

Ikegami

Unicam HD

16-bit Full Digital HDTV
Portable Camera System

HDK-55



16-bit Full Digital HDTV Portable Camera System

HDK-55

The HDK-55 is a high performance full digital HDTV camera with superb picture quality and system versatility for studio and field production.

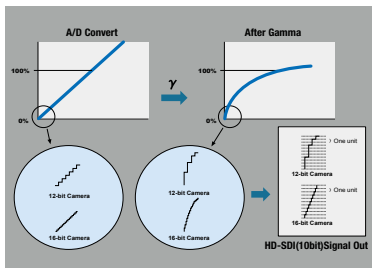


Newly developed FPGA with advanced full digital process ASIC

The HDK-55 incorporates a newly developed FPGA together with advanced full digital process ASIC to achieve outstanding picture performance.

Video processing technology to maximize the benefit of 16-bits

This camera is designed from the start based on 16-bit A/D and matching 16-bit DSP to maximize the benefits of high bit quantization. Especially for the dark areas of the picture, the higher gradation for gamma and other circuits improves the reproduction, providing for more natural color in the shadow areas of the picture.



2/3-inch 2.3 Mega pixel AIT CCDs

2/3-inch 2.3 Mega pixel AIT CCDs are employed to achieve 1000 TVL horizontal resolution with excellent signal to noise ratio of 60dB at F10 (1080/59.94i) or F11 (1080/50i) sensitivity.

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.

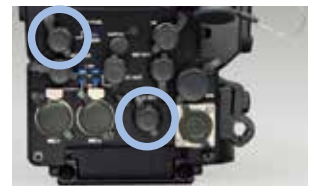
FA(Fiber Adaptor) or TA(Triax Adaptor)



2 Channels QTV

Two channels of QTV output (VBS) are available for prompter and external monitoring purposes. The AUX OUT (VBS) connector can be assigned to QTV-1, QTV-2, or Main video by menu.

Note:BS/CCU should support 2 channels of QTV

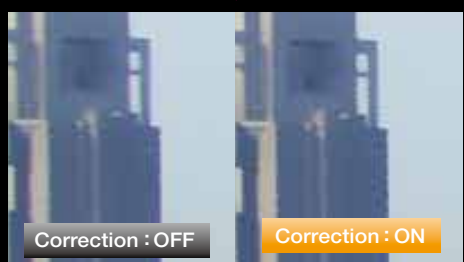


Sophisticated features made possible with digital technology

The Fine Detail (DTL) function makes the picture more realistic by compressing the detail edge component when shooting high contrast scenes. Highlight DTL and several other DTL functions are also available.

▶ 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-55 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 newly incorporated useful tool, providing very distinct enhancement to the viewfinder edge signal to enable the camera operator to make critical focus adjustment.



Focus Assist: OFF



Focus Assist: ON as shown with B/W edges

Unicam HD

Affordable Camera Systems

FA-55/BSF-55 Fiber Extension System

The FA-55 Fiber Adaptor and BSF-55 Base Station offer cost effective operation in 1080i formats, in combination with the HDK-55. The BSF-55 is designed in the compact size of 1.5RU height with 19-inch rack mount width, transmitting uncompressed high quality pictures with use of SMPTE fiber cable between 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 Extension 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

SE-H750 System Expander

The SE-H750 System Expander enables the use of the 9-inch viewfinder and full studio lenses with the HDK-55, 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.

Variety of Viewfinders

For the HDK-55, 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. 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.

CA-75HD Camera Adaptor for Unicam series HD camera

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.



