



## Heading and Relative Positioning Solution

### Benefits and Features

Precise heading and pitch

Accurate relative positioning

GPS + GLONASS satellite availability

Easy to use plug and play installation

Easy creation of ALIGN network

SPAN INS functionality

NovAtel's ALIGN technology combines two or more receivers to generate precise positioning and heading for dynamic applications. ALIGN uses GPS, GLONASS and SBAS to provide the best solution accuracy and availability for your application even in harsh environments. You get the accuracy you need from synchronized solutions with output rates up to 20 Hz.

### ALIGN is available in two models:

**ALIGN Heading™:** Generates high precision heading and pitch angles between two receivers for real-time navigation.

ALIGN Accuracy

	0.5m Baseline	1m Baseline	2m Baseline
<b>Single Frequency - Fixed Heading Accuracy</b>	0.60 degrees	0.30 degrees	0.15 degrees
<b>Dual Frequency - Fixed Heading Accuracy</b>	0.40 degrees	0.20 degrees	0.10 degrees

**ALIGN Relative Positioning™:** Generates high accuracy heading, pitch, relative separation and positioning between two or more receivers for high precision monitoring and automation.

Plug-and-play functionality can quickly and easily create an ALIGN system that communicates through a wireless or cable link. You can also create a network of multiple ALIGN receivers that all have spatial awareness of each other.<sup>1</sup>

ALIGN is offered on NovAtel OEMV<sup>®</sup> and OEM6<sup>™</sup> receiver platforms.

If you require more information about Firmware, visit [novatel.com/products/firmware-options](http://novatel.com/products/firmware-options)



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<sup>1</sup>Please refer to the ALIGN Application note for more use cases (<http://www.novatel.com/assests/documents/bulletins/apn048.pdf>)

## ALIGN Use Cases:

### Heading Use Case: Fixed Antenna Distance between Master and Rover Receivers on One Platform

Figure 1:

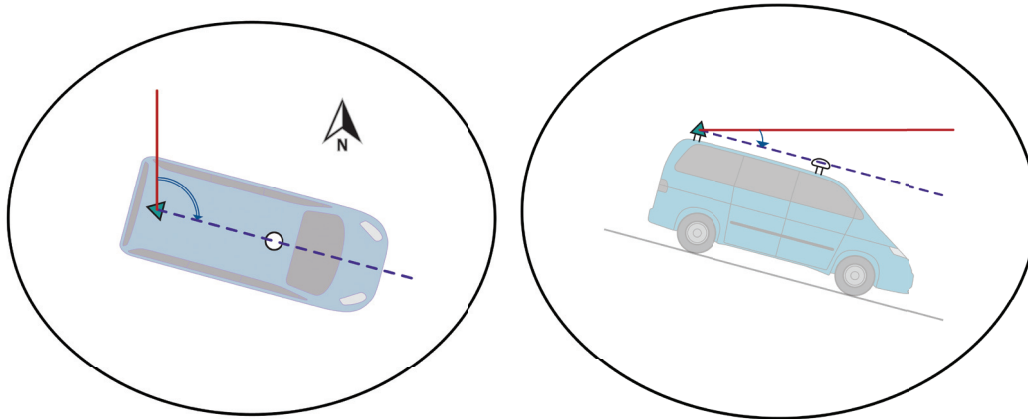


Figure 1 illustrates Master and Rover receivers located on the same vehicle and two antennas installed at a fixed distance from one another. Relative heading and pitch are computed with respect to the Master receiver.

### Relative Positioning Use Case: Master and Rover Receivers on Separate Moving Platforms

Figure 2:

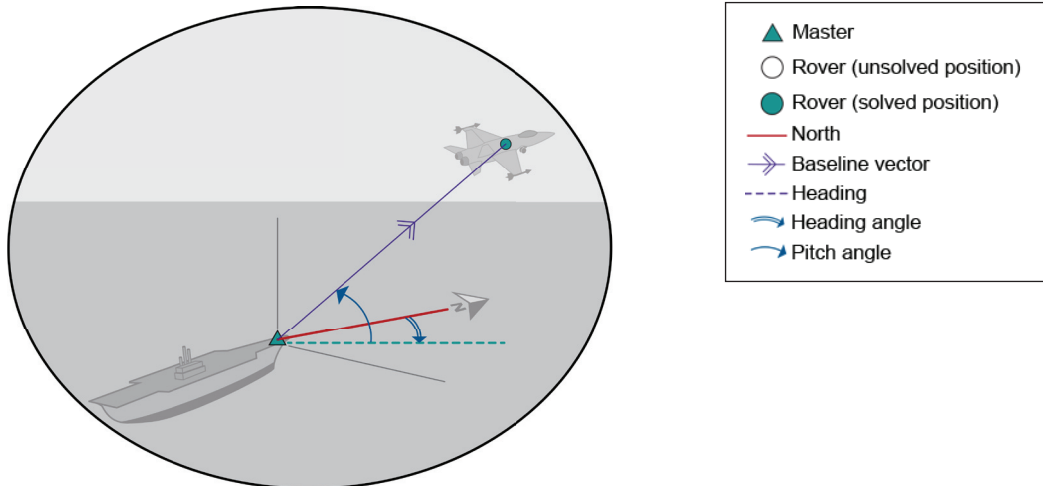


Figure 2 illustrates the Master receiver located on a marine vessel and the Rover receiver located on a fighter jet. Relative heading, pitch, baseline length and Rover positions are computed with respect to the Master receiver.

For the most recent details of this product,  
visit [novatel.com/products/firmware-options/align](http://novatel.com/products/firmware-options/align)



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