

## 1+1 redundant L-Band Line Amplifier with 1:16 splitter

The RLS2716A is a 1+1 redundant operating line amplifier with a rear-side integrated 1:16 L-Band splitter built into a compact 1RU/19" rack mount chassis. The unit features 1:16 L-Band splitting while the two redundant operating amplifier modules allow variable gain adjustment so to reach best RF performance within the network.

The redundancy switching between these two amplifier modules is done nearly interruption free within a switchover time of less than 5ms.

Besides the variable gain adjustment (MGC/AGC) and 1:16 splitting the unit also features slope-equalization, 10MHz external reference, RF power monitoring, LNB-supply as well as 1:1 redundant power supply (hot-swappable).

The unit 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 RLS2716A is available with 50Ohm SMA(f) or 75Ohm F(f) connectors (see order-information).

The RLS2716A features a flexible and compact RF distribution solution and is perfectly suited for applications in Teleports, Satellite Earth Stations, as well as Broadcast- and Broadband facilities wherever accurate RF power, highest stability and availability is necessary.



### FEATURES & BENEFITS

- ▶ Space saving and compact 1RU/19" rack mount design
- ▶ 1+1 operating line amplifiers & 1:16 L-Band splitter in one unit
- ▶ 1+1 redundant hot-standby operating amplifier modules
- ▶ Less than 5ms switchover between amplifier 1 & 2
- ▶ Variable gain-adjust -14 to +13dB (Acc.  $\pm 0,25$ dB), 1dB steps (MGC/AGC)
- ▶ Supports slope-equalization 0 to 7dB, 1dB steps
- ▶ Front-side monitoring-port (-6dB & -20dB respectively)
- ▶ RF-power monitoring (Input/Output) for both amplifier-modules
- ▶ Threshold alarm function and switchable output limiter

- ▶ 10MHz external reference signal, rear-side 50Ohm SMA(f)
- ▶ Switchable LNB-supply (13/15/18V, 22kHz, 400mA)
- ▶ LNB current monitoring (400mA) with alarm shut-off
- ▶ 1:1 redundant power supply (hot swappable)
- ▶ 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 (WebGUI, SNMPv2c)

## TECHNICAL SPECIFICATIONS

|                                        |                                                                                 |
|----------------------------------------|---------------------------------------------------------------------------------|
| <b>Dimensions:</b>                     | 1RU/19" rack mount, weight: approx. 7kgs.                                       |
| <b>Power Supply:</b>                   | 90 – 264V, 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) or 75Ohm F(f)                                                      |
| <b>10MHz Reference External Input:</b> | 50Ohm SMA(f), rear side                                                         |
| <b>Splitter Configuration:</b>         | 1:16 rear side                                                                  |
| <b>Input/Output Return Loss:</b>       | 15dB typ.                                                                       |
| <b>Frequency Response:</b>             | ± 1,0dB typ. ± 1,5dB max.                                                       |
| <b>Input Isolation:</b>                | ≥23dB (@ 50Ohm), ≥20dB (@ 75Ohm)                                                |
| <b>Variable Gain Control:</b>          | -14 to +13dB (Acc. ± 0,25dB), 1dB steps (MGC/AGC)                               |
| <b>Slope Equalization:</b>             | 0 to 7dB, 1dB steps                                                             |
| <b>Max. RF Output Power:</b>           | +9dBm                                                                           |
| <b>Noise Figure:</b>                   | +6dBm @ full gain                                                               |
| <b>IMA3 @ +3dBm:</b>                   | < -40dBc                                                                        |
| <b>1dB Compression Point:</b>          | +6dBm @ full gain                                                               |
| <b>Monitoring Port:</b>                | -20dB Input monitoring, -6dB Output monitoring, 50Ohm SMA(f), front-side        |
| <b>LNB-Supply:</b>                     | Switchable 13/15/18VDC, 22kHz tone, 400mA                                       |
| <b>Output Limiter:</b>                 | Adjustable -44dBm to +3dBm                                                      |
| <b>Threshold Alarm Function:</b>       | Adjustable -54dBm to -4dBm                                                      |
| <b>AGC Function:</b>                   | Adjustable -54dBm to -4dBm, adjustable Lock-Window, adjustable Integration Time |
| <b>Local Configuration:</b>            | LC-Display/keypads                                                              |
| <b>Remote Configuration:</b>           | RJ45 100Mbit Ethernet-Interface, RS232/485 (WebGUI, SNMPv2c)                    |
| <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                                                                       |

## ORDER INFORMATION

| Type         | Type No.: | Short Description                                      | I/O Connectors |
|--------------|-----------|--------------------------------------------------------|----------------|
| RLS2716A-50S | 9001048   | 1+1 redundant L-Band Line Amplifier with 1:16 splitter | 50Ohm SMA(f)   |
| RLS2716A-75F | 9001055   | 1+1 redundant L-Band Line Amplifier with 1:16 splitter | 75Ohm F(f)*    |

\*upon request only