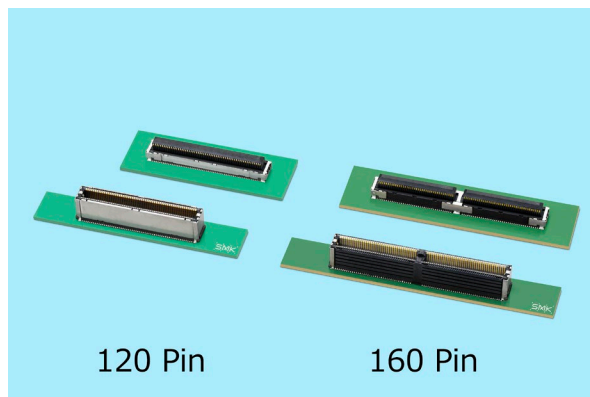


## SMK Develops Floating Board to Board Connector for Automotive Featuring Industry's Smallest-Class Mounting Area\*



SMK Corporation has developed a 0.5mm-pitch board to board connector with floating structure "PB-F2 Series" for automotive devices.

In recent years, in addition to the need for miniaturization, there has been a growing demand for higher transmission speeds and multi-polarization for automotive connectors along with the increasing amount of information handled by automotive devices. To meet the requirements, SMK developed the "PB-F2 Series" under the themes of miniaturization and high-speed transmission.

The new connector achieved the industry's smallest mounting area\* while maintaining high contact reliability with the company's unique structure, contributing to the downsizing of automotive devices.

Its floating structure absorbs  $\pm 0.5\text{mm}$  gap in the X and Y directions and  $+0.5\text{mm}$  in the Z direction. Having matched differential impedance of  $100\Omega$ , it supports high-speed transmission of up to 6Gbps. Also, it is available both with and without EMI shielding structure.

\* In the case of the 120-pin connector, the mounting area is reduced by about 50% compared with the industry's conventional products.

### **【Applications】**

Automotive devices such as infotainment systems, display audio, car navigation equipment, engine control units, etc.

Published Date	November 21st, 2019	
Press Release Number	1123CS	
Product Name	Board to board connector for automotive devices "PB-F2 Series" Part Number: CPBA4XX-02XX (Receptacle), CPBA5XX-02XXF (Plug)	
Features	<ol style="list-style-type: none"> <li>1) Industry's smallest-class mounting area. (120-pin: Approx. 50% smaller than the conventional products)</li> <li>2) Floating structure absorbs <math>\pm 0.5</math> mm gap in the X and Y directions and +0.5mm in Z direction.</li> <li>3) Offers High-speed transmission of up to 6Gbps by matching the differential impedance of 100<math>\Omega</math>.</li> <li>4) Available both with and without EMI shielding structure.</li> </ol>	
Major Specifications	Rating	50V AC/DC, 0.5A
	Contact Resistance	30m $\Omega$ maximum
	Insulation Resistance	100V DC, 100M $\Omega$ Minimum
	Withstanding Voltage	100V AC (1 minute)
	Operating Temperature Range	-40 $^{\circ}$ C to +105 $^{\circ}$ C
	Mounting Height	Receptacle: 5.7mm, Plug: 7.25mm (Stack height: 10mm)
	External Dimensions	Receptacle: 33.5mm (W) $\times$ 6mm (D) $\times$ 5.7mm (H) Plug: 33.5mm (W) $\times$ 6mm (D) $\times$ 7.25mm (H) (In the case of 120-pin type)
	Mounting Area	201mm <sup>2</sup> (In the case of 120-pin type)
	Mounting Method	Reflow soldering
	Packaging	Reel
Operating Life	10 cycles	



Start Taking Orders From	December 2019
Goes Into Mass Production From	April 2020
Production Capacity	300,000 units per month
Sample Price	500 yen per unit
Inquiry	<a href="#">For more information, please contact CS Division</a>