



The FDX-S16U is an HDCP 2.2-compliant modular digital matrix switcher that supports resolutions up to 4K@60. It provides up to 16 inputs and 16 outputs. Video and embedded audio can be switched simultaneously.

The FDX-S16U features RS-232C/LAN ports for remote control, redundant power supply, and system check that outputs an alarm in case an abnormality is detected in power supply voltage, fans, internal temperature, or board.

The redundant power supply ensures constant availability and minimizes the chance of a failure even for mission-critical environments.

#### ■ Specification

Item	Description	
Input board	Up to 4 boards (Up to 16 inputs)	
Output board	Up to 4 boards (Up to 16 outputs)	
Transmission signal	Video	Up to 4K@60 (4:4:4)
	Audio	Multi-channel LPCM up to 8 channels
	Control	Up to 38.4 kbps of RS-232C, Up to 100Base-TX of LAN
Instant Alert output	1 port/captive screw (2-pin) Non-voltage contact input up to DC 24 V 300 mA Monitoring power supply voltage, fans, internal temperature, and board status	
Control	RS-232C	1 port/captive screw (3-pin), full duplex, up to 38.4 kbps
	LAN	1 port/RJ-45 10Base-T/100Base-TX (Auto Negotiation), Auto MDI/MDI-X
Functions	I/O board, CPU board, fan unit, and power unit can be replaced without removing from rack, Preset memory (32 settings), Last memory, Button security lockout, System check, WEB browser control, Status notification, HDBaseT status display	
General	Power	100 - 240 VAC $\pm$ 10%, 50 Hz/60 Hz $\pm$ 3 Hz
	Power consumption	About 20 Watts
	Dimensions	16.9 $\times$ 5.2 $\times$ 15.7" (430 (W) $\times$ 132 (H) $\times$ 400 (D) mm) (3U high) (Excluding connectors and the like)
	Weight	26.9 lbs. (12.2 kg) (With redundant power supply: 28.9 lbs. (13.1 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)	

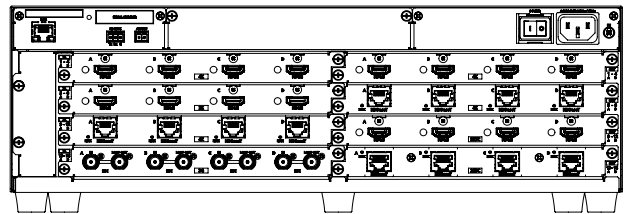
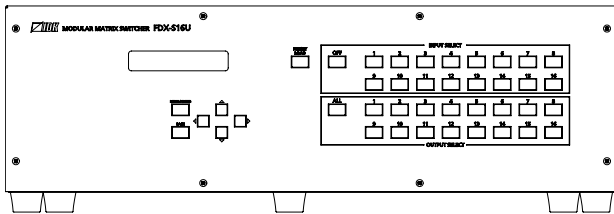
#### ■ I/O boards

Item	Parts Number	Description
Input board	FDX-SIV4H	4 inputs 4K@30 HDCP 1.4 HDMI/DVI
	FDX-SIV4T	4 inputs 4K@30 HDCP 1.4 HDBaseT
	FDX-SIV4S	4 inputs 3G-SDI/HD-SDI/SD-SDI
	FDX-SIV4UH	4 inputs 4K@60 HDCP 2.2 HDMI/DVI
	FDX-SIV4UT	4 inputs 4K@60 HDCP 2.2 HDBaseT
Output board	FDX-SOV4H	4 outputs 4K@30 HDCP 1.4 HDMI/DVI
	FDX-SOV4T	4 outputs 4K@30 HDCP 1.4 HDBaseT
	FDX-SOV4HS	4 outputs 1080p HDCP 1.4 HDMI/DVI scan conversion
	FDX-SOV4TS	4 outputs 1080p HDCP 1.4 HDBaseT scan conversion
	FDX-SOV4UH	4 outputs 4K@60 HDCP 2.2 HDMI/DVI
	FDX-SOV4UT	4 outputs 4K@60 HDCP 2.2 HDBaseT

#### ■ Redundant power supply unit

Item	Parts Number	Description
Redundant power supply unit	FDX-SRP16	Redundant power unit with two independent power connectors

#### ■ Front & Rear Panels



This drawing (rear) is an example.

