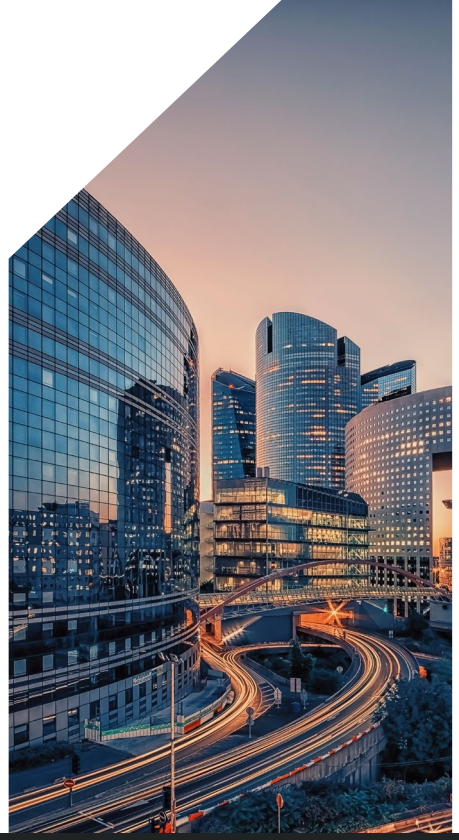
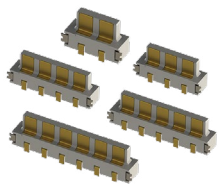
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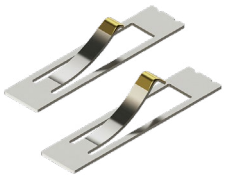




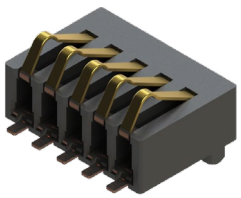


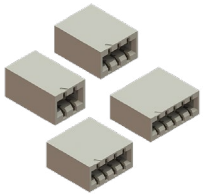
Board to Board Connectors

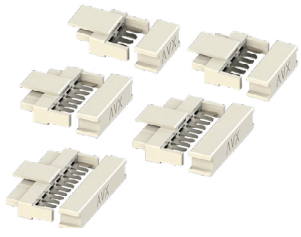












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Board to Board Connector Solutions

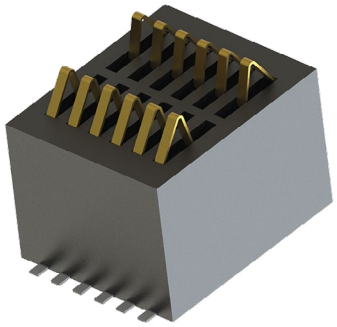
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TALL STACKER CONNECTOR: 9148-000

General Information



KYOCERA AVX has extended its range of board-to-board stacker connectors for connecting two PCBs with a new high version 00-9148. This new connector is designed to connect 2 parallel boards using a 1 piece connector design for 8mm board spacing in a double row configuration offering 8 positions at 1mm pitch. Rated at 1A continuous through each contact.
Flexible tooling means that versions for board spacings between 4-12mm can be accommodated with single row (4-16 positions) or double row (8-32 positions) options all on the same options all on the same 1mm contact pitch. Options can also include bosses for mechanical stability if required.
The connector is designed for surface mounting and is supplied in tape and reel packaging. It mates with gold-plated pads on the mating board surface. The high connector 00-9148 is suitable for a wide range of applications, including harsh environments such as those found in the automotive industry. It is a cost-effective, reliable and rugged BTB solution that has been proven over time with 50 mating high-temperature nylon plastic and gold-plated beryllium copper contacts for RoHS soldering. This connector can also be customized to fit your application with different number of rows/positions or stacking heights.

APPLICATIONS

- Automotive applications such as entertainment systems
- Handheld/portable devices requiring docking or cradle charging
- Patient monitoring or portable medical electronics
- Industrial devices requiring pluggable or programming modules
- Internet appliances requiring battery back-up
- Product Specification: Refer to 201-01-173

FEATURES AND BENEFITS

- Reduced assembly time
- Only one part to purchase and stock
- Extremely robust when subjected to shock and vibration
- Helps reduce tolerance accumulation within system
- Many options for customized versions

ELECTRICAL

- Current Rating: 1 Amp continuous through all contacts
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: High Temperature Plastic to UL94V0
- Contact Material: Beryllium Copper
- Plating: Gold on Nose, Pure Tin SMT terminations over base Nickel
- Durability: 50 Cycles

HOW TO ORDER

00	9148	008	080	2	X	X
Prefix	**Series**	**Number of Ways** 008 = 8	**Stack Height** 080 = 8mm	**Number of Rows** 2 = Double Row	**With or Without Boss** 0 = Without Boss	**With or Without Boss Plating Option** 6 = 0.25µm Gold on Nose, Standard 8 = 0.80µm Gold on Nose, Special order only

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POGO PIN SINGLE CONTACT: 9150-000

General Information



Single Pogo Pin contacts provide high cycle life in industrial and medical applications where reliability and robustness is critical. Pogo Pins provide 10,000 mating cycles and are ideal in pluggable module applications where the end customer has to handle a product daily. Pogo Pins are designed to mate with gold plated PCB pads or flat contacts in docking/cradle applications to function as the charging, data transfer or programming interface to a portable device.

The standard range single contacts from KYOCERA AVX provides the maximum flexibility in pin count, placement location and broad compressed stacking heights ranging from 2.0mm up to 5.5mm. The contacts are provided in standard tape and reel packaging for automatic in-line SMT placement. A disposable plastic cap facilitates vacuum pick-up and then is removed after reflow soldering prior to product mating. Contacts are gold plated and incorporate high force stainless steel springs for durability and signal integrity.

APPLICATIONS

- Base/Docking stations for portable electronic devices to recharge batteries or download data
- Testing and programming of electronic modules
- Interface to disposable medical or measurement components
- Product Specification: Refer to 201-01-158
- Application Notes: Refer to 201-01-159

FEATURES AND BENEFITS

- Contacts range from 1.9mm to 5.5mm providing off-the-shelf availability for almost any application
- Each contact height provides the maximum working range and compressed height tolerance possible
- Gold plated contacts provide high reliability and signal integrity over 10,000 cycles
- Removable pick-up cap facilitates automatic placement for SMT reflow

ELECTRICAL

- Current Rating: 1 Amp
- Voltage Rating: VAC (RMS) or DC equivalent
  Based on placement distance

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Contact Material: Brass
- Contact Plating: Gold over Nickel
- Spring Material: SUS304
- Durability: 10k Cycles

HOW TO ORDER

70	9150	001	0XX	0	0	6
Prefix 70 = Contact	**Series**	**Number of Ways** 001 = 1	**Contact Operating Range** 020 = 1.90 to 2.30 025 = 2.40 to 2.80 030 = 2.90 to 3.40 040 = 3.90 to 4.50 050 = 4.90 to 5.50	**Sleeve Diameter** 0 = 1.50	**Packing Option** 0 = Tape & Reel	**Plating Option** 6 = Gold over Nickel

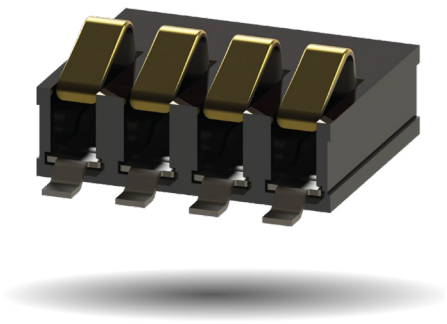
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STANDARD 2.5MM PITCH: 9155-000

General Information



KYOCERA AVX's 9155-000 series of standard battery connectors was originally designed for mobile equipment but has been used in multiple applications where one needs horizontal mating between two PCBs or a PCB and a battery pack. These connectors are available with 3, 4, or 5 contacts, all with a 2.50 mm pitch. The insulator height provides 3 mm of spacing. Various contact nose heights, ranging from 1.20 mm to 2.60 mm, provide end users with additional spacing options.

All contacts are stamped and rated at 3A with tin or gold plating. The parts are supplied in tape and reel for automatic pick-and-place. Optional retaining brackets are available to provide greater strength when connected to the PCB.

The 9155-000 Series Battery Connector can be customized to suit your applications, whatever your requirements.

APPLICATIONS

- Mobile Phones
- PDA
- Medical
- PMR
- Industrial
- Docking Stations
- Product Specification: Refer to 201-01-050

FEATURES AND BENEFITS

- Suitable for 5000 mechanical cycles.
- Variety of contact heights offered to suit different mechanical designs.
- Connectors can be end to end stackable.
- RoHS Compliant available.

ELECTRICAL

- Current Rating: 3 Amp / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94 V-O
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel, Tin over Nickel option
- Durability: 5000 Cycles

HOW TO ORDER

00	9155	00X	00	X	01	X
Prefix 00 = Standard	**Series**	**No of Ways** 3 = 003 4 = 004 5 = 005	**Standard Battery Connector** 00 = Standard Nose	**Contact Height** 1 = 1.20 (0.047) / 1.65 (0.064) 2 = 1.80 (0.071) / 2.10 (0.083) 3 = 2.30 (0.091) / 2.60 (0.102)	**Bracket** 01 = With Bracket	**Plating Option** 6 = 0.4µm Selective Gold, Standard* 8 = 0.8µm Selective Gold, Special Order* *UL-US approval for the standard part only

RoHS compliant

00	9155	00X	05	X	01	X
Prefix 00 = Standard	**Series**	**No of Ways** 3 = 003 4 = 004 5 = 005	**Standard Battery Connector** 05 = Reduced Nose	**Contact Height** 1 = 1.20 (0.047) / 1.50 (0.059) 2 = 1.80 (0.071) / 2.10 (0.083) 3 = 2.30 (0.091) / 2.60 (0.102)	**Bracket** 01 = With Bracket	**Plating Option** 6 = 0.4µm Selective Gold, Standard 8 = 0.8µm Selective Gold, Special Order

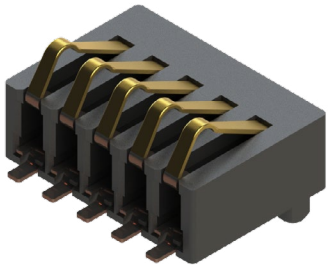
58	9155	00X	00	X	102
Prefix 58 = Special	**Series**	**No of Ways** 3 = 003 4 = 004 5 = 005	**Standard Battery Connector** 00 = Standard Nose	**Contact Height** 1 = 1.20 (0.047) / 1.65 (0.064) 2 = 1.80 (0.071) / 2.10 (0.083) 3 = 2.30 (0.091) / 2.60 (0.102)	**Plating Option** 102 = Tin Plated

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BATTERY CONNECTOR 1.27MM PITCH: 9155-020

General Information



Board-to-Board battery connectors were originally designed for mobile equipment, but now it can be used for much wider range of applications. KYOCERA AVX Interconnect extends their range of board-to-board battery connectors to include a 1.27mm small pitch part. This new version 9155-020 has a nominal working height 2.5-3.1mm. This series includes 2 through 5 position connectors that are end to end stackable. These connectors are rated at a full 3 Amps per contact for 2 & 3 ways and 2 Amps per contact for 4 & 5 ways.

The complete family of connectors 9155 series from Kyocera AVX offer all the same advantages: Ultra reliable and robust gold plated beryllium copper contacts provide high integrity connections in harsh environments, with up to 15000 mating operations. Parts are supplied in tape and reel for automatic pick and place. Whatever your requirements, the 9155 series battery connector can also be customized to suit our applications.

