

# SAM-3040 D

## Intel® QM57 Mini-ITX Board

### PROCESSOR

- Intel® Core™ i7-620M (SV)
- Intel® Core™ i5-520M (SV)
- Intel® Celeron® P4500 (SV)
- QPI: 4.8GT/s
- Supports IMVP6.5 up to 35W CPU
- Processor socket: Socket G rPGA 989

### CHIPSET

- Intel® QM57 Ixex Peak-M PCH (Platform Controller Hub)

### SYSTEM MEMORY

- Two 204-pin SODIMM sockets
- Supports 800/1066MHz DDR3 SDRAM (PC3-6400/PC3-8500)
- Dual channel memory interface
- Supports maximum of 8GB system memory
- DRAM device technologies: 1GB and 2GB DDR3 DRAM technologies for x8 and x16 devices, unbuffered, non-ECC

### EXPANSION SLOTS

- 1 PCI Express x1 slot
- 1 PCI slot

### ONBOARD GRAPHICS FEATURES

- Intel® Gen5.75 integrated graphics engine
- Display ports: DVI-I (CH7318), LVDS and VGA
- Intel® Clear Video technology
- Intel® Dynamic Video Memory Technology (Intel® DVMT)
- Intel® Smart 2D Display Technology (Intel® S2DDT)

### ONBOARD AUDIO FEATURES

- Realtek ALC262 2-channel High Definition Audio
- High performance DACs with 100dB SNR
- ADCs with 90dB SNR
- Two stereo DACs support 24-bit PCM format for stereo audio playback
- Three stereo ADCs support 20-bit PCM format for multiple input streaming
- S/PDIF input/output interface

### ONBOARD LAN FEATURES

- Intel 82577LM with iAMT6.0 Gigabit LAN Phy
- Realtek RTL8111C PCI Express Gigabit controllers
- Integrated 10/100/1000 transceiver
- Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab
- Supports wire management

### SERIAL ATA INTERFACE

- 4 Serial ATA ports
- Data transfer rate up to 3Gb/s
- Integrated Advanced Host Controller Interface (AHCI) controller
- Supports RAID 0, RAID 1 and RAID 10

### IDE INTERFACE

- JMicron JMB368 PCI Express to PATA host controller
- DMA mode: Ultra ATA up to 100MB/s
- PIO mode: up to 16MB/s

### INTEL ACTIVE MANAGEMENT TECHNOLOGY (AMT)

- Supports iAMT6.0
- Out-of-band system access
- Remote troubleshooting and recovery
- Hardware-based agent presence checking
- Proactive alerting
- Remote hardware and software asset tracking

### REAR PANEL I/O PORTS

- 1 mini-DIN-6 PS/2 mouse port
- 1 mini-DIN-6 PS/2 keyboard port
- 2 DB-9 serial ports
- 1 DB-15 VGA port
- 1 DVI-I port (DVI-D signal only)
- 2 RJ45 LAN ports
- 4 USB 2.0/1.1 ports
- Mic-in, line-in and line out jacks

### I/O CONNECTORS

- 4 connectors for 8 additional external USB 2.0/1.1 ports
- 2 connectors for 2 external serial ports
- 1 LVDS LCD panel connector
- 1 LCD/inverter power connector
- 1 Digital I/O connector
- 1 front audio connector for line-out and mic-in jacks
- 1 CD-in internal audio connector
- 1 S/PDIF connector
- 4 Serial ATA connectors
- 1 44-pin IDE connector
- 1 24-pin ATX power connector
- 1 front panel connector
- 2 fan connectors

### BIOS

- AMI BIOS
- 64Mbit SPI BIOS

### ENERGY EFFICIENT DESIGN

- Supports ACPI specification and OS Directed Power Management
- Supports ACPI STR (Suspend to RAM) function
- Wake-On-Events include:
  - Wake-On-PS/2 KB/Mouse
  - Wake-On-USB KB/Mouse
  - Wake-On-LAN
- System power management supported
- CPU stopped clock control
- Microsoft®/Intel® APM 1.2 compliant
- Soft Power supported - ACPI v2.0 specification
- AC power failure recovery

### DAMAGE FREE INTELLIGENCE

- Monitors CPU/system temperature and overheat alarm
- Monitors Vcore/5V/1.05V/1.5V/1.2V/3.3V/3.3VSB/VBAT voltages and failure alarm
- Monitors CPU/chassis/1st fan fan speed and failure alarm
- Read back capability that displays temperature, voltage and fan speed
- Watchdog timer function

### TEMPERATURE

- 0°C to 60°C

### HUMIDITY

- 10% to 90%

### PCB

- 8-layers, Mini-ITX form factor
- 17cm (6.7") x 17cm (6.7")

### REAR PANEL I/O PORTS

