



File: 3458A A3 66533 2021 KS SMD p1.kicad\_sch

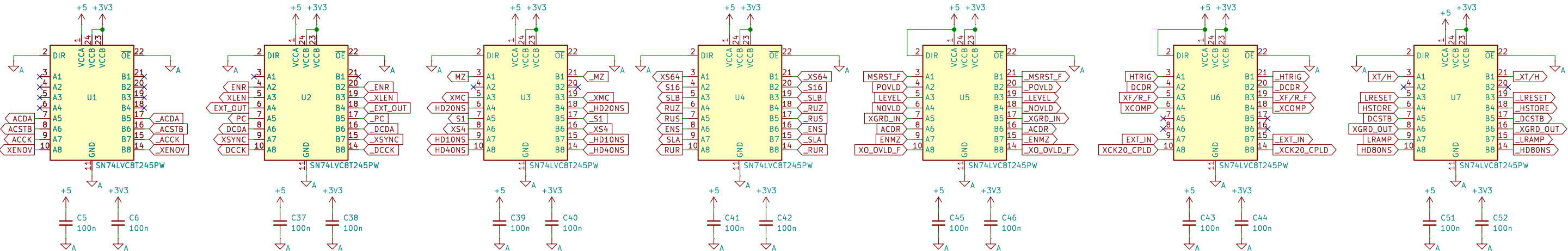


File: 3458A A3 66533 2021 KS SMD p2.kicad\_sch

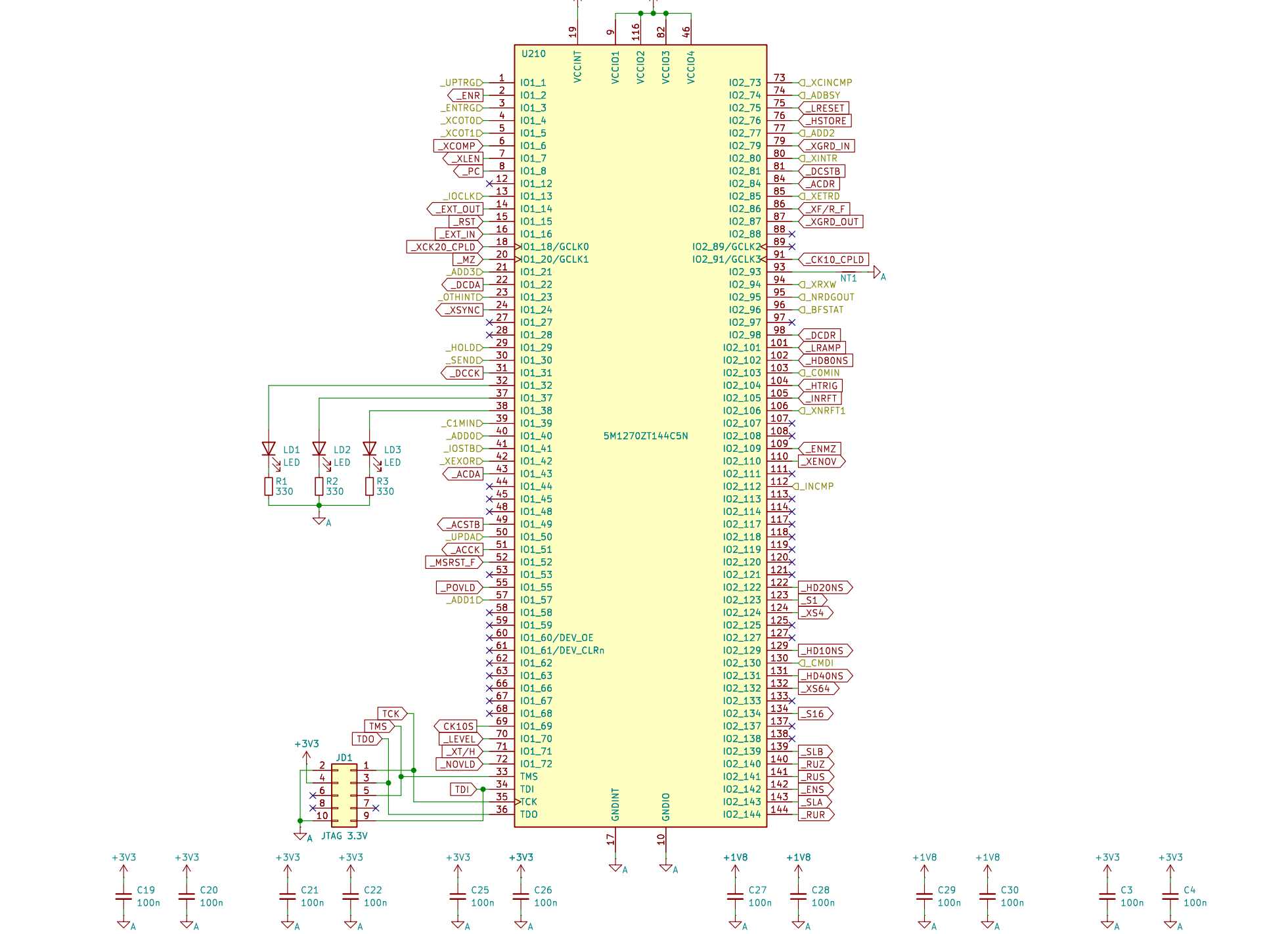
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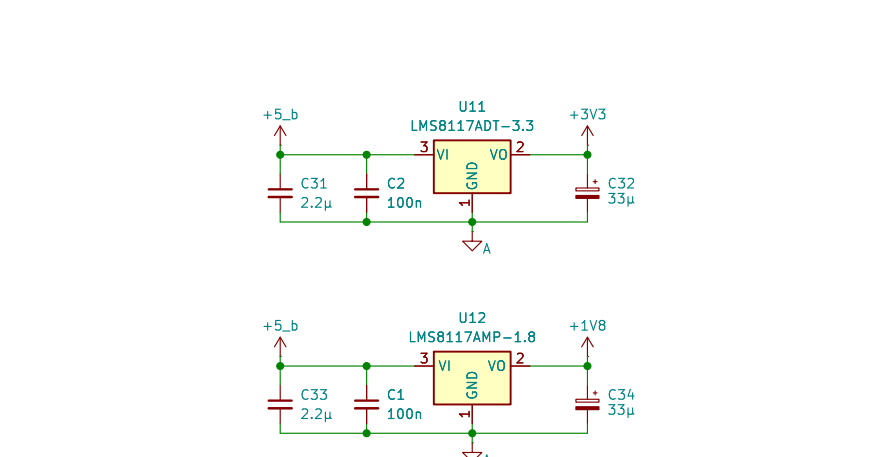
Level shifter



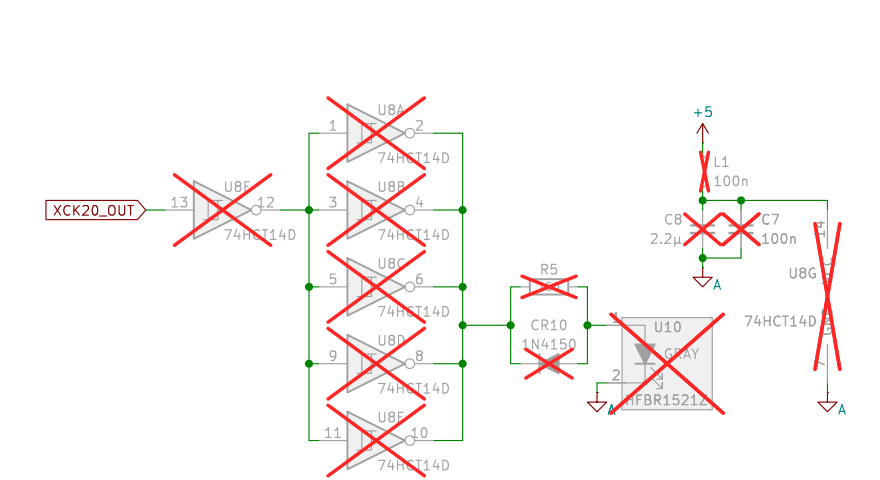
CPLD

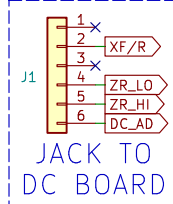


Power supply CPLD, µC & Level shifter

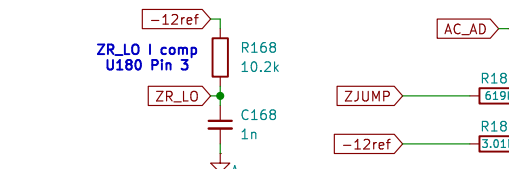


EXT CLOCK SYNC OPTION

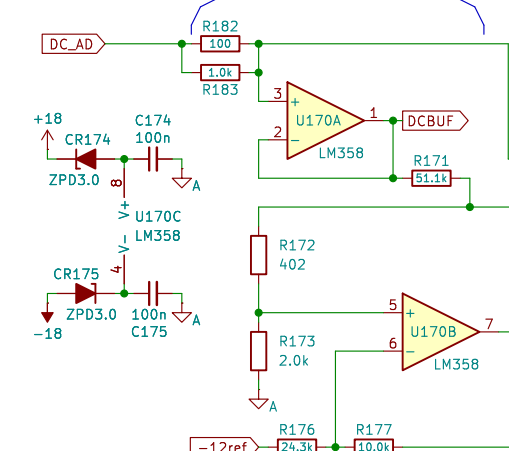




JACK TO  
DC BOARD

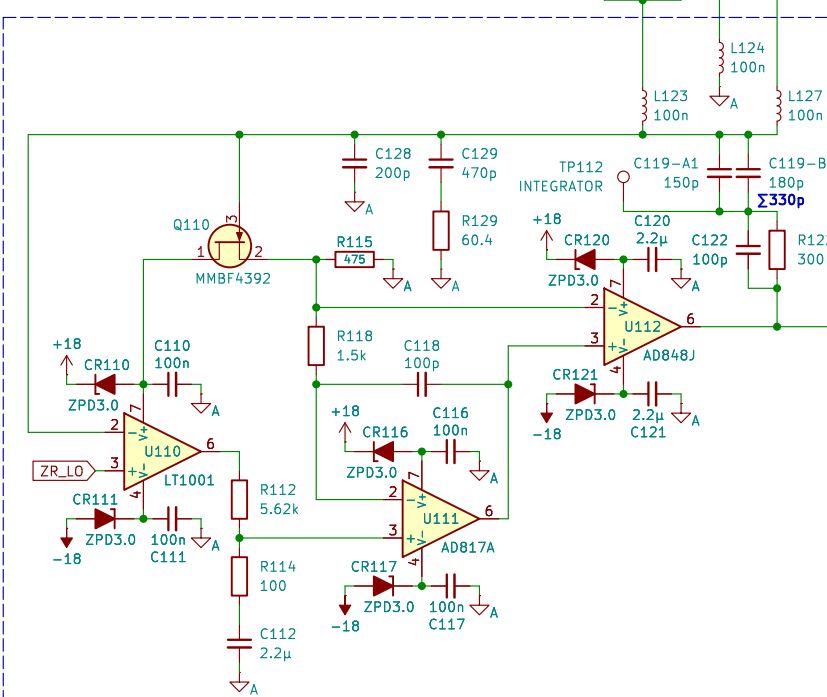


