Smiths Detection - Watford Limited - CAM (Chemical Agent Monitor)

GENERAL DESCRIPTION:

CAM is a highly effective and easy to use CWA and TIC monitor. The auto switching feature gives CAM the added capability to continuously and automatically scan between Positive (nerve agent) and Negative (blister, blood and choking agent) modes. In applications where the threat of chemical agent is anticipated, CAM is used to monitor and confirm the type of agent used, as well as the concentration of the contamination. The unit can also be used post attached to monitor personnel, vehicles, equipment and terrain to assess the extent of cross contamination. Whether used in the military or civil environment CAM's ergonomic design and ease of use make it ideal for monitoring the effectiveness of decontamination measures. CAM can be used for Reconnaissance and search, confirmation monitoring, survey and sentry monitoring operations.

TECHNICAL DESCRIPTION:

CAM uses Ion Mobility Spectroscopy (IMS) and analysis software to match sample spectral results to stored libraries to classify, identify and quantify chemical warfare agents (CWAs) and toxic industrial chemicals (TICs).

CONTACT INFORMATION

Smiths Detection - Watford Limited
459 Park Avenue, Bushey, Watford, Herts, WD23 2BW
United Kingdom
+44 1923 658000
gmer.emea@smithsdetection.com
www.smithsdetection.com

COST

- N/A/system
- $0.48/analysis

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
FIELD USE System	N/A	Top Tier	N/A
MOBILE Laboratory	N/A	Second Tier	N/A
DIAGNOSTIC Laboratory	N/A	Second Tier	N/A
ANALYTICAL Laboratory	N/A	Second Tier	N/A

Notes

In wide spread use worldwide.

Survey Source

Vendor Supplied Information

Scoring Analysis

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

HIGHEST

SCORE

LOWEST

FIELD USE   MOBILE   DIAGNOSTICS   ANALYTICAL
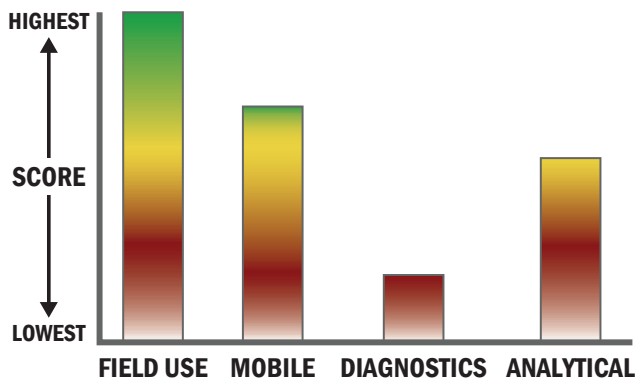
Impact Chart

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.

THROUGHPUT

STRONG

DETECTION

OVERALL

WEAK

LOGISTICS

OPERATIONS

FIELD USE   MOBILE USE   DIAGNOSTIC USE   ANALYTICAL USE
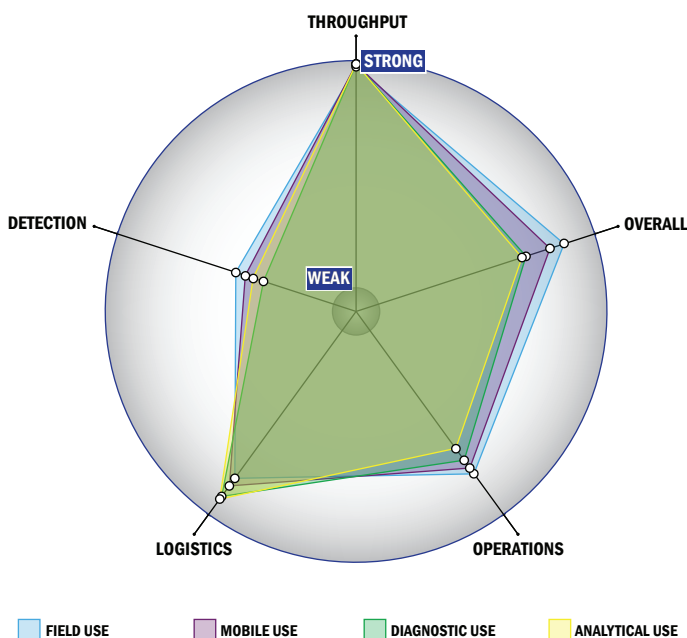
Evaluation Criteria

Throughput:
• Detection is instantaneous
• Continuous operation with no defined runs
• System is continuous and provides real time analysis with no defined tests/samples
• The system or device is currently fully automated
• Device or system is intended for multiple detection assays
• 0-1 solutions, buffer, eluents, and/or reagents
• 0 components
• Less than 5 minutes is required for set-up
• Automatic detection

Logistics:
• Very brief (minutes-hours) training and minimal technical skills
• Approximately the size of a toaster
• Between 1 and 5 kg
• Wired connections are available
• System or device uses batteries
• 4-8 hours battery life

MOST MATURE ◄——— LEAST MATURE
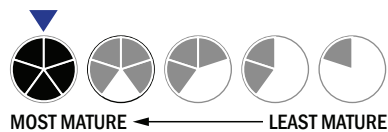
Operations:
• Can be used from < -21°C to > 42°C (All temperatures)
• Performance is not influenced by relative humidity
• Greater than 10 years expected life
• Results cannot be viewed in real-time
• The system could easily be adapted into a fully autonomous system
• The system software is closed and not available for modification
• The system hardware is closed and not available for modification

Detection:
• This system does not test liquids
• Excellent specificity. System has occasional false alarms under certain conditions (<2%)
• >1x10^{-3} mg/m^3
• System can currently identify aerosolized chemical agent