



### SUMMARY TEST DATA ON THRESHOLD DETECTOR

**Customer :**  
**Job No :**  
**Model No : TD-30T-SHS-218**  
**Serial No : PL6185**

**Tested By : Hugo Gonzales**  
**Temperature : +25°C**  
**Date : 1/11/2010**

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	Frequency Range:	2.0 GHz TO 18.0 GHz	2.0 GHz TO 18.0 GHz	
2	VSWR:	3.0 :1 Max @ -20 dBm	2.83:1	
3	Minimum Signal Level for Logic 1:	-20 dBm @ 2.0 GHz -17 dBm @ 18.0 GHz	-20.0 dBm@2GHz -17.0 dBm@18GHz (Pulsed Input)	
4	Minimum Signal Level for Logic 0:	-25 dBm	-20.3 dBm (2 GHz)	
5	Threshold Variation over Frequency (any 1GHz window):	± 0.5 dB	<0.5 dB	
6	Propagation Delay from 50% of an input of -20 dBm:	15 nS Max	See Plots	
7	Propagation Delay from 50% of an input of +10 dBm:	15 nS Max	See Plots	
8	DC Supply: (No Load)	100mA @ +15VDC Max 100mA @ -15VDC Max	+64 mA -43 mA	

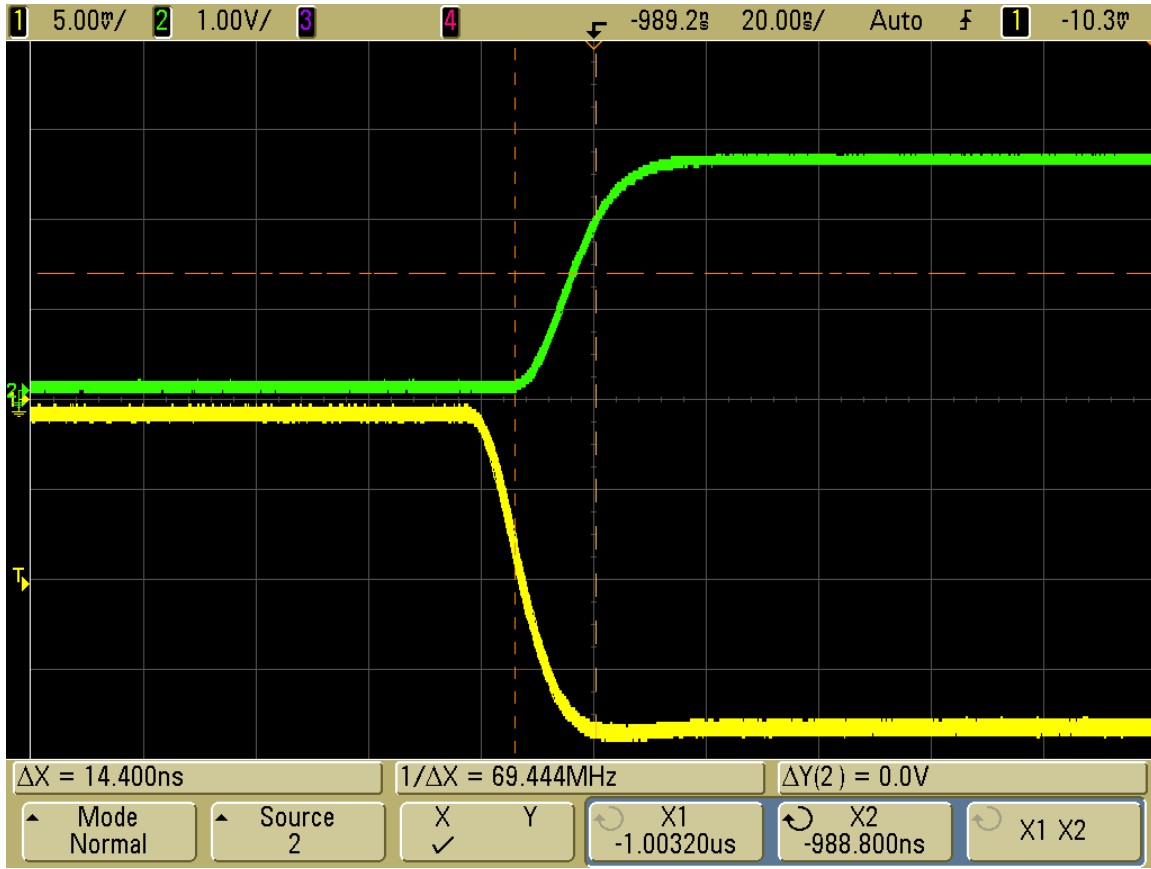
Production Manager Approval: \_\_\_\_\_ Date: \_\_\_\_\_

