



ADLQM67PC - Intel Core i7 Quad, 2.1 GHz- 3 GHz

Features

- Intel® Core™ i7 Gen2 Quad 2.1GHz - 3GHz
- Intel® QM67 PCH
- Up to 8GB DDR3-1333 DRAM SoDIMM204
- Type 1 Bottom-Stacking PCIe/104 V2.01 with Gen2 protocol (2.5 to 5 GT/s)
- 2x SATA 600 Ports with RAID
- 2x 10/100/1000 Mbit Ethernet LAN Port
- 2x RS232 COM Ports, 8x USB2.0 Ports
- Separate Onboard VGA, LVDS, HDMI / DVI, Display Port
- Dual Independent Displays
- Hardware Monitor with API
- ADL-SST (System Sensor Technology)
- Watchdog Timer
- Windows XP, XPe, Windows 7, Windows Embedded Standard 7, Windows Embedded Compact 7
- Linux Compatible
- Discrete 16bit GPIO Port
- 7.1 HD Audio with SPDIF In/Out
- 4.5" x 3.8" (115mm x 96mm) PCI/104-Express v1.0a Form Factor



Ordering Information

| Item Code | Part # | Description |
|---|--------|---|
| PCIe/104 Board | | |
| ADLQM67PC-2715QE | 292600 | Intel Core i7 2.20GHz Quad Core, 4M Smart Cache |
| *Other processors available - contact Sales for requirements | | |
| Memory | | |
| DDR3-DRAM2048-1333 | 997502 | DDR3-1333MHz 2GB Standard Temperature |
| DDR3-DRAM4096-1333 | 997503 | DDR3-1333MHz 4GB Standard Temperature |
| DDR3-DRAM8192-1333 | 997504 | DDR3-1333MHz 8GB Standard Temperature |
| DDR3-DRAM-2048-1333EX | 997512 | DDR3-1333MHz 2GB Extended Temperature |
| DDR3-DRAM-4096-1333EX | 997513 | DDR3-1333MHz 4GB Extended Temperature |
| DDR3-DRAM-8192-1333EX | 997514 | DDR3-1333MHz 8GB Extended Temperature |
| *Other speeds available - contact Sales | | |
| Options and Accessories | | |
| ADL-ET | 290000 | Extended Temp Screen (-40° to +85° C) |
| ADLQM67PC-CK | 292520 | Standard Cable kit for ADLQM67PC |
| STANDOFF-MSS | 293406 | .6" (15.24mm), PC/104 M3, Precision Milled Stand-Offs |
| STANDOFF-1" M3 | 293436 | 1" (25.4mm), PC/104 M3, Precision Milled Stand-Offs |
| ADLCOM-ISOL1 | 299941 | Galvanically Isolated RS232 COM |
| ADLCOM-ISOL2 | 299942 | Galvanically Isolated RS485 COM |
| ADLPCIe-PCI | | PCIe to PCI bridge adapter board |
| Thermal Solutions | | |
| ADLQM67PC-SP0600 | 292612 | 0.600" Heat Spreader |
| ADLQM67PC-SP1000 | 292614 | 1.000" Heat Spreader |
| Stand-Off p/n's 293406 or 293436 are recommended for use with the above thermal solutions | | |
| ADLQM67PC-FANSINK | 292610 | Heatsink / Fan combo |

Description

The ADLQM67PC features first Quad core processor available in PC/104 form factor. The 2nd generation Intel Core™ i7 processor incorporates Intel's latest embedded two-chip platform. This 2nd generation i7 processor integrates Intel's HD Graphics 3000 engine with AVX (Advanced Vector Extensions) as well as the memory controller functions of a traditional GMCH. The QM67 Platform Controller Hub (PCH) provides PCI-Express I/O bandwidth at twice the speed (5 GT/s) of previous i7 or Core 2 Duo platforms.

The ADLQM67PC is ideal for rugged applications where high processor performance is critical. It brings unparalleled performance to applications such as radar and sonar processing, image signal processing, tactical command and control, surveillance and reconnaissance, transportation and railway.

In addition to the wide range of rugged and harsh environment applications in which the ADLQM67PC can excel, it also supports a healthy set of features. The ADLQM67PC has a discrete 16-bit digital I/O port as well as separate VGA, LVDS, HDMI and Display Port interfaces. The ADLQM67PC also has 2x RS232 COM ports, 2x SATA 6Gb/s with RAID support, 8x USB2.0, two bootable Gigabit Ethernet LAN, HDA 7.1, and type 1 bottom-stacking PCIe/104 V2.01 supporting Gen2 throughput of 5 GT/s are just a few of the available features.

ADL Embedded Solutions offers highly effective active and passive thermal solutions designed for this product. Contact your sales representative for more information.

Data subject to change without notice.



