Hitachi Kokusai Electric

HITACHI Inspire the Next

Multi-Format Digital HDTV Production Camera
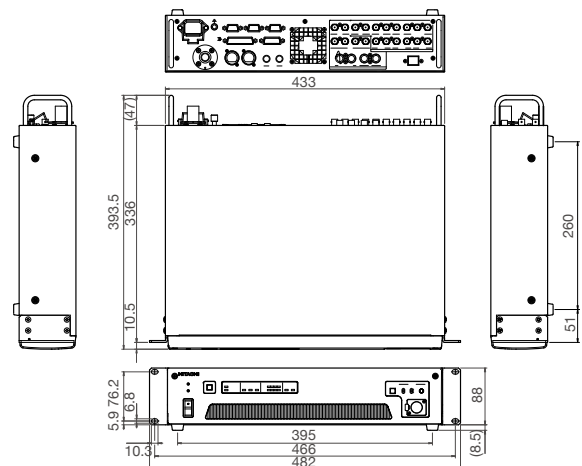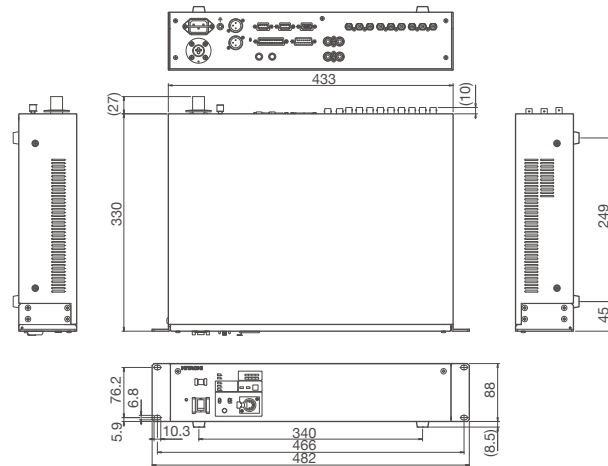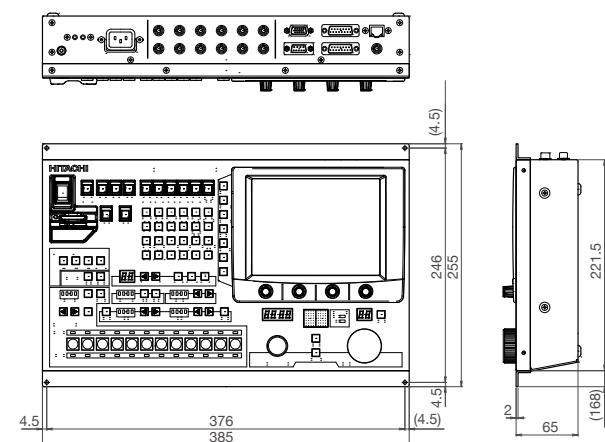
SK-HD1300

Progressive Image Capture

DIMENSIONS (CU-HD1200)

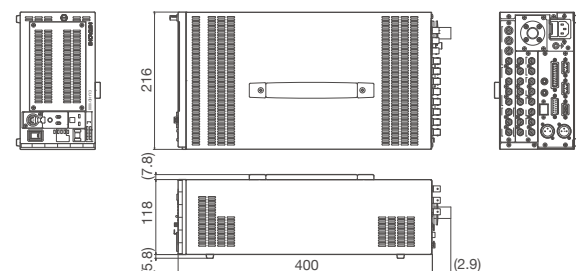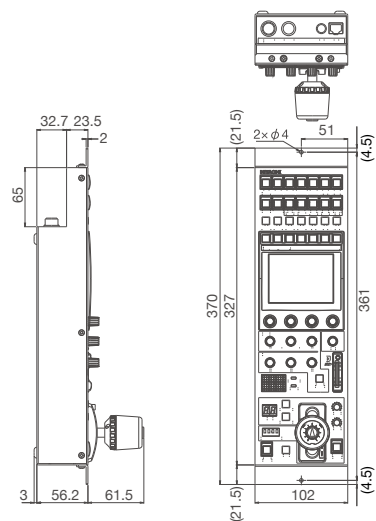## DIMENSIONS (CU-HD500)
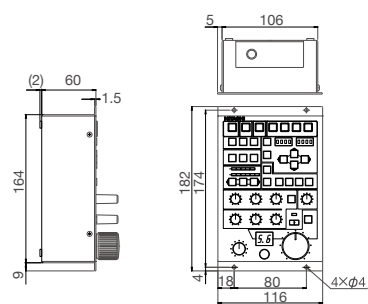

