RTMS Echo

Meet the next generation radar, RTMS Echo. The RTMS Echo has been built on years of experience and offers transportation engineers an easy to use, highly accurate radar that provides sophisticated traffic data.

The RTMS Echo is a side fire radar mounted on the roadside. Simultaneously, the sensor provides per vehicle data including volume, occupancy, speed and classification information in up to 12 detection zones. The installation of RTMS has never been easier with built-in aiming guidance, auto configuration of the sensor, and wireless configuration via mobile device or tablet. The data collected by the RTMS Echo is highly accurate and can be formatted to fit the needs of your organization or agency's objectives.

The RTMS technology provides meaningful and reliable data that maximizes the full potential of existing infrastructure and optimizes the safety and efficiency of every city.

KEY BENEFITS

- Fast, safe installation, on existing road-side poles, with no traffic disruptions
- Powerful IoT-ready device provides access to more actionable traffic data than any radar on the market
- Radar transceiver designed for traffic data collection
- Wireless configuration and management of sensor
- Built-in aiming guidance and auto configuration for easy installation and set up
- Configurable using a mobile device or tablet eliminating the need to carry a computer or install complicated software

RTMS®

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SPECIFICATION

Average Coverage (Radar)
The Echo detection field of view covers the area defined by:

- Effective Elevation Angle:
  Up to 78 degrees
- Effective Azimuth Angle:
  As narrow as 5 degrees
- Range
  0 to 76 m (0 to 250 ft)

Measurement Resolution

- Detection zones
  configurable up to 12 detection zones
- Zone width
  1.8 to 5.5 m (6 - 18 ft)

Frequency Bands

- K band, model Echo operates at high resolution in the 24 GHz band

Regulatory

- FCC Title 47, Part 15
- Canadian CSA C108.8 - M1983
- CE EN 300 440, EN 301 489-51, EN 301 489-17, EN301 489-19, EN 303 413

Interface

- 10/100 Base-T Ethernet
- Wired per TIA568B
- WiFi access point for wireless configuration
- Configurable with mobile device or tablet

Data Storage

- 1,000,000 individual vehicle records
- 10,000 interval records
- All device data is retained in nonvolatile memory

Data Retrieval

- Echo API:
  - Length-based classification bins (8)
  - Vehicle speed bins (15)
  - Volume
  - Occupancy
  - Average Speed
  - Classification counts
  - 85th percentile speed
  - Gap
  - Headway
  - Per-vehicle records
  - Sensor voltage
- Per-vehicle records: Speed, length and vehicle direction
- Supports retrieval of interval data using Sx-300 protocol

Mechanical

- Universal mounting bracket mountable on any structure. Tilts on three axes and is lockable.
- Size
  32 x 19 x 7 cm (12.5 x 7.25 x 2.5 in)
- Effective projected area: 100in^2
- Weight
  1.5 kg (4.5 lbs) with bracket

Electrical

- Voltage
  12-24 Volts DC
  Tested per NEMA TS2 2.2.7.3-6
- Power
  7.3 Watts
- Passive Power over Ethernet
- Transient resistance
  Tested per NEMA 2.8.1.3
- Automatic recovery from power failure after resumption of power.

Maintainability

- Ultra reliable: MTBF (mean time between failures) designed for 90,000 hours (10 years)
- System event log
- No scheduled maintenance

Environmental Conditions

- Temperature range
  -40° to +74°C (-40° to 165°F)
- Vibration resonance
  Tested per NEMA TS2 2.2.8.3
- Vibration endurance
  Tested per NEMA TS2 2.2.8.4
- Shock
  Tested per NEMA TS2 2.2.9.2
- Detector and bracket wind load
  Test up to 150 mph (241km/hr)
- Water-tight housing
  Tested per IP 67 standard
- All weather conditions with performance degradation

Warranty

- Three-year warranty

CONTACTS

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