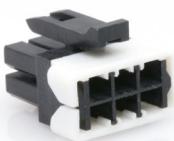


Micro-Fit 3.0 Connector System Product Family

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Micro-Fit 3.0 Connector Systems, available in multiple circuit sizes and cable lengths for power and signal applications, offer a 3.00mm pitch, a 8.5A maximum current rating and many design options such as a terminal position assurance, blind-mating and compliant pin features

Features and Benefits



Fitting nails and solderable clips available
Offers header retention and strain relief options



Optional terminal position assurance (TPA) feature

Reduces assembly error that results in terminal back-outs. Single row: one-piece plug and receptacle design with integrated secondary lock.
Dual row: two-piece TPA design



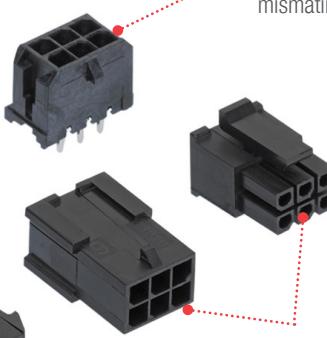
SMT, press-fit or surface mount compatible versions available
Provides design flexibility. Offers options to meet many application needs



High-temperature LCP headers
Withstand 260°C IR reflow processes



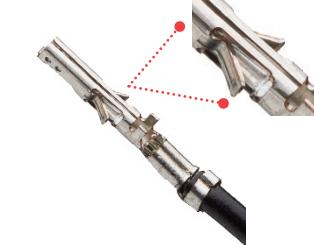
Fully polarized housings
Prevents accidental misingating



Positive latching
Ensures a reliable connection



Fully isolated terminals
Protect against potential damage of terminals during handling and mating

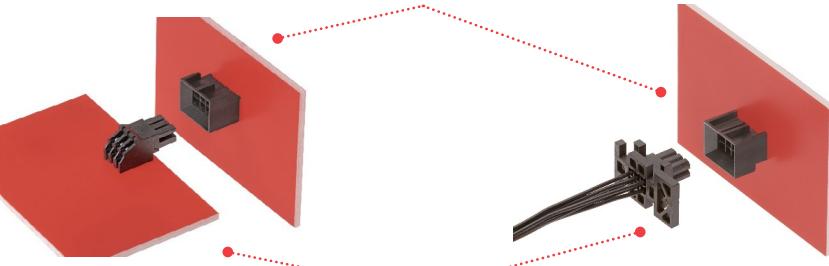


30 to 18 AWG terminals available
Delivers design flexibility to meet the power needs of a range of applications

Micro-Fit BMI Connectors

Blind-mating wire-to-wire and wire-to-board connectors

Offers full range of options for every application and orientation



Self-aligning feature molded into housings
Allows up to 2.54mm misalignment



Micro-Fit (Compliant Pin) CPI Connectors

Uses eye-of-the-needle press-fit design
Provides a reliable connection



Accepts standard Micro-Fit female and male crimp terminals
Eliminates the need to purchase or inventory additional terminals

Micro-Fit RMF (Reduced Mating Force) Terminals

Available in 22 to 24 and 26 to 30 AWG

Delivers design flexibility for a broad range of applications



Reduction in engagement and disengagement forces
Supports ergonomics and user-friendly interface

Available with factory-applied lubricant

Increases durability to 250 mating cycles

10.0A RMF terminal available
Delivers higher power with existing Micro-Fit components. Enables running changes to higher amperage

Terminal position assurance (TPA) feature with integrated secondary lock

Eliminates terminal back-outs resulting from improper assembly



Micro-Fit TPA Single Row Plug

The plug's TPA retainer mates with the existing Micro-Fit TPA Receptacle to prevent terminal back-outs in wire-to-wire applications

Prevents end product failure. Ensures both components provide a reliable connection

Terminal position assurance (TPA) feature with integrated secondary lock

Eliminates terminal back-outs resulting from improper assembly

Micro-Fit 3.0 Connector System Product Family

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Applications

Consumer

Washers and dryers
Freezers
Gaming machines
Printers
Refrigerators
Scanners
Security systems
Vending machines
White goods

