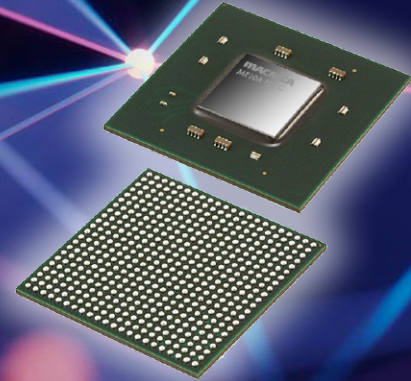


ME10 SoC



4K AV over 1GbE System on Chip

- 4K AV over 1GbE
- AIMS IPMX Open Standard with extended features for pro-AV
- HDMI 2.0 AV and Control Signals (Configurable as Rx or Tx)
- Encrypted USB 2.0 HID
- Sub-frame Latency
- JPEG-XS based Compression
- Synchronous Sources
- Full-stack API with Web Interface and Scripting Built In



The ME10 SoC is Macnica's full-stack AV over IP system on a chip (SoC) transporting HDMI2.0 4K 4:4:4 video, audio and control data over 1GbE networks in a small 23 x 23 mm BGA package. Interoperability and performance are two themes that run through the ME10's unique design.

The Open AV over IP Standard

The ME10 is ready for AIMS IPMX, the collection of open standards and specifications for AV over IP developed specifically for the pro AV market. With standards for interoperability that include device discovery and registration, USB and serial extension, resilient network performance, sub-frame latency, and JPEG-XS compression, IPMX is the standard that the industry has been waiting for.

The ME10 builds on this interoperable platform to give you a complete AV over IP solution for all of your product lines. The included web stack features a RESTful configuration API, which provides complete access to the ME10's capabilities. The customizable web interface is clean and intuitive. JPEG-XS compression provides a truly immersive and transparent desktop experience.

For manufacturers with high volume ProAV applications, the ME10 makes it easy to start your next project. Because the ME10 is the SoC at the heart of the MPA1000 module, the same development kit is used for both components. This gives you more flexibility and dramatically reduces the cost of adoption.

Demand for AV over IP standards means IPMX. The ME10 SoC gives you the power to meet that demand with the performance and flexibility that your customers expect.

Highlights

Open standards leave you in control

The ME10 SoC is built for the AIMS IPMX open standards. IPMX is a collection of open standards from independent standards organizations, which are designed to provide a full-stack, AV over IP solution that is interoperable between manufacturers in the Pro AV industry. Because these standards are independent, you remain in control, no matter what happens in within the industry.



4K60p 4:4:4 over 1G - Superior video quality on low cost networks

Thanks to the JPEG-XS based compression technology, the ME10 SoC brings superior video quality over standard and low-cost 1Gigabit networks widely available in the IT environment. The transport technology is resilient to network jitter and does not require special pro AV network switches.



Sub-frame Latency - Critical feature for KVM applications

The compression and timing technologies used in the ME10 SoC assure sub-frame latency, end-to-end. Human interaction with the mouse is comfortable and gaming is immersive.



Integrated Control - Customizable Web UI to control the behavior of the SoC

The ME10 SoC comes with customizable web UI and RESTful API to control and configure the behavior of the SoC, including registration and discovery of the nodes, video and audio mode settings and control of streams.

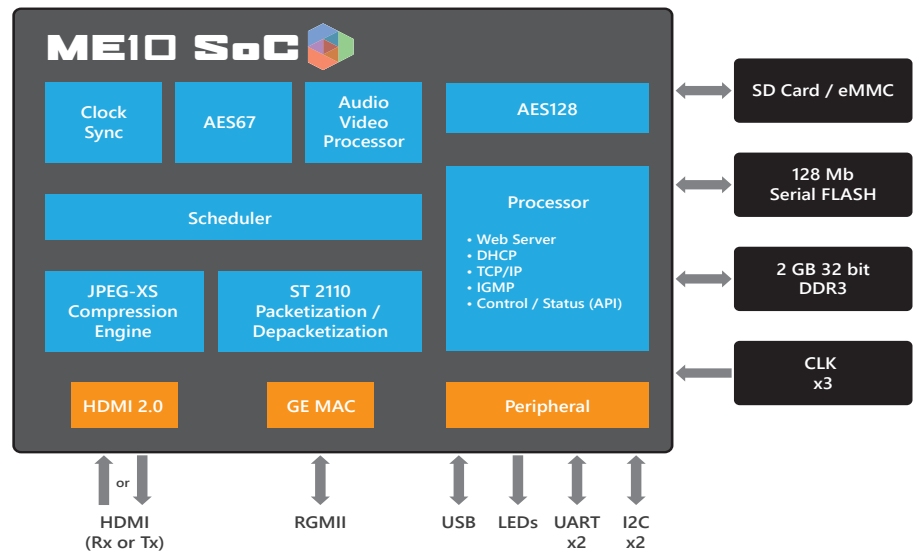


ME10 SoC 4K AV over 1GbE SoC

Pro-AV Transport SoC for UHD/4K AV over 1GbE IP Networks

ME10 SoC Features:

- Low-latency synchronized transport based on AIMS IPMX open standard combining SMPTE ST 2110, AMWA NMOS and JPEG-XS compression standards
- AES128 Encryption
- RESTful API and Lua scripting environment
- Web UI
- Interfaces:
 - » HDMI 2.0 Tx or Rx (unidirectional)
 - » RGMII
 - » USB 2.0 (encrypted)
 - » 2 x UART
 - » 2 x I2C
 - » microSD Card or eMMC memory
 - » 32 bit DDR3
 - » Serial FLASH
 - » 3 x CLK
- Package Information
 - » 23 x 23 mm Flip-Chip BGA (484 pins)



Macnica ME10 - 4K AV over 1GbE SoC Block Diagram

Macnica ME10/MPA1000 - 4K AV over 1GbE Module Development Kit

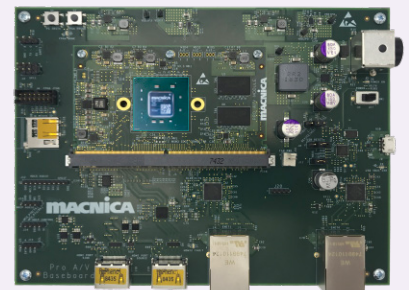
Development Environment for the ME10 SoC and MPA1000 Module

An available Development Kit includes:

- MPA1000 4K AV over 1GbE Module with the ME10 SoC
- Evaluation baseboard
- Module Support Package including Lua environment, RESTful API and customizable web interface

Baseboard IO:

- HDMI IN and OUT (exclusive)
- 1 x Gigabit Ethernet (RJ45) for Media Transport
- USB2.0 (on-the-go)
- Serial Port
- microSD Card Slot



Macnica MPA1000 Development Kit (Module + Baseboard)

MACNICA



Macnica Technology
 380 Stevens Ave. Suite 206
 Solana Beach CA 92075 USA
 +1-858-914-2649
 videotransport@macnica.com

macnicatech.com