



||| A STEP AHEAD IN DIGITAL TELEVISION

EDFA OPTICAL AMPLIFIERS for HFC & FTTH LARGE CATV & SAT DISTRIBUTIONS

mod. **REA-20**



EDFA ERBIUM DOPED FIBER OPTIC AMPLIFIER 1.530-1.565 nm

- 10 dBm SENSITIVITY, LOW NOISE and HIGH POWER, 20 dBm

APC, AGC or ACC FULL SELECTABLE GAIN MODE

FRONT PANEL LASER SWITCH-OFF SECURITY KEY LOCK

FULL REMOTE CONTROL and SETTINGS THROUGH SNMP & WEB

FULL ALARM & DATA LOGGER SYSTEM on BOARD

**ADVANCED
TECHNOLOGY**

FOR PROFESSIONAL
CABLE & BROADBAND
NETWORKS



EDFA OPTICAL AMPLIFIER

FRONT PANEL

REAR PANEL

1. LCD Display	8. Laser lock ON-OFF Key	15. Wired remote control & alarms relays <i>connect. = "FK-MC 0,5/5-ST-2,5" by PHOENIX CONTACT</i>
2. Keys	9. USB-B port	16. LAN Management
3. LED, PWR status & FAN alarms	10. USB-A port	17. P.S.U. B ON-OFF switch
4. LED, Laser bias alarm	11. EDFA shuttered Optical input	18. P.S.U. A ON-OFF switch
5. LED, Optical Power IN alarm	12. 4 EDFA shuttered Optical outputs	19. P.S.U. DC 48 V INPUT opt.
6. LED, Optical Power OUT & reflections alarm	13. LAN Link & activity LED	20. MAINS AC and FUSE
7. LED, Laser and Board temperature alarm	14. Hot swap fan	

The "REA-20" is a High sensitivity & High performance EDFA (Erbium Doped Fiber Amplifier), designed for CATV long-distance transmission and large HFC & FTTH distribution networks. A built-in 2, 4 or 8 way optical splitter can be supplied (opt.).

Several GAIN Control Modes can be selected:

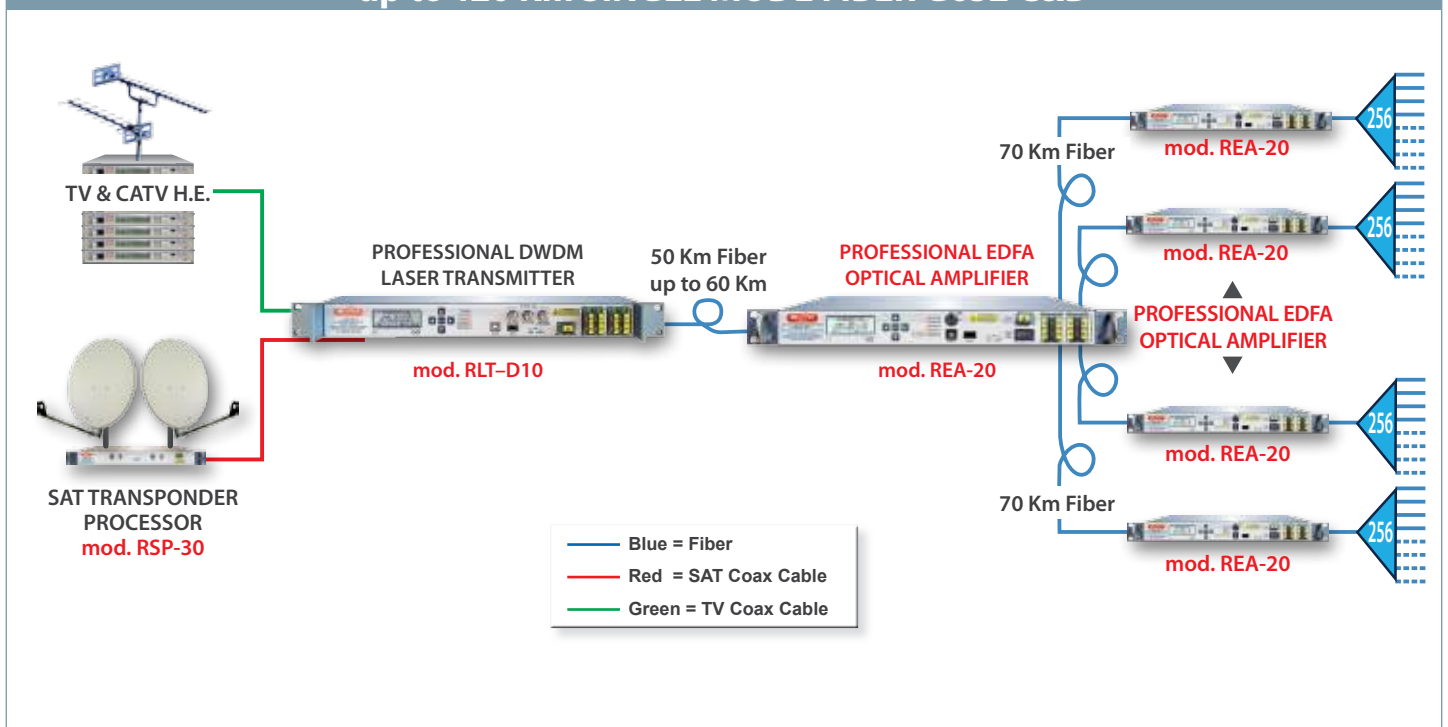
- APC Automatic Power Control (for CATV)
- AGC Automatic Gain Control
- ACC Automatic Current Control

