

Ikegami

Unicam HD

The Latest Technology
Full Digital HDTV Portable CMOS Camera System

HDK-65C



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HDK-65C



Next generation 2.5 Mega pixel high performance CMOS sensors

The camera employs 2.5 Mega pixel 2/3-inch CMOS image sensors, achieving superior quality HDTV video with horizontal resolution of 1000TVL, SNR of 60dB and sensitivity of F11.

Native Multi-format

The CMOS sensors support native progressive and native interlace readout modes of operation. The camera supports 1080i/59.94 or 720p/59.94 as standard. Both formats (switchable format camera) are available as an option. Additional optional formats include 1080p/29.97SF and 50 Hz formats.

Camera Operator Assist Functions

The HDK-65C camera head incorporates a camera operator assist function to aid the operator finding correct focus. The viewfinder detail (VF DTL) function allows the camera operator to increase the detail edges to the viewfinder video for easy focusing.

Docking style camera body

With a docking style camera body, either an FA (Fiber Adaptor) or TA (Triax Adaptor) can be mounted depending on the use. Lower profile and lower weight improve the maneuverability for shoulder use.

FA(Fiber Adaptor) or TA(Triax Adaptor)



Prompter Video Channel

A QTV output (VBS) is available for prompter purposes. RET video out (HD SDI) is available for talent monitor purposes. Utility power output is also available, eliminating the need for additional cables on the studio floor.

Newly developed FPGA DSP

High density 45nm rule FPGA are employed for the digital video processing for superb picture quality. The DSP includes custom and cine gamma curves.

Digital Extender

There is the selection of 1.5X, 2X, 3X, 4X digital extender available to enlarge the image at the center of the shot without any loss in image sensitivity.

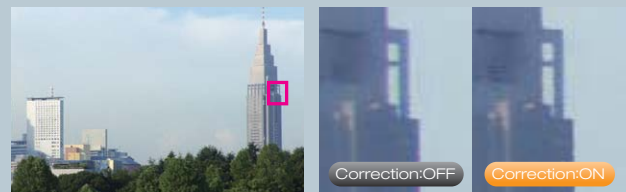
Two HD-SDI outputs from the camera head

Two HD-SDI output signals (1.5G) are selectable between Camera, VF, RET and MON (monitor) for external monitoring at the camera head.

Fully compatible with previous CCUs (such as CCU-890M) and current CCUs and Base Stations

Lens Aberration Correction Function

The Lens Aberration Correction function is newly incorporated for minimizing the blur and colored edges caused mainly by lens chromatic aberration.



Camera Operator Assist Functions

There are two types of camera operator assist functions incorporated in the HDK-65C camera head. The viewfinder detail (VF DTL) function allows the camera operator to increase the detail edges to the viewfinder video for easy-focusing. In addition, the Quick EZ Focus (Focus Assist) function is a newly incorporated useful tool, providing very distinct enhancement to the viewfinder signal to enable the camera operator to make critical focus adjustment.



Affordable Camera Systems

FA-55 / BSF-55 SMPTE Fiber System

The FA-55 / BSF-55 are the fiber adaptor and base station which are ideal for the HDK-65C operating in 1080i or 720p formats. The BSF-55 is newly designed in a compact size of 1.5RU height with 19-inch rack mount width, transmitting uncompressed high quality pictures with use of an optical fiber connection between HDK camera and base station. Both HDTV and SDTV formats are supported simultaneously in both digital and analog form with a wide range of built-in interfaces. The BSF-55 also features embedded audio in the SDI output signals.



DTA-55 / BST-55 Digital Triax System

The DTA-55 / BST-55 is a triax transmission system, using Ikegami's original super low latency digital transmission to minimize degradation and deliver the full resolution and SNR of the camera head to the base station regardless of the triax cable distance. This new transmission system allows customers to transition from SD to HD while still using their existing triax camera cable infrastructure, saving cost and continuing to use a rugged easy to repair cable/connector type.



