RF Exposure Evaluation

For

SHEN ZHEN XIN SHENG SHANG TECHNOLOGY CO.,LTD

LED PROJECTOR

Test Model: Gimbal N6 Pro

Additional Model No.: Please Refer to Page 6

Prepared for	:	SHEN ZHEN XIN SHENG SHANG TECHNOLOGY CO.,LTD
Address	:	Room 303, Building 9, No. 54-6, Guanlan Avenue, Xinhe Community, Fucheng Street, Longhua District, Shenzhen City, Guangdong Province China
Prepared by	:	Guangzhou LCS Compliance Testing Laboratory Ltd.
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Date of receipt of test sample	:	August 21, 2025
Number of tested samples	:	2
Sample No.	:	C250820050-1, C250820050-2
Serial number	:	Prototype
Date of Test	:	August 21, 2025 ~ September 08, 2025
Date of Report	:	September 09, 2025

ACCREDITED
Cert. No. 5099.01

RF Exposure Evaluation	
Report Reference No.	**: LCSC08205004EF**
Date of Issue.....	: September 09, 2025
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.....	**: SHEN ZHEN XIN SHENG SHANG TECHNOLOGY CO.,LTD**
Address.....	: Room 303, Building 9, No. 54-6, Guanlan Avenue, Xinhe Community, Fucheng Street, Longhua District, Shenzhen City, Guangdong Province China
Test Specification	
Standard.....	: FCC KDB publication 447498 D01 General 1 RF Exposure Guidance v06 FCC CFR 47 part1 1.1310 FCC CFR 47 part2 2.1091
Test Report Form No.....	**: TRF-4-E-214 A/0**
TRF Originator.....	: Guangzhou LCS Compliance Testing Laboratory Ltd.
Master TRF.....	: Dated 2011-03
EUT Description.....	**: LED PROJECTOR**
Trade Mark.....	: N/A
Test Model.....	: Gimbal N6 Pro
Ratings.....	: Input: 100-240V~, 50/60Hz,1.5A
Result	: **PASS**

Compiled by:	**Supervised by:**	**Approved by:**
Lifeng Le/ Administrator	Justin Zhu/ Technique principal	Gavin Liang/ Manager

RF Exposure Evaluation

Test Report No. : **LCSC08205004EF**	September 09, 2025 Date of issue

Test Model.....	: Gimbal N6 Pro
EUT.....	: LED PROJECTOR
Applicant.....	**: SHEN ZHEN XIN SHENG SHANG TECHNOLOGY CO.,LTD**
Address.....	: Room 303, Building 9, No. 54-6, Guanlan Avenue, Xinhe Community, Fucheng Street, Longhua District, Shenzhen City, Guangdong Province China
Telephone.....	: /
Fax.....	: /
Manufacturer.....	**: SHEN ZHEN XIN SHENG SHANG TECHNOLOGY CO.,LTD**
Address.....	: Room 303, Building 9, No. 54-6, Guanlan Avenue, Xinhe Community, Fucheng Street, Longhua District, Shenzhen City, Guangdong Province China
Telephone.....	: /
Fax.....	: /
Factory.....	**: SHEN ZHEN XIN SHENG SHANG TECHNOLOGY CO.,LTD**
Address.....	: Room 303, Building 9, No. 54-6, Guanlan Avenue, Xinhe Community, Fucheng Street, Longhua District, Shenzhen City, Guangdong Province China
Telephone.....	: /
Fax.....	: /

Test Result	**PASS**

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

Report Version	Issue Date	Revision Content	Revised By
000	September 09, 2025	Initial Issue	---

