Accelerating Science: Automating Real-time Workflows with the IntelliQube®

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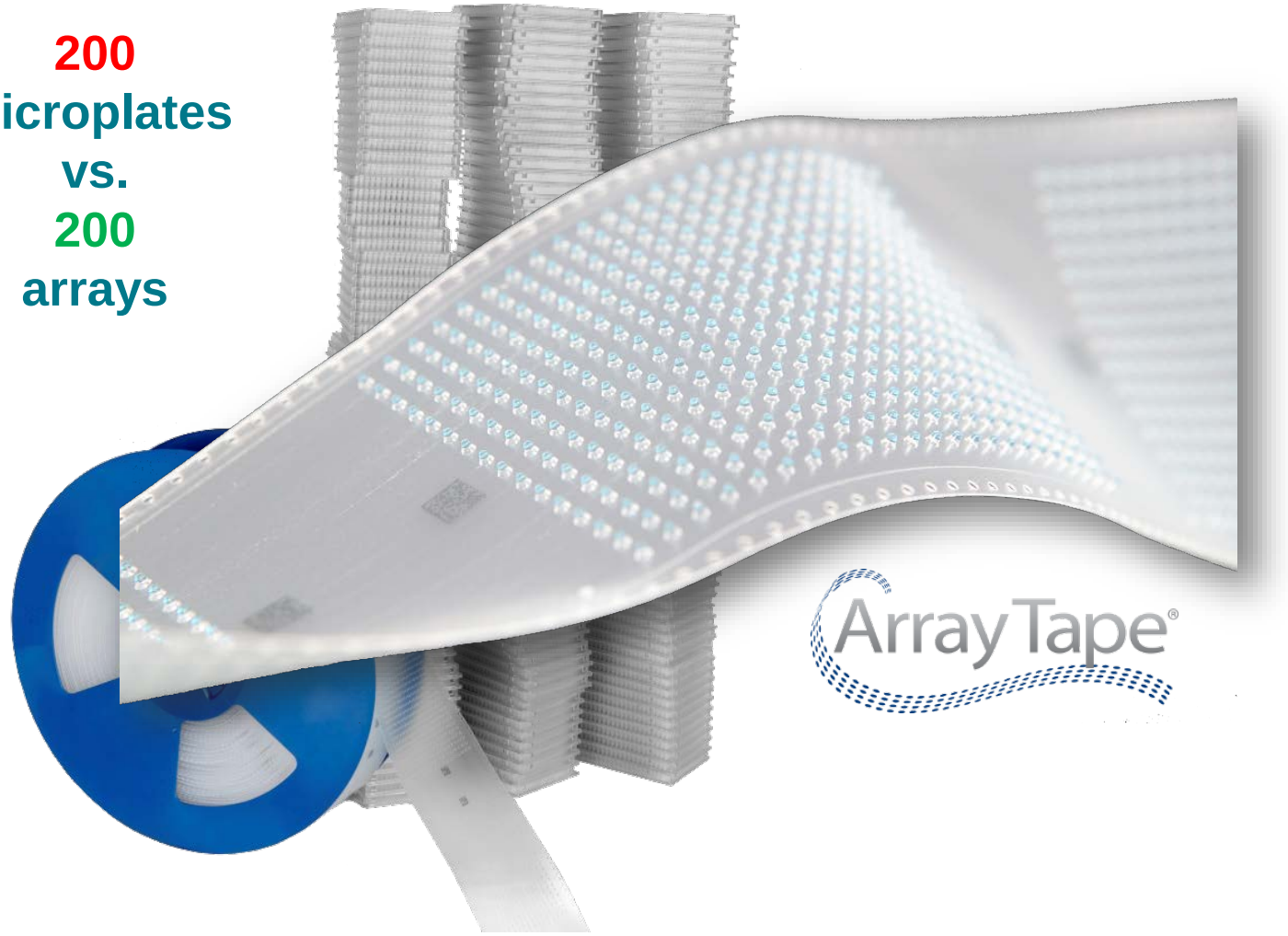
Science
for a safer world

Our story began with a paradigm shift

200
microplates
vs.
200
arrays



Array Tape® optimized for use with IntelliQube®

- Opaque white continuous polymer strip
- Standard 384-well and interlaced 768-well pattern
- Optically clear, pressure-sensitive cover seal

