

SIMPLEX FIBER

- Optical Networking Solutions



2023



INTRODUCTION

At Solid Optics, we focus on delivering optimal network performance while ensuring efficient resource management. To that end, we're excited to unveil the newest additions to our comprehensive simplex solutions. Designed for deployments where bidirectional communication is required on a single fiber strand, these solutions are invaluable in scenarios of limited duplex fiber, budgetary constraints, or when redundancy calls for diverse geographic routes.

In this guide, we'll explore our wide-ranging portfolio of simplex transceivers and introduce you to our all-in-one Simplex EDFAMUX solution for DWDM multiplexing over a single fiber. By utilizing our simplex solutions, you're not just enhancing your network's efficiency, but potentially doubling its traffic capacity. Let's navigate this path together and unlock the potential of your network, optimizing its performance and cost-effectiveness.

SIMPLEX TRANSCEIVERS

SFP 1G • SFP 10G • SFP 25G • QSFP 100G



SFP 1G

	Wavelength/Channel(s)	Powerbudget	Connector	Default temp.	Maximum temp.
SFP-1G-BX-MMF-SO	1490/1310 nm 1550/1310 nm	13 dB	LC Simplex	0°C to +70°C	-40°C to + 85°C
SFP-1G-BXD/U20-SO	1490/1310 nm 1550/1310 nm 1550/1490 nm	11 dB	LC/SC Simplex	0°C to +70°C	-40°C to + 85°C
SFP-1G-BXD/U40-SO	1490/1310 nm 1550/1490 nm	19 dB	LC/SC Simplex	0°C to +70°C	-40°C to + 85°C
SFP-1G-BXD/U80-SO	1550/1490 nm	26 dB	LC Simplex	0°C to +70°C	-40°C to + 85°C
SFP-1G-BXD/U120-SO	1550/1490 nm	32 dB	LC/SC Simplex	0°C to +70°C	-40°C to + 85°C
SFP-1G-BXD/U160-SO	1550/1490 nm	34 dB	LC/SC Simplex	0°C to +70°C	-40°C to + 85°C
SFP-1G-CWDM-BXD/U40-I-SO	1270/1610 nm	17 dB	LC Simplex	-40°C to + 85°C	-40°C to + 85°C
SFP-1G-CWDM-BXD/U40-OTDR-I-SO	1270/1610 nm	17 dB	LC Simplex	-40°C to + 85°C	-40°C to + 85°C

SFP 10G

	Wavelength/Channel(s)	Powerbudget	Connector	Default temp.	Maximum temp.
SFP-10G-BXD/U20-SO	1330/1270 nm	9 dB	LC/SC Simplex	0°C to +70°C	-40°C to + 85°C
SFP-10G-BXD/U40-SO	1330/1270 nm	15 dB	LC/SC Simplex	0°C to +70°C	-40°C to + 85°C
SFP-10G-BXD/U60-SO	1330/1270 nm	20 dB	LC/SC Simplex	0°C to +70°C	-40°C to + 85°C
SFP-10G-BXD/U80-SO	1550/1490 nm	23dB	LC/SC Simplex	0°C to +70°C	-40°C to + 85°C
SFP-10G-CWDM-BXD/U40-I-SO	10 OWDM Channels	15 dB	LC Simplex	-40°C to + 85°C	-40°C to + 85°C



SFP 25G

	Wavelength/Channel(s)	Powerbudget	Connector	Default temp.	Maximum temp.
SFP-25G-BXD/U10-SO	1330/1270 nm	8.3 dB	LC/SC Simplex	0°C to +70°C	-40°C to + 85°C
SFP-25G-BXD/U40-SO	1330/1270 nm	17.5 dB	LC/SC Simplex	0°C to +70°C	-40°C to + 85°C

QSFP 100G

	Wavelength/Channel(s)	Powerbudget	Connector	Default temp.	Maximum temp.
QSFP-100G-BX10-SO	1330/1270 nm	6.3 dB	LC Duplex	0°C to +70°C	0°C to +70°C
QSFP-100G-BX20-SO	1330/1270 nm	9.8 dB	LC Duplex	0°C to +70°C	0°C to +70°C
QSFP-100G-BX40-SO	1309.14/1304.58nm	17.7 dB	LC Duplex	0°C to +70°C	0°C to +70°C

SIMPLEX
EDFAMUX
ALL-IN-ONE SOLUTION



Our Simplex EDFAMUX offers an effortless, plug-and-play method to enhance your network. Gone are the days of needing multiple pieces of equipment and extensive configuration processes. Designed with ease of use in mind, the Simplex EDFAMUX enables swift and stress-free network upgrades.

