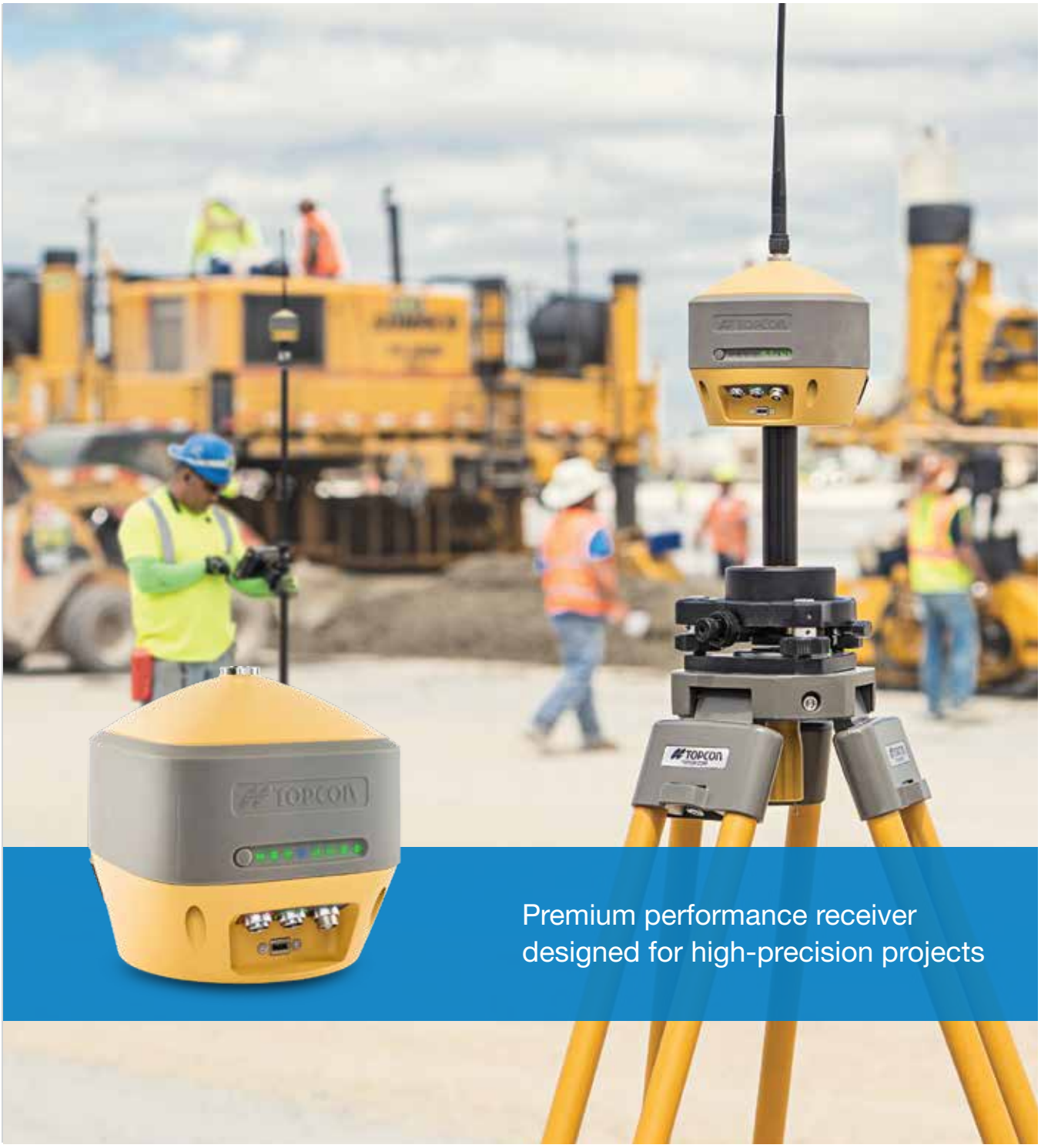
Premier, Multi-Purpose Receiver

HiPer HR



Best-in-class Technology

HiPer HR

Better things in smaller packages

The HiPer HR 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. The HiPer HR is built with a rugged magnesium-alloy housing – not weak plastic – it can take the punishment of the job site.

Using the Topcon 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.

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

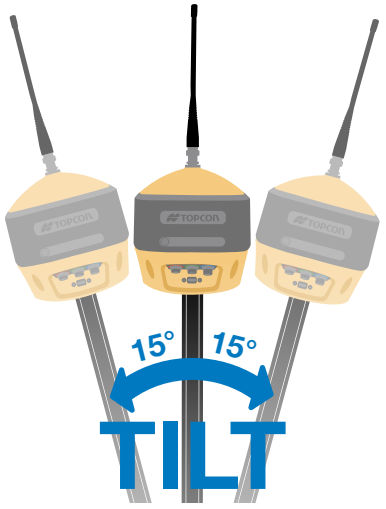
Compact form factor ideal for Millimeter GPS and Hybrid Positioning

1. UHF or FH915
2. Rugged magnesium alloy housing with waterproof IP67 environmental design
3. Topcon patented
   - Next generation Fence Antenna
   - Next generation Vanguard Technology™
   - Integrated cellular, LongLink™, and Wi-Fi Communications
   - 452 Universal Tracking Channels
4. Bright, easy-to-read LED MINTER display
5. Durable, easy-access connectors
6. TILT
   - 3-axis ultra-compact eCompass
   - Revolutionary 9-axis internal IMU
7. Removable, hot-swappable battery

TILT – Topcon Integrated Leveling Technology

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

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



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 Universal Tracking Channel technology tracks all GNSS signals currently available and is designed to track the constellations and signals of tomorrow.

TOPCON

www.topconpositioning.com/hiper-hr

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).

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. *Refer to the operator's manual for more information*
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%

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