

# CEM880

COM Express Type 6 Module with 5th Gen Intel® Core™ i7 & 4th Intel® Core™ i7/i5/i3 & Celeron® Processor and Intel® QM87

## Features

- 5th gen Intel® Core™ i7 (Broadwell) & 4th gen Intel® Core™ i7/i5/i3 & Celeron® processor (Haswell/Haswell Refresh)
- Intel® QM87 chipset
- Onboard 4GB DDR3L (optional) and 1 DDR3L SO-DIMM up to 8GB
- Max. up to 24 lanes of PCIe
- 4 SATA-600 with RAID 0/1/5/10
- 4 USB 3.0
- TPM support

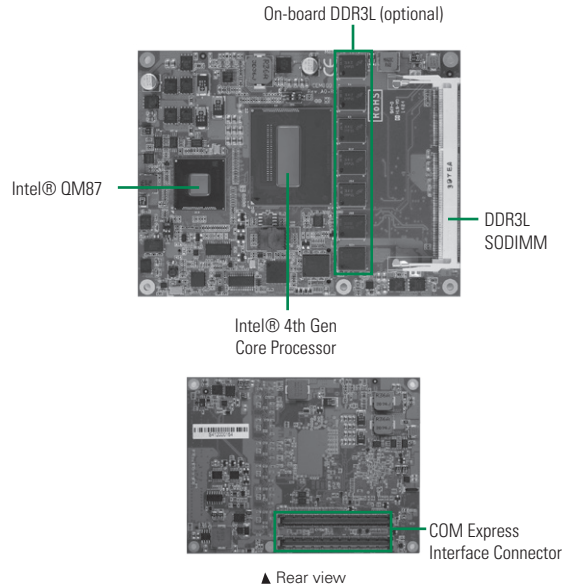


### Core System

|                     |  |
|---------------------|--|
| CPU                 | Intel® Core™ processor (Broadwell): i7-5700EQ (47W), i7-5850EQ (47W) & Intel® Core™ processor (Haswell/Haswell Refresh): i7-4700EQ (47W), i5-4422E (25W), i3-4110E (37W), Celeron® 2000E (37W) |
| System Memory       | 1st bank as on-board extended temperature DDR3L chips up to 4GB (optional)<br>1 x 204-pin SO-DIMM supports DDR3L, up to 8GB  |
| Chipset             | Intel® QM87  |
| BIOS                | AMI uEFI with Intel® Active Management Technology 9.0 supported  |
| Watchdog Timer      | 255 levels, 1~255 sec. or min.   |
| Expansion Interface | 1 x PCIe x16 Gen 3.0<br>8 x PCIe lanes (7 x lanes while internal LAN is connected)   |
| Battery Lithium     | N/A  |
| Power Input         | ATX: +12V, +5VSB<br>AT: +12V   |
| Size                | 125 x 95 mm  |
| Board Thickness     | 2.0 mm   |
| Temperature         | -40°C ~ +85°C (-40°F ~ +185°F), operation  |
| Operation Humidity  | 10% ~ 95% relative humidity, non-condensing  |

### I/O

|                     |  |
|---------------------|--|
| MIO                 | 1 x LPC interface<br>1 x SPI interface   |
| SATA                | 4 x SATA-600, support<br>Intel® Rapid Start Technology<br>Intel® Smart Response Technology |
| Hardware Monitoring | Yes  |
| Ethernet            | 1 port as 10/100/1000 Mbps supports Wake-on-LAN, PXE Boot ROM with Intel® i218LM           |
| Audio               | HD link interface to baseboard for Codec   |
| USB                 | 8 x USB 2.0 and 4 x USB 3.0  |
| TPM 1.2             | ST for trusted platform  |
| SMBus               | Yes  |
| Digital I/O         | 4 channels IN & 4 channels OUT   |



### Display

|                   |  |
|-------------------|--|
| Chipset           | Intel® Iris Pro Graphic 6200 (i7-5850EQ)<br>Intel® HD Graphic 5600 (i7-5700EQ)<br>Intel® HD Graphic 4600 (i7-4700EQ)<br>Intel® InTru™ 3D, Intel® Quick Sync Video 2.0,<br>Intel® Clear Video HD Technology<br>Gfx APIs - DX11.2, OCL1.1, OGL 4.3<br>3 independent displays |
| Memory Size       | DVMT Gfx physical memory up to 256 MB<br>DVMT Gfx pre-allocated memory up to 1024 MB   |
| Display Interface | 1 x VGA<br>1 x LVDS; 18/24-bit single/dual channel<br>3 x DDI (DP, HDMI, DVI)  |

### Packing List

Quick installation guide, user's manual/utility CD

### Ordering Information

| Standard                              |   |
|---------------------------------------|---|
| CEM880PVG-i7-4700EQ (P/N: E38D880100) | COM Express Type 6 module with Intel® Core™ i7-4700EQ 2.4 GHz, VGA/LVDS/DDI, GbE LAN, USB 3.0 and TPM |
| CEM880PVG-i5-4422E (P/N: E38D880103)  | COM Express Type 6 module with Intel® Core™ i5-4422E 1.8 GHz, VGA/LVDS/DDI, GbE LAN, USB 3.0 and TPM  |
| CEM880PVG-i3-4110E (P/N: E38D880104)  | COM Express Type 6 module with Intel® Core™ i3-4110E 2.6 GHz, VGA/LVDS/DDI, GbE LAN, USB 3.0 and TPM  |
| CEM880PVG-CEL-2000E (P/N: E38D880105) | COM Express Type 6 module with Intel® Celeron® 2000E 2.2 GHz, VGA/LVDS/DDI, GbE LAN, USB 3.0 and TPM  |
| CEM880PVG-i7-5850EQ (P/N: E38D880107) | COM Express Type 6 module with Intel® Core™ i7-5850EQ 2.7 GHz, VGA/LVDS/DDI, GbE LAN, USB 3.0 and TPM |
| CEM880PVG-i7-5700EQ (P/N: E38D880108) | COM Express Type 6 module with Intel® Core™ i7-5700EQ 2.6 GHz, VGA/LVDS/DDI, GbE LAN, USB 3.0 and TPM |
| Optional                              |   |
| CEM94006 (P/N: E394006100)            | ATX form factor Type 6 evaluation board   |
| TS001-CEM880 (P/N: E39J001100)        | High profile heatsink with fan (L=95 mm, W=125 mm, H=27 mm)   |
| TS002-CEM880 (P/N: E39J002100)        | Low profile heatsink with fan (L=95 mm, W=125 mm, H=20 mm)  |
| TS003-CEM880 (P/N: E39J003100)        | High profile heatsink without fan (L=95 mm, W=125 mm, H=27 mm)  |
| TS004-CEM880 (P/N: E39J004100)        | Heatspreader for CEM880   |

