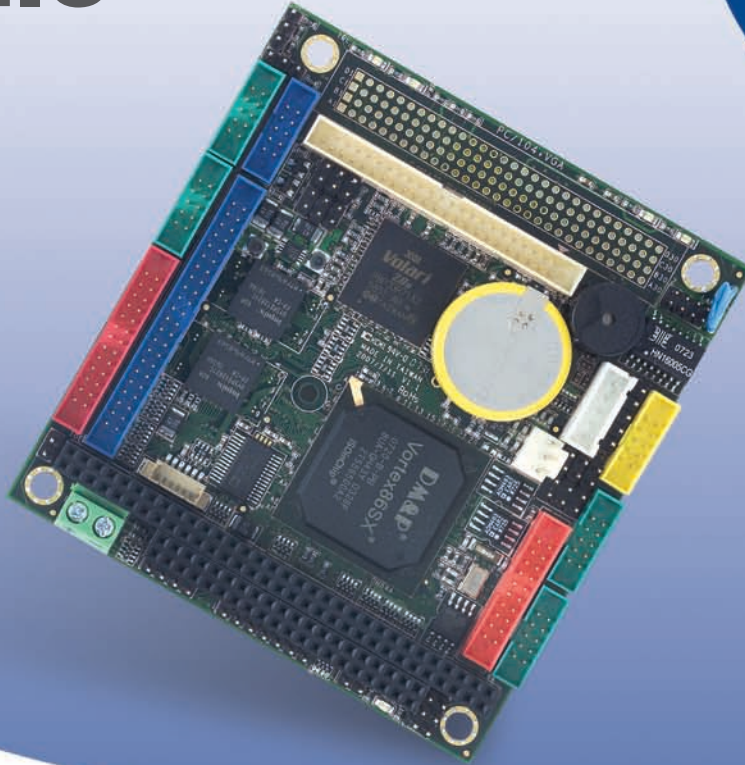


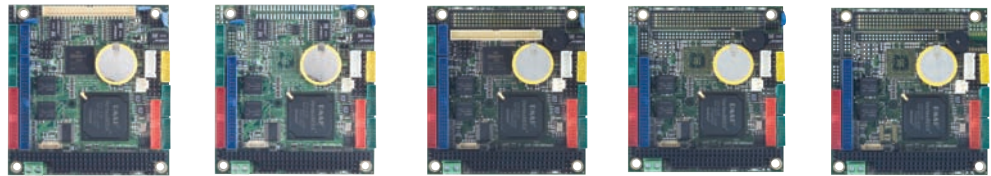
# PC/104 CPU Module

# 2

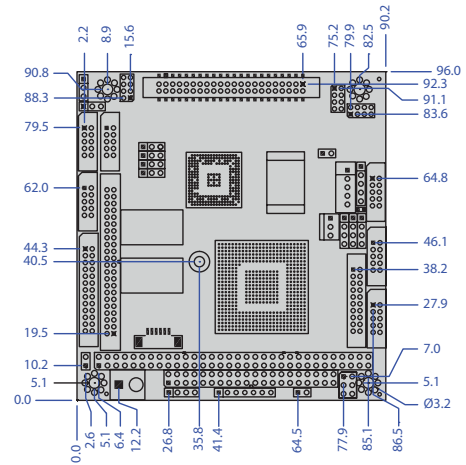
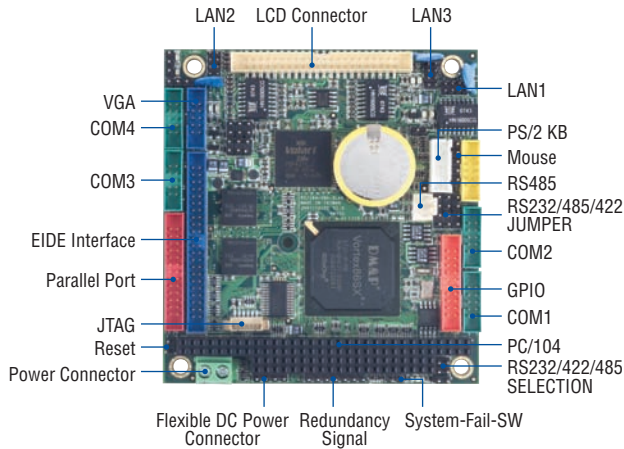


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# VSX PC/104 CPU Module Selection Guide



