CPU-301-16

Ultra Low Power SBC/CoM - NXP i.MX6

EUROTECH

- **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
	SPI	2x SPI bus
POWER	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