

Positioning and Timing for harsh environments



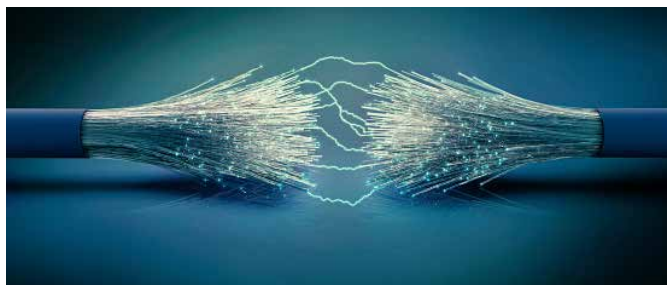
Components and systems in harsh environments are exposed to many influences, but their reliability must not be compromised. With our newly developed, fiber optic-based GNSS and Power over Fiber system, we combine a robust outdoor design with precise reception and transmission technology. The active remote unit receives the GNSS signals from the satellite, converts them from electrical to optical signals and transmits them to the base unit via fiber optics. Moreover, antenna powering is remotely performed via power-over-fiber technology - no need of a local antenna power supply.

Precise timing data



Satellite GNSS signals enable positioning and timing at any location with mature and cost-efficient technology.

The energy comes via fiber



Power over Fiber (PoF) is a revolutionary technology that combines the advantages of optical fibers with the delivery of electrical power.

Reliability even in harsh environments



Even with longer transmission distances (e.g. in mining), time signals are provided to the receiver stations immediately and without data loss.

No access from outside



In military application the aspect of galvanic isolated link is very important to prevent EMP strikes and military vehicle detecting.

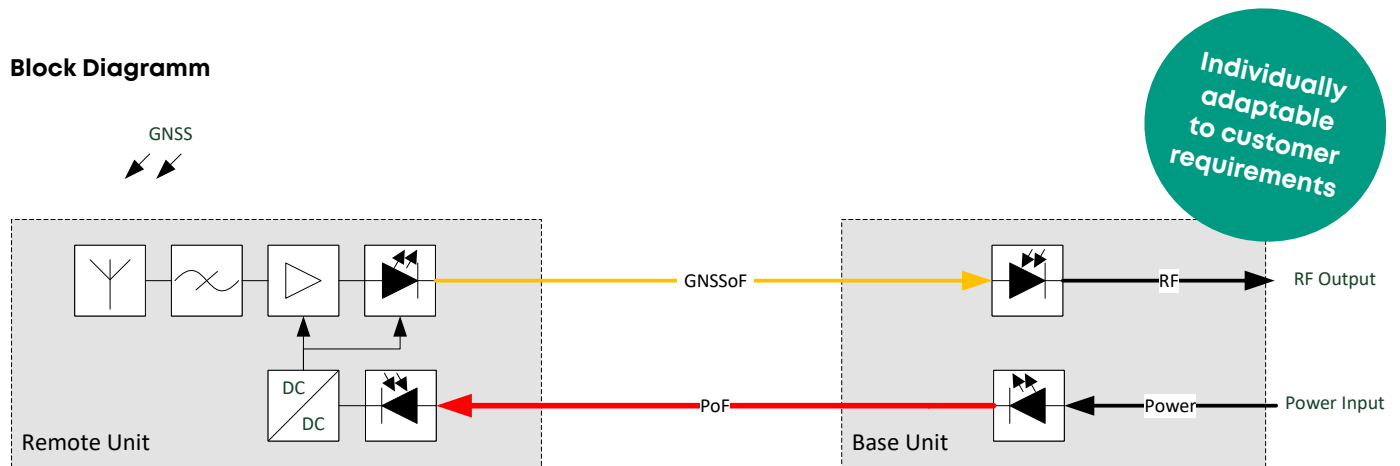
The perfect combination of precision and reliability

The G-GNSSPoF cutting-edge technology of HUBER+SUHNER delivers high-precision time synchronization and positioning solutions over fiber-optic. Combining GNSS over Fiber with Power over Fiber brings a powerful synergy to industries that demand both precise time synchronization and reliable power transmission.

Both GNSS signals and power transmission are immune to electromagnetic interference (EMI), which is especially important in military environments.

The G-GNSSPoF solution uses pure fiber-optic cabling to connect GNSS antenna and receiver and achieves distances up to 1,000 meter.

Block Diagramm



Remote unit



Features:

- Dual band GNSS reception
- IP68 housing
- Operating temperature range: -40...70°C
- Vibration and shock resistant according to AECTP-400 Method 401
- MIL-DTL-38999 Series III connector with four expanded beam contacts

Base unit



Features:

- Supply voltage 12...48V DC
- Power consumption < 20W
- TNC RF port
- IP67 housing
- Operating temperature range: -40...70°C
- Vibration and shock resistant according to AECTP-400 Method 401

Key benefits:

- Designed for harshest environments like military, mining, tunnel etc.
- More flexible connection cables with smaller diameter and less weight
- Galvanic isolation between remote and base unit
- Provides a highly secure tamper-proof connection between remote and base unit
 - Robust link
 - Immunity against EMP
- Higer distance between remote and base unit

Further information:
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