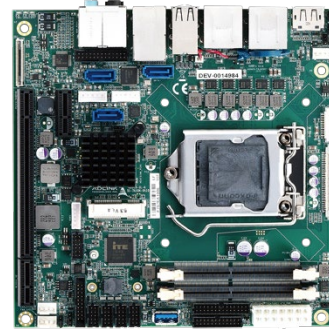


AmITX-SL-G

Mini-ITX Embedded Board with 6th Gen Intel® Core™ i7/i5/i3 Desktop Processor

Features

- 6th Gen Intel® Core™ i7/i5/i3, Intel® Pentium® and Celeron® Desktop Processor with Intel® Q170/H110 Chipset
- Up to 32 GB dual channel DDR4 at 2133MHz
- PCIe x16, PCIe x1 and Mini PCIe expansion
- 3 DisplayPort outputs on rear I/O
- Supports Smart Embedded Management Agent (SEMA®) functions


New


Specifications

Processor & System

CPU	Socket LGA1151 supporting 6th generation Intel® Core™ i7/i5/i3 and Intel® Pentium®/Celeron® processors up to 65W Intel® Core™ i7-6700 Processor, 4C GT2 8M 3.4/4.0 GHz, 65W Intel® Core™ i7-6700TE Processor, 4C GT2 8M 2.4/3.4 GHz, 35W Intel® Core™ i5-6500 Processor, 4C GT2 6M 3.2/3.6 GHz, 65W Intel® Core™ i5-6500TE Processor, 4C GT2 6M 2.3/3.3 GHz, 35W Intel® Core™ i3-6100 Processor, 2C GT2 4M, 65W Intel® Core™ i3-6100TE Processor, 2C GT2 4M 2.7 GHz, 35W Intel® Pentium® G4400 Processor, 2C GT1 3M 3.3 GHz, 65W Intel® Pentium® G4400TE Processor, 2C GT1 3M 2.4 GHz, 35W Intel® Celeron® G3900 Processor, 2C GT1 2M 2.8 GHz, 65W Intel® Celeron® G3900TE Processor 2C GT1 2M 2.3 GHz, 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-NI
Chipset	Intel® Q170/H110 Chipset
BIOS	AMI EFI in 16MB SPI BIOS with Intel® AMT 11.0 support (Q170 only) SPI header for external BIOS, optional onboard SPI BIOS socket
Debug Interface	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
Memory	Dual channel non-ECC 1866/2133 MHz DDR4 memory up to 32 GB in dual vertical SODIMM sockets
SEMA® Support	Supports: voltage/current monitoring, power sequence debug support, AT/ATX mode control, logistics and forensic information, flat panel control, general purpose I²C, Failsafe BIOS (dual BIOS), watchdog timer and triple Smart Fan control

I/O Interfaces

Expansion Slots	1 PCIe x16 Gen3 1 PCIe x1 Gen2 1 Mini PCIe (full size slot) supporting PCIe + USB or mSATA 1 Mini PCIe (half size slot) supporting PCIe + USB
Serial ATA	3x SATA 6 Gbps ports
USB	4x USB 3.0 and 4x USB 2.0 on rear I/O 2x USB 3.0 onboard header (H110: USB 2.0) 1x USB 3.0 on vertical connector with keep out area for dongle (H110: USB 2.0)
KB/MS	1x PS/2 internal header
Serial Ports	1x RS-232/422/485 via onboard header 3x RS-232 via onboard headers
Digital IO	10 GPIO via onboard 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 9 Graphics supporting DirectX 11/12, OGL4.3/4.4, 3 independent, simultaneous displays
DisplayPort	3 ports with resolution up to 4096 x 2160 pixels resolution
LVDS	Single/dual channel 24-bit LVDS up to 1920x1200 @60 Hz (from eDP-to-LVDS converter)
eDP (build option)	Supports 4096 x 2304 resolution @ 60Hz, 24bpp (not available concurrently with LVDS)

Ethernet

Controller	1x Intel® i219LM Ethernet controller 1x Intel® i211AT Ethernet controller
Interface	2x PCI Express x1 Bus
Wake-on-LAN	Yes

Note: "Build option" indicates an alternative BOM configuration to support additional or alternative functions that are not available on the standard product.
Be aware that part numbers for SKUs with "build options" will need to be created and may cause production lead times.

