DIP-31
4K60 4:2:0 HDMI & VGA Auto Switcher with
Maestro Room Automation

DIP-31 is a high-performance multi-format switcher of 4K video signals. Offering intelligent Maestro automation, with priority and last-connected switching options, it automatically switches and operates the room according to the selected switching scheme based on active video signal detection.

FEATURES

BYOD Plug & Play Auto Switcher - Automatically plays the switched user device source signal on the connected display according to user configured preferences, such as priority or last connected input. When the user manually switches, by pressing a button, the auto switching is overridden.

Simple Switching Operation - Local buttons or remotely connected contact closure buttons for flexible user input selection and switching control.

HDMI™ Signal Switching - HDCP compliant, supporting deep color, x.v.Color™, lip sync, HDMI uncompressed audio channels, Dolby TrueHD, DTS HD, 2K, 4K, and 3D as specified in HDMI 2.0.

I EDIDPro™ Kramer Intelligent EDID Processing™ - Intelligent EDID handling, processing, locking and pass through algorithm ensures plug & play operation for HDMI source and display systems.

Multi-channel Audio Switching - Up to 32 channels of digital stereo uncompressed signals for supporting studio grade surround sound.

Audio Embedding - An auto-dedected analog stereo audio input, per user selection, is converted into a digital signal and embedded in the output HDMI signal, replacing the source HDMI audio input signal. This enables, for example, a presenter to temporarily override the playing source audio with speech description.

Audio De-embedding - The digital audio signal passing through to the output, is de-embedded, converted to an analog signal and sent to the stereo analog audio output. This enables playing the audio on locally connected speakers, in parallel to playing it on the speakers connected to the AV acceptor device (such as TVs with speakers).

Cost effective Maintenance - Status LED indicators for HDMI and VGA ports facilitate easy local maintenance and troubleshooting. Remote IP-driven device management via built in web pages and RS-232 connection. Local and remote firmware upgrade via RS-232 or Ethernet connection tool ensure lasting, field proven deployment.

Easy Installation - Compact MegaTOOLS® fan-less enclosure for flexible table mounting.
## TECHNICAL SPECIFICATIONS

### Inputs
- 2 HDMI: On HDMI connectors
- 1 VGA: On a 15-pin HD (F) connector
- 1 Unbalanced Stereo Audio 1V RMS (nominal): On a 3.5mm jack

### Outputs
- 1 HDMI: On a female HDMI connector
- 1 Unbalanced Stereo Audio 1V RMS (nominal): On a 3.5mm jack

### Ports
- 1 RS-232: On a 3-pin terminal block for external device control (e.g., Display)
- 1 RS-232: On a 3-pin terminal block for device serial control
- 1 100BaseT Ethernet: On an RJ-45 connector
- 1 USB: On mini USB connector
- 4 Contact-Closure Switches: On a 5-pin terminal block for remote device operation

### Video
- Max. Data Rate: 10.2Gbps (3.4Gbps per graphic channel)
- Max. Resolution: 4K@60Hz (4:2:0) 24bpp resolution
- HDMI Support: Deep color, x.v.Color™, lip sync, HDMI uncompressed audio channels, Dolby TrueHD, DTS HD, 2K, 4K, and 3D as specified in HDMI 2.0
- Compliance: HDCP 1.4

### Audio
- Max. Level: 3.1 Vpp
- THD: 0.013%
- SNR: −70dB

### Power
- Source: 12V DC, 2A
- Consumption: 600mA

### Environmental Conditions
- Operating Temperature: 0° to +40°C (32° to 104°F)
- Storage Temperature: −40° to +70°C (−40° to 158°F)
- Humidity: 10% to 90%, RHL non-condensing

### Enclosure
- Cooling: Convection
- Type: Aluminum
- Size: MegaTools®

### REGULATORY
- Environmental: RoHs, WEEE, and CE

### Accessories
- Included: Power adapter

### Product Dimensions
- 18.75cm x 11.50cm x 2.54cm (7.38" x 4.53" x 1.00") W, D, H

### Product Weight
- 0.4kg (0.9lbs) approx

### Shipping Dimensions
- 34.50cm x 16.50cm x 5.20cm (13.58" x 6.50" x 2.05") W, D, H

### Shipping Weight
- 0.9kg (2.1lbs) approx
CONFIGURATIONS

DIP-31  4K60 4:2:0 HDMI & Computer Graphics Automatic Video Switcher