

Panasonic

P2HD

AJ-PD500

Memory Card Recorder



AVC **ULTRA** AVC **INTRA** AVC **LONG G** P2 **P2** **micro** **P2** **HD** **HDMI** HIGH-DEFINITION MULTIMEDIA INTERFACE

AVC-ULTRA*¹ Support for Everything from Mastering-Level Image Quality to Low-Bit-Rate Transmission, Together with Network Solutions and New Compact microP2 Cards. A Half-Rack Size Recorder for a High-Quality, Cost-Effective Workflow.

This P2HD recorder supports today's network-based workflow while interfacing with conventional broadcast systems. It's the first recorder to provide microP2 card slots to dramatically reduce media costs, together with ordinary P2 card slots. Recording codecs from the AVC-ULTRA*¹ family include AVC-Intra100/50 and AVC-LongG, which appears for the first time in this model, ensure high-quality images and low-bit-rate (50/25/12*²/6*² Mbps) operation. Lower-rate AVC-Proxy*³ recording enables previewing, metadata input, and playlist editing*² over a network. In addition to handling DVCPRO HD/DVCPRO50/DVCPRO/DV codec recording, optional functions support AVC-Intra200 codec recording,*² with images and sounds that approach uncompressed master quality, and AVCHD playback.*⁴ The 3U half-rack size unit houses a wide range of interfaces, including Gbit Ethernet LAN, USB 3.0 (HOST), parallel remote, and RS-422A, while easy use is assured by JOG/SHTL/MENU dial operation. AC/DC power operation enables versatility — from outdoor use to mounting in an OB van or studio installation — for a wide range of broadcast applications.

*1: AVC-ULTRA is the name of Panasonic's professional video codec family. The AJ-PD500 does not support all of the formats included in the AVC-ULTRA family.

*2: Available in the near future.

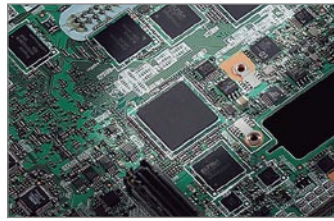
*3: The use of DCF Technologies is under license from Multi-Format, Inc.

*4: Requires the optional AJ-YCX500G AVCHD Codec Board.



First Standard-Equipped AVC-ULTRA Codec

From mastering to streaming, the image quality and bit rate can be selected to match the application. Panasonic's professional A/V codec family, AVC-ULTRA, is provided as standard equipment for the first time ever, to meet the particular needs of broadcasting and image production.



AVC-ULTRA Codec LSI

AVC Intra An intra-frame compression method that is highly suited to image production. In addition to the conventional AVC-Intra100/50, an optional AVC-Intra200 codec will be available.*1 With superb images that approach uncompressed quality and 24 bit audio, it offers a level of quality that meets the needs of mastering and archiving.

AVC Long G An inter-frame compression method that achieves high-quality HD recording at a low bit rate. Ideal for providing on-air content direct from the shooting location and for workflows using content transferred over the internet. Four bit rates are available: AVC-LongG50/25/12*/6*1 Mbps. AVC-LongG25 provides 10 bit/4:2:2 quality at a bit rate of approximately 25 Mbps.

AVC Proxy Low-bit-rate, high-resolution, high-sound-quality proxy video (Quick Time/H.264) is also recorded with the actual data.*2 Also includes metadata for efficient offline editing. See the table (AVC-Proxy Recording Modes and Recording Signals) on Page 5.



*1: Available in the near future.

*2: Proxy recording is not possible with Loop Rec. Proxy data refers to file-based data of low-bit-rate motion images and audio together with management data, such as a time code and metadata. The use of DCF Technologies is under license from Multi-Format, Inc.

Standard-Equipped microP2 Card Slots

The AJ-PD500 is the first recorder to come with two slots for the microP2 card, the new broadcast-use memory card downsized to match the size of a conventional SD memory card.

- **microP2 card:** While inheriting the high reliability of the P2 card and maintaining the large capacity of 64 GB,*1 the microP2 card was greatly downsized to match the size of an SD memory card, thus resulting in a considerable reduction in cost.
- **Content Protection System (CPS):** A new security function featured on the microP2 card. The content recorded on the card is locked with a password to protect against unauthorized access. This prevents data from being stolen and enables secure media control.
- **P2 Card Slots:** Two conventional P2 card slots can be used.*2
- **Highly Mobile and Reliable:** The microP2 and P2 cards are highly resistant to temperature changes, dust, impacts, and vibration, and there are no worries about condensation, head clogging, or dropout as there are with VTR systems. Data is recorded onto empty card spaces, so there is no need to search for the beginning and ending of recorded portions. There is also no danger of mistakenly recording over existing data.