DIMENSIONS (SU-1000)

DIMENSIONS (CU-HD1000-S8/TU-HD1000)

DIMENSIONS (RU-1500JY)

DIMENSIONS (RU-1000VR)

⚠ **CAUTION :** To ensure safe operation, please read the instruction manual before using this product.
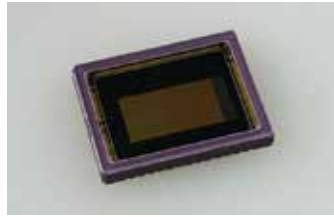
These Specifications are subject to change without notice.

Hitachi SK-HD1300
Multi-format HDTV Studio production camera

Multi-format HDTV production camera

The SK-HD1300 is a multi-format portable HDTV Studio camera. Its new MOS sensors, each having 2.6 million pixels produce outstanding imaging performance.

The camera offers progressive HD images due to Hitachi's implementation of the latest 3-MOS imaging technology. New achievements in high sensitivity and no vertical smear have been reached as a result.

Hitachi's advanced digital signal processing

Each essential part of the Hitachi SK-HD1300 camera system has its own DSP processor. Different DSP ICs are used independently for the HDTV camera head processing, the transmission system and the Camera Control Unit (CCU) processing. The new, powerefficient Hitachi's DSP processors are designed to work with any new 2K imaging technology that is in the near future thus, offering a high R.O.I. (return on investment)

An outstanding overall signal-to-noise ratio specification of 62dB is achieved by use of our own low-noise circuit technology. The standard sensitivity is rated at F10@59.94Hz (SK-HD1300)/F11@50Hz (SK-HD1300E) with 2000 lx.

Even at high gain, clear images are obtained with little noise.

Also high horizontal resolution performance of 1100TVL (Luminance channel) is the pinnacle of picture sharpness and is an attribute to the claim of having the most transparent signal processing path of any Hitachi digital camera manufactured to date.

Digital signal transmission via Hybrid Fiber Optical Cable

The SK-HD1300 camera system utilizes industry standard Hybrid Fiber-optic cable (HFOC) connectors made of high-strength materials that insure durability and reliable performance under the most demanding TV production conditions. The maximum HFOC length with applied camera power and fully operational facilities is 4,000m (13,200 feet) with no utility power*.

The Optical power meters at the camera head, control panel and CCU front panel indicate the optical condition of both transmitting and receiving signals independently to accurately depict proximity to the "digital cliff" (maximum cable distance) or provide basic HFOC diagnostics.

*HFOC distance with applied CCU power differs depending on system configuration. It is dependent on type of lens used, viewfinder, studio adapter, teleprompter and other accessories that may be connected thereby consuming power otherwise available for the camera head.

Real-time Lens Aberration Correction (RLAC)

Modern HDTV lenses can still produce optical distortions. One of these called "Lateral chromatic aberration" can be reduced in certain lens models when used with the SK-HD1300 camera system. The Hitachi function is called RLAC (Real-time Lens Aberration Correction) and it dynamically corrects images using correction data provided by the lens, through a digital interface with the camera.

Full Frame   RLAC OFF   RLAC ON

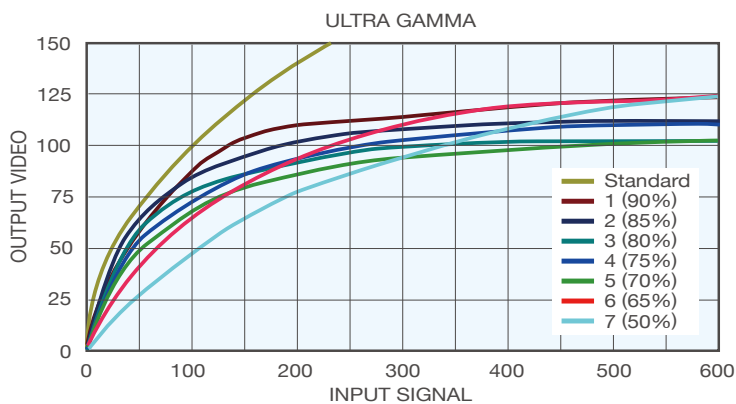## Luminance response tools

Black gamma
The SK-HD1300's Black gamma function can control Initial Gamma gain more finely than conventional black stretch. Independent Initial Gamma controls are provided for the Red, Green and Blue channels providing a fine granularity control over dark colors.

