



## 4.20mm (.165") Pitch Mini-Fit Plus HCS™ Terminal

### 45750

### Crimp, Female

**Hot-pluggable, high-current Mini-Fit Plus HCS Terminals handle up to 12 amperes of current load and increase mating cycle durability**

The new, improved and patented Mini-Fit Plus HCS terminals are designed to be used with all existing Mini-Fit® crimp receptacle housings. The Mini-Fit Plus HCS terminals will allow for current loads up to 12.0A in 2 to 10 circuit configurations and 11.0A in 12 to 24 circuit configurations.

The unique, elliptical contact dimple design increases durability, doubling to tripling the number of mating cycles versus standard Mini-Fit terminals. Terminals are available in post-plated versions only, enhancing the long-term electrical performance and of the mating interface. The gold-plated terminals are suitable for "hot-pluggable" applications.

#### Features and Benefits

- High-current terminal design enables customers to upgrade existing crimp receptacle housings to carry an additional 3.0A to 5.0A per circuit
- Gold plated terminals are hot pluggable making them suitable for current interruption applications where hot mating and unmating is required
- High force, low-pressure contact dimple design increases durability (cycling) while minimizing contact resistance
- Two-point contact design assures high reliability
- Compatible with existing Mini-Fit application tooling allowing customers to process these terminals with existing equipment



#### SPECIFICATIONS

##### Reference Information

Packaging: Reel or bag  
Use With: 5557, 30067, 42474, and 44516 housings  
Designed In: Millimeters

##### Electrical

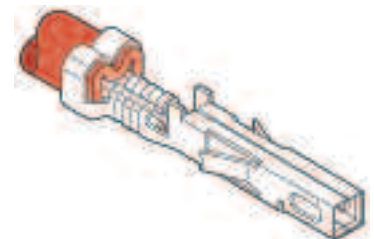
Voltage: 600V  
Current: 12.0A max.  
Current Interruption: 8.0A max. at 24V  
Contact Resistance: 10 milliohms max.  
Dielectric Withstanding Voltage: 2200V  
Insulation Resistance: 1000 Megohms min.

##### Mechanical

Contact Insertion Force: 1.54kg (3.40 lb) max.  
Contact Retention to Housing: 3.0kg (6.61 lb) min.  
Wire Pull-out Force: 6.0kg (13.23 lb) min.  
Mating Force: 1.14kg (2.51 lb) max.  
Unmating Force: 0.10kg (0.22 lb) min.  
Normal Force: 200g min.  
Durability: Tin (Sn) – 75 cycles  
Gold (Au) – 100 cycles

##### Physical

Contact: Copper (Cu) Alloy  
Plating:  
Contact Area – 100µ" Tin (Sn) or 30µ" Gold (Au)  
Underplating – 50µ" Nickel (Ni)  
Wire Range: 16, 18, 20 AWG  
Insulation Range: 3.10mm (.122") max.  
Strip Length: 3.00 to 3.50mm (.118" to .138")  
Operating Temperature: -40 to +105° C



