SMART Board®
NX
series displays

Installation and maintenance guide

SBD–NX065 | SBD–NX075 | SBD–NX086
IDGX65–2 | IDGX75–2 | IDGX86–2

SMART®

Important information

Before installing or using a SMART Board®NX series display, review the important information included with the display. If you cannot find this information, it is available online.

See ˃ docs.smarttech.com/kb/171931

Learn more

This guide and other resources for SMART Board NX series displays are available in the Support section of the SMART website (smarttech.com/support). Scan this QR code to view these resources on your mobile device.

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Chapter 1 **Welcome**

The SMART Board® NXseries display gives you everything you need to get started with interactivity. This chapter introduces the features of your NX series display.

About this guide

This guide explains how to install and maintain SMART Board NXseries displays. It includes the following information:

- How to install the display

- How to connect power and devices

- How to turn on the display for the first time

- How to maintain the display for years of use

- How to troubleshoot issues with the display

This guide also includes information about the display's settings and support for remote management.

This guide is intended for those who install and maintain displays in their organizations. Additional documentation and resources are available for users of the display (see *More information* on page 12).

About the display

The display includes a comprehensive set of features and components.

Display

The 4K ultra-high-definition LED display provides optimal image clarity and wide viewing angles.

> ⚠️ **Caution**
>
> Prolonged focus on a fixed object, such as a display's screen, can contribute to eye strain and headaches. To protect eye health, follow the 20-20-20 rule: after 20 minutes of screen time, spend 20 seconds looking at something 20 feet (6 meters) away. Relaxing the eyes, looking around frequently, and blinking will also help prevent eye strain and fatigue.

The display comes in the following sizes: 65" | 75" | 86"

Mounting hardware

You can use VESA compliant wall mounts, such as SMART's WM-SBID-200 wall mount (not included), to mount the display on a wall.

See ❯ *Installing the display* on page 14

You can also mount the display on a SMART mobile stand.

Front control panel

The front control panel provides buttons for turning the display on and off, controlling the volume, freezing the screen, and displaying the Home screen.

Remote control and infrared sensor

The display's infrared sensor is located in the control panel in the bottom-right corner of the display's frame. The remote control also features an Air Mouse mode which allows you to control the display's cursor using gestures in the air.

You can use the remote control to turn the display on and off, adjust display settings, and so on.

Ambient light sensor

The ambient light sensor is located in the bottom-right corner of the display's frame. The sensor detects the brightness of the room and adjusts the screen's brightness accordingly.

To enable or disable this feature, go to **Input** > **Advanced settings** > **Screen** > **AutoLight** (see *Advanced settings* on page 65).

> **Note**
>
> The ambient light sensor is disabled by default.

Power status

The power status indicator light is located in the Power button in bottom-right of the display's frame.

Audio

The display includes two 20 W integrated speakers.

Network connectivity

The display requires a network and internet connection for downloading software and firmware updates. Some applications also require a network and internet connection (for example, the SMART Mirror screen share application).

The display requires a network and internet connection for downloading software and firmware updates.

You can connect the display to a network using Wi-Fi or an Ethernet cable.

- The Wi-Fi module supports both 2.4 and 5 GHz bands.

- The two RJ45 jacks allow you to connect the display and an external device, such as a computer, to an Ethernet network.

See [>] *Connecting to a network* on page 15

Front connector panel

The front connector panel includes connectors for USB peripherals and a computer or other input.

See [>] *Connecting room computers and guest laptops* on page 27

See [>] *Connecting other devices* on page 39

Room computers and guest laptops

You can connect room computers and guest laptops to the display and view and interact with them.

The display comes with SMART software that you can install on connected computers to take full advantage of the display's features.

See [>] *Connecting room computers and guest laptops* on page 27

Accessory slot

You can install an OPS-compatible device, such as a SMART OPS appliance, in the OPS accessory slot.

See [>] *OPS appliances* on the next page

> ⚠ **Caution**
>
> The accessory slot's maximum available power is 90 W. The slot is not a limited power source. To reduce the risk of fire, make sure that accessories connecting to the slot satisfy the fire enclosure requirements of IEC 62368-1.

Accessories

A variety of accessories are available for the display:

- OPS appliances
- SMART wall mount (WM-SBID-200) for SMART Board displays

- Stands

- USB extenders

See also › smarttech.com/accessories

OPS appliances

The display includes an OPS accessory slot in which your organization can install a SMART OPS appliance:

- SMART OPS PC

- SMART AMG1

Note

To interact with a SMART OPS appliance installed in the OPS accessory slot, connect a keyboard and mouse to the USB Type-A receptacles on the display's front or side connector panels.

See › *Connecting peripherals* on page 39

⚠ **Caution**

- The accessory slot's maximum available power is 90 W. The slot is not a limited power source. To reduce the risk of fire, make sure that accessories connecting to the slot satisfy the fire enclosure requirements of IEC 62368-1.

- Only SMART-provided OPS appliances are supported in SMART Board displays. Third-party OPS appliances are not supported, and their use can lead to poor performance or damage to the display.

- Do not install or remove the+ OPS appliance while the display is turned on. First make sure the power switch on the back of the display beside the AC power inlet is in the OFF (O) position. If you can't reach the power switch, use the front control panel's power button ⏻ to put the display in Standby mode, and then unplug the display's power cable from the power outlet.

- After you have turned the display's power switch off or unplugged it, wait at least 30 seconds before removing the appliance to allow its internal power supplies to discharge completely. You might also wait five minutes to give the appliance the opportunity to cool, if necessary.

- Make sure the OPS appliance is secured to the display with screws through the two anchor points. Inadequately secured appliances can damage the display. (An OPS appliance's anchoring screws are typically captive, although some simply include separate anchoring screws.)

Stands

If you want to move the display from place to place, you can install it on a SMART mobile stand. If you are installing the display on a wall that cannot support the display's full weight, you can install the display on a SMART floor stand.

Notes

- If you want to use the 75" and 86" models (NX075 and NX086) with one of SMART's electric height-adjustable stands, you must first attach a SMART wall mount (model WM–SBID–200, part #1031766, docs.smarttech.com/kb/171405) to the display before mounting the display to the stand. (This applies to the FSE–400, FSE–410, and FSE–420 models of mobile stand and the WSE–400 and WSE–410 models of wall stand).

- For users in Australia and New Zealand: SMART does not provide stands for use in Australia and New Zealand, nor can we provide recommendations for stands from other vendors.

USB extenders

As noted in the display's specifications, the USB connection between the display and computer should be no longer than 16' (5 m). If you need to connect a computer that is more than 16' (5 m) from the display, use the following USB extender:

Extender	Specifications
USB–XT	docs.smarttech.com/kb/119318

See also [>] Extending USB cables

More information

In addition to this guide, SMART provides a variety of other documents for this display in the Support section of the SMART website (smarttech.com/support). Scan the QR code on this guide's cover for links to SMART Board NX series display documents and other support resources.

Chapter 2 **Installing and maintaining the display**

Is this the first time you've installed or maintained a SMART Board display?

If you haven't installed or maintained a SMART Board display before, refer to the SMART Board interactive display installation and maintenance hub for general instructions and best practices for installing and maintaining a display, including:

- Moving the display to the installation site

- Mounting the display on a wall, floor stand, or mobile stand

- Configuring the display after installation

- Regularly cleaning and maintaining the display to keep it in the best possible condition

  > (!) **Important**
  >
  > Before you clean the display's screen, shut down or disconnect the computer. Otherwise, you may
  > scramble the desktop icons or inadvertently activate applications when you wipe the screen.

See also ⟩ *SMART Board interactive display installation and maintenance best practices* (docs.smarttech.com/kb/171035)

Installing the display

SMART recommends that only trained installers install SMART Board displays.

> ⚠ **Warning**
>
> Improper installation of a display can result in injury and product damage.

> ⚠ **Caution**
>
> - Avoid setting up and using the display in an area with excessive levels of dust, humidity, or smoke.
>
> - Make sure an electrical socket is near the display and remains easily accessible during use.
>
> - The display should be used only with European TN and TT power distribution systems.
>
>   It is not suitable for older, IT-type power distribution systems found in some European countries. This system (IT-type) is widely used isolated from earth, in some installations in France, with impedance to earth, at 230/400V, and in Norway, with voltage limiter, neutral not distributed, at 230V line-to-line.
>
>   Contact qualified personnel if you're uncertain of the type of power system available where you're installing the display.

> ⓘ **Important**
>
> - There are critical software updates for the display that you need to install to ensure the display is fully functional and provides the best experience. Connect the display to a network with internet access to automatically download and apply these updates as well as future updates.
>
> - Refer to the display's specifications for its normal operating power requirements, additional requirements, and other information.

> **Notes**

- If you want to use the 75" and 86" models (NX075 and NX086) with one of SMART's electric height-adjustable stands, you must first attach a SMART wall mount (model WM-SBID-200, part #1031766, docs.smarttech.com/kb/171405) to the display before mounting the display to the stand. (This applies to the FSE-400, FSE-410, and FSE-420 models of mobile stand and the WSE-400 and WSE-410 models of wall stand).

- For users in Australia and New Zealand: SMART does not provide stands for use in Australia and New Zealand, nor can we provide recommendations for stands from other vendors.

Refer to the illustrated installation instructions included with the display for specific information about installing it. If you've misplaced these instructions, they're also available online.

See ⌄ *SMART Board NX series illustrated installation instructions* (171965)

Connecting to a network

The display requires a network and internet connection for downloading software and firmware updates.

Configuring network settings

Network administrators need to configure the display's network connection to enable over-the-air firmware updates for a number of the embedded apps.

ⓘ **Important**

Additional network configuration is required to enable users to share their devices' screens when using the display's SMART Mirror app.

See ⌄ *Configuring the network for screen sharing* on page 23

To configure the network

1. Open the required TCP/UDP ports:

Protocol	Port range	Feature
TCP	80	System software update
TCP	2067	Screen Share app
TCP	5000	AirPlay®
TCP	7000	AirPlay
TCP	7382	CRCP
TCP	7385	Screen Share app
TCP	7385–7405	CRCP
TCP	8008	Websocket
TCP	8009	Chromecast™
TCP	29736	Screen Share app
TCP	39458	Screen Share app
TCP	49200–49250	Screen Share app
TCP	49200–49420	AirPlay video
UDP	5353	MDNS/Bonjour
UDP	7385–7397	CRCP audio and touchback
UDP	21200	RTP /RTCP
UDP	21201	RTP/RTCP
UDP	49220–49420	AirPlay audio
UDP	49300–49350	Screen Share app
UDP	49400–49450	RTP/RTCP

2. Configure the network to enable broadcast service.

3. Configure the network to allow mDNS (multicast).

Connecting to a network

The display requires a network and internet connection for downloading software and firmware updates. You can connect to a network using Wi-Fi or one of the RJ45 Ethernet jacks.
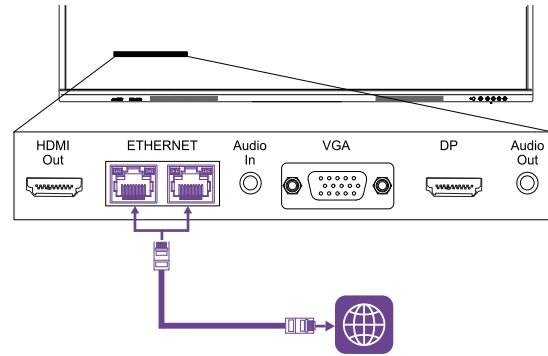
> **① Important**
>
> Do not use the RJ45 jack on an OPS PC to connect to a network.

> **Note**
>
> The display's network connection is shared internally with an OPS PC.

