

## D-Tect Systems - Rad-DX



### GENERAL DESCRIPTION:

The Rad-DX is a wireless mesh networked radiation detector with a sensitive scintillation detector which allows it to detect discreet sources of radiation in less than one second. Dual versions are available; with and without display. Directionality is also an option to enable the tracking and motion of radiation sources.

The Rad-DX operates on the new and exclusive D-Tect SensorNet - an automatic communication network that allows users to monitor a full network of Rad-DXs as long as they are in range of a single Rad-DX system (up to 1000 meters)! The Rad-DX units will automatically form an intelligent, self-healing mesh network, allowing them to be constantly connected to each other as well as to the user network.



### TECHNICAL DESCRIPTION:

The Rad-DX employs a large (6cm) Cesium Iodide scintillation crystal combined with the exclusive SensorNet mesh network technology.

### CONTACT INFORMATION

D-Tect Systems c/o Laurus Systems  
3460 Ellicott Center Drive  
Ellicott City, MD, 21043

### COST

- \$2,195/system
- \$0/analysis

### Tier Selection

Final tier assignment is based on overall product score.

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

### RANKINGS

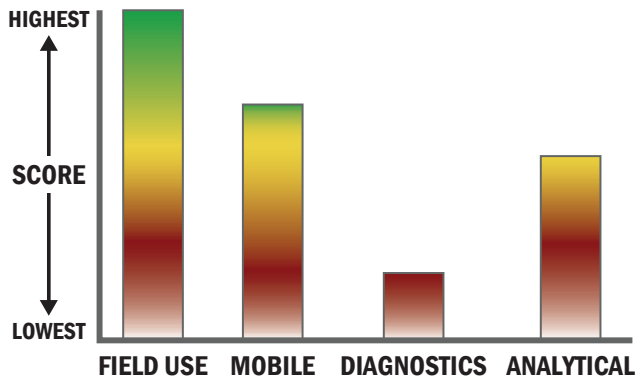
	Biological	Chemical	Radiological
<b>FIELD USE System</b>	N/A	N/A	
<b>MOBILE Laboratory</b>	N/A	N/A	
<b>DIAGNOSTIC Laboratory</b>	N/A	N/A	
<b>ANALYTICAL Laboratory</b>	N/A	N/A	

### Survey Source

Vendor Supplied Information

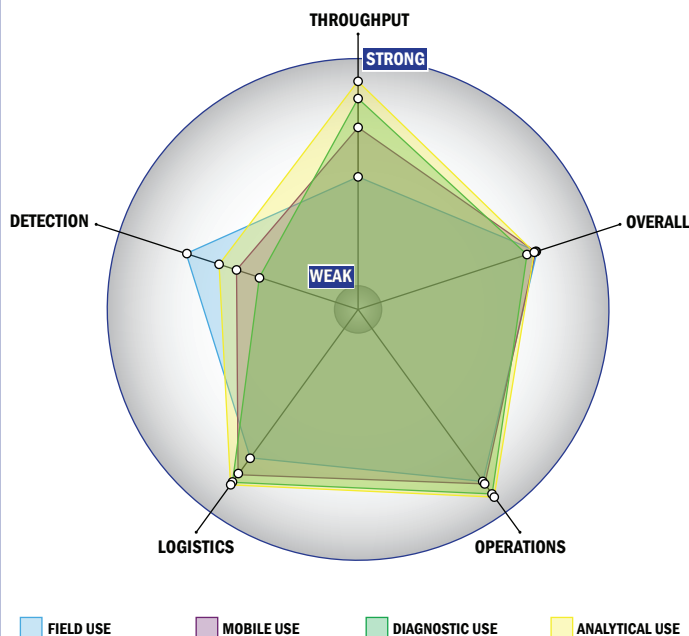
## Scoring Analysis

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.



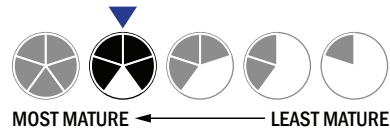
## Evaluation Criteria

### Throughput:

- 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
- 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 soda can
- Less than 1 kg
- Wireless and wired connections are available
- System or device has 110V electrical requirement
- 4-8 hours battery life



### Operations:

- Can be used from 4 °C to 37 °C
- Device or system has peak performance at normal relative humidity conditions
- Greater than 3 years shelf life
- Greater than 10 years expected life
- Results can be viewed in real-time
- The system or device is currently fully autonomous
- 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
- Superior specificity. System has a false alarm rate approaching zero (~0%)
- Only dose rate
- Down to background level radiation for dose rate
- System is used for surveying