QA/QC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

7311-F Grove Road, Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731  
 email: [sales@pmi-rf.com](mailto:sales@pmi-rf.com)



### On Time 50 Ohm Load



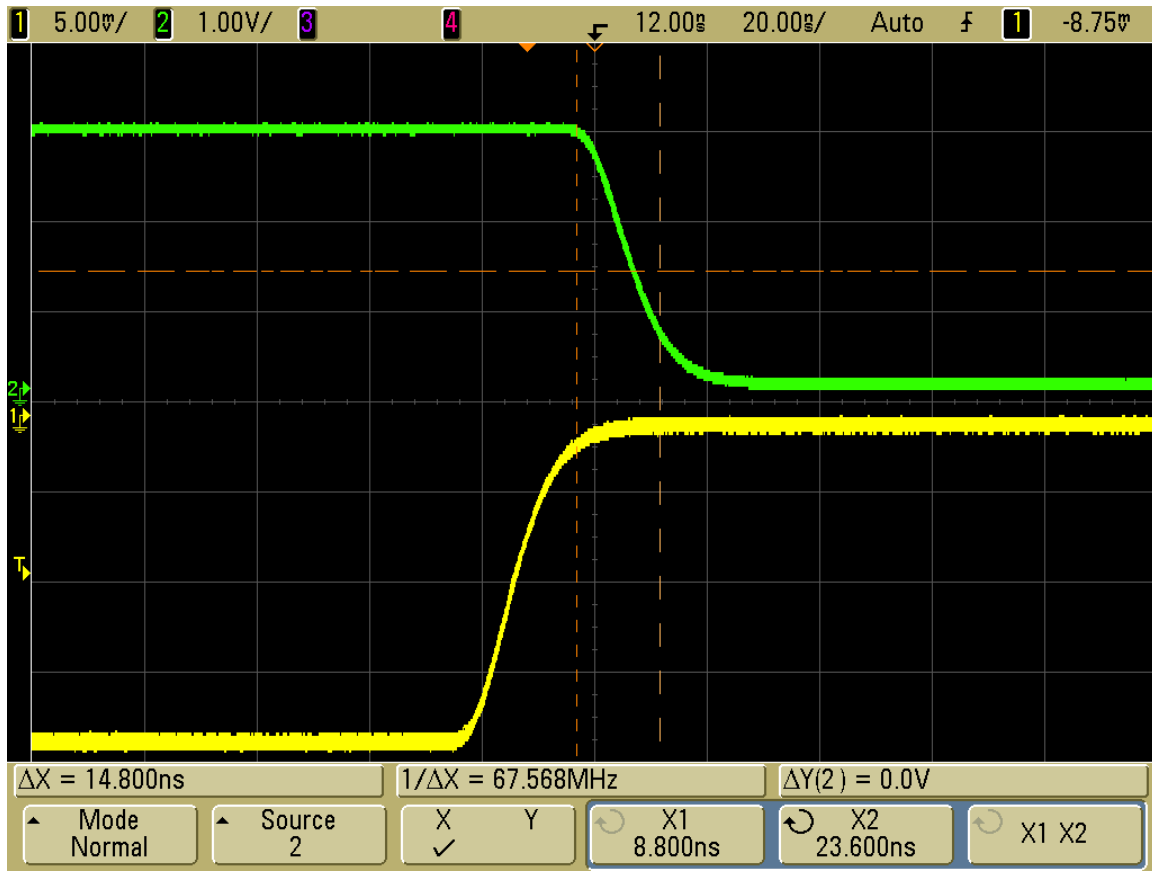
**Channel 1 (Yellow):** +6 dBm Input Power Using Crystal Detector with Negative Voltage Output (When RF Power is present, Negative Voltage is seen)

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

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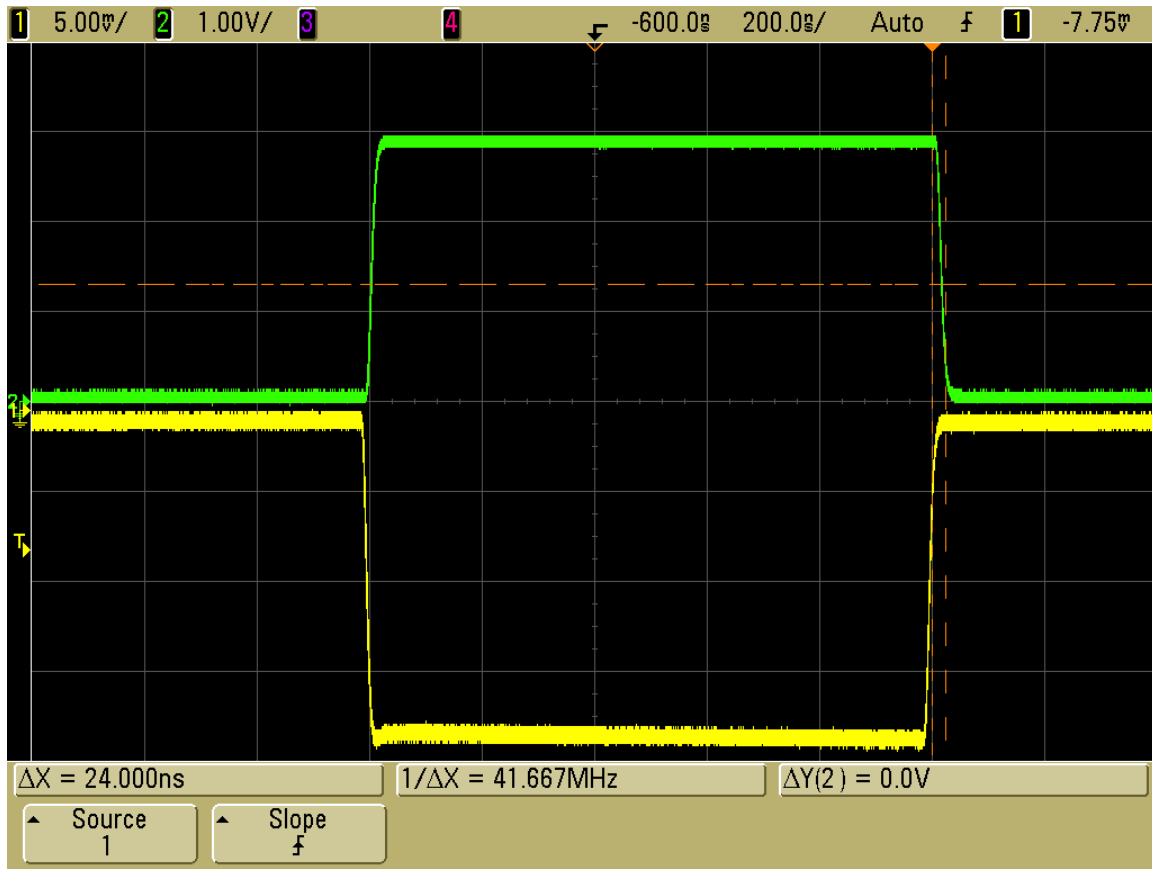
**Channel 2 (Green): Video Output from Threshold Detector**

**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



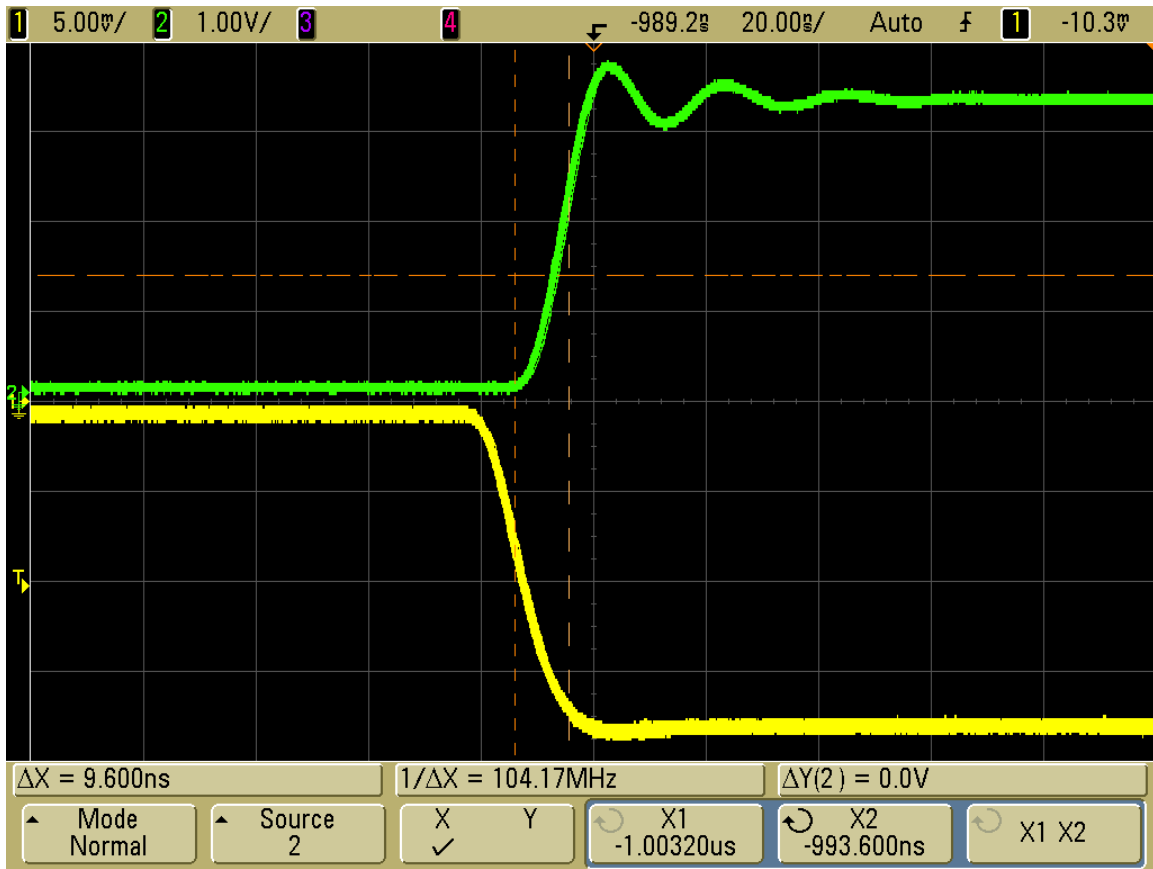
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### On Time 100 Ohm Load



