

PI3PCIE3413/PI2EQX59xx/PI3EQX58xx/PI2EQX88xx PCIE Switch/Re-Driver Terminal Detect Debug Application Note

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- Introduction:**

This application note shows a simple way to check whether PCIE function works or not. The note is for PI3PCIE3413, PI2EQX59xx, PI3EQX58xx, PI2EQX88xx debug purpose.

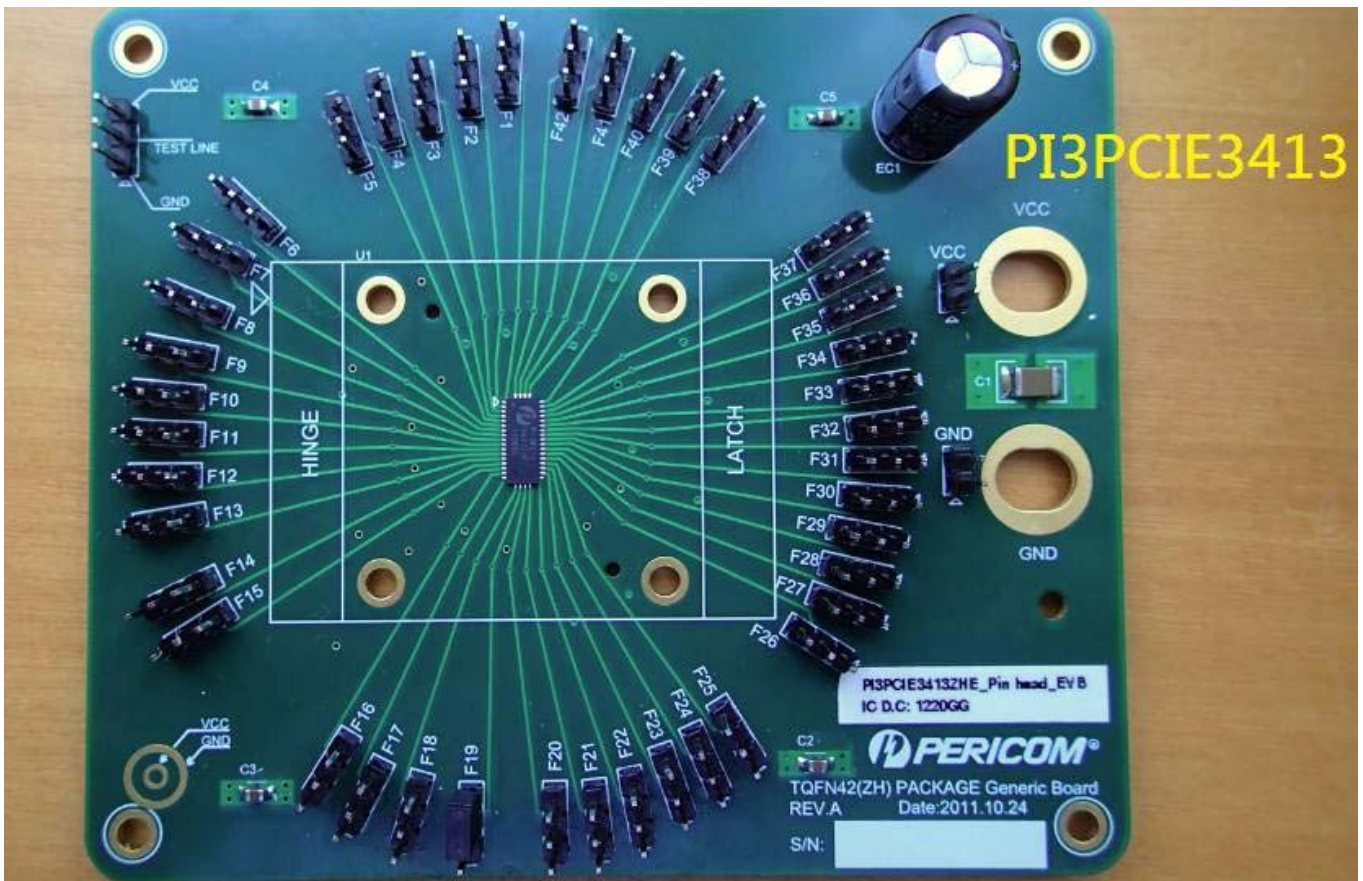
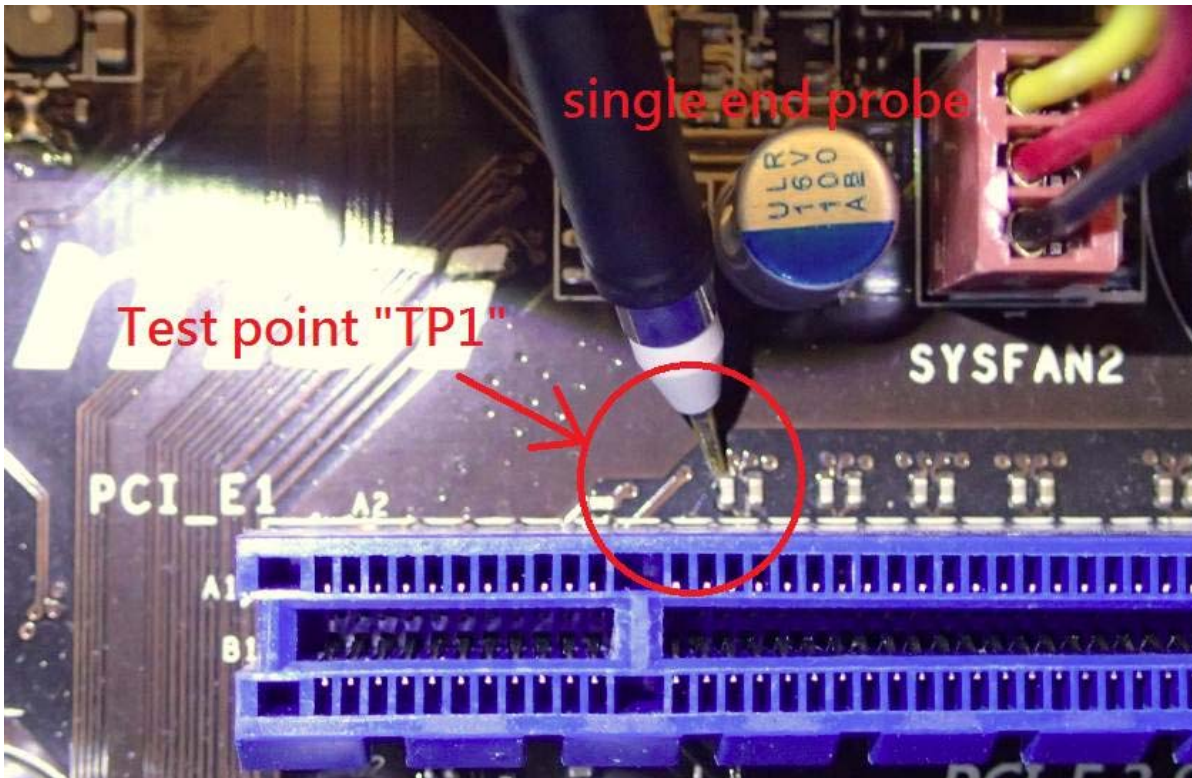
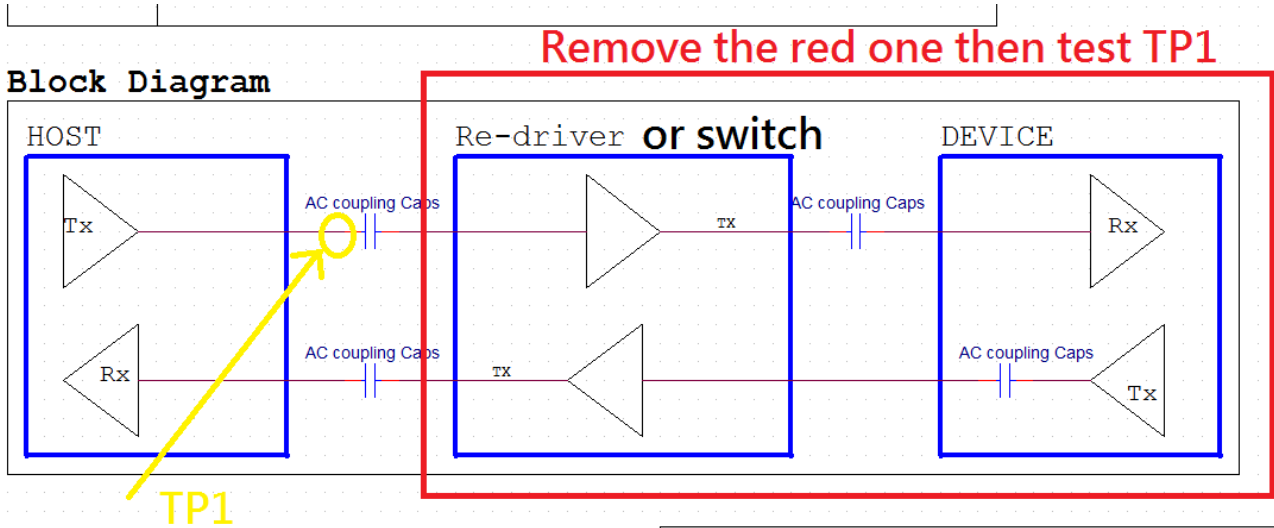


