









OUTSTANDING
PCR THERMAL CYCLER
MANUFACTURER

FOCUS | INNOVATIVE | HIGH EFFICIENCY | WIN-WIN RESULT

# HANGZHOU LONGGENE SCIENTIFIC INSTRUMENT CO., LTD.

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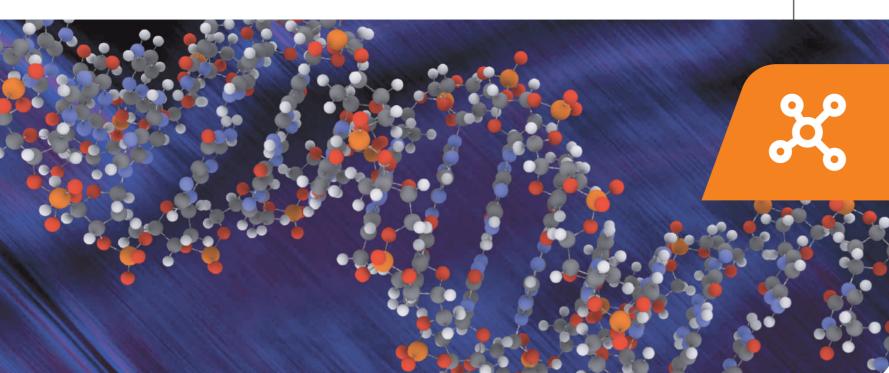
LongGene Scientific Instruments

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# **DIRECTORY**

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### **Product Introduction**

Real-Time PCR System model Q2000	P06
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Portable Mini Real-Time PCR Thermal Cycler model Q160	P14

# 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.

As a pioneer of the life science technology industry in China, we aim to contribute to the global gene technology industry by delivering the most advanced products and cutting-edge solutions.

## Rich history in Manufacturing

Established in 2001, Hangzhou LongGene Scientific Instruments Co.,Ltd. have over 18 years of experience in designing, manufacturing, and marketing biological instruments. Our core values are "Guaranteed Quality for Life" and "Exceptional Attention to Detail".

# Strong manufacturing team

LongGene senior management have over 20 years experience in product design, technological expertise & innovation, having gained valuable knowledge from the USA and within China.

# © Extensive product range

Our comprehensive PCR product range will suit all clients needs, including 16 to 384 wells, gradient / multi-gradient Temp. ranges, and single / multi-lid designs. With new and innovative technologies developed by our experienced R&D team, LongGene have released some of the most sought after PCR products in the world.

# © Exceptional product quality

Each PCR undergoes 16 thorough quality control checks, ensuring only the finest quality products reach our clients. In 2005, LongGene was approved the international standard ISO9001 and European standard CE. In 2015, the CFDA also approved LongGene's products, making them one of the most reliable and trustworthy products on the market.

www.jojo-ls.de – info@jojo-ls.de

# **HONORARY**

# **CERTIFICATE**













**marlow** — World TOP manufacturer of Peltier Elements

The world-known provider of electronic components

Texas Instruments — The world-known provider of electronic components

The world's top manufacturer of industrial switching power supply



— The world's largest manufacturer of 7" LCD



# DEVELOPMENT

# **HISTORY**

#### 2018

- ©Two new members T30D & T20D for TalentGene series were launched successfully.
- O All jobs for Q160 were finished & began to marketing.

#### 2017

© TalentGene series Thermal Cyclers begin to sell, T20 & T30 became the flagship product of 2017.

#### 2016

 ArtGene series added new member – A600 with six independently regulated thermal blocks to optimize a primer set, which has become the new star on the market.

LongGene's first Real-Time PCR System-Q1000 is launched to market.

#### 2015

O ArtGene series, L series, MG series Thermal Cyclers receive CFDA certification.

#### 2014

© MiniGene series launched in the market, LongGene Thermal Cycler Family is growing.

#### 2011

© ArtGene series add new member - A300 Fast Gradient Thermal Cycler, boasting a ramping rate of 6°C/sec.

#### 2010

O ArtGene series released & became the main stream model on the market immediatley.

ArtGene—Perfectly integrating ART Technology.

#### 2008

© L series Thermal Cycler launched in market, with 5.7" COLOR TFT graphical display.