ArrayTape®

Fully-automated PCR platforms

Real-Time & End-Point PCR

ArrayTape®

Real-Time & End-Point PCR

ArrayTape®

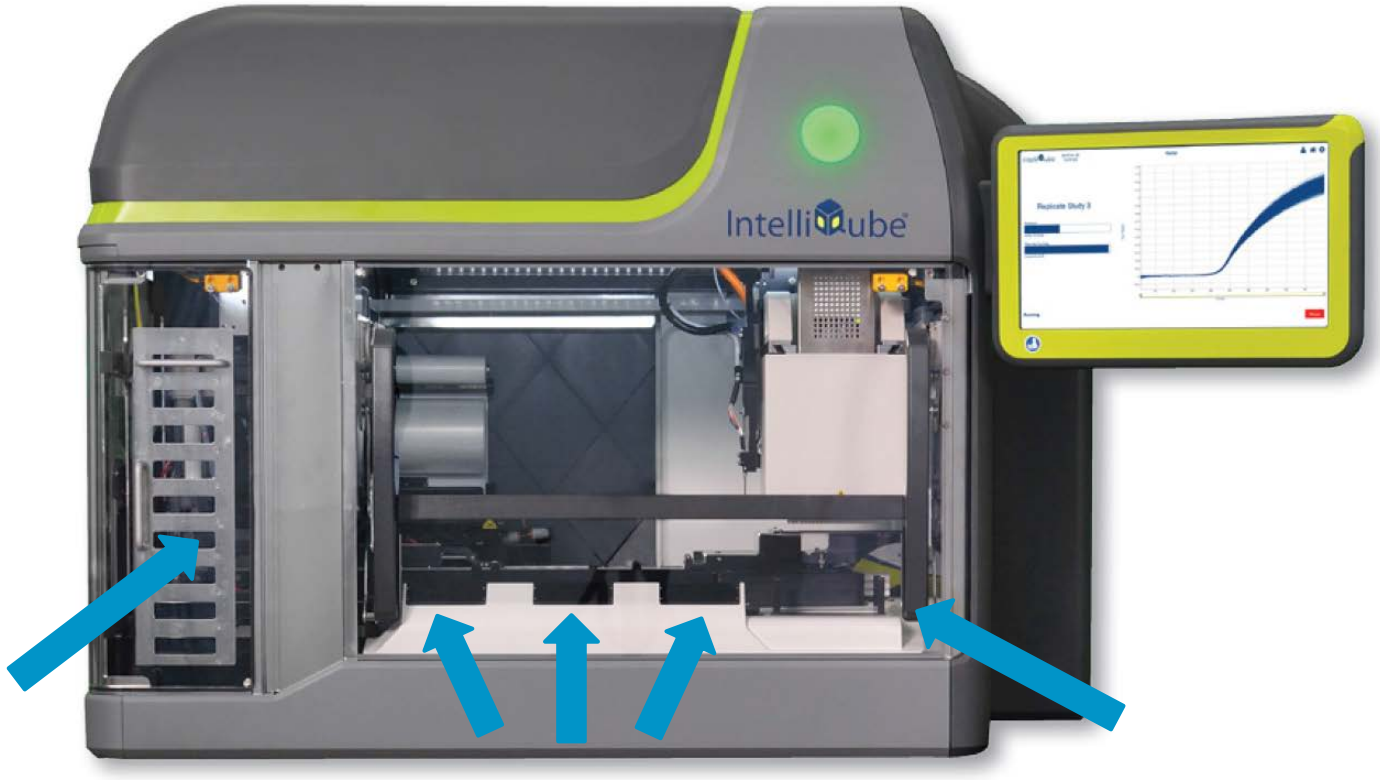
End-Point PCR

ArrayTape®

Up to 4.6K data points in 8 hrs	**Up to 24K data points in 8 hrs**	**Up to 160K data points in 8 hrs**
500K - 1M data points/year	**1M - 6M data points/year**	**3M - 40M data points/year**

