

RF Exposure Evaluation
FOR
SZZJ COMMUNICATION TECHNOLOGY CO., LIMITED
Booster
Test Model: 20T-LC-A01

Prepared for : SZZJ COMMUNICATION TECHNOLOGY CO., LIMITED
Room A22, Unit 2208, Block A, Union Square No.5022 Binhe
Address : Avenue, Futian Subdistrict Futian District, Shenzhen,
Guangdong, China

Prepared by : Guangzhou LCS Compliance Testing Laboratory Ltd.
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Date of receipt of test sample : August 05, 2026
Number of tested samples : 2
Sample No. : C08056001-1, C08056001-2
Serial number : Prototype
Date of Test : August 05, 2026 ~ September 08, 2026
Date of Report : September 09, 2026

RF Exposure Evaluation	
Report Reference No.	LCSC08056001EB
Date of Issue	September 09, 2026
Testing Laboratory Name	Guangzhou LCS Compliance Testing Laboratory Ltd.
Address	No.44-1, Qianfeng North Road, Shiqi, Panyu District, Guangzhou, Guangdong, China
Testing Location/ Procedure	☒ Full application of Harmonised standards ☐ Partial application of Harmonised standards ☐ Other standard testing method
Applicant's Name	SZZJ COMMUNICATION TECHNOLOGY CO., LIMITED
Address	Room A22, Unit 2208, Block A, Union Square No.5022 Binhe Avenue, Futian Subdistrict Futian District, Shenzhen, Guangdong, China
Test Specification	
Standard	FCC KDB publication 447498 D01 General RF Exposure Guidance v06 FCC CFR 47 part1 1.1310 FCC CFR 47 part2 2.1091
TRF Originator	Guangzhou LCS Compliance Testing Laboratory Ltd.
Master TRF	Dated 2011-03
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Test Item Description.	
Trade Mark	N/A
Test Model	20T-LC-A01 For AC/DC Adaptor(model: 0520):
Ratings	Input: AC 100-240V,50/60Hz Output: 5V $\overline{\text{---}}$ 2A
Result	PASS

Compiled by:



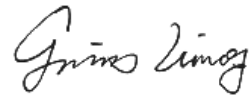
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Supervised by:



Justin Zhu / Technique Director

Approved by:



Gavin Liang/ Manager

RF Exposure Evaluation

Test Report No. :	LCSC08056001EA	<u>September 09, 2026</u> Date of issue
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Test Model.....	: 20T-LC-A01
EUT.....	: Booster
Applicant.....	: SZZJ COMMUNICATION TECHNOLOGY CO., LIMITED Room A22, Unit 2208, Block A, Union Square No.5022 Binhe
Address.....	: Avenue, Futian Subdistrict Futian District,Shenzhen, Guangdong,China
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Address.....	: Avenue, Futian Subdistrict Futian District,Shenzhen, Guangdong,China
Telephone.....	: /
Fax.....	: /
Factory.....	: SZZJ COMMUNICATION TECHNOLOGY CO., LIMITED Room A22, Unit 2208, Block A, Union Square No.5022 Binhe
Address.....	: Avenue, Futian Subdistrict Futian District,Shenzhen, Guangdong,China
Telephone.....	: /
Fax.....	: /

Test Result	PASS
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Revision History

Revision	Issue Date	Revisions	Revised By
000	September 09, 2026	Initial Issue	Gavin Liang

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1. Product Information

EUT	: Booster
Equipment Type	: Fixed Wideband Consumer Signal Booster
Test Model	: 20T-LC-A01
Power Supply	For AC/DC Adaptor(model: 0520): : Input: AC 100-240V,50/60Hz Output: 5V---2A
Hardware Version	: /
Software Version	: /
Frequency Range	Lower 700MHz Band(B12) Uplink: 698~716MHz, Downlink: 728~746 MHz Lower 700MHz Band(B17) : Uplink: 704~716MHz, Downlink: 734~746 MHz Upper 700MHz Band(B13) Uplink: 776~787MHz, Downlink: 746~757 MHz Cellular Band(B5) Uplink: 824~849MHz, Downlink: 869~894 MHz
Max .Gain	: ≤65dB(band 5 12 13 17)
Max. Antenna Port Output power	: Uplink: 22dBm : Downlink:10dBm
Emission Designator	: F9W, G7D, G7W, GXW, W7D
FCC Classification	: B2W/Wideband Consumer Booster(CMRS)
Operating Temperature	: -25°C~+55°C
Exposure category	: General population/uncontrolled environment
EUT Type	: Production Unit
Device Type	: Mobile Device

Note: For a more detailed antenna description, please refer to the antenna specifications or the antenna report provided by the customer.

