# Panasonic CONNECT



### 1080p HDR studio camera system

## **AK-HC3900**

Designed for broadcasting, event and is equipped with a large sensor for high sensitivity and video quality. By combining with AK-HCU250PJ/PSJ/ HCU250EJ/ESJ Camera Control Unit (CCU) and the AK-HRP250GJ Remote Operation Panel (ROP), it is possible to construct a long-distance optical Fiber transmission studio camera system at low cost.

#### **Key Features**

Includes a large 4K-CMOS sensor, and achieves a high sensitivity ofF10 (2000 lx) and low noise with an S/N ratio of 62 dB (when using the High Sense Mode).

Includes CAC (Chromatic Aberration Compensation), skew reduction, and DRS (Dynamic Range Stretcher) functions.

Includes Digital Extender function (2x).

Supports HDR/BT.709 in HD mode as standard and HDR/BT.2020 in 4K mode. \*When 4K upgrade kit is installed on AK-HC3900G and the AK-HCU250

4K upgrade enables 4K video to be output with a horizontal resolution of 2,000 TV lines. \*When 4K upgrade kit is installed on AK-HC3900G and the AK-HCU250









### AK-HC3900

https://latam.connect.panasonic.com /ar/es/productos/broadcast-yproav/ak-hc3900

General -> Power Supply	DC 12 V (when using an external power supply) DC 190 V (when AK-HCU250PJ/HCU250PSJ/HCU250EJ/ HCU250ESJ is connected)
General -> Power Consumption	82 W (maximum, when connecting to an external 12 V and including supply to an
	externally connected devices)
	92 W (maximum, when AK-HCU250PJ/HCU250PSJ/HCU250EJ/ HCU250ESJ is conncected
	and including supply to an externally connected devices)
General -> Operating Temperature	–10 °C to 45 °C (14 °F to 113 °F)
	(Preheating required under a temperature 0°C (32 °F) or below)
General -> Operating Humidity	85% or less (relative humidity)
General -> Storage Temperature	–20 °C to 60 °C (–4 °F to 140 °F)
General -> Weight	Approx. 4.0 kg (8.80 lbs.) (body only, excluding the accessories)
General -> Dimensions	W 151 mm x H 267 mm x D 369 mm
	(5-31/32 inches x 10-17/32 inches x 14-17/32 inches) (excluding protrusions)
Camera Unit -> Pickup Device	11.14 million pixels, MOS Sensor
Camera Unit -> Optical Filter -> ND	Clear, 1/4, 1/16, 1/64
Camera Unit -> Lens Mount	2/3-type bayonet
Camera Unit -> Sensitivity	wo shooting modes
	[HIGH SENS] 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%
Camera Unit -> Horizontal Resolutio > 4K	n -2000 TV lines or above (center, when using AK-HUC01)
Camera Unit -> Horizontal Resolutio > HD	n -1000 TV lines or above (center)
Camera Unit -> S/N	62 dB or above
Camera Unit -> Horizontal Modulati	
Camera Unit -> Gain Switching -> HIGH SENS	-6, -3, 0, 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36
Camera Unit -> Gain Switching -> NORMAL	-6, -3, 0, 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36
Camera Unit -> Shutter Speed ->	1/100, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000
[59.94i]/[59.94p] mode Camera Unit -> Shutter Speed ->	1/60, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000
[50i]/[50p] mode Camera Unit -> Shutter Speed ->	1/48, 1/50, 1/60, 1/96, 1/100, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000
[29.97p] mode	
mode	<b>יף]</b> 1/48, 1/50, 1/60, 1/96, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000
Camera Unit -> Shutter Speed -> [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
Camera Unit	1920 x 1080/59.94p/50p/29.97p/25p/23.98p
	*when using AK-HUC01
	2840 v 2160/E0 04p/E0p/20 07p/2Ep/22 08p
	3840 x 2160/59.94p/50p/29.97p/25p/23.98p
	BNC x 1
Terminal	BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω
Terminal Video Input/Output - > < HD-SDI2 >	BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω BNC x 1
Terminal Video Input/Output - > < HD-SDI2 > Terminal	BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX >	BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω BNC x 1
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX >	BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 Functions as terminal/ terminal by switching the setting in the menu
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX >	BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 Functions as terminal/ terminal by switching the setting in the menu $: 3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX > Terminal	BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 Functions as terminal/ terminal by switching the setting in the menu $: 3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ $: VBS signal 1 V [p-p], 75 \Omega$
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX > Terminal Audio Input/Output - > < MIC 2 >	BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 Functions as terminal/ terminal by switching the setting in the menu $: 3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ $: VBS signal 1 V [p-p], 75 \Omega$ XLR x 1, 3-pin (female)
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX > Terminal	BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 Functions as terminal/ terminal by switching the setting in the menu $: 3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ $: VBS signal 1 V [p-p], 75 \Omega$ XLR x 1, 3-pin (female) // switchable
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX > Terminal	$BNC \times 1$ $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ $BNC \times 1$ $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ $BNC \times 1$ Functions as terminal/ terminal by switching the setting in the menu : 3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega : VBS signal 1 V [p-p], 75 Ω XLR x 1, 3-pin (female) // switchable : 0 dBu
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX > Terminal Audio Input/Output - > < MIC 2 > Terminal	BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 Functions as terminal/terminal by switching the setting in the menu $: 3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ : VBS signal 1 V [p-p], 75 Ω : VBS signal 1
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX > Terminal Audio Input/Output - > < MIC 2 > Terminal	$BNC \times 1$ $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ $BNC \times 1$ $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ $BNC \times 1$ Functions as terminal/ terminal by switching the setting in the menu : 3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega : VBS signal 1 V [p-p], 75 Ω XLR x 1, 3-pin (female) // switchable : 0 dBu
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX > Terminal Audio Input/Output - > < MIC 2 > Terminal	$\begin{array}{l} BNC x \ 1 \\ 3G/1.5G-SDI: \ 0.8 \ V \ [p-p], \ 75 \ \Omega \\ \\ BNC \ x \ 1 \\ 3G/1.5G-SDI: \ 0.8 \ V \ [p-p], \ 75 \ \Omega \\ \\ BNC \ x \ 1 \\ \\ Functions \ as \ terminal/ \ terminal \ by \ switching \ the \ setting \ in \ the \ menu \\ \\ : \ 3G/1.5G-SDI: \ 0.8 \ V \ [p-p], \ 75 \ \Omega \\ \\ : \ VBS \ signal \ 1 \ V \ [p-p], \ 75 \ \Omega \\ \\ : \ VBS \ signal \ 1 \ V \ [p-p], \ 75 \ \Omega \\ \\ \\ XLR \ x \ 1, \ 3-pin \ (female) \\ \\ : \ dBu \\ : \ -60 \ dBu, \ eq \ dBu, \ or \ -20 \ dBu \ menu \ can be selected \\ \\ XLR \ x \ 1, \ 3-pin \ (female) \end{array}$
