

### TRANSPORT CUBE

### SOA PREAMPLIFIER Unit

C-2508\_Rev.C

#### Product Description

- Semiconductor Amplifier (SOA) unit for 19" rack type installation (1HU).
- For 40G/100G BASE applications at 1310 nm.
- To be placed before the receiver of the 40G / 100G transceiver.
- Extends the reach of 40G BASE / 100G BASE-LR optical transceivers.
- Two hot pluggable redundant power supplies.
- Remote accessible via Fast Ethernet (RJ-45 port).
- Manageable via web interface (local craft terminal).
- SOA current can be varied to adjust the optical gain.
- Alarms sent via Fast Ethernet interface.
- Class 1M laser as long as optical input power < 11 dBm (12.5 mW)

- Product Description: SOA PREAMPLIFIER Unit
- Product Code: C-2508
- Electrical Power: -Z (choose from table)
- Optical Gain: -XX (choose from table)
- Connector Code: -YY (choose from table)
- Revision Level: -Rev.C

Example Order Code: **C-2508-D-15-33 -Rev.C** for a SOA with SC/APC connectors, 15 dB small signal gain and DC power supplies.

#### (Z) Electrical Power Code

100 to 240 VAC	A
-48 VDC	D

#### (XX) Optical Gain Code

15 dB	15
for 100GBASE-LR4 up to 55km	17
18.5 dB	18

#### (YY) Connector Type Code

SC/APC	3
FC/APC	4
LC/APC	B



#### Revision History

No	Description	Date	Created by
A	Initial release	29.11.11	Carsten Marheine
B	Changing of unit height to 1HU	20.12.11	Carsten Marheine
C	Option for optical gain	28.03.13	Carsten Marheine
C.1	Changing Depth from Cassis 230 mm to 290mm	02.12.16	RJ

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### SOA PREAMPLIFIER Unit

**C-2508\_Rev.C**

#### General Specifications

Operating Temperature	+0°C to +50°C
Storage Temperature	-40°C to +85°C
Fiber Type	SMF-28 compatible $\varnothing$ 9 / 125 / 250µm
Optical Adapters	To be selected by customer via order code
Electrical Power	Depending on order code (100 to 240 VAC or -48 VDC)
Power Consumption	< 40 W (typical < 30 W)
Laser Class	Class 1M laser if optical input power less than 11 dBm (12.5 mW)

#### Optical Performance

Operating Wavelength	1290 nm to 1330 nm
Signal Gain (Peak) <sup>1</sup>	Depending on order code
Saturated Output Power	> 8 dBm (@ 3 dB gain compression)
Noise Figure	< 7.5 dB
Gain Ripple	0.2 dB
Polarization Dependent Gain	< 1.5 dB

#### Package Dimensions

##### Layout and dimensions

- Width: 483 mm (19")
- Height: 43.5 mm (1,74") / 1HU
- Depth: 290 mm (11,42")

HUBER+SUHNER Cube Optics AG  
is certified according to ISO 9001.

##### WAIVER

It is exclusively in written agreements that we provide our customers with warrants and representations as to the technical specifications and/or the fitness for any particular purpose. The facts and figures contained herein are carefully compiled to the best of our knowledge, but they are intended for general informational purposes only.

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<sup>1</sup> For small optical input power