

# 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<br>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            |

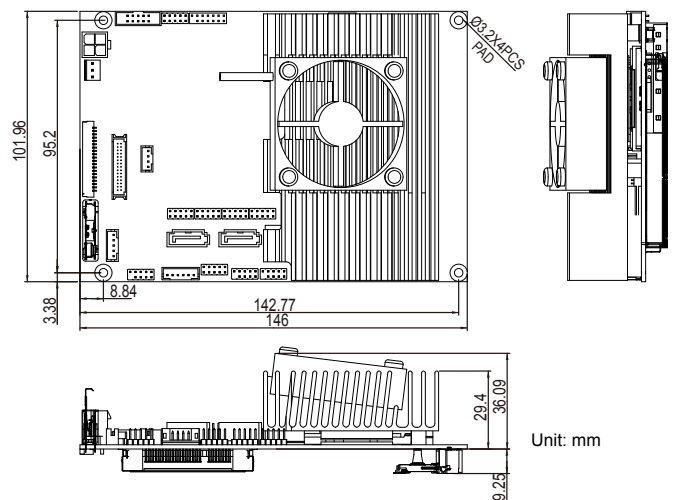
### Display

|                           |   |
|---------------------------|---|
| <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<br>LCD: Dual Channels 24-bit LVDS, resolution up to 1600 x 1200<br>DisplayPort supported |

### 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")                 |

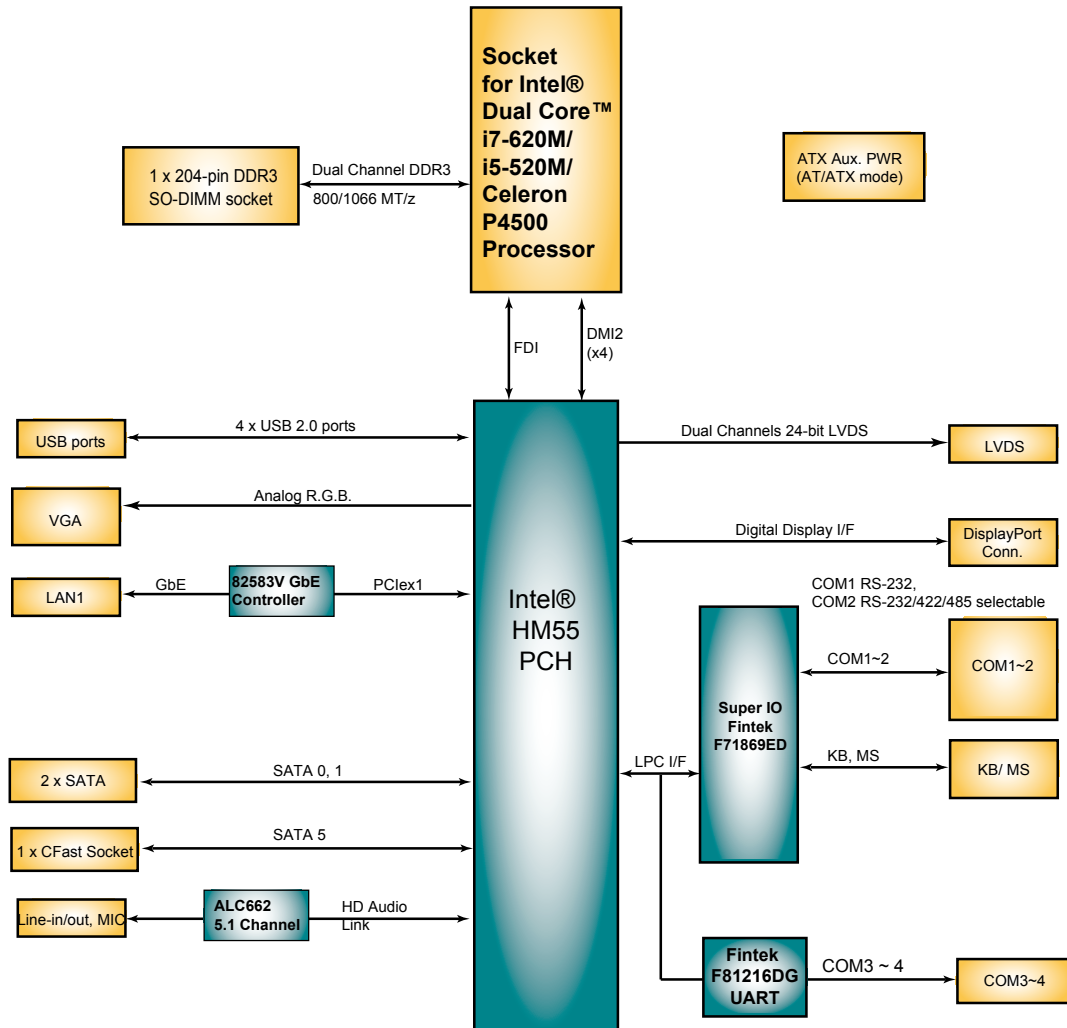
### Dimensions



#### 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

## 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