



DESCRIPTION

The ADLQ170HDS is the latest in ADL's line of high-performance 3.5" Intel® Core™ single board computers (SBC). It makes use of 6th generation Intel Core processors and Intel's Q170 chipset to provide a robust set of features including 32 GB DDR4 DRAM, TPM 2.0, 4x SATA 6Gb/s, 4x USB 3.0 and much more.

This makes it ideal for a variety of system-critical industrial applications where these high-performance features are an absolute necessity, but no less critical are less tangible features like high MTBF, long-life availability, hardware and firmware revision control, obsolescence management, technical, engineering and design support.

Custom System Solutions...

As well, ADL Embedded Solutions, Inc. is expert at collaborating with customers to create custom system solutions built on our strong portfolio of embedded computing products and engineering and design expertise. Contact us at www.adl-usa.com or sales@adl-usa.com.

APPLICATIONS

- Intelligent PC controller for factory automation machinery and equipment.
- High-Speed Industrial Storage
- Very-High/Ultra-High USB 3.0 Vision Processor
- Industrial Data Aggregation and Storage
- Industrial IoT Gateways and Controllers
- Secure Networking Devices
- Mobile Telephony
- Traffic Engineering
- Transportation
- Wind Turbine Datalogging and Collision Avoidance
- Drone Payload Computing
- Oil and Gas IPC
- Unmanned Autonomous Systems

FEATURES

- 6th Generation Intel® Core™ Celeron/i5/i7
- Intel® Q170 Chipset
- Up to 32GB DDR4-2133
- TPM 2.0
- 4x USB 3.0
- 4x SATA 6 Gb/s
- DVI/HDMI/DP/USB3.0-IPEX Conn
- 4x PCIe X1 Expansion Lanes
- Operating Temperature -20C to 70C; Optional -40C to 85C
- Windows and Linux Compatible with Full Driver Support
- MTBF > 250,000 hours

ORDERING INFORMATION

ITEM CODE	PART #	DESCRIPTION
CPU		
ADLQ170HDS		6th Generation Intel® Core™ Celeron/i5/i7 Quad/Dual
** LGA1151 Processors <= 35W TDP Only.		
Memory		
DDR4-2133-8GB		DDR4-2133 MHz 8GB Standard Temperature
DDR4--2133-16GB		DDR4-2133 MHz 16GB Standard Temperature
DDR4-2133-8GB-EX		DDR4-2133 MHz 8GB Extended Temperature
DDR4-2133-16GB-EX		DDR4-2133 MHz 16GB Extended Temperature
Options and Accessories		
ADL-ET	290000	Extended Temp Screen (-40° to +85° C)
ADLQ170HDS-CK		Standard Cable kit for ADLQ170HDS
ADL35-mPCIe		3.5" SBC Expansion: 3x mPCIe, 1x M.2 KeyB 2280 SATA
Thermal Solutions		
ADLQ170HDS-SPREADER		0.375" Thick Heat Spreader
ADL35-BBHS	294152	Oversized Large Heatsink for Bench Testing.
ADL35-LFAN	294154	Large Fan for ADL35-BBHS
ADL35-SOSET	294156	37mm High Standoff Kit for ADL35-BBHS

*Data subject to change without notice.



TECHNICAL SPECIFICATIONS - ADLQ170HDS

FEATURE	FUNCTION	NOTES
CPU		
CPU	6th Generation Intel Core i3/i5/i7	Dual and Quad Core variants.
Socket	LGA1151	Includes mechanical retention plate.
Chipset		
Chipset	Intel Q170	
Hardware Monitoring	NCT7491MNTXG	
Memory		
Type	2x SODIMM260 1.2V DDR4	
Max. Memory	32 GB	
Max. Speed	DDR4-2133	
Graphic		
Controller	CPU Integrated	
Video BIOS	Intel Extreme BIOS	
Memory	Max 512MB DVMT	
CRT	-	
DVI	DVI/HDMI 1.4	
DVI/HDMI/DisplayPort	1/1/1	2 Connectors: 1x DVI/HDMI; 1x IPEX DVI/HDMI/DP
LCD Resolution	HDMI 1.4: 2560x1600 @ 60Hz; 4096x2160 @ 24Hz DisplayPort: 4096x2304 @ 60Hz DVI: 1920x1200 @ 60Hz	
BIOS		
Manufacturer	AMI Aptio	128 Mbit SPI-Flash
Power Management APM/ACPI	APM/ACPI	
Speedstep/ATM	Speedstep supported	Adjustable Fixed Frequency Available
Powerstates S0/S1/S3/S4/S5	S0/S1/(S3)/S4/S5	
I/O		
LAN1	10/100/1000 Intel Q170/i219 Phy	PXE Boot and WOL (Wake-On-LAN)
LAN2	10/100/1000 Intel i210	
SATA	4x SATA 6Gb/s	
SATA RAID	0/1/5/10	
USB 2.0	11x	Includes 5x USB 3.0
USB 3.0	5x	4x Front Side; 1x IPEX Connector
COM 1	RS232 (RSD/TXD/TRS/CTS)	
OTHER FUNCTIONS		
TPM	TPM 2.0	
Watchdog	Yes	
BIOS API	Yes (hardware monitoring, health monitoring, fan control, watchdog,GPIO, user space)	Linux and Windows Drivers
GPIO	8 bit	
Input Power	3.3V, 5V, 5VS (12V for FAN)	

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