

XPm2010

MIL-STD-704 28 V Input to ± 12 V, 5 V, and 3.3 V Output 3U PICMG 2.11 Power Supply with Integrated MIL-STD-461E Filtering

- ▶ MIL-STD-704 28 VDC input voltage
- ▶ MIL-STD-461E EMI filtering
- ▶ PICMG 2.11 standard 47-position connector
- ▶ Up to 300 W output on 3.3 V, 5 V, and ± 12 V
- ▶ On-card holdup capacitor for up to 60 ms (at 120 W) of holdup time (optional)
- ▶ Up to 90% efficient
- ▶ -40°C to 85°C conduction-cooled operating temperature (at the thermal interface)
- ▶ Compliant to the VITA 48.2 Type 1, Two-Level Maintenance (2LM) standard
- ▶ Load sharing support with another XPm2010
- ▶ VITA 46.11 Tier-1 and Tier-2 IPMI controller for on-card voltage monitoring (optional)



XPm2010

The XPm2010 is a PICMG 2.11 power supply that takes in a MIL-STD-704 28 VDC input voltage and provides up to 300 W on 3.3 V, 5 V, and ± 12 V at up to 90% efficiency. The XPm2010 also provides on-card MIL-STD-461E EMI filtering.

The XPm2010 fits in a 3U cPCI slot. Up to 8.3 A on 12 V, 2 A on -12 V, 22 A on 5 V, and 25 A on 3.3 V can be supported on each rail, separately. The XPm2010 can provide up to a combined 300 W of total output power at maximum operating temperature. The XPm2010 can also be paired with another XPm2010 for load sharing.

The XPm2010 features an optional VITA 46.11 Tier-1 and Tier-2 Intelligent Platform Management Interface (IPMI) controller which monitors board voltages and temperatures.

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Input Power

- MIL-STD-704 28 VDC
- MIL-STD-461E EMI filtering

Output Power

- Up to 90% efficient
- Supports up to 300 W in total combined power output
- 3.3 V at up to 25 A
- 5 V at up to 22 A
- 12 V at up to 8.3 A
- 12 V at up to 2 A
- Can be paired with another XPm2010 for load sharing

Holdup

- On-card holdup capacitor for up to 60 ms (at 120 W) of holdup time (optional)

Physical Characteristics

Contact factory for CAD model if desired

- 3U cPCI form factor
- PICMG 2.11 standard 47-position connector
- 0.8 in. pitch
- 1.45 pounds (with on-card holdup capacitor)
- 1.1 pounds (without on-card holdup capacitor)

IPMI Controller (Optional)

- VITA 46.11 Tier 1 and Tier 2 IPMI Controller (IPMC)
- Monitors voltages
- Monitors temperature sensors
- Connects to backplane via system management bus (I²C)

Environmental Requirements

Contact factory for appropriate board configuration based on environmental requirements.

- Supported ruggedization levels (see chart below): 5
- Conformal coating available as an ordering option

Ruggedization Level	Level 1	Level 3	Level 5
Cooling Method	Standard Air-Cooled	Rugged Air-Cooled	Conduction-Cooled
Operating Temperature	0 to +55°C ambient (300 LFM)	-40 to +70°C (600 LFM)	-40 to +85°C (board rail surface)
Storage Temperature	-40 to +85°C ambient	-55 to +105°C ambient	-55 to +105°C (maximum)
Vibration	0.002 g ² /Hz (maximum), 5 to 2000 Hz	0.04 g ² /Hz (maximum), 5 to 2000 Hz	0.1 g ² /Hz (maximum), 5 to 2000 Hz
Shock	20 g, 11 ms sawtooth	30 g, 11 ms sawtooth	40 g, 11 ms sawtooth
Humidity	0% to 95% non-condensing	0% to 95% non-condensing	0% to 95% non-condensing

