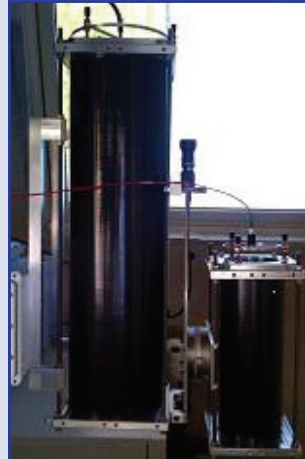


ITT Information Systems - Scanning Aerosol Micropulse LIDAR - Eyesafe (SAMPLE)



GENERAL DESCRIPTION:

The Scanning Aerosol Micropulse LIDAR -Eyesafe (SAMPLE) is an eyesafe 1.5 micron aerosol backscatter lidar, capable of detecting monitoring and warning of CB aerosols up to a standoff range of 10km. It provides 3D maps of atmospheric particulates using cloud detection and aggregation algorithms.



TECHNICAL DESCRIPTION:

SAMPLE is highly robust due to its all fiber coupled design and leveraging of telecom fiber technologies. It uses digital detection via photon counting mode for exceedingly high sensitivity. It has very low SWaP.

CONTACT INFORMATION

ITT Information Systems
 127 Berry St Suite 400
 Ft. Wayne, IN
 POC: Jeff Pruitt
 260-451-1374
 jeff.pruitt@itt.com

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
FIELD USE System	N/A	●	N/A
MOBILE Laboratory	N/A	●	N/A
DIAGNOSTIC Laboratory	N/A	●	N/A
ANALYTICAL Laboratory	N/A	●	N/A

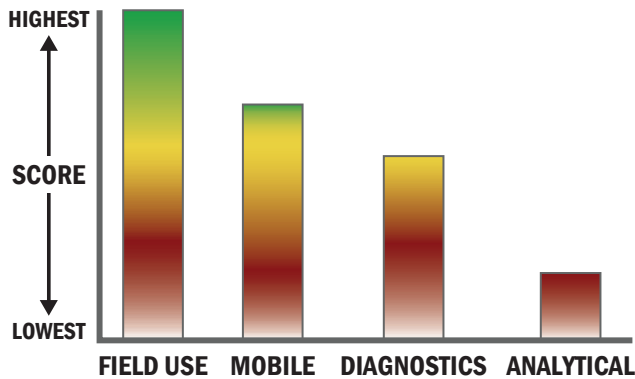
Survey Source

Vendor and Internet Supplied Information



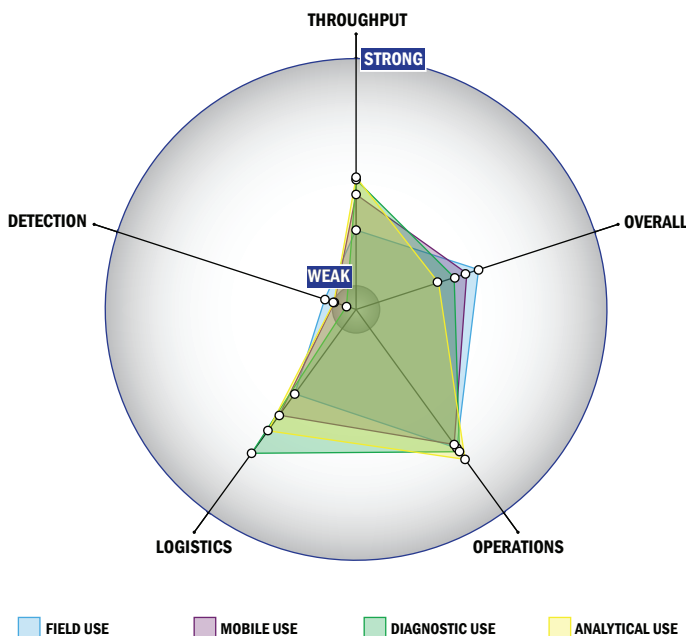
Scoring Analysis

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.



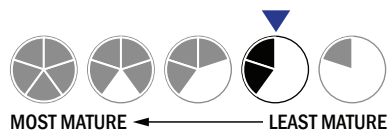
Evaluation Criteria

Throughput:

- 2 minutes or less for detection
- Multiple samples, multiple tests/sample per run
- 95-32 samples every 2 hours
- The system could be adapted to a fully automated system with some effort
- Device or system is intended for multiple detection assays
- Greater than 20 minutes is required for set-up
- 1-2 steps are required for detection

Logistics:

- A day of training and technical skills are required
- Larger than a home dishwasher
- More than 50 kg
- Wired connections are available
- System or device has 110V electrical requirement



Operations:

- Can be used from 25 °C to 37 °C
- Components must be stored at room temperature (27 °C)
- Device or system has peak performance at normal relative humidity conditions
- Greater than 3 years shelf life
- 5-10 years expected life
- Results can be viewed in real-time
- The system could be adapted to a fully autonomous system with some effort
- The system software is open but modification requires licensing
- The system hardware is open but modification requires licensing

Detection:

- This system does not test liquids
- System currently can identify aerosolized chemical agent