

ST 2110 Decoder

Multi-Channel MPEG-TS to SMPTE ST 2110 Playout Platform

DATASHEET



16x
DECODING CHANNELS

4x 25 GbE
NETWORK OUTPUT

ST 2022-7
REDUNDANCY

1 RU
FORM FACTOR

REST API
MANAGEMENT

The Hornets Tech ST 2110 Decoder is a broadcast-grade playout platform that receives **H.264 MPEG-TS** compressed media and outputs uncompressed **SMPTE ST 2110-20 video** and **ST 2110-30 audio** over 4x 25 GbE. With hardware-accelerated decoding, up to **16 simultaneous channels**, ST 2022-7 dual-path redundancy, and 10-bit 4:2:2 YCbCr output, it delivers frame-accurate playout for live broadcast and facility infrastructure.



KEY FEATURES

- Up to 16x simultaneous decoding channels
- H.264, H.265, and MPEG-2 input codec support
- Hardware-accelerated GPU decoding
- Uncompressed ST 2110-20 video output (10-bit 4:2:2)
- Uncompressed ST 2110-30 PCM audio output
- ST 2022-7 seamless dual-path redundancy
- 4x 25 GbE SFP28 network interfaces
- Per-channel independent start / stop / restart
- Seamless loop playout for file-based content
- Real-time frame-paced output with PTP sync
- Auto-recovery watchdog with crash detection
- Per-stream configurable resolution & framerate
- Separate video & audio multicast destinations

INPUT SPECIFICATIONS

Source	MPEG-TS file, HTTP stream, NAS storage
Video Codecs	H.264, H.265, MPEG-2
Audio Codecs	AAC-LC, MPEG Audio
Containers	MPEG-TS, MP4, MOV
Max Channels	16x simultaneous decode
Playback Mode	Single pass or seamless loop

OUTPUT SPECIFICATIONS

Video Standard	SMPTE ST 2110-20
Video Format	Uncompressed YCbCr 4:2:2 10-bit
Audio Standard	SMPTE ST 2110-30
Audio Format	PCM 24-bit, 48 kHz, stereo
Transport	RTP / UDP multicast (IPv4)
Redundancy	ST 2022-7 dual-path (optional)
Resolution	Up to 1920 x 1080 (Full HD)
Frame Rate	25, 29.97, 30, 50, 59.94, 60 fps

PRODUCT



TYPICAL APPLICATIONS

- IP-to-uncompressed playout for live broadcast
- ST 2110 facility integration & baseband output
- File-based content playout to ST 2110 infrastructure
- Master control room & studio monitoring feeds
- Disaster recovery & backup playout
- Multi-channel ingest gateway for broadcast routers
- Remote production contribution decoding

REDUNDANCY & RELIABILITY

Redundancy	ST 2022-7 seamless dual-path switching
Network	4x 25 GbE SFP28 (independent paths)
Multicast	Separate primary & backup groups
Watchdog	Per-channel auto-restart on failure
Process Isolation	Independent per-stream pipelines
PTP Sync	Hardware PTP for frame-accurate timing

PHYSICAL & ENVIRONMENTAL

Form Factor	19" rack-mount, 1 RU
Network	4x 25 GbE SFP28
Operating Temp	0 °C to +40 °C
Humidity	10-90 % RH, non-condensing
Compliance	CE, FCC Class A