



High Efficiency / Medium Power – VITA 62 VPX Power Supply

- COTS VPX power supply with conduction cooling
- VITA 62.0 compliant, fits standard VITA 46.0 envelope (3U x 4HP)
- High-efficiency single-stage converter with wide input range
- MIL-STD 461, 704, 1275, and 810 tested for rugged applications
- Integrated microcontroller with I²C and USB interface for monitoring
- Keying, alignment, and connectors per VITA 62 specification

High efficiency, conduction cooled power supply according to VITA62 specification.

Power supply	Input	VS1 [+12V]	VS2 [+3.3V]	VS3 [+5V]	Vaux1 [+12V]	Vaux2 [- 12V]	Vaux3 [+3.3V]
VPX340DMA	28 V DC	15 A	20 A	40 A	1 A	1 A	4 A

Technical Information

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	400 W
Maximum Input Power	~450W
Maximum Dissipated Power @ max. Power	~50 W
Nominal Input Voltage	28 V
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

Maximum Currents 12V / 3V3 / 5V	15 A / 20 A / 40 A
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

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 & tested in compliance with sections CE102, CS101, CS114, CS115, CS116. Compliance tests performed by 3rd party and reports available upon request. See user manual for more details.
MIL-STD-704F Compliance	Designed & tested in compliance for normal transients (LDC105), abnormal transients (LDC302) and distortion spectrum (LDC103). External hold-up circuit optional. Compliance tests performed by 3rd party and reports available upon request. See user manual for more details.
Compatibility / Environmental	VDE 0805, IEC 950
Environmental	With standard acrylic or Parylene conformal coating to withstand sand, dust and salt atmosphere. Designed and compliance tested to MIL Standard 810G
MIL Standard 810G	as per VITA 62 specification

Altitude	MIL STD 810G Method 500 Procedure II
Shock	Operating Shock Class OS2 as per MIL STD 810G Method 516 Procedure I
Vibration	MIL STD 810G Method 514.6 Procedure I, and VITA 47 paragraph 4.4.3 / Vibration Class V3
MIL-STD-1275D Compliance	Designed & 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. Compliance tests performed by 3rd party and reports available upon request. See user manual for more details.

W-IE-NE-R VPX I2C TOOL

File Calibration Trace Commissioning Settings Info

USB Device connected

USBConnection

☒ Disconnect USB 1 USB Device(s) Available

W-IE-NE-R VPX, USB S/N: 4380138, PID: 0018, V

0 W-IE-NE-R VPX 4380138

USB Read Errors: 0 USB Checksum Errors: 0

USB Write Errors: 0 USB Global Errors: 0

I2C Connection

☐ Connect I2C

I2C Unavailable

No Informations available

I2C Read Errors: 0

I2C Write Errors: 0

Options

☒ Data logging

12V Main (PO1)	Switch 12V Main (PO1)	U[V]	11.993	I[A]	6.727	T[°C]	44.000	Running
5V Main (PO3)	Switch 5V Main (PO3)	U[V]	5.001	I[A]	19.414	T[°C]	42.000	Running
3V3 Main (PO2)	Switch 3V3 Main (PO2)	U[V]	3.282	I[A]	9.746	T[°C]	41.000	Running
VIN	Switch VIN Off	U[V]	27.383	I[A]	9.592	T[°C]	0.000	Running
-12V AUX	Switch -12V AUX Off	U[V]	-11.994	I[A]	0.487	T[°C]	0.000	Running
3.3V AUX	Switch 3.3V AUX Off	U[V]	3.344	I[A]	1.935	T[°C]	0.000	Running
+12V AUX	Switch +12V AUX Off	U[V]	11.971	I[A]	0.494	T[°C]	0.000	Running

Global Error Counter: 0

PO On AUX On No Failure

Turn Main OFF

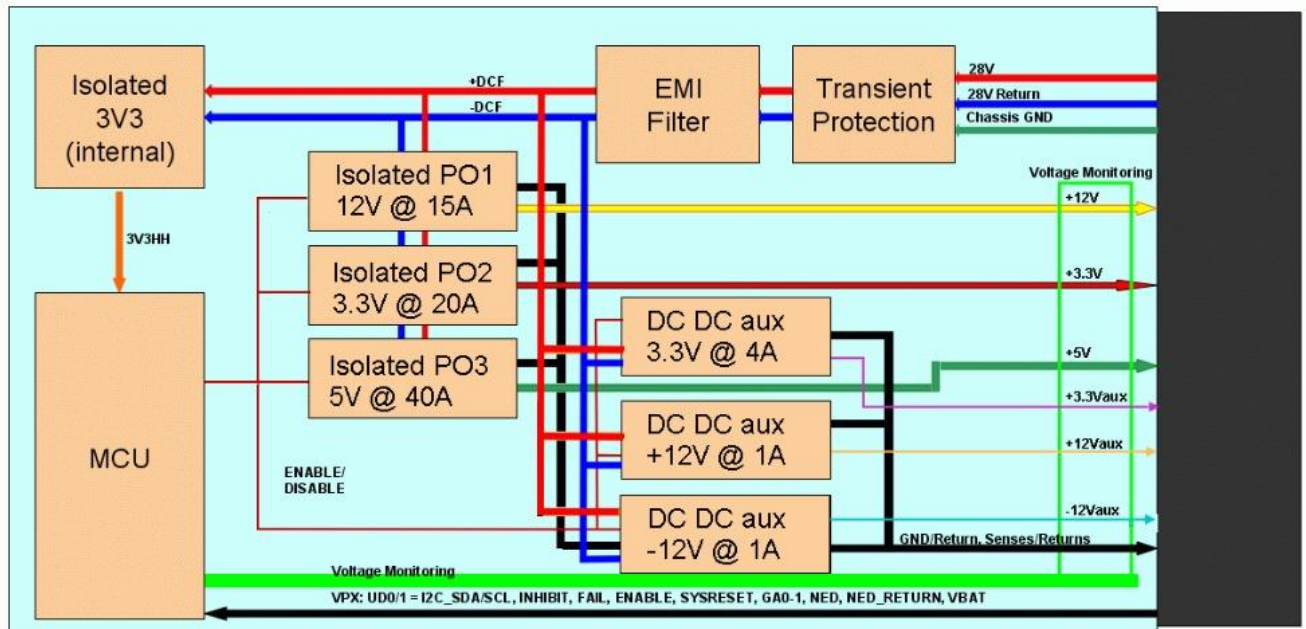
Turn Aux Off

Efficiency 86.796%

USB Write + Read Success

Start Read

Stop Read



Kontron Hartmann Wiener GmbH

Linde 18

51399 Burscheid

Tel.: +021746780

info.we@kontron.com

www.kontron.com/kontron-hartmann-wiener

Copyright © 2023 Kontron. All rights reserved. All data is for information purposes only and not guaranteed for legal purposes. Information has been carefully checked and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Kontron and the Kontron logo and all other trademarks or registered trademarks are the property of their respective owners and are recognized. Specifications are subject to change without notice. Projectname-20230215 - bmy