



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

SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240600244905

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TEST REPORT

Application No.: SZCR2406002449AT
Applicant: FIH CO., LTD.
Address of Applicant: No.4, Mingsheng St., Tu-Cheng Dist., New Taipei City 23679 Taiwan
Manufacturer: Futaijing Precision Electronics (Beijing)co., Ltd.
Address of Manufacturer: No.9 JinXiu Street, Beijing Economic & Technological Development Area, Beijing 100176, China
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
Standard(s) : 47 CFR Part 2
47 CFR Part 22 subpart H
47 CFR Part 24 subpart E
47 CFR Part 27 subpart C
47 CFR Part 90 subpart S
Date of Receipt: 2024-06-26
Date of Test: 2024-07-07 to 2024-07-12
Date of Issue: 2024-07-15

Test Result:	Pass
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* In the configuration tested, the EUT complied with the standards specified above.

Keny Xu

Keny Xu
EMC Laboratory Manager



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

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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2024-07-15		Original

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



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2 Test Summary

Test Item	FCC Rule No.	Requirements	Verdict
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

Remark: This report is based on a module test report SZCR240400147804, to install into a host and change the antenna, therefore, only radiated spurious emissions were re-tested on this report.

This report is prepared for FCC class II permissive change. The modular have been approved by FCC, FCC ID:RYQ31PHBM2000A, granted on 07/30/2024.



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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:	Monopole antenna
Antenna Gain:	LTE B2:-4.7dBi; B4: -4.8dBi; B5:-5.3dBi, B7:-4.4dBi, B12:-28.5dBi, B13:-17.7dBi, B17: -17.7dBi, B25: -4.7dBi; B26:-12.1dBi; B66:-4.6dBi, B71:-29dBi
Host name:	RTBM
Host Model Number:	RTBM-EANAGEN

Remark:The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Control board	Provided by Manufacture	--	--
Antenna box for LTE & GNSS	Provided by Manufacture	--	--
Speaker and Microphone	Provided by Manufacture	--	--
Main cable	Provided by Manufacture	--	--
Ethernet AMTD Cable	Provided by Manufacture	--	--
BUB cable	Provided by Manufacture	--	--
BUB(Backup Battery)	Provided by Manufacture	--	--

4.3 Test Frequency

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



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



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



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4.4 Test Environment

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

4.5 Measurement Uncertainty

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



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4.6 Test Location

All tests were performed at:

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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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5 Equipment List

RE in Chamber					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date	Cal. Due date
3m Fully-Anechoic Chamber	AUDIX	N/A	SEM001-02	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	2024-07-06	2025-07-05
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
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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6 Radio Spectrum Matter Test Results

6.1 Field strength of spurious radiation

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

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

Limit: $\leq -13\text{dBm}$ (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 than $43 + 10 \log (P)$ 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 $116 \text{ Log}_{10}(f/6.1)$ decibels or $50 + 10 \text{ Log}_{10}(P)$ 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.

