

ALLEN & HEATH[®]

SHURE[®]

dLive Shure Integration Guide

Issue 1 – August 2018

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Shure Integration Overview

dLive's Shure wireless integration allows users of Shure's QLX-D, ULX-D and Axient Digital wireless microphones and receivers to monitor transmitter battery level, RF signal strength and receiver audio signal level as well as offering control of receiver gain and mute from the dLive user interface.

Auto discovery of connected Shure devices – up to 45 receivers - ensures a hassle-free setup for the operator.

Shure Integration Firmware Requirements

dLive firmware 1.70 or higher is required for Shure Integration.

<https://www.allen-heath.com/dlive-home/software/>

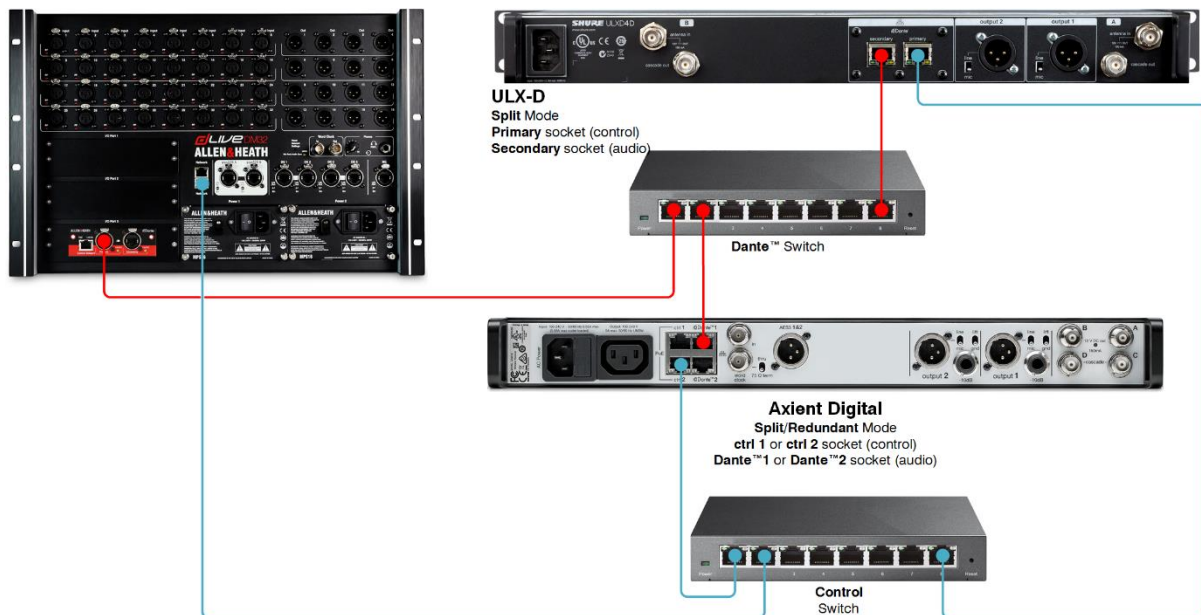
M-DANTE firmware 4.0.3.8 or higher is required for Shure Integration

<https://www.allen-heath.com/ahproducts/dante/>

Shure Integration Connection Methods

Audio and control connections between Shure receivers and dLive hardware can be performed in a number of ways depending on the model of the Shure transmitter with options for analogue and Dante™ audio connections with a discrete or tunnelled control network.

| | |
|-----------------|----------------|
| Control: | Network |
| Audio: | Dante™ |



An **M-DANTE** card and **M-DL-ADAPT** module are required for 64 channels of Dante™ audio. These can be fitted into any available I/O port in the MixRack or Surface.

A **Network** port on the Surface or MixRack can be used for the control connection.

M-DANTE should be set to SWITCHED mode via Dante Controller:
DEVICE VIEW > NETWORK CONFIG > DANTE REDUNDANCY

ULX-D receivers should be set to SPLIT mode via Dante Controller:
DEVICE VIEW > NETWORK CONFIG > DANTE REDUNDANCY

Or via the receiver front panel:

DEVICE UTILITIES > NETWORK > CONFIGURATION

Axient Digital (AD) receivers should be set to SPLIT/REDUNDANT mode via Dante Controller:

DEVICE VIEW > NETWORK CONFIG > DANTE REDUNDANCY

Or via the receiver front panel:

DEVICE CONFIGURATION > NETWORK CONFIGURATION > SETUP > SWITCH CONFIGURATION

In this configuration both the Shure and dLive control networks should be on the same subnet.

