

BOLIN



EG40N

NDI Decoder

FPGA Hardware HEVC Codec Utilizing AMD Zynq™ UltraScale+™ MPSoC

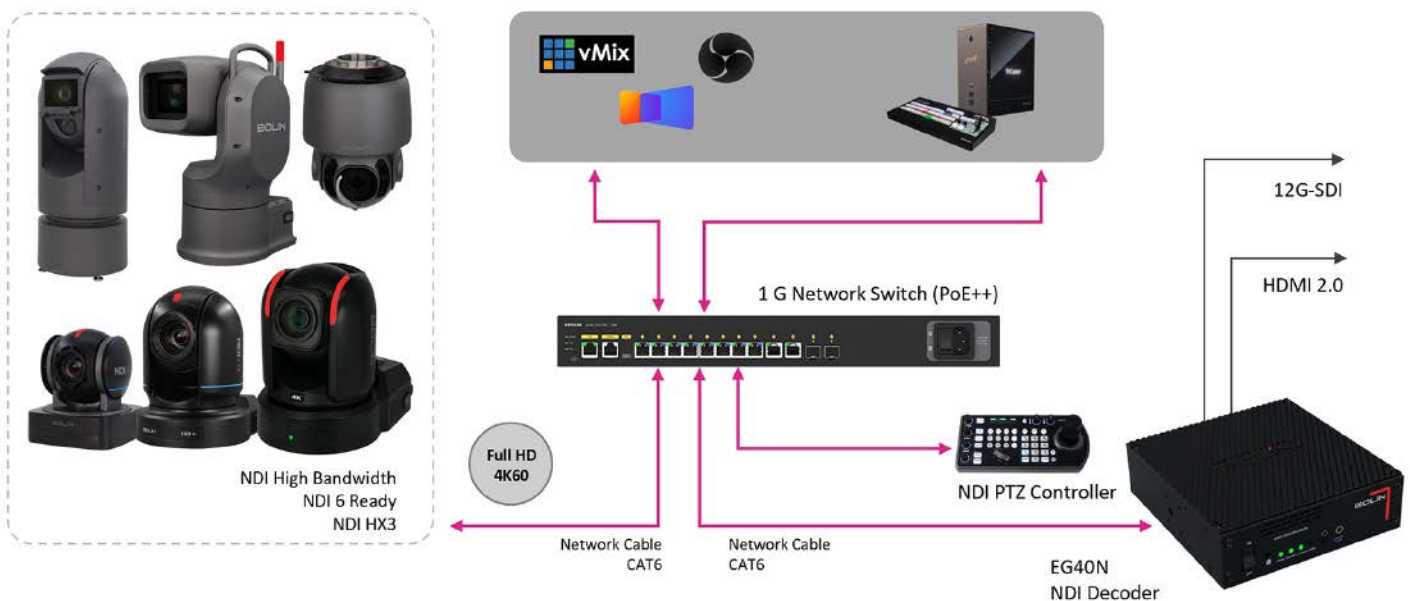
- High Quality Image
 - Low Latency

Interoperability | Low Latency | High Quality



NDI High Bandwidth & NDI HX3
NDI Embedded Bridge
NDI 6 Ready

EG40N NDI Decoder Workflow



Video Format and Standard

Full Format

3840 x 2160P 60/59.94/50/30/29.97/25/24/23.98
1920 x 1080P 120/60/59.94/50/30/29.97/25/24/23.98
1920 x 1080i 60/59.94/50
1280 x 720P 60/59.94/50/30/29.97/25

SDI Standard

SMPTE 292M, SMPTE 296M (1.5Gb/s), SMPTE 424M, SMPTE 274M, SMPTE 425-A (3Gb/s), SMPTE 2081(6Gb/s), SMPTE2082-1(12Gb/s) with SMPTE352 SDI Metadata Supported

Scaling

Downscaling and Upscaling, Scaling up to 4K60

NDI Embedded Bridge

With Bolin's NDI Embedded Bridge PTZ cameras and decoders, the devices send and receive encrypted NDI streams over WAN from any location globally. With one device running the embedded bridge, all NDI streams on a network can be sent and received. With NDI embedded devices, no complex setups required and configurations can easily be done ahead of time for plug and play operation in the field.

