POWER CONDITIONING UNIT

PCU-1C28

A high-efficiency, compact, DC to DC converter designed to operate in Low Earth Orbit (LEO) environments that provides a regulated, isolated, 12V rail suitable for powering the full suite of Cesium communication products.

The Cesium PCU-1C28 includes a fixed-frequency converter with integrated filters and protections as well as a digital interface for telemetry in a credit-card-sized footprint. Each module is parallelable with other Cesium PCUs for higher output power or hot redundancy.

Use as a stand-alone power converter or combine with other Cesium modules for a system that works out of the box.

TABLE OF CONTENTS:

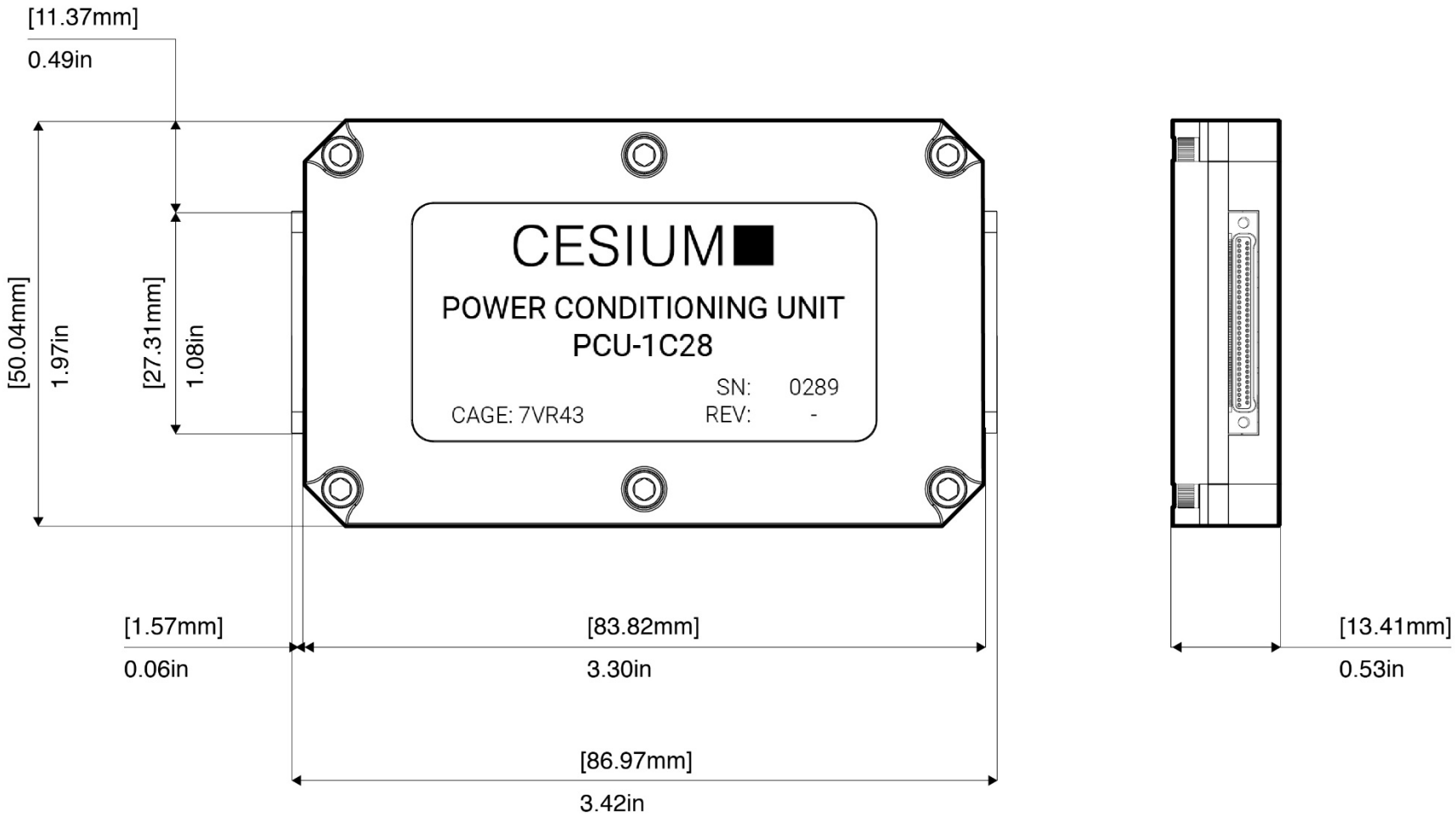
1. KEY FEATURES:

- Compact 50mm x 84mm x 13mm packaged form-factor
- Fixed-frequency topology
- Integrated EMI and input filtering
- Gallium nitride (GaN) switches
- Over-temperature protection
- Input under-voltage lockout
- Parallelable for higher power or redundancy
- Digital interface for telemetry
- Suitable for both military and commercial applications on LEO satellites and airborne platforms
- Thermal pillars bring heat to flat surface

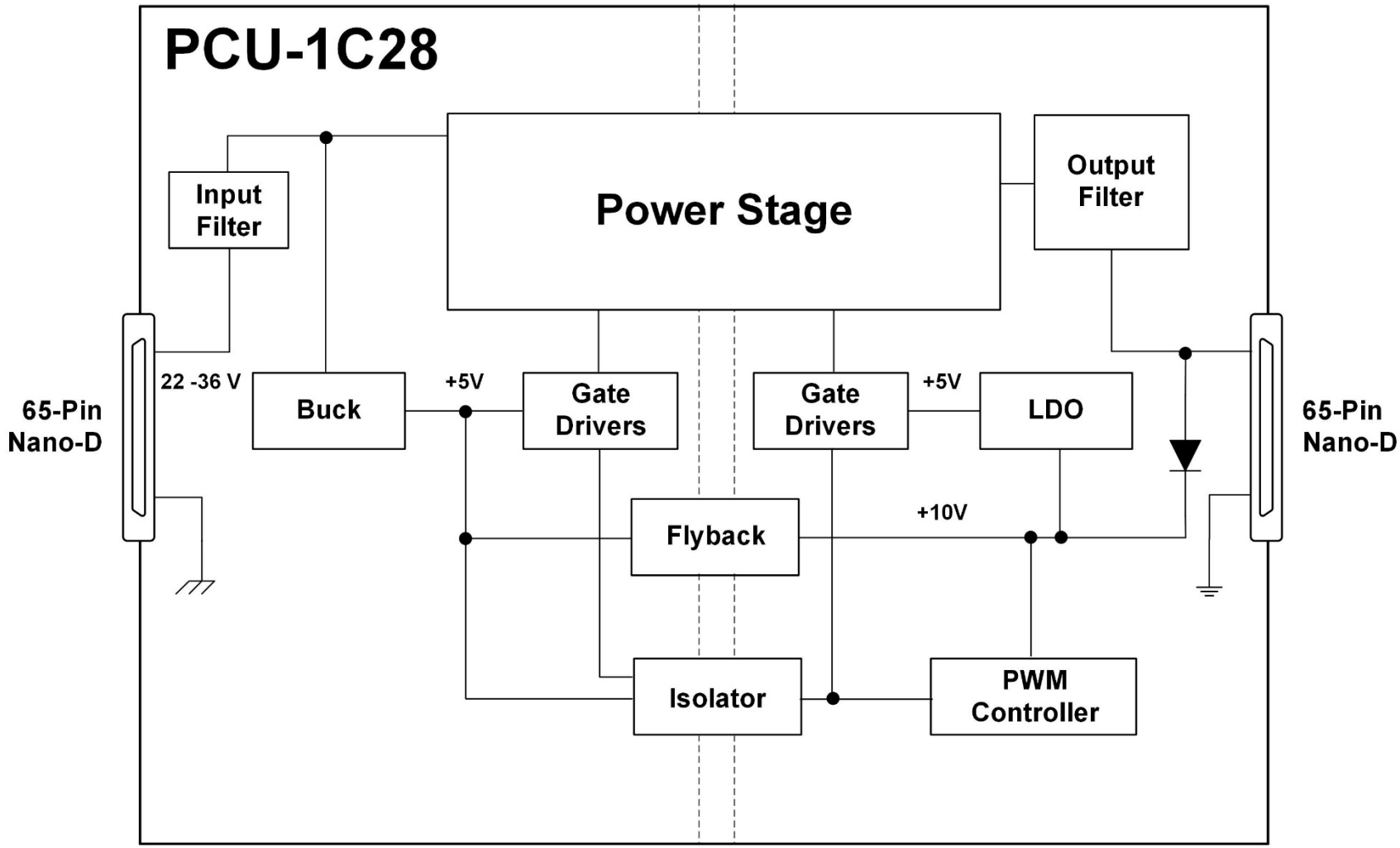
2. PRODUCT SPECIFICATIONS:

Unregulated Input Voltage:	22 to 36 Vdc
Output Voltage:	11.5 to 12.5 Vdc
Maximum Power Output:	150 W at 12 Vdc
Sustained Output Current:	12.5 A
Nominal Efficiency:	94%
Baseplate Operating Temperature:	-24 to +61 °C
Mass:	120 g

3. MECHANICAL VIEW:



4. SYSTEM BLOCK DIAGRAM:



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