Panasonic

HS


VARICAM
HS

Capture Action

The VariCam® HS — Changing the Way Action is Captured

The VariCam line of cameras has been used on a wide variety of movies, commercials, and TV programs, and is renowned for its color reproduction, look, and for bringing progressive workflows to the production industry.

Now the VariCam HS has arrived. Drawing on the traditions of the original VariCam line, VariCam HS helps its users capture action with its 2/3 3MOS and bayonet lens mount, wide color gamut, continuous 240fps recording. It also revolutionizes workflow with the addition of dual-codec recording, in-camera color grading, and a modular design.

The feature-rich VariCam HS is ready to capture all the action of your next project.

High-Speed 240 fps Recording, and Revolutionary VariCam Workflows

2/3-type bayonet mount

Control panel side: 2/3-type Camera Module and Recording Module

Side connector panel of the recorder

High-Speed 240 fps Images with VariCam Look

- High-sensitivity, low-noise, 2/3-type 2.2-megapixel 3MOS sensor.
- High-speed 240 fps recording produces a slow-motion effect.
  Frame rate variable in the range of 1 fps to 240 fps.
  Frame rate can be changed while recording.
- Wide dynamic range 14 stops of latitude.
- V-Log: tuned for emotional images.
- V-709: tuned Rec 709.
- F-REC: Gamma inherited from original VariCam.
- Built-in ND filters and CC filters.
- Built-in low-pass filter and UV/IR-cut filter.

Revolutionary Dailies in Camera

- **In-camera color grading**
  Color grading function (CDL) allows on-set color grading using control panel or 3rd party software.
  CDL file is recorded together with clip.
- **Double Recorder and Dual Codec Recording**
  Allows recording two HD videos simultaneously in two different formats, codecs and selectable from V-Log/V-709/Grading.

Multiple Codec, Multiple Outputs

- Supports AVC-Intra100, AVC-LongG50, AVC-LongG25 and Apple ProRes for ubiquitous HD shooting.
- Records a low-rate AVC-Proxy file. This file contains the same metadata as that of the main data for convenient use in off-line editing.
- Records 24 bit/48 kHz, four channel high-quality digital audio and metadata.
- Provided with 3G-SDI output up to 240p (BNC x 4), Monitor output x 3 and AUDIO (XLR x 2) input.

AVC ULTRA ProRes


Large-diameter EVF


Detachable control panel


Installation of control panel


Flat top body and handle with screw holes

Newly Developed EVF and Control Panel

EVF (AU-VCVF1G)

- High-resolution 0.7 type (1280 x 720 pixels) OLED panel shows a wide field angle with viewfinder magnification of 0.78x.
- Large-diameter 38 mm eyepiece lens offer comfortable viewing with minimum vignetting.
- Optical zoom and advanced focus assist function.

Control Panel (on AU-VREC1G)

- Detachable control panel for enhanced camera flexibility.
- 3.5 type LCD display panel for live preview.
- Direct access to frequently used menu.

Modularity

- Modular structure with independent camera head and recorder module. Dockable camera head is interchangeable with the VariCam 35.
- Flat top and bottom panels for easy installation of various plates.
- Mounting holes provided on both sides and handle for convenient mounting of accessories.
- Shoulder mount module (AU-VSHL1G) can be moved in a range of 110 mm in the front and back direction to accommodate a diversity of lenses.