*1: Total card capacity includes space for data management, such as system data; therefore, the actual usable area is less than the capacity indicated on the card. See the "Recording Times" table on Page 5 for recording times.

*2: The microP2 card and P2 card cannot be used simultaneously.

Network Solutions

(Available in the near future)

The low-rate AVC-Proxy and AVC-LongG6 codecs are well suited to high-speed workflows using a LAN or the internet. Their image and sound quality is high enough for use as a direct broadcast source for breaking news over the internet. They also allow images to be clearly confirmed for offline editing, to greatly streamline the workflow. The AJ-PD500 features a Gbit Ethernet LAN terminal, FTP client function, and FTP/Samba server function for file transfers over a LAN or the internet. An HTTP server function can also be accessed from a web browser to provide the following solutions.

- **Proxy Preview:** AJ-PD500 clips can be displayed as thumbnail images on a PC or Mac for previewing and streaming proxy images.
- **Metadata Editing:** The metadata on AJ-PD500 clips can be searched and edited (or input) on a PC or Mac. The actual data and proxy data both share the metadata, so the edited results can also be reflected in the actual data.
- **Playlist Editing:** Playlists can be edited and saved. They can also be played, SDI output, and copied using a web application. After editing the playlist on location or over the internet, proxy-image news flashes can be transmitted from the playlist*. Then, the actual data can be FTP transferred or carried to the studio, and the previously sent playlist can be used for SDI output of program footage. Maximizing network functions helps to streamline and speed-up the workflow. * This workflow will be available in the future.



*Available in the near future

Broadcast Functions and Versatile Interfaces in a 3U Half-Rack Size

AVCHD Playback* and DVCPRO Series REC/Playback

AVCHD playback* and recording with DVCPRO Series codecs (DVCPRO HD/DVCPRO50/DVCPRO/DV) are supported. A wide range of needs can be met for different users by selecting and adding to the system.

- **AVCHD Playback*:** Mounting the optional AJ-YCX500G AVCHD Codec Board allows use of a variety of AVCHD and other broadcast content.
- **DVCPRO Series Codec Recording:** Record/Playback with DVCPRO HD, DVCPRO50, DVCPRO, and DV codecs. For SD images, both NTSC (480i) and PAL (576i) systems are supported.

* Optionally available. Playback of all files recorded by AVCHD equipment cannot be guaranteed.

High-Quality 24 bit Audio Recording

High-quality 24 bit digital audio* recorded by AVC-Intra and AVC-LongG codecs is supported. Recording and playback of 48 kHz/24 bit/16 channel audio is possible with the AVC-Intra200 codec (an optional function scheduled for release in the near future).

*To play video clips recorded with 24 bit audio, use a 24 bit compatible P2 device or P2 viewer. A P2 device that is not 24 bit compatible will display the clip number in red, and playback will not be possible. A P2 viewer that is not 24 bit compatible will not produce normal sound. Use the latest P2 viewer version. For current information on 24 bit compatible P2 devices and P2 viewers, see the Service and Support section of the Panasonic website (<http://panasonic.biz/sav/>).

Multi-Functional Recording with Two Pairs of Card Slots*¹

In addition to being able to selectively or continually record onto two card slots each for microP2 and P2 cards, a host of exclusive memory card recording functions are available.

- **Hot-Swap Rec:** Thanks to the two card slots, you can hot-swap P2 cards for continuous non-stop recording. With multiple cards you can record for hours without interruption.
- **Simul Rec (AVC-LongG Only)*²:** The same data can be recorded simultaneously onto microP2 and P2 cards to provide a very safe recording mode.
- **Auto Rec*²:** This mode automatically starts recording in response to SDI video input.
- **Loop Rec:** This is an endless recording mode in which older data is overwritten by newer data. When used with cameras for time-sensitive information gathering, like weather and news reporting, the Loop Rec mode holds the latest video data for a predetermined time period.

*¹: Continuous recording cannot extend over both microP2 and P2 cards.

*²: Available in the near future.

Text Memo, Shot Marker and Metadata

- **Text Memo:** When recording or previewing a clip, you can attach a memo (similar to a bookmark) at a desired location (up to 100 locations on a frame basis). The simplified editing function lets you copy a segment between memos and create a new clip. Text information can be added to a memo.
- **Shot Marker:** During or after recording, you can mark each clip with OK, NG or another designation.
- **Clip Metadata:** This function lets you browse and edit metadata, such as the name of the camera operator and reporter, shooting location and text memos. Metadata files can be uploaded from an SD/SDHC/SDXC card.

USB Keyboard Connection

The USB 2.0 keyboard terminal lets you connect an ordinary USB keyboard for easy metadata text input. A software keyboard is also provided.

Gamma Conversion for Cinema Production

This function converts images recorded by a VariCam or images recorded in the Film Rec mode of the AJ-HPX3100 to achieve the same kind of film-like look as the Telecine 5 or Telecine 6 mode of the AJ-GBX27G HD Gamma Corrector. It can also convert to the Cineon curve for film recording.

Thumbnail, Ordinary Image and Waveform Display on an 8.76 cm (3-1/2 inches) LCD

- **Thumbnail Display:** Thumbnail images can be freely arranged for display, allowing instant playback, deletion or copying of selected clips.
- **Image Full-Screen Display:** Allows use as a recording or preview monitor.
- **WFM:** The AJ-PD500 has waveform and vectorscope display functions for the playback or input video signal on the LCD monitor. It can also display on Video Out and SDI Out.



Versatile Playback Functions

- **Auto Playback*:** This automatically detects the codec for each video clip to play back and output.
- **PB Position Selection:** This lets you select the playback position when playing from a thumbnail image. You can select from three different options: Previous playback position, thumbnail time code position, or the beginning of the clip.
- **One-Clip Playback:** This convenient function lets you play only one clip with one-touch operation.
- **Repeat Playback:** This plays the selected clip (single or multiple) repeatedly.

*Available in the near future.

Multi-Control Dial

In addition to VTR-like Jog and Shuttle playback, this dial lets you scroll when setting Menu items, and easily set the audio level.



User Buttons/User Files

Functions can be freely allocated to the six user buttons. These settings are saved internally and protected when the power is turned off. They can also be easily checked on a diagnostic display*. A user file containing the settings can be saved onto an SD/SDHC/SDXC card.

*Available in the near future.

Up/Down/Cross Convert Payout

The AJ-PD500 can convert down from HD to SD during playback. It also features an aspect conversion function.

USB 3.0 Interface Allows High-Speed Transfers

- **USB 3.0 (Host):** AVC-LongG25 codec files can be copied to external storage*1 at approximately 12 times faster than real time.
- **USB 2.0 (Device):** Device mode allows use as a P2 card drive for a PC (nonlinear editor).
- **Playback from External Storage:** P2 MXF files in external storage can be displayed as thumbnails and played back.*2 P2 audio playback is uninterrupted by slow hard disk performance, or when vibration temporarily delays data reading.



USB3.0/External Storage

*1: 2 TB or more cannot be used.

*2: Playback is based on disk drive performance, including spindle speed. Panasonic cannot guarantee smooth playback without dropped frames.

3G-SDI Input and Three 3G-SDI Outputs

3G-SDI input and three 3G-SDI outputs are standard features. This enables high-quality line recording from a video camera, switcher, etc. When connected to a camera recorder, Rec Start/Stop can be linked to the camera trigger. Super and thumbnail displays can be output.

Gigabit Ethernet LAN Port

The AJ-PD500 is provided with an Ethernet port (1000Base-T/100Base-TX/10Base-T) and features the following network functions. This enables the AJ-PD500 to connect to a network without using a PC for easy file transfers over the internet.

- **FTP Client Function:** This function lets you connect the AJ-PD500 to an FTP server to send or receive clips to or from the FTP server.
- **FTP/Samba Server Function*:** You can access the AJ-PD500 from a PC via a LAN to upload or download files.
- **HTTP Server Function*:** You can view thumbnails and metadata from a PC.

* Available in the near future

AES/EBU Digital Audio Input/Output

AES/EBU digital audio (4 channel, BNC terminals) input/output is a standard feature for interfacing with digital audio devices and digital VTRs.

Parallel Remote (15 Pin) Terminal

A 15 pin parallel remote terminal with function assign-ability lends flexibility to user system designs.

HDMI Digital HD Output

The AJ-PD500 features an HDMI output terminal*, the next-generation interface for HD images and sound. This provides digital output for a wide variety of both professional and consumer devices.

* An optional adaptor cable may be necessary for connecting a professional monitor.



RS-422A Remote

The AJ-PD500 also features the same RS-422A remote terminal (9 pin) that is found on many broadcast VTRs, allowing it to be controlled as a player by an external editing controller.

Analog Input/Output Terminals

The AJ-PD500 has Ref input, analog video monitor (composite) output,* XLR analog audio inputs/outputs (Ch 1/Ch 2), time code input/output, and a headphone output jack.

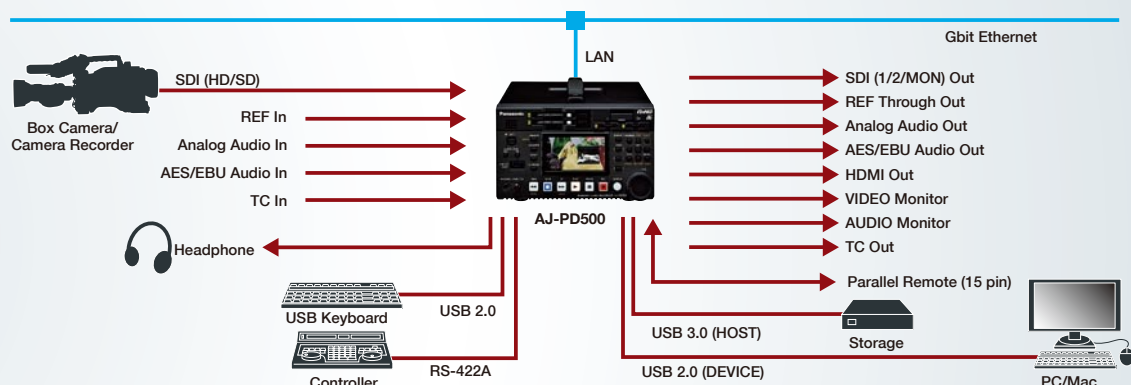
* This is not output when the system frequency is 24 Hz.

Compact, Lightweight Design, AC/DC Power Supply, and Built-in Speaker

- Compact, 3U half-rack size and light weight of approximately 3.65 kg (8.1 lbs) are ideal for OB van use.
- AC/DC power supply. Compatible with 100-240 VAC power and 12 VDC battery drive for both studio and field use.
- A built-in front speaker enables audio monitoring.

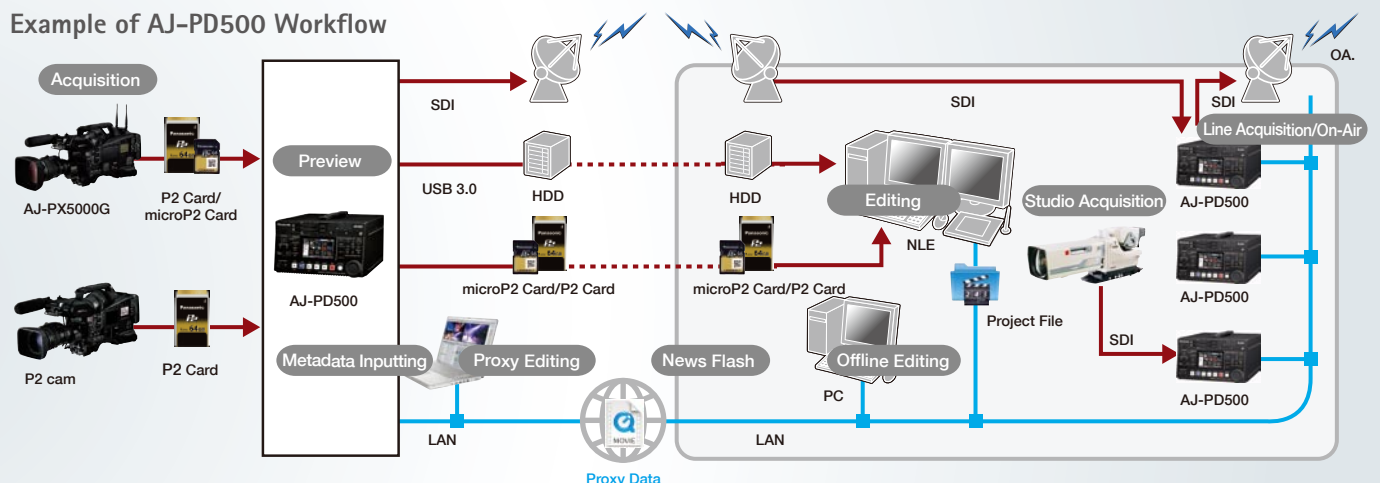


AJ-PD500 Input/Output I/F



*This cannot be used as an editing recorder.