Dante™ devices can be left in “Automatic” mode or can be configured manually. If configured manually, the Dante™ audio network can operate on a different subnet.

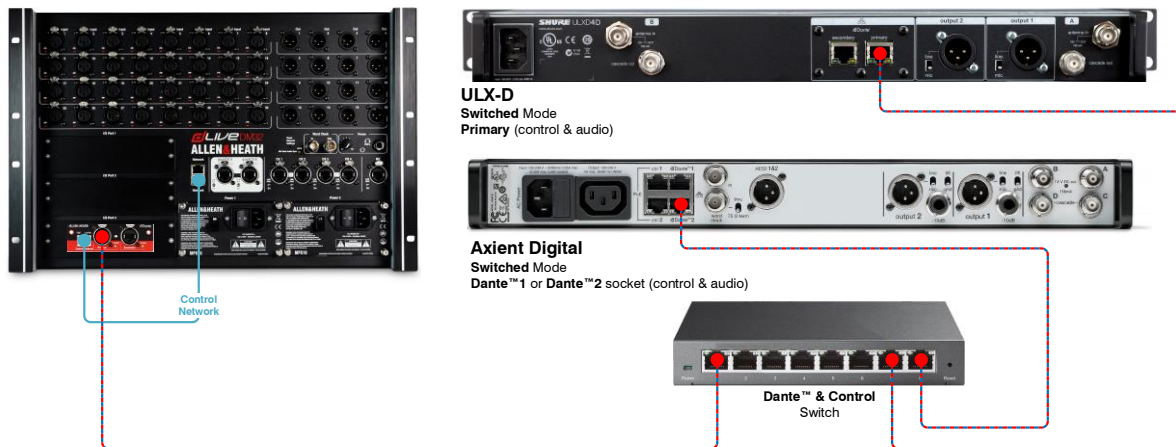
All devices should have a unique IP address.

i.e.

| | |
|------------------------------------|-------------------|
| Subnet: | 255.255.255.0 |
| MixRack: | 192.168.1.70 |
| Surface: | 192.168.1.71 |
| Shure Control (Receiver 1): | 192.168.1.01 |
| Shure Control (Receiver 2): | 192.168.1.02 |
| Shure Control (Receiver 3): | 192.168.1.03 etc. |

ⓘ This connection method is not supported by QLX-D receivers.

Control: Dante™
Audio: Dante™



An **M-DANTE** card and **M-DL-ADAPT** module are required for 64 channels of Dante™ audio. This can be fitted into any available I/O port in the MixRack or Surface.

A **Network** port on the Surface or MixRack can be used for the control connection to the M-DANTE module.

M-DANTE should be set to SWITCHED mode via Dante Controller:
DEVICE VIEW > NETWORK CONFIG > DANTE REDUNDANCY

ULX-D receivers should be set to SWITCHED mode via Dante controller:

DEVICE VIEW > NETWORK CONFIG > DANTE REDUNDANCY

Or via the receiver front panel:

DEVICE UTILITIES > NETWORK > CONFIGURATION

Axient Digital (AD) receivers should be set to SWITCHED mode via Dante Controller:

DEVICE VIEW > NETWORK CONFIG > DANTE REDUNDANCY

Or via the receiver front panel:

DEVICE CONFIGURATION > NETWORK CONFIGURATION > SETUP > SWITCH CONFIGURATION

In this configuration the Shure control and dLive control networks should be on the same subnet.

Dante™ devices can be left in “Automatic” mode or can be configured manually. If configured manually, the Dante™ audio network can operate on a different subnet.

