

### FEATURES

- ▷ Stand-Alone Form Factor
- ▷ Optional SRT or Zixi Support
- ▷ Network Protocol Translation
- ▷ Dual GigE Interfaces
- ▷ HTML 5.0 Web-UI
- ▷ SNMP Management

### APPLICATIONS

- ▷ Encode to file
- ▷ Encode to UDP/RTP
- ▷ Encode to SRT
- ▷ Encode to FASP
- ▷ Encode to HLS
- ▷ Encode to RTMP
- ▷ Encode to Zixi Feeder

### Stand-Alone OTT Streaming Media Encoder for Broadcast.



Ideally designed for broadcast and professional encoding, MultiDyne's first-rate MD9200-ENC provides safe OTT streaming over both public and private networks. The MD9200-ENC's signal generator includes SMPTE RP219 color bars with moving box plus an expansive 8 channels of audio tones. Adding to the MD9200-ENC's return on investment, it boasts global OSD bug branding, PNG slate overlays, a flat field raster, and the capacity to pass or mute embedded audio.

MultiDyne's unique one to many routing support redefines the streaming standards of a compact value encoder. Once encoded, each payload can be concurrently routed to multiple destinations, mixing any of the streaming protocols supported by MultiDyne's compression platform. With the rare ability to encode two streams from a single SDI input, streams can be encoded in High Definition and Standard Definition (NTSC/PAL) at both low and high bit rates. Each independent encoder configuration allows unique frame size, frame rate, video and audio codec plus ancillary data configuration. IP stream protocol support

encompasses multicast or unicast UDP/RTP, RTMP, TCP, HLS, SRT, Zixi Feeder, FASP and file.

Network security is an utmost priority to MultiDyne and we ensure that all MultiDyne devices include the latest network security patches, HTTPS web server and user options to disable SSH, SAMPBA and PING. Integrated OpenVPN ensures secure connections without supplemental hardware. In addition, MultiDyne offers ongoing patches that include network security updates with new firmware features included for a modestly priced SLA<sup>1</sup>.

One 3G HD-SDI input delivers uncompressed 1080P/1080i/720P, NTSC or PAL video and embedded audio to the encoders. Video CODEC support includes 1080P AVC (H264) and 1080i MPEG 2. Ancillary data support for closed captions and SCTE104<sup>2</sup> cue messages embedded in SDI.

<sup>1</sup> Service Level Agreement available per device per year after year one. Year one SLA is included.

<sup>2</sup> SCTE 104 is optional.  
S= Standard O= Optional.

### REAR VIEW



Easy and accessible management and monitoring of the MD9200-ENC is facilitated via the Web Server.

### TECHNICAL SPECIFICATIONS

#### Output Stream Protocols

UDP/RTP Unicast/Multicast	UDP/RTP unicast or multicast support
RTMP, TCP	RTMP client and TCP client
HLS	Support for HLS segmentation and manifest generation
SRT	SRT public internet resilient streaming protocol
Zixi	Zixi public internet resilient streaming protocol. For use with Zixi Broadcaster/Zen cloud services. Zixi link point is not supported on MultiDyne devices
FASP	Aspera (IBM) public internet resilient streaming protocol

#### CODEC Audio Encode

	Feature	Pairs	Notes
MPEG 1 Layer 2 Audio	S/O	2 or 4	SDI Embedded. Second 2-pairs optional
AAC-LC Stereo (2.0)	S/O	2 or 4	SDI Embedded. Second 2-pairs optional
HE AAC V1.0 Stereo (2.0)	S/O	2 or 4	SDI Embedded. Second 2-pairs optional
HE AAC V2.0 Stereo (2.0)	S/O	2 or 4	SDI Embedded. Second 2-pairs optional
Dolby Digital Encode	O	2	SDI Embedded

#### Ancillary/Data

	Feature	Notes
Closed Captions	S	SMPTE 334 carriage of 608 and 708 Captions. On screen display (open captions support)
SCTE 104	O	SCTE 104 data extraction from SDI. Conversion to SCTE 35 cue messages

#### AV Input

	Standard	Connector	Notes
3G-SDI	SMPTE 424, 292, 259	HD-BNC Rear	Audio embedded per 272M (259) and 299M (424/292)
BARS	SMPTE RP219 Bars	Internal	Signal generation. SMPTE RP219 Bars or black flat field raster
Slate	PNG	Internal	Full raster 32 bit color PNG graphic overlay
Bug	PNG	Internal	Full raster 32 bit color PNG graphic overlay with transparency for video display
Tones	PCM	Internal	Eight channels of 1K tones (-10, -18, -20 dbFS)
Signal Loss	Fall Back	Internal	Upon loss of SDI inout the internal signal generator will generate bars/tones, overlay a slate with tones, slate with no audio and maintain streaming until SDI signal returns

#### System

	Standard	Connector	Notes
Gigabit 1	802.03	RJ-45/Rear	Copper CAT 5/5e/6/6A
Gigabit 2	802.03	RJ-45/Rear	Copper CAT 5/5e/6/6A
Power In	12VDC	TE 2 position plug model 284511-2 included.	
mSATA	min-SATA	52 pin edge connector	Mini SATA card slot for optional SSD disk
PCIe	PCI Express	52 pin edge connector	Mini PCIe card slot (Host) with USB
USB2	USB 2	USB 2 Standard-A receptacle/Front	USB 2 compliant. Data mount and Firmware load
USB3	USB 3	USB 3 Standar-A receptacle/Rear	USB 3 compliant. Data mount and Firmware upgrade
Terminal	VT100	mini USB Type B/Front	Serial Terminal at 115,200, 8, 1, N
Power Use	12 Watts Maximum		
Physical	5.09 Inches (129mm) Wide, 10.125 Inches (257mm) Deep, 1.02 Inches (26mm) Tall		

The MD9200-ENC is available as a single slot MultiDyne openGear card. Up to 20, MD9200-ENC-OG Encoders can be loaded into a single 2RU openGear chassis



Optional rack shelf