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C1000 Touch™ Thermal Cycler

The C1000 Touch thermal cycler provides superb thermal performance for fast, reliable results. This fully modular platform supports interchangeable reaction modules, including two optical modules for real-time PCR, that swap in seconds without requiring tools. Equipped with a large state-of-the-art touch screen, the C1000 Touch cycler offers a choice of programming methods, including graphical and automatic (using the protocol autowriter).

- Interchangeable reaction modules, including 5-color CFX96™ optical, 4-color CFX384™ optical, gradient-enabled dual 48/48-well fast, gradient-enabled 96-well fast, gradient-enabled 96-deep well, and gradient-enabled 384-well reaction modules
- USB ports that support peripherals, such as storage device and mouse
- Optional PC control and networking capability for up to 32 systems enable the ultimate in high throughput



Specifications				
Thermal Cycler				
Input power	Up to 850 W, maximum	Programming options	Step-based graphical and automatic	
Frequency	50-60 Hz, single phase	Security features	Optional log-in required mode	
Display	8.5 in. LCD display and touch screen		for regulated environments	
Ports	5 USB A, 1 USB B	Reporting	Exportable run logs, system error logs	
Fuses	Two 10 A, 250 V, 5 x 20 mm	Onboard software	Windows CE 6.0	
Memory	>1,000 typical programs onboard; unlimited with USB flash drive	PC compatibility	Windows XP or higher	
		USB peripheral compatibility	Mouse, USB flash drive, bar code reader	
Dimensions (W x D x H)	33 x 46 x 20 cm (13 x 18 x 8")	Real-time PCR upgrade	6-channel, 5-color CFX96 or 5-channel,	
Weight	10 kg (23 lb)		4-color CFX384 optical reaction module	
Temperature control modes	Calculated and block	Instant incubation	Yes	
PCR license	Yes			

Reaction Modules Sample capacity Maximum ramp rate	96-Well Fast 96 x 0.2 ml tubes or 1 x 96-well plate 5°C/sec	96-Deep Well 96 x 0.2 ml tubes, 48 x 0.5 ml tubes, or 1 x 96-well plate 2.5°C/sec	Dual 48/48 Fast 2 x 48 x 0.2 ml tubes or 2 x 48-well plates 4°C/sec	384-Well 1 x 384-well plate 2.5°C/sec
Average ramp rate	3.3°C/sec	2°C/sec	3°C/sec	2°C/sec
Temperature range	0–100°C	0–100°C	0–100°C	0–100°C
Temperature accuracy	±0.2°C of programmed target at 90°C	±0.2°C of programmed target at 90°C	±0.2°C of programmed target at 90°C	±0.2°C of programmed target at 90°C
Temperature uniformity	±0.4°C well-to-well within 10 sec of arrival at 90°C	±0.4°C well-to-well within 10 sec of arrival at 90°C	±0.4°C well-to-well within 10 sec of arrival at 90°C	±0.4°C well-to-well within 10 sec of arrival at 90°C
Gradient capability	Yes	Yes	Yes	Yes

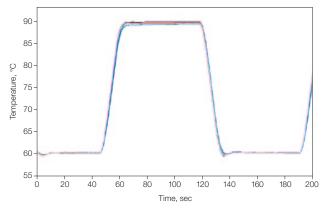
Gradient

Gradient range 30-100°C Temperature differential range 1-24°C

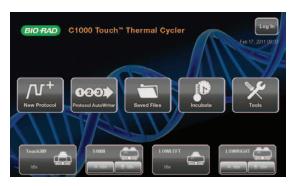




Quick and easy protocol programming. The protocol autowriter in the cycler's onboard software can automatically suggest a fast temperature protocol based on input parameters. Suggested protocol is based on standard PCR guidelines, with hot-start, initial denaturation, annealing, and extension steps. Further reductions of run times are achieved by minimizing the number of steps and cycles, incubation times, and temperature differentials.



