

# Ring Test

Luciano Elementi

December 17, 2013

Coil tested on December 10, 2013.

Equipment used: High Voltage Ringer (TEL1002) *as is*.<sup>1</sup>

Rings results:<sup>2</sup>

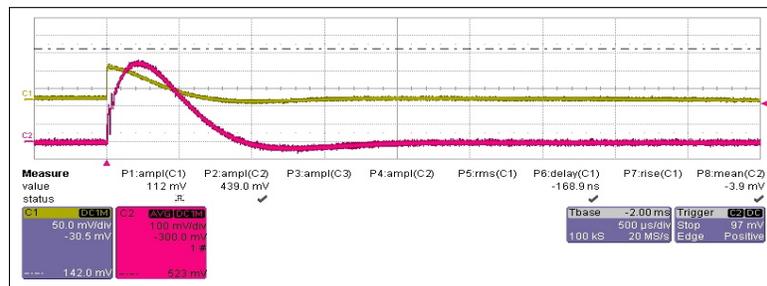


Figure 1: 100V, 20 $\mu$ F  
(File: LeCroy0.jpg)

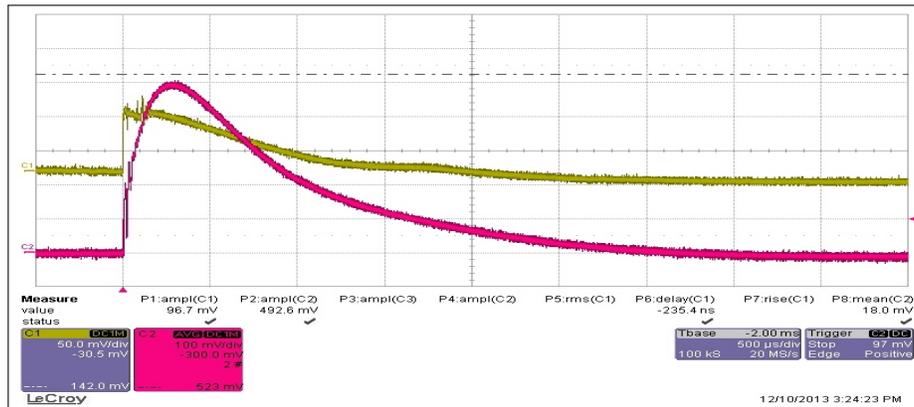


Figure 2: 100V, 80 $\mu$ F  
(File: LeCroy1.jpg.  
See also Figure 13)

<sup>1</sup>See schematic diagram.

<sup>2</sup>Additional rings and notes are included at the end of this document.

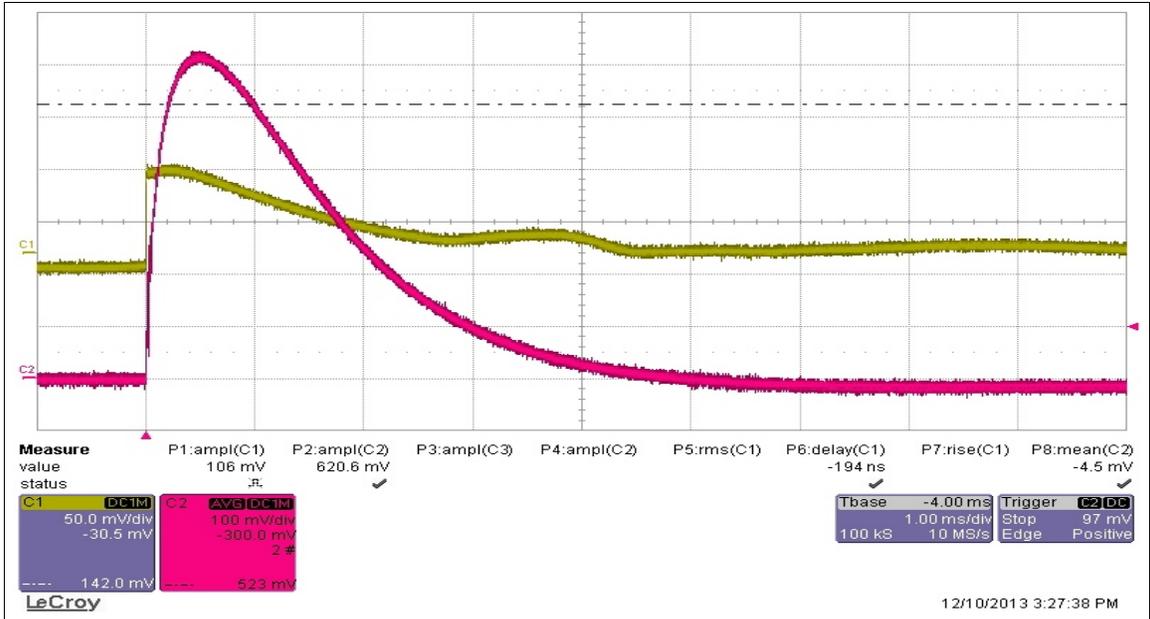


Figure 3: 100V, 140 $\mu$ F  
(File: LeCroy3.jpg)

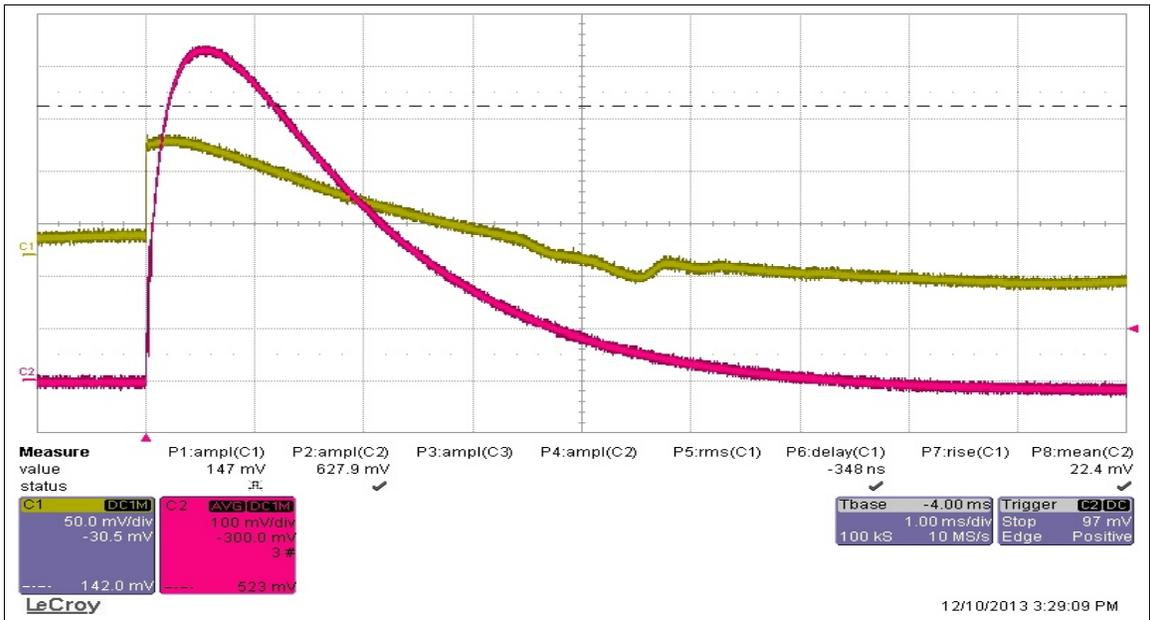


Figure 4: 100V, 200 $\mu$ F  
(File: LeCroy4.jpg)

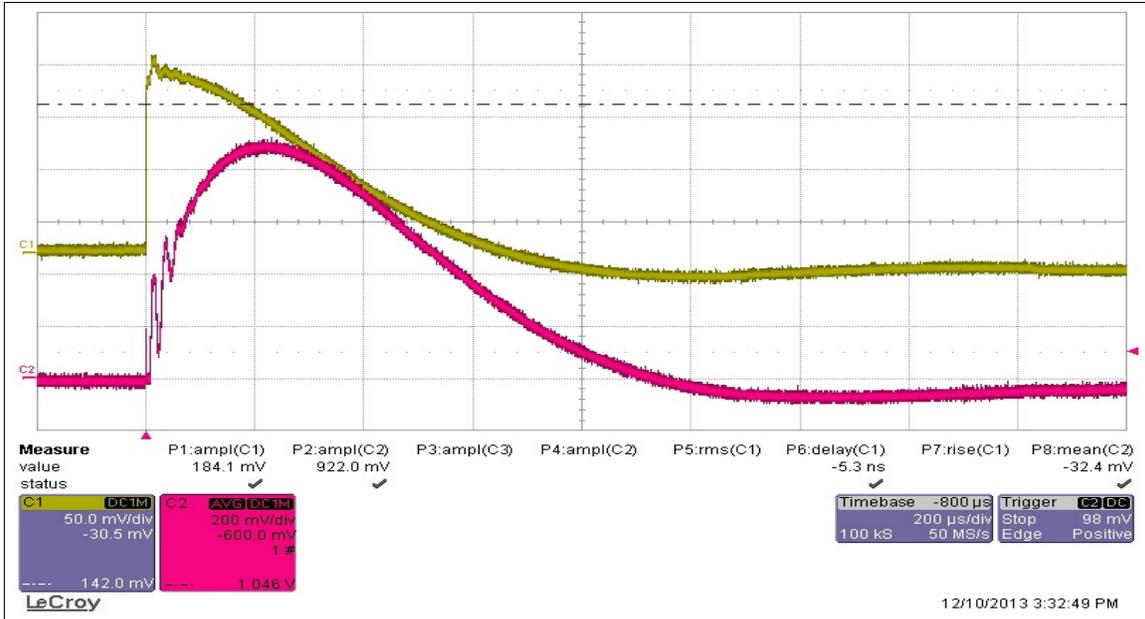


Figure 5: 200V, 20 $\mu$ F  
(File: LeCroy6.jpg.  
See also Figure 14)

