

# SILICON NITRIDE METALLIZATION

Silicon Nitride ( $\text{Si}_3\text{N}_4$ ) is an emerging material for electronics due to its high strength (800 MPa), matching CTE to Si and SiGe ( $2.8 \times 10^{-6}/^\circ\text{C}$ ) and good thermal conductivity (45 W/m•K).

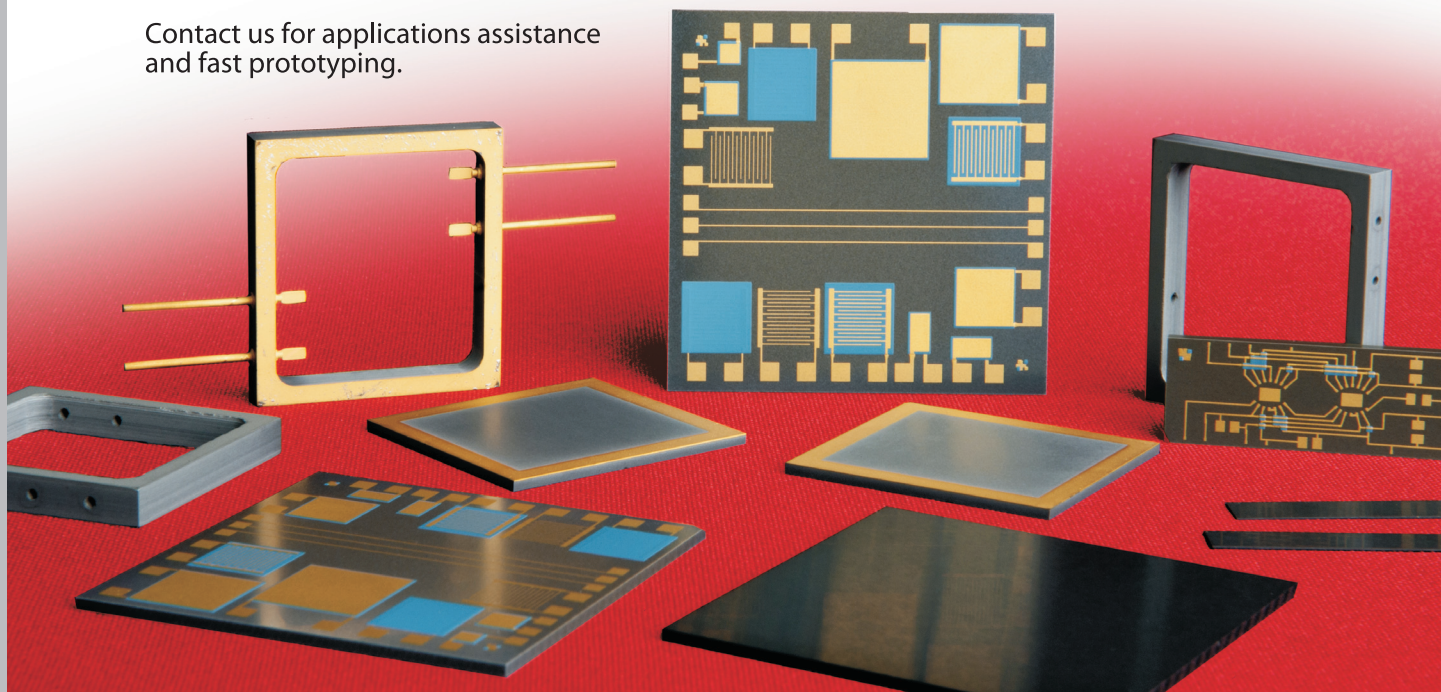
Developing reliable metallization systems for Silicon Nitride requires ongoing materials research. Sienna Technologies, Inc. has made substantial efforts under both in-house and government funded programs and made significant advances in developing high performance metallization technologies for Silicon Nitride substrates. Sienna Technologies offers  $\text{Si}_3\text{N}_4$  substrates with a number of thick film metallizations.

## Available Metallizations:

- Thick Film Conductor Gold, Silver and Silver/Platinum
- Thick film Dielectric
- Thick Film Resistors
- Hermetic Brazing
- Active Metal Brazing
- Glass Sealing
- Sizes up to 4x4 inch are available

Sienna's technical team is ready to help you implement Silicon Nitride in your next generation of products.

Contact us for applications assistance and fast prototyping.



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TECHNOLOGIES Inc.®  
providing solutions through advanced materials