



Features

- Supports Intel® Core™ i7/i5 processors in LGA1155 package
- Delivers up to 16GB maximum DDR3 1333/1600 SDRAM on two DIMM sockets
- Supports multiple display by DVI-I (DVI-D+VGA) and HDMI
- Supports iAMT 8.0 on Intel® Core™ i7/i5 processors
- High speed dual Gigabit Ethernet based on PCI Express x1, high bandwidth I/O interface
- Rich I/O connections such as FDD, two Gigabit Ethernet, serial ports, parallel port, USB 2.0/3.0
- On-board two SATA II and two SATA III ports support RAID 0, 1, 5, 10



Overview

SBC-4220-Q77 is based on Intel® Q77 chipset and Core™ i7/i5 sku processor. It's suitable for Medical, Factory Automation, and Digital Signage applications.

Specification

Processor

Intel® Core™ i7/i5 processor in LGA1155 package
IDMI x4 Link: 5.0 GT/s
Supports Intel® Turbo Boost, Hyper-Threading, Virtualization, Thermal Monitoring, Trusted Execution and SpeedStep® Technology (depends on CPU sku)

Chipset

Intel® Q77 PCH

BIOS

Phoenix UEFI BIOS

Memory

Supports up to 16GB DDR3 1333/1600 SDRAM on two 240-pin DIMM sockets

Storage Devices

Supports 2x SATA III drives and 4x SATA II drives (Dual SATA II ports via Backplane)
RAID 0, 1, 5, 10- 1x FDD channel

Watchdog Timer

Programmable via S/W from 0.5 sec. to 254.5 sec.

Hardware Monitoring

System monitor (Voltage, Fan Speed and Temperature)

Expansion Interface

From CPU: 1x PCI Express x16
From PCH: 1x PCI Express x4 or 4x PCI Express x1 by different bios support
4x PCI devices at 32 bit 33 MHz

Super I/O

ITE IT8728FAudio
Intel® BD82C216 PCH built-in High Definition Audio up to 192-kHz 32-bit- Realtek ALC886-GR HDA codec, 5.1 channels

Ethernet

Intel® 82579LM+82574L gigabit ethernet controller
Dual 10BASE-T/100BASE-TX/1000BASE-T Ethernet- PCI Express x1 interface based on gigabit Ethernet
Dual RJ-45 connector with two LED indicators

Serial Port

1x RS232 and 1x selectable RS232/422/485 on board

USB

10x USB 2.0 ports (four ports through backplane)
480Mb/s bus capable of high-speed/full-speed/low-speed data ranges
4x USB 3.0 ports pn board (two ports on board, two ports on bracket)
5Gbps bus capable of high-speed/ full-speed/low-speed data ranges

Keyboard & Mouse

2x USB 3.0 ports on bracket dedicated to keyboard & mouse

GPIO

On board programmable 8-bit Digital I/Os

Others

1x parallel port

Graphic Controller

Intel® Core™ i7/i5 processors integrated graphics engine
Provides improved 3D multimedia capabilities including Microsoft DirectX 11, Shader Model 4.0, MPEG-2 and OpenGL 3.1

Display Interface

CRT on bracket: Resolution up to 2048x1536 @75Hz
DVI-D: up to 1920x1200 @60Hz
HDMI: up to 1920x1200 @60Hz(CRT+DVI-D on bracket by DVI-I port)

Dimension

338.5(L) x 126.39(W) mm; 13.33"(L) x 4.98"(W)
PCB: 12 layers

Power Supply

Typical: +12V@4.85A; +5V@3.4A
Supports ATX mode

Environment

Operation Temperature: 0~60 °C (with highest performance on 50 °C)
Storage Temperature: -20~80 °C
Relative Humidity: 5~90%, non-condensing

MTBF

Over 100,000 hours at 40°C

Packing List

Standard
SATA II cable
SATA III cable (Black)
Cable kit for FDD+PRN with bracket
Dual head COM port cable with bracket
DVI-D + VGA cable
PICMG SBC Handling and Installation Notice
Installation CD

Optional

PS/2 Keyboard / Mouse Cable with bracket
USB port cable with bracket
USB 3.0 cable with bracket
PA-M1AU Multiple Media kit

All systems are fully integrated and are configurable to meet your application requirements