Bandwidth (MHz)	Low (L)	Middle (M)	High (H)	
	(1411 12)	MHz	MHz	MHz	
	5	665.5	680.5	695.5	
LTE FDD	10	668.0	680.5	693.0	
Band 71	15	670.5	680.5	690.5	
	20	673.0	680.5	688.0	



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 11 of 37

#### 4.3 Test Environment

Environment Parameter	Selected Values During Tests		
	TL	-30°C	
Temperature:	TN	+20°C	
	TH	+50°C	
	VL	10.2 Vdc	
Voltage:	VN	12 Vdc	
	VH	13.8 Vdc	

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

Description	Manufacturer	Model No.	Serial No.
Test Board	FIH		

## 4.5 Measurement Uncertainty

No.	ltem	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	Dadiated Churique 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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SZEMC-TRF-01 Rev. A/1 Report No.: SZCR240400147805

Page: 12 of 37

#### 4.6 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

### 4.7 Test Facility

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

#### A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

#### • VCCI (Member No. 1937)

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

### • FCC -Designation Number: CN1336

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

#### Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

#### 4.8 Deviation from Standards

None

### 4.9 Abnormalities from Standard Conditions

None



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 13 of 37

#### 5 **Equipment List**

RF conducted test					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date	Cal. Due date
Programmable DC Source	Chroma	62024P-80-60	SEM011-09	2023-07-11	2024-07-10
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2024-03-20	2025-03-19
MXA Signal Analyzer	KEYSIGHT	N9020B	SEM004-24	2024-3-14	2025-3-13
Measurement Software	TST	TST PASS V2.0	N/A	N/A	N/A
Attenuator	Huber+Suhner	6620_SMA- 50-1	SEM021-09	2024-3-27	2025-3-26
Universal Radio Communication Tester	Rohde & Schwarz	CMW 500	SEM010-03	2024-03-27	2025-03-26
Universal Radio Communication Tester	Anritsu	MT8000A	SEM010-10	2024-3-14	2025-3-13
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2024-3-19	2025-3-18
Power Sensor	KEYSIGHT	U2021XA	SEM009-15	2024-03-20	2025-03-19

RE in Chamber					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date	Cal. Due date
3m Fully-Anechoic Chamber	AUDIX	N/A	SEM001-02	2021-05-12 2024-05-11	2024-05-11 2027-05-10
Signal Analyzer	Rohde & Schwarz	FSV40	SEM008-04	2024-03-15	2025-03-14
Trilog-Broadband Antenna	Schwarzbeck	VULB9168	SEM003-33	2021/9/25	2024/9/24
Substitution Antenna	Schwarzbeck	VULB9168	SEM003-18	2022/08/07	2025/08/06
Horn Antenna	Rohde&Schwarz	HF907	SEM003-07	2023-07-23	2025-07-22
Microwave system amplifier	Agilent	83017A	SEM005-25	2023-09-19	2024-09-18
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2023-07-07	2024-07-06
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	SEM003-15	2022-08-10	2024-08-09
Pre-Amplifier	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2024-03-15	2025-03-14



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 14 of 37

Signal Generator(9kHz- 40GHz)	N5173B	MY53270267	Agilent	2023-9-19	2024-9-18
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9120D	SEM003-32	2021-09-26	2024-09-25
Pre-amplifier	Rohde & Schwarz	CH14-H052	SEM005-17	2024-03-15	2025-03-14
Substitution Antenna	Rohde & Schwarz	HF907	SEM003-06	2022-08-07	2024-08-06
Substitution Antenna	ETS-LINDGREN	3160-09	SEM003-12	2022-08-10	2024-08-09
Universal Radio Communication Tester	Rohde & Schwarz	CMW 500	SEM010-03	2024-03-27	2025-03-26
Universal Radio Communication Tester	Anritsu	MT8000A	SEM010-10	2024-3-14	2025-3-13

General used equipment										
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date					
Humidity- Temperature Indicator	deli	8838	SEM002-32	2023-07-28	2024-07-27					
Humidity- Temperature Indicator	deli	8838	SEM002-33	2023-07-28	2024-07-27					
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2024-03-22	2025-03-21					



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SZEMC-TRF-01 Rev. A/1 Report No.: SZCR240400147805

> Page: 15 of 37

## **Radio Spectrum Matter Test Results**

## 6.1 Effective (Isotropic) Radiated Output Power Data

Test Requirement: §2.1046,§22.913,§24.232, §27.50(b),§27.50(c),§27.50(d),§27.50(h),§90.635

