QSS-3411 Digital, QSS-3412 Digital, QSS-34 PRO Digital Printer, QSS-3412 SA Digital Printer

		QSS-3411	QSS-3412	QSS-34 PRO	QSS-3412 SA
Film types		Color negative and positive (including mounted) , B&W negative (Chromogenic B&W) , Sepia negative	←	–	–
Film size		110, 135F, 135H, 135P, 135FP, 135FPS, IX240, 6x4.5, 6x6, 6x7, 6x8, 6x9	←	–	–
Compatible input media*1	Standard	FD, CD-ROM, CD-R, CD-RW	←	FD, CD-ROM, CD-R, CD-RW, CompactFlash, Microdrive, SmartMedia, PC Card, SD Card, Mini SD Card, MMC, Memory Stick, Memory Stick Pro, Memory Stick Duo, Memory Stick Pro Duo, xD-Picture Card	←
	Optional	DVD-RAM, DVD-ROM, DVD±R, DVD±RW, CompactFlash, Microdrive, SmartMedia, PC Card, SD Card, Mini SD Card, MMC, Memory Stick, Memory Stick Pro, Memory Stick Duo, Memory Stick Pro Duo, xD-Picture Card, USB Flash Memory	←	DVD-RAM, DVD-ROM, DVD±R, DVD±RW, USB Flash Memory	←
Compatible output media*1	Standard	FD	←	CD-R, CD-RW, CompactFlash, Microdrive, SmartMedia, PC Card, SD Card, Mini SD Card, MMC, Memory Stick, Memory Stick Pro, Memory Stick Duo, Memory Stick Pro Duo, xD-Picture Card	←
	Optional	CD-R, CD-RW, DVD-RAM, DVD-R, CompactFlash, Microdrive, SmartMedia, PC Card,SD Card, Mini SD Card, MMC,Memory Stick, Memory Stick Pro, Memory Stick Duo, Memory Stick Pro Duo, xD-Picture Card, USB Flash Memory	←	DVD-RAM, USB Flash Memory	←
Exposure system		Laser scanning exposure by paper movement Laser class : Class1 (EN60825-1)	←	←	←
Print resolution		300dpi	←	←	←
Exposure speed		72.79mm / sec.	86.5mm / sec.	72.79mm / sec.	86.5mm / sec.
Print sizes	Paper width	82.5, 89, 102, 114, 117, 120, 127, 130, 152, 165, 178, 203, 210, 216, 240, 254, 279, 305 (mm)	←	←	←
	Paper advance length	82.5 to 457mm (for widths from 82.5 to 178mm) / 82.5 to 914mm (for widths from 203 to 305mm)	←	←	←
Display monitor		17 inch color display monitor	←	←	←
Transport system		Roller transport	←	←	←
Processing speed		2322mm / min	2986mm / min	2322mm / min	2986mm / min
Paper supply		Dual magazine system, Triple magazine system (Factory Option), Quad magazine system (Factory Option)	←	←	←
Paper specifications		Maximum diameter of paper roll : 250mm	←	←	←
Water refilling		Automatic water refilling	←	←	←
Automatic cleaning		Automatic cleaning of turn racks	←	←	←
Order classification		can choose 17, 14 or 8 orders	can choose either 17 or 14 orders	can choose 17, 14 or 8 orders	can choose either 17 or 14 orders
Dimensions		See " External view " below	←	See " External view " on preceding page	←
Weight	Scanner	Approx. 190kg	←	Approx. 132kg (CS-1)	←
	Printer-Processor	Approx. 637.1kg / Approx. 630.1kg (SM)	←	←	←
Estimated processing capacity (prints / hr)					
135 negative film (24 exp.)	W127 x 89mm	Approx. 2100	Approx. 2540	–	–
	W152 x 102mm	Approx. 2000	Approx. 2400	–	–
	W203 x 254mm	Approx. 500	Approx. 620	–	–
	W305 x 457mm	Approx. 290	Approx. 360	–	–
IX240 negative film (25 exp.)	89mm paper width	Approx. 1420	Approx. 1650	–	–
Digital camera*2	W127 x 89mm	Approx. 2100	Approx. 2540	Approx. 2100	Approx. 2540
	W152 x 102mm	Approx. 2000	Approx. 2400	Approx. 2000	Approx. 2400
	W203 x 254mm	Approx. 500	Approx. 620	Approx. 500	Approx. 620
	W305 x 457mm	Approx. 290	Approx. 360	Approx. 290	Approx. 360

