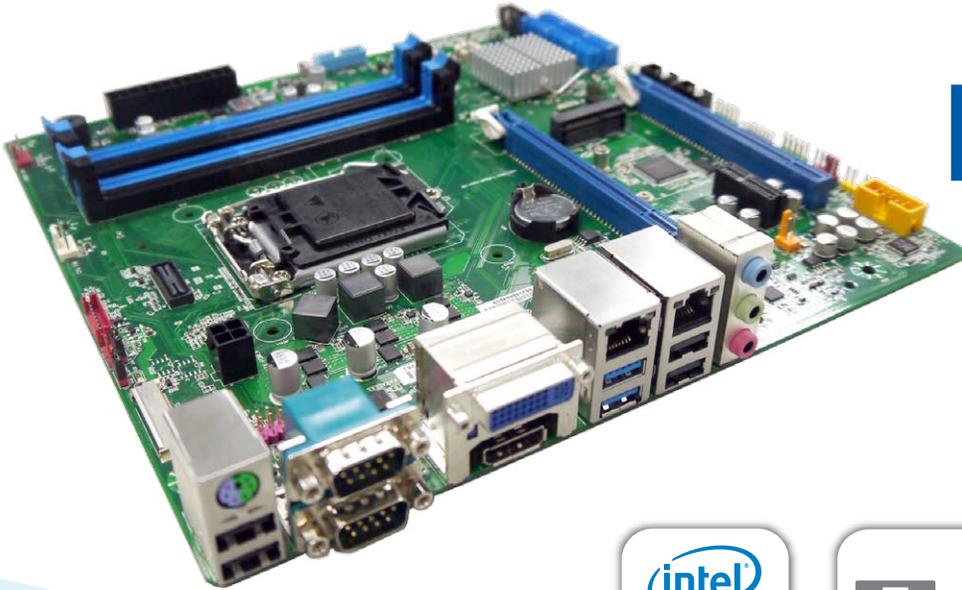


uATX Form Factor  
Intel Q87 PCH

# PH10LU



Dual LAN



Serial Port



MiniCard Support

## Features

Support 4th generation (Haswell) 22nm Intel® Core™ i7, i5, i3 processors

Single channel DDR3 with four connectors for MAX. 32GB memory

LVDS for embedded system (Optional)

Features Dual Com Ports

Integrated Six-channel High Definition audio

Features dual high speed Gigabit Ethernet connection

Support up to four ports USB3.0

Eight Hi-Speed USB2.0 ports support

One PCI connector for the future Add-in card (Optional)

One PCI Express Mini Card connector for expansion



[www.mitac.com](http://www.mitac.com)



Item	Spec	
<b>Form Factor</b>	Micro-ATX (244 millimeters [9.6 inches] x 244 millimeters [9.6 inches])	
<b>Processor</b>	4rd generation Intel® Core processor family with up to 95 W TDP in an LGA1150 socket	
<b>Main Memory</b>	<ul style="list-style-type: none"> <li>Support for DDR3 1066/1333/1600 MHz SO-DIMMs</li> <li>(DDR3 1333 MHz and DDR3 1600 MHz SO-DIMMs operate at 1066 MHz only)</li> </ul>	
	<ul style="list-style-type: none"> <li>Support for up to 32 GB of system memory</li> <li>204-pin DDR3 SO-DIMM</li> </ul>	4
<b>Chipset</b>	Intel® Q87 Platform Controller Hub (PCH)	
<b>Integrated Graphics</b>	Intel® Graphics Media Accelerator 4600 (Intel® GMA 4600)	
<b>External Graphics</b>	External graphics support provided through the PCIe 3.0 x16 bus connector	
<b>Audio</b>	RealTek* ALC662/888 audio codec for 5.1 (6-channel) High Definition Audio (HD Audio) and AC '97 Audio.	
	Front panel microphone/headphone header with support for HD Audio or AC '97 Audio	
<b>Legacy I/O</b>	Legacy I/O Controller (Nuvoton* NCT6104D) that provides:	
	<ul style="list-style-type: none"> <li>Hardware management support</li> </ul>	
	<ul style="list-style-type: none"> <li>Serial Port (Rear IO)</li> </ul>	2
	<ul style="list-style-type: none"> <li>Serial Port (On board)</li> </ul>	2
<b>Expansion Capabilities</b>	<ul style="list-style-type: none"> <li>Parallel port via an onboard header</li> </ul>	1
	<ul style="list-style-type: none"> <li>PCIe 3.0 x16 (Blue)</li> </ul>	1
	<ul style="list-style-type: none"> <li>PCIe 2.0 x1 (Black)</li> </ul>	Either Option
	<ul style="list-style-type: none"> <li>PCIe 2.0 x1 (Black)</li> </ul>	1
	<ul style="list-style-type: none"> <li>PCIe 2.0 x16 (x4 Lanes)</li> </ul>	1
	<ul style="list-style-type: none"> <li>PCI Express* Full-Mini Card slot with Half-Mini Card support</li> </ul>	Either Option
<b>Peripheral Interfaces</b>	<ul style="list-style-type: none"> <li>USB 3.0 back panel connectors (blue)</li> </ul>	2
	<ul style="list-style-type: none"> <li>USB 2.0 back panel connectors (black)</li> </ul>	4
	<ul style="list-style-type: none"> <li>USB 3.0 front panel ports</li> </ul>	2 (Headers)
	<ul style="list-style-type: none"> <li>USB 2.0 front panel ports</li> </ul>	4 (Headers)
	<ul style="list-style-type: none"> <li>Serial ATA (SATA) 6.0 Gb/s interfaces</li> </ul>	6
<b>Hardware Monitor Subsystem</b>	Hardware monitoring through the Nuvoton* NCT6104D legacy I/O controller, including:	
	<ul style="list-style-type: none"> <li>Remote thermal sensor</li> <li>4-pin system fan header</li> </ul>	
<b>LAN Support</b>	Intel® I217 Gigabit (10/100/1000 Mb/s) LAN	
	Intel® I210 Gigabit (10/100/1000 Mb/s) LAN	
<b>BIOS</b>	AMI UEFI BIOS Support for Advanced Configuration and Power Interface (ACPI)	
<b>Instantly Available PC Technology</b>	<ul style="list-style-type: none"> <li>Support for PCI Express Revision 3.0</li> <li>Wake on USB, PCI Express, LAN, serial, PS/2, and front panel</li> </ul>	
<b>Power Requirement</b>	ATX12V	
<b>Environment</b>	<ul style="list-style-type: none"> <li>Operating Temperature: 0 °C to +50 °C</li> <li>Storage Temperature: -20°C to +70°C</li> </ul>	
	<b>Safety</b>	<ul style="list-style-type: none"> <li>CE</li> </ul>
<ul style="list-style-type: none"> <li>FCC</li> </ul>		
<ul style="list-style-type: none"> <li>UL</li> </ul>		