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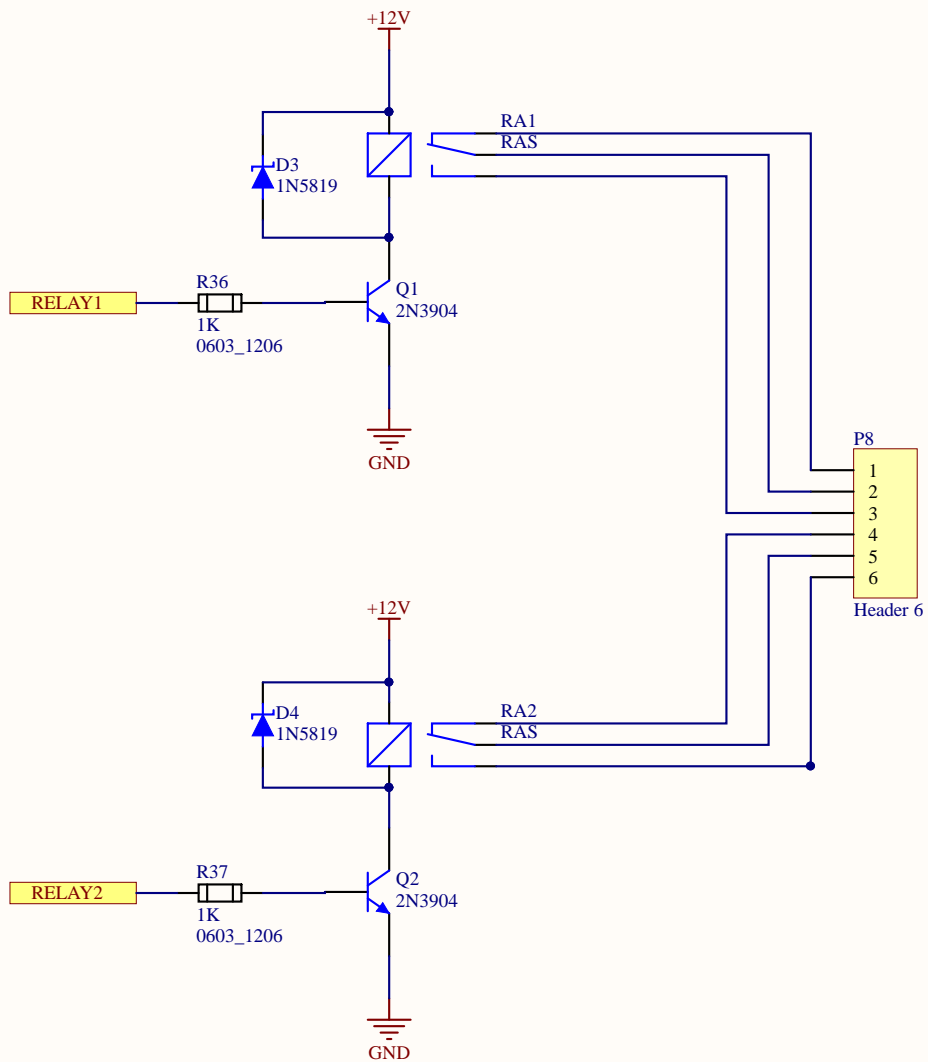
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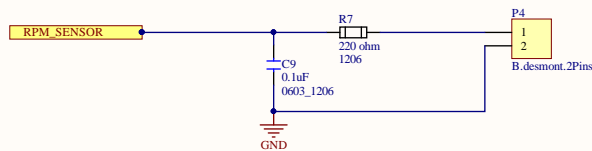
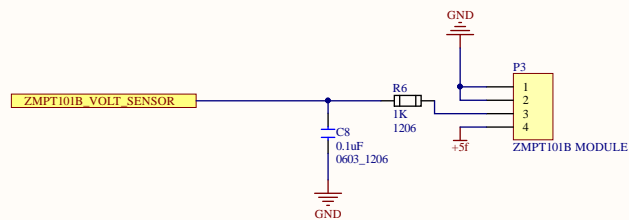
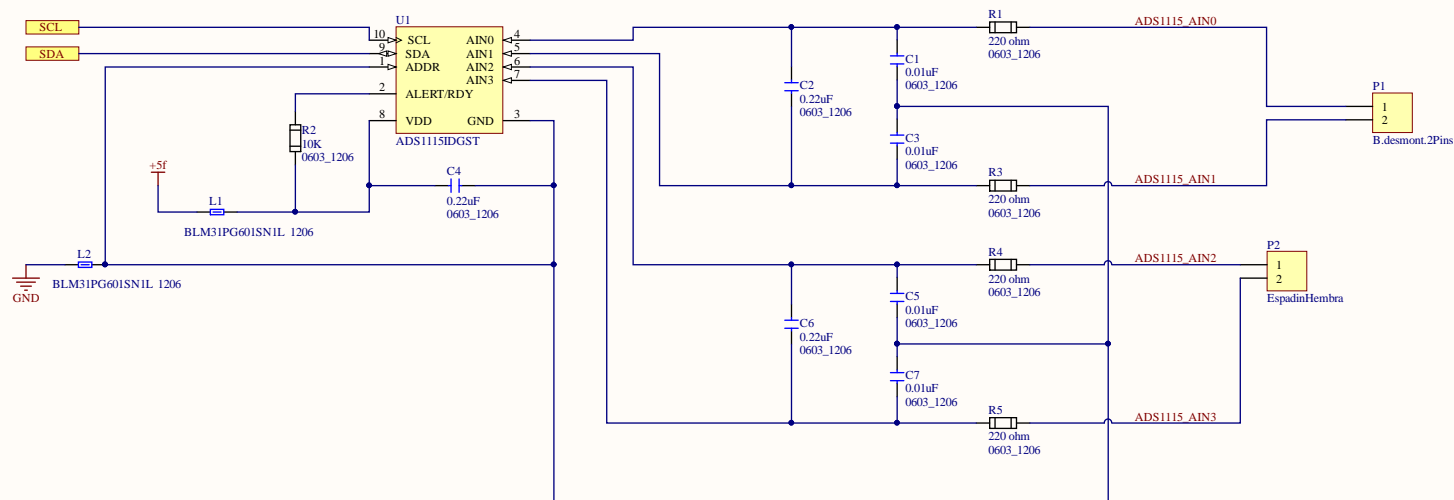
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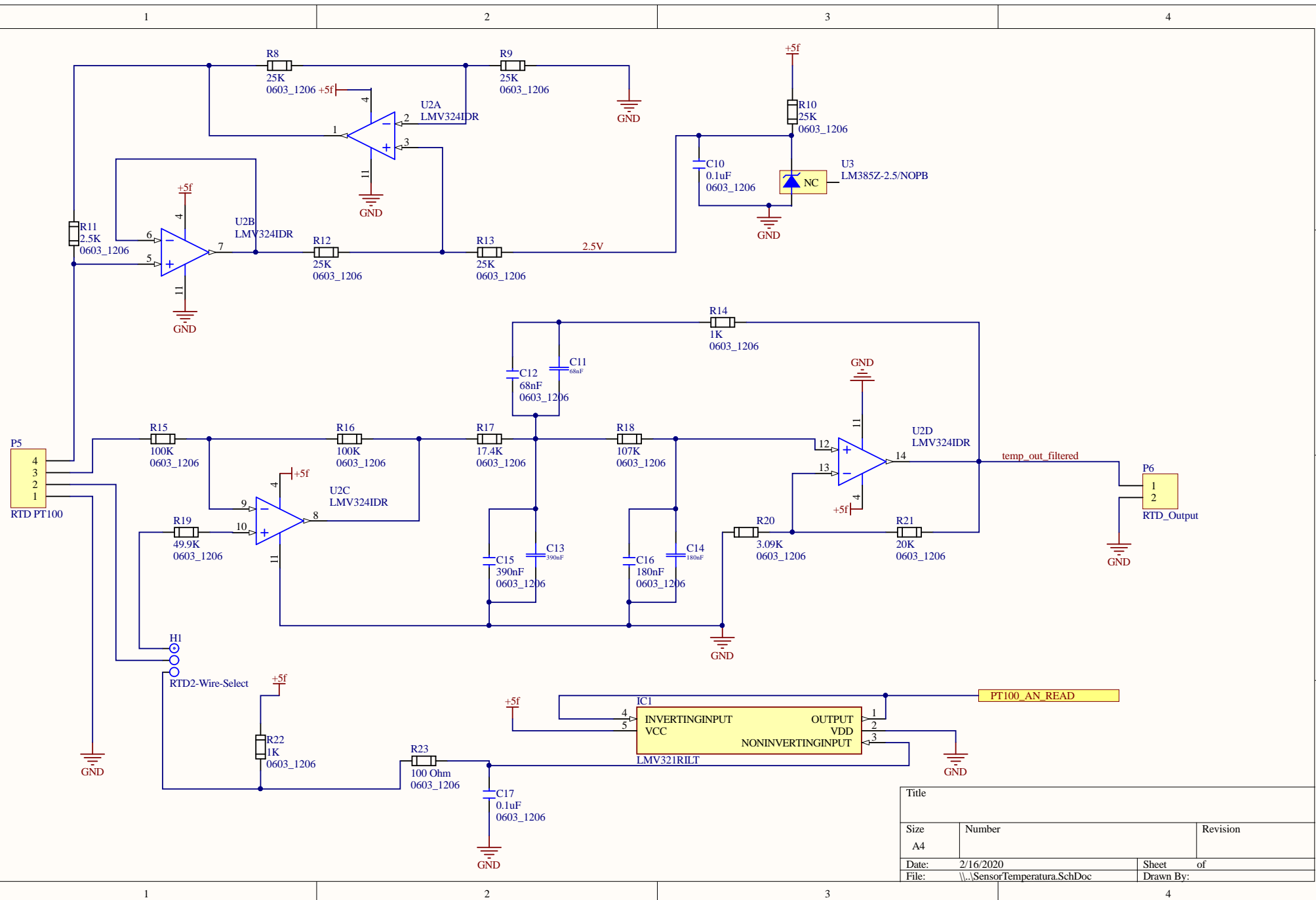
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AXSeniors IoT Board

The diagram illustrates the layout of the AXSeniors IoT Board, showing the placement of various electronic components. Key components include:

- Microcontroller Unit (U1):** A large central component, likely an ARM Cortex-M4 based microcontroller.
- Power Management:** Includes a 3V battery (CR2032), a voltage regulator (U2), and several capacitors (C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38) for decoupling and filtering.
- Connectivity:** Features a USB port (H16), a serial port (H17), and a Raspberry Pi interface (RPI1).
- Other Components:** Includes resistors (R1-R27), integrated circuits (U2-U6), and connectors (J1, R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27).

	Component	Designator	Subdesignator	Footprint	Ref	Quantity
0.01uF	SMD_CHIP_CAP_CER	0603_TO_1206	C1, C3, C5, C7	0603_TO_1206	SMD_CHIP_CAP_CER	4
0.22uF	SMD_CHIP_CAP_CER	0603_TO_1206	C2, C4, C6, C8	0603_TO_1206	SMD_CHIP_CAP_CER	4