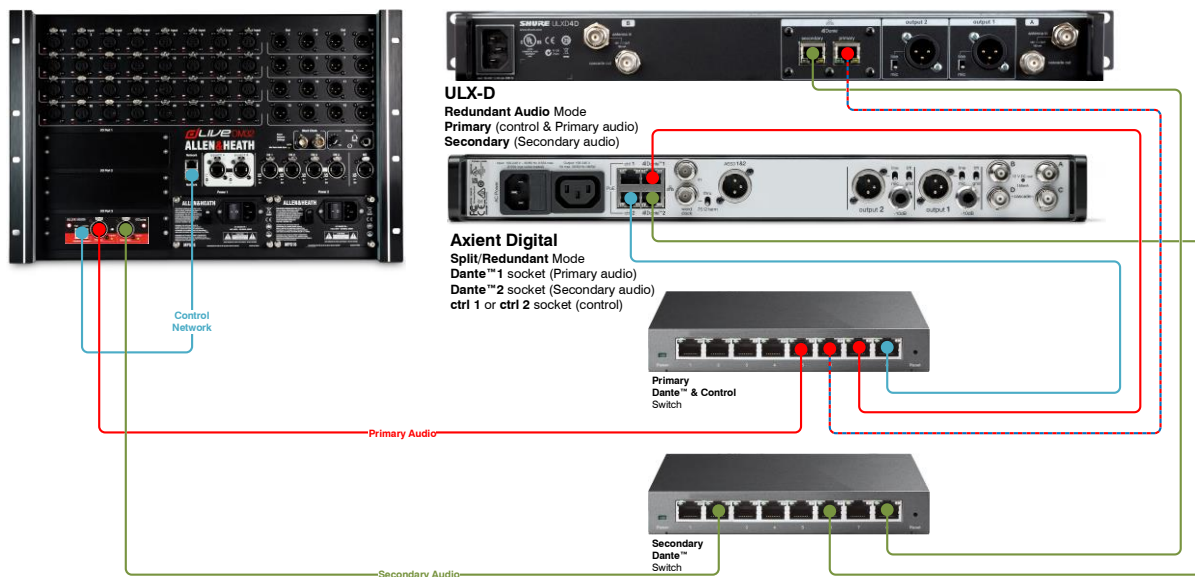
All devices should have a unique IP address.

i.e.

| | |
|------------------------------------|-------------------|
| Subnet: | 255.255.255.0 |
| MixRack: | 192.168.1.70 |
| Surface: | 192.168.1.71 |
| Shure Control (Receiver 1): | 192.168.1.01 |
| Shure Control (Receiver 2): | 192.168.1.02 |
| Shure Control (Receiver 3): | 192.168.1.03 etc. |

ⓘ This connection method is not supported by QLX-D receivers.

Control: Dante™
Audio: Dante™ Dual Redundancy



An **M-DANTE** card and **M-DL-ADAPT** module are required for 64 channels of Dante™ audio. These can be fitted into any available I/O port in the MixRack or Surface.

A **Network** port on the Surface or MixRack can be used for the control connection.

M-DANTE should be set to REDUNDANT mode via Dante Controller:
DEVICE VIEW > NETWORK CONFIG > DANTE REDUNDANCY

ULX-D receivers should be set to REDUNDANT AUDIO mode via Dante Controller
DEVICE VIEW > NETWORK CONFIG > DANTE REDUNDANCY:
 Or via the receiver front panel:
DEVICE UTILITIES > NETWORK > CONFIGURATION

Axient Digital (AD) receivers should be set to SPLIT/REDUNDANT mode via Dante Controller:
DEVICE VIEW > NETWORK CONFIG > DANTE REDUNDANCY
 Or via the receiver front panel:
DEVICE CONFIGURATION > NETWORK CONFIGURATION > SETUP > SWITCH CONFIGURATION

In this configuration the Shure control and dLive control networks should be on the same subnet.

Dante™ devices can be left in “Automatic” mode or can be configured manually. If configured manually, the Dante™ audio network can operate on a different subnet.