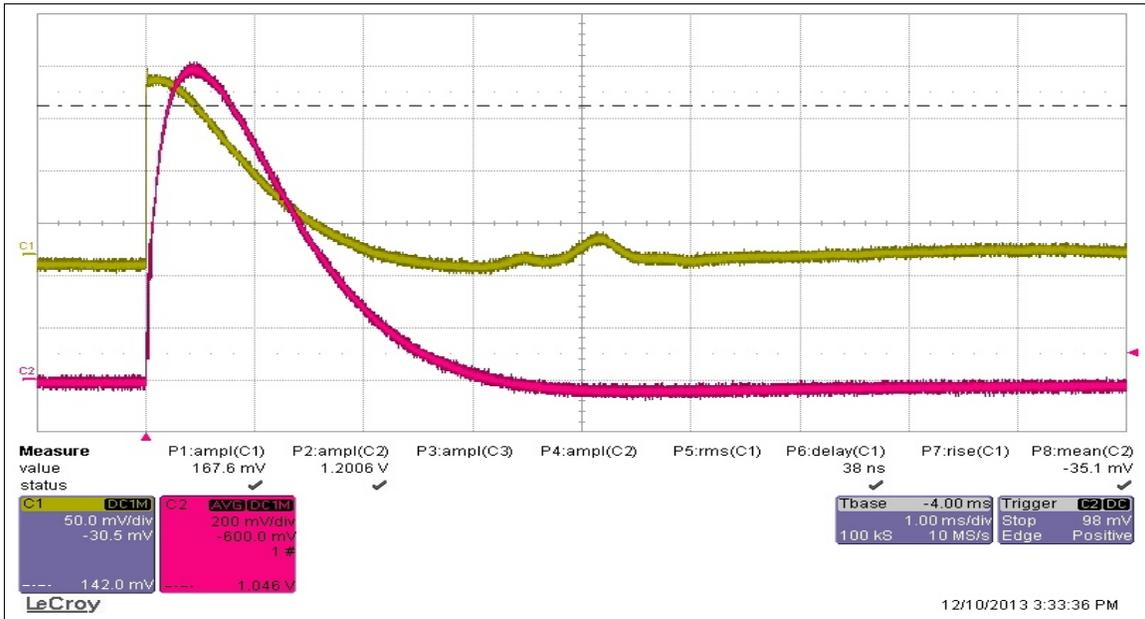


Figure 6: 200V, 80 $\mu$ F  
(File: LeCroy7.jpg)

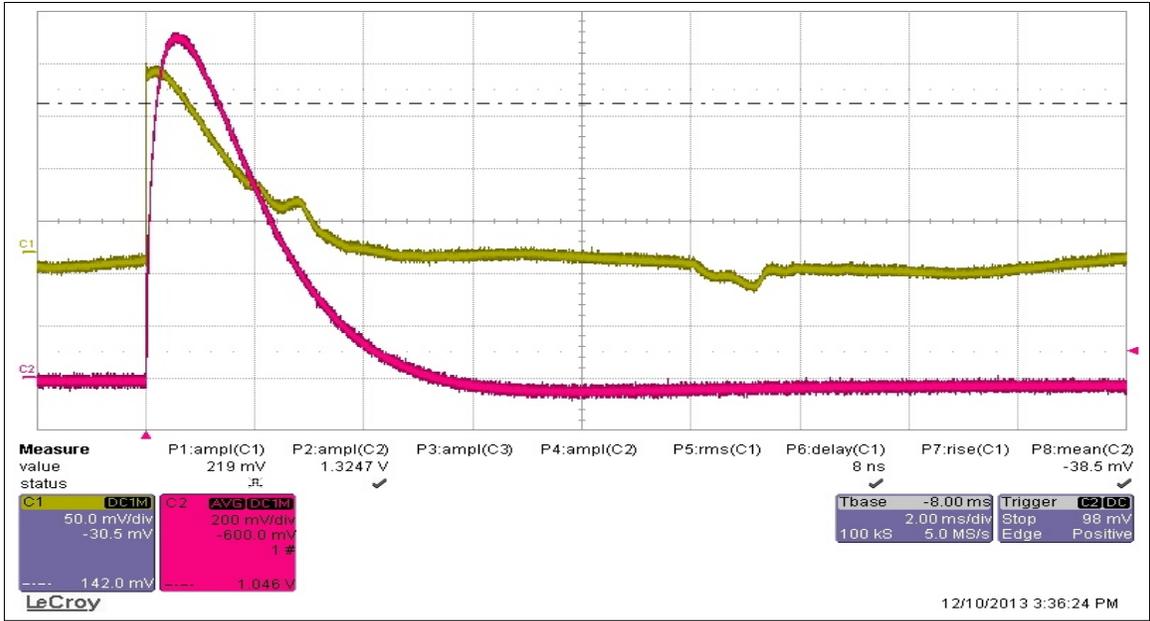


Figure 7: 200V, 140 $\mu$ F  
(File: LeCroy9.jpg.  
See also Figure 15)

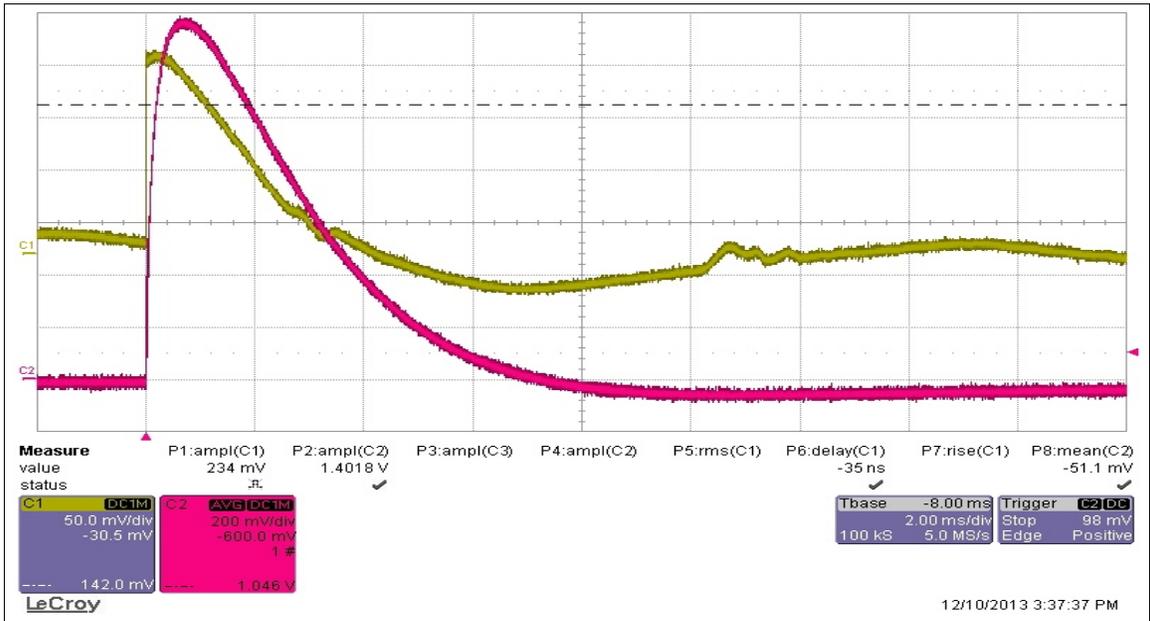


Figure 8: 200V, 200 $\mu$ F  
(File: LeCroy10.jpg)

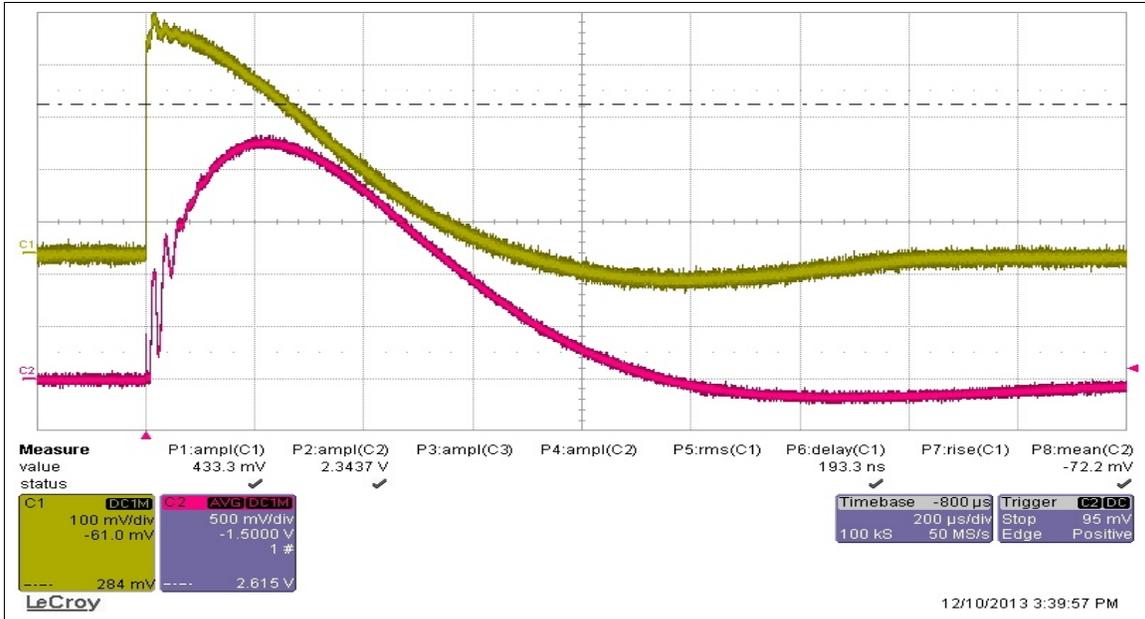


Figure 9: 500V, 20 $\mu$ F  
(File: LeCroy12.jpg.  
See also Figure 16)

