Single Board Computer
Half-size

Backplane Systems Technology Pty Ltd
TEL 02 9457 6400
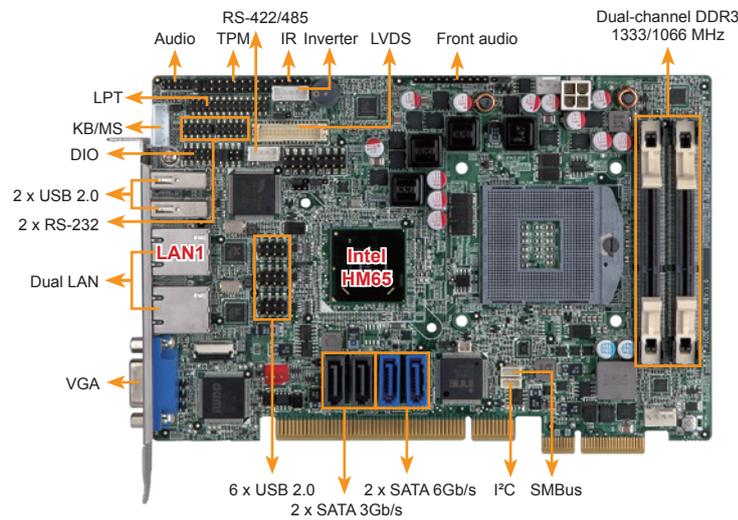sales@backplane.com.au
www.backplane.com.au

PICOe-HM650

Half-size PCIe CPU Card supports Socket 988B Intel® Mobile Core™ i7/ i5/i3 or Celeron® CPU with Intel® HM65, DDR3, VGA, LVDS, Dual PCIe GbE, SATA 6Gb/s, HD Audio and RoHS

CPU cooler
P/N: CF-989A-RS-R12

TPM 2.0 Support

Specifications

- ◆ CPU
  Socket 988B Intel® Mobile Core™ i7/i5/i3 Chipset: Intel® HM65
- ◆ Memory
  Two 204-pin 1333/1066 MHz dual-channel DDR3 SDRAM unbuffered DIMMs support up to 16 GB
- ◆ BIOS
  UEFI
- ◆ Graphics Engine
  Intel® HD Graphics Gen 6 supports DX10.1 and OpenGL 3.0 Full MPEG2, VC1, AVC Decode
- ◆ Display Output
  Dual display supported
  1 x VGA (up to 2048x1536@75Hz)
  1 x 18/24-bit dual-channel LVDS (up to 1920x1200@60Hz)
- ◆ Ethernet
  LAN1: Realtek RTL8111E GbE controller with ASF 2.0 support
  LAN2: Realtek RTL8111E GbE controller
- ◆ External I/O Interface
  2 x USB 2.0
- ◆ Internal I/O Interface
  1 x KB/MS (1x6 pin)   1 x RS-422/485
  2 x SATA 3Gb/s   2 x SATA 6Gb/s
  2 x RS-232 (2x5pin, P=2.0)   6 x USB 2.0 (2x4 pin, P=2.54)
- ◆ Audio
  Supports 7.1-channel HD Audio by IEI AC-KIT-892HD-R10 kit
- ◆ Front Panel
  1 x Front panel connector (1x10 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ TPM
  1 x TPM (2x10 pin)
- ◆ SMBus
  1 x SMBus (1x4 pin)
- ◆ I²C
  1 x I²C (1x4 pin)
- ◆ Expansion
  PCIe signal and PCI signal via golden finger
- ◆ Watchdog Timer
  Software programmable supports 1~255 sec. system reset
- ◆ Digital I/O
  8-bit digital I/O (2x5 pin)
- ◆ Fan Connector
  1 x CPU smart fan (1x4 pin)
  1 x System smart fan (1x4 pin)
- ◆ Power Supply
  5V/12V, AT/ATX support
- ◆ Power Consumption
  5V@3.99A, 12V@0.43A, Vcore_12V@3.80A, 5VSB@0.06A (2.70GHz Intel® Core™ i7-2620M with two 2 GB 1333 MHz DDR3 memory)
- ◆ Operating Temperature
  -10°C ~ 60°C
- ◆ Storage Temperature
  -20°C ~ 70°C
- ◆ Operating Humidity
  5% ~ 95%, non-condensing
- ◆ Dimensions
  185 mm x 122 mm
- ◆ Weight
  GW: 1000g / NW: 260g
- ◆ CE/FCC compliant

Features

- Half-size PCIe CPU card supports Socket G2 32nm Intel® Core™ i7/i5/i3 or Celeron® processor
- Up to 16 GB 1333/1066 MHz dual-channel DDR3 SDRAM
- Supports 18/24-bit dual-channel LVDS and analog CRT output
- High-speed I/O interface provided through the 2nd gen PCIe add-on card and SATA 6Gb/s connectors
- Rich media acceleration for hardware encoding and decoding
- TPM V1.2 hardware security provided by the TPM module
- IEI One Key Recovery solution allows you to create raipd OS backup and recovery

Packing List

1 x PICOe-HM650 single board computer
1 x Dual RS-232 cable
1 x USB cable
2 x SATA cable
1 x Mini jumper pack
1 x QIG

Ordering Information

Part No.	Description
PICOe-HM650-R10	Half-size PCIe CPU card supports Socket 988B Intel® Mobile Core™ i7/i5/i3 or Celeron® CPU with Intel® HM65, DDR3, VGA, LVDS, dual PCIe GbE, SATA 6Gb/s, HD Audio and RoHS
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32200-015100-RS	LPT flat cable, 240mm, P=2.54
32205-003800-300-RS	RS-422/485 cable, 200mm, P=2.0
AC-KIT-892HD-R10	7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams
CF-989A-RS-R12	CPU cooler for mobile socket 989 and 55W CPU
CF-989B-RS-R11	CPU cooler for mobile socket 989 and 50W CPU
SAIDE-KIT01-R10	SATA to IDE/CF converter board
TPM-IN01-R20	20-pin Infineon TPM module, software management tool, firmware v3.17