

# Biamp Tesira

The Biamp Tesira core has two different models, the Manual model and the Auto model.

## Manual Model

The manual model works well for very simple setups, that only needs control of a few parameters. It requires a little more setup, but will not use as many resources on the Blue Pill.

## Auto Model

The auto model works by automatically reading the config running on the Tesira, and configuring the controllable parameters to fit them. This is the easiest model in most cases, and is also the one working with [AudioClass configs](#).

## Setup

### Manual Model

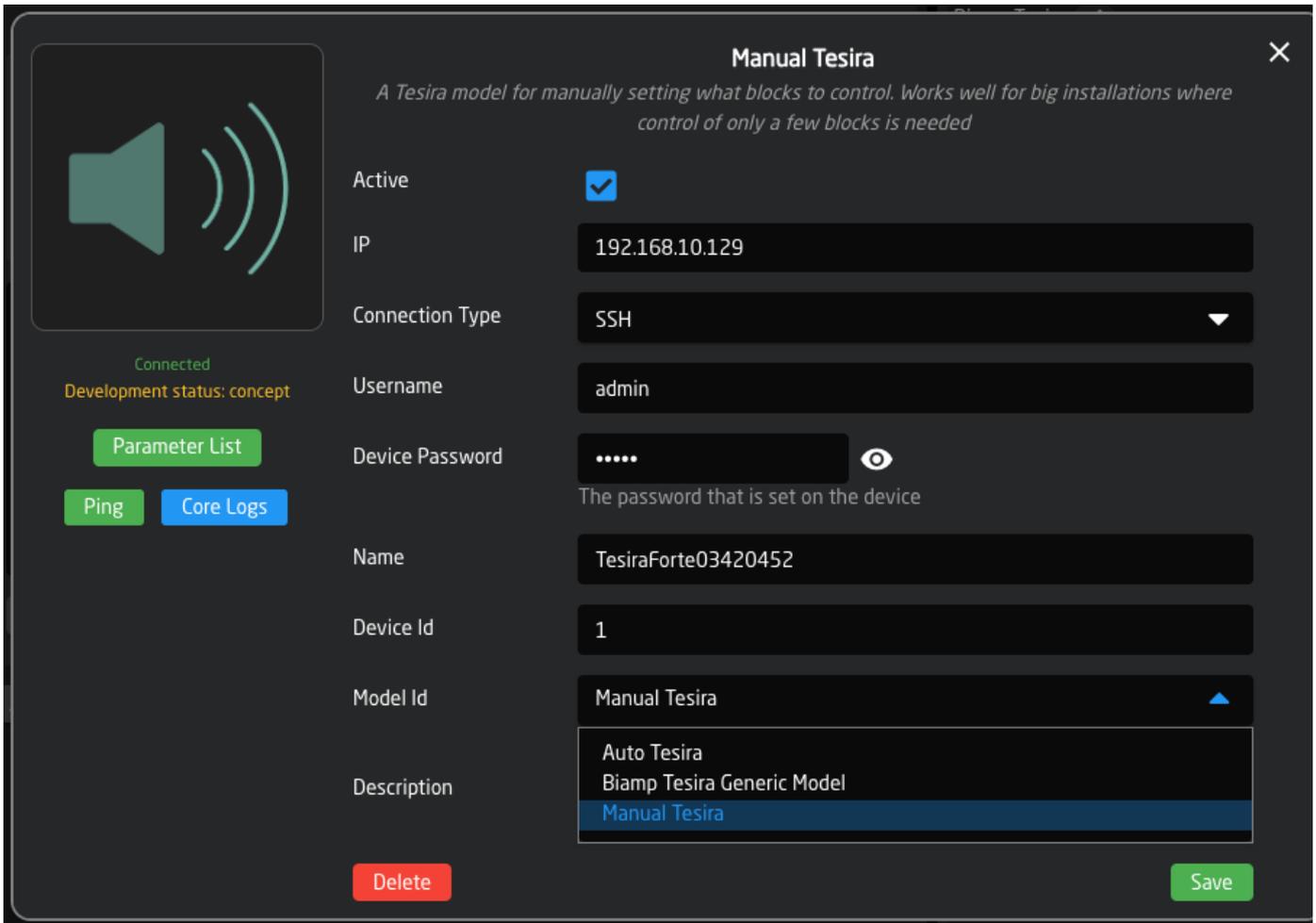
This is a guide on how to connect and control a Biamp Tesira audio processor. Since the Biamp Tesira uses 'Block names' and 'Channel numbers inside a block' there is an extra setup-layer involved, compared to other devices.

