Seahorse XF HS Mini Extracellular Flux Analyzer

Networking User Guide

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Safety Notices

CAUTION

A CAUTION notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a CAUTION notice until the indicated conditions are fully understood and met.

WARNING

A WARNING notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a WARNING notice until the indicated conditions are fully understood and met.

Contents

Technical Specifications

REF S7852A

Model	Seahorse XF HS Mini Analyzer (model number S7852A)
Dimensions	Width × height × depth 12 in × 17 in × 23 in 30 cm × 43 cm × 58 cm
Weight	33 lb/15 kg
Power requirements	100-240 VAC 50/60 Hz 6 A/3 A
Power cord rating	3-wire (grounded) AC power cord rated 10 A or greater
Power fuse ratings	250 V/5 A time lag (two fuses) 5 mm × 20 mm
Environmental operating range	+39 °F - 86 °F/+4 °C - 30 °C No direct sunlight Humidity 20 to 70% RH, noncondensing
Sample temperature and environment	Controlled to user-selected temperature between 16 and 40 °C, but at least 10 °C above ambient temperature No gas or humidity control
Data interface	TCP/IP (external) USB type A (one in front, two in back)
Software OS	Windows 10 embedded

Introduction

This guide provides network setup information for the Agilent Seahorse XF HS Mini Analyzer.

Why should I network my XF HS Mini Analyzer?

Connecting your XF HS Mini Analyzer to a network provides unique workflow advantages to users, such as:

- Immediate acquisition of Assay Results.
- Simple File Transfer for Assay Templates and Results, no need for USB drives.
- Remote access for Cell Analysis Technical Support.

The XF HS Mini Analyzer supports two types of network connections:

- **Wide Area Network (WAN)**: A computer network that covers a broad area, such as the internet.
- **Local Area Network (LAN)**: Typically found in offices or schools, a computer network the connects multiple devices (computers, printers, lab devices, etc.) to enable file sharing between those networked devices in addition to internet access. LANs also have some level of security to access the shared file directories.

Both a WAN and LAN can be configured through a wired (Ethernet cable) or wireless (USB WiFi adapter) connection on the XF HS Mini Analyzer. Depending on your company's IT infrastructure, configuring WAN or LAN access may require additional support from your local IT department to complete set up.

Give the **"Network Checklist"** on page 15 to your IT department to use during the network setup of the XF HS Mini Analyzer.

Figure 1.   Networked XF HS Mini Analyzer

Network access features on the XF HS Mini Analyzer

Immediate data delivery
Before starting an assay, users enter in one or multiple email addresses to receive a copy of the Assay Result file (*.xflr) for data analysis. The email service also informs users when they can begin another assay.

File transfer made simple
Use a shared network directory to simplify data transfer to and from the XF HS Mini Analyzer. A shared network directory allows users to easily transfer Assay Template files to the XF HS Mini Analyzer to perform an assay, then retrieve the Assay Results for analysis using **Agilent Seahorse Analytics**.

Rapid remote assistance
An active network connection on the XF HS Mini Analyzer allows a Cell Analysis Technical Support representative to diagnose and troubleshoot potential issues quickly by allowing remote access to view and control the XF HS Mini Analyzer.

Send 'System Files' directly to cell analysis technical support
When an issue is encountered, Cell Analysis Technical Support routinely requests System Files from the XF HS Mini Analyzer. System Files assist Cell Analysis Technical Support in identifying the root cause of an issue. With network access, users are able to send System Files directly to Cell Analysis Technical Support.

XF HS Mini Analyzer System Information

Required materials

- Approved wireless USB adapter or wired connection (Ethernet cable)
- IT department network connection settings

NOTE **XF HS Mini Analyzer instruments use Windows Defender with default settings. These include Quick Scan, real-time protection and cloud-protection turned on.**

- The XF HS Mini Analyzer can be connected to any Microsoft Windows compatible network and the Local Area connections can be configured as required by the network.
- Complete the **"Network Checklist"** on page 15 to ensure you have everything needed to successfully connect to a new network.
- The XF HS Mini Analyzer ships with an integrated 100Mbps Ethernet network adapter. The XF HS Mini Analyzer ships with a Netgear Wireless AC Adapter AC600 Dual Band (only the provided adapter is qualified for use). See **Figure 2**.

