



**PRO-2 is a low-profile OBC designed for various missions, where intensive processing is not a primary requirement. However, it offers the capability to deliver up to 200 DMIPS on its ARM Cortex-M3 core if processing demands arise. Equipped with a versatile range of interfaces—including GPIO, ADC, CAN, RS232, RS422, and optional Ethernet—OBC-PRO-2 provides robust support for various mission-critical functions while maintaining a compact & efficient design.**

## KEY FEATURES

- **Processor:** ARM Cortex-M3 on SmartFusion2 FPGA SoC.
- **Analog Inputs:** 16 Channels, 16-bit ( $\pm 5V$ ,  $\pm 10V$ ,  $\pm 20V$ )
- **Digital I/O:** 20 GPIOs (3.3V, 5V)
- **Interfaces:**
  - 2 CAN
  - 4 RS232
  - I2C
  - 4 RS422
  - TTL UART
  - Ethernet (non-standard)
- **Memory:**
  - 128KB eNVM Flash (ROM)
  - 144KB + 191Kb RAM
  - 4Mbit Serial FRAM EEPROM
  - 128Mbit Flash
- **RTC:** 1 real-time clock
- **Power Converters:** Double Redundant for Main Power Converters
- **Power Supply:** 28V  $\pm 4V$ , with power consumption under 1.5W.
- **Radiation Hardness:**
  - TID: 30Krad (Si)
  - Latch-up immune
  - Single Event Effects (SEE) tolerance at 60 MeV
- **Customizable Options:** Fully customizable without additional NRE costs.



## FORM FACTOR

- Dimensions: 125x110x20 mm
- Connectors: Micro-D

## MECHANICAL & ENVIRONMENTAL RESILIENCE

- **Weight:** Less than 500g.
- **Operating Conditions:** Suitable for spaceflight, capable of withstanding extreme temperature and pressure variations.



## SOFTWARE SUPPORT

- FreeRTOS or uC-OS-3 with bare-metal programming for full hardware control.
- Development and debugging via SoftConsole, Keil, or IAR IDEs, with JTAG support for diagnostics.