Terminal /ideo Input/Output - > < HD-SDI2 > ferminal /ideo Input/Output - > < AUX > ferminal Audio Input/Output - > < MIC 2 > ferminal	$\begin{array}{l} BNC x \ 1 \\ 3G/1.5G-SDI: \ 0.8 \ V \ [p-p], \ 75 \ \Omega \\ \\ BNC \ x \ 1 \\ 3G/1.5G-SDI: \ 0.8 \ V \ [p-p], \ 75 \ \Omega \\ \\ BNC \ x \ 1 \\ \\ Functions \ as \ terminal/ \ terminal \ by \ switching \ the \ setting \ in \ the \ menu \\ \\ : \ 3G/1.5G-SDI: \ 0.8 \ V \ [p-p], \ 75 \ \Omega \\ \\ : \ VBS \ signal \ 1 \ V \ [p-p], \ 75 \ \Omega \\ \\ : \ VBS \ signal \ 1 \ V \ [p-p], \ 75 \ \Omega \\ \\ : \ VBS \ signal \ 1 \ V \ [p-p], \ 75 \ \Omega \\ \\ : \ VBS \ signal \ 1 \ V \ [p-p], \ 75 \ \Omega \\ \\ : \ VBS \ signal \ 1 \ V \ [p-p], \ 75 \ \Omega \\ \\ : \ VBS \ signal \ 1 \ V \ [p-p], \ 75 \ \Omega \\ \\ : \ VBS \ signal \ 1 \ V \ [p-p], \ 75 \ \Omega \\ \\ : \ VBS \ signal \ 1 \ V \ p-p], \ TS \ O \\ \\ : \ VLR \ x \ 1, \ 3-pin \ (fermale) \\ \\ : \ -60 \ dBu \\ \\ : \ -60 \ dBu, \ -40 \ dBu, \ or \ -20 \ dBu \ menu \ can be \ selected \\ \\ \ XLR \ x \ 1, \ 3-pin \ (fermale) \\ \\ \\ // \ switchable \\ \end{aligned}$
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX > Terminal Audio Input/Output - > < MIC 2 > Terminal Audio Input/Output - > < MIC > Terminal (front)	$\begin{array}{l} BNC x \ 1 \\ 3G/1.5G-SDI: 0.8 \ V \ [p-p], 75 \ \Omega \\ \\ BNC \ x \ 1 \\ 3G/1.5G-SDI: 0.8 \ V \ [p-p], 75 \ \Omega \\ \\ BNC \ x \ 1 \\ \\ Functions \ as \ terminal/ \ terminal \ by \ switching \ the \ setting \ in \ the \ menu \\ \\ : \ 3G/1.5G-SDI: 0.8 \ V \ [p-p], 75 \ \Omega \\ \\ : \ VBS \ signal \ 1 \ V \ [p-p], 75 \ \Omega \\ \\ : \ VBS \ signal \ 1 \ V \ [p-p], 75 \ \Omega \\ \\ : \ VBS \ signal \ 1 \ V \ [p-p], 75 \ \Omega \\ \\ \\ XLR \ x \ 1, 3-pin \ (female) \\ \\ // \ switchable \\ \\ : \ odBu , \ or \ -20 \ dBu \ menu \ can \ bs \ selected \\ \end{array}$
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX > Terminal Audio Input/Output - > < MIC 2 > Terminal Audio Input/Output - > < MIC > Terminal (front) Intercom - > < INTERCOM1 > Termin Other Input/Output - > < OPT FIBER >	BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 Functions as terminal/ terminal by switching the setting in the menu $: 3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ $: VBS signal 1 V [p-p], 75 \Omega$ XLR x 1, 3-pin (female) // switchable : -60  dBu, -40  dBu,  or  -20  dBu menu can be selected XLR x 1, 3-pin (female) // switchable : 0  dBu : -60  dBu, -40  dBu,  or  -20  dBu menu can be selected XLR x 1, 3-pin (female) // switchable : 0  dBu : -60  dBu, -40  dBu,  or  -20  dBu menu can be selected MLR x 1, 3-pin (female) // switchable
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX > Terminal Audio Input/Output - > < MIC 2 > Terminal Audio Input/Output - > < MIC > Terminal (front) Intercom - > < INTERCOM1 > Termin Other Input/Output - > < OPT FIBER > Terminal Other Input/Output - > < LENS >	BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 $3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ BNC x 1 Functions as terminal/ terminal by switching the setting in the menu $: 3G/1.5G-SDI: 0.8 V [p-p], 75 \Omega$ $: VBS signal 1 V [p-p], 75 \Omega$ XLR x 1, 3-pin (female) // switchable : -60  dBu, -40  dBu,  or  -20  dBu menu can be selected XLR x 1, 3-pin (female) // switchable : 0  dBu : -60  dBu, -40  dBu,  or  -20  dBu menu can be selected XLR x 1, 3-pin (female) // switchable : 0  dBu : -60  dBu, -40  dBu,  or  -20  dBu menu can be selected MLR x 1, 3-pin (female) // switchable
