

Performance Parameters

Basic performance	
Overall dimensions	466*310*273mm
Weight	18Kg
Power supply	110V~240V, 50~60Hz
Communication interface	USB
Operating environment parameters	
Environment temperature	18~30℃
Relative humidity	≤85%
Transportation and storage temperature	-20~55℃
Transport and storage relative humidity	≤85%
PCR system performance	
Tube capacity	48*0.2ml
Sample volume	20~120ul
Apply consumables	0.2ml PCR tube, 8*0.2ml PCR tube
Temperature control range	4~99℃
Temperature accuracy	≤0.1℃
Temperature uniformity	≤±0.25℃
Heating rate	4.5℃/s
Cooling rate	3.0℃/s
Heating/cooling	Semiconductor mode
Hot cover	Electric heat cover
Fluorescence detection system performance	
Light source	High brightness LED
Detector	PD
Excitation and detection of propagation media	High temperature resistant professional fiber
Linear range of samples	10 ⁰ -10 ⁹ copies
Sample linearity	R≥0.99
Sample testing repeatability	CV<1.00%
Excitation wavelength	The first channel: 470nm±10nm The second channel: 525nm±10nm The third channel: 570nm±10nm The fourth channel: 620nm±10nm
Detection wavelength	The first channel: 520nm±10nm The second channel: 570nm±10nm The third channel: 620nm±10nm The fourth channel: 670nm±10nm

Professional Innovation Customers

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MA-Smart Series Rapid qPCR System



Product Introduction

MA-688 Real-Time Quantitative Thermal Cycler adopts maintenance-free LED as the excitation light source, which is operated by external computer, with high efficiency and convenience, and can be widely used in basic medical research, pathogen detection, molecular cloning, genetic screening, gene expression, gene typing and transgenic detection, food safety testing and epidemic monitoring and other fields.

MA-688 is an economical real-time fluorescence quantitative PCR instrument with full open design tailored to qPCR beginners and small laboratories based on MA-6000 series technical platform.

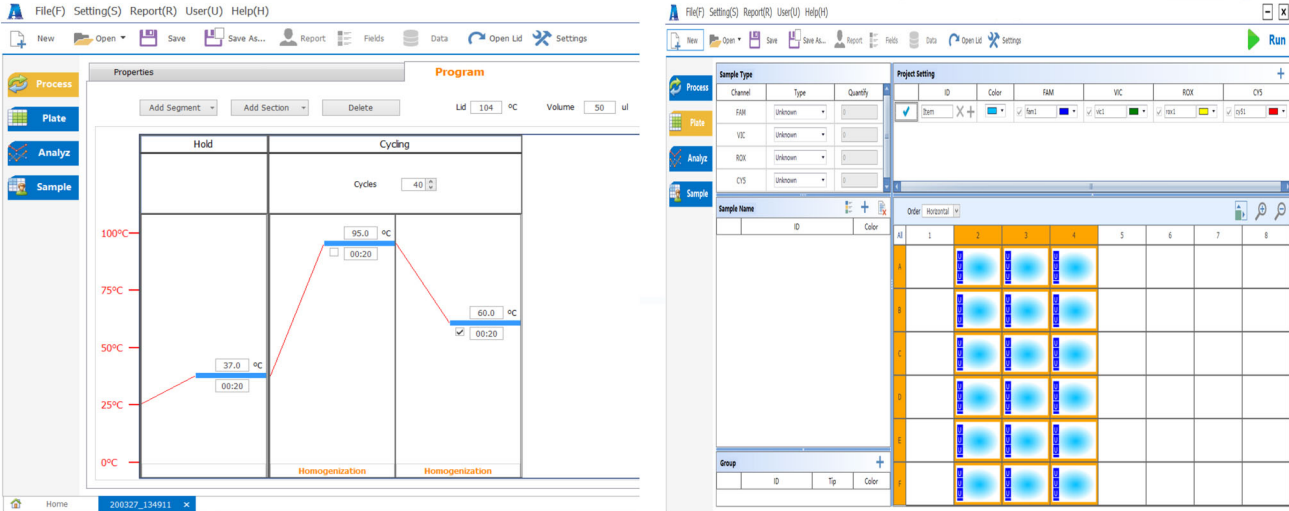
Compact body, 48x0.2ml international standard sample arrangement, standard 3/4 color fluorescence detection channel, MA-Smart reduce the time cost and economic cost for your experiments, help you to open the era of fluorescence quantitative PCR experiment in advance.

