

QuantStudio™ 3 and 5 Real-Time PCR Systems

Pub. No. MAN0013738 Rev. F.0

Thank you for your order of the QuantStudio™ Real-Time PCR System.


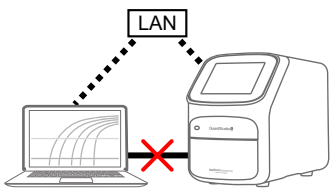
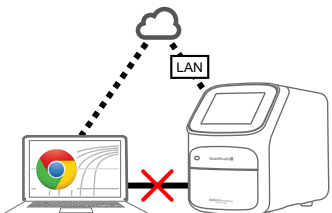
This checklist describes the IT setup requirements to ensure successful training. A system that complies with these IT requirements allows Thermo Fisher Scientific to support your work and your site effectively. It also allows for the future update of software versions and Thermo Fisher™ Connect data uploading. We strongly recommend that you comply with the requirements wherever possible.

Review the tables in this checklist, complete the required fields, and indicate with a checkmark that your site and IT department have met the requirements. If the requirements cannot be met, describe the circumstances in the Comments field, then discuss the situation with your Thermo Fisher Scientific Field Application Scientist (FAS).

You must sign and submit this checklist before training can be scheduled. Your FAS will contact you to discuss the completed checklists. Contact your local Instrument Customer Service Team or FAS with any questions.

Supported options for instrument and computer connections

We support the following direct, networked (LAN–local area network), or Thermo Fisher™ Connect configurations. Configurations other than those listed are not recommended. Select a configuration that meets the needs of your laboratory's instrument, software, and workflow requirements.

Direct configuration option	
<ul style="list-style-type: none"> A computer provided by Thermo Fisher Scientific with the QuantStudio™ Design and Analysis Desktop Software 	
<ul style="list-style-type: none"> Computer-to-instrument connection: <ul style="list-style-type: none"> Direct, wired connection between the computer and the instrument using an Ethernet cable <p>IMPORTANT! A direct instrument-to-computer connection <i>cannot</i> be combined with the LAN or the Thermo Fisher™ Connect configurations.</p>	
Networked configuration option	
<ul style="list-style-type: none"> A computer provided by Thermo Fisher Scientific with the QuantStudio™ Design and Analysis Desktop Software The computer and instrument must have the same subnet mask within the same network. 	
<ul style="list-style-type: none"> Computer-to-LAN connection (<i>select an option</i>): <ul style="list-style-type: none"> Wired connection to the network using an Ethernet cable –or– Wireless connection to the network 	
<ul style="list-style-type: none"> Instrument-to-LAN connection (<i>select an option</i>): <ul style="list-style-type: none"> Wired connection to the network using an Ethernet cable –or– Wireless connection to the network using the instrument Wi-Fi module 	
Thermo Fisher™ Connect configuration option	
<ul style="list-style-type: none"> Internet access and a computer with the Chrome™ web browser to access Thermo Fisher™ Connect 	
<ul style="list-style-type: none"> Computer-to-Thermo Fisher™ Connect connection (<i>select an option</i>): <ul style="list-style-type: none"> Wired connection to the internet using an Ethernet cable –or– Wireless connection to the internet 	
<ul style="list-style-type: none"> Instrument-to-Thermo Fisher™ Connect connection (<i>select an option</i>): <ul style="list-style-type: none"> Wired connection to the network using an Ethernet cable –or– Wireless connection to the network using the instrument Wi-Fi module 	

Select the instrument and computer connection option

✓	Instructions
Select one: <input type="radio"/> Thermo Fisher™ Connect configuration <input type="radio"/> Networked (LAN) configuration <input type="radio"/> Direct configuration	Select the instrument and computer configuration option that your QuantStudio™ Real-Time PCR System will use. If you select the direct configuration option, then select Not applicable in the remaining requirements sections.

User account requirements

You need a basic account on thermofisher.com.

