

SONY

PDW-R1

The XDCAM deck PDW-R1 is the perfect product for field recording and mobile applications. It is the first XDCAM field recording unit designed to work with multiple sources of power supply and with extended choice of input interfaces.

The compact, lightweight PDW-R1 Mobile Recorder Deck is ideal for field recording applications as well as desktop viewing by journalists, producers, and other production staff. An affordable solution for recording and playing back Professional Discs on the field, the PDW-R1 can also replay AV and associated data files recording via its i.LINK (File Access Mode) interface or a standard Ethernet network connection. The PDW-R1 offers scene selection capability that can be viewed via its colour LCD screen.

Features

MPEG IMX/DVCAM Recording and Playback

High-resolution AV files (MPEG IMX/DVCAM) and Proxy AV (low-resolution audio and video) files can be recorded via its Ethernet interface or i.LINK (file access mode) interfaces. High-speed transfer of proxy AV data at 30--times speed via its i.LINK (file access mode) interface

Extensive Range of Interfaces

Sony PDW-R1 comes equipped with a wide range of interfaces. In the traditional AV world it offers SDI output, analogue composite output, analogue audio output, headphone output and i.LINK AVC output. However in addition it offers SDI input, composite and analogue audio input, TC input and i.Link AVC input. While for a smooth integration into an IT world it proposes input and output for both Ethernet 100Bt and i.Link (File Access Mode) in order to browse and use XDCAM files directly on your PC.

3.5 inch Type Colour LCD Screen

The integrated 3.5-inch screen allows users to view recordings and edit Professional Disc EDLs anytime, anywhere without the need for an external video monitor.

AC/DC battery -powered operation

The PDW-R1 can be AC or DC battery powered. A feature that proves convenient in the field.

Long Playback Time

MPEG IMX at 30 Mb/s: 68 min., 40 Mb/s: 55 min., 50 Mb/s: 45 min., DVCAM: 85 min.

Metadata Recording

Ability to write EDL data (Clip List) back onto disc, Compact, lightweight design

Allows Transfer Speeds

1.25x for MPEG IMX (at 50 Mb/s) and 2.5x for DVCAM streams equipped with one optical head via its i.LINK (file access mode) interface

Network Connectivity

100 Base TX

Search Speed in Colour

JOG: -2 to 2 times normal speed, Shuttle: +/-20 times normal speed i.LINK (DV stream) output from MPEG IMX playback

Other Features

Thumbnail Search Operation Scene Selection Operation Proxy AV Data Recording Ability to write EDL back onto disc Metadata recording: UMID, Extended UMID, Essence Marks Built-in Audio Speaker

Benefits

New "Non-linear" Recording Medium

Professional Discs have a natural advantage since they suffer no mechanical contact during recording or playback, making the format ideal for continuous use and re-use (up to 10 000 times!). The Professional Disc is also highly resistant to dust, shock and scratches, packaged in an extremely durable and dust-resistant cartridge. It is resistant to heat, humidity and X-rays - factors that make the Professional Disc ideal for use in harsh field environments, and also allows for long media life and long-term storage (50 Years). Finally, despite all its inherent benefits - instant access, high speed transfer and exceptional reliability - Professional Discs still cost the same price as a tape and consequently can be perceived as a media.

Enhanced Ergonomic

With all Sony XDCAM products, a thumbnail is automatically generated to represent each recording made. As is common in non-linear editing systems, these thumbnails allow for instant access and playback of clips. The Essence Marks used in Sony XDCAM products are also a very useful form of metadata and provide a most effective way of searching for recordings via thumbnail pictures. Essence Marks can be set during the shoot either manually or automatically.

Benefits of Proxy AV Data

Proxy AV Data is a low-resolution, MPEG-4 based version of the full-resolution MPEG IMX/DVCAM stream. When a recording is made (in file mode only for PDW-R1), a Proxy AV stream that is time code synchronized

with the full-resolution stream, is also recorded automatically on the disc. This Proxy AV Data, which is smaller in size, is easier to work with and can be transferred over common networks at much greater speeds. Proxy AV Data is highly effective for tasks where video and sound quality are of less concern, but content delivery speed is essential. The typical benefits of its use include 'Remote Content Browsing' and 'Proxy Editing'.