6.1.1 E.U.T. Operation

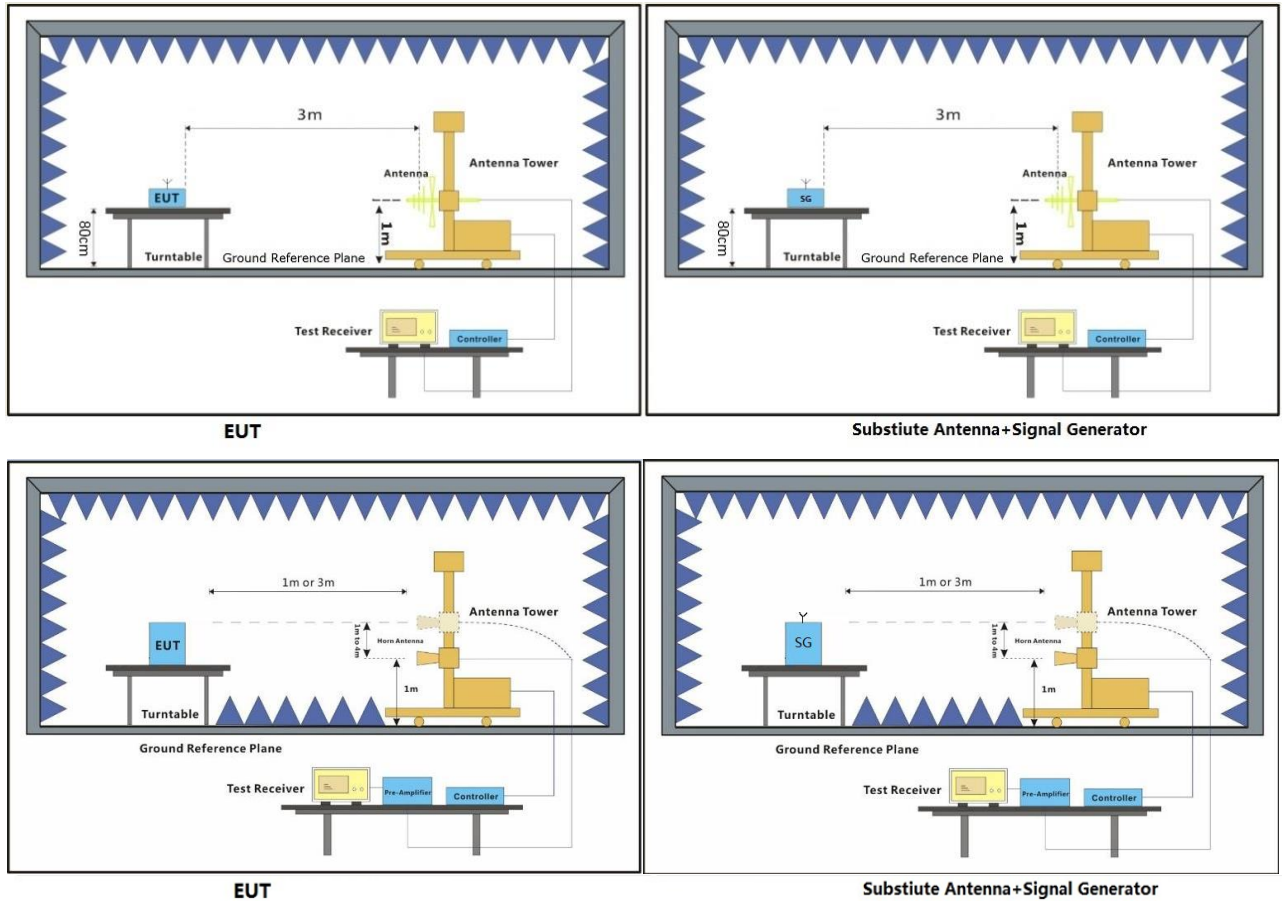
Operating Environment:

Temperature: 23.1 °C Humidity: 49.5 % RH Atmospheric Pressure: 1020 mbar

Test mode 32: TX mode_Keep the EUT in transmitting mode



6.1.2 Test Setup Diagram



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6.1.3 Measurement Procedure and Data

Test Procedure:

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



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LTE Band 2-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
1374.639	-54.09	-13	-41.09	-57.27	1.91	5.09	Horizontal	Pass
4996.69	-50.83	-13	-37.83	-56.71	4.26	10.14	Horizontal	Pass
9441.913	-50.08	-13	-37.08	-58.53	4.79	13.24	Horizontal	Pass
5125.515	-50.67	-13	-37.67	-56.64	4.25	10.22	Vertical	Pass
9441.913	-49.66	-13	-36.66	-58.11	4.79	13.24	Vertical	Pass
11341.14	-51.84	-13	-38.84	-60.03	5.06	13.25	Vertical	Pass