Black Stretch
The SK-HD13000's Black stretch function allows for better repro-duction of dark or underexposed areas by evenly raising the luminance response without changing the pedestal or white clip/ knee settings. It is especially useful in high contrast shooting conditions.

Ultra-Gamma
A new and useful function implemented in the SK-HD13000 is Ul-tra-Gamma, which provides seven different responses to dramatically increase exposure latitude of the camera in shooting conditions where lighting and scenery vary widely in intensity.

ULTRA GAMMA

OUTPUT VIDEO

| Standard |
| 1 (90%) |
| 2 (85%) |
| 3 (80%) |
| 4 (75%) |
| 5 (70%) |
| 6 (65%) |
| 7 (50%) |

INPUT SIGNAL

Superb High Definition picture reproduction & enhancement tools

Color reproduction excellence

Triple-masking
The triple-masking function includes 12-vector, linear matrix and Skin tone masking providing users wide latitude in subject image color control. The 12-vector color corrector provides independent control of hue and saturation for six primary and six secondary combinations of colors. A 6-axis linear matrix provides overall color control for excellent, precise color rendition control. The Skin tone masking function provides "fine painting" (hue and saturation) of skin tones without affecting other colors in the scene.

Skin tone masking OFF   Skin tone masking ON (Simulated image)

Preset Masking
The Preset Masking function recalls known industry standard colorimetry values that are precisely calibrated at the factory.
These color standards are: STANDARD (Hitachi standard) / ITU-709 / SMPTE240M /SMPTE-WIDE / NTSC / EBU.

Knee Saturation
Washed out colors are faithfully reproduced in bright areas of the image with the Knee Saturation control.

Chroma Saturation
Total chroma saturation allows control over the amount of color in the image. A purely black & white image can be also be achieved.

Picture sharpness enhancement

Skin tone Detail
The Skin tone Detail functions allow a flesh-color based softening of the image to achieve a more youthful look for on-camera personalities. Two individual memories exist as well as a function to automatically detect the hue, saturation and luminance of the Skin tone to be affected. Furthermore, the Skin tone Detail level can be adjusted to follow the lens' zoom to avoid 'rubber faces' in wide angle shots while using the function.

Skin tone Detail OFF   Skin tone Detail ON (Simulated image)

High-chroma detail
The High-chroma detail adjustments allow precise control of the detail level in highly color-saturated portions of the picture such as the petals of a rose or a colorful fabric.

High-chroma detail OFF   High-chroma detail ON (Simulated image)

Auto Chroma

Auto Chroma automatically reduces over-saturated colors in the image caused by extremely bright and colorful objects such as emergency vehicle lights or stage lighting L.E.D's.
Also has the effect of 'legalizing' the color gamut of a particular preset masking setting.

Other Useful Production Camera Features

Prompter and floor monitor power
The SK-HD1300 camera system provides plenty of power to drive 2x 24inch LCD monitors with either Hybrid Fiber Cable or Digital Triax CCUs.

Floor Monitor Digital Video
The studio floor or talent monitor can be driven with SDI (digital) video for critical viewing by the talent.

Professional Audio connectors
Hitachi uses dependable XLR-professional type audio connectors for the 2 iIntercom headset and 2 MIC/LINE audio connections.

Focus Assist
Precise focus can be easily achieved by the camera operator with the aid of the Hitachi viewfinder focus assist functions. They consist of a linear bar graph on the bottom of the VF raster and detail level control just for the VF video.

Gray-Scale automatic setup
Hitachi's Gray-scale auto-setup accurately adjusts the video parameters of the camera by using an external known reference, under actual lighting conditions, compensating for the lens in use. Color matching can easily be accomplished by employing this unique function.

ACCESSORIES

Flexible Choice of Camera Control Units

Optical Fiber System

The SK-HD1300 camera system can employ 3 different model control units to suit your budget for Studio and Field production.
The CU-HD1200, CU-HD1000-S8 and CU-HD500 optical fiber CCUs (camera control units) can be used worldwide due to their 50/60Hz switchable universal power supplies. They furthermore comply with RoHS/WEEE directives*.