Bolin's NDI PTZ cameras with NDI Embedded Bridge provide real-time collaboration, robust security, and a seamless user experience for remote production and broadcast, virtual events, and content creation.

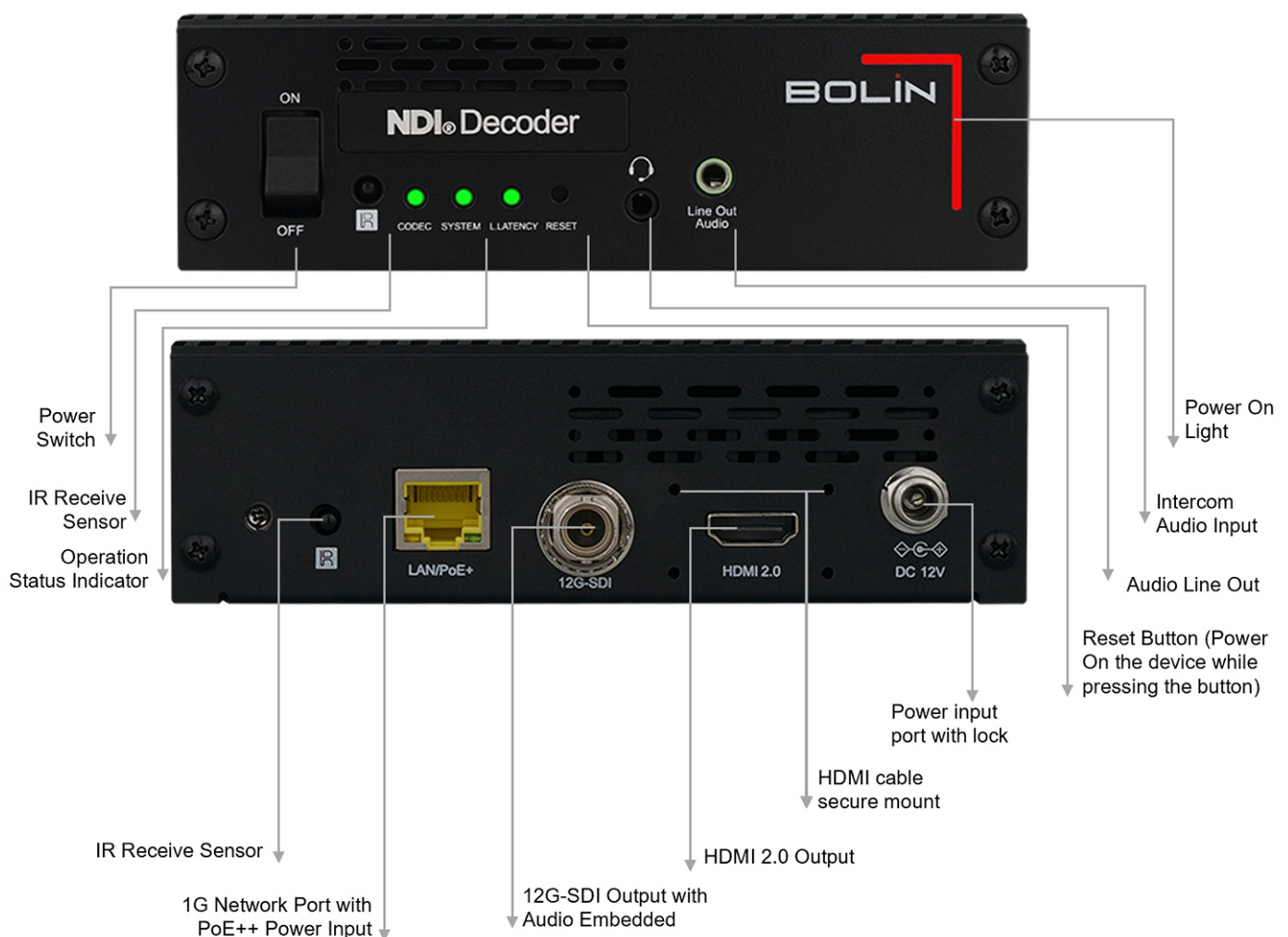
"It essentially allows individuals or teams from multiple locations to share, send, and receive high-quality, low-latency video, audio, and metadata streams, and control across the globe."