> **Tip**
>
> If you're using one of the display's RJ45 jacks to connect to an Ethernet network, you can connect the other jack to a computer to provide network access for the computer. This is particularly useful if there is only one wired network connection in the room. (Network access is available when the display is on, but not when it's in Standby mode).
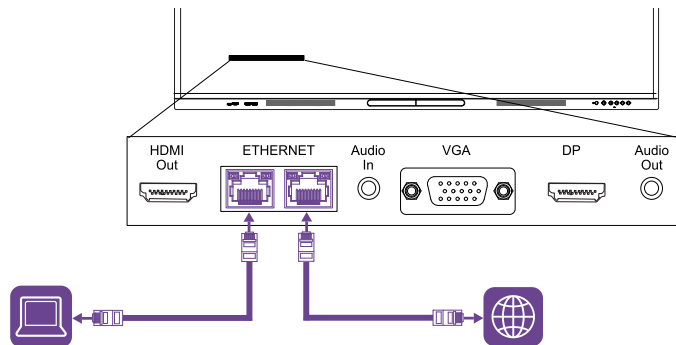
Connecting power and turning on the display for the first time

To connect the display to power

Connect the supplied power cable from the AC power inlet on the back of the display to a power outlet.
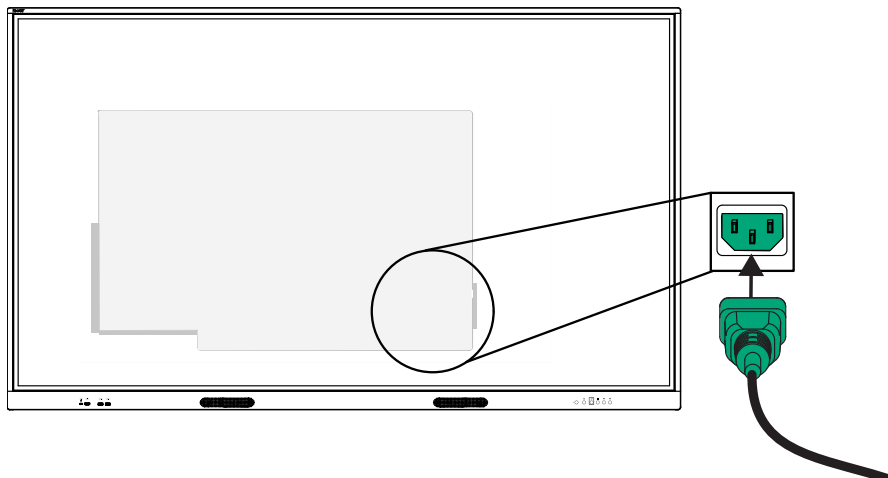
> **Note**
>
> Refer to the display's specifications for power requirements and power consumption information (see *More information* on page 12).

⚠️ **Caution**

- Install the OPS appliance before you turn on the display. If you can't reach the power switch, use the front control panel's power button ⏻ to put the display in Standby mode, and then unplug the display's power cable from the power outlet.

- Make sure the OPS appliance is secured to the display with screws through the two anchor points. Inadequately secured appliances can damage the display. (An OPS appliance's anchoring screws are typically captive, although some simply include separate anchoring screws. Third-party OPS appliances are not supported, and their use can lead to poor performance or damage to the display.

ⓘ **Important**

The display's first-time setup procedure will not complete successfully if you try to connect to a Wi-Fi network that requires a user name. If you would like to connect the display to a Wi-Fi network that requires a user name, you can do that after you complete the first-time setup.

1. Connect a mouse to one of the USB 3.2 Gen 1 Type-A receptacles on the front connector panel. You can use the mouse to select and confirm items during the display's first-time setup.

   Note

   After setting up the display, you can use the display's Air Mouse remote control to select and interact with items on the display's screen.

2. Flick the power switch beside the AC power inlet on the rear of the display to the ON (I) position.
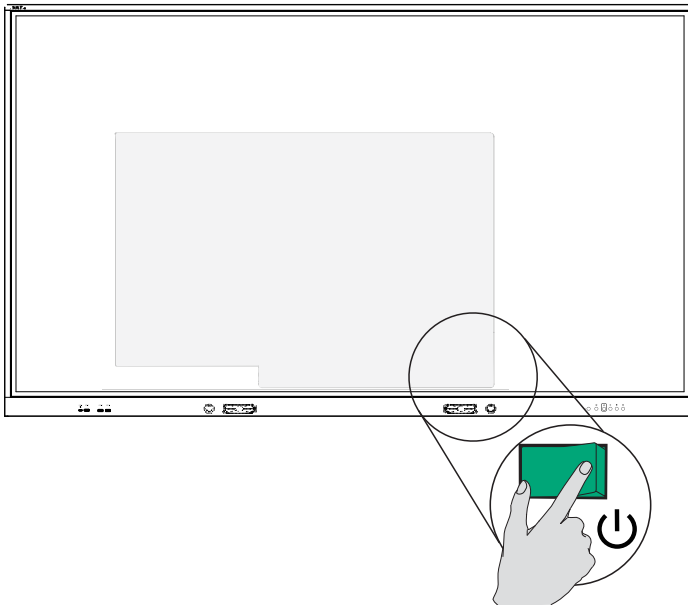
3. Select your preferred language, and then click the **Next** icon ➡.

4. Select the country location where you're installing the display. This helps to ensure the proper Wi-Fi frequencies for wireless networks are available. Click the **Next** icon ➡.

5. Select an Ethernet connection or wireless network. To add a hidden Wi-Fi network manually, click the **Add Network** icon ＋.

   (!) Important

   The display needs an internet connection for downloading and installing important updates. Ask the network administrator to verify that the display can access the network by making sure the display's built-in browser can access the internet.

6. Click the **Next** icon ➡.

7. Set the date, time and timezone, and then click the **Next** icon ➡.

    You can also enable the display's date and time to be set automatically.

    System on page 57

8. Set a password for the screen lock feature, and then click **Enter**.

    Ensure the screen lock passcode is made available to authorized users of the display. Users must enter the passcode to unlock the display's screen when the Screen lock feature is enabled.

    The display's setup procedures are complete.

Configuring the display's network settings

Use the procedures in this chapter to update network settings after turning on the display. The chapter describes:

-   Connecting to a Wi-Fi network

-   Configuring network proxy settings for a Wi-Fi network

-   Installing a digital network certificate for a Wi-Fi network

-   Connecting to an Ethernet network

-   Configuring a wireless hotspot

-   Connecting the display to a wireless hotspot

-   Adding a VPN connection

> **Note**
>
> When the display is connected to a network using Wi-Fi its Ethernet connection will be turned off (and vice versa).

To connect to a Wi-Fi network

1. On the Home screen, click the **Wi-Fi** icon 📶 in the top-right corner.

    OR

    On the Home screen, click the **Apps** icon ⬛ and then tap the **Settings** icon ⚙ > **Network** > **Wi-Fi**.

2. Turn the **Wi-Fi** switch on.

3. Select a wireless network.

    If the Wi-Fi network is not password protected, the display connects to the network.

    OR

    If the network requires a password, enter the Wi-Fi password and tap **Connect**. Options are also available for adding a certificate and accessing the advanced setting to configure Proxy and IP Settings.

Notes

- Click the Add Network icon ╋ to add a network manually.

- Click the More menu items icon ••• to access *Wi-Fi preferences* and see your MAC address, IP address, and install certificates.

To configure network proxy settings for a secured Wi-Fi network

To improve security and privacy, or to meet company policy, you can configure a secured network proxy for your Wi-Fi network.

1. On the Home screen, tap the **Apps** icon ▦ and then click the **Settings** icon ✿ > **Network** > **Wi-Fi**.

2. Toggle the **Wi-Fi** switch to on and tap a secured network.

3. Choose a Security option.

4. Type your network credentials (including a network password).

5. Ensure **Advanced settings** is selected.

6. Select options as required from the **Proxy** and **IP Settings** drop-down lists.

7. Click **Connect** to save the settings.

To install a digital network certificate for a Wi-Fi network

To improve security and provide assurance of network authentication, you can install an SSL (secure sockets layer) certificate in the display.

1. On the Home screen, tap the **Apps** icon ▦ and then click the **Settings** icon ✿ > **Network** > **Wi-Fi**.

2. Plug the USB drive that contains the SSL certificate into a USB port on the display.

3. Click the More menu items icon ••• > **Wi-Fi preferences** > **Install certificates**.

4. Browse to the certificate on the USB drive.

5. Select the certificate. The **Name the certificate** dialog opens.

6. Change the name of the certificate (optional), and remember the name.

7. Under **Credential use**, select **Wi-Fi**.

When you join Wi-Fi networks that require a certificate, you will have the option to select the installed certificate.

To connect to an Ethernet network

1. Connect an Ethernet cable to either of the RJ45 jacks on the display.

2. On the Home screen, click the **Ethernet** icon in the top-right corner.

   OR

   On the Home screen, click the **Apps** icon and then click the **Settings** icon > **Network** > **Ethernet**.

3. Toggle the **Ethernet switch** to on.

4. To obtain an IP address automatically, turn the **Obtain IP address automatically (DHCP)** switch on.

   OR

   Click **IP Address** and fill out the static network configuration options as necessary.

To configure a wireless hotspot

Notes

- The wireless hotspot feature is available when the display is connected to the network with an Ethernet connection.

- When the wireless hotspot is enabled, the display's Wi-Fi connection is disabled.

1. On the Home screen, click the **Apps** icon and then click the **Settings** icon > **Network** > **Hotspot**.

2. Toggle the **Hotspot** switch to on.

3. You can use the default Hotspot name and password or click the fields and enter your own.

4. Optionally, click the **Security** drop-down list and select a method of encryption.

5. If you selected Encryption, type a password in the *Password* text box. This password is required when users connect their devices to the wireless hotspot.

6. Select a bandwidth frequency (2.4 GHz or 5 GHz).

7. Click **Save**.

To connect to the display's wireless hotspot

1. On a computer or mobile device, view the list of available Wi-Fi networks and select the display's wireless hotspot.

2. Type the password for the display's wireless hotspot.

3. Connect to the display's wireless hotspot.

To add a VPN connection

1. On the Home screen, click the **Apps** icon and then click the **Settings** icon > **Network** > **VPN**.

2. Tap **Add VPN**.

3. Complete the following steps:

    ◦ Type the name of the VPN in the *Name* text box.

    ◦ Select a type of VPN from the *Type* drop-down menu.

    ◦ Type the server address in the *Server address* text box.

    ◦ You can select the *PPP encryption(MPPE)* checkbox to enable Microsoft Point-to-Point Encryption (MPPE).

    ◦ Type a user name and password.

4. Click **Save**.

Configuring the network for screen sharing

Network administrators need to configure the network so users can share their devices' screens when using the display's SMART Mirror app.

Use the following information to configure the network for screen sharing. This information applies when using AirPlay, Google Cast, Miracast, and SMART Mirror client apps to share.

> ⓘ **Important**
>
> SMART strongly recommends that you contact the network equipment manufacturer for more information about network configurations that support screen sharing.

For remote connections, the receiver and client devices need to be able to access the internet through these ports:

- TCP 80

- TCP 443

- UDP 53

- UDP 123 (Network Time Protocol)

Note

Even if the network is open, the ports listed above need to be open for SMART Mirror.

AirPlay

Enable the following ports for using AirPlay when screen sharing:

Port	TCP or UDP	Description
80	TCP	Outbound HTTP
443	TCP	Outbound HTTPS
554	TCP/UDP	Real Time Streaming Protocol (RTSP)
3689	TCP	Digital Audio Access Protocol (DAAP)
5353	TCP/UDP	Multicast DNS (mDNS)
7000	TCP	Picture sharing
7100	TCP	Display mirroring
7010	TCP	Display mirroring
7011	TCP	Display mirroring

Bonjour is the Apple standards-based network technology designed to help devices and services discover each other on the same network. Although Bonjour is most commonly used to discover services and devices on smaller networks, it can also be configured for use on larger networks by using a Bonjour gateway or similar technology. Networks using such features for AirPlay should be configured to advertise both `_airplay._tcp` and `_raop._tcp` services. Even though it's possible to use advanced DNS configurations for advertising some Bonjour services on enterprise networks, AirPlay requires live device discovery using the methods described in AirPlay discovery.

Google Cast

Enable the following ports for using Google Cast when screen sharing:

Port	TCP or UDP	Description
80	TCP	Outbound HTTP
443	TCP	Outbound HTTPS
1900	UDP	SSDP

Port	TCP or UDP	Description
5353	TCP/UDP	Multicast DNS (mDNS)
8008	TCP	Google Cast Discovery
8009	TCP	Google Cast Discovery

SMART Mirror client apps and web client app

Enable the following ports for using any of the SMART Mirror client apps and its web client app when screen sharing:

Port	TCP or UDP	Description
53	UDP	Outbound HTTP
80	TCP	Outbound HTTP
443	TCP	Outbound HTTPS
1–65535	TCP	The SMART Mirror client app selects and uses an available port.
1025–65535	UDP	The SMART Mirror client app selects and uses an available port.

When screen sharing over the internet with the SMART Mirror client app, the following fully qualified domain names (FQDNs) must be allowed in the firewall:

- smartmirror.link

- netcheck.joinmontage.com

- *.displaynote.com

If Layer 7 filtering or a proxy with protocol filtering has been applied to the ports above, then administrators will need to allow the following protocols:

- HTTP

- HTTPS

- DTLS

- XMPP

- Bonjour protocols for AirPlay and Google Cast

- SRTP

- DNS

- STUN

- TURN

- ICE

Chapter 3 **Connecting computers and other devices**

> ⚠ **Warning**
>
> Ensure that any cables that cross the floor to the display are properly bundled and marked to avoid a trip hazard.

