



### Features

- Onboard Intel® Atom™ N270 1.6 GHz CPU
- Intel® 945GSE / ICH7-M Chipset
- One 200-pin SODIMM socket supports up to 1 GB DDR2 400/533 SDRAM,
- Onboard 1 GB DDR2 Memory
- Dual View, 2-CH LVDS, TV-out, HDTV
- Intel® High Definition Audio
- Marvell 88E8053 Gigabit Ethernet
- 4 PCI, 3 PCIe1, 2 SATA, 8 USB, 8 GPIO

|       |               |           |        |        |
|-------|---------------|-----------|--------|--------|
| Atom™ | Intel® 945GSE | Dual View | LVDS   | TV-out |
| GbE   | 3 PCIe1       | 4 PCI     | 2 SATA | 8 USB  |

### Specifications

#### System

|                  |  |
|------------------|--|
| • CPU            | Onboard Intel® N270 Atom™ 1.6 GHz CPU  |
| • BIOS           | Award 8 Mbit Flash BIOS  |
| • System Chipset | Intel® 945GSE / ICH7-M   |
| • System Memory  | One 200-pin SODIMM socket supports up to 1 GB DDR2 400/533 SDRAM<br>Onboard 1 GB DDR2 memory |
| • Expansion      | 4 PCI (PCI Rev. 2.3 compliant), 3 PCIe x1, 1 SDVO  |

#### I/O

|       |   |
|-------|---|
| • MIO | 1 x EIDE (Ultra DMA 100), LPC, SMBus/I <sup>2</sup> C Bus, 2 x SATA |
| • USB | 8 x USB 2.0 ports   |
| • DIO | 4-bit GPI and 4-bit GPO   |

#### Display

|                    |  |
|--------------------|--|
| • Chipset          | Intel® 945GSE integrated   |
| • Display Memory   | Intel® DVMT 3.0 Supports up to 224 MB shared video memory                |
| • Resolution       | CRT mode: 2048 x 1536 @ 75 Hz<br>LCD/Simultaneous mode: 1600x1200 @ 60Hz |
| • Multiple Display | CRT + LVDS, CRT + TV, LVDS + TV  |
| • LVDS Interface   | Dual-channel 18-bit LVDS   |
| • TV-out           | Intel® 945GSE Integrated TV Interface supports HDTV                      |

#### Audio Interface

|             |                 |
|-------------|-----------------|
| • Chipset   | Intel® ICH7-M   |
| • Interface | Intel® HD Audio |

#### Ethernet

|                      |  |
|----------------------|--|
| • LAN                | Marvell 88E8053 Gigabit Ethernet         |
| • Ethernet Interface | 1000 Base-Tx Gigabit Ethernet compatible |

#### Mechanical & Environmental

|                         |  |
|-------------------------|--|
| • Power Requirement     | +12V, +5Vsb                              |
| • Power Type            | ATX                                      |
| • Operating Temperature | 0~60°C (32~140°F)                        |
| • Operating Humidity    | 0%~90% relative humidity, non-condensing |
| • Size (L x W)          | 5" x 3.7" (125 mm x 95 mm)               |
| • Weight                | 0.44 lbs (0.2 kg)                        |

### Ordering Information

- **ESM-945GSE**  
Intel® 945GSE Atom™ N270 COM Express Module
- **EEV-EX11**  
COM Express Carrier Board for Evaluation
- **ACC-HSK-2856-2R**  
Heat Sink for ESM-945GSE
- **ACC-HSP-2856-2R**  
Heat Spreader for ESM-945GSE