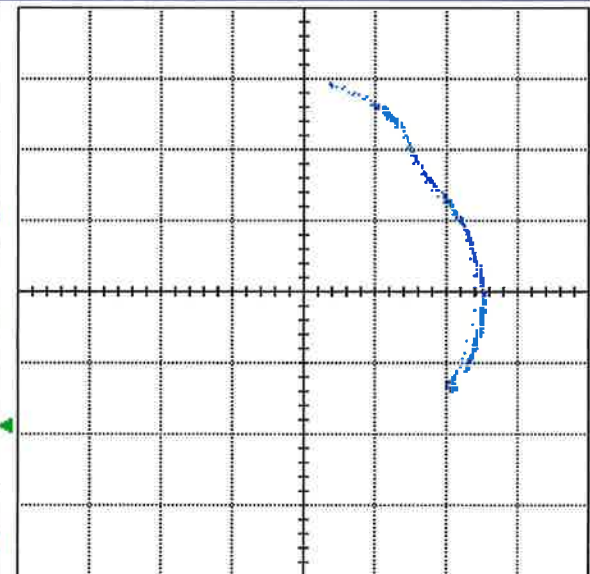
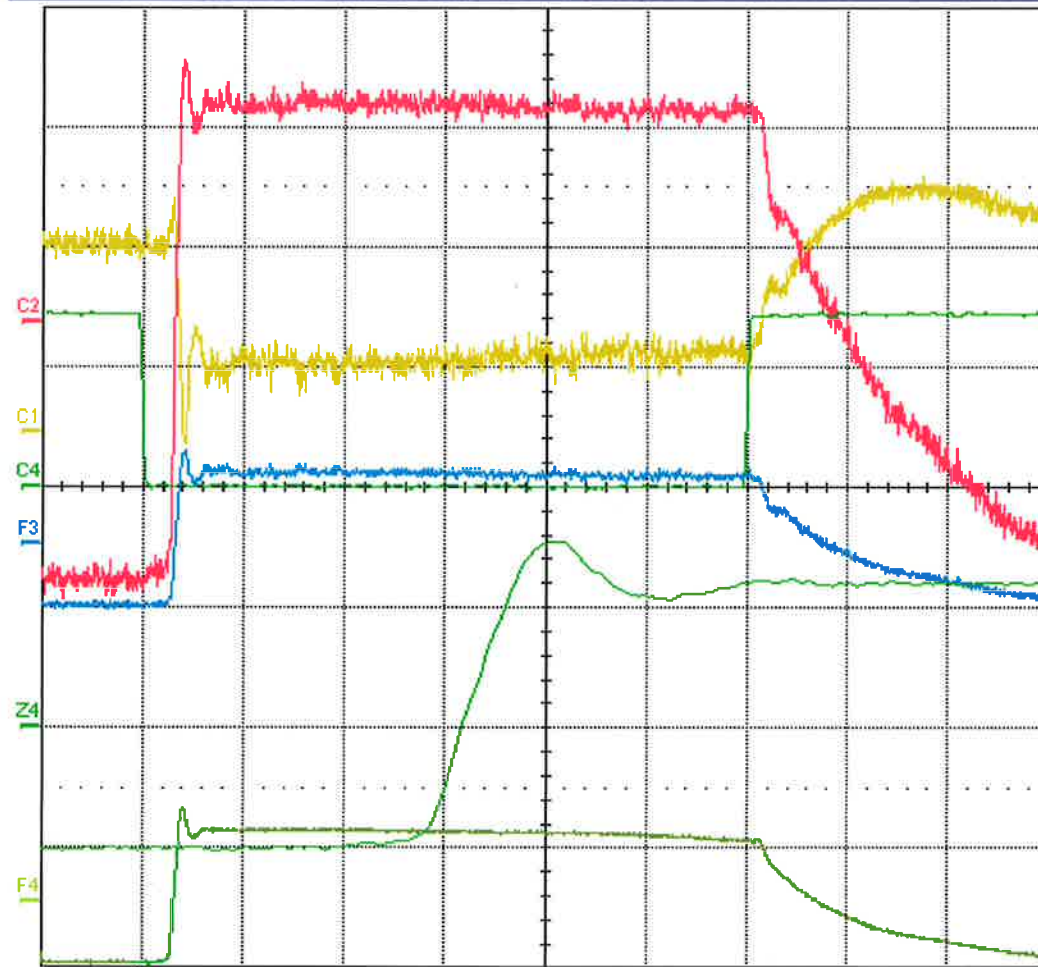


File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help

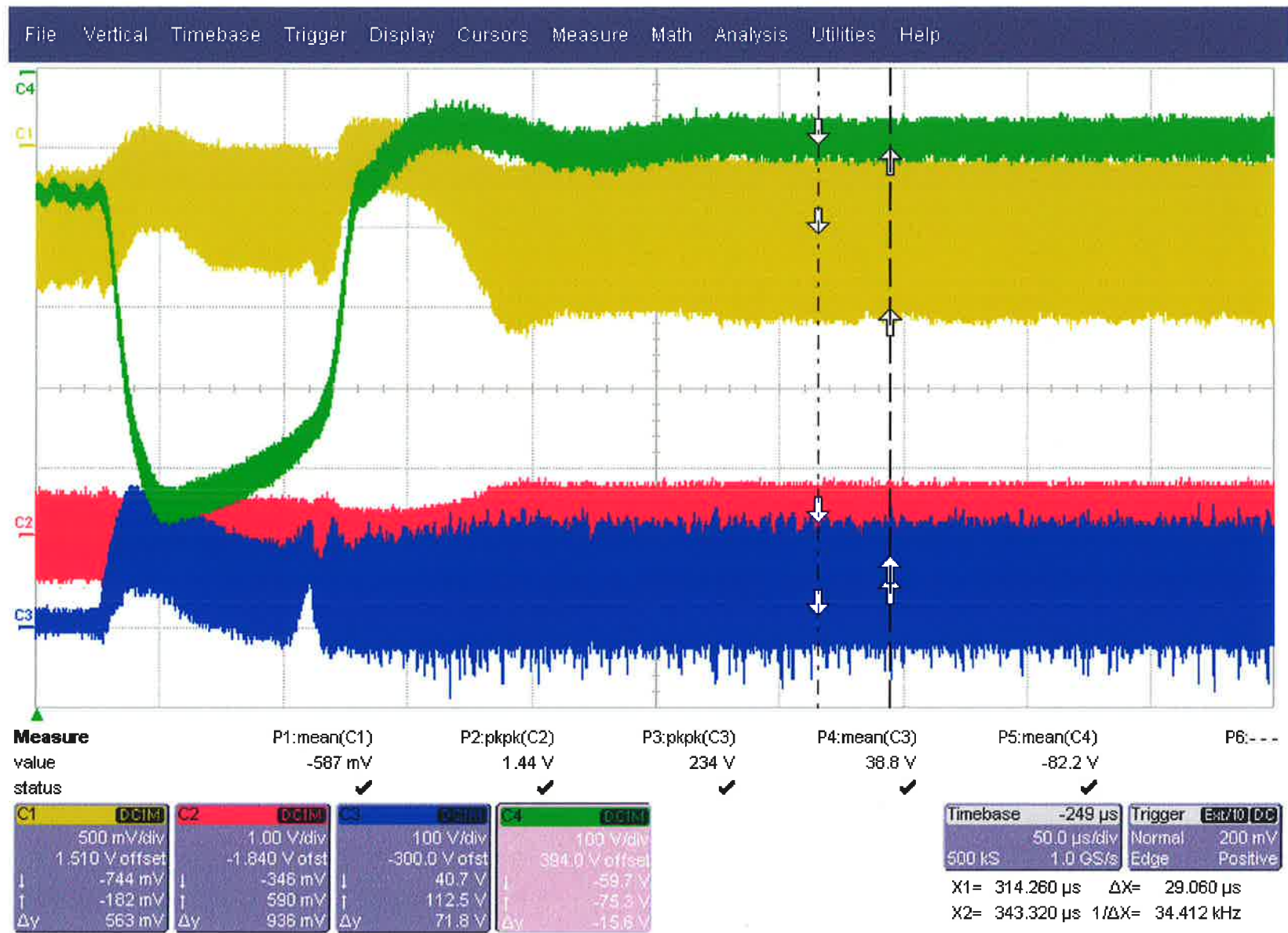


C1	D1	C2	D1	C4	F/D1	F3	script(...)	F4	<F3>	XY	XCF1...	Z4	zoom(...)
200 mV	200 mV	200 mV	200 mV	2.00 V	2.00	2.00	2.00	2.00	2.00	200 mV	200 mV	1.00	1.00
92 mV	274 mV	0 mV	500 ps	500 ps	12 #	12 #	12 #	12 #	12 #	12 #	12 #	50.0 ps	50.0 ps

LeCroy

Tbase	-2.00 ms	Trigger	C4 D1
500 ps/div	Normal	1.00 V	
2.50 kS	500 kS/s	Edge	Negative

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LeCroy

11/11/2019 1:01:32 PM

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13:02:05

**1**  
.5 ms  
0.50 V

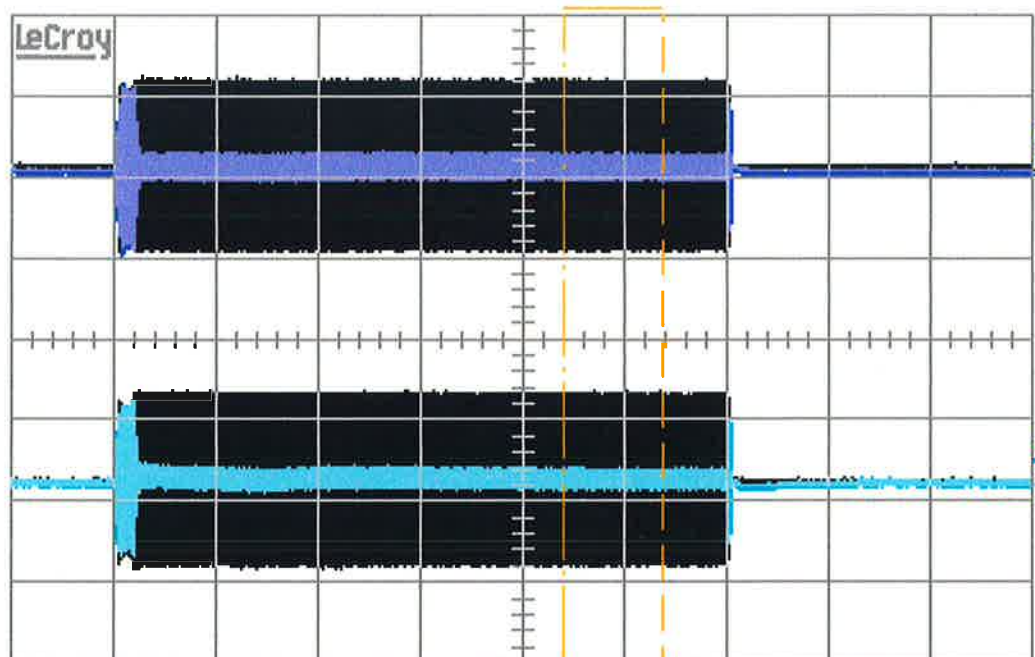
**2**  
.5 ms  
200 mV

**3**  
.5 ms  
0.50 V

**4**  
.5 ms  
200 mV

.5 ms

**1** .5 V AC  
**2** .2 V AC  
**3** .5 V AC  
**4** .2 V AC



4 sweeps:

	average	low	high	sigma
rms(1)	362.9mV	361.7	363.8	0.9
rms(2)	24.8mV	24.4	25.2	0.4
rms(3)	368.8mV	367.8	369.5	0.7
rms(4)	20.0mV	19.5	20.6	0.6
phase(1,3)	84 °	69	96	8