APPLICATIONS

- Handheld/portable devices requiring docking or cradle charging
- Battery packs of portable oxygen generator products
- Patient monitoring or portable medical electronics
- Industrial devices requiring pluggable or programming modules
- Internet appliances requiring battery back-up
- Product Specification: Refer to 201-01-229

FEATURES AND BENEFITS

- Insulator height 2.35mm
- Gold plated BeCu contacts provide high electrical and mechanical performance
- Small pitch 1.27mm is extending the range of using battery connectors 9155 series
- Flame retardant plastic per UL94 V-0
- End-to-end stackable

ELECTRICAL

- Current Rating: 3 Amp / Contact (2 & 3 way)
  2 Amp / Contact (4 & 5 way)
- Voltage Rating: 400 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Glass filled LCP plastic, flame retardant per UL94 V-0
- Contact Material: Beryllium Copper
- Plating: Gold on Nose, Pure Tin SMT terminations over base Nickel
- Durability: Up to 15000 Cycles

HOW TO ORDER

00	9155	00X	021	016
Prefix 00 = Standard	**Series**	**No of Ways** 2 = 002 3 = 003 4 = 004 5 = 005	**Standard Battery Connector** 021 = 1.27mmPitch	**Plating**

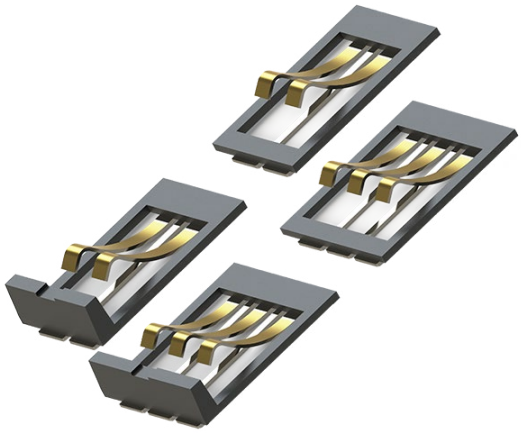


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ULTRA-LOW PROFILE 2.5MM PITCH BATTERY: 9155-100

General Information



KYOCERA AVX has been leading the industry with reliable board-to-board (BTB) compression connectors for commercial, medical and harsh industrial applications since the very first contact patent in the early 1990s. The wide range of connectors offers both signal contacts supporting 1 amp/contact up to 40 positions and low pin count (LPC) power contacts up to 3 amp/contact.

The latest addition is the Ultra Low Profile (ULP) power connector that supports a compressed height of 1.3mm, the lowest on the market. Gold plated Beryllium Copper (BeCu) contacts provide the most reliable and robust contact performance in this miniature package. The sweeping contact design provides a 0.7mm deflection range, long contact wipe and more than 40 grams of contact force at minimum operating deflection. All combined, this connector is rated at an incredible 5000 mating cycles for mechanical endurance.

APPLICATIONS

- Low profile power, signal, ground or shielding requirements
- Repeatable/Pluggable module or battery pack requirements
- Low profile flex circuit to PCB applications
- Portable devices
- Product Specification: Refer to 201-01-094

FEATURES AND BENEFITS

- High Reliability / High Cycle Life BeCu contacts for maximum system performance
- ULP 1.3mm minimum operating height with 0.7mm "Z" axis compression/ tolerance range
- Gold plating supports a broad range applications based on reliability and environments
- 3 Amp contact rating over a -40°C to +105°C operating range supports a broad application spectrum

ELECTRICAL

- Current Rating: 3 Amps / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94 V-O
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 5000 Cycles

HOW TO ORDER

00	9155	00X	10X	00X
Prefix	**Series**	**No. of Ways** 2 = 002 3 = 003	**Low Profile Battery Connector** 100 = No Stop, 1.30mm (0.051in) Operating Height 101 = Stop, 1.30mm (0.051in) Operating Height	**Plating Option** 006 = 0.4µm Selective Gold, Standard 008 = 0.8µm Selective Gold, Special Order

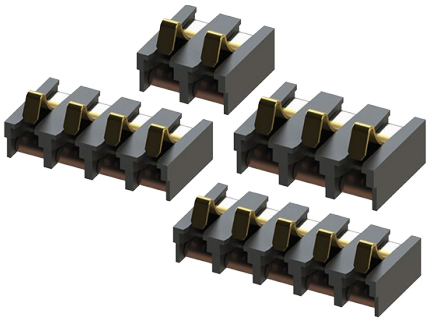


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REDUCED 2.5MM PITCH: 9155-200

General Information



The newest product in KYOCERA AVX Interconnect family of battery connectors saves 50% in volume over the initial 9155 series compression connectors as illustrated in the photograph. These connectors are rated at a full 3 amps per contact on 2.5mm centers. Sizes range from

2 positions through 5 positions and are end to end stackable.

APPLICATIONS

- Cellular Phones
- Handheld Devices
- Industrial Modules
- Medical Electronics
- Product Specification: Refer to 201-01-093

FEATURES AND BENEFITS

- 2.4mm insulator height
- 3 amps/contact
- Large SMT mounting area for positive mechanical attachment
- 5k mating cycles
- End-to-end stackable

ELECTRICAL

- Current Rating: 3 Amp / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94 HB
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 5000 Cycles

HOW TO ORDER

00	9155	00X	201	00X
Prefix	**Series**	**No. of Ways** 2 = 002 3 = 003 4 = 004 5 = 005	**Reduced Size Battery Connector** 201 = Reduced Size Battery	**Plating Option** 006 = 0.4µm Selective Gold, Standard 008 = 0.8µm Selective Gold, Special Order



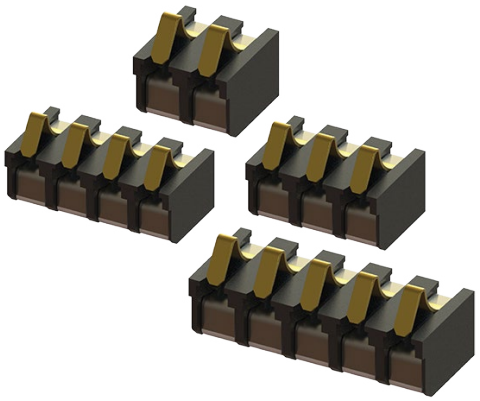
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REDUCED 2.5MM PITCH: 9155-250

General Information



KYOCERA AVX Interconnect has extended its range of reduced battery board-to-board connectors. The new version, 9155-250, has a nominal working height of 4.5 mm, compared to the existing version, 9155-200, which has a nominal working height of 3 mm. These connectors are rated at 3 amps per contact on 2.5-millimeter centers. The 9155 series includes two through five position connectors that are end-to-end stackable.

The complete 9155 series of connectors from KYOCERA AVX offers the same advantages. Ultra-reliable, robust, gold-plated beryllium-copper contacts provide high-integrity connections in harsh environments with 5,000 mating operations and high-temperature nylon plastic for RoHS soldering. Additionally, the 9155-250 is made from halogen-free nylon.

APPLICATIONS

- Handheld/portable devices requiring docking or cradle charging
- Patient monitoring or portable medical electronics
- Industrial devices requiring pluggable or programming modules
- Internet appliances requiring battery back-up
- Product Specification: Refer to 201-01-093

FEATURES AND BENEFITS

- Insulator height 3.6mm
- Gold plated BeCu contacts provide high electrical and mechanical performance over 5000 mating cycles
- Halogen free high temperature nylon plastic, UL94V-0 rated
- End-to-end stackable

ELECTRICAL

- Current Rating: 3 Amps / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: High Temperature Halogen Free Plastic to UL94V-0 rated
- Contact Material: Beryllium Copper
- Plating: Gold on Nose, Pure Tin SMT terminations over
- Durability 5000 Cycles

HOW TO ORDER

00	9155	00X	251	00X
Prefix	**Series**	**No. of Ways** 2 = 002 3 = 003 4 = 004 5 = 005	**Reduced Size Battery Connector** 251 = Reduced 2.5mm Size Battery Connector	**Plating Option** 006 = 0.4µm Selective Gold, Standard

SALES DRAWINGS
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RoHS compliant

RIGHT ANGLE 3.0MM PITCH: 9155-300

General Information



KYOCERA AVX has added a 90-degree version to its battery connector range. It is offered on a 3 mm pitch, in 2 to 6 contact positions, and is rated at 3 amps, as are all of the battery range. The small, compact design of the connector minimizes its profile while maintaining stability with a contact point 4.61 mm above the PCB.

This stability comes from extra SMT anchor brackets between the SMT contact pads at the front of the connector and within the row of contact SMT pads.

Like the other 9155 series battery connectors offered by KYOCERA AVX, the 90-degree version is rated at three amps and 5,000 mating cycles. It is RoHS-compliant, and the use of high-temperature plastic enables the connectors to be processed at up to 260°C.

APPLICATIONS

- Mobile phones
- Digital music players
- Hand held terminals
- Data terminals or any other small portable device
- Product Specification: Refer to 201-01-104

FEATURES AND BENEFITS

- Simple designed spring contact
- End to end stackable for larger pin counts
- Additional contact anchor brackets to added stability on the PCB
- Robust to shock and vibration
- Selectively plated contact area

ELECTRICAL

- Current Rating: 3 Amps / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94 HB
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 5000 Cycles

HOW TO ORDER

00	9155	00X	301	00X
Prefix	**Series**	**No. of Ways** 2 = 002 3 = 003 4 = 004 5 = 005 6 = 006	**Right Angle Battery Connector** 301 = Right Angle 3.00mm Battery Connector	**Plating Option** 006 = 0.4µm Selective Gold, Standard 008 = 0.8µm Selective Gold, Special Order

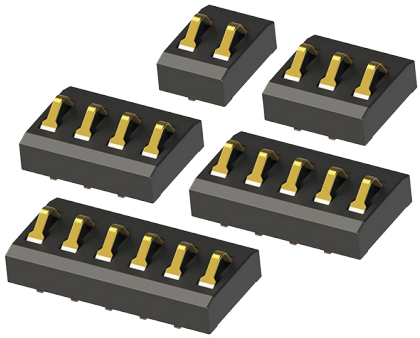
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TWO-PIECE 4.0MM PITCH BATTERY: 9155-400

General Information



This unique battery or removable module-style connector differs from most others in that it allows the pluggable device to be connected from either direction. The spring contact offers an enhanced contact deflection range compared to existing connectors on the market, with a full 1.4 mm of travel after engagement. This contact design enables the connector to absorb more plastic or housing tolerances, making it more functional and reliable in real-life applications.

The fixed pad connector is unique in that it replaces the plating of gold directly onto PCB pads. The main benefit of this connector is that it elevates the pad surface well above the PCB, allowing the gold contacts to be close to flush with the outside packaging. This minimizes the distance that a spring contact would need to absorb within the mating tolerance band. Another unique feature of this connector is the angled contact lead-in on both sides, which facilitates smooth engagement of the spring contact from either direction.

APPLICATIONS

- Portable electronics requiring a removable battery
- Interface for removable/pluggable modules or cartridges
- Docking cradle for charging and data transfer
- Product Specification: 201-01-207

FEATURES AND BENEFITS

- Proven contact reliability in harsh industrial or medical applications
- Increased contact deflection range above existing connectors on the market
- Gold plated Beryllium contact spring contact assures maximum contact reliability and functionality up to 5000 cycles
- Beveled lead in on pad connector facilitates smooth module engagement from either direction

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Contact Material: Spring contact is Be Cu, Fixed contact is Phosphor Bronze
- Contact Plating: Gold over nickel mating area, pure Tin SMT tails
- Durability 5000 Cycles

HOW TO ORDER

00 — **Prefix**

9155 — **Series**

00X — **No. of Ways**
2 = 002
3 = 003
4 = 004
5 = 005
6 = 006

40X — **Standard Battery Connector**
401 = Battery Connector, Sprung Half, 550 Per Reel
402 = Battery Connector, Fixed Half, 1100 Per Reel

00X — **Plating Option**
006 = 0.4µm Selective Gold, Standard
008 = 0.8µm Selective Gold, Special Order

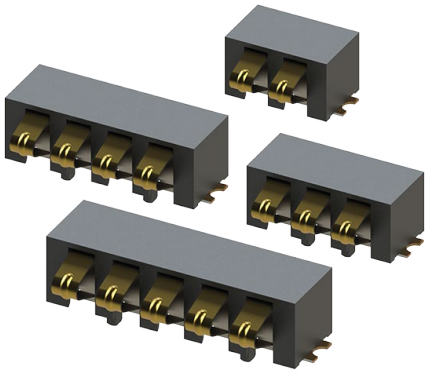


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RIGHT ANGLE 2.5MM PITCH: 9155-500

General Information



KYOCERA AVX has expanded its range of battery connectors with the addition of a low-profile, 2.5-mm pitch, right-angle connector. Offered in 2 to 5 positions, this connector is rated at 3 amps. Its small, compact design minimizes its profile, yet it is functionally stable with a contact point at 2.20 mm above the PCB.

This stamped contact's unique design allows for a maximum insulator height of 4.0 mm, making it size-compatible with more expensive pogo pin–style battery connectors.

KYOCERA AVX's complete family of battery connectors offers all the same advantages: a beryllium copper base material for enhanced contact performance; a full 3-amp current rating; selective gold plating for 5,000 mating cycles; and high-temperature plastic for RoHS soldering.

