

# Abstracts

## A GHz-Band Ceramic Multi-Layer Substrate and its Application to a Hybrid IC

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*Y. Taguchi, K. Miyauchi, K. Eda and T. Ishida. "A GHz-Band Ceramic Multi-Layer Substrate and its Application to a Hybrid IC." 1993 MTT-S International Microwave Symposium Digest 93.3 (1993 Vol. III [MWSYM]): 1325-1328.*

A novel ceramic multi-layer substrate for mobile communication using alumina-glass composite ceramics and co-fired copper conductors are presented. Electrical characteristics in GHz frequencies of the substrate, copper conductor, transmission line, and via hole were evaluated. Hybrid integrated circuits such as an antenna switch were also demonstrated using the substrate. The results showed that the ceramic multi-layer substrate had good electrical characteristics enough for GHz-band applications. Using the ceramic multi-layer substrates, one can drastically reduce the size of RF circuit boards for mobile communication equipment.

[Return to main document.](#)