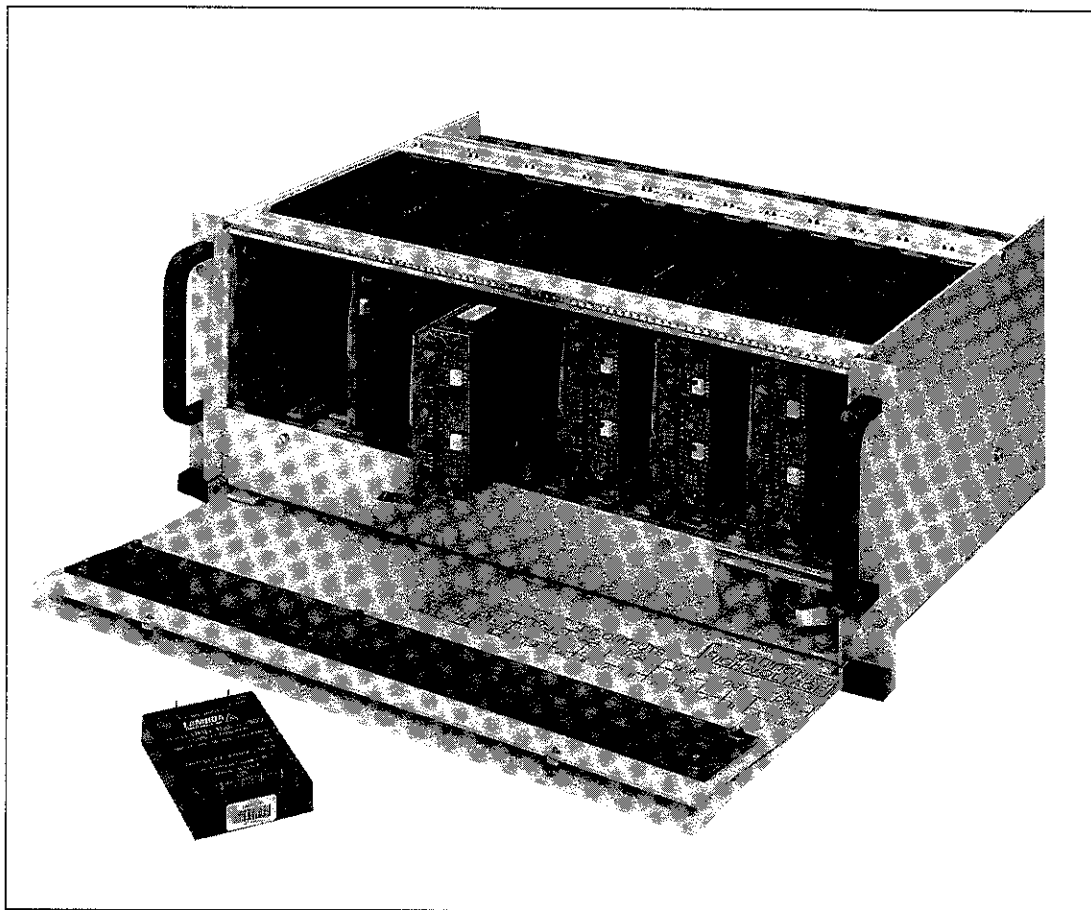


LAMBDA'S LCCA RACK SYSTEM



The Only Completely Modular Redundant Power System

Lambda's LCCA Modular Power System simplifies the design process by providing basic building blocks for any custom power requirement. The system features a Power Rack, AC Input Card, DC Power Card and Fan Tray. Together, these components put front panel, hot pluggable, redundant power right at your fingertips for even the most critical applications. The AC and DC cards are modular and replaceable. They have the lowest MTTR on the market today and can be accessed quickly and easily without interrupting system operation – ideal for voice and data communications. In addition, N + 1 current sharing evenly distributes the dissipation within each module providing higher MTBF.

Lambda's LCCA Modular Power System features 48V and AC input options for telecom or worldwide applications, monitoring signals, and in integral fan assembly for thermal reliability. The System is fully user protected to allow service with the system power on.

LCCA RACK SYSTEM FEATURES

Modularity	Lambda's LCCA modular power system consists of component level AC and DC cards which provide output combinations tailored to specific system requirements, without NRE charges – and delivered in two weeks.
Flexibility	Various component cards can be mixed and matched in thousands of standard combinations.
Fault Tolerance	Full system operation without interruption in the event of a single point failure. In addition, the system can be configured in N + 1 redundancy.
Lowest MTTR	The unique backplane of the LRA-22 rack adapter allows the easy removal and insertion of component cards.
Hot Pluggable	Component cards can be replaced while the system is operating without affecting output power.
DC Monitoring	Normally conducting 1 mA signal indicates that the DC outputs of each card are within monitoring range. An LED for each output is included on each card, and is visible at the front of the rack.
AC Monitoring	Normally conducting 1 mA signal indicates that the output voltage of each AC input card is within monitoring range. An LED for each output is included on each card and is visible at the front of the rack.
Field Upgradeable	The mechanical design of the LCCA modular power system makes it easy for the user to add outputs as system requirements change in the field.

