



The Power Behind Performance

POWER • TEAMWORK • CUSTOM • SUPPORT •
TIME • FLEXIBILITY • VISION • PERFORMANCE
INATION • EXPERTISE • EFFICIENCY • CONFIGUR
MPONENTS • RELIABILITY • LONGEVITY • VOLU
ROVEN • DENSITY • QUALIFIED • COMPETITIVE
SOLUTIONS • INTEGRATION • OPPORTUNITY

Distributed Power Architecture (DPA)

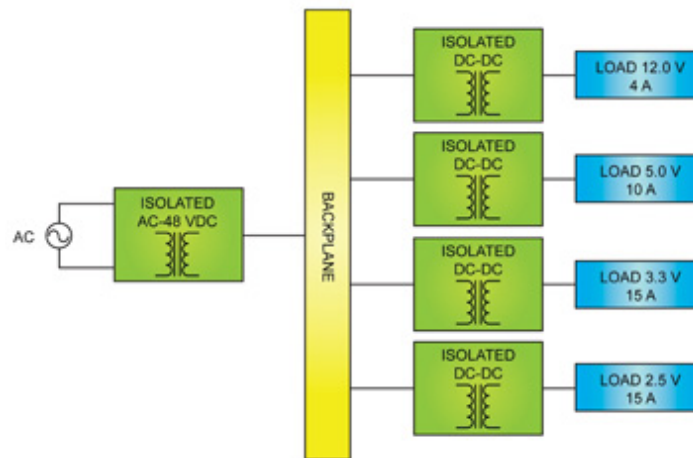
Definition of Distributed Power Architecture



A power distribution approach that addresses architectural limitations of a centralized power system

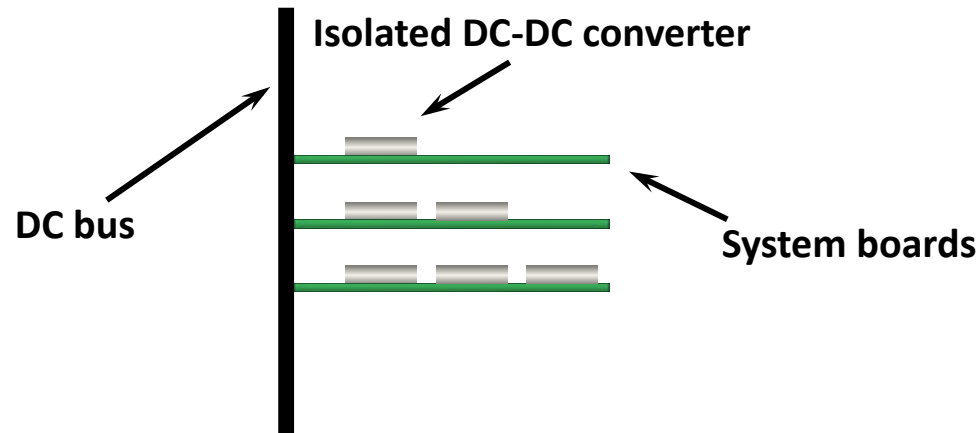
- DPA is a decentralized power architecture usually consisting of an AC front end at the AC mains serving DC-DC converters located on system board and/or near the point of load
- On-board isolated DC-to-DC converters are matched to the load requirement
- Provides efficient power distribution at higher voltages
- Enabled by the development of high-density bricks
- Isolation, regulation, transformation, EMI filtering and input protection are typically implemented at every brick

Benefits of Distributed Power Architecture



- Availability of modular, high density and reliable isolated DC/DC converters at a reasonable cost
- Demand for a more flexible, shorter design cycle for power-distribution systems that allowed quick changes and updates
- Need for systems with high reliability and availability that supported hot swapping and had lower maintenance costs

Benefits of Distributed Power Architecture



- Designs that employ DPA place DC-DC converters on PC boards very close to the point-of-load to maximize system speeds and efficiencies
- A distributed approach spreads the heat throughout the system, greatly reducing or eliminating the need for heat sinks or high velocity airflow. With temperature more evenly maintained throughout the system, reliability specifications are easier to meet.

Example Applications



Telecommunications

- Power transceivers
- Sub-stations
- Central Offices

Semiconductor manufacturing and test

- Burn-in ovens
- Wafer inspection
- Probers

Transportation

- Railway
 - Power Transceiver
 - Communication systems

DPA in MIL-COTS Applications



Ground Vehicles

- Communications equipment
- Targeting systems
- Flat panel displays
- RF jamming
- GPS mobile tracking
- Legacy airborne systems
- Mission computer and secure communications systems
- Ground based radio vehicle / man-pack adapter unit
- Remote weapon station
- Naval electro / optical Laser rangefinder