Rapid arrival at target temperature and superior uniformity. Graph shows temperature measured by probes in 15 wells across the sample block of a C1000 Touch thermal cycler. Traces are nearly indistinguishable due to the tight uniformity. Note the consistent ramp rate throughout heating and cooling. 1000-series thermal cyclers exhibit high average ramp rates, rapid settling time, and tight thermal uniformity throughout the ramp, resulting in rapid arrival at target temperature and enabling faster protocol run times.



Multi-instrument control. The C1000 Touch cycler can control multiple thermal cyclers using a single interface.

Ordering Information

Catalog #	Description
184-1100	C1000 Touch Thermal Cycler Chassis, includes USB flash
	drive, power cord; does not include reaction module
185-1148	C1000 Touch Thermal Cycler with Dual 48/48 Fast
	Reaction Module, includes C1000 Touch thermal cycler
	chassis, dual 48/48 fast reaction module, USB flash drive
185-1196	C1000 Touch Thermal Cycler with 96-Well Fast Reaction
	Module, includes C1000 Touch thermal cycler chassis,
	96-well fast reaction module, USB flash drive
185-1197	C1000 Touch Thermal Cycler with 96-Deep Well
	Reaction Module, includes C1000 Touch thermal cycler
	chassis, 96-deep well reaction module, USB flash drive
185-1138	C1000 Touch Thermal Cycler with 384-Well Reaction
	Module, includes C1000 Touch thermal cycler chassis,
	384-well reaction module, USB flash drive
184-0148	Dual 48/48 Fast Reaction Module, independent dual
	48-well reaction module, fits C1000 [™] , C1000 Touch, and
	S1000 [™] thermal cyclers, gradient enabled
184-0196	96-Well Fast Reaction Module, fits C1000, C1000 Touch,
	and S1000 thermal cyclers, gradient enabled
184-0197	96-Deep Well Reaction Module, fits C1000, C1000 Touch,
	and S1000 thermal cyclers, gradient enabled
184-0138	384-Well Reaction Module , fits C1000, C1000 Touch, and
	S1000 thermal cyclers, gradient enabled
184-5096	CFX96 Optical Reaction Module, for use with C1000 Touch
	thermal cycler chassis, includes CFX Manager™ software,
	license for qbase ^{PLUS} software, communication cable,
104 5004	reagents, consumables
184-5384	CFX384 Optical Reaction Module, for use with C1000
	Touch thermal cycler chassis, includes CFX Manager
	software, license for qbase ^{PLUS} software, communication
170 0070	cable, reagents, consumables
170-8870 172-5301	iTaq [™] DNA Polymerase, 5 U/µl iProof [™] High-Fidelity DNA Polymerase, 2 U/µl, 100 U
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Notice regarding Bio-Rad thermal cyclers and real-time systems: Purchase of this instrument conveys a limited non-transferable immunity from suit for the purchaser's own internal research and development and for use in human in vitro diagnostics and all other applied fields under U.S. Patent Number 5,475,610 (Claims 1, 44, 158, 160–163, and 167 only), or corresponding claims in its non-U.S. counterpart, owned by Applera Corporation. No right is conveyed expressly, by implication, or by estoppel under any other patent claim, such as claims to apparatus, reagents, kits, or methods such as 5' nuclease methods. Further information on purchasing licenses may be obtained by contacting the Director of Licensing, Applied Biosystems, 850 Lincoln Centre Drive, Foster City, California 94404, USA.

Bio-Rad's real-time thermal cyclers are licensed real-time thermal cyclers under Applera's United States Patent Number 6,814,934 B1 for use in research, human in vitro diagnostics, and all other fields except veterinary diagnostics.

Bio-Rad's thermal cyclers and real-time thermal cyclers are covered by one or more of the following U.S. patents or their foreign counterparts owned by Eppendorf AG: U.S. Patent Numbers 6,767,512 and 7,074,367.

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