



## Space Flight RF Cable Assemblies

## **UTiFLEX Semi-Rigid, Multiport Harnesses**

Micro-Coax has supplied high-reliability RF coaxial cable assemblies, flexible and semi-rigid, for space flight applications - earth orbit and beyond, manned and unmanned missions - for over three decades. With robust Micro-Coax connector designs tailored to the Micro-Coax cable creating an optimized cable assembly, our extensive track record in providing microwave transmission line products means you can partner with us to deliver proven solutions against your most demanding space flight technical challenges to include operating frequency through V-band, Power Handling (CW, Multipactor, Ionization), PIM, Radiation, Thermal Vacuum, and Cryogenic operation to name a few. The Micro-Coax product has been qualified to many program-specific requirements and can be supplied against NASA EEE-INST-0002 and ESCC 3408.





The most popular product lines for space flight cable are the UTiFLEX MCJ type constructions incorporating KEVLAR® based metalized fibers called ARACON®. This ultralight, stronger than steel material provides tremendous opportunities for weight savings without a sacrifice in performance over conventional coaxial cable. These lighter coaxial cables, with the lowest loss per gram of mass, are a critical component to reduce launch costs or increase payload capacity for many satellite customers.

Micro-Coax's capabilities and experience allow our customers to make sure they have both a reliable and affordable solution that works every time and mitigates program risk.

## **Features**

- Space-rated Materials
- · Pre and Post Assembly Thermal Conditioning
- · Burr free components and plating quality checks exceeding industry standards
- · Degolding per NASA-STD-8739.3 and J-STD-
- · Real Time X-ray
- 100% Test and Inspection of Electrical and Mechanical Requirements



## **Benefits**

- All materials verified to <1% TML and <0.1% CVCM outgassing and restrict typical prohibited</li>
- · Stress relief of materials guaranteeing stable and repeatable RF performance throughput the life
- · Eliminates the risk of contamination during mating and integration
- Degolding per NASA-STD-8739.3 and J-STD-001ES
- 100% Test and Inspection of Electrical and Mechanical Requirements
- Verifies proper connector to cable termination, solder fill, and solder workmanship to the stringent
- · Allows for receipt and integration of the cable assembly without additional quality checks













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