

Report No.: KSEM210700108202

Page: 1 of 7

TEST REPORT

Application No.: KSEM2107001082CR

FCC ID: OJFE62-N2-7F

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

Factory: Sunwave Communications Co., Ltd

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

Equipment Under Test (EUT):

EUT Name: Remote Unit N2RU-I-8-DC

Model No.: E62-N2
Trade mark: CORNING

Standard(s): FCC Rules 47 CFR §2.1091

KDB447498 D01 General RF Exposure Guidance v06

Date of Receipt: 2021-03-08

Date of Test: 2021-03-10 to 2021-10-18

Date of Issue: 2021-10-18

Test Result: Pass*

Eric Lin Laboratory Manager

ma fri

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sds.com

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300 中国・江苏・昆山市留学生创业园伟业路10号 邮编 215300 t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

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



Report No.: KSEM210700108202

Page: 2 of 7

Revision Record						
Version	Description	Date	Remark			
00	Original	2021-10-18	/			

Authorized for issue by:		
	Damon zhou	
	Damon Zhou / Project Engineer	
	Eria Li	
	Eric Lin / Reviewer	



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300 (186-512)57355888 (f86-512)57370818 www.sgsgroup.com.cn 中国・江苏・昆山市留学生创业园伟业路10号 邮编 215300 (186-512)57355888 (f86-512)57370818 sgs.china@sgs.com



Report No.: KSEM210700108202

Page: 3 of 7

2 Contents

			Page
1	CO	/ER PAGE	1
2	CON	NTENTS	3
3	GEN	NERAL 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	TES	T STANDARDS AND LIMITS	6
	4.1	FCC RADIOFREQUENCY RADIATION EXPOSURE LIMITS:	6
5	MEA	ASUREMENT AND CALCULATION	
	5.1	MAXIMUM TRANSMIT POWER	7
	5.2	MPE CALCULATION	



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300 中国・江苏・昆山市留学生创业园伟业路10号 邮编 215300

t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com



Report No.: KSEM210700108202

Page: 4 of 7

3 General Information

3.1 Details of E.U.T.

Product Name: Remote Unit N2RU-I-8-DC

Model No.: E62-N2
Trade Mark: CORNING

DC 48V by Adapter

Adapter: GST160A48

Power Supply: Input: 100-240V AC 50/60Hz 100W

Output: DC 48V/3.34A 160W MAX

Test Voltage AC 120V/60Hz

Max Power Consumption: 100W

Serial Number: SWR7820938C

Firmware version: iDAS_DRRU_E62-N2_V1.6_4300_20210308

Type of Modulation LTE

Frequency Band: Band 14: Downlink 758MHz to 768MHz

Normal Output Power: $17 \pm 2dBm$ (downlink)

System Gain: $17 \pm 3dB$ Power Control Method: ALC

Antenna Type: External / Internal Antenna

Antenna Gain: Max Antenna Gain 3dBi(Provided by manufacturer)

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.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sas.com

Member of the SGS Group (SGS SA)



Report No.: KSEM210700108202

Page: 5 of 7

3.2 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.

3.3 Test Facility

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

• CNAS (No. CNAS L4354)

CNAS has accredited Compliance Certification Services (Kunshan) Inc. to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

A2LA (Certificate No. 2541.01)

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

• FCC (Designation Number: CN1172)

Compliance Certification Services Inc. has been recognized as an accredited testing laboratory.

Designation Number: CN1172.

• ISED (CAB Identifier: CN0072)

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

CAB Identifier: CN0072.

VCCI (Member No.: 1938)

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, C-11707, T-11499, G-10216 respectively.

3.4 Deviation from Standards

None

3.5 Abnormalities from Standard Conditions

None



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

Member of the SGS Group (SGS SA)



Report No.: KSEM210700108202

Page: 6 of 7

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/cm²)	Averaging time(minutes)
300MHz~1.5GHz	f/1500	30
1.5GHz~100GHz	1.0	30



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-75) 8307 1443, or email: CN.Doccheck@sgs.com

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300 中国・江苏・昆山市留学生创业园伟业路10号 邮编 215300 t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com



Report No.: KSEM210700108202

Page: 7 of 7

5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report KSEM210700108201.

Band	Antenna Gain	Max E.I.R.P	Max E.I.R.P
Information	(dBi)	(dBm)	(mW)
LTE Band 14	3	26.66	

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 14 MPE limit = 758MHz/1500=0.505mW/cm²

Test Mode	Frequency Band (MHz)	Antenna Gain (dBi)	Max Tune-up tolerance power (dBm)	Operation Distance R(cm)	Power Density (mW/cm²)	Limit of Power Density S(mW/cm²)	Result
LTE Band 14	758 - 768	3	25	50	0.0201	0.505	Pass

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

-- End of the Report--



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300 中国・江苏・昆山市留学生创业园伟业路10号 邮编 215300 t(86-512)57355888 f(86-512)57370818 www.sgsgroup.com.cn t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com

Member of the SGS Group (SGS SA)