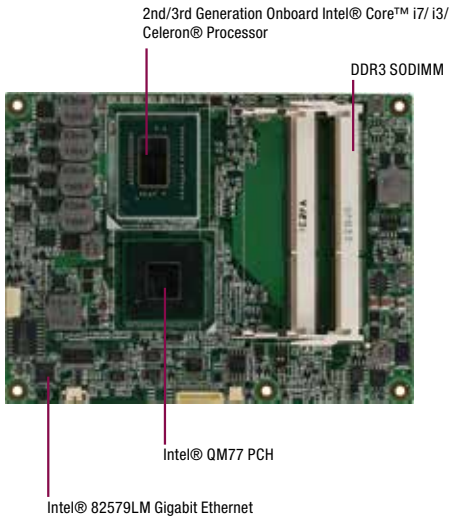
# COM-QM77 Rev. B

COM Express Type 6 CPU Module with Onboard Intel® Core™ i7/i5/i3/Celeron® Processor






## Features

- **Onboard Intel® Core™ i7/i5/i3/Celeron® Processor (FCBGA1023)**
- **Intel® QM77/HM76 PCH**
- **Dual-Channel DDR3 1333/1600 MHz SODIMM x 2, Up to 16 GB**
- **Gigabit Ethernet (iAMT 8.0 Support)**
- **CRT, Up to 24-bit Dual-Channel LVDS LCD, DisplayPort™**
- **USB3.0 x 4, USB2.0 x 8, SATA x 4**
- **PCI-Express [x16] x 1, PCI-Express [x1] x 7**
- **COM Express Basic Module, Pin-out Type 6, COM.0 Rev. 2.0**
- **IEEE 1588 Compatible**
- **-20°C ~ 70°C Wide Temperature Range Available for Selected Model**

## Specifications

| System | |
|---|---|
| Form Factor | COM Express Basic module, Pin-out Type 6, COM. 0 Rev. 2.0 |
| Processor | Onboard Intel® Core™ i7/i5/i3/Celeron® Processor (FCBGA1023) |
| System Memory | DDR3 1333/1600 MHz SODIMM x 2, up to 16 GB |
| Chipset | Intel® QM77/HM76 |
| I/O Chipset | Intel® QM77/HM76 |
| Ethernet | Intel® 82579LM, 10/100/1000Base-TX |
| TPM | v1.2 (optional) |
| BIOS | AMI BIOS<br>SPI type, 16 MB ROM |
| EEPROM | Atmel® AT24C02, save BIOS and Configuration data (Optional) |
| Wake On Lan | Yes |
| Watchdog Timer | ITE8518E-L, 255 levels |
| H/W status Monitoring | Supports CPU Temperature Monitoring |
| Expansion interface | PCI-Express [x16] x 1<br>PCI-Express [x1] x 7<br>LPC bus x 1<br>SMBUS x 1<br>UART x 2 (Tx/Rx only) |
| Power Requirement | +12V only |
| Power Consumption | Intel® i3-3217UE 1.6 GHz, DDR3 4 GB<br>2.23A@+12V (w/ ECB-917T) |
| Board Size | 4.92" (L) x 3.74"(W) (125mm x 95mm) |
| Gross Weight | 0.66 lb (0.3 kg) |
| Operating Temperature | 32°F ~ 140°F (0°C ~ 60°C)<br>-4°F ~ 158°F (-20°C ~ 70°C) for WiTAS 1 |
| Storage Temperature | -40°F ~ 176°F (-40°C ~ 80°C) |
| Operating Humidity | 0% ~ 90% relative humidity, non-condensing |
| MTBF (Hours) | 83,000 |
| **Display** | Supports HDMI/ DP, CRT or HDMI/ DP/ DVI simultaneous display |
| Chipset | Intel® Core™ i7/i5/i3/Celeron® processor integrated<br>DirectX 11, OpenGL *3.1, OpenCL* 1.1<br>Integrated hardware MPEG2 decoder |
| Memory | Shared system memory up to 512 MB/ DVMT 5.0 |
| Resolution | Up to 2560 x 2048 for CRT (two display), 2048 x 1536 for three displays<br>Up to 1920 x 1200 (UXGA) for LCD/HDMI<br>Up to 2560 x 1600 for DP<br>Up to 2548 x 1536 for DVI |
| LCD Interface | Up to 24-bit Dual-Channel LVDS |
| HDMI | HDMI x 2 |
| DVI | DVI x 2 |
| DisplayPort | DisplayPort™ x 2 |

| I/O | |
|---|---|
| Storage | SATA x 4 |
| Serial Port | UART x 2 (Tx/Rx only) |
| USB | USB2.0 x 8<br>USB3.0 x 4 |
| Audio | High definition audio |
| GPIO | Up to 4 in and 4 out |

