Technical Parameters:

Model	Kirin660HD	
Technology	Single Pass, Piezoelectric Inkjet	
Ink Type	High-Performance Water-Based Pigment Ink	
Droplet Size	Small Droplet: 2pl	
	Medium Droplet: 4pl	
Printing Method	Monochrome Printing	
Resolution & Speed	1200*1200 DPI	100 m/min
	900*1200 DPI	135 m/min
	600*1200 DPI	200 m/min
Max. Inline Cutting Speed	120 m/min	
Feeding	Roll-to-Roll (Standard), Roll-to-Sheet (Optional)	
Substrate	Uncoated paper, digital specialty paper and so on.	
Paper Weight	45-165 gsm	
Paper Width	440 mm	660 mm
Max. Print Width	648 mm	
Max. Material Diameter	1270 mm	
Power Requirements		
Power Supply	AC 380V / 50Hz	
Drying	Infrared + Hot Air	
Power	Printer: 35kW, Drying: 30kW	
Dimensions	8150*2050*2060 mm (Roll-to-Roll)	
	11150*2050*2060 mm (Roll-to-Sheet)	
Working Environment		
Temperature	18 - 24°C	
Relative Humidity	40 - 60%	

Industrial Digital Inkjet Comprehensive Solution Provider

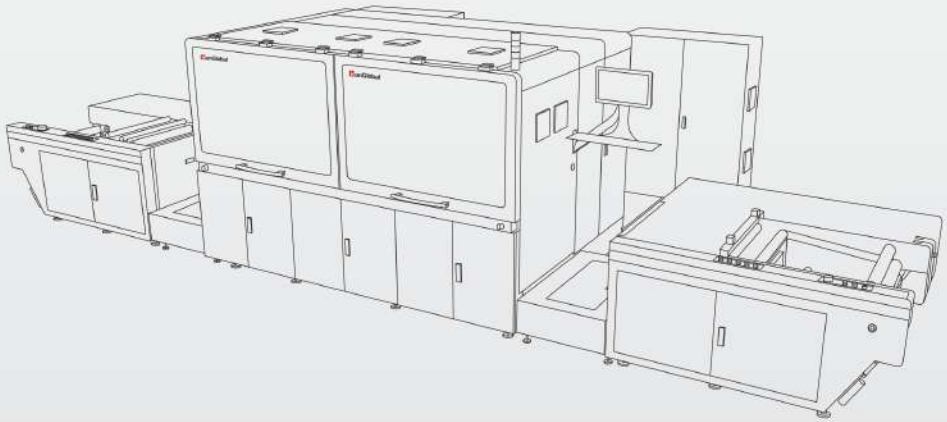
- Independent printhead-driven technology
- Self-developed control system
- Self-developed MES system
- Independent ink industrial chain
- Remote service maintenance system and local services

Colorix
AN ORANGE COMPANY

Kirin660HD

1200 DPI Monochrome Digital Inkjet Solution

Single Pass Technology | Driving POD Printing Revolution



- Max. Productivity: 200 m/min
- Max. Resolution: 1200*1200 DPI
- Max. Print Width: 648 mm
- Ink: High-performance Water-Based Pigment Ink

Kirin660HD

Breakthroughs & Highlights

EXCEPTIONAL QUALITY

New 1200 DPI Industrial-Grade Piezoelectric Ceramic Recirculating Printhead

- **Higher Resolution:**1200DPI high-precision for industrial quality needs.
- **Smaller Drop Size:**2pl~4pl for sharp images and fine text.
- **Higher Firing Frequency:**Up to 80K Hz, increasing printing speed and ensuring stable quality in high-speed production.
- **More Nozzles:**5,116 densely packed nozzles for wide and even coverage.

1200 DPI
HIGHER RESOLUTION

2~4 pl
SMALLER DROP SIZE

80K HZ
HIGHER FIRING FREQUENCY

5116
MORE NOZZLES

2+4pl Dual-level Gray Scale Printing

Mature application of large monolithic piezoelectric crystal technology:

The technology utilizes proprietary material design techniques to create dense polycrystalline ceramic actuators, and thin piezoelectric ceramic substrate fabrication techniques to ensure uniformity of image quality and improved print quality inside the printhead.

DOUBLED-UPGRADED PRODUCTION

Perfectly Inherit the Single Pass Core Technology

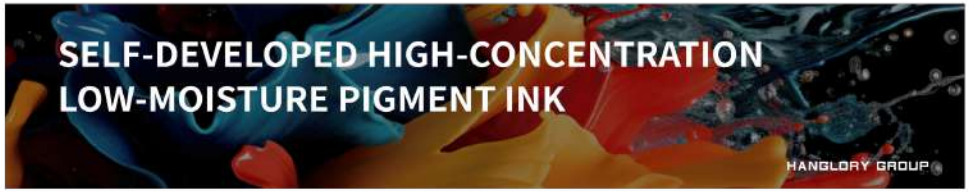
Based on precise design and solid manufacturing, new Kirin660HD takes on advanced Single Pass printing and piezo inkjet techs. Driven by multi-functional software and hardware. it secures competitive speed, quality and stability.

