

THICK FILM CUSTOM NETWORKS

STATE OF THE ART INC

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INTRODUCTION

For over 20 years, State of the Art has provided a variety of thick film custom conductor, resistor, and resistor-capacitor networks for unique design applications. From artwork generation to packaging, SOTA has the in-house capabilities and experience to ensure a cost effective implementation of your design requirements. The capabilities and materials available for custom thick film networks are summarized below. If your specific requirement is not addressed, please contact our engineering department for more information.

CAPABILITIES

Complete manufacturing, engineering, and support services are provided at our State College, Pennsylvania facility. These capabilities include:

- ARTWORK GENERATION & SCREEN FABRICATION
- CO₂ LASER SCRIBING & MACHINING
- DIAMOND SAWING
- LASER & AIR ABRASIVE TRIMMING
- METALLIZED HOLES, SLOTS, WRAPAROUNDS
- CROSSOVERS
- DOUBLE-SIDED DESIGNS
- Ni, SnPb, Au ELECTROPLATING
- COMPONENT MOUNTING (such as capacitors)
- ENCAPSULATION, MARKING
- HIGH RELIABILITY SCREENING



MATERIALS

The materials listed below have been carefully selected for quality, reliability, and cost effectiveness. All materials are thoroughly tested in our quality control laboratory prior to release for production.

SUBSTRATE TYPES

ALUMINA CERAMIC (96% Al₂O₃):
10, 12, 15, 20, 25, 40 mils thick standard
Sizes to 4 x 4 inches

RESISTORS

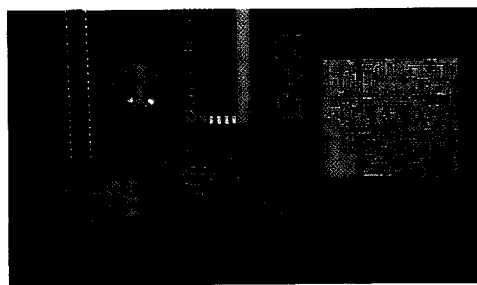
1Ω/SQUARE TO 10MΩ/SQUARE
TCRs TO ±100 PPM
TOLERANCES TO 0.5%

CONDUCTORS

SILVER
PLATINUM/SILVER
PALLADIUM/SILVER
GOLD
PLATINUM/GOLD

DIELECTRICS

CROSSOVER DIELECTRICS
GLASS OVERGLAZES
POLYMER OVERCOATS



Computer aided drafting ensures efficient, cost effective development of custom network schematics and layouts.

