

PM1200 CPU Module -- CEDAR

(Showing PM1230-1 Stuff Option)

Notes:

See design and layout
notes on schematic.

Revision History of Cedar:

| Rev | Description | ECO | Author |
|-----|---|----------|-----------|
| 02 | Changes to make RoHS compliant. J7 and R86 stuffed to enable JTAG. | ECO 381 | S Bennett |
| 2 | Update ROHS part numbers | MCO 0108 | S Bennett |
| | | | |

PCB Fab: 600-0112
PCA BOM: 700-0139
PCA ASSY: 705-0139

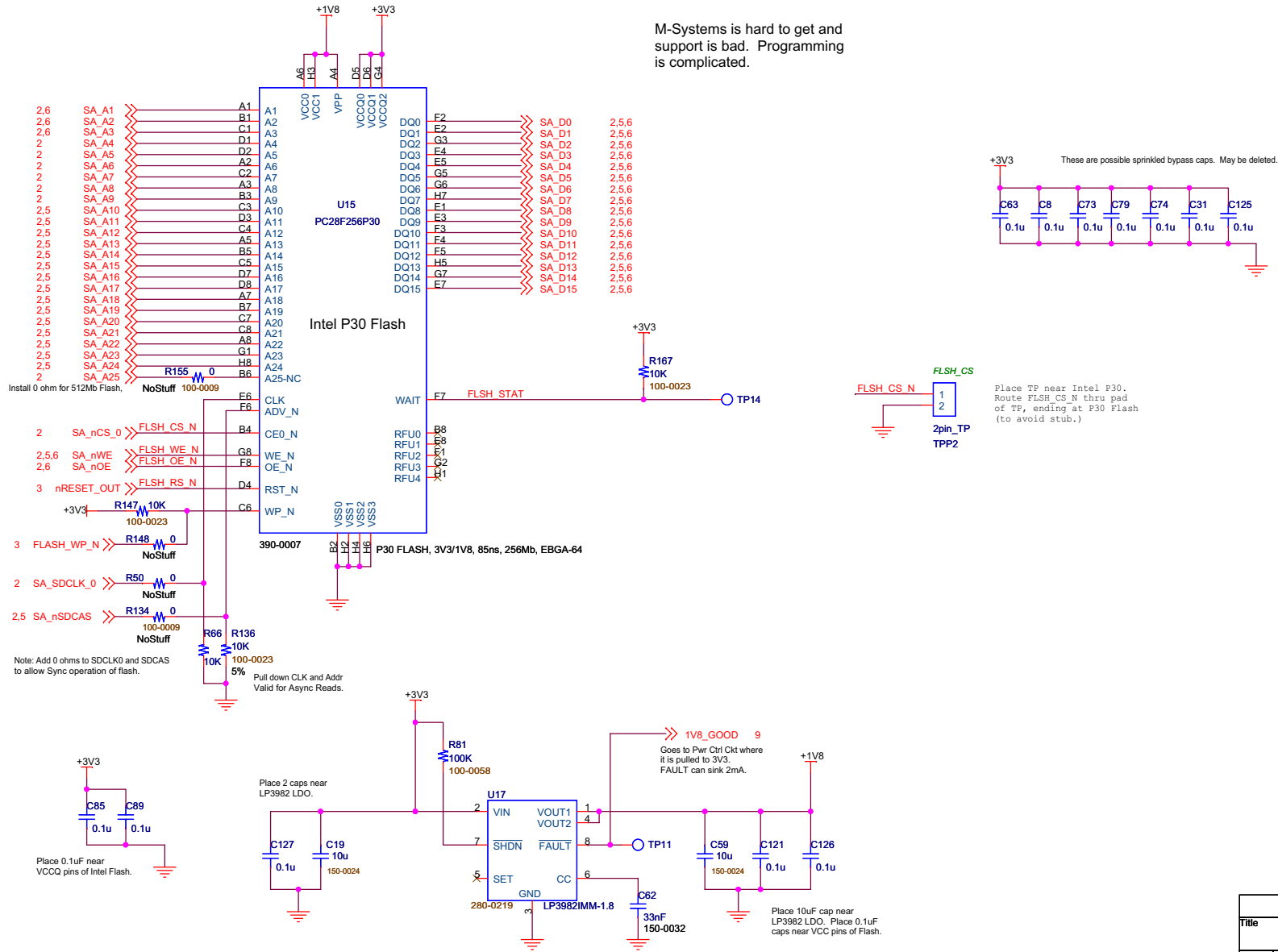
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| Title | | | | |
| Title Page / Revision History | | | | |
| Size B | Document Number 710-0139 PCA SCHEMATIC, CONTROLLER MODULE, CEDAR | | | Rev 02 |
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P30 Flash with PXA255 gets discount.
Thus, P30 will be cheaper than Spansion.

