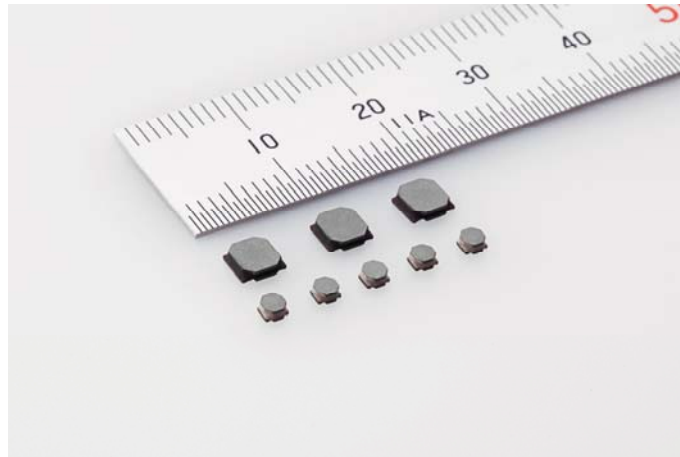


For immediate release

## **TAIYO YUDEN Develops Automotive Metal Power Inductors MCOIL™**

*AEC-Q200 Qualified Products for Automotive Electrical Devices and the Industrial Equipment Market*



TOKYO, September 5, 2013 – TAIYO YUDEN CO., LTD. has developed two new series of its metal power inductors MCOIL™ by adding high-reliability categories to MDMK2020 (2.0 x 2.0 x 1.2mm) and MDMK4040 (4.0 x 4.0 x 1.2mm.) The height value indicated for both products is the maximum value and has been developed in response to the strong demand from the automotive electrical devices and the industrial equipment market.

These products are power inductors for choke coil applications in the power supply circuits of automotive electrical devices such as telematics and communication infrastructure such as base station communication devices, as well as industrial equipment such as factory automation equipment, industrial robots, and M2M devices. Each product has undergone evaluation tests corresponding to AEC-Q200, a reliability testing standard for automotive electronic parts.

Samples for these products have been available since July 2013 at the company's Nakanojo plant (Nakanojo, Gunma prefecture), and production shall commence from October 2013. The sample price is 100 yen per unit.

### **Technology Background**

In the recent years, more and more vehicles are being equipped with functions that were not seen in the past such as telematics. This has resulted in an increase in the number of ECUs (Electronic Control Unit) mounted for control of each function and the installation of several electronic components with highly efficient power supply circuits in order to improve energy-saving performance. The electronic components installed in industrial equipment, similar to vehicle equipment discussed above, are required to have high reliability such as high temperature operation, long life, and a high quality.

To this end, TAIYO YUDEN has been working toward expansion of its metal power inductor MCOIL™ product line-up that has been highly evaluated for use in consumer products such as smartphones. As compared to the general metal composite material, the metallic magnetic material used in MCOIL™ does not include an organic binder and has a high permeability and insulation property. This makes it suitable for use at high temperatures, thus satisfying the needs of a high-reliability market.

We have added an AEC-Q200 qualified product line-up with a usage temperature range of -40°C to 125°C to the metal power inductors MCOIL™. In addition to this, we will continue to sequentially expand the line-up of products in order to meet the demands from the high-reliability market for products that can withstand temperatures up to 150°C, including automobiles.

Moreover, in order to meet rapidly increasing demands, we will be accelerating the increased production plan of the metal power inductor MCOIL™ series from September 2013, and we have achieved production rates of a total of 300 million units per month. By the end of March 2014, the production rate is expected to increase to 400 million units.

\*“MCOIL” is a registered trademark or trademark of TAIYO YUDEN CO., LTD. used both for Japan and other countries.

**These products will be exhibited in the TAIYO YUDEN booth at “CEATEC JAPAN 2013” to be held at the Makuhari Messe (Mihama-ku, Chiba-City, Chiba Prefecture) from the 1st of October of this year.**

#### ■Application

Choke coil applications in the power supply circuits of automotive electrical devices such as infotainment systems and body, comfort, etc., communication infrastructure such as base station communication devices, as well as industrial equipment such as factory automation equipment, industrial robots, and M2M devices.

[Main characteristics of the high-reliability metal power inductor MCOIL™ products]

High-reliability MDMK2020 series

P a r t N u m b e r: MDMK2020T \*\*\*MM V

(\*\*\* is the nominal inductance value.)

N o m i n a l i n d u c t a n c e: 0.47 μH to 4.7 μH

Standard external dimensions: 2.0 ± 0.15 × 2.0 ± 0.15 × Height 1.2 mm

(The height value is the maximum value.)

R a t e d c u r r e n t ( t y p ): 1050 mA to 2450 mA

High-reliability MDMK4040 series

P a r t N u m b e r: MDMK4040T \*\*\*MF V

(\*\*\* is the nominal inductance value.)

N o m i n a l i n d u c t a n c e: 0.47 μH to 2.2 μH

Standard external dimensions: 4.0 ± 0.2 × 4.0 ± 0.2 × Height 1.2 mm

(The height value is the maximum value.)

R a t e d c u r r e n t ( t y p ): 2900 mA to 5400 mA

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[Inquiries about AEC-Q200 qualified products]

Our AEC-Q200 qualified products constitute a product line that has been tested based on the test conditions and methods of AEC-Q200. Please consult with us for the detail information and available AEC-Q200 test data. It is requested to approve our product specifications before ordering.

TAIYO YUDEN CO., LTD. Product Inquiries <http://www.yuden.co.jp/cs/contact/>