

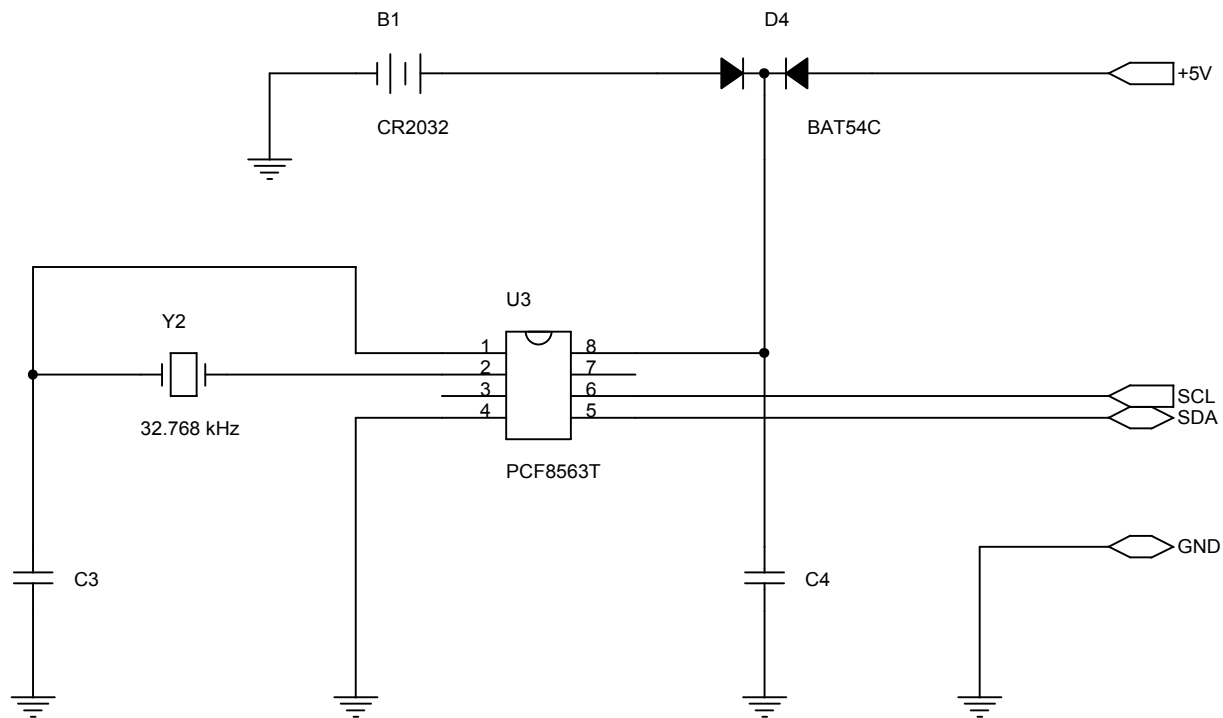
P332 RDS Encoder Part List and Schematics

Part	Type	Value	Tolerance	Specification	Place	Package
B1	Battery holder	CR2032		Horizontal	THT	
C1*, C2*, C42, C44	Capacitor	47p	10%	C0G/NP0	SMD	C_0805
C3	Capacitor	22p	10%	C0G/NP0	SMD	C_0805
C4, C10, C11, C12, C14, C15, C19, C21, C29, C31, C34, C43, C46, C47, C48, C49	Capacitor	100n	20%	X7R	SMD	C_0805
C5, C20, C22	Capacitor	4n7	10%	C0G/NP0	SMD	C_1206
C6, C9, C13	Capacitor	10u/16V	20%		SMD	C_1206
C7, C8, C16, C17, C18	Capacitor	1n	10%	C0G/NP0	SMD	C_0805
C23, C40, C41	Capacitor	2n2	10%	C0G/NP0	SMD	C_0805
C24, C32, C36, C37, C38	Capacitor	2u2/50V	20%	X7R	SMD	C_1206
C25, C35	Capacitor	100u/25V		Electrolytic	THT	RM2.5