LTE Band 2-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
1374.639	-53.92	-13	-40.92	-57.1	1.91	5.09	Horizontal	Pass
4996.69	-49.86	-13	-36.86	-55.74	4.26	10.14	Horizontal	Pass
9490.104	-50.02	-13	-37.02	-58.44	4.82	13.24	Horizontal	Pass
4996.69	-49.71	-13	-36.71	-55.59	4.26	10.14	Vertical	Pass
9636.161	-49.4	-13	-36.4	-57.69	4.89	13.18	Vertical	Pass
11933.47	-52.05	-13	-39.05	-60.26	5.05	13.26	Vertical	Pass

LTE Band 2-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
1374.639	-53.79	-13	-40.79	-56.97	1.91	5.09	Horizontal	Pass
5009.426	-50.5	-13	-37.5	-56.39	4.26	10.15	Horizontal	Pass
9514.293	-50.11	-13	-37.11	-58.51	4.83	13.23	Horizontal	Pass
5138.579	-50.69	-13	-37.69	-56.67	4.25	10.23	Vertical	Pass
9465.979	-50.67	-13	-37.67	-59.11	4.8	13.24	Vertical	Pass
10971.98	-52.23	-13	-39.23	-60.42	5.07	13.26	Vertical	Pass



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LTE Band 4-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
1374.639	-54.04	-13	-41.04	-57.22	1.91	5.09	Horizontal	Pass
5009.426	-50.24	-13	-37.24	-56.13	4.26	10.15	Horizontal	Pass
9441.913	-50.17	-13	-37.17	-58.62	4.79	13.24	Horizontal	Pass
5138.579	-50.29	-13	-37.29	-56.27	4.25	10.23	Vertical	Pass
9465.979	-50.21	-13	-37.21	-58.65	4.8	13.24	Vertical	Pass
12461.22	-51.59	-13	-38.59	-59.5	5.32	13.23	Vertical	Pass

LTE Band 4-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
1374.639	-54.06	-13	-41.06	-57.24	1.91	5.09	Horizontal	Pass
5009.426	-50.77	-13	-37.77	-56.66	4.26	10.15	Horizontal	Pass
9514.293	-49.76	-13	-36.76	-58.16	4.83	13.23	Horizontal	Pass
5086.523	-51.23	-13	-38.23	-57.16	4.26	10.19	Vertical	Pass
9465.979	-50.6	-13	-37.6	-59.04	4.8	13.24	Vertical	Pass
11428.08	-51.96	-13	-38.96	-60.14	5.06	13.24	Vertical	Pass

LTE Band 4-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
1374.639	-53.5	-13	-40.5	-56.68	1.91	5.09	Horizontal	Pass
4996.69	-50.35	-13	-37.35	-56.23	4.26	10.14	Horizontal	Pass
9465.979	-49.92	-13	-36.92	-58.36	4.8	13.24	Horizontal	Pass
5151.676	-50.47	-13	-37.47	-56.45	4.25	10.23	Vertical	Pass
9514.293	-50.09	-13	-37.09	-58.49	4.83	13.23	Vertical	Pass
11341.14	-52.33	-13	-39.33	-60.52	5.06	13.25	Vertical	Pass

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LTE Band 5-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
1374.639	-53.65	-13	-40.65	-56.83	1.91	5.09	Horizontal	Pass
5191.168	-50.84	-13	-37.84	-56.85	4.25	10.26	Horizontal	Pass
9490.104	-49.38	-13	-36.38	-57.8	4.82	13.24	Horizontal	Pass
5138.579	-51.53	-13	-38.53	-57.51	4.25	10.23	Vertical	Pass
9441.913	-50.27	-13	-37.27	-58.72	4.79	13.24	Vertical	Pass
11370.05	-52.34	-13	-39.34	-60.53	5.06	13.25	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
1374.639	-53.98	-13	-40.98	-57.16	1.91	5.09	Horizontal	Pass
6816.394	-50.6	-13	-37.6	-57.3	4.19	10.89	Horizontal	Pass
9465.979	-49.56	-13	-36.56	-58.0	4.8	13.24	Horizontal	Pass
5086.523	-51.21	-13	-38.21	-57.14	4.26	10.19	Vertical	Pass
9346.262	-49.94	-13	-36.94	-58.43	4.74	13.23	Vertical	Pass
11486.41	-52.27	-13	-39.27	-60.45	5.06	13.24	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
1374.639	-54.24	-13	-41.24	-57.42	1.91	5.09	Horizontal	Pass
4983.987	-50.6	-13	-37.6	-56.47	4.25	10.12	Horizontal	Pass
9393.966	-49.98	-13	-36.98	-58.44	4.77	13.23	Horizontal	Pass
5009.426	-51.17	-13	-38.17	-57.06	4.26	10.15	Vertical	Pass
9465.979	-49.99	-13	-36.99	-58.43	4.8	13.24	Vertical	Pass
10778.21	-52.35	-13	-39.35	-60.48	5.07	13.2	Vertical	Pass