Connecting room computers and guest laptops

If you install cables for room computers and guest laptops in advance, you can make use of connectors that might not be accessible after the display is mounted on the wall. You can then run the cables across floors or behind walls as needed.

> ⓘ **Important**
>
> - Always use the display's remote control to interact with the display when viewing input from a connected room computer or guest laptop on the display. Using the display's remote control ensures control of all the display's features (such as controlling the volume or returning to the Home screen).

- You can control a room computer or guest laptop connected to the display by using the connected computer's keyboard, mouse, touchpad, and so on.

Notes

- The USB Type-C connector on the front connector panel provides up to 15 W of power for charging connected devices.

The following are the locations of the connectors and the connector and cable information for the display's inputs.

- **USB Type-C 1**
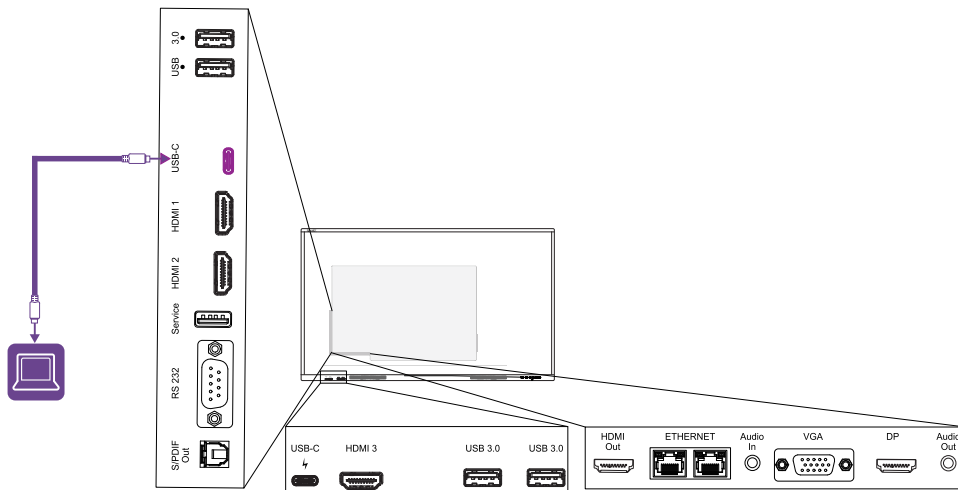
Connector	Standard	Connection type	Cable
USB Type-C 1	USB-C	Video/audio	SuperSpeed USB Type-C

- **USB Type-C 2**
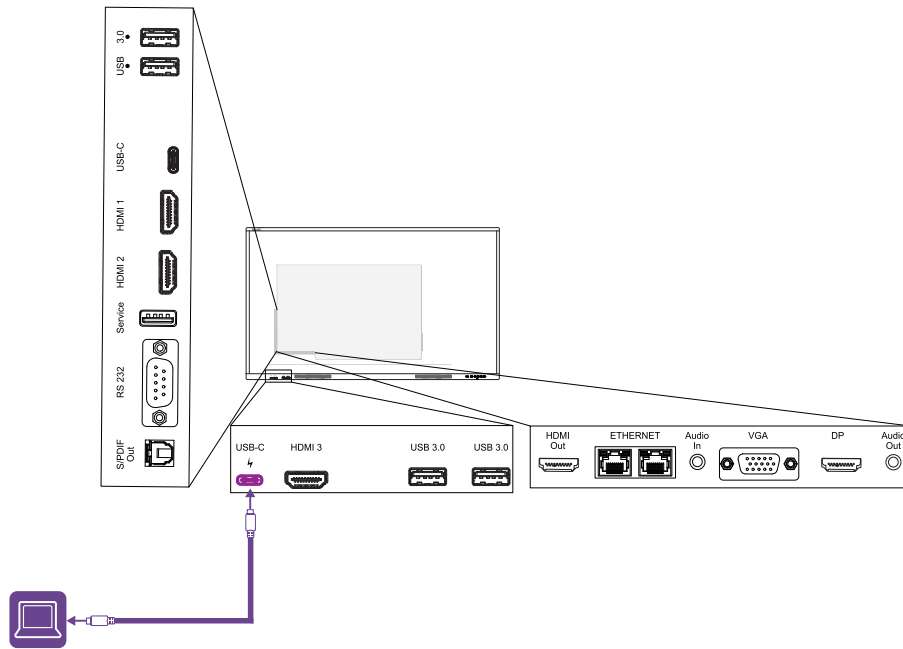
Connector	Standard	Connection type	Cable
USB Type-C 2	USB-C	Video/audio	SuperSpeed USB Type-C

- **HDMI 1**
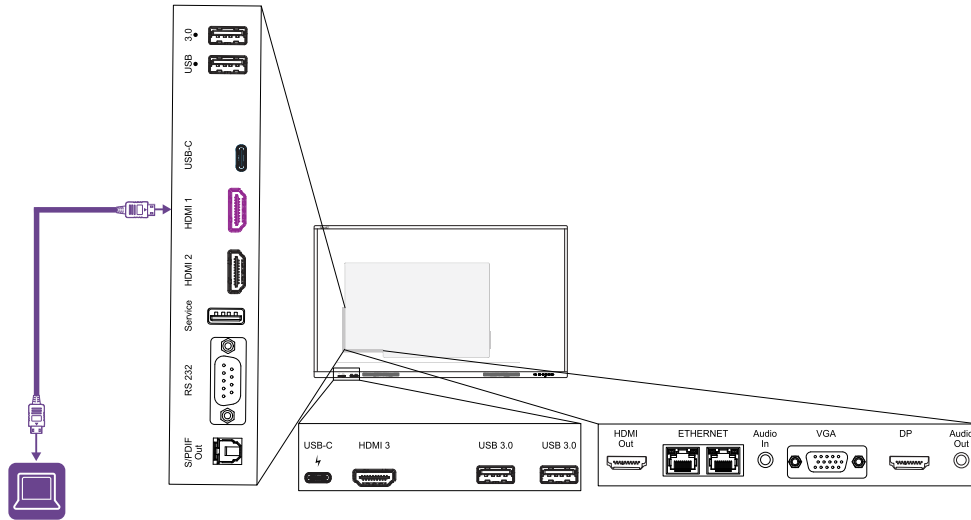
Connector	Standard	Connection type	Cable
HDMI 1	HDMI 2.0	Video/audio	Premium High Speed HDMI (18 Gbps)

- **HDMI 2**
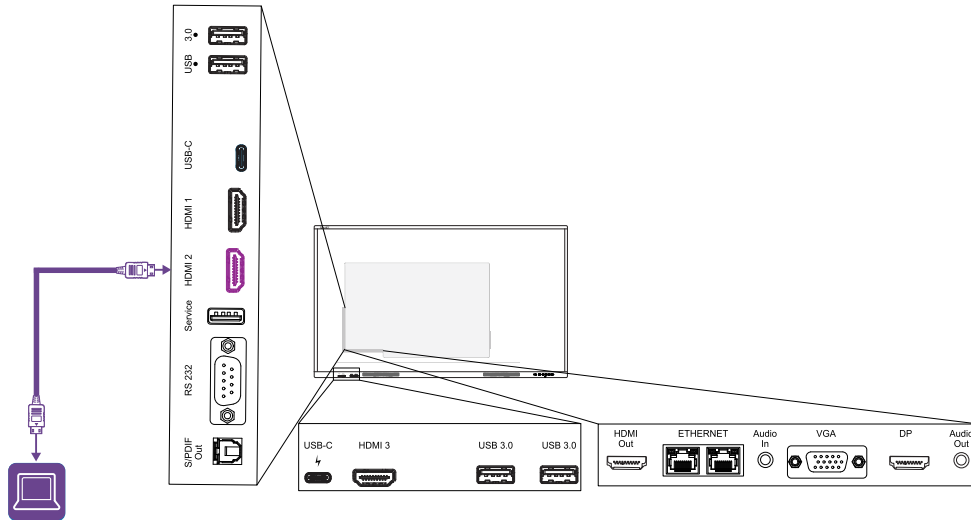
Connector	Standard	Connection type	Cable
HDMI 2	HDMI 2.0	Video/audio	<u>Premium High Speed HDMI (18 Gbps)</u>

- **HDMI 3**
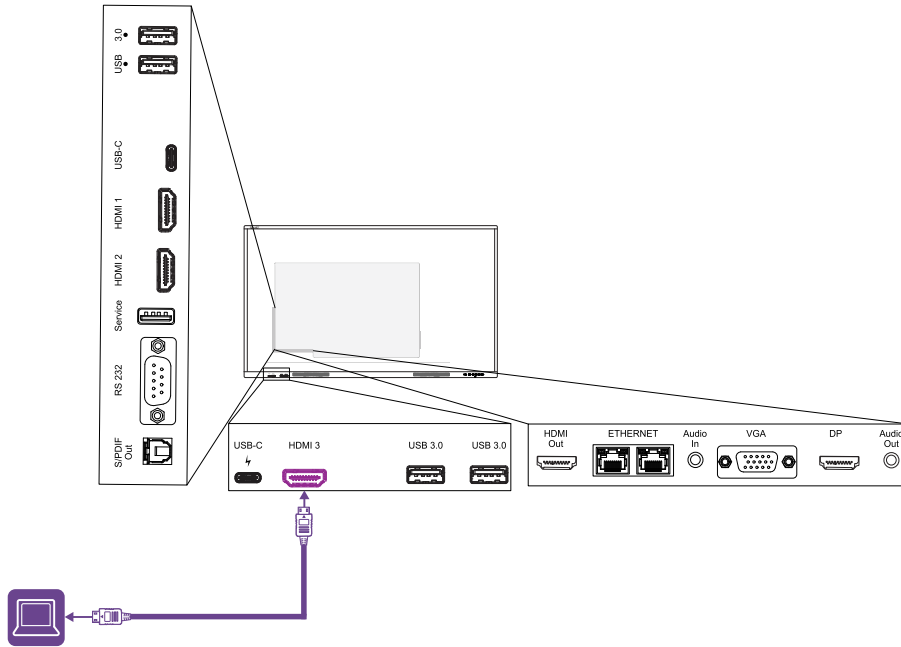
Connector	Standard	Connection type	Cable
HDMI 3	HDMI 2.0	Video/audio	Premium High Speed HDMI (18 Gbps)

- **Display Port**
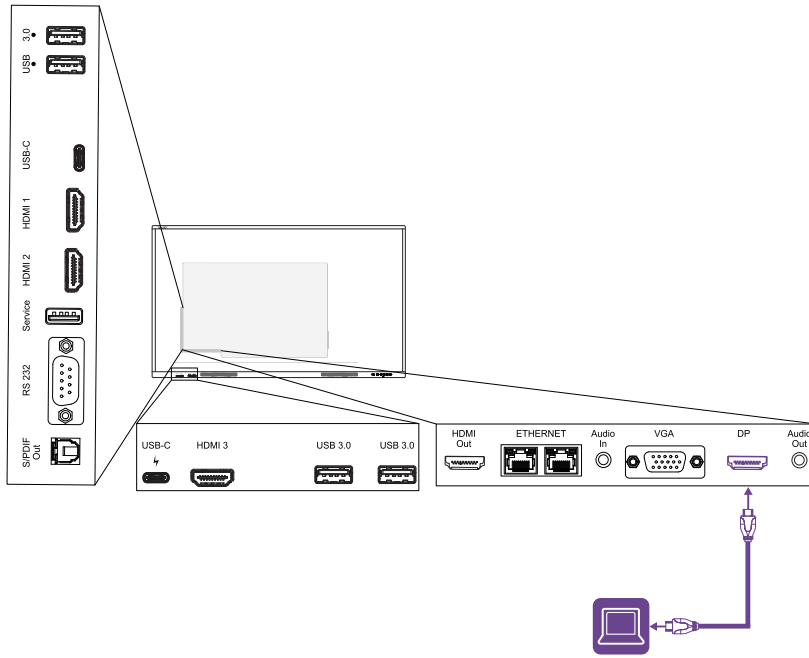
Connector	Standard	Connection type	Cable
Display Port	Display Port 1.2	Video/audio	Display Port

- **VGA**
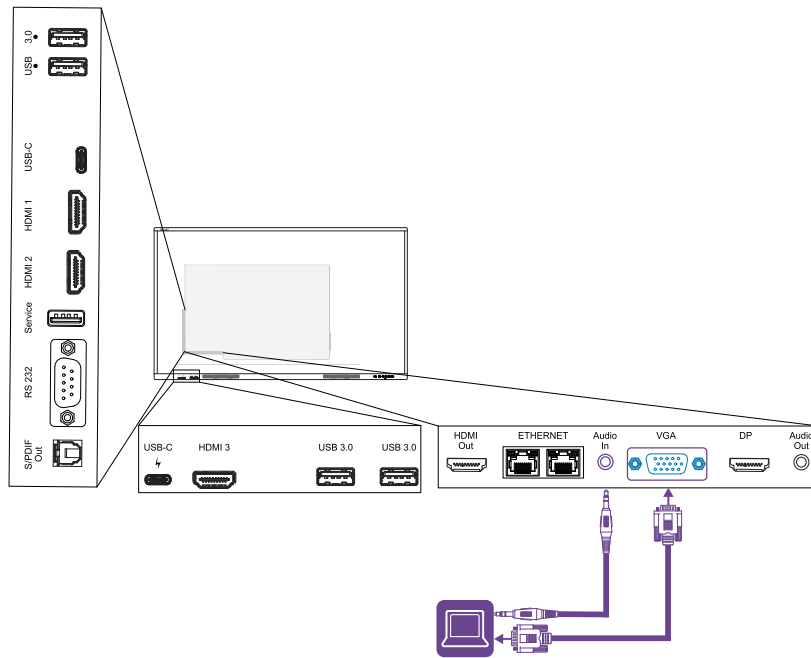
Connector	Standard	Connection type	Cable
VGA	VGA	Video	VGA
Audio In	Stereo 3.5 mm	Audio	Stereo 3.5 mm

⚠ **Caution**

You must connect the USB cable that came with the display to a computer that has a USB compliant interface and that bears the USB logo. In addition, the USB source computer must be compliant with IEC 62368-1. The source computer must be CE marked and carry safety certification marks for Canada and USA. This is for operating safety and to avoid damage to the display.

