

4 or 8
SDI CHANNELS

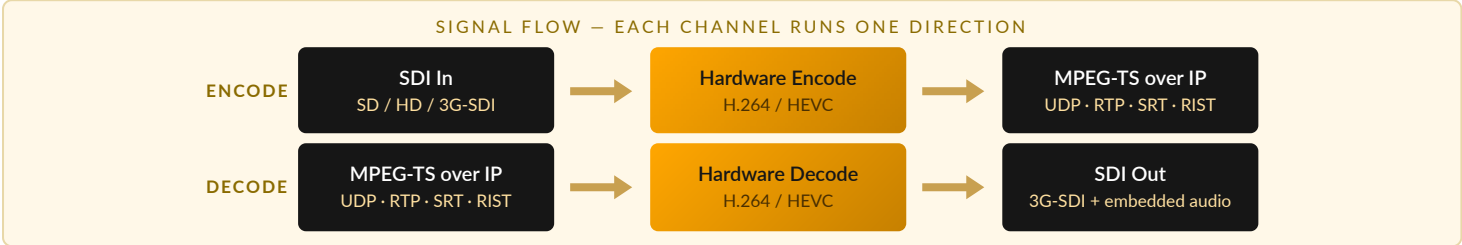
Any Mix
ENCODE / DECODE

H.264 / HEVC
HARDWARE CODECS

UDP · RTP · SRT · RIST
IP TRANSPORTS

Desktop
FORM FACTOR

The Hornets Tech Compact SDI Codec puts **4 or 8 SDI channels** of hardware encoding and decoding into a small off-the-shelf desktop chassis, for sites where six or eight channels do not justify a 1 RU rack server. Every channel is independently configurable as an **encoder** (SDI → IP) or a **decoder** (IP → SDI) — 8 encoders, 4 encoders + 4 decoders, or any other split. It runs the same codec software, the same REST API and the same central dashboard as the rest of the Hornets Tech SDI range, and is available as a turn-key unit or as a software-only licence on the customer's own Intel hardware.



KEY FEATURES

- 4 or 8 SDI channels, any encode / decode mix
- Hardware H.264 and H.265 (HEVC) encode & decode (Intel QSV)
- HEVC Main 10 and Main 4:2:2 10 support
- Per-stream transport: UDP, RTP, SRT or RIST
- SRT / RIST caller, listener and rendezvous roles — works behind NAT
- Selectable low-latency and normal-quality profiles per stream
- Up to 16 embedded audio channels captured per SDI input
- Arbitrary audio channel → track mapping
- Live thumbnail preview per channel
- SRT / RIST link statistics with on-device history and graphs
- DSCP QoS marking per output
- WireGuard dial-home for remote management
- Full REST API, on-device web UI and central dashboard
- Available turn-key or as a software-only licence

ENCODING (SDI → IP)

Interface	SD-SDI, HD-SDI, 3G-SDI (BNC)
Video Codec	H.264 High · H.265 Main / Main 10 / Main 4:2:2 10
Resolution	Up to 1920 × 1080, interlaced & progressive — no scaling, no 4K
Frame Rate	23.976, 24, 25, 29.97, 30, 50, 59.94, 60 fps
Rate Control	True CBR, configurable up to 50 Mbps
Audio Codec	AAC-LC, MPEG-1 L2, Opus, PCM (SMPTE 302M)

DECODING (IP → SDI)

Decode	H.264 / HEVC, hardware (Intel VA-API / Quick Sync)
Chroma / Depth	4:2:0 8/10-bit and 4:2:2 10-bit on-box
Deinterlacing	On the SDI output (e.g. 1080i50 → 1080p50)
Input Profiles	Low latency (~150 ms) or normal quality (deep buffer)

MODELS

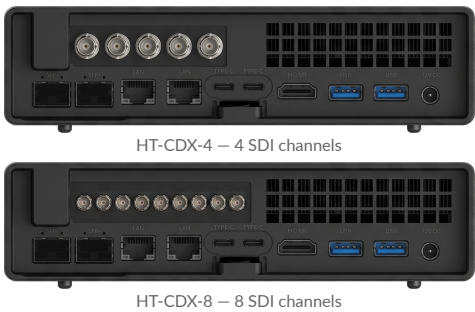
HT-CDX-4	4-channel unit, 4-port SDI card — e.g. 4 enc · 2 enc + 2 dec · 3 enc + 1 dec
HT-CDX-4-SW	Software-only licence, customer Intel box + 4 SDI ports
HT-CDX-8	8-channel unit, 8-port SDI card — e.g. 8 enc · 6 enc + 2 dec · 4 enc + 4 dec
HT-CDX-8-SW	Software-only licence, customer Intel box + 8 SDI ports

Software-only deployments are qualified first — sustainable codecs and formats follow the box's Intel iGPU generation. Supplied units ship pre-validated with the OS, kernel and GPU-driver stack pinned.

MANAGEMENT & MONITORING

API	RESTful JSON (status, control, config)
Web UI	On-device dashboard + central Hub
Security	Login-protected UI & API key, HTTPS
Remote Access	WireGuard dial-home for NAT-ed sites
Stream Control	Start / stop / restart, live thumbnails
Transport Stats	SRT / RIST link statistics with history
Health & Watchdog	CPU, temp, RAM, uptime; per-channel auto-restart

PRODUCT



PHYSICAL & ENVIRONMENTAL

Form Factor	Compact desktop chassis (non-rack), internal PSU
Platform	Commodity Intel with integrated graphics
SDI I/O	4-port or 8-port Blackmagic DeckLink card
Network	GbE (multicast-capable)
Environment	0 °C to +40 °C · 10–90 % RH, non-condensing
Compliance	CE, FCC Class A