

CHANGING



THE WAY



BUSINESS



COMMUNICATES

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#### Introduction

Video production styles continue to diversify in response to the rapid and tremendous growth in visual communication. In this fast-changing environment, the need is for equipment that meets the crucial demands for both higher productivity and greater creativity in professional video production.

Since its launch in 1996, Sony DVCAM<sup>TM</sup> has satisfied these demands and brought many notable benefits. Excellent picture and sound quality that only a digital format can provide, high-performance editing capabilities, and system versatility that makes it possible to migrate smoothly from analogue to digital – these are just some of the factors behind the success of DVCAM. A full model line-up for digital acquisition, editing and program playout has led to the rapid acceptance of DVCAM by business users, production facilities and broadcasters around the world.

Many new models have been added to the DSR Series of DVCAM equipment, broadening the range of applications in ENG, field acquisition/editing, simple editing and so on.

Select from the Sony DVCAM lineup and you will be choosing innovative equipment to bring both new solutions to your production demands and added performance benefits to your system.

For more information, please visit our website: www.sonybiz.net/dvcam

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#### **DVCAM** in action



Today, DVCAM can be seen used in core applications such as education, corporate, event videography to television and film dailies, commercials, full-length feature production, off-line and on-line post production as well as editing of high-definition features. Award-winning productions have even been produced on DVCAM, as evident at this year's Sundance Film Festival. Network news is being captured, edited and distributed on DVCAM equipment worldwide.

The success of the DVCAM format can be attributed to its unique ability to bridge a multitude of professional applications into the high-end broadcast and production realm, but clearly it has been the various application demands that has made DVCAM what it is, the ultimate ubiquitous digital broadcast and professional format.









### MOVIEMAKING WITH DVCAM



Nominated for the Golden Palm at Cannes 2002, hit movie 24 Hour Party People was shot entirely on digital video, using DSR-PD150P DVCAM camcorders.

Director Michael Winterbottom (Wonderland, Welcome to Sarajevo, The Claim) came up with the idea for the film with producer Andrew Eaton while filming in Canada. Both wanted to make a film about music and hit on the Manchester music scene that they had both grown up through.

24 Hour Party People follows the birth of the Factory Records collective, from its earliest days, inspired by a Sex Pistols gig in Manchester, through to the Nineties collapse amid mounting debts, druginspired violence and mutual recriminations from all concerned.

To realise his vision, Winterbottom drafted in Dutch cinematographer Robby Müller, widely acclaimed for his work with innovative directors such as Lars von Trier (Breaking the Waves, Dancer in the Dark), Wim Wenders (Paris, Texas) and Jim Jarmusch (Down by Law, Mystery Train, Dead Man).

For 24 Hour Party People, Winterbottom's original idea was to mix between 35mm and DV. "We looked at Wonderland that I'd shot on 16mm," Winterbottom explains, "Breaking The Waves that Robby shot on 35mm and then some stuff that he shot on DV and in the end, the practical advantages of DV and the actual aesthetic of the film, it was surprising how close the DV was to the film."

Müller says that after years working under the restrictions of traditional film making, shooting digitally allows more shooting to be done. "I like to keep the momentum, that's my main objective actually, so you don't have, after every cut, the whole crew coming in, redoing things, we keep on shooting," he says.

The film features many handheld-filmed scenes which gives the movie a slightly docu-drama feel. New, lighter equipment is therefore a boon as earlier equipment weighed down Muller's cameraman by 54 pounds. Muller says this approach benefited from filming on DV. "The quality of DV is so forgiving that you can be a bit more loose on lighting which helps us because we didn't have time for lighting and Michael wanted to see 360 degrees around."

"It's not a film that's to do with a look," Winterbottom says, "it's not a film concerned with the style. The reason why we're shooting the way that we are is to allow the performances as much space as possible and to have a sense of recording things as they happen, as opposed to composing and organising them. So it's not to achieve a certain look or style but to achieve the best content of a film."

### **BINARY BISCOTTI**



A Conversation With David Lynch By Scott Billups

In an industry that all too often values commercial viability over artistic freedom, David Lynch has chiseled out a career full of exceptions to the rule. From his 1977 underground classic "Eraserhead" to the enigmatically beautiful "Blue Velvet" (1986), his films have managed to find beauty in the darkest recesses of the human condition.

Having just completed a tour of duty (Visual Effects Supervisor) on his latest film, "Mulholland Drive," I was deeply impressed by the staggering originality of his ideas and the clarity of his vision. His innate ability to paint those visions to film is the mark of a consummate artist.

A few weeks after wrapping "Mulholland Drive," David and I were sitting on my porch drinking some java and nibbling biscotti when he tells me he's got this commercial to do.

"Sony PlayStation2, international roll-out," he confided.

I was impressed.

"I want you to shoot it."

I was flattered.

"On DVCAM."

I was terrified.

Let's face it, crawling behind the camera for David Lynch is a daunting task for any DP because this guy really knows what he wants. He has pallet and lighting preferences that are not only unique, but also universally regarded. Like many, I consider the work he did with DP Peter Deming on "Lost Highway" (1997) to be among the most expressive in contemporary cinema... and then there's "Dune" (1984). While it might not be one of David's favorite projects, his collaboration with DP Freddie Francis created a painterly quality and dimension that rendered each frame as a singular work of art.

The commercial? Well it came out just fine, 22 effects in 60 seconds. The client loved it, the agency folks loved it, and most importantly David was very happy; but that poor little DSR-PD150P camcorder really got tweaked way beyond factory spec.

So now it's a few weeks after we wrapped the commercial. We're back on my porch, but this time I've got a small tape recorder sitting on the table next to the biscotti.

All of your work — your carpentry, your paintings, your photography, your sound design, and even your cinema and broadcast — all have an unmistakable sense of organic fundamentalism about it. And now you're rigorously embracing digital.

We've all got something that wants to get out. We've got a piece of paper and a pencil, and we can write stuff down. It's all about ideas, and ideas stringing themselves together to make stories, or a mood, or whatever. It doesn't really matter what way you work, or what medium you work in, it's all about ideas. Sometimes ideas want to be furniture and sometimes they want to be a story in film. Then when you start seeing images they start talking to you.

I did this thing with a Lumiere camera. It's a beautiful camera, and the emulsion has a lot of weird qualities: the flicker, the way the old lenses resolved, and the fact that you had to crank it; you could really get into telling a story with that technology.

I'm shooting a series now called "Rabbits" with a tiny Sony DSR-PD100AP, and when you see the quality it's kind of fuzzy and kind of organic in a way. It's not bad quality, just different — kind of like the Lumiere. So the tools start talking to you and you start getting images with that kind of quality in mind.

Every story, every idea wants to be told a certain way. Now with digital cameras, the really great thing about them is the amount of control you have afterwards to fiddle around and start experimenting and get even more Ideas.



### PICTURE PERFECT DVCAM



Top Ten Tips by Jon Fauer, ASC

"Knowing how to shoot digital video is a valuable skill for many business professionals. It's yet another consequence of a technologically networked age – like cell phones, laptops and a knowledge of PowerPoint."

Award-winning cinematographer and director Jon Fauer, has been shooting films from the age of eight with notable credits including DoP on the opening sequence for Bonfire Of The Vanities and creating countless commercials for companies such as Coca-Cola, McDonalds and IBM. His best-selling books on cinematography including Arriflex 16SR3: The Book, The 16SR Book and, most recently, Shooting Digital Video.

Below are his tips on shooting perfect DVCAM.

#### **DV** Ubiquity

Digital video is an increasingly key communications tool in today's business world. Web sites have become essential to business, and the best Web sites often feature video clips or streaming video. Fortunately, creating quality video is easier than ever, and even a laptop computer can be used to edit video these days.

Knowing how to shoot digital video is a valuable skill that many business professionals may be called upon to use. It's yet another consequence of a technologically networked age – like cell phones, laptops and a knowledge of PowerPoint. To date, about 150,000 professional digital video camcorders (DVCAM) and 3 million consumer MiniDV camcorders have been sold worldwide. More people are using digital video today than any previous format.

My personal career in cinematography career began in the world of corporate and documentary films, then branched out into movies and television shows. During this 25-year journey, I have used mostly 35mm motion picture cameras, but also some 16mm and video. Lately, more and more of my work has been shot in DV.

No doubt, many readers are skilled professionals, but for the purpose of this article, I'll assume the reader has just returned to civilisation after an eight-year expedition to the remotest part of the Amazon...

#### Recommended Kit

For corporate and documentary work, I prefer the Sony DSR-PD150. It's small, light-weight and versatile. It uses three 1/3-inch CCDs to convert the optical picture into digital information.

Smaller and less expensive is the Sony DSR-PD100A\*, which comes with three 1/4-inch CCDs and is shaped like many consumer camcorders. The Sony DSR-250 has a traditional, shoulder-mounted news camcorder shape, and accepts standard MiniDV cassettes and 184-minute DVCAM tapes. It is a good choice for interviews and events. The DSR-250 is very economical.

For camcorders that will accept interchangeable lenses, Sony makes the DSR-370P, a three 1/2-inch CCD DVCAM, and the DSR-570WSP, with three 2/3-inch CCDs that can also shoot in 16:9 aspect ratio as well as the traditional 4:3 ratio.

Whichever camera you choose, here's ten quick, concise hints on how to shoot digital video well, with style.

The best way to remember these tips is to picture the camera as you're reading them. Start at the lens and work backwards.

<sup>\*</sup> This camera has been superceded by the new compact DSR-PDX10P

### **TOP TEN TIPS**

- 1. Sunshades or matteboxes. Use one. A sunshade keeps flares off your lens, and is equipped with trays to hold filters. Flares are caused when the sun or an artificial light shines onto your lens. For a course on lens flares, rent Easy Rider. Lens flares are pretty, but you may not want them covering the face of the CEO while delivering the annual report. Sunshades usually come with the camera. If not, buy a mattebox.
- 2. Filters. Be selective. Use them tastefully. Some people soften an image with diffusion or nets for a 'film look' which actually looks like it was shot through a shower cap. Tiffen ProMists come in density strengths of 1/8 to 3, and can add an elegant, painterly quality. I recommend rarely using any grade higher than 1/8 on digital video. Soft/FX filters are ideal for softening facial blemishes. Glass and plastic filters are available. Use glass. Plastic, even durable Lexan, can distort an image at long focal lengths.
- **3. Focus.** Auto Focus is great until the speaker you are filming reaches down for a glass of water. The camera lens starts hunting back and forth for the speaker, even after he or she is back in frame. Use Manual Focus as often as possible.
- **4. Zoom.** Feather the starts and stops of your zoom as gracefully as possible by using a delicate touch on the zoom control. When the camera is on a tripod, use a remote zoom control.
- **5. Exposure.** The amount of light entering the lens is controlled by the aperture. I prefer to manually control exposure. Most digital camcorders feature a slide switch called Auto Lock. Sliding the switch to the middle position usually allows you to manually open and close the lens. This is particularly important when you are panning from bright to dark areas. The camera will catch up in automatic mode, but the delay is obvious.
- **6. Support.** Using a fluid head adds elegance to moves and stabilizes telephoto shots. The head's viscous fluid dampens sudden moves and allows smoother panning and tilting than with a mechanical head. Three of my favourite brands are O'Connor, Sachtler (DV4 for PD100A and PD150), and Cartoni.

As for tripods, carbon fiber tripods are about one-pound lighter than aluminum models. SteadyShot image stabilisation is great when your camcorder is handheld or bouncing around in boats, cars, helicopters, or anything else that moves. I usually leave the SteadyShot function on all the time unless the camera is on a tripod, dolly, or crane. There are two kinds of image stabilizers; optical and electronic. Sony DVCAMs cameras use motion sensors and compensatory electronic circuits to smooth out bumps and vibration.

- 7. Remote Control. When using a fluid head, it is essential to have external control of your zooms. Trying to wrap your right hand around the handgrip while a tripod handle is poking you in the stomach is difficult and painful. Tripod handle controls are available from Sony, VariZoom, and Libec.
- 8. Sound. The built-in microphones on most digital camcorders are fine for ambient sound. However, these microphones may also pick up tape transport and zoom motor noise. For superior audio, use an external microphone. Most professional crews include a sound mixer whose job is to aim the microphone, set the recording levels, and monitor the audio. The sound mixer feeds the camcorder with the audio signal, either with a hard wire or a radio mic.

Because DVCAM tape records on two tracks, you can split the audio. For example, you can put a lavalier microphone on the right channel and a shotgun microphone for ambience on the left channel. Popular microphones include Sennheiser's ME66 and ME67 shotguns and Sony's ECM-77B and 44B lavaliers.

9. Lighting. A great fallacy about shooting digital video is that you don't need to light the scene you're shooting. Nothing could be farther from the truth. Like all things photographic, if it doesn't look good to your eye, shooting it on digital video isn't going to rescue your career. The best way to learn about lighting is to study great paintings, figure out where the light in the painting is coming from, and then imagine you have to light the same scene in a studio.

Beware of portable lighting kits. They can be wonderful tools or terrible traps, ensnaring the unwitting in a downward spiral of poor technique. Because the lights are small, they can create harsh shadows. Remember that the larger the light source, the softer and more natural the shadows will be. Bouncing the rays of small lights onto bed sheets, muslins, foam core, or even a wall can soften the light.

When shooting on location, I usually try to place our lights outside and aim them into the room through the windows. Using large 12,000 to 18,000 watt HMI lights softened slightly with Lee 216 or Rosco Opal Tough Frost creates a beautiful and natural single-source look.

Lighting kits large and small are made by Lowel, laniro, and Mole. Kino Flo lamps are cool, soft fluorescents. Most DIY stores offer 4' x 8' foam core and bead board.

Chimera light banks, metallic umbrellas, Flexfills reflectors, and Litepanels are some of the many products used in the never-ending quest to shape and control light.

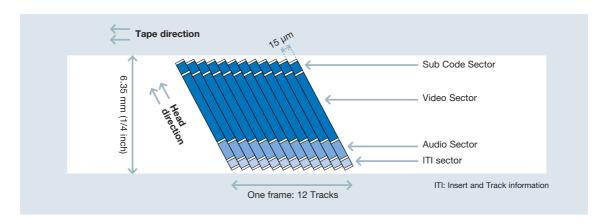
10. Cases and Covers. The most important accessory of all – to protect your investment. Soft-sided shoulder bags, backpacks, and wheeled soft-sided cases are best for local work where the equipment is carried by people, cars or vans. My favourite soft-sided bags come from PortaBrace, Tenba and Tamrac. For serious expeditions and hostile environments, try Lowe-Pro backpacks, Vidcam shoulder bags, and Omni/Extreme soft bags that fit inside waterproof shells for shipping.

For air travel and shipping, you need durable, water-resistant ATA-style cases from Pelican or Thermodyne. A good source is Nalpak, which supplies tripod cases and Magliner carts to wheel all the stuff around. To cut out the foam inside these cases, an electric knife makes an excellent saw and is a lot easier to use than a Stanley knife. For custom foam jobs, A&J Cases in Los Angeles make durable custom cases and wonderful custom foam cutouts.

Once you've captured your subject on digital video, it's time to edit. Many digital video formats are easy to edit via an i.LINK interface – Sony's IEEE 1394 interface protocol – and the latest VAIO laptops are loaded with video-editing applications such as Adobe Premiere or Purple.

But remember these ten tips – and have a good shoot!

### **DVCAM FORMAT**



# DIGITAL COMPONENT RECORDING FOR EXCELLENT PICTURE QUALITY

The DVCAM format is the professional extension of the worldwide standard DV format. The DVCAM format uses 8-bit digital component recording with a 5:1 compression ratio and a sampling rate of 4:2:0. The unique compression algorithm provides excellent picture quality and superb multi-generation performance. The DVCAM format has a wider track pitch of 15  $\mu$ m (compared with 10  $\mu$ m for the DV format) which gives higher reliability for professional editing.

It also offers superior digital audio performance, providing a wide dynamic range and excellent signal-to-noise ratio, comparable to CD quality. Alternative audio channel modes can be selected: a two-channel mode with 48 kHz/16-bit recording or a four-channel mode with 32 kHz/12-bit recording.

#### RECORDING CAPABILITY OF UP TO THREE HOURS

DVCAM cassette tapes are available in two sizes: standard and mini. The standard-size cassette provides a recording time of up to 184 minutes, while the mini-size cassette provides up to 40 minutes. These long recording times are achieved in very compact cassettes with a 1/4-inch (6.35 mm) tape width.

# EXCELLENT PERFORMANCE FROM PROFESSIONAL DVCAM TAPES

To gain maximum performance from high-density digital recording, advanced Metal Evaporated tape technology has been developed for the DVCAM format. The use of Sony pure cobalt advanced evaporated coating gives both high output and a high C/N (Carrierto-Noise) ratio, resulting in superb quality pictures and a low error rate.

A DLC (Diamond Like Carbon) protective layer provides the enhanced protection of the tape surface that is essential to avoiding tape damage during long editing sessions. Finally, DVCAM tapes provide a low frequency of dropout and superior thermal stability.

A variety of cassettes, including tapes with IC Cassette Memory and Master Tapes, is available to suit different applications. The built-in 16-kbit Cassette Memory stores ClipLink™ Log Data, Index Pictures, Photo mode and other shooting data, enhancing editing efficiency. Tapes without IC Cassette Memory fit a wide range of applications, at an affordable price. The Master Tapes, which use Sony Hyper Evaticle II Magnetic Particle technology to provide higher output and lower noise, are suitable for high-speed data transfer applications as well as for making master recordings.

Mini-size cassette

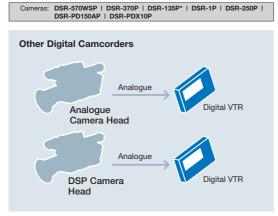


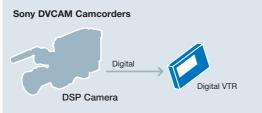
Standard-size cassette



### UNIQUE TECHNOLOGY AND ADVANTAGES

#### TRUE DIGITAL CAMCORDERS





Sony DVCAM camcorders are "True Digital Camcorders". They incorporate DSP (Digital Signal Processing) for full digital processing in the camera section and digital recording in the VTR section. The camera video signal remains in its digital component format through the recording process, resulting in outstanding image quality, free of artifacts and with none of the resolution loss typical of A/D and D/A conversion.

# PLAYBACK CAPABILITY OF ALL DV (25 MB/S) FORMAT RECORDED TAPES

VTRs: DSR-2000P | DSR-1800P | DSR-1500AP | DSR-70AP |
For maximum versatility in playback, the DVCAM VTRs are designed to playback DVCAM and DV (SP mode) tapes without a mechanical adaptor or menu adjustment. The DVCAM Master Series VTRs support DVCPRO tape playback\*, and the DSR-2000P even supports DV (LP mode) playback. Furthermore, it is possible to use these tapes directly as editing source material, improving productivity. All DVCAM products including camcorders and VTRs can playback DV SP mode recorded tapes.

\* Not compatible with SDTI (QSDI) and i.LINK (DV In/Out) interfaces.

#### **EXCELLENT EDITING PERFORMANCE**

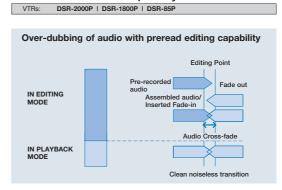
Preread Editing Capability\*



The DSR-2000P VTR offers preread editing, a function never before available on a 1/4-inch (6.35 mm) VTR. Preread heads are positioned ahead of the record heads on the drum to scan previously recorded video and audio signals. These signals can then be sent to a character generator, a video switcher and/or an audio mixer, combined with signals from another source, and then recorded back onto the same tracks. Preread editing provides many advantages since it enables single-VTR titling, audio mix/swap and voice over with no delay between video and audio. In addition, A/B roll editing with two VTRs is available (MIX and WIPE only).

\* Not available for SDTI (QSDI) and i.LINK (DV In/Out) interfaces as these handle compressed signals.

#### Audio Cross-fade Capability



Preread heads also provide an audio crossfade capability with clean audio transitions at editing points. During audio insert editing, the previously recorded audio signal is read out by preread heads, cross-faded with the VTR audio input signal and recorded back onto the same track. This provides excellent audio cross-fade editing performance without audio clicks at edit points and provides high quality audio to complement the video performance.

#### **UNIQUE TECHNOLOGY AND ADVANTAGES**

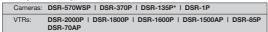
#### • Enhanced Digital Jog Audio

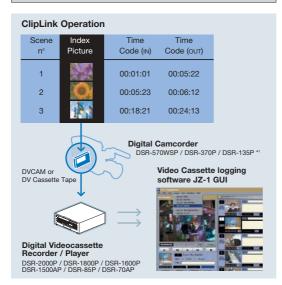
VTRs: DSR-2000P | DSR-1800P | DSR-1600P | DSR-1500AP | DSR-70AP

A digital jog audio function is included in the Master Series VTRs with a range of -1 to +1 (DSR-2000P) or -0.5 to +0.5 (DSR-1800P/1600P/1500AP/70AP) times normal speed. With its quick and smooth response, locating editing points is very easy. This is a particularly important feature for ENG applications that usually require audio-based editing.

Moreover, this function is even available when using DV and DVCPRO tapes.

#### ClipLink Operation





ClipLink is a unique Sony system that conveys shooting data into the digital production process. During acquisition with a camcorder equipped with this feature, the in-point/out-point time code data of each shot and its OK/NG status are recorded in the DVCAM Cassette Memory. At the same time, a still frame of each in-point, called an 'Index Picture'\*, is recorded on the DVCAM tape to provide visual information associated with the time code. ClipLink data can be imported automatically to JZ-1 videocassette logging software, modified and then be exported to almost any editing device. This greatly enhances subsequent editing operations.

\* The DSR-570WSP/370P require an optional board to record Index Pictures.

#### **VERSATILE DIGITAL INTERFACES**

#### SDI (Serial Digital Interface)\*

VTRs: DSR-2000P | DSR-1800P\*\* | DSR-1600P\*\* | DSR-1500AP\*\* DSR-85P\*\* | DSR-70AP\*\*

With SDI, high-quality picture and sound can be transferred between DVCAM VTRs and SDI-equipped devices.

- \* The SDI used in DVCAM VTRs supports digital component video signals.
- \*\* The DSR-1800P/1600P/1500AP/85P/70AP require an optional board for SDI.

#### • SDTI (QSDI™)\*

VTRs: DSR-2000P | DSR-1800P\*\* | DSR-1600P\*\* | DSR-1500AP\*\*
DSR-85P | DSR-70AP\*\*

SDTI (QSDI) is a digital interface that handles compressed video as well as the sub-code data and digital audio signals of the DV/DVCAM formats. It allows virtually degradation-free transfer of both video and audio signals between equipped VTRs and between these VTRs and the EditStation in a non-linear editing configuration.

SDTI (QSDI) also makes it possible to transfer data at four times normal speed (DSR-85P only).

- \* SDTI (Serial Data Transport Interface) is defined as SMPTE 305M.SDTI (QSDI) is the DV compressed signal interface defined as SMPTE 322M.
- \*\* The DSR-1800P/1600P/1500AP/70AP require an optional board for SDTI (QSDI).

#### • AES/EBU

VTRs: DSR-2000P | DSR-1800P\*\* | DSR-1600P\*\* | DSR-1500AP\*\*
DSR-85P

DSR-2000P/1800P/1600P/1500AP/85P VTRs are fitted with digital audio interfaces conforming to the AES/EBU standard. With a sampling frequency of 48 kHz and 20-bit quantization, these interfaces ensure high quality audio.

\* The DSR-1800P/1600P/1500AP require an optional board for AES/EBU.

#### • SDTI-CP (MPEG Out)\*

VTR: **DSR-2000P**\*\*

SDTI-CP provides a direct connection to MPEG IMX<sup>™</sup> products (MPEG2 4:2:2P@ML, 50 Mb/s).

- \* SDTI-CP is defined as SMPTE 326M.
- \*\* The DSR-2000P requires an optional board for SDTI-CP.

#### • i.LINK™ (DV)\*

Cameras:	DSR-570WSP**   DSR-370P**   DSR-250P   DSR-PD150P DSR-PDX10P
VTRs:	DSR-2000P**   DSR-1800P**   DSR-1600P**   DSR-1500AP DSR-45P   DSR-30P   DSR-25   DSR-11   DSR-70AP** DSR-50P   DSR-V10P

i.LINK enables a single cable to simultaneously carry digital video and audio signals, as well as data and control signals, with virtually no quality deterioration. This simple connection offers an ideal solution for connecting DVCAM equipment with consumer AV equipment and computer-related products.

- i.LINK stands for IEEE 1394-1995 standards and their revisions.
- \*\* Output only from the DSR-570WSP/370P. The DSR-2000P/1800P/1600P/70AP require an optional board for i.LINK.

#### **SOPHISTICATED MECHANISMS**

#### • Quick, Responsive Mechanism

VTRs: DSR-2000P | DSR-1800P | DSR-1600P | DSR-70AP

Quick mechanical response is an essential requirement for professional video production. The Master Series VTRs provide this rapid response with a combination of highly reliable direct reel drive and drum motor mechanisms. The result is a tape drive with rapid response to Jog and Shuttle commands when searching for edit points, and a rapid start in Play mode.

#### • Three-size Cassette Compartment

VTRs: DSR-2000P | DSR-1800P | DSR-1600P | DSR-1500AP

The Master Series VTRs incorporate a newly designed three-size cassette compartment to ensure compatibility with DV (25 Mb/s) format recorded tapes of all sizes and types. Thanks to this feature, it is possible to use standard and mini DV and DVCAM cassettes, as well as medium DVCPRO cassettes, without a mechanical adaptor.

#### • Dual-size Cassette Compartment

Cameras: DSR-570WSP | DSR-370P | DSR-135P\* | DSR-1P | DSR-250P

VTRs: DSR-85P | DSR-45P | DSR-30P | DSR-25 | DSR-11 | DSR-50P

The above camcorders and VTRs have a dualsize cassette compartment which accepts both standard and mini cassettes without a mechanical adaptor.

#### Dual Interface Mechanism

Camera: DSR-D1P

The DSR-1P Dockable Recorder has both Pro 76-pin Digital and Pro 50-pin connectors with a unique seesaw construction. These allow direct connection of the DSR-1P to several alternative Sony digital (DXC-D30P\*/D30WSP\*/D35P/D35WSP) and analogue cameras (DXC-327B/637\*/537A\*/327A\*).

\* These cameras are no longer sold, but current owners can still connect with the DSR-1P.

### • High-speed Data Transfer Capability

VTR: DSR-85P

The advanced drum mechanism and SDTI (QSDI) interface enable degradation-free data transfer and dubbing at four times normal speed.

