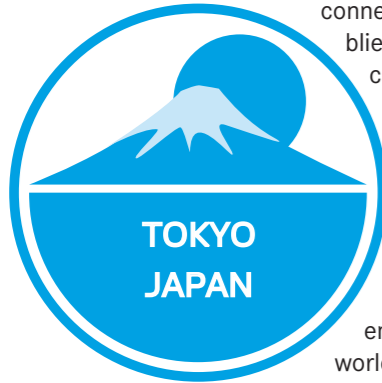


ABOUT YAMAICHI ELECTRONICS

WORLDWIDE

Yamaichi Electronics, established 1956 in Tokyo, designs, manufactures and markets high performance interconnection components, including those for use in the most demanding applications of electronic systems. The portfolio covers high precision fine pitch IC sockets, connectors, cable assemblies and flexible printed circuits. Yamaichi Electronics has production facilities in Japan, the Philippines, Korea, China and Germany, makes an annual turnover of about 226 Mio. € and employs 2,600 people worldwide.



EUROPE

Yamaichi Electronics Deutschland GmbH, located in Munich, is your European partner for connectivity solutions. The European division makes an annual turnover of 65 Mio € and employs more than 300 people, thereof 100 engineers.



PRODUCTION

In our production facility in Frankfurt (Oder) Germany, we manufacture connectors and cable assemblies as well as test contactors.

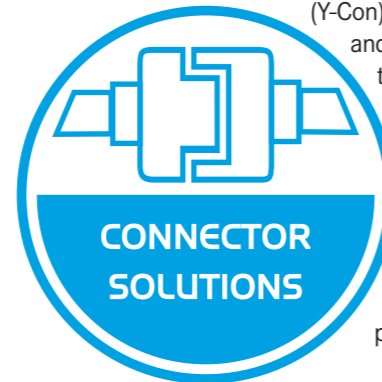


QUALITY

Yamaichi Electronics is approved according to the current DIN EN ISO 9001:2015. The production in Frankfurt (Oder) is ISO 9001:2015 and ISO 14001:2015 certified.

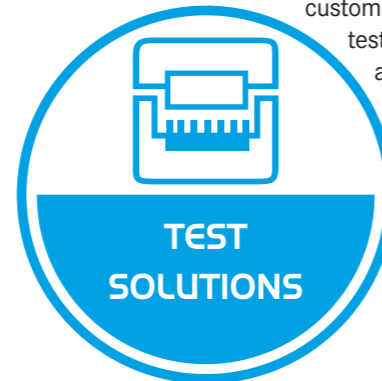
CONNECTOR SOLUTIONS

Portfolio: Industrial circular connectors push-pull (Y-Circ P) and M12 (Y-Circ M). Industrial RJ45 and USB connectors (Y-Con). Special industrial and automotive connectors, cable assemblies, and flexible flat cables High-speed connector systems, internal connectors, like Y-Lock, input/output connectors as well as card readers and production sockets.



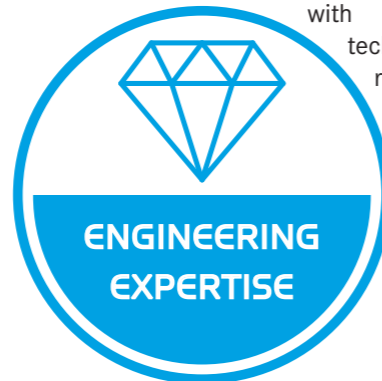
TEST SOLUTIONS

Portfolio: Test and Burn-In sockets, modular and customized test contactors, test fixtures, module test adapters, receptacles, spring probe pins, PCB solutions and specialties.



ENGINEERING EXPERTISE

Two design centers in Munich (Germany) and Sousse (Tunisia) react quickly to market challenges and work with the most modern technologies for the realisation of customer needs, from product idea to qualified mass production.



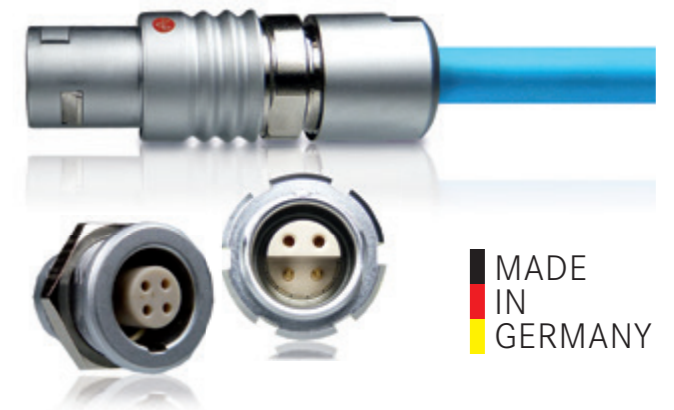
INDUSTRIAL CIRCULAR CONNECTORS

PUSH-PULL CIRCULAR CONNECTOR Y-CIRC P

With the Y-Circ P series Yamaichi Electronics offers an improved push-pull circular connector series. The push-pull series is designed, qualified and produced in Germany, which means fast reaction to the needs of our European customers. The high grade of vertical range of manufacturing ensures highest quality and short delivery times. The product portfolio includes also various matching accessories for the Y-Circ P circular connector series as well as cable assemblies.

