



Planar Monolithics Industries, Inc.  
7311-F Grove Rd.  
Frederick, MD 21704  
Ph: (301) 662-5019 Fax: (301) 662-1731  
[www.pmi-rf.com](http://www.pmi-rf.com)

## Typical Characteristics For TD-30T-SHS-218



July 17, 2014  
Reported by: Dave Durbin



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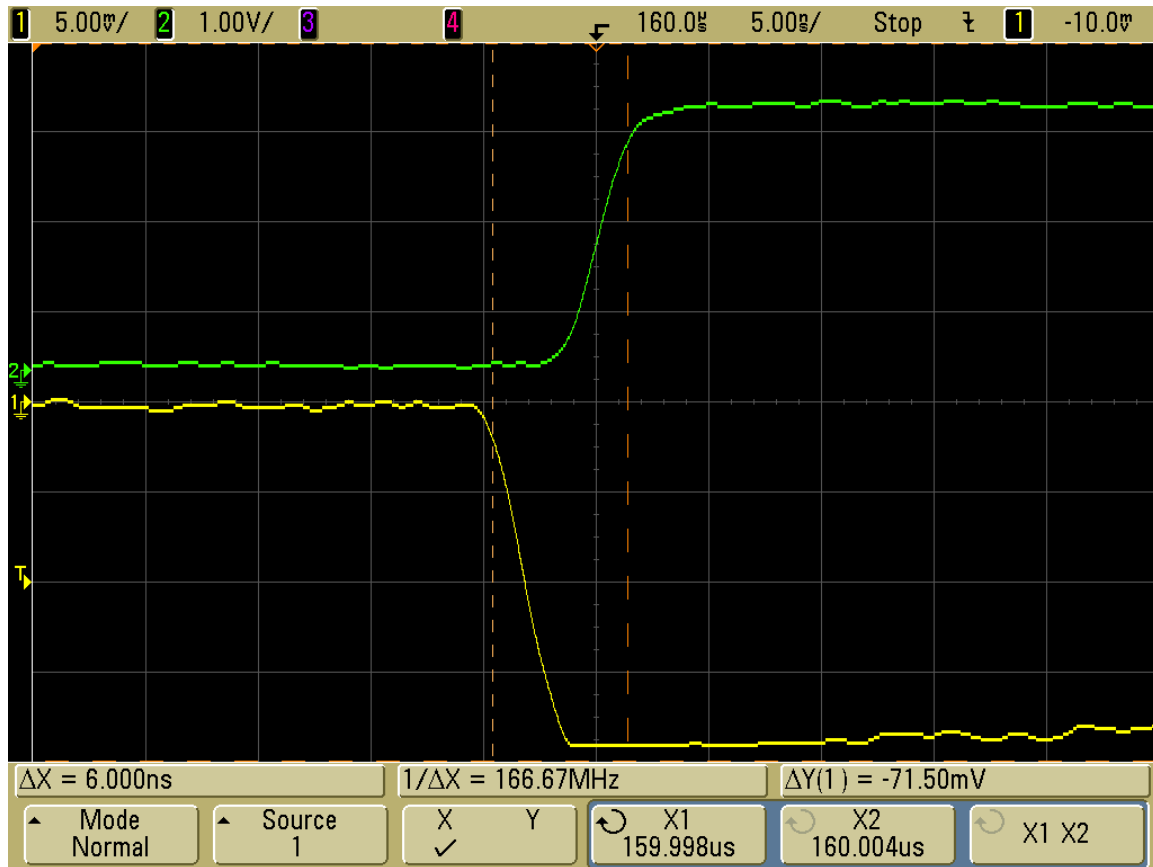
### Typical Return Loss