## APPLICATIONS



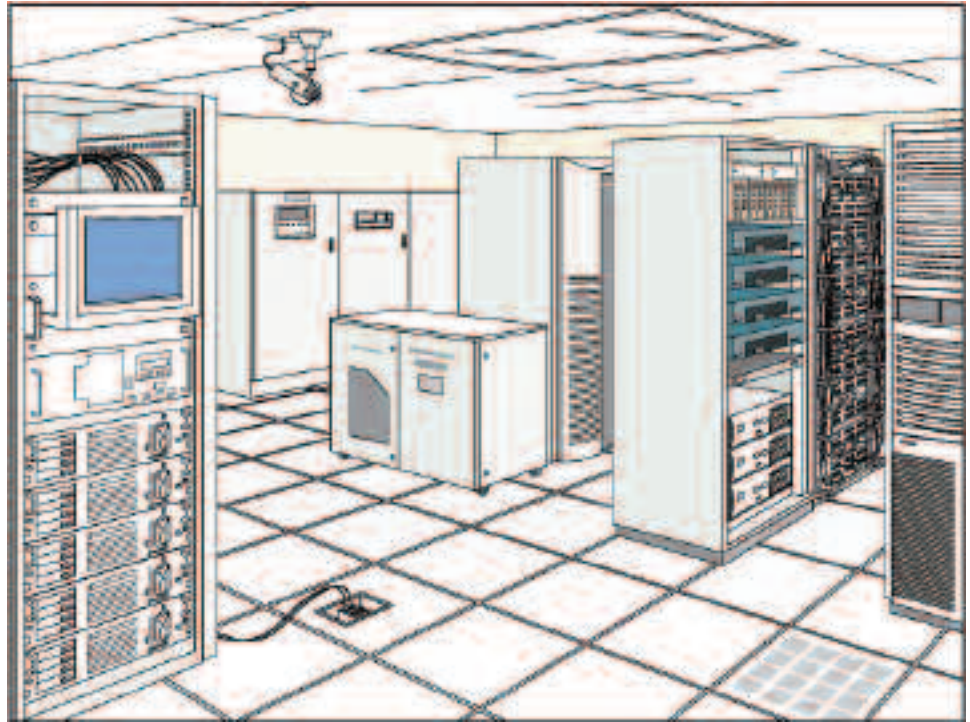
# 4.20mm (.165") Pitch Mini-Fit Plus HCS™ Terminal

## 45750

### Crimp, Female

- Power Supplies
- Fan Trays
- Lottery Systems
- HVAC Systems
- Personal Computers
- Lighting Systems
- Gaming Equipment
- Office Equipment
- Disk Drives
- Network servers
- Telecommunications
  - Base stations
  - Hubs and routers
- Appliances
- Business Equipment
- Printers
- PC Industry

- Automotive
- Industrial Equipment
- Medical



### Current Rating Chart

Wire Range AWG	2 - 3 Circuits	4 - 6 Circuits	7 - 10 Circuits	12 - 24 Circuits
16	12.0A	12.0A	12.0A	11.0A
18	12.0A	11.0A	10.0A	9.0A
20	9.0A	9.0A	8.0A	8.0A

### Application Tooling

Terminal	Wire Range (AWG)	Insulation Dia. (max.)	Strip Length	Applicator
45750-01X1	16	3.10mm (.112")	3.00 - 3.50mm (.188 - .138")	63860-1200
45750-02X1	18 - 20	2.15mm (.085)		63860-1400

## ORDERING INFORMATION

Order No.	Plating	Wire Range (AWG)	Packaging
45750-0111	Tin	16	Reel
45750-0112			Bag
45750-0211		18 - 20	Reel
45750-0212			Bag
45750-0121	Gold	16	Reel
45750-0122			Bag
45750-0221		18 - 20	Reel
45750-0222			Bag

**Americas Headquarters**  
Lisle, Illinois 60532 U.S.A.  
1-800-78MOLEX  
amerinfo@molex.com

**Far East North Headquarters**  
Yamato, Kanagawa, Japan  
81-462-65-2324  
feninfo@molex.com

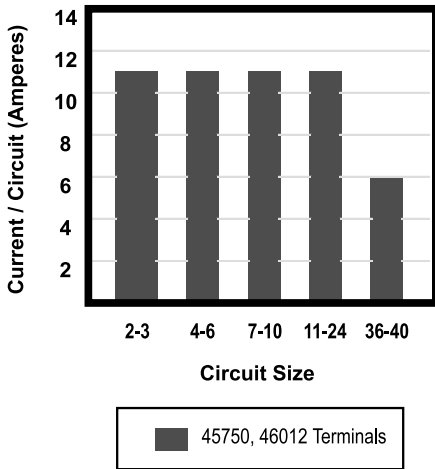
**Far East South Headquarters**  
Jurong, Singapore  
65-6-268-6868  
fesinfo@molex.com