80K Hz Higher Firing Frequency

The 80K Hz dual-level grayscale printing enables the Kirin660HD to jet ink at 80,000 scans per second. At 1200*1200 DPI high precision, its production speed reaches 100 m/min, matching the speed and quality of offset printing.

Meet large-scale POD needs andshorten production cycles:

Resolution	Productivity
1200*1200 DPI	100 m/min
900*1200 DPI	135 m/min
600*1200 DPI	200 m/min



With an independent ink industry chain, we can independently develop water-based pigment inks with technical barriers and offer more cost-effective prices.

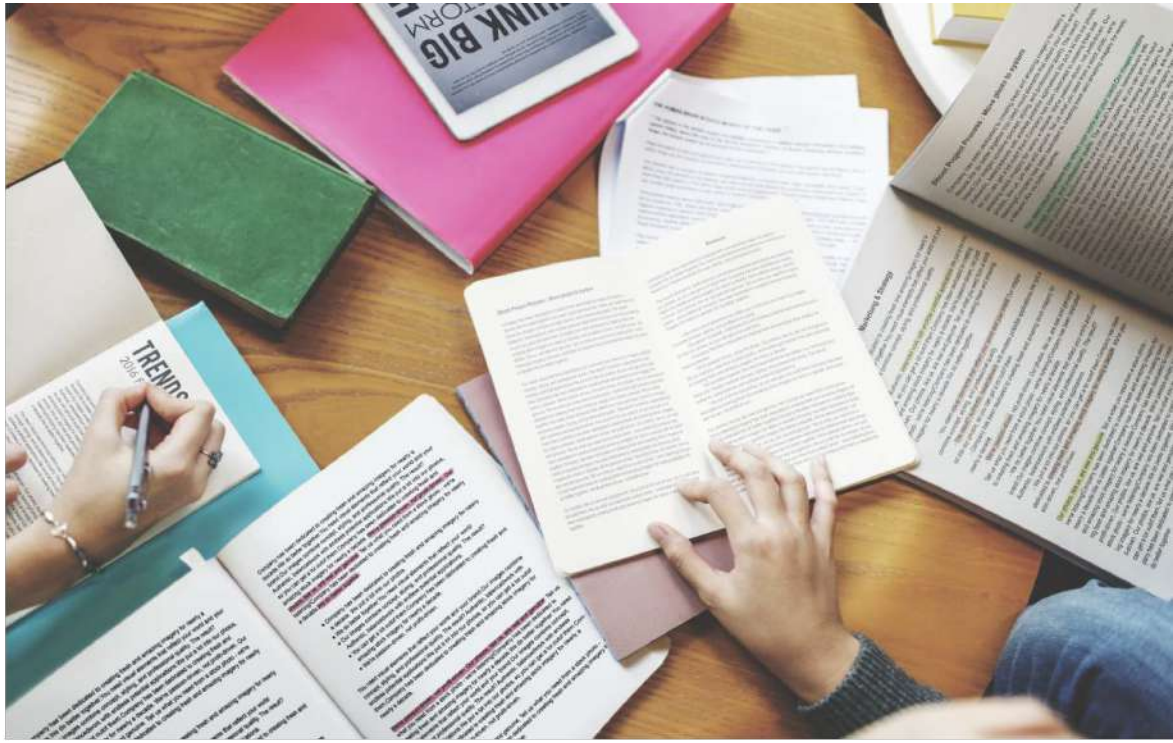
- **Dramatically Increased Color Density**:
  Achieve the same color vibrancy with less ink usage.
- **Fast Drying Speed**:
  Low-moisture ink reduces the time needed for drying after printing, enhancing production efficiency.
- **Wider Range of Substrates**:
  Reduces the impact of moisture penetration on paper or other media and thus expands print media options.
- **Excellent Durability**:
  Pigment ink has better UV resistance and is less likely to fade.
- **Energy Conservation**:
  Low VOC content reduces power consumption of hot air or UV drying equipment.

Overall 30% Ink Saving

Nozzle level recirculation ensures that ink is less likely to dry out and needs less ink purging.
Ink droplets down to 2pl - 4pl, 1200*1200 DPI high-precision output, with stronger coverage and less penetration.
High-performance water-based pigment inks improves color density significantly.

Inkjet Stability (Ink Recirculation)

- **Effective Prevention of Nozzle Clogging:**
  Ink circulation prevents ink from drying out or clogging, and ensures that the ink inside the nozzles is flowing even when the print job is paused.
- **Enhanced Inkjet Stability:**
  Ink recirculation evenly distributes heat during printing, preventing nozzle overheating. This ensures consistent ink state and high-quality prints.
- **Less Maintenance Required:**
  Continuous ink circulation reduces nozzle cleaning frequency and waste, improving overall operational efficiency and saving maintenance costs.



Conveying Stability (Multiple Technologies Support)

- **Multi-node Tension Control System:** High precision control, tiny tension fluctuation, ensuring smooth paper feeding.
- **Tripod-free Paper Reversing Mechanism:** Allows double-sided printing without reversing gear, boosting high-speed duplex printing stability.
- **International Alignment Correction Device:** Ensure the stability and consistency of paper conveyance during high-speed movement.
- **International Servo Control:** Used in unwind and rewind modules, servo systems provide accurate and stable control for better printing.

