

## LARGE AREA CHEMICAL SECURITY

### Key Features

- ▶ Real-time 24/7 Monitoring
  - ▶ Toxic Industrial Chemicals (TICs)
  - ▶ Chemical Warfare Agents (CWAs)
- ▶ Fixed or Portable Configurations
- ▶ Indoor or Outdoor Operation
- ▶ Low Cost Retroreflectors and Mirrors

### Laser Based Chemical Detection



### Chemical Security for Critical Infrastructure



### Key Benefits and Advantages

- ▶ Operation in the mid-infrared spectrum where most gases have strong and unique spectral signatures
- ▶ Greatly increased sensitivity and area coverage compared to current area protection systems
- ▶ Expandable library of chemical threats to match specific operational requirements
- ▶ No consumables required, allowing for minimal maintenance
- ▶ Eye-safe laser beams for operation in areas with people
- ▶ Sub-second readings for rapid detection and immediate warning alerts

## LASERWARN™ Principle of Operation



Federal Buildings



Shopping Malls



Airports



Chemical Plants



Embassies



Sports Venues



No Threat Detected



Gas Cloud Detected



## LASERWARN™ Specifications

<b>Maximum Distance</b>	Standard Range: 500-m round-trip Extended Range: up to 3 km
<b>Gases detected</b>	Most Toxic Industrial Chemicals (TICs), Chemical Warfare Agents (CWAs) and other chemicals
<b>Sensitivity</b>	Varies with gas and distance in path (e.g., Sarin at 5 ppb over 500 m)
<b>Response time</b>	1 second (typical)
<b>Detection method</b>	Infrared Absorption Spectroscopy
<b>Communication Options</b>	Ethernet; Wireless; Cellular available Other options upon request
<b>Communication Interface</b>	Readily available interface to security systems
<b>Dimensions</b>	Approx. 36 x 22 x 15 cm (14 x 8.5 x 6 inches)
<b>Weight</b>	5 kg (11 lbs)
<b>Electrical Power</b>	100 - 240 Volts (50/60 Hz), 20 Watts (typical)
<b>Temperature Range</b>	-10 to 70 °C (custom enclosures may be required)
<b>Retro-reflector</b>	2-inch diameter (included)

Block Engineering  
377 Simarano Drive  
Marlborough, MA 01752

**BLOCK**  
engineering

[www.blockeng.com](http://www.blockeng.com)

Main: 508.251.3100  
Fax: 508.251.3171  
[info@blockeng.com](mailto:info@blockeng.com)