mic pcr

Real Time PCR Cycler

Fast | Accurate | Compact

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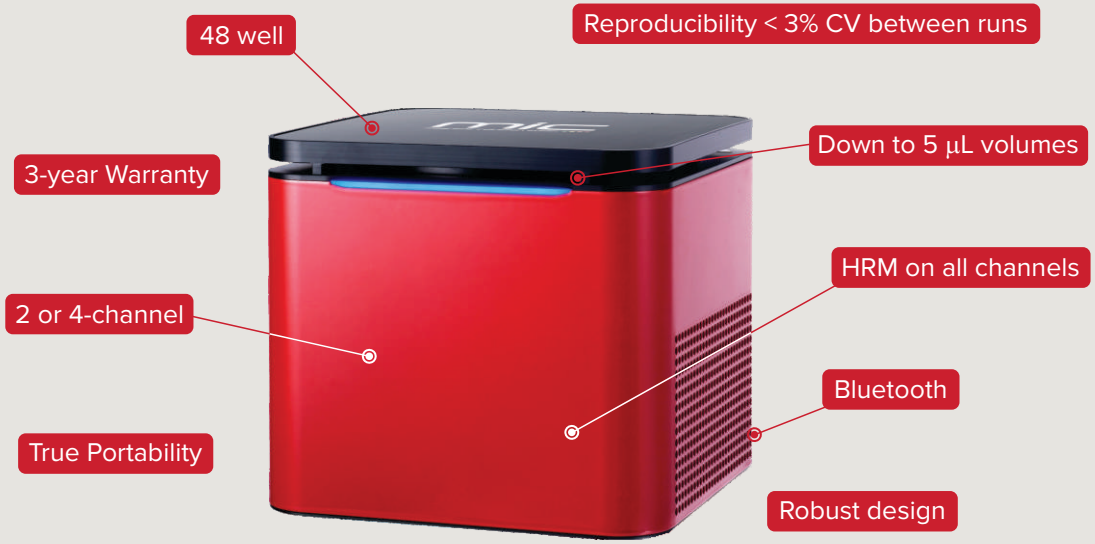
Made for extraordinary life

mic pcr

Real Time PCR Cycler

The World's first Magnetic Induction Cycler. This cute 2 kg cube allows for fast, easy, and accurate qPCR anywhere.

Small but Powerful

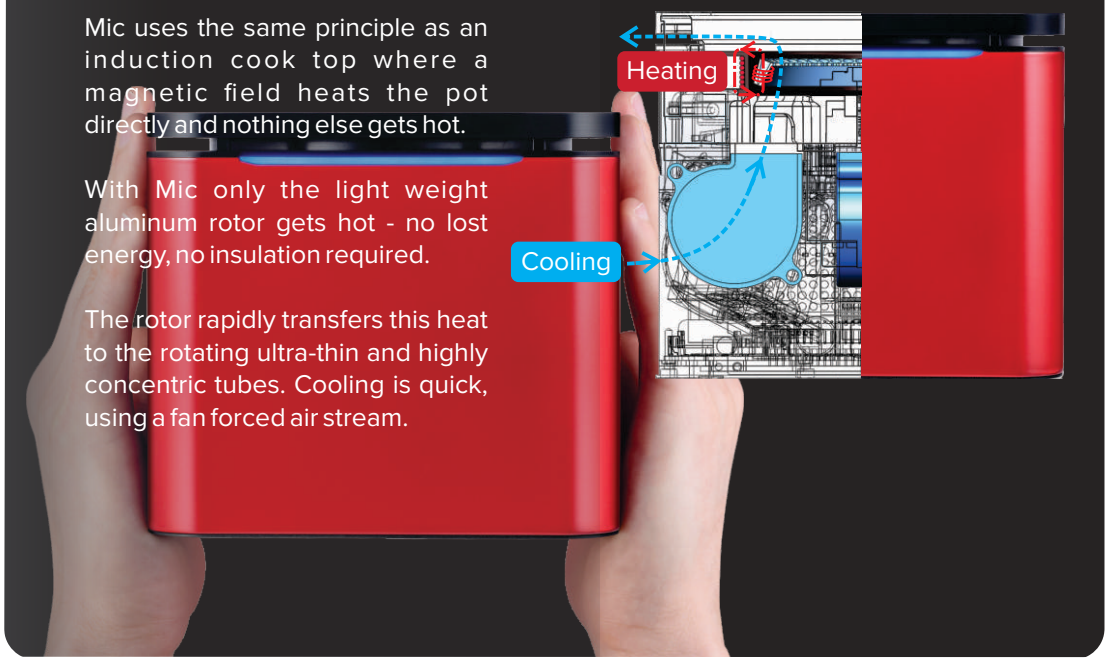


Magnetic Induction

Mic uses the same principle as an induction cook top where a magnetic field heats the pot directly and nothing else gets hot.

With Mic only the light weight aluminum rotor gets hot - no lost energy, no insulation required.

The rotor rapidly transfers this heat to the rotating ultra-thin and highly concentric tubes. Cooling is quick, using a fan forced air stream.



Uniformity

Blocks cyclers are non-uniform because:

- Not circular – edge effects
- Multiple Peltier heaters (typically 6/block)
- Peltier's age differently
- Heat sink compound degrades over time

Mic has an aluminium rotor spinning in the induction field.

