

TEST REPORT

Applicant: Shanghai MobileTek Communication Ltd.
Address: Free Trade Zone No. 33, No. 17 building 6H3 Xiya Road China (Shanghai)
Equipment Type: LTE Module
Model Name: L511(refer to section 2.3)
Brand Name: LYNQ
FCC ID: 2AK9DL511-Y7
Test Standard: 47 CFR Part 2.1091
KDB 447498 D04 v01
Sample Arrival Date: N/A
Test Date: N/A
Date of Issue: Jul. 24, 2026

ISSUED BY:

Shanghai Tejet Communications Technology Co., Ltd. Testing Center



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Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Jul. 24, 2026</u>	<u>Initial Issue</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Address	1-2/F., Building 1, No.222, Xuanlan Road, Xuanqiao, Pudong New District, Shanghai, China

1.2 Test Location

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Location	1-2/F., Building 1, No.222, Xuanlan Road, Xuanqiao, Pudong New District, Shanghai, China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1352. The laboratory is a testing organization accredited by ISED as a accredited testing laboratory. The company number is 29671 and CAB identifier number is CN0142.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Shanghai MobileTek Communication Ltd.
Address	Free Trade Zone No. 33, No. 17 building 6H3 Xiya Road China (Shanghai)

2.2 Manufacturer Information

Manufacturer	Shanghai MobileTek Communication Ltd.
Address	Free Trade Zone No. 33, No. 17 building 6H3 Xiya Road China (Shanghai)

2.3 General Description for Equipment under Test (EUT)

EUT Name	LTE Module
Model Name Under Test	L511
Series Model Name	L511-Y7; L511-Y7B
Description of Model name differentiation	These models L511, L511-Y7, L511-Y7B are similar in: circuit diagram & layout & construction and different in sales regions. (The information was provided by applicant.)
Hardware Version	V1
Software Version	L511G_Y7PMv10.02b06.00
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

Network and Wireless connectivity	4G Network LTE FDD Band 2/4/5/7/12/13/14/17/25/26/66/71 LTE TDD Band 38/40/41
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The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	LTE		
Frequency Range	LTE Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	LTE Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	LTE Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 7	TX: 2500 ~ 2570 MHz	RX: 2620 ~ 2690 MHz
	LTE Band 12	TX: 699 ~ 716 MHz	RX: 729 ~ 746 MHz
	LTE Band 13	TX: 777 ~ 787 MHz	RX: 746 ~ 756 MHz
	LTE Band 14	TX: 788 ~ 798 MHz	RX: 758 ~ 768 MHz
	LTE Band 17	TX: 704 ~ 716 MHz	RX: 734 ~ 746 MHz
	LTE Band 25	TX: 1850 ~ 1915 MHz	RX: 1930 ~ 1995 MHz
	LTE Band 26	TX: 814 ~ 849 MHz	RX: 859 ~ 894 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 MHz
	LTE Band 71	TX: 663 ~ 698 MHz	RX: 617 ~ 652 MHz
	LTE Band 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 40	TX: 2305 ~ 2360 MHz	RX: 2305 ~ 2360 MHz
	LTE Band 41	TX: 2496 ~ 2690 MHz	RX: 2496 ~ 2690 MHz
Antenna Type	External Antenna		
Exposure Category	General Population/Uncontrolled Exposure		
Product Type	Mobile Device		

3 SUMMARY OF TEST RESULT

3.1 Test Standards

No.	Identity	Document Title
1	KDB 447498 D04 v01	447498 D04 Interim General RF Exposure Guidance v01

3.2 Limit Standards

No.	Identity	Document Title
1	47 CFR Part 2.1091	Radiofrequency radiation exposure evaluation: mobile devices

4 DEVICE CATEGORY AND LEVELS LIMITS

Mobile Devices:

CFR Title 47 §2.1091(b)

For purposes of this section, a mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons.

FCC KDB 447498 D04 General RF Exposure Guidance v01 Limit

Evaluation of compliance with the exposure limits in § 1.1310 is necessary if the ERP of the device is greater than ERP_{20cm} in Formula (B.1) [repeated from § 2.1091(c)(1) and § 1.1307(b)(1)(i)(B)].

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

If the ERP is not easily obtained, then the available maximum time-averaged power may be used (i. e., without consideration of ERP only if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole.

SAR-based exemptions are constant at separation distances between 20 cm and 40 cm to avoid discontinuities in the threshold when transitioning between SAR-based and MPE-based exemption criteria at 40 cm, considering the importance of reflections.

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold P_{th} (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula (B.2).

