

GORE® Space Cables and Assemblies
For Traditional Space

PROVEN RELIABLE
IN CRITICAL
SYSTEMS

Together, improving life





**GORE® Space Cables
and Assemblies**
For Traditional Space

Ensure Mission Safety & Success with Gore's Time-Tested Solutions

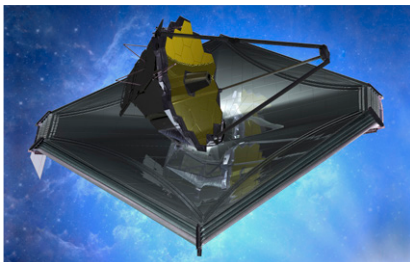
Gore's heritage spans decades providing highly reliable solutions in hundreds of global spaceflight programs with a 100% failure-free flight record. Our qualified cables and assemblies ensure high power is delivered, signal integrity is improved, and critical data is transferred at high speeds safely and reliably among electrical systems.

We manufacture our solutions using specialized fluoropolymer technology that is more durable to withstand the most challenging spaceflight conditions imaginable. They are proven to resist extreme temperatures ranging from -200°C to +200°C, radiation exposure, atomic oxygen, harsh chemicals, shock and vibration, and more. Our solutions are also small and low-mass with more flexibility for easier routing, faster installation, and reduced total launch mass.

Our products have been used in many missions — including the historic Apollo 11 mission to the moon. Also, iconic programs such as the International Space Station, Envisat, Space Shuttle Program, Hubble Space Telescope, Mars Rover and more.



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Satellites

From satellites that help forecast the weather and locate your position on Earth to satellites that allow you to watch live television anywhere in the world, Gore's robust solutions reliably transmit high-quality signals and data in low earth orbit (LEO) and geostationary earth orbit (GEO) applications.

Deep Space Exploration

Telescopes such as the James Webb Space Telescope (JWST) extend beyond the reach of current ground and space-based instruments. International space organizations rely on Gore's time-tested solutions to help astronomers observe the most distant events and objects in the universe.

Launchers

Gore's failure-free solutions have been successfully used in multiple launch vehicles over the years, such as the European Vega that transports small payloads from the surface into low earth orbit for scientific and Earth observation missions.

GORE® Space Cables

For Traditional Space

Type SPC

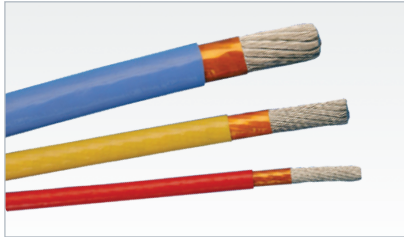
(ESCC 3901/009)



Our wires provide high-quality power and signal integrity with low resistivity in GEO applications such as the Alphabus family of communications satellites.

Type SPP

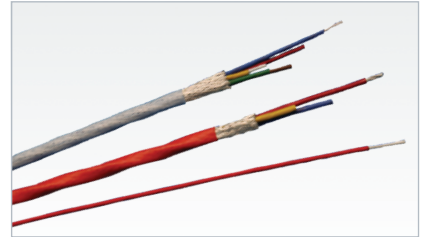
(ESCC 3901/017)



Approved on the ESA Qualified Parts List (QPL), our cables deliver power with complete reliability while providing excellent ATOX resistance in high-current applications.

Type SPM

(ESCC 3901/018)



With specialized materials that are chemically-inert and thermally resistant, our cables withstand atomic oxygen commonly found in LEO environments. They are also on the ESA QPL.

Type SPL

(ESCC 3901/019)



These cables for GEO applications have a small, lightweight design that makes them easy to install in tight areas to reduce the total launch mass of a spacecraft.

Type SPLD

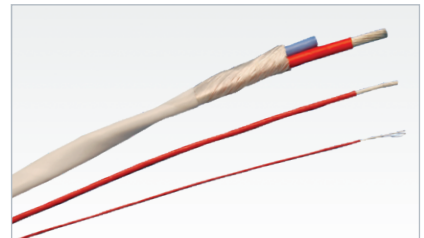
(ESCC 3901/021)



For GEO applications, our wires distribute unfailing power and signals in a compact, flexible package. We also added an extra drain wire that simplifies shield termination.

Type CSWL

(ESCC 3901/024)



Our chemical- and temperature-resistant cables are well-suited for all spacecraft areas, from propulsion to optical systems and launch vehicles.

