OLA (Optical Line Station Amplifier Board)

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Details

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Product Overview

The OLA (Optical Line Amplifier) launched by D Tech Trading is used at intermediate optical amplifier stations to periodically compensate for fiber loss and extend transmission distance. It can simultaneously amplify up to 48 channels in the C-band (100GHz spacing) or 96 channels (50GHz spacing), offering flat gain, adjustable gain, and low noise performance.

The board includes a built-in OSC optical monitoring channel and supports DCN communication based on OSC, making it an essential part of DWDM systems, future high-speed transmission systems, and all-optical long-distance networks.

Application

No.	Application Case
1	Suitable for Optical Line Stations (OLA) to amplify bidirectional transmission signals and extend transmission distance

Product Specifications

Parameter	Description
Function	Supports bidirectional relay amplification of combined mux signals from optical relay stations, with built-in OSC channels in both east and west directions
Slot Number	2 Slots

Integration Level	Built-in 2 × LA, bidirectional OSC, VOA, passive filter, etc.
Safety	Supports Automatic Power Reduction (APR) technology
Monitoring Port	Reserved OCM and OTDR monitoring ports for line-side transmit and receive directions; can be connected to external OCM and OTDR boards
Line Side VOA Location	LA front input
VOA Intrinsic Insertion Loss	1dB
VOA Adjustment Range	0 ~ 15dB
OSC Operating Wavelength	1510nm
OSC Operating Rate	1.25Gb/s
OTDR Channel Wavelength	1625nm
OTDR Channel Loss	1dB

Optical Amplification Parameters

Parameter	LA: 21G20V	LA: 21G30V
Wavelength Range	1528 nm ~ 1568 nm	1528 nm ~ 1568 nm
Operating Modes	AGC or APC configurable	AGC or APC configurable
Gain Range	15 ~ 25dB configurable	22 ~ 35dB configurable
Maximum Total Optical Power Output	? 21 dBm	? 21 dBm
Gain Flatness	1.5dB	1.5dB
Gain Slope	-3 ~ 0dB	-3 ~ 0dB

Polarization-related Losses	0.5dB	0.5dB
Input Optical Power Measurement Range	-28 ~ 6dB	-35 ~ 0dB
Output Optical Power Measurement Range	-2 ~ 22dB	-2 ~ 22dB
Reflection Coefficient	-30dB	-30dB
Gain Stability	±0.5dB	±0.5dB

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