

Ceramic technology for integrated packaging for wireless

D. Amey, P. Barnwell, R. Brown, F. Gaughan, S. Horowitz, A. London, R. Novak, D. Slutz and D. Wilcox. "Ceramic technology for integrated packaging for wireless." 1999 Radio Frequency Integrated Circuits (RFIC) Symposium 99. (1999 [RFIC]): 63-66.

The dramatic increase in the application of microwave technologies due to the growth in wireless communications has created many challenges for interconnect and packaging technologies. The majority of wireless equipment has used conventional printed circuit board technologies, with some extension in their capabilities to handle the frequencies required. However, it is becoming increasingly clear that such technologies do not address all the technical and commercial needs of the market. Specific issues relate to the RF performance of circuits due to limitations in polymer materials and the cost of the circuits due to the high number of passive components required. This paper describes ceramic technology solutions which provide benefits in enhanced performance and lower cost. It also highlights the ability of ceramic technology to perform at the higher frequencies required for evolving wide bandwidth personal communication systems.

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