

# HUW-SFP-10G-XGSPON-N1-SC-SO

Huawei compatible, SFP+ 2.5GB/10GB Symmetrical,  
29.5/28dB Power Budget, Bidi, XGS-PON,  
ODN Class N1, Single Mode Fiber,  
SC Simplex connectors, Solid-Optics



## 1. PRODUCT SPECIFICATIONS & FEATURES

- ✓ Form factor: **SFP10G Package**
- ✓ Operating Data Rate: **9.953/2.488Gbps**
- ✓ **Symmetrical Transmission Rate**
- ✓ Protocol: **XGS-PON**
- ✓ Fiber Type: **Single Mode**
- ✓ Technique: **Bi-Directional**
- ✓ Compliant: **ITU-T G. 9807.1 and RoHS-6**
- ✓ ODN Class: **N1**
- ✓ Connector: **SC Simplex**
- ✓ Default temp: **Commercial operating case temperature from 0°C to +70°C**
- ✓ Average Power Consumption: **2W**
- ✓ Laser Type: **EML (1577nm)**
- ✓ Receiver Type: **APD/TIA (1270nm)**
- ✓ Applications: **10G Access Networks, FTTH, FTTC, FTTB, XGS-PON Access Networks**
- ✓ Electrical Interface: **2x11 SFP+**
- ✓ Power Budget: **30dB**

## 2. ABSOLUTE CHARACTERISTICS

PARAMETERS	SYMBOLS	MIN.	TYP.	MAX.	UNIT
SIGNAL INPUT VOLTAGE	V <sub>in</sub>	0	-	V <sub>cc</sub> +0.3	V
POWER SUPPLY VOLTAGE	V <sub>cc</sub>	0	3.3	3.6	V
OPERATING TEMPERATURE	T <sub>case</sub>	0	-	70	°C
STORAGE TEMPERATURE	T <sub>s</sub>	-40	-	85	°C

## 3. ELECTRICAL CONDITIONS

PARAMETERS	SYMBOLS	MIN.	TYP.	MAX.	UNIT
SUPPLY CURRENT	I <sub>cc</sub>	-	-	0.79	A
SUPPLY VOLTAGE	V <sub>cc</sub>	3.135	3.3	3.465	V

## 4. OPTICAL CHARACTERISTICS

### RECEIVER

PARAMETERS	SYMBOLS	MIN.	TYP.	MAX.	UNIT
OPTICAL WAVELENGTH	λ <sub>C</sub>	1260	1270	1280	nm
LOS ASSERT @2.488Gbps	LOSA	-	-	-29	dB
LOS ASSERT @9.953Gbps	LOSA	-	-	-30.5	dBm
LOS DE-ASSERT	LOSD	-45	-	-	dBm

RECEIVER MAX. SENSITIVITY @ Condition (BER=1*10 <sup>-4</sup> , 2.488Gbps, PRBS 231-1, NRZ)	Rsens	-	-	-27.5	dBm
RECEIVER MAX. SENSITIVITY (BER=10 <sup>-3</sup> , 9.953Gbps, PRBS 231-1, NRZ)	Rsens	-	-	-26	dBm
SATURATION POWER (2.488Gbps , Full temperature, EOL)	Rsens	-7	-	-	dBm
SATURATION POWER (9.953Gbps, Full temperature, EOL)	Rsens	-5	-	-	dBm
OPTICAL RETURN LOSS	Orl	10	-	-	dB
RECEIVER REFLECTENCE	Refl	-	-	-20	dBm

## TRANSCEIVER

PARAMETERS	SYMBOLS	MIN.	TYP.	MAX.	UNIT
OPTICAL WAVELENGTH	$\lambda_C$	1575	1577	1580	nm
OPTICAL EXTINCTION RATIO	ER	8.2	-	-	dB
OPTICAL POWER TX_DISABLE	Opd	-	-	-39	dBm
SIDE MODE SUPPRESSION RATIO	SMSR	30	-	-	dB
SPECTRAL WIDTH	$\Delta\lambda$	-	-	1.0	nm
OPTICAL TRANSMIT POWER	Pout	2	-	5	dBm

## 5. WARNINGS & SYMBOLS



This is a CLASS 1 LASER product; be cautious. There is visible laser radiation present. Avoid long term viewing of the laser.



Solid Optics EU N.V. tested the optical transceivers in accordance with applicable European standards and it is safe. The CE-symbol indicates that this product also complies with the requirements of Directive 2014/30/EU. It does not generate, or is not affected by, electromagnetic disturbance



Hazardous Goods; Our optical transceivers comply with Directive 2011/65/EU (RoHS II) and 2002/95 EC (RoHS I)

Laser Class 1

Our products comply with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007



Only (dis)connect the optical transceivers in a EPA (ESD Protected Area) while using only certified equipment and taking all necessary precautions.

## 6. DISCLAIMER & COPYRIGHT

This document is written with the utmost care. Specifications, figures, data and illustrations provided in this document are based on information that is believed to be reliable and accurate. We don't accept any liability for damages derived from incomplete, inaccurate, outdated and/or otherwise incorrect specifications, figures, data or illustrations. We do not intend to suggest that we are the creators or trademark owners of any other manufacturers' products. Information is subject to change without notice. Solid Optics and the Solid Optics logo are registered trademarks of Solid Optics EU Holding N.V. All other trademarks are acknowledged as registered trademarks and proprietary to their respective owners. Copyright © 2019 Solid Optics EU N.V., Dutch Chamber of Commerce no. 39099087, all rights reserved. For more information visit [www.solid-optics.com](http://www.solid-optics.com)