## CREATING A SAFER, SUSTAINABLE, PRODUCTIVE AND CONNECTED FUTURE

Industry leading smart factory solutions from TE Connectivity







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An Electrocomponents Company.



## **Connect your mind**

The manufacturing industry is rapidly changing from traditional factories towards smart and digital factories to benefit from predicative maintenance, real-time production monitoring and improved efficiency and scalability. TE Connectivity is a global technology leader offering connectivity solutions that are essential in today's increasingly connected world.

As an authorised TE Connectivity global distributor, RS offers competitive pricing, fast and flexible delivery on a huge range of products for standard and MPQ package.

#### **CHOOSE YOUR ORDER METHOD**



And the purchasing swift and hassle free by using our improved website **my.rs-online.com** 



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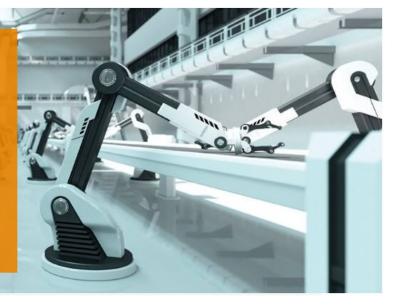


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#### Industry 4.0 And Digital Production Smart Connectivity is Key for Enabling Smart Factories

## ACCELERATING INDUSTRIAL INTERNET OF THINGS (IOT)

As Industry 4.0 (I4.0) advances machine-to-machine (M2M) communications, factories can now integrate crucial processes and reduce production cycles. But are these improvements enough to make factories smarter? By: Daniel Walldorf, Project Manager, Innovation Platforms & Ventures



It is 2:00 am, and the machine in Europe is down. The planner accesses the system and finds out that products have to be shipped in the morning. He immediately sees open capacities and a stock of raw material in his factory in the US and triggers a start of production there. Back in Europe, a maintenance technician is informed and he sees immediately machine process data in his

office and can locate the problem to a workstation. On the shop floor, from his tablet. the technician accesses the workstation begins modifying and the data-acquisition time for the process data. In minutes, he recognizes and solves the problem. The machine is back up and running again.

Our goal is to transform the concept of the smart factory into an operational reality.



#### UNDERSTANDING THE CHALLENGE

For most companies, this level of speed is the aspiration, not the reality. What is perhaps most significant is that this case is only about one small part of the capability a smart factory can perform. In the digital factories of tomorrow, everyday



operations will include predictive maintenance, flexible machine use-and-upgradability, production and raw material footprints of goods, tracking and tracing of goods in productions with mass customization, and energy efficiency.



Reduction in process inefficiencies realized.

Industrial IoT, combination of information and communication with production processes.

There are opportunities for many generating value. This involves making process data and metadata from machines more available to - and transparent for planners and technicians, \_ down to the most granular machine level. Looking at current machine infrastructures, there is a large quantity of data that is created but not available. The challenge is that machines have a hierarchic control structure which is - in most aspect - which is - in most

aspects – optimized for fast and efficient machine control. The data relevant to this control structure is transferred with very low latency, with the control system requiring cycle times in the range of milliseconds. This increases the stress on the machine control, which must process additional data that is not latency relevant. To resolve this type of challenge, our team approaches the critical issues from three perspectives.

#### **ENABLING THE SMART FACTORY**

**Our Three Perspectives** 

Devices, Connectivity, Content

- Smart devices: Determining which components will enable data creation, starting with smart relays over additional sensors and connectors that function as smart devices, by collecting – for example – information about energy consumption or monitoring condition.
- **Physical connectivity:** Positioning more smart devices inside a machine creates additional connections, which generates more data to be transferred and at the same time, reduces the size and cost of nodes; this leads to the need for alternative connectivity solutions including wave-guided data transfer and wireless solutions.
- Connecting the content: Managing a data path for added value data; the connectivity solution will need to manage, aggregate, buffer, and process data as well as open up a secure path to transmit data to the enterprise-level IT system.

At TE, our team is collaborating on new ideas related to these three perspectives. Our goal is to transform the concept of the smart factory into an operational reality. To accomplish this, we are developing smart that are capable of recognizing relays component failure and directly switching replacement. We over to a have manufactured connectors that monitor energy consumption.

We have built a new solution for transferring 1 GB/s across only two wires. We have also developed a way to leverage microwaves travelling in plastic fibers to achieve high-speed connectivity through miniaturized, costefficient components. Our sensors offer the capacity communicate wirelessly to and sunthesize data with a cloud-based interface.

#### **ENABLING THE SMART FACTORY**

Before we recommend our innovations to our customers, we rollout our ideas in our own digital factories. This ensures that the solutions are tested to be smart and bring the value that we anticipate. Through initiatives, have implemented these we smart-data aggregators in a model which have enabled us to visualize real-time data for complete production value streams of connectors on factory level. This enabled our production team not only to drive incredible improvements in yield and process time but also to an overall reduction in process inefficiency. In the next steps. this approach will be extended to synchronize material management and rollout the system to more TE factories.

Currently, the industry is changing from traditional factories towards smart and digital factories. In this transitional phase, it is important to find solutions that can be applied to upgrade factories instead of looking only towards Greenfield applications. We believe that in this phase it is especially important to enable fast benefits that justify investment needs for the upgrade, while not losing the focus on doing this with an architecture that will leverage a variety of productivity improvements in future. This means being backwards compatible while opening new opportunities. Smart connectivity achieves this act of balances easily and is therefore our key to smart factories.





## Light Transit MiMo Antenna

The Light Transit low-profile MiMo antenna range supports the newest generation of vehicular routers with up-to-date specifications.

