



RF Exposure evaluation

Report Reference No...... : **GTS20190429006-1-7**

FCC ID..... : **2ATMSSP3SP4SP5**

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Date of issue.....: Jun. 13, 2019

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Shenzhen, Guangdong

Applicant's name: **Chengdu Intelligent Star Technology Co.,Ltd**

Address.....: No.7, Zijin West Road, Hi-tech Zone, Chengdu, Sichuan, China

Test specification :

Standard: **47CFR §1.1310**
47CFR §2.1093
KDB447498 v06

TRF Originator: Shenzhen Global Test Service Co.,Ltd.

Master TRF: Dated 2014-12

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Test item description: LEVIATHAN/ Poseidon

Trade Mark: N/A

Manufacturer: **Chengdu Intelligent Star Technology Co.,Ltd**

Model/Type reference.....: S-P3

Listed Models: S-P4、 S-P5

Exposure category.....: General population/uncontrolled environment

EUT Type: Production Unit

Rating: DC 24/36V from adapter

Result.....: **PASS**

TEST REPORT

Test Report No. : GTS20190429006-1-7	Jun.13, 2019 Date of issue
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Equipment under Test : LEVIATHAN/ Poseidon

Model /Type : S-P3

Listed Models : S-P4、 S-P5

Applicant : **Chengdu Intelligent Star Technology Co.,Ltd**

Address : No.7, Zijin West Road, Hi-tech Zone, Chengdu, Sichuan, China

Manufacturer : **Chengdu Intelligent Star Technology Co.,Ltd**

Address : No.7, Zijin West Road, Hi-tech Zone, Chengdu, Sichuan, China

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.

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1. SUMMARY

1.1. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

● - supplied by the manufacturer

○ - supplied by the lab

○	Power Cable	Length (m) :	/
		Shield :	/
		Detachable :	/

1.2. Product Description

Name of EUT	LEVIATHAN/ Poseidon
Trade Mark:	N/A
Model Number	S-P3
Listed Models	S-P4、 S-P5
FCC ID	2ATMSSP3SP4SP5
Power Supply	DC 24/36V from adapter
Adapter information:	<p>1.Model: GST60A24 Input: 100-240V~50/60Hz 1.4A Max Output:DC 24.0V 2.5A</p> <p>2.Model:GST40A24 Input: 100-240V~50/60Hz 1.0A Max Output:DC 24.0V 1.67A</p> <p>3.Model:HLG-150H-36A Input: 100-240V~50/60Hz 1.7A Max 277V 0.7AMax Output:DC 36.0V 4.2A</p> <p>4.Model:HLG-100H-36A Input: 100-240V~50/60Hz 1.2A Max 277V 0.5AMax Output:DC 36.0V 2.65A</p>
WLAN	Supported 802.11b/802.11g/802.11n HT20/802.11n HT40
Modulation Type	IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20: OFDM (64QAM, 16QAM, QPSK,BPSK) IEEE 802.11n HT40: OFDM (64QAM, 16QAM, QPSK,BPSK)
Operation frequency	IEEE 802.11b:2412-2472MHz IEEE 802.11g:2412-2472MHz IEEE 802.11n HT20:2412-2472MHz IEEE 802.11n HT40:2422-2462MHz
Antenna Type	Internal Antenna
Antenna gain	3.0dBi
Remark: The products are identical in interior structure, electrical circuits and components, just model names and antenna numbers are different.	

2. TEST ENVIRONMENT

2.1. Address of the test laboratory

Shenzhen Global Test Service Co.,Ltd.

1F, Building No. 13A, Zhonghaixin Science and Technology City, No.12,6 Road, Ganli Industrial Park, Buji Street, Longgang District, Shenzhen, Guangdong

2.2. Test Facility

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

CNAS (No. CNAS L8169)

Shenzhen Global Test Service Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2017 General Requirements) for the Competence of Testing and Calibration Laboratories.

A2LA (Certificate No. 4758.01)

Shenzhen Global Test Service Co., Ltd. has been assessed by the American Association for Laboratory Accreditation (A2LA). Certificate No. 4758.01.

2.3. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15-35 ° C
Humidity:	30-60 %
Atmospheric pressure:	950-1050mbar

2.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen Global Test Service Co.,Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen GTS laboratory is reported:

Test Items	Measurement Uncertainty	Notes
Transmitter power conducted	0.57 dB	(1)

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

3. Method of measurement

3.1. Applicable Standard

According to §1.1307(b)(1), systems operating under the provisions of this 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.

According to §1.1310 and §2.1093 RF exposure requirement

KDB447498 v06: Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies

3.2. Requirement

According to KDB 447498 D01 General RF Exposure Guidance

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

1. $f(\text{GHz})$ is the RF channel transmit frequency in GHz.

2. Power and distance are rounded to the nearest mW and mm before calculation.

3. The result is rounded to one decimal place for comparison.

4. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion.

4. Evaluation Result

4.1. Standalone MPE

MODE	Frequency (MHz)	Minimum Separation Distance (mm)	AV Output Power (including Turn-up Procedure)		Calculated value	Threshold (1-g SAR)	SAR Test Exclusion
			dBm	mW			
WLAN	2472	5	9	7.9	2.48	3.0	YES

5. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06, No SAR is required.

.....**End of Report**.....