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LTE Band 7-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
1374.639	-53.39	-13	-40.39	-56.57	1.91	5.09	Horizontal	Pass
4996.69	-50.02	-13	-37.02	-55.9	4.26	10.14	Horizontal	Pass
9370.083	-50.56	-13	-37.56	-59.03	4.76	13.23	Horizontal	Pass
5099.487	-51.0	-13	-38.0	-56.94	4.26	10.2	Vertical	Pass
9204.6	-50.36	-13	-37.36	-58.91	4.67	13.22	Vertical	Pass
10833.22	-52.78	-13	-39.78	-60.93	5.07	13.22	Vertical	Pass

LTE Band 7-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
1374.639	-53.55	-13	-40.55	-56.73	1.91	5.09	Horizontal	Pass
5164.807	-50.93	-13	-37.93	-56.92	4.25	10.24	Horizontal	Pass
9490.104	-49.44	-13	-36.44	-57.86	4.82	13.24	Horizontal	Pass
5009.426	-51.12	-13	-38.12	-57.01	4.26	10.15	Vertical	Pass
9346.262	-49.41	-13	-36.41	-57.9	4.74	13.23	Vertical	Pass
11341.14	-52.61	-13	-39.61	-60.8	5.06	13.25	Vertical	Pass

LTE Band 7-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
1374.639	-54.01	-13	-41.01	-57.19	1.91	5.09	Horizontal	Pass
4996.69	-50.74	-13	-37.74	-56.62	4.26	10.14	Horizontal	Pass
9490.104	-50.29	-13	-37.29	-58.71	4.82	13.24	Horizontal	Pass
5009.426	-50.95	-13	-37.95	-56.84	4.26	10.15	Vertical	Pass
9370.083	-50.13	-13	-37.13	-58.6	4.76	13.23	Vertical	Pass
12653.0	-52.51	-13	-39.51	-60.4	5.43	13.32	Vertical	Pass

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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
1374.639	-53.55	-13	-40.55	-56.73	1.91	5.09	Horizontal	Pass
5034.994	-51.48	-13	-38.48	-57.38	4.26	10.16	Horizontal	Pass
9441.913	-50.36	-13	-37.36	-58.81	4.79	13.24	Horizontal	Pass
5177.971	-51.26	-13	-38.26	-57.26	4.25	10.25	Vertical	Pass
9538.543	-50.23	-13	-37.23	-58.61	4.84	13.22	Vertical	Pass
11370.05	-51.7	-13	-38.7	-59.89	5.06	13.25	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
1374.639	-53.66	-13	-40.66	-56.84	1.91	5.09	Horizontal	Pass
4983.987	-50.98	-13	-37.98	-56.85	4.25	10.12	Horizontal	Pass
9393.966	-50.39	-13	-37.39	-58.85	4.77	13.23	Horizontal	Pass
5086.523	-50.49	-13	-37.49	-56.42	4.26	10.19	Vertical	Pass
9441.913	-50.11	-13	-37.11	-58.56	4.79	13.24	Vertical	Pass
11963.89	-52.55	-13	-39.55	-60.76	5.05	13.26	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
1374.639	-53.55	-13	-40.55	-56.73	1.91	5.09	Horizontal	Pass
4920.955	-50.78	-13	-37.78	-56.59	4.21	10.02	Horizontal	Pass
9514.293	-49.91	-13	-36.91	-58.31	4.83	13.23	Horizontal	Pass
4958.678	-50.67	-13	-37.67	-56.52	4.23	10.08	Vertical	Pass
9514.293	-49.84	-13	-36.84	-58.24	4.83	13.23	Vertical	Pass
12429.54	-52.55	-13	-39.55	-60.48	5.3	13.23	Vertical	Pass