Input and Output Optical Power are continuously sampled and monitored with feedback and alarms, through the SNMP and WEB browser interface and front panel display.

There are several ways to set and verify Functions, Alarms and Data Logger:

- With WEB Browser through the LAN port.
- With SNMP through the LAN port.
- With Keys and LCD display, IP address Set & Alarm reading only.

HFC & FTTH LARGE REGIONAL CATV & SAT DISTRIBUTION EXAMPLE up to 120 Km SINGLE MODE FIBER G652 C&D



MAIN FEATURES

- High stability and high gain up to 30 dB
- High output power up to 20 dBm
- Front panel security Key Lock for Laser
- Low noise 5 dB typ. at 0 dBm power input
- 1530 to 1565 nm high reliability Amplifier
- 980 nm high stability Laser Pump diode
- Selectable GAIN mode APC or AGC and ACC
- LCD Display and keys on the front panel
- Triple color LED for status indication and alarms
- Optical Input and Output power monitoring alarm
- Complete temperature, power, current, SBS, reflections monitoring alarms & Data Logger
- Front panel Led alarm when Laser Lock is switch OFF
- Built-in 2, 4 or 8 way optical splitter (optional)
- SC/APC shuttered optical connector
- USB A & B port for easy SW up-grades
- LAN port for settings and full SNMP management
- LAN port for settings and Web Browser operation
- Wired Remote Control via insulated contact (opt. Board)
- Redundancy Power Supply Unit, 1AC + 1DC or 2 AC (opt.)
- Very thin design, only 1 Unit 19" Rack

TECHNICAL SPECIFICATIONS

OPTICAL

- | | | | |
|-----------------------------|---------------------------|---------------------------------|-----------------------|
| • Input signal wavelength: | 1530-1565 nm | • Monitor power accuracy: | ± 0,5 dB |
| • Wavelength of pump Laser: | 980 nm | • Noise figure at 0 dBm Input: | 5 dB ± 0,5 dB |
| • Total gain: | up to 28 dB | • Input/Output Pump leakage: | - 20 dB ± 5 dB |
| • Total gain accuracy: | ± 0,5 dB | • Input/Output Return loss: | > 40 dB |
| • Minimum Input power: | - 10 dBm | • Selectable gain mode: | APC or AGC and ACC |
| • Maximum Input power: | 10 dBm | • Input/Output Optic connector: | Shuttered SC/APC G652 |
| • Saturated Output power: | 20 dBm typ. (+1/-2dB max) | • Optical Single mode fiber: | 9 / 125 µm G652 |

