

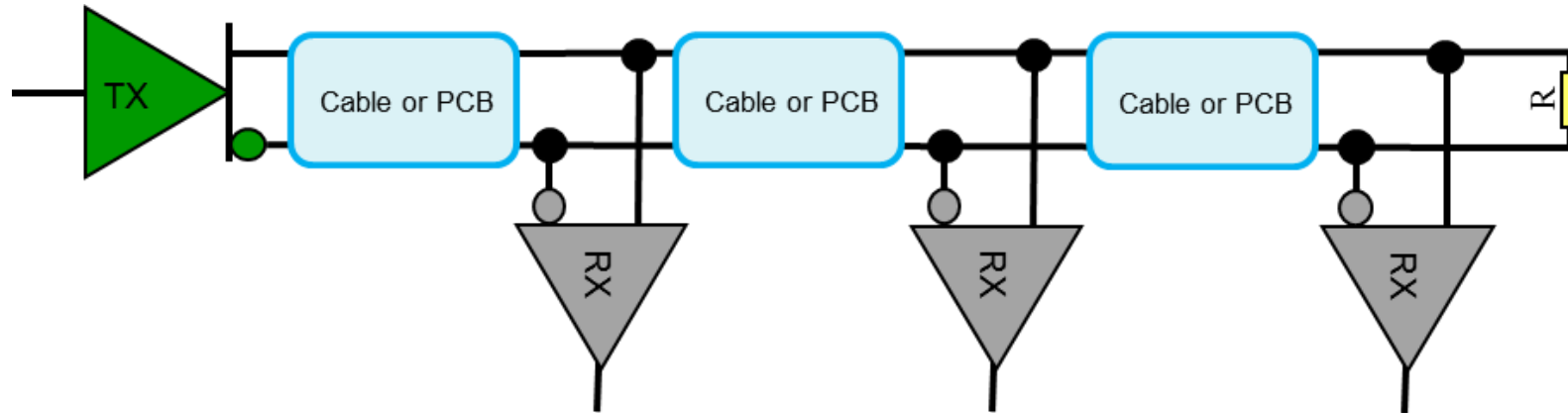
What is Multidrop LVDS?

TI Precision Labs – LVDS interface

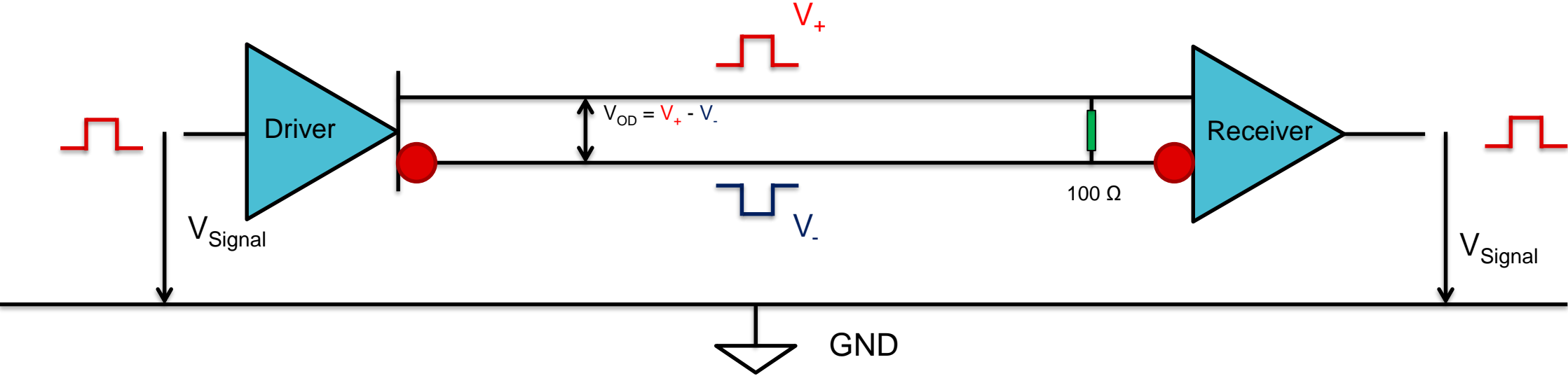
Prepared by Ikechukwu Anyiam
Presented by Nicholas Malone

