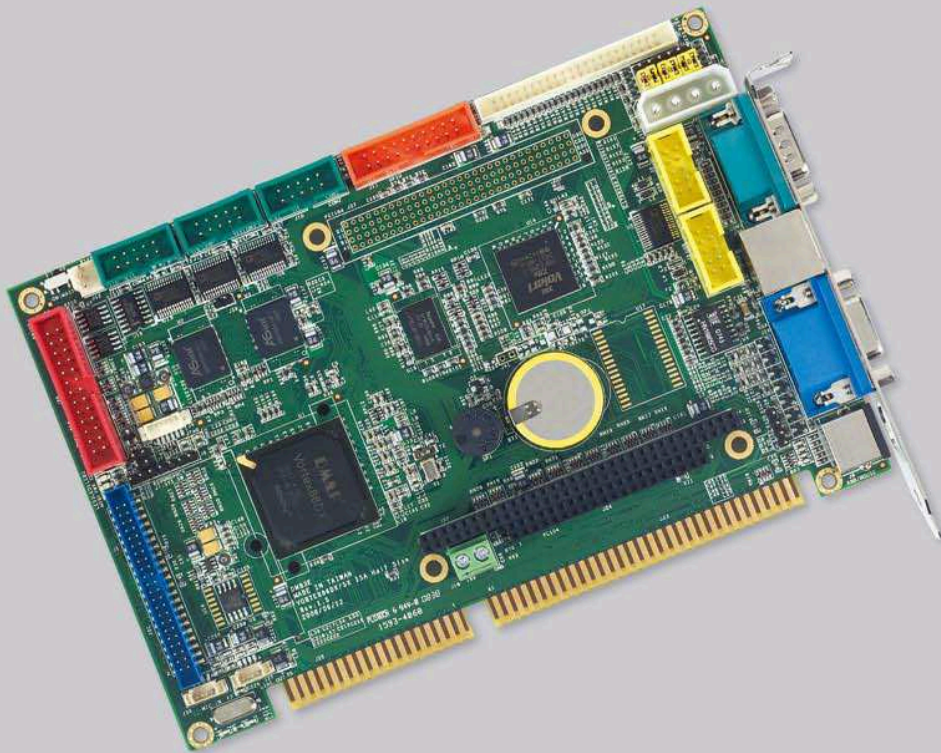


are designed to include industry-standard ISA gold fingers and PC/104 for easy expansion as industrial control system.

