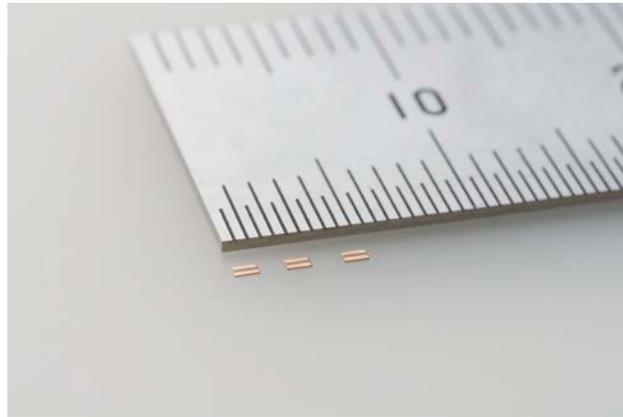


For immediate release

TAIYO YUDEN Develops Low-Profile 0.064-mm Multilayer Ceramic Capacitor

Low-profile and low-ESL structure for improved performance of 5G smartphones



TOKYO, July 9, 2019 — TAIYO YUDEN CO., LTD. announced today the commercialization of the AWC105BJ224M6, low-profile multilayer ceramic capacitor (0.6 × 1.0 × 0.064 mm, maximum height).

This multilayer ceramic capacitor is ideal for devices that are required to be thin, such as smartphones and wearables, for decoupling the IC power supply lines inside the devices. It has achieved not only a low profile of 0.064 mm, but also a low ESL thanks to the external electrodes placed lengthwise. This product is suitable for decoupling ICs in smartphones that have become faster and more sophisticated.

Production of the multilayer ceramic capacitors commenced at the company's Tamamura Plant (Tamamura-machi, Sawa-gun, Gunma Prefecture, Japan) in June 2019, with a reference price of 20 yen per unit.

Technology Background

Multilayer ceramic capacitors are placed near IC devices mounted in a smartphone or wearable device for the purpose of decoupling. With the trend toward thinner devices, improved functionality, and larger battery size, the mounting area available for parts is shrinking. In addition to reducing the size of electronic parts, there is a need for increasing the mounting density, such as mounting low-profile parts inside or at the back of the IC package, rather than the conventional method of mounting parts on the substrate. In addition, with the sophistication of smartphones in line with the start of fifth-generation mobile communications (5G) services, the operating speeds of embedded ICs have been increasing. To ensure stable operation of these ICs, low-ESL decoupling capacitors need to be placed around them.

To address this market need, TAIYO YUDEN has improved its conventional thin film technology and arranged the external electrodes lengthwise in the AWC105BJ224M6, which offers a low profile of 0.064 mm and low ESL.

We will continue to actively develop low-profile multilayer ceramic capacitors to reduce the profile and increase the capacitance, including tin plated products for surface mounting.

■Applications

For decoupling IC power supply lines in devices that are required to be thin, such as smartphones and wearables

■Characteristics

Part number	Rated voltage	Temperature characteristics	Rated capacitance	Capacitance tolerance	Length [mm]	Width [mm]	Thickness [mm]
AWC105BJ224M6	4V	X5R	0.22 μ F	\pm 20%	0.6 \pm 0.04	1.0 \pm 0.04	0.054 \pm 0.01