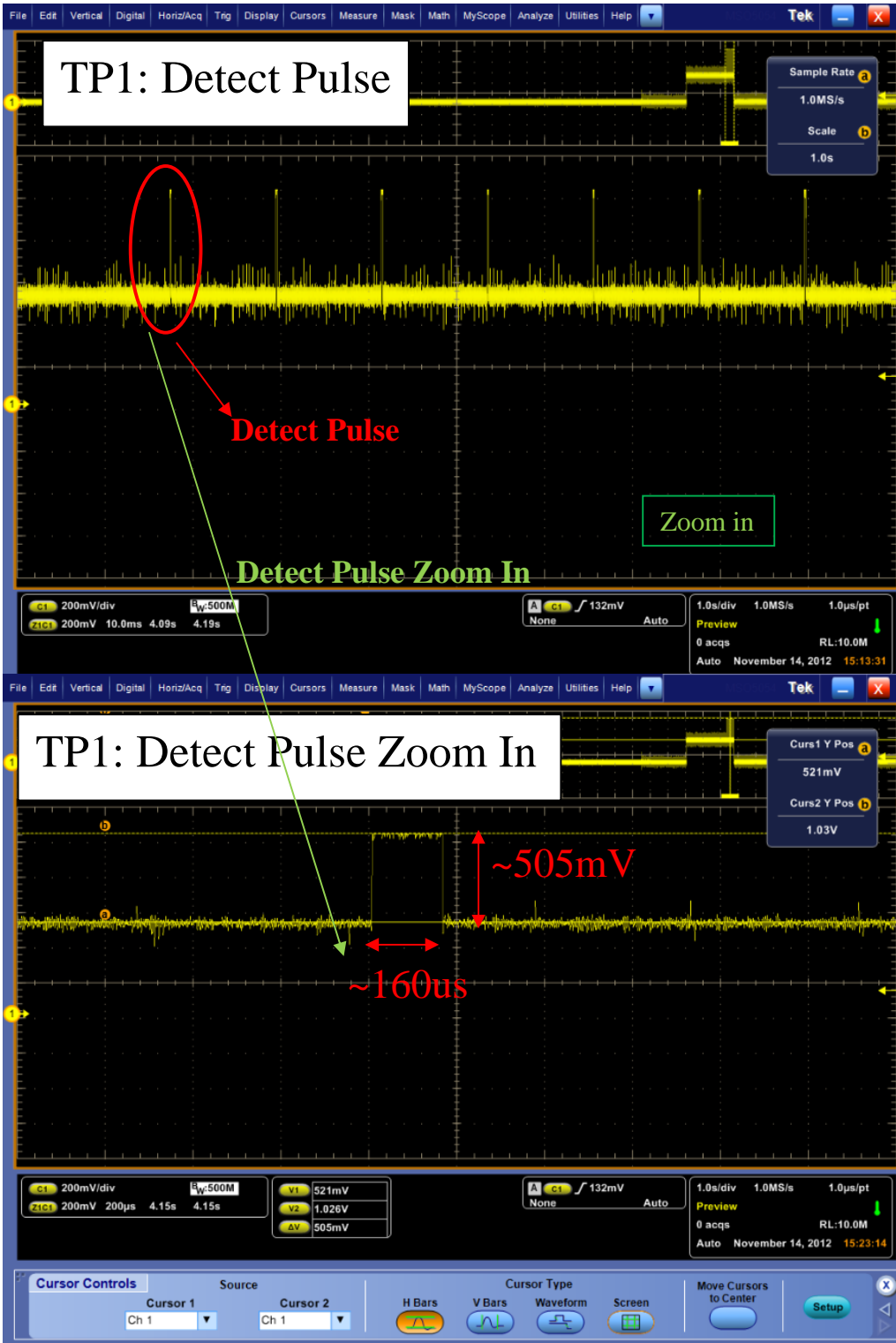
Figure 1 top view of PI3PCIE3413 EVB

- **Check if PCIE function works: RX.detect**

Please check the PCIE function as below block diagram
 Step1. Remove red one block as below
 Step2. Measure the place at TP1

