



# Traffic Detection Solutions

**ASIM**<sup>™</sup>  
by  **xtralis**<sup>™</sup>

## Control traffic day and night with ASIM by Xtralis traffic detectors

Effective traffic management and control requires reliable traffic detectors that are easy to use and that don't require expensive road work or cause traffic disruptions during installation or replacement.

ASIM above-ground traffic detectors are easy to install, maintain and operate 24/7 for accurate traffic data acquisition and effective intersection control.



## Technologies

ASIM by Xtralis traffic detectors use a variety of technologies for optimum performance in numerous applications.

### 1. Doppler Radar/Microwave (MW) Detectors

Microwave detectors emit focused high-frequency signals within a specified frequency band in the GHz region. A vehicle moving into or through the detection area reflects the signals back to the detector. From the Doppler shift between the emitted and received frequency, the direction and speed of a vehicle can be determined with great accuracy.

### 2. Passive Infrared (PIR) Detectors

PIR detectors sense the slightest changes in thermal radiation contrasts against the background, resulting from any moving object or body in the field of view.

ASIM PIR detectors are available for request and extension of green phase in traffic dependent intersection control applications, as well as for counting, occupancy measurement, presence detection, queue detection, speed assessment and classification by vehicle length.

### 3. Ultrasonic (US) Detectors

Ultrasonic detectors emit high-frequency acoustic signal bursts beyond the audible range of humans and most animals. A vehicle moving into or through the detection area reflects the signals back to the detector. The distance to the surface of a vehicle is measured from the travel time of the ultrasonic bursts.

As a result of this active measurement, the presence of standing vehicles can be detected and continuously monitored, unlike with PIR or radar sensors, which require movement. It also allows for precise counting and classification when combined with other technologies.

### 4. Combined Technologies

By combining two or more technologies in a single detector, optimised solutions for a variety of applications become possible.

Such products are particularly useful in more demanding applications such as stop bar presence or traffic data acquisition.



## Highlights

- Operates in all weather and lighting conditions
- Accurate traffic data
- Reliable, maintenance-free operation
- Ultra low-power models available

## Key Benefits

- Low total cost of installation
- Increased road traffic safety
- Minimised pollution by optimised traffic flow

## Applications

### Traffic Data Acquisition (TDA)

TDA refers to the counting and speed assessment of traffic, as well as classification by vehicle length or type, for a variety of permanent and temporary applications. ASIM combination detectors are mounted above the observed lane, while multi-channel PIR detectors can also be mounted on poles at their sides.

Data transfer occurs by two-way RS 485 bus. Ultra low-power PIR detectors for solar-powered installations are also available, as well as triple technology detectors for accurate traffic data acquisition, including speed and vehicle class for statistics applications.

### TDA Detectors

TT29x, DT35x and IR25x Series

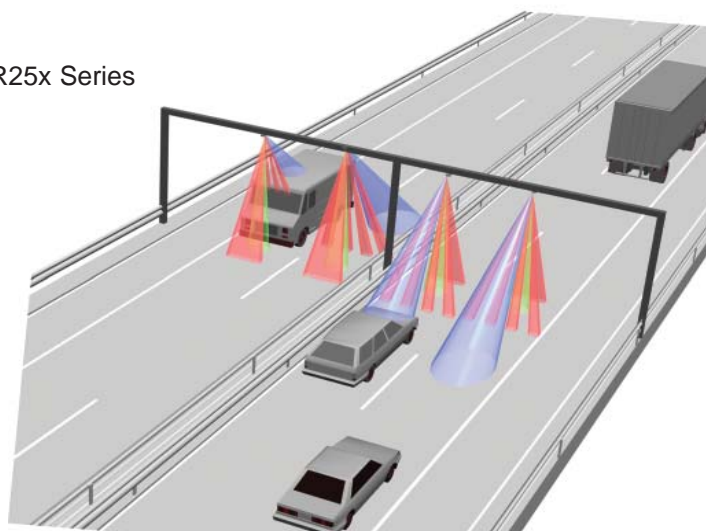
### Intersection Control (ISC)

For intersection control, our detectors use various technologies to safely recognise vehicles or pedestrians. Direction, speed or lane-selective operation enables precise traffic-dependent requests and extensions of green phases.

Further applications include counting, time-gap recognition or presence detection of vehicles waiting at the stop line.

### ISC Detectors

DT37x, MW33x and IR30x Series





Xtralis is a leading global provider of powerful, early warning fire detection and security solutions that prevent disasters by giving users time to respond before life, critical infrastructure or business continuity is compromised.

We protect more than 40,000 customer sites in 100 countries, including billions in assets belonging to the world's top governments and businesses.

Our solutions include VESDA® by Xtralis – very early warning fire detection, ICAM® by Xtralis – flexible fire and environmental monitoring, ADPRO® by Xtralis – outdoor and enterprise security, and ASIM® by Xtralis – traffic detection.

ASIM by Xtralis traffic detection systems work reliably in a wide range of outdoor conditions. Our detectors are proven and reliable products for both accurate traffic data acquisition on highways, as well as dependable vehicle and pedestrian detection for intersection control.

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