

OptimumGene™ series
Real-Time PCR System model Q1000+



Q1000+ Specifications

- 1、The new powerful Peltier Technology, fast ramping rate up to **7°C/s**.
- 2、Sample Block Capacity: 48-wells * 2/4 channels. White PCR tubes could be used. In quantitative PCR experiments, white tubes offer the highest sensitivity and shield background.
- 3、T-Optical™ technology ,reduce background noise, improve fluorescence signal sensitivity and signal to noise ratio.
- 4、Simultaneous detection of wells, not in sequence.
- 5、Users could view qPCR process and run PCR protocol with self-contained 7" TFT LCD and touch screen.
- 6、Special designed optical system for qPCR, avoiding more moving parts problems like overheat ,wear and off center. Not optical fiber based, avoiding break and block.
- 7、Long life LED lamps to excite fluorescence and detect with SSLP™ CCD imaging technology.
- 8、Sample wells with temperature gradient function, convenient to optimize PCR conditions.
- 9、The drawer design of sample block, makes it easier to pick and place PCR tubes and plates.
- 10、The qPCR analysis software could be upgraded for free fee.

Instrument Performance

Sample Block Capacity: 48-wells * 0.1ml

Reaction Volume: 10-50ul (recommend 20 ul)

Tubes Option: Low-profile, white or clear PCR tubes or strip of tubes with optical flat cap

Heating and Cooling Technology : New powerful Peltier Technology

Control Methods: Operated via PC or self-contained touch screen on instrument

Temperature

Block Temperature Range: 0°C ~ 105°C

Max. Heating Rate: 7°C/s

Max. Cooling Rate: 5°C/s

Temperature Uniformity: $\leq \pm 0.2^{\circ}\text{C}$ (at 90°C)

Temperature Accuracy: $\leq \pm 0.1^{\circ}\text{C}$ (10 seconds after reach 90°C)
Display Resolution: 0.1°C
Heat Lid Temperature Range: $30^{\circ}\text{C} \sim 112^{\circ}\text{C}$
Temperature control Mode: Block & Calculated sample
Gradient Range: $30^{\circ}\text{C} \sim 100^{\circ}\text{C}$
Temp.Differential Range: $1^{\circ}\text{C} \sim 24^{\circ}\text{C}$

Fluorescence Detection

Calibrated Dyes at Factory

Excitation: Long life LED lamps

Detection: CCDs

Channel 1: FAM、SYBR Green

Channel 2: VIC、HEX、JOE、CY3、NED

Channel 3: ROX、TEXAS-RED

Channel 4: CY5

Fluorescence Excitation Range: 300 — 800nm

Fluorescence Detection Range: 500 — 800nm

Data Export Formats: Excel, TXT

Dynamic Range: $1 \sim 10^{10}$

Sensitivity: ≥ 1 copy

Other Features

AC power supply: 100V ~ 240V, 50-60Hz

Consumption: 400W

Dimension (L×W×H) : 320×205×380mm

Net Weight: 8.2kgs

Computer Operating Systems: Win7, Win10, Win XP