Please note: This guide covers the '**Manual Tesira**' model.

### Add device

On Reactor > Home page you click 'Add Device' to open the devices list. Tesira can be auto discovered. If you don't see the Tesira, you may have to go to the 'Packages' page and manually install the 'core-biamp-tesira' package.

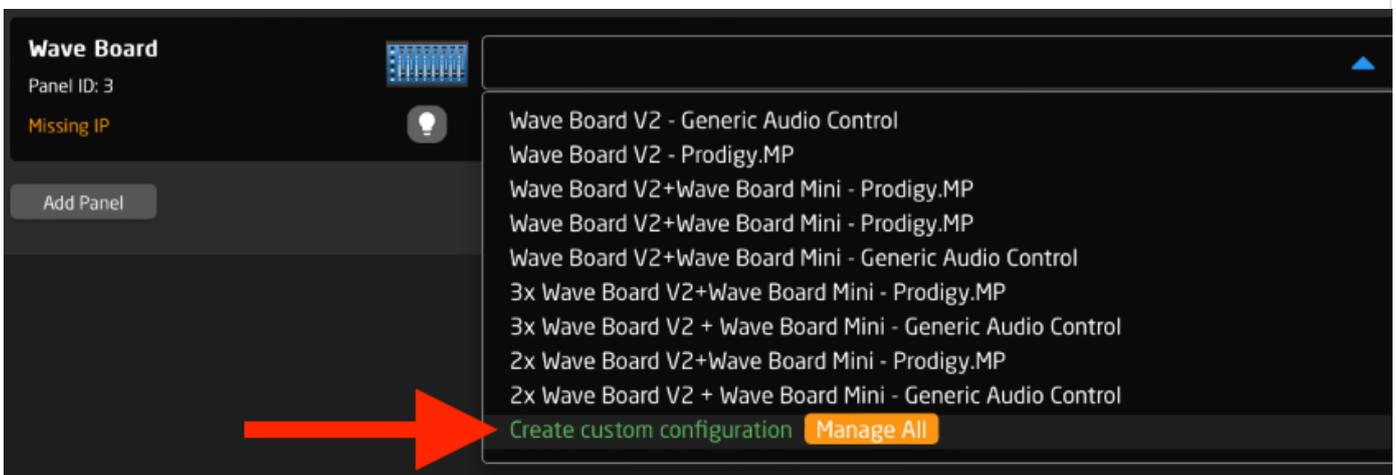
When adding the Tesira, please select the Model Id : Manual Tesira.



## Create custom configuration

We have not yet made any default configurations for the Biamp Tesira. This means you must make your own configuration to assign commands to buttons/faders/etc.

Next to your device icon, open the Configuration pop-up menu and select 'Create custom configuration'. Give it a name and click 'Create'.



## Control using 'Dimensions'

Biamp Tesira is a very flexible audio processor. Instead of just having fixed 'channel numbers' you have both 'Block names' and 'Channel number within a block'. Because of this we need an extra layer to point towards the desired control. We call these 'Dimensions'.

A 'Dimension' is a number, which is linked to a 'Block name' and a 'Channel number'.

