Bill Of Materials for Smooth It - VC Slew - 2.0

Design Title	Smooth It - VC Slew - 2.0
Author	Dustin Stroh J3RK
Document Number	
Revision	2.0
Design Created	Monday, February 20, 2023
Design Last Modified	Thursday, March 30, 2023
Total Parts In Design	90

0 Modules

Quantity	References	Value	PCB Package	Notes

Sub-totals:

11 Capacitors

Quantity	References	Value	PCB Package	Notes
3	C1,C3-C4	47pF	CAP10	C0G/NP0 MLCC / Ceramic / Film
1	C2	1uF	CAP10	C0G/NP0 MLCC / Ceramic / Film (Value can be swapped within reason for slope length.) Timing Capacitor.
1	C5	100pF	CAP10	C0G/NP0 MLCC / Ceramic / Film
6	C6-C11	22pF	CAP10	C0G/NP0 MLCC / Ceramic / Film

Sub-totals:

40 Resistors

Quantity	References	Value	PCB Package	Notes
2	R1,R11	10K	RES40	1% Resistor (Temp Coefficient NOT important for this design.)
4	R2,R8,R10,R12	100K	RES40	1% Resistor (Temp Coefficient NOT important for this design.)
2	R3,R13	330K	RES40	1% Resistor (Temp Coefficient NOT important for this design.)
6	R4,R14,R31-R32, R35-R36	22K	RES40	1% Resistor (Temp Coefficient NOT important for this design.)
2	R5,R15	820R	RES40	1% Resistor (Temp Coefficient NOT important for this design.)
2	R6,R16	220k	RES40	1% Resistor (Temp Coefficient NOT important for this design.)
2	R7,R9	1k	RES40	1% Resistor (Temp Coefficient NOT important for this design.)
9	R17-R20,R22-R24,R26-R27	22k	RES40	1% Resistor (Temp Coefficient NOT important for this design.)
3	R21,R25,R28	100R	RES40	1% Resistor (Temp Coefficient NOT important for this design.)
2	R29-R30	2K	RES40	1% Resistor (Temp Coefficient NOT important for this design.)
2	R33-R34	10k	RES40	1% Resistor (Temp Coefficient NOT important for this design.)
1	R37	1M	RES40	1% Resistor (Temp Coefficient NOT important for this design.) Optional - See Schematic.
1	R38	390R	RES40	1% Resistor (Temp Coefficient NOT important for this design.)
2	R39-OPT,R40-OPT	12K	RES40	1% Resistor (Temp Coefficient NOT important for this design.) Optional - See Schematic.

Sub-totals:

4 Integrated Circuits

Quantity	References	Value	PCB Package	Notes
2	U1,U3	TL074	SO14	Standard quad op amp. TL074 / LM347 / etc.
1	U2	LM13700	SO16	LM13700 Dual OTA
1	U4	TL072	SO8	Standard dual op amp. TL072 / LF353 / LF412 / etc.

Sub-totals:

2 Transistors

Quantity	References	Value	PCB Package	Notes
2	Q1-Q2	2N3906	TO92	2N3096 or similar PNP transistor. PCB is laid out for EBC pinout.

Sub-totals:

9 Diodes

Quantity	References	Value	PCB Package	Notes
6	D1-D6	1N4148	DIODE30	Standard Small Signal Diode (1N4148 or Equivalent)
2	D7-D8	1N4733A	DO41	5.1V Zener Diode
1	D9	LED-BIRG	CONN-SIL2	Two Lead BiColor LED

Sub-totals:

24 Miscellaneous

Quantity	References	Value	PCB Package	Notes
10	BP1-BP10	100nF	0805	Decoupling / Bypass 0805 Capacitors C0G/NP0 (BP6 is CAP10 Through-Hole)
5	CVDN,CVUP,IN1-IN2,OUT	CONN-SIL1	CONN-SIL1	SIL Pad on PCB / No component required.
2	DN,UP	100k	CONN-SIL3	Panel Pots (Linear (though Log may be better))
2	DNX,UPX	50K	CONN-SIL3	Panel Pots (Linear)
2	FB1-FB2	1R	RES40	Ferrite Beads
1	J1	SIL-156-04	SIL-156-04	MTA-156 Friction Lock Power Header
2	PF1-PF2	10uF	ELEC-RAD13	Electrolytic Power Filtering Capacitors

Sub-totals:

Totals:

Thursday, March 30, 2023 2:42:13 PM