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

ERP≤ 7W(LTE Band 5,26b) I imit:

> EIRP≤ 2W(LTE Band 2,25) ERP≤ 3W(LTE Band 13) ERP≤ 3W(LTE Band 12,17,71) EIRP≤ 1W(LTE Band 4,66) EIRP≤ 2W(LTE Band 7)

ERP≤ 100W(LTE Band 26a,26c)

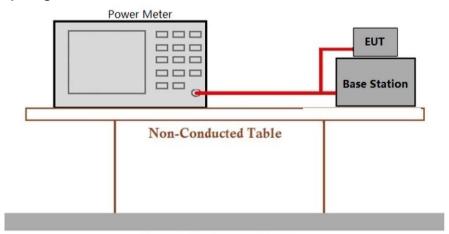
### 6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 22.2 °C Humidity: 52.5 % RH Atmospheric Pressure: 1020 mbar

Test mode 32: 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 for LTE test data.



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 16 of 37

## 6.2 Peak-Average Ratio

Test Requirement: \$22.913,§24.232,§27.50(d), §27.50(d),§96.41(g)
Test Method: ANSI C63.26-2015, KDB 971168 D01 v03r01

Limit: ≤13dB

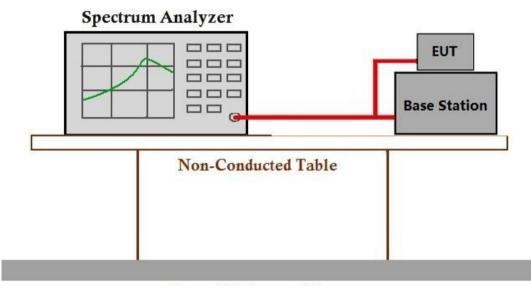
### 6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 22.2 °C Humidity: 52.5 % RH Atmospheric Pressure: 1020 mbar

Test mode 32: 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 for LTE test data.



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SZEMC-TRF-01 Rev. A/1 Report No.: SZCR240400147805

Page: 17 of 37

### 6.3 Bandwidth

Test Requirement: §2.1049(h)

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

Limit: OBW: No limit

EBW: No limit

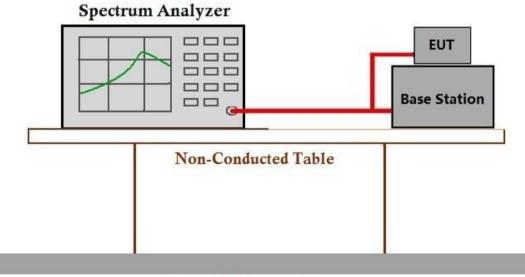
### 6.3.1 E.U.T. Operation

Operating Environment:

Temperature: 22.2 °C Humidity: 52.5 % RH Atmospheric Pressure: 1020 mbar

Test mode 32: TX mode\_Keep the EUT in transmitting mode

### 6.3.2 Test Setup Diagram



Ground Reference Plane

#### 6.3.3 Measurement Data

Please refer to Appendix for LTE test data.



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SZEMC-TRF-01 Rev. A/1 Report No.: SZCR240400147805

> Page: 18 of 37

6.4 Band Edge Compliance

2.1051,22.917,24.238,27.50(g),27.50(h),27.50(m),27.53(c),90.691Test Requirement:

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

Limit:  $\leq$  -13dBm (LTE B2/4/5/12/17/25/26b/66/71)

For band7:

For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensées operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

For band 13:

(1) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB:

(2) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations

For band26a,26c:

For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10(f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

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

Operating Environment:

Temperature: Humidity: 52.5 % RH Atmospheric Pressure: 1020 mbar

Test mode 32: TX mode\_Keep the EUT in transmitting mode



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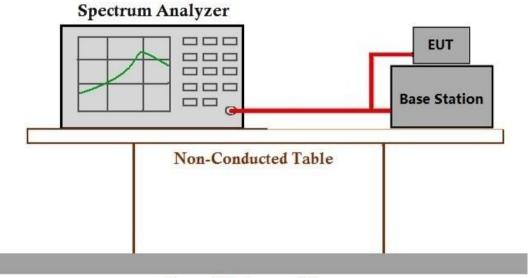
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> Page: 19 of 37

## 6.4.2 Test Setup Diagram



Ground Reference Plane

#### 6.4.3 Measurement Data

Please refer to Appendix for LTE test data.