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B. 2})$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1). The example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)										
		5	10	15	20	25	30	35	40	45	50
300		39	65	88	110	129	148	166	184	201	217
450		22	44	67	89	112	135	158	180	203	226
835		9	25	44	66	90	116	145	175	207	240
1900		3	12	26	44	66	92	122	157	195	236
2450		3	10	22	38	59	83	111	143	179	219
3600		2	8	18	32	49	71	96	125	158	195
5800		1	6	14	25	40	58	80	106	136	169

According with FCC KDB 447498 D04, Appendix A, Per § 1.1307(b)(3)(i)(A), a single RF source is exempt RF device (from the requirement to show data demonstrating compliance to RF exposure limits, as previously mentioned) if the available maximum time-averaged power is no more than 1 mW, regardless of separation distance.

This exemption applies to all operating configurations and exposure conditions, for the frequency range 100 kHz to 100 GHz, regardless of fixed, mobile, or portable device exposure conditions. This is a standalone exemption, and it cannot be applied in conjunction with any other test exemption.

When maximum available power each individual transmitting antenna within the same time averaging period is ≤ 1 mW, and the nearest parts of the antenna structures of the simultaneously operating transmitters are separated by at least 2 cm.

When the aggregate maximum available power of all transmitting antennas is ≤ 1 mW in the same time-averaging period.

5 ASSESSMENT RESULT

5.1 Output Power

LTE							
Mode	Band 2	Band 4	Band 5	Band 7	Band 12	Band 13	Band 14
Conducted Power (dBm)	21.81	21.29	21.90	21.80	21.81	22.10	22.43
Antenna Gain (dBi)	4.00	4.00	6.00	3.00	6.00	6.00	6.00
EIRP/ERP (dBm)	25.81	25.29	25.75	24.80	25.66	25.95	26.28
Note: This report listed the worst case conducted power value, please refer to RF test report No.Ti-CC26060283-501 for more details.							

LTE								
Mode	Band 17	Band 25	Band 26	Band 38	Band 40	Band 41	Band 66	Band 71
Conducted Power (dBm)	21.85	21.94	22.41	22.45	13.35	22.47	21.59	22.20
Antenna Gain (dBi)	6.00	4.00	6.00	3.00	3.00	3.00	4.00	4.00
EIRP/ERP (dBm)	25.70	25.94	26.26	25.45	16.35	25.47	25.59	24.05
Note: This report listed the worst case conducted power value, please refer to RF test report No.Ti-CC26060283-501 for more details.								

5.2 Turn-up power

ode		Conducted Power Range (dBm)		EIRP		ERP	
LTE	Band 2	21.00	23.00	25.00	27.00	22.85	24.85
	Band 4	21.00	23.00	25.00	27.00	22.85	24.85
	Band 5	21.00	23.00	27.00	29.00	24.85	26.85
	Band 7	21.00	23.00	24.00	26.00	21.85	23.85
	Band 12	21.00	23.00	27.00	29.00	24.85	26.85
	Band 13	21.00	23.00	27.00	29.00	24.85	26.85
	Band 14	21.00	23.00	27.00	29.00	24.85	26.85
	Band 17	21.00	23.00	27.00	29.00	24.85	26.85
	Band 25	21.00	23.00	25.00	27.00	22.85	24.85
	Band 26	21.00	23.00	27.00	29.00	24.85	26.85
	Band 38	21.00	23.00	24.00	26.00	21.85	23.85
	Band 40	13.00	15.00	16.00	18.00	13.85	15.85
	Band 41	21.00	23.00	24.00	26.00	21.85	23.85
	Band 66	21.00	23.00	25.00	27.00	22.85	24.85
	Band 71	21.00	23.00	25.00	27.00	22.85	24.85
Note1: ERP= EIRP -2.15dB.							
Note2: According KDB 447498 D04, used the greater of maximum conducted power and ERP to compare with the threshold value Pth.							

5.3 RF Exposure Evaluation Result

Evolution mode		Frequency (MHz)	Distance (cm)	Maximum power (dBm)	Maximum power (mW)	Threshold Power (mW)	Verdict
LTE	Band 2	1850	20	24.85	305.49	3060.00	Pass
	Band 4	1710	20	24.85	305.49	3060.00	Pass
	Band 5	824	20	26.85	484.17	1680.96	Pass
	Band 7	2500	20	23.85	242.66	3060.00	Pass
	Band 12	699	20	26.85	484.17	1425.96	Pass
	Band 13	777	20	26.85	484.17	1585.08	Pass
	Band 14	788	20	26.85	484.17	1607.52	Pass
	Band 17	704	20	26.85	484.17	1436.16	Pass
	Band 25	1850	20	24.85	305.49	3060.00	Pass
	Band 26	814	20	26.85	484.17	1660.56	Pass
	Band 38	2570	20	23.85	242.66	3060.00	Pass
	Band 40	2305	20	15.85	38.46	3060.00	Pass
	Band 41	2496	20	23.85	242.66	3060.00	Pass
	Band 66	1710	20	24.85	305.49	3060.00	Pass
	Band 71	663	20	24.85	305.49	1352.52	Pass

5.4 Conclusion

This EUT is deemed to comply with the reference level limits, therefore the basic restrictions are compliant with human exposure limits.

Statement

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--END OF REPORT--