For example, we can specify:

- Block name 'Level3' = Dimension 1
- Channel number 1 = Dimension 1

Then we can send the command:

- Level [Dimension 1] = -10dB

The actual commands are:

- Specify 'block' in Dimension 1  
parameter: DC:biamp-tesira/1/Level\_Instance\_Str/1/  
behavior: set value directly  
value: "Level3"
- Specify 'channel' in Dimension 1  
parameter: DC:biamp-tesira/1/Level\_Channel/1/  
behavior: set value directly  
value: 1
- Change level on Dimension 1  
parameter: DC:biamp-tesira/1/S\_Level\_level/1/  
behavior: set value directly (or use StepChange)  
value: -10db

You can send all 3 commands in a row from a button using a 'Multi behavior'.

Inspector

Behavior Page: Background Shift: Normal

## Multi Behavior

Order	Mute	Device	Behavior	Feedback
⋮	👁	TesiraForte, ID: 1	✎ Set a Value Directly	○
⋮	👁	TesiraForte, ID: 1	✎ Set a Value Directly	○
⋮	👁	TesiraForte, ID: 1	✎ Set a Value Directly	○
			✎ Custom Feedback	⊙

**3 commands on button**

Add behavior Show JSON

Parameter: *IO Reference* Level Instance (Core: Biamp Tesira) Dimension: 1

Settings Template: *MasterBehavior* Set a Value Directly  
Set parameter to a specific value

