



SmartSensor HD

The SmartSensor HD from Wavetronix LLC uses radar technology to measure traffic volume, individual vehicle speed, average speed, 85th percentile speed, average headway, average gap, lane occupancy, and length based vehicle classification. This unit has a detection range of 250 feet with the ability to detect up to 10 lanes of traffic concurrently.

The Office of Maintenance along with the Office of Transportation System Management (OTSM) are working together to deploy SmartSensor HD to collect traffic data throughout the state.

What are the benefits of SmartSensor HD?

- SmartSensor HD is a “non-intrusive” detection system that has the same functionalities as inductive loops but is a more cost-effective replacement.
- This unit can be quickly deployed on a temporary or permanent basis.
- The data collected from SmartSensor HD will be used to monitor traffic, analyze current traffic trends, conduct traffic studies, etc.

The Accuracy of SmartSensor HD

A Wavetronix report titled [SmartSensor HD performance test results](#), indicates that the percent error per direction for volume and speed is relatively low when traffic is in a free-flow condition. Another study by the Minnesota Local Road Research Board titled [Evaluation of Non-Intrusive Technologies for Traffic Detection](#), reports speed and volume accuracy comparable to inductive loops (typically within 1.6 percent for volume and less than 1 mph for speed), during free-flow condition.

TDA continues to install SmartSensor HDs across the state. The map on the next page illustrates where these sensors are installed or will be installed in Minnesota. This doesn't include the SmartSensor HDs manage by the RTMC.



The SmartSensor HD:

- quicker to install
- lower cost
- provides better data

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Your Destination...Our Priority



SmartSensor HD in Minnesota