INPUT FET MODULATION

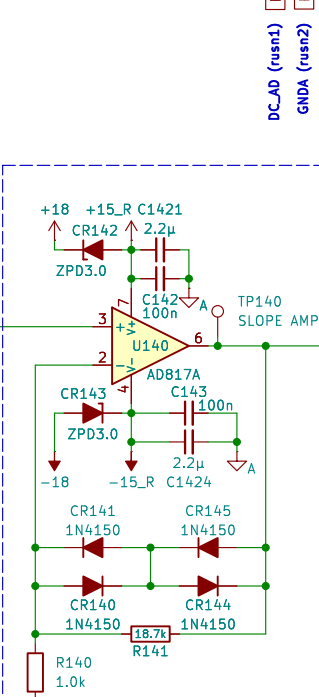


IC-A/D HYBRID

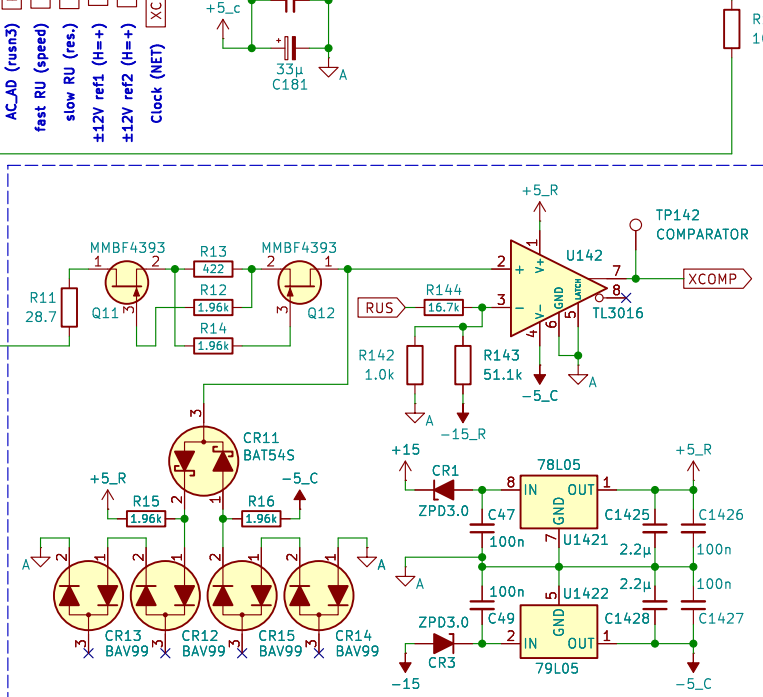
Consists of two dies:  
Resistor network (23 resistors)  
Digital IC:  
- decoder logic  
- 18 driver & dual MF-MOSFETs (5x dummy)  
- FET modulation (single MF-MOSFET)



