Trip to the Moon:
SMP Connectors for the first LTE Cellular Network on the Moon

Within a short time SMP connectors from Rosenberger will be taking a long trip: the first ever LTE cellular network on the moon will be operational by the end of 2022. Long-term tested and successfully qualified SMP connectors for aerospace applications will be core components for enabling fast, precise and highly reliable satellite communication across the universe. LTE cellular networks provide the technology required for high-speed transmission of huge data rates: necessary for vital command, control functions and remote control of lunar vehicles for scientific research applications; real-time navigation; and streaming of high definition videos from the lunar surface to earth.

**Rosenberger the only SMP manufacturer certified**
Rosenberger is the only manufacturer of SMP connectors certified by ESA (European Space Agency) for space applications. Further connector series from Rosenberger - SMA, RPC-2.92 and TNC – are also qualified by the ESA standard ESCC 3402 (European Space Components Coordination) and fulfil the high requirements of the aerospace industry.

**25,000 Rosenberger Connectors in Iridium Satellites**
For many years, Rosenberger connectors have been providing a precise and reliable service in various space missions. For example, since 2013, the company has supplied 25,000 SMP connectors for Iridium satellites. Furthermore, Rosenberger connectors have been incorporated into Global Star and Galileo projects for several years.

**ExoMars Mission – Rosenberger SMP Connectors on Board**
For the ExoMars mission 2020 - postponed to 2022 - SMP as well as SMA connectors are qualified for use on board. Connectors from Rosenberger will therefore play an essential role in the scientific search for biological life on the red planet.

In 2016, Rosenberger had been part of the Russian-European ExoMars mission: On 14th March 2016, ESA launched the “Trace Gas Orbiter” and the landing demonstrator module “Schiaparelli” to Mars. On board were ESA certified SMP connectors from Rosenberger which supported the communications with ESA ground control.

The goal of the next ExoMars mission in 2022 is to search for evidence of methane and other trace atmospheric gases that could be signatures of active biological or geological processes. The testing of key technologies in preparation for ESA’s future missions to Mars will also be an important goal of the expedition.
One challenge in developing and producing connectors for spaceflight applications is the selection of appropriate materials and their assembly to meet the strict requirements for cleanliness. Rosenberger’s connectors have therefore been comprehensively tested for compliance with the high electrical requirements of aerospace applications.

About Rosenberger
Rosenberger Hochfrequenztechnik GmbH & Co. KG was founded in 1958. Rosenberger, a family owned company, ranks today among the world-wide leading manufacturers of standard and customer-specific connectivity solutions in high frequency, high voltage and fibre optic technology.

The product range covers RF coaxial connectors, RF test & measurement products, RF connectors for automotive electronics, medical and industrial electronics as well as fibre optic products, and cable assemblies. Renowned companies in high-tech industries, e.g. telecommunication, data systems, medical electronics, industrial electronics, test & measurement, aerospace engineering or automotive electronics trust the precision and quality of Rosenberger products.

Rosenberger is certified to IATF 16949:2016, DIN EN 9100, ISO 9001 and ISO 14001.

More than 2,300 people are employed today at the Rosenberger headquarters in Fridolfing/Tittmoning (Upper Bavaria, Germany). Worldwide, the Rosenberger group operates manufacturing and assembly locations as well as Rosenberger sales offices in Europe, Asia and North and South America where – in total – approx. 11,300 employees develop, produce and sell our products.

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