LEONI offers solutions for

- Spacecraft (i.e. satellites and vehicles) with cabin, antenna, power, actuation and motion control
- Ground systems with mission control, testing laboratories and communications

LEONI is your preferred partner when it comes to the best connection for ground or flight devices. As a cable manufacturer and system supplier, LEONI offers standard and customised copper and fiber optic interconnect solutions.

Plant certification

DIN ISO 9100 / DIN ISO 9001
DIN ISO 14001 / DIN ISO 50001

Into space with LEONI

Business Unit Telecommunication Systems
Our services
round off LEONI’s portfolio for space applications

**Harness engineering**
- Design and specification in the development phase
  - Harness flattening / creation of 2D product drawings
  - Revision control and variant management in compliance with scalable design
  - Take over of legacy data and subsequent documentation
  - Configuration management, i.e. of harness data reports for production or verification
  - BOM-preparation for production

**Build-to-Print**
- Production and assembling in-house on basis of 2D product drawings
  - Work processes and employee certification:
    - 100% traceability with batch number storage
    - Crimping in accordance with ESA ECSS-Q-70-26
    - Soldering in accordance with ESA ECSS-Q-70-08
    - ESA Cat. 1 trainer
    - Human factor training

**Testing**
- In-house*
  - Micro sectioning lab
  - High frequency measuring lab
  - Final inspection including protocolled retention test for space

  - At the customer’s*
    - Time-domain reflectometry (TDR)

  *also testing of non-LEONI cables and harnesses
Our experience
gained from your aerospace missions

Assemblies
High performance assemblies for flight and ground applications
- For data transmissions up to 10 Gbit/s
- Ground assemblies with proper plug design (e.g. SFP+)

Harnesses
Customised ground & flight harnesses withstanding vibrations and shocks
- Conforming standard and customer specifications
- Made in Germany
- 100% tested before leaving our production
- Including subsequent documentation of production and verification for flight harnesses

Space cables
Lightweight space cables for reliable power, data and signal transmission
- According or similar to ESCC
- Polyimide-tape or extruded PFA jacket
- Operating temperature -200 to +200 °C
- Low frequency up to 600V
- Colour coding
- Shielded or not shielded
- Hybrid and customised versions available
- With different numbers of cores
- AWG 32 to 12
Reliable optical switches for function or ignition control, as well as multiplexing of spectroscopic procedures

- Short switching times
- High-performance materials (e.g. titanium housing)
- In accordance with Telcordia GR-1073-Core
- Easy integration with flexible interfaces RS232, USB I²; TTL, Ethernet
- Wide spectral range
- Low power consumption
- High reliability and long life performance
- Highly customisable

Radiation-resistant silica fibers (standard & special/individual) for safe operation in space

- Non-circular shaped core
- Polymide coating / jacket
- Radiation and UV resistant
- Solarisation-stable
- Made in Germany
- Also available as high performance assemblies (e.g. multi leg bundles resistant to vacuum, temperature, vibration and shock effects)

RF cables & assemblies for ground microwave applications

- Conforming to: DIN, VDE, EN, IEC, CSA
- 50, 75, 100 & 120 Ohm
- Outer jacket material: PE, PVC, FRNC, FEP
- Multicoaxial and customised versions available

LEONI space products provide

- Resistance to extreme temperatures
- Low outgassing material use
- Resistance to radiation
- Low weight and miniaturisation
- High reliability: robustness, resistance to vibration and shocks
- Conformity to EMC and magnetic remanence
Find out more:

**Business Unit Telecommunication Systems**
www.leoni-telecom.com