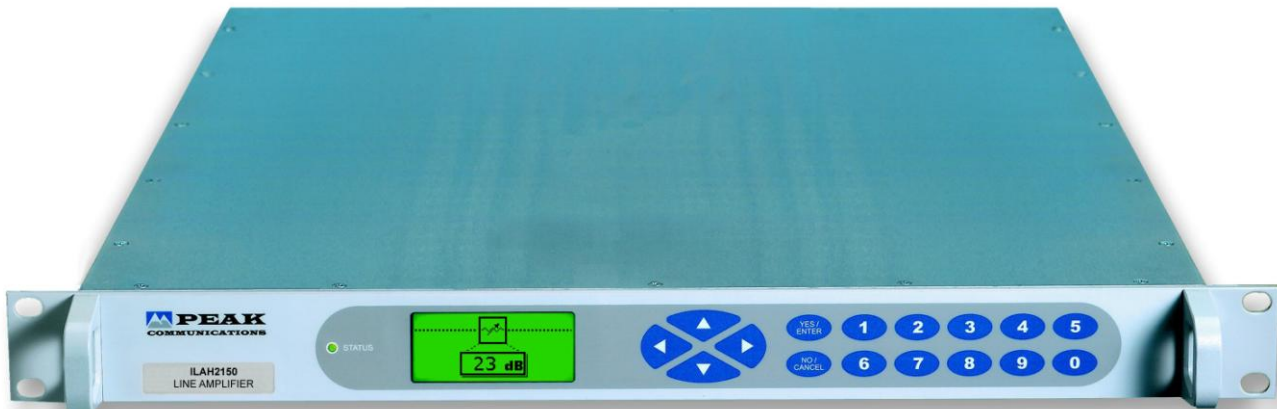


## ILAH Series

IF (70/ 140MHz), L-Band & SHF Line Amplifiers, Rack Mounted with user interface.



### High Grade Line Amplifier Products;

<b>ILAH70</b>	IF 70±20MHz & 140±40MHz frequencies
<b>ILAHL-1450</b>	L-Band 950-1450MHz frequencies
<b>ILAHL-1750</b>	L-Band 950-1750MHz frequencies
<b>ILAHL-2150</b>	L-Band 950-2150MHz frequencies
<b>ILAHS-2400</b>	S-Band 2.0-2.4GHz frequencies
<b>ILAHC-4200</b>	C-Band 3.4-4.2GHz receive frequencies
<b>ILAHC-6725</b>	C-Band 5.85-6.725GHz transmit frequencies
<b>ILAHKu-1275</b>	Ku-Band 10.7-12.75GHz receive frequencies
<b>ILAHKu-1450</b>	Ku-Band 13.75-14.5GHz transmit frequencies
<b>ILAHD-1840</b>	DBS-Band 17.3-18.4GHz transmit frequencies

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 **A1000L**, **A2000L** 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
- ☒ Monitor, mute and fibre optic L-Band interface options available
- ☒ Optional input signal power detector with user settable input & 'compression alarm' threshold level



## ILAH series - Typical Specification

### Input

<b>ILAH70;</b>	50-200MHz
<b>ILAHL-1450;</b>	950-1450MHz
<b>ILAHL-1750;</b>	950-1750MHz
<b>ILAHL-2150;</b>	950-2150MHz
<b>ILAHS-2400;</b>	2.0-2.4GHz
<b>ILAHC-4200;</b>	3.4-4.2GHz
<b>ILAHC-6725;</b>	5.85-6.725GHz
<b>ILAHKu-1275;</b>	10.7-12.75GHz
<b>ILAHKu-1450;</b>	13.75-14.5GHz
<b>ILAHD-1840;</b>	17.3-18.4GHz

Connector	SMA (f), 50Ω
Option 1a;	N-Type (f), 50Ω
Option 1c;	BNC (f), 50Ω (<2150MHz only)
Option 1e;	BNC (f), 75Ω (<2150MHz only)
Return loss	16dB

### Output

Connector	SMA (f), 50Ω
Option 1b;	N-Type (f), 50Ω
Option 1d;	BNC (f), 50Ω (<2150MHz only)
Option 1f;	BNC (f), 75Ω (<2150MHz only)
Return loss	18 to 22dB (frequency dependent)

### RF Performance

Gain	20dB min
<i>Note: for higher Gain options please contact the factory</i>	
Gain flatness	±0.25dB (bandwidths <500MHz) ±0.5dB (bandwidths <800MHz) ±1dB (bandwidths <1200MHz)
Active Directivity	22dB typ., 20dB min
RF Input power	-10dBm max (no load, no damage)
TOIP	+25dBm (+20dBm >2150MHz)
1dB Output GCP	+13dBm (+8dBm >2150MHz)
<i>Note: for higher 1dBGCP options please contact the factory</i>	
Noise Figure	7 to 9dB (frequency dependent)

### Monitor (Input Option 2a, Output Option 2b)

Connector	SMA (f), 50Ω, on rear panel
<i>Note: for other connection types please contact the factory</i>	
Level	-20dBc ±3dB

### Electronically Variable Attenuation (Option 10)

Attenuation range	30dB
Step size	0.1dB, 0.5dB or 1dB
Control	Electronically variable via local (front panel) & remote control

### RF Mute (Option 13)

Isolation	60dB min
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### 10MHz Reference Pass-through (Option 5)

Allows 10MHz reference fed into the unit (multiplexed onto input connection) to 'pass-through' to output (L-band only).



### 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 mountable
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

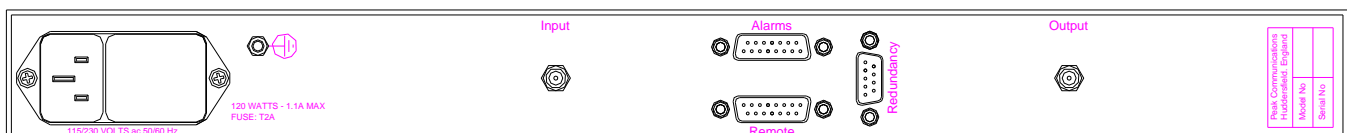
Remote Control	RS232/RS485 port
Option 9;	Ethernet; Embedded web server & SNMP network management support
Redundancy	CANBUS® interface for N+1 system In-built 1+1 & 2+1 controller
Discrete 'alarms interface'	PSU fail Amplifier current detection

### Options

- 1a) N-Type (f), 50Ω input interface connection
- 1b) N-Type (f), 50Ω output interface connection
- 1c) BNC (f), 50Ω input interface connection
- 1d) BNC (f), 50Ω output interface connection
- 1e) BNC (f), 75Ω input interface connection
- 1f) BNC (f), 75Ω output interface connection
- 2a) -20dBc input monitor on rear panel
- 2b) -20dBc output monitor on rear panel
- 5) 10MHz reference pass-through on L-Band interface
- 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) Electronic Attenuator, 0-30dB (1dB steps), at L-Band
- 10b) Electronic Attenuator, 0-30dB (0.1dB steps), at L-Band
- 10c) Electronic Attenuator, 0-30dB (0.5dB steps), at Ku-Band
- 10d) Electronic Attenuator, 0-30dB (0.5dB steps), at C-Band
- 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



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. ILAHseries-180711.

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