

REVISION HISTORY

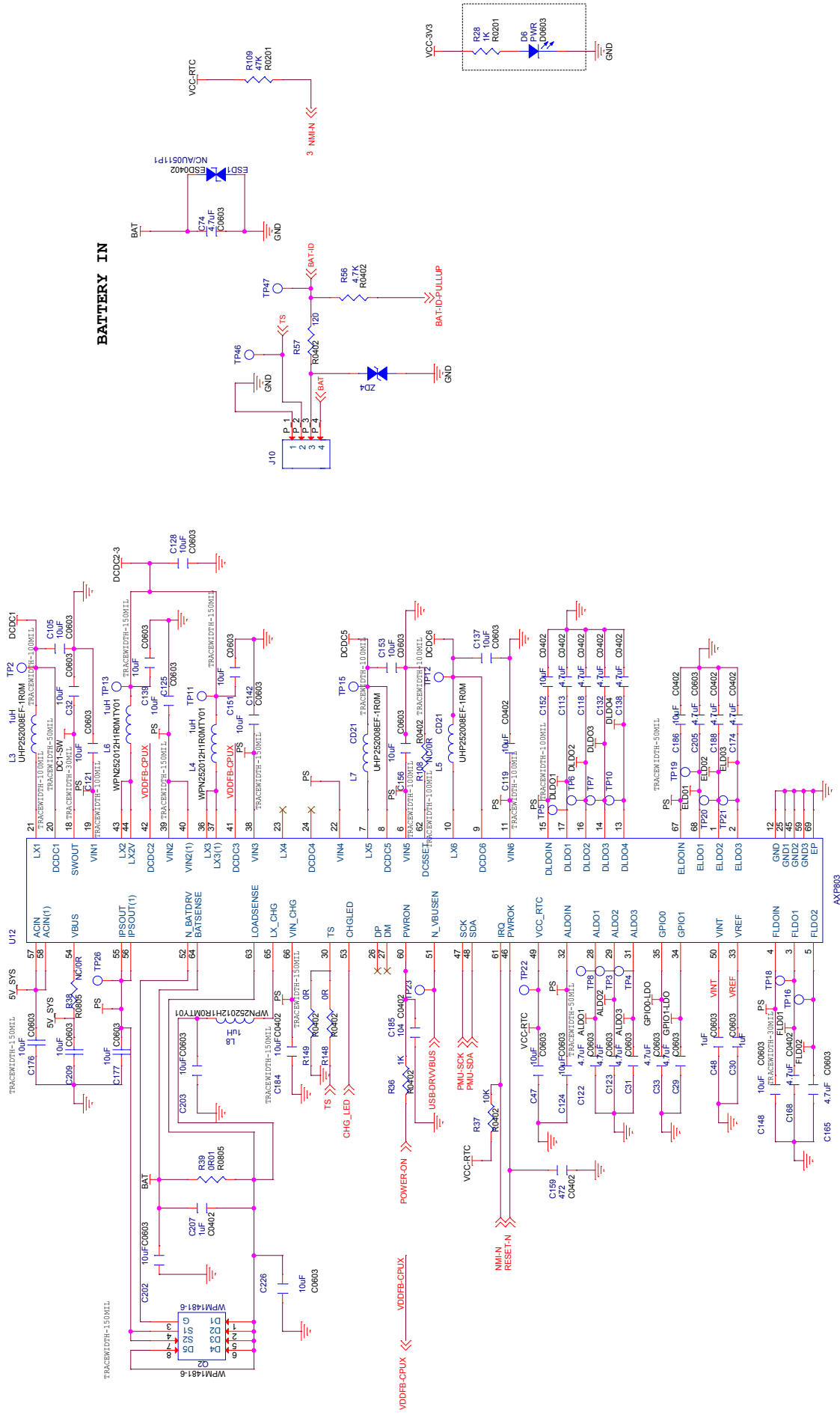
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Revision History	Description	Date	Drawn	Checked	Changelist
Pocket_PC	version 2.0				

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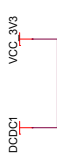
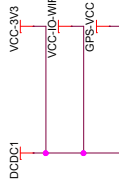
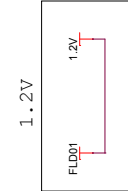
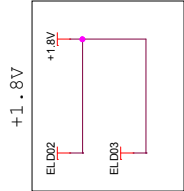
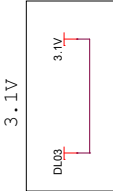
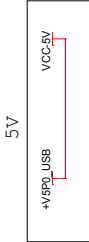
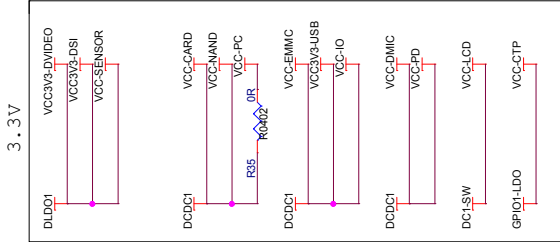
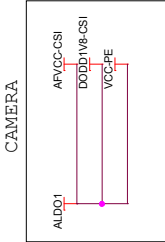
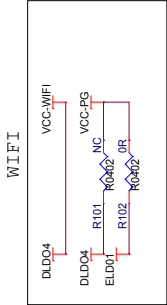
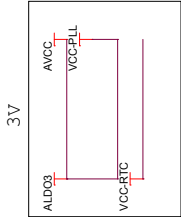
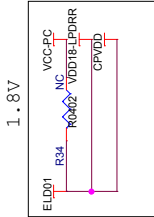
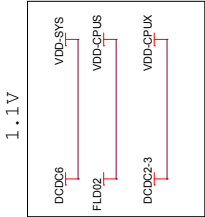
# AXP803 PMU



GND

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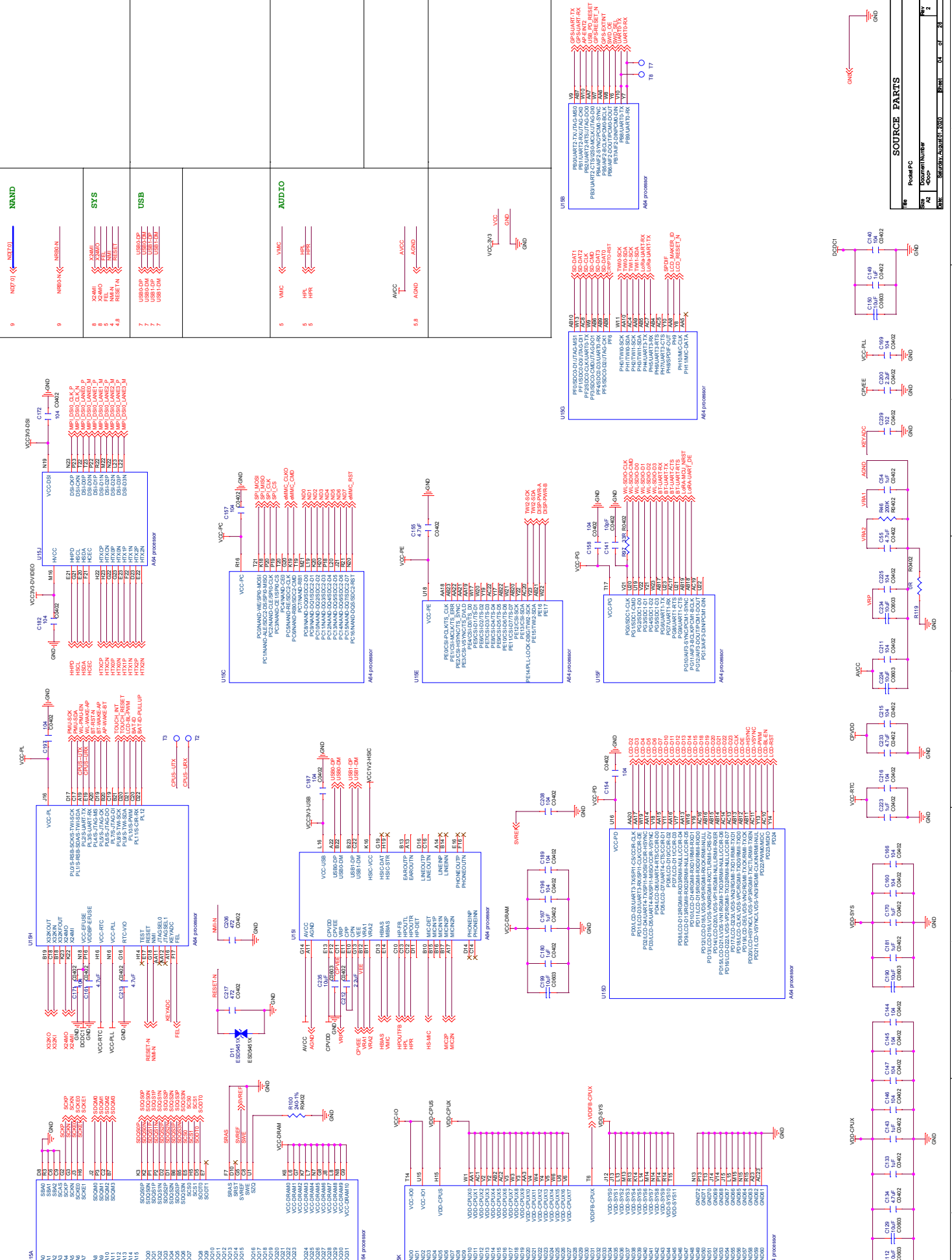
POWER/PMU