Multidrop LVDS (MLVDS)

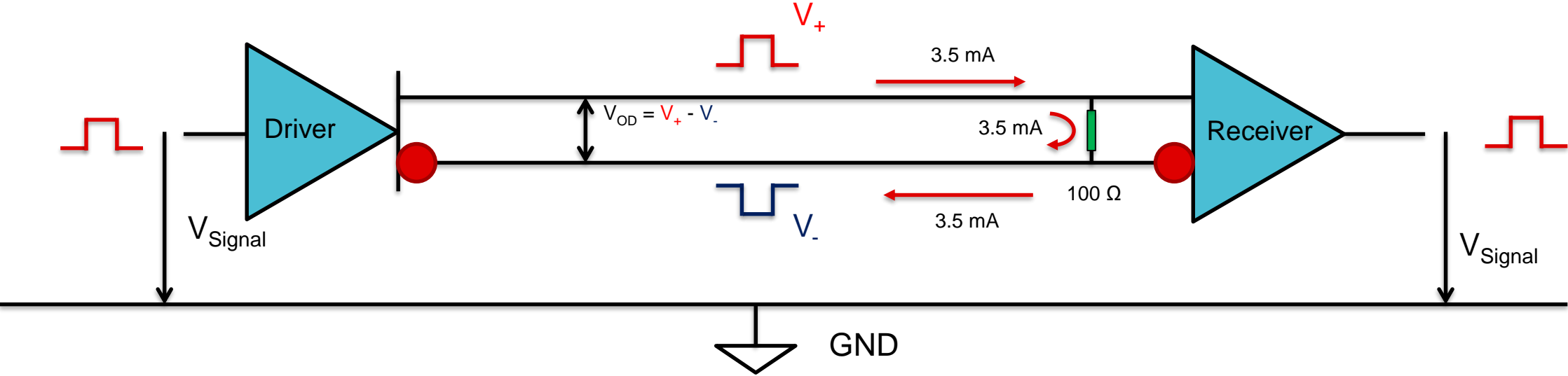
- Defined by standard TIA/EIA-644-A (update of TIA/EIA-644)
 - Allows for up to 32 receivers to be connected to 1 driver
 - Requires only one 100 Ω termination at farthest receiver
- Physical layer only