IntelliQube®

Fully automated PCR setup, amplification and analysis system



IntelliQube®

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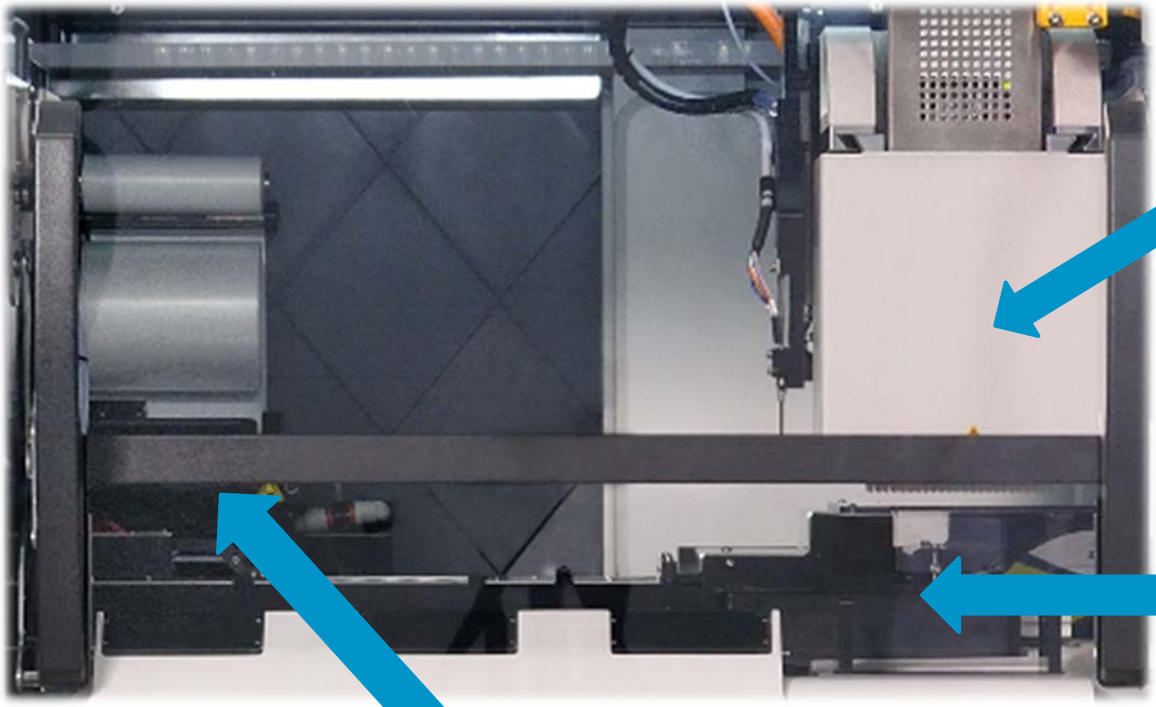

