

COMPUTING ENVIRONMENTS ARE CHANGING. THE EVOLUTION OF NETWORK COMPUTING IS IMPACTING THE ENTIRE ENTERPRISE, FROM THE CORPORATE DATA CENTER TO THE TACTICAL WORKGROUP. TRICORD'S POWERFRAME FAMILY UNIQUELY FOCUSES ON ALL CRITICAL AREAS OF THE ENTERPRISE PROVIDING THE CORRECT LEVEL OF PERFORMANCE, SCALABILITY, AND RELIABILITY.

THE POWERFRAME MODEL 20 REPRESENTS THE LEADING-EDGE SERVER FOR NETWORK AND MULTI-USER APPLICATIONS AT THE WORKGROUP AND DEPARTMENTAL LEVEL.

POWERFRAME MODEL 20 SERIES ENTERPRISE SERVER

*High Performance, Scalability, and Availability
for workgroup and department computing*

MODEL 20 BENEFITS

▲ **SYMMETRICAL MULTIPROCESSING WITH UP TO TWO CPUs** – PROVIDES BALANCED HIGH-PERFORMANCE FOR COMPUTE-INTENSIVE APPLICATIONS.

▲ **SCALABLE, INDEPENDENT SUBSYSTEMS** – MAINTAIN HIGH SYSTEM THROUGHPUT AS COMPUTING AND NETWORK PERFORMANCE REQUIREMENTS INCREASE.

▲ **FAULT TOLERANT DESIGN** – BUILT-IN FAULT RECOVERY AND DIAGNOSTICS ASSURES MAXIMUM SYSTEM AVAILABILITY.

▲ **“OPEN SYSTEM” COMPATIBILITY** – PROVIDES VENDOR INDEPENDENT CHOICE OF THE BEST NETWORKING SOLUTIONS.

▲ **UPGRADABILITY THROUGH MODULAR DESIGN AND INDUSTRY-STANDARD COMPATIBILITY** – ENSURES LONG-TERM USE AND PROTECTS INVESTMENT IN ENTERPRISE NETWORKING.

A COST EFFECTIVE SOLUTION FOR YOUR CURRENT AND FUTURE WORKGROUP AND DEPARTMENT NEEDS

The PowerFrame Model 20 enterprise server is designed using the latest technology available. But more importantly, its modular design will accommodate new and more advanced networking technologies as they enter the market. This design philosophy makes the PowerFrame Model 20 a cost effective solution for today's workgroup and departmental network server needs... a solution that can grow as network demands increase.

MODULAR, MULTIPLE BUS ARCHITECTURE BUILT AROUND 32/64-BIT HIGH-SPEED SYSTEM BUS

The PowerFrame Model 20 is designed with a modular, multiple bus architecture like the other members of the Tricord enterprise server family. The hierarchical bus design is built around a 32/64-bit high speed system bus that supports current and future Pentium™ microprocessor CPU designs. Other key components of the architecture include three independently scalable subsystems... CPU, Memory and I/O.

COMPUTE PERFORMANCE MATCHED TO NETWORK NEEDS

The PowerFrame Model 20 is configurable with a single Intel i486DX2/66MHz with 128 Kilobytes of high speed second level cache (SLC) or a single or dual Intel Pentium microprocessor with 256 Kilobytes of high speed SLC. With Dual Pentium microprocessors, the Model 20 will support symmetrical multiprocessing for compute-intensive workgroup and department environments. The CPU

subsystem, through the system bus, communicates with the memory subsystem at a peak throughput of 133 megabytes per second. This high sustained transfer rate allows the PowerFrame Model 20 to support today's as well tomorrow's processors.

MEMORY PERFORMANCE MATCHED TO HIGH-PERFORMANCE CPUS

The PowerFrame Model 20's scalable memory configurations range from 16 to 128 megabytes of parity protected memory on the system board. For added reliability, the system supports optional ECC circuitry that detects single and double-bit errors before they impact system performance and operation. ECC memory configurations range in size from 32 to 256 megabytes using industry standard (SEC/DED) SIMM modules.

SCALABLE, HIGH-PERFORMANCE NETWORK AND DISK I/O

The PowerFrame Model 20's I/O bridge subsystem supports the full range of network technologies with its eight (8) EISA slots. The buffered EISA bridge interfaces with the system bus to provide a high speed path to the CPU and memory subsystems.