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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
1374.639	-53.57	-13	-40.57	-56.75	1.91	5.09	Horizontal	Pass
5022.194	-50.8	-13	-37.8	-56.69	4.26	10.15	Horizontal	Pass
9490.104	-50.08	-13	-37.08	-58.5	4.82	13.24	Horizontal	Pass
5112.485	-51.0	-13	-38.0	-56.95	4.26	10.21	Vertical	Pass
9490.104	-49.74	-13	-36.74	-58.16	4.82	13.24	Vertical	Pass
10507.31	-52.62	-13	-39.62	-60.66	5.08	13.12	Vertical	Pass

LTE Band 13-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
1374.639	-54.31	-13	-41.31	-57.49	1.91	5.09	Horizontal	Pass
4996.69	-51.1	-13	-38.1	-56.98	4.26	10.14	Horizontal	Pass
9514.293	-49.86	-13	-36.86	-58.26	4.83	13.23	Horizontal	Pass
4996.69	-50.59	-13	-37.59	-56.47	4.26	10.14	Vertical	Pass
9088.188	-50.17	-13	-37.17	-58.78	4.61	13.22	Vertical	Pass
12653.0	-52.37	-13	-39.37	-60.26	5.43	13.32	Vertical	Pass

LTE Band 13-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
1374.639	-53.69	-13	-40.69	-56.87	1.91	5.09	Horizontal	Pass
4996.69	-50.73	-13	-37.73	-56.61	4.26	10.14	Horizontal	Pass
9370.083	-49.85	-13	-36.85	-58.32	4.76	13.23	Horizontal	Pass
4971.316	-50.17	-13	-37.17	-56.03	4.24	10.1	Vertical	Pass
9441.913	-50.26	-13	-37.26	-58.71	4.79	13.24	Vertical	Pass
10669.02	-52.81	-13	-39.81	-60.9	5.08	13.17	Vertical	Pass

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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
1374.639	-53.87	-13	-40.87	-57.05	1.91	5.09	Horizontal	Pass
6851.185	-50.82	-13	-37.82	-57.57	4.19	10.94	Horizontal	Pass
9514.293	-49.3	-13	-36.3	-57.7	4.83	13.23	Horizontal	Pass
4971.316	-51.16	-13	-38.16	-57.02	4.24	10.1	Vertical	Pass
9393.966	-49.25	-13	-36.25	-57.71	4.77	13.23	Vertical	Pass
11027.98	-51.89	-13	-38.89	-60.09	5.07	13.27	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
1374.639	-54.23	-13	-41.23	-57.41	1.91	5.09	Horizontal	Pass
5112.485	-51.21	-13	-38.21	-57.16	4.26	10.21	Horizontal	Pass
9490.104	-49.81	-13	-36.81	-58.23	4.82	13.24	Horizontal	Pass
5164.807	-51.44	-13	-38.44	-57.43	4.25	10.24	Vertical	Pass
9393.966	-50.28	-13	-37.28	-58.74	4.77	13.23	Vertical	Pass
10999.95	-52.9	-13	-39.9	-61.1	5.07	13.27	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
1374.639	-53.63	-13	-40.63	-56.81	1.91	5.09	Horizontal	Pass
5022.194	-49.98	-13	-36.98	-55.87	4.26	10.15	Horizontal	Pass
9490.104	-50.57	-13	-37.57	-58.99	4.82	13.24	Horizontal	Pass
5009.426	-50.66	-13	-37.66	-56.55	4.26	10.15	Vertical	Pass
9228.06	-49.61	-13	-36.61	-58.15	4.68	13.22	Vertical	Pass
10139.45	-52.89	-13	-39.89	-60.87	5.08	13.06	Vertical	Pass

