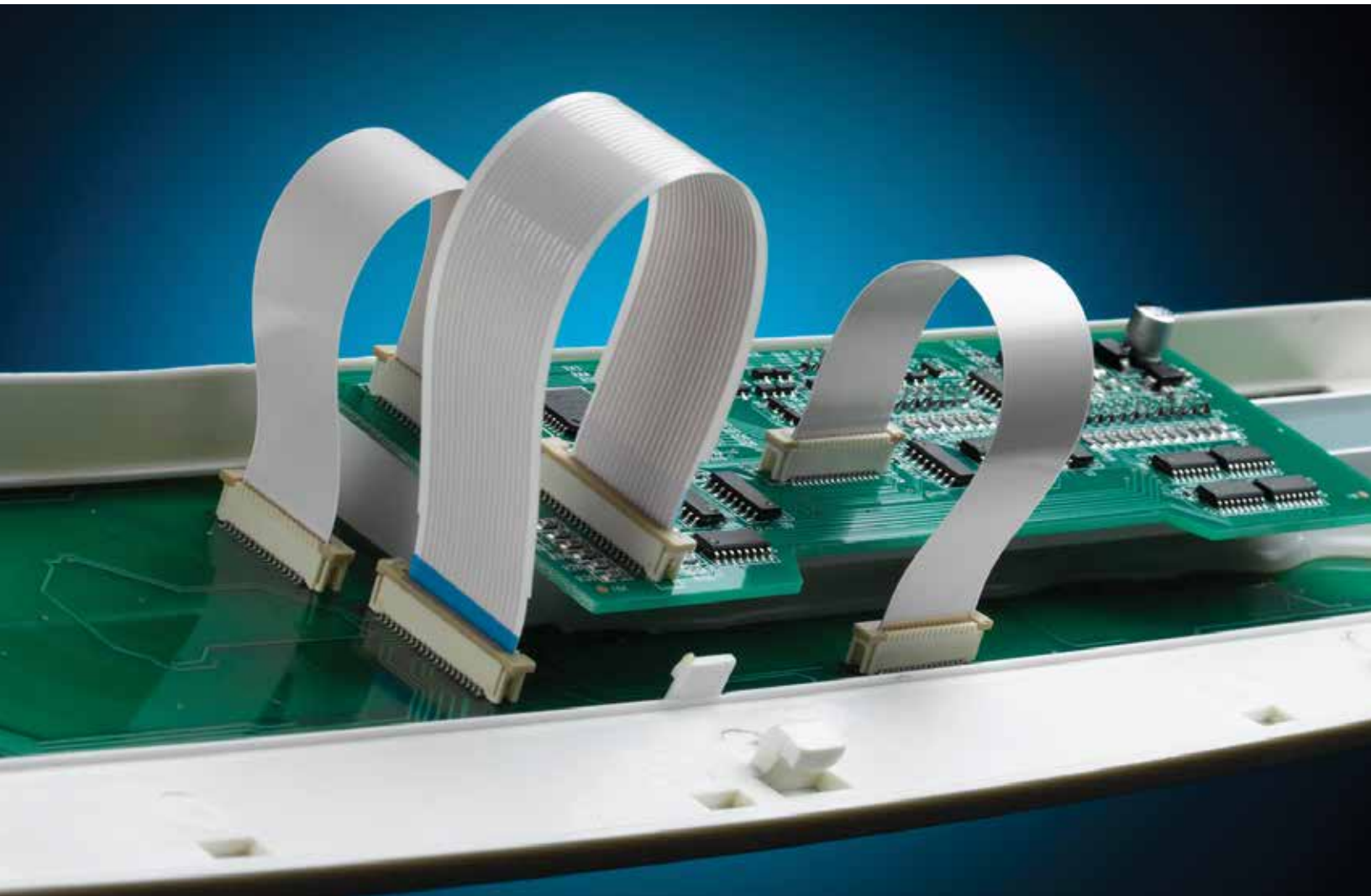
TECH GUIDE

molex

PREMO-FLEX
FLAT FLEXIBLE CABLES (FFC)



Premo-Flex Standard Solutions

Features and advantages

Design flexibility
4- to 80-Circuit Sizes
Extended flex cycles
10K to 5M
Simple assembly

Why Molex?

