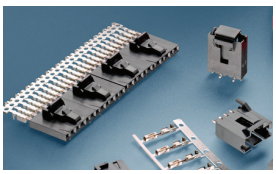
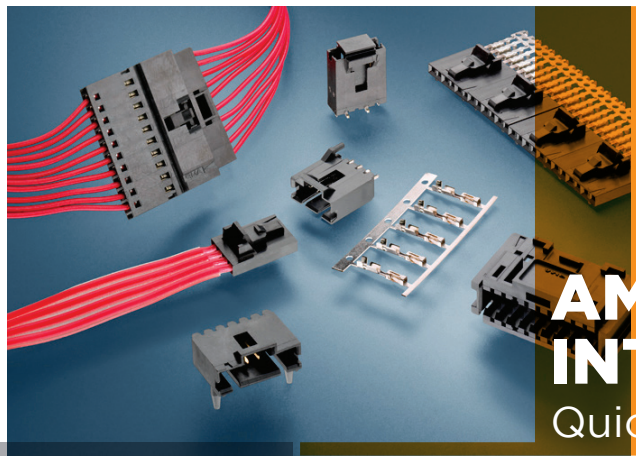




# AMPMODU MTE INTERCONNECT SYSTEM

## Quick Reference Guide

# AMPMODU MTE Interconnect System

The TE Connectivity (TE) AMPMODU MTE interconnection system is utilized in wire-to-board and wire-to-wire applications, and can be found in many types of electronic equipment including computers, copiers, commercial printers, appliances, medical equipment, and automotive controls. The product implements Insulation Displacement Contacts (IDC) or Crimp Snap-In contacts to suit customer's needs.

## BENEFITS & FEATURES

- Assembly designs offer latching and polarization
- Coupling shrouds permit ganging of smaller receptacle and pin assemblies with guide ribs to form larger single or double row latching connectors
- Available in three platings
- Swage option on posts provides retention in PC board
- High temperature option is SMT compatible
- Applicable Sizes 2-25 positions per row

## APPLICATIONS

- Medical Instruments
- Automotive Controls
- Copiers
- Appliances
- Commercial Printers
- Vending
- Computers
- Instrumentation & Test Equipment
- Telecommunications
- Storage Equipment

## PRODUCT/APPLICATION SPECIFICATION

- **Product Specification:**
  108-25034 (Standard Product)
  108-25034-2 (Surface Mount Product)
- **Application Specification:** 114-25026
- **Operating Temperature:** -65° to +105°C
- **Current:** 3 amps max.
  (single contact in free air)

## INSULATION DISPLACEMENT VS. CRIMP SNAP-IN

### IDC

- Time savings for high volume applications
- Preloaded contacts
- Automation
- Mates with same headers as crimp

### Crimp-on Snap-In

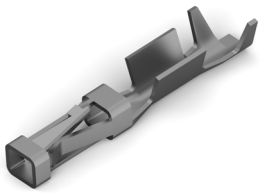
- Cost effective for low/medium volume applications
- Flexibility (AWG)
- Manual labor
- Mates with same headers as IDC

## RECEPTACLE ASSEMBLIES

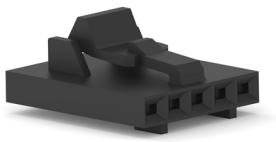
### IDC Receptacles

| Product Type | Product Image | Size | AWG | Plating | | |
|---|---|---|---|---|---|---|
| | | | | 15 µ" Au | 30 µ" Au | Matte Tin |
| MTE Receptacle Assemblies | | 2 | 22-26 | 5-103957-1 | 5-103958-1 | 5-103956-1 |
| | | 3 | | 5-103957-2 | 5-103958-2 | 5-103956-2 |
| | | 4 | | 5-103957-3 | 5-103958-3 | 5-103956-3 |
| | | 5 | | 5-103957-4 | 5-103958-4 | 5-103956-4 |
| | | ... | | ... | ... | ... |
| | | 25 | | 7-103644-4 | 7-103734-4 | 7-103645-4 |
| | | 2 | 26-30 | 5-103960-1 | 5-103961-1 | 5-103959-1 |
| | | 3 | | 5-103960-2 | 5-103961-2 | 5-103959-2 |
| | | 4 | | 5-103960-3 | 5-103961-3 | 5-103959-3 |
| | | 5 | | 5-103960-4 | 5-103961-4 | 5-103959-4 |
| | | ... | | ... | ... | ... |
| | | 25 | | 7-103640-4 | 7-103897-4 | 7-103641-4 |

