VIPer825

Cost effective Pentium[®] power

With advanced power management features, the VIPer825 ensures optimal system efficiency and cost effectiveness delivering full processing power in a reliable, compact half-size form factor.

Low cost half-size SBC delivering full Pentium[®] processing power

The VIPer825 is an entry-level Pentium[®]based half-size SBC providing a Pentium[®] or Pentium[®] with MMX[™] technology processor, 512 KB L2 cache, up to 256 MB memory (parity/non-parity or ECC), PCI EIDE and CompactFlash[™] disk support.

It also provides serial/parallel ports, AT keyboard and PS/2 mouse and a floppy disk interface. The PC/104-Plus expansion header provides access to ISA and PCI bus PC/104 peripheral modules such as LAN and video controllers.

mm.

Features include:

- ▶ Pentium[®] or Pentium[®] MMX[™] processor with 512KB L2 cache
- ► Intel 430HX chipset
- Floppy Disk, Serial and Parallel Ports
- > Up to 256 MB FPM or EDO DRAM
- ► PCI EIDE and CompactFlash[™] Disk Support
- > Advanced Power Management Features
- PC/104-Plus, ISA Passive Backplane or Stand-Alone Operation



VIPer825- Technical Specifications

CPU

- Pentium[®] 100, 133 & 166 MHz; Pentium[®] processor with MMX[™] technology 200, 233 MHz
- Intel 430HX chipset

Bus Interface

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

Cache

- 8/8 KB Instruction / Data Level 1
- 512 KB external 64-bit wide pipelined burst non-blocking ECC Level 2

Memory

- Two 72-pin latching SIMM sockets, one bank (must fill)
- Up to 256 MB with 1, 2, 4, 8, 16, 32 M x 32/36, FPM or EDO DRAM (parity/non-parity and ECC support) with all 256 MB cacheable

Data Path

• 64-bit on CPU; 32-bit on PCI bus (PC/104-Plus); 16-bit on ISA bus

Interrupts

- 11 edge sensitive and configurable
- 4 PCI level sensitive, configurable to any interrupt vector for PnP compatibility
- All ISA onboard interrupts are PnP compliant

DMA Channels (ISA)

- Four 8-bit, three 16-bit
- Supports scatter / gather, Fast Type-F DMA

Flash Memory

• 2 Mb (256 KB) Boot Block for BIOS field upgrade

I/0

I/0: SMC FDC37C932

USB Ports: Two

Serial Ports: Two RS-232 (16C550) with 16 byte FIFO as COM1-4 with BIOS selectable IROs and addressing; serial port 2 BIOS configurable as RS-422/485

Parallel Port: One bi-directional with all IEEE 1284 protocols supported and BIOS selectable IRQs and addressing

Floppy Disk: Support for two drives (360 KB to 2.88 MB)

PCI EIDE: Support for two EIDE drives (master/slave configuration); PIO Mode 5, Bus Master IDE

 $\textbf{CompactFlash}^{\texttt{M}} \hspace{0.1 cm} \textbf{Module:} \hspace{0.1 cm} \texttt{Optional bootable CompactFlash}^{\texttt{M}} \hspace{0.1 cm} \texttt{module interfaces}$ to secondary IDE channel, user upgradeable

Clock / Calendar

Real-time clock with 256 byte battery backup CMOS RAM

Connectors

Rear I/O Bracket: COM1 (DB-9); parallel port (DB-25)

Headers: Serial ports (two 10-pin shrouded); floppy (34-pin shrouded); EIDE (one 40-pin shrouded); PS/2 mouse (4-pin locking); CPU fan (2-pin locking); PC/104-Plus (120-pin); external power source (6-pin & 5-pin locking); AT keyboard, speaker, reset, EIDE activity LED (16-pin shrouded)

BIOS

- Award Elite BIOS in Boot Block Flash with emergency recovery code; save CMOS in Flash option
- Auto configuration, extended setup; PnP tables
- Setup console redirection to serial port (VT100 mode) with CMOS setup access Diskless, keyboardless and videoless operation extensions; system and
- **BIOS** shadowing
- Programmable bus and I/O speeds, and memory wait states
- CC00-E000 address blocking
- Advanced Power Management (APM 1.2, SMI/SMM) support with programmable resume by alarm and wake-up events

Supervisorv

- Watchdog timer (1.6 sec. typ.)
- Power failure/low battery detector

OS Compatibility

• PC and MS-DOS[™]; Windows[®] 3.X; Windows[®] 95; Windows[®] 98; Windows[®] CE, Windows® NT 4.0/5.0; QNX™

Mechanical

- 181 x 122 x 32 mm at CPU / fan (7.125 x 4.80 x 1.25 in. at CPU / fan)
- Conforms to IEEE P996 PC/AT bus & PC/104-Plus Rev 1.0 specifications

Power Requirements

Supply Voltage	Vcc = +5V ±5%		
Pentium MMX:	200	233	
ICC typ.* +5V	2.34A	2.62A	
+12V	148mA	165mA	
Pentium:	100	133	166
ICC typ.* +5V	1.71A	1.79A	2.05A
+12V	40mA	161mA	111mA

* Measured with 16 MB DRAM, 512 KB cache, keyboard, floppy and hard disk.

Environmental

	Operating	Storage and Transit
Temperature:	0° to 60°C/32° to 140°F (w/airflow)	-40° to +85°C/-40° to 158°F
Humidity (RNC):	5% to 95% @ 40°C/104°F non-condensing	5% to 95% @ 40°/104°F non-condensing
Altitude:	4,572 m / 15,000 ft	15,240 m / 50,000 ft
Shock:	5 G, each axis	
Vibration:	1.5 G, each axis	

Reliability

MTBF: >120,000 hours @ 20°C / 68°F (MIL-HDBK-217F)

- Mouse / keyboard voltage protected by self-resetting fuses
- Unique silicon serial number accessible via software
- 2 year limited warranty

Designed to meet or exceed:

Safety: UL 1950; CSA C22.2 No 950; EN 60950; IEC950

EMI/EMC: FCC 47 CFR Part 15/CISPR22; CE Mark to EN55022 / EN50082



Corporate Offices US / Canada 616 Curé-Boivin Boisbriand (Québec) Canada J7G 2A7 Tel. (450) 437-5682 Fax (450) 437-8053 sales@us.kontron.com



sales@de.kontron.com







cVIPer825.2_10/2001

Asia Pacific 6F, No.9, Lane 235, Pao-Chiao Rd., Hsin-Tien, Taipei Hsien, 231 Taiwan Tel. +886-2-2910 3532 Fax +886-2-2910 3482 sales@tw.kontron.com

The latest version of this document may be found on our web site. Specifications subject to change without notice. Some products may not be available in all regions. Kontron and the Kontron logo are registered trademarks of Kontron Embedded Computers. All other trademarks are the property of their respective owners. Copyright 2001 by Kontron Embedded Computers. All rights reserved.

www.kontron.com

kontron