One-Stop Source for All Interconnect Solutions
Customer-First Approach
Low Program Requirements
Same-Day Technical Support

FLEXIBLE

FEATURES		TIN PLATING		GOLD PLATING
50K flex life cycles 0.27mm insulated thickness -40 to +105°C	SERIES	15266 | 0.50mm pitch 15267 | 1.00mm pitch 15268 | 1.25mm pitch	SERIES	15020 | 0.50mm pitch 15039 | 1.00mm pitch 15049 | 1.25mm pitch



15266



15020

EXTRA-FLEXIBLE

FEATURES		TIN PLATING
100K flex life cycles 0.22mm insulated thickness -40 to +105°C	SERIES	98266 | 0.50mm pitch 98267 | 1.00mm pitch 98268 | 1.25mm pitch



98266

ULTRA-FLEXIBLE

FEATURES		TIN PLATING		GOLD PLATING
5M flex life cycles 0.12mm insulated thickness -40 to +105°C	SERIES	15166 | 0.50mm pitch 15167 | 1.00mm pitch 15168 | 1.25mm pitch	SERIES	15120 | 0.50mm pitch



15166

ELECTROMAGNETIC INTERFERENCE (EMI) PROTECTION

FEATURES		TIN PLATING
First and last pin grounded -40 to +105°C	SERIES	15366 | 0.50mm pitch

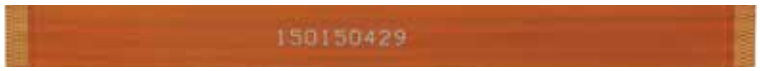


15366

Premo-Flex Standard Solutions

MINIATURIZATION

FEATURES		GOLD PLATING
0.12mm insulated thickness 10K+ flex life cycles -40 to +105°C Staggered pins	SERIES	15014 | 0.25mm pitch 15015 | 0.30mm pitch 15031 | 0.30mm pitch | notched 15032 | 0.30mm pitch | latching ears



15015

SUPERIOR RETENTION

FEATURES		TIN PLATING	GOLD PLATING
Notched or latching ears -40 to +105°C	SERIES	15466 | 0.50mm pitch 15467 | 1.00mm pitch } latching ears	15016 | 0.50mm pitch | notched 15018 | 0.50mm pitch 15019 | 1.00mm pitch 15025 | 0.40mm pitch } latching ears 15031 | 0.30mm pitch | notched 15032 | 0.30mm pitch | latching ears 15036 | 0.50mm pitch 15077 | 0.40mm pitch 15078 | 0.50mm pitch } notched



15466



15016



15018

HIGH SPEED

FEATURES		GOLD PLATING	DATA SPEED
90 and 100 Ohms controlled impedance 0.50mm pitch -40 to +80°C	SERIES	15021 | LVDS | straight termination 15022 | LVDS 15023 | LVDS } notched 15026 | LVDS | One-Touch 15922 | LVDS | notched	2 to 5Gbps for 12 to 24” 5 to 10Gbps for 2 to 10”



15021



15022



15023



15026

Premo-Flex Standard Solutions

DIRECT TO BOARD		
FEATURES		**TIN PLATING**
Superior signal integrity High resistance to vibration and bending Direct connection to PCBs -40 to +105°C	SERIES	15061 | 1.00mm pitch | round flat cable (RFC) 15067 | 1.00mm pitch | hot bar solder



15061 Type B



15061 Type C

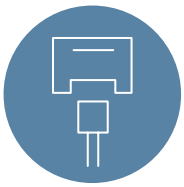


15067

Premo-Flex Intermateable Solutions

Product Overview

Premo-Flex Intermateable FFC Jumpers provide customers using non-Molex connectors with a robust, high-retention cable solution. Off-the-shelf FFC jumpers offer fast time to market and simplified design work, while an extensive range of custom options enables designers to meet application-specific requirements.



DELIVERS DESIGN FLEXIBILITY WITH INTERMATEABLE CONNECTOR OPTIONS

Premo-Flex FFC Jumpers intermateable with Amphenol 59453-series connectors or Hirose FH28, TF31 or FH52 zero-insertion force (ZIF) connectors are available.

Intermateable with Amphenol 59453 or Hirose FH28, TF31, FH52		
FEATURES		**GOLD PLATING**
Intermateable with Amphenol 59453 or Hirose FH28, TF31, FH52 -40 to +105°C	SERIES	17328 | 0.50mm pitch | Hirose FH28 17331 | 0.50mm pitch | Hirose TF31 17352 | 0.50mm pitch | Hirose FH52 } latching ears 17459 | 0.50mm pitch | Amphenol 59453 | notches



