

Quick Reference Guide
AMPMODU 50/50 Grid Interconnection System

The AMPMODU 50/50 Grid connector family includes a wide variety of high density surface mount, board-to-board and cable-to-board connectors. AMPMODU 50/50 Grid receptacles and header assemblies can be categorized in three groups: board-mount headers, board-mount receptacles and cable-to-board receptacles. AMPMODU 50/50 Grid cable applied receptacles are available in ribbon cable cable termination. The variety of components and application possibilities, combined with small size and outstanding quality, make AMPMODU 50/50 Grid suitable for high density systems.

FEATURES AND BENEFITS

- Available in double row, vertical or right angle, shrouded versions
- Formed from high conductivity copper alloy and selectively plated with gold for higher performance and reliability
- Housings on all board-mounted assemblies are made of high temperature tolerant materials and incorporate stand-offs for free drainage of flux cleaning solutions
- Integral latches for positive locking to shrouded mating headers
- Suitable for high density systems
- RoHS compliant parts
  (Non-RoHS compliant parts available)

PRODUCT APPLICATIONS

- Robotics
- Aerospace/Defense
- Automotive Controls/Infotainment
- Servers
- Test/Measurement Devices
- Factory Automation
- Telecommunication Equipment
- Storage Equipment
- Appliance

Receptacles – Cable to Board





RECEPTACLES – With Latch		
Part	**Part Number**	**Positions**
Double Row	5-104892-1	10
	5-104892-4	40
	6-104892-0	100

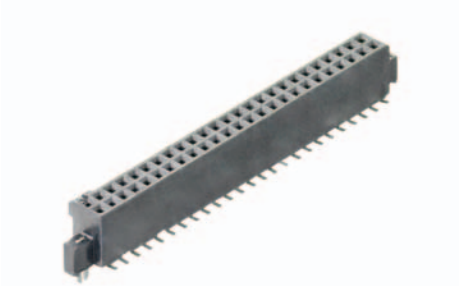
RECEPTACLES – Without Latch		
Part	**Part Number**	**Positions**
Double Row	5-104893-2	20
	5-104893-6	60
	5-104892-8	80

Receptacles – Cable to Board



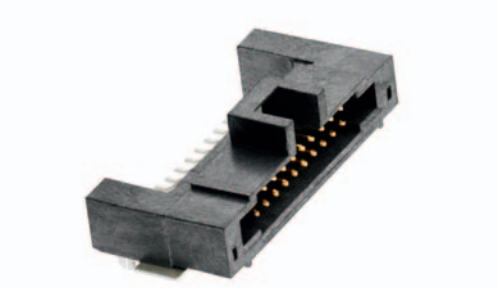
Termination Covers		
Part	**Part Number**	**Positions**
Double Row	104891-1	10
	104891-4	40
	1-104891-0	100

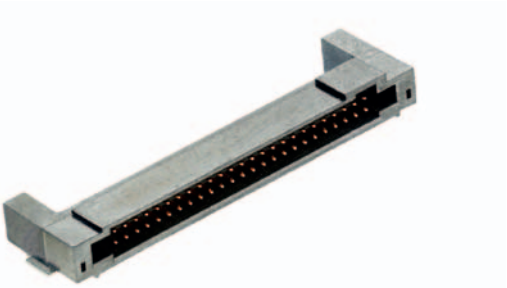
Receptacles – Board to Board



RECEPTACLES – Surface Mount Vertical*		
Part	**Part Number**	**Positions**
Double Row	5-147384-1	10
	5-147413-2	50
	6-104652-0	100

