



POWER DISTRIBUTION SOLUTIONS DESIGNED FOR MILITARY APPLICATIONS

Milpower Source designs and manufactures exceptional military power conversion, PDU and networking solutions, which can be rapidly tailored for our customers' unique requirements. Our solutions set the standard for thermal, EMI and shock/vibe management, are compliant with MIL-Standards and are field-proven in the most demanding application environments.



STANDARD PDU FEATURES:

- 28V and 270V Solutions
- Modular Single-Channel, Standard Multi-Channel Configurations & Custom Designs Available
- Input: 6-33VDC Steady-State
- User-Configurable Channels
- D-Subminiature Connectors (Circular Connectors Optional)
- Control via CAN, RS-485 Ethernet Communications
- Conformal Coating of PCA's for Salt, Fog & Corrosion Prevention
- Adjustable Trip & Short Circuit Limit
- Custom Form Factors Available

WHY CHOOSE A MILPOWER PDU SOLUTION?

- Software & hardware can be tailored to customer needs
- Very low drop power distribution, >99% efficiency
- Prevent over load or short with real current limiting
- Fully autonomous monitoring & trip
- Industry leading short circuit peak current limit
- Input spike & reverse voltage protection
- High resolution current & voltage telemetry
- Designed to meet MIL-STD-704, DO-160 or MIL-STD-1275, and environmental per MIL-STD-810

MILPOWER
SOURCE

7 Field Lane • Belmont, NH 03220
1-603-267-8865 • sales@milpower.com
www.milpower.com



M9516 SERIES POWER DISTRIBUTION UNIT

- Input Power: 6-33VDC
- Input Current: 200A
- Outputs: Eight
- Operating Temp: -55°C to 105°C
- Designed to Meet: MIL-STD-1275, MIL-STD-810, MIL-STD-461



M9538 SERIES 8 CHANNEL POWER DISTRIBUTION UNIT

- 8-channel managed power distribution unit.
- Distributes 28VDC through overload and short-circuit protected switches.
- Supports Ethernet communications to control and configure Ethernet Interfaces (Static & Dynamic IP configurations).
- 3 Discrete inputs (DCI, RAT, WP) and 1 Discrete output (Trip error output).
- Large capacitance charge capability.
- Sources a universal input connector to handle 100 amps.
- Complies with MIL-STD-704F, DO-160G and EN2282.
- Designed for airborne and ground applications.



M9526 SERIES SINGLE CHANNEL SMART SWITCH

- Easy to Integrate – Simple I2C communication
- Input Voltage: 0V-50V (Power Train)
- Output Current: 30A
- Operating Temp: -55°C to 105°C
- Designed to Meet: MIL-STD-810, MIL-STD-461



NETWORKING SOLUTIONS

OF NETWORKING PRODUCTS

- Complete line of 1/10/40G Ethernet Switches, Routers and SOSA™ aligned VPX
- Available in packages & board-level configurations
- Unmanaged or Managed with the latest networking & security protocols
- Comply with MIL-Standard specifications



MILPOWER WELCOMES THE
OPPORTUNITY TO CONFIGURE OUR
PRODUCTS TO YOUR SPECIFICATIONS

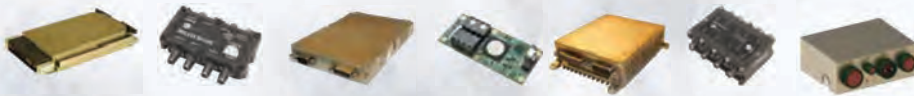
If you require a custom solution, we invite you to speak directly with our experienced design engineers today to define your specifications and create a solution that meets your needs.



7 Field Lane • Belmont, NH 03220
1-603-267-8865 • sales@milpower.com
www.milpower.com

POWER & NETWORKING SOLUTIONS

Milpower Source leverages over 40 years of experience to deliver purpose-built power and networking products that meet the demanding requirements of unmanned and manned aerial systems.



DELIVERING:

- Flawless operation in absence of human factor.
- Compact, lightweight designs with high-density form factors.
- Stands up to: shock, vibe and temperature requirements to meet military and other standards: MIL-STD-461, 801, 704.