### Short Point Replacement Contacts

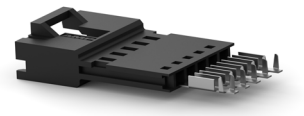
| Product Type | Product Image | Size | AWG | Strip | Loose Piece |
|---|---|---|---|---|---|
| Crimp Snap-In Short Point Contact |  | 15 µ" Au | 20-24 | 104479-9 | 1-104479-2 |
| | | 30 µ" Au | | 1-104479-0 | 1-104479-3 |
| | | Matte Tin | | 104479-8 | 1-104479-1 |
| | | 15 µ" Au | 22-26 | 1-104480-2 | 1-104480-5 |
| | | 30 µ" Au | | 1-104480-3 | 1-104480-6 |
| | | Matte Tin | | 1-104480-7 | 1-104480-4 |
| | | 15 µ" Au | 28-32 | 1-104481-0 | 1-104481-2 |
| | | 30 µ" Au | | 1-104481-1 | 1-104481-3 |
| | | Matte Tin | | 5-104481-2 | 5-104481-6 |

### MTE Receptacle Housings

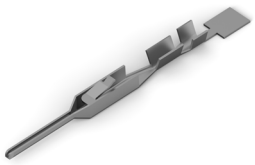
| Product Type | Product Image | Size | PN |
|---|---|---|---|
| Wire Receptacle Housing |  | 2 | 104257-1 |
| | | 3 | 104257-2 |
| | | 4 | 104257-3 |
| | | 5 | 104257-4 |
| | | ... | ... |
| | | 25 | 2-104257-4 |

## PIN COUNTERPARTS

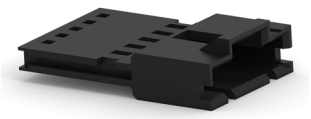
### IDC Headers

| Product Type | Product Image | Size | AWG | Plating | | |
|---|---|---|---|---|---|---|
| | | | | 15 µ" Au | 30 µ" Au | Matte Tin |
| MTE Pin Assemblies |  | 2 | 22-26 | 5-103945-1 | 5-103946-1 | 5-103944-1 |
| | | 3 | | 5-103945-2 | 5-103946-2 | 5-103944-2 |
| | | 4 | | 5-103945-3 | 5-103946-3 | 5-103944-3 |
| | | 5 | | 5-103945-4 | 5-103946-4 | 5-103944-4 |
| | | ... | | ... | ... | ... |
| | | 25 | | 7-103660-4 | 7-103893-4 | 7-103661-4 |
| | | 2 | 26-30 | 5-103948-1 | 5-103949-1 | 5-103947-1 |
| | | 3 | | 5-103948-2 | 5-103949-2 | 5-103947-2 |
| | | 4 | | 5-103948-3 | 5-103949-3 | 5-103947-3 |
| | | 5 | | 5-103948-4 | 5-103949-4 | 5-103947-4 |
| | | ... | | ... | ... | ... |
| | | 25 | | 7-103658-4 | 7-103894-4 | 7-103659-4 |