**European Headquarters**  
Munich, Germany  
49-89-413092-0  
eurinfo@molex.com

**Corporate Headquarters**  
2222 Wellington Ct.  
Lisle, IL 60532 U.S.A.  
630-969-4550  
Fax:630-969-1352

Visit our Web site at <http://www.molex.com/product/power/mf.html>

# 4.20mm (.165") Pitch Mini-Fit Plus HCS™ Connector System



## Features

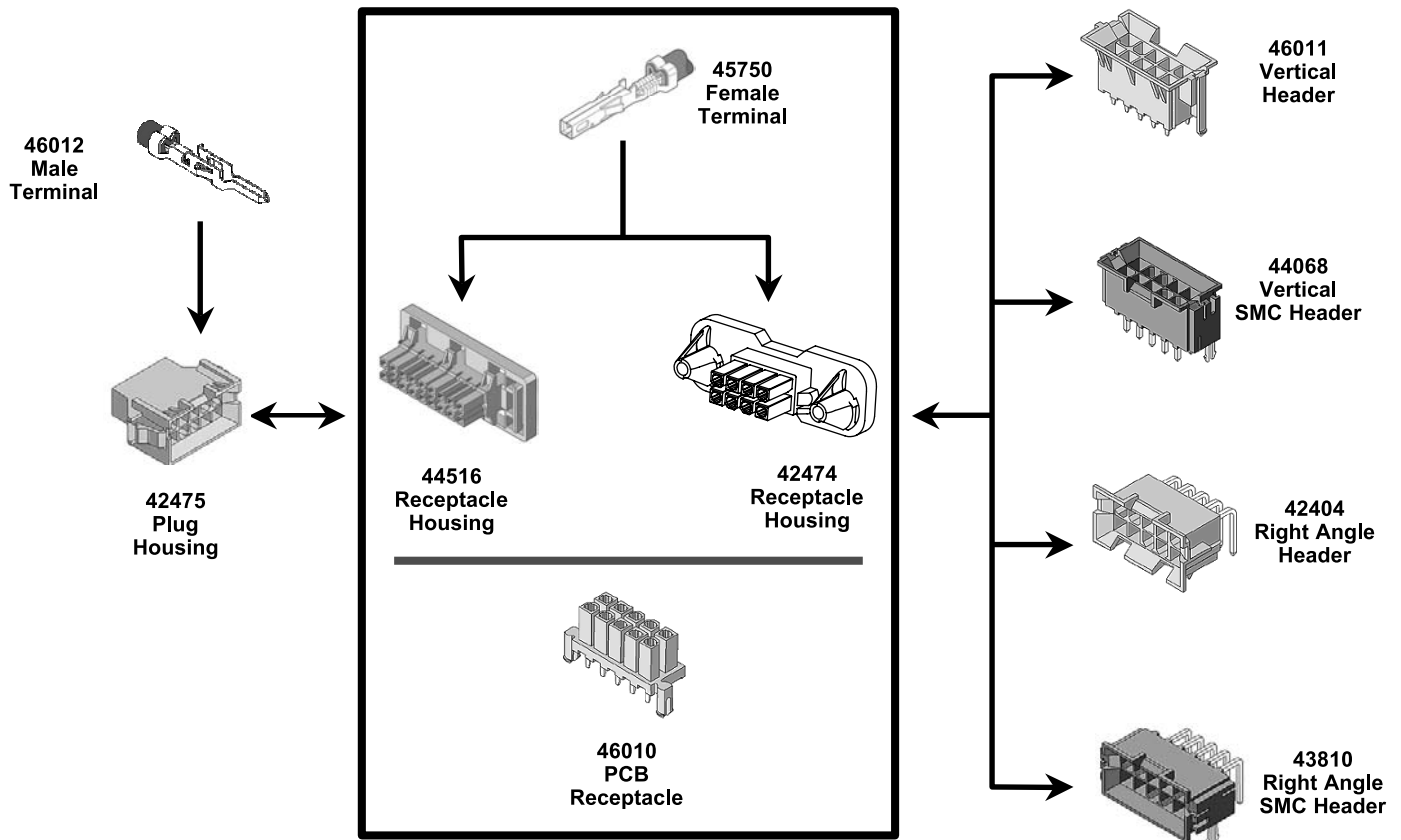
- High Current**  
 The base material of the terminals and stamped pins is a highly-conductive copper alloy. Heat generated at the contact interface is quickly dissipated. The system is suitable for applications that require high current loads.
- Hot Pluggable**  
 The gold-plated terminals, PCB receptacle and headers are ideal for applications that require repeated "hot" mates and unmates.
- Flexible Design**  
 Blind-mating, Positive Locking and Terminal Position Assurance solutions are available in the high current format.
- Configurations**  
 Receptacle housings, PCB receptacles, plugs housings and headers in different combinations enable wire-to-wire, wire-to-board, panel-to-panel, panel-to-board or board-to-board designs.
- Polarized Geometry**  
 The receptacle housings and PCB receptacles are polarized to the plug housings and headers to minimize the chance of mismatching the connectors.
- Lead-free**  
 All Mini-Fit Plus HCS connectors have been lead-free since inception.