NOTE **The software required to use the USB WiFi Adapter is installed on the XF HS Mini Analyzer by default.**

- There is no internal WiFi adapter in the XF HS Mini Analyzer.
- An Ethernet cable is using a wired network setup. The Ethernet (RJ-45) jack is located at the base of the instrument in the back. See **Figure 3**.

Figure 2.   USB WiFi adapter for the XF HS Mini Analyzer. Part number S7802-80000

Figure 3.   Ethernet (RJ-45) jack location outlined in red

Wired Network Setup

Wired connection

1 Plug the wired network connection (Ethernet cable) into the Ethernet port (**Figure 4**), located on the back of the XF HS Mini Analyzer. Ensure that the connection is firmly seated.

Figure 4.   Ethernet port with wired network connection cable

2 Power XF HS Mini Analyzer **OFF.**

3 Power XF HS Mini Analyzer **ON.**

4 Wait for the temperature to display in the upper-right corner of the home screen before proceeding with the Wired Setup instructions, see **"Option 2: Manual IP address assignment"**.

5 From the **Home** screen, click **Settings**.

6 Click **System Settings** to access the Wired Network Connection Settings screen.

There are two options depending on the network settings required by your facility's IT department:

Option 1: Automatic IP address assignment (DHCP)

Dynamic Host Configuration Protocol (DHCP) is enabled by default on the XF HS Mini Analyzer and automatically uses a DHCP server on the network to retrieve IP address values. The XF HS Mini Analyzer is set to obtain the IP address and subsequent information (Subnet mask, Default gateway, etc.). If these fields do not automatically populate, follow the steps in **"Option 2: Manual IP address assignment"** or contact your local IT administrator.

Option 2: Manual IP address assignment

1 In the Wired Network Connection screen, switch the toggle from **Auto** to **Manual**.

2 Manually enter the information provided by the local IT department in each field.

3 After setting the IP options, click **Save**.

4 Power XF HS Mini Analyzer **OFF.**

5 Power XF HS Mini Analyzer **ON.**

6 Once the temperature is displayed in the upper-right corner, click **Settings**, and then click **System Settings.**

7 To ensure you have a working connection, click **Ping**. A **Pass** message appears if the setting are working and the connection is active.

8 If the connection fails, reconfirm the IP address setting with the IT department, and confirm the information in the hardware setup steps.

9 Use the left arrow to continue editing instrument settings or exit the settings options.

Wireless Network Setup

Wireless connection

1 Plug the USB WiFi Adapter into one of the available USB ports on the back of the XF HS Mini Analyzer. See **Figure 5**.

2 Power XF HS Mini Analyzer **OFF**.

3 Power XF HS Mini Analyzer **ON**.

4 Wait for the temperature to display in the upper-right corner of the home screen before proceeding with the Wireless Setup instructions.

Figure 5.   USB WiFi adapter inserted into an available USB port on the back of the XF HS Mini Analyzer

Joining a wireless network

1   From the Home screen click **Settings**.

2   Click **System Settings**.

3   Click the right arrow (bottom right) once to access the Wireless Network Connection Settings screen shown in **Figure 6**.

4   Select the network you want to connect to, and click **Connect**.

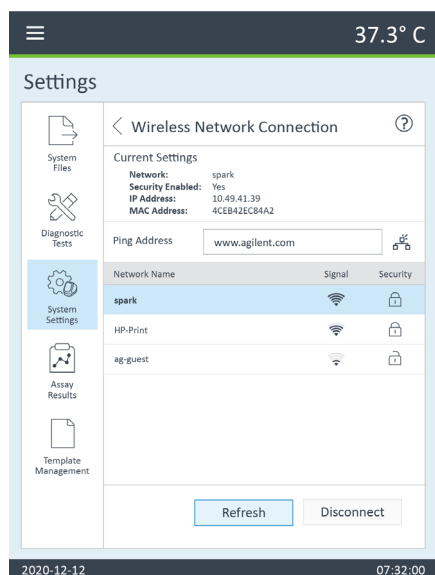**If you do not see your wireless network on the list of available networks, click Refresh.**

Figure 6.   Example wireless network selection table

5   Enter the password when prompted by the system.

6   If no errors are received, select the desired network again and verify that the connect button now displays disconnect.