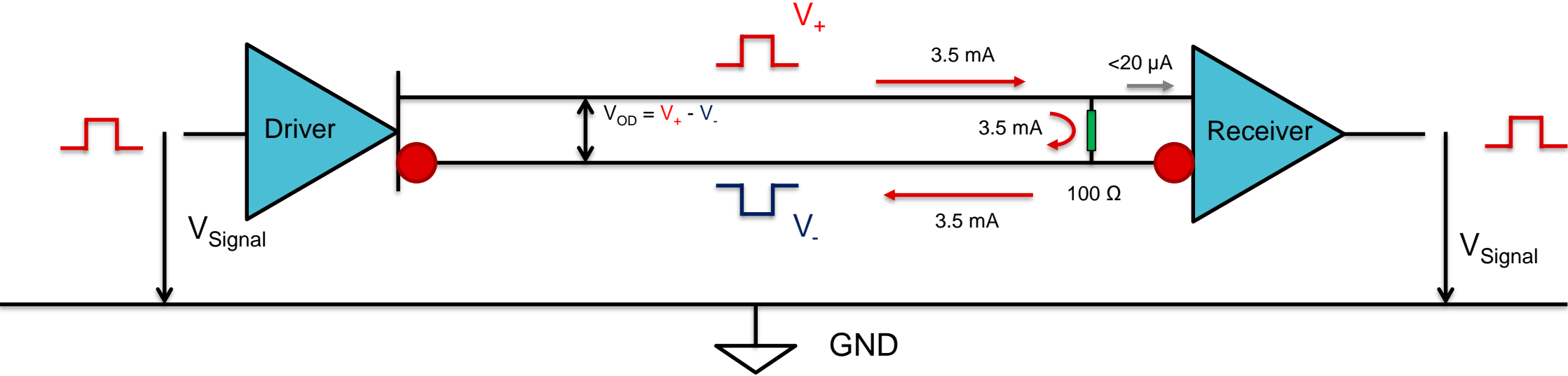
LVDS architecture



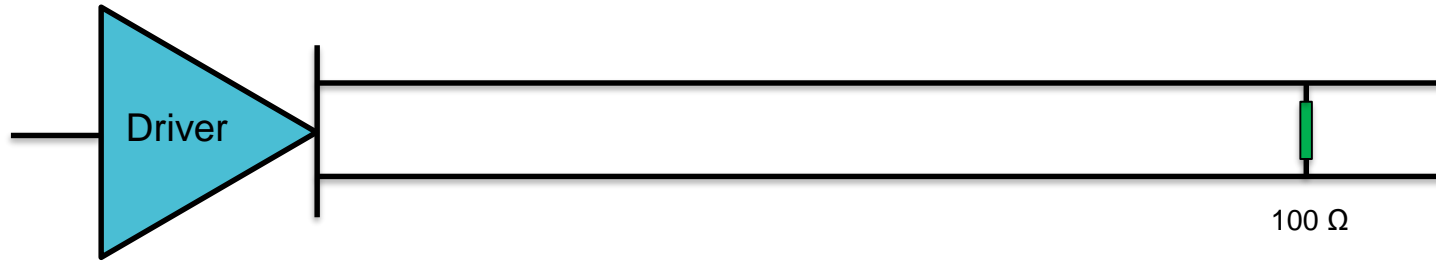
LVDS architecture



