HIPER HR
MULTI-PURPOSE GNSS RECEIVER

Modern Hybrid of Positioning Technology

- Compact, lightweight, rugged design – capable of withstanding a 2 meter pole drop
- Five unique data communication options
- All signals, all satellites, all 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

Better things in smaller packages

The HiPer HR is smaller and lighter, but don't let it's 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. The HiPer HR is built with a rugged aluminum-alloy housing, not weak plastic, so it can take the punishment of the job site.

Using Topcon's patented Fence Antenna™ design and advanced GNSS chipset with Universal Tracking Channel technology, the receiver automatically tracks each and every satellite signal above – now and into the future.

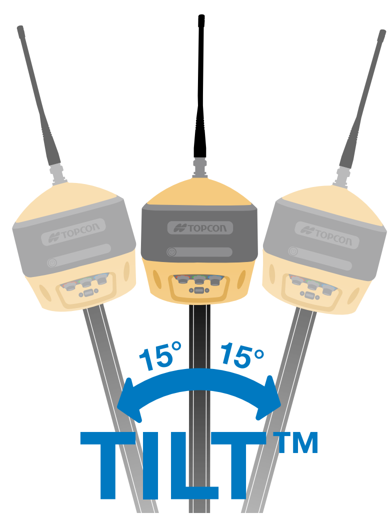
All signals, all satellites, all constellations — All in a compact, rugged design, with an integrated IMU and eCompass. Only available on the Topcon HiPer HR.

IP67 Waterproof Rating

TILT™- Topcon Integrated Leveling Technology

The HiPer HR incorporates a revolutionary 9-axis Inertial Measuring 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°.

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




Internal Wi-Fi and
multi-spectral Bluetooth®
Next generation
Fence Antenna™
Rugged, waterproof IP67
environmental design
Integrated cellular, LongLink™,
and radio communications
Next generation
Vanguard Technology™
452 Universal Tracking
Channels
3-axis ultra-compact
eCompass
TOPCON
Revolutionary 9-axis
internal IMU
Bright, easy-to-read
LED MINTER display
Removable, hot-swappable
battery
Rugged aluminum
alloy housing
Durable, easy access
connectors

GNSS Tracking	
Number of Channels	452 with patented Universal Tracking Channel Technology
Constellations	GPS GLONASS Galileo BeiDou QZSS SBAS L-Band
Signals Tracked	Please refer to complete system specifications at *www.topconpositioning.com/hiper-hr*
Satellites Tracked	All in view
Accuracy	
Static, Fast-Static (L1/L2)	H: 3 mm + 0.1 ppm V: 3.5 mm + 0.4 ppm
RTK(L1/L2)	H: 5 mm + 0.5 ppm V: 10 mm + 0.8 ppm
Data Update / Output Rate	Up to 100 Hz
Correction Data Protocols	
Streamed and/or Stored Data	TPS, RTCM SC104 ver 2.x, 3.x, MSM, CMR/CMR+, BINEX
Communication and Memory	
Optional Radio Type	UHF (410-470 MHz) SS (915 MHz)
Additional Communications	Internal Cell modem Wi-Fi Bluetooth® LongLink™
On-board Memory	Up to 32 GB
Power	
Power Source	External power 6 to 28 VDC 2 x Internal batteries 3.7 V, 2900 mAh each
Operating Time	Up to 9 hours with removable batteries
Environmental and Physical	
Operating Temp.	-40ºC to 80ºC
Water/Dust Rating	IP67
Drop and Topple	2 meter pole-drop
Weight	1 kg

Form and Function

The most advanced GNSS technology available, yet compact enough to fit in the palm of your hand.

Highly configurable

Designed to grow with you, unique electronic option files empower you to activate available features instantly – increasing functionality as project demands expand.

Superior performance

Standard with integrated cellular and LongLink™ wireless communication modules, choose either long-distance UHF or convenient Spread Spectrum radio as well.

Future proof

Topcon's full-wave Fence Antenna™ tracks all GNSS signals currently available and is designed to track the constellations and signals of tomorrow.

For more information:
topconpositioning.com/hiper-hr

HIPER SR
EXTENDED RANGE
SITE RECEIVER

Compact. Rugged. Advanced. Affordable.

- Universal Tracking Channel technology
- Advanced Fence Antenna™ technology
- Compact, lightweight, rugged and cable free design
- Fully integrated LongLink™ and cellular configuration (optional)
- Dual SIM card support

All the functionality needed, nothing more

Providing leading edge technology in a smart, rugged design, the HiPer SR receiver provides superior performance at an affordable price. The compact integrated design includes all-in-view satellite monitoring through Universal Tracking Channel (UTC) technology, industry leading Fence Antenna, sealed long-life power supply, and memory storage.

The HiPer SR comprises two different communication options including Topcon's innovative LongLink communication technology and integrated cellular module (optional).

With the HiPer SR, made in the USA means that you don't have to sacrifice durability and performance to have a versatile 3D job site system. HiPer SR – a compact lightweight receiver that is built to take the most intense environmental conditions and job site punishment.

