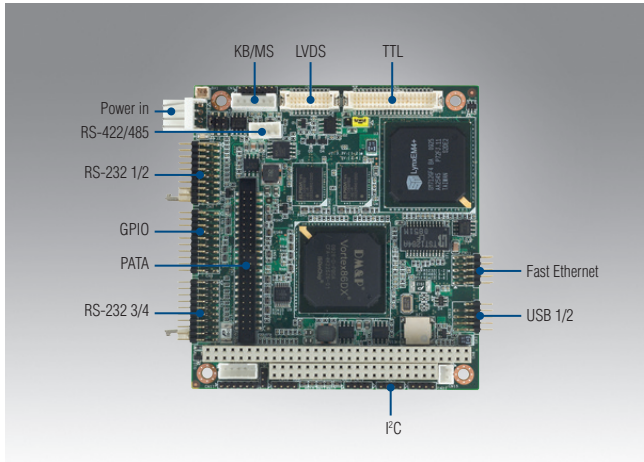


PCM-3343

DM&P Vortex86DX-800MHz PC/104 SBC, LCD, Ethernet, CF, Onboard Memory



Features

- Ultra low power, fanless DM&P Vortex86DX- 800MHz and 256 MB onboard DDR2 memory
- VGA+LCD dual display outputs, 24-bit LVDS/TTL supported
- Integrated Floating Point Unit
- Supports 2 Fast Ethernet ports in standard PC/104 96 x 90 mm dimensions
- Supports embedded software APIs and Utilities

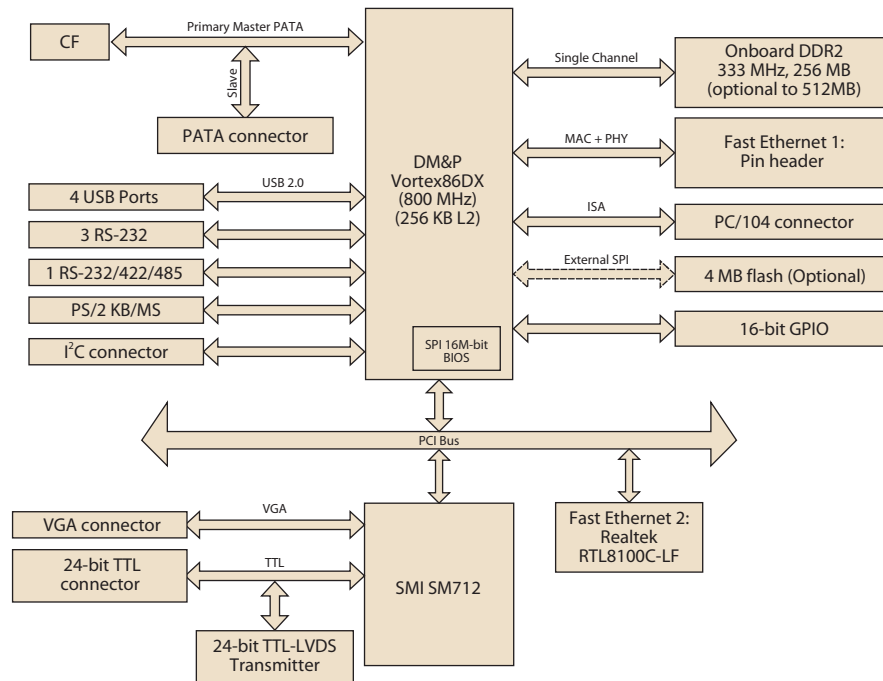
Software APIs: Watchdog, I²C, Brightness, GPIO, Backlight On/Off