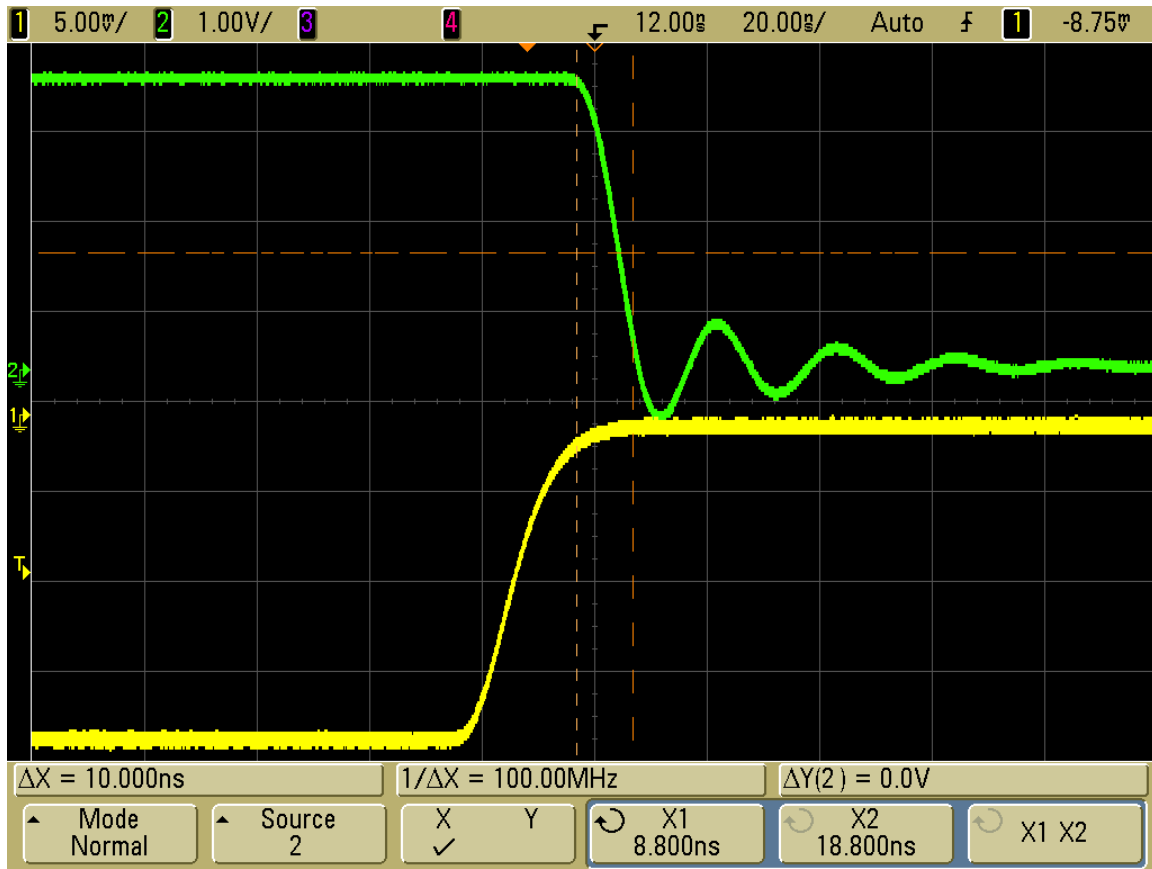
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### Off Time 100 Ohm Load



