

FEATURES

- ▷ Real-time UHD 4K Video Encoding
- ▷ HEVC / MPEG-4 AVC UHD/4K Video Encoding
- ▷ 1x BNC interface port for 12G-SDI input
- ▷ 1x SFP interface port for 12G-SDI input
- ▷ Video resolutions up to 2160p50/60
- ▷ IP Streaming and USB or Remote File Record
- ▷ 8-channels of Audio (4 stereo pairs)
- ▷ 7.1 AA C Audio
- ▷ CEA708 Closed Caption Support (option)
- ▷ Down Conversion of PCM/AC-3 Audio
- ▷ Conversion of SDI/104 SCTE Messages and Reception of TCP/SCTE 35 Messages
- ▷ ARQ error correction
- ▷ SRT, Zixi, and RIST Simple and Main Protocols
- ▷ Durable, Compact, cost-effective solution
- ▷ Compact 160mm x 125mm x 52mm chassis
- ▷ DC input up from 6 Volts to 24 Volts
- ▷ Low power
- ▷ User-friendly WEB-based remote configuration & control

APPLICATIONS

- ▷ Professional Broadcast Video
- ▷ Live Internet Streaming
- ▷ IPTV Streaming from CDNs

Niagara UHD 4K Streaming Video Encoder



NIA 9205-ENC (Front Panel)

MultiDyne's NIA9205-ENC encoder is a reliable, high-performance solution for the encoding and transport of HD and UHD 4K video and audio signals for Internet streaming and broadcast monitoring.

HEVC and AVC 4:2:0 10-bit encoding, coupled with SRT, Zixi, & RIST. Video Transport and Error correction help to maintain broadcast quality transport for a wide range of interoperability over nearly any IP network, including wireless networks and the Internet.

The NIA9205-ENC is the next generation professional line of advanced video encoders; a line of compact, powerful and cost-effective products designed for real-time encoding for Internet streaming and broadcast monitoring applications.

Niagara's advanced video transport couples broadcast and networking standards with error correction to take advantage of the inherent flexibility of IP and the Internet, providing Internet content providers an efficient, affordable and scalable solution for professional quality video over nearly any IP network.

The NIA9205-ENC provides HEVC and MPEG4-AVC video compression, up to 2160p50/60 10-bit 4:2:0, along with support for up to 8 audio mono channels to allow for cost-effective audio/video broadcast solutions.



NIA 9205-ENC (Rear Panel)

TECHNICAL SPECIFICATIONS

Video/Audio Interfaces

Video Inputs	1x BNC : 12G-SDI / 6G-SDI / 3G-SDI / HD-SDI (SMPTE 424M, 292M, 259M), 1x SFP : 12G-SDI / 6G-SDI / 3G-SDI / HD-SDI
Audio Inputs	SDI Embedded 8x Channel Audio

Video

HEVC Profiles	Main, Main10
AVC (H.264) Profiles	Baseline, Main, High, High10
Chroma Sampling	4:2:0
Bit Depth	8-bit, 10-bit
Resolution	3840x2160, 1920x1080, 1280x720
Frame Rates	23.98/24/25/50/59.94/60p, 50/59.94i
Encoding Bitrate	500Kbps to 80 Mbps
Closed Captioning	CEA-708

Audio

Audio Encoding	AAC-LC
Audio Format	Up to 4 stereo pairs
Sample Rate	48 KHz @ 16-bit, 20-bit encode
Bit Rate	16 Kbps (mono) to 384 Kbps (stereo)
Audio Channels	8 channel SDI embedded audio

IP Encapsulation

IP Encapsulation	MPEG-2 TS over RTP/UDP/IP, UDP/IP, RTSP, HLS, RTMP, RTMPS, RTSP
IP Bitrate	160 Kbps to 80 Mbps
Error Correction	SRT, Zixi and RIST (main & simple)
Encryption	Protocols PSK (Zixi, RIST Main Profile & SRT)

Storage & Network Interfaces

Networking ports	2x RJ45 10/100/1000 Gigabit Ethernet
Protocols	IEEE802.3 Ethernet RTP, IPv4, IPv6, TCP/UDP, IGMP v3
Connectors	1x USB3.0 Type-A & 1x USB3.0 Type-C
External storage	Flash & Hard drives via 1x USB3.0 Type-A & 1x USB3.0 Type-C connector

Control, Management, and Monitoring

Type	10/100/1000 Base-T Gigabit Ethernet
Control	HTTPS Web Interface
Ethernet	2x RJ45
Console Port	1x USB2.0 MicroB Connector

Physical and Power

Weight	.28 lbs / 1.3 Kg
Chassis	160 x 125 x 52 mm
Input Voltage	6-24 VDC
Max Input Current	0.84A@12VDC
Input Power	Maximum 10W

Environmental

Operating Temp.	0°C - +50°C
Storage Temp.	-20°C - +70°C
Maximum Humidity	< 95% non condensing

Compliance (Not yet tested)

CE	73/23/EEC (Low voltage equipment) 89/336/EEC (Electromagnetic compatibility)
Safety	IEC/EN 62368-1:2018
EMC	EN55022, EN55024, EN6100-3-2

ORDERING INFORMATION

Part #	DESCRIPTION
NIA9205-ENCHD	Standalone HD Encoder supporting up to 3G input with SRT, RTMP, RIST, HLS and more to come. Codecs include H.264/AVC and HEVC. Very low power consumption, 5 watts typical. Housed in V6 enclosure. For rack mounting, add RM-1RU-V6 kit.
NIA9205-ENC4K	Standalone UHD/4K Encoder supporting up to 12G input with SRT, RTMP, RIST, HLS and more to come. Codecs include H.264/AVC and HEVC. Very low power consumption, 5 watts typical. Housed in V6 enclosure. For rack mounting, add RM-1RU-V6 kit.
RM-1RU-V6	Universal Rack Kit for mounting up to (3) VB Series V6 products in a 1 RU rack space