Specification		Model Name	VSX-6157	VSX-6156	VSX-6154	VSX-6150E	VSX-6150
System Information	Form Factor		PC/104	PC/104	PC/104 (+)	PC/104 (+)	PC/104 (+)
	CPU Frequency		300MHz	300MHz	300MHz	300MHz	300MHz
	CPU Vendor		DM&P	DM&P	DM&P	DM&P	DM&P
	System Chipset		Vortex86SX	Vortex86SX	Vortex86SX	Vortex86SX	Vortex86SX
	System Memory		128MB DDR2	128MB DDR2	128MB DDR2	128MB DDR2	128MB DDR2
	BIOS		AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS
	Watchdog Timer		30.5 $\mu$ sec. to 512 sec. x2	30.5 $\mu$ sec. to 512 sec. x2	30.5 $\mu$ sec. to 512 sec. x2	30.5 $\mu$ sec. to 512 sec. x2	30.5 $\mu$ sec. to 512 sec. x2
I/O	VGA	VGA	Yes	N/A	Yes	N/A	N/A
		LCD	Yes	N/A	Yes	N/A	N/A
	IDE	1	1	1	1	1	
	Serial	RS-232	3	3	3	3	1
		RS-232/422/485	1/1/1	1/1/1	1/1/1	1/N/1	1/N/1
	Parallel	1	1	1	1	1	
	USB (Ver. 2.0)	2	2	2	2	2	
	Ethernet port	3 X 10/100 Mbps	3 X 10/100 Mbps	1 X 10/100 Mbps	1 X 10/100 Mbps	N/A	
	Flash Disk Support	EmbedDisk	Yes	Yes	Yes	Yes	Yes
		2MB SPI	Yes	Yes	Yes	Yes	Yes
	Expansion Bus	PC/104	PC/104	PC/104 (+)	PC/104 (+)	PC/104 (+)	
GPIO	16-bit GPIO	16-bit GPIO	16-bit GPIO	16-bit GPIO	16-bit GPIO		
Others	Power Consumption	+5V @ 580mA	+5V @ 390mA	+5V @ 580mA	+5V @ 360mA	+5V @ 360mA	
	Operating Temperature	-20°C ~ +70°C (-40°C ~ +85°C)	-20°C ~ +70°C (-40°C ~ +85°C)	-20°C ~ +70°C (-40°C ~ +85°C)	-20°C ~ +70°C (-40°C ~ +85°C)	-20°C ~ +70°C (-40°C ~ +85°C)	
	Dimensions (mm)	90 X 96mm	90 X 96mm	90 X 96mm	90 X 96mm	90 X 96mm	
	Page	31	32	33	34	35	



### Specifications

<b>SoC</b>	DM&P SoC CPU Vortex86SX- 300MHz Real Time Clock with Lithium Battery Backup
<b>Cache</b>	L1:16K I-Cache, 16K D-Cache
<b>Bus</b>	PC/104 standard compliant
<b>BIOS</b>	AMI BIOS
<b>System Memory</b>	128MB DDR2 Onboard
<b>Watchdog Timer0 &amp; 1 Sets</b>	Software programmable from 30.5μ sec. to 512 sec. x 2 sets (Watchdog 1 fully compatible with M6117D)
<b>VGA</b>	XGI Volari Z9s Chipset VGA and TFT/LVDS Flat Panel Interface Support Onboard 32MB VGA Memory, support resolution up to 1280 x 1024, 16M colors
<b>LAN</b>	Integrated 10/100Mbps Ethernet Realtek 8100B 10/100Mbps Ethernet Controller Half/Full Duplex Capability
<b>Flash Disk Support</b>	Onboard 2MB SPI Flash Disk MSTI EmbedDisk Module (16MB and above)
<b>I/O Interface</b>	Enhanced IDE port (UltraDMA-100/66/33) x1 RS-232 port x3 RS-232/422/485 port x1 USB port (Ver2.0) x2 Parallel port x1 16-bit GPIO port x1 10/100Mbps Ethernet port x3
<b>Connectors</b>	2.0mm 44-pin box header for IDE x1 2.0mm 44-pin box header for LCD x1 2.0mm 10pin box header for VGA x1 2.0mm 10pin box header for USB x1 2.0mm 26-pin box header for Printer x1 2.0mm 20-pin box header for 16-bit GPIO x1 2.0mm 10-pin box header for RS-232 x4 2.0mm 8-pin header for Ethernet x3 2.5mm 5-pin box header for Keyboard x1 2.5mm 5-pin header for Mouse x1 2.54mm 4-pin header for -5V, -12V, +12V, GND, DC-in x1 2.54mm 3-pin header for RS-485 x1 2.54mm 2-pin header for Reset x1 2.54mm 7-pin header for Redundancy Signal x1 2.54mm 2-pin header for System-Fail-SW x1 1.25mm 6-pin header for JTAG x1

