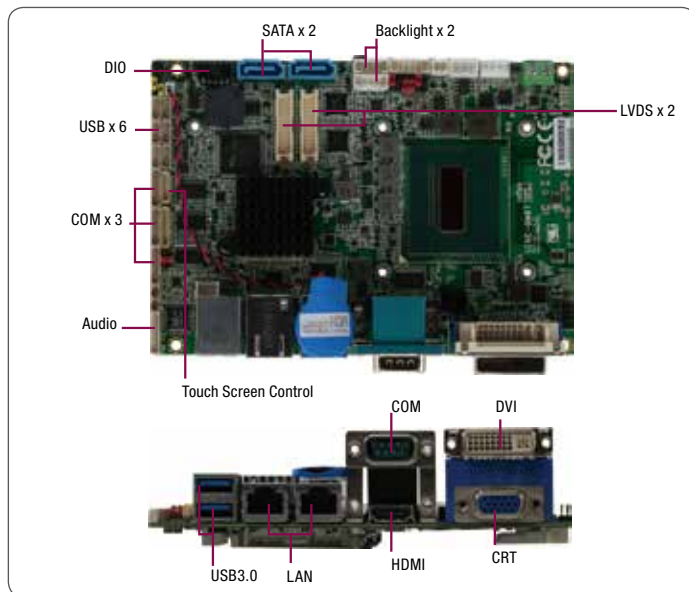


GENE-QM87

3.5" SubCompact Board with Onboard Intel® 4th Generation Core™ i5-4402E Mobile Processor



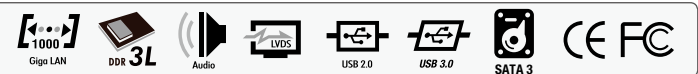
Features

- Onboard Intel® 4th Generation Core™ i5-4402E Processor
- Intel® QM87
- DDR3L 1333/1600 MHz SODIMM x 1, Up to 8 GB
- Gigabit Ethernet, RJ-45 x 2
- CRT, DVI, 18/24-bit Dual-Channel LVDS LCD x 2, HDMI
- 2CH HD Audio
- SATA 6.0 Gb/s x 2 (Optional RAID), CFast™ x 1
- USB3.0 x 2, USB2.0 x 6, COM x 4, 8-bit Digital I/O
- Mini-Card x 1
- +12V Only Operation
- Supports iAMT with Intel® QM87
- Onboard 4/5/8-wire Resistive Touch Screen Controller
- mSATA x 1 (Optional, Would Replace Mini-PCIe with Jumper Setting)
- IEEE 1588 Compatible

Specifications

System	
Form Factor	3.5"
Processor	Onboard Intel® 4th Generation Core™ i5-4402E Processor
System Memory	204-pin DDR3L 1333/1600 MHz SODIMM x 1, up to 8 GB
Chipset	Intel® QM87
I/O Chipset	Fintek F81866D
Ethernet	Intel® I211AT & I217LM, 10/100/1000Base-TX, RJ-45 x 2
BIOS	AMI BIOS - 16 MB SPI Flash
Wake on LAN	Yes
Watchdog Timer	Generates a time-out system reset
H/W Status Monitoring	Supports power supply voltages and temperature monitoring
Expansion Interface	Mini-Card x 1, LPC
Trusted Platform Module (TPM)	Infineon SLB 9635TT 1.2
Battery	Lithium battery
Power Requirement	+12V, AT/ATX
Power Consumption (Typical)	Intel® Core™ i5-4402E 1.6 GHz, DDR3L 1600 8GB 2.73A@+12V
Board Size	5.75" x 4" (146mm x 101.6mm)
Gross Weight	0.88 lb (0.4 kg)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Operating Humidity	0% ~ 90% R/H, non-condensing
MTBF (Hours)	105,000
Display	Supports CRT/LCD, HDMI/LCD simultaneous/ dual view displays
Chipset	Intel® CPU integrated
Memory	Shared system memory up to 512 MB
Resolutions	Up to 2048 x 1536 for CRT, up to 1920 x 1200 for LCD, HDMI, DVI
LCD Interface	Up to 24-bit dual-channel LVDS x 2
HDMI	HDMI x 1
DVI	DVI x 1
I/O	
Storage	SATA 6.0 Gb/s x 2, CFast™ x 1
Serial Port	RS-232 x 3, RS-232/422/485 (auto flow) x 1
USB	USB3.0 x 2, USB2.0 x 6
PS/2 Port	Keyboard x 1, Mouse x 1
Digital I/O	Supports 8-bit (Programmable)
Audio	Line-in, Line-out, Mic-in
Touch Screen	Supports 4/5/8-wire resistive touch screen

