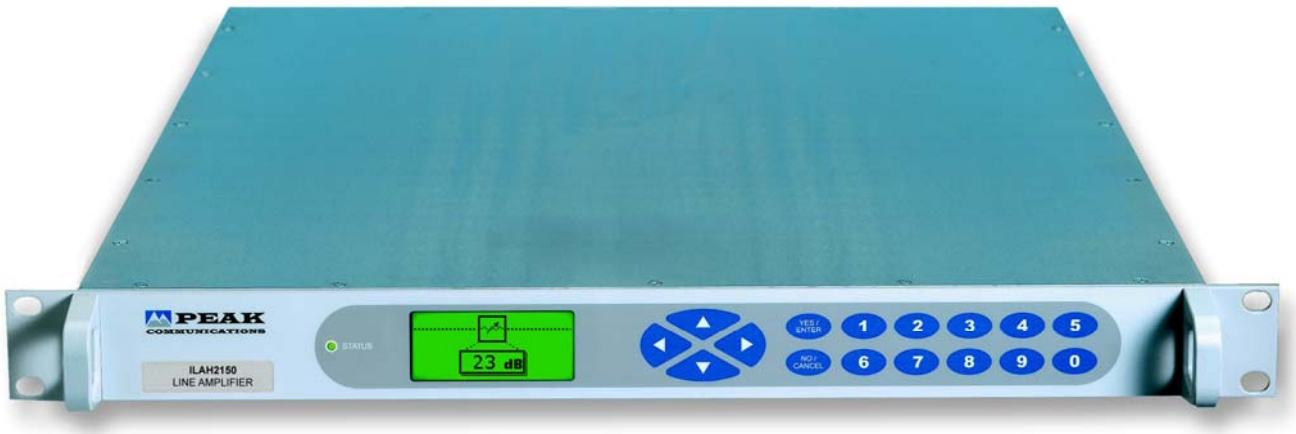
# ILAH Series

## L-Band Line Amplifier, Rack Mounted with user interface.




### *High Grade Line Amplifier Products;*

| | |
|---|---|
| **ILAH1450** | 950-1450MHz |
| **ILAH1750** | 950-1750MHz |
| **ILAH2150** | 950-2150MHz |

For other 'non-standard' frequency requirements, please contact the factory.
For multiple-channel units in a single chassis (Dual, Triple, Quad), please consult the factory.
For equivalent lower cost units without the full user interface please see ILA series datasheet.
For equivalent remote mount units, please see PLA series datasheet.

The 19 inch, 1U rack mounted, **ILAH series** of L-Band Line Amplifier units from Peak Communications are designed to provide high quality signal amplification, primarily for satellite Earth station cross-site applications.

The **ILAH series** units are mains powered and are constructed of high grade components to give the ultimate Gain flatness and stability performance.

For redundancy the **ILAH series** units use a simple CANBUS® interface and have an integral redundancy controller for 1+1 & 2+1 operation (for use with external **T1000L**, **T2000L** switch units), for N+1 systems a separate external control and switch unit is provided (**RCU1002 series**).

The unit incorporates a graphics display module, membrane keyboard and features a clear and intuitive control and configuration menu fully utilising the unique graphics display.

### *Peak Features*

- High gain flatness and stability performance.
- Amplifier low current alarm monitoring
- Electronically Variable Attenuator options for both local & remote control of Gain
- Integral 1+1 & 2+1 CANBUS® redundancy control & N+1 switch systems available
- L-Band monitor, Mute and Fibre Optic L-Band interface options available
- Optional input signal power detector with user settable input & 'compression alarm' threshold levels

# *ILAH series - Typical Specification*

## Input

| | |
|---|---|
| Frequency | ILAH1450; 950-1450MHz<br>ILAH1750; 950-1750MHz<br>ILAH2150; 950-2150MHz |
| Connector | 50Ω, SMA, female<br>Option 1a; N-Type, Option 1c; BNC |
| Return loss | 16dB typical |

## Output

| | |
|---|---|
| Connector | 50Ω, SMA, female<br>Option 1b; N-Type, Option 1d; BNC |
| Return loss | 18 to 22dB typ. (frequency dependent) |

