1RU 8-Channel SDI All-In-One NDI Gateway

High-Density 8-Channel SDI Video-over-IP Media Gateway Integrated L3 Managed Switch

The ZowieRack 1RU 8-Channel SDI All-In-One Gateway is an ultra-dense, enterprise-grade 19" 1RU rackmount broadcast platform engineered to consolidate 8 independent channels of broadcast SDI video into modern IP infrastructures. Built for live production studios, OB vans, remote broadcast centers, and mission-critical ProAV facilities, this compact platform integrates 8 independent broadcast SDI processing channels alongside an internal Layer-3 managed switch engine—delivering unprecedented stream density and high-throughput network aggregation while eliminating tangled multi-cable patch bays.

10GbE Dual-Trunk Architecture: 10G Copper RJ45 & Optional 10G LC Fiber. To meet the demanding bandwidth requirements of 8 concurrent channels of low-latency video, ZowieRack features high-speed 10GbE external network trunking. Equipped with a native 10GBASE-T RJ45 copper port alongside an optional 10G SFP+ dual-LC optical transceiver cage, the chassis guarantees seamless integration into either enterprise 10-Gigabit copper backbones or long-haul single-mode/multimode fiber networks. All 8 internal SDI streams converge cleanly into this single high-speed trunk without external switch clutter.

Universal Multi-Protocol Engine with Zero-Latency Loop-Out. Each independent SDI channel operates as an independent, fully bidirectional video-over-IP processor. Supporting both hardware encoding and decoding, every channel bridges 3G/HD-SDI with NDI®|HX3, SRT, RTMP, and RTSP. Each Channel provides a primary 75Ω BNC input and a zero-latency passive/active SDI loop-through (Loop-Out) port, ensuring flawless local hardware monitoring alongside pristine multi-platform network distribution.

.Pure-Airflow 1RU Chassis: Maximum Longitudinal Cooling Efficiency. With the front panel fully dedicated to thermal optimization, ZowieRack features a continuous, full-surface CNC-milled hexagonal honeycomb ventilation grille. This pure-airflow design provides zero-impedance straight-through intake cooling directly across the internal 130mm extruded heat dissipation fins. Hot air is actively expelled through the rear negative-pressure cooling system, guaranteeing low acoustic noise, minimal thermal throttling, and sustained 24/7 industrial stability.

Dual-Tier Management: ZowieRack Central Web GUI & ZowieX Desktop (macOS / PC)
Operating and orchestrating 8 independent channels is effortless thanks to a robust, complementary software ecosystem:
ZowieRack Central Web GUI: A zero-install, lightweight embedded responsive web console accessible from any modern browser (desktop, tablet, or smartphone). It features real-time 8-channel live multiview, interactive 8×8 IP stream cross-matrix routing, software-defined VLAN tagging, and per-slot software power management (eFuse cold reboots).



Highlights:

- ◇ Standard 19-inch 1RU chassis housing 8 integrated SDI codec channels
- ◇ Dual-option 10GbE uplink: Native 10GBASE-T RJ45 plus optional 10G SFP+ Dual-LC fiber
- ◇ 8× independent 3G/HD-SDI inputs with zero-latency SDI loop-through outputs
- ◇ Universal multi-protocol support: NDI®|HX3, NDI®|HX2, SRT, RTMP(s), and RTSP
- ◇ Independent per-slot software switching between hardware Encode and Decode modes
- ◇ Broadcast-grade H.264 (AVC) and H.265 (HEVC) hardware encoding up to 1080p60
- ◇ Built-in Layer-3 managed switch engine with software-defined VLAN isolation
- ◇ Hardware IGMP Snooping v2/v3 support to prevent multicast network storms
- ◇ Interactive visual 8×8 stream cross-matrix routing in Central Web GUI
- ◇ Responsive zero-install Central Web GUI for desktop, tablet, and mobile browsers
- ◇ Dedicated ZowieX management software for macOS and Windows PC
- ◇ Centralized multi-unit batch parameter synchronization and preset scene cloning
- ◇ Software-defined per-slot eFuse power switching for remote individual cold reboots
- ◇ Staggered sequential boot-up sequencing to suppress rack inrush current
- ◇ Real-time audio VU meters, and per-slot telemetry monitoring
- ◇ Bi-directional dynamic hardware and software Tally sync with NDI, vMix, and OBS
- ◇ High-efficiency internal AC 100–240V power supply with rocker switch and fuse
- ◇ Heavy-duty SGCC industrial steel chassis with anodized aluminum front bezel
- ◇ Comprehensive RESTful API automation for third-party control
- ◇ Unified one-click batch firmware upgrade across all 8 channels and switch fabric
- ◇ Low-noise negative pressure rear exhaust cooling for quiet studio environments
- ◇ Full OEM/ODM customization support