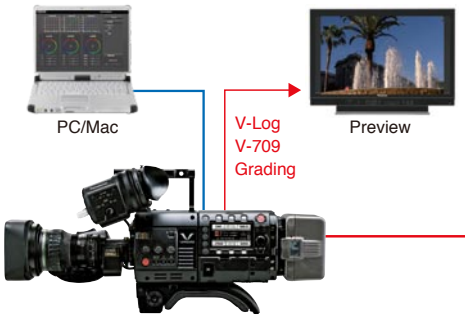
Durability and Reliability

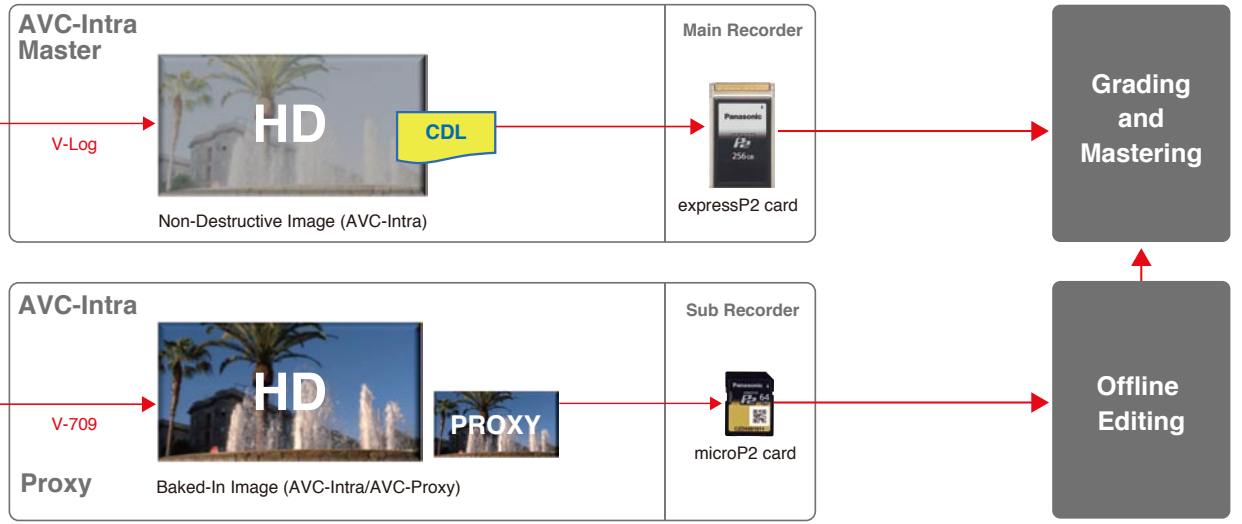
- Body made of strong and rigid aluminum alloy.
- Cooling system designed for effective dissipation of heat from the circuitry section.

VARICAM HS WORKFLOW*

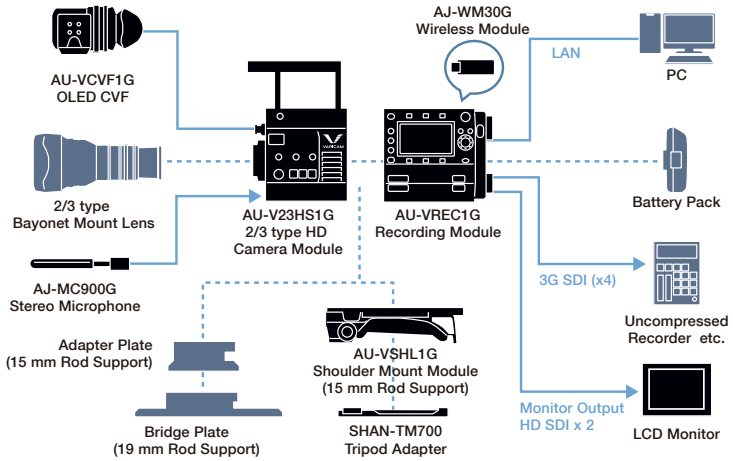
In Camera Color Grading

Remote operation by control panel or 3rd party software.





VARICAM HS MODULAR SYSTEM



AU-V23HS1G
2/3 type HD Camera Module

AU-V35C1G
4K Camera Module

AU-VREC1G
Recording Module

AU-VCVF1G
Electronic HD Color View Finder

AU-VSHL1G
Shoulder Mount Module

AJ-WM30G
Wireless Module

AU-XP0256AG
Memory Card “expressP2 card” (256 GB model)

AU-XPD1
Memory Card Drive “expressP2 drive”

* This chart shows an example of the workflow using VariCam HS.

VARICAM HS SPECIFICATIONS*1

As of February 2015

General (Combination of AU-V23HS1G and AU-VREC1G)

Power:	DC 12 V (11.0 V – 17.0 V)
Power Consumption:	60 W (Body only) 90 W (With all optional accessories connected and maximum power supplied from each output terminal)
Operating Temperature:	0°C to 40°C
Operating Humidity:	10% to 85% (Relative humidity)
Storage Temperature:	–20°C to 60°C
Weight:	Approx. 4.5 kg (Body only)
Dimensions (W x H x D) :	179 mm x 230.5 mm x 347 mm (7-1/16 inches x 9-1/16 inches x 13-21/32 inches) (Body only, excluding protrusion)

Camera Module (AU-V23HS1G)

Pickup Device:	2/3-type 2.2 million pixels, MOS x 3
Lens Mount :	2/3-type bayonet
Optical filter:	CC filter A: 3200 K, B: 4300 K, C: 5600 K, D: 0.3ND ND filter 1: CLEAR, 2: 0.6ND, 3: 1.2ND, 4: 1.8ND
Gain Settings:	[ISO] mode: ISO 2500 to 12800 [dB] mode : 0 to 18 dB (3 dB step)
Shutter speed:	[deg] mode: 1.0 to 360 deg (0.5 deg step) [sec] mode: 1/24 to 1/250 (when 23.98p mode)
Sensitivity:	[Gamma: HD] mode: F9 (2000 lx, 3200 K, 89.9% reflection, 1080/59.94p) F10 (2000 lx, 3200 K, 89.9% reflection, 1080/50p)
Holizontal Resolution:	1000 TVlines or higher (center)

