



## Features

- Intel® Q87 Express chipset supporting PCI Express 3.0
- Intel® Rapid Storage Technology, supports RAID 0/1/5/1+0
- 6x COM ports (including 1x RS-232/422/485)
- Supports USB 3.0 with 5 Gb/s data transfer rate
- Supports Serial ATA with 6 Gb/s data transfer rate on SHB

## Specifications

### Processor & System

CPU	Intel® Core™ i7-4770S, 3.10 GHz, 8M Cache, 22nm, 65W TDP, LGA1150 (4C) Intel® Core™ i5-4570S, 2.90 GHz, 6M Cache, 22nm, 65W TDP, LGA1150 (4C) Intel® Core™ i5-4570TE, 2.70 GHz, 4M Cache, 22nm, 35W TDP, LGA1150 (2C)
Chipset	Intel® Q87 Express chipse
Memory	2x 240-pin DIMM sockets Dual-channel DDR3 1600MHz, up to 16GB
BIOS	AMI® BIOS, 2x32Mbit SPI Flash memory
TPM	Infineon SLB 9635 TT 1.2
Watchdog Timer	1-255 sec or 1-255 min software programmable and can generate system reset
Hardware Monitor	CPU/System temperature, fan speed and onboard DC voltages
Operation Systems	Microsoft® Windows® 7 32/64-bit Microsoft® Windows® 8 32/64-bit

### I/O Interfaces

Serial ATA	4 Serial ATA ports with 6 Gb/s data transfer rate on SHB SATA ports support RAID 0, 1, 5, 1+0 by Intel Rapid Storage Technology
PCIe/PCI Bus (via backplane)	1x PCIe x16, Rev. 3.0 4x PCIe x1, Rev. 2.0 (4x PCIe1 or 1x PCIe4 compatible) 4x PCI 32-bit/33MHz
USB	6x USB 3.0 ports on SHB, 2x on faceplate, 4x on SHB 6x USB 2.0 ports, 2x on SHB and 4x on backplane
KB/MS	1x internal pin header for PS/2 keyboard/mouse
Serial Port	5x RS-232 and 1x RS-232/422/485 on SHB

### Audio

Audio Codec Interface	Realtek ALC262 support by DB-Audio2 daughter board Pin header for High Definition Audio interface
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### Display

Graphics	Integrated Intel® HD Graphics
VGA	Resolutions up to 1920 x 1200 @ 60 Hz
DVI	1x internal pin header for DVI-D output

### Ethernet

Controller	Intel® I217LM Gigabit Ethernet PHY Intel® I211-AT Gigabit Ethernet controller
Interface	PCIe x1 bus
iAMT	Supports Intel® AMT 9.0
Wake On LAN	Intel® I217LM Gigabit Ethernet port support

### Mechanical and Environmental

Form Factor	Full-Size PICMG® 1.3 System Host Board
Dimensions	338 mm x 126 mm (L x W)
Operating Temp.	0°C to 60°C
Storage Temp.	-20°C to 80°C
Certifications	CE, FCC Class A
Relative Humidity	10% to 90%, non-condensed

## Ordering Information

Model Number	Description/Configuration
NuPRO-E42	PICMG 1.3 Full-size Intel® Core™ i7/i5/i3 LGA1150 SHB

## Optional Accessories

Model Number	Description/Configuration
LGA1156 1U CPU Cooler	LGA1156 1U Thermal Module
LGA1156 2U CPU Cooler	LGA1156 2U Thermal Module
LGA1156 3U CPU Cooler	LGA1156 3U Thermal Module
DB-Audio2: High Definition Audio daughter board with Mic-in/Line-in/Line-out	
DVI cable with bracket	
PS/2 cable with bracket for keyboard/mouse	
1x 2-port USB 2.0 cable with bracket	
1x 2-port COM cable with bracket	

## Packing List

NuPRO-E42	1x 2-port USB 3.0 cable with bracket
2x SATA data cable	2x2 port COM cable with bracket
User's manual	Driver DVD