



DFS-01UHD

The IDK DFS-01UHD 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@60.

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.

■ Specification

| Item | | Description |
|----------------------------|-------------------|--|
| Input | Video | HDMI / DVI 1 input HDMI Deep Color (*1) / DVI 1.0 TMDS single link, HDCP 1.4 / 2.2 TMDS clock: 25 MHz to 300 MHz, TMDS data rate: 0.75 Gbps to 18 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@60 (4:4:4)) (*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) |
| Output | Video | HDMI / DVI 1 input HDMI Deep Color (*1) / DVI 1.0 TMDS single link, HDCP 1.4 / 2.2 TMDS clock: 25.175 MHz to 296.703 MHz, TMDS data rate: 0.755 Gbps to 17.802 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+ / 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) / 4K (4096 x 2160) |
| | 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 synchronization, use this product together with another DFS-01UHD or DFS-01HD. |
| Maximum extension distance | Digital Input | 1080p@60: 98 ft. (30 m), 4K@60: 39 ft. (12 m) (*4) |
| | Digital output | 1080p@60: 98 ft. (30 m), 4K@60: 39 ft. (12 m) (*4) |
| Functions | Scan Converter | Motion adaptive I/P conversion, Aspect Ratio Control, Video rotation (by 90 degrees) (*5), Horizontal flip, Picture adjustment (brightness, contrast, display position, display size, etc.) |
| | Others | All function setting through browser, Volume adjustment, Lip Sync (Max. 16 frames), Preset memory (16 settings), Last memory, Anti-Snow (*6), Connection Reset (*7), Security 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 ± 10%, 50 Hz / 60 Hz ± 3 Hz |
| | Power consumption | About 27 Watts |
| | Dimensions | 8.3 (W) × 1.7 (H) × 9.8 (D)" (210 (W) × 44 (H) × 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: Only CEA-861 timing is supported.

*3 External synchronization 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@60 : when IDK's 18 Gbps supported cable was used and signals of 4K@60 24 bit / pixel (8 bit / component) was input or output.

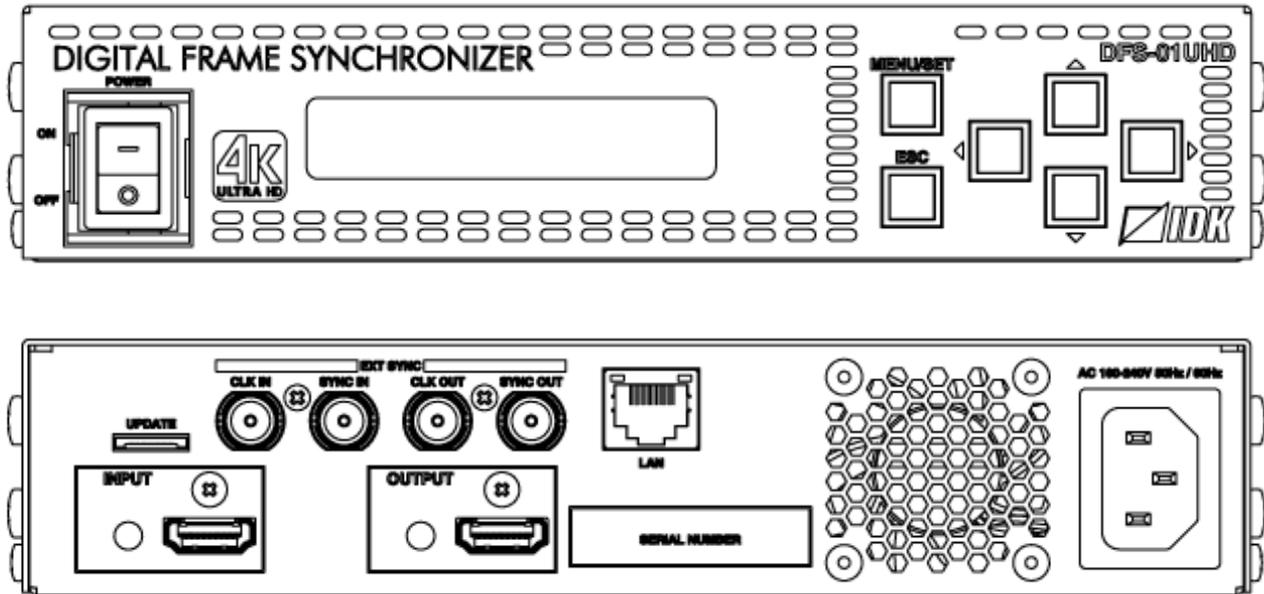
The maximum cable distance depends on the connected devices. The distance may not be extended with some device combinations, cabling method, or other manufacturer's cable. Video may be disturbed or may not be output even if signals are within the range mentioned above.

