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2.0 MM PITCH AMP CT CONNECTOR SERIES

QUICK REFERENCE GUIDE

TE Connectivity's (TE) AMP CT connectors are a miniature wire-to-board and wire-to-wire interconnect solution.
The AMP CT connector series has proven performance in its harness making capability. A variety of harness-making machines are available ranging from hand tools for low volume production to high-speed automatic crimping machines for medium to high volume productions. AMP high-speed automatic crimping machines are easier to operate, eliminating the need for tedious work of changing parts inside the equipment to adapt to changes in harness styles. Two types of housings are available, including Crimp and Mass Terminated (MT), which are preloaded with insulation displacement contacts. The box or shrouded headers are highly resistant to scooping at mating/unmating.

FEATURES AND BENEFITS

- 2 kinds of termination method: IDC, Crimp
- Discrete wire interconnect
- Circuits range from 2-15 single row, 8-30 dual row
- AWG 22~30
- Kinks for self-retention on boards
- RoHS compliant
- Many components are recognized under the component program of Underwriters Laboratories Inc., file No. E28476
- Certified by Canadian StandardsAssociation, File No. LR 7189

PRODUCT APPLICATION

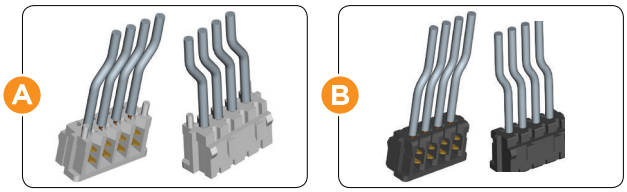
- Business Equipment
- Industrial Machines
- IoT / Smart Devices
- PC, Printer, and Fax
- C-TV
- Audio
- Air conditioner
- LED Lighting
- Where signals or power are routed

HOW TO SELECT AN AMP CT CONNECTOR PART NUMBER

The charts on this page highlight the relationship between the number of contacts (positions) to the part number. Please see the sample chart below that was designed to help you select the correct part number for your needs. For single digit position to dash numbers, attach the digit to the end base number. For double digit position to dash numbers, attach the first digit to the front of the part number, add a dash and the base part number, then follow the base part number with a dash and the second digit.

Example Base Part Number	Your criteria	Example Position to Dash Selection						End Part Number Based On Criteria
		Position	8	9	10	11	12	
173977	You require an 8 position MT housing	Dash Number	-8	-9	-10	-11	-12	173977-8
173977	You require a 12 position MT housing	Dash Number	-8	-9	-10	-11	-12	1-173977-2

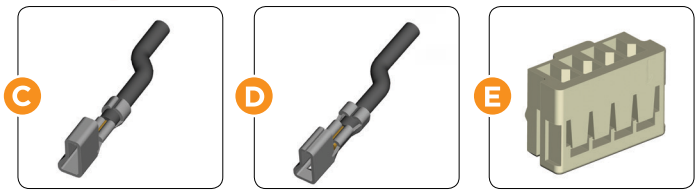
AMP CT MT Housing



Shows unstripped wires inserted into an MT housing.

AMP CT Crimp Contact

AMP CT Crimp Housing



Shows a contact crimped onto a stripped wire to be inserted into a crimp housing.

Description	PN	Photo	Specifications
Receptacle Contact - Strip - AWG : 26-30	179609-1	C	D,Y
Receptacle Contact - Loose Piece - AWG : 26-30	179610-1	C	D,Y
Receptacle Contact - Strip - AWG : 22-26	179227-1	D	D,Y
Receptacle Contact - Strip - AWG : 22-26 - Gold plated	179227-4	D	D,Y
Receptacle Contact - Loose Piece - AWG : 22-26 - receptacle	179518-1	D	D,Y

CRIMP TYPE CONNECTORS : HOUSING

Description	PN	Photo	Position to Dash													
			2	3	4	5	6	7	8	9	10	11	12	13	14	15
Receptacle Housing	179228	E	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15
Mating PNS : 292253; 292161; 292250; 292164; 292133; 292132; 292165; 292173; 292171; 292172; 292134; 176394; 292138; 292252; 292141; 292254; 292156; 292204; 292177; 292178; 292185; 292182; 292181 **Specifications :** D,Y																

