Abstracts

RF W-band wafer-to-wafer transition (Apr. 2001, Part I [T-MTT]

K.J. Herrick and L.P.B. Katehi. "RF W-band wafer-to-wafer transition." 2001 Transactions on Microwave Theory and Techniques 49.4 (Apr. 2001, Part I [T-MTT]): 600-608.

Multiwafer silicon designs must provide an avenue for electrical signals to flow from wafer to wafer. For this purpose, a two-layer electrical bond is proposed to provide electrical connection between two coplanar waveguides printed on the adjacent faces of two vertically stacked silicon wafers. In addition to serving as a versatile low-temperature thermocompression wafer bond, loss of approximately 0.1 dB is measured for this novel compact packaged wafer-to-wafer transition from 75 to 110 GHz.

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