

Optical Fiber Amplifiers

Extended temperature low noise cards

The Optelion suite of low-noise Optical Fiber Amplifier (OFA) cards delivers efficient, cost-effective optical reach extension in metro, regional and long-haul applications. Supporting up to 80 ITU-T DWDM wavelengths, they provide a flexible solution for a range of DWDM applications, including fixed and reconfigurable OADM (ROADM) architectures.

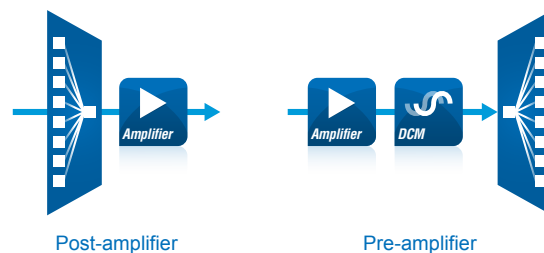
Features

- Support up to 80 DWDM wavelengths in the ITU C-band
- Fixed and variable gain models
- Mid-stage access for dispersion compensation
- Fast transient suppression
- Extended temperature range operation

Applications

- DWDM reach extension
- Metro, regional and longhaul networks
- ROADM and fixed OADM
- Mobile backhaul
- Outside plant

Optelion OFAs are gain-flattened, low-noise, C-band erbium-doped fiber amplifier (EDFA) cards with fast transient suppression. Single-stage amplifiers have a fixed flat gain of 15, 20, or 25 dB, and a maximum output power of 17 or 20 dBm. They can be used in pre-, line-, or post-amplifier applications.



Dual-stage amplifiers support up to 10 dB of mid-stage access loss for dispersion compensation, with a user-provisionable flat gain range between 20 and 30 dB, and a maximum output power of either 17 or 20 dBm.



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Specifications

| Parameter | OFA-1715 | OFA-1720 | OFA-1725 | OFA-1730 | OFA-2015 | OFA-2020 | OFA-2025 | OFA-2030 |
|---|--------------------------------|--------------|--------------|--|--------------|--------------|--------------|--|
| Type | Single-stage | Single-stage | Single-stage | Dual-stage integrated VOA mid-stage access | Single-stage | Single-stage | Single-stage | Dual-stage integrated VOA mid-stage access |
| Input power range (dBm) | -28 to 2 | -33 to -3 | -38 to -8 | -33 to -3 | -25 to 5 | -30 to 0 | -35 to -5 | -30 to 0 |
| Maximum output power (dBm) | 17 | 17 | 17 | 17 | 20 | 20 | 20 | 20 |
| Typical gain (dB) | 15 | 20 | 25 | 20 to 30 | 15 | 20 | 25 | 20 to 30 |
| Operating wavelength | 1529 to 1562 nm | | | | | | | |
| Standard temperature range parameters | | | | | | | | |
| Operating temperature | -5°C to 55°C (23°F to 131°F) | | | | | | | |
| Gain flatness peak - peak (maximum) (dB) | 1.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 | 1.0 | 1.5 |
| Noise figure (dB) | 5.5 | | | | | | | |
| Extended temperature range parameters | | | | | | | | |
| Operating temperature | -40°C to 65°C (-40°F to 149°F) | | | | | | | |
| Gain flatness peak - peak (maximum) (dB) | 2.5 | 2.5 | 2.5 | 3.0 | 2.5 | 2.5 | 2.5 | 3.0 |
| Noise figure (dB) | 7.5 | | | | | | | |

Ordering information

| Model number | Part number | Description |
|--------------|-------------|---|
| OFA-1715 | 1015-6601 | OFA-1715 Amp, 17 dBm output power, 15 dB gain |
| OFA-1720 | 1015-6602 | OFA-1720 Amp, 17 dBm output power, 20 dB gain |
| OFA-1725 | 1015-6607 | OFA-1725 Amp, 17 dBm output power, 25 dB gain |
| OFA-1730 | 1015-6603 | OFA-1730 Amp, 17 dBm output power, 30 dB gain, with VOA |
| OFA-2015 | 1015-6604 | OFA-2015 Amp, 20 dBm output power, 15 dB gain |
| OFA-2020 | 1015-6605 | OFA-2020 Amp, 20 dBm output power, 20 dB gain |
| OFA-2025 | 1015-6608 | OFA-2025 Amp, 20 dBm output power, 25 dB gain |
| OFA-2030 | 1015-6606 | OFA-2030 Amp, 20 dBm output power, 30 dB gain, with VOA |

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