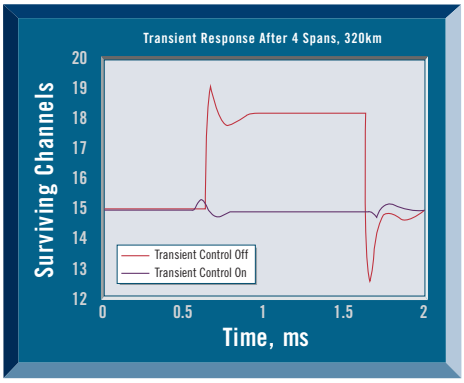
ONETTA™

IOE 11310 C-Band Amplifier

The IOE 11300 Metro/Regional EDFA Series provides intelligent and flexible optical amplification for high-capacity metropolitan and regional DWDM systems. Software-tunable gain accommodates the wide variation in node and span losses inherent to metropolitan fiber networks. The IOE 11300 Metro/Regional EDFA Series features ultra-fast transient control, which enables rapid channel provisioning and re-configuration while ensuring uninterrupted service in systems with cascaded EDFAs.

VARIABLE GAIN

The IOE 11300 Metro/Regional EDFA Series features software-controllable gain, which can be varied over a wide dynamic range. Compared to fixed gain EDFA configurations, this amplifier series improves system performance and simplifies system design and installation. These features are beneficial in metro/regional networks, which experience wide variations in span and node losses.



Surviving channel power measured for a cascade of five EDFAs with no transient control (four spans of 80km each + pre-amplifier) upon dropping and adding back eight out of sixteen channels. The output power fluctuations after the fourth span are the fastest and most intense. The speed and intensity of optical power transients increases with an increase in the number of EDFAs in the chain.

BEST-IN-CLASS ULTRA-FAST TRANSIENT CONTROL

The IOE 11300 EDFA Series includes proprietary optical designs and high-speed control systems that deliver ultra-fast transient control which enable DWDM systems to dynamically adjust channel loading without disrupting service on static channels. Ultra-fast transient control is maintained over the full range of gain and input power conditions as well as the entire operating temperature range.

IN-SERVICE SOFTWARE UPGRADES

The IOE 11300 EDFA Series has advanced software functionality which enables real-time downloads of future software enhancements and upgrades to the current product without carrier service disruption.

ADDITIONAL FEATURES AND BENEFITS

- **Wide gain and input power dynamic range**: The IOE 11310 C offers 15dB gain dynamic range and 34dB input power dynamic range to support a broad range of network configurations and channel loading conditions.
- **Software-enabled flexibility**: Extensive embedded code offers advanced features such as remotely configurable alarm thresholds and module-specific data storage and retrieval.
- **Monitoring and alarm pins**: System management is enhanced through hardware alarms that are activated when specific operating conditions fall outside the user-specified range.
- **Multiple control modes**: For different applications and stages of testing, development, and deployment, the IOE 11310 C offers three modes of operation: constant gain, constant output power, and constant pump current.
- **Compact footprint**: Complete optical and electronic control systems are integrated into a compact, board-mountable case.

IOE 11310 C-BAND AMPLIFIER OPTICAL SPECIFICATIONS

The IOE 11310 C is ideal for metro core and regional networks that exhibit a wide variation in span loss and a high degree of add-drop activity. It can be used as a pre-amplifier, booster amplifier or in-line amplifier.

SPECIFICATION	MINIMUM	TYPICAL	MAXIMUM	UNITS
Bandwidth	1529	–	1563	nm
Gain	10	–	25	dB
Total input power	–27	–	+7	dBm
Total output power	+17	–	–	dBm
Gain ripple (–5°C to 65°C)	–	1.5	2.0	dB
Noise figure (at 25dB gain)	–	5.5	6.0	dB
Polarization Mode Dispersion (PMD)	–	–	1.0	ps
Polarization Dependent Gain (PDG)	–	–	0.7	dB
Optical power overshoot/undershoot with 10dB power add/drop	–	0.3	1.0	dB
Transient suppression time with 10dB power add/drop	–	0.5	1	ms
Power supply	4.75	5.0	5.25	V
Power consumption	–	–	25	W
Physical dimensions			201.4 x 124.5 x 20.3	mm
Laser classifications			Class 3B under IEC/EN 60825-1	

For more information on product specifications and performance under specific run conditions, please contact the Onetta Sales Department at sales@onetta.com.

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www.onetta.com