



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

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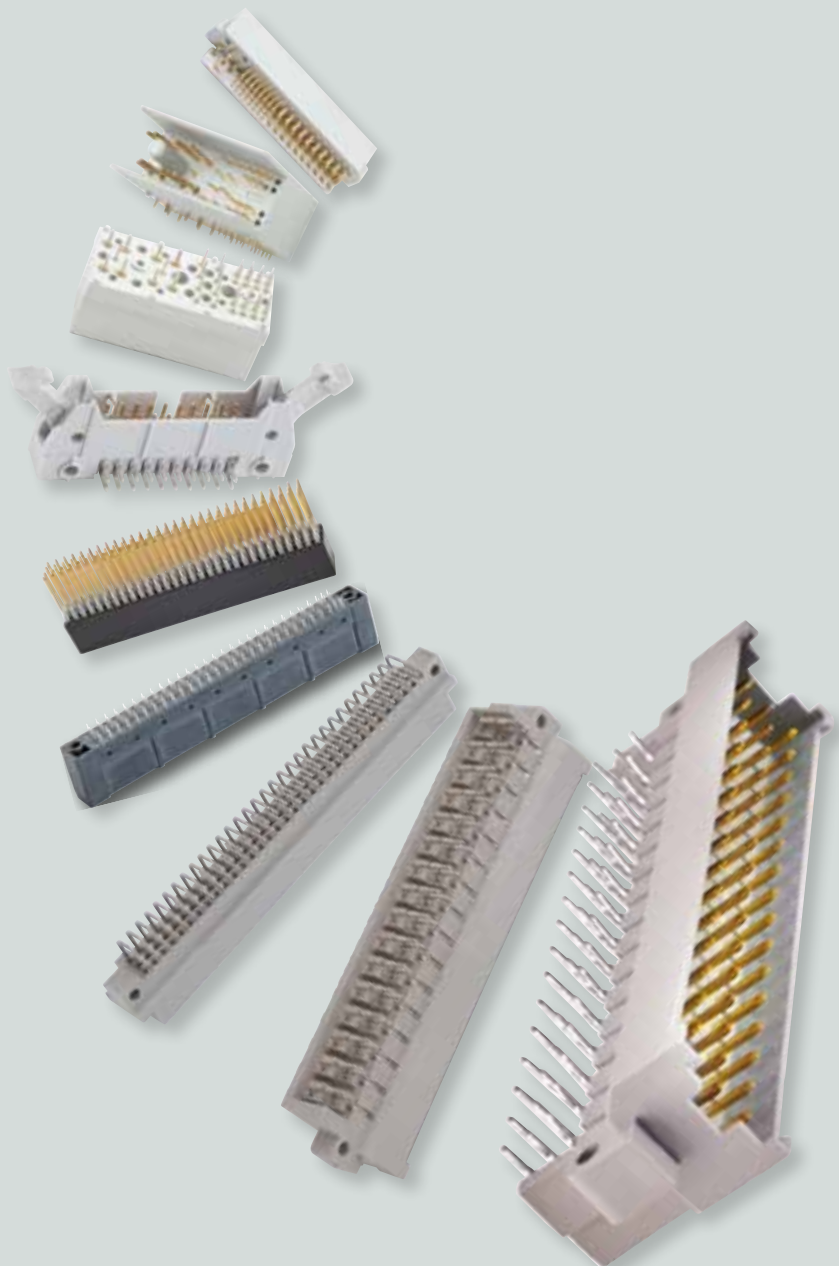
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



CONEC®

TECHNOLOGY IN CONNECTORS™

PCB CONNECTORS



CONEC[®]

TECHNOLOGY IN CONNECTORS[™]

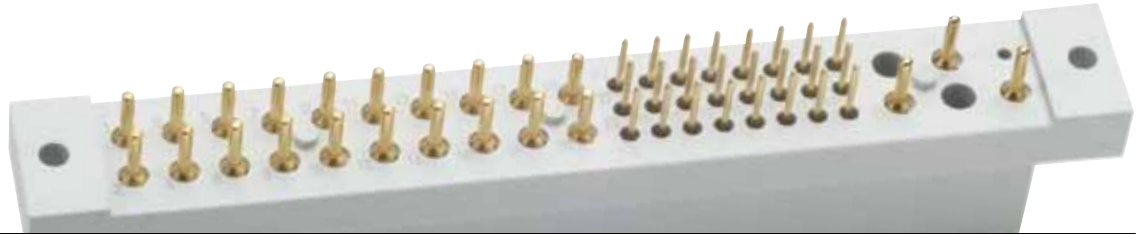


GERMANY

As a leading manufacturer of connectors, CONEC develops, produces and markets its products around the world to customers in the machine-tool, electronics and communications industries.

CONEC has dedicated itself to make a contribution to progress in the connector industry and to satisfy its customers through innovation, quality and excellent service. Around the world, our organization operates as a customer-oriented team.

CONEC is present in numerous countries with its own branch offices and representatives. Our local sales consultants transmit all information directly to the responsible departments to keep the paths of communication short. This provides support in the local language, quick response and competent consulting.



CANADA



USA

CONEC designs and manufactures products in modern facilities. The products are made in accordance to the highest quality standards and industry specifications.

CONEC provides reliable and effective solutions to OEM, EMS and cable houses.



OUR PHILOSOPHY – CUSTOMER SATISFACTION.



Quality is realized right from the beginning with Total Quality Management concept. Therefore our customers are included into all our processes, starting with design phase, first sampling, series production release and continuous sales support. The phases will be accompanied by drawings, samples and test reports. The entire quality process is documented and approved. CONEC is certified to ISO/TS16949:2002.

CONEC inhouse is equipped with modern test systems. We can verify the requirements and implement a continuous product improvement process to meet and exceed future requirements. To fulfill international and national requirements most of CONEC product series are registrated by UL, CSA or VDE.



CONEC IS YOUR SPECIALIST FOR DESIGN AND PRODUCTION OF SPECIAL CUSTOMIZED PRODUCTS.

Flexibility, assurance and rapid response are required in today's market more than ever before. CONEC fulfills these demands with central order-processing and well implemented quality control systems. Statistical process control as well as just in time deliveries are a common practice. Numerous customers honored this performance by approving CONEC to a "Preferred Supplier" status.



Are you looking for application-specific solutions?
Standard products do not meet your needs?
The implementation deadline is tight?

CONEC experienced design team can create your solution for you:

- Special Interconnect solutions to customers specifications
- Prototypes and small series production batches
- Connectors with increased IP ratings for harsh environments.

Contact us to discuss your special requirements.