YOUR ADVANTAGES

- Innovative details for optimized plug systems
- Different sizes, pin counts and contact types
- Customised pin layouts
- Pin layout for high data rates like CAT6A
- Patented half-shell design
- Identical mounting depth of the connector sockets
- Shorter, lighter connector



MADE IN GERMANY

USE OUR CONFIGURATOR FOR EASY HANDLING OF THOUSANDS OF VARIANTS



INDOOR (IP50)		OUTDOOR (IP68)
B-SERIES	S-SERIES	T-SERIES
<ul style="list-style-type: none"> • Mechanical keying at the housing • Different sizes • Various connector types • Easy assembly • Shorter 	<ul style="list-style-type: none"> • Hermaphroditic insulators • Different sizes • Various connector types • Easy assembly • Shorter 	<ul style="list-style-type: none"> • Mechanical keying at the housing • Different sizes • Various connector types • Easy assembly • Shorter • Patented cable sealing

INDUSTRIAL CIRCULAR CONNECTORS

M12 CIRCULAR CONNECTOR Y-CIRC M

The Y-Circ M series is a circular connector with thread or Push-Pull locking mechanism according to M12 specifications. The product portfolio includes the standardised variations from A-coded to high-end X-coded CAT6_A. All variations are available as a cable assembly in different lengths and cable types.

MADE
IN
GERMANY



Y-Circ M characteristics

- A, B, D coding according to IEC 61076-2-101
- Optional high class EMI protection with 360° shielding
- X coding acc. to IEC 61076-2-109
- L-Coding for power transmission according to IEC 61076-2-111
- Vibration proof locking
- Optional with screw locking or Y-Circ M Push-Pull locking mechanism



M12 FIELD ASSEMBLY CONNECTOR CAT6_A

Due to its slim design compared to similar connectors on the market, the field-mountable CAT6_A connector from Yamaichi Electronics offers a perfect solution even in confined spaces.

Its tool-free setup makes it quick and easy to assemble as it consists of only two parts, which are quickly connected.



YOUR ADVANTAGES

- Slim design
- Quick & easy assembly – tool-free
- CAT6_A performance
- Modular system to tailor connector to customer requirements

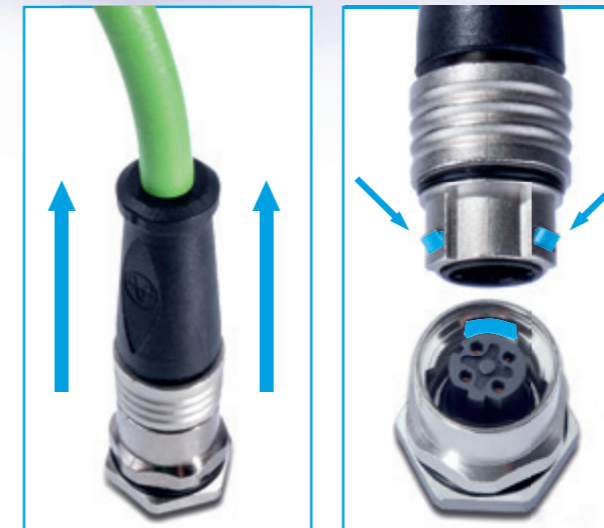


Y-CIRC M PUSH-PULL CONNECTOR WITH INNER LOCKING MECHANISM

New overmolded M12 connector with push-pull locking mechanism allows fast and secure locking and unlocking. The plug can be connected to a push-pull socket for locking without screwing.



INTERNATIONAL
STANDARD
IEC 61076-2-012
M12 Push-Pull
Inner Locking
★★★



High pull out force prevents unintentional unmating. Smooth mating and unmating.

Mating contour of locking hooks can lean against the segmented thread allowing the contact carrier to stay free of force.



In addition to easy unlocking in a tight space, the release extension also offers the option of color coding.

YOUR ADVANTAGES

Space & time saving

The same space requirement as the M12 connector with screw locking allows for a small pitch. The socket contour can be flush mounted and fully integrated into the device. Up to 80% time savings compared to conventional M12 with screw locking.

Backward compatible

The push-pull device socket fits both M12 push-pull plugs and conventional plugs with M12 screw thread.

Robust & safe

Long locking hooks lock deep inside the socket for maximum robustness even with torsional stress. Correct locking is confirmed by haptic and acoustic feedback. Locks reliably also in hard-to-reach situations and with limited space.

IP65 / 67 protected

An intelligent sealing system seals off the system as early as possible to prevent dust or liquids from entering neither the connector nor the system.

Different codings

A, B, D, X, L for reliable signal, data and power transmission.

According to standards

According to IEC 61076-2-012

MADE
IN
GERMANY

INDUSTRIAL CONNECTORS

INDUSTRIAL RJ45 AND USB Y-CON SERIES

The IP protected, ruggedised Y-Con system includes RJ45 and USB connectors & cable assemblies. A unique feature on the market is the optional integration of power contacts into the RJ45 mating face for transmission of up to 3.1A. The system enables data rates up to CAT6_A.

