



## FOR IMMEDIATE RELEASE

# Elpida, PTI, and UMC Partner on 3D IC Integration Development For Advanced Technologies Including 28nm

Cooperation focuses on Through-Silicon Via (TSV) to establish a total 3D IC Logic+DRAM integration solution

**Tokyo, Japan, May 30, 2011** – Elpida Memory Inc., Powertech Technology Inc. (PTI), and United Microelectronics Corporation (NYSE: UMC; TSE: 2303) ("UMC"), today announced that they have finalized the 3-way tie-up to deliver 3DIC integration technologies for advanced processes including 28 nanometer (nm). UMC and PTI engineers have already been working with Elpida on joint development of TSV products at Elpida's Hiroshima Plant. This collaboration leverages the strengths of Elpida's DRAM, PTI's assembly, and UMC's foundry logic technologies to develop a one-chip 3D IC Logic+DRAM integration solution.

Close integration of DRAM and Logic technologies using TSV (Through Silicon Via) technology is expected to deliver the performance required for the ongoing convergence of communication, consumer and computing (3C) applications with mobile and handheld electronics. The collaboration will facilitate the development of a total solution that includes Logic+DRAM interface design, TSV formation, wafer thinning, testing and chip stacking assembly for customers. The resulting technology is expected to increase cost competitiveness, improve logic yields, and accelerate entry into the 3D IC market.

#### **About Elpida**

Elpida Memory, Inc. (Tokyo: 6665) is a leading manufacturer of Dynamic Random Access Memory (DRAM) integrated circuits. The company's design, manufacturing and sales operations are backed by world class technological expertise. Its 300mm manufacturing facilities, consisting of its Hiroshima Plant and a Taiwan-based joint venture, Rexchip Electronics, utilize the most advanced manufacturing technologies available. Elpida's portfolio features such characteristics as high-density, high-speed, low power and small packaging profiles. The company provides DRAM solutions across a wide range of applications, including personal computers, servers, mobile devices and digital consumer electronics. More information can be found at http://www.elpida.com.

#### **About PTI**

Powertech Technology Inc. (PTI) was founded in 1997 and is the world's leading provider of IC backend services. The services cover IC chip probing, packaging and testing to end products with worldwide delivery.

Currently, PTI has over 5000 employees. With strategic alliances and continuous improvements, PTI provides reliable quality by implementing mainstream technology to fulfill the customers' demands through our world-class manufacturing plants in Hsinchu County, Taiwan.

With more than 50% compound average growth rate in the past 10 years, in 2008, PTI ranked number five among worldwide IC backend subcontractors and number one scale in memory device application. Shipping more than 260M units per month to customers worldwide, our customers are primarily first-tier integrated devices

manufacturers (IDM) or fabless companies, which highlights our excellent manufacturing capacity and capability. More information can be found at http://www.pti.com.tw.

#### **About UMC**

UMC (NYSE: UMC, TSE: 2303) is a leading global semiconductor foundry that provides advanced technology and manufacturing services for applications spanning every major sector of the IC industry. UMC's customer-driven foundry solutions allow chip designers to leverage the strength of the company's leading-edge processes, which include production proven 65nm, 45/40nm, mixed signal/RFCMOS, and a wide range of specialty technologies. Production is supported through 10 wafer manufacturing facilities that include two advanced 300mm fabs; Fab 12A in Taiwan and Singapore-based Fab 12i are both in volume production for a variety of customer products. The company employs approximately 13,000 people worldwide and has offices in Taiwan, Japan, Singapore, Europe, and the United States. UMC can be found on the web at http://www.umc.com.

#### **Note From UMC Concerning Forward-Looking Statements**

Some of the statements in the foregoing announcement are forward looking within the meaning of the U.S. Federal Securities laws, including statements about future outsourcing, wafer capacity, technologies, business relationships and market conditions. Investors are cautioned that actual events and results could differ materially from these statements as a result of a variety of factors, including conditions in the overall semiconductor market and economy; acceptance and demand for products from UMC; and technological and development risks.

Information in this news release is current as of the timing of the release, but may be revised later without notice.

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