PRODUCT LINES



I/O Connectors

D-SUB Connectors, Standard, Combination and Water Resistant; D-SUB Hoods and D-SUB accessories; Filter D-SUB Connectors, Standard, Combination and Water Resistant; Filter Adapters; Filter Plates; RJ45-IP67 Industrial Ethernet Connector System; USB 2.0-IP67 Connector System; RJ45 Magnetic Modular Jacks



PCB Connectors

DIN 41617 Connectors; DIN EN 60603-2 Connectors; DIN 41651 Insulation Displacement Connectors CompactPCI Connectors; AdvancedTCA Connectors; MicroTCA Connectors; PC104-, PC104plus Connectors; Pin Header and Socket Connectors



Sensor Actor Line / Circular Connectors

M12x1 Connectors, Overmolded and Field Attachable, Sockets, Junction Boxes, M12x1 Connector Systems for High Temperature, Food+Beverage, Bus Systems; M8x1 Overmolded Connectors; 7/8" Connectors; Rund24 Connectors; Valve Connectors



Fiber Optic Connectors











Adapter; Hybrid Adapter; Outdoor Connectors; Patch cords

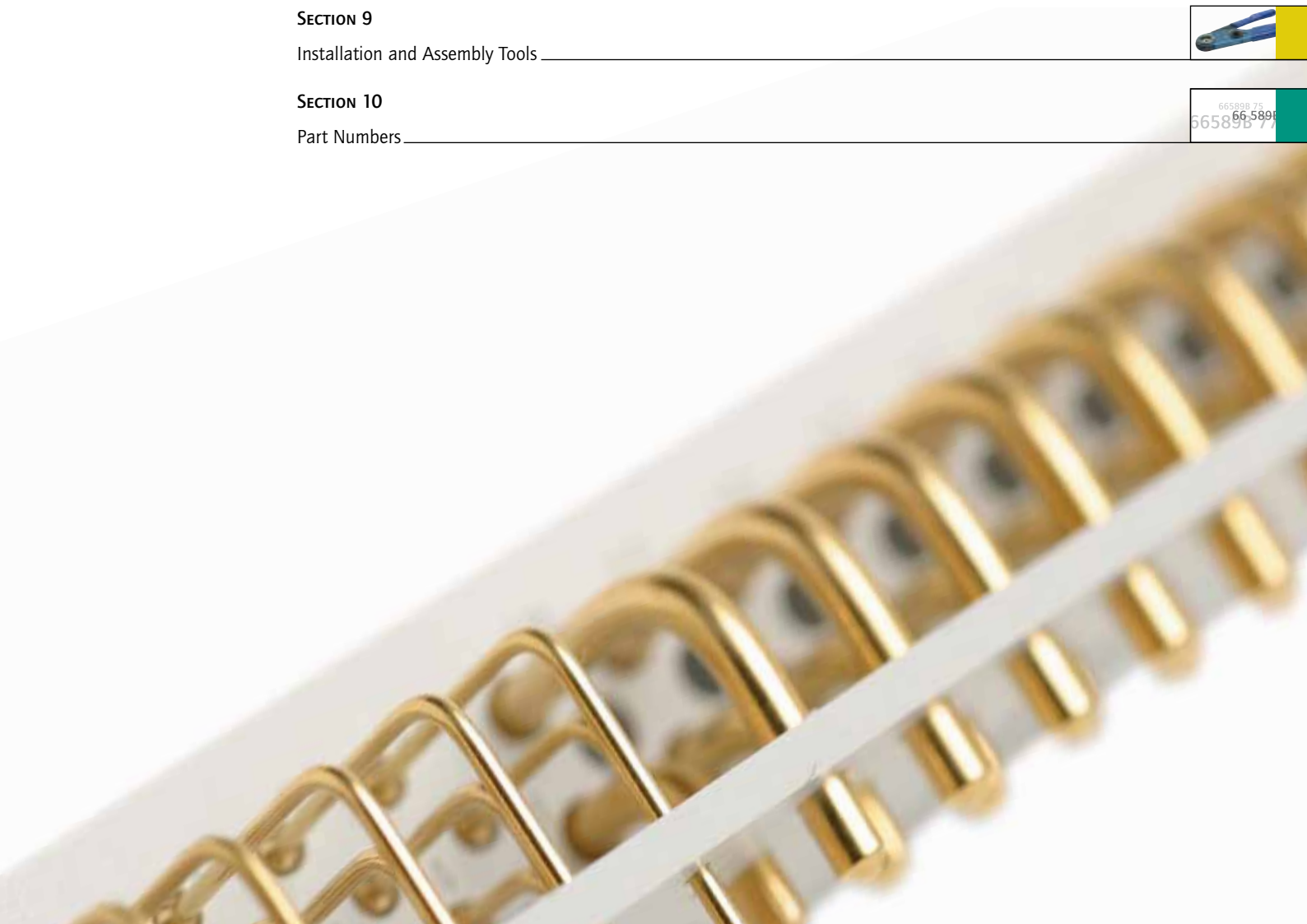


Coaxial Connectors

SMA, SSMA, MMCX, TNC, N, MCX, Mixed Adapters and BNC Connectors; D-SUB and DIN Coaxial Contacts; D-SUB and DIN High-Current Contacts

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665895 75
665895 77

SECTION 1

ADVANCEDTCA CONNECTORS

This newly developed architecture and system layout allows manufacturers of telecom equipment a new standard for designing systems (PICMG 3.0). ATCA stands for: Advanced Telecommunications Computing Architecture

The basic structure is utilizing a modular concept. Application of this new structured approach allows various module designs that are compatible in layout and mechanical installation.

CONEC manufactured the power connectors for the ATCA-System which are used in Zone 1.

Advanced TCA[®]





The PICMG Group created the PICMG 3.0 Standard. This Standard specifies the mechanical details with regards to input/output, voltage, current and connection parameters. Control, backplane layout and system architecture are part of the standard.

CONEC has developed a new family of connector products that adhere to this new Standard. Products such as plugs and sockets, high power and signal contacts, have been developed.

This new connector series is available with press fit and through hole contact types.

Product features:

- Rugged construction
- Polarizing system
- Premating contacts
- Press fit contacts ("Eye of the needle")
- Selective loading of contact positions
- Screwdown hardware
- Special variations on request

CONEC is member of the PICMG Group.
For more information please visit
www.picmg.com.



