

# Adaptive Methods - DISe



**GENERAL DESCRIPTION:**  
 "DISe" - A rugged, portable, hand-deployable environmental sensor that provides remote situational awareness to damage control teams in hazardous areas by providing video, audio, and environmental data wirelessly.

**TECHNICAL DESCRIPTION:**  
 Not provided.



**CONTACT INFORMATION**  
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**COST**

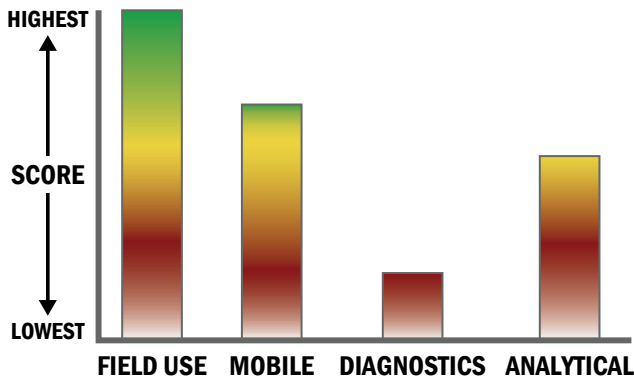
- \$8,000-\$15,000/system
- N/A/analysis

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
<b>FIELD USE System</b>	○ N/A	●	○ N/A
<b>MOBILE Laboratory</b>	○ N/A	○	○ N/A
<b>DIAGNOSTIC Laboratory</b>	○ N/A	◐	○ N/A
<b>ANALYTICAL Laboratory</b>	○ N/A	○	○ N/A

**Survey Source**  
 Vendor Supplied Information

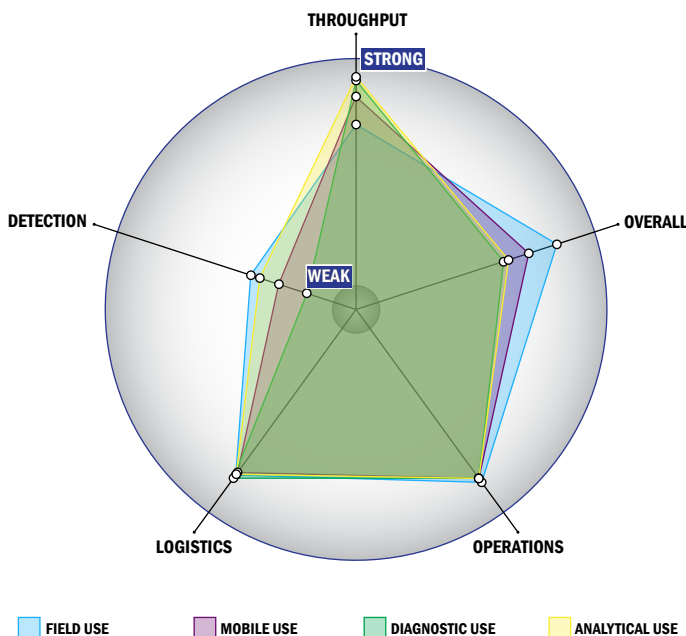
## Scoring Analysis

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.



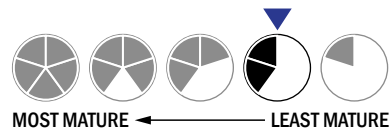
## Evaluation Criteria

### Throughput:

- 2 minutes or less for detection
- Multiple samples, multiple tests/sample per run
- 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
- 5 or more solutions, buffer, eluents, and/or reagents
- 1 component
- No set-up of the system is required for set-up
- 1-2 steps are required for detection

### Logistics:

- Very brief (minutes-hours) training and minimal technical skills
- Approximately the size of a soda can
- Between 1 and 5 kg
- Wireless and wired connections are available
- System or device uses batteries
- 4-8 hours battery life



### Operations:

- Can be used from  $< -21^{\circ}\text{C}$  to  $> 42^{\circ}\text{C}$  (All temperatures)
- Performance is not influenced by relative humidity
- Between 1 to 3 years shelf life
- 5-10 years expected life
- Results can be viewed in real-time
- The system could easily be adapted into a fully autonomous system
- The system software is open and available for modification
- The system hardware is open and available for modification

### Detection:

- Not possible for the system to achieve 510K clearance
- Not possible for the system to achieve FDA approval
- This system does not test liquids
- $< 1 \times 10^{-6} \text{ mg/m}^3$
- $< 1 \text{ ppb}$
- Possible system could be adapted to identify aerosolized chemical agent