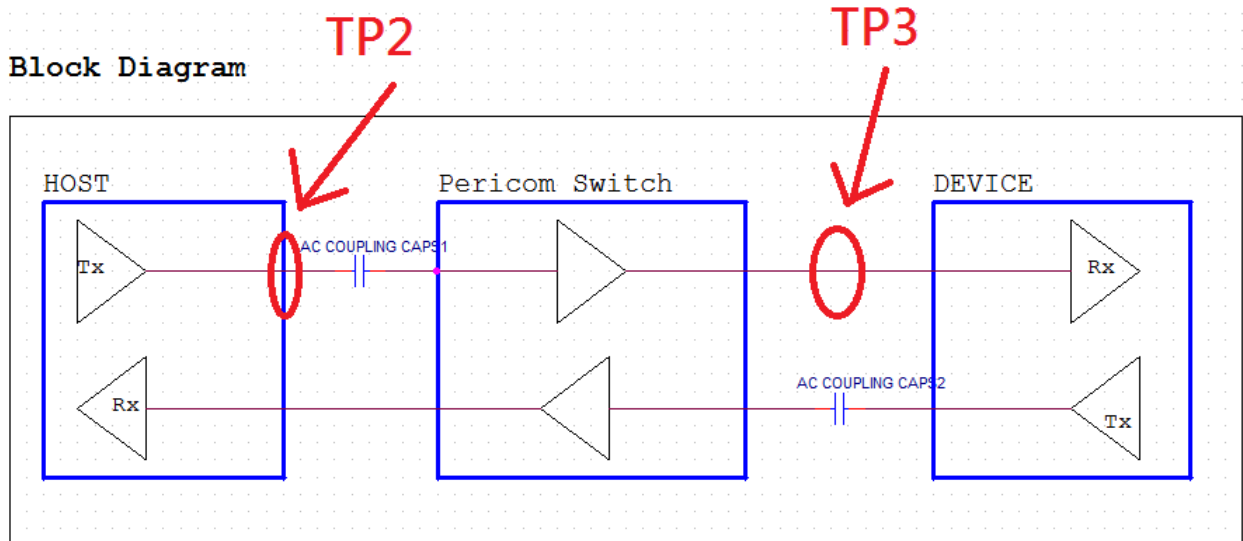


TP1 Test result

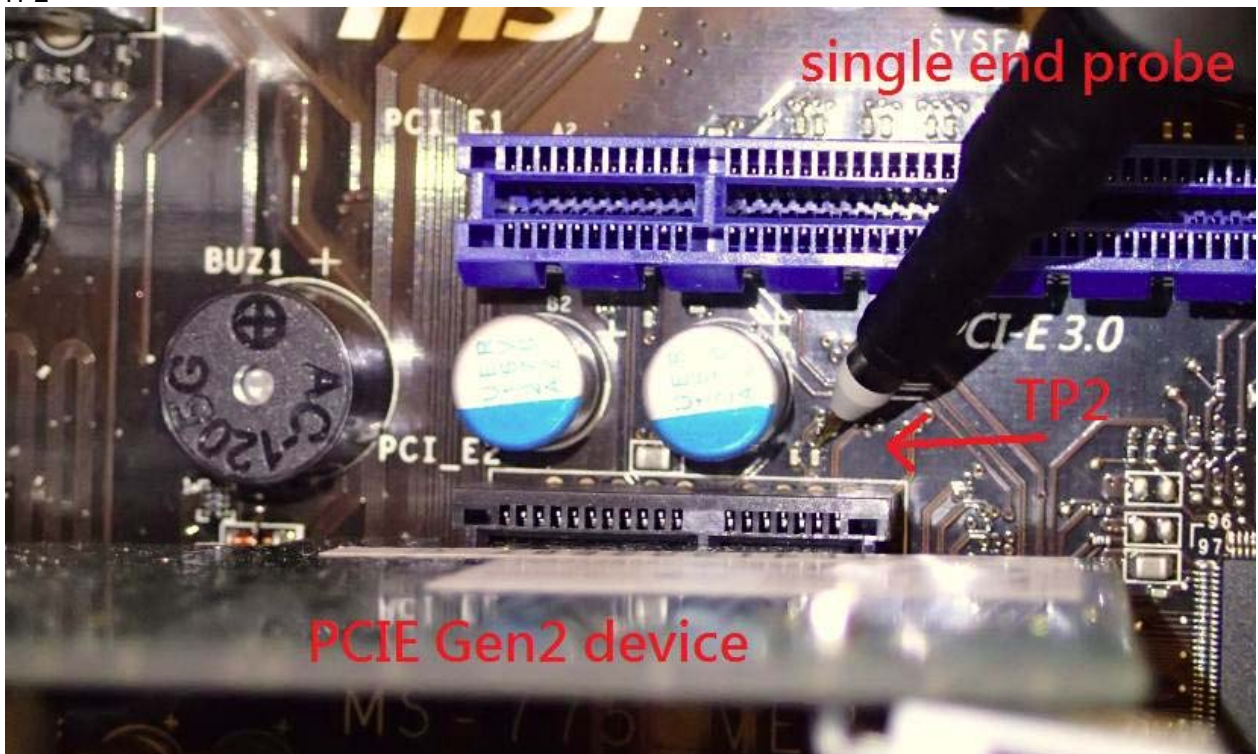


- Check if PCIE function works: Differences with AC cap / without AC cap

Please check the PCIE function as below block diagram after power on
Step1. Test TP2
Step2. Test TP3

