

# TC2000-G1/G2/G3

## Thermal Cycler Gradient

NEW



## Features

- 10.1-inch large screen new UI interface, divided into single-channel / dual-channel / three-channel, to meet different experimental requirements
- With advanced gradient temperature control technology, high-performance and long-lasting Peltier refrigeration and heating, which can achieve precise temperature control in zones.
- Multi-channel module design, can run several different PCR gradient programs at the same time, to achieve multi-purpose machine
- Self-adaptive pressure lever hot cap, close and tighten the cap in one step, can be adapted to different heights of test tubes
- Supports up to 199 cycles to perform the next operation, and runs a countdown disc to visually display the remaining time
- Edge temperature compensation technology for good temperature uniformity and gradient settings for easy optimisation of experimental conditions
- Real-time display of the running status of the programme, you can set the security account and password according to customer demand
- Automatic power failure protection, automatically execute unfinished cycles after power restoration to ensure the safe operation of the whole amplification process.
- Hot lid temperature and hot lid operating mode can be set to meet different experimental application requirements
- USB interface, support for U-disk storage/reading PCR data, support for U-disk software update, can be customised to meet the function of multiple file storage, support for Touch down PCR and Long PCR experiments
- Compatible with common 0.2mL PCR tubes, PCR-8Strips and 96-well PCR plates (no skirt, half skirt)

## Application

TC2000-G1/G2/G3 is an indispensable laboratory instrument in the field of molecular biology, which can be used for gene sequencing, gene cloning, gene expression, mutation, and plays an important role in various fields such as agriculture, food testing, environmental science, drug development and so on.

**Medical Research**

For pathogen detection, e.g. gene identification of viruses, bacteria and fungi, mutation analysis of disease-associated genes, gene expression analysis in cancer research, etc.

**Biological Research**

Genotyping, gene cloning, species identification, evolutionary analyses, and other studies

**Forensic Science**

DNA analysis of crime scene samples to help identify suspects and provide a basis for public security case detection

**Agricultural sector**

For genetic research on crops and livestock, e.g. breed improvement, genetic disease detection, etc.

**Food testing**

Detection of pathogenic bacteria, genetically modified ingredients in food, etc.

**Environmental Science**

Analysing microbial communities in the environment and detecting genetic effects of pollutants on organisms

**Drug Development**

Screening of drug targets, assessment of drug effects on gene expression

**Genetic studies**

Conducting diagnosis and research on human genetic diseases

**Palaeontology**

Analyses species identification and classification, development and evolution, extinction event studies and the origin of species in ancient organisms

Specifications	TC2000-G1	TC2000-G2	TC2000-G3
Sample Capacity	96×0.2mL PCR tube 12×PCR-8strips 1×0.2mL 96-well PCR plate	96×0.2mL PCR tube 12×PCR-8strips	96×0.2mL PCR tube 12×PCR-8strips
Module	1×96	2×48	3×32
Sample module temperature control range [°C]	0-105	0-105	0-105
Hot lid temperature control range [°C]	30-115	30-115	30-115
Temperature display accuracy [°C]	0.1	0.1	0.1
Temperature control accuracy [°C]	±0.1	±0.1	±0.1
Temperature uniformity (at 55 °C) [°C]	±0.2	±0.2	±0.2
Maximum rate of temperature change	5°C/Sec	5°C/Sec	5°C/Sec
Gradient Temp Setting Range [°C]	30-105	30-105	30-105
Gradient span [°C]	1-42°C, enter 0 to turn off the gradient	1-25°C, enter 0 to turn off the gradient	1-25°C, enter 0 to turn off the gradient
Temperature Control Method	Block/Tube	Block/Tube	Block/Tube
Material of the carrier module	Aluminum	Aluminum	Aluminum
Display	10.1inches LCD 1280×800	10.1inches LCD 1280×800	10.1inches LCD 1280×800
Input method	Touch panel	Touch panel	Touch panel
Power off protect	Yes	Yes	Yes
Skip to the next step	Yes	Yes	Yes
Communication Interface	USB, WIFI	USB, WIFI	USB, WIFI
Number of program storage	20000+ (USB FLASH)	20000+ (USB FLASH)	20000+ (USB FLASH)
User Defined File System	Up to 30 steps and 199 cycles in a single program	Up to 30 steps and 199 cycles in a single program	Up to 30 steps and 199 cycles in a single program
Power Supply	100-240V,50/60HZ,600W	100-240V,50/60HZ,1000W	100-240V,50/60HZ,1500W
Dimensions [WxDxH]	310×422×264mm	310×422×264mm	310×422×264mm
Weight	11Kg	11Kg	11Kg
Permissible Ambient Temperature and Humidity	5-40°C, 80%RH	5-40°C, 80%RH	5-40°C, 80%RH