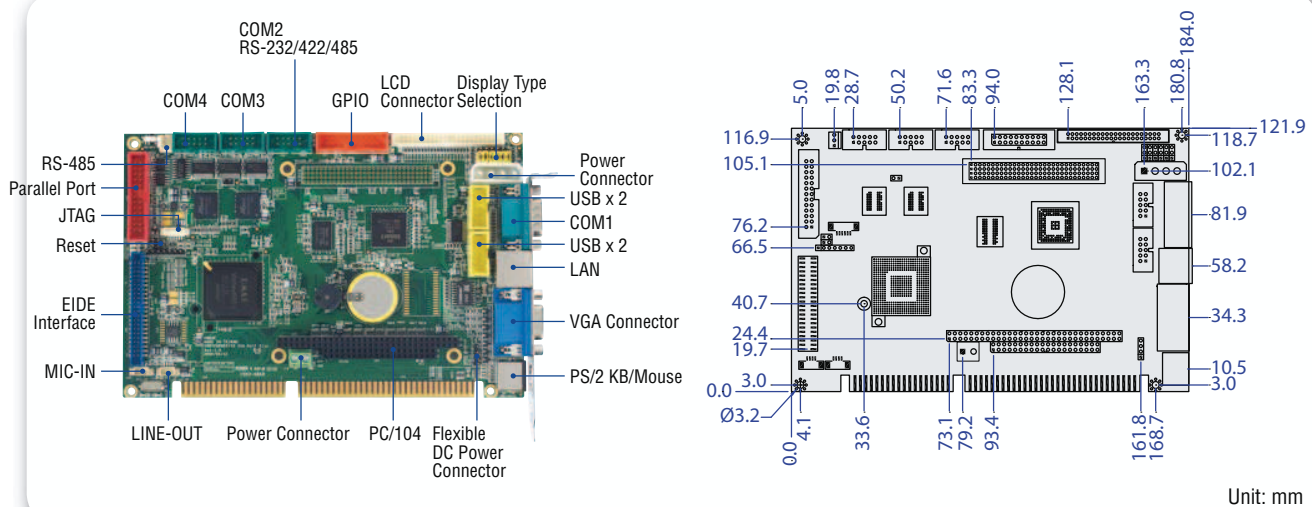
# Half-Size CPU Module



<p>VDX-6324</p> <p>VDX-6324-FD</p> <p>VSX-6124-V2</p> <p>VSX-6124-FD-V2</p> <p>VSX-6121-FD-V2</p>	<p>Vortex86DX Half-Size CPU Module 256MB/4S/4USB/VGA/LCD/LAN/GPIO/CF/PWMx16 ... 70</p> <p>Vortex86DX Half-Size CPU Module 256MB/4S/4USB/VGA/LCD/LAN/GPIO/CF/FDD/PWMx16 ..... 71</p> <p>Vortex86SX Half-Size CPU Module 128MB/4S/4USB/VGA/LCD/LAN/GPIO..... 72</p> <p>Vortex86SX Half-Size CPU Module 128MB/4S/4USB/VGA/LCD/LAN/GPIO/FDD ..... 73</p> <p>Vortex86SX Half-Size CPU Module 128MB/2S/4USB/GPIO/FDD ..... 74</p>
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# VDX-6324

256MB/4S/4USB/VGA/LCD/LAN/  
GPIO/CF/PWMx16



Unit: mm

## Specifications

<b>SoC</b>	DM&P SoC CPU Vortex86DX- 800MHz Real Time Clock with Lithium Battery Backup
<b>Cache</b>	L1:16K I-Cache, 16K D-Cache, L2 Cache 128 KB
<b>Bus</b>	PC/104 standard compliant PCI-104 (Optional)
<b>BIOS</b>	AMI BIOS
<b>System Memory</b>	256/512MB DDR2 Onboard
<b>Watchdog Timer</b>	Software programmable from 30.5µ sec.to 512 sec. x 2 sets (Watchdog 1 fully compatible with IM6117D)
<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>Audio</b>	CM119 USB Audio Controller (Optional)
<b>Flash Disk Support</b>	Onboard 4MB SPI Flash Disk MSTI EmbedDisk Module (16MB and above) Compact Flash Type I/II 44-pin IDE to Micro SD (Optional)
<b>PWM</b>	16-24 Channels
<b>SRAM support</b>	512KB (Optional)
<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) x4 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 2.54mm 26-pin box header for Printer x1 2.54mm 20-pin box header for 16-bit GPIO x1 2.54mm 10-pin box header for RS-232 x3 2.54mm 10-pin box header for USB x2 2.54mm 4-pin header for -5V, -12V, +12V, GND 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 (Optional) 2.54mm 2-pin header for System-Fail-SW x1 (Optional) 1.25mm 6-pin wafer for JTAG x1 1.25mm 4-pin wafer for Line-out/MIC-in x2 (Optional) 4-pin male power connector x1 External 15-pin D-Sub female connector for VGA x1 External 9-pin D-Sub male connector for RS-232 x1 External RJ-45 connector for Ethernet x1 External Mini DIN connector for Keyboard/Mouse x1 Type I/II Compact Flash Slot x1
<b>Power Requirement</b>	Single Voltage +5V @ 760mA

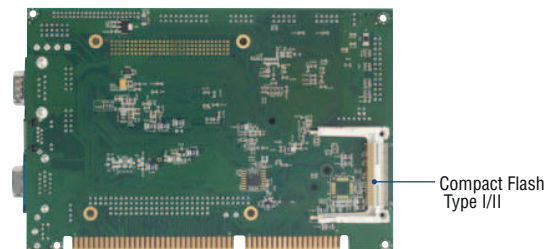
<b>Weight</b>	180g
<b>Board Size</b>	184 x 122mm (7.24 x 4.80 inches)
<b>Operating Temperature</b>	-20 °C ~ +70 °C -40 °C ~ +85 °C (Optional)