Telecommunications/Networking

Routers and switches
Servers
Storage

Medical

Diagnostic equipment
Patient monitors

Sustainable Energy

Solar power

Automotive

Harness manufacturers
Non-sealed applications
Inside devices



Refrigerator



Office Equipment



Servers

Specifications

REFERENCE INFORMATION

Packaging:

UL File No.: E29179
CSA File No.: LR19980

Mates With:

Micro-Fit^{*} 3.0 Single-Row Plug
(Series 43640) and Header (Series 43650);
TPA Single-Row Receptacle (Series 171850)
Micro-Fit^{*} 3.0 Dual-Row Plug Housing
(Series 43020) and Header
TPA Dual-Row Receptacle (Series 172952)
(Series 43045 and 44914)

Terminal Used:

Micro-Fit^{*} 3.0 female crimp terminals
(Series 43030 and 46235)

Designed In: Millimeters

RoHS: Yes

Halogen Free: Yes (Non-Glow-Wire Versions)

Glow Wire Compliant: Option Available, [Contact Molex](#)

MECHANICAL

Contact Insertion Force (max.): 14.7N per contact
Contact Retention to Housing (min.): 24.5N
Mating Force (max.): 8N per circuit
Unmating Force (min.): 3.7N per circuit
Durability (max.): typically 30 cycles,
refer to product specifications

PHYSICAL

Housing: Nylon
Contact: Various
(Phosphor Bronze, Copper Alloy – see Product
Specifications for Particular Connector System)
Operating Temperature: -40 to +115°C

ELECTRICAL

Voltage (max.): 600V
Current (max.): 8.5A
(Please see product specifications;
determined by terminal used)
Contact Resistance (max.): 10 milliohms
Dielectric Withstanding Voltage: <5mA
Insulation Resistance (min.): 1,000 Megohms

Micro-Fit 3.0 Connector System Product Family

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Ordering Information

Series No.	Component	
<u>43030</u>	Female Terminal (Available in: 0.25µm Select Tin, 0.38µm and 0.76µm Select Gold)(18 - 30AWG)	
<u>46235</u>	Reduced Mating Force (RMF) Female Terminal, available with or without Lubricant (Available in: 0.25µm Select Tin, 0.38µm and 0.76µm Select Gold)(20 - 30AWG)	
<u>203951</u>	RMF Female Terminal (Available in: 0.25µm Select Tin)(18 AWG)	
<u>43031</u>	Male Terminal (Available in: 0.25µm Select Tin, 0.38µm and 0.76µm Select Gold) (18 - 30AWG)	
<u>43031-5XXX</u>	TPA Plug Male Terminal (Used with: Housing Series 200875)(Available in: Preplated Tin 1µm - 2.5µm, 0.38µm Min Selective Gold Over 2.5µm Min Selective Tin Over 1.27µm Overall Nickel, 0.76µm Min Selective Gold Over 2.5µm Min Selective Tin Over 1.27µm Overall Nickel, 2.5µm Min Matte Tin Over 1.27µm Overall Nickel)(20 – 30AWG)	
<u>43025</u>	Dual-Row Receptacle Housing (mates with 43020, 43045, 44914, 44242) (Available in: UL 94V-0, Glow Wire, Low-Halogen)(2 - 24CKTS)	
<u>43020</u>	Dual-Row Plug (mates with 43025, 45132, 245132, 172952) (Available in: UL 94V-0, Glow Wire, Low-Halogen) (Panel/Non-Panel Mount)(2 - 24CKTS)	
<u>43045</u>	Dual-Row Header (mates with 43025, 45132, 245132, 172952) (Available in: 0.25µm Select Tin, 0.38µm and 0.76µm Select Gold)(2 - 24CKTS) (Right Angle and Vertical Orientations; Surface Mount, Through Hole - Kinked Pin and Through Hole Termination Interface Style)	
<u>43645</u>	Single-Row Receptacle (mates with 43640, 43650) (Available in: UL 94V-0, Glow Wire, Low-Halogen)(2 - 12CKTS)	
<u>43640</u>	Single-Row Plug (mates with 43645, 171850) (Available in: UL 94V-0, Glow Wire, Low-Halogen)(2 - 12CKTS) (Panel Mount and Non-Panel Mount)	
<u>200875</u>	Single Row TPA Plug (Mates with Micro-Fit 171850 and 43645) (UL94V-0)(Low Halogen)(Color – Black)(2-7CKT)	
<u>43650</u>	Single-Row Header (mates with 43645, 171850) (Available in: 0.25µm Select Tin, 0.38µm and 0.76µm Select Gold)(2 - 12CKTS) (Right Angle and Vertical Orientations; Surface Mount, Through Hole - Kinked Pin and Through Hole Termination Interface Style)	
<u>171850</u>	TPA Single-Row Receptacle (mates with 43640, 43650) (Available In: UL 94V-0, Low-Halogen)(2 - 7CKTS)	
<u>172952</u>	TPA Dual-Row Receptacle (2 TPA parts required for each receptacle) (mates with 43020, 43045, 44914) (Available In: UL 94V-0, 94V-2, Glow Wire, Low-Halogen)(4 - 14CKTS) (Black and Natural Color)	
<u>172953</u>	TPA Retainer (2 TPA parts required for each receptacle) (Available In: Low-Halogen)(4 - 14CKTS) (Black and Natural Color)	
<u>45132</u>	Off-the-Shelf Micro-Fit TPA Discrete Wire Cable Assemblies (Available in: 4 - 8CKTS)(1.0M, 150.0mm, 300.0mm Lengths)	

