

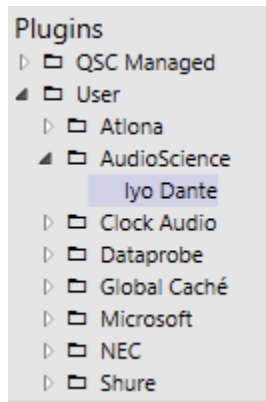
This document provides a brief overview of integrating QSC Q-SYS AES67 devices with AudioScience Iyo Dante products operating in AES67 mode, utilizing Q-SYS Designer with a Q-SYS Core 110f. Understanding of Q-SYS Designer and AES67 Networking is assumed.

**NOTE:** AES67 mode in Dante Controller must be enabled. Advanced AES67 customization is not yet supported on the Iyo. The Q-SYS Core and Iyo must be members of the same network sub-net and Q-SYS Core AES67 Transmitter transport IP addresses must be in the default range (239.69.x.x).

## 1 Add Iyo Dante plugin to Q-SYS Designer

From Q-SYS Designer, open Asset Manager (Tools > Show Q-SYS Asset Manager). Search for and install the AudioScience Iyo Dante plugin.

From the “Plugins” grouping in the bottom right corner, find and drag “Iyo Dante” onto the canvas.



**Figure 1 Adding Iyo Dante Plugin**

## 2 Iyo Model Type Selection

Click on the Iyo plugin and navigate to the 'Properties' window in Designer. Use the 'Model Type' dropdown to select the Iyo version that matches your device.

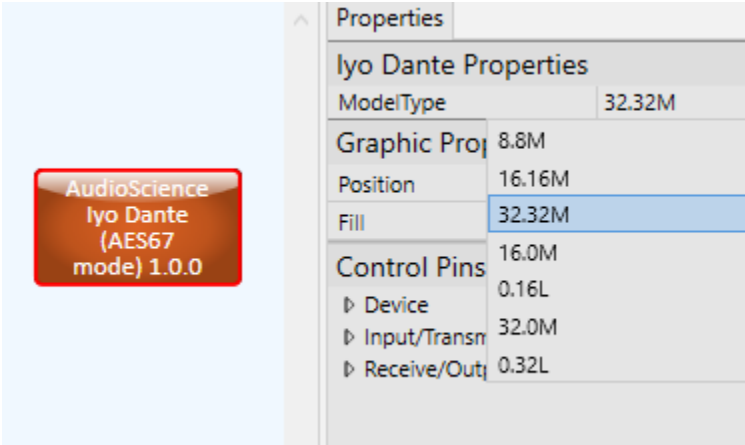


Figure 2 Iyo Dante plugin Model Type selection

3 Iyo Dante plugin overview

**AudioScience Iyo Dante (AES67 mode) 1.1.0**

Channels 1 - 8 | Channels 9 - 16

**Select a Device**  
Iyo1616M-145b66  
OK

**Device**  
Model Name: Iyo Dante 16.16M  
Model No.: ASI2702  
Hardware Rev.: C0  
Serial No.: 110017  
Primary MAC: 00:1D:C1:14:5B:66

**Firmware**  
AudioScience: iyo-dante-1.1.0  
XMOS: update iyo-xmos-dante-2.0.28

**Status**  
Sync: PTP Master  
Sys: OK  
Identify

**Settings**  
LED Brightness: 100%

**Input/Transmit AES67 Details**  
Stream Name: Transport IP  
Mic/Line In 1-8: 239.69.118.48  
Mic/Line In 9-16: 239.69.118.48

**Receive/Output AES67 Details**

Channel	Connected To	Stream Ch.
Line 1	AES67-TX-1	1
Line 2	AES67-TX-1	2

**Mic/Line In**

	1	2	3	4	5	6	7	8
Meter Peak	Low	Low	Low	-26dBFS	Low	Low	Low	Low
Gain	24 dB	10 dB	9 dB	10 dB	10 dB	10 dB	10 dB	10 dB
Level	0 dBu	14 dBu	15 dBu	14 dBu	14 dBu	14 dBu	14 dBu	14 dBu
Mute	Mute	Mute	Mute	Mute	Mute	Mute	Mute	Mute
Phantom Power	48V	48V	48V	48V	48V	48V	48V	48V
AES67 Status	Inactive	Inactive	Active	Active	Inactive	Inactive	Inactive	Inactive
AES67	Off	Off	On	On	Off	Off	Off	Off