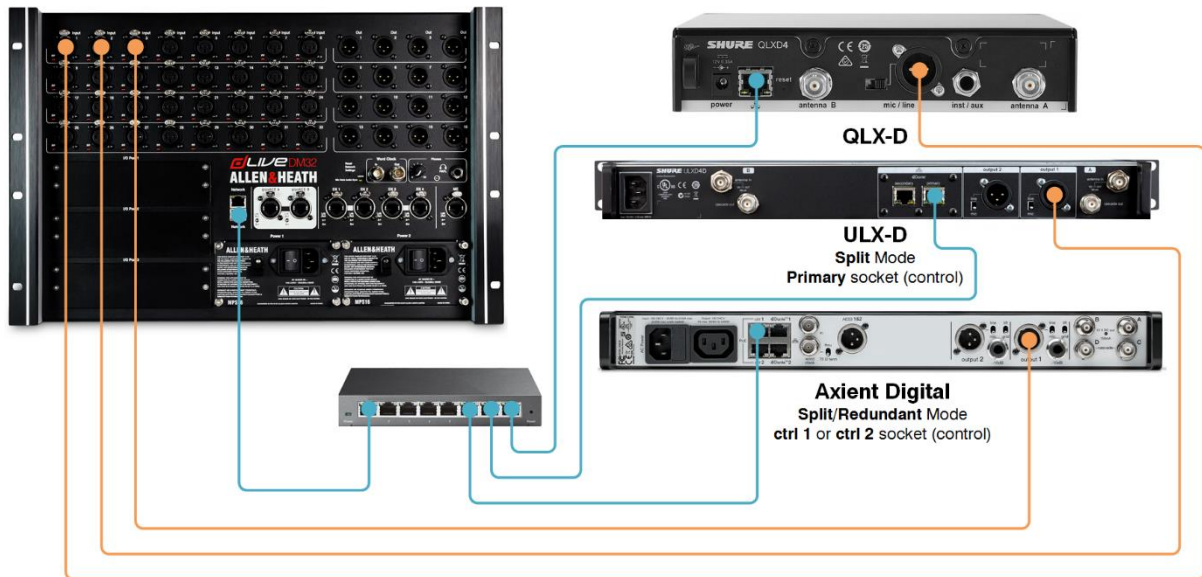
All devices should have a unique IP address.

i.e.

| | |
|------------------------------------|-------------------|
| Subnet: | 255.255.255.0 |
| MixRack: | 192.168.1.70 |
| Surface: | 192.168.1.71 |
| Shure Control (Receiver 1): | 192.168.1.01 |
| Shure Control (Receiver 2): | 192.168.1.02 |
| Shure Control (Receiver 3): | 192.168.1.03 etc. |

- ❗ **ULX-D** receivers do not carry control information on their Secondary ports in REDUNDANT AUDIO mode.
- ❗ **Axient Digital** receivers do not carry control information on their Dante™ ports in SPLIT/REDUNDANT mode.
- ❗ This connection method is not supported by QLX-D receivers.

| | |
|-----------------|-----------------|
| Control: | Network |
| Audio: | Analogue |



A **Network** port on the Surface or MixRack can be used for the control connection.

ULX-D receivers should be set to SPLIT mode via the receiver front panel:
DEVICE UTILITIES > NETWORK > CONFIGURATION
 and the Primary network port used for the control connection to the dLive.

Axient Digital (AD) receivers should be set to SPLIT/REDUNDANT mode via the receiver front panel:
DEVICE CONFIGURATION > NETWORK CONFIGURATION > SETUP > SWITCH CONFIGURATION
 and a CTRL network port used for the control connection to the dLive.

In this configuration both the Shure and dLive control networks should be on the same subnet.

All devices should have a unique IP address.

i.e.

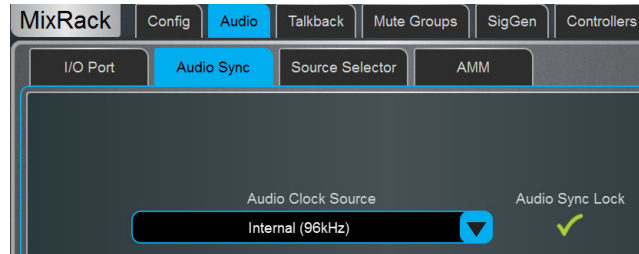
| | |
|------------------------------------|-------------------|
| Subnet: | 255.255.255.0 |
| MixRack: | 192.168.1.70 |
| Surface: | 192.168.1.71 |
| Shure Control (Receiver 1): | 192.168.1.01 |
| Shure Control (Receiver 2): | 192.168.1.02 |
| Shure Control (Receiver 3): | 192.168.1.03 etc. |

Shure Integration Dante Clocking

It is recommended that the dLive system is the master clock for the Dante™ network.

