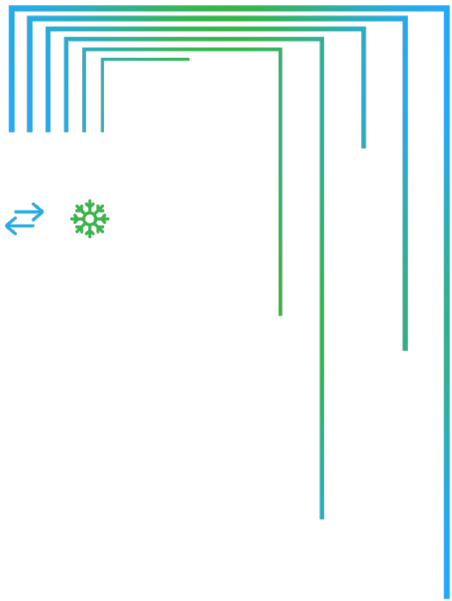
Aurora

quickstart guide



QU-BIT

Description

Welcome to Aurora, a spectral reverb capable of a wide palette of sounds: from lush caverns and whale songs, to alien textures you've never created before. And likely, will invoke a hunger for exploration you felt when you first touched a modular synth.

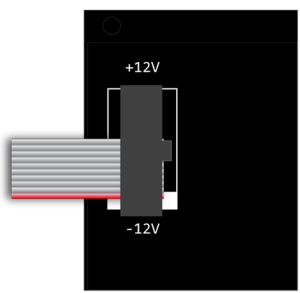
Aurora uses a phase vocoder audio engine which separates the input signal's time and pitch domains. By blurring these signals you can achieve beautiful time-stretched tails, or cybernetic metallic effects.

Since Aurora's sonic response is entirely dependent on the input signal, no two patches will sound alike, lending itself to an infinite world of surprise and discovery.

Discovery. It's why we're here.

Module Installation

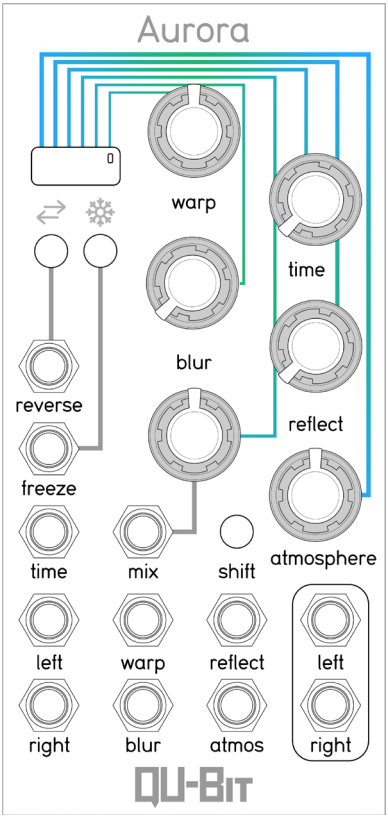
To install, locate 12HP of space in your Eurorack case and confirm the positive 12 volts and negative 12 volts sides of the power distribution lines.



Plug the connector into your case's power supply unit, keeping in mind that the red band corresponds to negative 12 volts. In most systems, the negative 12 volt supply line is at the bottom.

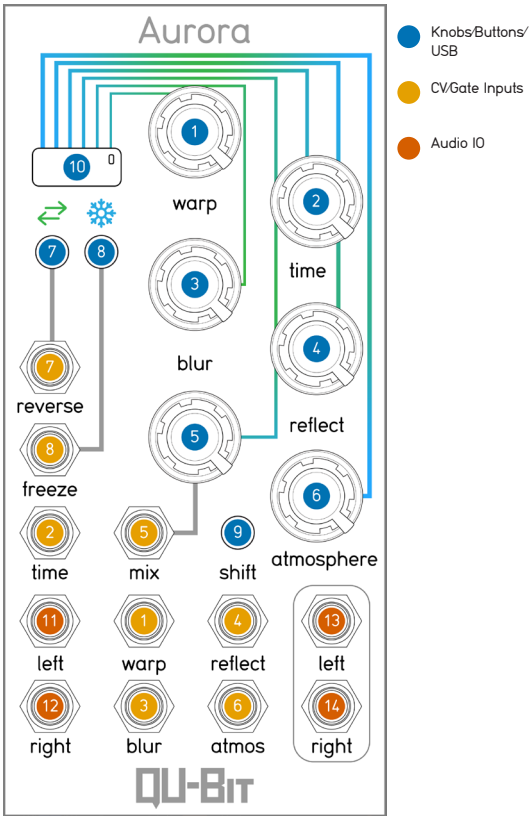
The power cable should be connected to the module with the red band facing the bottom of the module.

