SF-3040

- **Multi-frequency, Multi-Constellation Support**
  - GPS & GLONASS
- **Ultra RTK™ (GPS + GLONASS)**
- **Network RTK support**
- **Integrated StarFire receiver supporting**
  - RTK Extend™
  - 5cm standalone operation
- **UHF internal radio option**
- **Removable SD card for static survey**

POSITIONED BY
STARFIRE

NAVCOM

A John Deere Company

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NavCom's SF-3040 Pole-mount GNSS StarFire™/RTK Extend™ Receiver provides both RTK-level accuracy up to 40 km away from the base station or stand alone DGPS five centimeter level position accuracy anywhere in the world, any time with StarFire.

The SF-3040 supports Ultra RTK™, which allows RTK accuracy (1cm, +0.5ppm) at up to 40km from the base station. Combined with Nav-Com's industry-exclusive RTK Extend™, users can work in challenging environments and maintain RTK-level accuracy even during radio outages for up to 15 minutes.

The SF-3040 is StarFire capable, giving users access to the first Global Satellite Based Augmentation System (GSBAS) capable of real-time five centimeter accuracy. Performance is no longer a function of your distance from a reference station, so you have the freedom to use StarFire anywhere in the world.

Powered by the Sapphire™ Engine, the SF-3040 provides 66 channel tracking, including multi-constellation support for GPS, GLONASS, and SBAS. It also provides patented superior signal sensitivity in shaded environments.

Designed for all day use in surveying environments it includes several I/O options, a compartment for an Optional 1 Watt internal UHF radio, removable SD card and hot-swappable batteries.

FEATURES

- Light weight, rugged land survey receiver
- Operates as an RTK base or rover
- Multi-constellation support
  - GPS & GLONASS
- Ultra RTK (up to 40km baseline)
- StarFire Over IP delivery (Optional)
- RTK Extend ™ – Coast through base station outages
- Dual hot swappable batteries for continuous operation
- UHF radio option
- All-in-view" tracking with 66 channels
- Built-in StarFire receiver
- High sensitivity / low signal level tracking
- Fast acquisition / re-acquisition
- Superior interference suppression (both in-band & out-of-band)
- Patented multipath rejection

SYSTEM INCLUDES

- 2 - Batteries
- Battery charger
- 2GB removeable SD memory card
- Serial and USB cables

OPTIONAL ACCESSORIES

- UHF Radio transceiver (up to 1 watt)
- AC/DC power cable
- Unterminated power cable
- Automotive power adapter
- Additional serial cable

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SPECIFICATIONS

PERFORMANCE[1]

- Tracking (Carrier & Phase):

GPS	L1, L2, L2C & L5 carrier, CA, L1P, L2P & L2C code
GLONASS	G1 & G2 carrier, CA & P code
SBAS	WAAS, EGNOS, MSAS & GAGAN

- Accuracy (RMS)   Horizontal / Vertical

RTK (<40km)	1cm + 0.5ppm / 2cm + 1ppm
RTK Extend (<15min)	3cm + 1ppm / 6cm + 2ppm
StarFire	<5cm / <10cm
Velocity	0.01ms
Post Processing	5mm + 0.5ppm / 10mm + 0.5ppm

COMUNICATIONS

- Optional UHF radio   1 watt, 403-473MHz
- Data message formats

NMEA-0183	ALM, GBS, GGA, GLL, GRS, GSA, GST, GSV, RMC, RRE, VTG, ZDA, NCT proprietary
Differential Correction	RTCM 2.3, RTCM 3.1, NTRIP, SBAS, and StarFire (proprietary)
RTK Correction	CMR/CMR+, RTCM 2.3, RTCM 3.1, NavCom Proprietary Ultra RTK™
Ports	2 x RS232 USB 2.0 (Device) Bluetooth™

- Position & Raw data rates   1Hz, 5Hz, 10Hz
- Memory   Removable SD card

PHYSICAL/ENVIRONMENTAL

• Size (D x H):	203mm x 111mm (8in x 4.36in)
• Weight (includes batteries):	1.45kg (3.2lbs)
• Power:	
Input:	AC/DC Adapter 110/220VAC, 12VDC Nominal 0.5A (9.0V to 32VDC)
• Temperature (ambient):	
Operating:	-20º to +45º C (-4º to +113º F)
Storage:	-40º to +85º C (-40º to +185º F)
• Enclosure	Rated IP66 (water resistant/dustrproof)
• Certifications	FCC / CE
• Connectors:	
Power	LEMO, 2-Pin
Com1/USB	LEMO, 7-Pin
Com2	LEMO, 6-Pin
UHF Ant	TNC

[1] *Performance dependent on location, satellite geometry, atmospheric conditions and GNSS corrections.*

Technical specifications subject to change at NavCom's discretion

Underside of the SF-3040