

# Multilayer ceramic coils with the highest inductance

August 26 2011

---



Inductance of 0603 components increased to up to 180 nH.

TDK-EPC, a group company of TDK Corporation, presents the TDK MLG0603S series of multilayer ceramic coils with 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 to 100 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  $\Omega$ , 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.

Provided by TDK Corporation

Citation: Multilayer ceramic coils with the highest inductance (2011, August 26) retrieved 22 June 2024 from <https://phys.org/news/2011-08-multilayer-ceramic-highest-inductance.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.