17328



17331



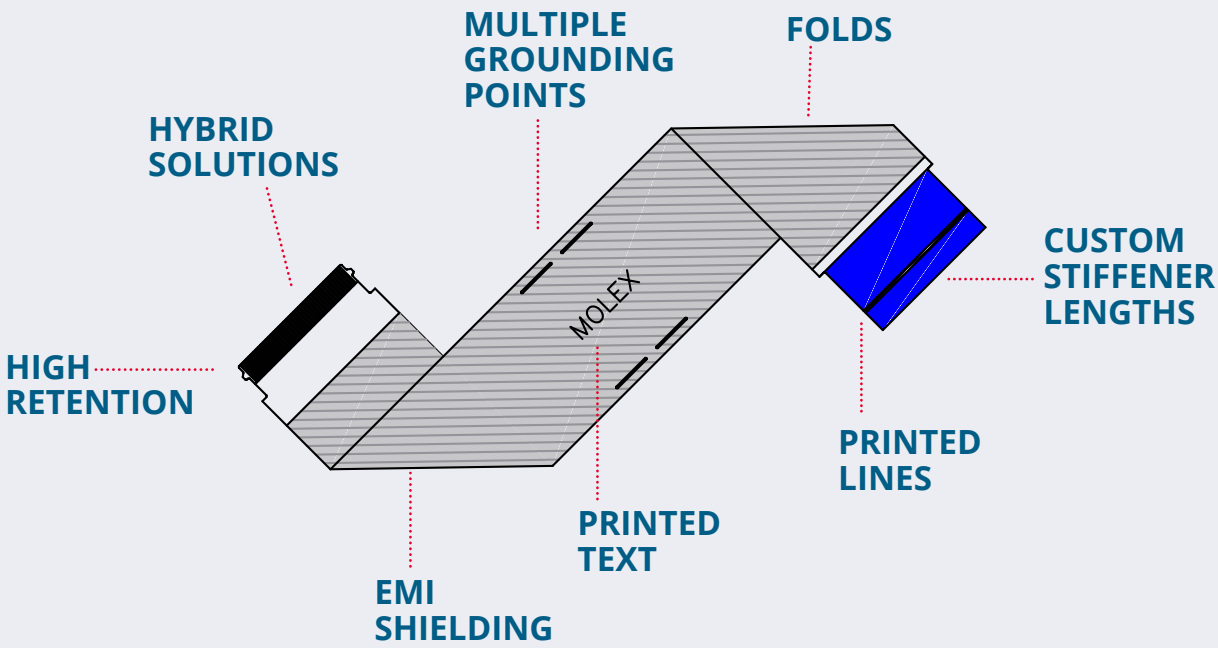
17352



17459

Custom solutions

Low program requirements
Comprehensive engineering support
Free samples in one to two weeks



Additional offerings

Hybrid solutions have different termination options on each end for unique connection needs.



Finished assemblies combine Premo-Flex FFC Jumpers with Easy-On FFC Flexible Printed Circuits to provide complete interconnect solutions.



Insulated material (such as polyester, polyimide and aramid up to 125°C) enable PCB connection solutions for unique temperature and environmental conditions.



Selecting your Premo-Flex solution

STEP 1

Choose your connector

-OR-

Identify

- Pitch
- Circuit count
- Plating

STEP 2

Determine specifications

Length

Flex life cycles

Contact layout type

- A = Same side contacts
- D = Opposite side contacts

STEP 3

Define additional requirements

- Temperature
- Superior retention
- Speed
- EMI protection

Smart Chart

Series	Feature	Pitch (mm)	Plating Material	Flex Life Cycles	End Thickness (mm)	Contact Layout Type	Standard Lengths (mm)
15166	Ultra-Flex	0.50	Tin	5M	0.30	A and D	30 to 305
15167		1.00					
15168		1.25					
15366	Shielded	0.50		1M			
98266	Extra-Flexible	0.50		100K			
98267		1.00					
98268		1.25					
15266	Flexible	0.50		50K			
15267		1.00					
15268		1.25					
15466	High retention	0.50		100K			
15467		1.00					51 to 305
15018	High retention	0.50	Gold				30 to 305
15036	Ultra Flex	0.50		5M			
15120		0.50					
15020	Flexible	0.50		50K			
15039		1.00					
15049		1.25					
15016	High retention	0.50		5M			
15025		0.40					51 to 305
15019		1.00		100K			
15031	Miniaturization/high retention	0.30		10K+	0.20	A	
15032		0.30					
15015	Miniaturization	0.30					
15014	Miniaturization	0.25					

High-Speed (LVDS) Smart Chart

Series	Notched	Pitch (mm)	Plating Material	Mating Connectors	Temperatures	End Thickness (mm)	Contact Layout Type	Controlled Impedance	Standard Lengths (mm)
15021	No	0.50	Gold	502231, 502244	-40 to +80°C	0.30	A	100 Ohms	51 to 610
15022	Yes			501786, 501864					
15023	Yes			503908		0.33			
15026	Yes			200485	-40 to +105°C				
15922	Yes			501786, 501864	-40 to +80°C	0.30		90 Ohms	

Direct-to-Board Smart Chart

Series	Cable Type	Pitch (mm)	Plating Material	Temperatures	Circuits	Length (mm)	Wire Gauge (AWG)	Current	Voltage	Pin Diameter (mm)	Conductor Width (mm)
15061	RFC	1.00	Tin	-40 to +105°C	2 to 50	25 to 305	24	1.25A	60V AC	0.32	0.70
15067	Hot bar solder				3 to 40	30 to 305	N/A			N/A	

A cable designed for every industry



CONSUMER
Cameras, drones, phones, handheld gaming devices, home appliances, televisions

MEDICAL
Handheld ultrasound equipment, infusion pumps, medication dispensers, monitoring systems

DATACOM
Printers, scanners, keyboards, servers, routers, computers

AUTOMOTIVE
Infotainment, LCD screens, GPS devices

INDUSTRIAL
Robotics, generators, cooling systems

Get customized insights at: **molex.com keyword Premo-Flex**

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