#### Further operational efficiency by DSR-DU1

Cameras: DSR-570WSP | DSR-370P | DSR-250P | DSR-PD150P DSR-PDX10P

The DSR-DU1 is a compact videodisk unit that mounts on or interfaced with above camcorders. It provides up to three hours of DVCAM/DV stream recording as a file. Via an i.LINK (DV) connection, the camera output of the camcorder is recorded to the hard drive of the DSR-DU1 in parallel to the recording made on the camcorder's tape. The DSR-DU1 is an extremely versatile device. When detached from the camcorder, it is very effective for field off-line logging or EDL creation, as a player for making dubs, or as a source feeder machine for i.LINK equipped non-linear editors. Moreover, when connected to an SBP2 compatible i.LINK equipped nonlinear editor\*1, the DSR-DU1 allows its DV files to be directly accessed from the non-linear editor. The Rec. start and stop time codes of each scene are also transferred to the editor, eliminating the logging process common to non-linear editing.

<sup>\*1</sup> Please contact your nearest Sony office or Authorized dealer for non-linear products that support DV file transfer between the DSR-DU1.

### THIS IS NOT JUST ANOTHER DIGITAL CAMCORDER

# Technical advantages of DSR-570WSP / DSR-370P / DSR-135P\*1 / DXC-D35P

As most camcorders are now digital, it is important to understand that the real benefit of a professional DVCAM camcorder is in the way the Digital Signal Processing works.

The DSR camcorders were created with the sole purpose of producing perfect pictures. From the very first shot in a production, the operator now has the power to make a unique creative contribution during shooting. Using these models, so much more can now be done "in-camera" that is a defiance of conventional wisdom. The DSR camcorders deliver outstanding "in-camera" creativity!

Issued from the well-known DVW-700 Digital Betacam camcorder technology, the DSR-570WSP, DSR-370P and the DXC-D35P offer unique functionality giving the operator a unique opportunity to customise their camera settings, so that they precisely suit production requirements.

Here are some examples of the unique functions provided by the high end DVCAM camcorders.

#### Colour Precision - TruEye™ Process





The TruEye digital signal processing is one of the most innovative features that DSP allows and makes it possible to reproduce a far more natural colour than a conventional camera, even in severe shooting conditions.

Sony TruEye digital signal processing technology virtually eliminates hue distortion, particularly obvious in extreme lighting conditions, that results from conventional RGB analogue or digital processing. By processing video signal data at three levels − brightness, hue, and saturation − similar to how the human eye works, the TruEye™ process assists in the reproduction of natural skin tones.

# Contrast Control with the DynaLatitude™ function





DynaLatitude, a unique feature for contrast control, minimises video level distortion. Based on video signal histograms, the DynaLatitude function aligns the contrast of each pixel individually to eliminate imbalances, such as overexposure of background image. Available for DSR-570WSP, DSR-370P and DXC-D35P.

#### **Black Stretch and Compress**





Contrast in the black area of an image can easily be adjusted using the Black Stretch/Compress control function. Black Stretch emphasises contrast in dark areas, while Black Compress enhances or deepens darkness.

### Black Halo Free





On transition between 2 contrasted zones, the "Black Halo" phenomenon appears. It consists of excess of contrast on the border, the DSP process of the DVCAM camcorders eliminates this phenomenon.

#### Freeze Mix Function

The Freeze Mix function superimposes a previously recorded image on the view-finder, allowing the operator to easily frame or reposition a subject when a shot must be taken in the same framework as a previous take. Combined with the SetupLog<sup>™</sup> function, a retake is a breeze.

#### Skin colour reliability, management and Skin Detail with Auto detection of Active Area











Skin Detail







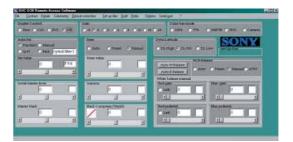
Once again, based on the Digital Betacam camcorder technology, the DSR-570WSP, DSR-370P and DXC-D35P use a Multi Matrix function that allows a particular colour to be automatically grabbed and its hue, saturation and detail level modified independently from the rest of the picture.

For example in the case of a person's face, it gives the subject a pleasing facial complexion, while maintaining the sharpness of other

The designated active area of Skin Detail can be set with the SKIN SET button on the camera's side panel. The colour range of the Skin Detail active area and Skin Detail level can also be controlled.

#### Other functions available:

- H detail frequency control
- R/G Vertical detail control
- Master Black
- Master Gamma
- Detail Frequency control
- Saturation and Hue control
- TLCS (Total Level Control System)
- Preset colour temperature with 32 steps
- SetupNavi™ (DXC-D35 and DSR-570WSP)
- SetupLog™



#### Control Software for DSR-570WSP & DXC-D35 camera series RMT-DXCDSR

This software, dedicated to setting all the parameters of the DXC-D35P/WSP and the DSR-570WSP, is a simple and powerful working tool. Based on an intuitive graphic interface, it has been designed to complement the digital advantages of Sony cameras with significant gains in productivity.

It enables the internal parameters of the camera to be changed rapidly and securely, in order to create user configuration files tailored to the scenes to be filmed or multi-camera matching.

The creativity parameters are stored in the camera's 3 internal "USER" memories, whereas all the parameters being controlled are stored on hard disk or floppy.

This new software allows real time control of the creativity and operating parameters, immediately, simply and without risk, via a PC connected up to the camera.

#### Applications:

- Didactic
- Appropriate settings for rental equipment
- Extended picture adjustment
- Studio operations

#### Extra features included:

- Stretch point and compress point advanced settings
- Detail advanced settings
- White shading
- Flare management

### **DVCAM SILVER SUPPORT PACK**

### Silver Support

Sony understand that in today's fast-changing environment, the need is for both equipment and a level of service that meet the crucial demands for higher productivity in professional video production.

# Setting new standards in innovation, quality and reliability

Keywords associated with the Sony DVCAM line-up are versatility and flexibility. From state-of-the art technology to sophisticated functionality, the DVCAM line-up addresses a broad range of professional video applications from electronic news gathering to corporate video productions.

As soon as equipment is switched on, it becomes absolutely mission critical. Any fault or inability to use it to its full potential will have an immediate impact on bottom-line effectiveness. Now, with the launch of a customerfocused operational and technical support pack, which has significant advantages and benefits, Sony has underscored another keyword-reliability.

#### Quite simply more

Because professional customers need professional service and support, Sony is offering enhanced support services for DVCAM products. From the 1st of July 2002, DVCAM products will be supplied with a 2-year Silver Support Pack, in addition to warranty, as standard. That means unique extra services, for twice as long.

#### **Supported DVCAM Products**

Digital Camcorders:

DSR-570WSP | DSR-370P | DSR-250P | DSR-1P DSR-PD150P | DSR-PDX10P

Digital VTRs

DSR-2000P | DSR-1800P | DSR-1600P | DSR-1500AP DSR-85P | DSR-45P | DSR-30P | DSR-25 | DSR-11 DSR-70AP | DSR-50P | DSR-V10P

Hard Disk Units

DSR-DU1 | DSR-DR1000P

5 additional reasons to choose Sony DVCAM:



#### · 2 Years Support

The Silver Support Pack extends the support period from the standard 1-year warranty to two years. Not only that, but extra features and services are also included.



#### • Operational Phone Call Centre

Operational phone support is provided to give advice and help so that the user can get the most out of their DVCAM equipment and maximise its performance. Our telephone support is available from Monday to Friday and in 5 languages – English, French, German, Italian and Spanish.



### Collection Anywhere

In the event of equipment failure, Sony will arrange collection of the faulty unit directly from, and delivery of the repaired unit directly to the customer's location – anywhere in mainland EU, Norway or Switzerland. That makes it simpler, quicker and even more convenient for the customer.



#### · Repair within 7 days

Sony will collect, repair and return the unit to the customer's preferred location within 7 working days. So, minimum downtime, increased confidence and the ability to plan your business are guaranteed.



#### Loan

If the faulty equipment cannot be repaired in time, the DVCAM hotline will contact the customer and arrange to have a loan unit delivered. Arrangements will be made to collect the loan unit as soon as confirmation is received that the repair has been carried out satisfactorily.

### LINEUP FEATURES

Pages 16 to 28



### The Sony DVCAM advantage

# DVCAM

System downtime means lost opportunities, even with the world's most reliable products. In today's competitive world that means time, hassle, increased cost and lost revenue. Why risk it? Technical support needs are an important consideration. With the Sony Silver Support Pack for DVCAM products, you are free to concentrate on the creative aspects of your job.

#### Remember:

Professional customers need professional support!

### DSR-570WSP **DSR-370P**

#### **Common Features**

- Highly mobile one-piece design
- DSP (Digital Signal Processing)
- Studio Multicore CCU operations up to 300m
- TruEye™ process for faithful colour reproduction
- DynaLatitude™ process minimises video level
- · Skin Detail and Skin Tone with auto detection of active area
- Black Stretch and Compress control functions
- Superb picture quality of the DVCAM format
- · Playback capability of DV recorded tapes (SP mode only)
- Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette
- Total Level Control System (TLCS) for automatically extended range of Iris control
- Auto Tracing White Balance (ATW) function
- Black Halo free
- EZ Mode and EZ Focus for quick camera setup
- DynaFit<sup>™</sup> shoulder pad for comfortable molding to any shoulder
- Variable colour temperature settings: 3200 K (19 steps in the range from 2200 K to 4300 K) or 5600 K (13 steps in the range from 4600 K to 12000 K)
- · Video light connector for optional light equipment
- Menu control by Jog Dial operation
- · Camera Setup File System
- SetupLog<sup>™</sup> function for automatic recording of camera setting data
- Pool Feed operation \*1
- i.LINK (DV output) interface providing a single cable connection to simultaneously transfer data and control signals as well as digital video and audio signals, with virtually no generation loss
- 26-pin VTR interface
- Full colour picture playback without an external adaptor
- · Edit Search function
- Time code superimposed during playback and record
- Freeze Mix function
- ClipLink operation\*2
- Compact and lightweight BP-M50/100 Ni-MH Batteries or BP-L40A/L60A/L90A Lithium-ion **Batteries**
- CA-WR855 Camera Adaptor for the WRR-855B Wireless Receiver
- Compact crew package with the LC-DS300SFT Soft Carrying Case or LC-DS500 Hard Carrying
- DXF-51 5" Studio viewfinder
- Common Setup File for DSR-570WSP and DSR-370P
- · Audio level monitoring through the side panel
- External VTR control & monitoring via i.LINK connector
- CA-370 Intercom adapter
- \*1 The optional DSBK-501P Analogue Composite Input
- \*2 The optional DSBK-301A Index Picture Board is required.



Silver Support

### DSR-570WSP

### One-piece Camcorder

- 16:9 4:3 Switchable Camcorder
- Compact and lightweight: 6.3 kg (13 lb 14 oz) including viewfinder, microphone, lens, battery and
- Low power consumption: 24 W (without viewfinder)
- Three 2/3-inch Power HAD WS™ 16:9 CCDs providing high quality images with low smear level, high sensitivity, high S/N ratio (61 dB) and high horizontal resolution (980/850 TV lines in 16:9/4:3 mode)
- Hyper Gain (36 dB or 42 dB selectable)
- Aspect ratio switchable between 4:3 and 16:9
- SetupNavi<sup>™</sup> function for camera setup file storage
- Sensitivity: F11 at 2000 lx
- Minimum illumination = 0.5 lx
- Optional remote software available
- · Flexible safety zone marker In 4:3 mode: OFF, 13:9, 14:9, 15:9, 16:9 In 16:9 mode: OFF, 4:3, 13:9, 14:9, 15:9
- Silver Support supplied as standard (see page 14)

#### Studio Diagram









### **DSR-370P**

### One-piece Camcorder

- Compact and lightweight: 6.0 kg (13 lb 4 oz) including viewfinder, microphone, lens, battery and tape
- Low power consumption: 21 W (without viewfinder)
- Three 1/2-inch Power HAD™ CCDs for low smear level, high sensitivity, high S/N ratio (60 dB) and high horizontal resolution (800 TV lines)
- Hyper Gain (36 dB)
- 4:3 aspect ratio
- Sensitivity: F11 at 2000 lx
- Minimum illumination = 0.5 lx
- Flexible safety zone marker 4:3 mode: OFF, 13:9, 14:9, 15:9, 16:9
- SetupNavi™ function for camera setup file storage
- Silver Support supplied as standard (see page 14)

### Lenses for DSR-370P

VCL-719BX (for DSR-3	370PK1 pack)
Zoom ratio	19:1
Focal length	6.7mm x 127mm
Zoom control	Servo/manual switchable
Iris control	Servo/manual switchable
Maximum relative aperture	F1.4 (6.7 to 89mm) to F2.0 (120mm)
Minimum object distance	Wide: 772x579mm, Tele: 42x32mm
Mount type	Sony 1/2-inch type bayonet mount
Weight	1.45kg (including lens hood)
Dimensions (WxHxD)	139.8 x 99.5 x 218.9mm (including objections)

VCL-716BX (for DSR-3	370PK2 pack)
Zoom ratio	16:1
Focal length	7.3mm x 117mm
Zoom control	Servo/manual switchable
Iris control	Servo/manual switchable
Maximum relative aperture	F1.9 (7.3 to 98mm) to F2.3 (117mm)
Minimum object distance	Wide: 823x617mm, Tele: 51x39mm
Mount type	Sony 1/2-inch type bayonet mount
Weight	1.2kg (including lens hood)
Dimensions (WxHxD)	123 x 102 x 205mm (including objections)





### **DSR-250P**

#### One-piece Camcorder

- Compact and lightweight: 4.4 kg (9 lb 11 oz)
- Newly developed 1/3-inch CCDs for accurate colour reproduction
- Capable of both interlace scan, for moving images, and progressive scan, for still images or shooting moving subject\*1 and exporting a frame of the image as a still picture
- DSP (Digital Signal Processing)
- New, high-resolution 1.5-inch black & white viewfinder
- 2.5-inch (200,000 dot) colour LCD monitor
- 12x lens\*2 with Super SteadyShot\*\* system
- 16:9 recording mode available (electronically processed)
- Superb picture quality of the DVCAM format
- Recording and playback capability with standard and mini-size DVCAM and DV tapes (SP mode only)
- Three XLR audio input connectors for professional microphones (one at front, two at rear)
- Audio dubbing capability (48 kHz/16-bit or 32 kHz/12-bit selectable)
- Long recording time: 184 minutes with a standardsize cassette in DVCAM mode, or 270 minutes in DV SP mode
- Time/date data superimposition on output pictures
- Digital still camera functions with Memory Stick™
- Light output (DC 12 V, max. 30 W) and additional DC 12 V out for optional accessories
- Time code preset capability
- i.LINK (DV In/Out) interface providing a single cable connection to simultaneously transfer audio, video and command signals
- LANC interface for simple editing with a LANCequipped recorder or editing system
- Supplied RMT-811 Remote Commander
- Silver Support supplied as standard (see page 14)
- \*1 When recording moving images in progressive scan mode, the motion will display some jitter since the picture is read/output every 1/12.5 second.
- \*2 Digital zoom of 24x or 48x available via menu selection.

#### DIGITAL CAMCORDERS





#### Silver Support

### DXC-D35P+DSR-1P

### Two-piece Camcorder

- Combination of the DXC-D35P Digital Video Camera and the DSR-1P Dockable Recorder, equivalent to a one-piece camcorder
- Compact and lightweight: 6.3 kg (13 lb 14 oz) including viewfinder, battery, joint plate and carrying handle.
- Three 2/3-inch Power HAD CCDs for low smear level, high sensitivity and high S/N ratio (61 dB), and high horizontal resolution (880 TV lines)
- Available in 4:3 mode or 16:9, 4:3 switchable version
- Hyper Gain (36 dB or 42 dB selectable)
- DSP (Digital Signal Processing)
- TruEye process for faithful colour reproduction
- DynaLatitude process minimises video level distortion
- Skin Detail and Skin Tone with auto detection of active area
- Sensitivity: F11 at 2000 lx
- Minimum illumination: 0.25 lx
- Black Stretch and Compress control functions
- Variable colour temperature settings: 3200 K (19 steps in the range from 2200 K to 4300 K) or 5600 K (13 steps in the range from 4600 K to 12000 K)
- Black halo-free
- Superb picture quality of the DVCAM format
- Playback capability of DV recorded tapes (SP mode only)
- Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a minisize cassette
- Total Level Control System (TLCS) for automatically extended range of Iris control
- Auto Tracing White Balance (ATW) function
- EZ Mode and EZ Focus for quick camera setup
- Camera Setup File System
- SetupNavi function for Camera Setup File Storage
- SetupLog function for automatic recording of camera setting data
- Edit Search function
- Time code superimposed during playback and record
- Freeze Mix function
- ClipLink operation

### **DSR-1P**

#### **Dockable Recorder**

- Compact and lightweight: 3.1 kg (6 lb 13 oz) including battery
- Ideal operation as a digital camcorder by docking with the DXC-D35P Digital Video Camera
- Dual-size cassette mechanism: both standard- and mini-size cassettes accepted
- Dual interface mechanism: Pro 76-pin Digital and Pro 50-pin interfaces for direct connection with both Sony digital and analogue cameras
- Superb picture quality of the DVCAM format
- Playback capability of DV recorded tapes (SP mode only)
- Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a minisize cassette
- ClipLink operation
- Full colour picture playback capability without a playback adaptor
- Record review function
- Frame accurate back-space editing
- Built-in SMPTE/EBU time code generator/reader
- Time base stabiliser
- Full VTR function control (FastForward/Rewind/Play/ Stop/Eject)
- Comprehensive 8-digit LCD
- Silver Support supplied as standard (see page 14)











### DSR-PD150P

#### **Compact Camcorder**

- Compact and lightweight: 1.5 kg (3 lb 5 oz) including battery and tape
- Newly developed 1/3-inch CCDs for accurate colour reproduction
- Capable of both interlace scan, for moving images, and progressive scan, for still images or shooting a moving subject\*1 and exporting a frame of the image as a still picture
- DSP (Digital Signal Processing)
- Two XLR audio input connectors for professional microphones
- Supplied RMT-811 Wireless Remote Commander
- 2.5-inch (200,000 dot) colour LCD monitor
- 12x lens\*2 with Super SteadyShot system
- Manual control and a full range of auto modes
- 16:9 recording mode available (electronically processed)
- Superb picture quality of the DVCAM format
- Playback and record capability of DV recorded tapes\*3 (SP mode)
- 40 minutes recording time with a mini-size cassette
- Time/date data superimposition on output pictures
- Digital still camera functions with Memory Stick
- InfoLITHIUM™ battery system displays the remaining capacity of the battery (accurate to the minute)
- Audio dubbing capability (48 kHz/16-bit or 32 kHz/12-bit selectable)
- i.LINK (DV In/Out) interface providing a single cable connection to simultaneously transfer audio, video and command signals
- LANC interface for simple editing with a LANCequipped recorder or editing system
- Silver Support supplied as standard (see page 14)
- \*1 When recording moving images in progressive scan mode, the motion will display some jitter since the picture is read/output every 1/12.5 second.
- \*2 Digital zoom of 24x or 48x available via menu selection.
- \*3 Only mini-size DVCAM and DV cassettes can be used.

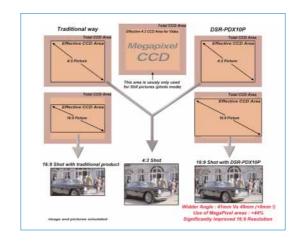




### **DSR-PDX10P**

### Handycam®-style Camcorder

- Very compact body (the smallest 3 CCD DVCAM camcorder)
- 3 1/4.7-inch Mega pixel Advanced HAD CCD type
- 14 Bits DXP Processing (Digital Extended Processor)
- Enhanced 16:9 capability (real 16:9 shooting quality)
- 2 XLR audio input connectors for professional microphones
- USB Streaming (capability to stream Video and Audio through USB port) available in camera and VCR mode
- 3.5 inch type 240,000 colour LCD monitor with touch panel function (Spot focus, Spot AE, Playback Zoom, Memory play)
- 180,000 dot precision Black and White LCD Viewfinder
- Optical Super SteadyShot™
- TC and User bit preset capability
- DVCAM and DV (SP mode) recording and playback formats
- High resolution picture recording (640x480 / 1152x864 dots)
- MPEG movie recording up to 85 mins on a 128 MB Memory Stick
- i.LINK and Analogue In/Out interfaces
- Oplayo<sup>™</sup> Composer Pro Lite 2.0 software supplied allowing the streaming of content for many devices such as PC, PDA or mobile phone
- Silver Support supplied as standard (see page 14)



#### **Master Series VTRs**



Since its introduction, the DVCAM format has become widely accepted in the world of video production - from industrial to broadcast markets. Recognising the increasing demands for DV-based production in broadcast applications, Sony introduced the DSR-2000P in 1999, complete with compatibility with all DV family formats and professional features, such as excellent editing performance and highquality jog audio, inherited from analogue formats. Building on the advanced technologies of the DVCAM format and professional features of the flagship DSR-2000P, Sony now presents the entire lineup of Master Series VTRs, our top-of-the-line DVCAM videocassette recorders and players. The Master Series VTRs (DSR-2000P, DSR-1800P, DSR-1600P, DSR-1500AP and DSR-70AP) now bring the features and benefits introduced with the DSR-2000P to a wider market, from industrial to broadcast for a wider range of applications and needs.

DSR-2000P DSR-1800P DSR-1600P DSR-1500AP DSR-70AP



#### Common Features

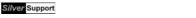
- Superb picture quality of the DVCAM format
- Playback capability of DV (25 Mb/s) recorded tapes including DV tapes recorded in SP mode and DVCPRO tapes\*1 without a mechanical adaptor or menu settings changes
- Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette
- Four-channel audio editing capability\*6
- Audio cross-fade function for clean audio transitions at editing points\*<sup>2</sup>
- Excellent jog audio capability
- DMC (Dynamic Motion Control) provides noiseless slow-motion playback
- High-speed picture search over a range of 60 times normal speed, in both forward and reverse\*<sup>6</sup>
- Versatile digital interfaces\*3: SDI, SDTI (QSDI), i.LINK (DV In/Out) and AES/EBU digital audio
- Extensive analogue interfaces: composite, component, S-Video and XLR audio
- RS-422A remote control interface
- · Frame accurate editing capability
- ClipLink operation
- Full tape dubbing with ClipLink Log Data via SDTI (QSDI) and RS-422A interfaces\*4
- 16:9 aspect ID signal recording
- Video process control for greater control of both analogue and digital outputs
- Built-in SMPTE/EBU time code and VITC generator/reader
- Built-in signal generator (colour bars, black burst, 1 kHz tone, silent signal)\*4
- $\bullet$  Flexible input selection between video and  $\text{audio}^{\star \scriptscriptstyle{5}}$
- Universal powering system (AC 100 V to 240 V)
- Three-size cassette compartment to ensure compatibility with DV(25Mb/s) recorded tapes
- \*1 SDTI (QSDI) and i.LINK (DV In/Out) interfaces do not support DVCPRO playback.
- \*2 DSR-2000P/DSR1800P only.
- \*3 Optional Input/Output Boards required. Please check Feature Comparison of Studio VTRs (p.25) for details.
- \*4 DSR-2000P/DSR1800P/DSR-1500AP/DSR-70AP only.
- \*5 i.LINK cannot be combined with other signal interfaces. When SDTI (QSDI) is selected as the audio input, the video signal is assumed to be SDTI (QSDI). However, when it is selected as the video input, other signal interfaces can be selected for the audio.
- \*6 DSR-2000P/1800P/1600P only.











# **DSR-1800P** Editing Recorder

- Preread playback capability to perform audio mix/swap and over dubbing without any delay between video and audio signals
- Wide range of digital slow speed from -0.5 to +0.5 times normal speed
- Channel condition monitoring function
- Jog dial on front panel
- Silver Support supplied as standard (see page 14)

### **DSR-2000P**

### **Editing Recorder**

- Playback capability of DV tapes recorded in LP mode
- Preread editing capability\*1 to perform sound-onsound capability, audio mix/swap and over-dubbing of audio with no delay between video and audio as well as A/B roll editing\*2 with two VTRs
- VTR-to-VTR editing without external controllers
- Wide range of digital slow speed from -1 to +1 times normal speed
- Optional SDTI-CP digital interface board (MPEG Out)
- Channel condition monitoring function
- Audio level control in both recording and playback modes
- Dial menu operation
- Key Inhibit and Rec Inhibit functions to prevent accidental operation
- DSBK-200 Control Panel for remote operation from a distance of up to 10 metres (approx. 33 ft.)
- Silver Support supplied as standard (see page 14)
- \*1 Not available through SDTI (QSDI) and i.LINK interfaces. \*2 MIX and WIPE only.





### Master

## Silver Support



Master

### **DSR-1600P**

#### **Editing Player**

Silver Support

- Wide range of digital slow speed from -0.5 to +0.5 times normal speed
- Channel condition monitoring function
- Jog dial on front panel
- Silver Support supplied as standard (see page 14)

### **DSR-1500AP**

#### **Editing Recorder**

- Wide range of digital slow speed from -0.5 to +0.5 times normal speed
- Recording and playback capability of the DV format (SP mode only)
- Compact, half-rack size
- Menu keys on front panel for picture search
- Silver Support supplied as standard (see page 14)

### **Lineup features**

#### STUDIO VTRs







### DSR-85P

#### **High-speed Editing Recorder**

- Superb picture quality of the DVCAM format
- Playback capability of DV recorded tapes (SP mode only)
- High-speed data transfer at four times normal speed via SDTI (QSDI) interface
- Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette
- Versatile digital interfaces: SDI\*<sup>1</sup>, SDTI (QSDI) and AES/EBU digital audio
- Extensive analogue interfaces: composite, component, S-Video and XLR audio
- RS-422A remote control interface
- High-speed tape dubbing with ClipLink Log Data at four times normal speed via SDTI (QSDI) and RS-422A interfaces
- ClipLink operation
- Frame accurate editing capability
- Built-in SMPTE/EBU time code generator/reader
- Time base corrector
- High-speed picture search over a range of 32 times normal speed, in both forward and reverse
- Digital slow function over a range from 0 to 0.24 times normal speed, in both forward and reverse
- · Jog audio capability
- SIRCS (Sony Integrated Remote Control System) interface for the DSRM-10 Remote Control Unit
- Silver Support supplied as standard (see page 14)
- \*1 The optional DSBK-120P SDI Input/Output Board is required.

#### Silver Support

### DSR-45P

#### Recorder

- Superb picture quality of the DVCAM format
- Recording and playback capability of the DV format (SP mode only)\*1
- Long recording time: up to 184 minutes with a standard-size cassette, 40 minutes with a mini-size cassette
- Full range of analogue Video IN/OUT: Component, Composite, S-Video
- Four channel independent Audio IN/OUT with XLR connectors for Audio OUT
- i.LINK(DV) interface for simultaneous transfer of audio, video, and command signals
- RS-422A remote control interface\*2
- RS-232C interface for basic control from a PC
- · LANC and Control S interface
- Time code IN/OUT
- Time code/ User bit preset
- Time code IN through DV IN
- Duplication function (Including the duplication of Cassette Memory data)
- · Compact size (half-rack size width, 2U height)
- Low power consumption (22W during playback)
- Built-in 2-inch type (123,200 dot) colour LCD monitor
- Tape counter
- Wireless remote controller RMT-DS5 supplied
- Silver Support supplied as standard (see page 14)
- \*1 When recording in DV (SP) format, the transition between cut to cut may not be smooth. In addition, when the recording format is switched between DVCAM and DV, the transition may not be recorded smoothly.
- \*2 The DSR-45P is not equipped with the synchronisation capability, therefore is recommended to be used only as a source feeder in A/B roll editing.