Headers – Board to Board, Right Angle



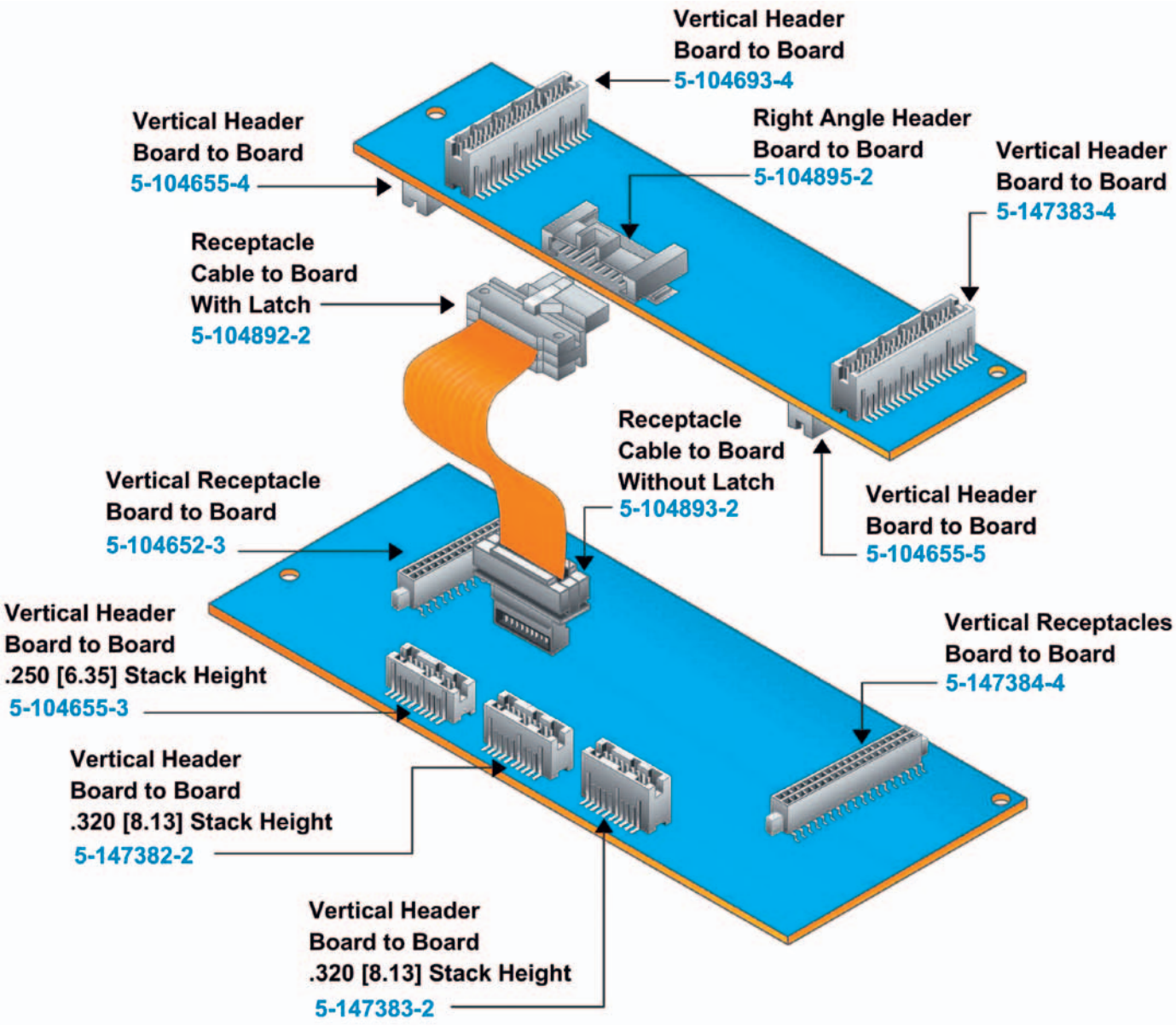


HEADERS – Surface Mount Right Angle with Latch		
Part	**Part Number**	**Positions**
Double Row Shrouded	5-104895-1	10
	5-104895-4	40
	6-104895-0	100

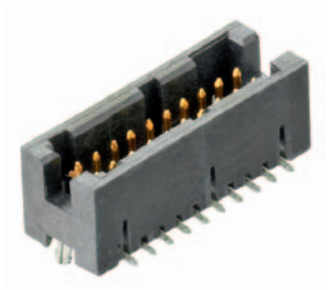
HEADERS – Surface Mount Right Angle without Latch		
Part	**Part Number**	**Positions**
Double Row Shrouded	5-104894-3	30
	5-104894-5	50
	5-104894-7	70