Example of AJ-PD500 Workflow



Recording and Playback Codecs

Compression Format [REC FORMAT]	Video Format [LINE & FREQ]						
	1080/23.98p* 1080/24p*	1080/25p* 1080/29.97p*	1080/50i 1080/59.94i	720/23.98p* 720/24p* 720/25p* 720/29.97p*	720/50p* 720/59.94p*	1080/50p 1080/59.94p	480/59.94i 576/50i
AVC-Intra200(Option)*	Recording/Playback	Recording/Playback	Recording/Playback	—	Recording/Playback	—	—
AVC-Intra100	Recording/Playback	Recording/Playback	Recording/Playback	Playback Only	Recording/Playback	Recording/Playback < 3G-SDI >	—
AVC-Intra50	—	Playback Only	Recording/Playback	Playback Only	Recording/Playback	—	—
AVC-LongG50	Recording/Playback	Recording/Playback	Recording/Playback	—	Recording/Playback	—	—
AVC-LongG25	Recording/Playback	Recording/Playback	Recording/Playback	—	Recording/Playback	Recording/Playback < 3G-SDI > *	—
AVC-LongG12*	—	—	Recording/Playback	—	Recording/Playback	—	—
DVCPRO HD	—	—	Recording/Playback	Playback Only	Recording/Playback	—	—
DVCPRO 50	—	—	—	—	—	—	Recording/Playback
DVCPRO	—	—	—	—	—	—	Recording/Playback
DV	—	—	—	—	—	—	Recording/Playback

* Available in the near future.

Recording Times*1

Recording format (Compression Format) 59.94Hz/50Hz	Card x 1		
	16 GB	32 GB	64 GB
AVC-Intra200 (Option)*2	Approx. 8 min.	Approx. 16 min.	Approx. 32 min.
AVC-Intra100/ DVCPRO HD	Approx. 16 min.	Approx. 32 min.	Approx. 64 min.
AVC-LongG50/ AVC-Intra50/ DVCPRO 50	Approx. 32 min.	Approx. 64 min.	Approx. 128 min.
AVC-LongG25/ DVCPRO/DV	Approx. 64 min.	Approx. 128 min.	Approx. 256 min.
AVC-LongG12*2	Approx. 120 min.	Approx. 240 min.	Approx. 480 min.

AVC-Proxy Recording Modes and Recording Signals

Recording Mode	Video			Audio		
	Resolution	Codec	Bit Rate	Codec	CH	Bit Rate/1CH
STD 2CH MP4	320 x 240 (QVGA)	MPEG-4 Simple Profile	1500 kbps	AAC-LC	2CH	64 kbps
LOW 2CH MOV	1080i mode: 480 x 270 480-59.94i mode: 352 x 240 576-50i mode: 352 x 288 1080 60/50p mode: 320 x 180 1080 30/25/24p mode: 480 x 270 720 60/50p mode: 320 x 180 720 30/25/24p mode: 480 x 270	H.264 Baseline Profile 800	800 kbps	AAC-LC	2CH	64 kbps
HQ 2CH MOV	640 x 360	H.264 High Profile	1500 kbps	AAC-LC	2CH	64 kbps
HQ 4CH MOV	640 x 360	H.264 High Profile	1500 kbps	AAC-LC	4CH	64 kbps
SHQ 2CH MOV	960 x 540	H.264 High Profile	3500 kbps	Linear PCM	2CH	768 kbps

*1: For 1080/59p and 1080/50p, the recording times become 1/2 of those shown above. All of the times apply when single clips are recorded continuously one after the other onto a P2 card. Depending on the number of clips to be recorded, the recordable time may be shorter than the times given. *2: Available in the near future.



AJ-P2M064AG
AJ-P2M032AG
Memory Card
"microP2 card"



AJ-P2E064FG
AJ-P2E032FG
AJ-P2E016FG
Memory Card
"P2 card F series"



SD/SDHC/SDXC
Memory Card



AJ-YCX500G **NEW**
AVCHD Codec Board



AJ-AKR200G **NEW**
Upgrade Software Key
(Coming Soon)

Avid NLE Plug-In Software
(Avid Media Composer v6.5 or later)



AJ-PS001G **NEW**
Software Key
for AVC-Proxy re-link.



AJ-PS002G **NEW**
Software Key
for AVC-Intra50/100 P2 file export.