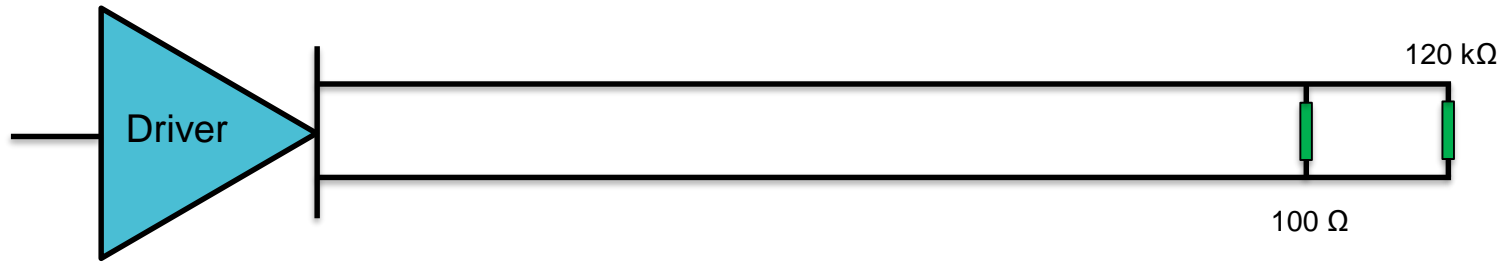
Multidrop LVDS architecture



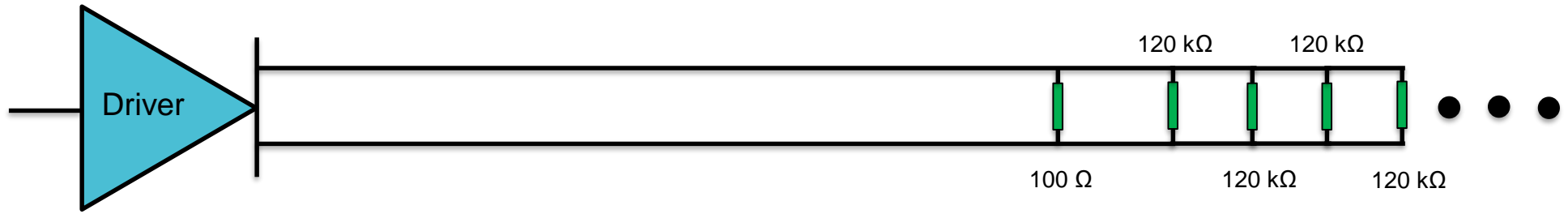
Multidrop LVDS architecture