• Note: All specifications are subject to change without notice.

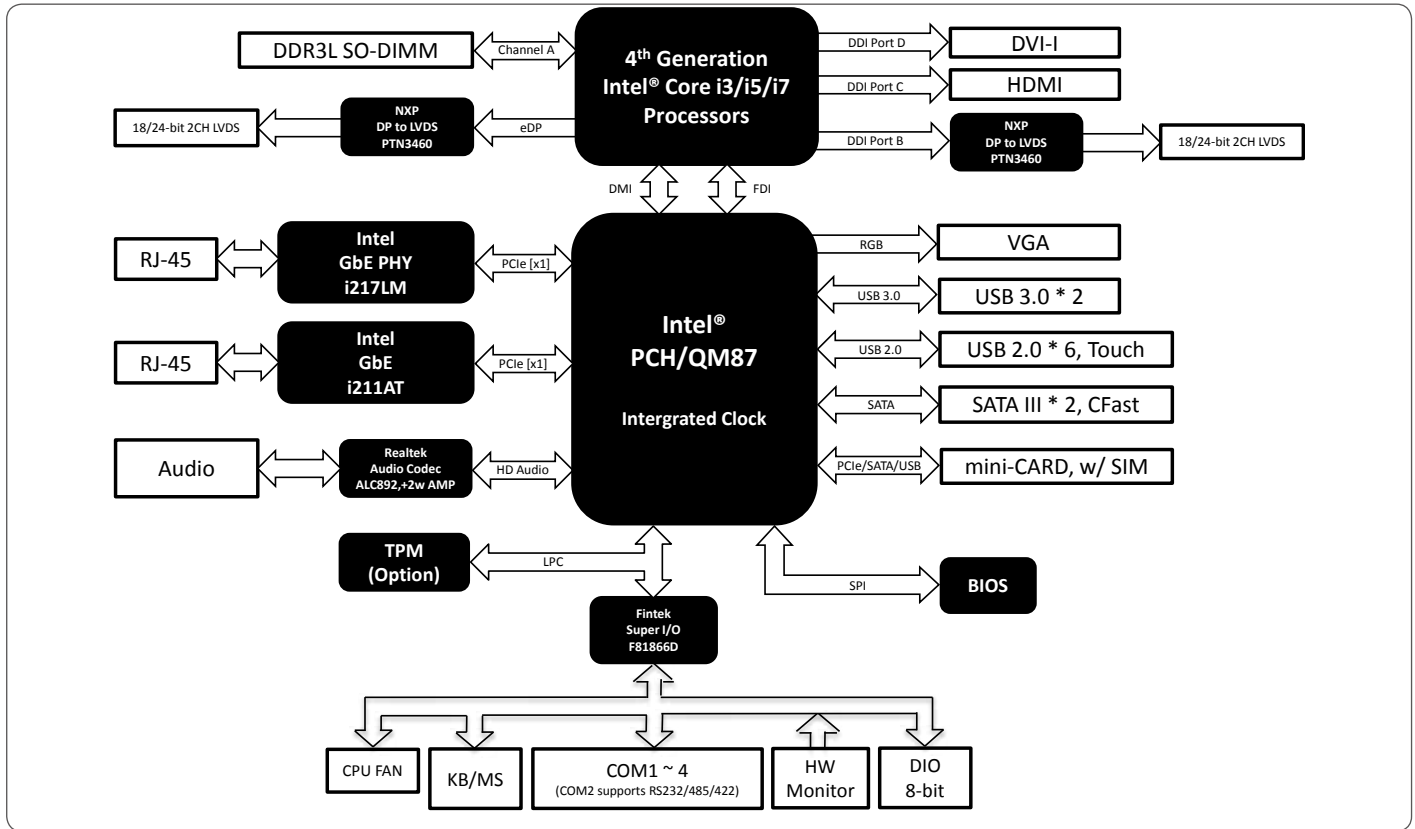


Packing List

- **170204010R**
Power Cable
 - **Product DVD**
 - **GENE-QM87 with Active Cooler**
- ## Optional Accessories
- **1700050207**
USB Cable, Length 20cm
 - **1701090150**
COM Port Cable, Length 15cm
 - **1709100254**
Audio Cable, Length 25cm
 - **1702150155**
Power Cable for 2.5" SATA Hard Disk, Length 15cm
 - **1709070500**
SATA Cable, Length 50cm
 - **1700060157**
Keyboard/Mouse Cable
 - **17592QM774**
CPU Cooler 47W FAN + Heatsink, 60 x 60 x 25 mm (1U)

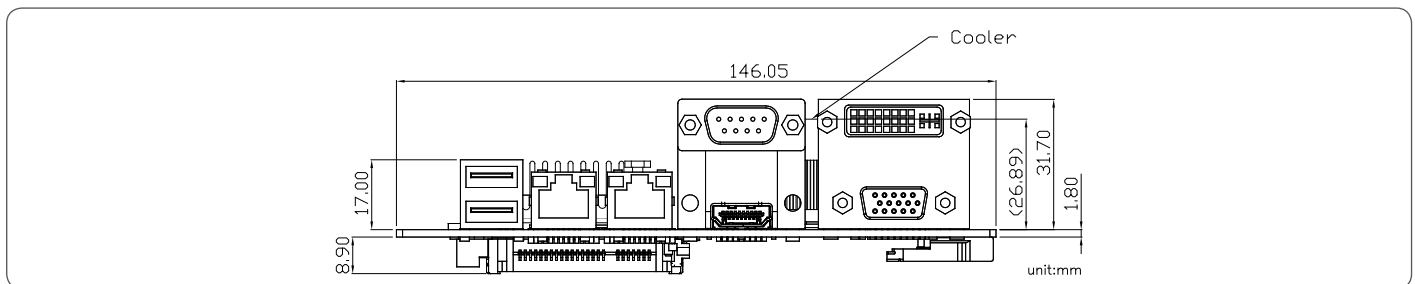
GENE-QM87

Block Diagram



Dimension

Unit: mm



Ordering Information

Part Number	CPU	Chipset	Fan/Fanless	Display	LVDS	Storage	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Power Temp	Others
GENE-QM87-A10-01	Intel®i5-4402E	Intel® QM87	Fan	CRT + LVDS LVDS + HDMI LVDS + HDMI	1st 18/24b, 2CH	SATA x 2	GbE x 2	USB3.0 x 2 USB2.0 x 6	3	1	Mini-Card x 1	+12V, AT/ATX	0°C ~ 60°C	SIM, DIO x 8
GENE-QM87-A10	Intel®i5-4402E	Intel® QM87	Fan	CRT + LVDS CRT + DVI CRT + HDMI DVI + LVDS DVI + HDMI LVDS + HDMI LVDS + LVDS	1st 18/24b, 2CH 2nd 18/24b, 2CH	SATA x 2 CFast™ x 1	GbE x 2	USB3.0 x 2 USB2.0 x 6	3	1	Mini-Card x 1	+12V, AT/ATX	0°C ~ 60°C	TPM, SIM, Touch Controller, DIO x 8