MASS TERMINATION (MT) CONNECTORS : PRE-LOADED RECEPTACLE HOUSING

Description	PN	Photo	Position to Dash													
			2	3	4	5	6	7	8	9	10	11	12	13	14	15
MT receptacle housing AWG : 26-28	179228	A	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15
Mating PNS : 292253; 292161; 292250; 292164; 292133; 292132; 292165; 292173; 292171; 292172; 292138;292252; 292141; 292254; 292156; 292204; 292178; 292182; 175133; 179608 **Specifications :** C,X																
MT receptacle housing AWG : 26-28	179228	A	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15
Mating PNS: 292134; 176394 **Specifications :** C,X																

CABLE SIDE CONNECTORS : TOOLING OPTIONS

APPLICATION TOOLING

Automated tooling options are also available. Call Tooling Sales at 800-722-1111 (717-810-2082) for more information.

Connector PN	Tooling PN	Description	Application Specification
1385047-3*	1385047-3*	Applicator	408-8040
1739772-2 thru -15	58074-1	Manual Handle without Head	408-6790
	58372-1	AMP CT 2mm (IDC) Head	408-9426
176392-2 thru -15	1729069-1	AMP CT MT Mini Air Terminator	-
179610-1	1385047-3*	Applicator	408-8040
179227-1	680216-3*	Applicator	408-8040
179227-4	680216-3*	Applicator	408-8040
179518-1	91572-1**	CERTI-CRIMP Hand Tool	408-8547

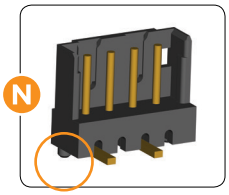
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AMP CT CONNECTOR STYLES

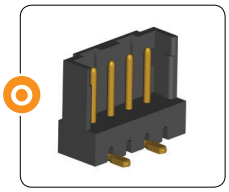
COMMON TERMINOLOGY

Locating Boss

WITH

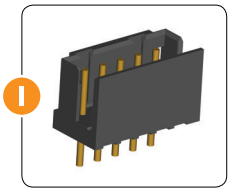


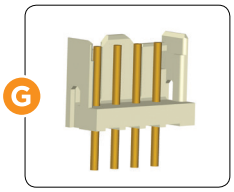
WITHOUT



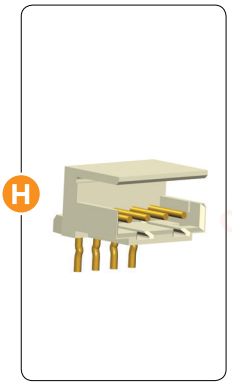
A boss is a mechanical feature that helps orient the headers onto the PCB.

Without Kinked Leg



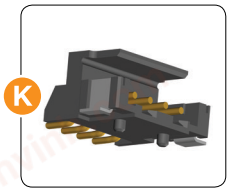


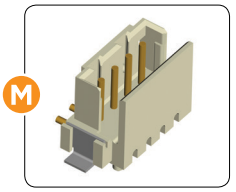
With Kinked Leg



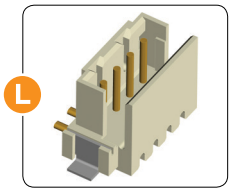
Kinked legs are designed to secure the thru-hole (T/H) headers onto the PCB.

Solder Tabs





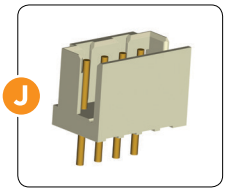
With Boss



Solder tabs are designed to secure the SMT headers onto the PCB.

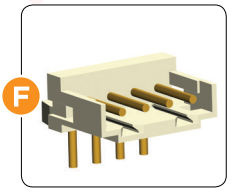
Header Styles

Box



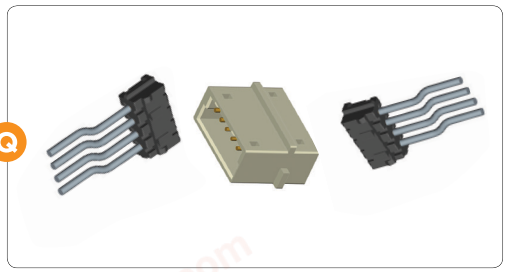
Box headers offer a front and back wall for polarization of the connector.

