# Qu-Bit Electronix Stardust




Q-Bit Electronix announces the availability of Stardust - turning to the stars as inspiration for its introduction as a cosmic tape looper that energises interaction with recorded audio in the Eurorack format, following on from an impressive legacy of DSP (Digital Signal Processing) audio buffer processors by building upon what made the likes of the self-styled ‘Future Coast’ modular synth-maker’s Daisy



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platform-based Data Bender, Mojave, Nautilus, and Nebulae modules make musical waves as industry-leading devices - as of November 13…

As a stereo recorder and looper, essentially, Stardust is, at its core, capable of capturing (48kHz, 24-bit hardware/32-bit internal) high-fidelity audio - up to 10 minutes maximum (mono)/five minutes maximum (stereo) - and replaying it. Its rock-solid fundamentals notwithstanding, the conditions in which the looper can find itself showcases the ethereal beauty of the module since Stardust can take any recorded sound and reconstruct a new sonic canvas from those original recordings. After all, this technique - known as musique concre`te — dates back to the early 1940s, developed by French composer Pierre Schaeffer and his associates as a type of music composition that utilises recorded sounds as raw material. Melding both old and new forms of sound processing to re-envision what can be done in the recording medium, Stardust builds upon this tape technique.

The formal introductions can perhaps be best left to Qu-Bit Electronix CEO - and company co-founder - Andrew Ikenberry, who says, “Stardust follows the ethos we’ve had here for the last few years; we want to take complex DSP techniques and make them accessible to everyone - turn a knob, and hear the magic unfold.” It is fair to say that Qu-Bit Electronix’s design philosophy focuses on hands-on, approachable devices that leave room for users to push their own technique and explore sound design in new ways - admirable attributes that have never been more present than with Stardust.

Saying that, Stardust, unsurprisingly, adheres to that ‘New-Bit’ philosophy in all the right ways. Indeed, it behaves like most recorders and loopers in the sense that it can record a sound and play it back, as reflected in its front panel providing all the essential controls for loop manipulation. Ultimately, users can start and stop a loop, reset the loop to the beginning, change the loop playback speed and consequently its pitch (varispeed), and even instantly reverse the loop, each control having a dedicated knob or button and an accompanying jack for signal modulation - all great features to have, but fundamental to the device in question.

Qu-Bit Electronix’s Stardust features various loop modes that alter recording behaviour beyond basic recording controls: Sound On Sound Mode bakes each recording into the loop, building an endless cacophony of sound in the process of doing so; Replace Mode cuts out old audio from the loop and replaces it with the new recording; and Frippertronics Mode emulates the trailblazing tape looping technique perfected by British guitarist Robert Fripp to which it - in part - owes its notable name, decaying the recording layer of the loop over time. The final loop mode on offer is Re-Sample Mode, whereby Stardust reads its loop as the audio input and re-samples it as a new buffer! Better still, this is a wonderful way to capture moments of chance transformation within Stardust, thanks to the copious controls available for manipulating recorded sound.

Stardust also allows users to dial in their loop with start and freeze controls in order to set a precise loop within a recording. Thanks to the Eurorack format, the loop size



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can change at will with CV (Control Voltage) modulation.Historically, however, not all tape loopers stop instantaneously, so it is just as well, then, that Stardust has a control to emulate that. The inertia knob - positioned just below the front panel-dominating varispeed knob - controls the amount of tape lag when changing the playback speed of the loop, and there is even an ‘Inertial Slope’ control - accessed via the shift button - that lets users set the inertia emphasis depending on playback change direction. As a simpler way of putting it, this only allows the tape-stop effect to occur when stopping or slowing down the loop, with an instant start or speed up, and vice-versa.

Above and beyond that, the two controls that bookend the beautiful galaxy art adorning Stardust’s front panel hark back to the tape technique of splicing and editing, but with a Qu-Bit Electronix twist. The slice control splits the loop into evenly spaced divisions that can reach into thousands of splice points, depending on the loop size, but when paired with skip, the celestial canvas reveals itself in an ever evolving soundscape. Stardust will begin to pick out splices in its night sky, then rearrange them according to how it sees fit. For example, this can include re-pitching the splice, reversing it, repeating it, swapping it with a different splice, changing its stereo positioning - and more.

It is tempting to play with that pairing until the sun burns out, admittedly, but Stardust does not stop there. To add an additional layer of sound design capabilities, the flutter and hiss knobs control a multitude of stackable effects that are, as always, DSP driven - dial in a nostalgic, warm tape feel with wow, flutter, and tape hiss, or digitise a loop with fidelity artefact effects. Elsewhere, Stardust also hosts a lush reverb algorithm, allowing users to transform their loops in a vibrant, nebulous array. And users even have access to high- and low-pass filters for further timbral fine tuning. It is safe to say that Stardust provides the means to completely flip recordings upside down, yet have the end result still make sense in a musical way — not to mention that all of its parameters can be synced to an external clock!

Clearly, Stardust offers more than just its front panel controls. After all, that aforesaid shift button opens up its secondary functions - for instance, jump octaves with the varispeed knob or turn up the pre-gain to use Stardust with line - or even instrument - level devices; press the Effect Mode button to have the DSP effects apply to the dry signal; and even save and export loops as a .wav file to Stardust’s USB drive! Fittingly following in the fanciful footsteps of Qu-Bit Electronix’s more recent additions to its popular product line-up, that USB drive provides Stardust users with a list of under-the-hood settings - all configurable via Narwhal, the ‘Future Coast’ modular synth-maker’s settings web app. Admittedly, varispeed sweeps the whole spectrum in its default setting, but what if it only changed to fifths and octaves? Of course, Narwhal can do that - and so much more besides:

Allowing anyone to reach out into the vast unknown, one overdub at a time, “Stardust is where we’ve wanted to go with Qu-Bit - from every aspect of the design.” So says an equally energised Andrew Ikenberry, winding up with: “We’ve been dreaming up this module for six years now - from what it will do to what it will



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look like, and how it will contribute to our own patching. We think we nailed it, and are so excited to have Stardust out in the world."

Stardust is available worldwide from Qu-Bit Electronix's growing global network of distributors with a price of $499.00 USD or directly via its dedicated webpage. (Note that with each Stardust purchased, a portion of the proceeds will go towards the advancement of science and technology via The Planetary Society.)

www.planetary.org
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