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SZEMC-TRF-01 Rev. A/1 Report No.: SZCR240400147805

> Page: 20 of 37

## 6.5 Spurious emissions at antenna terminals

2.1051,22.917,24.238,27.50(g),27.50(h),27.50(m),27.53(c),90.691Test Requirement:

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

Limit:  $\leq$  -13dBm (LTE B2/4/5/12/17/25/26b/66/71)

For band7:

For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensées operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

#### For band 13:

- (1) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB:
- (2) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations

#### For band26a,26c:

For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10(f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

### 6.5.1 E.U.T. Operation

Operating Environment:

Temperature: 22.2 °C Humidity: 52.5 % RH Atmospheric Pressure: 1020 mbar

Test mode 32: TX mode Keep the EUT in transmitting mode



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to the fullest extent of the law. Offices outcomes stated and sample(s) are retained for 30 days only.

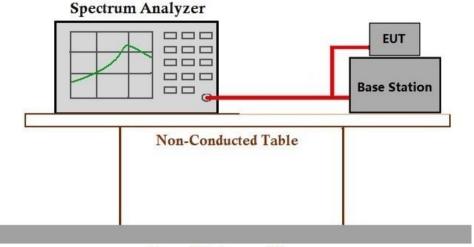
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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 21 of 37

## 6.5.2 Test Setup Diagram



Ground Reference Plane

#### 6.5.3 Measurement Data

Please refer to Appendix for LTE test data.



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SZEMC-TRF-01 Rev. A/1 Report No.: SZCR240400147805

> Page: 22 of 37

#### 6.6 Field strength of spurious radiation

§2.1051,§22.917,§24.238, §27.50(g),§27.50(h),§27.50(m),§27.53(c), Test Requirement:

₹90.691

Test Method: ANSI C63.26-2015, KDB 971168 D01 v03r01  $\leq$  -13dBm (LTE B2/4/5/12/17/25/26b/66/71) Limit:

For **band7**:

For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

#### For band 13:

- (1) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;
- (2) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations

#### For band26a.26c:

For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10(f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

### 6.6.1 E.U.T. Operation

**Operating Environment:** 

Temperature: 22.5 °C Humidity: 47.5 % RH Atmospheric Pressure: 1020 mbar

Test mode 32: TX mode Keep the EUT in transmitting mode



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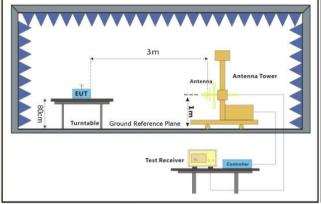
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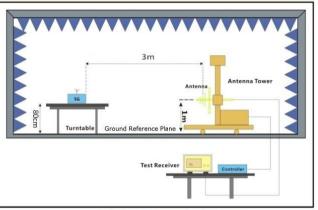


SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 23 of 37

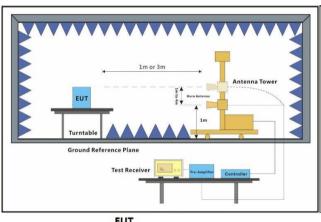
## 6.6.2 Test Setup Diagram

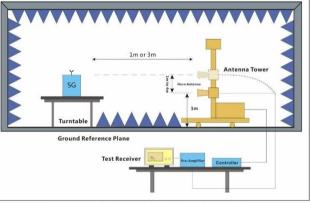




EUT

Substiute Antenna+Signal Generator





EUT

Substiute Antenna+Signal Generator



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 24 of 37

#### 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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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 25 of 37

	LTE Band 2-Low channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0											
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result				
3702	-56.39	-13	-43.39	-61.27	3.29	8.17	Horizontal	Pass				
5553	-52.54	-13	-39.54	-58.75	4.24	10.45	Horizontal	Pass				
7404	-50.07	-13	-37.07	-57.01	4.19	11.13	Horizontal	Pass				
3702	-56.5	-13	-43.5	-61.38	3.29	8.17	Vertical	Pass				
5553	-52.39	-13	-39.39	-58.6	4.24	10.45	Vertical	Pass				
7404	-50.98	-13	-37.98	-57.92	4.19	11.13	Vertical	Pass				

