VIPer820

TEKNOR

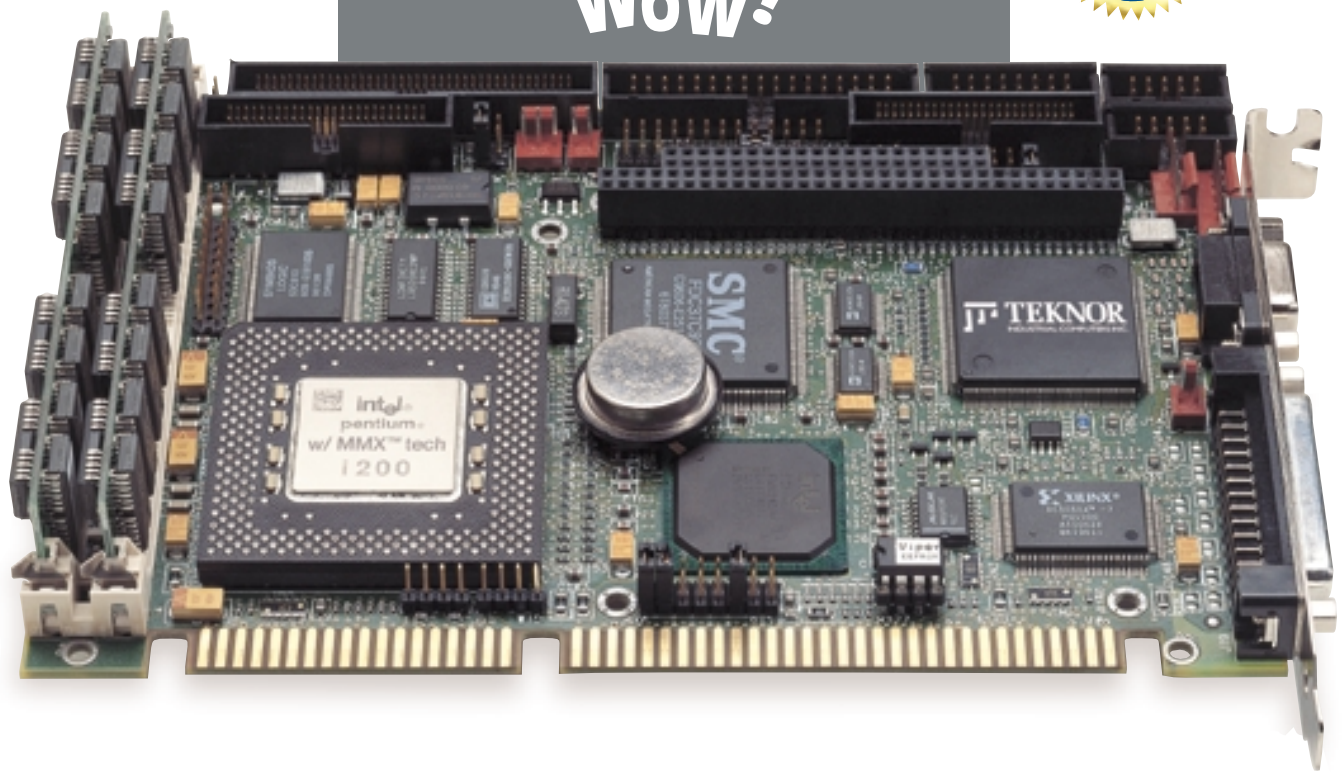
Now more power per cu. in.

233MHz Pentium® Processor with MMX™ Half-size Industrial SBC

Wow!

Y2K

CERTIFIED ISO 9001



TEKNOR, designer and manufacturer of the world's most advanced and reliable industrial single board computers and systems, continues to push the boundaries of technology by integrating the latest Intel microprocessor, a complete range of I/O and advanced firmware – all on a half-size industrial SBC.

This half-size board now supports the latest Intel Pentium® processor with MMX™ technology. In addition to 512KB of L2 cache and up to 256MB of DRAM, it also has onboard PCI video, dual channel EIDE, Fast SCSI 2, advanced power management capabilities, revolutionary Boot Block Flash technology and all the I/O you could ask for.

Designed to meet the demands of industrial applications, the **VIPer820** also comes equipped with a PC/104 interface, ISA bus connector and the ability to run in stand-alone mode.