<b>Power Requirement</b>	Single Voltage +5V @ 580mA
<b>Weight</b>	90g
<b>Board Size</b>	90 X 96mm (3.54 x 3.77 inches)
<b>Operating Temperature</b>	-20°C ~ +70°C -40°C ~ +85°C (Optional)

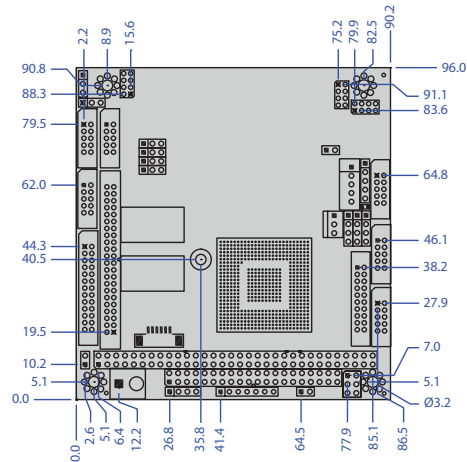
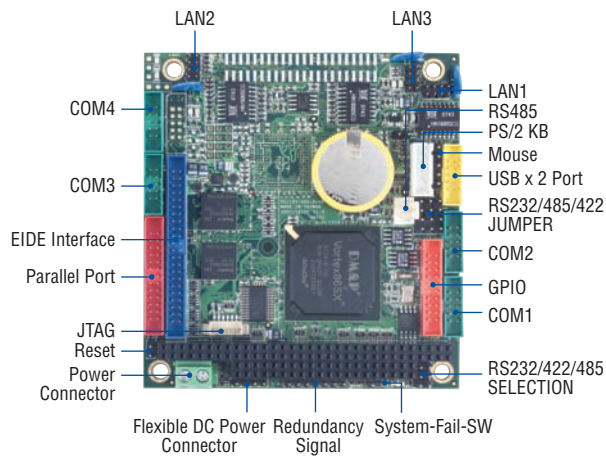
### Packing List

- VSX-6157 x1
- CD for User's Manual & Driver x1
- Cable  
 HDD 44P (2.0) x1  
 PRINT (2.0) x1  
 VGA (2.0) x1  
 RS-232 (2.0) x4  
 NET 4x2 (2.0) x3  
 GPIO (2.0) x1  
 PS2 KB White x1  
 PS2 Mouse Black x1
- Screw Kit x1

### Ordering information

- VSX-6157** Vortex86SX PC/104 CPU Module with 128MB DDR2

- Mity/Tiny Module
- PC/104 Module
- 3.5"/ATX/EBX Module
- Half-Size Module
- Peripheral Module
- Display Product Series
- Accessories



