

Ikegami

4K/HD PORTABLE
CAMERA SYSTEM

UHK-X700

Reach for Reality



UNICAM XE **4K**

REACH FOR REALITY

4K/HD PORTABLE
CAMERA SYSTEM

UHK-X700

The new UHK-X700 4K/HD Portable Camera System marks a significant leap forward in reaching for reality. A newly developed CMOS sensor combined with the latest digital signal processing technology from Ikegami brings even greater naturalness to the uncompromising 4K image quality of the UHK-X700.





EXPRESSION

Flawless Image, Unabridged Beauty

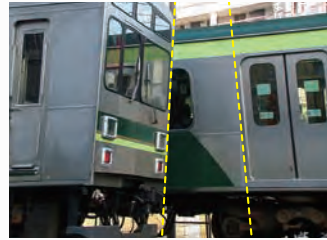
Photo by JRA



Natural Image Expression

A 3-CMOS optical system using a newly developed 2/3-inch CMOS sensor boasts an S/N of 62dB and a sensitivity of F11 (2160/50p)/F10 (2160/59.94p) in 4K. The high dynamic range of the sensor produces high-quality images with excellent color reproduction. The CMOS sensor incorporates a global shutter pixel architecture, enabling the camera to capture natural images even under challenging situations. Still frame replay of fast-moving objects is free from geometric distortion. And there are no flash bands when the camera is shooting under strobe lights or flashes from still cameras.

Rolling Shutter CMOS



Geometric Distortion

Global Shutter CMOS



No Rolling Shutter Artifacts with Global Shutter



Flash-Band



HDR and Wide Color Gamut

HDR is supported by the HLG (Hybrid Log Gamma) system as standard. Wide color gamut shooting conforms to ITU-R BT.2020, enabling natural and rich color expression. The camera is equipped with customizable preset gamma curves and preset matrices for BT.2020 and BT.709 color reproduction, enabling optimal adjustment of the camera image to match the requirement of the current production.



Standard Dynamic Range



High Dynamic Range

16-axis Color Corrector

This function independently adjusts the hue and saturation of specific colors. It permits subjective manipulation of one color without affecting the other colors in the scene.



Multi Standard

In addition to 4K 2160p, the UHK-X700 supports various HDTV video formats such as 1080p, 1080i, and 720p.

4K	3840×2160	59.94p, 50p
HD	1920×1080	59.94p, 50p
	1920×1080	59.94i, 50i, 29.97p, 25p, 24p, 23.98p
	1280×720	59.94p, 50p

FUNCTIONALITY

Pursuit of Functionality and Operability



High Frame Rate Capturing (Option)

With the HFR option, up to 2x speed in 4K and up to 8x speed in HD* is supported.

This is effective when shooting fast-moving subjects such as sports. When the camera head is used in stand-alone operation, high frame rate shooting at up to 4x speed is possible in HD.

* with BSX-100



4K Video Output Direct from the Camera Head

The integrated video process enables self-contained operation in 4K. With 4K 12G-SDI and 3G/HD-SDI output, the UHK-X700 can utilize a wide range of video devices as accessories to enhance its operational capabilities.