TECHNICAL DATA

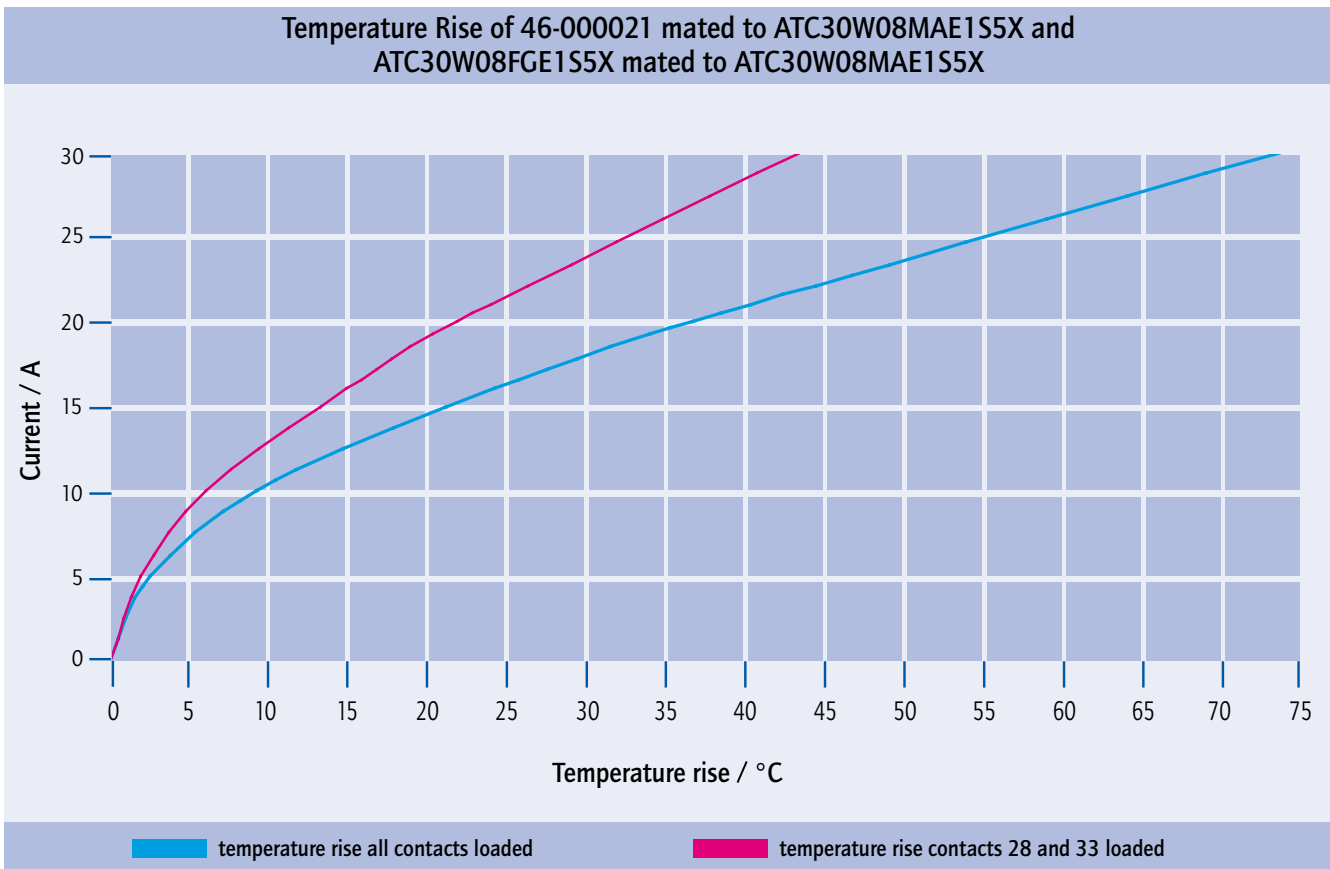
| Materials | Precision machined contacts | Stamped contacts |
|-----------------|--|---|
| Insulator | Glass filled plastic, UL 94V-0 | |
| Contacts | | |
| Materials | Copper alloy | |
| Plating | Gold flash over nickel / 0.8 µm gold over nickel (press fit design tin plated) | Gold flash over nickel / 0.8 µm gold over nickel gold over nickel (press fit design tin plated) |

| Electrical Characteristics | |
|---|---|
| Max. current rating, per UL 1977, (see temperature rise curve for details) | |
| Size 16 power contacts | 30 A continuous all contacts under load |
| Size 22 signal contacts | 2 A nominal rating |
| Initial contact resistance (termination to termination) | |
| Size 16 power contacts | 0.0022 Ω max. |
| Size 22 signal contacts | 0.0085 Ω max. 0.02 Ω max. |
| Insulation resistant | 5 G Ω per IEC 512-2 Test 3a |
| Voltage proof | |
| Contacts 1 through 16 | 1000 V r.m.s. |
| Contacts 17 through 34 | 2000 V r.m.s. |
| Creepage and clearance distance (minimum) | |
| Contact positions 1 through 16 to any other contact within this group | 0.7 mm |
| Contact positions 17 through 24 to any other contact within this group | 2.5 mm |
| Contact positions 25 through 34 to any other contact within this group | 1.4 mm |
| Contact positions 13 through 16 to 17 through 20 | 3.0 mm |
| Contact positions 21 through 24 to 25, 26 | 4.0 mm |
| Contact positions 25, 26 to 27 through 29 | 2.0 mm |
| Working voltage | 100 V r.m.s. |

| Mechanical Characteristics | |
|---|---|
| Blind mating system | male and female connector bodies provide "lead-in" for 2.0 mm diametral misalignment |
| Polarization | provided by connector body design |
| Resistance to solder heat | 260°C for 10 seconds duration per IEC 512-6, Test 12e 25-watt soldering iron (for other application contact factory) |
| Sequential contact mating system (succession) | <ol style="list-style-type: none"> 1. 25, 26, 28, 29, 30 and 31 2. 33 3. 34 4. contacts 1 to 24 mate before 27 and 32 (last mate) |
| Mechanical operations | 250 cycles |
| Temperature range | -55°C to +125°C |

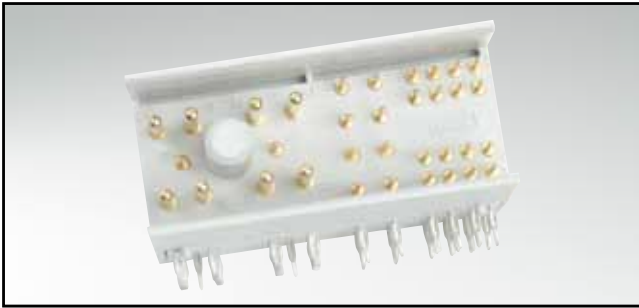
Technical alterations are subjects to change without notice.

