



# AMP-LATCH RIBBON CABLE INTERCONNECT SOLUTIONS

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Quick Reference Guide

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# AMP-LATCH RIBBON CABLE INTERCONNECT SOLUTIONS

AMP-LATCH connectors are ribbon cable-to-board devices used to make the transition between ribbon cable and pc board circuitry. They find heavy use within equipment to connect one board to another or one subsystem to another.

This guide illustrates the recommended range of IDC connectors available through the TE Connectivity brands. While this selector guide includes the more commonly used products which terminate to a 0.050" [1.27mm] ribbon cable pitch, TE Connectivity also offers connectors which terminate to 0.025" [0.64mm] and 0.39" [1.0mm] ribbon cable.

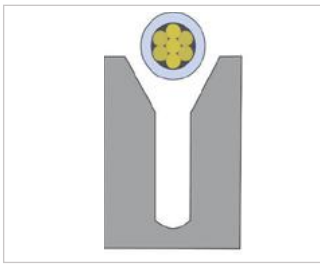
## FEATURES AND BENEFITS

- Mass termination capabilities
- No need to strip or prepare wire
- Labor savings

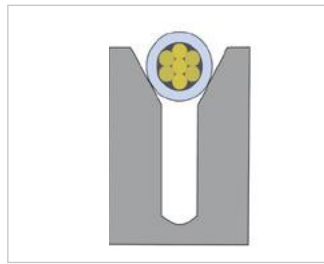
## PRODUCT APPLICATIONS

- Computers/Electronics
- Business Equipment
- Medical Equipment

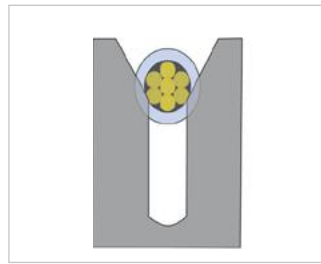
## IDC Terminaxtion



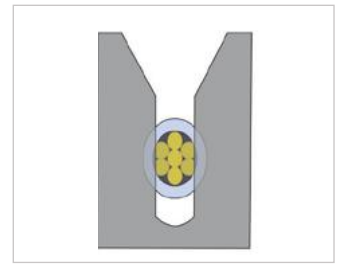
The wire must be aligned with the IDC slot



As insertion begins, the wire insulation is displaced.



Insulation displacement is completed and conductor strands begin to deform.



As the conductor is pushed further into the slot, strand deformation is completed and beam deflection occurs. The connection is established and maintained by high residual beam force.

## IDC Terminaxtion

### RECEPTACLES



**1658620-4**  
Military



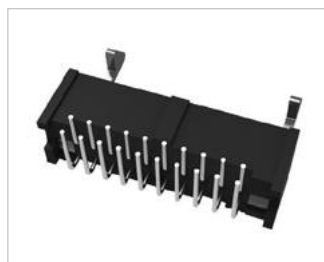
**1658621-4**  
Center and Military



**1658624-4**  
Dual



**5103308-2**  
Center and Dual



**1761607-7**  
Military and Center



**5102153-2**  
Military, Center and Dual

# AMP-LATCH RIBBON CABLE INTERCONNECT SOLUTIONS

## APPLICATION TOOLING

AMP-LATCH HEADER TOOLING	
PCB Transition Connectors/DIP Plugs Tooling	
Universal Hand Tool Kit	768340-1
Connector Specific Kit	768347-1 Tin

AMP-LATCH RECEPTACLE TOOLING	
Manual Tooling	
Connector Specific Kit	768341-1
Pneumatic Tooling	
Connector Specific Kit	768341-1
Hand Tooling	
Universal Hand Tool Kit	768340-1