Y-CON RJ45 SYSTEM

IP67/68/69K protected components in plastic or metal housing, special EMI protection



IP20 protected components with special locking feature, additional EMI protection

Y-Con Cover 20-TC



CAT6_A connector, tool-free assembly



Plugs and jacks for use with both IP67/68/69K and IP20 protected components



Y-Con ProfiNet



Y-CON USB SYSTEM

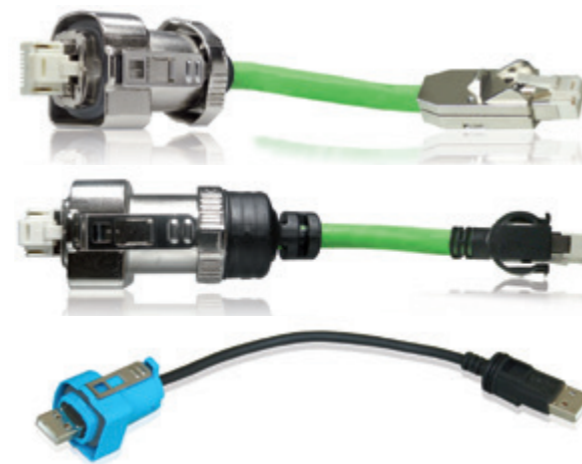
Standardised USB-A and USB-B connectors integrated into the existing platform, IP67/68/69K and IP20 protection with special locking feature.

Y-Con USB modules and peripherals



Y-CON CABLE ASSEMBLIES

Cable assemblies with all RJ45, USB and customized components



YOUR ADVANTAGES

- RJ45 plus power transmission up to 3.1 A
- Best in class products concerning protection against vibration, EMI and mechanical forces
- International protection code 67/68/69K
- Applicable for a wide temperature range
- New quick snap closing for Y-Con Cover-20-TC and Y-Con ProfixPlug

CABLE ASSEMBLIES - FLEXIBLE FLAT CABLES

CABLE ASSEMBLIES

Yamaichi Electronics is the only supplier that offers cable assemblies with its own produced connectors Y-Circ M (M12), Y-Circ P (Push-Pull), RJ45 as well as USB from a single source. The bundling of connector production and cable assembly at one production site guarantees short response times and a quick realisation of inquiries. Assemblies with bought-in components are also possible.

For this a comprehensive production location is established in Frankfurt/Oder. It includes overmoulding- and hotmelt-machines, fully automated stripping and cutting machines as well as turning and milling capabilities.

Y-Circ P



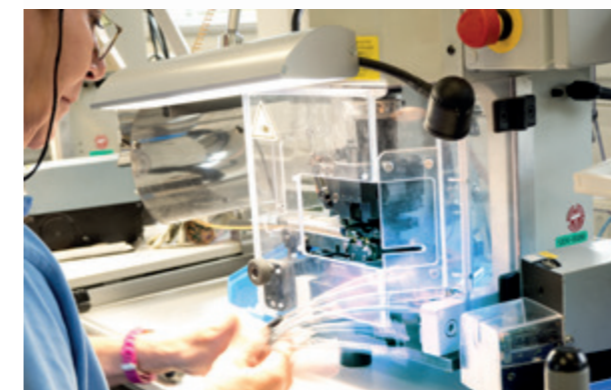
Y-Circ M



Y-Con



Welded Wires



Cable assemblies in Frankfurt (Oder)

FLEXIBLE FLAT CABLES - FFC

To offer complete Board-to-Cable solutions including the connector and the FFC, Yamaichi established an own FFC production in Frankfurt (Oder) - the Y-FFC series

Yamaichi meets the most diverse requirements such as pitch, number of lines, lengths, surfaces, mating faces or folds. Special customer requests such as shielding or punching holes or slots in the FFC are also possible. An intensive and automatic optical process monitoring ensures compliance with tolerances. As a system supplier Yamaichi accompanies customised designs right from the beginning: from the design and development phase through testing and validation according its specification.



The FFC production line in Frankfurt (Oder)

MADE
IN
GERMANY

Y-FFC
FLAT CABLE

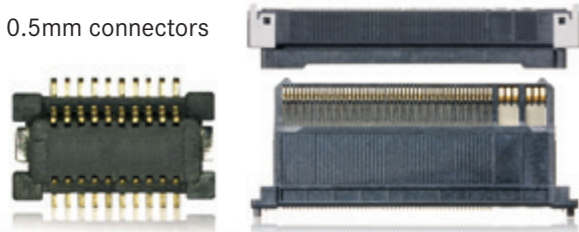
YAMAICHI
ELECTRONICS

INTERNAL CONNECTORS

PRODUCT PORTFOLIO

Board-to-Board and Board-to-Cable connectors

0.5mm connectors



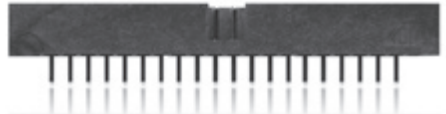
1.27mm connectors



2.00mm connectors



2.54mm connectors



ZIF connectors for FFC and FPC cable
With 0,5 and 1mm pitch



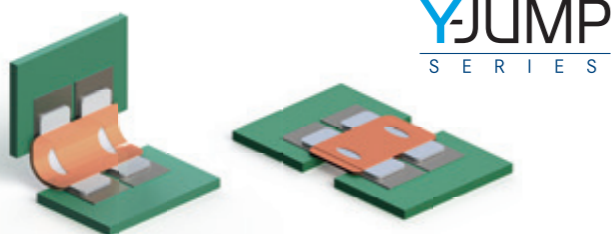
Power connectors

Transfer up to 9A at a pitch of 3.0 and 4.2mm



Flexible B-T-B Jumper

Tailor-Made solutions for your needs

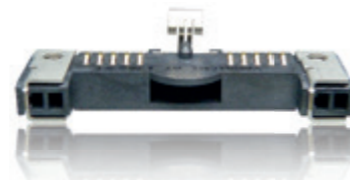


Board Edge Connector and High-Speed Board Edge Connector (BEC)

