



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

AVC-Intra 100 codec

Switchable between 59.94 Hz and 50 Hz recording

Wireless Network Connectivity

DVCPRO HD

DVCPRO

P2 HD

AVC INTRA

DVCPRO 50

DV



AJ-HPX3100

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

General Specification

Power Supply	DC12V (11V to 17V)
Power Consumption	34W (main unit only)
Operating Temperature	0°C to 40°C (32 °F to 104 °F)
Operating Humidity	10 % to 85 % (relative humidity)
Keeping Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Weight	Approx. 3.9 kg/8.6 lbs (main unit only)
Dimensions (W x H x D)	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

CCD Elements	CCD x 3 (2/3-type interline transfer type, RGB, 2,200,000 pixel)
Picture Elements	Total: 2010 (H) x 1120 (V)
Lens Mount	2/3-bayonet type
Optical Colour Separation	Prism system
CCI Filters	A: 3200K, B: 4300K, C: 5600K, D: 6300K
ND Filters	1: CLEAR, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND
Quantizing	14 bits
Horizontal Drive Frequency	59.94 Hz: 74.1758 MHz, 50 Hz: 74.25 MHz
Sampling Frequency	59.94 Hz: 74.1758 MHz, 50 Hz: 74.25 MHz
Digital Signal Process	59.94 Hz: 74.1758 MHz, 50 Hz: 74.25 MHz
Programmable Gain	-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
Digital Super Gain	6 dB, 10 dB, 12 dB, 15 dB, 20 dB, 24 dB, 28 dB, 34 dB selectable
Super Gain	30 dB, 36 dB, 42 dB selectable
Shutter Speed	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
Shutter Speed (Synchro Scan)	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)
Sensitivity	1080/59.94i: F11, 1080/50i: F12 (2000 lx, 89.9 % reflect)
Minimum Luminance	0.005 lx (F1.4, S.GAIN 42 dB + DS.GAIN 34 dB)
Video S/N	DNR ON: 59 dB, DNR OFF: 54 dB (standard)
Registration	Less than 0.03 % (whole zone, without lens distortion)
Horizontal Resolution	1,000 TV lines (at center standard)

Memory Card Recorder Section

Recording Media	P2 card
Recording Format	AVC-Intra 100/AVC-Intra 50/DVCPRO HD/DVCPRO50/DVCPRO/DV Format switchable
Recording Video Signal	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
Recording Audio Signal	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
Recording Playback Time*	P2card x 1 P2card x 2
64GB P2 Card	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.
32GB P2 Card	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.
16GB P2 Card	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

Sampling Frequency (Digital Video)	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
Quantizing (Digital Video)	AVC-Intra 100/AVC-Intra 50: 10 bit DVCPRO HD/DVCPRO50/DVCPRO/DV: 8 bit
Video Compression	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)
Digital Audio	
Frequency Response	20 Hz to 20 kHz \pm 1.0 dB (reference level)
Dynamic Range	More than 85 dB (1 kHz, AWTD, 16 bit) More than 93 dB (1 kHz, AWTD, 24 bit)
Distortion (within)	0.1 % (1 kHz, reference level, 16 bit) 0.05 % (1 kHz, reference level, 24 bit)
Headroom	18/20 dB selectable
Video Input/Output	
Genlock In	BNC x 1, 1.0V [p-p], 75ohms (switchable to VIDEO IN or Return Video on menu)
SDI Out	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
MON Out	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
SDI In	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
Audio Input/Output	
Audio In	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)
MIC In	XLR 5 pin x 1, Phantom +48 V (ON/OFF selectable on menu) -40 dBu (-50dBu/-40 dBu selectable on menu)
Wireless In	25 pin D-SUB, -40 dBu
Audio Out	CH1/CH2: XLR 5 pin x 1, balanced, low-impedance 4 dBu (-3 dBu/0 dBu/4 dBu selectable on menu)
Phones Out	Stereo mini jack x 2 (3.5mm diameter)
Speaker	28mm round shape x 1
Other Input/Output Signal	
TC In	BNCx1, 0.5 V [p-p] to 8 V [p-p], 10 k ohms
TC Out	BNCx1, low impedance, 2.0 V [p-p] \pm 0.5 V [p-p]
DC In	XLR 4 pin x 1, DC 12 V (DC 11 V-17 V)
DC Out	4 pin, DC 12 V (DC 11 V-17 V), max 1.5 A.
Lens	12 pin
Right Connector	2 pin, DC 12 V (DC 11 V-17 V) Output current: max. 4.5 A (to 50 W)
EVF	20 pin
Remote	10 pin for AJ-RC10G, AG-EC4G
GPS	6 pin for AJ-GPS910G
USB 2.0	HOST: 4-pin Type-A, DEVICE: 4-pin Type-B
Monitor	81.28 mm (3.2 inches) LCD monitor, approx. 921,000 dots (16:9)
Included Accessories	Shoulder strap, Front audio volume knob (with screw), AUDIO connector cap, Mount cap, XLR connector cap, GPS connector cap, Software CD-ROM
Note	* 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.