

Panasonic

AK-UCX100

4K Studio Camera

Scheduled for release in the fourth quarter of CY2024

<Preliminary>

Pursing Futuristic Video Production Together
with Today's Creators



Essential On-site Capabilities that Anticipate the Future

The AK-UCX100 4K Studio Camera delivers high-definition video with excellent color reproduction for not only studio work and sports but also today's increasingly sophisticated live stage productions. The camera head supports 12G-SDI (2 systems), SMPTE ST 2110, NDI® High Bandwidth and SRT for superior operability. In addition to meeting the demands for visual beauty in the field, Panasonic's new 4K Studio Camera is also equipped to pave the way for futuristic video production in the coming IP era.



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POINT1

CCU-less Operation

The AK-UCX100 can be operated as a standalone camera head free from the conventional need for a Camera Control Unit (CCU). Or, if required in an on-site environment, it can be operated in combination with the AK-CFA100 Camera Fiber Adaptor or an AK-UCU700 Series CCU.

POINT2

ST 2110 Standard Support

The camera is compatible with the SMPTE ST 2110 standard for high-quality, low-latency IP transmissions, and is also capable of 4K uncompressed and JPEG XS (future update) compressed transmissions. Furthermore, SMPTE ST 2022-7 compatibility enables redundant operation without a CCU.

POINT3

2000 TVL High Resolution

Equipped with a large 19.29-megapixel MOS sensor, the AK-UCX100 achieves a resolution of 2,000 TV lines (TVL), both horizontally and vertically, for exquisitely detailed reproduction. In addition, the wide dynamic range and color gamut of HDR (HLG)/BT. 2020 faithfully captures stage productions in full color for immersive video imagery.

Key Features

- F10 (2000 lux) sensitivity with S/N ratio of 62 dB or higher
- Simultaneous HDR/HLG (BT.2020) and SDR (BT.709) operation
- Built-in ND and FX filters
- HD optical low-pass filter mountable alongside FX filter (paid option)
- Remote Operation Panel (ROP) for simultaneous control of Panasonic PTZ cameras
- High-precision focus assist suitable for live shooting
- High-speed shooting up to 2x for 4K and 4x for HD
- Genlock input and reference output

- TSL5.0 tally input
- TRUNK (3G-SDI)
- 4K redundant connectivity via two SFP28 slots



The BiDi SFP28 module enables redundant operation via the AK-CFA100. Alternatively, a standard SFP28 module allows redundant operation of the camera head by directly connecting an external optical cable.

Camera Fiber Adaptor for AK-UCX100 Operation

AK-CFA100

Camera Fiber Adaptor

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- Supplies power to a camera up to 2 km away via an optical composite cable
- Compact design with 2U half-size rack mount



Simultaneous 4K-HDR/HD-SDR operation, ST 2110 and IP standards including Dante®

AK-UCU710PSJ/ESJ (LEMO Connector Model)

AK-UCU710PJ/EJ (Tajimi Connector Model)

Camera Control Unit (CCU)

ST 2110 and Dante® I/Fs installed Model

AK-UCU700PSJ/ESJ (LEMO Connector Model)

AK-UCU700PJ/EJ (Tajimi Connector Model)

Camera Control Unit (CCU) Basic Model

- Uncompressed optical transmission up to approx. 2 km between camera and CCU*1
- Simultaneous HDR/SDR and HDR BT.2020/BT.709 outputs
- Up to 8 SDI outputs, including two 12G-SDI
- High-speed shooting up to 2x for 4K and 4x for HD



- 4K uncompressed and JPEG XS with ST 2110/NMOS option*2
- Redundant operation with two SFP28 connectors*2
- Dante®*3 network audio connectivity and streaming output via NDI®*4 and SRT*4

