

**NEW**



### Features

- Single, dual or quad-core Intel® Atom™ SOC or Celeron® Processor
- Single SODIMM for up to 4GB DDR3L
- Dual channel 24-bit LVDS, analog VGA
- 2 SATA and 2 PATA (M/S), 4x USB 2.0, 10/100 Mbps LAN (GbE via onboard connector)
- Extreme Rugged™ operating temperature: -40°C to +85°C (optional)
- Supports Smart Embedded Management Agent (SEMA) functions

### Specifications

#### Core System

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU                   | Single, dual or quad-core Intel® Atom™ or Celeron® Processor<br>Atom™ E3845 1.91 GHz 542/792 (Turbo) 10W (4C/1333)<br>Atom™ E3827 1.75 GHz 542/792 (Turbo) 8W (2C/1333)<br>Atom™ E3826 1.46 GHz 533/667 (Turbo) 7W (2C/1066)<br>Atom™ E3825 1.33 GHz 533 (No Turbo) 6W (2C/1066)<br>Atom™ E3815 1.46 GHz 400 (No Turbo) 5W (1C/1066)<br>Celeron® N2930 1.83 GHz, 400/756 (Turbo) 7.5W (4C/1066)<br>Celeron® J1900 2.00 GHz, 688/792 (Turbo) 10W (4C/1333)<br>Supports: Single, dual or quad Out-of-Order Execution (OOE) processor cores, Intel® VT-x, Intel® SSE4.1 and SSE4.2, Intel® 64 architecture, IA 32-bit, PCLMULQDQ Instruction DRNG, Intel® Thermal Monitor (TM1 & TM2)<br>Note: Availability of features may vary between processor SKUs. |
| Memory                | Single SODIMM socket for up to 4 GB non-ECC 1333/1066 MHz DDR3L memory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Embedded BIOS         | AMI EFI with CMOS backup in 8MB SPI BIOS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Cache                 | Primary 32 kB, 8-way L1 instruction cache and 24 kB, 6-way L1 write-back data cache                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Expansion Busses      | PCI 32-bit rev 2.3 at 33MHz supporting 4 bus masters ISA 16-bit (through LPC-ISA bridge), no DMA support SMBus (system), I²C (user)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| SEMA Board Controller | Supports: Voltage/Current monitoring, Power sequence debug support, AT/ATX mode control, Logistics and Forensic information, Flat Panel Control, General Purpose I²C, Watchdog Timer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Debug Headers         | 40-pin multipurpose flat cable connector<br>Use in combination with DB-40 debug module providing BIOS POST code LEDs, BMC access, SPI BIOS flashing, power testpoints, debug LEDs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

#### Video

|                     |                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GPU Feature Support | 7th generation graphics Intel core architecture with four Execution Units, supporting two independent displays<br>3D graphics hardware acceleration<br>Support for DirectX 11, OCL 1.1, OGL ES 2.0/1.1, OGL 3.2<br>Video decode hardware acceleration including support for H.264, MPEG2, MVC, VC-1, WMV9 and VP8<br>Video encode hardware acceleration including support for H.264, MPEG2 and MVC formats |
| VGA                 | Analog VGA supporting resolutions of up to 2560 x 1600@60Hz, 24bpp                                                                                                                                                                                                                                                                                                                                         |
| LVDS                | Single/dual channel 18/24-bit LVDS from eDP (two lane)                                                                                                                                                                                                                                                                                                                                                     |

#### Audio

|             |                                                  |
|-------------|--------------------------------------------------|
| Chipset     | Intel® HD Audio integrated in SOC                |
| Audio Codec | Realtek ALC 262, 4-channel High Definition Audio |

#### Ethernet

|           |                                             |
|-----------|---------------------------------------------|
| Type      | Intel® i211 (MAC/PHY) Ethernet controller   |
| Interface | 10/100 Mbps LAN (GbE via onboard connector) |

#### Multi I/O and Storage

|      |                                                    |
|------|----------------------------------------------------|
| USB  | 4 ports USB 2.0                                    |
| PATA | Two PATA IDE with Master/Slave support             |
| SATA | Two SATA 3Gb/s ports                               |
| SSD  | Optional SATA SSD 2-64 GB (occupies one SATA port) |