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### On Time 50 Ohm Load



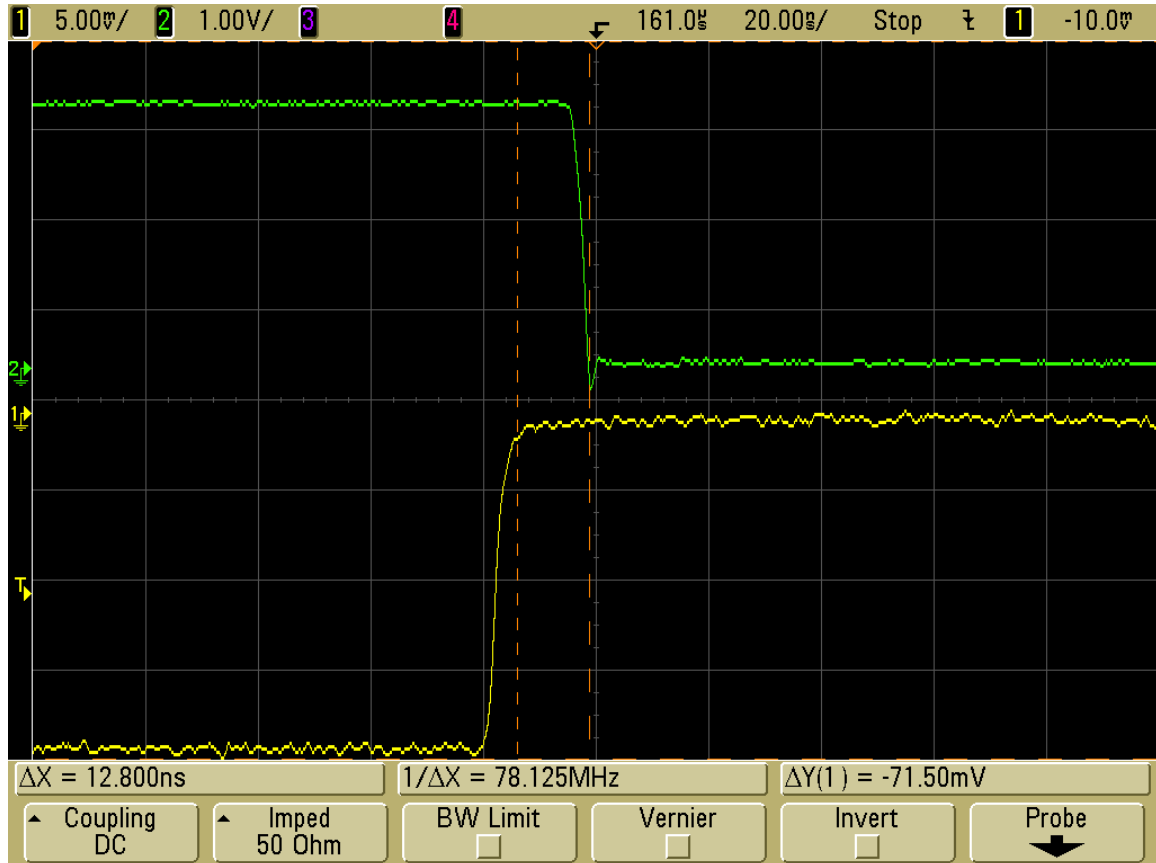
**Channel 1 (Yellow): +6 dBm Input Power Using Crystal Detector with Negative Voltage Output (When RF Power is present, Negative Voltage is seen)**

**Channel 2 (Green): Video Output from Threshold Detector**



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### Off Time 50 Ohm Load



**Channel 1 (Yellow):** +6 dBm Input Power Using Crystal Detector with Negative Voltage Output (When RF Power is present, Negative Voltage is seen)