## Packing List

- VDX-6324 x1
- CD for User's Manual & Driver x1
- Cable
  - HDD 44P (2.0) x1
  - PRINT (2.54) x1
  - USB (2.54) x2
  - GPIO (2.54) x1
  - RS-232 (2.54) x3
  - YKB x1

## Ordering information

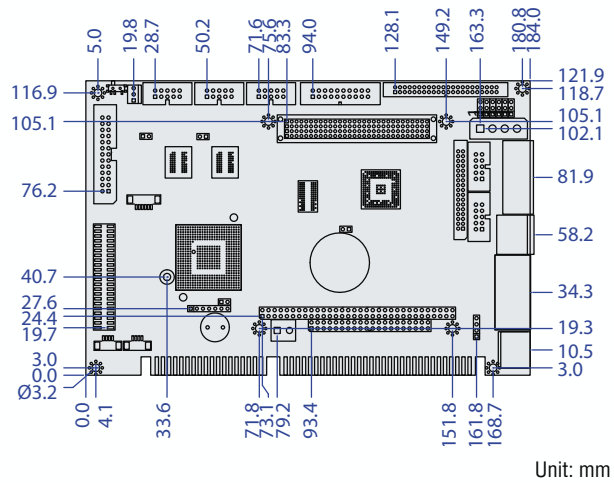
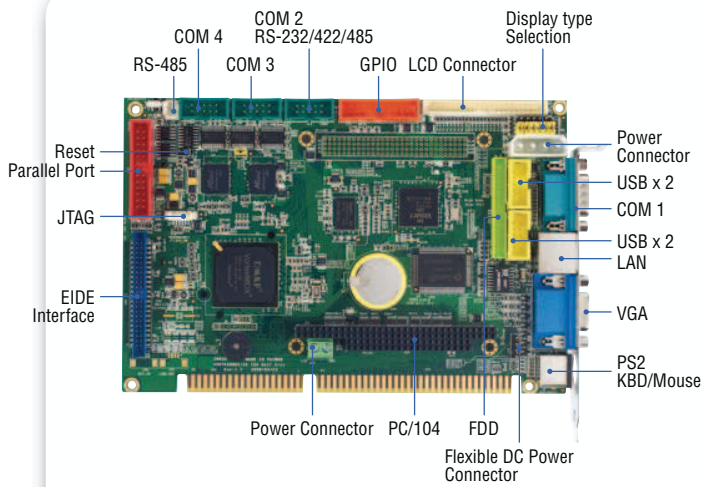
- **VDX-6324** Vortex86DX Half-Size CPU Module with 256MB DDR2
- **VDX-6324-512** Vortex86DX Half-Size CPU Module with 512MB DDR2



VDX-6324

# VDX-6324-FD

256MB/4S/4USB/VGA/LCD/LAN/  
GPIO/CF/FDD/PWMx16



## Specifications

<b>SoC</b>	DM&P SoC CPU Vortex86DX- 800MHz Real Time Clock with Lithium Battery Backup
<b>Cache</b>	L1:16K I-Cache, 16K D-Cache, L2 Cache 128 KB
<b>Bus</b>	PC/104 standard compliant PCI-104 (Optional)
<b>BIOS</b>	AMI BIOS
<b>System Memory</b>	256/512MB DDR2 Onboard
<b>Watchdog Timer</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 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>Audio</b>	CM119 USB Audio Controller (Optional)
<b>Flash Disk Support</b>	Onboard 4MB SPI Flash Disk MSTI EmbedDisk Module (16MB and above) Compact Flash Type I/II 44-pin IDE to Micro SD (Optional)
<b>PWM</b>	16-24 Channels
<b>SRAM support</b>	512KB (Optional)
<b>I/O Interface</b>	Enhanced IDE port (UltraDMA-100/66/33) x1 FDD x 1 RS-232 port x3 RS-232/422/485 port x1 USB port (Ver2.0) x4 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 34-pin box header for FDD x1 2.54mm 26-pin box header for Printer x1 2.54mm 20-pin box header for 16-bit GPIO x1 2.54mm 10-pin box header for RS-232 x3 2.54mm 10-pin box header for USB x2 2.54mm 4-pin header for -5V, -12V, +12V, GND 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 (Optional) 2.54mm 2-pin header for System-Fail-SW x1 (Optional) 1.25mm 6-pin wafer for JTAG x1 1.25mm 4-pin wafer for Line-out/MIC-in x2 (Optional) 4-pin male power connector x1 External 15-pin D-Sub female connector for VGA x1 External 9-pin D-Sub male connector for RS-232 x1 External RJ-45 connector for Ethernet x1 External Mini DIN connector for Keyboard/Mouse x1 Type I/II Compact Flash Slot x1

