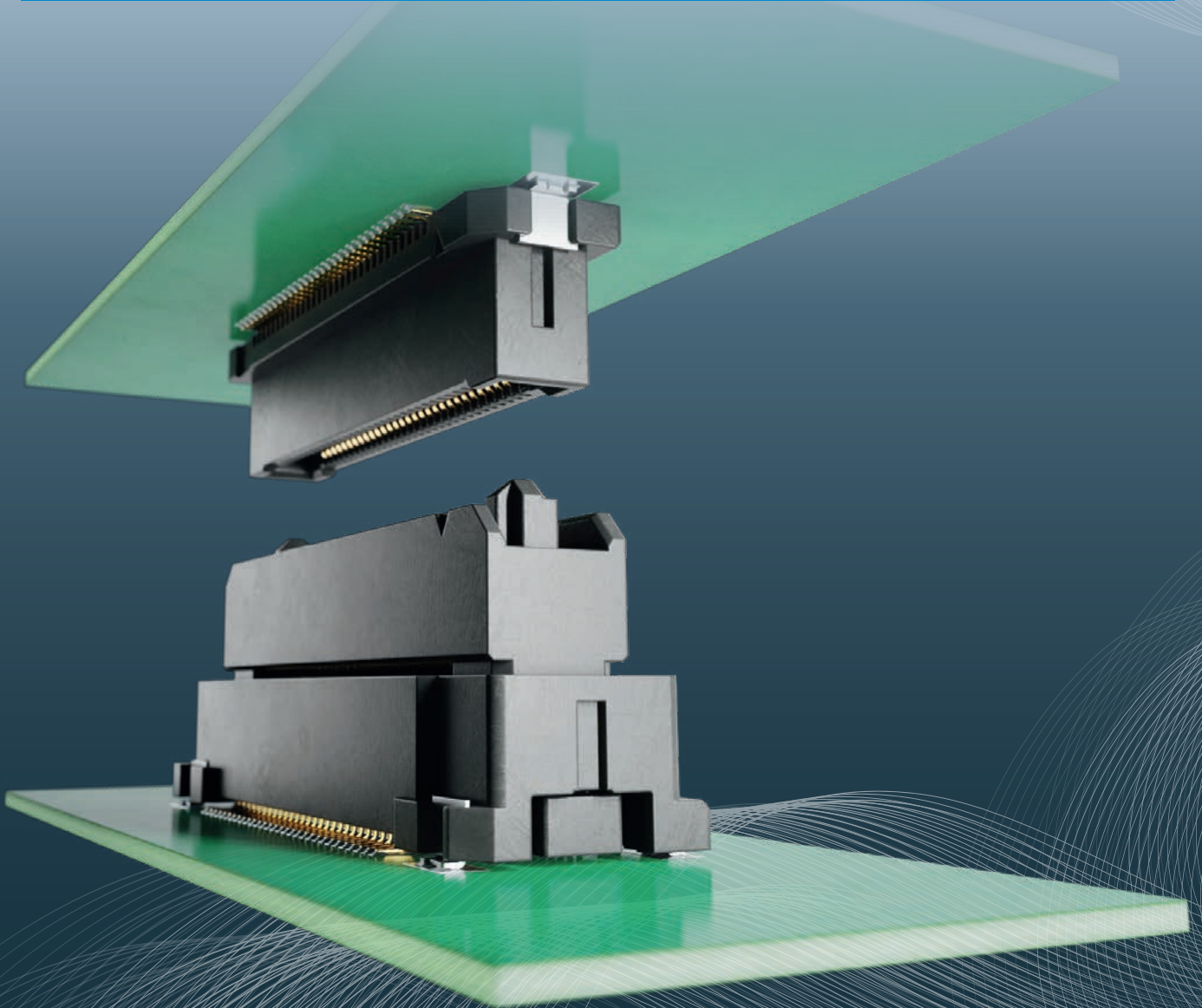


# WE CONNECT



## THE NEW AX01 SERIES BtB HIGH SPEED TRANSMISSION FLOATING CONNECTORS

- Perfect alignment
- High speed data transmission
- High contact reliability
- Multiple mounting options

Technology to Inspire Innovation

**JAE**

# THE BEST WAY TO STAY IN CONTACT: THE NEW AX01 FLOATING TYPE CONNECTORS

The use of connectors in electronic devices that are subject to motion, and especially in the automotive industry, is challenged by two major issues: the compensation of manufacturing and assembly tolerances and the allowance for board movements due to shocks, vibrations or temperature changes.

