McLloyd Tracker - Datasheet

Up to 1cm accuracy.
Live tracking & timing.
No infrastructure.

TECHNICALS SPECIFICATIONS

SENSORS	GNSS RTK L1/L2[1] [2] IMU 9 axis, max 100Hz, 14 bits LPS by UWB
DATA TRANSMISSION	Cellular 2G/3G/4G : EGPRS/ HSPA/ LTE RF 2.4GHz Crystal 8[3] Bluetooth 5.0
STANDARDS	CE/ IP55
BATTERY	LiPo 1200 mAh
CHARGING	Charging case of 20 QI technology chargers spots
DIMENSIONS (L x l x h)	9.8 x 4.9 x 2 cm 99g
MEMORY	NAND Flash 1Gb
API	live superivision and control (refer to API documentation)

OPTIONS

SOFTWARE APPLICATIONS	TEAM SPORT V5 RACING V2
EXTERNAL DEVICES	RF gateway cardio units + vest or belt sport vest
HARDWARE	
HPV2 training	no RTK, GNSS L1 only
HPV2 LB	high capacity battery: 4000 mAh dimensions: 9.8 x 4.9 x 3 cm weight:140g
cellular modem options	without LTE: worldwide with LTE: 4 areas (North America, EMEA, Japan, APAC)
OEM	no plastic package no battery ext. SMA connectors for GPS, RF and cellular ext. power supply connector ext. RS 232 interface

[1] Time-To-First-Fix: Cold start 26 s
[2] RTK Convergence Time: 10 s
[3] Crystal 8: proprietary data transmission protocol. No interference even in highly saturated RF environments.
[4] Error measured on race test in a straight line at 15km/h in open space.
[5] 50% CEP in open space.
[6] IMU: MEMS inertial unit, accelero-meter, magnetometer, gyroscope
[7] accuracy 1 BPM
range: 30 à 240 BPM

FUNCTIONNALS SPECIFICATIONS

ACCURACY	
distance[4]	0.2%
x,y position[5]	0.01m (outdoor) / 0.2m (indoor)
z position[5]	0,2m (indoor/outdoor)
speed[5]	0.02m/s
acceleration[5]	0.1m/s²
IMU[6]	0.01g / 0.5deg / 0.02deg/s
AREA	stadium / openfield / indoor
RANGE OF SIGNAL	RF: 200m LoS (with gateway) cellular: no limit when covered area
AUTONOMY	3h to 72h live (with LB option)
CHARGING	80% in 2h / 100% in 4h
MAX NB USERS	RF: 60u / cellular: 2000u / offline: 2000u
MECHANICALS	300kg pressure/ submersible 1m
INTERFACE	button/ OLED screen
MEMORY	2 to 120 days (depending on software parameters)
TRANSMISSION LATENCY	Cellular / GPS+IMU: 500 ms Cellular / UWB: 1200ms RF / GPS+IMU: 300ms RF / UWB: 1000ms
APPLICATION	Team sport / Racing sport Industry / Public savety

SOFTWARE PARAMETERS

HPV2 serveur allows to manage, supervise and deliver data via API or IHM. The following trackers options are available. Everything can be controlled remotely.

	ON/OFF	FREQUENCY RANGE
DATA ACQUISITION		
GPS	RTK/GPS/OFF	0.001/0,01/0.1/1/2/5/10/20Hz
UWB	ON/OFF	0.1/1/10/20Hz
IMU	ON/OFF	100Hz (acc) 20hz(gyro/mag)
cardio	ON/OFF	0.1/1Hz
DATA TRANSMISSION		
LIVE cellular	ON/OFF	0.001/0,01/0.1/1/2/5/10/20Hz
LIVE RF	ON/OFF	1/10Hz
DATA RECORDING	ON/OFF	If ON recording at the sensors frequency