

Ampro Computer-on-Module (COM) Family

Ampro helps you build a better product, faster

Ampro brings to the COM market its reputation, dependability, consistency and reliability with both its rugged and non-rugged ETX and XTX modules. Ampro has a broad COM offering from 400MHz to 1.4GHz processors.

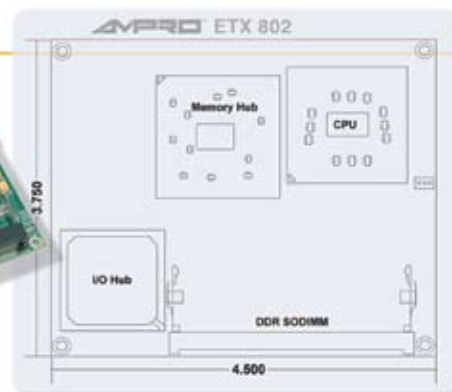
Ampro ETX. Ampro's ETX COM products, the world's first rugged ETX modules, are designed for rugged applications existing in harsh environments. These products use a 50 percent thicker board, the same as our LittleBoard™ products, to solve the intermittent signal problems reported by OEMs using only 0.062" (1.6mm) thick boards. Ampro also continues to use highly accelerated life test (HALT) and MIL-STD-202F shock and vibration test methodologies, as well as temperature and voltage margin testing early during the design phase to ensure that ETX products are as rugged as LittleBoard and CoreModule™ products. OEMs can now get the performance of the state-of-the-art notebook technology without heat pumps, fans, or other extravagant cooling solutions that are not suitable for most embedded systems.

Ampro XTX. XTX was recently invented to bring Gigabit Ethernet, serial ATA, PCI Express, and LPC expansion to gradually migrate ETX baseboards while preserving the mechanical and elec-

trical module interface. After all, you should not have to start all over again just to adopt the latest processors and chipsets.

Single board computers (SBCs) are self-contained boards with processor, memory and PC-style I/O on a single printed circuit board (PCB). However, computers-on-modules (COMs) are boards that include a subset of components in a small module format, but such modules must be plugged into an applications-specific baseboard in order to operate. The baseboard supplies power to the module and contains only those peripheral connectors (serial ports, video, Ethernet, other I/O) to the baseboard. Advantages of the two-board COM architecture includes ease of migration, flexible I/O connector location and expansion circuit customization compared to commercial off-the-shelf (COTS) SBCs, time-to-market and reduced development cost and risk compared to a full custom PCB design.

ETX 802



Ampro's COM Module Solutions

	ETX 700	ETX 802	XTX 820
CPU	650MHz LV Celeron® or 400MHz ULV Celeron®	1.4GHz LV Pentium® M 738, 1.0GHz ULV Celeron® M 373 or 600MHz ULV Celeron® M	1.8GHz Pentium® M 745, 1.4GHz LV Pentium® M 738, or 1.0GHz ULV Celeron® M 373
Cache	512kB (P III) 256kB (Celeron®) Level 2	2MB (Pentium® M) 512kB (Celeron® M) Level 2	2MB 512kB Level 2
DRAM	Up to 512MB	Up to 1 GB DDR	Up to 1 GB DDR2
Bus Interface	ISA and PCI	ISA and PCI	PCI Express™ 4 x1, PCI and LPC
EIDE	Ultra DMA 33/66/100 to 4 drives	Ultra DMA 33/66/100 to 2 drives	Ultra DMA 33/66/100 to 2 drives
Serial Port	2 TTL ports	2 TTL ports	2 TTL ports
Parallel Port	EPP/ECP bidirectional	EPP/ECP bidirectional	EPP/ECP bidirectional
Floppy	Shared with parallel	Shared with parallel	Shared with parallel
USB	(4) USB 1.1	(4) USB 2.0	(6) USB 2.0
Keyboard / Mouse	PS/2	PS/2	PS/2
Audio	AC97	AC97	AC97
Network	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet
Video	AGP 4X, 1600x1200	AGP 128-bit, 2048x1536	AGP 256-bit, 2048x1536