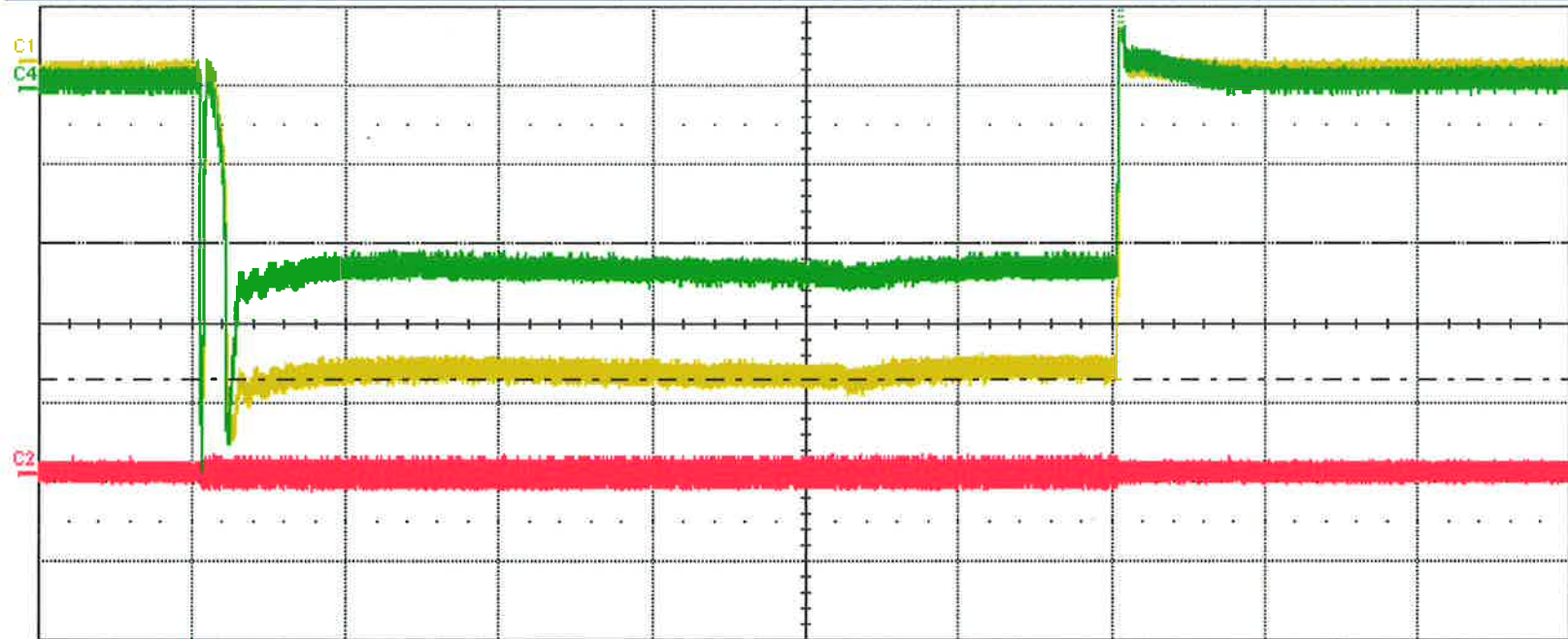


Ext10 DC 0.60 V 1MΩ

20 MS/s

☐ NORMAL

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure	P1:mean(Z1)	P2:mean(Z4)	P3:mean(C1)	P4:mean(C4)	P5:phase(C1,C4)	P6:---
value	-79.08 mV	-46.54 mV	-78.87 mV	-46.11 mV	---	---
mean	-78.8540 mV	-46.1157 mV	-78.5223 mV	-45.8413 mV	---	---
min	-80.14 mV	-47.51 mV	-79.79 mV	-47.05 mV	---	---
max	-77.34 mV	-44.62 mV	-76.78 mV	-44.32 mV	---	---
sdev	981.3 $\mu$ V	904.9 $\mu$ V	934.3 $\mu$ V	798.9 $\mu$ V	---	---
num	8	8	8	8	0	---
status	✓	✓	✓	✓		

C1	C2	C4
DCIM	DCIM	DCIM
20.0 mV/div	1.00 V/div	20.0 mV/div
68.00 mV ofst	-1.890 V ofst	59.00 mV ofst
---- -80.0 mV	---- 1.19 V	---- -73.0 mV
----- -46.0 mV	----- 2.89 V	----- -39.0 mV
$\Delta y$ 34.0 mV	$\Delta y$ 1.70 V	$\Delta y$ 34.0 mV

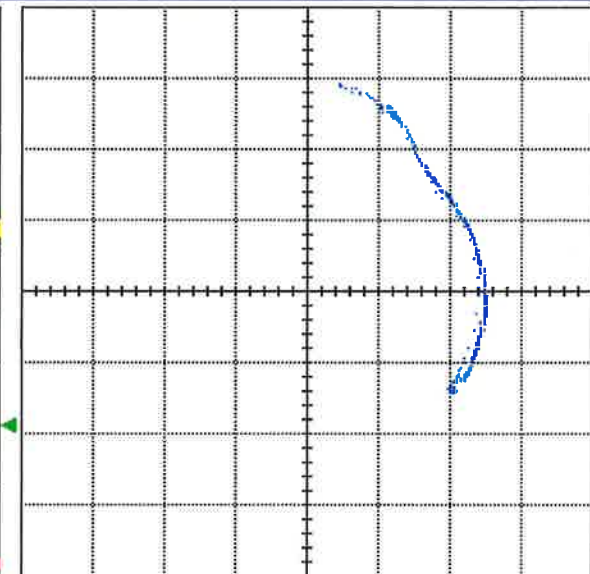
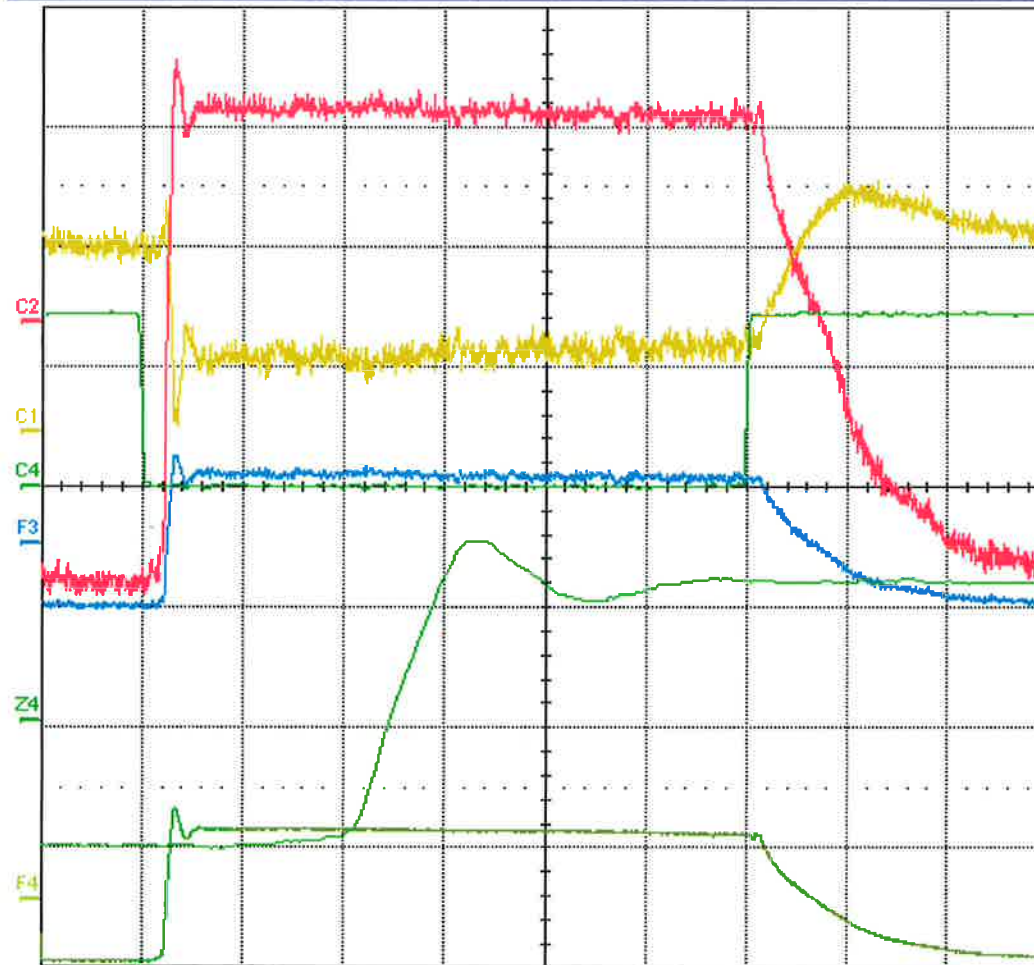
Timebase	-2.00 ms	Trigger	Ext/0 DC
1.00 MS	500 $\mu$ s/div	Normal	200 mV
	200 MS/s	Edge	Negative

LeCroy

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File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help

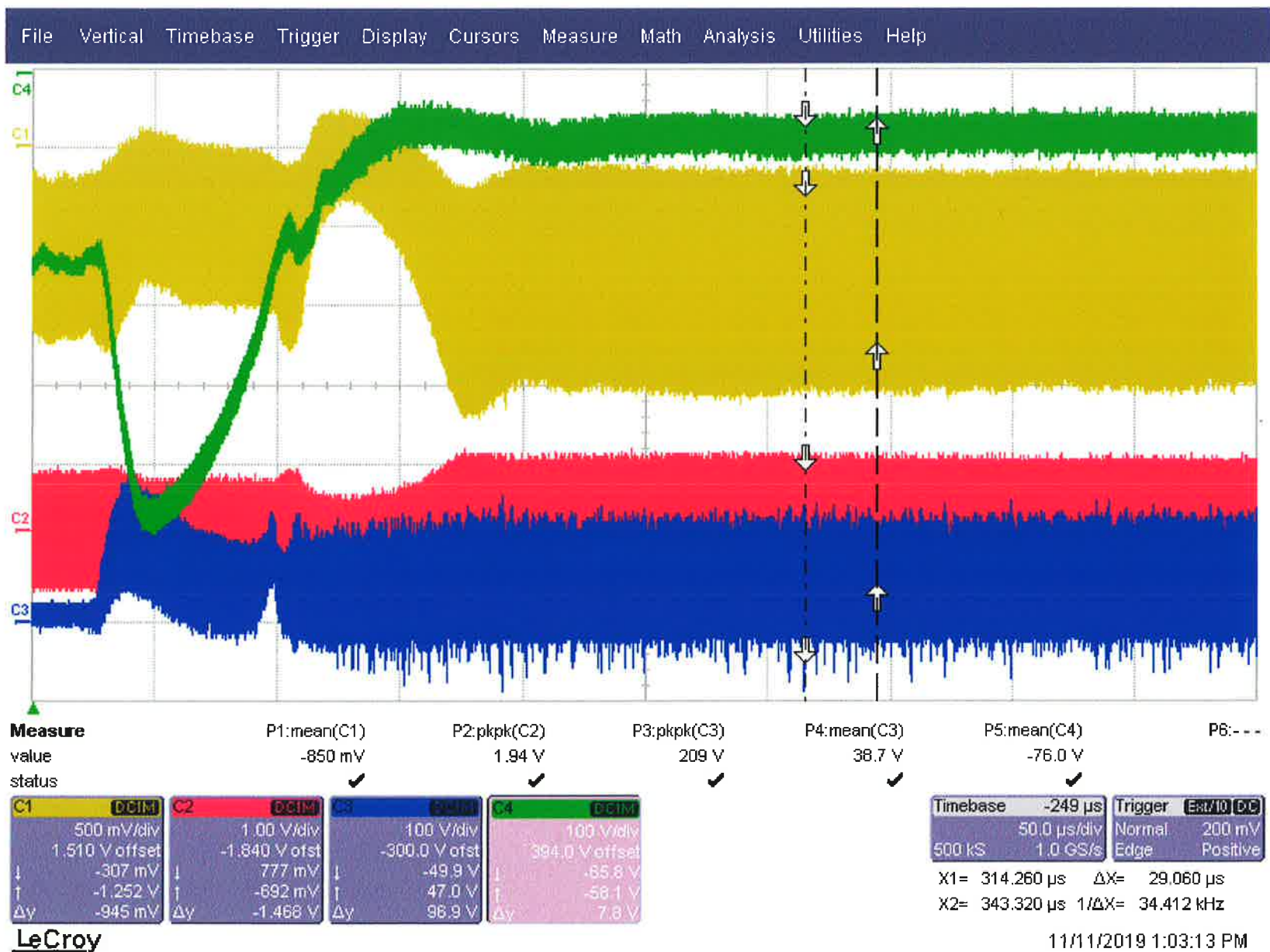


C1	D1	C2	D1	C4	F D1	F3	script(...)	F4	<F3>	XY	XFI	Z4	zoom(...)
200 mV	200 mV	200 mV	200 mV	2.00 V	2.00	2.00	200 mV	1.00	2.00	200 mV	200 mV	1.00	1.00
92 mV	274 mV	0 mV	500 ps	500 ps	19 #	19 #	19 #	19 #	19 #	19 #	19 #	19 #	19 #

LeCroy

Tbase	-2.00 ms	Trigger	C4 DC
500 ps/div	Normal	1.00 V	
2.50 kS	500 kS/s	Edge	Negative

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13:04:12

1

.5 ms  
0.50 V

2

.5 ms  
200mV

3

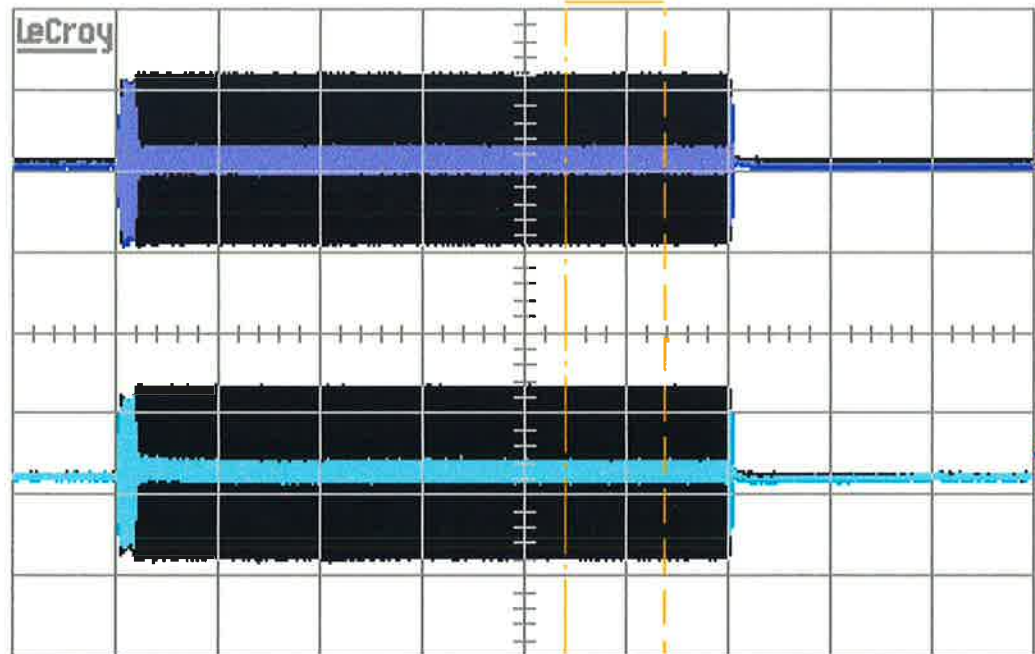
.5 ms  
0.50 V

4

.5 ms  
200mV

.5 ms

1 .5 V AC  
2 .2 V AC  
3 .5 V AC  
4 .2 V AC



5 sweeps: average low high sigma  
rms(1) 363.0mV 361.6 364.7 1.2  
rms(2) 25.3mV 24.9 25.8 0.3  
rms(3) 368.9mV 367.6 370.4 1.1  
rms(4) 20.5mV 19.8 21.2 0.5  
phase(1,3) 84 ° 68 97 7

