

## Gentier-48E Real-time PCR System

### Introduction

The Gentier 48E 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 fluorescence channels, Gentier 48E 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.

CH1	CH2	CH3	CH4
FAM	HEX	Texas Red	Cy5
SYBR Green I	VIC	ROX	
SYTO 9	TET		
Eva Green	JOE		
LC Green			



### Features

#### 1. 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.

#### 2. Efficient temperature control

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

#### 3. 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

#### 4. Powerful software analysis

Gentier 48E 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
Sample capacity(wells)	48
Reaction Volume	5-100 µL
Consumables	0.2ml 8-strip tubes ,0.2ml PCR single tube(Optical flat cap,clear tube)
Temperature range	0°C-100°C
Heating/cooling method	Peltier
Max heating rate	8.0°C/sec
Average heating rate	6.2°C/sec
Max cooling rate	6.2°C/sec
Average cooling rate	4.5°C/sec
Temperature accuracy	±0.1°C
Temperature uniformity	±0.2°C
Gradient Range	1°C-40°C
Gradient block	8 row
Special temperature portocol	Gradient PCR,Long PCR,Touch Down PCR

<b>Heat Lid</b>	
Temperature range	Room Temperature–110°C
<b>Optical System</b>	
Excitation Source	4LEDs
Detector	Photodiode
Detection Position	Excitation and scan from lateral
Detection method	4 channels scanning at the same time, no edge effect.
Detection time	2 seconds for 48 wells for all channels
Range of excitation/ emission wavelengths (nm)	1 465 /510 (FAM,SYBR Green I , SYTO9 , EvaGreen , LC Green) 2 527/ 563 (HEX,VIC,TET,JOE) 3 580 /616 (ROX,Texas Red) 4 632/ 664( Cy5)
Probe	Taqman Probe,Molecular beacons probe , Scorpion probe
Multiplexing	Up to 4 targets
Fluorescence Linearity	$r \geq 0.990$
Fluorescence Dynamic Range	Adjustable
<b>Performance</b>	
Sample Linearity	$r \geq 0.999$
Sample repeatability	Ct value CV $\leq$ 0.5%
Sample Dynamic Range	1-1010 copies
<b>Software Functions</b>	
Data Analysis modes	Qualitative analysis, Absolute quantification, Relative quantification, Genotyping analysis, Endpoint analysis , Melt curve analysis, High Resolution Melting
Control modes	1.7 touch screen 2. PC direct control 3. WLAN control(One PC can control max 10 units, and device can be controlled by any PC in the WLAN)
Data Storage	Upload and download through USB disk, 1000 results can be stored in machine
Power failure protection	Automaticly start running experiments after power supply, no need wait PC software
Customize Report	Templates reserved ,report can customized
Administration Management	Administrator can set functions limits for users
Fault Management	Fault report and analysis, solution instruction
LIS connection	CSV,Excel,TXT format data output,open port for LIS connection
<b>Others</b>	
PC operating system	Win7/Win10/Win11
Communication Port	1 ethernet and 2 USB
Footprint(WxDxH)	260mm X 400mm X 260mm
Weight	11kg
Power usage	AC 100 to 125 V / 200 to 240 V (50/60 Hz).
Power consumption	600VA
Work environment	Temperature:10°C~30°C Humidity:20%~85%