C26	Capacitor	470u/25V		Electrolytic	THT	RM5
C27	Capacitor	220u/16V		Electrolytic	THT	RM2.5
C28, C30, C33, C39	Capacitor	100n/100V	20%	X7R	SMD	C_1206
C45	Capacitor	2n2/4kV	20%	Safety Y	THT	RM10
D1, D2	LED			White	THT	RM2.5
D3, D4	Schottky diode	BAT54C			SMD	SOT-23
D5, D6	Silicon diode	S1M			SMD	DO214
D8, D9	Transil	SMAJ15CA-LF		400W, 15V, bidirectional	SMD	DO214AC

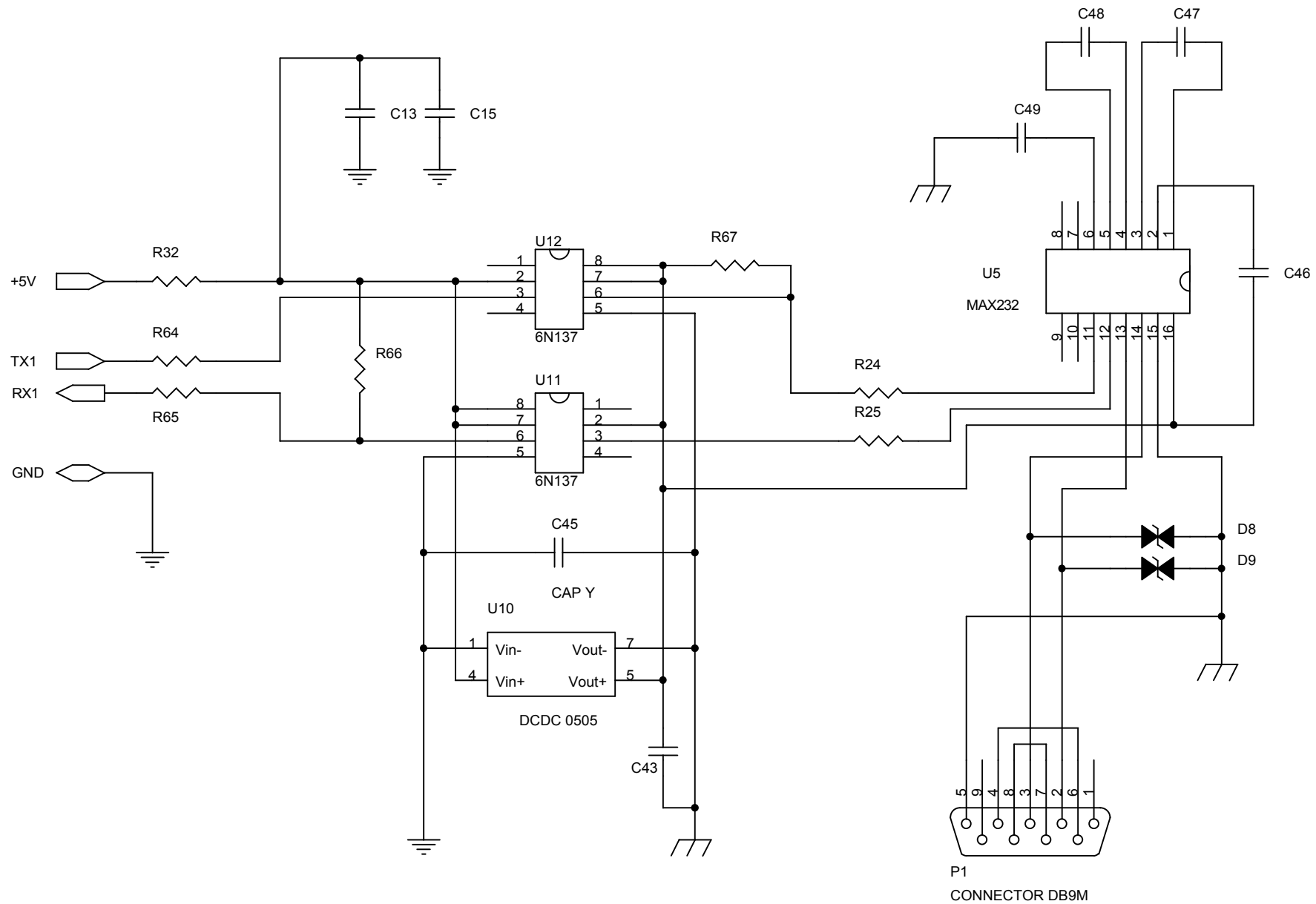
F1	Fuse	BU090		Polymer, 900mA, min. 16V	THT	RM5
J1	Switch	SK-12D20-V2		SPDT or SPST	THT	
J2	Connector	2.1 mm		DC	THT	
J3, J7	Connector	BNC 50 ohm		90 deg.	THT	
J6	Connector	5-pin			THT	SIL-5
J8+J9	Ethernet module	Nano SocketLAN			THT	RM2
J10	Connector	16-pin		With socket	THT	RM2.5
