

## Instruction of HW1

1/12/2020

Measured data: Reflected voltage is shown in Excel files

Incident voltage:  $V^+ = 0.25V$

Create a time scale:

**Example**

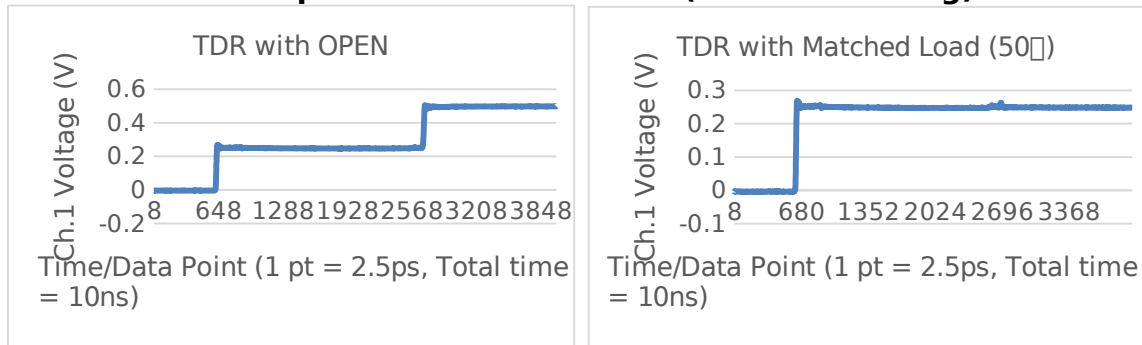
Number of points: 4000pts

Div: 20ns/div

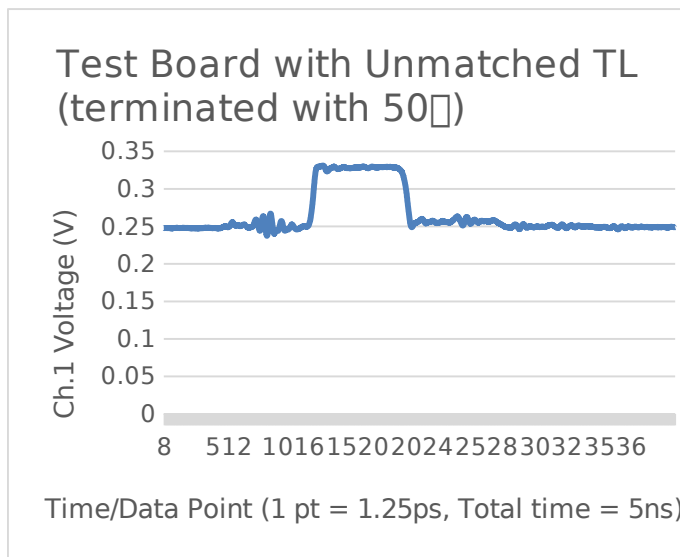
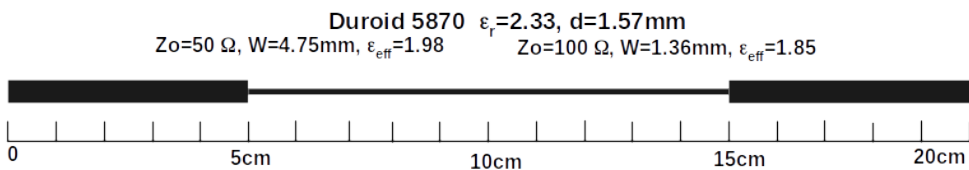
Total time: 200ns

