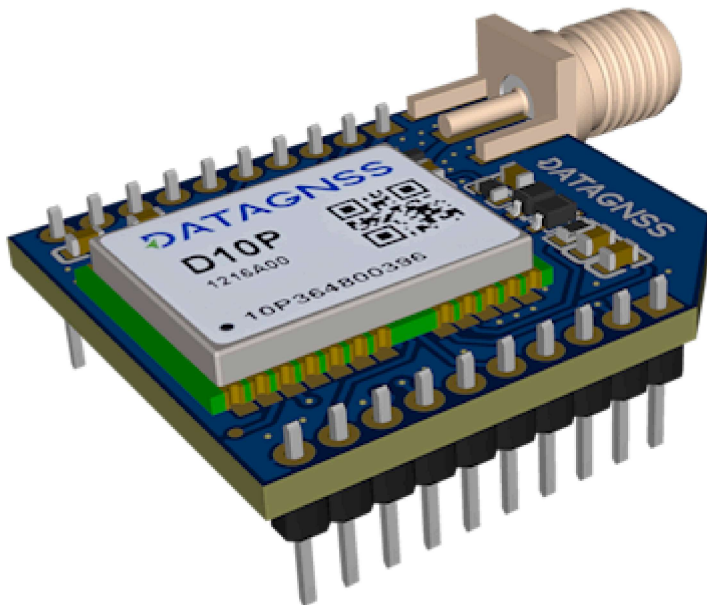


NANO AGR RTK Receiver

Overview

NANO AGR RTK Receiver is a multi-constellation, multi-frequency RTK receiver. It is based on Allystar's new generation dual-core GNSS SoC and supports up to **10Hz data output**. NANO AGR RTK Receiver supports conventional RTK **base and rover** functions. It supports a maximum of **128 hardware channels** and can receive almost all visible satellites.



Features

- Output rate 5Hz default, max up to 10Hz
- Support Multi-bands Multi-constellations
- Support RTCM output and input
- Support NMEA output
- Support setup base station automatically
- Support dual-UART interface

Specifications

GNSS

- GNSS Constellation
 - GPS/QZSS L1, L5
 - GALILEO E1, E5a
 - GLONASS G1
 - BDS B1I B2a
- Frequencies: L1+L5
- Channels: 128 hardware channels
- Protocol
 - NMEA output, GGA/GSA/GSV/VTG/ZDA/GLL/RMC/GST/TXT
 - RTCM v3 input and output (support MSM7 output, MSM4/MSM5/MSM7 input)
- Output rate: 1/5/10 Hz
 - 5Hz default (Dual-band, GPS/GALILEO/BDS/QZSS)
 - 10Hz (Dual-band, GPS/GALILEO/BDS/QZSS, GGA/RMC/VTG 10Hz other messages 1Hz)

Accuracy

- Single Positioning
 - 1.5m CEP
- RTK Positioning
 - H: 1cm + 1PPM
 - V: 3cm + 1PPM

Interface

- UART: 2 UART, default 230400bps
- RF: SMA-K connector
- 2.54mm Pin Header, 20 pins

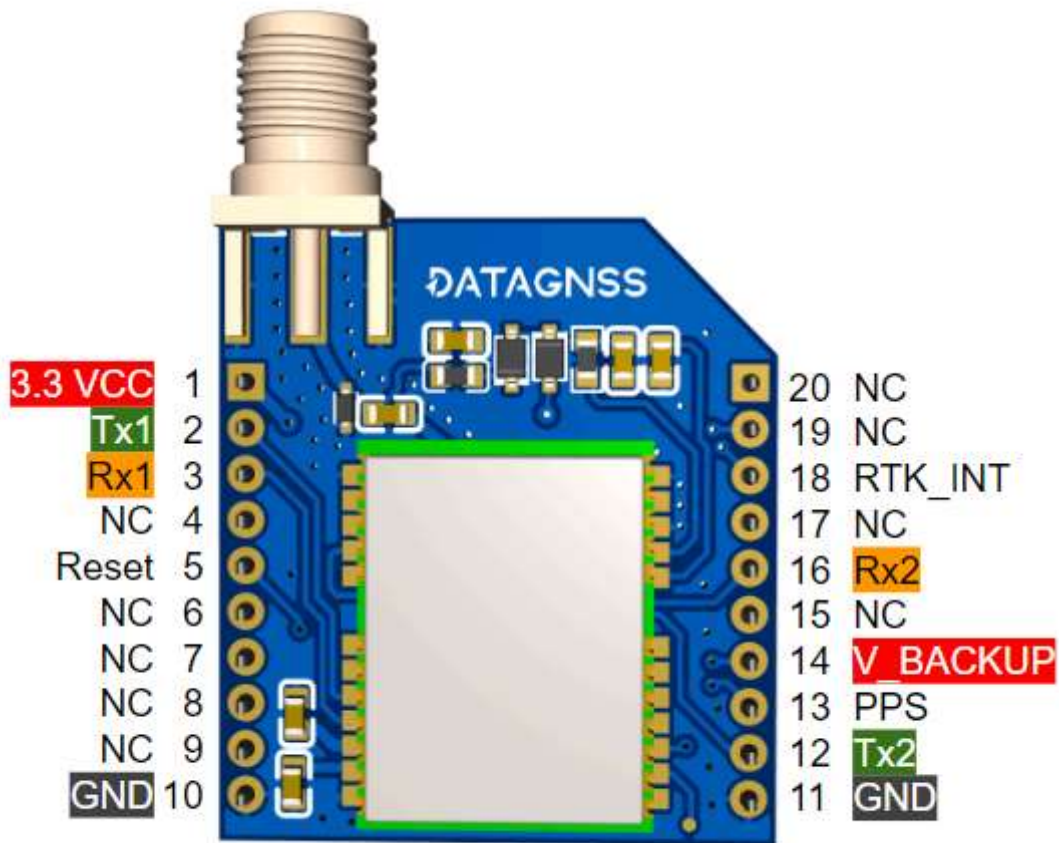
Electronic

- Input Vcc: **3.3V** (Typical)
- TTL level: 1.8~3.6V

Environment

- Operational temp.: -20~85°C

Pinout



GNSS Antenna recommendation

There is a built-in LNA and SAW in the module. It is recommended to use an active antenna with gain **less than 30 dB** and the noise figure **less than 1.5 dB**. However, if you are using a longer cable, this gain can be increased appropriately.