

PMC/860

High-performance E1 or T1 interface telecom controller for SS7, LAPD and V5.x applications

Benefits

- **Leading edge connectivity technology**—highly integrated PowerQUICC combines PowerPC CPU and communications processor
- **Time to market for IN/AIN and Wireless infrastructure**—easy-to-configure E1 or T1 interface supports multiple bus architectures and SS7 protocol stacks



The PMC/860 is a PCI mezzanine card that combines E1 or T1 and TDM telephony bus connectivity with the Motorola PowerQUICC processor. With PMC/860, you'll bring your telecom products to market faster because you'll have the tools you need in-hand to develop IN/AIN and wireless infrastructure products and services in the simplest, most convenient way possible.

Hit the telecom market running.

The PMC/860 is designed to help you build high-performance telecom products faster and easier than ever before. Based on open standards, this high-performance E1 or T1 interface telecom controller is compatible with multiple bus architectures and operating systems. Stand-alone or integrated into a CompactPCI or VME environment with a Solaris, Windows NT or real-time host, the PMC/860 is supported by leading SS7 protocol vendors and offers an unmatched choice of system configuration and design options.

Leading edge technologies for telecom applications.

The PowerQUICC processor is the heart of the PMC/860 design. It integrates a PowerPC processor and a front-end communication processor in one chip and therefore provides an ideal and high-performance architecture for wireless/access network and signaling applications. The combination of two E1 or T1 interfaces with the SCbus allows for new configurations and system designs which are not possible with E1 or T1-only platforms.

The PMC/860 is a powerful building block for SS7, LAPD, V5.x and other wireless infrastructure, intelligent network (IN) and advanced intelligent network (AIN) applications.

Powerful solutions for demanding markets.

In a typical configuration, the PMC/860 runs on a Force Computers PowerCore PowerPC board, connecting two E1 or T1 lines and routing time slots to the PowerQUICC processor for further processing of SS7, LAPD or V5.x. Time slots can also be routed to the SCbus for further processing on other resource boards. The PMC/860 is not limited to those applications-any data communication protocol can be deployed to terminate or route data and voice traffic.

PMC/860 SPECIFICATIONS

- **General**
 - Processor Subsystem:
 - PowerQUICC MPC860MH
 - 53 MIPS @ 40 MHz
 - 4 MByte shared EDO DRAM
 - 128 KByte fast SRAM
 - 2 MByte Flash PROM
 - PCI Rev. 2.1 interface, up to 33 MHz supported
 - I/O Subsystem:
 - Two E1 or T1 interfaces
 - RS-232 Debug port
 - SCbus on PMC connector User I/O
 - Front Panel:
 - Two E1 or T1 interfaces via shielded circular connector
 - Debug port on Micro D-Sub9 connector
 - 2x 3 LEDs
 - Switching Subsystem:
 - Time slot multiplexer
 - Connects to external SCbus
 - Connects locally to two E1 or T1 interfaces and two PowerQUICC TDM channels (32 x 64 Kbit/s each)
 - Supports SCbus at 512, 1024 or 2048 time slots bandwidth
 - Time slots are simplex bi-directional with broadcast support
 - SCbus and Local Clocking:
 - E1 or T1 or SCbus can be selected as clock master for the local system
 - On-board clock for local clock generation
 - SCbus master, slave and clock fallback support
- **Product Variants**
 - PMC/860/40-T1-100: two T1/100 Ohm interfaces
 - PMC/860/40-E1-120: two E1/120 Ohm interfaces
 - PMC/860/40-E1-75: two E1/75 Ohm interfaces
- **Environmental**
 - Storage Temperature: -40°C to +85°C
 - Operating Temperature: 0°C to +55°C
 - ETS 300 019-1-1/1.1 (storage), ETS 300 019-1-3/3.3 (operation)
- **Power Consumption**
 - 1100 mA @ 5 V max.
 - 600 mA@3.3V max.
- **Dimensions**
 - PMC Module Type 1 (single width), IEEE P1386 compliant
 - 150 mm x 75 mm / 5.90" x 2.95"
- **Factory Assembly Options (Please ask for availability)**
 - E1 or T1 interfaces routed via backplane (instead of front panel)
 - PowerQUICC MPC860MH at 50 or 66 MHz
 - 16 MByte DRAM
 - 256 KByte SRAM
 - No SC4000/HSCX, but Framer to PowerQUICC direct connection
 - No PowerQUICC assembled, but Framer, etc. controlled from host
 - One V.11 interface on front panel (instead of debug port)
 - Debug port routed to front panel connector

- **Accessories**
 - Cable, RJ-45 (male) to circular connector for usage with E1/120 Ohm and T1/100 Ohm product variants
 - Cable, BNC to circular connector for usage with E1/75 Ohm
 - Cable, debug port
 - RTOS BSP (Tornado™) and utility package, TCP/IP driver to PowerCore/VxWorks host
- **Agency Approval/Compliance**
 - EMC/EMI: FCC Part 15, CE approval (EN 55022, EN 50082-2)
 - Safety: UL 1950, EN 60950
 - Telecom: ITU G.703/704, ITU G.823