

RTPCR CFX-3096

Real-Time PCR



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

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►► Main Advantages

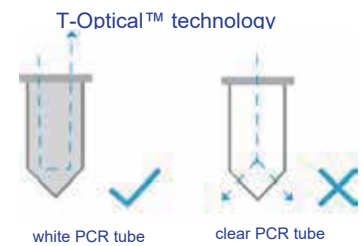
- **Powerful Peltier Technology**

Leading Peltier Elements from Marlow, ensure long life of 1,000,000 thermal cycles and fast ramping up to 6°C/s



- **T-Optical™ Technology**

T-Optical™ technology, reduce background noise, improve fluorescence signal sensitivity and signal to noise rate



- **Articulating Display Screen**

The angle of display could be adjusted to the best view.

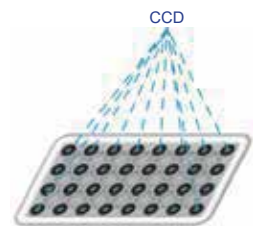


- **Synchronous Detection**

Simultaneous detection of wells, not in sequence.

- **Self-Contained Touch Screen**

Users could view qPCR process and run PCR protocol through self-contained 10" TFT LCD and touch screen.



- **Patented Optical design**

innovative SSLP™ CCD imaging technology for qPCR, avoiding more moving parts problems like overheat, wear and off-center. Not optical fiber based, avoiding break and block by dust.

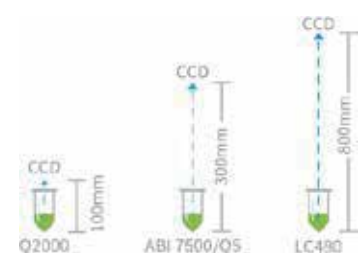


- **Long Life LED**

Long life LED lamps to excite fluorescence, no need for replacement in the future.

- **Gradient Function**

Sample wells with temperature gradient function, convenient to optimize PCR conditions.



- **Remote Control**

Equipped with ATL's "Optimum qPCR Design & Analysis Software" for remote operation of instrument and analysis of results.



- **Drawer Design**

The drawer design of sample block, makes it easier to pick and place PCR tubes and plates.

- **Lifetime Free for Software Upgraded**

ATL's "Optimum qPCR Design & Analysis Software" could be upgraded for free.

►► **Software Function**

- Connection via an ethernet cable or via router.
- Pre-calibrated optics allow you to start using the instrument immediately, no additional calibration is required.
- Quality control (QC) on data automatically, ensuring reliability of analysis results.
- Graphical display of protocols, default templates, and real-time running status.
- Simple and intuitive program, easy to use, without prior reading the user guide thoroughly.
- PCR protocols can be run via a computer network or in the stand-alone mode (using a USB flash drive)
- Real-time monitoring of amplification curve or melt curve via the 10" display and touch screen.
- Intuitive qPCR plate setup.
- Thermal gradient capability with 12 columns of different temperatures for optimizing PCR reaction protocol.
- Protocols and plate setups can be saved as templates for future use.
- Multitasking software, able to analyze multiple experiments at the same time.
- Varieties of Data Analysis Methods are included.
 - (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



- A variety of algorithms are included, such as auto-baseline, manual-baseline, auto-threshold, manual-threshold, amplification efficiency (E), able to streamline data analysis.
- Export results to .xls, .txt.

►► Detailed Parameters

Model	3096A	3096B	3096C
	Instrument Performance		
Sample Block Capacity	96 wells * 0.1 ml		
Reaction Volume	10~50ul (recommed 20ul)		
Tubes Option	White or clear PCR tubes or strips or 96 well PCR plate, with optical flat cap		
Heating & Cooling Technology	96 wells * 0.1 ml Peltier technology allow 1,000,000 thermal cycles		
Control Methods	Operated via PC or self-contained touch screen on instrument		
Language	English		
Communications	USB2.0 or LAN		
Display	10" Color TFT LCD and Touch Screen, view angle adjustable.		
Max. Number of Programs	Max. 15,000 progrms onboard, unlimited storage of protocols with USB flash drive		
	Temperature		
Block Temp.Range	0°C~105°C		
Max.Heating Rate	6°C/sec		
Max.Cooling Rate	5°C/sec		
Temp. Uniformity	≤±0.2°C(at 90 °C)		
Temp. Accuracy	≤±0.1°C(at 90 °C)		
Display Resolution	0.1°C		
Heat Lid Temp.Range	30°C~112°C		
Temp. Control Mode	Block & Calculated sample		
Gradient Range	30°C ~ 105°C		
Temp. Differential Range	0.1°C ~ 42°C		

Model	3096A	3096B	3096C
	Fluorescence Detection		
Excitation	Long life LED lamps		
Detection	CCDs		
Dynamic Range	1~10 ¹⁰		
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	300-800 nm		
Fluorescence Detection Range	500-800 nm		
Data Export Formates	Excel, TXT		
	Other Features		
AC Power Supply	100~240V,50~60Hz		
Consumption	600 W		
Net Weight	13 KG		
Dimension (LxWxh)	334x280x365mm		
Computer Operating Systems	Windows 10, Windows 7, Windows XP		

Regulatory compliances



Corporate Social Responsibility

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



Analytical
Foundation

1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

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