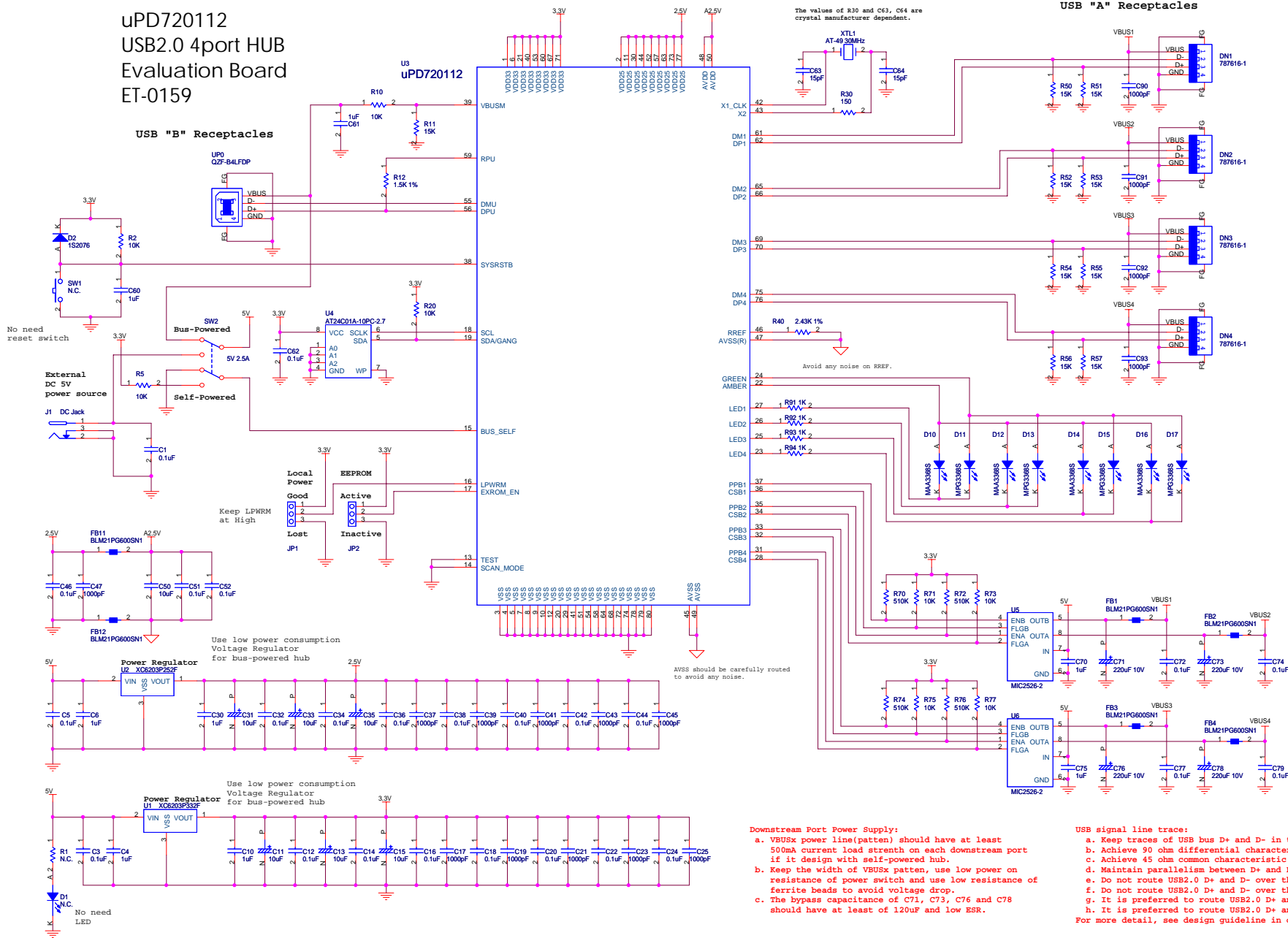




# uPD720112 USB2.0 4port HUB Evaluation Board ET-0159



\*All resistors are 5% tolerance unless specified otherwise

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## Downstream Port Power Supply:

- VBUSx power line(patten) should have at least 500mA current load strength on each downstream port if it design with self-powered hub.
- Keep the width of VBUSx patten, use low power on resistance of power switch and use low resistance of ferrite beads to avoid voltage drop.
- The bypass capacitance of C71, C73, C76 and C78 should have at least of 120uF and low ESR.

## USB signal line trace:

- Keep traces of USB bus D+ and D- in the same length.
  - Achieve 90 ohm differential characteristic impedance.
  - Achieve 45 ohm common characteristic impedance.
  - Maintain parallelism between D+ and D-.
  - 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.

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