DIAMOND
Fiber Optic Components

QUALITY GRADES

Diamond connectors have a rich, proven space heritage. This fact notwithstanding, there are currently no established, recognized definitions of "space-qualified" fiber optic connector assemblies.

Diamond AVIM and Mini-AVIM connectors are being subjected to an evaluation and qualification program under ESA/ESTEC supervision. Upon successful completion (anticipated Q2 2013), a Qualification Report with test results will be published. The qualification procedure will thereafter be used to define "space-qualified" parts.

In the interim, Diamond AVIM and Mini-AVIM connectors are actively under consideration for a number of flight applications. Until qualification and screening standards for "space-qualified" products are finalized, Diamond supplies AVIM and Mini-AVIM components under two Quality Grades as detailed below.
"Space Grade" components are subjected to additional screening and documentation steps. **It is not purported that components delivered to this grade are "space-qualified"**.

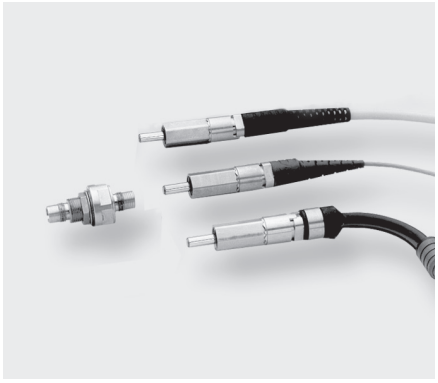
Diamond is equipped with an internationally-accredited test and measurement laboratory, and can develop customer-specific qualification plans. Our company is also actively involved with corporate and governmental entities worldwide to promulgate international standards for space-qualified fiber optic connector and related components.

PERFORMANCES

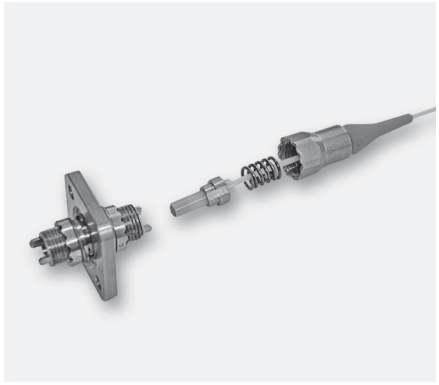
Commercial Grade	• Standard termination and manufacturing processes. • Performance as specified on standard component data sheets.
Space Grade	• Laser-engraved serialization of all parts for traceability. • Selected materials and processes for extended temperature range. (-55°C to +85°C for Mini-AVIM; -55°C to +125°C for AVIM.) • Accelerated aging of fibers and cables • Process Specification Document (PSD) • Production Survey. • Lot Screening Test Report, containing: – Initial Interferometric end face geometry measurements – Initial Optical measurements (IL, ER, RL) – Temperature cycling test results – Vibration test results – Final Optical measurements (IL, ER, RL) – Final Interferometric endface geometry measurements • Special cleaning and packaging: – Ferrule and end face cleaning – End face visual inspection – Protective cap mounting – Airflow cleaning – Cleaning of fiber/cable with isopropyl alcohol and wipes – Packaging of parts in dry nitrogen, double-sealed.

Space assemblies

AVIM, Mini-AVIM



AVIM connectors



Mini-AVIM connector

DIAMOND SA • Via dei Patrizi 5 • CH-6616 Losone - Switzerland
Tel. +41 91 785 45 45 • Fax +41 91 785 45 00 • e-mail info@diamond-fo.com
www.diamond-fo.com

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