*RoHS is abbreviation "Restriction of Hazardous Substances" in electrical and electronic equipment". It is a European Directive aiming to restrict the use of certain hazardous substances in the production commonly used in electrical and electronic equipment (EEE).

The CU-HD1200 has 3G transmission in progressive scan signal formats. Creative productions can be achieved with the provision of 23.98/pSf and 30p/pSf signal formats.

The CU-HD500 is 88mm high and, of 2-RU EIA 19-inch rack width, weighing 9kg. (approx.).

All CCUs employ the same control panels, data cables, accessories and peripherals.

CCU Features and Benefits

■ Front panel Optical Power meter.
■ Simultaneous HD-SDI and SD-SDI outputs with 2 channel embedded digital audio.
■ Analog RGB or Y, B-Y, R-Y component outputs. (CU-HD1000-S8)
■ 4 auxiliary returns. (CU-HD1200 and CU-HD1000-S8)
■ Dedicated teleprompter channel and AC power.
■ ARIB-type color bar output.
■ 2 channel balanced analog Mic audio outputs.
■ Genlock with composite or tri-level sync.
■ 2-tally (Red/Green) system.
■ 2-channel, 2W/4W intercom system.
■ RS-232C remote control.
■ TCP/IP Network connectivity via RJ45. (CU-HD1200, CU-HD1000-S8, CU/TU-HD1000, SU-1000 and RU-1500JY)

CU-HD1200

CU-HD1200 Front Panel

CU-HD1200 Rear Panel

CU-HD1200 and CU-HD500 now work with either Hybrid fiber cable or Single mode fiber cable. These cable types are selected on CCU menu.
Single mode fiber Up to 10km(CU-HD1200) and 6km(CU-HD500).

CU-HD500

CU-HD500 Front Panel

CU-HD500 Rear Panel

CU-HD1000-S8

Unique Optical Power Meter

CU-HD1000-S8 Front Panel   CU-HD1000-S8 Rear Panel

Remote Control Units and Setup Control Unit

■ The RU-1000VR is a compact remote operation panel designed for easy operation of standard camera functions. Iris and master black adjustments employ "VRtype" rotary knob controls and commonly used controls and functions are directly and instantaneously accessible to the video control engineer.

■ The RU-1500JY is a high performance touchscreen remote operation panel designed for ease of use. Easily adjustable using the 3.5" LCD touchscreen panel and rotary encoders, plus custom switches to further support the professional user in designing a personal workflow. The RU-1500JY provides an integrated SD card slot for transferring user setup and Scene File information, and Ethernet connectivity for control over an IP network.

The SU-1000 Setup Control Unit is used for the adjustment of camera parameters in a multi-camera production environment.
This unit provides full control of the SK-HD1300 camera systems.
Utilizing a new wide touch screen LCD panel that expands control functions. It is connected directly to each CCU in parallel fashion via serial data cable with a distance of up to 100 meters. 12 cameras

RU-1500JY

SU-1000

RU-1000VR

can be directly controlled from the SU-1000. Camera control can be extended from 12 cameras up to 48 cameras (option) or 128 cameras in ethernet operation.

SA-1000 Studio Adaptor

With consideration to our customers and advancements in production workflows that require hand-held cameras to be used with large lenses in studio or field HD productions, Hitachi offers the SA-1000 studio Adaptor for the SK-HD1300.
The SA-1000 serves primarily as a mechanical lens supporter and it also offers these important features.
■ The ability to use "Hanger-type" box lenses and "Bayonet-type" hand-held portable lenses without removing the camera from the SA-1000.
■ Functions routinely required by the cameraperson in Studio and Field production are brought out from the camera menu system and grouped in the SA-1000's rear operation panel for easy access.

Hitachi's efforts at providing an advanced level of studio camera features with this Studio Adaptor include a "Cable-less" and "tool-less" camera interface which increases the systems' reliability and Hitachi retains the flexibility of having 2 choices for viewfinders when using the SK-HD1300 in this configuration.

