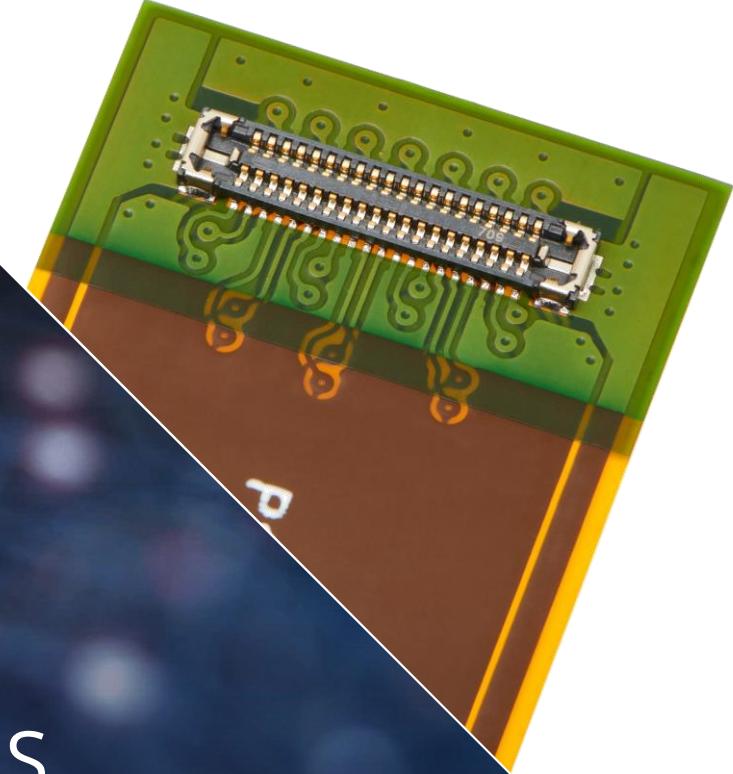


PREMO-FLEX SLIMSTACK FFC/FPC JUMPERS

ADDING: Premo-Flex Flat Flexible Cable (FFC)/Flexible Printed Circuit (FPC) jumpers designed to mate with SlimStack 0.35mm microminiature flex-to-board connectors
These off-the-shelf flexible circuits support data rates up to 30Gbps; provide superior signal integrity; and enhance design flexibility for applications needing compact, high-speed data transmission capability.

NPI Enhancement

JUNE 2025



Premo-Flex SlimStack FFC/FPC Jumpers

Ideal for a wide range of microminiature data transmission applications, Premo-Flex SlimStack Flat Flexible Cable (FFC)/Flexible Printed Circuit (FPC) Jumpers support up to 30Gb/s data rates using a compact, flexible form factor. The jumpers utilize 0.35mm-pitch SlimStack flex-to-board connectors and offer impedance matching for HDMI (100 Ohm) or USB (90 Ohm) protocols.

Key Product Information

Category: Printed electronics

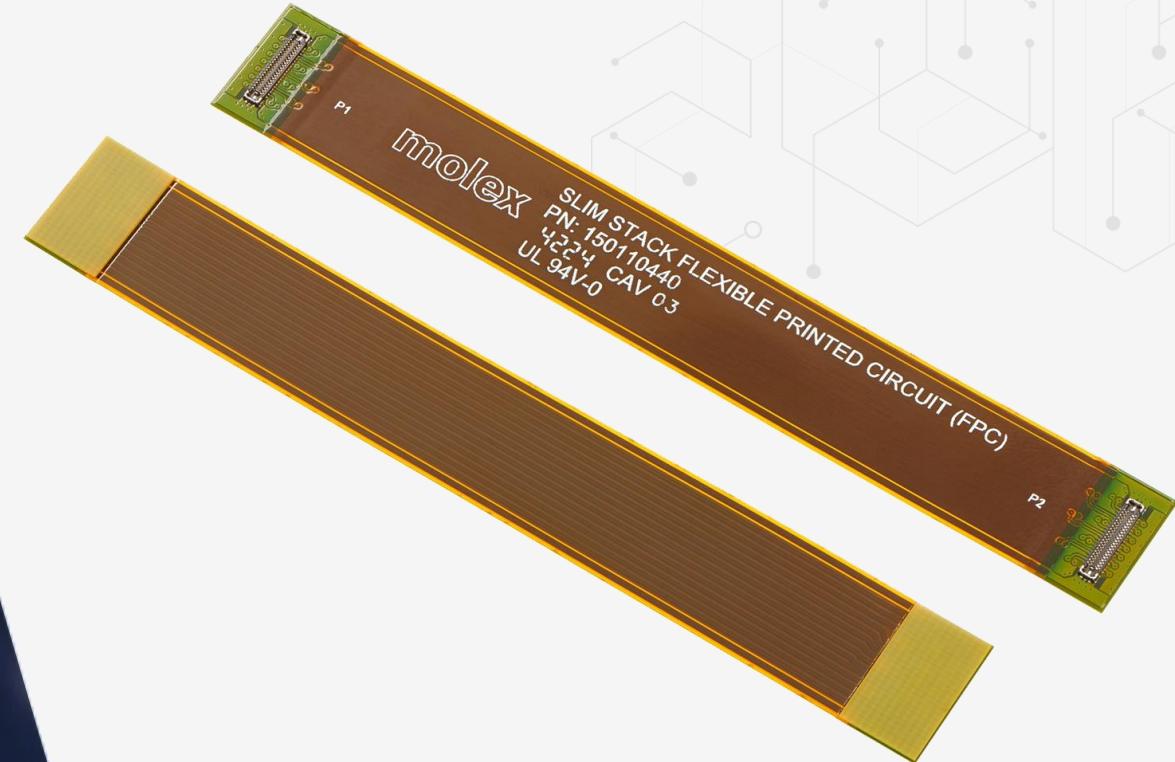
Terminations: 0.35mm-pitch SlimStack Connectors,
series 216700

