

# EmCORE-i290H

## Intel® Atom™ N455/D525 EPIC Compact Board



### Features

- Soldered Onboard Intel® Atom™ N455/D525 Processor
- Dual Gigabit Ethernet Ports
- Analog RGB and Single Channel 18-bit LVDS Display
- Support Dual Independent Displays
- Integrate SIM Socket to Support Mobile Telecommunication
- **Extended Range Operating Temp.: -20 ~ 70°C**

### System

<b>CPU</b>	Soldered onboard Intel® Atom™ N455 1.6GHz, or D525 1.8GHz processor
<b>Memory</b>	Soldered onboard 2GB DDR3 SDRAM
<b>Chipset</b>	Intel® ICH8M
<b>BIOS</b>	AMI PnP Flash BIOS
<b>Watchdog Timer</b>	1~255 levels reset

### I/O

<b>I/O Chip</b>	Winbond 83627UHG
<b>Serial Port</b>	5 x COM ports (4 x RS-232, 1 x RS-232/422/485 selectable)
<b>USB Port</b>	8 x USB 2.0 ports
<b>KB/MS</b>	1 x 6-pin wafer connector for keyboard and mouse (PS/2 interface via cable)
<b>Digital I/O</b>	8-bit programmable Digital Input/Output

	1 x Mini PCI socket
<b>Expansion Bus</b>	1 x Mini-card socket
	1 x SIM socket

	1 x Ultra ATA, supporting 2 IDE devices
<b>Storage</b>	2 x SATA ports at 300MB/s HDD transfer rate
	Soldered on board 2GB NANDrive (optional)

<b>Ethernet Chipset</b>	2 x Realtek RTL8111 PCIe GbE controllers
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<b>Audio Interface</b>	Realtek ALC886 7.1 Channel HD Audio Codec, Mic-in/Line-out
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### Display

<b>Graphics Chipset</b>	Integrated Intel® Graphics Media Accelerator 3150
	Analog RGB supports resolution up to:
	- 1400 x 1050 @60Hz (N455)
	- 2048 x 1536 @60Hz (D525)

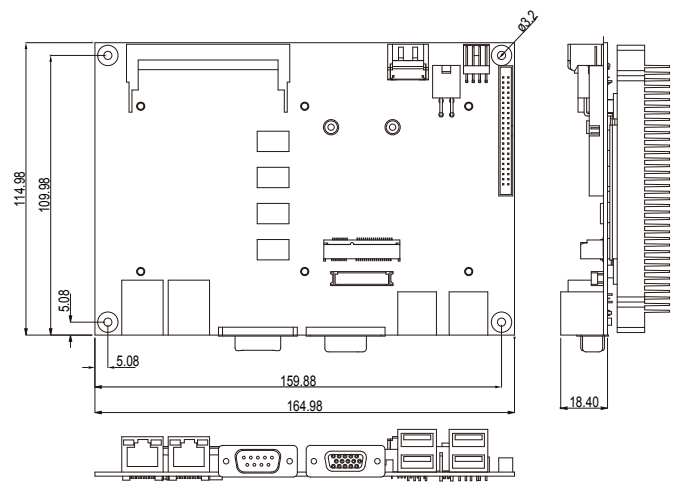
<b>Graphics Interface</b>	Single channel 18-bit LVDS supports resolution up to:
	- 1280 x 800 or 1366 x 768 (N455)
	- 1366 x 768 (D525)