Standard

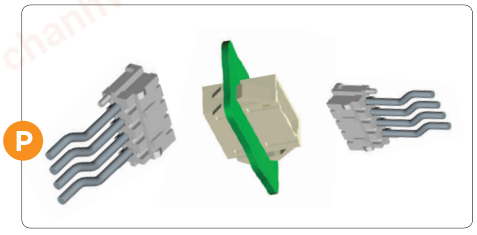


Standard headers offer only a single wall for polarization of the connector.

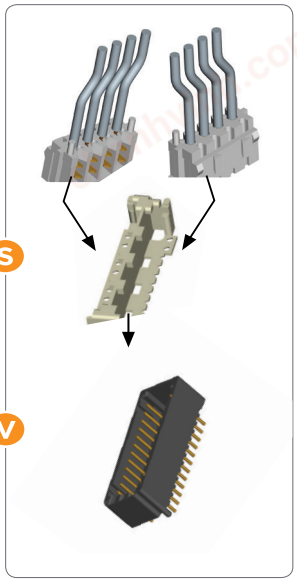
Free Hanging



Panel Mount



Dual Row Assemblies



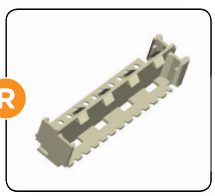
Two Single Row Housings

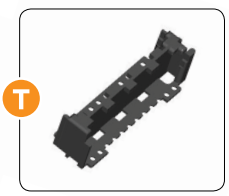
Captivating Holder

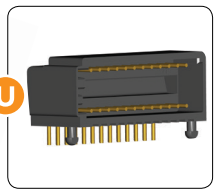
Dual Row Header

Requires a holder to be used along with two single row housings.

Additional Parts







SINGLE ROW POST HEADER ASSEMBLIES : PANEL-MOUNT

Description	PLATING	PN	Photo	Position to Dash													
				2	3	4	5	6	7	8	9	10	11	12	13	14	15
T/H Std Type - Horizontal Mount w/ Kink	TIN	292253	F	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15
T/H Std Type - Vertical Mount w/ Kink	TIN	292161	G	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15
T/H Box Type - Horizontal Mount w/ Kink	TIN	292250	H	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15
T/H Box Type - Vertical Mount w/o Kink	TIN	292133	I	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15
T/H Box Type - Vertical Mount w/ Kink	TIN	292132	J	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15
SMT Box Type - Horizontal Mount Type w/ Solder Tab, w/o Boss	TIN	292173	K	-22	-23	-24	-25	-26	-27	-28	-29						
SMT Box Type - Horizontal Mount Type w/ Solder Tab, w/ Boss	TIN	292173	K	-2	-3	-4	-5	-6	-7	-8	-9						
SMT Box Type - Vertical Mount Type w/ Solder Tab, w/o Boss	TIN	292175	L	-22	-23	-24	-25	-26	-27	-28	-29						
SMT Box Type - Vertical Mount Type w/ Solder Tab, w/ Boss (Natural)	TIN	292174	M	-2	-3	-4	-5	-6	-7	-8	-9						
SMT Box Type - Vertical Mount Type w/ Solder Tab, w/ Boss (Black)	TIN	292174	M	-22	-23	-24	-25	-26	-27	-28	-29						
SMT Std Type - Vertical Mount w/ Boss	TIN	292171	N	-2	-3	-4	-5	-6	-7	-8	-9						
SMT Std Type - Vertical Mount w/o Boss	TIN	292172	O	-2	-3	-4	-5	-6	-7	-8	-9						
Mating PNS : (MT) 173977; 179694 or (Crimp) 179228 w/ contact																	**Specifications :** A, D
T/H Box Type - Vertical Mount w/ Kink	Gold	292134	J	-2	-3	-4	-5	-6			-9	-10		-12			-15
T/H Box Type - Horizontal Mount w/ Kink	Gold	176394	H	-2	-3	-4	-5	-6		-8		-10					
Mating PNS : (MT) 173977; 179694 or (Crimp) 179228 w/ 179227-4																	**Specifications :** A (292134)/ C (176394), D