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## Modular Matrix Switcher FDX-S16U

### [Feature]

#### ■ Video

- Up to 4K@60 (4:4:4)
- HDCP 1.4/2.2
- HDR (FDX-SIV4UH, FDX-SIV4UT, FDX-SOV4UH, FDX-SOV4UT)
- 3D (FDX-SIV4UH, FDX-SIV4UT, FDX-SOV4UH, FDX-SOV4UT)
- x.v.Color (FDX-SIV4UH, FDX-SIV4UT, FDX-SOV4UH, FDX-SOV4UT)
- 3G-SDI/HD-SDI/SD-SDI input (FDX-SIV4S)
- Automatic signal equalization  
Output: Up to 131 ft. (40 m) (FDX-SOV4HS)
- Up to 984 ft. (300 m) over coaxial cable (FDX-SIV4S)
- Motion adaptive interlaced/progressive conversion (FDX-SOV4HS, FDX-SOV4TS)
- Aspect ratio control (FDX-SOV4HS, FDX-SOV4TS)
- Seamless switching with one black frame (FDX-SOV4HS, FDX-SOV4TS)
- Anti-snow
- Scaling (FDX-SOV4HS, FDX-SOV4TS)
- SDI Loop-through output connector (FDX-SIV4S)
- Videowall output (FDX-SOV4HS, FDX-SOV4TS)
- Up to 492 ft. (150 m) over Cat6 cable in Long reach mode\* (FDX-SIV4T, FDX-SIV4UT, FDX-SOV4T, FDX-SOV4TS, FDX-SOV4UT)

#### ■ Audio

- Lip Sync (FDX-SOV4HS, FDX-SOV4TS)

#### ■ Control input

- RS-232C
- LAN

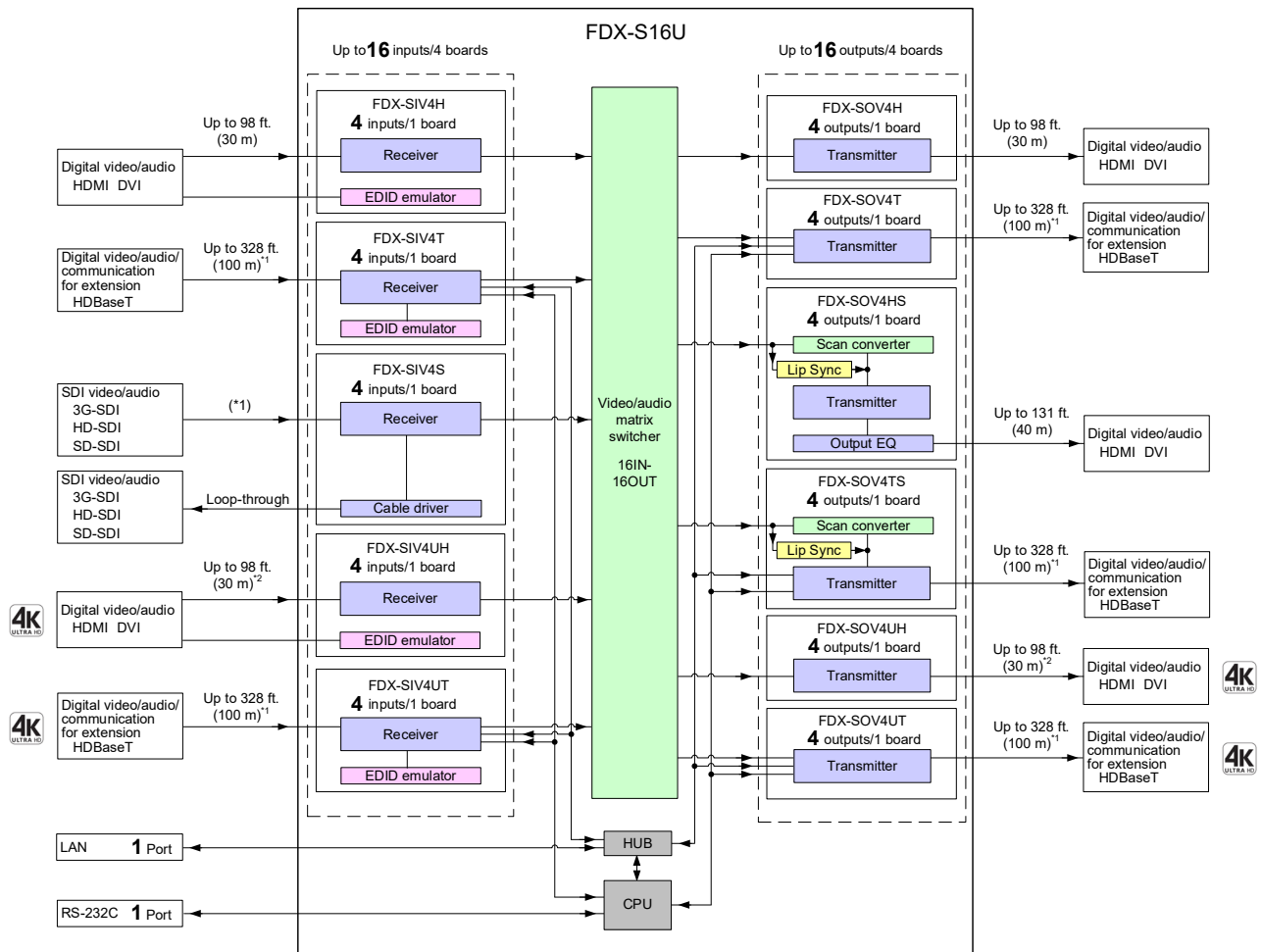
#### ■ Others

- EDID emulation
- I/O board, CPU board, fan unit, and power unit can be replaced without removing from rack
- Alarm output (Monitoring power supply voltage, fans, internal temperature, and board status)
- Preset memory
- Last memory
- Connection Reset
- Button security lockout
- System check
- WEB browser control
- Redundant power supply (Optional)
- LAN and RS-232C transmission (FDX-SIV4T, FDX-SIV4UT, FDX-SOV4T, FDX-SOV4TS, FDX-SOV4UT)
- Status notification
- HDBaseT status display