230 pins for module cards (also according to the MXM 1.0/ Qseven standard), for harsh requirements of automotive and industrial applications

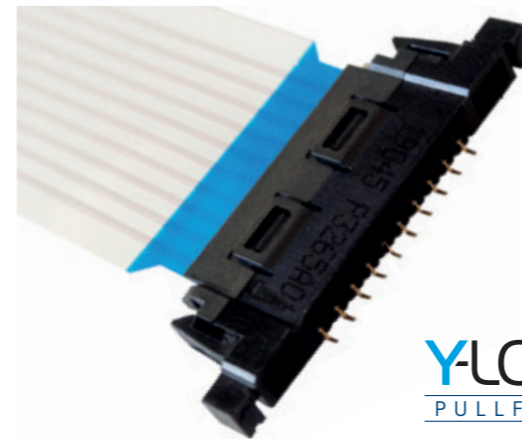


Additional power connector for 10 x 1.5A



Y-Lock Pullforce connector and cable system

Non-ZIF system designed with an easy, quick and secure "One Push Lock" mechanism, 1.0 and 0.5mm pitch board-to-cable system



Y-LOCK
PULLFORCE

YOUR ADVANTAGES

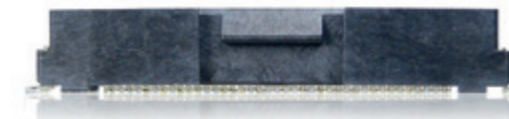
- Large product portfolio for applications ranging from consumer electronics to industrial systems
- Product range to serve all customer requirements like SMT/TH processing, different pitches and pin counts, different plating versions, horizontal and vertical types
- We offer also cable assembly solutions for all connectors

HIGH SPEED CONNECTORS

BOARD-TO-CABLE SYSTEMS

Non-ZIF solutions

Universal system with pin counts up to 51

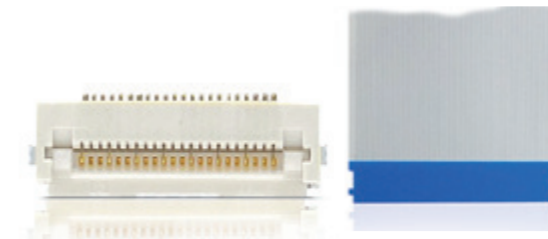


For LVDS, HDMI, S-ATA, PCI-Express applications

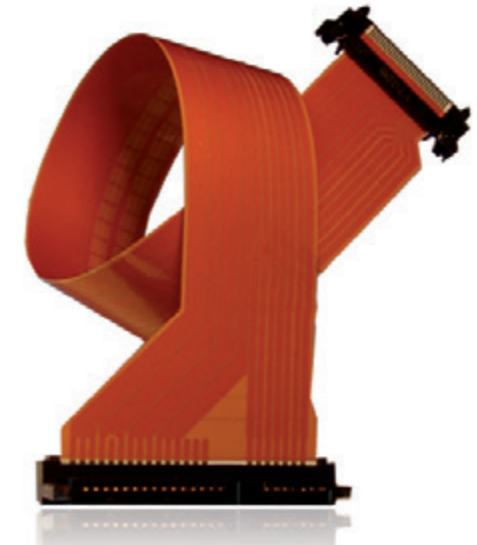


ZIF solutions

Flip type connector with pin counts from 10 to 60



S-ATA cable system



YFLEX - FPC for High-Speed



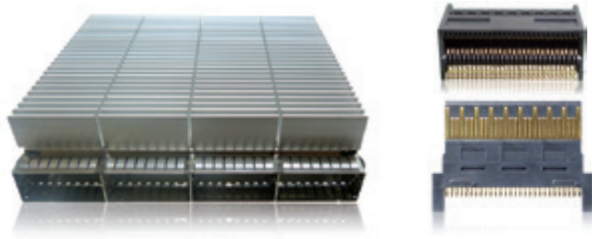
YOUR ADVANTAGES

- Transfer rates up to 10Gbps
- Large field of applications e.g. consumer devices, automotive electronics, telecom network equipment
- Impedance controlled high-speed transmission
- Special YFLEX technology: outstanding electrical performance and dimensional stability, minimisation of EMI and low loss

