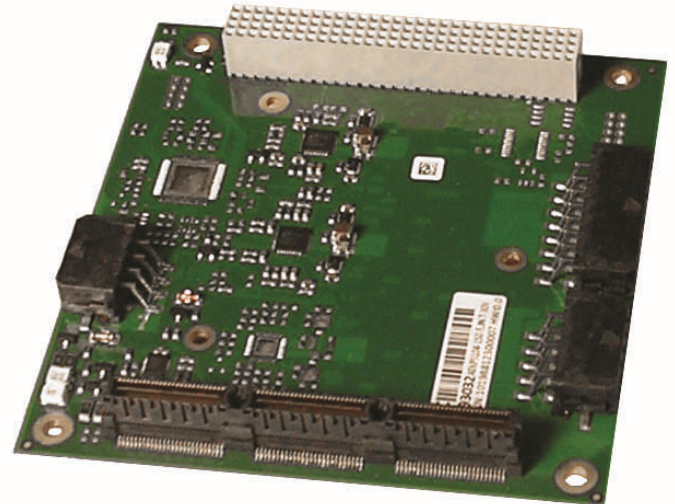




## ADLPS104-150, 150W ATX Power Supply

### Features

- PCI/104-Express Form Factor (90mm x 96mm)
- Two Variants Available:
  - ADLPS104-150-5: Input: 7-30V, Output: 5V, 5VS, 3.3V (optional 7-36V available)
  - ADLPS104-150-12: Input: 14-36V, Output: 5V, 5VS, 3.3V, 12V
- Voltage and Current Specifications (common all variants):
  - Maximum Input Current = 15A
  - Maximum Power = 150W Combined
  - Available Output Current: 5VS/5A, 5V/20A, 3.3V/5A, 12V/10A
- 36V Input Voltage Option Available Upon Request.
- Enhanced EMI Circuitry Designed for IEC 55022 cl. B Emission and EN 55024 Immunity Compliance
- MTBF > 500,000 Hours
- Input Protection:
  - Overcurrent
  - Overvoltage / Undervoltage / Surge
  - Reverse Voltage
- Output Protection:
  - Voltage Out of Range (monitored via PWRGD)
  - Short-circuit
- ATX Compliant Signals Available (PS-ON, PWRGD etc.)
- Temperature Range: -25C to +70C Standard
- Option Available for -40C to +85C with 293034 Heat Spreader



### Ordering Information

| Item Code          | Part # | Description  |
|--------------------|--------|--|
| ADLPS104-150-12    | 293033 | ADLPS104-150-12, 5V, 5VS, 12V, 3.3V, ET                                      |
| ADLPS104-150-5     | 293032 | ADLPS104-150-5, 5V, 5VS, 3.3V, ET (optional 7-36V available)                 |
|                    |        | *Cables included with each unit  |
| <b>Accessories</b> |        |  |
| ADLPS104-150-HSP   | 293034 | ADLPS104-150 Heat spreader for -40C to +85C operation; hardware kit included |
| MILCOTS-FILTER     | 293031 | MIL-STD 704/1275/461 Input Filter; 120w max.                                 |

### Description

The ADLPS104-150 power supply board is designed to meet the needs of high-powered Intel® Core™ industrial and embedded motherboards by providing robust ATX voltages (5V, 5VS, 3.3V, 12V) in a stackable PCI/104-Express form factor designed for -40C to +85C operation at 150W. Its small (90mm x 96mm) footprint allows it to fit in many space limited applications. As well, the ADLPS104-150 is tailored to work in conjunction with our ADLQM67PC Sandy Bridge SBC with more than enough headroom for inrush startup currents, and quiescent operation with multiple peripheral cards. Of course, it is also an economical choice for the ADLGS45PC and other lower power platforms.

The ADLPS104-150 features ATX compliant signaling to allow ACPI/APM power management from within compliant operating systems. The ADLPS104-150 is available in two variants, one allowing an input voltage range of 7-30V but providing only the 5V, 5VS, and 3.3V outputs, the other with a narrower input voltage range of 14-36V but providing 5V, 5VS, 3.3V and 12V outputs.

