

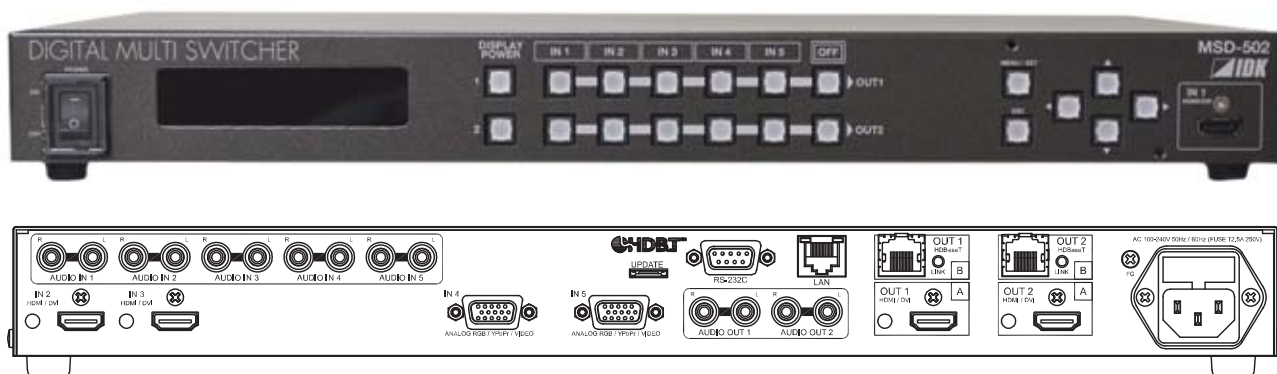
# MSD-501 & MSD-502



## Presentation Switcher (with built-in scan converter)

The IDK MSD-501 and MSD-502 are simple-to-use presentation switchers with 3 digital (HDMI) and 2 analog inputs. The MSD-501 includes an HDMI output and an HDBaseT output that can output simultaneously. The MSD-502 has 2 pairs of this simultaneous output. These switchers have a built-in scan converter, Seamless switching, Aspect ratio control, and other features for applications with the most demanding quality requirements.

### FRONT & REAR PANEL (MSD-502)



### FEATURES

- Video:**
- Up to QWXGA (RB)\* or 1080p
  - Built-in digital cable EQ**
    - INPUT : Up to 33 ft. to 99 ft. approx. (10 m to 30 m)
    - OUTPUT: Up to 33 ft. to 165 ft. approx. (10 m to 50 m)
  - Extends output signal up to 330 ft. approx. (100 m) using a Cat6 twisted pair cable
  - Front panel LCD menu for setup and signal status check
  - Simultaneous output from an HDMI output and an HDBaseT output
  - Aspect ratio control
  - Seamless switching
  - Anti-snow
- Audio:**
- Volume adjustment
  - Lip sync
- Control:**
- Input: RS-232C, LAN
  - Output: RS-232C, LAN, CEC
- Others:**
- Front panel HDMI input
  - Connection Reset
  - EDID emulation
  - Audio breakaway enables independent audio and video switching
  - Preset memory, Last memory, and Cross-point memory
  - Front panel security lockout
  - Internal test patterns for calibration and setup

### PRODUCT SELECTION

Model Number	Digital Input	Analog Input	Digital Output*
MSD-501	3	2	1
MSD-502	3	2	2

\* Digital output can output both an HDMI output and an HDBaseT output simultaneously

## CONNECTION DIAGRAM



## SPECIFICATIONS

Input	Video	Digital	Number / Signal Connector	3 inputs / HDMI, DVI 1.0 (HDCP 1.4) TMDs single link, TMDs clock: 25 MHz to 225 MHz 3 female HDMI Type A
		Universal Analog	Number / Signal Connector	2 inputs / Composite video, S-Video, Analog RGB/Analog YPbPr (auto-recognition) 2 female 15-pin HD
		Formats		NTSC/PAL 480i / 480p / 576i / 576p / 720p / 1080i / 1080p VGA to QWXGA: Dot clock 25 MHz to 165 MHz * WUXGA / QWXGA: Reduced Blanking
		Others		Built-in Digital Cable EQ, EDID emulation
	Audio	Digital	Number / Signal Connector	3 inputs / Multi-channel linear PCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit * IN1 to 3: can be selected digital or analog audio. 3 female HDMI Type A
		Analog	Number / Signal Connector	5 inputs / Stereo LR unbalanced signals * IN1 to 3: can be selected digital or analog audio. 5 RCA pin jack
	Output	Digital	Number / Signal Connector	1 or 2 outputs / HDMI, DVI 1.0 (HDCP 1.4) TMDs single link * Output video can be distributed to an HDMI/DVI and HDBaseT simultaneously. 1 or 2 female HDMI Type A
		HDBaseT	Number / Signal Connector	1 or 2 outputs / HDMI, DVI 1.0 (HDCP 1.4) TMDs single link * Output video can be distributed to an HDMI/DVI and HDBaseT simultaneously. 1 or 2 RJ-45 Cable: Cat5e / Cat6 (STP / UTP straight cable)
		Formats		480i / 480p / 576i / 576p / 720p / 1080i / 1080p VGA / SVGA / XGA / WXGA (1280x768) / WXGA (1280x800) / Quad-VGA / SXGA/WXGA (1360x768) / WXGA (1366x768) / SXGA+ / WXGA+ / WXGA++ / UXGA / WSXGA+ / VESA1080 / WUXGA / QWXGA * VESA1080 / WUXGA / QWXGA: Reduced Blanking
		Audio	Number / Signal Connector	1 or 2 outputs / Multi-channel linear PCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit * Audio can be distributed to an HDMI output and an HDBaseT output simultaneously. 1 or 2 female HDMI Type A
		Digital Twisted pair extension	Number / Signal Connector	1 or 2 outputs / Multi-channel linear PCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit * Audio can be distributed to an HDMI output and an HDBaseT output simultaneously. 1 or 2 RJ-45
		Analog	Number / Signal Connector	1 or 2 outputs / Stereo LR unbalanced signals 1 or 2 RCA pin jack
		Lip Sync		Up to 17 frames
Functions	Analog video processing unit			3D Y/C separation
	Scan Converter			Aspect ratio control, Picture adjustment, Seamless Switching, Motion adaptive I/P conversion
	Others			Volume adjustment, Audio breakaway enables independent audio and video switching, Cross-point memory, Preset memory, Last memory, Anti-snow, Connection Reset, External control commands (32 commands), Front panel security Lockout
External control	Serial control port	Number / Signal Connector		1 port / RS-232C 1 male 9-pin D-Sub
	LAN control port	Number / Signal Connector		1 port / 10Base-T (Auto Negotiation), 100Base-TX (Auto Negotiation), Auto MDI/MDI-X 1 RJ-45
	Command outputs to external device			RS-232C, LAN, CEC (controls power of monitor), PLink (class1)
Others	Power			100 - 240 VAC ± 10%, 50 Hz / 60 Hz ± 3 Hz
	Power consumption			About 35 Watts to 43 Watts
	Dimensions			16.93(W) x 1.73(H) x 13.88(D)" approx. (430(W) x 44(H) x 350(D)mm) (EIA rack 1U, not including projections)
	Weight			9.26 lbs. approx. (4.2 kg)
	Temperature			Operating temperature: 32°F to 104°F (0°C to +40°C) Storage temperature: -4°F to +176°F (-20°C to +80°C)
	Humidity			Operating / Storage humidity: 20% to 90% (Non Condensing)