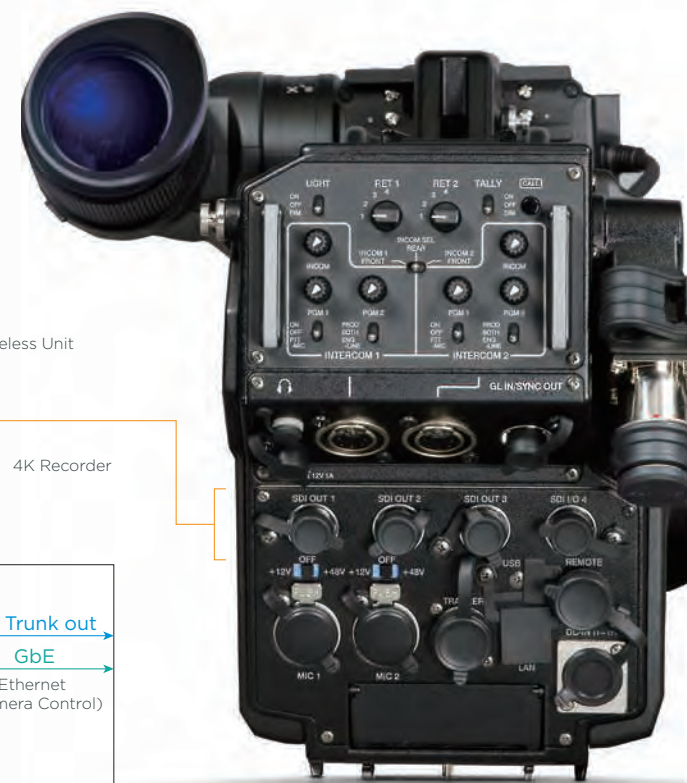
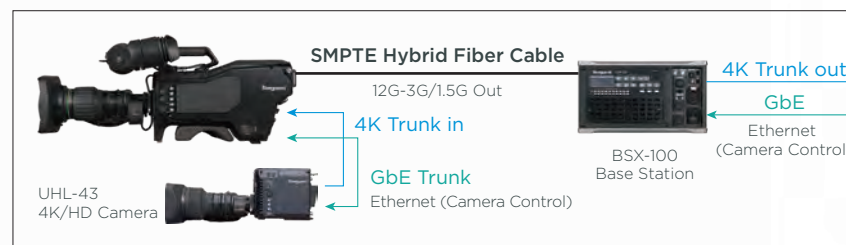
Example of System: Camera Head



4K 12G-SDI Video Trunk (Option)

Utilizing wide transmission bandwidth between the UHK-X700 and the BSX-100 base station, auxiliary 4K image transmission is available via a video trunk line beside a main 4K image. External 4K image sources from a POV or other camera which does not have a base station can be transmitted without additional cable installation.

* with BSX-100

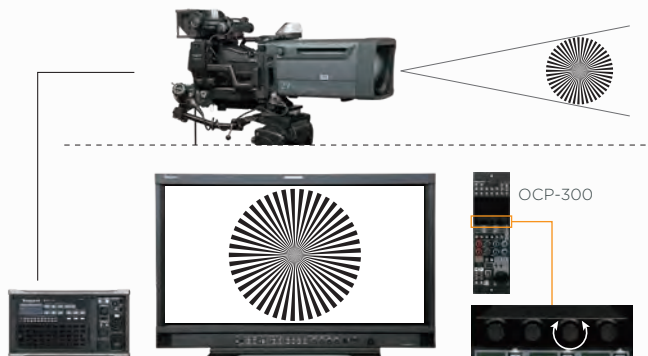




Remote Backfocus Adjustment

The OCP-300 can remotely adjust the backfocus of a zoom lens. The adjustment is accurate and easy with a large display for the video engineer, even when the camera head is located in an environment where it is hard to clearly see the VF or reach the backfocus on the lens.

* with supported lenses



Ergonomic Design

As the UHK-X700 is a portable camera, the weight distribution ratio has been totally refined from its predecessor model. A lower center of gravity and a well-balanced body help to reduce operator fatigue.



Wide adjustable range of shoulder pad



Shoulder pad is placed 30mm forward of the previous model



Improved field-of-view over the camera

ICCP•Ethernet

The system supports not only Ikegami's conventional one-by-one ICCP control, but also an Ethernet based control system, allowing customers to choose the camera control system based on their needs.

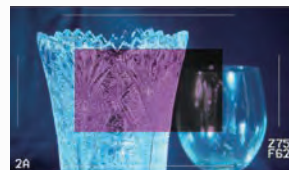
GbE Ethernet Trunk

An Ethernet data trunk line between the UHK-X700 and the base station supports the vast capacity of 1 Gbps. HFO cable can be used as a part of an installation of the IP infrastructure.

Various Viewfinder Functions

■ Focus Assist and other viewfinder functions

Contour extracted from the 4K image is displayed in the viewfinder to assist precise focusing. The size and color of the focusing area, and the color of the indicator can be optimized by menu settings.



■ Function Reminder (VFL201D)

Don't be afraid of the assignable function switches. A gentle touch to the control lever will remind the name of the assigned function on the VF screen.



■ Status Information on VF Screen:

- Markers
- Magnifying ratio of Digital-Extender
- Zoom and Focus Position
- Filter, AWB Memory, Etc.
- Optical Communication Status

BSX-100

4K / HD BASE STATION

The BSX-100 is a base station that enhances the functions, performance, and operational capabilities of the UHK-X700. It is compact and light weight, with 3U height and half-rack width. Supporting both 4K and HD formats, it is ideal for simulcast production and smooth transition from HD to 4K environments.



