Off-the-Shelf (OTS) Discrete Wire Cable Assemblies

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Standard Discrete Cable Assemblies deliver off-the-shelf solutions with a broad offering of Molex connectors and a variety of cable lengths to facilitate both prototyping and global production

Custom assemblies for production also available
Meet design needs after prototyping is complete. Molex's extensive design and manufacturing expertise can meet the unique challenges of the most demanding applications



Pico-Clasp OTS Discrete Wire Cable Assemblies

Pico-Clasp Cable Assembly offers a small 1.00mm pitch and 1.0A current rating with positive lock
Delivers space savings and prevents wire hooking



Pico-Lock OTS Discrete Wire Cable Assemblies

Pico-Lock Cable Assembly offers a low profile, high current and positive locks
Ideal for applications requiring space savings and secure mating retention



PicoBlade OTS Discrete Wire Cable Assembly

PicoBlade Cable Assembly capable of carrying a maximum 1.0A of current with 1.25mm pitch
Provides the same current as 2.00mm pitch systems but in a more compact design. Ideal for high-density harness applications



Micro-Lock Plus OTS Discrete Wire Cable Assemblies

Micro-Lock Plus Cable Assembly offers 1.25mm-pitch form factor and carries 1.5 A with positive lock
Secures mating retention without sacrificing compactness



MicroClasp OTS Discrete Wire Cable Assemblies

MicroClasp Cable Assembly capable of carrying a maximum 3.0A of current with 2.00mm pitch
Provides space savings and easy mating/unmating compared to similar 2.00- and 2.50mm-pitch wire-to-board systems



CLIK-Mate OTS Discrete Wire Cable Assemblies

CLIK-Mate Cable Assembly carries 2.5A with a 1.50mm pitch
Offers more signal lines in less space



Micro-Fit OTS Discrete Wire Cable Assemblies

Micro-Fit TPA Cable Assembly has a maximum 5.0A current rating and a 3.00mm pitch
Delivers a high-density, lower power connection. Reduced terminal back-out



Nano-Fit TPA OTS Discrete Wire Cable Assemblies

Nano-Fit TPA Cable Assembly has up to a 6.5A current rating in a small package
Brings space savings for design flexibility



Mini-Fit Jr. OTS Discrete Wire Cable Assemblies

Mini-Fit TPA2 Cable Assembly capable of carrying 9.0A of power
Provides ideal current rating for many signal and power applications. Reduces terminal back-out. Compatible with standard Mini-Fit Jr. headers



Ultra-Fit OTS Discrete Wire Cable Assemblies

Ultra-Fit Cable Assembly carries up to 14.0A of power with 17% smaller footprint than similar power connectors
Provides space savings with optimized current desnity



Mega-Fit 2-to-12 Circuit, Dual-Row Cable Assemblies

Mega-Fit OTS Discrete Wire Cable Assembly delivers 23.0A per circuit with a 5.70mm pitchs
Offers more power per linear and square millimeter than most midrange power products



MultiCat OTS Discrete Wire Cable Assemblies

MultiCat Cable Assembly delivers a 10.0 to 40.0A current rating with connector position assurance (CPA) in a small package
Provides high power and a locking mechanism without sacrificing compactness

Off-the-Shelf (OTS) Discrete Wire Cable Assemblies

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UL 1061 discrete wires for micro cable assemblies; UL 1007 discrete wires for other assemblies
Ready to use in electronic appliance applications. Provide ease of design, prototyping and production



PicoBlade Cable Assembly



Nano-Fit TPA Cable Assembly



Micro-Lock Plus Cable Assembly

Multi-color cable configurations with Ultra-Fit TPA, Micro-Fit TPA and Mini-Fit TPA2 Connectors available off the shelf
Designed to support development and production programs. Multi-color cables ensure correct connection



MicroClasp Cable Assembly



Pico-Clasp Cable Assembly



MultiCat Cable Assembly



Ultra-Fit TPA
Cable Assembly

Meets 2011/65/EU RoHS Compliance
Decreases engineering time and resources

Assembled in ISO/TS16949-certified facilities
Ensures high quality. Meets current automotive industry standards



Micro-Fit TPA Cable
Assembly

Pin-to-pin mapping from receptacle to PCB header
Provides ready-to-use, plug-and-play connections