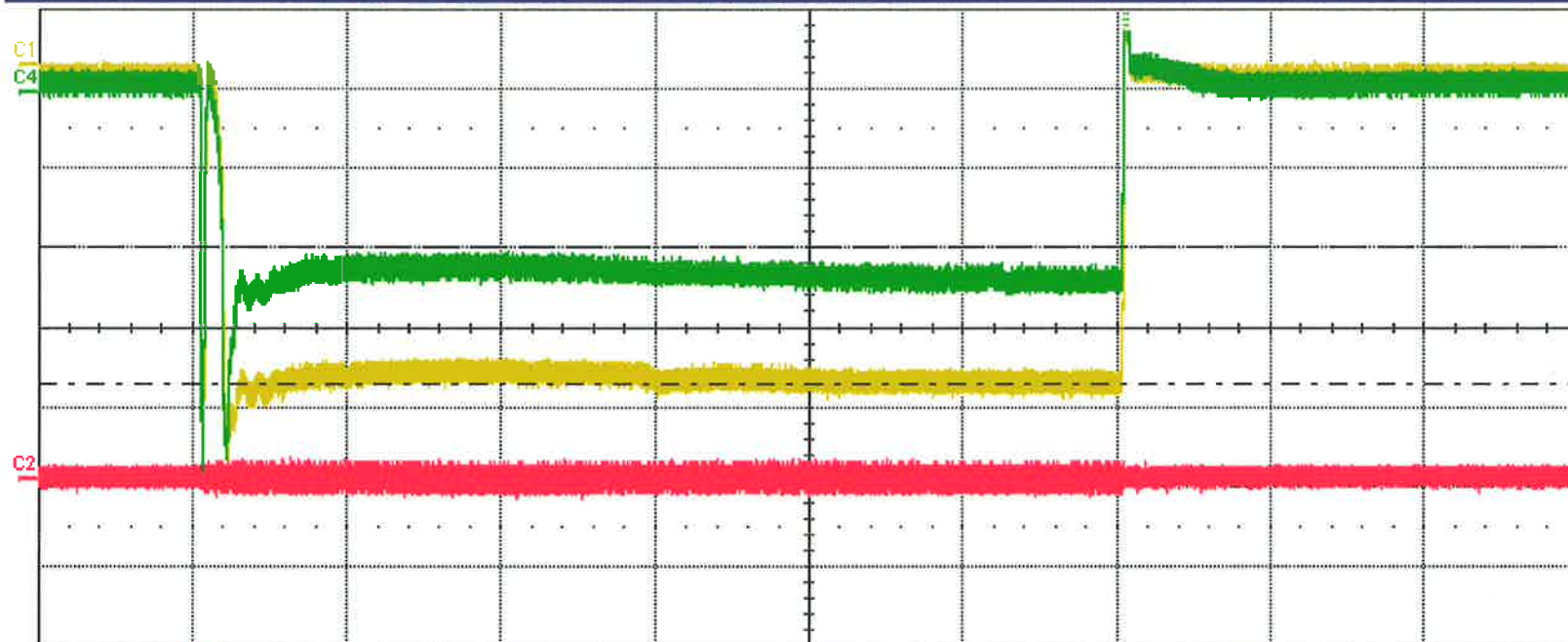


Ext10 DC 0.60 V 1MΩ

20 MS/s

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File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure	P1:mean(Z1)	P2:mean(Z4)	P3:mean(C1)	P4:mean(C4)	P5:phase(C1,C4)	P6:---
value	-79.33 mV	-46.39 mV	-78.98 mV	-45.58 mV	---	---
mean	-78.6680 mV	-46.0642 mV	-78.6797 mV	-45.8806 mV	---	---
min	-80.58 mV	-48.28 mV	-81.28 mV	-48.33 mV	---	---
max	-77.25 mV	-44.48 mV	-77.23 mV	-44.28 mV	---	---
sdev	1.0059 mV	1.1307 mV	1.2179 mV	1.1597 mV	---	---
num	9	9	9	9	0	---
status	✓	✓	✓	✓		

C1	C2	C4
DCIM	DCIM	DCIM
20.0 mV/div	1.00 V/div	20.0 mV/div
66.00 mV ofst	-1.890 V ofst	59.00 mV ofst
----- -80.0 mV	----- 1.19 V	----- -73.0 mV
----- -46.0 mV	----- 2.89 V	----- -39.0 mV
Δy 34.0 mV	Δy 1.70 V	Δy 34.0 mV

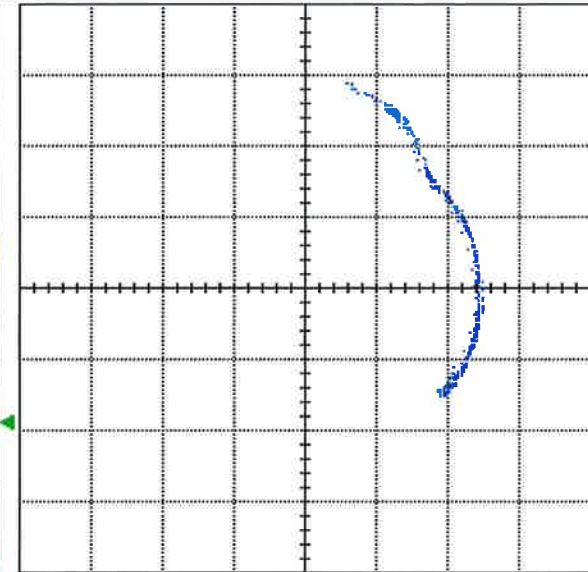
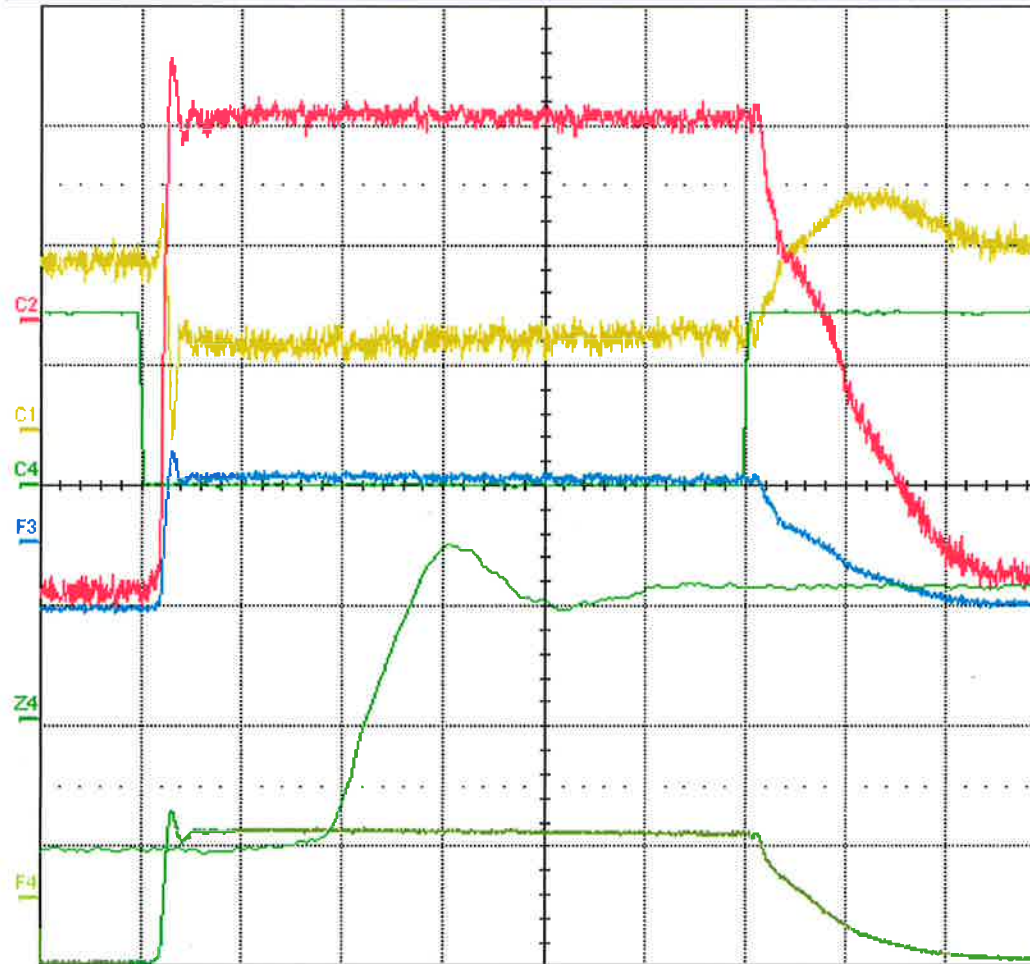
Timebase	-2.00 ms	Trigger	Ext/IO DC
	500 μs/div	Normal	200 mV
1.00 MS	200 MS/s	Edge	Negative

LeCroy

11/11/2019 1:04:02 PM



File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help

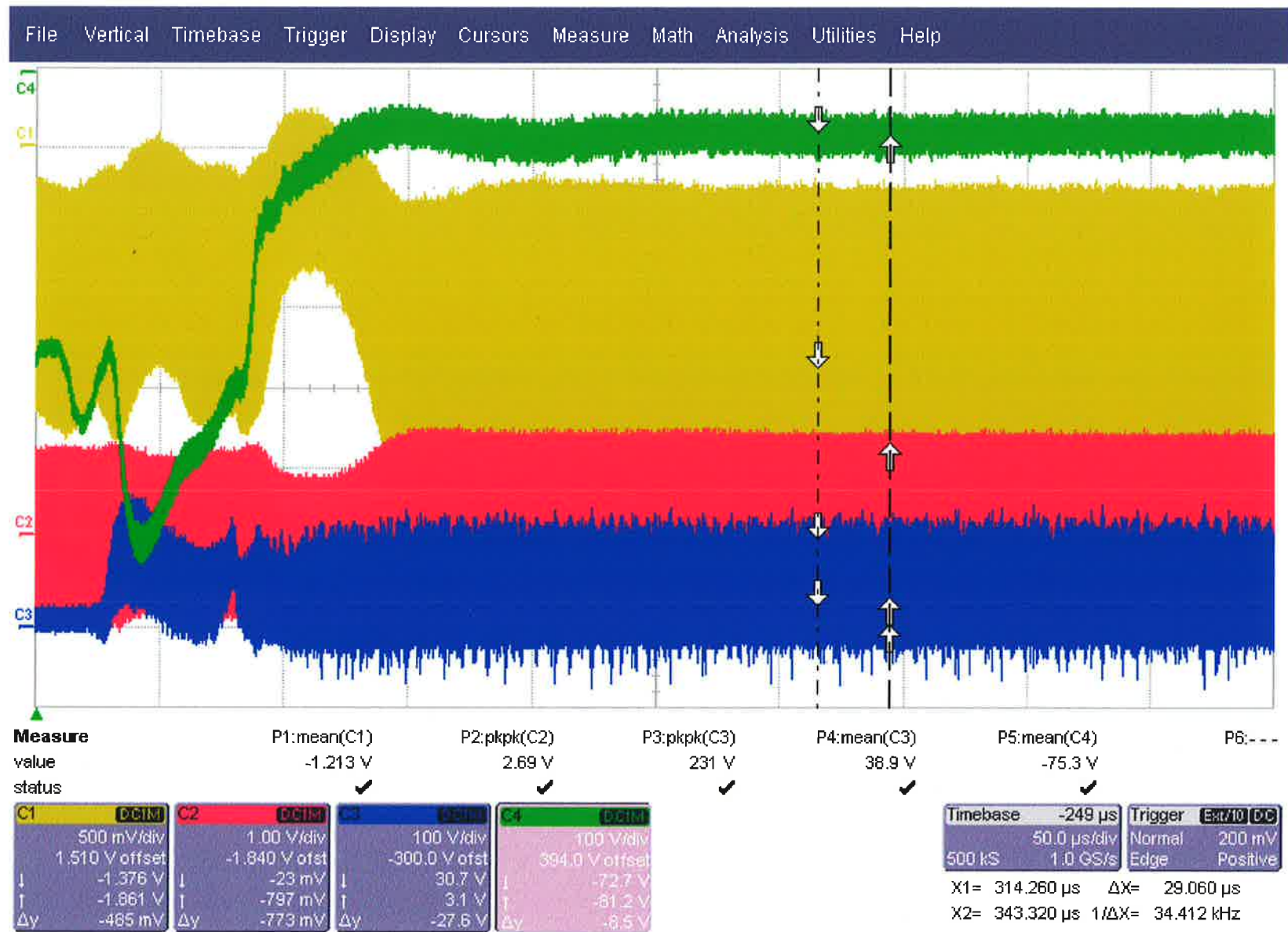


C1	D1	C2	D1	C4	F3 D1	F3	script(...)	F4	<F3>	XY	XF1...	Z4	zoom(...)
200 mV	200 mV	200 mV	200 mV	2.00 V	2.00	2.00	2.00	200 mV	200 mV	200 mV	200 mV	1.00	1.00
92 mV	274 mV	0 mV	500 ps	500 ps	7 #	7 #	7 #	7 #	7 #	7 #	7 #	50.0 ps	50.0 ps

