



***REAL TIME PCR***  
***LRTP-A40***

# REAL TIME PCR LRTP-A40

Real Time PCR LRTP-A40 a powerful, precise, modular design PCR thermal cycler system with 4-fluorescence detection channel. Based on advanced Peltier-based technology with high amplification efficiency up to 5°C/s maximum ramp rate saves valuable time. A powerful optical system offers Automatic collection of data from all wells during the detection process using white LED as a light source and a high-resolution CCD camera. Tailored with 470 nm, 525 nm, 585 nm, 610 nm Excitation filters, and 525 nm, 570 nm, 610 nm, 678 nm detection filters alongside different fluorescent channels like Channel 1: FAM/SYBR, Channel 2: VIC/HEX/JOE/TET/TAMRA/CY3, Channel 3: ROX/TexasRed, Channel 4: CY5, for various applications. Independent software analysis module enables easy experiment setup and delivers faster results. Ingenious design with the standard configuration of 96-well plate to carry out the quantitative study in gene expression, genetic variation, genotyping, etc. using small amounts of DNA or RNA as a nucleic acid sample. This device can be customized with an optional 5th channel based on customer requirements.

## FEATURES

- 3D design with well pressure distribution and heat preservation
- Unique sliding track convenient for sample operation
- Four different fluorescent channels namely, Channel 1: FAM/SYBR, Channel 2: VIC/HEX/JOE/TET/TAMRA/CY3, Channel 3: ROX/TexasRed, Channel 4: CY5
- Advanced Peltier-based technology with high amplification efficiency up to 5°C/s maximum ramp rate
- Factor calibration for optical and thermal accuracy
- 6 mm aluminum alloy, durable design main body
- Adjustable footing designed to maintain a steady balance
- Linux operation system, equipped with A8 CPU for better user experience
- Connection with PC through Wi-Fi or LAN
- Low noise operation, low energy consumption, long life span
- Complied with Good laboratory practice standards like 21 CFR part 11

## APPLICATIONS

Real Time PCR widely implemented in vitro method for multiplication/amplification /quantification of fluorescence dye tagged DNA or RNA nucleic acid. Real-time PCR thermal cyclers are used to conduct the quantitative study in gene expression, genetic variation, genotyping, protein expression, etc. using small amounts of DNA or RNA as a nucleic acid sample. PCR machine is in high demand across Genetic Engineering, Virology, Biotechnology, Medicine, Molecular Biology, Forensic Science, and Pharma Industry.

## SPECIFICATION

<b>Model No.</b>	<b>LRTP-A40</b>
Fluorescence Detection Channel	4
Reactions Per Run	96
Block Format	96-well, 0.2 ml
Light Source	High brightness monochrome LED
Detector	Highly sensitive cold light CCD
Dynamic Detection Range	$10^0$ to $10^{10}$
Sensitivity	1 copy
Reaction Volume	15 to 100 $\mu$ l
Excitation Source	White LED
Excitation Filters	Channel 1: 470 nm, Channel 2: 525 nm, Channel 3: 585 nm, Channel 4: 610 nm
Detection Filters	Channel 1: 525 nm, Channel 2: 570 nm, Channel 3: 610 nm, Channel 4: 678 nm
Fluorescent Dyes	Channel 1: FAM/SYBR, Channel 2: VIC/HEX/JOE/TET/TAMRA/CY3, Channel 3: ROX/TexasRed, Channel 4: CY5
Block Material	Peltier
Temperature Range	0°C to 99°C
Temperature Accuracy	$\pm 0.1$ °C
Temperature Uniformity	$\pm 0.4$ °C (10 sec after reaching 95°C)
	$\pm 0.2$ °C (10 sec after reaching 95°C)
Maximum Ramp Rate	5°C/sec
Gradient Range	30°C to 99°C
Chemistry	All real time PCR based analysis, flexibility without passive reference dye.
PC Operation System	Windows XP/Vista/7/8/10
PCR Machine Operation System	Linux
CPU	A8
Network	LAN/Wi-Fi
Application Available	Gene Expression, Genotyping, Copy Number Variation, Protein Detection, MicroRNA, Pathogen Detection
Dimension (WxDxH)	592x440x280 mm
Weight	15 kg