Our LTE MiMo antenna is suitable for application on light transit passenger vehicles, agricultural vehicles, buses, coaches, and trucks.

The Light Transit low profile MiMo antenna range has been designed to support the new generation of vehicular LTE routers. The antenna enclosure contains three isolated high performance antenna elements; two ultra-wideband elements covering 698-2700MHz support MiMo/ diversity at cellular/LTE frequencies and a high performance GPS antenna with an integrated 26dB gain LNA and high quality filtering to combat noise. The antenna does not require a metalic ground plane, and maintains a high level of performance even when mounted on a non-metalic surface.

#### **Ordering Information**

|                   | Llausian                    | . La cola a                 | Elements 1 & 2                                         | Elements                              | Elements 3, 4 & 5                         |                                  |
|-------------------|-----------------------------|-----------------------------|--------------------------------------------------------|---------------------------------------|-------------------------------------------|----------------------------------|
| TE Part<br>number | Housing<br>colour:<br>White | Housing<br>Colour:<br>Black | 2x Cellular<br>Elements (698-<br>960/<br>1710-2700MHz) | 2x WLAN<br>Elements<br>(2.4/4.906GHz) | 3x WLAN<br>Elements<br>(2.4/4.9-<br>6GHz) | 1x GPS<br>(1575MHz<br>26dB gain) |
| 1-2823595-1       | $\checkmark$                |                             | $\checkmark$                                           |                                       |                                           | $\checkmark$                     |
| 1-2823595-2       |                             | $\checkmark$                | $\checkmark$                                           |                                       |                                           | $\checkmark$                     |
| 1-2823596-1       | $\checkmark$                |                             | $\checkmark$                                           |                                       |                                           |                                  |
| 1-2823596-2       |                             | $\checkmark$                | $\checkmark$                                           |                                       |                                           |                                  |
| 1-2823597-1       | $\checkmark$                |                             | $\checkmark$                                           | $\checkmark$                          |                                           |                                  |
| 1-2823597-2       |                             | $\checkmark$                | $\checkmark$                                           | $\checkmark$                          |                                           |                                  |
| 1-2823598-1       | $\checkmark$                |                             | $\checkmark$                                           | $\checkmark$                          |                                           | $\checkmark$                     |
| 1-2823598-2       |                             | $\checkmark$                | $\checkmark$                                           | $\checkmark$                          |                                           | $\checkmark$                     |
| 1-2823599-1       | $\checkmark$                |                             | $\checkmark$                                           |                                       | $\checkmark$                              | $\checkmark$                     |
| 1-2823599-2       |                             | $\checkmark$                | $\checkmark$                                           |                                       | $\checkmark$                              | $\checkmark$                     |

## **ANTENNAS**



#### **TE Connectivity Low Profile MIMO** Antennas

- A range of low-profile MIMO (multiple-input and multiple-output) external antennas for 2G/3G/4G and GPS applications.
- These light transit, low-profile antennas are designed to support the new generation of vehicular LTE routers and contain multiple isolated high
- performance antenna elements.
- . They do not require the use of a metallic ground plane, and when mounted on a non-metallic surface still maintain high levels of performance.



| <u>1248906</u> | Antenna Mimo Lte (2X2) Gps - White    | 1-2823595-1 |
|----------------|---------------------------------------|-------------|
| <u>1248912</u> | Antenna Mimo Lte Wlan Gps 2X2 - White | 1-2823598-1 |
| <u>1248910</u> | Antenna Mimo Lte Wlan (2X2) - White   | 1-2823597-1 |

#### **TE Connectivity Single Band PCB** Antenna

- Single band operation: 4900-5875 MHz
- Power handling: 3 W cw
- Peak gain: 2.4 dBi .
- VSWR: Less than 2.5:1
- Linear polarization
- · Double-sided adhesive tape mounting



1249419 Single Band Wifi, 5Ghz, Pcb, Chassis

2118326-1

#### TE Connectivity 2G Multi-Band Antenna, FME, SMA

- The antenna's shark fin style design provides multiple antenna functions.
- It is suitable for public safety (overt/covert), industrial and transport applications where a cost effective, efficient and robust antenna is essential.





1512558 Mimo 2G/3G/4G Wlan Gps/Gnss Antenna

1-2823602-1

#### **TE Connectivity Low Profile MIMO** Antennas

- A range of low-profile MIMO (multiple-input and multiple-output) external antennas for 2G/3G/4G and GPS applications.
- These light transit, low-profile antennas are designed to support the new generation of vehicular LTE routers.
- Contain multiple isolated high performance antenna elements.



-

| <u>1248909</u> | Antenna Mimo Lte (2X2) - Black        | 1-2823596-2 |
|----------------|---------------------------------------|-------------|
| <u>1248913</u> | Antenna Mimo Lte Wlan Gps 2X2 - Black | 1-2823598-2 |
| <u>1248911</u> | Antenna Mimo Lte Wlan (2X2) - Black   | 1-2823597-2 |

#### **TE Connectivity Dual Band PCB Antenna**

- Small and lightweight PCB antenna assembly.
- RoHS compliant
- Double-sided adhesive tape mounting
- Linear polarization • VSWR: Less than 2:1



E TE

E TE

1249420 Dual Band Wifi,2.4 & 5Ghz,Pcb,Chassis

2118309-1

#### TE Connectivity 2G Multi-Band Antenna, FME, SMA

- The antenna's shark fin style design provides
- multiple antenna functions. • It is suitable for public safety (overt/covert), industrial
- and transport applications where a cost effective, efficient and robust antenna is essential.