	LTE Band 2-Middle channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
3742	-57.3	-13	-44.3	-62.18	3.29	8.17	Horizontal	Pass			
5613	-55.32	-13	-42.32	-61.53	4.24	10.45	Horizontal	Pass			
7484	-49.52	-13	-36.52	-56.46	4.19	11.13	Horizontal	Pass			
3742	-56.24	-13	-43.24	-61.12	3.29	8.17	Vertical	Pass			
5613	-54.57	-13	-41.57	-60.78	4.24	10.45	Vertical	Pass			
7484	-49.81	-13	-36.81	-56.75	4.19	11.13	Vertical	Pass			

	LTE Band 2-High channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0											
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result				
3782	-56.83	-13	-43.83	-61.71	3.29	8.17	Horizontal	Pass				
5673	-55.26	-13	-42.26	-61.47	4.24	10.45	Horizontal	Pass				
7564	-49.77	-13	-36.77	-57.295	4.22	11.74	Horizontal	Pass				
3782	-57.3	-13	-44.3	-62.18	3.29	8.17	Vertical	Pass				
5673	-55.19	-13	-42.19	-61.4	4.24	10.45	Vertical	Pass				
7564	-50.73	-13	-37.73	-58.255	4.22	11.74	Vertical	Pass				



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Report No.: SZCR240400147805 26 of 37 Page:

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Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result				
3422	-58.06	-13	-45.06	-62.02	2.96	6.92	Horizontal	Pass				
5133	-53.26	-13	-40.26	-59.14	4.26	10.14	Horizontal	Pass				
6844	-51.45	-13	-38.45	-57.735	4.21	10.49	Horizontal	Pass				
3422	-58.12	-13	-45.12	-62.08	2.96	6.92	Vertical	Pass				
5133	-54.25	-13	-41.25	-60.13	4.26	10.14	Vertical	Pass				
6844	-52.42	-13	-39.42	-58.705	4.21	10.49	Vertical	Pass				

	LTE Band 4-Middle channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
3447	-56.86	-13	-43.86	-60.82	2.96	6.92	Horizontal	Pass			
5170.5	-54.04	-13	-41.04	-59.92	4.26	10.14	Horizontal	Pass			
6894	-52.52	-13	-39.52	-58.805	4.21	10.49	Horizontal	Pass			
3447	-57.2	-13	-44.2	-61.16	2.96	6.92	Vertical	Pass			
5170.5	-53.76	-13	-40.76	-59.64	4.26	10.14	Vertical	Pass			
6894	-52.08	-13	-39.08	-58.365	4.21	10.49	Vertical	Pass			

	LTE Band 4-High channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0											
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result				
3472	-57.2	-13	-44.2	-61.16	2.96	6.92	Horizontal	Pass				
5208	-54.01	-13	-41.01	-59.89	4.26	10.14	Horizontal	Pass				
6944	-51.75	-13	-38.75	-58.035	4.21	10.49	Horizontal	Pass				
3472	-56.53	-13	-43.53	-60.49	2.96	6.92	Vertical	Pass				
5208	-53.2	-13	-40.2	-59.08	4.26	10.14	Vertical	Pass				
6944	-51.26	-13	-38.26	-57.545	4.21	10.49	Vertical	Pass				



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 27 of 37 Page:

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Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
1649	-67.99	-13	-54.99	-71.87	2	5.88	Horizontal	Pass			
2473.5	-61.58	-13	-48.58	-63.85	2.35	4.62	Horizontal	Pass			
3298	-58.3	-13	-45.3	-62.26	2.96	6.92	Horizontal	Pass			
1649	-68.03	-13	-55.03	-71.91	2	5.88	Vertical	Pass			
2473.5	-61.92	-13	-48.92	-64.19	2.35	4.62	Vertical	Pass			
3298	-57.78	-13	-44.78	-61.74	2.96	6.92	Vertical	Pass			

	LTE Band 5-Middle channel, Modulation: QPSK, Bandwidth:10MHz, 1RB#0											
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result				
1664	-67.22	-13	-54.22	-71.1	2	5.88	Horizontal	Pass				
2496	-60.72	-13	-47.72	-62.99	2.35	4.62	Horizontal	Pass				
3328	-58.67	-13	-45.67	-62.63	2.96	6.92	Horizontal	Pass				
1664	-67.28	-13	-54.28	-71.16	2	5.88	Vertical	Pass				
2496	-60.68	-13	-47.68	-62.95	2.35	4.62	Vertical	Pass				
3328	-58.08	-13	-45.08	-62.04	2.96	6.92	Vertical	Pass				