### DSR-30P

#### Recorder

Silver Support

- Superb picture quality of the DVCAM format
- Playback capability of DV recorded tapes (SP mode only)
- Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a minisize cassette
- i.LINK (DV In/Out) interface providing a single cable connection to simultaneously transfer audio, video and command signals
- LANC interface for simple editing with a LANCequipped recorder or editing system
- Auto repeat function
- One-program playback function to automatically rewind to the beginning of a tape and enter Standby mode
- Power-on playback/recording capabilities
- External timer recording
- Duplication mode with original time code
- Function lock to avoid accidental operation
- Built-in control tray with a Jog/Shuttle dial with a range of 1/5 to 18 times normal speed, in both forward and reverse
- Index Points search function (when using a cassette with IC Cassette Memory)
- Clear frame picture
- RMT-DS30 Wireless Remote Controller (supplied accessory) for control of basic functions
- Headphone/microphone connections
- Silver Support supplied as standard (see page 14)





### **DSR-25**

#### Recorder

- Superb picture quality of the DVCAM format
- Recording and playback capability of the DV format (SP mode only)\*1
- Long recording time: up to 184 minutes with a standard-size cassette, 40 minutes with a mini-size cassette
- Recording and playback capability of both NTSC/PAL signals\*2
- i.LINK(DV) interface for simultaneous transfer of audio, video, and command signals
- LANC and Control S interface
- Time code/ User bit preset
- Time code IN through DV IN
- Duplication function (Including the duplication of Cassette Memory data)
- Power-on recording and playback capabilities
- Compact size (half-rack size width, 2U height)
- Low power consumption (16 W during playback)
- Built-in 2-inch type (123,200 dot) colour LCD monitor
- Tape counter
- Wireless remote controller RMT-DS5 supplied
- Silver Support supplied as standard (see page 14)
- \*1 When recording in DV (SP) format, the transition between cut to cut may not be smooth. In addition, when the recording format is switched between DVCAM and DV, the transition may not be recorded smoothly.
- \*2 The DSR-25 is not equipped to convert signals from NTSC to PAL, or vice versa.



DSR-11 Recorder



- Superb picture quality of the DVCAM format
- Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette
- Recording and playback of DV format tapes (SP mode only)
- NTSC/PAL compatible\*1 in both Rec and Play mode
- Composite and S Video inputs
- i.LINK (DV In/Out) interface providing a single cable connection to simultaneously transfer audio, video and command signals
- Unique design enables both horizontal and vertical installation
- LANC and Control S terminals
- Auto repeat function
- DC power operation
- Supplied RMT-DS11 Wireless Remote Commander
- Silver Support supplied as standard (see page 14)
- \*1 The DSR-11 does not convert signals from NTSC to PAL, or vice versa.

#### **PORTABLE VTRs**









### **DSR-70AP**

#### Portable Editing Recorder

- Compact, all-in-one package features a 6.4-inch VGA LCD monitor, a full cut-editing controller with a Jog/Shuttle dial and audio speaker
- Wide range of digital slow speeds from -0.5 to +0.5 times normal speed
- High-speed colour picture search over a range of 32 times normal speed, in both forward and reverse
- Audio mix/swap recording
- Cliplink operation: cue up to Mark In/Cue address, change of Mark In/Out points, change of OK/NG status and creation of new Mark In/Out points
- Edit List Memory Function
- Double Deck Editor by docking two DSR-70AP units or a DSR-70AP and a DNW-A25 Betacam SX® portable editing recorder
- SDI and i.LINK interfaces are provided by a single DSBK-160A optional board
- Two-camera switching recording\*1
- Sequential recording for up to 6 hours in the double deck configuration
- Parallel-run recording to control two docked DSR-70AP units
  - in parallel for simultaneous recording
- Two-way power supply system (AC/DC) for operation with either AC\*2 or DC power
- Silver Support supplied as standard (see page 14)
- \*1 The optional DSBK-180 Dual Video Input Board is required.
- \*2 AC adaptor is required.

Note: Optional interface boards (DSBK-140/150/160A/170) cannot be used in combination with each other. However, these boards can be used together with the optional DSBK-180.



### DSR-50P

#### Portable Recorder

- Superb picture quality of the DVCAM format
- Playback capability of DV recorded tapes (SP mode only)
- Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette
- Four-channel independent digital audio recording
- 2.5-inch (200,000 dot) colour LCD monitor
- Duplication options (tape copy, tape copy with original time code, or tape copy with cassette memory data)
- Compact & lightweight design: 3.9 kg (8 lb 9 oz) without battery and tape
- Playback capability of both NTSC and PAL recorded tapes\*1
- i.LINK (DV In/Out) interface providing a single cable connection to simultaneously transfer audio, video and command signals
- 26-pin Camera Connector
- Analogue Component Output
- Timecode IN/OUT
- Silver Support supplied as standard (see page 14)
- \*1 The output signal level is not standard and therefore recommended for simple monitoring only, with a monitor of the same colour system as the original source.

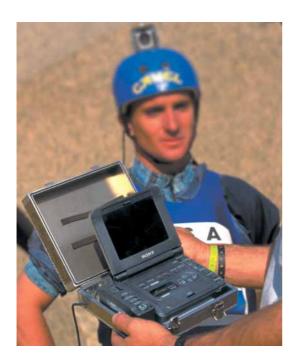




### **DSR-V10P**

#### **DVCAM Video Walkman® Recorder**

- Superb picture quality of the DVCAM format
- Playback capability of DV recorded tapes (SP mode only)
- 40 minutes recording time with a mini-size cassette\*1
- Compact and lightweight: 970 g (2 lb 2 oz) without battery and tape
- Built-in 5.5-inch LCD monitor
- InfoLITHIUM battery system displays the remaining capacity of the battery (accurate to the minute)
- i.LINK (DV In/Out) interface providing a single cable connection to simultaneously transfer audio, video and command signals
- LANC interface for simple editing with a LANCequipped recorder or editing system
- Assemble editing with up to 99 events x four programs with the optional DSRM-E1 Edit Adaptor
- Auto repeat function
- Duplication mode with original time code
- Hands-free shooting capability with the optional CVX-V1P/V3P/V18NSP Mini Camera
- Silver Support supplied as standard (see page 14)
- \*1 The DSR-V10P accepts only mini-size DVCAM and DV cassettes.





### **Flexicart**

### Multi-cassette System

- Accepts a maximum of six DSR-2000P/1800P/1600P units\*1
- Designed to be modular and reconfigurable with optional VTRs and cassette bin units to meet differing applications
- Multiple inputs and outputs
- Fully automated, simultaneous record, playback and time delay
- Standard traffic and automation interface
- PC-driven, user-friendly Windows® environment
- \*1 Available for standard-size cassettes only.

Applicable	VTR	Cassette
VTRs	Mount Kit	Bin Unit
DSR-2000P DSR-1800P DSR-1600P	BKFC-54	BKFC-21DV BKFC-210*1

\*1 BKFC-210 DV Hand Kit: a robotics hand for handling DVCAM standard-size cassettes.

	Configuration (VTR/Bin Unit ratio) Standard-			
VTRs	Bin Units (4U high)	Cassette Capacity		
1	7	147		
2	7	147		
3	6	126		
4	5	105		
5	4	84		
6	3	63		

#### HARD DISK UNITS





Silver Support

### **DSR-DU1**

#### Hard Disk Unit

- Compact hard drive unit (2.5-inch, 40GB hard drive) for use with DVCAM and Sony DV camcorders\*1
- Camera output can be recorded to the DSR-DU1's hard drive in parallel to the recordings made on the camcorder's tape via i.LINK(DV) connection.
- Recording in 25Mb/s DVCAM/DV stream for up to three hours
- Capable of docking directly to the rear of DVCAM camcorders\*<sup>2</sup> by use of the CA-DU1 optional Camera Adaptor
- The camera adapter's slot-in mechanism allows easy and quick replacement of the DSR-DU1
- Can interface with a variety of i.LINK(DV) equipped Sony hand-held type DVCAM/DV camcorders via its iLINK(DV) connector
- The DSR-DU1's DV video/audio files can be accessed from a compatible i.LINK equipped non-linear editor\*3
- Compact and Lightweight
- VTR-like functions and operation keys
- i.LINK interface with AV/C and SBP2 protocols
- Cache recording (8 seconds)
- Interval recording
- 525(NTSC)/625(PAL) Switchable\*4
- REC Trigger controlled from the REC On/Off button of Sony i.LINK(DV) equipped camcorders\*5
- Supplied remote controller for Rec, Cue and Rec Tally controls
- Flexible DC operation (DC 12 V\*6, DC 8.4 V)
- Shooting Data (Time codes of the rec in and out points, Cue points from the DSR-DU1 and the supplied remote controller)
- Silver Support supplied as standard (see page 14)
- \*1 Please contact your nearest Sony office or Authorised dealer for compatible DV camcorders.
- \*2 DSR-570WSP/370P/500WSP/300AP/250P.
- \*3 Please contact your nearest Sony office or Authorised dealer for non-linear products that support DV file transfer between the DSR-DU1.
- \*4 Signal conversion from 525(NTSC) to625(PAL), or vice versa is not possible.
- \*5 To use this function with camcorders other than the DSR-570WSP/370P, tape should be set in the cassette compartment.
- \*6 To use DC 12V, the optional CA-DU1 is required.



#### DSR-DR1000P

#### Hard Disk Recorder

(Preliminary information)

- DVCAM recording for over 6 hours (80GB hard drive)
- Compact & lightweight (Half-rack size, 6 kg)
- Simultaneous recording & playback
- Clip segment playback for playout of designated video segment
- DMC playback with the range of ± x2 times normal speed
- Continuous loop recording
- Pre-alarm recording (automatic recording triggered by an external alarm signal)
- · Interval recording
- i.LINK interface with AV/C and SBP2 protocols
- Versatile interfaces (i.LINK, SDI, Component, Y/C, Composite, AES/EBU, Alalogue audio, TC I/O, RS-422A, Ethernet)
- VTR-like control panel with a Jog/Shuttle dial
- Network capability (file transfer using FTP via 100Base-T Ethernet)
- SNMP (Simple Network Management Protocol) enabled
- Silver Support supplied as standard (see page 14)



# PURPLE VAIO and PURPLE DESKTOP

This low cost editing solution from Sony is based on the same award-winning interface used in the Sony ES-3 and will suit any editor looking for a DV based editing solution.

Supplied either as a Desktop or Laptop solution, there is sure to be a system to suit your needs today and into the future.



#### · Easy to use

By using a fully customisable interface, Purple is able to adapt to your every need. Editors can have their own set of keyboard shortcuts and the interface is streamlined allowing you to start working as quickly as possible.

#### Uncompromising picture quality

Using native DV / DVCAM compression, Purple does not re-compress your pictures during the editing process. The supplied i.LINK interface also provides a simple and convenient way of controlling your VTR or camera and transferring your video, audio and timecode data to the PC.

#### • Reliable and powerful

Purple is installed on the Windows 2000 operating system which has a number of benefits, the most important being reliability. In the unlikely event of a system crash Purple will never lose your work as it is constantly being saved.

Additionally, Purple fully supports the Windows 2000 multi-tasking capabilities, which means that processes such as rendering can be carried out in the background. Any rendering tasks are started automatically so that you can always concentrate on the edit in hand

The Desktop version also makes full use of multi-processor workstations and the optional "InTime" board will reduce rendering times dramatically.

#### • Flexible

Purple can edit more than just DV sourced material, by utilising third party converters from Miranda and Dazzle, you can also digitise material from other digital or analogue formats.

Ultimately this means that your Purple system can also be used as a low cost offline editor, as your finished edit can be exported to an online suite via EDL or OMF files.



The number of Video and Audio layers are infinite, as are the number of effects that can be applied to a video clip. All this combined with a totally non-destructive undo function makes Purple the most versatile and flexible system on the market today.

#### Open platform

By supporting many of today's Effect plugins such as Boris FX, Ultimatte and Vortex FX Purple is an extremely open editing solution. Additionally, standard network infrastructures are also supported, allowing you to quickly share your material with other creative people.

The X-send function allows the editor to export both media and timeline information directly into other packages like Adobe After FX, Pinnacle's Commotion and Discreet Logic's Media Cleaner. Multimedia engines such as AVI and QuickTime are also fully integrated and a wide choice of still files can also be used.

#### Advanced audio tools

No NLE system today can be complete without a comprehensive set of audio tools. Purple supports realtime mixing of 8 audio channels and audio filters such as a 3 band parametric equaliser, a maximizer and reverb are also supplied as standard.

Additional audio can be imported from CD and a Voice over can be carried out in realtime whilst the existing audio tracks are monitored.

#### • The Complete Solution.

Whether it is the mobile laptop system, or the scalable desktop version, Purple, combined with the DVCAM family of VTR's and Camera's provides you with the most complete end to end solution in the world today.

# **Lineup features**

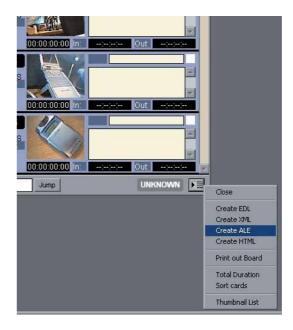
SOFTWARE | LOGGING SOFTWARE

### **JZ-1**

The JZ-1 Logging Software allows users to create logging data using a PC and a RS-422 DVCAM VTR. Operation is both quick and simple, and is based on a very straightforward GUI. For DVCAM The JZ-1 has the ability to capture ClipLink data and export it into a

variety of formats (Edit Descision Lists - EDLs) compatible with most non linear systems on the market. JZ-1 can also be used with IMX and Betacam VTRs to improve the workflow in editing suites

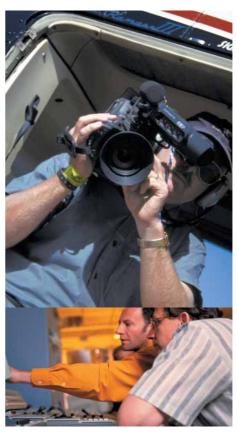






### DVCAM

From an application standpoint, the DVCAM format incorporates all the attributes expected in a broadcast and professional format, such as native SMPTE time code, ± 0 frame accuracy in insert editing, and the robustness in the format to withstand the wear and drop in imagery dB resulting from use in the harsh ENG and production environment. Not to be forgotten, the DVCAM line has Sony's professional service infrastructure behind each product. In times of dire need, this aspect of customer support can be the most critical for those utilizing a professional product. It is no wonder that discerning professionals select DVCAM for their operation.



# **Feature Comparison**

### **DIGITAL CAMCORDERS**

16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9   16.9		DSR-570WSP	DSR-370P	DSR-250P	DSR-PD150P	DSR-PDX10P
COD state   SCCD 2/3 Inch   SCCD 1/2 Inch   SCCD 1/3 Inch   SCCD 1/4 Inch	General					
16.9	General					
163 commutation capability	CCD size	3CCD 2/3 inch	3CCD 1/2 inch	3CCD 1/3 inch	3CCD 1/3 inch	3CCD 1/4.7 inch
PowerHAD CCD	CCD type	16:9	4:3	4:3	4:3	16:9
Propertified CCD	16:9 commutation capability	4/3 Commutation		•	•	•
Recommended Carror:						(with high resolution
Recommended Canon:						capability)
Value   Valu						
Figures: A1988-78FM-28   Large range of high quality lenses are available at certain y Optics	Standard lens			12x (6.0 to 72 mm)	12x (6.0 to 72 mm)	12x (3.6 to 43.2 mm)
Large range of high qually leneas are available at common service of high qually leneas are available at common service of high qually leneas are available at Century Optice (Century Optice)		· · · · · · · · · · · · · · · · · · ·	KRS			
Super ShearbyShot   Supe	Interel consolidation		_	Laura mana af biab	Laura mana af binb	VOK 1100007VI
Consumer accessor   Cons	interchangeable lens	•	•			
Super SteadyShot						
Super StadyShot    90   in 16/10 & 850   in 4/2   800   ines   530						(consumer accessories
Resolution   980 in 1698 at \$50 in 169 at \$50 in 1698 at \$50 in	Super SteadyShot					•
SAN Ratio		980 in 16/9 & 850 in 4/3	800 lines	530 lines	530 lines	530 lines
NewIndextrype	Minimum illumination	0.25 lux	0.5 lux	2 lux	2 lux	7 lux
Tage size	S/N Ratio	61 dB Typical	61 dB Typical			
Recording mode	Viewfinder type	BW CRT	BW CRT	BW CRT	High resolution BW LCD	High resolution BW LC
Playback	Tape size			Std and Mini DV/DVCAM		Mini DV and DVCAM
PCM Audio (18bits/12 bits						
Audio dubbing					DV and DVCAM	
Time code preset		•	•			
Yes 2.5-inch   Yes 2.5-inch   Yes 3.5-inch   Yes						
Memory Stock (MSA-4A/8V)		•	•			
16A/32A/64A/12BA)				Yes 2.5-Inch	Yes 2.5-Inch	Yes 3.5-Inch
Manual ris						
Manual zoom		Ves (Ring)	Ves (Ring)			
Process   Proc		\ 0/			\ /	
DynaEt Shoulder pad						
Mass   6.3kg   6kg   4.4kg   1.5kg   0.95kg		•	•	•		
Studio operations CCU	Mass	6.3kg	6kg	4.4kg	1.5kg	0.95kg
Advanced DSP Features	Studio operations CCU	•				
Skin Detail   Skin Tone   Sk	TruEye Process	•	•			
SkinTone	Dynalatitude Process	•	•			
TSCS (Total Level Control System)   •   •						
ATM (Auto Tracing White Balance)  EZ Mode  EZ Focus  • • • • Camera Setup File • Setup Navigation Setup Log • Freeze Mix • CiplLink • Photo mode Progressive still picture mode High resolution still pictures Long MPEG movie recording on MS   Cutput connectors  Composite Yes (2xBNC) Yes (2xBNC) Yes (2xBNC) Yes (RCA+BNC) Yes (Jack) Yes (Jack) Yes (Jack) Yes (Jack) Yes (Jack) Yes (Jack) Yes (4-pin) USB Connector (streaming) Audio RCA x 2 • • • • • • • • • • • • • • • • • • •						
EZ Mode						
EZ Focus						
Camera Setup File   •						
Setup Navigation			•			
Setup Log	•	•				
Freeze Mix			•			
ClipLink		•	•			
Progressive still picture mode	ClipLink	•	•			
High resolution still pictures	Photo mode			•	•	•
Composite   Yes (2xBNC)   Yes (2xBNC)   Yes (RCA+BNC)   Yes (Jack)	Progressive still picture mode			•	•	•
Composite         Yes (2xBNC)         Yes (2xBNC)         Yes (RCA+BNC)         Yes (Jack)         Yes (Jack)           S-Video         •         •         •         •         •         •           Y, R-Y, B-Y component         Yes w 26-pin         Yes w 26-pin         Yes (6-pin)         Yes (6-pin)         Yes (4-pin)         Yes (4-pi	High resolution still pictures				• (640x480)	• (1152x768)
Composite         Yes (2xBNC)         Yes (2xBNC)         Yes (RCA+BNC)         Yes (Jack)         Yes (Jack)           S-Video         •         •         •         •         •         •           Y, R-Y, B-Y component         Yes w 26-pin         Yes w 26-pin         Yes (4-pin)         Yes (4-pi	•					•
Composite Yes (2xBNC) Yes (2xBNC) Yes (RCA+BNC) Yes (Jack) Yes (Jack) S-Video • • • • • • • • • • • • • • • • • • •	recording on MS					
S-Video	Output connectors					
S-Video	Composite	Yes (2xBNC)	Yes (2xBNC)	Yes (RCA+RNC)	Yes (Jack)	Yes (Jack)
Y, R-Y, B-Y component         Yes w 26-pin         Yes w 26-pin           i-LINK IEEE-1394         Yes (6-pin)         Yes (6-pin)         Yes (4-pin)           USB Connector (streaming)         •         •         •         •           Audio RCA x 2         •         •         •         •         •           DC-12V - 4-pin         •         •         •         •         •           Adjustable Time Code         •         •         •         •         •           Input connectors           Composite         Yes (option DSBK-501)         Yes (option DSBK-501)         Yes (RCA)         Yes (RCA)         Yes (RCA)           S-Video         •         •         •         •         •           Remote (RS-232)         •         •         •         •		. 50 (EXE/10)				
i-LINK IEEE-1394 Yes (6-pin) Yes (6-pin) Yes (6-pin) Yes (4-pin) Y		Yes w 26-pin				
USB Connector (streaming) Audio RCA x 2  • • • • • • • •  DC-12V - 4-pin Adjustable Time Code • • • •  Input connectors  Composite Yes (option DSBK-501) S-Video Remote (RS-232) • • • • • • • • • • • • • • • • • • •	•	•		Yes (6-pin)	Yes (4-pin)	Yes (4-pin)
DC-12V - 4-pin         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •						
Adjustable Time Code         •         •         •           Input connectors           Composite         Yes (option DSBK-501)         Yes (option DSBK-501)         Yes (RCA)	Audio RCA x 2	•	•	•	•	•
Adjustable Time Code         •         •         •           Input connectors           Composite         Yes (option DSBK-501)         Yes (option DSBK-501)         Yes (RCA)	DC-12V - 4-pin	•	•	•		
Composite         Yes (option DSBK-501)         Yes (option DSBK-501)         Yes (RCA)         Yes (RCA)         Yes (RCA)           S-Video         •         •         •         •         •           Remote (RS-232)         •         •         •         •		•	•	•	•	
S-Video • • • • • Remote (RS-232) • • • • • • • • • • • • • • • • • • •	Input connectors					
S-Video • • • • • Remote (RS-232) • • • • • • • • • • • • • • • • • • •		Vec (enti DODY 504)	Ves (entire DODY 504)	V (DOA)	V (DOA)	V (DOA)
Remote (RS-232) • •	•	res (option DSBK-501)	res (option DSBK-501)			
		•	•	•		

•

Yes (2)

Yes (4-pin)

Yes (1 front + 2 rear)

Yes (6-pin)

•

Yes (2)

Yes (4-pin)

### Power through 4-pin XLR Specific power plug i-LINK IEEE-1394

Gen Lock LANC

Audio XLR

Time Code

Lens connector

Yes (1 front + 2 rear)

Yes (1 front + 2 rear)

#### DIGITAL CAMCORDERS

	DSR-570WSP	DSR-370P	DSR-250P	DSR-PD150P	DSR-PDX10P
Accessories					
NP-1B adaptor	Yes with DC-L1	Yes with DC-L1	Yes with DC-L1		
AC Adaptor	AC-DN1/2	AC-DN1/2	AC-DN1/2	supplied (AC-L10)	supplied (AC-L10)
Batteries	BP-L40A/L60/L90/M50/100	BP-L40A/L60/L90/M50/100	BP-L40A/L60/L90/M50/100	NPF-330/550/750/960	NP-FM50 / NP-QM71 / NP-QM9
i-LINK cable	CCF-3L (6P-6P)	CCF-3L (6P-6P)	CCF-3L (6P-6P)	VMC-IL4415/4435 (4P-4P)	VMC-IL4415/4435 (4P-4P)
	CCFD-3L (4P-6P)	CCFD-3L (4P-6P)	CCFD-3L (4P-6P)	VMC-IL4615/4635 (4P-6P)	VMC-IL4615/4635 (4P-6P)
Diving / Snorkling case					
Optional charger	BC-M50/BC-L120/AC-DN1	BC-M50/BC-L120/AC-DN1	BC-M50/BC-L120/AC-DN1	AC-V700/AC-VQ800	AC-SQ950D
Audio HF transmitter	WRT-822B	WRT-822B	WRT-805B or WRT-822B	WRT-805B	WRT-805B
Wide angle	Canon YJ12x6.5 KRS	Canon YH12x4.8KRS,	option: Sony VCL-HG0758	option: Sony VCL-HG0758	_
	Fujinon A12x6.8	Fujinon S12x5	(without lens hood)	(without lens hood)	
			Canon WR-58/	Canon WR-58	
			Century Optics	Century Optics	
Rain cover	LCR-1	LCR-1	LCR-1		
Camcorder light	Anton Bauer Ultra	Anton Bauer Ultra	Anton Bauer Ultra	HVL-20DW2	HVL-S3D
	Light2 20W (UL2-6)+	Light2 20W (UL2-6)+	Light2 20W(UL2-6)+	(+NP-550/750	(+NP-550/750
	(DIFFUSION FILTER uld-f)	(DIFFUSION FILTER uld-f)	(DIFFUSION FILTER uld-f)	not supplied)	not supplied)
Audio HF receiver	WRR-855B (+CA-WR855)	WRR-855B (+CA-WR855)	WRR-805A/B or WRR-855B	WRR-805A/B	WRR-805A/0B
			(+BTA 801)		
Remote panel	Yes RM-M7G/F	Yes RM-M7G/F		photo type	photo type
Tripod adaptor	VCT-U14 supplied	VCT-U14 supplied	option : VCT-U14		LCH-TRV950
Hard carrying case	LC-421 / LC-DS500	LC-421	LC-421	LCH-VX2000	
Soft carrying case	LC-300	LC-300	LC-300		
Large viewfinder	DXF-51 + accessories*	DXF-51 + accessories*	DXF-51 + accessories*		
Silver Support included	•	•	•	•	•

<sup>\*</sup> Spare part ref. for assembling kit = A-8278-177-A.