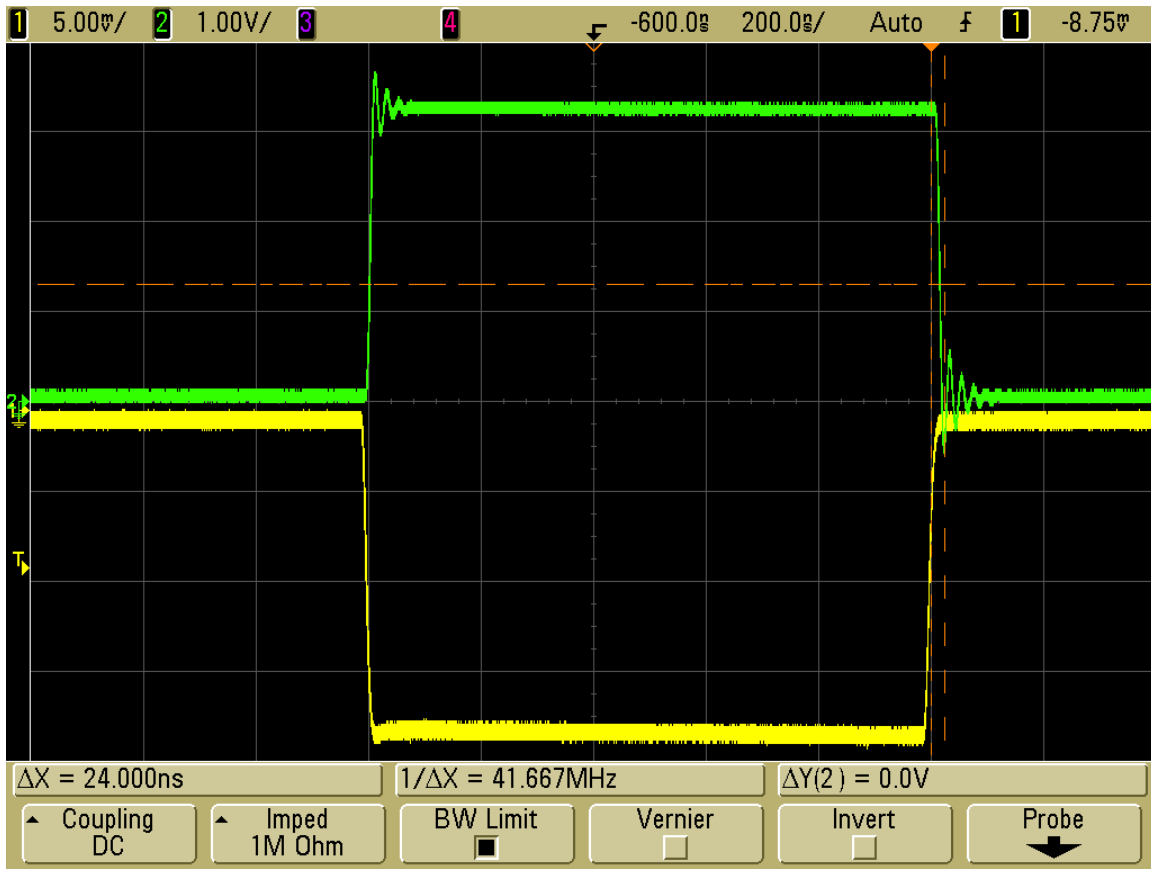
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