

For Immediate Release

TAIYO YUDEN Expands Its Lineup of the EIA 01005 Size High Frequency Multilayer High-Q Chip Inductor

Achieving the Highest Inductance Value in the World for the Same Size, and Accelerating Substitution from the EIA 0201 Size



TOKYO, June 24, 2014 - TAIYO YUDEN CO., LTD. announced today the addition of three new products to its EIA 01005 size high frequency multilayer High-Q chip inductor “HKQ0402” (0.4 x 0.2 x 0.2mm), and expanded the lineup of inductance values in the same comparable size up to 47 nH, which is the highest value in the world for this size product.

This product provides critical solutions for impedance matching applications and choke coil applications used in high frequency circuits of small and thin digital devices, such as smartphones, tablet devices, and wearable devices.

TAIYO YUDEN has applied its state of the art proprietary technologies using its sophistication in areas such as fine line forming technology, magnetic circuit simulation technology, and multilayer technology, and has realized the most suitable pattern formation to achieve the highest inductance value in the world in the EIA 01005 size ultra-compact shape.

Production will commence at Chuki Seiki Co., Ltd. in Japan’s Wakayama prefecture from June 2014. The sample price is 10 yen per unit.

Technology Background

In small and thin digital devices such as smartphones and tablet devices, multiband is being further promoted to support various communication standards and frequency bandwidths for each country throughout the world, and this requires mounting of an impedance matching circuit for each band corresponding to these communication standards. This requirement added to the increasing size of batteries, thinning of devices and with an increased number of components for the RF front end has driven requirements for electronic components to be much smaller in size. TAIYO YUDEN solutions address the need for small digital devices typified by wearable devices by providing leading-edge ultra-small electronic components.

As we continue to lead the market place and address specific market needs, TAIYO YUDEN has added three items to the “HKQ0402” with the current inductance values ranging from 0.5 nH to 27 nH, and has expanded its lineup up to 47 nH. As a result of this abundant lineup of 53 items in the entire “HKQ0402” product group, the proposed substitution from the EIA 0201 size has been accelerated.

TAIYO YUDEN remains committed to providing products that meet market needs. We will continue to expand the product line-up of the HKQ0402, and focus our efforts on the development of super high-end products.

■ Application

For impedance matching applications and choke coil applications for high frequency circuits of small and thin digital devices, such as smartphones, tablet devices and wearable devices.

The main characteristics of the EIA 01005 size high frequency multilayer high-Q chip inductor released this time are as follows (three models):

Ordering code	Inductance [nH]	Tolerance	Q (typical) Frequency [Hz]					Self-resonant frequency [MHz]	DC resistance [Ω]	Rated current [mA]
			500M	800M	1.8G	2.0G	2.4G	min.	max.	max.
HKQ0402 33N	33	±3%	11	13	14	13	-	1700	3.80	110
HKQ0402 39N	39		11	13	12	-	-	1500	4.50	100
HKQ0402 47N	47	±5%	11	12	9	-	-	1200	5.00	100