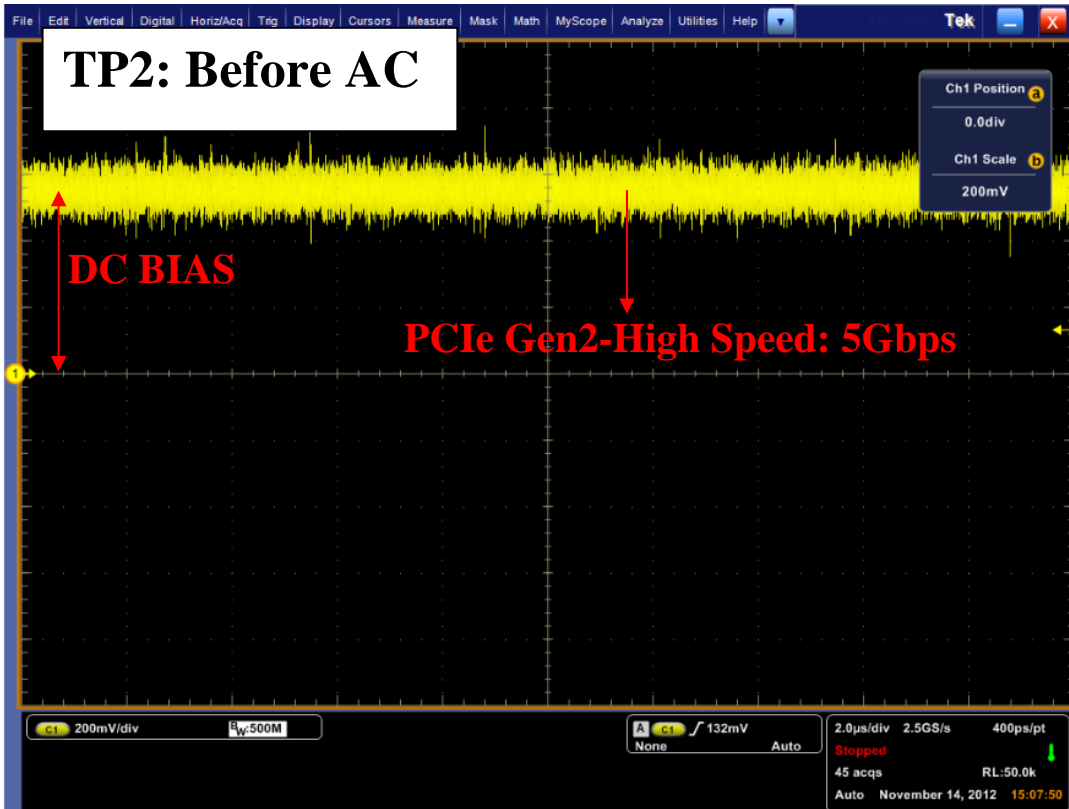


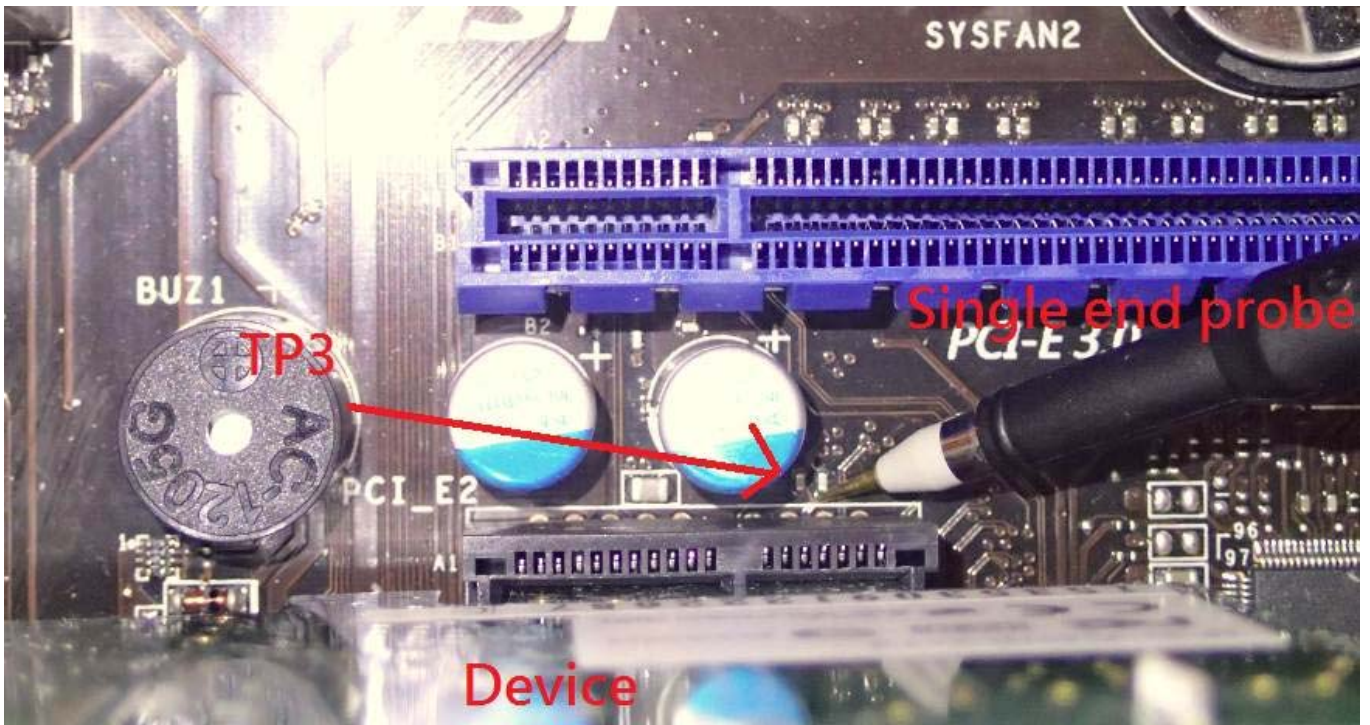