Support Dual Independent Displays

### Mechanical & Environmental

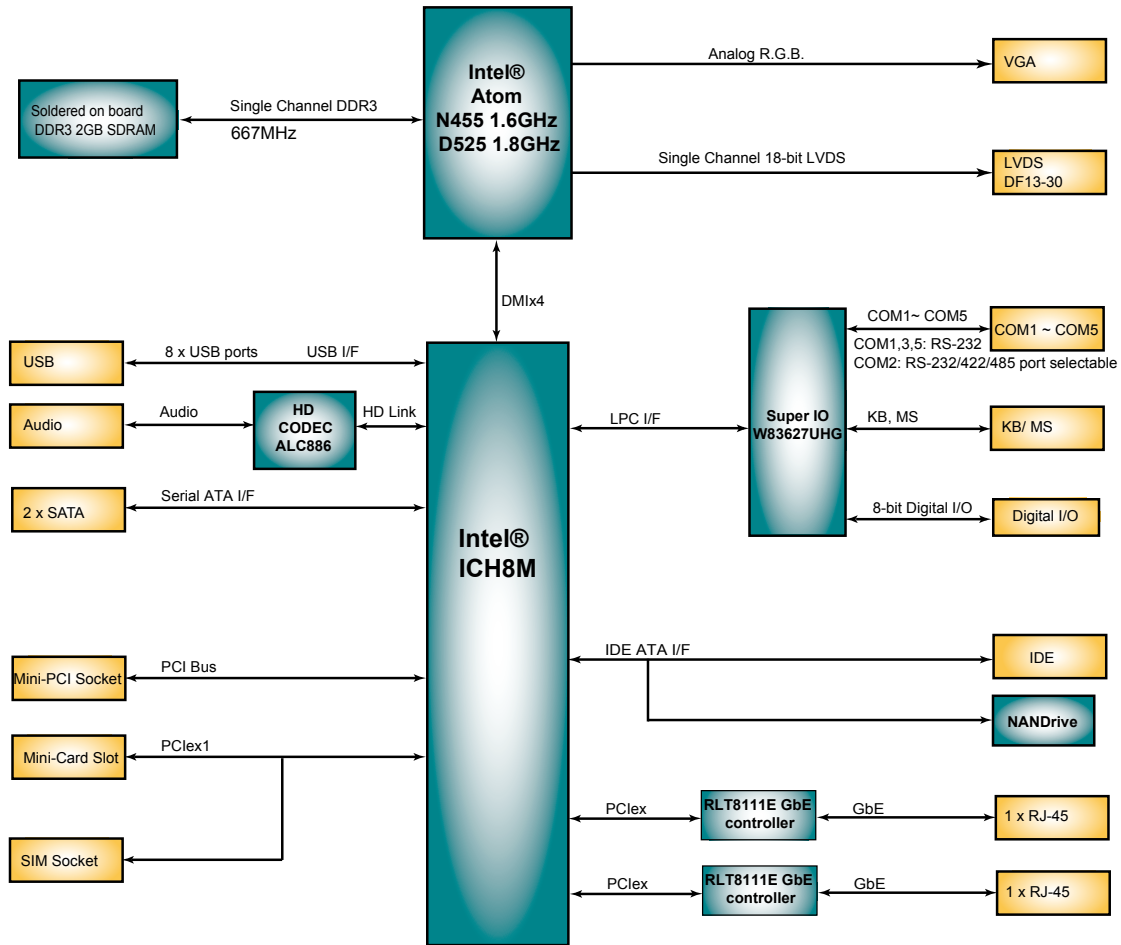
<b>Power Connector</b>	4-pin Aux. ATX power connector
	1.52A@+12V with D525 CPU (Typical)
<b>Power Consumption</b>	1.29A@+12V with N455 CPU (Typical)
<b>Operating Temp.</b>	-20 ~ 70°C (-4 ~ 158°F)
<b>Operating Humidity</b>	10 ~ 95% @ 70°C (non-condensing)
<b>Dimensions (L x W)</b>	165 x 115 mm (6.5" x 4.5")

### Dimensions



Unit: mm

## Block Diagram



## Ordering Information

<b>EmCORE-i290H-N4</b>	Intel® Atom™ N455 EPIC Compact Board
<b>EmCORE-i290H-D5</b>	Intel® Atom™ D525 EPIC Compact Board
<b>EmCORE-i290HD-N4</b>	Intel® Atom™ N455 with 2GB NANDrive EPIC Compact Board
<b>EmCORE-i290HD-D5</b>	Intel® Atom™ D525 with 2GB NANDrive EPIC Compact Board

## Optional Accessories

<b>CBK-11-2902-00</b>	Cable kit
	• 1 x IDE cable
	• 1 x audio cable
	• 2 x SATA cables
	• 2 x USB cables
	• 4 x COM port cables
• 1 x KB/MS cable	