LeCroy

Tbase	-2.00 ms	Trigger	C4 DC
	500 ps/div	Normal	1.00 V
2.50 kS	500 kS/s	Edge	Negative

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LeCroy

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1

.5 ms  
0.50 V

2

.5 ms  
200mV

3

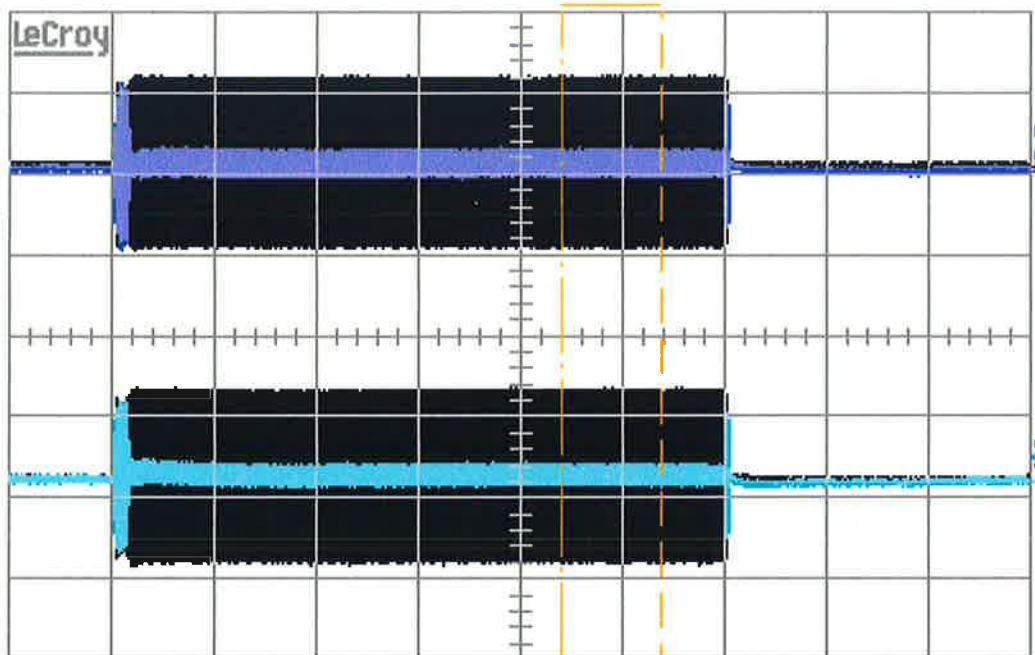
.5 ms  
0.50 V

4

.5 ms  
200mV

.5 ms

1 .5 V AC  
2 .2 V AC  
3 .5 V AC  
4 .2 V AC



5 sweeps:    average    low    high    sigma

rms(1)	363.4mV	361.8	365.1	1.3
rms(2)	25.4mV	24.8	26.1	0.5
rms(3)	369.3mV	367.8	371.1	1.3
rms(4)	20.9mV	20.3	21.4	0.5
phase(1,3)	84 °	68	97	8

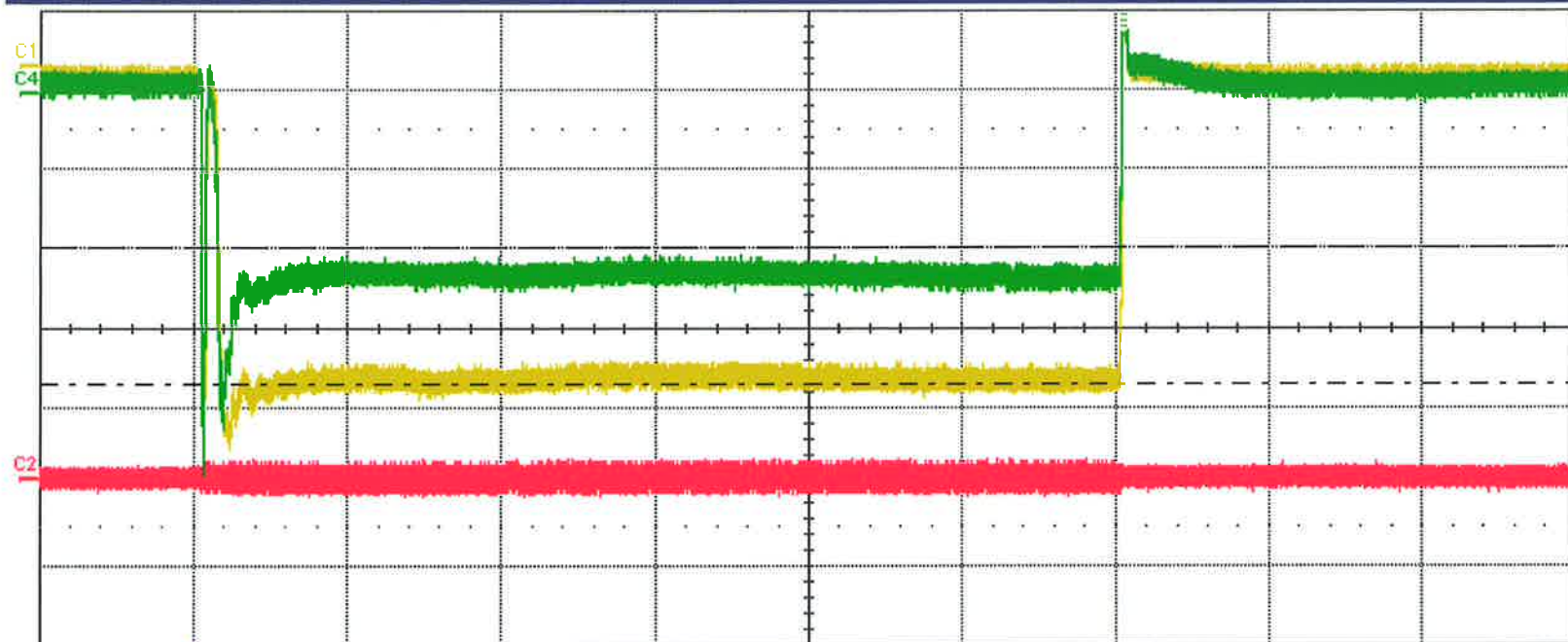


Ext10 DC 0.60 V 1MΩ

20 MS/s

☐ NORMAL

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



# Measure

value  
mean  
min  
max  
sdev  
num  
status

P1:mean(Z1)

-78.55 mV  
-78.3158 mV  
-79.01 mV  
-77.01 mV  
694.6  $\mu$ V  
9  
✓

P2:mean(Z4)

-45.63 mV  
-45.6534 mV  
-46.72 mV  
-44.13 mV  
750.0  $\mu$ V  
9  
✓

P3:mean(C1)

-78.31 mV  
-78.3512 mV  
-79.53 mV  
-77.19 mV  
642.8  $\mu$ V  
9  
✓

P4:mean(C4)

-45.11 mV  
-45.5380 mV  
-46.71 mV  
-44.60 mV  
558.1  $\mu$ V  
9  
✓

P5:phase(C1,C4)

---  
---  
---  
---  
---  
0

P6:---

C1	DCIM	C2	DCIM	C4	DCIM
20.0 mV/div	1.00 V/div	20.0 mV/div		20.0 mV/div	
66.00 mV ofst	-1.890 V ofst	59.00 mV ofst			
----- -80.0 mV	----- 1.19 V	----- -73.0 mV			
----- -46.0 mV	----- 2.89 V	----- -39.0 mV			
$\Delta y$ 34.0 mV	$\Delta y$ 1.70 V	$\Delta y$ 34.0 mV			

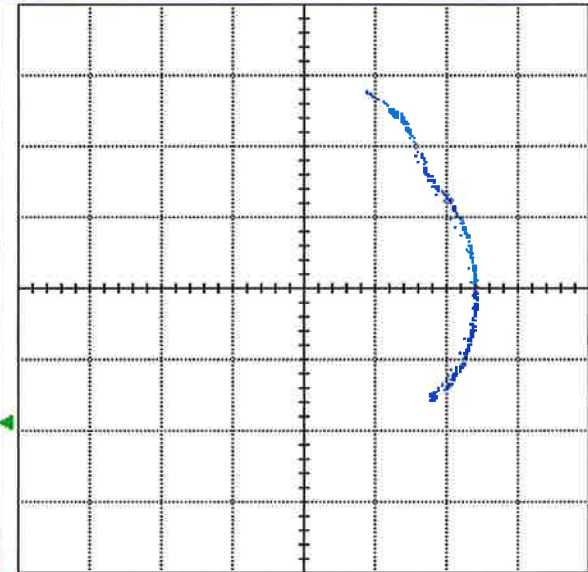
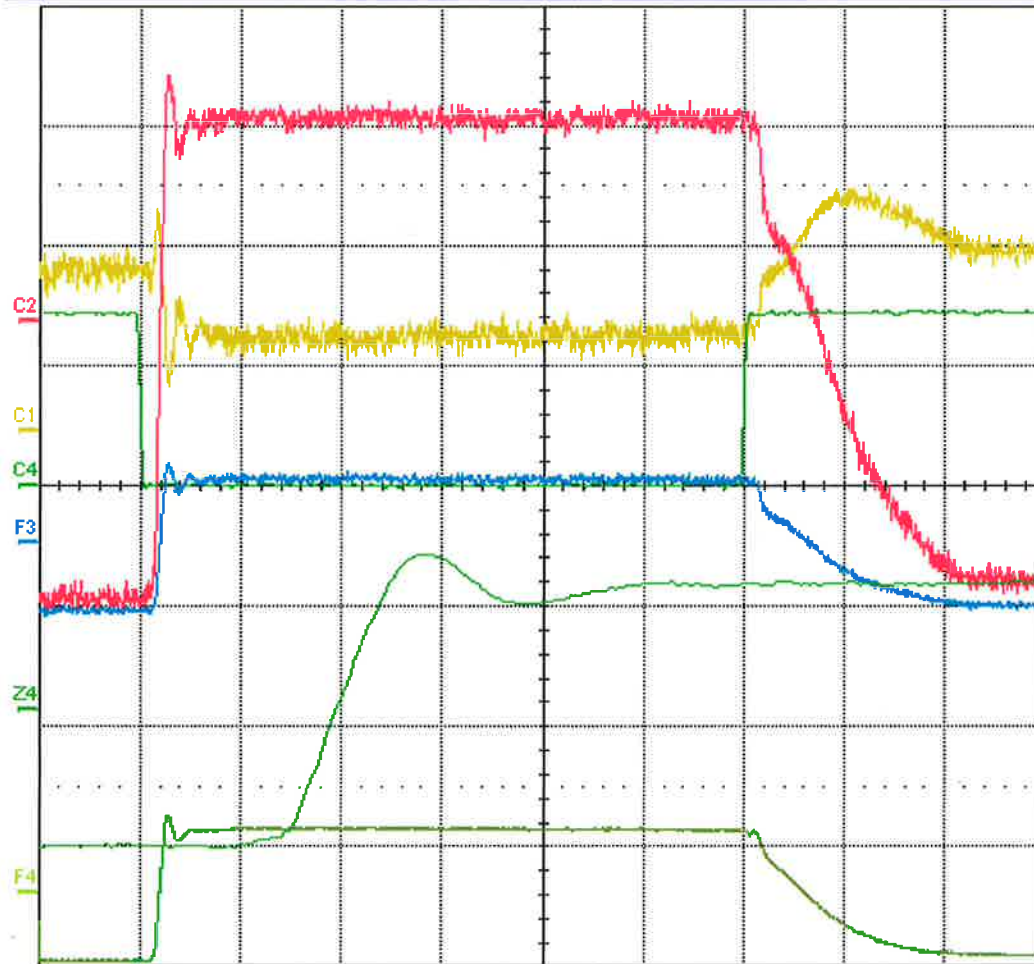
Timebase	-2.00 ms	Trigger	Ext/10 D.C
	500 $\mu$ s/div	Normal	200 mV
1.00 MS	200 MS/s	Edge	Negative

LeCroy

11/11/2019 1:05:36 PM



File Vertical Timabase Trigger Display Cursors Measure Math Analysis Utilities Help

