



Features

ADLQM67PC - Intel Celeron 827E, 1.4GHz

- Intel® Celeron 827E, 1.4GHz based on Intel Core Technology
- Up to 4GB DDR3-1333 DRAM SoDIMM204, 8GB when Available
- Type 1 Bottom-Stacking PCI/104 Express V2.0 with Gen2 protocol (2.5 to 5GT/s)
- 2x SATA 600 Ports with RAID
- 2x 10/100/1000Mbit 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 7, Compact Embedded Support
- 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
- Operating Range -25° to +70° C (-40° to +85° C available - call sales for details)



Ordering Information

Item Code	Part #	Description
PCIe/104 Board		
ADLQM67PC-827E	292606	Intel Celeron 827E 1.4GHz Single Core, 1.5M Smart Cache
*Other processors available - contact Sales for requirements		
Memory		
DDR3-DRAM1024-1333		DDR3-1333MHz 1GB Standard Temperature
DDR3-DRAM2048-1333		DDR3-1333MHz 2GB Standard Temperature
DDR3-DRAM4096-1333		DDR3-1333MHz 4GB Standard Temperature
DDR3-DRAM-1024-1333EX		DDR3-1333MHz 1GB Extended Temperature
DDR3-DRAM-2048-1333EX		DDR3-1333MHz 2GB Extended Temperature
DDR3-DRAM-4096-1333EX		DDR3-1333MHz 4GB Extended Temperature
*Other speeds available - contact Sales		
Options and Accessories		
ADL-ET	290000	Extended Temp Screen (-40° to +85° C)
ADLQM67PC-CK	292520	ADLD25PC-CK & ADLQM67PC-CK Std Cable Kit
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-ISO1	299941	Opto-Isolated RS232 COM
ADLCOM-ISO2	299942	Opto-Isolated RS485 COM
ADL-BRIDGE		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-827E features the 2nd generation Intel Celeron based on the Intel Core 32nm process, that incorporates Intel's latest embedded two-chip platform. This 2nd generation Celeron processor integrates an Intel HD Graphics engine as well as the memory controller functions of a traditional GMCH. The QM67 Platform Controller Hub (PCH) can provide PCI-Express I/O bandwidth at twice the speed (5Gbps) of previous generation platforms.

The ADLQM67PC-827E is ideal for rugged applications where high reliability processor performance is critical. It brings unparalleled versatility in performance to applications such as RTOS, Industrial Automation, Medical, Signage, Gaming and POS.

In addition to the wide range of rugged and harsh environment applications in which the ADLQM67PC-827E can excel, it also supports a healthy set of features. The ADLQM67PC-827E has a discrete 16-bit digital I/O port as well as separate VGA, LVDS, HDMI and Display Port interfaces. It 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 PCI express V2.0 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-847E

FEATURE	FUNCTION	REMARKS	OPTIONS
CPU			
CPU Classes	Intel Celeron 827E	Based on 2nd Generation 32nm Intel Core technology	i7 - 2655LE Dual Core
CPU Option / Performance (GHz) / Intel Smart Cache	Intel 827E / Single Core / 1.5M		Other CPU speeds available. Please discuss your requirements with your sales engineer.
Max. No. of Cores	1C / 1T		
Soldered (or Socket Name)	Soldered		
FSB	On-chip	FSB only applicable with separate GMCH	
Chipset			
North Bridge (GMCH)	Intel Celeron	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)	4096MB		1024MB / 2048MB
Speed max	DDR3 1333 MHz		DDR3 1066 MHz
Graphic			
Controller	Intel Celeron 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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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 - 250kpbs	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)*	15W		
UPS/Pb-Batt	None		
Cooling			
	passive / active		
Operating Temperature (ambient)	-25 to 75 °C	ADL thermal solution recommended	
Extended Temperature	-40 to 85° C	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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