QSC®

How to set up the AES67 flows

Configuring the AES67 inputs to Q-SYS

NOTE: The Audinate (i.e., Dante) implementation of AES67 only uses multicast flows. If you are integrating this system onto an enterprise network, you should consult the organization's IT department before proceeding.

1. Configure your device for AES67. Consult the manufacturer's documentation.

Figure 1.

2. When you have completed the device configuration, open the **Dante Controller** program (version 3.10 or higher).

    - Double click on the device to be configured. The **Device View** window will open.
    - Select **AES67 Config**. A new window will open (Figure 1).
    - In the **AES67 Mode** pane, go to **New:** and select **Enabled**.
    - In the **Reset Device** pane, click **Reboot**. The device will reboot with AES67 streaming enabled.

Figure 2.

3. OPTIONAL: If you need to set a different range of multicast IP addresses to avoid an existing range already in use on the network, select **AES67 Config** again and go to the **Tx Multicast Address Prefix** pane (Figure 2). Enter a new value for the multicast address prefix, which is the second octet of the multicast IP address range. Click **Set**.
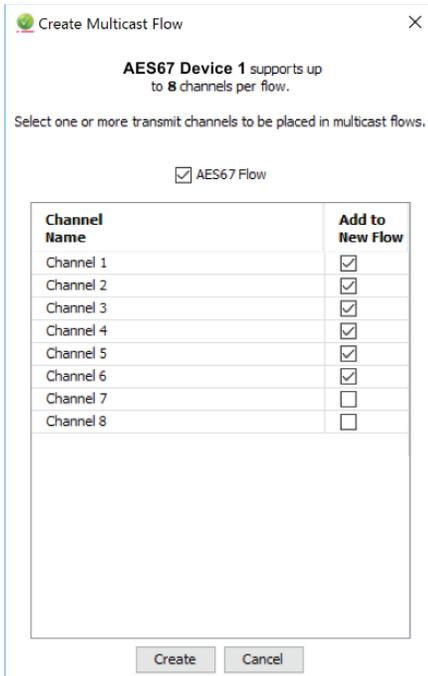
Figure 3.

4. Return to the **Device View** window in **Dante Controller**. Click the **Create a new multicast flow** icon. The **Create Multicast Flow** window will open (Figure 3).

   Select **AES67 Flow**. Then select all the transmit channels you wish to add to the flow. Click **Create**.

   The Session Announcement Protocol (SAP) will advertise the AES67 flows on the network through an SAP announcement broadcast every 30 seconds. This allows AES67 capable devices to identify and connect to the flow.

5. While still in the **Device View** window, select **Transmit**. The window will display a list of all the transmit flows created for your device as well as the Multicast IP address and Multicast Flow Number (Figure 4). Verify that they are all correct.
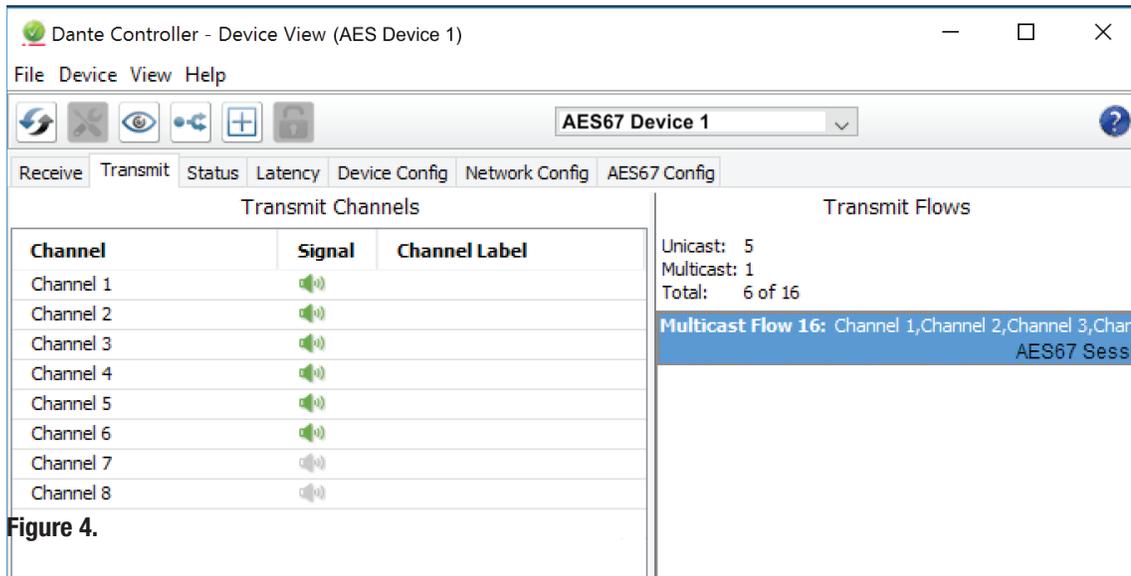
Figure 4.