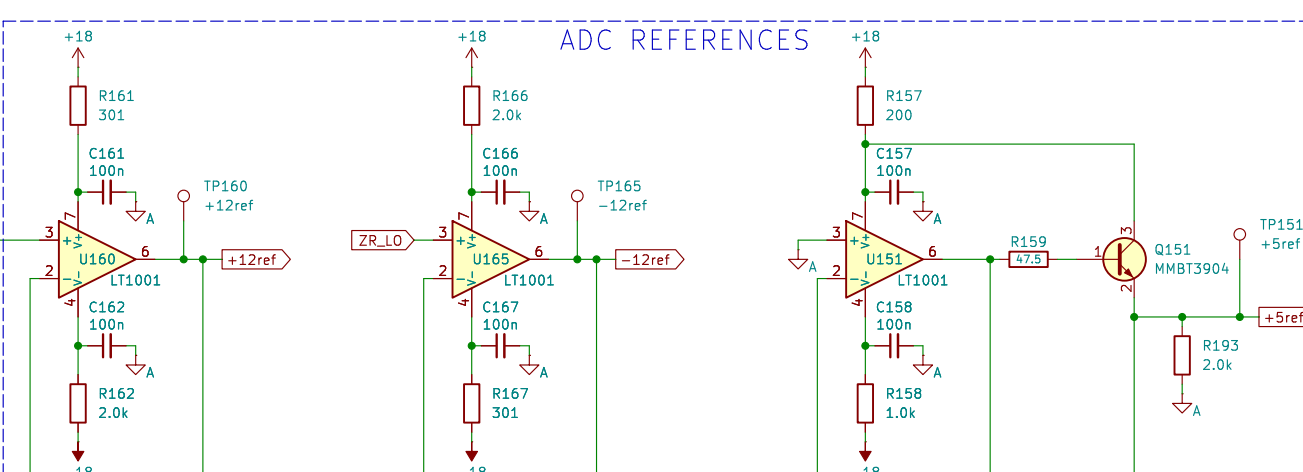
INTEGRATOR



SLOPE AMP

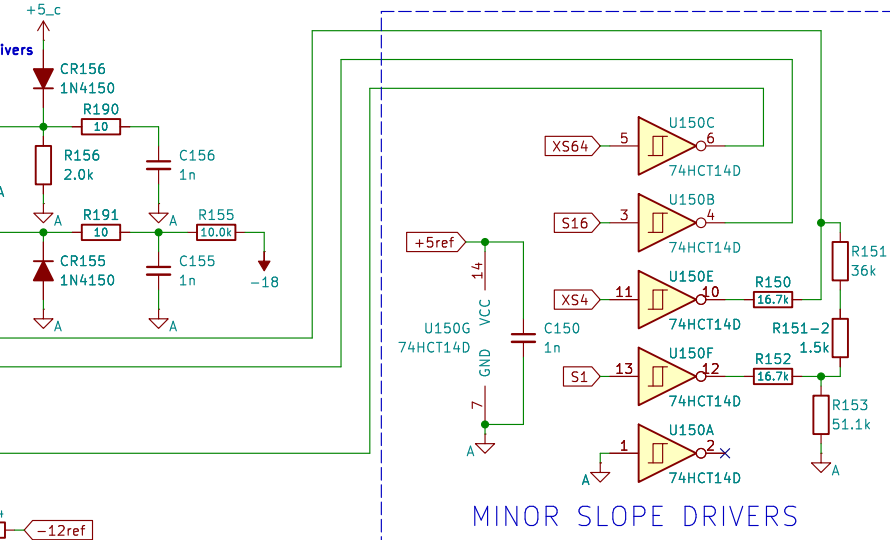


COMPARATOR

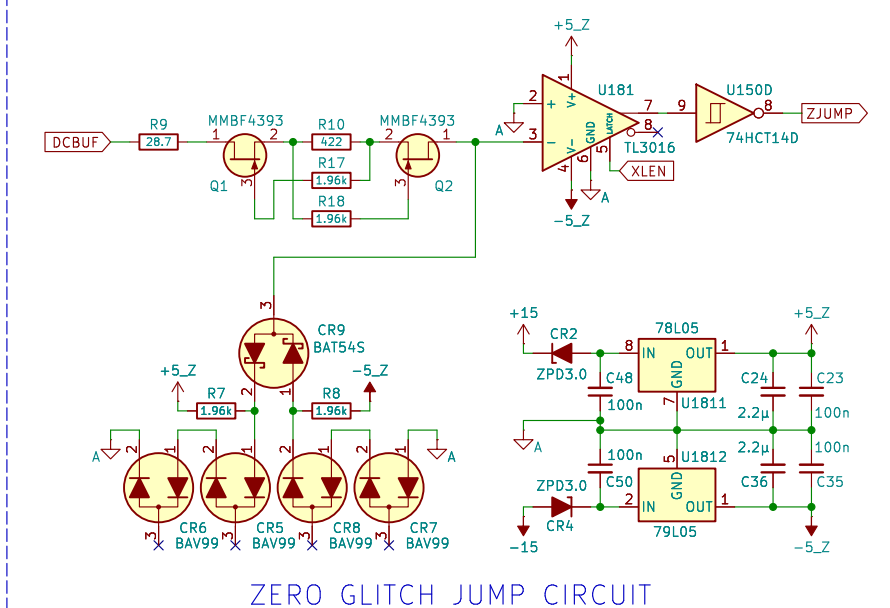


ADC REFERENCES

Part#	Rev	ERC	Date (highest DC)	Changes to previous revision (maybe incomplete)
66503	A	2912	14-1989	First Revision
66503	B			Unknown
66503	C	2931 2949 3011	31-1989 (CLIP) 40-1989 10-1990	U213, R211, R212, C146, C147, L223 added CLIP ERC 2928: R184 619k (was 1M), R185 3.01M (was 4.7M) R112 3.01k to 5.62k, U112 LM6364N to AD848JN CLIP ERC 2931: R142 & R143 added Later (40-1989): JM183 replaced with R182 140Q    R183 10kQ Later (10-1990): R172 402Q (was 3.48kQ)
66503	D	3519	19-1995	R182 100Q (was 140Q), R183 1k (was 10k) R141 18.7k (was 12.1k), R142 1k (was 10Q), R144 16.7k added R143 1k to 51.1k & connection to -5V (was XCOMP) CR144 & CR145 added U213 removed (short between pin 8 & 10) U230 OSC metal case (was plastic) U404 replaced with LT1122 (was LF400C) Q401, Q402 replaced with TO-92 2N3906 (was TO-18 2N4917)
