Bring low-latency IP video transport to products with the MPA1000, Macnica's full-stack AV over IP module specifically designed to enhance Pro AV products.

Macnica's MPA1000 4K AV over 1GbE Module transports lightly compressed 4K video and audio over a single 1GbE connection, encrypted USB 2.0 HID transport for KVM applications along with all of the HDMI related protocols.

Simplifying IP transport starts with a sophisticated patented clock recovery system designed to recover media clocks in challenging networks. This makes it possible to deliver low latency aligned media, perfect for digital signage and lecture capture applications. The integrated JPEG-XS based compression enables full UHD resolution with a 4:4:4 color space over a common 1GbE connection, ensuring that desktop video looks perfect on networks integrators are most likely to find in the field. Encrypted USB enables KVM and interactive signage applications in environments that take network security seriously.

Enhance user experience throughout the life of products by choosing a module built on open standards and designed for Pro AV.

**Module Features:**
- Low-latency synchronized transport based on AIMS IPMX open standard combining SMPTE ST 2110 standards and AMWA NMOS specifications
- JPEG-XS based compression
- Lua and RESTful APIs
- Card Edge Connector
- Small formfactor
  » 82.5 (w) x 50 (h)

**Applications Examples**
- General HDMI Extension
- Digital Signage
- Event and Lecture Capture
- Video Walls
- Desktop KVM

**Interfaces:**
- HDMI 2.0 Tx or Rx (unidirectional)
- Gigabit Ethernet:
  - Media Transport Datapath
  - USB 2.0 HID
  - microSD Card or eMMC memory for configuration
- Serial Interface
The Macnica MPA1000 4K AV over 1GbE Module merges the promise of AV over IP with the reliability and performance of the AIMS IPMX in a module that has what it takes to deliver encrypted UHD 60P 4:4:4 content and control over a standard 1GbE connection.

The MPA1000 Module is field configurable for transmit or receive. Only one part number is all that is needed for delivering routable UHD video, audio, USB, and HDMI control signals over IP.

Once connected to the network, the module’s traffic is discoverable through the RESTful NMOS protocol - an open standard for publishing and discovery of content streams in broadcast.

Simple configuration and control is the core principle in the design of this module. Every module includes a built-in web server with a RESTful API and a web application that is ready for customization. Host access is provided through an optional dedicated serial interface.

Additionally, Macnica offers the MPA1000 Development Kit for test and development. Design files available upon request. Please contact Macnica directly for price and availability.

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

An available Development Kit includes:
- 4K AV over 1GbE Module
- Evaluation baseboard
- Module Support Package including Lua environment, RESTful API and customizable web interface

Base Board IO:
- HDMI IN and OUT (exclusive)
- 1 x Gigabit Ethernet (RJ45) for Media Transport
- Serial Port
- USB2.0 (micro B)
- microSD Card Slot

Macnica ME10/MPA1000 Development Kit (Module with SoC + Baseboard)