## Xperience platform

All of Nexmosphere's controllers are built on the same platform principles. If this is your first time using a Nexmosphere controller, we recommend to first read https://nexmosphere.com/technology/xperience-platform/ to learn the basics about our platform and its terminology.

XN-135

The XN-135 is an Xperience controller with 2 X-talk interfaces:

1. X-talk interface 001
2. X-talk interface 002
USB. 5V Power input and API interface (micro-USB connector)
LED. White status LED
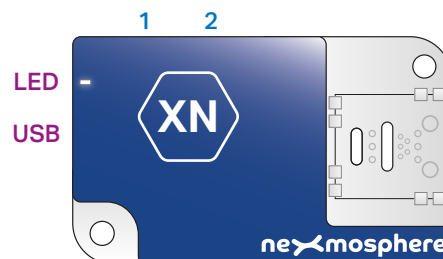
Hardware setup

1. Connect one or more Elements to any of the 2 X-talk interfaces.
2. Connect the micro-USB cable to a 3rd party device (e.g. Digital Signage Player or PC).
3. Wait until the white status LED stops blinking. This lasts about 5 seconds.

Software setup for testing (Terminal)

Typically, the XN-135 controller is connected to a 3rd party device, such as a Digital Signage Player, on which CMS software is installed which has built-in functionality for sending and receiving Serial Events. However, if you want to do a first test on a PC or Mac, follow the instructions below:

1. Download a terminal program. For example Termite or Hercules.
2. Open the Terminal program and go to settings. Choose the COM port on which the XN-135 controller enumerated*.
   In most cases this is the highest available number in the COM port drop-down setting.
3. Set the COM port settings to the following values

Baudrate	115200	Flow Control	None
Parity	None	EOL	CR+LF
Data	Bits 8	Protocol	ASCII
Stop	Bits 1		

4. Set the COM port to "Open". **The controller is now ready for use.**
5. When sending consecutive API serial commands to the XN-135 controller, place a 50mS delay between each command.

*In case the XN-135 controller is not recognized as a COM port by the 3rd party device, a driver (Prolific PL2303) can be downloaded here.

Functionality

The XN-135 runs our API which provides serial output when a specific sensor Element is triggered (for example a pick-up, or -motion sensor or touch button) and provides control over output Elements (for example controlling LED strips) via serial input commands. These API serial commands are typically used to create interactive Xperiences for Digital Signage.

The complete API Manual and additional helpful documents can be found on https://nexmosphere.com/support-documentation. To get you started, we've included some starter examples of our Elements and the corresponding API serial commands on the following pages.

3rd party devices and software

This Quick Start Guide offers a generic explanation of the setup and operation of the XN-135 Xperience controller. It does not cover information on how to integrate the Controllers, Elements and their API triggers in specific 3rd party devices or software. We have manuals available with step-by-step instructions on how to integrate Nexmosphere products with the products of our hardware, -and software partners. You'll find these on the support and partner pages of our website.

Example 1 | Presence sensor

When an XY-Presence sensor connected to X-talk interface 001 detects a person in distance zone 4, the following API serial command is sent from the XN-135 to the 3rd party device: X001A[4]

When an XY-Presence sensor connected to X-talk interface 001 does not detect a person, the following API serial command is sent from the XN-135 to the 3rd party device: X001A[1]

USB-A to Micro-USB cable
(connect to 3rd party device)

XY-146
(presence sensor)

XN-135
(Xperience controller)
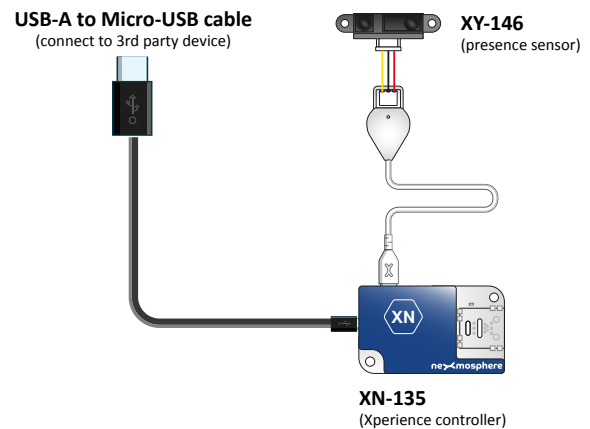
Example 2 | RFID sensor

When tag 2 is picked up from an antenna connected to X-talk interface 001 the following API serial commands are sent from the XN-135 to the 3rd party device:
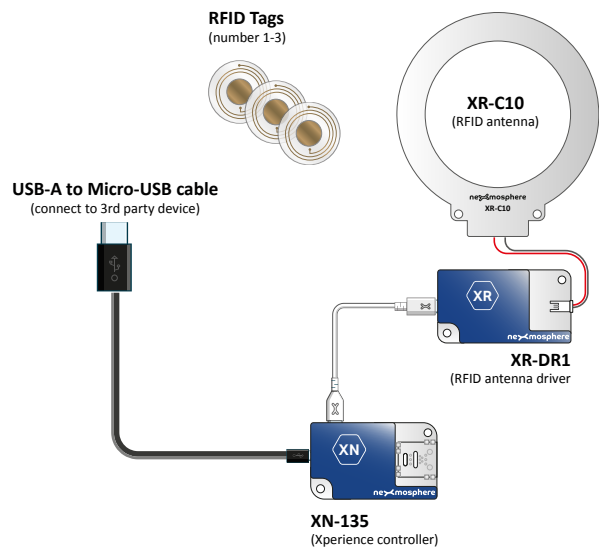
XR[PU002]
X001A[1]