0.1uF	SMD_CHIP_CAP_CER	0603_TO_1206	C6, C9, C10, C17, C18, C19, C20, C21, C23, C26, C27, C28, C29, C30	0603_TO_1206	SMD_CHIP_CAP_CER	15
180nf	820p 1kV Y5P	C11		Cap-Disk-05.5-85.08	Cap-Disk HV 820p 1kV	1
180nf	SMD_CHIP_CAP_CER	0603_TO_1206	C12	0603_TO_1206	SMD_CHIP_CAP_CER	1
390nf	820p 1kV Y5P	C13		Cap-Disk-05.5-85.08	Cap-Disk HV 820p 1kV	1
180nf	820p 1kV Y5P	C14		Cap-Disk-05.5-85.08	Cap-Disk HV 820p 1kV	1
390nf	SMD_CHIP_CAP_CER	0603_TO_1206	C15	SMD_CHIP_CAP_CER	SMD_CHIP_CAP_CER	1
180nf	SMD_CHIP_CAP_CER	0603_TO_1206	C16	SMD_CHIP_CAP_CER	SMD_CHIP_CAP_CER	1
VJ0603A150FACW1B5		C22, C23		CAPC1608095408A151515	OMP-0006-01814.1	2
470uF/160V Tant.	T49584776010ATE10	C31		SMD_2917	SMD_2917	1
10u	20V	C32, C33		EL-85-R11 F2.54	10u-35V	2
1u	20V	C34		EL-85-R11 F2.54	10u-35V	1
0.22uF/25V	20V 1205 3mm 2.1A	C35		EL-81A-50A-F1.52	0.22uF-25V 1205	1
0.022uF	SMD_CHIP_CAP_CER	0603_TO_1206	C36	SMD_CHIP_CAP_CER	SMD_CHIP_CAP_CER	1
470uF 35V	20V	C37		EL-85-R11 F3.81	470u-35V	1
RE50C-13-F	Rectifier 50 V, 5 A, 55 to 150 degC, 2-Pin SMD, Tape and Reel	D1		DIOD-SMC-2-A-V	OMP-0006-05906.1	1
05040	100V 3A	D2		DO-201-5000	100-400	1
118517	85V 1A	D3, D4		DO-41-300	118517	2
DC3231 16-SOIC	SOIC, 16-Leads, Body 10.5x7.5mm (max), Pitch 1.27mm, IPC Medium Density	D51		SOIC12P1030026516N	DC3231	1
RTD2-Wire-Select		H1		J1x3	H-1x3	1
H-1x2		J2, J12		J1x2	H-1x2	2
H-1x3		H3, H4, H5, H7, H8, H9, H10, H15		J1x3	H-1x3	8
H-1x8		D6, H12		J1x8	H-1x8	2
H-1x4		H11, H13		J1x4	H-1x4	2