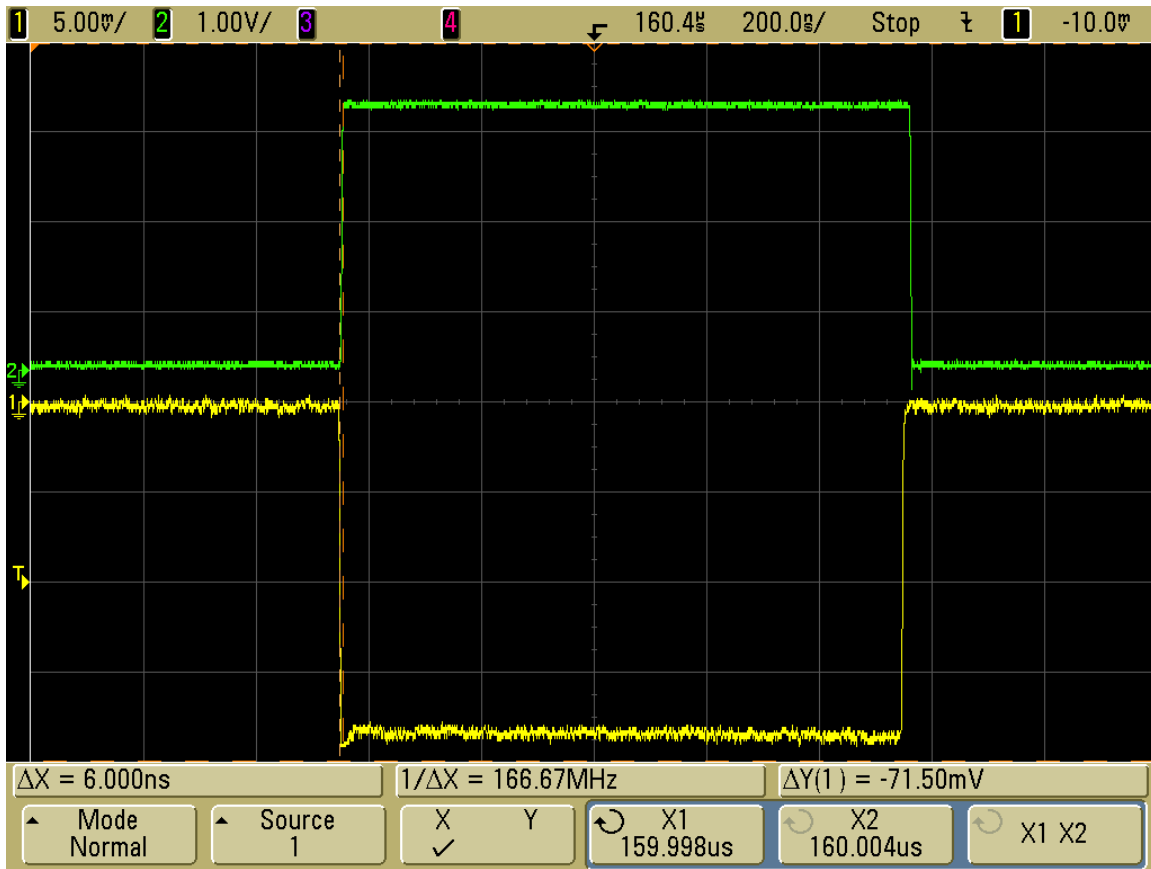
**Channel 2 (Green):** Video Output from Threshold Detector

**Off Time:** Threshold Level is set for -20 dBm, which cannot be detected using the crystal detector, so the output does not start switching off until Channel 1 reaches virtually 0 V



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### Full Pulse 50 Ohm Load



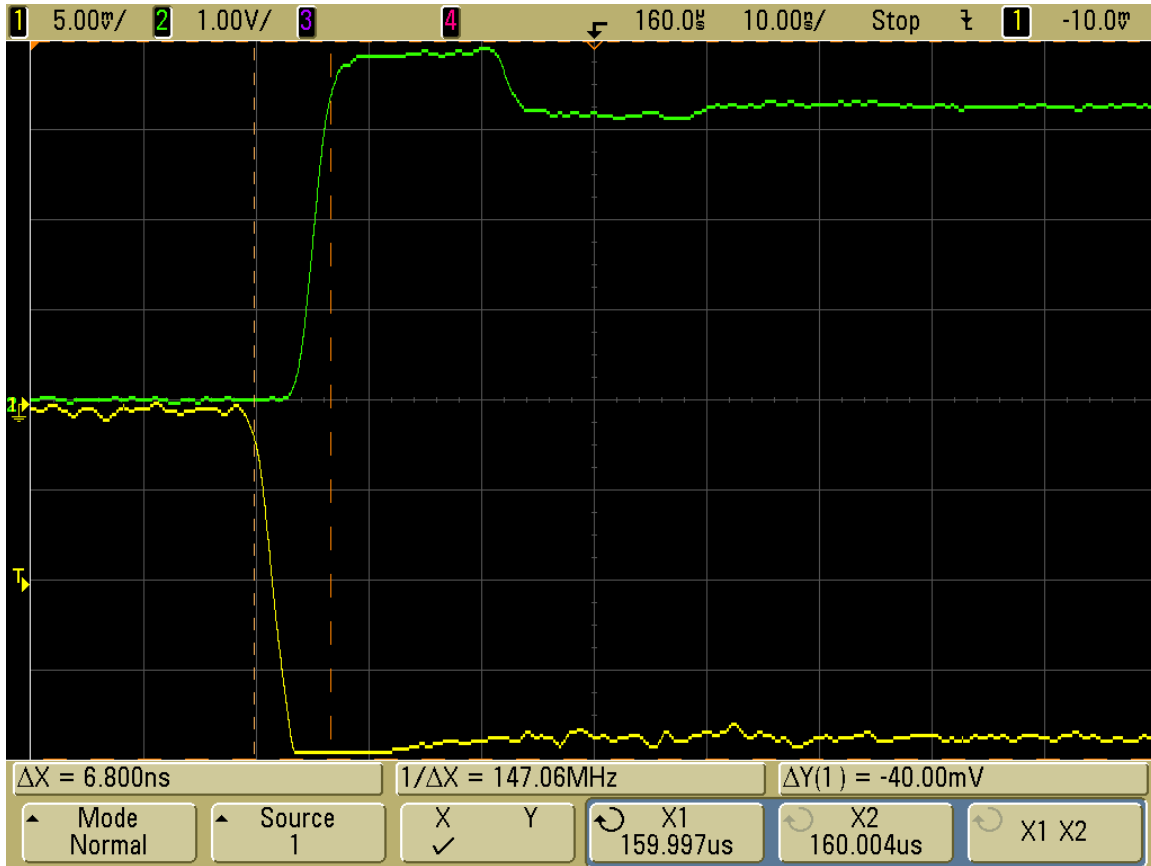
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On Time 100 Ohm Load