When tag 1 is placed on an antenna connected to X-talk interface 001, the following API serial commands are sent from the XN-135 to the 3rd party device:
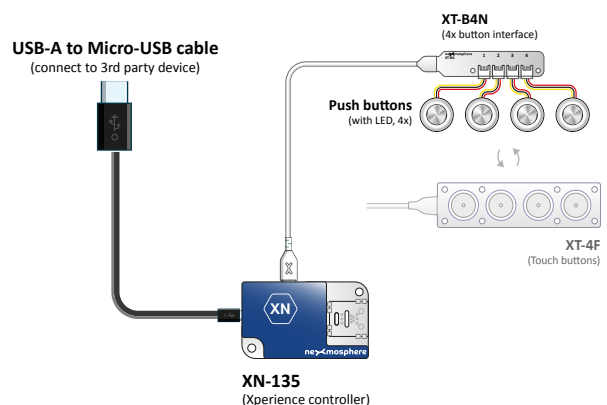
XR[PB001]
X001A[0]

RFID Tags
(number 1-3)

XR-C10
(RFID antenna)

USB-A to Micro-USB cable
(connect to 3rd party device)

XR-DR1
(RFID antenna driver

XN-135
(Xperience controller)

Example 3 | Button input

When button 1 of a (touch) button interface connected to X-talk interface 002 is pressed, the following API serial commands are sent from the XN-135 to the 3rd party device: X002A[3]

When button 4 of a (touch) button interface connected to X-talk interface 002 is pressed, the following API serial commands are sent from the XN-135 to the 3rd party device: X002A[17]

USB-A to Micro-USB cable
(connect to 3rd party device)

XT-B4N
(4x button interface)

Push buttons
(with LED, 4x)

XT-4F
(Touch buttons)
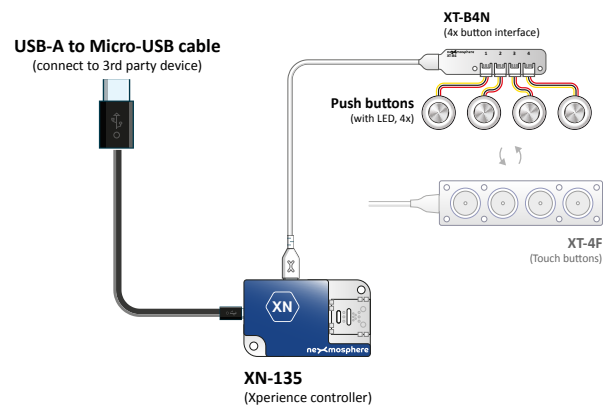
XN-135
(Xperience controller)

Example 4 | Button LED control

To set all button LEDs of a (touch) button interface connected to X-talk interface 002 to "on", send the following API commands from the 3rd party device to the XN-135 controller:

`X002A[255]`

To set all button LEDs of a (touch) button interface connected to X-talk interface 002 to "off", send the following API commands from the 3rd party device to the XN-135 controller:

`X002A[0]`

USB-A to Micro-USB cable
(connect to 3rd party device)

XT-B4N
(4x button interface)

Push buttons
(with LED, 4x)

XT-4F
(Touch buttons)

XN-135
(Xperience controller)

Example 5 | X-Wave LED control

To initiate an X-Wave LED pattern on an X-Wave connected to X-talk interface 002, send one of the following API example commands from the 3rd party device to the XN-135 controller:

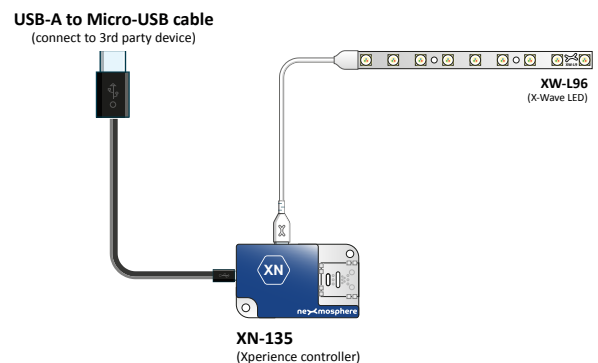40% brightness, color 0 (white), 0.5 second ramp time

`X002B[240005]`

Blue pulsing pattern (99% to 20%), 1.8 second ramp time

`X002B[399C1801020C180018]`

White wave pattern moving to the left

`X002B[49901800120009]`

USB-A to Micro-USB cable
(connect to 3rd party device)

XW-L96
(X-Wave LED)

XN-135
(Xperience controller)

Combining Elements

The XN-135 Xperience controller has 2 X-talk interfaces to which any combination of Elements can be connected. For example, two of the examples in this Quick Start Guide can be combined on a single XN-135. The API commands and operation will remain the same. When connecting multiple Elements that require a high amount of current (LEDs or push buttons with LED ring), calculate the total required current of the Elements and check if this is within the specification of the controller and its power supply source.

USB-A to Micro-USB cable
(connect to 3rd party device)

XW-L96
(X-Wave LED)

XN-135
(Xperience controller)