## AMP-LATCH .050" [1.27MM] STANDARD PRODUCT OFFERING

### AMP-LATCH LOW PROFILE HEADERS



- **Contact material:** Brass / Phosphor Bronze\*
- **Contact area plating:** 0.38um, Au flash over PdNi plating  
0.76um, Au over PdNi underplating\*
- **Color:** Black
- **Insulation material:** Glass Filled Nylon / PBT\*
- **Flammability:** UL 94V-0
- **Current rating:** 1A
- **Insulation resistance:** 5000 MΩ Minimum
- **Dielectric strength:** 1,000 V rms
- **Temperature rating:** -65 to +105C

WITHOUT LATCHES		
N° of Positions	Vertical	Right Angle
10	5103308-1	5103310-1
14	5103308-2	5103310-2
16	5103308-3	5103310-3
20	5103308-5	5103310-5
26	5103308-6	5103310-6
34	5103308-7	5103310-7
40	5103308-8	5103310-8
50	1-5103308-0	1-5103310-0
60	Inquire for availability	

WITH SHORT LATCHES		
N° of Positions	Vertical	Right Angle
10	1761608-3	1761609-3
14	1761608-5	1761609-5
16	1761608-6	1761609-6
20	1761608-7	1761609-7
26	1761608-9	1761609-9
34	1-1761608-1	1-1761609-1
40	1-1761608-3	1-1761609-3
50	1-1761608-5	1-1761609-5
60	1-1761608-6	1-1761609-6

WITH LONG LATCHES		
N° of Positions	Vertical	Right Angle
10	1761606-3	1761607-3
14	1761606-5	1761607-5
16	1761606-6	1761607-6
20	1761606-7	1761607-7
26	1761606-9	1761607-9
34	1-1761606-1	1-1761607-1
40	1-1761606-3	1-1761607-3
50	1-1761606-5	1-1761607-5
60	1-1761606-6	1-1761607-6

### AMP-LATCH UNIVERSAL EJECTION STYLE PIN HEADERS



- **Contact material:** Brass
- **Contact area plating:** 0.38um, Au flash over PdNi plating
- **Color:** Black
- **Insulation material:** Glass Filled Nylon or Polyester
- **Flammability:** UL 94V-0
- **Current rating:** 1A
- **Insulation resistance:** 1 x 10<sup>9</sup> Ω
- **Dielectric strength:** 1,000 V rms
- **Temperature rating:** -55 to +105C

# AMP-LATCH RIBBON CABLE INTERCONNECT SOLUTIONS

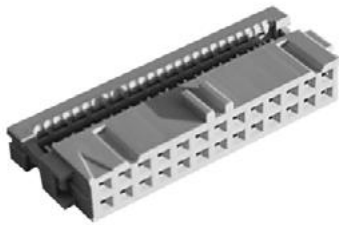
WITHOUT LATCHES		
N° of Positions	Vertical	Right Angle
10	5102153-1	5102159-1
14	5102154-2	5102159-2
16	5102153-3	5102159-3
20	5102153-4	5102159-4
26	5102153-6	5102159-6
34	5102153-8	5102159-8
40	5102153-9	5102159-9
50	1-5102153-0	1-5102159-0
60	Inquire for availability	

WITH SHORT LATCHES		
N° of Positions	Vertical	Right Angle
10	5499910-1	5499913-1
14	5499910-2	5499913-2
16	5499910-3	5499913-3
20	5499910-4	5499913-4
26	5499910-6	5499913-6
34	5499910-8	5499913-8
40	5499910-9	5499913-9
50	1-5499910-0	1-5499913-0
60	-	1-5499913-1

WITH LONG LATCHES		
N° of Positions	Vertical	Right Angle
10	5499922-1	5499786-1
14	5499922-2	5499786-2
16	5499922-3	-
20	5499206-4	5499786-4
26	5499922-6	5499786-6
34	5499922-8	5499786-8
40	5499922-9	5499786-9
50	1-5499922-0	1-5499786-0
60	1-5499922-1	1-5499786-1

