

Microwave

SPIDER™ *Simple Presence In-Lane Detection Event Reporting*

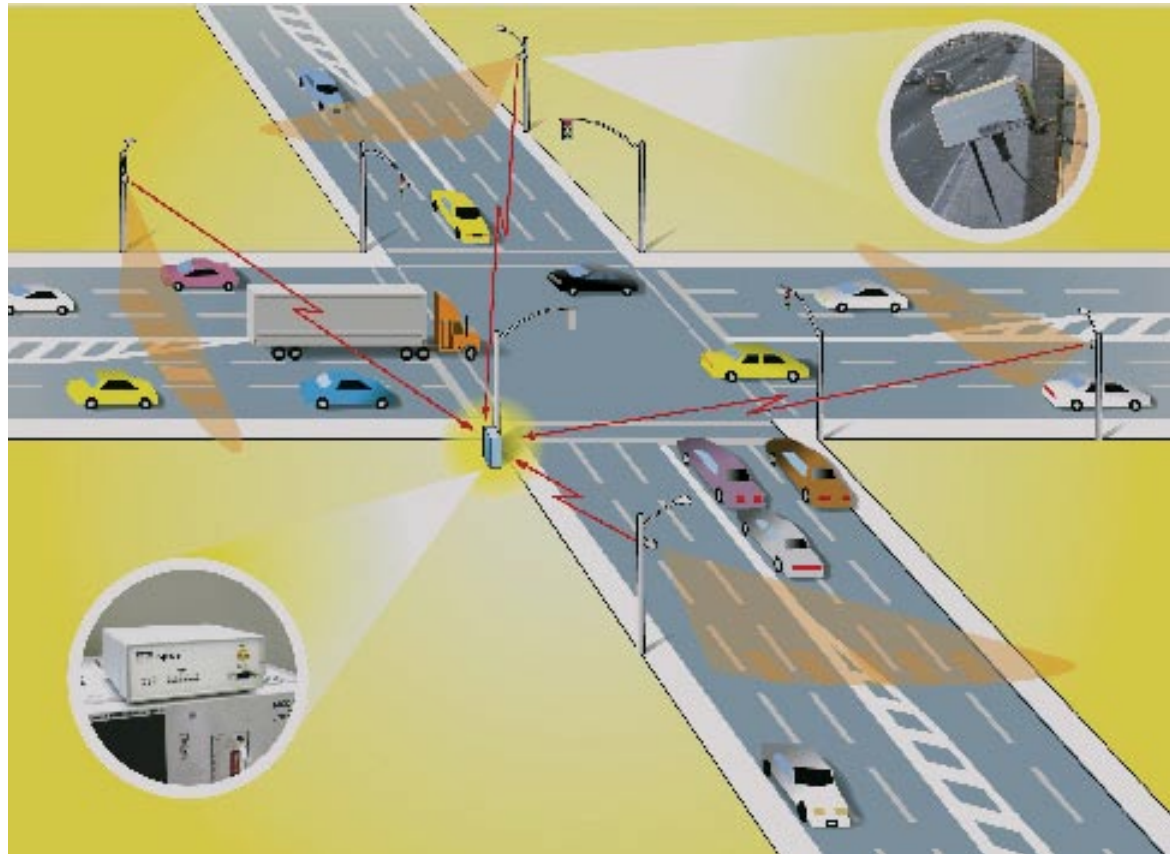
This all-weather system detects and concentrates traffic data using wireless communications at a fraction of the cost of loop detectors by eliminating the need for road works and lane closures, and requires no scheduled maintenance.

Applications:

- Mid-block detectors
- System and Advanced Detectors
- Adaptive Urban Traffic Control
- Interchange/Toll plaza traffic monitoring

Advantages:

- Low-cost, completely wireless solution that replaces loop detectors and lead-in wires
- Provides wireless presence indication (or traffic measurement parameters) directly into the Controller Cabinet
- Reliable operation in all weather conditions
- Flexible installation (number of lanes and location)
- No scheduled maintenance required
- Up to 8 Sidefired RTMS sensors per SPIDER controller
- Up to 8 contact pairs (lanes) per RTMS radar sensor
- Up to 32 contact pairs per SPIDER Controller
- Compatible with NEMA TS-1, TS-2, 170 and 2070 Controllers
- Real-time secure wireless communication
- Unparalleled local support



SPIDER Controller

- Includes integral DSS RF modem
- Shelf mounted in Controller Cabinet
- Output up to 32 contact closures or data concentrated from up to 8 RTMS sensors
- Remote programming, monitoring, and data by serial port

Power Requirements

- 9-30 VDC/AC at 1.5 watt

Environmental Conditions

- Temperature range – -37°C to +74°C
- Humidity to 95%
- Lightning and surge protected

Mechanical

- Length 127 mm (5 inches)
- Height 51 mm (2 inches)
- Width 127 mm (5 inches)
- Weight 450 g (1 lb)

Part Number 373-SPIDER

RTMS™ Remote Traffic Microwave Sensor

Available with traffic reporter software (sold separately)

This non-intrusive, radar-based RTMS™ is a low-cost, advanced sensor for the detection and measurement of traffic. It is easy and safe to install and remove without traffic disruptions or lane closures. It is also all-weather accurate, and virtually maintenance-free.

