

# CFX Opus 96 Real-Time PCR System



# Integrated Workflow for the Modern Lab

The CFX Opus 96 Real-Time PCR System puts you on the road to an efficient workflow. Quickly set up runs and easily monitor run progress and analyze data using the comprehensive data management and analysis tools of CFX Maestro Software.

From your BR.io account, set up a run and access your results any time and anywhere you have internet access.

Flexible connectivity and data management options for access and transfer of runs and experiment protocols:

- Operate in stand-alone mode through flexible connectivity options of wireless network (WiFi), Ethernet, and USB
- Access BR.io cloud platform for experiment setup and data management at any convenient location with internet access
- Enjoy continued support for and control of up to 4 CFX instruments with CFX Maestro Software for Windows 10 (64-bit) and higher, and Security Edition
- Email your completed run
- Save protocols and completed runs in a network folder

Intuitive touch-screen user interface for both experienced and new real-time PCR users:

- Create new real-time PCR protocols or easily modify existing protocols
- Set up unique user names, with optional passwords, to easily organize and find your protocols and experiments

### **Specifications**

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Weight

Licensed for real-time PCR Yes Sample capacity 96 wells Sample size 1-50 μΙ (10-50 μΙ recommended) 33 x 56 x 36 cm Dimensions (W x D x H) (13 x 22 x 14 in.)

Touch-screen user interface Adjustable, with angle of

rotation 12-55°

22 kg (48 lb)

Communications USB 2.0 or above, Ethernet, WiFi

IEC, CE Electrical approvals Operating system Windows 10 IoT

**Optical Detection System** 

Excitation 6 filtered LEDs Detection 6 filtered photodiodes 450-730 nm

Range of excitation/

emission wavelengths

Scan time All channels 12 sec Single channel 3 sec

Dynamic range 10 orders of magnitude Sensitivity Detects 1 copy of target

sequence in human genomic DNA

Multiplex analysis Up to 5 targets per well

continues



<b>Specifications</b>		Catalog #	Description
96-Well Reaction Block		12012833	CFX Maestro Software, Russian Edition, 1 license
Sample block type	Fixed 96-well sample block	12012834	CFX Maestro Software, Chinese Edition, 1 license
Heating and cooling method Lid heating	Peltier 30–110°C	1845025	Precision Melt Analysis Software, includes 2 user licenses, installation CD, 2 HASP HL keys, melt calibration kit
Temperature range	4–100°C	1845098	CFX Qualification Plate, 96-well
Maximum ramp rate	5°C/sec	1814000	PX1 PCR Plate Sealer, includes heat sealing instrument
Average ramp rate Thermal accuracy	3.3°C/sec ±0.2°C	1814030	PCR Plate Heat Seal, pkg of 100, optically clear seals for use
Thermal uniformity	±0.3°C (max-min ≤ 0.6°C), measured 10 sec after		with the PX1 PCR Plate Sealer
Gradient	the block reaches the target temperature	MSB1001	Microseal 'B' PCR Plate Sealing Film, pkg of 100, optically clear seals for PCR plates
Operational range Programmable span	30-100°C 1-24°C	HSP9655	Hard-Shell 96-Well PCR Plates, pkg of 50, low profile, thin wall, skirted, white shell/white wells
CFX Maestro Data Management and Analysis Software		HSP9955	Hard-Shell 96-Well PCR Plates, pkg of 50, low profile, thin wall, skirted, white shell/white wells, barcoded
Operating system	Windows 10 (64-bit), macOS (10.14, for analysis only)	1708840	iScript Reverse Transcription Supermix for RT-qPCR, 25 x 20 μl reactions
Memory	Minimum of 1 GB	1725037	iScript Advanced cDNA Synthesis Kit for RT-qPCR,
Data analysis modes	PCR quantification with standard curve		25 x 20 µl reactions
Gen	Melt curve analysis	1725270	SsoAdvanced Universal SYBR® Green Supermix, 2 ml (2 x 1 ml), 200 x 20 µl reactions
	Gene expression analysis by relative quantity ( $\Delta Cq$ ) or normalized expression ( $\Delta \Delta Cq$ )	1725280	SsoAdvanced Universal Probes Supermix, 2 ml (2 x 1 ml),
	Multiple-file gene expression analysis for comparison of an unlimited number of Cq values	1725120	200 x 20 µl reactions iTaq Universal SYBR® Green Supermix, 2 ml (2 x 1 ml),
	Allelic discrimination	1705100	200 x 20 µl reactions
	End-point analysis	1725130	iTaq Universal Probes Supermix, 2 ml (2 x 1 ml), 200 x 20 μl reactions
	Data analysis options include bar charts, box and	1725200	SsoFast EvaGreen® Supermix, 2 ml (2 x 1 ml), 200 x 20 µl reactions
and volcano plot Statistics include	whisker plots, dot plots, clustergrams, scatter plots, and volcano plots	1725210	SsoFast EvaGreen® Supermix with Low ROX, 2 ml (2 x 1 ml), 200 x 20 µl reactions
	Statistics include <i>t</i> -test and analysis of variance (ANOVA)	12010176	Reliance One-Step Multiplex RT-qPCR Supermix, 1 ml (1 $\times$ 1 ml), 200 $\times$ 20 $\mu$ l reactions
Data export Save, from r Export Copy or Pov Print c	Save, copy, and print all graphs and spreadsheets	1725150	iTaq Universal SYBR® Green One-Step Kit, 100 x 20 µl reactions
	from right-click menu	1725140	iTaq Universal Probes One-Step Kit, 100 x 20 µl reactions
	Export specified data in multiple formats	1725848	iQ Multiplex Powermix, 50 x 50 µl reactions
	Copy and paste into a Microsoft Excel, Word, or PowerPoint file	1725095	SingleShot SYBR® Green One-Step Kit for Cell Lysis and RT-qPCR, 100 x 50 µl reactions
	Print directly or save as PDFs customizable reports	1725160	SsoAdvanced PreAmp Supermix, 1.25 ml (1 $\times$ 1.25 ml), 50 $\times$ 50 $\mu$ l reactions
	containing run settings, data graphs, and spreadsheets	17005726	SEQuoia Complete Stranded RNA Library Prep Kit, 24 reactions
	Export to RDML	17005710	SEQuoia Complete Stranded RNA Library Prep Kit, 96 reactions
Image export	Export images at any pixel size and at a resolution up to 600 dpi	12011928	SEQuoia Dual Indexed Primers Set, 12 vials of unique dual indexes, 96 reactions
	Save images as .bmp, .jpg, or .png files	12011930	SEQuoia Dual Indexed Primers Plate