## AMP-LATCH .050" [1.27MM] STANDARD PRODUCT OFFERING CONTINUED

### AMP-LATCH Headers



- **Contact material:** Phosphor Bronze
- **Contact area plating:** 0.8um Au
- **Color:** Grey
- **Insulation material:** Thermoplastic Polyester
- **Flammability:** UL 94V-0
- **Current rating:** 1A
- **Insulation resistance:**  $1 \times 10^9 \Omega$
- **Dielectric strength:** 500V
- **Temperature rating:** -65 to +105C

GREY, 0.8UM GOLD PLATING		
N° of Positions	Vertical	Strain Relief
10	1761608-3	1761609-3
14	1761608-5	1761609-5
16	1761608-6	1761609-6
20	1761608-7	1761609-7
26	1761608-9	1761609-9
34	1-1761608-1	1-1761609-1
40	1-1761608-3	1-1761609-3
50	1-1761608-5	1-1761609-5
60	1-1761608-6	1-1761609-6



- **Contact material:** Phosphor Bronze
- **Contact area plating:** 0.4um Au
- **Color:** Black
- **Insulation material:** Thermoplastic
- **Flammability:** UL 94V-0
- **Current rating:** 1A
- **Insulation resistance:**  $1 \times 10^9 \Omega$
- **Dielectric strength:** 1000V
- **Temperature rating:** -65 to +105C

BLACK, 0.4UM GOLD PLATING		
N° of Positions	Vertical	Strain Relief
10	5102153-1	5102159-1
14	5102154-2	5102159-2
16	5102153-3	5102159-3
20	5102153-4	5102159-4
26	5102153-6	5102159-6
34	5102153-8	5102159-8
40	5102153-9	5102159-9
50	1-5102153-0	1-5102159-0

### AMP-LATCH PCB Transition Connectors / DIP Plugs



- **Contact material:** Phosphor Bronze
- **Contact area plating:** Sn
- **Color:** Black
- **Insulation material:** Thermoplastic
- **Flammability:** UL 94V-0
- **Current rating:** 1A
- **Insulation resistance:**  $1 \times 10^9 \Omega$
- **Dielectric strength:** 500VAC
- **Temperature rating:** -65 to +105C

DIP PLUGS	
No of Positions	Vertical
10	2-746610-1
14	2-746610-2
16	1-746610-4
20	1-746610-5
26	1-746610-6
34	1-746610-8
40	1-746610-9
50	2-746610-0
60	2-746610-4

# AMP-LATCH RIBBON CABLE INTERCONNECT SOLUTIONS

## RIBBON CABLE CONNECTOR SELECTION GUIDE BY CENTERLINE

### RIBBON CABLE CONNECTOR SOLUTIONS

Ribbon Cable Centerline (P)	Mating Footprint		Product Family	Contact Rows	Positions	Wire AWG	Termination Style	Operating Temp	Polarization	Mates to
	X	Y								
0.64mm [0.025in]	1.27mm [0.050in]	2.54mm [0.100in]	<a href="#">System 50 Receptacles</a>	Double	select 10-100	30-32	IDC	-65°C to +105°C	Center only	<a href="#">System 50 Shrouded Headers</a>
	See Drawing 5111595 or 111595		<a href="#">System 50 Paddleboard</a>	4 row staggered	select 10-100		IDC	-65°C to +105°C	n/a	PCB
1.00mm [0.040in]	2.00mm [0.08in]	2.00mm [0.08in]	2mm Recept	Double	select 8-50	28	IDC	-65C to +105C	Center or none	2mm Modu
1.27mm [0.050in]	1.27mm [0.050in]	1.27mm [0.050in]	<a href="#">Micro-MaTch</a>	Double	select 4-24	20-28	IDC	-40°C to +105°C	Yes, except MOB SMD	<a href="#">Micro-MaTch</a>
	2.54mm [0.100in]	2.54mm [0.100in]	AMP-LATCH Receptacles	Double	select 10-64	28-26	IDC	-65°C to +105°C	Military, Military & Center, Dual	Universal & Low Pro Headers, Universal I/O
	2.54mm [0.100in]	2.54mm [0.100in]	Female Socket Connectors	Double	select 6-64	30-26	IDC	-55°C to +125°C	Military, Military & Center	Universal & Low Pro Headers, Universal I/O
	2.54mm [0.100in]	2.54mm [0.100in]	Universal I/O	Double	select 10-64	26-28	IDC	-65°C to +105°C	-	Novo Receptacles or Female Socket Connectors w/ mil or mil & center polarization
	2.54mm [0.100in]	2.54mm [0.100in]	DIP Plugs	Double	select 6-64	30-26	IDC	-65°C to +105°C	-	DIP sockets
	2.54mm [0.100in]	7.60mm [0.300in]	DIP Plugs	Double	select 6-64	-	IDC	-65°C to +105°C	-	DIP sockets
	2.54mm [0.100in]	15.20mm [0.600in]	DIP Plugs	Double	select 6-64	-	IDC	-65°C to +105°C	-	DIP sockets
	See Drawing 746603		EUROLATCH Receptacles	Three row hsg - Two rows loaded	64	30-26	IDC	-65°C to +105°C	-	<a href="#">Eurocard R/A &amp; Vertical Pin Headers</a>

