TOPCON

HIPER VR

VERSATILE GNSS RECEIVER

Better things in smaller packages

The HiPer VR is smaller and lighter, but don't let its small size fool you. It's not only packed with the most advanced GNSS technology, it is also built to withstand the harshest field environments. Built with a rugged housing – not weak plastic – it can take the punishment of the job site.

Using the Topcon advanced GNSS chipset with Universal Tracking Channels™ technology, the receiver automatically tracks each and every satellite signal above – now and into the future.

All signals, all satellites, all constellations — all in a compact, rugged design, with an integrated IMU and eCompass.

TILT™ – Topcon Integrated Leveling Technology

The HiPer VR incorporates a revolutionary 9-axis inertial measurement unit (IMU) and an ultra-compact 3-axis eCompass. This advanced technology compensates for mis-leveled field measurements out of plumb by as much as 15 degrees.

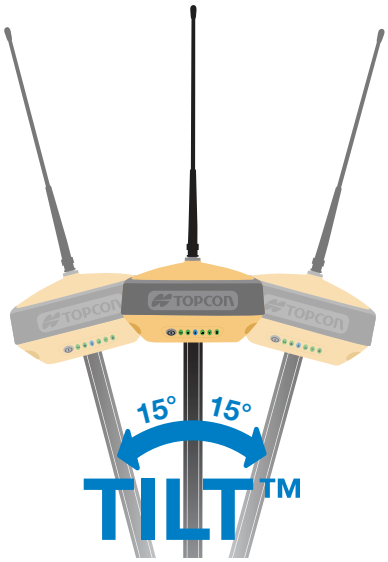
Awkward shots on steep slopes or hard to reach spots are now a breeze with TILT.

Topcon SkyBridge™ eliminates downtime in the field, with continuous coverage during connection outages from an RTK base station or VRS network.

An optional 4G LTE cellular module is available for high-speed network corrections worldwide.

Complete, Cutting-Edge Performance

- Universal Tracking Channels for all satellites, signals and constellations
- Field-tested, field-ready IP67 design
- Compact form factor ideal for Millimeter GPS and Hybrid Positioning™
- Revolutionary 9-axis IMU and ultra-compact 3-axis eCompass
- SkyBridge ready for uninterrupted RTK and Hybrid Positioning
- 4G LTE ready for higher bandwidth and lower latency in data communications

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Fence Antenna®
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Power Button
Status
Recording
Bluetooth®
Cellular
RxTx
Battery

GNSS Tracking	
Channel Count	226 with Topcon's patented Universal Tracking Channels technology.
Signal	
GPS Signals	L1 C/A, L1C* L2C, L2P(Y), L5 *L1C when signal available.
GLONASS	L1 C/A, L1P, L2C/A, L2P, L3C* *L3C when signal available.
Galileo	E1/E5a/E5b/Alt-BOC
BeiDou/BDS	B1, B2
IRNSS	L5
SBAS	WAAS, EGNOS, MSAS, GAGAN (L1/L5*) *L5 when signal available.
L-band	TopNET Global D & C Corrections services
QZSS	L1 C/A, L1C, L1-SAIF, L2C, L5
Positioning Performance	
Static/ Fast Static	H: 3 mm + 0.4 ppm V: 5 mm + 0.5 ppm
RTK	H: 5 mm + 0.5 ppm
RTK, TILT Compensated	H: 1.3 mm/°Tilt; Tilt ≤ 10° H: 1.8 mm/°Tilt; Tilt > 10° Maximum recommended angle for tilt compensation is 15° Subject to successful TILT calibration & operating environment free of magnetic disturbances
DGPS	0.25 m HRMS
L-Band, D Corrections Service	H: < 0.1 m (95%) V: < 0.2 m (95%)
RTK with SkyBridge	H: RTK + 10 mm/min RMS V: RTK + 15 mm/min RMS RTK is the precision known before RTK correction source was lost.
Operational Time	RX mode - 10hr TX mode 1W - 6hr *Use of external 12V battery is recommended when using HiPer VR with internal radio in transmit mode.*
Cellular Technology	Global 12 band 4G/LTE with 2G/3G fallback
Internal Radios	425-470 MHz UHF radio Max Transmit Power: 1W Range: 5-7 km typical; 15 km in optimal conditions
Memory	Internal Non-removable 8 GB SDHC
Environmental	Ingress Rating – IP67 Operating Temp – -40ºC to 70ºC Humidity – 100%, condensing Drop and Topple – 1.0 m drop to concrete. 2.0 m pole drop to concrete.
Dimensions	150 x 100 x 150 mm (w x h x d)
Weight	<1.15 kg

Integrated radio and modem options

- 400 MHz UHF TX/RX Radio
- License-free 900 MHz radio, FH915 protocol[1]
- 4G LTE cellular module for high-speed network corrections worldwide[2] (optional)

L Band Ready with SkyBridge Technology

- L Band ready to receive advanced GNSS corrections data set globally
- SkyBridge technology to provide uninterrupted RTK positioning[3]

Highly configurable

Designed to grow with you, unique electronic option files empower you to activate available features instantly.

Future proof

The Topcon full wave antenna tracks all GNSS signals currently available and is designed to track the constellations and signals of tomorrow.

* 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). 1* Check with the regulatory body in your region regarding license-free frequency requirements. 2* Contact your Topcon representative regarding availability. 3* Contact your Topcon representative regarding availability and pricing.

** Subject to successful TILT calibration and operating environment free of magnetic disturbances.

*** Varies with terrain and operating conditions.

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For more information:
www.topconpositioning.com/hiper-vr