Initial Knob Positions



*These are the recommended initial knob positions, but who are we to pigeonhole you. It's your party, throw it how you want it!

Front Panel



11 Audio Input Left

- Audio input for the left channel. Normals to both channels when no cable is present in Audio Input Right.
  Range: 10Vpp (AC-Coupled)

12 Audio Input Right

- Audio input for the right channel.
  Range: 10Vpp (AC-Coupled)

13 Audio Output Left

- Audio output for the left channel.
  Range: 10Vpp

14 Audio Output Right

- Audio output for the right channel.
  Range: 10Vpp

1 Warp

- Pitch shifts up 3 octaves, and down 3 octaves. Tracks 1V/oct.
- Warp CV input. Range: -5V to 5V

2 Time

- Blurs the amplitude component of audio, time-stretching your audio into long smeared sonic tails.
- Time CV input. Range: -5V to 5V

3 Blur

- Smears the frequency component of incoming audio, creating digitally stretched spectral effects.
- Blur CV input. Range: -5V to 5V

4 Reflect

- Morphs between different multi-delay time zones.
- Reflect CV input. Range: -5V to 5V

5 Mix

- Morphs between the dry and wet signal.
- Mix CV input. Range: -5V to 5V

6 Atmosphere

- Controls the spectral and time domain filters to shape your sound. Low end = spectral whale songs. High end = Icy, frequency-rich textures.
- Atmosphere CV input. Range: -5V to 5V

7 Reverse

- Plays the incoming audio backwards. What more could you want?
- Reverse gate input. Threshold: 0.4V

8 Freeze

- Locks the inputted audio, and holds it until deactivated. Wouldn't be a Qu-Bit module without a freeze button!
- Freeze gate input. Threshold: 0.4V

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9 Shift

- Wouldn't be a Qu-Bit module without a shift button either. Holding down Shift provides access to secondary functions.
- **Shift+Mix:** Adjusts the audio input level. Default level is indicated by Blue LEDs. Bring the level up to use line level gear with Aurora.
- **Shift+Reverse:** changes the Fast Fourier Transform (FFT) size. This is your spectral resolution.

FFT Size	LED Color	How It Sounds	Fun Sounds To Use
4096 (Default)	Blue	Lush And Clean	Physical Modeling, Synth Pads
2048	Green	Best Of Both Worlds	Wavetable Synths, Samples
1024	Cyan	Comb-like Timbres	Synth Drums, Simple Waveforms
512	Purple	Aliens Are Inside My Module	Vocals For Craziness, Synth Drums

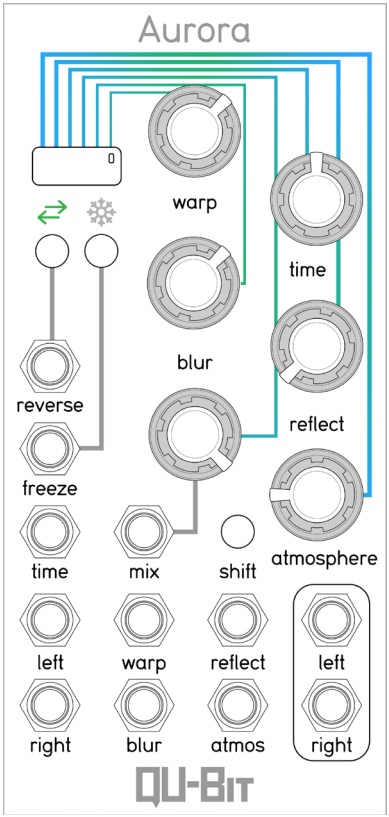
10 USB

- Used for firmware updates, alternate firmwares, and custom settings via the options.txt file. To update changes on your USB drive, simply insert it into Aurora while powered or at boot up, and Aurora will automatically update all files and firmware! USB LED will flash white when the update is complete. See the table below for the available settings:

Option	Default	Description
DSP_ORDER	1 (ON)	Sets whether the vocoder feeds the delay or vice versa
FREEZE_WET	0 (OFF)	Forces the blend setting to full wet when freeze is engaged
LATENCY_COMP	0 (OFF)	Adds an internal delay on FFT SIZE samples to keep the FFT and the dry signal in sync
ALWAYS_BLUR	1 (ON)	By default blurring is always engaged, this setting can be disabled to allow a cleaner signal to pass through when blur is all the way down

For more information on how to change your custom settings, shift functions, and more, scan the QR code on the back of this guide to grab the manual!

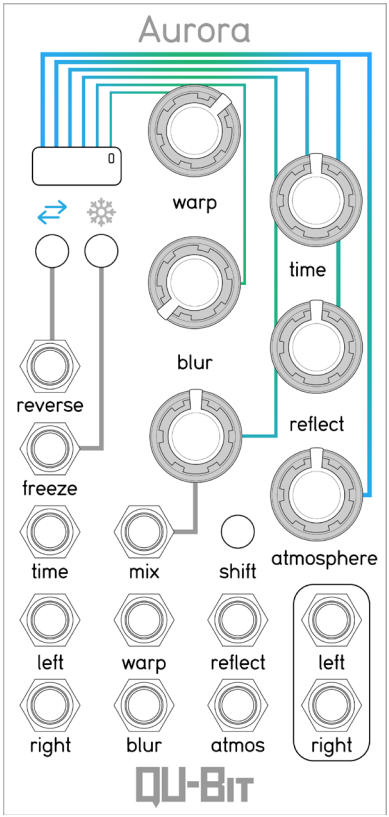
Patch: Whale Songs



FFT Size: 2048

Slow and low inputs will take you into the abyss with spectral whales singing all around you. Bring Blur down and send it a unipolar LFO, bringing ebb and flow to the whale's haunting call.

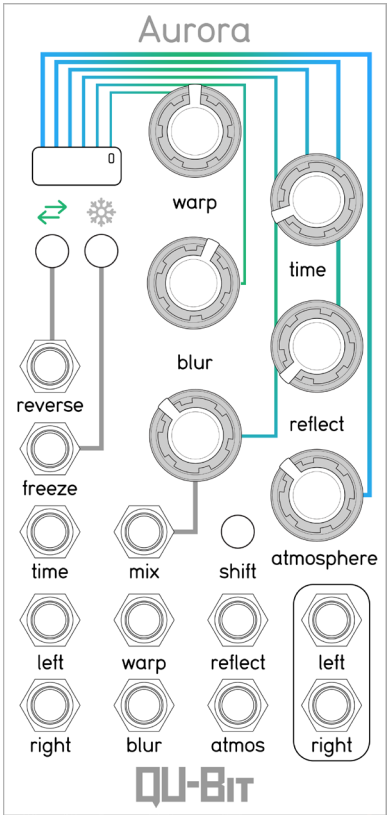
Patch: Icy Shimmer



FFT Size: 4096

Transport your sound to a crystal shimmer palace with these settings. Adjust the Atmosphere knob for filtering control to create sweeping movements in your patch!