FEATURES

- FPGA base FAST HEVC Codec
- NDI High Bandwidth, NDI 6 ready
- NDI HX3 supported
- Support up to 4K60
- NDI Embedded Bridge
- HDMI 2.0 + 12G-SDI video output
- NDAA Compliant
- Scaling up to 4K60
- All video with audio embedded
- Audio intercom with frontend device
- On-screen character generator
- All firmware upgrade via IP
- POE+ and 12VDC power input

INTERFACE



NDAA COMPLIANT



NDAA Section 889 Statement of Compliance: Bolin certifies it does not and will not provide “covered telecommunications equipment or services” or products containing “covered telecommunications equipment or services” complying with Section 889(a)(1)(B) of the National Defense Authorization Act (NDAA) for the Fiscal Year 2019 as a part of its offered products or services to customers.

SPECIFICATIONS

Model		EG40N
Ecosystem Details		
AV over IP Ecosystem		NDI
Certification		NDI Certified; NDI 6
Featured		NDI High Bandwidth; NDI HX3; NDI Embedded Bridge
Connectivity		
Encoder/Decoder		Decoder
Input		IP Only
Output		Simultaneous HDMI 2.0, 12G-SDI
Video Resolutions		3840 x 2160P @60/59.94/50/30/29.97/25/24/23.98 1920 x 1080P @120/60/59.94/50/30/29.97/25/24/23.98 1920 x 1080i @60/59.94/50 1280 x 720P @60/59.94/50/30/29.97/25
IP Input	Codec	SpeedHQ; H.264 (AVC); H.265 (HEVC), Hardware FPGA Based
	Supported IP Resolutions	3840 x 2160P @60/59.94/50/30/29.97/25/24/23.98 1920 x 1080P @60/59.94/50/30/29.97/25/24/23.98 1280 x 720P @60/59.94/50/30/29.97/25
	Frame Rates	23.98, 24, 25, 30, 29.97, 50, 59.94, 60
	Streaming Protocols	NDI High Bandwidth; NDI HX3; NDI HX2; NDI Embedded Bridge, RTP (Unicast or Multicast); RTMP, RTMPS, MPEG-2 TS over UDP, MPEG-2 TS over RTP, SRT (Caller, Listener)
	Gradual Decoding Refresh (GDR)	Yes; Will auto-activate when GDR frames are detected in input stream
	Number of Streams	Single Stream Decode; Preset up to 200 sources
	Latency (Results may vary depending on network configuration and management settings)	As low as 3 frames/ 50ms - Dependent on Encode Settings
	Bandwidth (Results may vary depending on network configuration and management settings)	NDI Certified - <100 ms
		4kp60 4:2:2/12bit; 250Mbps 1080p60 4:2:2/12bit; 80-110Mbps
HDMI Output	Format	HDMI 2.0
	Supported Resolutions	3840 x 2160P @60/59.94/50/30/29.97/25/24/23.98 1920 x 1080P @120/60/59.94/50/30/29.97/25/24/23.98 1920 x 1080i @60/59.94/50 1280 x 720P @60/59.94/50/30/29.97/25
	Frame Rates (Hz)	23.98, 24, 25, 29.97, 30, 50, 59.94, 60, 120
	Scaling	Yes; Downscaling and Upscaling, Scaling up to 4K60
	Color Space	4K60: RGB 8bit, YUV444 8bit, YUV422 10bit 4K30 & below: RGB 8bit, YUV444 8bit, YUV422 10bit
SDI Output	Format	12G-SDI
	Standard	SMPTE 292M, SMPTE 296M (1.5Gb/s), SMPTE 424M, SMPTE 274M, SMPTE 425-A (3Gb/s), SMPTE 2081(6Gb/s), SMPTE2082 1(12Gb/s) with SMPTE352 SDI Metadata Supported
	Supported Resolutions	3840 x 2160P @60/59.94/50/30/29.97/25/24/23.98 1920 x 1080P @60/59.94/50/30/29.97/25/24/23.98 1920 x 1080i @60/59.94/50 1280 x 720P @60/59.94/50/30/29.97/25
	Frame Rates (Hz)	23.98, 24, 25, 29.97, 30, 50, 59.97, 60
	Scaling	Yes; Downscaling and Upscaling, Scaling up to 4K60
	Color Space	YUV422 10bit
	Connector	Standard/75 Ω
Audio	Codec	AAC-LC, MPEG-2
	S/N Ratio	≥85dB
	THD+N	≤0.05%
	Audio Noise (RMS)	≤90dB
	Bit Depth	Sample Rate: 48KHz/44.1KHz, 24bit, 64-256Kbps selectable
Audio Output	HDMI Embedded Audio	Stereo - 2 Channel
	SDI Embedded Audio	Stereo - 2 Channel
	Line Out Connection	3.5mm Analog Line Out
	Format	PCM
Intercom	Mic/Headset	Inactive
Network		
Connection	Network	RJ45, 100/1000BASE-T Ethernet
	POE	IEEE 802.3at Type 3 Class 4 Compliant 1000BASE-T Ethernet
	IR Passthrough	Yes; Transmit PTZ Controls via IR Receiver
IP Protocols		HTTP; IGMPv1/v2; DHCP; SSH; 802.1X Authentication

