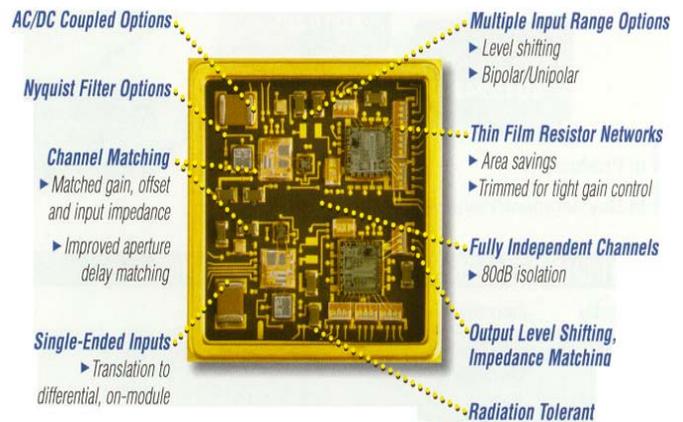




# Commercial Satellite Class T Grade Multi-Chip Modules

Commercial Satellite Class-T Grade Multi-Chip-Modules is another industry first from Analog Devices. ADI's Multi-Chip-Module product-line recently achieved MIL-PRF-38535 Class-T Hybrid Microcircuit certification through the Defense Supply Center in Columbus Ohio. As of this writing, ADI is the first and only supplier providing Class-T Grade Multi-Chip Module component standardization through Standard Microcircuit Drawings (SMDs). SMD parts promote cost containment by spreading small quantity procurements across multiple customers and multiple applications. The Class-T Grade Multi-Chip-Modules process flow was developed specifically for commercial space applications where cost is a major consideration. Cost control is achieved through MIL-PRF-38535 by allowing manufacturers the flexibility to implement best commercial practices while still providing products that meet aerospace performance requirements. Analog Devices offers a broad range of industry-leading signal processing components, products and solutions. The Multi-Chip-Module line of products combines Analog Devices industry leading monolithic devices into integrated solutions.

Analog Devices' integrated solutions are much more than the sum of the monolithic devices. For example, SMD part number 5962R0151901TXA is *more* than two monolithic analog-to-digital converters. The 5962R0151901TXA is a complete dual channel converter with on-module signal conditioning for improved dynamic performance and fully matched channel-to-channel performance. By performing full test and characterization on this level design, much higher performance can be guaranteed than when designing a PCB with highly guard-banded individual component specifications, and lower performing technology.



ADI achieved DESC MIL-STD-1772 Certification in 1986 and has a long history of providing highly integrated subsystems for industrial, military and aerospace applications. ADI Greensboro is unique in that we hold both MIL-PRF-38535 and MIL-PRF-38534 QML certifications. We have the option to process Multi-Chip-Modules under either MIL-PRF-38535 or MIL-PRF-38534 product flows if appropriate. The ADI DSCC approved Class-T process flow and supporting documentation is available upon request. Class-T Grade Multi-Chip-Module products are designed for the highest level of dynamic performance and harsh environmental conditions taking into account the application requirements of our customers. Class-T Multi-Chip-Modules are required when your product must survive in a rugged environment and your tolerance for failure is extremely low. Total dose irradiation testing is performed on complete module assemblies (as opposed to individual component testing) in accordance with MIL-PRF-38535. Class-T processes and material are qualified to the highest level. Components are 100% screened both environmentally and electrically to ensure data sheet performance with the delivery of each device.

The Multi-Chip Products Group is focused on providing integrated solutions to our customers. Our 30+ years of design experience includes Linear, Digital and Mixed-Signal modules with a product portfolio that includes ADCs, DACs, signal-conditioning solutions, Multiprocessor DSPs, Synchro-to-Digital Converters, and many other signal processing subsystems. ADI's broad line of signal processing IC solutions are combined with high-performance, high-density module interconnect technologies to address complex subsystem design needs. The Multi-Chip Products Group is a defense/aerospace focused product/technology development group with standard products which match customer application life cycles (10-12 year life with applications support).

We hope this Class-T product overview provides additional options for your design choices, and a better understanding of the additional value that ADI's Multi-Chip-Modules may bring to your system. We welcome the opportunity to review your requirements. For more information contact the Multi-Chip Products Group at (336) 668-9511.