APPLICATIONS

- Mobile Phones
- Digital Music Players
- Any Handheld Devices
- Product Specification: Refer to 201-01-114

FEATURES AND BENEFITS

- Reliable stamped contact with coined nose
- Full 1.5mm nose deflection for large operating range
- Two anchor tabs for mechanical stability
- 5000 cycle durability rating
- Minimized X, Y and Z package dimensions

ELECTRICAL

- Current Rating: 3 Amps / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94 HB
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 5000 Cycles

HOW TO ORDER

00	9155	00X	541	00X
Prefix	**Series**	**No. of Ways** 2 = 002 3 = 003 4 = 004 5 = 005	**Right Angle Battery Connector** 541 = Right Angle 2.5mm Battery Connector	**Plating Option** 006 = 0.4µm Selective Gold, Standard 008 = 0.8µm Selective Gold, Special Order

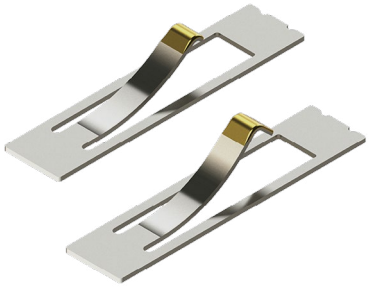
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LOW PROFILE SINGLE CONTACT: 9155-600

General Information



Designers of ruggedized connectors for harsh environments continue to look for new products that reduce size and cost without compromising performance. KYOCERA AVX's new Ultra-Low Profile (ULP) compression contact is surface mounted to a PCB and provides a reliable compression connection to the mating board, even under extreme shock and vibration applications. With over 20 years of experience in 1-piece compression contacts, this innovative contact provides full connector performance functionality at the individual contact level. This allows individual contacts to be placed in any location or position on a PCB.

The high strength beryllium copper contact is gold-plated to maximize reliability and signal integrity. The current offering includes two contacts with nominal heights of 1.0mm and 1.5mm. Adding the "Z" axis tolerance range, the compressed height covers 0.75mm to 1.75mm. Contacts are supplied in tape and reel for easy SMT assembly.

APPLICATIONS

- Industrial/Ruggedized handheld or portable devices
- BTB connection for any traditional power or signal application
- Ground connections between PCB's or housings
- Product Specification: Refer to 201-01-153
- Application Notes: Refer to 201-01-154

FEATURES AND BENEFITS

- Reliable gold plated Beryllium Copper contacts for high cycle life and signal integrity up to 1000 cycles
- Tape and reel packaged for automated SMT placement
- Sweeping beam design for pluggable/module applications
- Three gold plating options to match end product environmental or expected life requirements

ELECTRICAL

- Current Rating: 3 Amps
- Voltage Rating: UL 300 VAC (RMS) or DC equivalent
  Based on placement distance

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Contact Material: Beryllium Copper
- Contact Plating: Gold over Nickel
- Durability: 50, 500 and 1000 cycles

HOW TO ORDER

70	9155	001	61X	00X
Prefix	Series	Number of Ways	Contact Description	Contact Description

Contact Description

Code	Nominal Operating Height	Contact Operating Height Range
610	1.00mm	0.75mm to 1.25mm
615	1.50mm	1.25mm to 1.75mm

Contact Description

Code	Gold Thickness	Description	Availability
004	0.1µm	Nickel under Plate, Gold on Nose Tin on Remainder	Standard
006	0.4µm	Nickel under Plate, Gold on Nose Tin on Remainder	Special Order
008	0.8µm	Nickel under Plate, Gold on Nose Tin on Remainder	Special Order

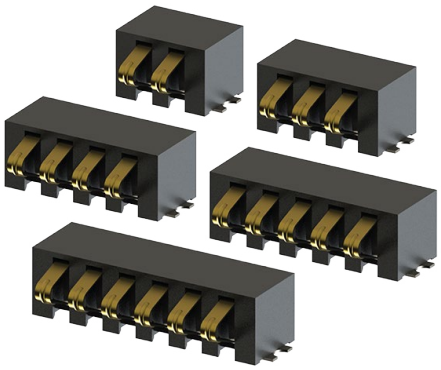
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Safety Standards: UL 1977-File #E90723, CSA C22.2 NO. 182.3

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RIGHT ANGLE 2.0MM PITCH: 9155-700

General Information



KYOCERA AVX has extended their line of board-to-board right angle connectors with the new 2mm pitch version 9155-700. This addition joins the existing versions 9155-300, which has a 3mm pitch, and 9155-500, which has a 2.5mm pitch. The new connector is available with 2 to 6 contacts and is rated at 2 Amps for the 2- to 4-way versions and 1.5 Amps for the 5- to 6-way versions. The connector's small, compact design minimizes its profile while remaining stable with a contact point of 2.10 mm above the PCB.

This stability comes from extra SMT anchor brackets. In addition to existing versions, the new connector has two options: one without and one with locating bosses for even better mechanical stability on the PCB.

KYOCERA AVX offers the complete family of 9155 series connectors, which provide all the same advantages. The ultra-reliable, robust, gold-plated beryllium copper contacts provide high-integrity connections in harsh environments with 5,000 mating operations and high-temperature nylon plastic for RoHS soldering.

APPLICATIONS

- Handheld/portable devices requiring docking or cradle charging
- Patient monitoring or portable medical electronics
- Industrial devices requiring pluggable or programming modules
- Internet appliances requiring battery back-up
- Product Specification: Refer to 201-01-114

FEATURES AND BENEFITS

- Simple designed compact 2mm pitch right angle connector up to 6 positions
- Gold plated BeCu contacts provide high electrical and mechanical performance over 5000 mating cycles
- Two anchor brackets for mechanical stability
- Optional plastic locating bosses with SMT anchor tabs maximizes the mechanical stability of the connector in harsh conditions

ELECTRICAL

- Current Rating: 2p-4p: 2.0 Amps, 5p-6p: 1.5 Amps
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94V0
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel, Tin leads
- Durability: 5000 Cycles

HOW TO ORDER

00 — **Prefix**

9155 — **Series**

00X — **No. of Ways**

002 = 2, 1000 Packing Qty.
003 = 3, 1000 Packing Qty.
004 = 4, 1000 Packing Qty.
005 = 5, 1000 Packing Qty.
006 = 6, 1000 Packing Qty.

7XX — **Standard Battery Connector Right Angle Pitch 4.0mm**

742 = Boss: Yes
741 = Boss: No

00X — **Plating Option**

006 = 0.4µm Selective Gold, Standard
008 = 0.8µm Selective Gold, Special Order

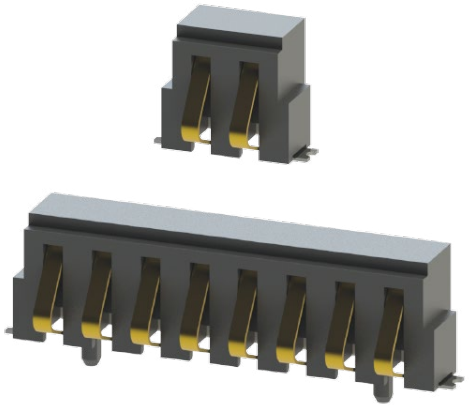
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VERTICAL MATE 2.0MM PITCH: 9155-800

General Information



The complete 9155 family of battery connectors from KYOCERA AVX offers the same advantages. They have ultra-reliable, robust, gold-plated beryllium copper contacts that provide high-integrity connections in harsh environments with up to 15,000 mating operations. The parts are supplied in tape and reel for automatic pick-and-place. The 9155 series battery connector can be customized to suit your applications, whatever your requirements.

The 9155-800 series, with a 2.0 mm pitch and vertical mating, eliminates end-user damage when pluggable modules or packs are pressed down vertically into a base unit. Traditional right-angle connectors rely on the pack being inserted at an angle and then rotated into position. This connector's unique contact design deflects cleanly and easily when a module or mating connector is pushed vertically into position, eliminating end-user damage. The 9155-800 series is rated for up to 5,000 mating cycles, and its contact nose has an anti-snag feature for protection during deflection.

APPLICATIONS

- Handheld/portable devices requiring docking or cradle charging
- Patient monitoring or portable medical electronics
- Industrial devices requiring pluggable or programming modules
- Internet appliances requiring battery back-up
- Product Specification: Refer to 201-01-204
- Application Notes: Refer to 201-01-205

FEATURES AND BENEFITS

- Gold plated BeCu contacts provide high electrical and mechanical performance over 5000 mating cycles
- Unique contact geometry allows for full vertical engagement in pluggable module applications
- Plastic locating bosses and SMT anchor tabs maximizes the mechanical stability of the connector in harsh conditions
- Contact nose incorporates an anti-snag feature to protect during deflection

ELECTRICAL

- Current Rating: 2p-4p: 2.0 Amps, 5p-8p: 1.5 Amps
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material; Glass-Filled Nylon 46; UL94V0
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel, Tin leads
- Durability: 5000 Cycles

HOW TO ORDER

00 — **Prefix**

9155 — **Series**

00X — **No. of Ways**

002 = 2, 1000 Packing Qty.
003 = 3, 1000 Packing Qty.
004 = 4, 1000 Packing Qty.
005 = 5, 1000 Packing Qty.
006 = 6, 1000 Packing Qty.
007 = 7, 1000 Packing Qty.
008 = 8, 1000 Packing Qty.

8XX — **Standard Battery Connector Right Angle Pitch 2.0mm**

852 = Boss: Yes
851 = Boss: No

00X — **Plating Option**

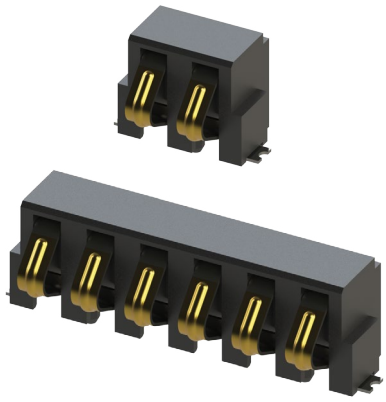
006 = 0.4µm Selective Gold, Pure Tin Tail (Standard)
008 = 0.8µm Selective Gold, Pure Tin Tail

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VERTICAL MATE 2.5MM PITCH: 9155-900

General Information



KYOCERA AVX has been manufacturing battery connectors for over 25 years and offers the widest standard range. The 2.5mm pitch, vertical mate 9155-900 series is the latest edition of battery connectors KYOCERA AVX is introducing to the market that could eliminate end-user damage when inserting pluggable modules or packs into a base unit.

Traditional right-angle connectors have contact geometries that rely on the pack being inserted at an angle and then rotated down into position. The unique contact design of the 9155-900 Series deflects cleanly and easily when a module or battery pack is pushed vertically into position, eliminating any damage to the end user.

The 9155-900 Series is rated for up to 5,000 mating cycles and has a contact nose with an anti-snag feature to protect during deflection.

APPLICATIONS

- Handheld/portable devices requiring docking or cradle charging
- Industrial devices requiring pluggable or programming modules
- Internet appliances and home appliance requiring battery back-up
- Automotive application requiring easy installation to removable unit or battery pack.
- Product Specification: Refer to 201-01-255
- Application Notes: Refer to 201-01-256

FEATURES AND BENEFITS

- Allows pluggable modules or packs to be inserted vertically.
- Unique contact design to eliminate end user damage.
- Reliable contact that survives automotive shock and vibration.
- Optional locating pins (pegs) can be made upon customer request.

ELECTRICAL

- Current Rating: Up to 3 Amps
- Voltage Rating; 500 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material; Glass-Filled Nylon
- Contact Material: Beryllium Copper
- Number of mating operations:
- Horizontal Mating: 5000 cycles
- Vertical mating: Full deflection distance: 50 cycles
  Restricted deflection distance between 0.6mm to 1.0mm: 2000 cycles

HOW TO ORDER

00	9155	00X	95X	00X
Prefix	**Series**	**No. of Ways** 002 = 2 003 = 3 004 = 4 005 = 5 006 = 6	**Locating Pegs** 951 = Without Pegs 952 = With Pegs	**Plating Option** 006 = 0.4µm Gold 008 = 0.8µm Gold



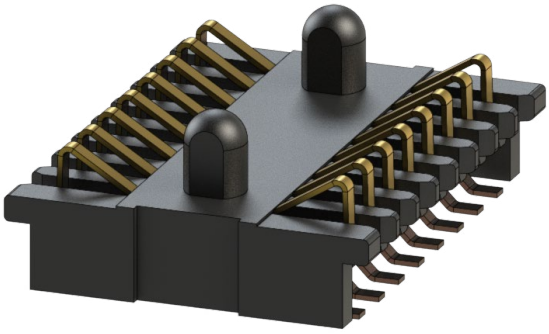
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DUAL ROW STACKER: 9158-000

General Information



The MOBO® series 9158 is a one-piece connector used to connect two PCBs within mobile phones, pagers, PDAs, security, handheld scanners, etc. in a cost-effective manner.