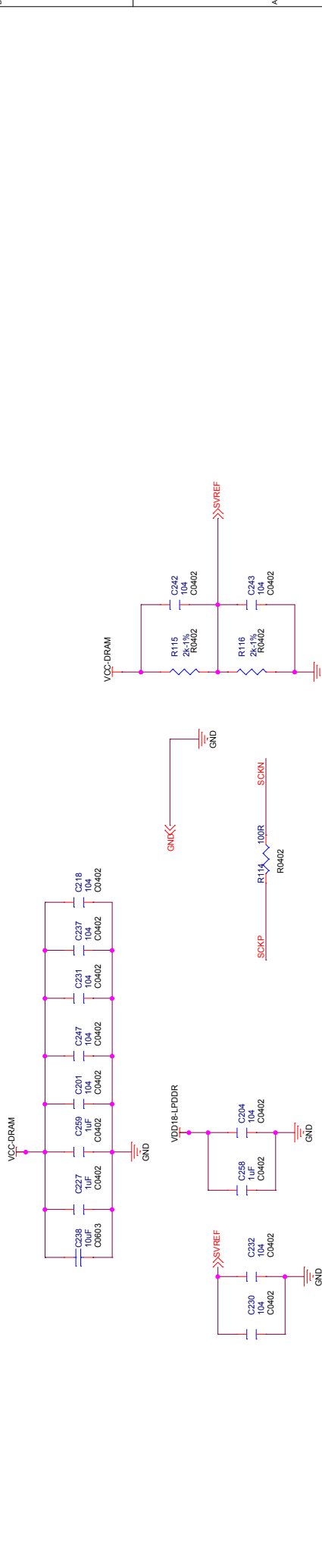
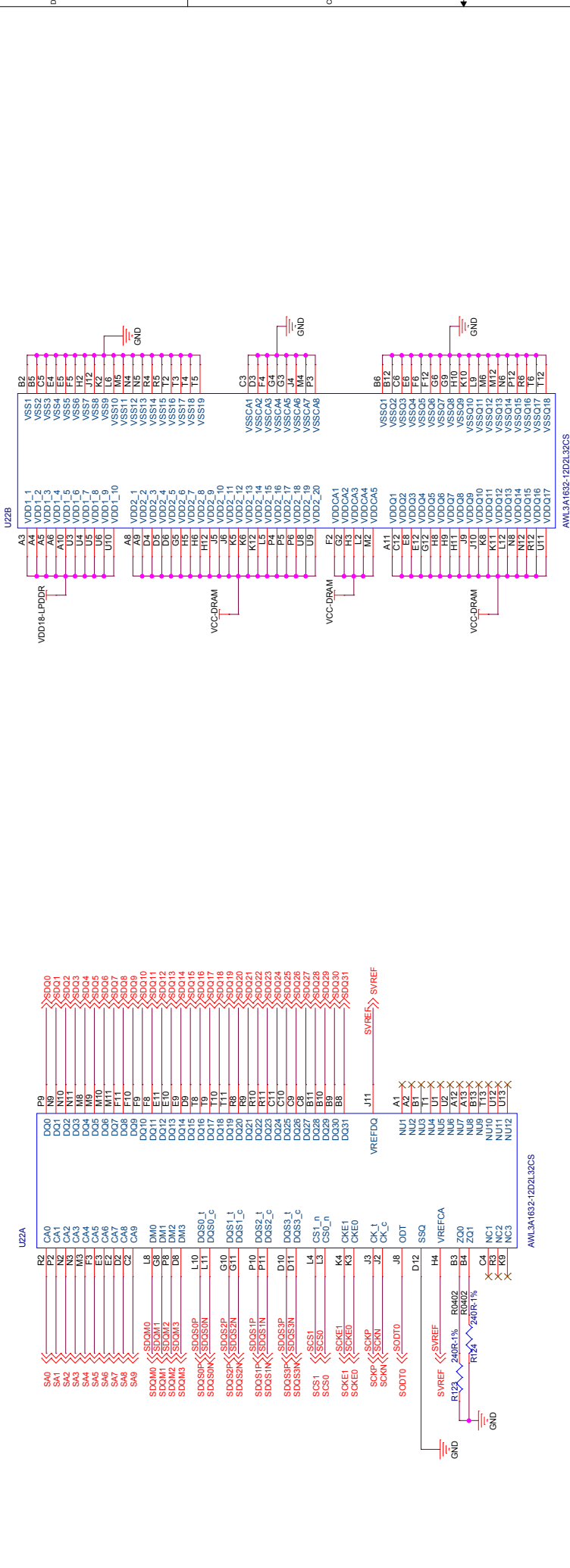
GND

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Pocket PC									
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A64 SoC



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U16E	U16E	U16E	2
U16F	U16F	U16F	3
U16G	U16G	U16G	4
U16H	U16H	U16H	5
U16I	U16I	U16I	6
U16J	U16J	U16J	7
U16K	U16K	U16K	8
U16L	U16L	U16L	9
U16M	U16M	U16M	10
U16N	U16N	U16N	11
U16O	U16O	U16O	12
U16P	U16P	U16P	13
U16Q	U16Q	U16Q	14
U16R	U16R	U16R	15
U16S	U16S	U16S	16
U16T	U16T	U16T	17
U16U	U16U	U16U	18
U16V	U16V	U16V	19
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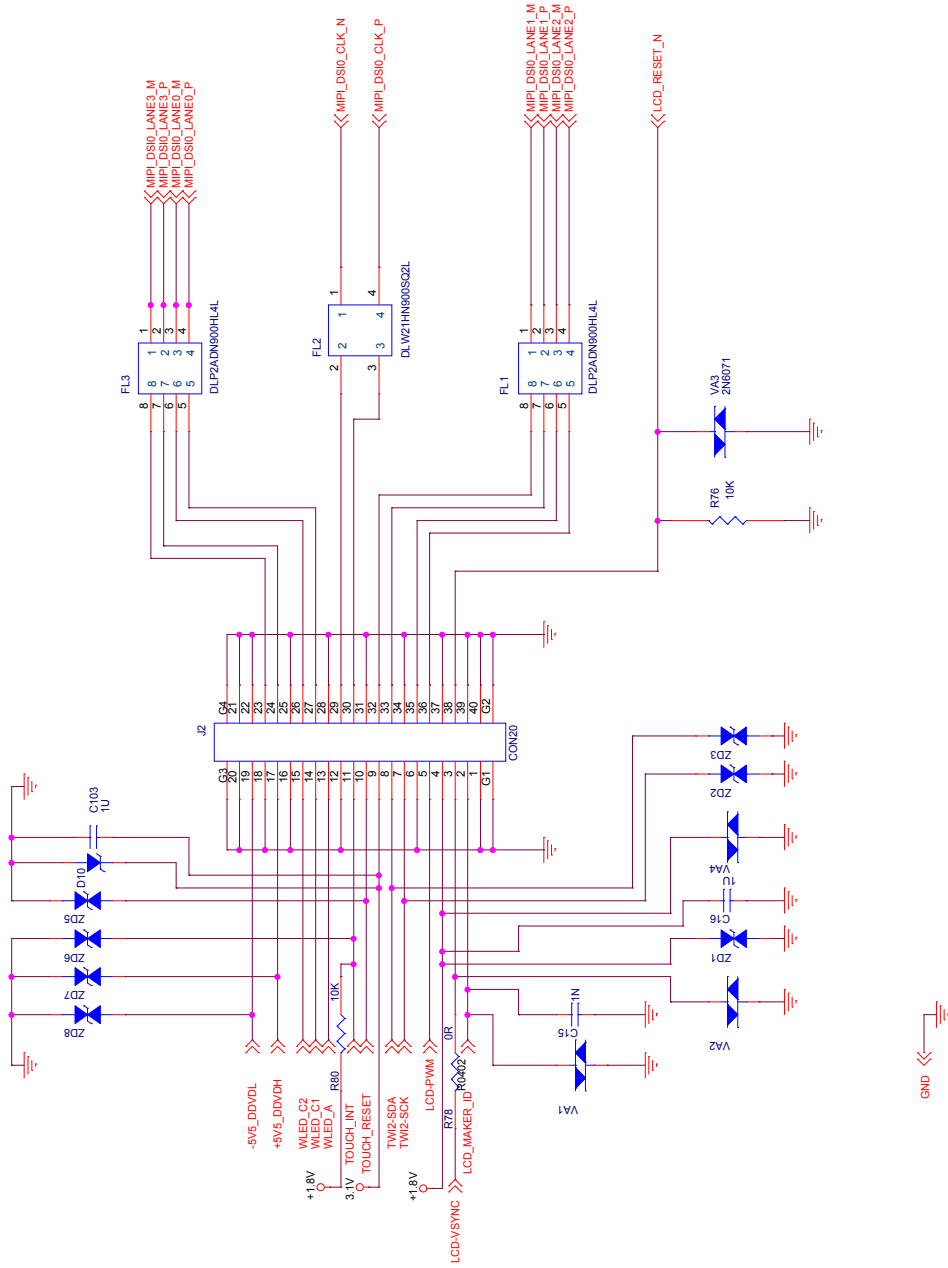
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FCC/CE Pre-certified external antennas are listed in the C.H.I.P. Pro User Manual



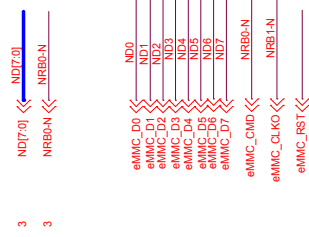
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# LCD TOUCH CONNECTOR