✓	Requirement
Select one: <input type="radio"/> Not applicable <input type="radio"/> Requirement met <input type="radio"/> Requirement not met (complete below section)	If you already have created a user account, please sign into thermofisher.com to ensure that you can access your account. If you do not remember or if you have not created a user account on thermofisher.com , please visit the website and click Sign in ▶ Register at the top of the page. Complete the required information to create a basic account. Have your username and password readily available for training. This will allow your FAS to connect your instrument to our Thermo Fisher™ Connect applications.

If you are unable to meet the user account requirement, complete this section.

- I am unable to sign into my newly created account. *Please describe issues in Comments section.*
- I am unable to complete the registration process. *Please describe issues in Comments section.*
- My Company/IT Policy does not allow me to access the thermofisher.com website.
- I am unable to meet the user account requirement for other reasons. *Please describe issues in Comments section.*

Comments:

Firewall requirements

If the QuantStudio™ Real-Time PCR System will use the LAN configuration, then it should be configured behind a firewall.

✓	Requirement															
Select one: <input type="radio"/> Not applicable <input type="radio"/> Requirement met <input type="radio"/> Requirement not met (complete below section)	<p>If outbound traffic is limited, at a minimum the following firewall exceptions are required:</p> <table border="1"> <thead> <tr> <th>URL</th> <th>Port</th> <th>Purpose</th> </tr> </thead> <tbody> <tr> <td> https://mrgr.instrumentconnect.com/mrgr/svc/api/v2/gateways US: https://apps.thermofisher.com/api/edt-device-connect-iot-device-mqtt/dconnect/api/v1/device/initialize http://443-to-8883-a2equn2jky0vdu-ats.iot.us-east-1.amazonaws.com In China: https://apps.thermofisher.cn/api/edt-device-connect-iot-device-mqtt/dconnect/api/v1/device/initialize http://443-to-8883-a2gzoefc2v2nad.ats.iot.cn-north-1.amazonaws.com.cn </td> <td> outbound 443 outbound 80 </td> <td>To support Thermo Fisher™ Connect features such as user linking, remote monitoring, firmware updates, etc.</td> </tr> <tr> <td>https://dhap-cloudstorage.s3.amazonaws.com</td> <td> outbound 443 outbound 80 </td> <td>To support file upload and download from Connect storage</td> </tr> <tr> <td> http://downloads.lifetechnologies.com/ http://downloads.thermofisher.com </td> <td> outbound 443 outbound 80 </td> <td>To support firmware downloads</td> </tr> <tr> <td>https://drm.appliedbiosystems.com</td> <td> outbound 443 outbound 80 </td> <td>To support service remote monitoring features</td> </tr> </tbody> </table>	URL	Port	Purpose	https://mrgr.instrumentconnect.com/mrgr/svc/api/v2/gateways US: https://apps.thermofisher.com/api/edt-device-connect-iot-device-mqtt/dconnect/api/v1/device/initialize http://443-to-8883-a2equn2jky0vdu-ats.iot.us-east-1.amazonaws.com In China: https://apps.thermofisher.cn/api/edt-device-connect-iot-device-mqtt/dconnect/api/v1/device/initialize http://443-to-8883-a2gzoefc2v2nad.ats.iot.cn-north-1.amazonaws.com.cn	outbound 443 outbound 80	To support Thermo Fisher™ Connect features such as user linking, remote monitoring, firmware updates, etc.	https://dhap-cloudstorage.s3.amazonaws.com	outbound 443 outbound 80	To support file upload and download from Connect storage	http://downloads.lifetechnologies.com/ http://downloads.thermofisher.com	outbound 443 outbound 80	To support firmware downloads	https://drm.appliedbiosystems.com	outbound 443 outbound 80	To support service remote monitoring features
URL	Port	Purpose														
https://mrgr.instrumentconnect.com/mrgr/svc/api/v2/gateways US: https://apps.thermofisher.com/api/edt-device-connect-iot-device-mqtt/dconnect/api/v1/device/initialize http://443-to-8883-a2equn2jky0vdu-ats.iot.us-east-1.amazonaws.com In China: https://apps.thermofisher.cn/api/edt-device-connect-iot-device-mqtt/dconnect/api/v1/device/initialize http://443-to-8883-a2gzoefc2v2nad.ats.iot.cn-north-1.amazonaws.com.cn	outbound 443 outbound 80	To support Thermo Fisher™ Connect features such as user linking, remote monitoring, firmware updates, etc.														
https://dhap-cloudstorage.s3.amazonaws.com	outbound 443 outbound 80	To support file upload and download from Connect storage														
http://downloads.lifetechnologies.com/ http://downloads.thermofisher.com	outbound 443 outbound 80	To support firmware downloads														
https://drm.appliedbiosystems.com	outbound 443 outbound 80	To support service remote monitoring features														
<p>If you are unable to meet the firewall requirements, complete this section.</p> <input type="radio"/> My Company/IT Policy does not allow these network settings. <input type="radio"/> My IT department does not understand the instructions and needs help with the setup. <input type="radio"/> My IT department is unable to make the changes due to technical reasons. <i>Please describe issues in Comments section.</i> <input type="radio"/> I am unable to meet the firewall requirements for other reasons. <i>Please describe issues in Comments section.</i>																
<p>Comments:</p> <div style="border: 1px solid black; height: 150px; width: 100%;"></div>																

