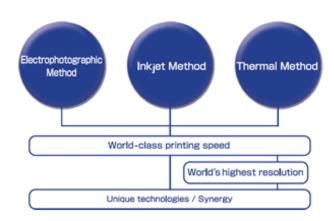


About Kyocera Printing Devices

Since the 1980s, Kyocera has developed a wide variety of <u>printing devices</u> with state-of-theart technologies to constantly enhance the quality, reliability and speed of printing solutions. From traditional <u>color printers and FAX to mobile</u>, <u>battery-operated machines and barcode</u>, <u>card</u>, <u>tape and stencil printers</u>, Kyocera has utilized its 30+ years of expertise to solve printing needs for both home and office.

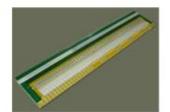
Kyocera's high-speed, reliable, high-quality solutions — with photoreceptor drums and printheads — focus on three major printing methods: electrophotographic, inkjet and thermal printing. Synergy from these various technologies used in each method allows us to offer world-class performance in all of Kyocera's print-



related products. As data needs and demands increase, Kyocera will continue to leverage its decades of experience with high quality printing technology for innovative solutions.

30+ Years of Innovations

 Kyocera has enhanced printing image quality since the inception of its thermal printhead businesses with its initial FAX product at a resolution of 200dpi.





Kyocera's Thermal Printheads for FAX (left) and Card Printers (right)

 In 1995, Kyocera developed a 600dpi printhead and entered innovative new markets such as medical printers. The high-resolution capabilities of the thermal printheads enable enormous volumes of data to be saved and used for various security applications.



Diverse Lineup of Kyocera Thermal Printheads

Since the early 1990s, Kyocera's printheads with proprietary true edge design have enabled high-quality printing without bending





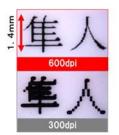


Image of printed characters

the media, enabling the proliferation of printing on ID and credit cards. Released in July 2016, Kyocera's true edge 600dpi thermal printhead enables crisp, clear printing directly on ID and credit cards for enhanced security.

 In 2006, Kyocera achieved 108m/min printing speed. With such high-speed printing, Kyocera printheads came to be used for on-demand "date code" printing such as date of manufacture and date of expiration.



Kyocera's Thermal Printheads for Barcode Printers

- Kyocera currently holds the world's largest*1
 market share in printheads for desktop card printers.
- Compact size became important for use in warehouses and distribution centers. In July 2016, Kyocera introduced the world's smallest*2 thin-film flat-type printhead, contributing to a more compact size and lighter weight for portable printers.

Additional Background:

KYOCERA Launches Highly Robust Printhead for Digital Textile Printing

KYOCERA Announces Ultra-Wide Printhead Offering Simultaneous Four-Color Output for Industrial Inkjet Printing, from Textiles to Billboards

KYOCERA Develops one of the World's Fastest 360dpi Recirculating Inkjet Printheads

KYOCERA Introduces New KRW Series Thermal Printheads for Barcode Printing

KYOCERA Develops World's Fastest 300dpi Inkjet Printhead; Offering Simultaneous TwoColor Printing with One Printhead

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^{*1} Based on research by Kyocera (June 2016)

^{*2} Word's smallest size among flat-type thermal printheads for barcode printers based on research by Kyocera (June 2016)