

# DFS-01HD



## Digital Frame Synchronizer/Scaler

The IDK DFS-01HD is a digital frame synchronizer with a scan converter 1 input and 1 output.

For video input, 1 digital input is included and HDMI or DVI signals can be input. Input video signals are converted to HDMI signals and output at a resolution up to 4K@30.

Audio volume can be controlled. The lip sync function corrects the gap between the video and audio.

This switcher also has a LAN port as communication ports for control to enable you to set menus remotely.

### FRONT & REAR PANEL



### FEATURES

#### ■ Video

- Up to 4K@30
- Motion adaptive interlaced/progressive conversion
- Horizontal flip
- Scan conversion
- Aspect ratio control
- Video rotation (by 90 degrees) \*
- External sync I/O for videowall
- Anti-snow

#### ■ Audio

- Volume adjustment
- Lip sync

#### ■ Control Input

- LAN

#### ■ Others

- CEC (Pass-through)
- EDID emulation
- All functions and configuration settings accessible through browser
- Preset memory
- Last memory
- Connection reset
- Front key function lock
- System check

\* For 4K format and dot clock of 165 MHz or more, only 180-degree rotation is supported.

Ver.2.1.0 (190306)

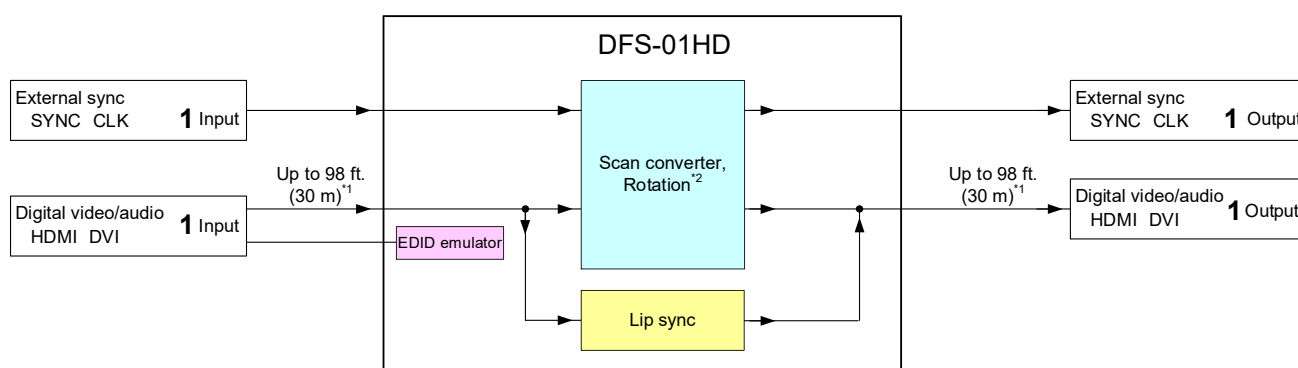
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## DIAGRAM



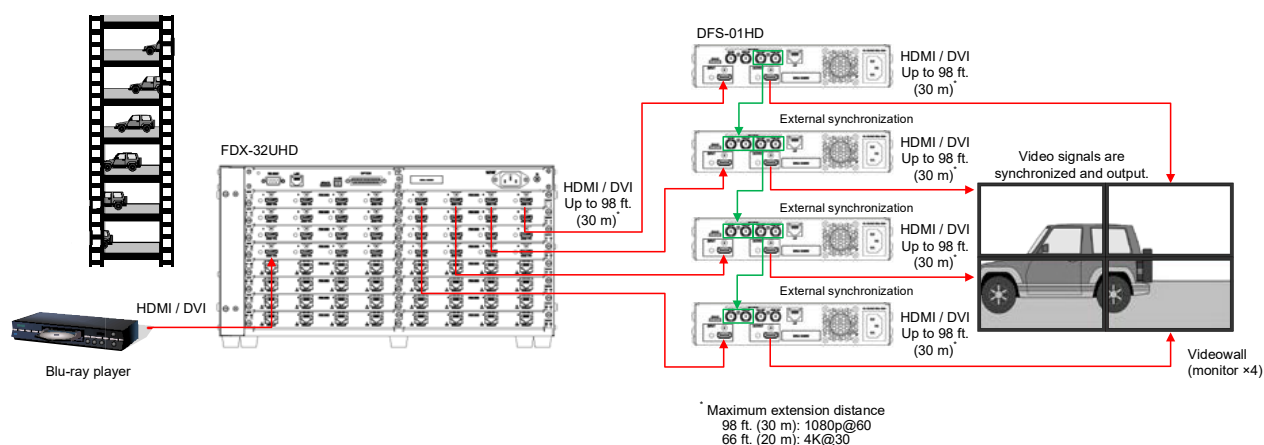
<sup>1</sup> Maximum extension distance

98 ft. (30 m): 1080p@60

39 ft. (12 m): 4K@60 (when 18 Gbps high-speed cable is used)

<sup>2</sup> For 4K format and dot clock of 165 MHz or more, only 180-degree rotation is supported.

