

Molex's top-contact 0.25mm FPC connector provides greater PCB space savings and contact reliability --even when subjected to shock or vibration--compared to similar competitive designs

The top-contact 0.25mm pitch FPC connector expands Molex range to provide customers with the industry's largest offering of 0.25mm pitch FPC connector choices. Molex is currently the only maker to offer both top-and bottom-contact designs, as well as different height options and features that allow space for components under the FPC cable (on 503320 type).

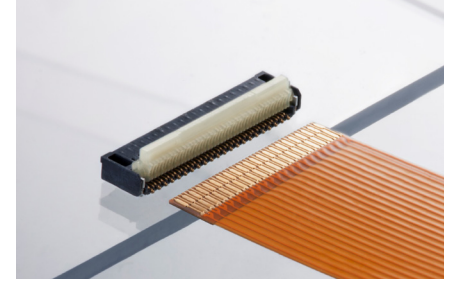
The 503300 top-contact version was designed to provide customers more design flexibility. This version enables designers to place a top-contact version on one board and wrap the FPC cable under to mate with a bottom-contact type.

A unique spring-terminal design provides contact force that helps keep the actuator securely in place while at the same time providing contact force on the cable for secure electrical contact, even when subjected to shock or vibration. A robust front-flip Easy-On™ actuator design protects the actuator from damage or breaking by operator handling.

With an ultra-narrow depth of 3.20mm, this new series provides PCB space savings compared to competitive designs. Available in up to 53 circuits, it also offers the highest upward circuit-size range of any competitive version.

The ZIF cable-insertion structure provides easy FPC insertion without the risk of bending or damaging the cable. The 503300 version uses industry-standard 0.20mm thick FPC and has the same footprint pattern and FPC cable pitch tolerances as Molex's other 0.25mm pitch FPC connectors, which enables customers to choose various connector types without needing to change the PCB pattern.

FPC Connectors, 0.25mm Pitch, SMT, Top Contact, 1.20mm Height, Easy-On™ Front-Flip Actuator



The 503300 series FPC connector is Molex's first 0.25mm pitch type in a top-contact style

FEATURES AND BENEFITS

Features

- Spring-terminal design
- Zero Insertion Force (ZIF) contact design
- Compact overall dimensions
- Same footprint pattern and FPC pitch tolerances as Molex's other 0.25mm pitch FPC connectors
- Strong mechanical actuator design

Benefits

- Secure electrical contact even when subjected to shock or vibration
- Smooth and easy cable insertion and extraction
- Space savings
- Connector interchangeability without needing to change board design
- Protects against actuator damage or breaking during assembly and use

SPECIFICATIONS

Reference Information

- Packaging: Embossed Tape
- Use With: 0.25mm FPC
- Designed In: mm
- RoHS: Yes
- Halogen Status: Low Halogen
- Glow Wire Compliant: No

Electrical

- Voltage (max.): 50V
- Current (max.): 0.2A
- Contact Resistance:
 - 80 milliohms max. (Odd terminal)
 - 60 milliohms max. (Even terminal)
- Dielectric Withstanding Voltage: 800V AC (rms) for one minute
- Insulation Resistance: 1000 Megohms min.

Physical

- Housing: Glass-filled LCP, Black
- Actuator: Glass-filled Polyamide, Beige
- Flammability: UL 94V-0
- Contact: Phosphor bronze
- Plating: Contact Area - Gold
Solder Tail Area - Gold
Underplating - Nickel
- Operating Temperature: -40 to +85°C

MARKETS AND APPLICATIONS

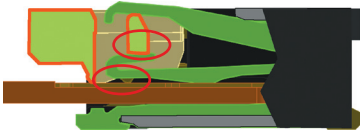
- Smart phone/mobile phone
- Tablet PC
- Car audio
- Digital still camera
- Digital video camera
- Navigation equipment
- Portable game



FPC Connectors, 0.25mm Pitch, SMT, Top Contact, 1.20mm Height, Easy-On™ Front-Flip Actuator

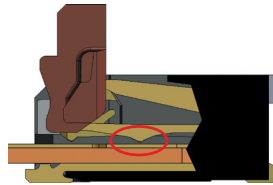
ADDITIONAL PRODUCT FEATURES

1) Spring terminals provide superior contact and actuator reliability



Unique spring-terminal design provides upward force on actuator to prevent it from opening and downward force on the FPC pad for reliable electrical contact, even when subjected to shock or vibration.

2) Full ZIF design



FPC insertion depth and contact position is the same as Molex's other 0.25mm FPC series (502078/503320). Although the 503300 series is a front-flip type, the FPC does not touch the terminal, providing full ZIF functionality and easy cable insertion.

ORDERING INFORMATION

Series 503300

Order No.	Circuits
503300-2110	21
503300-2910	29
503300-4110	41
503300-4310	43
503300-5310	53