66513	A	4243 ?	41-2000 47-2000 36-2004	U210 Gate array replaced with Orbit 6968A (was Fujitsu M8651314) U301 & U351 replaced with HFBR-2521Z (was HFBR2501) U304 & U354 replaced with HFBR-1521Z (was HFBR1510) R122 501Q (was 245Q, latest 47-2000 - TBD change on which REV) Later (36-2004): U142/U405 patchboard 66530: EL2252CM (was 2xEL2018CN)
66513	B	?	22-2016	U210 Gate array patchboard 26550: Altera MAX V 5M1270ZT144C5N (was Orbit 6968A) + level shifter SN74LVCBT245P + LDO LMS817AMP-1.8 & LMS817AMP-3.3 U220 uC replaced with ATME1 AT89LS51 (was Intel P80C51BH) U111 & U140 replaced with AD817AN (was LM6361N)
66523	2	? wekonn	29-2019 (from sticker)	Full redesign in RoHS SMD U142, U181, U405 replaced with TL3016C (was EL2018CN/EL2252CM) + discrete level shift & ±5V from 78/7905 regulator
66533	002	? Keysight	04-2021 30-2021 (from sticker)	C119 150p    180p (was 1x330p) & C409 470p    10p (Σ480p, was 1x510p) R407 47Q (was 100Q) JM210 changed to SMD 0Q (was wire bridge) Time interpolator: added some 0Q in series



MINOR SLOPE DRIVERS



ZERO GLITCH JUMP CIRCUIT