

## UP-DF750

High resolution Diagnostic  
DICOM Film Imager



### Overview

Succeeding the design platform of the UP-DF500 and UP-DF550, the UP-DF750 features a workflow-friendly, space-saving design and small footprint that enables vertical installation - a major operational advantage over large, centralised film imagers. Reproducing high-quality prints of 604dpi, with a maximum of 3.8+ using high-density film, the UP-DF750 is a particularly suitable for mammography imaging. It can deliver multiple film sizes - 8x10, 10x12, 11x14 and 14x17 inch are available for a variety of modalities - to provide both mammography imaging and cost-efficient copies that are ideal and patient referral. Ideal for applications that range from mammography to MRI/CT and DR/CR, the UP-DF750 equips practitioners with an exceptionally compact, versatile and high-quality diagnostic film imager.

#### **Large 3.8-inch graphic LCD.**

Large 3.8-inch graphic LCD displays a range of helpful information with graphical images - for example, it can show an error message with the visual procedure for correcting that error.

#### **Reliable printing mechanism.**

- Unique print-feed mechanism firmly holds each sheet of film between multiple belts during

printing process.

- This mechanism ensures that, even if the unit is installed vertically, the printing process remains stable and each sheet is fed with precision.

#### **Menu direction change.**

When the unit is mounted vertically, the LCD menu can be rotated accordingly using a simple menu setting - enabling users to read information on the LCD easily, no matter which direction the printer is installed in.

#### **Stable optical density of film.**

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

#### **Register value compensation for thermal head elements.**

To compensate and minimise differences of resistor value among thermal elements, the UP-DF750 is equipped with built-in resistor value compensation data for the thermal head.

#### **Full-range calibration.**

Enabling users to control and stabilise the quality of prints, the unit features a full-range calibration capability that adjusts deviation between each piece of film.

#### **Language support.**

The UP-DF750 supports English, Russian, Chinese and Spanish, one of which can be selected as the LCD display language.

#### **DICOM connectivity.**

The UP-DF750 is equipped with a DICOM 3.0 interface, enabling it to be connected to a hospital imaging

network in accordance with worldwide medical imaging communications standards.

### **Quick warm-up time.**

From the moment it is turned on, the UP-DF750 takes only two minutes before it is ready to start printing - making it highly effective in emergency use.

### **Easy network parameter settings.**

All network settings - such as IP address and AE title - can be set easily via the front panel, without having to use any other tool (such as a Windows® PC or web browser).

## Features

### **Space-saving design with vertical installation.**

- Innovative printing mechanism enables highly compact, space-saving design.
- Approximate dimensions of 600(W) x 316(H) x 686(D) mm.
- Weight of only 67 kg.
- Printing mechanism also enables vertical as well as horizontal installation.
- Vertical installation further enables unit to be set to whatever mount direction is required by the site environment.
- Footprint when vertically installed is one of the smallest in its class at only 686 x 316 mm.
- Ideal when space is limited or the unit must be integrated into environments such as a CT or MRI control room, mobile coach or military ship.
- Exceptionally easy portability using the

bundled carts, which are equipped with a roller.

## Superior image reproduction.

- Incorporates Sony direct thermal-printing technology to ensure superb-quality prints.
- High resolution capability of approximately 604 dpi.
- Superior diagnostic image clarity and accuracy is produced by combining proven Sony thermal printing technology with a newly-developed thermal printing head and an improved PQC (Picture Quality Control) feature.
- New un-sharpness masking algorithm delivers sharp and crisp images not only in high spatial frequency areas, but also in middle spatial frequency areas.
- Helping clinicians detect micro calcifications on mammography imaging, a high maximum density of 3.8+ can be reproduced when using the UPT-M710BL and UPT-M712BL mammography film (compared to the maximum density of 3.2+ when using regular film such as the UPT-517BL, UPT-514BL, UPT-512BL and the UPT-510BL).

## Dust-resistant mechanism.

- Completely separate electronics and mechanical sections protects film from dust particles and other foreign matter drawn through cooling fans.
- Area of contact between thermal head and

- film is also totally isolated from air flows.
- To further prevent foreign matter from damaging prints, film remains inside the UP-DF750 until the printing process is completed.
  - If any dust particles do come to rest on the film pass, two dust cleaning rollers (positioned in front of the thermal head and at the rear part of the unit) clean the surface of the film before printing.
  - Disposable dust cleaning roller ensures easy replacement when dirty.