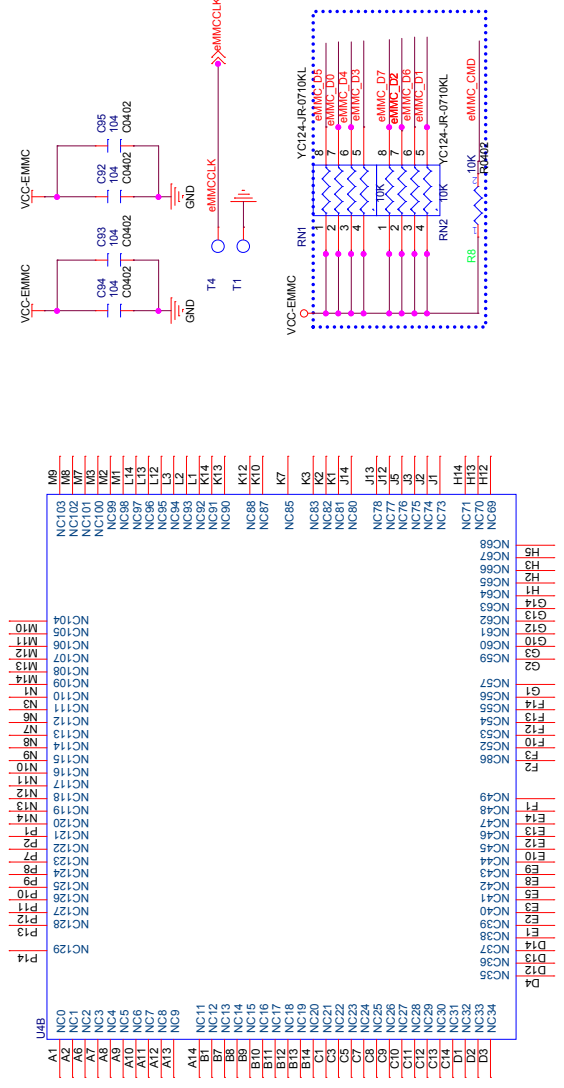


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**eMMC**

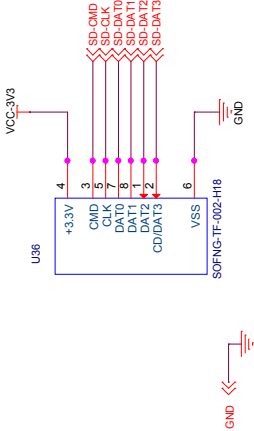


Note: eMMC Update.

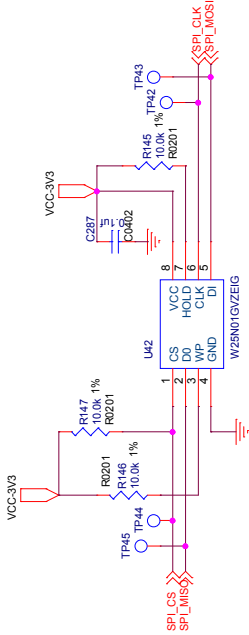




MICRO SD



SPI FLASH



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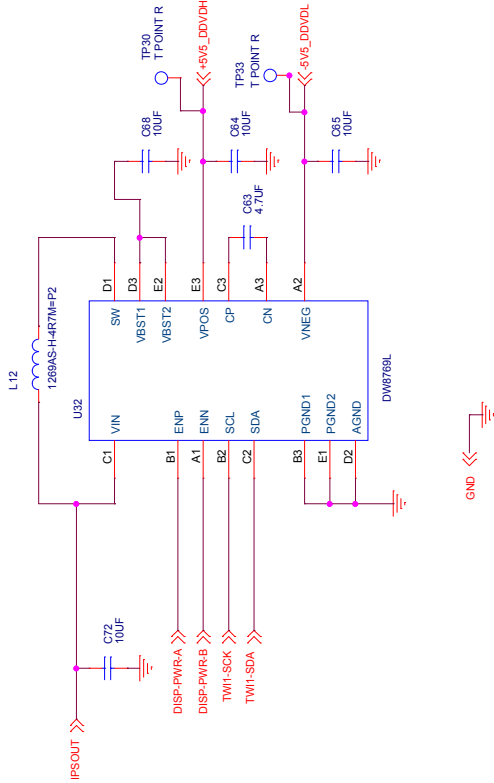
GND

The diagram illustrates the electrical connections for a PCB, specifically focusing on I2C communication buses and control pins.

- VCC-3V3**: Power supply connection at the top left.
- GND**: Ground connection at the top right.
- SW1**: A switch component located between the power and ground rails.
- Resistors**: Multiple resistors are shown, including two 20K resistors near the SW1 and several 1k resistors used as pull-ups for the I2C lines.
- I2C Buses**: Six sets of lines represent I2C buses:
  - TW0-SDA** and **TW0-SCK** (pins 3.4)
  - TW1-SDA** and **TW1-SCK** (pins 3.5)
  - TW2-SDA** and **TW2-SCK** (pin 3.5)
- Test Points / Pins**: Specific pins are identified for each bus:
  - TP39** for TW0-SDA
  - TP36** for TW1-SDA
  - TP34** for TW2-SDA
  - TP38** for TW2-SCK
- FEL**: A pin labeled "FEL" connected to a "TPI pin40".
- SW1 pinKEY-SPIN\_0**: A pin connected to the SW1 component.

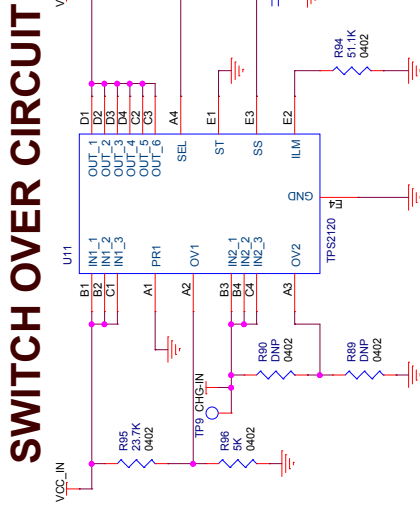
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# LCD POWER REGULATOR