DIAGRAM



ADVANCEDTCA

Male Connector – angled – press fit – precision machined contacts

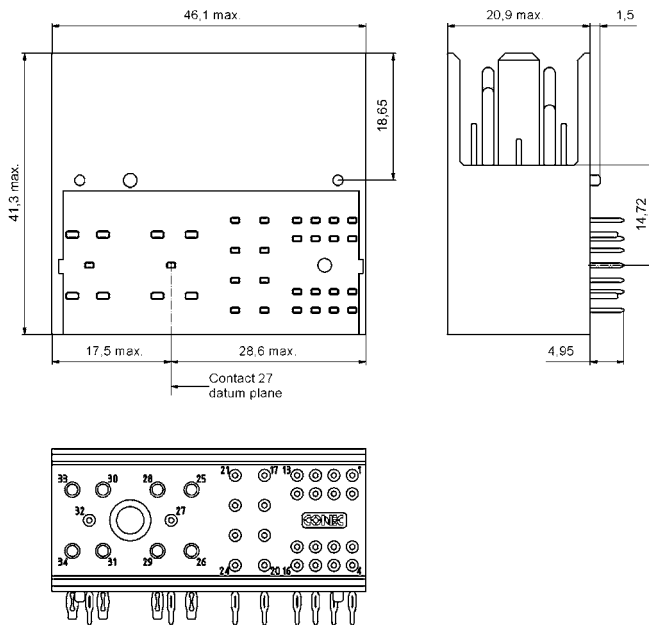


RoHS compliant – UL listed, File no.: E228329

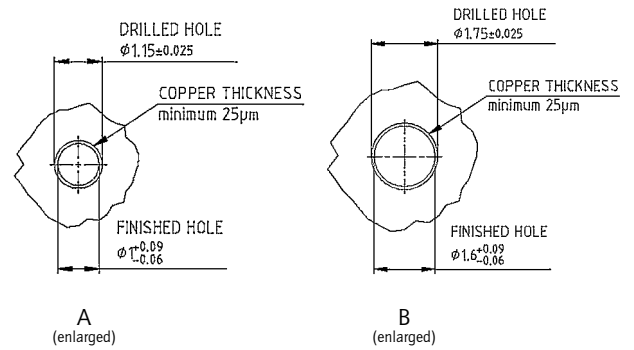
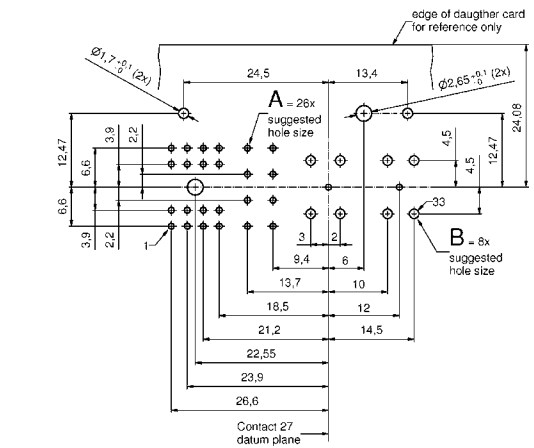
DESCRIPTION

- Signal and power contacts
- Alternatively 22, 30 or 34 positions
- Eye of the needle press fit design, tin plated
- Precision machined contacts for mating area
- Mating area: gold plated quality class 1 or alternative quality class 3
- Special contact loadings possible on request

PRODUCT DRAWING



PCB-hole pattern (34 positions)



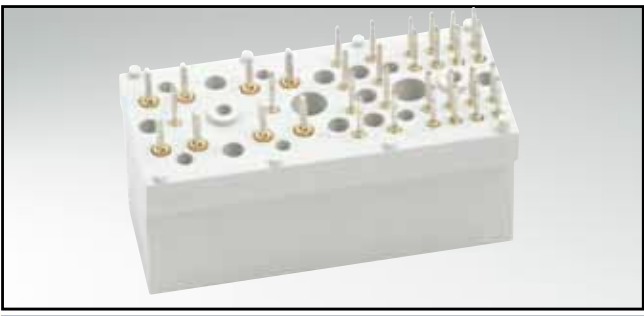
ORDER DATA

(Dim. = mm)

| Number of positions | Contacts | Part number Quality class 3 (gold flash) | Part number Quality class 1 (0,8µm Au mating area) |
|---------------------|-----------------------|---|---|
| 22 | 14x signal / 8x power | ATC22 W08 MAE3S5 X | ATC22 W08 MAE1S5 X |
| 30 | 22x signal / 8x power | ATC30 W08 MAE3S5 X | ATC30 W08 MAE1S5 X |
| 34 | 26x signal / 8x power | ATC34 W08 MAE3S5 X | ATC34 W08 MAE1S5 X |

ADVANCEDTCA

Female connector – straight – press fit – precision machined contacts



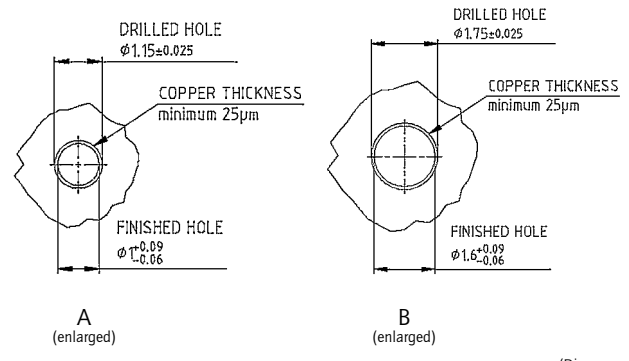
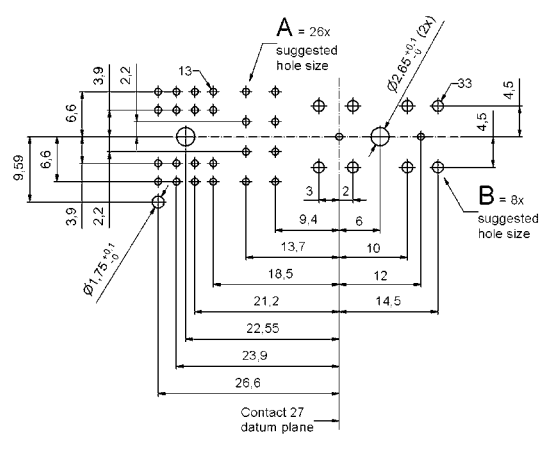
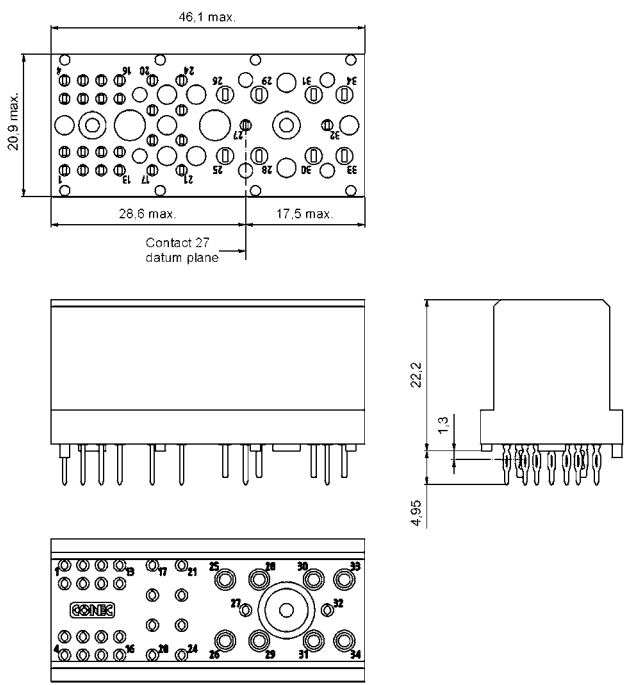
RoHS compliant – UL listed, File no.: E228329

DESCRIPTION

- Signal and power contacts
- Alternatively 22, 30 or 34 positions
- Eye of the needle press fit design, tin plated
- Precision machined contacts for mating area
- Mating area: gold plated quality class 1 or alternative quality class 3
- Special contact loadings possible on request

PRODUCT DRAWING

PCB-hole pattern (34 positions)