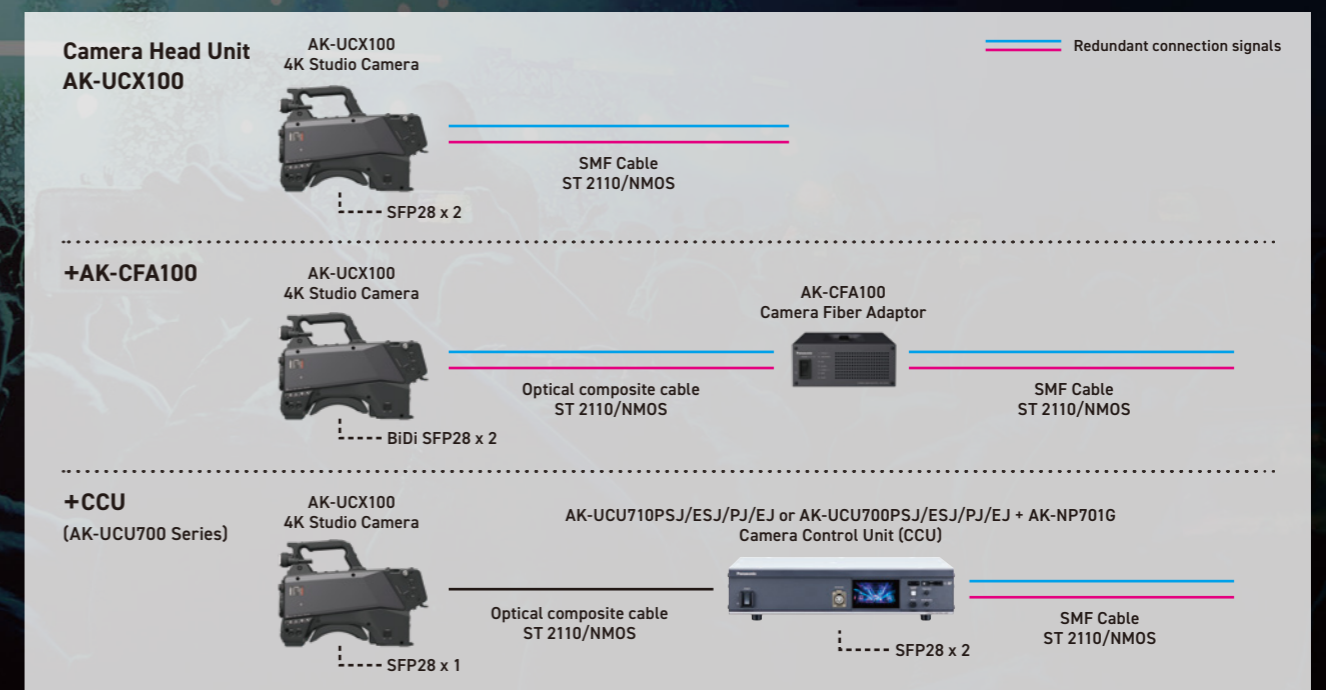
*1: When powered by CCU.

*2: Standard in AK-UCU710PSJ/ESJ/PJ/EJ. AK-UCU700PSJ/ESJ/PJ/EJ require AK-NP701G ST 2110 Option (sold separately). Optical communication modules not included. Third-party SFP28 modules must be purchased separately.

*3: Standard in AK-UCU710PSJ/ESJ/PJ/EJ. AK-UCU700PSJ/ESJ/PJ/EJ require AK-NP702G Dante® Audio Option (sold separately).

*4: Requires AK-NP703G Streaming Option (sold separately).

Redundant Operation (examples)



