

# VPX-1000-DC-28

1000 Watts

Conduction Cooled

OpenVPX VITA 62 Compliant



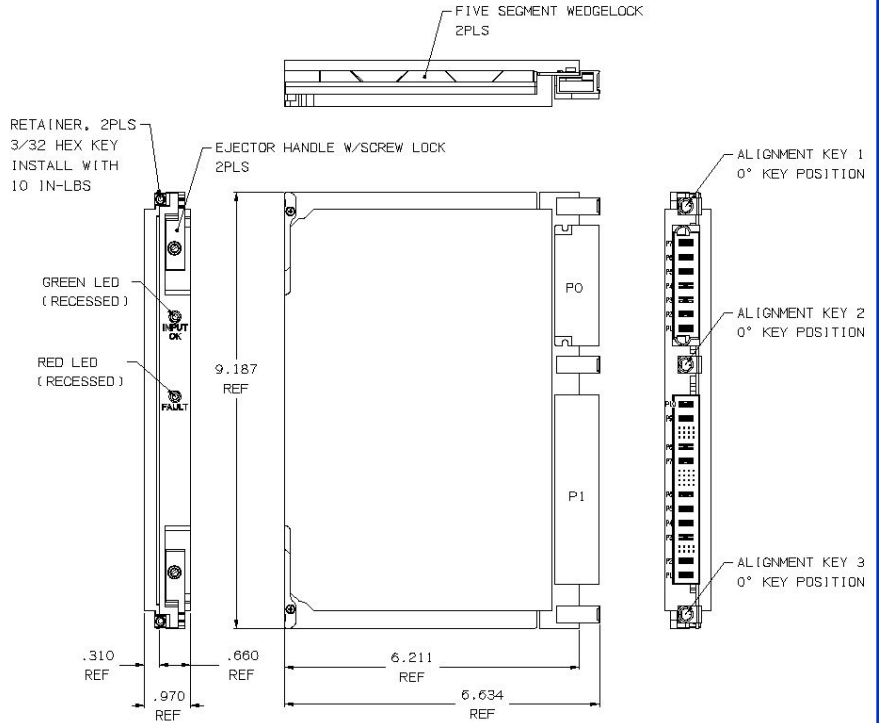
## KEY FEATURES:

- 1000 Watts in a 6U x 5 HP (1") x 160mm Modular Design
- 28Vdc Input per MIL-STD-704 Versions E & F
- VITA 62 Outputs; +12V/80A, +5V/40A, Aux\_+3.3V/20A, Aux\_+12V/1A, Aux\_-12V/1A
- No Minimum Load Required
- Custom Input/Output Configurations Available
- N+1 Redundant with Internal Oring FET's/Diodes
- VITA 62 Card Guide Style Conduction Cooled
- 1 Inch Pitch Form Factor with Wedge Lock Retainers
- Side Covers Support Two-Level Military Maintenance Requirements
- Ruggedized Mechanical Design
- One Year Warranty
- Greater than 150,000 Hrs MTBF
- Proudly Made in U.S.A.

# VPX-1000-DC-28

P0 - AC/DC INPUT CONNECTOR TE CONNECTIVITY P/N 6450843-6	
PIN NO.	SIGNAL
P7	+DC_IN
P6	+DC_IN
P5	-DC_IN
P4	-DC_IN
P3	N/C
P2	N/C
P1	CHASSIS_GND