M-Systems is hard to get and
support is bad. Programming
is complicated.



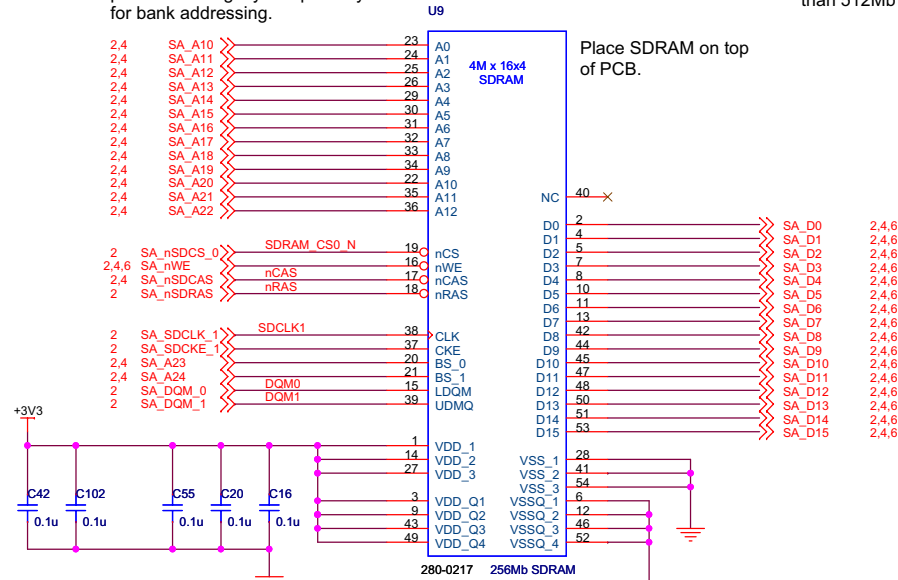
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| Title | | |
| Flash | | |
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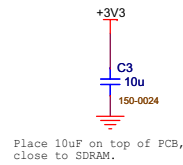
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Note that addressing is connected per SA1110 legacy compatibility mode for bank addressing.

256Mb parts are more cost effective (by 50%) than 512Mb parts.

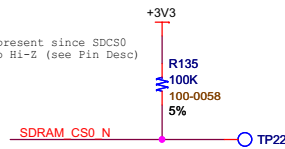


Place 0.1uF on top of PCB, close to SDRAM power pins.

