



ASI TO IP Converter

Up to 8 channels ASI to IP and IP to ASI Converter

Description

SMPTE Specification 2022-1: Forward Error Correction for Real-time Video/Audio Transport Over IP Networks

Modern data networks are subject to a variety of impairments, ranging from simple bit errors to groups of contiguous data packets.

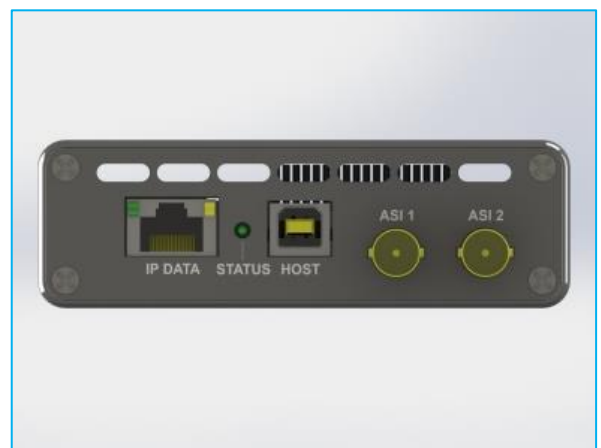
The Pro-MPEG COP3/SMPTE 2022 standard has been designed specifically to ensure that high quality video that is used by broadcasters for their most valuable live video feeds are able to be transported over these networks.

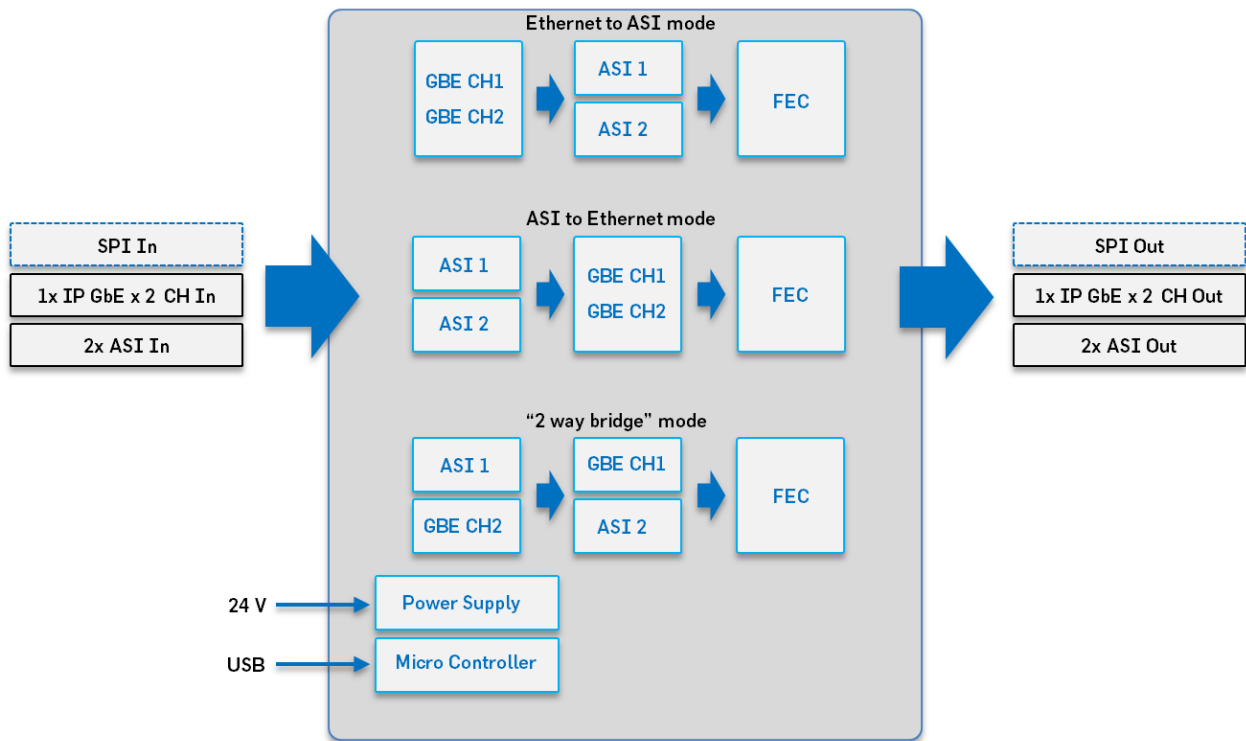
COP #3 FEC can protect a video stream from a burst packet loss of up to 255 packets, which is suitable for most private, managed IP networks using QoS techniques such as MPLS, RSVP, and DiffServ. COP #3 FEC is available as the option within user datagram protocol (UDP)/IP network encapsulation, with realtime transport protocol (RTP) encapsulation.

The generation of FEC packets in the COP #3 standards is based upon a matrix defined by the parameters L and D. L represents the number of columns in the matrix, while D represents the number of rows. The standard defines the generation of two types of FEC packet: Column FEC and Row FEC. A FEC packet is generated by XOR of the media packets in a column or a row. Once generated, the Column FEC packets and Row FEC packets are transmitted along with the original media packets on 3 separate UDP ports to a Pro-MPEG COP #3 compliant receiving device.

SMPTE-2022 Network Adapters provide a cost effective and highly reliable solution for transporting digital video content over IP networks (MPEG2-TS over IP also called DVB over IP or ASI over IP)

While Pro-MPEG COP #3 FEC is adequate for most private IP links, it is not robust enough to handle the challenges associated with moving video over highly loss IP networks such as the Public Internet.





Block diagram ASI to IP converter 2 ways

- It is a portable translator that provides seamless conversion between different MPEG2-TS transmission media.
- ASI->Ethernet, Ethernet->ASI converter, designed for the distribution of MPEG2-TS.
- It is capable to route TS from ASI to Ethernet and for Ethernet to ASI, managing Forward Error Correction data channel as requested by SMPTE 2022 standard.
- Full SMPTE 2022 (Pro MPEG-COP#3) standard compliant.
- It provides three working modes:
 1. ASI to Ethernet mode: provides the routing of up to 2 ASI input to 2 Ethernet outputs.
 2. Ethernet to ASI mode: provides the routing of up to 2 Ethernet input channels to 2 ASI outputs.
 3. 2 Way Bridge mode: working mode allows to use both function, ASI to GbE and GbE to ASI simultaneously, this working mode use the ASI1 and the GbE2 as input and the GbE1 and the ASI2 as output.
- Fully programmable FEC with several selectable FEC mode:
 - Enable
 - Disable
 - One-dimensional
 - Two-dimensional
- Selectable input buffer size (selectable latency)
- Resynchronization Output Bitrate PCR based
- Device settings and upgrade are managed by the included Graphic User Interface through a USB port.