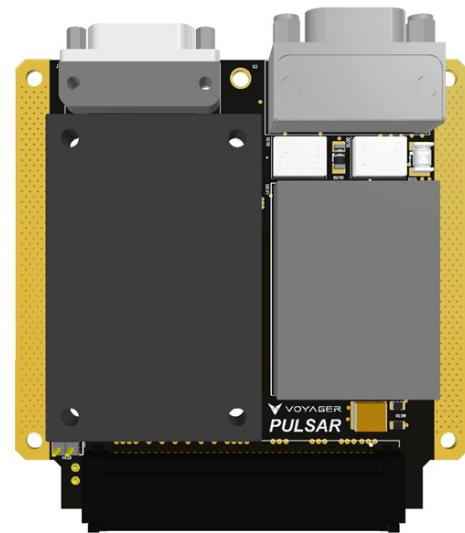


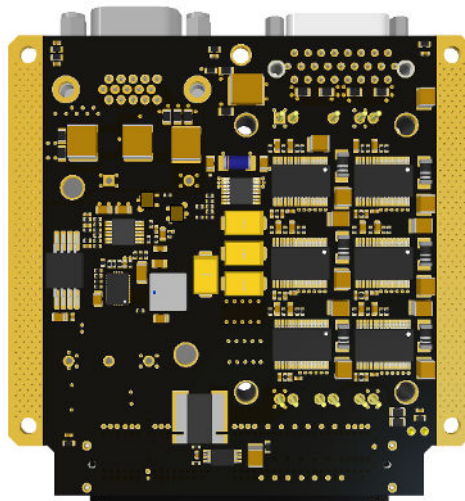
PULSAR POWER SUPPLY

OVERVIEW

The Voyager PULSAR power supply is a low-voltage power card (LVPC). It is a modular, rad-tolerant supply capable of providing 75W of power for 1U missions. The card is the ideal pairing for powering one or multiple space systems processor and compact space processor single-board computer cards. Additionally, six protected switched output services are available for controlling additional devices, both through the backplane or front panel connectors.



PULSAR (Front)



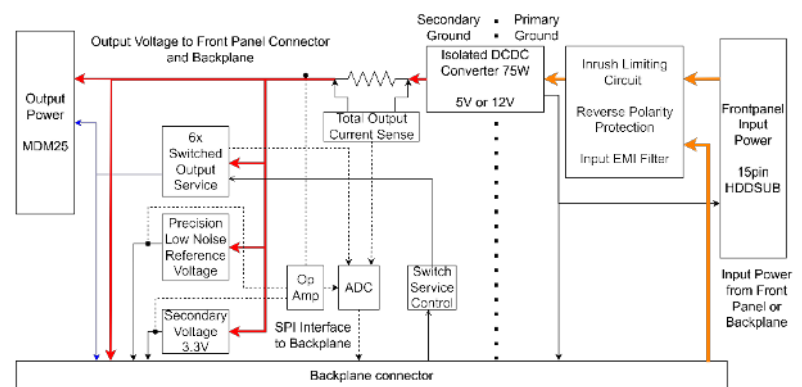
PULSAR (Back)

KEY FEATURES

- Provides EMI filtering, inrush control, flexible connection options
- 12V or 5V depending on converter configuration and 3.3V at up to 75W total output power
- 20V to 40V Power input from front panel or backplane
- 6x output switched services with over-current protection
- Voltage, temperature, and current monitoring
- Radiation-tolerant design
- Low size, weight, power, and cost (SWaP-C)

APPLICATIONS

- 1U missions
- Avionics and instrument boxes
- Rapid, fast-turn space missions paired with SSP and CSP single-board computer cards



Power Card Block Diagram

PULSAR POWER SUPPLY

PRODUCT SPECIFICATIONS

Specifications		
Input Voltage Range	20V – 40V, Nominal 28V	
EMI	MIL-STD-461 C-G Conducted Emissions Compliant	
Radiation	TID 30 krad(Si) No SEL susceptibility up to 42MeV/mg/cm ²	
Maximum Supported SSPs	4x per LVPC	
Monitoring	On-board ADC for monitoring output voltage, current, and temperatures to backplane SPI interface	
Interface Options	Input power from backplane or front panel interface Output power to backplane or front panel interface Switched services controlled via backplane GPIO	
Environment	Temperature Range: -40°C to +100°C (Operating), -55°C to +125°C (Storage) Vibration: 14 gRMS Acceptance, 20 gRMS Qualification Parts Level Options: Commercial Space, NASA Levels 2 and 3	
SWaP	Dimensions (CS ² Compliant): Length: 3.4 in, Width: 3.4 in, Height: 0.5 in Mass: ~210 g Power Dissipated: ~12W at Full Load	
Output Voltage Options		
	5V Version	12V Version
Output Power	75W	75W
Output Current	15A	6.25A
Reference Voltage	3.3V, 200mA	5V, 150mA
Auxiliary Voltage	3.3V @ 5A (Adjustable Voltage)	3.3V @ 5A (Adjustable Voltage)
Peak Efficiency	87%	88%
Switched Outputs	6x @ 5V, 6A, OCP, Current Monitoring	6x @ 12V, 3A, OCP