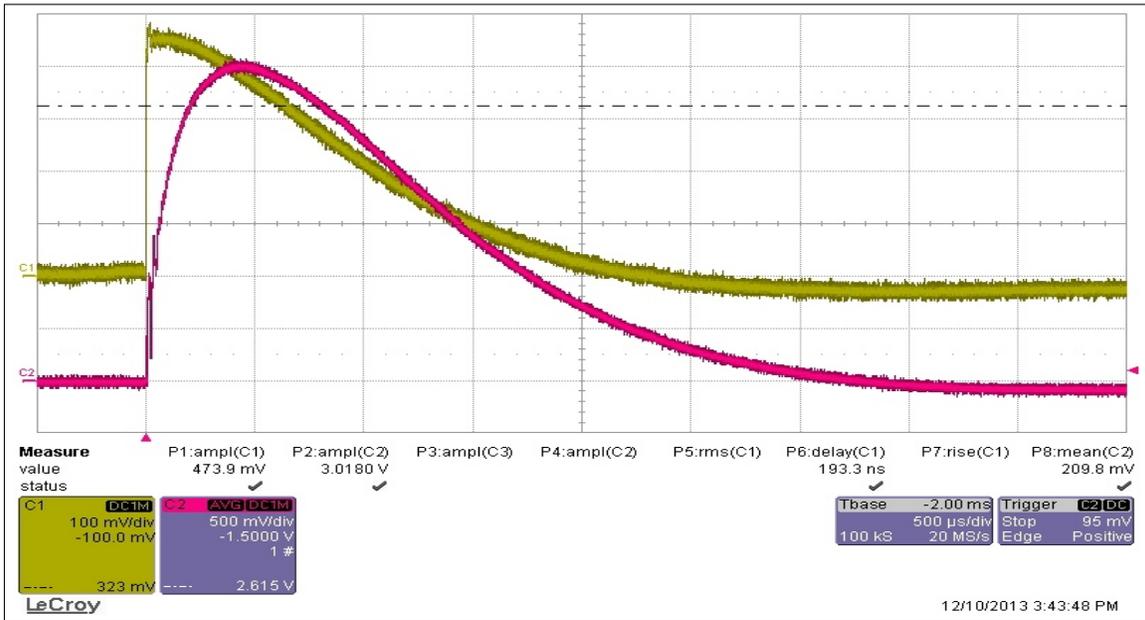


Figure 10: 500V, 80 $\mu$ F  
(File: LeCroy13.jpg)

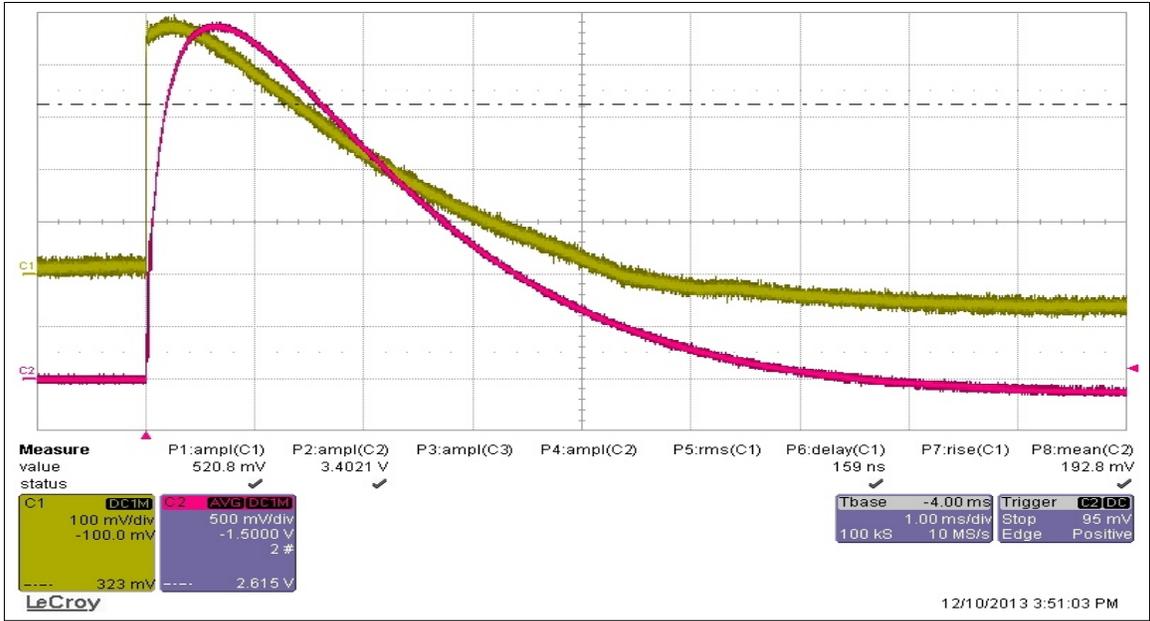


Figure 11: 500V, 140 $\mu$ F  
(File: LeCroy15.jpg)

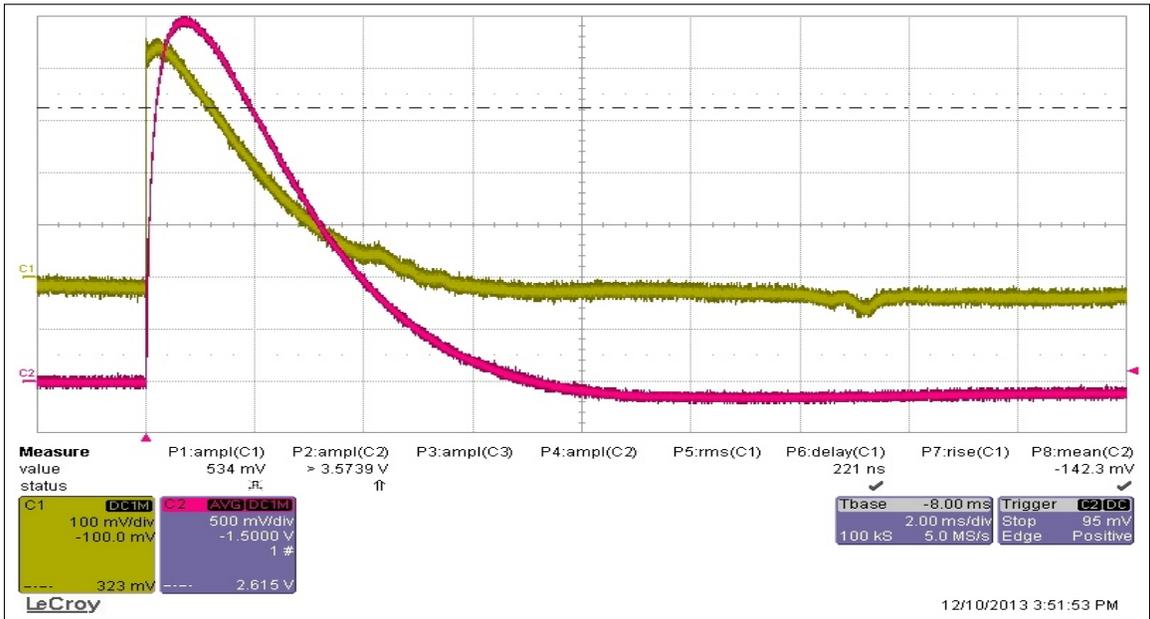


Figure 12: 500V, 200 $\mu$ F  
(File: LeCroy16.jpg)

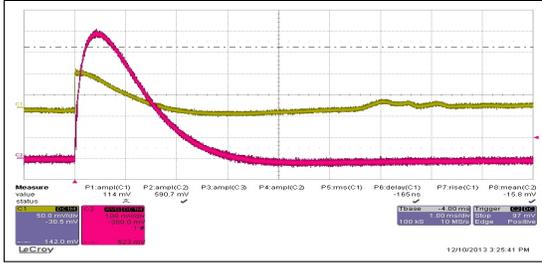


Figure 13: 100V, 80 $\mu$ F  
(File: LeCroy2.jpg)

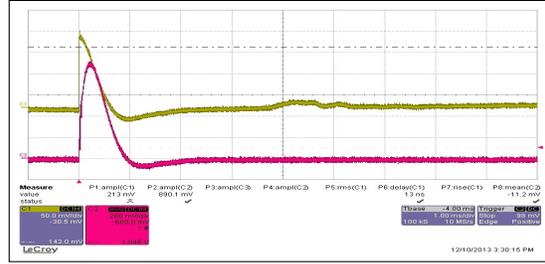


Figure 14: 200V, 20 $\mu$ F  
(File: LeCroy5.jpg)

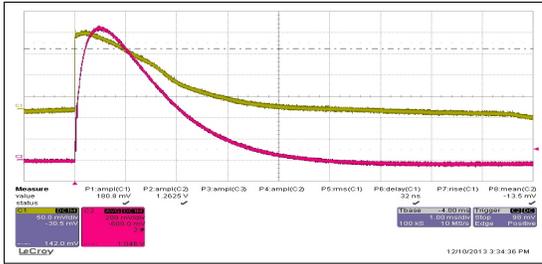


Figure 15: 200V, 140 $\mu$ F  
(File: LeCroy8.jpg)

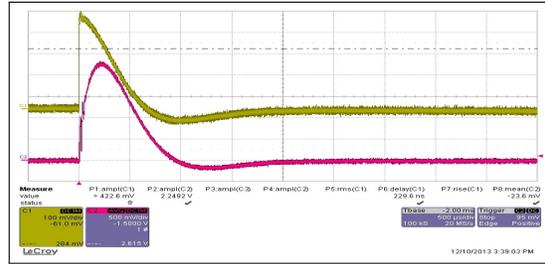
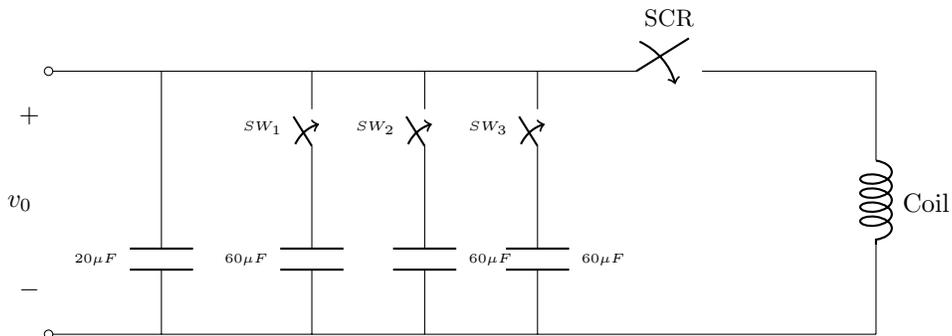


Figure 16: 500V, 20 $\mu$ F  
(File: LeCroy11.jpg)

**Notes:**

Ring #2 ( Figure 13), ring #5 (Figure 14), Ring #8 (Figure 15), and ring #9 (Figure 16) are all on a different timescale.

