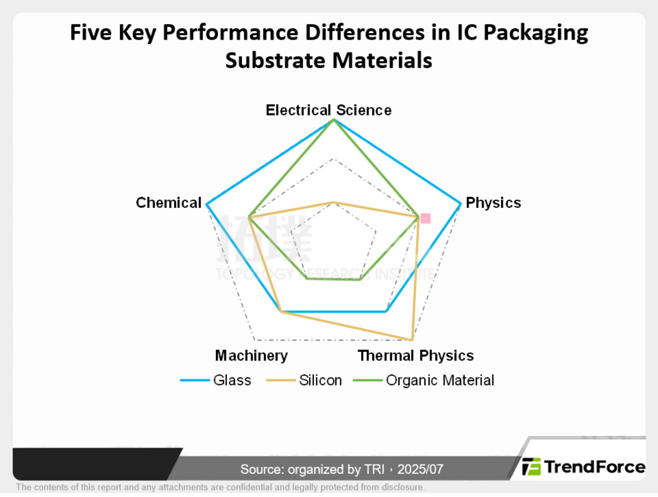
IC Manufacturing、Package & Test

Jul , 2025

TGV Technology Breakthrough: Glass Substrates Spearhead Innovations in CoWoS, CPO, and FOPLP

Topology Research Institute

Glass substrates are emerging as a highly promising solution in advanced semiconductor packaging with recent breakthroughs in Through-Glass Via (TGV) technology. They are poised to drive innovation in CoWoS, CPO, and FOPLP technologies. Leveraging superior high-frequency performance, low coefficient of thermal expansion (CTE), and excellent dimensional stability, glass substrates significantly enhance I/O density and signal integrity. This makes them particularly well-suited for large interposers, multi-layer stacking, and high-frequency RF applications. As major players such as Intel，Samsung and TSMC actively invest in the development and adoption of glass substrates, the widespread application of TGV technology is set to profoundly accelerate the advancement of cutting-edge packaging technologies.



Five Key Performance Differences in IC Packaging Substrate Materials

Source: organized by TRI，2025/07

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