Panasonic

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AJ-SD255

DVCPRO Digital Video Cassette Recorder

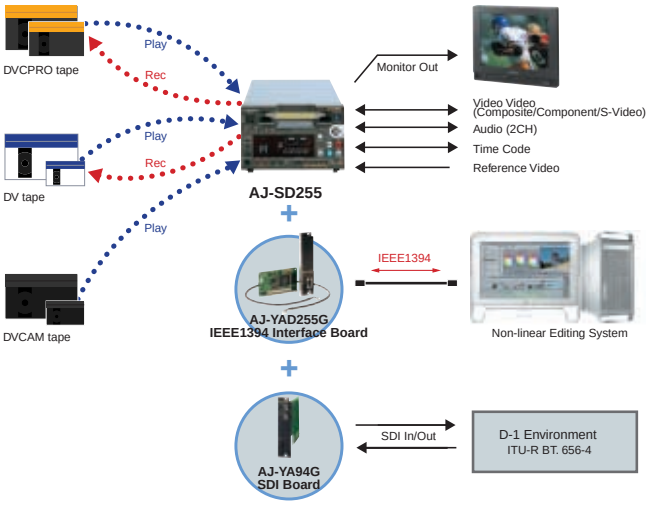
(625)

DVCPRO

A Versatile, Half-Rack Size DVCPRO/DV Recorder That's Ideal for Nonlinear Editing and Other Production Tasks

Joystick Search

Compact and easy to carry, the versatile AJ-SD255 handles a host of applications in areas from broadcasting to desktop video production. This half-rack size VTR records and plays back in both DVCPRO and DV, and it also plays back DVCAM tapes. It comes equipped with an analogue interface and offers an IEEE 1394 digital interface as an option. A new design featuring a slanted panel and improved joystick makes operation easy. The AJ-SD255 is compatible with voltages anywhere in the world. Conveniently sized and full of features, this DVCPRO/DV recorder is ideal for viewing, dubbing and as a feeder for nonlinear editing.



DV Format Recording and Playback

The AJ-SD255 is the DVCPRO VTR to offer DV-format recording. Recording and playback are possible with both standard and Mini-DV cassettes for cost-effective, extended-time applications. The AJ-SD255 also plays back DVCAM tapes. In both recording and playback, a cassette detection function automatically selects the proper mode for the type of cassette loaded.

*The AJ-SD255 cannot playback DV cassette tapes recorded in LP mode, or extended-time Mini-DV cassette tapes (80 minutes in SP mode, 120 minutes in LP mode), even with the cassette adapter.

Outstanding Picture and Sound Quality

The AJ-SD255's digital component recording assures superb pictures, with a video Y bandwidth of 5.5 MHz and video S/N ratio of 58 dB in digital domain. For audio that surpasses CD quality, it features two 16-bit digital audio channels with 48-kHz sampling. Using the optional digital interface, both picture and audio quality remain high even after editing and repeated dubbing.

*It does not support cue recording or playback.

126 Minutes of DVCPRO Recording

The AJ-SD255 can use the AJ-P126LP DVCPRO tape to provide up to 126 minutes of continuous recording and playback, permitting the recording of extended programming onto a single tape cassette for added convenience in production and transmission. Using the 276 minute AY-DV276MQ, cassette adapter not required, you can record up to 4 hours of DV. Thus if you have a program that is longer than the 2 hour, you can still cover it with the DV mode.

IEEE 1394 Digital Interface

Adding the optional AJ-YAD255G interface board allows IEEE 1394 digital input and output for exchanging digital AV data with a DVCPRO VTR, DV VTR, or personal computer. Used this way, the AJ-SD255 can send and receive data in both DVCPRO and DV. It also offers a function that converts the "unlocked audio" recorded during DV input to "locked audio." These features make the AJ-SD255 well suited to a range of applications in a nonlinear system.

*DVCPRO/DV conversion function through IEEE 1394 interface is not allowed.

Analogue In/Out Terminal

The AJ-SD255 features video input/output (BNC x 3) for composite, component, or S-Video signals, and 2-channel audio input/output (XLR x 2) as standard equipment. A separate monitor output (BNC, L/R Phono) is also provided. The AJ-SD255 comes fully equipped to handle a wide array of recording, playback and viewing tasks.

SDI Option

Adding the optional AJ-YA94G board provides serial digital interface (video/audio, ITU-R BT.656-4) input and output capabilities. This makes the AJ-SD255 suitable for use in digital systems at broadcast studios and production houses.

Small, Lightweight and Easy to Carry

Measuring only 214 mm wide, the AJ-SD255 is virtually the same size as a 3U-tall waveform monitor, making it a space-saver in any tight places. Its light 7.2 kg weight and convenient handle make it easy to carry.

New Joystick Design

A joystick has been added to the front panel for easier, more accurate slow and shuttle search operation. For added convenience, the joystick can also be used to select from the menu and set the time code.

Three Programmable Function Buttons

You can customize AJ-SD255 operation by assigning functions from the setup menu to each of the three programmable function buttons provided. This gives you instant, direct access to the operations you use most often.

Worldwide Voltage

Compatible with power supplies from 100 to 240 VAC, the AJ-SD255 can be used almost anywhere in the world.

UMID* Data Recording and Playback

The AJ-SD255 records and plays data that conforms to the UMID standard and contains a variety of supplementary information. This allows it to read GPS data (latitude, longitude and altitude) recorded by the DVCPRO Camera-Recorder. The AJ-SD255 can also handle VANC data for Teletext.

*UMID stands for Unique Material Identifiers, which are defined for AV material use in the SMPTE 330M international standard.

