



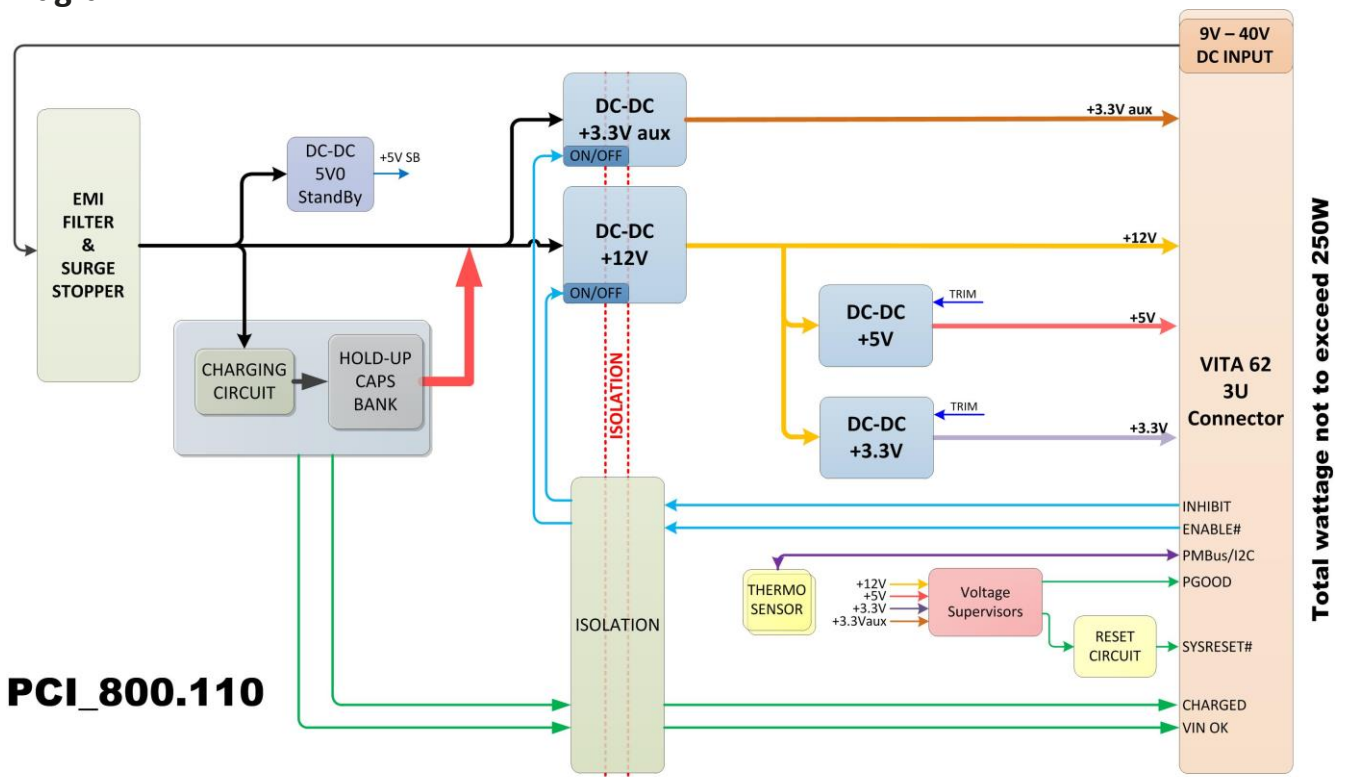
Key Features:

- 9V-40V wide Continuous Input Voltage
- Hold Up 250W at 40 mSec at -40 deg. C , 220 mSec at 25 deg. C.
- 2300V Isolation Between Input /Output
- Active Input EMI Filtering
- Transient look ahead/cut-off technology
- 3 Voltage output Rails
- Isolated +3.3Vaux voltage
- 250W Maximum Power
- NO derating up to 85 deg. C at the rail
- 93% Typical Efficiency
- -40°C to 85°C Rail Operating Temperature
- VITA 62 3U Form Factor
- Patent pending **FourRail** thermal interface

VITA 62 3U ISOLATED 250W 28VDC POWER SUPPLY

This 3U power supply works with **9 VDC to 36 VDC (28VDC nominal) input** voltage and isolates the input voltage ground from the output voltage ground. The power supply is **conduction cooled**, uses **polyphase** technology on all voltage rails and can provide up to **250 watts**. It is suitable for use in **mission critical rugged applications**.

