

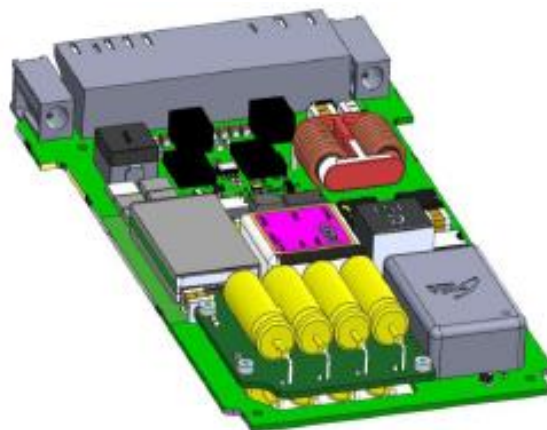
3U VPX 24-28V Power Supply

The PSU 3U VPX is a high-density wide input range DC/DC embedded power module designed for, military and high-end industrial applications.


This power module is designed with LC network filters to minimize reflected input current ripple and output voltage ripple.

The power module has output overcurrent protection, input reverse polarity protection and hold-up functionality.

The power module is available in several configurations: conduction cooled or air cooled, with 3 different hold-up levels.



Features

- ◆ VPX connector (VITA 62)
- ◆ VPX 3U 1" form factor (VITA 62)
- ◆ Max output power 250W (available power is temperature dependant)
- ◆ Parallel operation up to 3 PSU for high power applications
- ◆ Up to 20ms Hold-up time (for 250W consumption)
- ◆ Nominal DC input : 24 VDC / 28 VDC
- ◆ DC input range : 20.5-40 VDC (18 to 20.5V does not have hold-up functionality)
- ◆ Input reverse polarity protection
- ◆ Output Voltages :
 - ◆ VPX rails : +3V3, +5V, +12V
 - ◆ +3V3_AUX
- ◆ Output voltage sensing
- ◆ Output voltages monitoring
- ◆ High efficiency (up to 90%)
- ◆ Primary / secondary isolation 500 VDC
- ◆ Mechanical / electrical isolation 500 VDC
- ◆ Operating temperature: -40°C to +80°C compliant to Air cooled and conduction cooled version
- ◆ Flammability: UL94-V1
- ◆ Conformal coating
- ◆ RoHS Compliant 



Max module power 250W

Output voltage	Power	Current
+3V3	42W	12.7 A
+3V3_AUX	8W	2.6 A
+5V	60W	12 A
+12V	140W	13.3 A

Note : as +3V3 and +5V are supplied from +12V regulator, +12V max output power depend from other voltages consumption.

EMI/EMC

Qualification for MIL-STD-461, DO160 and CE regulations requires additional external filtering.

References

Conduction cooled PSU module references are :
GA-001329-CCx with x= 1; 4 or 8 depending of hold-up tank size.

Air cooled PSU module references are :
GA-001329-SAx with x= 1; 4 or 8 depending of hold-up tank size.

Hold-up

Hold-up tank is available in 3 different sizes providing a transparency time of :

Version -8 => 20ms with 250W output power

Version -4 => 10ms with 250W output power

Version -1 => 2.5ms with 250W output power

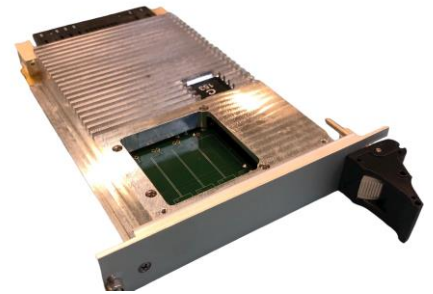
Note : transparency time includes derating for -40/+80°C ambient temperature use. Use at +25°C and higher ambient temperature allows an additional 35% of transparency time.

Please note that parallel use of 3 PSU allows 20ms with 750W output power.

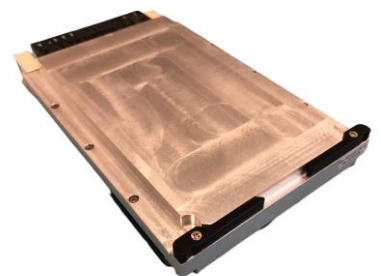
Mechanical dimensions and Weight

Height x Width x Depth: 100mm x 25.4mm x 160mm.

Weight: CC-1 version 630g, SA-1 version 550g.



Rugged Air-cooled version



Conduction cooled version