

CureLink™ SDVoE TRANSCEIVER

4K60 over IP 10GbE



Area of Usage
OPERATING ROOM

SDVoE Transceiver

CureLink™ 4K60 over IP | Encoder · Decoder | Zero-Frame Latency
HDMI 2.0b · HDCP 2.2 · 10G Copper + Fiber · SDVoE™ · PoE 802.3at

The CureLink SDVoE Transceiver is an all-in-one AV-over-IP appliance that delivers uncompressed 4K60 video, full-range HDMI audio, USB KVM, IR, RS-232, and Ethernet signals over a standard 10G network switch — with zero-frame latency. A single device can be configured as encoder or decoder, simplifying installation and inventory management in operating rooms and clinical AV distribution systems.

Supporting both 10G copper (CAT6A/7 up to 100m) and 10G SFP+ fiber in the same unit, the CureLink Transceiver automatically detects the active network link. The built-in H.264/H.265 secondary stream enables low-bandwidth preview on control systems. Matrix switching, Video Wall (up to 9×9), and MultiView (up to 25 windows) are supported natively.

OPERATION MODES

- Encoder (HDMI-IP) IEC
- 60601-1 Decoder (IP-HDMI)

Single box — switchable via button or API

NETWORK

- 10G BASE-T (RJ45)
- 10G SFP+ (Fiber)
- 1G LAN (Management)

CAPABILITIES

- Zero-Frame Latency
- 4K@60Hz 4:4:4
- 18Gbps video BW
- HDR10 · Dolby Vision
- Dolby Atmos / DTS:X
- Video Wall 9×9
- MultiView 25 windows
- H.265 Secondary Stream
- USB 2.0 KVM
- PoE 802.3at (PD)

CURELINK OR APPLICATION



Flexible Transceiver Design

One box operates as encoder or decoder — switch via the front panel MODE button or API. Simplifies installation planning and spare-parts inventory across multi-room OR deployments.



Zero-Frame Latency

Uncompressed SDVoE transmission delivers zero-frame latency over the 10G network — critical for surgical video monitoring where real-time image accuracy is clinically essential.



4K60 4:4:4 — Full Color Depth

Full 4K@60Hz 4:4:4 at 18Gbps video bandwidth. Supports HDR10, Dolby Vision, and HLG — preserving the complete color and dynamic range of 4K surgical imaging and endoscopy cameras.



Copper & Fiber — Auto Detection

10G BASE-T (RJ45) for CAT6A/7 up to 100m and 10G SFP+ fiber in the same device. Automatic detection with configurable priority — one SKU covers copper and fiber installations.



USB KVM + Full Control Pass-Through

USB 2.0 KVM, bidirectional IR, RS-232, and CEC signals are transmitted simultaneously alongside video. Full remote keyboard/mouse control of OR workstations across the network.



H.264/H.265 Secondary Stream

Built-in secondary stream for bandwidth-configurable preview on control panels and mobile devices — with VLAN tagging and independent configuration from the primary 4K stream.

CureLink SDVoE Transceiver is the right choice if

- You need uncompressed 4K60 video distribution over a 10G network switch with zero-frame latency — for surgical imaging, endoscopy, or radiology display in the OR.
- You require a single device that works as both encoder and decoder — reducing installation complexity and spare-parts stock across multiple rooms.
- Your OR AV system needs Video Wall, matrix switching, or MultiView with full HDMI audio (Dolby Atmos / DTS:X) and USB KVM pass-through.
- You want copper and fiber flexibility in one unit with automatic network detection and PoE support for simplified cabling.

VIDEO	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
Video Bandwidth	18 Gbps
Resolution	Up to 4K@60Hz 4:4:4
Color Space	RGB · YCbCr 4:4:4 / 4:2:2 / 4:2:0
Color Depth	Full Color-Depth
HDR	HDR · HDR10 · HDR10+ · Dolby Vision · HLG
Latency	Zero-Frame (uncompressed SDVoE mode)
HDMI Loop Out	Encoder mode — HDMI loop-out supported
3D	3D video formats supported
AUDIO	
HDMI Audio	LPCM · Dolby Digital / Plus / EX · Dolby TrueHD · Dolby Atmos · DTS · DTS-EX · DTS 96/24 · DTS High Res · DTS-HD Master Audio · DTS:X · DSD
Analog Audio	Left + Right stereo (3.5mm IN / OUT)
Audio Routing	Flexible bidirectional analog audio between encoder and decoder
NETWORK & TRANSMISSION	
Protocol	SDVoE™ — Software Defined Video over Ethernet
Network Bandwidth	10 Gbps (primary) + 1 Gbps (management)
10G Copper	10G BASE-T · RJ45 · up to 100m (CAT6A / 7)
10G Copper (CAT6)	up to 70m (CAT6)
10G Fiber	SFP+ slot · 10G fiber module (not included)
Network Detection	Automatic fiber / copper detection — configurable priority
1G LAN	1G management LAN · RJ45
PoE	802.3at PoE PD device — can be powered from switch