Viewing a connected computer or other device's input

1. Connect a device to the display's HDMI 1, HDMI 2, HDMI 3, USB Type-C 1, USB Type-C 2, Display Port, or VGA connectors.

2. Select the source using one of the following methods:

Using the Input settings menu	Using the remote control
Click the **Input** icon ➡️ on the Home screen.	Press the **Input** icon 🔲.

> **Note**
>
> A green circle ⭕ appears around the currently selected input (PC, Android™, HDMI1, HDMI2, HDMI3, Type-C1, Type-C2, DP, or VGA). Inputs with a connected source have a green dot beside the input name, rather than a gray dot. The input name also appears in green text rather than gray when an input is connected.

3. Click the computer's input or use the navigation keys on the remote control to select the source and then press the **OK** button.

   The device's output appears on the display's screen.

   > **Tip**
   >
   > You can rename inputs, enable or disable inputs , configure the display to turn on when an active video signal is connected, and automatically switch the input when an active video signal is connected.
   >
   > See ⌐ *Input and output* on page 54.

Setting a connected computer's resolution and refresh rate

This table presents the recommend resolutions and refresh rates for the display's inputs:

Input	Maximum resolution	Refresh rate
USB Type–C, Display Port Alternate Mode	3840 × 2160	60 Hz
HDMI 1[1]	3840 × 2160	60 Hz
HDMI 2	3840 × 2160	60 Hz
HDMI 3	3840 × 2160	60 Hz
VGA	1920 × 1080	60 Hz
Display Port	3840 × 2160	60 Hz
PC[2]	3840 × 2160	60 Hz

If possible, set connected computers to these resolutions and refresh rates. See the computers' operating system documentation for instructions.

---

[1]Located on the display's front connector panel.

[2]Input from an OPS PC module when installed in the display's accessory slot.

See also ⟩ support.smarttech.com/docs/resandrefreshrates

Using recommended cables

SMART recommends the following varieties of cable:

Cable type	Maximum length	Recommendation
Display Port	23' (7 m)3	Use only certified Display Port 1.4 cables that have been tested to support the performance standard you require.
HDMI	23' (7 m)	Use only certified Premium High-Speed HDMI (18 Gpbs) cables that have been tested to support the performance standard you require.
VGA	23' (7 m)	Use VGA cables with all pins in their connectors fully populated and wired.
Stereo 3.5 mm	20' (6 m)	Use only shielded 3.5 mm cables ⓘ **Important** Use only a 3.5 mm stereo jack (15 mm long barrel) to connect to the display.
USB 2.0	16' (5 m)	Use a Hi-Speed USB 2.0 USB extender if the distance between the computer and the display is greater than 16' (5 m).
USB 3.0	9' (3 m)	SMART supports only installations that use directly connected video and USB cables, or AC-powered extenders. You might be able to use higher-grade cables that exceed the recommended length. If you have problems with such a cable or an extender of any type, test the connection with a shorter cable before contacting SMART Support.

3The performance of cables longer than 23' (7 m) is highly dependent on the cable's quality.

Cable type	Maximum length	Recommendation
USB Type-C	6' 6" (2 m) for SuperSpeed 5Gbps cables	USB-IF certified USB 3.2 Gen 1 Type-C cable, SuperSpeed (5 Gbps) support To use a USB Type-C cable for video, you need: • A full-featured cable that supports SuperSpeed 5Gbps (or faster) data rates. • A computer that supports Display Port Alternate Mode via USB Type-C **Note** The USB Type-C connector on the display can supply up to 15 W of power to connected devices.

Using cables that exceed these maximum lengths may produce unexpected results, intermittent loss of picture, or degraded picture quality and USB connectivity.

Installing SMART OPS appliances

The display includes an OPS accessory slot in which your organization can install a SMART OPS appliance:

- SMART OPS PC

- SMART AMG1

Note

To interact with a SMART OPS appliance installed in the OPS accessory slot, connect a keyboard and mouse to the USB Type-A receptacles on the display's front or side connector panels.

See ⌐ *Connecting peripherals* on page 39

⚠ **Caution**

- The accessory slot's maximum available power is 90 W. The slot is not a limited power source. To reduce the risk of fire, make sure that accessories connecting to the slot satisfy the fire enclosure requirements of IEC 62368-1.

- Only SMART-provided OPS appliances are supported in SMART Board displays. Third-party OPS appliances are not supported, and their use can lead to poor performance or damage to the display.

- Do not install or remove the+ OPS appliance while the display is turned on. First make sure the power switch on the back of the display beside the AC power inlet is in the OFF (O) position. If you can't reach the power switch, use the front control panel's power button ⏻ to put the display in Standby mode, and then unplug the display's power cable from the power outlet.

- After you have turned the display's power switch off or unplugged it, wait at least 30 seconds before removing the appliance to allow its internal power supplies to discharge completely. You might also wait five minutes to give the appliance the opportunity to cool, if necessary.

- Make sure the OPS appliance is secured to the display with screws through the two anchor points. Inadequately secured appliances can damage the display. (An OPS appliance's anchoring screws are typically captive, although some simply include separate anchoring screws.)

Connecting other devices

In addition to computers, you can connect a variety of other devices to the display:

- USB peripherals
- External displays
- External audio systems
- Room control systems

Connecting peripherals

> **Note**
>
> The SMART Board NX series displays provide limited support for USB drives. For example, you can use a connected USB drive to install an SSL certificate for wireless network access, but the display doesn't include a file manager for copying files to or from a USB drive.

The display includes two USB 3.2 Gen 1 Type-A receptacles on the front connector panel and two USB 3.2 Gen 1 Type-A receptacles on the side connector panel. You can connect peripherals (such as keyboards), and other devices to the USB 3.2 Gen 1 Type-A receptacles and use these devices with the display's embedded OS or OPS slot computer. The display's USB 3.2 Gen 1 Type-A receptacles will switch to the active input.
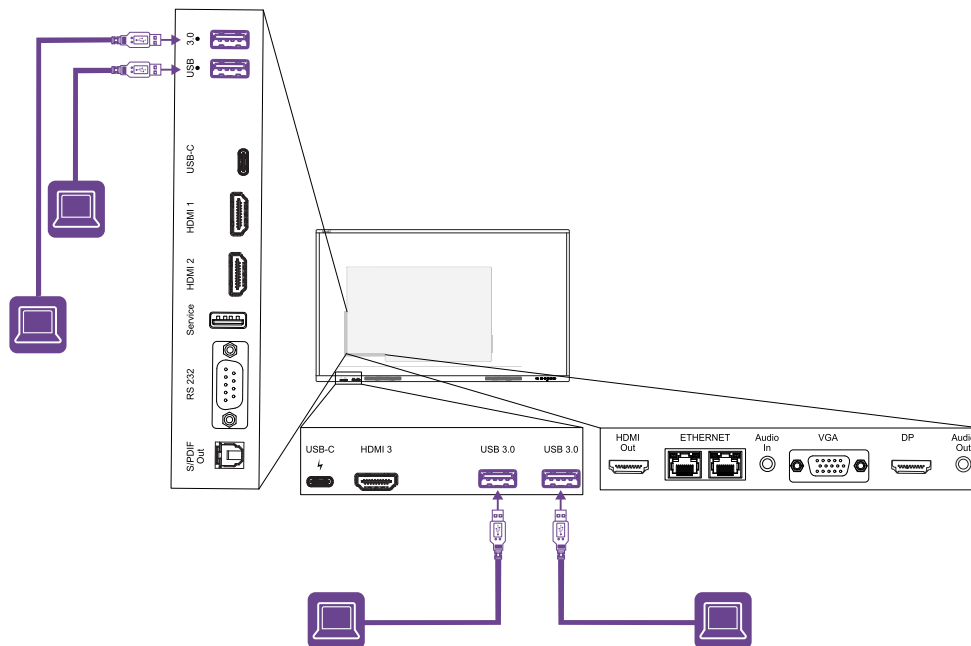
Connecting an external display

You can connect an external display using the HDMI 2.0 out connector on the connector panel.

The external display shows the same image as the display. This is useful when you're using the display in an auditorium or other large space where a second display would be beneficial.
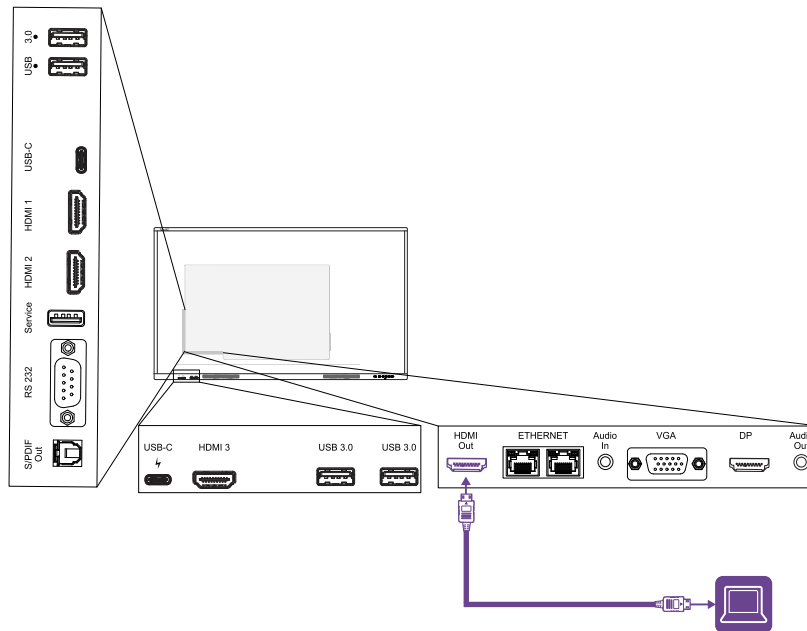
> **(!) Important**
>
> If the connected external display doesn't support High-bandwidth Digital Content Protection (HDCP), no image will appear on the external display. For full resolution output, connect a display that supports HDCP.

> **Note**
>
> The display's default output resolution is 4K (3840 × 2160). The output resolution can also be set to 1080p 60Hz in display settings.
>
> See ⟩ *Input and output* on page 54.

Connecting an external audio system

The display includes two 20 W speakers, which are designed to provide sound at the front of a room. You might want to connect a third-party external audio system if you're providing sound in a larger space.

You can connect an external audio system to the display using the stereo 3.5 mm out connector (pictured). You can also connect an external audio system directly to a room computer.
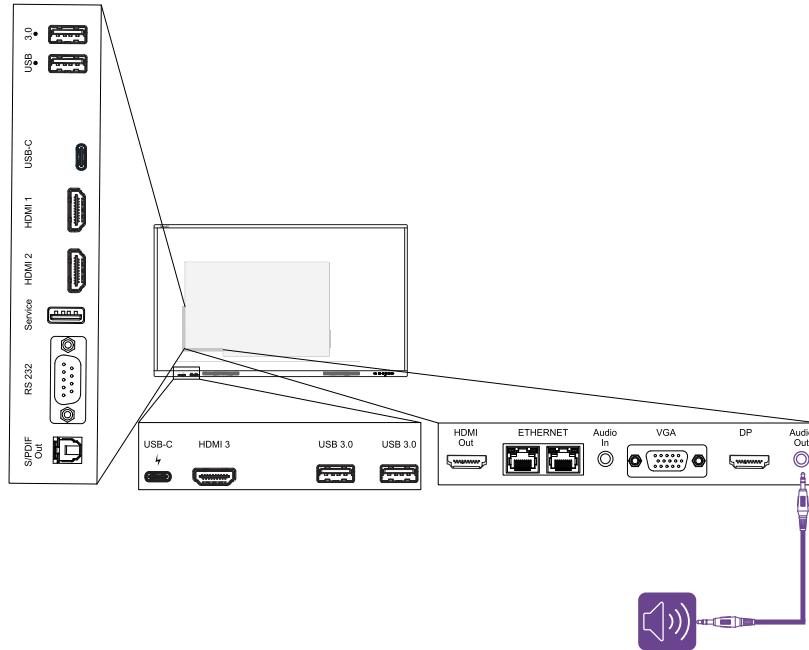
Use of an external audio system must be enabled in display settings.