Technical Specifications - ADLQM67PC-2715QE

| FEATURE | FUNCTION | REMARKS | OPTIONS |
|--|--|--|--|
| CPU | | | |
| CPU Classes | Intel Core i7 | Generation 2 | i7 - Dual / Quad Core |
| CPU Option / Performance (GHz) / Intel Smart Cache | 2715QE / 2.1 GHz Quad Core / 6MB | Turbo to 3.0 GHz | Other CPU speeds available. Please discuss your requirements with your sales engineer. |
| Max. No. of Cores | 4C / 8T | Up to 8 threads | |
| Soldered (or Socket Name) | Soldered | | |
| FSB | On-chip | FSB only applicable with separate GMCH | |
| Chipset | | | |
| North Bridge (GMCH) | Intel Core i7 | GMCH functions on-chip | |
| South Bridge (ICH) | Intel BD82QM67 PCH | | |
| Super IO1 | SMSC SCH3114 | | |
| Hardware Monitoring | Super IO | Intel DTS Support | |
| Memory | | | |
| Type | SODIMM204-1,5V / DDR3 | | |
| Size max (MB) | 8192MB | | |
| Speed max | DDR3 1333 MHz | | |
| Graphic | | | |
| Controller | Intel Core processor integrated | | |
| Video BIOS | Intel Extreme BIOS | | |
| Memory | max. 512MB DVMT | | |
| CRT | VGA port onboard | | |
| CRT resolution | 2048x1536 | | |
| DVI/HDMI/DisplayPort | DVI/HDMI and DisplayPort ports onboard | | |
| LCD LVDS 18/24/36/48 | 18 / 24 - Bit supported | | |
| LCD resolution | Max 1920 x 1200 DVI, HDMI | | |
| BIOS | | | |
| Manufacturer | AMI Aptio | | |
| Power Management APM/ACPI | APM/ACPI | | |
| Speedstep/AMT | Speedstep supported | | |
| Powerstates S0/S1/S3/S4/S5 | S0/S1/S4/S5 | | |
| Audio | | | |
| Controller and Codec | QM67 / Realtek ALC889 (HDA) | | |
| Support for 2/6/8 channel (2.0/5.1/7.1) | 2/6/8 channel | | |
| Analog In Line/CD/AUX/Mic1/Mic2/PCBeep | Line-In/Mic1/Mic2/PCBeep | | |
| Analog Out Line/Monoout | Analog Line-Out | | |
| Digital In/Out | S/PDIF In/Out | | |

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Technical Specifications - ADLQM67PC-2715QE

| FEATURE | FUNCTION | REMARKS | OPTIONS |
|--|--|---|-------------------------|
| LAN | | | |
| LAN1 Controller | Intel 82579LM Phy | Jumbo Frame Support | |
| LAN1 10/100/1000 | 10/100/1000 Mbit | | |
| LAN1 Diskless Boot option RPL/PXE/WOL | RPL/PXE/WOL | | |
| LAN2 Controller | Intel 82574L Phy | Same features as LAN1 | |
| Buses | | | |
| PCI | -- | | Please call for options |
| PCIe x1 / x4 / x16 | PCIe/104 (PCIe v2.0) - 4 x1 and (1 x16 or 1 x8 and 2 x4) | 2.5 / 5 GT/s, Type 1 PCIe signaling | |
| Specials/Options | | | |
| ATA/SATA Interfaces | | | |
| ATA primary/secondary | None | | |
| SATA Channels | 2 | | |
| SATA RAID Levels 0/1/5/10 | 0/1 | | |
| 1.5Gbs/3.0Gbs/6.0Gbs | 1.5 Gb/s / 3.0 Gb/s / 6.0 Gb/s | Intel Storage Manager - IDE / AHCI / RAID | |
| Onboard Compact Flash / Solid State Disk | None | | |
| USB Interfaces | | | |
| Boot HD/FDD/CDROM/FD/ZIP | HD/FDD/CDROM/FD/ZIP | | |
| USB-Channels | 8 | | |
| Protocols - USB 1.1/2.0/Host/Device | 1.1/2.0/Host | | |
| Serial Interfaces | | | |
| COM1&2: TTL/RS232/RS485/RS422 | RS232 | | |
| COM3&4: TTL/RS232/RS485/RS422 | -- | | |
| RS232 max Speed | RS232 - 250kbps | SP3244EER1-L | |
| Parallel Interfaces | | | |
| LPT Uni/ECP/EPP/FDC | -- | | |
| Specials/Options | 16-Bit GPIO | Discrete port | |
| Interfaces | | | |
| PS/2 Keyboard/Mouse | Yes | | |
| Floppy Interface FDC | -- | | |
| Watchdog | Yes | | |
| Power Supply | | | |
| Supply Voltage | 5V , 12V, 5V Suspend | | |
| Power Normal (typical)* | TBD | | |
| UPS/Pb-Batt | None | | |
| Cooling | | | |
| | passive / active | | |
| Operating Temperature (ambient) | TBD | ADL Embedded Solutions thermal solution recommended | |
| Extended Temperature | TBD | Requires ADL-ET and Approved Thermal solution | |
| Storage Temp. | -40 to 85 °C | | |
| Dimensions | | | |
| | 4.5" x 3.8" (115mm x 96mm) | | |

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