

Applications:



Automotive Applications



Wearables



Medical Equipment



Compact



Floating



125°C

High Temp

Discover Hirose's BM54 Series, the compact floating board-to-board connector that boasts the world's smallest width class.

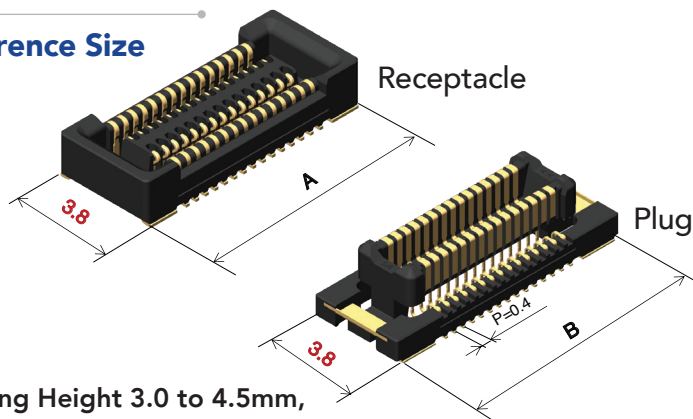
Designed for precision and space efficiency, it offers a $\pm 0.4\text{mm}$ floating range, ideal for automotive applications where alignment is critical. Supporting advanced standards like PCIe Gen 4 and MIPI D-PHY Ver.2.1, the BM54 ensures reliable, high-speed connectivity.

HIGHLIGHTS:

- Stacking Height 3.0 to 4.5mm, Floating Range $\pm 0.4\text{mm}$, World's Smallest Width Class in Floating Board-to-Board Connectors - 0.4mm Pitch, 3.8mm Width
- Absorption of Misalignment:
 - X and Y Directions : Floating Range $\pm 0.4\text{mm}$
 - Z Direction : Effective Mating Length $\pm 0.3\text{mm}$ (H=3.0mm)
 $\pm 0.4\text{mm}$ (H=3.5 to 4.5mm)
- 125°C Heat Resistance for Automotive Specifications
- High Contact Reliability with Two-Point Contact
- Supports PCI-ex Gen4 (16Gbps) and MIPI D-PHY Ver.2.1

Small Size

Reference Size



Stacking Height 3.0 to 4.5mm,
Floating Range $\pm 0.4\text{mm}$,
**World's Smallest Width Class in
Floating Board-to-Board Connectors**

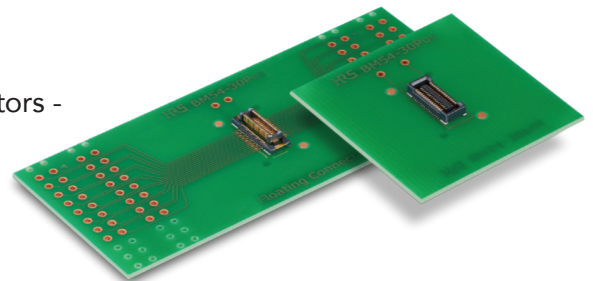
[CLICK HERE FOR MORE INFORMATION](#)

[CLICK HERE TO ORDER SAMPLE NUMBER: US-BM54SAMPLE-24](#)

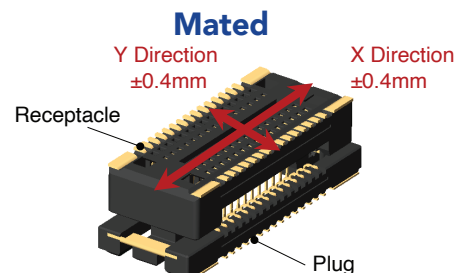
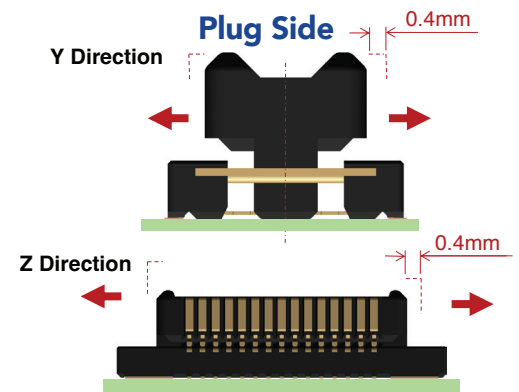
Unit : mm

No. of Pos.	A	B
10	5.0	6.0
20	7.0	8.0
30	9.0	10.0
40	11.0	12.0

*Please contact us if you have any needs for 50 and 60 positions as well.



Floating Range (X and Y Directions)

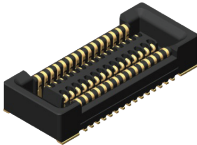
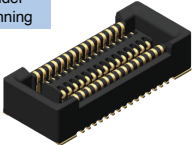
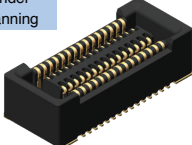
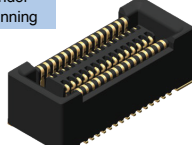

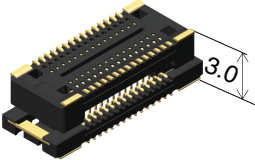
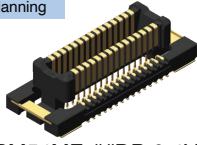
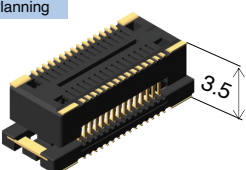
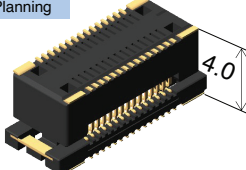
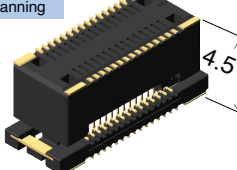


*Plug side has a floating design.

Stacking Height Variations

Stacking Height : 3.0mm, 3.5mm, 4.0mm, 4.5mm
2 Types of Plug / 4 Types of Receptacle

Unit : mm

Receptacle	 BM54B3.0-##DS-0.4V	Under Planning 	Under Planning 	Under Planning 
Plug				
 BM54F3.0-##DP-0.4V		-	-	-
Under Planning  BM54MF-##DP-0.4V	-	Under Planning 	Under Planning 	Under Planning 

* ##=No.of Pos.C e.g. 10, 20, 30, 40

Specifications

Material and Finish

COMPONENT	MATERIAL	FINISH, REMARKS
Insulator	LCP Resin ^{*1}	Black
Contact	Copper Alloy	Gold Plating (Nickel Under Plating)
Retention Tab	Copper Alloy	Gold Plating (Nickel Under Plating)

Performance Characteristics

Rated Current	0.3A
Rated Voltage	50V AC/DC
Operating Temperature	-55 to +125°C ^{*2}
Contact Resistance	Initial: 80mΩ Max. After the Test: 100mΩ Max.
Withstanding Voltage	100V AC for 1 min.
Insulation Resistance	100MΩ Min. (100V DC)
Mating Durability	10 times

^{*1} This product satisfies halogen free requirements defined as 900ppm maximum chlorine, 900ppm maximum bromine, and 1,500ppm maximum total of chlorine and bromine.

^{*2} Includes the temperature rising by current flow.

^{*3} Inspection Jig Connectors are under consideration. Please contact us if you have any needs.



For additional information please go to
www.hirose.com/product/series/BM54

Specifications herein are subject to change without notice.
Contact Hirose for latest specifications, drawings, or availabilities.

STAY CONNECTED