A standard range is available with 16, 20, 24 and 28 contacts to suit stack heights of 1.90mm to 3.30mm. Other contact variants are also available up to 5.10mm, in custom housings. The SOLO STACKER can allow a spacing tolerance of up to ±0.30mm and still provide reliable connections between the PCBs, even if they are not parallel.

SOLO STACKER is designed for PCB surface mounting and is supplied in tape and reel packaging. Gold plated pads on the mating PCB or suitable flex circuits provide connection between the boards.

Whatever your requirements this SOLO STACKER can also be customized to suit your applications.

APPLICATIONS

- Mobile Phones
- PDA
- Medical
- PMR
- Industrial
- Security
- Handheld Scanner
- Product Specification: Refer to 201-01-073

FEATURES AND BENEFITS

- Reduced assembly time.
- Only one part to purchase and stock.
- Due to the unique contact design, the mating device does not have to be parallel.
- Extremely robust when subjected to shock and vibration.
- Cost effective.
- Helps reduce tolerance accumulation within system.

ELECTRICAL

- Current Rating: 1 Amp/Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: High Temperature Plastic; UL94 HB
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 50 Cycles

HOW TO ORDER

00	9158	0XX	0XX	06	X
Prefix	**Series**	**Number of Ways**	**Stack Height**	**Plating Variation**	**PCB Location Bosses**
		016 = 16 020 = 20 024 = 24 028 = 28 032 = 32	020 = 1.9mm to 2.1mm 025 = 2.1mm to 2.7mm 030 = 2.8mm to 3.3mm	06 = Selective Gold 0.25µm Gold Plated Contact Nose Pure Tin Tail	1 = With PCB Location Bosses 2 = Without PCB Location Bosses

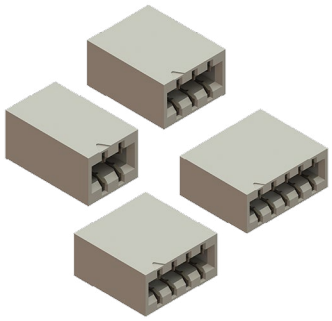


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STANDARD CARD EDGE: 9159-000

General Information



The 9159 Series Board-to-Board Interconnect System allows two PCBs to be mated end-to-end to create LED lighting strips. Designed specifically for the unique Solid State Lighting (SSL) market that requires coplanar (horizontal-to-horizontal) PCB mating. The 1-Piece Card Edge Connector is designed to provide a reliable, cost effective and simple means of connecting multiple PCB's together. The single stamped contact has dual contact beams to provide high contact force on standard 1.6mm PCBs. These connectors are available in 2 to 5 positions and are centered on a 2.0mm pitch to provide a 3 amp continuous rating.

APPLICATIONS

- Coplanar PCB mating in SSL products
- LED linear lighting strips
- Product Specification: Refer to 201-01-118
- Application Notes: Refer to 201-01-147

FEATURES AND BENEFITS

- Dual contacts provide positive contact force for enhanced reliability
- Mates with standard 1.6 ± 0.15mm PCB on 2.0mm pad pitch
- 3 amp current rating for high current applications
- Available in white: supports SSL market preferences

ELECTRICAL

- Current Rating: 3 Amps / Contact
- Voltage Rating: 300 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +80°C

MECHANICAL

- Insulator Material: Nylon 46: UL94HB
- Contact Material: Phosphor Bronze
- Plating: Tin over Nickel
- Durability: 5 Cycles

HOW TO ORDER

00	9159	00X	0	01	X	1	X
Prefix	**Series**	**Number of Ways** 002 = 2 003 = 3 004 = 4 005 = 5	**Single Part PCB Strip Connector**	**PCB Thickness** 01 = 1.60 ± 0.15	**Color Options** 8 = UL Black	**Packaging Options** 1 = Bag (std)	**Plating Option** 6 = Pure Tin all over 1 = Gold Flash

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Safety Standards: UL 1977-File #E90723, CSA C22.2 NO. 182.3

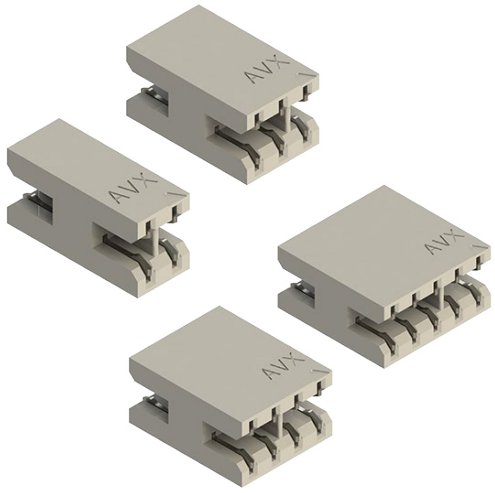
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OPEN ENDED CARD EDGE: 9159-06X

General Information



KYOCERA AVX was challenged to increase the pin count density and minimize the size of the existing coplanar BTB card edge connector for linear strip lighting. The current product is a 2.0mm with single contacts that span the PCB to provide electrical connection to both the top and bottom of the PCB. By simply changing the contacts to a double-sided configuration (separate contacts for the top and bottom of the PCB), KYOCERA AVX was able to double the pin count in the same 2.0mm pitch with minimal to no impact on the electrical performance of the connector. Reducing the size of the connector required a completely new design as the target was a 4p connector with a total length of 4.0mm. To achieve this, KYOCERA AVX removed the end walls and then added a central support/keying rib to pre-align the PCB during mating. This rib then holds the PCB in the correct functional position.

The new connector family is available in 4, 6, 8 and 10 position contact sizes, doubling the current product range. The current rating is 3A for the 4p and 6p, dropping to 2.5A for the 8p and 10p connectors. The connector supports the standard 1.6mm PCB thickness.

This new connector offers the highest density to reliably connect two in-line PCBs in the most cost effective assembly solution. More importantly, the increased pin count allows for more flexibility in mixing and matching power and signal lines.

APPLICATIONS

- Linear LED strip lighting
- Commercial/Industrial co-planar or extended card applications
- Product Specification: Refer to 201-01-144
- Application Notes: Refer to 201-01-147

FEATURES AND BENEFITS

- Miniaturized size, achieves 1.0mm in length for each number of contacts (4p =4.0mm)
- Double Ended/Double Sided contacts for increased pin count density on standard 1.6mm thick PCB's
- Central polarizing/location rib assures proper mating and PCB location
- High current capabilities: 3A; 4p/6p and 2.5A; 8p/10p
- Economical high force Tin-to-Tin contact interface

ELECTRICAL

- Current Rating: 3.0 Amps 4p/6p and 2.5 amps 8p/10p
- Voltage Rating: 300 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature:
- -40°C to +80°C

MECHANICAL

- Insulator Material: Nylon 46: UL94VO
- Contact Material: Phosphor Bronze
- Plating: Tin over Nickel
- Durability: 5 Cycles

HOW TO ORDER

00	9159	00X	0	61	X	1	X
Prefix	**Series**	**Number of Ways** 004 = 4 006 = 6 008 = 8 010 = 10	**Single Part PCB Strip Connector**	**PCB Thickness** 61 = Open Ended PCB Thickness 1.6-±0.10	**Color Options** 8 = Black Special Order 9 = White Standard	**Packaging Options** 1 = Bag	**Plating Option** 6 = Pure Tin all over 1 = Gold Flash

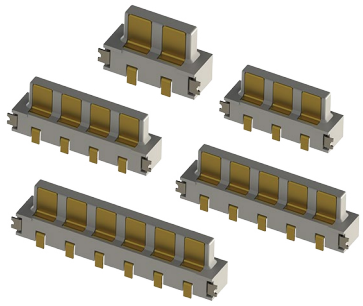
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HORIZONTAL PLUG: 10-9159-100

General Information



The 9159 Series board-to-board interconnect system allows two PCBs to be mated end-to-end to create LED lighting strips. Designed specifically for the unique Solid State Lighting (SSL) market that requires coplanar (horizontal-to-horizontal) board mating with a 5 amp current rating in the smallest package available. These single sided SMT connectors are perfect for both FR4 and metal boards where you need to mate the boards together to minimize separation. The availability of both white and black insulation colors makes them perfect for both lighting and industrial applications. With sizes from 2p-6p, these high reliability connectors feature gold plated beryllium copper receptacle contacts for harsh environments.

APPLICATIONS

- Coplanar PCB mating in SSL products
- LED linear lighting strips
- Application Notes: Refer to 201-01-123
- Specification Notes: Refer to 201-01-119

FEATURES AND BENEFITS

- Single sided SMT: supports FR4 and metal PCB's
- 5 Amp current rating: exceeds general market needs
- 5.5mm mated width: minimizes PCB space to decrease LED pitch
- Gold plated BeCu spring contacts: reliability for harsh environments
- Optional retaining clip: provides positive connector mating during vibration
- Available in white: supports SSL market preferences
- UL Approved

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Nylon: UL94V-0
- Contact Material: BeCu / Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

10	9159	00X	1	01	9	16
Plug	Series	Number of Ways 002 = 2 003 = 3 004 = 4 005 = 5 006 = 6	2 Part PCB Strip Connector	Connector Pitch 01 = 3mm	Color/Approval 8 = Black 9 = White	Plating Option

Code	Contact	Bracket
16	Gold in Contact Area Tin on Solder Tail	Tin all over

Optional Retaining Clip
80-9159-4200-00-000

SALES DRAWINGS
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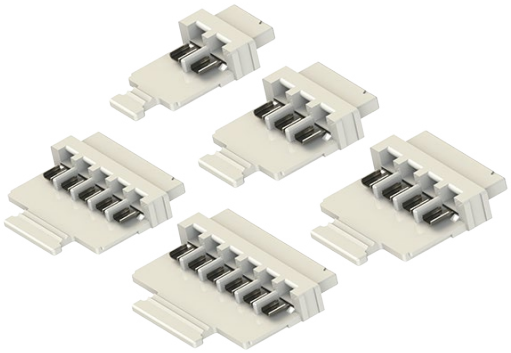
RoHS compliant

Safety Standards: UL 1977-File #E90723

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SOLDER CUP PLUG: 11-9159-100

General Information



The 9159 Series board-to-board interconnect system allows two PCBs to be mated end-to-end to create LED lighting strips. Designed specifically for the unique Solid State Lighting (SSL) market that requires coplanar (horizontal-to-horizontal) PCB mating with a 5 amp current rating in the smallest package available. The wired connector is designed to bring power and signals to the PCB while maintaining the same board-level interface. This allows the designer to build a single PCB with a receptacle on one end and a connector on the other, minimizing cost and inventory. Regardless of where the PCB is used in the system, the wired connector provides the connection to the outside world. The optional latch can be inserted into the receptacle to provide a positive connection to the PCB in harsh environments without changing the PCB connector.

APPLICATIONS

- Provided Wire-to-Board capabilities to standard 9159 2-Piece connector system
- Application Notes: Refer to 201-01-123
- Product Specification: Refer to 201-01-119

FEATURES AND BENEFITS

- Mates with standard horizontal socket: no need to change any connectors
- 5 Amp current rating: exceeds general market needs
- Wires are soldered into connector with tie wrap strain relief: simplicity
- Optional latch: provides positive attachment to PCB connector
- UL Approved

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Nylon: VL94VO
- Contact Material: BeCu / Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

11	9159	00X	1	01	9	16
Prefix Wire Plug Soldered Terminations	**Series**	**Number of Ways** 002 = 2 003 = 3 004 = 4 005 = 5 006 = 6	**2 Part PCB Strip Connector**	**Connector Pitch** 01 = 3mm	**Color** 9 = White	**Plating Option** 16 = Gold in Contact Area, Tin on Solder Tail

SALES DRAWINGS
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RoHS compliant

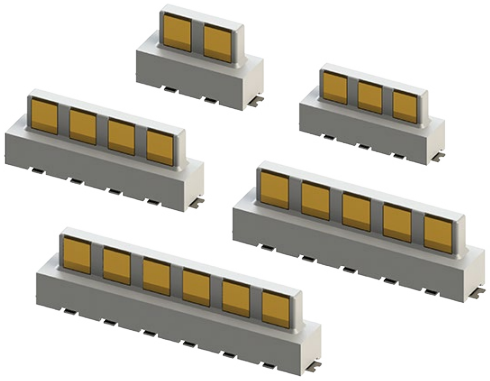
NOTES: Connectors are supplied with cable ties (see 90-2211-7092-00-000).
Covers/Latches are sold separately (see table below).

