

NEB0105HI-4K

1 Channel 4K Distributed Encoder Box

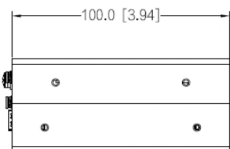
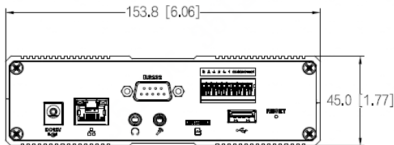


Encoder Box, is a powerful audio-visual encoding solution designed to expand the capabilities of advanced video security systems. Its seamless integration options with NVR or RTSP protocol allow for streamlined installation, deployment, and administration, resulting in significant cost savings. Additionally, the Media Encoder Box enables video transmission over long distances, overcoming the limitations of traditional HDMI cables. When connected to the network, it allows for long-distance video feeds to NVRs, making it ideal for auditing computer operations in 4K or distributing video feeds to multiple monitors when used in conjunction with our decoder.

Features

- Supports 1-channel DP and HDMI 1-channel HDMI independent collection and 4K resolution
- H.265 real-time encoding
- 1 x RJ45 10/100/1000M self-adaptive Ethernet interface
- Compatible with TCP, IP, RTP, RTSP, HTTP, TCP, UDP, DHCP, NTP network protocols
- Remote reboot/upgrade/default setting operations
- Provides SDK, demo software, and development manual
- 1-channel HDMI and HDMI loop output
- Uses two (2) redundant power input channels: PoE and 12 VDC

Dimensions



Specifications

System		
Processor		High-performance Industrial Micro Processor
Operating System		Embedded LINUX
Interface		
Video	Input	<ul style="list-style-type: none"> • One (1) HDMI 1.4 (Supports DVI with converter) • One (1) DP
	Output	<ul style="list-style-type: none"> • One (1) HDMI 2.0 (Left) (Reserved, Non-functional) • One (1) HDMI Loop
Audio Input		<ul style="list-style-type: none"> • One (1) Embedded HDMI and DP • One (1) 3.5 mm Jack
Intercom	Input	One (1) 3.5 mm Microphone Jack (Reserved, Non-functional)
	Output	One (1) 3.5 mm Earphone Jack (Reserved, Non-functional)
Alarm	Input	Two (2) Channels (Reserved, Non-functional)
	Output	Two (2) Channels (30 VDC 1A, 125 VAC 0.5A Linkage) (Reserved, Non-functional)
Network Port		One (1) RJ45 10/100/1000M Self-adaptive Ethernet
RS-232 (DB9)		One (1) for debugging purposes only
RS-485		One (1)
USB		<ul style="list-style-type: none"> • One (1) USB 2.0 (Left) (Reserved, Non-functional) • One (1) USB (Reserved)
SD Card Slot		• One (1) (Reserved, Non-functional)
Performance		
Access Resolution		4096 x 2160, 3840 x 2160, 2560x1440, 1920 x 1080, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768
Video Frame Rate		1 to 60 fps (Max. 24 fps at 4096 x 2160 and 30 fps at 3840 x 2160)
Encoding Capacity		<ul style="list-style-type: none"> • 4096 x 2160 at 24 fp • 3840 x 2160 at 30 fps • 2560 x 1440 at 60 fps • 1920 x 1080 at 60fps • 1280 x 1024 at 60fps • 1280 x 960 at 60fps • 1280 x 720 at 60 fps • 1024 x 768 at 60fps
Video Encoding Format		H.265, H.264 (Default)
Audio Encoding Format		G.711a
Stream Type		Composite, Video
Protocol		RTSP, Private
Electrical		
Power Supply		12VDC 2.0A, PoE
Power Consumption		≤ 10 W
Construction		
Operating Temperature		-10 °C to 55 °C (14 °F to 131° F)
Operating Humidity		10% to 90%, 86 kpa to 106 kpa
Dimensions (H x D x W)		45mm x 153.8 mm x 100 mm (1.77 in. x 6.06 in. x 3.93 in.)
Weight		0.65 kg (1.43 lb)



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Technical Specification

System

Main Processor	Industrial-grade processor
Operating System	Embedded Linux
Operating Interface	Web, Local GUI

AI

AI by Recorder	Face detection; face recognition; perimeter protection; SMD Plus
AI by Camera	Face detection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles); perimeter protection; SMD Plus; stereo analysis; crowd distribution; people counting; ANPR; vehicle density; heat map

Perimeter Protection

Perimeter Performance AI by Recorder (Number of Channels)	4 channels, 10 IVS rules for each channel
Perimeter Performance of AI by Camera (Number of Channels)	16 channels

Face Detection

Face Attributes	Gender; age group; glasses; expressions; face mask; beard
Face Detection Performance of AI by Recorder (Number of Channels)	2 channels (up to 12 face images/s each channel)
Face Detection Performance of AI by Camera (Number of Channels)	16 channels

Face Recognition

Face Database Capacity	Up to 20 face databases with 20,000 images, with a total capacity of 2.5 G. Name, gender, birthday, address, credential type, credential No., countries & regions and state can be added to each face image.
Face Recognition Performance of AI by Recorder (Number of Channels)	1. 16-channel FD (by camera) + FR (by recorder), image stream: 16 face images/s 2. 2-channel FD (by recorder) + FR (by recorder), video stream: 12 face images/s
Face Recognition Performance of AI by Camera (Number of Channels)	16 channels

SMD Plus

SMD Plus by Recorder	8 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change
SMD Plus by Camera	16 channels

Video Metadata

Metadata Performance of AI by Camera (Number of Channels)	8 channels
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Human Attributes	Top color, top type, bottom color, bottom type, hat, bag, age, gender and umbrella
Motor Vehicle Attributes	License plate, plate color, vehicle body, vehicle model, vehicle logo, calling, seatbelt, vehicle interior, vehicle registration location.
Non-motor Vehicle Attributes	Vehicle model, vehicle color, number of persons, helmet.