## Packing List

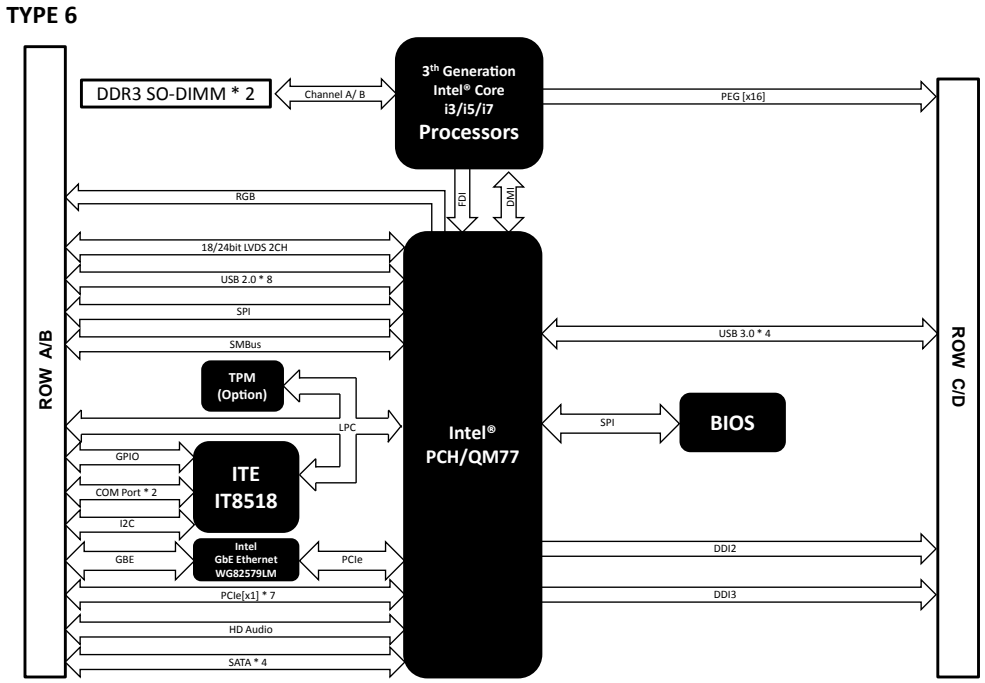
- **M2.5 Screw x 5**
- **Product DVD**
- **COM-QM77 Rev. B**

## Optional Accessories

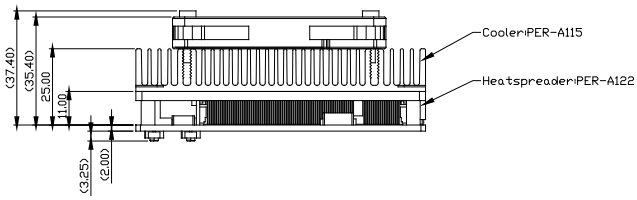
- **ECB-920A-10**
  COM Express Type 1/6/10 Carrier Board, Gigabit Ethernet, USB, 2 COM, 4 SATA, PCIe, AT/ATX, Legacy Free, Rev. A1.0
- **PER-A122**
  Heat Spreader, For COM-QM77, Onboard CPU
- **PER-A115**
  CPU Cooler, 45W, for COM Express Basic Size, to be used with Heat Spreader
- **PER-A130**
  CPU Cooler (for WiTAS1), COM Express Basic Size, to be used with Heat Spreader

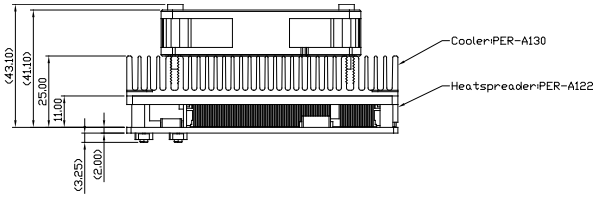
# COM-QM77 Rev. B

## Block Diagram Unit: mm




## Dimension Unit: mm




## Ordering Information

| Part Number | COM Express Type | Chipset | CPU | Memory | Display | LVDS | Storage | LAN | USB | UART | Expansion Slot | Power | Temp. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COM-QM77-B11 | 6 (COM.0 Rev.2.0) | QM77 | 3rd Generation Intel® Core™ i7-3555LE/2.5 GHz (FCBGA1023) | DDR3 SODIMM x 2 up to 16 GB | CRT, LVDS, HDMI, DP, DVI | 24b, 2CH | SATA x 4 | GbE x 1 | USB3.0 x 4 USB2.0 x 8 | 2 (Tx/Rx) | PCI-E [16] x 1,PCI-E [1] x 7 | 12V | 0°C ~ 60°C |
| COM-QM77-B11-01 | 6 (COM.0 Rev.2.0) | QM77 | 3rd Generation Intel® Core™ i7-3517UE/1.7 GHz (FCBGA1023) | DDR3 SODIMM x 2 up to 16 GB | CRT, LVDS, HDMI, DP, DVI | 24b, 2CH | SATA x 4 | GbE x 1 | USB3.0 x 4 USB2.0 x 8 | 2 (Tx/Rx) | PCI-E [16] x 1, PCI-E [1] x 7 | 12V | 0°C ~ 60°C |
| COM-QM77-B11-02 | 6 (COM.0 Rev.2.0) | HM76 | 3rd Generation Intel® Core™ i3-3217UE/1.6 GHz (FCBGA1023) | DDR3 SODIMM x 2 up to 16 GB | CRT, LVDS, HDMI, DP, DVI | 24b, 2CH | SATA x 4 | GbE x 1 | USB3.0 x 4 USB2.0 x 8 | 2 (Tx/Rx) | PCI-E [16] x 1, PCI-E [1] x 7 | 12V | 0°C ~ 60°C |
| COM-QM77W1-B11 | 6 (COM.0 Rev.2.0) | QM77 | 3rd Generation Intel® Core™ i7-3555LE/2.5 GHz (FCBGA1023) | DDR3 SODIMM x 2 up to 16 GB | CRT, LVDS, HDMI, DP, DVI | 24b, 2CH | SATA x 4 | GbE x 1 | USB3.0 x 4 USB2.0 x 8 | 2 (Tx/Rx) | PCI-E [16] x 1, PCI-E [1] x 7 | 12V | WiTAS 1 (-20°C ~ 70°C) |