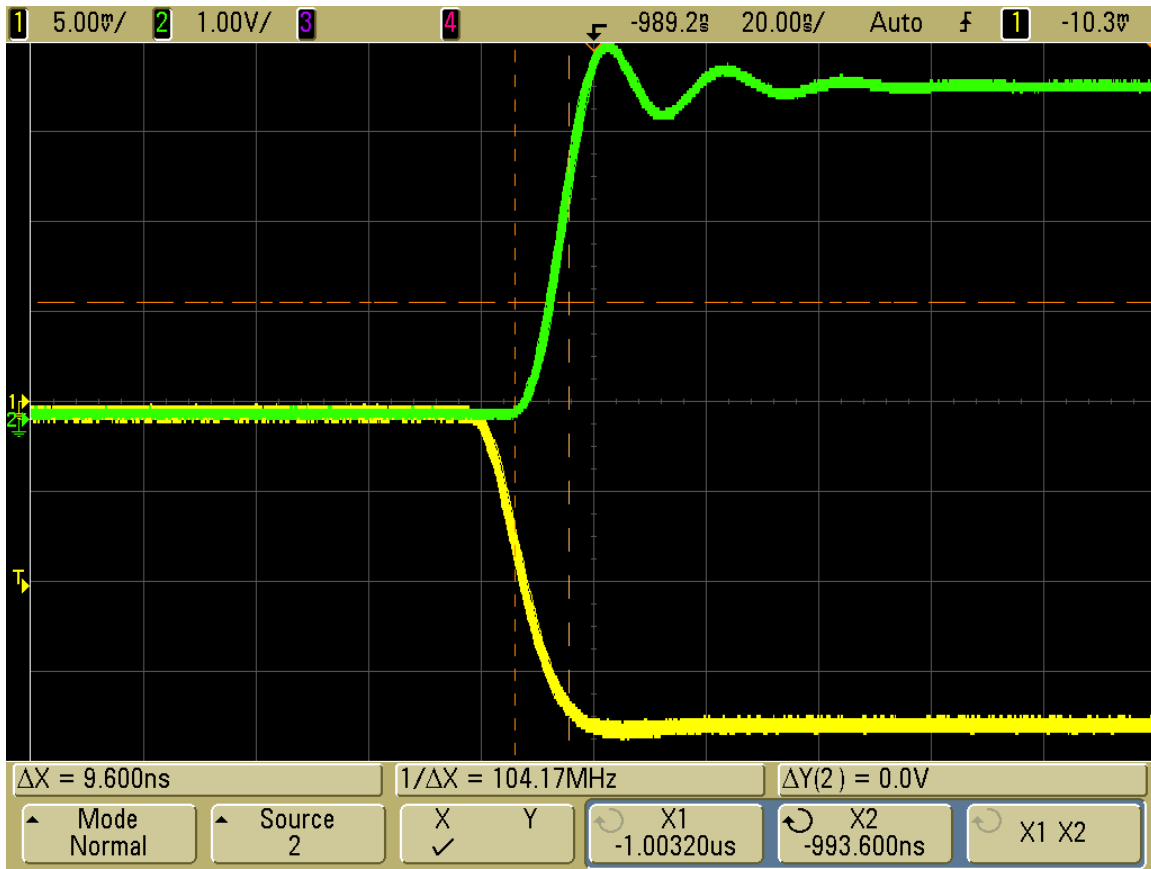
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### On Time 1 Mega-Ohm Load