1512559 2X2 Mimo 2G/3G/4G Wlan Gps/Gnss Antenna

1-2823602-2



T

1618508

## **INTERNAL INTERCONNECT - MINI CT**

#### TE Connectivity 1.5mm Single Row PCB **SMT Headers - Mini CT Series**

- For suitable mating products see stock numbers 681-1988 and 683-1692 typically.
- The pin contacts for these Mini CT series SMT headers are tin plated brass.
- The housings are made from UL 94V-0 nylon.

1643214 Mini-Ct Shrouded Header, 1.5Mm, Smt, 4P

1358534 Mini-Ct Shrouded Header, 1.5Mm, Smt, 10P

These receptacle style IDC MT wire connector housings are made from UL 94V-0 nylon.

• Accept a wire size of 22 to 28 AWG.

**TE Connectivity 1.5mm MT Pre-Loaded** 

Have phosphor bronze pre-tin plated dual beam socket contacts.

**Receptacle Housings - Mini CT Series** 

#### TE Connectivity 1.5mm MT Pre-Loaded **Receptacle Housings - Mini CT Series**

- These receptacle style IDC MT wire connector housings are made from UL 94V-0 nylon.
- Have phosphor bronze pre-tin plated dual beam socket contacts.
- Accept a wire size of 22 to 28 AWG.





292230-4

1-292230-0

353293-2

353293-4

1618510 Receptacle Assembly,Mt,1.5Mm,8W, Mini-Ct

#### 353293-8

#### **TE Connectivity AMP Mini CT 1.5 mm PCB Headers**

- Compact design
- Polarization and mating retention features
- Kinked solder legs for secure self-retention to PCB
- · Versions available with PCB locating bosses for accurate alignment on PCB





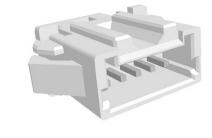


1618681 Header Plug, Pcb, 1.5Mm, 6Way, Vert., Mini-Ct

292207-6

#### **TE Connectivity 1.5mm Single Row Panel Mount Headers - Mini CT Series**

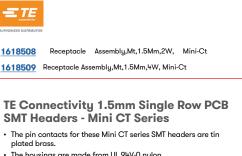
- These panel mount plug style shrouded headers have UL 94V-0 nylon 66 housings.
- Tin plated brass pin contacts.
- Accept a wire size of 24 to 28 AWG.
- For suitable mating products see stock numbers 681-1988 and 683-1692 typically.



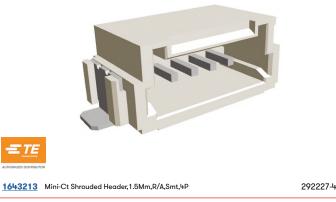


1642222 Mini Ct 1.5Mm Panel Mount Post Header,5P

292215-5



- plated brass. • The housings are made from UL 94V-0 nylon. · For suitable mating products see stock numbers 681-1988 and
- 683-1692 typically

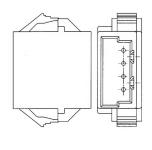


## **INTERNAL INTERCONNECT - CT**



#### **TE Connectivity 2.0mm Single Row Panel Mount Headers - CT Series**

- These plug style, shrouded, feed through panel mount headers have UL 94V-0 66 nylon housings.
- Tin plated brass pin contacts and accept a wire size of 22 to 30 AWG.





| <u>6831780</u> | Header   | Plug,    | 2Mm,     | 12     | Way,Panel     | Mount, | Ct | 1-292254-2 |
|----------------|----------|----------|----------|--------|---------------|--------|----|------------|
| <u>6831784</u> | Header   | Plug,    | 2Mm,     | 13     | Way,Panel     | Mount, | Ct | 1-292254-3 |
| <u>6831787</u> | Header P | lug, 2Mr | n, 10 Wc | ıy,Paı | nel Mount, Ct |        |    | 1-292254-0 |

#### **TE Connectivity IDC Terminating Heads**

- A range of IDC terminating heads for use with the pistol grip handle.
- These IDC terminating heads are designed to terminate discrete
- wire in connections that contain insulation displacement contacts





8762129 Pistol Grip li Head (ldc) 2Mm W/O TI

58372-1

#### **Mating Connector for Luxeon Ring Light** Sources

• 2-way receptacle 2mm pitch. Wire Size 28 - 26 AWG.





6544023 2 Way Amp Mating Connector Lumiled

173977-2

#### TE Connectivity CERTI-CRIMP II Straight **Action Hand Crimp Tools**

- High specification design using high-quality materials
- Fixed crimp dies for specific terminal types
- Minimum operator skill required
- CERTI-CRIMP ratchet control for full crimp cycle assurance
- · Contact locator and wire stop · Flip locator versions available
- 4 position insulation crimp height adjustment Ergonomically designed handles with pre-set handle force
- pressures
- Repairable
- Life service of over 50000 cycles if maintained



#### **Mating Connector for Luxeon Flood Light** Source

• 4-way receptacle 2mm pitch.

• Wire Size 28 - 26 AWG.