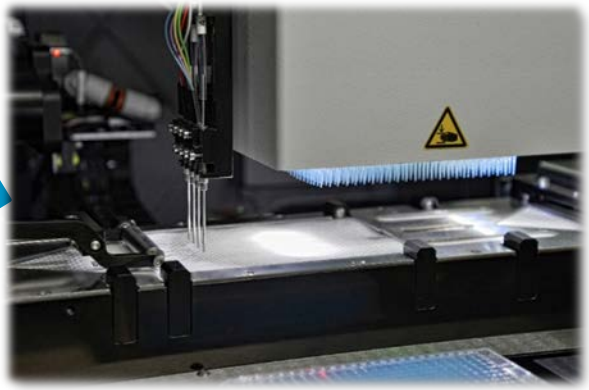

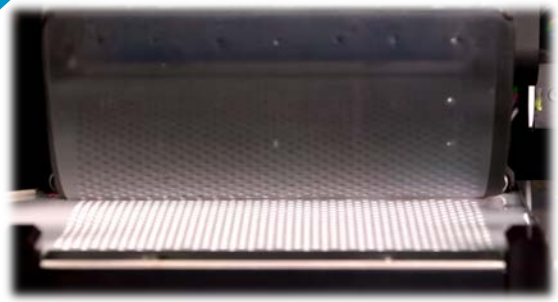

IntelliQube®

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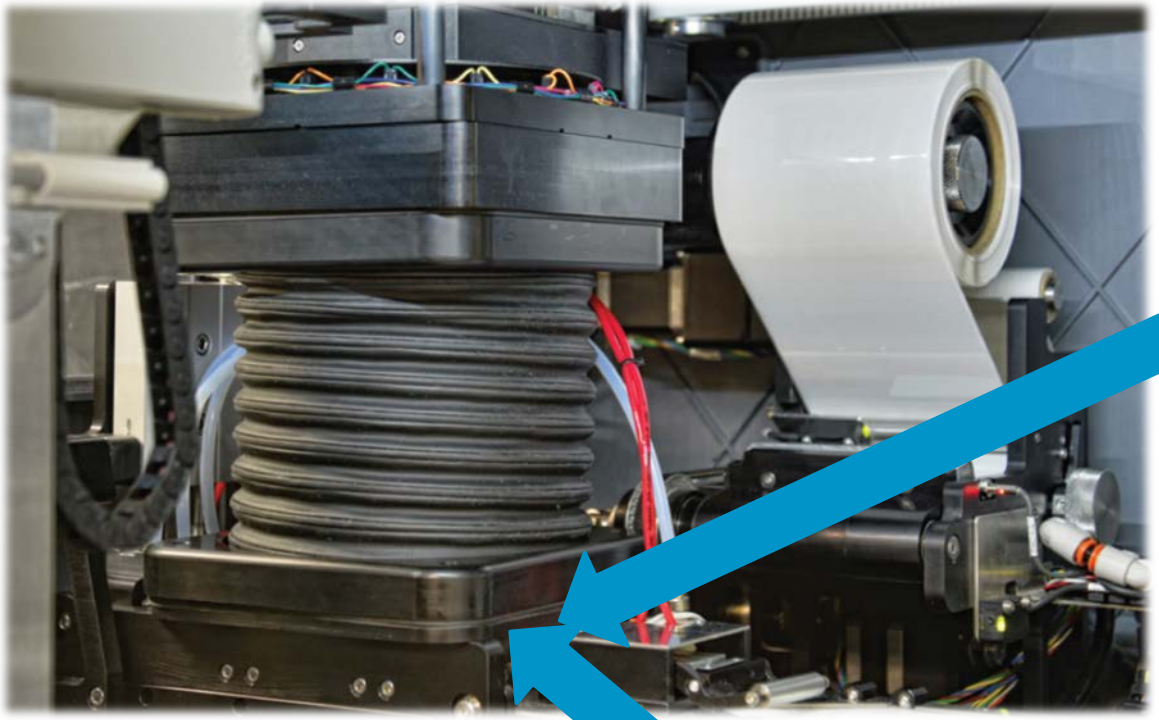
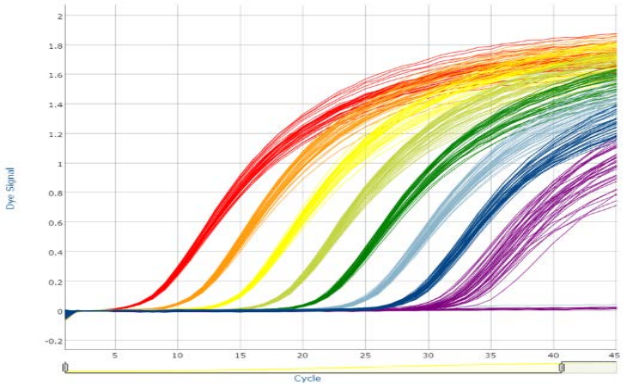
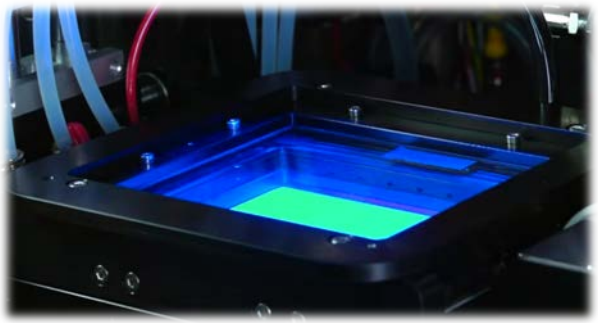