\* For long reach mode, video signals up to 1080p (24 bit) can be transmitted to 492 ft. (150 m) at maximum if using with IDK's HDBaseT products supporting 328 ft. (100 m) transmission.

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■ Diagram



(\*1) SD-SDI : Up to 1312 ft. (400 m)/  
 HD-SDI : Up to 787 ft. (240 m)/  
 3G-SDI : Up to 459 ft. (140 m)  
 over 1694A (BELDEN RG-6) cable

- Input board can expand in 4-input unit.  
 - Output board can expand in 4-output unit.

<sup>1</sup> Up to 328 ft. (100 m) : 4K@60 (FDX-SIV4UT/FDX-SOV4UT)  
 4K@30 (FDX-SIV4T/FDX-SOV4T)  
 QWXGA, 1080p (FDX-SOV4TS)  
 Up to 492 ft. (150 m) : 1080p (24bit) in Long reach mode  
 For long reach mode, video signals up to 1080p (24 bit) can be transmitted to 492 ft. (150 m) at maximum  
 if using with IDK's HDBaseT products supporting 328 ft. (100 m) transmission.

<sup>2</sup> Up to 98 ft. (30 m) : 1080p@60  
 Up to 39 ft. (12m) : 4K@60 (when cable supporting 18 Gbps transmission is used)

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## FDX-S Input Board FDX-SIV4UH

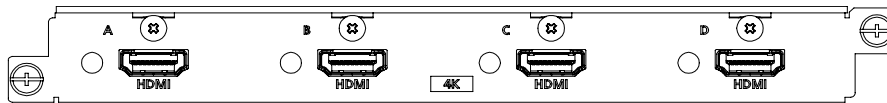
The FDX-SIV4UH is a four-input HDMI board designed for FDX-S series Modular Matrix Switchers. The board supports HDMI and DVI at video resolutions up to 4K@60 and complies with HDCP 2.2.

### ■ Specification

Item		Description
Input		4 inputs
Video	HDMI/DVI	HDMI/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 36 bit Deep Color, x.v.Color, 3D (*1), HDR (*2) ARC/HEC/CEC are not supported. EDID emulation
	Format	VGA to 4K (Dot clock: 25 MHz to 600 MHz) For WQHD/WQXGA, only Reduced Blanking is supported. 480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 4K For 4K format, 24 Hz/25 Hz/30 Hz/50Hz (4:4:4)/60 Hz (4:4:4) are supported.
Audio	Digital	Multi-channel LPCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit Reference level: -20 dBFS, Max. input level: 0 dBFS
Connector		Female HDMI Type A (19-pin)
Maximum transmission distances		98 ft. (30 m) (1080p@60), 39 ft. (12 m) (4K@60) (*3)
General	Power consumption	About 14 Watts
	Weight	0.7 lbs. (0.3 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 3D is supported if external EDID is selected while a 3D-supported sink device is connected for EDID setting or if copied EDID of 3D-supported sink device is selected for EDID setting.
- \*2 HDR is supported if external EDID is selected while an HDR-supported sink device is connected for EDID setting or if copied EDID of an HDR-supported sink device is selected for EDID setting.
- \*3 The maximum cable distance varies depending on the connected devices and was measured under following conditions:  
 • 1080p@60: When IDK's 24 AWG cable was used and signals of 1080p@60 24 bit/pixel (8 bit/component) was input.  
 • 4K@60 : When IDK's 18 Gbps supported cable was used and signals of 4K@60 24 bit/pixel (8 bit/component) was input.  
 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.

### ■ Panel



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## FDX-S Input Board FDX-SIV4UT

The FDX-SIV4UT is a four-input HDBaseT board designed for FDX-S series Modular Matrix Switchers.

The board supports video resolutions up to 4K@60 and complies with HDCP 2.2.

Input video signals can be transmitted up to 328 ft. (100 m); 1080p (24 bit) video signals can be sent up to 492 ft. (150 m) in Long reach mode.

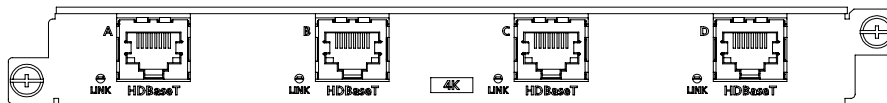
RS-232C bidirectional communication and LAN transmission are also supported.

