



High Performance HD Broadcast Camera

## AJ-HPX3100

Featuring a 2.2-Megapixel CCD. High-End Performance in a Compact, Lightweight Design with Low Power Consumption

### Key Features

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AVC-Intra 100 codec

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Switchable between 59.94 Hz and 50 Hz recording

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Wireless Network Connectivity

**DVCPRO HD**

**DVCPRO**

**P2 HD**

**AVC INTRA**

**DVCPRO 60**



## AJ-HPX3100

<https://eu.connect.panasonic.com/ch/en/products/broadcast-proav/aj-hpx3100>

### General Specification

<b>Power Supply</b>	DC12V (11V to 17V)
<b>Power Consumption</b>	34W (main unit only)
<b>Operating Temperature</b>	0°C to 40°C (32 °F to 104 °F)
<b>Operating Humidity</b>	10 % to 85 % (relative humidity)
<b>Keeping Temperature</b>	-20 °C to 60 °C (-4 °F to 140 °F)
<b>Weight</b>	Approx. 3.9 kg/8.6 lbs (main unit only)
<b>Dimensions (W x H x D)</b>	140 mm x 270.5 mm x 335.8 mm (5-9/16" x 10-11/16" x 13-1/4") excluding handle and option cover

### Camera Section

<b>CCD Elements</b>	CCD x 3 (2/3-type interline transfer type, RGB, 2,200,000 pixel)
<b>Picture Elements</b>	Total: 2010 (H) x 1120 (V)
<b>Lens Mount</b>	2/3-bayonet type
<b>Optical Colour Separation</b>	Prism system
<b>CCI Filters</b>	A: 3200K, B: 4300K, C: 5600K, D: 6300K
<b>ND Filters</b>	1: CLEAR, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND
<b>Quantizing</b>	14 bits
<b>Horizontal Drive Frequency</b>	59.94 Hz: 74.1758 MHz, 50 Hz: 74.25 MHz
<b>Sampling Frequency</b>	59.94 Hz: 74.1758 MHz, 50 Hz: 74.25 MHz
<b>Digital Signal Process</b>	59.94 Hz: 74.1758 MHz, 50 Hz: 74.25 MHz
<b>Programmable Gain</b>	-6 dB, -3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 15 dB, 18 dB, 21 dB, 24 dB, 27 dB, 30 dB selectable
<b>Digital Super Gain</b>	6 dB, 10 dB, 12 dB, 15 dB, 20 dB, 24 dB, 28 dB, 34 dB selectable
<b>Super Gain</b>	30 dB, 36 dB, 42 dB selectable
<b>Shutter Speed</b>	1/60 (50 Hz) sec., 1/100 (59.94 Hz) sec., 1/120 sec., 1/250 sec., 1/500 sec., 1/1000 sec., 1/2000 sec., HALF 180.0 deg, 172.8 deg, 144.0 deg, 120.0 deg, 90.0 deg, 45.0 deg
<b>Shutter Speed (Synchro Scan)</b>	1/61.7 sec. to 1/7200 sec. (1080/59.94i, 480/59.94i) 1/30.9 sec. to 1/3600 sec. (1080/29.97p, 480/29.97p) 1/24.7 sec. to 1/2880 sec. (1080/23.98p, 480/23.98p) 1/51.4 sec. to 1/6000 sec. (1080/50i, 576/50i) 1/25.7 sec. to 1/3000 sec. (1080/25p, 576/25p)
<b>Sensitivity</b>	1080/59.94i: F11, 1080/50i: F12 (2000 lx, 89.9 % reflect)
<b>Minimum Luminance</b>	0.005 lx (F1.4, S.GAIN 42 dB + DS.GAIN 34 dB)
<b>Video S/N</b>	DNR ON: 59 dB, DNR OFF: 54 dB (standard)
<b>Registration</b>	Less than 0.03 % (whole zone, without lens distortion)
<b>Horizontal Resolution</b>	1,000 TV lines (at center standard)

### Memory Card Recorder Section

<b>Recording Media</b>	P2 card
<b>Recording Format</b>	AVC-Intra 100/AVC-Intra 50/DVCPRO HD/DVCPRO50/DVCPRO/DV Format switchable
<b>Recording Video Signal</b>	1080/59.94i, 1080/29.97p over 59.94i, 1080/23.98p over 59.94i, 1080/23.98p over 59.94i, 1080/29.97pN, 1080/23.98pN, 1080/50i, 1080/25p over 50i, 1080/25pN, 480/59.94i, 480/29.97p over 59.94i, 480/23.98p over 59.94i, 480/23.98p over 59.94i, 576/50i, 576/25p over 50i
<b>Recording Audio Signal</b>	AVC-Intra 100/50: 48 kHz, 16 bit/24 bit switchable, 4ch DVCPRO HD/DVCPRO 50: 48 kHz, 16 bit, 4ch DVCPRO/DV: 48 kHz, 16 bit, 2ch/4ch switchable
<b>Recording Playback Time*</b>	P2card x 1 P2card x 2
<b>64GB P2 Card</b>	AVC-Intra 100 Approx. 64 min. Approx. 128 min. AVC-Intra 50 Approx. 128 min. Approx. 256 min. DVCPRO HD Approx. 64 min. Approx. 128 min. DVCPRO 50 Approx. 128 min. Approx. 256 min. DVCPRO/DV Approx. 256 min. Approx. 512 min.
<b>32GB P2 Card</b>	AVC-Intra 100 Approx. 32 min. Approx. 64 min. AVC-Intra 50 Approx. 64 min. Approx. 128 min. DVCPRO HD Approx. 32 min. Approx. 64 min. DVCPRO 50 Approx. 64 min. Approx. 128 min. DVCPRO/DV Approx. 128 min. Approx. 256 min.
<b>16GB P2 Card</b>	AVC-Intra 100 Approx. 16 min. Approx. 32 min. AVC-Intra 50 Approx. 32 min. Approx. 64 min. DVCPRO HD Approx. 16 min. Approx. 32 min. DVCPRO 50 Approx. 32 min. Approx. 64 min. DVCPRO/DV Approx. 64 min. Approx. 128 min.

