*Bring Technology to Life*

TIAN LONG

# 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 | | | ✓ | ✓ | | |

## 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.

## SPECIFICATIONS

| Model | Gentier 48E | Gentier 48R |
|---|---|---|
| Throughput | 1-48 | |
| Fluorescence Channels | 4 | 2 |
| Fluorescence Scanning Time | 2s | |
| ***Optical System*** | | |
| 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-$10^{10}$ copies | |
| ***Thermal Block*** | | |
| Heating Method | Peltier | |
| Max Heating Rate | ≥ 8.0°C/s | |
| Max Cooling Rate | ≥ 6.2°C/s | |
| Accuracy of Thermo Control | ≤ 0.1℃ | |
| Gradient Interval 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/ ≥ 0.999 Repeatability: cycle threshold (Ct) value CV≤ 0.5% | |
| ***Software Functions*** | | |
| 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 | |
| ***Others*** | | |
| 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 transparent 8-strip PCR tube，0.2mL transparent single PCR tube | |

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