



## USER MANUAL



Version 1.2.1  
Revised March 27, 2023

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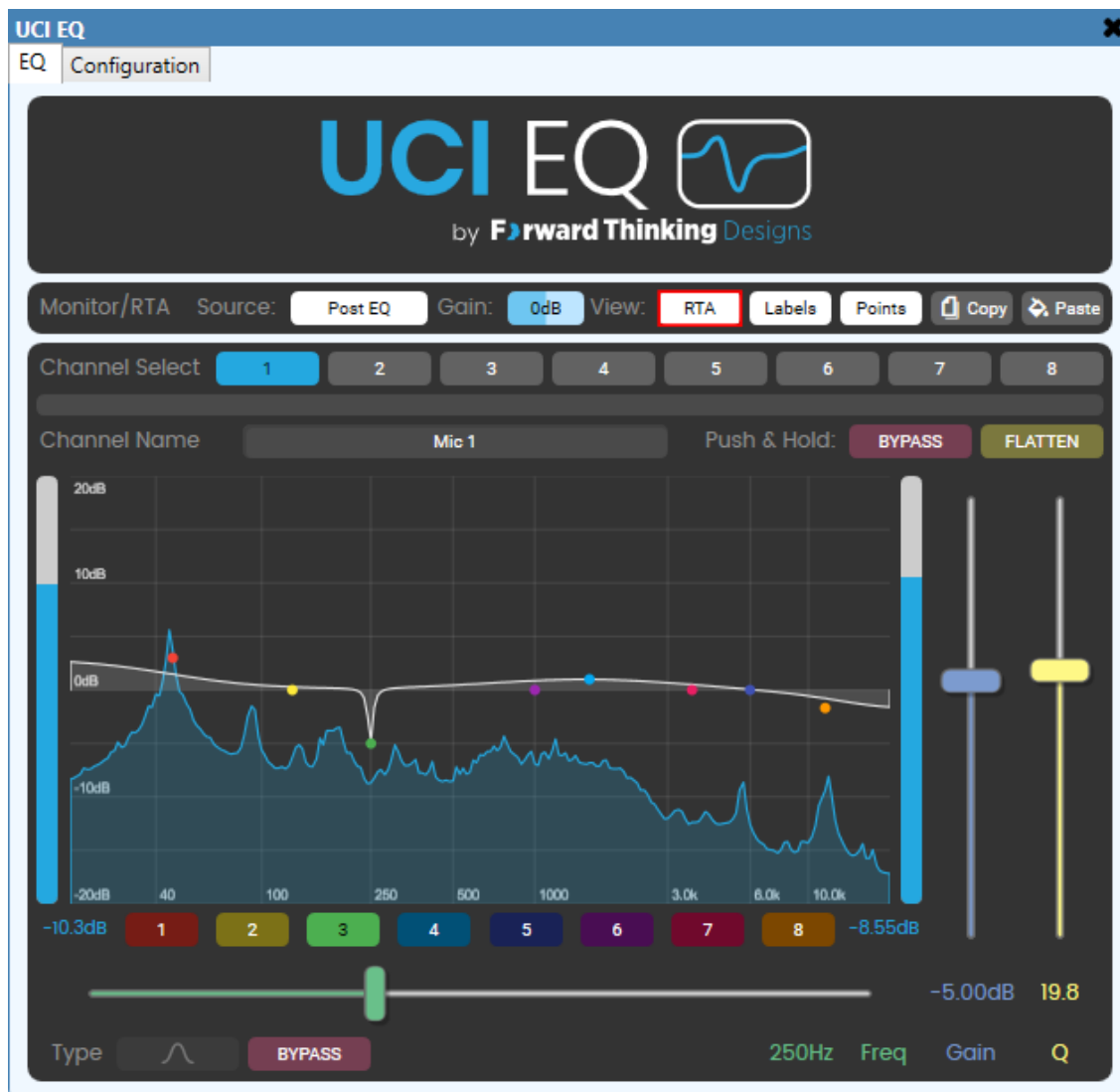
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# OVERVIEW

UCI EQ is a versatile equalization plugin for QSC®'s Q-SYS™ version 9.0 and later, designed to give users an equalization tool that includes live RTA data that is easily placed on a User Control Interface (UCI) within Q-SYS™.

Once added to a design, UCI EQ provides users a 3 - 8 band EQ and configurable RTA graph that can easily be placed on a UCI for quick and easy real time equalizing and audio monitoring on a Q-SYS™ system.

The UCI EQ plugin requires a license key to function but can be used in demo mode for 10 minutes to evaluate the plugin. The 10-minute period can be restarted by restarting the Q-SYS™ design. Use of the plugin in demo mode for commercial purposes is prohibited.