	LTE Band 5-High channel, Modulation: QPSK, Bandwidth:10MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
1679	-66.01	-13	-53.01	-69.89	2	5.88	Horizontal	Pass			
2518.5	-63.9	-13	-50.9	-67.06	2.66	5.82	Horizontal	Pass			
3358	-58.3	-13	-45.3	-62.26	2.96	6.92	Horizontal	Pass			
1679	-65.71	-13	-52.71	-69.59	2	5.88	Vertical	Pass			
2518.5	-64.41	-13	-51.41	-67.57	2.66	5.82	Vertical	Pass			
3358	-56.9	-13	-43.9	-60.86	2.96	6.92	Vertical	Pass			



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 28 of 37 Page:

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Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
5002	-54.53	-25	-29.53	-60.41	4.26	10.14	Horizontal	Pass			
7503	-49.57	-25	-24.57	-57.095	4.22	11.74	Horizontal	Pass			
10004	-48.8	-25	-23.8	-56.75	5.08	13.03	Horizontal	Pass			
5002	-54.13	-25	-29.13	-60.01	4.26	10.14	Vertical	Pass			
7503	-49.77	-25	-24.77	-57.295	4.22	11.74	Vertical	Pass			
10004	-48.51	-25	-23.51	-56.46	5.08	13.03	Vertical	Pass			

	LTE Band 7-Middle channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
5052	-54.38	-25	-29.38	-60.26	4.26	10.14	Horizontal	Pass			
7578	-50.75	-25	-25.75	-58.275	4.22	11.74	Horizontal	Pass			
10104	-47.66	-25	-22.66	-55.61	5.08	13.03	Horizontal	Pass			
5052	-53.69	-25	-28.69	-59.57	4.26	10.14	Vertical	Pass			
7578	-51.72	-25	-26.72	-59.245	4.22	11.74	Vertical	Pass			
10104	-47.94	-25	-22.94	-55.89	5.08	13.03	Vertical	Pass			

	LTE Band 7-High channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
5102	-54.12	-25	-29.12	-60	4.26	10.14	Horizontal	Pass			
7653	-50.02	-25	-25.02	-57.545	4.22	11.74	Horizontal	Pass			
10204	-49.84	-25	-24.84	-57.79	5.08	13.03	Horizontal	Pass			
5102	-54.39	-25	-29.39	-60.27	4.26	10.14	Vertical	Pass			
7653	-50.99	-25	-25.99	-58.515	4.22	11.74	Vertical	Pass			
10204	-50.54	-25	-25.54	-58.49	5.08	13.03	Vertical	Pass			



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 29 of 37

	LTE Band 12-Low channel, Modulation: QPSK, Bandwidth:10MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
1399	-66.41	-13	-53.41	-67.48	1.64	2.71	Horizontal	Pass			
2098.5	-66.15	-13	-53.15	-68.42	2.35	4.62	Horizontal	Pass			
2798	-61.74	-13	-48.74	-64.9	2.66	5.82	Horizontal	Pass			
1399	-65.37	-13	-52.37	-66.44	1.64	2.71	Vertical	Pass			
2098.5	-65.79	-13	-52.79	-68.06	2.35	4.62	Vertical	Pass			
2798	-62.3	-13	-49.3	-65.46	2.66	5.82	Vertical	Pass			

	LTE Band 12-Middle channel, Modulation: QPSK, Bandwidth:10MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
1406	-65.13	-13	-52.13	-66.2	1.64	2.71	Horizontal	Pass			
2109	-65.2	-13	-52.2	-67.47	2.35	4.62	Horizontal	Pass			
2812	-59.85	-13	-46.85	-63.01	2.66	5.82	Horizontal	Pass			
1406	-65.43	-13	-52.43	-66.5	1.64	2.71	Vertical	Pass			
2109	-64.56	-13	-51.56	-66.83	2.35	4.62	Vertical	Pass			
2812	-60.58	-13	-47.58	-63.74	2.66	5.82	Vertical	Pass			

	LTE Band 12-High channel, Modulation: QPSK, Bandwidth:10MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
1413	-64.64	-13	-51.64	-65.71	1.64	2.71	Horizontal	Pass			
2119.5	-63.36	-13	-50.36	-65.63	2.35	4.62	Horizontal	Pass			
2826	-60.5	-13	-47.5	-63.66	2.66	5.82	Horizontal	Pass			
1413	-64.64	-13	-51.64	-65.71	1.64	2.71	Vertical	Pass			
2119.5	-64.23	-13	-51.23	-66.5	2.35	4.62	Vertical	Pass			
2826	-60.05	-13	-47.05	-63.21	2.66	5.82	Vertical	Pass			