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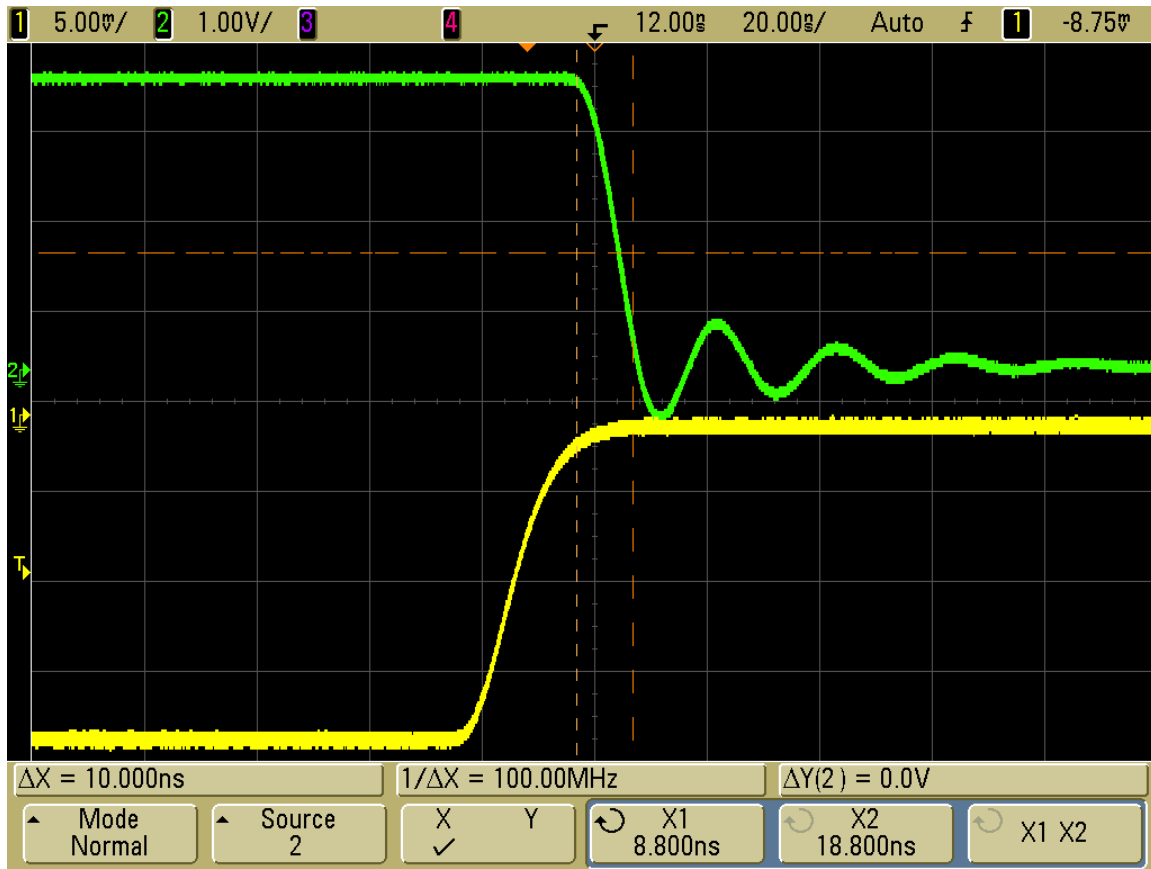
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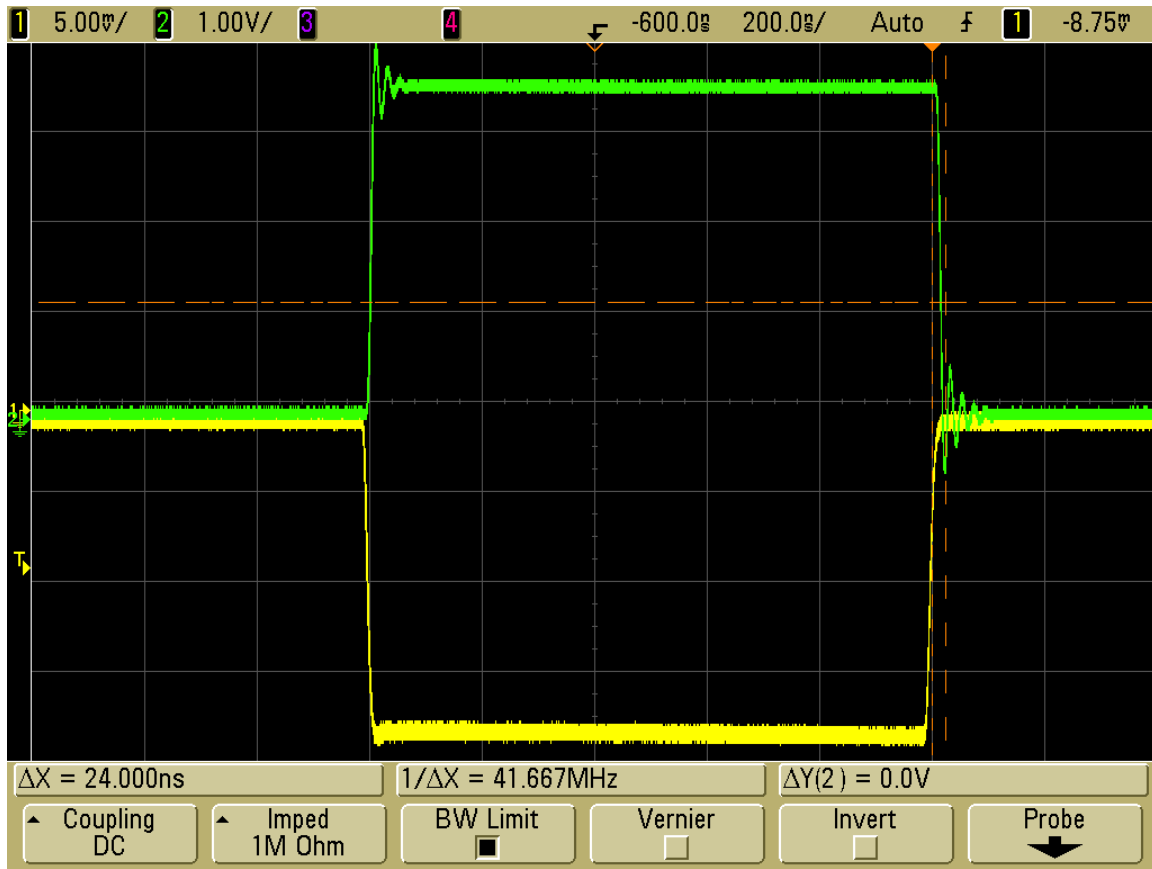
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