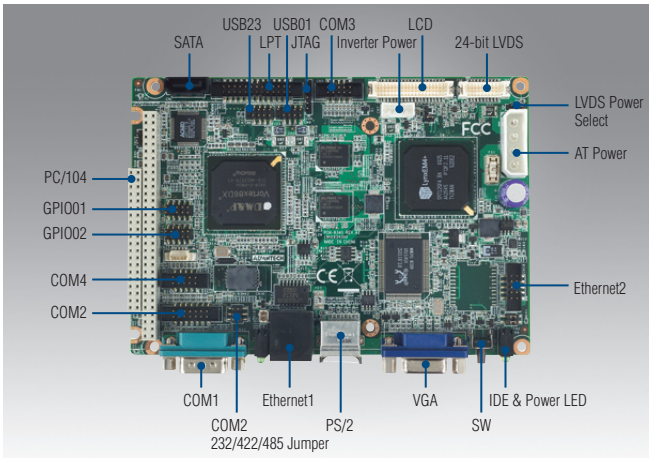
PCM-9343

DM&P Vortex86DX 800MHz 3.5" SBC, Ultra Low Power, Onboard Memory, Dual Ethernet, CF, PC/104



VxWorks® Windows Embedded ONX susiAccess CE FCC

Features

- DM&P Vortex86DX, onboard DDR2 memory up to 512 MB
- Display type: VGA, 18/24-bit LVDS, 18/24-bit TTL
- Supports Floating Point Unit, total power consumption 4 ~ 6 Watts, supports extended temperature to -40 ~ 85° C
- Dual Ethernet: 10/100 Ethernet1 and 10/100 Ethernet2, supports PC/104 (8-bit/16-bit ISA) expansion
- Supports SUSIAccess and Embedded Software APIs

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 + SMI SM712
	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 or 512 MB
Display	Chipset	SMI SM712 2D graphics chip
	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	Supports single channel 18/24-bit LVDS LCD Panel to 1024 x 768 (1280 x 1024 supported by request)
	VGA	Supports up to 1024 x 768 @ 85 Hz
	TTL LCD	Supports up to 1024 x 768 @ 24-bit TFT LCD Panel
	Dual Display	VGA + TTL, VGA + LVDS
Ethernet	Speed	10/100 Mbps
	Controller	Ethernet1: 10/100 Mbps on DM&P Vortex86DX Ethernet2: 10/100 Mbps on Realtek RTL8110SC
	Connector	RJ-45 on Ethernet1, box header on Ethernet2
WatchDog Timer		Internal: 2 sets, 32.768 KHz frequency source to count a 24-bit counter so the time range is from 30.5μ sec to 512 sec with resolution 30.5μ sec
Storage	CompactFlash	CompactFlash type I/II (Primary Master IDE Channel) Supports 2 channels Ultra-DMA 100
	SATA	1 x SATA (Max. Data Transfer Rate 150 MB/s)
	SPI Flash	Optional onboard 4MB SPI Flash Disk (Supported by request)
Rear I/O	Serial	1 (COM1 supports RS-232) (ESD protection for RS-232: Air gap ±15kV, Contact ±8kV) (COM1 supports console mode)
	Ethernet	1 (10/100 Mbps Ethernet1)
	PS/2 KB/Mouse	1
	VGA	1
	IDE&PWR LED	1
	Reset Button	1
Internal I/O	USB	4 x USB 2.0
	Serial	3 COM (COM2, COM3, COM4) (ESD protection for RS-232: Air gap ±15kV, Contact ±8kV) COM2 supports RS-232/422/485 (Supports RS-485 auto flow control), COM2 supports console mode COM3/COM4 supports RS-232
	Ethernet	1 (10/100 Mbps Ethernet2)
	Parallel (LPT)	1
	GPIO	16-bit GPIO
	I²C	1
Expansion	PC/104 Slot	PC/104 Expansion (8/16-Bit ISA)
Power	Power Type	AT
	Power Supply Voltage	Single +5V boot up, ± 5% (+12V option for LCD, ISA)
	Power Consumption (Typical)	PCM-9343EL: 0.44 A @ 5 V (2.2 W) PCM-9343EF: 0.81 A @ 5 V (4.05 W) PCM-9343EFG: 1.02 A @ 5 V (5.1 W)
	Power Consumption (Max, test in HCT)	PCM-9343EL: 0.75 A @ 5 V (3.75 W) PCM-9343EF: 1.09 A @ 5 V (5.45 W) PCM-9343EFG: 1.04 A @ 5 V (5.2 W)
	Power Management	APM
	Battery	Lithium 3 V / 210 mAH
Environment	Operational	0 ~ 60° C (32 ~ 140° F) (Operating humidity: 40° C @ 95% RH non-condensing)
	Non-Operational	-40° C ~ 85° C and 60° C @ 95% RH non-condensing
Physical Characteristics	Dimensions (L x W)	146 x 102 mm (5.7" x 4")
	Weight	0.64 kg (1.41 lb), weight of total package
	Total Height	23.7 mm

