VICOR

Case study: Vehicle protection and countermeasures



Quickly modifying a standard SOSA supply to meet an applications hold-up requirements

Customer's challenge

Vehicle protection and countermeasures require 800W of power in a single 3U slot to use both jamming/spoofing and physical intercept methods to defend against threats to the vehicle. The customer-defined specific hold-up requirements and needed to deploy in a cost-effective manner. The key goals were:

- Specific hold-up requirements
- Provide enough power in a single 3U slot
- Commonality (form factor 3U) and budget sensitivity

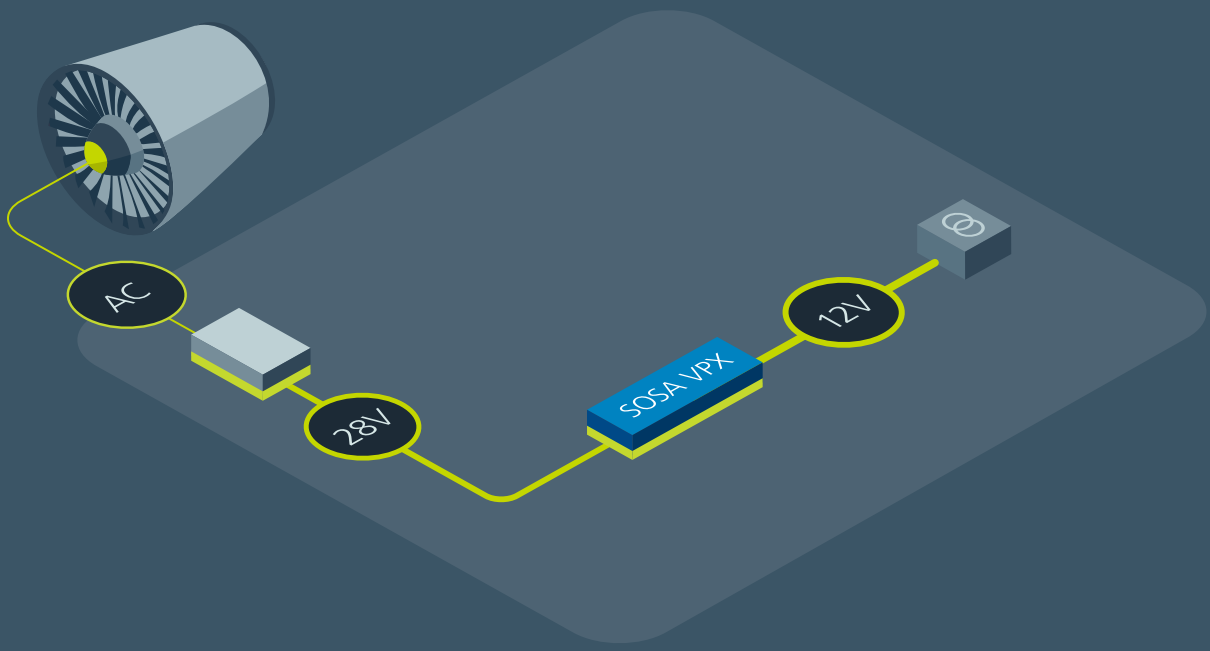
The Vicor solution

The Vicor SOSA 3U power supply can be quickly modified by the Vicor engineering team to meet different hold-up specifications and power requirements. A Vicor SOSA aligned power supply meets MIL-STD, eliminating the significant timeframe and effort to qualify for the standards. An additional benefit in selecting this power supply is the ability to quickly adapt to future changes and get to market sooner. Key benefits were:

- Modified to meet customer-specific hold-up requirements SOSA compliant 3U power supply
- Modular approach enables quick design modifications and prototyping
- Thermal efficiency

The power delivery network

The Vicor SOSA-compliant 3U power supply is based on Vicor DCM™ DC-DC converter technology, which provides superior density in a low-profile package. This solution can provide up to 800W within the 3U package and can be customized to meet specific hold-up requirements. It employs high efficiency, two-sided conduction-cooled modules, and up to four power supplies can be paralleled to increase output power capability with proprietary wireless current sharing.





SOSA™ aligned power supply

VPX systems

Input: 10 – 45V, 18 – 45V

Output: 12V main, 3.3V auxillary

Power: Up to 800W

As small as
3.9 x 6.6 x 0.95in

vicorpower.com/sosa

VICOR

©2026 Vicor