**Schematic:**



# Ring Test

Luciano Elementi

December 18, 2013

Coil tested on December 11, 2013.

Equipment used: High Voltage Ringer (TEL1002) *as is*.<sup>1</sup>

Rings results:

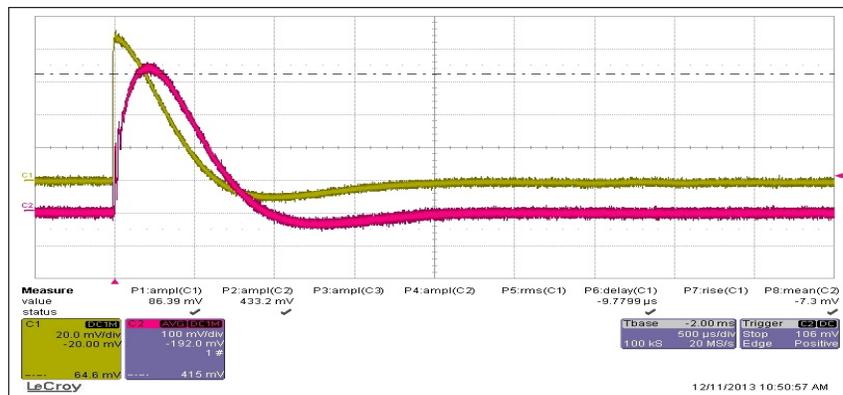


Figure 1: 100V, 20 $\mu$ F  
(File: LeCroy0.jpg)

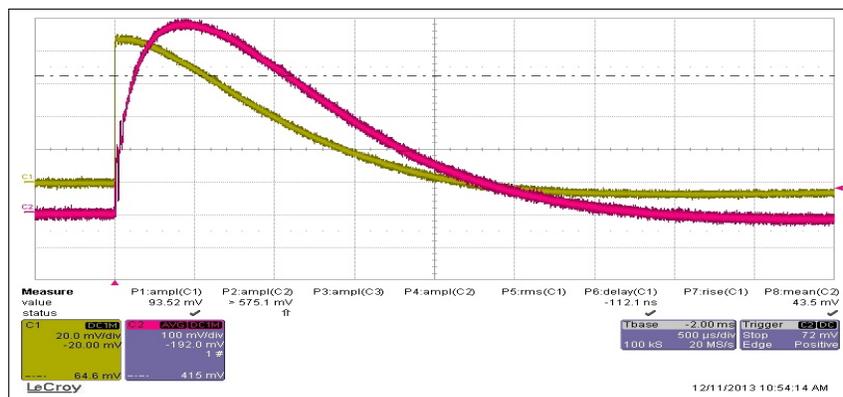


Figure 2: 100V, 80 $\mu$ F  
(File: LeCroy1.jpg).

<sup>1</sup>See schematic diagram.

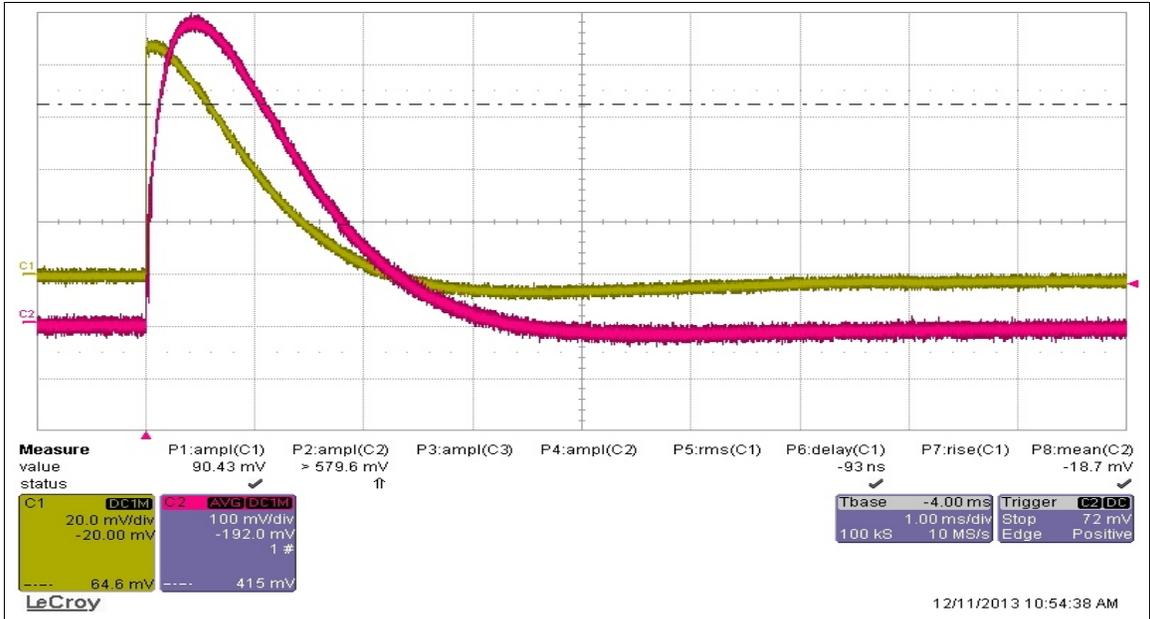


Figure 3: 100V, 80 $\mu$ F  
(File: LeCroy2.jpg).

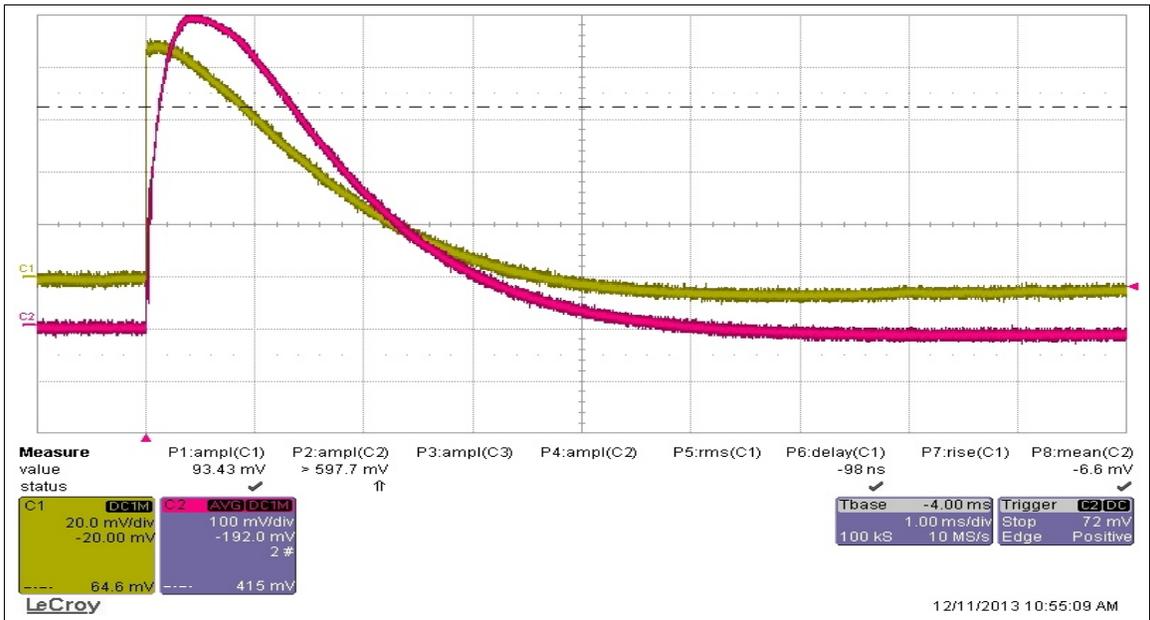


Figure 4: 100V, 140 $\mu$ F  
(File: LeCroy3.jpg)

