

## Inductors

### High efficiency thin-film power inductors for mobile devices

- DC resistance 12 percent lower than that of conventional products
- Rated current 4 percent higher than that of conventional products

May 28, 2019

TDK Corporation (TSE:6762) announces the development of a miniaturized thin-film power inductor in an IEC 2012 case size that can handle higher currents compared to conventional products. The low-profile TFM201208ALD power inductor measures in at 2.0 x 1.25 x 0.8 mm and is available with a rated inductance of 1.0  $\mu$ H.

Thanks to its reduced DC resistance of 79 m $\Omega$ , which is 12 percent lower than that of conventional products, the power inductor achieves low losses. Combined with improved DC superposition characteristics, the new power inductor features a rated current of 2.5 A, which is 4 percent higher than conventional products. As a result, the new power inductor helps to improve the power conversion efficiency of power circuits at high loads, especially in the power circuits of compact mobile devices such as smartphones and tablets. This, in turn, helps to maximize battery life, while maintaining the high functionality of the devices.

Mass production of the new TFM201208ALD thin-film power inductor started in May 2019. TDK will continue to expand its lineup of thin-film power inductors with miniaturized IEC 1608 types, and including automotive grade types.

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#### Main applications

- Power conversion circuits of compact mobile devices such as smartphones and tablets

#### Main features and benefits

- DC resistance 12 percent lower than that of conventional products
- Rated current of 2.5 A is 4 percent higher than that of conventional products

#### Key data

Type	Dimensions [mm]	Inductance [ $\mu$ H]	DC resistance [m $\Omega$ ] max.	Rated current * [A]
TFM201208ALD-1R0MTCA	2.0 x 1.25 x 0.8	1.0	79	2.5

\* Based on temperature increase of 40 K by self-heating

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## About TDK Corporation

TDK Corporation is a leading electronics company based in Tokyo, Japan. It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK's comprehensive portfolio features passive components such as ceramic, aluminum electrolytic and film capacitors, as well as magnetics, high-frequency, and piezo and protection devices. The product spectrum also includes sensors and sensor systems such as temperature and pressure, magnetic, and MEMS sensors. In addition, TDK provides power supplies and energy devices, magnetic heads and more. These products are marketed under the product brands TDK, EPCOS, InvenSense, Micronas, Tronics and TDK-Lambda. TDK focuses on demanding markets in the areas of information and communication technology and automotive, industrial and consumer electronics. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2019, TDK posted total sales of USD 12.5 billion and employed about 105,000 people worldwide.

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Further information on the products can be found under [https://product.tdk.com/info/en/catalog/datasheets/inductor\\_commercial\\_power\\_tfm201208ald\\_en.pdf](https://product.tdk.com/info/en/catalog/datasheets/inductor_commercial_power_tfm201208ald_en.pdf).

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