

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.

High Grade Line Amplifier Products;

PLA70	IF 70±20MHz & 140±40MHz frequencies
PLAU240	UHF 240-323MHz frequencies
PLAL1450	L-Band 950-1450MHz frequencies
PLAL1750	L-Band 950-1750MHz frequencies
PLAL2150	L-Band 950-2150MHz frequencies
PLAL2450	Extended L-Band 950-2450MHz frequencies
PLAS2400	S-Band 2.0-2.4GHz frequencies
PLAC4200	C-Band 3.4-4.2GHz receive frequencies
PLAC6725	C-Band 5.85-6.725GHz transmit frequencies
PLAKu1275	Ku-Band 10.7-12.75GHz receive frequencies
PLAKu1450	Ku-Band 13.75-14.5GHz transmit frequencies
PLAKu1450B	Ku-Band 12.75-14.5GHz transmit frequencies
PLAKu1480	Ku-Band 13.75-14.8GHz transmit frequencies
PLAD1840	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
-  Slope compensation options
-  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
PLAU240;	240-323MHz
PLAL1450	950-1450MHz
PLAL1750	950-1750MHz
PLAL2150	950-2150MHz
PLAL2450	950-2450MHz
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
PLAKu1450B	12.75-14.5GHz
PLAKu1480	13.75-14.8GHz
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)
S-Band	<1.7dB

Fail-safe Bypass Switching (Option 3)

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

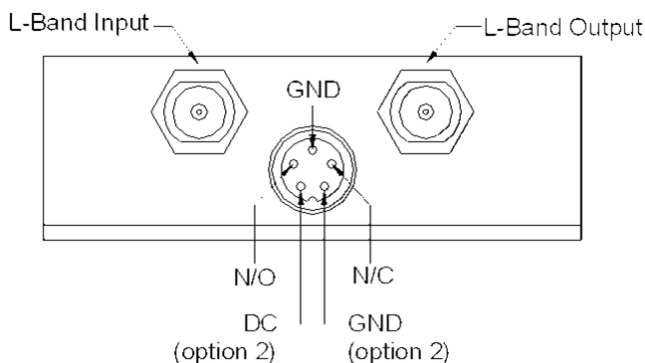
Insertion loss	1dB nom
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L-Band Linear Slope compensation (Option 15)

Provides positive slope compensation of nominally 5dB, to compensate for internal circuitry & external primarily cross-site L-Band cables.

Note; unit options chosen will determine 'surplus' available for external compensation (for details contact factory).

Connector panel view (sample)



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 pass-through on the L-Band connection.
- 1a) 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 multiplexed onto the L-Band cable as well as the 5-pin control interface connector.
- 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
- 15) 5dB passive, fixed, slope compensation (L-Band only)

Note; the addition of options can modify the typical specification, for details please consult the factory



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. PLAseries-290622.

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