

Products & Technologies



SAW components

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Smallest duplexer for WCDMA Band VIII

EPCOS has developed the smallest duplexer for the WCDMA Band VIII. The duplexer is based on a SAW-SAW combination and measures in at only $3.0 \times 2.5 \times 1.1 \text{ mm}^3$. The product features very high isolation values with simultaneously low insertion losses of 1.7 dB in the Tx path and 2.0 dB in the Rx path. Thus, the amplifier stages before and after the duplexer can be designed to minimize power consumption in line with these low attenuation values, which in turn extends the standby times of mobile phones. A balun is additionally integrated in the Rx path for impedance matching and balancing from 50 to 100 Ω , making the duplexer compatible with all common chipsets.

Band VIII of the UMTS standard is now being introduced in Europe to augment Band I. The special advantage of Band VIII is based on its use of the relatively low bandwidths of 880 to 915 MHz in the Tx path and 925 to 960 MHz in the Rx path. UMTS phones and base stations equipped for Band VIII have ranges comparable with those of GSM systems. That means no additional base stations must be built to achieve required coverage.