## RF Performance

| | |
|---|---|
| Gain | 20dB minimum<br>For higher Gain options please contact the factory. |
| Gain flatness | ±0.25dB (bandwidths <500MHz)<br>±0.5dB (bandwidths <800MHz)<br>±1dB (bandwidths <1200MHz) |
| Active Directivity | 22dB typical<br>20dB minimum |
| RF Input power | -10dBm max. (no load, no damage) |
| TOIP | +25dBm typical |
| 1dB Output GCP | +13dBm typical<br>For higher GCP options please contact the factory. |
| Noise Figure | 7 to 9dB typ. (frequency dependent) |

## L-Band Monitor (Input Option 2a, Output Option 2b)

| | |
|---|---|
| Connector | 50Ω, SMA (f) on rear panel<br>For other connection types please contact the factory |
| Level | -20dBc ±3dB |

## Electronically Variable L-Band Attenuation (Option 10)

| | |
|---|---|
| Attenuation range | 30dB nominal |
| Step size | 1dB (Option 10a), 0.1dB (Option 10b) |
| Control | Local & remote |

## RF Mute (Option 13)

| | |
|---|---|
| Isolation | 60dB min. |

## Input Power Detector & Alarms (Option 14)

| | |
|---|---|
| Detection range | 0 to -50dBm |
| Display | Actual input and calculated output power, graphical via front panel and available via remote control |
| Low power Alarm | Input power alarm. User settable via front panel interface |
| Compression Alarm | Automatic 'preset' warning alarm for input/output compression point. User settable via front panel interface |

## Mechanical

| | |
|---|---|
| Width | 19" standard rack mount |
| Height | 1U (1.75") |
| Depth | 400mm (15.7"), plus connectors |
| Construction | Aluminium chassis |
| Weight | 5.5kgs (12lbs) |

## Environmental

| | |
|---|---|
| Operating temp. | 0°C to +50°C |
| EMC | EN 55022 part B & EN 50082-1 |
| Safety | EN 60950 |

## Power Supply

| | |
|---|---|
| Voltage | 115/230VAC±10%, selectable, linear power supply |
| Frequency | 50/60Hz |
| Total power | 50 Watts max. |

## Control System Interface

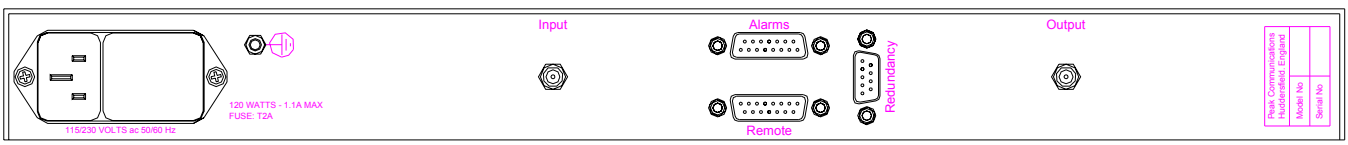
| | |
|---|---|
| Remote Control | RS232/RS485 port.<br>Ethernet option; Embedded web server & SNMP network management support (option 9). |
| Redundancy | CANBUS® interface for N+1 systems<br>In-built 1+1 & 2+1 controller |
| Discrete 'alarms interface'. | PSU fail<br>Amplifier current detection |

## *Options*

1a) N-Type (f) input interface connection
1b) N-Type (f) output interface connection
1c) BNC (f) input interface connection
1d) BNC (f) output interface connection
2a) -20dBc L-band input monitor on rear panel
2b) -20dBc L-band output monitor on rear panel
6a) Fibre optic L-band output interface connection
6b) Fibre optic L-band input interface connection
9) Ethernet interface with embedded web server & SNMP
10a) Attenuator with local & remote control, 30dB stepped 1dB
10b) Attenuator with local & remote control, 30dB stepped 0.1dB
13) RF Mute option
14) Input signal power detector and alarms.

Notes; The addition of Options can modify the typical specification, for details please consult the factory.

## *Rear panel view*

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