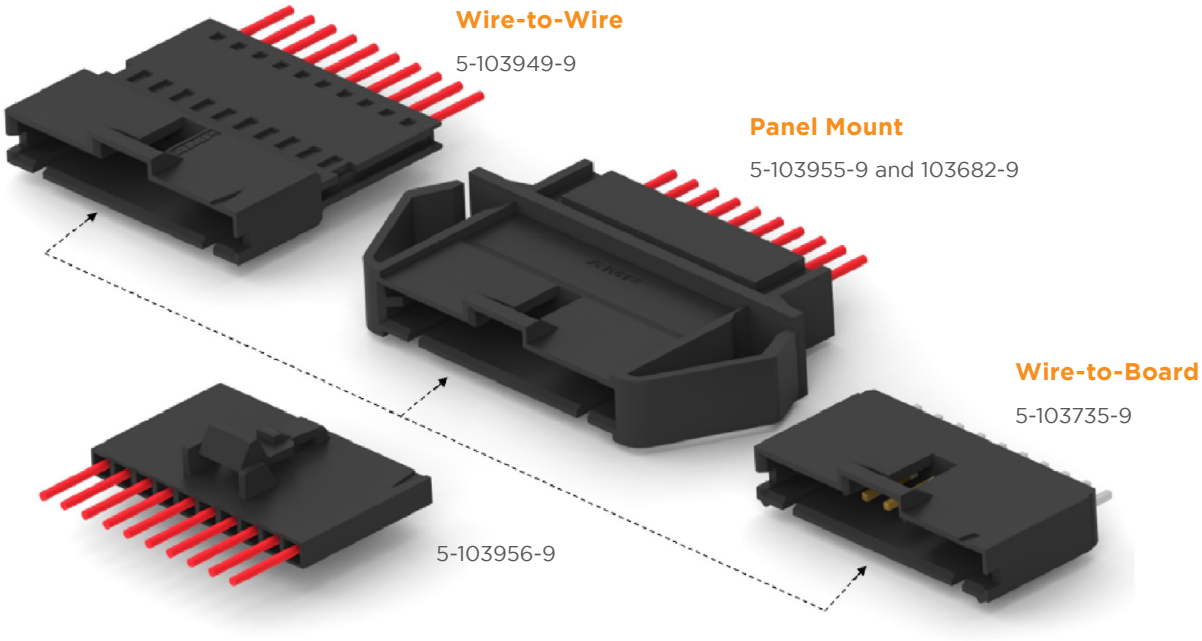
### Crimp Pin Replacement Contacts

| Product Type | Product Image | Size | AWG | Strip | Loose Piece |
|---|---|---|---|---|---|
| Crimp Snap-In Pin Contact |  | 15 µ" Au | 22-26 | 5-104505-4 | 5-104505-5 |
| | | 30 µ" Au | | 5-104505-6 | 5-104505-7 |
| | | Matte Tin | | 5-104505-2 | 5-104505-3 |
| | | 15 µ" Au | 28-32 | 5-104506-4 | 5-104506-5 |
| | | 30 µ" Au | | 5-104506-6 | 5-104506-7 |
| | | Matte Tin | | 5-104506-2 | 5-104506-3 |

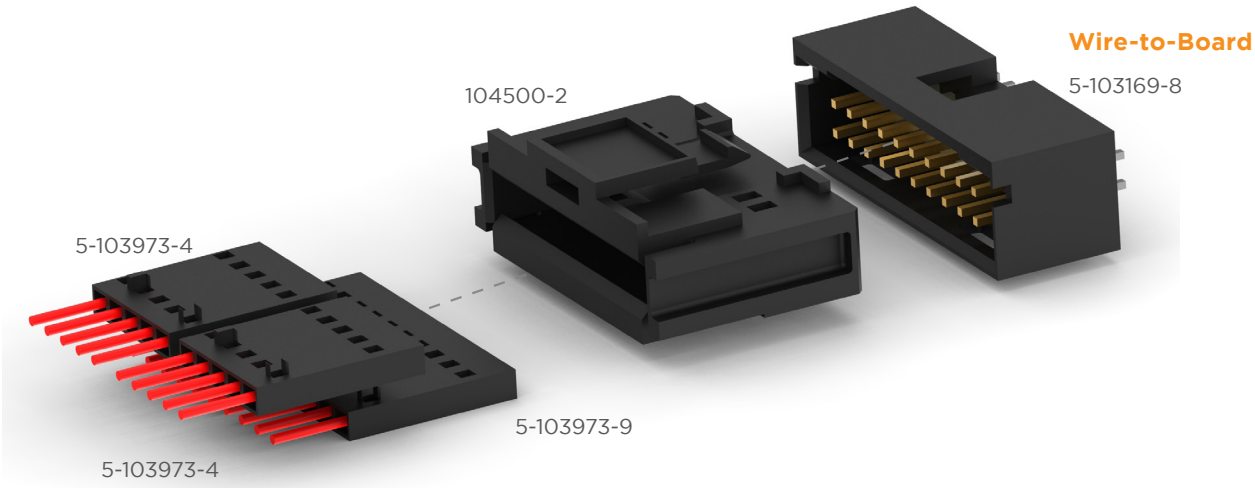
### MTE Crimp Pin Housings

| Product Type | Product Image | Size | PN |
|---|---|---|---|
| MTE Crimp Pin Housing |  | 2 | 103653-1 |
| | | 3 | 103653-2 |
| | | 4 | 103653-3 |
| | | 5 | 103653-4 |
| | | ... | ... |
| | | 25 | 2-103653-4 |

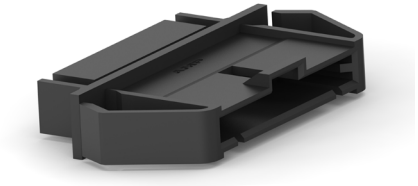
## Typical Application of Single-Row Coupling Shroud and Mating AMPMODU MTE Products



