

OA (Optical Amplifier Card)

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Details

OA (Optical Amplifier) Board – DWDM System

The OA (Optical Amplifier) board from D-Tech Trading is designed to compensate optical signal loss in DWDM transmission systems. It supports amplification of up to 48 channels (100GHz spacing) or 96 channels (50GHz spacing) within the C-band. With features like flat gain, adjustable gain, and low noise, this board is essential for long-distance optical transmission and all-optical network deployment.

Applications

| Use Cases |
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| Used in Optical Terminal Stations (OTM) as Booster Amplifier (BA) and Pre-Amplifier (PA) |
| Used in Optical Line Amplifier (OLA) stations for bi-directional signal amplification |
| Extends transmission distance in DWDM optical networks |

General Specifications

| Component | Description |
|-------------|--|
| Slot Number | 1 Slot |
| EDFA | Optional built-in 1x EDFA (BA / PA / LA) Optional built-in 2x EDFA (BA / PA / LA) |

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|-----------------------|--|
| OSC | Optional without OSC Optional 1x OSC or 2x OSC Wavelength: 1510 nm Rate: 1.25 Gb/s |
| VOA | Optional built-in VOA (same number as EDFA) Location: EDFA input front Adjustment Range: 0 ~ 15 dB Insertion Loss: < 1 dB |
| Monitoring Port (MON) | Standard, same number as EDFA Power Difference: 21 ~ 23 dB |
| OTDR Port | Optional, same number as line interface Wavelength: 1625 nm Channel Loss: < 1 dB |

EDFA Parameters

| Parameter | 20G17 | 20G25 | 20G30 |
|------------------------|-------------|-------------|-------------|
| Wavelength (nm) | 1528 ~ 1568 | 1528 ~ 1568 | 1528 ~ 1568 |
| Gain (dB) | 14 ~ 20 | 22 ~ 28 | 27 ~ 33 |
| Output Power (dBm) | ? 20 | ? 20 | ? 20 |
| Noise (dB) | < 5.5 | < 5.5 | < 5.5 |
| Gain Flatness (dB) | < 1.5 | < 1.5 | < 1.5 |
| Input Power (dBm) | -23 ~ 8 | -31 ~ 0 | -36 ~ -5 |
| Output Detection (dBm) | -6 ~ 20 | -6 ~ 20 | -6 ~ 20 |
| Reflection (dB) | < -30 | < -30 | < -30 |
| Gain Stability (dB) | ±0.5 | ±0.5 | ±0.5 |