Front



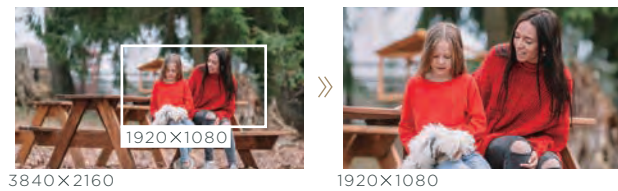
Rear

Compatible with 4K & HD Cameras (Option)

The BSX-100 can support both the UHK-X700 and "Unicam HD" HDTV camera models, HDK-99 and HDK-73 (4K/HD Multi type).

4K & HD Simulcast

The BSX-100 has a total of 11 outputs as standard, including 4K output via 12G-SDI and 3G-SDI/HD-SDI output. A 4K cutout function is available as an option giving users the ability to zero in on an area of interest within a fixed 4K image. Simultaneous output of the original 4K image and the cut-out HD image is possible.

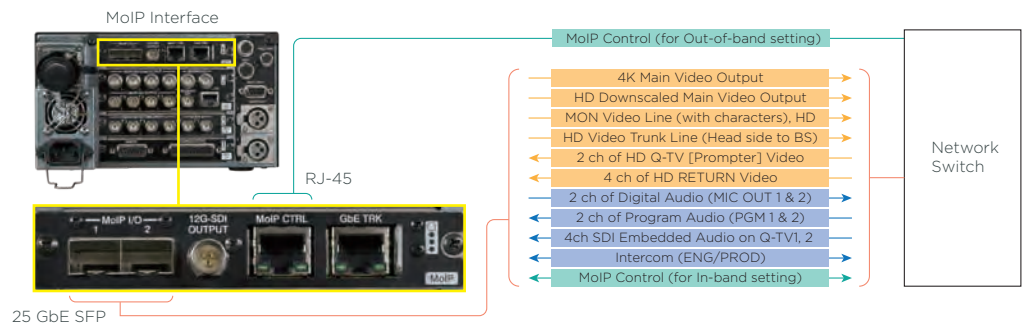


Single Fiber Mode Transmission

In Single Fiber mode, the UHK-X700 can extend up to 10 km (32,808 ft)

MoIP Interface (Option)

By replacing the standard 12G-SDI Output Module, an optional MoIP interface compliant with SMPTE ST2110 is supported. A dedicated Ethernet port compliant with JT-NM TR-1001 is provided for Out-of-band MoIP Control.

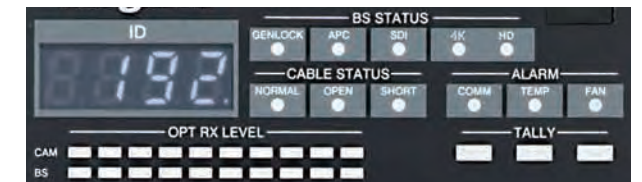


Compact and Light Weight

3U height and half-rack width.

Front Information Display

LED indicators can monitor the communication status between the camera head and the BS as well as the operational status. In the 7-segment LED display, the status of the device can be checked without entering the OSD menu, including system format, IP address (divided into octets), software version, and error information.



