

RLA270A

1:1 redundant L-Band Line Amplifier (variable gain 0...27dB)

The RLA270A 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" rackmount 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 RLA270A 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 reference port, switchable LNB-supply and 1:1 dual redundant power-supply. The RLA270A has a front panel LC-Display/keypads for user-friendly local configuration and status LED's indicating amplifier and power-supply status. Remote control and configuration is possible via its rear side Ethernet-Interface (WebGUI, SNMP).

The RLA270A is available with 50Ohm SMA(f), 50Ohm N(f) or 75Ohm F(f)* connectors (see order-information).



FEATURES & BENEFITS

- 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...27dB, 1dB steps (MGC/AGC)
- Supports slope equalization 0...9dB, 1dB steps
- Front-side monitoring port input and output (-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 (13/18V, 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 panel LC-Display/keypads
- Front panel status LED's indicating amplifier & power supply status
- Remote configuration via Ethernet-Interface (WebGUI/SNMP) and serial RS232, RS485

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TECHNICAL SPECIFICATIONS

➤ Dimensions:	1RU/19" rackmount
➤ Weight:	approx. 7kgs.
➤ Power supply:	85...265V, 50/60Hz (1:1 redundant, hot swappable)
➤ Power consumption	< 10W
➤ Frequency range:	L-Band 950 – 2150MHz
➤ I/O connectors:	50Ohm SMA(f), 50Ohm N(f), or 75Ohm F(f)*
➤ 10MHz ref. external input:	50Ohm SMA(f), rear side
➤ Return loss:	15dB typ.
➤ Frequency Response:	±0,5dB typ., ± 1,0dB max. (50Ohm SMA) ± 1,5dB max. (75Ohm F)*
➤ Port matching RL:	15dB typ.
➤ Variable gain control:	0...27dB (± 1,0dB), 1dB steps (MGC/AGC)
➤ Gain accuracy:	±0,5dB typ., ± 1,0dB max
➤ Slope equalization:	0...9dB, 1dB steps
➤ Max. input level:	+3dBm (no damage)
➤ Max. RF output power:	+23dBm
➤ Noise figure:	<6dB @ full gain
➤ IMA3 @ +17dBm:	< -40dBc
➤ 1dB compression point:	+20dBm @ full gain
➤ Monitoring port:	-20dB, 50Ohm SMA(f), front-side, input and output
➤ LNB-supply:	Switchable 13/15/18VDC, 22kHz tone, 400mA
➤ Output limiter:	Adjustable -30dBm...+17dBm
➤ Local configuration:	LC-Display/keypads
➤ Remote configuration:	RJ45 100Mbit Ethernet-Interface (WebGUI, SNMPv2C) and RS232, RS485
➤ Status LED's:	Amplifier & PSU health status monitoring
➤ MTBF/MTTR:	>400kHrs @ 25°C / 24 hours
➤ MTTF Alarm Function:	Power Supply MTTF Monitoring
➤ Operating temperature:	0°C...45°C
➤ Storage temperature:	-10°C...70°C
➤ Humidity:	90%, non-condensing
➤ RoHS:	Compliant

ORDER INFORMATION

Type	Short Description	I/O connectors
RLA270A-50S	1:1 redundant Line Amplifier L-Band	50Ohm SMA(f)
RLA270A-50N	1:1 redundant Line Amplifier L-Band	50Ohm N(f)
RLA270A-75F	1:1 redundant Line Amplifier L-Band	75Ohm F(f)*

*upon request