

ALIGN for Defense

Heading and relative positioning firmware

ALIGN technology by Hexagon | NovAtel combines two or more receivers to generate precise positioning and heading for dynamic applications. ALIGN uses GPS, GLONASS, Galileo and BeiDou 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

	2 m Baseline	4 m Baseline
Dual frequency – fixed heading accuracy	0.08 degrees	0.05 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.¹



Credit: Schiebel

Benefits and Features

- Precise heading and pitch
- Accurate relative positioning
- GPS, GLONASS, Galileo and BeiDou satellite availability
- Easy to use plug and play installation
- Easy creation of ALIGN network
- SPAN INS functionality

ALIGN Use Cases

Heading use case: Fixed antenna distance between master and rover receivers on one platform

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.

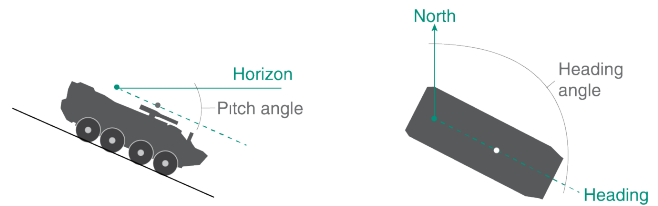


Figure 1: Heading use case: Fixed antenna distance between master and rover receivers on one platform

Relative positioning use case: Master and rover receivers on separate moving platforms

Figure 2 illustrates the master receiver located on a marine vessel and the rover receiver located on a rotary UAV. Relative heading, pitch, baseline length and rover positions are computed with respect to the master receiver.

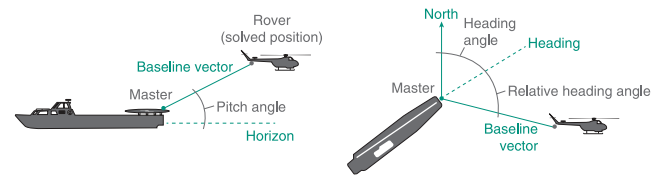


Figure 2: Relative positioning use case: Master and rover receivers on separate moving platforms

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