# CONFIGURATION

## Properties

Property	Function	Choices
License Key	Enter the license key here to activate the plugin.	
Channels	Specifies how many input and output channels the plugin will have.	1-16
Bands	Specifies how many EQ bands per channel the plugin will have.	3-8
Global Copy/Paste	Enable copy and paste across all copies of UCI EQ running on the same core.	Yes No
Multi-Channel	Allows each EQ channel to control up to 64 input channels. Can be used for stereo and multi-channel linking.	Yes No
Channel Inputs (for each, when multi-channel is engaged)	Specifies how many inputs are assigned to each EQ channel.	1 - 64

Properties	
UCI EQ Properties	
License Key	
Channels	8
Bands	5
Global Copy/Paste	Yes ▼
Multi-channel	No ▼
Show Debug	No ▼

Properties	
UCI EQ Properties	
License Key	
Channels	8
Bands	5
Global Copy/Paste	Yes ▼
Multi-channel	Yes ▼
Channel 1 Inputs	1
Channel 2 Inputs	1
Channel 3 Inputs	1
Channel 4 Inputs	1
Channel 5 Inputs	1
Channel 6 Inputs	1
Channel 7 Inputs	1
Channel 8 Inputs	1
Show Debug	No ▼

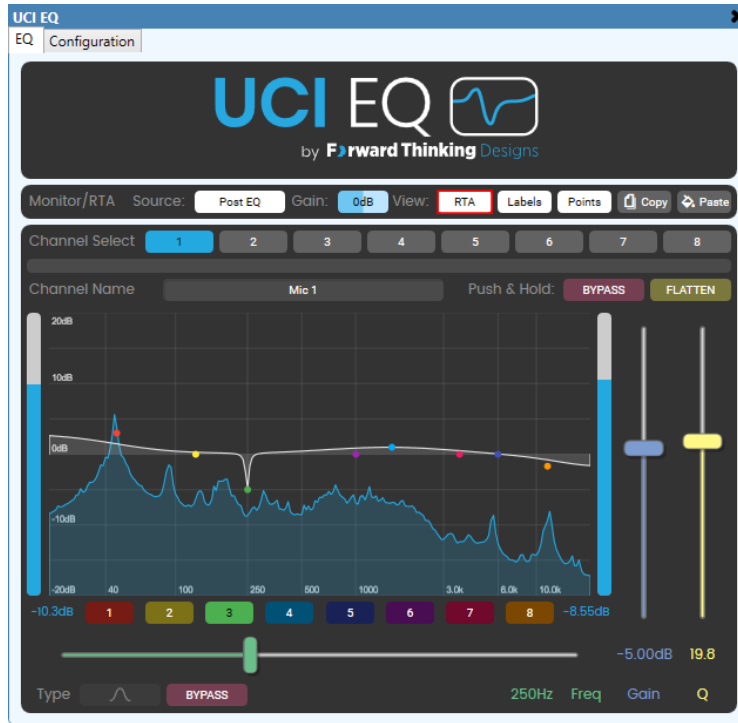
## Setup

To configure UCI EQ, follow these steps:

1. Enter your License Key given to you with the purchase of the plugin in the Properties window. Without a license the plugin will only function for 10 minutes.
2. Enter your desired Channel count in the plugin Properties panel. This configures the number of channels on the UCI EQ component. Max Channel count per plugin is 16.
3. Enter your desired EQ Band count in the plugin Properties panel. This configures the number of EQ Bands per channel on the UCI EQ component. EQ Band count per channel is 3 - 8.
4. Wire the desired inputs and outputs to the channel inputs and outputs on the component.
5. If desired, wire an external microphone or other audio signal into the last input pin: RTA Input. This gives users the ability to monitor an external audio source on the UCI EQ real time analyzer.
6. Place the desired controls on the User Control Interface.
7. The offline plugin settings are now finished, and the plugin should be run on an active Q-SYS™ Core using *Save to Core & Run*.
8. Congratulations, UCI EQ is now ready to use!

