

Topcon HiPer XR

Precision you can always trust



The HiPer XR's lightweight design ensures effortless portability, allowing professionals to work efficiently across diverse job sites. Its multi-constellation support delivers improved accuracy by tracking multiple satellite systems simultaneously, ensuring reliable data even in complex conditions.

- » Calibration-free and immune to magnetic interference tilt compensation up to 60°
- » GNSS interference monitoring and mitigation technology for anti-jamming and anti-spoofing
- » Improved RTK performance for more reliable results
- » Universal USB-C connectivity and battery charging
- » Integrated web user interface for easy access and control

Tracking

Signals	GPS: L1 C/A, L1P, L2P, L2C, L5 GLONASS: L1 C/A, L2P, L2C/A, L3 Galileo: E1, E5a, E5b, E5 AltBOC, E6 BeiDou: B1, B1C, B2, B2a, B2b, B3 IRNSS (NavIC): L5 SBAS: L1, L5 QZSS: L1C/A, L1 C/B, L2C, L5
Channels	448 hardware channels for simultaneous tracking of all visible supported satellite signals
TILT	Topcon Integrated Leveling Technology™ Calibration-free and magnetically immune IMU
Signal integrity	GNSS interference monitoring and mitigation technology for anti-jamming and anti-spoofing Ionospheric scintillation monitoring and mitigation Multipath estimation and mitigation

Positioning performance

Precision Static	H: 3 mm + 0.1 ppm V: 3.5 mm + 0.4 ppm
Static/Fast Static*	H: 3 mm + 0.5 ppm V: 5 mm + 0.8 ppm
RTK**	H: 5 mm + 0.5 ppm V: 10 mm + 0.8 ppm
RTK, TILT Compensated	RTK + 5 mm + 0.5 mm / ° tilt Compensation up to 60°

Communications

Internal Radio (Optional)	403-473 MHz UHF 902-928 MHz spread spectrum Max Transmit Power: 1 W
Cellular	Integrated 4G/LTE cellular modem
LongLink™	Up to 300 m range, with clear line of sight Supports up to three (3) simultaneous rover connections
Bluetooth®	v5.3 BR/EDR and low energy long range
Wi-Fi	802.11a/b/g/n/ax 2.400 to 2.500 GHz
Ports	USB-C

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Data format and memory

Output formats	RTCM 3.1, RTCM 3.2, NMEA
Input formats	RTCM 2.x, RTCM 3.x, CMR, CMR+, TPS
Internal Memory	20 GB
Update Rate	Up to 10Hz

Power

External Power Supply	USB Type-C Power Delivery 3.0, 5-20 VDC 60 W maximum
Battery	Two internal, non-removable, Lithium-Ion battery packs each battery pack rated at 7.2 V, 3.5 Ah
Operating time	15 hours - STATIC (1 Hz data logging) 7 hours - RTK BASE STATION (1 W UHF/FH) 10.5 to 13 hours*** - RTK ROVER (UHF/FH, internal cell or LongLink)

Hardware

Dimensions (L x W x H)	13.9 x 13.9 x 9.7 cm (5.47 x 5.47 x 3.82 in.)
Weight	995 g (2.19 lb.)
Ingress Protection	Dust and water IP67
Vibration	MIL-STD 810G
Drop	Survive 2 m pole drop on concrete surface
Operating Temperature	-40°C to 65°C (-40°F to 149°F)
Humidity	100%

* Under nominal observing conditions and strict processing methods, including use of dual frequency GPS, precise ephemerides, calm ionospheric conditions, approved antenna calibration, unobstructed visibility above 10 degrees and an observation duration of at least 3 hours (dependent on baseline length).

** Baselines <40 km

*** Operating time depends on the communication method

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Specifications subject to change without notice.

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