

QuantStudio 7 Pro Dx Real-Time PCR System

The Applied Biosystems™ QuantStudio™ 7 Pro Dx Real-Time PCR System is the qPCR platform for the future, combining modern hardware and software in a compact footprint, enabling customers in molecular diagnostics to achieve maximum efficiency, smarter productivity, and higher accuracy from their workflow.

Smart instrument, smart features, and smart productivity enabled by connectivity

- **Results you can trust**—detect differences in target quantity as small as 1.5-fold in singleplex reactions; 10 orders of magnitude of linear dynamic range
- **Simple, powerful software**—users can set up a run, lay out assays, control the instrument, and analyze plates within a single, easy-to-use touchscreen interface; no computer is needed
- **Proven performance**—over 10 years of experience in clinical real-time PCR instrument manufacturing
- **Efficient**—interactive diagnostic instrument with shorter run times, minimal maintenance, and compatibility with existing plastic consumables
- **Enhanced security**—security, auditing, and e-signature (SAE) functionalities that assist with compliance plus the ability to support multiple clients; maintain centralized SAE settings that can be applied to multiple instruments on the same network, allowing better control for your IT department
- **Instrument monitoring**—use a mobile app to check instrument availability and monitor run progress
- **Voice command**—enables selected hands-free operation by voice control (Alexa™ services)
- **Smart support**—Smart Help to report issues or request instrument services to reduce downtime; remote access to device for troubleshooting

The QuantStudio 7 Pro Dx instrument is a stand-alone system

The graphical user interface (GUI) enables an end-to-end in vitro diagnostic (IVD) workflow:

- Run setup for predefined assays
- Instrument controls
- Run monitoring
- Post-run data analysis, exporting, and reporting
- Maintenance and support
- SAE features to assist compliance with regulations

Instrument is Internet of Things (IoT)—enabled (Thermo Fisher™ Connect Platform)

- Voice-activated controls
- Smart support
- Remote run monitoring



Features that help you comply with requirements of accrediting bodies

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| Maintenance and calibration reports | Records are updated automatically with maintenance and calibration events and can be printed on demand, documenting that the system has been maintained and calibrated to vendor specifications. |
| Reagent tracking | Stores and archives information about reagents used with each test, including lot number and expiration date, with each run. Archived files can be retrieved when required to track samples that were tested with a given set of reagents. |
| Sample tracking | Tracks sample name and type. Captures critical sample data that are customizable by assay. Enables laboratories to efficiently track samples associated with a particular plate, set of reagents, run date and time, and data files. |
| E-signature history | SAE software records test events, actions taken, dates, user names, user roles, and activity performed, for documentation and archiving purposes. |
| Experimental results | Report records details for documentation, archiving, and review-at-a-glance needs, including experiment name, barcode, file name, time stamps (creation, run start, run finish, duration, and modifications), instrument name, serial number, experiment type, results summary, plate layout image, standard curves, results table, and QC summary. |

Features that help you increase your productivity

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| Stand-alone configuration | End-to-end workflow on the device enables users to review results and report directly on the touchscreen |
| Assay-driven workflow | Reduce manual entries and associated errors using embedded setup and analysis in an assay definition file |
| Remote monitoring | Monitor run and instrument status using the Instrument Connect mobile app or the Connect Platform |
| Hands-free operation | Perform basic operations using voice commands |
| 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 reduce instrument downtime from days to minutes |

Technical specifications

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| Reaction volume | 96-well, 0.2 mL block: 10–100 µL; 384-well block, 5–20 µL |
| Excitation source | Bright-white LED |
| Optical detection | 6 decoupled filters, complementary metal oxide semiconductor (CMOS) |
| Excitation/detection range | 450–680 nm/500–730 nm |
| Temperature range | 4–99.9°C |
| Maximum block ramp rate | 6.5°C/sec |
| Average sample ramp rate | 3.66°C/sec |
| Temperature uniformity | 0.5°C |
| Temperature accuracy | 0.25°C |
| Heating and cooling method | Peltier |
| Independent temperature zones | 6 VeriFlex™ zones (5°C zone to zone)* |
| Chemistries | Both fast and standard |
| Run time | <30 min (fast mode) |

* 96-well block only

Technical specifications (continued)

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| System dyes | Applied Biosystems™ FAM™, SYBR™, VIC™, ABY™, NED™, TAMRA™, JUN™, ROX™, MUSTANG PURPLE™, and Cy®5 dyes |
| Multiplex | 5-plex with 1 passive reference; 6-plex with no passive reference |
| Sensitivity | 1 copy; detect differences as small as 1.5-fold in target quantities in singleplex reaction |
| Dynamic range | 10 orders of magnitude of linear dynamic range |
| Touchscreen | 12 inch capacitive touchscreen with real-time application viewing |
| Online ecosystem | Free, cloud-based Connect Platform with cloud-enabled systems |
| Security and auditing features | <ul style="list-style-type: none"> Integrated tools to assist with compliance The audit function is always enforced |
| Footprint (H x W x D) | 54.7 x 33.8 x 52.5 cm |
| Weight | 38 kg |



QR code for “Features and benefits” video

Find out more at thermofisher.com/quantstudio7prodx

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