Connector Assembly	Optional Components	
Part Number	Cover	Latch
11-9159-002-101-916	60-9159-3302-09-000	60-9159-3402-09-000
11-9159-003-101-916	60-9159-3303-09-000	60-9159-3403-09-000
11-9159-004-101-916	60-9159-3304-09-000	60-9159-3402-09-000
11-9159-005-101-916	60-9159-3305-09-000	60-9159-3403-09-000
11-9159-006-101-916	60-9159-3306-09-000	60-9159-3402-09-000

Safety Standards: UL 1977-File #E90723, CSA C22.2 NO. 182.3

VERTICAL PLUG: 13-9159-100

General Information



KYOCERA AVX developed the 9159 series of SMT connectors for co-planar PCB mating for the demanding Solid State Lighting (SSL) market. These connectors had to be small, low profile, capable of carrying up to 5 amps/contact and then operate at 125C for extended periods of time. This application was very unique to the SSL market where PCBs are stacked end-to-end to create linear lighting strips in everything from office to transportation applications where products are exposed to harsh mechanical and environmental environments.

This vertical connector opens up the spectrum to include all commercial, industrial and transportation applications that require perpendicular PCB mating and latching wire-to-board receptacles with an already proven connector system. With sizes from 2p-6p, these gold plated contacts mate with high spring force beryllium copper receptacles.

APPLICATIONS

- Allows assembly of PCB's at right angles
- Accepts 24-9159 IDC wired/cabled socket
- Application Notes: Refer to 201-01-123
- Product Specification: Refer to 201-01-119

FEATURES AND BENEFITS

- Single sided SMT RoHS solder attachment
- Centrally located pick & place cap for easy placement
- Gold plated BeCu contact system for high reliability in harsh environments
- Available in white: supports SSL market preferences
- UL Approved

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Nylon: UL94VO
- Contact Material: BeCu / Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

13	9159	00X	1	01	9	16
Prefix Plug - Vertical Mount	**Series**	**Number of Ways** 002 = 2 003 = 3 004 = 4 005 = 5 006 = 6	**2 Part PCB Strip Connector**	**Connector Pitch** 01 = 3mm	**Color** 9 = White	**Plating Option**

Plating Option

Code	Contact	Bracket
16	Gold in Contact Area Tin on Solder Tail	Tin all over

SALES DRAWINGS
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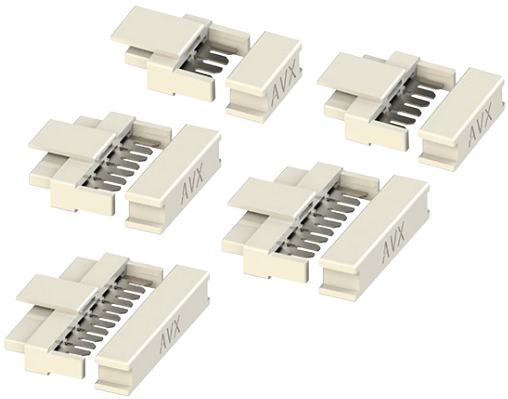
Safety Standards: UL 1977-File #E90723

RoHS compliant

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IDC PLUG WIRE-TO-BOARD: 14-9159-100

General Information



KYOCERA AVX developed the 9159 series of SMT connectors for co-planar PCB mating for the demanding Solid State Lighting (SSL) market. These connectors had to be small, low profile, capable of carrying up to 5 Amps/contact and then operate at up to 125°C for extended periods of time. This application was very unique to the SSL market, where PCBs are stacked end-to-end to create linear lighting strips in everything from office to transportation applications.

The IDC cable connector allows 22-24AWG discrete or cabled wires to be easily and reliably terminated into a standard 9159 interface female connector. This allows power and signals to be connected to a PCB socket connector while providing positive latching. The wire assembly support block allows 2 to 6 wires to be terminated in one step using any standard bench press. IDC covers provide both through-hole (daisy chain applications) and wire-stop termination options.

APPLICATIONS

- Provides Wire-to-Board capabilities to standard 9159 2-Piece connector system
- In conjunction with the IDC socket WTB connector (24-9159), these connectors provide maximum flexibility to bring power and signal wires onto or off of any board level 9159 connector
- Application Notes: Refer to 201-01-123
- Product Specification: Refer to 201-01-119

FEATURES AND BENEFITS

- Mates with standard 9159 horizontal socket, keeping same BTB connector system
- Economical and reliable IDC wire termination
- Molded latch offers positive latching after mating
- UL Approved

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Nylon: UL94VO
- Contact Material: Phosphor Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

14 — **Prefix**: Right Angle Wired Plug IDC

9159 — **Series**

00X — **Number of Ways**

Code	No of Ways
Through Wire Cap	
002	2
003	3
004	4
005	5
006	6
Wire Stop Cap	
002	2
003	3
004	4
005	5
006	6

1 — **2 Part PCB Strip Connector**: 2 Part Wired IDC Strip Connector

X — **Wire Gauge**: 2 = 22AWG, 3 = 24AWG

2 — **Wire Insulation Diameter**: ø1.10mm to ø1.60mm

X — **Color**: 8 = Black, 9 = White

X — **Cap Options**

Code	Cap Option	Description
0	Through Wire	Allows wires to be terminated at any point
9	Wire Stop	Terminates end of wire. End protected with Stop Face

6 — **Plating Option**: 6 = Gold on Contact Tin on IDC

SALES DRAWINGS
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Safety Standards: UL 1977-File #E90723

RoHS compliant

HORIZONTAL SOCKET BOARD-TO-BOARD: 20-9159-100

General Information



The 9159 Series board-to-board interconnect system allows two PCBs to be mated end-to-end to create LED lighting strips. Designed specifically for the unique Solid State Lighting (SSL) market that requires coplanar (horizontal-to-horizontal) board mating with a 5 amp current rating in the smallest package available. These single sided SMT connectors are perfect for both FR4 and metal boards where you need to mate the boards together to minimize separation. Available in both white and black insulation colors, they are ideal for both lighting and industrial applications. With sizes from 2p-6p, these high reliability connectors feature gold plated beryllium copper receptacle contacts for harsh environments.

APPLICATIONS

- Coplanar PCB mating in SSL products
- LED linear lighting strips
- Application Notes: Refer to 201-01-123
- Product Specification: Refer to 201-01-119

FEATURES AND BENEFITS

- Single sided SMT: supports FR4 and metal PCB's
- 5 Amp current rating: exceeds general market needs
- 5.5mm mated width: minimizes PCB space to decrease LED pitch
- Gold plated BeCu spring contacts: reliability for harsh environments
- Optional retaining clip: provides positive connector mating during vibration
- Available in white: supports SSL market preferences
- UL Approved

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Nylon: UL94VO
- Contact Material: BeCu
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

20	9159	00X	1	01	X	16
Prefix Socket	**Series**	**Number of Ways** 002 = 2 003 = 3 004 = 4 005 = 5 006 = 6	**2 Part PCB Strip Connector**	**Connector Pitch** 01 = 3mm	**Color** 8 = Black 9 = White	**Plating Option**

Plating Option

Code	Contact	Bracket
16	Gold in Contact Area Gold on Solder Tail	Tin all over

SALES DRAWINGS
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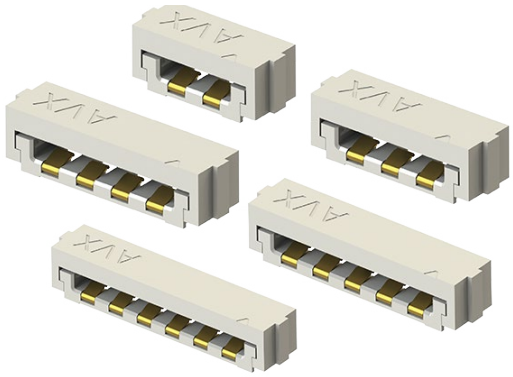
Safety Standards: UL 1977-File #E90723

RoHS compliant

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TOP LOAD SOCKET: 22-9159-100

General Information



The 9159 Series board-to-board interconnect system allows two PCBs to be mated end-to-end to create LED lighting strips. Designed specifically for the unique Solid State Lighting (SSL) market that requires coplanar (horizontal-to-horizontal) PCB mating with a 5 amp current rating in the smallest package available. The top-loading receptacle allows complete PCBs to be replaced in the field without the need to disassemble the entire strip. The receptacle has a two-piece insulator that allows the top of the receptacle to slide open, allowing the receptacle to be pulled out either vertically or at a slight angle. Once the PCB is replaced, the cover slides back into the closed position like a Zero Insertion Force (ZIF) connector. The PCB layout is identical to the standard horizontal receptacle to maintain family commonality at the PCB level.

APPLICATIONS

- Coplanar PCB mating in SSL products
- LED linear lighting strips
- Application Notes: Refer to 201-01-123
- Product Specification: Refer to 201-01-119

FEATURES AND BENEFITS

- Slide open top: allows field reparability at the light fixture level
- Mates with standard horizontal or cabled plug: no need to change any connectors
- 5 Amp current rating: exceeds general market needs
- Gold plated BeCu spring contacts: reliability for harsh environments
- Available in white: supports SSL market preferences
- UL Approved

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Nylon: VL94VO
- Contact Material: BeCu / Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

22	9159	00X	1	01	X	16
Prefix Socket Top Loading	**Series**	**Number of Ways** 002 = 2 003 = 3 004 = 4 005 = 5 006 = 6	**2 Part PCB Strip Connector**	**Connector Pitch** 01 = 3mm	**Color** 9 = White	**Plating Option**

Code	Contact	Bracket
16	Gold in Contact Area Gold on Solder Tail	Tin all over

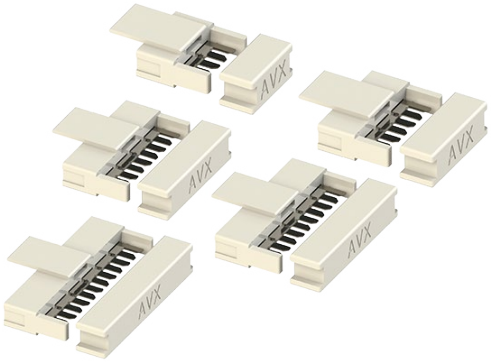
SALES DRAWINGS
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RoHS compliant

Safety Standards: UL 1977-File #E90723

IDC SOCKET WIRE-TO-BOARD: 24-9159-100

General Information



KYOCERA AVX developed the 9159 series of SMT connectors for co-planar PCB mating for the demanding Solid State Lighting (SSL) market. These connectors had to be small, low profile, capable of carrying up to 5 Amps/contact and then operate at up to 125°C for extended periods of time. This application was very unique to the SSL market where PCBs are stacked end-to-end to create linear lighting strips in everything from office to transportation applications.

The IDC cable socket connector allows 22-24AWG discrete or cabled wires to be terminated easily and reliably into a standard 9159 interface connector. This allows power and signals to be connected to a PCB socket connector while providing positive latching. The wire assembly support block allows 2 to 6 wires to be terminated in one step using any standard bench press. IDC covers provide both through-hole (daisy chain applications) and wire-stop termination options.