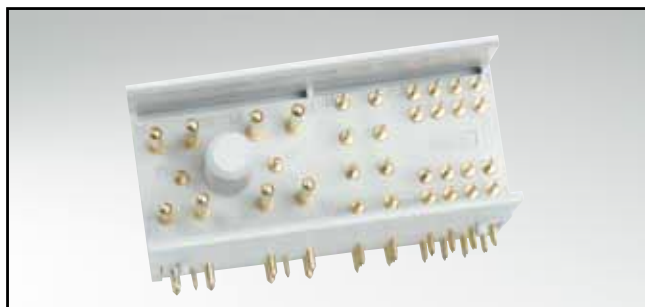
ORDER DATA

(Dim. = mm)

| Number of positions | Contacts | Part number Quality class 3 (gold flash) | Part number Quality class 1 (0,8 μ m Au mating area) |
|---------------------|-----------------------|---|---|
| 22 | 14x signal / 8x power | ATC22 W08 FGE3S5 X | ATC22 W08 FGE1S5 X |
| 30 | 22x signal / 8x power | ATC30 W08 FGE3S5 X | ATC30 W08 FGE1S5 X |
| 34 | 26x signal / 8x power | ATC34 W08 FGE3S5 X | ATC34 W08 FGE1S5 X |

ADVANCEDTCA

Male connector – angled – solder pin – precision machined contacts



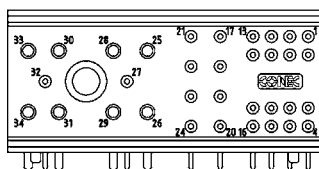
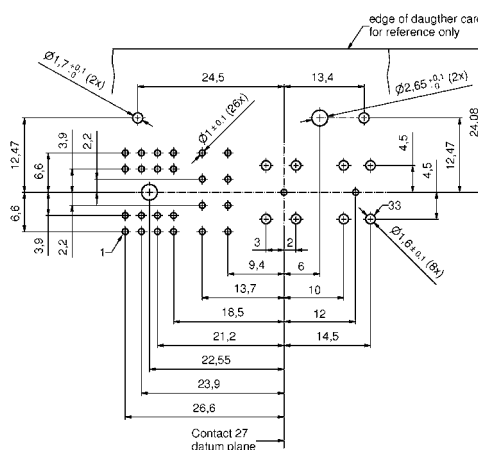
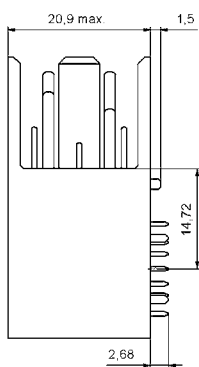
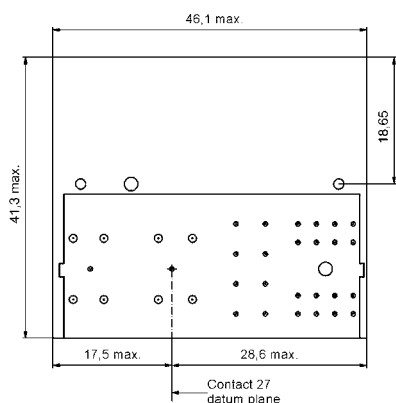
RoHS compliant – UL listed, File no.: E228329

DESCRIPTION

- Signal and power contacts
- Alternatively 22, 30 or 34 positions
- Mating area: gold plated quality class 1 or alternative quality class 3
- Special contact loadings possible on request

PRODUCT DRAWING

PCB-hole pattern (34 positions)



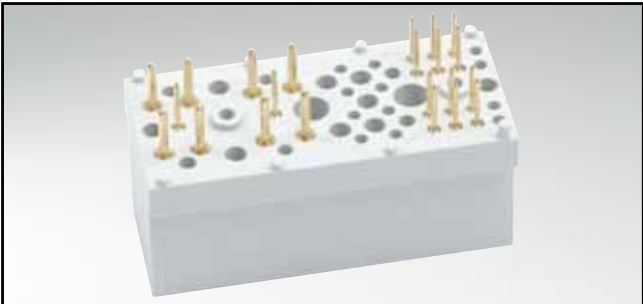
ORDER DATA

(Dim. = mm)

| Number of positions | Contacts | Part number Quality class 3 (gold flash) | Part number Quality class 1 (0,8µm Au mating area) |
|---------------------|-----------------------|---|---|
| 22 | 14x signal / 8x power | ATC22 W08 MARAS5 X | ATC22 W08 MARCS5 X |
| 30 | 22x signal / 8x power | ATC30 W08 MARAS5 X | ATC30 W08 MARCS5 X |
| 34 | 26x signal / 8x power | ATC34 W08 MARAS5 X | ATC34 W08 MARCS5 X |

ADVANCEDTCA

Female connector – straight – solder pin – precision machined contacts



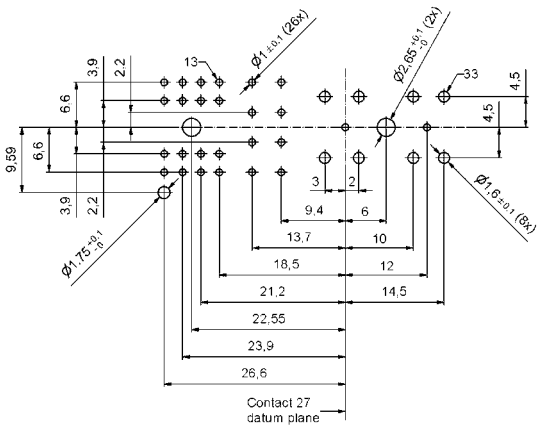
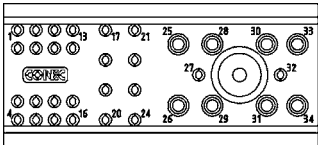
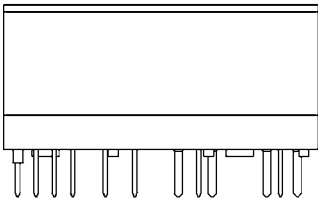
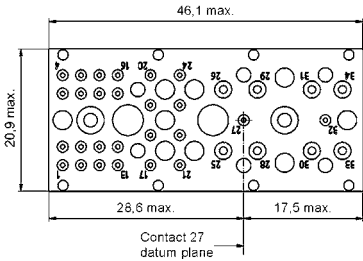
RoHS compliant – UL listed, File no.: E228329

DESCRIPTION

- Signal and power contacts
- Alternatively 22, 30 or 34 positions
- Mating area: gold plated quality class 1 or alternative quality class 3
- Special contact loadings possible on request

PRODUCT DRAWING

PCB-hole pattern (34 positions)