6544017 4 Way Amp Mating Connector Lumiled

173977-4

91572-1

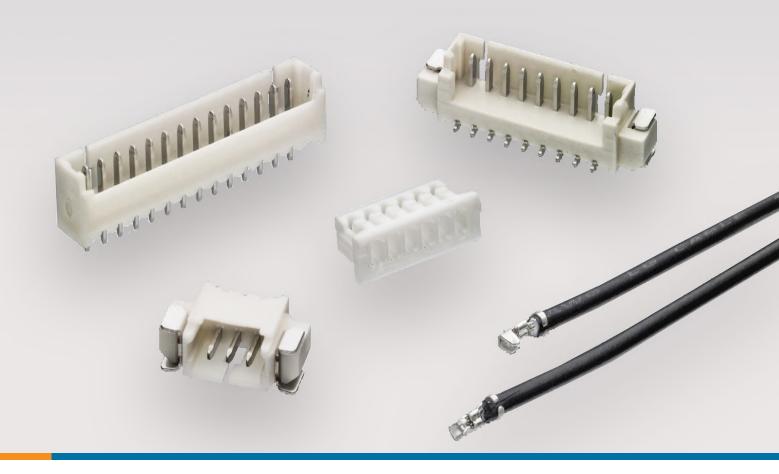
#### TE Connectivity 2.0mm Mini-Drawer CT **Header Connector**

- Mini-Drawer plug style panel mount shrouded header connector with a 2mm centreline.
- This Mini-Drawer plug style header has a black thermoplastic housing and gold plated nickel pin contacts





| <u>9097898</u> | 2Mm Pitch 14 Pole 2 Row Shrouded Header | 5-292177-1 |
|----------------|-----------------------------------------|------------|
| <u>1648380</u> | 2Mm Pitch 14 Pole 2 Row Shrouded Header | 5-292177-1 |



## High Performance Interconnect (HPI) Connectors

TE Connectivity's (TE) wire-to-board High Performance Interconnect (HPI) connector system is available in 1.0mm, 1.25mm, 1.5mm, 2.0mm, and 2.5mm centerline pitch. This connector system offers vertical and horizontal (right angle) connector mounting for versatility, and the square-peg technology enables product compatibility with industry standard products. HPI products can be used anywhere a signal or low power needs to be routed through a device. If your application has more than one printed circuit board then HPI product is an option to connect the PCBs.

#### Features

- 1.0mm 2.5mm centerline
- Vertical and horizontal PCB
   mount
- Through hole (DIP) & surface mount termination (SMT)
- Polarized
- Partially and fully shrouded
- Square termination posts
- Latching and gold plating options available
- Reach up to 2A

#### **Benefits**

- Provides design flexibility
- Cost effective wire-to-board
- Ensures proper compatibility of both the header and the housing
- Prevents stubbing contacts
- Enables inter-changeability with industry standard designs

#### **Applications**

- Business and retail equipment
- Consumer devices
- Industrial
- Automotive
- Medical
- Appliance

## **HIGH PERFORMANCE INTERCONNECT (HPI)**

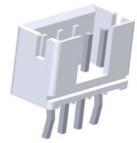


#### **TE Connectivity High Performance** Interconnects (HPI) Housings

- High Performance Interconnects (HPI) receptacle style single row housings made UL 94V-0 thermoplastic.
- These High Performance Interconnects (HPI) housings are available in a variety of configurations.

#### **TE Connectivity HPI (High Performance** Interconnects) PCB Headers

- Range of pitches for design flexibility
- Square solder pegs for combatability with standard products
- Partially shrouded housings for contact protection
- Polarization to prevent mismating Kinked solder tails for retention to PCB
- Versions with latching locks available

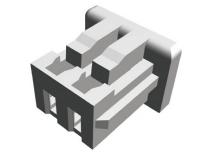




| 7201991 | Нрі    | Vertical    | Post  | Header,11Way | 1-1735446-1 |
|---------|--------|-------------|-------|--------------|-------------|
| 1642729 | Нрі    | Vertical    | Post  | Header,11Way | 1-1735446-1 |
| 1642730 | Hpi Ve | rtical Post | Heade | r,14Way      | 1-1735446-4 |

## TE Connectivity High Performance Interconnects (HPI) Housings

- High Performance Interconnects (HPI) receptacle style single row housings made UL 94V-0 thermoplastic.
- These High Performance Interconnects (HPI) housings are available in a variety of configurations.



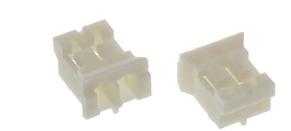


1643281 Hpi Housing, Socket, 1.25Mm, 28-32Awg, 2P

440146-2

## TE Connectivity High Performance Interconnects (HPI) Housings

- High Performance Interconnects (HPI) receptacle style single row housings made UL 94V-0 thermoplastic.
- These High Performance Interconnects (HPI) housings are available in a variety of configurations





7201972 Hpi Housing,Receptacle,2Way

440129-2



| <u>7201988</u> | Hpi Housing,Receptacle,W/Latch,4Way | 1735447-4 |
|----------------|-------------------------------------|-----------|
| <u>7201985</u> | Hpi Housing,Receptacle,W/Latch,3Way | 1735447-3 |
| 1618500        | Hpi Housing,Receptacle,W/Latch,3Way | 1735447-3 |

100 M

#### **TE Connectivity HPI (High Performance** Interconnects) PCB Headers

• Range of pitches for design flexibility

-7/-

- Square solder pegs for combatability with standard products
- Partially shrouded housings for contact protection
- Polarization to prevent mismating
- Kinked solder tails for retention to PCB
- Versions with latching locks available

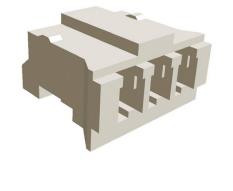


1618581 Hpi Vertical Post Header, With Lock, 5Way

1735446-5

#### **TE Connectivity High Performance** Interconnects (HPI) Housings

- Miniature design
- Polarization and mating retention features
- Kinked solder legs for secure self-retention to PCB





1620759 Hpi Housing, Socket, 2Mm, 24-30 Awg, 5P

440129-5

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### **0.8mm Free Height Connectors**

The popular 0.8mm FH connector system saves more than 50% board space compared to conventional 1.27mm centerline connectors. Its product portfolio includes board stacking heights ranging from 5mm through 20mm in increments of 1mm. It is also available in multiple sizes ranging from 40 to 200 positions. In addition, right angle plugs are available which mate to standard receptacles.

