

12G/6G/3G/HD/SD Dual-Channel Multi-Purpose Signal Processor

**FA-9600**  
Ver.3

**FOR.A**<sup>®</sup>

12G/6G/3G/HD/SD DUAL-CHANNEL  
MULTI-PURPOSE SIGNAL PROCESSOR

**FA-9600**

VER.3



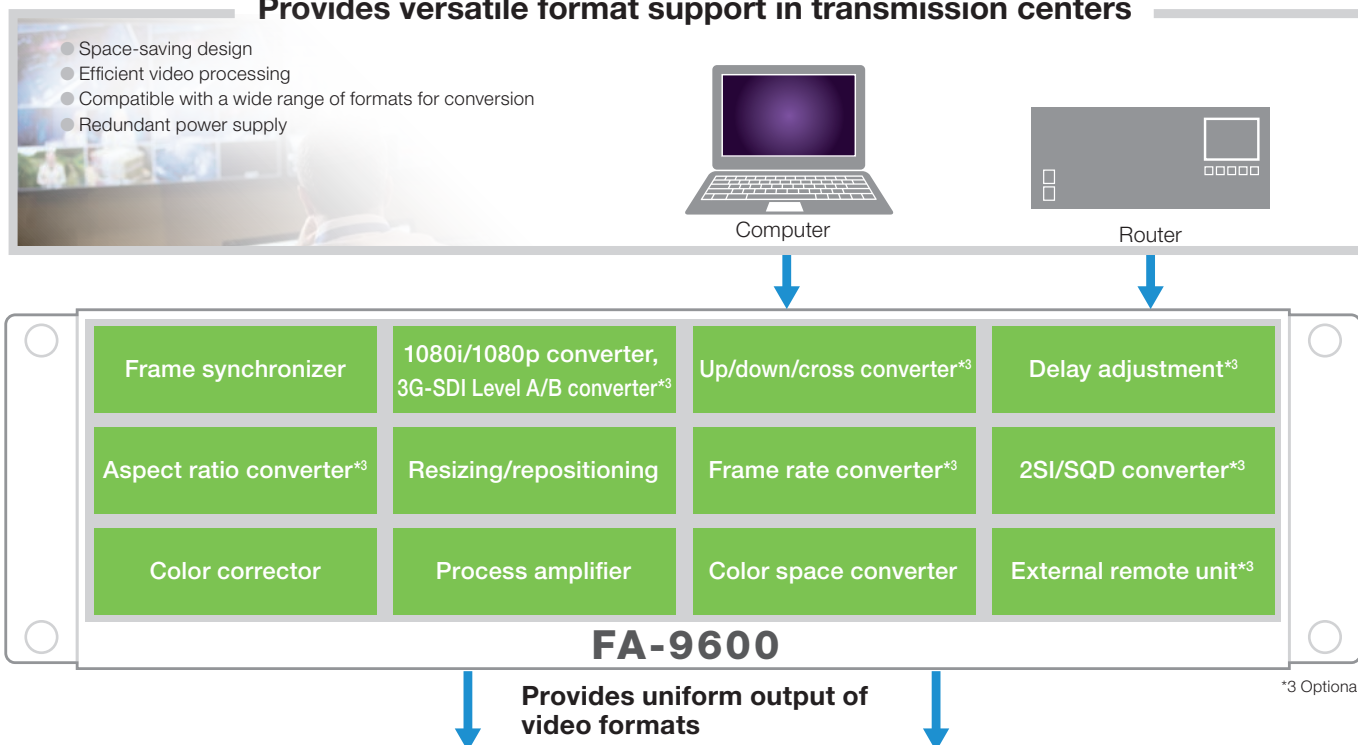
## Provides HDR and Wide Color Gamut support. Offers exceptional conversion format delivery, including 12G, 4K(UHD), 1080p and HD/SD.