ALARMS and MONITORING

- Loss optical of input power
- Loss optical of output power
- Pump laser current over limit
- High SBS detection or fiber reflections
- Pump laser temperature over limit
- Over limit Module temperature
- Wired Remote Control (opt.)
- SNMP & WEB System on Board
- Power Supply and fans
- Triple color LEDs on front panel
- LCD Display and Keys on front panel
- Data Logger for status and alarms

PERIPHERALS

- LAN ETHERNET 10/100 port: HTML WEB browser for local or remote settings, full SNMP for Monitoring, Alarms & Data Logger
- USB port: For easy SW up-grade & memory stick
- Wired Remote Control via insulated Contact: 1 IN & 2 OUT, for Remote control and alarm monitoring (opt. board)

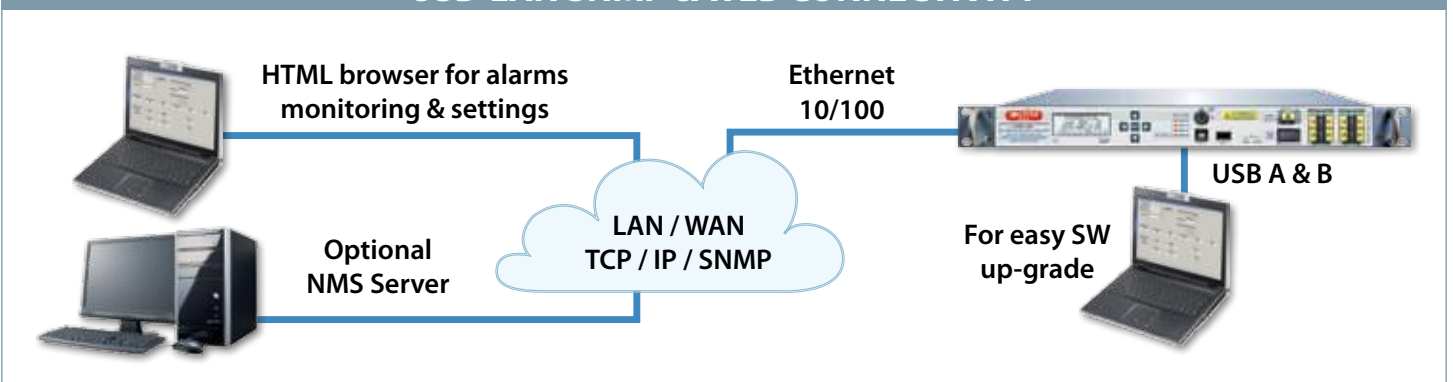
GENERAL

- | | | | |
|----------------------------|-------------------------|---|---|
| • Power supply: | AC 230 V (DC 48 V opt.) | • Operating temperature: | - 5 to 50° (humidity 90%) |
| • Redundancy power supply: | 1AC +1DC or 2 AC (opt.) | • Storage temperature: | - 20 to 70° |
| • Power consumption: | 30 W | • Equipment operating environmental conditions: | Class 3,1 acc. ETS 300 019-1-3 (temperature controlled locations) |
| • Enclosure: | 1 Unit 19" Rack | | |
| • Weight: | 5 Kg | | |

