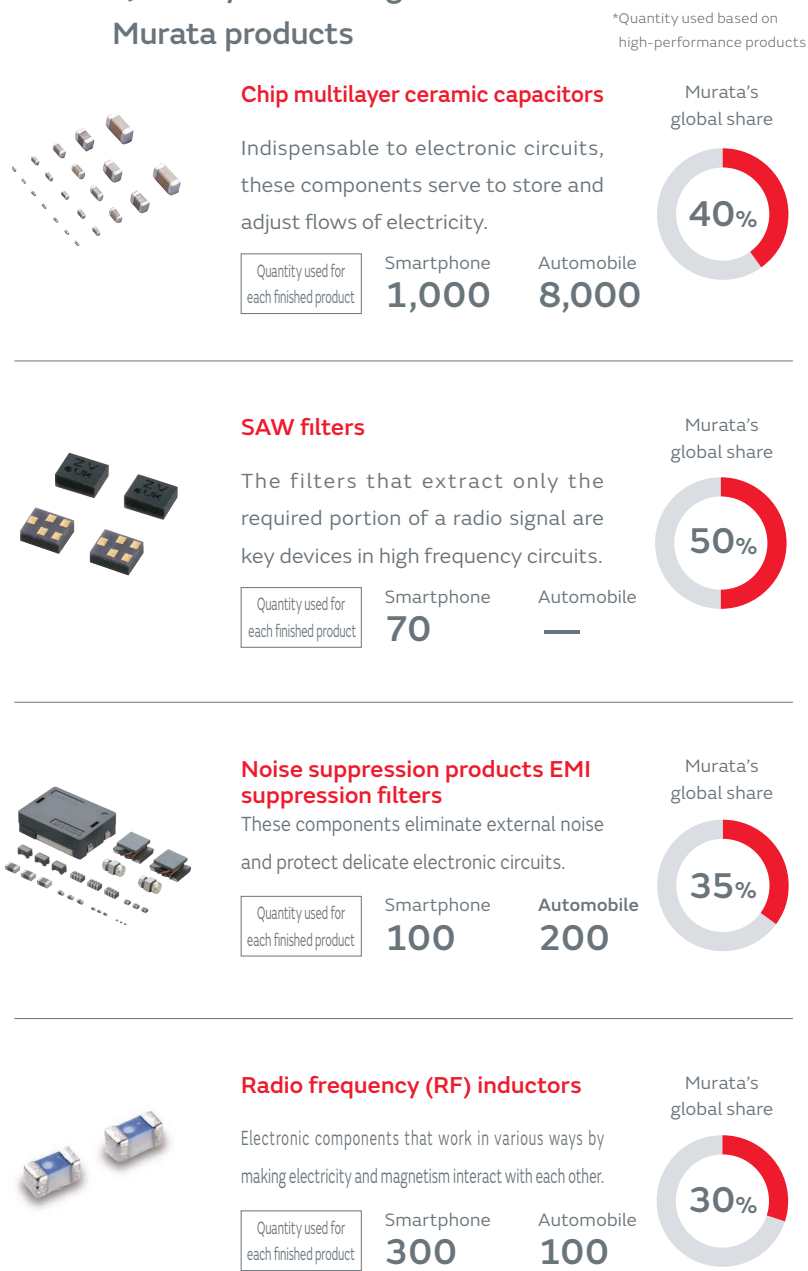


Murata products

Murata electronic components contribute to enriching people's lives through their use in all sorts of electronic devices in everyday life, including televisions, PCs, and smartphones. Murata will also continue offering new value as an innovator in the growing electronics fields such as automobiles with mobility features and electric based propulsion energy, IoT, healthcare and medical.

