

Erbium-Doped Fiber Amplifier (EDFA)

DKT's Erbium-Doped Fiber Amplifier (EDFA) is ideally suitable for CATV applications with high output power and low noise figure. It is designed to fit 19-inch cabinet rack with only 1-unit height. The unit is also designed for easy maintenance.

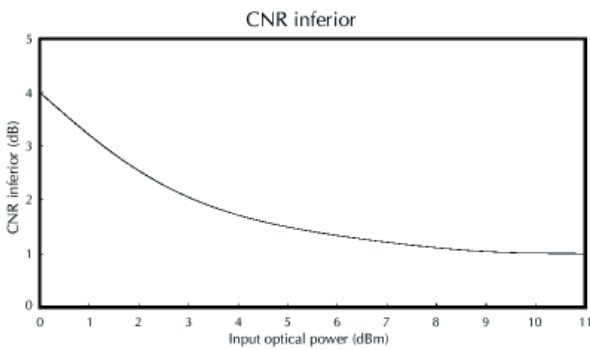


Features

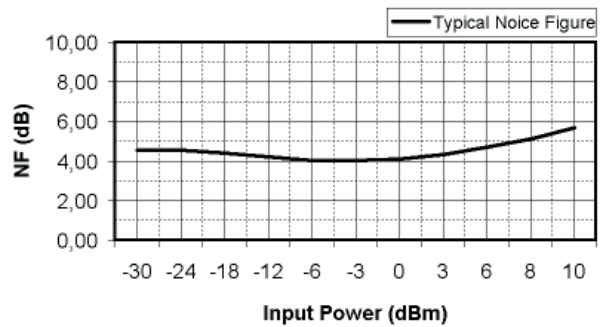
- High optical output power and gain
- Wide wavelength range
- Customized monitor interface
- Low noise figure and low power consumption
- LCD display showing important information
- Web-based network management system (TCP/IP), real time monitoring and alarm
- Telcordia GR 1312 compliant and CE qualified
- Robust, suitable for outdoor application
- Excellent gain and output power stability over environmental temperature of -5 ~ 65°C
- All components used in the EDFA are of top quality
- Soft keys on front panel

Applications

- Power booster for CATV and Hybrid Coax (HFC) Networks



CNR deteriorates with the increasing of the input power because the gain is decreasing.



NF is within 4 ~ 5dB over the full operating range from 0 to 10dBm.

DKT EDFA Network Management System

Device List (Scan) Local Device

Device Parameters:

| | | | | | |
|-------------------|----------|--------------------|-----------|------------------|-------|
| Input Optic Power | No input | Output Optic Power | No output | Unit Temperature | 27 °C |
|-------------------|----------|--------------------|-----------|------------------|-------|

Pump Parameters:

| | | | |
|--------------------|---------|------------|--------|
| Pump 1 Bias | 1 mA | Pump 1 TEC | -74 mA |
| Pump 1 Temperature | 25.9 °C | | |
| Pump 2 Bias | 0 mA | Pump 2 TEC | -65 mA |
| Pump 2 Temperature | 21.2 °C | | |

Configuration:

| | | | |
|------------|---------------|---------------|-------------|
| Model | Model A1a-w | Serial Number | 1234567890 |
| Software | V1.0 | Hardware | V1.0 |
| Local IP | 172.20.101.53 | DHCP | OFF |
| Gateway IP | 172.20.0.40 | Subnet Mask | 255.255.0.0 |

DANSER LABEL TECHNIK

DKT's SNMP manager allows to monitor the EDFA working status remotely, simply via internet connection, and has the below mentioned advantages:

- SNMP can monitor these parameters: input / output power, pump laser temperature, pump laser bias current... (as shown on the interface)
- Support DHCP for easy maintenance
- Support TCP/IP, UDP and HTTP, support PING network diagnosis functionality
- Other EDFAs within the same LAN could be visited and monitored

Erbium-Doped Fiber Amplifier (EDFA)