So, whether you're designing next generation portables or embedded systems, design in the **VIPer820** – the only industrial SBC that delivers the processing speed and integration you need – on a half-size board. *Fast enough for you?*

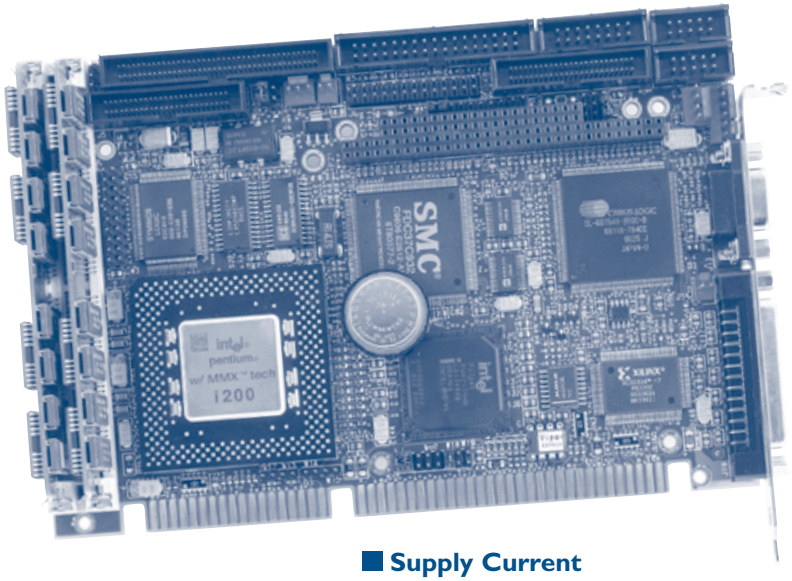
- **Up to 233MHz Pentium® processor with MMX™**
- **Intel 82430HX Chip Set**
- **Up to 256MB FPM or EDO DRAM**
- **PCI Video, SCSI and EIDE**
- **Up to 4MB Flash Disk**
- **Advanced Power Management Features**
- **PC/104, ISA Bus and Stand-Alone Operation**

TEKNOR
INDUSTRIAL COMPUTERS INC.

VIPer820

PC/AT SINGLE BOARD COMPUTER

HALF-SIZE PC/AT INDUSTRIAL SBC



TECHNICAL SPECIFICATIONS

Bus Interface
- PC/AT ISA bus or stand-alone operation
- 100% IBM PC/AT compatible
- PC/104 compatible
- Internal Rev. 2.1 PCI Bus

CPU Type & Speed
- Intel 100, 133 & 166MHz Pentium® processor
- Intel 166, 200 & 233MHz Pentium® processor with MMX™
- Intel 82430HX Chip Set

Memory
- DRAM: 8-256MB FPM or EDO using two 72-pin SIMMS
- Parity / non-parity & ECC support
- L2 Cache: 512KB Pipelined Burst
- Flash Disk: 0, 2 or 4MB
- Unique silicon serial number

Data Path
- 64-bit on CPU bus
- 16-bit on ISA bus
- 32-bit on PCI bus (internal)

Video
- Cirrus Logic CL-GD7548 videoprocessor chip
- 1MB EDO video memory
- PCI local bus interface, with burst transfer support
- Flat panel support for monochrome, S/S and D/D STN, EL and TFT displays
- 24-bit flat panel interface
- SVGA resolutions to 1024 x 768 x 256 colors or 1280 x 1024 x 16 colors
- GUI & Video acceleration
- Simultaneous CRT / FP support
- Video feature connector
- V-PORT™ (Asynchronous Digital Video) interface
- Power sequencing outputs for panel interface
- Compatible with Teknor's TEK-380 VIPerVision Real-Time Digital Video Module

I/O
- SMC FDC37C932 Ultra I/O

Serial:
- Two RS-232 ports configurable as COM1-4; COM2 can be RS-422/485 configured by BIOS software

Parallel:
- 1 bi-directional port with all IEEE 1284 protocols supported (compatibility, nibble, byte, EPP, and ECP)

Hard disk:
- PCI Enhanced IDE with two channels supporting up to four drives
- High Density Dual IDE Adapter