Resolution: 0.05 ns/pt

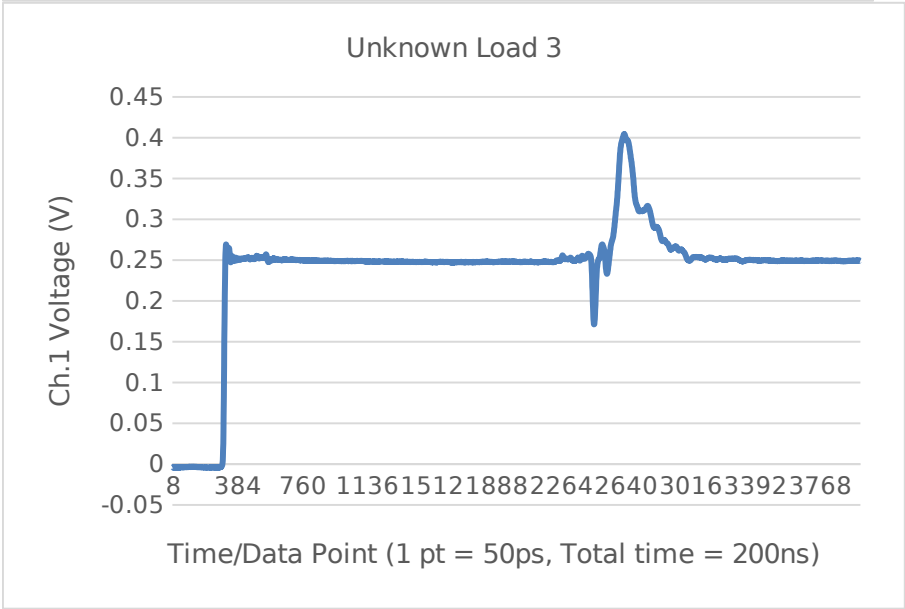
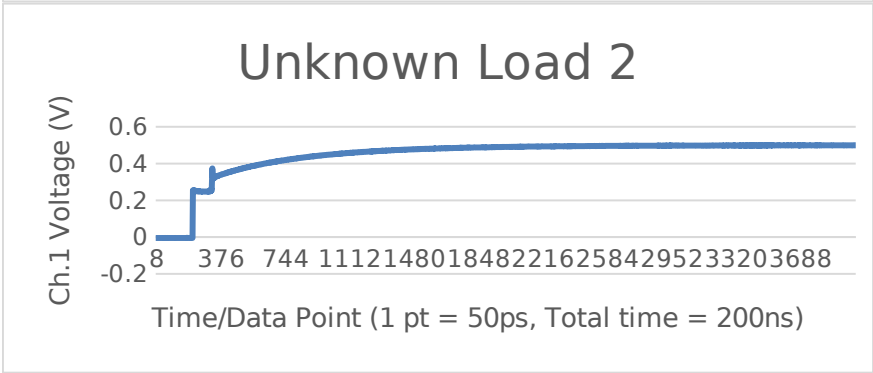
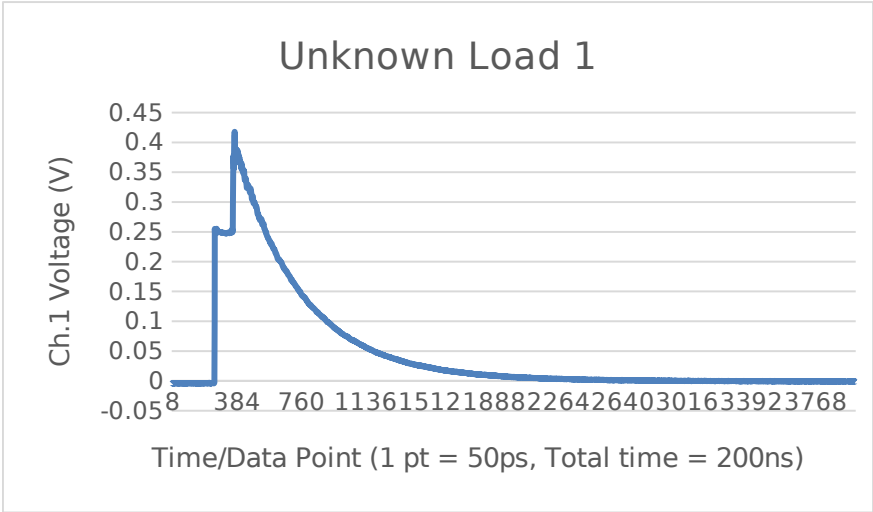
## Reflection from Open and Matched Load (Short is missing)



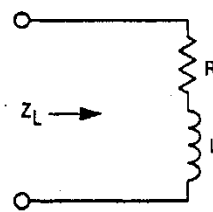
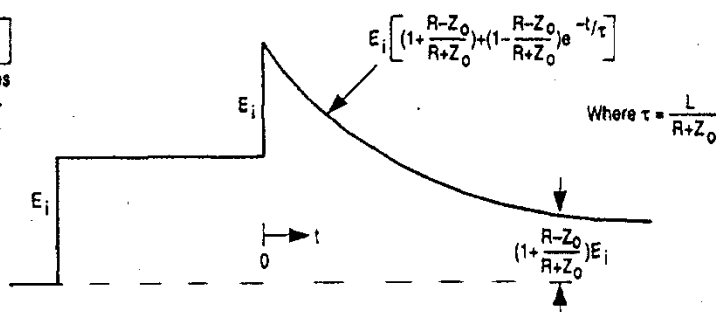
## .....Reflection from the Test PCB 50-100-50