HIGH-SPEED DATA NETWORKING CONNECTORS

HIGH-SPEED DATA NETWORKING

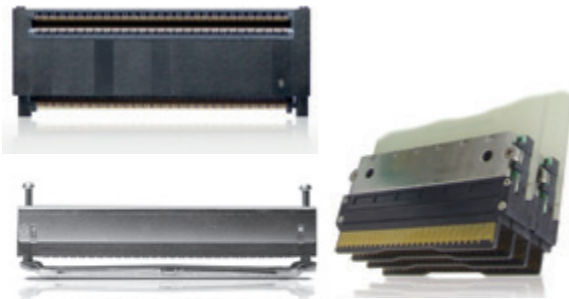
CFP8, CFP4, CFP2, CFP Connector system
Complete component solutions from connectors to mechanical components following MSA standard



OSFP, QSFP, DSFP & SFP Connector
With transmission capability of 28Gbps and 56Gbps per channel, following MSA standard



AdvancedMC connectors
For AdvancedTCA



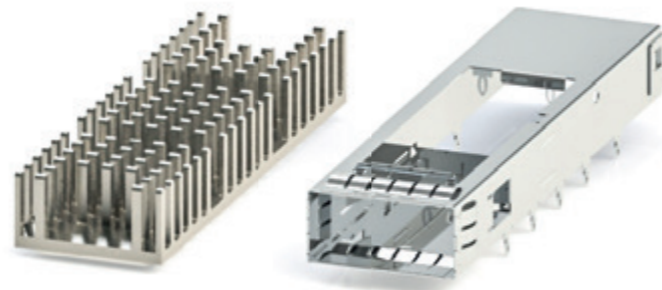
YOUR ADVANTAGES

- Data Networking products compliant to PICMG or MSA standard
- Designs based on the latest technical developments
- Yamaichi Electronics is a member of several MSA committees and OIF

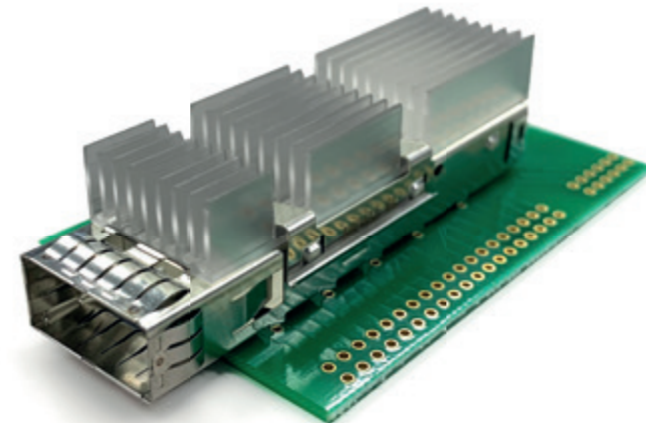
SFP and DSFP Mechanical Parts



QSFP28 + 56 Mechanical Parts



QSFP DD
High-Speed Data Networking up to 200Gbps (NRZ) 400Gbps (PAM4)



INPUT/OUTPUT CONNECTORS

PRODUCT PORTFOLIO

FAKRA, HSD, Mini-FAKRA and High Speed Ethernet



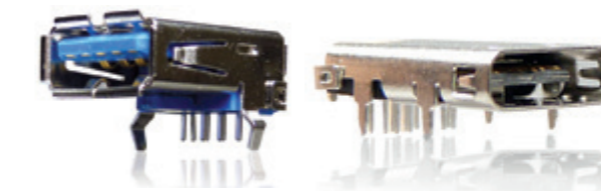
Y-MFC
MINI FAKRA

Y-HDE
ETHERNET

Modular Jacks



USB Connectors

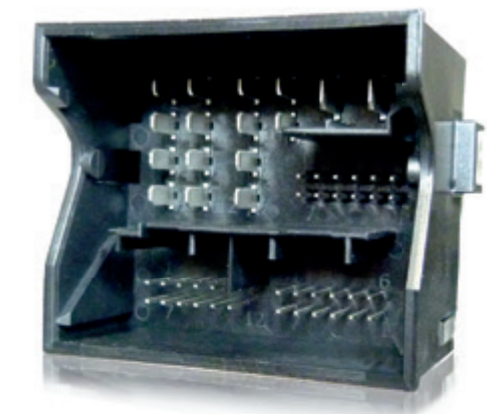


HDMI, D-Sub and Display Port



Y-QUAD
AUTOMOTIVE I/O

Y-Quad



YOUR ADVANTAGES

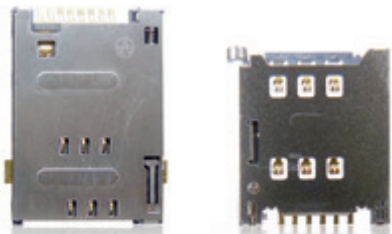
- Connectors for all relevant standard interfaces
- Connectors and matching cable assemblies
- Customer specific I/O connector solutions

Ⓐ CARD CONNECTORS & PRODUCTION SOCKETS

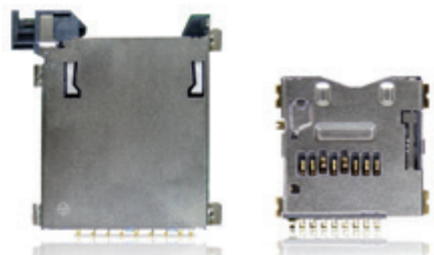
Ⓐ HOT-MELT TECHNOLOGY

PRODUCT PORTFOLIO

SIM, MicroSIM and NanoSIM card connectors



SD/MMC and MicroSD card connectors



Ultra high speed card connectors (UHS-2SD)