Product Features

- 1. **Excellent temperature control performance**
High quality semiconductor thermoelectric module, combined with German high-end PT1000 temperature sensor and edge thermal compensation temperature
- 2. **Super multi-purpose function**
Peltier Base heating module with multi-point temperature control can provide gradient temperature function of optimization experiment
- 3. **Extraordinary optical design**
Maintenance-free LED excitation light source, fluorescence signal of high temperature resistant professional fiber real-time transmission of 48-hole, high signal-to-noise ratio photodiode reading signal, ensure no edge effect
- 4. **Friendly, intuitive software setup interface**
Quick response parameter setting wizard, intuitive sample setting wizard, powerful experimental data analysis function
- 5. **Fast lab start and report output**
It does not need preheating and is easy to operate on and off, and can be used for experiments in 30s. Intelligent data analysis, report output can be completed within 10 minutes

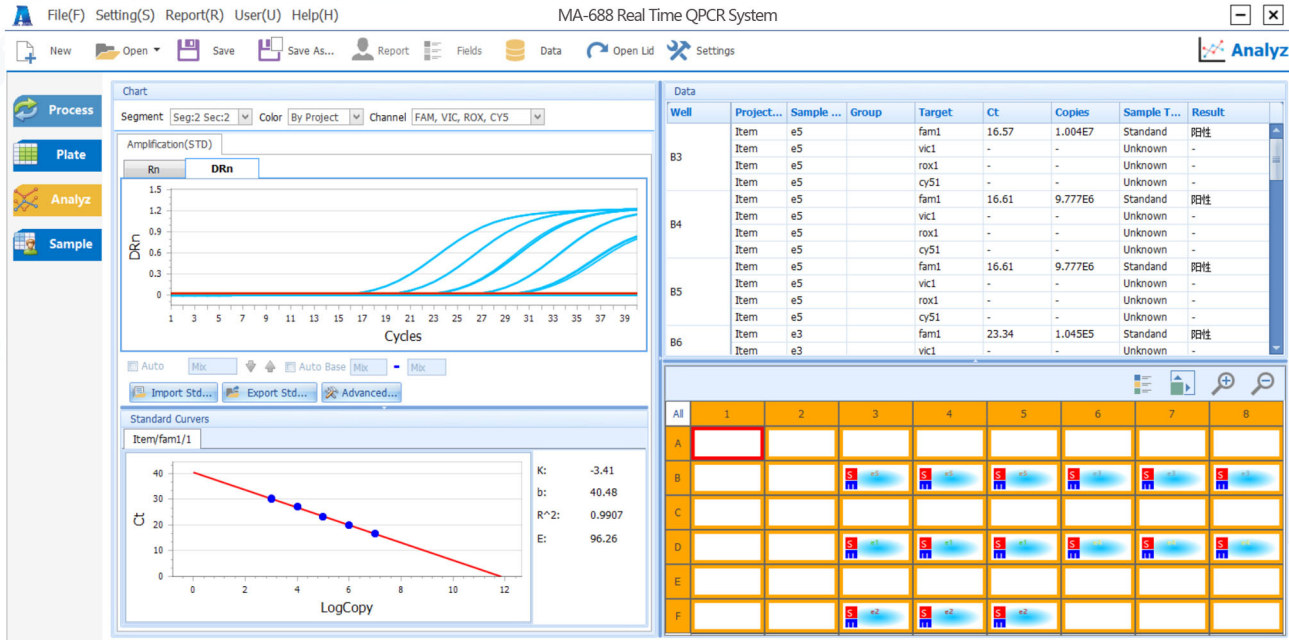
Software Function & Data Processing

- Absolute Quantification
- Relative Quantification
- Melting curve
- Genetic mutation (screening)
- Viral load analysis
- SNP genotyping
- Gene expression
- PCR amplification efficiency



Set table denaturation and annealing holding time can be set as low as 1s

Sample setting interface



Data analysis interface