

APPLICATIONS

- Fanless IP65/67 rugged systems. Cameralink image capture and processing
- Military ground vehicle mission computers • Security and Surveillance
- High-speed CoaXPress and • Tactical command and control mission computers

OVERVIEW

The ADLQ170CE features 6th generation Intel® Core™ i7 processors (**formerly codenamed Skylake**) and is designed to be backward compatible with legacy ADL PCIe/104 Intel® Core™ SBC with respect to cabling, power supplies and compatible COTS enclosures like the ADLMES9200.

The ADLQ170CE is designed for rugged use and wide temperature operation with optional conformal coatings, underfill and bonding adhesives.

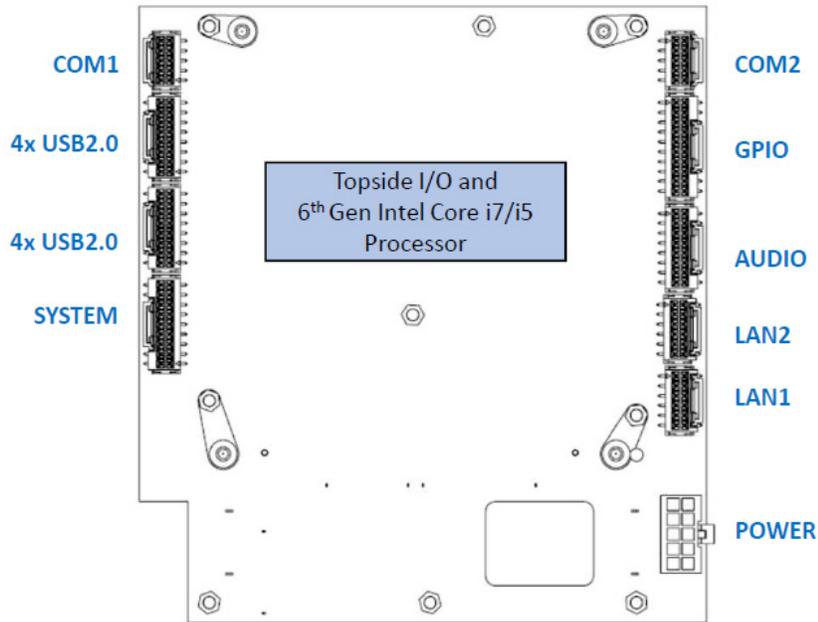
ADL specializes in rugged embedded system design. Our engineers are well-versed at creating custom embedded solutions from board level or PCIe/104 stack to full turnkey rugged systems for a wide variety of rugged military and industrial applications.

