

# 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

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 GNSS 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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# FIXPOSITION Precise global positioning everywhere ™

## **Technical details**

Maximum output rate	100Hz
Positioning accuracy (RTK Fix only)	1.0 cm + 1 ppm R50
Heading accuracy	0.4° (1 m baseline)
Velocity accuracy	0.1 m/s
Maximum velocity	22 m/s
Position error as % if distance traveled in GNSS outages	0.75 % <sup>1</sup>
Acquisition time	25 s (cold start)

#### Communication and configuration

Data formats	NMEA, ROS1, ROS2, Fixposition messages, others
Operation modes	Automotive, Generic, Lawnmower, Ground robot
RTK correction format	RTCM3
Data interfaces (input/output)	UART, TCP, CAN
Time synchronization	PPS, PTP, NTP

#### Hardware

	Supported GNSS constellations
	GPS/QZSS (L1C/A, L2C)
Dual RTK receivers	Galileo (E1B/C, E5B)
	• Beidou (B1I, B2I)
	GLONASS (L10F, L20F)
Camera	CMOS with global shutter, 120° DFOV
IMU	Accelerometer and gyroscope
Internal storage	16 GB flash memory
Time synchronization	PPS, PTP, NTP

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#### Interfaces

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

#### **Electrical specifications**

Supply voltage range	5-36 V DC
Typical power consumption	10 W

### **Mechanical specifications**

Dimensions ( $L \times W \times H$ )	114 × 129 × 30 mm
Weight	420g

## **Environmental specifications**

Operating temperature	-30°C to +85°C
Certifications	IP66 - water and dust resistance



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