#### **Recommended Wireless Systems**



<sup>\*</sup> Or use WRT-847B Handheld Transmitter with either CU-F780, CU-G780, CU-E700, CU-E672 or CU-F117 Capsule

<sup>\*1</sup> Or use WRT-807B Handheld Transmitter

# **Feature Comparison**

### DIGITAL VTRs

	DSR-2000P	DSR-1800P	DSR-1600P	DSR-1500AP	DSR-85P	DSR-70AF
Cassette Size						
Gasselle Size						
Standard-size	•	•	•	•	•	•
Mini-size	•	•	•	•	•	•
DVCPRO Medium-size	•	•	•	•		•
Recording/Playback Ca	pability					
DV-SP Recording				•		I
DV-SP Recording DV-SP Playback	•	•	•	•	•	•
DV-LP Playback	•	-	-	-		
DVCPRO Playback	•	•	•	•		•
NTSC Recording						
NTSC Playback						
	1					
Digital Interface						
SDI	•	0	O *2	0	0	0
SDTI (QSDI)	•	0	0 *2	0	•	0
SDTI-CP	0 *2					
i.LINK (DV In/Out)	0	0	0	•		0
AES/EBU	•	0	0 *2	0	•	
Analogue Interface						
			I			1
Composite	•	•	• *2	o *1 / • *2	•	•
Component	•	•	• *2	o *1 / • *2	•	0
S-Video	•	•	• *2	o *1 / • *2	•	•
Analogue Audio	• (4ch)	• (4ch)	• *2 (4ch)	o *1 / • *2 (2ch)	• (4ch)	• (2ch)
Time Code In/Out	•	•	• *2	•	•	•
Control Interface						
RS-422A	•	•	•	•	•	•
RS-232C						
LANC						
Control S		•	•	•	•	
26-pin Camera						
Key Function						
Non-Tracking	•					
Pre-read Editing						
(Video/Audio)	•					
VTR-to-VTR Editing	•					•
Audio Pre-read Editing	•	•				
Channel Condition						
Indicator	•	•	•			
Jog/Shuttle Dial	•	•	•			•
4ch Audio Insert						
TOTT / tadio irioort						
	•	•			•	
independently Audio Cross Fade	•	•			•	
independently Audio Cross Fade Assemble/Insert Editing				•		•
independently Audio Cross Fade Assemble/Insert Editing 16:9 Aspect ID Recording	•	•		•	•	•
independently Audio Cross Fade Assemble/Insert Editing 16:9 Aspect ID Recording Analogue-like Jog Audio	•	•	•		•	
independently Audio Cross Fade Assemble/Insert Editing 16:9 Aspect ID Recording Analogue-like Jog Audio Professional Slow	•	•	•	•	•	•
independently Audio Cross Fade Assemble/Insert Editing 16:9 Aspect ID Recording Analogue-like Jog Audio Professional Slow Motion Picture *7	•	•	•	•	•	•
independently Audio Cross Fade Assemble/Insert Editing 16:9 Aspect ID Recording Analogue-like Jog Audio Professional Slow Motion Picture *7 Quick Response	•	•		•	•	•
independently Audio Cross Fade Assemble/Insert Editing 16:9 Aspect ID Recording Analogue-like Jog Audio Professional Slow Motion Picture *7 Quick Response Mechanism	•	•		•	•	•
independently Audio Cross Fade Assemble/Insert Editing 16:9 Aspect ID Recording Analogue-like Jog Audio Professional Slow Motion Picture *7 Quick Response Mechanism x4 Speed Transfer	•	•	•	•	•	•
independently Audio Cross Fade Assemble/Insert Editing 16:9 Aspect ID Recording Analogue-like Jog Audio Professional Slow Motion Picture *7 Quick Response Mechanism x4 Speed Transfer Power On Playback/	•	•	•	•	•	•
independently Audio Cross Fade Assemble/Insert Editing 16:9 Aspect ID Recording Analogue-like Jog Audio Professional Slow Motion Picture *7 Quick Response Mechanism x4 Speed Transfer Power On Playback/ Recording	•	•	•	•	•	•
independently Audio Cross Fade Assemble/Insert Editing 16:9 Aspect ID Recording Analogue-like Jog Audio Professional Slow Motion Picture *7 Quick Response Mechanism x4 Speed Transfer Power On Playback/ Recording Time Counter Display	•	•	•	• • • • • • • • • • • • • • • • • • • •	•	•
independently Audio Cross Fade Assemble/Insert Editing 16:9 Aspect ID Recording Analogue-like Jog Audio Professional Slow Motion Picture *7 Quick Response Mechanism x4 Speed Transfer Power On Playback/ Recording Time Counter Display on Front Panel	•	• • • • • • • • •	• *7	• • • • • • • • • • • • • • • • • • • •	•	•
independently Audio Cross Fade Assemble/Insert Editing 16:9 Aspect ID Recording Analogue-like Jog Audio Professional Slow Motion Picture *7 Quick Response Mechanism x4 Speed Transfer Power On Playback/ Recording	•	•	• *7	• • • • • • • • • • • • • • • • • • • •	•	•
independently Audio Cross Fade Assemble/Insert Editing 16:9 Aspect ID Recording Analogue-like Jog Audio Professional Slow Motion Picture *' Quick Response Mechanism x4 Speed Transfer Power On Playback/ Recording Time Counter Display on Front Panel Digital Slow Range *9	•	• • • • • • • • •	• *7	• • • • • • • • • • • • • • • • • • • •	•	•
Audio Cross Fade Assemble/Insert Editing 16:9 Aspect ID Recording Analogue-like Jog Audio Professional Slow Motion Picture *7 Quick Response Mechanism 44 Speed Transfer Power On Playback/ Recording Time Counter Display on Front Panel Digital Slow Range *9  Power	• • • • • × ×+-1.0	• • • • • • • • • • • • • • • • • • •	• *7  • x+-0.5	• • *7 • x+-0.5	• • • • • x+-0.24	•
independently Audio Cross Fade Assemble/Insert Editing 16:9 Aspect ID Recording Analogue-like Jog Audio Professional Slow Motion Picture *7 Quick Response Mechanism x4 Speed Transfer Power On Playback/ Recording Time Counter Display on Front Panel	•	• • • • • • • • •	• *7	• • • • • • • • • • • • • • • • • • • •	•	•

- Standard

- \*3 As player only
   \*4 Needs DSRM-E1P
   \*5 7.2 V (with battery), 8.4 V (with AC adaptor)
   \*6 The same filter as Digital BETACAM Option
   Input only
   Output only
- \*7 Power On Playback only \*8 Not frame accurate \*9 1% step

### DIGITAL VTRs

	DSR-50P	DSR-V10P	DSR-45P	DSR-30P	DSR-25	DSR-11
Cassette Size						
Casselle Size						
Standard-size	•		•	•	•	•
Mini-size	•	•	•	•	•	•
DVCPRO Medium-size						
Recording/Playback Cap	pability					
DV-SP Recording	•		•		•	•
DV-SP Playback	•	•	•	•	•	•
DV-LP Playback						
DVCPRO Playback						
NTSC Recording					•	•
NTSC Playback	•				•	•
Digital Interface				1		
Digital interface						
SDI						
SDTI (QSDI)						
SDTI-CP						
i.LINK (DV In/Out)	•	•	•	•	•	•
AES/EBU						
Analogue Interface						
Composite	•	•	•	•	•	•
Component	•	-	•	-	-	
S-Video	•	•	•	•	•	•
Analogue Audio	• (4ch)	• (2ch)	• (4ch)	• (2ch)	• (2ch)	• (2ch)
Time Code In/Out	• (4cn)	(2011)	• (4cn) •	(2011)	<u> </u>	- (ZCII)
RS-422A RS-232C			• *3			
LANC	•	•	•	•	•	•
Control S	•		• *1	•	●*1	•
26-pin Camera  Key Function						
Non-Tracking						
Pre-read Editing						
(Video/Audio)						
VTR-to-VTR Editing		• *4		•		
Audio Pre-read Editing						
Channel Condition						
Indicator						
Jog/Shuttle Dial						
4ch Audio Insert						
independently						
Audio Cross Fade						
Assemble/Insert Editing				•*8		
16:9 Aspect ID Recording						
Analogue-like Jog Audio						
Professional Slow						
Motion Picture *6						
Quick Response						
Mechanism						
x4 Speed Transfer						
Power On Playback/						
Recording			• * <sup>7</sup>	•	•	• *7
Time Counter Display	•		•	•	•	
on Front Panel	x ±1/10, 1/3	x ±1/3	x ±1/10, 1/3	x ±1/10, 1/5	x ±1/10, 1/3	x ±1/10, 1/3
on Front Panel Digital Slow Range *9						
on Front Panel Digital Slow Range *9						
on Front Panel Digital Slow Range *0  Power			• (220-240V)	• (220-240V)	• (220-240V)	
on Front Panel	• (12V)	<b>→</b> *5	• (220-240V)	• (220-240V)	• (220-240V)	• (12V)

# **Optional Accessories & Peripheral Equipment**

### **BATTERIES, CHARGERS & AC ADAPTORS**



Cameras: DSR-570WSP | DSR-370P | DSR-135P\* DSR-1P | DSR-250P

VTRs: DSR-70AP | DSR-50P



Cameras: DSR-570WSP | DSR-370P | DSR-135P\*

DSR-250P



Camera: DSR-PD150P



Camera: DSR-PD150P VTR: DSR-V10P Hard Disk: DSR-DU1



Camera: DSR-PD150P VTR: DSR-V10P Hard Disk: DSR-DU1



Cameras: DSR-135P\* | DSR-1P Serial No for DSR-1P is 14151



Cameras: DSR-570WSP | DSR-370P



Cameras: DSR-570WSP | DSR-370P | DSR-250P
VTR: DSR-70AP

AC-V700A AC Adaptor/Charger

VTR: DSR-V10P
Hard Disk: DSR-DU1



Cameras: DSR-135P\* | DSR-1P



Cameras: DSR-570WSP | DSR-370P | DSR-1P



Cameras: DSR-570WSP | DSR-370P | DSR-135P\*
DSR-1P | DSR-250P

VTRs: DSR-70AP | DSR-50P



Cameras: DSR-570WSP | DSR-370P | DSR-135P\* DSR-1P | DSR-250P

VTRs: DSR-70AP | DSR-50P



Cameras: DSR-570WSP | DSR-370P | DSR-135P\* DSR-1P | DSR-250P

VTRs: DSR-70AP | DSR-50P



Camera: DSR-PDX10P



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### CABLES & REMOTE CONTROL UNITS



VTRs: DSR-2000P | DSR-1800P | DSR-1600P | DSR-1500AP | DSR-85P | DSR-45P | DSR-70AP



Cameras: DSR-570WSP | DSR-370P



Camera: DSR-135P\*



Cameras: DSR-570WSP | DSR-135P\*



Camera: DSR-135P\*



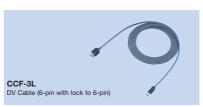
Cameras: DSR-PD150P | DSR-PDX10P DSR-45P | DSR-30P | DSR-25 | DSR-11 DSR-V10P VTRs:



Cameras: DSR-570WSP | DSR-250P | DSR-PDX10P VTRs: DSR-PD150P | DSR-45 | DSR-30P | DSR-25 DSR-11 | DSR-70AP | DSR-50P | DSR-V10P



Camera: DSR-250P VTR: DSR-50P



Cameras: DSR-570WSP | DSR-250P DSR-2000P | DSR-1800P | DSR-1600P DSR-1500AP | DSR-70AP | DSR-50P VTRs:



Cameras: DSR-570WSP | DSR-250P | DSR-PD150P DSR-PDX10P

DSR-2000P | DSR-1800P | DSR-1600P DSR-1500AP | DSR-50P | DSR-45P | DSR-30P DSR-V10P | DSR-25 | DSR-11



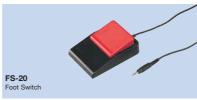
Cameras: DSR-570WSP | DSR-370P | DSR-135P\*



Cameras: DSR-570WSP | DSR-370P | DSR-135P\*



Cameras: DSR-570WSP | DSR-370P | DSR-135P\* \*1 Available autumn 2002



VTR: DSR-50P



Cameras: DSR-135P\* | DSR-PDX10P



DSR-1500AP | DSR-85P | DSR-45P | DSR-25 DSR-11 | DSR-50P VTRs:



DSR-45P | DSR-11 | DSR-50P



DSR-V10P



VTRs: DSR-2000P | DSR-1800P | DSR-1600P 35

# **Optional Accessories & Peripheral Equipment**

#### RECORDING MEDIA



Cleaning Cassette Tape (Standard size)

Cameras: DSR-570WSP | DSR-370P | DSR-135P\*

DSR-1P | DSR-250P VTRs:

DSR-2000P | DSR-1800P | DSR-1600P DSR-1500AP | DSR-85P | DSR-45P | DSR-30P DSR-25 | DSR-11 | DSR-70AP | DSR-50P



#### PDV-64MEM/124MEM/184MEM

Cameras: DSR-570WSP | DSR-370P | DSR-135P\* DSR-1P | DSR-250P

DSR-2000P | DSR-1800P | DSR-1600P DSR-1500AP | DSR-85P | DSR-45P | DSR-30P DSR-25 | DSR-11 | DSR-70AP | DSR-50P VTRs



#### PDVM-32MEM/40MEM

Digital Video Cassette (Master tape/Mini size)

DSR-570WSP | DSR-370P | DSR-135P\* DSR-1P | DSR-250P | DSR-PD150P | DSR-PDX10P

DSR-2000P | DSR-1800P | DSR-1600P DSR-1500AP | DSR-85P | DSR-45P | DSR-30P DSR-25 | DSR-11 | DSR-70AP | DSR-50P



Cameras: DSR-250P | DSR-PD150AP | DSR-PDX10P



#### PDV-34ME/64ME/94ME/124ME/184ME

Cameras: DSR-570WSP | DSR-370P | DSR-135P\* DSR-1P | DSR-250P

DSR-2000P | DSR-1800P | DSR-1600P DSR-1500AP | DSR-85P | DSR-45P | DSR-30P DSR-25 | DSR-11 | DSR-70AP | DSR-50P VTRs:



#### PDVM-12CL

sette Tape (Mini size)

Cameras: DSR-570WSP | DSR-370P | DSR-135P\*
DSR-1P | DSR-250P | DSR-PD150P | DSR-PDX10P

DSR-2000P | DSR-1800P | DSR-1600P DSR-1500AP | DSR-85P | DSR-45P | DSR-30P DSR-25 | DSR-11 | DSR-70AP | DSR-50P DSR-V10P



### PDVM-12N/22N/32N/40N

(Non IC type Mini Size)

Cameras: DSR-570WSP | DSR-370P | DSR-135P\*
DSR-1P | DSR-250P | DSR-PD150P | DSR-PDX10P

DSR-2000P | DSR-1800P | DSR-1600P DSR-1500AP | DSR-85P | DSR-45P | DSR-30P DSR-25 | DSR-11 | DSR-70AP | DSR-50P DSR-V10P



Cameras: DSR-250P | DSR-PD150AP | DSR-PDX10P



Cameras: DSR-570WSP | DSR-370P | DSR-135P\*

DSR-1P | DSR-250P

DSR-2000P | DSR-1800P | DSR-1600P DSR-1500AP | DSR-85P | DSR-45P | DSR-30P DSR-25 | DSR-11 | DSR-70AP | DSR-50P



Cameras: DSR-570WSP | DSR-370P | DSR-135P\*
DSR-1P | DSR-250P | DSR-PD150P | DSR-PDX10P

DSR-2000P | DSR-1800P | DSR-1600P DSR-1500AP | DSR-85P | DSR-45P | DSR-30P DSR-25 | DSR-11 | DSR-70AP | DSR-50P DSR-V10P



Cameras: DSR-250P | DSR-PD150P | DSR-PDX10P

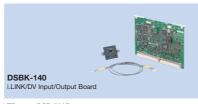




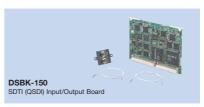
### BOARDS



VTR: DSR-85P



VTR: DSR-70AP



VTR: DSR-70AP



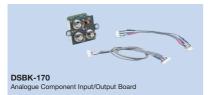
VTR: DSR-1500AP



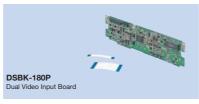
VTR: DSR-1500AP



VTR: DSR-70AP



VTR-DSR-70AP



VTR-DSR-70AP



VTR-DSR-1600P



VTR: DSR-1600P



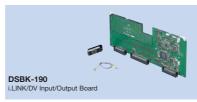
VTR: DSR-1800P



VTR: DSR-1800P



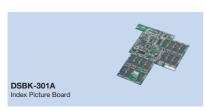
DSR-1800P | DSR-1600P



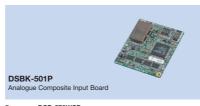
VTR: DSR-2000P



VTR: DSR-2000P



Cameras: DSR-570WSP | DSR-370P



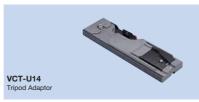
Camera: DSR-570WSP

# **Optional Accessories & Peripheral Equipment**

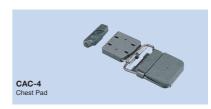
### MOUNTING & CARRYING ACCESSORIES



Cameras: DSR-PD150P | DSR-PDX10P



Cameras: DSR-570WSP | DSR-370P | DSR-135P\* DSR-1P



Cameras: DSR-135P\* | DSR-1P



Cameras: DSR-570WSP | DSR-370P







VTRs: DSR-2000P | DSR-1800P | DSR-1600P DSR-85P



VTR: DSR-70AP



VTR: DSR-70AP



Cameras: DSR-370P | DSR-135P\*



Cameras: DSR-570WSP | DSR-370P



Cameras: DSR-570WSP | DSR-370P



Camera: DSR-PD150P



Cameras: DSR-570WSP | DSR-370P | DSR-135P\*

### OTHERS



Cameras: DSR-570WSP | DSR-370P | DSR-135P\*



VTR: DSR-2000P



DSR-2000P



Camera: DSR-PD150P | DSR-PDX10P



Cameras: DSR-570WSP | DSR-370P | DSR-135P\* DSR-1P



Camera: DSR-PD150P



VTR-DSR-V10P



VTR-DSR-V10P



VTR-DSR-V10P



Cameras: DSR-250P | DSR-PD150P



Cameras: DSR-250P | DSR-PD150P



Cameras: DSR-250P | DSR-PD150P



Cameras: DSR-570WSP | DSR-370P | DSR-PD150P DSR-135P\* | DSR-1P | DSR-250P VTRs DSR-2000P | DSR-18000P DSR-1600P DSR-1500AP | DSR-450 | DSR-350AP | DSR-250 DSR-11 | DSR-70AP | DSR-50P | DSR-70AP | DSR-50P | DSR-V10P