Utilities: BIOS flash

Specifications

| | | | |
|--------------------------|---|--|--|
| Processor System | CPU | DM&P Vortex86DX 800 MHz, supports Floating Point Unit (FPU) | |
| | Frequency | 800 MHz | |
| | L2 Cache | 256 KB | |
| | System Chipset | DM&P Vortex86DX- 800 MHz | |
| | BIOS | Award integrated 16 Mbit ROM in SOC | |
| Memory | Technology | DDR2 333 MHz SDRAM on board | |
| | Max. Capacity | 512 MB | |
| | Onboard Memory | Onboard 256 MB (512 MB supported by request) | |
| Display | Chipset | SMI SM712 | |
| | VRAM | 4 MB internal memory | |
| | Graphics Engine | | 62.5 MHz single clock/cycle engine (EM+) 86 MHz single clock/cycle engine (EM4+) Designed to accelerate DirectDraw |
| | | LVDS | Single channel 24-bit LVDS up to 1024 x 768 |
| | VGA | Supports up to 1024 x 768 at 85 Hz | |
| | TTL LCD | Supports up to 1024 x 768 at 24 bit single channel TFT LCD Panel | |
| | Dual Display | VGA+TTL, VGA+LVDS | |
| Ethernet | Speed | 10/100 Mbps | |
| | Controller | Fast Ethernet1: Vortex86DX SOC integrated Fast Ethernet2: Realtek RTL8100C-LF | |
| | Connector | Pin Header | |
| Watchdog Timer | | System reset Software programmable counter from 30.5µ sec. to 512 sec. x 2 sets | |
| Storage | CompactFlash | CompactFlash socket (Type I/II), shared with primary master PATA | |
| | PATA | 1 Channel | |
| | SPI Flash | Optional onboard 4 MB SPI Flash Disk (Supported by request for boot device or storage on DOS OS) | |
| Internal I/O | USB | 4 x USB 2.0 | |
| | Serial | 3 RS-232 from COM1/3/4, 1 RS-232/422/485 from COM2 with RS-485 auto flow control (ESD protection for RS-232: Air gap ±15kV, Contact ±8kV), COM1/2 supports console mode | |
| | Keyboard/Mouse | 1 | |
| | GPIO | 16-bit general purpose input/output | |
| | I²C | 1 | |
| Expansion | PC/104 Slot | 1 | |
| Power | Power Type | AT | |
| | Power Supply Voltage | 5V ± 5% only to boot up (12 V is optional for LCD inverter and add-on card) | |
| | Power Consumption (Typical: Idle in WinXPe) | 0.74 @ +5 V, 3.7 Watts (Vortex86DX 800 MHz, DDR2 256 MB) | |
| | Power Consumption (Max, test in passmark burn-in program) | 0.85 A @ +5 V, 4.25 Watts (Vortex86DX 800 MHz, DDR2 256 MB) | |
| | Battery | 3 V/210 mA | |
| Power Management | APM 1.2 | | |
| Environment | Operational | 0 ~ 60° C (32 ~ 140° F) (Operational humidity: 40° C @ 85% RH non-condensing) | |
| | Non-Operational | -40° C ~ 85° C and 60° C @ 95% RH non-condensing | |
| Physical Characteristics | Dimensions (L x W) | 96 x 90 mm (3.8" x 3.5") | |
| | Weight | 0.508 kg (1.12 lb) | |
| | Height | Top side: 8.6 mm; Bottom side: 10.6 mm | |

Block Diagram



Ordering Information

| Model | CPU | L2 Cache | Memory | VGA | LVDS | TTL | Fast Ethernet | USB 2.0 | RS-232 | RS-232/422/485 | PATA | KB/MS | Thermal solution | Expansion | Operational Temp |
|-------------------|-------------------------|----------|----------------|-----|------|-----|---------------|---------|--------|----------------|------|-------|------------------|-----------|------------------|
| PCM-3343EL-256A1E | DM&P Vortex86DX 800 MHz | 256 KB | Onboard 256 MB | - | - | - | 1 | 2 | 1 | 1 | 1 | Yes | Passive | PC/104 | 0 ~ 60° C |
| PCM-3343EF-256A1E | DM&P Vortex86DX 800 MHz | 256 KB | Onboard 256 MB | Yes | Yes | 1 | 2 | 4 | 3 | 1 | 1 | Yes | Passive | PC/104 | 0 ~ 60° C |
| PCM-3343Z-256A1E | DM&P Vortex86DX 800 MHz | 256 KB | Onboard 256 MB | Yes | Yes | 1 | 2 | 4 | 3 | 1 | 1 | Yes | Passive | PC/104 | -20 ~ 80° C |
| PCM-3343Z2-256A1E | DM&P Vortex86DX 800 MHz | 256 KB | Onboard 256 MB | Yes | Yes | 1 | 2 | 4 | 3 | 1 | 1 | Yes | Passive | PC/104 | -40 ~ 85° C |

Note: Passive = fanless; Active = with fan

Packing List

| Part No. | Description | Quantity |
|----------------|--|----------|
| | PCM-3343 SBC | |
| | Startup Manual | |
| | Utility CD | |
| 1700060202 | Cable 6P-6P-6P PS/2 KB & MOUSE 20 cm | 1 |
| 1703060053 | PS2 Cable 6P (MINI-DIN)-6P (Wafer 2.0 mm) 6 cm | 1 |
| 1703100260 | USB cable 2 port 2.0 mm pitch w/ bracket 26 cm | 1 |
| 1701200220 | RS-232 x 2 ports 2.0mm pitch 22 cm | 2 |
| 1703040157 | RS-422/485 W/D-SUB COM 4P 15 cm | 1 |
| 1700000898 | VGA cable D-SUB 15P(F)/12P-1.25 mm 15 cm | 1 |
| 1700017863 | LAN cable RJ45/2 x 5P-2.0 15 cm | 1 |
| 9660104000 | PC/104 screw and copper post package | 1 |
| 1960047356N001 | Heatsink for DMP Vortex86DX (27 x 27 x 6.3 mm) | 1 |

Optional Accessories

| Part No. | Description |
|------------|------------------------------|
| 1701440350 | PATA cable 44P/44P/44P 35 cm |

Embedded OS/API

| Embedded OS/API | Part No. | Description |
|-----------------|------------|--|
| WinCE | 2070009763 | CE 5.0 Pro PCM-3343 V1.3 ENG |
| | 2070009536 | CE 6.0 Pro PCM-3343 V1.3 ENG |
| | 2070011080 | CE 7.0 Pro PCM-3343 V1.0 ENG |
| Win XPE | 2070009528 | XPE WES2009 Vortex86DX V4.0 ENG |
| | 2070009529 | XPE WES2009 Vortex86DX V4.0 MUI24 |
| QNX | | 6.4.1 |
| Linux | | Ubuntu 10.04.1 |
| VxWorks | | 5.5 |
| Software API | 205E343000 | SUSI 3.0 SW API for PCM-3343 B:20091209 XP |