

DLA200

Dual, modular, 'hot-swappable' Line Amplifier with optional 1+1 redundancy for IF (70/ 140MHz), L-band & SHF signals



Available line amplifier modules for the DLA200 chassis;

MLA70	IF 70±20MHz & 140±40MHz frequencies
MLAU240	UHF 240-323MHz frequencies
MLAL1450	L-Band 950-1450MHz frequencies
MLAL1750	L-Band 950-1750MHz frequencies
MLAL2150	L-Band 950-2150MHz frequencies
MLAL2450	Extended L-Band 950-2450MHz frequencies
MLAS2400	S-Band 2.0-2.4GHz frequencies
MLAC4200	C-Band 3.4-4.2GHz receive frequencies
MLAC6725	C-Band 5.85-6.725GHz transmit frequencies
MLAKu1275	Ku-Band 10.7-12.75GHz receive frequencies
MLAKu1450	Ku-Band 13.75-14.5GHz transmit frequencies
MLAKu1450B	Ku-Band 12.75-14.5GHz transmit frequencies
MLAKu1480	Ku-Band 13.75-14.8GHz transmit frequencies
MLAD1840	DBS-Band 17.3-18.4GHz transmit frequencies






For other 'non-standard' frequency requirements, please contact the factory.
For equivalent remote mountable units, please see PLA series datasheet.

The 19-inch 1U rack mounted **DLA200** chassis unit is designed to accept two, line amplifier modules. Modules can be inserted/ replaced in the **DLA200** unit from the rear without the need to remove power or disturb the other channel in any way.

The **DLA200** chassis units are mains powered (redundant power supplies as standard) and are constructed of high-grade components to give the ultimate gain flatness and stability performance.

The **DLA200** unit is available with optional integral 1+1 redundancy switching and control for use when two identical modules are used.

Peak Features

-  High gain flatness and stability performance
-  Amplifier low current alarm monitoring
-  Slope compensation options
-  Redundant power supplies with dual mains input
-  Integral 1+1 redundancy option for module switching



DLA200 Chassis - Typical Specification

Mechanical

Width	19" standard rack mountable
Height	1U (1.75")
Depth	400mm (15.7"), plus connectors
Construction	Aluminium chassis
Weight	4.5kgs (10lbs)

Environmental

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

Power Supply (2off in redundant configuration)

Voltage	90-264VAC
Option 11;	48VDC
Frequency	47-63Hz
Total power	50 Watts max.

Control System Interface

Local interface	Front panel key switches (for option 6)
Remote control	RS232/ RS485 port
Option 9;	Ethernet; embedded web server & SNMP network management support
Alarms	PSU fail Amplifier current detection

Integral 1+1 'Module' Redundancy (Option 6)

Connections	SMA (f), 50Ω
Switching speed	<150ms (from fault to switch completion)
Switch isolation	>60dB input to output
Cables	Includes high grade rear panel links

Note: The connection to the internal redundancy circuitry is made via SMA (f) RF links on the rear panel, this allows for by-pass wiring should the need arise. High grade coaxial linking cables are provided.

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).

- Option 5a; for use with option 6, fitted between system input and output connections
- Option 5b; for use without option 6, fitted between module input and output connections

L-Band Linear Slope Compensation (Option 15a)

Compensates for internal circuitry & external primarily cross-site cables
Notes: Only applicable with option 6, fitted to main chassis common signal path. Unit options chosen will determine 'surplus' available for external compensation (for details contact factory).

Frequency	950-2150MHz
Compensation	Passive, fixed 5dB nom., positive slope

Integral Input Combiner /Output Splitter (Option 16a /b)

- Option 16a; 2-way
- Option 16b; 4-way

Connections	SMA (f), 50Ω
-------------	--------------

Notes: Only applicable with option 6, fitted to main chassis common signal path. Typical 7dB insertion loss can be expected. Includes connection spanner.

DLA Options

- 5a) 10MHz reference pass-through (with option 6)
- 6) Integral 1+1 redundancy module switching
- 9) Ethernet interface with embedded web server & SNMP, replaces RS232/485 port
- 11) 48VDC prime power supply
- 15a) 5dB passive, fixed, slope compensation (L-Band only)
- 16a) Passive system input combiner or system output splitter, 2-way
- 16b) Passive system input combiner or system output splitter, 4-way

Note: The addition of options can modify the typical specification, for details please consult the factory.

MLA Modules - Typical Specification

Input

MLA70;	50-200MHz
MLAU240;	240-323MHz
MLAL1450;	950-1450MHz
MLAL1750;	950-1750MHz
MLAL2150;	950-2150MHz
MLAL2450;	950-2450MHz
MLAS2400;	2.0-2.4GHz
MLAC4200;	3.4-4.2GHz
MLAC6725;	5.85-6.725GHz
MLAKu1275;	10.7-12.75GHz
MLAKu1450;	13.75-14.5GHz
MLAKu1450B;	12.75-14.5GHz
MLAKu1480;	13.75-14.8GHz
MLAD1840;	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)
Option 1g;	F-Type (f), 75Ω (<2150MHz only)

Notes: Some connector options may lower the overall unit performance. F-Type performance cannot be guaranteed.

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)
Option 1h;	F-Type (f), 75Ω (<2150MHz only)

Notes: Some connector options may lower the overall unit performance. F-Type performance cannot be guaranteed.

Return loss	18 to 22dB (frequency dependent)
-------------	----------------------------------

RF Performance

Gain	20dB min
Option 4a;	30dB nom
Option 4b;	40dB nom

Note: For other gain requirements please contact the factory.

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)

Note: For higher GCP options please contact the factory.

Noise figure	7 to 9dB (frequency dependent)
S-Band	<1.7dB

Monitor Ports (Option 2)

Option 2a;	Input monitor
Option 2b;	Output monitor
Connector	SMA (f), 50Ω, on rear panel
Level	-20dBc ±3dB

L-Band Linear Slope Compensation (Option 15)

Compensates for internal circuitry & external primarily cross-site cables
Note: Unit options chosen will determine 'surplus' available for external compensation (for details contact factory).

Frequency	950-2150MHz
Compensation	Passive, fixed 5dB nom., positive slope

MLA Options

- 1a) N-Type (f), 50Ω MLA module input connector
- 1b) N-Type (f), 50Ω MLA module output connector
- 1c) BNC (f), 50Ω MLA module input connector
- 1d) BNC (f), 50Ω MLA module output connector
- 1e) BNC (f), 75Ω MLA module input connector
- 1f) BNC (f), 75Ω MLA module output connector
- 1g) F-Type (f), 75Ω MLA module input connector
- 1h) F-Type (f), 75Ω MLA module output connector
- 2a) -20dBc input monitor on rear panel
- 2b) -20dBc output monitor on rear panel
- 4a) higher gain to 30dB nom
- 4b) higher gain to 40dB nom
- 5b) 10MHz reference pass-through
- 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. DLA200-021222.

Peak Communications Ltd., Unit 1, The Woodvale Centre, Woodvale Road, Brighouse, West Yorkshire, HD6 4AB, U.K.

Tel; +44 (0)1484 714200 Sales; +44 (0)1484 714229 Fax; +44 (0)1484 723666 Email; sales@peakcom.co.uk Web; www.peakcom.co.uk

Rear panel view (sample, shown with 1+1 redundancy option fitted)