Each of the FA-9600 processor's two HD/SD inputs includes a frame synchronizer. Because the signal processor features 12G-SDI terminals, optional software opens the door to 4K(UHD) production. Adding an optional expansion card provides four more channels of 3G-SDI input/output or six channels of 12G-SDI distributed output.\*1

The FA-9600 is much more than a basic frame synchronizer. It simplifies all types of video conversion. A newly developed color processing circuit supports the latest gamut and dynamic range specifications, and an optional converter circuit is available for up/down/cross conversion. Offering a wide range of audio processing, core features of remapping and gain adjustment, the FA-9600 can be expanded with optional cards\*1 that make it an ideal standalone solution at transmission centers, in mobile production trucks, production studios, news stations, and other nonlinear editing and playout production environments.

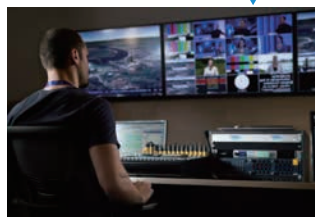
\*1 For details, see the expansion cards in "Options."

### Provides versatile format support in transmission centers



#### Control rooms

- Program production using uniform, converted output of a variety of source video formats



#### Nonlinear video and audio editing bays

- Conversion to extensive range of video formats used in editing

## Feature highlights

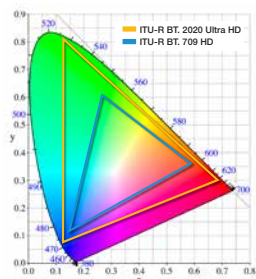
- Dual channel frame synchronization, via two SDI inputs and four outputs. Able to switch between two modes to suit the application.
  - Simultaneous 4K/HD mode: Use two internal paths for 4K and HD. Single-channel up/down\*4 conversion
  - Dual HD mode: Use two internal HD paths. Dual-channel up/down\*4 conversion
- Extensive professional video format support: 12G\*5/6G\*5/3G/HD/SD-SDI
- Connectivity with a broad range of equipment; Also equipped with HDMI ports
- The FA-9600 comes standard with a dedicated application that runs on Windows, providing full access to many functions and allows a wide variety of settings. Web server functionality is also implemented in the main unit, allowing adjustments\*6 to various parameters from mobile and tablet devices.

\*4 FA-96UDC is required. \*5 When FA-964K is installed. Conversions that include 4K(UHD) are effective only on the Line 1-side. \*6 This feature is available for a limited number of function and parameters.

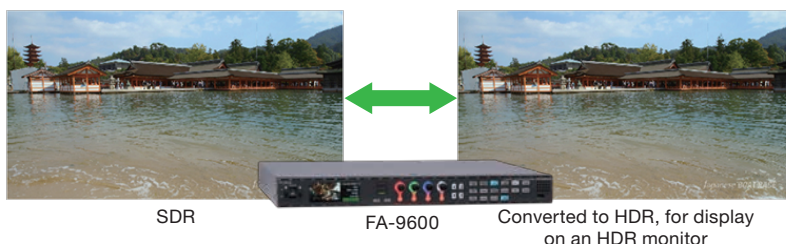
## Advantages in mixed HDR/SDR environments

New color processing circuit provides strong support in HD/4K(UHD) production. This is useful not only when converting to unified specifications before input to a switcher or editing system, but also at output - before HDR and SDR simulcasts.

- Supports and converts between the broad ITU-R BT.2020 gamut for 4K/8K and the conventional ITU-R BT.709 gamut in HD.



- Compensates for differences among external devices using EOTF/OETF corresponding to various HDR or SDR curves.
- EOTF/OETF log curves and gamut can be registered from a PC. Also compatible with S-Log3, Canon Log2, and other camera log curves.
- Dynamic range conversion compatible with HLG, PQ, SDR, and other log curves. Compatible with ITU-R BT.2100-compliant dynamic range conversion.
- Using FA-96AHDR2 Advanced Function Software option, processor is compatible with SR Live for HDR and 3D-LUT.



