



- Intel® Atom™ E3800 Series
- Small Form Factor
- ECC Memory
- Extended Temperature
- Power Management
- Customization Options
- IoT Middleware and Platform

## Features

**Powerful** - Comes with Intel Atom E3800 CPU: one, two and four core configurations, up to 1.91GHz

**Small** - Extends the Catalyst line (67x100mm format) of CoM products for logical migration in next generation designs

**Reliable** - Offers memory configurations up to 4GB with ECC, and virtualization for data integrity and system uptime

**Rugged** - Supports wide operating temperature (-40 to +85°C), conformal coating options, soldered memory and flash storage

**Power Management** - Lowers power consumption even further with Eurotech's microcontroller-based power management, enabling fanless designs

**Professional Services** - Cuts Time-To-Market with Eurotech Professional Services, which include deep module customization, BIOS personalization, carrier board and system design and production

**IoT Native** - Provides native support for IoT, including IoT middleware and access to Eurotech IoT Integration Platform

## Description

The Catalyst BT is a Small Form Factor CoM based on Intel E3800 series (code name Bay Trail), which offers extremely low power consumption in its system on chip (SoC) format, without a companion chip. The Catalyst BT models include the E3800 series quad-core, dual-core and single-core options, with different clock speeds and cache sizes for each configuration.

The Catalyst BT is designed to perform reliably in systems that operate in harsh environments, and supports an extended temperature range (-40 to +85°C).

The Catalyst BT further reduces the power consumption of the chipset with microcontroller-based technology, making it the ideal platform for fanless, power constrained systems.

The Catalyst BT accelerates the development and deployment of IoT applications: it supports EC, the Eurotech IoT Integration Platform for embedded devices. EC is a complete offering consisting of open field protocols, cloud-based resources like databases and brokers, and REST APIs.

The Catalyst BT also supports ESF, Eurotech java-based framework for embedded devices. With ESF it is possible to develop portable applications in a fraction of the time thanks to high level, industry specific APIs.

## Specifications

|                       |                |   |
|-----------------------|----------------|---|
| <b>PROCESSOR</b>      | CPU            | Atom E3815 1.46GHz, 1 Core – Atom E3827 1.75GHz, 2 Cores – Atom E3845 1.91GHz, 4 Cores  |
| <b>MEMORY</b>         | RAM            | Up to 4GB 1333MHz (DDR3L-ECC) – Factory Option: up to 8GB 1333MHz (DDR3L Dual Channel w/o ECC)  |
| <b>STORAGE</b>        | Embedded       | 8GB to 32GB SATA SSD Soldered-down – Factory Option: 8GB to 32GB eMMC Soldered-down (SATA SSD and eMMC Mutually Exclusive)  |
|                       | SATA           | Up to 2x SATA 2.0   |
|                       | Other          | 1x SD 3.0   |
| <b>I/O INTERFACES</b> | Ethernet       | 1x 10/100/1000Mbps with Manageability Features, IEEE 802.1 Q, VLAN, Jumbo Frames - 9KB, IEEE 1588/802.1 AS (per packet)   |
|                       | USB            | 8x USB 2.0 – Factory Option: 1x USB 3.0   |
|                       | Serial         | 2x Serial (TX/RX)   |
|                       | Digital I/O    | 6x GPIO   |
|                       | SDIO           | Factory Option: SDIO 3.0  |
|                       | Video          | 2x High Resolution Display Output Ports: 1x eDP/DP/HDMI/LVDS Options, 1x eDP/DP/HDMI/VGA Options (eDP 1.3 up to 2560x1600, DP 1.1a, HDMI 1.4a up to 1920x1080, Single Channel LVDS) – Support for VP8, MPEG2, H.264, VC-1, HD 1080p at 60fps, Flash and WMP |
|                       | Audio          | High Definition Audio Interface   |
|                       | PCI Express    | 3x PCIe x1 (Gen 2) – Factory Option: Additional 1x PCIe x1 (Gen 2) with Gb Ethernet Disabled  |
|                       | LPC            | Yes   |
|                       | I2C            | Yes   |
|                       | SMBus          | Yes   |
| <b>OTHER</b>          | RTC            | Yes   |
|                       | TPM            | Factory Option  |
| <b>ENVIRONMENT</b>    | Operating Temp | - 40 to +85°C   |
|                       | Storage Temp   | - 40 to +85°C   |
| <b>CERTIFICATIONS</b> | Environmental  | RoHS2, REACH  |
| <b>MECHANICAL</b>     | Dimensions     | 67x100mm (LxW) - Catalyst Form Factor   |
| <b>SOFTWARE</b>       | OS             | Wind River Linux 7, WES 7, Windows 10 IoT Enterprise Support  |
|                       | IoT Framework  | Everyware Software Framework Ready, Everyware Cloud Ready   |