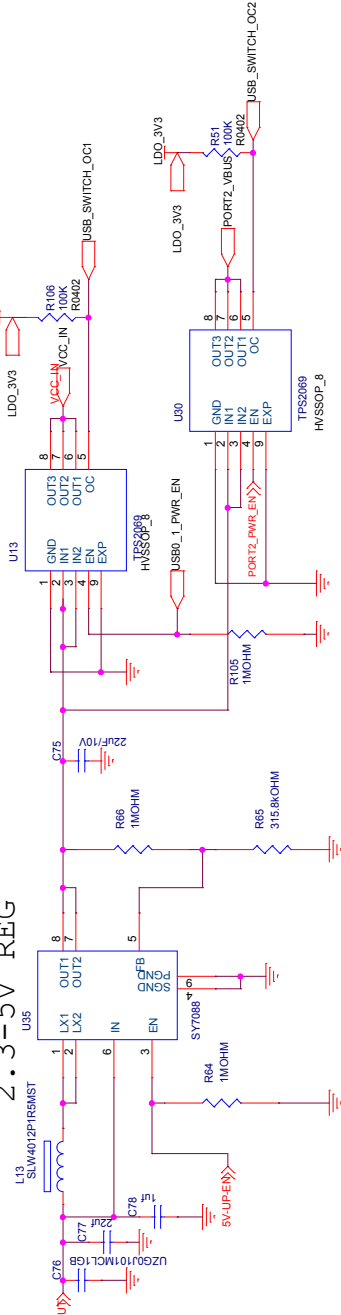


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## 5V REG



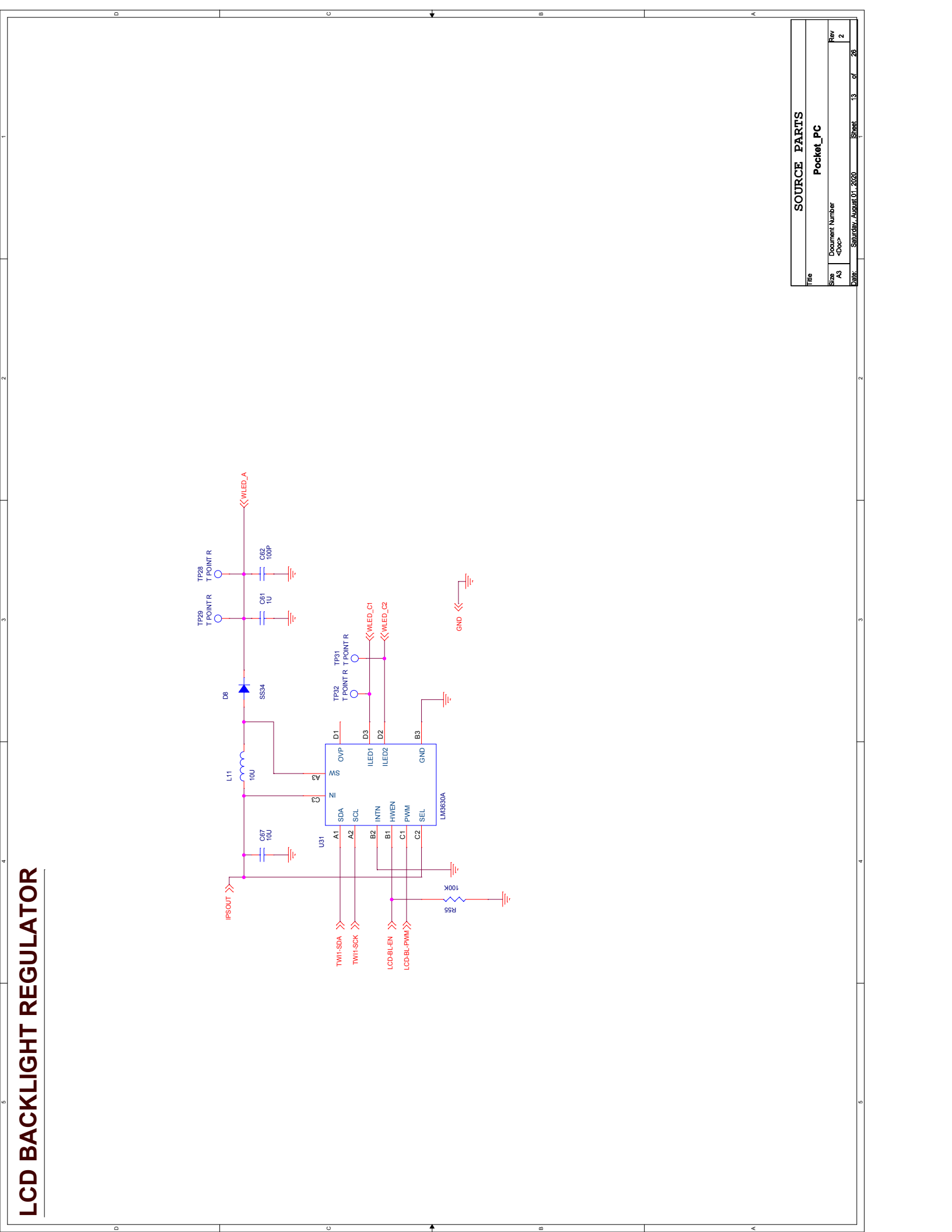
## 2.3-5V REG



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# LCD BACKLIGHT REGULATOR

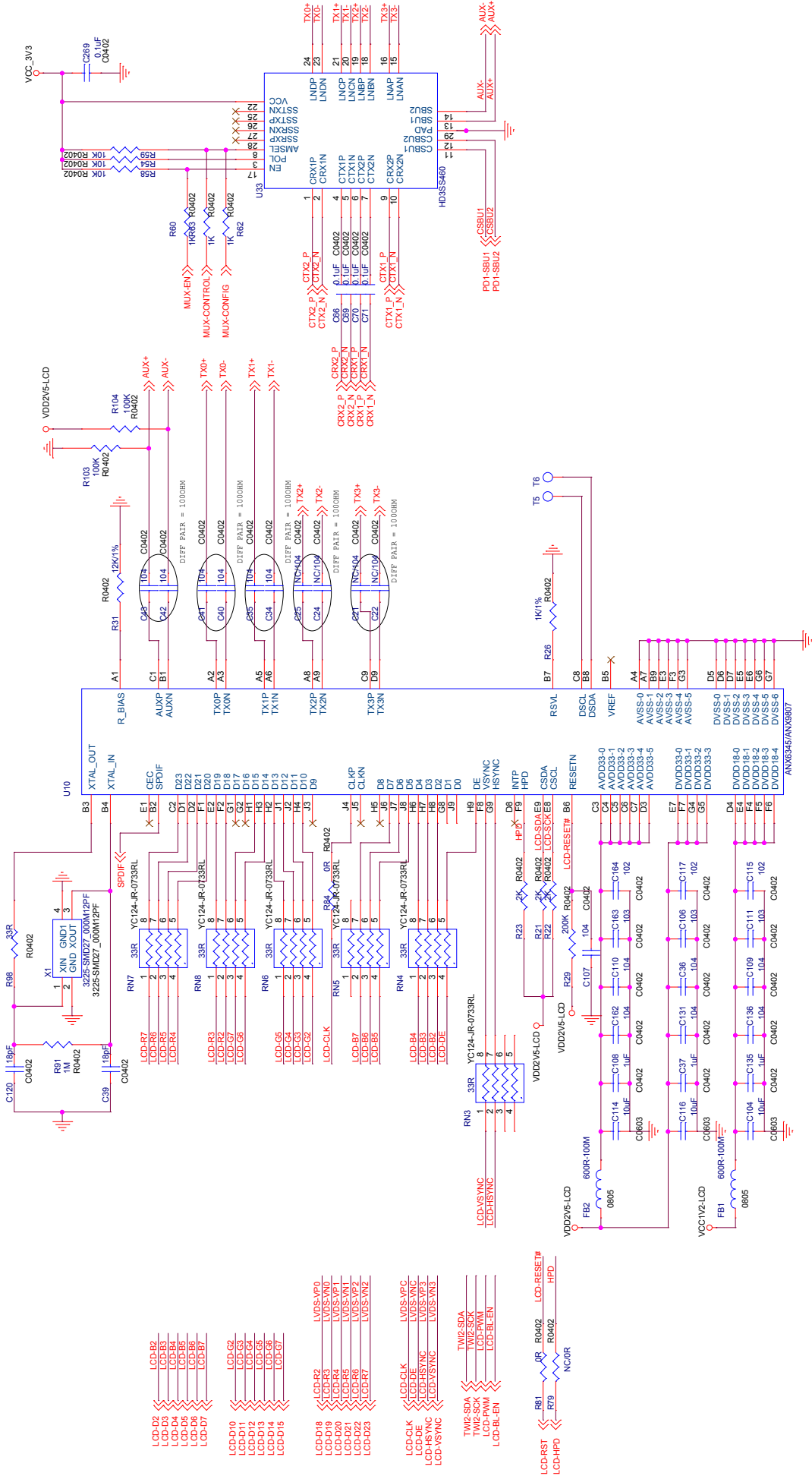
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# LCD BACKLIGHT REGULATOR

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78	4007	2	
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# RGB TO DISPLAY PORT



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Pocket\_PC

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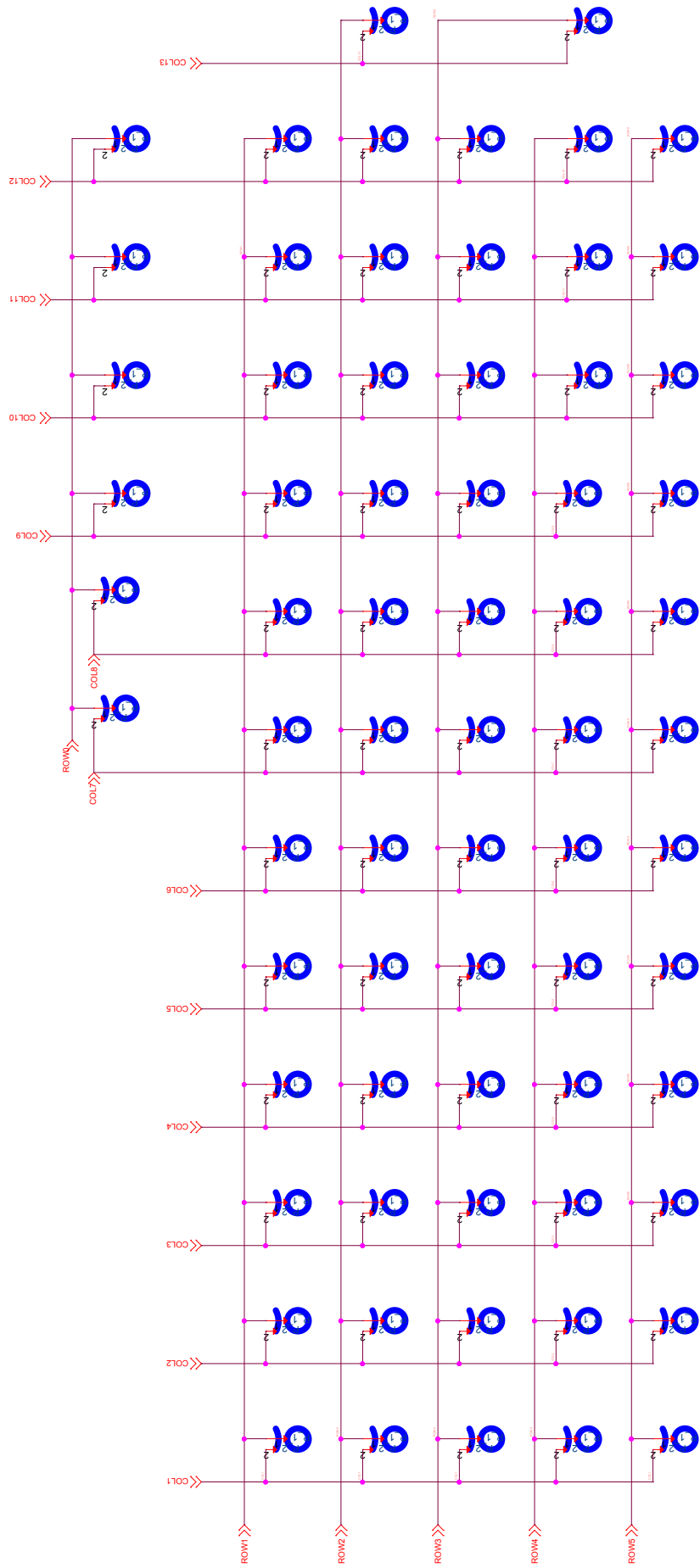
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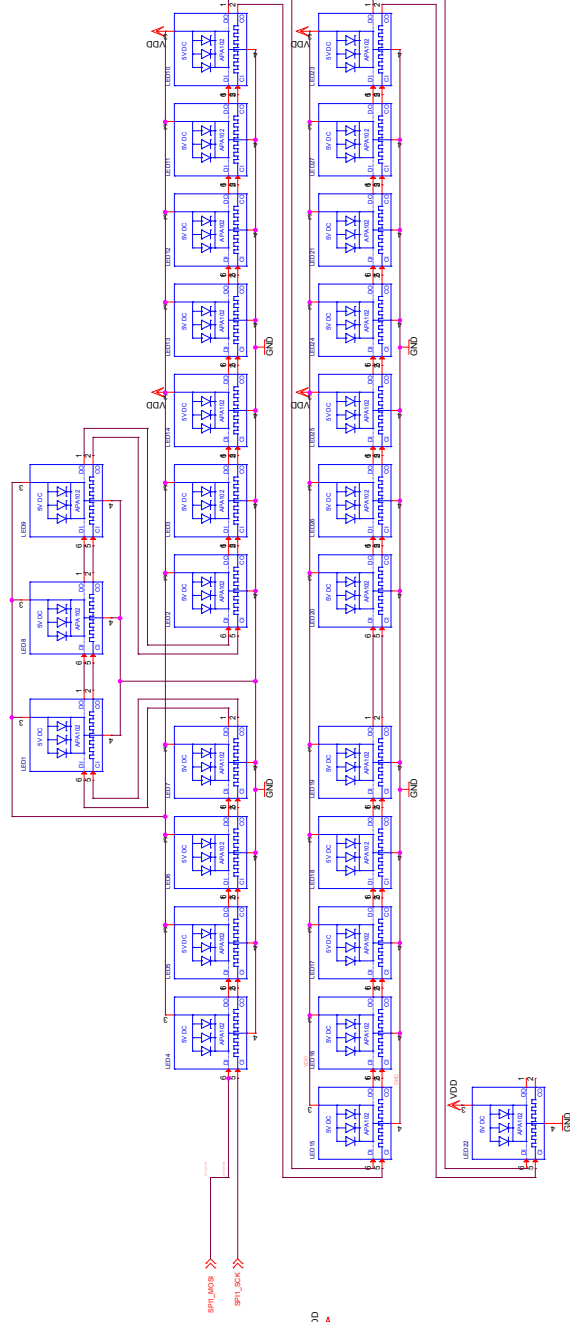
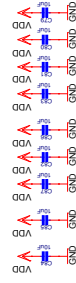
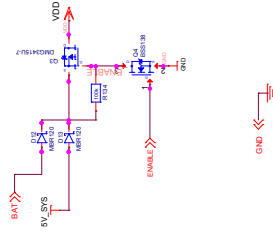
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# KEYPAD BUTTON MATRIX