## Advantages in mixed HDR/SDR environments

<p>HDR 4K(UHD) camera</p>	<p><b>Mobile OB and Up-Link production trucks</b></p> <ul style="list-style-type: none"> <li>Convenient size where rack space is limited</li> <li>Energy-efficient</li> </ul>	<p>SDR camera    4K(UHD) 30p camera</p>	<p><b>Live staging</b></p> <ul style="list-style-type: none"> <li>Greatly reduces the need for other equipment.</li> <li>Can be used as a simplified switcher</li> <li>Audio embedding</li> <li>Multi-camera editing</li> </ul> <p>Camera with HDMI output</p>
Frame synchronizer	1080i/1080p converter, 3G-SDI Level A/B converter*3	Up/down/cross converter*3	Delay adjustment*3
Aspect ratio converter*3	Resizing/repositioning*3	Frame rate converter*3	2SI/SQD converter*3
Color corrector	Process amplifier	Color space converter	External remote unit*3
<p><b>FA-9600</b></p>			
<p>Direct HDR, 12G-SDI output</p>		<p>Converted to HDR, 12G-SDI output</p>	

\*3 Optional

## Options

### FA-964K

#### 4K/12G-SDI software

4K(UHD) video processing and 12G/6G-SDI or HDMI2.0b input and output. Use with FA-96UDC for versatile conversion: 2SI/SQD, 59.94p/29.97p, and quad Link 3G-SDI Level A/B.

#### Available video formats

SL: 4K single link	12G-SDI	60p/59.94p/50p/48p/47.95p	2SI (Level A)	SL	4K single link
DL: 4K dual link	6G-SDI	60p/59.94p/50p/48p/47.95p	2SI (Level A)	DL	4K dual link
QL: 4K quad link	3G-SDI	60p/59.94p/50p/48p/47.95p	2SI/SQD (Level A/Level B DL)	QL	4K quad link
SL: 4K single link	6G-SDI	30p/29.97p/25p/24p/23.98p	2SI (Level A)	L1	QL/DL link1
DL: 4K dual link	3G-SDI	30p/29.97p/25p/24p/23.98p	2SI/SQD (Level B DS)	L2	QL/DL link2
QL: 4K quad link	HD-SDI	30p, 29.97p, 25p, 24p, 23.98p	SQD	L3	QL link3
		30PsF, 29.97PsF, 25PsF, 24PsF, 23.98PsF	SQD	L4	QL link4

#### Inputs

##### FA-964K installed

			Input terminals on main unit	
Inputs			IN1	IN2
47.95p or higher	SL	12G-SDI	SL	—
	DL	6G-SDI	—	—
	QL	3G-SDI	—	—
30p or lower	SL	6G-SDI	SL	—
	DL	3G-SDI	L1	L2
	QL	HD-SDI	—	—

##### FA-964K + FA-96EX3G44-R installed

			Input terminals on main unit		with FA-96EX3G44-R			
Inputs			IN1	IN2	IN1	IN2	IN3	IN4
47.95p or higher	SL	12G-SDI	SL	—	—	—	—	—
	DL	6G-SDI	—	—	—	—	—	—
	QL	3G-SDI	L1	L2	—	—	L3	L4
30p or lower	SL	6G-SDI	—	—	L1	L2	L3	L4
			L1	L2	—	—	—	—
	DL	3G-SDI	—	—	L1	L2	—	—
			—	—	—	—	L1	L2
	QL	HD-SDI	L1	L2	—	—	L3	L4
			—	—	L1	L2	L3	L4

##### FA-964K + FA-96EX12G06 installed

			Input terminals on main unit		with FA-96EX12G06
Inputs			IN1	IN2	—
47.95p or higher	SL	12G-SDI	SL	—	—
	DL	6G-SDI	—	—	—
	QL	3G-SDI	—	—	—
30p or lower	SL	6G-SDI	SL	—	—
	DL	3G-SDI	L1	L2	—
	QL	HD-SDI	—	—	—