In addition to ruggedness, the HiPer SR is the most versatile, configurable, compact receiver system available. Use just two units in many configurations, depending on the demands of the project site. Use as a job site base and rover with interference-free LongLink communication up to 300 m or base and rover with MAGNET Relay cellular communication RTK up to 35 km baselines.

A pair of HiPer SR receivers can also be used with internal SIM cards as network rovers with Topcon TopNET*live* GNSS Reference Network, two network rovers with internet capable field controllers, two dual frequency static receivers, or in conjunction with a robotic instrument for Hybrid Positioning. All these configurations from just two receivers that can fit into any laptop carrying bag.

MAGNET® Relay service

In cellular mode, the global MAGNET Relay RTK service allows a HiPer SR receiver to be used as a mobile base hosting and "relaying" corrections for up to 10 rovers.

MAGNET Relay is an RTK forwarding service that allows users to broadcast in-field base stations to their own private Company Account within the MAGNET Enterprise secure service for distributing the base station RTK messages to their own rover receivers.


TOPCON


Vanguard
GNSS chipset
Fence Antenna™
technology
TOPCON
Square
"no roll" design
Internal cellular
modem (optional)
LongLink™
technology
Magnesium
alloy housing
Simple MINTER with
super-bright LEDs
Waterproof communication
and charging port
USB data port
Cellular
antenna port
SERIAL
PWR
USB
ANT

GNSS Tracking	
Number of Channels	226-channel Vanguard Technology™ with Universal Tracking
GPS GLONASS SBAS QZSS	L1, L2, L2C L1, L2 L1 C/A WAAS/MSAS/ EGNOS/GAGAN L1 C/A
Antenna Type	Fence Antenna
Positioning Accuracy	
Static/Fast Static	H: 3.0 mm + 0.4 ppm V: 5.0 mm + 0.6 ppm
Precision Static**	H: 3.0 mm + 0.1 ppm V: 3.5 mm + 0.4 ppm
RTK (L1 + L2)	H: 10 mm + 0.8 ppm V: 15 mm + 1.0 ppm
DGPS	H: 0.4 m, V: 0.6 m
SBAS	H: 1.0 m, V: 1.5 m
Communication	
RTK Broadcast	LongLink™ 300 m+, Up to 3 simultaneous rovers
I/O Communications	Bluetooth®, Serial, USB
Cellular	Integrated HSPA+/CDMA
Dual SIM card available	
Data and Memory	
Data Update/ Output Rate	Up to 10 Hz
Real Time Data Output	TPS, RTCM SC104 v2.x, 3.x and MSM, CMR/CMR+
ASCII Output	NMEA 0183 version 2.x, 3.x and 4.x
Physical	
Dimensions	150 x 150 x 64 mm
Weight	850 g – Basic 925 g – Cellular
Status Display/Panel	MINTER
External Power Connector	Yes
Operation Time	Up to 20 hours
Environmental	
Operating Temperature	
Internal Batteries External Batteries	-20ºC to 65ºC -40ºC to 65ºC
Storage Temperature	-40ºC to 70ºC
Humidity	100%, condensing
Dust/Water Rating	IP67

** 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).

226-channel Vanguard with Universal Tracking

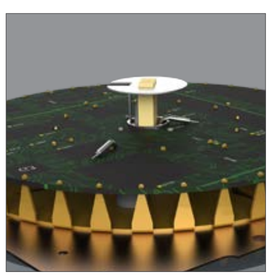
Topcon's exclusive channel tracking technology provides unmatched GNSS signal flexibility and expandability.

Integrated cellular (optional)

When cellular coverage is available, the HiPer SR is versatile enough for short or long range. MAGNET Relay serves up a simple way to perform mobile RTK session through a private environment.

Smart design

An innovative combination of compact and lightweight engineering within a tight environmentally sealed form – guaranteed to survive a 2 m concrete drop.



Fence Antenna™

Compared to competitive options, the proven Fence Antenna technology isolates each signal and reduces noise delivering unparalleled results.

TOPCON

For more information:
topconpositioning.com/hiper-sr

HIPER VR
RECEPTOR GNSS VERSÁTIL

Rendimiento completo y avanzado

- Universal Tracking Channels™ para todos los satélites, señales y constelaciones
- Diseño IP67 probado y listo para el campo
- Forma compacta ideal para mmGPS y Hybrid Positioning™
- Revolucionaria IMU de 9 ejes y brújula electrónica de 3 ejes ultra compacta

"Las mejores cosas vienen en cajas pequeñas"

El HiPer VR es más pequeño y ligero, pero no se deje engañar por su tamaño. No solo incorpora la tecnología GNSS más avanzada, sino que se ha concebido para soportar los entornos más hostiles. Construido con una robusta carcasa, sin plástico endeble, puede soportar las condiciones del lugar de trabajo.

Mediante el chipset GNSS avanzado con tecnología Universal Tracking Channels™, el receptor rastrea automáticamente todas y cada una de las señales de satélite, ahora y en el futuro.

Todas las señales, satélites y constelaciones, todo en un diseño robusto y compacto, con IMU integrada y brújula electrónica.

