

# 0.50mm Pitch FFC/FPC – F31S Series

## VERTICAL ZIF FLEX CONNECTOR

F31S series is a 0.50mm pitch vertical ZIF flex connector with a vertical flip locking mechanism, surface mount termination, and dual contacts. It features a height of 5.80mm and comes in 10 to 70 contacts. This series features a cable thickness of 0.30mm and provides enhanced durability of 30 mating cycles. The connectors come with a robust design and prevent solder and flux wicking. These are ideal for automotive, data, industrial, communication, consumer and medical applications.

- Strong FFC/FPC retention makes it vibration-proof
- Dual contact points ensure enhanced contact stability
- Ensures high solderability and high durability
- Wide operating temperature range of  $-40^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$



### TARGET MARKETS



### FEATURES

- ZIF (Zero Insertion Force) mechanism
- Vertical flip locking mechanism
- Dual contact points
- Design against solder and flux wicking
- High-temperature thermoplastic housing
- 10 to 70 positions available
- Lead and halogen-free

### BENEFITS

- Absence of frictional mating wear results in high mating cycle life
- Easy to operate and strong FFC/FPC retention makes it vibration-proof
- Ensures enhanced contact stability
- Ensures high solderability
- Wide operating temperature range of  $-40^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$
- Comprehensive range to satisfy different customer requirements
- Meets environmental, health and safety requirements

## MATERIAL

- ## MECHANICAL PERFORMANCE

- ## ELECTRICAL PERFORMANCE

- ## PACKAGING

- ## APPROVALS AND CERTIFICATIONS

- UL file number E106764
- RoHS compliant

## SPECIFICATION

- Aorora Product Specification: IS.EQC.034

## ENVIRONMENTAL

- Operating Temperature Range: -40°C to +105°C

## TARGET MARKETS/APPLICATIONS



Car Multimedia  
Car Navigation  
Dashboard  
PND



## Base Station Power Switches



Notebook  
Tablets  
Wearables  
Gaming  
DSC  
LCD & PDP TV



- Router
- Server
- ODD
- HDD



Sensing element  
Monitoring camera  
Human Machine Interface  
Industrial PC  
Robotics



Ultrasonic  
 Patient Monitor  
 MRI  
 CT  
 Infusion Pump

The diagram illustrates the mapping of a 16-bit connector code to its physical and electrical specifications. The code is split into two 8-bit halves, each with a dash indicating a separator. The first half (F 3 1S) maps to Product type, Pitch (3, 0.5mm), Product family (F, FPC/FFC Connector), and Housing material (1, LCP). The second half (1 A 7L 1) maps to Housing color (A, Natural), Plating (7L, 2µin gold plating at contact area, 40~120µin Ni underplating), and Reel (1, Reel). The third half (1 1 0 XX) maps to Lead free (1, Lead free) and Number of positions (0, XX).

Code	Specification
F	Product family
3	Pitch
1S	Product type
1	Housing material
A	Housing color
7L	Plating
1	Reel
1	Lead free
0	Number of positions
XX	Number of positions

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## Amphenol:

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