Product Description

WinSystems’ PCM-VDX-2-512 is a 1GHz, fanless PC/104 single board computer based upon the ultra low power Vortex86DX processor with wired networking capability. This board requires about 6 Watts under full load while operating over an industrial temperature range of -40° to +85°C.

The PCM-VDX-2-512 has easy-to-use connectors to access the wide variety of on board I/O including Ethernet, USB, serial, and parallel I/O. Further it has PC/104 and MiniPCI card expansion as well. The board is well suited for headless configurations but will accept an optional video card.

The long-term availability of the PCM-VDX-2-512 makes it suitable for industrial applications such as instrumentation, medical, pipelines, Mil/COTS, security, utilities, communications, and transportation. It supports Linux, DOS, and other x86-compatible operating systems. Drivers are available from the WinSystems’ website.

Options include an off board battery, 512MB of soldered on board SSD, CompactFlash retention clip, and a MiniPCI video card. Contact a WinSystems’ Applications Engineer for details and custom OEM configurations.
**Technical Specifications**

**Processor**
Vortex86DX @ 1GHz

**Memory**
256KB of L2 cache
512MB of soldered down DDR2 SDRAM
1MB soldered SRAM that can be battery backed

**Display**
Optional Volari XGI MiniPCI card

**Network Interface**
One 10/100 Mbps using the RTL8100C LAN*
One 10/100 Mbps using the Vortex86DX LAN*

**Storage**
One CompactFlash socket
One UDMA-100 IDE interface for disk drives
One optional 512MB flash SSD

**On board I/O**
Four USB 2.0/1.1 ports with overcurrent protection*
Four 16C550-compatible RS-232/422/485 serial channels with speeds up to 115.2kbps*
One PS/2 keyboard controller
One PS/2 mouse controller
16 lines of digital I/O with event sense
LPT interface with ECP/EPP support
Status LEDs for Link, Activity, and Speed of both Ethernet controllers plus two CPU activity LEDs
RTC with optional battery back up
Watchdog timer reset adjustable to 255 minutes
Piezo transducer for audio annunciation of BIOS beep tones

**Expansion Bus**
PC/104 with full 16-bit support
MiniPCI connector accepts type IIIB cards

**Power**
+5V @ 1.2A (typ.)

**Software**
AMI BIOS
Compatible with most x86 operating systems including Linux and DOS

**Environment**
Operational from -40° to +85°C
RoHS compliant

**Mechanical**
Dimensions 3.6 x 3.8 inches (90 x 96 mm)
Weight 3.6 oz (102 gm)
PC Board thickness 0.078"

* ESD suppressors on all data lines

**Ordering Information**
(See website for complete ordering information and accessories.)

- **PCM-VDX-2-512**  Fanless, 1GHz PC/104 SBC with 512MB memory
- **PCM-VDX-2-512-ST** Stack-thru PC/104 connector configuration

**Video**
MPCI-VGA-Z9S  MiniPCI video card and cable

**Cables**
- **CBL-174-G-1-1.5**  Power cable, unterminated
- **CBL-225-G-1-0.333**  PS/2 mouse cable
- **CBL-247-G-1-1.0**  KYBD, LPT, COM1 and COM2 cable
- **CBL-266-G-2-0.75**  HDD cable
- **CBL-DIO16-000-14**  DIO cable, unterminated
- **CBL-DIO16-001-12**  DIO cable with 2x 15 pins with Molex®Pico-Clasp™
- **CBL-DIO16-002-12**  DIO cable with 2x 15 pins on 0.100 centers
- **CBL-ENET1-202-12**  Ethernet cable with RJ45
- **CBL-ENET1-203-12**  Ethernet cable with plug
- **CBL-SER1-202-12**  Serial I/O cable
- **CBL-US84-000-14**  4x USB cable, unterminated
- **CBL-US84-001-12**  4x USB ports with Pico-Clasp
- **CBL-US84-002-12**  4x USB ports with two, 8-pin 2mm connectors
- **CBL-SET-373-G-2**  Cable set for PCM-VDX-2
- **CBL-SET-373-G-MIN**  Minimal cable set for PCM-VDX

**Optional Battery**
- **BAT-LTC-E-36-16-1**  External 3.6V, 1650 mAH
- **BAT-LTC-E-36-27-1**  External 3.6V, 2700 mAH

**CompactFlash**
- **CF-DC-A-xxG-I**  1 - 16GB High Speed CF cards
- **CFLASH-G-xxx-I**  128MB - 8GB CF cards

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