



**THE DATASHEET OF**  
**5055650901**



# Micro-Lock Plus Wire-to-Board Connector System

**molex**

Ideal for compact applications, the Micro-Lock Plus Wire-to-Board Connector System provides electrical and mechanical reliability in a high-temperature design that meets other industry requirements

## Features and Advantages

**Smallest 1.25mm-pitch connector with positive lock**  
Delivers secure mating retention without sacrificing compactness

**Wide positive latch that delivers audible click**  
Provides secure mating retention. Ensures proper mating

**Inner lock for dual-row versions; outer lock for single-row versions**  
Strengthens lock for more reliable connection

**Withstands up to 105°C operating temperature**  
Meets other industry requirements. Withstands harsh environments

**2 to 42 circuits, single and dual rows, vertical and horizontal plug configurations**  
Offers design flexibility

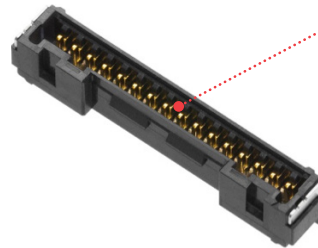
**Robust metal solder tabs**  
Provides secure PCB retention and strain relief to solder joints

**Dual-contact terminal design**  
Offers secure contact and terminal retention

Micro-Lock Plus 1.25mm Connector

**Gold-plated headers, plugs and terminals**  
Offers superior reliability and durability

**Tin-bismuth terminals**  
Prevents whiskering for a clean and uninterrupted signal. Supports terminal ruggedness and reliability



**2 to 16 circuits, single-row plug in vertical and horizontal configurations**  
Offers design flexibility

**SMT terminals**  
Prevents whiskering for a clean and uninterrupted signal. Supports terminal ruggedness and reliability

Micro-Lock Plus 2.00mm Connector

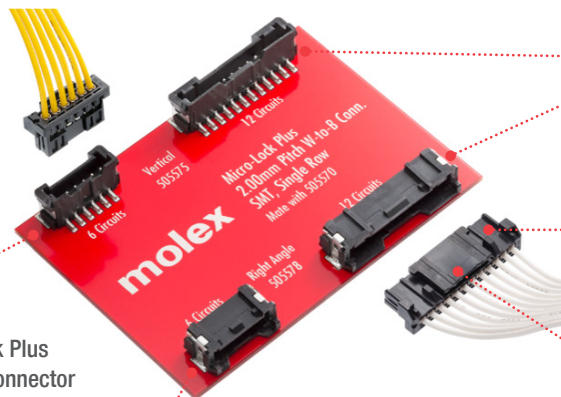
**2.00mm-pitch connector with positive lock**  
Delivers secure mating retention without sacrificing compactness

**Wide positive latch that delivers audible click**  
Provides secure mating retention. Ensures proper mating

**Robust metal solder tabs**  
Provides secure PCB retention and strain relief to solder joints

**Low-halogen and high-temperature capabilities**  
Withstands harsh environments

**Outer lock**  
Strengthens lock for more reliable connection



# Micro-Lock Plus Wire-to-Board Connector System



## Applications

### Datacom

Servers

### Consumer

White goods

Gaming machines

Drones

Air conditioners

Laser printers

Vacuum cleaners

Desktop PCs

Power tools

### Automotive

Steering wheel, paddle shift,

combination switches

Internal connection with other units



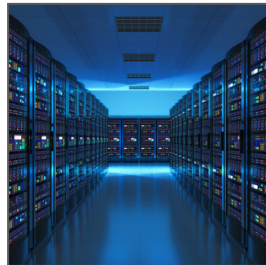
Air Condition



White Goods



Steering Wheel Switches



Servers



Drones



Industrial Automation

## Specifications 1.25mm

### REFERENCE INFORMATION

Packaging: Reel (Terminal);

Embossed (Header Assembly);

Bag (Receptacle Housing);

Mates with: Micro-Lock Plus Connectors and

Crimp terminals

Designed In: Millimeters

RoHS: Yes

Low Halogen: Yes \*Depends on series number

### ELECTRICAL

Voltage (max.): 50V

Current (max.): 3.6A/Single (2 circuit/AWG 26)

2.4A/Dual (8 circuit/AWG 26)

Contact Resistance (max.): 20 milliohms

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance (min.): 100 Megohms

### MECHANICAL

Durability (max.): 30 Cycles

Crimp Terminal Insertion Force (max.): 4.9N

Crimp Terminal Retention Force (min.): 9.8N

Crimping Pull Out Force: 19.6N (min.) (AWG 26)

Housing Lock Strength: 68.6N(min.) (Single 14-16

circuits) / 98.0N(min.) (Dual 38-42 circuits)