Mini-Fit TPA2
Cable Assembly

Applications

Consumer
- Fitness equipment
- Home entertainment systems
- Home appliances
- Home office
- Home security systems
- Portable electronic devices
- Gaming consoles
- Mobile devices

Commercial Vehicle

Industrial
- Process controls
- Industrial motors

Medical
- Patient monitors

Aerospace and Defense
- Unmanned vehicles
- Drones
- Commercial aircraft cabins

Telecommunications
- Receivers
- Satellite dish



CLIK-Mate Cable Assembly



Mega-Fit Cable Assembly



Pico-Lock Cable Assembly



Gaming Machines



Office Equipment



Industrial Automation

Off-the-Shelf (OTS) Discrete Wire Cable Assemblies

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Specifications

Pico-Clasp Standard Discrete Wire Cable Assemblies

REFERENCE INFORMATION
Packaging: 50 or 100 SPQ
CABLE UL File No.: UL1061
Mates With: Series 53261, 53047, 53398, 53048
Designed In: Millimeters
RoHS: Yes
Halogen Free: No
Glow Wire Compliant: No

ELECTRICAL
Voltage (max.): 125V
Current (max.): 1.0A
Contact Resistance: 20 millihoms
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance: 100 Megohms

MECHANICAL
Contact Insertion Force (max.): 4.9N
Contact Retention to Housing (min.): 4.9N
Mating Force: See PS51021-001
Unmating Force: See PS51021-001

PHYSICAL
Housing: See PS51021-001
Contact: See PS51021-001
Plating:
Contact Area — Tin
Solder Tail Area — Tin
Underplating — Tin
Operating Temperature: -40 to +85°C

Pico-Lock Standard Discrete Wire Cable Assemblies

REFERENCE INFORMATION
Packaging: Reel (Terminal); Embossed (Header Assembly); Bag (Receptacle Housing)
Mates With: Micro-Lock Plus Connectors
Designed In: Millimeters
RoHS: Yes

ELECTRICAL
Voltage (max.): 50V
Current (max.): 1.5A
Contact Resistance (max.): 5 millihoms
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance (min.): 100 Megohms

MECHANICAL
Contact Insertion Force (max.): 4.9N
Contact Retention to Housing (min.): 6.9N
Mating Force: 9.8N (2 Circuit)
Unmating Force: 0.3N (2 Circuit)
Mating Force (min.): 30 Cycles

PHYSICAL
Housing:
Receptacle – PBT
Header – PA9T
Contact: Copper Alloy
Plating:
Contact Area — Tin
Underplating — Nickel
Operating Temperature: -30 to +80°C

Pico-Lock Standard Discrete Wire Cable Assemblies

REFERENCE INFORMATION
Packaging: 50 or 100 SPQ
CABLE UL File No.: UL1061
Designed In: Millimeters
RoHS: Yes
Halogen Free: Low Halogen

ELECTRICAL
Voltage (max.): 150V
Current (max.):
Contact Resistance (max.): 20 millihoms
Dielectric Withstanding Voltage: 500V AC/1 minute
Insulation Resistance (min.): 100 Megohms

MECHANICAL
Contact Insertion Force (max.): 5N (1.00mm) 10N (1.5mm)
Mating Force (min.): 30 Cycles

PHYSICAL
Housing: Nylon UL 94V-0
Contact: Copper Alloy
Plating:
Contact Area — Gold
Underplating — Nickel
Operating Temperature: -25 to +85°C

PicoBlade Standard Discrete Wire Cable Assemblies

REFERENCE INFORMATION
Packaging: 50 or 100 SPQ
CABLE UL File No.: UL1061
Mates With: Series 53261, 53047, 53398, 53048
Designed In: Millimeters
RoHS: Yes
Halogen Free: No
Glow Wire Compliant: No

ELECTRICAL
Voltage (max.): 50V
Current (max.): 1.0A
Contact Resistance: 20 millihoms
Dielectric Withstanding Voltage: 250V AC/1 minute
Insulation Resistance (min.): 100 Megohms

MECHANICAL
Contact Insertion Force (max.): 4.9N
Mating Force: 30 Cycles

PHYSICAL
Housing: Nylon UL 94V-0
Contact: Phosphor Bronze
Plating:
Contact Area — Tin
Underplating — Tin
Operating Temperature: -40 to +85°C