<b>Power Requirement</b>	Single Voltage +5V @ 720mA
<b>Weight</b>	180g
<b>Board Size</b>	184 x 122mm (7.24 x 4.80 inches)
<b>Operating Temperature</b>	-20 °C ~ +70 °C -40 °C ~ +85 °C (Optional)

## Packing List

- VDX-6324-FD
- CD for User's Manual & Driver x1
- Cable
  - HDD 44P (2.0) x1
  - FDD (2.0) x1
  - PRINT (2.54) x1
  - USB (2.54) x2
  - GPIO (2.54) x1
  - RS-232 (2.54) x3
  - YKB x1

## Ordering information

- **VDX-6324-FD** Vortex86DX Half-Size CPU Module with 256MB DDR2
- **VDX-6324-FD-512** Vortex86DX Half-Size CPU Module with 512MB DDR2



Compact Flash Type I/II

VDX-6324-FD

1

µProcessor Module

2

Mity/Tiny CPU Module

3

PC/104 CPU Module

4

Half-Size CPU Module

5

3.5" CPU Module

6

Peripheral Module

7

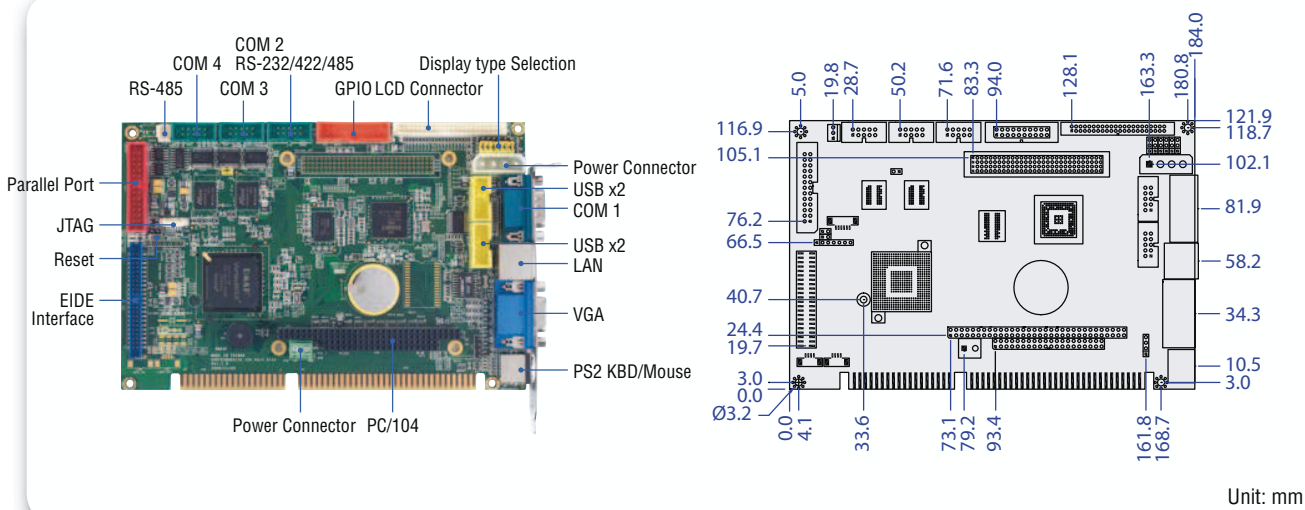
Display Product Series

8

Accessories & Technical Information

# VSX-6124-V2

128MB/4S/4USB/VGA/LCD/LAN/GPIO

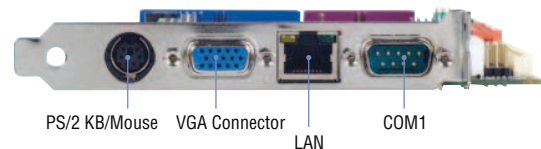


Unit: mm

## 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 (Optional)
<b>BIOS</b>	AMI BIOS
<b>System Memory</b>	128/256MB 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>VGA</b>	XGI Volari Z9s Chipset VGA and TFT Flat Panel Interface Support Onboard 32MB VGA Memory, support resolution up to 1280x1024, 16M colors
<b>LAN</b>	Integrated 10/100Mbps Ethernet
<b>Flash Disk Support</b>	Onboard 2MB SPI Flash Disk MSTI EmbedDisk Module (16MB and above) Compact Flash Type I/II (Optional)