Type CSC

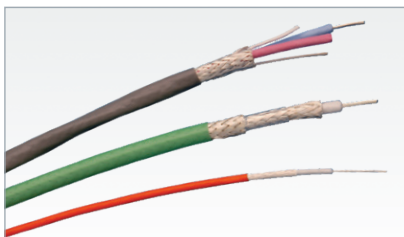
(ESCC 3901/025)



Smaller and lighter weight, our cables reduce mass and launch costs, unlike other qualified cables. Their enhanced color coding provides easier identification during routing.

Types GCX/GTX/GBL

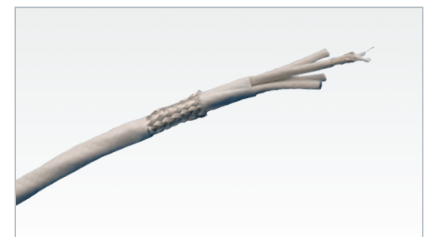
(ESCC 3902/002)



Our coaxial, triaxial, and balanced shielded lines for dataline applications deliver consistent high data rate transmission with low loss up to 1 GHz.

Type SpaceWire

(ESCC 3902/003)



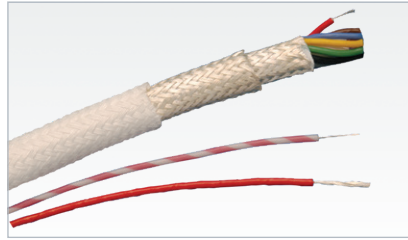
Using a serial point-to-point dataline with LVDS technology, our cables deliver bi-directional, high-speed data transmission up to 400 Mb/s with minimal crosstalk and low loss/skew.

ASW (Anti-Static Wire)



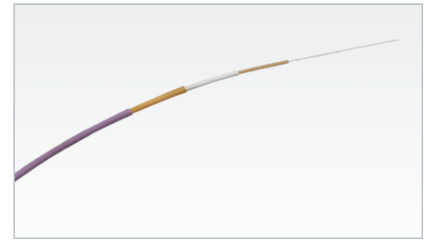
With a unique jacket film, our wires for LEO/GEO applications protect against static buildup over time and eliminate short circuits in vital interconnects.

High Voltage Wires & Cables



Available as hook-up wires and round cables, they resist chemicals and thermal extremes while operating at maximum voltage for at least 10,000 hours based on real-world conditions.

Fiber Optic Simplex Cables



These cables deliver stable optical performance even after exposure to vibration, mechanical shock, tension, and extreme temperatures that can adversely affect overall system performance.



GORE® Space Cables ensure power is delivered and signals are transmitted consistently, reliably, and safely for the duration of every mission.

