

1 Cover Page

RF MPE REPORT

Application No.: KSCR2305000877AT
FCC ID: OJFE62-M3-L
Applicant: Corning Optical Communications LLC
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
Equipment Under Test (EUT):
EUT Name: Remote Unit
Model No.: E62-M3-L
Standard(s) : FCC Rules 47 CFR §2.1091
KDB447498 D01 General RF Exposure Guidance v06
Date of Receipt: 2023-05-19
Date of Test: 2023-05-19 to 2023-12-25
Date of Issue: 2023-05-25

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

* This case is based on the original case KSCR2211002212AT, and based on the original situation, the power amplifier tube suppliers of LTE band 25&band 66 and 5GNR N25&N66 were replaced. The technical specifications and parameters of the power amplifier tube are consistent with the original manufacturer. We evaluated the output power and RSE for validation testing based on changes.

For the remaining unchanged bands, we evaluated and tested the power and found no changes. Therefore, the remaining band data will continue to use the original report KSCR221100221201 data.

Eric Lin
Lab Manager



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Revision Record			
Version	Description	Date	Remark
00	Original	2023-05-25	/

Authorized for issue by:			
		<i>cloudpeng</i>	
		Cloud Peng / Project Engineer	
		<i>Eric Lin</i>	
		Eric Lin / Reviewer	



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Compliance Certification Services (Kunshan) Inc.
EMC Laboratory

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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

Frequency Band:	1930MHz to 1995MHz 2110MHz to 2200MHz
Antenna Type:	External
Antenna Gain:	12 dBi for 1930MHz to 1995MHz (Provided by manufacturer) 12 dBi for 2110MHz to 2200MHz (Provided by manufacturer)
Modulation Type:	5G NR: CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM LTE: QPSK, 16QAM, 64QAM, 256QAM
Antenna Delivery:	SISO
Temperature Range:	-40°C to 55°C

Note:

1.This case is based on the original case KSCR2211002212AT, and based on the original situation, the power amplifier tube suppliers of LTE band 25&band 66 and 5GNR N25&N66 were replaced. The technical specifications and parameters of the power amplifier tube are consistent with the original manufacturer. We evaluated the output power and RSE for validation testing based on changes.

For the remaining unchanged bands, we evaluated and tested the power and found no changes. Therefore, the remaining band data will continue to use the original report KSCR221100221201 data.

2.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:

- **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/cm ²)	Averaging time (minutes)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	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



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5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report KSCR230500087701 and KSCR230500087702

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	45.40	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/cm ²)	Limit of Power Density S(mW/cm ²)	Ratio (Power Density/Limit)	Limit
LTE	1930-1995	51	0.189	1	0.978	1
LTE	2496-2690	53	0.300	1		
5G NR	2350-2360	51	0.189	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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