

# **VN-300 DUAL GNSS/INS**

# GNSS-Aided INS with Integrated GNSS-Compass

#### **Product Overview**

The VN-300 is a miniature, high-performance Dual Antenna GNSS-Aided Inertial Navigation System (Dual GNSS/INS) that combines MEMS inertial sensors, two high-sensitivity GNSS receivers, and advanced Kalman filtering algorithms to provide optimal estimates of position, velocity, and attitude. The onboard GNSS-Compass enables accurate heading measurements without reliance on vehicle dynamics or magnetic sensors, providing unmatched performance under both static and dynamic conditions.



## **Product Options**

- ▶ Packaging: The VN-300 is available in two different packaging options: surface mount device (SMD) and aluminum-encased Rugged module. VectorNav offers Development Kits for each of these options, as well as a Breakout Board option for the SMD.
- ► Calibration: All VN-300 units are calibrated for bias, scale factor, misalignment and gyro sensitivity errors across the full temperature range of the sensor from -40°C to +85°C (Thermal Calibration). A Standard Calibration option is not offered for the VN-300.
- ▶ Lead Times: Typical lead times for each of the part numbers listed below in quantities of 1-4 units is 1-2 business days ARO.
- ▶ Volume Discounts: VectorNav offers discounted pricing on the VN-300 for orders of five (5) or more units. Contact VectorNav to request volume pricing on any of the below listed part numbers.
- Minimum Order Quantity (MOQ): There is no Minimum Order Quantity for any VN-300 product option.
- ▶ Purchase: Each of the below listed VN-300 product options can be purchased directly from VectorNav online (www.vectornav.com/purchase/buy-vn-300), by phone (+1-512-772-3615), or by issuing a Purchase Order via email (sales@vectornav.com) or fax (+1-512-772-3086), subject to VectorNav's Terms and Conditions of Sale (www.vectornav.com/terms-and-conditions-of-sale).

PRODUCT VARIATION		PART NUMBER	DESCRIPTION	QUANTITY	PRICE (USD)
VN-300 SMD		VN-300-SMD	VN-300 SMD, Thermal Calibration	1-4	\$3,000
VN-300 Rugged	VECTORNAY B	VN-300	VN-300 Rugged, Thermal Calibration	1-4	\$4,500
VN-300 SMD Dev Kit		VN-300-SMD-DEV	VN-300 SMD Developent Kit, Thermal Calibration	1-4	\$5,000
VN-300 Rugged Dev Kit	VETTERALLY	VN-300-DEV	VN-300 Rugged Development Kit, Thermal Calibration	1-4	\$5,000
VN-300 SMD Breakout Board		VN-300-BB	VN-300 SMD Soldered to Breakout Board, Thermal Calibration	1-4	\$3,030

# **VN-300 Development Kit Options**

#### **VN-300 SMD DEVELOPMENT KIT CONTENTS**

- ▶ Development Board with pre-installed VN-300 SMD
- ▶ (2) Micro USB to USB Cables (2 & 3 m)
- ▶ (1) 1.8 (6 ft.) DB-9 Serial Cable
- ▶ (2) GNSS Antennas

#### **VN-300 RUGGED DEVELOPMENT KIT CONTENTS**

- ► VN-300 Rugged unit
- ▶ (1) RS-232 Serial Adapter Cable
- ▶ (1) USB Adapter Cable
- ▶ (2) GNSS Antennas

- ▶ (2) Coin Cell Batteries
- ▶ DIP Stick
- User Manual & Quick Start Guide
- Carrying Case
- ► Cable Connection Tool
- ▶ User Manual & Quick Start Guide
- Carrying Case





## **VN-300 Cabling & GNSS Antenna**

- ▶ Custom Interface Cables and GNSS Antennas: The below list details interface cabling options for the VN-300 Rugged, as well as GNSS antenna options for the VN-300 SMD and VN-300 Rugged. Upon request, VectorNav can provide VN-300 Rugged custom interface cables of varying lengths and/or with certain pins broken out. VectorNav also carries limited stock of GNSS antennas of varying cable lengths. Prices and lead times on custom cables and GNSS antennas vary.
- ▶ Connectors: The VN-300 Rugged uses Harwin 10-pin locking connectors. The part numbers for these connectors are:
  - Harwin M80-5001042: male connector on the VN-300 Rugged
  - Harwin M80-4861005: female connector on the VN-300 Rugged interfacing cables

PRODUCT VARIATION		PART NUMBER	DESCRIPTION	QUANTITY	PRICE (USD)
VN-300 Rugged USB Cable		VN-C300-0310	VN-300 Rugged USB Adapter Cable	1+	\$100
VN-300 Rugged RS-232 Cable		VN-C300-0410	VN-300 Rugged Serial RS-232 Adapter Cable	1+	\$100
VN-300 Rugged Pigtail Cable		VN-C300-0610	VN-300 Rugged Pigtail Adapter Cable with Pin 10 Flyout Wire	1+	\$100
VN-300 GNSS Antenna		VN-C300-0510	VN-300 GNSS Antenna Tallysman™ 2412 (Tallysman™ 4422 available for SWaP-constrained applications)	1+	\$100

#### **Payment, Export & Shipping**

- VectorNav accepts payment by bank wire transfer and ACH (VectorNav's banking details available upon request), check or credit card (VISA, Mastercard & AMEX accepted).
- ▶ VectorNav requires Cash-In-Advance (CIA) payment for all first-time customers. Please provide VectorNav a copy of your credit references if you wish to apply for Net-30 terms.
- For local support, please see a full list of VectorNav's global representatives at www.vectornav.com/about/global-sales.
- ▶ VectorNav ships within the USA via UPS and FedEx, and internationally via DHL, UPS and FedEx.
- ▶ All VN-300 products ship with a Certificate of Conformance. Upon shipment VectorNav provides via email the invoice for the purchase and tracking number for the package.