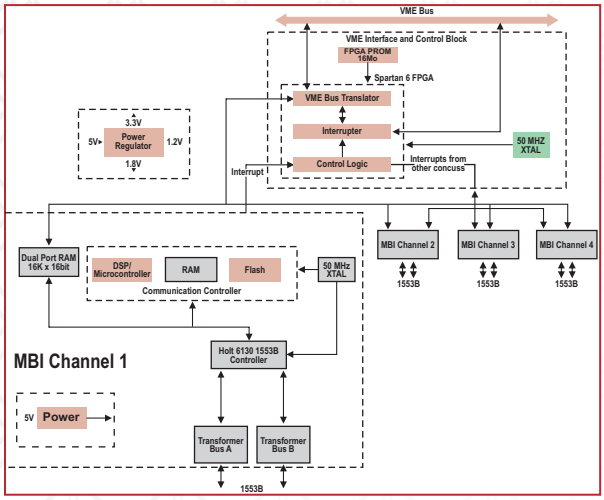
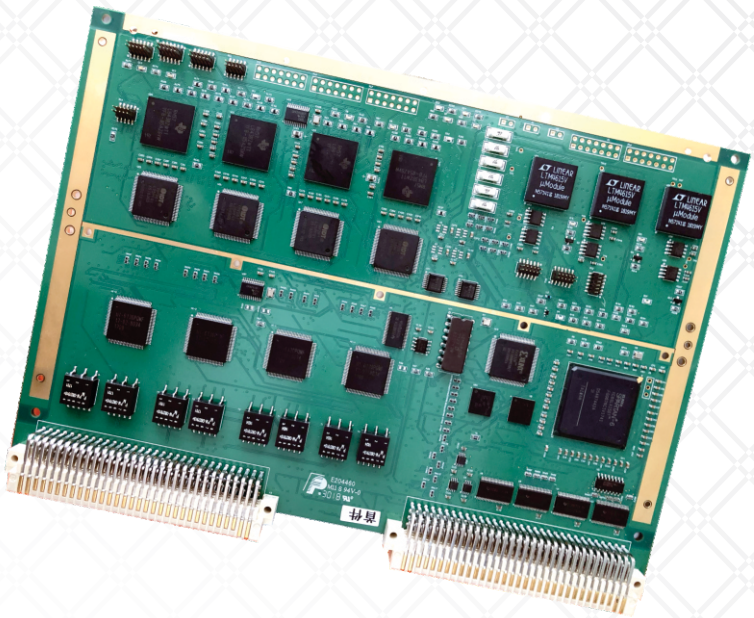
DATA SHEET

# MUX BUS INTERFACE CARD

TERESOL
Technological Research Solutions

## BLOCK DIAGRAM



**Quad Channel MIL-STD-1553B 6U VME Interface Module**

## Specifications

**Integrated Host Processor**
- x04 ARM Cortex - R5F 32-Bit RISC CPU
- Dual-Core Lockstep CPUs With ECC-Protected Caches
- 1.66 DMIPS/MHz With 8-Stage Pipeline
- FPU With Single- and Double-Precision
- 16-Region Memory Protection Unit (MPU)
- 32KB of Instruction and 32KB of Data Caches With ECC

**Random Access Memory**
- x04 high-speed 16K x 16-bit Dual-Port Static RAM
- +3.3V Compatible IO Access

**Flash Memory**
- Low-Power AdvancedCMOS NOR Flash
- 40MbitPROM for FPGA

**Backplane-VME**
- Fully VME64 Host/Slave capable
- 2eSST support

**Serial Interfaces**
- x04 SPI slave/master channels
- x04 UART channels

**MIL-STD-1553 Interfaces**
- x04 Independent dual redundant channels
- Multi-terminal Functionality
- Each channel functions as Bus Controller (BC), a Bus Monitor Terminal (MT) and two independent Remote Terminals (RTs).

**Temperature Sensor**
- x04 Processor Core Temperature sensors

**Current Sensor**
- x03 Hall-Effect current sensors on main power rails

**Power Requirements**
- Operates on +5.0 DC supply

## Features

- 6U VME Interface
- Onboard Xilinx 6 Series high-end FPGA for AS ICs design
- Xilinx CPLD for power sequencing and reset management
- High-speed 3.3V 16K x 16 dual-port SRAM
- Host/slave, VME64-compliant + 2eSST
- 4x Mil-Std-1553 Differential Channels
- 4x RS232 ports
- 4x SPI ports

## Optional Accessories

- 6U Standard backplane
- Temperature management
- Wedge Locks

## Standards

- MIL-STD-454G
- ANSI/VITA / 1994 VME64
- MIL-STD-8010
- MIL-STD-461B
- MIL-STD-1553B

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