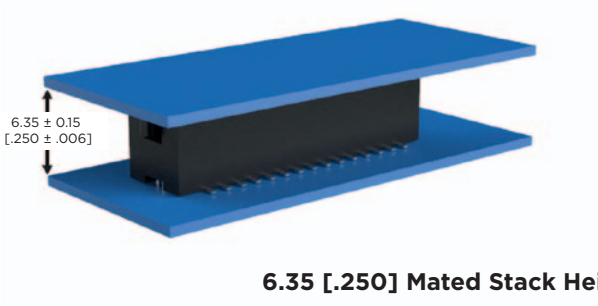
* Surface Mount parts are available in tubes or tape and reel packaging

AMPMODU 50/50 Grid



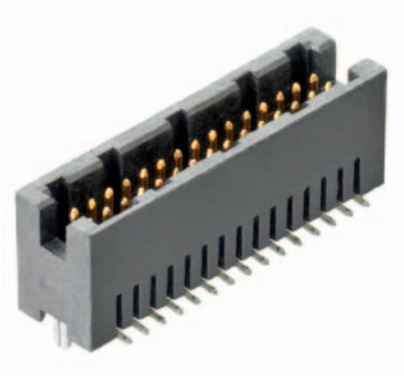
Headers – Board to Board, Vertical

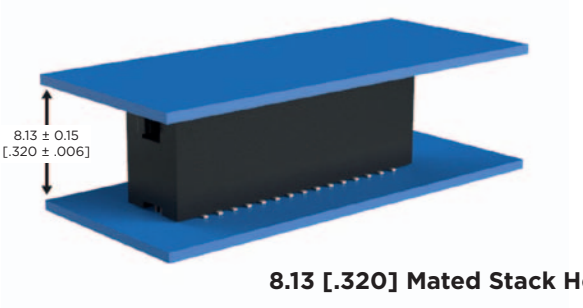




6.35 [.250] Mated Stack Height

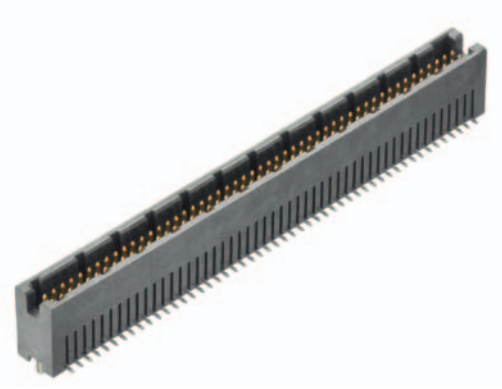
HEADERS – Surface Mount Vertical, .250 [6.35] Mated Height		
Part	**Part Number**	**Positions**
Double Row Shrouded	5-104655-1	10
	5-147381-3	30
	6-104655-1	100

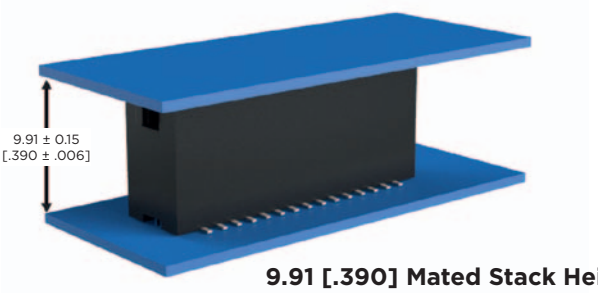




8.13 [.320] Mated Stack Height

HEADERS – Surface Mount Vertical, .320 [8.13] Mated Height		
Part	**Part Number**	**Positions**
Double Row Shrouded	5-147382-1	10
	5-104656-6	60
	5-147382-9	100





9.91 [.390] Mated Stack Height

HEADERS – Surface Mount Vertical, .390 [9.91] Mated Height		
Part	**Part Number**	**Positions**
Double Row Shrouded	5-104693-1	10
	5-147383-4	40
	5-147503-1	100