AJ-PS003G **NEW**
Software Key
for AVC-LongG P2 file export.
(Scheduled for release in autumn, 2013.
Purchase necessary.)



AJ-PS004G **NEW**
Software Key
for AVC-LongG file import to edit.
(Scheduled for release in autumn, 2013.
Purchase necessary.)

SPECIFICATIONS (Preliminary)

As of September, 2013

General

Power Source:	AC 100–240 V, 50 Hz/60 Hz, 45 W DC 12 V, 3.6 A (included option)
Operating Temperature:	0 °C to 40 °C (32 °F to 104 °F)
Operating Humidity:	10 % to 80 % (no condensation)
Storage Temperature:	–20 °C to 50 °C (–4 °F to 122 °F)
Weight:	3.65 kg (8.05 lbs) (main unit only)
Dimensions:	210 mm (W) x 125.5 mm (H) x 253 mm (D) (8-9/32 inches x 4-15/16 inches x 9-31/32 inches) (not including the Handle, set foot, knob and terminal)
Recording Media:	P2 card, microP2 card
Recording Formats:	AVC-Intra200 (option)*1/AVC-Intra100/AVC-Intra50/ AVC-LongG50/AVC-LongG25/AVC-LongG12*1/ AVC-LongG6*1/DVCPRO HD/DVCPRO50/DVCPRO/DV (selectable)
Proxy:	File Format: MP4 (ISO/IEC14496 standard), MOV (QuickTime format) Video Compression Formats: MPEG4 Simple Profile, H.264/AVC Baseline Profile, H.264/AVC High Profile Audio: AAC-LC, Linear PCM
Video Recording Signals:	1080/59.94p, 1080/50p, 1080/59.94i, 1080/50i, 1080/29.97p*1, 1080/25p*1, 1080/24p*1, 1080/23.98p*1, 720/59.94p*1, 720/50p*1, 480/59.94i, 576/50i
Audio Recording Signals:	AVC-Intra200 (option)*1: 48 kHz 24 bit 16 CH AVC-Intra100/AVC-Intra50: 48 kHz 24 bit 8 CH 48 kHz 16 bit 8 CH AVC-LongG50/AVC-LongG25: 48 kHz 24 bit 8 CH AVC-LongG12*1: 48 kHz 24 bit 4 CH AVC-LongG6*1: 48 kHz 16 bit 2 CH DVCPRO HD: 48 kHz 16 bit 8 CH DVCPRO 50/DVCPRO: 48 kHz 16 bit 4 CH
Recording Times:	See page 5 in this catalog for Recording Times.

Video Specification (Digital Video)

Sampling Frequency:	AVC-Intra200 (option)*1/AVC-Intra100/AVC-LongG50/ AVC-LongG25/DVCPRO HD: 59.94 Hz Y: 74.1758 MHz, P _B /P _R : 37.0879 MHz (50 Hz) Y: 74.2500 MHz, P _B /P _R : 37.1250 MHz AVC-Intra100/AVC-LongG25 (1080/59p) Y: 148.3516 MHz, P _B /P _R : 74.1758 MHz (1080/50p) Y: 148.5000 MHz, P _B /P _R : 74.2500 MHz DVCPRO50: Y: 13.5 MHz, P _B /P _R : 6.75 MHz DVCPRO: Y: 13.5 MHz, P _B /P _R : 3.375 MHz
Quantizing:	AVC-Intra200 (option)*1/AVC-Intra100/AVC-Intra50/ AVC-LongG50/AVC-LongG25: 10 bit AVC-LongG12*1/AVC-LongG6*1/DVCPRO HD/DVCPRO50/ DVCPRO/DV: 8 bit
Video Compression Methods:	AVC-Intra200 (option)*1/AVC-Intra100/AVC-Intra50: MPEG-4 AVC/H.264 Intra Profile AVC-LongG50/AVC-LongG25/AVC-LongG12*1/ AVC-LongG6*1: MPEG-4 AVC/H.264 High Profile DVCPRO HD: DV-Based Compression (SMPTE ST 370) DVCPRO50/DVCPRO: DV-Based Compression (SMPTE ST 314) DV: DV Compression (IEC 61834-2)
Color Sampling:	AVC-Intra200 (option)*1/AVC-Intra100/AVC-LongG50/ AVC-LongG25: Y: P _B : P _R = 4: 2: 2