*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 MSD's output. If other devices are connected between the MSD's output and sink device, this feature may be invalid.

■ Front & Rear Panels

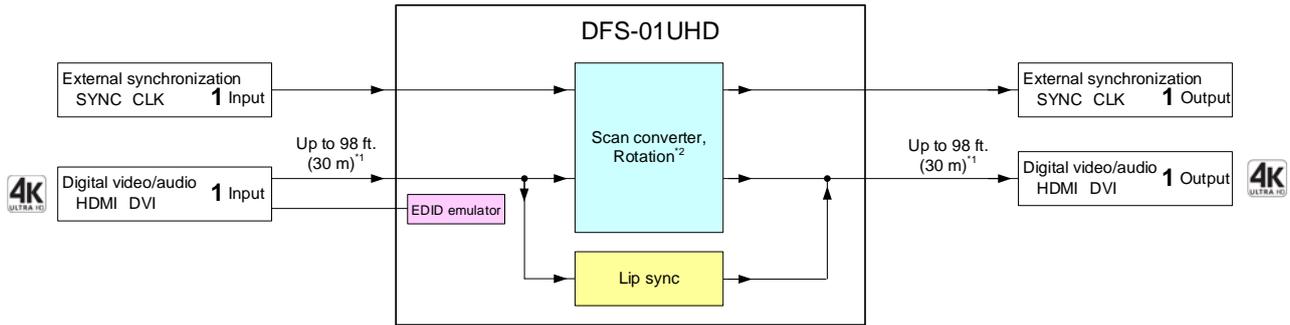


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4K@60 and HDCP 2.2 supported Digital Frame Synchronizer DFS-01UHD Diagram and Features

■ Diagram

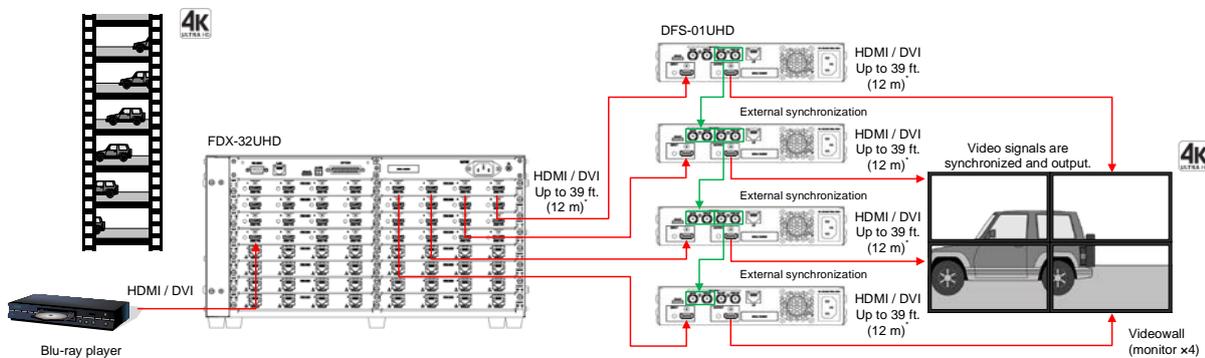


¹ Maximum extension distance
98 ft. (30 m): 1080p@60

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

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

■ Application example



¹ Maximum extension distance
98 ft. (30 m): 1080p@60
39 ft. (12 m): 4K@60 (when 18 Gbps high-speed cable is used)

[Features]

■ Video

- Up to 4K@60 (4:4:4)
- HDCP 1.4 / 2.2
- Motion adaptive I/P conversion
- Horizontal flip
- Scan converter
- Aspect ratio control
- Video rotation (by 90 degrees)^{*}
- External synchronization I/O for videowall
- Anti-snow

■ Audio

- Volume adjustment
- Lip sync

■ Control Input

- LAN

■ Others

- CEC (Pass through)
- EDID emulation
- All function setting through browser
- Preset memory
- Last memory
- Connection reset
- Security lock
- System check

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

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