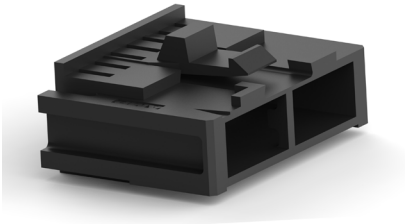

## Typical Application of Double-Row Coupling Shroud And Mating Ampmodu MTE Products




## Coupling Shrouds



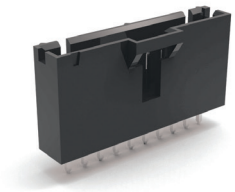
103682 (2-25P)
**Panel Mount**



103681 (8-16P), 104500 (18-50P)
**Double Row**

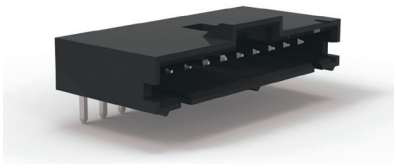
# AMPMODU MTE Interconnect System

## Single Row, Header on Board



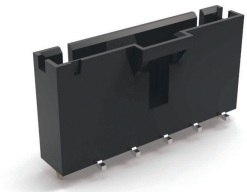
### Vertical, THT

| Plating | Standard | Swaged Tail |
|---|---|---|
| 30 µ" Au | 103735 | 103908 |
| 15 µ" Au | 104363 | 104362 |
| Matte Tin | 103639 | 103669 |



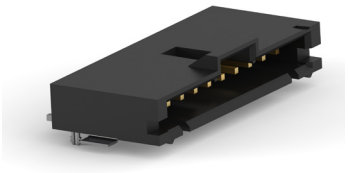
### Right Angle, THT

| Plating | w/ Hold Down | w/o Hold Down |
|---|---|---|
| 30 µ" Au | 103904 | 104935 |
| 15 µ" Au | 103673 | 103635 |
| | 104361 | |
| Matte Tin | 103672 | 103634 |



### Vertical, SMT

| Plating | w/ Hold Down |
|---|---|
| 30 µ" Au | 1375583 |
| 15 µ" Au | 1375582 |
| Matte Tin | 1375549 |



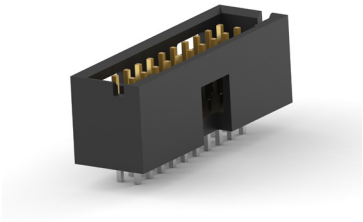
### Right Angle, SMT

| Plating | w/ Hold Down |
|---|---|
| 30 µ" Au | 147323 |
| 15 µ" Au | 147278 |
| Matte Tin | 147324 |

**Part Number:**

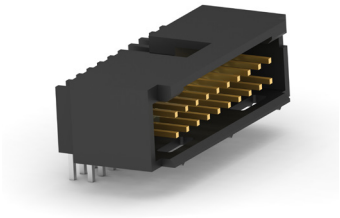
- For all Single Row Headers: 5-xxxxxxx-1 (2P) - 7-xxxxxxx-4 (25P);
- Please visit TE.com for more product detail.

## Double Row, Header on Board



### Vertical, THT

| Plating | Standard | w/ Hold Down |
|---|---|---|
| 30 µ" Au | 103169 | |
| 15 µ" Au | 102619 | 104317 |
| Matte Tin | 87587 | |