Part III – Test, Systems and Laboratory Power Supplies

LAMBDA'S LCCA RACK SPECIFICATIONS

Operating Temperature

Continuous duty from 0° to +60°C with appropriate derating.
Consult factory for details.

Cooling

Each assembly includes an integral fan tray which provides cooling to the cards in the assembly.

Dimensions

The LCCA Rack dimensions are 19" x 12" x 7". (4U VME height)

Number of UAC1 Cards

Up to 8 UAC1 cards can be used in one LCCA assembly depending on specific system requirements.

Number of UDC Cards

Up to 8 UDC cards can be used in one LCCA Assembly depending on specific system requirements.

Front Panel

The front panel is sheetmetal and is on hinges with captive hardware for secure closure.

Rear Cover

The rear panel of the assembly is covered with a Plexiglas shield for added safety for service personnel.

DC Output Voltage

Available with 5, 12, 15, 24, 28, 48, 56VDC outputs.

Adjustability

Output voltages are $\pm 5\%$ adjustable.

Number of Outputs

There can be up to 16 separate outputs in one LCCA.

Ripple and Noise

15mV RMS, 100mV pk-pk for 5V outputs. 25mV RMS, 150mV pk-pk for 12V thru 28V outputs.

Input Voltage

85-132/187-265VAC, auto-selectable, 47-63Hz or 40-72 VDC.

Input Power/Current

Input power and current is dependent upon the specific LCCA configuration.

Order Information

You can order a Rack System, fully configured Component Cards, Stand-alone DC-DC Converters (UHD's*), Heatsinks (UFL's*) and Thermal Interface Pads (UTP's*).

To order a configured AC Input Card ask for part number UAC1.

To order a fully configured DC Power Card simply contact Lambda with your specific output requirements, or follow the simple part numbering system as shown below.

Part Number is: UDC1ABCDE where:

- A = Input Voltage Designation
1 = 48V Input 2 = 300V Input
- B = Output Voltage for First Position UHD
C = 5 E = 12 F = 15 H = 24 J = 28
- C = Output Voltage for Second Position UHD
C = 5 E = 12 F = 15 H = 24 J = 28 Z = Not Used
- D = Configuration Designation
1 = Independent 2 = Parallel Current Sharing,
3 = Redundant Current Share 4 = Redundant
- E = Heatsink Designation
1 = UFL1 2 = UFL2 3 = UFW1
(The UFL2 is used in the Fully Configured Racks)

To order a fully configured LCCA Modular Power System simply contact your local Lambda Sales Engineer.

*Call 1-800-Lambda-4 for more information on Lambda's Component Level Power Modules.

LCCA CARD SPECIFICATIONS

UAC1 AC Input Card*

Operating Temperature

Continuous duty from 0° to +60°C with appropriate derating above +25°C. Consult factory for details.

Cooling

Forced air cooling is required.

Power Good Signal

A normally conducting 1mA signal source and LED signals when output voltage is within tolerance.

Output Voltage

200-370VDC for input to UDC1 DC Power Card.

Output Power

660 Watts. 560 Watts in Redundant configuration.

Holdup Time

Output voltage will remain within specified values for 10mS after loss of AC input.

AC Input

85-132VAC/187-265VAC auto-selectable input. 720W maximum at 0.65 power factor.

Dimensions

100mm x 200mm.

Connections

All connections are via rear edge DIN H-15 connector.

Overvoltage Protection

Input is protected from overvoltage via a spark gap device.

Overload Protection

Input is protected from overload via a 20A fuse.

Pricing

Qty 1\$150
OEM QtyConsult Factory

Safety Agency Approvals

Under evaluation for UL, CSA, TUV

UDC1 DC Power Card*

DC Output Voltage

5, 12, 15, 24, 28, 48, 56VDC outputs available.

Output Adjustability

Outputs are adjustable $\pm 5\%$.

Parallel/Series

Outputs are capable of parallel or series (up to 56VDC max) configuration.

Number of Outputs

1 or 2 per card.

Output Power (40°C)

Output	Power	In Redundant
5V	100W	90W
12-28V	132W	115W

Ratings shown are with UFLs heatsink and 300LFM. Contact factory for rating curves.

Remote Sense

Remote sense connections are available on rear edge connector.

DC Input

Input voltage is 38-72VDC or 200-375VDC.

Dimensions

100mm x 200mm

Current Sharing

Current sharing between like modules on the same card is achieved via a jumper on the card. Current sharing between modules on separate cards is achieved via the rear edge connector.

Remote On/Off

Option 1 (5V Source required)
Open circuit or logic "1" = Off
Short circuit or logic "0" = On
Option 1 (5V Source required)
Open circuit, short or logic "0" = On
Logic "1" = Off

Output Good Monitoring

Normally conducting 1mA signal source and LED signal when output is within $\pm 10\%$ of rated voltage.

Safety Agency Approvals

Under evaluation for UL, CSA, TUV

*All specifications are for cards when used within the LCCA system. Contact the factory for ratings outside the LCCA.