

# **VIDEO MIXER / SWITCHER HD V1.0**



Digital Video Mixer / Switcher HD v1.0 is a powerful, easy-to-use and cost-effective technical solution for any production requirements. Video Mixer / Switcher HD v1.0 is also suitable for portable and mobile applications. Rich functional capabilities allow to use our device for live broadcast, show, presentation, interviewing as well as for studio production. Great attention was paid to good visibility and intuitive control of Video Mixer / Switcher HD v1.0.

- Each input has its own frame synchronizer, which allows you to use cameras or other devices that do not have Genlock as well as input video from computer sources (audio input signals also pass through the synchronizers).
- 4 analog audio inputs (XLR connectors): either 2 stereo or 4 mono.
- 2 built-in video players with high quality VC3 on the SD card.
- Create video playlists and play video files from PC to Video mixer via HDMI.
- Built-in background color signal, "Black" and "Bars".
- 2 built-in Still Pictures, which are operated as independent sources (up to 32 still pictures in general can be stored in the vision mixer memory).
- Technological still pictures at all inputs (if there is no video signal or camera at any input it is
  possible to set the picture on it).
- Built-in 1 kHz audio source (with color BARS), which is intended for testing and adjustment the level of sound channels.
- Built-in MultiView.
- Additional DVI/HDMI output (5th output) which can be assigned as Multiview.
- 6th DVI/HDMI output is used for Multiview.

- Picture-in-Picture effects (PiP). Up to 4 pictures at once + 5th background video.
- 2 independent Chroma Key channels (with original automatic setting).
- 2 independent Logos can be applied at once.
- 1 Clock (it can be positioned on the screen in any area).
- "TALLY" signals output.
- F/W upgrade, upload Still pictures upload Logo and Clock, control panel via Ethernet connection.
- Transitions: 6 WIPE special effects with reverse mode and mix (with effect settings).

| Video formats           |                                                                                                                                                                               |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HD input                | 1080 × 50i                                                                                                                                                                    |
|                         | 1080 × 25p                                                                                                                                                                    |
| SD input                | 576 × 50i                                                                                                                                                                     |
| HD output               | 1080 × 50i                                                                                                                                                                    |
| SD output               | 576 × 50i                                                                                                                                                                     |
| Input format conversion | all inputs can be resized from HD signals to SD, HD/p to HD/i in any supported formats of Video Mixer / Switcher HD  Note! All inputs cannot be resized from SD signals to HD |
| Connectivity            |                                                                                                                                                                               |
| Video inputs            |                                                                                                                                                                               |
| Sources                 | Total 14 sources:  · 10 external (8 × HD/SD SDI (or 4 × HD/SD SDI + 4 × CVBS), 1 × HDMI (DVI-D), 1 × HDMI (DVI-D)/Title)  · 4 external (2 media players and 2 still pictures) |

| Inputs                    | Total 10:  · 8 × SDI (BNC)  · 2 × HDMI (DVI-D)  (In1-In6, In9, In10: HD/SD SDI (BNC); In7, In8: HDMI (DVI-D))                                                                                                                                                                                               |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CVBS                      | In3-In6 may be CVBS (BNC)                                                                                                                                                                                                                                                                                   |
| HDMI                      | 2 × HDMI (DVI-D)                                                                                                                                                                                                                                                                                            |
| Video outputs             |                                                                                                                                                                                                                                                                                                             |
| Outputs                   | Total 6:  · 4 × SDI: HD/SD (BNC) outputs assignable to Program; Preview; Program  Logo Free; Program Logo + Titles Free; Multi-View;  · 2 × HDMI (DVI-D):  1 × HDMI (DVI-D) assignable to Multi-View Output; Program; Preview; Program  Logo Free; Program Logo + Titles Free;  1 × HDMI (DVI-D) Multi-View |
|                           | Audio                                                                                                                                                                                                                                                                                                       |
| Inputs                    | 4 channels XLR balanced (works with external audio mixer) and can be setup as 2 Stereo pairs or 4 Mono inputs 10×Embedded audio (2 ch) vis SDI or HDMI                                                                                                                                                      |
| Outputs                   | 2 channels XLR balanced.  Output SDI Embedded Audio-One Stereo-Pair (Group and Pair can be selected).  HDMI Out Embedded Audio.                                                                                                                                                                             |
| Audio level<br>adjustment | Each audio source, including embedded and analog, can be assosiated with any or several video sources. "Audio follows Video" switching mode. Audio level control of the all inputs and master audio level output via On Screen Display Menu and PC Switcher Utilities.                                      |

