

ITX-QM67

Mini-ITX Intel QM67 Sandy Bridge Mobile Motherboard

Datasheet



- » Intel Sandy Bridge Socket G2 Core i3 / i5 / i7 / Celeron Mobile Processors
 - » HDMI, DisplayPort, Dual Intel Gbit Ethernet, SATA-III 6Gbit/s Ports
 - » Three Internal RS-232 COM Ports with +5V/+12V DC Power Output
 - » PCIe/USB MiniCard and x16 PCI Express Expansion Slot
 - » Meet Ultra Low Profile 1U / 1.75 inches Height System Configuration
- » 1U Copper-based CPU Cooler Support Intel Core i7 Mobile 45W Processors



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Overview

Liantec ITX-QM67 series is an industrial Mini-ITX motherboard, features Intel Sandy Bridge Mobile computing platform, supports 16GB of memory capacity, onboard dual Intel Gbit Ethernet, HDMI, DisplayPort, HD audio, SATA-III 6 Gbit/s and SATA-II 3 Gbit/s ports, x16 PCI Express slot, Mini-PCIe / USB MiniCard socket. Based on the features of Mini-ITX SFF (Small Form Factor), Intel Sandy Bridge Mobile computing platform, the ITX-QM67 meets the demand of industrial embedded applied computing applications including the industrial PC platform, digital signage, transaction and multimedia workstation, car PC, slim-type server, STB (Set-Top-Box), DVR, PVR, networking server and industrial embedded computing platform.

Key Features

Liantec ITX-QM67 Mini-ITX motherboard is based on Intel Sandy Bridge Mobile computing platform, offers VGA, HDMI, DisplayPort, LVDS, dual Gbit Ethernet, SATA-III 6Gbit/s, GPIO, x16 PCI Express expansion slot and MiniCard socket.

- Small Form Factor (SFF) Mini-ITX motherboard with 170 x 170 mm or 6.7 x 6.7 inches of dimension (W x L).
- Intel Sandy Bridge Mobile platform with QM67 PCH, Intel GMA HD 3000/2000 650MHz graphics core, supports 16 GB DDR3 SDRAM.
- Supports dual SATA-III 6Gbit/s ports and three SATA-II 3Gbit/s ports.
- Supports VGA, HDMI, DisplayPort, and LVDS video output ports.
- DisplayPort supports 2560 x 1600 of resolution.
- Dual Intel Gigabit Ethernet with dual RJ45 connectors on rear I/O panel.
- Onboard TPM with Infineon SLB9635 controller.
- Four RS-232 COM ports with three internal RS-232 ports with +5V/+12V power output.
- 8-bit programmable GPIO port.
- Support SmartFan function on both of CPU fan and system fan.



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Specification

Form Factor	Mini-ITX / Mini-FlexATX form factor at 170 x 170 mm of dimension
Platform Chipset	Intel Cougar Point QM67 PCH (Platform Control Hub)
CPU	Intel Socket G2 μ PGA988 / FCPGA988 / rPGA988B Sandy Bridge Gen2 Core i3 / i5 / i7 / Celeron mobile processors Power design supports up to 45W CPUs Intel Embedded Socket G2 μPGA988 / FCPGA988 Processor <ul style="list-style-type: none">● Intel Core i7-2710QE 4-Core / 8-Thread / 2.1 GHz / 6MB / 45W● Intel Core i5-2510E 2-Core / 4-Thread / 2.5GHz / 3MB / 35W● Intel Core i3-2330E 2-Core / 4-Thread / 2.2GHz / 3MB / 35W● Intel Core i3-2310E 2-Core / 4-Thread / 2.1GHz / 3MB / 35W● Intel Celeron B810 2-Core / 2-Thread / 1.6GHz / 2MB / 35W
DRAM	Two vertical type 204-pin So-DIMM sockets Supports dual channel DDR3-1333/1066 non-ECC SDRAM Memory Capacity supports up to 16 GBytes
BIOS	AMI BIOS in 64Mb SPI flash
Power Management	Support S1 / S3 / S4 / S5 of power state Support WoL (Wake-on-LAN) and WoR (Wake-on-Ring)
Watchdog Timer	System reset with 1 to 255 sec./min. of timeout value
TPM	Support TPM 1.2 with onboard Infineon SLB9635
SATA Ports	Intel QM67 PCH built-in SATA controller Onboard 2 SATA-III 6Gbit/s ports with red connectors Onboard 3 SATA-II 3Gbit/s ports with black connectors Supports RAID 0, 1, 0+1 (10), 5
Video Interface	Intel CPU built-in HD Graphics core with 650MHz of base frequency Intel GMA HD 3000/ 2000 supports DirectX 10.1, OpenGL 3.0, Clone, Twin and Extended DT display modes Shared Video memory supports up to 1.7 GBytes VGA Interface <ul style="list-style-type: none">● External VGA port with DB15 female connector on rear I/O panel● Supports up to 2048 x 1536 of resolution. HDMI Interface <ul style="list-style-type: none">● External HDMI 1.3 port with HDMI connector on rear I/O panel● Supports up to 1920 x 1080 of resolution