The board is protected against many types of input power anomalies, such as over-currents, voltage deviations and voltage surge. Short bursts of over-current are simply filtered out. Should overvoltage or under voltage situation persist too long, the power supply shuts off. Noise interference is dampened by up to 35dB. The output is protected against reverse voltage and short-circuit. Additionally, the power supply design does not include the use of electrolytic capacitors, thus dramatically increasing the lifespan of the power supply.

Data subject to change without notice.



## Cable Connections

ADL Embedded Solutions cable **100-9875** required for use with **293033 P501** (in conjunction with cable 100-9874)

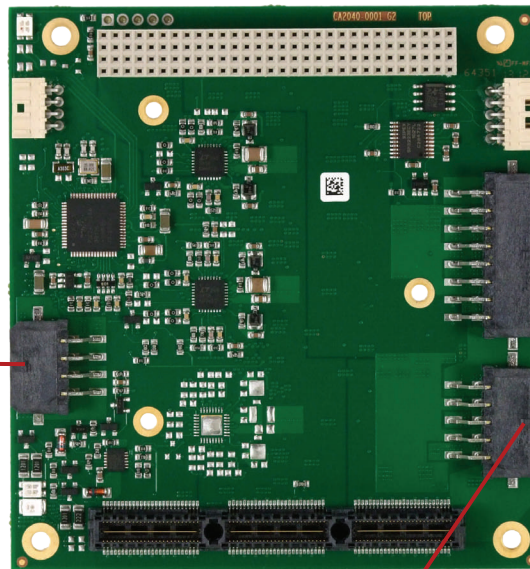
| Signal Description | Pin | Pin | Signal Description |
|--------------------|-----|-----|--------------------|
| 12V                | 1   | 9   | 12V                |
| GND                | 2   | 10  | GND                |
| VCC                | 3   | 11  | VCC                |
| GND                | 4   | 12  | GND                |
| 3.3V               | 5   | 13  | 3.3V               |
| GND                | 6   | 14  | GND                |
| SVCC               | 7   | 15  | PWRGOOD            |
| PWR_PSON#          | 8   | 16  | PWRBTN#            |

ADL Embedded Solutions cable **100-9877** required for use with **293032, 293033 P500**

| Signal Description | Pin | Pin | Signal Description |
|--------------------|-----|-----|--------------------|
| VIN+               | 1   | 5   | VIN+               |
| VIN+               | 2   | 6   | VIN+               |
| VIN-               | 3   | 7   | VIN-               |
| VIN-               | 4   | 8   | VIN-               |

PN: 293032: +7 VDC to +36 VDC Input requirement  
 PN: 293033: +14VDC to +36 VDC Input requirement

**P500 - +7 VDC to +36 VDC Input Power**



**P501: Peripheral Power Output**

| Signal Description | Pin | Pin | Signal Description |
|--------------------|-----|-----|--------------------|
| VCC                | 1   | 9   | VCC                |
| GND                | 2   | 10  | GND                |
| VCC                | 3   | 11  | VCC                |
| GND                | 4   | 12  | GND                |
| 3.3V               | 5   | 13  | 3.3V               |
| GND                | 6   | 14  | GND                |
| SVCC               | 7   | 15  | PWRGOOD            |
| PWR_PSON#          | 8   | 16  | PWRBTN#            |

ADL Embedded Solutions cable **100-9878** for use with **293032 (+5V Only)** combines the cables for **P501** and **P502** into one cable harness for support of +5V only operation.

**P502: Main Power Output**

| Signal Description | Pin | Pin | Signal Description |
|--------------------|-----|-----|--------------------|
| +12V               | 1   | 6   | +12V               |
| GND                | 2   | 7   | GND                |
| GND                | 3   | 8   | GND                |
| GND                | 4   | 9   | GND                |
| VCC                | 5   | 10  | VCC                |

| Signal Description | Pin | Pin | Signal Description |
|--------------------|-----|-----|--------------------|
| VCC                | 1   | 6   | VCC                |
| GND                | 2   | 7   | GND                |
| GND                | 3   | 8   | SVCC               |
| GND                | 4   | 9   | GND                |
| VCC                | 5   | 10  | VCC                |

ADL Embedded Solutions cable **100-9874**:  
 For Use with PN: **293033 P502** (in conjunction with cable 100-9875)  
 Supports +5V and +12V Power outputs

ADL Embedded Solutions cable **100-9878** required for use of **293032 +5VDC output only.**

**Data subject to change without notice.**