

STARVIEW SA-TU101 ENCODER



Open-standard, 4K60 AVoIP encoding for optimal performance with minimal network bandwidth usage

Starview SA-TU101 (SA-TU101 and SA-TU101H) single-channel video encoders are designed to deliver a comprehensive and flexible streaming solution using open standards. These standalone AVC/HEVC encoders provide high compression, ultra-low latency, 4K60 input capture and high-quality encode with zero-latency passthrough. Both models are compact, fanless, low power, and rack-ready. Leveraging H.265 technology, Starview SA-TU101H can encode video at low bitrates.

Starview Encoder SA-TU101 and SA-TU101H provide secure streaming, offer adjustable parameters, and support multiple streaming protocols. These encoders fit seamlessly into existing infrastructures and complement the Starview SA-TU101 product line. Well-suited for diverse applications, Starview SA-TU101 is ideal for secure command and control centers, operation rooms, and other mission critical environments.

Key features and benefits

4K60 input capture and encode	Stream and record - simultaneously - up to 4K60, with high quality scaling options.
Zero latency pass-through	Achieve zero-latency pass-through for real-time output of desktop, camera, and other types of content.
Standards-based HEVC and AVC codecs	Deliver interoperability between existing devices and environments.
H.265 efficiency	Achieve flawless quality with minimal bandwidth usage.
Fanless, quiet, and rack mountable	Deliver zero noise operation thanks to its fanless design, making SA-TU101 ideal for control room environments and operator desktops. Install up to three devices horizontally in 1 RU of rack space.
Flexible streaming	Enjoy five streaming protocols - RTSP, MPEG2-TS, RTP, RTMP(S) and SRT - for secure, trouble-free streaming.

Highly secure and robust AV over IP solution

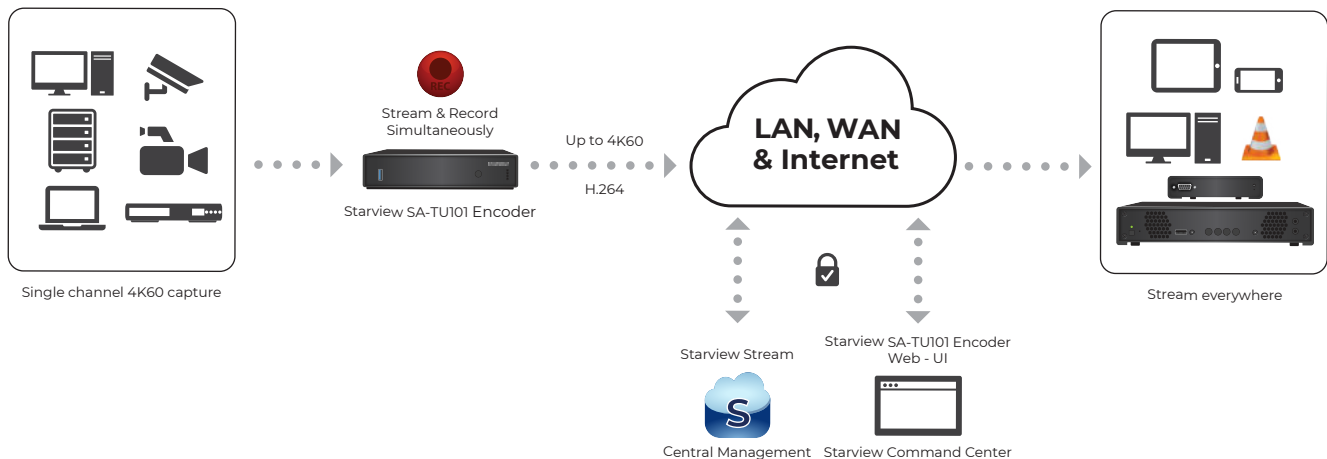
Starview SA-TU101 Encoder offers enterprise-grade security features to ensure protection of both the encoded video streams as well as our hardware device within your network. These include integration with Microsoft Active Directory for access control, HTTPS communication for secure device control, secure and verified firmware updates, 802.1x support for network authentication, regular vulnerability updates, and the Secure Reliable Transport (SRT) support.

Unmatched convenience with single stream and record

Starview SA-TU101 Encoder encoders deliver source content to on-premises end points over LAN, WAN (VPN), and internet. Feed cloud-based servers, and record to any accessible network location, including a Network Attached Storage (NAS) and Network Video Recorder (NVR) - all in a compact form factor. You can also leverage RTMP for seamless cloud integration and reliable video streaming. Secure Reliable Transport (SRT) protocol ensures high-quality reliable streaming even on noisy or unpredictable networks.