IT-friendly System

In the Sony XDCAM Series of products, recordings are made as data files – one for each video or audio clip. This allows material to be handled with great flexibility in an IT-based networked environment – and easily available for copying, transferring, sharing and archiving to other IT-based devices. This file-based recording system also allows material to be viewed directly on a PC linked to the XDCAM decks or camcorders via a i.LINK (file access mode) connection – just as a PC reads files on an external drive.

Service and Support

XDCAM products are provided with a 7 year laser warranty.

Seamless Integration into Current VTR-based Systems

In order to achieve seamless integration into current tape based systems, a great deal of thought has been put into the development of Sony XDCAM products. A range of conventional AV interfaces including SDI, analogue video and analogue audio output allows easy connectivity to current equipment, including a wide variety of VTRs, linear and non-linear editors, and audio mixers.

Technical Specifications

Signal inputs

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|--------------------------|---|
| Ref. Video | BNC x1 , 1.0 Vp-p, 75 Ω, sync negative |
| Analogue composite video | BNC x1 , 1.0 Vp-p, 75 Ω, sync negative |
| SDI | BNC x1 , SMPTE 259M (ITU-R BT656-3), 270 Mb/s |
| Analogue Audio | Analogue Audio: XLR x2(channel selectable), +4/0/-3/-6dBu(selectable from menu) 10k Ω, balanced |
| Digital Audio (AES/EBU) | BNC x2, 4channels |
| Timecode | BNC x1 |

Signal outputs

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|--|---|
| Analogue composite video | BNC x1 (character out), 1.0 Vp-p, 75 Ω, sync negative |
| SDI output | BNC x1 (character out), SMPTE 259M (ITU-R BT656-3), 270 Mb/s BNC x1 (character out), SMPTE 259M (ITU-R BT656-3), 270 Mb/s |
| Audio output | XLR x2(channel selectable), +4/0/-3/-6dBu(selectable from menu) 600Ωload, low impedance, balanced |
| Digital Audio(AES/EBU) output 1/2, 3/4: | BNC x2, 4channels |
| Audio monitor output | XLR can be switched to monitor by Setup Menu |
| Headphone output | Jack x1, -16 -oo ~-13 dBu, 8 Ω, unbalanced |

Other inputs/outputs

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| i.LINK | IEEE 1394, DV IN/OUT or file access mode, 6-pin x 1 |
| Ethernet | 100Base-TX (RJ-45 x1) |
| RS-422A | D-sub 9-pin x1(VTR protocol) |
| DC out | 4-pin , Supplies power of 12V DC to the BVR-3 or RM-280 Remote control unit. |

Video performance

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| Sampling frequency | Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz |
| Quantisation | 10 bits/sample |
| Error correction | Reed Solomon Code |

General

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| Power requirements | AC 100 to 240 V, 50/60 Hz, DC (with battery), 12V EXT-DC |
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Power consumption

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| Operating temperature | +0 to +40°C (+32 to +104°F) |
| Storage temperature | -20 to +60°C (-4 to +140°F) |
| Humidity | 10 to 90% (relative humidity) |
| Storage humidity | Less than 90% |
| Mass | 4.0kg |
| Dimensions | 230 x 100 x 352 mm |
| Recording format | Proxy Video: MPEG 4 |
| - | Proxy Audio: A-law (8/4 ch, 8 bit, 8 kHz) |
| Recording and playback format | Video: MPEG IMX (50/40/30 Mb/s), DVCAM (25 Mb/s) |
| - | Proxy Video: MPEG 4 |
| - | Audio: MPEG IMX: 8 ch/16 bit/48 kHz or 4 ch/24 bit/48 kHz DVCAM: 4 ch/16 bit/48 kHz |
| - | Proxy Audio: A-law (8/4ch, 8 bit, 8 kHz) |
| Playback time | MPEG IMX: 50 Mb/s: 45 min., 40 Mb/s: 55 min., 30 Mb/s: 68 min. DVCAM: 85min. |
| Search speed (in colour) | Jog mode: +-1 times normal playback speed |
| - | Shuttle mode: +-20 times normal playback speed |

Supplied Accessories

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| Proxy Viewer |
| PDZ-1 Proxy Browsing Software |
| Operation Manual |