MILPOWER SOURCE UNDERSTANDS THE DOD'S OPEN ARCHITECTURE DIRECTIVE



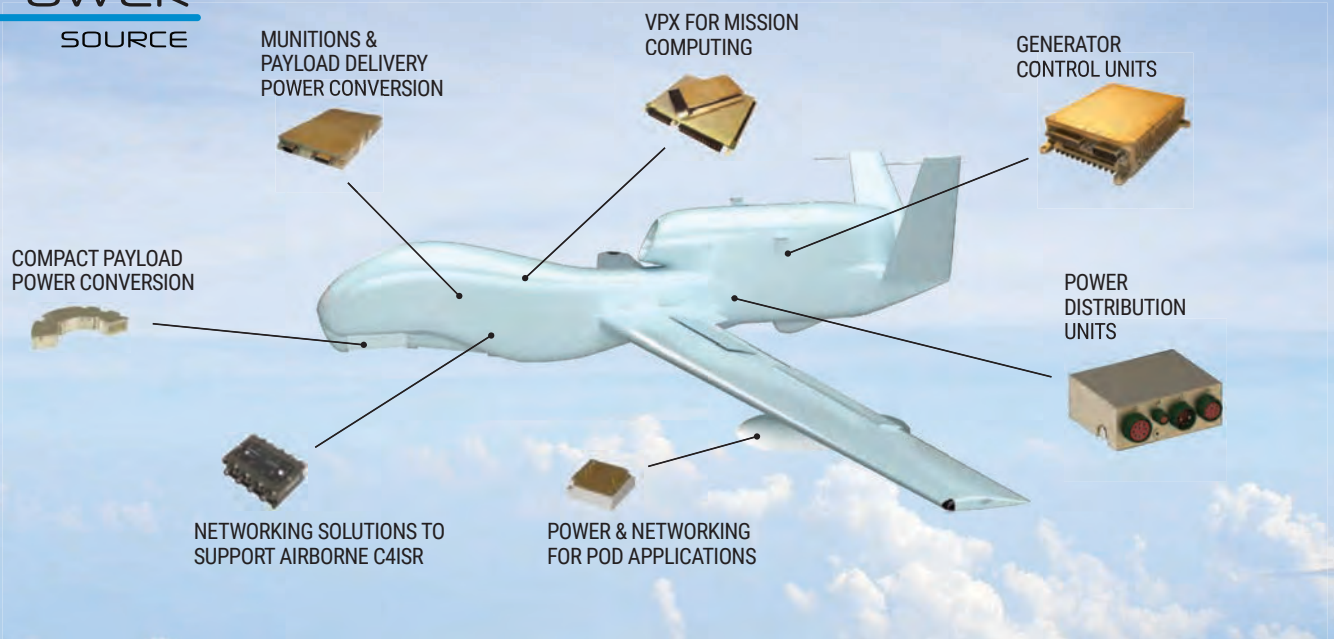
- Active in SOSA and VITA
- Supporting Open VPX and MORA



CHALLENGE US: Milpower routinely succeeds where others have failed. Put us to the test with your next power solution project. We will deliver an exceptional product, backed by high-quality service, to satisfy the most difficult military application needs.



Ask us about our complete line of power and networking products.
7 Field Lane • Belmont, NH 03220 • 1.603.267.8865
sales@milpower.com • www.milpower.com



POWER CONVERSION & MANAGEMENT SOLUTIONS

	MODEL	INPUT	OUTPUT	DIMENSIONS	COOLING
	M4094*	270V	#1 12V, #2 AUX_3.3V	3U, 1"	CONDUCTION COOLED (-55°C TO +85°C)
	M4054*	28V	#1 12V, #2 AUX_3.3V	3U, 1"	CONDUCTION COOLED (-55°C TO +85°C)
	M9538	28V	200A	7" X 5.5" X 2.7"	CONDUCTION COOLED (-55°C TO +85°C)
	M9517	28V	200A	VARIES	CONDUCTION COOLED (-55°C TO +85°C)

