

TECHNICAL DATA SHEET

ALab™ TC2000-G1/G2/G3 Thermal Cycler Gradient

Thermal Cycler Gradient · 10.1-inch touch screen · 1×96, 2×48 and 3×32 modules · 0–105 °C



ALab™ TC2000-G1/G2/G3 Thermal Cycler Gradient

The ALab™ TC2000-G1, TC2000-G2 and TC2000-G3 thermal cyclers. Image shown for reference.

CONTENTS

- 01 Product Overview
- 02 Core Advantages
- 03 Specifications
- 04 Applications

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SECTION I

Product Overview

The ALab™ TC2000-G1/G2/G3 Thermal Cycler Gradient series has a 10.1-inch large-screen new UI interface, divided into single-channel, dual-channel and three-channel views, advanced gradient temperature control technology with high-performance and long-lasting Peltier refrigeration and heating, and edge temperature compensation technology for good temperature uniformity. The module configurations are 1×96 for TC2000-G1, 2×48 for TC2000-G2, and 3×32 for TC2000-G3; the multi-channel module design can run several different PCR gradient programs at the same time. A user-defined program can have up to 30 steps and 199 cycles.

SECTION II

Core Advantages

- **Screen** — 10.1-inch touch screen, new UI
- **Gradient** — 30–105 °C setting range
- **Programs** — up to 30 steps, 199 cycles
- **Modules** — 1×96 / 2×48 / 3×32
- **Hot cap** — self-adaptive pressure lever
- **Interfaces** — USB, WIFI

SECTION III

Specifications

Technical data — TC2000-G1 • TC2000-G2 • TC2000-G3

Specifications	
Brand	ALab™ by ACS Material
Model	TC2000-G1, TC2000-G2, TC2000-G3
SKU #	ALTC2000
Product Type	Thermal Cycler Gradient
Display	10.1-inch LCD touch screen, 1280×800
Sample module temperature control range	0–105 °C
Gradient temperature setting range	30–105 °C
Communication interface	USB, WIFI

Specifications by model — TC2000-G1 • TC2000-G2 • TC2000-G3

Specifications by model			
Parameter	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	10.1 inches LCD 1280×800	10.1 inches LCD 1280×800	10.1 inches 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)

Specifications by model (continued)			
Parameter	TC2000-G1	TC2000-G2	TC2000-G3
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

SECTION IV

Applications

TC2000-G1/G2/G3 can be used for gene sequencing, gene cloning, gene expression and mutation, and plays an important role in agriculture, food testing, environmental science, drug development and other fields.

Product value: a 10.1-inch touch screen, single-, dual- and three-channel module versions, gradient temperature control with Peltier heating and cooling, edge temperature compensation and USB and WIFI interfaces. Select the model before ordering.

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