Floating connectivity systems have proven to be the best solution since they bring the cost advantages of board-to-board connectors. The new AX01 series offers a robust double contact point. In addition, the reliable flat contact surface prevents the challenges related to micro-vibration.

As one of the world's leading developers and suppliers of innovative connectors, JAE meets the growing demand for high-quality and high-performance floating board-to-board connectors for highly efficient and cost-effective automated PCB assembly.

## EASY APPLICATION. HIGH RELIABILITY. STRONG PERFORMANCE.

To offer our customers maximum application and design flexibility, JAE's new AX01 series covers a wide, market-leading range of floating board-to-board connectors with mating heights from 8 to 30 mm and a pin count from 30 to 140 pins for parallel or vertical orientation of the PCB.

Both the floating and the fixed connector side are mounted with a protective cap in order to prevent the ingress of foreign substances and facilitate automatic assembly. A pin height of 0.60 mm ensures good visibility of the solder connection, and mis-mating is prevented by a special guide construction.



# WIDE PORTFOLIO ...

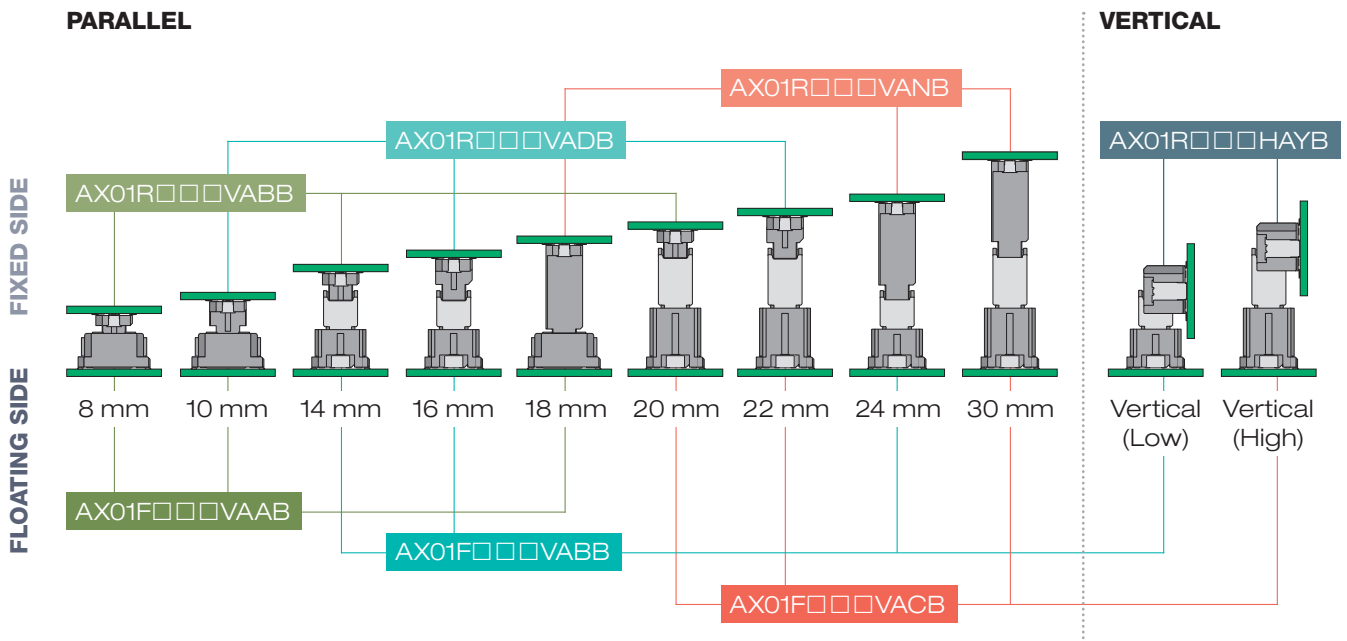
AX01 floating connectors are producible with eight different pin counts from 30 to 140 pins and in nine mating heights for stacking connections from 8 to 30 mm. All products marked in the table are already available, others will follow soon.