Cameras: DSR-570WSP | DSR-135P\* | DXC-D35P



Cameras: DSR-135P\* | DSR-1P



Cameras: DSR-570WSP | DSR-370P



Cameras: DSR-570WSP | DSR-370P | DSR-135P\* DSR-250P | DSR-PDX10P



Hard Disk: DSR-DU1



Cameras: DSR-570WSP | DSR-370P



### **DIGITAL CAMCORDERS**

# DSR-570WSP / DSR-370P / DSR-135P Camcorders

DSR-1P Dockable Recorder

General	DSR-570WSP	DSR-370P	DSR-135P	DSR-1P
Power requirements		DC 12 V (11 to 17 V)		DC 12 V +5/-1 V
Power consumption Operating temperature	26.1 W (with VF), 24 W (without VF)	23.1 W (with VF), 21 W (without VF) 0 °C to 40 °C (32 °F to 104 °F)	24.8 W (with VF)	12 W 0 °C to 40 °C (32 °F to 104 °F)
Storage temperature		-20 °C to 60 °C (-4 °F to 140 °F)		-20 °C to 60 °C (-4 °F to 140 °F)
Tape speed Recording/Playback time		28.221 mm/s		28.221 mm/s
Standard size Mini size		184 min. 40 min.		184 min. 40 min.
Fast forward/Rewind time				
Standard size Mini size		Approx. 12 min. Approx. 3 min.		Approx. 12 min. Approx. 3 min.
Continuous recording time	Approx. 60 min. with BP-L40A Approx. 130 min. with BP-L60A	Approx. 80 min. with BP-L40A Approx. 180 min. with BP-L60A	Approx. 75 min with BP-L40A	Approx. 75 min. with BP-L40A (DSR-1P + DXC-D35P)
	Approx. 220 min. with BP-L90A Approx. 200 min. with BP-M100	Approx. 290 min. with BP-L90A Approx. 230 min. with BP-M100		(Bolt II + Bito Boot)
	Approx. 90 min. with BP-M50	Approx. 170 min. with BP-M50	701 (401) 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Mass	6.3 kg (13 lb 14 oz) (with VF, microphone, lens, battery and tape)	6.0 kg (13 lb 4 oz) (with VF, microphone, lens, battery and tape)	7.3 kg (16 lb 1 oz) (with VF, microphone, lens, battery, tape and carrying handle)	3.1 kg (6 lb 13 oz) (with battery)
Dimensions (W x H x D)	121 x 192 x 280 mm (4 7/8 x 7 5/8 x 11 1/8 inches) (without projections)	121 x 192 x 270 mm (4 7/8 x 7 5/8 x 10 3/4 inches) (without projections)	121 x 206 x 344 mm (4 7/8 x 8 1/8 x 13 5/8 inches)	118 x 185 x 185 mm (4 3/4 x 7 3/8 x 7 3/8 inches)
	242 x 247 x 547 mm (9 5/8 x 9 3/4 x 21 5/8 inches) (with projections)	242 x 247 x 536 mm (9 5/8 x 9 3/4 x 21 1/8 inches) (with projections)	,	
Camera Section				
Image device	3-chip 2/3-inch, Interline-Transfer CCD	3-chip 1/2-inch, Interline-Transfer CCD	3-chip 2/3-inch, Interline-Transfer CCD	
Optics Effective picture elements	980 (H) x 582 (V)	F1.4 medium index prism system 752 (H)	x 582 (V)	
Total picture elements Sensing area	1038 (H) x 594 (V) 9.6 mm x 5.4 mm	795 (H) 6.4 mm x 4.8 mm	x 596 (V) 8.8 mm x 6.6 mm	
Built-in filters	1: 3200 K 2: 5600 K+1/8 ND	1: 3200 K 2: 5600 K+1/8 ND	1: 3200 K 2: 5600 K+1/8 ND	
_ens mount	3: 5600 K 4: 5600 K+1/64 ND Sony 2/3-type bayonet mount	3: 5600 K 4: 5600 K+1/64 ND Sony 1/2-type bayonet mount	3: 5600 K 4: 5600 K+1/64 ND Sony 2/3-type bayonet mount	
Signal system Scanning system		PAL colour system 2:1 interlaced, 625 lines, 50 fields/s		
Horizontal frequency		15.625 kHz		
Vertical frequency Sync system		50 Hz Internal and external with VBS or BS signal		
Horizontal resolution	16:9 mode: 980 TV lines 4:3 mode: 850 TV lines	800 TV lines	880 TV lines	
Vertical resolution Minimum illumination	0.25 lx with F1.4, Hyper gain (36 dB+DPR)	480 TV lines (without EVS), 530 TV lines (with EVS) 0.5 lx with F1.4, Hyper gain (30 dB+DPR)*1	0.25 lx with F1.4, Hyper gain (36 dB+DPR)	
Sensitivity Gain selection	0.4 lx with F1.8, Hyper gain (36 dB+DPR)  -3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB,	0.8 lx with F1.8, Hyper gain (30 dB+DPR)* F11 at 2000 lx (3200 K, 89.9% reflectance) (typical) -3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB,	0.4 lx with F1.8, Hyper gain (36 dB+DPR)  -3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB,	
	18 dB+DPR, 24 dB, 24 dB+DPR, Hyper gain (36 dB or 42 dB selectable)	18 dB+DPR, 24 dB, 24 dB+DPR, Hyper gain (30 dB+DPR)*1	18 dB+DPR, 24 dB, 24 dB+DPR, Hyper gain (30 dB+DPR or 36 dB+DPR)	
Shutter speed selection		OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000 s		_
KN ratio Registration Recometric distortion  /TR Section	61 dB (typical)	OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000 s  60 dB (typical)  0.05% (all zones, without lens)  Below measurable level	61 dB (typical)	= = =
S/N ratio Registration Geometric distortion  VTR Section  Video performance*2 Bandwidth  S/N ratio	61 dB (typical)	60 dB (typical) 0.05% (all zones, without lens) Below measurable level  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB More than 55 dB	61 dB (typical)	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 c 5.75 MHz +0/-3.0 dB (Typical measereme Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 More than 55 dB
S/N ratio Registration Geometric distortion  VTR Section  Video performance** Bandwidth  S/N ratio K-factor (K2T, KPB)	61 dB (typical)	60 dB (typical) 0.05% (all zones, without lens) Below measurable level  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB More than 55 dB Less than 2.0%	61 dB (typical)	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 to 5.75 MHz +0/-3.0 dB (Typical measurem Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 More than 55 dB Less than 2.0%
S/N ratio Registration Geometric distortion  VTR Section  Video performance*2 Bandwidth  S/N ratio  K-factor (K2T, KPB) Y/C delay	20	60 dB (typical) 0.05% (all zones, without lens) Below measurable level  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB More than 55 dB	O dB	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 to 5.75 MHz +0/-3.0 dB (Typical measureme Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 More than 55 dB Less than 2.0%  Less than 3.0 ns 2 CH mode (48 Hz/16-bit): 20 Hz to 20 Hz + 0.5/-1.0 dB 4 CH mode (48 Hz/12-bit): 20 Hz to 20 Hz + 0.5/-1.0 dB 5 Hz/12-bit): 20 Hz to 20 Hz + 0.5/-1.0 dB 4 CH mode (32 Hz/12-bit): 20 Hz + 0.5/-1.0 dB 5 Hz/12-bit): 20 Hz + 0.5/-1.0 dB 5 Hz/12-bit): 20 Hz + 0.5/-1.0 dB 5 Hz/12-bit): 20 Hz to 20 Hz/12-bit): 20 Hz/12-bit
S/N ratio Registration Geometric distortion  VTR Section  Video performance* Bandwidth S/N ratio K-factor (K2T, KPB) Y/C delay Audio performance* Frequency response  Dynamic range	20	60 dB (typical) 0.05% (all zones, without lens) Below measurable level  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB More than 55 dB Less than 2.0% Less than 2.0% Less than 30 ns  CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.4  H mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.4  More than 80 dB	O dB	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 to 5.75 MHz +0/-3.0 dB (Typical meassreme Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 More than 55 dB Less than 2.0% Less than 30 ns 2 CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.0 dB More than 80 dB
S/N ratio Registration Geometric distortion  VTR Section  Video performance* Bandwidth  S/N ratio K-factor (K2T, KPB) Y/C delay  Audio performance* Frequency response	20	60 dB (typical) 0.05% (all zones, without lens) Below measurable level  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB More than 55 dB Less than 2.0% Less than 30 ns  CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.1 H mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1	O dB	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 i 5.75 MHz +0/-3.0 dB (Typical measerem Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 More than 55 dB Less than 2.0 % Less than 30 ns 2 CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.0 th
S/N ratio K-factor (K2T, KPB) Y/C delay Audio performance* Frequency response  Dynamic range Distortion (THD)	2 C 4 Cl	60 dB (typical) 0.05% (all zones, without lens) Below measurable level  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB Chrominance: 25 Hz to 5.5 MHz +1.0/-2.0 dB More than 55 dB Less than 2.0% Less than 2.0% Less than 30 ns  H mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.4 H mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1 More than 80 dB Less than 0.08% (1 kHz reference level, 48 kHz)	0 dB 0 dB	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 to 5.75 MHz +0/-3.0 dB (Typical measureme Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 More than 5.6 dB Less than 2.0% Less than 3.0 ns 2 CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/1-2-bit): 20 Hz to 14.5 kHz +0.5/-1.0 dB More than 80 dB Less than 0.08%
S/N ratio Registration Seometric distortion  VTR Section  Video performance* Bandwidth S/N ratio K-factor (K2T, KPB) Y/C delay Audio performance* Frequency response  Dynamic range Distortion (THD)	ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-501P optional board installed) Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu. 3 kΩ ±4 dBu. 10 kΩ	60 dB (typical) 0.05% (all zones, without lens) Below measurable level  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB More than 55 dB Less than 2.0% Less than 2.0% Less than 30 ns  CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.4  H mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.4  More than 80 dB	O dB	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 5.75 MHz +0/-3.0 dB (Typical measerem Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 More than 55 dB Less than 2.0% Less than 30 ns 2 CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit); 20 Hz to 14.5 kHz +0.5/-1.0 dB More than 80 dB Less than 0.08%
S/N ratio Registration Geometric distortion  VTR Section  Video performance** Bandwidth S/N ratio K-factor (K2T, KPB) Y/C delay Audio performance** Frequency response Dynamic range Distortion (THD)	ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 $\Omega$ Analogue Video In: BNC, 1.0 Vp-p, 75 $\Omega$ (with DSBK-501P optional board installed) Ext Audio CH-1/2: XLR 3-pin female $\times$ 2 60 dBu, 3 kΩ $\pm$ 4 dBu, 10 kΩ MIC In: XLR 3-pin female To In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ Video Out: BNC, 1.0 Vp-p, sync negative, 75 $\Omega$	60 dB (typical) 0.05% (all zones, without lens) Below measurable level  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB More than 55 dB Less than 2.0% Less than 2.0% Less than 30 ns  CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.1 H mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1 More than 80 dB Less than 0.08% (1 kHz reference level, 48 kHz)  Genlock Video in: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Camera head BNC connector:	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 to 5.75 MHz +0/-3.0 dB (Typical measerems Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 MOre than 55 dB Less than 30 ns 2 CH mode (48 kHz/16-bit); 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit); 20 Hz to 14.5 kHz +0.5/-1.0 dB More than 80 dB Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x -60 dBu, 5 kΩ ± 4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ Video Out: BNC, 1.0 Vp-p,
S/N ratio Registration Geometric distortion  VTR Section  VIdeo performance** Bandwidth S/N ratio K-factor (K2T, KPB) Y/C delay Audio performance** Frequency response Dynamic range Distortion (THD)	Ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-501P optional board installed) Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ MIC In: XLR 3-pin female TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male	60 dB (typical) 0.05% (all zones, without lens) Below measurable level  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB More than 55 dB Less than 2.0% Less than 30 ns  H mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.4 H mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1  More than 80 dB Less than 0.08% (1 kHz reference level, 48 kHz)  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ MIC In: XLR 3-pin female TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 26-pin connector of CA-537 docked to DXC-D35P:	Luminance: 25 Hz to 5.5 MHz ±1.0/-2.0 5.75 MHz +0/-3.0 dB (Typical measerem Chrominance: 25 Hz to 2.0 MHz ±1.0/-2.0 More than 55 dB Less than 2.0 % Less than 30 ns 2 CH mode (48 kHz/16-bit): 20 Hz to 20 kHz ±0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz ±0.5/-1.0 dB More than 80 dB Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x -60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin
S/N ratio Registration Decometric distortion  VTR Section  //// /// /// /// /// /// /// /// ///	Ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-5.01P optional board installed) Ext Audio CH-1/2: XLR 3-pin female x2 60 dBu, 3 kΩ ±4 dBu, 10 kΩ MIC In: XLR 3-pin female Vp-p, 10 kΩ Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VBS: 1.0 Vp-p, sync negative Y/R-Y/B-Y: Y: 1.0 Vp-p, sync negative Y/R-Y/B-Y: Y: 1.0 Vp-p, sync negative	60 dB (typical) 0.05% (all zones, without lens) Below measurable level  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB More than 55 dB Less than 2.0% Less than 30 ns  H mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.1 More than 80 dB Less than 30 ms  H mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1 More than 80 dB Less than 0.08% (1 kHz reference level, 48 kHz)  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ MIC In: XLR 3-pin female TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VBS: 1.0 Vp-p, sync negative YR-Y/B-Y; Y: 1.0 Vp-p, sync negative YR-Y/B-Y; Y: 1.0 Vp-p, sync negative	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female χ2 Ext Audio CH-1/2: XLR 3-pin female χ2 TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Camera head BNC connector: VBS: 1.0 Vp-p, sync negative Z6-pin connector of CA-537P docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative YR-VBS-Y; 1.0 Vp-p, sync negative	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 5.75 MHz +0/-3.0 dB (Typical measerem Chrominance: 25 Hz to 2.0 MHz +1.0/-2.1 More than 55 dB Less than 2.0% Less than 2.0 M Less than 30 ns 2 CH mode (48 Hz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.0 dB More than 80 dB Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female : -60 dBu, 3 kΩ ± 4 dBu, 10 kΩ TC In: SINC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-0. sync negative, 75 Ω
S/N ratio Registration Registra	Ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-5.01 p optional board installed) Ext Audio CH-1/2: XLR 3-pin female x2 60 dBu, 36 x2 ± d dBu, 10 kΩ MIC In: XLR 3-pin female x2 10 in: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VBS: 1.0 Vp-p, sync negative Y/R-Y/B-Y: Y: 1.0 Vp-p, sync negative Y/R-Y/B-Y: VSSE Vp-P Y/C: Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level)	60 dB (typical)	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 Ext Audio CH-1/2: XLR 3-pin female x2 Camera head BNC connector: VBS: 1.0 Vp-p, sync negative Z6-pin connector of CA-537 docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative VBS: 1.0 Vp-p, sync negative Fix 1.	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 5.75 MHz +0/-3.0 dB (Typical measerem Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 More than 55 dB Less than 2.0% Less than 30 ns 2 CH mode (48 Hz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 Hz/12-bit); 20 Hz to 14.5 kHz +0.5/-1.0 dB More than 80 dB Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female 1-60 dBu, 3 kΩ ± 4 dBu, 10 kΩ TC In: SNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: 0.3 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, 10 dBu, 47 kΩ
S/N ratio Registration Registra	Ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-5.01 P optional board installed) Ext Audio CH-1/2: XLR 3-pin female x2 60 dBu, 3 kΩ ±4 dBu, 10 kΩ MIC In: XLR 3-pin female x2 per 10 kΩ Video Out: BNC, 1.0 Vp-p, to 18 Vp-p, 10 kΩ Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VfR-Y/B-Y: Y: 1.0 Vp-p, sync negative YfR-YfB-Y: Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: DIN 4-pin, 1.0 Vp-p, 75 Ω DV Out: 6-pin. IEEET(394-based)	60 dB (typical)	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 26-pin connector of CA-537P docked to DXC-D35P: VBS: 10.9 p-p, sync negative, R-V/B-Y: 0.525 Vp-p Y(C: Y: 1.0 Vp-p, sync negative, C: 0.3 Vp-p (burst level) RGB: 1.4 Vp-p Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 5.75 MHz +0/-3.0 dB (Typical measerem Chrominance: 25 Hz to 2.0 MHz +1.0/-2.1 More than 55 dB Less than 2.0% Less than 2.0 M Less than 30 ns 2 CH mode (48 Hz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.0 dB More than 80 dB Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female : -60 dBu, 3 kΩ ± 4 dBu, 10 kΩ TC In: SINC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-0. sync negative, 75 Ω
S/N ratio Registration Registra	Ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-5.01 P optional board installed) Ext Audio CH-1/2: XLR 3-pin female x2 60 dBu, 3 kΩ ±4 dBu, 10 kΩ MIC In: XLR 3-pin female x2 per 10 kΩ Video Out: BNC, 1.0 Vp-p, to 18 Vp-p, 10 kΩ Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VfR-Y/B-Y: Y: 1.0 Vp-p, sync negative YfR-YfB-Y: Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: DIN 4-pin, 1.0 Vp-p, 75 Ω DV Out: 6-pin. IEEET(394-based)	60 dB (typical)	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 26-pin connector of CA-537P docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative, R-V/B-Y: 0.525 Vp-p Y(G: Y: 1.0 Vp-p, sync negative, C: 0.3 Vp-p (burst level) RGB: 1.4 Vp-p Video Qut: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 5.75 MHz +0/-3.0 dB (Typical measerem Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 More than 55 dB Less than 2.0% Less than 30 ns 2 CH mode (48 Hz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 Hz/12-bit); 20 Hz to 14.5 kHz +0.5/-1.0 dB More than 80 dB Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female 1-60 dBu, 3 kΩ ± 4 dBu, 10 kΩ TC In: SNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: 0.3 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, 10 dBu, 47 kΩ
S/N ratio Registration Decometric distortion  VTR Section  //// /// /// /// /// /// /// /// ///	Cotors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-501P optional board installed) Ext Audio CH-1/2: XLR 3-pin female ×2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ MIC In: XLR 3-pin female ×2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin maile VBS: 1.0 Vp-p, sync negative VR-Y/B-Y: 1.0 Vp-p, sync negative R-Y/B-Y: 0.525 Vp-p (YC: Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: DIN 4-pin, 1.0 Vp-p, 75 Ω	60 dB (typical) 0.05% (all zones, without lens) Below measurable level  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB More than 55 dB Less than 2.0% Less than 3.0 ns  H mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1. H mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1  More than 80 dB Less than 0.08% (1 kHz reference level, 48 kHz)  Genlock Video in: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ MIC In: XLR 3-pin female TC in: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VBS: 1.0 Vp-p, sync negative YR-Y/B-Y; 1.0 Vp-p, sync negative R-Y/B-Y; 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: 01M 4-pin 11 Vp-p, 75 Ω	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female χ2 - 60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 28-pin connector of CA-537P docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative 28-pin connector of CA-537P docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative RFW-1.10 Vp-p, sync negative RFW-1.10 Vp-p, sync negative CS-1.0 Vp-p, sync negative	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 5.75 MHz +0/-3.0 dB (Typical measurem Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 More than 55 dB Less than 2.0% Less than 30 ns 2 CH mode (48 Hz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit); 20 Hz to 14.5 kHz +0.5/-1.0 dB More than 80 dB Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x -60 dBu, 3 kg -24 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: 0.3 Vp-p, 75 Ω C: 0.3 Vp-p, 75 Ω
S/N ratio Registration December of distortion  VTR Section  //Idea performance** Bandwidth S/N ratio K-factor (K2T, KPB) Y/C delay Audio performance** Frequency response Dynamic range Distortion (THD)  Input/Output Conne Signal inputs	Ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-501P optional board Installed) EXT Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ  MIC In: XLR 3-pin female TC In: BNC, 1.0 Vp-p, sync negative, 75 Ω -26-pin male Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω -26-pin male VIR-Y/B-Y: V: 1.0 Vp-p, sync negative Y/R-Y/B-Y: V: 1.0 Vp-p, sync negative -2-V/C: Y: 1.0 Vp-p, sync negative -3-V/Gev: DIN 4-pin, 1.0 Vp-p, 75 Ω -3-V/Gev: DIN 4-pin, 1.0 Vp-p, sync negative, 75 Ω -3-V/C: Y: 1.0 Vp-p, sync negative, 75 Ω	60 dB (typical) 0.05% (all zones, without lens) Below measurable level  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB More than 55 dB Less than 2.0% Less than 30 ns  H mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.1 mode (48 kHz/16-bit): 20 Hz to 14.5 kHz +0.5/-1.1 mode (48 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.1 mode (48 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.1 mode (48 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.1 mode (48 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.1 mode (48 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.1 mode (48 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.1 mode (48 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.1 mode (48 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.1 mode (48 kHz)  Genlock Video in: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 +60 dBu, 3 kΩ ±4 dBu, 10 kΩ MiC in: XLR 3-pin female vBs: 1.0 Vp-p, sync negative, 75 Ω 26-pin male VBS: 1.0 Vp-p, sync negative R-V/B-V; 1.0 Vp-p, sync negative R-V/B-V; 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: Din 4-pin, 10 Vp-p, 75 Ω DV Out: 6-pin, IEEE:1394-based Audio CH-1/2: Phono, -10 dBu, 47 kΩ Monitor Out: BNC, 1.0 Vp-p, 5 ync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 5 ync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 5 ync negative, 75 Ω	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 - 60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 26-pin connector of CA-537P docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative RS: 1.0 Vp-p, sync negative RF-VB-Y: Y: 1.0 Vp-p, sync negative, R-V/B-Y: 0.525 Vp-p Y/C: Y: 1.0 Vp-p, sync negative, C: 0.3 Vp-p (burst level) RGB: 1.4 Vp-p Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) Audio CH-1/2: Phono, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω DC In: XLR 4-pin male	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0  5.75 MHz +0/-3.0 dB (Typical measerems Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0  More than 55 dB  Less than 2.0%  Less than 30 ns  2 CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB  4 CH mode (32 kHz/12-bit); 20 Hz to 14.5 kHz +0.5/-1.0 dB  More than 80 dB  Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω  Ext Audio CH-1/2: XLR 3-pin female x-60 dBu, 3 kΩ ±4 dBu, 10 kΩ  TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω  S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: 0.3 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω
S/N ratio Registration Geometric distortion  VTR Section  VIdeo performance** Bandwidth  S/N ratio K-factor (K2T, KPB)  Y/C delay Audio performance** Frequency response  Dynamic range Distortion (THD)  Input/Output Conne  Signal inputs	Ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-501P optional board installed) Ext Audio CH-1/2: XLR 3-pin female x2 60 dBu, 3 kΩ ±4 dBu, 10 kΩ  MIC In: XLR 3-pin female TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VR-Y/B-Y; Y: 1.0 Vp-p, sync negative YR-Y/B-Y; Y: 1.0 Vp-p, sync negative R-Y/B-Y; Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: DIN 4-pin, 1.0 Vp-p, 75 Ω DV Out: 6-pin, IEEE1394-based Audio CH-1/2: Phono, -10 dBu, 47 kΩ Monitor Out: BNC, 1.0 Vp-p, sync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, sync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, sync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, sync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 16 Ω	60 dB (typical) 0.05% (all zones, without lens) Below measurable level  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB More than 55 dB Less than 2.0% Less than 30 ns  CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.4 H mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1 More than 80 dB Less than 0.08% (1 kHz reference level, 48 kHz)  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ MIC In: XLR 3-pin female TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 22-pin male VBS: 1.0 Vp-p, sync negative VR-Y/B-Y: Y: 1.0 Vp-p, sync negative YR-Y/B-Y: Y: 1.0 Vp-p, sync negative YR-Y/B-Y: Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: DIN 4-pin, 1.0 Vp-p, 75 Ω DV Out: 6-pin, IEEE 1394-based Audio CH-1/2: Phono, -10 dBu, 47 kΩ Monitor Out: BNC, 1.0 Vp-p, sync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, sync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, sync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BnC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BnC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BnC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BnC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BnC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BnC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BnC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BnC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BnC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BnC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BnC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BnC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BnC, 1.0 Vp-p, 5ync negative, 75 Ω TC Out: BnC, 1.0 Vp-p, 5ync negative, 75 Ω	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 KΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 28-pin connector of CA-537P docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative 28-pin connector of CA-537P docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative, 20 yp-p, yrC: Y: 1.0 Vp-p, sync negative, 20 yp-p burst level) RGB: 1.4 Vp-p Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p flurst level) Audio CH-1/2: Phono, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 55 Ω DC In: XLR 4-pin male DC Out: XLR 4-pin male DC Out: KLR 4-pin female	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 5.75 MHz +0/-3.0 dB (Typical measerem Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 More than 55 dB Less than 2.0 % Less than 2.0 % Less than 30 ns 2 CH mode (48 Hz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.0 dB More than 80 dB Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x -60 dBu, 3 kΩ ± 4 dBu, 10 kΩ TC In: SNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω
S/N ratio Registration Geometric distortion  VTR Section  VIdeo performance** Bandwidth  S/N ratio K-factor (K2T, KPB)  Y/C delay Audio performance** Frequency response  Dynamic range Distortion (THD)  Input/Output Conne  Signal inputs	Ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-501P optional board instaled) Ext Audio CH-1/2: XLR 3-pin female x2 60 dBu, 3 kΩ ±4 dBu, 10 kΩ MIC In: XLR 3-pin female x2 8. MIC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VR-Y/B-Y; Y: 1.0 Vp-p, sync negative YR-Y/B-Y; Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: DIN 4-pin, 1.0 Vp-p, 75 Ω DV Out: 6-pin; IEEE1394-based Audio CH-1/2: Phono, -10 dBu, 47 kΩ Monitor Out: BNC, 1.0 Vp-p, 75 Ω DC In: XLR 4-pin male DC Out: XLR 4-pin female Battery Terminal: 5-pin Earlyhone: Mini jack Light Out: 2-pin female	60 dB (typical) 0.05% (all zones, without lens) Below measurable level  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 dB Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB More than 55 dB Less than 55 dB Less than 2.0% Less than 30 ns  CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/-1.4 More than 80 dB Less than 2.0% Less than 30 ns  CH mode (48 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.4 More than 80 dB Less than 0.08% (1 kHz reference level, 48 kHz)  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ  MIC In: XLR 3-pin female TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VBS: 1.0 Vp-p, sync negative Y/R-Y/B-Y: Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: DIN 4-pin, 10 Vp-p, 75 Ω DV Out: 6-pin, IEEE 1394-based Audio CH-1/2: Phono, -10 dBu, 47 kΩ Monitor Out: BNC, 1.0 Vp-p, sync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 75 Ω  DC In: XLR 4-pin male DC Out: XLR 4-pin female Battery Terminal: 5-pin Earphone: Mini jack Light Out: 2-pin female	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 Ext Audio CH-1/2: XLR 3-pin female x2 TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Camera head BNC connector: VBS: 1.0 Vp-p, sync negative Ze-pin connector of CA-S7P docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative PKR-VIS-Y: 1.0 Vp-p, sync negative FR-VIS-Y: 1.0 Vp-p, sync negative, C: 0.3 Vp-p (burst level) RGB: 1.4 Vp-p Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) Audio CH-1/2: Phono, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω DC In: XLR 4-pin male DC Out: XLR 4-pin female Earphones Mini jack Lens: 12-pin VF: 8-pin, 20-pin	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 . 5.75 MHz +0/-3.0 dB (Typical measerem Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 More than 55 dB  Less than 3.0 ns 2 CH mode (48 Hz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.0 dB More than 80 dB  Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x-60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: 0.3 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω
S/N ratio Registration Geometric distortion  VTR Section  Video performance** Bandwidth S/N ratio K-factor (K2T, KPB) Y/C delay Audio performance** Frequency response  Dynamic range Distortion (THD)  Input/Output Conne	Ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-501P optional board installed) Ext Audio CH-1/2: XLR 3-pin female x2 60 dBu, 3 k2 ±4 dBu, 10 kΩ MIC In: XLR 3-pin female x2 7 lies BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VR-Y/B-Y: Y: 1.0 Vp-p, sync negative YR-Y/B-Y: Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: DIN 4-pin, 1.0 Vp-p, 75 Ω DV Out: 6-pin, IEEE1394-based Audio CH-1/2: Phono, -10 dBu, 47 kΩ Monitor Out: BNC, 1.0 Vp-p, 75 Ω DC In: XLR 4-pin male DC Out: XLR 4-pin female Battery Terminal: 5-pin Earrhone: Mini jack Light Out: 2-pin female WRR Out: 7-pin Lens: 12-pin	60 dB (typical)	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 26-pin connector of CA-537P docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative YR-VBS: 1.0 Vp-p, sync negative YR-VBS: 1.0 Vp-p, sync negative YR-VBS: 1.0 Vp-p, sync negative, C: 0.3 Vp-p Durst level) RGB: 1.4 Vp-p Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) Audio CH-1/2: Phono, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω DC In: XLR 4-pin male DC Out: XLR 4-pin female Earphone: Mini jack Lens: 12-pin	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 d 5.75 MHz +0/-3.0 dB (Typical measereme Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 d More than 55 dB Less than 3.0 ns 2 CH mode (48 Hz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 10.4 kHz +0.5/-1.0 dB More than 80 dB Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p, 75 ω Ext Audio CH-1/2: XLR 3-pin female xi-60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 ω S-video: DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: 0.3 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω Analogue Interface: Pro 76-pin Digital Interface: Pro 76-pin Digital DC In: XLR 4-pin male
S/N ratio Registration Geometric distortion  VTR Section  Video performance** Bandwidth S/N ratio K-factor (K2T, KPB) Y/C delay Audio performance** Frequency response Dynamic range Distortion (THD)  Input/Output Conne Signal inputs	Ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-501P optional board installed) Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ± 4 dBu, 10 kΩ MIC In: XLR 3-pin female x2 -60 dBu, 3 kΩ ± 4 dBu, 10 kΩ Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VBS: 1.0 Vp-p, sync negative YR-Y/B-Y: V: 1.0 Vp-p, sync negative R-Y/B-Y: 0.525 Vp-p YC: Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: DIN 4-pin, 10 Vp-p, 75 Ω DV Out: 6-pin I, EEE 1394-based Audio CH-1/2: Phono, -10 dBu, 47 kΩ Monitor Out: BNC, 1.0 Vp-p, sync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 75 Ω DC In: XLR 4-pin female Battery Terminal: 5-pin Earphone: Mini jack Light Out: 2-pin female WRR Out: 7-pin	60 dB (typical)	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 KΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 26-pin connector of CA-537P docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative YBR-VB-Y: 1.0 Vp-p, sync negative YRR-VB-Y: 1.0 Vp-p, sync negative, C-0.3 Vp-p (burst level) YC-Y: 1.0 Vp-p, sync negative, C-0.3 Vp-p (burst level) YC-Y: 1.0 Vp-p, sync negative, C-0.3 Vp-p (burst level) YC-Y: 1.0 Vp-p, sync negative, C-0.3 Vp-p (burst level) Audio CH-1/2: Phono, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω DC In: XLR 4-pin male DC Out: XLR 4-pin female Earphone: Mini jack Lens: 12-pin VF: 8-pin, 20-pin	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 c 5.75 MHz +0/-3.0 dB (Typical measereme Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0  More than 55 dB Less than 30 ns 2 CH mode (48 Hz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 10.4 kHz +0.5/-1.0 dB More than 80 dB Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p. 75 Ω Ext Audio CH-1/2: XLR 3-pin female xi-60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: 0.3 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω Analogue Interface: Pro 76-pin Digital Interface: Pro 76-pin Digital Interface: Pro 76-pin Digital DC In: XLR 4-pin male
S/N ratio Registration Geometric distortion  VTR Section  Video performance** Bandwidth S/N ratio K-factor (K2T, KPB) Y/C delay Audio performance** Frequency response Dynamic range Distortion (THD)  Input/Output Conne Signal inputs	ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-501P optional board installed) Ext Audio CH-1/2: XLR 3-pin female ×2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ MIC In: XLR 3-pin female ×2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ Video Out: BNC, 1.0 Vp-p, 10 kΩ Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VBS: 1.0 Vp-p, sync negative Y/R-Y/B-Y: Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: DIN 4-pin, 1.0 Vp-p, 75 Ω DV Out: 6-pin, IEEET394-based Audio CH-1/2: Phono, -10 dBu, 47 kΩ Monitor Out: BNC, 1.0 Vp-p, sync negative, 75 Ω TC Out: BNC, 1.0 Vp-p, 75 Ω DC In: XLR 4-pin male DC Out: XLR 4-pin female Battery Terminal: 5-pin Earphone: Min! jack Light Out: 2-pin female WRR Out: 7-pin Lens: 12-pin VF: 20-pin Remote1: Stereo mini jack, Remote2: 10-pin	60 dB (typical)	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 KΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 26-pin connector of CA-537P docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative YBR-VB-Y: 1.0 Vp-p, sync negative YRR-VB-Y: 1.0 Vp-p, sync negative, C-0.3 Vp-p (burst level) YC-Y: 1.0 Vp-p, sync negative, C-0.3 Vp-p (burst level) YC-Y: 1.0 Vp-p, sync negative, C-0.3 Vp-p (burst level) YC-Y: 1.0 Vp-p, sync negative, C-0.3 Vp-p (burst level) Audio CH-1/2: Phono, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω DC In: XLR 4-pin male DC Out: XLR 4-pin female Earphone: Mini jack Lens: 12-pin VF: 8-pin, 20-pin	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 d 5.75 MHz +0/-3.0 dB (Typical measereme Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 d More than 55 dB Less than 3.0 ns 2 CH mode (48 Hz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 10.4 kHz +0.5/-1.0 dB More than 80 dB Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p, 75 ω Ext Audio CH-1/2: XLR 3-pin female xi-60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 ω S-video: DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: 0.3 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω Analogue Interface: Pro 76-pin Digital Interface: Pro 76-pin Digital DC In: XLR 4-pin male
S/N ratio Registration Geometric distortion  VTR Section  Video performance** Bandwidth S/N ratio K-factor (K2T, KPB) Y/C delay Audio performance** Frequency response  Dynamic range Distortion (THD)  Input/Output Conne Signal inputs  Signal outputs	Ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-501P optional board installed) Ext Audio CH-1/2: XLR 3-pin fernale ×2 60 dBu, 3 KΩ ±4 dBu, 10 kΩ MIC In: XLR 3-pin fernale ×2 60 dBu, 3 KΩ ±4 dBu, 10 kΩ MIC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VR-Y/B-Y; Y: 1.0 Vp-p, sync negative YR-Y/B-Y; Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: DIN 4-pin, 1.0 Vp-p, 75 Ω DV Out: 6-pin; IEEE1394-based Audio CH-1/2: Phono, -10 dBu, 47 kΩ Monitor Out: BNC, 1.0 Vp-p, 75 Ω DC In: XLR 4-pin male DC Out: XLR 4-pin female Battery Terminal: 5-pin Earphone: Mini jack Light Out: 2-pin female WRR Out: 7-pin Lens: 12-pin VF: 20-pin Remote1: Stereo mini jack, Remote2: 10-pin	60 dB (typical)	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 Ext Audio CH-1/2: XLR 3-pin female x2 TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 26-pin connector of CA-537 docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative PKR-VB-Y: 1.0 Vp-p, sync negative, C: 0.3 Vp-p (burst level) RGB: 1.4 Vp-p Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) Audio CH-1/2: Phono, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω DC In: XLR 4-pin male DC Out: XLR 4-pin female Earphones Mini jack Lens: 12-pin VF: 8-pin, 20-pin Remote1: Stereo mini jack Remote2: 10-pin	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0 d 5.75 MHz +0/-3.0 dB (Typical measereme Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 d More than 55 dB Less than 3.0 ns 2 CH mode (48 Hz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 10.4 kHz +0.5/-1.0 dB More than 80 dB Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p. 75 Ω Ext Audio CH-1/2: XLR 3-pin female x: -60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: 0.3 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω  Analogue Interface: Pro 76-pin Digital DC In: XLR 4-pin male DC Out: XLR 4-pin female Earphone: Stereo Mini jack
S/N ratio Registration Geometric distortion  VTR Section  VIGeo performance** Bandwidth  S/N ratio K-factor (K2T, KPB)  Y/C delay Audio performance** Frequency response  Dynamic range Distortion (THD)  Input/Output Conne  Signal inputs  Signal outputs	Ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-501P optional board installed) Ext Audio CH-1/2: XLR 3-pin female x2 60 dBu, 3 k2 ±4 dBu, 10 kΩ MIC In: XLR 3-pin female x2 26-pin male Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VR-Y/B-Y: Y: 1.0 Vp-p, sync negative YR-Y/B-Y: Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: DIN 4-pin, 1.0 Vp-p, 75 Ω DV Out: 6-pin; IEEE1394-based Audio CH-1/2: Phono, -10 dBu, 47 kΩ Monitor Out: BNC, 1.0 Vp-p, 75 Ω DC In: XLR 4-pin male DC Out: XLR 4-pin female Battery Terminal: 5-pin Eartphone: Mini jack Light Out: 2-pin female WRR Out: 7-pin Lens: 12-pin VF: 20-pin Remote1: Stereo mini jack, Remote2: 10-pin	60 dB (typical)	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 Ext Audio CH-1/2: XLR 3-pin female x2 TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 26-pin connector of CA-537P docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative VR-VB-Y: 1.0 Vp-p, sync negative, C: 0.3 Vp-p (burst level) RGB: 1.4 Vp-p Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) Audio CH-1/2: Phono, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 10 dBu, 47 kΩ TC Out: SNC, 1.0 Vp-p, 10 dBu, 47 kΩ TC Out: SNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: SNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: SNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: SNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: SNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: SNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: SNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: SNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: SNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC, 10 Vp-p, 10 dBu, 47 kΩ TC Out: BNC,	Luminance: 25 Hz to 5.5 MHz +1.0/-2.0  Luminance: 25 Hz to 5.5 MHz +1.0/-2.0  More than 55 dB  Less than 2.0%  Less than 30 ns  2 CH mode (48 Hz/16-bit): 20 Hz to 20 kHz +0.5/-1.0 dB  4 CH mode (32 kHz/16-bit): 20 Hz to 14.5 kHz +0.5/-1.0 dB  4 CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/-1.0 dB  More than 80 dB  Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω  Ext Audio CH-1/2: XLR 3-pin female x-60 dBu, 3 kΩ ±4 dBu, 10 kΩ  TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω  S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: 0.3 Vp-p, 75 Ω  Audio CH-1/2: RCA PIN, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω  Analogue Interface: Pro 50-pin Digital Interface: Pro 76-pin Digital DC In: XLR 4-pin male DC Out: XLR 4-pin female Earphone: Stereo Mini jack
S/N ratio Registration December of distortion  VTR Section  // A Section	Ctors  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω Analogue Video In: BNC, 1.0 Vp-p, 75 Ω (with DSBK-501P optional board installed) Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ MIC In: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω 26-pin male VBS: 1.0 Vp-p, sync negative Y/R-Y/B-Y: Y: 1.0 Vp-p, sync negative R-Y/B-Y: 0.525 Vp-p Y/C: Y: 1.0 Vp-p, sync negative C: 0.3 Vp-p (burst level) S-Video: DIN 4-pin, 1.0 Vp-p, 75 Ω DV Out: 6-pin, IEEE1934-based Audio CH-1/2: Phono, -10 dBu, 47 kΩ Monitor Out: BNC, 1.0 Vp-p, sync negative, 75 Ω TC Out: SNC, 1.0 Vp-p, 75 Ω DC In: XLR 4-pin female Battery Terminal: 5-pin Earphone: Mini jack Light Out: 2-pin female WRR Out: 7-pin Lens: 12-pin VF: 20-pin Remote1: Stereo mini jack, Remote2: 10-pin	60 dB (typical)	Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x2 -60 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 26-pin connector of CA-537P docked to DXC-D35P: VBS: 1.0 Vp-p, sync negative YR-VBS: 1.0 Vp-p, sync negative, C: 0.3 Vp-p burst level) RGB: 1.4 Vp-p, sync negative, C: 0.3 Vp-p burst level) RGB: 1.4 Vp-p, sync negative, C: 0.3 Vp-p burst level) Audio CH-1/2: Phono, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω DC In: XLR 4-pin male DC Out: XLR 4-pin female Earphone: Mini jack Lens: 12-pin VF: 8-pin, 20-pin Remotel: Stereo mini jack Remote2: 10-pin	Luminance: 25 Hz to 5.5 MHz ±1.0/-2.0 5.75 MHz ±0/-3.0 dB (Typical measurem Chrominance: 25 Hz to 2.0 MHz ±1.0/-2.0  More than 55 dB Less than 2.0 % Less than 2.0 % Less than 30 ns 2 CH mode (48 Hz/16-bit): 20 Hz to 20 Htz ±0.5/-1.0 dB 4 CH mode (32 kHz/12-bit): 20 Hz to 12.6 Hz ±0.5/-1.0 dB More than 80 dB Less than 0.08%  Genlock Video In: BNC, 1.0 Vp-p, 75 Ω Ext Audio CH-1/2: XLR 3-pin female x ±0 dBu, 3 kΩ ±4 dBu, 10 kΩ TC In: SINC, 0.5 Vp-p to 18 Vp-p, 10 kΩ  Video Out: BNC, 1.0 Vp-p, sync negative, 75 Ω S-Video: DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: 0.3 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω Audio CH-1/2: RCA PIN, -10 dBu, 47 kΩ TC Out: BNC, 1.0 Vp-p, 75 Ω  Analogue Interface: Pro 76-pin Digital DC In: XLR 4-pin male DC Out: XLR 4-pin female Earphone: Stereo Mini jack

