

## IDC 패턴에 따른 BST 전기적 특성

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### Electrical Characterization of BST Thin Film by IDC pattern

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**Abstract :** This paper reports on electrical characterization by IDC pattern using BST( $\text{Ba}_{0.5}\text{Sr}_{0.5}\text{TiO}_3$ ) thin film. BST thin films have been deposited on  $\text{Al}_2\text{O}_3$  Substrates by Nd-YAG pulsed laser deposition with a 355nm wavelength at 700 °C. The post deposition annealing at 750°C in flowing  $\text{O}_2$  atmosphere for 1 hours. The capacitance of IDC patterns have been measured from 1 to 10 GHz as a function fo electric field ( $\pm 40$  KV/cm) at room temperature using interdiigitated Au electrodes deposited on top of BST. The IDC patterns have three type of fingers number. For the finger paris was increased onto  $\text{Al}_2\text{O}_3$ , the capacitance increased . The capacitance of 5 pairs finger was 0.3pF and 10 pairs finger was 0.9pF.

**Key Words :** BST, Inter-digital Capacitor(IDC), PLD