7   Power XF HS Mini Analyzer **OFF**.

8   Power XF HS Mini Analyzer **ON**.

9   After the XF HS Mini Analyzer starts up and the temperature value in the upper-right corner is displayed, click **System Settings**.

10 Click **Ping** in the Wireless Network Connection Settings screen. (**Figure 6**)

11 If you received a **Pass** message and icon, your wireless setup is complete. If not, confirm the information in the wireless networking setup steps and reattempt connecting to a wireless network.

12 Use the left arrow to continue editing instrument settings or exit the settings options.

NOTE **An active Internet connection is required for this feature.**

Shared folder setup

This procedure requires an active wired or wireless network connection.

1   From the Home screen, click **Settings**, then **System Settings**.

2   Select the **Network Directory** tab.

3   Enter the information for the shared network drive into the dialogue boxes. Refer to the **"Shared directory settings"** on page 15 in the **"Network Checklist"** for the correct information. (IT should provide this information.)

   •   **Shared Directory**: The desired location on the LAN where all Assay Template and Assay Result files will be saved for access.

   •   **Domain**: Name of the LAN.

   •   **User Name**: User name of the Windows account that has read/write permission to access the shared directory location.

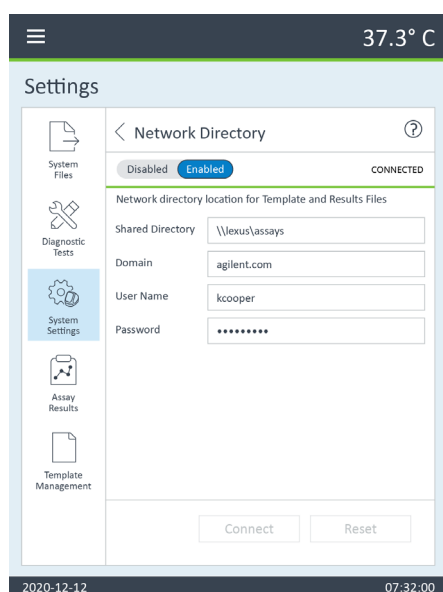   •   **Password**: Password for the Windows account.

Figure 7.   Example of a complete Network Directory configured on the XF HS Mini Analyzer

Accuracy is essential, double check your entry before checking access.

4   Once all information has been entered, click **Enable**. Successfully configuring a LAN results in a **CONNECTED** message on the XF HS Mini Analyzer.
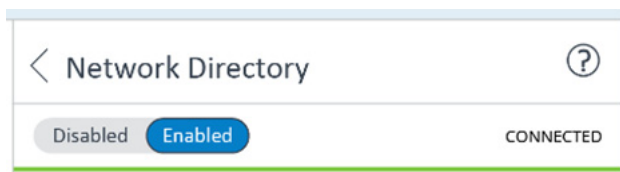

Figure 8.   Successful network connection status

5   Use the left arrow to continue editing instrument settings or exit the settings options.

Email configuration

1 From the Home screen, click **Settings**, then **System Settings**.

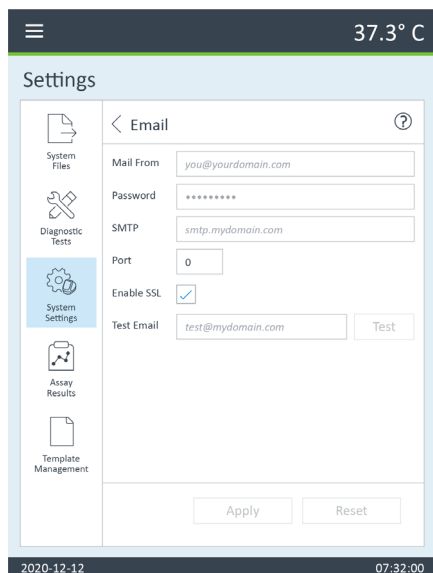**2** Select the **Email Configuration** tab.

Figure 9.   Example of a completed Email Configuration setup

3 Enter the information below:

- **Mail From**: The email address that will send Assay Result files to email recipients.
- **Password**: Password for the email address account in the **Mail From** field.
- **Port**: Contact your local IT administrator for the correct port.
- **Enable SSL**: Typically required by email providers, SSL protects data transmission between devices.

