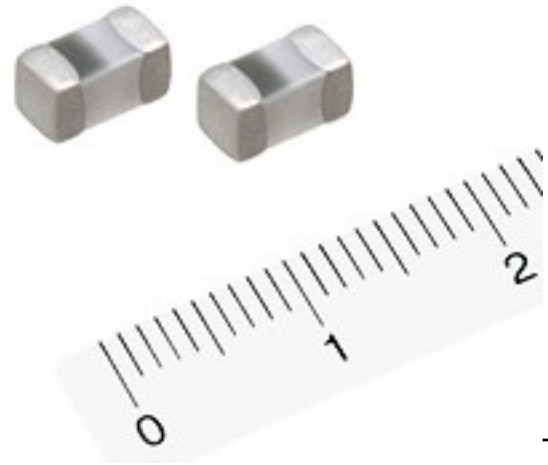
Multilayer Ceramic Coils Boast High Inductance



TDK-EPC, a group company of TDK Corporation, presents the TDK MLG0603S series of multilayer ceramic coils with what is presented as the world's highest inductance values. These 0603 inductors feature an inductance of up to 180 nH at 100 MHz. Mass production started in August 2011. To increase the inductance, TDK-EPC optimized the coil electrode design, and achieved a greater number of thinner layers through improvements in materials and process technologies. As a result, the existing lineup of products, which previously offered inductances up to100 nH, was expanded with the addition of six new components with inductances ranging from 110 to 180 nH.

The 0603S series lineup now includes 62 components (E24 series) with DC resistance values ranging from 0.1 to up to 8.5 ?, rated currents from 50 to 600 mA, and inductances from 0.3 to 180 nH. The ceramic coils have an operating temperature range of -55 to +125 °C and are designed for use in the RF circuits of mobile communications devices such as mobile phones and smartphones. They are also suitable for use in other RF signal circuits such as those found in Bluetooth devices.

Key data
Type MLG0603S
Inductance [nH] 0.3 to 180
Operating temperature range [°C] -55 to +125
DC resistance [?] 0.1 to 8.5 (max)
Rated current [mA] 50 to 600
Dimensions [mm] 0.6 x 0.3 x 0.3

Further information on the products can be found under www.tdk.co.jp/tefe02/e521_mlg.pdf [1].

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Links:
[1] http://www.tdk.co.jp/tefe02/e521_mlg.pdf