IPT-10G2-SDI

IPT-10G2-SDI is designed to integrate traditional 3G-SDI video sources into SMPTE ST 2110 IP Video infrastructure.

$1295 US MSRP

The IPT-10G2-SDI receives baseband video plus up to 16 embedded audio channels over 3G-SDI, then formats the data for output as SMPTE ST 2110 over 10 GigE. Associated audio from the video stream is extracted, synchronized, and embedded into the SMPTE ST 2110 stream. Alternatively stereo audio can be fed into the steam from the included RCA inputs.

2x 10 GigE SFP+ cages are provided, allowing "hitless switching" (ST 2022-7) redundancy protection for critical transmission environments.

https://www.aja.com/products/ipt-10g2-sdi

Video Formats

- (HD) 1920x1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- HD) 1920x1080i 50, 59.94
- (HD) 1280x720p 50, 59.94, 60
- (SD) 625i 50
- (SD) 525i 59.94

Video Quality

- 10-bit, 4:2:2, uncompressed

Media Transport Interfaces

- SMPTE ST 2110 (-10, -20, -21, -30)
  - 2x SFP+ Cages - SFPs not included
- Recommended 10 GigE SFP+ modules:
  - Arista Networks SFP-10G-SR Compatible 10GBASE-SR
  - Fiberstore SFP-10GSR-85 10G SFP+ 850nm
  - Finisar FTLX1471D3BCL (for single mode 1310nm)
  - Mellanox MFM1T02A-SR 850nm 10G

Note: Maximum supported SFP+ power is 500 mW per SFP+ cage

Video Input Digital

- 1x 3G SDI BNC (single source, with loop through)
  - Up to 1080 60p, 4:2:2, 10-bits/pixel, YCbCr

Audio Input Digital

- Up to 8-channel, SDI embedded audio, 24-bit per channel, 48 kHz synchronous

Audio Input Analog

- 2x RCA analog audio
  - Levels at -10 dBu (nominal)

Video Output IP

- SMPTE ST 2110
- Single video channel output
- SMPTE ST 2022-7 dual stream output for hitless switching
- Tx support for Narrow, Gapped Mode

Audio Output IP

- SMPTE ST 2110
  - Up to 8 channels audio, 24-bit per channel, 48 kHz synchronous
  - 1 ms or 125 µs packet interval
  - SMPTE ST 2022-7 dual stream input for hitless switching

Reference

- 1x BNC
  - Reference Out connector generates an analog/tri-level reference output synchronized to the PTP clock
  - This can be used to ensure the baseband video arriving at the IP transmitter is properly timed

Discovery, Registration and Control

- NMOS Tx discovery and control according to standards IS-04 v1.2 and IS-05 v1.0
- Ember+ control (no discovery, control only)
- AJA REST API control (discovery via SSDP or MDNS)
- Supported over dedicated management Ethernet port and in-band over media ports

IP Clock

• PTP support compliant with PTP PTPv2 / IEEE 1588-2008
• SMPTE ST 2059-1 compliant

User Controls

- 1x RJ-45 for 10/100/1000 Base-T Ethernet
  - Web and REST clients supported for remote network setup and configuration
- 1x USB 2.0 Mini-B connector
  - AJA eMini-Setup supported for network setup and configuration via local desktop computer
- Web and REST configuration is also supported in-band over media ports

Size (w x d x h)

- 5.07" x 0.94" x 5.06" (128.8 x 23.9 x 128.4 mm)

Weight

- 0.6 lb (0.3 kg)

Power

- 5-20VDC Regulated, 13 Watts, Power supply required (DWP-U-R1 included with purchase)

Environment

- Safe Operating Temperature: 0 to 40 C (32 to 104 F)
- Safe Storage Temperature (Power OFF): -40 to 60 C (-40 to 140 F)
- Operating Relative Humidity: 10-90% noncondensing
- Operating Altitude: <3,000 meters (<10,000 feet)