



AMP-LATCH RIBBON CABLE INTERCONNECT SOLUTIONS

Quick Reference Guide

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

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: $5000 \text{ M}\Omega$ Minimum

Dielectric strength: 1,000 V rms
Temperature rating: -65 to +105C

WITHOUT LATCHES						
Nº 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-					
40	5103308-8	5103310-8				
50	1-5103308-0	1-5103310-0				
60	Inquire for availability					

WITH SHORT LATCHES						
Nº 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								
Vertical	Right Angle							
1761606-3	1761607-3							
1761606-5	1761607-5							
1761606-6	1761607-6							
1761606-7	1761607-7							
1761606-9	1761607-9							
1-1761606-1	1-1761607-1							
1-1761606-3	1-1761607-3							
1-1761606-5	1-1761607-5							
1-1761606-6	1-1761607-6							
	Vertical 1761606-3 1761606-5 1761606-6 1761606-7 1761606-9 1-1761606-1 1-1761606-3 1-1761606-5							

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 10⁹ Ω
 Dielectric strength: 1,000 V rms
 Temperature rating: -55 to +105C

WITHOUT LATCHES							
Nº of Positions	Vertical	Right Angle					
10	5102153-1 5102159-						
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							
Nº 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						
Nº of Positions	f Positions Vertical					
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





• 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							
Nº of Positions	of Positions Vertical						
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					

RIBBON CABLE CONNECTOR SELECTION GUIDE BY CENTERLINE

RIBBON CABLE CONNECTOR SOLUTIONS

Ribbon Cable Centerline (P)	Mating Footp	Mating Fo	ootprint	Product	Contact	Positions	Wire	Termination	Operating Temp	Polarization	Mates to
	Х	Y	Family	Rows		AWG	Style	operating remp		1100000	
0.64mm	1.27mm [0.050in]	2.54mm [0.100in]	System 50 Receptacles	Double	select 10- 100	30-32	IDC	-65°C to +105°C	Center only	System 50 Shrouded Headers	
[0.025in]	See Dra 5111595 o		System 50 Paddleboard	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	
2.5 [0.1	1.27mm [0.050in]	1.27mm [0.050in]	Micro-MaTch	Double	select 4-24	20-28	IDC	-40°C to +105°C	Yes, except MOB SMD	Micro-MaTch	
	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	
1.27mm [0.050in]	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 Femal 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 Drawin	g 746603	EUROLATCH Receptacles	Three row hsg - Two rows loaded	64	30-26	IDC	-65°C to +105°C	-	Eurocard R/A & Vertical Pin Headers	

RIBBON CABLE CONNECTOR SOLUTIONS

Ribbon Cable Centerline (P)	Mating Foot	ootprint	Product	Contact	Positions	Wire	Termination	Operating Temp	Polarization	Mates to
	Х	Y	Family	Rows		AWG	Style	operating reinp	. oranzaron	
0.64mm [0.025in]	1.27mm [0.050in]	2.54mm [0.100in]	System 50 Shrouded Headers	Double	select 10- 100	-	SMT, Thru-Hole	-65°C to +105°C	Center, Dual or none	System 50 Receptacles
1.00mm [0.040in]	2.00mm [0.080in]	2.00mm [0.080in]	2mm Modu Headers	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 & Cen- ter, Center only	AMPMODU Board Mount Receptacle, <u>Mod IV</u> <u>Receptacle w/ Center</u> , 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]	Eurocard Pin Headers	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

te.com/products/ribboncable

Connect With Us

We make it easy to connect with our experts and are ready to provide all the support you need. Visit **te.com/support** to chat with a Product Information Specialist.

te.com

TE, TE Connectivity, TE connectivity (logo), and EVERY CONNECTION COUNTS are trademarks owned or licensed by the TE Connectivity Ltd. family of companies. Other product names, logos, and company names mentioned herein may be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2024 TE Connectivity. All Rights Reserved.

05/24 V