State-of Art System Accessories, Expanding HDTV

CA-75HD Stand-alone Operation System

The CA-75HD is a camera adaptor for Unicam series HD camera. Attaching this adaptor to Unicam series HD cameras makes stand-alone operation possible, such as wireless transmission or ENG-style with portable video recorders.



Variety of viewfinders

For the HDK-65C, a 2-inch 16:9 high definition LCD color viewfinder for portable application is available. In addition, a 7.4-inch OLED and a 9-inch LCD color studio viewfinders are available as options.



SE-H750 System Expander

The SE-H750 System Expander enables the use of the 9-inch viewfinder and full studio lenses with the HDK-65C, converting the portable camera into a full facility studio camera. Installation of the camera into the SE-H750 is very easy, and conversion back to portable configuration is quick for maximum operating flexibility.



VFE740HD 7.4-inch OLED Color Viewfinder

The VFE740HD is an OLED Color Viewfinder, employing a 7.4-inch QHD OLED panel, achieving high resolution, high brightness, high contrast and wide viewing angle. Its true color reproduction and high quality gradation provide optimum monitoring in the full range of uses. Especially its fast response achieves superb fast motion images for shooting sports, etc.



Sophisticated Camera Control Panel System

Three different control architectures are supported by the new OCP-300 Operation Control Panel and BSH-300 Ethernet/ICCP command converter, each with a wide range of camera control capability. The OCP-300 supports not only Ikegami's conventional one-by-one ICCP control and Arcnet based control systems, but also an Ethernet based control system, allowing customers the flexibility to choose the camera control system based on their needs. The OCP-300 includes a touch screen LCD with rotary encoders, and SD Memory Card slot for full camera setup and filing capability. The depth-of-control feature allows the OCP-300 control to be selected from basic to complete to fit the customer's operating discipline. The OCP-300 also supports PoE, Powering over Ethernet, so separate power supplies are not necessary. The BSH-300 is used for converting command between Ethernet and ICCP, allowing previous control panels such as the OCP-200 and MCP-200, to be integrated into the Ethernet network system.

There are three types of BSH-300, Type-A, Type-B and Type-C, each with a different type and number of connectors.