Floppy disk:
- Support for two, 2.88MB floppy drives

Clock / Calendar
- Real-time clock with battery backup

Supervisor Utilities
- Watchdog timer
- Power failure / low battery detector

SCSI
- PCI Fast SCSI 2, 8-bit bus
- Symbios 53C810 Risc Engine
- 10MB/s synchronous transfers
- 5MB/s asynchronous transfers
- Full PCI-speed data transfers to host
- Integrated SCSI BIOS providing boot capability
- Support for up to seven SCSI devices
- Active terminations
- Utility included for peripheral installation and setup
- High Density SCSI Adapter

BIOS
- AWARD BIOS
- Updatable BIOS in Boot Block Flash
- Auto configuration and extended setup
- Programmable CPU and memory wait states
- BIOS shadowing in RAM
- Extensions for diskless, keyboardless and videoless operations
- Ability to boot MS-DOS and user applications from Flash disk
- Advanced power management support
- Plug and Play peripheral support

External Connectors
- IDE hard disk (2), floppy disk, parallel & serial ports (2): individual shrouded headers
- AT keyboard, speaker, reset port: combo shrouded header
- CRT: DB-15
- Flat Panel display: 50-pin high density shrouded header
- V-PORT™/Feature connector: 26-pin header
- SCSI: 50-pin high density shrouded header
- PS/2 mouse: 4-pin locking header
- 12V DC Fan: 2-pin locking header
- Power: 6-pin and 2-pin locking header
- PC/104 expansion header
- SMI: 3-pin locking header

Operating Temperature
- 0° to 62°C / 32° to 143°F (with airflow)
- CPU case temperature: 70°C / 158°F
- Consult factory for high speed processor temperature specs
- Extended temperature range available

Noncondensing Relative Humidity
- 5% to 95%

Electrical / Mechanical
- Conforms to the IEEE P996 PC/AT bus specifications

Supply Voltage
- Vcc = +5V ±5%
  +12V ±5%

Supply Current

IPP: +12V 10mA

Pentium:	100	133	166
ICC typ.*: @+5V	2.34A	2.70A	2.98A
ICC susp.: @+5V	1.24A	1.26A	1.27A
MMX:	**166**	**200**	**233**
ICC typ.*: @+5V	3.23A	3.55A	3.78A
ICC susp.: @+5V	1.43A	1.49A	1.56A

* Measured with 1MB video memory, 2MB Flash Disk, 256KB Cache and 8MB DRAM installed.

Board Dimensions
- 7.125 in. x 4.80 in. / 181 mm x 122 mm

MTBF
- > 115,000 hrs (MIL-HDBK-21F)

* Based on Ground Benign Environment, operating ambient: 20°C / 68°F; temperature rise: 10°C / 50°F

Operating Systems Compatibility
- PC and MS-DOS™
- Windows® 3.X
- Windows®95
- Windows® NT
- OS/2® Warp
- SCO UNIX™
- QNX™
- NOVELL™
- UnixWare™

Warranty Period
- Two years

ORDER GUIDE

Configurations:

1: **SBC with:**
1MB video memory
512KB L2 Cache

2: Same as 1, plus
PCI Fast SCSI 2

CPU: *(selection required)*
100, 133 & 166MHz Pentium® processor
166, 200 & 233MHz Pentium® processor with MMX™

Options:

DRAM: 8, 16, 32, 64, 128 or 256MB FPM or EDO

Flash: 2 or 4MB (surface mount TSOP)

For more information or to order, please call

1-800-387-4222

Fax Order Hotline

514-437-5254

All products are shipped FOB factory (Canada).

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CE All **TEKNOR** standard products are CE marked

US HEADQUARTERS 10323 Holly Springs Drive, Houston, TX 77042-1529 USA
Tel: 1 800 354-4223
CANADIAN / ASIAN-PACIFIC HEADQUARTERS 616 Curé-Boivin, Boisbriand (Québec) J7G 2A7 Canada Tel: (450) 437-5682 - Fax: (450) 437-8053
EUROPEAN HEADQUARTERS Zeppelin Str. 4, D-85399, Hallbergmoos, Germany
Tel: +49 811 809-212 - Fax: +49 811 809-222

WEB ADDRESS http://www.teknor.com
SALES sales@teknor.com
TECHNICAL SUPPORT support@teknor.com
MARKETING mktg@teknor.com
INVESTOR RELATIONS investors@teknor.com

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