J12	Connector			MiniDIN-6	THT	
J19	Connector	2-pin			THT	RM2.5
P1	Connector	Canon 9-pin		D-SUB male 90 deg.	THT	
Q1, Q2	Transistor	BSS138			SMD	SOT-23
R1, R2, R3, R4, R5, R6, R7, R8, R9, R21, R22, R27, R28, R29, R30, R47, R62, R66, R67	Resistor	2k	1%		SMD	R_0805
R10, R20, R38, R39, R40, R42, R43, R55, R56	Resistor	10k	1%		SMD	R_0805
R11, R12, R13, R14, R15, R16, R17, R18, R19, R26, R31	Resistor	1k	1%		SMD	R_0805
R23, R53, R60	Resistor	15R	5%		SMD	R_0805
R24, R25, R64, R65	Resistor	330R	5%		SMD	R_0805
R32, R68	Resistor	2R2	5%		SMD	R_0805
R33, R45, R46	Resistor	15k	1%		SMD	R_0805
R34, R36, R37, R48, R49	Resistor	3k9	1%		SMD	R_0805

R35, R57, R58, R59, R63	Resistor	510R	1%		SMD	R_0805
R41, R44, R50, R52, R61	Resistor	47k	5%		SMD	R_0805
R51	Resistor	100R	5%		SMD	R_0805
R54	Resistor	10k	30%	Trimmer	THT	06V
RE1	Relay	DIP05-1C90-51L		SPDT	THT	DIL-14
U1	IC	P132 MCU			SMD	TQFP-44
U2	IC	24LC512			SMD	SOIC-8
U3	IC	PCF8563			SMD	SOIC-8
U4	IC	MCP4551-103			SMD	MSOP-8
U5	IC	SP232ECN-L		Improved ESD	SMD	SO16
U6, U7	IC	NE5532			SMD	SOIC-8
U8	IC	7805		Heatsink req'd	THT	TO220
U9	IC	LF33			SMD	DPAK
U10	DC/DC module	QDC1WDIL5/5		1W, 100kHz, 5V in, 5V out	THT	DIP8
U11, U12	IC	6N137			THT	DIP8
Y1	Crystal	16.000 MHz		Isolated base	THT	HC49/U3H
Y2	Crystal	32.768 kHz			THT	

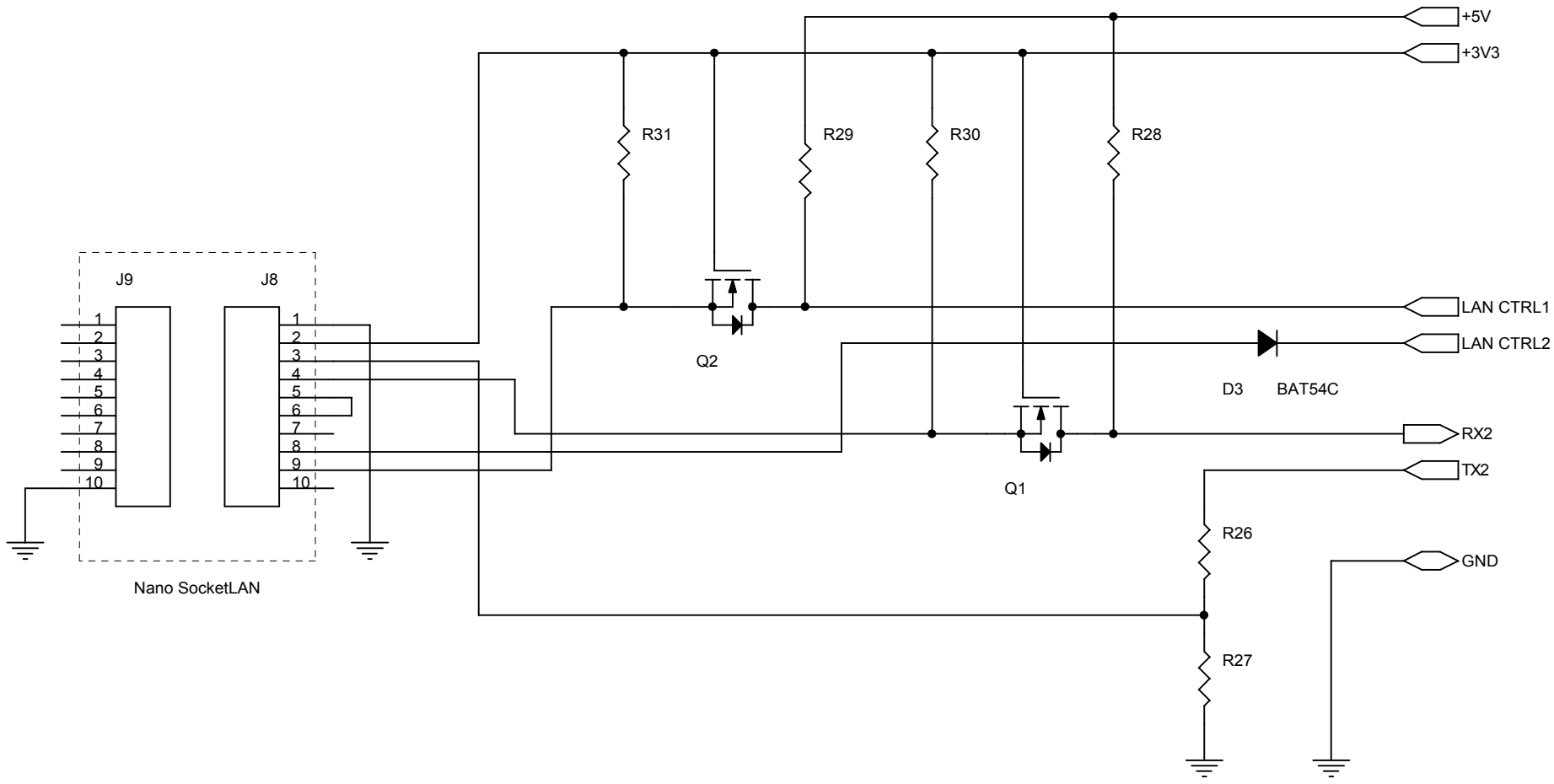
*Note: exact value depends on the Y1 characteristics.