#### 2007

© Established stable business relationships with many corporations in overseas markets, LongGene

Thermal Cyclers enter North America, South America, Europe, Southeast Asia & South Africa markets.

#### 2005

© Received ISO9001:2000 certificate & CE mark.

#### 2003

O MyGene series MG96+ & MG96G released and became a best-seller domestically & internationally.

#### 2001

© Hangzhou LongGene Scientific Instruments Co., Ltd. is established. First model MG25+ was born.

#### OPTIMUMGENE TM SERIES

# Q2000 Real-Time PCR System



Block sample capacity: 96 wells \* 0.1ml, both white & clear low profile PCR tubes can be used

Patented drawer type sample block design, easy to insert & remove sample



10" TFT Full Color Touch Screen, real-time graphical display

T-Optical <sup>™</sup> top detection technology, greatly reduce backgroud noise

- © The new powerful Peltier technology, fast ramping rate up to 6℃/s.
- $\bigcirc$ T-Optical<sup>TM</sup> technology, reduce background noise, improve fluorescence signal sensitivity and signal to noise ratio.
- © The angle of display could be adjusted to the best view.
- ©96 wells\*2/4/6 channels, simultaneous detection of wells, not in sequence.
- © User could view qPCR process and run PCR protocol through self-contained 10" TFT LCD and touch screen.
- © 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 by dust.
- © Long life LED lamps to excite fluorescence and detect with SSLP™ CCD imaging technology.
- © Sample wells with temperature gradient function, convenient to optimize PCR conditions.
- ©The drawer design of sample block, makes it easier to pick and place PCR tubes and plates.
- $\ensuremath{\mathbb{O}}$  The qPCR analysis software could be upgraded for free.

Model	Q2000A	Q2000B	Q2000C				
		INSTRUMENT PERFORMAN	ICE				
Sample Block Capacity		96 wells * 0.1ml	ells * 0.1ml				
Reaction Volume		10-50ul (recommend 20ul)					
Tubes Option	Low profile, white or clear	PCR tubes or strips or 96 well P	CR plate, with optical flat cap				
Heating & Cooling Technology	New genera	ation Peltier technology allow 1,0	000,000 cycles				
Control Methods	Operated via P(	C or self—contained touch scree	en on instrument				
Language		English					
Communications		USB 2.0 & LAN					
Display	10"	Color TFT LCD and Touch Scree	en				
Max. Number of Programs	Max.15,000 programs or	nboard, unlimited storage of proto	ocols with USB flash drive				
		TEMPERATURE					
Block Temp.Range		0℃~105℃					
Max. Heating Rate		6°C/sec					
Max. Cooling Rate		5°C/sec					
Temp.Uniformity		≤ ± 0.2°C at 90°C					
Temp.Accuracy	≤ :	± 0.1℃ (10 seconds after reach 9	00℃)				
Display Resolution	0.1℃						
Heat Lid Temp. Range	30°C~112°C						
Temp.Control Mode	<u> </u>						
Gradient Range		30℃ ~ 100℃					
Temp.Differential Range	1℃~30℃						
		FLUORESCENCE DETECTION					
Excitation	Long life LED lamps						
Detection CCDs							
Dynamic Range		1 ~ 10 <sup>10</sup>					
Sensitivity		≥1 copy					
Calibrated Dyes at Installation	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	F1: FAM、SYBR GREEN F2: VIC、HEX、JOE、CY3、NED F3: ROX、TEXAS_RED F4: CY5 F5: CY5.5 F6: Reserved				
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	600W						
Net Weight	13 KG						
Dimension (L×W×H)	<u> </u>	334×280×365 mm					
Computer Operating Systems	1.	Windows10. Windows7. Windows	sXP				

# Q2000 Real-Time PCR System Software

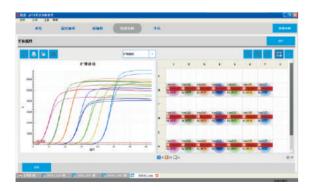
- 1. Connection via an ethernet cable or via router.
- 2. Pre-calibrated optics allow you to start using the instrument immediately, no additional calibration is required.
- 3. Quality control (QC) on data automatically, ensuring reliability of analysis results.
- 4. Graphical display of protocols, default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



- 5. Simple and intuitive program, easy to use, without prior reading the user guide horoughly.
- 6. PCR protocals can be run via a computer network or in the stand -alone mode (using a USB flash drive)
- 7. Real-time monitoring of amplification curve or melt curve via the 10" display and touch screen.
- 8. Intuitive qPCR plate setup.



