

## Specifications of eQ9600 Series Real-time PCR System

Sample volume	96*0.2 ml single tube or 8-strip transparent tube (except for white opaque tube).
Applicable reagents	The system is an open platform, suitable for various real-time PCR reagents, including fast extraction reagents, non-extraction reagents or direct amplification reagents and other low-concentration PCR reagents.
Reaction volume	5-100ul
Dynamic range	1-10 <sup>10</sup> Copies
Color wavelength	320-900nm
Dyes and probes	CH1: FAM, SYBR Green I; CH2: HEX, JOE, VIC, TAMRA; CH3: ROX, CALRED; CH4: CY5, QUASAR; CH5: - CH6:-
Excitation light source	High brightness and long life single color LED module.
Optical sensor	High sensitivity photodiode module (PDM).
Channels	4 channels/6 channels (4 standard channels + 2 customized).
★ Proprietary DDSOM photoelectric module	DDSOM: Dual Dimension Scan Optical module. ①Independent excitation light for each channel, independent fluorescence detection, strong signal and low background noise. It is especially suitable for fluorescent quantitative PCR experiments with low-concentration DNA reagents such as direct amplification reagents, extraction-free reagents, and quick extraction reagents. ② One scan completes the detection of all channels, 4 channels only needs 9.7s. ③ Solid-state electronic optical data collection.
Sensitivity	1 copy
Rn	≥0.998
CV	CV≤3%
Block setting range	10-99.9°C
Temperature control mode	Tube mode (intelligently simulate the real temperature of the reagent according to the sample volume).
Thermal technology	Peltier integrated light and heat.
Block temperature equalization technology	The know-how of block edge temperature self-compensation design not only reduces the weight of the block, but also achieves excellent temperature uniformity, which effectively shortens the time of PCR experiment.
Precision of temperature control	≤0.1°C
Display resolution	0.1°C
Temperature accuracy	≤0.2°C
Temperature uniformity	≤±0.2°C
Max. ramping rate	≥4°C/s
Avg. ramping rate	≥2.5°C/s (50-90°C)
Hot lid	30-105°C, Default 105°C.
Operating mode	Operate through PC (provided by customer). one PC can be used to control multiple PCR machines to form N*96 PCR array to run N PCR experiments simultaneously, which is flexible and changeable.
PC operating system	Windows7/10
Com. interface	RS232./USB
Software functions	There is system parameter setting (with password authority), experimental parameter setting, sample information input, operation management, data export EXCEL, PCR program overview, real-time amplification curve display, channel crosstalk correction, criterion setting, automatic report, curve capture and other functions.
Analytical function	Absolute quantitative, relative quantitative, melting curve (HRM).
Reports	Preset human/animal experiment report templates, and customize report templates, result judgments, fluorescence analysis curves, and report printing.
Operating indicator	Power on, in operation, successful communication, ultraviolet degradation (UV), fault alarm, hot lid open alarm.
operating ambient	Ambient temperature: 10-30°C, relative humidity: 20-85%RH, elevation not higher than 2000 m, storage temperature: -20-60°C.
Input power	100-240VAC 50~60Hz 800W
Dimensions (L*W*H)	428×305×202mm (A3 paper size)
Net weight	12.5kg



# eQ9600 Series

## Real-time PCR System

The eQ9600 series product is a 96-well high-throughput real-time fluorescent quantitative PCR detection system released by Ultrassay following the eQ1600 series. This product adopts the DDSOM two-dimensional scanning photoelectric module technology and thermal system design, the unique technology of Ultrassay achieving product characteristics of strong photoelectric signal, high sensitivity, low background noise and light weight. Coupled with powerful and friendly system software, it can be used for multiple gene detection, quantitative analysis, SNP analysis, melting curve analysis and other experiments.

This system is suitable for polymerase chain reaction and quantitative detection in immunology, human genome engineering, forensic medicine, oncology, tissue and population biology, paleontology, zoology, botany and other fields.

*Simple Appearance and Powerful Device*



ULTRASSAY BIOTECH CO., LTD.

[HTTP://ULTRASSAY.COM](http://ultrassay.com)

# Features

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## System Parameters

96-well high-throughput  
4/6-channel simultaneous detection

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## Appearance

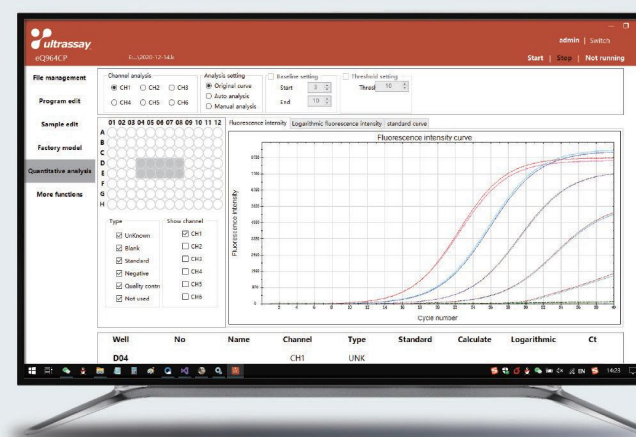
Simple and lightweight  
A3 size

03

## Optical Performance

Strong Fluorescence Signal  
Low Background Noise  
High Sensitivity

- Independent excitation light for each channel, independent fluorescence detection, strong signal and low background noise. It is especially suitable for fluorescent quantitative PCR experiments with low-concentration DNA reagents such as direct amplification reagents, extraction-free reagents, and quick extraction reagents.
- 1 scan to complete all channel detection.
- Solid-state electronic optical data collection.

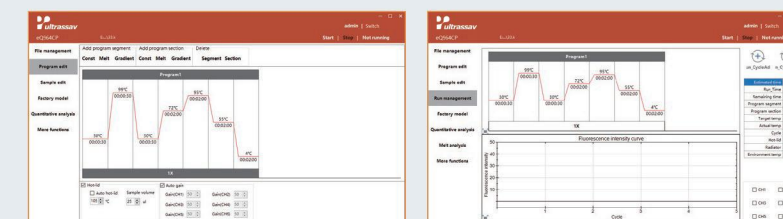


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## Software System

Simple Software Interface  
Powerful System Functions

- The operating software adopts windows10 interface style and operating habits, which is easy to use for customers.
- The system has parameter setting (with password authority), experimental parameter setting, sample information input, operation management, data export EXCEL, PCR program overview, real-time amplification curve display, channel crosstalk correction, criterion setting, automatic report, curve picture capture and other functions.



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## Temperature Performance

Lightweight Temperature Control Block  
Rapid Temperature Change  
Good Uniformity

- Adopting the Ultrassay's proprietary thermal system design, which not only reduces the weight of the module, but also obtains excellent temperature uniformity, for effectively shortening the PCR experiment time.
- Long-life semiconductor cooler (Peltier) is used for cooling.

eQ9600 Series