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Description **Page**

1. Product Information

EUT	:	LED PROJECTOR
Test Model	:	Gimbal N6 Pro
Additional Model No.	:	Gimbal A6 Pro
Model Declaration	:	Only the appearance color or shape is different, but the structure and circuit scheme (principle, PCB) are the same, So no additional models were tested
Ratings	:	Input: 100-240V~, 50/60Hz,1.5A
Hardware Version	:	/
Software Version	:	/
Bluetooth		
Frequency Range	:	2402MHz~2480MHz
Channel Number	:	79 channels for Bluetooth (DSS) 40 channels for Bluetooth (DTS)
Channel Spacing	:	1MHz for Bluetooth (DSS) 2MHz for Bluetooth (DTS)
Modulation Type	:	GFSK, π/4-DQPSK, 8-DPSK for Bluetooth (DSS) GFSK for Bluetooth (DTS)
Antenna Description	:	Internal Antenna1, 2.67dBi(Max.)
WIFI(2.4G Band)		
Frequency Range	:	2412MHz~2462MHz
Channel Number	:	11 Channels for 20MHz bandwidth(2412~2462MHz) 7 Channels for 40MHz bandwidth(2422~2452MHz)
Channel Spacing	:	5MHz
Modulation Type	:	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM,QPSK,BPSK)
Antenna Description	:	Internal Antenna2, 2.67dBi(Max.)
WIFI(5.2G Band)		
Frequency Range	:	5180MHz~5240MHz
Channel Number	:	4 channels for 20MHz bandwidth(5180MHz-5240MHz) 2 channels for 40MHz bandwidth(5190MHz~5230MHz)
Modulation Type	:	IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Description	:	Internal Antenna1, 2.62dBi(Max.)
WIFI(5.8G Band)		
Frequency Range	:	5745MHz~5825MHz
Channel Number	:	5 channels for 20MHz bandwidth(5745MHz~5825MHz) 2 channels for 40MHz bandwidth(5755MHz~5795MHz)
Modulation Type	:	IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK)

		IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Description	:	Internal Antenna1, 2.62dBi(Max.)
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.		

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 C95.1–2019: IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz 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/Uncontrolled 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. Antenna Information

EUT can only use antennas certificated as follows provided by manufacturer;

Internal/ External Identification	Antenna type and antenna number	Operate frequency band	Maximum antenna gain	Notes
Internal	Internal Antenna	2400MHz ~ 2500MHz 5150MHz ~ 5850MHz	Bluetooth: 2.67dBi 5GWIFI: 2.62dBi	BT/WIFI Antenna
Internal	Internal Antenna	2400MHz ~ 2500MHz	2.4GWIFI: 2.67dBi	WIFI Antenna

6. Conducted Power

[BT]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
GFSK	0	2402	-1.17
	39	2441	-0.9
	78	2480	-1.95
π/4DQPSK	0	2402	0.82
	39	2441	0.99
	78	2480	-0.09
8DPSK	0	2402	1.19
	19	2441	1.39
	39	2480	0.25

[BLE]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
BLE_1M	0	2402	0.98
	19	2440	0.54
	39	2480	-0.52

[2.4G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
11B	1	2412	14.81
	6	2437	14.22
	11	2462	14.24
11G	1	2412	14.12
	6	2437	14.68
	11	2462	14.76
11N20 SISO	1	2412	13.62
	6	2437	13.94
	11	2462	14.03
11N40 SISO	3	2422	13.26
	6	2437	13.17
	9	2452	12.96

[5.2G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
11A	36	5180	13.28
	40	5200	13.08
	48	5240	12.39
11N20 SISO	36	5180	11.63
	40	5200	11.5
	48	5240	10.72
11N40 SISO	38	5190	11.41
	46	5230	11.02

[5.8G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
11A	149	5745	14.89
	157	5785	14.08
	165	5825	14.55
11N20 SISO	149	5745	15.11
	157	5785	14.37
	165	5825	14.85
11N40 SISO	151	5755	14.63
	159	5795	13.99

7. Manufacturing Tolerance

[BT]

GFSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	-1.0	0	-1.0
Tolerance ±(dB)	1.0	1.0	1.0
π/4DQPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	0	0	0
Tolerance ±(dB)	1.0	1.0	1.0
8DPSK (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	1.0	1.0	0
Tolerance ±(dB)	1.0	1.0	1.0

[BLE]