<sup>\*1</sup> DPR is equivalent to +6 dB gain up. 18 dB+DPR: Equivalent to +24 dB gain up. 24 dB+DPR: Equivalent to +30 dB gain up. Hyper gain (30 dB+DPR): Equivalent to +36 dB gain up.

<sup>\*2</sup> The specifications for "Video/Audio performance" were measured by playing back material on the DSR-85P (via analogue component out) that had been recorded on the DSR-570WSP.

# DSR-250P / DSR-PD150P / DSR-PDX10P Camcorders

	DSR-250P	DSR-PD150P	DSR-PDX10P	
General				
ower requirements	DC 12 V(11 V to 17 V)	DC 7.2 V (Battery), DC 8.4 V (AC adaptor)	DC 7.2 V (Battery operation), DC 8.4 V (AC Adapto	
ower requirements	10.5 W ( with VF), 12.1 W ( with VF and LCD)	4.7 W (with VF), 5.4 W (with LCD)	5 W (with VF), 5.3 W (with LCD)	
perating temperature	10.5 W (With VI), 12.1 W (With VI and LOD)	0 °C to 40 °C (32 °F to 104 °F)	3 W (WITH VI ), 3.3 W (WITH LOD)	
torage temperature		-20 °C to 60 °C (-4 °F to 140 °F)		
ape speed		Approx. 28.2 mm/s (DVCAM mode) Approx. 18.8 mm/s (DV SP mode)		
ecording/Playback time	184 minutes (DVCAM mode), 270 minutes (DV SP mode with PDV-184ME) cassette, 40 minutes (DVCAM mode) 60 minutes (DV SP mode with PDVM-40ME)	40 minutes (D	tes (DVCAM mode) SP mode, with PDVM-40ME)	
Mass	Approx. 4.4 kg (9 lb 11 oz)	(camcorder only) Approx. 1.5 kg (3 lb 5 oz)	camcorder only (approx 950 g)	
imensions (W x H x D)	214.7 x 251.25 x 508.8 mm	128 x 180 x 405 mm	93 x 99 x 202 mm	
	(9 5/8 x 10 x 20 1/8 inches)	(5 1/8 x 7 1/8 x 16 inches) including microphone	(3 3/4x 4 x 8 inches)	
ens				
oom .	12:1 Variable Speed F = 6.0 to 72.0 to	(1.2-22 s) zoom lens mm; F1.6 to 2.4	12:1 Variable speed (1.83 to 26.5 s) zoom lens F = 3.6 to 43.2 mm	
ilter diameter	58 mm (2 3	3/8 inches)	37 mm	
ocus		Auto/Manual (ring)/Infinity/One push auto		
camera				
mage device	Three 1/3-inch CC		Three 1/4.7-inch CCDs, 1,070,000 pixels	
ignal system		CCIR Standard, PAL colour system		
canning system		Progressive/Interlace Scan		
orizontal resolution		530 TV lines		
linimum illumination	2	lx	7 lx	
iain selection		IA .	7 IA	
	4/0 4/0 4/40 4/05 4/50 4/00 4/40	- 1/100 1/150 1/015 1/000 1/105	4/0 +- 4/40000	
hutter speed selection	1/3, 1/6, 1/12, 1/25, 1/50, 1/60, 1/10 1/600, 1/1000, 1/1250, 1/1750, 1/	/2500, 1/3500, 1/6000, 1/10000 s	1/3 to 1/10000 s	
xposure	Auto/Manual (Exposure ring)	Auto/Manual (Exposure dial)	Auto/Manual	
/hite balance		Auto/One-push/Out door (5800 K)/Indoor (3200 K)		
'iewfinder	1.5-inch black and white CRT, Zebra Pattern	180,000 dot Black & Wh	nite LCD, Zebra Pattern	
Built-in microphone	Electret conden	ser microphone	Stereo electret condenser microphone	
Built-in speaker		Dynamic speaker		
.CD	TFT Active M		TFT Active Matrix, 3.5-inch 246,000 dots	
	200,640 dots	s (880 x 228)	with touch screen function	
Memory card slot	Memor Recording signatis carv Image siz arv Image compr	éra signals, VTR signals GA (640 x 480)	Memory Stick Recording signals: Camera signals, VTR signals Image size: VGA (1152 x 864) Image compression: JPEG	
nput/Output Connect	Video IN/OUT: RCA pin x 1, Luminance signal:1 Vp-p, 75 Ω , unbalanced, sync negative Video OUT: BNC pin x 1, Luminance signal:1 Vp-p, 75Ω , unbalanced, sync negative Audio IN/OUT: RCA pin x 2,245 m Output impedance with less than 2.2 kΩ Input impedance with less than 2.2 kΩ Input impedance with more than 47 kΩ S-Video IN/OUT: Mini-DIN 4 pin x 1 Luminance signal: 0.3 Vp-p (PAL) Audio IN: XLR 3-pin(female) x 3, do dbu , 6.8 kΩ , 44 dBu, 6.8 kΩ (dBu = 0.775 V rms) i.LINK (DV IN/OUT): 6 pin (with lock) x 1	Video IN/OUT: RCA pin x 1 Luminance signal: 1 Vp-p, 75 $\Omega$ , unbalanced, sync negative Audio IN/OUT: RCA pin x 2, 327 mV Output impedance with less than 2.2 k $\Omega$ Input impedance with more than 47 k $\Omega$ S-Video IN/OUT: Mini-DIN 4 pin x 1 Luminance signal: 1.0 Vp-p, 75 $\Omega$ , unbalanced Chrominance signal: 0.3 Vp-p Audio IN: XLR 3-pin female x 2, -60 dBu, 3 k $\Omega$ , +4 dBu, 10 k $\Omega$ (0 dBu = 0.775 V rms) i.LINK (DV IN/OUT): 4-pin x 1 LANC: Stereo mini jack (0.25 mm) x 1 Fexternal DC IN: 8.4 V for AC-L10 AC adaptor	Audio/Video In/Out: Special AV mini jack (converts to Phono) x1, 1.0 Vp-p, 75 Ω, sync negative S-Video In/Out: Mini DIN 4-pin x1 Y: 1.0 Vp-p, 75 Ω , unbalanced C: 0.3 Vp-p (subcarrier burst), 75 Ω, unbalanced MIC In: Stereo mini jack x1 (XLR 3-pin x1, via adaptor) i.LINK (DV In/Out): 4-pin x1, IEEE1394-based USB mini-B x1	
Others	LANC: Stereo mini-mini jack (0.25 mm) x 1 Headphone: Stereo mini jack (0.35 mm) x 1 External DC IN: 12 V, XLR 4-pin (male) DC OUT for Light: 12 V, max. 30 W DC OUT: 12 V, 4 pin	LANC: Stereo mini-mini jack (0.25 mm) x 1 Headphone: Stereo mini jack (0.35 mm) x 1 External DC IN: 8.4 V for AC-L10 AC adaptor	LANC: Stereo mini-mini jack x1 External DC In: 8.4 V (AC-L10 AC Adaptor) Headphone: Stereo mini jack x1	
Supplied Accessories				
	ECM-NV1 Monaural Microphone RMT-811 Remote Commander and R6 Batteries (2) MSA-4A IC Recording Media Memory Stick MSAC-US1 Memory Stick Reader/Writer Picture Gear 4.1 Lens Hood Lite Hood Cap	ECM-NV1 Monaural Microphone AC-L10 AC Adaptor NP-F330 InfoLITHIUM Rechargeable Battery Pack RMT-811 Remote Commander and R6 Batteries (2) MSA-4A IC Recording Media Memory Stick MSAC-USI Memory Stick Reader/Writer Picture Gear 4.1 Lite Stereo AV Cable, Lens Hood Hood Cap, Carrying Belt	ECM-NV1 monaural microphone AC-L10 AC Adaptor NP-FM50 InfoLITHIUM Rechargeable Battery Pack RMT-811 Remote Commander and R6 Batteries (2 MSA-8A Recording Media Memory Stick Memory Stick/PC Card Adaptor XLR Adaptor Special Stereo AV Cable, Lens Hood, Lens Cap, Carrying Belt	

