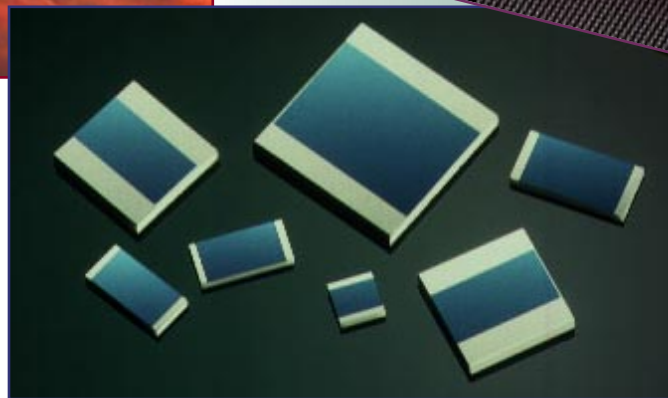


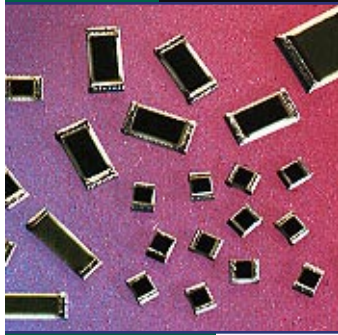


State of the Art, Inc.

# High Reliability Thick & Thin Film Resistive Products



# SOTA... THE PROVEN SOURCE FOR THE WORLD'S HIGHEST RELIABILITY RESISTIVE PRODUCTS

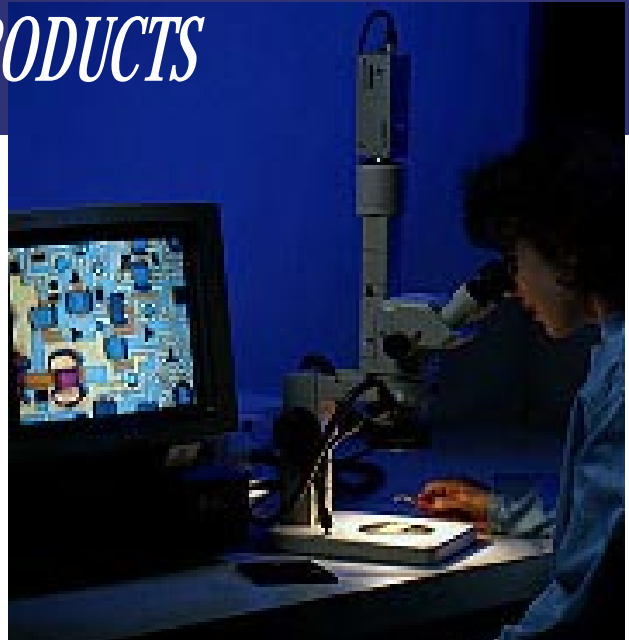


Established in 1969, State of the Art, Inc. (SOTA) provides resistive products for the most demanding and unforgiving environments, ranging from mission-critical military/aerospace applications, to advanced medical electronics. We remain totally committed to the special needs of the high reliability marketplace.

Today, SOTA remains the only company in the world qualified to the U.S. military's "S" Level life failure rate, and is Mil-qualified for a broader range of chip resistors than any other manufacturer.

And we combine that unique quality position with the production capacity to meet your volume needs.

Life testing of MIL-PRF-55342 chip resistors.



Visual Inspection.

## QUALITY

Quality drives the SOTA corporate philosophy and ensures our unique position as the *highest* reliability chip resistor manufacturer in the world.

- An established reliability level for MIL-PRF-55342 chip resistors *ten times* better than any other manufacturer (failure rate of 0.001%/1,000 hours)
- Exclusive MIL-PRF-914 surface mount resistor network qualification
- Hi-Rel testing for space and biomedical applications - including burn-in, life testing, environmental screening, and 100% visual inspection
- Extensive material qualification and testing programs
- Comprehensive Statistical Process Control, continuous improvement philosophies and ESD programs
- ISO 9001 registered

SOTA  
ISO 9001  
REGISTERED

# PRODUCTS

## Thick Film

### Chip Resistors

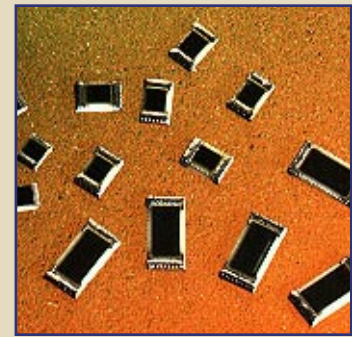
- 19 sizes for military, aerospace, medical and microwave applications
- Solderable, epoxy and wire bondable terminations
- MIL-PRF-55342 qualified to "S" Level
- Low value 4 terminal resistors (0.02 to 1.0Ω)
- High value resistors (100M to 100G)
- Power moisture resistors (DSCC 94012-94026)
- Space level resistors (M55342 "T" Level)

### Surface Mount Resistor Networks

- Two standard JEDEC, two standard leadless SOIC sizes
- MIL-PRF-914 qualified to "M" Level
- Custom designs (including R/C networks) and testing

### Custom Products

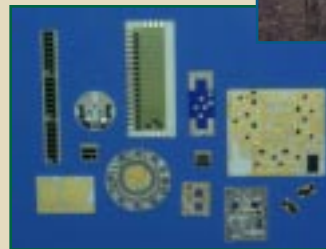
- Chip attenuators and terminations
- High power resistors (4W to 200W)
- Zero ohm jumpers, untrimmed resistors
- Custom conductor, resistor and R/C networks



High reliability, surface mount chip resistors.

