

## FLIR Systems, Inc. - Agentase CAD-Kit



### GENERAL DESCRIPTION:

The Agentase™ CAD-Kit provides first responders with the ability to conduct surface, solid and liquid interrogation of nerve (G&V series), blood (AC) and blister (HD) agents, acids, bases, aldehydes and oxidizers. This kit provides accurate results in field environments, improves detection limits to rival those of expensive handheld electronic testing devices and provides fast signals that are easy to interpret.



The simplicity of this kit makes it user friendly for the entire first responder community. Unlike other field detection equipment, the Agentase CAD-Kit has extremely low rates of false positives and negatives. The Agentase CAD-Kit accurately and rapidly characterizes unknown samples in the field. While sensors are used to directly look for low levels of agent contamination on surfaces, the Agentase CAD-Kit also includes a sampling device for unknown solids and liquids. The sampler is used to collect a field sample and dispense a portion of the collected sample to each of the sensors. While the CAD-Kit is fielded an expansion to other targets is under consideration.

### TECHNICAL DESCRIPTION:

Agentase CAD-Kit contains 6 sensors for CWA and TIC detection: Nerve, Blood, Blister, Acid/Base, Aldehydes, Oxidizers, a Sampler, and an Instruction Card. Each CAD Kit comes in carry pouch. Sensors are rugged and can withstand transit. The footprint and weight are 2 in x 5 in x 9 in and < 1 lb. respectively. The CAD-Kit is highly resistant to common environmental interferences. No special skills are required to operate. The startup time is 0.5 minutes by 1 person. No electrical power is required. The product has a 2 year shelf life.

### CONTACT INFORMATION

FLIR Systems, Inc.  
CBRNE Detection  
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(412) 423-2100

### COST

N/A

### Tier Selection

Final tier assignment is based on overall product score.

● Top Tier    ◐ Second Tier    ○ Third Tier  
◑ Fourth Tier    ● Bottom Tier

#### RANKINGS

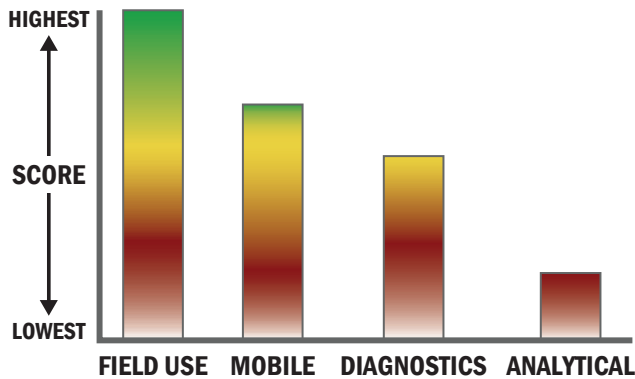
	Biological	Chemical	Radiological
<b>FIELD USE System</b>	N/A	<span style="color: green;">◐</span>	N/A
<b>MOBILE Laboratory</b>	N/A	<span style="color: green;">◐</span>	N/A
<b>DIAGNOSTIC Laboratory</b>	N/A	<span style="color: green;">◐</span>	N/A
<b>ANALYTICAL Laboratory</b>	N/A	<span style="color: gray;">○</span>	N/A

### Survey Source

Vendor Supplied Information

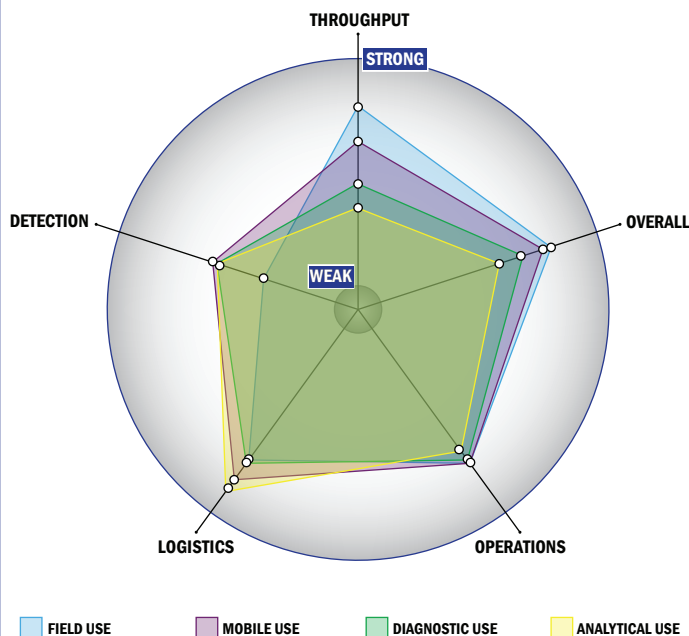
## Scoring Analysis

System scores are compared across the four scenarios and ranked from highest to lowest.



## Impact Chart

The Impact Chart is a spider graph representing specific categories and designed to give the reader a visual depiction of how a particular system is expected to operate across the four different scenarios. The score for each of the seven categories is presented as the percentage of the total possible score. Higher category scores extend the spokes of a graphic toward the outer edge of the chart. The area graphed for each of the four scenarios relates to how well the system performed in that scenario. Graphics for each of the four scenarios are super-imposed for ease of comparison.



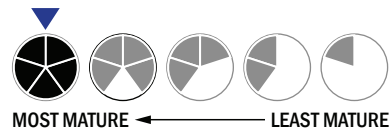
## Evaluation Criteria

### Throughput:

- Between 2 and 15 minutes for detection
- 1 sample, single test/sample per run
- 95-32 samples every 2 hours
- The system or approach is not amenable to full or semi-automation
- Device or system is designed for a single use
- 0-1 solutions, buffer, eluents, and/or reagents
- 0 components
- Less than 5 minutes is required for setup
- 1-2 steps are required for detection

### Logistics:

- Very brief (minutes-hours) training and minimal technical skills
- Approximately the size of a soda can
- Less than 1 kg
- This system is not capable of transmitting data
- There is no electrical requirement



### Operations:

- Can be used from  $-21^{\circ}\text{C}$  to  $42^{\circ}\text{C}$  (All temperatures)
- Components must be stored at room temperature ( $27^{\circ}\text{C}$ )
- Performance is not influenced by relative humidity
- Between 1 to 3 years shelf life
- Results can be viewed in real-time
- The system is not capable of autonomy
- The system does not employ any software

### Detection:

- Possible the system could receive 510K clearance, no current efforts at this time
- Possible the system could receive FDA approval, no current efforts at this time
- Less than 100  $\mu\text{L}$
- Excellent specificity. System has occasional false alarms under certain conditions ( $<2\%$ )
- 1 ppb–1 ppm
- Not possible for the system to identify aerosolized chemical agent
- System currently can identify liquid chemical agent