

Trusted COTS Program

Sandia National Laboratories' has developed the knowledge, processes, and infrastructure so that COTS components can be used in high reliability systems while meeting performance requirements, cost constraints and managing risk

Benefits

- Ability to quickly react to the changing market place.
- Provides a strategy for meeting performance requirements and controlling costs.
- Enables rapid response system design and production processes.
- Mitigates the risk of new threats from intentional compromise.

COTS Utilization for High Reliability Systems

Today, system affordability and state-of-the-art performance are driving component requirements while the current economic environment and global supply chain are increasingly vulnerable to counterfeit parts and adversarial threats.

Low cost, readily available COTS electronic components allow the use of the latest technology, and provide flexibility in dealing with design changes, testing problems, and production issues.

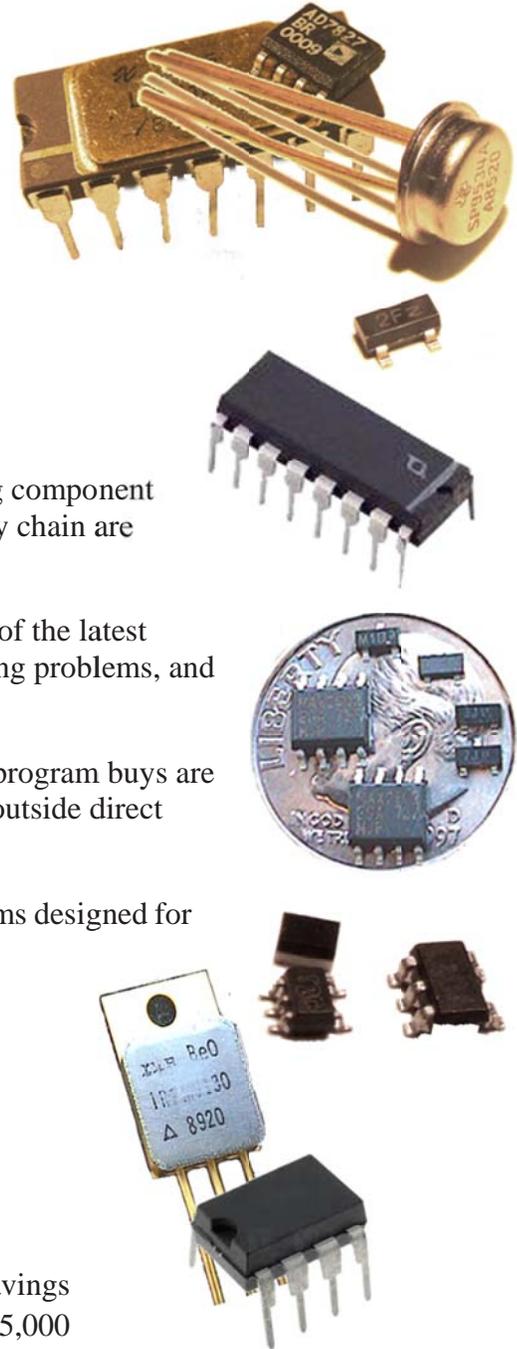
Anonymity, rapid procurements from appropriate suppliers, and life of program buys are key strategies for preserving trust in an electronics supply chain that is outside direct control.

Sandia has developed processes for using COTS in high reliability systems designed for hostile environments and long term dormant storage (>20 years).

These processes are designed to ensure that the components procured

- are of the highest quality available
- meet the high reliability performance requirements
- have not been counterfeited or altered by an adversary

The first high reliability system application was in July 2007 with over 3 million trusted COTS parts put into stores (342 part types) and a cost savings of \$35M. To date the COTS failure rate is only 63 PPM in more than 335,000 parts in assemblies.



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