

# Embedded Controller Card Plus

Advanced Product Information



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## FEATURES

- ❑ Broadband data acquisition card for radiation-hardened applications
  - DC to 41.5KHz,  $\pm 3$  Volt input range
- ❑ 11 $\mu$ s conversion time, 14-bit resolution
- ❑ On-board 16-bit, 20MHz, MCS-96 compatible microcontroller
  - 1M bytes of instruction memory (256K bytes of E<sup>2</sup>PROM)
  - 1M-bytes of data memory with EDAC
- ❑ 32-bit, 33MHz PCI port (version 2.X) compliant
- ❑ Radiation-hardened; total dose irradiation testing to MIL-STD-883 Method 1019
  - Total-dose: 50K rads(Si) to 100K rads(Si)
- ❑ C language software drivers and utilities
  - Optional RS-232 de-bug monitor
- ❑ Available with 1Mbps Low Power Serial Bus
  - Low level C software drivers
  - 16K bytes of SRAM
- ❑ 4 user defined RS-422 low speed serial links
  - Low level C software drivers
  - Programmable baud rate
- ❑ Optional form factors
  - Customized form factors for serial interface cards

## INTRODUCTION

UTMC announces the development of a high speed data embedded controller card for space applications. The card is ideal for applications requiring the conversion of analog signals into digital representations. Typical applications include: power system control and monitoring, sensor data collection, and position control systems. The UT131ECC+ card combines a wide bandwidth multiplexed data acquisition system with a Low Power 1Mbps Serial Data Bus for distributed data processing applications. An on-board 16-bit microcontroller manages all data acquisition and bus interface functions. The microcontroller includes an extensive suite of on-board control peripherals to implement real-time control and maintenance functions with little CPU overhead. Additionally, the microcontroller has 15 interrupt sources, built-in synchronous and asynchronous USART, pulse width modulators, and real-time controlled outputs. Additional on-board system peripherals include a bank of serial ports and user defined output discretes. The embedded controller card comes complete with C driver executives to interface with all system peripherals. C drivers for simple analog to digital conversion routines, serial communication and data transmission fit within the 1M byte instruction space. An optional RS-232 port connects the data acquisition card to

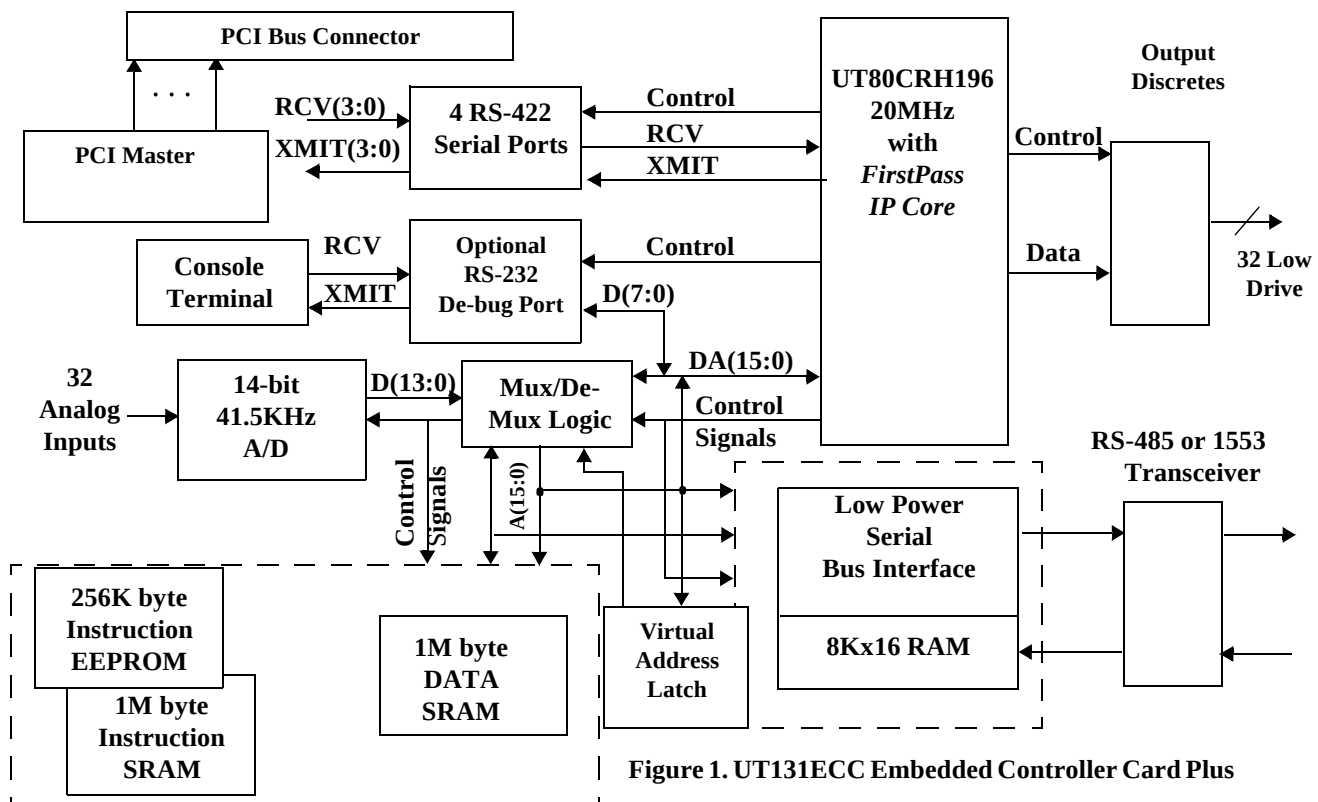


Figure 1. UT131ECC Embedded Controller Card Plus