

# CFX384 Touch™ Real-Time PCR Detection System

## Specifications

### Real-Time PCR

Bulletin 6072

### Advancing qPCR Together

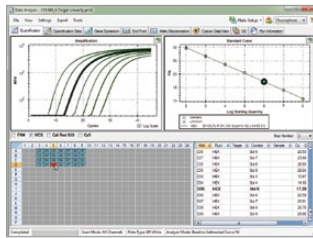
The CFX384 Touch Real-Time PCR Detection System brings flexibility and ease of use to researchers performing high-throughput real-time PCR in a 384-well format. Solid-state optical components provide sensitive detection for precise quantification and reliable performance. The CFX384 Touch System offers a single-color fast scan option for data acquisition and four-target multiplex reaction capabilities. Set up runs and view data traces in real time on the integrated touch screen. CFX Manager™ Software streamlines data management, from experiment setup to analysis. Enter or edit well information on your own time — before, during, or after a run. CFX Manager Software offers enhanced data analysis modules and export options that let you output only the data you need in the format you want. Integrate with any laboratory information management system (LIMS) using built-in LIMS file management. For laboratories operating in regulated environments, CFX Manager Software, Security Edition offers tools for compliance with U.S. FDA 21 CFR Part 11 regulations.



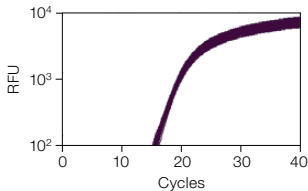
### Specifications

<b>C1000 Touch™ Thermal Cycler with 384-Well Reaction Module</b>			
Maximum ramp rate	2.5°C/sec	Temperature range	0–100°C
Average ramp rate	2°C/sec	Temperature accuracy	±0.2°C of programmed target at 90°C
Heating and cooling method	Peltier	Temperature uniformity	±0.4°C well-to-well within 10 sec of arrival at 90°C
Lid	Heats up to 105°C		
Gradient			
Operational range	30–100°C		
Programmable span	1–24°C		
<b>Optical Detection</b>			
Excitation	5 filtered LEDs	Dynamic range	10 orders of magnitude
Detection	5 filtered photodiodes	Scan time	
Range of excitation/ emission wavelengths	450–690 nm	All channels	<20 sec
Sensitivity	Detects 1 copy of target sequence in human genomic DNA	Single channel fast scan	8 sec
<b>Software</b>			
Operating systems	Windows 7, Windows 8	Data export	Save, copy, and print all graphs and spreadsheets from right-click menu
Memory	Minimum of 1 GB		Export specified data in multiple formats
Multiplex analysis	Up to 4 targets per well		Copy and paste into Microsoft Excel, Word, or PowerPoint file
Data analysis modes	PCR quantification with standard curve Melt curve analysis Gene expression analysis by relative quantity ( $\Delta Cq$ ) or normalized expression ( $\Delta\Delta Cq$ ) with multiple reference genes and individual reaction efficiencies Data analysis options include bar chart, clustergram, scatter plot, volcano plot, and heat map Multiple file gene expression analysis for comparison of an unlimited number of Cq values Allelic discrimination End-point analysis		Customizable reports containing run settings, data graphs, and spreadsheets can be directly printed or saved as PDFs
<b>System</b>			
Licensed for real-time PCR	Yes	Electrical approvals	IEC, CE
Sample capacity	384 wells	Dimensions (W x D x H)	33 x 46 x 36 cm (13 x 18 x 14 in.)
Sample size	1–30 $\mu$ l (5–20 $\mu$ l recommended)	Weight	21 kg (47 lb)
Communications	USB 2.0		

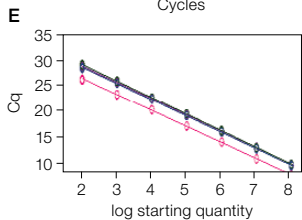
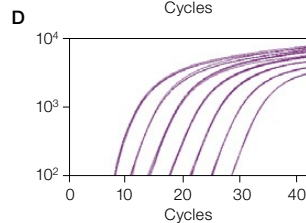
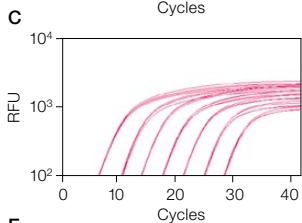
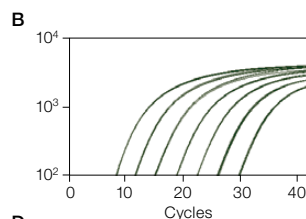
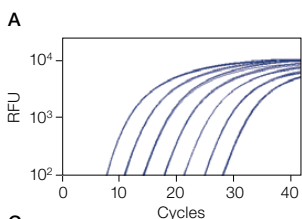
**BIO-RAD**



**CFX Manager software data analysis module.**



**Excellent uniformity.** *IL-1β* plasmid template diluted to  $10^5$  copies/reaction amplified in the presence of a FAM-labeled detection probe with iQ™ Supermix. Graph shows 384 replicates of 5  $\mu$ l reactions. Average quantification cycle (C<sub>q</sub>) =  $18.11 \pm 0.045$ . RFU, relative fluorescence units.



