

# CoreExpress®-ECO2

CoreExpress Module

Intel® Atom™ E6xx Series Processor



## Features

Intel Atom E6xx Processor Series

Intel® Platform Controller Hub EG20T

512MB, 1GB, 2GB DDR2 RAM

PCI Express 3 x1 lanes

Single channel 18/24 bit LVDS, SDVO

SATA, Gigabit LAN, USB 2.0, CAN

## Specifications

|                     |                                                                                                                                                                         |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Board Format</b> | CoreExpress,<br>58mm x 65mm                                                                                                                                             |
| <b>Processor</b>    | Intel Atom E6xx Processor<br>E620T, E640T, E660T, E680T                                                                                                                 |
| <b>Chipset</b>      | Intel® Platform Controller Hub EG20T<br>6x USB 2.0, 1x USB client, 2x SATA<br>1x Gigabit MAC: RGMII<br>1x SDIO, 1x CAN, SPI, I2C                                        |
| <b>RAM</b>          | 512MB, 1GB, 2GB DDR2 RAM,<br>667 / 800 MHz                                                                                                                              |
| <b>Graphics</b>     | Integrated Graphics Engine (SDVO,<br>LVDS), Video Engine (H.264, H.263,<br>MPEG2, MPEG4, VC1, WMV9)<br>integrated memory controller,<br>supports 3D, DirectX and OpenGL |
| <b>SDVO</b>         | up to 1920 x 1280 @50Hz<br>Digital Display port for ADD2 card or<br>SDVO-DVI transmitter on carrier                                                                     |
| <b>LVDS</b>         | 18/24 bit single channel<br>up to 1280 x 768 @60Hz<br>Display backlight support                                                                                         |
| <b>USB</b>          | <ul style="list-style-type: none"><li>• 6 USB 2.0 host ports, with boot<br/>device support</li><li>• 1 USB 2.0 client</li></ul>                                         |
| <b>Ethernet</b>     | Controller integrated in chipset<br>PHY on carrier required                                                                                                             |
| <b>SATA</b>         | 2 SATA ports (3.0 Gb/s)                                                                                                                                                 |
| <b>CAN</b>          | 2.0B interface with up to 1Mbps<br>Transceiver on carrier required                                                                                                      |