### ■ Specification

Item		Description
Input		4 inputs
Video	HDBaseT	HDBaseT HDCP 1.4/2.2 36 bit Deep Color, x.v.Color, 3D (*1), HDR (*2) For WQHD, WQXGA, and 4K@24/25/30 (4:4:4)/50(4:2:0)/60 (4:2:0), Deep Color is not supported. ARC/HEC/CEC are not supported. EDID emulation, RS-232C, LAN
	Format	VGA to 4K (Dot clock: 25 MHz to 600 MHz) For WQHD/WQXGA, only Reduced Blanking is supported. 480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 4K For 4K format, 24 Hz/25 Hz/30 Hz/50Hz (4:2:0)/60 Hz (4:2:0) are supported.
Audio	Digital	Multi-channel LPCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit Reference level: -20 dBFS, Max. input level: 0 dBFS
Connector		RJ-45 (*3)
Cable		CAT.5E HDC, Cat5e UTP/STP, Cat6 UTP/STP (T568A/T568B straight-through)
Maximum transmission distances		328 ft. (100 m), 492 ft. (150 m) (Long reach mode is used) (*4)
General	Power consumption	About 31 Watts
	Weight	1.1 lbs. (0.5 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 3D is supported if external EDID is selected while a 3D-supported sink device is connected for EDID setting or if copied EDID of 3D-supported sink device is selected for EDID setting.
- \*2 HDR is supported if external EDID is selected while an HDR-supported sink device is connected for EDID setting or if copied EDID of an HDR-supported sink device is selected for EDID setting.
- \*3 RJ-45 (HDBaseT connector) is only for extending digital video and audio signals over a Cat5e/Cat6 cable. Use it with IDK's HDBaseT Products. Do not use for LAN devices.
- \*4 The maximum transmission distance was obtained when IDK's CAT.5E HDC cable was used. 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. The maximum transmission distance is the shorter distance of connected HDBaseT product or sink device's maximum transmission distance. Up to 492 ft. (150 m): 1080p (24 bit) in Long reach mode. For Long reach mode, use IDK's HDBaseT Products that supports 328 ft. (100 m) or longer.

### ■ Panel



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## FDX-S Input Board FDX-SIV4H

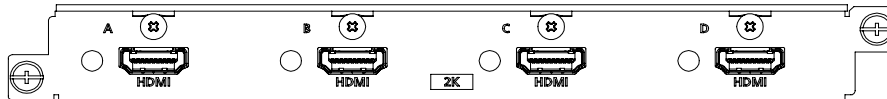
The FDX-SIV4H is a four-input HDMI board designed for FDX-S series Modular Matrix Switchers. The board supports HDMI and DVI at video resolutions up to 4K@30 and complies with HDCP 1.4.

### ■ Specification

Item		Description
Input		4 inputs
Video	HDMI/DVI	HDMI/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 36 bit Deep Color x.v.Color/3D/ARC/HEC/CEC/HDR are not supported. EDID emulation
	Format	VGA to 4K (Dot clock: 25 MHz to 300 MHz) For WUXGA/QWXGA, only Reduced Blanking is supported. 480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 4K For 4K format, 24 Hz/25 Hz/30 Hz are supported.
Audio	Digital	Multi-channel LPCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit Reference level: -20 dBFS, Max. input level: 0 dBFS
Connector		Female HDMI Type A (19-pin)
Maximum transmission distances		98 ft. (30 m) (1080p@60), 66 ft. (20 m) (4K@30) (*1)
General	Power consumption	About 11 Watts
	Weight	0.7 lbs. (0.3 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 The maximum cable distance varies depending on the connected devices and was measured under following conditions:  
 • 1080p@60: When IDK's 24 AWG cable was used and signals of 1080p@60 24 bit/pixel (8 bit/component) was input.  
 • 4K@30 : When IDK's 24 AWG cable was used and signals of 4K@30 24 bit/pixel (8 bit/component) was input.  
 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.

### ■ Panel



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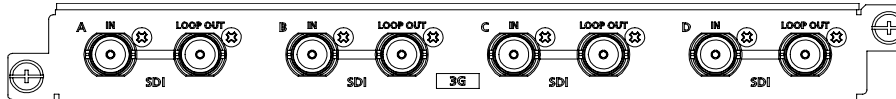
## FDX-S Input Board FDX-SIV4S

The FDX-SIV4S is a four-input SDI board with loop-through designed for FDX-S series Modular Matrix Switchers. The board supports 3G-SDI, HD-SDI, and SD-SDI and receives video signals from source devices up to 984 ft. (300 m) over coaxial cables.

