

Luxglo C series EDFA

The Luxglo C series-EDFAs are low cost, high quality high powered optical amplifiers designed to extend the range of 1550nm optical transmission networks. They adopt the latest cladding pump with photonic integration technology to yield a high optical amplification, while maintaining low noise to provide superior transmission of video, voice and data. These fully self contained 3RU rack mounted amplifiers may be customized with internal WDMs



and splitters allowing support of FTTx (E-PON, G-PON, RFoG) or HFC networks without the need for shelves of WDM couplers and a mountain of optical jumpers. C-EDFAs may be configured to support 39 to 45 dBm total optical power, 32 , 64 , 128 , 256 output ports and AC/DC power making them the most flexible product of their kind. Advanced management features such as input/output power monitoring, user friendly front panel display, and SNMP (SCTE-HMS MIBs), remote management with alarms make the C series-EDFA an ideal FTTH companion product for head-end and remote hub applications.

Features and Benefits

- Low noise, high performance for the highest video quality.
- Very stable, high quality design to insure years of trouble free service.
- Front access optical connections for easy installation, moves and changes.
- Remote management using SNMP allows easy integration to standard management systems.
- Front panel controls for status at a glance. No terminal needed!
- Built-in WDMs to minimize optical loss and improve reliability.
- AC or DC powering to optimize the power system for each installation.
- Redundant power supplies for high reliability and to minimal downtime.
- Standard 19" or 23" rack mounted for simple installation.

Applications

- GPON/EPON RF overlay access networks
- Inter-office video transport networks
- RFoG access networks
- HFC networks

Generic specifications

| Performance | | | Index | | | Supplement |
|-----------------|----------------------------------|-------|-------|------|------|----------------|
| | | | Min. | Typ. | Max. | |
| Optical feature | Operating wavelength range | (nm) | 1540 | | 1563 | CATV |
| | Input power | (dBm) | -10 | | +10 | |
| | Total output power ¹⁾ | (dBm) | | | 45 | |
| | Number of output ports | | | | 256 | |
| | Each output power | (dBm) | 0 | | 22 | |
| | Difference of output power | (dB) | -0.5 | | +0.5 | |
| | Output optical power monitoring | (dB) | | -20 | | Optional |
| | Output power adjustable range | (dBm) | -6 | | 0 | Optional |
| | Noise figure (Pin=0dBm) | (dB) | | 4.5 | 5.5 | HA5400C-1x □□□ |
| | | | | 5.0 | 6.0 | HA5400C-2x □□□ |
| | Switch time | (ms) | | | 8.0 | HA5400C-2x □□□ |
| | Polarization dependence loss | (dB) | | | 0.3 | |
| | Polarization dependence gain | (dB) | | | 0.4 | |
| | Polarization mode dispersion | (ps) | | | 0.3 | |
| | Input/output isolation | (dB) | 30 | | | |
| | Pump power leakage | (dBm) | | | -30 | |
| Echo loss | (dB) | 55 | | | APC | |
| General feature | Network management interface | | RJ45 | | | SNMP |
| | Series interface | | RS232 | | | |
| | Power supply | (V) | 90 | | 265 | 220VAC |
| | | | 30 | | 72 | -48VDC |
| | Power consume | (W) | | | 189 | |
| | Operating temp. | (°C) | -5 | | 65 | |
| | Storage temp. | (°C) | -40 | | 80 | |
| | Relative humidity | (%) | 5 | | 95 | |

| | | | | |
|--|------------------|-----|--------------|-----------|
| | Size (W)×(D)×(H) | (") | 19×14.7×5.25 | 3RU (19") |
|--|------------------|-----|--------------|-----------|

WDM option specifications

HFC

- **1550** forward, **1310** return
- 1310 insertion loss: **1.5dB** max

The **HFC WDM** splits off the 1310nm return signal and directs it to the return connector on the front panel. The EDFA power is increased to compensate for the WDM loss insuring the output level is maintained as ordered.

RFoG

- **1550** forward, **1610** return
- 1610 insertion loss: **1.5dB** max

The **RFoG WDM** splits off the 1610nm return signal and directs it to the return connector on the front panel. The EDFA power is increased to compensate for the WDM loss.

PON

- **1550** forward, **1490/1310** PON
- OLT insertion loss: **1.5dB** max

The **PON WDM** inserts the EDFA output onto a BPON, EPON or GPON network. The PON wavelengths are directed to the OLT connector on the front panel. The EDFA power is increased to compensate for the WDM loss.

PON + RFoG

- **1550** forward, **1490/1310** PON, **1610** return
- OLT insertion loss: **1.5dB** max
- 1610 insertion loss **1.5dB** max

The **PON + RFoG WDM** inserts the EDFA output onto a BPON, EPON or GPON network. It also separates the 1610 return wavelength. The PON and RF return signals are directed to the OLT and return connectors on the front panel. The EDFA power is increased to compensate for the WDM loss.

Ordering Information

(Stand-alone, 3-RU High-power, EDFA optical amplifier)

Luxglo C series EDFAs can be ordered and customized to your specific needs as follows:

TCEDF-pp-pc-wdm-ps-r-xx

- pp** = Output power/port (dBm) (39~45 dBm)
- pc** = Port count (32, 64, 128, 256)
- wdm** = Integrated WDM (None, HFC, RFoG, PON, PON + RFoG)
- ps** = Power supply type (AC, DC)
- r** = Redundant power supplies (None, R)
- XX** = Connector (LA: LC/APC, LP: LC/UPC, SA: SC/APC, SP: SC/UPC)

Mechanical Drawings