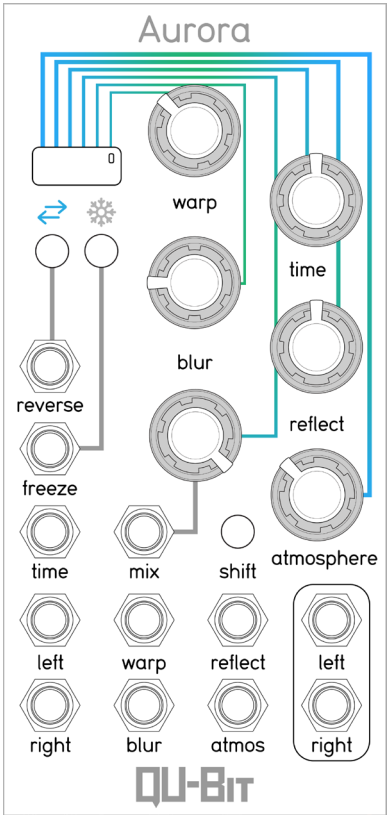
Patch: Percussive Textures



FFT Size: 2048

Jam on Aurora with this performative patch! With the Time knob low, manual tweaking on the Reflect knob in this example tangles and twists percussive sounds in ways that will always deliver.

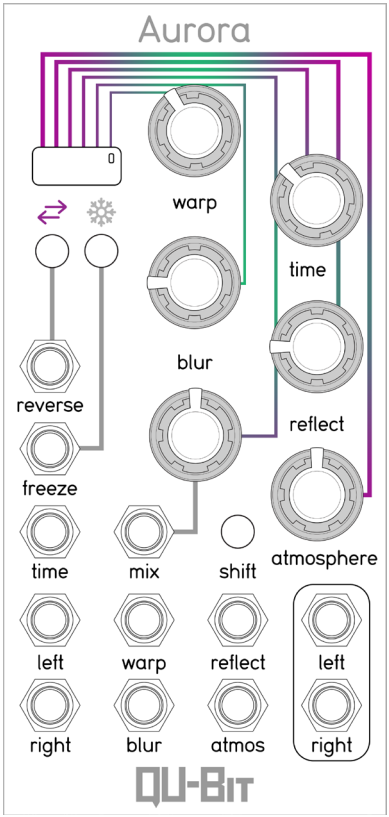
Patch: Contact



FFT Size: 4096

Emulate alien ship thrusters with a simple waveform. Morphing between sine and pulse waves on Chord, for example, changes the thrusters from subdued to overwhelming.

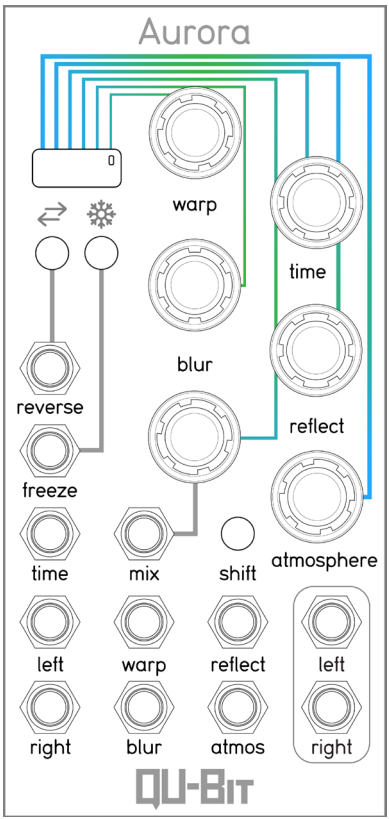
Patch: Sea Cave



FFT Size: 512

Running drums through this patch sounds like Poseidon is ripping it in his sea cave. Activate freeze to transform the noisy wash into a slewed drone for additional dynamics.

Patch: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reflect
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QU-BIT