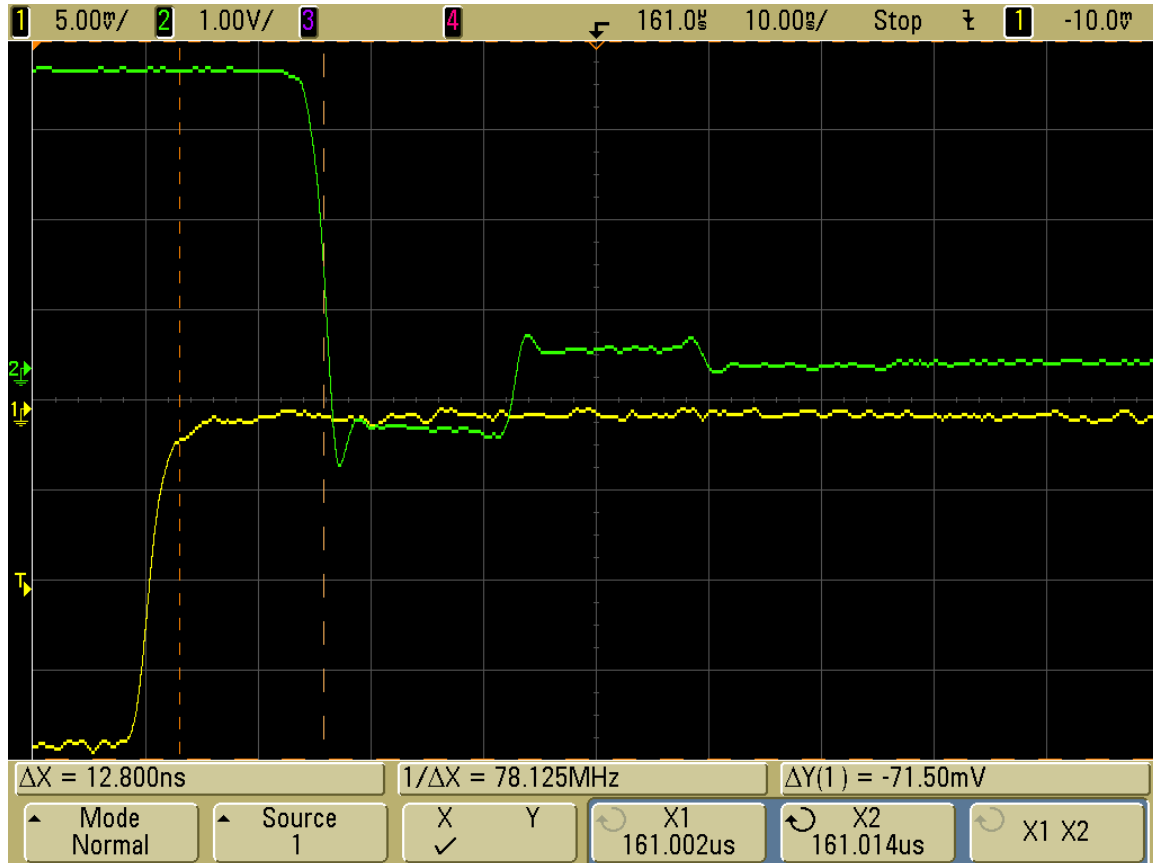
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Off Time 100 Ohm Load



