

TEST REPORT

Application No.: FYCR2206000223AT(SHCR2204000733AT)
Applicant: Sunwave Communications Co., Ltd.
Address of Applicant: 581 Huoju Avenue, Binjiang, Hangzhou, Zhejiang, China
Manufacturer: Sunwave Communications Co., Ltd.
Address of Manufacturer: 581 Huoju Avenue, Binjiang, Hangzhou, Zhejiang, China
Equipment Under Test (EUT):
EUT Name: Remote Unit
Model No.: iDAS-R318
Trade mark: CROSSFIRE
FCC ID: 2AEJ4R31866
Standard(s) : FCC Rules 47 CFR §2.1091
KDB447498 D04 Interim General RF Exposure Guidance v01
Date of Receipt: 2022-06-09
Date of Test: 2022-06-10 to 2022-06-26
Date of Issue: 2022-07-02

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



Winkey Wang
EMC Laboratory Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2022-07-02		Original

Authorized for issue by:				
		Tree Zhan		
		Tree Zhan/Project Engineer		
		Winkey Wang		
		Winkey Wang/Reviewer		



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2 Contents

	Page
1 COVER PAGE	1
2 CONTENTS.....	3
3 GENERAL INFORMATION	4
3.1 DETAILS OF E.U.T.	4
3.2 TEST LOCATION	5
3.3 TEST FACILITY	5
3.4 DEVIATION FROM STANDARDS	5
3.5 ABNORMALITIES FROM STANDARD CONDITIONS	5
4 TEST STANDARDS AND LIMITS	6
4.1 FCC RADIOFREQUENCY RADIATION EXPOSURE LIMITS:	6
5 MEASUREMENT AND CALCULATION	7
5.1 MAXIMUM TRANSMIT POWER	7
5.2 MPE CALCULATION.....	7



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3 General Information

3.1 Details of E.U.T.

Power supply:	DC48V
Sample Type:	Fixed production
Support Network:	LTE, NR
Operation Frequency Band:	Downlink 2110MHz to 2200MHz
Modulation Type:	DFT-s-OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM LTE: QPSK, 16QAM, 64QAM
Rated Input Power Range:	0dBm-15dBm
Output Power	37dBm(Total)
Antenna Type:	External antenna
Antenna Gain:	6dBi
Antenna Port:	UL: 2*2MIMO, 4*4 MIMO DL: 2*2MIMO, 4*4 MIMO

Note:

The antenna gain value is provided by the customer. The test lab will not be responsible for wrong test result due to incorrect information about antenna gain values.

For MIMO mode the output signals are considered completely uncorrelated.



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3.2 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc. Shenzhen branch.

Fuyong lab. Xinlong TechnoPark, Fengtang Road, Fuyong Subdistrict, Bao'an, Shenzhen, China

Tel: +86 755 8866 3988 Fax: +86 755 2671 0594

No tests were sub-contracted.

3.3 Test Facility

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

• **A2LA (Certificate No. 6606.01)**

Compliance Certification Services (Kunshan) Inc. Shenzhen branch is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 6606.01.

• **FCC –Designation Number: CN1322**

Compliance Certification Services (Kunshan) Inc. Shenzhen branch has been recognized as an accredited testing laboratory.

Designation Number: CN1322. Test Firm Registration Number: 718073

• **Innovation, Science and Economic Development Canada**

Compliance Certification Services (Kunshan) Inc. Shenzhen branch has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0129.

IC#: 28189.

3.4 Deviation from Standards

None

3.5 Abnormalities from Standard Conditions

None



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4 Test Standards and Limits

4.1 FCC Radiofrequency radiation exposure limits:

According to §1.1310, the limit for general population/uncontrolled exposures

Frequency	Power density(mW/cm ²)	Averaging time(minutes)
300MHz~1.5GHz	f/1500	30
1.5GHz~100GHz	1.0	30



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5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report FYCR220600022301.

Band Information	Antenna Gain (dBi)	Max Output Power (dBm)	Max Output Power (mW)
LTE Band 66(2110-2200MHz)	6	37.12	5152.29

5.2 MPE Calculation

According to the formula $S=P/4\pi R^2$, we can calculate S which is MPE.

Note:

- 1)P (mW)
- 2)R = distance to the center of radiation of antenna (in meter)
- 3)LTE Band 66 MPE limit = 1mW/cm²

Test Mode	Frequency Band (MHz)	Antenna Gain (dBi)	Max Tune-up tolerance power (dBm)	Operation Distance R(cm)	Power Density (mW/cm ²)	Limit of Power Density S(mW/cm ²)	Result
LTE Band 66	2110 - 2200	6	39	100	0.2516	1	Pass

The device is exclusion from SAR test.

--End of the Report--



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