FiberLAST®

*Innovative Technology, Proprietary Design*

# ERBIUM DOPED FIBER AMPLIFIER (EDFA)

All-optical gain-clamped erbium doped fiber amplifier with high gain, low noise figure and excellent output power stability. Conventional EDFAs try to obtain a constant gain for varying input signal powers using an electronic feedback mechanism. An electronic feedback mechanism needs a relatively long time to regulate amplifier gain.

Our EDFAs are built on a new kind of all-optical gain-clamping technology. Using this new technology, a stable gain-clamped amplifier operation is provided for a wide dynamic range of signal input power in real time. Our new products include C, L and C+L Band gain-clamped erbium doped fiber amplifier types which are precisely designed and manufactured to be efficiently used in wideband DWDM and Ultra DWDM fiber optical communication systems and optical distribution networks.

| | Unit | Product Type | | |
|---|---|---|---|---|
| | | C | L | C+L |
| **Wavelength Range** | nm | 1530-1563 | 1570-1603 | 1530-1603 |
| **Frequency Band** | THz | 191,81-195,94 | 187,02-190,95 | 187,02-195,94 |
| **Gain** | dB | >25 | >20 | 25, 20 |
| **Noise Figure** | dB | < 5 | < 6 | < 6 |
| **Optical Input Power** | dBm | (-40) - (-10) | (-40) - (-10) | (-40) - (-10) |
| **Saturated Output Power** | dBm | 15-16-17 (1) | 11-12-13(1) | |
| **Optical Flatness (2)** | dB | ±0,5 | ±0,5 | ±0,5 |
| **Optic Connector** | | FC/PC – LC/PC – SC/PC | | |
| **Operating Temperature** | oC | 0 to +55 | | |
| **Power Supply** | | 220 VAC, 50 Hz (1 + 1 Redundant) | | |
| **Dimensions** | mm | 482,6 x 43,5 x 366 (19'' 1U Rackmount) | | |
| **Case Types** | | Module, Benchtop, Rackmount | | |

*(1) -10 dBm, 1550 nm/1585 nm input signal.*
*(2) -10 dBm All Wavelength*
*AGC: Automatic Gain Control ACC: Automatic Current Control APC: Automatic Power Control*

## FEATURES

- High stability.
- High optical clamping ability.
- Input signal power independency.
- ACC, APC, AGC Opr. Modes
- High gain flatness.
- Low noise figure.
- Variable gain.
- Wide-band amplification.
- Fast Transient. (fs Pulse)
- Remote Managing Software

## APPLICATIONS

- Fiber-optic communication.
- Long-haul comm.
- Single channel operations.
- DWDM, CWDM Networks.
- CATV Systems
- Sensing Applications.
- FTTx Applications.
- Fast-transient applications.

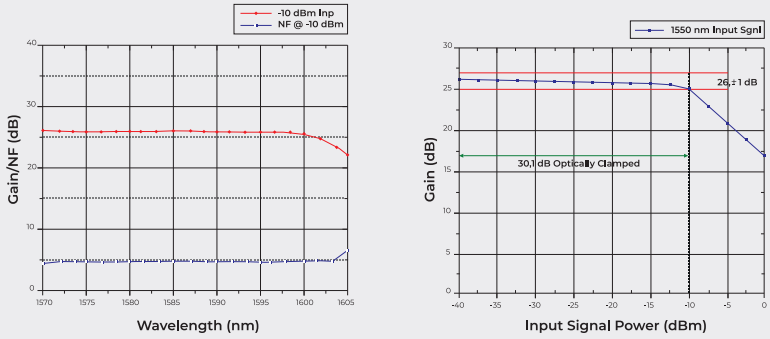


***Figure 1:*** *CC-EDFA Gain/NF spectrum and Input signal power-gain dependency.*

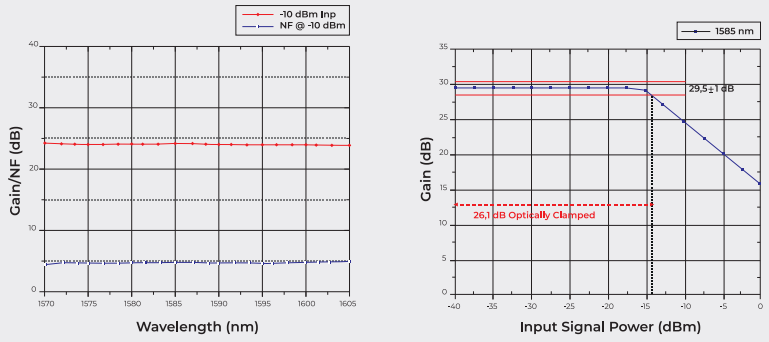


***Figure 2:*** *L-EDFA Gain/NF Spectrum and Input signal power-gain dependency.*

**FiberLAST Fiber Lazer Sistemleri ve Teknolojileri A.Ş.**

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