



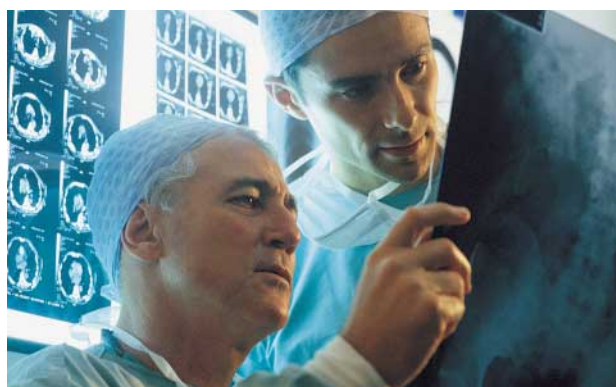
## Digital Film Imager

**In today's health care environment, time, space and money are all scarce. That's why Sony has reinvented dry film imaging – to keep pace with new realities, including the need to output images faster.**

The Sony UP-DF500 **FILMSTATION** gives you output speed of less than a minute per print. That's faster than the medical imager you're probably using. And to nearly double your speed, connect two **FILMSTATION** imagers with a simple **FILMSTATION** link cable for printing up to 130 films per hour.

**FILMSTATION** images are also superior in quality, with 12-bit resolution and 4,096 shades of gray to contribute to the accuracy of every diagnosis. Automatic film calibration, film protective cover panel, and 125-film capacity tray all combine to help you work more productively.

And with vertical installation capability, a Sony **FILMSTATION** system takes up less space than other film imagers – so it's easy to integrate into your CT or MRI system.



### Main Features

- Space saving design, vertical installation possible
- Reliable printing process, proven technology
- Superior image reproduction, clear and accurate
- High printing speed, up to 70 sheets per hour
- Easy to use, simple to maintain
- Environmentally friendly process
- DICOM compliant network capability

**FILMSTATION™**

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You make it a Sony

# UP-DF500

## Features



### Space saving

An innovative printing mechanism allows the **FILMSTATION** to be installed vertically – ideal when space is limited or the unit needs to be integrated into your CT or MRI control centre. Installed this way, the **FILMSTATION** has one of the smallest footprints in its class (688 x 250 mm) taking up less space than other film imagers.

Thanks to innovative design and the printing mechanism, the **FILMSTATION** is extremely compact with approximate dimensions of just 600 (W) x 250 (H) x 686 (D) mm and a weight of only 55 kg.



### Reliable printing process

The **FILMSTATION** newly developed printing mechanism ensures that each sheet of film remains flat when passing the thermal printing head so that the printing surface is always clear and smooth. What's more, the **FILMSTATION** employs a unique print-feed mechanism in which each sheet of film being fed is firmly held between multiple belts during the printing process. Therefore, even when installed vertically, the **FILMSTATION** ensures that the printing process is stable and that each sheet is fed with precision and is output in the correct order.

### Superior image reproduction

The **FILMSTATION** incorporates Sony direct thermal printing technology, which produces photo-quality prints at a high resolution of approximately 320 dpi. The **FILMSTATION** can be used with 354 x 430 mm (14 x 17 inch) Sony Blue Thermal Film, making it suitable for a variety of large-format printing applications.

By combining a newly developed thermal printing head and an improved PQC (Picture Quality Control) feature into Sony proven thermal printing technology, diagnostic images are reproduced clearly and accurately.

#### • Sony Blue Thermal Film

The Sony UPT-517BL Blue Thermal Film has been especially designed for use with the **FILMSTATION** to provide high-contrast and high-density images with greater durability. The reproduction of precise and stable diagnostic images allows medical examiners to make more accurate and confident medical assessments.

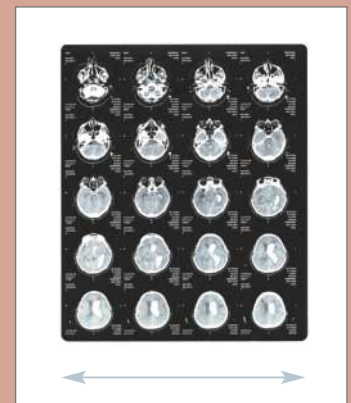
What's more, the films can be handled in daylight, meaning that all procedures from refilling the imager to printing the images are easily done in any hospital environment.

#### • Impeccable prints

To prevent dust particles and other foreign matter drawn through cooling fans from accumulating onto the film, the **FILMSTATION** has been designed with two completely separate sections: an electronic section and a mechanical section. In addition, to further prevent damage to prints from foreign matter, the film remains inside **FILMSTATION** until the printing process is completed.

