

# WORLD DGNSS

## C-Nav3050



### C-Nav3050 FEATURES:

- 66-channel combined GPS/GNSS/L-band receiver.
- Full Constellation tracking GPS, GLONASS, Galileo, **C-NavC<sup>1</sup>** and **C-NavC<sup>2</sup>**, other SBAS (WAAS/EGNOS) signals, and accepts external RTCM input.
- Small and lightweight for fast and hassle-free setup.
- Easily configured utilizing C-Nav proprietary PC-based controller software application.
- Easily monitored with intuitive front-panel LEDs or a C-NaviGator II Control/Display Unit.



Contract Holder  
FSS Contract GS-07F-5671P



0191/08

## FEATURES

- "All-in-view" parallel tracking with 66 channels
- SBAS (WAAS/EGNOS/MSAS/GAGAN) Tracking
- Built-in **C-NavC<sup>1</sup>** and **C-NavC<sup>2</sup>**-L-band receiver
- **C-NavC<sup>2</sup>** operating mode with automatic failsafe to **C-NavC<sup>1</sup>**
- L1, L2, L5, G1 & G2 full wavelength carrier phase tracking
- C/A, P1, P2, L2C, L5, G1 and G2 code tracking
- Software upgradeable for Galileo signal reception (E1, E5a)
- High sensitivity / Low signal level tracking
- Fast signal acquisition / re-acquisition
- Superior interference suppression (both in and out of band)
- Patented multipath rejection
- RTK Extend and C-Nav Over-The-Air activation capabilities
- Configurable as RTK base or rover
- Programmable output rates
- Event Marker input / 1PPS output
- 2GB Internal data storage

## PHYSICAL/ENVIRONMENTAL

- Size (L x W x H): 6.47" x 4.60" x 2.37" (164 x 117 x 60mm)
- Weight: 1.1 lbs (0.5 kg)
- Front Status Indication: Power/GPS Status, Correction Service Status, Interface Status, and Bluetooth Status
- External Power Input: AC/DC Adapter 110/220VAC  
12VDC Nominal 0.5A  
(9.0V to 32VDC)
- Connectors
  - I/O Ports: 2 x 9 pin Positronic
  - DC Power: 1 x 9 pin Positronic
  - RF Connector: TNC (with 5VDC bias for antenna/LNA)
- Temperature (ambient)
  - Operating: -40° C to +70° C (-40° F to 158° F)
  - Storage: -40° C to +85° C (-40° F to 185° F)
- Humidity: 95% non-condensing
- Tested in accordance with MIL-STD-810F for: Low pressure, solar radiation, rain, humidity, salt fog, sand dust, and vibration

## COMPLIANCE/APPROVALS

- Compliance with the following standards:
  - > IMO performance standard for GPS\* > IEC 60529
  - > FCC Part 15 Class B, CE
  - > QC message strings comply with recommendations OGP 373-19 and IMCA S015 (July 2011)
- Type Approvals:
  - > Wheelmark
  - > USCG

## PERFORMANCE

### GNSS RECEIVER PERFORMANCE

- Accuracy (RMS):
 

Horizontal / Vertical	1 cm + 0.5ppm / 2cm + 1ppm
RTK (<40km):	typically <10cm / <15cm
<b>C-NavC<sup>1</sup> / C-NavC<sup>2</sup>:</b>	45cm + 3ppm / 90cm + 3ppm
Code DGNSS (<200km):	0.01ms
Velocity:	3cm + 1ppm / 6cm + 2ppm
RTK Extend (<15 mins):	
- User Programmable Output Rates
 

Position/Velocity/Time:	1, 5, 10, 25, 50, & 100 Hz
Raw Data:	1, 5, 10, 25, 50, & 100 Hz
- Data Latency
 

Position/Velocity/Time:	10ms at all rates
Raw Data:	10ms at all rates
- Time-to-First-Fix
 

Cold/Warm/Hot:	<60s / <50s / <20s
	(typical values measured per ION-STD 101)
- Dynamics
 

Acceleration*:	up to 6g
Speed*:	<515m/s (1000 knots)
Altitude*:	<60,000ft (18.3km)

\*Restrictions due to export control laws

## I/O CONNECTOR ASSIGNMENTS

- Data Interfaces:
 

2 x RS232 (1 - changeable to RS422, 4800-115200 baud rates)
1 x USB 2.0 (Host or Device)
Bluetooth
Ethernet (10T/100T)

## INPUT/OUTPUT DATA MESSAGES

- NMEA-0183: ALM, GBS, GGA, GLL, GRS, GSA, GST, GSV, RMC, RRE, VTG, ZDA, NCT
- Differential Correction: RTCM 2.3 and 3.0, SBAS and C-Nav (proprietary)
- RTK Correction: CMR/CMR+, RTCM, NavCom Ultra RTK
- Receiver Control: NavCom Proprietary Commands (ASCII)

## C-NaviGator. CONTROL DISPLAY UNIT OPTION

- Dimensions (W x H x D): 13.4" x 10.3" x 3.3" (34.0 x 26.2 x 8.4cm)



C-NaviGator II. Control Display Unit

\* In compliance with US and International export control laws

\*IMO require all SOLAS class ships to carry a type-approved GPS and further that any new GPS installation shall be compliant with the new performance standard for GPS. This was defined by MSC 112(73) and resulted in the associated test standard IEC 61108-1 Ed. 2.

WWW.CNAVGNSS.COM

Specifications subject to change without notice.  
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