# System Specialized in Web Printing

## High speed scanning and Al super resolution

Crossover HS, named for its high speed, has been further enhanced by the use of hardware accelerati on technology and the newly developed ultra-high speed LSI. Display resolution and inspection resolution are the same, and 100% inspection at high resolution of 1:1 (0.16mm x 0.16mm) pixel aspect ratio, even at high speed is achieved. Al based super resolution technology and high speed scanning technology have greatly improved the image quality. The sharpness and clearness of images does not change even as images are enlarged. The more realistic images help operator to identify defects easier.



Digital camera 170 MHz Crossover HS

# Six inspection circuits specializing in gravure printing

Crossover does not use general image processing software to inspect. But with six special circuits designed for flexo and gravure printing, you can inspect for dirt, strings, character defects, streaks, hazing, and other defects, with high resolution and at high speeds.



# **Compact Configuration**

Crossover's all-in-one inspection system has been highly valued since it was first introduced in 2009. Crossover does not need an additional power box or any other units that take up valuable floorspace. Crossover HS has inherited the same compact design and maintains the operator's freedom to work efficiently.

# **Simple 2-touch Operation**

We developed Crossover HS with a simple, 2-touch start-up program for quick and easy automated set-up. The system automatically adjusts for the web-width and repeat length upon start-up, minimizing changeover time and scrap. All detected defect images are recorded in the history folder and operators can use the filtering function to quickly classify defect images according to their size and kind for the next process such as checking and elimination.



# Various Options to Meet Your Requirements

#### **Online MERCY**

Online Mercy guarantees the master image by checking it with design data (PDF, TIFF) or the master image of previous lot on the printing press

#### **△E Color Measurement**

Display color density measurement result in  $\triangle E$  and graphical display

**AI Defect Classification** High-speed search with automatic defect classification

#### Voice Recognition

This feature allows hands-free operation of the system

#### Pitat I System

Efficient defect removal method speeds up rewinding inspection

# Support Maintenance

#### **Remote Support**

IoT technology allows our Remote Support Center to connect to Crossover HS, providing quick identification of equipment issues and other situations for fast response. This real-time support minimizes lost time and builds operator confidence.

#### Local Support

Full and prompt support by skilled CMD technicians.

### Empowering You Through Technology

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#### Pitat II System

Combined with Gallery Type C, Pitat II can network multiple devices together for efficient defect removal

#### Gallery Type C

Defect data-management system used for QA purposes. (required for Pitat II)

#### **BEAT Vision**

Web monitoring device with 2 mega pixel camera and zoom-in lens for observing print quality in real-time.

#### Label Marker

Auto labeler can stick labels on the edge of defective sheets as flag mark

#### **Dual Monitor (+M)**

Second monitor to allow closer inspection of an image





# **EVOLUTION BEGINS**





Web Inspection Solutions



# Crossover HS – 100% Print Inspection System



## **Specifications**

	Crossover HS		Crossover HS Coco!
Model	XLCH402B(1200)	XLCH402B(1280)	XCCH1201A
Inspection material	Film, Aluminum, Paper		
Inspection width	120~1200mm	120~1280mm	120~1200mm
Inspection repeat length	375~1000mm (For other than this repeat length, will be discussed separately)		
Camera	CMOS 4K full color digital sensor $\times 2$		Coco sensor $ imes$ 1
Camera resolution	0.15mm	0.16mm	150dpi
Power consumption	600VA (1 KVA is required in consideration for transient property)		
Ambient temperature	5-40℃		
Ambient humidity	20-80% (Without condensation)		

We also have Prenity series for spectial requirement or specification.

# Wide Range of Optional Modules

# Online MERCY

The newly developed "Online MERCY" guarantees the master image by checking it with design data (PDF. TIFF) or the master image of previous lot on the printing press. This eliminates the need to stop the printing press and cut and place the printed film on inspection table. Enhancing production efficiency, quality control, and decision-making capabilities.



# **△E Color Measurement**

△E color measurement anywhere on the printing image can be performed during 100% inspection. It is possible to monitor in real time and warn when color variation is observed.

# **Dual Monitor (Plus M)**

Additional web monitoring display, Plus M, enables for operators to check the state of the sheet in real time with full HD screen during inspection. Display can easily be navigated to the designated location to view the entire image or enlarged image just by tapping screen. With Plus M, it is possible to check the print status, registration status, and continuous defects all the time.

# Coco Sensor

Compact sensor unit with integrated lighting, Coco sensor, can be installed in narrow spaces without mounting large brackets. And it also can reduce the cost of additional rolls to change paths for surface printing and reverse printing.



## AI Technology



## **Pitat I System** (Stand alone 100% inspection system with rewinder)

![](_page_1_Figure_20.jpeg)

## **Pitat II System** (Stand alone 100% inspection system with rewinder)

![](_page_1_Figure_22.jpeg)

![](_page_1_Picture_23.jpeg)