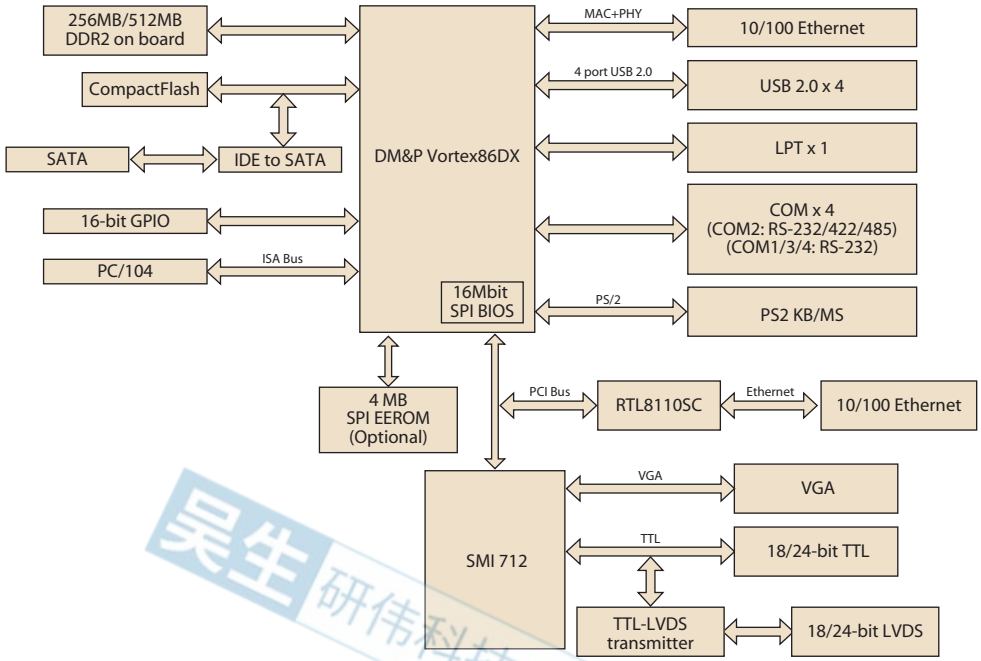
Online Download www.advantech.com/products

ADVANTECH

All product specifications are subject to change without notice

Last updated : 15-Jan-2014

Block Diagram



Ordering Information

Part No.	CPU	CPU Frequency	Onboard Memory	TTL	LVDS	VGA	10/100 Ethernet	RS-232/ 422/485	RS-232	USB 2.0	CF	SATA	Expansion	Thermal Solution	Operational Temp.
PCM-9343EL-S6A1E	Vortex86DX	800 MHz	256 MB	-	-	-	1	1	1	2	1	-	PC/104	Passive	0 ~ 60° C
PCM-9343EF-S6A1E	Vortex86DX	800 MHz	256 MB	18/24-bit	18/24-bit	Yes	1	1	3	4	1	1	PC/104	Passive	0 ~ 60° C
PCM-9343EFG-S6A1E	Vortex86DX	800 MHz	512 MB	18/24-bit	18/24-bit	Yes	2	1	3	4	1	1	PC/104	Passive	0 ~ 60° C
PCM-9343FGZ-S6A1E	Vortex86DX	800 MHz	512 MB	18/24-bit	18/24-bit	Yes	2	1	3	4	1	1	PC/104	Passive	-20 ~ 80° C
PCM-9343FGZ2-S6A1E	Vortex86DX	800 MHz	512 MB	18/24-bit	18/24-bit	Yes	2	1	3	4	1	1	PC/104	Passive	-40 ~ 85° C

Note: Passive = fanless; Active = with fan

Packing List

Part No.	Description	Quantity
	PCM-9343 SBC	
	Startup Manual	
	Utility CD	
1700008894	SATA 7P 30 cm cable	1
1700060202	PS2 6P x 2 20 cm cable	1
1700100250	COM3/4 IDE D-SUB 25 cm cable	2
1701140201	COM2 IDE D-SUB 20 cm cable	1
1700260250	LPT IDE 26P D-SUB 25 cm cable	1
1703100121	USB 2 x 5P-2.0 12 cm W/BKT cable	1
1700017863	Ethernet cable RJ45 15cm (PCM-9343EFG/FGZ use)	1
9689000002	mini jumper pack	1
1960047356N001	Heatsink for DM&P Vortex86DX (27x27x6.3mm)	1

Optional Accessories

Part No.	Description
1703150102	SATA 10 cm Power cable

Embedded OS/API

Embedded OS/API	Part No.	Description
WinCE	2070009764	CE 5.0 Pro PCM-9343 V1.3 ENG
	2070009537	Image CE 6.0 Pro PCM-9343 V1.3 ENG
	2070010821	Image CE 7.0 Pro PCM-9343 ENG
Win XPE	2070009528	Image XPE for PCM-9343 ENG
	2070009529	Image XPE for PCM-9343 24MUI
QNX		6.4.1
Vxwork		5.5
Linux		Ubuntu 10.04.1
Software API	2056343000	SUSI 3.0 SW API for PCM-9343 B:20100122 XP

Rear I/O View

昊生 研伟科技 15323776601