



CFX Opus 96 and CFX Opus Deepwell Real-Time PCR Systems for Food, Beverage, and Water Safety Testing

The Power of PCR



The CFX Opus 96 and CFX Opus Deepwell Real-Time PCR Systems bring modern quantitative PCR (qPCR) to your food, beverage, and water testing needs. The CFX Opus Deepwell System offers precise discrimination of up to five targets in large-volume reactions. The system incorporates industry-leading technology to provide a robust and easy-to-use real-time PCR instrument for reliable results.

CFX Manager Software, Industrial Diagnostic Edition (IDE), allows for easy sample setup, result analysis, and bidirectional laboratory information management system (LIMS) connection when running the Bio-Rad suite of food, beverage, and water testing PCR assays.

Benefits

- Use reaction volumes $\leq 10 \mu\text{l}$, depending on the application
- With CFX Opus Deepwell System, run one of the largest qPCR reaction volumes in the industry, up to $125 \mu\text{l}$
- Control up to 4 CFX instruments with CFX Manager Software, IDE, for Windows 10 (64-bit), and Security Edition
- Email your completed run
- Set up unique user names, with optional passwords, to easily organize and find your protocols and experiments

Specifications

System

Sample capacity	96 wells
Sample size	
CFX Opus 96	1–50 μl (10–50 μl recommended)
CFX Opus Deepwell	1–125 μl (10–125 μl recommended)
Dimensions (W x D x H)	33 x 56 x 36 cm (13 x 22 x 14 in.)
Weight	22 kg (48 lb)
Touch-screen user interface	Adjustable, with angle of rotation 12–55°
Communications	USB 2.0 or above, Ethernet, wireless network (WiFi)
Electrical approvals	IEC, CE
Operating system	Windows 10 IoT

Optical Detection System

Excitation	6 filtered LEDs
Detection	6 filtered photodiodes
Range of excitation/ emission wavelengths	450–730 nm
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

Specifications

96-Well Reaction Block

Sample block type	Fixed 96-well sample block
Heating and cooling method	Peltier
Lid heating	30–110°C
Temperature range	4–100°C
Maximum ramp rate	2.5°C/sec
Average ramp rate	2°C/sec
Thermal accuracy	±0.2°C
Thermal uniformity	0.8 ± 0.4°C, measured 10 sec after the block reaches the target temperature
Gradient	
Operational range	30–100°C
Programmable span	1–24°C

CFX Manager Software, IDE

iQ-Check Real-Time PCR Kits	CFX Opus Deepwell System only
Operating system	Windows 10 (64-bit)
Memory	Minimum of 1 GB
Data analysis modes	PCR quantification with standard curve Melt curve analysis Gene expression analysis by relative quantity (ΔCq) or normalized expression ($\Delta\Delta Cq$) Multiple-file gene expression analysis for comparison of an unlimited number of quantification cycle (Cq) values Allelic discrimination Endpoint analysis Data analysis options include bar charts, box-and-whisker plots, dot plots, clustergrams, scatter plots, and volcano plots Statistics include t-test and analysis of variance (ANOVA)
Data export	Save, copy, and print all graphs and spreadsheets from right-click menu Export specified data in multiple formats Copy and paste into a Microsoft Excel, Word, or PowerPoint file Print directly or save as PDFs customizable reports containing run settings, data graphs, and spreadsheets Export to RDML
Image export	Export images at any pixel size and at a resolution up to 600 dpi Save images as .bmp, .jpg, or .png files

Ordering Information

All software for Windows unless otherwise noted.

Catalog #	Description
17007992	CFX Opus 96 Real-Time PCR System , includes power cord, USB cable, and Ethernet cable; does not include CFX Software or WiFi adaptor
17007991	CFX Opus Deepwell Real-Time PCR System , includes power cord, USB cable, and Ethernet cable; does not include CFX Software or WiFi adaptor
3593893	CFX Manager Software, Industrial Diagnostic Edition (IDE)
1845098	CFX Qualification Plate , 96-well
HSP9655XTU	Hard-Shell 96-Well PCR Plates , low profile, thin wall, skirted, white shell/white wells
HSP9955XTU	Hard-Shell 96-Well PCR Plates , barcoded, low profile, thin wall, skirted, white shell/white wells
MLL9651XTU	Multiplate 96-Well PCR Plates , low profile, unskirted
MSB1001XTU	Microseal 'B' PCR Plate Sealing Film
TLS0851XTU	Low-Profile 8-Tube PCR Strips without Caps , 0.2 ml
TCS0803XTU	Optical Flat 8-Cap Strips , for 0.2 ml PCR tubes
iQ-Check Kits	
12010806	iQ-Check <i>Aspergillus</i> PCR Detection Kit , 96 reactions
3578135	iQ-Check <i>Campylobacter</i> PCR Detection Kit , 96 reactions
3578137	iQ-Check <i>Cronobacter</i> PCR Detection Kit , 96 reactions
12003068	iQ-Check <i>Enterobacteriaceae</i> PCR Detection Kit , 96 reactions
3578114	iQ-Check <i>E.coli</i> O157:H7 PCR Detection Kit , 96 reactions
3578124	iQ-Check <i>Listeria monocytogenes</i> II PCR Detection Kit , 96 reactions
3578113	iQ-Check <i>Listeria</i> spp. PCR Detection Kit , 96 reactions
3578123	iQ-Check <i>Salmonella</i> II PCR Detection Kit , 96 reactions
3578142	iQ-Check <i>S. Enteritidis</i> PCR Detection Kit , 96 reactions
12004306	iQ-Check <i>S. Typhimurium</i> PCR Detection Kit , 96 reactions
3578139	iQ-Check STEC VirX PCR Detection Kit , 96 reactions
12013174	iQ-Check STEC SerO II PCR Detection Kit , 32 reactions
12006574	iQ-Check <i>Vibrio</i> PCR Detection Kit , 96 reactions
3578104	iQ-Check Screen <i>Legionella</i> spp. Real-Time PCR Detection Kit , 96 reactions
3578105	iQ-Check Screen <i>L. pneumophila</i> Real-Time PCR Detection Kit , 96 reactions
3578102	iQ-Check Quanti <i>Legionella</i> spp. Real-Time PCR Quantification Kit , 96 reactions
3578103	iQ-Check Quanti <i>L. pneumophila</i> Real-Time PCR Quantification Kit , 96 reactions
3548101	VINEO <i>Brettanomyces</i> PCR Kit , 96 reactions

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

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