

# RED-C EDFA Product Line

RED-C Optical Networks' comprehensive line of EDFAs is designated for all network segments (long-haul, regional, metro and access) and all network applications (telecom, cable, enterprise). RED-C's EDFA product line offers a unique combination of state-of-the-art optical performance, highly optimized and cost-effective design, and utmost reliability.

## Features

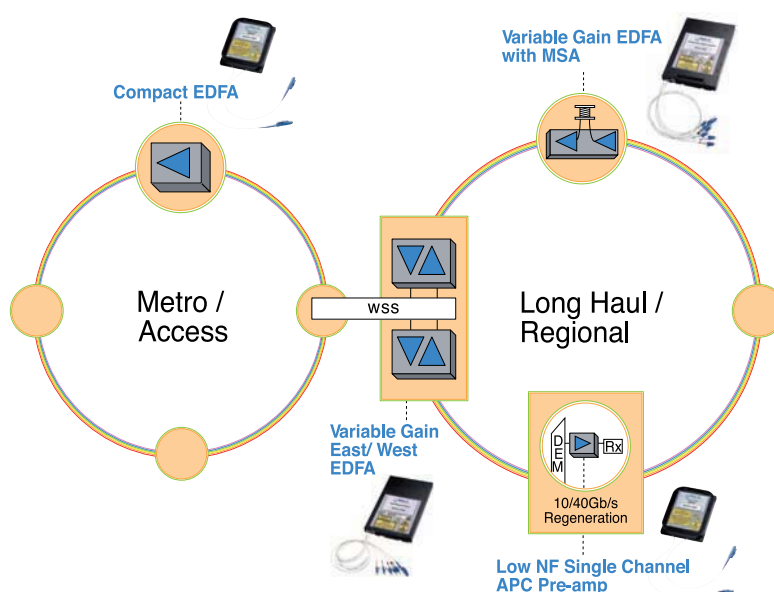
- Flattened gain (WDM EDFAs)
- Excellent noise performance
- Large dynamic range (variable gain EDFAs)
- State-of-the-art gain and power transient suppression
- Advanced control and monitoring
- High output power (up to 26 dBm)
- Class 1M\* laser safety (for output >21 dBm APR mechanisms are used)
- GR1312 qualification
- RS232 and I<sup>2</sup>C communication, full set of control options and alarms

RED-C EDFA products are available as modules, line cards, or network interfaced 1RU rack-mountable units, and can be tailored to meet all customer requirements.

EDFA Product Portfolio Variable Gain EDFA with mid-stage access or in East/West configuration.

## Applications

- Long-haul / regional / metro / access
- Telecom / cable TV / enterprise
- Booster amplifiers / in-line amplifiers / pre-amplifiers
- Dynamic, reconfigurable networks
- High capacity 100 Gb/s, 40 Gb/s, and 80-channel WDM networks
- Defense, utility, RF and radio-over-fiber, sensor applications, and laboratory equipment



Product	Key Features	Applications
<b>Hybrid Raman-EDFA</b>	Extremely low effective noise figure Tightly integrated unified Raman/EDFA AGC Excellent gain flatness Variable gain operation with large dynamic gain range Supports one or two Raman pumps	LH and ULH networks 100 Gb/s and 40 Gb/s systems Coherent and non-coherent systems Mesh networks OSNR budget improvement
<b>Variable Gain EDFA with Mid-Stage Access or as East/West</b>	Three or four stage designs for reduced noise figure Up to 23 dBm output power Up to 15 dB gain variation, 12 dB mid-stage loss Excellent transient suppression	Improved link budget Dynamic networks Flexible inventory control East/West separation for ROADM applications
<b>Compact Variable Gain EDFA</b>	Full featured VG EDFA Compact 70x90 mm form factor, low power consumption Up to 21 dBm output power, 15 dB gain variation Can be configured as fixed gain EDFA integrated with a VOA	Cost-effective, space saving Can be mounted on existing line cards designed for 70x90 mm FG EDFAs Can be used as a standard 70x90 mm modular building block for more complex amplifier designs
<b>Single Channel Micro EDFA</b>	Micro 50x75 mm form factor Low power consumption Fast power transient suppression for stable output power Excellent noise performance Option for mid-stage access for CD or PMD compensation	Pre-amp for 100 Gb/s and 40 Gb/s line cards Pre-amp for 10 Gb/s LH and ULH line cards
<b>Fixed Gain EDFA</b>	Compact 70x90 mm form factor Cooled or uncooled pumps - low power consumption Up to 22 dBm output power (up to 26 dBm in larger package) Flat gain and low noise figure Pre-amplifier/booster in same part number (SW configuration)	Booster, pre-amplifier, inline EDFA Reduce cost and space requirements Metro and regional WDM networks
<b>OSC EDFA</b>	Compact 70x90 mm form factor Low power consumption Up to 16 dB gain in the 1500-1520 nm band Up to 12 dBm output power	Optical supervisory channel booster Long span masking Long repeaterless links
<b>Stand Alone 1RU EDFA</b>	Supports any RED-C EDFA module 1RU rack-mountable network ready unit 48 VDC or 110/220 VAC dual redundant power supply SNMP/RS232 communications GUI for easy operation, LED alarms (LCD optional)	Defense, security, aerospace Sensor applications Surveillance applications RF and radio-over-fiber Laboratory equipment (EDFAs and ASE sources)

\* Class 1M products are not hazardous under normal circumstances, but may pose an eye hazard when the laser output is viewed with certain optical instruments (for example eye loupes, magnifiers and microscopes) within a distance of 100 mm

### About RED-C

RED-C Optical Networks Ltd. is a leading provider of state-of-the-art EDFAs, Raman amplifiers and optical monitoring devices for all network segments (long-haul, regional, metro and access) and for all network applications (telecom, cable and enterprise). Beside a broad variety of EDFA and Raman modules, RED-C offers innovative and comprehensive solutions for some of the industry's most difficult technological challenges today, such as 100 Gb/s and 40 Gb/s coherent transmission, ultra-long repeaterless links, and low latency networks.



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