

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.

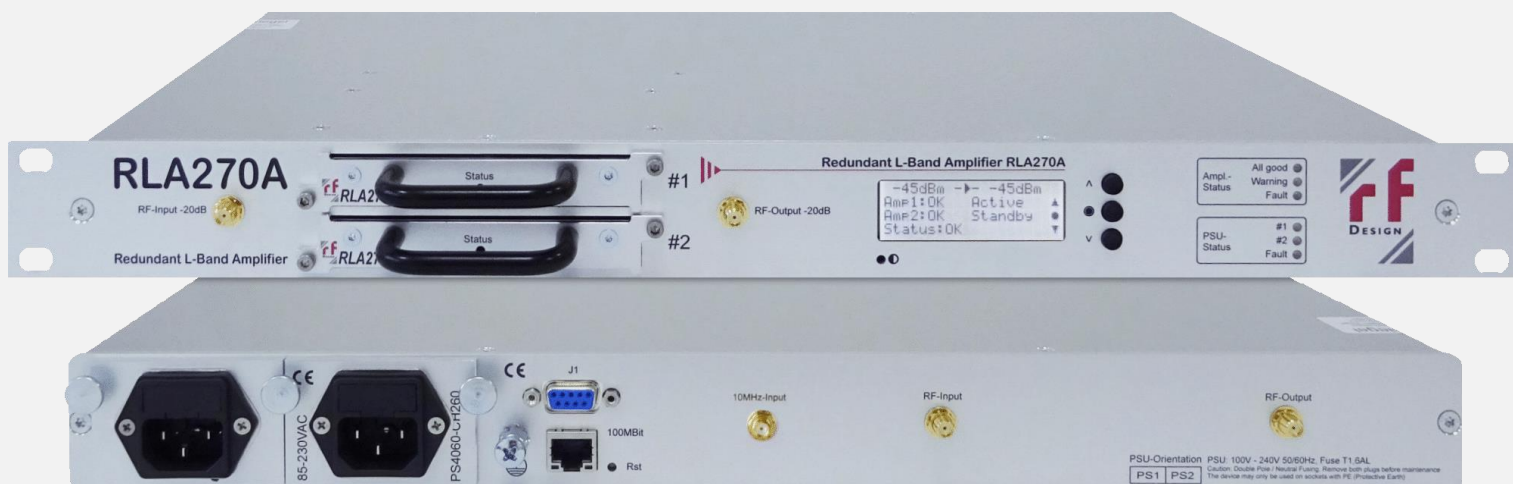
This line amplifier is perfectly suited for RF distribution infrastructures in Teleports, Satellite Earth Stations, as well as Broadcast- and Broadband facilities wherever accurate RF power, highest stability and availability is necessary.

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 7dB, 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

Dimensions:	1RU/19" rack mount, weight: approx. 7kgs.
Power Supply:	90 – 264V, 50/60Hz, 1+1 redundant (hot-swappable)
Power Consumption:	<10W
Frequency Range:	950 – 2150MHz (L-Band)
Input/Output Connectors:	50Ohm SMA(f), 50Ohm N(f), or 75Ohm F(f)*
10MHz Reference External Input:	50Ohm SMA(f), rear side
Input Return Loss:	15dB min.
Frequency Response:	±0,5dB typ., ± 1,0dB max. (50Ohm SMA) ± 1,5dB max. (75Ohm F)*
Output Return Loss:	14dB min.
Variable Gain Control:	0 to 27dB (± 1,0dB), 1dB steps (MGC/AGC)
Gain Accuracy:	±0,5dB typ., ± 1,0dB max
Slope Equalization:	0 to 7dB, 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
Output Limiter:	Adjustable -30dBm to +17dBm
Threshold Alarm Function:	Adjustable -40dBm to +17dBm
AGC Function:	Adjustable -30dBm to +17dBm, adjustable Lock-Window, adjustable Integration Time
LNB-Supply:	Switchable 13/15/18VDC, 22kHz tone, 400mA
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 at 25°C / 24 hours
MTTF Alarm Function:	Power Supply MTTF Monitoring
Operating Temperature:	0°C to 45°C
Storage Temperature:	-10°C to 70°C
Humidity:	90%, non-condensing
RoHS:	Compliant

*upon request only

ORDER INFORMATION

Type	Type No.:	Short Description	I/O connectors
RLA270A-50S	9001050	1+1 redundant Line Amplifier L-Band, LNB-supply	50Ohm SMA(f)
RLA270A-50S NonLNB	9001177	1+1 redundant Line Amplifier L-Band, non LNB	50Ohm SMA(f)
RLA270A-XL-50S-NonLNB	9001476	1+1 redundant Extended L-Band Amplifier, non LNB	50Ohm SMA(f)
RLA270A-50N	9001039	1+1 redundant Line Amplifier L-Band, LNB-supply	50Ohm N(f)
RLA270A-75F	9001051	1+1 redundant Line Amplifier L-Band, LNB-supply	75Ohm F(f)*

*upon request only