

QuantStudio 6 and 7 Pro Real-Time PCR Systems

Applied Biosystems™ QuantStudio™ 6 and 7 Pro Real-Time PCR Systems are designed to offer high quality, excellent reliability, and a smart workflow experience. These interchangeable block systems feature an interactive touchscreen interface, intuitive software,

preoptimized protocol templates, and access to your data anytime, anywhere with our cloud-based Connect platform. Additional smart features are included to enable a personalized experience, improve efficiency, and help streamline your workflow.

Smart features

Facial authentication	Hands-free login and access to your personal profile
Hands-free operation	Perform basic operations using voice commands
Radio-frequency identification (RFID) smart plate workflow	2 embedded RFID readers to detect and decode Applied Biosystems™ TaqMan® Smart Plates
Smart Help	For faster, more efficient, and more effective resolution of instrument and application issues
Smart Remote Support	A real-time audio/video collaboration tool and an advanced remote desktop support tool that reduces instrument downtime from days to minutes

Performance specifications

Dye compatibility	FAM™, SYBR™ Green, VIC™, JOE™, HEX™, TET™, ABY™, NED™, TAMRA™, Cy®3, JUN™, ROX™, Texas Red™, Mustang Purple™, Cy®5, LIZ™, Cy®5.5
Multiplexing	5 or 6 targets
Dynamic range	10 logarithmic units
Sensitivity (resolution)	1.5-fold resolution; detect down to 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 (CNV), high resolution melting (HRM), single-nucleotide polymorphism (SNP) genotyping, mutation scanning, mutation detection, Applied Biosystems™ Protein Thermal Shift™ analysis, microRNA profiling, methylation analysis

System specifications

Dimensions (D x W x H) and weight	52.5 x 33.8 x 54.7 cm; 38 kg
Sample capacity (block format)*	96-well 0.2 mL block, 96-well 0.1 mL block, 384-well block, Applied Biosystems™ TaqMan® Array Cards
Reaction volume*	10–30 µL for 96-well 0.1 mL block; 10–100 µL for 96-well 0.2 mL block; 5–20 µL for 384-well block; ~1.5 µL for TaqMan Array Cards
Maximum ramp rate	6.5°C/sec
Average sample ramp rate	3.66°C/sec
Temperature uniformity	0.4°C
Temperature range	4–99.9°C

* Blocks are being released at intervals, so some may not be currently available.

System specifications (continued)

VeriFlex™ Blocks	3 or 6 independent temperature zones (96-well blocks)
Block size	22.5 x 22.5 x 7 cm
Heating and cooling method	Peltier
Run time	Less than 30 min
Calibration	Engineer calibrated during installation
Onboard memory	10 GB, which translates to approximately 450 run files
Electrical approvals	IEC, CE
Excitation (light source)	Bright white LED
Filter or color combinations	5 for QuantStudio 6 Pro system, 21 for QuantStudio 7 Pro system
Excitation/emission range	450–680 nm/500–730 nm
Detection method	CMOS technology
Data acquisition	Whole-plate imaging
Touchscreen	12-inch capacitive touch screen with real-time application viewing
Online ecosystem	Our free, cloud-based Connect platform with cloud-enabled systems
Communication interface	Connect platform with cloud-enabled systems, USB, LAN, or Wi-Fi
External devices	2D barcode reader via USB connection
System configuration	Stand alone, PC connected, or direct connection via LAN or Wi-Fi to the Connect platform
International standards	ISO 13485

Software specifications

Cloud design and analysis software	<ul style="list-style-type: none"> • Desktop option using Microsoft™ Windows™ 10 or Mac™ operating system • Web browser-based software option; run on PC or Mac computer
Run programming options	<ul style="list-style-type: none"> • Preoptimized protocol templates or ability to customize <ul style="list-style-type: none"> – Programmable and manual pause • Preprogrammed protocol decoded by RFID reader
MIQE compliance	Real-time PCR data markup language (RDML) export format
Data analysis	Standard curve, absolute and relative gene expression, SNP genotyping, presence/absence, HRM

Ordering information

Product	Cat. No.
QuantStudio 6 Pro Real-Time PCR System, 96-well, 0.2 mL block	A43159
QuantStudio 6 Pro Real-Time PCR System, 96-well, 0.2 mL block, laptop	A43166
QuantStudio 6 Pro Real-Time PCR System, 96-well, 0.2 mL block, desktop	A43180
QuantStudio 7 Pro Real-Time PCR System, 96-well, 0.2 mL block	A43162
QuantStudio 7 Pro Real-Time PCR System, 96-well, 0.2 mL block, laptop	A43169
QuantStudio 7 Pro Real-Time PCR System, 96-well, 0.2 mL block, desktop	A43183
QuantStudio 6 Pro Real-Time PCR System, 384-well block	A43161
QuantStudio 6 Pro Real-Time PCR System, 384-well block, laptop	A43168
QuantStudio 6 Pro Real-Time PCR System, 384-well block, desktop	A43182
QuantStudio 7 Pro Real-Time PCR System, 384-well block	A43164
QuantStudio 7 Pro Real-Time PCR System, 384-well block, laptop	A43171
QuantStudio 7 Pro Real-Time PCR System, 384-well block, desktop	A43185

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