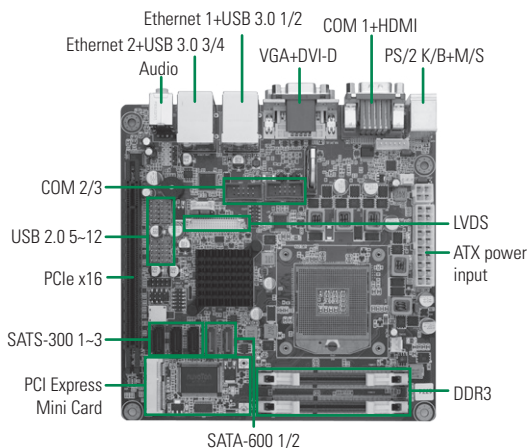


MANO870

Mini-ITX SBC with Socket G2 3rd Gen Intel® Core™ Processor, Intel® QM77, HDMI/DVI-D/VGA/LVDS, PCI Express Gen 3, SATA-600, Dual LANs and HD Audio

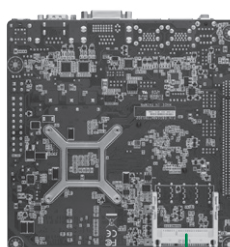
Features

- Socket G2 (rPGA 988B) for 3rd gen Intel® Core™ i7/i5/i3 & Celeron® processor
- 2 DDR3-1333/1600 SO-DIMM, up to 16GB
- PCIe x16 Gen 3 supported
- 4 USB 3.0 ports
- 2 SATA-600 and 3 SATA-300, support RAID 0/1/5/10
- Intel® AMT 8.0 supported
- TPM 1.2 supported
- HDMI, DVI-D, LVDS and VGA with dual-view supported

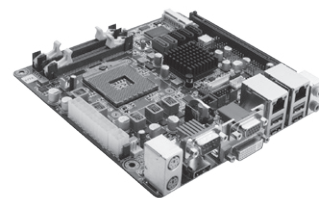


Core System

CPU	Socket G2 (rPGA 988B) for 3rd generation Intel® Core™ i7/ i5/i3 & Celeron® processor
System Memory	2 x 204-pin DDR3-1333/1600 SO-DIMM dual channel, up to 16GB
Chipset	Intel® QM77
BIOS	AMI UEFI BIOS with OA 3.0 built
SSD	1 x CFast™
Watchdog Timer	255 level, 1 ~ 255 sec
Expansion Interface	1 x PCIe x16 Gen 3 1 x PCI Express Mini Card
Battery	Lithium 3V/220 mAh
Power Requirements	Intel® Core™ i5-3610ME 2.7 GHz, 4GB DDR3 1333 x 2 +5V @ 1.4A, +12V @ 6.7A, -12V @ 0.1A, +5VSB @ 0.4A, +3.3V @ 1.0A
Size	170 x 170 mm
Board Thickness	1.6 mm
Temperature	0°C ~ +60°C (32°F ~ 14°F), operation
Operation Humidity	10% ~ 95% relative humidity, non-condensing



▲ Rear view CFast™



▲ Side view

Display

Chipset	Intel® Integrated GMA
Memory Size	Shared memory
Display Interface	1 x HDMI 1 x DVI-D 1 x VGA 1 x LVDS

Packing List

User's manual/utility CD, cable

Ordering Information

Standard	
MANO870VGGA (P/N: E38M870100)	Mini-ITX SBC with socket G2 3rd generation Intel® Core™ i7/i5/i3 & Celeron®, HDMI/DVI-D/VGA/LVDS, PCIe x16 Gen3, SATA-600, 2 GbE LANs and audio

Optional	
59460642100E	COM port cable, 5 x 2P, P=2.54 mm, L=300 mm
594F2112100E	COM port DB9 to 5 x 2P, P=2.54 mm, L=300 mm w/BK
594F2112110E	COM port x 2 DB9 to 5 x 2P, P=2.54 mm, L=300 mm w/BK

I/O

MIO	1 x PS/2 keyboard & mouse 3 x RS-232 (COM 1-3) with 5V/12V power
SATA	2 x SATA-600 3 x SATA-300 support RAID 0/1/5/10
Hardware Monitoring	Detect CPU/System temperature, voltage and fan speed
Ethernet	1st port as 10/100/1000 Mbps supports WOL, PXE with Intel® 82579LM (LAN1) 2nd port as 10/100/1000 Mbps supports WOL, PXE with Intel® 82583V (LAN2)
Audio	HD Audio as Mic-in/Line-out with Realtek ALC892
USB	4 x USB 3.0 8 x USB 2.0
TPM	Infineon TPM 1.2 SLB9635
Digital I/O	8 channels (4-IN & 4-OUT)
SM BUS	N/A