| FLOATING SIDE | FIXED SIDE   | Mating height (mm) | Number of pins |    |    |    |    |     |     |     |   |
|---------------|--------------|--------------------|----------------|----|----|----|----|-----|-----|-----|---|
|               |              |                    | 30             | 40 | 60 | 80 | 90 | 100 | 120 | 140 |   |
| AX01F□□□VAAB  | AX01R□□□VABB | 8                  |                |    |    |    |    |     |     |     |   |
| AX01F□□□VAAB  | AX01R□□□VADB | 10                 |                |    |    |    |    |     |     |     |   |
| AX01F□□□VABB  | AX01R□□□VABB | 14                 | ■              | ■  | ■  | ■  | ■  | ■   | ■   | ■   | ■ |
| AX01F□□□VABB  | AX01R□□□VADB | 16                 |                |    |    |    |    |     |     |     |   |
| AX01F□□□VAAB  | AX01R□□□VANB | 18                 |                |    |    |    |    |     |     |     |   |
| AX01F□□□VACB  | AX01R□□□VABB | 20                 | ■              | ■  | ■  | ■  | ■  | ■   | ■   | ■   | ■ |
| AX01F□□□VACB  | AX01R□□□VADB | 22                 |                |    |    |    |    |     |     |     |   |
| AX01F□□□VABB  | AX01R□□□VANB | 24                 | ■              | ■  | ■  | ■  | ■  | ■   | ■   | ■   | ■ |
| AX01F□□□VACB  | AX01R□□□VANB | 30                 | ■              | ■  | ■  | ■  | ■  | ■   | ■   | ■   | ■ |
| AX01F□□□VABB  | AX01R□□□HAYB | Vertical (L)       | ■              | ■  | ■  | ■  | ■  | ■   | ■   | ■   | ■ |
| AX01F□□□VACB  | AX01R□□□HAYB | Vertical (H)       | ■              | ■  | ■  | ■  | ■  | ■   | ■   | ■   | ■ |

■ Please contact us for product availability information.

## ... GREAT VARIABILITY

In addition, there are two versions for vertical connection – high or low. You are welcome to contact us if you have special requirements.

