Interconnect Technology & EMS

- Advanced assembly on organic and ceramic substrates
- Printed Circuit Boards and packaging substrates
- LTCC substrates
- Test services
MST Group has extensive experience in designing and manufacturing electronic modules for medical devices and other high-reliability applications. DYCONEX AG, an MST company located in Bassersdorf, Switzerland is an expert and technological leader in HDI/microvia substrates based on flex, rigid-flex and rigid technology.

Micro Systems Engineering GmbH, an MST company located in Berg, Germany is the leading European manufacturer of complex LTCC substrates and offers a wide variety of advanced assembly and semiconductor packaging processes on both ceramic and organic substrates.

Micro Systems Engineering, Inc, an MST company located in Lake Oswego, USA, offers services in the design of electronic modules and implantable devices combined with state-of-the-art SMD assembly and test, fully MES controlled.

**CAPABILITIES AND SERVICES**

**ADVANCED ASSEMBLY**
- Automated SMD assembly (incl. FC and CSP handling)
- Die attach technologies (adhesive, soldering and Eutectic AuSi)
- Wire bonding technologies (ultrasonic, thermosonic wedge/wedge, thermosonic ball/wedge)
- Die protection and encapsulation

**PRINTED CIRCUIT BOARDS AND CHIP PACKAGING SUBSTRADES**
- High-reliability HDI/microvia substrates in flex, rigid-flex and rigid technology
- High-frequency / high-temperature applications
- Microfluidic substrates
- Comprehensive range of base materials, constraining materials and surface finishes
- Enhanced features such as embedded passives, wrap-around, cavities, etc.
- Chip on flex (COF) and chip scale packaging (CSP) substrates

**LTCC SUBSTRADES**
- Integrated passive components (capacitors, inductors, resistors)
- Cavities and windows
- Brazing operations (metal plates, frames, pins)
- Mechanical processing (laser cutting, machining)

**TEST SERVICES**
A wide range of manufacturing tests, stress tests and other means of analysis is available to demonstrate the performance of components and sub-assemblies.

**QUALITY**
The quality system of the MST Group derives from the stringent requirements of life sustaining implants and assures 100% traceability of processes and materials.

**MICRO SYSTEMS TECHNOLOGIES**

Micro Systems Technologies Group (MST) comprises five technology companies providing innovative products and services for medical devices, especially implants, and other high-reliability/high-performance industries. The offering includes HDI/microvia PCBs, ceramic substrates, electronic module design and manufacturing, batteries and hermetic feedthroughs for medical implants, as well as catheter technology.

The MST Companies:
- DYCONEX AG
- LITRONIK Batterietechnologie GmbH
- Micro Systems Engineering GmbH
- Micro Systems Engineering, Inc.
- VascoMed GmbH

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