VN-310 DUAL GNSS/INS

Tactical-Grade GNSS/INS with Integrated GNSS-Compass

Product Overview

The VN-310 is a tactical-grade, high-performance Dual Antenna GNSS-Aided Inertial Navigation System. Incorporating the latest inertial sensor and GNSS technology, the VN-310 combines 3-axis accelerometers, gyros, and magnetometers and two multi-band L1/L2/E1/E5b GNSS receivers into a compact embedded module or ruggedized package to deliver a high-accuracy position, velocity and attitude solution under both static and dynamic conditions.

VN-310

VN-310E

PRODUCT VARIATION		PART NUMBER	DESCRIPTION	QUANTITY	PRICE (USD)
VN-310		VN-310	VN-310 Tactical Series Dual Antenna GNSS/INS, Includes (2) Tallysman™ 7882 GNSS Antennas[1]	1-4	Call for pricing
VN-310-A (RS-232)		VN-310-A	VN-310 Tactical Series Dual Antenna GNSS/INS, RS-232 on Primary Port, Includes (2) Tallysman™ 7882 GNSS Antennas[1]	1-4	Call for pricing
VN-310E (Embedded)		VN-310E	VN-310E Tactical Embedded Dual Antenna GNSS/INS	1-4	Call for pricing
VN-310 Development Kit		VN-310-DEV	VN-310 Tactical Series Dual Antenna GNSS/INS Development Kit	1-4	Call for pricing
VN-310-A Development Kit		VN-310-A-DEV	VN-310 Tactical Series Dual Antenna GNSS/INS Development Kit, RS-232 on Primary Port	1-4	Call for pricing
VN-310E Development Kit		VN-310E-DEV	VN-310E Tactical Embedded Dual Antenna GNSS/INS Development Kit	1-4	Call for Pricing

1. VectorNav offers Tallysman™ 8889 Dual Band GNSS Antennas for size and weight constrained applications.

Product Options

▶ **Packaging**: The VN-310 is available in two different packaging options: an IP68 Rated anodized aluminum enclosure (VN-310) and board-mount Embedded (VN-310E). VectorNav offers a Development Kit option for the VN-310, VN-310-A, and VN-310E.

▶ **Calibration**: Each VN-310 and VN-310E unit is calibrated for bias, scale factor, misalignment and gyro g-sensitivity errors across the full temperature range of the sensor (-40˚C to +85˚C).

▶ **Lead Times**: Typical lead times for each of the part numbers listed above in quantities of 1-4 units is 1-2 weeks.

▶ **Volume Discounts**: VectorNav offers discounted pricing on each of the VN-310 and VN-310E for orders of five (5) or more units.

▶ **Minimum Order Quantity (MOQ)**: There is no Minimum Order Quantity for the VN-310. There is a Minimum Order Quantity of (1) VN-310E Development Kit, per customer, prior to purchasing single VN-310E units.

▶ **Purchase**: Each of the listed VN-310 and VN-310E product options can be purchased directly from VectorNav 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).

VN-310 Cabling & GNSS Antennas

▶ **Custom Interfacing Cables and GNSS Antennas**: The below list details interface cabling options for the VN-310, as well as GNSS antenna options for the VN-310 and VN-310E. Upon request, VectorNav can provide VN-310 custom interface cables of varying lengths. 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-310 uses Fischer Ultimate circular push-pull receptable connectors. The part numbers for these connectors are:
   - Primary Port: UR02W07F010PBK3E2AB; Mating: UP01L07M010SBK3Z2ZB
   - Secondary Port: UR02W07F010PBK1E2AB; Mating: UP01L07M010SBK1Z2ZB

▶ **GNSS Antenna Connectors**: The VN-310 uses Samtec SMA GNSS antenna connectors. The part numbers for these connectors are:
   - GNSS Antenna Connector: MH113-01SB1-MH1RP; Mating: Straight SMA Plug

PRODUCT VARIATION		PART NUMBER	DESCRIPTION	QUANTITY	PRICE (USD)
Main Port Pigtal		VN-CMG-11120	VN-310 Main Port Pigtail Cable (10 ft./3 m)	1+	$300
Main Port DB-15		VN-CMG-21120	VN-310 Main Port DB-15 Cable (10 ft./3 m) (*Recommended for Testing and Evaluation*)	1+	$300
Main Port DB-15 to USB		VN-CMI-20072	VN-310 Main Port DB-15 to USB Adapter Cable (6 ft./1.8 m) (*Recommended for Testing and Evaluation, Requires Main Port DB-15 Cable*)	1+	$150
Auxiliary Port Pigtail		VN-CAG-10120	VN-310 Auxiliary Port Pigtail Cable (10 ft./3 m)	1+	$300
Auxiliary Port DB-15		VN-CAG-20120	VN-310 Auxiliary Port DB-15 Cable (10 ft./3 m)	1+	$300
Auxiliary Port DB-15 to USB		VN-CAI-20072	VN-310 Auxiliary Port DB-15 to USB Adapter Cable (6 ft./1.8 m) (*Requires Auxiliary Port DB-15 Cable*)	1+	$150
VN-310 & VN-310E GNSS Antenna		VN-TS-TW7882	VN-310 and VN-310E Tallysman™ 7882 GNSS Antenna[1] (16.4 ft./5 m)	1+	$200

1. VectorNav offers Tallysman™ 8889 Dual Band GNSS Antennas for size and weight constrained applications.

VN-310 Development Kit Options

VN-310 Development Kit Contents

- ▶ (1) VN-310 Unit (VN-310 or VN-310-A)
- ▶ (2) 5 m (16.4 ft) Tallysman™ 7882 Dual Band GNSS Antennas
- ▶ (1) VN-CMG-21120 - Tactical Series Main Port DB-15 - 10 ft
- ▶ (1) VN-CMI-20072 - Tactical Series Main Port DB-15 to USB + 24V Wall Adapter
- ▶ (1) VN-CMG-11120 - Tactical Series Main Port Pigtail - 10 ft
- ▶ User Manual, Quick Start Guide & Documentation
- ▶ Hard-Shell Pelican™ Carrying Case

VN-310E Development Kit Contents

- ▶ (1) VN-310E unit, pre-installed to Development Board with 24-pin mating connector
- ▶ Board Size: 76 x 76 x 14 mm (3 x 3 x 0.55 in)
- ▶ 24-pin 0.1" Header
- ▶ (2) 5 m (16.4 ft) Tallysman™ 7882 Dual Band GNSS Antennas
- ▶ (2) U.fl to U.fl Cables
- ▶ (2) Micro USB to USB Cables (2 meter & 3 meter)
- ▶ 1.8 m (6 ft) DB-9 Serial Cable
- ▶ DIP Stick
- ▶ User Manual, Quick Start Guide & Documentation
- ▶ Hard-Shell Pelican™ Carrying Case

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-310 and VN-310E products ship with a Certificate of Conformance. Upon shipment VectorNav provides via email a copy of the invoice for the purchase and tracking number for the package.
- ▶ Purchase: Each of the listed VN-310 and VN-310E product options can be purchased directly from VectorNav 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).

VECTORNAV

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