ACCESSORIES

SYSTEM DIAGRAM

Viewfinder



VFE741D
7.4-inch OLED Color Viewfinder



VFL701D
7-inch Full HD LCD Color Viewfinder



VFL201D
2-inch LCD Color Viewfinder

Control Panel



MCP-300
Master Control Panel



OCP-300
Operation Control Panel



VCP
Virtual Control Panel



VMP
Virtual Master Control Panel

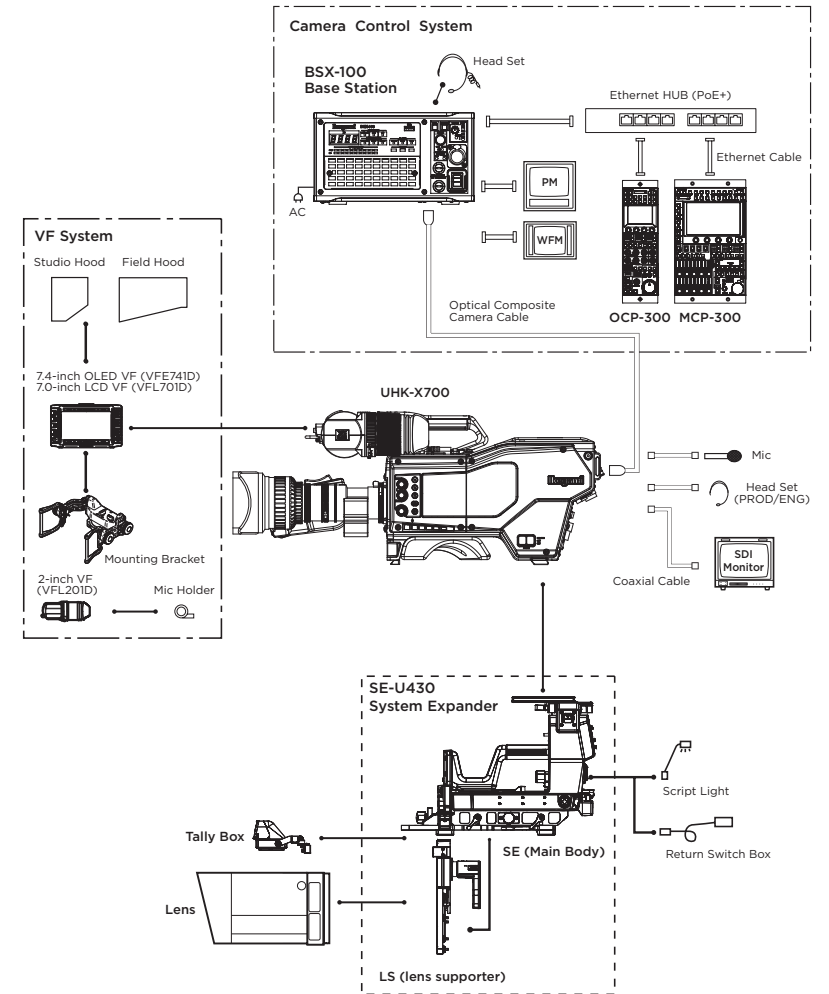
System Expander Tripod Plate



SE-U430
System Expander



T-430
Tripod Plate



Specifications

UHK-X700

Camera Head						
Image Sensor	2/3-inch CMOS Sensor with Global Shutter Architecture					
Optical System	2/3-inch 3-sensor, RGB Prism					
Lens Mount	B4					
Effective Resolution	3840 (H) x 2160 (V)					
Optical Filters (Servo Controlled)		1	2	3	4	5
	ND	CLR	1/4	1/8	1/16	1/64
CC	3200 K	4300 K	6300 K	Cross	Option	
S/N Ratio	4K:	62 dB or better				
	HD:	62 dB or better				
Limiting Resolution	4K:	2000 TVL or more				
	HD:	1000 TVL or more				
Sensitivity (2000 lux, 89.9% Reflection)	4K:	F10 / 59.94p				
		F11 / 50p				
Gain-up	4K:	F10 / 59.94p				
		F11 / 50p				
Gamma Curves	OFF, 0.35, 0.4, 0.45, HLG, Custom 1 - 5					
Electronic Shutter	1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000 and Variable Shutter					
Video I/O (Rear Panel) Designation						
Video Out	SDI OUT 1-3	3x BNC	12G / 3G / HD SDI	SMPTE ST2082, SMPTE 424 / 425M (Lv-A / B) SMPTE 372M, SMPTE292M		
Video In / Out	SDI I/O 4	1x BNC	12G / 3G / HD SDI	SMPTE ST2082, SMPTE 424 / 425M (Lv-A / B) SMPTE 372M, SMPTE292M		
Reference Video In / Out	GL IN / SYNC OUT	1x BNC	In:	Tri-Sync	SMPTE ST274, 0.6 V p-p, 75 Ω	
			Out:	BB	NTSC 0.286 V p-p, 75 Ω / PAL 0.3 V p-p, 75 Ω	
				Tri-Sync	SMPTE ST274, 0.6 V p-p, 75 Ω	
I/O (Top Handle) Designation						
Video Out	SDI OUT	1x BNC	3G / HD SDI	SMPTE 424 / 425M (Lv-A / B) SMPTE 372M, SMPTE 292M		
Other I/O Designation						
Hybrid Fiber Camera Cable	-	LEMO 3K Type		SMPTE 304M		
Microphone	MIC 1	XLR-3F	Input Level:	-60 to +4 dBu		
	MIC 2	XLR-3F	Phantom Power	Off / +12 V / +48 V		
Audio Out	PGM	XLR-3	Option			
Tracker	TRACKER	20-pin	for an optional Breakout Box			
USB 2.0	USB	1x Type-A	for USB Stick			
Ethernet Trunk	LAN	1x RJ-45				
System Expander	-	for SE-U430				

