



LPR[®]-SAT

Position Detection of On-Terminal Vehicles with Satellite Navigation and LPR[®] Sensors

- Determination of vehicle position and orientation
- Independent from commercial correction signals with own reference station
- Unaffected by contamination, vibration or weather
- Quick installation
- Retrofit during continued operations
- Suitable for all types of vehicles and cranes
- Maintenance-free

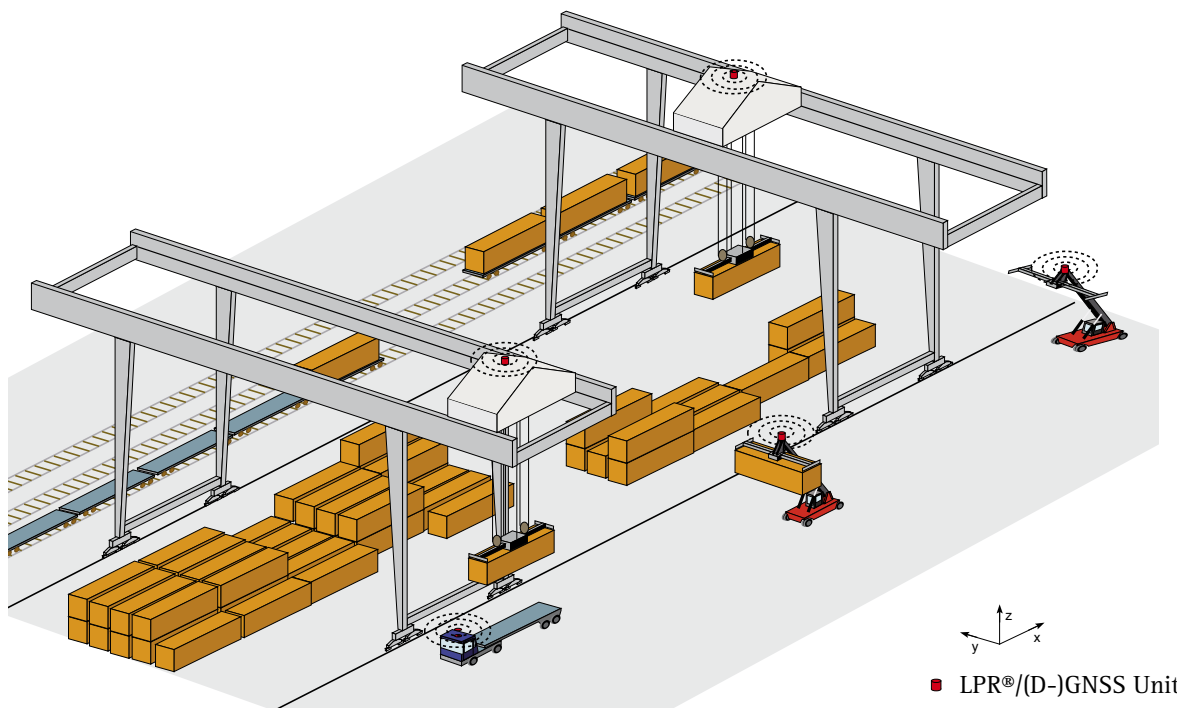
The Symeo LPR[®]-SAT receiver features an industrial differential GNSS using an independent reference station to provide a correction signal for a typical ± 0.4 m accuracy. It is combined with an optionally integrated LPR[®]-2D receiver. One antenna per system allows determining the position, while adding a second antenna also enables the heading/ orientation measurement.

For even greater accuracy and consistent position signals in areas where satellites are temporarily shielded or unavailable, the optional LPR[®]-2D receiver is activated. This ensures that, even under cranes or in buildings, vehicle positions are continuously available in LPR[®] enabled areas (transponders have to be installed).

Additional on-board signals, e.g. the loading status, can be processed by the receiver and are provided by the Symeo data protocol.

For ease of installation, the LPR[®]/GNSS-receiver and the physical signal interface to other on-board devices can be linked via a radio interconnection on the vehicle. For example, this avoids complex wiring along an extendable boom of a reach stacker, with the LPR[®]/GNSS-receiver mounted on the boom top and a signal interface at the driver cabin.

Typical LPR®-SAT application



Technical Data: LPR®-SAT

GNSS Receiver	L1 C/A, optional L2 GPS + Glonass, optional RTK
Channels	72 channels
Start up time	60 s (includes reception of Almanac data)
Reacquisition	< 1 s
Typical accuracy (horizontal)	up to: ± 2 m CEP * (GNSS); $\pm 0,4$ m CEP * (D-GNSS); ± 5 -20 cm * (LPR®)
Repeat rate	20 Hz, optional 100 Hz
Voltage	12-36 V DC
Power consumption at max. update rate	up to 20 W
Ambient temperature	-30 °C to +75 °C
Protection class	up to IP65
Housing dimensions (LxWxH); weight	280 x 230 x 110 mm; 3.8 kg
GNSS antenna dimensions	Ø 65 mm, height 20 mm
Hardware interface	serial RS232, Ethernet TCP/IP
Data interface	Symeo GNSS-protocol, LPR®-2D-protocol
Status indication	LED
External connector type	plug and cable gland
Antennas	up to 2 GNSS and 2 LPR® antennas, 1 each for reference signal and radio interconnection to IO-box
Compliance	CE, FCC
LPR®-2D	optional-slot available

* based on sufficient LPR® transponders and/or GNSS satellites (> 8) with required signal quality available