

| Model | Q1000 | Q1000+ |
|--------------------------------|---|--------|
| Instrument Performance | | |
| Sample Block Capacity | 48 wells * 0.1ml | |
| Reaction Volume | 10 ~ 50ul (recommend 20ul) | |
| Tubes Option | White 0.1ml PCR tube, 8 Strips, with optical flat cover | |
| Heating and Cooling Technology | New generation Peltier technology allow 1,000,000 cycles | |
| Control Methods | Operated via PC or self-contained touch screen on instrument | |
| Optical system | Innovative SSLP™ CCD imaging technology | |
| Display | 7" Color TFT LCD and Touch Screen | |
| Max. Number of Programs | Max. 15,000 programs onboard, unlimited storage of protocols with USB flash drive | |
| PC Connection (Extra Option) | Remote PC control to manage 30 units by the LAN network | |

| Temperature | |
|--------------------------|--------------|
| Block Temp. Range | 0°C~105°C |
| Max. Heating Rate | 7°C/S |
| Max. Cooling Rate | 5°C/S |
| Temp. Uniformity | ≤ ±0.2°C |
| Temp. Accuracy | ≤ ±0.1°C |
| Display Resolution | 0.1°C |
| Heat Lid Temp. Range | 30°C ~ 112°C |
| Gradient Range | 30°C ~ 100°C |
| Temp. Differential Range | 0.1°C ~ 24°C |

| Fluorescence Detection | | | | | | | | | |
|--|---|----------------------|--------------------|--|--|--|--|---------------------|---------------------|
| Excitation | Long life LED lamps | | | | | | | | |
| Detection | CCDs | | | | | | | | |
| Dynamic Range | 1~10 ¹⁰ | | | | | | | | |
| Sensitivity | ≥ 1 copy | | | | | | | | |
| Calibrated Dyes at Installation | <table border="0"> <tr> <td>F1: FAM / SYBR Green</td> <td>F1: FAM/SYBR GREEN</td> </tr> <tr> <td>F2: VIC / HEX / JOE / CY3 / TET* (★Customizable)</td> <td>F2: VIC / HEX / JOE / CY3 / TET* (★Customizable)</td> </tr> <tr> <td>F3: ROX / TEXAS-RED / TAMRA* (★Customizable)</td> <td>F3: ROX / TEXAS-RED / TAMRA* (★Customizable)</td> </tr> <tr> <td>F4: CY5 / Quasar670</td> <td>F4: CY5 / Quasar670</td> </tr> </table> | F1: FAM / SYBR Green | F1: FAM/SYBR GREEN | F2: VIC / HEX / JOE / CY3 / TET* (★Customizable) | F2: VIC / HEX / JOE / CY3 / TET* (★Customizable) | F3: ROX / TEXAS-RED / TAMRA* (★Customizable) | F3: ROX / TEXAS-RED / TAMRA* (★Customizable) | F4: CY5 / Quasar670 | F4: CY5 / Quasar670 |
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| F4: CY5 / Quasar670 | F4: CY5 / Quasar670 | | | | | | | | |
| Fluorescence Excitation Range | 400 ~ 800nm | | | | | | | | |
| Fluorescence Detection Range | 500 ~ 800nm | | | | | | | | |
| Data Export Formats | TXT, PDF, WORD, EXCEL | | | | | | | | |

| Other Features | |
|----------------------------|--|
| AC Power Supply | 100 ~ 240V, 50 ~ 60Hz |
| Consumption | 400W |
| Communications | USB 2.0 & LAN |
| Dimension (L x W x H) | 320 x 205 x 380 mm |
| Net Weight | 8.2 KG |
| Computer Operating Systems | Windows 10, Windows 7, Windows XP |
| Language | English |
| Certificate | ISO13485:2016, ISO9001:2015, CE-IVDR, CE |

 LongGene®

OptimumGene™ series

Real Time qPCR System

[Q1000] [Q1000+]



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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 thermal cycler 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°C/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.

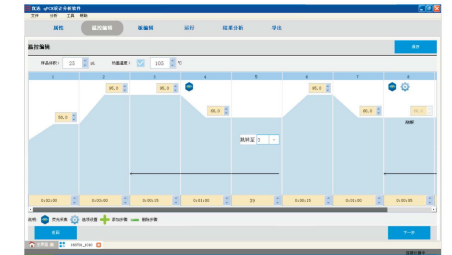
08 / Sample wells with temperature gradient function, convenient to optimize PCR conditions.

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

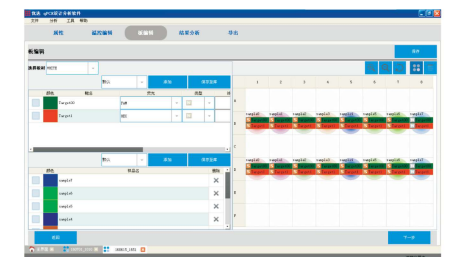
10 / The qPCR analysis software could be upgraded for free.

SOFTWARE

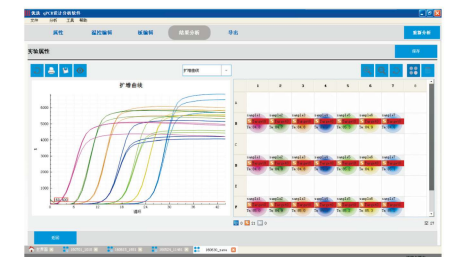
1. Connection via an ethernet cable or via router.
2. Pre-calibrated optics allow you to start using the instrument immediately, no additional calibration is required.
3. Quality control (QC) on data automatically, ensuring reliability of analysis results.
4. Graphical display of protocols, default templates,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



5. Simple and intuitive program, easy to use, without prior reading the user guide thoroughly.
6. PCR protocol 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 TXT / PDF / WORD/ EXCEL

