

Report No.: KSCR221100221202

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Cover Page

RF MPE REPORT

Application No.: KSCR2211002212AT

FCC ID: OJFE62-M3-L

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

Factory: Sunwave Communications Co., Ltd

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

Equipment Under Test (EUT):

EUT Name: Remote Unit Model No.: E62-M3-L

FCC Rules 47 CFR §2.1091 Standard(s):

KDB447498 D01 General RF Exposure Guidance v06

Date of Receipt: 2022-11-15

Date of Test: 2022-11-16 to 2022-12-08

Date of Issue: 2022-12-08

Pass* **Test Result:**

Eric Lin **EMC Lab Manager**

Tom fin



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^{*} In the configuration tested, the EUT complied with the standards specified above.



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Revision Record						
Version	Description	Date	Remark			
00 Original		2022-12-08	/			

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 ± 20% or AC 100-240V~50/60Hz
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3.2 Technical Specifications

	617MHz to 652MHz
	729MHz to 746MHz
	746MHz to 756MHz
	758MHz to 768MHz
Francisco Dandi	862MHz to 869MHz
Frequency Band:	869MHz to 894MHz
	1930MHz to 1995MHz
	2110MHz to 2200MHz
	2350MHz to 2360MHz
	2496MHz to 2690MHz
Antenna Type:	External
	12 dBi for 617MHz to 652MHz (Provided by manufacturer)
	12 dBi for 729MHz to 746MHz (Provided by manufacturer)
	12 dBi for 746MHz to 756MHz (Provided by manufacturer)
	12 dBi for 758MHz to 768MHz (Provided by manufacturer)
Antonno Coin.	12 dBi for 862MHz to 869MHz (Provided by manufacturer)
Antenna Gain:	12 dBi for 869MHz to 894MHz (Provided by manufacturer)
	12 dBi for 1930MHz to 1995MHz (Provided by manufacturer)
	12 dBi for 2110MHz to 2200MHz (Provided by manufacturer)
	12 dBi for 2350MHz to 2360MHz (Provided by manufacturer)
	12 dBi for 2496MHz to 2690MHz (Provided by manufacturer)
Modulation Type:	5G NR: CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM
	LTE: QPSK, 16QAM, 64QAM, 256QAM
MIMO:	SISO
Temperature Range:	-40℃ to 55℃
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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 Weive 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:

• 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	Limits for General Population/Uncontrolled Exposure								
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	/	/	f/1500	30					
1500-100,000	/	/	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 KSCR221100221201AT

5.2 MPE Calculation

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

1)P (mW)

2) R = distance to the center of radiation of antenna (in centimeter)

Test Mode	Frequency Band (MHz)	Max E.I.R.P (dBm)	Turn up E.I.R.P (dBm)	Operation Distance R(cm)	Power Density (mW/cm2)	Limit of Power Density S(mW/cm2)	Ratio (Power Density/Limit)	Result
LTE	729 ~ 746	45.86	47	230	0.075	0.486	0.155	Pass
LTE	746 ~ 756	45.68	47	230	0.075	0.497	0.152	Pass
LTE	758~ 768	45.52	47	230	0.075	0.505	0.149	Pass
LTE	1930-1995	49.74	51	230	0.189	1	0.189	Pass
LTE	862-869	45.98	47	230	0.075	0.575	0.131	Pass
LTE	869-894	45.36	47	230	0.075	0.579	0.130	Pass
LTE	2350-2360	49.63	51	230	0.189	1	0.189	Pass
LTE	2496-2690	51.56	53	230	0.300	1	0.300	Pass
LTE	2110-2200	49.52	51	230	0.189	1	0.189	Pass
LTE	617-652	45.71	47	230	0.075	0.411	0.183	Pass
5G NR	729 ~ 746	45.4	47	230	0.075	0.486	0.155	Pass
5G NR	746 ~ 756	45.48	47	230	0.075	0.497	0.152	Pass
5G NR	758~ 768	45.38	47	230	0.075	0.505	0.149	Pass
5G NR	1930-1995	49.44	51	230	0.189	1	0.189	Pass
5G NR	862-869	45.98	47	230	0.075	0.575	0.131	Pass
5G NR	869-894	45.63	47	230	0.075	0.579	0.130	Pass
5G NR	2350-2360	49.48	51	230	0.189	1	0.189	Pass
5G NR	2496-2690	51.55	53	230	0.300	1	0.300	Pass
5G NR	2110-2200	49.40	51	230	0.189	1	0.189	Pass
5G NR	617-652	45.55	47	230	0.075	0.411	0.183	Pass



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Simultaneous transmission:

Test Mode	Wireless Configure	Tune Up EIRP (dBm)	Power Density S at R = 230 cm (mW/cm2)	Limit of Power Density S(mW/cm2)	Ratio (Power Density/Limit)	Limit
LTE	1930-1995	51	0.189	1		
LTE	2496-2690	53	0.300	1	0.070	4
5G NR	2350-2360	51	0.189	1	0.978	1
5G NR	2496-2690	53	0.300	1		

Note:

(1) The EUT can support four band simultaneous transmitted.

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

-- End of the Report--



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