APPLICATIONS

- Provides Wire-to-Board capabilities to standard 9159 2-Piece connector system
- In conjunction with the IDC plug WTB connector (14-9159), these connectors provide maximum flexibility to bring power and signal wires onto or off of any board level 9159 connector
- Application Notes: Refer to 201-01-123
- Product Specification: Refer to 201-01-119

FEATURES AND BENEFITS

- Mates with standard 9159 horizontal plug, keeping same BTB connector system
- Economical and reliable IDC wire termination
- Molded latch offers positive latching after mating
- UL Approved

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Nylon: UL94VO
- Contact Material: Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

24 — **Prefix**: Right Angle Wired Socket IDC Terminations

9159 — **Series**

00X — **Number of Ways**

Code	No of Ways
Through Wire Cap	
002	2
003	3
004	4
005	5
006	6
Wire Stop Cap	
002	2
003	3
004	4
005	5
006	6

1 — **2 Part PCB Strip Connector**: 2 Part Wired IDC Strip Connector

X — **Wire Gauge**: 2 = 22AWG, 3 = 24AWG

2 — **Wire Insulation Diameter**: ø1.10mm to ø1.60mm

X — **Color**: 8 = Black, 9 = White

X — **Cap Options**

Code	Cap Option	Description
0	Through Wire	Allows wires to be terminated at any point
9	Wire Stop	Terminates end of wire. End protected with Stop Face

6 — **Plating Option**: 6 = Gold on Contact Tin on IDC



SALES DRAWINGS
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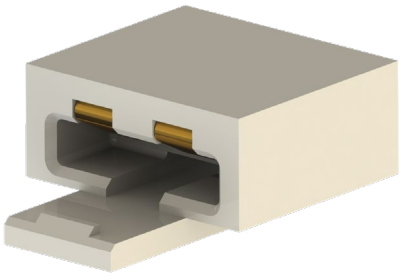
RoHS compliant

Safety Standards: UL 1977-File #E90723

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SHORTING SOCKET: 58-9159-002-000-006

General Information



The 9159 Series board-to-board interconnect system allows two PCBs to be mated end-to-end to create LED lighting strips. Designed specifically for the unique Solid State Lighting (SSL) market that requires coplanar (horizontal to horizontal) PCB mating with a 5 Amp current rating in the smallest package available. The 2-position shorting socket is designed to be plugged into the last PCB in the lighting strip to short the two contacts together, closing the electrical loop. Just as the wired plug brings power and signals to the strip, the shorting socket completes the circuit while maintaining a single board design.

APPLICATIONS

- Coplanar PCB mating in SSL products
- LED linear lighting strips
- Application Notes: Refer to 201-01-123
- Product Specification: Refer to 201-01-119

FEATURES AND BENEFITS

- Mates to the standard plug connector: does not require a new connector
- Integral latching mechanism: Provides positive attachment to the plug
- Gold plated BeCu spring contacts: reliability for harsh environments
- Available in white: supports SSL market preferences

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Nylon: VL94VO
- Contact Material: BeCu / Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

58 9159 002 000 006

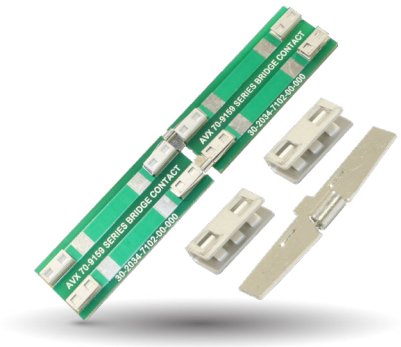
Safety Standards: UL 1977-File #E90723

RoHS compliant

SALES DRAWINGS
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LINKING CONTACT SYSTEM: 9159-300

General Information



STRIPT™ or naked contacts have been proven to provide high performance at a lower cost structure than traditional insulated connectors. Adding to KYOCERA AVX's list of UL-certified contacts already on the market, the new "C-Clip" high spring force SMT contact can be mated with a bridging contact to provide ultra-reliability in linear BTB connections. In addition to its ruggedness, this three-piece component set absorbs interboard mating tolerances and can withstand 20 amps of continuous current.

APPLICATIONS

- Linear LED Board-to-Board connections
- Co-Planar PCB mating
- Product Specification: Refer to 201-01-219
- Application Notes: Refer to 201-01-220

FEATURES AND BENEFITS

- Fatigue resistant phosphor bronze material which generates and maintains high mating forces
- Integral dimples on the bridge contact provides positive retention in the c-clip contact
- Center placed attachment tang prevents the bridge contact from moving forward or backwards

ELECTRICAL

- Current Rating: 15A UL Canada, 20A UL US
- Voltage Rating: 600 VAC (RMS) or DC equivalent, based on spacing

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Contact Material: Phosphor Bronze
- Plating: Lead-Free Matte Tin Over Nickel
- Durability: 5 Cycles

HOW TO ORDER

70	9159	001	3XX	006
Prefix	**Series**	**Number of Ways** 001 = 1	**Contact Description** 302 = SMT Contact 311 = Bridge Contact	**Plating Option** 006 = Tin Over Nickel

RoHS compliant

c UL us

SALES DRAWINGS
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Safety Standards: UL 1977-File #E90723, CSA C22.2 NO. 182.3

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SINGLE 2 PIECE CONTACTS: 9159-400

General Information



Dissecting linear LED lighting from a connector standpoint looks very simple from a distance, but up close there is no magic solution. Although new connectors have been developed in recent years specifically for this application, the specific requirements in challenging new designs continue to push for something better, different and more cost competitive. KYOCERA AVX has been one of the companies developing new connector systems for this specific application. The 2-piece 9159 series offers the smallest profile while still supporting full 5 Amp capability.

KYOCERA AVX's latest approach is to not have a connector at all! LED's run down the center of the board, trying to minimize pitch densities to maximize light output. Connectors interrupt this requirement at every board-to-board interface. By design and construction, providing a single contact connector is not economical. However, eliminating the cost of the connector without sacrificing functionality provides both a technical and cost effective solution. By removing the insulator and allowing individual contact placement, the PCB can be designed with the LEDs in the center of the PCB and the contacts on the outer edges. This optimizes the design for functionality and assembly at the best possible cost. Specifically, the contacts are packaged in T&R for automatic placement, absorb significant x and y assembly tolerances, and provide a reliable gold-to-gold active contact interface. Application notes are available outlining all contact configurations to support both BTB and WTB applications.

APPLICATIONS

- Linear LED strip lighting
- Commercial/Industrial co-planar or extended card applications
- Product Specification: Refer to 201-01-148
- Application Notes: Refer to 201-01-149

FEATURES AND BENEFITS

- Gold plated horizontal contact system maximizes lateral PCB alignment and mating tolerances with a proven 2-pc connector solution
- Contact height has been minimized to 1.2mm above the PCB to prevent any shadowing effect
- Contacts can be individually spaced to support any voltage rating with a full 5 Amp current rating
- Individual contacts can support BTB and WTB applications

ELECTRICAL

- Current Rating: 5.0 Amps
- Voltage Rating: UL 300 VAC (RMS) or DC equivalent
  Based on placement distance

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Contact Material: Copper Alloy
- Plug Plating: Gold in mating area, tin on tails
- Socket Contact; Gold all over
- Durability 5 Cycles

HOW TO ORDER

70	9159	001	4XX	06
Prefix	**Series**	**Number of Ways**	**Contact Description**	**Plating Option**
70 = Contact		001 = 1	401 = PLUG - SMT 402 = Socket - SMT 411 = Plug - SMT - Locking	06 = Gold in Contact Area

SALES DRAWINGS
CLICK TO DOWNLOAD

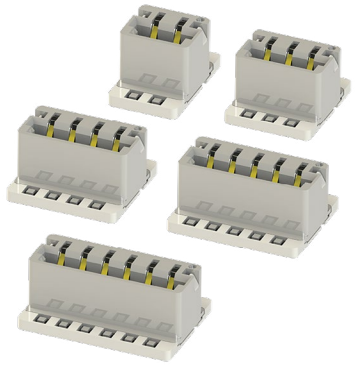
Safety Standards: UL 1977-File #E90723, CSA C22.2 NO. 182.3

RoHS compliant

c UL us

INVERTED THRU BOARD CARD EDGE: 9159-500

General Information



KYOCERA AVX has developed the 1-piece Bottom Entry Card Edge Connector to allow a vertical PCB to be mated to a top mounted FR4 or metal core main PCB from the bottom side. The most popular application in the market is in the LED bulb market where the FR4 driver card needs to be mated to the top pads of a metal core LED board. A unique design feature of the KYOCERA AVX connector is that it allows both 1.6mm and 0.8mm mating PCB thickness, giving designers flexibility in PCB layout and selection. The optional "anti-touch" cap can be ordered pre-assembled on the connector or separately. This component protects a person from electrical contact if the lens is removed or the bulb is broken. This is a UL-mandated safety requirement.

The 9159-500 series offers a range of 2 to 6 positions to add additional functionality to the application design, such as color control or specific control lines. The connector is UL listed with halogen-free material and is capable of operating temperatures up to 120°C.

APPLICATIONS

- Provides perpendicular, bottom entry PCB mating to a top mounted card edge contact based connector
- Application notes: Refer to 201-01-137
- Product Specification: Refer to 201-01-136

FEATURES AND BENEFITS

- Available 2p-6p for added design functionality and color control in bulb applications
- Low profile top mounted design does not interfere with LED's
- Gold plated BeCu contact system for high reliability in harsh environments
- Accepts both 0.8mm and 1.6mm PCB's for added design options

ELECTRICAL

- Current Rating: 2 Amps / Contact
- Voltage Rating: 300 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +120°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Halogen Free Nylon UL94VO
- Contact Material: Beryllium Copper
- Plating: Gold / Tin over Nickel
- Durability 10 Cycles

HOW TO ORDER

00	9159	00X	50X	9	06
Prefix	**Series**	**Number of Ways** 002 = 2 003 = 3 004 = 4 005 = 5 006 = 6	**Single Part PCB Strip Connector** 501 = Through The Board, Edge Card, No Cap 502 = Through The Board, Edge Card, Cap Fitted	**Insulator Color** 8 = Black (Special) 9 = White (Standard)	**Packaging Options** 06 = Gold Plating on Nose with Tin on Tails

SALES DRAWINGS
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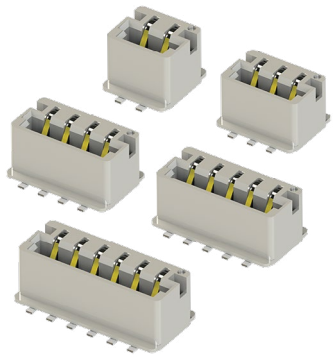
Safety Standards: UL 1977-File #E90723, CSA C22.2 NO. 182.3

RoHS compliant

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VERTICAL TOP ENTRY CARD EDGE BOARD TO BOARD: 9159-550

General Information



KYOCERA AVX continues to develop unique connectors to fill the gap in the industrial market, especially where low pin count requirements are concerned. The latest addition to KYOCERA AVX's expanding line of one-piece card edge connectors is the 2p-6p top entry version, which complements the bottom entry version released last year. This new configuration allows small vertical daughter cards to be inserted from the top of the motherboard. The single connector option provides an alternative to the more traditional and costly two-piece solution.

This small connector is packed with several key features that provide significant functionality in a wide range of rugged industrial applications. The contact system is gold-plated for enhanced reliability, signal integrity and a full 2A/contact current rating. The PCB opening is dual slotted to accept either a 0.8mm or 1.6mm daughter card within the same connector body.

APPLICATIONS

- Provides a one piece connector solution for low pin count perpendicular PCB mating in industrial applications
- Facilitates easy termination for small module/ programming cards
- Product Specification: Refer to 201-01-136
- Application Notes: Refer to 201-01-137

FEATURES AND BENEFITS

- Amp per contact current rating meets robust industrial application requirements
- Removable pick and place cap supports robotic placement and SMT termination
- Gold plated BeCu contact system for high reliability in harsh environments
- Accepts both 0.8mm and 1.6mm PCB's for added design options

ELECTRICAL

- Current Rating: 2 Amps / Contact
- Voltage Rating: 300 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +120°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Nylon UL94VO
- Contact Material: Beryllium Copper
- Plating: Gold / Tin over Nickel
- Durability 10 Cycles

HOW TO ORDER

00	9159	00X	551	9	0	6
Prefix	**Series**	**Number of Ways** 002 = 2 003 = 3 004 = 4 005 = 5 006 = 6	**Single Part PCB Strip Connector** 551 = Top Mounting on Board Edge Card	**Insulator Color** 8 = Black (Special) 9 = White (Standard)	**Pick and Place Options** 0 =Tape Applied 1 = No Tape Applied	**Packaging Options** 06 = Gold Plating on Nose with Tin on Tails

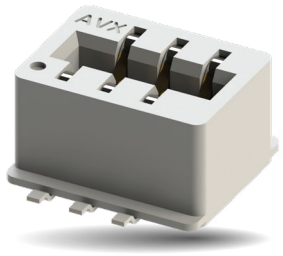
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Safety Standards: UL 1977-File #E90723, CSA C22.2 NO. 182.3

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DUAL ROW INVERTED THRU BOARD CARD EDGE: 9159-600

General Information



KYOCERA AVX Interconnect continues to develop unique connectors to fill the gap in the market. The latest addition to KYOCERA AVX's expanding line of one-piece card edge connectors is the 4p-12p Dual Row Inverted version 9159-600, which is an extension of the popular single row version 9159-500. This new configuration with staggered dual row contacts allows double the number of positions in a similar size connector.

