

# VN-100 IMU/AHRS

Miniature, lightweight and high-performance IMU & AHRS






## Product Overview

The VN-100 is a miniature, high-performance Inertial Measurement Unit (IMU) and Attitude Heading Reference System (AHRS). Combining 3-axis accelerometers, gyros and magnetometers, and a barometric pressure sensor, the VN-100 provides high-rate, calibrated IMU data and a real-time 3D attitude solution that is continuous over the complete 360 degrees of motion.



## Product Options

- **Packaging:** The VN-100 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-100 units are calibrated for bias, scale factor, misalignment and gyro g-sensitivity errors at room temperature (Standard Calibration at 25°C (valid  $\pm 10^\circ\text{C}$ ) or across the full temperature range of the sensor from -40°C to +85°C (Thermal Calibration). The Standard Calibration is available for software development, while the Thermal Calibration is recommended for all other operating environments. These calibration options are offered for the user to select upon purchase of any VN-100 product.
- **Lead Times:** Typical lead times for each of the part numbers listed below in quantities of 1-9 units is 1-2 business days ARO.
- **Volume Discounts:** VectorNav offers discounted pricing on the VN-100 for orders of ten (10) 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-100 product option.
- **Purchase:** Each of the below listed VN-100 product options can be purchased directly from VectorNav via our online store (accessible by the red cart in the top right corner of every [www.vectornav.com](http://www.vectornav.com) page; visible when signed in to your verified VectorNav account), by phone (+1-512-772-3615), or by issuing a Purchase Order via email ([sales@vectornav.com](mailto: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](http://www.vectornav.com/terms-and-conditions-of-sale)).

PRODUCT VARIATION	PART NUMBER	DESCRIPTION	QUANTITY	PRICE (USD)
 VN-100 SMD	VN-100S	VN-100 SMD, Standard Calibration	1-9	\$600
	VN-100T	VN-100 SMD, Thermal Calibration	1-9	\$950
 VN-100 Rugged	VN-100S-CR	VN-100 Rugged, Standard Calibration	1-9	\$950
	VN-100T-CR	VN-100 Rugged, Thermal Calibration	1-9	\$1,300
 VN-100 SMD Dev Kit	VN-100S-DEV	VN-100 SMD Development Kit, Standard Calibration	1-9	\$950
	VN-100T-DEV	VN-100 SMD Development Kit, Thermal Calibration	1-9	\$1,250
 VN-100 Rugged Dev Kit	VN-100S-CR-DEV	VN-100 Rugged Development Kit, Standard Calibration	1-9	\$1,200
	VN-100T-CR-DEV	VN-100 Rugged Development Kit, Thermal Calibration	1-9	\$1,525
 VN-100 SMD Breakout Board	VN-100S-BB	VN-100 SMD Soldered to Breakout Board, Standard Calibration	1-9	\$750
	VN-100T-BB	VN-100 SMD Soldered to Breakout Board, Thermal Calibration	1-9	\$1,100

## VN-100 Development Kit Options

### VN-100 SMD DEVELOPMENT KIT CONTENTS

- ▶ (1) Development Board with pre-installed VN-100 SMD
- ▶ (2) Micro USB to USB Cables (2 & 3 m)
- ▶ (1) 1.8 (6 ft.) DB-9 Serial Cable
- ▶ (2) Coin Cell Batteries
- ▶ DIP Stick
- ▶ User Manual & Quick Start Guide
- ▶ Carrying Case






### VN-100 RUGGED DEVELOPMENT KIT CONTENTS

- ▶ (1) VN-100 Rugged unit
- ▶ (1) RS-232 Serial Adapter Cable
- ▶ (1) USB Adapter Cable
- ▶ Cable Connection Tool
- ▶ User Manual & Quick Start Guide
- ▶ Carrying Case



## VN-100 Interface Cabling

- ▶ **Custom Interface Cables:** The below list details interface cabling options for the VN-100 Rugged. Upon request, VectorNav can provide VN-100 Rugged custom interface cables of varying lengths and/or with certain pins broken out.
- ▶ **Connectors:** The VN-100 Rugged uses Harwin 10-pin locking connectors. The part numbers for these connectors are:
  - Harwin M80-5001042: male connector on the VN-100 Rugged
  - Harwin M80-4861005: female connector on the VN-100 Rugged interfacing cables

PRODUCT VARIATION		PART NUMBER	DESCRIPTION	QUANTITY	PRICE (USD)
VN-100 Rugged USB Cable		VN-C100-0310	VN-100 Rugged USB Adapter Cable	1+	\$125
VN-100 Rugged RS-232 Cable		VN-C100-0410	VN-100 Rugged Serial RS-232 Adapter Cable	1+	\$125
VN-100 Rugged Pigtail Cable		VN-C100-0611	VN-100 Rugged Pigtail Adapter Cable	1+	\$125

## 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](http://www.vectornav.com/about/global-sales).
- ▶ VectorNav ships within the USA via UPS and FedEx, and internationally via DHL, UPS and FedEx.
- ▶ All VN-100 products ship with a Certificate of Conformance. Upon shipment VectorNav provides via email the invoice for the purchase and tracking number for the package.