Resolution:	AVC-Intra200 (option)*1/AVC-Intra100/AVC-LongG50/ AVC-LongG25/AVC-LongG12*1/AVC-LongG6*1: 1920 x 1080 (1080/59.94i, 1080/50i), 1280 x 720 (720/59.94p, 720/50p)*1 AVC-Intra100/AVC-LongG25: 1920 x 1080 (1080/59.94p, 1080/50p) AVC-Intra50: 1440 x 1080 (1080/59.94i, 1080/50i) 960 x 720 (720/59.94p, 720/50p)*1
-------------	---

Audio (Digital Audio)

Sampling Frequency:	48kHz (synchronized with video)
Quantizing:	AVC-Intra200 (option)*1/AVC-LongG50/AVC-LongG25/ AVC-LongG12*1: 24 bit AVC-Intra100/AVC-Intra50: 24 bit/16 bit (selectable) AVC-LongG6*1/DVCPRO HD/DVCPRO50/DVCPRO/DV: 16 bit
Headroom:	12 dB/18 dB/20 dB (selectable)
De-emphasis:	T1=50 μs, T2=15 μs (auto on/off)

Video Input

Reference Input:	BNC x 1, Auto switching of black burst/HD 3-value sync
SDI Input:	BNC x 1

Video Output

Monitor Output:	BNC x 1, SD analog composite
Reference through Output:	BNC x 1
SDI Output:	BNC x 2 (HD/SD switchable)
SDI Monitor Output:	BNC x 1 (HD/SD switchable)
HDMI Output*2:	HDMI x 1 (HDMI TypeA terminal), VIERA Link not supported

Audio Input

Analog Input:	XLR x 2 (CH1, CH2)
Digital Input:	BNC x 2 (CH1/2, CH3/4), AES/EBU Format
SDI Input:	BNC x 1

Audio Output

SDI Output:	BNC x 3
Analog Output:	XLR x 2 (CH1, CH2), Monitor Output (L/R) switchable
Digital Output:	BNC x 2 (CH1/2, CH3/4), AES/EBU Format
Headphone Output:	φ 3.5 mm Stereo Mini Jack x 1, 8 Ω, variable level
HDMI Output:	2 channels (linear PCM)
Internal Speaker:	Round x 1 (monaural)

Other Input and Output

Time Code Input:	BNC x 1, 0.5 V [p-p] to 8.0 V [p-p], 10 kΩ
Time Code Output:	BNC x 1, low impedance, 2.0 V ±0.5 V [p-p]
REMOTE:	D-SUB 9 pin x 1, RS-422A Interface
PARALLEL REMOTE:	D-SUB 15 pin x 1
LAN:	RJ-45 x 1, 1000BASE-T/100BASE-TX/10BASE-T
USB Host:	USB3.0 HOST (TYPE A) x 1
USB Device:	USB2.0 DEVICE (TYPE B) x 1
Keyboard*3:	USB2.0 (TYPE A) x 1 (maximum 100 mA)

Standard Accessories

AC cable, CD-ROM (Manuals)

Weight and dimensions shown are approximate. Specifications are subject to change without notice.
*1: Available in the near future. *2: HDMI output does not support 480/59.94i and 576/50i. Convert to 480/59.94p and 576/50p for output. *3: This port is intended for keyboard connection. If the keyboard draws more than 100 mA, a protective circuit may shut down the unit.



P2 Asset Support System

The free member's service program for P2HD/AVCCAM

Extensive information for video professionals

Thirsty for Knowledge?

No purchase necessary
Information services for members

- ▶ The latest technical information
- ▶ FAQs, user's voices
- ▶ Tool download

Always the best performance

Additional content with product
registration

- ▶ Firmware, utility downloads
- ▶ Quick inspection, service history
- ▶ Newsletters

Contact us through PASS

Direct answers to your inquiries. Sign up now (no purchase necessary)

http://panasonic.biz/sav/pass_e

P2HD

5 year extended warranty program

1st year Basic
Warranty

2nd year

3rd year

4th year

5th year with
the warranty program

Extended for free upon registration

* Availability of this extended service program and service content may depend on country/region and model.

* A maximum 5 year or pre-specified hours of operation from the date of purchase, whichever comes first.

* Not all repair work is covered by this extended warranty program.

Informative product-related content also
available with equipment registration.

Please refer to the latest Non-linear Compatibility Information, P2 Support, Download and Service Information, etc., at the following Panasonic web site.