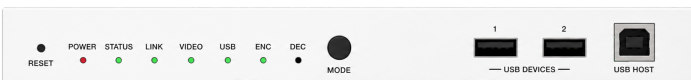
DISTRIBUTION & SWITCHING	
Signal Extension	Point-to-point AV extension over 10G network
Matrix	Any-to-any matrix switching via SDVoE controller
Video Wall	Up to 9×9 display wall
MultiView	Up to 25 windows on a single display
Switching	Seamless / instant switching
Secondary Stream	H.264/H.265 · bandwidth-configurable · VLAN tagging
CONNECTIONS — INPUT	
HDMI IN	1× HDMI Type-A (19-pin female)
USB HOST	1× USB 2.0 Type-B (4-pin female) — KVM host
IR IN	1× IR IN (3.5mm jack)
Audio IN	1× AUDIO IN (3.5mm jack) — stereo analog
RS-232	1× RS-232 (4-pin phoenix connector · 12V TX/RX)
CONNECTIONS — OUTPUT	
HDMI OUT	1× HDMI Type-A (19-pin female)
Audio OUT	1× AUDIO OUT (3.5mm jack) — stereo analog
IR OUT	1× IR OUT (3.5mm jack)
USB DEVICES	2× USB 2.0 Type-A (4-pin female) — KVM devices
CONNECTIONS — NETWORK	
10G BASE-T	1× 10G RJ45 — copper (CAT6A/7)
10G SFP+	1× SFP+ slot — fiber (module not included)
1G LAN	1× 1G RJ45 — management / control

CONTROL	
Mode Switch	Front panel MODE button · encoder / decoder toggle
RS-232	Bidirectional RS-232 pass-through
IR	Bidirectional IR pass-through (3.5mm IN + OUT)
USB KVM	USB 2.0 KVM routing and control
CEC	HDMI CEC routing control
TCP/IP	IP-based control · Web GUI · third-party API
ESD Protection	±8kV air-gap · ±4kV contact (human body model)

POWER & PHYSICAL	
Power Supply	Input: AC 100-240V 50/60Hz · Output: DC 12V / 2.5A
Adapter Cert.	CE / FCC / UL certified · US & EU standards
Consumption (Max)	13.5 W
Housing	Metal enclosure
Dimensions	204 mm (W) × 134 mm (D) × 21.5 mm (H)
Weight	693 g
Operating Temp	0°C ~ 40°C (32°F ~ 104°F)
Storage Temp	-20°C ~ 60°C (-4°F ~ 140°F)
Humidity	-20°C ~ 60°C (-4°F ~ 140°F)

HARDWARE INTERFACE — PANEL REFERENCE

FRONT PANEL



Element	Description
RESET	Hardware reset button
POWER	Red LED — power on
STATUS	Green LED — system status
LINK	Green LED — 10G network link active
VIDEO	Green LED — video signal detected
USB	Green LED — USB device connected
ENC	Green LED — encoder mode active
DEC	LED — decoder mode active
MODE	Large rotary button — toggle encoder / decoder mode
USB DEVICES 1-2	2× USB 2.0 Type-A — KVM device ports
USB HOST	USB 2.0 Type-B — KVM host connection

REAR PANEL



Connector	Description
DC 12V	Power input — 12V DC barrel connector
RS-232	4-pin phoenix (12V TX RX GND) — serial control
IR IN	3.5mm jack — IR receive
IR OUT	3.5mm jack — IR output / loop
HDMI IN	HDMI Type-A — video/audio input
HDMI OUT	HDMI Type-A — video/audio output (loop or decoded)
10G BASE-T	RJ45 — 10G copper network (CAT6A/7 up to 100m)
SFP+	10G fiber slot (module not included)
1G LAN	RJ45 — 1G management / control network
AUDIO IN	3.5mm jack — stereo analog audio input
AUDIO OUT	3.5mm jack — stereo analog audio output



ESD Protection — Human Body Model ±8kV Air-Gap / ±4kV Contact

The CureLink SDVoE Transceiver incorporates comprehensive ESD protection on all signal interfaces — ±8kV air-gap discharge and ±4kV contact discharge per the human body model. This level of protection is essential in hospital environments where electrostatic discharge from surgical staff or equipment can damage unprotected AV electronics.