

appliedbiosystems

Our clinical instruments  
just became smarter



The new QuantStudio 5 Dx system.  
A modern diagnostic instrument for  
today's smart labs.

Built on over 25 years of qPCR instrument experience, the new Applied Biosystems QuantStudio 5 Dx Real-time PCR system is designed with the clinic in mind – delivering a modern, interactive instrument with the flexibility of both diagnostic and assay development mode softwares – all in a single system.



Find out more at [thermofisher.com/quantstudio5dx](https://thermofisher.com/quantstudio5dx)

**ThermoFisher**  
SCIENTIFIC

The QuantStudio 5 Dx Real-time PCR System is coming soon. Product not yet CE-marked. Cannot be sold or put into service. Check [thermofisher.com/quantstudio5dx](https://thermofisher.com/quantstudio5dx) for future updates. © 2017 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified. COL03709 0317

# QuantStudio 5 Dx Real-Time PCR System

- Simple yet powerful software to guide you through test development and IVD modes with ease
- Affordable and accessible, with low cost of ownership
- An enhanced user experience with the intuitive software that you've come to expect from smart devices
- Performance you can trust, built on 25 years of qPCR instrument experience

## Introduction

The Applied Biosystems™ QuantStudio™ 5 Dx Real-Time PCR System is designed with the clinic in mind—delivering a modern, interactive diagnostic instrument with the flexibility of software designed for both IVD use and test development.

## QuantStudio 5 Dx Real-Time PCR System

The QuantStudio 5 Dx Real-Time PCR System is the latest addition to our extensive QuantStudio family of diagnostic instruments—complete with the reliability, sensitivity, and accuracy you've come to expect from Applied Biosystems™ instruments. The system features an intuitive, simple-to-use interface, allowing users of any experience level to operate the instrument with ease. With a small footprint and affordable price point, the QuantStudio 5 Dx system is well suited for any clinical laboratory.



## Powerful software designed for the clinic

The power of the QuantStudio 5 Dx system is in its software—with core functionalities designed to guide you through every step of the test development\* and diagnostic workflows, seamlessly.

- **Diagnose or develop, the choice is yours**—multimode software enables you to operate the instrument in test development (DEV)\* and *in vitro* diagnostic (IVD) modes
- **Enhanced security you need**—including auditing and e-signature functionalities that enable you to comply with regulations
- **Software to guide you every step of the way**—allows you to set up a run, lay out assays, control the instrument, and conduct plate analysis within a single, easy-to-use software interface
- **IVD test menu offers peace of mind**—allows only authorized IVD tests to be run through IVD mode, helping to reduce the risk of unauthorized use and accidental or intentional misuse

\* Test development mode is for Research Use Only.



**For In Vitro Diagnostic Use Only.** The QuantStudio 5 Dx Real-Time PCR System is for distribution and use in specific countries only. The QuantStudio 5 Dx Real-Time PCR System is intended for *in vitro* diagnostic use by trained personnel in a professional laboratory environment in the analysis of nucleic acids from human-derived specimens for the detection of genetic information that may indicate disease presence or susceptibility.

## Features that help you comply with requirements of accrediting bodies

<b>Maintenance and calibration reports</b>	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.
<b>Reagent tracking</b>	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.
<b>Sample tracking</b>	Tracks sample information such as name, accession number, and sample type. Captures critical sample data, with parameters customizable to fit the laboratory's needs. Enables laboratories to more easily track samples associated with a particular plate, set of reagents, run date and time, and data files.
<b>E-signature history</b>	Security, auditing, and e-signature software records test events, actions taken, dates, user names, user roles, and activity performed, for documentation and archiving purposes.
<b>Experimental results</b>	Report output 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.

## Technical specifications

<b>Reaction volume</b>	96-well, 0.2 mL block: 10–100 $\mu$ L
<b>Footprint (W x D x H)</b>	27 x 50 x 40 cm
<b>Weight</b>	27 kg
<b>Excitation source</b>	Bright-white LED
<b>Optical detection</b>	6 decoupled filters, CMOS camera
<b>Excitation/detection range</b>	450–680 nm/500–730 nm
<b>Temperature range</b>	4–99.9°C
<b>Maximum block ramp rate</b>	6.5°C/sec
<b>Average sample ramp rate</b>	3.66°C/sec
<b>Temperature uniformity</b>	0.5°C
<b>Temperature accuracy</b>	0.25°C
<b>Heating and cooling method</b>	Peltier
<b>Independent temperature zones</b>	6 VeriFlex™ zones (5°C zone to zone)
<b>Chemistries</b>	Both fast and standard
<b>Run times</b>	<30 min (fast mode)
<b>Validated reaction volumes</b>	10–100 $\mu$ L
<b>Factory-calibrated dyes</b>	FAM™, SYBR™, VIC™, ABY™, NED™, TAMRA™, JUN™, ROX™, Mustang Purple™, and Cy®5 dyes
<b>Multiplex</b>	5-plex with 1 passive reference; 6-plex with no passive reference
<b>Sensitivity</b>	1 copy; detect differences as small as 1.5-fold in target quantities in singleplex
<b>Dynamic range</b>	9 logarithmic units of linear dynamic range
<b>Security and auditing features</b>	Integrated tools to assist with 21 CFR Part 11 compliance

Find out more at [thermofisher.com/quantstudio5dx](http://thermofisher.com/quantstudio5dx)

**ThermoFisher**  
SCIENTIFIC