Antenna Information:

Outdoor Antenna and Indoor Antenna can only use antennas certificated as follows provided by manufacturer:

Outdoor Antenna			
Outdoor Antenna	Outdoor Antenna Gain		
	Lower 700MHz	Upper 700MHz	Celluler
Outdoor LPDA Antenna	7.0	7.0	7.0
Indoor Antenna			
Indoor Antenna	Indoor Antenna Gain		
	Lower 700MHz	Upper 700MHz	Celluler
Indoor Whip Antenna	5.0	5.0	5.0
Outdoor Cable			
Outdoor Cable	Outdoor Cable Loss		
	Lower 700MHz	Upper 700MHz	Celluler
15 m 3D-FB cable	3.9	4.3	4.5

2. Evaluation Method

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

In accordance with KDB447498D01 for Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modelled or measured field strengths or power density, is ≤ 1.0 . The MPE ratio of each antenna is determined at the minimum test separation distance required by the operating configurations and exposure conditions of the host device, according to the ratio of field strengths or power density to MPE limit, at the test frequency. Either the maximum peak or spatially averaged results from measurements or numerical simulations may be used to determine the MPE ratios. Spatial averaging does not apply when MPE is estimated using simple calculations based on far-field plane-wave equivalent conditions. The antenna installation and operating requirements for the host device must meet the minimum test separation distances required by all antennas, in both standalone and simultaneous transmission operations, to satisfy compliance.

3. Limit

3.1 Refer Evaluation Method

[ANSI C95.1-1999](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

[FCC KDB publication 447498 D01 General 1 RF Exposure Guidance v06](#): Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

[FCC CFR 47 part1 1.1310](#): Radiofrequency radiation exposure limits.

[FCC CFR 47 part2 2.1091](#): Radiofrequency radiation exposure evaluation: mobile devices

3.2 Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure				
Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) [*]	6
3.0 – 30	1842/f	4.89/f	(900/f ²) [*]	6
30 – 300	61.4	0.163	1.0	6
300 – 1500	/	/	f/300	6
1500 – 100,000	/	/	5	6
Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure				
Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) [*]	30
3.0 – 30	824/f	2.19/f	(180/f ²) [*]	30
30 – 300	27.5	0.073	0.2	30
300 – 1500	/	/	f/1500	30
1500 – 100,000	/	/	1.0	30

F=frequency in MHz

*=Plane-wave equivalent power density

4. MPE Calculation Method

Predication of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = PG / 4\pi R^2$$

Where: S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

5. Conducted Output Power

Operation Bands	Frequency (MHz)	Max. Output Power (dBm)	Cable Loss	Power to Antenna (dBm)
UL(824~849MHz)	836.500	22.00	4.5	17.50
UL(698~716MHz)	706.280	22.00	3.9	18.10
UL(776~787MHz)	782.204	22.00	4.3	17.70
DL(869~894 MHz)	881.600	10.00	/	10.00
DL(728~746 MHz)	736.028	10.00	/	10.00
DL(746~757 MHz)	750.026	10.00	/	10.00

6. Measurement Results

Operation Bands	Frequency (MHz)	Power to Antenna (dBm)	Target (dBm)	Tolerance ±(dB)
UL(824~849MHz)	836.500	17.50	17	1.0
UL(698~716MHz)	706.280	18.10	18	1.0
UL(776~787MHz)	782.204	17.70	17	1.0
DL(869~894 MHz)	881.600	10.00	10.5	1.0
DL(728~746 MHz)	736.028	10.00	10.5	1.0
DL(746~757 MHz)	750.026	10.00	10.5	1.0

7. Limits for General /Uncontrolled Exposure

Maximum permissible exposure :

the report recorded the worst result of Outdoor Antenna (Outdoor LPDA Antenna), Indoor Antenna(Indoor Whip Antenna)

Band/Mode	RF output power		Antenna Gain (dBi)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	Results
	dBm	mW				
UL(824~849MHz)	18	63.0957	7.0	0.0629	0.549	PASS
UL(698~716MHz)	19	79.4328	7.0	0.0792	0.465	PASS
UL(776~787MHz)	18	63.0957	7.0	0.0629	0.517	PASS
DL(869~894 MHz)	11.5	14.1254	5.0	0.0089	0.579	PASS
DL(728~746 MHz)	11.5	14.1254	5.0	0.0089	0.485	PASS
DL(746~757 MHz)	11.5	14.1254	5.0	0.0089	0.497	PASS

Remark:

1. Output power including turn-up tolerance;
2. Output power is burst average power;
3. MPE evaluate distance is 20cm from user manual provide by manufacturer;
4. MPE values = $PG/4\pi R$

8. Evaluation Results

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, $r = 20\text{cm}$, as well as the gain of the used antenna refer to antenna information, the RF power density can be obtained.

Simultaneous Transmission MPE

Not need consider simultaneous transmission

9. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

10. Description of Test Facility

CNAS Registration Number is L11555
A2LA Certificate Number: 5099.01
FCC Designation Number is CN1379
Test Firm Registration Number: 729882

11. Measurement Uncertainty

Test Item		Frequency Range	Uncertainty	Note
Radiation Uncertainty	:	9KHz~30MHz	3.10dB	(1)
		30MHz~200MHz	2.96dB	(1)
		200MHz~1000MHz	3.10dB	(1)
		1GHz~26.5GHz	3.80dB	(1)
		26.5GHz~40GHz	3.90dB	(1)
Conduction Uncertainty	:	150kHz~30MHz	1.63dB	(1)
Power disturbance	:	30MHz~300MHz	1.60dB	(1)

(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

-----THE END OF REPORT-----