Specifications

TPM

Chipset	Atmel AT97SC3204
Type	TPM 1.2

Power

Standard Input	ATX: 12V ±5% / 5Vsb ±5%
	AT: 12V ±5%
Peripheral Output	Onboard headers for fan and SATA power

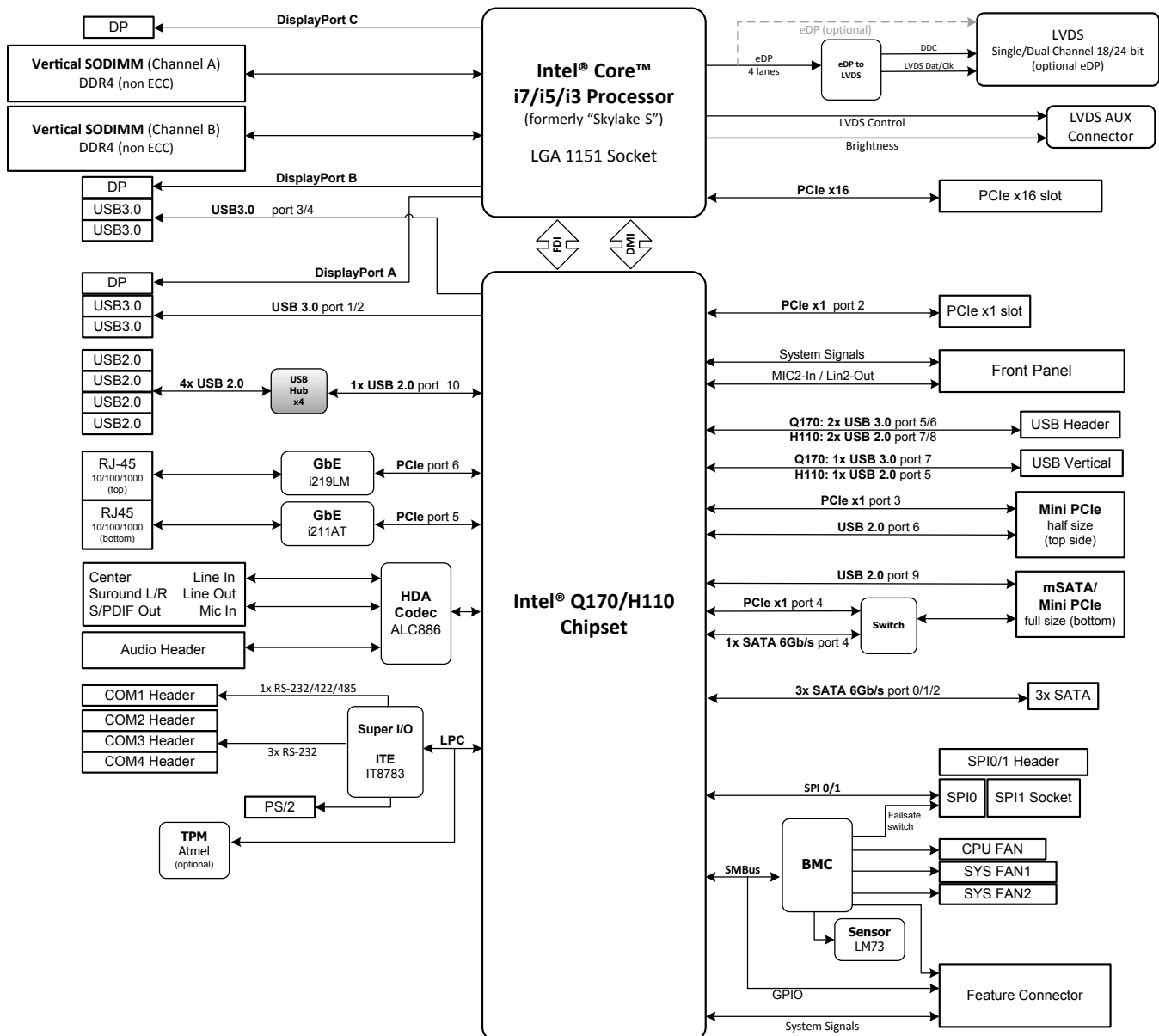
Mechanical and Environmental

Dimension (mm)	170 mm x 170 mm (L x W)
Operating Temperature	0°C to +60°C
Storage Temperature	-20°C to +80°C
Certification	CE, FCC Class A
Relative Humidity	10% to 90%, non-condensing

Operating Systems

Standard Support	Windows 7/8 32/64-bit, Linux 32/64-bit
Extended Support (BSP)	WES7/8, Linux, VxWorks

Functional Diagram



Ordering Information

Modules

Model Number	Description/Configuration
AmITX-SL-G-Q170	Mini-ITX Embedded Board with 6th generation Intel® Core™ i7/i5/i3 Desktop Processor with Q170 Chipset
AmITX-SL-G-H110	Mini-ITX Embedded Board with 6th generation Intel® Core™ i7/i5/i3 Desktop Processor with H110 Chipset