#### Outputs

##### FA-964K installed

			Output terminals on main unit			
Outputs			OUT1a	OUT1b	OUT2a	OUT2b
47.95p or higher	SL	12G-SDI	SL	SL	—	—
	DL	6G-SDI	L1	L2	—	—
	QL	3G-SDI	L1	L2	L3	L4
30p or lower	SL	6G-SDI	SL	SL	—	—
	DL	3G-SDI	L1	L2	L1	L2
	QL	HD-SDI	L1	L2	L3	L4

##### FA-964K + FA-96EX3G44-R installed

			Output terminals on main unit				with FA-96EX3G44-R			
Outputs			OUT1a	OUT1b	OUT2a	OUT2b	OUT1	OUT2	OUT3	OUT4
47.95p or higher	SL	12G-SDI	SL	SL	—	—	—	—	—	—
	DL	6G-SDI	L1	L2	—	—	—	—	—	—
	QL	3G-SDI	L1	L2	L3	L4	L1	L2	L3	L4
30p or lower	SL	6G-SDI	SL	SL	—	—	—	—	—	—
	DL	3G-SDI	L1	L2	L1	L2	L1	L2	L1	L2
	QL	HD-SDI	L1	L2	L3	L4	L1	L2	L3	L4

##### FA-964K + FA-96EX12G06 installed

			Output terminals on main unit				with FA-96EX12G06					
Outputs			OUT1a	OUT1b	OUT2a	OUT2b	OUT1a	OUT1b	OUT2	OUT3a	OUT3b	OUT4
47.95p or higher	SL	12G-SDI	SL	SL	—	—	SL	SL	SL	SL	SL	SL
	DL	6G-SDI	L1	L2	—	—	L1	L1	L1	L2	L2	L2
	QL	3G-SDI	L1	L2	L3	L4	L1	L1	L2	L3	L3	L4
30p or lower	SL	6G-SDI	SL	SL	—	—	SL	SL	SL	SL	SL	SL
	DL	3G-SDI	L1	L2	L1	L2	L1	L1	L1	L2	L2	L2
	QL	HD-SDI	L1	L2	L3	L4	L1	L1	L2	L3	L3	L4

## FA-96UDC

### Up/Down/Cross Converter

Converts between SD/720p/1080i, interlaced/progressive and 3G-SDI Level A/B. Supports frame delay. When used with FA-964K, converts resolutions from SD up to 4K\*7.

\*7 Conversions that include 4K(UHD) are effective only on the Line 1-side. 2SI/SQD conversion and 4K to HD downconversion cannot be used simultaneously.

#### Available conversions

In simultaneous 4K mode	Available conversions		
Line-1 (wth optional FA-964K installed)	A	B	C
Line-1	—	B	C
Line-2	—	B	—

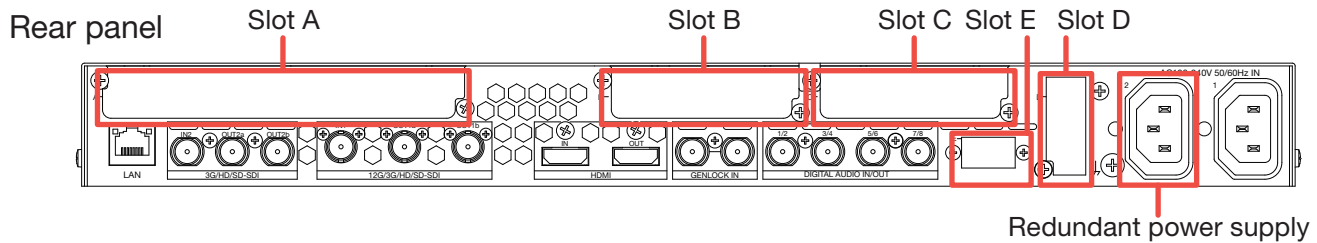
In dual HD mode	Available conversions		
Line-1	—	B	C
Line-2	—	B	C

