

CM1-86DX3

*Extreme Rugged™ PC/104 Single Board Computer
with Vortex86DX3 System-on-Chip*

Features

- Ultra low power, DM&P Vortex86DX3 SoC
- Full ISA bus support
- 2GB soldered DDR3
- 1x GbE, 1x Fast Ethernet
- SATA, CFast
- VGA and 18/24-bit single channel TTL/TFT
- Supports Smart Embedded Management Agent (SEMA) functions



Specifications

• Core System

CPU

Vortex86DX3 SoC, 1.0 GHz

Memory

2GB soldered DDR3

BIOS

AMI BIOS, integrated in SoC

SEMA®

Yes

Hardware Monitor

2x LAN, watchdog

Watchdog Timer

Yes, 3 different

Expansion Busses

PC/104 (ISA)

• Ethernet

Intel® MAC/PHY

1x integrated PHY (10/100 Mbit)

1x Intel® i210IT (10/100/1000 Mbit)

• Video

VGA Interface

Yes

LVDS Interface

18/24-bit single channel

• Power

Standard Input

AT mode (5V DC +/-5%)

Power States

No ACPI

Power Consumption

Approx. ~ 6 to 7 W

Specifications

- **I/O Interfaces**

USB

2x USB 2.0

SATA

1x SATA

Serial

2x RS-232/422/485 serial ports, 2x RS-232 serial ports

PS2

Keyboard and mouse

GPIO

Standard: 8x

- **Operation System**

Standard Support

WES2009, WES7, Linux, QNX

Extended Support (BSP)

WEC7, WinCE 6.0 (on request)

- **Mechanical and Environmental**

Form Factor

PC/104 Specification 2.6

Dimension

96 mm x 90 mm (3.775" x 3.550")

Operating Temperature

Standard: 0°C to +60°C

Humidity

10% to 90% (non-condensing)

Shock and Vibration

Non-operating: 50G peak-to-peak, 11ms duration, MIL-STD-202G Method 213B

Operating: 11.95 Grms, 50-2000 Hz, each axis, MIL-STD-202G Method 214A

Storage Temperature

-55°C to +85°C

Cooling

Passive

- **Intelligent Middleware**

SEMA®

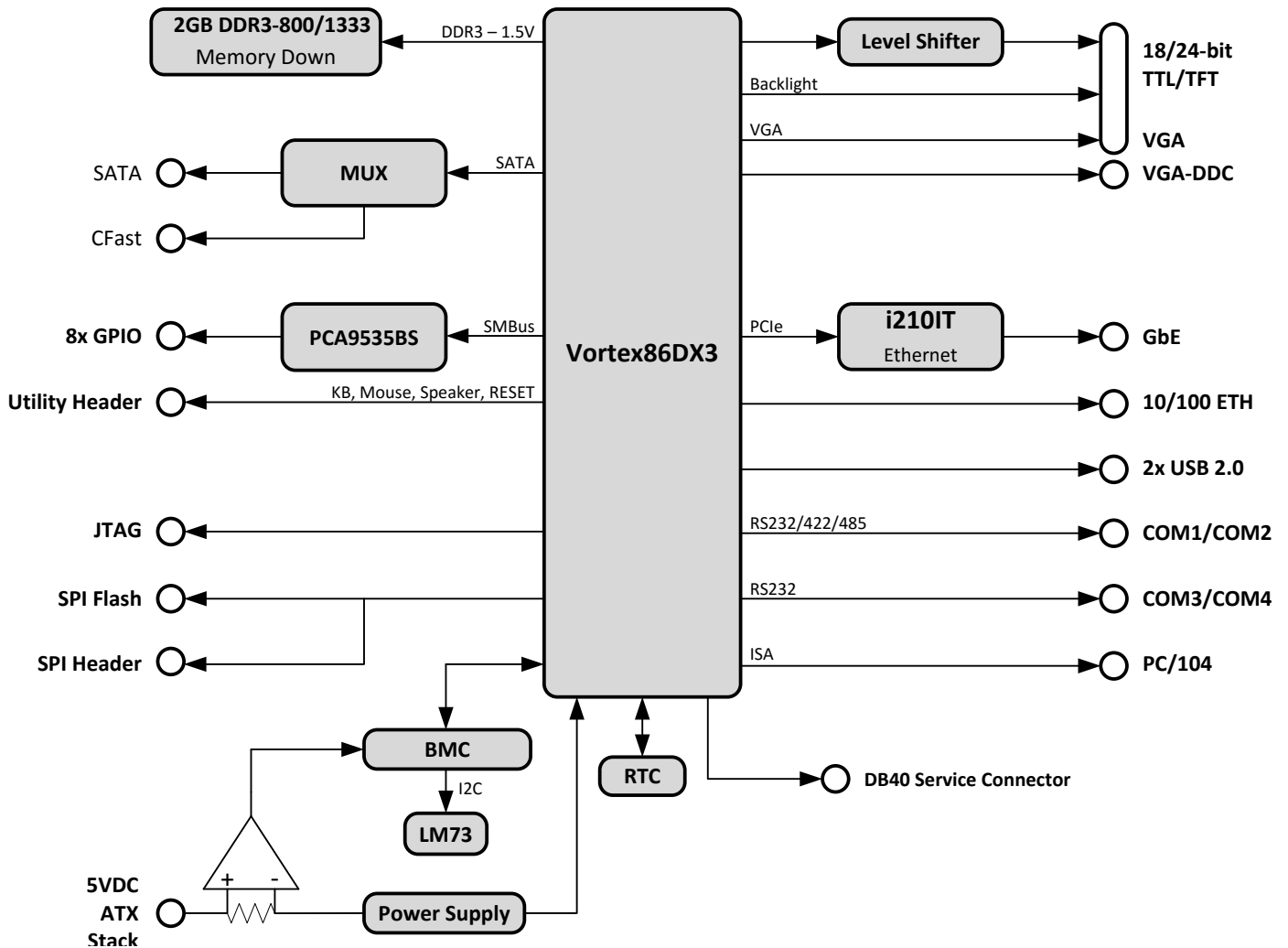
Local management, control of embedded computer systems

Extended EAPI for monitoring, controlling and analytics applications

Multiple OS support and across platforms (x86, ARM)



Functional Diagram



Ordering Information

- **CM186DX3**
PC/104 with Vortex 86DX3, 2GB soldered DDR3, 10/100 Ethernet, GbE, CFast socket, TTL LCD and VGA display
- **CM1-86DX3-X-01**
CM1-86DX3 cable kit
- **CM1-86DX3-TM-20**
CM1-86DX3 Aluminum heatsink

*other configurations by request