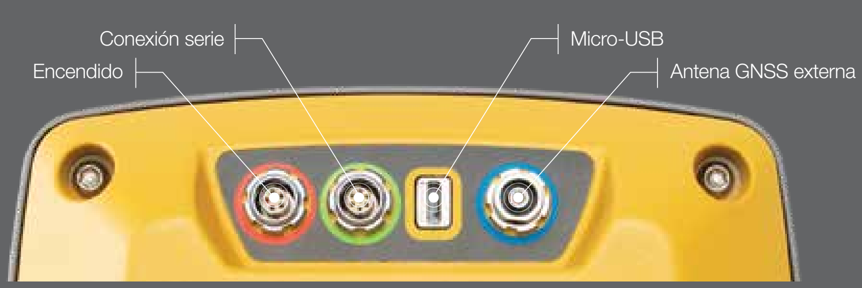
TILT™ : Tecnología de nivelación integrada de Topcon

El HiPer VR incorpora una revolucionaria unidad de medición inercial (IMU) de 9 ejes y una brújula electrónica de 3 ejes ultracompacta. Esta avanzada tecnología compensa las mediciones desniveladas sobre el terreno fuera de plomo hasta 15 grados.

Las tomas complicadas en pendientes con gran inclinación o en lugares de difícil acceso resultan ahora de lo más sencillo gracias a la tecnología TILT.


TOPCON
TOPCON


Fence Antenna®
TOPCON
Botón de encendido
Estado
Grabación
Bluetooth®
RxTx
Batería


Conexión serie
Encendido
Micro-USB
Antena GNSS externa

Seguimiento GNSS	
Número de canales	226 con la tecnología Universal Tracking Channels™, patentada por Topcon.
Señal	
Señales GPS	L1 C/A, L1C† L2C, L2P(Y), L5 † L1C cuando hay señal.
GLONASS	L1 C/A, L1P, L2C/A, L2P, L3C‡ ‡ L3C cuando hay señal.
Galileo	E1/E5a/E5b/Alt-BOC
BeiDou/BDS	B1, B2
IRNSS	L5
SBAS	WAAS, EGNOS, MSAS, GAGAN (L1/L5§) §L5 cuando hay señal.
Banda L	Servicios de correcciones TopNET Global D & C
QZSS	L1 C/A, L1C, L1-SAIF, L2C, L5
Rendimiento de posicionamiento	
Estático/ Estático rápido	H: 3 mm + 0,4 ppm V: 5 mm + 0,5 ppm*
Estático de alta precisión	H: 3 mm + 0.1 ppm V: 3.5 mm + 0.4 ppm
RTK	H: 5 mm + 0,5 ppm V: 10 mm + 0,8 ppm
RTK, compensación TILT	H: 1,3 mm/°Inclinación; Inclinación ≤ 10° V: 1,8 mm/°Inclinación; Inclinación > 10° El ángulo máximo recomendado para la compensación de inclinación es de 15°.**
DGPS	0,25 m HRMS
Banda L, servicio de correcciones D	H: < 0,1 m (95%) V: < 0,2 m (95%)
Tiempo operativo	Modo RX: 10 h Modo TX 1 W: 6 h *Se recomienda el uso de la batería externa de 12 V cuando se utilice HiPer VR con radio interna en modo de transmisión.*
Radios internas	Radio UHF de 425-470 MHz Potencia transmisión máx.: 1 W Alcance: 5-7 km típicamente; 15 km en condiciones óptimas.***
Memoria	SDHC interna de 8 GB no extraíble
Datos ambientales	Clasificación de protección: IP67 Temp. de funcionamiento: De -40 ºC a 65 ºC Humedad: 100%, condensación Caída: Caída desde 1,0 m a hormigón. Caída de jalón desde 2,0 m a hormigón.
Dimensiones	150 x 100 x 150 mm (an x al x l)
Peso	< 1,15 kg

Radio integrada y opciones de módem

Radio UHF TX/RX de 400 MHz

Listo para la Tecnología de Banda L

L Band esta listo para recibir correcciones GNSS avanzadas de datos en cualquier ubicación[1]

Altamente configurable

Diseñado para adaptarse a sus necesidades. Los exclusivos archivos de opciones le permitirán activar las funciones disponibles de forma instantánea.

Sin miedo al futuro

La antena multi-direccional de Topcon rastrea todas las señales GNSS disponibles y está diseñada para rastrear las constelaciones y señales del futuro.

* Bajo condiciones de observación nominal y estrictos métodos de procesamiento, incluido el uso de GPS de frecuencia dual, efemérides precisas, condiciones ionosféricas tranquilas, una calibración aprobada de la antena, visibilidad sin obstáculos por encima de 10 grados y una duración de observación de al menos 3 horas (dependiendo de la longitud de baselínea). [1] Póngase en contacto con su representante de Topconpara comprobar la disponibilidad.

** Sujeto a calibración TILT y a un entorno operativo libre de perturbaciones magnéticas.

*** Varía con las condiciones operativas y del terreno.

Para obtener más información:
www.topconpositioning.com/hiper-vr