59.94 Hz family		Outputs															
Inputs		2160/						1080/					720/			525/	
		59.94p	47.95p	29.97p	23.98p	29.97PsF	23.98PsF	59.94p	29.97p	23.98p	59.94i, 29.97PsF	23.98PsF	59.94p	29.97p	23.98p	60	
2160/	59.94p	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	47.95p	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	29.97p	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	23.98p	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	29.97PsF	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	23.98PsF	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
1080/	59.94p	A	A	A	A	A	A	B	B	B	B	B	C	C	C	C	
	29.97p	A	A	A	A	A	A	B	B	B	B	B	C	C	C	C	
	23.98p	A	A	A	A	A	A	B	B	B	B	B	C	C	C	C	
	54.94i, 29.97PsF	A	A	A	A	A	A	B	B	B	B	B	C	C	C	C	
	23.98PsF	A	A	A	A	A	A	B	B	B	B	B	C	C	C	C	
720/	59.94p	A	A	A	A	A	A	C	C	C	C	C	B	B	B	C	
	29.97p	A	A	A	A	A	A	C	C	C	C	C	B	B	B	C	
	23.98p	A	A	A	A	A	A	C	C	C	C	C	B	B	B	C	
525/	60	A	A	A	A	A	A	C	C	C	C	C	C	C	C	C	B

60 Hz family		Outputs														
Inputs		2160/						1080/					720/			
		60p	48p	30p	24p	30PsF	24PsF	60p	30p	24p	60/30PsF	24PsF	60p	30p	24p	
2160/	60p	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	48p	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	30p	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	24p	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	30PsF	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	24PsF	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
1080/	60p	A	A	A	A	A	A	B	B	B	B	B	C	C	C	
	30p	A	A	A	A	A	A	B	B	B	B	B	C	C	C	
	24p	A	A	A	A	A	A	B	B	B	B	B	C	C	C	
	60i, 30PsF	A	A	A	A	A	A	B	B	B	B	B	C	C	C	
720/	24PsF	A	A	A	A	A	A	B	B	B	B	B	C	C	C	
	60p	A	A	A	A	A	A	C	C	C	C	C	B	B	B	
	30p	A	A	A	A	A	A	C	C	C	C	C	B	B	B	
720/	24p	A	A	A	A	A	A	C	C	C	C	C	B	B	B	

50 Hz family		Outputs								
Inputs		2160/			1080/			720/		625/
		50p	25p	25PsF	50p	25p	50/25PsF	50p	25p	50
2160/	50p	A	A	A	A	A	A	A	A	A
	25p	A	A	A	A	A	A	A	A	A
	25PsF	A	A	A	A	A	A	A	A	A
1080/	50p	A	A	A	B	B	B	C	C	C
	25p	A	A	A	B	B	B	C	C	C
	50i, 25PsF	A	A	A	B	B	B	C	C	C
720/	50p	A	A	A	C	C	C	B	B	C
	25p	A	A	A	C	C	C	B	B	C
625/	50	A	A	A	C	C	C	C	C	B

## Expansion cards



### For slot A

#### FA-96EX3G44-R 3G-SDI I/O Card

Card for four inputs/four distributed outputs of single link 3G/HD/SD-SDI or input/output of 4K quad/dual link 3G/1.5G-SDI. Pass-through supported on all inputs and outputs.

#### FA-96EX12G06 12G-SDI Six Output Expansion Card

Card for six distributed outputs of single link 12G/6G/3G/HD/SD-SDI, 4K dual link 6G/3G-SDI or quad link 3G/1.5G-SDI output.

#### FA-96SFPC4 SFP Connector Expansion Card

Cage card for adding up to four SFP/SFP+ modules. When used with 12G-SDI SFP+ modules, carries four channels of signals over longer distance via optical cables\*<sup>B</sup>.