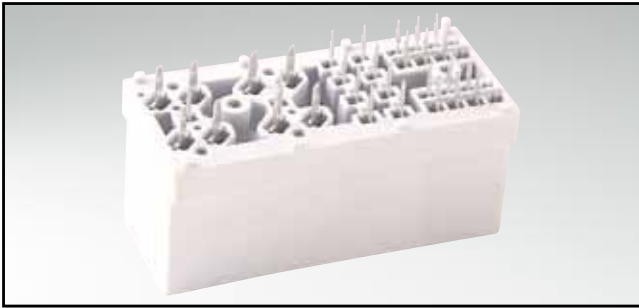
ORDER DATA

(Dim. = mm)

| Number of positions | Contacts | Part number Quality class 3 (gold flash) | Part number Quality class 1 (0,8µm Au mating area) |
|---------------------|-----------------------|---|---|
| 22 | 14x signal / 8x power | ATC22 W08 FGRAS5 X | ATC22 W08 FGRCSS5 X |
| 30 | 22x signal / 8x power | ATC30 W08 FGRAS5 X | ATC30 W08 FGRCSS5 X |
| 34 | 26x signal / 8x power | ATC34 W08 FGRAS5 X | ATC34 W08 FGRCSS5 X |

ADVANCEDTCA

Female connector – straight – press fit – stamped contacts

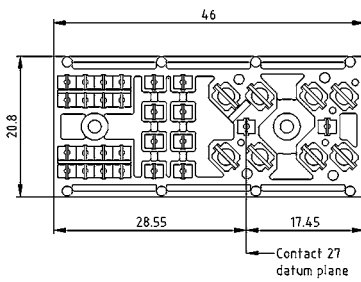


RoHS compliant

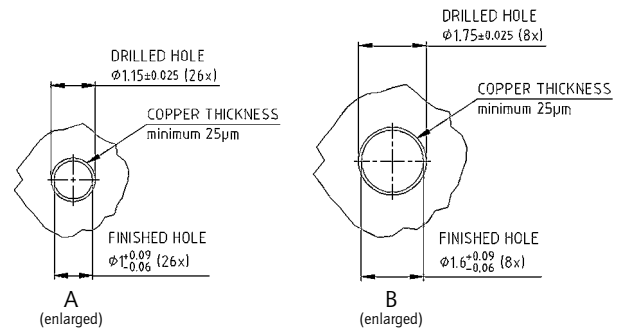
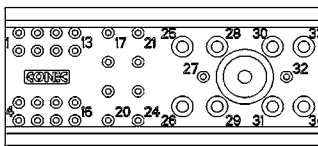
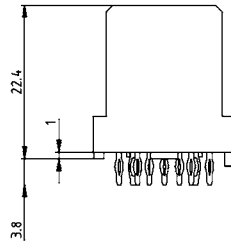
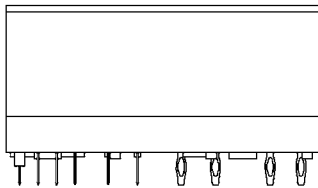
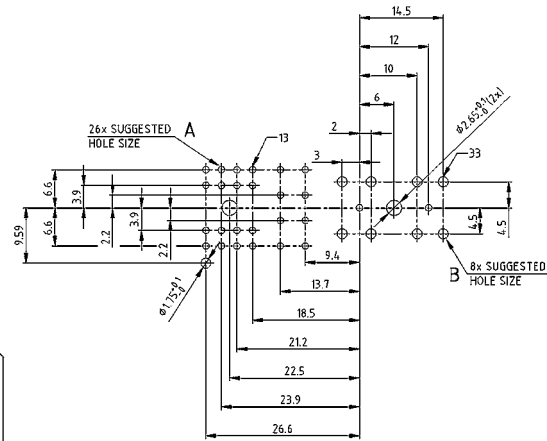
DESCRIPTION

- Signal and power contacts
- Alternatively 22, 30 or 34 positions
- Eye of the needle press fit design, tin plated
- Mating area: gold plated quality class 1 or alternative quality class 3
- Special contact loadings possible on request

PRODUCT DRAWING



PCB-hole pattern (34 positions)

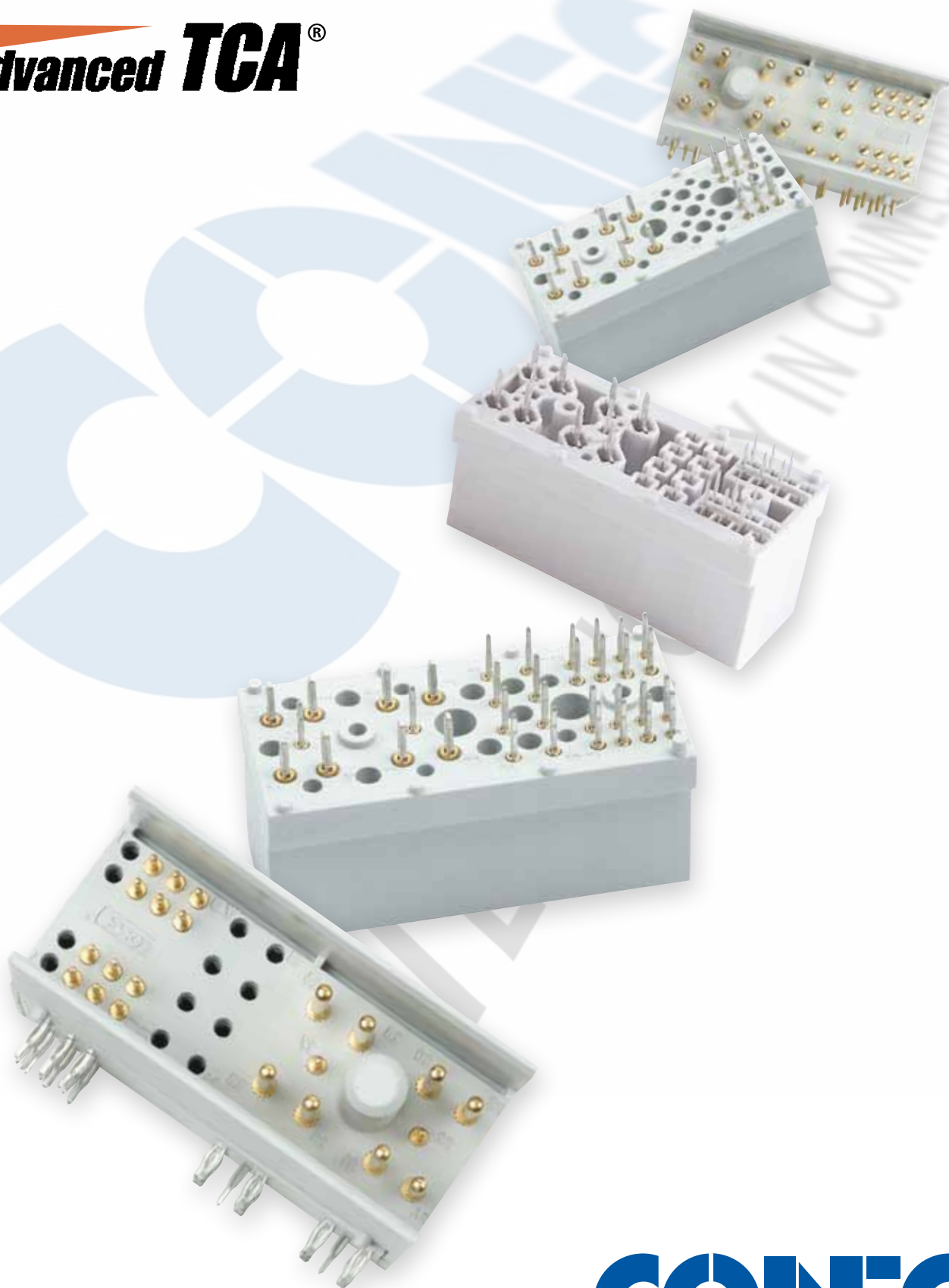


ORDER DATA

(Dim. = mm)

| Number of positions | Contacts | Part number Quality class 3 (gold flash) | Part number Quality class 1 (0,8µm Au mating area) |
|---------------------|-----------------------|---|---|
| 22 | 14x signal / 8x power | 46-000013 | 46-000011 |
| 30 | 22x signal / 8x power | 46-000023 | 46-000021 |
| 34 | 26x signal / 8x power | 46-000033 | 46-000031 |