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	<p>DisplayPort Interface</p> <ul style="list-style-type: none"> ● External DisplayPort with DisplayPort connector on rear I/O panel ● Supports up to 2560 x 1600 of resolution <p>LVDS Interface</p> <ul style="list-style-type: none"> ● Internal dual channel 24-bit LVDS interface ● Supports 1600x1200 of resolution ● Onboard backlight connector
Audio Interface	<p>Onboard Realtek ACL892 HD audio codec</p> <p>External Line-in, Line-out, Mic-in audio jacks</p> <p>Internal front audio pin header</p>
Ethernet Interface	<p>Onboard dual Intel Gbit Ethernet interfaces</p> <p>10/100/1000BASE-TX auto-switching, IEEE802.3U compliant</p> <p>1st Gbit Ethernet with Intel 82579LM controller</p> <p>2nd Gbit Ethernet with Intel 82583V controller</p> <p>External dual RJ45 8P8C connectors on rear I/O panel</p>
Super-I/O Port	<ul style="list-style-type: none"> ● Nuvoton NCT6776F Super-I/O controller ● 4 RS-232 COM port including 3 RS-232 port with +5V/+12V power output ● PS/2 keyboard and mouse port ● 8-bit programmable GPIO port
Rear I/O Panel	<ul style="list-style-type: none"> ● PS/2 Keyboard and Mouse Ports ● RS232 COM and HDMI Ports ● VGA and DisplayPort Ports ● Dual Gbit Ethernet RJ45 8P8C and Dual USB 2.0/1.1 Ports ● HD Audio Line-in, Line-out, Mic-in Ports
Environment	<ul style="list-style-type: none"> ● Power Requirement : ATX power input with onboard 20-pin ATX power connector and 4-pin +12V aux power connector. ● Board Dimension : 170 x 170 mm (L x W) ● Operating Temperature : 0 ~ 60°C (32 ~ 140°F) ● Storage Temperature : -40 ~ 85°C (-40 ~ 185°F) ● Operating Humidity : 10 ~ 90% relative humidity, non-condensing.
Packing List	<ul style="list-style-type: none"> ● ITX-QM67 Motherboard ● CPC-1500C 1U Copper-based Socket G2 PGA988 CPU Cooler ● 2 SATA-II/III Clip-Lockable Cables ● Driver and Manual CD