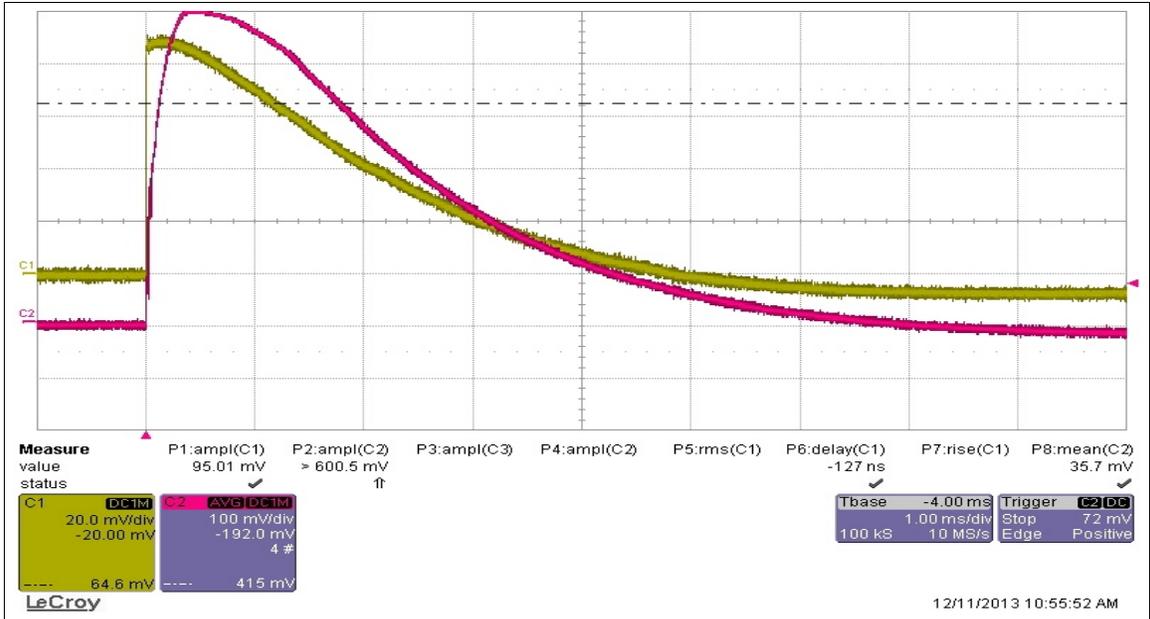


Figure 5: 100V, 200 $\mu$ F  
(File: LeCroy4.jpg)

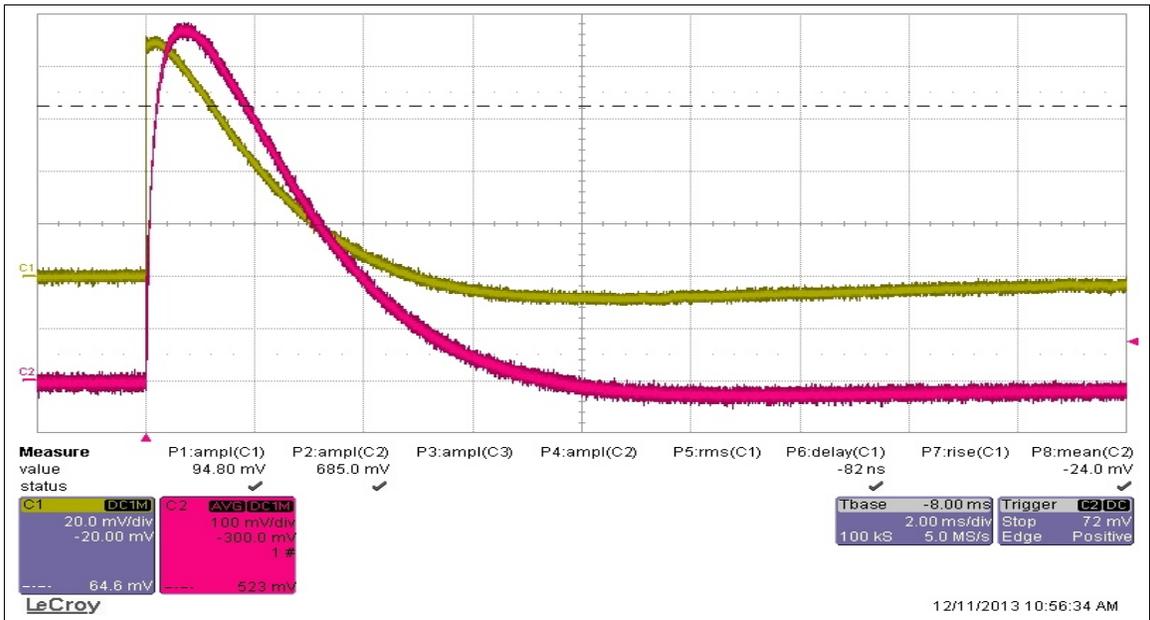


Figure 6: 100V, 200 $\mu$ F  
(File: LeCroy5.jpg)

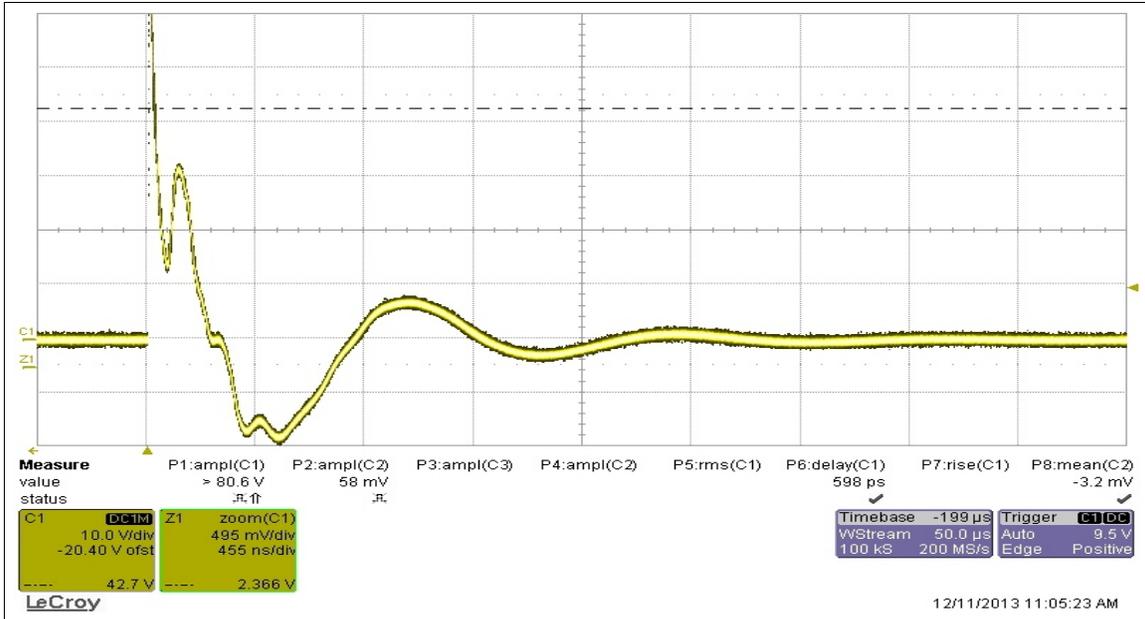
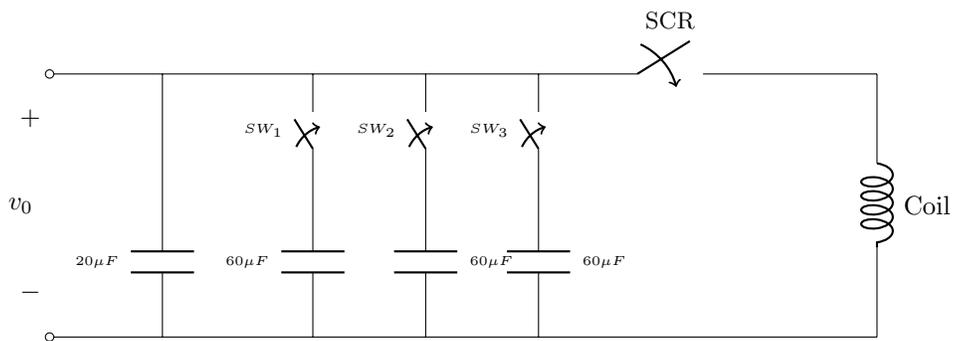


Figure 7: 100V, 0.1 $\mu$ F  
(File: OtherRinger.jpg.  
Using the other ringer.

Schematic:



# Ring Test

Luciano Elementi

December 18, 2013

Coil tested on December 11, 2013.

Equipment used: High Voltage Ringer (TEL1002) *as is*.<sup>1</sup>

Rings results:<sup>2,3</sup>

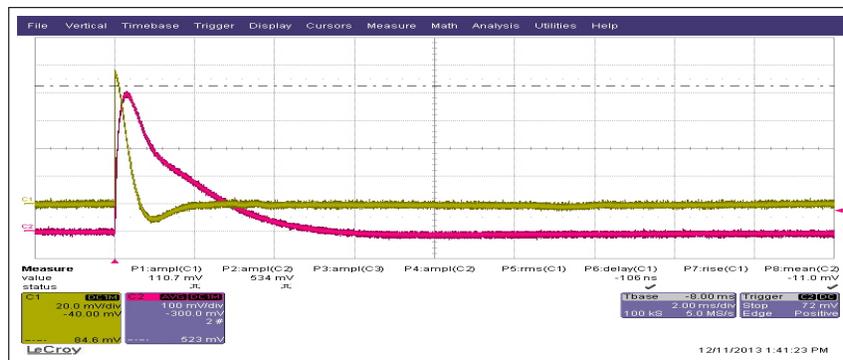


Figure 1: 100V, 20 $\mu$ F  
(File: LeCroy0.jpg)

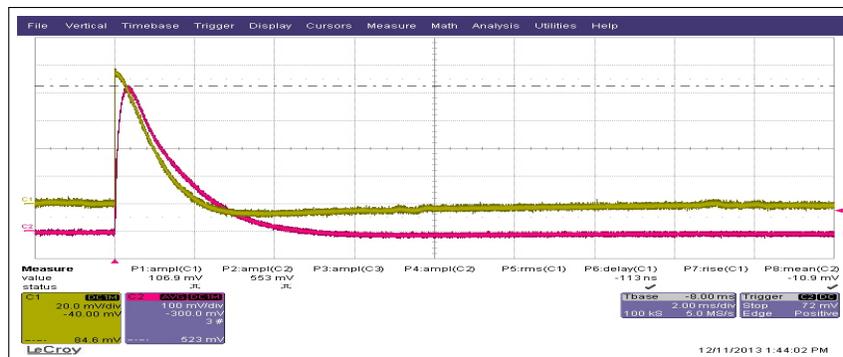


Figure 2: 100V, 80 $\mu$ F  
(File: LeCroy1.jpg)

<sup>1</sup>See schematic diagram.

