



# 1PPS Signal

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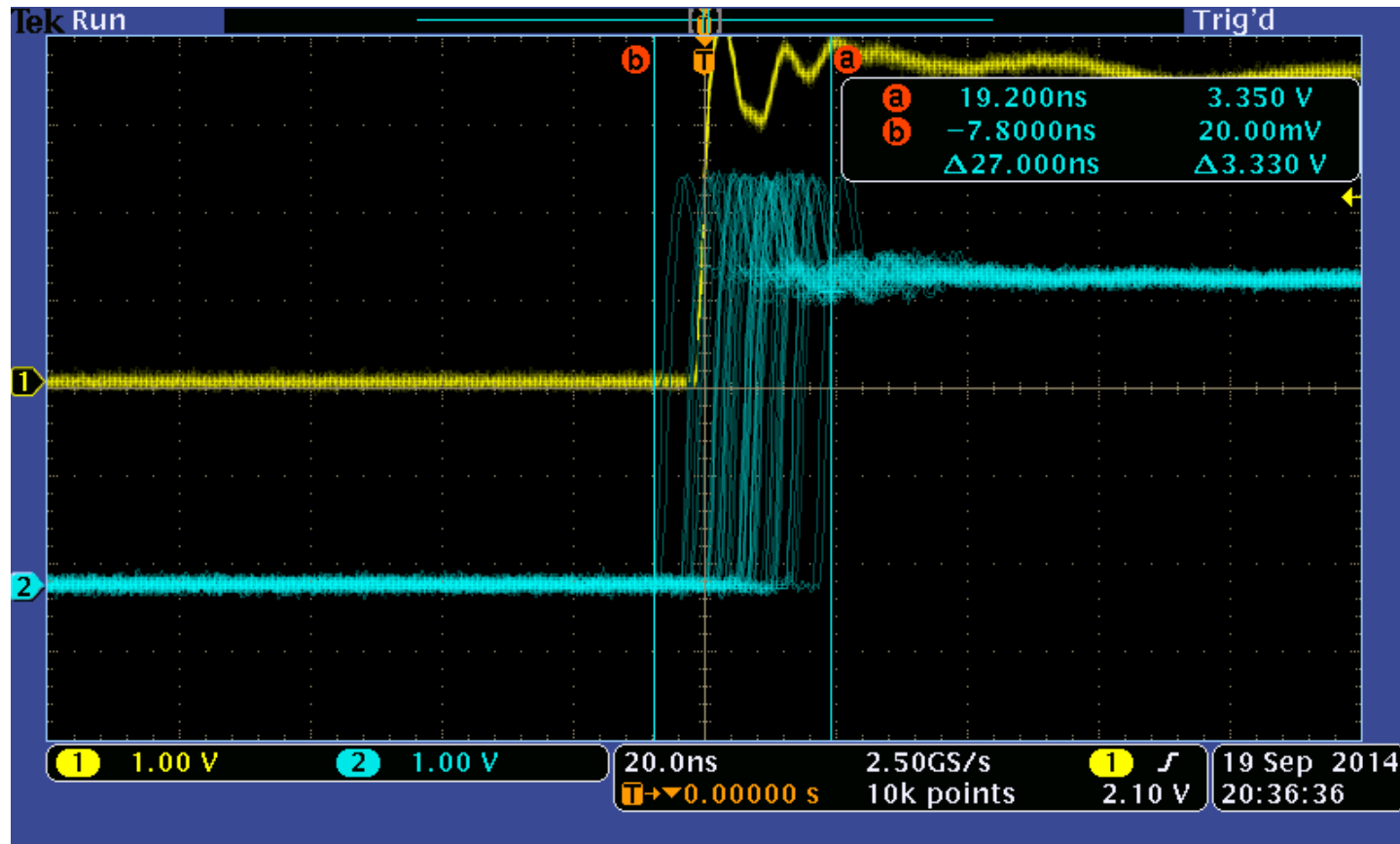
- ❑ 1PPS output signal provides a simple way to test node time synchronization
  - Rising edge of 1PPS signal indicates node's understanding of when each second starts
  - G.8271/Y.1366 Clause A.1.3 talks about the timing of the 1PPS coinciding with the transition to a new second, and clause A.2 describes the 50-ohm 1PPS signal
- ❑ Recommend adding the following text somewhere in 1904.3 specification:
  - RoE equipment should/shall provide a 1PPS output as described in clause A.1.3 and clause A.2 of ITU-T G.8271/Y.1366.



# 1PPS Signal in Action



- Screen shot shows 1PPS output from NICs with low-cost XO's, synchronized via 1588



Yellow = 1588 Master (standard NIC)  
Blue = 1588 Slave (standard NIC)

XO = Crystal Oscillator  
NIC = Network Interface Card