

HI-TRAC® BLUE2

JOURNEY TIME MONITORING SYSTEM



OVERVIEW

The Q-Free HI-TRAC® BLUE2 is the most advanced journey time monitoring system on the market. It is a low-cost, easy-to-deploy solution that records and analyzes journey times and road network performance. As a result, agencies can make data-driven decisions to:

- Measure and improve operations
- Mitigate congestion and reduce CO₂ emissions
- Plan future urban models

It directly and accurately monitors vehicle and pedestrian journey times using low-power, non-intrusive technology. Due to its compact, durable design, the sensor is easy to install and move around when needed for temporary surveys while minimizing street clutter.

Strategically placed along key routes, the sensors transmit data requests and listen for device responses in defined traffic environments. The anonymous data gathered from devices located inside vehicles and carried by pedestrians measures journey times and movements in these defined areas.

BENEFITS

- Record and analyze vehicle and pedestrian journey times and road network performance
- Improve traffic flow and reduce harmful emissions
- Measure mobility performance with highly accurate data
- Detect MAC addresses via Bluetooth via Wi-Fi
- Transmit data via Modem (4G/3G)/Ethernet (TCP/IP)
- Install and rotate for temporary surveys with ease
- Support UTMC protocols



COST-EFFECTIVE
JOURNEY
MONITORING



MEASURE
MOBILITY
PERFORMANCE

APPLICATIONS

The HI-TRAC BLUE2's robust and reliable design, ultra-low power consumption, and extended battery life make it the preferred Bluetooth journey time measurement tool. The vast applications include:

- Determine journey times for short and long distances
- Measure the time taken to pass through a toll plaza
- Create an origin and destination traffic matrix
- Transmit to online traffic information
- Assist in alternative route planning
- Trigger queue warning

TRAFFIC ANTENNAS

The integrated internal antennas help reduce vandalism and allow units to blend into surroundings.

- Directional Circular Polarized Antenna 9dBi gain – Azimuth plane 50o at 0dB
- Provides increased detection rates of devices
- Seven-stage configurable detection zone to enable data collection from specific locations, while excluding data from unwanted areas

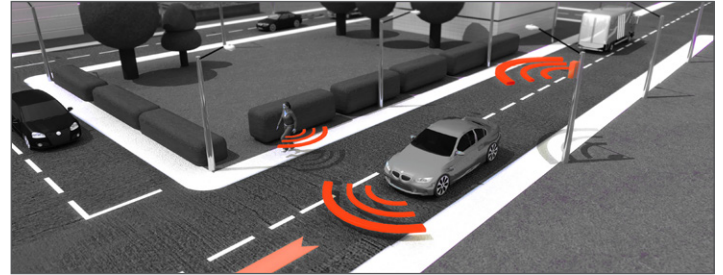
INSTALLATION

Q-Free's HI-TRAC BLUE2 easily mounts onto existing roadside infrastructure such as traffic signal heads, street lighting columns, sign poles, and overhead gantries.

The maintenance and installation is non-intrusive, and one unit covers up to six lanes at 70 mph. The enclosure supports multiple fixing options such as the recommended Jubilee clip as well as a hose clamp or heavy-duty zip ties.



HI-TRAC® BLUE2 installation



OPTIONAL FEATURES

- Expand up to four antennae for an improved capture zone
- Integration with Bluetooth TAG systems for bus prioritization
- Integration with Q-Free particle monitor (PM10, PM2.5) as well as Luft weather station and Luft road temperature sensor
- Integration of up to three flush-mounted solar panels for sustainable power

TECHNICAL SPECIFICATIONS

Storage capacity:	8GB microSD non-volatile 365-day vehicle-by-vehicle capacity
Power supply:	30V AC/50V DC mains power (max input) External 6V / 12V lead acid batteries Optional integrated solar panel with 6V rechargeable batteries
Enclosure:	Bespoke injection-molded
IP rating:	IP68
Dimensions (HWD):	8.1" x 6.5" x 3.5" 205 x 165 x 90 mm
Weight (with batteries):	3.3 lb 1.5 kg



HI-TRAC® BLUE2 unit