Recording Module (AU-VREC1G) When used with AU-V23HS1G

Memory Card Recorder

Recording Media:	expressP2 card, P2 card, microP2 card
Recording Resolution:	1920 x 1080, 1280 x 720
Recording Framerate:	Maximum 240p/200p
System Frequency:	59.94p, 50p, 29.97p, 25p, 23.98p, 59.94i, 50i
Recording Format:	Main Recorder: AVC-Intra100, ProRes 422 HQ Sub Recorder: AVC-Intra100, AVC-LongG50, AVC-LongG255
Recording Video Signal:	1080/59.94p, 50p, 29.97p, 25p, 23.98p, 59.94i, 50i, 720/59.94p, 50p
Recording Time: (Main Codec)	When expressP2 card 256 GB is used*2 Approx. 128 min. (AVC-Intra100, VFR OFF) Approx. 32 min. (AVC-Intra100, VFR ON, 200 fps/240 fps) Approx. 60 min. (ProRes 422 HQ, VFR ON, 60 fps)
Recording Time: (Sub Codec)	When microP2 card 64 GB is used*2 Approx. 64 min. (AVC-Intra100, 25p/29.97p) Approx. 128 min. (AVC-LongG50, 25p/29.97p) Approx. 256 min. (AVC-LongG25, 25p/29.97p)

Digital Video

Quantizing:	10 bit
Video Compression Format:	AVC-Intra100: MPEG-4 AVC/H.264 Intra Profile AVC-LongG50/AVC-LongG25: MPEG-4 AVC/H.264 ProRes 422 HQ

Digital Audio

Recording Audio Signal:	48 kHz/24 bit, 4 ch Head room 18 dB/20 dB menu switchable

Proxy

File Format:	MOV
Video Compression Format:	H.264/AVC High Profile
Audio Compression Format:	LPCM
Recording Time (1GB)*2:	Approx. 25 min.

Video Input/Output

SDI OUT:	HD (1.5G)/3G-SDI: 0.8 V[p-p], 75 Ω (1 set, 4 pieces)
MON OUT1:	HD (1.5G)/3G-SDI: 0.8 V[p-p], 75 Ω
MON OUT2:	HD (1.5G)/3G-SDI: 0.8 V[p-p], 75 Ω
VF SDI:	HD (1.5G)/3G-SDI: 0.8 V[p-p], 75 Ω

Audio Input/Output

AUDIO IN (CH1/CH2):	XLR x 2, 3 pin, LINE/MIC/MIC+48V/AES switchable
MIC IN:	XLR x 1, 5 pin
PHONES:	Stereo mini jack
Speaker:	20 mm diameter, round x 1

Other Input/Output

GENLOCK IN:	HD (1.5G)/3G-SDI: 0.8 V[p-p], 75 Ω
TC IN/OUT:	BNC x 1, IN/OUT switch selection IN: 0.5 V[p-p] to 8 V[p-p], 10 kΩ OUT: 2.0 ± 0.5 V[p-p], Low impedance
DC IN:	XLR 4 pin, DC12 V (DC 11.0 V to 17.0 V)
DC OUT/RS:	4 pin, DC12 V (DC 11.0 V to 17.0 V), maximum output current 1.0 A
DC OUT:	2 pin, DC12 V (DC 11.0 V to 17.0 V), maximum output current 1.0 A
LENS:	12 pin
VF:	14 pin
LAN:	100BASE-TX/10BASE-T
USB2.0 (device) :	Type B connector, 4 pin
USB2.0 (host) :	Type A connector, 4 pin

Control Panel

Display Panel:	LCD, 3.5-type QHD color monitor Approx. 1.56 million dots

Electronic HD Color View Finder (AU-VCVF1G)

Display Panel:	OLED, 0.7-type, Approx. 2.76 million dots
Signal Input:	1080/59.94p, 1080/50p

*1: Specification on this page is as of February 2015. Specification subject to change upon firmware upgrade. For the latest specification, please visit Panasonic website. (http://pro-av.panasonic.net/)
*2: These are reference values for continuous recording. The recording time may differ depending on the scene or number of clips.

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Factories of AVC Networks Company have received ISO14001:2004-the Environmental Management System certification. (Except for 3rd party's peripherals.)

SP-VHSPE4

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