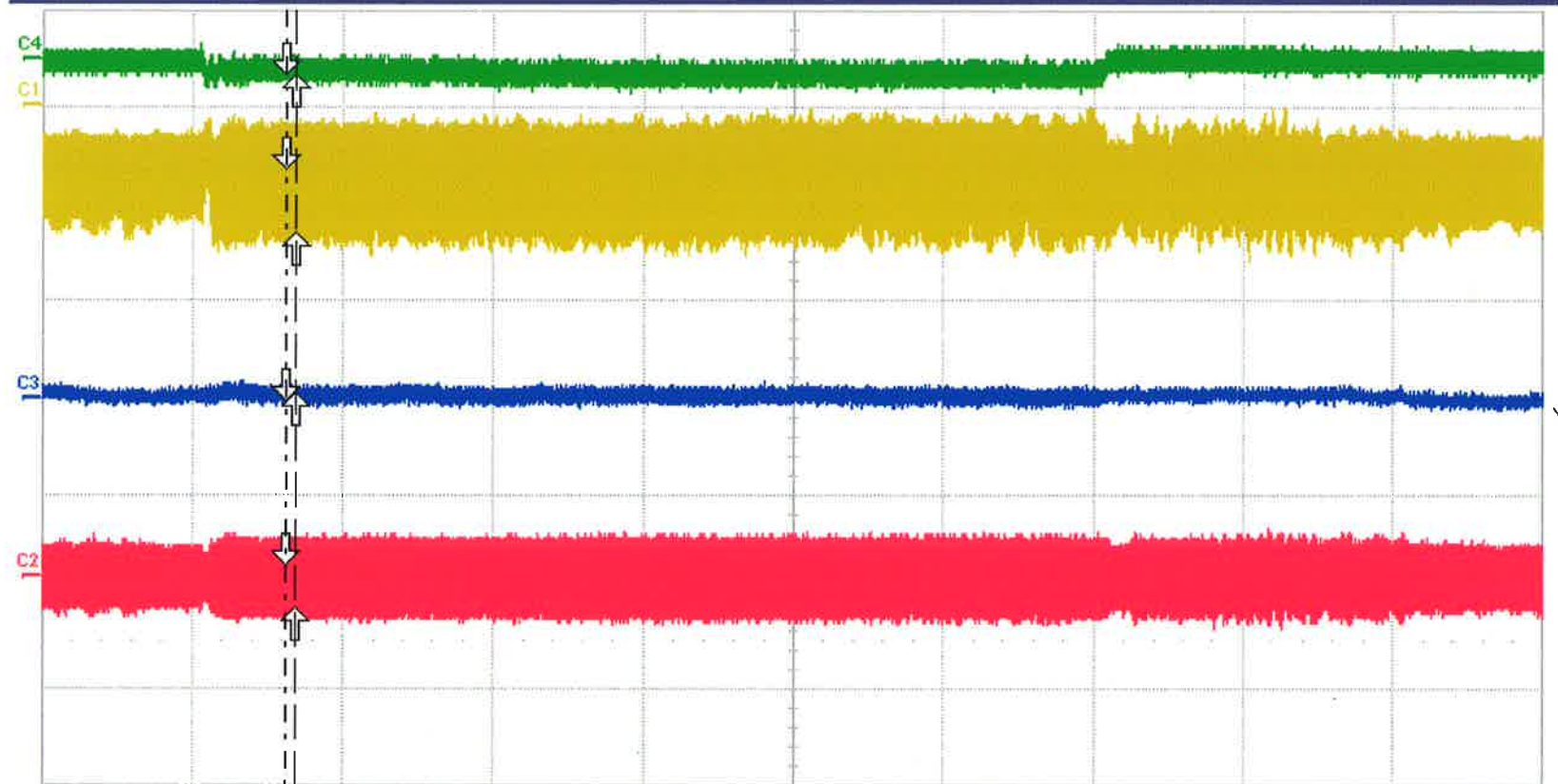


File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



SEC
← photodiode
m to 50 Ω
Filtered!

