

# EmCORE-i55M0

## Intel® Core™ i5/i7/Celeron® 3.5" Compact Board



### Features

- Support Intel® Core™ i5/i7 and Celeron® Mobile Processors
- Integrated Gigabit Ethernet
- Dual Channels 24-bit LVDS, and Analog RGB
- Support Dual Independent Displays
- Support RS-485 Auto-Flow Control
- **Extended Operating Temp.: -20 ~ 70°C**

### System

<b>CPU</b>	Intel® 1st Gen. Core™ i5/i7 and Celeron® Mobile processors in rPGA988 socket
<b>Memory</b>	1 x 204-pin DDR3 SO-DIMM socket, supporting 800/1066MHz SDRAM up to 4GB
<b>Chipset</b>	Intel® PCH HM55
<b>BIOS</b>	AMI PnP Flash BIOS
<b>Watchdog Timer</b>	1~255 levels reset

### I/O

<b>I/O Chip</b>	Fintek F71869ED
<b>Serial Port</b>	4 x COM ports (3 x RS-232, 1 x RS-232/422/485 selectable)
<b>USB Port</b>	4 x USB 2.0 ports
<b>KB/MS</b>	1 x 6-pin wafer connector for keyboard and mouse (PS/2 interface via Y-cable)
<b>Expansion Bus</b>	LPC (Low Pin Count) Connector
<b>Storage</b>	2 x Serial ATA ports with 300MB/s HDD transfer rate 1 x CFast socket
<b>Ethernet Chipset</b>	1 x Intel® 82583V PCIe GbE controller
<b>Audio Interface</b>	Realtek ALC662 5.1 channel HD Audio Codec, Mic-in/Line-in/Line-out

### Display

<b>Graphics Chipset</b>	Integrated Intel® HD Graphics Controller w/ 5th generation graphic core
<b>Graphics Interface</b>	Analog RGB supports resolution up to 2048 x 1536 @60Hz LCD: Dual Channels 24-bit LVDS, resolution up to 1600 x 1200 DisplayPort supported

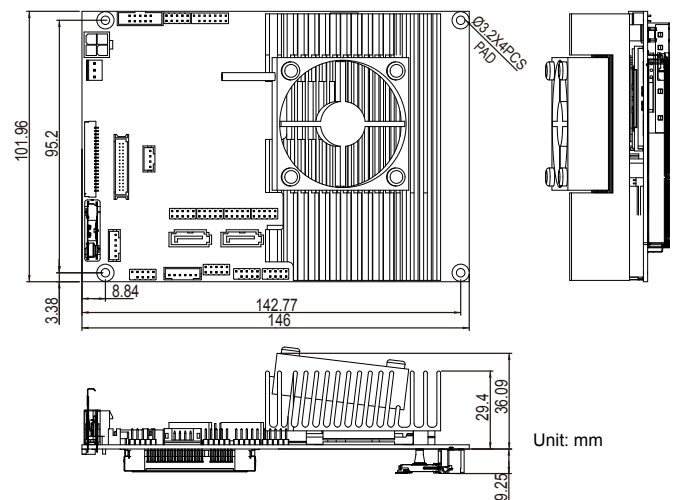
#### Recommended CPU list:

Intel® i7-620M 2.66GHz Core™ 2 Duo Processor  
Intel® i5-520M 2.4GHz Core™ 2 Duo Processor  
P4500 1.86GHz Celeron® Processor