Value Level3 Level3

Device ID 1

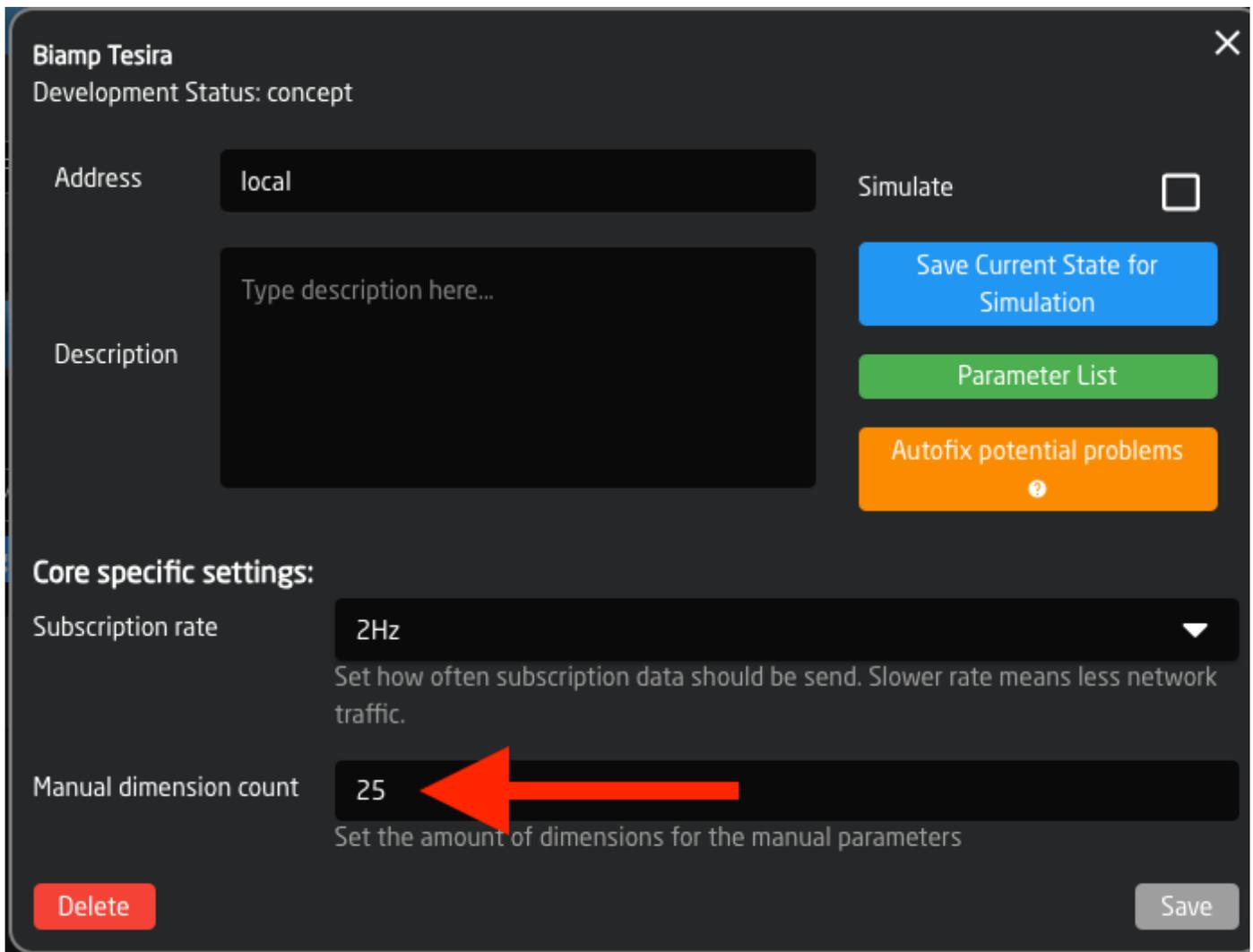
Dimension 1

**NOTE:** You only need to specify Dimensions once until you reboot the controller. (You can avoid having 3 commands on every button by using Virtual Triggers to setup the dimension at startup - see below.)

**NOTE:** Depending on the block, the Dimension will include different parameters. Fx. a 'Level Block' includes; Level, Mute, and Label. Other blocks include other parameters.

## Dimension count

By default there are 25 Dimensions available for each block type. This can be changed in: Home page > click Biamp Tesira device core name to open its settings > Edit 'Manual dimension count'



## Use Virtual Triggers for Dimension setup

Instead of sending 3 commands from each button, you can pre-configure all 'Dimensions' using Virtual Triggers. This way you specify the link between 'Block name', 'Channel number' and 'Dimension number' once at startup. After this, when sending commands you just use one command that includes the 'Dimension number'.

Example of Virtual Trigger that defines 4 dimensions (4 channels in the same block):

IF: At startup and Tesira is connected  
THEN:

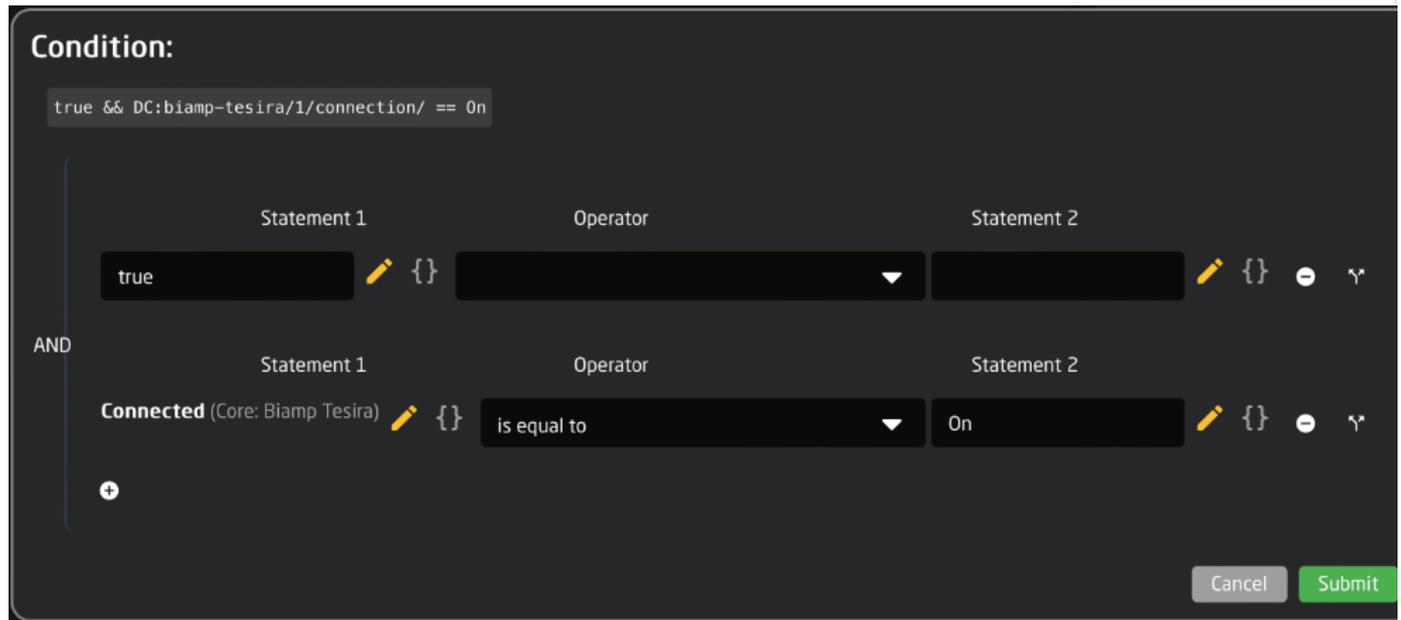
- Block name 'Level3' = Dimension 1
- Channel number 1 = Dimension 1
- Block name 'Level3' = Dimension 2
- Channel number 2 = Dimension 2
- Block name 'Level3' = Dimension 3

- Channel number 3 = Dimension 3
- Block name 'Level3' = Dimension 4
- Channel number 4 = Dimension 4

After this you only need to send one command from buttons/faders. For example:

- Level [Dimension 1] = -10dB
- Level [Dimension 2] = 0dB
- Mute [Dimension 3] = On

'IF' screenshot:



'THEN' screenshot (using one Event Handler with 'Binary > Sequence'):



Layer: [Virtual Trigger](#)

[Reactor Manual](#)

Parameter:  
*IO Reference*

Select Parameter

Settings Template:  
*MasterBehavior*

Hide More

Event Handlers:

Event handler *sequence*

Delete

Handler Type:

Binary (Button)



Set Mode:

Sequence



Step 1



Parameter:  
*IO Reference*

Level Instance (Core: Biamp Tesira)

Dimension: 1

Set Values:

Level3

Wait before execute:

ms

Step 2



Parameter:  
*IO Reference*

Level Channel (Core: Biamp Tesira)

Dimension: 1

Set Values:

1

Wait before execute:

20  ms

Step 3



Parameter:  
*IO Reference*

Level Instance (Core: Biamp Tesira)

Dimension: 2

Set Values:

Level3

Wait before execute:

20  ms

Step 4



Parameter:  
*IO Reference*

Level Channel (Core: Biamp Tesira)

Dimension: 2

Set Values:

2

Wait before execute:

20  ms

Step 5



Parameter:  
*IO Reference*

Level Instance (Core: Biamp Tesira)

Dimension: 3

Set Values:

Level3

Wait before execute:

20  ms

Step 6



Parameter:  
*IO Reference*

Level Channel (Core: Biamp Tesira)

Dimension: 3

Set Values:

