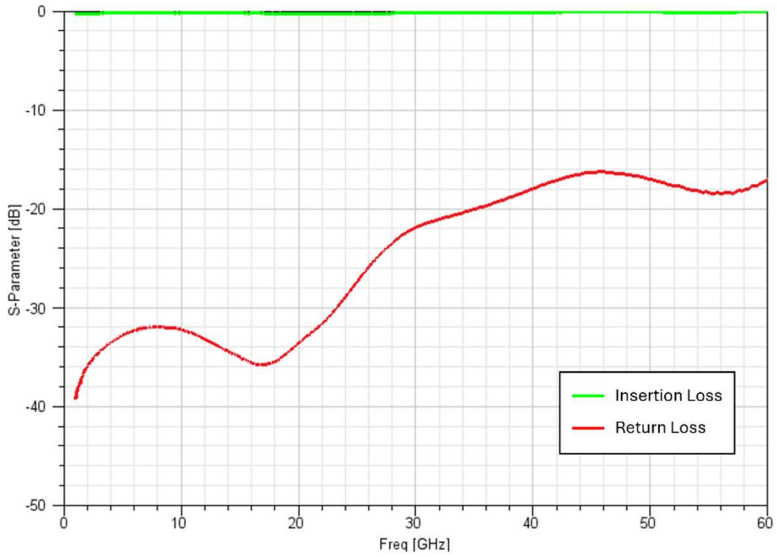
Introducing Elohim’s New Product: Silicon Coupling Capacitor with High Capacitance Density for High Frequency Application

Elohim unveils another revolutionary achievement in high-frequency electronic devices with their latest development of a high-density silicon coupling capacitor. This breakthrough innovation combines high capacitance with a compact form factor, catering to the demand for miniaturized coupling capacitor solutions operating up to 60 GHz. Built on Elohim's legacy of pioneering semiconductor passive devices and the success of their decoupling capacitors, this advancement exemplifies their commitment to pushing the boundaries of innovation in the industry.

Elohim's high-density silicon coupling capacitor offers remarkable features optimized for high-frequency applications. With a capacitance range of up to 100 nF for a compact size of 0.6 mm x 0.3 mm (or 220 nF for dimensions of 1.2 mm x 0.7 mm), it demonstrates exceptional performance. This includes low insertion loss of under 1 dB and a return loss exceeding 15 dB across the frequency range up to 60 GHz. These specifications ensure optimal signal integrity, making it ideal for demanding high-frequency environments.



[Insertion and return loss of Elohim coupling capacitor]

This advanced silicon coupling capacitor surpasses traditional MLCC capacitors in several aspects, including its smaller footprint, superior performance, thermal and voltage stability, and significantly enhanced reliability. Elohim's capacitor offers better signal integrity and higher capacitance density, making it an ideal choice for space-constrained applications where performance cannot be compromised. As a result, it finds application in specific areas such as wireless communication, radar systems, optical transport networks (OTN), and high-speed data transmission. Elohim is committed to advancing the integration of coupling capacitors into a wide range of electronic systems, providing comprehensive solutions for high-frequency circuitry.

In the future, Elohim plans to integrate silicon coupling and decoupling capacitors to enhance functionality and performance in high-frequency applications. They are actively developing new technologies to further improve the performance and capabilities of their coupling capacitors. This includes enhancing the frequency range, integrating additional functionalities, and exploring new applications across various industries.

With this groundbreaking development, Elohim is positioned to empower the next generation of high-frequency electronics and make significant contributions to advancements across various industries. Their relentless pursuit of innovation pushes the boundaries of what's possible in semiconductor technology, paving the way for transformative solutions in the ever-evolving landscape of electronics.