## Specifications

- Current Rating: 12.0A max. (16 AWG wire)
- Voltage Rating: 600V
- Contact Resistance:
  - 10 milliohms max. (initial)
  - 20 milliohms max. (after environmental testing)
- Operating Temperature: -40 to +105° C
- Wire Range:
  - 16 AWG (2.20 to 3.15mm insulation OD)
  - 18 to 20 AWG (1.65 to 2.95mm insulation OD)
- Plating Options: Tin, Select Gold
- Current Interruption (Hot Pluggability): 8.0A max., 24V max., 50 mating cycles max. (Gold-plated only)
- Applicable PCB Solder Processes:
  - Wave Solder—42440, 42404, 42385, 43644, 43810, 43973, 44068, 45567 and 46011
  - Reflow—44068, 43810

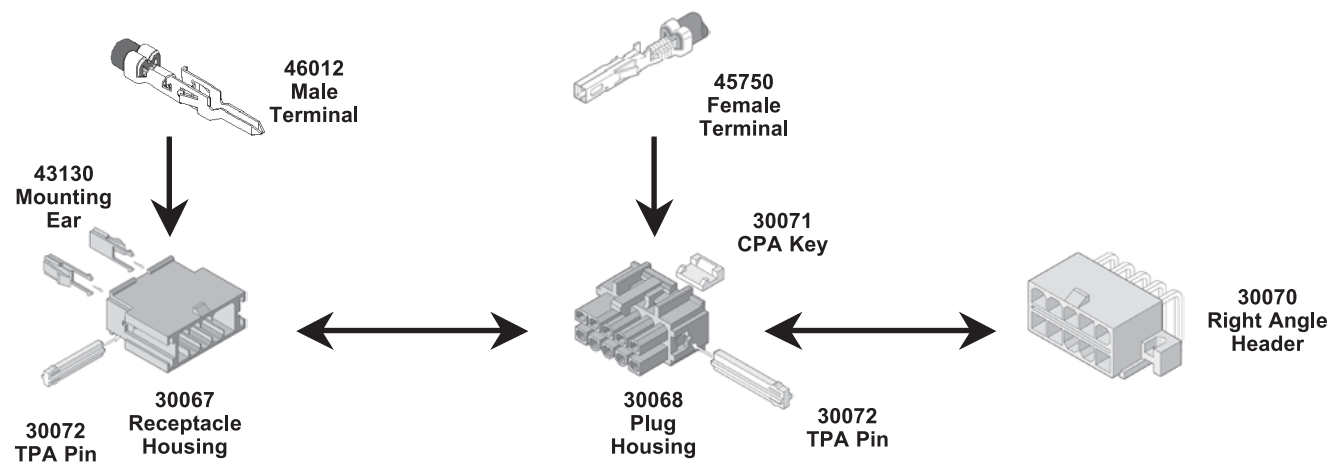
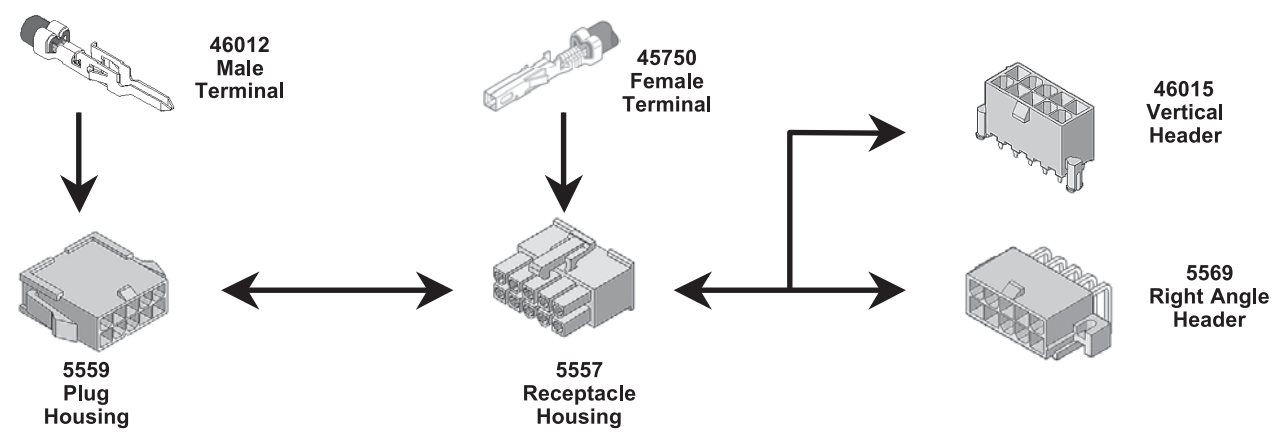
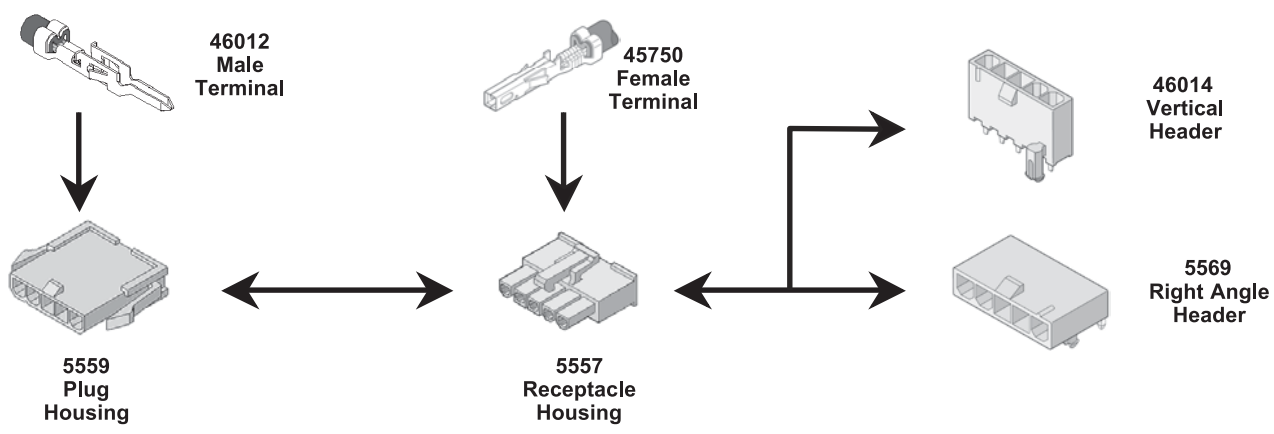
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Power Connectors



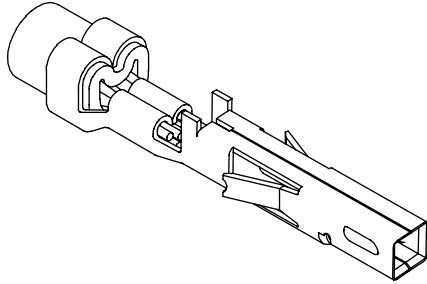
# 4.20mm (.165") Pitch Mini-Fit Plus HCS™ Connector System

**E**  
Power Connectors



# 4.20mm (.165") Pitch Mini-Fit Plus HCS™ Terminal

## 45750 Crimp, Female



### Features and Benefits

- Post-plated contacts for superior electrical performance over time
- Suitable for high current applications
- Locking tangs secure terminal to housing

### Reference Information

Packaging: Reel or bag  
Use With: 5557, 42474, 44516 and 30067 housings

### Electrical

Voltage: 600V  
Current: When mating 2-circuit connectors

16 AWG	18 AWG	20 AWG
12.0A	12.0A	9.0A

Contact Resistance: 10 milliohms max.  
Dielectric Withstanding Voltage: 1500V  
Insulation Resistance: 1000 Megohms min.