Incorporating a MUX, amplifier, dispersion compensator, and a Red/Blue Filter, this model maximizes fiber utilization. The Red/Blue Filter enables you to augment bandwidth by multiplexing different sets of channels over a single fiber. By eliminating the need for a fiber pair, we deliver a streamlined, cost-effective solution that is ideal for projects where fiber resources are limited.

Standard features of the Simplex EDFAMUX models include:

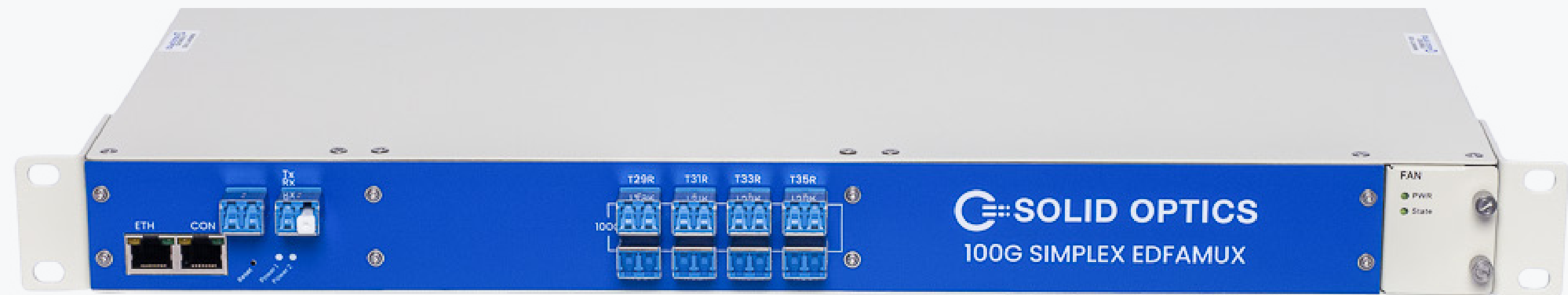
- Pre-configuration by our engineers to your fiber distance and loss (can also be configured on-site)
- EDFAs operate in Auto Gain Control mode, adding the same dB when extra channels are plugged in. Settings can be adjusted by the user as needed.
- Network agnostic (operates at physical level)
- Low power consumption, all-in-one compact IRU device with default LC/UPC with auto dust shutters
- Redundant AC 100-240V power supplies (DC optional)
- 1% Monitor port & Console port
- Web & console configuration
- Syslog Monitoring
- HTTP API access
- SNMP Monitoring

10G Model

- Available in 80km or 140km models. Please note: A maximum distance of 140Km is attainable with 80% port population. With full port population, a maximum distance of 125Km is guaranteed.
- Supports a mix of 1/10G optics and/or Fibre Channel.
- The 10-Channel 10G version comes with default CH28-37 & CH42-51, one for each end of the fiber.

100G Model

- 8 x 100G channels for distances from 20km to 80Km.
- The 8-Channel 100G version comes with default CH28-35 & CH42-49, one for each end of the fiber.





Multiple 10G or 100G Links:

10 x 10G	80km	CH28-37	—	10 x 10G	80km	CH42-51
10 x 10G	140km	CH28-37	—	10 x 10G	140km	CH42-51
8 x 100G	80km	CH29-36	—	8 x 100G	80km	CH42-49

Recommended 100G Transceiver:

QSFP-100G-DWDM-EZR1-SO

100G-DWDM, QSFP28, CH21-CH60 (100-GHz ITU grid), PAM4, require EDFA and DCM to work (up to 100km), LC duplex connectors, DOM



The hub of your optical network integration.