**Line Out**

	1	2	3	4	5	6	7	8
Meter Peak	Low	-6dBFS	Low	Low	Low	Low	Low	Low
Level	14 dBu	-5 dBu	14 dBu	14 dBu	14 dBu	14 dBu	14 dBu	14 dBu
AES67 Status	Active	Active	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive
AES67	AES...:1	AES...:2	None	None	None	None	None	None

Figure 3 Iyo Dante Plugin

4 Connect to an Iyo

With the Core running, navigate to the 'Select a Device' grouping and click on an Iyo from the dropdown list to establish a connection to the device. **NOTE: only devices of the type selected in the Model Type Properties field (see section 2) will appear in this list.**



Figure 4 Device Connection

The status bar below the device selection dropdown indicates the current connection status between the Core and the Iyo.

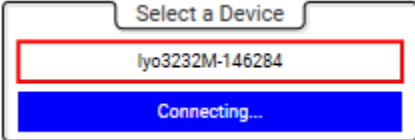


Figure 5 Device Connecting

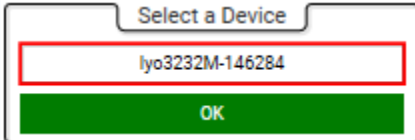


Figure 6 Device Connection OK

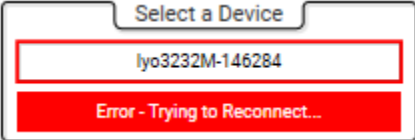


Figure 7 Device Connection Error

5 Connecting Q-SYS Mic/Line In to Iyo Receive/Output

In Q-SYS Designer, route a Mic/Line In component to an AES67 Transmitter component

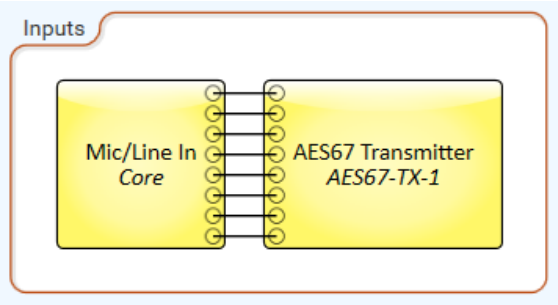
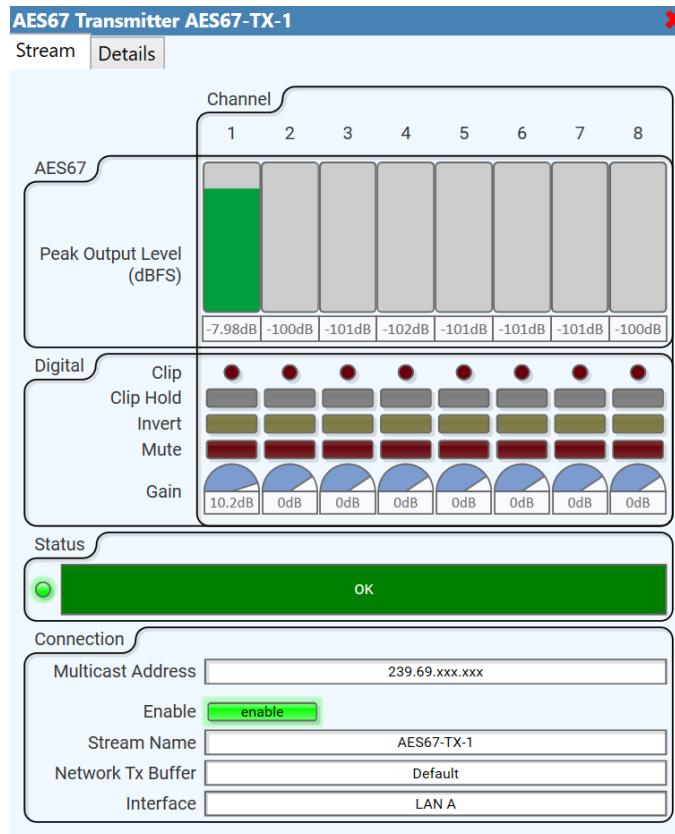


Figure 8 QSC Input and AES67 Transmitter Components

Click "Enable" in the AES67 Transmitter configuration window



**Figure 9 QSC AES67 Transmitter Configuration**

In the Iyo plugin, search for the QSC Transmitter Stream Name (e.g. AES67-TX-1) and channel in the AES67 dropdown list. Select the desired QSC Transmitter channel to route the QSC Input channel to the chosen Iyo Receive/Output channel. To unsubscribe from this channel, select "None".

