DATASHEET

WayFinder Hub

The powerful heart of sensor fusion

Powerful edge computing and connectivity to link and sync your INS and external sensors. Brings OXTS LiDAR Boost capability in a modular form factor for enhanced GNSS-denied positioning performance.

Key Features

+ Real-time LiDAR Boost odometry and map matching
+ WiFi and cellular connectivity modules
+ PoE+ streamlines power and communications
+ Industrial design with fanless operation

Technical specification

Processor	NVIDIA Jetson AGX Orin
Memory	32GB LPDDR5 @ 3200 MHz
OS	NVIDIA JetPack Linux base with OXTS WayFinder OS
eMMC	64GB eMMC 5.1
Storage	1 TB M.2 NVMe PCIe Gen4 SSD

Physical characteristics

Dimensions	230 x 173 x 66 mm
Mass	2.6kg (excl. mounting bracket)
Input voltage	8 - 48 V dc
Total output	160 W max. (incl. 100 W PoE)

LiDAR Boost performance[1]

LiDAR Boost aiding	Odometry Real Time[2]		Odometry Post-Processing[2]		Map Matching[3]
GNSS outage duration (s)	**60**	**600**	**60**	**600**	**3600**
Position 2D (horizontal) (m)	0.25	2.01	0.12	0.87	0.05
Heading (°)	0.07	0.57	0.04	0.43	0.03
Roll & pitch (°)	0.013	0.036	0.008	0.024	0.004
Speed (m/s)	0.015	0.022	0.010	0.018	0.004
Altitude (m)	0.19	0.5	0.15	0.34	0.06
Error over distance travelled (%)	0.10	0.06	0.06	0.03	-

[1] 1 Representative data based on RT3000 v4 and Hesai XT32 with typical land vehicle dynamics

[2] RMS values of peak incremental error vs GNSS-aided reference during outage window samples

[3] RMS values of difference between GNSS-aided reference and LiDAR Map Matching through entire outage window

Environmental characteristics

Operating temperature	-25° to 70° C (30 W TDP mode)
Storage temperature	-40° to 85° C
Humidity	10% - 90%, non-condensing
Vibration	Operating, MIL-STD-810H, Method 514.8, Category 4
Shock	Operating, MIL-STD-810H, Method 516.8, Procedure I

Interfaces

Ethernet	2 x 2.5 Gigabit 4 x Gigabit
PoE	4x IEEE 802.3at PoE+ (100 W total power budget)
USB	1x USB 3.2 Gen2 2x USB 2.0 1x USB Type-C (Debug only)
CAN	2x CAN 2.0[4]
Serial	2x RS232, 1x isolated RS485[4]

[4] hardware ready, software support coming soon

Optional accessories

+ LiDAR kit add-on
+ Hesai/Ouster PoE cable (5m)
+ LiDAR suction cup roof mount
+ RT-Strut
+ RT-Strut Clamp Pair

OXTS

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