



TMCORE02 Computing and Controller

Technical Specs

- Computing and Controller unit for aero equipment
- Coldfire Microcontroller at 250MHz
 - 1Gb DDRAM
 - 2Gb Flash
 - 16 Mb SPI Flash
- Altera MaxII CPLD
 - 16 Mb SPI Flash
- 2 dual MIL-STD-1553
- 2 Arinc429 TX
- 4 Arinc429 RX
- 96.5 x 80 x 2.4 mm
- IPC 600 & 610 class 3
- RTCA/DO-254
- EASA CM-SWCEH-001



TMCORE02 from [TEMAI Ingenieros](#) is a computing and controller platform based on 32 bit Freescale Coldfire Microcontroller at 250MHz and Altera MaxII CPLD enhanced from TMCORE01 platform for aero products under DAL A and DAL B certification for control / monitor architectures with isolated/non isolated power and signals configuration, manufactured under IPC600 and IPC610 class 3.

TMCORE02 has been designed for supporting RTCA/DO-254 and EASA CM-SWCEH-001 Certification Memorandum certification process at equipment level. Contact TEMAI for detailed information.

Microcontroller and CPLD are powered by independent power supplies and interconnected through an uncoupled DataLink bus.

Microcontroller provides 1Gb DDR2 and 2Gb Flash memories, 2 isolated CANbus, 1 RS232, 1 Ethernet 10/100T, dual MIL-STD-1553, 1 Arinc429 TX and 2 Arinc429 interfaces. Microcontroller interface a SPI 16Mb Flash memory for general purpose use, and provides 43 GPIOs, 3 SPIs, 6 Analog Inputs/Analog Outputs and 2 temperature sensors.

CPLD provides dual MIL-STD-1553, 1 Arinc429 TX and 2 Arinc429 interfaces. CPLD interface a SPI 16Mb Flash memory for general purpose use, and provides 69 GPIOs.

TMCORE02 interface is based on Mezzadine connectivity and integrates BDM and JTAG programming ports.