Vehicle License Plate Comparison

ANPR by Camera (Number of Channels)	8 channels
License Plate Database Capacity	1. Create up to 20,000 plate numbers. 2. Blocklist and allowlist

Audio and Video

Access Channel	32
Network Bandwidth	AI disabled: 384 Mbps incoming, 384 Mbps recording and 384 Mbps outgoing AI enabled: 200 Mbps incoming, 200 Mbps recording and 200 Mbps outgoing
Resolution	32 MP; 24 MP; 16 MP; 12 MP; 8 MP; 5 MP; 4 MP; 1080p; 720p; D1; CIF; QCIF
Decoding Capability	AI disabled: 2-channel 32 MP@20 fps; 2-channel 24 MP@20 fps; 4-channel 16 MP@30 fps; 5-channel 12 MP@30 fps; 8-channel 8 MP@30 fps; 12-channel 5 MP@30 fps; 16-channel 4 MP@30 fps; 32-channel 1080p@30 fps AI enabled: 1-channel 32 MP@20 fps; 1-channel 24 MP@20 fps; 2-channel 16 MP@30 fps; 4-channel 12 MP@30 fps; 4-channel 8 MP@30 fps; 8-channel 5 MP@30 fps; 12-channel 4 MP@30 fps; 24-channel 1080p@30 fps
Video Output	2-channel VGA, 2-channel HDMI video output. Heterogeneous video source output for HDMI1 and HDMI2 Simultaneous video source output for VGA1 and HDMI1 Simultaneous video source output for VGA2 and HDMI2 Supports 4K display
Multi-screen Display	Main screen: 1/4/8/9/16/25/36 Sub screen: 1/4/8/9/16
Third-party Camera Access	ONVIF; Panasonic; Sony; Axis; Arecont; Pelco; Canon; Samsung

Compression Standard

Video Compression	Smart H.265+; H.265; Smart H.264+; H.264; MJPEG
Audio Compression	G.711a; G.711u; PCM; G726

Network

Network Protocol	HTTP; HTTPS; TCP/IP; IPv4/IPv6; RTSP; UDP; SNMP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; PPPoE; FTP; DDNS; Alarm Server; IP Search (IP camera, DVR, NVS, etc.); Multicast; P2P; Auto Registration
Mobile Phone Access	iOS; Android
Interoperability	ONVIF 2.1.12(Profile T; Profile S; Profile G); CGI; SDK
Browser	Chrome IE 9 or later Firefox
Network Mode	Multi-address mode, load balance, fault tolerance and other network port binding modes

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Recording Playback

Multi-channel Playback	Up to 16 channels
Record Mode	General, motion detection; intelligent; alarm; POS
Backup Method	USB device and network
Playback Mode	Instant playback, general playback, event playback, tag playback, smart playback (face and motion detection)

Storage

Disk Group	YES
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Alarm

General Alarm	Motion detection; privacy masking; local alarm
Anomaly Alarm	Camera offline; storage error; disk full; IP conflict; MAC conflict; login lock; abnormal behavior of fan; cybersecurity exception
Intelligent Alarm	Face detection; perimeter protection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles); SMD Plus; stereo analysis; crowd distribution; people counting; ANPR; vehicle density; heat map
Alarm Linkage	Record; snapshot (panoramic); local alarm output; IPC external alarm output; access controller; audio; buzzer; log, preset; email

Port

Audio Input	1-channel RCA
Audio Output	2-channel RCA
Alarm Input	16 channels
Alarm Output	6 channels (1-channel 12 V 1 A output)
HDD Interface	4 SATA ports, up to 16 TB. The maximum HDD capacity varies with environment temperature.
eSATA	1
RS-232	1
RS-485	1 (half-duplex serial communication)
USB	3(1 front USB 2.0 port, 2 rear USB 3.0 ports)
HDMI	2
VGA	2
Network Port	2 (10/100/1000 Mbps Ethernet port, RJ-45)

General

Power Supply	100–240 VAC, 50-60 Hz
Power Consumption	Total output of NVR is ≤ 13 W (without HDD)
Net Weight	4.74 kg (10.45 lb)
Gross Weight	6.11 kg (13.47 lb)
Product Dimensions	440.0 mm × 415.1 mm × 70.0 mm (17.32" × 16.34" × 2.76") (W × D × H)
Packaging Dimensions	530.0 mm × 500.0 mm × 210.0 mm (20.87" × 19.69" × 8.27") (W × D × H)
Operating Temperature	–10 °C to +55 °C (14 °F to +131 °F)
Storage Temperature	–20 °C to +60 °C (–4 °F to +140 °F)
Operating Humidity	10%–93% (RH)
Installation	Rack or desktop
Certifications	FCC: 47 CFR FCC Part15, SubpartB, Class A CE-EMC: EN 55032: 2015+A1: 2020; EN IEC 61000-3-2: 2019+A1: 2021; EN 61000-3-3: 2013+A1: 2019+A2: 2021; EN 55035: 2017+A11: 2020; EN 50130-4: 2011+A1: 2014 CE-LVD: EN 62368-1: 2014