



Micro Systems Technologies
engineering for life

Assembly Technology

- Surface Mount Technology (SMT)
- Flip chip/CSP capability
- Die attach technologies
- Wire bonding
- Die protection, encapsulation



Assembly Technology

The MST Group is a leading specialist in the development and manufacture of electronic modules for active implants but also for other applications requiring exceptional performance and the highest level of reliability.

In addition to interconnect and semiconductor packaging technologies, the group covers all major board assembly technologies.

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 complete electronic modules combined with state-of-the-art SMD assembly and test, fully MES controlled.

CAPABILITIES AND SERVICES

SMT (Surface Mount Technology) and chip & wire technologies are available for the assembly of components like SMDs, BGAs, LGAs, CSPs, flip chips or bare dies on ceramic and organic substrates.

SURFACE MOUNT TECHNOLOGY (SMT)

- Automated SMD assembly lines with full MES control
- On any board material
- Various cleaning procedures available
- Flip chip/CSP (Chip Scale Package) capability

DIE ATTACH TECHNOLOGIES

- Gluing by epoxy printing, epoxy dispensing, pre-forms and stamping
- Soldering by solder printing, solder dispensing and pre-forms
- High precision die bonder can pick from wafers, wafer packs or gel-packs

WIRE BONDING

- Ultrasonic bonding for Al thin wires
- Thermosonic wedge/wedge bonding for Au thin and Au cold wires
- Thermosonic ball/wedge bonding for Au thin wires

DIE PROTECTION/ENCAPSULATION

- Glop top (temperature or UV curing)
- Underfill
- Junction coating
- Transfer molding
- Soldering or gluing for covers and lids

TEST SERVICES

In addition to a fully automated test handling system, with MES integration, for all electrical tests a wide range of in-process and final inspection procedures, stress tests and other means of analysis is available to demonstrate the performance of the electronic modules.

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) consists of four technology companies that provide innovative products and services for medical devices and other high-reliability/high-performance industries. The offering includes HDI/microvia PCBs, ceramic substrates, assembly and semiconductor packaging processes, electronic module design and manufacturing, as well as batteries and battery packs for medical implants.

The MST Companies:

DYCONEX AG

LITRONIK Batterietechnologie GmbH

Micro Systems Engineering GmbH

Micro Systems Engineering, Inc.



Micro Systems Technologies

engineering for life

Micro Systems Technologies

Neuhofstrasse 4

CH-6340 Baar, Switzerland

Phone +41 (44) 804 63 00

Micro Systems Technologies, Inc.

6024 SW Jean Road

Lake Oswego, OR 97035, USA

Phone +1 (503) 744 8900

Toll free 800 318 7672

sales.msti@mst.com

Micro Systems Technologies

Singapore Branch Office

10 Kallang Avenue #13-10/11/12

Aperia Tower 2

Singapore 339510

Phone +65 9681 3798

info@mst.com

www.mst.com