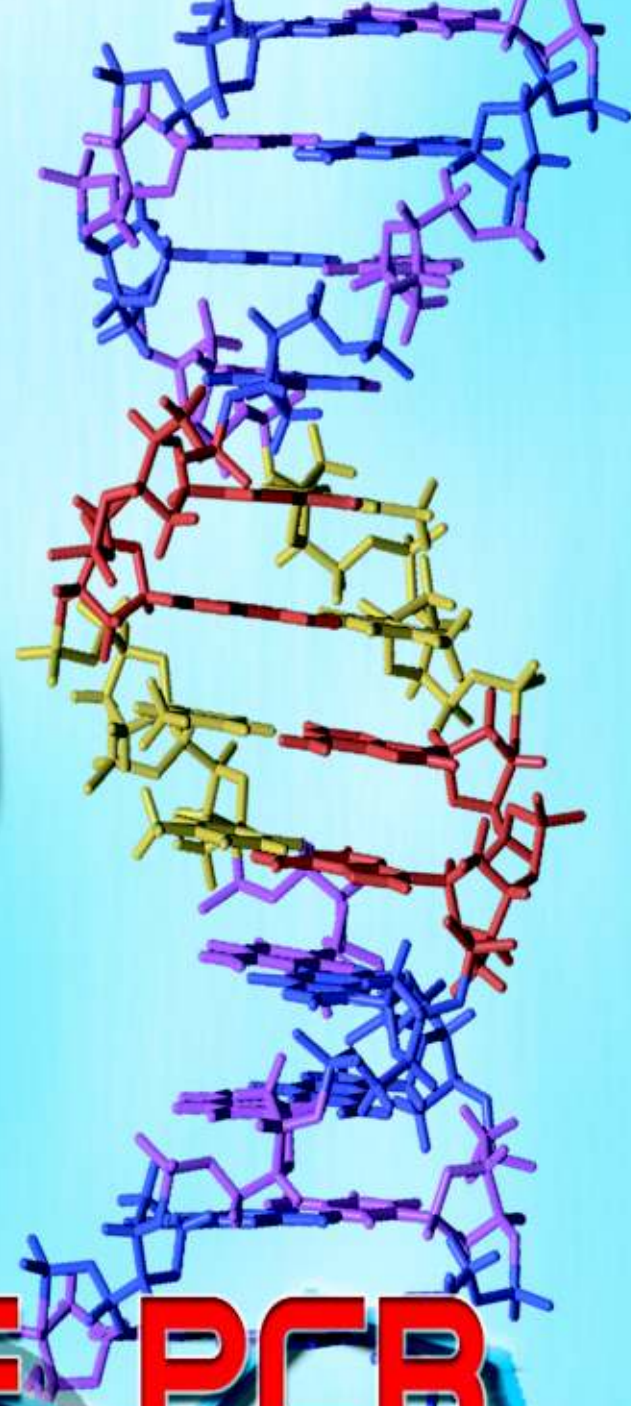
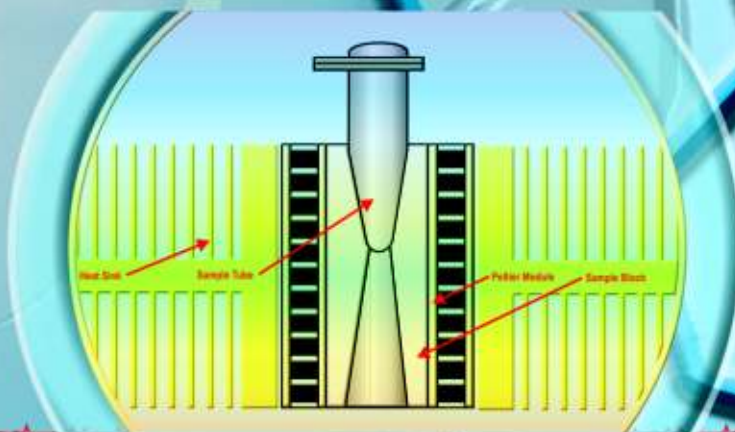


 **LABNICS**
Equipment



REAL TIME PCR

Unmatched Performance with Peltier Technology



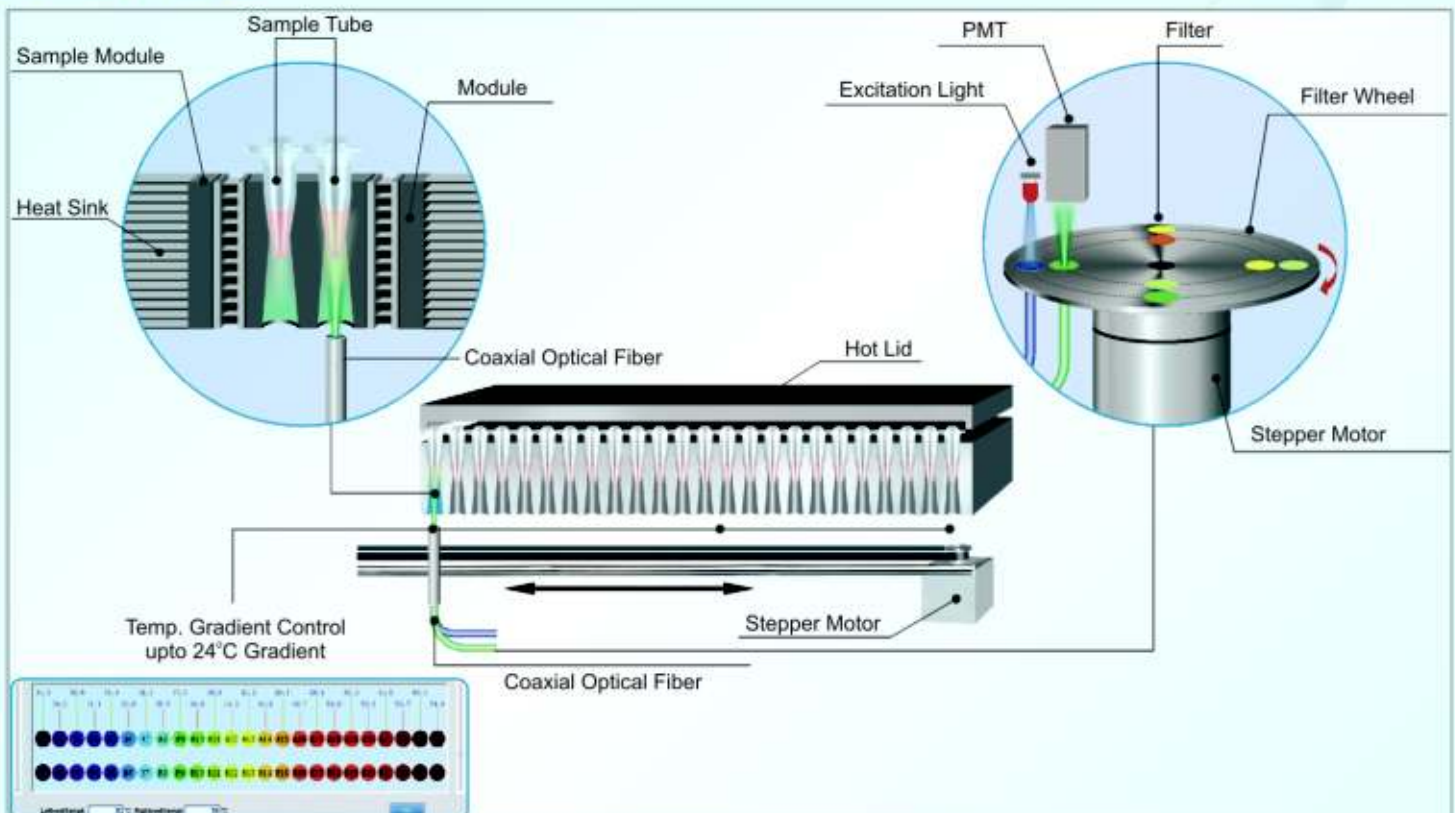
LeCycler Realtime PCR System



LeCycler RT-PCR is the newest PCR detection system. It features more advanced implementations of Peltier and Fiber Optic Technology and a new direct current power system.

- The instrument share the Peltier Effect and Fiber Optic Design features that provide the exceptional accuracy and stability.
- The system offer improved uniformity, stability and accuracy by utilizing a constant-current power supply and an advanced multi-point temperature control module.
- The system has improved temperature control and more uniform heating throughout the sample block to improve the accuracy of PCR detection.
- The systems are available in a range of automated and manual models with the ability to handle one, two, three or four combinations of excitation and emission wavelengths.

