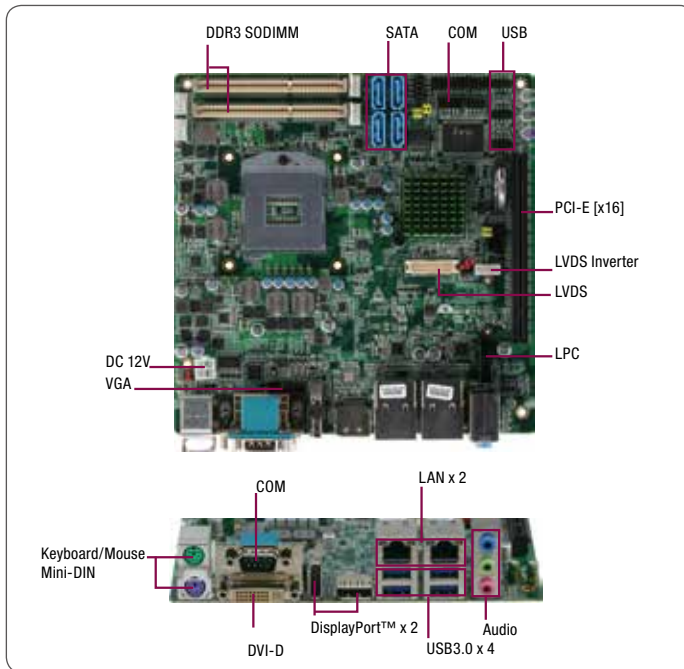


# EMB-QM77

Embedded Motherboard with Intel® 3rd Generation Core™ i7/i5/Celeron® Quad Core/Dual Core Processor



## Features

- Socket rPGA988, Intel® 3rd Generation Core™ i7/i5/ Celeron® Processor
- Intel® Core™ i7/i5 + QM77
- 204-pin Dual-channel DDR3 1066/1333/1600 MHz SODIMM x 2, Up to 16 GB
- Gigabit Ethernet x 2
- Dual Display Version: CRT, Dual 24-bit LVDS, DVI-D, HDMI, DisplayPort™
- Three Display Version: CRT, Dual 24-bit LVDS, DVI-D, DisplayPort™ x 2 (Optional)
- SATA 6.0 Gb/s x 2, SATA 3.0 Gb/s x 2, Support RAID 0,1,5,10
- USB2.0 x 6, USB3.0 x 4, COM x 2
- PCI-Express [x16] x 1, Mini-Card x 1, CFast™ x 1, TPM x 1



## Specifications

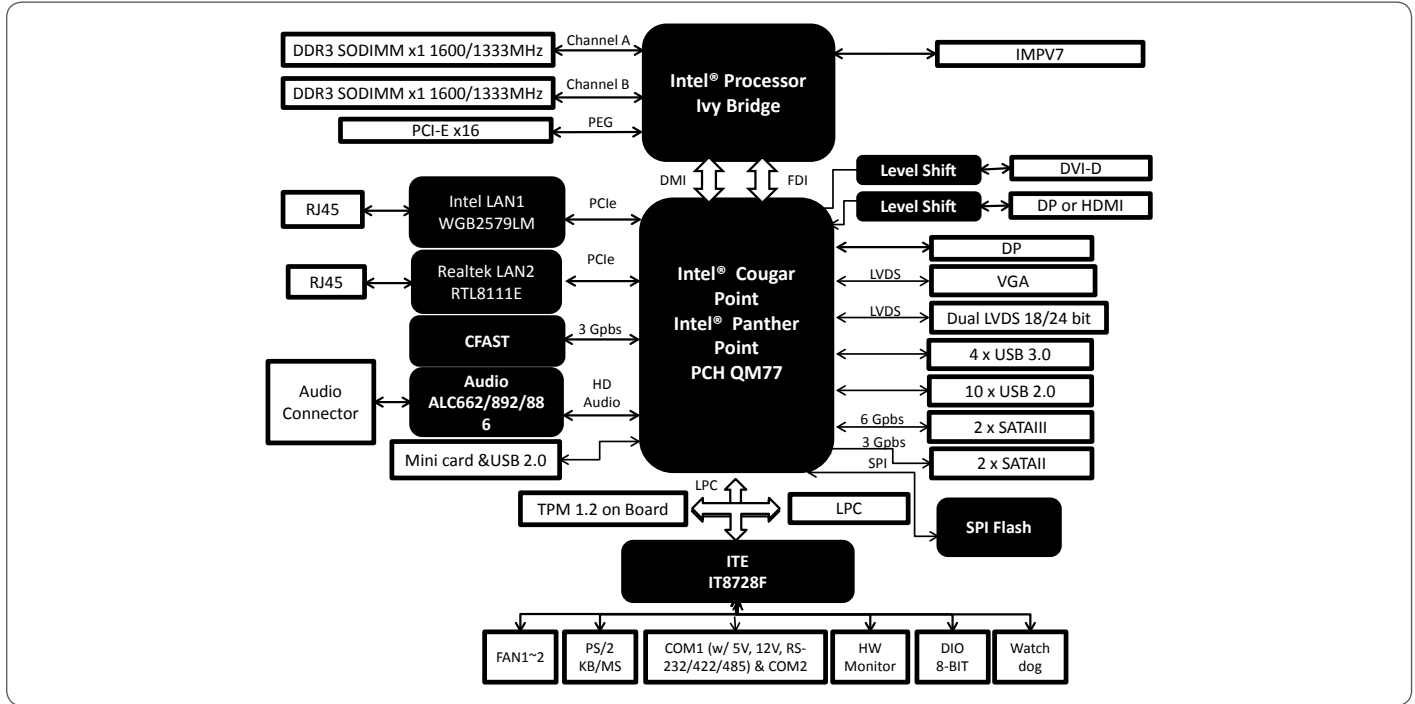
System	
Form Factor	Mini-ITX
Processor	Socket rPGA988, Intel® 3rd generation Core™ i7/i5/Celeron® processor
System Memory	204-pin Dual-Channel DDR3 1066/1333/1600 MHz SODIMM x 2, up to 16 GB
Chipset	Intel® Core™ i7/i5 + QM77
I/O Chipset	ITE IT8728F + Fintek F81216DG
Ethernet	Intel® PHY WG82579LM 10/100/1000Base-TX, RJ-45 x 1 Realtek RTL 8111E 10/100/1000Base-TX, RJ-45 x 1
BIOS	AMI SPI BIOS-128 MB ROM
Wake On LAN	Yes
Watchdog Timer	System reset : 1~255 steps programmable
H/W Status Monitoring	Supports System Temperature, Voltage, and Cooling Fan Status monitoring
Expansion Interface	PCI-E[x16] x 1, Mini-Card x 1, CFast™ x 1
Power Requirement	ATX 4-pin connector x 1 for DC-12 V input
Power Consumption (Typical)	Intel® Core™ i7 3610QM/ 2.3 GHz/ DDR3 1333 8 GB 3.81A@+12V/Full Loading 45.72W
Board Size	6.7"(L) x 6.7"(W)(170mm x 170mm)
Gross Weight	1.32 lb (0.6 kg)
Operation Temperature	32 °F ~ 140 °F (0 °C ~ 60 °C)
Storage Temperature	-4 °F ~ 158 °F (-20 °C ~ 70 °C)
Operation Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	60,000
Display	
Chipset	Intel® Core™ i7/i5 / Celeron® + QM77 integrated Gen 5.75 graphics
Memory	Shared system memory up to 256 MB
Resolution	Up to 2560 x 1600 @ 60 Hz for 1st DisplayPort™ Up to 1920 x 1600 @ 60 Hz for 2nd DisplayPort™ Up to 1920 x 1200 @ 60 Hz for VGA, DVI, HDMI
Output Interface	Dual Display Version: CRT, Dual 24-bit LVDS, DVI-D, HDMI, DisplayPort™ Three Display Version: CRT, Dual 24-bit LVDS, DVI-D, DisplayPort™ x 2
I/O	
Storage	SATA 6.0 Gb/s x 2, SATA 3.0 Gb/s x 2, Support RAID 0,1,5,10
Serial Port	RS-232 x 1 (box header) RS-232/422/485 x 1 (on I/O)
USB	USB2.0 x 6, USB3.0 x 4
PS/2 Port	Keyboard x 1, Mouse x 1
Digital I/O	8-bit programmable (4-in / 4-out)
Audio	Line-in, Mic-in, Line-out