**Linearity of four-target multiplex detection.** A–D, fluorescence data from a series of tenfold dilutions of plasmid DNA ( $10^8$ – $10^2$  copies) amplified using reporter dyes to monitor four targets: ■, FAM/actin; ■, HEX/*GAPDH*; ■, Texas Red/cyclophilin; ■, Cy5/tubulin; E, standard curves generated from data in A–D, reaction efficiencies range from 98 to 103%. C<sub>q</sub>, quantification cycle; RFU, relative fluorescence units.

## Ordering Information

Catalog #	Description
184-1100	<b>C1000 Touch Thermal Cycler Chassis</b> , includes USB flash drive, power cord; does not include reaction module
184-5385	<b>CFX384™ Optical Reaction Module</b> , for use with C1000 Touch Thermal Cycler Chassis, includes CFX Manager Software, license for qbase+ Software, communication cable

185-5484	<b>CFX384 Touch Real-Time PCR Detection System</b> , includes C1000 Touch Thermal Cycler Chassis, CFX384 Optical Reaction Module, CFX Manager Software, license for qbase+ Software, communication cable, reagents, consumables
185-5485	<b>CFX384 Touch Real-Time PCR Detection System</b> , includes C1000 Touch Thermal Cycler Chassis, CFX384 Optical Reaction Module, CFX Manager Software, license for qbase+ Software, communication cable
184-5001	<b>CFX Manager Software, Security Edition</b> , includes 1 user license, installation CD, HASP HL key
184-5025	<b>Precision Melt Analysis™ Software</b> , includes 2 user licenses, installation CD, 2 HASP HL keys, melt calibration kit
184-5075	<b>CFX Automation System II</b> , includes plate handler and barcode scanner, mounting plate, automation software
181-4000	<b>PX1™ PCR Plate Sealer</b> , includes heat sealing instrument
181-4030	<b>Optically Clear Heat Seal</b> , for use with PX1 PCR Plate Sealer, 100
MSB-1001	<b>Microseal® 'B' Adhesive Seals</b> , optically clear, 100
HSP-3805	<b>Hard-Shell® 384-Well Standard PCR Plates</b> , white well, clear shell, 50
HSP-3905	<b>Hard-Shell 384-Well Standard PCR Plates</b> , white well, clear shell, barcoded, 50
170-8840	<b>iScript™ Reverse Transcription Supermix for RT-qPCR</b> , 25 x 20 $\mu$ l reactions, includes 100 $\mu$ l 5x iScript RT Supermix, iScript RT Supermix No-RT Control
172-5037	<b>iScript Advanced cDNA Synthesis Kit for RT-qPCR</b> , 25 x 20 $\mu$ l reactions, includes 100 $\mu$ l 5x iScript Advanced Reaction Mix, 25 $\mu$ l iScript Advanced Reverse Transcriptase
172-5270	<b>SsoAdvanced™ Universal SYBR® Green Supermix</b> , 2 ml (2 x 1 ml vials), 200 x 20 $\mu$ l reactions, 2x qPCR mix, contains Sso7d fusion polymerase, ROX Normalization Dyes
172-5280	<b>SsoAdvanced Universal Probes Supermix</b> , 2 ml (2 x 1 ml vials), 200 x 20 $\mu$ l reactions, 2x qPCR mix, contains Sso7d fusion polymerase, ROX Normalization Dyes
172-5160	<b>SsoAdvanced PreAmp Supermix</b> , 1.25 ml (1 x 1.25 ml vial), 50 x 50 $\mu$ l reactions
172-5095	<b>SingleShot™ SYBR® Green One-Step Kit</b> , 100 x 50 $\mu$ l reactions

Visit [bio-rad.com/web/CFX384TouchSpecs](http://bio-rad.com/web/CFX384TouchSpecs) for more information.

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Bio-Rad's 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.

The use of iQ and SsoAdvanced Supermixes is covered by one or more of the following U.S. patents and corresponding patent claims outside the U.S.: 5,804,375; 5,538,848; 5,723,591; 5,876,930; 5,994,056; 6,030,787; 6,171,785; and 6,258,569. The purchase of these products includes a limited, non-transferable immunity from suit under the foregoing patent claims for using only this amount of product for the purchaser's own internal research. No right under any other patent claim and no right to perform commercial services of any kind, including without limitation reporting the results of purchaser's activities for a fee or other commercial consideration, are conveyed expressly, by implication, or by estoppel. These products are for research use only. Diagnostic uses under Roche patents require a separate license from Roche. Further information on purchasing licenses may be obtained from the Director of Licensing, Applied Biosystems, 850 Lincoln Centre Drive, Foster City, California 94404, USA.

Hard-Shell Plates are covered by one or more of the following U.S. patents or their foreign counterparts owned by Eppendorf AG: U.S. Patent Numbers 7,347,977; 6,340,589; and 6,528,302.



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