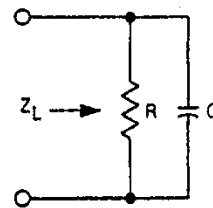
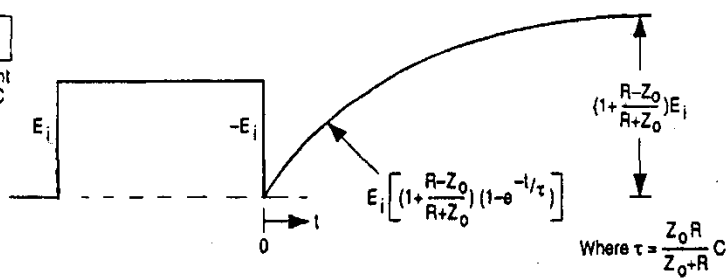
Reflection from Unknown 1, 2, 3



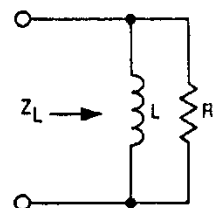
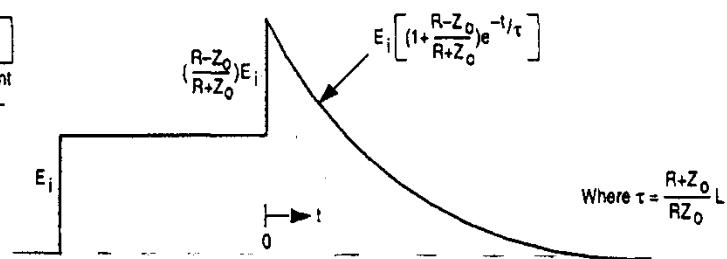
**A**  
Series  
R-L



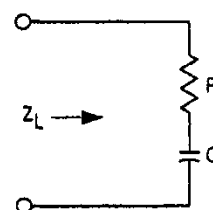
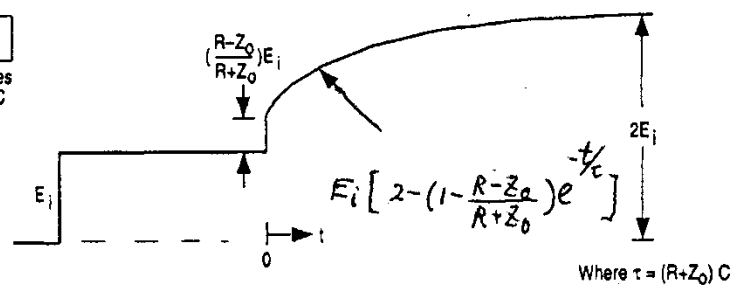
**B**  
Shunt  
R-C



**C**  
Shunt  
R-L

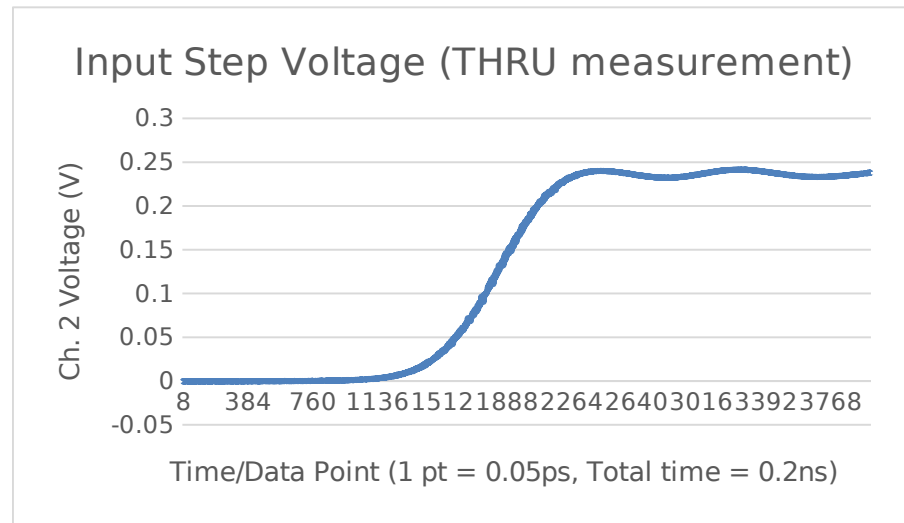


**D**  
Series  
R-C



## Part2: Small inductance (short wire)

Rise-time measurement



Response from a short wire

