

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), 10/100 Mbps LAN, 4x USB 2.0
- 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 Atom™ E3845 1.91 GHz 542/792 (Turbo) 10W (4C/1333) Atom™ E3827 1.75 GHz 542/792 (Turbo) 8W (2C/1333) Atom™ E3826 1.46 GHz 533/667 (Turbo) 7W (2C/1066) Atom™ E3825 1.33 GHz 533 (No Turbo) 6W (2C/1066) Atom™ E3815 1.46 GHz 400 (No Turbo) 5W (1C/1066) Celeron® N2930 1.83 GHz, 400/756 (Turbo) 7.5W (4C/1066) Celeron® J1900 2.00 GHz, 688/792 (Turbo) 10W (4C/1333) 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) 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), I ² C (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 I ² C, Watchdog Timer
Debug Headers	40-pin multipurpose flat cable connector Use in combination with DB-40 debug module providing BIOS POST code LEDs, BMC access, SPI BIOS flashing, power testpoints, debug LEDs

Audio

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

Ethernet

Type	Intel® i210 (MAC/PHY) Ethernet controller
Interface	10/100/1000Mbps

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

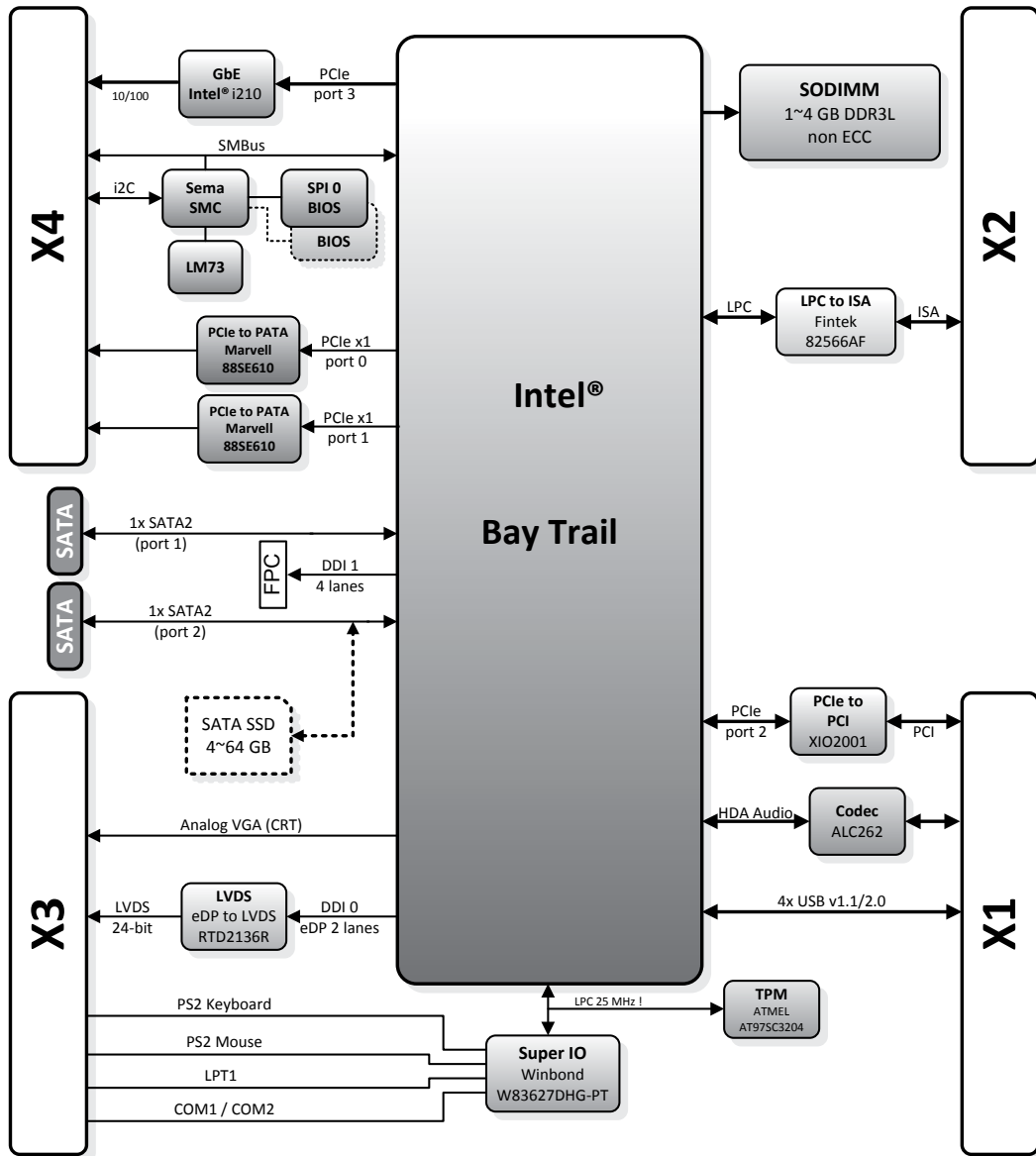
Mechanical and Environmental

Form Factor	ETX Rev 3.02
Dimension	114 mm x 95 mm
Operating Temperature	Standard Operating Temperature: 0°C to +60°C Screened Extreme Rugged Operating Temperature: -40°C to +85°C (optional)
Humidity	5-90% RH operating, non-condensing 5-95% RH storage (operating with conformal coating)
Shock and Vibration	IEC 60068-2-64 and IEC-60068-2-27 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
ETX-BT-E3845	ETX® module with Intel® Atom™ E3845 at 1.91 GHz
ETX-BT-E3827	ETX® module with Intel® Atom™ E3827 at 1.75 GHz
ETX-BT-E3826	ETX® module with Intel® Atom™ E3826 at 1.46 GHz
ETX-BT-E3825	ETX® module with Intel® Atom™ E3825 at 1.33 GHz
ETX-BT-E3815	ETX® module with Intel® Atom™ E3815 at 1.46 GHz
ETX-BT-N2930	ETX® module with Intel® Celeron® N2930 at 1.83 GHz
ETX-BT-J1900	ETX® module with Intel® Celeron® J1900 at 2.00 GHz

Accessories

Model Number	Description/Configuration
Heat Spreaders	
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
Passive Heatsinks	
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
Active Heatsink	
THSH-eBT-B	High profile heatsink for ETX-BT with threaded standoffs for bottom mounting