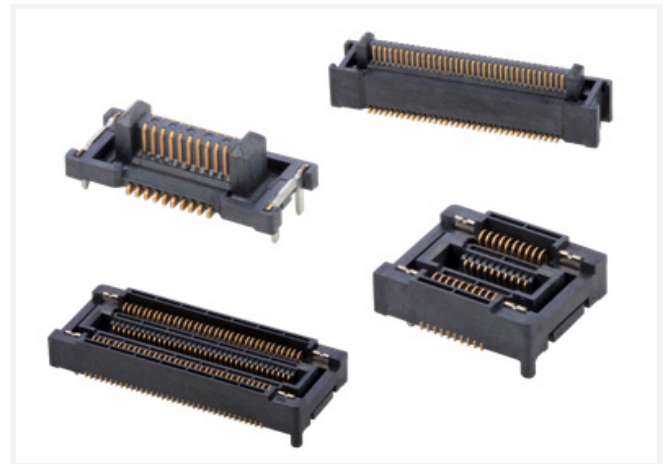


# FLTStack 0.50mm Floating Board-To-Board Connector

## XY-AXIS-FLOATING WITH SELF-ALIGNMENT, AND COMPLIANT WITH USCAR-2

FLTStack 0.50mm is a floating type Board-to-Board (BTB) connector designed to operate a minimum of  $\pm 0.50\text{mm}$  floating range in the XY directions. It features a self-cleaning function, vibration resistance and self-alignment for easier mating. In addition, it supports up to 3Gb/s communication data rates. It features a fine pitch design at 0.5mm and supports current rating up to 0.5A/pin. It has an effective mating length of 0.90mm that provides Z directions with sufficient margin for its mating stroke.

- Fine pitch design at 0.50mm
- Support 3Gb/s communication speed
- Supports current rating up to 0.5A/pin
- Resistant to reflow soldering temperature
- Quality tested according to USCAR-2



### TARGET MARKETS



### FEATURES

- Floating range of  $\pm 0.50\text{mm}$  in the X, Y directions
- 3Gb/s high-speed transmission
- Multiple stack height variations from 4mm to 11mm
- Contains vacuum pick-up area
- Fine pitch design at 0.50mm with floating feature
- Effective mating length of 0.90mm
- Resistance to reflow-soldering temperature
- USCAR-2-compliant design

### BENEFITS

- Built-in guide posts enable self-alignment and ensure a secure connection
- Supports most automotive protocol applications
- Meet different application scenarios
- Consistent with the Automatic installation process
- Suited for high-density applications with high-reliability against shock
- Provides Z directions with sufficient margin for its mating stroke
- Supports Pin-in-Paste (PiP) processes
- Meets automotive critical mass for connector solutions

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### TECHNICAL INFORMATION

#### MATERIAL

- Housing: High Temp
- Contacts: Copper Alloy
- Board Lock: Copper Alloy

#### ELECTRICAL PERFORMANCE

- Insulation Resistance: not be less than 100MΩ
- Contact Current Rating: 0.5A
- Dielectric Withstanding Voltage: 150V AC

#### MECHANICAL PERFORMANCE

- Mating Force: 40N max.
- Withdrawal Force: 1N min.
- Durability: 50 cycles min.

#### APPROVALS AND CERTIFICATIONS

- RoHS
- REACH
- UL

#### ENVIRONMENTAL

- Temperature/Humidity: 40 cycles between -40°C to +100°C, Relative Humidity 0% to 95%
- High Temperature Exposure: Static 125°C /1008 Hours

#### APPROVALS & CERTIFICATION

- USCAR-2 Compliant
- IATF Production Compliant
- RoHS
- REACH/SVHC
- Low Halogen

#### SPECIFICATIONS

- Amphenol Product Specification: FLTStack Series Spec

#### PACKAGING

- Available in tape and reel

#### TARGET MARKETS/APPLICATIONS



Advanced Driver Assistance System  
In-Vehicle Infotainment System  
Surround View Camera System



Router  
Wireless Infrastructure



Point of Service Machine



Server

### PART NUMBERS

Stacking Height	Description	Part Numbers
4mm	FLTStack 0.50mm, Receptacle, F1, Tape and Reel	FBBFXXXV01C13
	FLTStack 0.50mm, Header, M1, Tape and Reel	FBBMXXXV01C13
5mm	FLTStack 0.50mm, Receptacle, F1, Tape and Reel	FBBFXXXV01C13
	FLTStack 0.50mm, Header, M2, Tape and Reel	FBBMXXXV02C13
6mm	FLTStack 0.50mm, Receptacle, F1, Tape and Reel	FBBFXXXV01C13
	FLTStack 0.50mm, Header, M3, Tape and Reel	FBBMXXXV03C13
7mm	FLTStack 0.50mm, Receptacle, F1, Tape and Reel	FBBFXXXV01C13
	FLTStack 0.50mm, Header, M4, Tape and Reel	FBBMXXXV04C13
8mm	FLTStack 0.50mm, Receptacle, F2, Tape and Reel	FBBFXXXV02C13
	FLTStack 0.50mm, Header, M1, Tape and Reel	FBBMXXXV01C13
9mm	FLTStack 0.50mm, Receptacle, F2, Tape and Reel	FBBFXXXV02C13
	FLTStack 0.50mm, Header, M2, Tape and Reel	FBBMXXXV02C13
10mm	FLTStack 0.50mm, Receptacle, F2, Tape and Reel	FBBFXXXV02C13
	FLTStack 0.50mm, Header, M3, Tape and Reel	FBBMXXXV03C13
11mm	FLTStack 0.50mm, Receptacle, F2, Tape and Reel	FBBFXXXV02C13
	FLTStack 0.50mm, Header, M4, Tape and Reel	FBBMXXXV04C13

\*Please fill in the pin number (020, 030, 040, 050, 060 and 070) for part numbers with "XXX".

CM10FLTSTACK081BEA4