



ACTIVE LOOP BOX

The stand-alone Loop Box is an innovative solution for collecting split times. A wire loop is installed at the timing point to detect the active transponders.

At nearby split points, it wirelessly relays detections to the main system (Ubidium). For remote timing points, the ActivePro Transponder stores the passing times and transmits them once it reaches the next main timing system.



Features

- No wiring needed between main system and split points
- Stand-alone with 12-20 hours of battery life
- 3.5mm input/output for audio or start impulse
- Sends data to timing systems in up to 900m range
- Smaller investment, as it replaces a full timing system at splits

Loop Box	
Maximum repeat range	Up to 900 m with direct line of sight
Passings transmission	Up to 40/second continuously
Passing transmission delay	200 ms - compensated
Internal data buffer	1,000 passings

Safety & Conditions Loop Box	
Protection class with cable / antenna screwed on	IP52 -water resistant- IP54 (usage with Bumper)
Regulatory conformity	CE, RoHS, FCC
Temperature	-30°C to 70°C
Dimensions / weight	27 x 66 x 117 mm / 272 g

Power & Battery	
AC power supply	110 V-230 V
Loop Box V2	50-60Hz (2 A fuse)
Battery	LiPo, 4,000 mAh, 3.7 V 12-20 h depending on loop power

2.4 GHz RF & loop specification	
Transponder 2.4 GHz channel frequencies main / backup (worldwide compliance)	1: 2.480 MHz / 2.405 MHz 2: 2.405 MHz / 2.470 MHz 3: 2.425 MHz / 2.465 MHz 4: 2.475 MHz / 2.440 MHz 5: 2.415 MHz / 2.445 MHz 6: 2.460 MHz / 2.430 MHz 7: 2.435 MHz / 2.455 MHz 8: 2.450 MHz / 2.420 MHz
2.4 GHz TX power	17 dBm
2.4 GHz Antenna	3 dBi Gain
Loop frequency & data	125 kHz data-packet = Loop ID + channel packet rate: 150 Hz OOK-modulation, manchester encoded, 16bit anti-false-wakeup pattern
Loop length	5 m - 25 m, > 0.5 mm ² standard 4 mm banana plugs
Internal data buffer	1,000 transponders
Read range	
25% Loop power	60 cm (2 ft)
100% Loop power	2 m (6 ft)
Detection rate	100%
Read rate	> 250 chips/second burst for 4 seconds > 50 chips/second continuously