TECHNICAL SPECIFICATIONS

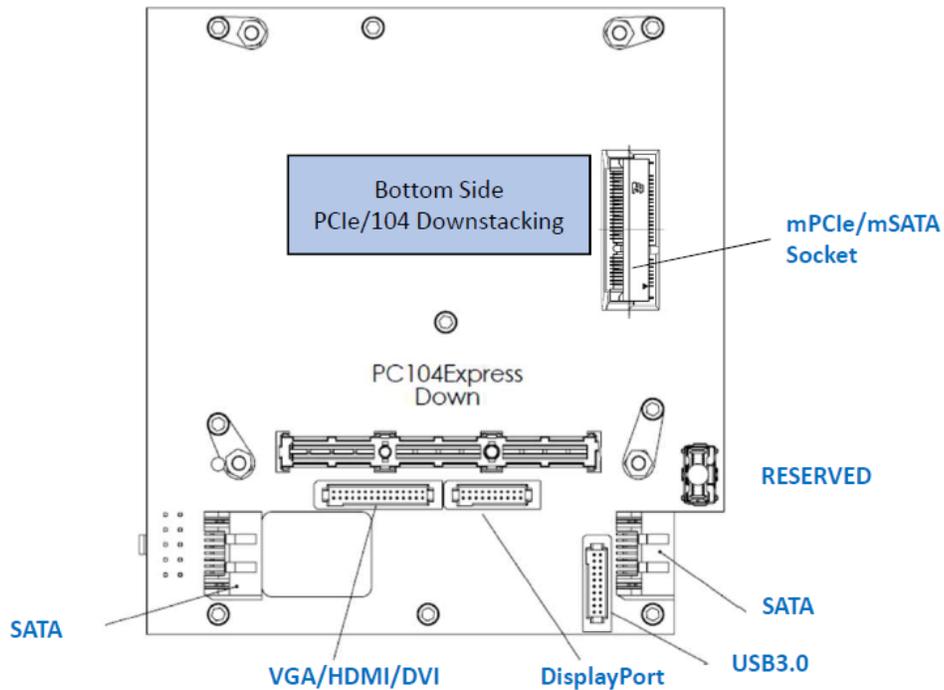
FEATURES	DESCRIPTION
6th Generation Intel® Core™ Processors	Intel® Core™ i7-6820EQ: Quad, 2.8/3.5 GHz, 8 MB, 45W TDP, HD 530 Graphics Intel® Core™ i5-6442EQ: Quad, 1.9/2.7 GHz, 6 MB, 25W TDP, HD 530 Graphics Intel® Core™ i3-6102E: Dual, 1.9 GHz, 3 MB, 25W TDP, HD 530 Graphics
DRAM	2 Sockets, SO-DIMM DDR4 up to 2133 MT/s and 32GByte dual channel
Ethernet	1x Intel® i219-LM GbE LAN Controller with AMT 11 support 1x Intel® i210 GbE LAN Controller
Audio	Digital High Definition Audio Interface with support for multiple audio codecs
Board Controller	Non-volatile User Data Storage, Board Information and Statistics, BIOS Setup Data Backup
Watchdog	Multi Stage Watchdog via BIOS
Security	--

FEATURES	DESCRIPTION
PCIe/104 Interface	PCIe/104 downstacking interface: 4x PCIeX1, 1x PCIeX16 with 2x PCIeX8 Bifurcation option.
Watchdog	Multi Stage Watchdog via BIOS
Expansion	1x minicard socket for mPCIe or mSATA modules.
USB	8x USB 2.0 pinned; 1x USB 3.0
SATA	2x SATA III @ 6 Gb/s
Display	1x VGA/DVI/HDMI 1x DisplayPort
Serial COM	2x RS232/422/485 COM ports pinned
Other I/O	System Connector 16bit GPIO
Power	ATX-Compliant; ACPI 4.0 with battery support
Dimensions	125 mm x 115.6 mm
Temperature Range	0C to 70C Standard. Optional screening for -40C to 85C.
Operating System	Microsoft® Windows 10, Microsoft® Windows 10 IoT Enterprise, Microsoft® Windows 7 Linux

*Data subject to change without notice.



Dimensions = 115.6mm x 125mm





ORDERING INFORMATION

ITEM CODE	PART #	DESCRIPTION
CPU Assembly		
ADLQ170CE-i7-6820EQ	297210	Intel® Core™ i7-6820EQ: Quad, 2.8/3.5 GHz, 8 MB, 45W TDP
ADLQ170CE-i5-6442EQ	297214	Intel® Core™ i5-6442EQ: Quad, 1.9/2.7 GHz, 6 MB, 25W TDP
ADLQ170CE-i3-6102E	297216	Intel® Core™ i3-6102E: Dual, 1.9 GHz, 3 MB, 25W TDP
Memory		
8GB DDR4	997612	DDR4-DRAM 8GB, 2133MHz, Extended Temperature
16GB DDR4	997614	DDR4-DRAM 16GB, 2133MHz, Extended Temperature
Options and Accessories		
ADL-ET	290000	Extended Temp Screen (-40° to +85° C)
UNDERFILL	807707	BGA underfill req'd for <1nm BGA solderballs w/ Ext Temp
COATING	807706	Conformal Coating
UNDERFILL / BONDING	807709	Underfilling, Bonding, and Conformal Coating
ADLQ170CE Cable Kit	292770	ADLQ170CE/ADLQM87PC Cable Kit
Thermal Solutions		
ADLQ170CE-Spreader	294868	Copper-Enhanced Heat Spreader

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