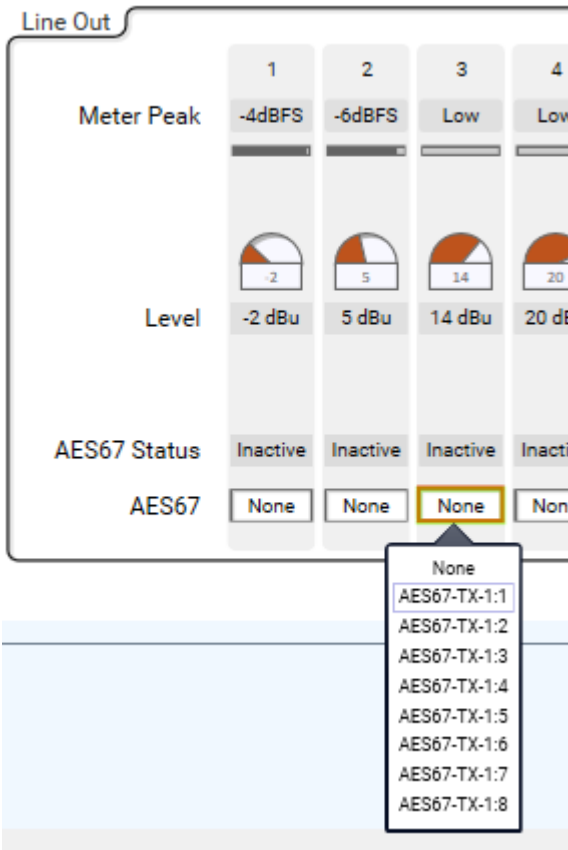


Figure 10 Iyo Receive/Output AES67 Selection

When the connection is established, the Receive/Output channel's AES67 Status label updates and the subscription details appear in the Receive/Output AES67 Details grouping

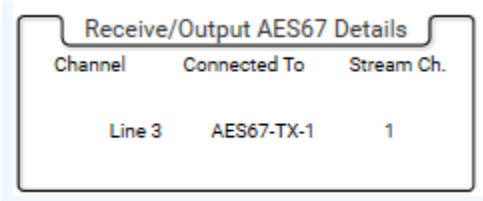


Figure 11 Active AES67 Receive/Output connection

### 6 Connecting Iyo Input/Transmit to Q-SYS Output

In the Iyo plugin, stream Iyo input channels by clicking the AES67 toggle button. Iyo Input channels are configured to stream via 8-channel flows, e.g. "Mic/Line 1 to 8", "Mic/Line 9 to 16", etc.

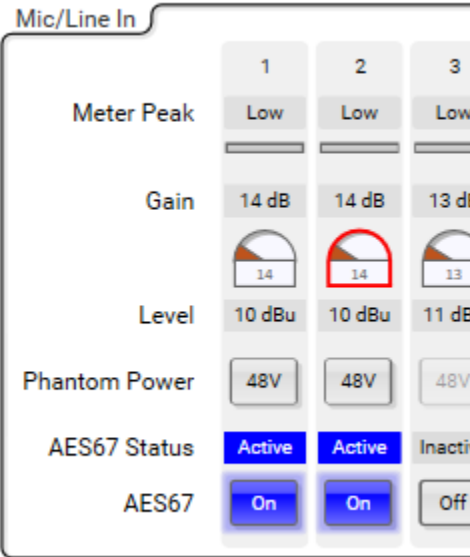


Figure 12 Iyo Input/Transmit AES67 Setup

The Input/Transmit AES67 details grouping displays the transport IP addresses of active flows

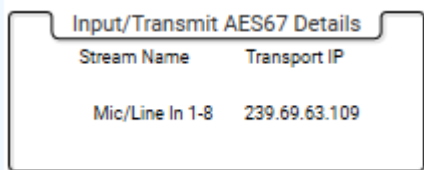


Figure 13 Iyo Input/Transmit AES67 Setup

In Q-Sys Designer, route an AES67 Receiver component to an Output component

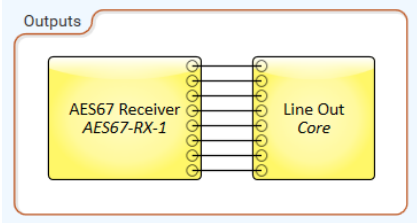


Figure 14 QSC AES67 Receiver and Output Components

In the AES67 Receiver configuration window, choose the Iyo Transmit Stream Name (e.g. Iyo1616M-146294 : Mic/Line 1-8) from the Stream Name dropdown list