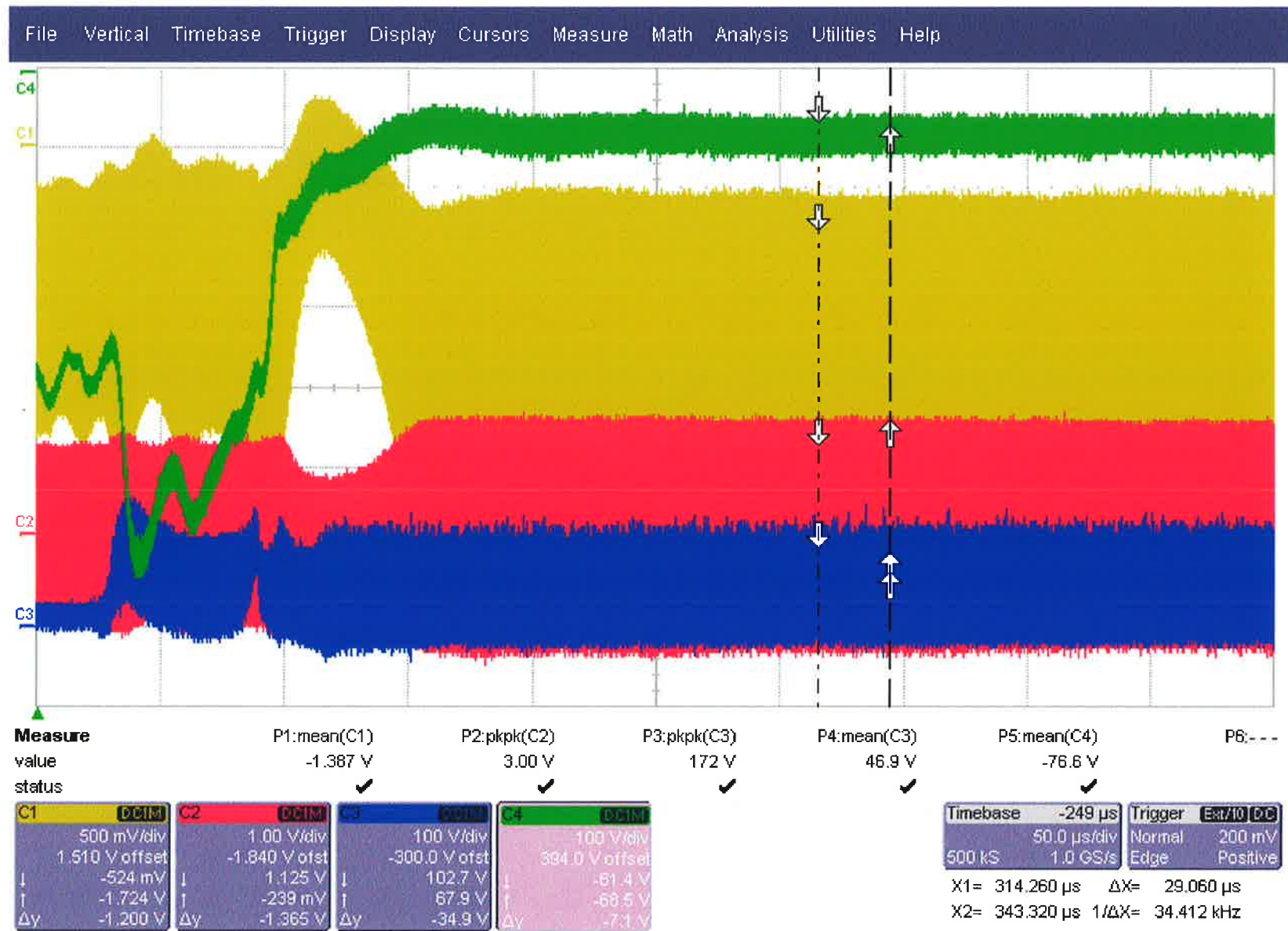


C1	D1	C2	D1	C4	F3	F3	script(...)	F4	<F3>	XY	X.F1...	Z4	zoom(...)
200 mV	200 mV	200 mV	200 mV	2.00 V	2.00	2.00	2.00	200 mV	200 mV	200 mV	200 mV	1.00	1.00
92 mV	274 mV	0 mV	500 ps	500 ps	16 #	16 #	16 #	16 #	16 #	16 #	16 #	50.0 ps	50.0 ps

Tbase	-2.00 ms	Trigger	C4	D1
500 ps/div	Normal	1.00 V		
2.50 kS	500 kS/s	Edge	Negative	

LeCroy

11/11/2019 1:05:41 PM



LeCroy

11/11/2019 1:08:12 PM

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**1**  
.5 ms  
0.50 V

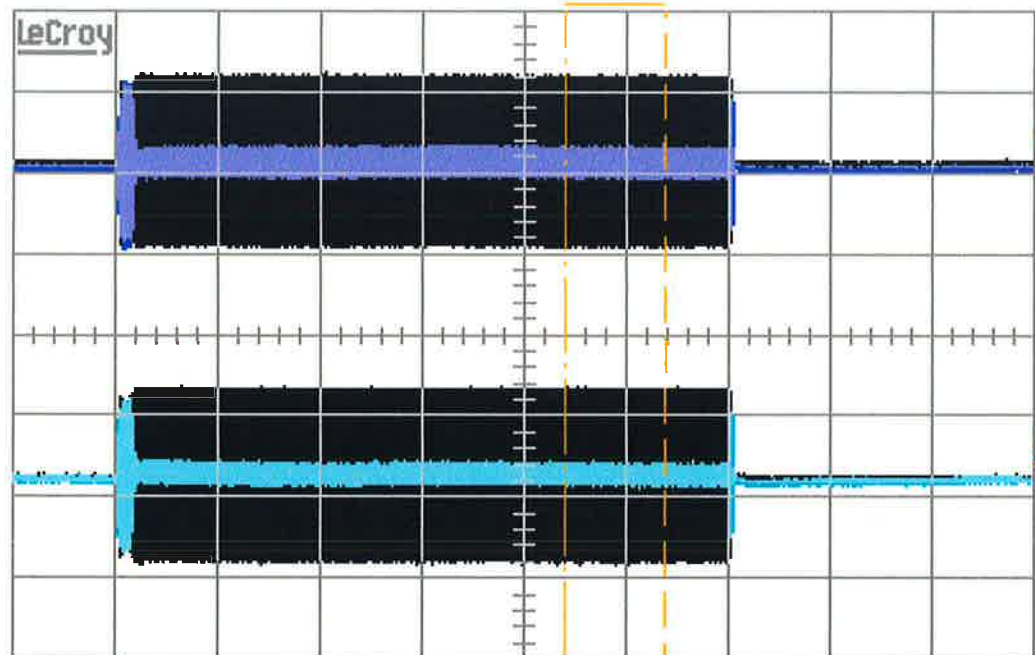
**2**  
.5 ms  
200mV

**3**  
.5 ms  
0.50 V

**4**  
.5 ms  
200mV

.5 ms

**1** .5 V AC  
**2** .2 V AC  
**3** .5 V AC  
**4** .2 V AC



8 sweeps:

	average	low	high	sigma
rms(1)	362.7mV	361.1	365.0	1.3
rms(2)	27.6mV	26.7	28.2	0.4
rms(3)	368.0mV	366.0	370.3	1.3
rms(4)	20.5mV	19.3	21.3	0.7
phase(1,3)	84 °	69	96	7

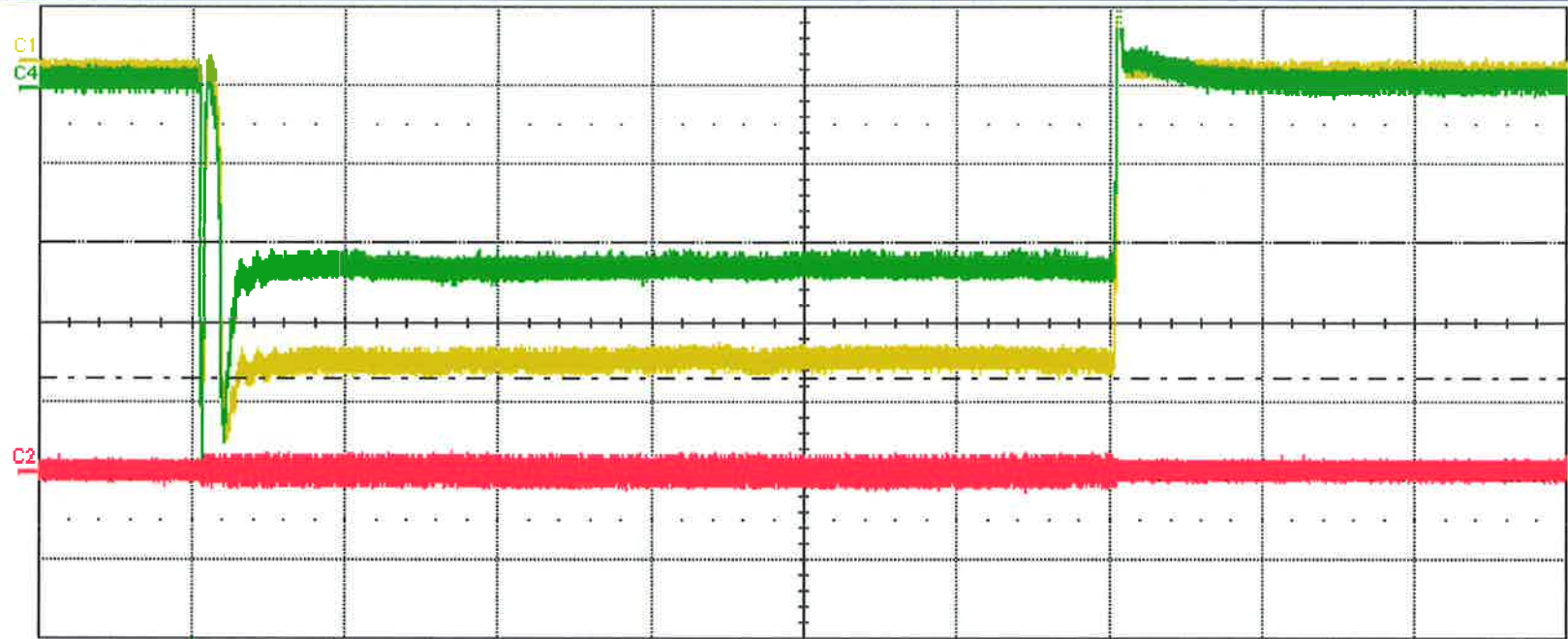


Ext10 DC 0.60 V 1MΩ

20 MS/s

☐ NORMAL

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure	P1:mean(Z1)	P2:mean(Z4)	P3:mean(C1)	P4:mean(C4)	P5:phase(C1,C4)	P6:---
value	-75.14 mV	-44.64 mV	-75.36 mV	-45.01 mV	---	---
mean	-75.6850 mV	-45.5254 mV	-75.8206 mV	-45.4612 mV	---	---
min	-77.83 mV	-47.09 mV	-77.79 mV	-46.71 mV	---	---
max	-74.57 mV	-44.64 mV	-74.63 mV	-44.68 mV	---	---
sdev	927.5 $\mu$ V	718.8 $\mu$ V	840.0 $\mu$ V	665.9 $\mu$ V	---	---
num	11	11	11	11	0	---
status	✓	✓	✓	✓		

C1	C2	C4
20.0 mV/div	1.00 V/div	20.0 mV/div
68.00 mV ofst	-1.890 V ofst	59.00 mV ofst
---- -80.0 mV	---- 1.19 V	---- -73.0 mV
----- -46.0 mV	----- 2.89 V	----- -39.0 mV
$\Delta y$ 34.0 mV	$\Delta y$ 1.70 V	$\Delta y$ 34.0 mV

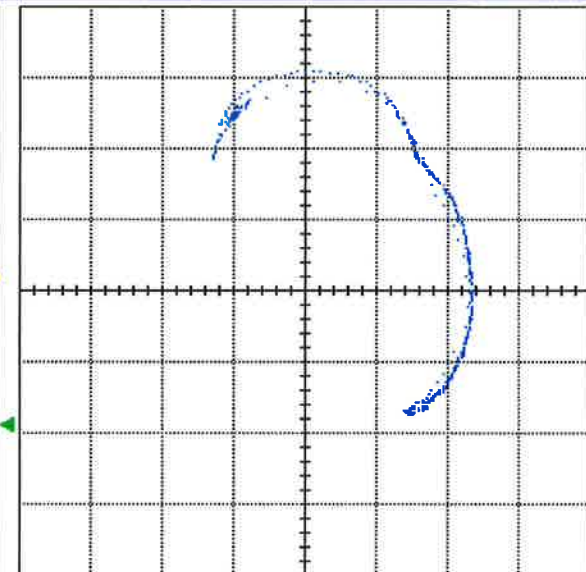
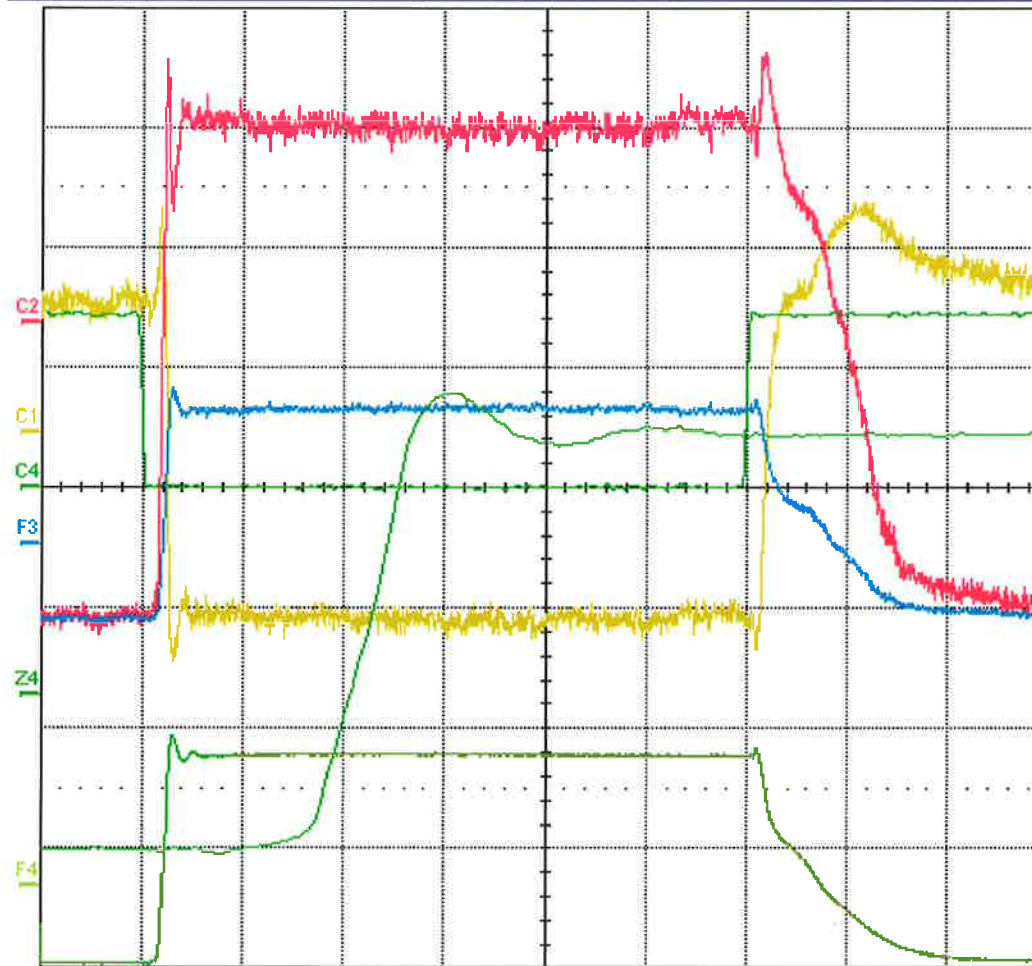
Timebase	-2.00 ms	Trigger	Ext/10 DC
	500 $\mu$ s/div	Normal	200 mV
1.00 MS	200 MS/s	Edge	Negative

