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COMPONENTS
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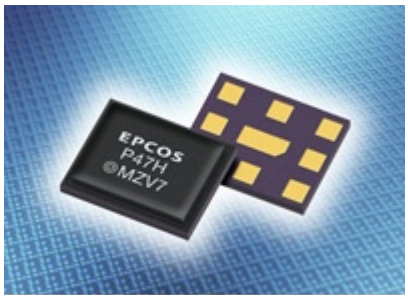

SAW components

November 2007

Production start for world's smallest UMTS duplexer

EPCOS is continuing to reduce the size of duplexers even further. The new duplexer for the WCDMA Bands V/VI, which features a footprint of just 2.5 x 2.0 mm² and an ultra-flat insertion height of 0.5 mm, has just entered series production. EPCOS will introduce duplexers in this latest size generation for all other current WCDMA bands over the coming months as its customers ramp up the production of corresponding mobile phones. Already today EPCOS is the only manufacturer able to produce the complete spectrum of duplexers for WCDMA in the compact SAW and BAW technology. "This enables us to provide our customers with the combined benefits of miniaturization and performance for all current bands from a single source," explains Dr. Werner Faber, Chief Technology Officer of EPCOS.

Duplexers are key components for the growth market of UMTS handsets. They combine a transmit and a receive filter in a single module and enable the transmit and receive paths to operate simultaneously, which is absolutely necessary for WCDMA systems. Moreover, duplexers enable co-banding, or the common use of one band in two different mobile telephone standards in one component. This is especially important for UMTS phones that also support the GSM standard.

Because the transmit and receive frequencies within a WCDMA band are extremely close together the filters in the duplexer must feature excellent electrical parameters, such as steep slopes. In addition to the proven SAW filters, BAW filters are also used. "Our comprehensive competence in both technologies gives us a clear design and process edge over the competition," emphasizes Dr. Faber. "This allows us to react much more flexibly to the requirements of our customers."