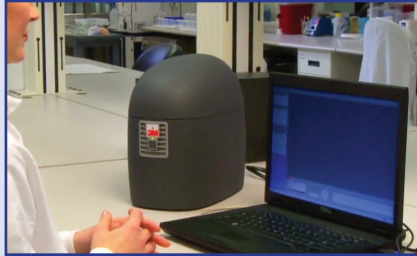


3M - Integrated Cyclor



GENERAL DESCRIPTION:

Disc-based molecular diagnostic real-time thermocycler intended for use in clinical laboratories. Currently the system utilizes common laboratory specimens, but can be adapted to a wide variety of sample matrices.



TECHNICAL DESCRIPTION:

Thermocycler with 4-channel detection for use with real-time PCR assays.

CONTACT INFORMATION

3M
3M Center
St. Paul, MN 55144

COST

- \$60,000/system
- \$35-\$50/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	N/A
MOBILE Laboratory	●	N/A	N/A
DIAGNOSTIC Laboratory	●	N/A	N/A
ANALYTICAL Laboratory	●	N/A	N/A

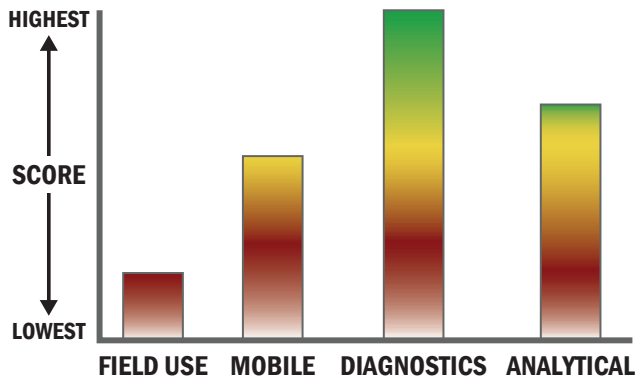
Survey Source

Vendor Supplied Information



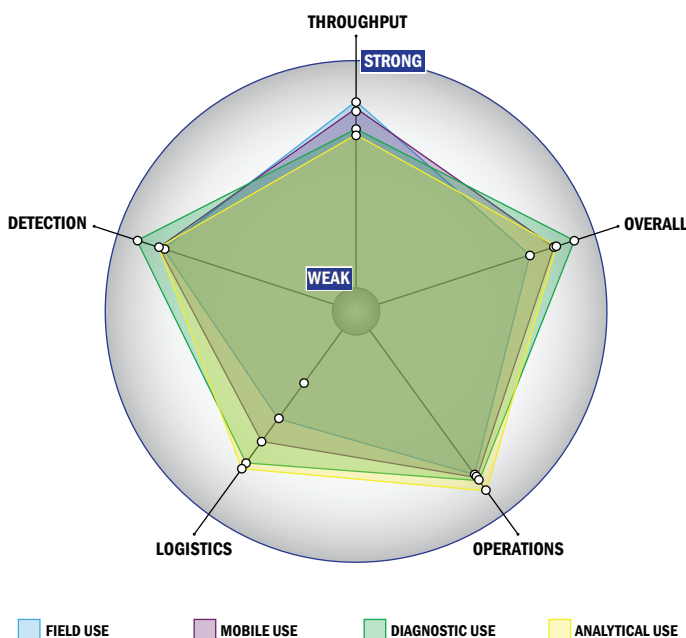
Scoring Analysis

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.



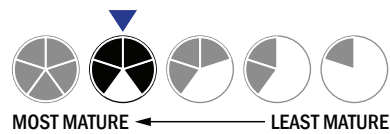
Evaluation Criteria

Throughput:

- Between 30 and 60 minutes per assay
- Multiple samples, multiple tests/sample per run
- 349-96 samples every 2 hours
- The system or device is currently semi-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
- 1-2 steps are required for analysis

Logistics:

- Very brief (minutes-hours) training and minimal technical skills
- Approximately the size of a carry-on luggage suitcase
- Between 5 and 25 kg
- Wireless and wired connections are available
- System or device has 110V electrical requirement
- The device is not intended for portable use
- Is commercially available



Operations:

- Can be used from 4°C to 41°C
- Components must be frozen (-20°C)
- Performance is not influenced by relative humidity
- Between 1 to 3 years shelf life
- 5-10 years life expectancy
- Results can be viewed in real-time
- System could be adapted to fully autonomous with some effort
- The system software is closed and not available for modification
- The system hardware is closed and not available for modification

Detection:

- System currently has 510k clearance
- System currently has FDA approval
- Less than 50 µL per analysis
- Superior specificity. System has a false alarm rate approaching zero (~0%)
- 1-100 CFU/mL of original sample
- 1-100 PFU/mL of original sample
- Fully automated spore lysis