



N5SHIELD™

WILDFIRE DETECTION SYSTEM

USE CASES

Wildfire Detections, Air Quality, Protection of Infrastructure, Chemical Security



SENSE

Fast detection of wildfires (minutes).
Patented SPH™ sensors combined with AI enable accurate detection.
Intuitive dashboard and push notifications provide real-time, actionable insights.

INFORM

Multiple communication options work in all locations.
Solar rechargeable battery operates up to 7 days without sunlight.

PROTECT

Low maintenance, and easy to install and use.
Advanced software features enable air quality monitoring and detection of unexpected chemical events.

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N5SHIELD™

SPECIFICATIONS



SENSORS

Particle Sensor Type: Laser Particulate Matter Sensor

Mass Concentration Size Range: 1.0, 2.5, 4.0, 10 μm

Mass Concentration Range: 0 to 1000 $\mu\text{g}/\text{m}^3$

Heat Sensor Type: Infrared Array Sensor

Heat Sensor Dimensional Area: 8 x 8 (64 pixels)

Heat Sensor Viewing Angle: 60°

Gas Sensor Type: Custom Semiconductor Photocatalytic
Hybrid Array + Photoacoustic CO₂



POWER

Battery: 30,000 mAh

Solar Charger: 20W

Dimensions (Solar Panel): Approximately 17" x 14" x 1"

Weight (Solar Panel): Approximately 3.8 lbs



CONNECTIVITY

LoRa: 168dB maximum link budget+20dBm - 100mW

constant RF output vs. Vsupply +14dBm high efficiency PA

LTE: Multimode LTE-M/NB-IoT modem with integrated RFFE,
certified LTE Bands including B1, B2, B3, B4, B5, B8, B12, B13,
B14, B17, B18, B19, B20, B25, B26, B28, and B66.



SYSTEM

Data update rate: 18 seconds

Detection Range: 1-2 miles

Recharge time: 4 hours

Operating time: Up to 1 week without sun