### Digital Video

<b>Sampling Frequency (Digital Video)</b>	AVC-Intra 100/AVC-Intra 50/DVCPRO HD: Y: 74.1758 MHz, PB/PR: 37.0879 MHz (59.94 Hz) Y: 74.2500 MHz, PB/PR: 37.1250 MHz (50 Hz) DVCPRO50: Y: 13.5 MHz, PB/PR: 6.75 MHz DVCPRO: Y: 13.5 MHz, PB/PR: 3.375 MHz
<b>Quantizing (Digital Video)</b>	AVC-Intra 100/AVC-Intra 50: 10 bit DVCPRO HD/DVCPRO50/DVCPRO/DV: 8 bit
<b>Video Compression</b>	AVC-Intra100/AVC-Intra50: MPEG-4 AVC/H.264 Intra Profile DVCPRO HD: DV base compression (SMPTE 370M) DVCPRO 50/DVCPRO: DV base compression (SMPTE 314M) DV: DV compression (IEC 61834-2)
<b>Digital Audio</b>	
<b>Frequency Response</b>	20 Hz to 20 kHz $\pm$ 1.0 dB (reference level)
<b>Dynamic Range</b>	More than 85 dB (1 kHz, AWTD, 16 bit) More than 93 dB (1 kHz, AWTD, 24 bit)
<b>Distortion (within)</b>	0.1 % (1 kHz, reference level, 16 bit) 0.05 % (1 kHz, reference level, 24 bit)
<b>Headroom</b>	18/20 dB selectable
<b>Video Input/Output</b>	
<b>Genlock In</b>	BNC x 1, 1.0V [p-p], 75ohms (switchable to VIDEO IN or Return Video on menu)
<b>SDI Out</b>	BNCx1 HD SDI: 0.8 V [p-p], 75ohms, SMPTE292M/299M standards SD SDI: 0.8 V [p-p], 75ohms, SMPTE259M-C/272M-A/ ITUR. BT656-4 standards
<b>MON Out</b>	BNCx1 (switchable to HD SDI/SD SDI/Composite on menu) HD SDI: 0.8 V[p-p], 75ohms SD SDI: 0.8 V[p-p], 75ohms, SMPTE259M-C/272M-A/ ITUR. BT656-4 standards Composite: 1.0V [p-p], 75ohms
<b>SDI In</b>	BNCx1 (switchable for VIDEO IN/Return Video/ GENLOCK IN, on menu) HD SDI: 0.8 V[p-p], 75ohms, SMPTE292M/299M standards SD SDI: 0.8 V[p-p], 75ohms, SMPTE259M-C/272M-A/ ITUR. BT656-4 standards
<b>Audio Input/Output</b>	
<b>Audio In</b>	CH1/CH2: XLR 3 pin x 2, LINE/MIC/MIC + 48V switchable LINE: 4 dBu (-3 dBu/0 dBu/4 dBu selectable on menu) MIC: -60 dBu (-60dBu/-50 dBu selectable on menu) MIC + 48V: Phantom +48 V, -60 dBu (-60dBu/-50 dBu selectable on menu)
<b>MIC In</b>	XLR 5 pin x 1, Phantom +48 V (ON/OFF selectable on menu) -40 dBu (-50dBu/-40 dBu selectable on menu)
<b>Wireless In</b>	25 pin D-SUB, -40 dBu
<b>Audio Out</b>	CH1/CH2: XLR 5 pin x 1, balanced, low-impedance 4 dBu (-3 dBu/0 dBu/4 dBu selectable on menu)
<b>Phones Out</b>	Stereo mini jack x 2 (3.5mm diameter)
<b>Speaker</b>	28mm round shape x 1
<b>Other Input/Output Signal</b>	
<b>TC In</b>	BNCx1, 0.5 V [p-p] to 8 V [p-p], 10 k ohms
<b>TC Out</b>	BNCx1, low impedance, 2.0 V [p-p] $\pm$ 0.5 V [p-p]
<b>DC In</b>	XLR 4 pin x 1, DC 12 V (DC 11 V-17 V)
<b>DC Out</b>	4 pin, DC 12 V (DC 11 V-17 V), max 1.5 A.
<b>Lens</b>	12 pin
<b>Right Connector</b>	2 pin, DC 12 V (DC 11 V-17 V) Output current: max. 4.5 A (to 50 W)
<b>EVF</b>	20 pin
<b>Remote</b>	10 pin for AJ-RC10G, AG-EC4G
<b>GPS</b>	6 pin for AJ-GPS910G
<b>USB 2.0</b>	HOST: 4-pin Type-A, DEVICE: 4-pin Type-B
<b>Monitor</b>	81.28 mm (3.2 inches) LCD monitor, approx. 921,000 dots (16:9)
<b>Included Accessories</b>	Shoulder strap, Front audio volume knob (with screw), AUDIO connector cap, Mount cap, XLR connector cap, GPS connector cap, Software CD-ROM
<b>Note</b>	* Time shown above is when you record a series of 1 shot to P2 card. Depending on numbers of shots you record, time will get shorter than the number shown above.

Weight and dimensions shown are approximate.