Measure

value
status

P1:mean(C1)
-395 mV

P2:pkpk(C2)
969 mV

P3:pkpk(C3)
277 μV

P4:mean(C3)
22 μV

P5:mean(C4)
-14.7 V

P6:---

C1	C2	C3	C4
DCIM	DCIM	DCIM	DCIM
500 mV/div	1.00 V/div	1.00 mV/div	100 V/div
1.510 V offset	-1.840 V ofst	0.0 μV offset	350.0 V offset
↓ -179 mV	↓ 280 mV	↓ -8.3 μV	↓ -15.6 V
↑ -426 mV	↑ -46 mV	↑ 24.7 μV	↑ -18.0 V
Δy -248 mV	Δy -326 mV	Δy 33.0 μV	Δy -2.4 V

Timebase	-2.00 ms	Trigger	Ext/10 DC
	500 μs/div	Normal	200 mV
1.00 MS	200 MS/s	Edge	Positive
X1=	314.260 μs	ΔX=	29.060 μs
X2=	343.320 μs	1/ΔX=	34.412 kHz

LeCroy

12/5/2019 1:47:47 PM

5-Dec-19
13:52:40

1
.5 ms
0.50 V

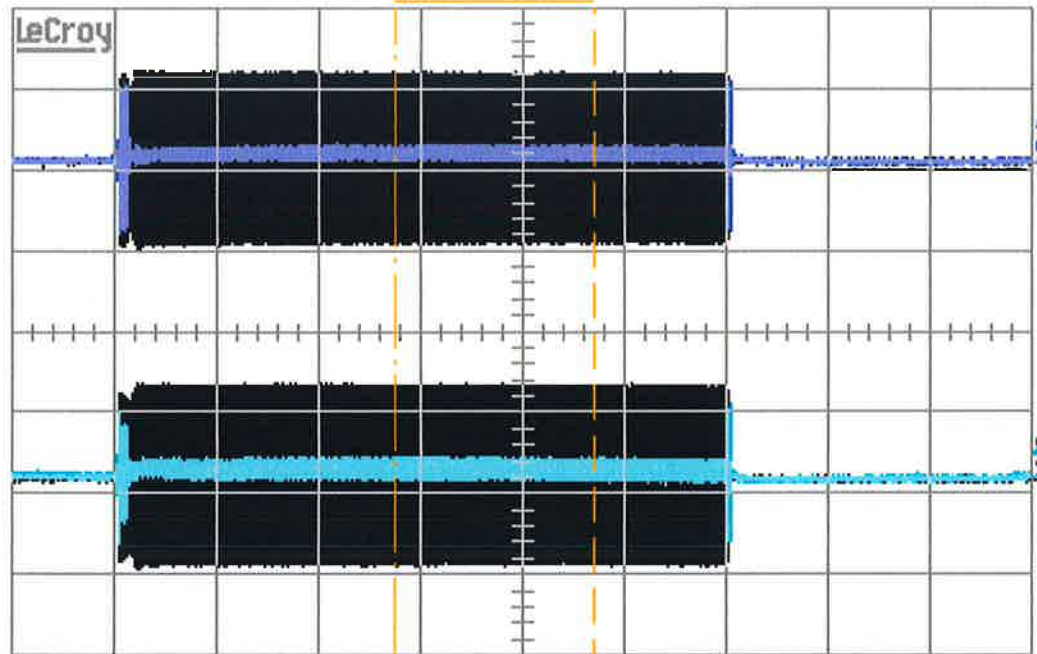
2
.5 ms
200mV

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



93 sweeps: average low high sigma

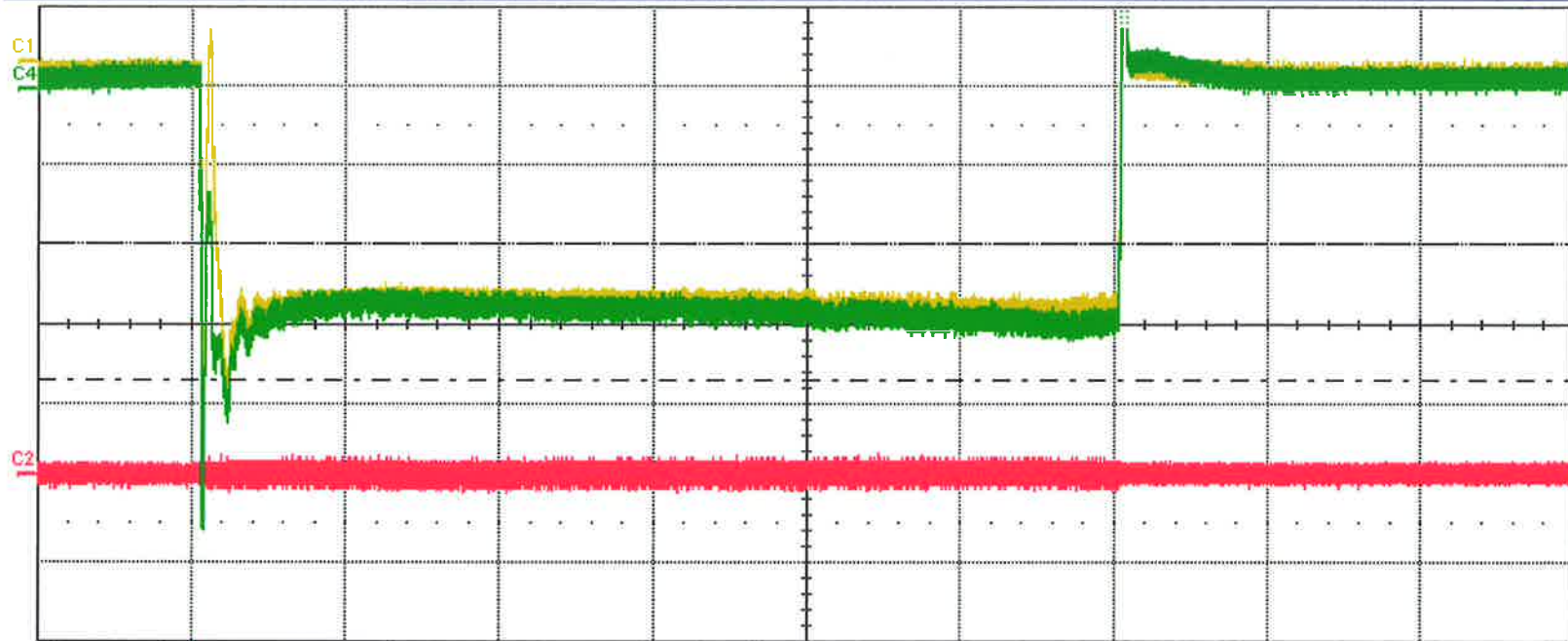
rms(1)	373.6mV	370.8	376.3	1.6
rms(2)	20.2mV	17.1	23.5	1.6
rms(3)	385.7mV	383.0	388.1	1.5
rms(4)	19.1mV	16.3	22.3	1.5
phase(1,3)	79 °	74	86	2



