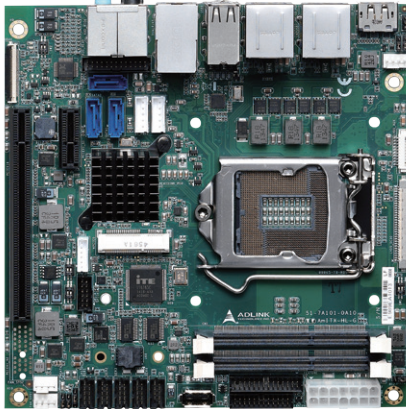


AmITX-HL-G

Mini-ITX Board with Intel® 4th Gen Core™ i7/i5/i3 Desktop Processor



Features

- 4th generation Intel® Core™ i7/i5/i3 Desktop Processor with Intel® Q87/H81 Chipset
- Dual SODIMM DDR3/DDR3L memory sockets supporting up to 16 GB
- PCIe x16, PCIe x1 and Mini PCIe expansion
- 3 DisplayPort outputs on rear IO



Specifications

Processor & System

CPU Socket H3 LGA1150 supporting 4th generation Intel® Core™ i7/i5/i3 and Intel® Pentium®/Celeron® processors up to 65W
 Intel® Core™ i7-4770S Processor 3.1 GHz 4C, 65W
 Intel® Core™ i7-4770TE Processor 2.3 4C, 45W
 Intel® Core™ i5-4570S Processor 2.9 GHz 4C, 65W
 Intel® Core™ i5-4570TE Processor 2.7 GHz 2C, 35W
 Intel® Core™ i3-4330 Processor 3.5 GHz 4C, 54W
 Intel® Core™ i3-4330TE Processor 2.4 GHz 2C, 35W
 Intel® Pentium® G3420 3.2GHz, 2C, 3M, 54W
 Intel® Pentium® G3320TE 2.3GHz, 2C, 3M, 35W
 Intel® Celeron® G1820 2.7GHz, 2M, 2C, 2M, 54W
 Intel® Celeron® G1820TE 2.2GHz, 2C, 2M, 35W
 Intel® Core™ i7-4790S Processor, 3.2GHz, 4C, 8M, 65W
 Intel® Core™ i5-4590S Processor, 3.0GHz, 4C, 4M, 65W
 Intel® Core™ i3-4360 Processor, 3.7GHz, 2C, 4M, 54W
 Intel® Core™ i3-4350T Processor, 3.1GHz, 2C, 4M, 35W
 Supports Intel® VT, Intel® TXT, Intel® SSE4.2, Intel® HT Technology, Intel® 64 Architecture, Execute Disable Bit, Intel® Turbo Boost Technology 2.0, Intel® AVX2, Intel® AES-NI, PCLMULQDQ Instruction, Intel® Secure Key and Intel® TSX

System Chipset	Intel® Q87 or H81 Chipset
Memory	Dual channel non-ECC 1333/1666 MHz DDR3/DDR3L memory up to 16 GB in dual vertical SODIMM sockets
BIOS	AMI EFI with CMOS backup in 8MB SPI BIOS with Intel® AMT 9.0 support (Q87 only) BIOS socket onboard and SPI header for external BIOS Optional TPM module soldered onboard
SEMA Support	Supports: voltage/current monitoring, power sequence debug support, AT/ATX mode control, logistics and forensic information, Flat panel control, general purpose I ² C, failsafe BIOS (dual BIOS), watchdog timer and triple Smart Fan control
Debug Header	40-pin multipurpose flat cable connector for use in combination with DB-40 debug module providing BIOS POST code LEDs, BMC access, SPI BIOS flashing, power testpoints, debug LEDs

I/O Interfaces

Expansion Slots	1 PCIe x16 Gen3 slot (PCIe 3.0) 1 PCIe x1 Gen2 slot (PCIe 2.0) 1 full size Mini PCIe slot supporting PCIe+USB or mSATA by jumper setting (on the bottom side) 1 half size Mini PCIe slot supporting PCIe and USB (on the top side) 1 SPI header for external BIOS
Serial ATA	3x SATA 6 Gbps ports (H81: 2x SATA 6 Gbps and 1x SATA 3 Gbps)
USB	4x USB 3.0 and 4x USB 2.0 on rear I/O (H81: 2x USB 3.0 and 6x USB 2.0) 2x USB 2.0 on front panel header 2x USB 2.0 on standard header 1x USB 2.0 on vertical connector with keep out area for dongle 1x USB 2.0 on Mini PCIe(top) and 1x USB 2.0 on mSATA / Mini PCIe (bottom)slot

KB/MS	1x PS/2 internal header
Serial Ports	1x RS-232/422/485 on internal header 3x RS-232 on internal headers
Digital IO	10 GPIO on internal feature connector

Audio

Audio Codec	Realtek® ALC886
Interfaces	7.1 channel audio via 5 jacks and S/PDIF output on rear I/O 7.1 channel audio signals and S/PDIF output on internal header

Display

Graphics core	Intel® Generation 7.5 graphics core architecture, supporting 3 independent, simultaneous displays
DP	3 ports with resolution up to 4096 x 2160 @ 30Hz
LVDS	Optional single/dual channel 24-bit LVDS up to 1920x1200 @ 60 Hz (occupies one DP port)

Ethernet

Controller	1x Intel® i218LM Ethernet controller 1x Intel® i211AT Ethernet controller
Interface	2x PCI Express x1 Bus
Wake On LAN	Yes