#### TE Connectivity 0.8mm Free Height (FH) Vertical Receptacle Connectors

- A range of board to board stacking heights from 5 to 16mm can be achieved by mating these 0.8mm FH receptacles with different board mount plugs.
- UL Flammability Rating : UL 94V-0.





9097195 0.8mm Fh Board To Board Smt Socket, 40P

5084616-1

#### TE Connectivity 0.8mm Free Height (FH) Vertical Receptacle Connectors

- A range of board to board stacking heights from 5 to 16mm can be achieved by mating these 0.8mm FH receptacles with different board mount plugs.
- UL Flammability Rating : UL 94V-0.

- TE Connectivity 0.5 mm FH (Free Height) Connectors
- PICMG COM Express standard interface
- High density PCB space saving 0.5 mm pitch
- Polarized housings to prevent mismating
- Solder pegs for secure retention to PCB
- Grounding contacts and shields



| <u>1735570</u> | 0.5 mm 220W Fh Receptacle 61.8mm Long | 3-6318490-6 |
|----------------|---------------------------------------|-------------|
| <u>6131762</u> | 0.5 mm 220W Fh Receptacle 61.8mm Long | 3-6318490-6 |

#### TE Connectivity 0.5 mm FH (Free Height) Connectors

- PICMG COM Express standard interface
- High density PCB space saving 0.5 mm pitch
- Polarized housings to prevent mismating
- Solder pegs for secure retention to PCB
- Grounding contacts and shields



| <u>6811950</u> | Receptacle,Fine Ptch,0.5mm,Vrt,Sldr,440W | 3-1827231-6 |
|----------------|------------------------------------------|-------------|
| 1639983        | Receptacle,Fine Ptch,0.5mm,Vrt,Sldr,440W | 3-1827231-6 |

9097173 0.8mm Fh Board To Board Pcb Socket, 80P

5-5179180-3

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## Z-PACK 2MM



100526-9

#### **TE Connectivity Z-PACK HM-Zd Universal Power Module Guide Pins**

- Z-PACK HM-Zd Universal Power Module guide pins
- are made from passivated stainless ste
- Stock number 864-3393 has an M4 x 0.7-6G thread size and a 6.20mm thread length Stock number 865-5440 has an M4 x 0.7-6G
- thread size and a 7.5mm thread length
- Stock number 864-3908 has an 8-32 UNC-2A thread size and a 12.7mm thread length Stock number 864-3585 is a power/guide pin housing





8643393 Hard Metric Connector

#### 223956-1

#### **TE Connectivity Z-PACK HM-Zd Universal Power Module Guide Pins**

- Backplane Guide Hardware Type : Guide Pin Module.
- For Use With Hard Metric Connector

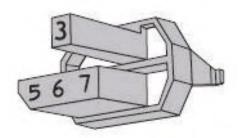


| E | 5 | 1 | - |
|---|---|---|---|
|   |   |   |   |

| <u>1917947</u> | Conn Guide Pin For Univ Pwr Mod | 223956-1 |
|----------------|---------------------------------|----------|
| <u>1917853</u> | Conn Guide Pin For Univ Pwr Mod | 223956-1 |

#### **TE Connectivity Z-PACK 2mm HM Coding Keys**

- · Z-PACK 2mm HM male and female coding keys for use with Z-PACK HM 2mm backplane connectors.
- These -PACK 2mm HM plug and receptacle coding keys are made from colour coded glass filled polyamide 6.6 and have four blocking pins and four cavities with numbers on top of them which form a four figure identification number.



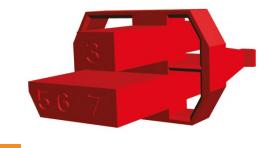


6809074 Key,Coding,Connector,Rcp,Blue-Lilac

2-100526-0

#### **TE Connectivity Z-PACK 2mm HM Coding** Keys

- Z-PACK 2mm HM male and female coding keys for use with Z-PACK HM 2mm backplane connectors.
- designed as a two part system for the connection of free boards (Daughterboards or PCBs) to fixed boards (Motherboards, Backplane or Backpanel) and feed the connection through the fixed board.





7950804 Z-Pack Coding Key, Female, 2Mm Hm

## **TE Connectivity Z-PACK 2mm HM Coding**

- Keys
- Z-PACK 2mm HM male and female coding keys for use with Z-PACK HM 2mm backplane connectors.
- Designed as a two part system for the connection of free boards (Daughterboards or PCBs) to fixed boards (Motherboards, Backplane or Backpanel) and feed the connection through the fixed board.



7390965 Coding Key Pcb Green 2Mm Z-Pack

5-100525-4



#### TE Connectivity 0.5mm Pitch 30 Way Right Angle Female FPC

- Connector Product Type : Connector Assembly.
   PCB Connector Assembly Type : PCB Mount Receptacle.
- Connector & Contact Terminates To : Flexible Printed Circuit (FPC), Printed Circuit Board.

#### TE Connectivity 1mm Pitch 30 Way Right Angle Female FPC Connector

- Multiple Centerline Spacing Options.
- ZIF and non-ZIF Versions Available.
- Top and Bottom Contact Options.
- Requires No Application Tooling.





