LoCAT Heading

Dual precision GNSS RTK receiver

Robust and ready for any use case, with unrivalled cost-benefit ratio

Summary

The LoCAT Heading is a dual GNSS RTK multi-band receiver for universal use in applications that require precise position and direction determination, such as in mobile robotics or off-highway applications.

It features best-in-class cost-effectiveness and is built for deployment in even the most harsh conditions thanks to its sturdy and compact design.

Description

The LoCAT Heading is designed to enable you to use a compact positioning module on your machines and devices already during the development phase. A mechanically robust, waterproof and dustproof housing with IP69K protects the LoCAT module from harmful environmental influences even in the most difficult application scenarios.

By separating the antenna from the receiver, the LoCAT can be constructively mounted in your system in such a way that it can be protected from access and theft. A LoCAT Heading can easily be combined with various active RTK antennas available on the market.

The availability of standardized interfaces (CAN, Ethernet and RS232) and common protocols (NMEA 0183, RTCM, UBX, NMEA2000) minimize the development and adaptation effort in your overall system. Thanks to the integrated functions for receiving RTK correction data (NTRIP Client/Server), a position accurate to the centimetre can be calculated in just a few steps. The device is prepared for IoT use (MQTT) and uses an existing internet connection of the machine for this purpose.

In order to realise functions such as position correction, L-band corrections or dead reckoning, the LoCAT Heading can be tailored to your needs with additional options.

The LoCAT Heading is also available with single-pair Ethernet. Please contact our support team for more information.

Fields of application:

– Mobile robotics

– Agricultural machinery

– Construction machinery

III digital workbench

Technical specifications (preview):

Item number	41.106.1.002
Dimensions	130 x 120 x 36 mm
Environmental conditions	–30 °C — +85 °C
Voltage (V_{IN})	9 — 36 V_{DC}
Current consumption (operating / idling)	‹ 0,5 A / 100 µA
Connections	1x Deutsch DTM12, 2x TNC incl. antenna feed
Protection class	IP69K
GNSS systems	GPS/QZSS: L1 / L2 Galileo: E1 / E5 GLONASS: L1 / L2 Beidou: B1 / B2
GNSS correction features	SBAS L1 RTCM RTK Moving Base Line
GNSS update rate:	up to 20 Hz
GNSS precision	RTK: 1 cm + 1 ppm CEP SBAS: 1 m CEP
GNSS start-up time	Cold Start: max. 30 sec Warm Start: 2 sec

Interfaces

CAN	1 x (highspeed / FD, up to 1Mbit/s), termination toggleable, switchable with RS232
Event input	1 x (up to V_{IN} tolerance)
Geofence output	1 x (push-pull up to V_{IN}, max. 0,5 A)
Recovery input	Reset to factory settings
RS232	1200 – 460800 Baud (adjustable), switchable with CAN
Ethernet	10 / 100 Mbit/s (standard configuration interface)
Wake-up/Sleep	CAN, RS232
Display	1 x status LED (red / green / blue)

Price / Delivery options

Minimum order quantity	10 units | Price on request
Delivery time	8–10 weeks depending on component availability and inventory
Included components	LoCAT module incl. Deutsch DTM12 connector; antennas sold separately

Your contact for further information:

digital workbench gmbh
St. Gangolf-Str. 2
D – 85139 Wettstetten

Josef Schmidt
E   josef.schmidt@digital–workbench.de
T   +49 841 98 18 99–00
M   +49 151 156 317 51

lll digital workbench