# CONTROLS

## EQ



### Monitor / RTA



**Source** – Allows users to choose the input source of the RTA.

**Post EQ** – The RTA displays the Post EQ audio signal.

**Pre EQ** – The RTA displays the Pre EQ audio signal.

**RTA Input** – The RTA displays the external audio signal connected to the RTA Input control pin.

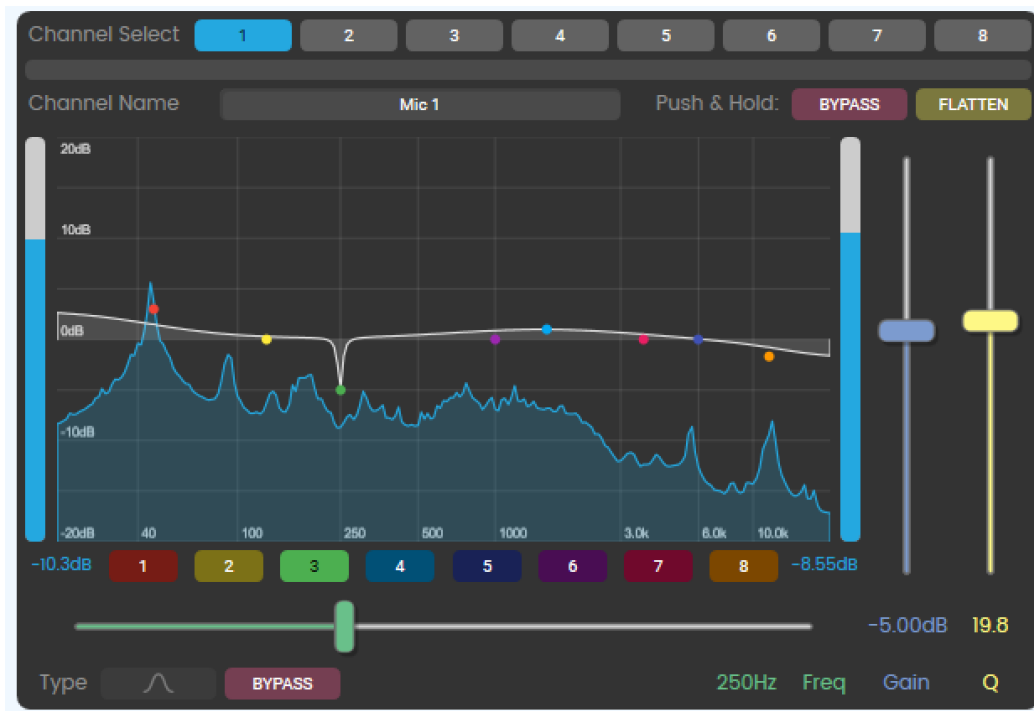
**Gain** – Adjusts the vertical gain of the RTA graph display.

**View** – Allows users to turn on and off the RTA, Graph Labels, and EQ Band Points.

**Copy** – Copies the EQ settings of the currently selected channel. If Global Copy/Paste is enabled the selected channel EQ settings are copied to all UCI EQ plugins with Global Copy/Paste enabled.

**Paste** – Pastes the most recently copied EQ settings to the currently selected channel. If Global Copy/Paste is enabled the pasted settings are the most recently copied EQ settings from any UCI EQ plugin with Global Copy/Paste enabled.

## Graph



**Graph** – Displays the RTA graph and current EQ of the selected channel.

**Channel Select** – Select the UCI EQ channel to view and modify.

**Channel Name** – User definable name for easy channel identification.

**Bypass** – Bypasses the entire EQ filter (all bands) for the selected channel. Push and hold for 3 seconds to bypass.

**Flatten** – Resets the gain of all bands to 0dB for the selected channel. Push and hold for 3 seconds to flatten.

**Pre EQ Meter** – Displays the input level of the selected channel before EQ is applied.

**Post EQ Meter** – Displays the output level of the selected channel after EQ is applied.

**Band Select 1 - 8** – Selects the current frequency band.

**Frequency** – Adjusts the center frequency of the current band on the current channel.

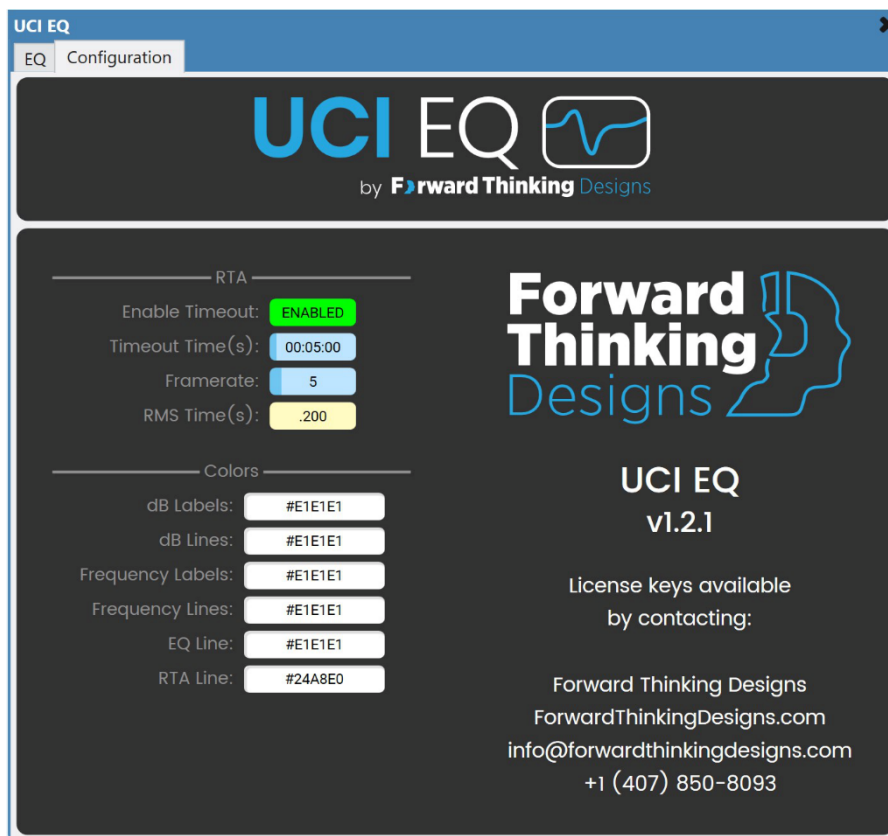
**Gain** – Adjusts the gain of the current band on the current channel.

