

## Press Information

### Kyocera’s Next Generation of Inkjet Printheads Take Image Quality and Durability to a New Level

**World’s fastest inkjet technology prints on paper, cardboard, plastic, fabric, and other building materials**

**Kyoto/London, January 27<sup>th</sup>, 2020.** Kyocera today unveiled its next generation of inkjet printheads for commercial digital printing equipment. The new printheads are specially designed to deliver high-speed, high-quality printing on paper, cardboard, plastic, fabric, and other building materials. Kyocera will introduce a 600-dpi model in April 2020, with others to follow.



KJ4B-EX 600

Model	KJ4B-EX 600 Inkjet Printhead
Size	200 x 25 x 68.1 mm (Width x Depth x Height)
Speed	75 m/min (1.25m/second)
Resolution	600-dpi
Effective print width	108.33 mm
Max. driving frequency	30 kHz
Max. droplet volume	18pl (30 kHz) / 24 pl (20 kHz)
Ink	Aqueous
Production site	Kagoshima Kokubu Plant

Digital printing technology has won a growing share of the commercial printing market — especially where high-quality text and graphics must be printed onto clothing, packaging, tile, plastic or building materials, in addition to conventional paper. Requiring no plates, digital technology has created a new market for short-run printing through its advantages in speed, customization and cost. Additionally, digital printing reduces environmental impact by eliminating certain consumable materials and plate-cleaning chemicals. As a result, the commercial equipment market now demands printheads that can deliver unprecedented speed, image quality, and durability.

Kyocera has been at the forefront of the digital revolution in commercial printing globally since 2007, when it first applied its proprietary fine ceramic technology to create ultra-high-speed piezo actuators<sup>1</sup> for its world-record-setting KJ4 series inkjet printheads<sup>2</sup>. The new KJ4 EX series

<sup>1</sup> Piezo actuators: components that use the piezoelectric effect of fine ceramics to create a driving force for ink ejection

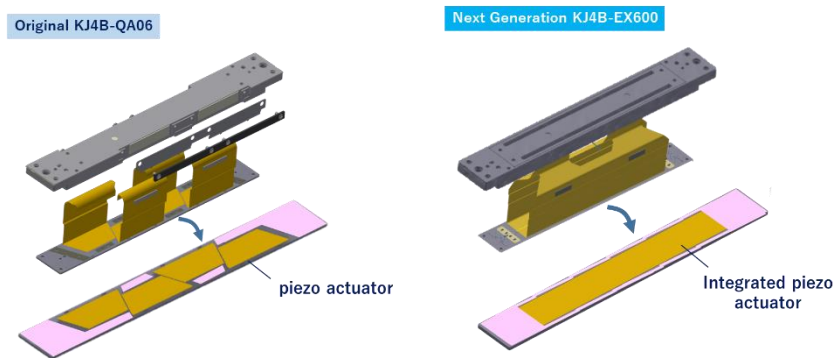
<sup>2</sup> Based on Kyocera’s research and [analysis](#).

builds on this legacy with a large, integrated piezo actuator and streamlined structure. By increasing the volume of each drop of ink ejected from the printheads and enhancing droplet-ejection consistency, the new series allows high-resolution printing on a wider variety of media. At the same time, the printhead's durability is enhanced by improving its structural strength and rigidity.

**Features of the new KJ4 EX Series:**

**1. New integrated piezo actuator enhances image quality**

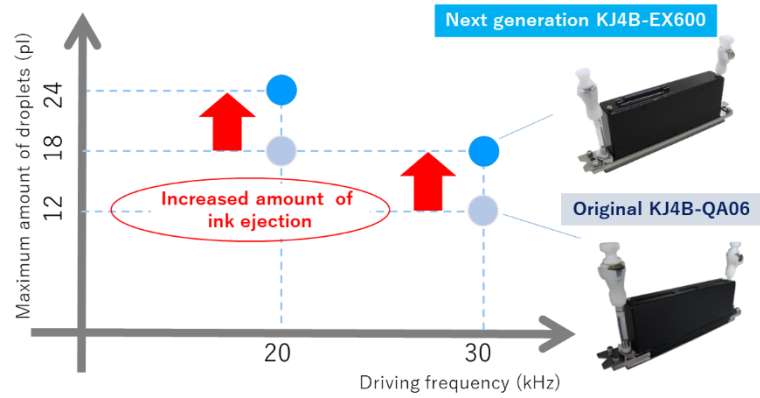
As a new development, Kyocera's large, integrated piezo actuator replaces multiple smaller actuators to enable more consistent image quality. The new larger actuator was created using the company's unique material design technology for dense polycrystalline ceramic actuators, combined with its thin piezoelectric ceramic substrate manufacturing processes.



Original KJ4B-QA06 compared to next generation KJ4B-EX 600

**2. Optimized ink channels and ejection consistency allow for a wider range of applications**

With its optimized ink channel design and revised structure, **KJ4 EX** maximizes the volume of an ink drop ejected and improves ink-ejection consistency. This allows the printheads and media to be separated by a greater distance without affecting droplet accuracy — ensuring high-resolution printing on a wider variety of materials, including unconventional print media.



Optimized ink channels

### 3. Improved durability

Integrating the piezo actuator allows greater freedom in design, resulting in a simple and robust structure. As a result, the overall durability, strength, and stability of the structure have been improved.

For more information on Kyocera: [www.kyocera.co.uk](http://www.kyocera.co.uk)

## About Kyocera

Headquartered in Kyoto, Japan, Kyocera Corporation is one of the world's leading manufacturers of fine ceramic components for the technology industry. The strategically important divisions in the Kyocera Group, which is comprised of 286 subsidiaries (as of March 31, 2019), are information and communications technologies, products which increase quality of life, and environmentally friendly products. The technology group is also one of the most experienced producers of solar energy systems worldwide, with more than 40 years of know-how in the industry.

The company is ranked #655 on Forbes magazine's 2019 "Global 2000" listing of the world's largest publicly traded companies. With a global workforce of over 77,000 employees, Kyocera posted net sales of approximately €12,99 million in fiscal year 2018/2019. The products marketed by the company in Europe include printers, digital copying systems, semiconductor-, fine ceramic-, automotive- and electronic components as well as printing devices and kitchen products. The Kyocera Group has two independent companies in the United Kingdom: Kyocera Fineceramics Ltd. and Kyocera Document Solutions.

The company also takes an active interest in cultural affairs. The Kyoto Prize, a prominent international award, is presented each year by the Inamori Foundation — established by Kyocera founder Dr. Kazuo Inamori — to individuals and groups worldwide who have contributed significantly to the scientific, cultural, and spiritual betterment of humankind (converted at approximately €828,000 per prize category).

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