Studio and Field Production Viewfinders

The SK-HD1300 camera system offers four choices for Studio or Field production viewfinders. Model VF-L90HD is a color 9-inch TFT-LCD screen and Model HDF-700H is a color 7-inch TFT-LCD screen which are designed for critical color viewing of the image.

TFT-LCD screens are most suitable where precise composition and color evaluation of the image are required. The HDF-EL800H is a color 7-inch OLED screen. The VF-HD500 model is a monochrome 5-inch CRT-type unit. View Finder with OLED or CRT is more suited for Sports and OB applications where high-brightness and contrast are required. Both our Studio and Field production viewfinders can be outfitted with alternate mounts thereby decreasing the overall system cost.

New OLED

VF-L90HD Viewfinder /AT-951   HDF-700H Viewfinder /AT-750   HDF-EL800H Viewfinder /AT-951   VF-HD500 Viewfinder /AT-550

System configuration chart

Microphone SGM-PII
Microphone holder MH-1000
Microphone SGM-PDII
Microphone holder MH-402
2-inch viewfinder VF-402
Portable Zoom Lens
Camera head SK-HD1300
Tripod adaptor TA-Z3
Lens Mouter LM-B1000
Buildup adaptor BU-1000
LARGE BOX Lens
Studio adaptor SA-1000
AT-S951 w/OLED adaptor

9-inch Viewfinder VF-L90HD
Viewfinder adaptor AT-951
Viewfinder adaptor AT-90
Viewfinder hood HO-1900-R1
7-inch Viewfinder HDF-700H
Viewfinder adaptor AT-750
Viewfinder adaptor AT-90
5-inch Viewfinder VF-HD500
Viewfinder adaptor AT-550
Viewfinder adaptor AT-500
7-inch OLED-VF HDF-EL800H

Camera adaptor CA-HF1200
Camera adaptor CA-HF1000
1080p multifomat Fiber cable
1080i Fiber cable
1080i Triax cable
Triax adaptor CX-HD1000
Camera control unit CU-HD1200
Camera control unit CU-HD1000-S8
Camera control unit CU-HD500
Triax Base Station Unit TU-HD1000
Remote control cable
Remote control units RU-1000VR/RU-1500JY
Setup control Unit SU-1000
RJ45
Network Switch or Hub

	Dust Cover	Rain Cover
Portable	—	RC-1200
Portable w/ Tripod	DC-1900	RC-1900
Studio Adaptor	DC-1900S	RC-1900S

SPECIFICATIONS

SK-HD1300
Progressive Image Capture

Progressive Capture Camera Head

Camera Head SK-HD1300 / SK-HD1300E

Model Name	SK-HD1300	SK-HD1300E
Imaging Device	2/3-inch, MOS image sensor	
	Total pixels : 2,270(H) × 1,144(V) 2.6 million pixels	
TV System	1,920(H)×1,080(V) / 59.94i/p	1,920(H) × 1,080(V) / 50i/p
Optical system	F1.4 prism	
Optical Filters	1x motorized filter wheel w/4 filter positions	
	Clear, Cross, 1/16ND, 1/64ND	
	ECC (Electronic Color Correction) with 5 settings (3200K, 4300K, 5600K, 6300K, 8000K)	
Sensitivity	F10 @ 2000 lx (3200 K, 89.9% reflectance)	F11 @ 2000 lx (3200 K, 89.9% reflectance)
Signal to Noise Ratio	62dB (1080i) (typical)	
Resolution	Horizontall : 1100TVL , Vertical : 1000TVL	
Registration	0.01 % (excluding lens characteristics)	
Lens mount	B4 bayonet-type	
Gain selection	L (low) -3, 0dB	
	M (medium) 0, +3, +6, +9, +12, +15, +18, +21dB	
	H (high) +3, +6, +9, +12, +15, +18, +21, +24dB	
Electronic Shutter	1/100, 1/250, 1/500, 1/1000, 1/2000, AES	1/60, 1/250, 1/500, 1/1000, 1/2000, AES
Power consumption	Camera head 18 W Head only (without VF)	
Dimensions	133 (W) x 191 (H) x 262 (D) mm	
Mass	2.1kg, 4.6lbs. Camera head	
Operating temperature	-10°C to +45°C, 14°F to 113°F	
Input & Output	1x BNC HD-SDI VF out (Character ON/OFF) or HD-SDI RET out	
	4-pin Multi connector for remote control panel	
	20-pin Multi VF connector, 12-pin Multi LENS connector	
	3-pin XLR MIC-1 connector, SD Memory Card Slot	