<http://pro-av.panasonic.net/>

Notes Regarding the Handling of P2 Files Using a PC

Mounting and Transferring Files

The PC must be installed with the included P2 driver in order to recognize, copy and transfer P2 files. This driver is also necessary when using the PC card slot and when handling P2 files stored on a hard-disk device, such as P2 store. For other operating requirements, refer to the P2 installation manual. The P2 driver and the P2 installation manual can be downloaded free from a Panasonic website. Visit <http://pro-av.panasonic.net/> and click "P2 Support and Download."

Preview and Nonlinear Editing

To preview (play) P2 files on a PC, it is necessary to install P2 Viewer Plus software (downloadable for free, for Windows and Mac), both from Panasonic, or P2-compatible editing software available from other companies (for details, visit http://pro-av.panasonic.net/en/sales_o/p2/partners.html). Note that each software places specific requirements on the operating environment, and the operating environment must meet additional requirements to play and edit HD content on Windows PCs and Macs. For P2 Viewer Plus download and operating requirement information, visit <http://pro-av.panasonic.net/>. For operating requirements and details of other P2 editing software, visit the website of the relevant software manufacturer.

Precautions When Using SD Memory Cards

On the Memory Card Recorder, use SD memory cards that conform to the SD standard, SDHC standard, or the SDXC standard. When performing proxy recording (extra-cost option), use SDHC memory cards, SDXC memory cards, or Panasonic SD memory cards with the class description of class2 or higher. The MMC (Multi Media Card) cannot be used. Be sure to format cards on the Memory Card Recorder before use. In this Memory Card Recorder, memory card of the capacity of SD (8 MB to 2 GB), SDHC (4 GB to 32 GB), and SDXC (32 GB to 128 GB) can be used.

"P2HD", "AVC-Intra", "AVC-LongG", "AVC-Proxy", "DVCPRO HD", "DVCPRO 50" and "DVCPRO" logos are registered trademarks of Panasonic Corporation. SDHC logo and SDXC logo are trademarks of SD-3C, LLC. Quick Time is a trademark of Apple, Inc., registered in the U.S. and other countries.

Panasonic®

Panasonic Corporation
AVC Networks Company
2-15 Matsuba-cho, Kadoma, Osaka 571-8503
Japan
<http://pro-av.panasonic.net/>

[Countries and Regions]

Argentina +54 11 4122 7200
Australia +61 (0) 2 9491 7400
Bahrain +973 252292
Belgium +32 (0) 2 481 04 57
Brazil +55 11 3889 4035
Canada +1 905 624 5010
China +86 10 6515 8828
Hong Kong +852 2313 0888
Czech Republic: +421 (0) 903 447 757
Denmark +45 43 20 08 57
Egypt +20 2 23938151
Finland, Latvia, Lithuania, Estonia +358 (9) 521 52 53
France +33 (0) 1 47 91 64 00
Germany, Austria, Switzerland +49 (0) 611 235 459
Greece +30 210 96 92 300
Hungary +36 (1) 382 60 60
India +91 120 247 1000
Indonesia +62 21 385 9449
Iran (Vida) +98 21 2271463
(Panasonic Office) +98 2188791102
Italy +39 02 6788 367
Jordan +962 6 5859801
Kazakhstan +7 727 298 0891
Korea +82 2 2106 6641

Kuwait +96 522431385
Lebanon +96 11665557
Malaysia +60 3 7809 7888
Mexico +52 55 5488 1000
Netherlands +31 73 64 02 577
New Zealand +64 9 272 0100
Norway +47 67 91 78 00
Pakistan +92 5370320 (SNT)
Palestine +972 2 2988750
Panama +507 229 2955
Philippines +63 2 633 6163
Poland +48 (22) 338 1100
Portugal +351 21 425 77 04
Romania, Albania, Bulgaria, Macedonia +40 (0) 729 164 387
Russia & CIS +7 495 9804206
Saudi Arabia +96 626444072
Singapore +65 6270 0110
Slovak Republic, Croatia, Serbia, Bosnia, Montenegro, Slovenia +421 (0) 903 447 757
South Africa +27 11 3131622
Spain +34 (93) 425 93 00
Sweden +46 (8) 680 26 41
Syria +963 11 2318422/4
Taiwan +886 2 2227 6214
Thailand +66 2 731 8888

Turkey +90 216 578 3700
U.A.E. (for All Middle East) +971 4 8862142
Ukraine +380 44 4903437
U.K. +44(0)1344 70 69 13
U.S.A. +1 877 803 8492
Vietnam +848 38370280



JQA-Q443



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