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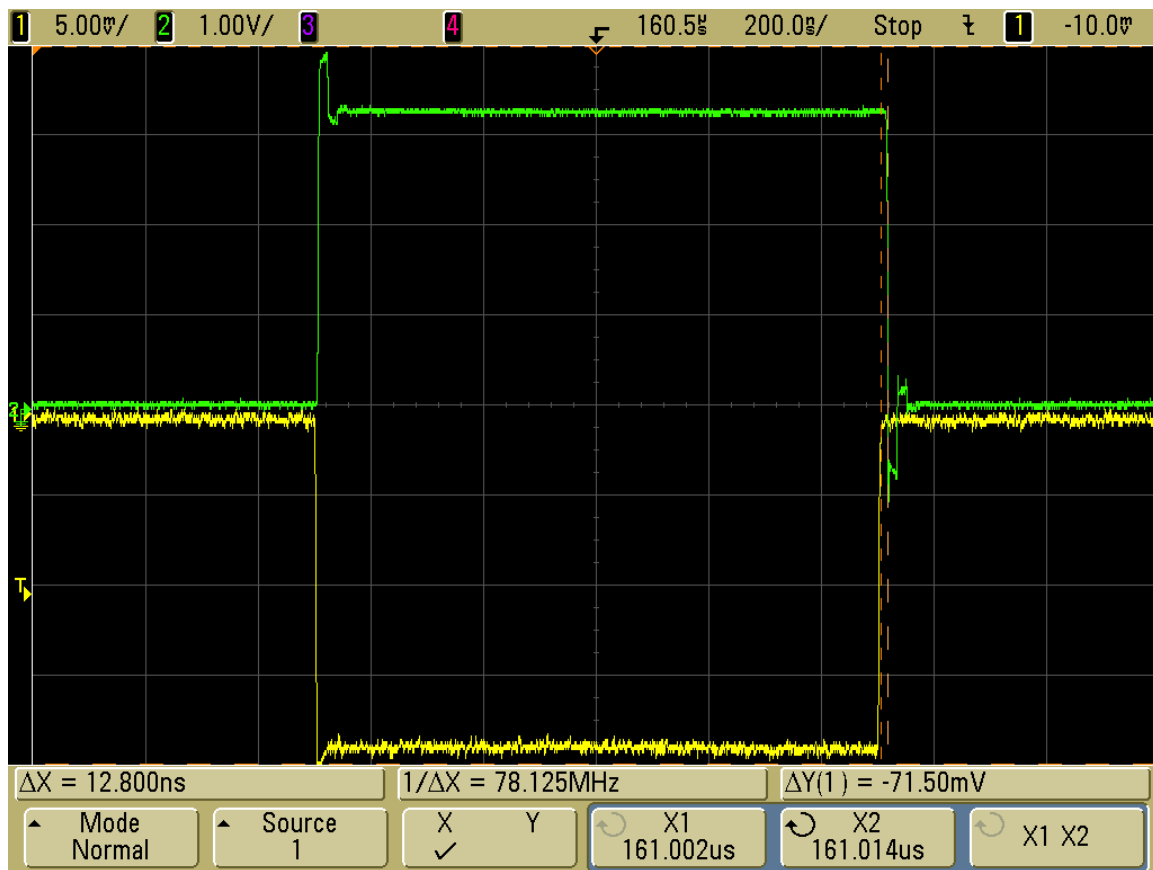
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### Full Pulse 100 Ohm Load



**Channel 1 (Yellow): +6 dBm Input Power Using Crystal Detector with Negative Voltage Output (When RF Power is present, Negative Voltage is seen)**

