eCC3800E Tech-Note

Integrated with 6th generation Intel® Core™ i7/i5/i3 processors, eCC3800 series is the fanless PC designed for industrial applications which demand high CPU and graphics performance. eCC3800 supports up to 16G DDR4 memory and have several options on storage devices like M.2, HDD, mSATA or SSD. eCC3800 supports wide range of DC input from +9V to 30V DC input, and can be operated in an extended operating temperature range between -5 to 55 Celsius degree. For extended module availability, eCC3800 also designed two internal mini-PCIe sockets to support IoT applications (integrate with optional GbE LAN, Wi-Fi, 3.5G module) and common communication applications (integrate with optional GPIO, RS232/422/485 module).

- Support 6th generation Intel® Core™ i7/i5/i3 LGA socket type embedded processor
- Intel® Q170 PCH
- Support 1 x 2.5" SATA HDD
- 1 x DVI-D, 1 x DP, and 1 x HDMI with independent display support
- Three Intel® GbE LAN ports; support WoL, teaming and PXE
- 1 x External M.2 socket and 1 x SIM card socket
- 4 x USB 3.0, 2 x USB 2.0, 2 x RS232/422/485 with auto flow control
- 2 x Internal mini-PCIe socket support optional Wi-Fi/3.5G/mSATA/
- Fieldbus
- Support +9V to 30VDC input; ATX power mode
- One PCIe x4 expansions

Specifications

CPU Support
Support 3rd generation Intel® Core™ i7/i5/i3 rPGA socket type processor
-Core™ i7-3632QM, Quad Core, 2.2GHz, 6M Cache, Max Turbo Frequency 3.2 GHz
-Core™ i7-3612QM, Quad Core, 2.1GHz, 6M Cache, Max Turbo Frequency 3.1 GHz
-Core™ i5-3610ME, Dual Core, 2.7GHz, 3M Cache, Max Turbo Frequency 3.3 GHz
-Core™ i3-3120ME, Dual Core, 2.4GHz, 3M Cache
-Support three independent display with above processors
Turbo-boost disabled by default

Main Memory
2 x DDR3 SO-DIMM socket, supports up to 8GB DDR3/DDR3L 1333/1600 SDRAM, with un-buffered and non-ECC

Display Option
Three independent display (only support on 3rd generation processor)
-Two display port and 1 x VGA
-Two display port and 1 x DVI-D
Dual independent display
-VGA and DVI-D
-Display port and VGA

-Display port and DVI-D
-Display port and display port

I/O Interface-Front
ATX power on/off switch
HDD access/power status LEDs
2 x USB 3.0 ports (blue color)
2 x Display port (can be converted to DVI-D or HDMI via active cables)
2 x Antenna holes
1 x External CFast
1 x SIM card socket

I/O Interface-Rear
2 x DB9 for COM5 & COM6 (RS232)
1 x DB44 serial port for 4 x COM port
-COM1/COM3/COM4: RS232
-COM2: RS232/422/485
2 x Intel® GbE LAN ports (Intel® 82574L and 82579LM); support WoL, teaming and PXE
2 x USB 2.0 ports
2 x USB 3.0 ports (blue color)
1 x DB15 VGA port
1 x DVI-D port
1 x Line-out and 1 x Mic-in

2-pin remote power on/off switch
+9V to 30VDC input

Storage Device
1 x CFast socket
1 x 2.5" SATA HDD or 2 x SATA DOM
SATA DOM: support 90°C horizontal type only

Expansion Slot
eCC3600E2: two PCIe x4 expansion slot
-Add-on card length: one 169mm max. and one 240mm max.
-Power consumption: 10W/slot max.
eCC3600P2: two PCI expansion slot
-Add-on card length: one 169mm max. and one 240mm max.
-Power consumption: 10W/slot max.
eCC3600P2E: one PCIe x4 and one PCI expansion slot
-Add-on card length: 169mm max. for PCIe x4 and 240mm max. for PCI expansion
-Power consumption: 10W/slot max.
1 x mini-PCIe socket (support optional Wi-Fi or 3.5G module)
Power Requirements
ATX power mode
Onboard DC to DC power support from 9V to 30VDC
Optional power adapter

Dimensions
215mm (W) x 272mm (D) x 114mm (H) without wall mount bracket (8.5" x 10.7" x 4.5")
Construction
Aluminum Chassis with fanless design

Environment
Operating temperature: Ambient with air flow: -5°C to 50°C if using Core™ i7-3612QM Ambient with air flow: -5°C to 55°C (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
Storage temperature: -20°C to 80°C
Relative humidity: 95% at 40°C
Shock protection:
-HDD: 20G, half sine, 11ms, IEC60068-2-27
-CFast: 50G, half sine, 11ms, IEC60068-2-27
Vibration protection w/ HDD condition
-Random: 0.5Grms @ 5~500Hz according to IEC60068-2-64
-Sinusoidal: 0.5Grms @ 5~500Hz according to IEC60068-2-6

Certifications
CE approval
FCC Class A

OS Support Lists
Windows XP 32-bit and 64-bit
Windows 7 32-bit and 64-bit
Windows 8.1 32-bit and 64-bit