<b>SRAM support</b>	512KB (Optional)
<b>I/O Interface</b>	Enhanced IDE port x1 RS-232 port x3 RS-232/422/485 port x1 USB port (Ver2.0) x4 Parallel port x1 16-bit GPIO port x1 10/100Mbps Ethernet port x1
<b>Connectors</b>	2.0mm 44-pin box header for LCD x1 2.0mm 44-pin box header for IDE x1 2.54mm 26-pin box header for Printer x1 2.54mm 20-pin box header for 16-bit GPIO x1 2.54mm 10-pin box header for RS-232 x3 2.54mm 10-pin box header for USB x2 2.54mm 7-pin header for Redundancy Signal x1 (Optional) 2.54mm 3-pin header for RS-485 x1 2.54mm 2-pin header for System-Fail-SW x1 (Optional) 2.54mm 4-pin header for -5V, -12V, +12V, GND, DC-in x1 1.25mm 6-pin wafer for JTAG x1 4-pin male power connector x1 External 15-pin D-Sub female connector for VGA x1 External 9-pin D-Sub male connector for RS-232 x1 External RJ-45 connector for Ethernet x1 External Mini DIN connector for Keyboard/Mouse x1

<b>Power Requirement</b>	Single Voltage +5V @ 700mA
<b>Weight</b>	176g
<b>Board Size</b>	184 x 122mm (7.24 x 4.80 inches)
<b>Operating Temperature</b>	-20°C ~ +70°C -40°C ~ +85°C (Optional)



## Packing List

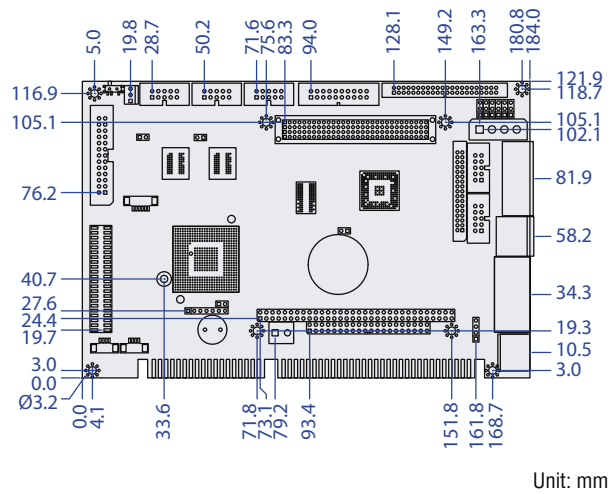
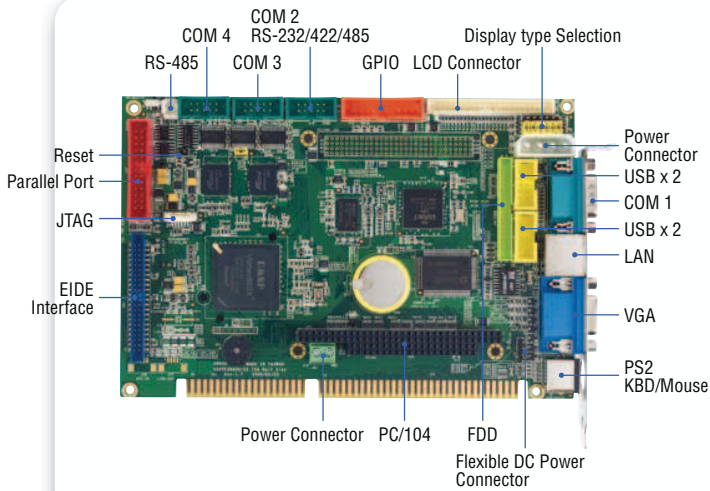
- VSX-6124-V2 x1
- CD for User's Manual & Driver x1
- Cable
  - HDD 40P (2.54) x1
  - PRINT (2.54) x1
  - USB (2.54) x2
  - GPIO (2.54) x1
  - RS-232 (2.54) x3
  - YKB x1

