

PHOTOIMAGEABLE THICK-FILM MICROWAVE STRUCTURES UP TO 18 GHz

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ABSTRACT

The increasing interest in new wireless applications is creating demand for low cost, high performance microwave hybrid circuits. Offering the inherent advantages of thick-film technology such as low manufacturing costs and feasibility for mass production, recent improvements in thick film materials and processing techniques broadens the frequency range where ceramic thick-film circuits can be used and allow current thick-film technology to reach beyond its previous limitations and enter the domain reserved in the past for thin film technology. This paper discusses the advanced thick-film technique called photoimageable thick-film technology that uses photosensitive conductor and dielectric pastes and photoimaging as a method of patterning for manufacturing microwave hybrids operating in the frequency range up to 18 GHz.