Unit: mm

## Specifications

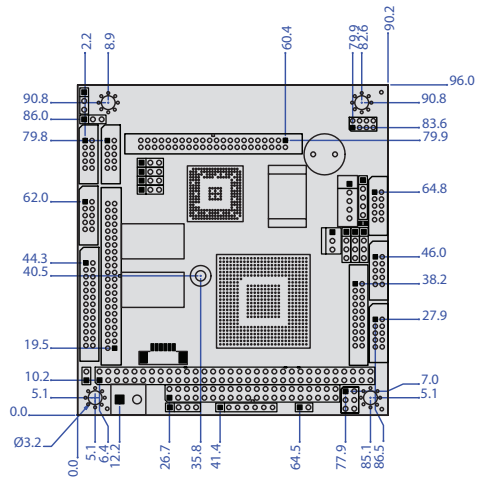
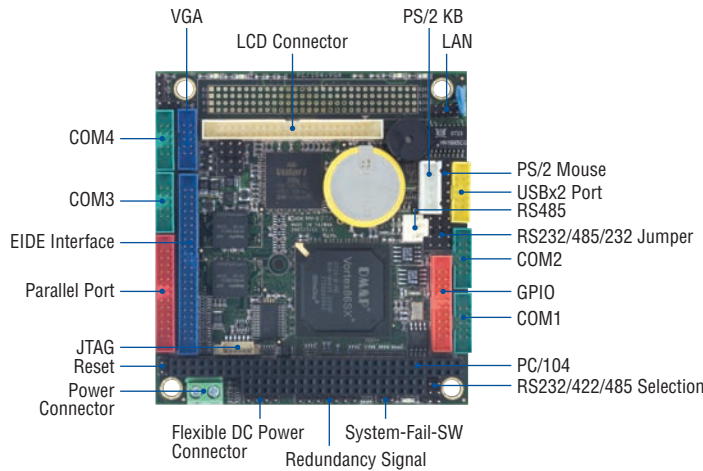
<b>SoC</b>	DM&P SoC CPU Vortex86SX- 300MHz Real Time Clock with Lithium Battery Backup
<b>Cache</b>	L1:16K I-Cache, 16K D-Cache
<b>Bus</b>	PC/104 standard compliant
<b>BIOS</b>	AMI BIOS
<b>System Memory</b>	128MB DDR2 Onboard
<b>Watchdog Timer0 &amp; 1 Sets</b>	Software programmable from 30.5μ sec. to 512 sec. x 2 sets (Watchdog 1 fully compatible with M6117D)
<b>LAN</b>	Integrated 10/100Mbps Ethernet Realtek 8100B 10/100Mbps Ethernet Controller Half/Full Duplex Capability
<b>Flash Disk Support</b>	Onboard 2MB SPI Flash Disk MSTI EmbedDisk Module (16MB and above)
<b>I/O Interface</b>	Enhanced IDE port (UltraDMA-100/66/33) x1 RS-232 port x3 RS-232/422/485 port x1 USB port (Ver2.0) x2 Parallel port x1 16-bit GPIO port x1 10/100Mbps Ethernet port x3
<b>Connectors</b>	2.0mm 44-pin box header for IDE x1 2.0mm 10pin box header for USB x1 2.0mm 26-pin box header for Printer x1 2.0mm 20-pin box header for 16-bit GPIO x1 2.0mm 10-pin box header for RS-232 x4 2.0mm 8-pin header for Ethernet x3 2.5mm 5-pin box header for Keyboard x1 2.5mm 5-pin header for Mouse x1 2.54mm 4-pin header for -5V, -12V, +12V, GND, DC-in x1 2.54mm 3-pin header for RS-485 x1 2.54mm 2-pin header for Reset x1 2.54mm 7-pin header for Redundancy Signal x1 2.54mm 2-pin header for System-Fail-SW x1 1.25mm 6-pin header for JTAG x1
<b>Power Requirement</b>	Single Voltage +5V @ 390mA
<b>Weight</b>	84g
<b>Board Size</b>	90 X 96mm (3.54 x 3.77 inches)
<b>Operating Temperature</b>	-20°C ~ +70°C -40°C ~ +85°C (Optional)

## Packing List

- VSX-6156 x1
- CD for User's Manual & Driver x1
- Cable
  - HDD 44P (2.0) x1
  - PRINT (2.0) x1
  - RS-232 (2.0) x4
  - NET 4x2 (2.0) x3
  - GPIO (2.0) x1
  - PS2 KB White x1
  - PS2 Mouse Black x1
- Screw Kit x1