* VITA 48.8 Air Flow Through (AFT) Cooling Options Available

NETWORKING SOLUTIONS

	MODEL	MANAGED/ UNMANAGED	PORTS/SPEED	DIMENSIONS	COOLING
	MT308	UNMANAGED	8 X 10/100 ETHERNET	3.2" X 2.5" X 1" 4.0 OZ	PASSIVE COOLING (-45°C TO +85°C)
	MT918	MANAGED	8 X 10/100/1000 ETHERNET	3.9" X 3.5" X 1.4" 13.75 OZ	PASSIVE COOLING (-45°C TO +85°C)
	MT919	MANAGED	8 X 10/100/1000 + 1G F/O ETHERNET	4.2" X 1.8" X .59" 1.8 OZ	PASSIVE COOLING (-45°C TO +85°C)
	MT303	N/A	8 X USB3.1	3.5" X 2.7" X .83" 4.9 OZ	PASSIVE COOLING (-45°C TO +85°C)
	3UVPX	MANAGED	32 X 10G ETHERNET IPMI VITA 46.11 TIER II MANAGEMENT	3U VPX FORM FACTOR 0.8 OR 0.85 PITCH	PASSIVE COOLING (-45°C TO +85°C)



VPX VITA & SOSA™ ALIGNED POWER & NETWORKING SOLUTIONS

Designing and manufacturing VITA 62, VITA 46 and SOSA-aligned military power and networking VPX solutions, which can be rapidly tailored for our customers' unique requirements. Our solutions set the standard for thermal, EMI and shock/vibe management, are compliant with MIL-Standards, and are field-proven in the most demanding application environments.



WHY CHOOSE A MILPOWER VPX?

- Configurable power & networking solutions
- 3U & 6U form factor
- Rugged mechanical design
- VITA and SOSA™ - aligned solutions



STANDARD NETWORKING FEATURES

- 3U VPX form factor
- Copper and Fiber optic interfaces
- Supporting advanced secure boot via dedicated FPGA
- Advanced Layer 2 / Layer 3 communication protocols for security according to VITA 46.11

ASK US ABOUT OUR COMPLETE LINE OF POWER AND NETWORKING PRODUCTS

STANDARD PRODUCT FEATURES

- Form Factors
 - 3U up to 800W
 - 6U up to 1.2kW
- Over 30+ Mature VPX Designs:
 - AC/DC: 1-Phase and 3-Phase
 - DC/DC: 28V and 270V
- Holdup Units
- Wide DC Input Range: 12V-100V

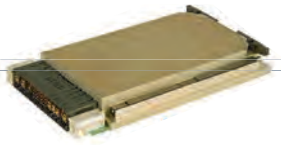




POWER

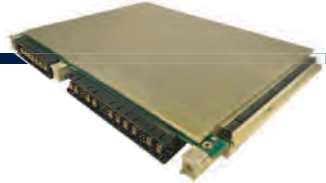
M4012 SERIES 3U VPX VITA 62 DC/DC POWER SUPPLY WITH HOLDUP

- High Density & Cyber Secure
- Input: 16.5-50VDC
- Output up to 350W with 300W@ 50ms Holdup



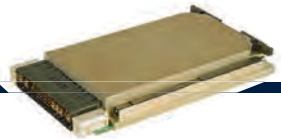
M4067 SERIES 6U VPX VITA 62 AC/DC POWER SUPPLY

- High Density & Cyber Secure
- Input: 18 to 48VDC
- Output up to 1200W



M4054 SERIES 3U VPX VITA 62 DC/DC POWER SUPPLY

- VITA 46.11 System management
- High Density & Cyber Secure
- Input: 18 to 48VDC
- Output up to 800W
- Input options: MIL-STD-1275, MIL-STD-704, DEF-STAN 61-5



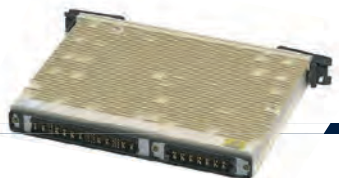
M4094 SERIES 3U VPX VITA 62 DC/DC POWER SUPPLY

- VITA 46.11 System management
- VITA 62.2 connectors to increase breakdown voltage
- Input: 200-330VDC
- Output up to 800W



M4706 SERIES 6U VPX VITA 62 AC/DC POWER SUPPLY

- VITA 46.11 System management
- VITA 48.7 Air Flow-By Cooling
- Input: 115 VAC 400 Hz three-phase
- Output up to 1100W / 1400W Peak



NETWORKING

MILTECH 20G3UVPX 3U VPX 24 PORT GIGABIT ETHERNET SWITCH

- 20 x 1G copper ports and 4 x 1G fiber optic interfaces.
- Supporting advanced secure boot via dedicated FPGA
- IEEE 1588 protocol and advanced Layer 2 / Layer 3 communication protocols for security, QoS & data redundancy
- Monitoring and management via IPMI SOSA™ aligned interface