SK-HD1300-S2/SK-HD1300E-S2

Optical Filters : 2x motorized filter wheel with 5 filter positions
ND CAP, 1 : Clear, 2 : 1/4ND, 3 : 1/16ND, 4 : 1/64ND
CC A : CROSS, B : 3200K, C : 4300K, D : 6300K, E : 8000K

1080p Multi-format system

Fiber Camera Adaptor CA-HF1200

CCU connector	1x-type HFOC female connector (LEMO) SMPTE-304M-type
Intercom	2x channel, each XLR 5-pin, channel selection, MIC on/off, volume
Program audio	2x, PGM audio level controls w/ Chnl1 & Chnl2 intercom mix
Teleprompter power output	1x 5-pin, AC230V, 100VA, external prompter R/G Tally drive out (depending on configuration accessories)
Microphones	Channel 1 & 2 Line or MIC level select (MENU), with phantom power on/off
Return/ Aux switcher	4-input remote AUX/VF video select connector (RET control)
Video Inputs & Outputs	1x 3G HD-SDI OUT, 1X SD analog teleprompter out shared with Genlock in, 1x HD-SDI RET OUT
Other I/O	1x 29-pin (for SA-1000 cable-less interface) (female)
	1x 5-pin script lamp DC12V (1.0A max) (female)
	1x 6-pin VF AUX return (female) (for use in cranes or extended Head/VF configurations)
	1x R05-R8F 8-pin TRUNK RS-422 or RS-232C (option) (female)
	1x XLR 4-pin, DC12V power input (male)
Dimensions	133 (W) x 189 (H) x 194 (D) mm
Mass	2.2kg, 4.8lbs.
Operating temperature	-10°C to +45°C, 14°F to 113°F

Camera Control Unit CU-HD1200U (59.94Hz) / CU-HD1200E (50Hz)

Genlock	1x BNC, B-BST 0.45Vp-p/75Ω (loop through)	
	HDTV tri-level sync 0.60Vp-p/75Ω (loop through)	
Digital Return A (1/2/3/4) B (1/2)	6x BNC, HD SDI : 3G/1.5G switchable or SD SDI	
Prompt	1x BNC, VS or VBS 1.0Vp-p/75Ω (loop through)	
Intercom (Headset)	IN : 1x XLR, 5-pin, -60dBm (male)	
	OUT : 1x XLR, 5-pin, 0dBu Max +15dB (female)	
Communication	1x D-sub 25-pin (female)	
Intercom	0dBm, 600Ω/ 4Wire	
PGM	0dBu or -15dBu, 200Ω at 2Wire 0dBm/ 600Ω	
R/G TALLY	DC or contact supply	
Digital Out	8x BNC HD-SDI (3G/1.5G or Dual Link switchable) (Embedded 2-Chnl audio available)	
	4x BNC HD-SDI or SD-SDI selectable (HD-SDI：3G/1.5G switchable) (Embedded 2-Chnl audio available)	
	1x BNC HD-SDI or SD-SDI selectable WFM (HD-SDI：3G/1.5G switchable)	
	1x BNC HD-SDI or SD-SDI selectable PIX (HD-SDI：3G/1.5G switchable)	
MIC OUT 1/ MIC OUT 2	1x XLR, 3-pin, 0dBm/ 600Ω (male)	
Remote 1/ Remote 2	1x 4-pin, 1.5Vp-p (female)	
Remote 3	1x RJ-45	
TALLY OUT	1x D-sub 9-pin (female)	
R/G Tally	Contact or Voltage selectable	
WFM control	1x D-sub 15-pin WFM 0-7, 0/5V (female)	
MIC REMOTE	1x D-sub 15-pin MIC 1.2GAIN (female)	
TRUNK	1x D-sub 9-pin TRUNK RS-422 or RS-232C (option) (male)	
Power supply voltage	CU-HD1200U AC117V / CU-HD1200E 230V	
HFOC maximum cable distance	4,000m (13,200 feet) with no utility power*	
Operating temperature	0°C to 40°C, 32°F to 104°F	
Mass	10kg, 22lbs.	
Power consumption	300W approx. (AC operation, including SK-HD1200, VF-402 and AUX POWER OUT 100VA)	

* 10km (with common Single-mode fiber cable (X2).)