LeCroy

11/11/2019 1:08:34 PM



File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help

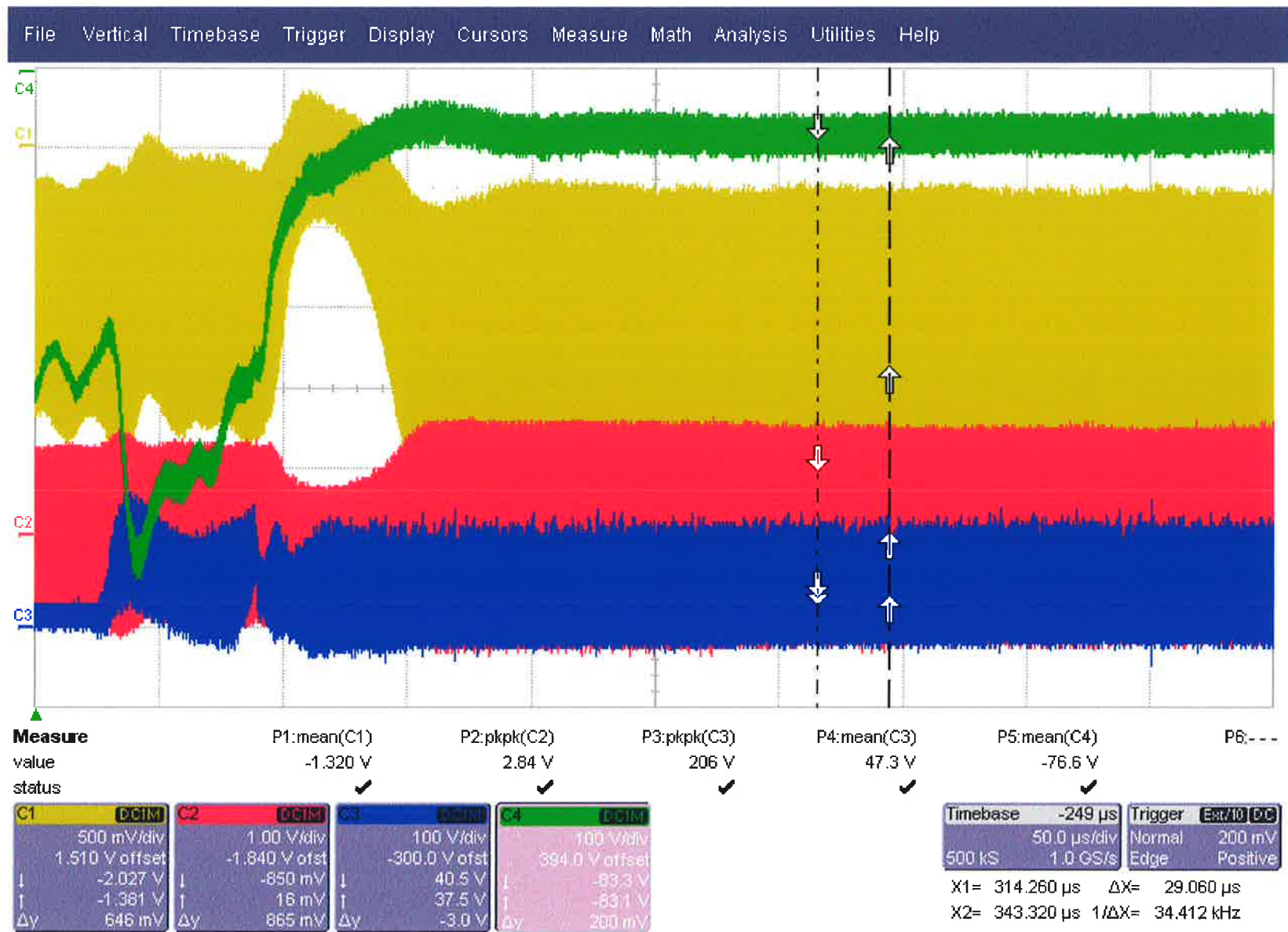


C1	D1	C2	D1	C4	F D1	F3 script...	F4	<F3>	XY XF1...	Z4 zoom(...)
200 mV	200 mV	200 mV	200 mV	2.00 V	2.00	2.00	2.00	2.00	200 mV	1.00
92 mV	274 mV	0 mV	500 $\mu$ s	500 $\mu$ s	15 #	15 #	15 #	15 #	15 #	15 #

Tbase	-2.00 ms	Trigger	C4 DC
500 $\mu$ s/div	Normal	1.00 V	
2.50 kS	500 kS/s	Edge	Negative

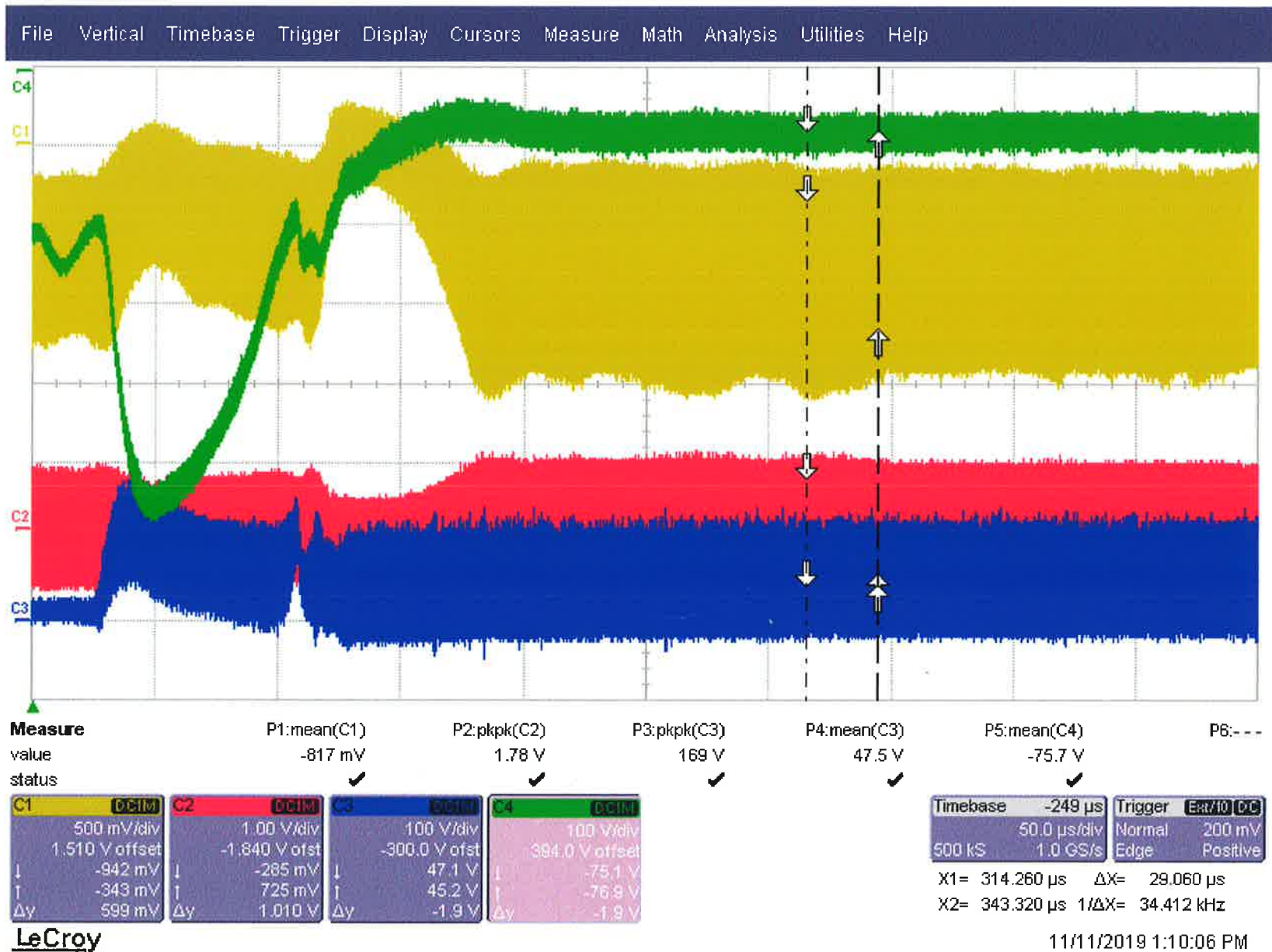
LeCroy

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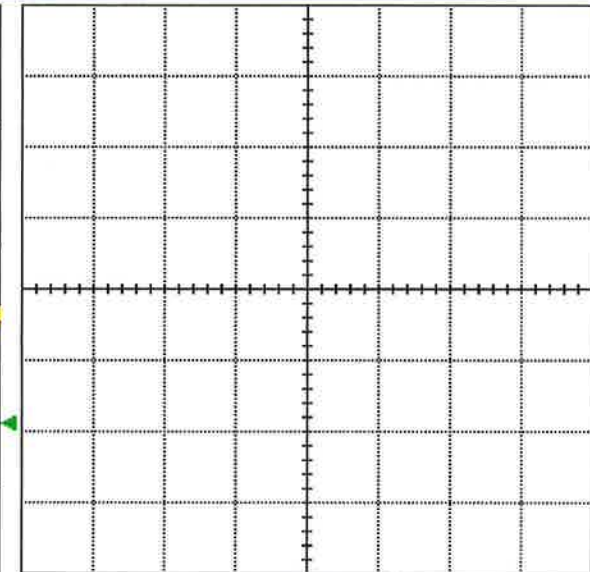
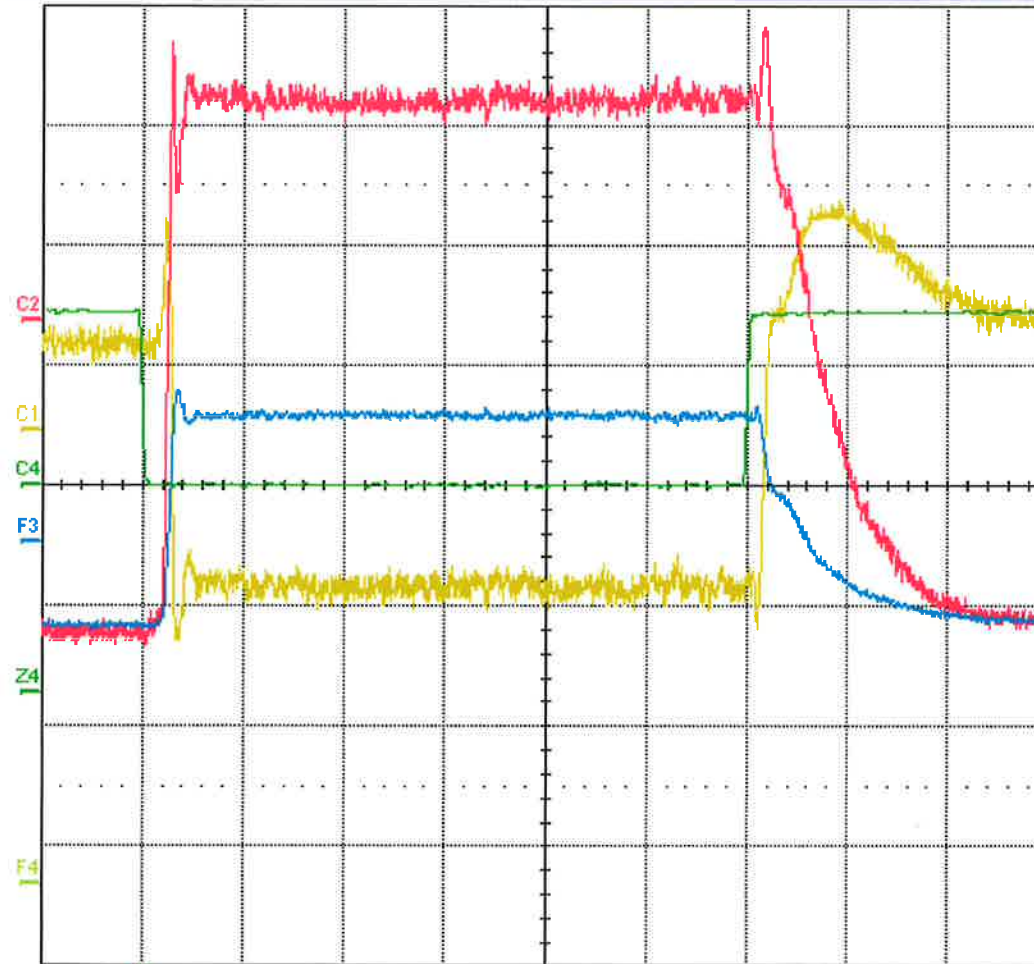
LeCroy