CLIK-Mate Standard Discrete Wire Cable Assemblies

REFERENCE INFORMATION
UL File No.: E29179
Mates With: Pico-Clasp Headers mate with Pico-Clasp Receptacles
Use with: 501334 and 501193 Crimp Terminals
Designed In: Millimeters
RoHS: Yes
Halogen Free: Yes

ELECTRICAL
Voltage (max.): 100V AC/DC
Current (max.): 2.0A
Contact Resistance (max.): 20 milliohms
Dielectric Withstanding Voltage: 500V AC/1 minute
Insulation Resistance (min.): 500 Megohms

MECHANICAL
Durability: 30 Cycles

PHYSICAL
Housing:
Housing: High-temperature material
Contact: Copper Alloy
Plating:
Contact Area – Tin/Gold
Solder Tail Area – Tin
Underplating – Nickel
Operating Temperature: -25 to +85°C

Off-the-Shelf (OTS) Discrete Wire Cable Assemblies

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Specifications

MicroClasp Standard Discrete Wire Cable Assemblies

REFERENCE INFORMATION
Mates With: MicroClasp Headers (Series 55932, 55935)
Use with: Series 56134 Terminals
Designed In: Millimeters
RoHS: Yes
Halogen Free: Low Halogen

ELECTRICAL
Current (max.): 3.0A

MECHANICAL
Durability: 30 Cycles

PHYSICAL
Housing: Nylon
Contact: Copper Nickel Silicon
Plating:
Contact Area – Tin
Operating Temperature: -25 to +85°C

Nano-Fit TPA Standard Discrete Wire Cable Assemblies

REFERENCE INFORMATION
UL File No.: E29179
CSA File No.: LR19980
IEC File No.: Pending
Mates With: Nano-Fit Connectors and Receptacles only — no competitive cross
Terminal Used: Nano-Fit
Designed In: Millimeters
RoHS: Yes
Halogen Free: Yes
Glow-Wire Compliant: No

ELECTRICAL
Voltage (max.): 300V
Current (max.): 6.5A
Contact Resistance (max.):
10 milliohms change over life
Dielectric Withstanding Voltage: 1600V
Insulation Resistance (min.): 1000 Megohms

MECHANICAL
Mating Force: 3N
Unmating Force: 3N
Durability (min.): 20 tin, 50 gold

PHYSICAL
Housing:
Receptacle: Nylon UL 94V-0
Header: LCP UL 94V-0
Contact: Brass
Plating:
Contact Area — Tin or 381µ (15µ") Gold or 762µ (30µ") Gold
Solder Tail Area — Tin
Underplating — Nickel
Operating Temperature: -40 to +115°C

Micro-Fit TPA Standard Discrete Wire Cable Assemblies

ELECTRICAL
Voltage (max.): 600V
Current (max.): 5.0A

MECHANICAL
Contact Insertion Force (max.): 14.7N per contact
Contact Retention to Housing (min.): 24.5N
Mating Force (max.): 8N per contact
Durability (max.): Typically 30 cycles;
refer to product specifications

PHYSICAL
Housing: Nylon
Operating Temperature: -40 to +105°C

Ultra-Fit TPA Standard Discrete Wire Cable Assemblies

REFERENCE INFORMATION
UL File No.: Connector (E29179), Wire (UL 1007)
Mates With: Ultra-Fit Connectors
Use With: Ultra-Fit Headers
Designed In: Millimeters
RoHS: Yes
Halogen Free: No
Glow-Wire Compliant: No

ELECTRICAL
Voltage (max.): 300V
Current (max.): 14.0A

MECHANICAL
Contact Insertion Force (max.): 4.5N Per Circuit
Contact Retention to Housing (max.): 4.0N per circuit
Mating Force (max.): 8N Per Circuit
Durability (min.): 25

PHYSICAL
Housing: Nylon UL 94V-0
Contact: High-Conductivity Copper
Plating:
Contact Area – Tin
Solder Tail Area – Tin
Underplating – Nickel
Operating Temperture: -40° to +105°C

Mini-Fit® TPA2 Standard Discrete Wire Cable Assemblies

ELECTRICAL
Voltage (max.): 300V AC/DC
Current (max.): 9.0A
Contact Resistance: 10 milliohm change from initial
Dielectric Withstanding Voltage: 2200V AC
Insulation Resistance: 1000 Megohms