### RIBBON CABLE CONNECTOR SOLUTIONS

Ribbon Cable Centerline (P)	Mating Footprint		Product Family	Contact Rows	Positions	Wire AWG	Termination Style	Operating Temp	Polarization	Mates to
	X	Y								
0.64mm [0.025in]	1.27mm [0.050in]	2.54mm [0.100in]	<a href="#">System 50 Shrouded Headers</a>	Double	select 10-100	-	SMT, Thru-Hole	-65°C to +105°C	Center, Dual or none	<a href="#">System 50 Receptacles</a>
1.00mm [0.040in]	2.00mm [0.080in]	2.00mm [0.080in]	<a href="#">2mm Modu Headers</a>	Double	select 8-120	-	SMT, Thru-Hole	-65C to +105C	Center or none	2mm Receptacles
1.27mm [0.050in]	2.54mm [0.100in]	2.54mm [0.100in]	Low Pro Headers	Double	select 10-60	-	PCB, Solder Thru-Hole	-65°C to +105°C	Center & Dual, Military & Center, Center only	AMPMODU Board Mount Receptacle, <a href="#">Mod IV Receptacle w/ Center</a> , Polarization, Novo Receptacles, Female Socket Connectors
	2.54mm [0.100in]	2.54mm [0.100in]	Universal Headers	Double	select 10-64	-	PCB, Solder Thru Hole & Action Pin	-65°C to +105°C	Military, Military & Center, Dual	AMPMODU Board Mount Receptacles, Novo Receptacles, Female Socket Connectors
	2.54mm [0.100in]	2.54mm [0.100in]	DIP Sockets	Double	select 6-64	-	PCB, Solder Thru Hole & Action Pin	-55°C to +105°C (Tin) -55°C to +105°C (Gold)	-	DIP Plugs
	2.54mm [0.100in]	7.60mm [0.300in]	DIP Sockets	Double	select 6-64	-	PCB, Solder Thru Hole & Action Pin	-55°C to +105°C (Tin) -55°C to +105°C (Gold)	-	DIP Plugs
	2.54mm [0.100in]	15.20mm [0.600in]	DIP Sockets	Double	select 6-64	-	PCB, Solder Thru Hole & Action Pin	-55°C to +105°C (Tin) -55°C to +105°C (Gold)	-	DIP Plugs
	2.54mm [0.100in]	2.54mm [0.100in]	<a href="#">Eurocard Pin Headers</a>	Three row hsg - Two rows loaded	64	-	PCB, Solder Thru Hole & Action Pin	-55°C to +125°C	-	EUROLATCH Receptacles

Part numbers in this brochure are RoHS Compliant\*, unless marked otherwise.  
\*as defined [www.te.com/leadfree](http://www.te.com/leadfree)

[te.com/products/ribboncable](http://te.com/products/ribboncable)

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