## APPLICATION EXAMPLE



## SPECIFICATIONS

Item			Description
Input	Video	HDMI/DVI	1 input HDMI Deep Color (*1)/DVI 1.0 TMDS single link, HDCP 1.4 TMDS clock: 25 MHz to 300 MHz, TMDS data rate: 0.75 Gbps to 9 Gbps CEC (Pass-through), EDID emulation Connector: Female HDMI Type A (19-pin)
		Format	VGA to WQXGA (Dot clock 25 MHz to 300 MHz) 480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 4K (Up to 4K@30)
	Audio	Digital	1 input Multi-channel LPCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit Connector: Female HDMI Type A (19-pin)
Output	Video	HDMI/DVI	1 input HDMI Deep Color (*1)/DVI 1.0 TMDS single link, HDCP 1.4 TMDS clock: 25.175 MHz to 296.703 MHz, TMDS data rate: 0.755 Gbps to 8.901 Gbps CEC (Pass through) Connector: Female HDMI Type A (19-pin)
		Format	VGA / SVGA / XGA / WXGA (1280x768) / WXGA (1280x800) / Quad-VGA / SXGA / WXGA (1360x768) / WXGA (1366x768) / SXGA+ / WXGA+ / UXGA / WSXGA+ / VESAHD / WUXGA / QWXGA / WQHD / WQXGA *VESAHD / WUXGA / QWXGA / WQHD / WQXGA, only Reduced Blanking is supported. 480p / 576p / 720p / 1080i / 1080p / 4K (3840 x 2160) (*2) / 4K (4096 x 2160) (*2)
	Audio	Digital	1 input Multi-channel LPCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit Connector: Female HDMI Type A (19-pin)
External sync I/O (*3)			1 input and output (SYNC, CLK) Level: TTL Connector: BNC *For external sync, use this product together with another DFS-01UHD or DFS-01HD.
Maximum extension distance	Digital Input		1080p@60: 98 ft. (30 m), 4K@30: 66 ft. (20 m) (*4)
	Digital output		1080p@60: 98 ft. (30 m), 4K@30: 66 ft. (20 m) (*4)
Functions	Scan Converter		Motion adaptive interlaced/progressive conversion, Aspect Ratio Control, Video rotation (by 90 degrees) (*5), Horizontal flip, Picture adjustment (brightness, contrast, display position, display size etc.)
	Others		All functions and configuration settings accessible through browser, Volume adjustment, Lip Sync (Max. 16 frames), Preset memory (16 settings), Last memory, Anti-Snow (*6), Connection Reset (*7), Front key function lock, System check
External control	LAN		1 port/RJ-45 10Base-T/100Base-TX (Auto Negotiation), Auto MDI/MDI-X
General	Power		100 - 240 VAC $\pm$ 10%, 50 Hz/60 Hz $\pm$ 3 Hz
	Power consumption		About 20 Watts
	Dimensions		8.3 (W) $\times$ 1.7 (H) $\times$ 9.8 (D)" (210 (W) $\times$ 44 (H) $\times$ 250 (D) mm) (EIA 1U high, half rack wide) (Excluding connectors and the like)
	Weight		4.2 lbs. (1.9 kg)
	Temperature		Operating: 32°F to 104°F (0°C to +40°C) Storage: -4°F to +176°F (-20°C to +80°C)
	Humidity		Operating/Storage: 20% to 90% (Non Condensing)

\*1 30 bit/pixel (10 bit/component) Deep Color is supported while x.v.Color, 3D, ARC and HEC are not supported.

WQHD, WQXGA and 4K format: 24 bit/pixel (8 bit/component) is supported.

\*2 4K format: Up to 4K@30 is supported

\*3 External sync is not supported if the output format is 1080i.

\*4 The maximum cable distance varies depending on the connected devices and was measured under following conditions:

- 1080p@60 : when IDK's AWG 24 cable was used and signals of 1080p@60 24 bit/pixel (8 bit component) was input or output.
- 4K@30 : when IDK's AWG 24 cable was used and signals of 4K@30 24 bit/pixel (8 bit/component) was input or output.

The maximum cable distance depends on the connected devices. The distance may not be extended with some device combinations, cabling method, or other manufacturer's cable. Video may be disturbed or may not be output even if signals are within the range mentioned above.

\*5 For 4K format and video signals with dot clock of 165 MHz or more, only 180 degree rotation is supported.

\*6 The anti-snow feature automatically fixes snow noise that is a specific symptom of HDCP-compliant signals and mainly occurs at start-up. This feature does not work when snow noise has already occurred during startup or when it occurs due to a bad condition of the transmission line.

\*7 For digital systems, some problems, such as an HDCP authentication error, can often be recovered by physically disconnecting and reconnecting the digital cables. However, the Connection Reset feature will fix these problems automatically without the need to physically plug and unplug the cables. It creates the same condition as if the cable were physically disconnected and reconnected. This feature only works for the DFS's output. If other devices are connected between the DFS's output and sink device, this feature may be invalid.

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