Compact True Presence Traffic Detection

The RTMS is a small roadside pole-mounted radar, operating in the microwave band. It provides per-lane presence as well as volume, occupancy, speed and classification information in up to 8 user-defined detection zones simultaneously.

Applications

- Actuated Intersection control: stop-bar and mid-block detection
- Freeway traffic management and incident detection systems
- Ramp metering
- Queue detection and work zone safety systems
- Permanent and mobile traffic counting stations
- Enforcement of speed violation

EIS Advantages

- Speedy safe installation, typically on existing road-side poles, with no traffic disruptions
- Provides presence indication and accurate measurements of volume, occupancy, speed and classification in up to 8 separate zones (lanes) up to 60 meters (200 feet) away
- Fully programmable to support multiple applications using simple intuitive software on a Notebook PC
- Integrated solutions include detection station, counting, urban traffic control, event reporting, data collection
- True-presence detects stationary and fast moving vehicles; single or dual loop emulation
- AC, battery or solar power options
- Easy to calibrate by intuitive Notebook PC program
- Fast, automatic set-up wizard
- Field upgradable, NTCIP-ready



Measurement Resolution

- Detection Zones: up to 8 zones
- Range (increment): 2 meters (7 feet)
- Zone width: 2 to 7 meters (7 to 20 feet)
- Time events: 10 mSec

Mechanical

- Unit is encased in a rugged, water-tight NEMA 4X polycarbonate box
- Mounted on a universal bracket, enabling securing of unit to poles, tilting in both axes, and quick locking
- Size: 16 x 24 x 12 cm (6 x 9 x 5 inches)
- Weight: 2.2 Kg (5 lbs)

Power

- Operates on 12-24 volt AC or DC @ 4.5 Watt; 115 VAC option
- Surge protection: IEC 1000-4-5 and EN 6100-4-5 built-in on all external connections

Maintainability

- Ultra reliable MTBF (Mean Time Between Failures) designed for 90,000 hours (10 years)
- Shop repairable
- Self-test diagnostic software
- 15 minute replacement time
- Field level firmware upgrade

Environmental Conditions

- Temperature range -37°C to +74°C
- Up to 95% relative humidity
- Vibration 2 g up to 200 Hz
- Shock 5 g 10 mSec half sine wave

Part Number 1176-1



Microwave RTMS™ Interface Card

An RTMS™, feeding its contact closures through the RIC Interface card, is the ideal replacement for failed loops. It can be mixed and matched with all existing field equipment, requiring no software changes. The RTMS multi-zone radar detector provides output through contact closures and a serial RS-232 bus.

Loop-based legacy systems require detectors with performance matching their existing detectors and controllers

