



# DarkStar® DLA

## Inline Amplifier

## DLA



# Technical Specifications

## Physical Dimensions

Height: 2RU  
Width/Depth: 16.9"/17.5" (19.5" with power supply/cable relief)  
Weight, minimum: 39lbs (fully configured)

## Power Requirements

Power input AC: 100-240V AC, 50/60Hz  
Power input DC: -48 to -60V DC  
Power consumption, typical: 79-89 watts (117 watts maximum)

## Environmental

Operating temperature: 0 to 55°C  
Storage temperature: -40 to 70°C  
MTBF: 87,600 hours  
Non-operating (Shock and Vibration): ISTA-2A, IEC60068-2-6, 60068-2-64, 60068-2-27

## Management

### Command line interface:

RS-232 serial console port  
TELNET and SSH

### Dedicated management network:

4x 10BASE-T/100BASE-TX Ethernet ports  
IPv4/IPv6 dual stack  
IPv4 forwarding, RIP routing  
DHCP boot client, BOOTP relay  
DHCP server

### Security:

Simple password  
Local account database  
RADIUS and TACACS+ client  
Host-based access control lists (ACLs)

### Monitoring:

Network Syslog, Local event log  
SNMP versions 1 and 2C  
RFC1213-MIB, SNMPv2-MIB, IF-MIB, XKL-MIB

### Administration:

SNTP time synchronization client  
TFTP file transfer client  
Telnet remote command-line client  
Reboot and upgrade management operating system without interrupting customer data

## Redundancy, Availability, Scalability

1+1, redundant, hot-swap power supplies  
Redundant hot-swap fans  
Hot-swap OSC (Optical Service Channel) transceivers  
Field-replaceable dual flash storage modules, one is write-protected  
Optical network uninterrupted during software reset and upgrade  
System-wide watchdog timer to ensure software response

## Integrated Systems Architecture

Up to four EDFAs (erbium-doped fiber amplifiers)  
Optional integrated dispersion compensation (fiber Bragg grating modules)  
C-Band: 1528.77nm - 1566.31nm, 100GHz spacing  
C-Band: 1528.38nm - 1566.31nm, 50GHz spacing  
EDFA signal wavelength range  
C-Band: 1528.70nm - 1563.80nm  
C-Band Extended: 1524.06nm - 1566.04nm<sup>1</sup>  
Integrated tilt compensation filters  
Integrated equalization filters  
Saturated output power: +20dBm  
Pre-amp and booster EDFA configuration  
Minimum input power: -35dBm (reporting limit)  
Optimal designed flat gain: 44dB  
Noise figure: 5.52dB  
Gain flatness over C-Band: 1.5dB  
Monitor port: 2%

## Standards Compliance

**UL:** IEC 60950-1(ed.1), IEC 60825-1:2007 (2nd Edition)  
**FCC:** Conducted and Radiated Emissions, Part 15 Subpart B Sections 15.107 and 15.109 Class A  
**CE:** EN55024 (1998 w/A1: 01 & A2: 03, EN61000-3-2 (2006), EN61000-3-3 (1995 w/A1:01 & A2:06), EN55022 (2006) Class A & CISPR 22 (2005) Class A

<sup>1</sup>The C-Band Extended bandwidth is subjected to 3dB gain reduction.