P1 - DC OUTPUT CONNECTOR TE CONNECTIVITY P/N 6450849-6			
PIN NO.	SIGNAL	PIN NO.	SIGNAL
P10	+12V/80A	D5	SDA
P9	+12V/80A	A4	GA3*
A9	+12V_SENSE	B4	GA2*
B9	+12V_SENSE	C4	GA1*
C9	+5V_SENSE	D4	GA0*
D9	N/C	A3	N/C
A8	+12V_SENSE_RTN	B3	+12V_AUX/1A
B8	+12V_SENSE_RTN	C3	NED
C8	+5V_SENSE_RTN	D3	NED_RTN
D8	N/C	P6	+5V/40A
A7	N/C	P5	+5V/40A
B7	N/C	P4	POWER_RTN
C7	N/C	P3	POWER_RTN
D7	SIGNAL_RTN	A2	VBAT
P8	POWER_RTN	B2	FAIL*
P7	POWER_RTN	C2	INHIBIT*
A6	N/C	D2	ENABLE*
B6	N/C	A1	N/C
C6	-12V_AUX/1A	B1	N/C
D6	SYSRESET*	C1	N/C
A5	GAP*	D1	N/C
B5	GA4*	P2	+3.3V_AUX/20A
C5	SCLK	P1	POWER_RTN



<b>Nominal Input Voltage</b>	28 Vdc, 42A.
<b>Operational Input Voltage Range</b>	22-29 Vdc, with input transient protection to 18 & 50 Vdc for 50 ms exceeding limits per MIL-STD-704E/F.
<b>Inrush Current</b>	Less than 4 msec, 60 amperes @ 28 Vdc.
<b>Reverse Input Protection:</b>	Reverse input protection to rated DC voltage.
<b>Fusing</b>	60 Ampere, 58 Vdc, Internal fuse.
<b>Hold up time</b>	1msec minimum after loss of DC Input at full load and any input.
<b>Efficiency</b>	87% typical. At nominal input.
<b>Turn on time</b>	1 sec max. from power up.
<b>Line and Load Regulation</b>	±2% over DC input range and 0 to 100% load change.
<b>Minimum Load</b>	No minimum load required.
<b>Ripple &amp; Noise</b>	Through 20MHz 1% max. or 50mv whichever is greater for all outputs, peak to peak, with coaxial probe and 0.1uF/10uF capacitors at the connector.
<b>Transient Response</b>	Output maximum excursion of ± 5% for 25% load step. Recovery less than 500 µsec.
<b>Overshoot</b>	Less than 5%.
<b>Output Isolation</b>	Isolated from chassis ground, 100 Vdc.
<b>Input/Output Isolation</b>	1500 Vdc from input to both chassis/outputs. SELV construction.
<b>Reverse Voltage</b>	Protected against reverse voltage to supply current rating.
<b>Overvoltage Protection</b>	Shutdown at 130% of nominal Vout. Recycle input power to reset.
<b>Overtemperature Protection</b>	Unit shuts down if overheated. Recycle input.
<b>Current Limiting</b>	All outputs protected with current limit. Automatic recovery when overload or short is removed.
<b>Paralleling</b>	Two or more supplies can be operated in parallel and will share +12V and +5V current to within ±10% of each other.

<b>Redundant</b>	Full power N+1 redundant with integral Oring FET's/Diodes.
<b>Remote Sense</b>	Compensates for up to 0.5V total distribution voltage drop on the +12V and +5V outputs.
<b>Enable*</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>INHIBIT*</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>SYSRESET*</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>FAIL*</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>NED</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>VBAT</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>Geographical Addressing</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>Protocol (I²C)</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>Indicators</b>	Green LED indicating Input OK, Red LED indicating a power supply fault.
<b>Cooling</b>	Conduction cooled via wedge lock retainers.
<b>Operating Temperature</b>	-40°C to +71°C (at wedge lock edge) 1000W Up to 85°C at 800W.
<b>Stability</b>	All outputs 0.1% for 8 hrs. after 30 minute warm-up.
<b>Humidity</b>	Up to 95% non-condensing.
<b>Storage Temperature</b>	-55°C to +105°C.
<b>Connectors</b>	VITA 62 compliant
<b>Size</b>	6U x 5HP (1") x 160mm <b>Weight:</b> 4.0 lbs.
<b>EMC</b>	Designed to meet Mil-Std-461F with an external filter.
<b>Common Options</b>	Conformal coating with Paylene & special output configurations. Consult factory for more details for a tailored solution which meets your requirements.