Block Diagram:



Overview	
P/N	PCI_800.110
Hold Up time	220ms at 25 deg C
VITA Compliant	VITA62
Size	3U
Temp. Range	-40 +85 C
Input (AC or DC)	DC
Input Range (VDC)	9-40
Active EMI Filtering	YES
Power (W, max.)	250
Efficiency (% , typ.)	93
# of outputs	3

OUTPUTS (Total output not to exceed 250W)	
VS1, V@A	+12@20A
VS2, V@A	+3.3@30A
VS3, V@A	+5@30A
AUX, V@A	+3.3@2A
AUX, V@A	
AUX, V@A	

FEATURES	
Over-current Protection	YES
Over-voltage Protection	YES
Over-temperature Protection	YES
Current Sharing	no
Remote Sense	YES, 5V. 3.3V
Standard Control	YES, VITA62
Extended Control	NO

COMPLIANCE	
Designed to meet the following standards, additional circuitry in the chassis may be required	
VITA62	YES
MIL-STD-704 (B-F)	YES
MIL-STD-461 E	YES
MIL-STD-810G	YES
* ESD Protection	YES
* Shock	YES
* Vibration	YES
* Rapid Decompression	YES
* Corrosion Resistance	YES
* Fungus Resistance	YES
* Altitude	YES
* Humidity	YES

INPUT CHARACTERISTICS					
Parameter	Min.	Typ.	Max.	Units	Notes
Absolute Maximum Ratings					
Input Voltage					
- Non-Operating	-60		60	V	Continuous
- Operating	-40		40	V	Continuous- Reverse input Protection
- Operating Transient Protection			100	V	50ms transient, square wave
Isolation Voltage			2300	V	
Operating Temperature	-40		85	C	
Storage Temperature	-55		105	C	
Electrical Characteristics					
Input Voltage					
- Continuous	9		40	V	
- Transient	9		50	V	100V Transient for 50ms -- MIL 1275E
Under-Voltage Lockout					
- Turn-On Input Voltage Threshold	9	9.5	9.8	V	

INPUT VOLTAGE SPIKES SUPPRESSION (Vin Centered)	
Designed to meet the following standards, additional circuitry in the chassis may be required	
+/- 250V, 100 us	MIL-STD-1275E
+/- 200V, 10 us	MIL-STD-461E (CS06); DEF-STAN 61-5
+/- 400V, 5 us	MIL-STD-461E(CS06)
+/- 600V, 10 us	RTCA/DO-160E

OUTPUT CHARACTERISTICS							
Parameter	+12V	+5V	+3.3V	+3.3V aux	+12V aux	-12V aux	Notes
Output Voltage Set Point, V	12	5	3.3	3.3			Vin = 28V
- Drift -40 deg.C to 85degC +/- %	1	1	1	1			Vin = 28V
Output Regulation, max %							
Over Line	1	1	1	1			Vin = 9-36V
Over Load	1	1	1	1			Vin = 28V, Load 0-100%
Output Voltage Ripple (pk-pk), mV	80	50	40	40			Full load with .1uF ceramic + 10 uF tantalum capacitor on ALL slots
Operating Current Range, A	0-20	0-30	0-30	0-2			250W Total, combined Output
Over-Voltage Protection, V	13	6	3.6	3.6			
Current Limit Inception, A	22	32	32	2.1			
Maximum Output Capacitance, mF	1	1	1	1			

