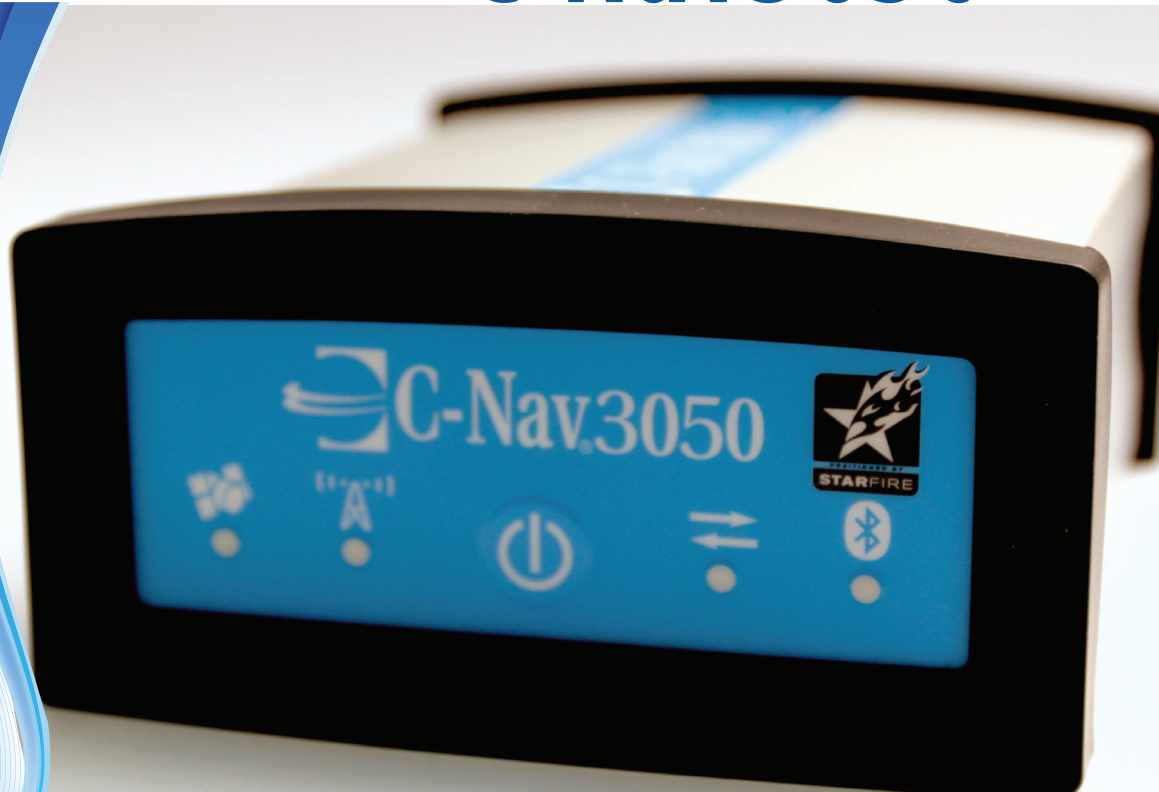




INTEGRATED SOLUTIONS

C-Nav3050



C-Nav 3050 FEATURES:

- 66-channel combined GPS / GNSS / L-Band receiver.
- Full Constellation tracking, GPS, GLONASS, **C-NavC¹** and **C-NavC²**, other SBAS (WAAS / EGNOS) signals, and accepts external RTCM input. Corrections over Internet. A choice of data rates make corrections via the internet affordable, and using Iridium delivery, reception at an Latitude is possible.
- C-Nav Over IP - Reliable High Latitude Solutions
- MBRTK - Range and Bearing Solutions
- 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 C-NaviGator III Control / Display Unit.



Contract Holder
FSS Contract GS-07F-5671P



0191/08

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FEATURES

- "All-in-view" parallel tracking with 66 channels
- SBAS (WAAS / EGNOS / MSAS / GAGAN) Tracking
- Built-in **C-NavC¹** and **C-NavC²** L-Band receiver
- **C-NavC²** operating mode with automatic failsafe to **C-NavC¹**
- L1, L2, L5, G1 & G2 full wavelength carrier phase tracking. Low look angle L-Band antenna. Easily installed delivered coverage area.
- C-Nav correction over the internet
- C/A, P1, P2, L2C, L5, G1 and G2 code tracking
- 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
- C-Nav Over-The-Air activation capabilities
- Configurable as RTK base or rover
- High accuracy range and bearing data
- Programmable output rates
- Event Marker input / 1 PPS 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 110/220 VAC
- 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
- Testing 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 (Only applies to C-Nav3050 with Standard Antenna)
 - > USCG

* 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.

PERFORMANCE

GNSS RECEIVER PERFORMANCE

- Accuracy (RMS):

RTK (<40km):	Horizontal / Vertical (Typical)
C-Nav Service:	1cm + 0.5ppm / 2cm + 1ppm
Code DGNSS (<200 km):	5cm / 10cm
Velocity:	45cm + 3ppm / 90cm + 3ppm
RTK Extend (<15 mins):	0.01ms
C-Nav Service (95%):	3cm + 1ppm / 6cm + 2ppm
	8cm / 15cm
- 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
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- Dynamics

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

MBRTK - RANGE AND BEARING OPTIONS

- High accuracy range and bearing data between vessels
- Multiple remotes can use a common master C-Nav3050
- RTK levels of accuracy for range, irrespective of differential correctors
- Converter available to emulate a "Fanbeam" output
- Heading accuracy (degrees, at 1 sigma) = 0.6/baseline length in meters
- Baseline horizontal accuracy = 1cm + 1ppm

C-NaviGator® CONTROL DISPLAY UNIT OPTION

- Dimensions (W x H x D): 13.97" x 9.87" x 2.24" (35.5 x 24.8 x 5.7 cm)



C-NaviGator III Control Display Unit

Specifications subject to change without notice
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