BLE_1M (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	0	0	0
Tolerance ±(dB)	1.0	1.0	1.0

[2.4G WIFI]

11B (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	14.0	14.0	14.0
Tolerance ±(dB)	1.0	1.0	1.0
11G (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	14.0	14.0	14.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20(Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	13.0	13.0	14.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40(Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	13.0	13.0	12.0
Tolerance ±(dB)	1.0	1.0	1.0

[5.2G WIFI]

11A (AVG)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	13.0	13.0	12.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20(AVG)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	11.0	11.0	10.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40(AVG)			
Channel	Channel 38		Channel 46
Target (dBm)	11.0		11.0
Tolerance ±(dB)	1.0		1.0

[5.8G WIFI]

11A (AVG)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	12.0	11.0	12.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20(AVG)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	12.0	11.0	11.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40(AVG)			
Channel	Channel 151		Channel 159
Target (dBm)	12.0		11.0
Tolerance ±(dB)	1.0		1.0

8. Measurement Results

8.1 Standalone MPE Evaluation

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

[BT]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm2)	MPE Limits (mW/cm2)
	dBm	mW				
GFSK	1.0	1.2589	2.67	1.8493	0.0005	1.0000
π/4-DQPSK	1.0	1.2589	2.67	1.8493	0.0005	1.0000
8-DPSK	2.0	1.5849	2.67	1.8493	0.0006	1.0000

[BLE_1M]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm2)	MPE Limits (mW/cm2)
	dBm	mW				
GFSK	1.0	1.2589	2.67	1.8493	0.0005	1.0000

[2.4G WIFI]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm2)	MPE Limits (mW/cm2)
	dBm	mW				
IEEE 802.11b	15.0	31.6228	2.67	1.8493	0.0116	1.0000
IEEE 802.11g	15.0	31.6228	2.67	1.8493	0.0116	1.0000
IEEE 802.11n HT20	15.0	31.6228	2.67	1.8493	0.0116	1.0000
IEEE 802.11n HT40	14.0	25.1189	2.67	1.8493	0.0092	1.0000

[5.2G WIFI]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm2)	MPE Limits (mW/cm2)
	dBm	mW				
IEEE 802.11a	14.0	25.1189	2.62	1.8281	0.0091	1.0000
IEEE 802.11n HT20	12.0	15.8489	2.62	1.8281	0.0058	1.0000
IEEE 802.11n HT40	12.0	15.8489	2.62	1.8281	0.0058	1.0000

[5.8G WIFI]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm2)	MPE Limits (mW/cm2)
	dBm	mW				
IEEE 802.11a	13.0	19.9526	2.62	1.8281	0.0073	1.0000
IEEE 802.11n HT20	13.0	19.9526	2.62	1.8281	0.0073	1.0000
IEEE 802.11n HT40	13.0	19.9526	2.62	1.8281	0.0073	1.0000

Remark:
1. Output power including tune-up tolerance;
2. Output power was adjusted to duty cycle at 100% if measured duty cycle less than 98%;
3. MPE evaluate distance is 20cm from user manual provide by manufacturer.

8.2 Simultaneous Transmission MPE Evaluation

The EUT equiped with one Bluetooth/5GWIFI antenna, one 2.4GWIFI antenna. so need consider simultaneous transmission;
According to KDB447498 for Transmitters used in mobile exposure conditions for simultaneous transmission operations;

Simultaneous Transmission				
5GWIFI Antenna Max MPE ratios	2.4GWIFI Antenna Max MPE ratios	∑ MPE ratios	Limit	Results
0.0091	0.0116	0.0207	1.0	Pass

Remark:
1. Output power including tune-up tolerance;
2. BT/BLE/2.4G WIFI output power is burst peak power;
3. 5G WIFI output power is burst average power;
4. MPE evaluate distance is 20cm from user manual provide by manufacturer;
5. MPE values = $PG/4\pi R^2$
6. Bluetooth Antenna is Antenna1.

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
Site Description
EMC Lab. :
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
Output power	:	1GHz-40GHz	±0.57dB	(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----------