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LTE Band 25-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
1374.639	-54.03	-13	-41.03	-57.21	1.91	5.09	Horizontal	Pass
5060.693	-50.69	-13	-37.69	-56.61	4.26	10.18	Horizontal	Pass
9514.293	-50.07	-13	-37.07	-58.47	4.83	13.23	Horizontal	Pass
4946.072	-51.46	-13	-38.46	-57.29	4.23	10.06	Vertical	Pass
9490.104	-50.13	-13	-37.13	-58.55	4.82	13.24	Vertical	Pass
10833.22	-52.38	-13	-39.38	-60.53	5.07	13.22	Vertical	Pass

LTE Band 25-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
1374.639	-53.94	-13	-40.94	-57.12	1.91	5.09	Horizontal	Pass
5204.399	-51.36	-13	-38.36	-57.38	4.25	10.27	Horizontal	Pass
9465.979	-50.19	-13	-37.19	-58.63	4.8	13.24	Horizontal	Pass
5112.485	-50.85	-13	-37.85	-56.8	4.26	10.21	Vertical	Pass
9393.966	-49.89	-13	-36.89	-58.35	4.77	13.23	Vertical	Pass
10165.29	-52.58	-13	-39.58	-60.56	5.08	13.06	Vertical	Pass

LTE Band 25-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
1374.639	-53.91	-13	-40.91	-57.09	1.91	5.09	Horizontal	Pass
5009.426	-51.57	-13	-38.57	-57.46	4.26	10.15	Horizontal	Pass
9370.083	-50.13	-13	-37.13	-58.6	4.76	13.23	Horizontal	Pass
4946.072	-50.97	-13	-37.97	-56.8	4.23	10.06	Vertical	Pass
9611.663	-50.44	-13	-37.44	-58.75	4.88	13.19	Vertical	Pass
10011.21	-52.47	-13	-39.47	-60.42	5.08	13.03	Vertical	Pass

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LTE Band 26-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
1374.639	-53.65	-13	-40.65	-56.83	1.91	5.09	Horizontal	Pass
5009.426	-50.96	-13	-37.96	-56.85	4.26	10.15	Horizontal	Pass
9417.908	-49.82	-13	-36.82	-58.28	4.78	13.24	Horizontal	Pass
5009.426	-51.33	-13	-38.33	-57.22	4.26	10.15	Vertical	Pass
9441.913	-50.77	-13	-37.77	-59.22	4.79	13.24	Vertical	Pass
12272.34	-52.51	-13	-39.51	-60.54	5.21	13.24	Vertical	Pass

LTE Band 26-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
1374.639	-54.02	-13	-41.02	-57.2	1.91	5.09	Horizontal	Pass
5022.194	-51.26	-13	-38.26	-57.15	4.26	10.15	Horizontal	Pass
7099.747	-50.16	-13	-37.16	-57.21	4.2	11.25	Horizontal	Pass
5086.523	-51.39	-13	-38.39	-57.32	4.26	10.19	Vertical	Pass
7099.747	-50.16	-13	-37.16	-57.21	4.2	11.25	Vertical	Pass
11370.05	-52.55	-13	-39.55	-60.74	5.06	13.25	Vertical	Pass

LTE Band 26-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
1374.639	-53.84	-13	-40.84	-57.02	1.91	5.09	Horizontal	Pass
5112.485	-50.32	-13	-37.32	-56.27	4.26	10.21	Horizontal	Pass
9490.104	-50.22	-13	-37.22	-58.64	4.82	13.24	Horizontal	Pass
5164.807	-50.97	-13	-37.97	-56.96	4.25	10.24	Vertical	Pass
9538.543	-50.1	-13	-37.1	-58.48	4.84	13.22	Vertical	Pass
10833.22	-52.76	-13	-39.76	-60.91	5.07	13.22	Vertical	Pass