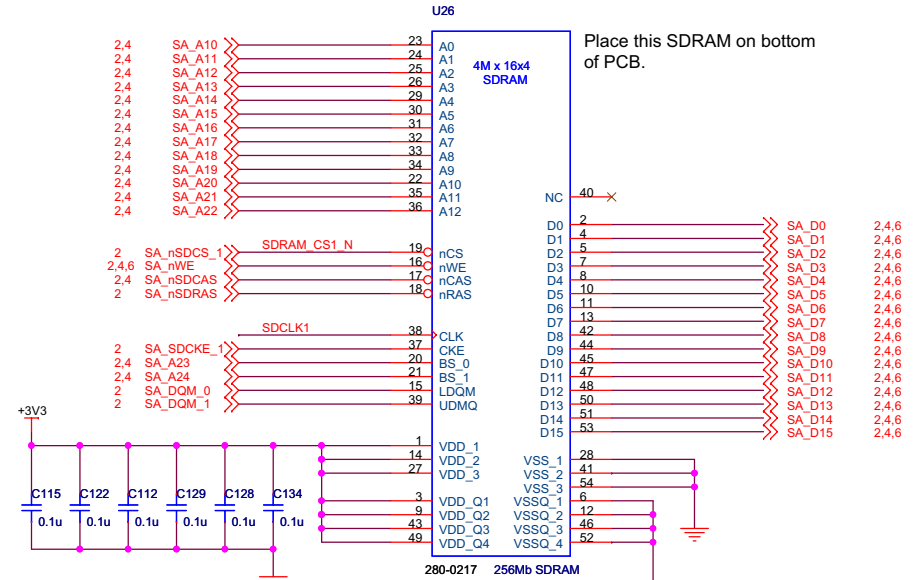


Place 10uF on top of PCB, close to SDRAM.

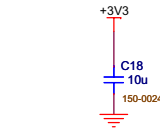
100k present since SDCS0 can go Hi-Z (see Pin Desc)



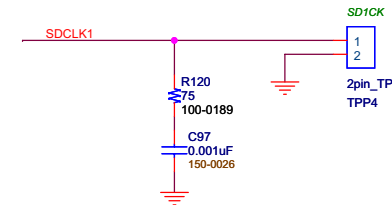
Place TP near SDRAM. Route SDRAM CS0_N from FXA255 to pad of TP. From pad, route to the SDRAM pin with no stub.



Place 0.1uF on bottom of PCB, close to SDRAM power pins.



Place 10uF on bottom of PCB, close to SDRAM.



