All-Purpose GNSS Receiver

- Vanguard Technology™
- Universal Tracking Technology
- Rugged, magnesium alloy construction
- Integrated form delivering full RTK, Static, Network functionality
- Fence Antenna™ evolution for optimal signal isolation and tracking

Compact, cable-free solution with Vanguard Technology for all GNSS positioning applications

Topcon raises the standard once again by adding Vanguard Technology with 226 channels, Universal Tracking Technology, and the Fence Antenna into the versatile and configurable HiPer V receiver. Universal Tracking Technology is an advanced firmware process that allows each of the 226 channels to be assigned to any satellite signal – providing an all-in-view satellite monitoring ability like never before.
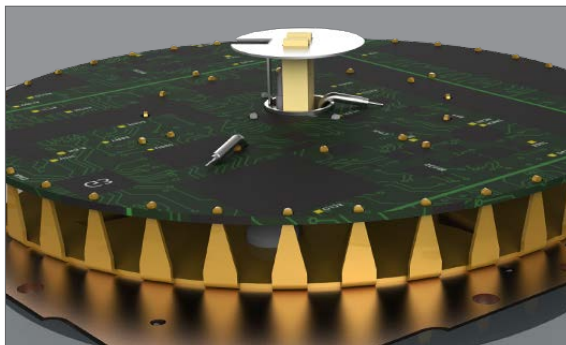
Internal radio configurations

The HiPer V integrated receiver can be configured with the radio and cellular modem that best fits your needs. You can choose from either a far-reaching Digital UHF option or a secure and steady Spread Spectrum radio. Further, you can choose from HSPA, CDMA, or no cellular module. If you start your HiPer V investment with static only receivers, they can later be upgraded to include radio and cellular modules at one of many Topcon service facilities around the globe.

Rugged and waterproof

The HiPer V is designed rugged enough to perform on a real jobsite. It is also waterproof IP67, which means it can be submersed into water. The ports, speaker and battery door are all completely sealed from dust and water.

Voice alerts

Voice status messages keep you informed without having to look at the screen of the field controller, or the status lights above your head. Stay safe in traffic situations by looking at oncoming traffic rather than looking for the word "Fixed".

Fence Antenna™ technology

This superior GNSS antenna element is light-weight, rugged, and sensitive enough to track signals in environments where other receivers fail. Obtain lock sooner, and track longer with Fence Antenna technology.

Vanguard
GNSS chipset

Fence Antenna™

Bluetooth® connectivity

Internal
Bluetooth®
module

Radio
connectivity

Power button

Remaining
battery

Number of satellites
being tracked

Remaining
memory

Serial
connectivity

Tracking Capabilities	
Number of Channels	226 Channels with Universal Tracking Technology
GPS	L1, L2, L2C
GLONASS	L1, L2, L2C
SBAS	L1, L2C

Positioning Accuracy	
L1 Only (Static*)	H: 3 mm + 0.8 ppm V: 4 mm + 1 ppm
L1 + L2 (Static*)	H: 3 mm + 0.1 ppm V: 3.5 mm + 0.4 ppm
RTK (L1 + L2)	H: 10 mm + 1 ppm V: 15 mm + 1 ppm
DGPS	< 0.5 m

Communication	
Bluetooth®	V 2.1 + EDR, Class 2, 115,200 bps
Radio	UHF, Spread Spectrum, Cellular (options)

Environmental	
Shock	2 m pole drop
Operating Temperature	
External Power	-40°C to 65°C
Battery	-20°C to 65°C
Cellular	-20°C to 55°C
Dust/Water Rating	IP67

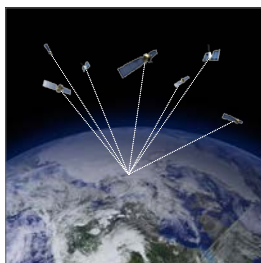| Physical	
Enclosure	Magnesium alloy housing
Size (d x h)	184 x 95 mm
Weight (HiPer V)	1.0 kg to 1.28 kg
Battery (BDC70)	195 g

Power Supply	
Standard Battery	Detachable, Li-ion rechargeable battery, 7.2V, 4.3 Ah
Operating Time at 20°C	>7.5 hours in static mode w/Bluetooth® connection
External Power Input Voltage	6.7 to 18V DC

* 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).

Integrated radio and modem options

- Spread Spectrum radio
- Digital UHF II radio
- HSPA cellular modem
- CDMA modem

Project site ruggedness

- Magnesium metal housing
- 2 m drop design
- Field tested, field ready
- Waterproof

Constellation tracking performance

- Full GPS, GLONASS, and SBAS constellation and signal tracking
- Delivering positional confidence in harsh environments
- Improved repeatability 24/7

Housing features

- Multifunction communication
- Sealed power port for full day use
- Sealed external serial port
- Certified slant height measure mark