



Microbonds

## UTAC Selects X-Wire™ Technology for Volume Production

May 15, 2009 (SINGAPORE & TOKYO & TORONTO) --

**United Test and Assembly Center (UTAC), Tanaka Denshi Kogyo K.K.** and **Microbonds Inc.** (all privately held companies) are pleased to announce that UTAC has selected Tanaka X-Wire™ insulated wire bonding technology for volume production to enable advanced IC package assembly and material cost savings.

The continuous pace of advances in IC designs is pushing the limits of current packaging technologies as the industry continues to decrease geometries and costs while increasing functionality and interconnect densities. UTAC is an industry leader in successfully developing and implementing advanced IC assembly technologies, such as wire bonding, which features semiconductor chips inter-connected together in close proximity by ultra fine diameter interconnection wires. With traditional assembly technology, there is a risk that interconnection wires can touch and electrically cause a short circuit as more wires are incorporated into smaller geometries. However, using Tanaka X-Wire™ insulated bonding wires allows UTAC to connect more complex chips in dense arrangements using more flexible wiring routing than previous design rules permitted.

The breakthrough comes from a nano-scale insulation coating that is applied to bare bonding wires, called X-Wire™ technology, invented by Microbonds Inc (Toronto, Canada). UTAC performed extensive testing on devices assembled using 20um and 25um X-Wire™ gold based bonding wires produced by Tanaka Denshi Kogyo K.K. (Saga, Japan) who is a volume production licensee of the X-Wire™ Technology. The X-Wire™ devices passed key JEDEC packaging reliability test standards, as well as specific customer electrical performance test criteria and manufacturing capability tests.

"X-Wire™ allows us to leverage on existing production applications by reducing the gold wire diameter without the risk of short circuits. The flexibility provided by insulated bonding wire enables us to shorten the new package design cycle and assemble complex devices which

couldn't be considered before. X-Wire™ fits into the existing assembly infrastructure, requiring no capital cost outlay, which is an important economic factor for us", said Ms Regina Liew, Group Vice President for Supply Chain Management.

### **About United Test and Assembly Corporation**

United Test & Assembly Center Ltd ("UTAC") is a leading independent provider of test and assembly services for a wide range of semiconductor devices that includes memory, mixed signal/RF and logic integrated circuits. UTAC offers full turnkey services from wafer sort / laser repair, assembly, test, burn-in, mark-scan-pack, and drop shipment. As value-added services, UTAC also offers services such as package design and simulation, test solutions development and device characterization, failure analysis, and full reliability tests. The company's manufacturing facilities are fully certified under international standards such as ISO9001, ISO14001, TS16949 quality systems. For more information, see: <http://www.utacgroup.com>

### **About Tanaka**

Tanaka Kikinzoku is a global provider of precious metal materials, such as bonding wires and targets that support the production of semiconductor devices from wafer to assembly processing. Based in Tokyo, Japan, the company has been in business for over 100 years. Its products play a vital role in the industrial fields, such as energy conservation, environmental control, health care, electric and electronics, automobile, telecommunication and semiconductors. For more information, please visit: <http://www.tanaka-precious.com>

### **About Microbonds Inc.**

Microbonds Inc. is a pioneer in the development of insulated bonding wire technology for semiconductor packaging and devices. Founded in 1999, the company's approach is proven through testing with major IC companies and alliances with the industry supply chain. For more information, see: <http://www.microbonds.com>

X-Wire™ and X-Wire™ Technology are trademarks of Microbonds, Inc.

For More Information on This Press Release:

#### **UTAC:**

UTAC Group Corporate Communications:

Ms Josephine Lim, 65 64810033

media@utacgroup.com

or

#### **Tanaka:**

Tanaka Denshi Kogyo K.K.

Mr. Takeshi Inaba, +81-3-6311-5588

t-inaba@ml.tanaka.co.jp

or

#### **Microbonds:**

Microbonds

Mr. William Crockett, +1-408-504-4971

bcrockett@microbonds.com