**OVERVIEW**

The AVoIP HDMI/VGA Encoder (Tx) & Decoder (Rx) System provides stunning 4K video distribution over Fiber or CAT 5e at a very cost effective price point. Engineered for simplicity in mind, the AVoIP System is designed to operate exactly like a conventional Matrix Switcher and is configured to work out of box with no IP knowledge required. The AVoIP Matrix Switching Controller automatically detects connected Encoders and Decoders that provides drop down menu simplicity for configuring all connected devices. Featuring basic EDID and HDCP management with extremely low latency video, this is an ideal solution for digital signage with advanced video wall processing and video distribution for training rooms, classrooms and conference rooms.

**FEATURES**

- Leveraging advanced network IP video technology for conventional 4K HDMI video matrix switching
- Operates exactly like a conventional HDMI video matrix switcher, via API commands or virtual front panel buttons
- Perfect for users with minimum IP network knowledge/experience
- Accommodate up to HDMI 1.4 (4K@30Hz, 4:4:4) signals, with external audio, RS-232, IR, and USB
- Extend and switch HDMI video over CAT-5e/6 cable up to 100m, with negligible latency
- Remote powering via PoE
- Support RS-232, Telnet, and Web GUI Control
- Virtual front-panel buttons for quick, manual operation
**VIDEO/AUDIO SPECIFICATIONS**

**HDMI**
- HDMI 1.4, up to 4K@30Hz 4:4:4 or 4K@60Hz 4:2:0 8-bit
- Embedded Audio: Stereo or 71 Surround Sound
- HDMI Female Connector

**VGA**
- Up to 1920x1200 (WUXGA) @ 60Hz
- HD-15 connector

**Port Count**
- **Tx:** 1-HDMI Input, 1-VGA Input, 1-VGA-Loopback
- **Rx:** 1-HDMI Output and 1-VGA Output

**AUDIO**

**External Audio**
- 3.5mm mini-stereo jack

**Port Control**
- **Tx:** 1-Line Input and 1-Line Output
- **Rx:** 1-Line Output and 1-Mic Input

**SERIAL DATA**

**Serial Rate**
- RS-232

**Data Rate**
- Up to 115.2 Kbaud

**Connector**
- DB-9

**Port Count**
- One RS-232 in TX and in RX

**IR CONTROL**

**Data Rate**
- 30-50 KHz

**Connector**
- 3.5mm Mini Jack

**Port Count**
- **Tx:** Input/Output
- **Rx:** Input/Output

**USB**

**Mode**
- **Tx:** USB Host
- **Rx:** 4-USB Device

**Port Count**
- One USB-Host in TX and Four USB-Device in RX

**1G ETHERNET PORT (TX/RX)**

**Connector**
- RJ-45

**Transmission Distance**
- 100m CAT-6a @4K30, 4:4:4
- 70m CAT-5e/6 @4K30, 4:4:4

**PHYSICAL**

**Dimensions Standalone**
- 7.75”(W) x 4.25”(D) x 1.1”(H)

**Power Consumption**
- Encoder: 8.5W Maximum
- Decoder: 7.5W Maximum

**Operating Temperature**
- 0 to 40°C

**Humidity**
- 0 to 90% RH, Non-Condensing

**CERTIFICATIONS**

CE, FCC (Power Supply)

**GREEN COMPLIANCE**

RoHS

**ORDER INFORMATION**

LBN-MST  
AVoIP HDMI/VGA Encoder (Tx)  
with PoE (over Fiber or CAT 5e)

LBN-MSR  
AVoIP HDMI/VGA Decoder (Rx)  
with PoE (over Fiber or CAT 5e)

LBN-MSC-P  
AVoIP Matrix Switching Controller

LBN-MSx-RBS  
Horizontal Rack Mount for LBN-MST or LBN-MSR

LBN-MSx-RBM  
Vertical Rack Mount for LBN-MST or LBN-MSR

LBN-MSx-BE  
Bracket Ears Required for Each Unit to be Mounted Vertically

LBN-MSx-SFP-SX  
1G SFP Multimode Fiber Module

**Included Accessories**

12V DC Power Adapter (Encoder/Decoders)
19V DC Power Adapter (Controller)

**PANEL DRAWING**

![PANEL DRAWING](image)