**Q** – Adjust the Q-Factor (or bandwidth) of the current band on the current channel.

**Type** – When Band 1 is selected, the type of control toggles between a parametric and low-shelf filter. When last Band (3 – 8) is selected, the type of control toggles between a parametric and high-shelf filter.

**Bypass** – Bypasses only the current EQ band on the current channel.

## Configuration



### RTA

**Enable Timeout** – Enables the RTA Graph to timeout and turn off after a specified time to save CPU resources. This is a useful tool when the graph is placed on a UCI that a user may not need to view for an extended period of time.

**Timeout Time** – Formatted as hh:mm:ss, this is the time the UCI EQ controls must be inactive before the RTA automatically turns off.

**Framerate** – This determines the framerate that the RTA is using. This number greatly affects the CPU usage of both the Q-SYS™ Core and any computers viewing the RTA using the Windows UCI Viewer. It is recommended to start low (5) and find a framerate that is acceptable for your use case.

**RMS Time** – Sets the RTA time constant which defines how quickly the RTA responds to changes in the audio.

**Note:** When using multi-channel, the RTA and meters will only display the first channel of the group.

### Colors

**Colors** – Set the Colors of the different Graph elements. Used for customizing the EQ and RTA graph to match your UCI. Values can be HTML color names or hex color values.



# APPENDIX A: CONTROL PINS

## Channel (for each)

### Band (for each)

Pin Name	Control Type	Value Range	Pin Direction
Bypass	Boolean	True / False	Input / Output
Frequency	Float	20Hz – 20 kHz	Input / Output
Gain	Float	-100dB – 20dB	Input / Output
Q Factor	Float	.404 – 144	Input / Output
Type	String	Parametric Low-Shelf High-Shelf	Input / Output

### All

Pin Name	Control Type	Value Range	Pin Direction
Bypass	Boolean	True / False	Input / Output
Gain	Float	-20dB – 20dB	Input / Output
Invert	Boolean	True / False	Input / Output
Mute	Boolean	True / False	Input / Output
Name	String	User Defined	Input / Output

### Color

Pin Name	Control Type	Value Range	Pin Direction
dB Labels	String	Hex Color / HTML Color	Input / Output
dB Lines	String	Hex Color / HTML Color	Input / Output
EQ Line	String	Hex Color / HTML Color	Input / Output
Frequency Labels	String	Hex Color / HTML Color	Input / Output
Frequency Lines	String	Hex Color / HTML Color	Input / Output
RTA Line	String	Hex Color / HTML Color	Input / Output

### RTA

Pin Name	Control Type	Value Range	Pin Direction
Framerate	Integer	1 – 30	Input / Output
Gain	Float	-20dB – 20dB	Input / Output
Input	String	Post EQ Pre EQ RTA Input	Input / Output
RMS Time Constant	Float	.001 – 30	Input / Output
Timeout Enable	Boolean	True / False	Input / Output
Timeout Time	Integer	(seconds) 5 – 3600	Input / Output

### Select Channel

Pin Name	Control Type	Value Range	Pin Direction
(for each)			Input / Output

## View

Pin Name	Control Type	Value Range	Pin Direction
Labels	Boolean	True / False	Input / Output
Points	Boolean	True / False	Input / Output
RTA	Boolean	True / False	Input / Output

## General

Pin Name	Control Type	Value Range	Pin Direction
Copy	Trigger		Input / Output
Disable	Boolean	True / False	Input / Output
Paste	Trigger		Input / Output

# SUPPORT

For plugin support and feedback please contact us at:

[ForwardThinkingDesigns.com](http://ForwardThinkingDesigns.com)

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# LICENSE

Use of this plugin is contingent on your acceptance of our Plugin Software License Agreement. This license agreement is available to view at:

[ForwardThinkingDesigns.com/license](http://ForwardThinkingDesigns.com/license)