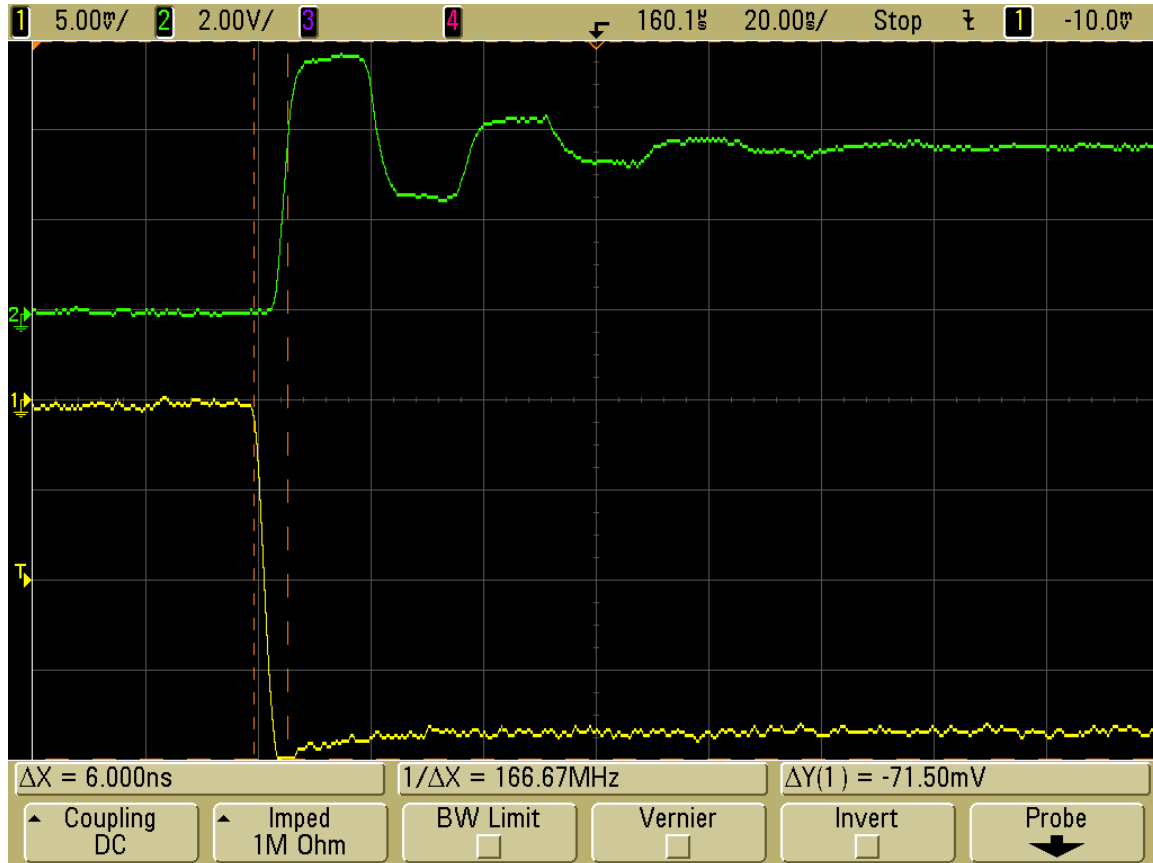
**Channel 2 (Green): Video Output from Threshold Detector**





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On Time 1 Mega-Ohm Load



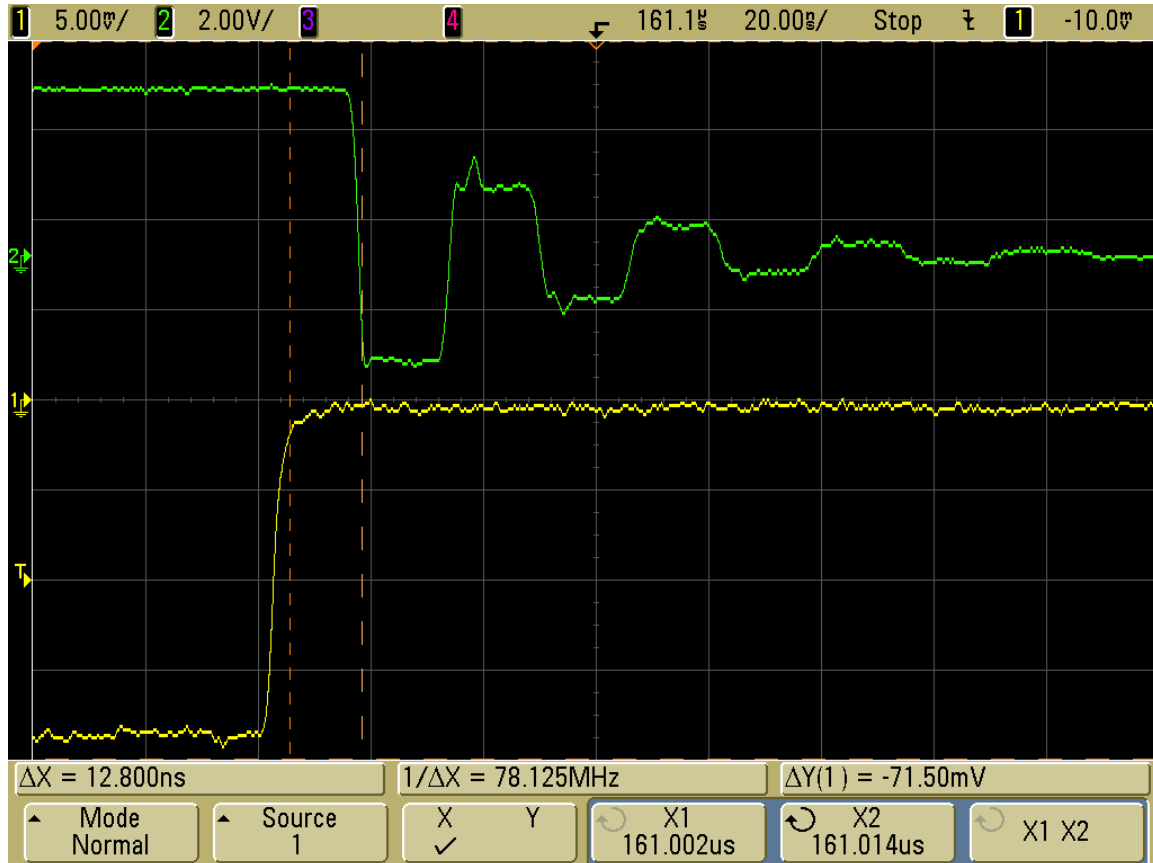
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### Off Time 1 Mega-Ohm Load



