

SINGLE-BOARD COMPUTER

SBC-1461



A credit-card-sized single-board computer designed to operate in Low Earth Orbit (LEO) environments with integrated communications and security features. The module features a quad-core processor, error-correcting code memory, mass storage, redundancy and multiple data interfaces in a compact form-factor.

The Cesium SBC-1461 includes a software development kit for a Linux-based Operating System (OS) providing a fast out of the box solution.

Use as a stand-alone computer or combine with other Cesium modules for additional computational power, security, and system monitoring and control.

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1. KEY FEATURES:

- Compact 50mm x 84mm x 13mm packaged form-factor
- 1.8 GHz ARM® 64-bit quad-core Cortex®
- Traffic routing and encryption without loading the cores
- Integrated security engine
- 2GB SDRAM with ECC (option for 4GB or higher)
- 8GB non-volatile eMMC storage
- Redundant 64MB boot flash with automatic failover
- On-board telemetry: temperature, rail voltages, real-time clock
- IEEE 1588 Precision Time Protocol
- Linux Kernel, Ubuntu-based OS (option for VxWorks®), GNU Toolchain
- U-boot with Secure boot
- Suitable for both military and commercial applications on LEO satellites and airborne platforms
- Thermal pillars bring heat to flat surface

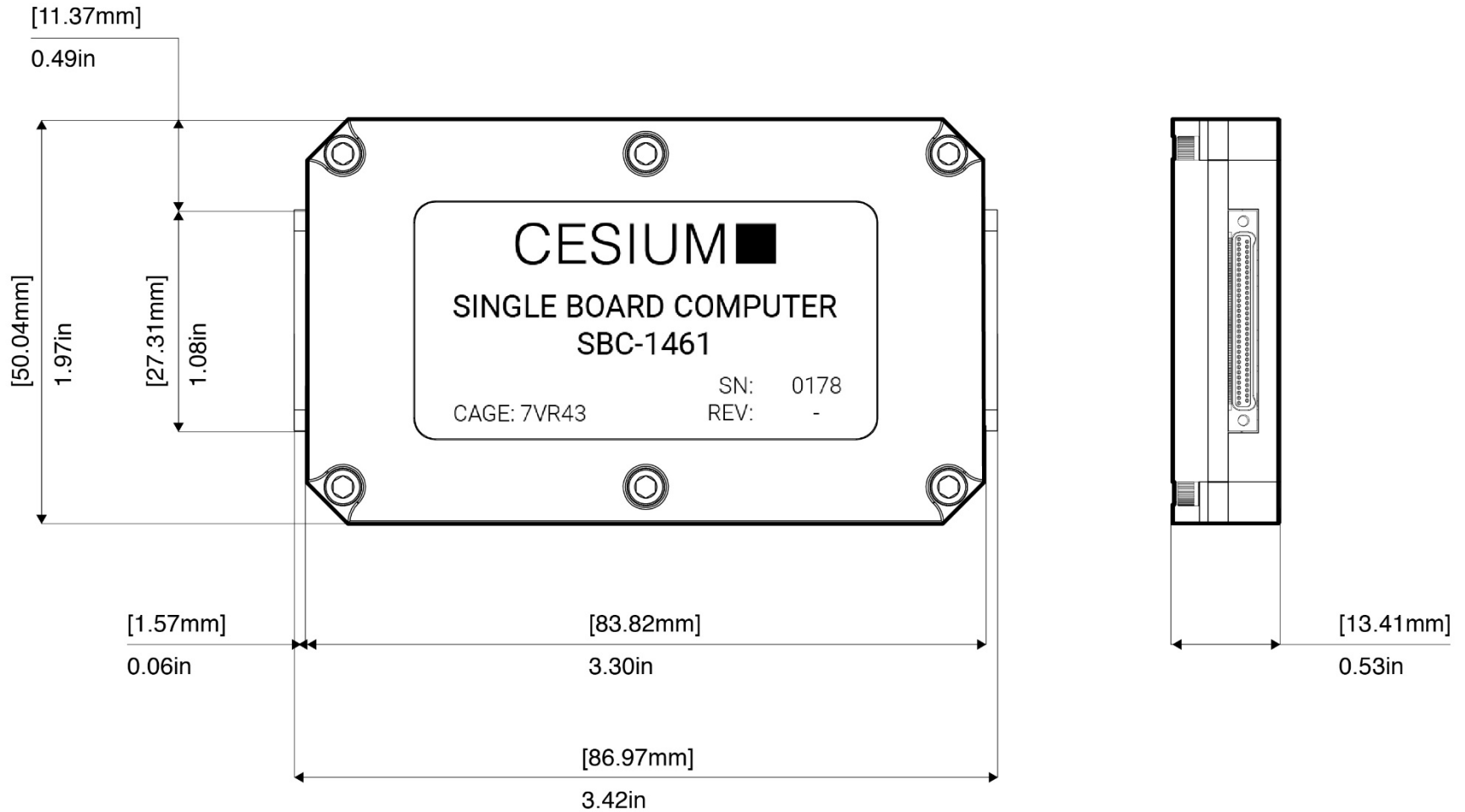
2. DATA INTERFACES:

- 2x 10GBASE-KR (configurable as SGMII)
- 2x RS-422/RS-485
- 1x USB 3.0
- 1x SPI with 2x Chip Select
- 2x 100BASE-TX
- 1x SGMII
- 1x JTAG
- 1x UART

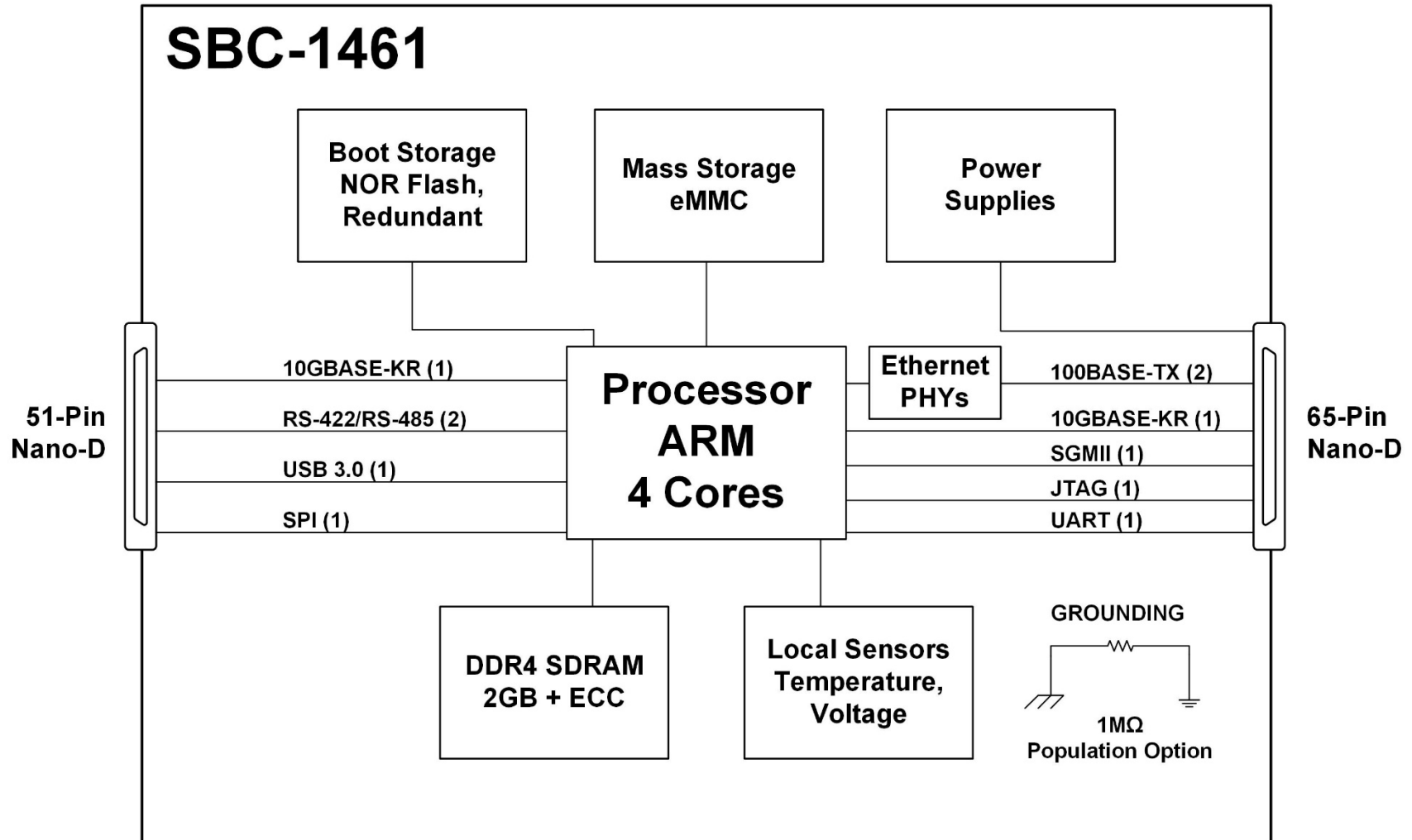
3. PRODUCT SPECIFICATIONS:

| | |
|----------------------------------|---------------|
| DC Input Voltage: | 11 to 13 V |
| Baseplate Operating Temperature: | -24 to +61 °C |
| Mass: | 100 g |

4. MECHANICAL VIEW:



5. SYSTEM BLOCK DIAGRAM:



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