MEN Micro’s family of PowerPC MPC5200-based compute engines come in a variety of standard, open-bus form factors. And the EM1N Embedded System Module (ESM) can be adapted to practically any open bus or custom application. The 384 MHz MPC5200 processor on the PP1 (PCI/104), EM1N (ESM), B13 (3U VME), and F12 (3U CompactPCI) delivers up to 760 MIPS of processing power. It also includes an FPU and TCU, and the BestComm/DMA I/O controller, which provides industrial I/O interfaces including two CAN ports, USB, Fast Ethernet, two RS-232 ports, and SPI. These boards are low power (850 mW for the MPC5200) and can operate over the entire industrial temperature range of -45 °C to +85 °C.

In addition to the capabilities of the MPC5200, MEN’s small form factor compute engines offer extensive onboard memory and storage (SDRAM, Flash, FRAM) and a wide selection of standard I/O, including Fast Ethernet, RS-232 serial interfaces, USB, CAN ports, and others. Additionally, a high-capacity 144 K-gate FPGA can be configured to deliver custom functionality. MEN’s small-form-factor compute engines are also compatible with MEN’s SA adapters that can be used to implement the physical layer of many standard I/O ports.

The EM1N ESM is a small System-On-Module (SOM) that can be adapted to almost any form factor by way of an application-specific carrier card. When mounted on a 6U carrier card, for example, the carrier can also accommodate two more PMC cards or other types of mezzanine cards, such as PC•MIP cards or M-Modules.