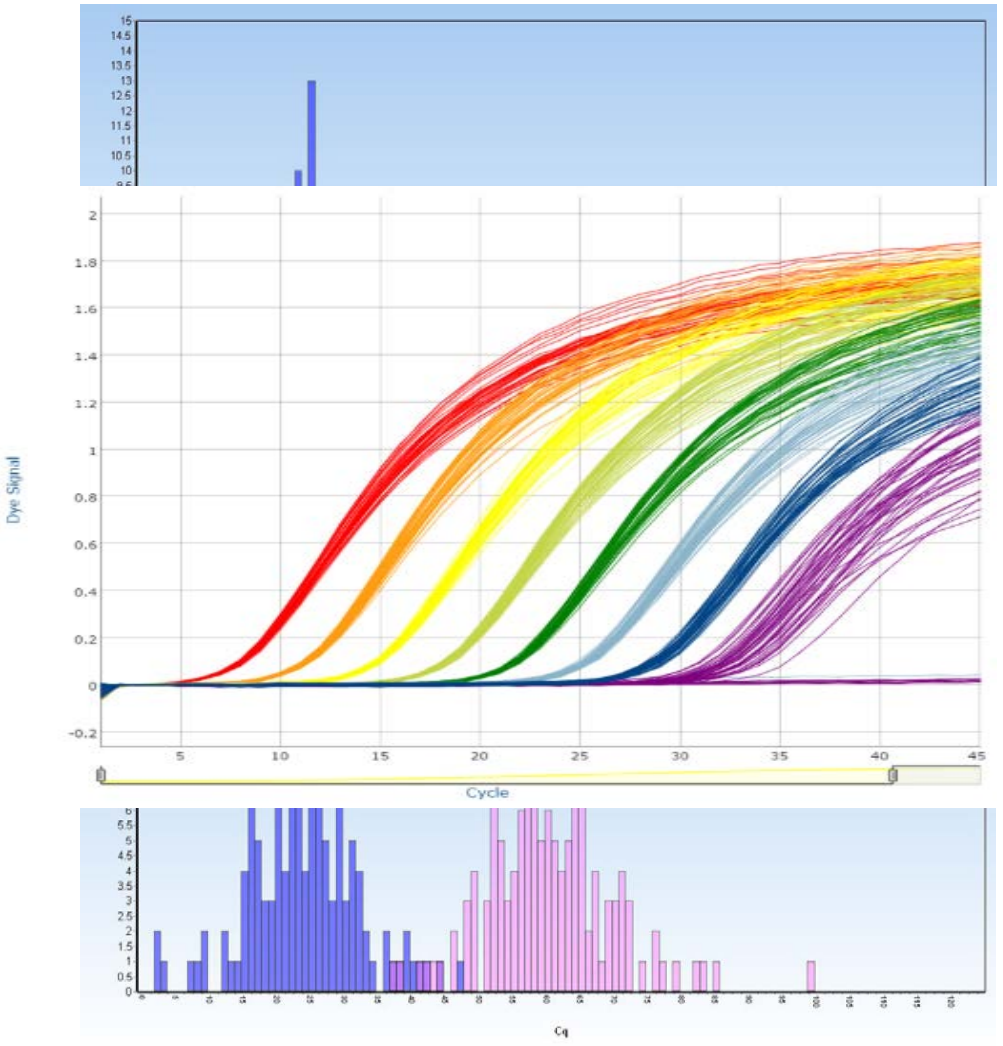


LEDs (470-627 nm)					
Dye Channel	1	2	3	4	5
Excitation Filter (nm)	480	530	548	580	620
Emission Filter (nm)	510	565	580	625	705
Common Dyes	FAM™	JOE™ VIC®/HEX™ Cal Fluor®Orange 560	NED™ TAMRA™ Cal Fluor® Red 590	ROX™ Cal Fluor® Red 610 Texas Red®	Cy5® Quasar® 670