SPECIFICATIONS

Model		EG40N
Control and Management		
Access		WebUI; Bolin API
Firmware Upgrade		Via WebUI
System Reset		Web UI; Physical Button on Decoder
Power and Physical		
Power	Power Consumption	13W
	PoE	PoE+, IEEE 802.3at Type 3 class 4 compliant
	Power Adaptor	12V DC, 4A
		5.5mm×2.1mm Male DC Power Plug Connector & Screw Lock Female Panel Socket Mount Adapter
Interface		HDMI 2.0 ; 12G-SDI 12VDC Power Input, Power Switch Reset Button RJ45 (LAN/PoE+) IRReceiver (Front & Back) 3.5mm Comms; 3.5mm Line out LED Indicator Lights (Power, Codec, System, Low Latency)
Storage Temperature		-40° to 60° C
Operating Temperature		0° to 50° C
Humidity		10% to 90% (non-condensing)
Heat Dissipation		Cooling fan, 3 Level - Automatically adjust the fan speed according to the temperature
Acoustic Noise		NC35 or less, variable with cooling fan speed adjustment
Dimension		142*150*44mm (LxDxH), 142*150*50.5mm(with feet mats)
Net Weight		1.05kg (2.31lb)
Chassis		Metal, black finish, heat dissipation surface, fan cooled; vented front and rear
Mounting	Included	HDMI cable secure mount, Base mount
	Optional	19" Single-rack mount, 19" Tri-rack mount, Din rail mount, Surface mount
Size of Screw Hole for Tripod		1/4"
What's Included		Decoder; IR Remote Controller; Power Adapter (US, EU, UK)

INSTALLATION MOUNT



- Rack Mount
- Base Mount
- Surface Mount
- Pole Mount
- Din Rail Mount
- Tripod Mount

