“The rate of component obsolescence has increased over the last 15 years”, says Steve Hopwood, Senior Application Engineer at Knowles Precision Devices (KPD). “Component manufacturers are discontinuing more part numbers per year for a variety of reasons, including manufacturing changes, changes in die dimensions and other technology changes.”

The increase in the number of EOL notices over the last 17 years can also be attributed to government regulations, economic slowdowns and catastrophic events such as earthquakes and severe floods that knocked out some electronics production. This increase impacts some industries more than others. Industries with short product lifecycles, such as smart phones, are not impacted as much as industries with longer lifecycles such as defense and aerospace, medical and industrial equipment. Products in those industries can be built for 20 or more years and outlast the lifecycles of some of the components that the products use.

For example, a lot of manufacturers have stopped producing 3-terminal MLC chips in the 1806 size, but KPD haven’t. In fact, due to demand from OEMs, they still support 0805, 1206 and 1812 case sizes in addition to the 1806 variant.

Under the Syfer brand, KPD’s E01 and E07 ranges are 3 terminal chip devices of feedthrough MLCC chip ‘C’ filters. They are designed to offer reduced inductance compared to conventional MLCCs when used in signal line filtering. The filtered signal passes through the chip internal electrodes and the noise is filtered to the grounded side contacts, resulting in reduced length noise transmission paths.
Available in C0G/NP0 and X7R dielectrics, with current ratings of 300mA, 1A, 2A, 3A and voltage ratings of 25Vdc to 200Vdc. They are also available with FlexiCap™ termination which is strongly recommended for new designs to reduce the chances of mechanical stress failure of these 3-terminal devices. FlexiCap, the first flexible MLCC termination on the market, allows these parts to meet the demanding requirements of the automotive industry and, for this application, a range qualified to AEC-Q200 is available.

KPD also offer feedthrough MLCC, 3 terminal chip devices, in a Pi filter configuration.

Ends

Note: Dielectric Laboratories (DLI), Novacap, Syfer Technology and Voltronics came together to form a single organisation, Knowles Precision Devices – they have now been joined by Johanson Manufacturing and Compex. This entity has a combined history exceeding 200 years and is a division of Knowles Corporation of USA, an independent publicly traded company.