Main specifications

| Parameters | Unit | Min | Type | Max | Note |
|-----------------------------|------|------|------|------|------|
| Operating Wavelength | nm | 1530 | 1550 | 1565 | |
| Optical Input Power | dBm | 0 | | 10 | |
| Optical Output Power | dBm | 13 | | 23 | |
| Pump Leakage at Input | dBm | | | -30 | |
| Pump Leakage at Output | dBm | | | -30 | |
| Polarization Dependent Gain | dB | | | 0.3 | |
| Input Return Loss | dB | 45 | 50 | | |
| Output Return Loss | dB | 45 | 50 | | |

| Parameters | Output Power (dBm) | Min | Type | Max |
|-------------------|--------------------|-----|------|-----|
| Noise Figure (dB) | 13 ~ 17 | | 4.1 | |
| | 18 ~ 22 | | 4.5 | |

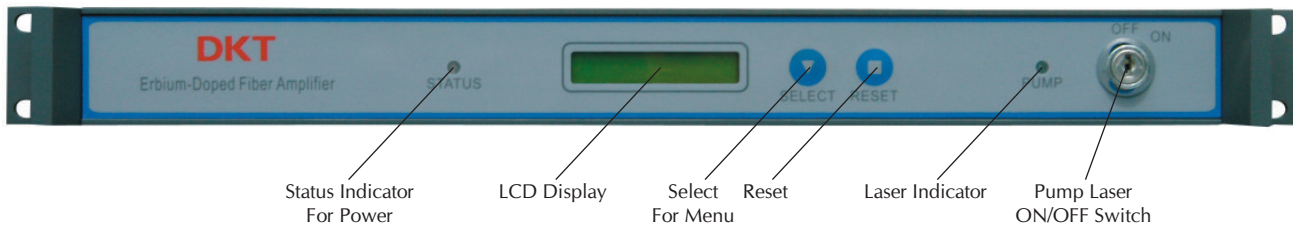
Others

| Parameters | Unit | |
|------------------------------|------|--|
| Network Management Interface | | RS232 and RJ45 |
| Dimension | mm | W x L x H 483x252x43,6 (for short edition) |

| Type | Numbers of outputs | Power supply | Output power | Connector types | SNMP | Order No. |
|---------------------|--------------------|--------------|--------------|-----------------|------|-----------|
| EDFA-13-220-SA-01 | 1 output | 100 ~ 240VAC | 1 x 13dBm | SC/APC | | 64630 |
| EDFA-17-220-SA-01 | 1 output | 100 ~ 240VAC | 1 x 17dBm | SC/APC | | 64632 |
| EDFA-21-220-SA-01 | 1 output | 100 ~ 240VAC | 1 x 21dBm | SC/APC | | 64634 |
| EDFA-17-220-SA-02 | 2 outputs | 100 ~ 240VAC | 2 x 17dBm | SC/APC | | 64642 |
| EDFA-17-220-SA-03 | 3 outputs | 100 ~ 240VAC | 3 x 17dBm | SC/APC | | 64644 |
| EDFA-17-220-SA-04 | 4 outputs | 100 ~ 240VAC | 4 x 17dBm | SC/APC | | 64646 |
| EDFA-21-220-5A-01-S | 1 output | 100 ~ 240VAC | 1 x 17dBm | SC/APC | ✓ | 64651 |
| EDFA-17-220-SA-01-S | 1 output | 100 ~ 240VAC | 1 x 17dBm | SC/APC | ✓ | 64652 |
| EDFA-17-220-SA-02-S | 2 outputs | 100 ~ 240VAC | 2 x 17dBm | SC/APC | ✓ | 64653 |
| EDFA-17-220-SA-03-S | 3 outputs | 100 ~ 240VAC | 3 x 17dBm | SC/APC | ✓ | 64654 |
| EDFA-17-220-SA-04-S | 4 outputs | 100 ~ 240VAC | 4 x 17dBm | SC/APC | ✓ | 64655 |

Others on request

EDFA Front panel



EDFA Rear panel

