

Easy-On FFC/FPC Connector 0.50mm Pitch >

As electronic devices become smaller and more densely packed, designers need connectors that deliver signal reliability without sacrificing board space or design flexibility. The 0.50mm pitch FFC/FPC connector from Molex addresses this need by combining signal reliability, compact design, a wide range of circuit size, multiple height options and cable style choices, making them ideal for tight-packaging applications.

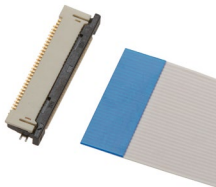
ADVANTAGES AND FEATURES

Provides easier board assembly

The vacuum pick-and-place area on top of housing helps prevent slow assembly and reduces misalignment risk, enabling smooth cable insertion and proper cable alignment.

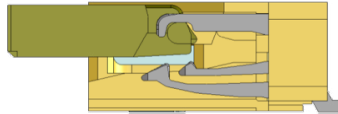
Provides secure mating

The cable ear-tab locking reduces the risk of accidental disconnection, ensuring cable alignment, high retention force and easy actuation.



Offers design flexibility

A wide range of circuit sizes from 4 to 80, combined with vertical and right-angle variants, supports connectors that can fit within varying PCB layout constraints without requiring multiple connector families.

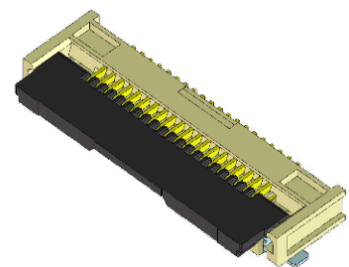


Provides contact reliability

The double-bottom contact terminal design removes dust, providing stable redundant contact forces for secure electrical reliability.

Helps achieve space savings

The ultra-low-profile design with slim height and width saves space while supporting different design requirements across compact applications.



MARKETS AND APPLICATIONS

Appliances

TVs

Automotive

Car infotainment
Car navigation controls
Display audio systems

Industrial

Drones
Robots

Medtech

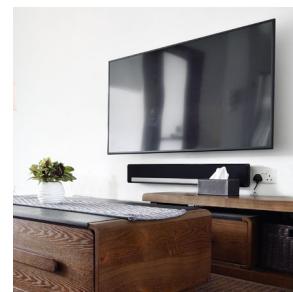
Patient-monitoring devices

Mobile Devices

AR/VR
Notebook PCs
Personal navigation equipment
Printers
Portable gaming equipment
Tablets



Car Infotainment



TVs



Patient-Monitoring Devices



Drones

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SPECIFICATIONS

Reference Information

Packaging: Embossed tape
 Mates With: FFC or FPC
 Designed In: Millimeters
 RoHS: Yes
 Halogen Free: Low-halogen (503480 and 505110)

Electrical

Voltage (max.): 50V
 Current (max.): 0.4 or 0.5A
 Contact Resistance (max.) 20, 40, 100 milliohms
 Dielectric Withstanding Voltage: 125 or 200 or 250V AC
 Insulation Resistance (min.): 50 Megohms

Mechanical

Durability (max.): 20 cycles

Physical

Housing: Heat resistance resin
 Contact: Copper alloy
 Contact Area—gold
 Solder Tail Area—gold
 Underplating—nickel
 Operating Temperatures: -20 to +150°C

ORDERING INFORMATION

Series Number	Image	Mated Height (mm)	Width (mm)	Circuit Size	Orientation	Actuator Type	Contact Type	Contact Plating	Current (max.)	Voltage (max.)	FPC Thickness (mm)
503480		1.00	4.00	4 to 40	Right angle	Back Flip	Dual	Gold	0.5A	50V	0.30
505110		1.90	5.30	4 to 80		Front Flip	"Double bottom"	Gold	0.5A	50V	0.30
505278		1.90	5.30	4 to 50		Front Flip	Bottom	Gold	0.5A	50V	0.30
52745		2.00	5.00	4 to 20		Slider	Upper	Gold	0.5A	50V	0.30
52435		2.00	5.20	21 to 30		Slider	Upper	Gold	0.5A	50V	0.30
54104		2.00	5.60	30 to 50		Slider	Upper	Gold	0.5A	50V	0.30
52746		2.00	5.00	4 to 20		Slider	Bottom	Gold	0.5A	50V	0.30
52437		2.00	5.20	21 to 30		Slider	Bottom	Gold	0.5A	50V	0.30
54132		2.00	5.60	30 to 50		Slider	Bottom	Gold	0.5A	50V	0.30
52559		3.90	3.50	6 to 40	Vertical	Slider	Single	Gold	0.5A	50V	0.30
501951		4.05	4.50	4 to 70		Flip	Single	Gold	0.4A	50V	0.30