## Ordering information

- **VSX-6156** Vortex86SX PC/104 CPU Module with 128MB DDR2



Unit: mm

## Specifications

<b>SoC</b>	DM&P SoC CPU Vortex86SX- 300MHz Real Time Clock with Lithium Battery Backup
<b>Cache</b>	L1:16K I-Cache, 16K D-Cache
<b>Bus</b>	PC/104 standard compliant PCI-104, PC/104+ (Optional)
<b>BIOS</b>	AMI BIOS
<b>System Memory</b>	128MB DDR2 Onboard
<b>Watchdog Timer 0 &amp; 1 Sets</b>	Software programmable from 30.5 $\mu$ sec. to 512 sec. x 2 sets (Watchdog 1 fully compatible with M6117D)
<b>VGA</b>	XGI Volari Z9s Chipset VGA and TFT Flat Panel Interface Support Onboard 32MB VGA Memory, support resolution up to 1280 x 1024, 16M colors
<b>LAN</b>	Integrated 10/100Mbps Ethernet
<b>Flash Disk Support</b>	Onboard 2MB SPI Flash Disk MST1 EmbedDisk Module (16MB and above)
<b>I/O Interface</b>	Enhanced IDE port (UltraDMA-100/66/33) x1 RS-232 port x3 RS-232/422/485 port x1 USB port (Ver2.0) x2 Parallel port x1 16-bit GPIO port x1 10/100Mbps Ethernet port x1
<b>Connectors</b>	2.0mm 44-pin box header for IDE x1 2.0mm 44-pin box header for LCD x1 2.0mm 26-pin box header for Printer x1 2.0mm 20-pin box header for 16-bit GPIO x1 2.0mm 10-pin box header for VGA x1 2.0mm 10-pin box header for USB x1 2.0mm 10-pin box header for RS-232 x4 2.0mm 8-pin header for Ethernet x1 2.54mm 5-pin box header for Keyboard x1 2.54mm 5-pin header for Mouse x1 2.54mm 7-pin header for Redundancy Signal x1 2.54mm 4-pin header for -5V, -12V, +12V, GND, DC-in x1 2.54mm 3-pin header for RS-485 x1 2.54mm 2-pin header for Reset x1 2.54mm 2-pin header for System-Fail-SW x1 1.25mm 6-pin wafer for JTAG x1

<b>Power Requirement</b>	Single Voltage +5V @ 580mA
<b>Weight</b>	83g
<b>Board Size</b>	90 X 96mm (3.54 x 3.77 inches)
<b>Operating Temperature</b>	-20°C ~ +70°C -40°C ~ +85°C (Optional)

## Packing List

- VSX-6154 x1
- CD for User's Manual & Driver x1
- Cable
  - HDD 44P (2.0) x1
  - USB (2.0) x1
  - PRINT (2.0) x1
  - VGA (2.0) x1
  - RS-232 (2.0) x4
  - NET 4x2 (2.0) x1
  - GPIO (2.0) x1
  - PS2 KB White x1
  - PS2 Mouse Black x1
- Screw Kit x1

## Ordering information

- **VSX-6154** Vortex86SX PC/104 CPU Module with 128MB DDR2
- **VSX-6154-PLUS** Vortex86SX PC/104+ CPU Module with 128MB DDR2

1

Mity/Tiny Module

2

PC/104 Module

3

3.5"/ATX/EBX Module

4

Half-Size Module

5

Peripheral Module

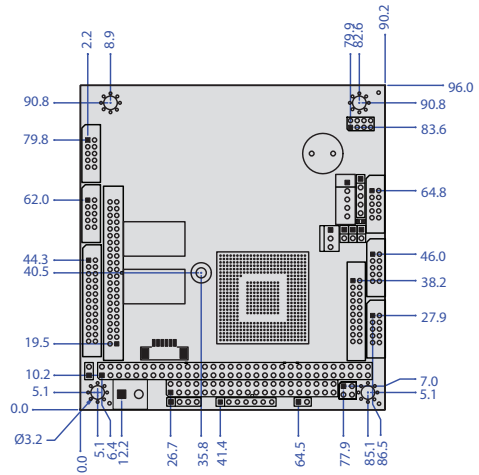
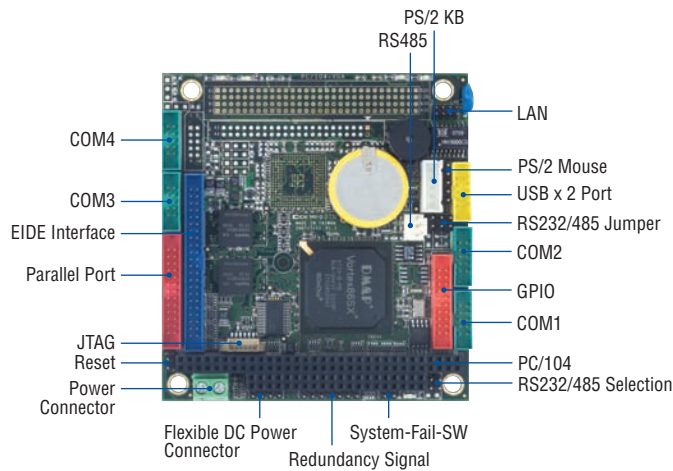
6