Compact Flash I and II / CFAST



YOUR ADVANTAGES

- Broad standard product range of card connectors developed for harsh requirements such as those in the automotive industry
- Special technical features like 2-point contacts to ensure a stable contact point
- Very low profile designs
- Different handling mechanisms such as push-push, tray, push-lock

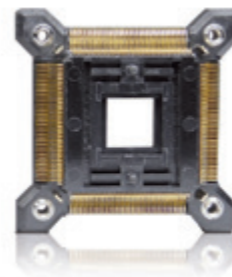
PRODUCTION SOCKETS

Sockets are available in different grid sizes, pin counts and arrays in through-hole technology, as well as customer-specific mounting.

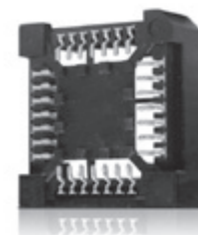
SO-DIMM



QFP / TQFP / BQFP



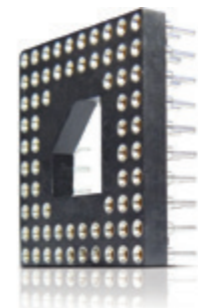
PLCC



SOP



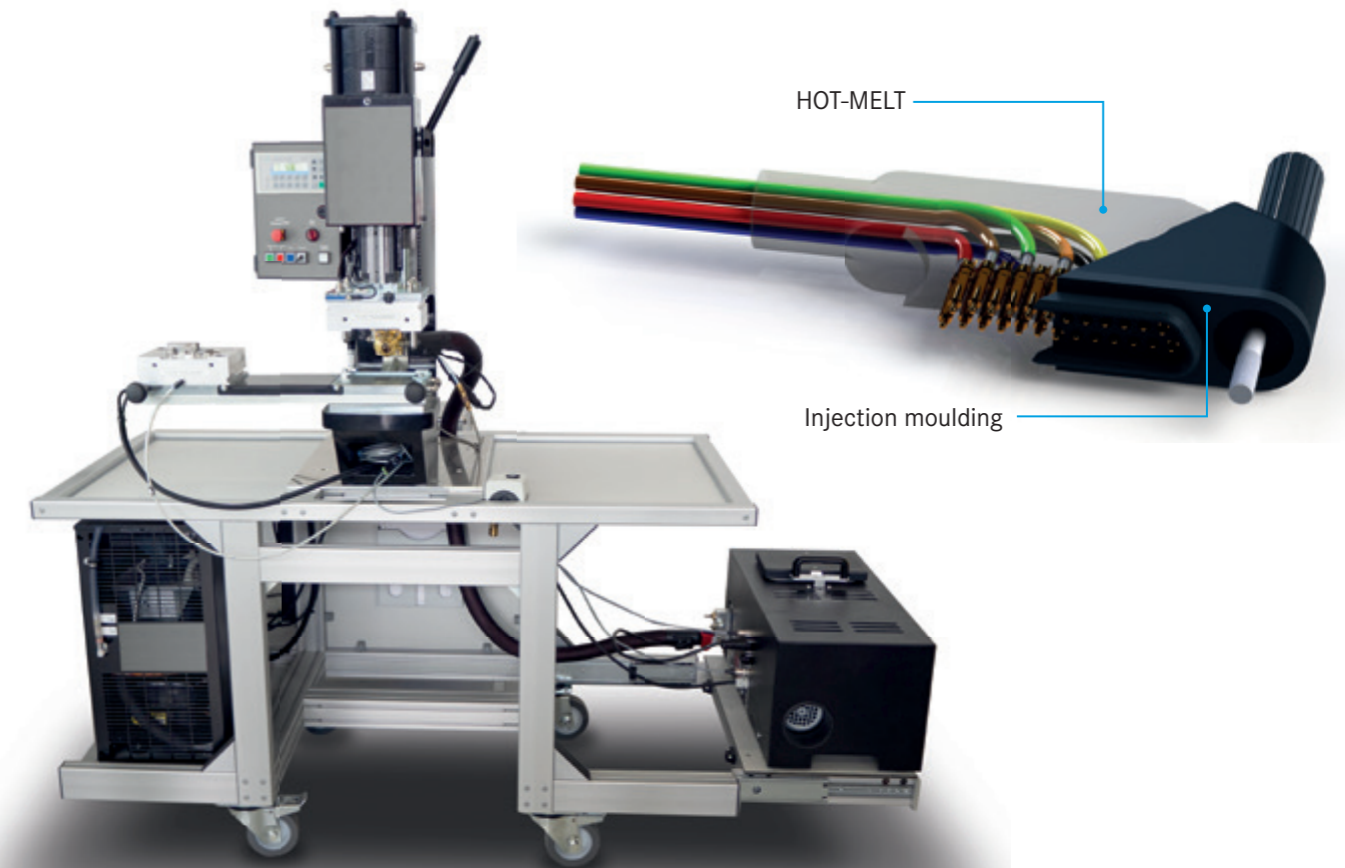
PGA / SPGA



YAMAICHI ELECTRONICS GOES HOT-MELT

The low-pressure injection moulding process HOT-MELT enables the gentle coating of sensitive electronic components. Due to the resistance to high temperatures, moisture, oils or disinfectants of the used plastics, the HOT-MELT process is interesting for components which have to be protected against damaging environmental influences, e.g. in the automotive or medical technology. The HOT-MELT process is characterized by high flexibility and comparatively low tooling costs. Therefore it is attractive for small series and prototype construction.