## Packing List

- 1701160201  
VGA Cable
- 1709100201  
USB Cable w/Bracket
- 1701100206  
COM Cable
- 1709070800  
SATA Cable
- 1702151201  
SATA Power Cable (4-pin)
- Metal I/O Bracket
- Product DVD
- EMB-QM77

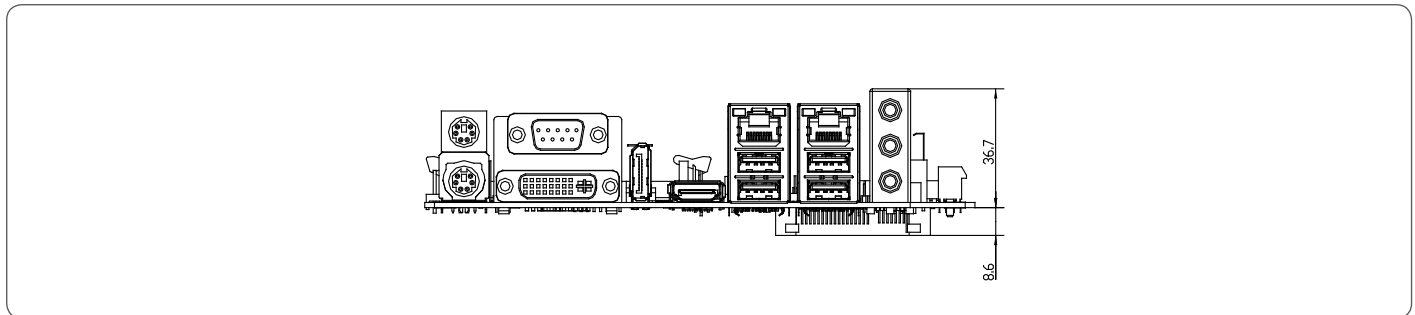
# EMB-QM77

## Block Diagram



## Dimension

Unit: mm



## Ordering Information

Part Number	CPU	RAM	Fan/Fanless	Display	Storage	LVDS	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Temp.
TF-EMB-QM77-A10-OSP	Socket	SODIMM	Fan	VGA/ DVI-D/ LVDS/ DP x 2	SATA2 x 2, SATA3 x 2, CFAST™ x 1	24b, 2CH	GbE x 2	10	1	1	Mini-PCIe x 1, PCI-E [x16] x 1, Mini-Card x 1	+12V/DC	0°C ~ 60°C
TF-EMB-QM77-A10-01-OSP	Socket	SODIMM	Fan	VGA/ DVI-D/ LVDS/ DP/ HDMI	SATA2 x 2, SATA3 x 2, CFAST™ x 1	24b, 2CH	GbE x 2	10	1	1	Mini-PCIe x 1, PCI-E [x16] x 1, Mini-Card x 1	+12V/DC	0°C ~ 60°C

## Optional Accessories

- 17592QM672

CPU Cooler 4P, 60mm x 60mm x 26.5mm