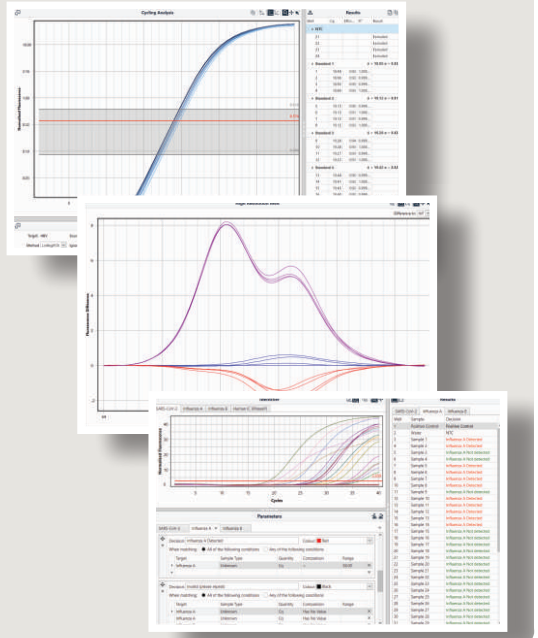
Heats and cools with total uniformity ±0.05°C maximum (MIC-4+HRM).

Uniformity during ramping as well as static - zero equilibration time.

Mic does not drift, it does not age.

Workbench Software

Next generation qPCR analysis software that is user-friendly and packed with intelligent features.



HRM ● Mic's optional HRM software characterises DNA samples according to their melt behaviour so you can identify mutations, including difficult Class IV SNPs. Unrivaled signal to noise on each melt makes Mic the Gold Standard in HRM.

Identifier ● The Identifier analysis uses a logic engine to help automate the identification of a target. Identifier is a great tool for anyone wanting to do automated calling in diagnostics. LIMS compatible. 21 CFR part 11 compliant.

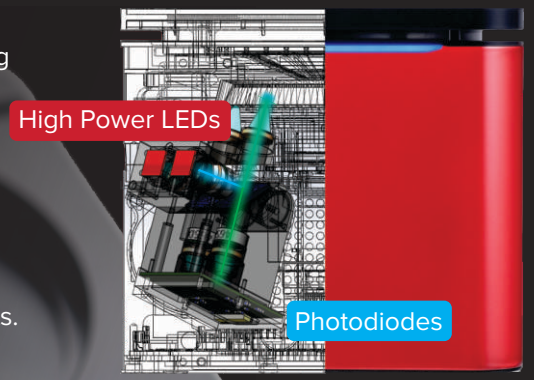
Projects ● With Mic's unrivalled reproducibility you no longer need to worry about batching your experiments into one large 96 or 384 well run. Simply combine your runs into one analysis for any type of application. Multiple Mic's can be run from one PC.

Relative Quantification ● Mic's RQ software uses up-to-date mathematical models and well-founded statistical analysis, allowing you to compare gene expression levels for different targets across multiple groups. All the necessary calculations and statistics are carried out within the software.

No Calibration

Temperature
- Thermal sensor embedded in spinning rotor.
- Measures tube temperature directly.
- No sensor drift over time.
- Temperature Verification System available.

Optics
- Fixed optical path and no moving parts.
- Never needs optical alignment or calibration.
- No reference dyes or crosstalk compensation required.



Compact and Fast

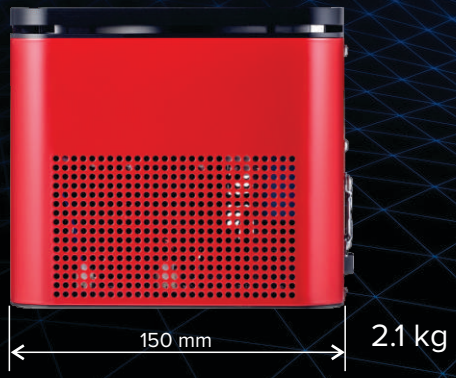
Mic takes up less space on the bench than your lab book. And weighing in at just 2 kg, this is the most portable, compact, qPCR cycler on the market.

Complete 35 cycles in under 25 min and Get Great Data.

Rapid heating and cooling combined with thermal uniformity means great results in the shortest possible time. Anytime. Anywhere.

Dr Campbell Costello, also known as the Outback Flying Vet; uses Mic in remote locations to diagnose diseases in both domestic and agricultural animals.

Specifications



Thermal Performance	Temp. accuracy	± 0.25°C
	Temp. uniformity	± 0.05°C max (HRM) ± 0.10°C max (Standard)
	Sample ramp rates	Heating: 4°C/s Cooling: 3°C/s
	Temperature range	35 - 99°C (40°C min when cycling)
Optical	Detectors	Photodiode per channel
	Excitation sources	High energy LED per channel
		Green: Ex. 465 nm; Em. 510 nm Yellow: Ex. 540 nm; Em. 570 nm Orange: Ex. 585 nm; Em. 618 nm Red: Ex. 635 nm; Em. 675 nm
	Acquisition time	1 s

Reaction Vessels	Samples per instrument	48
	Reaction volume	5 - 30 µL
Communication	Connection type	USB 2.0
	Min. PC requirements	Intel Core i5 or equivalent 8 GB RAM, 1 GB disk space 1366 x 768 display
Electrical	AC input	100 - 240 VAC, 50/60 Hz 4.0 A
	Alternative power sources	Pure sine wave inverter with minimum 360 W power
Environment	Temperature range	18 - 30°C
	Humidity range	20 - 80%

Designed and manufactured in Australia by

bms bio molecular systems

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