Place R and C near SDRAMs on a short stub past pin of last SDRAM. (Route trace thru TP to RC term.)

Place TP near RC term. Route trace thru pad to avoid stub.

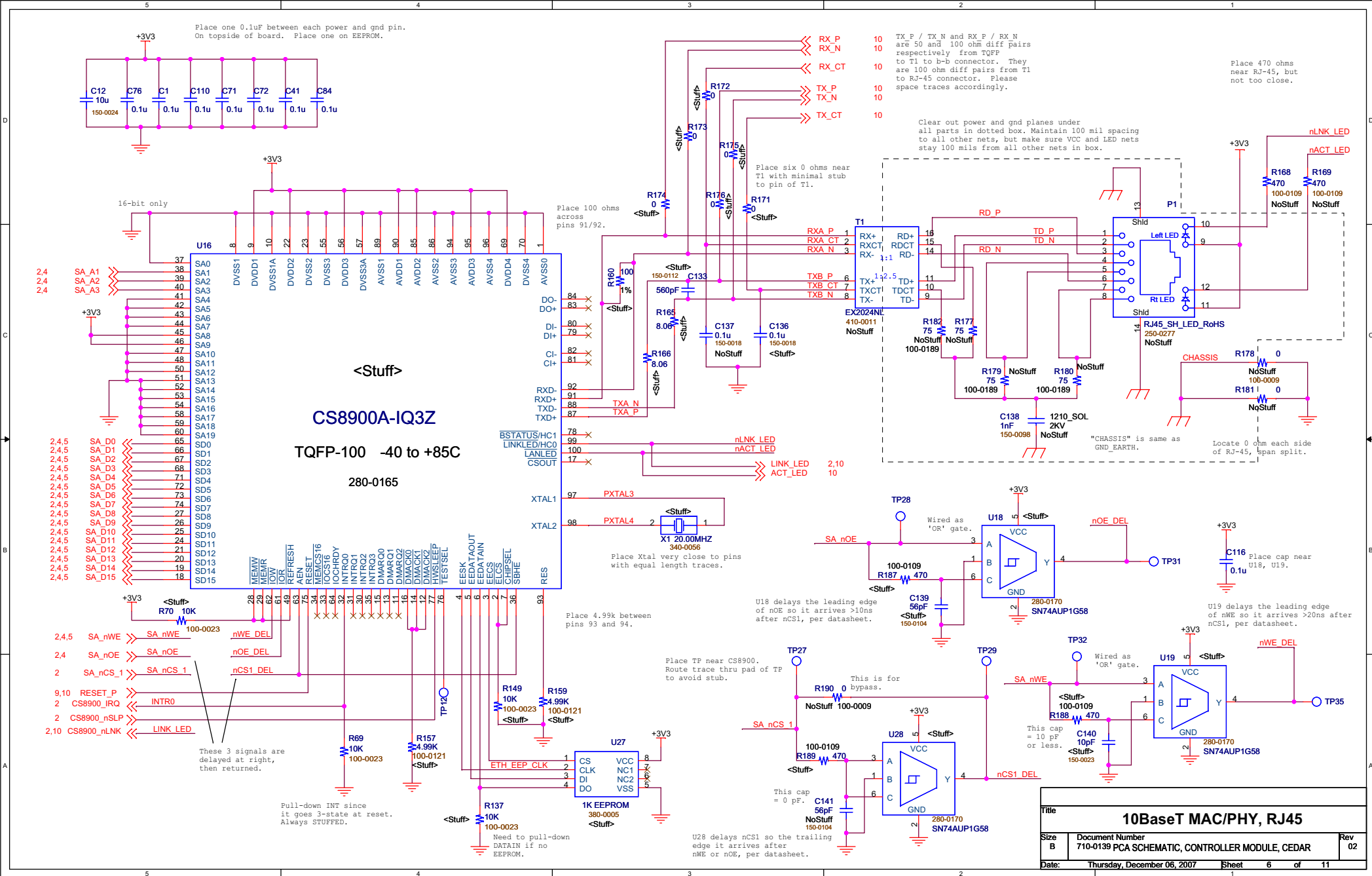
Note: Both SDRAM are loaded for 64MB. It is 2 x 256Mb for 64MB of x16 RAM. If we only need 32MB, then the one of the right is NOSTUFF, and we have 32MB of x16 SDRAM. SDRAM on left is Partition 0. SDRAM on right is Partition 1.