IntelliQube®

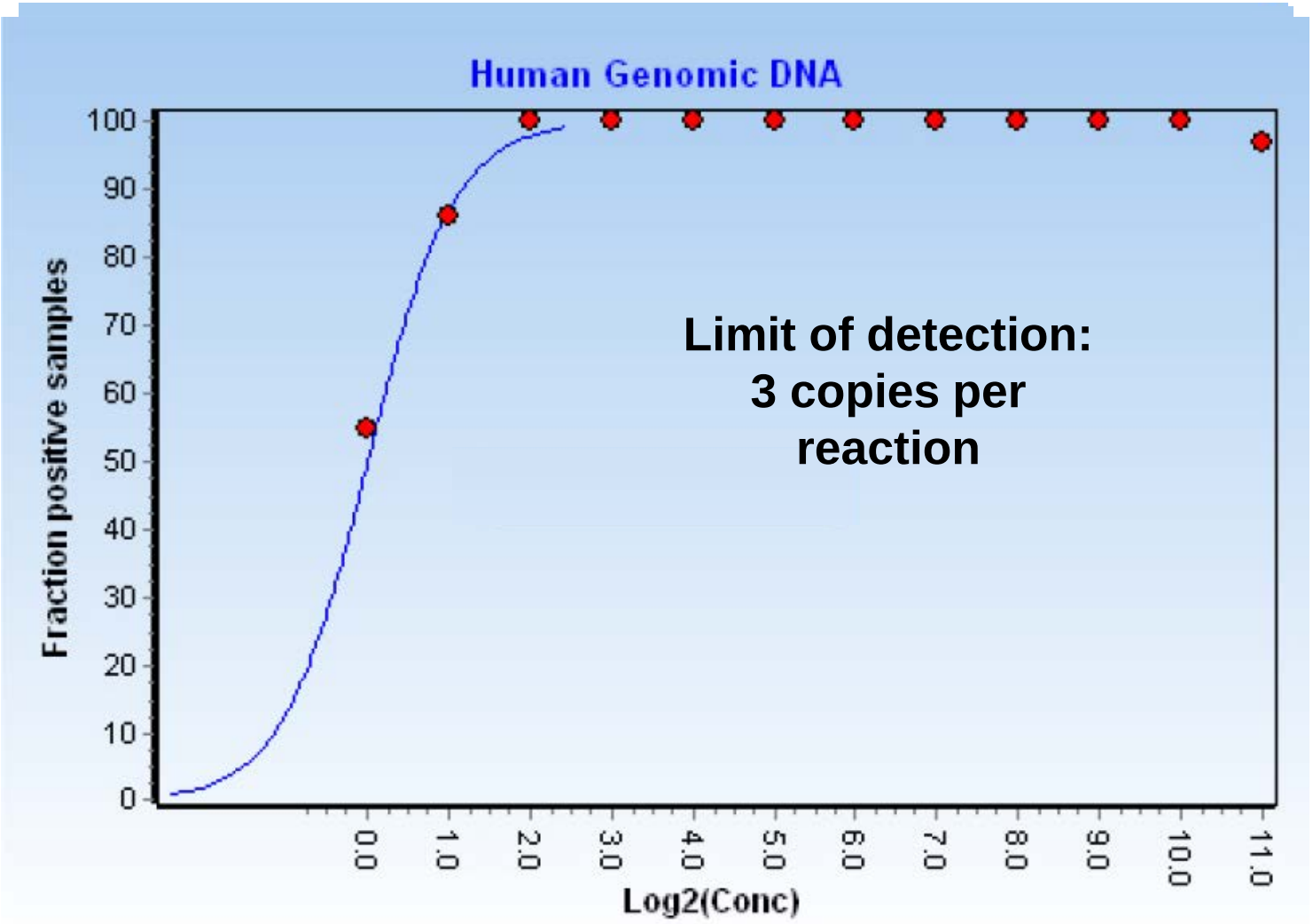
Performance capabilities

- Linear dynamic range: 40 to $4x10^7$ copies/reaction
- Resolves 1.2 fold differences with >97% sensitivity and specificity
- Standard deviation of 0.087 cycles in 768 replicate wells



IntelliQube®

Performance capabilities



Summary

- The IntelliQube® provides flexibility to run only the sample/assay combinations required
- One IntelliQube® enables generation of ~1M yearly data points (8-hour day, 250-day work year)
- No expensive consumables allows for a consistently low cost per data