\*8 FA-964K required

### For slot B

#### FA-96AES-UBL AES Audio I/O Card

Card for unbalanced AES input and output. Enables input and output using pairs of terminals (a configuration of eight inputs, four inputs/four outputs, or eight outputs is available).

### For slots B and C

#### FA-96AES-UBL AES Audio Output Expansion Cable

Cable for four additional unbalanced AES outputs. Standard AES connectors on the rear panel are for input only.

#### FA-96GPI GPI I/O Expansion Card

GPI card for 10 inputs/10 outputs.

### For slot D

#### FA-96DIN4-CBL DIN 1.0/2.3 Expansion Cable

Cable for LTC input and output. Enables one input and one output.

### For slot E

#### FA-96DB9-CBL GPI Cable

Cable for GPI control. Allows seven inputs/outputs - with each line switchable between input and output.

## Other options

#### FA-96PS Redundant Power Supply Unit

#### FA-96AHDR2 Advanced Function Software for HDR

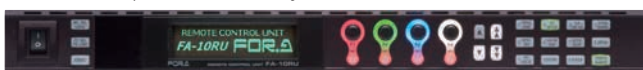
Dynamic range conversion is compatible with SR Live for HDR, used in live video production with simultaneous creation of 4K HDR and HD SDR. Used in dynamic range conversion conforming to BT.2100. Compatible with S-Log3 and HLG log curves. Also supports 3D-LUTs—convenient for adjustments.

SR Live for HDR represents the workflow which can provide HDR production proposed by Sony.

## Remote control units

#### FA-10RU

The FA-10RU allows remote operation of almost all FA-9600 functions. A single FA-10RU can control up to 100 FA-9600s. In addition, one FA-9600 can also be controlled from up to five remote control units (including the FA-10DCCRU and FA-9600GUI) simultaneously.



#### FA-10DCCRU

The FA-10DCCRU allows remote operation of the color corrector functions of the FA-9600. One FA-9600 can be controlled from up to five remote control units (including the FA-10RU and FA-9600GUI) simultaneously.