### Mechanical

Contact Insertion Force: 1.5kg max.  
Contact Retention to Housing: 3.0kg min.  
Wire Pull-Out Force: 9.0kg min.  
Normal Force: 200g min.  
Durability: Tin—75 cycles  
Gold—100 cycles

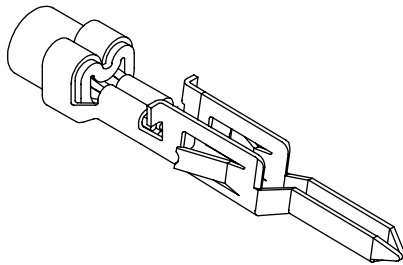
### Physical

Contact: Copper Alloy  
Plating: Tin or Select Gold  
Underplating: Nickel  
Operating Temperature: -40 to +105°C

Plating	Wire Range AWG	Insulation Range	Reel	Bag	Lead-free
Tin	16	2.20-3.15mm	<a href="#">45750-3111</a>	<a href="#">45750-3112</a>	Yes
	18-20	1.65-2.95mm	<a href="#">45750-1111</a>	<a href="#">45750-1112</a>	
Select Gold	16	2.20-3.15mm	<a href="#">45750-3211</a>	<a href="#">45750-3212</a>	
	18-20	1.65-2.95mm	<a href="#">45750-1211</a>	<a href="#">45750-1212</a>	

# 4.20mm (.165") Pitch Mini-Fit Plus HCS™ Terminal

## 46012 Crimp, Male



### Features and Benefits

- Post-plated contacts for superior electrical performance over time
- Suitable for high current applications
- Locking tangs secure terminal to housing

### Reference Information

Packaging: Reel or bag  
Use With: 5559, 42475 and 30068 housings

### Electrical

Voltage: 600V  
Current: When mating 2-circuit connectors

16 AWG	18 AWG	20 AWG
12.0A	12.0A	9.0A

Contact Resistance: 10 milliohms max.  
Dielectric Withstanding Voltage: 1500V  
Insulation Resistance: 1000 Megohms min.

### Mechanical

Contact Insertion Force: 1.5kg max.  
Contact Retention to Housing: 3.0kg min.  
Wire Pull-Out Force: 9.0kg min.  
Durability: Tin—75 cycles  
Gold—100 cycles

### Physical

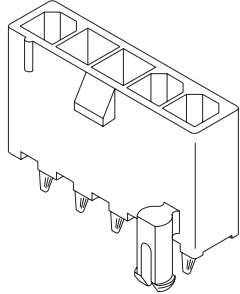
Contact: Copper Alloy  
Plating: Tin or Select Gold  
Underplating: Nickel  
Operating Temperature: -40 to +105°C

Plating	Wire Range AWG	Insulation Range	Reel	Bag	Lead-free
Tin	16	2.20-3.15mm	<a href="#">46012-3141</a>	<a href="#">46012-3142</a>	Yes
	18-20	1.65-2.95mm	<a href="#">46012-1141</a>	<a href="#">46012-1142</a>	
Select Gold	16	2.20-3.15mm	<a href="#">46012-3241</a>	<a href="#">46012-3242</a>	
	18-20	1.65-2.95mm	<a href="#">46012-1241</a>	<a href="#">46012-1242</a>	

# 4.20mm (.165") Pitch Mini-Fit Plus HCS™ Header

**46014**

**Single Row, Vertical  
With Pegs and Drain Holes**



### Features and Benefits

- Carries more amperes per circuit than 5566 series headers
- Headers standard with mounting pegs for increased board retention
- Single row configuration saves board space

### Reference Information

Packaging: Tray  
 UL File No.: E29179  
 CSA File No.: LR19980  
 TUV License No.: R75142  
 Mates With: 5557 single row receptacle housing using 45750 terminal  
 PCB Thickness: 1.60mm (.062")  
 Process: Wave solder  
 Designed In: Millimeters

### Electrical

Voltage: 600V  
 Current: (Used with 16 AWG)

Series	Circuits			
	2-3	4-6	7-10	12-24
45750	12.0A	12.0A	12.0A	11.0A

Contact Resistance: 10 milliohms max.  
 Dielectric Withstanding Voltage: 1500V  
 Insulation Resistance: 1000 Megohms min.

### Mechanical

Insertion Force to PCB: 9.0kg max.

### Physical

Housing: 6/6 nylon, UL 94V-0  
 Contact: High Copper Alloy  
 Plating: Tin or Select Gold  
 Underplating: Nickel  
 Operating Temperature: -40 to +105°C

Power Connectors

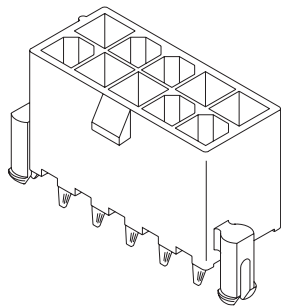
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Circuits	Order No.		Lead-free
	Tin	Select Gold	
3	<a href="#">46014-0300</a>	<a href="#">46014-0302</a>	Yes
4	<a href="#">46014-0400</a>	<a href="#">46014-0402</a>	
5	<a href="#">46014-0500</a>	<a href="#">46014-0502</a>	

# 4.20mm (.165") Pitch Mini-Fit Plus HCS™ Header

**46015**

**Dual Row, Vertical  
With Pegs, Without Drain Holes**



### Features and Benefits

- Carries more amperes per circuit than 5566 series headers
- Headers standard with mounting pegs for increased board retention
- Positive housing locks

### Reference Information

Packaging: Tray  
 UL File No.: E29179  
 CSA File No.: LR19980  
 TUV License No.: R75142  
 Mates With: 5557 housings using 45750 terminal  
 PCB Thickness: 1.60mm (.062")  
 Process: Wave solder  
 Designed In: Millimeters

### Electrical

Voltage: 600V  
 Current: (Used with 16 AWG)

Series	Circuits			
	2-3	4-6	7-10	12-24
45750	12.0A	12.0A	12.0A	11.0A

Contact Resistance: 10 milliohms max.  
 Dielectric Withstanding Voltage: 1500V  
 Insulation Resistance: 1000 Megohms min.

### Mechanical

Insertion Force to PCB: 9.0kg max.

### Physical

Housing: 6/6 nylon, UL 94V-0  
 Contact: High Copper Alloy  
 Plating: Tin or Select Gold  
 Underplating: Nickel  
 Operating Temperature: -40 to +105°C

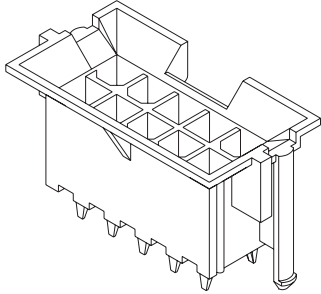
Circuits	Order No.		Lead-free
	Tin	Select Gold	
2	<a href="#">46015-0201</a>	<a href="#">46015-0208</a>	Yes
4	<a href="#">46015-0401</a>	<a href="#">46015-0408</a>	
6	<a href="#">46015-0601</a>	<a href="#">46015-0608</a>	
8	<a href="#">46015-0801</a>	<a href="#">46015-0808</a>	
10	<a href="#">46015-1001</a>	<a href="#">46015-1008</a>	
12	<a href="#">46015-1201</a>	<a href="#">46015-1208</a>	

Circuits	Order No.		Lead-free
	Tin	Select Gold	
14	<a href="#">46015-1401</a>	<a href="#">46015-1408</a>	Yes
16	<a href="#">46015-1601</a>	<a href="#">46015-1608</a>	
18	<a href="#">46015-1801</a>	<a href="#">46015-1808</a>	
20	<a href="#">46015-2001</a>	<a href="#">46015-2008</a>	
22	<a href="#">46015-2201</a>	<a href="#">46015-2208</a>	
24	<a href="#">46015-2401</a>	<a href="#">46015-2408</a>	