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX > Terminal Audio Input/Output - > < MIC 2 > Terminal Audio Input/Output - > < MIC > Terminal (front) Intercom - > < INTERCOM1 > Termin Other Input/Output - > < OPT FIBER > Terminal Other Input/Output - > < LENS > Terminal	BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω BNC x 1 Functions as terminal/ terminal by switching the setting in the menu : 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω XLR x 1, 3-pin (female) // switchable : 0 dBu : -60 dBu, -40 dBu, or -20 dBu menu can be selected XLR x 1, 3-pin (female) // switchable : 0 dBu : -60 dBu, -40 dBu, or -20 dBu menu can be selected XLR x 1, 3-pin (female) // switchable : 0 dBu : -60 dBu, -40 dBu, or -20 dBu menu can be selected ALR x 1, 5-pin, female type > Optical composite connector x 1 12-pin x 1
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX > Terminal Audio Input/Output - > < MIC 2 > Terminal Audio Input/Output - > < MIC > Terminal (front) Intercom - > < INTERCOM1 > Termin Other Input/Output - > < OPT FIBER > Terminal Other Input/Output - > < VF > Terminal Other Input/Output - > < VF > Terminal	BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω BNC x 1 Functions as terminal/ terminal by switching the setting in the menu : 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω XLR x 1, 3-pin (female) // switchable : 0 dBu : -60 dBu, -40 dBu, or -20 dBu menu can be selected XLR x 1, 3-pin (female) // switchable : 0 dBu : -60 dBu, -40 dBu, or -20 dBu menu can be selected XLR x 1, 3-pin (female) // switchable : 0 dBu : -60 dBu, -40 dBu, or -20 dBu menu can be selected TLR x 1, 3-pin (female) // switchable : 0 dBu : -60 dBu, -40 dBu, or -20 dBu menu can be selected 12-pin x 1
Video Input/Output - > < HD-SDI1 > Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX > Terminal Audio Input/Output - > < MIC 2 > Terminal Audio Input/Output - > < MIC > Terminal (front) Intercom - > < INTERCOM1 > Termin Other Input/Output - > < OPT FIBER > Terminal Other Input/Output - > < UF > Termin Other Input/Output - > < VF > Termin Other Input/Output - > < VF > Termin	BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω BNC x 1 Functions as terminal/ terminal by switching the setting in the menu : 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω XLR x 1, 3-pin (female) // switchable : 0 dBu : -60 dBu, -40 dBu, or -20 dBu menu can be selected XLR x 1, 3-pin (female) // switchable : 0 dBu : -60 dBu, -40 dBu, or -20 dBu menu can be selected XLR x 1, 3-pin (female) // switchable : 0 dBu : -60 dBu, -40 dBu, or -20 dBu menu can be selected TLR x 1, 3-pin (female) // switchable : 0 dBu : -60 dBu, -40 dBu, or -20 dBu menu can be selected 12-pin x 1
Terminal Video Input/Output - > < HD-SDI2 > Terminal Video Input/Output - > < AUX > Terminal Audio Input/Output - > < MIC 2 > Terminal Audio Input/Output - > < MIC > Terminal (front) Intercom - > < INTERCOM1 > Termin Other Input/Output - > < OPT FIBER > Terminal Other Input/Output - > < LENS > Terminal Other Input/Output - > < VF > Termin	BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω BNC x 1 Functions as terminal/ terminal by switching the setting in the menu : 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω XLR x 1, 3-pin (female) // switchable : 0 dBu : -60 dBu, -40 dBu, or -20 dBu menu can be selected XLR x 1, 3-pin (female) // switchable : 0 dBu : -60 dBu, -40 dBu, or -20 dBu menu can be selected XLR x 1, 3-pin (female) // switchable : 0 dBu : -60 dBu, -40 dBu, or -20 dBu menu can be selected TLR x 1, 3-pin (female) // switchable : 0 dBu : -60 dBu, -40 dBu, or -20 dBu menu can be selected 12-pin x 1

Other Input/Output - > < LAN > RJ-45 x 1 Terminal