- 9. Thermal gradient capability with 12 columns 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 include.
  - (1) Standard curves for absolute quantification



- (2) Melt-curve to verify product identity
- (3) Relative quantification for gene expression analysis, with multiple reference genes & amplification efficiency correction
- (4) Allelic discrimination (SNP Genotyping) using two allele–specific probes, with automated calling & 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.

#### OPTIMUMGENE TM SERIES

# Q1000/Q1000+ Real-Time PCR System



Block sample capacity: 48 wells \* 0.1ml, both white & clear low profile PCR tubes can be used

Patented drawer type sample block design, easy to insert & remove sample



7'' TFT Full Color Touch Screen, real-time graphical display

T-Optical <sup>™</sup> top detection technology, greatly reduce backgroud noise

- © The new powerful Peltier technology, fast ramping rate up to 7°C/s.
- ©T-Optical<sup>™</sup> technology, reduce background noise, improve fluorescence signal sensitivity and signal to noise ratio.
- © Simultaneous detection of wells, not in sequence.
- © User could view qPCR process and run PCR protocol through self-contained 7" TFT LCD and touch screen.
- © 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.
- $\bigcirc$  Long life LED lamps to excite fluorescence and detect with SSLP $^{\text{TM}}$  CCD imaging technology.
- © Sample wells with temperature gradient function, convenient to optimize PCR conditions.
- ©The drawer design of sample block, makes it easier to pick and place PCR tubes and plates.

Model	Q1000	Q1000+			
	INSTRUMENT	PERFORMANCE			
Sample Block Capacity	48 well	s * 0.1ml			
Reaction Volume	10-50ul ( recommend 20ul )				
Tubes Option	Low profile, white or clear PCR tubes o	or strips of tubes with optical flat cap			
Heating & Cooling Technology	New generation Peltier technology allow 1,000,000 cycles				
Control Methods	Operated via PC or self-contained touch screen on instrument				
Language	Engl	ish			
Communications	USB 2.0	& LAN			
Display	7" Color TFT LCD ar	nd Touch Screen			
	ТЕМРЕ	RATURE			
Block Temp.Range	0℃~	105℃			
Max. Heating Rate	7°C	:/sec			
Max. Cooling Rate	5%	C/sec			
Temp.Uniformity	≤ ± 0.2	°C at 90°C			
Temp.Accuracy	≤ ± 0.1°C (10 secon	nds after reach 90°C )			
Display Resolution	0.1℃				
Heat Lid Temp. Range	30℃~112℃				
Temp.Control Mode	Block & Calculated sample				
Gradient Range	30℃ ~ 100℃				
Temp.Differential Range	1°C ~ 24°C				
	FLUORESCEN	CE DETECTION			
Excitation	Long life LED lamps				
Detection	CCDs				
Dynamic Range	1 ~ 10 <sup>10</sup>				
Sensitivity	≥1 (	сору			
Calibrated Dyes at Installation	F1: FAM、SYBR GREEN	F1: FAM、SYBR Green F2: VIC、HEX、JOE、CY3、NED F3: ROX、TEXAS-RED			
	F2: VIC、HEX、JOE、CY3、NED	F4: CY5			
Fluorescence Excitation Range	300 ~	800nm			
Fluorescence Detection Range	500 ~ 800nm				
Data Export Formats	EXCEL, TXT				
	Other F	eatures			
AC Power Supply	100 ~ 240	V, 50 ~ 60Hz			
Consumption	400W				
Net Weight	8.2	2 KG			
Dimension (L×W×H)	320×205	×380 mm			
Computer Operating Systems	Windows10、Wind	lows7、WindowsXP			