<sup>2</sup>The numbering of the pictures follows the numbering of the data files.

<sup>3</sup>Additional rings and notes are included at the end of this document.

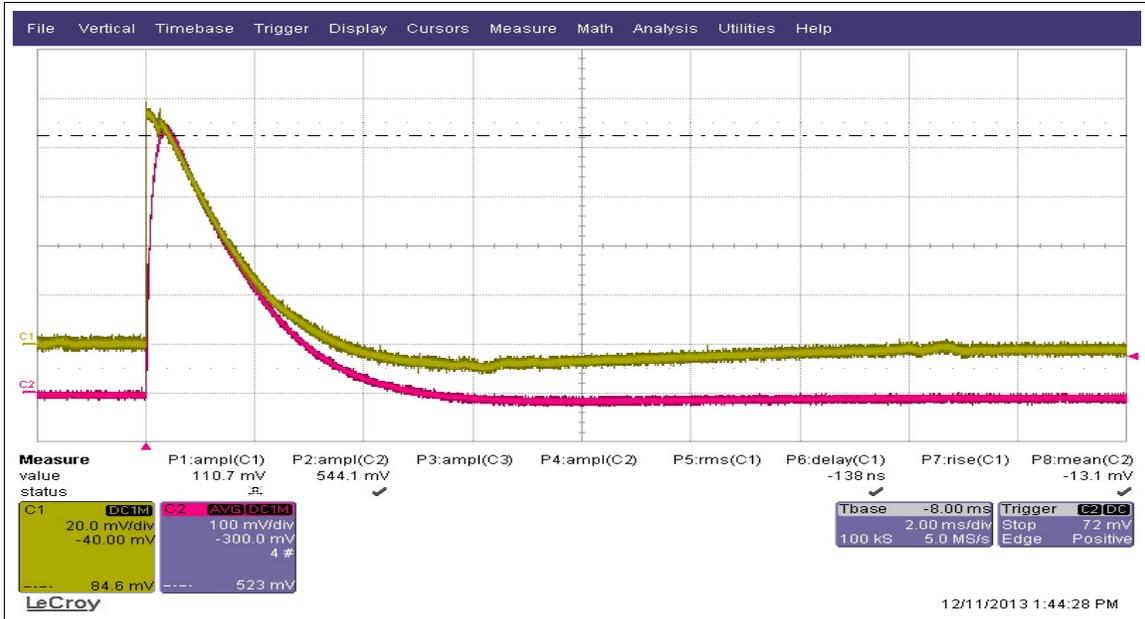


Figure 3: 100V, 140 $\mu$ F  
(File: LeCroy2.jpg)

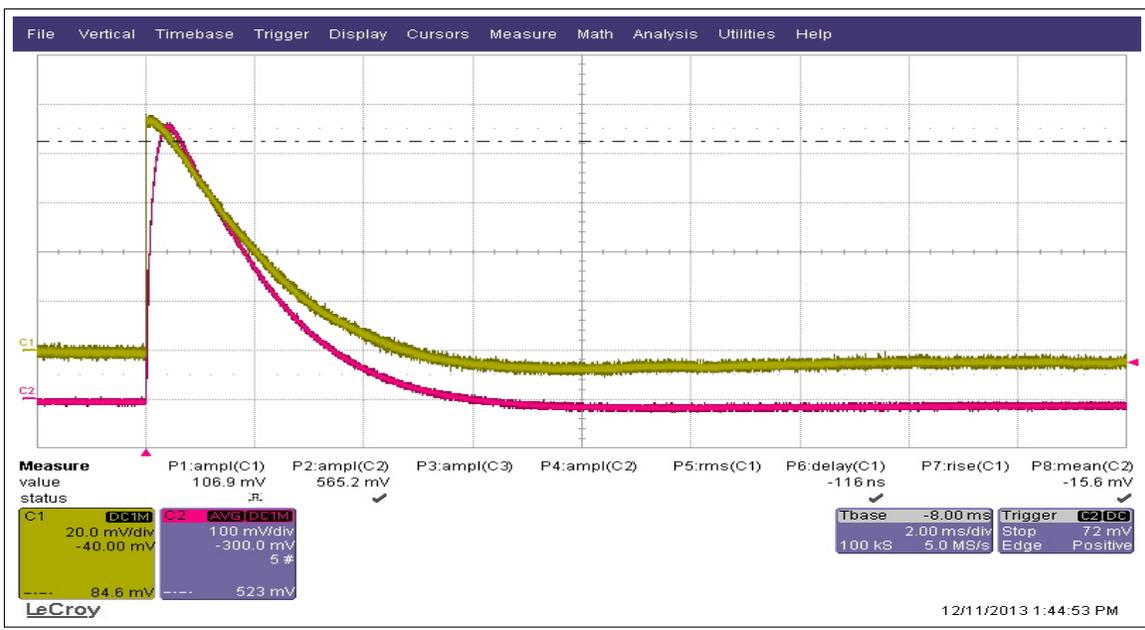


Figure 4: 100V, 200 $\mu$ F  
(File: LeCroy3.jpg)

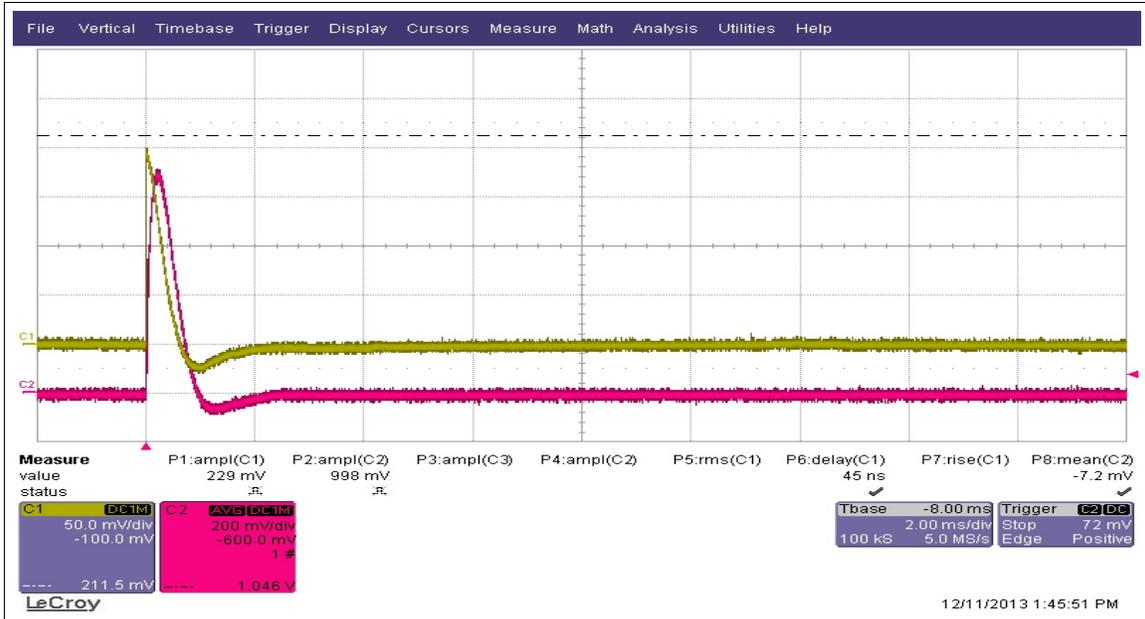


Figure 5: 200V, 20 $\mu$ F  
(File: LeCroy4.jpg)

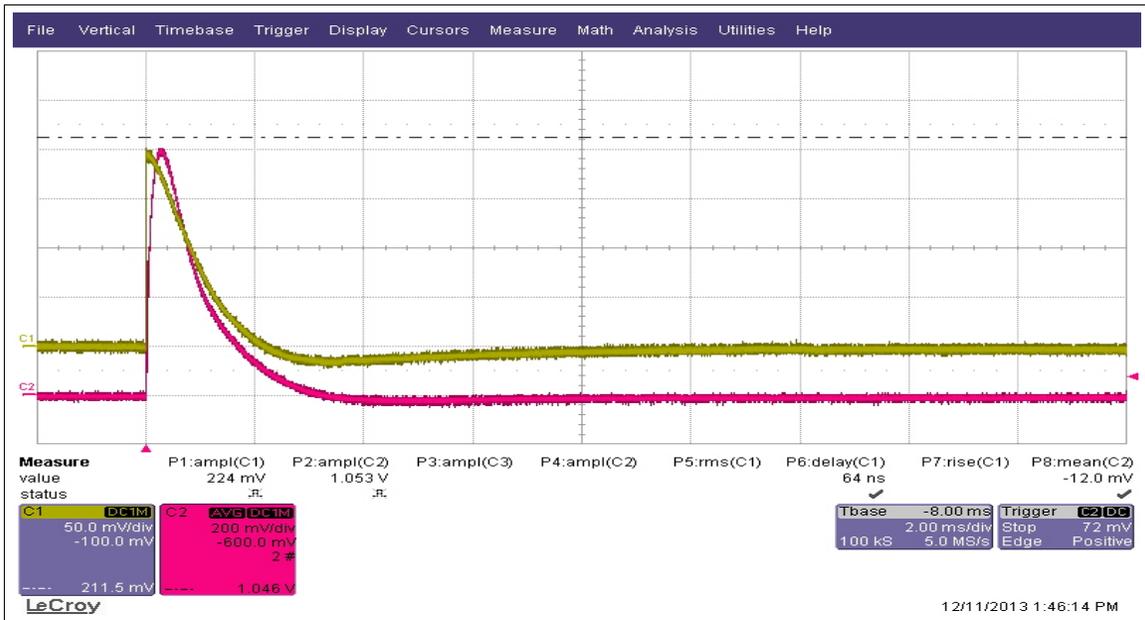


Figure 6: 200V, 80 $\mu$ F  
(File: LeCroy5.jpg)