On the dLive ensure the clock is set to Internal:

MixRack > Audio > Audio Sync > Audio Clock Source > Internal (96kHz)



In **Dante Controller**, under **Clock Status**, ensure that both **Preferred Master** and **Enable Sync To External** are selected for the M-DANTE card and unselected for all other Dante devices.

| Device Name | Sync | Mute | Clock Source | Domain Status | Primary Status | Secondary Status | AES67 Status | Preferred Master | Enable Sync To External |
|------------------|-------------------------------------|--------------------------|----------------|---------------|----------------|------------------|--------------|-------------------------------------|-------------------------------------|
| M-DANTE | <input checked="" type="checkbox"/> | <input type="checkbox"/> | External Clock | N/A | Master | N/A | N/A | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| ULXD4Q-F96fca | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Dante | N/A | Slave | N/A | N/A | <input type="checkbox"/> | N/A |
| VirtualSoundcard | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Dante | N/A | Slave | N/A | N/A | Slave Only | N/A |

Shure Integration Dante Network & Redundancy Settings

The Dante network and redundancy settings of the **M-DANTE** card and **ULX-D/Axient Digital** receivers can be configured via Dante Controller.

Device View > Network Config

Dante Redundancy

A number of different modes are available depending on the device:

Redundant - When set to Redundant, Dante audio traffic is duplicated on Primary and Secondary ports, allowing the implementation of a redundant network via the Secondary port.

Switched - When set to Switched, the Secondary port will behave as a standard switch port, allowing daisy-chaining of both Dante audio and Shure control through the device.

Split (ULX-D only) – Dante audio and control data are placed on 2 separate networks with their own dedicated Ethernet sockets. Shure Control is on the Primary socket and Dante Audio is on the Secondary socket.

Split/Redundant (Axient Digital only) - Dante audio and Shure control are placed on 2 separate networks while allowing you to take advantage of Dante redundancy. Shure control is on the ctrl 1 and ctrl 2 sockets with Dante audio on the Primary and Secondary sockets.

Addresses

Dante devices obtain IP addresses automatically by default. However, static IP addresses can be assigned if necessary.

To assign a static IP address:

1. Select 'manually configure an IP Address' for the appropriate Ethernet port.
2. Enter the IP Address and Netmask.
3. Click Apply.
4. The DNS Server and Gateway settings are optional - the device will use network defaults if they are not specified.

Click Revert to revert back to the previous settings.

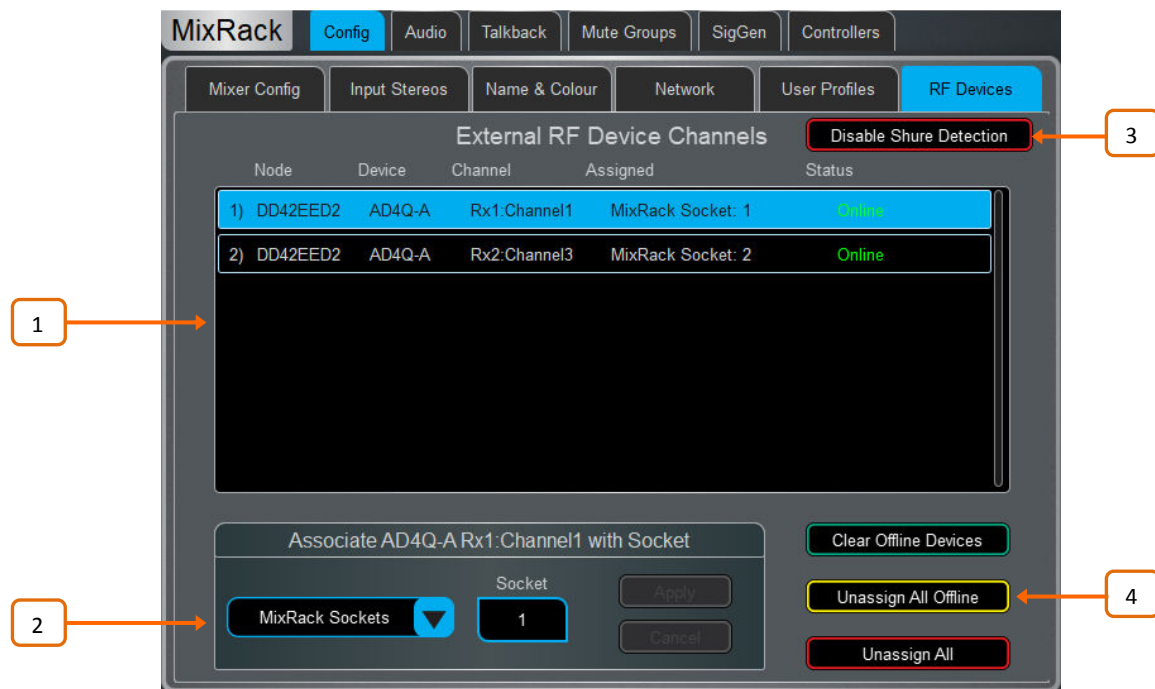
① Assigning static IP addresses requires a device reboot.

