



## KDS-EN7

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

| HDMI | Ethernet - RJ-45 | 4K/30 UHD  
| 4K/60 UHD (4:2:0) | 4K/60 UHD (4:4:4)  
| 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

Through P3K control/communicate with IR, RS232, or CEC to the connected devices



## TECHNICAL SPECIFICATIONS

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|                 |                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inputs          | 1 HDMI: On a female HDMI connector                                                                                                                                                                                                                                                                                                                                                                                    |
| Outputs         | 1 HDMI: On a female HDMI connector                                                                                                                                                                                                                                                                                                                                                                                    |
| Ports           | 2 Ethernet: On RJ-45 connectors<br><br>1 Balanced Audio: On a 5-pin terminal block connector<br><br>1 RS-232: On a 3-pin terminal block connector<br><br>1 IR: On a 3.5mm TRS connector<br><br>1 USB Host: On a USB-B connector                                                                                                                                                                                       |
| USB Features    | Integrated USB Hubs 1-layer USB Hub when connecting to KDS-DEC7                                                                                                                                                                                                                                                                                                                                                       |
| Network         | Multicast UDP, IGMP snooping non-blocking, Layer 2<br><br>Unicast UDP<br><br>Bitrate: Peak: 850Mbps, 4K average: 350Mbps, 1080p average: 250Mbps                                                                                                                                                                                                                                                                      |
| Video           | Compression: Visually Lossless, proprietary codec<br><br>Max Resolution: 4K@30Hz 4:4:4                                                                                                                                                                                                                                                                                                                                |
| Video Streaming | Compression Standard: JPEG2K based, proprietary stream<br><br>Max Input Resolution: 4K@30hz (4:4:4)<br><br>Max Output Resolution: 4K@30hz (4:4:4)<br><br>Max End-to-End Resolution: 4K@30hz (4:4:4)<br><br>Scaler: Yes<br><br>End-to-End Latency: 33msec<br><br>Switching Time: 1sec                                                                                                                                  |
| Resolution      | 4096x2160@30Hz, 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<br><br>LPCM LPCM upto 7.1/24-bit/192kHz<br><br>Dolby Dolby Atmos™, Dolby TrueHD, Dolby Digital Plus™, Dolby Digital EX, Dolby Digital 5.1, Dolby Digital 2/0 Surround, Dolby Digital 2/0<br><br>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<br><br>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<br>Typical Power Consumption 5.76W<br>Optional power supply 24V DC, 5A                                                                          |
| Environmental Conditions | Operating Temperature: 0 to + 45°C (32 to + 113 °F), 10% to 90%, non-condensing<br>Storage Temperature: -20 to +70°C (-4 to + 158 °F), 10% to 90%, non-condensing<br>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 18.00cm x 7.60cm (12.28" x 7.09" x 2.99" ) W, D, H                                                                                                                                              |
| Shipping Weight          | 0.9kg (2.1lbs) approx                                                                                                                                                                                     |





## CONFIGURATIONS

|            |                                                     |
|------------|-----------------------------------------------------|
| KDS-EN7    | AVoIP Encoder over 1G Network (KDS-7)               |
| KDS-EN7-AA | TAA Compliant AVoIP Encoder over 1G Network (KDS-7) |

