

XPm2120

MIL-STD-704, 28 V Input to ± 12 V, 5 V, and 3.3 V Output, VITA 62.0, 3U VPX Power Supply with Integrated MIL-STD-461E Filtering

- ▶ MIL-STD-704 28 VDC input voltage
- ▶ MIL-STD-461E EMI filtering
- ▶ VITA 62.0-compliant power supply
- ▶ Up to 300 W output on 3.3 V, 5 V, and ± 12 V
- ▶ Up to 90% efficient
- ▶ -40°C to 85°C conduction-cooled operating temperature (at the thermal interface)
- ▶ Two-Level Maintenance (2LM) support
- ▶ Load-sharing support with another XPm2120
- ▶ VITA 46.11 Tier-1 and Tier-2 IPMI controller for on-card voltage monitoring



XPm2120

The XPm2120 is a VITA 62.0-compliant 3U VPX power supply that allocates 12 V as the primary distribution rail across the backplane to the payload modules. The XPm2120 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 XPm2120 also provides on-card MIL-STD-461E EMI filtering.

The XPm2120 fits in a VITA 62.0-compliant 3U VPX 0.8 in. or 1.0 in. slot. Up to 25 A on 12 V, 2 A on -12 V, 40 A on 5 V, 20 A on 3.3 V, and 4 A on 3.3 V Auxiliary can be supported on each rail, separately. The XPm2120 can provide a combined total output power of up to 300 W at maximum operating temperature. The XPm2120 also can be paired with another XPm2120 for load sharing on the 12 V rail.

The XPm2120 features a VITA 46.11 Tier-1 and Tier-2 Intelligent Platform Management Interface (IPMI) controller which monitors board voltages and temperatures.

X-ES

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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 20 A
- 5 V at up to 40 A
- 12 V at up to 25 A
- -12 V at up to 2 A
- 3.3 V Auxiliary at up to 4 A
- Can be paired with another XPm2120 for load sharing on the 12 V rail. Note that -12 V, 5 V, 3.3 V, and 3.3 V AUX cannot be shared.

Physical Characteristics

Contact X-ES for CAD model if desired

- 3U VPX form factor
- 0.8 in. or 1.0 in. pitch
- 1.1 lbs.

IPMI Controller

- 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 X-ES 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 ambient
Vibration	0.002 g ² /Hz, 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