Micro-Fit 3.0 Connector System Product Family

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Ordering Information

Series No.	Component	
<u>44133</u>	BMI Dual Row, Panel Mount Receptacle Housing (mates with 44300, 44432, 44428, 45280) (Available In: UL 94V-0, Halogen-Free)(4 - 24CKTS)	
<u>44300</u>	BMI Dual Row, Panel Mount Plug Housing (mates with 44133, 44769, 44764) (Available In: 4 - 24CKTS)	
<u>44428</u>	BMI Dual Row, Surface Mount Compatible, Right Angle Headers (mates with 44769, 44764, 44133) (Available In: Tin, 0.38µm and 0.76µm Select Gold; Low-Halogen)(4 - 24CKTS)	
<u>44432</u>	BMI Dual Row, Surface Mount Compatible, Vertical Header (mates with 44769, 44764, 44133) (Available In: Tin, 0.38µm and 0.76µm Select Gold; Low-Halogen)(4 - 24CKTS)	
<u>44764</u>	BMI Dual Row, Right Angle PCB Receptacle Header with Press-fit Plastic Pegs (mates with 44300, 44428, 44432, 45280) (Available In: Tin, 0.38µm and 0.76µm Select Gold; Low-Halogen)(4 - 24CKTS)	
<u>44769</u>	BMI Dual Row, Vertical Receptacle Header with Press-fit Plastic Pegs (mates with 44300, 44432, 45280, 44428) (Available In: Tin, 0.38µm and 0.76µm Select Gold; Low-Halogen)(4 - 24CKTS)	
<u>45280</u>	BMI Vertical Compliant Pin Header, Dual Row (mates with 44769, 44764, 44133) (Available In: Tin, 0.38µm and 0.76µm Select Gold; UL 94V-0)(4 - 24CKTS)	
<u>44914</u>	Compliant Pin Vertical Header, Dual Row (mates with 43025, 172952) (Available In: Tin, 0.38µm and 0.76µm Select Gold; Glow Wire)(4 - 24CKTS)	
<u>46622</u>	BMI Single Row Header (mates with 46623, 46625) (Available in Tin, 0.38µm and 0.76µm Select Gold; UL 94V-0, Halogen-Free; Right Angle, Vertical)(2 - 7CKTS)	
<u>46623</u>	BMI Single Row Panel Mount Receptacle (mates with 46622) (UL 94V-0; Halogen-Free)(2 - 7CKTS)	
<u>46625</u>	BMI Single Row Panel Mount Plug (mates with 46622) (UL 94V-0; Halogen-Free)(2 - 7CKTS)	

Custom Product	Description
<u>Contact Molex</u>	Customized Micro-Fit Overmolded Cable Assemblies
	Customized Micro-Fit Discrete Wire Cable Assemblies

www.molex.com/link/microfit30.html

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