

# XPm2220

**End of Life**

MIL-STD-704 and MIL-STD-1275 28 VDC VITA 62.0 3U VPX Power Supply with MIL-STD-461 EMI Filtering [Please see XPm2222](#)

- ▶ MIL-STD-704 and MIL-STD-1275 28 VDC input voltage
- ▶ MIL-STD-461E EMI filtering
- ▶ VITA 62.0-compliant VPX power supply
- ▶ Up to 300 W output on 3.3 V, 5 V, and  $\pm 12$  V
- ▶ Isolated 3.3 V AUX supply
- ▶ Up to 90% efficient
- ▶ -40°C to 85°C conduction-cooled operating temperature (at the thermal interface)
- ▶ VITA 48.2 REDI-compliant
- ▶ 0.8 in. pitch-compliant
- ▶ 1.0 in. pitch with Two-Level Maintenance (2LM) support
- ▶ Load-sharing support with another XPm2220 (optional)
- ▶ IPMI controller for on-card voltage monitoring and control
- ▶ Nuclear Event Detection (contact X-ES)



## XPm2220

The XPm2220 is a VITA 62-compliant 3U VPX power supply. The XPm2220 takes in a MIL-STD-704 or MIL-STD-1275 28 VDC input voltage and provides up to 300 W on 3.3 V, 5 V, and  $\pm 12$  V at up to 90% efficiency. The XPm2220 also provides on-card MIL-STD-461E EMI filtering and MIL-STD-1275 transient suppression.

The XPm2220 fits in a VITA 62-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 XPm2220 can provide a combined total output power of up to 300 W at maximum operating temperature. The XPm2220 also can optionally be paired with another XPm2220 for load sharing.

The XPm2220 features an Intelligent Platform Management Interface (IPMI) controller which monitors board input and output voltages and temperatures. In addition, the IPMI controller can turn off output power and monitor Nuclear Event Detection circuitry.

# X-ES

Extreme Engineering Solutions

*...Always Fast*

### Extreme Engineering Solutions

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**Input Conditions**

- MIL-STD-704 or MIL-STD-1275 28 VDC
- MIL-STD-461 EMI filtering
- 12 V to 48 V steady state

**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 optionally be paired with another XPm2220 for load sharing (contact X-ES for further information)
- Derated below an input voltage of 18 V

**Physical Characteristics**

Contact X-ES for CAD model if desired

- 3U VPX-REDI conduction- or air-cooled form factor
- Dimensions: 100 mm x 160 mm
- 0.8 in. pitch
- 1.0 in. pitch Two-Level Maintenance (2LM)

**IPMI Controller**

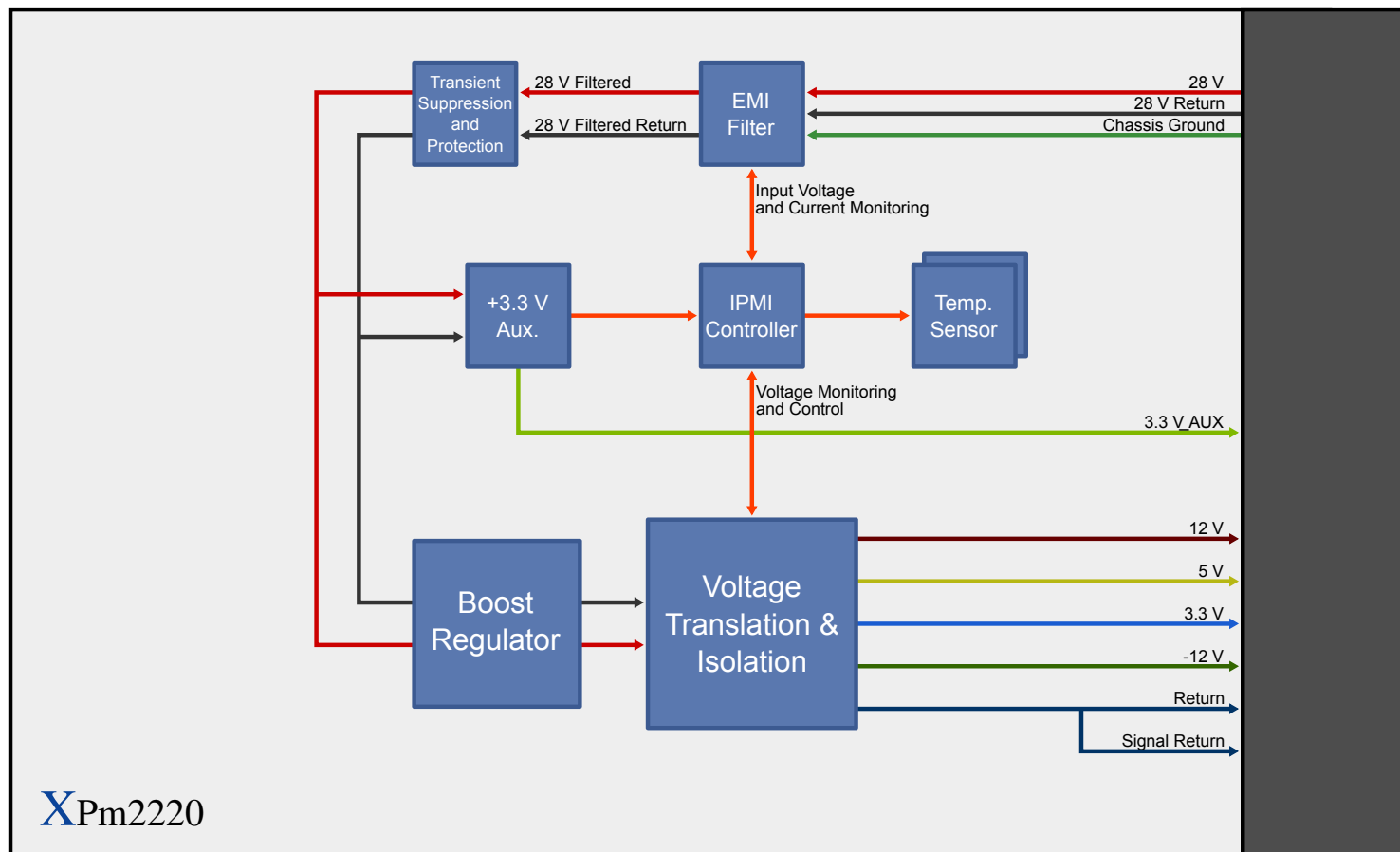
- Monitors voltages
- Monitors temperature sensors
- Controls output power
- Connects to backplane via system management bus (I<sup>2</sup>C)
- Contact X-ES about Nuclear Event Detection circuitry

**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 (maximum)
Vibration	0.002 g <sup>2</sup> /Hz (maximum), 5 to 2000 Hz	0.04 g <sup>2</sup> /Hz (maximum), 5 to 2000 Hz	0.1 g <sup>2</sup> /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



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