1864909 Fpc Conn. 0.5Mm Pitch B/C, 30P

3-1734592-0

4-1734742-0

4-1734742-0

#### TE Connectivity 0.5mm Pitch 40 Way Vertical Female FPC Connector

- Connector Product Type : Connector Assembly.
- PCB Connector Assembly Type : PCB Mount Receptacle.
- Connector System : Flex-to-Board.
- Connector & Contact Terminates To : Flexible Printed Circuit (FPC)





 $\Xi TE$ 

1864907 1Mm Fpc Horz.Top Cont.Assy 30P

3-84953-0

#### TE Connectivity 2.54mm Pitch 10 Way Right Angle Female FPC Connector

Connector & Housing Type : Receptacle

1920288 Triomate Assy H 10P L=2.54Ldfr

Connector & Contact Terminates To : Printed Circuit Board







 1917846
 Ffc & Fpc Connectors .5 Fpc Vt Zif Type

 1917928
 Ffc & Fpc Connectors .5 Fpc Vt Zif Type

#### TE Connectivity, 1734742 0.5mm Pitch 20 Way Vertical Female FPC Connector

- Connector Product Type : Connector Assembly.
- PCB Connector Assembly Type : PCB Mount Receptacle.
- Connector & Contact Terminates To : Flexible
- Printed Circuit (FPC), Printed Circuit Board.





1864835 .5 Fpc Vt Zif Type-A 20 Cont



6-520314-0

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## **STANDARD SPRING FINGER**



#### TE Connectivity Pre-Loaded Spring Finger Contacts

- These spring fingers are gold plated.
- Have a preloaded design with a highly engineered geometry including an enhanced side wall design.
- This design enables these pre-loaded spring fingers to be used in high speed manufacturing and more complex applications.
- The uncompressed height of these spring fingers is 3mm with a working height range of 2.1 to 2.7mm.





| <u>1648332</u> | Spring Finger Contact, Smt, 3mm Height | 1551575-5 |
|----------------|----------------------------------------|-----------|
| <u>9097255</u> | Spring Finger Contact, Smt, 3mm Height | 1551575-5 |

#### TE Connectivity Scalable Spring Finger Contacts

- These spring fingers feature sidewalls to prevent the springs from being tangled with operator gloves and to prevent deflection during PCB transfer.
- A dimple on the contact enhances the contact force and PCB soldering holes increase solder strength and prevent wicking.
- A pick and place area on the contact allows automated assembly.



| <u>1235969</u> | Type C 3.8H Shield Finger                |
|----------------|------------------------------------------|
| <u>1649391</u> | Shield Finger, Loose Piece, Type C, 3.2H |

#### **TE Connectivity Standard Spring Finger Contacts**

- Grounding springs or universal ground contacts, provide grounding between the device and PCB and shielding to prevent EMI noise and static caused by motors, speakers and microphones or any other vibrations within an application.
- Additional functions of spring fingers include antenna feeds, low voltage electrical connections and they can also be used as a connection for simple stacking applications between primary and secondary PCBs.

#### TE Connectivity Scalable Spring Finger Contacts

- These spring fingers feature sidewalls to prevent the springs from being tangled with operator gloves and to prevent deflection during PCB transfer.
- A dimple on the contact enhances the contact force and PCB
- soldering holes increase solder strength and prevent wicking.
- A pick and place area on the contact allows automated assembly.



| 1235976        | Shield Finger, Loose Piece, Type A, 1.3H | 2199248-5 |
|----------------|------------------------------------------|-----------|
| <u>1649211</u> | Shield Finger, Loose Piece, Type A, 1.3H | 2199248-5 |

#### TE Connectivity Scalable Spring Finger Contacts

- These spring fingers feature sidewalls to prevent the springs from being tangled with operator gloves
- and to prevent deflection during PCB transfer. • A dimple on the contact enhances the contact force and PCB soldering holes increase solder strength and prevent wicking.
- A pick and place area on the contact allows automated assembly.





3-2199250-5

1235973 Spring Finger Contact, Smt, 2.3mm Height

2199249-4





9097570 Spring Finger Contact, Clip on, 1.7mm Height

1447360-9





- **TE Connectivity 50 Ohm BNC Connectors** - Professional Grade Solder Plug
- Professional Grade 50 Ohm BNC solder plugs with a PTFE dielectric, silver plated brass body and solder/clamp coaxial cable termination.





1355011 Bnc Straight Plug Clamp 50Ohm 58C/U,141A

#### TE Connectivity 50 Ohm RF Coaxial BNC **Connectors - Bulkhead Solder Jacks**

- 50 Ohm RF coaxial BNC bulkhead solder jack connectors with bayonet locking.
- These 50 Ohm RF coax BNC panel mount bulkhead jacks have a nickel plated body
- Gold contacts, a choice of dielectric material and
- are supplied with or without solder terminals.





**BNC Straight Plug** 

applications.



TE

| <u>1361776</u> | Nipt Bnc Plug-Plug Rg58 Cable,500hm 0.5M | 1337769-2 |
|----------------|------------------------------------------|-----------|
| <u>1361775</u> | Bnc Plug To Plug Cable,50Ohm,Rg-58,0.25M | 1337769-1 |

#### TE Connectivity 75 Ohm ZDC/BNC RF **Coaxial Crimp Plug Connectors**

TE Connectivity 50 Ohm BNC RF Coaxial

Cable Assembly - BNC Straight Plug to

50 Ohm BNC RF coaxial BNC straight plug to BNC straight plug cable assemblies for use with RG-58 coaxial cable.

 These 50 Ohm BNC RF coaxial BNC straight plug to BNC straight plug cable assemblies are typically used in audio/visual

- 75 Ohm ZDC BNC RF coaxial crimp plug connectors
- with bayonet coupling and a crimp termination. These 75 Ohm BNC straight RF coax crimp cable
- plugs have a thermoplastic dielectric.
- A nickel plated zinc die cast body
- Gold plated centre contact and are for use with a variety of RF coaxial cable types.