Open network port requirements

If the QuantStudio™ Real-Time PCR System will use the LAN configuration, then ports 5353 and 7443 must be allowed on the network.

✓	Requirement
<p>Select one:</p> <p><input type="radio"/> Not applicable</p> <p><input type="radio"/> Requirement met</p> <p><input type="radio"/> Requirement not met (enter comments below)</p>	<p>Port 5353, mDNS is used for instrument discovery.</p> <p>Multicast address 224.0.0.251 on port 5353 is allowed on the wired local area network:</p> <p><input type="radio"/> Yes <input type="radio"/> No</p> <p>Port 7443 outbound calls are used by the QuantStudio™ Design and Analysis Desktop Software to send commands to the instrument.</p> <p>Connections to instrument via port 7443 are allowed on the wired local area network:</p> <p><input type="radio"/> Yes <input type="radio"/> No</p>
<p>Comments (If you are unable to meet the network port requirements, enter comments below):</p>	
<div style="border: 1px solid black; height: 300px;"></div>	

Completion

By signing this checklist, the site representative acknowledges that:

- The site has all required equipment and has met the IT requirements for a successful QuantStudio™ Real-Time PCR System installation. If the site is unable to meet the IT requirements or is unsure about a requirement, comments are entered in the appropriate field.
- If the site has not met the requirements that are listed in this document when the FAS arrives, training may be rescheduled.
- At the discretion of Thermo Fisher Scientific, the site may also incur additional charges for all travel expenses and FAS time corresponding to rescheduled training.
- If the instrument is not networked, or if it is blocked from the Internet, the site will incur additional labor and travel expenses for any work that would normally be performed remotely (for example, software upgrades or technical support).

Site representative signature:

Site representative printed name:

Title:

Institution:

Date:

In case we have questions, please provide contact information for the person responsible in your IT department.

IT department contact name:

IT department contact telephone number:

IT department contact email address:

How to return the completed checklist:

Unless asked to do otherwise, return the completed checklist via email to the Thermo Fisher Scientific representative who sent it to you.

For Thermo Fisher Scientific use only:

FAS or authorized Thermo Fisher Scientific representative:



Life Technologies Holdings Pte Ltd | Block 33 | Marsiling Industrial Estate Road 3 | #07-06, Singapore 739256
For descriptions of symbols on product labels or product documents, go to thermofisher.com/symbols-definition.

The information in this guide is subject to change without notice.

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Revision history: Pub. No. MAN0013738

Revision	Date	Description
A.0	05 May 2016	New document.
B.0	14 May 2016	Add a new section for user account requirements.
C.0	17 November 2016	Update the firewall exception URLs.
D.0	25 July 2017	Add a new section for network connection options.
E.0	21 May 2021	Update the "Firewall requirements" on page 3 and the "Open network port requirements" on page 4.
F.0	28 September 2021	Minor correction to document, changed Thermo Fisher cloud to Thermo Fisher connect.

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