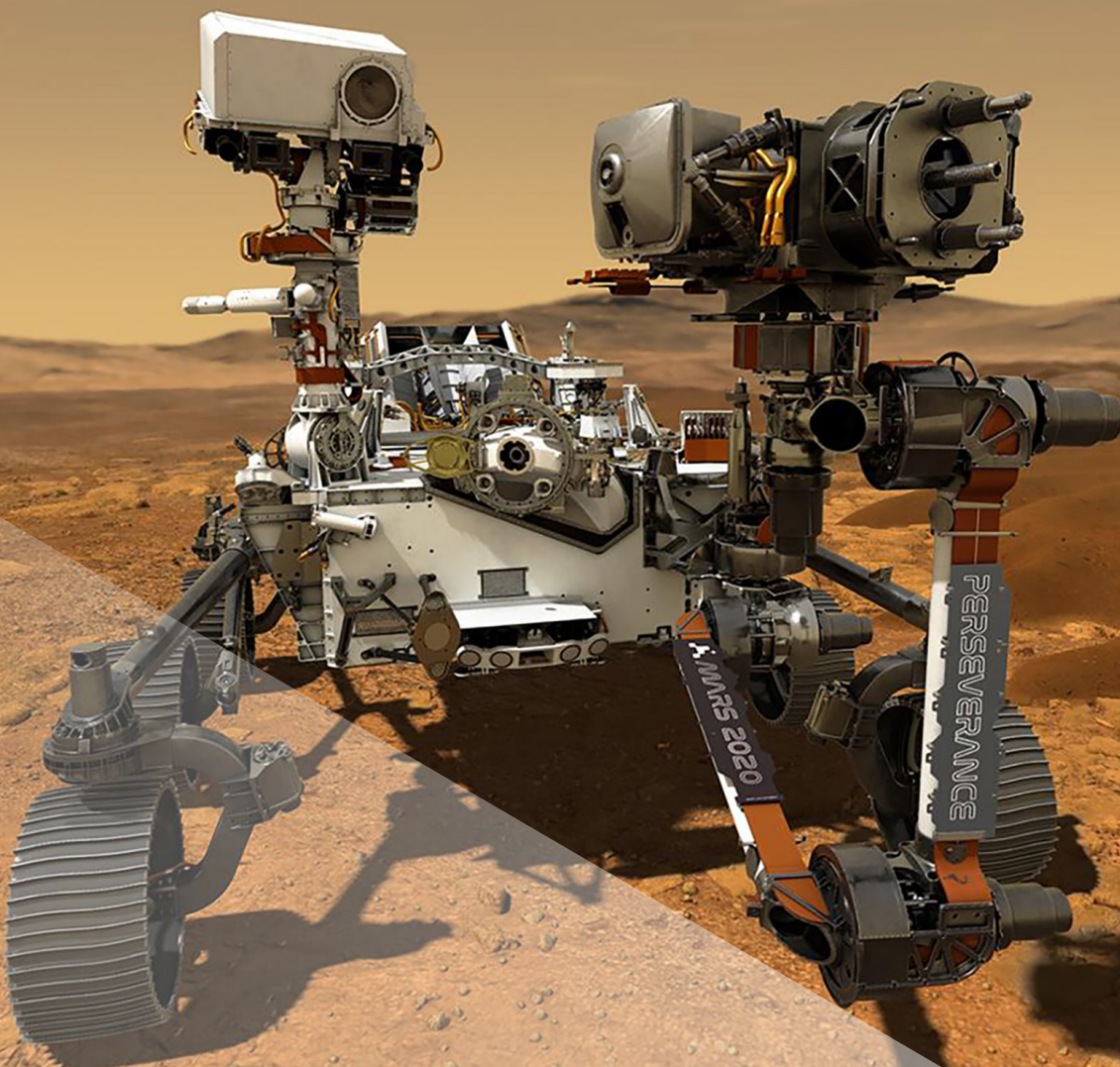
GORE® Spaceflight Microwave/RF Assemblies

For Traditional Space

Gore offers microwave/RF assemblies operating from DC to 40 GHz in diameters ranging from 0.047 inches (1.2 millimeters) to 0.320 in (8.1 mm) to meet mass-driven or insertion loss application requirements.

We also manufacture robust, low-profile connector solutions designed to complement our cable assemblies' performance — including but not limited to SMA, SSMA, MSSS, SMP, SMPM, 2.92 mm, TNCA and TNC.

With approved materials, Gore offers small, low-mass, flexible solutions in rugged designs for targeted spaceflight applications that have been proven now and over time.



High Power



Power handling, multipaction and PIM (Passive Intermodulation) are considered during the design phase for our high-power connector family. Manufactured on Gore's Advanced PIM Processing Line, we offer TNC, SMA, and multipaction-free wedge TNC connectors to meet your critical power application needs.

High Frequency



These cable assemblies are optimized precisely for high-frequency performance in Ka, Q, and V band applications. We offer a variety of small diameters to meet mass-driven application needs or larger diameters to meet insertion loss-driven application needs.

High Flex



Our coaxial cable assemblies with stranded center conductors are a perfect fit for traditional space applications requiring high flexibility. Designed for high performance, they provide excellent phase stability with proven flexure over time.

High Density



With a small footprint, our high-density interconnects are an ideal solution for inside-the-box or box-to-box applications where the installation path is challenging and spacecraft mass is critical. Our push-on connectors facilitate fast and easy integration without the need for a torque wrench.

Advanced Capabilities

Thermal Extremes – Based on Gore's long heritage and extensive test data, our capabilities have enabled us to develop and qualify solutions to meet the critical needs of your spacecraft. We offer products that withstand extreme temperatures ranging from -155 °C to +150 °C utilizing high-temperature solders and unique termination techniques.

Multipaction – Our high-power connectors are specifically designed to reduce the risk of multipactor breakdown on SMA and TNC interface designs. Our wedge TNC interface provides the lowest risk, multipactor-resistance solution in extreme power applications.

Low PIM – We are deeply committed to understanding the causes of PIM. Our Advanced PIM Processing Line precisely manufactures low PIM interconnects that meet the complex, critical needs of your specific application.

Radiation – We have worked extensively with radiation experts for an in-depth understanding of mission profiles and the potential impact on cable assembly performance. We offer superior radiation-resistant solutions aligned with your mission requirements.

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