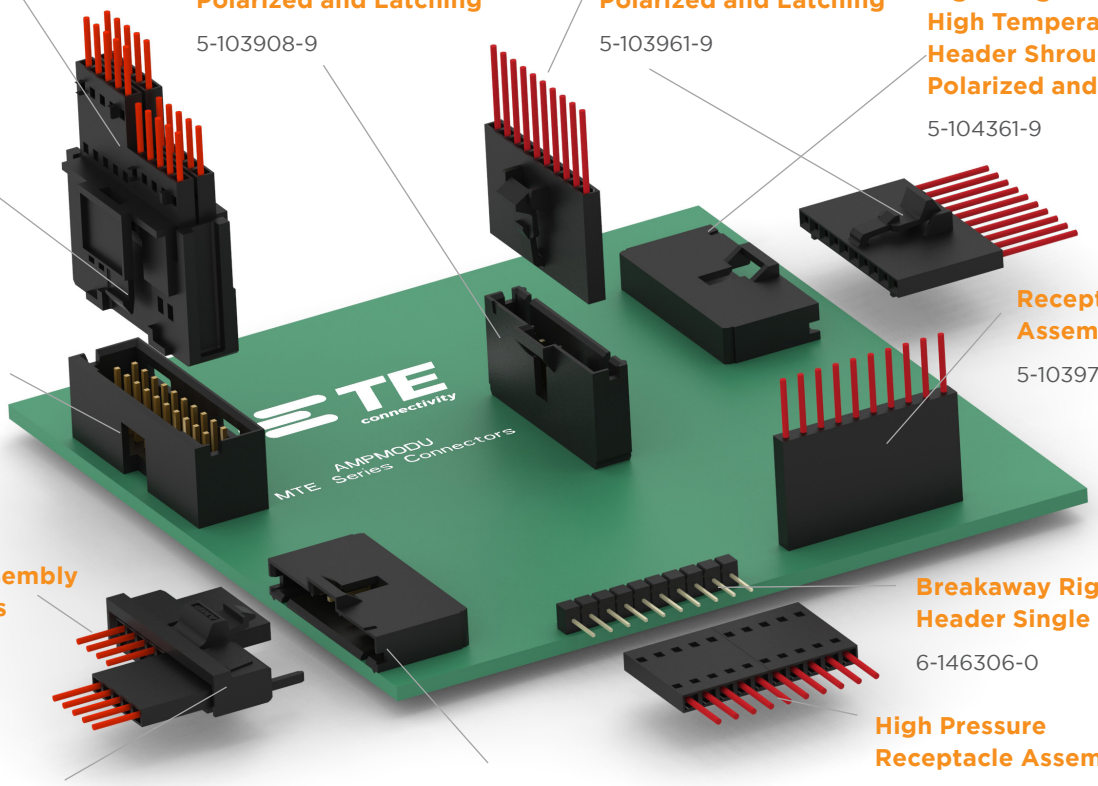
### Right Angle, THT

| Plating | Standard | w/ Hold Down |
|---|---|---|
| 30 µ" Au | 103167 | |
| 15 µ" Au | 102570 | 104319 |
| Matte Tin | 87577 | |

**Part Number:**

- Vertical, THT, Standard: 5-xxxxxxx-1 (6P) - 7-xxxxxxx-3 (50P);
- Right Angle, THT, Standard: 5-xxxxxxx-1 (8P) - 7-xxxxxxx-2 (50P);
- Please visit TE.com for more product detail.

# AMPMODU MTE Interconnect System




**Receptacle Assembly with Guide Ribs**
5-103971-4

**Vertical Header Polarized and Latching**
5-103908-9

**Receptacle Assembly Polarized and Latching**
5-103961-9

**Right Angle High Temperature Header Shrouded Polarized and Latching**
5-104361-9

**Double Row Coupling Shroud**
104500-2

**Receptacle Assembly Plain**
5-103976-4

**Vertical Shrouded Header Double Row**
5-87587-6

**Receptacle Assembly with Guide Ribs**
5-103971-4

**Breakaway Right Angle Header Single Row**
6-146306-0

**High Pressure Receptacle Assembly**
5-104439-9

**Single Row Coupling Shroud**
103680-7

**Right Angle Shrouded Header Polarized and Latching**
5-103634-9

## Application Tooling

| AMPMODU MTE Part Number | Tooling Part Number | Tooling Description | Instruction Sheet |
|---|---|---|---|
| All Receptacle Assembly Part Numbers Listed Below | 58074-1 | Manual Pistol Grip | 408-6790 |
| | 58075-1 | Pneumatic Pistol Grip | 408-6789 |
| | 58338-1 | Bench Mounted Pneumatic Power Assembly | 408-9393 |
| | 931800-1 | IDC Electric Power Unit | 409-5746 |
| | 58336-1 | MTE Modular Head | 408-9359 |

# AMPMODU MTE Interconnect System

## What are the current rating (amps) and voltage requirements of AMPMODU MTE connectors?

3 amps for a single contact in free air, 267 V (operating voltage)

## What type and size requirements?

#22-#30 AWG range for IDC configurations; #20-#32 AWG for crimp snap-in contacts

## What are the number of positions needed?

2-25 positions, double row coupling shrouds allow 8-50 position configurations

## Available space?

.100 centerline and .100 x .100 centerline (coupling shrouds mating to PCB headers)

## Configuration/orientation?

Right angle, vertical, single/double row

## Operating temperature requirements?

Will accommodate -65˚C to +105˚C range

## Environmental Considerations?

Refer to TE product specifications 108-25034, 108-25034-2 (MTE surface mount product), 108-1472 and 108-1472-1 (Short Point)

**te.com**

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**4-1773458-0 06/19 Tangence**