## Ordering information

- **VSX-6124-V2** Vortex86SX Half-Size CPU Module with 128MB DDR2

# VSX-6124-FD-V2

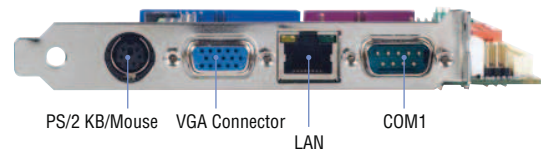
128MB/4S/4USB/VGA/LCD/LAN/GPIO/FDD



## 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 (Optional)
<b>BIOS</b>	AMI BIOS
<b>System Memory</b>	128/256MB 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>VGA</b>	XGI Volari Z9s Chipset VGA and TFT Flat Panel Interface Support Onboard 32MB VGA Memory, support resolution up to 1280x1024, 16M colors
<b>LAN</b>	Integrated 10/100Mbps Ethernet
<b>Audio</b>	CM119 USB Audio Controller (Optional)
<b>Flash Disk Support</b>	Onboard 2MB SPI Flash Disk MSTI EmbedDisk Module (16MB and above) Compact Flash Type I/II (Optional)
<b>SRAM support</b>	512KB (Optional)
<b>I/O Interface</b>	Enhanced IDE port x1 FDD x1 RS-232 port x3 RS-232/422/485 port x1 USB port (Ver2.0) x4 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 34-pin box header for FDD x1 2.54mm 26-pin box header for Printer x1 2.54mm 20-pin box header for 16-bit GPIO x1 2.54mm 10-pin box header for RS-232 x3 2.54mm 10-pin box header for USB x2 2.54mm 7-pin header for Redundancy Signal x1 (Optional) 2.54mm 3-pin header for RS-485 x1 2.54mm 2-pin header for System-Fail-SW x1 (Optional) 2.54mm 4-pin header for -5V, -12V, +12V, GND, DC-in x1 1.25mm 6-pin wafer for JTAG x1 1.25mm 4-pin wafer for Line-out/MIC-in x2 (Optional) 4-pin male power connector x1 External 15-pin D-Sub female connector for VGA x1 External 9-pin D-Sub male connector for RS-232 x1 External RJ-45 connector for Ethernet x1 External Mini DIN connector for Keyboard/Mouse x1

<b>Power Requirement</b>	Single Voltage +5V @ 660mA
<b>Weight</b>	176g
<b>Board Size</b>	184 x 122mm (7.24 x 4.80 inches)
<b>Operating Temperature</b>	-20°C ~ +70°C -40°C ~ +85°C (Optional)



## Packing List

- VSX-6124-FD-V2
- CD for User's Manual & Driver x1
- Cable  
HDD 40P (2.54) x1  
FDD (2.0) x1  
PRINT (2.54) x1  
USB (2.54) x2  
GPIO (2.54) x1  
RS-232 (2.54) x3  
YKB x1

## Ordering information

- **VSX-6124-FD-V2** Vortex86SX Half-Size CPU Module with 128MB DDR2
- **VSX-6124-FDC-V2** Vortex86SX Half-Size CPU Module with 128MB DDR2+CF