### DIGITAL VTRs

## DSR-2000P / DSR-1800P / DSR-1600P / DSR-1500AP / DSR-85P Studio VTRs

General	DSR-2000P	DSR-1800P	DSR-1600P	DSR-1500AP	DSR-85P
Power requirements		AC 100 V to 2	240 V, 50/60 Hz		AC 220 V to 240 V, 50/60 Hz
ower consumption (Max. ) Operating temperature	110 W	100 W	70 W	60 W	185 W
torage temperature			5 °C to 40 °C (41 °F to 104 °F) -20 °C to 60 °C (-4 °F to 140 °F)		
perating humidity torage humidity			Less than 80% Less than 90%		
ape speed			28.221 mm/s		
ecording/Playback time ast forward/Rewind time	Sta	Standard size: 184 min. with PDV ndard size: Less than 3 min. with PDV	/-184ME/184N/184MEM Mini size: 40 -184ME/184N/184MEM Mini size: Les	min. with PDVM-40ME/40N/40MEM s than 1 min. with PDVM-40ME/40N/40M	IFM
earch speed					When controlling via RS-422A:
	Shuttle mode: still to ±60 times normal speed Digital slow mode: ±1 times normal speed		Shuttle mode: still to ±60 times normal Digital slow mode: ±0.5 times normal s	peed	Search speed is up to ±32 times normal speed. When controlling via optional DSRM Jog mode: still to ±2 times normal sp Shuttle mode: 8 steps, from still ±16 times normal speed Digital slow mode: 3 steps, still, ±1/5, 1/10 times normal speed
ass mensions / x H x D, excluding projections)	18 kg (39 lb 10 oz) 427 x 175 x 496.5 mm (16 7/8 x 7 x 19 5/8 inches)	427 x 174	8 lb 10 oz) 4 x 400 mm 1 x 15 3/4 inches)	6 kg (13 lb 3 oz) 210 x 130 x 420 mm (8 3/8 x 5 1/8 x 16 5/8 inches)	21 kg (46 lb 4 oz) 427 x 174 x 494 mm (16 7/8 x 6 7/8 x 19 1/2 inches)
ideo Performance					
andwidth Luminance ria analogue omponent I/O)	25 Hz to 5.0 MHz +1.0/-2.0 dB 5.75 MHz +0/-3.0 dB (Typical measurement)	25 Hz to 5.0	) MHz ±1.0 dB	25 Hz to 5.0 MHz +1.0/-1.5 dB	25 Hz to 5.0 MHz +1.0/-2.0 dB 5.75 MHz +0/-3.0 dB (Typical measurement)
Chrominance /N ratio (via analogue component I/O)			25 Hz to 2.0 MHz + 1.0/-2.0 dB More than 55 dB		
-factor (K2T, KPB)			Less than 2.0%		
/C delay 0			Less than 30 ns		
udia Dadamaaa					
udio Performance					
requency response 2 CH mode (48 kHz/16-bit)		20 Hz to 20 kHz +0.5/-1.0 dB		20 Hz to 20 kHz ±1.0 dB	20 Hz to 20 kHz +0.5/-1.0 dB
4 CH mode (32 kHz/12-bit)		20 Hz to 14.5 kHz +0.5/-1.0 dB		20 Hz to 14.5 kHz ±1.0 dB	20 Hz to 14.5 kHz +0.5/-1.0 dB
ynamic range istortion (THD+N)		More than 90 dB Less than 0.05%		More than 87 dB Less than 0.07%	More than 85 dB Less than 0.05%
ISTOLUCII (TELETIN)	I	LCSS tridiT U.UU70		Less uidil 0.07 70	LCSS (IIdH U.UU70
deo Signal Inputs					
nalogue ef. Video	Composite, 1.0 Vp-p, 75 Ω ,	0.3 Vp-p, 75 Ω , sync negative	_	Composite, 1.0 Vp	-p, 75 Ω , sync negative
BNC x2, loop-through connection)	sync negative				
deo (BNC x2, loop-through connection)*1 omponent Y	1 0 Vn-n 75 Q	p, 75 Ω , sync negative , sync negative		Composite, 1.0 Vp- 1.0 Vp-p. 75 Ω	p, 75 Ω , sync negative , sync negative
omponent Y NC x3) *1 R-Y	0.7 Vp-p. 75	Ω (100 %)	_	0.7 Vp-p, 75	5 Ω (100 %)
B-Y -Video *1	0.7 Vp-p, 75 DIN 4-	Ω (100 %) pin x 1		0.7 Vp-p, 75 BNC x 2	DIN 4-pin x 1
vidos	Y: 1.0 Vp-p, 75 S	2, sync negative		Y: 1.0 Vp-p, 75 Ω , sync negative	Y: 1.0 Vp-p, 75 Ω , sync negative
gital	C: 0.3 Vp-p, 75 s	2 (at burst level)		C: 0.3 Vp-p, 75 Ω (at burst level)	C: 0.3 Vp-p, 75 Ω (at burst leve
igital DI *2 *3 *4	BNC x 2, active-th		_	BNC x 1	BNC x 2, active-through connect
	Conforms to Serial Digital Inter	face (270 Mb/s), ITU-R BT.656		Conforms to Serial Digital Interface (270 Mb/s), ITU-RBT.656	Conforms to Serial Digital Interfa (270 Mb/s), ITU-RBT.656
DTI (QSDI) (BNC x1) *4 *5	Conforms to SDTI (270 M	h/s) SMPTE 305M/322M	_	Conformo to CDTI (270 Mb/a)	Conforms to SDTI (270 Mb/s),
( / ( - /	Comonio to CD II (E1 C III	b/3), GIVII TE GOGIVI/OZZIVI	_	Conforms to SDTI (270 Mb/s),	CMADTE COEM/COOM
	IEEE139		_	SMPTE 305M/322M	SMPTE 305M/322M
	·		_	SMPTE 305M/322M IEEE1394-based	SMPTE 305M/322M —
LINK (DV In/Out) (6-pin x1)*8 *7 *8	·		_	SMPTE 305M/322M	SMPTE 305M/322M
LINK (DV In/Out) (6-pin x1)*6 *7 *8 udio Signal Inputs	·		_	SMPTE 305M/322M	SMPTE 305M/322M
LINK (DV In/Out) (6-pin x1)** */ *8  udio Signal Inputs  nalogue	IEEE139-	4-based female x4	_	SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2	SMPTE 305M/322M  XLR 3-pin female x4
LINK (DV In/Out) (6-pin x1)** */ *8  udio Signal Inputs  nalogue	IEEE139   XLR 3-pin   -6/0/+4 dBu, 600 Ω on/off/	4-based female x4 -6/-3/0/+4 dBu, 600 Ω on/off/	=	SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu,	SMPTE 305M/322M  XLR 3-pin female x4  -6/0/+4 dBu, 600 Ω on/off/
LINK (DV In/Out) (6-pin x1)*** *** ***  udio Signal Inputs  nalogue  udio ***	XLR 3-pin  -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance	4-based  female x4  -6/-3/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance	=	SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance	SMPTE 305W/322M  XLR 3-pin female x4  -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance
LINK (DV In/Out) (6-pin x1)*** *** ***  udio Signal Inputs  nalogue  udio ***	IEEE139  XLR 3-pin  -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  BNC	4-based  female x4  -6/3/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance		SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2 -6/-3/0/4 dBu, high impedance  BNC x 2	SMPTE 305M/322M  XLR 3-pin female x4  -6/0/+4 dBu, 600 Ω σn/off/ -60 dBu, high impedance  XLR 3-pin female x2
LINK (DV In/Out) (6-pin x1) <sup>10 27 10</sup> udio Signal Inputs  uallogue  udio <sup>11</sup> ligital  ES/EBU <sup>10 14</sup>	XLR 3-pin  -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance	4-based  female x4  -6/3/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance		SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance	SMPTE 305W/322M  XLR 3-pin female x4  -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance
LINK (DV In/Out) (6-pin x1) <sup>10 27 48</sup> sudio Signal Inputs snalogue sudio <sup>31</sup> Digital SES/EBU <sup>23 44</sup>	IEEE139  XLR 3-pin  -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  BNC	4-based  female x4  -6/3/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance		SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2 -6/-3/0/4 dBu, high impedance  BNC x 2	SMPTE 305M/322M  XLR 3-pin female x4  -6/0/+4 dBu, fo0 Ω on/off/ -60 dBu, high impedance  XLR 3-pin female x2
LINK (DV In/Out) (6-pin x1)*** ********************************	IEEE139  XLR 3-pin  -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  BNC	4-based  female x4  -6/3/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance		SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2 -6/-3/0/4 dBu, high impedance  BNC x 2	XLR 3-pin female x4 -6/0/+4 dBu, f800 Ω on/off/ -60 dBu, high impedance XLR 3-pin female x2 110 Ω , balanced
LINK (DV In/Out) (6-pin x1)*** x** ***  udio Signal Inputs  nalogue  udio ***  ligital  lest/EBU ** ***  ideo Signal Outputs  nalogue  ef. Video (BNC x1)	IEEE139  XLR 3-pin  -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  BNC	female x4 -6/-3/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2/si	— — — — — — — — — — — — — — — — — — —	SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2 -6/-3/0/44 dBu, high impedance  BNC x 2 75 Ω , unbalanced	XLR 3-pin female x4 -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance XLR 3-pin female x2 110 Ω , balanced
LINK (DV In/Out) (6-pin x1)*** x** x** x** x** x** x** x** x** x**	IEEE139.	4-based  female x4  -6/-3/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2(si		SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance  BNC x 2 75 Ω , unbalanced  Video 1/2/3 (super) BNC x 3	XLR 3-pin female x4 -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance XLR 3-pin female x2 110 Ω , balanced
LINK (DV In/Out) (6-pin x1)** ** *** **  udio Signal Inputs  nalogue  udio **1  iigital  ES/EBU ** **  iideo Signal Outputs  nalogue  ef. Video (BNC x1)  deo  omponent (BNC x3)	IEEE139.	4-based  female x4  -6/-3/0'.44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2(st.)  (Y: 1.0 Vp-p, 75 Ω , sync neg DIN 4-pin x 1	— — — — — — — — — — — — — — — — — — —	SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2 -6/-30/-4 dBu, high impedance  BNC x 2 75 Ω, unbalanced  Video 1/2/3 (super) BNC x 3  ative B-Y: 0.7 Vp-p, 75 Ω (100%) BNC x 2 BNC x 2	XLR 3-pin female x4 -6/0/+4 dBu, 600 Ω σn/oft/ -60 dBu, high impedance  XLR 3-pin female x2 110 Ω , balanced
LINK (DV In/Out) (6-pin x1)** ** ***  udio Signal Inputs  nalogue  udio **!  iligital  ES/EBU ** ***  ideo Signal Outputs  nalogue  ef. Video (BNC x1)  ideo  omponent (BNC x3)	IEEE139.	4-based  female x4  -6/-3/0'.44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2(st.)  (Y: 1.0 Vp-p, 75 Ω , sync neg DIN 4-pin x 1		SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2 -6/-30/0+4 dBu, high impedance  BNC x 2 75 \( \Omega\$, unbalanced  Video 1/2/3 (super) BNC x 3  ative B-Y: 0.7 Vp-p, 75 \( \Omega\$ (100%) BNC x 2 2 (at burst level)	XLR 3-pin female x4 -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance XLR 3-pin female x2 110 Ω , balanced
LINK (DV In/Out) (6-pin x1)**s ** ***  udio Signal Inputs  nalogue  udio **1  iigital  ES/EBU **s ***  ideo Signal Outputs  nalogue  ef. Video (BNC x1)  deo  omponent (BNC x3)	IEEE139.	4-based  female x4 -6/-3/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2/sι Y: 1.0 Vp-p, 75 Ω , sync negative DIN 4-pin x 1 Y: 1.0 Vp-p,		SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance  BNC x 2 75 \Omega, unbalanced  Video 1/2/3 (super) BNC x 3 ative B-Y: 0.7 Vp-p, 75 \Omega (100%) BNC x 2 (at burst level)	XLR 3-pin female x4 -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance XLR 3-pin female x2 110 Ω , balanced
LINK (DV In/Out) (6-pin x1) <sup>10 x7 x8</sup> udio Signal Inputs nalogue udio **  ideo Signal Outputs nalogue ef. Video (BNC x1) deo omponent (BNC x3) -Video ligital DI ** x x x x x x x x x x x x x x x x x x	IEEE139.	4-based  female x4 -6/-3/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2/st  Y: 1.0 Vp-p, 75 Ω, sync negative DIN 4-pin x 1  Conforms  BNC x 1		SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance  BNC x 2 75 \( \Omega \), unbalanced  Video 1/2/3 (super) BNC x 3 ative B-Y: 0.7 Vp-p, 75 \( \Omega \) (100%) BNC x 2 (at burst level)  NC x 2 ITU-R BT.656 BNC x 2	XLR 3-pin female x4 -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance XLR 3-pin female x2 110 Ω , balanced
LINK (DV In/Out) (6-pin x1)*** x***  udio Signal Inputs  nalogue  udio ***  iigital  ES/EBU *** ***  iideo Signal Outputs  nalogue  ef. Video (BNC x1)  iideo  omponent (BNC x3)  -Video  ligital  DI *** *** ***  DITI (QSD)) *** *** ***  DITI (QSD)) *** *** ***  ***  DITI (QSD)) *** *** ***  Udio Signal Outputs  nalogue  ef. Video (BNC x1)  iideo  DITI (QSD)) *** ***	IEEE139.	4-based  female x4  -6/-3/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 17/2(st  (Y: 1.0 Vp-p, 75 Ω , sync neg DIN 4-pin x 1  Conforms BNC x 1  Conforms		SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance  BNC x 2 75 \( \Omega\$, unbalanced  Video 1/2/3 (super) BNC x 3  ative B-Y: 0.7 Vp-p, 75 \( \Omega\$ (100%) BNC x 2 (at burst level)  RC x 2  ITU-R BT.656  BNC x 2	SMPTE 305M/322M  XLR 3-pin female x4 -6/0/+4 dBu, 600 Ω σn/off/ -60 dBu, high impedance  XLR 3-pin female x2 110 Ω , balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2 (super) BNC x 2
LINK (DV In/Out) (6-pin x1)*** x***  udio Signal Inputs  nalogue  udio ***  iigital  ES/EBU *** ***  iideo Signal Outputs  nalogue  ef. Video (BNC x1)  iideo  omponent (BNC x3)  -Video  ligital  DI *** *** ***  DITI (QSD)) *** *** ***  DITI (QSD)) *** *** ***  ***  DITI (QSD)) *** *** ***  Udio Signal Outputs  nalogue  ef. Video (BNC x1)  iideo  DITI (QSD)) *** ***	IEEE139.	4-based  female x4  -6/-3/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 17/2(st  (Y: 1.0 Vp-p, 75 Ω , sync neg DIN 4-pin x 1  Conforms BNC x 1  Conforms		SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance  BNC x 2 75 \( \Omega\$, unbalanced  Video 1/2/3 (super) BNC x 3  ative B-Y: 0.7 Vp-p, 75 \( \Omega\$ (100%) BNC x 2 (at burst level)  RC x 2  ITU-R BT.656  BNC x 2	XLR 3-pin female x4 -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance XLR 3-pin female x2 110 Ω , balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2 (super) BNC x 2
LINK (DV In/Out) (6-pin x1)*** ****  udio Signal Inputs  nalogue  udio ***  ligital  ES/EBU *** ***  lideo Signal Outputs  nalogue  ef. Video (BNC x1)  ideo  omponent (BNC x3)  -Video  DTI (OSDI) *** ***  DTI (OSDI) *** ***  LINK (DV In/Out) (6-pin x1) *** ***  udio Signal Outputs	IEEE139.	4-based  female x4  -6/-3/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 17/2(st  (Y: 1.0 Vp-p, 75 Ω , sync neg DIN 4-pin x 1  Conforms BNC x 1  Conforms		SMPTE 305M/322M IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance  BNC x 2 75 \( \Omega\$, unbalanced  Video 1/2/3 (super) BNC x 3  ative B-Y: 0.7 Vp-p, 75 \( \Omega\$ (100%) BNC x 2 (at burst level)  RC x 2  ITU-R BT.656  BNC x 2	XLR 3-pin female x4 -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance XLR 3-pin female x2 110 Ω , balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2 (super) BNC x 2
LINK (DV In/Out) (6-pin x1)*** x***  udio Signal Inputs  nalogue  udio **:  ideo Signal Outputs  nalogue ef. Video (BNC x1)  ideo  omponent (BNC x3)  -Video  Link (DV In/Out) (6-pin x1) *** x***  udio Signal Outputs  udio Signal Outputs	IEEE139.	4-based  female x4  -6/-3/0/44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2(st  Y: 1.0 Vp-p, 75 Ω , sync ner DIN 4-pin x 1  Conforms BNC x 1  Conf IEEE13		SMPTE 305M/322M  IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance  BNC x 2 75 Ω , unbalanced  Video 1/2/3 (super) BNC x 3  attive B-Y: 0.7 Vp-p, 75 Ω (100%) BNC x 2  (at burst level)  NC x 2  ITU-R BT.656 BNC x 2	SMPTE 305M/322M  XLR 3-pin female x4  -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  XLR 3-pin female x2  XLR 3-pin female x2  I10 Ω , balanced  0.3 Vp-p, 75 Ω , sync negative  Video 1/2 (super) BNC x 2  DIN 4-pin x 1
LINK (DV In/Out) (6-pin x1)*** x***  udio Signal Inputs  nalogue  udio **:  ideo Signal Outputs  nalogue ef. Video (BNC x1)  ideo  omponent (BNC x3)  -Video  Link (DV In/Out) (6-pin x1) *** x***  udio Signal Outputs  udio Signal Outputs	IEEE139.	4-based  female x4  -6/-3/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 17/2(st  (Y: 1.0 Vp-p, 75 Ω , sync neg DIN 4-pin x 1  Conforms BNC x 1  Conforms		SMPTE 305M/322M  IEEE1394-based  XLR 3-pin female x2 -6/-3/0/4 dBu, high impedance  BNC x 2 75 \( \Omega \), unbalanced  Video 1/2/3 (super) BNC x 3  ative B-Y: 0.7 Vp-p, 75 \( \Omega \) (100%) BNC x 2 (at burst level)  NC x 2  ITU-R BT.656 BNC x 2  M/322M  XLR 3-pin male x2	SMPTE 305M/322M  — XLR 3-pin female x4  -6/0/+4 dBu, 600 Ω σn/off/ -60 dBu, high impedance  XLR 3-pin female x2  110 Ω , balanced  0.3 Vp-p, 75 Ω , sync negative  Video 1/2 (super) BNC x 2  DIN 4-pin x 1  BNC x 1  — XLR 3-pin male x4  4 dBu, 600 Ω loading,
LINK (DV In/Out) (6-pin x1)*** *****  udio Signal Inputs  nalogue  udio ***  lideo Signal Outputs  nalogue  ef. Video (BNC x1)  ideo  component (BNC x3)  -Video  DTI (GSDI) *** ***  DTI (GSDI) *** ***  LINK (DV In/Out) (6-pin x1) *** ***  udio Signal Outputs  nalogue  udio Signal Outputs  nalogue  udio Signal Outputs  nalogue  udio Signal Outputs	XLR 3-pin  -6/0/+4 dBu, 600 Ω σn/off/ -60 dBu, high impedance  BNC 75 Ω , un  Video 1/2/3 (super) BNC x 3  BNC x 3	4-based  female x4  -6/-3/0/44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2(st  Y: 1.0 Vp-p, 75 Ω , sync ner DIN 4-pin x 1  Conforms BNC x 1  Conf IEEE13	— — — — — — — — — — — — — — — — — — —	SMPTE 305M/322M  IEEE1394-based  XLR 3-pin female x2 -6/-3/0/4 dBu, high impedance  BNC x 2 75 \( \Omega \), unbalanced  Video 1/2/3 (super) BNC x 3  ative B-Y: 0.7 Vp-p, 75 \( \Omega \) (100%) BNC x 2 (at burst level)  NC x 2  ITU-R BT.656 BNC x 2  M/322M  XLR 3-pin male x2	SMPTE 305W/322M
LINK (DV In/Out) (6-pin x1) *** *** ***  udio Signal Inputs  malogue  udio ***  ideo Signal Outputs  malogue  ef. Video (BNC x1)  deo  omponent (BNC x3)	XLR 3-pin  -6/0/+4 dBu, 600 Ω σn/off/ -60 dBu, high impedance  BNC 75 Ω , un  Video 1/2/3 (super) BNC x 3  BNC x 3  BNC x 3  -6/0/+4 dBu (selectable by menu)  Phono x 1  -11 dBu, d7 kΩ , unbalanced	4-based  female x4  -6/3/0'.44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x.2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2/st  Y: 1.0 Vp-p, 75 Ω , sync negative DIN 4-pin x 1  Conforms BNC x1  Conforms Conforms Conforms Conforms BNC x1  Conforms Conforms Conforms Conforms Conforms BNC x1  Conforms Co	— — — — — — — — — — — — — — — — — — —	SMPTE 305M/322M  IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance  BNC x 2 75 Ω , unbalanced  Video 1/2/3 (super) BNC x 3  ative B-Y: 0.7 Vp-p, 75 Ω (100%) BNC x 2 (at burst level)  NC x 2  ITU-R BT.656 BNC x 2  M/322M  XLR 3-pin male x2  1)  XLR 3-pin male x2	SMPTE 305M/322M  — XLR 3-pin female x4  -6/0/+4 dBu, 600 Ω σn/off/ -60 dBu, high impedance  XLR 3-pin female x2  110 Ω , balanced  0.3 Vp-p, 75 Ω , sync negative  Video 1/2 (super) BNC x 2  DIN 4-pin x 1  BNC x 1  — XLR 3-pin male x4  4 dBu, 600 Ω loading,
LINK (DV In/Out) (6-pin x1) *** *** ***  udio Signal Inputs  nalogue  udio Signal Outputs  sigital  ES/EBU *** ***  deo Signal Outputs  nalogue  ef. Video (BNC x1)  deo  omponent (BNC x3)  Video  Utideo  Ut	XLR 3-pin   -6/0/+4 dBu, 600 Ω σn/off/   -60 dBu, high impedance   BNC 75 Ω , un   Video 1/2/3 (super) BNC x 3   BNC x 3   BNC x 3   -6/0/+4 dBu (selectable by menu)   Phono x 1	4-based  female x4  -6/-3/0/44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x. 2 balanced  0.3 Vp-p, 75 Ω , sync negative		SMPTE 305M/322M  IEEE1394-based  XLR 3-pin female x2 -6/-3(0/1-4 dBu, high impedance)  BNC x 2 75 Ω , unbalanced	XLR 3-pin female x4
LINK (DV In/Out) (6-pin x1) *** *** ***  udio Signal Inputs  nalogue  udio **!  deo Signal Outputs  nalogue  ef. Video (BNC x1)  deo  omponent (BNC x3)  Video  Utideo  Utideo	XLR 3-pin   -6/0/+4 dBu, 600 Ω ση/off/   -60 dBu, high impedance   BNC 75 Ω , un   Video 1/2/3 (super) BNC x 3	4-based  female x4  -6/3/0/44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2/st  V: 1.0 Vp-p, 75 Ω , sync neg DIN 4-pin x 1  Y: 1.0 Vp-p, 75 Ω , sync neg XLR 3-pin male x4  -9 dBu unbalance		SMPTE 305M/322M  IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance  BNC x 2 75 Ω , unbalanced	XLR 3-pin female x4
LINK (DV In/Out) (6-pin x1)*** *** ***  udio Signal Inputs  nalogue  dio **  dio Size **  deo Signal Outputs  nalogue  sf. Video (BNC x1)  deo  component (BNC x3)  Video  To the component (BNC x3)  Udio Signal Outputs  and the component (BNC x3)  udio Signal Outputs  nalogue  dio Signal Outputs  nalogue  M-60 headphone	XLR 3-pin    -6/0/+4 dBu, 600 Ω σn/off/    -60 dBu, high impedance    -6/0/+4 dBu (super) BNC x 3    -6/0/+4 dBu (selectable by menu)    -6/0/+4 dBu (selectable by menu)    -7/0/+4 dBu (selectable dBrS)    -7/0/-4 dBu (selectable dBrS)	4-based  female x4  -6/3/0'.44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2/st  Y: 1.0 Vp-p, 75 Ω, sync negative DIN 4-pin x 1  Conforms BNC x1  Conf  IEEE 13  XLR 3-pin male x4  -9 dBu unbalance  -sto -11 unbalance	— — — — — — — — — — — — — — — — — — —	SMPTE 305M/322M  IEEE1394-based  XLR 3-pin female x2 -6/-3/0/1-4 dBu, high impedance  BNC x 2 75 Ω , unbalanced  Video 1/2/3 (super) BNC x 3  BY: 0.7 Vp-p, 75 Ω (100%) BNC x 2 2 (at burst level)  NC x 2  ITU-R BT.656  BNC x 2  M322M  XLR 3-pin male x2  J)  -∞ to +1 dBu, 47 kΩ , unbalanced (20 dBFS) -∞ to -13 dBu, 8 Ω ,	SMPTE 305W/322M
INK (DV In/Out) (6-pin x1)*** *** ***  udio Signal Inputs  halogue  dio **  gital  SYEBU *** ***  deo Signal Outputs  halogue  ff. Video (BNC x1)  deo  proponent (BNC x3)  Video  DTI (GSDI) *** ***  UTI (GSDI) *** ***  udio Signal Outputs  halogue  dio Signal Outputs	XLR 3-pin    -6/0/+4 dBu, 600 Ω σn/off/    -60 dBu, high impedance    -6/0/+4 dBu (super) BNC x 3    -6/0/+4 dBu (selectable by menu)    -6/0/+4 dBu (selectable by menu)    -7/0/+4 dBu (selectable dBrS)    -7/0/-4 dBu (selectable dBrS)	4-based  female x4  -6/3/0'.44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2/st  Y: 1.0 Vp-p, 75 Ω, sync negative DIN 4-pin x 1  Conforms BNC x1  Conf  IEEE 13  XLR 3-pin male x4  -9 dBu unbalance  -sto -11 unbalance	— — — — — — — — — — — — — — — — — — —	SMPTE 305M/322M  IEEE1394-based  XLR 3-pin female x2 -6/-3/0/1-4 dBu, high impedance  BNC x 2 75 Ω , unbalanced  Video 1/2/3 (super) BNC x 3  BY: 0.7 Vp-p, 75 Ω (100%) BNC x 2 2 (at burst level)  NC x 2  ITU-R BT.656  BNC x 2  M322M  XLR 3-pin male x2  J)  -∞ to +1 dBu, 47 kΩ , unbalanced (20 dBFS) -∞ to -13 dBu, 8 Ω ,	SMPTE 305W/322M
JINK (DV In/Out) (6-pin x1) *** *** ***  udio Signal Inputs  nalogue  udio **!  digital  ES/EBU ** ***  deo Signal Outputs  nalogue  ef. Video (BNC x1)  deo  omponent (BNC x3)  Video  University (BNC x1)  deo  DTI (QSDI) *** ***  udio Signal Outputs  nalogue  ef. Video (BNC x1)  deo  omponent (BNC x3)  video  igital  DTI (QSDI) *** ***  udio Signal Outputs  nalogue  udio  onitor  eadphone  M-60 headphone jack x1)  igital  ES/EBU *** ***  signal  SS/EBU *** ***  udio Signal Outputs  nalogue  udio	XLR 3-pin    -6/0/+4 dBu, 600 Ω σn/off/    -60 dBu, high impedance    -6/0/+4 dBu (super) BNC x 3    -6/0/+4 dBu (selectable by menu)    -6/0/+4 dBu (selectable by menu)    -7/0/+4 dBu (selectable dBrS)    -7/0/-4 dBu (selectable dBrS)	4-based  female x4  -6/3/0'.44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2/st  Y: 1.0 Vp-p, 75 Ω, sync negative DIN 4-pin x 1  Conforms BNC x1  Conf  IEEE 13  XLR 3-pin male x4  -9 dBu unbalance  -sto -11 unbalance	— — — — — — — — — — — — — — — — — — —	SMPTE 305M/322M  IEEE1394-based  XLR 3-pin female x2 -6/-3/0/1-4 dBu, high impedance  BNC x 2 75 Ω , unbalanced  Video 1/2/3 (super) BNC x 3  BY: 0.7 Vp-p, 75 Ω (100%) BNC x 2 2 (at burst level)  NC x 2  ITU-R BT.656  BNC x 2  M322M  XLR 3-pin male x2  J)  -∞ to +1 dBu, 47 kΩ , unbalanced (20 dBFS) -∞ to -13 dBu, 8 Ω ,	SMPTE 305M/322M
LINK (DV In/Out) (6-pin x1)*** x***  udio Signal Inputs  naloque  udio ***  ideo Signal Outputs  naloque  ef. Video (BNC x1)  deo  component (BNC x3)  -Video  Unio Signal Outputs  port (SNC x1)  udio Signal Outputs  udio Signal Outputs  udio Signal Outputs  udio Signal Outputs  naloque  ef. Video (BNC x1)  deo  tomponent (BNC x3)  -Video  ligital  Dr *** x***  UNIK (DV In/Out) (6-pin x1) *** x** x**  udio Signal Outputs  naloque  udio  fonitor  leadphone  M-60 headphone jack x1)  igital  ES/EBU *** x***  ime Code Input/Output	XLR 3-pin    -6/0/+4 dBu, 600 Ω σn/off/    -60 dBu, high impedance    -6/0/+4 dBu (super) BNC x 3    -6/0/+4 dBu (selectable by menu)    -6/0/+4 dBu (selectable by menu)    -7/0/+4 dBu (selectable dBrS)    -7/0/-4 dBu (selectable dBrS)	4-based  female x4  -6/3/0'.44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2/st  Y: 1.0 Vp-p, 75 Ω, sync negative DIN 4-pin x 1  Conforms BNC x1  Conf  IEEE 13  XLR 3-pin male x4  -9 dBu unbalance  -sto -11 unbalance	Liper) BNC x 2  Composite, 1.0 Vp-p, 75 Ω, sync negligative R-Y: 0.7 Vp-p, 75 Ω (1096)  75 Ω, sync negative C: 0.3 Vp-p, 75 Ω  to Serial Digital Interface (270 Mb/s), SMPTE 305  94-based  -6/-3/0/+4 dBu (selectable by ment RCA x1  d (-18 dBFS) dBu, βΩ, d (-18 dBFS) d (-18 dBFS) d (-18 dBFS)	SMPTE 305M/322M  IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance  BNC x 2 75 Ω , unbalanced	SMPTE 305W/322M
LINK (DV In/Out) (6-pin x1)*** x** x** audio Signal Inputs  nalogue udio **1  iiigital ES/EBU *** x**  iideo Signal Outputs  nalogue ef. Video (BNC x1) iideo  component (BNC x3)  -Video  TDTI (GSDI) *** x** x**  LINK (DV In/Out) (6-pin x1) *** x** x**  udio Signal Outputs  nalogue udio  fonitor  leadphone M-60 headphone jack x1) ligital ES/EBU *** x** x**  meadphone M-60 headphone jack x1) ligital  iime Code Input/Output	XLR 3-pin    -6/0/+4 dBu, 600 Ω σn/off/    -60 dBu, high impedance    -6/0/+4 dBu (super) BNC x 3    -6/0/+4 dBu (selectable by menu)    -6/0/+4 dBu (selectable by menu)    -7/0/+4 dBu (selectable dBrS)    -7/0/-4 dBu (selectable dBrS)	4-based  female x4  -6/3/0'.44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2/st  Y: 1.0 Vp-p, 75 Ω, sync negative DIN 4-pin x 1  Conforms BNC x1  Conf  IEEE 13  XLR 3-pin male x4  -9 dBu unbalance  -sto -11 unbalance	— — — — — — — — — — — — — — — — — — —	SMPTE 305M/322M  IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance  BNC x 2 75 Ω , unbalanced	SMPTE 305M/322M
LINK (DV In/Out) (6-pin x1)*** x** x** audio Signal Inputs  nalogue udio **1  iiigital ES/EBU *** x**  iideo Signal Outputs  nalogue ef. Video (BNC x1) iideo  component (BNC x3)  -Video  TDTI (GSDI) *** x** x**  LINK (DV In/Out) (6-pin x1) *** x** x**  udio Signal Outputs  nalogue udio  fonitor  leadphone M-60 headphone jack x1) ligital ES/EBU *** x** x**  meadphone M-60 headphone jack x1) ligital  iime Code Input/Output	XLR 3-pin    -6/0/+4 dBu, 600 Ω σn/off/    -60 dBu, high impedance    -6/0/+4 dBu (super) BNC x 3    -6/0/+4 dBu (selectable by menu)    -6/0/+4 dBu (selectable by menu)    -7/0/+4 dBu (selectable dBrS)    -7/0/-4 dBu (selectable dBrS)	4-based  female x4  -6/3/0'.44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2/st  Y: 1.0 Vp-p, 75 Ω, sync negative DIN 4-pin x 1  Conforms BNC x1  Conf  IEEE 13  XLR 3-pin male x4  -9 dBu unbalance  -sto -11 unbalance	Luperi BNC x 2 Composite, 1,0 Vp-p, 75 Ω, sync neg aptive R-Y; 0,7 Vp-p, 75 Ω, sync neg aptive R-Y; 0,7 Vp-p, 75 Ω (100%) Arive Serial Digital Interface (270 Mb/s), Forms to SDTI (270 Mb/s), SMPTE 305 Arive Serial Digital Interface (270 Mb/s), Forms to SDTI (270 Mb/s), SMPTE 305 Arive SDTI (270	SMPTE 305M/322M  IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance  BNC x 2 75 Ω , unbalanced	SMPTE 305M/322M
LINK (DV In/Out) (6-pin x1) *** *** ***  ************************	XLR 3-pin    -6/0/+4 dBu, 600 Ω σn/off/    -60 dBu, high impedance    -6/0/+4 dBu (super) BNC x 3    -6/0/+4 dBu (selectable by menu)    -6/0/+4 dBu (selectable by menu)    -7/0/+4 dBu (selectable dBrS)    -7/0/-4 dBu (selectable dBrS)	4-based  female x4  -6/3/0'.44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2/st  Y: 1.0 Vp-p, 75 Ω, sync negative DIN 4-pin x 1  Conforms BNC x1  Conf  IEEE 13  XLR 3-pin male x4  -9 dBu unbalance  -sto -11 unbalance	Luperi BNC x 2 Composite, 1,0 Vp-p, 75 Ω, sync neg agitive R-Y; 0,7 Vp-p, 75 Ω, sync neg agitive R-Y; 0,7 Vp-p, 75 Ω (100%) afs Σ , sync negative C; 0,3 Vp-p, 75 Ω to Serial Digital Interface (270 Mb/s), SMPTE 305 94-based  RCA x1 4,47 KΩ; 4 (-18 dBFS) 4 (-18 dBFS) Ω, unbalanced	SMPTE 305M/322M  IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance  BNC x 2 75 Ω , unbalanced	SMPTE 305W/322M
LINK (DV In/Out) (6-pin x1) x x x x x x x x x x x x x x x x x x	XLR 3-pin   -6/0/+4 dBu, 600 Ω σn/oft/   -60 dBu, high impedance   BNC   75 Ω , un   Video 1/2/3 (super) BNC x 3    -6/0/+4 dBu (selectable by menu)   Phono x 1   -11 dBu, 47 kΩ , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dBu, 8 Ω , unbalanced (-18 dBFS)   -∞to -13 dB	4-based  female x4  -6/-3/0/44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x. 2 balanced  0.3 Vp-p, 75 Ω , sync negative  Video 1/2(st  Y: 1.0 Vp-p, 75 Ω , sync neg  DIN 4-pin x1  Conforms  BNC x 1  Conforms  ALR 3-pin male x4  -9 dBu urbalance  -vto -11 urbalance  BNC x 2 75	— — — — — — — — — — — — — — — — — — —	SMPTE 305M/322M  IEEE1394-based  XLR 3-pin female x2 -6/-3/0/4 dBu, high impedance  BNC x 2 75 Ω , unbalanced  Video 1/2/3 (super) BNC x 3 ative BNC x 2  75 Ω (100%) BNC x 2  (at burst level)  XLR 3-pin male x2  XLR 3-pin male x2  XLR 3-pin male x2  Unbalanced (-20 dBFS) -∞to -13 dBu, 8 Ω , unbalanced (-20 dBFS)	XLR 3-pin female x4  -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  XLR 3-pin female x2  110 Ω , balanced  0.3 Vp-p, 75 Ω , sync negative  Video 1/2 (super) BNC x 2  DIN 4-pin x 1  BNC x 1
LINK (DV In/Out) (6-pin x1)*** ********************************	XLR 3-pin    -6/0/+4 dBu, 600 Ω σn/off/    -60 dBu, high impedance    -6/0/+4 dBu (super) BNC x 3    -6/0/+4 dBu (selectable by menu)    -6/0/+4 dBu (selectable by menu)    -7/0/+4 dBu (selectable dBrS)    -7/0/-4 dBu (selectable dBrS)	female x4 -6/-3/0/44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x. 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2(s; Y: 1.0 Vp-p, 75 Ω , sync ner DIN 4-pin x1 Y: 1.0 Vp-p, Conforms BNC x1 Conf IEEE13  XLR 3-pin male x4  -9 dBu urbalance -vto -11 urbalance BNC x 2 75	Luperi BNC x 2 Composite, 1,0 Vp-p, 75 Ω, sync neg agitive R-Y; 0,7 Vp-p, 75 Ω, sync neg agitive R-Y; 0,7 Vp-p, 75 Ω (100%) afs Σ , sync negative C; 0,3 Vp-p, 75 Ω to Serial Digital Interface (270 Mb/s), SMPTE 305 94-based  RCA x1 4,47 KΩ; 4 (-18 dBFS) 4 (-18 dBFS) Ω, unbalanced	SMPTE 305M/322M  IEEE1394-based  XLR 3-pin female x2 -6/-3/0/+4 dBu, high impedance  BNC x 2 75 Ω , unbalanced	SMPTE 305M/322M  SMPTE 305M/322M  XLR 3-pin female x4  -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  XLR 3-pin female x2  110 Ω , balanced  0.3 Vp-p, 75 Ω , sync negative  Video 1/2 (super) BNC x 2  DIN 4-pin x 1  BNC x 1  —  XLR 3-pin male x4  4 dBu, 600 Ω loading, low impedance, balanced  Phono x 1  -6 dBu, 47 kΩ , unbalanced  -16 dBu, 8 Ω , unbalanced  XLR 3-pin male x2 110 Ω , balanced  XLR 3-pin male x2 110 Ω , balanced
LINK (DV In/Out) (6-pin x1)*** *** ***  udio Signal Inputs  nalogue  udio ***  dio ***  deo Signal Outputs  nalogue  sf. Video (BNC x1)  deo  mponent (BNC x3)  Video  Total (BNC x3)  LINK (DV In/Out) (6-pin x1) ***  udio Signal Outputs  nalogue  udio Signal Outputs  nalogue  udio Signal Outputs  nalogue  udio Signal Outputs  nalogue  udio Signal Outputs  malogue	XLR 3-pin  -6/0/+4 dBu, 600 Ω σn/off/ -60 dBu, high impedance  BNC  75 Ω , un  Video 1/2/3 (super) BNC x 3	female x4 -6/-3/0/44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x. 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2(s; Y: 1.0 Vp-p, 75 Ω , sync ner DIN 4-pin x1 Y: 1.0 Vp-p, Conforms BNC x1 Conf IEEE13  XLR 3-pin male x4  -9 dBu urbalance -vto -11 urbalance BNC x 2 75	— — — — — — — — — — — — — — — — — — —	SMPTE 305M/322M   IEEE1394-based   IE	SMPTE 305M/322M  SMPTE 305M/322M  XLR 3-pin female x4  -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  XLR 3-pin female x2  110 Ω , balanced  0.3 Vp-p, 75 Ω , sync negative  Video 1/2 (super) BNC x 2  DIN 4-pin x 1  BNC x 1  —  XLR 3-pin male x4  4 dBu, 600 Ω loading, low impedance, balanced  Phono x 1  -6 dBu, 47 kΩ , unbalanced  -16 dBu, 8 Ω , unbalanced  XLR 3-pin male x2 110 Ω , balanced  XLR 3-pin male x2 110 Ω , balanced
LINK (DV In/Out) (6-pin x1) *** *** ***  udio Signal Inputs  nalogue  udio **1  iigital  ES/EBU *** ***  iideo Signal Outputs  nalogue  ef. Video (BNC x1)  ideo  omponent (BNC x3)  Udio  DTI (QSDI) *** ***  LINK (DV In/Out) (6-pin x1) *** ***  udio Signal Outputs  nalogue  ud	SLR 3-pin  -6/0/+4 dBu, 600 Ω σn/off/ -60 dBu, high impedance  BNC  75 Ω , un  Video 1/2/3 (super) BNC x 3	female x4 -6/-3/0/44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x. 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2(s; Y: 1.0 Vp-p, 75 Ω , sync ner DIN 4-pin x1 Y: 1.0 Vp-p, Conforms BNC x1 Conf IEEE13  XLR 3-pin male x4  -9 dBu urbalance -vto -11 urbalance BNC x 2 75	Liperi BNC x 2 Composite, 1,0 Vp-p, 75 Ω, sync neg attive R-Y; 0,7 Vp-p, 75 Ω; (100%) 75 Ω, sync negative C; 0.3 Vp-p, 75 Ω to Serial Digital Interface (270 Mb/s), SMPTE 305 94-based  -6/-3/0/+4 dBu (selectable by meni RCA x1 d (+18 dBFS) dBu, 8 Ω d (-18 dBFS) Ω, unbalanced  0.5 Vp-p to 18 Vp-p, 3 kΩ, unbalance 2.2 Vp-p, 75 Ω, unbalanced  b 9-pin female x1 sub 15-pin male x1 sub 15-pin male x1 sit Stereo mini jack x1	SMPTE 305M/322M   IEEE1394-based   IE	SMPTE 305M/322M  SMPTE 305M/322M  XLR 3-pin female x4  -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  XLR 3-pin female x2  110 Ω , balanced  0.3 Vp-p, 75 Ω , sync negative  Video 1/2 (super) BNC x 2  DIN 4-pin x 1  BNC x 1  BNC x 1
LINK (DV In/Out) (6-pin x1)*** ********************************	XLR 3-pin  -6/0/+4 dBu, 600 Ω σn/off/ -60 dBu, high impedance  BNC  75 Ω , un  Video 1/2/3 (super) BNC x 3	female x4 -6/-3/0/44 dBu, 600 Ω on/off/ -60 dBu, high impedance  x. 2 balanced  0.3 Vp-p, 75 Ω , sync negative Video 1/2(s; Y: 1.0 Vp-p, 75 Ω , sync ner DIN 4-pin x1 Y: 1.0 Vp-p, Conforms BNC x1 Conf IEEE13  XLR 3-pin male x4  -9 dBu urbalance -vto -11 urbalance BNC x 2 75	— — — — — — — — — — — — — — — — — — —	SMPTE 305M/322M   IEEE1394-based   IE	SMPTE 305W/322M  SMPTE 305W/322M  XLR 3-pin female x4  -6/0/+4 dBu, 600 Ω on/off/ -60 dBu, high impedance  XLR 3-pin female x2  110 Ω , balanced  0.3 Vp-p. 75 Ω , sync negative  Video 1/2 (super) BNC x 2  DIN 4-pin x 1  BNC x 1  -  XLR 3-pin male x4  4 dBu, 600 Ω loading, low impedance, balanced  Phono x 1  -6 dBu, 47 kΩ , unbalanced  -16 dBu, 8 Ω , unbalanced  XLR 3-pin male x2 110 Ω , balanced  XLR 3-pin male x2 110 Ω , balanced