MM25 1.5 2-5.08	PCB terminal block, nominal current: 17 A, nom. voltage: 400 V, pitch: 5.08 mm	H16, H17		MM25 1.5 2-5.08	MM25 1.5 2-5.08	2
MOV321RL1	Integrated Circuit	IC1		SO10P20R145-5N	MOV321RL1	1
D Connector 9	Rectangular Assembly 9 Position, Right Angle	J1		DB9-HEMBRA	D Connector 9	1
BLM11PG6015N1L	Chip Ferrite Bead Inductor	L1, L2		SMD_CHIP_FERRITE_1206	CHIP_FERRITE_READ INDUCTOR, 1206	2
FB 1206 600 ohms 100mA/ 600V 1.5A	Chip Ferrite Bead Inductor	L3		SMD_CHIP_FERRITE_1206	CHIP_FERRITE_READ INDUCTOR, 1206	1
ESJ4 3.2A 1280	Shielded SMD Power Inductor 32-AH -4V 20%, -40 to 125 degC, 2-Pin SMD, Reel, Tape and Reel	L4		BOUR-SRR1280-2_V	OMP-0000-07148.1	1
LED	6mm	L01		Led 65mm	Led 65mm	1
MR Pin - 5 SPad - 1.50	MR Pin - 5 SPad - 1.50	MH1, MH2, MH3, MH4		MR Pin - 5 SPad - 1.50	MR Pin - 5 SPad - 1.50	4
8-Bit monad 20pin	Header, 2-Pin	P1, P4, P7		KF2EGSVR-2P	Header, 2	3
QuadRelayModule	Header, 2-Pin	P2		KF2EGSVR-2P	Header, 2	1
GPIO1018 MODULE	Header, 4-Pin	P3		HE01K4	Header, 4	1
GPIO11	Header, 4-Pin	P4		KF2EGSVR-4P	Header, 4	1
GPIO_Output	Header, 2-Pin	P5		KF01K2	Header, 2	1
GPIO_A	Header, 6-Pin	P6		KF2EGSVR-6P	Header, 6	1
GPIO2_Header	CIO2_2_Header	P81		CIO2_2_Header	GPIO2_Header	1
2A3904	NPN General Purpose transistor	Q1, Q2		TO-92A	2A3904	2
220 ohm	SMD_CHIP_RESISTO R_0603_TO_1206	R1, R3, R4, R5		SMD_CHIP_RESISTO R_0603_TO_1206	SMD_CHIP_RESISTO R_0603_TO_1206	4
10K	SMD_CHIP_RESISTO R_0603_TO_1206	R2, R27		SMD_CHIP_RESISTO R_0603_TO_1206	SMD_CHIP_RESISTO R_0603_TO_1206	2