This small connector is packed with several key features that provide significant functionality in a wide range of applications. The proven contact system is gold-plated for improved reliability, signal integrity and up to 2A/contact current rating. The connector is designed to mate with 1.6mm thick printed circuit boards with gold plated pads.

APPLICATIONS

Provides a one piece connector solution for perpendicular PCB mating in applications:

- Automotive
- Industrial
- Lighting

Product Specification: Refer to 201-01-226

Application Notes: Refer to 201-01-227.

FEATURES AND BENEFITS

- Up to 2 Amps per contact current rating meets robust application requirements
- Doubled number of positions with dual row solution
- Gold plated BeCu contact system for high reliability in harsh environments
- Low profile thru board design does not interfere with LEDs.
- Halogen-Free

ELECTRICAL

- Current Rating: See Table Below
- Voltage Rating: 300 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: High temperature Nylon UL94V-0 rated
- Contact Material: Beryllium Copper
- Durability: 10 Cycles
- Plating: Gold / Tin over Nickel

HOW TO ORDER

00 — Prefix

9159 — Series

0XX — No. of Ways

Code	Size	Contacts
004	2x2	4
006	2x3	6
008	2x4	8
010	2x5	10
012	2x6	12

60X — Dual Row Inverted Thru Board Card Edge
601 = with Kapton Tape
603 = without Kapton Tape

9 — Insulator Color
9 = White (Standard)

0 — Keying
0 = Without keying

6 — Plating Options
6 = Gold plating on nose with Tin on Tails

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Safety Standards: UL 1977-File #E90723, CSA C22.2 NO. 182.3

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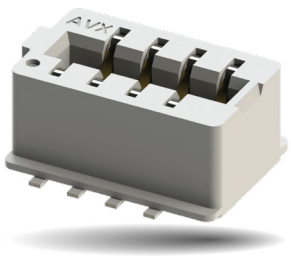
Current Rating

No. of Positions	Current
4	2A
6	1.75A
8	1.75A
10	1.5A
12	1.25A

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VERTICAL DUAL ROW TOP ENTRY CARD EDGE: 9159-650

General Information



KYOCERA AVX Interconnect continues to develop unique connectors to fill the gap in the market. An addition to KYOCERA AVX's broadening line of one piece card edge connectors is the 4p-12p dual row top entry version 9159-650, which is an extension of our popular single row version 9159-550. This new configuration with staggered dual row contacts will allow doubled number of positions in similar size of the connector. Available in both without and with polarization where the mating PCB layout is modified to form a key, to avoid wrong insertion to the connector.

This small connector is packed with several key features that provide significant functionality in a broad range of applications. The proven contact system is gold plated for enhanced reliability, signal integrity and up to 2A/contact current rating. The connector is designed for mating PCB board with 1.6mm thickness and gold plated pads.

APPLICATIONS

Provides a one piece connector solution for perpendicular PCB mating in applications:

- Automotive & Transportation
- Industrial
- Lighting

Product Specification: Refer to 201-01-226
Application Notes: Refer to 201-01-227

FEATURES AND BENEFITS

- Up to 2 Amps per contact current rating meets robust application requirements
- Doubled number of positions with dual row solution
- Optional kapton tape version supports pick and place robotic placement and SMT termination
- Available version with polarization where the mating PCB layout is modified to form a key, to avoid error during insertion
- Gold plated BeCu contact system for high reliability in harsh environments
- Halogen-Free

ELECTRICAL

- Current Rating: See Table Below
- Voltage Rating: 300 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: High temperature Nylon UL94V-0 rated
- Contact Material: Beryllium Copper
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

00	9159	0XX	65X	9	0	6
Prefix	Series	No. of Ways	Double Sided Thru Board Card Edge	Insulator Color	Keying	Plating Options

No. of Ways

Code	Size	Contacts
004	2x2	4
006	2x3	6
008	2x4	8
010	2x5	10
012	2x6	12

Double Sided Thru Board Card Edge
651 = With Kapton Tape
653 = Without Kapton Tape

Insulator Color
9 = White (Standard)

Keying
0 = Without keying
1 = With keying

Plating Options
6 = Gold plating on nose with Tin on Tails

SALES DRAWINGS
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Safety Standards: UL 1977-File #E90723, CSA C22.2 NO. 182.3

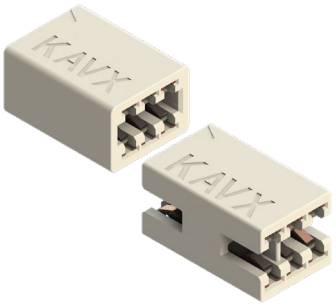
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Current Rating

No. of Positions	Current
4	2A
6	1.75A
8	1.75A
10	1.5A
12	1.25A

LINEAR CARD EDGE WITH SPRING CONTACT: 9159-7X0

General Information



KYOCERA AVX Interconnect continues to develop unique connectors to fill the gap in the market. The newest addition to KYOCERA AVX's broadening line of one piece card edge connectors is the 2p-12p linear card edge version with spring contact 9159-700/760, which is extension of popular linear card edge versions 9159-000 and 9159-060. This new connector is with spring gold (or tin) plated BeCu contacts and provide high electrical and mechanical performance suitable for harsh environment like automotive. There are available two versions – closed side 9159-700 and open side 9159-760. Optionally is available plating option Sn.

The proven contact system has easy installation without soldering, enhanced reliability, signal integrity and up to 2A/contact current rating. The connector is designed for mating PCB board with 1.5mm (+/- 0.15mm) thickness and gold (or tin) plated pads.

APPLICATIONS

Provides a one piece connector solution for linear PCB mating in applications:

- Automotive Lighting
- Transportation Lighting
- LED Lighting
- Industrial
- Product Specification: Refer to 201-01-239
- Application Notes: Refer to 201-01-240

FEATURES AND BENEFITS

- Rugged linear card edge
- Up to 2 Amps per contact current rating meets robust application requirements
- Gold (or tin) plated (nickel underplate) BeCu contact system for high reliability in harsh environments
- High electrical and mechanical performance
- Easy installation

ELECTRICAL

- Current Rating: See Table Below
- Voltage Rating: 150VAC (RMS) or DC equivalent, 300VAC (RMS) or DC equivalent for non-UL applications.

Series	Positions	Current (Amps)	
		UL	cUL
9159-760	4-8	2	2
9159-760	10-12	1.5	1.5
9159-700	4-8	2	1.7
9159-700	10-12	1.5	1.5

ENVIRONMENTAL

- Operating Temperature: -40°C to +130°C
- Storage Temperature: -40°C to +80°C

MECHANICAL

- Insulator Material : High temperature thermoplastic UL94 V-0 rated
- Contact Material : Beryllium Copper Alloy
- Plating: Gold / Tin over Nickel
- Durability: Tin= 20 Cycles, Gold= 500 Cycles

HOW TO ORDER - CARD EDGE CONNECTOR DOUBLE ENDED-CLOSED SIDES

00	9159	0XX	701	X	1	X
Prefix	Series	Number of Positions	Model	Housing Color	Packaging	Plating
			701 = Closed sides & 1.50 Thick PCB.	9 = White (Standard) 8 = Black (Special Order)	1 = Bulk (1,000 Parts Per Bag)	1 = Gold Flash 6 = Lead-Free Tin

Code	Size	Contacts
004	2x2	4
006	2x3	6
008	2x4	8
010	2x5	10

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HOW TO ORDER - CARD EDGE CONNECTOR DOUBLE ENDED-OPEN SIDES

00	9159	0XX	761	X	1	X
Prefix	Series	Number of Positions	Model	Housing Color	Packaging	Plating
			761 = Open sides & 1.50 Thick PCB.	9 = White (Standard) 8 = Black (Special Order)	1 = Bulk (1,000 Parts Per Bag)	1 = Gold Flash 6 = Lead-Free Tin

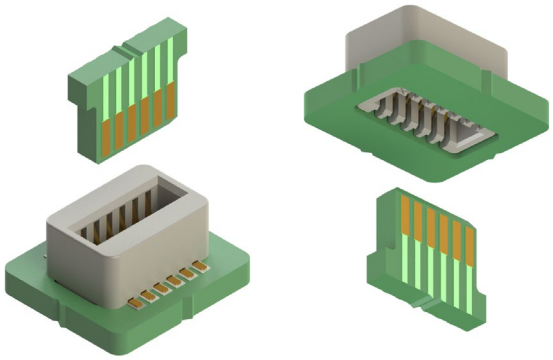
Code	Size	Contacts
004	2x2	4
006	2x3	6
008	2x4	8
010	2x5	10
012	2x6	12

Safety Standards: UL 1977-File #E90723, CSA C22.2 NO. 182.3

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DUAL ENTRY CARD EDGE CONNECTOR: 9159-800

General Information



KYOCERA AVX Interconnect continues to expand its card edge product offering with the 9159-800 series of dual entry card edge connectors utilizing our company's field proven spring contact technology.

KYOCERA AVX's 9159-800 Series Card Edge Connector is a dual entry mating solution featuring a reduced 1mm pitch with gold plated beryllium copper compression contacts. The result is a highly reliable, small form factor, vertical card edge connector. This unique design allows the mating board to be mated from either side of the board (top or bottom entry).

The 9159-800 series is available in 4 to 20 positions, rated up to 2.0A per contact and is designed to mate with 1.6mm thick PCBs with gold plated pads.

APPLICATIONS

- Automotive body electronics & infotainment
- Transportation
- Industrial & factory automation (sensor, light curtain, etc.)
- Home automation
- White goods
- Product Specification: Refer to 201-01-247
- Application Notes: Refer to 201-01-248

FEATURES AND BENEFITS

- Unique vertical card edge solution capable of mating from both sides
- Excellent electrical and mechanical performance provides high integrity connections in harsh environments
- Small form factor, vertical card edge
- Recessed thru board PCB mounting for lower profile
- Easy installation with low mating forces

ELECTRICAL

- Current Rating: See table below
- Voltage Rating: 150VAC (RMS) or DC equivalent, 415VAC (RMS) or DC equivalent for non-UL applications.

Positions	Current (Amps)
4-8	2.0
10-14	1.7
16-20	1.4

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
  Storage Temperature: -40°C to +60°C

MECHANICAL

- Insulator Material: PA4T, UL94 V0, Halogen Free
- Contact Material: Beryllium Copper Alloy
- Plating: Gold / Tin over Nickel
- Durability: 50 Cycles

HOW TO ORDER

00 — Prefix

9159 — Series

0XX — Number of Ways

Code	Position
004	2 X 2
006	2 X 3
008	2 X 4
010	2 X 5
012	2 X 6
014	2 X 7
016	2 X 8
018	2 X 9
020	2 X 10

801 — Wire Gauge Size
801 = Dual Entry Card Edge

9 — Insulator Color
9 = UL White

06 — Plating Option
06 = Gold/tin over Nickel

SALES DRAWINGS
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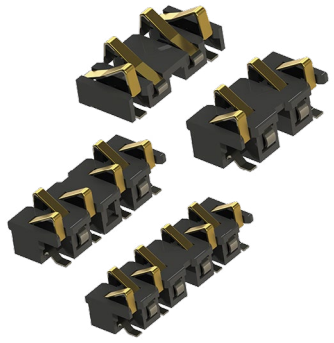
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Safety Standards: UL 1977-File #E90723, CSA C22.2 NO. 182.3

STAGGERED STACKER: 9188-000

General Information



The SOLO series 9188 is a one-piece connector used to connect two PCBs in a cost effective manner.

A standard range is available with 4, 6, 8 staggered contacts to suit stack heights from 1.1mm to 2.1mm (see table below).

SOLO Stacker is designed for PCB surface mounting and is supplied in tape and reel packaging. Gold plated pads on the mating PCB or suitable flex circuitry provide the connection between the two boards.