Working Principle



Salient Features

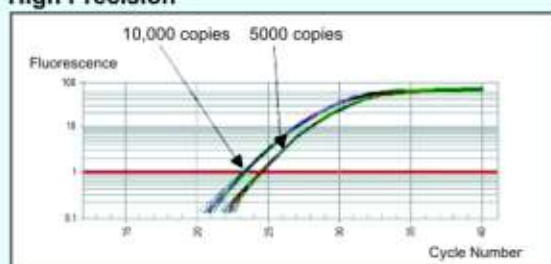
- Volume adaptation: Software automatically adjusts heat exchange according to differences in sample volumes.
- New multipoint temperature monitoring allows more accurate and uniform temperature control throughout the heating block.
- Gradient function: Creates a temperature gradient across the sample block.
- Sample preservation: After completion of experiment, the system can automatically refrigerate samples until they are moved to storage.
- Use of direct current power supply improves thermal efficiency and reduces power consumption by 30%.
- Improved optics: Greater efficiency in fiber optic system provides reduced signal to noise ratio.
- Automatic hot lid: Provides constant pressure and software-managed temperature control.
- Configuration upgradable: Manual version of the instrument can be upgraded to automatic. Systems can be upgraded from 1 wavelength to 4 wavelengths.
- Numerous data ports: USB and Ethernet connections for PC data interface.
- Multiple tube styles the sample block will accept several styles of 0.2ml tubes including 8-tube strips.
- Data protection system preserves experimental data if there is a power interruption during operation.
- Automatic amplitude adjust the instrument and detects the fluorescence strength in the samples and automatically adjusts to the correct system sensitivity.
- New software new generation software provides even greater convenience and more powerful functions.
- Upload software instructions define experiment instructions with easy-to-use PC-based software, and then upload to instrument.
- The instrument will shut down if the operating environment exceeds the temperature range for operation within specification giving protection on overheating.

Interface Introduction

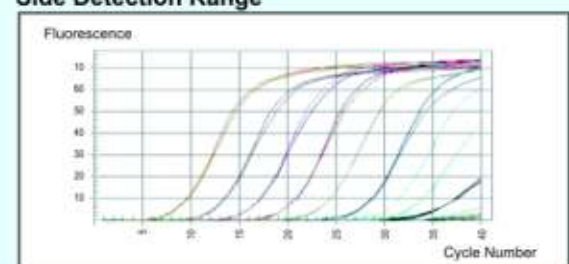


Software

High Precision



Side Detection Range



SNPs (Single Nucleotide Polymorphisms) Detection

LeCycler system is a multicolor fluorescence detection system and can carry out the detection analysis of SNPs.

Two kinds of Data Analysis Methods

Analysis Method	Analysis Step	Points Selected	Baseline and Threshold	Display Mode
<input checked="" type="checkbox"/> 2nd Deriv. Max. <input checked="" type="checkbox"/> Fit Points	<input checked="" type="checkbox"/> Zero Adjust <input checked="" type="checkbox"/> Baseline <input checked="" type="checkbox"/> Analysis	<input type="text"/> <input checked="" type="checkbox"/> Show Points	Baseline <input type="text"/> Threshold <input type="text"/>	<input checked="" type="checkbox"/> Logarithmic <input checked="" type="checkbox"/> Full Scale Smooth Low <input type="button" value="v"/>

2nd Derivative Maximum

This method automatically calculates the maximum second derivative value of every fluorescent curve and defines this value as the Ct value.

Fit Points

The user sets baseline and a threshold values then draws a threshold line. Based on user instructions, the software will select a number of sample points on the fluorescence curve that are above baseline and in the logarithmic phase into a line. The intersection of this line with the threshold line is defined as the Ct value.

Technical Specifications

Model	LRT-PCR 01	LRT-PCR 02
Sample Capacity	48×0.2ml	
Reaction System	10~100µl	
Dynamics Range	10~1010 Copies	
Max. Channel Number of Fluorescence Detection	4 Channels	2 Channels
Excitation Light Wave length (450-590nm)	Standard Positioning: F1:470nm F2:523nm F3:543nm F4:571nm	F1:470nm F2:523nm
Fluorescence Detecting Wavelength (500-630nm)	Standard Positioning: F1:525nm F2:564nm F3:584nm F4:612nm	F1:525nm F2:564nm
Detecting Fluorescence	FAM, SYBR Green I, HEX, VIC, TAMRA, TEX RED, ROX	FAM, SYBR Green I, HEX
Lead Operation	Automatic	Manual
Temp. Range	4°~99.9°C	
Heating Rate (Max)	≥ 4.0°C/sec	
Cooling Rate	≥ 4.0°C/sec	
Temp. Uniformity of Block	≤ ±0.3°C	
Temp. Control Accuracy	≤ ±0.1°C	
Gradient Temp. Range	1°C~24°C	
Hot-lid Temp. Range	80°C~120°C	
Operation System	Windows 2000/XP	
Power Supply	AC220V 50Hz 500W	
Dimension (L x W x H) mm	520 × 450 × 320	
Net Weight	25Kg (Without computer)	
Catalog No.	45210101	45210102