Ratings

HDK-55

Supporting Formats	1080i (59.94Hz or 50Hz) Y,Pb,Pr 4:2:2 Interlaced					
Image Sensors	2/3-inch 2.3 million pixel AIT CCD					
Optical System	2/3-inch RGB prism, f1.4					
Lens Mount	BTA- S1005B					
Filter	Optical Filter (servo)	ND	1 100%	2 25%	3 6.2%	4 1.6%
	Electronic Color Compensation	ECC	A 3200K	B 4300K	C 6300K	D 8000K
Ambient Temperature	-20°C to +45°C (-4°F to 113°F)					
Relative Humidity	30% to 90% (Non-condensing)					
Operating Voltage	DC +11 to 16V					
Weight	approx. 4.5kg (9.92lbs) (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 inch)					
Sensitivity	F10 (1080/59.94i) / F11 (1080/50i) typical at 2000 lx (White reflection 89.9%)					
S/N	60dB typical (HDTV)					
Limiting Resolution	1000TV lines					
Variable Color Temperature	2,000K to 20,000K variable					
Electric Shutter	1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000					
Detail Correction Vertical Horizontal	5 lines Boost frequency: 13MHz to 22MHz (HDTV)					
Gamma	OFF, 0.35, 0.4, 0.45					
Gain	-6dB, -3dB, 0dB, +3dB, +6dB, +9dB, +12dB, +18dB					
Input Signals						
External Sync Signal	SYNC 0.6Vp-p ±6dB 75ohm 1ch * DTA-55 does not have external sync signal input in self-contained operation.					
Audio Signal	-60dB to +4dB (Variable) / -20dB (Fixed) 2ch (600 ohm Balanced)					
Intercom Signal	XLR Type or 110 Type CN 2ch					
Output Signals						
Analog Video Signal	R, G, B D-Sub CN 1ch (for System Expander)					
HD SDI Signal with FA-55 with DTA-55	Serial Digital 75 ohm 1ch Serial Digital 75 ohm 1ch * The output signal should be fixed with main video signal in self-contained operation and fixed to RET signal in triax operation.					
Q-TV Signal with FA-55 with DTA-55	VBS signal 1ch SD-SDI signal 1ch					
AUX OUT Signal	VBS signal 1ch (QTV-1, QTV-2, or Main video selectable by menu) * Available with FA-55 only. * QTV-2 can not be selected if BS/CCU does not support 2 channels of QTV.					
MON Video Signal	VF / RET / MON (MENU Selection) Serial Digital 75 ohm BNC 1ch					
Intercom Signal	0 dBs 4ch (ENG/PROD/PGM1/PGM2) XLR Type or 110 Type CN					
DC Output	+12VDC 500mA (max), 4-pin type 1ch *Option for DTA-55					

Ratings

BSF-55/BST-55

Input Signals	
External Sync Signal	1ch (HDTV/SDTV auto detect) 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 BST-55	VBS 75ohm single end 1ch SD-SDI 75ohm single end 1ch
Intercom(ENG/PROD)	4-wire or Clearcom or RTS
4-wire	0dBm 600 ohm 2ch
Clearcom	-15dBs 200 ohm 2ch
RTS	0dBs 200 ohm 2ch
PGM(Program Sound)	0dBs 600 ohm/10k ohm switchable 2ch
Tally	R/G 2ch
Output Signals	
[Main Video Signal] HD-SDI/SD-SDI Signal	HD-SDI(SMPTE292M) /SD-SDI(SMPTE259M) 75ohm 2ch 4 outputs (HD-SDI/SD-SDI selectable) VBS Signal 1.0Vp-p 75ohm 1ch 2 outputs
[PM Signal] HD-SDI/SD-SDI Signal SDTV Analog Signal	Serial Digital 75 ohm BNC 1ch 1 output (MENU Selection) 1.0Vp-p 75ohm BNC type 1ch 1 output
[WFM Signal] HD-SDI/SD-SDI Signal Phase Reference Signal	Serial Digital 75ohm 1ch (HD-SDI/SD-SDI selectable) 75 ohm single end Analog 1ch HDTV: Tri-Sync(0.6Vp-p) / SDTV: HV(2Vp-p) (MENU Selection)
Intercom(ENG/PROD)	4-wire or Clearcom or RTS
4-wire	0dBm 600 ohm 2ch
Clearcom	-15dBs 200 ohm 2ch
RTS	0dBs 200 ohm 2ch
MIC	0dBs/+4dBs 2 ch 2 outputs Low impedance (MENU Selection)
Tally	R/G 2ch, OPEN (OFF) / GND (ON) 50mA (max)
Data Trunk	RS-422 1ch * In case of the BST-55, the data trunk channel is not supported as standard.
Dimensions	W483 x H66.4 x D405 mm (W19.00 x W2.63 x D16.00 inch) (excluding protrusions)
Weight BSF-55 BST-55	approx. 7kg (15.43 lbs) approx. 8kg (17.64 lbs)
Ambient Temperature	0°C to +40°C (32°F to 104°F)
Relative Humidity	30% to 90% (Non-condensing)
Operating Voltage	AC100V to 120V / 200V to 240V ±10%
Power Consumption BSF-55 BST-55	approx. 55VA (BS only) Power for camera head: less than 180VA approx. 80VA (BS only) Power for camera head: less than 180VA
Maximum Cable Distance FA-55/BSF-55 DTA-55/BST-55	2000m with 9.2mmφ Fiber Cable 800m with Fujikura 8.8mmφ Triax Cable

Design and specifications are subject to change without notice.



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