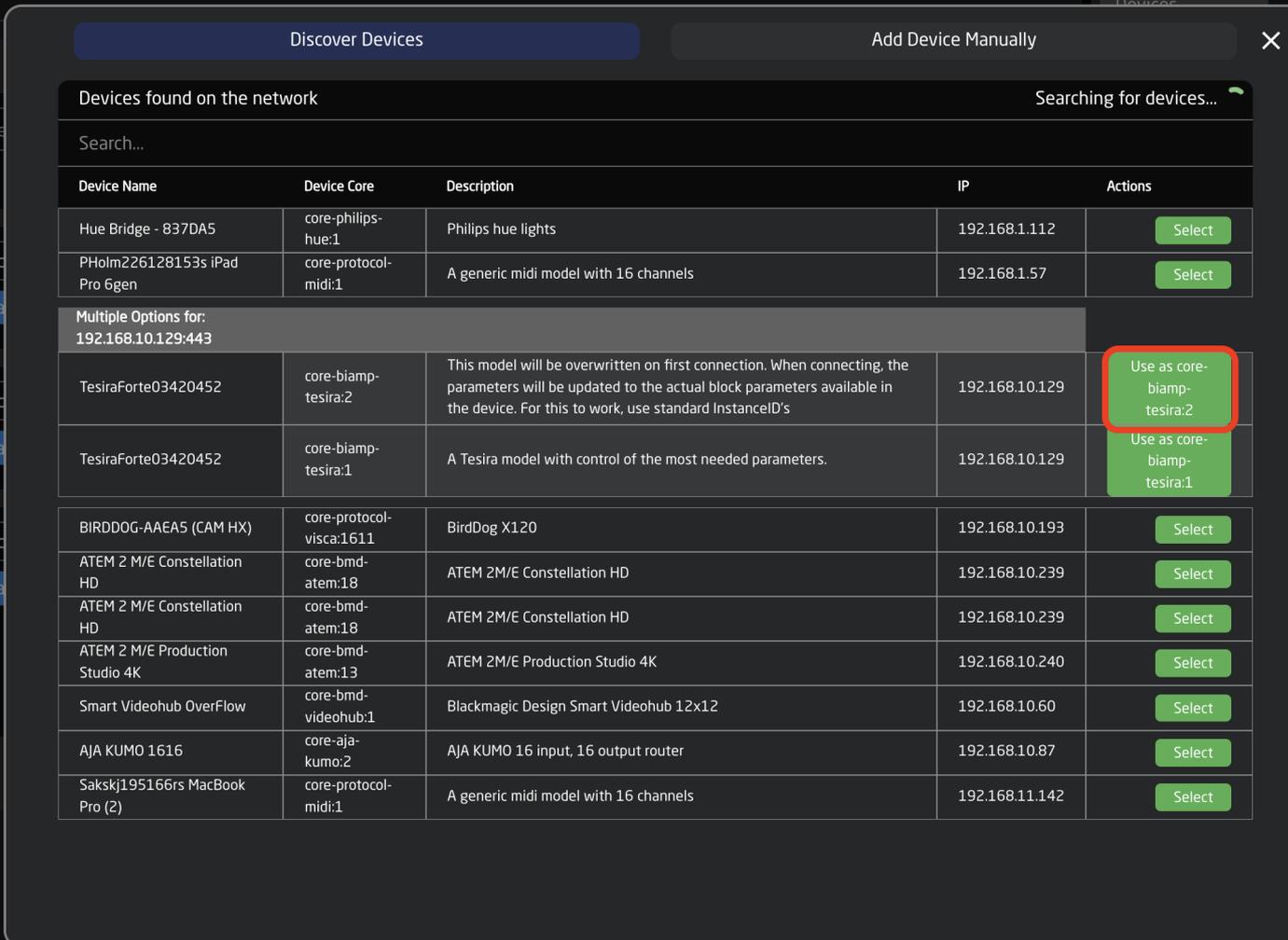
3

## Auto Model

# Add device

On Reactor > Home page you click 'Add Device' to open the devices list. Tesira can be auto discovered. If you don't see the Tesira, you may have to go to the 'Packages' page and manually install the 'core-biamp-tesira' package.

When adding the Tesira, please select the Model Id : Auto Tesira.



