

## 내장형 수동소자의 제조를 위한 포토 이미징 후막리소그라피 기술

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### **Photo-imageable Thick-Film Lithography Technology for Embedded Passives Fabrication**

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**Abstract** : Photo-imageable thick-film lithography technology was developed for the fabrication of embedded passives such as inductors and capacitors. In this study, photo-imageable dielectric and conductor pastes have adopted a negative type. Sodalime glass wafer, alumina substrate and zero-shrinkage LTCC green tapes were used as substrates. In result, The lithographic patterns were designed as lines and spaces for conductor material, or via-holes for ceramic, LTCC, materials. The scattering and reflection of UV-beam on the substrate had negative effects on fine patterning. The patterning performance was varied with the exposing and developing process conditions, and also varied with the substrate materials. Fine resolution of less than 50/50 $\mu\text{m}$  in line and space was obtained, which is difficult in screen printing method.

**Key Words** : thick-film lithography, photosensitive paste, micro-patterning, photoimageable.