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## KEYPAD RGB LEDs

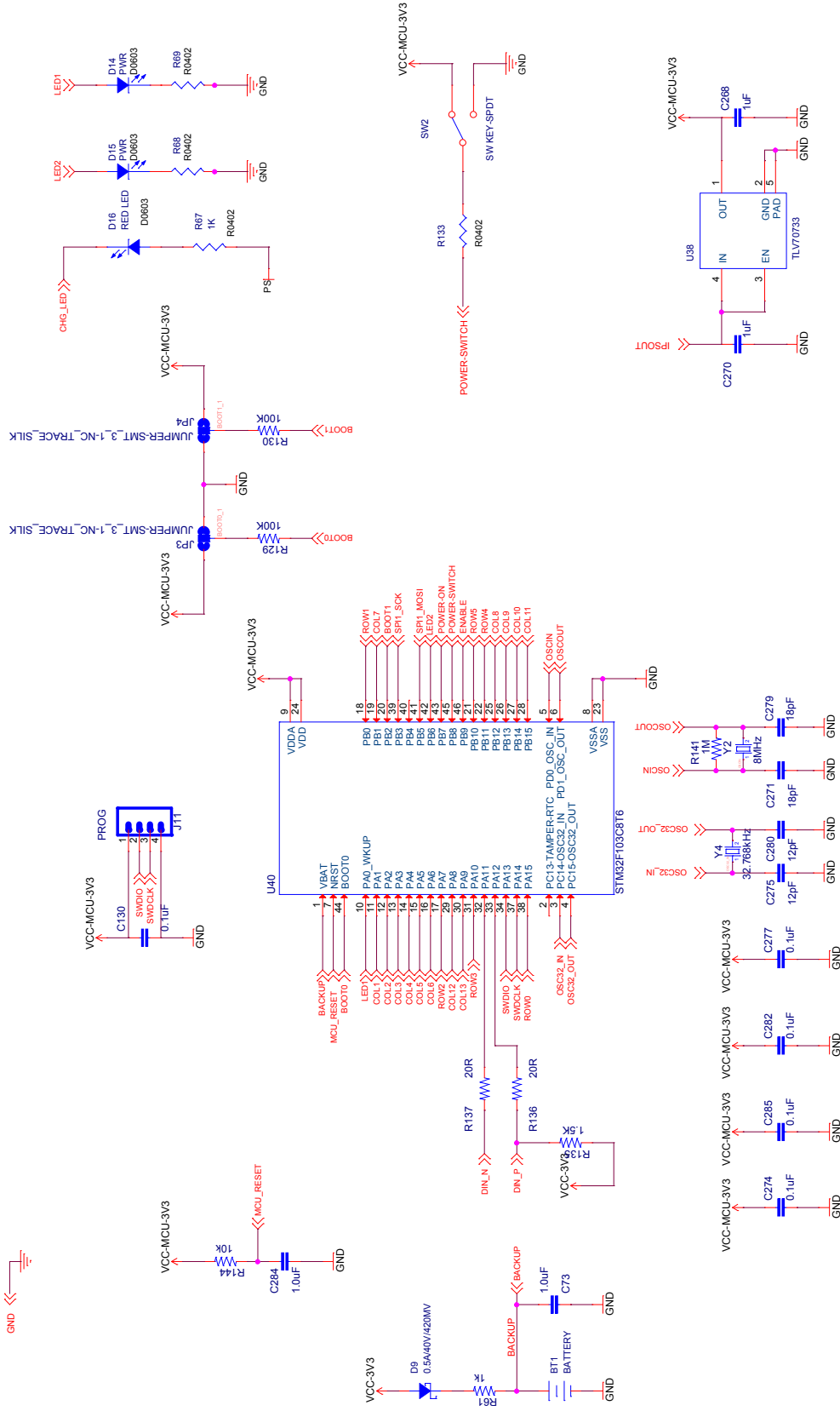


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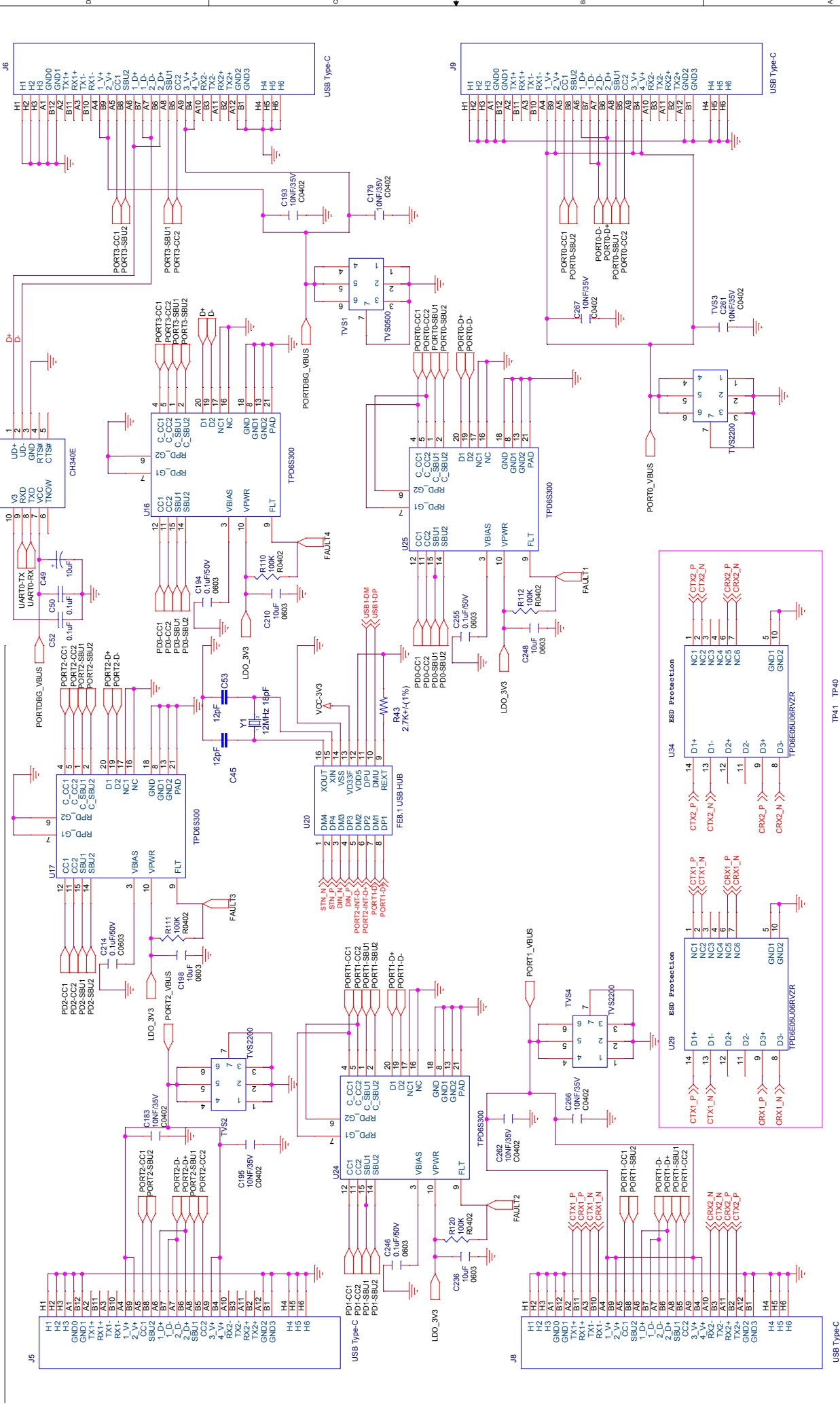
## KEYPAD MICROCONTROLLER