Display Product Series

7

Accessories





Unit: mm

## Specifications

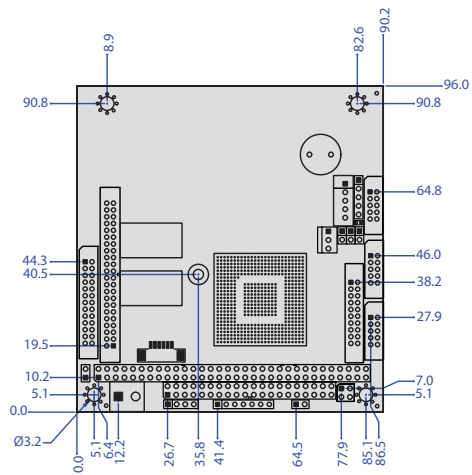
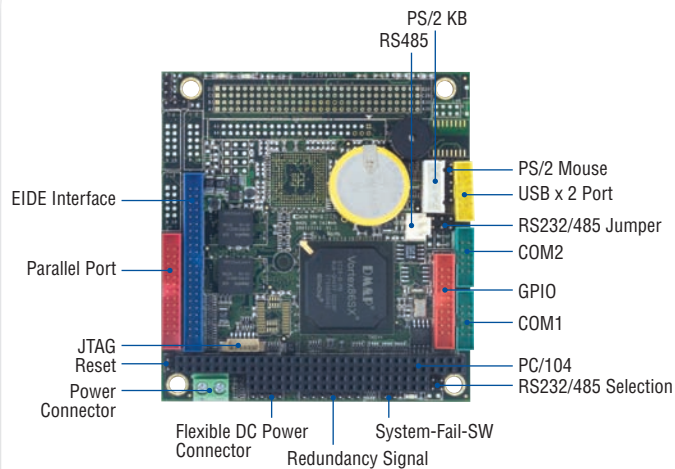
<b>SoC</b>	DM&P SoC CPU Vortex86SX- 300MHz Real Time Clock with Lithium Battery Backup
<b>Cache</b>	L1:16K I-Cache, 16K D-Cache
<b>Bus</b>	PC/104 standard compliant PCI-104, PC/104+ (Optional)
<b>BIOS</b>	AMI BIOS
<b>System Memory</b>	128MB DDR2 Onboard
<b>Watchdog Timer 0 &amp; 1 Sets</b>	Software programmable from 30.5μ sec. to 512 sec. x 2 sets (Watchdog 1 fully compatible with M6117D)
<b>LAN</b>	Integrated 10/100Mbps Ethernet
<b>Flash Disk Support</b>	Onboard 2MB SPI Flash Disk MSTI EmbedDisk Module (16MB and above)
<b>I/O Interface</b>	Enhanced IDE port (UltraDMA-100/66/33) x1 RS-232 port x3 RS-232/485 port x1 USB port (Ver2.0) x2 Parallel port x1 16-bit GPIO port x1 10/100Mbps Ethernet port x1
<b>Connectors</b>	2.0mm 44-pin box header for IDE x1 2.0mm 26-pin box header for Printer x1 2.0mm 20-pin box header for 16-bit GPIO x1 2.0mm 10-pin box header for USB x1 2.0mm 10-pin box header for RS-232 x4 2.0mm 8-pin header for Ethernet x1 2.54mm 5-pin box header for Keyboard x1 2.54mm 5-pin box header for Mouse x1 2.54mm 7-pin header for Redundancy Signal x1 2.54mm 4-pin header for -5V, -12V, +12V, GND, DC-in x1 2.54mm 3-pin header for RS-485 x1 2.54mm 2-pin header for Reset x1 2.54mm 2-pin header for System-Fail-SW x1 1.25mm 6-pin wafer for JTAG x1
<b>Power Requirement</b>	Single Voltage +5V @ 360mA
<b>Weight</b>	77g
<b>Board Size</b>	90 X 96mm (3.54 x 3.77 inches)
<b>Operating Temperature</b>	-20°C ~ +70°C -40°C ~ +85°C (Optional)

## Packing List

- VSX-6150E x1
- CD for User's Manual & Driver x1
- Cable
  - HDD 44P (2.0) x1
  - USB (2.0) x1
  - PRINT (2.0) x1
  - RS-232 (2.0) x4
  - NET 4x2 (2.0) x1
  - GPIO (2.0) x1
  - PS2 KB White x1
  - PS2 Mouse Black x1
- Screw Kit x1