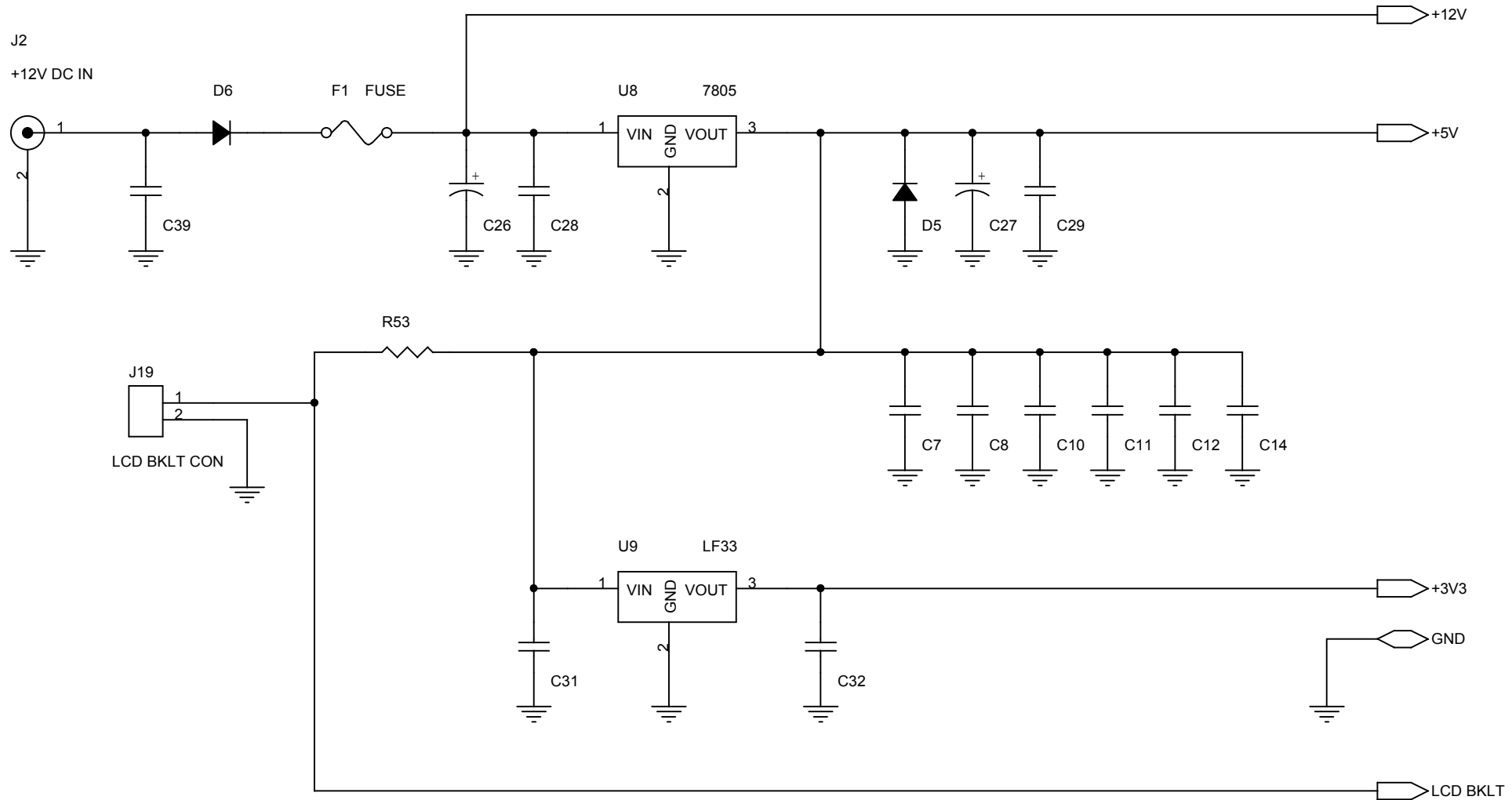
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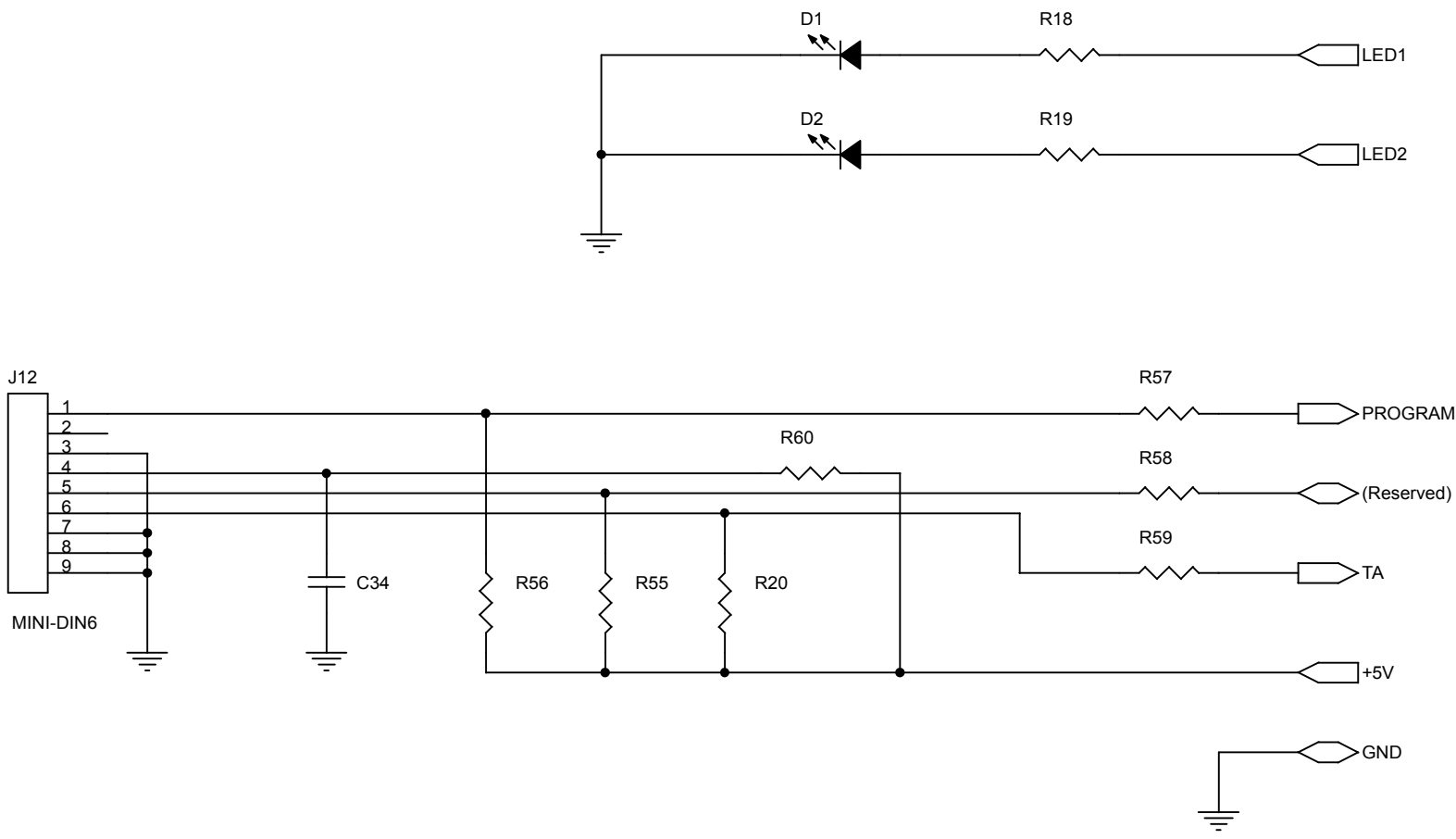
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