

ITT Corporation - LISA Manportable Standoff Chemical Detection System



GENERAL DESCRIPTION:

The LISA® Manportable system has been developed as part of the DHS S&T Low Vapor Pressure Chemical Detection Systems (LVPCDS) program. The system provides a capability to perform real-time sensitive site assessment (e.g., inspect buildings, roadside formations, equipment, vehicles, aircraft, and other manmade or natural surfaces) for the presence of low vapor pressure chemicals, other persistent chemical agents, and TICs, with the expanded capability to include explosives, homemade explosives and their precursors.



TECHNICAL DESCRIPTION:

Not provided.

CONTACT INFORMATION

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 505-889-7002

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

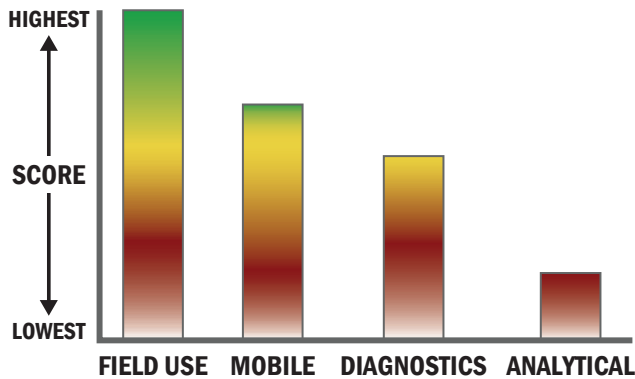
Survey Source

Vendor and Internet Supplied Information



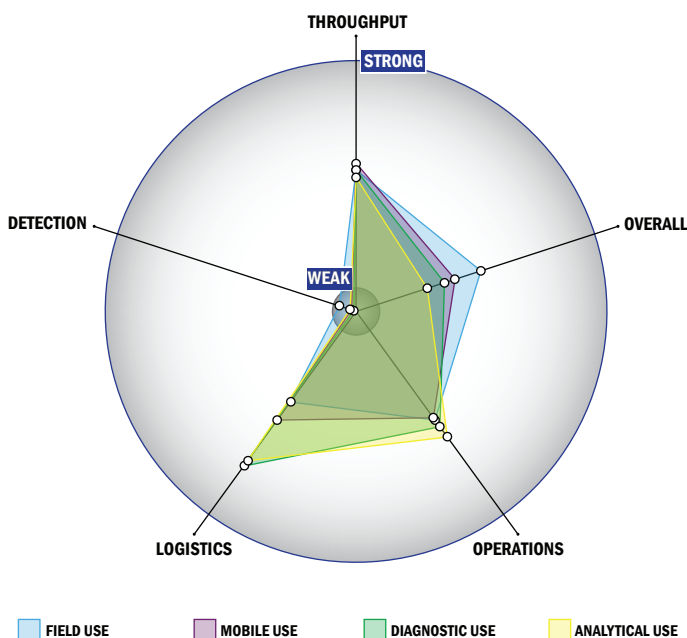
Scoring Analysis

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.



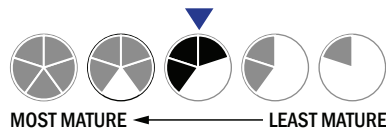
Evaluation Criteria

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 semi-automated system with some effort
- Device or system is intended for multiple detection assays
- 0-1 solutions, buffer, eluents, and/or reagents
- 10-20 minutes is required for set-up
- 1-2 steps are required for detection

Logistics:

- An afternoon of training and some technical skills required
- Approximately the size of a home dishwasher
- More than 50 kg
- System or device has 110V electrical requirement
- 2-4 hours battery life



Operations:

- Can be used from 4 °C to 41 °C
- Components must be stored at room temperature (27 °C)
- Performance is not influenced by relative humidity
- Results can be viewed in real-time
- The system could easily be adapted into a fully autonomous system

Detection:

- Not possible for the system to achieve clearance
- Not possible for the system to achieve approval
- Excellent specificity. System has occasional false alarms under certain conditions (<2%)