### ■ Specification

Item		Description
Input		4 inputs (With loop-through output) Note: When the FDX-S is powered on, SDI input signals are output from SDI loop-through output connectors.
Video	SDI	3G-SDI/HD-SDI/SD-SDI NRZI/NRZ, 0.8 V <sub>[p-p]</sub> /75 Ω SMPTE 424M (3G-SDI)/SMPTE 292M (HD-SDI)/SMPTE 259M-C (SD-SDI)
	Format	480i / 576i / 720p / 1080i / 1080p 3G-SDI signals: Level A and Level B 720p: 23.98 Hz and 24 Hz are not supported.
Audio	Digital	LPCM up to 8 channels (Selecting 2 groups of audio groups 1 to 4) Sampling frequency: 48 kHz, Sample size: 16 bit to 24 bit Reference level: -20 dBFS, Max. input level: 0 dBFS
Connector		BNC
Cable		75 Ω coaxial cable for high frequency signal
Maximum transmission distances		With 1505A (BELDEN RG-59), SD-SDI: 1083 ft. (330 m)/HD-SDI: 656 ft. (200 m)/3G-SDI: 394 ft. (120 m) With 1694A (BELDEN RG-6), SD-SDI: 1312 ft. (400 m)/HD-SDI: 787 ft. (240 m)/3G-SDI: 459 ft. (140 m) *The maximum distances may be shorten depending on the quality of cable. Please make sure that the cable is long enough.
Function		3G-SDI/HD-SDI/SD-SDI input
General	Power consumption	About 30 Watts
	Weight	0.9 lbs. (0.4 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)

### ■ Panel



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## FDX-S Input Board FDX-SIV4T

The FDX-SIV4T is a four-input HDBaseT board designed for FDX-S series Modular Matrix Switchers. The board supports video resolutions up to 4K@30 and complies with HDCP 1.4. Input video signals can be transmitted up to 328 ft. (100 m); 1080p (24 bit) video signals can be sent up to 492 ft. (150 m) in Long reach mode. RS-232C bidirectional communication and LAN transmission are also supported.

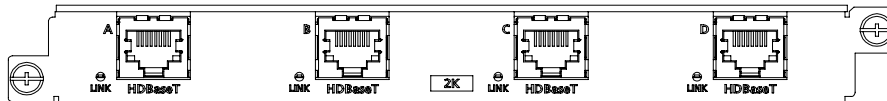
### ■ Specification

Item		Description
Input		4 inputs
Video	HDBaseT	HDBaseT HDCP 1.4 36 bit Deep Color For WUXGA, QWXGA, and 4K@24/25/30 (4:4:4), Deep Color is not supported. x.v.Color/3D/ARC/HEC/CEC/HDR are not supported. EDID emulation, RS-232C, LAN
	Format	VGA to 4K (Dot clock: 25 MHz to 300 MHz) For WUXGA/QWXGA, only Reduced Blanking is supported. 480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 4K For 4K format, 24 Hz/25 Hz/30 Hz are supported.
Audio	Digital	Multi-channel LPCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit Reference level: -20 dBFS, Max. input level: 0 dBFS
Connector		RJ-45 (*1)
Cable		CAT.5E HDC, Cat5e UTP/STP, Cat6 UTP/STP (T568A/T568B straight-through)
Maximum transmission distances		328 ft. (100 m), 492 ft. (150 m) (Long reach mode is used) (*2)
General	Power consumption	About 30 Watts
	Weight	1.1 lbs. (0.5 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 RJ-45 (HDBaseT connector) is only for extending digital video and audio signals over a Cat5e/Cat6 cable. Use it with IDK's HDBaseT Products. Do not use for LAN devices.

\*2 The maximum transmission distance was obtained when IDK's CAT.5E HDC cable was used. 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. The maximum transmission distance is the shorter distance of connected HDBaseT product or sink device's maximum transmission distance. Up to 492 ft. (150 m): 1080p (24 bit) in Long reach mode. For Long reach mode, use IDK's HDBaseT Products that supports 328 ft. (100 m) or longer.

### ■ Panel



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## FDX-S Output Board FDX-SOV4UH

The FDX-SOV4UH is a four-output HDMI board designed for FDX-S series Modular Matrix Switchers. The board supports HDMI and DVI at video resolutions up to 4K@60 and complies with HDCP 2.2.

### ■ Specification

Item		Description
Output		4 outputs
Video	HDMI/DVI	HDMI/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 36 bit Deep Color, x.v.Color, 3D, HDR ARC/HEC/CEC are not supported.
	Format	VGA to 4K (Dot clock: 25 MHz to 600 MHz) 480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 4K For 4K format, 24 Hz/25 Hz/30 Hz/50Hz (4:4:4)/60 Hz (4:4:4) are supported.
Audio	Digital	Multi-channel LPCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit Reference level: -20 dBFS, Max. output level: 0 dBFS
Connector		Female HDMI Type A (19-pin)
Maximum transmission distances		98 ft. (30 m) (1080p@60), 39 ft. (12 m) (4K@60) (*1)
Functions		Anti-snow, Connection Reset (*2)
General	Power consumption	About 11 Watts
	Weight	0.7 lbs. (0.3 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)

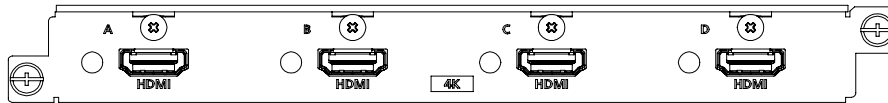
\*1 The maximum cable distance varies depending on the connected devices and was measured under following conditions:

- 1080p@60: When IDK's 24 AWG cable was used and signals of 1080p@60 24 bit/pixel (8 bit/component) was output.
- 4K@60 : When IDK's 18 Gbps supported cable was used and signals of 4K@60 24 bit/pixel (8 bit/component) was 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.

