



## NanoSense GPS Kits

## Datasheet

Kit with GPS module and antenna for NanoDock ADCS

Product name: NanoSense GPS Kit

Document No.: 1015610

Revision: 2.5

Author: KATU

Approved by: TINI

Approval date: 15 Jan 2025

## Confidentiality Notice

This document is submitted for a specific purpose as agreed in writing and contains information, which is confidential and proprietary. The recipient agrees by accepting this document, that this material will not be used, transferred, reproduced, modified, copied or disclosed in whole or in part, in any manner or to any third party, except own staff to meet the purpose for which it was submitted without prior written consent.

GomSpace © 2025

1 Table of Contents

2 OVERVIEW ..... 4

3 MAIN FEATURES OF GPS MODULE..... 4

4 KIT CHOICES ..... 4

5 MOUNTING ..... 5

5.1 Mounting on a NanoDock DMC-3 or ADCS-3 (NovAtel OEM719A) ..... 5

5.2 Mounting on a NanoDock ADCS-6 or ADCS-8 (NovAtel OEM719B)..... 5

6 ANTENNA ..... 6

7 RAILS..... 6

8 DISCLAIMER ..... 6

## 2 Overview

GomSpace offers GPS antenna kits designed for mounting on NanoDock DMC-3, NanoDock ADCS-3, NanoDock ADCS-6 and NanoDock ADCS-8. Each GPS kit contains a NovAtel GPS module and a GPS antenna.

The datasheet and manuals for the GPS module and antennas can be found here:

GPS:

[http://docs.novatel.com/OEM7/Content/Technical\\_Specs\\_Receiver/OEM719\\_Specifications.htm](http://docs.novatel.com/OEM7/Content/Technical_Specs_Receiver/OEM719_Specifications.htm)

Antenna:

<https://www.tallysman.com/product/tw1322-embedded-single-band-gnss-antenna-pre-filtered/>

## 3 Main Features of GPS Module

- Precision, position: 1.5 m
- Precision, velocity: 0.03 m/s
- Power: 3.3 V and <400 mA
- COCOM limit removed
- Mass: 31 g
- Size: 46 x 72 x 11 mm

## 4 Kit Choices

Each kit includes:

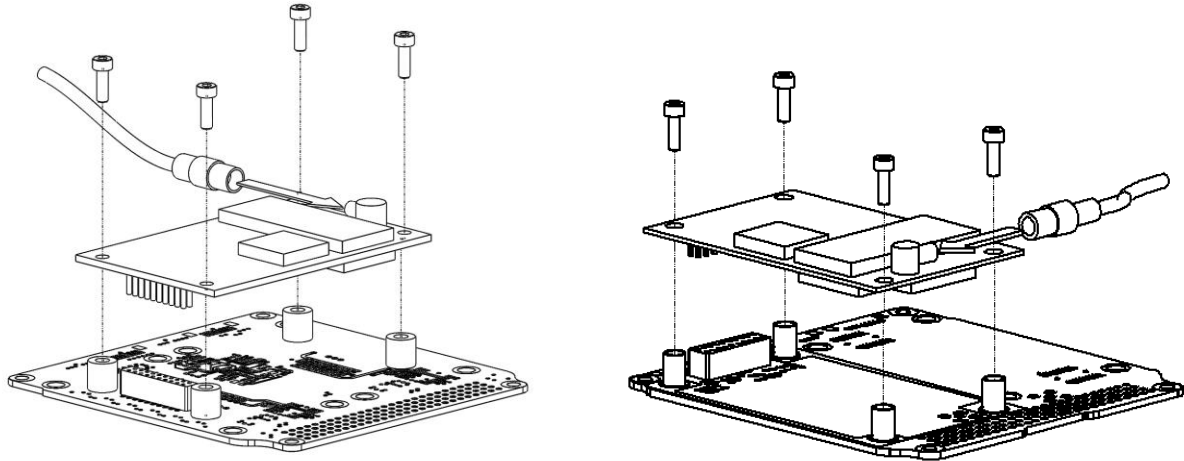
- A NovAtel OEM719 GPS module. The location of the connectors on the PCB depends on which NanoDock it is mounted on. If a NanoDock ADCS-6 or NanoDock ADCS-8 is used, the GPS module is mounted on a pair of rails.
- An antenna
  - Tallysman TW1322
    - Antenna cable length, Choice of 15, 25, 35 or 45 cm
    - Four holes for screws used for mounting
    - Collective mass: 54 – 57 g, including GPS module, dependent on antenna cable length