MECHANICAL
Contact Insertion Force: 15N
Contact Retention to Housing: 30N
Mating Force: 14.7N
Unmating Force: 1.0N
Durability (min.): 100 Cycles (Tin); 250 Cycles (Gold)

PHYSICAL
Flammability: UL 94V-0
Housing: Nylon
Contact: Brass or Phosphor Bronze
Plating: Tin
Operating Temperature: -40 to +105°C

Mega-Fit OTS Discrete Wire Cable Assemblies

ELECTRICAL
Voltage (max.): 600V
Current (max.): 23.0A
Contact Resistance (max.): 6 milliohms

MECHANICAL
Contact Insertion Force into Housing (max.): 30N
Contact Retention to Housing (min.): 175N
Latch Strength (min.): 200N
Insertion Force to PCB: TBD
Mating Force (max.): 5.6N per circuit (Gold),
Unmating Force (min.): 5.6N per Circuit (Gold)
Durability (max.): 200 Mating Cycles (Gold)

PHYSICAL
Header: UL 94 V-0 Glow Wire and Low Halogen
Contact: High-Conductivity Copper
Plating:
Contact Area — Gold
Solder Tail Area – Tin (Sn)
Underplating: Nickel (Ni)
Operating Temperature: -40 to +105°C

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MultiCat OTS Discrete Wire Cable Assemblies

REFERENCE INFORMATION
Packaging: See Packaging Spec
UL File No.: E29179
Terminal Used: Crimp
Use with: UL 10669 wire
Designed In: Millimeters
RoHS: Compliant by Exemption
Halogen Free: TBD
Glow Wire Compliant: No

ELECTRICAL
Voltage (max.): 1000V AC/DC
Current (max.): 40.0A per Contact
Contact Resistance (max.): 1 milliohms
Dielectric Withstanding Voltage: 3000V AC

MECHANICAL
Contact Insertion Force into Housing (max.): 40N
Contact Retention to Housing (min.): 175N
Latch Strength (min.): 200N
Insertion Force to PCB: TBD
Mating Force (max.): 24N per Circuit
Unmating Force (min.): 5N per Circuit
Durability (max.): 500 cycles

PHYSICAL
Housing: PEI
Contact: Copper (Cu) alloy
Plating:
Contact Area — Gold (Au)
PCB Thickness: 2.50mm
Operating Temperature: -40 to +150°C

Ordering Information

Off-the-Shelf Discrete Wire Cable Assemblies

Series No.	Component	Type	Circuits	Length (m)
15131, 15132	Pico-Lock Receptacle	Single	2 to 12	50, 100, 150, 300, 450, 600
45111	Micro-Lock Plus Receptacle	Single	2 to 6	50, 100, 150, 300, 450, 600
15134	PicoBlade Receptacle	Single	2 to 8	50, 100, 150, 300, 450, 600
15133	Pico-Clasp Receptacle	Single	2 to 8	50, 100, 150, 300, 450, 600
15135	CLIK-Mate Receptacle	Single	2 to 8	50, 100, 150, 300, 450, 600
15136	MicroClasp Receptacle	Single	2 to 8	50, 100, 150, 300, 450, 600
45130	Nano-Fit TPA Receptacle	Dual Row	2, 4,6 and 8	150, 300, 1,000
45132	Micro-Fit TPA Receptacle	Dual Row	2, 4,6 and 8	150, 300, 1,000
45135	Mini-Fit TPA2 Receptacle	Dual Row	2, 4,6 and 8	150, 300, 1,000
45136	Mega-Fit Receptacle	Dual Row	2, 4,6, 8, 10 and 12	150, 300, 1,000
45141	MultiCat Receptacle	Single Row	3 and 4	300 and 1,000
45142	MultiCat Plug			

Ultra-Fit Off-the-Shelf Discrete Wire Cable Assemblies

Series No.	Color	Component	Type	Circuits	Length (mm)
45133	Black	Ultra-Fit TPA Receptacle	Dual Row	2, 4,6 and 8	150, 300, 1,000
45134	White				

Custom Product	Description
Contact Molex	Discrete Wire Cable Assembly Custom lengths and other options

www.molex.com/link/otscableassemblies.html

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