

## PLA Series

### Remote Mounted, IF (70/140MHz), L-Band & SHF Line Amplifiers.



The **PLA series** remote mounted line amplifier units from Peak Communications are designed to be used to overcome the losses associated with cross-site installations.







The **PLA series** units are DC powered and are constructed of high grade components to give the ultimate gain flatness and stability performance.

The **PLA series** units utilise a sealed chassis and are designed for mounting in outdoor, exposed locations and are fully weatherproof.

<b>PLA70</b>	IF 70±20MHz & 140±40MHz frequencies
<b>PLAL1450</b>	L-Band 950-1450MHz frequencies
<b>PLAL1750</b>	L-Band 950-1750MHz frequencies
<b>PLAL2150</b>	L-Band 950-2150MHz frequencies
<b>PLAS2400</b>	S-Band 2.0-2.4GHz frequencies
<b>PLAC4200</b>	C-Band 3.4-4.2GHz receive frequencies
<b>PLAC6725</b>	C-Band 5.85-6.725GHz transmit frequencies
<b>PLAKu1275</b>	Ku-Band 10.7-12.75GHz receive frequencies
<b>PLAKu1450</b>	Ku-Band 13.75-14.5GHz transmit frequencies
<b>PLAD1840</b>	DBS-Band 17.3-18.4GHz transmit frequencies

For other 'non-standard' frequency requirements, please contact the factory.  
 For multi-channel units in larger chassis, please consult the factory.  
 For equivalent rack mountable units, please see ILA, ILAH & DLA series datasheet.

#### Peak Features

-  High gain flatness and stability performance
-  Amplifier low current alarm monitoring
-  Rugged weatherproof housing
-  Multi-channel units available in larger chassis
-  Temperature compensated for thermal stability and fast warm-up
-  Fully compatible with **RCU50** 1+1 redundancy controllers and remote switch units



## PLA series - Typical Specification

### Input

Frequency	
PLA70	50-200MHz
PLAL1450	950-1450MHz
PLAL1750	950-1750MHz
PLAL2150	950-2150MHz
PLAS2400	2.0-2.4GHz
PLAC4200	3.4-4.2GHz
PLAC6725	5.85-6.725GHz
PLAKu1275	10.7-12.75GHz
PLAKu1450	13.75-14.5GHz
PLAD1840	17.3-18.4GHz
Connector	50Ω, N-Type (f)
Return loss	16dB

### Output

Connector	50Ω, N-Type (f)
Return loss	18 to 22dB (frequency dependent)

### RF Performance

Gain	20dB min
Option 4a;	30dB nom
Option 4b;	40dB nom
<i>Note: for other gain requirements please contact the factory</i>	
Gain flatness	±0.25dB (bandwidths <500MHz)
	±0.5dB (bandwidths <800MHz)
	±1dB (bandwidths <1200MHz)
Active directivity	22dB
	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 GCP options please contact the factory.</i>	
Noise figure	7 to 9dB (frequency dependent)

### Fail-safe Bypass Switching (Option 3)

Fail-safe bypass switching triggered by DC power alarm, connects input to output with minimal loss.

Insertion loss	1dB nom
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### Mechanical

Width	123mm (4.85")
Height	172mm (6.8"), plus connections & mounting flanges
Depth	48mm (1.89")
Construction	Die-cast Aluminium, IP66 rated
Weight	1.4kgs (3lbs) approx

### Environmental

Operating temp	-25°C to +55°C (less solar gain)
Option 12;	-40°C to +55°C (less solar gain), with extended warm-up time for cold start operation & higher current
Humidity	0-100% condensing
EMC	EN 55022 part B & EN 50082-1
Safety	EN 60950

### Power Supply

Voltage	+16.5 to +35VDC
Current	500mA max
Connection	Fed in on 5-pin control interface connection
Option 2a;	Fed in on L-Band cable
Option 2b;	Fed in on the 5-pin control interface connection as well as the L-Band cable

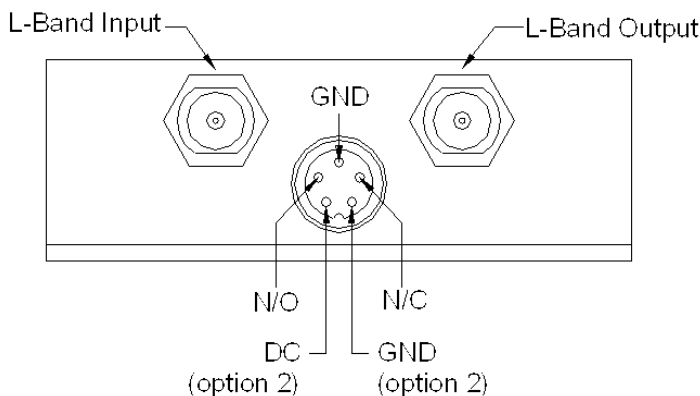
### Control System Interface

Alarms	Summary alarm contacts
Connection	5-pin circular weatherproof (mating part supplied)

### Options

- 1) 10MHz reference & DC (2A max.) pass-through on the L-Band connection.
- 2a) DC input connection multiplexed onto the L-Band cable replacing the wired connection to the 5-pin control interface connector.
- 2b) DC input connection wired to the 5-pin 'alarms' connector, as well as the standard DC feed system via the L-Band cable.
- 3) Fail-safe by-pass switching to overcome DC PSU failure.
- 4a) Increased gain to 30dB nom.
- 4b) Increased gain to 40dB nom.
- 12) Low temperature operation to -40°C

## Connector panel view



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. PLAseries-140716.

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