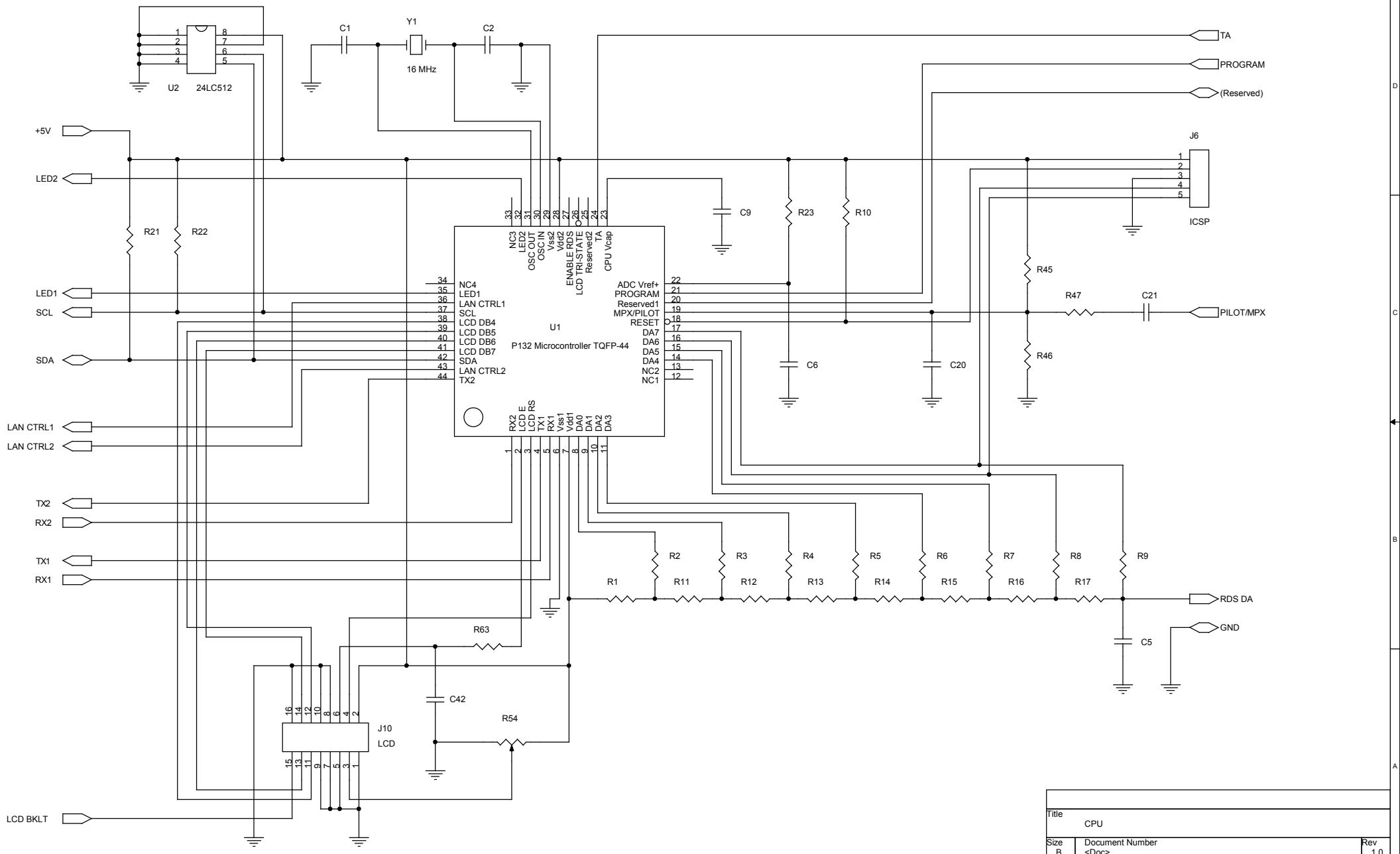
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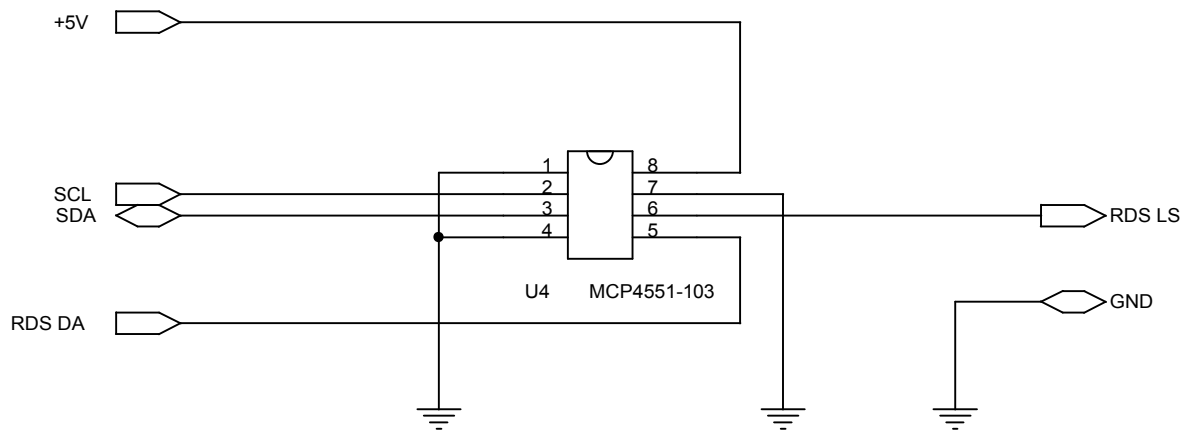
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