RECEPTACLE CONNECTOR HOLDERS FOR DUAL ROW HEADERS

Description	PN	Photo	Position to Dash									
			8	12	16	18	20	22	24	26	28	30
Receptacle Housing Captivating Holder (MT)	175133	**R**	-8	-12	-16	-18	-20	-22	-24	-26	-28	-30
Receptacle Housing Captivating Holder - Reinforced Retention (MT)	179608	**S**			-16	-18	-20	-22	-24	-26	-28	-30
Mating Part Numbers: (MT) 353293 or (Crimp) 353908 w/ 353907-1 or 353918-1 **Specifications:** A, X												
Receptacle Housing Captivating Holder - Reinforced Retention (Crimp)	179472	**T**		-12	-16	-18	-20	-22	-24	-26	-28	-30
Mating PNS : 2 x (Crimp) 179228 w/ contact **Specifications :** B												

SINGLE ROW PANEL-MOUNT HEADERS

Description	PN	Photo	Position to Dash												
			2	3	4	5	6	7	8	9	10	11	12	13	14	15
Panel Mount Header	292254	P	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15
Mating PNS : (MT) 173977; 179694 or (Crimp) 179228 w/ contact **Specifications :** A,D																

SINGLE ROW POST FREE-HANGING WIRE TO WIRE HEADERS

Description	PN	Photo	Position to Dash												
			2	3	4	5	6	7	8	9	10	11	12	13	14	15
Free Hanging Header	292156	Q	-2	-3	-4	-5	-6									
Mating PNS : (MT) 173977; 179694 or (Crimp) 179228 w/ contact **Specifications :** A,D																

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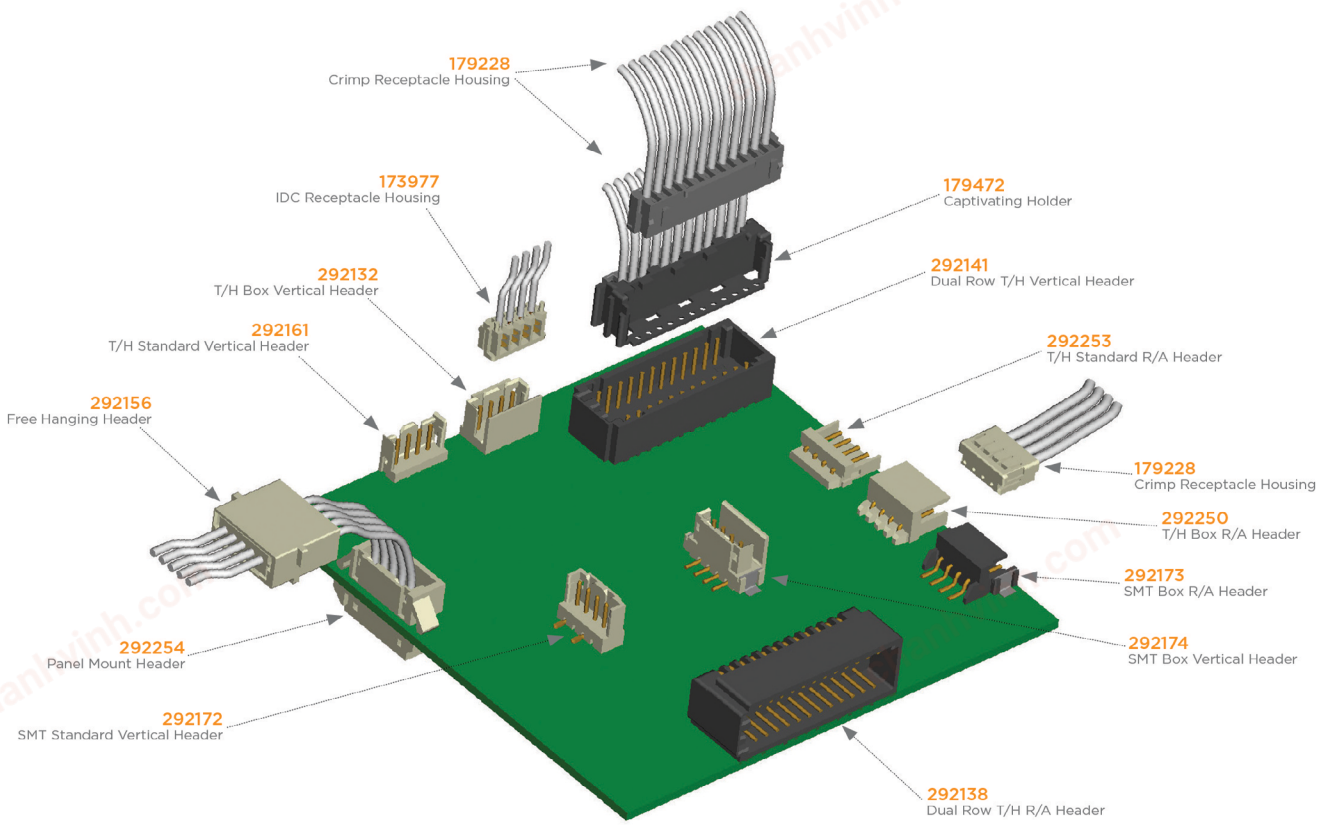
PRODUCT/APPLICATION SPECIFICATION

