# LightGuard ⊕™

## Standoff Detection for Real-time Safety

**CIS™ — ChemImage Sensor Systems**

## Delivering Advanced Standoff Detection for Counter-IED and Security Operations

The ChemImage Sensor Systems (CISS) LightGuard™ provides reliable real-time standoff detection of explosives, chemical threats and narcotics on the surfaces of vehicles, personnel and other items. To enable the safety of civilians, emergency responders, law enforcement, and military personnel; the LightGuard™ uses short-wave infrared (SWIR) hyperspectral imaging (HSI) enabled by liquid crystal tunable filter technology and easy-to-use detection software to perform wide area surveillance of distances up to 50 meters.

## Surveillance with Real-time Results

The LightGuard™ wide area surveillance capability is enabled by a simple, intuitive user interface with a real-time display to quickly alert users of a potential threat and type.

The system allows users to develop a signature library by using reference samples to store materials of interest for explosives, chemical threats and illicit drug substances. Library updates in the field are made quick and easy for detection of new materials.

## Key Features

- Reliable real-time detection of threats on surfaces at standoff range
- Flexible configuration for easy threat library update
- Zoom lens allows for both wide-field and close up operation
- Automated detection with clear warnings to reduce operator workload
- Easy-to-use operator interface

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## Target Applications

- Entry and/or traffic control point vehicle and personnel screening
- Border check point surveillance
- Critical infrastructure and private security
- Drug Interdiction
- On site investigation of clandestine labs
- Examination of suspected bombs in civilian areas
- Examination of hazardous materials

## Specifications

| | |
|---|---|
| Device Type | SWIR hyper-spectral imaging device |
| Detected Threats | User developed library for explosives, chemical threats and narcotics |
| Standoff Range | 7-50 m |
| Horizontal Viewing Region | Close up: 0.8 m @ 10 m Standoff range<br>Widefield: 3.4 m @ 10 m Standoff range |
| Angular Field-of-View | Close up: 5.1°<br>Widefield: 20.8° |
| Dimensions | Sensor Head: 18"L x 12.75"W x 16"H<br>Processor/Power Unit: 28.5"L x 30"W x 23"H<br>Operator Display Unit: 8.5"L x 10.7"W x 1.9"H |
| Weight | Sensor Head: 123 lb.<br>Processor/Power Unit: 124 lb.<br>Operator Display Unit: 8 lb. |
| Power Supply | 110/220 VAC 50/60 Hz<br>Sensor Head: 95 W<br>Processor/Power Unit: 340 W<br>Operator Display Unit: 65 W |
| Accessories | Auxiliary lighting for operation in low light conditions |