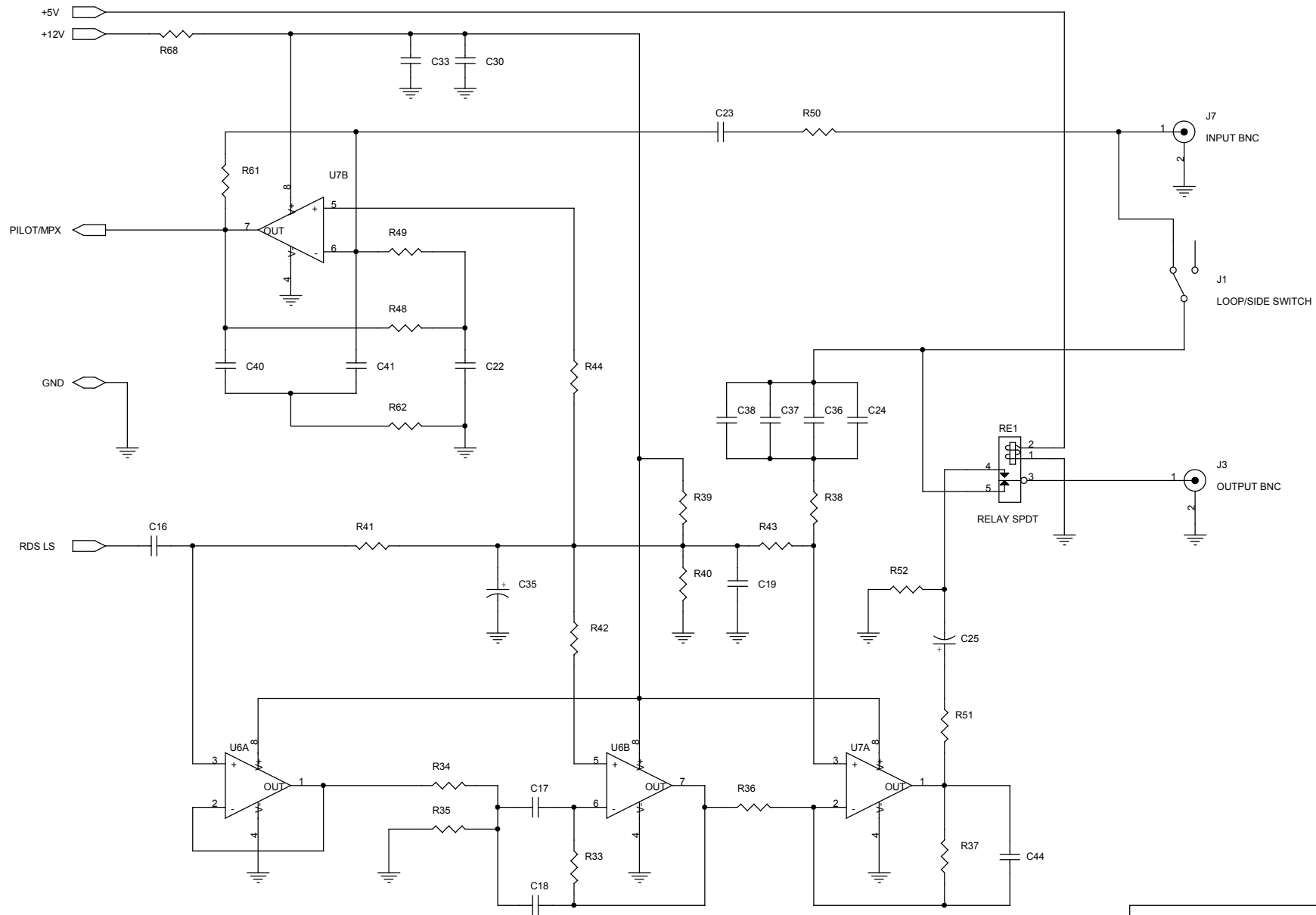
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Title		
CPU		
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Title		
Digital RDS Output Level Control		
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Title		
Analog Section		
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