See › *Input and output* on page 54.

> ⓘ **Important**
>
> Use a 3.5 mm stereo jack (15 mm long barrel only) to connect to the display's stereo 3.5 mm Out connector.

> **Note**
>
> You can use the display's volume controls to adjust the volume of an audio system connected to the display's stereo 3.5 mm Out connector.

In addition to the stereo 3.5 mm out connector, the display also provides a Sony/Philips Digital Interface (S/PDIF) Out connector (pictured). S/PDIF is a digital audio transmission medium. You need an audio receiver that supports S/PDIF to use this connection with an external sound bar or other audio system.
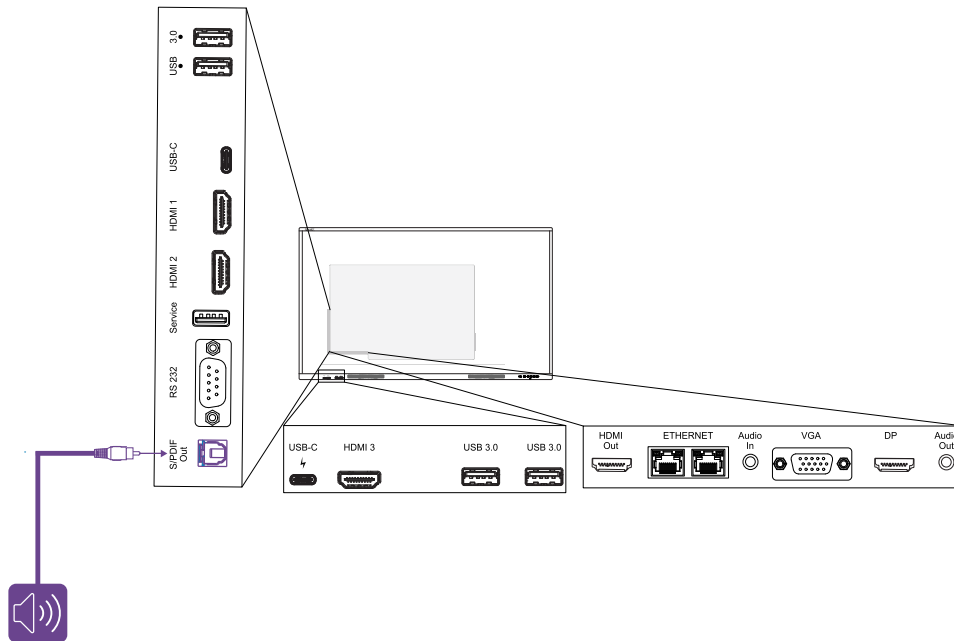
Note

When you connect an audio system to the display's S/PDIF Out connector, the audio system's volume controls, rather than the display's, adjust the volume.

Connecting room control systems

A room control system enables users to control a room's lighting, audio system, and possibly, the display. Some installations may require you to integrate the display with a room control system.

You can use the display's RS-232 connector to connect a third-party external control system to the display.

See

Note

Displays are not compatible with centralized remote control systems, such as a universal remote control.

Connector diagrams

Side and bottom connector panels

This diagram and table describe the connectors on the display's connector panel:

No.	Connector	Connects to	Notes
1	USB 3.2 Gen 1 Type-A	Supported peripherals	See > *Connecting other devices* on page 39
			See > USB cables and connectors
			The connector will switch to the active input, including the display's embedded OS, the OPS slot computer, or an external computer.
			Note
			Connect a USB mouse to navigate the display's on-screen menu during troubleshooting.

No.	Connector	Connects to	Notes
2	USB 3.2 Gen 1 Type–A	Supported peripherals	See › *Connecting other devices* on page 39 See › USB cables and connectors The connector will switch to the active input, including the display's embedded OS, the OPS slot computer, or an external computer. **Note** Connect a USB mouse to navigate the display's on–screen menu during troubleshooting.
3	USB 2.0 Type–C	USB Type–C 1 input (supported video, and audio)	See › *Connecting other devices* on page 39 See › USB cables and connectors The connector will switch to the active input, including the display's embedded OS, the OPS slot computer, or an external computer.
4	HDMI 2.0	HDMI 1 input (video and audio)	See › *Connecting room computers and guest laptops* on page 27
5	HDMI 2.0	HDMI 2 input (video and audio)	See › *Connecting room computers and guest laptops* on page 27
6	USB 2.0 Type–A	N/A	This connector is a service port (connects to the embedded OS).
7	RS–232	Room control system	See › *Appendix C Managing the display using RS–232* on page 69 See › RS–232 cables and connectors
8	S/PDIF Out	Digital audio output	See › *Connecting an external audio system* on page 40 See › Digital audio cables and connectors
9	HDMI 2.0 out	External display	See › *Connecting an external display* on page 40

No.	Connector	Connects to	Notes
10	RJ45 (×2)	Network N/A	See › *Connecting to a network* on page 15 See › Ethernet (network) cables and connectors N/A
11	Audio in (stereo 3.5 mm)	VGA input (audio)	Use this audio input with Stereo 3.5 mm in. See › *Connecting room computers and guest laptops* on page 27 See › Analog audio cables and connectors
12	VGA in	VGA input (analog video)	Use this video input with analog video sources (VGA). See › *Connecting room computers and guest laptops* on page 27 See › Analog audio cables and connectors
13	Display Port 1.2	Display Port 1.2 input (video and audio)	See › *Connecting room computers and guest laptops* on page 27 See › Display Port cables and connectors
14	Audio out	External audio system	See › *Connecting an external audio system* on page 40 See › Analog audio cables and connectors

Front connector panel

This diagram and table describe the connectors on the display's front connector panel:

No.	Connector	Connects to	Notes
1	USB 2.0 for the embedded OS and OPS slot computer USB 3.2 Gen 1 for peripherals	USB Type–C 2 input (video, and audio)	See › *Connecting other devices* on page 39 See › USB cables and connectors The connector will switch to the active input, including the display's embedded OS, the OPS slot computer, or an external computer. **Note** The USB 3.2 Type–C connector can also provide 15 W of power to connected devices.
2	HDMI 2.0 in	HDMI 3 input (video and audio)	See › *Connecting room computers and guest laptops* on page 27 See › HDMI cables and connectors.
3	USB 3.2 Gen 1 Type–A	Peripherals	See › *Connecting other devices* on page 39 See › USB cables and connectors The connector will switch to the active input, including the display's embedded OS, the OPS slot computer, or an external computer.
4	USB 3.2 Gen 1 Type–A	Peripherals	See › *Connecting other devices* on page 39 See › USB cables and connectors The connector will switch to the active input, including the display's embedded OS, the OPS slot computer, or an external computer.

Chapter 4 **Updating system firmware**

The display checks for firmware updates automatically when its turned on, provided the display is connected to the internet and the *Disable system updates* setting is disabled (see *System* on page 57). The display notifies you when a firmware update is available.

To make sure the network is configured properly for firmware updates, see *Network* on page 50.

Applying a firmware update

To apply a firmware update

1. After turning on the display, a dialog appears on the screen asking if you want to update the display's firmware.

2. Click **OK** to update the display's firmware.

   > **Note**
   >
   > The display may restart a number of times when a firmware update is applied.

   OR

   Click **Cancel** to update the firmware later.

To apply a firmware update from settings

1. On the Home screen, click the **Apps** icon and then click the **Settings** icon > **System** > **System update** > **Check for update**.

   A message lets you know whether an update is available.

2. If an update is available and you'd like to apply it, click **OK**. The display applies the firmware update automatically after a short time.

   > **Note**
   >
   > The display may restart a number of times when a firmware update is applied.

Chapter 5 **Troubleshooting**

Troubleshooting the display and related SMART products

The Support section of the SMART website includes information about resolving a variety of common problems with the display and related SMART products.

support.smarttech.com/docs/nxtroubleshooting

Contacting your reseller for additional support

If an issue you're experiencing with the display persists or isn't addressed in this chapter or the knowledge base, contact your authorized SMART reseller (smarttech.com/where) for support.

Your reseller might ask you for the display's serial number. The serial number is on a label on the left side of the display.
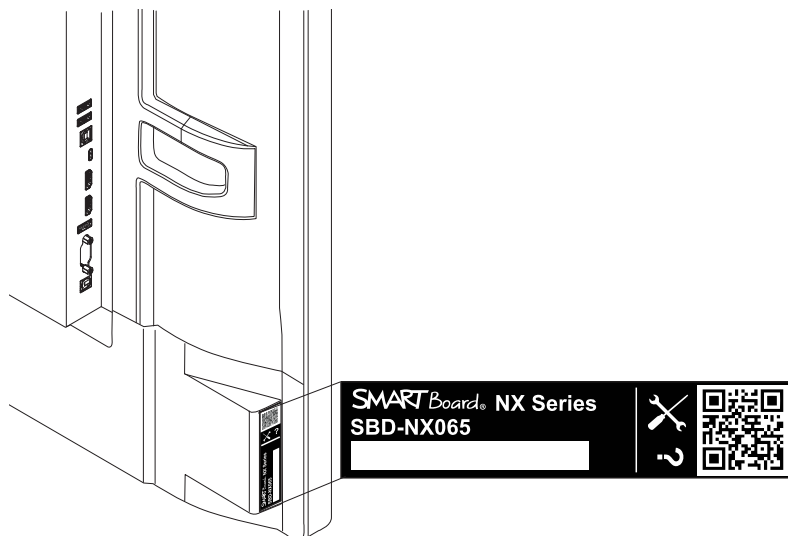
> **Tip**
>
> Scan the QR code on the label to view the SMART Board NX series display support pages on the SMART website.

Appendix A **Adjusting display settings**

Accessing the display's settings

You can access the display's settings from the Home screen by clicking the **Settings** icon ⚙. You can also press the **Settings** button ⚙ on the remote control.

> **Note**
>
> If the display's input is set to its Android system and you access the display's settings while viewing input from a connected computer, an input settings dialog appears rather than the main display settings.

The Settings dialog includes the following menu options:

Setting	Function	Notes
Network	Configure network and Wi-Fi settings.	See ⟩ *Network* on the next page.
Personalization	Select the wallpaper that appears in the background, configure swipe-up menu options, enable muti-window mode, icon labels, and toolbar display options.	See ⟩ *Personalization* on page 53.

Setting	Function	Notes
Input and output	Enable touch sounds, select output devices for sound, name input devices, configure external source display settings, and more.	See ＞ *Input and output* on page 54.
Applications	See which applications are installed, check their permissions and storage, and more.	See ＞ *Applications* on page 56.
System	Configure system settings including the displayed date and time, keyboard language, lock screen password, startup and shutdown options, adding an email account, file storage options, system update options, and more.	See *System* on page 57. **Note** If the system settings lock is enabled, only admins who have the settings passcode can access the system settings. See ＞ *Settings lock password* on page 59.
Regulatory Information	See an electronic (e-label) version of the NX display's regulatory information.	See ＞ *Regulatory Information* on page 62.
About	View information about the display.	See ＞ *About* on page 62.

Exiting the display's settings

Press the **Home** 🏠 button on the front control panel.

Network

Option	Values	Function	Notes
▶ Wi-Fi			
● Wi-Fi	On Off	Enables or disables connections to Wi-Fi networks.	Turn on Wi-Fi to discover networks.
● Select a network	N/A	Shows information about available Wi-Fi networks.	The display automatically reconnects to a previously connected network unless that connection is removed using *Forget*.