## **Ordering Information**

All software for Windows unless otherwise noted.

Catalog # Description

12011319 CFX Opus 96 Real-Time PCR System, includes power cord,

USB cable, and Ethernet cable; does not include CFX Maestro

Software or WiFi adaptor

12013758 CFX Maestro Software

12004128 CFX Maestro Software for Mac

12012832 CFX Maestro Software, Security Edition, 1 license 12013028 CFX Maestro Software, Security Edition, 5 licenses Search **CFX qPCR Systems** in the Apple App Store and Android Play Store for an augmented reality tour. Contact your local sales representative for an in-person demonstration.

Visit bio-rad.com/CFXOpus for more information.

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Life Science Group Website bio-rad.com USA 1 800 424 6723 Australia 61 2 9914 2800 Austria 00 800 00 24 67 23 Belgium 00 800 00 24 67 23 Brazil 4003 0399 Canada 1 905 364 3435 China 86 21 6169 8500 Czech Republic 00 800 00 24 67 23 Denmark 00 800 00 24 67 23 Finland 00 800 00 24 67 23 India 91 124 4029300 Israel 0 3 9636050 Italy 00 800 00 24 67 23 Japan 81 3 6361 7000 Korea 82 080 007 7373 Luxembourg 00 800 00 24 67 23 Mexico 52 555 488 7670 The Netherlands 00 800 00 24 67 23 New Zealand 64 9 415 2280 Norway 00 800 00 24 67 23 Poland 00 800 00 24 67 23 Portugal 00 800 00 24 67 23 Russian Federation 00 800 00 24 67 23 Singapore 65 6415 3188 South Africa 00 800 00 24 67 23 Spain 00 800 00 02 46 723 Sweden 00 800 00 24 67 23 Sweden 00 800 00 24 67 23 Switzerland 00 800 00 24 67 23 Taiwan 886 2 2578 7189 Thailand 66 2 651 8311 United Arab Emirates 36 1 459 6150 United Kingdom 00 800 00 24 67 23

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