Power

Standard Input	ATX = 12V ±5% / 5Vsb ±5% from internal header AT = 12V ±5% from internal header
Peripherals output	Onboard headers for fan and SATA power

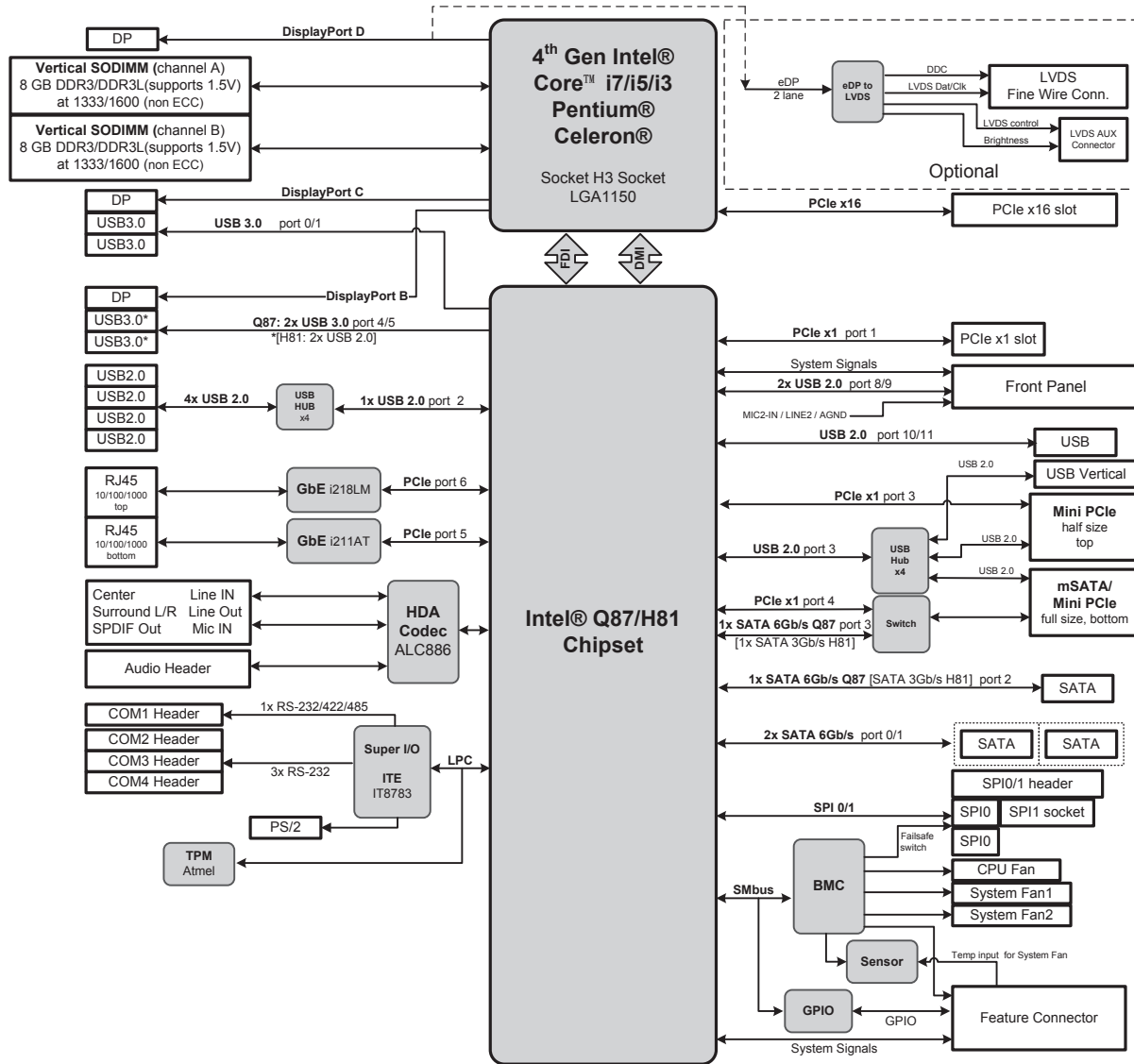
Mechanical and Environmental

Form Factor	Mini-ITX
Dimensions	170 mm x 170 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-condensing

Note: All specifications are subject to change without further notice.

<http://www.adlinktech.com>

Functional Diagram



Ordering Information

Modules

Model Number	Description/Configuration
AmITX-HL-G-Q87	Mini-ITX for 4th generation Intel® Core™ i7/i5/i3 Desktop Processor with Q87 Chipset
AmITX-HL-G-H81	Mini-ITX for 4th generation Intel® Core™ i7/i5/i3 Desktop Processor with H81 Chipset

Packing List

Model Number	Description
30-20872-0000	ATX/AT Power Cable
30-20875-0000	SATA Dual Power Cable
30-10057-0600	SATA Cable
34-25314-0000	Rear I/O Shield

Optional Accessories

Model Number	Description
30-20876-0000	COM Port Cable, 1 Port, 25cm
30-20873-0000	PS/2 KB/MS Cable, 40cm
30-20874-1000	USB 2.0 Cable, 2 ports, 20cm
32-20513-0000	LGA1150 CPU Cooler, H=30.0mm, 45W
32-20512-0000	LGA1150 CPU Cooler, H=46.05mm, 45W
32-20113-0000	LGA1150 CPU Cooler, H=50.2mm, 95W
32-20495-0000	LGA1150 CPU Cooler, H=61.4mm, 95W