3D Object Tracking Traffic Management Radar

The most advanced radar for real-time traffic volume measurement, classification, speed analysis and incident detection.

3D traffic management radar for accurate vehicle counting, speed and classification, lane and on/off ramp monitoring and incident detection. A complete solution to compute and accumulate statistical data including direction, lane, volume, occupancy, average speed, gap, headway and 85th percentile speed.

The innovative forward looking principle enables the radar to detect both approaching and receding traffic up to 160 meters. It covers up to 6 lanes in both directions simultaneously and provides precise volume and classification data for 4+1 classes.

As vehicles are detected over a long period, the driving behavior can be analyzed, which helps mitigating occlusions and increases counting accuracy to approximately 95%.

How it works
The field proven radar projects a single low power microwave beam along the road and detects all objects inside the field of view. The forward firing operation principle, detecting along the road instead of across the road, enables the radar to deliver higher quality speed and occupancy data. In addition, it allows real-time direct measurement of range, speed and azimuth angle (lane position) of all vehicles simultaneously even in complex traffic conditions. The wide detection area enable users to define up to four measurement (counting) lines inside the field of view.

Works in all weather conditions
The robust radar works in adverse conditions and performance is not affected by dirt, smog, fog, sunlight, wind, sandstorms or extreme temperatures. Rain and snow have only small impact on sensor performance and is usually not noticeable due to detection margins and advanced tracking algorithms. IP67 water tight housing enables the radar to be mounted in all environments.

Easy mounting and setup
The radar is easily mounted, in a height of 6 meters, on existing road structures and poles without disrupting traffic. No setback is required. Suitable for permanent or temporary installations.

BlipTrack integration and power supply
The radar is integrated and powered through the BlipTrack Bluetooth / WiFi Outdoor sensor, which is either connected to a local permanent or intermittent power supply, such as street lighting or solar power, or to an independent power source. The radar is not sold separately. Radar alignment, configuration and updates are handled by remote by BLIP Systems. Live monitoring with automated alarms and recovery handles issues before they escalate into problems.

Advanced data analysis and visualization
The data is transmitted in real-time, via Ethernet or mobile broadband, to a secure data warehouse. At network connection loss, data caching is enabled. The data is analyzed and presented in BLIP Systems web-based user interface, with graphs and dashboard views. The data can be easily integrated with existing management systems through various data output facilities.