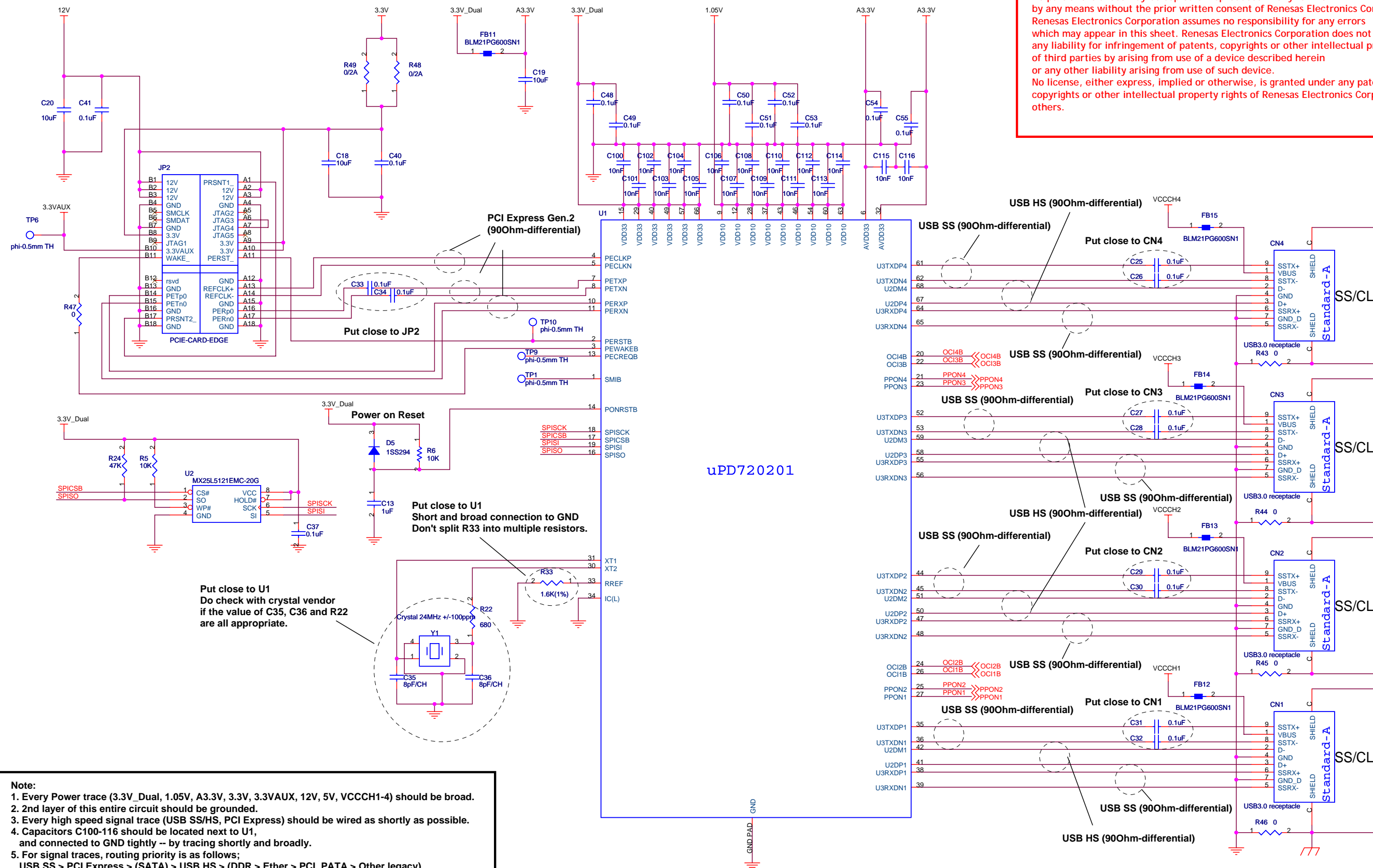


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Note:

- Every Power trace (3.3V_Dual, 1.05V, A3.3V, 3.3V, 3.3VAUX, 12V, 5V, VCCCH1-4) should be broad.
- 2nd layer of this entire circuit should be grounded.
- Every high speed signal trace (USB SS/HS, PCI Express) should be wired as shortly as possible.
- Capacitors C100-116 should be located next to U1, and connected to GND tightly -- by tracing shortly and broadly.
- For signal traces, routing priority is as follows;
USB SS > PCI Express > (SATA) > USB HS > (DDR > Ether > PCI, PATA > Other legacy)
- At any crossing for every trace except ground, sufficient area of ground plane between each other should be put.
- Follow the basic of transmission trace pair when routing any signal trace.
> Remove any impairment or discontinuity.
> Keep same length by each other.
> Keep same width and spacing.
- The differential impedance of nominal value is as follows.
> USB 3.0 / 2.0 --- 90ohm
> PCI express Gen 1.(2.5GT/s) --- 100ohm PCI express Gen 2.(5GT/s) --- 85ohm
PCB trace impedance would be a non-continues value by its design rules.
The differential impedance adopt the nearest value that can be manufactured at PCB
For more information please refer to 'USB3.0 Board Design Guide' in design kit.

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