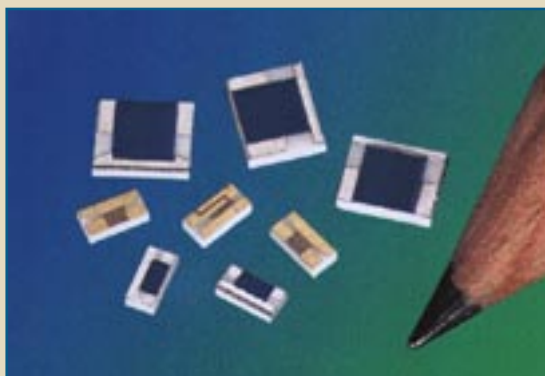


Above:  
Microwave terminations.



At left:  
Custom networks.

Below:  
MIL-PRF-914 resistor networks.



High reliability, thin film chip attenuators.

## Thin Film

### Chip Resistors

- 13 sizes for military, aerospace, medical and microwave applications
- Alumina and silicon, 0.1% tolerance, 25 PPM TCR
- Solderable, epoxy and wire bondable terminations
- MIL-PRF-55342 qualified to "R" Level
- Silicon back contact and multi-tap resistors
- Power moisture resistors (DSCC 94012-94026)
- Space level resistors (M55342 "T" Level)

### Surface Mount Resistor Networks

- Two standard JEDEC sizes, hermetic/non-hermetic
- Custom designs and testing (e.g., burn-in, power moisture testing, etc.)

### Custom Products

- Custom etched circuits
- Metallized substrates
- Chip attenuators and terminations
- High power resistors (4W to 200W)

Product packaging.





# MANUFACTURING

SOTA backs its extraordinary quality commitment with the manufacturing muscle to deliver parts in virtually any quantity you require. Extensive automation, innovative and flexible manufacturing techniques, and a stable, well trained workforce combine to allow the efficient production of both large and small quantities of product.

- Vertical integration for manufacturing flexibility and control
- High volume capability/small volume expertise
- Custom manufacturing for networks and chip resistors
- Computerized lot tracking and customer requirement system

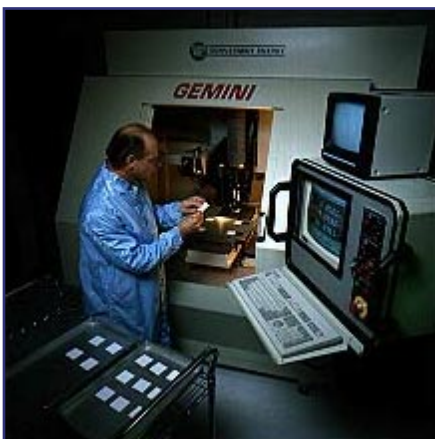


*Thin Film  
Photolithography.*

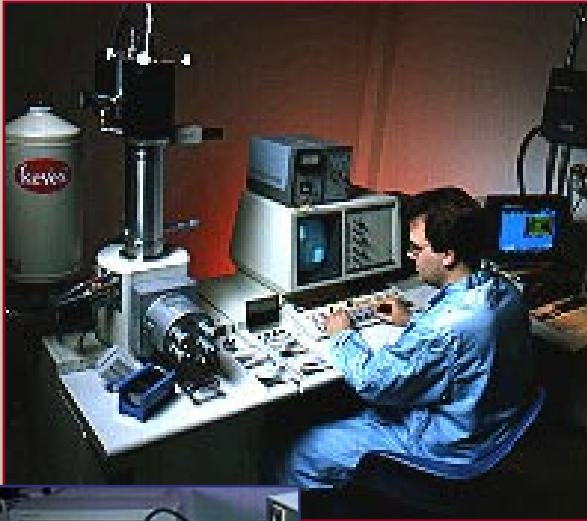
*CO2 Laser Machining.*



*From top:  
Thin Film Sputter Deposition, Thick Film Firing,  
Screen Printing, Laser Trimming.*



# ENGINEERING



An engineering-driven company, SOTA boasts an advanced Engineering Center and staff that support design, development, and manufacturing of our high reliability resistive products. The Engineering Center includes a library, CAD system, prototype lab, failure analysis lab and a conference facility.

- Process engineering
- Product development
- Custom design
- Application engineering
- Failure analysis
- Product reliability assessment

*S.E.M.*



*Electrical Measurement.*



*CAD System and  
Artwork Generation.*



*High Frequency Measurement.*



From the friendly voice that greets your call, to the quality product, packaging and paperwork that you receive from SOTA, you know that you are more than just another customer. We are dedicated to providing products that meet your demanding requirements, and service that exceeds your expectations.



- More than 50 million parts in stock
- Complete pre- and post-sale technical support
- Personalized service
- Worldwide representatives
- Detailed quotes with accurate delivery information
- On-line information available at [www.resistor.com](http://www.resistor.com)

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# CUSTOMER SERVICE