EMC components: World's smallest common-mode filter for high-speed interfaces

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TDK Corporation has developed the world’s smallest common-mode filter, which measures in at only 0.45 mm x 0.30 mm x 0.23 mm and is 75 percent smaller than current 0806 filters (IEC).

Besides its miniature dimensions, the new TCM0403S-350-2P thin-film common-mode filter offers excellent performance. With a high cutoff frequency of 7.0 GHz the filter suppresses common-mode noise without distorting high-speed differential signals. It is thus compatible with various high-speed interfaces such as MIPI, USB 2.0, and USB 3.0. The excellent common-mode attenuation at 2.4 GHz improves the wireless LAN reception sensitivity in smartphones, conventional mobile phones and other compact portable devices. Mass production will begin in July 2012.

The milestone in miniaturization was realized using TDK's leading-edge thin-film patterning technology combined with compact, high-precision coil pattern and terminal formation processes. Thanks to its much smaller footprint, the new filter supports the high-density mounting of electronic components and contributes to significant space-saving in electronic devices.

Provided by TDK Corporation