# Q1000/1000+ Real-Time PCR System Software

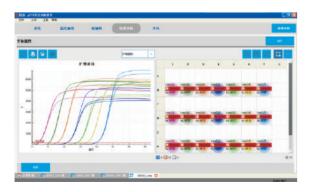
- 1. Connection via an ethernet cable or via router.
- 2. Pre-calibrated optics allow you to start using the instrument immediately, no additional calibration is required.
- 3. Quality control (QC) on data automatically, ensuring reliability of analysis results.
- 4. Graphical display of protocols, default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



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

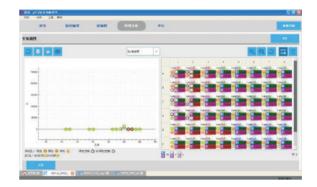


- 9. Thermal gradient capability for optimizing PCR reaction temperatures.
- 10. Protocols and plate setups can be saved as templates for future use.
- 11. Multitasking software, able to analyze multiple experiments at the same time.

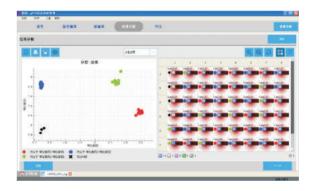




- 12. Varieties of Data Analysis Methods are include.
- (1) Standard curves for absolute quantification



- (2) Melt-curve to verify product identity
- (3) Relative quantification for gene expression analysis, with multiple reference genes & amplification efficiency correction
- (4) Allelic discrimination (SNP Genotyping) using two allele–specific probes, with automated calling & 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.

#### OPTIMUMGENE TM SERIES

# Q160 Portable Mini Real-Time PCR Thermal Cycler

Top excitation and detection technology ensure white tubes could be used, which could get better results



7" TFT Full Color touch screen, all operation and analysis could be done on board with no computer

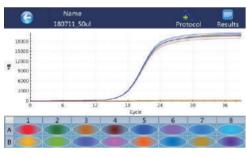


Self-lock heat lid realize no evaporation

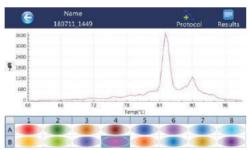
16 wells with 2 channels, specialize in fast quantification

# Software Function

Amplification curves, melt peak curves and standard curves could be view directly on the screen.







	•						Raw Data		
		1	2	3	4	5	б	7	8
A	+/-		÷	+	•	+	٠	2	3
В	+/-	+	÷	*		+		?	3

Analysis function like automatic calculation for Ct value and Melt temperature (Tm) Value, and Negative/Positive Automated Determination on board.

JoJo Life Science

Model	Q160
	PERFORMANCE
Sample Block Capacity	16 wells * 0.1ml
Reaction Volume	10-100ul
Tubes Option	Low-profile white or clear 0.1 ml PCR tube/8-tube strips with optical flat cap
Heating & Cooling Technology	New generation Peltier technology allow 1,000,000 cycles
Control Methods	Built-in full operation and analysis functions, no external computer required
Language	English
Communication Ports	USB 2.0 & LAN, export data via USB flash drive
Display	7'' Color TFT Touch Screen
	TEMPERATURE
Block Temp.Range	4℃~100℃
Max. Heating Rate	5°C/sec
Max. Cooling Rate	4°C/sec
Temp.Uniformity	± 0.25℃ at 90℃
Temp.Accuracy	±0.25℃ (10 seconds after reach 90℃ )
Display Resolution	0.1℃
Heat Lid Temp.Range	30℃~105℃
Temp.Control Mode	Block & Sim-tube mode
	OPTICAL MODULE
Excitation	Long life LED
Detection	High sensitivity photoelectric detector
Dynamic Range	10 <sup>1</sup> ~ 10 <sup>10</sup>
Detection Sensitivity	Detects 1 copy
Fluorescence Detection Type	T-Optical ™ excitation & top detection technology; with no moving parts.
Calibrated Dyes at Installation	Channel 1: FAM、SYBR, Channel 2: VIC、HEX、JOE
Fluorescence Excitation Range	470–500nm
Fluorescence Detection Range	Channel 1: 520 – 540nm, Channel 2: 540 – 700nm
Data Export Formats	Excel, TXT
	OTHER FEATURES
Power	Global switch power supply : 85V-265V, 50-60Hz
Consumption	160W
Net Weight	3.6 KG
Dimensions (L x W x H)	305x 179x 186mm