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 30 of 37 Page:

	LTE Band 13-Low channel, Modulation: QPSK, Bandwidth:5MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
1554.5	-67.83	-13	-54.83	-71.71	2	5.88	Horizontal	Pass			
2331.75	-63.97	-13	-50.97	-66.24	2.35	4.62	Horizontal	Pass			
3109	-57.32	-13	-44.32	-61.28	2.96	6.92	Horizontal	Pass			
1554.5	-69.01	-13	-56.01	-72.89	2	5.88	Vertical	Pass			
2331.75	-64.42	-13	-51.42	-66.69	2.35	4.62	Vertical	Pass			
3109	-57.34	-13	-44.34	-61.3	2.96	6.92	Vertical	Pass			

	LTE Band 13-Middle channel, Modulation: QPSK, Bandwidth:5MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
1559.5	-67.2	-40	-27.2	-71.08	2	5.88	Horizontal	Pass			
2339.25	-64.11	-13	-51.11	-66.38	2.35	4.62	Horizontal	Pass			
3119	-57.74	-13	-44.74	-61.7	2.96	6.92	Horizontal	Pass			
1559.5	-67.94	-40	-27.94	-71.82	2	5.88	Vertical	Pass			
2339.25	-62.5	-13	-49.5	-64.77	2.35	4.62	Vertical	Pass			
3119	-56.93	-13	-43.93	-60.89	2.96	6.92	Vertical	Pass			

	LTE Band 13-High channel, Modulation: QPSK, Bandwidth:5MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
1564.5	-65.06	-40	-25.06	-68.94	2	5.88	Horizontal	Pass			
2346.75	-63.93	-13	-50.93	-66.2	2.35	4.62	Horizontal	Pass			
3129	-57.98	-13	-44.98	-61.94	2.96	6.92	Horizontal	Pass			
1564.5	-67.71	-40	-27.71	-71.59	2	5.88	Vertical	Pass			
2346.75	-63.31	-13	-50.31	-65.58	2.35	4.62	Vertical	Pass			
3129	-57.42	-13	-44.42	-61.38	2.96	6.92	Vertical	Pass			



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 31 of 37

	LTE Band 17-Low channel, Modulation: QPSK, Bandwidth:10MHz, 1RB#0											
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result				
1409	-64.9	-13	-51.9	-65.97	1.64	2.71	Horizontal	Pass				
2113.5	-64.44	-13	-51.44	-66.71	2.35	4.62	Horizontal	Pass				
2818	-59.81	-13	-46.81	-62.97	2.66	5.82	Horizontal	Pass				
1409	-64.42	-13	-51.42	-65.49	1.64	2.71	Vertical	Pass				
2113.5	-64.44	-13	-51.44	-66.71	2.35	4.62	Vertical	Pass				
2818	-58.97	-13	-45.97	-62.13	2.66	5.82	Vertical	Pass				

	LTE Band 17-Middle channel, Modulation: QPSK, Bandwidth:10MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
1411	-65.46	-13	-52.46	-66.53	1.64	2.71	Horizontal	Pass			
2116.5	-64.33	-13	-51.33	-66.6	2.35	4.62	Horizontal	Pass			
2822	-60.2	-13	-47.2	-63.36	2.66	5.82	Horizontal	Pass			
1411	-66.41	-13	-53.41	-67.48	1.64	2.71	Vertical	Pass			
2116.5	-64.01	-13	-51.01	-66.28	2.35	4.62	Vertical	Pass			
2822	-60.15	-13	-47.15	-63.31	2.66	5.82	Vertical	Pass			

	LTE Band 17-High channel, Modulation: QPSK, Bandwidth:10MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
1413	-64.3	-13	-51.3	-65.37	1.64	2.71	Horizontal	Pass			
2119.5	-63.67	-13	-50.67	-65.94	2.35	4.62	Horizontal	Pass			
2826	-60	-13	-47	-63.16	2.66	5.82	Horizontal	Pass			
1413	-65.78	-13	-52.78	-66.85	1.64	2.71	Vertical	Pass			
2119.5	-63.97	-13	-50.97	-66.24	2.35	4.62	Vertical	Pass			
2826	-58.72	-13	-45.72	-61.88	2.66	5.82	Vertical	Pass			



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 32 of 37 Page:

	LTE Band 25-Low channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
3702	-56.51	-13	-43.51	-61.39	3.29	8.17	Horizontal	Pass			
5553	-54.28	-13	-41.28	-60.49	4.24	10.45	Horizontal	Pass			
7404	-50.33	-13	-37.33	-57.27	4.19	11.13	Horizontal	Pass			
3702	-56.5	-13	-43.5	-61.38	3.29	8.17	Vertical	Pass			
5553	-53.92	-13	-40.92	-60.13	4.24	10.45	Vertical	Pass			
7404	-50.03	-13	-37.03	-56.97	4.19	11.13	Vertical	Pass			

	LTE Band 25-Middle channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
3747	-57.06	-13	-44.06	-61.94	3.29	8.17	Horizontal	Pass			
5620.5	-54.36	-13	-41.36	-60.57	4.24	10.45	Horizontal	Pass			
7494	-49.55	-13	-36.55	-56.49	4.19	11.13	Horizontal	Pass			
3747	-56.97	-13	-43.97	-61.85	3.29	8.17	Vertical	Pass			
5620.5	-54.13	-13	-41.13	-60.34	4.24	10.45	Vertical	Pass			
7494	-49.37	-13	-36.37	-56.31	4.19	11.13	Vertical	Pass			

	LTE Band 25-High channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
3792	-57.57	-13	-44.57	-62.45	3.29	8.17	Horizontal	Pass			
5688	-54.06	-13	-41.06	-60.27	4.24	10.45	Horizontal	Pass			
7584	-51.32	-13	-38.32	-58.845	4.22	11.74	Horizontal	Pass			
3792	-56.56	-13	-43.56	-61.44	3.29	8.17	Vertical	Pass			
5688	-53.72	-13	-40.72	-59.93	4.24	10.45	Vertical	Pass			
7584	-50.38	-13	-37.38	-57.905	4.22	11.74	Vertical	Pass			



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 33 of 37 Page:

	LTE Band 26-Low channel, Modulation: QPSK, Bandwidth:15MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
1643	-65.95	-13	-52.95	-69.83	2	5.88	Horizontal	Pass			
2464.5	-64.24	-13	-51.24	-66.51	2.35	4.62	Horizontal	Pass			
3296	-58.59	-13	-45.59	-62.55	2.96	6.92	Horizontal	Pass			
1643	-67.39	-13	-54.39	-71.27	2	5.88	Vertical	Pass			
2464.5	-63.81	-13	-50.81	-66.08	2.35	4.62	Vertical	Pass			
3296	-58.4	-13	-45.4	-62.36	2.96	6.92	Vertical	Pass			

	LTE Band 26-Middle channel, Modulation: QPSK, Bandwidth:15MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
1662	-65.4	-13	-52.4	-69.28	2	5.88	Horizontal	Pass			
2493	-61.45	-13	-48.45	-63.72	2.35	4.62	Horizontal	Pass			
3324	-57.96	-13	-44.96	-61.92	2.96	6.92	Horizontal	Pass			
1662	-65.44	-13	-52.44	-69.32	2	5.88	Vertical	Pass			
2493	-60.99	-13	-47.99	-63.26	2.35	4.62	Vertical	Pass			
3324	-57.57	-13	-44.57	-61.53	2.96	6.92	Vertical	Pass			

	LTE Band 26-High channel, Modulation: QPSK, Bandwidth:15MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
1683	-64.9	-13	-51.9	-68.78	2	5.88	Horizontal	Pass			
2524.5	-63.18	-13	-50.18	-66.34	2.66	5.82	Horizontal	Pass			
3366	-57.96	-13	-44.96	-61.92	2.96	6.92	Horizontal	Pass			
1683	-66.15	-13	-53.15	-70.03	2	5.88	Vertical	Pass			
2524.5	-63.22	-13	-50.22	-66.38	2.66	5.82	Vertical	Pass			
3366	-57.69	-13	-44.69	-61.65	2.96	6.92	Vertical	Pass			



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 34 of 37 Page:

	LTE Band 66-Low channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
3422	-56.76	-13	-43.76	-60.72	2.96	6.92	Horizontal	Pass			
5133	-53.11	-13	-40.11	-58.99	4.26	10.14	Horizontal	Pass			
6844	-51.99	-13	-38.99	-58.275	4.21	10.49	Horizontal	Pass			
3422	-58.21	-13	-45.21	-62.17	2.96	6.92	Vertical	Pass			
5133	-53.99	-13	-40.99	-59.87	4.26	10.14	Vertical	Pass			
6844	-52.42	-13	-39.42	-58.705	4.21	10.49	Vertical	Pass			