\*2 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 FDX-S's output. If other devices are connected between the FDX-S's output and sink device, this feature may be invalid.

### ■ Panel



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## FDX-S Output Board FDX-SOV4UT

The FDX-SOV4UT is a four-output HDBaseT board designed for FDX-S series Modular Matrix Switchers.

The board supports video resolutions up to 4K@60 and complies with HDCP 2.2.

Video signals can be transmitted up to 328 ft. (100 m); 1080p (24 bit) video signals can be sent up to 492 ft. (150 m) in Long reach mode.

RS-232C bidirectional communication and LAN transmission are also supported.

### ■ Specification

Item		Description
Output		4 outputs
Video	HDBaseT	HDBaseT HDCP 1.4/2.2 36 bit Deep Color, x.v.Color, 3D, HDR For WQHD, WQXGA, and 4K@24/25/30 (4:4:4)/50(4:2:0)/60 (4:2:0), Deep Color is not supported. ARC/HEC/CEC are not supported. RS-232C, LAN
	Format	VGA to 4K (Dot clock: 25 MHz to 600 MHz) For WQHD/WQXGA, only Reduced Blanking is supported. 480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 4K For 4K format, 24 Hz/25 Hz/30 Hz/50Hz (4:2:0)/60 Hz (4:2:0) are supported.
Audio	Digital	Multi-channel LPCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit Reference level: -20 dBFS, Max. output level: 0 dBFS
Connector		RJ-45 (*1)
Cable		CAT.5E HDC, Cat5e UTP/STP, Cat6 UTP/STP (T568A/T568B straight-through)
Maximum transmission distances		328 ft. (100 m), 492 ft. (150 m) (Long reach mode is used) (*2)
Functions		Anti-snow, Connection Reset (*3)
General	Power consumption	About 18 Watts
	Weight	1.1 lbs. (0.5 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 RJ-45 (HDBaseT connector) is only for extending digital video and audio signals over a Cat5e/Cat6 cable. Use it with IDK's HDBaseT Products. Do not use for LAN devices.

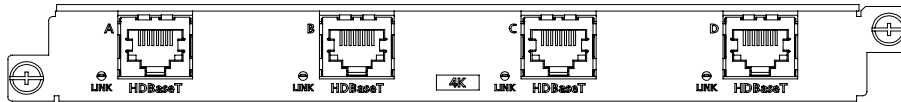
\*2 The maximum transmission distance was obtained when IDK's CAT.5E HDC cable was used. The distance may not be extended with some device combinations, cabling method, or other manufacturer's cable. Video may be disturbed or may not be output even if signals are within the range mentioned above.

The maximum transmission distance is the shorter distance of connected HDBaseT product or sink device's maximum transmission distance.

Up to 492 ft. (150 m): 1080p (24 bit) in Long reach mode. For Long reach mode, use IDK's HDBaseT Products that supports 328 ft. (100 m) or longer.

\*3 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 FDX-S's output. If other devices are connected between the FDX-S's output and sink device, this feature may be invalid.

### ■ Panel



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## FDX-S Output Board FDX-SOV4H

The FDX-SOV4H is a four-output HDMI board designed for FDX-S series Modular Matrix Switchers. The board supports HDMI and DVI at video resolutions up to 4K@30 and complies with HDCP 1.4.

### ■ Specification

Item		Description
Output		4 outputs
Video	HDMI/DVI	HDMI/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 36 bit Deep Color x.v.Color/3D/ARC/HEC/CEC/HDR are not supported.
	Format	VGA to 4K (Dot clock: 25 MHz to 300 MHz) For WUXGA/QWXGA, only Reduced Blanking is supported. 480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 4K For 4K format, 24 Hz/25 Hz/30 Hz are supported.
Audio	Digital	Multi-channel LPCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit Reference level: -20 dBFS, Max. output level: 0 dBFS
Connector		Female HDMI Type A (19-pin)
Maximum transmission distances		98 ft. (30 m) (1080p@60), 66 ft. (20 m) (4K@30) (*1)
Functions		Anti-snow, Connection Reset (*2)
General	Power consumption	About 9 Watts
	Weight	1.1 lbs. (0.5 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)

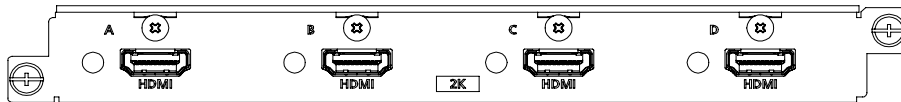
\*1 The maximum cable distance varies depending on the connected devices and was measured under following conditions:

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

\*2 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 FDX-S's output. If other devices are connected between the FDX-S's output and sink device, this feature may be invalid.

