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Eeschema (5.1.2)-2

Component Count:122

Ref	Qty	Value	Part	Footprint	Description	Vendor
C1, C2, C3, C6, C7, C11, Cb1, Cb2, Cb3, Cb4, Cb5, Cb6, Cb7, Cb8, Cb9, Cb10	16	100n	Device:C_Small	Capacitors_SMD:C_0603_HandSoldering	Unpolarized capacitor, small symbol	
C4, C8, C19	3	2.2u	Device:CP_Small	Capacitors_Tantalum_SMD:CP_Tantalum_Case-B_EIA-3528-21_Reflow	Polarized capacitor, small symbol	
C5, C16	2	100p	Device:C_Small	Capacitors_SMD:C_0603_HandSoldering	Unpolarized capacitor, small symbol	
C9	1	10p	Device:C_Small	Capacitors_SMD:C_0603_HandSoldering	Unpolarized capacitor, small symbol	
C10, Ci1	2	100u	Device:CP_Small	Capacitor_THT:CP_Radial_D10.0mm_P5.00mm	Polarized capacitor, small symbol	
C12	1	10u	Device:C_Small	Capacitors_SMD:C_1206_HandSoldering	Unpolarized capacitor, small symbol	
C13	1	1u	Device:C_Small	Capacitors_SMD:C_1206_HandSoldering	Unpolarized capacitor, small symbol	
C14	1	10u	Device:CP_Small	Capacitors_SMD:CP_Elec_6.3x5.3	Polarized capacitor, small symbol	
C15	1	10n	Device:C_Small	Capacitors_SMD:C_0603_HandSoldering	Unpolarized capacitor, small symbol	
C17, C18	2	10u	Device:CP	Capacitors_SMD:CP_Elec_6.3x5.3	Polarized capacitor	
CF1, CF2, CF3	3	4700u	Device:CP_Small	Capacitor_THT:CP_Radial_D22.0mm_P10.00mm_SnapIn	Polarized capacitor, small symbol	
Cd1	1	220u	Device:CP_Small	Capacitor_THT:CP_Radial_D10.0mm_P5.00mm	Polarized capacitor, small symbol	
D1, D10, D11, D12	4	1N4148W	Diode:1N4148W	Diode_SMD:D_SOD-123	75V 0.15A Fast Switching Diode, SOD-123	
D2, D3,	8	PMEG6030	Device:D_Schottky	Diode_SMD:D_SOD-128	Schottky diode	

D4, D5, D6, D7, D8, D9					
D_CLIM1, D_OUT1	2	LED	Device:LED	Connector_JST:JST_EH_B2B-EH-A_1x02_P2.50mm_Vertical	Light emitting diode
D_OVP1	1	SK34A	Device:D_Schottky	Diodes_SMD:D_SMA	Schottky diode
Dz1	1	MMSZ4679T1G	Device:D_Zener	Diode_SMD:D_SOD-123	Zener diode
HS1, HS2	2	Heatsink_Pad	Mechanical:Heatsink_Pad	Custom_DB:WMHP-HS-25	Heatsink with electrical connection
HS3	1	Heatsink_Pad	Mechanical:Heatsink_Pad	Heatsinks:Heatsink_Fischer_SK104-STC-STIC_35x13mm_2xDrill2.5mm	Heatsink with electrical connection
IN1, IN2, OUT1	3	Screw_Terminal_01x02	Connector:Screw_Terminal_01x02	TerminalBlock_RND:TerminalBlock_RND_205-00012_1x02_P5.00mm_Horizontal	Generic screw terminal, single row, 01x02, script generated (kicad-library-utils/schlib/autogen/connector/)
JP1	1	Jumper	Jumper:SolderJumper_2_Bridged	Jumper:SolderJumper-2_P1.3mm_Open_RoundedPad1.0x1.5mm	Solder Jumper, 2-pole, closed/bridged
JP2	1	SolderJumper_3_Bridged12	Jumper:SolderJumper_3_Bridged12	Jumper:SolderJumper-3_P1.3mm_Open_RoundedPad1.0x1.5mm	3-pole Solder Jumper, pins 1+2 closed/bridged
LDO1, U6	2	LM317T	dk_PMIC-Voltage-Regulators-Linear:LM317T	TO_SOT_Packages_THT:TO-220-3_Vertical	IC REG LIN POS ADJ 1.5A TO220AB
LDO2	1	LT3080xT	Custom:LT3080xT	Package_TO_SOT_THT:TO-220-5_P3.4x3.7mm_StaggerOdd_Lead3.8mm_Vertical	Adjustable 1.1A Single Resistor Low Dropout Regulator, TO-220
MH1, MH2, MH3, MH4, MH6	5	MountingHole_Pad	Mechanical:MountingHole_Pad	Mounting_Holes:MountingHole_3.2mm_M3_ISO14580_Pad	Mounting Hole with connection
Q1, Q2, Q4, Q5, Q6, Q7	6	MMBT2222A-TP	dk_Transistors-Bipolar-BJT-Single:MMBT2222A-TP	digikey-footprints:SOT-23-3	TRANS NPN 40V 0.6A SOT23
R3	1	261k	Device:R_Small	Resistors_SMD:R_0603_HandSoldering	Resistor, small symbol
R4, R15, R16, R18, R19, R22, R23, R26, R27	9	10k	Device:R_Small	Resistors_SMD:R_0603_HandSoldering	Resistor, small symbol
R5	1	470	Device:R_Small	Resistors_SMD:R_0603_HandSoldering	Resistor, small symbol
R6	1	1.5k	Device:R_Small	Resistors_SMD:R_0805_HandSoldering	Resistor, small symbol
R7	1	10.5k	Device:R_Small	Resistors_SMD:R_0805_HandSoldering	Resistor, small symbol
R8, R21	2	2k	Device:R	Resistors_SMD:R_0805_HandSoldering	Resistor
R9, R20	2	18k	Device:R	Resistors_SMD:R_0805_HandSoldering	Resistor