TP2



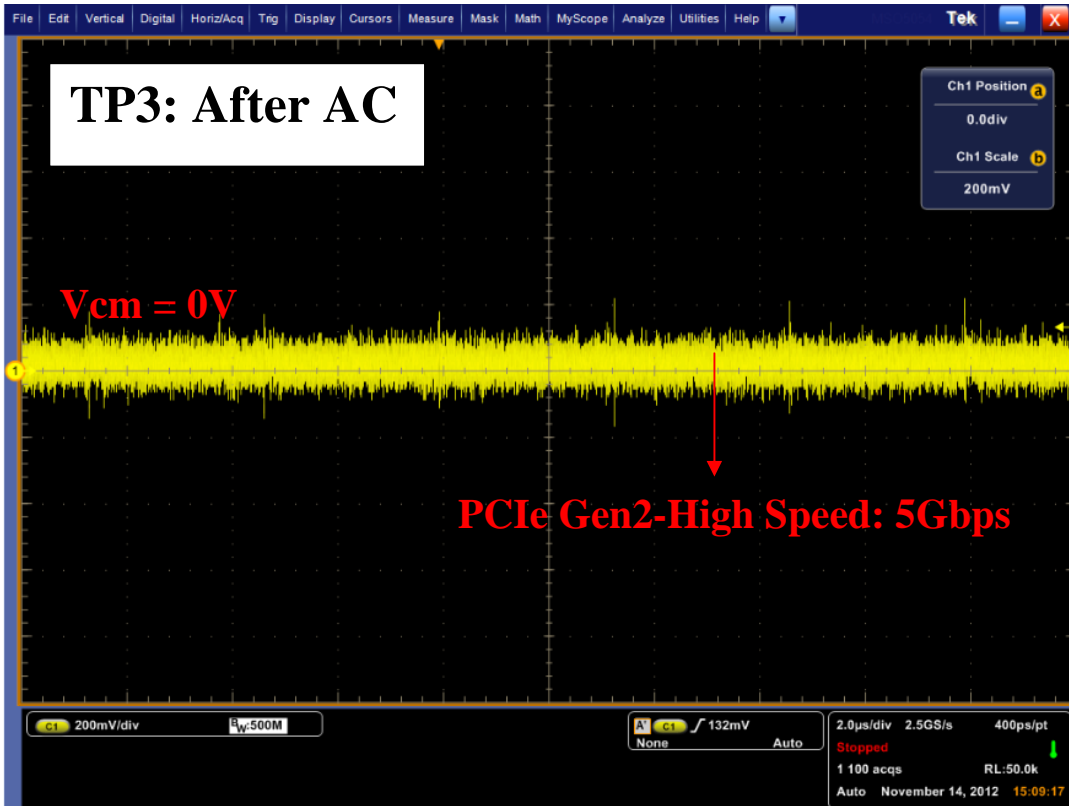
PCI_E Gen2 device

TP2 Test result



