



# kramer

## KDS-EN7

High-performance, highly-scalable, AVoIP  
Encoder for 4K over 1G network

| HDMI | Ethernet - RJ-45 | HDCP 2.2 Compatible



KDS-EN7 encoder is an advanced transmitter for streaming 4K video signals via Ethernet over copper cable. It encodes and streams over an IP network from HDMI input, and transmits the USB, IR, RS232, or CEC signal over IP network

## FEATURES

### Outstanding end-user experience -

Rich set of inputs and interfaces

Easy-to-use KM/KVM – Searchable OSD Menu for KM and fully configurable KVM roaming

Large scale video wall – up to 16x16

Instantaneous switching time – 1 second

### Ideal for large-scale deployments -

Highly scalable – 999 channels build in support

State of the art management device

Rich set of management capabilities – Standard P3K Open API , LCD screen for configuration

### Robust security -

Enterprise IT-grade security – 802.1x and HTTPS/TLS

Security certification – OWASP Top 10 certificate

Separate ETH ports for optimal security and experience

New HW architecture that enables robust FW update

### Simple planning and rollout: -

Cost-effective from day one

Full product range for any site, any application

Plug-and-play with Netgear M4250 AVoIP switches, Kramer Control, etc.

### PoE Support -

Using PoE switch – up to 13W consumption

### Alternative sources/destinations -

HDMI Loop-Through on Encoder and HDMI Input on Decoder

### Analog Audio -

Embedding and De-embedding

**Control gateway** - Through P3K control/communicate with IR, RS232, or CEC to the connected devices

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## TECHNICAL SPECIFICATIONS

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Inputs	1 HDMI: On a female HDMI connector
Outputs	1 HDMI: On a female HDMI connector
Ports	2 Ethernets: On RJ-45 connectors 1 Balanced Audio: On a 5-pin terminal block connector 1 RS-232: On a 3-pin terminal block connector 1 IR: On a 3.5mm TRS connector 1 USB Host: On a USB-B connector
USB Features	Integrated USB Hubs 1-layer USB Hub when connecting to KDS-DEC7
Network	Multicast: Through RTSP (Real Time Streaming Protocol): IGMP snooping non-blocking, Layer 2 Unicast: Through RTSP (Real Time Streaming Protocol) Bitrate: Peak: 850Mbps, 4K average: 350Mbps, 1080p average: 250Mbps
Video	Compression Standard: JPEG based, private stream Max Resolution: 4K@30Hz 4:4:4
Video Streaming	Compression Standard: JPEG2K based, proprietary stream Max Input Resolution: 4K@60hz (4:2:0) Max Output Resolution: 4K@30hz (4:4:4) Max End-to-End Resolution: 4K@30hz (4:4:4) Scaler: Yes End-to-End Latency: 33msec Switching Time: 1sec
Resolution	4096x2160@60Hz, 1600x1200@60Hz, 1280x960@60Hz, 848x480@60Hz, 3840x2160@60Hz, 1600x900@60Hz, 1280x800@60Hz, 800x600@60Hz, 1920x1200@50Hz, 1440x900@60Hz, 1280x768@60Hz, 720x576@60Hz, 1920x1080@60Hz, 1400x1050@60Hz, 1280x720@60Hz, 720x480@50Hz, 1856x1392@60Hz, 1366x768@60Hz, 1224x768@70Hz, 640x480@60Hz, 1792x1344@60Hz, 1360x768@60Hz, 1152x864@70Hz, 640x400@85Hz, 1680x1050@60Hz, 1024x768@60Hz, 640x350@85Hz
Audio	Supported Formats LPCM, Dolby, DTS LPCM LPCM upto 7.1/24-bit/192kHz Dolby Dolby Atmos™, Dolby TrueHD, Dolby Digital Plus™, Dolby Digital EX, Dolby Digital 5.1, Dolby Digital 2/0 Surround, Dolby Digital 2/0 DTS DTS-HD Master Audio™, DTS-HD, DTS-ES Discrete 6.1, DTS-ES Matrix 6.1, DTS Digital Surround 5.1
Security	HTTPS, 802.1x, OWASP-10, AES-128 encryption of AV streaming with changeable key
User Interface	Indicators: LINK, NET and ON LEDs, front panel LCD Display

Controls: Restart and factory reset rear panel button, embedded web pages, P3K API commands via Ethernet, front panel navigation buttons

Power PoE (Power over Ethernet) Operating voltage range 37V~57V, max power 13W  
Optional power supply 24V DC, 5A

Environmental Conditions Operating Temperature: 0 to + 45°C (32 to + 113 °F), 10% to 90%, non-condensing  
Storage Temperature: -20 to +70°C (-4 to + 158 °F), 10% to 90%, non-condensing  
Humidity: 10% to 90%, non-condensing

Product Dimensions 18.90cm x 14.50cm x 2.76cm (7.44" x 5.71" x 1.09" ) W, D, H

Product Weight 0.7kg (1.5lbs) approx

Shipping Dimensions 31.20cm x 17.90cm x 7.60cm (12.28" x 7.05" x 2.99" ) W, D, H

Shipping Weight 0.9kg (2.1lbs) approx