## Ordering information

- **VSX-6150E** Vortex86SX PC/104 CPU Module with 128MB DDR2
- **VSX-6150E-PLUS** Vortex86SX PC/104+ CPU Module with 128MB DDR2



Unit: mm

### Specifications

<b>SoC</b>	DM&P SoC CPU Vortex86SX- 300MHz Real Time Clock with Lithium Battery Backup
<b>Cache</b>	L1:16K I-Cache, 16K D-Cache
<b>Bus</b>	PC/104 standard compliant PCI-104, PC/104+ (Optional)
<b>BIOS</b>	AMI BIOS
<b>System Memory</b>	128MB DDR2 Onboard
<b>Watchdog Timer 0 &amp; 1 Sets</b>	Software programmable from 30.5μ sec. to 512 sec. x 2 sets (Watchdog 1 fully compatible with M6117D)
<b>Flash Disk Support</b>	Onboard 2MB SPI Flash Disk MSTI EmbedDisk Module (16MB and above)
<b>I/O Interface</b>	Enhanced IDE port (UltraDMA-100/66/33) x1 RS-232 port x1 RS-232/485 port x1 USB port (Ver2.0) x2 Parallel port x1 16-bit GPIO port x1
<b>Connectors</b>	2.0mm 44-pin box header for IDE x1 2.0mm 26-pin box header for Printer x1 2.0mm 20-pin box header for 16-bit GPIO x1 2.0mm 10pin box header for USB x1 2.0mm 10-pin box header for RS-232 x2 2.54mm 5-pin box header for Keyboard x1 2.54mm 5-pin box header for Mouse x1 2.54mm 7-pin header for Redundancy Signal x1 2.54mm 4-pin header for -5V, -12V, +12V, GND, DC-in x1 2.54mm 3-pin header for RS-485 x1 2.54mm 2-pin header for Reset x1 2.54mm 2-pin header for System-Fail-SW x1 1.25mm 6-pin wafer for JTAG x1
<b>Power Requirement</b>	Single Voltage +5V @ 300mA
<b>Weight</b>	75g
<b>Board Size</b>	90 X 96mm (3.54 x 3.77 inches)
<b>Operating Temperature</b>	-20°C ~ +70°C -40°C ~ +85°C (Optional)

### Packing List

- VSX-6150 x1
- CD for User's Manual & Driver x1
- Cable  
HDD 44P (2.0) x1  
USB (2.0) x1  
PRINT (2.0) x1  
RS-232 (2.0) x2  
GPIO (2.0) x1  
PS2 KB White x1  
PS2 Mouse Black x1
- Screw Kit x1

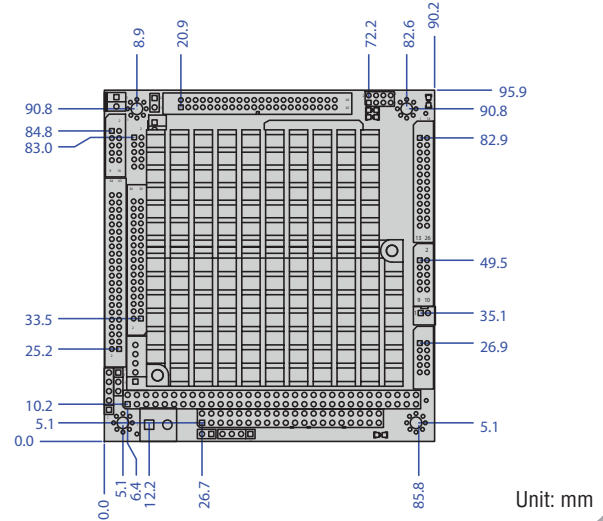
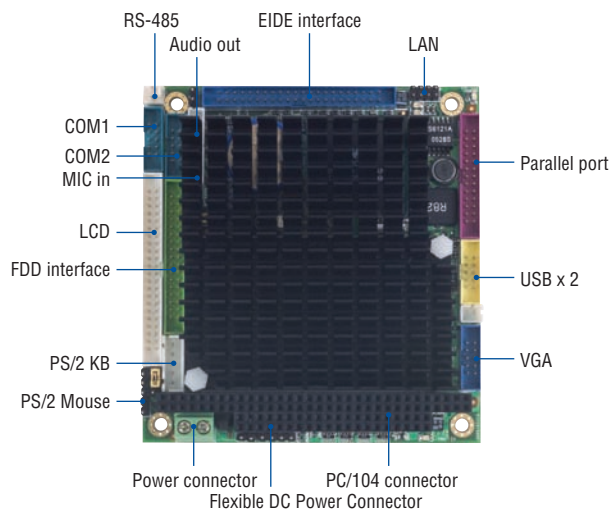
### Ordering information