Added Offpage connectors

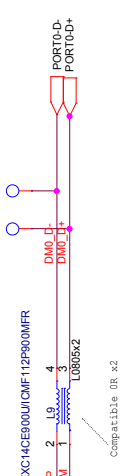
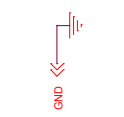


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# USB CONNECTORS / HUB / SERIAL CONVERTER AND ESD



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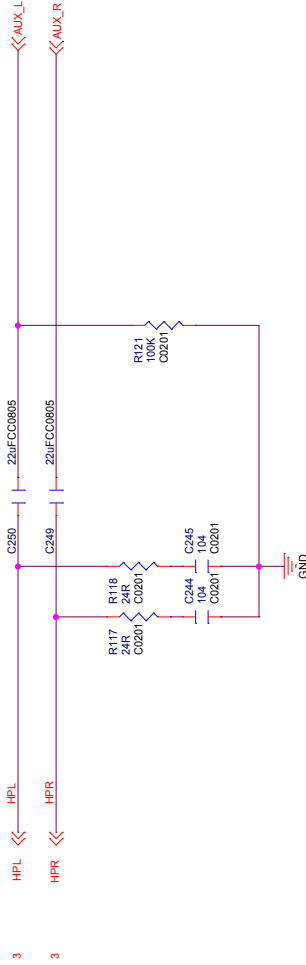
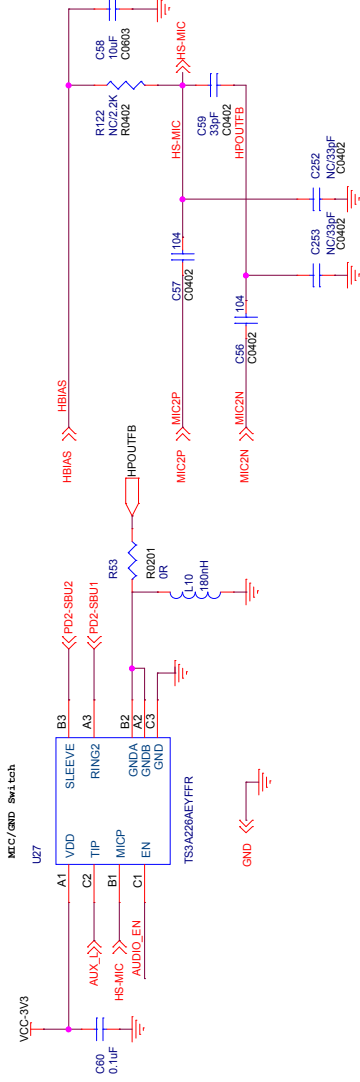
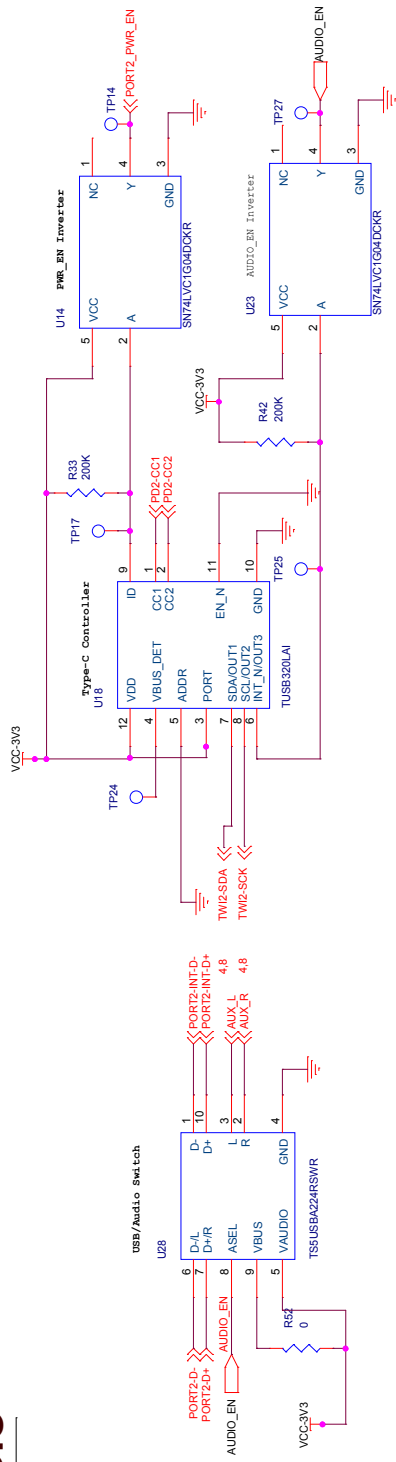


A horizontal beam is shown with four points labeled A, B, C, and D from right to left. A downward-pointing arrow is located at point C.



A horizontal beam is shown with four points labeled A, B, C, and D from right to left. A downward-pointing arrow is located at point C.

# USB C - HOST & ANALOG AUDIO

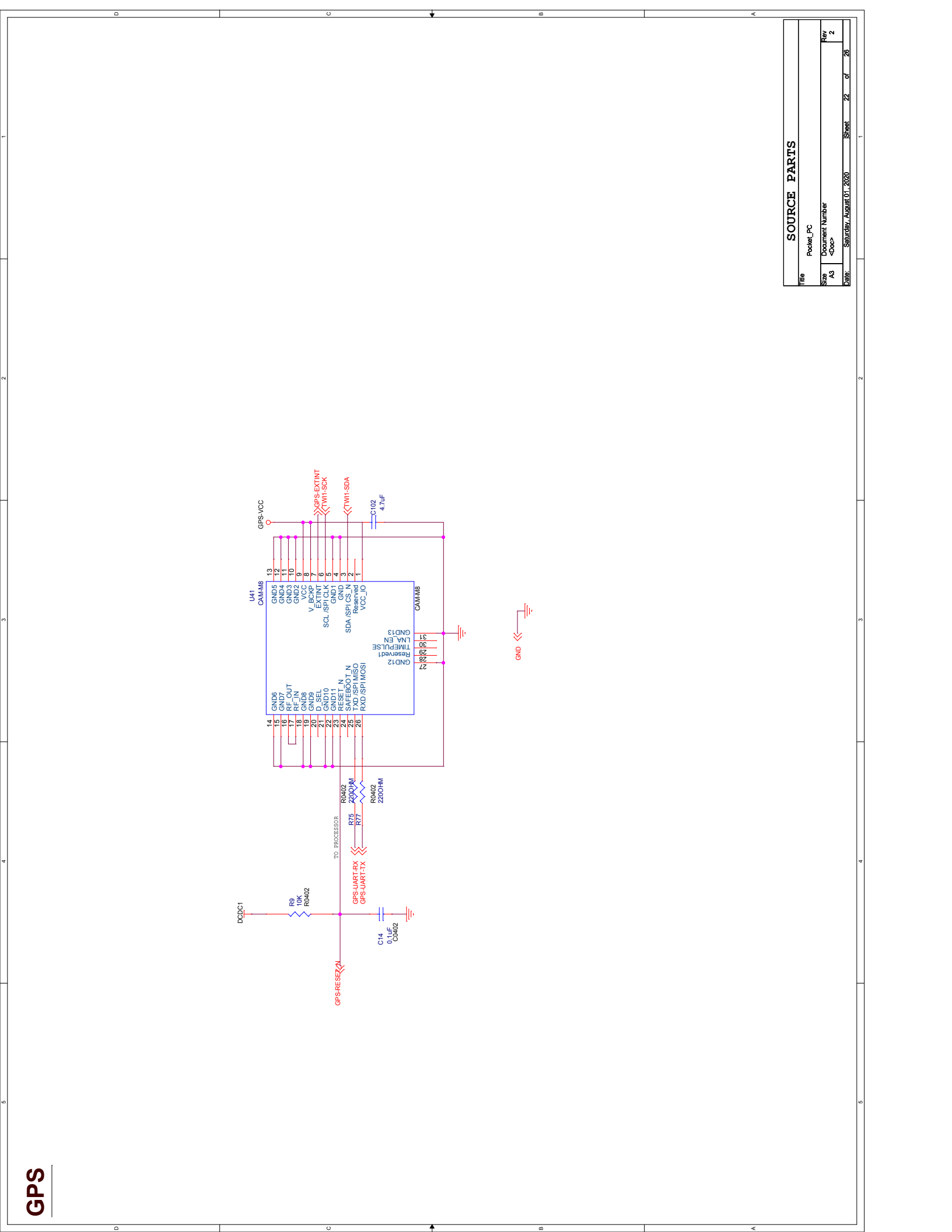


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The diagram shows a horizontal beam with four points labeled A, B, C, and D from right to left. A downward force  $P$  is applied at point C. The beam is supported at points A and B.