The intelligent disk subsystem takes advantage of an independent microprocessor to optimize disk I/O processing. I/O optimization techniques are employed including elevator seek, overlapped I/O, SCSI joins, and command tag queuing.

The system's base cabinet hosts up to eight 3.5", full-height drive bays supporting up to 8 gigabytes of disk storage. With the ability to add additional external devices, the system can be cost-effectively configured to meet current needs while providing future scalability.



Delivering the Future of Enterprise Networking Today

OPEN SYSTEM ARCHITECTURE ENSURES COMPATIBILITY WITH LATEST SOFTWARE AND HARDWARE TECHNOLOGIES

PowerFrame Model 20 offers support for the most popular network operating systems including NetWare 3.x, NetWare 4.x, NetWare SFT III, IBM OS/2 2.2, SCO UNIX, SCO UNIX/MPX, UnixWare, Banyan VINES/Open VINES, Microsoft LAN Manager, and Solaris 2.x. Its architecture will provide the same peak performance for other future 32-bit operating systems as well.

AVAILABILITY... KEY TO ALL NETWORK APPLICATIONS

PowerFrame enterprise servers are designed to provide reliability, data integrity, and recoverability. Features incorporated within the Model 20 include:

- Either parity or ECC (Error Correction Circuitry) memory.
- RAID levels 0, 1, 3, and 5 with the high-speed disk controller.
- LCD system status and diagnostic display for problem detection and trouble shooting.

POWERFRAME MODEL 20... THE SOLUTION FOR WORKGROUP AND DEPARTMENTAL NETWORKS

The PowerFrame Model 20 offers the characteristics of Tricord's high-end enterprise servers... performance, scalability, reliability, and upgradability... in a package designed to fit the networking needs of workgroups and departments. The system is highly scalable, allowing it to be tailored to meet computing requirements as they change. Additionally, the system is designed to upgrade to newer technologies as they become available, such as memory, processors, and disk systems, which can easily migrate to installed PowerFrame Model 20 systems.

MODEL 20 SERIES SPECIFICATIONS

	MINIMUM	MAXIMUM
CPU's and Cache		
Intel i486DX-2/66MHz or Intel Pentium Microprocessor(s)	1	1
	1	Dual
Memory		
parity protected RAM or optional ECC	16Mbyte	128Mbyte
	32Mbyte	256Mbyte
SCSI 2 Controller with RAID 0, 1, 3, and 5	1	2
Disk Storage Capacity		
Fast/Wide SCSI Devices in 500MByte or 1.0 GByte Internal Drive Bays (3.5")	1 500Mbyte 8	8 ¹ (half-height internal) 8 Gbytes (Internal) 8
EISA Bridge Subsystem with 7 slots		Standard
Power Supply		384 Watt
SVGA Card, Keyboard		Standard
3 Half-height Peripheral Slots		Standard
3.5" 1.44 MByte Floppy Drive		Standard ²

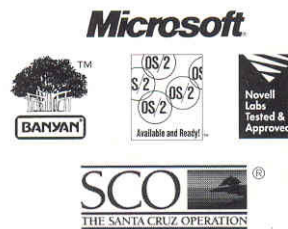
¹ Two SCSI Controllers must be installed to support 8 SCSI devices.
² Uses one of the 3 peripheral slots.

PHYSICAL CHARACTERISTICS

Cabinet Dimensions:	Height: 24.40 inches (61.98 cm) Width: 8.48 inches (21.54 cm) Depth: 23.15 inches (58.80 cm) Weight: 54 lbs (24.5 kg)
Power Requirements:	100-120 Vac, 60 Hz 200-240 Vac, 50 Hz
Temperature/Humidity:	Operating: 50° to 95°F (10° to 35°C)/20% to 80% @ 35°C Non-operating: -40° to 149°F (-40° to 65°C)/20% to 92% @ 65°C
Agency Certification:	Safety: UL 1950, 1st edition; CAS C22.2 No. 950-89; TUV Bauart to EN 60 950/IEC950/ZHI 618; NEMKO EN60 950 EMI: FCC Class B CFR #47 Parts 2 and 15, Certified Class B; VDE 087/6.78 Level B (Vfg 1046); CISPR 22/85 Class B, VCCI Class 2; VCCI Class 2 ITE; DOC CRC c.1374 Class B; EN55 101 Series

Tricord Systems, Inc. develops the PowerFrame family of high-performance enterprise servers. Incorporating the latest Intel technologies, the PowerFrame provides mainframe-life processing power and the best price/performance ratio in the super-server market.

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