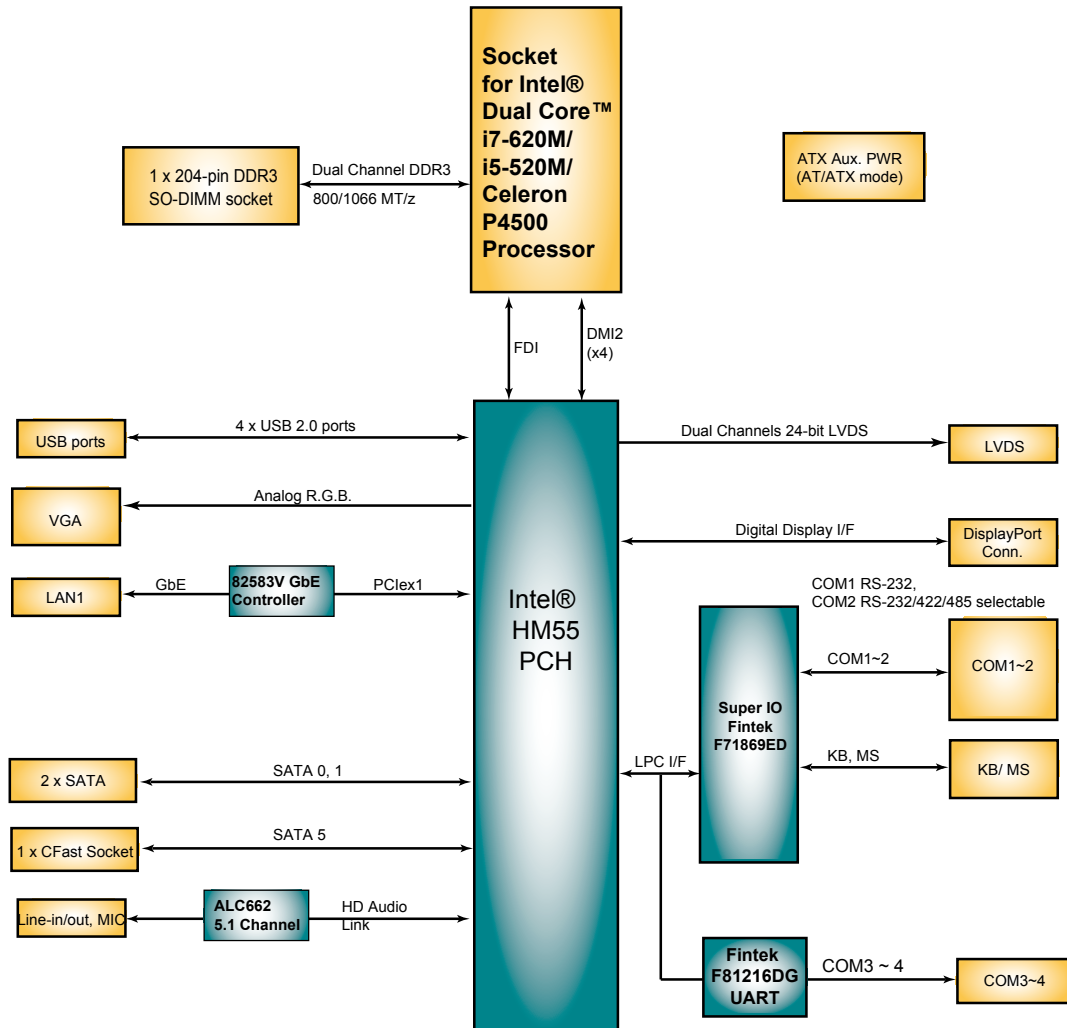
### Mechanical & Environmental

<b>Power Requirement</b>	+12V input
<b>Power Consumption</b>	2.81A@+12V with Intel® i5 520M (Typical)
<b>Operating Temp.</b>	-20 ~ 70°C (-4 ~ 158°F)
<b>Storage Temp.</b>	-40 ~ 80°C (-40 ~ 176°F)
<b>Operating Humidity</b>	10 ~ 95% @ 70°C (non-condensing)
<b>Dimensions (L x W)</b>	146 x 102 mm (5.7" x 4")

### Dimensions



## Block Diagram



## Ordering Information

**EmCORE-i55M0** Socket-G Intel® 3.5" Compact Board

## Optional Accessories

**FCDB-1424** DisplayPort daughterboard Page 131

**FCDB-349R** 16-bit Digital I/O board Page 131

**CBK-12-55M0-00** Cable kit

- 2 x USB cables
- 1 x audio cable
- 1 x KB & MS Y-cable
- 2 x SATA cables
- 1 x VGA cable
- 1 x GbE Ethernet cable
- 1 x COM port cable