Note: For 0-70C, Samsung SDRAMs are more cost effective (about \$5 instead of \$7).

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| SDRAM | | | |
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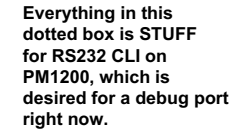
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| | | | |
|------|-----------|----|----------------|
| 2,10 | SA_FF_TXD | >> | <u>CLI TXD</u> |
| 2,10 | SA_FF_RXD | << | <u>CLI RXD</u> |
| 2,10 | SA_FF_RTS | >> | <u>CLI RTS</u> |
| 2,10 | SA_FF_CTS | << | <u>CLI CTS</u> |

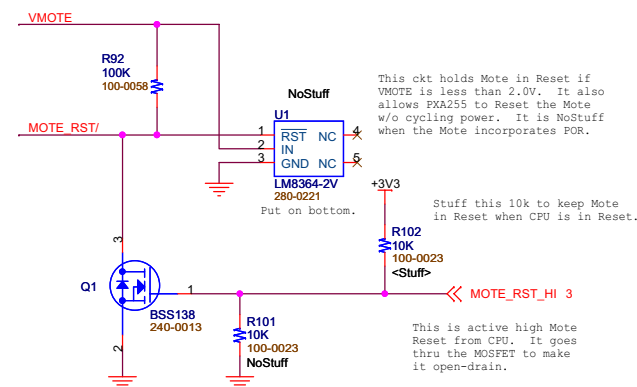
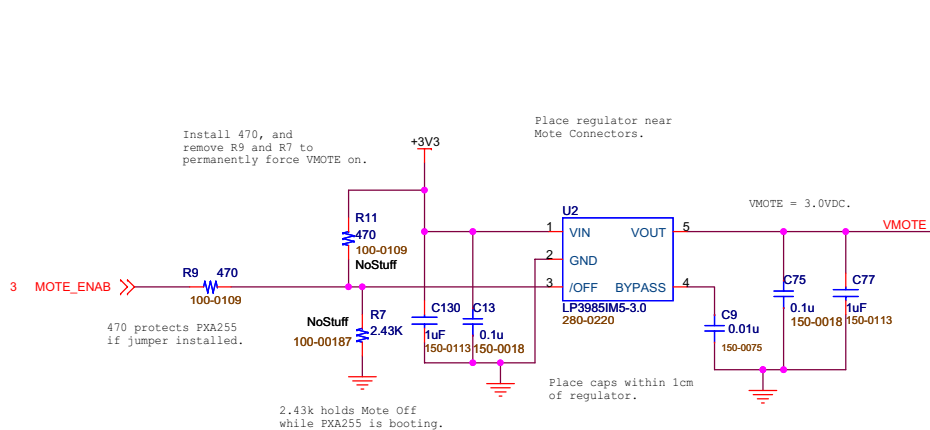
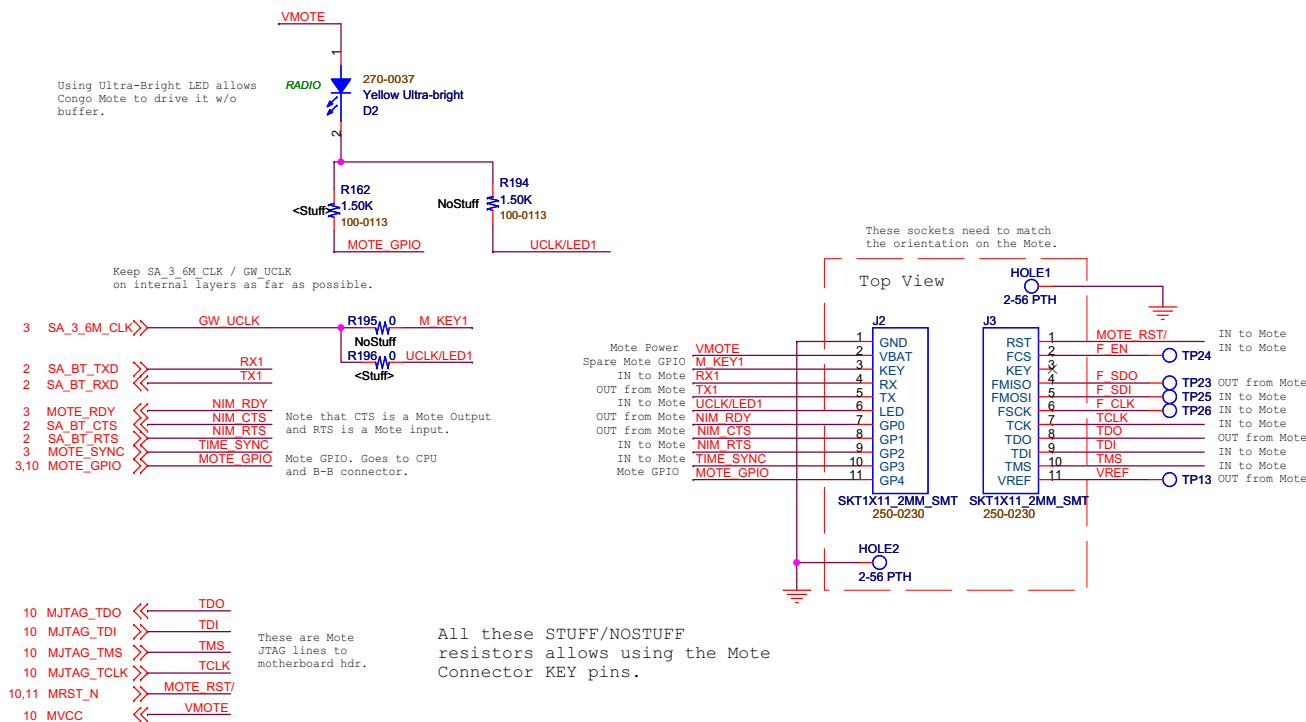


Note: 5-pin header allows RS-232 connection to CLI port. This would be stuffed for debug and development only. Header is unshrouded and unkeyed, but plugging in backwards causes no failures.

NOSTUFF this CLI LVTTTL test port.

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| Title | | | | |
| RS-232 Ports | | | | |
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| Title | | |
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| Mote Interface | | |
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