Option	Values	Function	Notes
• ╋ icon (Add network)	Network name Security Advanced Settings	Manually connect to a hidden wireless network.	For the network you're connecting to: • Add the SSID. • Select a security protocol and password. • Adjust additional advanced settings, such as Proxy and DHCP settings.
• ••• icon (Wi-Fi preferences)			
• Install certificates	N/A	Installs an SSL certificate for wireless network access.	N/A
• MAC Address	N/A	Shows the unique media access control (MAC) address for the display's Wi-Fi.	N/A
• IP Address	N/A	Shows the Internet Protocol (IP) address currently assigned to the display's Wi-Fi network interface.	N/A
▸ Ethernet			
• Ethernet	On Off	Enables or disables the display's Ethernet network connection. **Note** Turning on the Ethernet connection will turn off the display's Wi-Fi connection.	N/A
• MAC address	N/A	Shows the unique media access control (MAC) address for the display's Ethernet interface.	N/A
• Obtain IP address automatically	On Off	Enables the display to obtain an IP address automatically (DHCP).	When the *Obtain IP address automatically* is disabled, you can change the currently assigned network settings.
• IP address	N/A	Shows the Internet Protocol (IP) address currently assigned to the display's Ethernet network interface.	N/A
• Default gateway	N/A	Information displayed by a router.	N/A
• Netmask	N/A	Information displayed by a router.	N/A
• DNS 1	N/A	Information displayed by a router.	N/A
• DNS 2	N/A	Information displayed by a router.	N/A
• Proxy	None Manual Automatic proxy configuration	N/A	When *Proxy* is set to *Manual*, additional settings appear for entering the *Proxy hostname* of the proxy server, *Proxy port*, and *Bypass proxy for:*.

Option	Values	Function	Notes
▶ Hotspot			
● Hotspot	On Off	Enables or disables the display's Wi-Fi hotspot. **Note** Turning on the Wi-Fi hotspot will turn off the display's Wi-Fi connection.	The display must be connected to an Ethernet network to provide a Wi-Fi hotspot. **Note** The display's Wi-Fi connection will be disabled when providing a Wi-Fi hotspot.
● Hotspot settings	N/A	Enables configuration of the display's hotspot settings.	N/A
● Hotspot name	N/A	Sets the hotspot name.	Keep the default hotspot name or use the display's on-screen keyboard to type a new one.
● Security	None WPA2 PSK	Set an encryption method for the display's Wi-Fi hotspot.	WPA2-PSK is the preferred security option.
● Password	N/A	Set a password for the display's Wi-Fi hotspot.	Use the display's pop-up keyboard to type a password.
● Frequency	2.4 GHz 5 GHz	Set a frequency band for the display's Wi-Fi hotspot. If *5 GHz* is not selected, a default frequency band of *2.4 GHz* is used.	The display's *5 GHz* and *2.4 GHz* Wi-Fi hotspot frequency bands are not available simultaneously.
▶ Bluetooth			
● Bluetooth	On Off	Enable or disable the display's Bluetooth.	Turn on Bluetooth to view available Bluetooth devices.
● Available devices	N/A	Shows a list of paired Bluetooth devices, their connection status, and a list of available Bluetooth devices.	Choose a paired device to disconnect or forget the device.
● ••• icon (more options)	Rename this display Show received files	N/A	N/A
▶ VPN			
● VPN switch	On Off	Enable or disable use of a virtual private network (VPN) service with the display.	N/A
● Add a VPN profile	N/A	Create a VPN connection profile.	N/A
● Name (profile name)	N/A	Sets the VPN name.	N/A
● Type	[Encryption type]	Set an encryption method for the display's VPN connection.	N/A
● Server address	N/A	Enter the fully qualified domain name (FQND) for the VPN server.	N/A

Option	Values	Function	Notes
• PPP encryption (MPPE)	On Off	Enables encryption for the VPN.	N/A
• Username	N/A	Set user name for the VPN.	N/A
• Password	N/A	Set a password for the display's VPN.	N/A
• Advanced options	N/A	Set advanced VPN configuration options.	The availability of these options is dependent on the type of VPN selected.
• Always-on VPN	On Off	Configures the VPN to be constantly enabled.	The availability of this option is dependent on the type of VPN selected.
▶ Samba Service			
• Samba switch	On Off	Enable or disable the display's Samba service.	Allows the display to communicate with Windows computers across a network.
• Sign in settings	N/A	User credentials for the Samba service.	N/A

Personalization

Option	Values	Function	Notes
• Wallpaper	N/A	Select the wallpaper that appears in the background.	3840 × 2160 images work best.
• Multi-window mode	On Off	Enables or disables the ability to display more than one app at the same time.	N/A
• Display icon labels	On Off	Show or hide the text labels that identify the icons in the side toolbar.	N/A
• Hide toolbar after:	5 seconds 15 seconds 30 seconds 1 mins 5 mins Always	Sets the time the side and bottom toolbars and Common settings window remain visible before being hidden.	N/A

Input and output

Option	Values	Function	Notes
▸ **Sound**			
• Mouse sounds	On Off	Enables or disables sounds that accompany mouse interactions with the display's screen.	N/A
• Audio output settings	Speaker Lineout Mixed	Choose whether the display's audio goes to the display's built-in speakers or to an optional external sound system.	This setting switches to *Lineout* when a 3.5 mm audio cable is plugged into the Audio Out connector on the bottom-rear connector panel. If *Mixed* is selected, the display's audio is sent to an external sound system if one is connected. Otherwise, audio output goes to the display's internal speakers.
▸ **Input settings**			
• Rename/Enable inputs	N/A	Enables renaming and disabling individual inputs on the display.	N/A
• Enable input renaming	On Off	Enables renaming of individual inputs on the display. **Note** An input name changes from gray to green when it's editable.	N/A
• PC	On Off	Enables or disables the video input in the display's OPS expansion slot.	This option is available when an OPS PC module is installed in the display's accessory slot.
• Android	On Off	Enables or disables the in-built Android system software.	N/A
• HDMI1	On Off	Enables or disables the HDMI 1 video input on the side connector panel.	N/A
• HDMI2	On Off	Enables or disables the HDMI 2 video input on the side connector panel.	N/A
• HDMI3	On Off	Enables or disables the HDMI 3 video input on the front connector panel.	N/A
• DP	On Off	Enables or disables the Display Port video input on the bottom connector panel.	N/A
• VGA	On Off	Enables or disables the analog VGA input on the bottom connector panel.	N/A

Option	Values	Function	Notes
• Type-C1	On Off	Enables or disables the USB Type-C input on the side connector panel.	N/A
• Type-C2	On Off	Enables or disables the USB Type-C video input on the front connector panel.	N/A
• CEC	On Off	Enables or disables Consumer Electronic Control functions for HDMI video inputs.	HDMI-CEC (Consumer Electronics Control) is a feature of the HDMI standard that allows connected devices to communicate. Enabling the feature allows the display's physical controls and remote control to interact with a CEC-capable device connected to the display with HDMI, such as a DVD player or media device. It also allows the connected device to control the display. **Note** The degree of support for CEC varies among devices, so the features that can be controlled also varies, depending on the device connected to the display.
• Wake on active source	On Off	Enables the display to be turned on by connecting an active video signal to the display.	N/A
• Switch to active input automatically	OFF ON SELECT	Automatically switches the input when an active video signal is connected to the display, or displays a user-notification.	N/A
• No signal power off	1 minutes 3 minutes 5 minutes 30 minutes 45 minutes 60 minutes (disabled)	Sets the number of minutes before the display goes into an energy saving mode when no video signal is detected.	N/A
▶ **External source display settings**			
• HDMI OUT format	3840 × 2160_60HZ 1080P_60HZ	Sets the HDMI out resolution.	Ensure the device that receives the display's HDMI out signal matches the selected output resolution. For best results, make sure the device that receives the display's HDMI out signal uses the same resolution settings as the display.

Option	Values	Function	Notes
• Advanced HDMI settings	N/A	Set the HDMI-EDID version for individual digital video inputs. **Note** HDMI 2.0 is the default.	When HDMI 1.4 is selected, the display presents itself as an HDMI 1.4 compliant device with a video resolution limit of 3840 × 2160 @ 30Hz. When EDID 2.0 is selected, the display presents itself as an HDMI 2.0 compliant device with a video resolution limit of 3840 × 2160 @ 60Hz. **Note** This setting can be applied differently to each digital video source.
• PC	HDMI 1.4 HDMI 2.0	N/A	This option is available when an OPS PC module is installed in the display's accessory slot.
• HDMI1	HDMI 1.4 HDMI 2.0	N/A	Side connector panel.
• HDMI2	HDMI 1.4 HDMI 2.0	N/A	Side connector panel.
• HDMI3	HDMI 1.4 HDMI 2.0	N/A	Front connector panel.
• DP	HDMI 1.4 HDMI 2.0	N/A	Bottom connector panel.
• TYPE_C1	HDMI 1.4 HDMI 2.0	N/A	Side connector panel.
• TYPE_C2	HDMI 1.4 HDMI 2.0	N/A	Front connector panel.

Applications

Option	Values	Function	Notes
▸ **Applications**			
• For each application	N/A	N/A	N/A
• Disable	N/A	Disable the app.	N/A
• Force Stop	N/A	Temporarily stop the app from running in the background.	The app will start running again next time its opened.
• App Notifications	On Off	Prevent all apps from providing a pop-up message on the screen.	N/A

Option	Values	Function	Notes
• Permissions	N/A]	Change permissions for the apps installed on the display, such as what an app is permitted to do and access.	N/A
• Storage	N/A	Provides information about the amount of storage an app is using, such as app size, user data, and cache.	N/A
• Open by default	N/A	Set an app's open prompt or clear the app's default settings.	N/A
• Memory	N/A	View an app's memory usage.	N/A
• Advanced	N/A	N/A	N/A
• Install unknown apps	N/A	This feature is disabled by default. ⚠ **Caution** SMART cannot accept liability for damages to the display or your personal data that might result from the installation of apps from unknown sources.	Third-party apps cannot be installed when this feature is disabled.
• Modify system settings	On Off	Allows an app to modify system settings. **Note** This feature is not available for most apps.	N/A
• ••• icon (additional settings)	N/A	N/A	N/A
• Show System	N/A	Only third-party apps and desktop apps only are displayed by default. Enabling this option displays the rest of the Android system.	N/A
• Reset app preferences	N/A	Restore the default preferences of all applications.	N/A

System

Option	Values	Function	Notes
▸ **Date and time**			
• Use 24-hour format	On Off	Shows the display's time using the 24-hour clock.	Default setting is Disable and shows a 12-hour clock.

Option	Values	Function	Notes
• Automatic date and time	On Off	Sets the display's date and time automatically.	This is based on your region and time zone settings. The display synchronizes with network time servers on the internet. When *Automatic date and time* is disabled, options are available for manually setting the date, time, date format, and time zone.
• Date format	[Date formats]	Sets the display's date format.	The default date format is MM/DD/YYYY.
• Time zone	[Time zones]	Sets the display's time zone.	N/A
▶ **Language and keyboard**			
• Languages	[Languages]	Sets the language for the display.	N/A
• Keyboard	N/A	Enables you to choose which of the installed keyboards and input methods are active.	N/A
• Virtual keyboard	N/A	Sets the on-screen keyboard options.	N/A
• Android Keyboard (AOSP)	On Off	Enables the Android Keyboard (AOSP) on-screen keyboard.	Clicking the enabled keyboard provides additional options, including options to set the keyboard language, appearance, layout, and other advanced settings.
• Google Pinyin Keyboard	On Off	Enables the Google™ Pinyin Keyboard on-screen keyboard.	Clicking the enabled keyboard provides additional options, including options to set the keyboard language, appearance, layout, and other advanced settings.
• Physical keyboard	[Physical keyboard options]	Sets the physical keyboard options.	N/A
▶ **Region**			
• Region	[Country/regions]	Sets the display's country or region.	Switching the region changes some of the display's behavior, such as the Wi-Fi network channels available for use in that region.
▶ **Password**			
• Lock-screen password		Access options for configuring the lock screen password.	N/A
• Clear password	N/A	Clears the lock screen password.	N/A
• Set password	N/A	Set a lock screen password.	This option is available when an existing password has been cleared.