1K	SMD_CHIP_RESISTO R_1206	R6		SMD_CHIP_RESISTO R_1206	SMD_CHIP_RESISTO R_1206	1
220 ohm	SMD_CHIP_RESISTO R_1206	R7, R33		SMD_CHIP_RESISTO R_1206	SMD_CHIP_RESISTO R_1206	2
25K	SMD_CHIP_RESISTO R_0603_TO_1206	R8, R9, R10, R12		SMD_CHIP_RESISTO R_0603_TO_1206	SMD_CHIP_RESISTO R_0603_TO_1206	4
2.5K	SMD_CHIP_RESISTO R_0603_TO_1206	R13		SMD_CHIP_RESISTO R_0603_TO_1206	SMD_CHIP_RESISTO R_0603_TO_1206	1
1K	SMD_CHIP_RESISTO R_0603_TO_1206	R14, R22, R24, R26, R27, R31, R32, R36, R37		SMD_CHIP_RESISTO R_0603_TO_1206	SMD_CHIP_RESISTO R_0603_TO_1206	9
100K	SMD_CHIP_RESISTO R_0603_TO_1206	R15, R16		SMD_CHIP_RESISTO R_0603_TO_1206	SMD_CHIP_RESISTO R_0603_TO_1206	2
17.4K	SMD_CHIP_RESISTO R_0603_TO_1206	R17		SMD_CHIP_RESISTO R_0603_TO_1206	SMD_CHIP_RESISTO R_0603_TO_1206	1
107K	SMD_CHIP_RESISTO R_0603_TO_1206	R18		SMD_CHIP_RESISTO R_0603_TO_1206	SMD_CHIP_RESISTO R_0603_TO_1206	1
49.9K	SMD_CHIP_RESISTO R_0603_TO_1206	R19		SMD_CHIP_RESISTO R_0603_TO_1206	SMD_CHIP_RESISTO R_0603_TO_1206	1
3.09K	SMD_CHIP_RESISTO R_0603_TO_1206	R20		SMD_CHIP_RESISTO R_0603_TO_1206	SMD_CHIP_RESISTO R_0603_TO_1206	1
20K	SMD_CHIP_RESISTO R_0603_TO_1206	R21		SMD_CHIP_RESISTO R_0603_TO_1206	SMD_CHIP_RESISTO R_0603_TO_1206	1
100 Ohm	SMD_CHIP_RESISTO R_0603_TO_1206	R23		SMD_CHIP_RESISTO R_0603_TO_1206	SMD_CHIP_RESISTO R_0603_TO_1206	1
2.2K	SMD_CHIP_RESISTO R_0603_TO_1206	R25, R26		SMD_CHIP_RESISTO R_0603_TO_1206	SMD_CHIP_RESISTO R_0603_TO_1206	2