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Starview SA-TU101 Encoder delivers workflow flexibility



Technical specifications

	Starview SA-TU101 Encoder	Starview SA-TU101H Encoder
Performance		
Maximum capture resolution	1x 3840x2160 @60Hz	
Color space capture	<ul style="list-style-type: none"> • RGB and YUV 8-bit support • Color space conversion support 	
Encoding formats (Codecs)	<ul style="list-style-type: none"> • Video: H.264/MPEG-4 Part 10 (AVC) • Audio: MPEG-4 AAC-LC, OPUS and LPCM 	<ul style="list-style-type: none"> • Video: H.264/MPEG-4 Part 10 (AVC) • Video: H.265/MPEG-H Part 2 (HEVC) • Audio: MPEG-4 AAC-LC, OPUS and LPCM
Chroma sub-sampling	4:2:0 (8-bit)	
Encoding capability @4:2:0	1x 3840x2160 @60Hz	
Profiles	Baseline (BP), Main (MP), High (HiP), High10 (Hi10P), Intra, up to Level 5.2	Main (MP), Main Intra, Main10, Main10 Intra, Main, Intra up to Level 5.1 High Tier
Encoding level	Up to 5.2	
Bitrate range (Per stream)	<ul style="list-style-type: none"> • 64Kbps to 60 Mbps • 15 Mbps (default) 	
Rate Control	CBR, VBR, adjustable GOP size	
Audio sample frequency	32 kHz, 44.1 kHz, and 48 kHz	
Audio bitrates	From 64 to 320 Kb/s (AAC-LC, OPUS and LPCM)	
Scaling	Yes	
Recording		
File formats	Transport Stream (.TS)	
Programmability	Start/stop, duration, file location	
Recording locations	<ul style="list-style-type: none"> • Shared network drive or NAS • USB 3.0 	
Networking interface		
Streaming protocols	<ul style="list-style-type: none"> • RTSP (TCP), RTCP & RTP (UDP) - all required • RTP over UDP • SRT over UDP • RTMP/(S) • MPEG2-TS over UDP • MPEG2-TS over RTP • RTSP over TCP (interleaved) 	
Command & control	HTTPS over TCP, UPnP (discovery), SSDP	

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Technical specifications (Cont.)

Product	Starview SA-TU101 Encoder	Starview SA-TU101H Encoder
Networking interface (Cont.)		
Network standard	<ul style="list-style-type: none"> · 100/1,000 base-T Ethernet, auto speed, half/full duplex · IGMPv2 and IGMPv3 support 	
IP addressing	IPv4, DHCP (default) and static IP address support, IPv6	
IP stream support	Unicast, multicast	
Network security	802.1x support	
Software		
Command Center Web-UI	<ul style="list-style-type: none"> · Encoding and recording management · Multi-protocol management · Frame rate management · Resolution control · Scaling management 	
REST API	Available for lower-level development	
Supported operating systems	Microsoft® Server® 2022, Windows® Server® 2019, Windows® 11, Windows® 10	
Connectivity		
Network connector	1x RJ45 with status LED indicators	
Video input	1x HDMI®2.0 (Type A) with audio support	
Video output/Pass-through	1x HDMI®2.0 (Type A) with audio support	
Audio input	<ul style="list-style-type: none"> · 1x HDMI digital LPCM two-channel stereo audio · 1x 3.5 mm analog stereo audio in <ul style="list-style-type: none"> - 0.57 Vrms -29 kΩ -6 dB to +16.5 dB 	
Audio output	1x HDMI digital LPCM two-channel stereo audio	
USB	1x USB 3.0	
Hardware		
Noise emission	Fanless	
Power supply	<ul style="list-style-type: none"> · 100-240 VAC in, 12 VDC out, ~12W typical (40W max) · Barrel locking power connector 	
Runtime	24/7	
Power cords included	Yes	
Product dimensions	7.11 x 5.50 x 1.31 in (18.07 x 13.97 x 3.33 cm)	
Form factor	<ul style="list-style-type: none"> · Standalone appliance · Rack mountable (1U, 1/3R) · Weight is ~350 grams/0.77 lbs 	
Operating conditions	Temp: 0 to 45 degrees C Altitude: 650 hPa (3580m) to 1013 hPa (0m) Humidity: 10 to 90% non-condensing	
Storage conditions	Temp: -40 to 70 degrees C Altitude: 192 hPa (12000m) to 1020 hPa (-50m) Humidity: 10 to 90% non-condensing	
Warranty	3-years	

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