General Specifications	
Input Voltage	+11 to 17 V DC
Ambient Temperature	Operation: -20 °C to +45 °C (-4 °F to +113 °F)
	Storage: -30 °C to +60 °C (-22 °F to +140 °F)
Operation Humidity	30 % to 90 % *non condensation
Dimensions (Excluding protrusion)	W 148.5 x H 243 x D 340 mm
	W 5.9 x H 9.6 x D 13.4 inches
Weight (Camera Head)	Approx. 5 kg
	Approx. 11 lbs
Power Consumption (Camera Head)	85W Max. in self-contained operation

BSX-100

Video I/O Designation			
Video In	RET	4x BNC	4-input or 2-input with Active Loop-through
	HD QTV	2x BNC	2-input or 1-input with Active Loop-through
	4K QTV	1x BNC	12G-SDI, OUT 3-4 of 12G OUT *
	MoIP (RET, QTV)	2x SFP	Option, 10G (HD) / 25G (4K) SMPTE ST2110 Compliant
Video Out	OUT 1-4	4x BNC	4K 3G-Quad Link (2SI) or HD
	OUT 5-8	4x BNC	HD, OUT 8 is for MON Video
	12G OUT 1-4	4x BNC	4K 12G-SDI or 3G-Quad Link (2SI)
	MoIP (4K / HD Main)	2x SFP	Option, 10G (HD) / 25G (4K) SMPTE ST2110 Compliant
	HD TRUNK	1x BNC	HD-SDI, OUT 5-7
	4K TRUNK	1x BNC	12G-SDI, OUT 3-4 of 12G OUT *
	REFERENCE	2x BNC	Tri Level Sync or BB, Active Loop-through
	SYNC / AES	1x BNC	Tri Level Sync or Digital Audio out (AES / EBU)
* Configurable by menu setting			
Other I/O Designation			
Hybrid Fiber Camera Cable	-	LEMO 3K Type	SMPTE 304M
System I/F	COMMUNICATION	D-Sub 25-pin	Intercom, PGM Audio & Tally In
Mic Gain Remote	REMOTE	D-Sub 15-pin	Enable / Fine Gain / Step Gain
Data Trunk CH-1	DATA TRK-1	D-Sub 9-pin	RS-422
Data Trunk CH-2	IF	12-pin	RS-422, Preview, etc.
Ethernet Trunk	GbE TRK	1x RJ-45	Gigabit Ethernet Trunk
Tally Out	TALLY OUT	5-pin	
Audio Out	AUDIO OUT-1	XLR-3M	Analog Microphone Output
	AUDIO OUT-2	XLR-3M	Analog Microphone Output
Command Control	OCF	8-pin	CP Connector
	LAN	1x RJ-45	ICCP on Ethernet
NMOS Control (MoIP Option)	MoIP CTRL	1x RJ-45	JT-NM TR-1001
General Specifications			
Input Voltage	100 to 240 V AC ±10 %		
Power Consumption	Max. 100 VA (4K-STD type, BS only)		
Ambient Temperature	Operation:	0 °C to +40 °C (32 °F to +104 °F)	
	Storage:	-30 °C to +60 °C (-22 °F to +140 °F)	
Operation Humidity	30 % to 90 % *noncondensation		
Dimensions (Excluding protrusion)	W 216 x H 123.6 x D 407.2 mm		
	W 8.5 x H 4.9 x D 16.0 inches		
Weight	Approx. 7 kg / Approx. 15.5 lb		

Design and specifications are subject to change without notice.

Ikegami

KEGAMI ELECTRONICS (U.S.A.), INC.

■ URL www.ikegami.com

HEADQUARTERS 300 Route 17 South, Mahwah, NJ 07430, U.S.A.
Phone:(201) 368-9171 Fax:(201) 569-1626

U463A216-IB