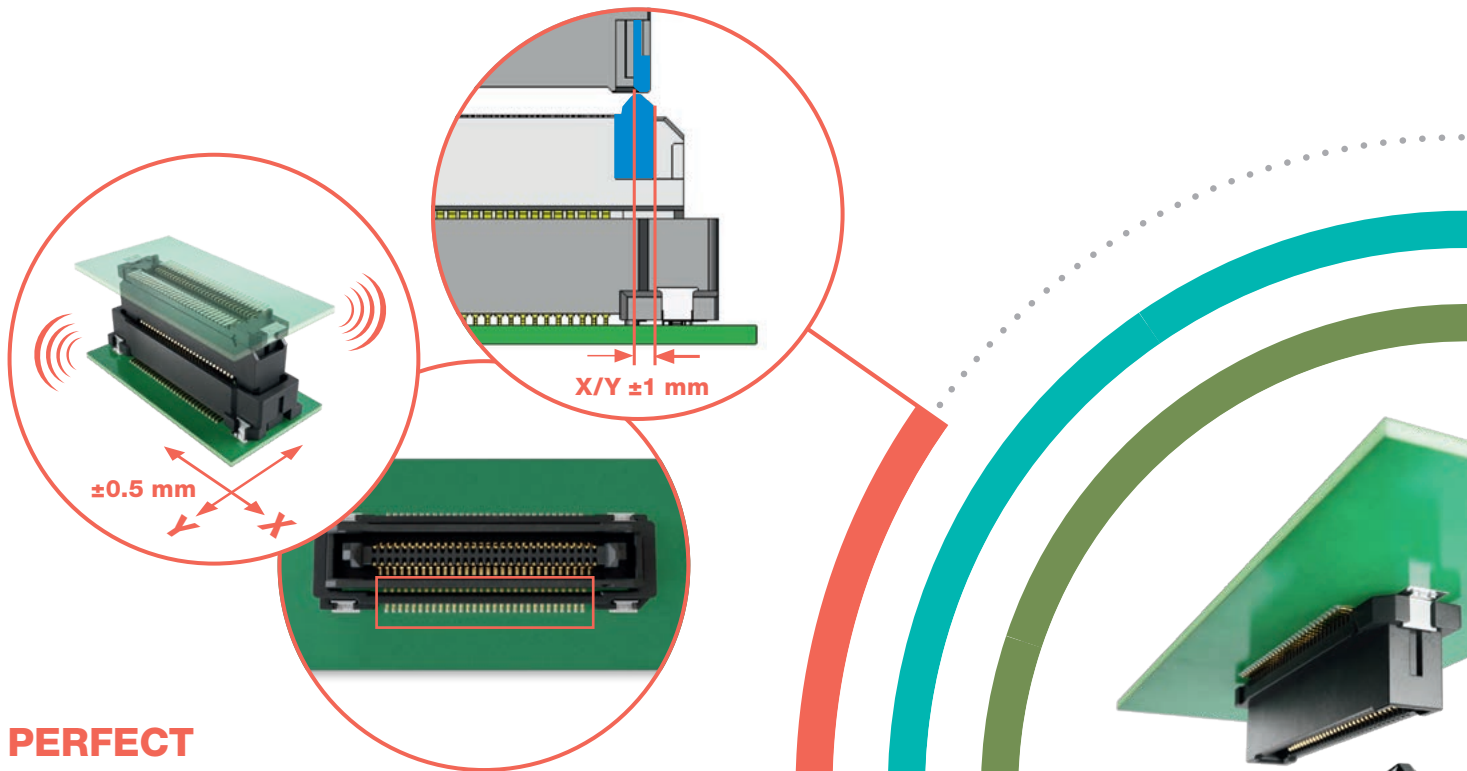


Tolerance in stacking height between PCBs: ±0.5 mm in Z axis



# AX01 CONNECTORS AT A GLANCE: GREAT FEATURES AND STRONG BENEFITS

JAE's cutting-edge AX01 BtB floating connectors combine perfect alignment, compact design, high data rate and wide temperature range with high reliability, excellent durability and great variability.

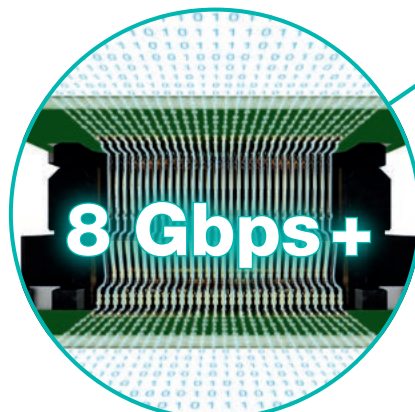


## PERFECT ALIGNMENT

- Effective floating range:  $X/Y \pm 0.5$  mm movable
- Special mating guide construction ( $X/Y \pm 1$  mm) prevents misalignment at PCB assembly
- Easy fitting during manual assembly due to special guiding form
- Excellent optical controllability and a production friendly structure: JAE connectors have visible SMT contacts

