



## NanoSense GPS Kits

### Datasheet

Kit with GPS module and antenna for NanoDocks ADCS

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## 2 Overview

GomSpace offers GPS antenna kits designed for mounting on NanoDock DMC-3, NanoDock ADCS-3 and NanoDock ADCS-6. 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:

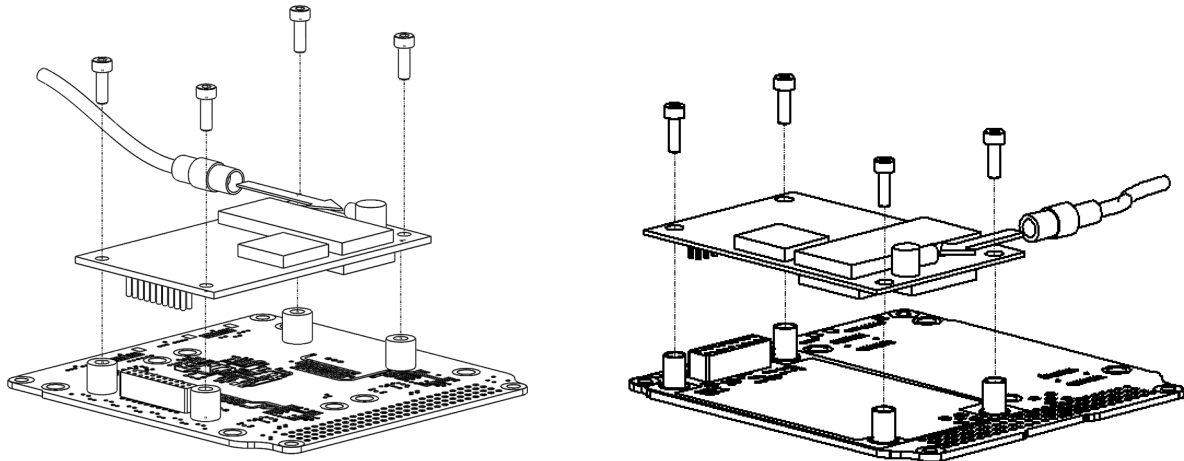
- A NovAtel OEM719 GPS module. The location of the connectors on the PCB depends on which NanoDock it is mounted on. If a NanoDock ADCS-6 is used, the GPS module is mounted on a pair of rails.
- An antenna
  - Tallysman TW1322
    - Antenna cable length, Choice of 15, 25, 35 or 45 cm
    - Four holes 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

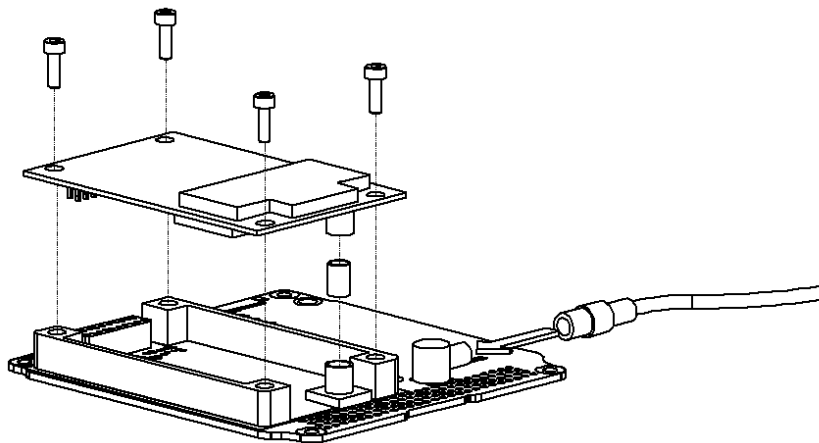
### 5.1 Mounting on a NanoDock DMC-3 or ADCS-3

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

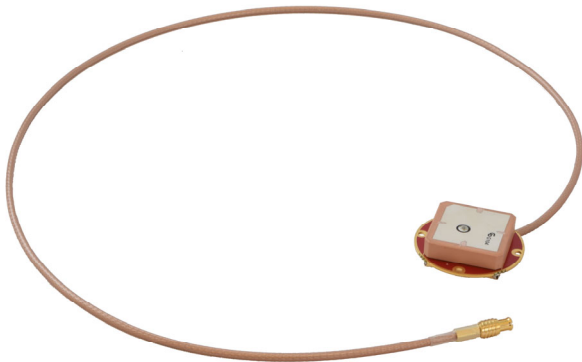
This kit is mounted on the top of the NanoDock ADCS-6 with a RF barrel to connect it to the NanoDock. The antenna is connected to the antenna connector or the NanoDock.



## 6 Antenna

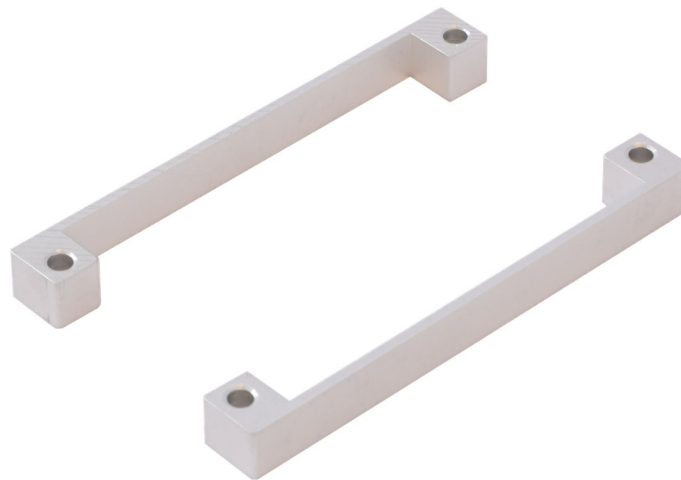
Below are shown photos of the antenna, the cable and connector.

### Tallysman



## 7 Rails

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



## 8 Disclaimer

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