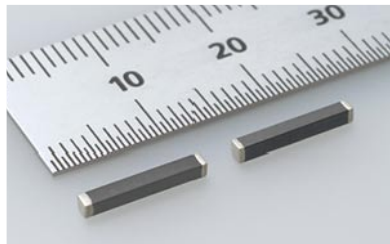November 21, 2005

Introducing the World's Smallest GPS Ceramic Chip Antenna
— *Ultra-Compact, Highly Efficient Ceramic Chip Antenna Achieved Through Unique Wire-Wound Configuration* —

Taiyo Yuden announced sale of the world's smallest ceramic chip antenna (11.0 x 1.6 x 1.6 mm) to be used in GPS devices mounted in cell phones (product name: AF116M157502). In developing the new product, Taiyo Yuden applied the ceramic chip antenna technology that was developed for Bluetooth® in June 2004. Using a unique configuration based on in-house production technology involving ceramic process and wire-winding technologies, Taiyo Yuden successfully developed the world's smallest GPS antenna for use in an increasing number of cell phones that also satisfies high efficiency characteristics.

Taiyo Yuden will commence mass production of the GPS ceramic chip antenna in December at the Tamamura Plant in Gunma prefecture, starting at one million units per month. Sample price is 300 yen per unit.

In the United States, incorporation of GPS or similar technology into cell phones and other mobile equipment is already required by law for purposes of improving emergency call responses and public safety. In Japan, as well, cell phone services utilizing GPS functions are now available, for their convenience in showing the best routes to a destination.

To avoid letting cell phones become too large, however, manufacturers insist on parts being made as small as possible. Furthermore, since GPS is to be used for risk control, high performance is another essential demand.

To achieve a compact, high-performance antenna, Taiyo Yuden developed an in-house production technology based on ceramic process and wire-winding technologies. The antenna conductor utilizes an ideal silver wire material of more than 99.9% purity, and a wire-wound structure, to achieve the world's smallest ultra-compact configuration. At the same time, antenna efficiency achieves a low loss of -1.1dB.

Taiyo Yuden plans to expand the antenna product lineup to other systems, as well.