### DIMENSIONS (SK-HD1300 with CA-HF1200 / CA-HF1000)

1080i system

Camera Control Unit CU-HD1000U-S8 (59.94Hz) / CU-HD1000E-S8 (50Hz)

Genlock	1x BNC, B-BST 0.45Vp-p/75Ω (loop through) HDTV tri-level sync 0.60Vp-p/75Ω (loop through)
Digital Return 1/2/3/4	4x BNC, HD SDI or SD SDI
Analog Return 1/Prompt	1x BNC, VS or VBS 1.0Vp-p/75Ω (loop through)
Intercom (Headset)	5-pin XLR, -60dBm
Communication	1x D-sub 25-pin,Incom,Tally
Intercom	0dBm / 600Ω at 4Wire,0dbu or -15dbu/200Ω at 2Wire
PGM	0dBm / 600Ω
R/G TALLY	DC or contact supply
Output signals	3x BNC, VBS 1.0Vp-p/75Ω
ENCR	1x BNC, NTSC : 0.7Vp-p, PAL : 0.525Vp-p/ 75Ω
R-Y or R / B-Y or B	VS 1.0Vp-p/ 75Ω (Selectable) 1x BNC, VS 1.0Vp-p/ 75Ω
Y or G	1x BNC, VS 1.0Vp-p/ 75Ω (Selectable) 3x BNC, HD-SDI (Embedded audio available)
Digital Out	3x BNC, HD-SDI or SD-SDI selectable (Embedded audio available) HD-SDI or SD-SDI selectable PIX (Embedded audio available)
PIX (R,G,B,ENCR)	1x BNC, VS or VBS 1.0Vp-p/ 75Ω
WFM OUT (R,G,B,ENCR)	1x BNC, VS or VBS 1.0Vp-p/ 75Ω
MIC OUT 1/ MIC OUT 2	1x XLR, 3-pin, 0dBm/ 600Ω
Intercom (headset)	1x XLR, 5-pin, 0dBu Max +15dB
Remote 1	1x 4-pin, 1.5Vp-p or 1x D-sub, 9-pin RS-232C (Switchable)
Remote 2	1x 4-pin, 1.5Vp-p
TALLY OUT	1x D-sub 9-pin
R/G Tally	Contact or Voltage selectable
WFM control	1x D-sub 15-pin WFM 0-7, 0/5V,
Power supply voltage	CU-HD1000U AC117V / CU-HD1000E 230V
HFOC maximum cable distance	3,000m (13,200 feet) with no utility power*
Operating temperature	0°C to 40°C, 32°F to 104°F
Mass	8.5kg, 19.1lbs.
Power consumption	210W approx. (AC operation, including SK-HD1000, VF-402 and AUX POWER OUT 100VA)

Camera Control Unit CU-HD500U (59.94Hz) /CU-HD500E (50Hz)

Genlock	1x BNC, B-BST 0.45Vp-p/75Ω (loop through) HDTV tri-level sync 0.60Vp-p/75Ω (loop through)
Digital Return 1/2	1x BNC, HD SDI or SD SDI
Prompt	1x BNC, VS or VBS 1.0Vp-p/75Ω (loop through)
Intercom (Headset)	5-pin XLR, -60dBm
Communication	1xD-sub 25-pin,Incom,Tally
Intercom	0dBm / 600Ω at 4Wire, 0dbu or -15dbu / 200Ω at 2Wire
PGM	0dBm / 600Ω
R/G TALLY	Contact or DC supply
Digital Out	2x BNC, HD-SDI (Embedded audio available) 4x BNC, HD-SDI or SD-SDI selectable (Embedded audio available) HD-SDI or SD-SDI selectable PIX (Embedded audio available)
MIC OUT 1/ MIC OUT 2	1x XLR, 3-pin, 0dBm/ 600Ω
Intercom (headset)	1x XLR, 5-pin, 0dBu Max +15dB
Remote 1/ Remote 2	1x 4-pin, 1.5Vp-p
MIC REMOTE	1x D-sub 15-pin MIC1.2 GAIN
TALLY OUT	1x D-sub 9-pin
R/G Tally	Contact or Voltage selectable
WFM control	1x D-sub 15-pin WFM 0-7, 0/5V
Power supply voltage	CU-HD500U AC117V / CU-HD500E 230V
HFOC maximum cable distance	3,000m (13,200 feet) with no utility power*
Operating temperature	0°C to 40°C, 32°F to 104°F
Mass	9kg, 19.8lbs
Power consumption	300W approx. (AC operation, including SK-HD1000, VF-402 and AUX POWER OUT 100VA)