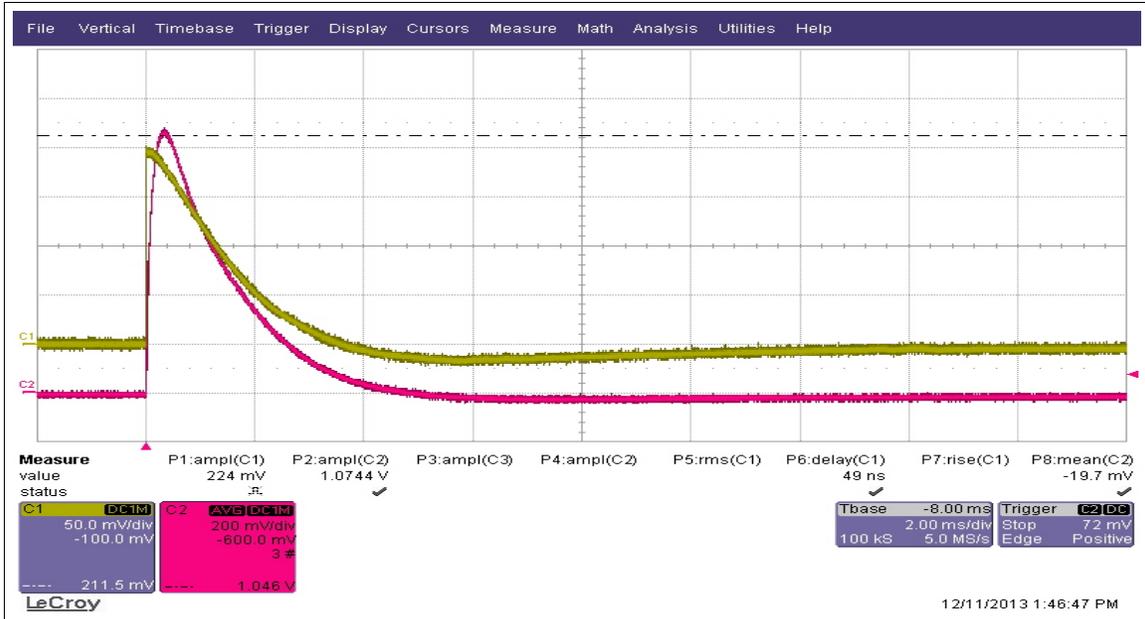


Figure 7: 200V, 140 $\mu$ F  
(File: LeCroy6.jpg).

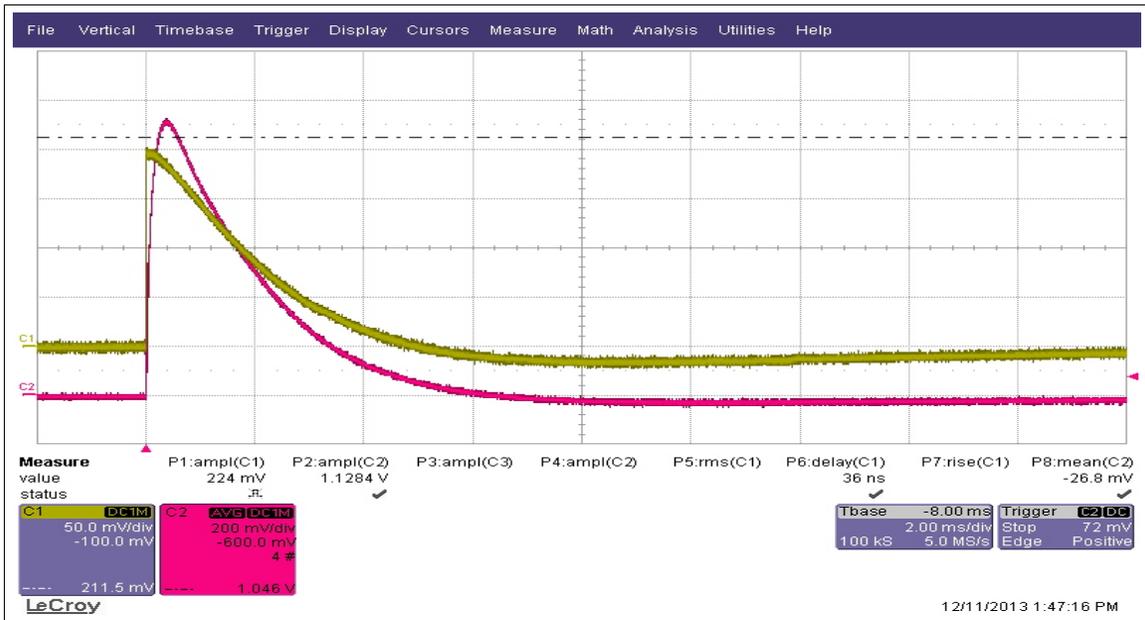


Figure 8: 200V, 200 $\mu$ F  
(File: LeCroy7.jpg)

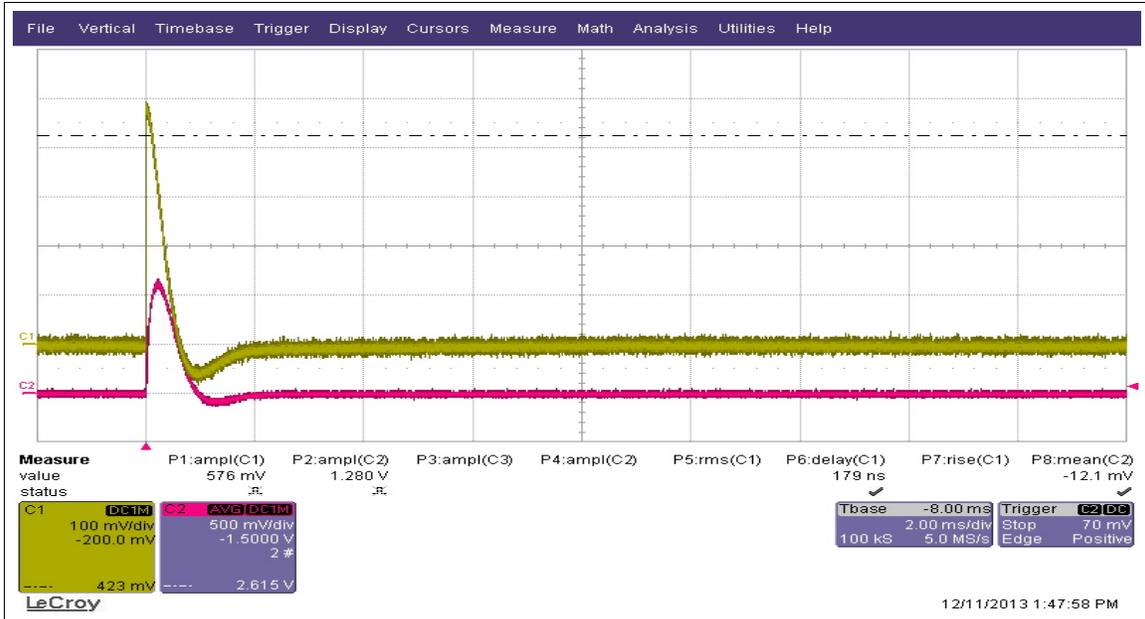


Figure 9: 500V, 20 $\mu$ F  
(File: LeCroy8.jpg)

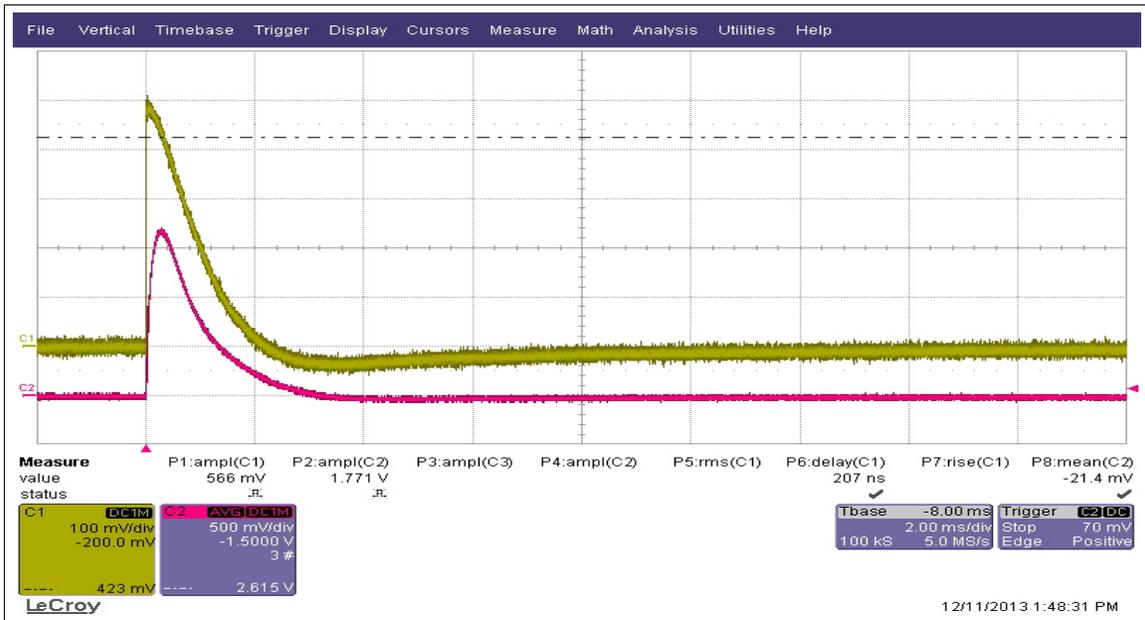


Figure 10: 500V, 80 $\mu$ F  
(File: LeCroy9.jpg)