Circuit Counts: 20, 40, 50

Jumper Lengths: 102, 152, 305mm

Data Rates: Up to 30Gb/s

Impedance: 50 Ohms (single ended) or 95 Ohms
(differential) $\pm 10\%$



[View Product
Landing Page](#)

[Solution Guide](#)

Series
15011 Premo-Flex SlimStack FFC/FPC Jumpers

Vital Product Information

Premo-Flex SlimStack FFC/FPC Jumpers

What makes this product different from the competition?

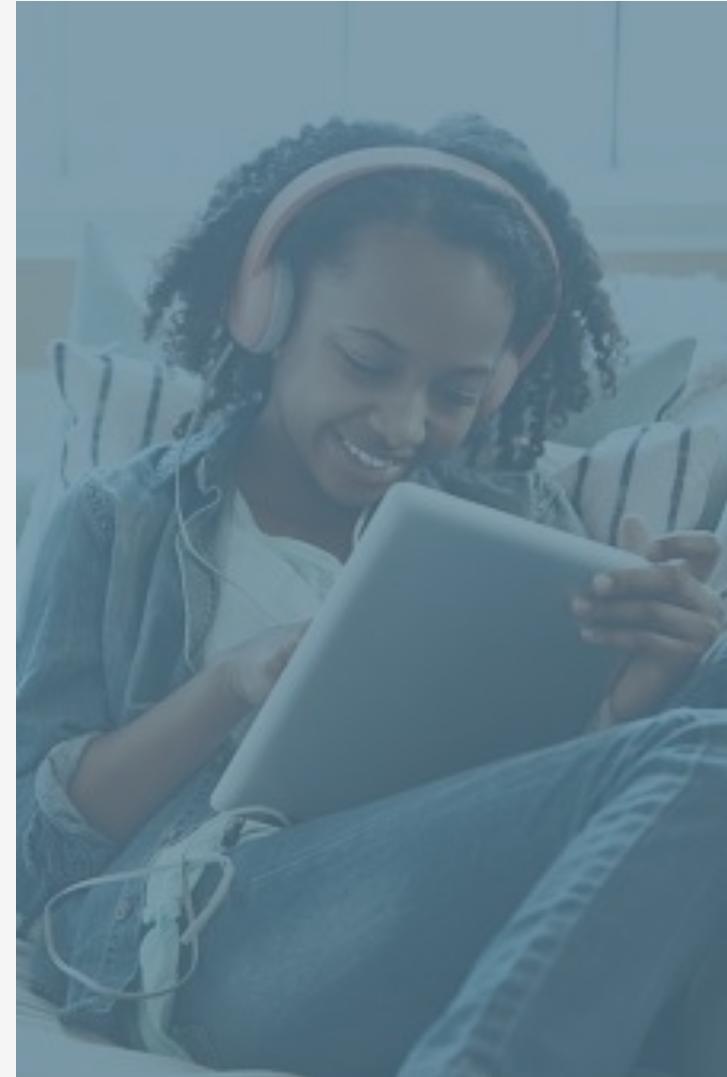
These jumpers deliver a standard, off-the-shelf Premo-Flex FFC/FPC assembly that fully integrates the cable with the SlimStack Connector. This offers a unique ability to utilize the proven SlimStack form factor while simplifying supply chain challenges and accelerating timelines by using off-the-shelf solutions.

How does this product create value for our customers?

Facilitating miniaturized applications by leveraging a flexible, high-speed data connectivity solution, these jumpers ease design constraints and support various data protocols and power requirements with a single off-the-shelf solution. Dedicated power, ground and signal pins enable two operating voltages within the same cable, saving space and design work. Superior signal quality and reliability improve product performance and end-user satisfaction.