#### Super I/O

|                |                                                         |
|----------------|---------------------------------------------------------|
| Chipset        | Nuvoton W83627DHG-PT                                    |
| Serial         | Two high speed RS-232C ports (COM1/COM2)                |
| IrDA           | Supports IrDA 1.0 SIR protocol or Sharp ASK-IR protocol |
| Parallel       | SPP, ECP and EPP mode support (LPT1)                    |
| Keyboard Mouse | PS/2 type keyboard and mouse                            |

#### Power

|                |                                                                       |
|----------------|-----------------------------------------------------------------------|
| Standard Input | ATX = 5V±5% / 5Vsb ±5% or AT = 5V±5%                                  |
| Management     | ACPI 4.0 compliant, Smart Battery support                             |
| Power States   | C0, C1, C1E, C4, C6; S0, S3, S4, S5 (Wake on USB S3/S4, WOL S3/S4/S5) |
| ECO mode       | Supports deep S5 (ECO mode) for power saving                          |

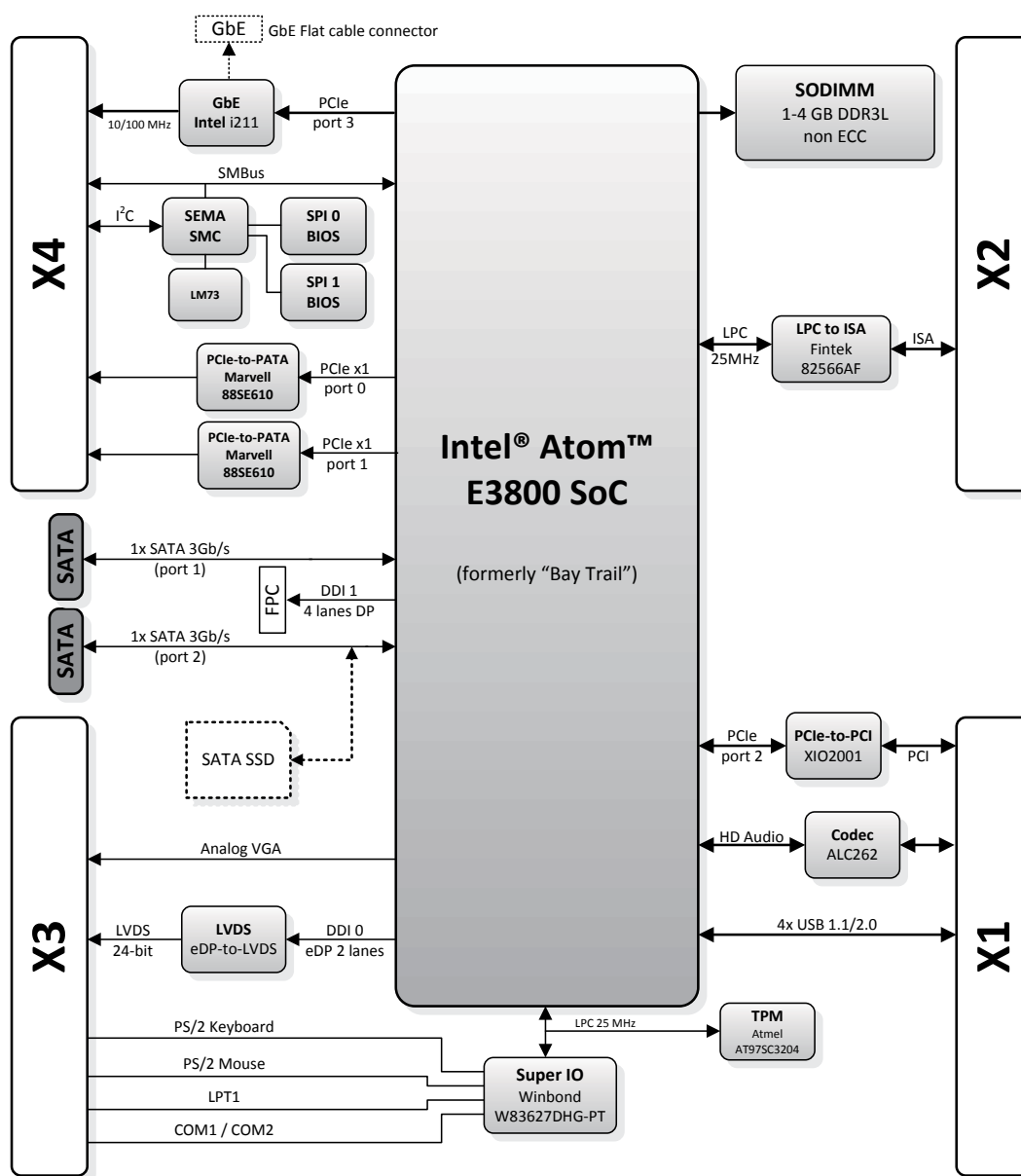
#### Mechanical and Environmental

|                       |                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Form Factor           | ETX Rev 3.02                                                                                                                       |
| Dimension             | 114 mm x 95 mm                                                                                                                     |
| Operating Temperature | Standard Operating Temperature: 0°C to +60°C<br>Screened Extreme Rugged™ Operating Temperature: -40°C to +85°C (optional)          |
| Humidity              | 5-90% RH operating, non-condensing<br>5-95% RH storage (operating with conformal coating)                                          |
| Shock and Vibration   | IEC 60068-2-64 and IEC-60068-2-27<br>MIL-STD-202F, Method 213B, Table 213-I, Condition A and Method 214A, Table 214-I, Condition D |
| HALT                  | Thermal Stress, Vibration Stress, Thermal Shock and Combined Test                                                                  |

#### Operating Systems

|                        |                                        |
|------------------------|----------------------------------------|
| Standard Support       | Windows 7/8 32/64-bit, Linux 32/64-bit |
| Extended Support (BSP) | WES7/8, WEC7/8, Linux, VxWorks         |