In the HOT-MELT process, the components are placed in a tool form that is produced based on individual requirements and directly overmoulded with the melting plastic. After cooling, the coated components are immediately available for further processing. The one-component system of the HOT-MELT moulding process is a simple, fast and clean production process.



HOT-MELT

Injection moulding

HOT-MELT

Injection moulding

YOUR ADVANTAGES

- Low pressure injection moulding process for highly sensitive components
- Suitable for small series
- Ideal for prototype construction
- Low tooling costs
- High flexibility

CONTACTING SEMICONDUCTOR

Test & Burn-in sockets
Support all devices on market



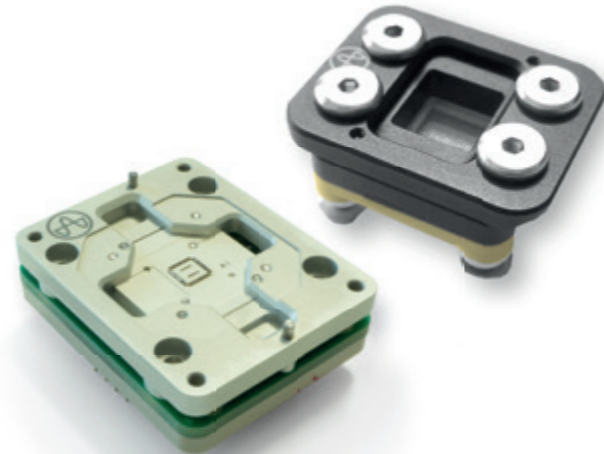
Thermal controlled (active & passive)



YOUR ADVANTAGES

- Reliable contacting solutions
- Starting for devices with 0.25mm pitch
- Robust design for ATE, reliability test and failure analysis
- Large range of available products
- Customized design

