PRODUCT SPECIFICATIONS:

SPEEDLANE
COUNT AND CLASSIFIER

SpeedLane Counter and Classifier

- Dual beam, side fire FMCW radar unit
- Traffic measurements on per vehicle, per lane basis
- Detects lane, speed and class of individual vehicles
- Computes
  - o per lane volume
  - o occupancy
  - o gap
  - o average speed
  - o 85th percentile speed
  - o headway parameters
- Very low power, 0.85Watts
- Self-contained, no other cabinets needed
- **Dimensions:** 26" (670mm) long x 3" (76mm) diameter
- **Weight**
  - o Without battery: 4.6lb (2.1kg)
  - o With LFP battery: 6.4lb (2.9kg)
- Works in all weather and light conditions
- FCC certified and CE listed
- Built in camera provides streaming HD video making installation and aiming simple
  - o 1.3MP HD video camera (streaming via Ethernet only)
  - o Use for setup and remote monitoring
  - o Video 10fps, 60° field of view,
  - o HD snapshots, 1280x960 max resolution
- **Communication**
  - o Built in long-range Bluetooth (Class 2.1+EDR, 800' range)
  - o RS232/RS485 Serial Ports
  - o Ethernet

- Windows app to configure, display real time plots of targets and view snapshots and streaming HD video
- Android App for setup and camera view
- GPS (optional)

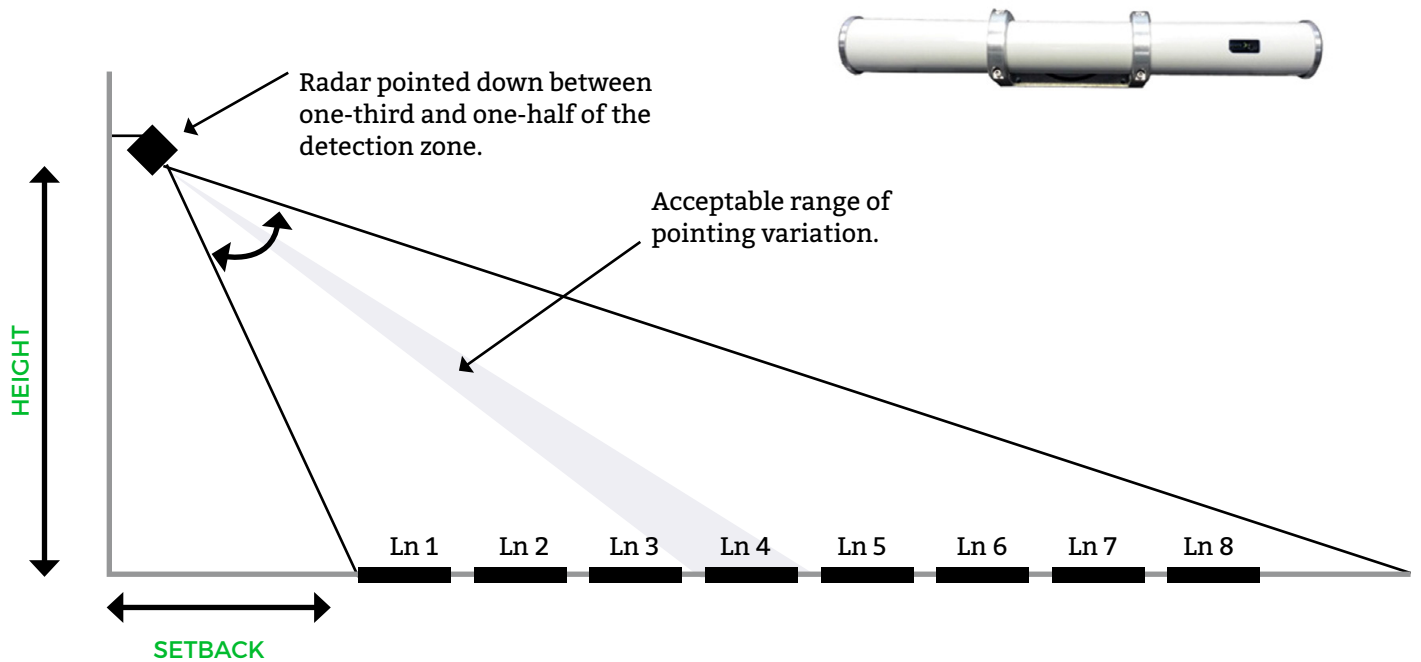## Installation Parameters

- 8 lanes maximum
- **Range:** 145 feet (44m) recommended, 160 feet (49m) max
- **Minimum setback:** 7 feet (2m)
- **Operating temp:**
  - o Without battery: -40C to 85C
  - o With LFP battery: -20C to 60C
- Electronic gyroscope provides tilt and level measurements for setup

Radar

- 5mW maximum each radar (2)
- 24.020-24.230 GHz
- Beam angle: 20° x 60°

Performance

- **Speed Accuracy:**
  - o Average per lane: ±1%
  - o Average per direction: ±1%
  - o Per Vehicle: ±6% for 90% of vehicles
- Volume Accuracy
  - o Per direction typical: 98-99%
  - o Per direction minimum: 95%
  - o Per lane typical: 98-99%
  - o Per lane minimum: 90%
- Length Class Accuracy
- ±5.7ft (1.7m) or 15%, whichever larger for 90% of vehicles

Radar pointed down between one-third and one-half of the detection zone.

Acceptable range of pointing variation.

HEIGHT

SETBACK

Ln 1   Ln 2   Ln 3   Ln 4   Ln 5   Ln 6   Ln 7   Ln 8

- 8 classes max
- TraffiCloud Web-based Management Services
- Automatic data collection
- Turnkey, hosted system
- Hosted data available to run variety of reports
- Alerts for power issues
- Map view with locations of all equipment
- SDK available for API
- Includes modem and cellular service

Data Storage
- Data available real time, also stored in device memory
  - 512 MB onboard storage plus micro USB storage slot
  - Speed, Lane and Class for 1,000,000 vehicles
  - Per lane average speed, 85% speed, occupancy, gap, headway for 3+ months

- SQL based query interface for historical data
- DVR to record last 18 hours of video (optional)

Power
- Input: 12VDC, 0.85W (7-15VDC, Optional isolated 9-32VDC)
- Internal LFP (LiFePO4, 96WHr) battery provides operation for up to 4 days for temporary installations, and acts as UPS for permanent installations (optional)
- Internal MPPT solar charger controller for optimal solar charging (optional)
- 30W solar panel (optional)
- POE – Power over Ethernet (optional)
- Reverse power protected with resettable fuse

Outputs
- 8 isolated electronic switch outputs (optional)