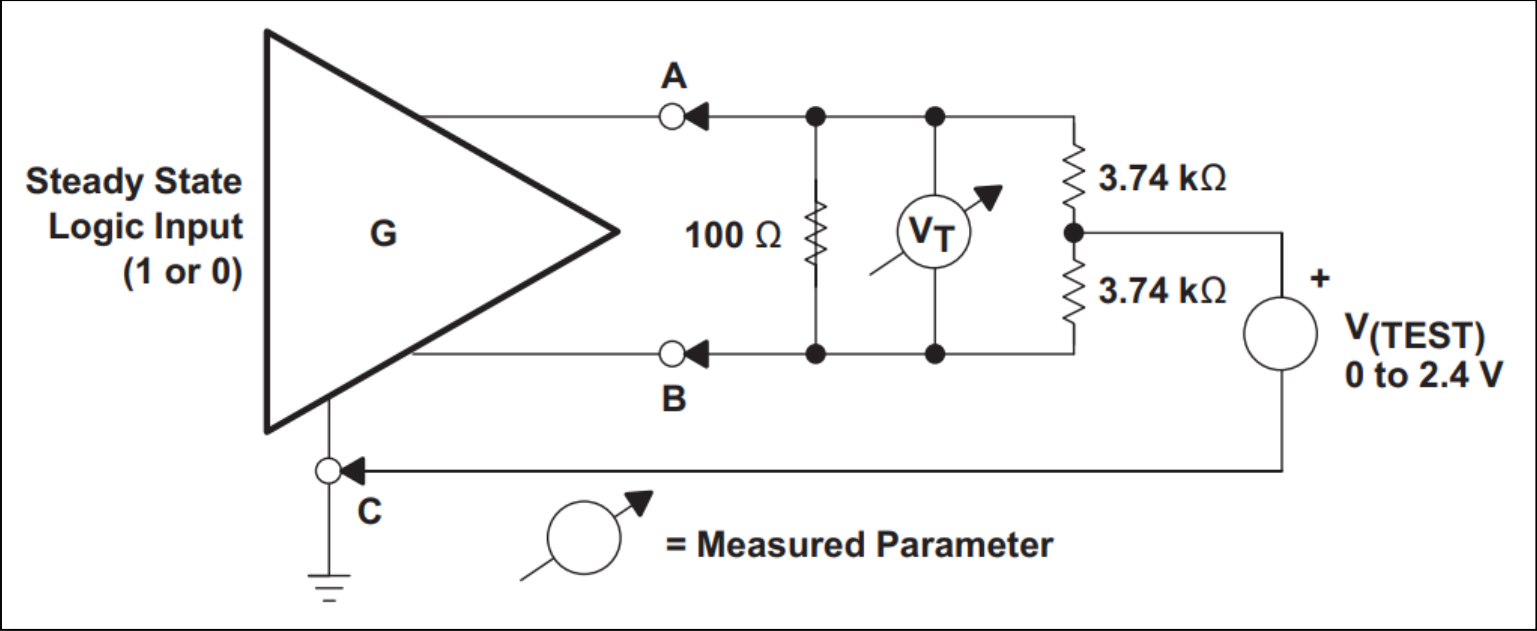
Multidrop LVDS architecture



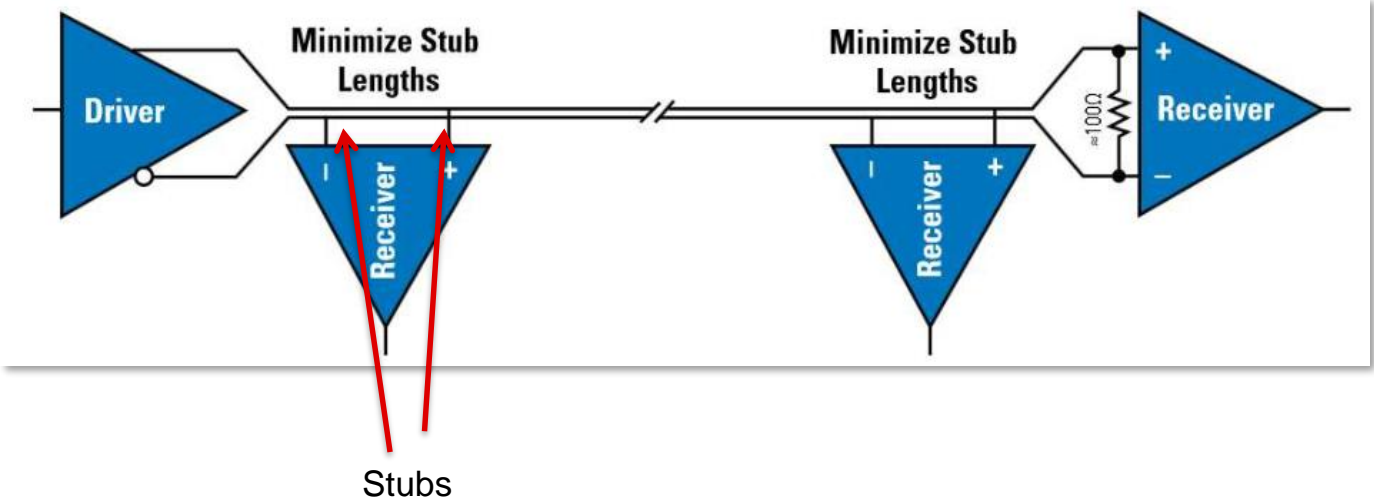
Multidrop LVDS architecture