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File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



<b>C1</b>	<b>D1</b>	<b>C2</b>	<b>D1</b>	<b>C4</b>	<b>F(D1)</b>	<b>F3</b>	<b>script(...)</b>	<b>F4</b>	<b>&lt;F3&gt;</b>	<b>XY</b>	<b>XF1...</b>	<b>Z4</b>	<b>zoom(...)</b>
200 mV		200 mV		2.00 V		2.00		No data available.		No data available.		No data available.	
92 mV		274 mV		0 mV		500 ps							

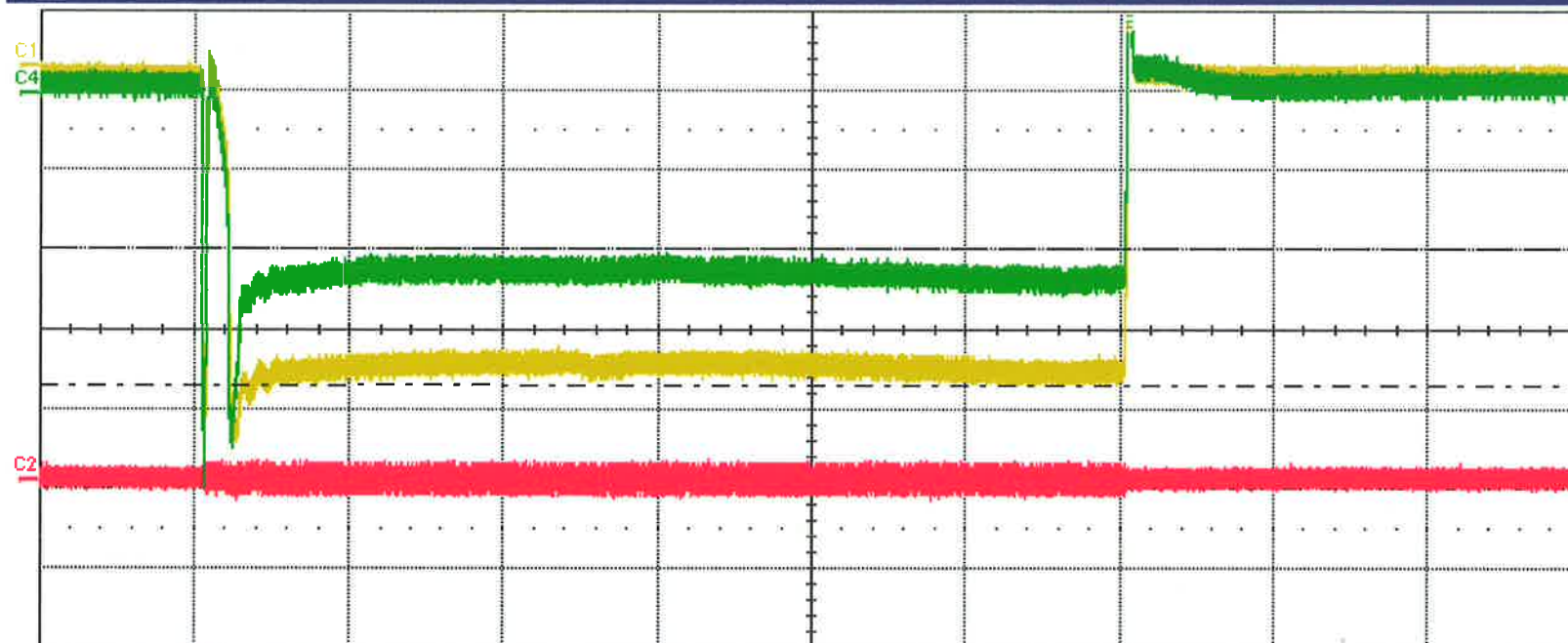
<b>Tbase</b>	<b>-2.00 ms</b>	<b>Trigger</b>	<b>C4 DC</b>
500 ps/div		Normal	1.00 V
2.50 kS	500 kS/s	Edge	Negative

LeCroy

11/11/2019 1:10:28 PM



File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure	P1:mean(Z1)	P2:mean(Z4)	P3:mean(C1)	P4:mean(C4)	P5:phase(C1,C4)	P6:---
value	-74.89 mV	-44.85 mV	-74.56 mV	-44.41 mV	---	---
mean	-75.7460 mV	-45.0669 mV	-75.6989 mV	-44.8788 mV	---	---
min	-77.33 mV	-46.86 mV	-77.56 mV	-46.14 mV	---	---
max	-74.45 mV	-43.73 mV	-74.56 mV	-43.82 mV	---	---
sdev	1.1302 mV	999.3 $\mu$ V	1.1393 mV	766.8 $\mu$ V	---	---
num	9	9	9	9	0	---
status	✓	✓	✓	✓	---	---

C1	C2	C4
20.0 mV/div	1.00 V/div	20.0 mV/div
66.00 mV ofst	-1.890 V ofst	59.00 mV ofst
---- -80.0 mV	---- 1.19 V	---- -73.0 mV
----- -46.0 mV	----- 2.89 V	----- -39.0 mV
$\Delta y$ 34.0 mV	$\Delta y$ 1.70 V	$\Delta y$ 34.0 mV

Timebase	-2.00 ms	Trigger	Ext/10 00
	500 $\mu$ s/div	Normal	200 mV
1.00 MS	200 MS/s	Edge	Negative

LeCroy

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11-Nov-19

13:10:53

**1**  
.5 ms  
0.50 V

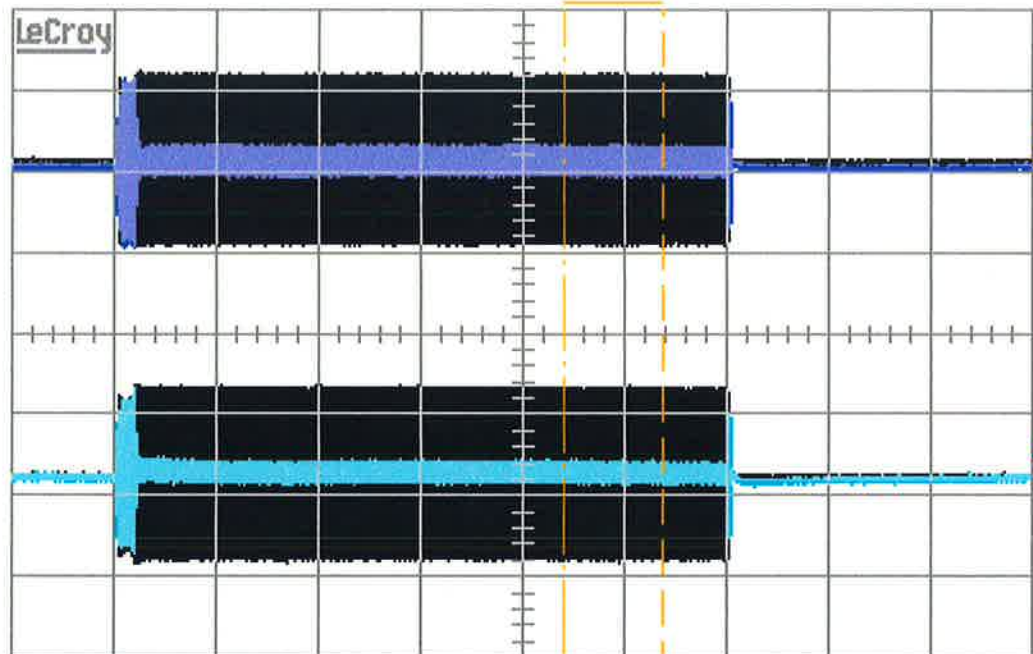
**2**  
.5 ms  
200mV

**3**  
.5 ms  
0.50 V

**4**  
.5 ms  
200mV

.5 ms

**1** .5 V AC  
**2** .2 V AC  
**3** .5 V AC  
**4** .2 V AC



	10 sweeps:	average	low	high	sigma
rms(1)		364.1mV	361.1	375.0	4.0
rms(2)		27.7mV	26.8	29.4	0.8
rms(3)		369.2mV	366.2	379.3	3.7
rms(4)		20.7mV	19.5	22.8	1.1
phase(1,3)		85 °	68	96	7

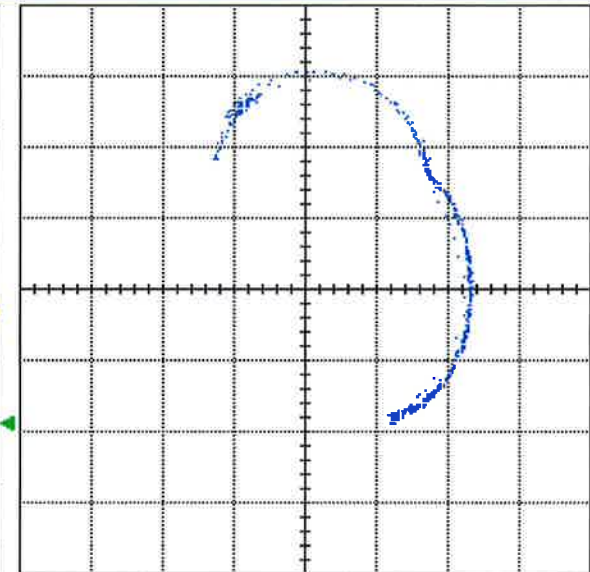
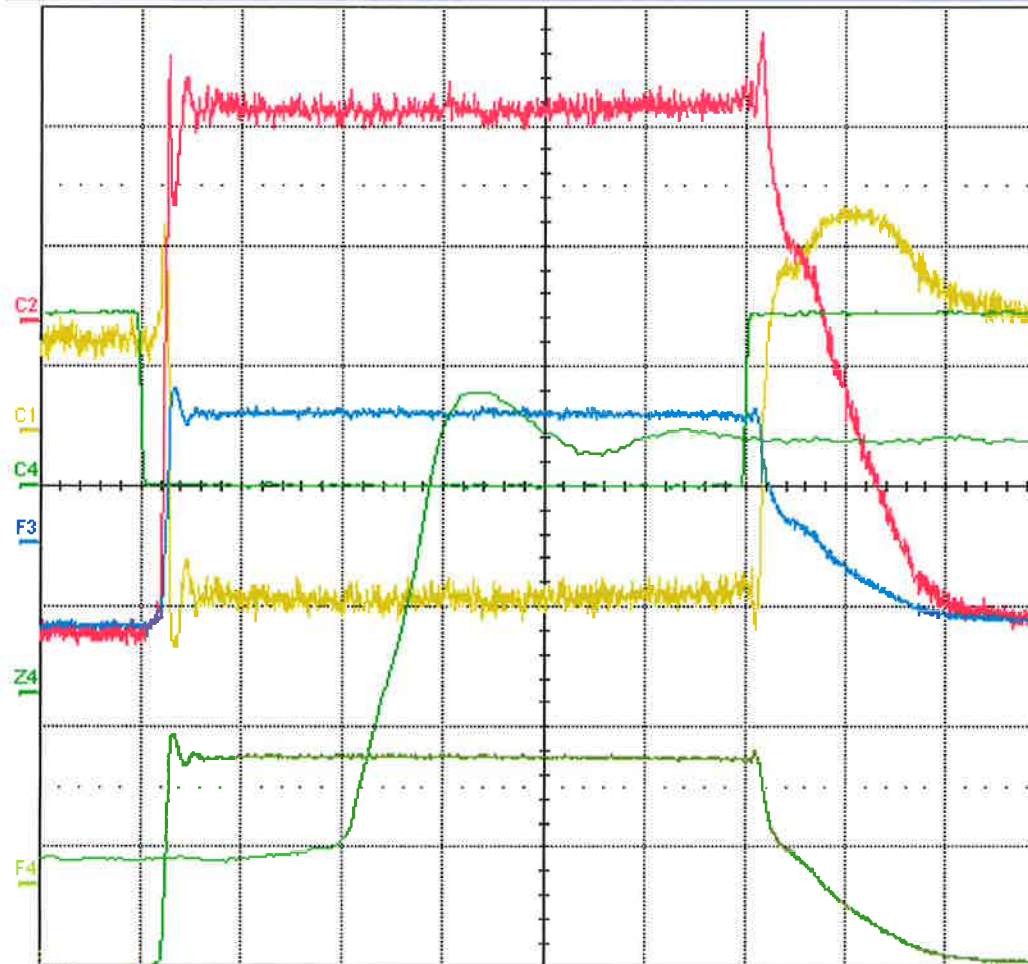