## Functional Diagram



## Ordering Information

### Modules

| Model Number        | Description/Configuration                                                     |
|---------------------|-------------------------------------------------------------------------------|
| <b>ETX-BT-E3845</b> | ETX Module with Intel® Atom™ E3845, 1.91 GHz 542/792 (Turbo), 10W (4C/1333)   |
| <b>ETX-BT-E3827</b> | ETX Module with Intel® Atom™ E3827, 1.75 GHz 542/792 (Turbo), 8W (2C/1333)    |
| <b>ETX-BT-E3826</b> | ETX Module with Intel® Atom™ E3826, 1.46 GHz 533/667 (Turbo), 7W (2C/1066)    |
| <b>ETX-BT-E3825</b> | ETX Module with Intel® Atom™ E3825, 1.33 GHz 533 (No Turbo), 6W (2C/1066)     |
| <b>ETX-BT-E3815</b> | ETX Module with Intel® Atom™ E3815, 1.46 GHz 400 (No Turbo), 5W (1C/1066)     |
| <b>ETX-BT-E3805</b> | ETX Module with Intel® Atom™ E3805, 1.33 GHz 3W (2C/1067)                     |
| <b>ETX-BT-J1900</b> | ETX Module with Intel® Atom™ J1900, 2 GHz, 688/792 (Turbo), 10W (4C/1333)     |
| <b>ETX-BT-N2807</b> | ETX Module with Intel® Celeron® N2807, 2.16 GHz 4.5W (2C)                     |
| <b>ETX-BT-N2930</b> | ETX Module with Intel® Atom™ N2930, 1.86 GHz, 400/756 (Turbo), 7.5W (4C/1066) |

Note: All specifications are subject to change without further notice.

### Accessories

| Model Number             | Description/Configuration                                                    |
|--------------------------|------------------------------------------------------------------------------|
| <b>Heat Spreaders</b>    |                                                                              |
| HTS-eBT-B                | Heatspreader for ETX-BT with threaded standoffs for bottom mounting          |
| HTS-eBT-BT               | Heatspreader for ETX-BT with through-hole standoffs for top mounting         |
| <b>Passive Heatsinks</b> |                                                                              |
| THS-eBT-B                | Low profile heatsink for ETX-BT with threaded standoffs for bottom mounting  |
| THS-eBT-BT               | Low profile heatsink for ETX-BT with through-hole standoffs for top mounting |
| <b>Active Heatsink</b>   |                                                                              |
| THSH-eBT-B               | High profile heatsink for ETX-BT with threaded standoffs for bottom mounting |



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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