



SKYLINK - SHORTLINK

Wireless data transmission systems

- **User-owned system: No data transfer costs**
- **Reliable data transfer also in emergency situation**
- **Data transmission up to 100 km (60 mi) despite ultra-low transmission power (@10mW)**
- **Utmost flexibility: Ideally suited for routine surveillance and emergency applications**
- **Free simulation of radio coverage in your area**
- **Seismic qualification available**



SkyLINK and ShortLINK represent fully autonomous and private radio network systems designed for wireless data transmission from low-power sensors to a central station in real-time.

In contrast to public telecommunication systems (like GSM, GPRS ...), SkyLINK/ShortLINK systems are user-owned networks which do not depend on an existing area covering cellular infrastructure.

Due to ultra-low power consumption of SkyLINK/ShortLINK transmitters, a GammaTRACER radio probe for dose rate measurement operates autonomously on battery up to ten years. The probes, freed from cables and solar cells, prove to be utmost flexible and low-cost, especially when frequent relocation is required. These radio transmitters can also be attached to MiniTRACE, aerosol and iodine monitors (e.g. BAB, IM), gamma spectrometry probes (SpectroTRACER), meteorological and chemical sensors, etc.

SkyLINK/ShortLINK systems are well known for its high quality and reliability in more than 100 facilities worldwide. Security is effectively achieved against external intrusion and unpermitted tapping of data.

ShortLINK covers a radius of up to 5 km (3 mi) it fits e.g. for area and fence monitoring of industrial terrains and power plants. The light-weight ShortLINK receiver (4.5 kg) is suited for both, stationary and mobile use.

SkyLINK provides even more sensitive reception capabilities and is suitable for covering a radius up to 100 km (60 mi), serving for monitoring wide areas.

SkyLINK Compact, the mobile version of a SkyLINK receiver system, when combined with GammaTRACER probes and MiniTRACE devices, is designed for radiation monitoring in emergency situations around the affected areas. The system can be installed within less than 5 minutes and is fully independent from public telecommunication networks. Typical achievable distance up to 20 km (12 mi).

In addition to SkyLINK and ShortLINK technologies, Saphymo offers also standardised transmission solutions like: SMS/GSM/GPRS, 3G, WiFi, DSL/LAN, satellite (IRIDIUM, Globalstar).

www.saphymo.com

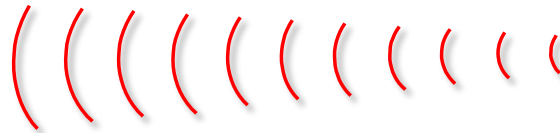
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CHARACTERISTICS OF THE SYSTEM

- **Type of communication / - modulation:** Unidirectional transmission of compact data blocks
- **Network structure:** Typically 3 ... 1 000 sensors to one or more central receivers possible
- **Data transmission rate:** 150 Bd
- **Error correction and verification of integrity:** FEC and CRC error detection
- **Frequency stability over temperature range:** Typically ± 2 ppm
- **Operating distance range:** SkyLINK: Up to 100 km (60mi) line of sight (LOS) @ 10 mW
ShortLINK: Up to 5 km (3 mi) line of sight (LOS) @ 10 mW
- **Standard frequency range:** 400 ... 500 MHz
- **Operating temperature (transmitter):** -20 ... +50° C (-4 ... +140° F)
optional -40 ... +60° C (-4 ... +158° F) or -10 ... +70° C (-104 ... +158° F)
- **Receiver sensitivity:** SkyLINK: -143 dB / ShortLINK: -125 dB



Data reception system



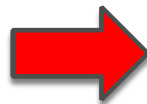
SkyLINK: transmission up to 100 km
(ShortLINK: up to 5 km)



GammaTRACER radio probe



Central data acquisition system



Data Management software
DataEXPERT
(option WebVIEW)



ShortLINK

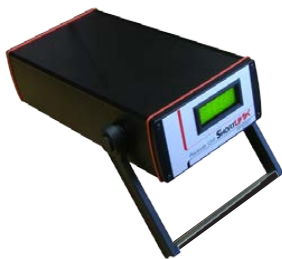
Reliable data transmission up to 5 km (3 mi) and adaptable to every kind of sensor (stationary or mobile).

SkyLINK

Reliable data transmission up to 100 km (60 mi) and adaptable to every kind of sensor (stationary or mobile).

SkyLINK Compact

For mobile emergency preparedness, monitoring of sensitive site, or major event, up to 20 km (12 mi).



ShortLINK Receiver



SkyLINK Compact

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