4 Verify the email configuration is completed by entering an email address to send a test email message from the XF HS Mini Analyzer. Click **Test** once an email address has been entered into the field. If an email is not received, ensure the information provided is correct.

5 Use the left arrow to continue editing instrument settings or exit the settings options.

Time zone setup

Time can be set manually, or if your are connected to a network, it can be auto set. First, you must choose a Time Zone.

1 From the Home screen click **Settings**, then click **Go to Setup.**

2 Select the **Date & Time** tab. (**Figure 10**)

3 Select the **Time Zone** from the list provided.

Optional: Check the box 24 Hour Clock to activate the 24 hour clock setting.
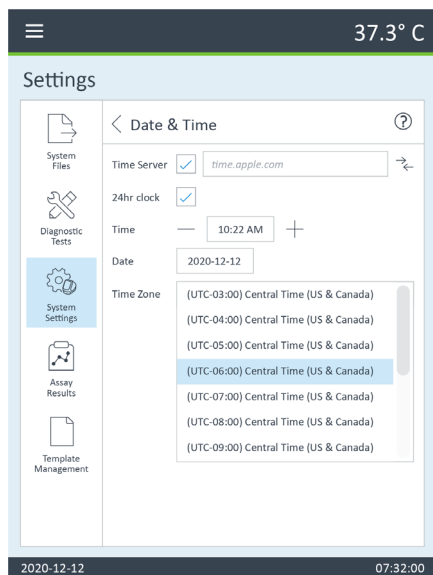

Figure 10.   Select the local time zone for your XF HS Mini Analyzer

Setting the time

1 From the Home screen click **Settings > System Settings > Data & Time (+ TimeZone).**

2 Select the **Date and Time** settings tab. (**Figure 11**)

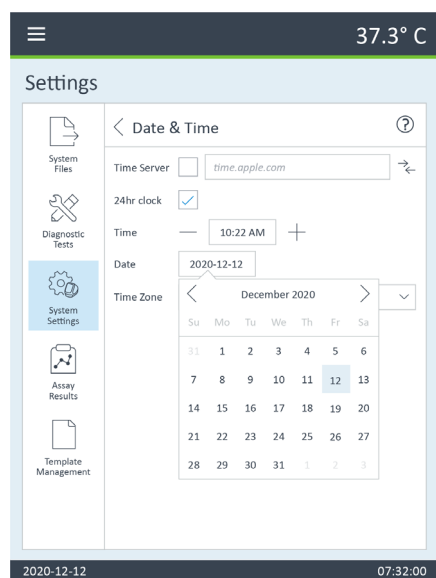**3** Manually enter the appropriate date and time.

Figure 11.   Configure date and time for the XF HS Mini Analyzer

Time server (optional)

For XF HS Mini Analyzers with an active network connection, the XF HS Mini Analyzer can sync to a network's time server, if provided. (**Figure 12**)
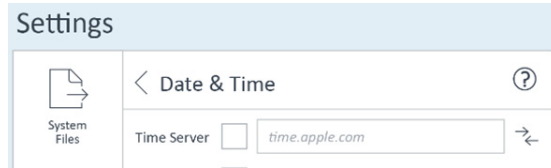

Figure 12.   Configuring a time server on the XF HS Mini Analyzer

Optional: A national time server (example: time.nist.gov) can be used to automatically set the time and account for daylight savings adjustments, or any time server provided by your local IT department. Once entered, click **Sync**, then click **Apply** for the changes to take place. Use the top left menu button to exit the settings options and return to Home screen.

Network Checklist

Only complete the section that pertains to the desired network connection type.

Wired network settings

- ☐ IP address
- ☐ Subnet mask
- ☐ DNS server
- ☐ Computer name

Wireless network settings

- ☐ Wireless network name
- ☐ Wireless network password

Email settings

- ☐ Email address
- ☐ Password
- ☐ SMTP address
- ☐ Email port
- ☐ SSL required

Shared directory settings

- ☐ Shared directory address
- ☐ Shared directory domain
- ☐ Shared directory user name
- ☐ Shared directory password
- ☐ Time server address

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