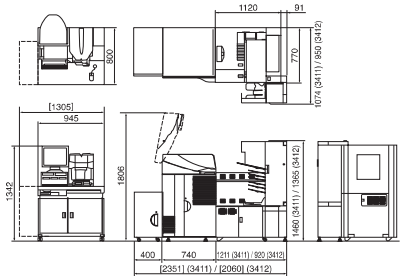
*1 : An adapter is required for some types of media when using the 6 Slot Card Reader. *2 : 3411 : 32MB SmartMedia, 1712 x 1368 pixels per image, JPEG image size: 490KB to 560KB / 3412 : 256MB SD Card, 2592 x 1944 pixels per image, JPEG image size: 1814KB to 2221KB
The IX240 capacity includes index prints. All other capacities do not include index prints. Calculated according to our criteria. The actual capacity you achieve may be different.

QSS-3411 Digital / QSS-3412 Digital

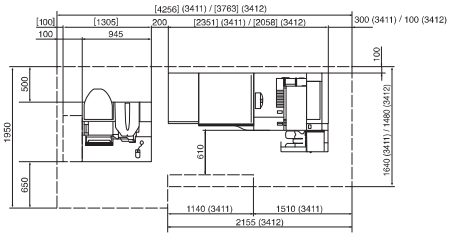
External view (Unit : mm)

SI-2400

LP-2300 + PP-1223W (3411)
LP-2500 + PP-1229SC (3412)



Space required for installation (Unit : mm)



*The values in square brackets are used when an option is installed.

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The specifications, information, and the appearance of the machines in this brochure are subject to change without notice.

Our products have been manufactured under an ISO 9001-certified quality assurance system.

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QSS-34 SERIES

QSS-3411 / 3412 Digital
QSS-34 PRO / 3412 SA Digital Printer

NORITSU

The services you provide are a direct product of the ability of the machine you use. The QSS-34 series provide the specifications you need.

Basic features

Highly productive minilab

QSS-34 SERIES

QSS-3411 Digital

High Speed Printing
2,100 prints / hr (3R:127 x 89mm)

QSS-3412 Digital

High Speed Printing
2,540 prints / hr (3R:127 x 89mm)

Providing high quality, high speed output that enables new services

- High speed printing that enables a one stop printing service
- Can provide new services like poster and jumbo panorama print creation

High quality
300 dpi

Maximum Print Size
305×914 mm
(12 x 36 inches)

A perfect integration of software, hardware and network components

- High quality software
- Multi functional hardware
- Efficient digital network system

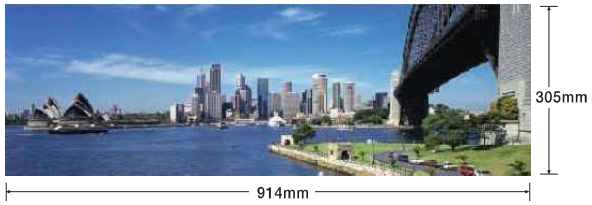
An array of possibilities for input and output

- Film
- Digital Media
- Orders from the Internet
- Prints from Prints

- High-Quality Silver Halide Prints
- Template Prints
- CD-R Writing
- Writing to Other Media

A service menu that meets a variety of needs

Jumbo Panorama Prints and many other print sizes



You can make various size prints up to 305 x 914mm (12 x 36 inches). Offering this Jumbo Panorama Print size will help increase your sales opportunities, as it can be used for panorama shots, posters, POP displays, calendars, and other types of photos.

