

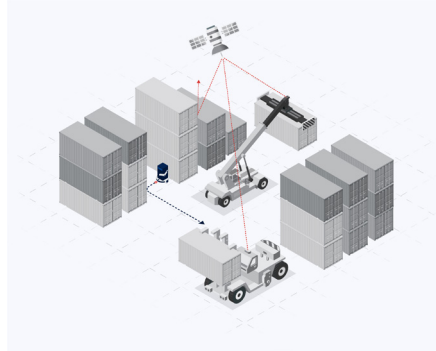
FIXPOSITION

Precise global positioning everywhere™

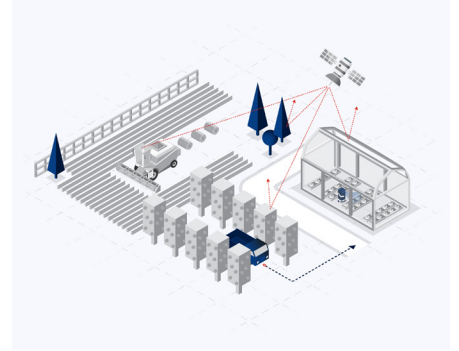
THE GNSS CHALLENGE



GNSS fails under bridges
and near tall buildings



GNSS degrades
near large structures



GNSS degrades near
trees and in greenhouses

OUR UNIQUE SOLUTION



Vision-RTK 2

SWISS MADE

Built for precise positioning in GNSS
degraded and denied areas

The Vision RTK-2's proprietary deep sensor fusion technology provides reliable and precise real-time global positioning that enables autonomous navigation systems to operate in a multitude of challenging environments



Real-time and
highly-accurate
global positioning



Seamless
integration for
fast market entry



Off-the-shelf
solution ready
for evaluation



Compact and
lightweight
solution

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PERFORMANCE VIDEOS



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Technical specifications



Software

Sensor fusion engine performance

Horizontal and vertical position accuracy (RTK fix only)	1.0 cm + 1 ppm R50
Heading accuracy	0.4° (1 m baseline)
Velocity accuracy	0.1 m/s
Max. output rate	100 Hz
Max. velocity	25 m/s for sensor fusion
Position error as a % of distance travelled in GNSS outages*	0.75%
Acquisition time	Cold start < 25s

*Automotive mode with wheel odometry input

Communications and configuration

Data formats	NMEA, ROS, Fixposition custom messages and others
Operating modes	Automotive, handheld, lawnmower, ground robot
RTK correction data inputs	RTCM 3
Wheel speed data inputs	UART, Ethernet, CAN



Hardware

Built-in features

Dual GNSS-RTK receivers	Supported GNSS signals: · GPS/QZSS (L1C/A, L2C) · Galileo (E1B/C, E5b) · Beidou (B1I, B2I) · GLONASS (L1OF, L2OF)
Camera	CMOS with global shutter, 120° DFOV
IMU	Accelerometer and gyroscope
Internal storage	16 GB flash memory

Interfaces

Wired inputs/outputs	2 × UART, CAN, Ethernet, USB-C
Wireless	Wi-Fi 802.11 ac/a/b/g/n
GNSS antenna connector	2 × SMA
Camera inputs	2 × MIPI CSI-2

Electrical specifications

Supply voltage range	5 - 36 VDC
Typical power consumption	7.5 W

Mechanical specifications

Dimensions	OEM board + camera	Sensor
L x W x H	65 x 72 x 17 mm	114 x 129 x 30 mm
Weight	49g	420g

Environmental specifications

Operating temperature	-30 °C to +85 °C
Storage temperature	-40 °C to +85 °C

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