Ext10 DC 0.60 V 1MΩ

20 MS/s

☐ NORMAL

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



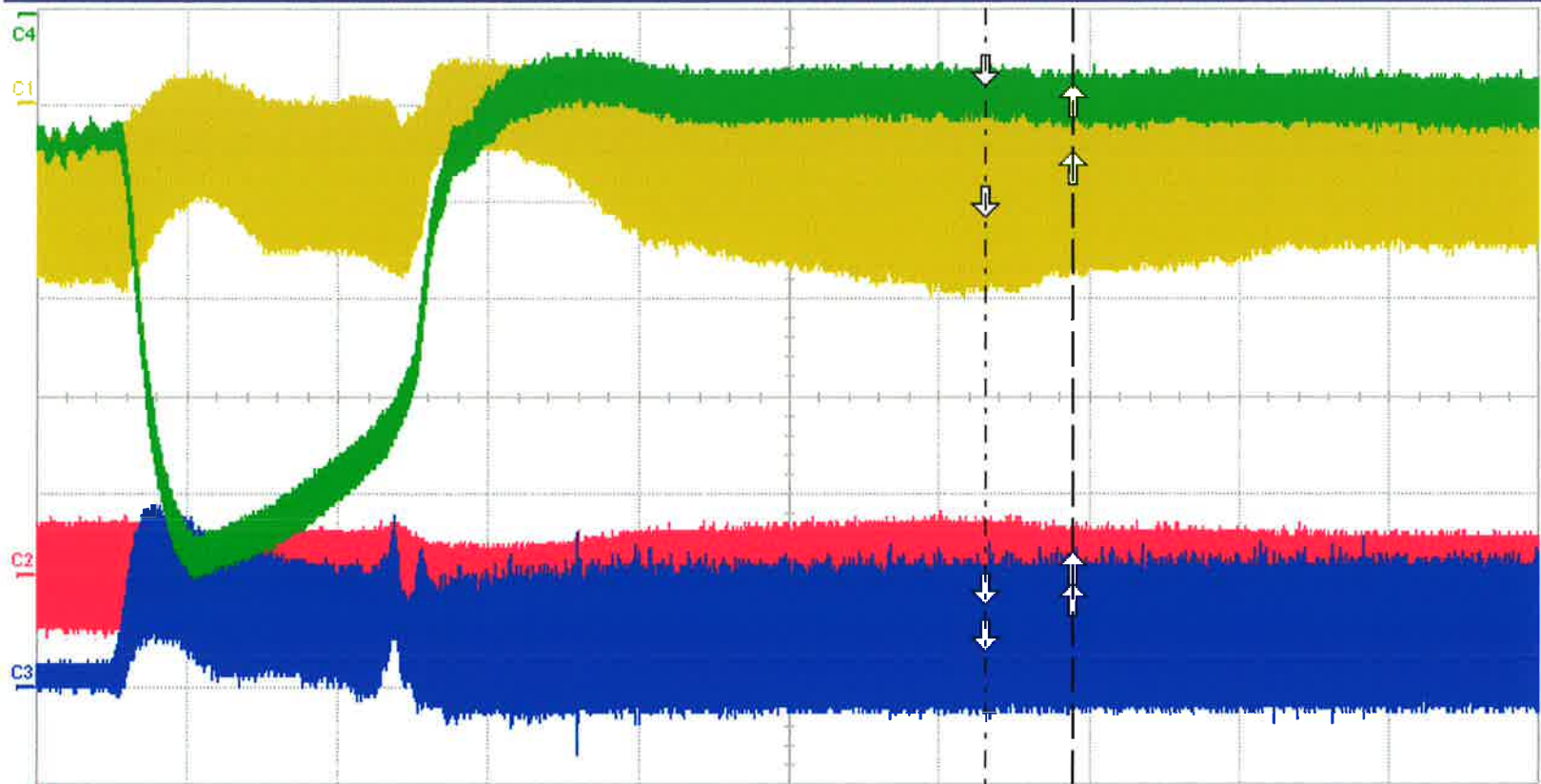
C1	D1	C2	D1	C4	F01	F3	script(...)	F4	<F3>	XY	XF1...	Z4	zoom(...)
200 mV	200 mV	200 mV	200 mV	2.00 V	2.00	2.00	2.00	2.00	2.00	200 mV	200 mV	1.00	1.00
92 mV	274 mV	0 mV	0 mV	500 $\mu$ s	500 $\mu$ s	500 $\mu$ s	500 $\mu$ s	500 $\mu$ s	500 $\mu$ s	7 #	7 #	50.0 $\mu$ s	7 #

Tbase	-2.00 ms	Trigger	C4 DC
500 $\mu$ s/div	Normal	1.00 V	
2.50 kS	500 kS/s	Edge	Negative

LeCroy

11/11/2019 1:10:37 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



**Measure**  
value  
status

P1:mean(C1)  
-395 mV ✓

P2:pkpk(C2)  
1.00 V ✓

P3:pkpk(C3)  
169 V ✓

P4:mean(C3)  
47.9 V ✓

P5:mean(C4)  
-90.8 V ✓

P6:---

C1	C2	C3	C4
DCIM	DCIM	DCIM	DCIM
500 mV/div	1.00 V/div	100 V/div	100 V/div
1.510 V offset	-1.840 V offset	-300.0 V offset	394.0 V offset
↓ -575 mV	↓ -285 mV	↓ 40.6 V	↓ -71.9 V
↑ -259 mV	↑ 213 mV	↑ 106.4 V	↑ -75.2 V
Δy 316 mV	Δy 498 mV	Δy 65.8 V	Δy -3.4 V

Timebase	-249 μs	Trigger	Ext/10 D3
	50.0 μs/div	Normal	200 mV
500 kS	1.0 GS/s	Edge	Positive

X1= 314.260 μs ΔX= 29.060 μs  
X2= 343.320 μs 1/ΔX= 34.412 kHz

**LeCroy**

11/11/2019 1:11:28 PM



11-Nov-19

13:12:14

1

.5 ms  
0.50 V

2

.5 ms  
200mV

3

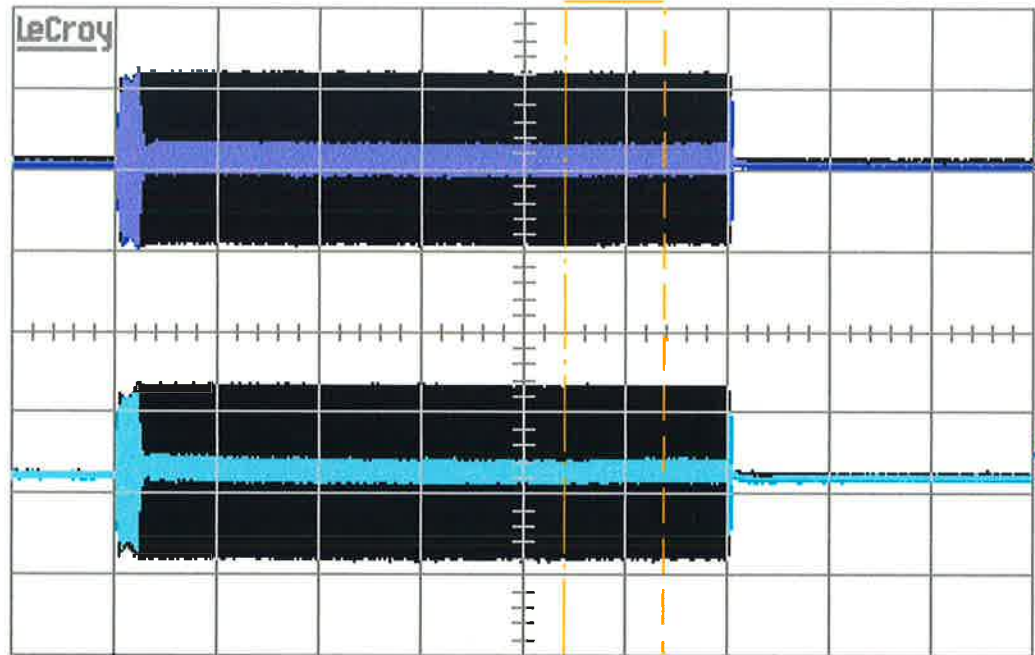
.5 ms  
0.50 V

4

.5 ms  
200mV

.5 ms

1 .5 V AC  
2 .2 V AC  
3 .5 V AC  
4 .2 V AC



6 sweeps:    average    low    high    sigma  
rms(1)    364.3mV    362.8    365.2    1.0  
rms(2)    27.5mV    27.2    27.8    0.2  
rms(3)    369.5mV    368.2    370.4    0.9  
rms(4)    21.0mV    20.1    21.5    0.5  
phase(1,3)    84 °    67    96    8

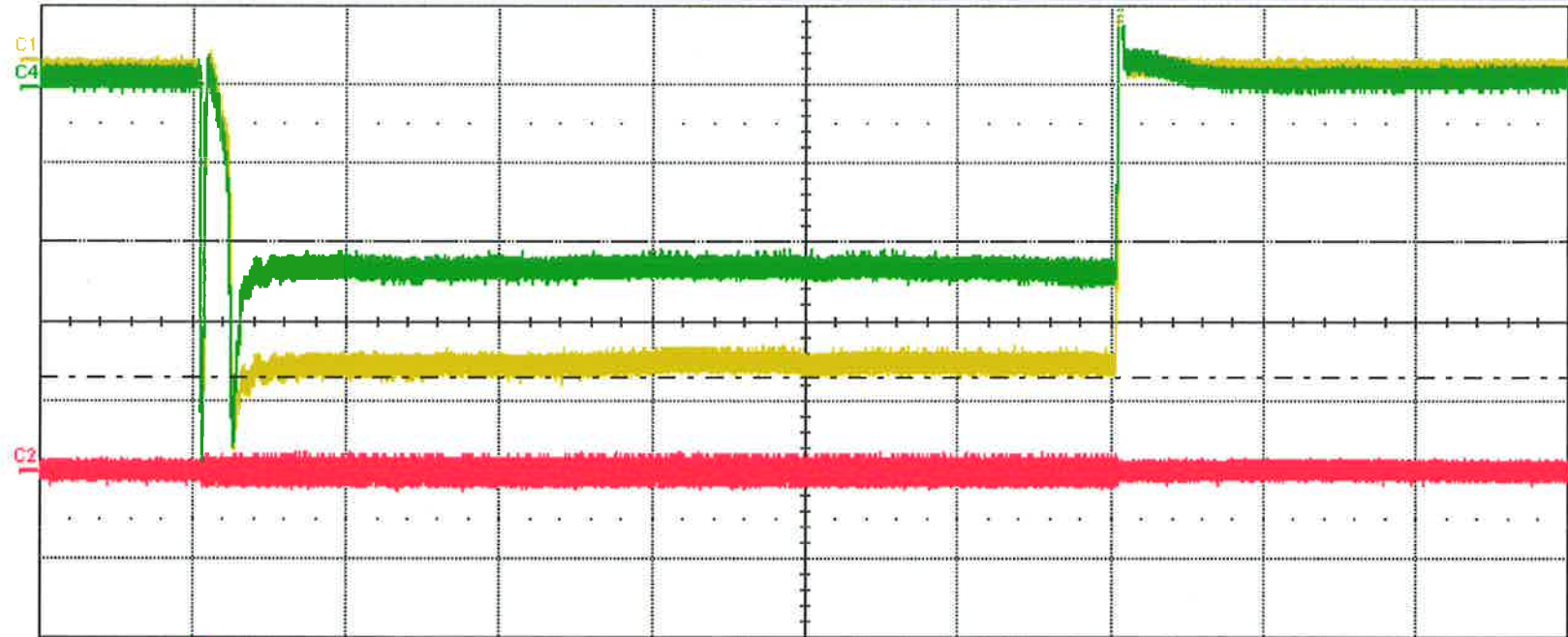


Ext10 DC 0.60 V 1MΩ

20 MS/s

☐ NORMAL

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**Measure**

	P1:mean(Z1)	P2:mean(Z4)	P3:mean(C1)	P4:mean(C4)	P5:phase(C1,C4)	P6:---
value	-76.19 mV	-45.35 mV	-75.90 mV	-45.28 mV	---	---
mean	-76.4061 mV	-45.5381 mV	-76.2758 mV	-45.3604 mV	---	---
min	-77.90 mV	-47.38 mV	-78.19 mV	-47.08 mV	---	---
max	-75.10 mV	-44.30 mV	-74.95 mV	-44.05 mV	---	---
sdev	1.0328 mV	1.0678 mV	1.1630 mV	1.1169 mV	---	---
num	9	9	9	9	0	---
status	✓	✓	✓	✓	---	---

C1	C2	C4
20.0 mV/div	1.00 V/div	20.0 mV/div
68.00 mV ofst	-1.890 V ofst	59.00 mV ofst
----- -80.0 mV	----- 1.19 V	----- -73.0 mV
----- -46.0 mV	----- 2.89 V	----- -39.0 mV
Δy 34.0 mV	Δy 1.70 V	Δy 34.0 mV

Timebase	-2.00 ms	Trigger	Ext/IO DC
1.00 MS	500 μs/div	Normal	200 mV
	200 MS/s	Edge	Negative

**LeCroy**

11/11/2019 1:12:04 PM