



**Indigenous Technology**

# NAVIK 50

**Comes with our own  
android app GeoMaster  
Survey App**



## **MULTI CONSTELLATIONS TRACKING**

184 Tracking channels, supports GPS, Beidou, Glonass, Galileo etc.

## **RUGGED DESIGN**

Rugged housing with IP67 dust proof & water proof design. It can survive 2m pole drop and 1.2 m free fall to concrete.

## **EASY TO USE**

Compact size along with very easy app interface.

## **HIGH LEVEL ACCURACY**

Provides centimeter level accuracy no matter where you are.





**Performance Specifications**

**Satellite Signal Tracking**

184 channels for simultaneously tracking satellite signals

**Satellite / Constellations Tracked**

GPS.....	L1, L2, L2C, L5
GLONASS.....	L1, L2
GALILEO.....	E1, E5a, E5b
Beidou.....	B1, B2, B3
BeiDou Global Signal.....	B1C, B2a
QZSS.....	L1, L2
SBAS.....	GAGAN

**Positioning Performance & Accuracy**

**Code Differential GNSS Positioning**

Horizontal.....	0.25 m + 1 ppm * Base Line Distance [ RMS ]
Vertical.....	0.40 m + 1ppm * Base Line Distance [ RMS ]

**Static GNSS Surveying**

Static and Fast Static Accuracy

Horizontal.....	1 cm + 1 ppm * Base Line Distance [ RMS ]
Vertical.....	1 cm + 1 ppm * Base Line Distance [ RMS ]

**Post Processed Kinematic [ PPK ] GNSS Surveying**

Horizontal.....	1.0 cm + 1 ppm * Base Line Distance [ RMS ]
Vertical.....	1.5 cm + 1 ppm * Base Line Distance [ RMS ]

**Real-Time Kinematic (RTK) Surveying**

[Single Baseline Upto 30 kms]

Horizontal.....	1 cm + 1 ppm RMS
Vertical.....	1.5 cm + 1 ppm RMS

Network RTK Accuracy

Horizontal.....	1 cm + 0.5 ppm RMS
Vertical.....	1.5 cm + 0.5 ppm RMS

Standalone Accuracy.....1 m CEP

SBAS / GAGAN Accuracy.....Upto 0.6 m CEP

RTK Convergence Time.....< 10 s

Max. Update Rate.....7 Hz

**Hardware**

**Physical**

Dimensions.....	143.95 cm x 65.00 cm
Weight.....	600 gm
Operating temperature.....	-10° C- + 65° C
Storage temperature.....	-25° C- + 70° C
Humidity.....	95% or better
Ingress Protection Level.....	IP67 (dustproof & rainproof)
Shock and Vibration.....	Tested and meet the following environmental standards:
Shock.....	Designed to survive an accidental 2 m pole drop and 1.2 m free fall to concrete
Vibration.....	Survives mechanical shock (MIL 810G test method)

**Electrical**

- Power 7 V DC to 20 V DC external power input with over-voltage protection on Port 1(7-pin Lemo).
- Rechargeable external 5000 mAh (7.4 V) Lithium – ion smart battery
- Operating times on external battery upto 18 hours on single recharge in network RTK.

**Data Formats**

Protocols.....RTCM 3.0, RTCM 3.1, RTCM 3.2, RTCM 3.3, RTCM MSM, NTRIP, Multipoint RTCM, RTCM3Net

**Interfaces**

Wireless.....Wi-Fi, BLE, Radio, NTRIP (Requires Controller)  
Wired.....RS-232, USB

**Communication and data storage**

- Serial : RS-232 serial (7-pin lemo)
- Radio Modem: Fully Integrated, sealed 450 MHz wide band receiver/ transmitter with frequency range of 403 MHz to 473 MHz or 866 MHz.  
Transmit Power :1 W  
Range:5 km
- Data Storage :8 GB internal and external (connected with Controller)
- Wi-Fi: Ultra – Low – Power, supporting IEEE 802.11 b/g/n(2.4 GHz Wi-Fi).
- Bluetooth: fully integrated, fully sealed 2.4 GHz communication port
- Single RTK corrections from specific stations and also from nearest stations.
- Network RTK corrections from VRS, FKP and MAC,iMAXsolution through NTRIP protocol.



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**NAVIK-50  
GNSS RECEIVER**