1

μProcessor Module

2

Mity/Tiny CPU Module

3

PC/104 CPU Module

4

Half-Size CPU Module

5

3.5" CPU Module

6

Peripheral Module

7

Display Product Series

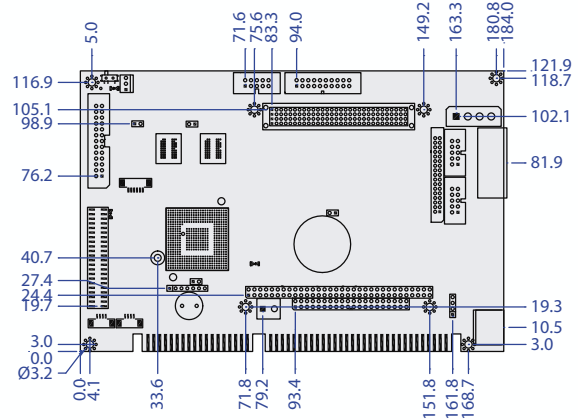
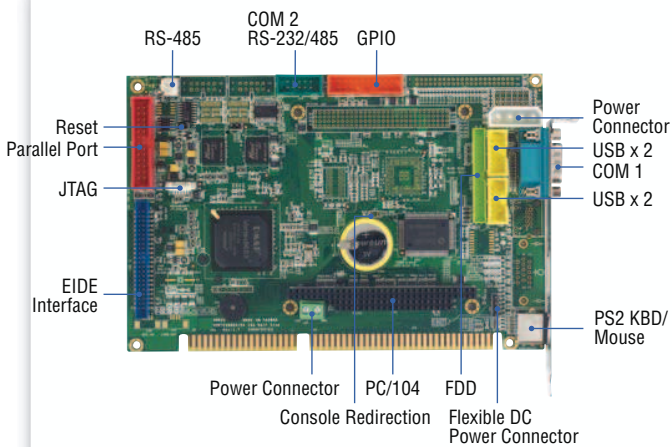
8

Accessories & Technical Information

# VSX-6121-FD-V2

## VSX-6121-V2

128MB/2S/4USB/GPIO/FDD



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 (Optional)
<b>BIOS</b>	AMI BIOS
<b>System Memory</b>	128/256MB 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) Compact Flash Type I/II (Optional)
<b>SRAM support</b>	512KB (Optional)
<b>I/O Interface</b>	Enhanced IDE port x1 FDD x1 RS-232 port x 1 RS-232/485 port x1 USB port (Ver2.0) x4 Parallel port x1 16-bit GPIO port x1
<b>Connectors</b>	2.0mm 44-pin box header for IDE x1 2.0mm 34-pin box header for FDD x1 2.54mm 26-pin box header for Printer x1 2.54mm 20-pin box header for 16-bit GPIO x1 2.54mm 10-pin box header for RS-232 x1 2.54mm 10-pin box header for USB x2 2.54mm 7-pin header for Redundancy Signal x1 (Optional) 2.54mm 3-pin header for RS-485 x1 2.54mm 2-pin header for System-Fail-SW x1 (Optional) 2.54mm 4-pin header for -5V, -12V, +12V, GND, DC-in x1 1.25mm 6-pin wafer for JTAG x1 4-pin male power connector x1 External 9-pin D-Sub male connector for RS-232 x1 External Mini DIN connector for Keyboard/Mouse x1
<b>Power Requirement</b>	Single Voltag +5V @ 360mA / 340mA

<b>Weight</b>	156g
<b>Board Size</b>	184 x 122mm (7.24 x 4.80 inches)
<b>Operating Temperature</b>	-20°C ~ +70°C -40°C ~ +85°C (Optional)

## Packing List

- VSX-6121-FD-V2 x1
- CD for User's Manual & Driver x1
- Cable
  - HDD 40P (2.54) x1
  - FDD (2.0) x1
  - PRINT (2.54) x1
  - USB (2.54) x2
  - GPIO (2.54) x1
  - RS-232 (2.54) x1
  - YKB x1

## Ordering information

- **VSX-6121-FD-V2** Vortex86SX Half-Size CPU Module with 128MB DDR2+FDD
- **VSX-6121-V2** Vortex86SX Half-Size CPU Module with 128MB DDR2