

Report No.: KSCR220900181306

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## **Cover Page**

# RF MPE REPORT

**Application No.:** KSCR2209001813AT

FCC ID: OJFE62-N3-7F

Corning Optical Communications LLC Applicant:

**Address of Applicant:** 6 Concord Road, Shrewsbury, MA 01545 United States

Manufacturer: Corning Optical Communications LLC

Address of Manufacturer: 6 Concord Road, Shrewsbury, MA 01545 United States

Sunwave Communications Co., Ltd **Factory:** 

Address of Factory: 581 Houju Avenue, Binjinag District, Hangzhou, China

Equipment Under Test (EUT):

**EUT Name:** Remote Unit Model No.: E62-N3

FCC Rules 47 CFR §2.1091 Standard(s):

KDB447498 D01 General RF Exposure Guidance v06

**Date of Receipt:** 2022-09-23

**Date of Test:** 2022-09-23 to 2022-10-19

Date of Issue: 2022-10-19

Pass\* **Test Result:** 

**EMC Lab Manager** 

Tom fin



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<sup>\*</sup> In the configuration tested, the EUT complied with the standards specified above.



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Revision Record						
Version Description Date Remark						
00	Original	2022-10-19	1			

Authorized for issue by:	
	cloudpeng
	Cloud Peng / Project Engineer
	Enie Li
	Eric Lin / Reviewer



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### 3 General Information

### 3.1 General Description of E.U.T.

Power supply:	DC 48V
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### 3.2 Technical Specifications

	Booster: 729MHz-746MHz,746MHz-756MHz, 758MHz-768MHz
Frequency Band:	Base station: 729MHz-746MHz,746MHz-756MHz, 758MHz-768MHz
Antenna Type:	External&Internal
	2.13 dBi for 729MHz to 746MHz (Provided by manufacturer)
Antenna Gain:	2.43 dBi for 746MHz to 756MHz (Provided by manufacturer)
	2.61 dBi for 758MHz to 768MHz (Provided by manufacturer)
Modulation Type:	5G NR: CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM
	LTE: QPSK, 16QAM, 64QAM, 256QAM
MIMO:	SISO
Temperature Range:	-30℃ to 50℃

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.



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#### 3.3 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1.SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).

2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).

### 3.4 Test Facility

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

#### • CNAS

Compliance Certification Services (Kunshan) Inc. is accredited by the China National Accreditation Service for Conformity Assessment (CNAS). Registration No. CNAS L4354

#### A2LA

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

#### • FCC

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

#### • ISED

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

#### VCCI

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.



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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 range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm²)	Averaging time (minutes)
Limits for General P	opulation/Uncontrolled Ex	posure		
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f2)	30
30-300	27.5	0.073	0.2	30
300-1500	1	/	f/1500	30
1500-100,000	1	1	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 KSCR220900181402AT

#### 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 centimeter)

3)MPE limit = 1mW/cm<sup>2</sup>

#### For Booster

Test Mode	Frequency Band	Max E.R.P	Operation	Power Density	Limit of Power	Result
	(MHz)	(dBm)	Distance	(mW/cm2)	Density	
			R(cm)		S(mW/cm2)	
5G NR	729 ~ 746	19	20	0.0158	0.486	Pass
5G NR	746 ~ 756	19	20	0.0158	0.497	Pass
5G NR	758~ 768	19	20	0.0158	0.505	Pass

#### Simultaneous transmission For Booster:

Wireless Configure	Max E.R.P (dBm)	Limit of Power Density (mW/cm2)	Power Density (mW/cm2)	Rate	Limit
729 ~ 746	19	0.486	0.0158		
746 ~ 756	19	0.497	0.0158	0.0956	1
758~ 768	19	0.505	0.0158		



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#### For Base Station

Test Mode	Frequency Band (MHz)	Max E.R.P (dBm)	Operation Distance	Power Density (mW/cm2)	Limit of Power Density	Result
		,	R(cm)	, ,	S(mW/cm2)	
5G NR	729 ~ 746	19	20	0.0158	0.486	Pass
5G NR	746 ~ 756	19	20	0.0158	0.497	Pass
5G NR	758~ 768	19	20	0.0158	0.505	Pass

#### Simultaneous transmission Base Station:

Wireless Configure	Max E.R.P (dBm)	Limit of Power Density (mW/cm2)	Power Density (mW/cm2)	Rate	Limit
729 ~ 746	19	0.486	0.0158		
746 ~ 756	19	0.497	0.0158	0.0956	1
758~ 768	19	0.505	0.0158		

According to the KDB447498 section 7.2 determine the device is exclusion from SAR test.

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