AK-UCX100

General	
Power Supply	DC 12 V (when using an external power supply) AC 240 V, 50 Hz/60 Hz (AK-UCU710PSJ/ESJ/PJ/EJ, AK-UCU700PSJ/ESJ/PJ/EJ, AK-CFA100 in connected)
Power Consumption	119 W (maximum, when connecting to an external 12 V and including supply to an externally connected devices) 360 W (maximum, when AK-UCU710PSJ/ESJ/PJ/EJ, AK-UCU700PSJ/ESJ/PJ/EJ, AK-CFA100 is connected and including supply to an externally connected devices)
Ambient Operating Temperature	-10 °C to 45 °C (14 °F to 113 °F) (Preheating required under a temperature 0 °C (32 °F) or below)
Ambient Operating Humidity	85% or less (relative humidity)
Storage Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Weight	Approx. 4.55 kg (10.03 lbs.) (body only, excluding the accessories)
Dimensions (W x H x D)	Body only 157 mm x 267 mm x 371.5 mm (6-3/16 inches x 10-17/32 inches x 14-21/32 inches) (excluding protrusions)
Camera unit	
Pickup Device	19.29 million pixels, MOS Sensor
Optical Filter	ND: CLEAR, 1/2, 1/4, 1/16, 1/64 FX: CLEAR, CLEAR (OP*), CROSS, Diffusion, CAP * Option: HD Low Pass filter
Lens Mount	2/3-type bayonet
Sensitivity	Two shooting modes [LOW LIGHT]: F10 (59.94 Hz)/F11 (50 Hz) [NORMAL]: F6 (59.94 Hz)/F7 (50 Hz) 2000 lx, 3200 K, when white reflectivity is 89.9%
S/N	62 dB or above
Horizontal Resolution	4K: 2000 TV lines or above (center) HD: 1000 TV lines or above (center)
Gain Switching	-6, -3, 0, 3, 6, 9, 12, 15, 18
Shutter Speed	[59.94i]/[59.94p]mode: 1/100, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000 [29.97p]mode: 1/48, 1/50, 1/60, 1/96, 1/100, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000 [23.98p]mode: 1/48, 1/50, 1/60, 1/96, 1/100, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000 [50i]/[50p]mode: 1/60, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000 [25p]mode: 1/48, 1/50, 1/60, 1/96, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000
System Format	3840 x 2160/59.94p/50p/29.97p/25p/23.98p 1920 x 1080/59.94p/50p/29.97p/25p/23.98p
Video Input/Output	
<SDI OUT 1> Terminal	BNC x 1 12G/3G/1.5G-SDI: 0.8 V[p-p], 75 Ω
<SDI OUT 2> Terminal	BNC x 1 12G/3G/1.5G-SDI: 0.8 V[p-p], 75 Ω
<TRUNK IN> Terminal	BNC x 1 3G/1.5G-SDI: 0.8 V[p-p], 75 Ω
<G/L IN/REF OUT> Terminal	BNC x 1 <G/L IN>: Tri-level SYNC pr black burst <REF OUT>: black signal without burst
Audio Input/Output	
<MIC 1> Terminal	XLR x 1, 3-pin, female <LINE> / <MIC> / <+48 V> switchable For <MIC>, <FRONT> / <REAR> switchable <LINE>: 0 dBu, +4 dBu menu selection available <MIC>: -60 dBu, -40 dBu, -20 dBu menu selection available

<MIC 2> Terminal	XLR x 1, 3-pin, female <LINE> / <MIC> / <+48 V> switchable <LINE>: 0 dBu, +4 dBu menu selection available <MIC>: -60 dBu, -40 dBu, -20 dBu menu selection available
<MIC> Terminal (front)	XLR x 1, 3-pin, female Switchable with <MIC 1> terminal
Intercom	
<INTERCOM 1> Terminal	XLR x 1, 5-pin, female
<INTERCOM 2> Terminal	XLR x 1, 5-pin, female
<EARPHONE> Terminal	Stereo mini jack x 1, 3-pin
Other Input/Output	
<OPT FIBER> Terminal	Optical composite connector x 1
<SFP 1> Terminal	SFP28 x 1
<SFP 2> Terminal	SFP28 x 1
<LENS> Terminal	12-pin x 1
<VF> Terminal	20-pin x 1
<VF> Terminal (rear)	29-pin x 1
<DC IN> Terminal	XLR x 1, 4-pin, DC 12 V
<DC OUT 12 V 1 A> Terminal	4-pin x 1
<RET CTRL> Terminal	6-pin x 1
<EXT I/O> Terminal	20-pin x 1, DC 12 V, 0.5 A
<REMOTE> Terminal	10-pin x 1
<DC OUT 12 V 2.5 A> Terminal	2-pin x 1
<LAN> Terminal	RJ-45 x 1
<USB3.0 HOST> Terminal	Type C connector (USB Power Delivery)
Build-up Terminal	20-pin x 1

AK-UCX100 Rear View



AK-CFA100 Rear View



AK-UCU700 Series Rear View (When all options are installed)



* NDI® is a video connectivity technology and is registered as a trademark by Vizrt NDI AB in the United States and other countries. * Dante® is a registered trademark of Audinate Pty Ltd.