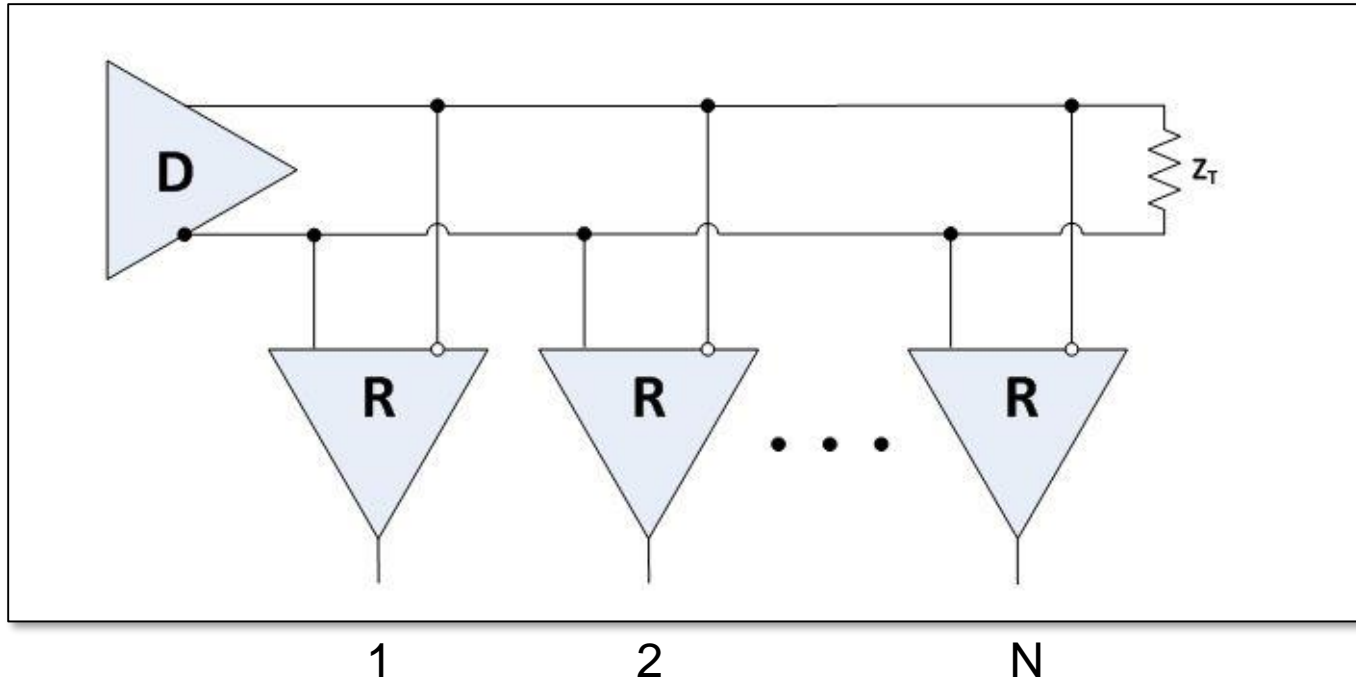
Multidrop LVDS architecture



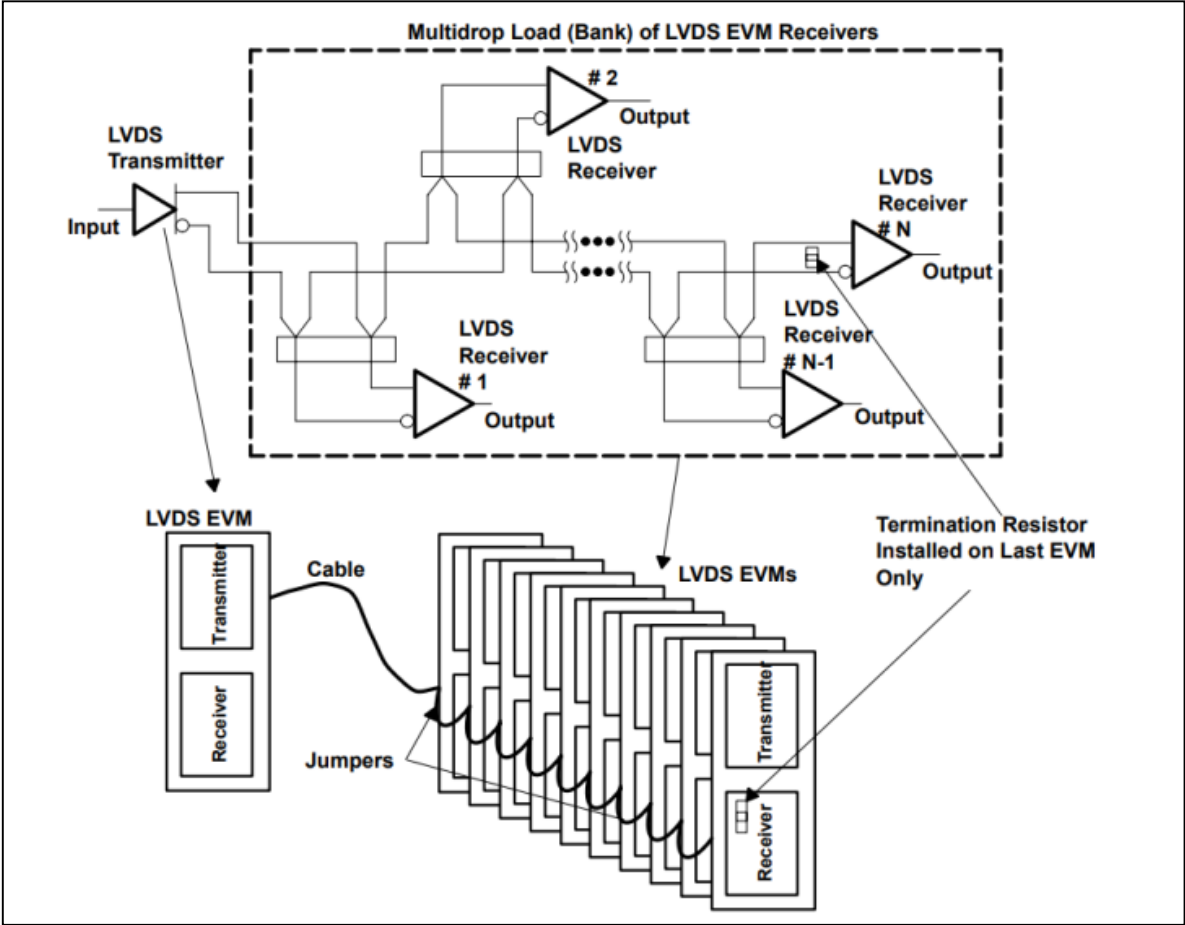
Design considerations



How many receivers?

