QuantStudio 1 Real-Time PCR System

The Applied Biosystems™ QuantStudio™ 1 Real-Time PCR System is the most accessible member of the QuantStudio family of instruments. This system was designed to offer high quality, excellent reliability, and an optimal user experience for those new to qPCR or with a limited budget. The QuantStudio 1 Real-Time PCR System features an interactive touchscreen interface, intuitive software, preoptimized protocol templates, and options for web browser–based or desktop analysis, and it can be coupled with Thermo Fisher Connect to support access to your data anywhere, anytime.

Performance specifications			
Dye compatibility	**Precalibrated dyes:** FAM and SYBR Green **Custom dye:** SYTO 9	**Precalibrated dye:** VIC **Custom dyes:** HEX, TET, and JOE	**Precalibrated dyes:** JUN and ROX **Custom dye:** Texas Red
Multiplexing	Up to 3 targets		
Dynamic range	10 logarithmic units		
Sensitivity (resolution)	Detect differences as small as 1.5-fold in target quantities in singleplex reactions		
Sensitivity (no. of copies)	1 copy		
Research areas	• Infectious diseases • Pathogen detection • Translocation analysis • Viral load analysis	• Drug metabolism • Plant sciences • Agricultural biotechnology • Oncology	• Inherited diseases • Epigenetics • Synthetic biology • Stem cells
Key applications	• Gene expression • Copy number variation • SNP genotyping	• Mutation scanning • Mutation detection	• MicroRNA profiling • Methylation analysis
System specifications			
Dimensions and weight	40 x 27 x 50 cm (H x W x D), <26 kg		
Sample capacity (wells)	96-well, 0.2 mL block		
Reaction volume	10–100 µL		
Maximum ramp rate	3.5°C/sec		
Average sample ramp rate	1.8°C/sec		
Temperature uniformity	0.4°C		
Block	Fixed, isothermal		
Heating/cooling method	Peltier		

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System specifications (cont.)	
Run time	~40 min
Calibration	Factory calibrated
Onboard memory	16 GB eMMC, 2 GB DRAM
Electrical approvals	IEC, CE
Excitation (light source)	Bright white LED
Filters/colors	3 coupled filters
Excitation/emission range	450–600 nm/500–640 nm
Data acquisition	Whole-plate imaging
Touchscreen	Interactive touchscreen with real-time application viewing
Online ecosystem	Thermo Fisher Connect
Communication interface	Thermo Fisher Connect, USB, or Wi-Fi
External devices	2D barcode reader via USB connection
System configuration	Stand-alone, PC connection, or direct connection to Thermo Fisher Connect via LAN or Wi-Fi
International standards	ISO 13485
Software specifications	
Cloud design and analysis software	• Desktop option using Microsoft™ Windows™ 10 operating system • Web browser–based software option; run on PC or Mac™ computer
Run programming options	• Preoptimized protocol templates, or ability to customize • Programmable and manual pause • Locked workflows
Chinese language software	Available
MIQE compliance	Real-time PCR data markup language (RDML) export format
Single-plate analysis	Absolute and relative gene expression, SNP genotyping, presence/absence

Ordering information

Product	Cat. No.
QuantStudio 1 Real-Time PCR System, 96-well, 0.2 mL block	A40426
QuantStudio 1 Real-Time PCR System, 96-well, 0.2 mL block, laptop	A40427
QuantStudio 1 Real-Time PCR System, 96-well, 0.2 mL block, desktop	A40428

Find out more at **thermofisher.com/quantstudio1**

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