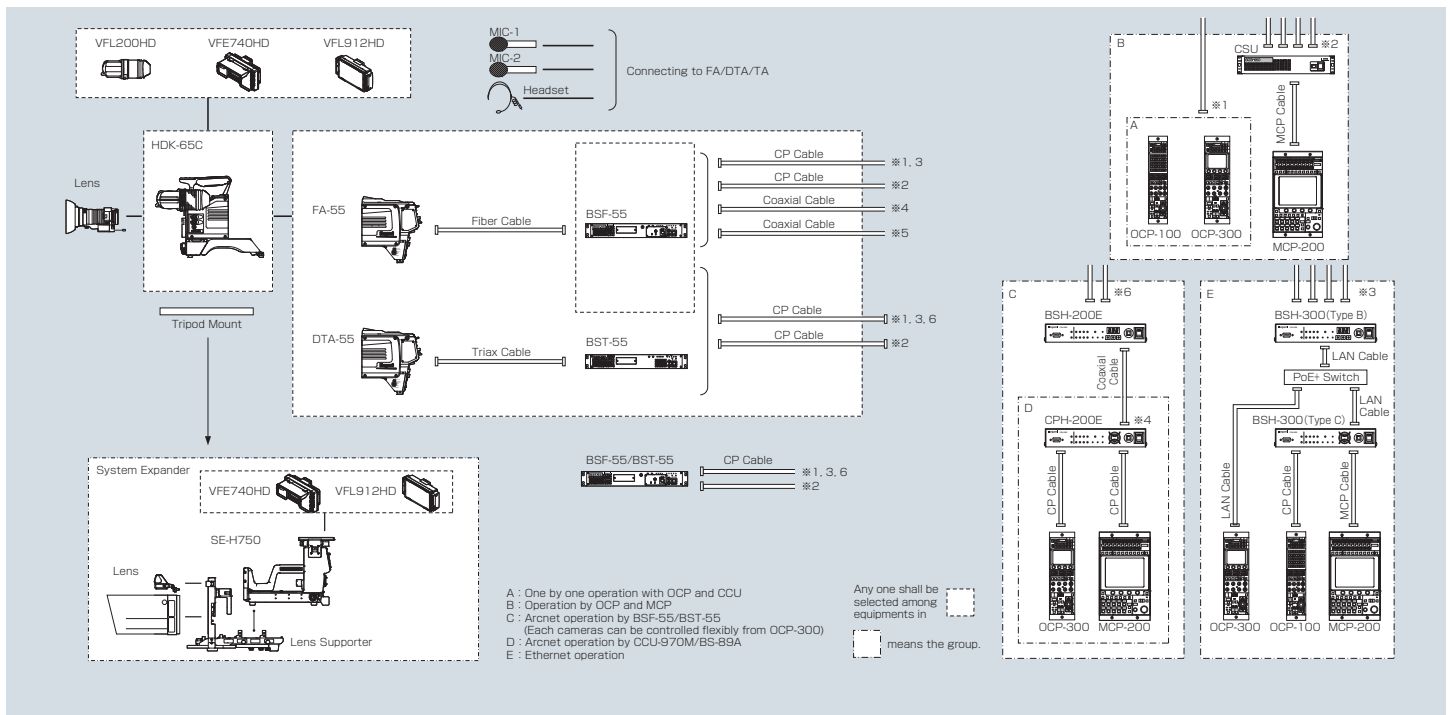


OCP-300



BSH-300

SYSTEM CONFIGURATION FOR HDK-65C



Rating

HDK-65C

Supporting Formats	1080i (59.94Hz or 50Hz) Y,Pb,Pr 4:2:2 Interlaced (50Hz option) 720p (59.94Hz or 50Hz) Y,Pb,Pr 4:2:2 Progressive (1format standard, 2nd option) 1080p (29.97Hz and 25Hz) Y,Pb,Pr 4:2:2 Progressive					
Image Sensors	2/3-inch 2.5 million pixel CMOS Sensors					
Optical System	2/3-inch, R,G,B, F1.4					
Lens Mount	BTA- S1005B					
Filter		1	2	3	4	5
	ND	CAP	100%	25%	6.2%	1.6%
		A	B	C	D	E
	CC	CROSS	3200K	4300K	6300K	8000K
Sensitivity	F11(typical) at 2000lx (in 1080i/59.94)					
S/N	60dB or more (in 1080i/59.94)					
Limiting Resolution	1000TV lines (in 1080i/59.94)					
Modulation Depth	55% at 800TV lines (in 1080i/59.94)					
Variable Color Temperature	2,000K~20,000K variable					
Electric Shutter	1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000					
Detail Correction	Vertical: 5 lines Horizontal : Boost frequency : 13MHz~22MHz (HDTV)					
Gamma	OFF, 0.35, 0.4, 0.45					
Gain	-6dB, -3dB, 0dB, +3dB, +6dB, +9dB, +12dB					
Ambient Temperature	-20°C ~ +45°C (-4°F ~ 113°F)					
Relative Humidity	30% ~ 90% (Non-condensing)					
Operating Voltage	DC+11 to DC+16V					
Weight	Approx. 4.6kg (10.1lbs) (Head + FA or TA, excluding VF)					
Dimensions	W138.5 x H270 x D337mm (Head + FA or TA, excluding VF) (W5.5 x H10.62 x D13.25 inches)					
Input Signals						
External Sync Signal	SYNC 0.6Vp-p ±6dB 75ohm BNC CN 1ch (BB/PS Signal) * DTA-55 does not have external sync signal input in self-contained operation.					
Audio Signal	-60dB ~ +4dB (Variable) / -20dB (Fixed) XLR CN 2ch (600 ohm Balanced)					
Intercom Signal	XLR Type or 110Type CN 2ch					

