

Products & Technologies



SAW components

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First BAW-SAW duplexer worldwide

EPCOS is further expanding its leading market position in SAW components for mobile phones with a hybrid duplexer. The first prototypes of a combined BAW-SAW duplexer for W-CDMA Band II have now been completed. They combine the advantages of the BAW and SAW filter technologies in a single component, thus further increasing the benefit to the customer. Christian Block, Vice President und CTO of SAW Components, explains: "In contrast

to its competitors in the semiconductor industry, EPCOS can integrate both SAW and BAW functions together, thus offering customers the benefits of both technologies in a single component."

BAW technology allows the manufacture of frequency-selective filters and duplexers for applications in which conventional SAW technology comes up against its limits and can no longer meet the electrical specifications. Thanks to BAW technology, the high power compatibility and low insertion loss of microwave ceramic filters and the miniaturization potential of SAW filters can be combined in a single product. In contrast, SAW filters allow very simple impedance and signal conversion. EPCOS has now combined the strengths of both filter technologies for the first time into a single duplexer by using a BAW filter with high power compatibility for the transmit filter in combination with low temperature drift and a SAW filter for the receive filter. The new duplexer is well suited for mobile phone applications using W-CDMA Band II. The LS06 BAW-SAW hybrid duplexer has a footprint of just 3 x 2.5 mm² and an insertion height of 1.1 mm.