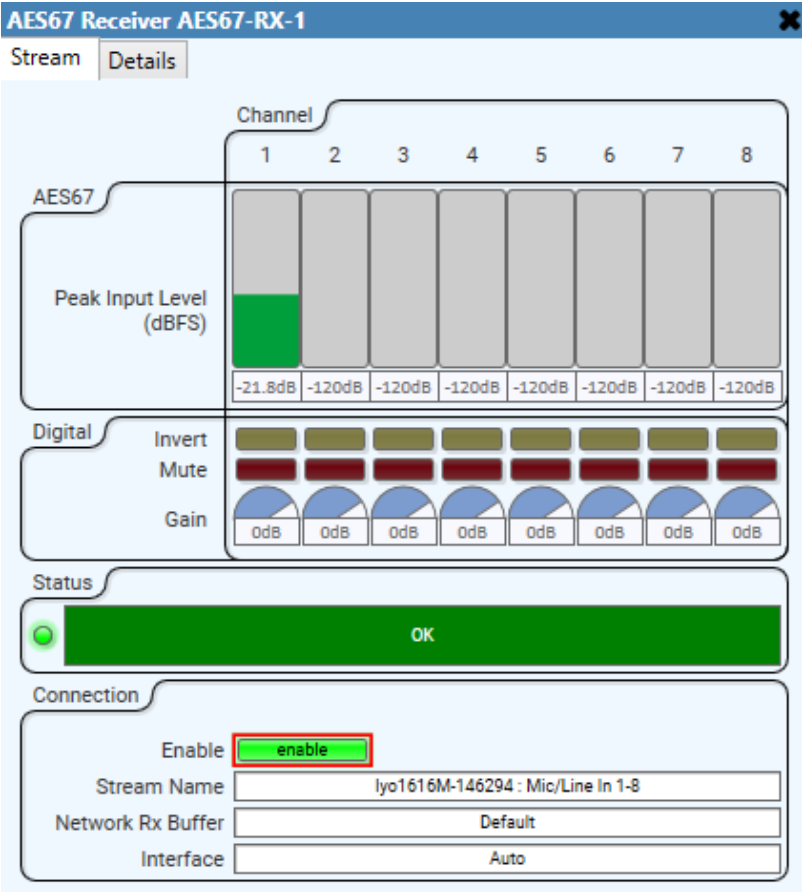


Figure 15 QSC AES67 Receiver Configuration



## 7 Control Pin Overview

### Device

Pin Name	Type	Range	Pins Available
Firmware:AudioScience	Text	-	Output
Firmware:XMOS	Text	-	Output
Info:Hardware Rev.	Text	-	Output
Info:Model Name	Text	-	Output
Info:Model No.	Text	-	Output
Info:Primary MAC	Text	-	Output
Info:Serial No.	Text	-	Output
Settings:LED Brightness	Text	'25%', '50%', '75%', '100%'	Input/Output
Status:Identify	Button	trigger	Input/Output
Status:Sync	Indicator	-	Output
Status:Sys	Indicator	-	Output

### Input/Transmit (per channel)

Pin Name	Type	Range	Pins Available
AES67 State	Button	1 ('true') - Streaming, 0 ('false') - Inactive	Input/Output
Gain (dB)	Knob	0 to 84 dB	Input/Output
Level (dBu)	Text	-60 to +24 dBu	Output
Peak Meter (dBFS)	Text	-60dBFS to 0 (Clipping)	Output
Phantom Power	Button	1 ('true') - On, 0 ('false') - Off	Input/Output
Mute	Button	1 ('true') - On, 0 ('false') - Off	Input/Output

### Receive/Output (per channel)

Pin Name	Type	Range	Pins Available
Level (dBu)	Knob	-10 to +24 dBu	Input/Output
Peak Meter (dBFS)	Text	-60dBFS to 0 (Clipping)	Output
Select AES67 Transmitter	Text	"session_name:flow_channel", e.g 'QSC:1'	Input/Output

## 8 Plugin Release Notes

### v1.1.0 (December 2018)

- Add per-channel input mute
- Add incompatible Iyo firmware alert

### v1.0.0 (December 2018)

- Initial release