ACCESSORY

Items marked * are optional to purchase



* VCC-RC-2
IR Remote Controller



VCC-P12-4
12VDC 4A Power Adapter



B-BM10
Base Mount Kit



* B-RM23
Tri Rack Mount Kit



* B-RM22
Dual Rack Mount Kit



* B-RM20
Single Rack Mount Kit



* B-DR10
Din Rail Mount Kit



B-SM10
Surface Mount Kit



* BL-PP97
97W POE POWER INJECTOR

ORDER INFORMATION

• EG40N (HDMI 2.0+12G-SDI) Decoder

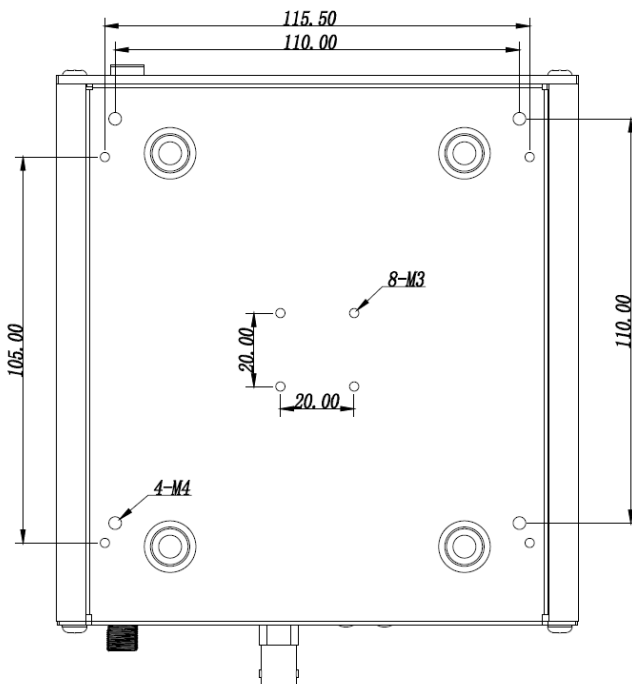
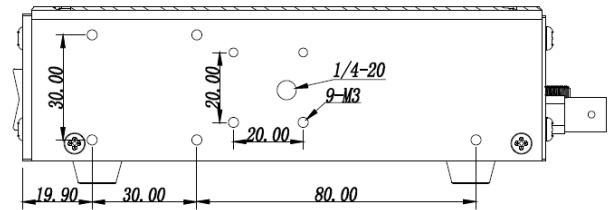
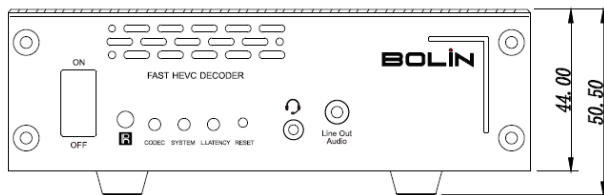
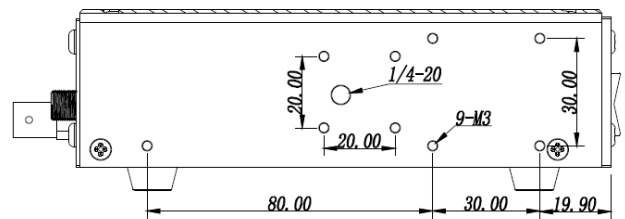
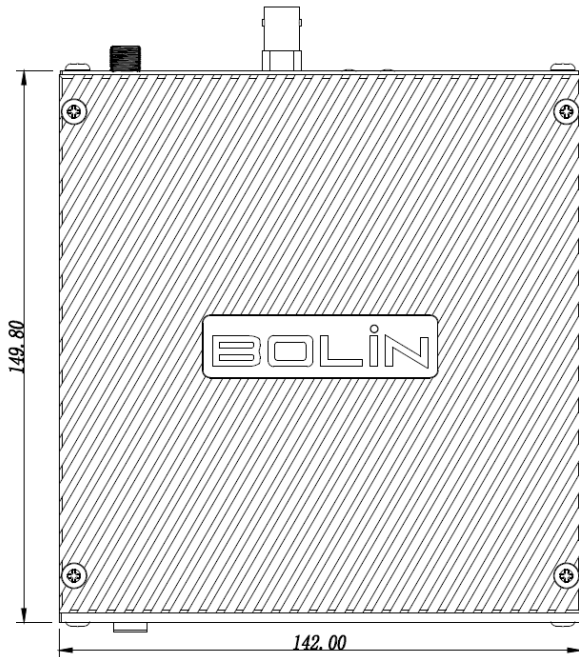
Included: • B-BM10 (Base Mount)
• B-SM10 (Surface Mount)

Optional

- B-RM20 (Single-Rack Mount)
- B-RM22 (Dual-Rack Mount)
- B-RM23 (Tri-Rack Mount)
- B-DR10 (Din Rail Mount)

DIMENSIONS

Unit: mm



All models and specifications are subject to change without notice.
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