1RU 8-Channel SDI All-in-one NDI Gateway

High-Density 8-Channel SDI to NDI®|HX3 & SRT Bi-Directional Codec Platform with Built-in 10G Switch

Specification

Power:

Input	: AC 100-240V ~50/60Hz with rocker switch
	: 150W
Consumption	: 95W Max (Full load)
Management	: Software defined per-slot remote switching

Chassis:

Form Factor	: 19” 1RU standard rack, rear facing
Chassis Capacity	: 8-Channel Independent SDI Codec Engine

Video:

Video Encoder	: H.264 HP/MP/BP, H.265 MP
Resolution*	: 1080p25/30/50/60
Encoder/Decoder	1080i50/60, 720p50/60
	For both video Input & Output
Loop through*	: up to HD/3G SDI
Frame Rate	: 24/25/30fps, 50/60fps for 1080/720p
Codec	: H.264/H. 265
Rate Control	: CBR/VBR
Live Preview	: Web, SDI loop through and output

Network:

LAN	: 10G Copper Trunk
	: 10G Fiber Trunk, Dual-LC(Optional)
Internal Switch	: Layer-3 Gigabit managed switch

Streaming:

Encoder	: RTSP/RTMP(s)/SRT
Decoder	: RTMP(s)/SRT/RTP/UDP/RTSP/TCP/HTTP(s)
	*SRT caller only
Bit Rate	: Max. 50mbits/s, adjustable
NDI® Encoder	: NDI® | HX3/HX2/HX
NDI® Decoder	: NDI® | HX3/HX2/HX
NDI Audio Direct	: Audio over NDI
Recorder	: MP4, mov, ts
Rotation	: Native crop vertical streaming
Main Video Stream	: Up to 1080p60
Secondary Stream	: Up to 1080p

Audio :

Sampling	: 48KHz
Encoder	: AAC
Bitrate	: 32-192kbps
Channel	: SDI Embedded 2-CH

Input/Output

Video Inputs	: 8x 75Ω BNC (3G-SDI / HD-SDI / SD-SDI)
Video Outputs	: 8x 75Ω BNC (Zero-latency loop-through)
SDI In	: HD/3G SDI, SMPTE 292M, 372M, 424M
SDI Loop out	: up to 3G SDI
SDI Out	: HD/3G SDI, SMPTE 292M, 372M, 424M
NDI	: NDI® | HX3/HX2/HX (NDI 5.5 upgradeable)

Configuration :

Center Web	: ZowieRack Central Web GUI
API	: RESTful HTTP API,
ZowieX Desktop	: Windows/macOS
ZowieX App	: iOS/Android

Tally:

Status	: PGM/PVW Tally synchronized via NDI

Storage

Network	: NAS
Video Format	: mp4, mov, ts

Software

Firmware	: Unified one-click batch firmware upgrade

Interface:

Power	: 1 x IEC AC Inlet with Power Switch & Fuse
SDI In	: 8 x SDI (3G/HD-SDI)
SDI Out/Loop	: 8 x SDI (3G/HD-SDI/Loop-through)
Network	: 1× 10GBASE-T RJ45 Copper Trunk
	: 1× 10G SFP+ Dual-LC Fiber Slot (Optional)

Physical

Form Factor	: 19-inch 1RU standard rackmount chassis
	(All I/O ports rear-facing)
Dimension	: 482.6W × 380D × 44.45H mm (19" × 15.0" × 1.75")
Weight	: xxKg (Xlb XXoz) , Black
Operating	: 0°C to 40°C(32°F to 104°F), Indoor
Storage	: -20°C to 60°C(-4°F to 140°F)

Certification

CE, FCC (Part 15), RoHS (In progress)

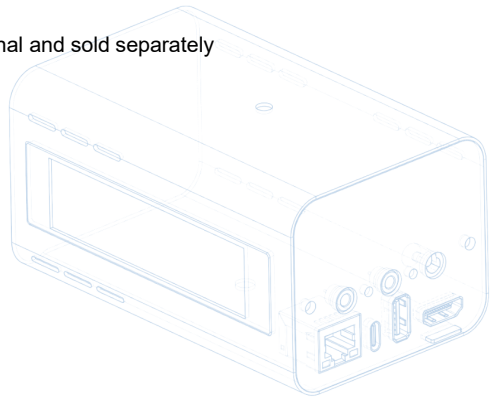
Ordering

39108-2Y1

Y =2, 10G RJ45 + 10G SFP+ Dual-LC
=0, 10G RJ45 only, w/o Optical Port

Accessories

1× 1.5m AC Power Cord (Regional Plug: US / EU / UK / AU optional)
2× 19-inch Rackmount Bracket Ears (Pre-assembled with chassis screws)
1x Quick Start Guide
*Accessories is optional and sold separately



*All specifications are subject to change without notice.
*Accessories may be different for different product options.
*Actual object may differ from what shown in catalog.
*NDI® is a registered trademark of Vizrt