	LTE Band 66-Middle channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
3472	-57.15	-13	-44.15	-61.11	2.96	6.92	Horizontal	Pass			
5208	-52.5	-13	-40.5	-59.38	4.26	10.14	Horizontal	Pass			
6944	-51.97	-13	-38.97	-58.255	4.21	10.49	Horizontal	Pass			
3472	-56.83	-13	-43.83	-60.79	2.96	6.92	Vertical	Pass			
5208	-54.26	-13	-41.26	-60.14	4.26	10.14	Vertical	Pass			
6944	-51.34	-13	-38.34	-57.625	4.21	10.49	Vertical	Pass			

	LTE Band 66-High channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0										
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result			
3522	-58.73	-13	-45.73	-63.61	3.29	8.17	Horizontal	Pass			
5283	-53.67	-13	-40.67	-59.55	4.26	10.14	Horizontal	Pass			
7044	-51.08	-13	-38.08	-58.02	4.19	11.13	Horizontal	Pass			
3522	-57.98	-13	-44.98	-62.86	3.29	8.17	Vertical	Pass			
5283	-53.16	-13	-40.16	-59.04	4.26	10.14	Vertical	Pass			
7044	-50.75	-13	-37.75	-57.69	4.19	11.13	Vertical	Pass			



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 35 of 37

LTE Band 71-Low channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1328	-61.83	-13	-48.83	-62.9	1.64	2.71	Horizontal	Pass
1992	-63.17	-13	-50.17	-67.05	2	5.88	Horizontal	Pass
2656	-59.47	-13	-46.47	-62.63	2.66	5.82	Horizontal	Pass
1328	-61.59	-13	-48.59	-62.66	1.64	2.71	Vertical	Pass
1992	-63.06	-13	-50.06	-66.94	2	5.88	Vertical	Pass
2656	-58.52	-13	-45.52	-61.68	2.66	5.82	Vertical	Pass

LTE Band 71-Middle channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1348	-67.79	-13	-54.79	-68.86	1.64	2.71	Horizontal	Pass
2022	-63.01	-13	-50.01	-65.28	2.35	4.62	Horizontal	Pass
2696	-59.34	-13	-46.34	-62.5	2.66	5.82	Horizontal	Pass
1348	-67.36	-13	-54.36	-68.43	1.64	2.71	Vertical	Pass
2022	-63.45	-13	-50.45	-65.72	2.35	4.62	Vertical	Pass
2696	-58.95	-13	-45.95	-62.11	2.66	5.82	Vertical	Pass

LTE Band 71-High channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1358	-61.53	-13	-48.53	-62.6	1.64	2.71	Horizontal	Pass
2037	-63.09	-13	-50.09	-65.36	2.35	4.62	Horizontal	Pass
2716	-59.84	-13	-46.84	-63	2.66	5.82	Horizontal	Pass
1358	-62.55	-13	-49.55	-63.62	1.64	2.71	Vertical	Pass
2037	-62.97	-13	-49.97	-65.24	2.35	4.62	Vertical	Pass
2716	-59.12	-13	-46.12	-62.28	2.66	5.82	Vertical	Pass

Note: All modes have been tested and we found QPSK test mode has the worst test result. Only record the worst test result.



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 36 of 37

## 6.7 Frequency stability

Test Requirement: §2.1055,§22.355,§24.235,§27.54

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

Limit:  $\leq \pm 2.5$ ppm.

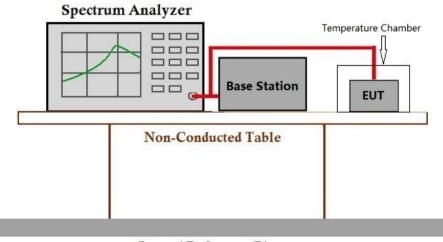
## 6.7.1 E.U.T. Operation

Operating Environment:

Temperature: 22.2 °C Humidity: 52.5 % RH Atmospheric Pressure: 1020 mbar

Test mode 32: 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 for LTE test data.



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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240400147805 Page: 37 of 37

## **Test Setup Photo**

Refer to Appendix - Test Setup Photo for SZCR2404001478AT

#### **EUT Constructional Details (EUT Photos)** 8

Refer to Appendix - External and Internal Photos for SZCR2404001478AT

- End of the Report -



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