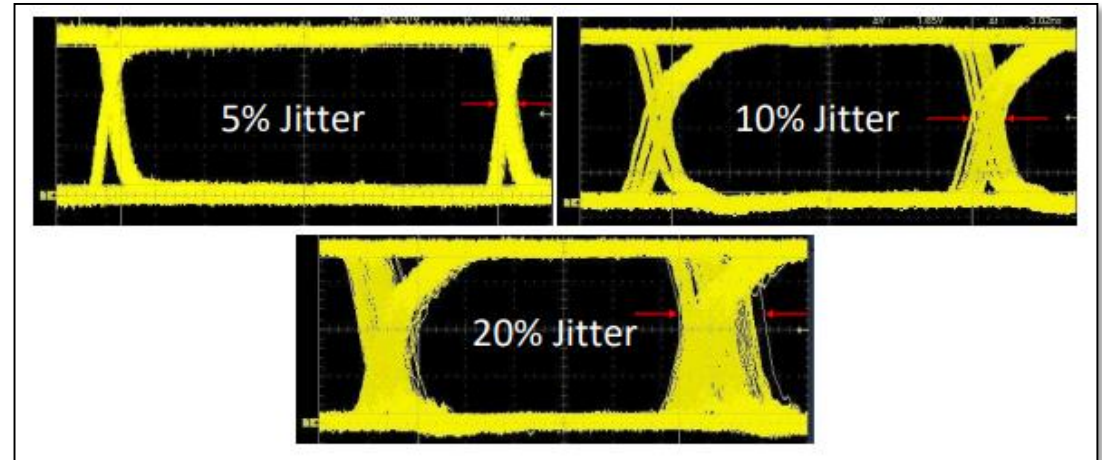
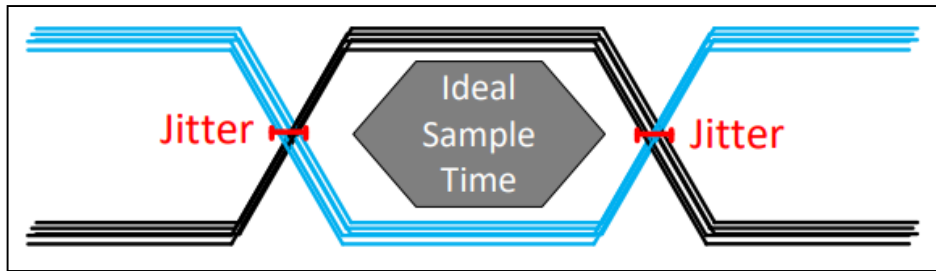


How far and how fast?



Determining max data rate, distance, and receivers

- Take eye pattern measurements at the load to evaluate jitter tolerance



Thank you

- [TI Precision Labs - What is an Eye Diagram?](#)
- [TI Precision Labs - What is LVDS?](#)

The screenshot shows the TI E2E support forums homepage. At the top left is the Texas Instruments logo and the text "TEXAS INSTRUMENTS". At the top right are links for "Login / Register" and a language selector for "简体中文". Below this is a red navigation bar with "E2E™ support forums >" and sub-links for "Forums", "Technical articles", "TI training", and "Getting started". The main content area has a heading "Welcome to the TI E2E™ support forums" followed by a paragraph: "TI E2E support forums are an engineer's go-to source for help throughout every step of the design process. Our engineers answer your technical questions and share their knowledge to help you quickly solve your design issues." Below this is a large blue banner with a search bar. The search bar contains the text "Search TI E2E by part number and/or keyword. (e.g. OPA333 output peaking)". Below the search bar are two statistics: "2,270 Contributing TI employees" and "345,592 Issues resolved".



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