Advanced TCA[®]



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CONEC[®]
TECHNOLOGY IN CONNECTORS[™]

SECTION 2

MICROTCA CONNECTORS

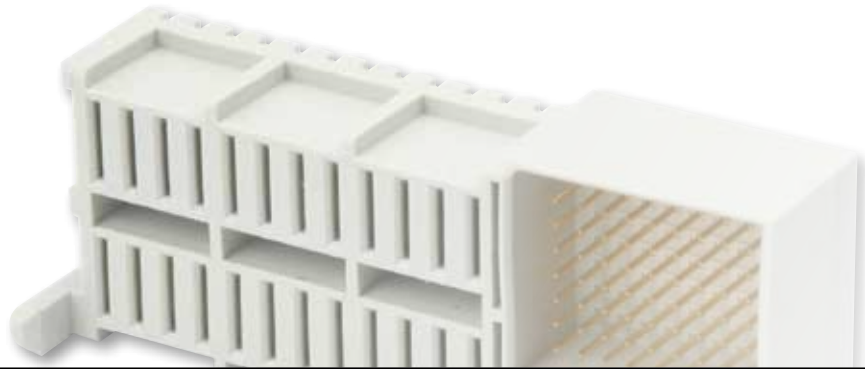
The MicroTCA system was developed beside the AdvancedTCA system to meet compact and cost effective requirements. This standard was also developed by the PICMG® group. Conec offers now the full range of interface connectors defined in the MicroTCA specification.

MicroTCA systems are modular constructed. The standard system configuration can consist of up to two Power Modules (PM's), two MicroTCA carrier hubs (MCH's) and up to 12 Advanced Mezzanine Cards (AMC's).

The MTCA.0 specification defines Combination D-SUB connectors type 7W2 and 9W4 as interfaces for the external power input to the power modules with direct voltage. These are populated with two power contacts, each with a current carrying capacity of 24 A per power pin for the 7W2 version (for use in power modules with -48/-60 V) and 49 A for the 9W4 version (module with +24 V) and two signal contacts.

Conec offers also special hoods in straight and angled version. These hoods are especially slim designed to fit into the MicroTCA connector footprint requirements.





The energy will be supplied via power module output connectors from the PM into the MicroTCA backplane. This connector is a hybrid connector with 12 power contact pairs and 72 signal contacts in a 2.00 mm pitch. The angled version is applied to the PCB of the power module while the straight version is designed to be mounted on the system backplane. Alignment pins on the insulating body support the guide system of the module and allows a secured mating.

The current carrying capability is min. 9.3 A and a power module is able to supply the energy to twelve AMC Modules.

The interconnection from the MCH and the AMC modules to the backplane is made by the 170-pin high speed signal connector. This connector is a direct mating connector and allows data rates up to 12.5 Gbps. An additional internal conductive barrier supplies an additional shielding between the two signal layers. The connector is designed with „eye of the needle“ press fit contacts and will be installed into the systems backplane securely and without soldering.



TECHNICAL DATA

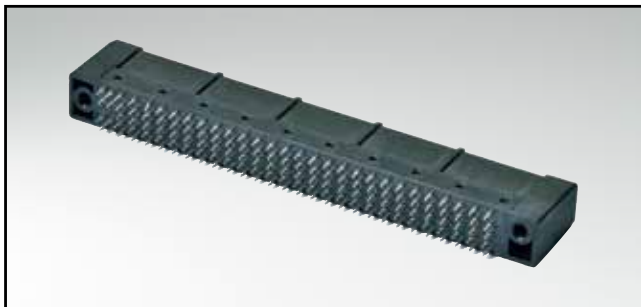
(AdvancedMC Connector)

| | | |
|-----------------------------------|--|----------------------------------|
| Materials | | |
| Housing | Liquid Crystal Polymer (LCP), UL 94-V0 | |
| Contacts | Copper alloy | |
| Contact plating | Mating area gold over nickel | Termination area tin over nickel |
| Electrical characteristics | | |
| Insulation resistance (IEC 60512) | General purpose contacts | 0.4 A min. |
| | Ground contacts | 0.3 A min. |
| | Power contacts | 1.52 A min. |
| | Differential pair contacts | 0.1 A min. |
| Contact resistance | 25 m Ω | |
| Insulation resistance | 100 M Ω | |
| Differential Impedance | 100 Ω \pm 10% | |
| Crosstalk | 3 % (Multi aggressor condition) | |
| Differential skew | < 5 ps | |
| Mechanical Characteristics | | |
| Mating cycles | 200 | |
| Mating force | 100 N max. | |
| Withdrawal force | 65 N max. | |

Technical alterations are subjects to change without notice.

ADVANCEDMC CONNECTOR

Press fit technology – MicroTCA – for high speed signals

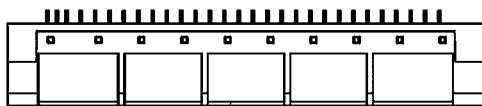
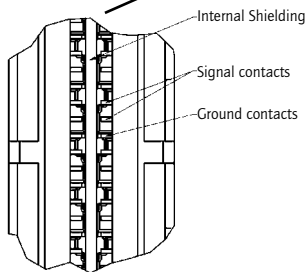
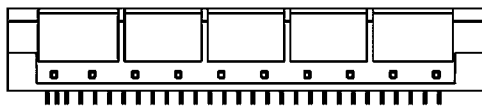


RoHS compliant

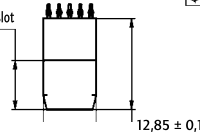
DESCRIPTION

- 170 "high speed" signal contacts
- Direct connector for AMC module
- Data transfer rates up to 12.5 Gbps
- Internal shielding
- Eye of the needle press fit
- Mating area gold plated, quality class 1

