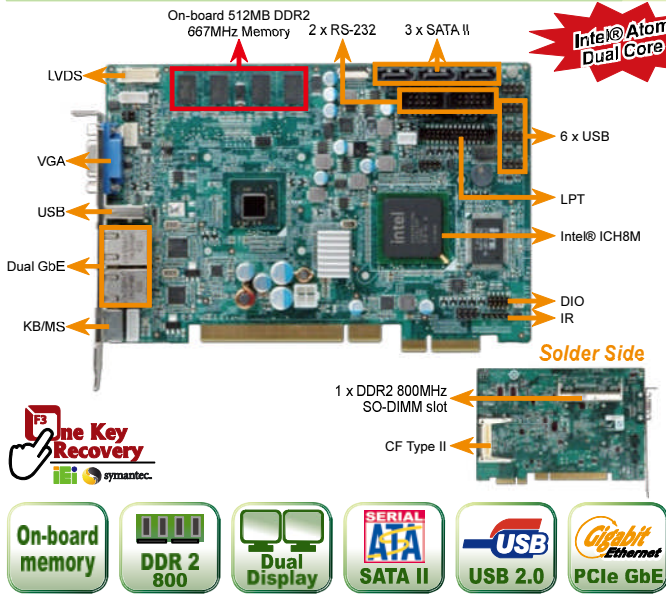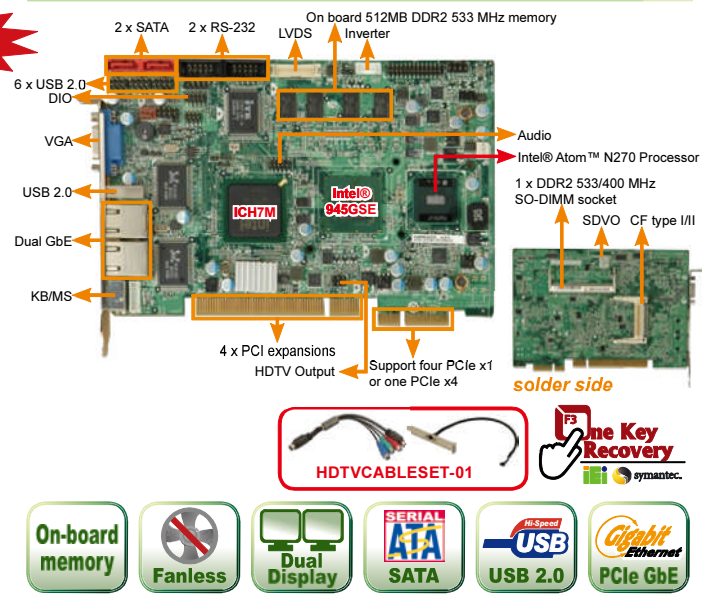# PICOe-PV-D510

Half-size PCIe CPU Card with Intel® Atom™ D510 1.66GHz/1MB L2, 512MB Memory on board, VGA/LVDS, Dual Intel GbE, USB2.0 and SATA II, RoHS

On-board 512MB DDR2 667MHz Memory
2 x RS-232
3 x SATA II
LVDS
VGA
USB
Dual GbE
KB/MS
6 x USB
LPT
Intel® ICH8M
DIO
IR
Intel® Atom Dual Core

Solder Side

1 x DDR2 800MHz SO-DIMM slot
CF Type II

On-board memory | DDR 2 800 | Dual Display | SERIAL ATA II | USB 2.0 | Gigabit Ethernet PCIe GbE

Features

1. PCIe CPU card supports four PCIe x1 or one PCIe x4 and four PCI expansions
2. Intel® Atom™ dual core processor D510 at 1.66GHz core speed with a 1MB L2 Cache
3. 512MB of 667 MHz DDR2 SDRAM on board and one expansion SO-DIMM slot support
4. Support VGA and 18-bit single-channel LVDS with dual-display support
5. I/O includes, two RS-232, seven USB 2.0 and three SATA II
6. IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Specifications

◆ **CPU**
On-board 1.66GHz Intel® Atom™ D510 processor with 1MB L2 Cache
◆ **System Chipset**
Intel® ICH8M
◆ **BIOS**
AMI BIOS
◆ **Memory**
1x 200-pin 667/800MHz DDR2 SDRAM SO-DIMM supported (max. 2GB)
On-board 512MB 667MHz DDR2 memory
◆ **Graphic**
GMA3150
◆ **Ethernet**
Intel® GbE Phy 82567V + PCIe GbE 82583V
◆ **I/O Interfaces**
2 x RS-232   1 x LPT
3 x SATA II   1 x PS/2 for KB/MS
1 x CF Type II
1 x 6-pin wafer header for KB/MS
7 x USB2.0 (six by header, one on rear side)
◆ **Digital I/O**
8-bit digital I/O (4-bit input, 4-bit output)
◆ **Super IO**
ITE IT8718

◆ **Infrared Interface**
1 x 5-pin header
◆ **Display Output**
Analog CRT: up to 2048x1536
Support for CRT hot plug
Single-channel 18-bit LVDS support up to XGA (1024x768) & WXGA (1366x768) resolution
◆ **Expansion**
Four PCI
Four PCI Express x1 or one PCI Express x4
◆ **Audio**
Support 7.1 channel HD Audio by IEI AC-KIT-888HD-R10 kit
◆ **Watchdog Timer**
Software Programmable support 1~255 sec. System reset
◆ **Power Consumption**
5V@4.55A, 12V@0.46A (Intel® Atom™ D510 1.66GHz CPU, 1GB 667MHz DDR2)
◆ **Power Supply:** 5V/12V, AT/ATX support
◆ **Fan Connector:** 1 x 4-pin Fan Connector
◆ **Temperature**
Operation: 0°C ~ 60°C (32°F~140°F)
◆ **Humidity**
Operation: 5% ~ 95%, non-condensing
◆ **Diemensions:** 185 mm x 122 mm
◆ **Weight:** GW: 1000g / NW: 260g