What is the Molex advantage?

Global manufacturing capability, robust engineering support, exceptional quality, and a versatile selection of standard off-the-shelf products or customized solutions make Molex a unique resource in solving connectivity challenges.



Markets and Applications

Premo-Flex SlimStack FFC/FPC Jumpers



Refrigerators



Monitoring Devices



Smartphones

SERVER AND STORAGE

- Servers

AUTOMOTIVE

- Infotainment devices

APPLIANCES

- Washing machines
- Refrigerators

MEDTECH

- Monitoring devices
- Therapeutic devices
- Surgical devices

MOBILE DEVICES

- Smartphones
- Tablet computers
- Wearables
- Portable audio devices

Product Advantages and Features

Premo-Flex SlimStack FFC/FPC Jumpers

Enables flexible high-speed data and power connectivity
Dedicated power, ground and signal pins enable flexible operation with two different voltages in the same cable or a single voltage using both rails for higher current handling.

Provides high-speed data transmission
High-performance SlimStack Connectors and FFC jumpers deliver data rates up to 30Gbps.

Delivers superior signal quality for miniaturized applications
The jumper operates at 5 GHz, with an insertion loss of 10 dB per foot (30.5cm).

Minimizes space requirements
Miniaturized 0.35mm-pitch connectors and a low-profile mated height of 1.27mm (including cable) simplify design work for space-constrained applications.

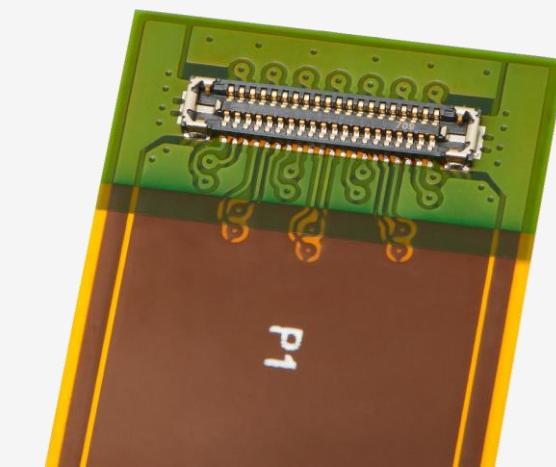
Supports multiple data protocols
Controlled impedance of 50 Ohms (single ended) and 95 Ohms (differential) with $\pm 10\%$ matching enables use with HDMI and USB protocols.



Key Specifications	
Terminations	0.35mm-pitch SlimStack Connectors, series 216700
Circuit Counts	20, 40, 50
Jumper Lengths	102, 152, 305mm
Data Rate	Up to 30Gbps
Impedance	50 Ohms (single ended) or 95 Ohms (differential) $\pm 10\%$
Operating Temperatures	-40 to +85°C



*SlimStack
Flex-to-
Board
Connector*



*Premo-Flex
SlimStack
FFC/FPC
Jumper*

Product Specifications

Premo-Flex SlimStack FFC/FPC Jumpers



Reference Information

Designed in: Millimeters

RoHS: Yes

Halogen Free: Yes

Glow Wire Capable: Yes

UL Certification: 94V-0

Testing: S-parameter, 4-port (S4P)

Mechanical

Terminations: SlimStack Connectors, series 216700

Pitch: 0.35mm

Mated Height: 1.27mm (including cable)

Cable Lengths: 102, 152, 305mm

Stiffener Length: 8.50mm

Bend Radius (min.):

One-time bend—2.00mm

20 cycles—2.50mm

Connector Withdrawal Force: 0.25N/pin

Circuit Counts: 20, 40, 50

Electrical

Voltage (max.): 60V (DC/AC RMS)

Signal Current (max.): 0.3A per pin

Data Rates: Up to 30Gbps

Single-Rail Current (Two Operating Voltages):

20 pins—1.2A per rail

40 pins—1.5A per rail

50 pins—2.5A per rail

Combined-Rail Current (One Operating Voltage):

20 pins—2.4A per rail

40 pins—3.0A per rail

50 pins—5.0A per rail

Resistance: 7.75 Ohms/m

Insertion Loss: 10 dB/ft (10 dB/30.5cm)

Controlled Impedance: 95 Ohms \pm 10%

Dielectric Withstanding Voltage: 200V AC

Frequency (max.): 5 GHz

Physical

Insulation Tape: Polyimide and thermal adhesive

Operating Temperatures: -40 to +85°C

Additional Resources

Web Overview Page

<https://www.molex.com/en-us/products/cable-assemblies/flat-flexible-cables-ffc>

Solution Guide

[987652-8671.pdf \(molex.com\)](987652-8671.pdf)

Global Product Manager

David Falla, PCSBU, DSS



THANK YOU

creating connections for life

molex