Option	Values	Function	Notes
• Change password	N/A	Change the four-digit lock screen password.	The passcode is set when turning on the display for the first time. ⓘ **Important** The display's *Screen lock* feature is enabled only when a passcode is set.
• Settings lock password		Access options for configuring the settings lock password.	N/A
• Clear password	N/A	Clears the settings lock password.	N/A
• Set password	N/A	Set a password to access certain settings.	The Settings Lock Password is not the same as the user's Lock Screen Password.
• Change password	N/A	Change the four-digit settings lock password.	N/A
▸ **Startup and shutdown**			
• Startup input	N/A	Options for configuring startup and shutdown settings.	N/A
• Startup input	Last shutdown input PC Android HDMI1 HDMI2 HDMI3 Type-C1 Type-C2 DP VGA	Select which input source is selected on startup. Disabled inputs will not appear in the list.	By default, the input source active at the last shutdown is the selected startup input. The *PC* option is available when an OPS PC module is installed in the display's accessory slot.
• Enter Ready mode after startup	On Off	Enables or disables whether the display enters Ready mode after starting.	When enabled, the display enters Ready mode after starting and no image is displayed on the screen. Pressing the power or home buttons will wake the display.
• Wake On LAN	On Off	Enables or disables waking the display when it receives a Magic Packet via the network. **Note** The display's power consumption may increase when *Wake On LAN* is enabled.	N/A

Option	Values	Function	Notes
• Timer Switch	N/A	Options for configuring timer switch settings.	User-configured startup and shutdown tasks will be listed at the bottom of this section, where you can adjust or delete them individually.
• Power-off reminder	On Off	Enables or disables a countdown reminder that appears before the display begins shutting down.	N/A
• Add startup task	[Time and date options]	Add a scheduled startup task.	N/A
• Add shutdown task	[Time and date options]	Add a scheduled shutdown task.	N/A
▸ **Lock control**			
• Lock control	N/A	N/A	N/A
• Remote lock	On Off	Enables or disables the buttons on the display's remote control. (The power button is always enabled.)	N/A
• Keypad lock	On Off	Enables or disables button functionality on the display's front control panel.	N/A
• Wake lock	On Off	Enables or disables a lock screen that appears when the display wakes from ready mode.	ⓘ **Important** • The display's *Screen lock* feature must be enabled before you can enable the *Wake lock* feature. See ˃ *Set password* on page 58 • A lock screen will only appear when the display wakes from ready mode and not when turned on. Press the power button on the front control panel to put the display in Ready mode or to wake the display.
▸ **Pixel shift**			
• Pixel shift	Off Interval 2 mins Interval 3 mins Interval 5 mins Interval 30 mins Interval 60 mins	When the interval timer is enabled, the display's image will move up and down momentarily to reduce the risk of image burn-in.	N/A
▸ **Storage**			

Option	Values	Function	Notes
• Internal storage space	N/A	Shows how much storage memory is available and how much is currently in use.	Delete saved documents, image, or video files, or uninstall third-party applications if available storage memory is low.
• Clean up app data	N/A	Cleans app data.	N/A
▸ **System update**			
• Disable system updates	On Off	Enables or disables the ability to update the display's system software	This feature is disabled by default.
• Current version	N/A	Shows the current version of the display's firmware.	N/A
• Check for update	N/A	Manually check for updates to the display's firmware.	If an update is available, a message appears on screen and asks whether the user wishes to install it. **Note** The display must be connected to the internet to check for system software updates. Check the display's network settings. See ˃ *Network* on page 50. See ˃ *Network* on page 50.
▸ **Factory reset**			
• Factory reset	Cancel Confirm	Resets all options to their default values.	Only administrators should reset the display to factory settings
▸ **Security**			
• Credential storage	N/A	You can view installed trusted system and user credentials (certificates), control the enabling status of these credentials, and view the details of each certificate.	N/A
• Trusted credentials	N/A	View and enable or disable trusted credentials.	N/A
• System	N/A	Enable or disable trusted system credentials.	N/A
• User	N/A	Enable or disable trusted user credentials.	N/A
• User credentials	N/A	View and modify user credentials.	N/A
• Install from storage	N/A	Install a certificate from local storage or a USB drive.	N/A

Option	Values	Function	Notes
• Clear credentials	N/A	Removes security certificates from the display.	⚠ **Caution** Removing security certificates may affect the performance of some applications.
• Unknown sources	On Off	Allow the installation of apps from unknown sources.	The display and your data are more vulnerable to attack by applications from unknown sources. ⚠ **Caution** SMART is not responsible for any damage to the display or loss of your data that might result from using applications from unknown sources. Only administrators should install applications from unknown sources.

Regulatory Information

View an electronic (e-label) version of the NX display's regulatory information.

About

Option	Values	Function	Notes
• Legal information	N/A	N/A	N/A
• Third-party licenses	N/A	Shows the third-party licenses.	N/A
• Open-source licenses	N/A	Shows the open source licenses.	N/A
• System WebView licenses	N/A	Shows the system WebView licenses.	N/A
• Display part number	N/A	Shows the display's part number.	N/A
• Panel Serial Number	N/A	Shows the display's serial number.	N/A
• Model number	N/A	Shows the display's model number.	N/A
• Android version	N/A	Shows the current version of the display's Android operating system.	N/A
• Kernel version	N/A	Shows the display's Android Kernel version.	N/A
• Build number	N/A	Shows build information for the current version of the display's system firmware.	N/A

Option	Values	Function	Notes
• Version	N/A	Shows the current version of the display's system firmware.	SMART Support teams might request this information if you contact them.
• SRM version	N/A	Shows the current version of the display's SMART Remote Management software.	SMART Support teams might request this information if you contact them.
• Memory Info	N/A	Shows how much RAM is installed in the display	N/A

Appendix B **Adjusting Input settings**

Opening the Input settings menu

Click the **Input** icon on the Home screen.

The Common Settings dialog appears.

Tip

You can also open the Inputs menu by pressing the **Input** button on the remote control.

Exiting the Input settings menu

Press the **Home** button on the front control panel.

Source settings

Option	Values	Function	Notes
▸ **Inputs**			

Option	Values	Function	Notes
• Select an input	PC Android HDMI1 HDMI2 HDMI3 Type-C1 Type-C2 DP VGA	Select a connected computer or other device's input to view on the display. **Note** The PC input appears only when an OPS PC module is installed in the display's accessory slot.	A green circle ○ appears around the currently selected input (PC, Android™, HDMI1, HDMI2, HDMI3, Type-C1, Type-C2, DP, or VGA). Inputs with a connected source have a green dot beside the input name, rather than a gray dot. The input name also appears in green text rather than gray when an input is connected. **Note** Disabled inputs do not appear in the list of available inputs.
• Screen brightness	Range slider	Sets the overall brightness of the image.	N/A
• Volume	Range slider	Sets the display's volume.	N/A

Advanced settings

Access the current input's advanced settings by tapping the three dots ••• that appear in upper right corner of the input settings menu screen. The current input is surrounded by a green circle ○.

Tip

You can also open the Advanced settings menu by pressing the **Settings** button ⚙ on the remote control when viewing any input other than Android.

Option	Values	Function	Notes
▶ **Audio**			
Note The following settings are applicable to all inputs.			
• Volume	1 to 100	Sets the display's volume	N/A
• Bass	–5 to 5	Sets the bass level.	This setting is only adjustable when Custom audio mode is enabled (see Audio modes below).
• Treble	–5 to 5	Sets the treble level.	This setting is only adjustable when Custom audio mode is enabled (see Audio modes below).
• Balance	–50 to 50	Sets the L/R balance of the display's built-in speakers.	N/A

Option	Values	Function	Notes
• Audio modes			
• Standard	On Off	This is the default audio mode	N/A
• Meeting	On Off	An audio mode optimized for meeting rooms, with slightly reduced bass.	N/A
• Class	On Off	An audio mode optimized for classrooms, with slightly reduced bass and slightly increased treble.	N/A
• Custom	On Off	An audio mode that allows full user control of bass and treble adjustments.	N/A
• Mute	On Off	Mutes the display's audio system.	N/A
▸ **Screen**			
• Pixel shift	On Off	If enabled, the display's image will move up and down momentarily to reduce the risk of image burn-in. To set timing options, see *Pixel Shift* in the *System* on page 57 section of display settings).	N/A
• Eye Care	On Off	Changes the screen settings to reduce the brightness and amount of blue light in the image.	N/A
• AutoLight	On Off	Detects the ambient light in the room and automatically adjusts the screen brightness.	N/A
• SaveEnergy	On Off	Reduces the screen brightness of the display to save power.	N/A

• Image scaling

> **Note**
>
> The following settings are only available when *DP* or *VGA* inputs are selected.

Option	Values	Function	Notes
• 4:3	On Off	Sets the screen image's aspect ratio to 4:3	N/A
• 16:9	On Off	Sets the screen image's aspect ratio to 16:9	N/A
• PTP	On Off	This setting may help if the 16:9 setting causes the screen image's edges to be clipped.	N/A

Option	Values	Function	Notes
• Auto	On Off	Enables the display to automatically choose the optimal image scaling for the source video signal. This is the default setting.	This is the recommended setting for image scaling.

▶ **Display**

Note

The following settings are applicable to all inputs.

Notes

- This display uses continuous current dimming to prevent flicker at low brightness settings
- The following settings are applicable to all inputs.

Option	Values	Function	Notes
• Brightness	1 to 100	Sets the overall brightness of the image.	N/A
• Contrast	1 to 100	Sets the difference in brightness between the lightest and darkest parts of the image.	N/A
• Hue	1 to 100	Sets the hue (color) of the image.	This setting is available only when *Custom* display mode is enabled and is not available for all inputs.
• Sharpness	1 to 100	Sets the sharpness of the image.	This setting is available only when *Custom* display mode is enabled and is not available for all inputs.
• Display modes			
• Standard	On Off	The default display mode, for optimal performance.	N/A
• Bright	On Off	A brighter image mode that may use more power.	Different shades of light gray may be harder to see in this mode.
• Soft	On Off	A softer image mode with slightly reduced contrast.	N/A
• Custom	On Off	An image mode that allows users to customize the image brightness, contrast, hue, and sharpness.	N/A
• Color modes			
• Standard	On Off	The default color mode.	N/A
• Cold	On Off	Raises the screen image's color temperature.	N/A
• Warm	On Off	Lowers the screen image's color temperature.	N/A

Option	Values	Function	Notes
• More ••• icon (additional settings)	N/A	Manually adjust the red, green, and blue color channels individually. You can also reset the white balance to its default setting.	N/A

▸ **Adjust**

> **Note**
>
> The following settings apply only to VGA inputs.

Option	Values	Function	Notes
• H Position	1 to 100	Manually set the image's relative horizontal position on the display.	N/A
• V Position	1 to 100	Manually set the image's relative vertical position on the display.	N/A
• Phase	1 to 36	Adjusts the phase of the analog video signal.	Adjusting this setting can help compensate for indistinct colors on analog video inputs.
• AUTO PHASE	N/A	Enables the display to try to detect the best phase setting for the current analog video signal.	N/A

Appendix C **Managing the display using RS-232**

You can connect an RS-232 cable from a computer or a control system's serial output to the display's RS-232 in connector to remotely select video inputs, turn the display on or off, and get information about the display's current settings, such as volume and power state.
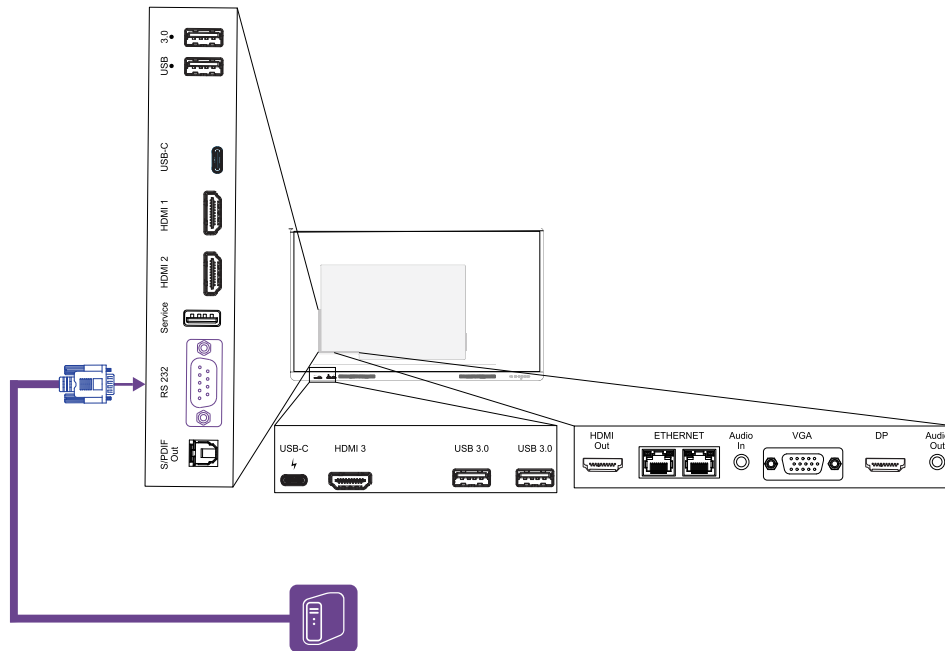
ⓘ **Important**

Use only a standard RS-232 cable. Do not use a null modem cable. Null modem cables typically have ends of the same type.

Tip

SMART also offers SMART Remote Management cloud-based device-management software, which you can use to manage the display. For more information, see SMART Remote Management.

Configuring the serial interface settings

Configure the computer or control system's serial interface before sending commands to the display.