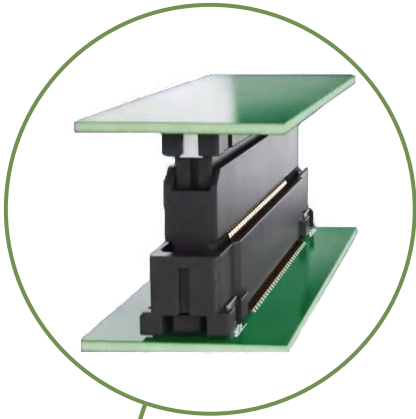
## HIGH SPEED DATA TRANSMISSION

- High data rate transmission: 8 Gbps+
- Equivalent to 10GBASE-KR, PCIe Gen3



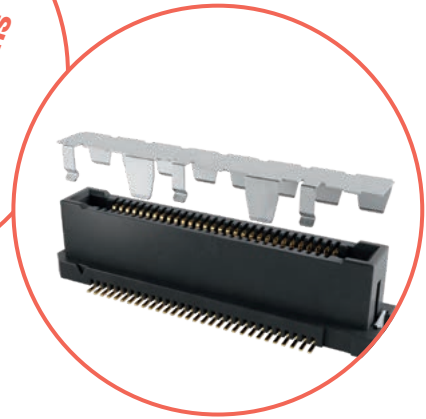
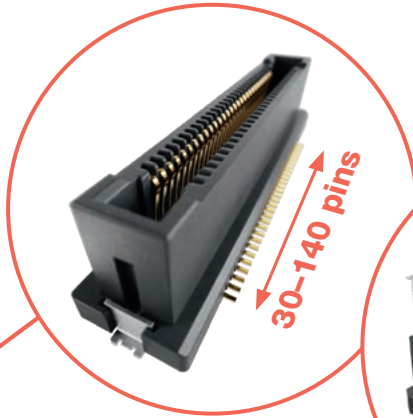
## HIGH CONTACT RELIABILITY

- Double contact structure
- Rolled surface connection (lower insertion force, higher wear resistance)



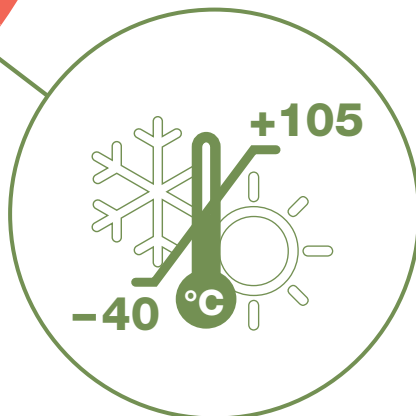
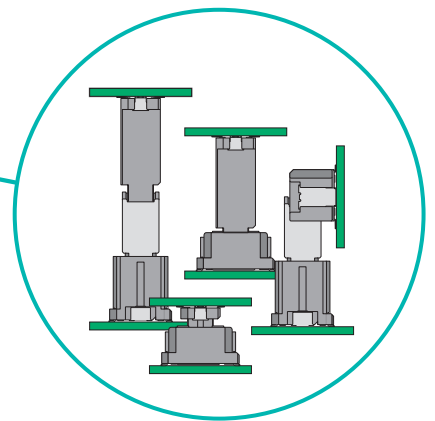
## SMALL, COMPACT DESIGN

- Various pin counts (30–140 pins)
- High pin density (0.635 mm pitch)
- Easy to assemble due to alignment pegs
- A special cap protects the connector's mating area prior to usage and facilitates pick and place automatic assembly



## MULTIPLE MOUNTING OPTIONS

- Different stacking heights (8 to 30 mm)
- Multiple BtB PCB mating connections (parallel and vertical, in low and high versions)