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LTE Band 66-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
1374.639	-53.86	-13	-40.86	-57.04	1.91	5.09	Horizontal	Pass
4983.987	-50.7	-13	-37.7	-56.57	4.25	10.12	Horizontal	Pass
9490.104	-50.68	-13	-37.68	-59.1	4.82	13.24	Horizontal	Pass
5034.994	-50.63	-13	-37.63	-56.53	4.26	10.16	Vertical	Pass
9514.293	-50.27	-13	-37.27	-58.67	4.83	13.23	Vertical	Pass
11903.14	-52.17	-13	-39.17	-60.38	5.05	13.26	Vertical	Pass

LTE Band 66-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
1374.639	-54.02	-13	-41.02	-57.2	1.91	5.09	Horizontal	Pass
5230.963	-50.58	-13	-37.58	-56.61	4.25	10.28	Horizontal	Pass
9465.979	-50.35	-13	-37.35	-58.79	4.8	13.24	Horizontal	Pass
5009.426	-51.55	-13	-38.55	-57.44	4.26	10.15	Vertical	Pass
9490.104	-50.63	-13	-37.63	-59.05	4.82	13.24	Vertical	Pass
10805.68	-52.99	-13	-39.99	-61.13	5.07	13.21	Vertical	Pass

LTE Band 66-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
1374.639	-54.03	-13	-41.03	-57.21	1.91	5.09	Horizontal	Pass
5009.426	-50.63	-13	-37.63	-56.52	4.26	10.15	Horizontal	Pass
9370.083	-50.6	-13	-37.6	-59.07	4.76	13.23	Horizontal	Pass
5086.523	-51.14	-13	-38.14	-57.07	4.26	10.19	Vertical	Pass
9298.801	-49.5	-13	-36.5	-58.01	4.72	13.23	Vertical	Pass
11933.47	-52.79	-13	-39.79	-61.0	5.05	13.26	Vertical	Pass

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LTE Band 71-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
1374.639	-54.0	-13	-41.0	-57.18	1.91	5.09	Horizontal	Pass
4983.987	-51.66	-13	-38.66	-57.53	4.25	10.12	Horizontal	Pass
9181.198	-50.19	-13	-37.19	-58.75	4.66	13.22	Horizontal	Pass
5099.487	-51.6	-13	-38.6	-57.54	4.26	10.2	Vertical	Pass
9538.543	-50.21	-13	-37.21	-58.59	4.84	13.22	Vertical	Pass
11112.52	-53.48	-13	-40.48	-61.67	5.07	13.26	Vertical	Pass

LTE Band 71-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
1374.639	-53.91	-13	-40.91	-57.09	1.91	5.09	Horizontal	Pass
5138.579	-50.75	-13	-37.75	-56.73	4.25	10.23	Horizontal	Pass
9490.104	-50.55	-13	-37.55	-58.97	4.82	13.24	Horizontal	Pass
5151.676	-51.4	-13	-38.4	-57.38	4.25	10.23	Vertical	Pass
9417.908	-50.27	-13	-37.27	-58.73	4.78	13.24	Vertical	Pass
10750.81	-52.29	-13	-39.29	-60.42	5.07	13.2	Vertical	Pass

LTE Band 71-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
1374.639	-53.9	-13	-40.9	-57.08	1.91	5.09	Horizontal	Pass
5047.827	-50.86	-13	-37.86	-56.77	4.26	10.17	Horizontal	Pass
9393.966	-50.64	-13	-37.64	-59.1	4.77	13.23	Horizontal	Pass
4983.987	-50.88	-13	-37.88	-56.75	4.25	10.12	Vertical	Pass
9393.966	-50.1	-13	-37.1	-58.56	4.77	13.23	Vertical	Pass
10587.85	-52.77	-13	-39.77	-60.84	5.08	13.15	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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7 Test Setup Photo

Refer to Appendix - Test Setup Photo for SZCR2406002449AT

8 EUT Constructional Details (EUT Photos)

Refer to Appendix – External and Internal Photos for SZCR2406002449AT

- End of the Report -

