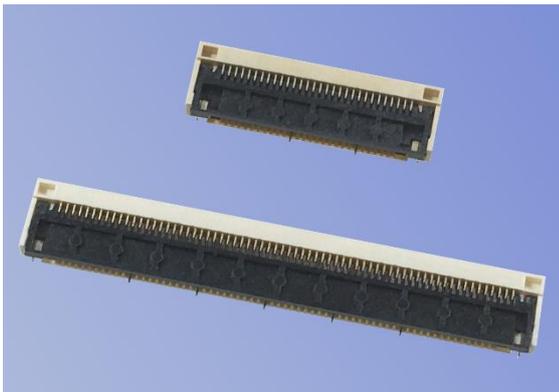


Press Information

KYOCERA Launches 0.5 mm-Pitch FPC/FFC Connectors with automated and visual checks to prevent misalignment

New 6892 Series offers resistance to high temperatures and high-speed transmission capability to enhance performance of automotive electronics

Kyoto/London – August 6th, 2018. Kyocera today announced its 0.5 mm-pitch flexible printed circuit (FPC) and flat flexible cable (FFC) electronic connectors with improved quality assurance (QA) checks – both visual and automated optical inspections (AOI) – to prevent misalignment. Kyocera’s new 6892 Series connectors also feature an operating range from -40°C to +125°C and high-speed transmission making them ideal for automobile applications. The new connectors are available globally in August 2018.



Product name	6892 Series FPC/FFC connector
Availability	August 2018
Applications	Automotive electronics, OA equipment, industrial and consumer electronics, etc.

0.5 mm-pitch FPC/FFC connectors 6892 Series

With the increasing use of electronics in vehicles such as Advanced Driver Assistance System (ADAS) and connected cars, the performance of automotive electronics is improving. This trend pushes the demand for connectors offering high-speed transmission capability to be used for in-vehicle infotainment, vehicle-mounted cameras, and radars, as well as reliability and optimal performance under harsh environments such as vibration and extreme temperatures.

Kyocera aims to contribute to the evolution of the automotive industry by expanding its lineup with FPC/FFC connectors featuring heat resistance and high-speed transmission capability to meet the industry’s growing technology requirements.

Kyocera’s new 0.5 mm-pitch FPC/FFC connectors correspond to the high-speed transmission interfaces of V-by-One® HS and CalDriCon®. The V-by-One®HS reaches up to 3.75 Gbps maximum speed.

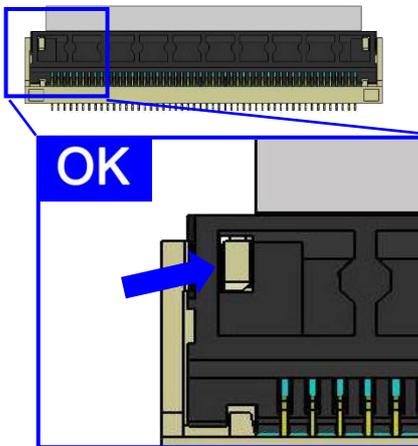
Main Features

1. Visual checks and AOI to prevent misalignment

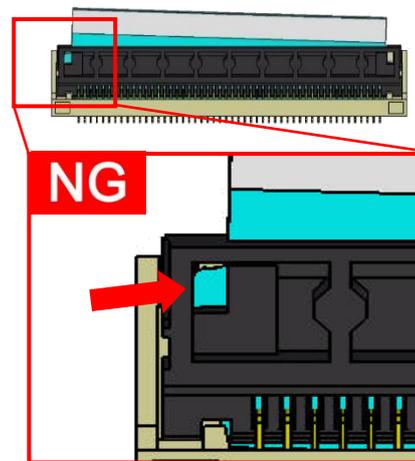
The 6892 Series' design enables users to easily confirm quality assurance by both visual checks and AOI. As seen below, windows on the actuator enable users to confirm insertion status and the actuator is unable to close until the FPC/FFC is in the correct position, preventing misalignment.

i. The windows on both sides of the actuator allow a visual check for proper insertion.

Visual check



Detecting insulator of the connector indicates full insertion



Detecting a part of the connected FPC/FFC indicates misinsertion

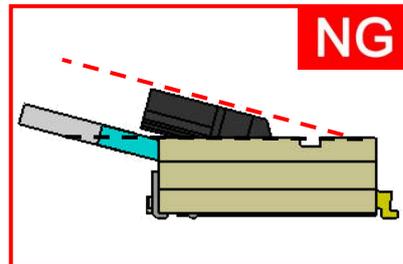
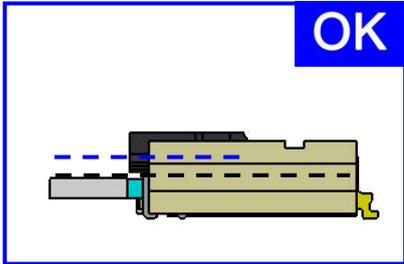
AOI



Test result by an image processing device maker

ii. Actuator will not close until correctly inserting FPC/FFC.

Visual check



AOI



Test result by an image processing device maker

2. Supports automated assembly line to enhance operation efficiency

The 6892 Series is suitable for robotic insertion and contributes to improving the operating efficiency in the manufacturing process.

3. Excellent design to protect FPC/FFC

The design of the new connector makes the center tip of an insulator go into windows of an actuator, which makes it difficult to break the locking section even when forcibly pulling the FPC/FFC.

4. Wide operating range from -40°C to +125°C

The new 6892 Series features a wide operating temperature range from -40°C to +125°C, making them ideal for the extreme temperatures required for automotive and industrial applications. The commodity type for consumer equipment applications with a heat resistance up to +105°C will also be available.

5. Complies with high-speed serial interface standards V-by-One®HS and CalDriCon®

The 6892 Series corresponds to V-by-One®HS and CalDriCon®, the high-speed interfaces. V-by-One®HS achieves 3.75 Gbps maximum speed.



6. Accommodates shielded FFCs with grand terminals

The 6892 Series accommodates shielded FFCs with grand terminals that optimize high-frequency by impedance matching and reduce the effect of noise.

Product Details

No. of positions	30 to 68	Operating temperature range	-40 to +125°C -40 to +105°C (commodity type)
Pitch	0.5 mm	Rated current	DC 0.5 A/Contact
Height	2.2 ± 0.15 mm	Rated voltage	DC 50 V/Contact
Width	6.3 mm	D.W. voltage	AC 200 Vrms/min.
Locking type	Flip lock	Materials	Copper alloy / Heat-resistant plastic
Contact position	Bottom	RoHS and halogen-free	Compliant
FPC/FFC thickness	(Signal) 0.3 ± 0.05 mm (Ground) 0.5 ± 0.05 mm		

“V-by-One” and “CalDriCon” are registered trademarks of THine Electronics, Inc.



For more information on KYOCERA: 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 264 subsidiaries (as of March 31, 2018), are information and communications technologies, products which increase quality of life, and environmentally friendly products. The technology group is also one of the oldest producers of solar energy systems worldwide, with more than 40 years of experience in the industry.

The company is ranked #522 on Forbes magazine's 2017 "Global 2000" listing of the world's largest publicly traded companies. With a global workforce of over 75,000 employees, Kyocera posted net sales of approximately €12.04 billion in fiscal year 2017/2018. The products marketed by the company in Europe include printers, digital copying systems, microelectronic components, and fine ceramic 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 €764,000 per prize category).

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