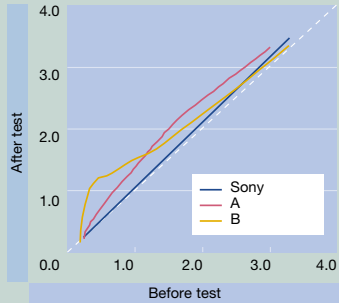
#### • Edge-to-edge printing

Incorporating a specially designed Sony thermal head and unique printing mechanism, the **Film Station** can print edge-to-edge, comparable to the capabilities of conventional silver-halide imagers.



## Sony Blue Thermal Film

### Optical Density



Test condition: 60 °C / 7 days

This chart shows the optical density measured through a sheet of UPT-517BL Sony Blue Thermal Film. It is virtually unchanged even after exposure in high-temperature and high-humidity conditions. This means that the original image maintains its integrity even in adverse environments.

### UPT-517BL Specifications

Colour	Blue base
Media size	354 x 430 mm (14 x 17 inches)
Sheets/box	125 sheets
D-max.	3.2 and higher
D-min.	0.22 and less

### Storage conditions

Temperature	5 – 30 °C
Shelf life	18 months

### Archive conditions

Temperature	25 °C
Humidity	60 % RH non-condensing
Life time	> 20 years

## High-speed printing

The **FILMSTATION** reproduces diagnostic images at a rate of up to 70 sheets of film per hour on 354 x 430 mm (14 x 17 inch) thermal film, providing precise images with high productivity.

### Quick warm-up time

The **FILMSTATION** is ready to print in around just three minutes from being powered-on.

## Easy to use and to maintain

### Easy settings

- The film feeder tray is equipped with a tray stop for a very easy refill. To refill the imager, simply slide the tray out, open a part of the cover, and place up to 125 sheets of film in the tray.
- DICOM network settings for each **FILMSTATION** are easily made from a PC running a standard internet browser.
- The user can choose a gamma curve from ten pre-set gamma curve settings.

### Easy maintenance

- A cart with rollers is supplied for easy maintenance when the unit is installed vertically.
- A variety of data, such as gamma curve and sharpness settings, can be stored on a Memory Stick for backup purposes\*.
- Self-diagnosis data can be automatically sent to a designated e-mail address when an error is detected\*.

\* Features provided for system integrators.

## Environmentally friendly

The **FILMSTATION** is based on Sony dry-processing technology, which does not use liquid chemicals or heavy metals such as silver on thermal film. This frees you from the hassle of disposing of chemical or industrial waste. In addition, Sony thermal film is highly environmentally friendly because chemicals such as an alcohol are not used.



Film feeder tray



Cart with rollers



# UP-DF500 Specifications

General	
Printing method	Direct thermal printing
Resolution	320 dpi
Processing data depth	12 bit
Effective print pixels	5,060 x 4,224 dots
Media size	354 x 430 mm (14 x 17 inch), UPT-517BL (Blue Thermal Film)
Print area	335.3 x 401.6 mm (13 1/4 x 15 7/8 inch)
Film supply tray	1 tray (2 trays in case of double print engines)
Film tray capacity	125 sheets (max.)
Interface	DICOM
Image formats	DICOM
Printing speed	70 sheets/hour
Size (W x H x D)	600 x 250 x 686 mm (23 2/3 x 9 8/9 x 27 1/9 inch) excluding projection ports
Mass	Approx. 55 kg (121 3/11 lbs.)
Power consumption	Approx. 450 W
Power requirements	AC 100 to 120 V AC 220 to 240 V, 50/60Hz
Input current	4.4 to 1.8 A
Operating temperature	10 °C to 30 °C
Operating humidity	20 % to 80 % RH non-condensing
Storage temperature	-20 °C to +60 °C
Storage humidity	20 % to 90 % RH non-condensing
Safety standards	UL2601-1, UL60950, CSA C22.2 No.601-1, CSA C22.2 No.950, EN60601-1, EN60950, FDA 510k, CE (MDD, EMC, LVD)
Supplied accessories	Film tray (1) AC power cable (1) Operation guide (1) CD-ROM (Instruction manual) (1) Cleaning kit (1) Cart with rollers (2)

## Optional accessories

## UP-DF500 Rear panel

UPA-500  
Cleaning kit

UPA-DF500  
Extension unit

UPT-517BL  
Sony Blue Thermal Film



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features and specifications  
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