Group photos

Calendar and frame prints

Tiling prints

Tiling enables you to divide a large image into multiple sections and print them on smaller pieces of paper, which can be placed together to make a photo that exceeds the printer's maximum print size.

Media print service

Virtually every type of media is supported, including CD-R and DVD. Media can be used to save postcard and greeting card data, and high quality silver halide prints can be can be easily made from the data stored on this media.

Optional features expand the realm of services you can offer

Prints from Prints

Even if your customer does not have his negative, you can scan his print with a flatbed scanner and turn it into digital data, which then can be restored and printed.

Note: The flatbed scanner is furnished by the customer.

Application print service OPTION

With the QSS Printer Driver, you can make silver halide prints from application software such as Photoshop, PowerPoint, and Illustrator.

Image editing package software OPTION

One of the big advantages of digital image data is that it can be easily edited after the picture is taken. With Template Creation Software, you can use this digital image data to create frame prints, Christmas cards, and many other kinds of greeting cards and template prints. The new print services you can offer with this software open new doors to sales opportunities.

Card/Calendar Creation Software

Multi-Frame Print Creation Software

[QSS Templates] OPTION

This collection of original templates gives you a wider variety of print services to offer your customers.

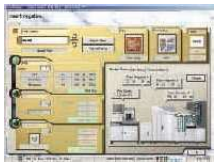
Frames | Calendars | Albums | Business Cards

High quality software

GUI — All operations are performed from the easy-to-use GUI

GUI (Graphic User Interface)

Selecting the input source and print type or output destination is the most often repeated action for minilab operators, so media is displayed with icons to make it easier to select the desired input and output media.



GUI

PJP (Prejudge Print)

The scanned data is displayed 6 frames at a time. You can then make fine adjustments of YMCD, if the color needs to be adjusted. Also, you can view the images one frame at a time and crop and change the orientation.

1 frame display

6 frame display

IMAGE CORRECTION — High quality prints with image optimization technology

Noritsu's image optimization technology

Noritsu's image processing achieves image optimization by efficiently printing photos with appropriate corrections. Digital minilabs in the market today have a tendency to overcorrect, often adding too much vividness, sharpness, etc. Instead of overdoing it to make unnatural looking scenes, Noritsu pursues optimization in the following areas.

- **Getting the most out of the paper**
- **Controlled image processing to make natural-looking scenes**
- **Fine adjustments as desired by the customers.**

It is also possible to make settings to adjust the extent of the corrections for your particular needs. Noritsu makes sure that the image is output in optimal quality, according to the desires of the customer.

Automatic correction of dust/scratches on the base layer of film
DIGITAL ICE™

DIGITAL ICE automatically discovers and corrects dust and scratches on the base layer of film, optimizing and restoring each image into beautiful, blemish-free prints. This convenient feature greatly increases efficiency.

- There are some instances when DIGITAL ICE cannot make a satisfactory correction, if the extent of the dust or scratches is too great.
- DIGITAL ICE is automatically disabled when scanning Black & White film.
- DIGITAL ICE correction may not be sufficiently effective when scanning certain types of film.

DIGITAL ICE is a trademark of Eastman Kodak.

Automatic correction of dust/scratches on the emulsion layer of film
Digital Masking Software OPTION

This software developed by Noritsu Koki automatically corrects dust and scratches on the emulsion layer of film, where DIGITAL ICE is unable to correct. This comes in very handy when even small dust and scratches have a tendency to stand out, such as is the case when making enlargements from positive film.

Original Image

DIGITAL ICE

Digital Masking

Standard software for correcting different scenes.
Image Optimization

The QSS-34 series have a wide variety of software for correcting things like "Insufficient brightness of the edge of the image field", "JPEG block", and "Red-eye".

【JPEG block noise correction】

There are three levels of correction to choose from. JPEG block, which occurs when images are compressed, is corrected resulting in a smooth image with minimal noise and artifacts.