* Surface Mount parts are available in tubes or tape and reel packaging

Performance Specifications

Board-to-Board Connectors, Vertical and Right-Angle
Mating Force: 6.4 oz [1.78 N] max, per contact
Unmating Force: 1.0 oz [0.28 N] min. per contact
Durability: Tested to 200 cycles min.
Current Rating: (30°C T rise): .5 ampere per contact
Operating Temperature Range: -65°C to +105°C
Termination Resistance: 16 milliohms max. (initial)
Insulation Resistance: 5000 megohms min. (initial)
Dielectric Withstanding Voltage: 300 VAC

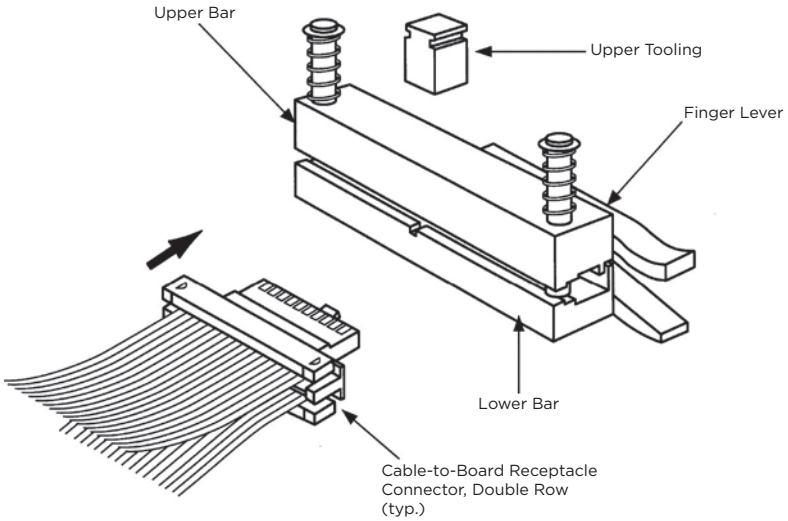
Cable-to-Board Connectors
Mating Force: 6.4 oz [1.78 N] max, per contact
Unmating Force Without Latch: .5 oz [0.14 N] min. per contact
Durability: Tested to 200 cycles min.
Current Rating: (10°C T rise): .5 ampere per contact
Operating Temperature Range: -65°C to +105°C
Termination Resistance: 25 milliohms max. (initial and final)
Insulation Resistance: 5000 megohms min. (initial)
Dielectric Withstanding Voltage: 300 VAC

Performance Specifications

Type	Position Size	Soldering Temperature	Current Rating	Application Specification	Product Specification
Vertical Board to Board	10-100	265˚C wave	0.5 amps max	114-7010	108-1332
Rt. Angle Board to board & Cable to Board	10-100	265˚C reflow	0.5 amps max	114-7010	108-1443

Tooling – Cover Closing Kit 543518-1 used with Manual Miniature Application Frame Assy., 91295-1

Instruction Sheets – 408-9817 & 408-9909





Manual Miniature Application Frame Assembly 91295-1 with Cover Closing Kit 543518-1

Questions that will help you better select the product that you need:

What is the available space?
0.050 Centerline spacing.

What is the Current rating (amp) requirement?
0.5 amp maximum per contact.

What wire type and size requirements are there?
0.050 inch centerline ribbon cable having 30 AWG solid or stranded conductors or 28 AWG stranded conductors, with insulation diameters up to .036 maximum.

What configuration/orientation is required?
Double Row Vertical surface Mount and Right Angle Surface Mount.

What is the number of positions that are required?
10 through 100 positions, double row.

What is the operating temperature requirements?
-65°C to 105°C Range

What are the environmental considerations?
Refer to TE Product Specifications 108-1332 (vertical board to board) and 108-1443 (right angle board to board).

Additional Resources:
http://www.te.com/products/AMPMODU – AMPMODU Family Page
http://www.te.com/products/AMPMODU5050grid – AMPMODU 50/50 Grid Overview page

FOR MORE INFORMATION

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*as defined www.te.com/leadfree

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