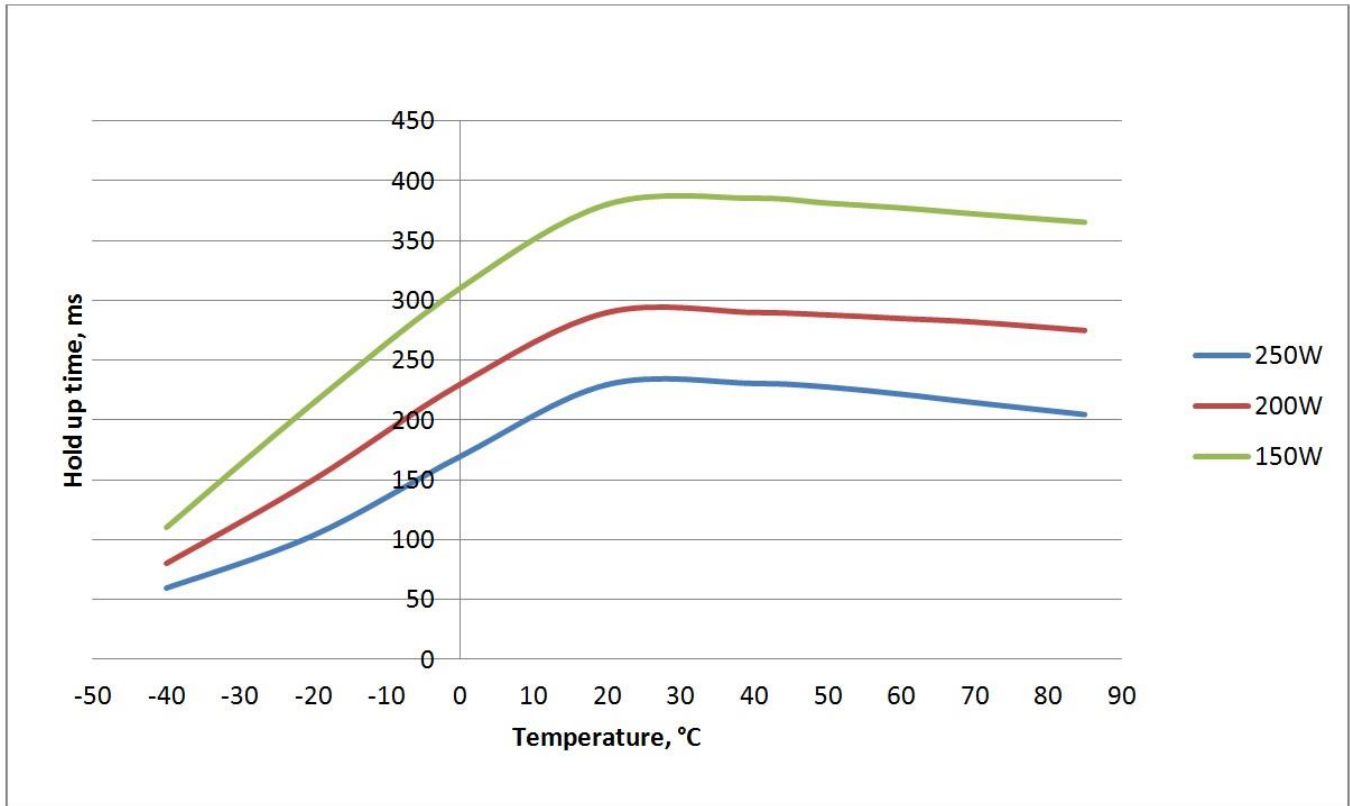
MODULE QUALIFICATION	
Designed to meet the following standards, additional circuitry in the chassis may be required	
Test Name	Method
Random Vibration	MIL-STD-810, 514.6 - Procedure I, Class V3
Shock	MIL-STD-810, 516.6 - Procedure I, VI, Class OS2
Altitude	MIL-STD-810, 500.5 - Procedure I, II, III Tested at 45.000 feet pressure
Fungus Resistance	MIL-STD-810, 508.6
Corrosion Resistance	ASTM G85, Annex A4
Humidity	MIL-STD-810, 507.5 - Procedure II
High Temperature	MIL-STD-810, 501.5 - Procedure I, II
Low Temperature	MIL-STD-810, 502.5 - Procedure I, II
Temperature Cycling	MIL-STD-202, 107 - Class C4
ESD	EN61000-4-2, Level 4; 15kV Air Discharge

RELIABILITY CHARACTERISTICS

Calculated MTBF per MIL-HDBK-217F (GB) at 70 deg C. 2.500.000 Hrs.
 Calculated MTBF per MIL-HDBK-217F (GM) at 70 deg C. 480.000 Hrs.

Pinout: As per VITA 62 specification

Mechanical Dimensions: As per VITA 62 specification (1" pitch)



ORDERING INFORMATION:

PCI_800.110_C

3U VITA62 28VDC 250W Isolated Rugged Power Supply with HoldUp

All versions are conformal coated

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