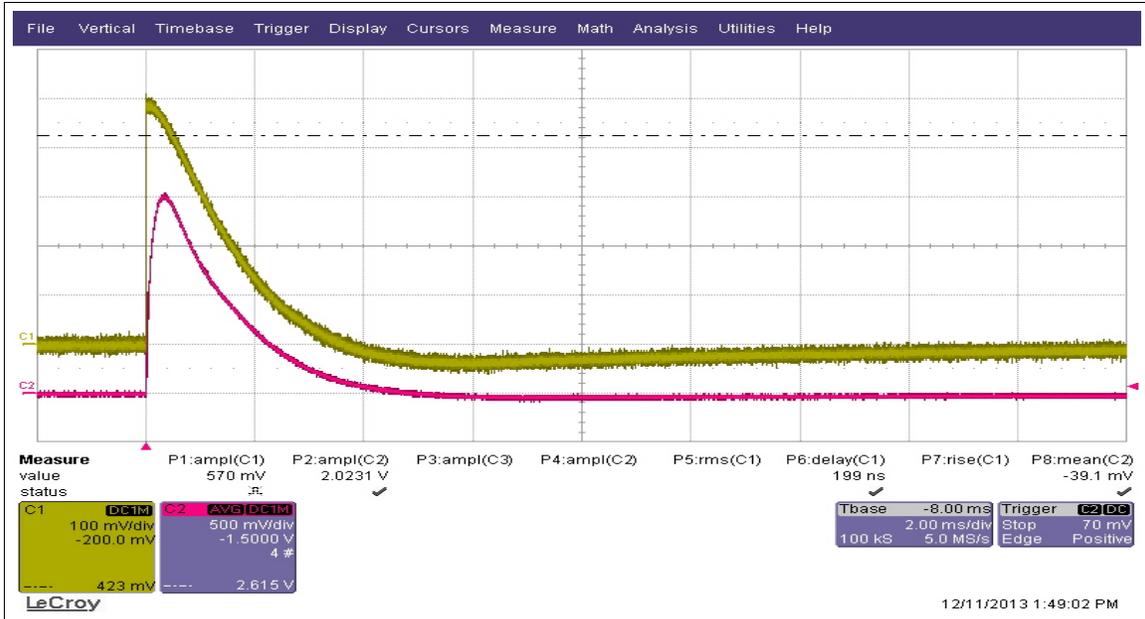


Figure 11: 500V, 140 $\mu$ F  
(File: LeCroy10.jpg)

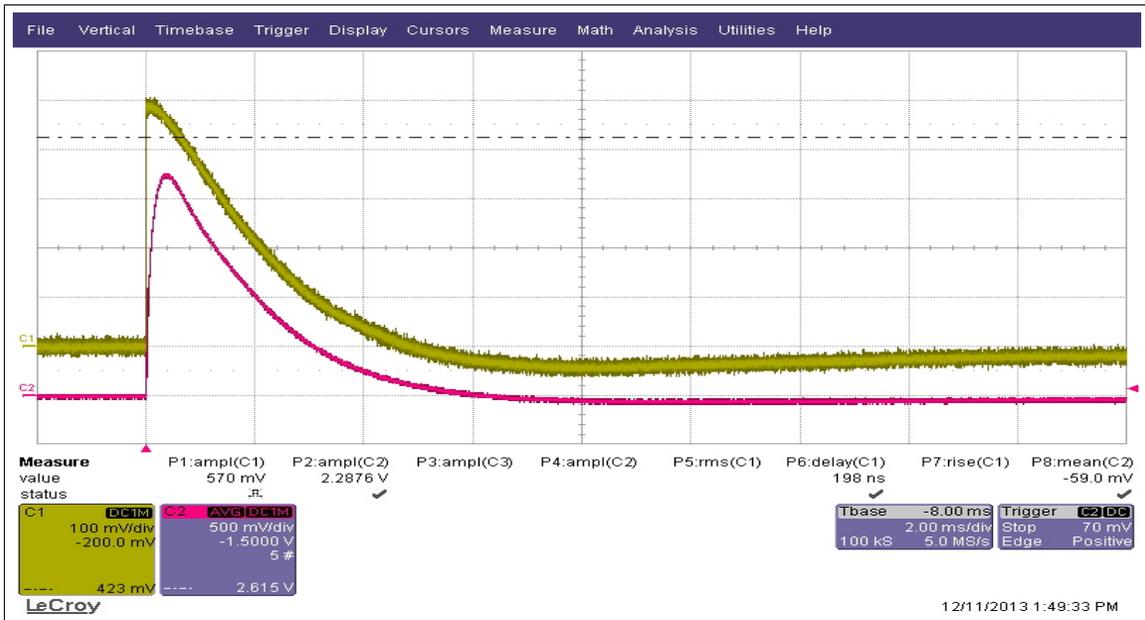


Figure 12: 500V, 200 $\mu$ F  
(File: LeCroy11.jpg)

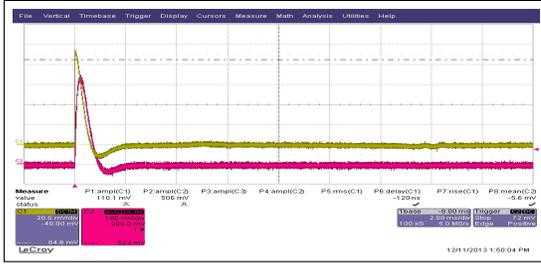


Figure 13: 100V, 20 $\mu$ F  
(File: LeCroy12.jpg)



Figure 14: 100V, 80 $\mu$ F  
(File: LeCroy13.jpg)



Figure 15: 100V, 20 $\mu$ F  
(File: LeCroy13.jpg)

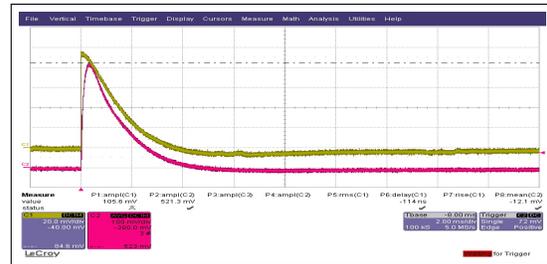
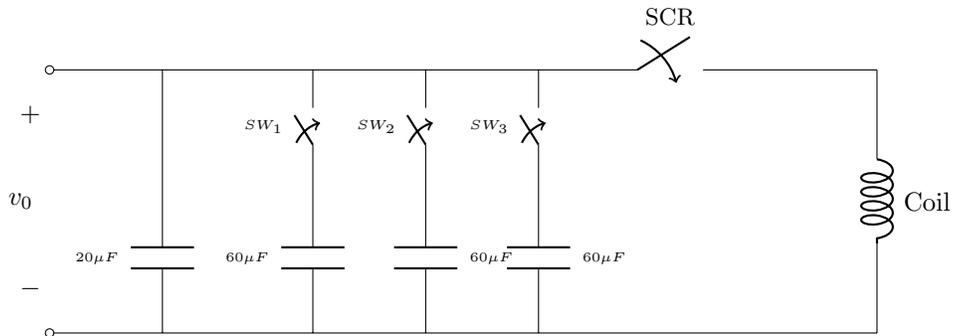


Figure 16: 100V, 80 $\mu$ F  
(File: LeCroy14.jpg)

**Note:**

Ring #12, #13, #14, #15 ( Figure 13, 14, 15, 16) are repeated at 500V to confirm there is no change in the response after the voltage increase to 500V.

**Schematic:**



# Ring Test

Luciano Elementi

December 18, 2013

Coil tested on December 12, 2013.

Equipment used: High Voltage Ringer (TEL1002) *utilizing a modified circuit.*<sup>1,2</sup>

Rings results:<sup>3</sup>

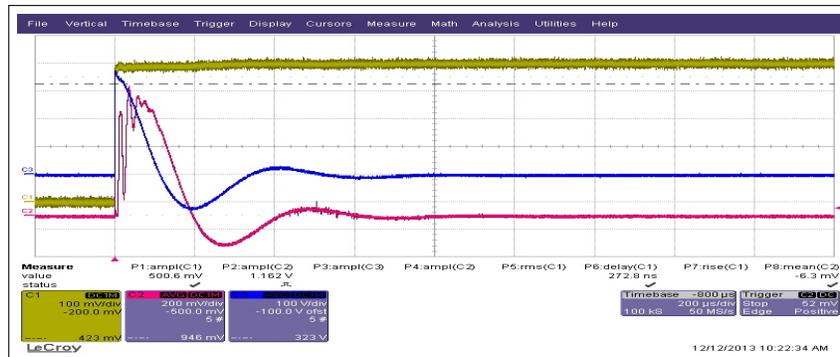


Figure 1: 100V, 2 $\mu$ F  
(File: LeCroy8.jpg)

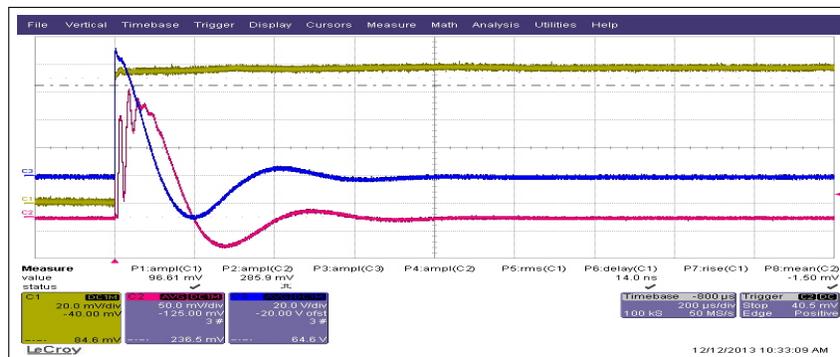


Figure 2: 500V, 2 $\mu$ F  
(File: LeCroy13.jpg)

<sup>1</sup>See schematic diagram.

<sup>2</sup>Channel 1 = output voltage, Channel 2 = current, Channel 3 = voltage at the coil.

<sup>3</sup>The numbering of the pictures follows the numbering of the data files.

**Schematic:**

