



- **Flexible Deployment – CoM or SBC**
- **Multi-Core Configurations**
- **Ultra Low Power**
- **HD Multimedia Playback Support**
- **Rugged and Efficient**
- **IoT Native**
- **Long Life-Cycle**

Features

Multi-Core Configurations - The CPU-301-16 offers configurations using single core, dual core or quad core technology to give to device manufacturers the right amount of processing power for their application

CoM or SBC - The CPU-301-16 is available in two versions: as Computer on Module (CoM), to be coupled to a carrier board, and as a standalone Single Board Computer (SBC)

Ultra Low Power - Thanks to Eurotech proprietary power management, the CPU-301-16 can typically operate at 1-2W or less, making it ideal for battery-operated devices and power-constrained uses

HD Multimedia Playback - For applications like kiosk, digital signage, and point of sale, the CPU-301-16 can run up to four independent displays at 1080p

Rugged and Efficient - With optional support for industrial temperature range and enhanced vibration tolerance, at 67x85mm the CPU-301-16 fits into very small enclosures, with little or no need for heat dissipation in low power configurations

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

Long Life-Cycle - With options for extended lifecycle, any design using the CPU-301-16 will have proven supply and support for many years to come

Description

Delivering a full range of capabilities in a low-power and compact design, the CPU-301-16 is the embedded platform of choice for a wide range of applications, such as retail kiosk displays, medical equipment, and control panels for fitness equipment.

The CPU-301-16 uses leading-edge NXP i.MX6 technology to deliver significant functionality into a form factor that allows for efficient packaging and design. Being extremely power efficient, the CPU-301-16 greatly simplifies heat management, allowing fanless designs for most applications.

The CPU-301-16 is available in two versions: as a stand-alone Single Board Computer (no need for a carrier board: just add a power source, the cables and an enclosure to make a smart device) and as a traditional Computer on Module, where the native interfaces are exposed and expanded through a carrier board.

The board support package (BSP) from Eurotech enables the capabilities of the i.MX6 processor, providing an application-ready embedded platform that makes it easy to exploit the full feature set of the module. The CPU-301-16 extends the Eurotech family of products that make IoT applications possible.

With Everyware Software Framework (ESF) and the Everyware Cloud Client loaded on the CPU-301-16, any device using this platform is Everyware Cloud-enabled and ready to be part of the Internet of Things. To learn how the CPU-301-16 can speed time to market and simplify development for sophisticated devices, contact the Eurotech sales team to order a development kit.

Specifications

| | | |
|---------------------------------------|----------------|--|
| PROCESSOR | CPU | NXP i.MX6Solo (Single Core ARM Cortex-A9, up to 1.0 GHz) – NXP i.MX6DualLite (Dual Core ARM Cortex-A9, up to 1.0GHz) – NXP i.MX6Dual (Dual Core ARM Cortex-A9, up to 1.2GHz) – NXP i.MX6Quad (Quad Core ARM Cortex-A9, up to 1.2GHz) |
| MEMORY | RAM | Up to 4GB DDR3L Soldered-down |
| STORAGE | Embedded | Up to 64GB eMMC Soldered-down |
| | SATA | 1x SATA 2.0 (i.MX6Dual and i.MX6Quad Only) |
| | Other | On Board Flash Expansion: 1x microSD slot, up to 64GB – Off Board Flash Expansion: 8bit SD port |
| STAND ALONE SBC I/O INTERFACES | Ethernet | 1x 10/100/1000Mbps, with Integrated PHY |
| | USB | 1x USB 2.0, OTG |
| | Serial | 1x RS-232 (2 wire) |
| | Digital I/O | 5x GPIO, 3.3V |
| | Video | 1x HDMI |
| | I2C | Yes |
| CoM MODE I/O INTERFACES | Ethernet | 1x 10/100/1000Mbps with Integrated PHY, IEEE1588 Support |
| | USB | 2x USB 2.0 (1x Host, 1x OTG) |
| | Serial | 4x UART |
| | CAN bus | 2x CAN bus 2.0 |
| | Digital I/O | 21x GPIO, 3.3V (with support for an 8x8 keyboard matrix) |
| | Video | 2x LVDS, 1x RGB, 1x HDMI – Camera Interfaces: MIPI Camera, CMOS Camera (Optional) |
| | Audio | S/PDIF Audio CODEC Interface |
| | PCI Express | 1x PCIe x1 |
| | I2C | 2x I2C bus |
| POWER | SPI | 2x SPI bus |
| | Input | 3.3VDC |
| | Consumption | 1-2W Typ. (5W Max) |
| | Management | Eurotech Power Management: Sleep/Run/Selective Power Down/Scaling |
| ENVIRONMENT | Operating Temp | Extended: - 40 to +85°C – Commercial: 0 to +70°C |
| | Storage Temp | - 40 to +85°C |
| CERTIFICATIONS | Environmental | RoHS2, REACH |
| MECHANICAL | Dimensions | 67x85mm (LxW) |
| | CoM Connector | 2x Tyco Series, 220 Pin |
| SOFTWARE | OS | Support for Linux Windows Embedded Compact 7 |