# Specifications

Video formats	
Standard	1080/60p, 1080/59.94p, 1080/50p, 1080/30p, 1080/29.97p, 1080/25p, 1080/24p, 1080/23.98p, 1080/60i, 1080/59.94i, 1080/50i, 1080/30PsF, 1080/29.97PsF, 1080/25PsF, 1080/24PsF, 1080/23.98PsF, 720/60p, 720/59.94p, 720/50p, 720/30p, 720/29.97p, 720/25p, 720/24p, 720/23.98p, 525/60, 625/50
Optional FA-964K install	(Additional resolutions) 3840 x 2160/60p, 3840 x 2160/59.94p, 3840 x 2160/50p, 3840 x 2160/48p, 3840 x 2160/47.95p, 3840 x 2160/30p, 3840 x 2160/29.97p, 3840 x 2160/25p, 3840 x 2160/24p, 3840 x 2160/23.98p, 3840 x 2160/30PsF, 3840 x 2160/29.97PsF, 3840 x 2160/25PsF, 3840 x 2160/24PsF, 3840 x 2160/23.98PsF
Video inputs	
Standard	3G/HD/SD-SDI: 3 Gbps to 270 Mbps, 75Ω, BNC x 2*1 HDMI: HDMI2.0b (Type-A) x 1, HDCP unsupported
Optional FA-964K install	In1*2: 12G/6G/3G/HD/SD-SDI: 12 Gbps to 270 Mbps In2: 3G/HD/SD-SDI: 3 Gbps to 270 Mbps
Optional FA-96EX3G44-R	3G/HD/SD-SDI: 3 Gbps to 270 Mbps, 75Ω, BNC x 4*3
Video outputs	
Standard	3G/HD/SD-SDI: 3 Gbps to 270 Mbps, 75Ω, BNC x 4*1 HDMI: HDMI2.0b (Type-A) x 1
Optional FA-964K install	OUT1a/1b*2: 12G/6G/3G/HD/SD-SDI: 12 Gbps to 270 Mbps OUT2a/2b: 3G/HD/SD-SDI: 3 Gbps to 270 Mbps
Optional FA-96EX3G44-R	3G/HD/SD-SDI: 3 Gbps to 270 Mbps, 75Ω, BNC x 4*3
Optional FA-96EX12G06	12G/6G/3G/HD/SD-SDI: 12 Gbps to 270 Mbps, 75Ω, BNC x 6
Video functions	
I/O processing	Standard: 2 inputs, 2 distributed outputs (3G-SDI to SD-SDI) 4K(Max.): 1 4K input (Single/Dual/Quad Link) + 1 HD/SD-SDI input, 1 4K output (Single/Dual/Quad Link) + 1 HD/SD-SDI output * Number of Mux. distributed outputs are determined depends on a configuration.
Processing	4:2:2 digital component
Quantization	12G/6G/3G/HD/SD-SDI: 10-bit
Genlock input	BB: 0.429 Vp-p (NTSC)/0.45 Vp-p (PAL) Tri-level sync: 0.6 Vp-p, 75Ω, BNC x 1, loop-through (to be terminated with 75Ω terminator, if unused)
Synchronizer modes	Frame, Line, AVDL, and Line (minimum) modes
Genlock Source Select	Reference signal, SDI input
System phase adjustment	Horizontal: -0.5H to +0.5H Vertical: -0.5 frames to +0.5 frames
Frame mode	Single link: Max. delay less than 2H/Min. delay 1 frame less than +2H, Quad/Dual link: Max. delay less than 5H/Min. delay 1 frame less than +5H
Line mode	Max. delay +0.5H/Min. delay +1.5H
AVDL mode	Max. delay +0.5H/Min. delay +5H
Line (minimum) mode	Max. delay +700CLK/Min. delay +1H +700CLK
Converter1	4K 2SI/SQD conversion, up/down/cross-conversion, aspect conversion, resizing and repositioning, I/P conversion, 3G-SDI Level A-B conversion, frame-rate simple conversion (x 1/2, x 2), frame delay (Max. delay: 8 frames)
Converter2	I/P conversion, 3G-SDI Level A-B conversion, frame-rate simple conversion (x1/2, x2), frame delay (Max. delay: 8 frames)
Color processing	Process amplifier, color space conversion, EOTF (de-gamma)/OETF (gamma), color corrector, video clipping
Proc Amp	Video level: 0.0% to 200.0% Chroma level: 0.0% to 200.0% Black level: -20.0% to 100.0% Hue: -179.8° to +180°
Color correction	Balance (RGB) mode and differential (YPbPr) mode
Video clipping	Knee Clip (RGB), YPbPr Clip
Color spaces	ITU-R BT.709/2020, user-defined (can be downloaded)
EOTF/OETF	ITU-R BT.2100 (HLG, PQ), ITU-R BT.1886, ITU-R BT.709, user-defined (can be uploaded)