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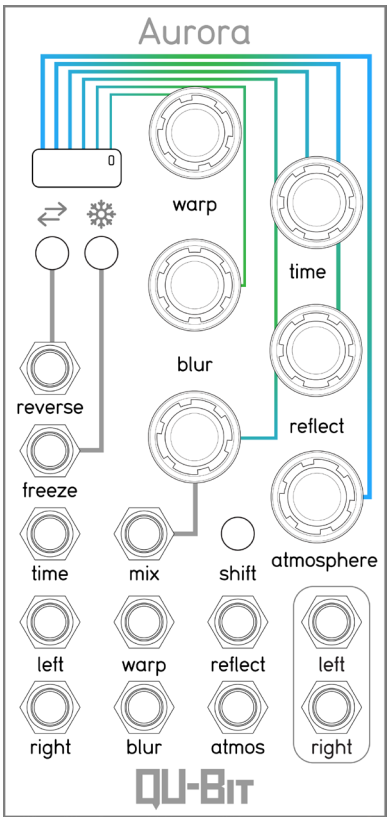
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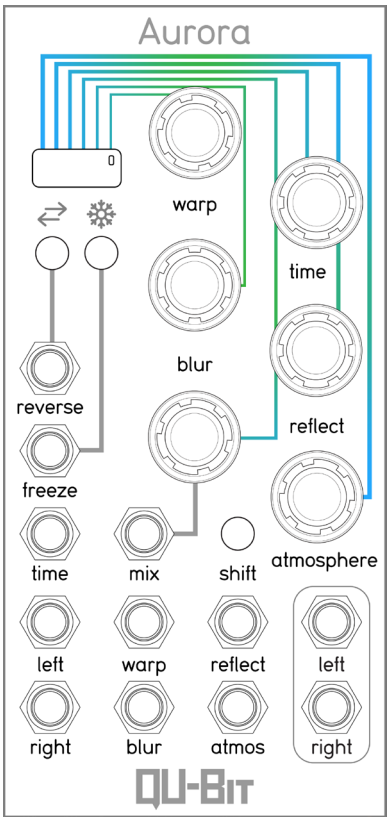
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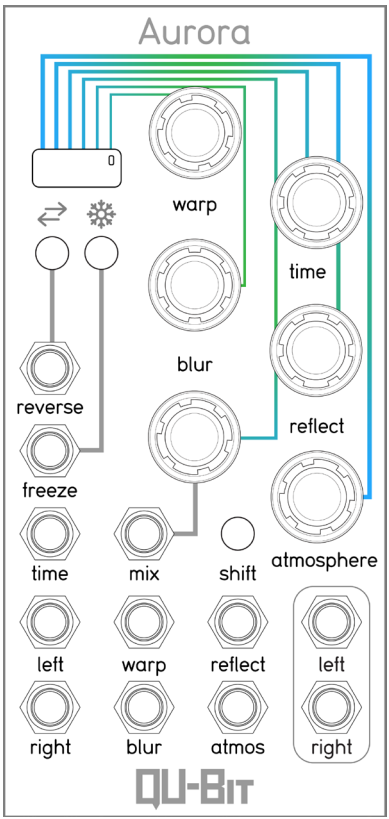
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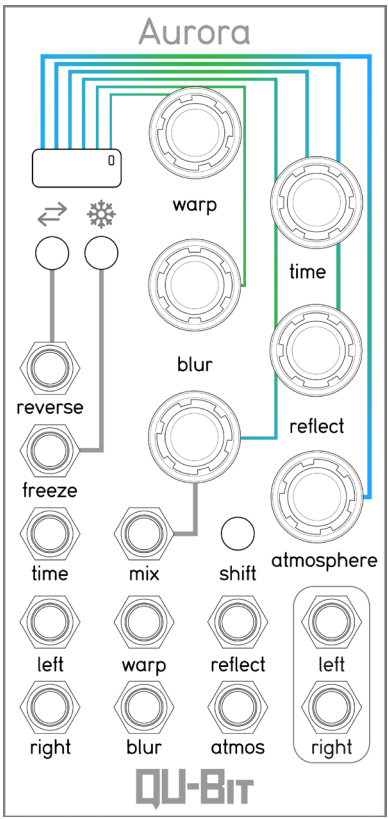
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Reverb. Well...kind of.

A portion of all Aurora proceeds will go to the protection and preservation of polar bears and ice caps.

We hope you are diving deep into Aurora! If you have the itch to learn more, scan the QR code below to jump to the Aurora product page, where we have demo videos, the complete manual, and more!

Happy Patching,

The Qu-Fam

Learn More.

https://qubitelectronix.com