6. Configuration of the AES67 device is now complete.

Setting up the Q-SYS AES67 Receiver

Use Q-SYS Designer version 5.3.69 or higher. The AES67 device must be configured as required for the situation and its AES67 streams enabled. See the device's user documentation or online support for guidance.

1. Open the system design file in **Q-SYS Designer**.

2. In the **Inventory** pane, click the **+** symbol to add a device.

3. Select **Streaming I/O** and then from the list of available devices, select **AES67 Receiver** (Figure 5).

Amplifiers	**AES67 Receiver**	AES67 48kHz Interop
Loudspeakers	**AES67 Transmitter**	AES67 48kHz Interop
Peripherals	**Media Stream Receiver**	Virtual receiver
Streaming I/O	**Media Stream Transmitter**	Virtual transmitter
	Q-LAN RX	Virtual Q-LAN Receiver, for Core-to-Core streaming in
	Q-LAN TX	Virtual Q-LAN Transmitter, for Core-to-Core streaming out
	Softphone	SIP/VoIP based telephony endpoint
	WAN Receiver	Virtual wan receiver
	WAN Transmitter	Virtual wan transmitter

Figure 5.

4. Select the **AES67 Receiver** from the Inventory and place it as a component by dragging it onto the design schematic. Click the AES67 Receiver component so that information about its properties appear in the Q-SYS Designer **Properties** pane.
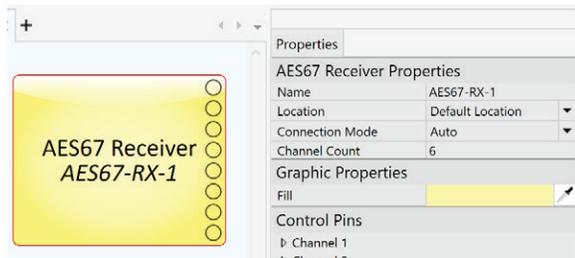
Figure 6.

Figure 7.

Figure 8.

5. In the the **Properties** pane (Figure 6), edit the **Channel Count** to match the number of channels to be received from the device in its AES67 flow. (In this example, the channel count is 6.)

6. In **Connection Mode**, select **Auto**. The Auto option configures the AES67 receiver to use the SAP protocol for discovery and connection management, which automates discovery and connection to any SAP-enabled AES67 stream, including those transmitted by a Dante-based device.

7. The design can now be saved to the Q-SYS Core Processor. To do so, press **F5** or select **File > Save to Core & Run**.

   At first after saving the design to the Core Processor, the AES67 Receiver status will show "Not Present - Waiting for SAP" to indicate that it is waiting to receive its first SAP announcement from the network (Figure 7).

   As soon as the AES67 Receiver receives its first SAP announcement, the status indication will change to "Not Present - No Stream Specified" (Figure 8) to indicate that the AES67 streams are discovered but have not yet been selected.
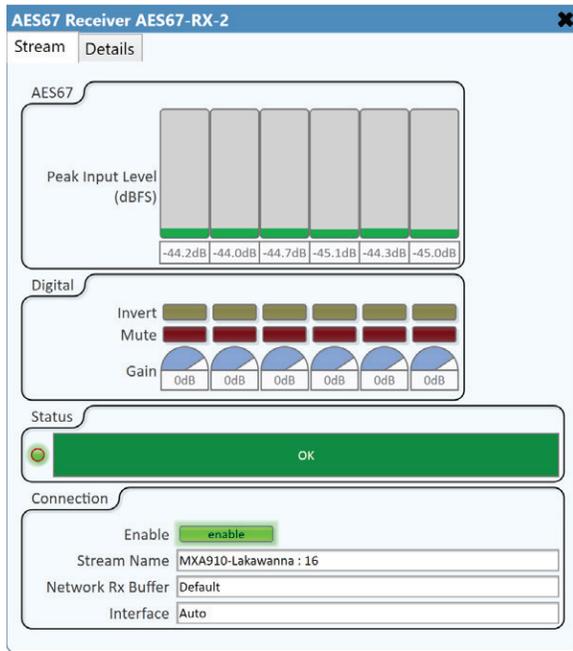
Figure 9.

8. In the **Connection** pane, click on the **Stream Name** field (Figure 9). From the list of transmitter device names and their corresponding multicast flow numbers, select the stream you wish to connect to.

   NOTE: It may take up to 30 seconds for all the connected devices to broadcast their SAP announcements onto the network, so it could take that long for the **Stream Name** list to fully populate.

9. Audio connectivity from the AES67 device to the Q-SYS Core Processor is now established.

   If the AES67 device has a suitable Q-SYS plugin, you may proceed with integrating it into the Q-SYS design; press **F7** or select **File > Disconnect** to disconnect from the Q-SYS Core Processor and resume design mode.

For additional information on using Q-SYS, please visit the QSC Training web site at **www.qsctraining.com**. A link to the web site can also be found in the Q-SYS Designer Help menu.

For additional information on using Dante Controller, please see the Dante Controller User Guide: **dev.audinate.com/GA/dante-controller/userguide/pdf/latest/AUD-MAN-DanteController-3.10.x-v1.0.pdf**.