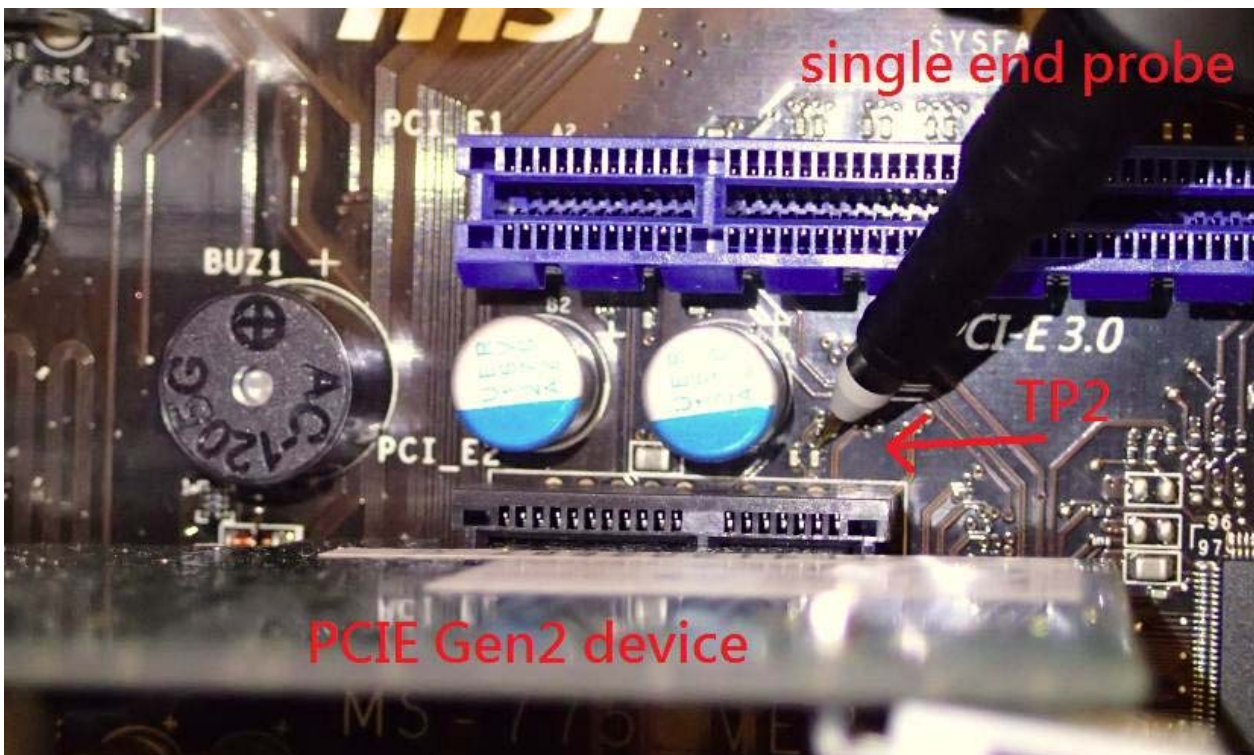
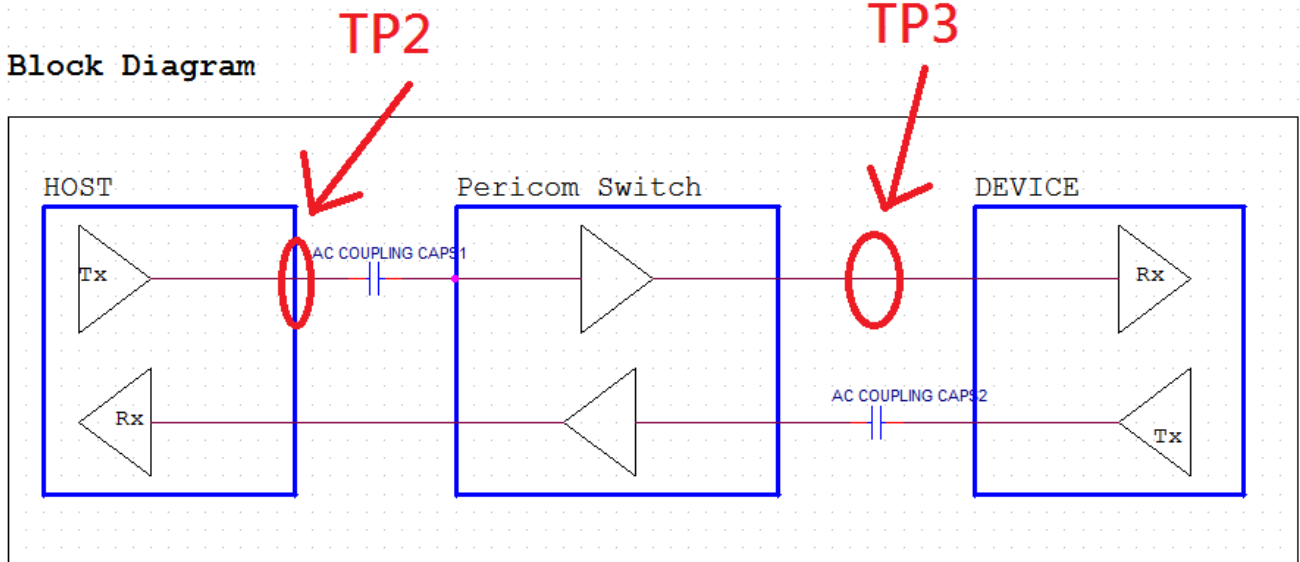