Applications

- Freeway traffic management systems
- Actuated intersections
- Ramp metering

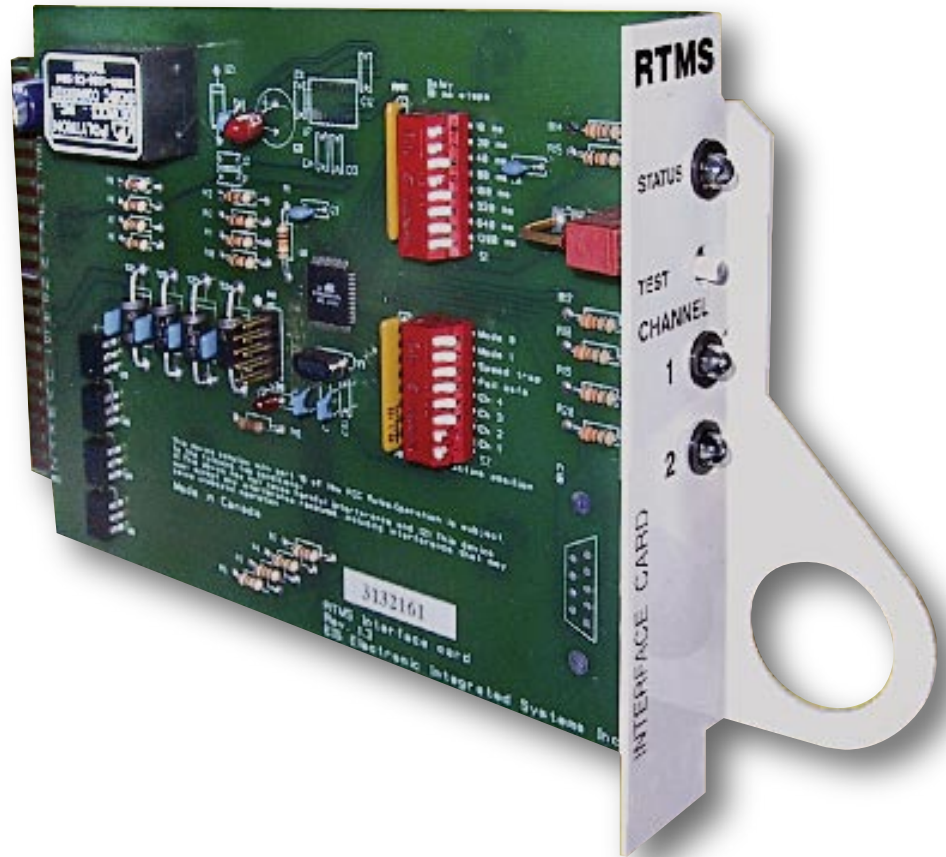
Advantages

- No costly lane closures
- Allows a single side-fired RTMS to emulate contact closures of dual-loop speed traps or of single loops up to 8 lanes
- Allows the RTMS occupancy measurement to match 6' x 6' loop detectors
- Surge protection/isolation equivalent to a type 222 Isolator card
- Visible LED indication of vehicle detection
- Fail-safe operation for actuated signalized intersection applications
- RIC cards plug into standard input files. Compatible with NEMA TS-2, TS2-Type2, Type 170 and 2070 Controllers
- Low life-cycle cost
- High reliability
- No scheduled maintenance procedures required

SPECIFICATIONS

Interface

- Each card can emulate 2 single loops or a single dual loop speed trap
- Bright LED indicators on each channel and for power/operation
- Self-test pushbutton



Controls

- 2 DIP-Switch sets for matching Extension Delay Time and operation mode

Mechanical

- Length (excluding handle) 178 mm (7 inches)
- Height 114.3 mm (4.5 inches)
- Width 28 mm (1.125 inches)
- Weight 120 g (4.2 oz)

Environmental Conditions

- Temperature range –37°C to +74°C
- Up to 95% Humidity

Power Requirements

- Operating Voltage Range: 18-72 VDC
- Maximum Power Drain: 1.1 Watt

Lightning Protection

- Each input is equipped with internal surge protectors (transzors) dissipating up to 1500 Watts

Part Number 1176-2

TC26-B Microwave Vehicle Motion Sensor

The TC26-B is a microwave motion sensor that will identify a vehicle moving in its detection pattern and then trigger the operation of a traffic controller. By utilizing microwave technology, this device provides accurate and consistent vehicle detection that is not affected by temperature, humidity, color or background variations.

The TC26-B easily mounts above ground, requires no pavement cuts and can be installed with minimal traffic disruption. All parameters are adjusted via external controls located on the back panel. The housing is factory sealed with an external wiring harness or an optional quick-connect cable eliminating the need to open the sensor during installation.

Once mounted, the installer simply connects the cable, makes the necessary adjustments, aims the sensor at the desired detection area and applies power. It's that simple.

Features:

Adjustable Range: up to 200' for cars, 350' for trucks

Directional Scanning: select approach-only or depart-only motion

External Adjustment panel & Connector: no need to open the housing during installation

External Indicator LEDs: eases drive test confirmation

Low Power—Ideal for Solar Applications: uses 1/5 the power of inductive loops

Covers Single or Multiple Lanes

Installs Easily Above Ground

TM60 DETECTOR

This compact unit detects moving vehicles for call or extension of signal phase. Ready to install in minutes with no disruption of traffic flow and includes cable, fixing support, screws and bolts. With settings for size of detection zone, minimum speed threshold (0.62 to 9.94 mph) and movement direction, this detector requires no maintenance and works well regardless of weather conditions.



SPECIFICATIONS

Detection Method	Microprocessor analyzed doppler-microwave
Detection Pattern (maximum)	200' long x 50' wide (cars) 350' long x 75' wide (trucks)
Detection Mode	Directional motion
Detection Hold-Time	Continuous with motion
Power Requirements	12 to 24V AC or DC
Current Draw	75mA max. @ 24V DC
Operating Temperature	-35°F to 165°F (-37°C to 75°C)
Shipping Weight	Approximately 5 lbs.
Physical Dimensions	9.25"L x 5.5"W x 5.5"H (23.5 cm L x 14.0 cm W x 14.0 cm H)

Part Number 459-1

* Other Models Available

SPECIFICATIONS

Detection Range	200 feet for a car
Range of detected speed	up to 100 mph
Frequency	K-band: 24.1250GHz
Transmission Power	5mW
Dimensions	2.8 X 3.9 X 4.5 inches
Power Supply	6 VDC

Part Number 3380-1