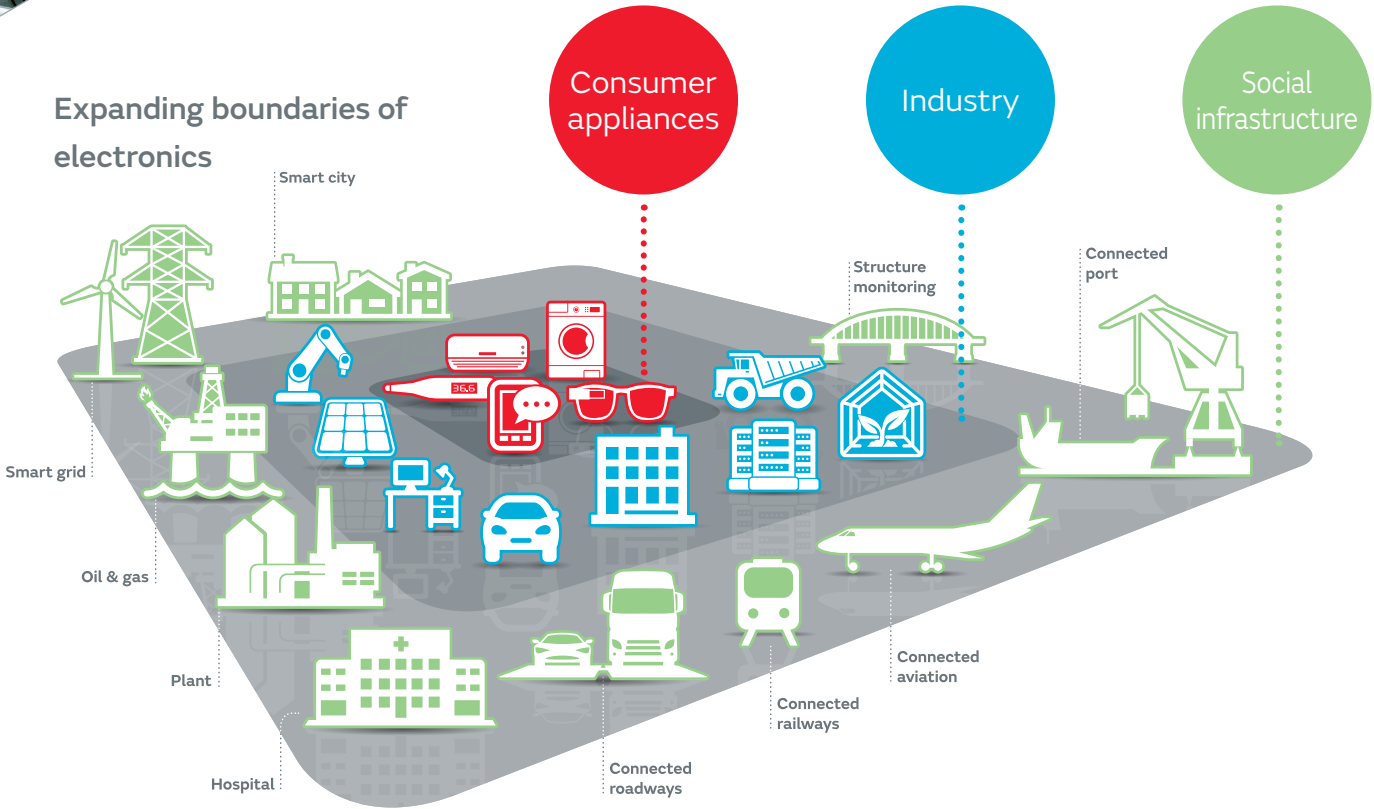
Quantity used and global share of Murata products



Murata products supporting the evolution of electronics

Murata electronic components have supported the evolution of devices through miniaturization and increased functionality. For example, approximately 1,000 capacitors, a mainstay Murata product, are used in a single smart phone, and approximately 8,000 are used in a single automobile.

Expanding boundaries of electronics



New challenges

Development of the world's first fabric with antimicrobial performance through the power of electricity
~ Creating a better environment through the development of a plant-derived fabric that emits electricity ~

Murata Manufacturing Co., Ltd. and Teijin Frontier Co., Ltd. have jointly developed the world's first piezoelectric fabric "PIECLEX" that generates electrical energy and exhibits antimicrobial performance when motion is applied. PIECLEX fabric is a new energy utilization technology that realizes antimicrobial performance by converting motions such as human movement into electrical energy by combining Murata Manufacturing Co., Ltd.'s piezoelectric technology cultivated through development and manufacture of electronic components with Teijin Frontier Co., Ltd.'s fabric technology, which spans from yarns and materials to product manufacturing. PIECLEX uses plant-

derived polylactic acid as its raw material and uses a carbon-neutral, earth-friendly material. In addition, PIECLEX fabric generates electricity by using the expansion and contraction of the fabric produced by human movement or other motions. This enables antimicrobial and deodorant functions without using chemical agents or organic solvents, helping to reduce the environmental load. We will continue to contribute to the realization of a sustainable society through the ongoing development of new technologies.
(For more information on Murata's technological development, please see p.52.)

