

Intelligent Optical Platform™ Amplifier

Intelligent Optical Platform™ Series – Flexible DWDM Amplification

Bookham 'Intelligent Optical Platform™' series provides a flexible, network ready hardware and software solution for a wide variety of optical applications. A 1RU shelf for use in 19" and 23" racks supports functions such as DWDM Amplification, Mux/Demux and OADM. Communications via SNMP and TL-1 enables fast, remote configuration via network management systems.

The Intelligent Optical Platform™ Amplifier product offers a cost effective, rapid and flexible path to numerous amplification deployments. The platform has the benefit of utilizing Bookham's class leading, established EDFA technology to provide fast gain and transient control over a wide dynamic range. Using standard network communications protocols, a full range of EDFA settings can be configured and monitored. Non-traffic affecting software upgrade is also possible using the control interface.

This new product series provides a highly integrated, fundamentally lower cost solution than other product solutions. The Amplifier forms an integral part of the pay as you grow product set, enabling lowest initial deployment costs. System integrators can also benefit from reduced overhead costs, as more functionality is provided by Bookham's Intelligent Platform products.

Features:

- Cost sensitive, flexible, integrated solution
- Common platform providing functions, such as amplification, Mux/Demux, OADM, DCM & Wavelength Selective Switch
- 1RU shelf supporting ANSI & ETSI requirements
- Communications via SNMP & TL-1
- Supports remote software upgrade
- Wide dynamic range
- Fast gain & transient control

Applications:

- Amplification:
 - Pre-amp, Line Amp, Post Amp
 - Single or multiple amplifier stages
 - Variable Gain
 - Optical Service Channel management
- Optical Mux / Demux
- OADM



Bi-Directional,
Variable Gain Amplifier

General Features of the Intelligent Optical Platform™ Amplifier

- A wide variety of amplifier configurations for C & L Band applications
- Optical Service Channel add/drop
- Automatic Gain Control (AGC) and fast transient suppression
- ASE compensated gain control
- Total Output Power control
- Class 1M compliance, with integrated safety features, such as Automatic Power Reduction
- Visual fault indicators for issue reporting and diagnostics
- Optical Performance Monitoring
- Flexible power feeds
- Faceplate mounted RS-232 & 10BaseT interfaces
- Supports SNMP & TL-1
- Flight Recorder for fault diagnostics
- Field serviceable, unfiltered removable fan assembly
- Fan-less variants available, depending on power dissipation
- UL & NEBS compliance

General Information Gain and Transient Control

The Intelligent Optical Platform™ Amplifier incorporates a powerful, processor-controlled gain and transient control system for optimum performance. Input and output powers are continually monitored to dynamically maintain the desired operating gain under changing input conditions. This scheme permits wavelengths to be added or dropped whilst maintaining performance of the remaining channels. Fast transient events of 15dB can be managed with under/overshoot excursions typically less than 1.5dB.

Optical

The amplifiers have been optimized for full-band DWDM operation by careful selection of both passive and active components. All amplifiers are pumped with Bookham's high reliability 980 nm pump modules. Fixed gain and variable gain amplifiers, with or without mid-stage access are available. The platform supports amplifiers for both C-band and L-band systems.

Electrical & Control

Key Parameter	Typical Offering
Supply voltage	-48/-60V Dual power feed
Power dissipation	40W Typ. - 70W max. (for Bi-Directional Amp config.)
Interface Ethernet Comms Craft Interface	10BaseT / RJ45 RS232-DB9; 9600 Baud Rate
Equipment Status Monitors	Normal Operation, LOS, Fault, Fan failure
Flight Recorder	Daily & Weekly recording

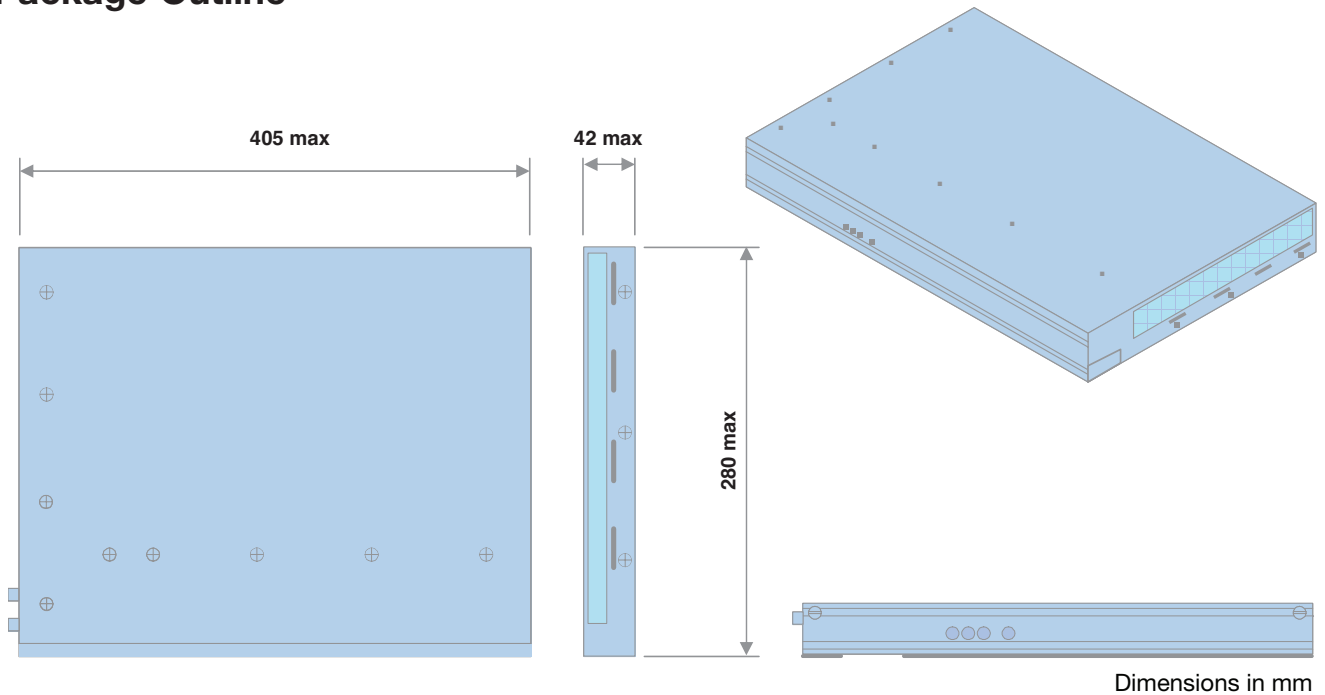
Environmental & Reliability

Key Parameter	Typical Offering
Normal Operating	+5°C to +40°C / 5% to 85% RH
Short Term Operating	-5°C to +55°C / 5% to 95% RH
Storage	-40°C to +55°C / <5% RH

Reliability / Compliance

NEBS, UL, ETSI

Package Outline



Ordering Information:

Please contact your Bookham representative to discuss application and specification of the Intelligent Optical Platform™ Amplifier.

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