

Bring *Technology to Life!*



# Gentier 48E/48R

## Real-time PCR System

The Tianlong Gentier 48E/48R Real-time PCR System incorporates innovative optical technologies with powerful software to provide maximal reliability and efficiency for all your real-time PCR needs. It is designed to meet the needs of small and medium-sized laboratories, mobile laboratories, and on-site testing. With the 4/2 fluorescence channels, Gentier 48E/48R can process 48 samples in one run. It can make your experiments easier to use, more accurate, and efficient of its excellent performance and portability.



Model	Throughput	Gradient	Channel 1	Channel 2	Channel 3	Channel 4
			FAM, SYBR Green I, etc.	VIC, HEX, TET, JOE, etc.	ROX, Texas Red, etc.	Cy5, etc.
Gentier 48E	1-48	Yes	✓	✓	✓	✓
Gentier 48R			✓	✓		

## SPECIFICATIONS

Model	Gentier 48E	Gentier 48R
Throughput	1-48	
Fluorescence Channels	4	2
Fluorescence Scanning Time	2s	
<b>Optical System</b>		
Light Source	High-brightness, long-life and maintenance-free LED light source	
Detector	Photodiodes (PDs)	
Excitation Range	CH1: 470nm CH2:523nm CH3:570nm CH4:638nm	
Detection Range	CH1:525nm CH2:564nm CH3:610nm CH4:685nm	
Fluorescence Dynamic Range	Adjustable	
Sample Dynamic Range	1-10 <sup>10</sup> copies	
<b>Thermal Block</b>		
Heating Method	Peltier	
Heating Rate	≥ 8.0°C/s	
Cooling Rate	≥ 6.2°C/s	
Temperature Accuracy	≤ 0.1°C	
Gradient Range	1°C-40°C	
Gradient Block	8 row	
Special Temperature Protocol	Thermal gradients PCR, Long PCR, Touch Down PCR	
Sample Testing Linearity and Repeatability	Linear correlation: $r \geq 0.999$ Repeatability: cycle threshold (Ct) value CV ≤ 0.5%	
<b>Software Functions</b>		
Control Modes	Mode1: 7 inch touch screen, Mode 2: PC direct control	
Power Failure Protection	Automatically start running experiments after power supply, no need to wait PC software	
Data Storage and Transmission	Upload and download through USB disk, 1000 results can be stored in machine	
Reporting Function	Templates reserved; customized experiment report	
Key Applications	Relative quantification, absolute quantification, melting curve analysis, SNP analysis	
<b>Others</b>		
Operating System for PC	Win7/Win10/Win11	
Power Supply and Power Consumption	AC 100-240V, 50-60Hz; 600VA	
Weight	11 Kg (net)	
Instrument Dimension	260*400*260mm (W*L*H)	
Suitable Consumables	0.2mL clear non-skirt 48-well plates, 8-tube strips, single tubes, etc.	

## FEATURES



### 48 samples to be scanned in 2s

Only 2s for all 48 wells of fluorescence scanning can significantly reduce testing time and improve efficiency for lab professionals.



### More convenient with two configurations

Standalone configuration: 7-inch touch screen, direct print sample amplification curve, and CT values by connecting to a thermal printer(optional); PC control configuration: PC software control via connection, one PC can max control 10 instruments.



### Efficient temperature control

Gentier 48 E/R only takes 40 minutes to complete a standard PCR amplification process. Temperature accuracy is controlled within 0.1°C.



### User-friendly and more flexible

Small in size and light in weight, it can be moved flexibly to your mobile laboratory for on-site testing.



### Powerful software analysis

Gentier 48 E/R offers multiple functions including relative quantification, absolute quantification, melting curve analysis, SNP analysis, and is compatible with other fluorescence analysis functions based on the isothermal amplification technique.

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