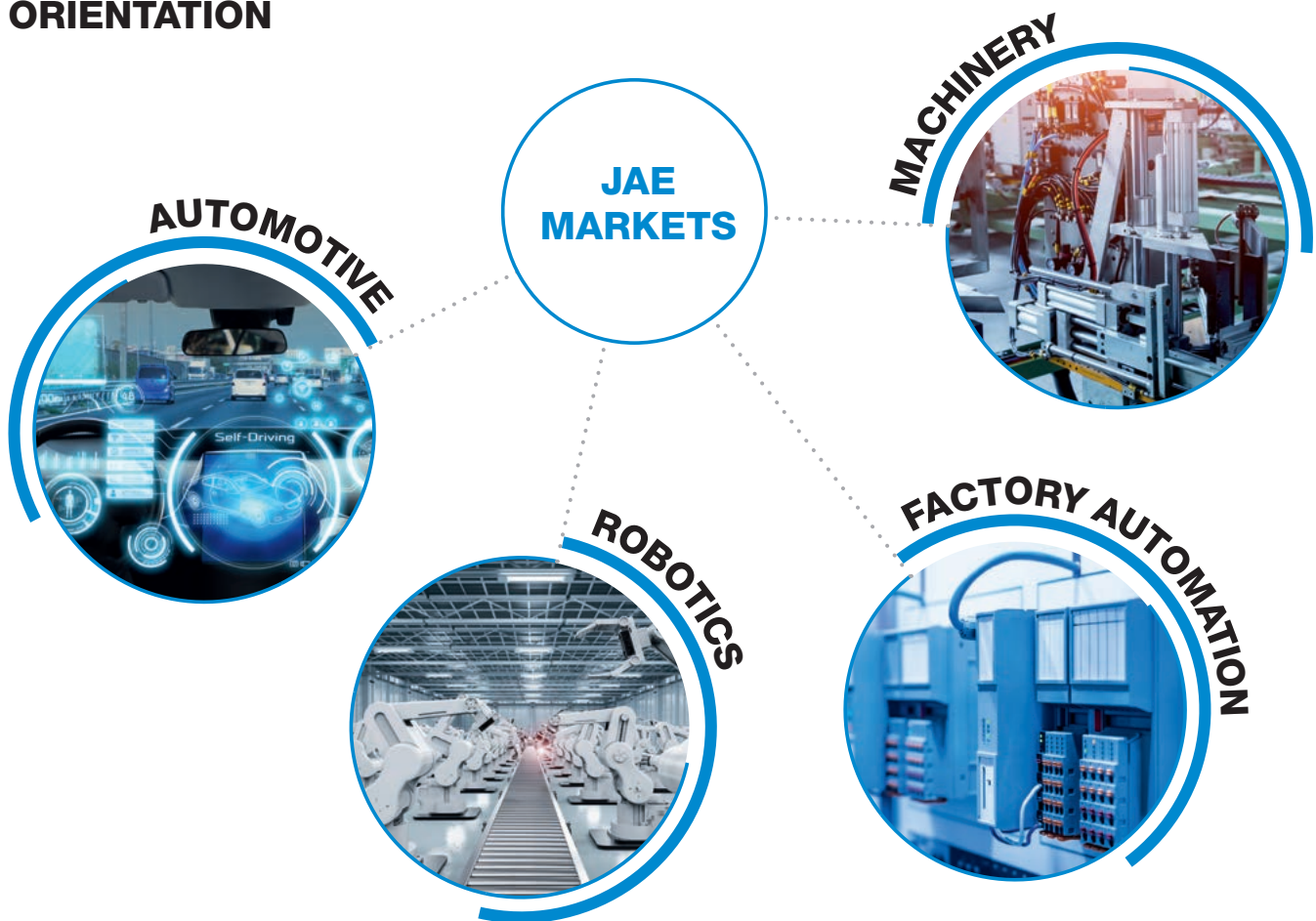
## WIDE OPERATION TEMPERATURE RANGE

- -40 °C to +105 °C
- Tailored to automotive market requirements

# WE CONNECT

## MARKET-LEADING TECHNOLOGY & UNCOMPROMISING CUSTOMER ORIENTATION

AX01 floating connectors are designed to meet the high and various needs of modern industrial and automotive applications. Ideal possibilities in the industry include factory automation, robotics and machinery, in the automotive sector components like navigation electronics and ECUs (electronic control units) devices. *JAE connects requirements and solutions.*



### Head Office

Japan Aviation Electronics Industry, Ltd.  
21-1, Dogenzaka 1-chome, Shibuya-ku, Tokyo 150-0043, Japan  
Tel: +81-3-3780-2711, Fax: +81-3-3780-2733  
[www.jae.com](http://www.jae.com)

### Europe

JAE Europe, Ltd.  
Royal Pavilion, Tower 3, First Floor, Wellesley Road, Aldershot,  
Hampshire, GU11 1PZ, UK  
Tel: +44 1252 55 11 00, Fax: +44 1252 55 11 10

### North America

JAE Electronics, Inc.  
142 Technology Drive, Suite 100, Irvine, CA 92618-2430, U.S.A.  
Tel: +1-949-753-2600, Fax: +1-949-753-4706

Connect with JAE – and profit from innovative manufacturing processes, outstanding production capacities, high-speed transmission and unsurpassed reliability.

Technology to Inspire Innovation

# JAE