(equipped with optional AJ-YAD255G and AJ-YA94G interface boards)

O P T I O N A L A C C E S S O R I E S

AJ-YAD255G
IEEE 1394 Interface Board

AJ-YA94G
Serial Digital Interface Board

AJ-A95E
Remote Control Unit (RS-422A)

AJ-CS455P
Mini-DV Cassette Adapter

S P E C I F I C A T I O N S

General Specification

Power Source:	AC100 to 240 V ±10%, 50/60 Hz
Power Consumption:	49 W
Operating Temperature:	5°C to 40°C
Operating Humidity:	10 % to 80 % (no condensation)
Weight:	7.2 kg
Dimensions (WxHxD):	214 x 132 x 434 mm (without shoes and connectors)
Recording Format:	DV/DVCPRO switchable
Video Format:	625i
Recording Audio Signal:	48 kHz, 16 bit, 2 CH
Recording Track:	Digital Video/Audio: Helical track TC: Sub-code area CTL: 1 longitudinal track
Tape Speed:	33.854 mm/ sec.
Max. Rec/Play Time:	126 minutes (with AJ-P126LP)
Tape:	Metal Particle
FF/REW Time:	Less than 3 min. (with AJ-P126LP) Less than 2 min. (with AJ-P66MP)
Digital Slow:	–0.43 to +0.43 times normal speed (DVCPRO)
Tape Timer Accuracy:	±1 frame (continuous CTL)

Video Specification

Sampling Frequency:	Y:13.5 MHz, PB/PR:3.375 MHz
Quantizing:	8 bits
Compression Format:	DV-based compression (SMTPE314M)
Compression Ratio:	5:1 (DVCPRO)
Error Correction:	Reed-Solomon product code
Bit Rate:	25 Mbps (DVCPRO)
[SDI Input / Component Output]	
Video Band Width: (option *1)	Y: 25 Hz to 5.5 MHz (±1 dB) 5.75 MHz (–2 dB) PB/PR: 25 Hz to 1.3 MHz (±1 dB) 1.5 MHz (–6 dB)
S/N Ratio:	58 dB or more (Y)
K Factor:	1 % or less (Y 2T)
Y/PB, PR Delay:	10 nsec or less

Video Input Signal

Analogue Component:	BNC x 3 (Y/PB/PR) Y: 1.0 Vp-p PB/PR: 0.7 Vp-p, 75 Ω, (100% colour bar)
Analogue Composite:	BNC x 1 VIDEO:1.0 Vp-p (75 Ω)
S-Video:	BNC x 2 (Y,C) Y: 1.0 Vp-p, 75 Ω C: 0.3 Vp-p (burst level) 75 Ω
Reference:	BNC x 2 (loop-through), analogue composite, 75 Ω ON/OFF auto switching
SDI (option *1):	BNC x 1, ITU-R BT.656-4 standard

Video Output Signal

Analogue Component:	BNC x 3 (Y/PB/PR) (switchable for composite/ component/s-video) Y: 1.0 Vp-p, 75 Ω PB/PR: 0.7 Vp-p, 75 Ω (100% colour bar)
Analogue Composite:	BNC x 2 (switchable for composite/ component/s-video) VIDEO1, VIDEO2
S-Video:	BNC x 2 (Y,C) (switchable for composite/ component/s-video) Y: 1.0 Vp-p, 75 Ω C: 0.3 Vp-p (burst level) 75 Ω
SDI (option *1):	BNC x 1, ITU-R BT.656-4 standard
Monitor:	BNC x 1, analogue composite

Video Adjustment Range

Output Video Gain:	±3 dB
Output Chroma Gain:	±3 dB
Output Chroma Phase:	±30°
Output Black Level:	±100 mV
Output Sync Phase:	±15 µsec
Output SC Phase:	±180°

Audio Specification

Sampling Frequency:	48kHz (sync. with video)
Quantization:	16 bits
Frequency Response:	20Hz to 20kHz, ±1.0dB (reference level)
Dynamic Range:	More than 85 dB (1 kHz, emphasis off, "A" weighted)
Distortion:	within 0.1% (1 kHz, emphasis off, reference level)
Cross Talk:	less than –80 dB (1 kHz, between any 2ch)
Wow & Flutter:	Below measurable limit
Headroom:	18 dB
De-Emphasis:	T1=50µsec, T2=15µsec, ON/OFF automatically switching

Audio Input Signal

Analogue:	XLR x 2 (CH1/2), 600 Ω/high-impedance switchable, +4/0/-20 dBu switchable
SDI (option *1):	BNC x 1, 75Ω, ITU-R BT.656-4 standard

Audio Output Signal

Analogue:	XLR x 2, (CH1/2) low-impedance, +4/0/-20 dBu switchable
SDI (option *1):	BNC x 1, 75Ω, ITU-R BT.656-4 standard
Monitor:	PHONO x 2, 600Ω, –8 dBV
Headphones:	M3, stereo, 8 Ω, variable level control

Other Input and Output Signal

TC In:	BNC x 1, 0.5 to 8.0 Vp-p, 10 KΩ
TC Out:	BNC x 1, low-impedance , 2.0 ±0.5 V
Remote In/Out:	D-sub 9 pin, RS-422A I/F
IEEE 1394 Digital In/Out: (option *2):	IEEE 1394, 6 pin x 1, 400/200/100 Mbps switchable, IEEE 1394-1995, IEC61883-Part1/Part2, SMPTE396M, AV/C Command Set

option*1: AJ-YA94G SDI Board
option*2: AJ-YAD255G IEEE 1394 Interface Board

Weight and dimensions shown are approximate. Specifications are subject to change without notice. These products may be subject to export regulations. *DVCAM is a registered trademark of Sony Corp,

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