### ■ Panel



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## FDX-S Output Board FDX-SOV4HS

The FDX-SOV4HS is an HDCP 1.4-compliant four-output HDMI/DVI board designed for FDX-S series Modular Matrix Switchers. The board includes a scan converter that supports resolutions up to QWXGA or 1080p and switches input video signals fast. Videowall can easily be configured using this board.

The Lip Sync feature provides the user with a means to control time alignment between the video and audio.

### ■ Specification

Item		Description
Output		4 outputs
Video	HDMI/DVI	HDMI/DVI 1.0 TMDS single link, HDCP 1.4 TMDS clock: 27 MHz to 202.5 MHz, TMDS data rate: 0.81 Gbps to 6.075 Gbps 30 bit Deep Color x.v.Color/3D/ARC/HEC/CEC/HDR are not supported. Built-in cable EQ
	Format (*1)	VGA / XGA / WXGA (1280x768) / WXGA (1280x800) / Quad-VGA / SXGA / WXGA (1360x768) / WXGA (1366x768) / SXGA+ / WXGA+ / WXGA++ / UXGA / WSXGA+ / VESAHD / WUXGA / QWXGA For VESAHD/WUXGA/QWXGA, only Reduced Blanking is supported. 480p / 576p / 720p / 1080i / 1080p For 720p, 1080i, and 1080p, 50 Hz/59.94 Hz are supported.
Audio	Digital	Multi-channel LPCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit Reference level: -20 dBFS, Max. output level: 0 dBFS
Connector		Female HDMI Type A (19-pin)
Maximum transmission distances		131 ft. (40 m) (*2)
Functions	Scan Converter	Motion adaptive interlaced/progressive conversion, Aspect ratio control, Picture adjustment (brightness, contrast, image position, image size, etc.), Seamless Switching
	Others	Videowall output, Lip Sync (Max. 256 ms.), Anti-snow, Connection Reset (*3)
General	Power consumption	About 33 Watts
	Weight	1.8 lbs. (0.8 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 Input resolution: VGA to QWXGA and 480i/480p/576i/576p/720p/1080i/1080p are supported.

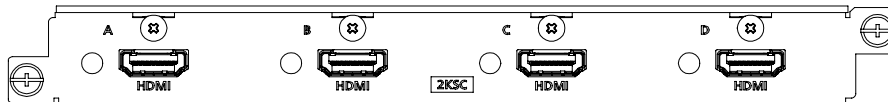
\*2 The maximum cable distance varies depending on the connected devices and was measured under following conditions:

• 1080p@60: When IDK's 24 AWG cable was used and signals of 1080p@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.

\*3 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 FDX-S's output. If other devices are connected between the FDX-S's output and sink device, this feature may be invalid.

### ■ Panel



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## FDX-S Output Board FDX-SOV4T

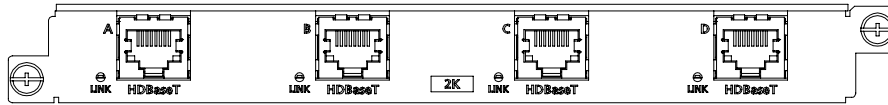
The FDX-SOV4T is a four-output HDBaseT board designed for FDX-S series Modular Matrix Switchers. The board supports video resolutions up to 4K@30 and complies with HDCP 1.4. Video signals can be transmitted up to 328 ft. (100 m); 1080p (24 bit) video signals can be sent up to 492 ft. (150 m) in Long reach mode. RS-232C bidirectional communication and LAN transmission are also supported.

### ■ Specification

Item		Description
Output		4 outputs
Video	HDBaseT	HDBaseT HDCP 1.4 36 bit Deep Color For WUXGA, QWXGA, and 4K@24/25/30 (4:4:4), Deep Color is not supported. x.v.Color/3D/ARC/HEC/CEC/HDR are not supported. RS-232C, LAN
	Format	VGA to 4K (Dot clock: 25 MHz to 300 MHz) For WUXGA/QWXGA, only Reduced Blanking is supported. 480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 4K For 4K format, 24 Hz / 25 Hz / 30 Hz are supported.
Audio	Digital	Multi-channel LPCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit Reference level: -20 dBFS, Max. output level: 0 dBFS
Connector		RJ-45 (*1)
Cable		CAT.5E HDC, Cat5e UTP/STP, Cat6 UTP/STP (T568A/T568B straight-through)
Maximum transmission distances		328 ft. (100 m), 492 ft. (150 m) (Long reach mode is used) (*2)
Functions		Anti-snow, Connection Reset (*3)
General	Power consumption	About 18 Watts
	Weight	1.1 lbs. (0.5 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 RJ-45 (HDBaseT connector) is only for extending digital video and audio signals over a Cat5e/Cat6 cable. Use it with IDK's HDBaseT Products. Do not use for LAN devices.
- \*2 The maximum transmission distance was obtained when IDK's CAT.5E HDC cable was used. 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. The maximum transmission distance is the shorter distance of connected HDBaseT product or sink device's maximum transmission distance. Up to 492 ft. (150 m): 1080p (24 bit) in Long reach mode. For Long reach mode, use IDK's HDBaseT Products that supports 328 ft. (100 m) or longer.
- \*3 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 FDX-S's output. If other devices are connected between the FDX-S's output and sink device, this feature may be invalid.

