



CFX Opus Deepwell Dx Real-Time PCR System

Reliable Patient Results with Large Reaction Volumes



The CFX Opus Deepwell Dx Real-Time PCR System provides a robust and reliable open platform for development and performance of in vitro diagnostic assays. The Deepwell format allows large reaction volumes (up to 125 μ l) for sample matrices and workflows that require it. When used with CFX Maestro Dx SE Software for security and traceability, the integrity of patient results is ensured. Quickly set up runs and easily monitor run progress and analyze data using the comprehensive data management and analysis tools of CFX Maestro Dx SE Software.

Benefits

- One of the industry's largest real-time PCR reaction volumes, up to 125 μ l
 - Assist with U.S. FDA 21 CFR Part 11 regulations using CFX Maestro Dx SE Software security, audit, and electronic signature capabilities
 - View, sign, save, and print an audit report with CFX Maestro Dx SE Software
 - Control access to protocols and run files on the instrument with User Management through use of User Name and password
 - Utilize thermal gradient function to assist with assay optimization during development
 - Control up to four CFX Opus Dx Systems with CFX Maestro Dx SE Software for Windows 10 (64-bit)
 - Email your completed run
 - Save protocols and completed runs in a network folder
- The system's intuitive touch-screen user interface supports 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

System

Licensed for real-time PCR	Yes
Sample capacity	96 wells
Sample size	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
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

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	±0.4°C, measured 10 sec after the block reaches the target temperature

Gradient	
Operational range	30–100°C
Programmable span	1–24°C

CFX Maestro Dx SE Data Management and Analysis Software

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 Cq values Allelic discrimination Endpoint analysis Data analysis options include bar charts, box-and-whisker plots, dot plots, clustergrams, and scatter plots
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 Customizable reports containing run settings, data graphs, and spreadsheets can be printed directly or saved as PDFs 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

Catalog #	Description
12016687*	CFX Opus Deepwell Dx Real-Time PCR System , for use in countries other than China
12016659*	CFX Opus Deepwell Dx Real-Time PCR System , for use in China
12014349	CFX Maestro Dx SE Software , English version
12014350	CFX Maestro Dx SE Software , Chinese version
12014351	CFX Maestro Dx SE Software , Russian version
1845098	CFX Qualification Plate , 96-well
1814000	PX1 PCR Plate Sealer , includes heat sealing instrument
1814030	PCR Plate Heat Seal , pkg of 100, optically clear seals for use with the PX1 PCR Plate Sealer
MSB1001	Microseal™ 'B' PCR Plate Sealing Film , pkg of 100, optically clear seals for PCR plates
HSP9655	Hard-Shell™ 96-Well PCR Plates , pkg of 50, low profile, thin wall, skirted, white shell/white wells
HSP9955	Hard-Shell 96-Well PCR Plates , pkg of 50, low profile, thin wall, skirted, white shell/white wells, barcoded

* The CFX Opus Deepwell Dx System ships with power cord, USB cable, Ethernet cable, and CFX Maestro Dx SE Software, English version.

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

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