E TE

1355185 Bnc Jack Bulkhead Solder 50 Ohm

5227426-1

1-1478401-0

1361718 Bnc Ni-Pl Straight Plug, 75 Ohm, Rg59

5-1634502-2

#### TE Connectivity 50 Ohm BNC RF Coaxial Cable Assembly - BNC Straight Plug to BNC Straight Plug

- 50 Ohm BNC RF coaxial BNC straight plug to BNC straight plug cable assemblies for use with RG-58 coaxial cable.
  These 50 Ohm BNC RF coaxial BNC straight plug to BNC straight plug cable assemblies are typically used in audio/visual applications.





1361777 Nipt Bnc Plug-Plug Rg58 Cable,50Ohm 1.5M

1337769-4

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## **RF - COAXIAL TNC**



#### TE Connectivity 50 Ohm TNC RF Coaxial Cable Assembly - TNC Straight Plug to TNC Straight Plug

- 50 ohm TNC straight plug to TNC straight plug coaxial cable assemblies with a nickel plated body and gold plated centre contact.
- These 50 ohm TNC straight plug to TNC straight plug coaxial cable assemblies are for use with RG-174 RF coaxial cables.

#### TE Connectivity 50 Ohm TNC Connectors - Professional Grade Bulkhead Solder Jack Receptacle

- Professional Grade 50 Ohm TNC front mount bulkhead solder jack receptacle with PTFE dielectric.
- Solder terminal and silver plated body.

3941140 Tnc Bulkhead Solder Jack Receptacle

**TE Connectivity 50 Ohm TNC Connectors** 

- Right Angle PCB/Panel Mount Jack

75 Ohm right angle PCB/panel mount TNC RF coaxial

connector with a polymethylpentene dielectric.

Nickel plated diecast zinc body.

· Gold plated centre contact.

 This Professional Grade 50 Ohm TNC front mount bulkhead solder jack receptacle has a solder tag and uses a 8.7 x 9.6mm panel cut-out.



| <u>4098219</u> | Tnc     | Plug     | То    | Plug    | Cable,50Ohm,Rg-174,0.5M | 1337820-2 |
|----------------|---------|----------|-------|---------|-------------------------|-----------|
| <u>1641505</u> | Tnc Plu | g To Plu | ıg Ca | ble,500 | 0hm,Rg-174,0.5M         | 1337820-2 |

#### TE Connectivity 50 Ohm TNC RF Coaxial Cable Assembly - TNC Straight Plug to TNC Straight Plug

 50 ohm TNC straight plug to TNC straight plug coaxial cable assemblies with a nickel plated body and gold plated centre contact.

- 1/-

 These 50 ohm TNC straight plug to TNC straight plug coaxial cable assemblies are for use with RG-174 RF coaxial cables.



1337820-3

1337820-3

**E**TE

1650951 Tnc R/A Pcb Mount Jack 50Ohm

5227839-1

1-1337469-0

#### TE Connectivity 50 Ohm Flange Mount TNC Jack Receptacle

• 50 ohm flange mount TNC jack receptacle with a straight nickel plated brass body, solder cable termination and PTFE dielectric.

• This 50 ohm flange mount TNC jack receptacle has a PTFE dielectric and a gold plated contact.





7131132 50 Ohm Flange Mount TNC Jack Receptacle

1057780-1





## **INPUT/OUTPUT - MODULE JACK - COAXIAL CONNECTORS**

TE Connectivity SMA Flange Mount Jack Receptacles for Microstrip Transmission L

 These SMA flange mount jack receptacles are rear panel mounting with panel mount retention.

 The frequency for these SMA flange mount jack receptacles is DC - 18 GHz with an RF leakage (db min.) of -(60-fGHz).

Gold plated beryllium copper centre contact.

7561044 Sma Jack Flange Mount Solder 18Ghz

1710714 Sma Jack Flange Mount Solder 18Ghz

These SMA flange mount jack receptacles are rear panel mounting with panel mount retention.
Gold plated beryllium copper centre contact.
The frequency for these SMA flange mount jack receptacles is DC - 18 GHz with an RF leakage (db min.) of -(60-fGHz).

TE Connectivity SMA Flange Mount Jack Receptacles for Microstrip Transmission L

#### QMA jack to SMA plug adaptor

- Positive snap-on interface facilitates assembly.
- Excellent RF performance to 6 GHz.
- Ideal for communications and industrial applications.





| 1647396 Adaptor - Qma Jack To Sma Plug | 1408343-1 |
|----------------------------------------|-----------|
| 6121541 Adaptor - Qma Jack To Sma Plug | 1408343-1 |

#### **Adapter Jack to Jack**

• Panel D shaped cut out Ø4.9 mm 4.5mm flat.

7131063 Smb Adaptor Jack To Jack Feed-Thru 50Ohm

Subminiature space saving design
 Excellent electrical performance from DC to 18 GHz
 Threaded vibration proof coupling mechanism
 Choice of platings dependent on application
 Flanges for secure panel connection

• Adapter Jack to Jack.

