

VPX336

360W 28V / 48V DC Input 3U VITA 62 VPX Power Supply Card



Medium Power / Flexible Configuration – VITA 62 VPX Power Supply

- Conduction-cooled COTS VPX power supply, VITA 62.0 compliant
- Fits standard VPX chassis per VITA 46.0 (3U x 4HP)
- High-efficiency single-stage converter with wide input voltage range
- Flexible power distribution across VS1, VS2, and VS3 due to oversized converters
- MIL-STD 461, 704, 1275 tested; I²C and USB monitoring via onboard microcontroller

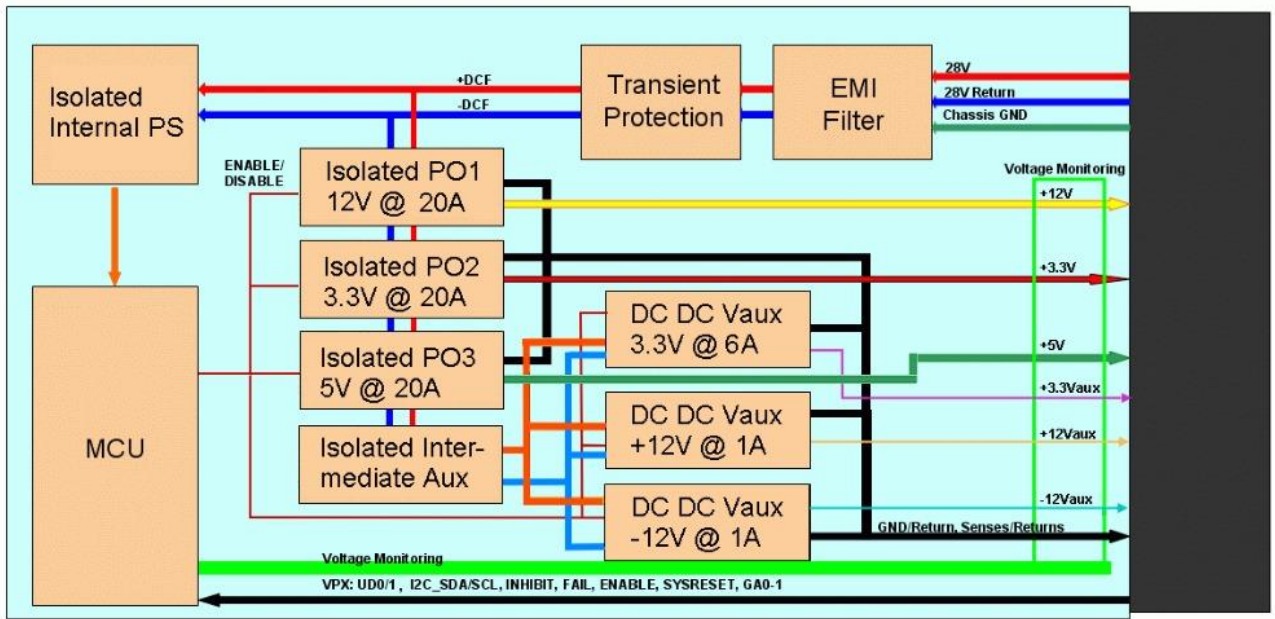
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| Form Factor | 3U VPX CC |
| Pitch | 4 HP / 0.8 inch |
| Weight | 0.6 kg / 1.3 Lbs |
| Operating Temperature (at wedge lock) | -40 °C to 85 °C [derate max power from 400 W to 200 W (linear) for 60 °C to 85 °C operation] |
| Storage Temperature | -55 °C to 105 °C |
| Input to Output Isolation | 1500 V |
| Input to Case Ground Isolation | 500 V |
| Output to Case Ground Isolation | 500 V |
| Case Ground to Safety Ground Resistance | < 10 mΩ |
| Maximum Output Power | 360 W |
| Maximum Input Power | ~400W |
| Maximum Dissipated Power @ max. Power | ~40 W |
| Nominal Input Voltage | 28 V DC (optional 48V DC) |
| Minimum Turn ON Voltage | 14 V |
| Minimum Turn OFF Voltage | 11 V |
| Maximum Continuous/Peak Input Voltage | 40 V / ± 250 V (<1 ms spike) |
| Input Overvoltage Protection: | Outputs disable if input voltage exceeds 42 VDC for > 600 ms (10 second auto-restart) |
| Maximum Internal Working Temperatures | 125 °C |
| Temperature Protection Sensing Point (internal) | 125 °C (Outputs disable when internal PCB temperature exceeds threshold) |

Main Power VS1 / VS2 / VS3

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| Maximum Currents 12V / 3V3 / 5V | see tables in "variants" for different power configurations |
| Fixed Switching Frequencies 12V / 3V3 / 5V | 300 kHz / 220 kHz / 410 kHz |
| Peak Efficiencies 12V / 3V3 / 5V | 90% / 90% / 90% |
| Max. Output Ripple and Noise: 12V / 3V3 / 5V (0-20 MHz Bandwidth) | 40 mVrms / 10 mVrms / 20 mVrms < 120 mVpp / < 50 mVpp / < 50 mVpp |
| Line Regulation: 12V / 3V3 / 5V. | 10 mV / 10 mV / 50 mV |
| Vin=Vin,min to Vin,max, Io and Tc fixed | < 0.1% |
| Load Regulation: 12V / 3V3 / 5V | 10 mV / 10 mV / 10 mV |
| Overvoltage Protection +/- 12V / 3V3 / 5V: Maximum Output Voltage (Sense Lines Open) | 12.1 V / 3.4 V / 5.2 V |
| Load Transient Recovery Time (no load to full load change condition) | 1 ms |

Auxiliary Power Vaux-12V / Vaux+12V, Vaux+3.3V

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|--|--|
| Maximum Current | 1 A / 1 A / 4 A |
| Load Dependent Switching Frequency | 600 Hz ... 130 kHz |
| Efficiency | 80% |
| Max. Output Ripple and Noise (0-20 MHz Bandwidth) | < 120 mVpp / < 50 mVpp / < 50 mVpp |
| Load Transient Recovery Time (no load to full load change condition) | 1 ms |
| MIL Standard Compliance | as per VITA 62 specification |
| MIL-STD-461F (EMI) Compliance | Designed (to be tested) in compliance with sections CE102, CS101, CS114, CS115, CS116. See user manual for more details. |
| MIL-STD-704F Compliance | Designed (to be tested) in compliance for normal transients (LDC105), abnormal transients (LDC302) and distortion spectrum (LDC103). External hold-up circuit optional. See user manual for more details. |
| MIL-STD-1275D Compliance | Designed (to be tested) in compliance for MIL-STD-1275D 5.3.2.2 Exported Voltage Spikes, MIL-STD-1275D 5.3.2.3 Imported Voltage Spikes (Normal Mode & Generator Mode), MIL-STD-1275D 5.3.2.4 Imported Voltage Surges (Normal Mode & Generator Mode) and MIL-STD-1275D 5.3.2.5 Imported Ripple Voltage. See user manual for more details. |
| Compatibility / Environmental | VDE 0805, IEC 950 |



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