APPLICATIONS

- Phones
- Scanners
- Radios
- Medical Diagnostic
- Security Devices
- Product Specification: Refer to 201-01-121

FEATURES AND BENEFITS

Single piece connector – no mating half required to connect two boards together which means:

- Reduced assembly time
- Only one part to purchase and stock
- Due to the unique contact design, the mating device does not have to be parallel
- Helps reduce tolerance accumulation within system

ELECTRICAL

- Current Rating: 1 Amp / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent
  Based on placement distance

ENVIRONMENTAL

- Operating Temperature: -55°C to +125°C
- Storage Temperature:
- -40°C to +70°C

MECHANICAL

- Insulator Material: High Temperature Plastic; UL94 HB
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 50 Cycles

HOW TO ORDER

00 — **Prefix**

9188 — **Series**

00X — **Number of Ways**
004 = 4
006 = 6
008 = 8

0XX — **Stack Height**

Code	Height	No. of Ways
012	1.1mm to 1.3mm	4
020	1.9mm to 2.1mm	4, 6, & 8

062 — **Plating Variation**
062 = Selective Gold 0.25µm Gold Plated Contact Nose Pure Tin Tail



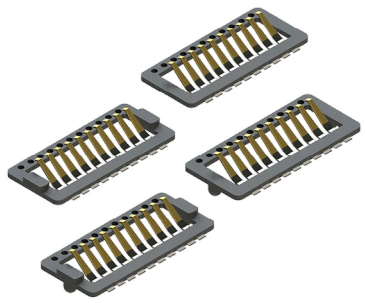
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ULTRA LOW PROFILE STACKER: 9258-000

General Information



The SOLO series 9258 is a one-piece connector used to connect two PCBs in a cost effective manner.

This connector is a 1.0mm pitch available in 8 positions with stack heights of 0.40mm and 0.80mm. It is available with or without locating tabs.

This connector is designed for PCB surface mount and is supplied in tape and reel packaging. Gold-plated pads on the mating PCB or appropriate flex circuitry provide the connection between the boards.

APPLICATIONS

- Mobile phones
- Handheld scanners
- Portable medical devices
- Display interface
- Product Specification: Refer to 201-01-115

FEATURES AND BENEFITS

Single piece connector – no mating half connector required to connect two boards together which means:

- Reduced assembly time
- Only one part to purchase and stock
- Due to the unique contact design, the mating device does not have to be parallel
- Extremely robust when it comes to shock and vibration

ELECTRICAL

- Current Rating: 1 Amp / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -55°C to +125°C
- Storage Temperature:
- -40°C to +70°C

MECHANICAL

- Insulator Material: High Temperature Plastic; UL94 V-0
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 50 Cycles

HOW TO ORDER

00 9258 008 00X 06 X

Prefix (00)

Series (9258)

Number of Ways (008)
008 = 8

Connector Height (00X)

Code	Stack Height	Contact Height	Qty
004	0.40mm	1.00-1.30	No. of Ways
008	0.80mm	1.40-1.70	

Plating Variation (06)
06 = Selective Gold 0.25µm Gold Plated Contact Nose Pure Tin Tail

PCB Location Bosses (X)
1 = With PCB Location Bosses (top side)
2 = Without PCB Location Bosses
3 = With SMT PCB Location Bosses (bottom side)
4 = With SMT and Mating PCB Location Bosses (top and bottom side)



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SPRING FINGER BTB COMPRESSION CONTACT: 9258-100

General Description



KYOCERA AVX expands its product offering with the new 9258-100 Series Spring Finger Board-to-Board Compression Contact that reduces size and cost without compromising performance. This new low profile compression contact from KYOCERA AVX is surface mounted to a PCB and provides a reliable compression connection to the mating board even under extreme shock (50G) and vibration (2.7G random) applications. With over 30 years of experience in 1-piece compression contacts, this innovative contact provides full connector performance functionality at the individual contact level. This allows individual contacts to be placed in any location or position on a PCB.

The high-strength copper alloy contact is gold-plated to maximize reliability and signal integrity. The current offering includes three contacts covering heights from 1.00mm to 3.75mm. Contacts are supplied in tape and reel for easy SMT assembly.

This product is UL approved.

APPLICATIONS

- Industrial/Rugged handheld or portable devices
- BTB connection for any traditional power or signal application
- Ground connections between PCB's or housings
- Application Notes: Refer to 201-01-251
- Product Specification: Refer to 201-01-252

FEATURES AND BENEFITS

- Reliable gold plated copper alloy contacts for high cycle life and signal integrity up to 2500 cycles
- Tape and reel packaged for automated SMT placement
- Two gold plating options to match end product environmental or expected life requirements

ELECTRICAL

- Current Rating: 6 Amp
- Voltage Rating: 600VAC (RMS) or DC Equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +60°C

MECHANICAL

- Contact Material: Copper alloy
- Plating: Gold over nickel
- Durability: Up to 2500 Cycles (Au 0.4µ)

HOW TO ORDER

70	9258	001	1X0	0	0	X
Prefix	Series	Number of Ways 001 = 1	Type 110 = Deflected height 1.00 - 1.80 mm 120 = Deflected height 1.60 - 2.80 mm 130 = Deflected height 2.35 - 3.75 mm			Gold Plating 4 = Flash 6 = 0.4 µm

SALES DRAWINGS
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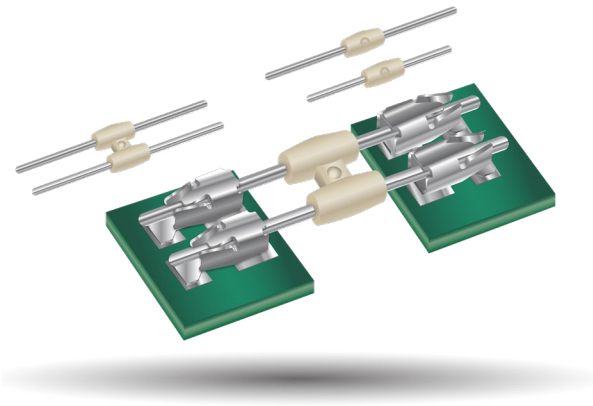
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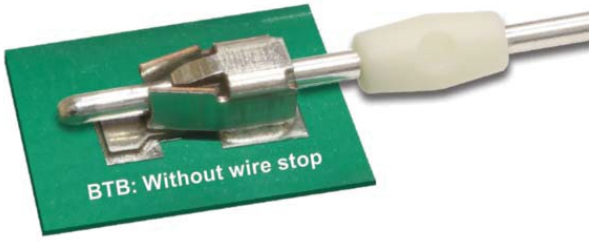
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JUMPER:
10-9296-XXX

General Information



- Multiple jumper pins to be used in linear BTB applications
- 1.0mm pin diameter comes in a 38.15mm and 26mm length
  - 1.0mm pin to be used with 709296001025016
- 0.8mm pin diameter comes in a 16mm length
  - 0.8mm pin to be used with 709296001002016 and the 9296-202 series



APPLICATIONS

- The 709296001025016 and 709296001002016 contacts without a wire stop, allow the pin header to pass straight thru the contacts until the final seating/ mating dimension is achieved
- Single pin connection between linear PCB's
- 38mm pin allows for modules to be connected where the PCB is recessed within the plastic housing.
- Product Specification: Refer to 201-01-119
- Application Notes: Refer to 201-01-123

FEATURES AND BENEFITS

- Absorption of PCB and module mating tolerances by allowing the unrestricted pin to pass through the contact by eliminating the traditional wire stop
- Two different pin lengths and pin diameters to accommodate a number of board-to-board and module-to-module connections
- The unique geometry of the insulator lends itself to water tightness when matched with a corresponding housing cavity

ELECTRICAL

- Current Rating:
  1.0mm Pin Diameter = 6.5 Amps
  0.8mm Pin Diameter = 5 Amps
- Voltage Rating: 300 VAC (RMS) or DC equivalent
  Based on contact spacing

ENVIRONMENTAL

- Operating Temperature: -40°C to +105°C
- Storage Temperature: -40°C to +80°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon PA-66; UL94V0
- Contact Material: Brass
- Plating: Lead-Free Tin Over Nickel
- Durability: 3 Cycles

HOW TO ORDER

10 — **Prefix**
10 = Plug

9296 — **Series**

00X — **Number of Positions**
001 = 1 pin
002 = 2 pin

XXX — **Pin Length**
0.8mm Dia. Pin
160 = 16mm
1.0mm Dia. Pin
260 = 26mm
381 = 38.15mm

X — **Housing Color**
Standard
9 = White/Natural
Special Order
2 = Brown
3 = Blue
4 = Yellow
5 = Red
6 = Green
7 = Orange

X — **Pin Size/Spacing**
Pin diameter/Spacing*
0 = ø 1.00 on 4.00mm Pitch
1 = ø 0.80 on 3.00mm Pitch

6 — **Contact Plating**
6 = Pure Tin

SALES DRAWINGS
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Safety Standards: UL 1977-File #E90723, CSA C22.2 NO. 182.3

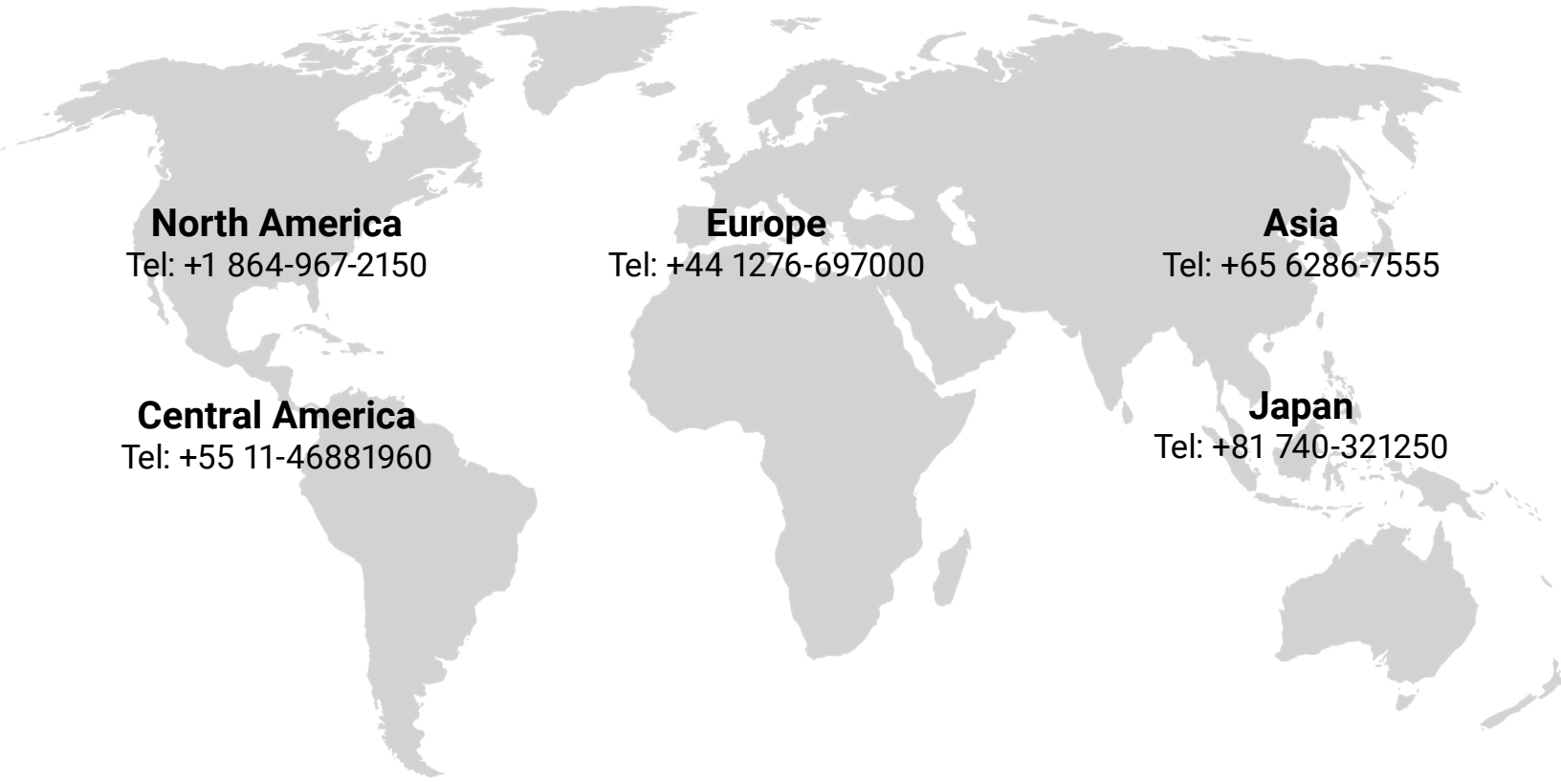
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