<sup>\*1</sup> The optional DSBK-1504 is required for the DSR-1500P
\*2 The optional DSBK120P is required for the DSR-85P
\*3 The optional DSBK1801 is required for the DSR-1800P
\*4 The optional DSBK1501 is required for the DSR-1500P

<sup>\*5</sup> The optional DSBK1802 is required for the DSR-1800P

\*6 The optional DSBK-190 is required for the DSR-2000P

\*7 The optional DSBK303 is required for the DSR-1800P/1600P

\*8 The optional DSBK1503 is required for the DSR-1500P

<sup>19</sup> The optional DSBK-120P is required for the DSR-85P
110 The optional DSBK-1601 is required for the DSR-1600P
111 The optional DSBK-1602 is required for the DSR-1600P
112 The optional DSBK-130P is required for the DSR-85P

# DSR-45P / DSR-30P / DSR-25 / DSR-11 Studio VTRs

	DSR-45P	DSR-30P	DSR-25	DSR-11
General				
System		PAL		NTSC/PAL Switchable
Power requirements	AC 220 V to 240 V, 50/60 Hz	AC: 220 V to 240 V, 50 Hz		240 V, 50/60 Hz
lower consumption Operating temperature	22 W	37 W	16 W (41 °F to 104 °F)	15 W
torage temperature			(-4 °F to 140 °F)	
ape speed DVCAM mode			1 mm/s	
DV SP mode			1 mm/s	
ecording/Playback time Standard size			84ME/184N/184MEM	
Mini size			1-40ME/40N/40MEM	
ape rewind time earch speed	When controlling via optional DSRM-20:	Less than 2 min. with Still, ±1/5, 1, 2 times, Cue/Review	PDV-184ME/184N/184MEM When controlling via optional	When controlling via optional
earch speed	When controlling via optional DSRM-20: Shuttle mode: ±1/10, 1/5, 1, 2, approx. 10, approx. 17 times Jog mode: ±1/10, 1/5, 1, 2 times	(±10 or 18 times)	DSRM-20 or supplied RMT-DS20: Still, ±1/5, 1, 2 times, Cue/Review (±10 or 18 times)	DSRM-20 or supplied RMT-DS11: Still, ±1/5, 1, 2 times, Cue/Review (±10 or 18 times)
lass	Approx. 4.5 kg (10 lb 2 oz)	Approx. 9.2 kg (20 lb 4 oz)	Approx. 4.3 kg (9 lb 8 oz)	Approx. 2.8 kg (6 lb 2 oz)
imensions	212 x 98 x 392 mm	430 x 129 x 374 mm	212 x 98 x 392 mm	180 x 73 x 265 mm
/ x H x D, including projections)	(8 3/8 x 3 7/8 x 15 1/2 inches)	(17 x 5 1/8 x 14 3/4 inches)	(8 3/8 x 3 7/8 x 15 1/2 inches)	(7 1/8 x 2 7/8 x 10 1/2 inches)
rideo Signal Inputs	DVCAM/DV (SP mode only)	DVCAM	DVCAM/DV (	SP mode only)
B mode	DYONIVIDY (OF ITIOUS OTHY)		SP mode only)	or mode only)
ef. Video (BNC x1)	Black burst: 75 Ω , sync negative	DVCAN/DV (	— —	
ideo (DSR-45P/25: BNC x1)*1	_ act said. To as , symonogative			
SR-30P: BNC x1, Phono jack x1) SR-11: Phono jack x1) -Video		Composite, 1.0 Vp-p	, 75 $\Omega$ , sync negative	
oSR-45P/25/11: Mini DIN 4-pin x1) DSR-30P: Mini DIN 4-pin x2, ront x1/rear x1)			$\Omega$ , sync negative carrier burst), 75 $\Omega$	
Audio Signal Inputs				
udio (DSR-45P/25/11:				
Phono jack x2/stereo L/R)		2 Vrms	s (full bit)	
DSR-30P: Phono jack x2/ tereo L/R, front x1/rear x1)				
ideo (DSR-45P/25: BNC x1) DSR-30P: BNC x2, Phono jack x1) DSR-11: Phono jack x1) i-Video		Composite, 1.0 Vp-p, 75 $\Omega$ , sync negative Y: 1.0 Vp-p, 75 $\Omega$ , sync negative		
DSR-45P/25/11: Mini DIN 4-pin x1) DSR-30P: Mini DIN 4-pin x2) Component (BNC x3)	Y: 1.0 Vp-p, 75 Ω , sync negative		carrier burst), 75 Ω	
Monitor (BNC x1)	R-Y/B-Y: 0.7 Vp-p (with 100 % colour burst) Composite, 1.0 Vp-p, 75 Ω , sync negative			
Audio Signal Outputs				
udio DSR-40P: XLR 3-pin male x2, stereo L/R)	4 dBu, balanced		2 Vrms (full bit)	
OSR-20P/11: RCA pin x2/stereo L/R)				
Monitor RCA pin x2, stereo L/R)	2 Vrms (full bit)	_	2 Vrms (full bit)	_
Digital Input/Output				
LINK (DV In/Out) (4-pin x1)		IEEE139	94-based	
Others				
	PS-422A: Deub 9 pin famala v4	LANC: Stereo mini-mini jack x2 (front x1/rear x1)**	2 LANC: Stereo mini mini inak ud	LANC: Stores mini mini icali
	RS-422A: D-sub 9-pin female x1 Control S (SIRCS) In: Stereo mini jack x1 Headphone: Stereo mini jack x1 LANC: Stereo mini-mini jack x1 RS-232C: D-sub 9-pin male x1	LANC: Stereo min-min jack x2 (rront x1/rear x1)* Control S (SIRCS) In: Mini jack x1 Control S (SIRCS) Out: Mini jack x1 Trigger In: RCA pin x1 (active short) Headphone: Stereo mini jack x1 MIC In: Mini jack x1	LANC: Stereo mini-mini jack x1 Headphone: Stereo mini jack x1 Control S (SIRCS) In: Stereo mini jack x1	LANC: Stereo mini-mini jack Control S: Stereo mini jack
CD Monitor	2-inch type 123,200 dots		2-inch type 123,200 dots	_
Supplied Accessories				1
	AC Power Cord Cleaning Cassette Operating Instructions RMT-DS11 Wireless Remote Commander Size AR (R6) Batteries for Remote (2)	RMT-DS30 Wireless Remote Controller Size AA (R6) Batteries for Remote (2) AC Power Cord LANC Cable Cleaning Cassette	RMT-DS20 Wireless Remote Controller Size AA (R6) Batteries for Remote (2) AC Power Cord Cleaning Cassette Operating Instructions	AC Adaptor, Power Cord RMT-DS11 Wireless Remote Comman Size AA (R6) Batteries for Remote (2 Rack Cleaning Cassette
	Interface manual for programmers (RS-232C)	Operating Instructions	oporating mondono	Operation Manual

<sup>\*1</sup> Shared between composite IN and REF-IN.
\*2 The audio output level of the DSR-45P will be reduced by half when connected to an Unbalanced XLR input device.
\*3 Recommended remote control unit: DSRM-20
\*4 Priority on front LANC.

## DSR-2000P / DSR-1800P / DSR-1600P / DSR-1500AP / DSR-DR1000P

**DSR-2000P** 

**EDITING RECORDER** 





**DSR-1800P** 

EDITING RECORDER





**DSR-1600P** 

EDITING PLAYER





DSR-1500AP

EDITING RECORDER





DSR-DR1000P

HARD DISK RECORDER



# DSR-85P / DSR-45P / DSR-30P / DSR-25 / DSR-11

### DSR-85P

HIGH-SPEED EDITING RECORDER



### DSR-45P

RECORDER



### DSR-30P

RECORDER



### **DSR-25**

RECORDER



### **DSR-11**

RECORDER



### DIGITAL VTRs

# DSR-70AP Portable Editing Recorder

General			
Power requirements	DC 12 V (DC 12	V In: XLR 4-pin male x1)	
Power consumption	46 W (without options)		
Operating temperature	0 °C to 40 °C (32	? °F to 104 °F)	
Storage temperature	-20 °C to 60 °C (	-4 °F to 140 °F)	
Operating humidity	Less than 80%		
Storage humidity	Less than 90%		
Tape speed	28.221 mm/s		
Recording/Playback time	Standard size: Mini size:	184 min. with PDV-184ME/184N/184MEM 40 min. with PDVM-40ME/40N/40MEM	
Fast forward/Rewind time	Standard size: Mini size:	Less than 3 min. with PDV-184ME/184N/184MEM Less than 1 min. with PDVM-40ME/40N/40MEM	

Search speed	x ±32
Mass	5.8 kg (12 lb 12 oz)
Dimensions (W x H x D)	211 x 149 x 443 mm (8 3/8 x 5 7/8 x 17 1/2 inches)
LCD display (x1)	6.4-inch VGA, 640 (H) x 480 (V)
Built-in speaker (x1)	Monaural
Demote	DC 422A: D cub 0 pin female v1

### Video Signal Inputs

0.3 Vp-p, 75 $\Omega$ , sync negative
Composite, 1.0 Vp-p, 75 $\Omega$ , sync negative
Y: 1.0 Vp-p, 75 $\Omega$ , sync negative R-Y: 0.7 Vp-p, 75 $\Omega$ (100%) B-Y: 0.7 Vp-p, 75 $\Omega$ (100%)
Y: $1.0 \text{ Vp-p}$ , $75 \Omega$ , sync negative C: $0.3 \text{ Vp-p}$ , $75 \Omega$ (at burst level)
Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
Conforms to SDTI (270 Mb/s), SMPTE 305M/322M
IEEE 1394

### Audio Signal Inputs

Analogue	
Audio (CH-1,2) (XLR 3-pin female x2)	+4/0/-60dBu, high impedence, balanced

### Video Signal Outputs

Analogue	
Ref. Video (BNC x1)	0.3 Vp-p, 75 Ω , sync negative
Video 1/2(SUPER) (BNC x2)	Composite, 1.0 Vp-p, 75 Ω , sync negative
Component (BNC x3)*1	Y: 1.0 Vp-p, 75 $\Omega$ , sync negative R-Y: 0.7 Vp-p, 75 $\Omega$ (100%) B-Y: 0.7 Vp-p, 75 $\Omega$ (100%)
S-Video (DIN 4-pin x1)	Y: 1.0 Vp-p, 75 $\Omega$ , sync negative C: 0.3 Vp-p, 75 $\Omega$ (at burst level)
Digital	
SDI (BNC x2)*2	Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
SDTI (QSDI) (BNC x1)*3	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M
i.LINK (DV) (6-pin x1)*4	IEEE 1394

### Audio Signal Outputs

Analogue	
Audio (CH-1,2 or CH-3,4) XLR 3-pin male x2	+4/0/-6 dBu (selectable by menu)
Monitor (R/L) (Phono x1)	-6 dBu, 47 kΩ , unbalanced
Headphone (JM-60 headphone jack x1)	-∞ to -20 dBu, 8 $Ω$ , unbalanced

### Time Code Input/Output

Time Code In (BNC x1)	0.5 to 18 Vp-p, 3.3 kΩ , unbalanced
Time Code Out (BNC x1)	2.2 Vp-p, ±3.0 dBu, 600 Ω , unbalanced

### Supplied Accessories

Carrying Belt
Connector Cap (per interface)
Operating Instructions
Warranty Card

- \*1 The optional DSBK-170 Analogue Component Input/Output Board is required.

  \*2 The optional DSBK-160 SDI Input/Output Board is required.

  \*3 The optional DSBK-150 SDTI (CSDI) Input/Output Board is required.

  \*4 The optional DSBK-140 i.LINK/DV Input/Output Board is required.

## DSR-50P Portable Recorder

### General

System	PAL
DC input	XLR 4-pin (male), +12 V
Power consumption	15 W
Operating temperature	5 °C to 40 °C (41 °F to 104 °F)
Storage temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Tape speed	Approx. 28.2 mm/s (DVCAM mode), Approx. 18.8 mm/s (DV SP mode)
Recording/Playback time	184 minutes (DVCAM mode), 270 minutes (DV SP mode), with PDV-184ME cassette
	40 minutes (DVCAM mode), 60 minutes (DV SP mode), with PDVM-40ME cassette
Mass	3.9 kg (8 lb 9 oz), excluding battery and tape
Dimensions (W x H x D)	247 x 92.5 x 311 mm (9 3/4 x 3 3/4 x 12 1/4 inches), excluding projections 279 x 99 x 315 mm (11 x 4 x 12 1/2 inches), including projections

### Video

Rec mode	DVCAM/DV (SP mode only)
PB mode	DVCAM/DV (SP mode only)

### Audio

Rec mode	48.0 kHz/16-bit (2CH)/ 32.0 kHz/12-bit (4CH)/automatic (DV IN)
PB mode	48.0 kHz/16-bit (2CH)/32.0 kHz/12-bit (4CH)/ 32.0 kHz/16-bit (2CH)/44.1 kHz/16-bit (2CH) (automatically selected)

### Input/Output Terminals

Video IN Composite	1.0 Vp-p, 75 $\Omega$ , Sync negative
S(4-pin mini DIN)	Y: 1.0 Vp-p, 75 $\Omega$ , Sync negative C: 0.3 Vp-p (subcarrier burst) 75 $\Omega$
Audio IN	XLR 3-pin (female) (+4 dBu/-20 dBu/-60 dBu) x 4, impedance more than 3 k $\Omega$ with +48 V power supply (independently switched for each channel)
Camera IN	26-pin camera connector
Composite	1.0 Vp-p, 75 Ω , Sync negative
Component	Y: 1.0 Vp-p, 75 $\Omega$ , Sync negative B-Y: 0.7 Vp-p, 75 $\Omega$ , R-Y: 0.7 Vp-p, 75 $\Omega$
Reference IN	BNC, Black Burst 75 $\Omega$ , Sync negative (use Video IN)
Video OUT 1 (Monitor) Composite	BNC, 1.0 Vp-p, 75 $\Omega$ , Sync negative Superimpose On/Off
Video OUT 2 Composite	BNC, 1.0 Vp-p, 75 Ω , Sync negative
S (4-pin mini DIN)	Y: 1.0 Vp-p, 75 $\Omega$ , Sync negative C: 0.3 Vp-p (subcarrier burst) 75 $\Omega$
Component OUT	BNC x 3 Y: 1.0 Vp-p, 75 $\Omega$ , Sync negative B-Y/R-Y: 0.7 Vp-p, 75 $\Omega$
Audio OUT	RCA pin x 4, -10 dBu Standard output level -18 dB from full bit
Audio OUT (Monitor)	RCA pin
DV IN/OUT	6-pin (with lock)
Timecode IN	BNC, 0.5 to 18 Vp-p, 10 kΩ
Timecode OUT	BNC, 2.2 Vp-p, 600 Ω /1.2 Vp-p, 75 Ω
Control S	Stereo mini jack
Remote	Stereo mini jack (Edge High/Edge Low/Level High/Level Low) (Tally)
Control	Stereo mini-mini jack (compatible with LANC as a player)
Headphone jack (left side)	Stereo standard jack, -19 dBu, with Level Control

### Other

Colour LCD monitor	2.5-inch, 200,000 dots
Supplied accessories	LCD Protection Cover, Cleaning Cassette

# DSR-V10P DVCAM Video Walkman Recorder

General	
Power requirements	DC 7.2 V (with battery), DC 8.4 V (with AC adaptor)
Power consumption	11.5 W (LCD on)
Operating temperature	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Tape speed	28.221 mm/s
Mass	970 g (2 lb 2 oz) (without battery and tape)
Dimensions (W x H x D)	148 x 62 x 135 mm (5 7/8 x 2 1/2 x 5 3/8 inches)
LCD screen	5.5-inch

	Otorage temperature	20 0 10 00 0 ( + 1 10 1+0 1)
Ì	Tape speed	28.221 mm/s
	Mass	970 g (2 lb 2 oz) (without battery and tape)
	Dimensions (W x H x D)	148 x 62 x 135 mm (5 7/8 x 2 1/2 x 5 3/8 inches)
	LCD screen	5.5-inch

Video signal	CCIR standard, PAL colour
Male e See de Jestes de	

video iriputs/outputs	
Video (RCA pin x1)	Composite, 1.0 Vp-p, 75 Ω , unbalanced, sync negative
S-Video (Mini DIN 4-pin x1)	Y: 1.0 Vp-p, 75 Ω , unbalanced, sync negative
	C: 0.3 Vp-p (subcarrier burst), 75 Ω, unbalanced

Audio	
Audio signal	Recording: 48 kHz/16-bit, 32 kHz/12-bit Playback: 48 kHz/16-bit, 32 kHz/12-bit, 32 kHz/16-bit, 44.1 kHz/16-bit
Audio inputs/outputs (Phono jack x1/stereo L/R)	-7.5 dBs (0 dBu=0.775 Vrms)

i.LINK (DV In/Out): 4-pin x1, IEEE1394-based
LANC: Stereo mini-mini jack x1
Headphone: Stereo mini jack x1
Multi connector: 20-pin x1

### Supplied Accessories

AC-V700 AC Adaptor/Charger	
DK-415 DK Cable	
Carrying belt	
Operating Instructions	

### DSRM-E1P (Edit Adaptor for DSR-V10P)

General	
Power requirements	DC 7.2 V (supplied from DSR-V10P), DC 8.4 V (with AC Adaptor)
Power consumption	Approx. 1.8 W
Operating temperature	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Mass	Main unit: 160 g (5.6 oz) Controller: 340 g (12 oz)
Dimensions (W x H x D)	Main unit: 69 x 61 x 134 mm (2 3/4 x 2 1/2 x 5 3/8 inches) Controller: 184 x 42 x 128 mm (7 1/4 x 1 11/16 x 5 1/8 inches)

Connectors	
	Multi connector: 20-pin x1
	Control unit: Mini DIN 8-pin x1
	LANC: Stereo mini-mini iack x1

### Monitor Output

Video output (RCA pin x1)	Composite, 1.0 Vp-p, 75 $\Omega$ , unbalanced, sync negative
Audio output (Phono jack x1/stereo L/R)	0.327 V, impedance 470 $\Omega$ or less

### CVX-V1P / CVX-V3P / CVX-V18NSP (Colour Video Cameras for DSR-V10P)

General	
Power requirements	DC 7.2 V (with battery), DC 8.4 V (with AC adaptor)
Power consumption	CVX-V1P/V3P: 1.8 W CVX-V18NSP: 2.2 W
Operating temperature	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Mass Camera head CCU (without battery)	CVX-V1P: 25 g (0.85 oz) CVX-V3P: 75 g (2.6 oz) CVX-V18NSP: 343 g (12 oz) CVX-V1P: 135 g (4.8 oz) CVX-V3P: 135 g (4.8 oz) CVX-V18NSP: 153 g (5 oz)
Dimensions (W x H x D)	
Camera head	CVX-V1P: 22 x 18 x 60 mm (7/8 x 23/32 x 2 3/8 inches) CVX-V3P: 36 x 40 x 70 mm (1 7/16 x 1 5/8 x 2 7/8 inches) CVX-V18NSP: 63 x 66 x 115 mm (2 1/2 x 2 5/8 x 4 5/8 inches)
CCU	CVX-V1P: 35 x 110 x 60 mm (1 7/16 x 4 3/8 x 2 3/8 inches) CVX-V3P: 35 x 110 x 60 mm (1 7/16 x 4 3/8 x 2 3/8 inches) CVX V3P: 50 x 60 x 110 mm (2 x 2 3/8 x 4 3/8 inches)

Focal length	CVX-V1P: f=3.9 mm (35 mm conversion: 38 mm) CVX-V3P: f=3.5 mm to 10.5 mm (35 mm conversion: 35 mm to 105 mm) CVX-V1BNSP: f=4.1 mm to 73.8 mm (35 mm conversion: 41 mm to 738 mm)
Minimum illumination	CVX-V1P: 2 lx CVX-V3P: 5 lx CVX-V18NSP: 0.7 lx
Gain selection	CVX-V1P: Auto/Hold CVX-V3P: Auto
White balance	CVX-V1P: Auto/Hold CVX-V3P: Auto
Shutter speed	CVX-V1P: Auto, 1/50, 1/120, 1/250, 1/500, 1/2000, 1/10000 CVX-V18NSP: Auto, 1/3, 1/6, 1/12, 1/25, 1/50, 1/75, 1/100, 1/125, 1/150, 1/215, 1/300, 1/425, 1/600, 1/1000, 1/1250, 1/1750, 1/2500, 1/3500, 1/6000, 1/10000
Night shot (CVX-18NSP only)	IR light effective distance: 20 m (with slow shutter on), 5 m (without slow shutter)

### Others (on CCU)

External MIC In: Stereo mini-mini jack x1
Multi connector: 20-pin x1
Camera cable connector: 12-pin x1 (CVX-V18NSP only)
Battery connector

### Camera

General

Image device	1/4-inch Interline-Transfer CCD
Effective picture elements	CVX-V1P/V3P: 440,000 pixels
Total picture elements	CVX-V1P/V3P: 470,000 pixels
Lens	CVX-V1P: F1.8 CVX-V3P: F2.8 to 4 CVX-V18NSP: F1.4

### Supplied Accessories

Video Walkman Attachment Unit	
Operating Instructions	

# DSR-DU1 Hard Disk Recorder

Power requirements	DC 7.2 V (battery), DC 8.4 V (AC adaptor)
Power consumption	5.6 W
Mass	500 g (1 lb 1 oz)
Dimensions	(W x H x D) 44 x 101 x 142 mm
Operating temperature	0 °C to 40 °C
Storage temperature	-20 °C to 60 °C
Operating Humidity	Less than 85 % (without dew condensation)

# FLEXICART Multi-cassette System

### General

Power requirements	AC 100/120/220/230/240 V, 50/60 Hz
Power consumption	600 VA
Operating temperature	5 °C to 35 °C (4 °F to 95 °F)
Operating humidity	25% to 80% (non-condensing)
Mass	Approx. 250 kg (551 lb 2.5 oz) (without VTRs, cassette bin units and tapes)
Dimensions (W x H x D)	600 x 1980 x 1090 mm (23 5/8 x 78 x 43 inches)

### Input/Output Terminals

DV IN/OUT	i.LINK x1 (IEEE1394 4-pin)
Remote	4-pin Stereo mini Jack x1
DC IN	x1

### Connections

Ref. Video In (BNC): Black burst or composite video
Time code In: (BNĆ)
Remote control interfaces: REMOTE1: RS-422A D-sub 9-pin
REMOTE2: RS-232C D-sub 25-pin
Parallel interface: D-sub 50-pin

### Supplied Accessories

Warranty card	
Operation manual	
i.LINK cable (4-pin to 4-pin)	
Remote controller (RM-LG2)	
Battery (CR2032)	
Case	
	_

### Supplied Accessories

AC Power Cord
Operation Manual
Maintenance Manual
Installation Manual
•





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