RATINGS

Product Specs		Voltage	Operating Current (Amps)				
			22 AWG	24 AWG	26 AWG	28 AWG	30 AWG
A	10860016	125 V (AC DC)		3	2	1	
B	10860020	125 V (AC DC)			1	1	
					2	1	
C	108-5218	125 V AC			2	1	
D	10860029	125 V AC	4		2.5	1.5	1
E	10860024	125 V AC	1				
F	108-60021	125 V AC	1				

Application Specs	
X	114-5014
Y	114-5179
Z	114-5103

AMP CT CONNECTOR MOUNT STYLES



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CABLE ASSEMBLIES

For convenience, a selection of double-ended cable assemblies is available. These cable assemblies are useful for prototyping or for small production runs. For additional sizes, lengths or connector styles, please reach out to the TE sales team or to customer care.

PN	Description	Length	Positions	Housing PN	Contact PN	Wire Gauge	Wire Temp Rating	Wire Voltage Rating	Wire Color
2405869-1	AMP CT 2P 300MM CABLE ASSEMBLY 2-179228-2	300 mm	2	2-179228-2	179227-1	24 AWG	80° C	300 V	Orange
2405869-3	AMP CT 3P 300MM CABLE ASSEMBLY 2-179228-3	300 mm	3	2-179228-3	179227-1	24 AWG	80° C	300 V	Orange
2405869-4	AMP CT 4P 300MM CABLE ASSEMBLY 2-179228-4	300 mm	4	2-179228-4	179227-1	24 AWG	80° C	300 V	Orange
2405869-5	AMP CT 5P 300MM CABLE ASSEMBLY 2-179228-5	300 mm	5	2-179228-5	179227-1	24 AWG	80° C	300 V	Orange
2405869-6	AMP CT 6P 300MM CABLE ASSEMBLY 2-179228-6	300 mm	6	2-179228-6	179227-1	24 AWG	80° C	300 V	Orange
2405869-7	AMP CT 7P 300MM CABLE ASSEMBLY 2-179228-7	300 mm	7	2-179228-7	179227-1	24 AWG	80° C	300 V	Orange
2405869-8	AMP CT 8P 300MM CABLE ASSEMBLY 2-179228-8	300 mm	8	2-179228-8	179227-1	24 AWG	80° C	300 V	Orange
2405869-2	AMP CT 10P 300MM CABLE ASSEMBLY 3-179228-0	300 mm	10	3-179228-0	179227-1	24 AWG	80° C	300 V	Orange

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FREQUENTLY ASKED QUESTIONS

What wire gauge will you be using?
More flexibility with wire gauge when using Crimp vs. MT. Crimp housings accept 22-30 AWG and MT housings accept 24-28 AWG.

Are the connectors available for IDC?
Yes, we offer a MT version that is preloaded with IDC contacts.

Where can I find information on current rating, voltage and operating temperatures?
Please see Product Specification Information on page 5 of this Quick Reference Guide.

Which is a more standard header, with or without a locating boss?
The most standard headers tend to have a locating boss as it makes it easier for the customer to align the connector onto their board.

What special retention mechanisms are available to help ensure PCB stability?
Most of the T/H headers have kinked legs, and the SMT headers have solder tabs to help ensure PCB stability.

What are my tooling options?
TE offers comprehensive tooling options including Manual Pistol-Grips, manual Mini-Press, Pneumatic Mini-press, Semi-Auto DECAM and an Automatic DECAM tool. For more information, please visit te.com or call the tooling assistance center at 800-722-1111 or 717-810-2082.

What is the benefit of choosing Box over Std type headers?
Box type headers have an extra wall, that is a more reliable connector design intended to prevent stubbing.

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07/23

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