## 5 Mounting

Mounting of the GPS module is different depending on the NanoDock. See the details below

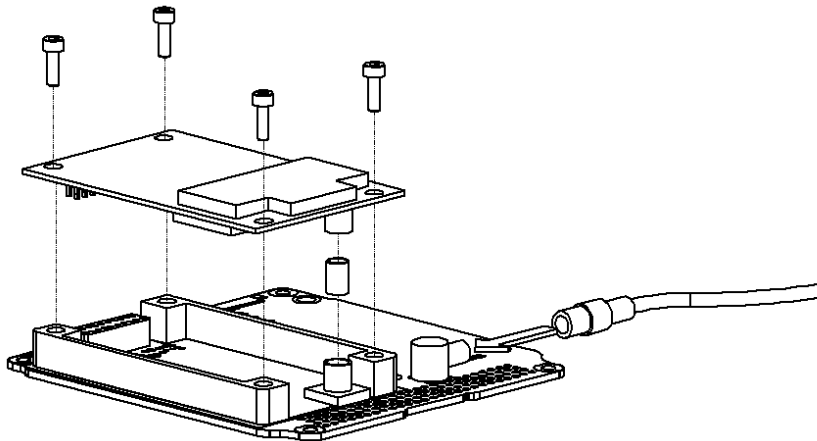
### 5.1 Mounting on a NanoDock DMC-3 or ADCS-3 (NovAtel OEM719A)

This kit is mounted on the bottom of the NanoDock DMC-3 (below left) or on the top of the NanoDock ADCS-3 (below right). Notice the antenna connector is on the top.



### 5.2 Mounting on a NanoDock ADCS-6 or ADCS-8 (NovAtel OEM719B)

This kit is mounted on the top of the NanoDock ADCS-6 or NanoDock ADCS-8 with an RF barrel to connect it to the NanoDock. The antenna is connected to the antenna connector on the NanoDock.



## 6 Antenna

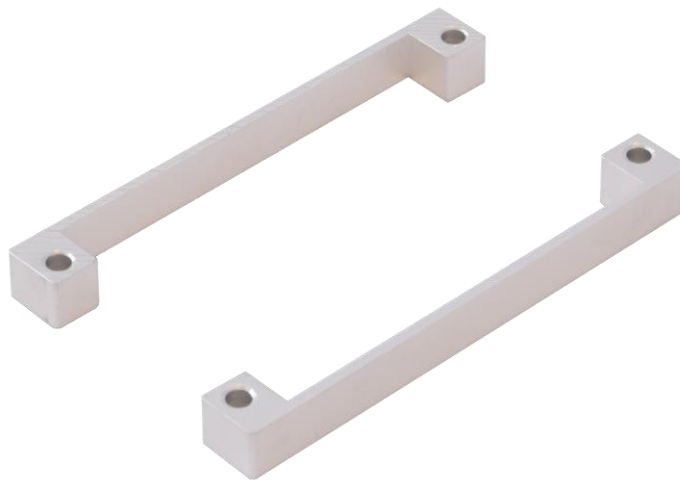
Below are shown photos of the antenna, the cable and connector.

### Tallysman



## 7 Rails

The GPS module is mounted on the ADCS-6 or ADCS-8 with two rails, this is to improve the thermal and vibration performance of the module.



## 8 Disclaimer

The information in this document is subject to change without notice and should not be construed as a commitment by GomSpace. GomSpace assumes no responsibility for any errors that may appear in this document.

In no event shall GomSpace be liable for incidental or consequential damages arising from use of this document or the software and hardware described in this document.