Model	Q1000	Q1000+
Instrument Performance		
Sample Block Capacity	48 wells * 0.1ml	
Reaction Volume	10 ~ 50ul (recommend 20ul)	
Tubes Option	Low profile, white or clear PCR tubes or strips 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	
Language	English	
Communications	USB2.0 or LAN	
Display	7" Color TFT LCD and Touch Screen	
Temperature		
Block Temperature Range	0℃~105℃	
Max. Heating Rate	7℃/S	
Max. Cooling Rate	5℃/S	
Temperature Uniformity	≤ ±0.2℃ (at 90℃)	
Temperature Accuracy	≤ ±0.1℃ (10 seconds after reach 90℃)	
Display Resolution	0.1℃	
Heat Lid Temperature Range	30℃ ~ 112℃	
Temperature Control Mode	Block & Calculated sample	
Gradient Range	30℃ ~ 100℃	
Temp.Differential Range	1℃ ~ 24℃	
Fluorescence Detection		
Excitation	Long life LED lamps	
Detection	CCDs	
Dynamic Range	$1 \sim 10^{10}$	
Sensitivity	⩾1 copy	
Suitable Fluorescent Dyes	F1：FAM、SYBR Green F2：VIC、HEX、JOE、CY3、NED	F1：FAM、SYBR Green F2：VIC、HEX、JOE、CY3、NED F3：ROX、TEXAS-RED F4：CY5
Fluorescence Excitation Range	300 ~ 800nm	
Fluorescence Detection Range	500 ~ 800nm	
Data Export Formats	EXCEL，TXT	
Other Features		
AC Power Supply	100 ~ 240V, 50 ~ 60Hz	
Consumption	400W	
Net Weight	8.2 KG	
Dimension (L × W × H)	320 × 205 × 380 mm	
Computer Operating Systems	Windows 10，Windows 7，Windows XP	

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Ver.09,2019

LongGene®

OptimumGene™ series

Real Time PCR System

[Q1000] [Q1000+]

www.longgene.com

INNOVATIVE PELTIER TECHNOLOGY

COMPANY PROFILE

Hangzhou LongGene Scientific Instruments Co., Ltd. established in 2001, is a leading company which specializes in instruments and reagents for life science with advanced and innovative solutions. Our products and services are globally renown, including universities and research centers in North America and Europe. We are the leader of high-end thermalcycler manufacturer in China.

Our senior management team has more than 20 years experience in the life science industry. " Commitment, dedication efficiency, innovation and collaboration" is our company motto.

MAIN ADVANTAGES

01 / The new powerful Peltier technology, fast ramping rate up to 7℃/s.

02 / 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.

03 / T-Optical™ technology, reduce background noise, improve fluorescence signal sensitivity and signal to noise ratio.

04 / Simultaneous detection of wells, not in sequence.

05 / User could view qPCR process and run PCR protocol through self-contained 7" TFT LCD and touch screen.

06 / 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.

07 / Long life LED lamps to excite fluorescence and detect with SSLP™ CCD imaging technology.

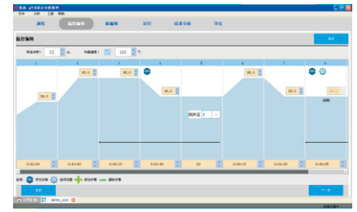
08 / Sample wells with temperature gradient function, convenient to optimize PCR conditions.

09 / The drawer design of sample block, makes it easier to pick and place PCR tubes and plates.

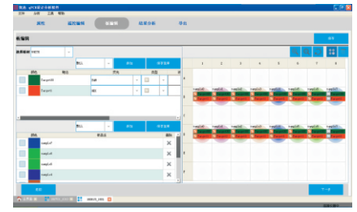
10 / The qPCR analysis software could be upgraded for free.

SOFTWARE

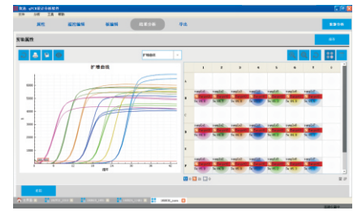
1. Connection via an ethernet cable or via router.
2. Pre-calibrated optics allow you to start using the instrument immediately, no additional calibration is required.
3. Quality control (QC) on data automatically, ensuring reliability of analysis results.
4. Graphical display of protocols, default templates, and real-time run status.



5. Simple and intuitive program, easy to use, without prior reading the user guide thoroughly.
6. PCR protocal can be run via a computer network or in the stand-alone mode.
7. Real-time monitoring of amplification curve or melt curve via the 7'' display and touch screen.
8. Intuitive qPCR plate setup .



9. Temperature gradient capability for optimizing PCR reaction protocol.
10. Protocols and plate setups can be saved as templates for future use.
11. Multitasking software, able to analyze multiple experiments at the same time.



12. Varieties of Data Analysis Methods are included.
    (1) Standard curves for absolute quantification.
    (2) Melt-curve to verify product identity.
    (3) Relative quantification for gene expression analysis, with multiple reference genes and amplification efficiency correction.
    (4) Allelic discrimination (SNP Genotyping) using two allele-specific probes, with automated calling and quality-value assignment.
    (5) Presence/Absence (Plus/Minus) assays with/without internal positive control (IPC) for pathogen detection.
13. A variety of algorithms are included, such as auto-baseline, manual-baseline, auto-threshold, manual-threshold, amplification efficiency (E), able to streamline data analysis.
14. Export results to .xls, .txt.