Audio inputs	
Embedded	12G/6G/3G/HD-SDI: 16 channels (Group 1 to 4), 48 kHz, 16 to 24-bit, synchronous/asynchronous SD-SDI: 16 channels (Group 1 to 4), 48 kHz, 16 to 24-bit, synchronous HDMI: 8 channels, 48 kHz, 16 to 24-bit, synchronous
AES/EBU*4	1.0 Vp-p, unbalanced, 75Ω, BNC x 4 (Input/output switchable*5), Max. number of stereo inputs: 4, 32/44.1/48kHz, 16-bit to 24-bit
Optional FA-96AES-UBL	1.0 Vp-p, unbalanced, 75Ω, additional BNC x 4 (Input/output switchable*5), Max. number of stereo inputs with standard: 8, 32/44.1/48kHz, 16-bit to 24-bit
Optional FA-96AES-UBL with UBLC*4	1.0 Vp-p, unbalanced, 75Ω, additional BNC x 8 (Input/output switchable x 4*5, output exclusive use x 4), Max. number of stereo inputs with standard: 8, 32/44.1/48kHz, 16-bit to 24-bit
Audio outputs	
Embedded	12G/6G/3G/HD-SDI: 16 channels (Group 1 to 4), 48 kHz, 16/20/24-bit, synchronous/asynchronous SD-SDI: 12 channels (Group 1 to 3), 48 kHz, 16/20/24-bit, synchronous HDMI: 8 channels, 48 kHz, 16/20/24-bit, synchronous
AES/EBU*5	1.0 Vp-p, unbalanced, 75Ω, BNC x 4 (Input/output switchable*5), Max. number of stereo outputs: 4, 48kHz, 16/20/24-bit
Optional FA-96AES-UBL	1.0 Vp-p, unbalanced, 75Ω, additional BNC x 4 (Input/output switchable*5), Max. number of stereo outputs with standard: 8, 48kHz, 16/20/24-bit
Optional FA-96AES-UBLC*4	1.0 Vp-p, unbalanced, 75Ω, additional BNC x 4 (Output exclusive use), Max. number of stereo outputs: 4, 48kHz, 16/20/24-bit
Audio functions	
Delay adjustment	Fixed mode: 1 ms to 1,000 ms (adjustable in 1 ms increments) Tracking mode: Automatically follows video processing delay
Signal processing	Sampling rate converter (SRC), gain control, down-mixing, remapping, mute (per channel)
Main unit	
Interfaces	Ethernet: 100BASE-TX/1000BASE-T, RJ-45 x 1
Temperature/humidity	0°C to 40°C/30% to 90% (no condensation)
Power	100 V to 240 V AC ±10%, 50/60 Hz
Consumption (standard)	70 VA (67W) (at 100 V to 120 V AC) 72 VA (68W) (at 220 V to 240 V AC)
With FA-96PS	70 VA (65W) (at 100 V to 120 V AC) 86 VA (71W) (at 220 V to 240 V AC)
With all options installed*6	80 VA (77W) (at 100 V to 120 V AC) 86 VA (78W) (at 220 V to 240 V AC)
Dimensions/weight	430 (W) x 44 (H) x 300 (D) mm / 3.5 kg
Consumables/replacement timing (under constant use at room temperature)	Power unit/approx. 5 years Cooling fan/approx. 6 years
Included accessories	Operation manual PDF and control GUI software (CD-ROM), AC cord, rack mount brackets, retaining clip for AC cord and HDMI cord
Options	
For slot A	FA-96EX3G44-R: 3G-SDI I/O card FA-96EX12G06: 12G-SDI 6 output expansion card FA-96SFPC4: SFP Connector Expansion Card (in development)
For slots B	FA-96AES-UBL: AES audio I/O card
For slots B and C	FA-96AES-UBL: AES audio output expansion cable FA-96GPI: GPI I/O expansion card
For Slot D	FA-96DIN4-CBL: DIN 4 pin cable (in development)
For Slot E	FA-96DB9-CBL: GPI cable
Software options	FA-964K: 4K/12G-SDI-compatible software FA-96UDC: Up/down/cross converter FA-96AHDR2: Advanced function software for HDR
Other options	FA-96PS: Redundant power supply unit FA-10RU: Remote control unit FA-10DCCR: Remote control unit

\*1 Pass-through supported between IN2 and OUT2a.  
\*2 3 Gbps to 270 Mbps between IN1 and OUT1a/OUT1b without FA-964K expansion.  
\*3 Pass-through supported between 4 inputs and 4 outputs.  
\*4 When using FA-96AES-UBL option, standard AES/EBU connectors are used exclusively for input.  
\*5 Input or output able to be set for each AES/EBU connector (each stereo pair).  
\*6 Using FA-96PS, FA-96EX3G44-R, FA-96AES-UBL and FA-96GPI.



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