

# EmETXe-i2903

COM  
Express

Intel® Atom™ N455/ D525 COM Express Basic Type 2 CPU Module



## Features

- **Fanless Design**
- Soldered Onboard Intel® Atom™ N455/D525 Processor
- Integrated Gigabit Ethernet
- Support Both LVDS and Analog RGB Output
- Support Dual Independent Displays
- **Extended 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 UEFI BIOS                                                       |
| <b>Watchdog Timer</b> | 1~255 levels reset                                                  |

## I/O

|                         |                                                     |
|-------------------------|-----------------------------------------------------|
| <b>USB Port</b>         | 8 x USB 2.0 ports                                   |
| <b>Digital I/O</b>      | 8-bit programmable Digital Input/Output             |
|                         | 5 x PCIe x1 lanes                                   |
| <b>Expansion Bus</b>    | 4 x PCI masters                                     |
|                         | LPC (Low Pin Count) interface                       |
| <b>Storage</b>          | 1 x Ultra ATA, supporting 2 IDE devices             |
|                         | 3 x Serial ATA ports with 300MB/s HDD transfer rate |
| <b>Ethernet Chipset</b> | 1 x Intel® 82574IT PCIe GbE controller              |
| <b>Audio</b>            | HD Audio Link                                       |

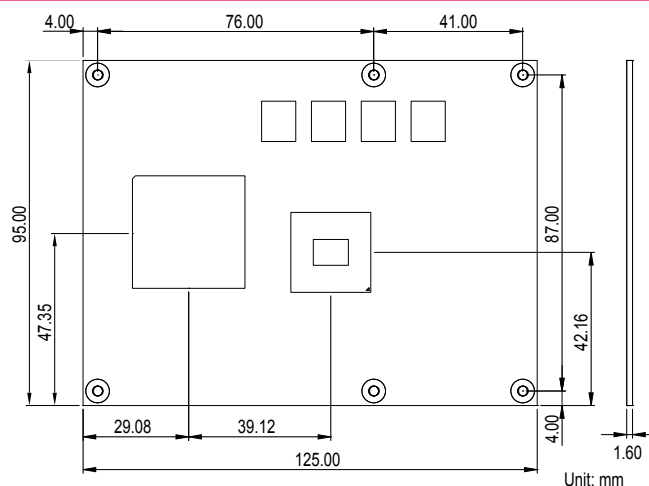
## Display

|                           |                                                                                                                   |
|---------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Graphics Chipset</b>   | Integrated Intel® Graphics Media Accelerator 3150                                                                 |
|                           | Analog RGB supports resolution up to:<br>- 1400 x 1050 @60Hz (N455)<br>- 2048 x 1536 @60Hz (D525)                 |
| <b>Graphics Interface</b> | Single channel 18-bit LVDS supports resolution up to:<br>- 1280 x 800 or 1366 x 768 (N455)<br>- 1366 x 768 (D525) |
|                           | Support Dual Independent Displays                                                                                 |

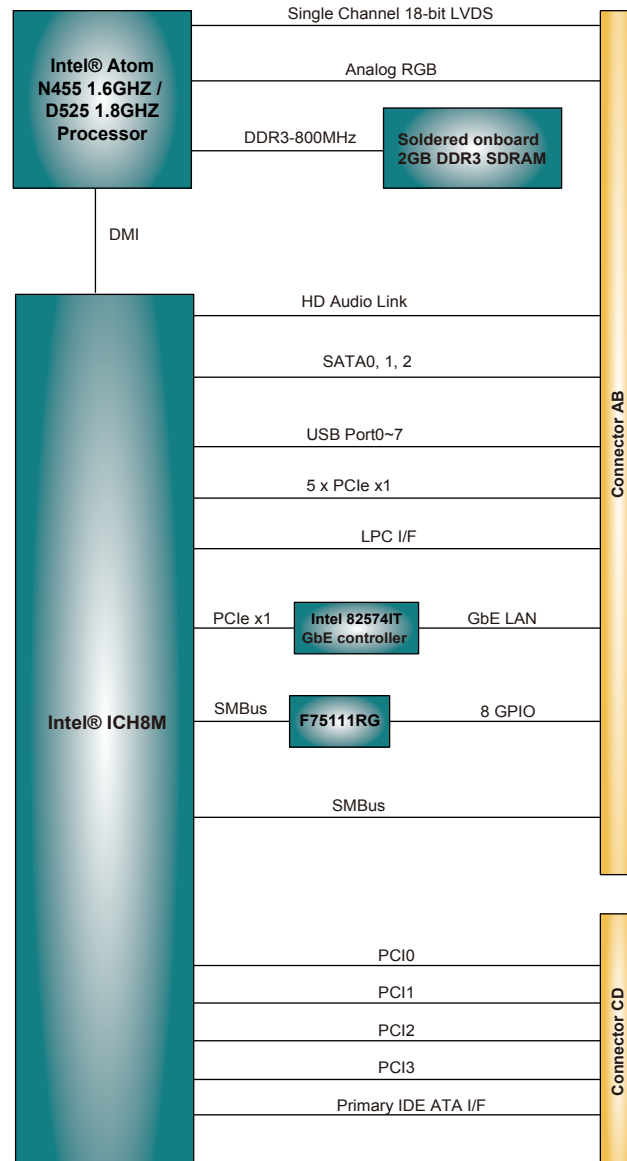
## Mechanical & Environmental

|                           |                                                                  |
|---------------------------|------------------------------------------------------------------|
| <b>Power Requirement</b>  | +12V, 5VSB                                                       |
| <b>Power Consumption</b>  | 1.05A@+12V with N455 (Typical)<br>1.25A@+12V with D525 (Typical) |
| <b>Operating Temp.</b>    | -20 ~ 70°C (-4 ~ 158°F)                                          |
| <b>Operating Humidity</b> | 10 ~ 95% @ 70°C (non-condensing)                                 |
| <b>Dimension (L x W)</b>  | 125 x 95 mm (4.9" x 3.7")                                        |

## Dimensions



## Block Diagram



## Ordering Information

|                              |                                          |
|------------------------------|------------------------------------------|
| <b>EmETXe-i2903-N4</b>       | Intel® Atom™ N455 COM Express CPU module |
| <b>EmETXe-i2903-D5 (BTO)</b> | Intel® Atom™ D525 COM Express CPU module |

## Optional Accessories

|                        |                                                                                                                                                              |         |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| <b>HS-0746-F2</b>      | Heat Spreader (95x125x8 mm)                                                                                                                                  |         |
| <b>HS-0000-W4</b>      | Universal evaluation heatsink kit w/ thermal pad (dimension: 125x95x22mm, only used on a flat type heatspreader)                                             |         |
| <b>PBE-1700-W R1.3</b> | COM Express type 2 evaluation board in ATX form factor w/ W83627 Super IO                                                                                    | Page 64 |
| <b>CBK-04-1700-00</b>  | Cable kit <ul style="list-style-type: none"> <li>• 1 x SATA cable</li> <li>• 1 x COM Port cable</li> <li>• 1 x FDD cable</li> <li>• 1 x IDE cable</li> </ul> |         |
| <b>CPF-0000-C1</b>     | FAN, 4500RPM, 60x60x20mm                                                                                                                                     |         |