

APPLICATION NOTE

www.ittcannon.com**Mil-DTL 38999 Space Grade****July 2009**

The Challenge

Mil-DTL 38999 class G connectors are designed to meet the Thermal Vacuum Outgassing requirements of Mil-DTL 38999. The requirements are “all non-metallic materials shall not release greater than 1.0 % total mass loss (TML) and .1% collected volatile condensable mass (CVCM)”. ITT Cannon has manufactured space grade connectors for many years but has never qualified their product to Mil-DTL 38999. Certain materials used in the manufacture of ITT Cannon Mil-DTL 38999 products do not meet the class G requirements.



The ITT Solution ...

ITT Cannon utilizes a special potting and lubricant material to meet the TML and CVCM requirements of Mil-DTL 38999. Outgassing of the connectors is achieved by baking at 350 degrees for 48 hours. The result is a low cost Space Grade connector that meets the class G requirements of Mil-DTL 38999.

Product Features

- Lightweight aluminum shells and copper alloy contacts
- Variety of layouts as described in Mil Standard 1560
- Offering the shell styles currently provided with the standard product line
- Operating temperature of -65 deg C to 200 deg C
- Durability of 500 mating cycles
- Available in series I, II, and III

Benefits to Customer

- Low cost space grade connector system
- Proven track record for reliability. High quality product
- Military qualified
- Meets the performance requirements of Mil-DTL 38999
- High density requirements
- Distribution inventory position
- Standard M39029 contacts utilized



For application assistance, please contact:

AMERICAS

James Yoshitake, +1.714.628.2182, james.yoshitake@itt.com

EUROPE

Nick.Bailey, +44.1256.311512, nick.bailey@itt.com

ASIA

Teddy Chan, +852-2589.5830, teddy.chan@itt.com