# 4.20mm (.165") Pitch Mini-Fit Plus HCS™ Header

## 46011 Dual Row, Vertical With Drain Holes



### Features and Benefits

- Carries more amperes per circuit than 42440 series headers
- .100" lead-in for self-aligning connection with receptacle
- Polarizing pegs for increased board retention during wave soldering

### Reference Information

Packaging: Tray  
 UL File No.: E29179  
 CSA File No.: LR19980  
 TUV License No.: R75142  
 Mates With: 42474, 44516 and 5557 receptacles and 46010 PCB receptacles  
 Use With: 44476 HCS terminals  
 PCB Thickness: 1.60mm (.062")  
 Process: Wave solder  
 Designed In: Millimeters

### Electrical

Voltage: 600V  
 Current: (Used with 16 AWG)

Series	Circuits			
	2-3	4-6	7-10	12-24
45750	12.0A	12.0A	12.0A	11.0A

Contact Resistance: 10 milliohms max.  
 Dielectric Withstanding Voltage: 1500V  
 Insulation Resistance: 1000 Megohms min.

### Mechanical

Insertion Force to PCB: 5.0kg max.

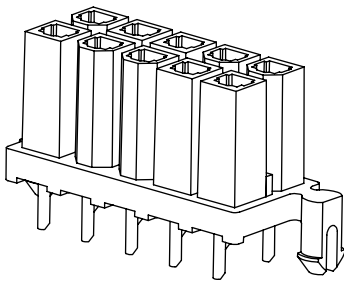
### Physical

Housing: 6/6 nylon, UL 94V-0  
 Contact: High Copper Alloy  
 Plating: Tin or Select Gold  
 Underplating: Nickel  
 Operating Temperature: -40 to +105°C

Circuits	Order No.		Lead-free
	Tin	Select Gold	
4	<a href="#">46011-0402</a>	<a href="#">46011-0403</a>	Yes
6	<a href="#">46011-0602</a>	<a href="#">46011-0603</a>	
10	<a href="#">46011-1002</a>	<a href="#">46011-1003</a>	
14	<a href="#">46011-1402</a>	<a href="#">46011-1403</a>	
18	<a href="#">46011-1802</a>	<a href="#">46011-1803</a>	
24	<a href="#">46011-2402</a>	<a href="#">46011-2403</a>	

# 4.20mm (.165") Pitch Mini-Fit Plus HCS™ PCB Receptacle Header

## 46010 Right Angle Dual Row



### Features and Benefits

- Fully polarized housing prevents mismatching
- Board mounted receptacle for board-to-board applications
- Matable with Mini-Fit BMI™ style housings and headers only
- The 46010 is not a floating connector. Guidance and float must be provided to align the connectors during mating and to provide stress-free positioning after mating.

### Reference Information

Packaging: Tray  
 UL File No.: E29179  
 CSA File No.: LR19980  
 TUV License No.: R75142  
 Mates With: 42404 and 46011 headers, 42475 plug  
 Process: Wave solder  
 Designed In: Millimeters

### Electrical

Voltage: 600V  
 Current: (Used with 16 AWG)

Circuits			
2-3	4-6	7-10	12-24
12.0A	12.0A	12.0A	11.0A

Contact Resistance: 10 milliohms max.  
 Dielectric Withstanding Voltage: 1500V  
 Insulation Resistance: 1000 Megohms min.

### Mechanical

Insertion Force to PCB: 9.0kg max.

### Physical

Housing: 6/6 nylon, UL 94V-0  
 Contact: Copper Alloy  
 Plating: Tin or Select Gold  
 Underplating: Nickel  
 Operating Temperature: -40 to +105°C

Circuits	Order No.		Lead-free
	Tin	Select Gold	
4	<a href="#">46010-0421</a>	<a href="#">46010-0422</a>	Yes
6	<a href="#">46010-0621</a>	<a href="#">46010-0622</a>	
10	<a href="#">46010-1021</a>	<a href="#">46010-1022</a>	
14	<a href="#">46010-1421</a>	<a href="#">46010-1422</a>	
18	<a href="#">46010-1821</a>	<a href="#">46010-1822</a>	
24	<a href="#">46010-2421</a>	<a href="#">46010-2422</a>	