



HYFIX
SPATIAL INTELLIGENCE



PICM200

Ethernet Raspberry Pi4B RTK Rover Kit

The Ethernet Raspberry Pi4B RTK Rover Kit provides a powerful open platform for development of RTK-based GNSS applications. The kit includes a pre-configured Raspberry Pi4B good-quality housing, dual-band GNSS antennae, and 30-day trial to the GEODNET GNSS corrections network. The on-board LC29H is a full four-constellation (+QZSS), 135 channel receiver with on-board firmware that supports RTK and Dead-Reckoning (DR). The Raspberry Pi4B is pre-installed tools from open-source RTKlib.

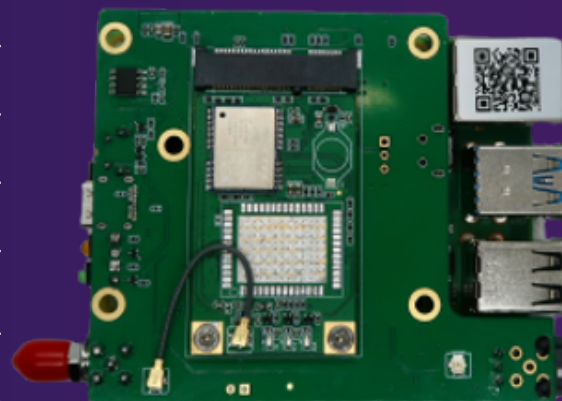
DEVICE SUMMARY:

- Raspberry Pi4B-Based RTK Receiver Kit
- 30-Day GEODNET Trial Account
- Dual-Band L1/L5 RTK Receiver (Quectel LC29H)
- Open-Source Board Designs
- Compatible with RTKlib, QGNSS and Open-Source Tools

	HYFIX Ethernet Pi4B Rover	Swift PGM Development Kit	Aceinna OpenRTK Kit
Cost	\$395	\$1295	\$542
Correction Service Trial	30 Days (GEODNET)	30 Days(Swift Starling)	Not Included
Open-Source Hdw/Software	Yes	No	Yes
GNSS Receiver	LC29H	F9P	F9R
Full-Constellation	Yes	Yes	Yes
Dual-Band	L1/L5	L1/L2	L1/L2
IMU/Dead Reckoning	Yes	Yes	Yes
Ethernet/BT/WiFi	Yes	Yes	Yes
CPU/OS	Raspberry Pi4B Raspbian Linux	Onlogic CL200 Ubuntu Linux	STM32FreeRTOS
Antennae	Mag Mount5m Cable	Mag Mount3m Cable	Mag Mount3m Cable
Metal Housing	Yes	Yes	No



Internal Board with PPS & Event Interface Raspberry Pi4B Shield



LC29H Receiver on Modular & Removable MiniPCIe



GNSS Features

Supported Bands	GPS/QZSS: L1 C/A, L5
	GLONASS: L1
	Galileo: E1, E5a
	BDS: B1I, B2a
	L5 (1176.45 MHz)
Default GNSS Constellation	GPS + GLONASS + Galileo + BDS + QZSS
Number of concurrent GNSS	4 + QZSS
SBAS	WAAS*, EGNOS*, MSAS* and GAGAN*
Function(s)	RTK + DR (integrated IMU)
Horizontal Position Accuracy	Autonomous : 1m RTK : <0.1m + 1ppm
DR Position Error (with speed)	<2 % of distance traveled without GNSS
DR Position Error (without speed)	<4 % of distance traveled without GNSS
Velocity Accuracy	0.03 m/s
Accuracy of 1PPS signal	20 ns
Convergence time	RTK : < 10s
TTFF (with AGNSS)	Full Cold Start: 5 s
TTFF (without AGNSS)	Full Cold Start: 26 s Warm Start: 16 s Hot Start: 1 s
Sensitivity	Acquisition: -145 dBm Tracking: -165 dBm Reacquisition: -157 dBm
Dynamic Performance	Maximum Altitude: 10000 m Maximum Velocity: 500 m/s Maximum Acceleration: 4g
Nav. Update Rate	1 Hz/ 10 Hz
Raw Data Update Rate	GNSS: 1Hz IMU: 100 Hz (max)

Physical & Electrical

Dimension	4.0" x 3.4" x 1.2"
Weight	500g
Power	<1 W, USB-C