

World's smallest RFID IC, the " μ -chip"
- Establishment of in-house venture company to promote RFID solutions -

Tokyo, June 28, 2001, -- Hitachi, Ltd. (TSE: 6501) today announced that it has developed the world's smallest RFID* integrated circuit chip called the " μ -chip", which is thin enough to be embedded in paper. An in-house venture company, "Mu-Solutions", will be formed on July 1, as a catalyst to form the value chains around this emerging technology. It will collaborate with both in-house business groups and outside companies to help expedite proliferation of the μ -chip.

The μ -chip is accessible wireless accessible and wireless at 2.45GHz, 0.4mm square, and thin enough to be embedded in paper. With the ID information being stored in ROM (Read-Only-Memory) during the manufacturing process, it provides high resistance to tampering. Its features in size, security and access will find useful applications in document management where a high level of security is needed and distribution management where efficiency is a must. The μ -chip will open up a new arena in electronic commerce in the era of global broadband communications in a wide range of industry including finance, distribution, manufacturing, sports, and entertainment. The μ -chip is a new addition to Hitachi's product line catering for the need of its existing customer-base which includes the worldwide smart-card industry.

To speed-up business development, an in-house venture company, "Mu-Solutions", will be established on July 1. By integrating components, systems, and solutions expertise from both within and outside the company, Hitachi hopes to create a market for this emerging technology and expand the business opportunities. Another way of looking at the venture is that it is an attempt to extract value from an intangible asset (IP) developed by its research laboratories with a minimized time-to-market allowance.

Features of the μ -chip

1. Integration of a 2.45GHz high-frequency analog circuit and a 128-bit ROM in an area of 0.4mm square silicon to form the world's smallest RFID.
2. High guarantee of authenticity by applying encryption technology to the 128 bit of identification information
3. Enabling electronic information on networks and information on paper or to be linked anywhere and anytime with assurance, thus making new services possible.

RFID* Radio-Frequency Identification

Hitachi, Ltd., headquartered in Tokyo, Japan, is one of the world's leading global electronics companies, with fiscal 2000 (ended March 31, 2001) consolidated sales of 8,416 billion yen (\$67.9 billion*) The company manufactures and markets a wide range of products, including computers, semiconductors, consumer products and power and industrial equipment. For more information on Hitachi, Ltd., please visit Hitachi's Web site at <http://global.hitachi.com>

* At an exchange rate of 124 yen to the dollar.