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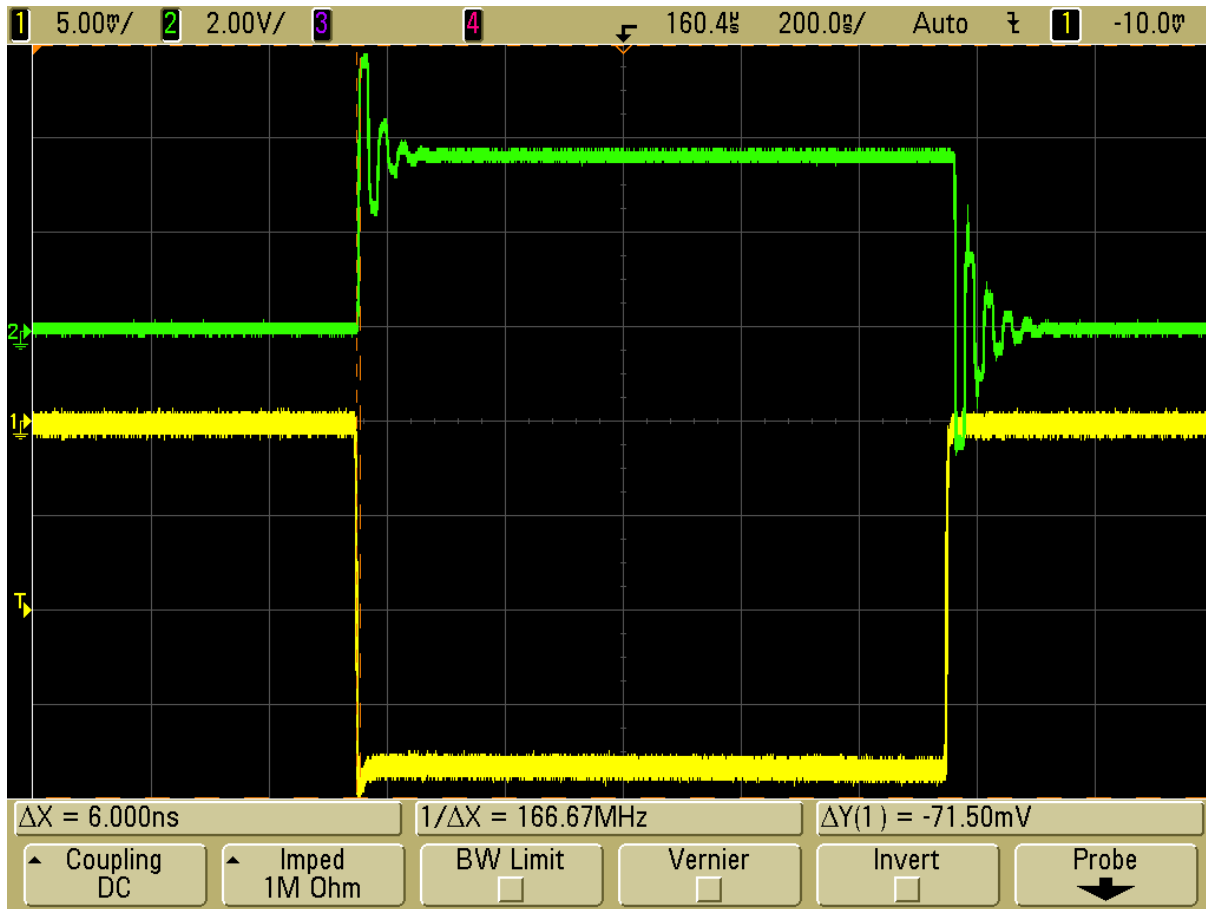
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### Full Pulse 1 Mega-Ohm Load