① The Shure ULX-D and Axient Digital receivers can also be configured via their front panel. Please refer to the relevant Shure User Guide for more information.

Shure Integration Channel Association

Associate Shure wireless channels with dLive input sockets via **MixRack > Config > RF Devices**

Select **Enable Shure Detection** to open the **RF Devices** window where all available Rx channels will be listed.



① **External RF Device Channels** – Information on node and device name, receiver channel, socket association and online/offline status. Touch to select a device.

② **Associate with Socket** – Associate the selected RF device channel with a MixRack, Surface, DX or I/O card socket. This step is required for RF Info to appear in the Preamp section of Input channels.

③ **Disable / Enable Shure Detection** – When no Shure devices are connected it is recommended to **Disable Shure Detection** to minimise network traffic.

ⓘ A MixRack power-cycle is required when disabling Shure detection.

If Shure detection is disabled it can be re-enabled via the **Enable Shure Detection** button.

4 Select from the following options:

Clear Offline Devices – Remove offline RF receivers from the External RF Devices list

Unassign All Offline - Remove all socket associations for offline RF Devices

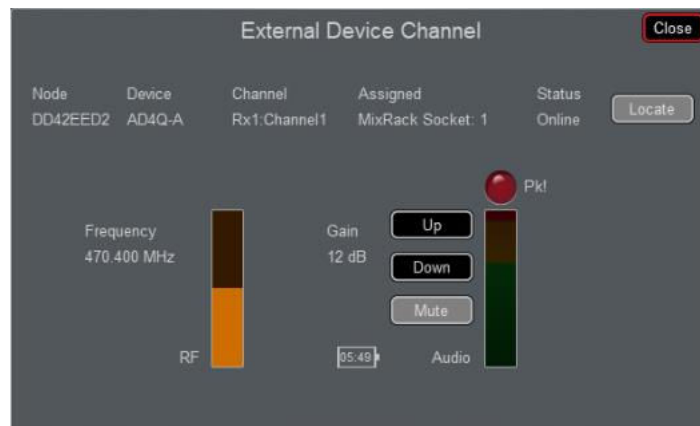
Unassign All - Remove all socket associations for both online and offline RF Devices

Shure Integration Working with Wireless Channels

The **Preamp** page provides access to the Input Channel source patching and other Input settings.



RF Info – If the patched source is associated with an RF Device Channel then the RF Info box is shown. Channel name, mute status, battery level, RF signal strength and receiver audio level/peak information is displayed. Touch anywhere in the RF Info box to open the **External Device Channel** window.



In addition to the information shown in the RF Info box, channel RF frequency is displayed as well as several options:

Locate - When enabled, Locate flashes the front panel lights of the selected channel's RF receiver for several seconds.

Up - Turns up the RF receiver gain on the selected channel in +1dB increments.

Down - Turns down the RF receiver gain on the selected channel in -1dB increments.

Mute - Toggles the selected channel's RF receiver Mute status.

Close - Close the External Device Channel window and return to the Preamp page.

Bank view displays RF peak and mute status in addition to battery level and RF signal strength.

Touching in this area will open the **Preamp** page on the relevant channel.



Tip: Put all your Shure RF channels onto a spare layer to have a single screen overview of up to 12 channels at a time in Bank View.