| General |                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Signal processing                                                                                               | 10-bit, 4:2:2 Digital component                                                                                                                                                                                                                                                                             |
| Multi-View<br>Monitoring                                                                                        | Built-in multiview monitoring (1920×1080i resolution); with embedded audio                                                                                                                                                                                                                                  |
| Frame<br>synchronizer                                                                                           | Built-in frame synchronizer for each input                                                                                                                                                                                                                                                                  |
| Audio processing                                                                                                | 20 and 24 bit                                                                                                                                                                                                                                                                                               |
| Effect / Keyers                                                                                                 | WIPE, MIX, CUT                                                                                                                                                                                                                                                                                              |
| T-Bar                                                                                                           | 1                                                                                                                                                                                                                                                                                                           |
| Chroma Key                                                                                                      | 2<br>works like independent source                                                                                                                                                                                                                                                                          |
| Titels                                                                                                          | 1 HDMI titles via PC from Title Manager program                                                                                                                                                                                                                                                             |
| PIP                                                                                                             | 4                                                                                                                                                                                                                                                                                                           |
| Buit-in Video<br>Player                                                                                         | Dual player (VC3) on SD card, 2 players work like 2 independent sources.  Up to 256 Gb SD Card. Clip capacity up to 4 hours of a video content.  1 Player (HD Playout) from PC                                                                                                                              |
| Built-in Still-image                                                                                            | 2 Still-images can be assigned on 2 independent buttons.  Up to 32 slides can be uploaded from SD card (Slide 1/2), it works like 2 independent sources.  Also technological slides can be assigned instead of the each inputs: technological slides upload on In1-In8 from PC and on In9-In10 from SD card |

|                           | 8 Logos (1 Logo is dinamic) and 1 Clock, up to 8 Logos can be uploaded from                      |
|---------------------------|--------------------------------------------------------------------------------------------------|
| Built-in Logo             | PC in the Video Mixer/Switcher memory and then asigned on independent                            |
| insertions and            | buttons "Logo 1" and "Logo 2".                                                                   |
| Clock                     | Clock can be switched on/off with independent button.                                            |
|                           | Location of Logos and Clock can be set up from PC                                                |
| Internal Frame<br>Memory  | Up to 256 Gb SD card. Clip capacity up to 4 hours of a video content                             |
| Pattern Generator         | Color BARS and audio signal source (1kHz, OdB), Black                                            |
| PC control                | Simultaneous operation from console and PC                                                       |
| Options                   | H.265 encoder, camera channel unit, intercom                                                     |
|                           | Interfaces                                                                                       |
| Ethernet 100<br>(1×RJ-45) | F/W ugrade; Upload Still Image; Logo Insert; Keyboard Controller                                 |
| Tally Output              | D-Sub 15 pin (F)                                                                                 |
| RS-232                    | 1 × RS-232 on 9-pin D-sub female controls and power supply for Keyboard<br>Controller up to 20 m |
| Power Supply              |                                                                                                  |
| Consumption               | +12 V, 7A (consumption of video mixer 2.75A)                                                     |
| Size and Weight           |                                                                                                  |
| Main Unit                 | 440×220×88mm (2U), ~3.9kg                                                                        |
| Control Panel             | 440×220×44mm, ~2.4kg                                                                             |

- Dynamic range adjustment for digital and analog audio.
- Input and output audio signals can be selected by the user with nominal levels -6, -12, -18, -24 dBFs (from the OSD menu).

- Any input audio channel can be applied to any video source (for example one audio channel for 4 switchable video inputs).
- This mode is useful for working with an external analog audio mixer.
- Mix sound synchronously with video with special type of sound transition V or Y.
- Assign the Multiview to any outputs.
- Overlay the PiP presets and Titles at once.
- Any input can be assign to any or to all outputs as well.
- Quick configuration.
- It is possible to select the speed of video/audio transition.
- Control the mixer directly or remotely.
- Additional connector for reserve +12B (9...15B) power supply.
- Wireless or wired via Ethernet Intercom system for 4 users optional.
- Wireless "TALLY" optional.
- Encoder H.265/H264 optional.
- 4K Multiview (4 windows) optional.

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## Connectivity

## Video inputs

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| T-Bar                     | 1                                                                                                                                                                                                                                                                      |  |
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1 Player (HD Playout) from PC

Buit-in Video

Player

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#### Control Panel

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Taking into consideration that we (UMT LLC) are developer and system integrator, also do not stop on our technical growth and improvement, know that view of all our devices and equipment including their technical parameters may be different from pictures presented on website and parameters

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