R10, R14, R29, Rpl	4	1k	Device:R_Small	Resistors_SMD:R_0603_HandSoldering	Resistor, small symbol
R11	1	1k	Device:R	Resistors_SMD:R_2512_HandSoldering	Resistor
R12	1	100	Device:R	Resistors_SMD:R_0805_HandSoldering	Resistor
R13, R31, R32	3	1k	Device:R	Resistors_SMD:R_0603_HandSoldering	Resistor
R17	1	4.87k	Device:R	Resistors_SMD:R_0603_HandSoldering	Resistor
R24, R30	2	470	Device:R	Resistors_SMD:R_0805_HandSoldering	Resistor
R25	1	15k	Device:R_Small	Resistors_SMD:R_0603_HandSoldering	Resistor, small symbol
R28	1	196k	Device:R_Small	Resistors_SMD:R_0603_HandSoldering	Resistor, small symbol
REL1, REL2	2	C93401	Custom:C93401	Relay_THT:Relay_DPDT_Omron_G5V-2	TE MT2 C934 Series Relay 2Amp
RSENS1	1	0R1	Device:R	Resistors_SMD:R_1206_HandSoldering	Resistor
Re1	1	931	Device:R	Resistors_SMD:R_0603_HandSoldering	Resistor
Rele1, SPI_1, SPI_2	3	Conn_01x04	Connector_Generic:Conn_01x04	Connector_JST:JST_EH_B4B-EH-A_1x04_P2.50mm_Vertical	Generic connector, single row, 01x04, script generated (kicad-library-utils/schlib/autogen/connector/)
Rg1	1	2.26k	Device:R	Resistors_SMD:R_0805_HandSoldering	Resistor
Rg2	1	26.1R	Device:R	Resistors_SMD:R_0805_HandSoldering	Resistor
U1	1	ADP7142ARDZ	Custom:ADP7142ARDZ	Package_SO:SOIC-8-1EP_3.9x4.9mm_P1.27mm_EP2.29x3mm	40V, 200mA, Low Noise, CMOS LDO Linear Regulator, SOIC8-EP
U2	1	INA827	Custom:INA827	Housings_SSOP:VSSOP-8_3.0x3.0mm_Pitch0.65mm	Rail to rail INA, min. G=5
U3	1	LM393DR	dk_Linear-Comparators:LM393DR	digkey-footprints:SOIC-8_W3.9mm	IC DUAL DIFF COMP 8-SOIC
U4	1	MC33272	Custom:MC33272	digkey-footprints:SOIC-8_W3.9mm	IC OPAMP GP 24MHZ 8SOIC
U5	1	L7805	Regulator_Linear:L7805	TO_SOT_Packages_THT:TO-220-3_Vertical	Positive 1.5A 35V Linear Regulator, Fixed Output 5V, TO-220/TO-263/TO-252
U7	1	NE555	Timer:NE555	Package_SO:SOIC-8_3.9x4.9mm_P1.27mm	Precision Timers, DIP-8/SOIC-8
U_ADC1	1	MCP3202	Custom:MCP3202	Housings_SOIC:SOIC-8_3.9x4.9mm_Pitch1.27mm	A/D Converter, 12-Bit, 2-Channel, SPI Interface, 2.7V-5.5V
U_DAC1	1	MCP4822	Analog_DAC:MCP4822	Housings_SOIC:SOIC-8_3.9x4.9mm_Pitch1.27mm	2-Channel 12-Bit D/A Converters with SPI Interface and Internal Reference (2.048V)
U_NEG1	1	LMC7660	Regulator_SwitchedCapacitor:LMC7660	Housings_SOIC:SOIC-8_3.9x4.9mm_Pitch1.27mm	Voltage converter from +1.5V to +10V to +1.5V to +10V, SO-8/DIP-8

VREF1	1	MCP1541T-I_TT	dk_PMIC-Voltage- Reference:MCP1541T-I_TT	digikey-footprints:SOT-23-3	IC VREF SERIES 4.096V SOT23-3
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