Frame Stability (market testified classic models)

- **Modular & Compact Design:**
  The equipment is compact and attractive, with a short paper path and small footprint. It saves materials and offers higher paper feeding precision.
- **Frame Structure:**
  It ensures the equipment's high precision and reliability during long-term high-load operation.
- **Rational Layout of Frame Beam:**
  Ensures overall stability and reliability of the frame, maintaining precision even after long-term operation.
- **High Precision Paper Guide Rollers:**
  Roller runout ⩽ 0.015 mm; post-assembly runout ⩽ 0.02 mm.

Features	Frame Structure	Common Structure
Structural Stability	**Extremely High**	Medium
Finishing Consistency	**Excellent**	Poor
Coaxiality of paper guide rollers	**Extremely High**	Relatively Low
Seismic Resistance Capacity	**Strong**	Relatively Weak
Long-Term Precision Maintenance	**Stable**	Prone to Decline

Kirin660HD Software & Features

Experience Ultimate File Efficiency
Based on advanced digital processing workflows

Combining efficient file handling and pre-press management with intelligent production collaboration and advanced digital inkjet technology, it has revolutionized the traditional book printing model. This integration automates and enhances the entire process from file handling to finished product delivery, resulting in unprecedented improvements in efficiency, cost savings, and quality assurance.

Enjoy Outstanding Accurate Interpretation
Based on a Professional Printing RIP Engine

- **Superior Parsing:**
  Accurately parses domestic and international PDF files, precisely restoring content.
- **Exceptional Color Reproduction:**
  Closed-loop ICC color management ensures high-fidelity color and vivid details.
- **High - Precision Dots:**
  Fine dots offer high-accuracy imaging, with multiple dot types for diverse printing needs.
- **Comprehensive Tech Support:**
  Anti-aliasing, edge-sharpening for text, overprinting, and spot-color processing.

Other Functional Support

- **Billing Variable Printing**

  The VDP feature allows adding distinct data like serial numbers, barcodes, QR codes or personalized info to each printed item. Ideal for printing bills, labels, logistics documents, etc.

- **Order Color Parameter Log**

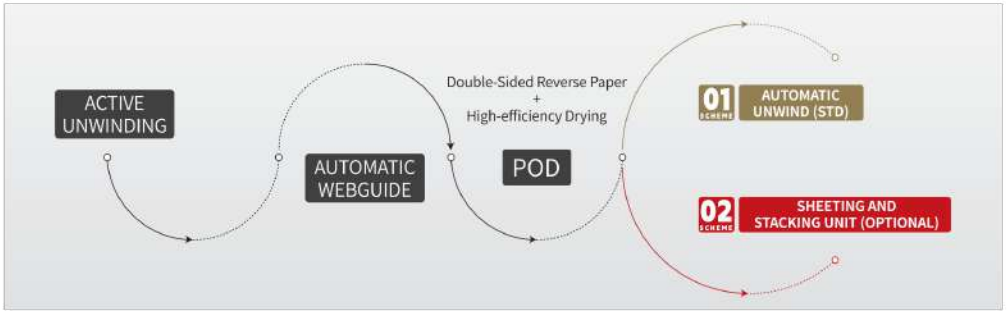
  Automatically logs color parameters per order, like applied curves and adjusted values. For re-orders, these can be rapidly retrieved to ensure consistent color output, bypassing repeated color-matching efforts.

Kirin660HD Optional Solutions

01 SCHEME Roll-to-Roll Solution(Standard)
Integrated Full-Process Roll-to-Roll Production

/

02 SCHEME Roll-to-Sheet Solution(Optional)
Integrated Full-Process Roll-to-Sheet Production



High-Efficiency
Advanced Digital Printing Cutting System (Optional)

- **Fully Automatic Inline Connection:**
  Printing and cutting units are seamlessly connected by a buffer unit.
- **Advanced Cutting Technology:**
  Achieves vertical and horizontal cutting, offset book-splitting, suits thin-paper cutting.
- **Non-Stop Stacking Output:**
  Inline cutting speed can reach up to 120 m/min.
- **Offset Book-division and Stacking:**
  Directly results in book cores, obviating the need for post-process page-collating and book-division.
- **Flexible Post - processing:**
  Can be cut into quarto-sized formats as per user demands, and is compatible with folding, page-collating, etc.

▼ Optional cutting module

Kirin660HD Applicable Scenarios

Wider Range of Printing Materials:

Coated paper, digital paper, newsprint, cardboard, lightweight paper, pure paper, etc.

More Specialized Printing Scenarios:

- **Publication POD:**
  POD books, short-run books, reprints of comprehensive books, self-published books, academic books, and library collections.
- **Examination Papers / Teaching-aid Materials**
- **Quick Printing Documents:**
  Billing documents, Government paperwork, design institute materials, annual reports of listed companies, etc.
- **Commercial Printing:**
  Instruction manuals, receipts, training manuals, etc.
- **Newspapers / Periodicals:**
  Short-run newspapers, business journals, etc.