The screenshot shows a 'Discover Devices' window with a search bar and a table of devices. The table has columns for Device Name, Device Core, Description, IP, and Actions. The 'TesiraForte03420452' device is highlighted with a red box around its 'Use as core-biamp-tesira:2' button.

Device Name	Device Core	Description	IP	Actions
Hue Bridge - 837DA5	core-philips-hue:1	Philips hue lights	192.168.1.112	Select
PHolm226128153s iPad Pro 6gen	core-protocol-midi:1	A generic midi model with 16 channels	192.168.1.57	Select
Multiple Options for: 192.168.10.129:443				
TesiraForte03420452	core-biamp-tesira:2	This model will be overwritten on first connection. When connecting, the parameters will be updated to the actual block parameters available in the device. For this to work, use standard InstanceID's	192.168.10.129	Use as core-biamp-tesira:2
TesiraForte03420452	core-biamp-tesira:1	A Tesira model with control of the most needed parameters.	192.168.10.129	Use as core-biamp-tesira:1
BIRDDOG-AAEA5 (CAM HX)	core-protocol-visca:1611	BirdDog X120	192.168.10.193	Select
ATEM 2 M/E Constellation HD	core-bmd-atem:18	ATEM 2M/E Constellation HD	192.168.10.239	Select
ATEM 2 M/E Constellation HD	core-bmd-atem:18	ATEM 2M/E Constellation HD	192.168.10.239	Select
ATEM 2 M/E Production Studio 4K	core-bmd-atem:13	ATEM 2M/E Production Studio 4K	192.168.10.240	Select
Smart Videohub OverFlow	core-bmd-videohub:1	Blackmagic Design Smart Videohub 12x12	192.168.10.60	Select
AJA KUMO 1616	core-aja-kumo:2	AJA KUMO 16 input, 16 output router	192.168.10.87	Select
Sakskj195166rs MacBook Pro (2)	core-protocol-midi:1	A generic midi model with 16 channels	192.168.11.142	Select

When the device has been added, the device config can be opened by clicking the name. Here you would find the following settings. Remember to set username and password here. The first time you connect, the 'Regenerate auto' should be enabled. This reads the config from the Tesira, and generates the parameters needed.



Connected  
Development status: concept

Parameter List

Ping Core Logs

**Auto Tesira** ✕

This model will be overwritten on first connection. When connecting, the parameters will be updated to the actual block parameters available in the device. For this to work, use standard InstanceID's

Active	<input checked="" type="checkbox"/>	
IP		192.168.10.129
Connection Type		SSH
Username		admin
Device Password		..... <span style="font-size: 0.8em;">The password that is set on the device</span>
Name		TesiraForte03420452
Device Id		1
Model Id		Auto Tesira
Regenerate auto	<input checked="" type="checkbox"/>	<small>Set this to regenerate the auto model. Should be set the first time to generate the model, and disabled afterwards.</small>
Description		

Delete
Save

When the device states 'Connected', the [Parameter List](#) can be opened and reviewed. It is grouped into the different block types, and shows what parameters can be controlled on each block type.

Each parameter should show some different dimensions. The first specifying the Instance Id of that dimension, and the second and possibly third specifies the channel, inputs or outputs available for control.

<p><b>Level Level</b> Control of 'level' for block 'Level' Level. level</p>	<p><b>Control:</b> Floating [-100:12]dB <b>Feedback:</b> Normal (Same) <b>Dimensions:</b> InstanceID: (4) 1: Level1 2: Level2 3: Level3 4: Level4 ----- Channel: (4) ----- <span style="border: 1px solid green; padding: 1px 5px;">SimpleParam</span></p>
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This is an example of a parameter in the Parameter List. The left side has the label, description and name. The right side shows the control and feedback of of the parameter, and the dimensions described above.

In this case, we see 4 level blocks, with 4 channels each. Each block might not have 4 channels, but that number is set to the block with the highest channel count.

Now you are ready to either add channels to an Audio Class config, or start your own configuration from scratch.

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