Durability (max.): 30 Cycles

### PHYSICAL

Housing:

Receptacle – PBT

Header – PA

Crimp terminal: Copper alloy, Tin or Au plating

Header pin: Copper alloy, Tin Bismuth or Au plating

Operating Temperature: -40 to +105°C

### SINGLE

AWG#	Amps [A]		
	2-circuit	8-circuit	16-circuit
26	3.6	2.4	2.2
28	3.1	2.1	1.8
30	2.8	1.8	1.5

### DUAL

AWG#	Amps [A]				
	8-circuit	16-circuit	24-circuit	32-circuit	42-circuit
26	2.4	1.8	1.7	1.6	1.5
28	2.1	1.6	1.5	1.4	1.3
30	1.8	1.4	1.3	1.2	1.1

# Micro-Lock Plus Wire-to-Board Connector System

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## Specifications 2.00mm

### REFERENCE INFORMATION

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

AWG#	Amps [A]		
	2-circuit	8-circuit	16-circuit
22	4.7	3.5	3.4
24	3.9	3.1	3.0
26	2.9	2.7	2.6

### ELECTRICAL

Voltage (max.): 250V  
Current (max.): 4.7A (2 circuit/AWG 22)  
Contact Resistance (max.): 10 Milliohms  
Dielectric Withstanding Voltage: 800V AC  
Insulation Resistance (min.): 1000 Megaohms

### MECHANICAL

Crimp Terminal Insertion Force (max.): 9.8N  
Crimp Terminal Retention Force (min.): 25.0N  
Crimping Pull Out Force: 39.2N (min.) (AWG 22)  
Housing Lock Strength: 80N (min.) (6-16 circuits)  
Durability (max.): 30 Cycles

### PHYSICAL

Housing:  
Receptacle – PBT  
Header – PA  
Header Pin: Copper Alloy, Tin  
Crimp Terminal: Copper Alloy, Tin  
Header Pin: Copper Alloy, Tin  
Operating Temperature: -40 to +105°C

# Micro-Lock Plus Wire-to-Board Connector System



## Ordering Information

Series No.	Pitch (mm)	Component	Plating	AWG / Allowable Current	Circuits	Rows	Cover Type
505431-1000	-	Female Receptacle Terminal	Tin	AWG 26 to 30	-	-	-
505431-1100	-	Female Receptacle Terminal	Gold, 0.10µm		-	-	-
505431-1200	-	Female Receptacle Terminal	Gold, 0.38µm		-	-	-
505431-1300	-	Female Receptacle Terminal	Gold, 0.76µm		-	-	-
505565-XX01	1.25	Receptacle Housing	-	AWG 26 AWG 28 AWG 30	2 to 16	Single	No
505567-XX31		Right-Angle Header	Gold, 0.38µm				No
505567-XX51		Right-Angle Header	Gold, 0.76µm				No
505567-XX71		Right-Angle Header	Tin				No
505567-XX81		Right-Angle Header	Gold, 0.10µm				No
505568-XX31		Vertical Header	Gold, 0.38µm				Yes
505568-XX51		Vertical Header	Gold, 0.76µm				Yes
505568-XX71		Vertical Header	Tin				Yes
505568-XX81		Vertical Header	Gold, 0.10µm				Yes
505432-XX01		Receptacle Housing	-				8 to 42
505433-XX21		Vertical Header	Gold, 0.38µm		No		
505433-XX31		Vertical Header	Gold, 0.38µm		Yes		
505433-XX41		Vertical Header	Gold, 0.76µm		No		
505433-XX51		Vertical Header	Gold, 0.76µm		Yes		
505433-XX61		Vertical Header	Gold, 0.10µm		No		
505433-XX71		Vertical Header	Tin		No		
505433-XX81		Vertical Header	Tin		Yes		
505433-XX91		Vertical Header	Gold, 0.10µm		Yes		
505488-XX31		Right-Angle Header	Gold, 0.38µm		No		
505488-XX51		Right-Angle Header	Gold, 0.76µm		No		
505488-XX71	Right-Angle Header	Tin	No				
505488-XX91	Right-Angle Header	Gold, 0.10µm	No				
505572-1000	2.00	Female Receptacle Terminal	Tin	AWG 22 AWG 24 AWG 26	-	-	-
505570-XX01		Receptacle Housing	-		2 to 16	Single	No
505578-XX71		Right-Angle Header	Tin				No
505575-XX71		Vertical Header	Tin				No
505575-XX81		Vertical Header	Tin				Yes

[www.molex.com/link/microlockplus.html](http://www.molex.com/link/microlockplus.html)

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