

## 1:1 redundant L-Band Line Amplifier (variable gain 0 to 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" rack mount 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 to 27dB, 1dB steps (MGC/AGC)
- ▶ Supports slope equalization 0 to 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



**TECHNICAL SPECIFICATIONS**

<b>Dimensions:</b>	1RU/19" rack mount, weight: approx. 7kgs.
<b>Power Supply:</b>	85 – 265V, 50/60Hz, 1:1 redundant (hot-swappable)
<b>Power Consumption:</b>	<10W
<b>Frequency Range:</b>	950 – 2150MHz (L-Band)
<b>Input/Output Connectors:</b>	50Ohm SMA(f), 50Ohm N(f), or 75Ohm F(f)*
<b>10MHz Reference External Input:</b>	50Ohm SMA(f), rear side
<b>Input Return Loss:</b>	15dB min.
<b>Frequency Response:</b>	±0,5dB typ., ± 1,0dB max. (50Ohm SMA) ± 1,5dB max. (75Ohm F)*
<b>Output Return Loss:</b>	14dB min.
<b>Variable Gain Control:</b>	0 to 27dB (± 1,0dB), 1dB steps (MGC/AGC)
<b>Gain Accuracy:</b>	±0,5dB typ., ± 1,0dB max
<b>Slope Equalization:</b>	0 to 9dB, 1dB steps
<b>Max. Input Level:</b>	+3dBm (no damage)
<b>Max. RF Output Power:</b>	+23dBm
<b>Noise Figure:</b>	<6dB @ full gain
<b>IMA3 @ +17dBm:</b>	< -40dBc
<b>1dB Compression Point:</b>	+20dBm @ full gain
<b>Monitoring Port:</b>	-20dB, 50Ohm SMA(f), front-side, input and output
<b>Output Limiter:</b>	Adjustable -30dBm to +17dBm
<b>Threshold Alarm Function:</b>	Adjustable -40dBm to +10dBm
<b>AGC Function:</b>	Adjustable -40dBm to +10dBm, adjustable Lock-Window, adjustable Integration Time
<b>LNB-Supply:</b>	Switchable 13/15/18VDC, 22kHz tone, 400mA
<b>Local Configuration:</b>	LC-Display/keypads
<b>Remote Configuration:</b>	RJ45 100Mbit Ethernet-Interface (WebGUI, SNMPv2C) and RS232, RS485
<b>Status LED's:</b>	Amplifier & PSU health status monitoring
<b>MTBF/MTTR:</b>	>400kHrs at 25°C / 24 hours
<b>MTTF Alarm Function:</b>	Power Supply MTTF Monitoring
<b>Operating Temperature:</b>	0°C to 45°C
<b>Storage Temperature:</b>	-10°C to 70°C
<b>Humidity:</b>	90%, non-condensing
<b>RoHS:</b>	Compliant

*\*upon request only*

**ORDER INFORMATION**

Type	Type No.:	Short Description	I/O connectors
RLA270A-50S	9001050	1:1 redundant Line Amplifier L-Band	50Ohm SMA(f)
RLA270A-50N	9001039	1:1 redundant Line Amplifier L-Band	50Ohm N(f)
RLA270A-75F	9001051	1:1 redundant Line Amplifier L-Band	75Ohm F(f)*

*\*upon request only*