24
PORT

MILTECH 320G3UVPX 32 X 10G PORTS 3U VPX ETHERNET SWITCH

- VITA 46 & SOSA™ Aligned
- Up to 32 Ports Slot Profiles per SOSA
- Full Layer 3 management features include: VRRP, OSPF V3, PIM, RIP V1/V2, ECMP. IEEE 1588 protocol and QoS



UP
TO 32
PORTS



MILPOWER WELCOMES THE OPPORTUNITY TO CONFIGURE OUR PRODUCTS TO YOUR SPECIFICATIONS

If you require a custom solution, we invite you to speak directly with our experienced design engineers today to define your specifications and create a solution that meets your needs.



7 Field Lane • Belmont, NH 03220 • 1.603.267.8865
sales@milpower.com • www.milpower.com



MIL-GRADE VOLTAGE REGULATORS

Milpower Source leverages over 40 years of experience to deliver purpose-built power products that meet the demanding requirements of unmanned aerial systems.



DELIVERING:

Compact, lightweight designs that stand up to shock, vibrate and temperature requirements to meet military standards: MIL-STD-461, 801, 704.

MILITARY VOLTAGE REGULATORS FOR PERMANENT MAGNET GENERATORS (PMG)

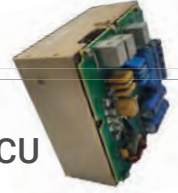
In most UAVs, the generator is powered directly from the main propulsion engine, whose RPM changes as the flight conditions change. In this case, the generator of choice is typically a Permanent Magnet Generator. The PMG is simple, reliable, and very compact. To provide the payload with a usable power source, a mediator (sometimes called GCU), which converts the PMG's wide range AC voltage to a regulated and protected DC voltage, is needed. This mediator is a special kind of power converter. It needs to be light and efficient, but unlike standard AC to DC power supplies, does not need isolation between its AC input to DC output.

CHALLENGE US: MILPOWER SOURCE DELIVERS MIL-GRADE OFF-THE-SHELF VOLTAGE REGULATORS AS WELL AS CUSTOMIZED SOLUTIONS TO ADDRESS UAV APPLICATION REQUIREMENTS.

STANDARD VOLTAGE REGULATOR FEATURES

- Military Standards - rugged AC/DC GCU product qualified to key test methods per MIL-STD-810 and MIL-STD-461.
- Input Voltage - may range widely from 32VAC to 150VAC.
- Output Voltage - must always remain well within the MIL-STD-704 voltage limits, for the various airborne loads on the platform.
- Current - is "automatically" shared between the units by a voltage slope, slightly decreasing output voltage with load current rise.
- True N+1 Redundancy - can be achieved by connecting all the outputs through rectifiers.

POWER



**M7049 SERIES
750W AC-DC THREE-PHASE GCU**

- Input Power: 30-400VDC
- Output Power: 28VDC @ 750W
- Current-sharing operation
- Since this unit is DC fed, it requires a front-end bridge rectifier when used as a PMG GCU
- Standards: MIL-STD-704, MIL-STD-810, MIL-STD-461



**M495 SERIES
600W AC-DC THREE-PHASE GCU**

- Input Power: 25-135VAC
- Output Power: 28VDC @ 600W
- Current-sharing operation
- Standards: MIL-STD-704, MIL-STD-810, MIL-STD-461



**M2781 SERIES
2.8KW AC-DC THREE-PHASE GCU**

- Input Power: 30-140VAC
- Output Power: 28VDC @ 2.8kW
- Current-sharing operation
- Standards: MIL-STD-704, MIL-STD-810, MIL-STD-461



**ASK US ABOUT OUR FULL LINE OF
POWER, PDU & NETWORKING
SOLUTIONS**

- Rugged mechanical design
- Available in packages & board-level configurations
- Wide input voltage & operating temperature ranges
- Designed for MIL-STD-704, MIL-STD-810 & MIL-STD-461



MILPOWER WELCOMES THE OPPORTUNITY TO CONFIGURE OUR PRODUCTS TO YOUR SPECIFICATIONS. TO SPEAK WITH AN EXPERT, EMAIL SALES@MILPOWER.COM.