2K	SMD_CHIP_RESISTO R_0603_TO_1206	R30		SMD_CHIP_RESISTO R_0603_TO_1206	SMD_CHIP_RESISTO R_0603_TO_1206	1
1 Ohm	0.25W 1% 250V	R34, R35		RO-25-400	0.0.25W	2
RAS	AC: 120V RAS AC: 14V 20A 30V T5A (5.3A8)	RA1, RA2		Relay RAS	Relay RAS	2
RP1 GPIO Connector	GPIO Header for Raspberry Pi A+/B+/B 20P [1, 2, 3, 4, 5]	RP11		PPI	gpi connector	1
ADS1115IDGST	16-Bit ADC with Integrated Multiplexer, PGA, Comparator, Oscillator, and Reference, -40 to 125 degC, 16-pin SOP (DG510), Green (RoHS & no Sb/Br)	U1		TI-DGS10_M	OMP-0003-00378-2	1
LMV324IDR	Quad Low-Voltage Rail-to-Rail Output Operational Amplifier, 2.7 to 5.5 V, -40 to 125 degC, 14-Pin SOIC (D), Green (RoHS & no Sb/Br), Tape and Reel	U2		00014A_V	OMP-1485-00010.1	1
LM325 2.5V/NOPB	Micropower Voltage Reference Diode, 3-pin TO-92, Pb-Free	U3		U33A	OMP-0014-00017.2	1
ATmega328P-PU	8-bit AVR Microcontroller, 32KB Flash, 1KB EEPROM, 8KB SRAM, 28-pin PQFP, Industrial Grade (-40°C to 85°C)	U4		28P3	OMP-0095-00013.2	1
MAX3232CSE+	Low-Power, True RS-232 Transceivers Using Four 0.1 uF External Capacitors, 1.0 to 5.5 V, up to 1 Mbps, 0 to 85 degC, 16-Pin SOIC (516-1), Reel, Tube	U5		PW0106A_M	OMP-2000-04955.1	1
7805		U6		TO220-18 2.54	7805	1
LM2965 5.0V/NOPB	SIMPLE SWITCHER® Power Converter 150 kHz 2A Step-Down Voltage Regulator, 5-pin TO-262, Pb-Free	U7		KT700058_M	OMP-0069-00269.3	1
CRYSTAL_PTH_16MHz		F1		Crystal PTH HC49LT	CRYSTAL_PTH_16MHz	1