TP3 Test result

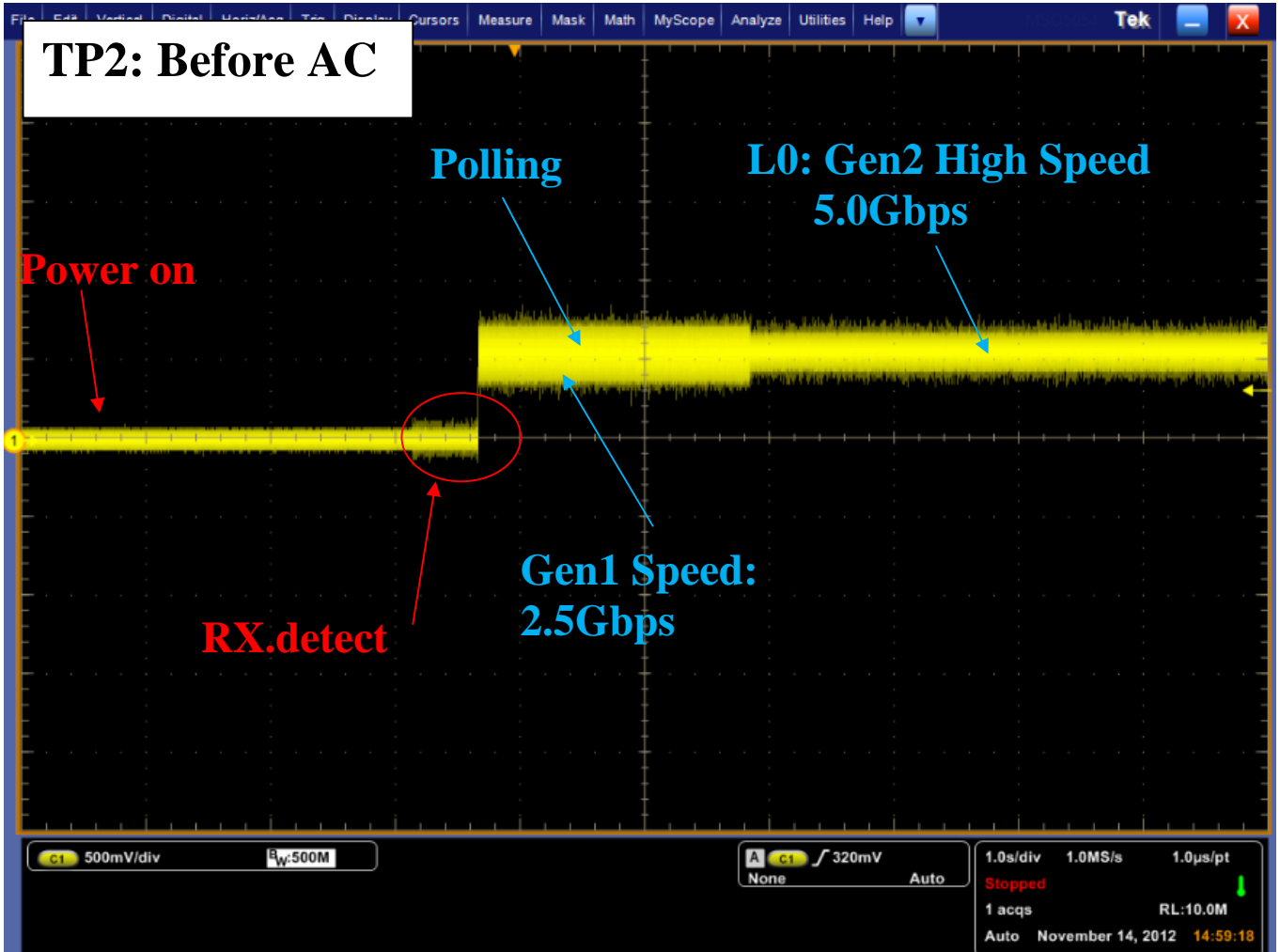


- **Check if PCIE function works: From Rx.detect →polling→L0**

Please check the PCIE function as below block diagram after power on
Step1. Test TP2 when power on



TP2 Test result



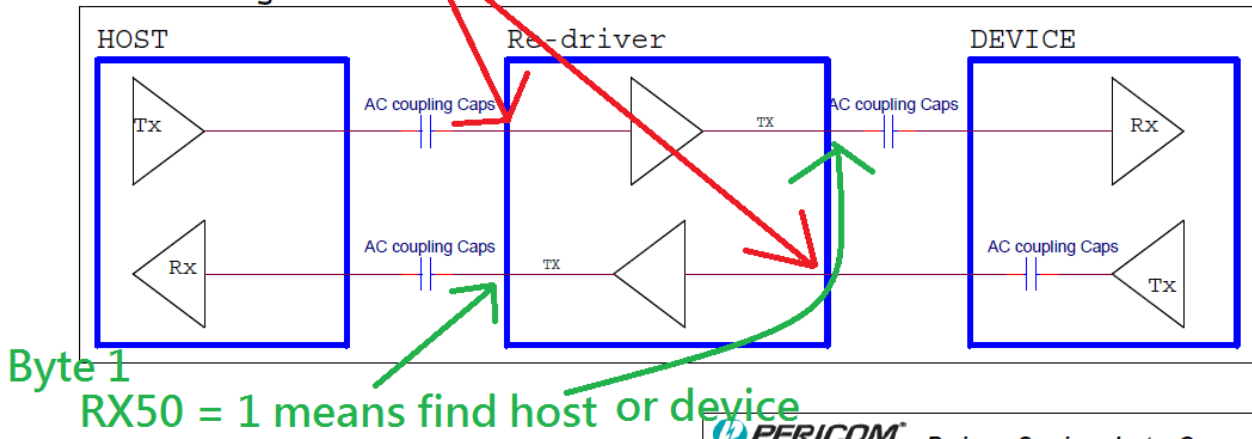
- **Check PCIE re-driver link status: Throw h/w or s/w register**

Please check the PCIE function as below block diagram after power on

Byte0 SIG = 1 means signal pass throw re-driver

SIG = 0 means no signal pass throw re-driver

Block Diagram



Byte 1

RX50 = 1 means find host or device