### Reliable Sony Blue Thermal Film.

- Providing high-contrast and high-density images with superior durability, Sony Blue Thermal Film is specially designed for use with Sony FilmStation units.
- This reproduction of precise and stable diagnostic images helps clinicians make accurate medical assessments.
- Additionally, unlike conventional film, Sony Blue Thermal Film can be handled in daylight, enabling users to easily perform all necessary procedures - from refilling films to printing images - in any medical environment.
- To distinguish normal film from mammography film and display the film type on the LCD, the IC tag is implanted into the protection sheet of the film. By reading the IC tag data, the UP-DF750 recognizes the remaining quantity and types of film

## **New Sony Blue Thermal Film for mammography.**

In addition to the current FilmStation film range, the UPT-M710BL (8 x 10 inch) and UPT-M712BL (10 x 12 inch) have been newly developed for mammography image prints. These new films reproduce precise and stable diagnostic images with a maximum density of 3.8+.

## **Multiple film sizes for various radiology modalities.**

- Range of print sizes ensure the UP-DF750 is suitable for a variety of diagnostic modality printing tasks.
- The unit supports four different film sizes: 14 x 17, 11 x 14, 10 x 12, and 8 x 10 inch prints.
- For mammography, 10 x 12 and 8 x 10 inch films are available.

## **Two film trays compatible with all film sizes.**

- Designed with two film supply trays, each with a capacity of 125 sheets.
- No restriction on the size and type of film that can be inserted, and same film can be used in both trays if required.
- Output tray sorts film prints according to their size, making it simple for users to locate the printed films they need, quickly and easily.

## **Environmentally friendly.**

- The UP-DF750 operates a totally environmentally friendly printing system.
- No liquid chemical is used in the printing process and no chemical waste is produced after printing.
- Because Sony Blue Thermal Film does not contain any metal component like silver, it can be treated as household rather than industrial waste.

#### Gamma curve settings.

- Gamma curve settings ensure reproduction of the exact gray-scale contrast required.
- One default fixed gamma curve is preinstalled and 19 changeable gamma curves can be saved for both regular blue thermal film and high-density blue thermal film.
- A total of 40 gamma curve settings are available, enabling users to achieve the best-fit grayscale contrast from multiple modalities.
- Other parameters such as sharpness can also be changed and saved.

#### Large effective print area and edge-to-edge-like printing.

- The unit's precise mechanical control system and a new wide thermal head enable the UP-DF750 to print edge-to-edge on the horizontal plane - leaving only blank areas at the top and bottom of the film.
- Enables clinicians to check films smoothly because there is no aperture when two films

are laid side by side.

- When using 14 x 17 inch film, the UP-DF750 covers a 346.7 x 415.3mm print area (8,256 x 9,888 pixels).

## Specifications

### General

Film supply tray	2 trays
Tray capacity	125 sheets
Maximum density	3.8 and higher with UPT-M712BL/M710BL
Interface	DICOM
Dimensions	Approx. 600 (w) x 316 (h) x 686 (d) mm (23 5/8 x 12 1/2 x 27 1/8 inches) (excluding projecting parts)
Mass	Approx. 67kg (147lb 11oz)
Power requirements	AC 100-120 V/AC 200-240 V, 50/60 Hz
Input current	4.4 to 2.4 A
Operating temperature	10°C to 30°C (50°F to 86°F)
Operating humidity	20% to 80% (no condensation allowed)
Operating pressure	700hPa to 1'060hPa
Storage and transport	-20°C to +60°C (-20°F to

temperature	+140°F)
Storage and transport humidity	20% to 80% (no condensation allowed)
Storage and transport pressure	700hPa to 1'060hPa
Supplied accessories	Output tray (1), Cleaning kit (1), Output stopper (1), Film tray size adapter kit (1), Caster for setting the printer vertically (2), Stopper sheet (1), Before using this printer (1), CD-ROM (1), Floppy disk (1), Warranty card (1)(for customers in the USA and Canada)
Printing system	Direct thermal printing
Resolution	604 dpi
Gradations	16 384 level processing (14 bits)
Print size	346.7 x 415.3 (UPT-517BL)
Picture elements	8,256 x 9'888 dots (w/h) (UPT-517BL)
Throughput	Approx. 75 prints per hour for 14 x 17 inch film Approx: 90 prints per hour for 8 x 10 inch film

## Gallery