Output Signals	
Analog Video Signal	R, G, B D-Sub CN 1ch (for System Expander)
HD SDI Signal with FA-55	Serial Digital 75ohm BNC 1ch
HD SDI Signal with DTA-55	Serial Digital 75ohm BNC 1ch * The output signal should be fixed with main video signal in self-contained operation, and set to RET signal in cable operation. * The audio signal is not embedded.
Q-TV Signal	FA-55: VBS signal, BNC type 1ch DTA-55: SD-SDI signal, BNC type 1ch
MON Video Signal	VF / RET / MON (MENU Selection) Serial Digital 75ohm BNC 1ch
Intercom Signal	0 dBs 4ch (ENG/PROD/PGM1/PGM2) XLR Type or 110Type CN
DC Output	+12VDC 500mA (max), 4-pin type 1ch * Option for DTA-55

BSF-55 / BST-55

Input Signals	
External Sync Signal	HDTV: PS 1Vp-p 75ohm bridged or Tri-sync signal 0.6Vp-p ± 6dB 75ohm bridged connection SDTV: VBS 1Vp-p 75ohm bridged connection or BBS 75ohm bridged connection
Return Video Signal	HD/SD-SDI: 75ohm single end, 2ch (HD/SD-SDI Selectable) VBS: 75ohm single end, 2ch
Q-TV Signal	BSF-55: VBS 75ohm single end, 1ch BST-55: SD-SDI 75ohm single end, 1ch
Intercom(ENG/PROD)	4-wire or Clearcom or RTS
4-wire	0dBm 600ohm 2ch
Clearcom	-15dBs 200ohm 2ch
RTS	0dBs 200ohm 2ch
PGM(Program Sound)	0dBs 600ohm/10k ohm switchable 2ch
Tally	R/G 2ch

Output Signals	
HD-SDI/SD-SDI Signal	HD-SDI(SMPTE292M) /SD-SDI(SMPTE259M) 75ohm BNC type 2ch 4 outputs (HD-SDI/SD-SDI selectable)
VBS Signal	1.0Vp-p 75ohm BNC type 1ch 2 outputs
PM Signal	Serial Digital 75ohm, 1ch (HD-SDI/SD-SDI selectable) VBS 75ohm, 1ch
WFM Signal	Serial Digital 75ohm, 1ch (HD-SDI/SD-SDI selectable)
Phase Reference Signal	75ohm single end Analog 1ch HDTV: Tri-Sync(0.6Vp-p) / SDTV: HV(2Vp-p) (MENU selectable)
Intercom(ENG/PROD)	4-wire or Clearcom or RTS
4-wire	0dBm 600ohm 2ch
Clearcom	-15dBs 200ohm 2ch
RTS	0dBs 200ohm 2ch
MIC	0dBs/4-4dBs 2ch 2outputs Low impedance (MENU selectable)
Tally	R/G 2ch
Data Trunk	RS-422 1ch * In case of the BST-55, the data trunk channel is not supported as standard.
Dimensions	BSF-55/BST-55: W483 x H66.4 x D405 mm (19.00 x 2.63 x 16.00 inches) (excluding protrusions)
Weight	BSF-55: Approx. 7kg (15.43 lbs) BST-55: Approx. 8kg (17.64 lbs)
Ambient Temperature	0°C ~ +40°C (32°F ~ 104°F)
Relative Humidity	30% ~ 90% (Non-condensing)
Operating Voltage	AC100V to 120V / 200V to 240V ±10%
Power Consumption	BSF-55: Approx. 55VA (BS only) Power for camera head: less than 180VA BST-55: Approx. 80VA (BS only) Power for camera head: less than 180VA
Maximum Cable Distance	FA-55/BSF-55: 2000m with 9.2mmφ Fiber Cable DTA-55/BST-55: 800m with Fujikura 8.8mmφ Triax Cable

Design and specifications are subject to change without notice.



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