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Ordering Guide

Ordering Code	Features
ITX-QM67	<p>Mini-ITX Intel QM67 μPGA988 Sandy Bridge Mobile Motherboard</p> <p>Support Intel Gen2 Core-i3 / i5 / i7 / Celeron Mobile CPU with VGA, HDMI, DisplayPort, LVDS, Dual Intel Gigabit Ethernet, HD Audio, SATA-III 6Gbit/s, 4 COM, 8-bit GPIO, MiniCard Socket, and x16 PCI Express Expansion Slot</p> <p>* Including CPC-1500C 1U Copper-based CPU Cooler</p>
ITX-QM67-2710QE	<p>Mini-ITX Intel Core i7-2710QE QM67 Motherboard</p> <p>with Intel Sandy Bridge Core i7-2710QE 4-Core / 8-Thread CPU</p> <p>VGA, HDMI, DisplayPort, LVDS, Dual Intel Gigabit Ethernet, HD Audio, SATA-III 6Gbit/s, 4 COM, 8-bit GPIO, MiniCard Socket, and x16 PCI Express Expansion Slot</p> <p>* Including CPC-1500C 1U Copper-based CPU Cooler</p>
ITX-QM67-2510E	<p>Mini-ITX Intel Core i5-2510E QM67 Motherboard</p> <p>with Intel Sandy Bridge Core i5-2510E 2-Core / 4-Thread CPU</p> <p>VGA, HDMI, DisplayPort, LVDS, Dual Intel Gigabit Ethernet, HD Audio, SATA-III 6Gbit/s, 4 COM, 8-bit GPIO, MiniCard Socket, and x16 PCI Express Expansion Slot</p> <p>* Including CPC-1500C 1U Copper-based CPU Cooler</p>
ITX-QM67-2330E	<p>Mini-ITX Intel Core i3-2330E QM67 Motherboard</p> <p>with Intel Sandy Bridge Core i3-2330E 2-Core / 4-Thread CPU</p> <p>VGA, HDMI, DisplayPort, LVDS, Dual Intel Gigabit Ethernet, HD Audio, SATA-III 6Gbit/s, 4 COM, 8-bit GPIO, MiniCard Socket, and x16 PCI Express Expansion Slot</p> <p>* Including CPC-1500C 1U Copper-based CPU Cooler</p>
ITX-QM67-B810	<p>Mini-ITX Intel Celeron B810 QM67 Motherboard</p> <p>with Intel Sandy Bridge Celeron B810 2-Core / 2-Thread CPU</p> <p>VGA, HDMI, DisplayPort, LVDS, Dual Intel Gigabit Ethernet, HD Audio, SATA-III 6Gbit/s, 4 COM, 8-bit GPIO, MiniCard Socket, and x16 PCI Express Expansion Slot</p> <p>* Including CPC-1500C 1U Copper-based CPU Cooler</p>
ITX-QM67-OEM	<p>Customized OEM configuration based on the existing ITX-QM67 motherboard with compatible Intel Socket G2 PGA988 CPU, optional onboard interfaces, customized outlook and other integration service.</p>



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Barebone Solution

Model Name	Description
R1C-QM67 	1U Mini-ITX Intel QM67 Sandy Bridge Mobile Platform 1U Rackmount Enclosure with 430 x 44 x 210 mm (W x H x D) Mini-ITX Intel QM67 Gen2 Core-i3 / i5 / i7 Mobile Motherboard VGA, HDMI, DisplayPort, Dual Gbit Ethernet, HD Audio Ports. SATA-III 6Gbit/s ports Supports SATA-III HDD / SSD Supports Ultra Low Profile Slim 1U x1 PCIe Add-on Card 40mm System Fan with Front Operating-Removable Air Filter Internal 1 x 3.5" / 2 x 2.5" HDD / SSD Drive Bay Internal AC/DC PSU with 85% Efficiency, Standby below 1watt
LPC-QM67-OEM	Customized OEM chassis configuration based on the existing ITX-QM67 EmBoard with compatible Intel FCPGA-988 CPU, optional onboard interfaces, extension function modules, system enclosure, embedded peripheral and other integration service. For the further information about Liantec OEM service, please contact with info@liantec.com or call +886-2-82212877.

Packing List

Item	Description	Quantity
ITX-QM67	Mini-ITX Intel QM67 Motherboard	1
CPC-1500C	1U Socket G2 Copper-based CPU Cooler	1
SATA Cable	SATA-II/III Cable with Lockable Clip	2
COM Cable	RS232 COM Port Cable	1
CD	Driver and Manual CD	1

For the further information about Liantec ITX-QM67, please visit the website at <http://www.liantec.com/product/ITX-QM67.htm> or email to info@liantec.com.