The diagram shows a horizontal beam with four points labeled A, B, C, and D from right to left. A downward force  $P$  is applied at point C. The beam is supported at points A and B.



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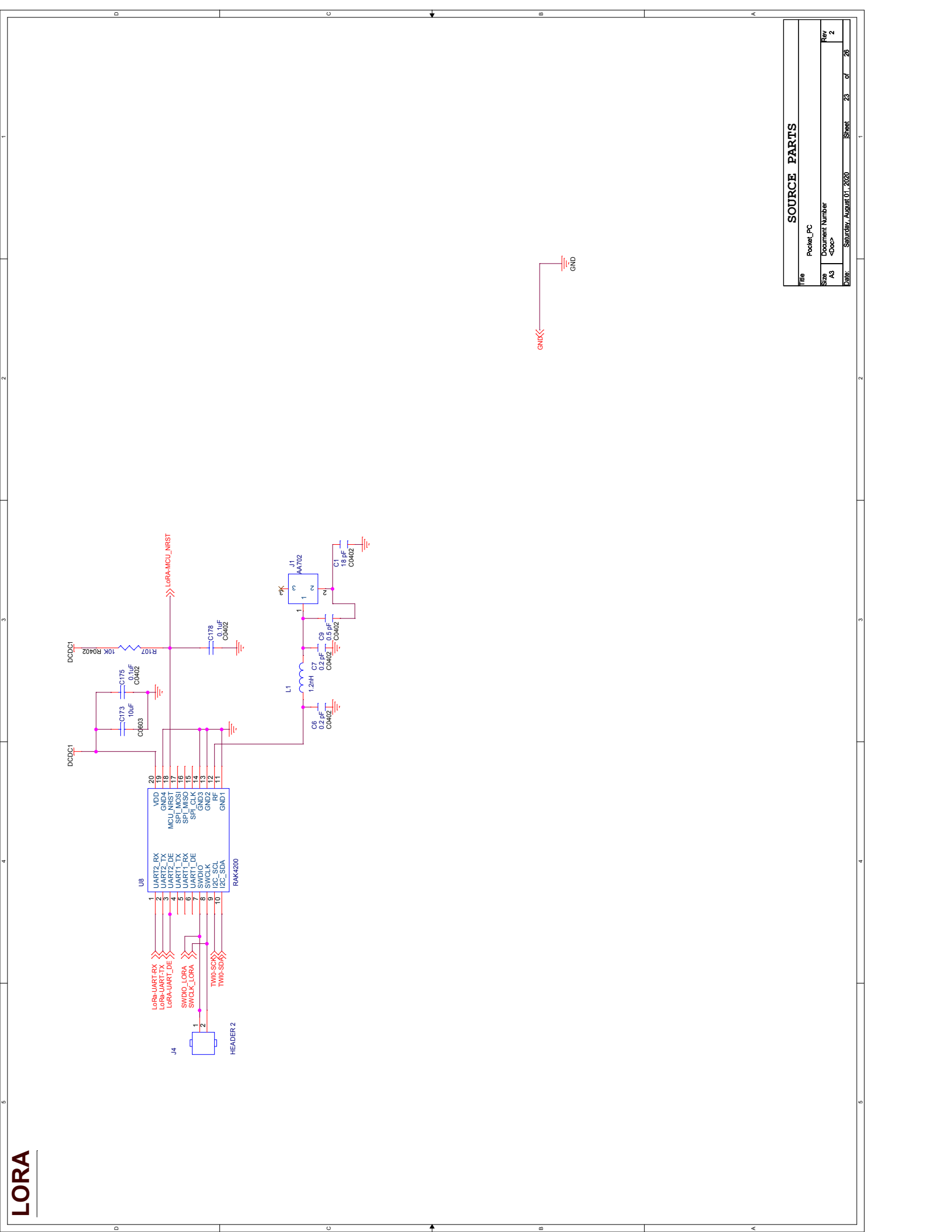
The diagram illustrates the electrical interface between a GPS module (U41) and a processor. The module is represented by a blue box with pins numbered 1 through 31. Key connections include:

- Power:** VCC is connected to a 4.7µF capacitor (C102) and the processor's VCC line. GND is connected to the processor's GND and a common ground symbol.
- Data:** The module's TX and RX pins are connected to the processor's UART lines via 220Ω resistors (R75, R77).
- Control:** The module's RESET\_N pin is connected to the processor's RESET\_N line via a 220Ω resistor (R77). The RF\_EN pin is connected to the processor's RF\_EN line via a 220Ω resistor (R77).
- Other:** The module's LNA\_EN pin is connected to the processor's LNA\_EN line via a 220Ω resistor (R77). The module's TIMEPULSE pin is connected to the processor's TIMEPULSE line via a 220Ω resistor (R77).

The processor is shown as a black box with pins numbered 1 through 31. The module's pins are labeled with their functions: GND6, GND7, RF\_OUT, RF\_IN, GND8, GND9, GND10, GND11, RESET\_N, SAFEBOOT\_N, RXD/SPI\_MISO, RXD/SPI\_MOSI, GND12, GND13, LNA\_EN, TIMEPULSE, Reserved1, Reserved2, Reserved3, Reserved4, Reserved5, Reserved6, Reserved7, Reserved8, Reserved9, Reserved10, Reserved11, Reserved12, Reserved13, Reserved14, Reserved15, Reserved16, Reserved17, Reserved18, Reserved19, Reserved20, Reserved21, Reserved22, Reserved23, Reserved24, Reserved25, Reserved26, Reserved27, Reserved28, Reserved29, Reserved30, Reserved31.

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LORA



LORA

## SOURCE PARTS

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Rev 2

LORA

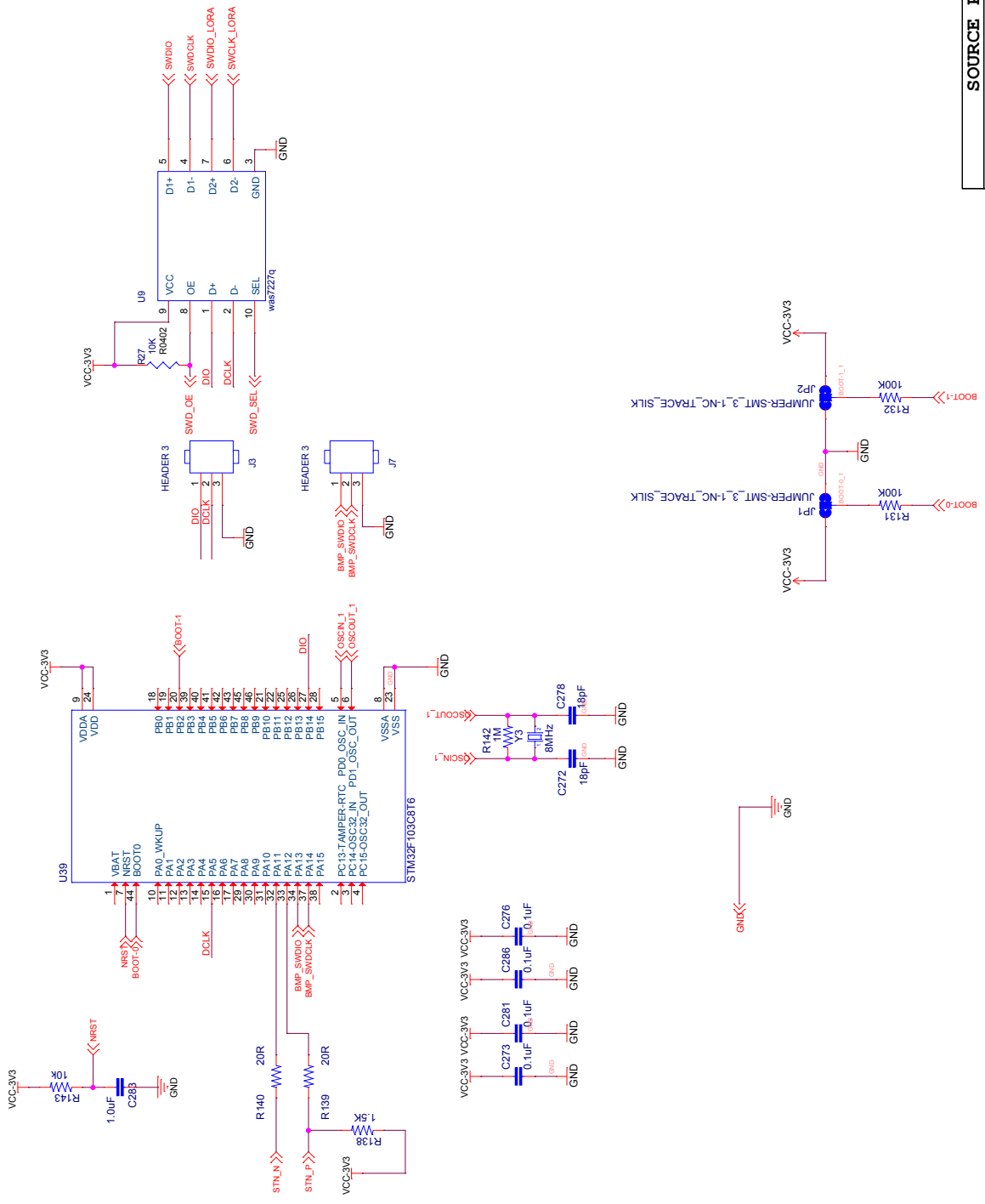
The diagram illustrates the electrical connections for a LoRa module (RAK4200) interfaced with a microcontroller (U8). The microcontroller pins are connected to the module pins as follows:

- UART:** U8 UART2\_RX to RAK4200 UART2\_RX, U8 UART2\_TX to RAK4200 UART2\_TX, U8 UART1\_RX to RAK4200 UART1\_RX, and U8 UART1\_TX to RAK4200 UART1\_TX.
- SPI:** U8 SPI\_MISO to RAK4200 SPI\_MISO, U8 SPI\_MOSI to RAK4200 SPI\_MOSI, and U8 SPI\_CLK to RAK4200 SPI\_CLK.
- I2C:** U8 I2C\_SDA to RAK4200 I2C\_SDA and U8 I2C\_SCL to RAK4200 I2C\_SCL.
- SWDIO:** U8 SWDIO to RAK4200 SWDIO.
- Power and Reset:** U8 VDD to RAK4200 VDD, U8 GND to RAK4200 GND, and U8 MCU\_NRST to RAK4200 MCU\_NRST (indicated by a red arrow).

Additional components and connections include:

- Power Supply:** DCDC1 and DCDC2 are connected to the module's power pins. A 10K resistor (R107) is connected between DCDC1 and the MCU\_NRST pin.
- Capacitors:** Various capacitors (C173, C175, C176, C178, C179, C180, C181, C182, C183, C184, C185, C186, C187, C188, C189, C190, C191, C192, C193, C194, C195, C196, C197, C198, C199, C200, C201, C202, C203, C204, C205, C206, C207, C208, C209, C210, C211, C212, C213, C214, C215, C216, C217, C218, C219, C220, C221, C222, C223, C224, C225, C226, C227, C228, C229, C230, C231, C232, C233, C234, C235, C236, C237, C238, C239, C240, C241, C242, C243, C244, C245, C246, C247, C248, C249, C250, C251, C252, C253, C254, C255, C256, C257, C258, C259, C260, C261, C262, C263, C264, C265, C266, C267, C268, C269, C270, C271, C272, C273, C274, C275, C276, C277, C278, C279, C280, C281, C282, C283, C284, C285, C286, C287, C288, C289, C290, C291, C292, C293, C294, C295, C296, C297, C298, C299, C300, C301, C302, C303, C304, C305, C306, C307, C308, C309, C310, C311, C312, C313, C314, C315, C316, C317, C318, C319, C320, C321, C322, C323, C324, C325, C326, C327, C328, C329, C330, C331, C332, C333, C334, C335, C336, C337, C338, C339, C340, C341, C342, C343, C344, C345, C346, C347, C348, C349, C350, C351, C352, C353, C354, C355, C356, C357, C358, C359, C360, C361, C362, C363, C364, C365, C366, C367, C368, C369, C370, C371, C372, C373, C374, C375, C376, C377, C378, C379, C380, C381, C382, C383, C384, C385, C386, C387, C388, C389, C390, C391, C392, C393, C394, C395, C396, C397, C398, C399, C400, C401, C402, C403, C404, C405, C406, C407, C408, C409, C410, C411, C412, C413, C414, C415, C416, C417, C418, C419, C420, C421, C422, C423, C424, C425, C426, C427, C428, C429, C430, C431, C432, C433, C434, C435, C436, C437, C438, C439, C440, C441, C442, C443, C444, C445, C446, C447, C448, C449, C450, C451, C452, C453, C454, C455, C456, C457, C458, C459, C460, C461, C462, C463, C464, C465, C466, C467, C468, C469, C470, C471, C472, C473, C474, C475, C476, C477, C478, C479, C480, C481, C482, C483, C484, C485, C486, C487, C488, C489, C490, C491, C492, C493, C494, C495, C496, C497, C498, C499, C500, C501, C502, C503, C504, C505, C506, C507, C508, C509, C510, C511, C512, C513, C514, C515, C516, C517, C518, C519, C520, C521, C522, C523, C524, C525, C526, C527, C528, C529, C530, C531, C532, C533, C534, C535, C536, C537, C538, C539, C540, C541, C542, C543, C544, C545, C546, C547, C548, C549, C550, C551, C552, C553, C554, C555, C556, C557, C558, C559, C560, C561, C562, C563, C564, C565, C566, C567, C568, C569, C570, C571, C572, C573, C574, C575, C576, C577, C578, C579, C580, C581, C582, C583, C584, C585, C586, C587, C588, C589, C590, C591, C592, C593, C594, C595, C596, C597, C598, C599, C600, C601, C602, C603, C604, C605, C606, C607, C608, C609, C610, C611, C612, C613, C614, C615, C616, C617, C618, C619, C620, C621, C622, C623, C624, C625, C626, C627, C628, C629, C630, C631, C632, C633, C634, C635, C636, C637, C638, C639, C640, C641, C642, C643, C644, C645, C646, C647, C648, C649, C650, C651, C652, C653, C654, C655, C656, C657, C658, C659, C660, C661, C662, C663, C664, C665, C666, C667, C668, C669, C670, C671, C672, C673, C674, C675, C676, C677, C678, C679, C680, C681, C682, C683, C684, C685, C686, C687, C688, C689, C690, C691, C692, C693, C694, C695, C696, C697, C698, C699, C700, C701, C702, C703, C704, C705, C706, C707, C708, C709, C710, C711, C712, C713, C714, C715, C716, C717, C718, C719, C720, C721, C722, C723, C724, C725, C726, C727, C728, C729, C730, C731, C732, C733, C734, C735, C736, C737, C738, C739, C740, C741, C742, C743, C744, C745, C746, C747, C748, C749, C750, C751, C752, C753, C754, C755, C756, C757, C758, C759, C760, C761, C762, C763, C764, C765, C766, C767, C768, C769, C770, C771, C772, C773, C774, C775, C776, C777, C778, C779, C780, C781, C782, C783, C784, C785, C786, C787, C788, C789, C790, C791, C792, C793, C794, C795, C796, C797, C798, C799, C800, C801, C802, C803, C804, C805, C806, C807, C808, C809, C810, C811, C812, C813, C814, C815, C816, C817, C818, C819, C820, C821, C822, C823, C824, C825, C826, C827, C828, C829, C830, C831, C832, C833, C834, C835, C836, C837, C838, C839, C840, C841, C842, C843, C844, C845, C846, C847, C848, C849, C850, C851, C852, C853, C854, C855, C856, C857, C858, C859, C860, C861, C862, C863, C864, C865, C866, C867, C868, C869, C870, C871, C872, C873, C874, C875, C876, C877, C878, C87

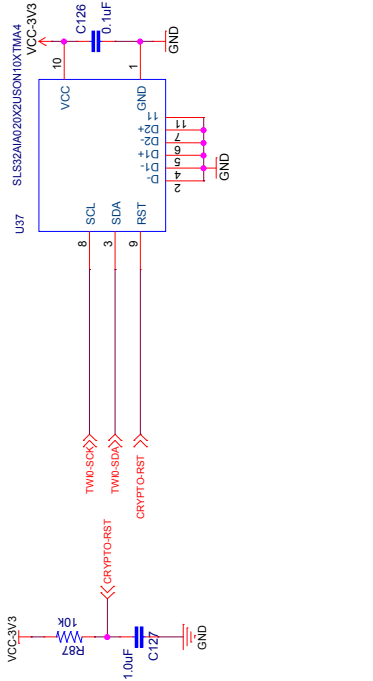
# BLACK MAGIC PROBE



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# CRYPTO ELEMENT



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TP LIST

TP list	Function	TP list	Function	TP list	Function
T1	GND	TP1	FEL	TP21	ELD03
T2	CPUS--URX	TP2	DCDC1	TP22	VCC-RTC
T3	CPUS--UTX	TP3	ALDO2	TP23	USB-DRVVBUS
T4	eMMCCLK	TP4	ALDO3	TP24	VBUS_DET
T5	DSCL	TP5	DLDO1	TP25	INT_N/OUT3
T6	DSDA	TP6	DLDO2	TP26	PS
T7	UART0-RX	TP7	DLDO3	TP27	AUDIO_EN
T8	UART0-TX	TP8	ALDO1	TP28	WLED_A
T9	I2C1_IRQZ	TP9	CHG-IN	TP29	WLED_A
T10	HRESET	TP10	DLDO4	TP30	+5V5_DDVDDH
T11	LCD-HPD	TP11	DCDC2-3	TP31	WLED_C2
		TP12	DCDC6	TP32	WLED_C1
		TP13	DCDC2-3	TP33	-5V5_DDVDDL
		TP14	PORT2_PWR_EN	TP34	TWI1-SCK
		TP15	DCDC5	TP35	TWI0-SDA
		TP16	FLD02	TP36	TWI1-SDA
		TP17	ID	TP37	TWI2-SCK
		TP18	FLD01	TP38	TWI2-SDA
		TP19	ELD01	TP39	TWI0-SCK
		TP20	ELD02	TP40	PORT0-D-
				TP41	PORT0-D+
				TP42	SPI_CLK
				TP43	SPI_MOSI
				TP44	SPI_CS
				TP45	SPI_MISO

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