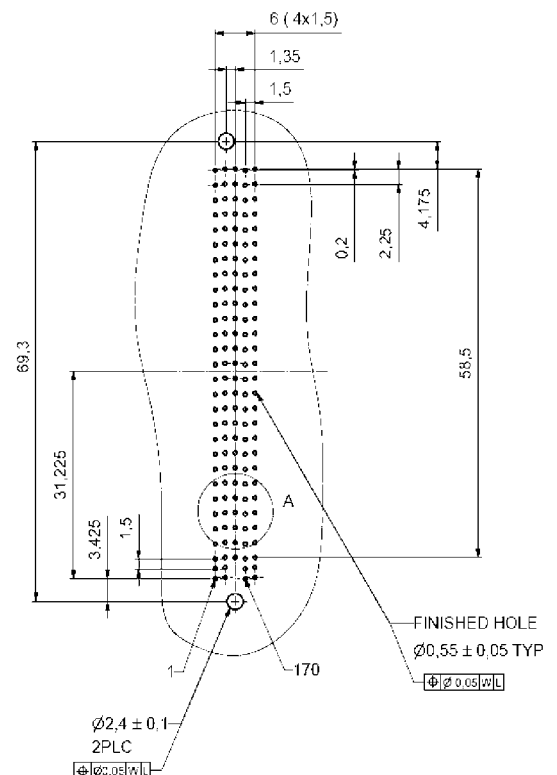
PRODUCT DRAWING



6,95 measured to bottom of card slot



PCB-hole pattern



ORDER DATA

(Dim. = mm)

| Number of positions | Part number |
|---------------------|-------------|
| 170 | 47-000001 |

TECHNICAL DATA

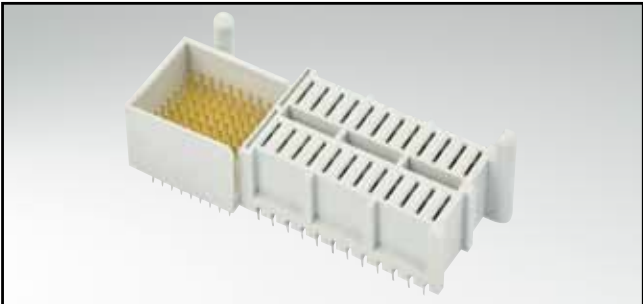
(Backplane and Power Modul Output Connector)

| Materials | | |
|-----------------------------------|--|---|
| Housing | Thermoplastic polyester, glass filled; UL94-V0 | Color: grey |
| Power contacts | Copper alloy | Mating area gold over nickel Termination area tin plated |
| Signal contacts | Copper alloy | Termination gold over nickel Termination area tin plated |
| Electrical characteristics | | |
| Insulation resistance (IEC 60512) | Power contacts and GND contacts | 9.3 A per pin at max. 30°C temperature rise |
| | Signal- and Signal GND contacts | 0.5 A at max. 30°C temperature rise |
| Contact material | Power contacts and GND contacts | 11.625 A |
| | Signal- and Signal GND contacts | 0.625 A |
| Contact resistance | Power contacts and GND contacts | 5 mΩ |
| | Signal- and Signal GND contacts | 25 mΩ |
| Insulation resistance | Power contacts | 100 MΩ min. |
| | Signal contacts | 100 MΩ min. |
| Temperature range | -55°C to +105°C | |
| Mechanical characteristics | | |
| Mating cycles | 200 | |
| Mating force | 145 N max. | |
| Withdrawal force | 110 N max. | |

Technical alterations are subjects to change without notice.

BACKPLANE CONNECTOR

Press fit technology – straight version

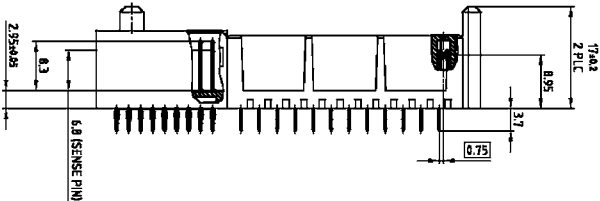


RoHS compliant

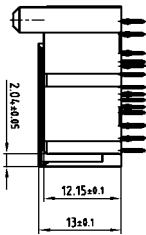
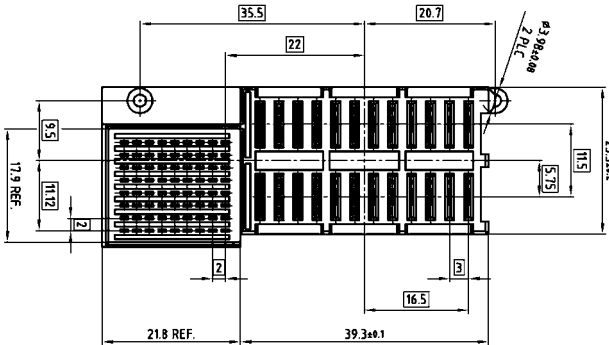
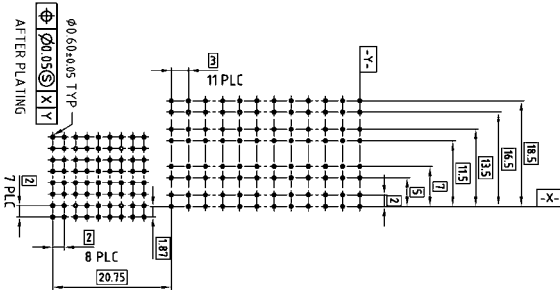
DESCRIPTION

- Connector according to MicroTCA specification
- Combination of signal- and power contacts
- Eye of the needle press fit
- Mating area gold plated, quality class 1

PRODUCT DRAWING



PCB-hole pattern



ORDER DATA

(Dim. = mm)

| Number of positions | Contacts | Part number |
|---------------------|------------------------|-------------|
| 96 | 72x signal / 24x power | 47-100001 |

TECHNICAL DATA

Power Module Input Connector

| Materials | | |
|---|---|---|
| Insulator | PBT (UL 94-V0) | |
| Power Contacts | Copper alloy, Precision machined contacts | Mating side gold over nickel Soldering side tin over nickel |
| Signal contacts | Copper alloy, Precision machined contacts | Mating side gold over nickel Soldering side gold over nickel |
| Shell | Steel | Tin plated |
| Mounting bracket | Zink die-cast | Tin plated |
| 4-40 UNC threaded insert | Copper alloy | Tin plated |
| Hex bolt with 4-40 UNC threaded insert and washers | Steel | Nickel plated |
| PCB clip for 1.6 mm PCB LP | Copper alloy | Tin plated |
| Electrical characteristics | | |
| Current rating | Power contacts | 24 A at max. 30°C temperature rise |
| | Signal contacts | 7.5 A nominal |
| Clearance- and creepage distance | Power contacts | 1.5 mm min. |
| | Signal contacts | 0.4 mm min. |
| | Signal and power contacts | 1.5 mm min. |
| | Power contacts and shell | 1.5 mm min. |
| | Signal contacts and shell | 1.5 mm min. |
| Insulation resistance | Power contact | 5000 MΩ min. |
| | Signal contact | 5000 MΩ min. |
| | Signal and power contacts | 5000 MΩ min. |
| | Power contacts and shell | 5000 MΩ min. |
| | Signal contacts and shell | 5000 MΩ min. |
| Dielectric with standing voltage | 1000 V r.m.s. | |
| Mechanical characteristics | | |
| Mating cycles | 250 | |
| Mating force | 100 N max. | |
| Unmating force | 65 N max. | |

Technical alterations are subjects to change without notice.