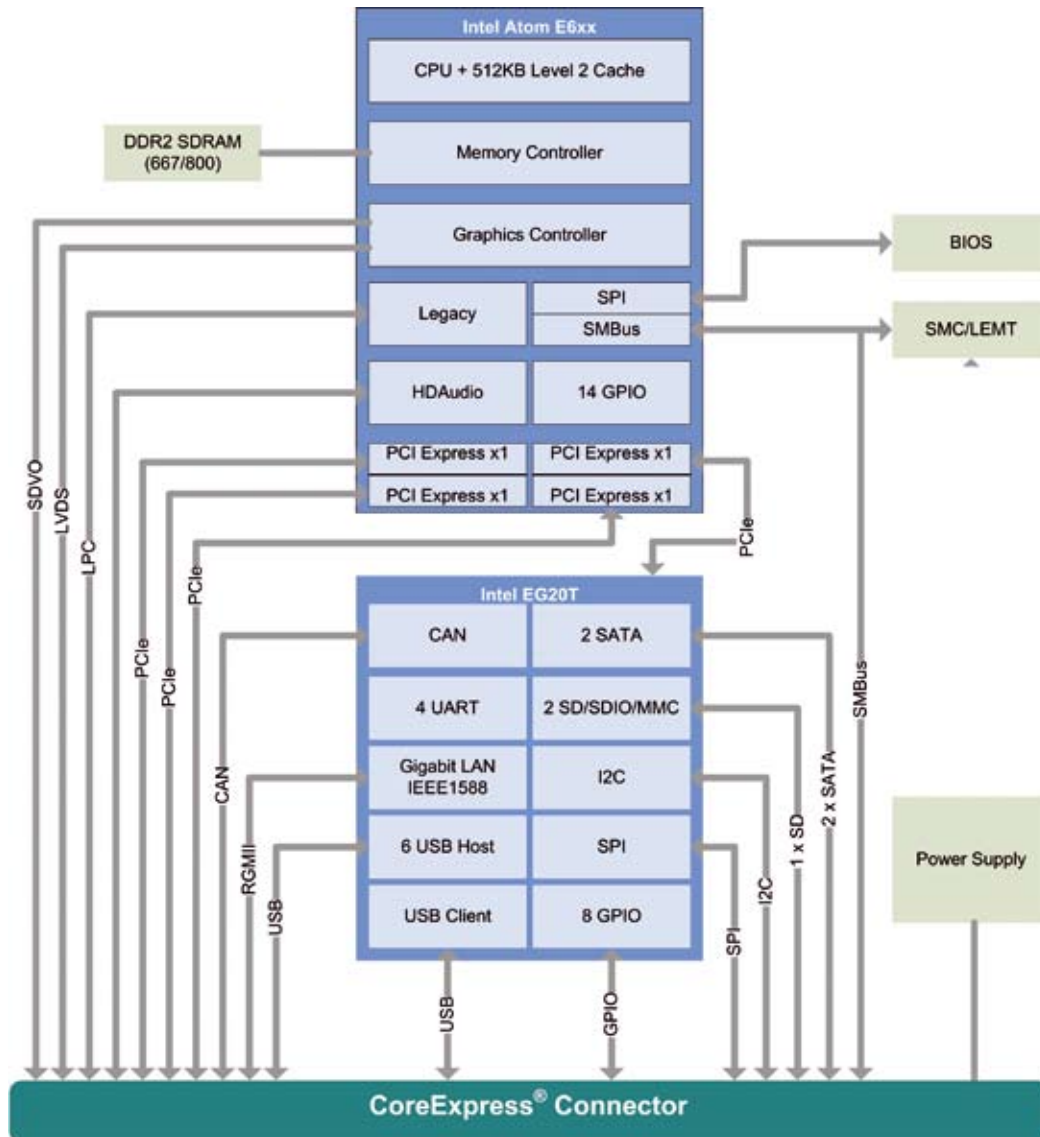
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|------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>SDIO</b>                  | 8 bit, integrated in chipset                                                                                             |
| <b>Audio</b>                 | HDA link on CoreExpress connector<br>Codec on carrier required                                                           |
| <b>PCI Express Bus</b>       | PCI Express bus 3 x1 lanes                                                                                               |
| <b>Power Supply</b>          | +5 V only. All necessary voltages are<br>generated on-board.                                                             |
| <b>Power Consumption</b>     | t.b.d.                                                                                                                   |
| <b>Power Managment</b>       | BIOS supports ACPI power saving<br>modes                                                                                 |
| <b>Status LED</b>            | Status (Service)<br>S3 mode                                                                                              |
| <b>Watchdog</b>              | Yes (LEMT)                                                                                                               |
| <b>Operating temperature</b> | 0°C...+60°C (commercial, all versions)<br>-20°C...+60°C (industrial, all versions)<br>-40°C...+85°C (extended, optional) |
| <b>Cooling</b>               | Passive cooling possible<br>Heat spreader is available                                                                   |
| <b>MTBF</b>                  | 228,412 hours @ 25°C                                                                                                     |
| <b>BIOS</b>                  | Phoenix BIOS<br>BIOS parameters are saved in Flash                                                                       |
| <b>LEMT</b>                  | Yes, Condition Monitoring                                                                                                |
| <b>Supported OS</b>          | Windows, Linux                                                                                                           |

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## Block Diagram



### Ordering Information

| Ordering Number | Description                                                                   |
|-----------------|-------------------------------------------------------------------------------|
| t.b.d.          | CoreExpress® module with Intel® Atom™ E640T processor, 1.0 GHz, 1 GB DDR2 RAM |
| t.b.d.          | CoreExpress® module with Intel® Atom™ E680T processor, 1.6 GHz, 2 GB DDR2 RAM |

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