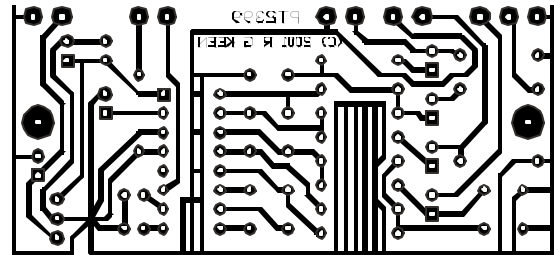


PT 2399 Echo Circuit

Here's the ticket if you want to try playing with the Princeton Technologies PT2399 echo/delay chip. The circuit is just the schematic of the "Echo" application in the PT2399 datasheet. Since that circuit assumes that there is a +5V power supply available, I added a 78L05 voltage regulator circuit to it to drop the stock +9V from a battery down to a regulated +5V.

Designation	Qty	Description (Echo)	Description (delay)
U1	1	PT2399	PT2399
U2	1	78L05	78L05
R1,R5	2	15K	15K
R2,R7	2	10K	10K
R3,R8	2	10K	15K
R4	1	4.7K	4.7K
R6	1	5.6K	2.7K
R9,R11	2	100K	100K
R10	1	18K	18K
C1,C4	2	47uF	47uF
C2,C5,C6	3	0.1uF (100nF)	0.1uF (100nF)
C3	1	100uF	100uF
C7	1	3900pF (3.9nF)	5600pF (5.6nF)
C8,C9	2	560pF	560pF
C10,C11	2	0.082uF (82nF)	0.082uF (82nF)
C12,C13	2	4.7uF	4.7uF
C14,C15	2	10uF	10uF
C16	1	0.01uF (10nF)	0.01uF (10nF)
C17	1	3300pF (3.3nF)	3300pF (3.3nF)
Repeats	1	50K Audio Pot	50K Audio Pot
Delay Time	1	50K Linear Pot	50K Linear Pot

Ra sets the minimum delay time. If Ra + Delay Time is almost zero, delay time goes to about 31mS. If its about 28K, delay time is about 342mS. The app note suggests 10K to start with.



C2,5,6 are monolithic ceramic. C7,8,9,10,11 are plastic (mylar/polyester). All others are aluminum electrolytic. All caps 10V or greater voltage. All resistors 1/4W carbon film.

You'll also need the usual wrapper for an effect: a box, a battery clip, a stomp switch, input and output jacks, knobs for the controls, some way to mount the board in the box, the usual stuff.

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