

HEVC Low Latency UHD Encoder X500E

IP Video distribution with HEVC/UHD

Low Latency Encoder **X500E**



X500E is a next-generation low-latency encoder, supporting broadcast-level quality HEVC/H.265 compression for live IP streaming. Based on Socionext's highly reliable codec technology, X500E meets and exceeds the rigorous demands for UHD/HEVC elevated processing power, using reduced bandwidth transport capacity.

■ Features

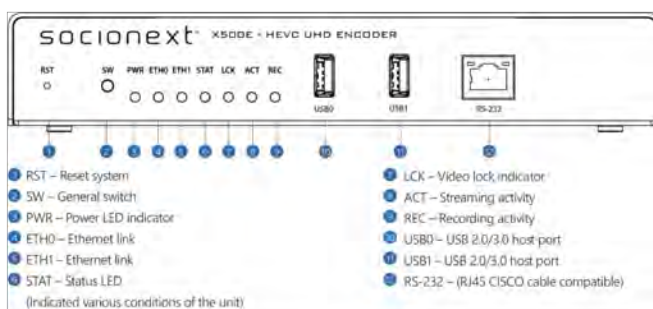
- Broadcast level video quality
- Next-generation, HEVC UHD video over IP
- Supports HEVC (H.265), main 4:2:2 10bit, up-to level 5.1
- Low encoding latency < 50ms
- HDMI 2.0a input
- TS-UDP, RTP, RTSP streaming protocols
- Web interface/HTTP control

■ Application

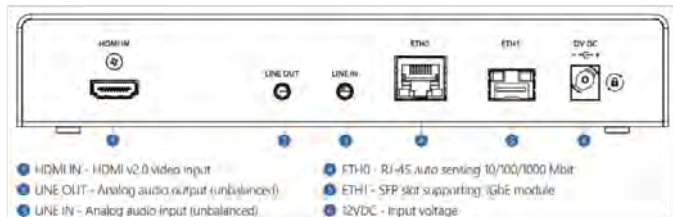
- Video distribution point-to-point and point-to-multipoint
- Web-casting and live-streaming
- Medical
- eLearning
- Audio/video Surveillance

■ Control Panel

[Front]



[Rear]



■ Specifications

Item		Specification	
Video	Video Input	HDMI Type A connector, HDMI v2.0a (Non HDCP)	
	Input Resolution	4K	4096x2160p[23.97, 24, 25, 29.97, 30, 50, 59.94, 60] Hz
		UHD	3840x2160p[23.97, 24, 25, 29.97, 30, 50, 59.94, 60] Hz
		FHD	1920x1080p[23.97, 24, 25, 29.97, 30, 50, 59.94, 60] Hz
		HD	1280x720p[50, 59.94, 60] Hz, 1920x1080i[25, 29.97, 30] Hz
		SD	720x576p50 Hz, 720x576i25 Hz, 720x480p59.94 Hz, 720x480i29.97 Hz
	Output Streams	Up to 4Kp60 HEVC over IP	
Video Compression	HEVC/H.265 ISO/IEC 23008-2 HEVC (H.265) Main 10 4:2:2, up-to level 5.1, high tier		
Codec features	Configurable GOP size, FPS, BPS I/P/B frames support 4:2:0 and 4:2:2 color space 10/8 pixel depth Supports progressive and field based interlaced coding Rate control: CBR and capped VBR Bitrates: from 500 kbps to 80 Mbps Frame rate: full, 1/2, 1/4, 1/8 of the input frame rate		
Encoding Performance	Up to 4Kp60 4:2:2 10 bit HEVC stream		
Audio	Audio Input	HDMI embedded audio Analog audio unbalanced (PL stereo connector)	
	Audio Sample Format	Single stereo channel audio at Fs = 48kHz, 16bit per/sample	
	Audio Compression	MPEG-2 AAC-LC (ISO/IEC 13818-7), configurable bitrate 64-256kbps	
Latency	Latency Modes	Low latency mode: < 50 ms (encoding latency at 4Kp60 20 Mbps with 1GbE I/F)	
		Normal mode latency: up to 2000 ms depending on GOP structure Note: The stream is compliant to RFC-7798, RTP for HEVC	
Interfaces	Ethernet	Eth: RJ45, Ethernet 10/100/1000 Base-T, auto-neg, auto-sense, half/full duplex	
	Streaming Protocols	TS-UDP	Transport Stream over UDP (Unicast/Multicast)
		RTP	Real-Time Protocol over UDP (Unicast/Multicast)
		RTSP	Real-Time Streaming Protocol (Unicast, single client)
	Other Protocols	HTTP, IGMP V1/V2, DHCP client	
	Other Interfaces	2 x USB 2.0/3.0 host ports RS-232 (RJ45 Cisco cable compatible) LED indicators (Power on, Ethernet link, Status, Video lock, Streaming, Recording) Tactile switches	
Encoder Management	Web-based interface via browser REST API Remote firmware upgrade via browser or REST API Hardware button for resetting factory defaults		
Dimensions (W x H x D)		214mm x 37mm x 155mm	
Weight		730g	
Operational Temperature		0-50°C	
Operational Humidity		Up to 90%, non-condensing	
Power Supply		12 VDC @5A	
Power Consumption		Typical: 18-20W (varies according to use case)	
Regulatory Compliance		FCC part 15 class A, CE	

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