

RLA270L

1:1 redundant L-Band Line Amplifier (variable gain 0...26dB)

Made
in
Germany

GENERAL

The RLA270L represents a 1:1 redundant L-Band line amplifier (950...2150MHz) featuring variable gain adjustment, slope-equalization, 10MHz external reference and LNB-supply all in a compact 1RU/19" design. This line amplifier is perfectly suited for RF distribution infrastructures in Teleports, Satellite Earth Stations, as well as Broadcast- and Broadband facilities wherever accurate RF power, highest stability and availability is necessary. The RLA270L is equipped with two high dynamic 1:1 redundant operating amplifier modules (hot-standby) each providing variable gain so to achieve best performance within the network. The redundancy switching between the two amplifier modules is done nearly interruption free within a switchover time of less than 5ms. The unit features adjustable gain (MGC/AGC), slope-equalization, RF power monitoring, 10MHz ref., LNB-supply and 1:1 redundant power-supply (hot-swappable). The RLA270L has a front-side LC-Display/keypads for user friendly local configuration while front-side status LED's indicating amplifier and power-supply status. Remote control and configuration can be done via its rear-side Ethernet-Interface (WebGUI, SNMP). The RLA270L is available with 50Ohm SMA(f) or 75Ohm F(f) connectors (see order-information).



FEATURES

- Space saving and compact 1RU/19" design
- 1:1 redundant hot-standby operating amplifier-modules
- Less than 5ms switchover between amplifier 1 & 2
- Internal RF switch-module with latching type relays
- Variable gain-adjust 0...26dB, 1dB steps (MGC/AGC)
- Supports slope-equalization 0...9dB, 1dB steps
- Front-side monitoring-port (-20dB)
- RF-power monitoring (Input/Output) for both amplifier-modules
- Threshold alarm function and switchable output limiter
- 10MHz external reference input, rear-side 50Ohm SMA(f)
- Switchable LNB-power supply (13/15/18V, 22kHz, 400mA)
- LNB current monitoring (400mA) with alarm shut-off
- 1:1 redundant power supply (hot swappable) / Optionally 48V DC
- Local access & configuration via front side LC-Display/keypads
- Front side status LED's indicating amplifier- & power-supply status
- Remote configuration via Ethernet-Interface, RS232/485 (WEB-GUI/SNMPv2c)

ORDER INFORMATION

- **RLA270L:** 1:1 redundant Line Amplifier L-Band, 1RU/19", 50Ohm SMA(f)
- **RLA270L-75:** 1:1 redundant Line Amplifier L-Band, 1RU/19", 75Ohm F(f)

OPTIONS

- **Option 148 48V DC:** Operating Voltage 48V DC (36...72V) 1:1 redundant dual power-supply

TECHNICAL SPECIFICATIONS

- **Dimensions:** 1RU/19" rack-mount
- **Power supply:** 85...230V, 50/60Hz
1:1 redundant (hot-swappable)
- **Power consumption:** <10W
- **Frequency range:** 950...2150MHz (L-Band)
- **Input/Output connector:** 50Ohm SMA(f) or 75Ohm F(f)
- **Return-Loss:** 14dB min.
- **Flatness:** ±0.5dB typ., ±1dB max.
- **Variable Gain adjust:** 0...26dB (±1dB)
1dB steps (MGC/AGC)
- **Slope equalization:** 0...9dB, 1dB steps
- **Max. RF output power:** +23dBm (@50Ohm)
+21dBm (@75Ohm)
- **Noise figure:** 6dB typ.
- **IMA3 @ +20dBm:** < -36dBc
- **1dB Compression point:** +26dBm
- **Monitoring port:** -20dB (front-side)
- **10MHz reference:** External, rear 50Ohm SMA(f)
**internal upon request*
- **LNB-supply:** 13/15/18V, 22kHz, 400mA
- **Output limiter:** adjustable -30dBm...+10dBm
- **Access/Control:** LC-Display/keypads,
100Mbit Ethernet-Interface,
RS232/485 (WEB-GUI, SNMPv2c)
- **Status LED's:** Amplifier & PSU monitoring
- **MTBF / MTTR:** >400Khrs at 25°C / 24 hours
- **Operating temperature:** 0...45°C
- **Storage temperature:** -10°C...70°C
- **Humidity:** 90% non condensing
- **RoHS:** Compliant