Packing List

1 x PICOe-PV-D510 Single board computer	
1 x KB/MS Y cable (P/N: 32006-000300-100-RS)	
1 x ATX Power cable (P/N: 32102-006500-200-RS)	
1 x Dual RS-232 cable (P/N:19800-000051-RS)	3 x SATA cable (P/N:32000-0628000-RS)
1 x USB cable (P/N: CB-USB02-RS)	1 x Mini jumper pack
1 x QIG	1 x Utility CD

Ordering Information

Part No.	Description
PICOe-PV-D510-R10	Half-size PCIe CPU Card with Intel® Atom™ D510 1.66GHz/1MB L2, 512MB Memory on board, VGA/LVDS, Dual Intel GbE, USB2.0 and SATA II, RoHS
AC-KIT-888HD-R10	7.1 channel HD Audio kit with Realtek ALC888 codec and dual audio streams support
19800-000075-RS	KB/MS cable with bracket
32102-000100-100-RS 32102-000100-200-RS	SATA power cable
32200-015100-RS	LPT cable

PICOe-945GSE

Half-size PCIe CPU Card with Intel® Atom™ processor, 512MB memory on board, VGA/LVDS/HDTV-out, Dual GbE, USB 2.0 and SATA

2 x SATA
2 x RS-232
LVDS
On board 512MB DDR2 533 MHz memory
Inverter
6 x USB 2.0
DIO
VGA
USB 2.0
Dual GbE
KB/MS
Audio
Intel® Atom™ N270 Processor
1 x DDR2 533/400 MHz SO-DIMM socket
SDVO   CF type I/II
ICH7M
Intel® 945GSE
4 x PCI expansions
HDTV Output
Support four PCIe x1 or one PCIe x4
solder side

HDTVCABLESET-01

On-board memory | Fanless | Dual Display | SERIAL ATA | USB 2.0 | Hi-Speed Gigabit Ethernet PCIe GbE

Features

1. PCIe CPU card supports four PCIe x1 or one PCIe x4 and 4 x PCI expansions
2. Intel® Atom™ processor N270 at 1.6GHz core speed with a 533 MHz FSB and 512 KB L2 cache
3. 512 MB of 533 MHz DDR2 SDRAM on board
4. Support VGA, HDTV-out (up to 1080i) and 18-bit dual-channel LVDS with dual-display support
5. I/O includes two RS-232, seven USB 2.0 and two SATA
6. IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Specifications

◆ **CPU**
On board Intel® Atom™ N270 processor 1.6 GHz 512 KB L2 cache with a 533MHz FSB
◆ **System Chipset**
Intel® 945GSE + ICH7M
◆ **BIOS**
AMI BIOS
◆ **System Memory**
On board 512 MB DDR2 533 memory and One 200-pin 533/400 MHz DDR2 SDRAM SO-DIMM supported (system max. 2GB)
◆ **Ethernet**
Dual PCI Realtek 8110SC GbE
◆ **I/O Interface**
2 x RS-232   2 x SATA
1 x LPT   1 x CF type I/II
1 x PS/2 connector for KB/MS
7 x USB 2.0 (1 on bracket, 6 on board by pin header)
◆ **Digital I/O**
8-bit digital I/O, 4-bit input/ 4-bit output
◆ **Infrared Interface**
1 x Infrared by pin header
◆ **Super I/O**
ITE IT8718F

◆ **Display Interface**
VGA Intgrated in Intel® 945GSE
HDTV/TV support NTSC/PAL and HDTV resolution up to 1080i
18-bit dual-channel LVDS
◆ **Audio**
Support 7.1 channel HD audio or 5.1 channel AC-97 audio by IEI audio kits
◆ **Watchdog Timer**
Software programmable supports 1 ~255 sec. System reset
◆ **Power Supply**
AT/ATX Power
◆ **Power consumption**
5V@2.89A, 12V@0.22A (Intel® Atom™ N270 1.6 GHz / 533 MHz CPU with 1GB DDR2 533 MHz)
◆ **Temperature**
Operation: 0ºC ~ 60ºC (32ºF ~ 140ºF)
◆ **Humidity**
Operation: 5% ~95% non-condensing
◆ **Dimensions**
185 mm x 122 mm
◆ **Weight**
GW: 1000 g / NW: 250 g

Packing List

1 x PICOe-945GSE single board computer	
1 x KB/MS Y cable (P/N: 32006-000300-100-RS)	
1 x Dual RS-232 cable (P/N: 19800-000051-RS)	2 x SATA cable (P/N: 32000-062800-RS)
1 x USB cable (P/N: CB-USB02-RS)	1 x Mini jumper pack
1 x Utility CD	1 x QIG

Ordering Information

Part No.	Description
PICOe-945GSE-N270-512MB-R10	PCIe CPU Card with Intel® Atom™ N270 1.6 G processor, 512 MB memory on board, VGA/LVDS/HDTV-out, Dual GbE, USB 2.0, SATA
AC-KIT-888HD-R10	7.1 channel HD audio kit with realtek ALC888 support dual audio streams
AC-KIT08R-R10	5.1 channel AC'97 audio kit with realtek ALC655
HDTVCABLESET-01	HDTV cable set with S-Video, composite and component Interfaces
32102-000100-200-RS	SATA power cable
32200-015100-RS	LPT cable

1
Industrial Computing Solutions

2
Video Capture Solutions

3
Embedded Computing Solutions

4
Industrial Data Collector and Controller

5
Panel Solutions Introduction

6
ORing Network Communication

7
Power Supply/ Peripherals