TE



TE Connectivity 50Ω Straight Flange Mount, SMA Connector, Jack



7561048 Sma Jack Flange Mount Solder 18Ghz

2052 1215 02

2052 5674 02

2052 5674 02



1641452 SMA RF Coaxial Cable Connectors - Flange Panel Mount



E TE



## **INPUT/OUTPUT - MODULE JACK - ETHERNET CONNECTORS**



5558872-1

5520258-3

TE Connectivity Cat 3 Single Port Right Angle PCB Mount 6 Pole Modular Jacks

- 6 Pole Cat 3 single port right angle PCB mount modular RJ11, RJ14 and RJ25 jacks with high temperature thermoplastic housings.
   There ext 2 and the inclusion and might be a shown has a SM
- These Cat 3 modular jacks are available as through hole or SMT mounting with nickel plated copper alloy shielding. Various heights and solder tail lengths.





8719932 Jack, Pcbmountedjack, 6, Polyester (Pbt)

5555154-1

#### TE Connectivity Cat 3 Single Port Right Angle PCB Mount 6 Pole Modular Jacks

- 6 Pole Cat 3 single port right angle PCB mount modular RJ11, RJ14 and RJ25 jacks with high temperature thermoplastic housings.
- These Cat 3 modular jacks are available as through hole or SMT mounting with nickel plated copper alloy shielding. Various heights and solder tail lengths.





1157961 Cat 3 Rj25 Pcb Right Angle Modular Jack

520250-3



**TE Connectivity Cat 3 Single Port Right** 

Angle PCB Mount 6 Pole Modular Jacks • 6 Pole Cat 3 single port right angle PCB mount modular RJ11, RJ14 and RJ25 jacks with high temperature thermoplastic

These Cat 3 modular jacks are available as through hole or SMT mounting with nickel plated copper alloy shielding.

Various heights and solder tail lengths.

1643380 Cat3 Modular Rj22 Jack,4/4,Vertical, Tht

TE Connectivity Cat 3 RJ25 Low Profile

• These PCB mount LED Poke-In LED connectors are side

UL 94V0 high temperature resistant thermoplastic housings.

by side stackable with pads on 4mm centres.

7820808 Jack, Pcbmountedjack, 6, Polyester (Pbt)

housinas.

TE

**Modular Jacks** 

2930408 Modular Socket 6/6

0-215876-1

#### TE Connectivity Cat 3 Single Port Right Angle PCB Mount RJ22 Modular Jacks

These Cat3 RJ14 and RJ22 modular connectors have gold plated phosphor bronze contacts.

- They are constructed from PBT housing material.
- All the modular jacks are through hole, right angle mounting.
- Typical applications for these modular jacks would be telephones, routers servers and switches.





9098059 Connector Rj22 Jack 1 Port 4P4C

215875-1

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T

• D Type Accessories.

• Accessory Type Jack Screw.

• Material Stainless Steel.

## **INPUT/OUTPUT - MODULE JACK - D SUB CONNECTOR ACCESSORIES**

#### AMPLIMITE D-Sub Connector Miscellaneous Female Screwlocks and Screwlock Kits

- These AMPLIMITE screwlocks are available with a variety of thread sizes and thread lengths.
- Screwlocks are available individually or as kits.
- Screwlock kits consist of 1 x screwlock assembly.

1650491 Amplimite Hdp,Hdf,Jackscrew Socket, 4-40

**D** Type Accessories - Screws

 Each of which consists of 1 x screwlock, her nut, lock washer and flat washer, except part numbers 680-9257/782-6238 which have no flat washer. TE Connectivity Screw Lock Kits for D-Sub Connectors

- Accessory Type Jack Screw.
- For Use With D-Sub Connector.





2-1437012-4

7174505 Screwlock Male 4-40 D-Sub

2-1393560-9

#### D Type Accessories - Screws

- Accessory Type Jack Screw.
- For Use With CHAMP Connector.
- Series CHAMP.







7184950 Screwlock Kit Champ

554808-1

#### **D** Type Accessories - Screws

- Accessory Type Jack Screw.
- For Use With D-Sub Connector.
- Series CHAMP.





6809298 Connector, Standoff Stud, Ass, 4-40Uncxm3.5

5553636-3



## **INPUT/OUTPUT - MODULE JACK - PCB DIN CONNECTOR ACCESSORIES**



#### **TE Connectivity M Series Jackscrews**

- The Fixed jackscrews have a steel lockwasher and zinc
- plated steel hex nut. For Use With Circular Connectors Series M-Series
  - 5 0 O 1.00 Socket



| 201388-1   |
|------------|
| 1-200871-0 |
| 1-200871-0 |
|            |

#### **TE Connectivity M Series Jackscrews**

- · The Fixed jackscrews have a steel lockwasher
- and zinc plated steel hex nut.
- Jackscrews help to mate and unmate connectors and hold mated connectors together.
- It can also be used for polarization.
- The turnable jackscrews rotate freely in the connector housing and are used opposite mating fixed jackscrews.



#### **TE Connectivity M Series Jackscrews**

- The Fixed jackscrews have a steel lockwasher and zinc
- plated steel hex nut. For Use With Standard Connector.
- Series M-Series.





1643552 Jackscrew Female M3.5 X 0.6 M Series

#### **TE Connectivity M Series Jackscrews**

- The Fixed jackscrews have a steel lockwasher and zinc plated steel hex nut.
- Jackscrews help to mate and unmate connectors and hold mated connectors together.
- · It can also be used for polarization.
- The turnable jackscrews rotate freely in the connector housing and are used opposite mating fixed jackscrews.



7456015 Jackscrew Female M3.5 X 0.6 M Series

200870-1

201389-1

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