

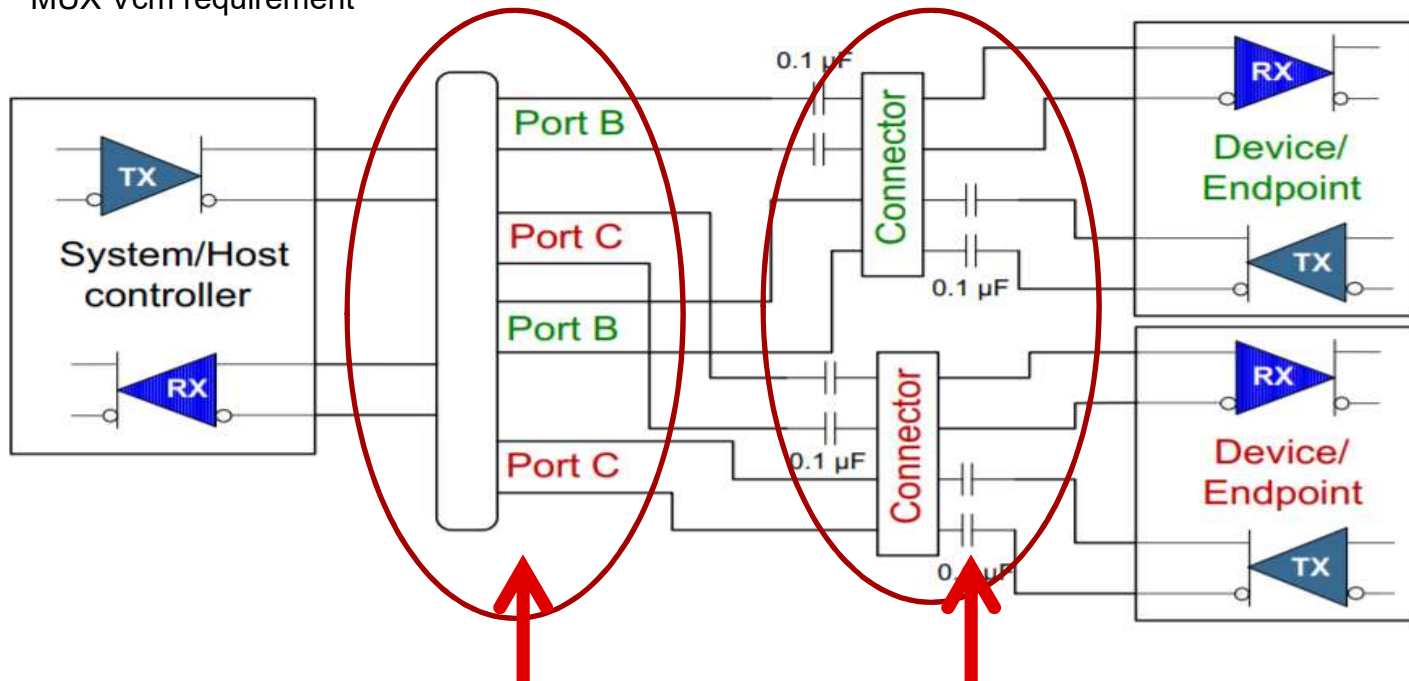
Vcm and AC coupling capacitor placement

- Source, sink, and MUX have Vcm or the bias voltage requirement
- The bias voltage requirement may be different among the source, the sink, and the MUX
- Use the AC coupling caps to satisfy the bias voltage requirement
- Always starts from the connector as the AC coupling capacitor provides ESD protection



AC coupling capacitor placement example

The host controller V_{cm} meets the MUX V_{cm} requirement, but end point V_{cm} does not meet the MUX V_{cm} requirement

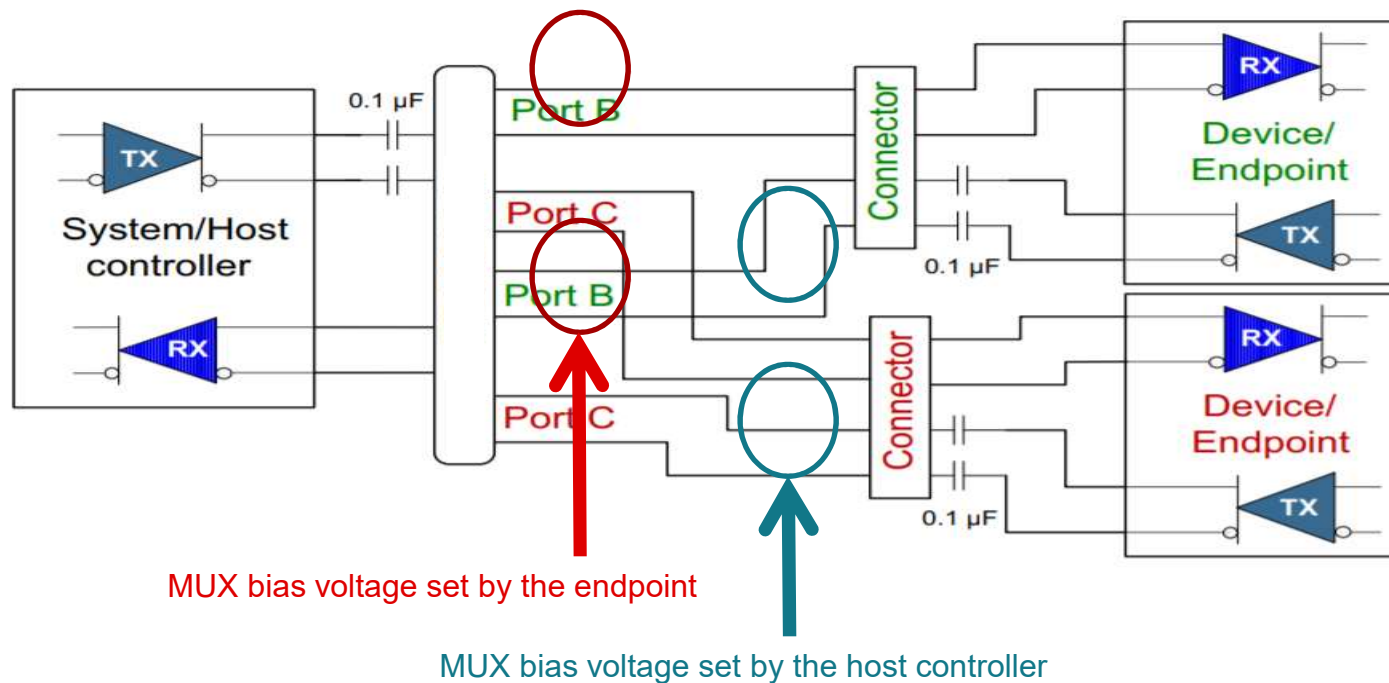


MUX bias voltage set by the host controller

Place AC caps between the MUX and the endpoint to block the endpoint bias voltage

AC coupling capacitor placement example

The host controller and endpoint Vcm meets the MUX Vcm requirement



AC coupling capacitor placement example

The host controller/endpoint Vcm outside the MUX Vcm requirement

