

# Premier, Multi-Purpose Receiver

## HiPer HR



### Better things in smaller packages

The HiPer HR is smaller and lighter, but don't let its small size fool you. It is not only packed with the advanced GNSS technology, it also built to withstand the harsh field environments with a rugged magnesium-alloy housing.

#### TILT™

The HiPer HR incorporates a revolutionary 9-axis Inertial Measuring Unit (IMU) and an ultra-compact 3-axis eCompass. Topcon Integrated Leveling Technology compensates for mis-leveled field measurements out of plumb by as much as 15°.

- Compact, lightweight, rugged design
- Field tested, field ready IP67 design
- Compact form factor ideal for Hybrid Positioning
- Revolutionary 9-axis IMU and ultra-compact 3-axis eCompass

\* 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).

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

\*\*\* Varies with terrain and operating conditions (UHF radio only).

Specifications subject to change without notice.  
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[www.topconpositioning.com/hiper-hr](http://www.topconpositioning.com/hiper-hr)

#### GNSS TECHNOLOGIES (SIGNAL TRACKING)

GPS	L1 C/A, L1C, L1P(Y), L2P(Y), L2C, L5
GLONASS	L1 C/A, L1P, L2C/A, L2P, L3C
Galileo	E1, E5a, E5b, E5 AltBOC, E6
BeiDou	B1, B2, B3
IRNSS (NavIC)	SPS-L5
SBAS	WAAS/EGNOS/MSAS
QZSS	L1 C/A, L1C, L2C, L5, LEX
L-band	Yes
Universal Tracking Channels™	452 GNSS channels Vanguard Technology™ with Universal Tracking Channels™; 4 reserved for L-band
TILT™	Topcon Integrated Leveling Technology™
GNSS Antenna	Integrated Full wave Fence Antenna™ technology with internal ground plane

#### POSITIONING PERFORMANCE

Precision Static	H: 3 mm + 0.1 ppm   V: 3.5 mm + 0.4 ppm
Static/Fast Static*	H: 3 mm + 0.3 ppm   V: 5 mm + 0.5 ppm
RTK	H: 5 mm + 0.5 ppm   V: 10 mm + 0.8 ppm
Code Differential GNSS	H: <0.4 m   V: <0.6 m
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°**

#### COMMUNICATIONS

Internal Radio (Optional)	405-470 MHz UHF or FH915 spread spectrum Max Transmit Power: 1W Range: 5-7 km typical; 15 km in optimal conditions.***
Cellular	3.5G
LongLink™ Bluetooth	Up to 328.1 m / 1000 ft
WiFi	Yes
Bluetooth™	Yes
Connectors	1 Power, 1 Serial, 1 USB, 2 Connectors

#### DATA FORMAT AND MEMORY

Data Output	TPS, RTCM, CMR/CMR+, NMEA, BINEX
Internal Memory	8 GB
Update Rate	Up to 20Hz

#### POWER

External Power Supply	9.0 – 28.0 V DC
Battery	Internal: Li-ion 5,200 mAh, 3.7 V External: Li-ion 2,900 mAh, 7.2 V (Hot swappable)
Operating time with radio	Up to 9 hours with included batteries. <i>Refer to the operator's manual for more information</i>

#### HARDWARE

Dimensions (W x H)	11.5 cm x 13.2 cm (4.53 in x 5.20 in)
Weight	1.172 kg (2.58 lb) with batteries
Ingress Protection	Dust and water IP67
Vibration	MIL-STD 810G
Drop	Survive 2m pole drop on concrete surface
Operating Temperature	-40° C to +65° C (-40° F to +149° F)
Humidity	100%