

The Parameters of the 555

The 555 is a five-in-one module with five functions: PORTAMENTO, S&H, NOISE, RING MOD, and LFO.

PORTAMENTO

CV IN 1/2
These jacks input the signals to which you want to apply portamento.

CV OUT 1/2
These jacks output the waveform with portamento applied.

PORT CV 1/2
These jacks input a voltage used to control LONG/SHORT from an external source.

LONG/SHORT
These sliders adjust the amount of portamento. As the slider approaches SHORT, the signal approaches the original waveform.

ON/OFF 1/2 (Portamento)
These switches turn portamento on/off.

LFO (Low Frequency Oscillator)

FREQ (LFO Frequency)
Specifies the frequency of the LFO.

DELAY/DELAY TRIG
When a signal is input to DELAY TRIG, the output amplitude from the LFO temporarily becomes 0, and gradually returns to its original amplitude according to the setting of the DELAY slider.

FREQ RANGE (LFO Frequency Range)
This switch specifies the LFO's frequency range.

CV FREQ
This jack inputs a voltage used to control the LFO's frequency from an external source.

WAVE FORM
These jacks output a pulse wave, triangle wave, sawtooth wave, reverse sawtooth wave, and sine wave.



S&H (SAMPLE & HOLD)

EXT CLK
Input a clock signal to this jack if you want to use a clock from an external source to hold the signal, instead of using the internal LFO.

CLK RATE
This slider specifies the frequency of the internal LFO that is used for HOLD. The frequency is indicated by the blinking of the LED.

CLK OUT
The CLK OUT jack output the clock signal of the internal LFO. If EXT CLK is being input, a clock signal is output at its frequency.

S&H OUT
This jack outputs a voltage that is held from the input signal. By adjusting the LAG TIME you can smooth the changes in the CV waveform that is output.

LAG TIME
S&H contains an internal LPF. The output signal goes through the LPF before it is output. This slider specifies the cutoff frequency of the LPF.

SAMPLE SELECT/EXT SIG SW
This switch selects the input signal (SAMPLE). You can choose from internally-generated pink noise, white noise, LFO output waveforms, or EXT SIG from an external source.

NOISE

PINK/WHITE
The PINK jack outputs pink noise, and the WHITE jack outputs white noise.

RING MOD (Ring Modulator)

X/Y/RM OUT
The waveforms of X and Y are multiplied and output from the RM OUT jack.

● **About S&H (Sample & Hold)**

S&H is a function that remembers (samples) an input signal and maintains (holds) its level as specified by a clock signal.

As the input signal, the S&H of the SYS-555 can use its own LFO output waveform, pink noise, white noise, or the EXT SIG input signal. It holds this input signal as specified by the internal clock signal of the S&H or an EXT CLK.

By combining various input signals and clock signals, you can create a CV that is unpredictable yet has regularity.

By adjusting the LAG TIME you can smooth the changes in the CV that is output.

● **About LFO**

The LFO of the 555 can output five types of waveform, and also contains a delay function.

When a signal enters the DELAY TRIG jack, the output amplitude from the LFO temporarily becomes 0, and gradually returns to the original amplitude according to the setting of the DELAY slider.

By using this in conjunction with the VCO, you can create delayed vibrato in which vibrato is applied a little while after the sound begins.

Block Diagram