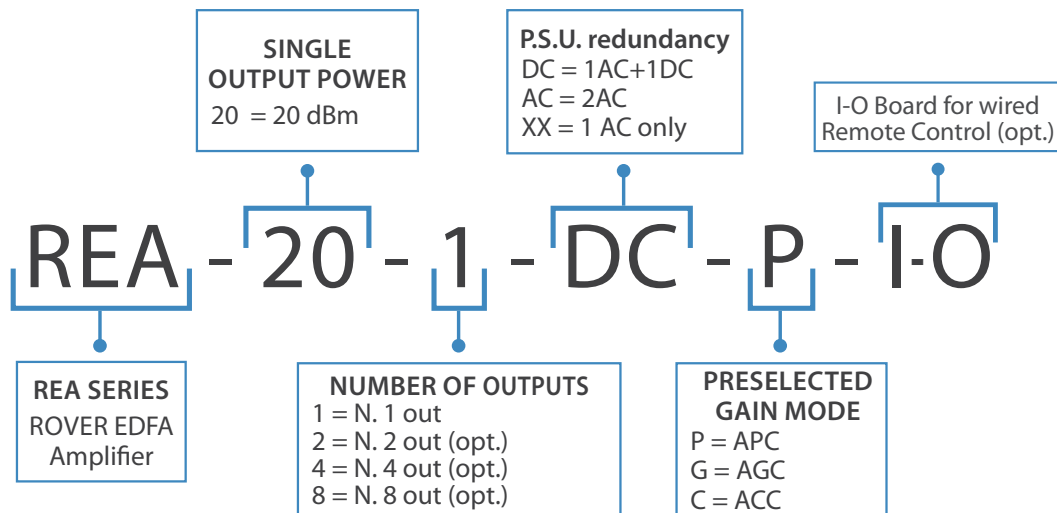
SAFETY

- | | | | |
|-----------------|--|------------------|----------------|
| • Safety: | EN50083-1 | • Laser keylock: | on front panel |
| • Laser safety: | Class 3R, see yellow label (IEC 60825) | • EMC: | EN50083-2 |

USB-LAN SNMP & WEB CONNECTIVITY



ORDERING CODE DEFINITION







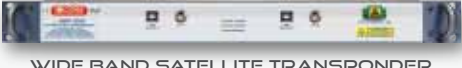


ORDERING MODEL / CODE EXAMPLE

MODEL / CODE	DESCRIPTION	APPLICATION
REA-20-1-DC-P	EDFA Amplifier, 20 dBm total power, 1 optical output, opt. DC 48 V redundancy power supply (total 1AC+1DC), APC mode factory selected (for CATV)	Long distance CATV and Large FTTH & HFC network

OPTIONS

ITEM	DESCRIPTION	CODE DEFINITION
P.S.U. REDUNDANCY	Second PSU 230 Vac (Max N. 2 AC)	AC
	Second PSU 48 Vdc (Max N. 1 AC + 1 DC)	DC
OPTICAL SPLITTER	2 way built-in optical splitter	2
	4 way built-in optical splitter	4
	8 way built-in optical splitter	8
I-O BOARD	Wired Remote control via insulated Contacts	I-O

ROVER OPTICAL PRODUCTS RANGE

<p>TX</p> <p>RLT-C9</p>  <p>CVDM HIGH POWER, ULTRA WIDE BAND CATV & SAT 47-2.700 MHZ OPTICAL LASER TRANSMITTER 9 dBm</p>	<p>SWITCH</p> <p>ROS-2</p>  <p>REDUNDANCY OPTICAL SWITCH</p>	<p>AOT-STC</p> <p>APARTMENT OPTICAL RECEIVER/TERMINATION CATV & SAT WITH AGC</p> 
<p>TX</p> <p>RLT-D10</p>  <p>DWDM HIGH POWER, ULTRA WIDE BAND CATV & SAT 47-2.800 MHZ OPTICAL LASER TRANSMITTER 10 dBm</p>	<p>SAT PROC.</p> <p>RSP-30-4/8</p>  <p>WIDE BAND SATELLITE TRANSPONDER PROCESSOR FOR NEW EXTENDED BAND LNB WITH 8 INPUT FROM 250 TO 2.350 MHZ</p>	<p>RX</p> <p>COR-STC</p> <p>CONDOMINIUM OPTICAL FIBER NODE RECEIVER CATV & SAT WITH AGC</p> 
<p>EDFA</p> <p>REA-20</p>  <p>EDFA OPTICAL AMPLIFIER 20 dBm, FROM 1 TO 8 OUTPUT</p>	<p>RLT-C7</p> <p>MODULAR OPTICAL LASER TRANSMITTER 7 dBm</p> <p>RLT-C7-WB-SAT</p> <p>OPTICAL TX EXT. L-BAND</p>	<p>REA-C20</p> <p>MODULAR EDFA OPTICAL AMPLIFIER 20 dBm</p> <p>MOR-WB-SAT</p> <p>OPTICAL RX EXT. L-BAND WITH AGC</p>

V.2.2 6-11-17



Product
made in Italy by
Rover Broadcast.com

CERTIFICATES N°
1263 ISO 9001
1264 ISO 14001
1265 BS OHSAS 18001



Specifications and features are subject to change without notice.

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