

### FEATURES

- Open VPX VITA 62 compatible
- Wide input range
- High power DC output
- Efficiency of 90% typical
- Conduction cooled at card edge
- Conformal coating on PWA
- Remote Sense for VS1, VS2 & VS3



### 3U Open VPX VITA 62 compatible High Power Multi-Output Power Supply

The Behlman VPXtra™500M1 COTS DC to DC power supply is a rugged, highly reliable, conduction cooled, switch mode unit built for high-end industrial and military applications. The VPXtra™500M1 is a VITA 62, Open VPX compatible, 3U power supply that delivers 460 Watts of DC power via six outputs. The main outputs can be paralleled for higher power. The VPXtra™500M1 can accept a 28 VDC input, IAW MIL-STD-704, and can supply a high power DC output at various power levels.

The VPXtra™500M1 power supply has no minimum load requirement and has overvoltage and short circuit protection as well as over current and thermal protection. The power supply is designed to support the rigors of mission critical airborne, shipboard, vehicle and mobile applications.

Designed and manufactured with Xtra-Cooling™, Xtra-Reliable™ Design and Xtra-Rugged™ construction makes the Behlman VPXtra™500M your best choice.

#### INPUT

**Voltage:** 18 to 36 VDC

#### OUTPUT

**Power:** 460 Watts

#### Voltage/Current:

**VS1** 5 VDC +/- 1% @ 40 Amps  
**VS2** 3.3 VDC +/- 1% @ 15 Amps  
**VS3** 5 VDC +/- 1% @ 40 Amps  
**Auxiliary:** 3.3 VDC +/- 1% @ 1 Amp  
**Auxiliary:** -12 VDC +/- 1% @ 0.375 Amps  
**Auxiliary:** +12 VDC +/- 1% @ 0.375 Amps

**Line Regulation:** 0.5% maximum

**Load Regulation:** 2.0% maximum (0-100%)

**PARD-Ripple & Noise:** 50mV p-p (0-20 MHz) for 3.3V and 5V outputs.  
120mV p-p for +12/-12V auxiliary outputs.

**Efficiency:** 90% typical, 50-100% load

#### PROTECTIVE CIRCUITS

**Over Voltage:** 120% typical  
**Over Current:** 120% typical  
**Short Circuit:** Automatic recovery  
**Over Temp:** Shutdown

#### CONTROLS (IAW VITA 62)

**Inhibit:** Output Off- active low  
**Enable:** Input On- active low

#### INDICATOR

**DC STATUS LED:** Bi-color LED (Red/Green)

### GENERAL CHARACTERISTICS

#### Isolation:

Input to Output: 500 VDC

Input to Case: 500 VDC

Output to Case: 500 VDC

MTBF: 1,100,000hrs G<sub>b</sub> @ 50°C,  
IAW MIL HDBK-217F Notice 2

### ENVIRONMENTAL

#### Temperature at card edge (IAW VITA 47)

Operating: -40°C to +85°C

Storage: -55°C to +105°C

### MECHANICAL (1.0 inch pitch)

See O&C drawing 24177 for connector details and pin assignment

Dimensions: 3.94"W x 6.63"L x .97"H

Weight: 1.7 lbs.

Connector: TE P/N: 6450849-7

### COMPLIANCE

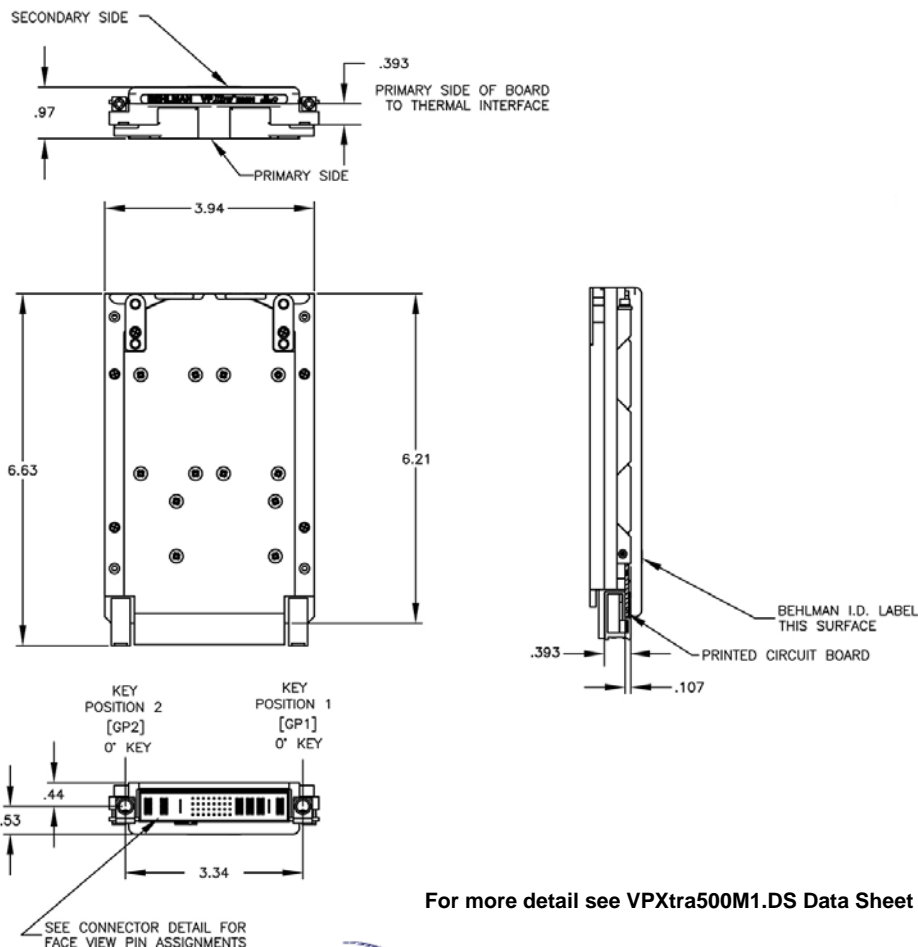
EMI (MIL-STD-461): CE102

Designed to meet the following:

Shock: VITA 47 Class OS2

Vibration: VITA 47 Class V3

Humidity: VITA 47



For more detail see VPXtra500M1.DS Data Sheet



VITA Member

[www.behlman.com](http://www.behlman.com)

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