【Lens aberration correction】

It is possible to set the correction values for "Insufficient brightness at the edge of the image field", "Chromatic aberration", and "Deflection (Distortion)"

Chromatic aberration

【Red eye correction】 OPTION

When taking pictures of people using a flash, the pupils of the eyes often appear to be red. This correction function automatically detects such "red eye" images so they can be corrected with automatic or manual operations.

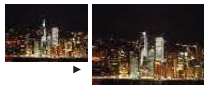
Other standard correction functions include color correction, correction of backlit scenes, sepia/B&W conversion, correction of graininess in underexposed scenes, and underexposure/overexposure correction.

A wide variety of special correction services
Special correction software OPTION

In addition to the standard correction software, there is also a variety of filter software and other optional software available for high-precision correction of individual images.

【Cross filter software】

Cross marks are placed in areas of shining or reflecting light, adding a nice accent to the picture.



【Soft filter software】

There are two types of soft filters.
Foggy: Makes images that look like they were taken in the fog.
Duto: Produces a mild soft effect.

【Tone curve correction software】

You can use the tone curve to make precise tone adjustment for each color channel (R, G, B) individually.

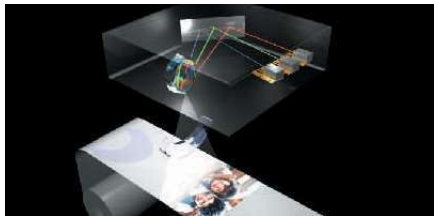
Other optional correction software includes spot correction software, scene correction software, and lens aberration correction software (PRO).

Multi-functional hardware

HARDWARE — High-performance hardware that gives you the competitive edge

High quality laser exposure system

Noritsu's laser engine is the heart of the printer, where beautiful and durable prints are produced. This 300dpi laser exposure system enables even minute details to be portrayed accurately and vividly.



Quad magazine system FACTORY OPTION

You can choose to have a dual magazine system (Standard), a triple magazine system (Option), or even a quad magazine system (Option). The quad magazine system in particular provides a huge advantage to shops that make a wide variety of print sizes.

※Quad magazine unit release: The second quarter of 2006

Rapid processing

The QSS-3411/34 PRO can be modified so as to enable a reduction in the print processing time when specified chemicals are used. This time reduction enables a "one stop print service" in which the customer can place an order and pick up his prints in the same visit. Rapid processing is a standard feature with the QSS-3412/3412 SA.

Multi-paper matching QSS-3411 Digital

Noritsu's multi-paper-matching technology enables all brands of both digital paper and conventional photo paper to be used. With Noritsu, you know you'll get high quality prints with consistent color management, no matter what paper you use.

※Rapid processing systems can only use specified paper.

LED light source

An LED light source is used in the scanner to provide consistent scanning with minimal maintenance.

Easy maintenance

The QSS-34 series feature automatic washing of the upper guides and easy access to the internal parts, which makes it easy to provide maintenance.

Order sorter

The order sorter has 8 trays which can hold W10 x 8 inch prints in quantities of up to 50 prints per tray. In addition you also have two other order sorters to choose from - a 17 tray type and a 14 tray type.

※The 8 tray order sorter is only available for the QSS-3411 and QSS-34 PRO.

OPTIONS — A variety of options to meet your needs

Automatic film insertion
Neg & Positive Film Sleever

The addition of this option makes the entire print process automatic, from film scanning to inserting the film into the negative holder sleeves. The film does not need to be notched as the frames are detected and automatically cut in the appropriate position. Both negative and positive film is supported.

Reduces time between scans
Film Set Feeder

While one strip of film is being scanned, the next strip can be preset for scanning, enabling you to make efficient use of the time between scans.

An array of film supported
Film Carriers

There is a wide range of film carriers available as options, including carriers for 135, IX240, 120 and 110 film.

An array of media supported
Multi Drive Unit

The Multi Drive Unit provides easy-to-locate slots for virtually every type of digital camera media.
(An MO drive, Zip drive and other drives are also available as options.)