1. Turn on the display.

2. If you're using a terminal application on a computer, activate local echo to see what you're typing and sending to the display.

3. Configure the serial interface settings with the following values:

Baud rate   19200

Data length   8

Parity bit   None

Stop bit   1

4. Send a carriage return character (<CR>) to the display. The display will show a command prompt (>) to indicate that the display can now accept commands.

> **Note**
>
> ◦ If you're using a terminal application on a computer, pressing ENTER should send a carriage return character (<CR>) but might also send a line feed character (<LF>), depending on your terminal application configuration.
>
> ◦ If no message appears or an error message appears, the serial interface isn't configured correctly. Repeat steps 3 and 4.
>
> ◦ If you're using a terminal app on a PC, keep your screen legible by configuring the terminal app's settings to add a line feed <LF> after sending or receiving a carriage return <CR>. For example, in the PUTTY app, enable terminal option Implicit *LF in every CR*.

When using a control system program instead of terminal program, all the lines output from the display are preceded by a carriage return character (<CR>) and line feed character (<LF>) and then followed by a carriage return character (<CR>) and line feed character (<LF>), as shown in the example below. Refer to an <u>ASCII table</u> for more information about character codes if needed.

```
>set volume=0<CR>
<CR><LF>
volume=0<CR><LF>
>
```

Commands and responses

To access display information or to adjust display settings using the room control system, send a command after the command prompt (>), send a carriage return character or press ENTER, and then wait for the response from the display. Responses are preceded by a carriage return character (<CR>) and line feed character (<LF>) and then followed by a carriage return character (<CR>) and line feed character (<LF>). If no command prompt is present, send a carriage return character to the display. If the display is ready to receive commands, it will show a command prompt (>) when the carriage return is received. See the example below.

Correct

```
>get volume

volume=55

>
```

In the example below, the user used =-50 instead of -50.

Incorrect

```
>set volume=-50

invalid cmd: setvolume=-50

>
```

Notes

- Use ASCII formatted commands.

- Commands aren't case-sensitive and extra spacing is ignored.

- In many terminal applications on a computer, you can use the BACKSPACE key when typing commands.

- Review each entry carefully before sending a command to the display.

- Don't send another command until you receive the response and the next command prompt (>). If no command prompt is present, send a carriage return character (<CR>) to the display. If the display is ready to receive commands, it will show a command prompt after receiving the carriage return.

To retrieve a setting's current value

Use a **get** command.

This example shows how to get the volume:

```
>get volume

volume=55

>
```

To assign a value to a setting

Use a **set** command.

This example sets the volume to 65:

```
>set volume=65

volume=65

>
```

To increase or decrease the value of a setting

Use the set command to increase or decrease the value by a designated number.

This example increases the volume by 5:

```
>set volume+5

volume=70

>
```

This example decreases the volume by 15:

```
>set volume-15

volume=55

>
```

Power state commands

Get command	Set command	Response
get powerstate	set powerstate[Value] Where [Value] is one of the following: • =on • =ready • =powersave	powerstate=[Value] Where [Value] is one of the following: • on • ready • powersave

The display has three power states:

Power state	Description
ON	The display is in normal operating mode.
READY	The screen is off, but the display is ready to turn on when one of the following occurs: • A user presses the **Power** button ⏻ on the front control panel or the remote control. • You send the set powerstate=on command. • The display receives a video signal.

Power state	Description
POWERSAVE	The screen is off, and the display is in a very low power state. The display enters READY or ON state when one of the following occurs: • A user presses the **Power** button ⏻ on the front control panel or the remote control. • The display receives a video signal. This power state is the default energy saving mode for displays set to an EU location. **Note** The EU uses "Standby" to describe this power state.

Input commands

Get command	Set command	Response

get input	set input[Value]
	Where [Value] is one of the following:
	
	• =hdmi1
	• =hdmi2
	• =hdmi3
	• =vga
	• =ops
	• =type-c1 [or usbc1]
	  =type-c2 [or usbc2]
	• =dp
	• =android
		input=[Value]
		Where [Value] is one of the following:
		
		• hdmi1
		• hdmi2
		• hdmi3
		• =vga
		• =ops
		• =usbc1
		  =usbc2
		• =dp
		• =android

Brightness commands

Get command	Set command	Response
get brightness	set brightness[Value] Where [Value] is one of the following: • +[Value] • -[Value] • =[0-100]	brightness=[Value] Where [Value] is a number between 0 and 100

Freeze commands

Get command	Set command	Response
get videofreeze	set videofreeze[Value] Where [Value] is one of the following: • =on • =off	videofreeze=[Value] Where [Value] is one of the following: • on • off

Screen shade commands

Get command	Set command	Response
get screenshade	set screenshade[Value] Where [Value] is one of the following: • =on • =off	screenshade=[Value] Where [Value] is one of the following: • on • off Where [Value] is one of the following: • on • off

Volume commands

Get command	Set command	Response
get volume	set volume[Value] Where [Value] is one of the following: • +[Value] • -[Value] • =[0–100]	volume=[Value] Where [Value] is a number between 0 and 100

Mute commands

Get command	Set command	Response
get mute	set mute[Value] Where [Value] is one of the following: • =on • =off	mute=[Value] Where [Value] is one of the following: • on • off

Firmware version commands

Get command	Response
get fwversion	fwversion=[Value] Where [Value] is the firmware version.

Model number commands

Get command	Response
get modelnum	modelnum=[Value] Where [Value] is one of the following: • sbd-nx065 • sbd-nx075 • sbd-nx086

Serial number commands

Get command	Response
get serialnum	serialnum=[Value] Where [Value] is the serial number.

Part number commands

Get command	Response
get partnum	partnum=[Value] Where [Value] is the part number, including the revision.

Asynchronous messages

The display sends an asynchronous message when the front control panel, Settings app, or remote control are used to change a display's setting that can be controlled by RS-232. The display will also send an asynchronous message if the display's power state changes. Asynchronous messages are identified by a pound sign (#) before the message and aren't followed by a command prompt (>).

Change	Asyncronous message
display power state	#powerstate=[Value] Where [Value] is one of the following: • on • ready • powersave
Input selection	#input=[Value] Where [Value] is one of the following: • =hdmi1 • =hdmi2 • =hdmi3 • =vga • =ops • =usbc1 • =usbc2 • =dp • =android
Brightness	#brightness=[Value] Where [Value] is a number between 5 and 100
Freeze frame	#videofreeze=[Value] Where [Value] is one of the following: • on • off

Change	Asyncronous message
Screen shade	`#screenshade=[Value]` Where `[Value]` is one of the following: - on - off
Volume increase or decrease	`#volume=[Value]` Where `[Value]` is a number between 0 and 100
Volume mute	`#mute=[Value]` Where `[Value]` is one of the following: - on - off

Appendix D **Enrolling the display in SMART Remote Management**

Your SMART Board NX series display has a built-in feature that enables you to enroll the display with your organization's SMART Remote Management account. When you enroll the display, you can use SMART Remote Management to centrally control the display's features and settings, such as:

- blocklists and allowlists
- Wi-Fi
- wallpaper
- lock screen
- available apps

See ⟩ support.smarttech.com/docs/enrolllingsrm

Certification and compliance

> **Note**
>
> For the purposes of certification, the SMART Board NX series of displays are identified as models IDGX65-2, IDGX75-2, and IDGX86-2.

Electronic (e-label) information

An electronic (e-label) version of the NX display's regulatory information is available in the display's settings. From the Home screen, tap the **Apps** icon ▦ ❯ **Settings** icon ⚙ ❯ **Regulatory Information**.

Informations électroniques (e-Label)

Les informations réglementaires sont disponibles dans les paramètres de l'écran. Depuis l'écran d'accueil, appuyez sur **Paramètres** ❯ **À propos de** ❯ **Informations réglementaires**.

Federal Communication Commission interference statement

FCC
Suppliers Declaration of Conformity
47 CFR § 2.1077 Compliance Information
Unique Identifier: IDGX65-2, IDGX75-2, IDGX86-2
Responsible Party – U.S. Contact Information
SMART Technologies Inc.
2401 4th Ave., 3rd Floor
Seattle, WA 98121
compliance@smarttech.com

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and

2. this device must accept any interference received, including interference that may cause undesired operation.

> **Note**
>
> This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

> ⚠ **Caution**
>
> Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Restriction

Operations in the 5.15–5.25 GHz band are restricted to indoor usage only.

IEEE 802.11b or 802.11g operation of this product in the USA is firmware limited to channels 1 through 11.

Radiation exposure statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the antenna of this device and all nearby persons. This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

Innovation, Science and Economic Development Canada statement

This device complies with RSS-247 of the Innovation, Science and Economic Development Canada Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and

2. this device must accept any interference received, including interference that may cause undesired operation.

⚠ **Caution**

i.   the device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

ii. the maximum antenna gain permitted for devices in the bands 5250–5350 MHz and 5470–5725 MHz shall comply with the e.i.r.p. limit; and

iii. the maximum antenna gain permitted for devices in the band 5725–5825 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.

iv. Users should also be advised that high-power radars are allocated as primary users (i.e., priority users) of the bands 5250–5350 MHz and 5650–5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Radiation exposure statement

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the antenna of this device and all nearby persons. This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

Innovation, Science et Développement économique Déclaration du Canada

Cet appareil est conforme à la norme ISED CNR-247 pour les appareils radio agréés. Son fonctionnement est soumis aux deux conditions suivantes:

1.   le dispositif ne doit pas produire de brouillage préjudiciable, et

2.   ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

⚠ **Advertissement**

i.   les dispositifs fonctionnant dans la bande 5 150–5 250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

ii. le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5 250–5 350 MHz et 5 470–5 725 MHz doit se conformer à la limite de p.i.r.e.;

iii. le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5 725–5 825 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.

iv. De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5 250–5 350 MHz et 5 650–5 850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Déclaration d'exposition aux radiations

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps. Cet émetteur ne doit pas être co-implantés ou exploités conjointement avec une autre antenne ou émetteur.

EU declaration of conformity

Hereby SMART Technologies ULC declares that the radio equipment type displays model **IDGX65-2, IDGX75-2, IDGX86-2**, and the **PCM11** are in compliance with Directive 2014/53/EU.

◈ **Warning**

Operation of this equipment in a residential environment this equipment may could cause radio interference.

The full text of the EU declaration of conformity is available at the following internet address: smarttech.com/compliance

The frequency band and the maximum transmitted power in EU are listed below:
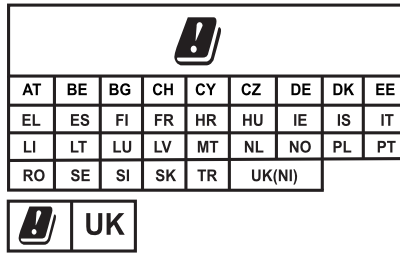
Regulatory models: **IDGX65-2, IDGX75-2, IDGX86-2**

Transmitting Band (MHz)	Maximum Transmit Power dBm
2402–2483.5	19.5
5150–5350	21
5470–5725	20
5725–5850	14

Regulatory models: **PCM11**

Transmitting Band (MHz)	Maximum Transmit Power dBm
2402–2483.5	20
5150–5350	23
5470–5725	23
5725–5850	13.9

Restrictions in:

AT	BE	BG	CH	CY	CZ	DE	DK	EE
EL	ES	FI	FR	HR	HU	IE	IS	IT
LI	LT	LU	LV	MT	NL	NO	PL	PT
RO	SE	SI	SK	TR	UK(NI)			

UK

5150 MHz – 5350 MHz are for indoor use only.

For optimal performance any support equipment connected to this device must be CE compliant.

Hardware environmental compliance

SMART Technologies supports global efforts to ensure that electronic equipment is manufactured, sold, and disposed of in a safe and environmentally friendly manner.

Waste Electrical and Electronic Equipment Directive and Battery Regulation

Electrical and electronic equipment and batteries contain substances that can be harmful to the environment and to human health. The crossed-out wheeled bin symbol indicates that products should be disposed of in the appropriate recycling stream and not as regular waste.

Batteries

> ⚠ **Caution**
>
> There is a risk of fire or explosion if a battery is replaced by an incorrect type. Dispose of used batteries promptly. Follow handling instructions on coin cell packaging. Recycle or dispose of used batteries according to local guidelines.

The display contains a CR2032 coin cell battery (not user accessible). The remote contains two AAA batteries. Recycle or dispose of batteries properly.

Perchlorate material

The coin cell battery contains perchlorate material. Special handling may apply.

See ⟩ dtsc.ca.gov/hazardouswaste/perchlorate

REACH regulation

This product may contain substances that are candidate SVHCs under the EU REACH Regulation (EC) 1907/2006.

See ⟩ echa.europa.eu/scip-database

More information

See ⟩ smarttech.com/compliance