* 6km (with normal single fiber)
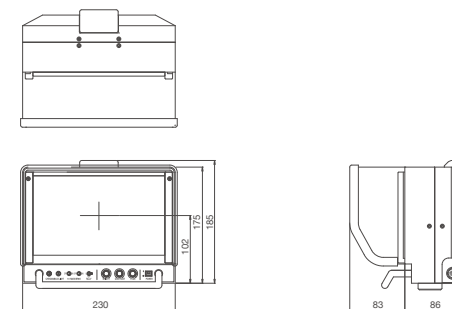
Fiber Camera Adaptor CA-HF1000 / CA-HF1000E

CCU connector	1x-type HFOC female connector (LEMO/Tajimi Type) SMPTE-304M-type
Video transmission system	Fully digital, bi-directional, 10-bit, 4 : 2 : 2 sampling, SMPTE-274M
Intercom	2x channel, 5-pin each XLR, channel selection, MIC on/off, volume
Program audio	2x, PGM audio level controls w/ Chnl1 & Chnl2 intercom mix
Teleprompter power output	1x 5-pin, 230VAC, 60W to 100W, external prompter Tally drive out (depending on configuration accessories)
Microphones	Chnl1 & 2 Line or MIC level select (MENU), with phantom power on/off
Return/ Aux switcher	2-channel, 4-input remote AUX/VF video select connector (RET control)
Video Inputs & Outputs	2x HD-SDI out, 1x SD analog teleprompter out shared with Genlock in
Other I/O	1x 5-pin script lamp +12VDC (1.0A max)
	1x 6-pin VF AUX return (for use in cranes or extended Head/VF configurations)
	1x 4-pin XLR, 12VDC, power input
Mass	2.2kg, 4.8lbs.

View Finder

2-inch Viewfinder VF-402 (59.94Hz) / VF-402E (50Hz)

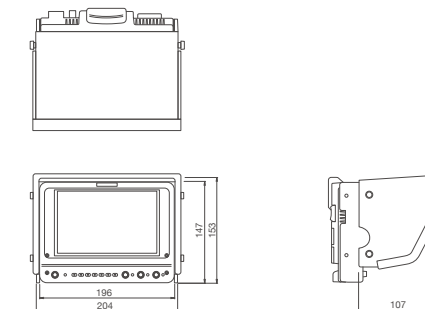|	
Construction	Metal Die-cast chassis & mount 2-inch BW 16:9 CRT Diopter (CRT Focus Ring) VF angle rotation X-Y mechanical movement
Resolution	650 TV lines
Functions	BRIGHT, CONTRAST, PEAKING knob VR (front facing)
Internal tally	Red/Green
Tally switch	Tally switch OFF, NORMAL, HIGH

7-inch Viewfinder HDF-700H

Picture Resolution	800 (H) x 480 (V)
Input Signals	Analog Y/Pb/Pr
Internal tally	Red/Green
Dimensions	195 (W) x 153 (H) x 50 (D)mm
Mass	1.0kg, 2.2lbs approx.

9-inch viewfinder VF-L90HD

Construction	1080i/720p field frequency 59.94/50Hz
Number of pixels	1280(H) x 768(V) normal scan (16:9)
Color temperature	6500K
Input Signals	Analog Y/Pb/Pr/SYNC
Functions	BRIGHT, CONTRAST, PEAKING knob VR power on/off, tally on/off, Marker on/off, (center marker, 4 : 3 marker, area marker)
Internal tally	Red/Green
Dimensions	230(W) x 185(H) x 86(D)
Mass	1.6kg, 3.5lbs
Attachment (Option)	AT-951(mass : 1.6kg, 3.5lbs AT-90 (mass : 0.7kg, 1.54lbs)

DIMENSIONS   VF-L90HD LCD Color Studio Viewfinder

DIMENSIONS   HDF-700H LCD Color Studio Viewfinder