



For Immediate Release

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TDK Develops World's Smallest* Thin-Film Band-Pass Filter for Mobile Devices

New 1005-size filter for Bluetooth and wireless LAN applications is just 0.3 mm thick

TOKYO JAPAN, September 29, 2008—TDK Corporation announced that it has developed a 1005-size thin-film band-pass filter that is just 0.3 mm thick, making it the world's smallest filter of its kind. The new filter is ideal for ensuring signal quality in wireless LAN for mobile phones, Bluetooth modules, Bluetooth-compatible headsets and other devices. Production will begin in January 2009 in Japan.

By refining the internal conductors and making the dielectric layers thinner, TDK successfully created a 1005-size, third-order band-pass filter with three resonators. TDK applied the thin-film technologies it developed through the manufacture of HDD magnetic heads, which are among TDK's leading products, to create a filter that is substantially low-profile and smaller than earlier 2012-sized products with just one-twelfth the volume. The filter is lead-free, suitable for mounting with lead-free solder and RoHS compliant.

In the past several years, mobile phones and other mobile communications devices have become increasingly advanced as they adopt functions, in addition to their core functions, including transmission of relatively large volumes of data such as graphics and mobile internet capabilities. Also, attractive hardware designs have become as important as function, and as demand for compact, lightweight, and easy to use devices rises, so does the need for compact, low-profile electronic components. There is also a need for further miniaturization of the electronic components used in the numerous modules that make up electronic devices.

As mobile communications devices become increasingly advanced and perform multiple functions, it is important that the signals required for communications functions be transmitted with low loss to achieve low power consumption and long component life and that unneeded signals are substantially attenuated.

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To respond to these market needs, TDK applied the cutting-edge thin-film technologies that it developed through HDD magnetic head manufacturing and formed thin-films of copper wiring, insulation material, and dielectric material on a ceramic substrate to create the world's smallest band-pass filter—a 1005-size (1.0 mm long by 0.5 mm wide) component that is just 0.3 mm thick. The new filter will be used primarily for ensuring signal quality in mobile phones, wireless LAN and Bluetooth¹ modules, Bluetooth headsets, and other devices.

Thin-film technologies, one of TDK's areas of expertise, are also used in the manufacture of thin-film common mode filters, which are used as noise countermeasure components for ensuring signal quality in high-speed data transmissions.

** As of September 2008, according to TDK investigations.*

¹ Bluetooth is a registered trademark owned by the Bluetooth SIG, Inc.

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About TDK:

TDK Corporation (NYSE: TDK), a leading global electronics company based in Japan, employs over 51,000 people worldwide. The company was established in 1935 to commercialize "ferrite," a key material in electronics and magnetics. TDK's current product line includes ferrite materials, electronic components, factory automation solutions, anechoic chambers & test systems, magnetic heads for hard disk drives (HDD) and power supplies. Net sales in FY08 were US\$8.7 billion. For more information on TDK products visit our website at www.TDK.com.