Test Contactors



Receptacles



Burn-in Lead Frame Sockets

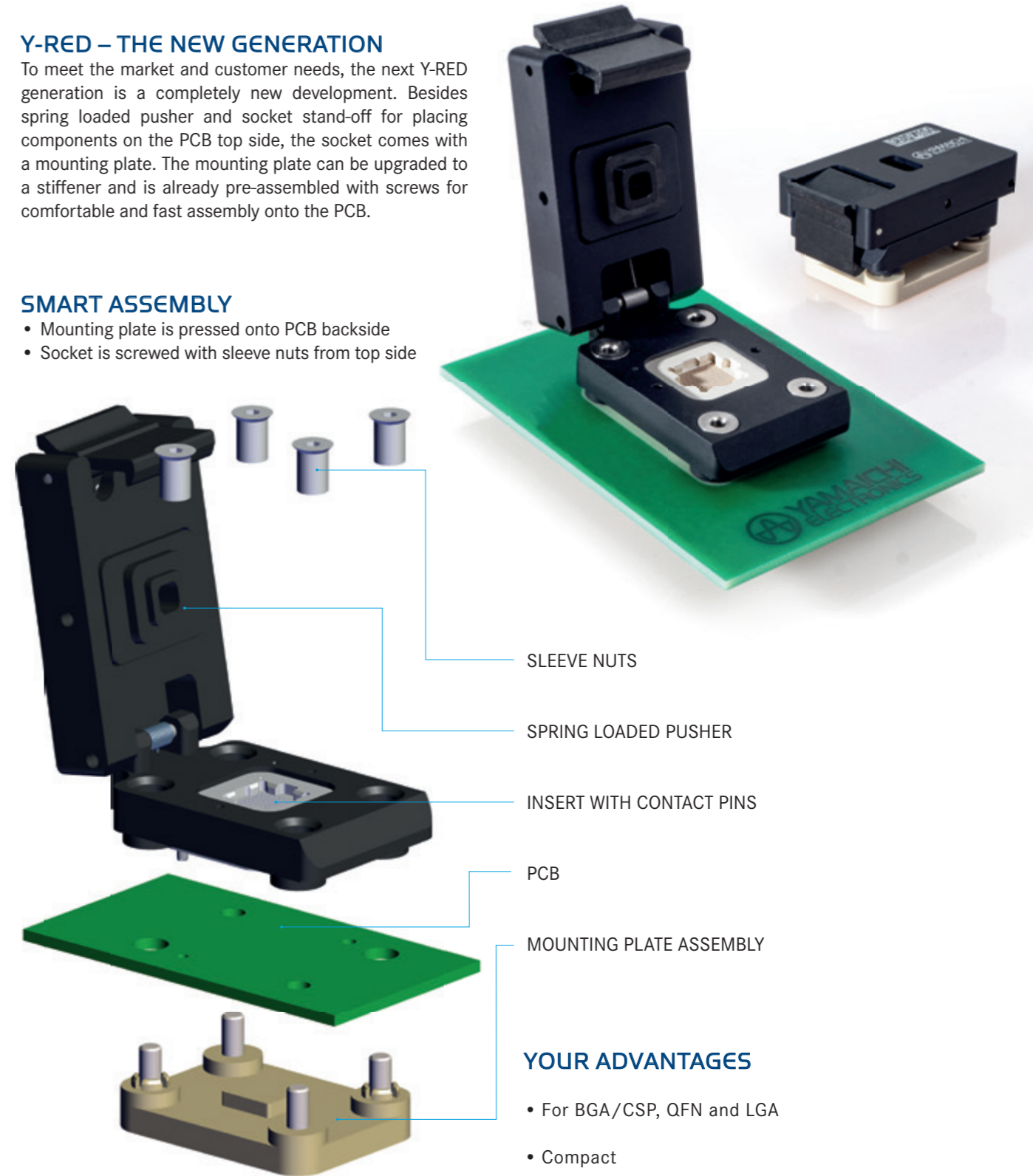


Y-RED – THE NEW GENERATION

To meet the market and customer needs, the next Y-RED generation is a completely new development. Besides spring loaded pusher and socket stand-off for placing components on the PCB top side, the socket comes with a mounting plate. The mounting plate can be upgraded to a stiffener and is already pre-assembled with screws for comfortable and fast assembly onto the PCB.

SMART ASSEMBLY

- Mounting plate is pressed onto PCB backside
- Socket is screwed with sleeve nuts from top side



YOUR ADVANTAGES

- For BGA/CSP, QFN and LGA
- Compact
- Optimized PCB layout
- Starting from 0.30mm pitch

 INTERFACE SOLUTIONS

Y-ETI – THE NEW DIMENSION OF TESTING

The innovative Y-ETI test fixture from Yamaichi Electronics is designed for maximum flexibility in testing electronic assemblies. It enables contacting of standard applications from low signal quality and larger test pitch up to high performance embedded solutions with test pitch starting from $\geq 0.25\text{mm}$.



YOUR ADVANTAGES

UNIVERSAL: One test adapter for various test system configurations

SCALABLE: For fine pitch from 0.25mm to standard test pad distances

OPTIMIZED: High signal quality and reliability from the device under test (DUT) to the test system

INDIVIDUAL: Test setup configuration either using cassette or test application board (TAB)

SPRING PROBE PINS

Pins for test contactors and test fixtures start from 0.25mm pitch.

To overcome the market needs in testing assembled PCBs, Yamaichi Electronics provides spring probes for in-circuit test (ICT) with pitches of 2.54mm with a large portfolio of various plunger tips.



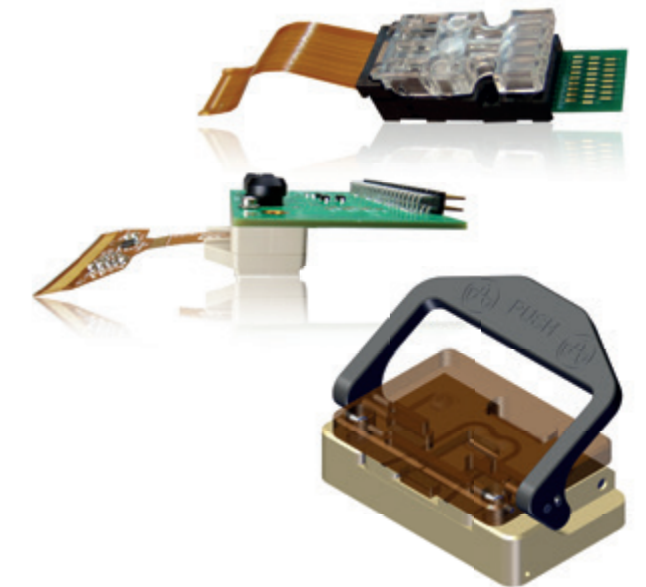
 INTERFACE SOLUTIONS

INTERFACE SOLUTIONS

Industrial Test Adapter: SODIMM, DIMM, Qseven, SMARC



FPC and FFC clip connectors and sockets



Automotive Test Adapter



Card Edge Connectors



YOUR ADVANTAGES

- Maximum yield in testing and flashing
- Reduced testing effort
- Less testing costs per module
- In-line volume test
- Impedance controlled

PCB SOLUTIONS



YOUR ADVANTAGES

- Consulting and development for all types of test applications
- Full turnkey solutions for qualification and final test
- Decades of experience in design
- Signal integrity & EMC analysis
- Fits your expectations

SPECIALITIES

High-Rel applications



Imaging Sensors/Cameras

Dockings for manual and automatic handling systems

YOUR ADVANTAGES

- Fits demanding high-rel requirements
- Economic and reliable test floor solutions
- Solve complex and sensitive test tasks
- Optimized test cost per DUT



EUROPEAN PRODUCT GUIDE

CONNECTOR SOLUTIONS

TEST SOLUTIONS

Version November 2020

TECHNICAL DATA ARE SUBJECT TO ALTERATION WITHOUT PRIOR NOTICE

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