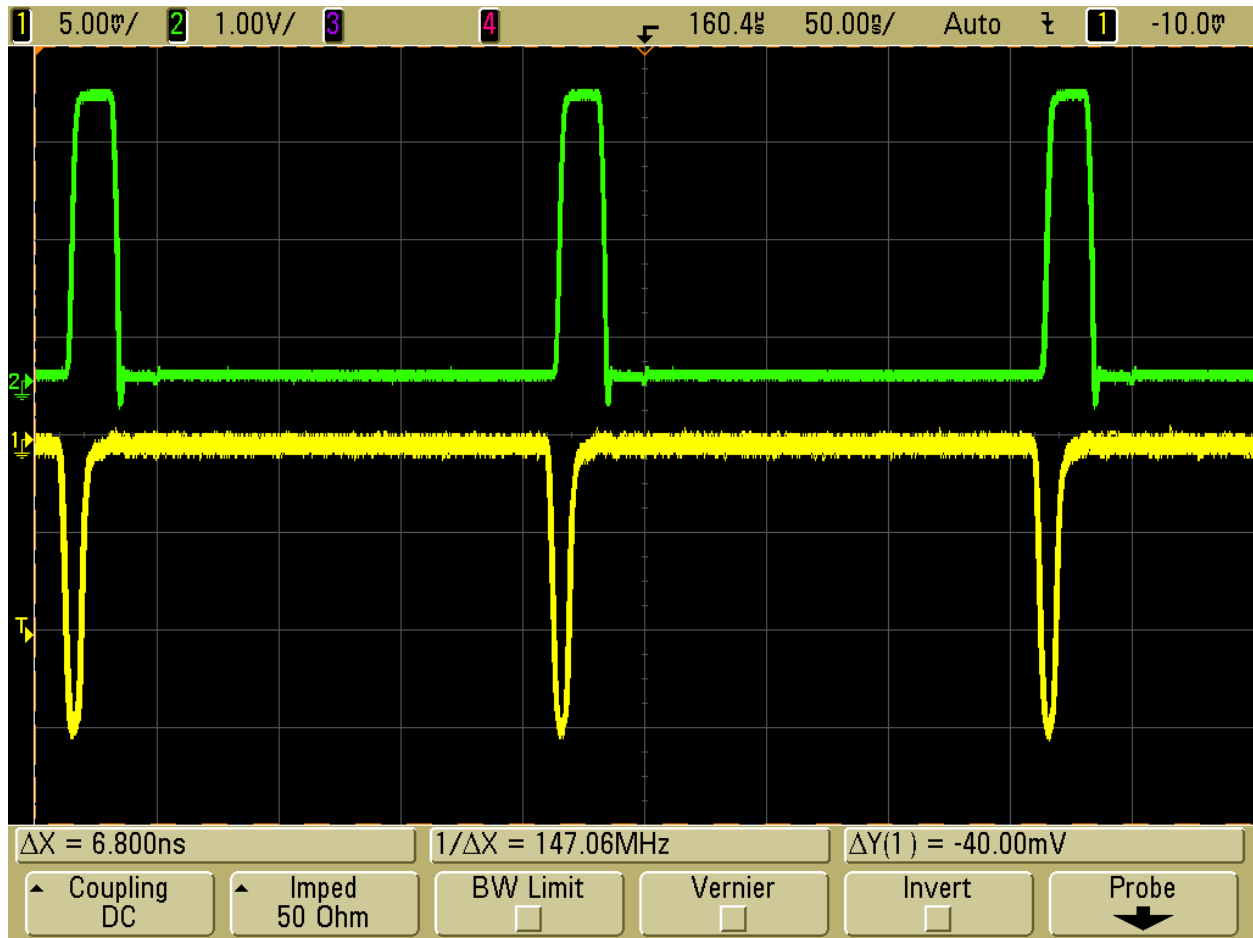
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**Full Pulse 10 nS Pulse 200 nS Period**



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**Channel 2 (Green): Video Output from Threshold Detector**