- **VSX-6150** Vortex86SX PC/104 CPU Module with 128MB DDR2
- **VSX-6150-PLUS** Vortex86SX PC/104+ CPU Module with 128MB DDR2

1	Mity/Tiny Module
2	PC/104 Module
3	3.5"/ATX/EBX Module
4	Half-Size Module
5	Peripheral Module
6	Display Product Series
7	Accessories

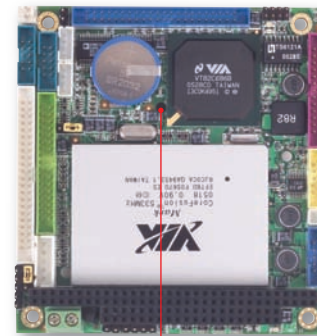
# Vega86-6270

128MB/2S/USB/VGA/LCD/AUDIO/LAN

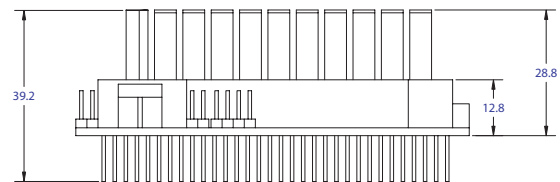


## Specifications

<b>SoC</b>	VIA Mark CoreFusion 533MHz Real Time Clock with Lithium Battery Backup
<b>Bus</b>	PC/104 standard compliant
<b>BIOS</b>	AMI BIOS
<b>System Memory</b>	Onboard 128MB SDRAM
<b>Cache</b>	L1:64K L2:64K
<b>VGA</b>	Integrated 2D/3D AGP4X graphics with MPEG2 Accelerator Shared system memory 8M/16M/32M VGA, SVGA, XGA, SXGA and DSTN/TFT Flat Panel interface support
<b>LAN</b>	Realtek 8100B 10/100Mbps Ethernet Controller Half/Full duplex capability
<b>Audio</b>	VIA VT1612A AC97 Codec Full compatible
<b>Flash Disk Support</b>	MSTI EmbedDisk Module (16MB and above)
<b>I/O Interface</b>	Enhanced IDE port (UltraDMA-100/66/33) x1 FDD port x1 RS-232 port x1 RS-232/485 port x1 Parallel port x1 USB port x2 (Ver 1.1) 10/100Mbps Ethernet port x1
<b>Connectors</b>	2.0mm 44-pin box header for IDE x1 2.0mm 44-pin box header for LCD x1 2.0mm 34-pin box header for FDD x1 2.0mm 26-pin box header for Printer x1 2.0mm 10-pin box header for RS-232 x2 2.0mm 10-pin box header for USB x1 2.0mm 10-pin box header for VGA x1 2.0mm 8-pin header for Ethernet x1 2.54mm 5-pin box header for Keyboard x1 2.54mm 5-pin header for Mouse x1 2.0mm 4-pin wafer for Line-out/MIC-in x2 2.54mm 4-pin header for +12V, -12V, -5V DC-in x1 2.54mm 2-pin header for RS-485 x1 2.54mm 2-pin header for Reset x1
<b>Power Requirement</b>	Single Voltage +5V @ 2.2A
<b>Weight</b>	210g
<b>Board Size</b>	90 X 96mm (3.54 x 3.77 inches)
<b>Operating Temperature</b>	-20°C ~ +60°C



Fixed hole for Flash Disk



## Packing List

- Vega86-6270 x1
- CD for User's Manual & Driver x1
- Cable
  - HDD 44P (2.0) x1
  - FDD (2.0) x1
  - PRINT (2.0) x1
  - RS-232 (2.0) x2
  - VGA (2.0) x1
  - NET 4 x 2 (2.0) x1
  - USB (2.0) x1
  - Audio Line x1
  - PS2 KB White x1
  - PS2 KB Black x1
- Screw Kit x1

## Ordering Information

- **Vega86-6270** Vega86 PC/104 CPU Module with 128MB SDRAM
- **Vega86-6270-256** Vega86 PC/104 CPU Module with 256MB SDRAM