### ■ Panel



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## FDX-S Output Board FDX-SOV4TS

The FDX-SOV4TS is an HDCP 1.4-compliant four-output HDBaseT board designed for FDX-S series Modular Matrix Switchers. The board includes a scan converter that supports resolutions up to QWXGA or 1080p and switches input video signals fast. Videowall can easily be configured using this board. Video signals can be transmitted up to 328 ft. (100 m); 1080p (24 bit) video signals can be sent up to 492 ft. (150 m) in Long reach mode. RS-232C bidirectional communication and LAN transmission are also supported.

### ■ Specification

Item		Description
Output		4 outputs
Video	HDBaseT	HDBaseT HDCP 1.4 30 bit Deep Color x.v.Color/3D/ARC/HEC/CEC/HDR are not supported. RS-232C, LAN
	Format (*1)	VGA / XGA / WXGA (1280x768) / WXGA (1280x800) / Quad-VGA / SXGA / WXGA (1360x768) / WXGA (1366x768) / SXGA+ / WXGA+ / WXGA++ / UXGA / WSXGA+ / VESAHD / WUXGA / QWXGA For VESAHD/WUXGA/QWXGA, only Reduced Blanking is supported. 480p / 576p / 720p / 1080i / 1080p For 720p, 1080i, and 1080p, 50 Hz/59.94 Hz are supported.
Audio	Digital	Multi-channel LPCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit Reference level: -20 dBFS, Max. output level: 0 dBFS
Connector		RJ-45 (*2)
Cable		CAT.5E HDC, Cat5e UTP/STP, Cat6 UTP/STP (T568A/T568B straight-through)
Maximum transmission distances		328 ft. (100 m), 492 ft. (150 m) (Long reach mode is used) (*3)
Functions	Scan Converter	Motion adaptive interlaced/progressive conversion, Aspect ratio control, Picture adjustment (brightness, contrast, image position, image size, etc.), Seamless Switching
	Others	Videowall output, Lip Sync (Max. 256 ms.), Anti-snow, Connection Reset (*4)
General	Power consumption	About 40 Watts
	Weight	1.8 lbs.(0.8 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 Input resolution: VGA to QWXGA and 480i/480p/576i/576p/720p/1080i/1080p are supported.

\*2 RJ-45 (HDBaseT connector) is only for extending digital video and audio signals over a Cat5e/Cat6 cable. Use it with IDK's HDBaseT Products. Do not use for LAN devices.

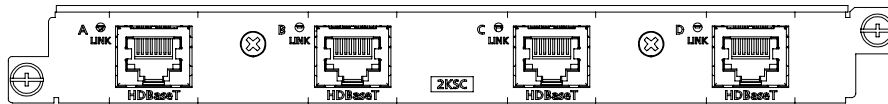
\*3 The maximum transmission distance was obtained when IDK's CAT.5E HDC cable was used. The distance may not be extended with some device combinations, cabling method, or other manufacturer's cable. Video may be disturbed or may not be output even if signals are within the range mentioned above.

The maximum transmission distance is the shorter distance of connected HDBaseT product or sink device's maximum transmission distance.

Up to 492 ft. (150 m): 1080p (24 bit) in Long reach mode. For Long reach mode, use IDK's HDBaseT Products that supports 328 ft. (100 m) or longer.

\*4 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 FDX-S's output. If other devices are connected between the FDX-S's output and sink device, this feature may be invalid.

### ■ Panel



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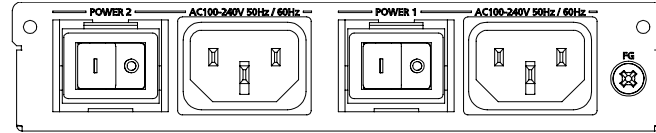


The FDX-SRP16 is a redundant power supply unit that includes two independent power connectors for FDX-S16 and FDX-S16U. In case one of power supplies fails, the other one supplies power, ensuring a proper and reliable operation.

#### ■ Specification

Item	Description
Power	100 - 240 VAC $\pm$ 10%, 50 Hz/60 Hz $\pm$ 3 Hz, 2 power connectors
Weight	6 lbs. (2.7 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)

#### ■ Panel



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