

# Trusted Assembly and Test Services

Fact Sheet

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## TRUSTED ACCREDITATION

Aeroflex Colorado Springs received Category 1A Trusted Accreditation by the Defense Microelectronics Activity as a Microelectronics Trusted Source for DoD and all other U.S. government users. The scope of accreditation includes:

- Design, Packaging /Assembly, Test and Aggregation/ Brokering of multi-project-wafers into Trusted Foundries.

### Aeroflex offers:

- Trusted foundry access with ASIC Design Services for radiation hardened and non-hardened program applications
  - IBM - 0.25 $\mu$ m, 180nm, 130n, 90nm
  - National Semiconductor - 0.25 $\mu$ m, 180nm
  - Other Trusted Foundries as they become available
- One stop solution for your integrated assembly, evaluation, test and screening requirements
- Quick-turn capabilities available
- QML Q and QML V flows, MIL-PRF-38535 compliant, ISO-9001 certified
- Element evaluation
- Certified known good die program available
- Value-added services such as radiation testing, secure testing and COTS/commercial upscreening
- Class 100, 2600 sq. ft. Clean Room
- Analytical and DPA services

## SPECIALIZED SERVICES

- ❑ Customer Furnished Tooling - Aeroflex has experience in assembling customer originated die, packages, test and screening requirements into a smooth, seamless high quality process.
- ❑ Radiation Testing - With over 15 years in the radiation-hardened IC arena, Aeroflex is experienced in the testing and characterization of ICs for space applications. Equipment includes:
  - JL Shepherd Irradiation System
  - Aracor X-Ray (wafer level irradiation)
- ❑ Secure Testing - Aeroflex has tested parts in a secure environment for classified programs for over 10 years. The facility and employees have the necessary clearances and the proper training.

- ❑ COTS/Commercial Upscreening - Aeroflex's experience in the high-reliability marketplace allows us to perform additional testing and burn-in to your commercial parts to meet customized military requirements.
- ❑ Space Qualified Assembly Services - Aeroflex is a DSCC certified QML V manufacturer of space qualified ICs.

## PRODUCTION CAPABILITIES

Aeroflex can provide a complete solution for your integrated assembly, evaluation, test and screening requirements.

- ❑ Assembly
  - Wafer Backgrind
  - Wafer Saw
  - Assembly and Wirebond
    - State-of-the art wirebonding; 60 mil pitch available
  - Hermetic packages available
    - LCC, PGA, QFP, DIP, FP, Multi-chip modules
  - Solder Dip -- Meets MIL-STD-883, Method 2003
  - Mark
    - Custom marking including serialization. Meets MIL-STD-883, Method 2015
  - Internal Visual
    - Meets MIL-STD-883, Method 2010, Cond A or B
- ❑ Burn-In Services
  - Static/Dynamic Burn-in
  - Accelerated Life Test
- ❑ Electrical Test
  - Wafer Level DC Parametrics
  - Memory, Logic and Analog IC Testing
  - Wafer Probe and Package IC Testing
  - High and Low Temperature IC Testing
  - Teradyne Testers
- ❑ Environmental Test
  - Hermeticity
    - Meets MIL-STD-883, Method 1014, Cond A1, A2, C3
  - PIND
    - Meets MIL-STD-883, Method 2020, Cond A, B
  - Centrifuge
    - Meets MIL-STD-883, Method 2001, Cond A, B, C, D, or E
  - Temp Cycle
    - Meets MIL-STD-883, Method 1010, Cond A, B, C, D or F
  - Mechanical Shock and Variable Vibration
    - Meets MIL-STD-883, Method 2007
- ❑ Failure Analysis diagnostic capability the transistor level.
  - EDS, SEM, E-Beam, DPA

# *Aeroflex Colorado Springs - Datasheet Definition*

**Advanced Datasheet - Product In Development**

**Preliminary Datasheet - Shipping Prototype**

**Datasheet - Shipping QML & Reduced Hi-Rel**

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Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused