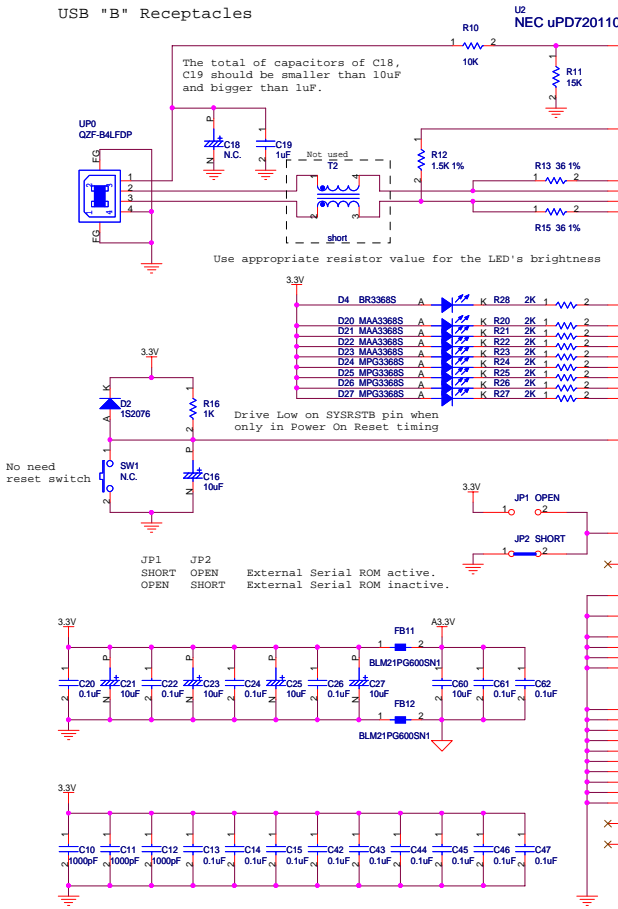


NEC

USB2.0(HUB) ET-0114CR3

USB "B" Receptacles



The total of capacitors of C18, C19 should be smaller than 10uF and bigger than 1uF.

Use appropriate resistor value for the LED's brightness

No need reset switch

Drive Low on SYSRSTB pin when only in Power On Reset timing

JP1 JP2
SHORT OPEN External Serial ROM active.
OPEN SHORT External Serial ROM inactive.

500mA of 3.3V should be provided by the voltage regulator

External DC power source
5V(4.75-5.25V) Min. 2.5A

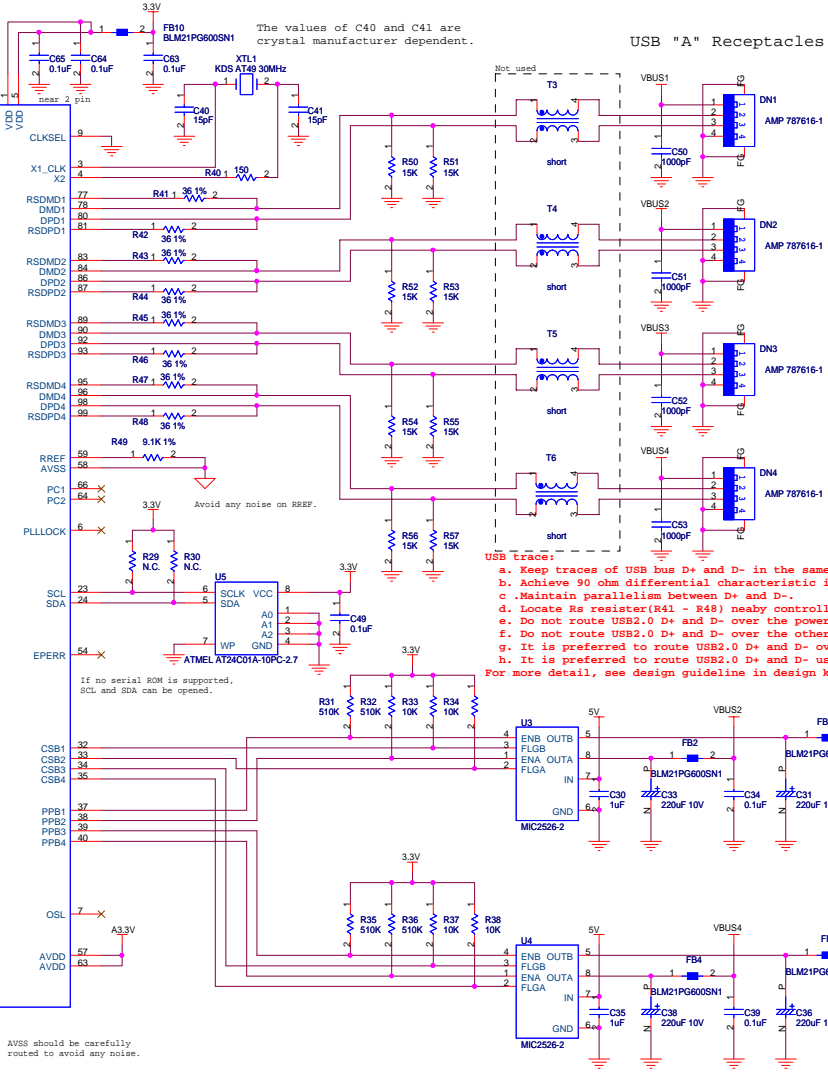
Use appropriate resistor value for the LED's brightness

*All resistors are 5% tolerance unless specified otherwise

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The values of C40 and C41 are crystal manufacturer dependent.

USB "A" Receptacles



- USB Trace:
- Keep traces of USB bus D+ and D- in the same length.
 - Achieve 90 ohm differential characteristic impedance.
 - Maintain parallelism between D+ and D-.
 - Locate RS resistor (R41 - R49) nearby controller.
 - Do not route USB2.0 D+ and D- over the power plane split.
 - Do not route USB2.0 D+ and D- over the other high frequency signals.
 - It is preferred to route USB2.0 D+ and D- over ground layer.
 - It is preferred to route USB2.0 D+ and D- using single layer.
- For more detail, see design guideline in design kit.

- Downstream Port Power Supply:
- VBUSx power line(pattern) should have at least 500mA current load strength on each downstream port.
 - Keep the width of VBUSx pattern, use low power on resistance of power switch and use low resistance of ferrite beads to avoid voltage drop.
 - The bypass capacitance of C31, C33, C36 and C38 should have at least of 120uF and low ESR.

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