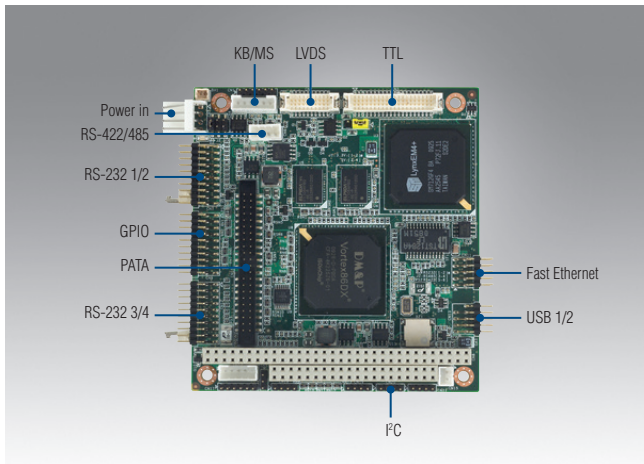


# PCM-3343

**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

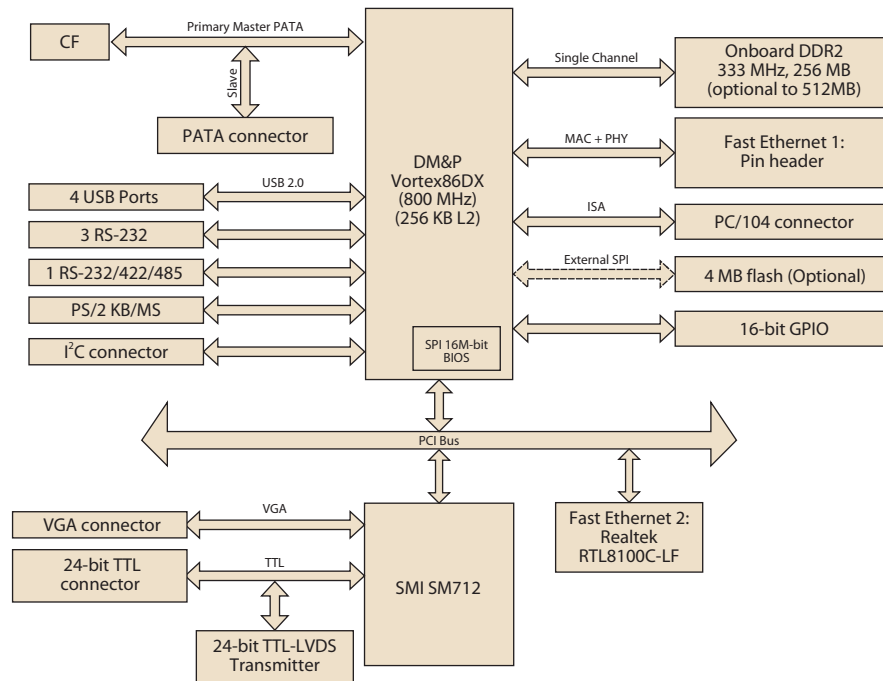
**Software APIs:** Watchdog, I²C, Brightness, GPIO, Backlight On/Off

**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 mAH	
	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



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