Ext10 DC 0.60 V 1MΩ

20 MS/s

☐ NORMAL

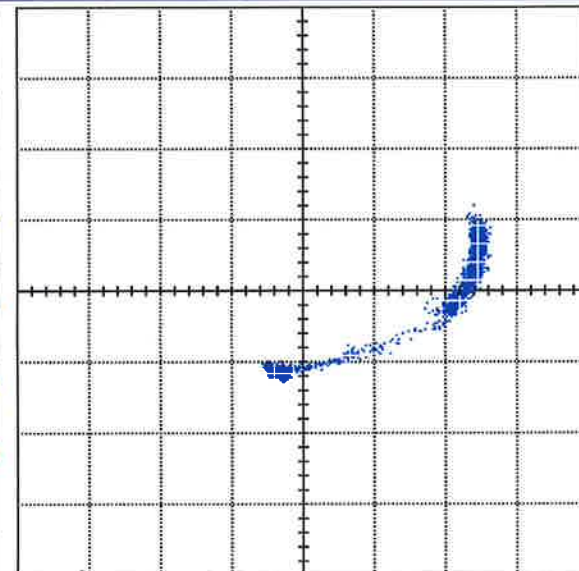
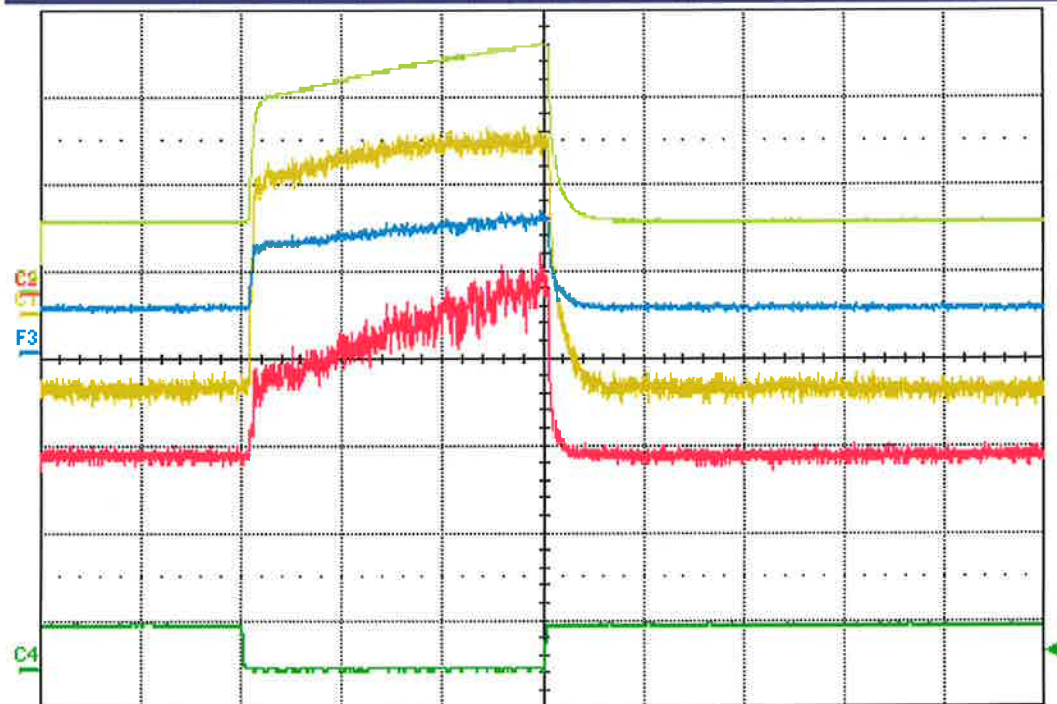


Measure	P1:mean(Z1)	P2:mean(Z4)	P3:mean(C1)	P4:mean(C4)	P5:phase(C1,C4)	P6:---
value	-60.67 mV	-56.25 mV	-60.45 mV	-55.52 mV	---	---
mean	-58.2842 mV	-52.8436 mV	-58.3414 mV	-52.8481 mV	---	---
min	-64.92 mV	-60.22 mV	-63.17 mV	-59.55 mV	---	---
max	-52.17 mV	-47.41 mV	-52.45 mV	-48.31 mV	---	---
sdev	2.3318 mV	2.4225 mV	2.2635 mV	2.3580 mV	---	---
num	513	513	513	513	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/10 DC
500 ps/div		Normal	200 mV
1.00 MS	200 MS/s	Edge	Negative

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure	P1:pkpk(F4)	P2:pkpk(C1)	P3:mean(C2)	P4:pkpk(C2)	P5:mean(C3)	P6:mean(F4)	P7:mean(C1)	P8:mean(C4)
value	2.5360							
mean	2.535983							
min	2.5360							
max	2.5360							
sdev	--							
num	1							
status	✓							

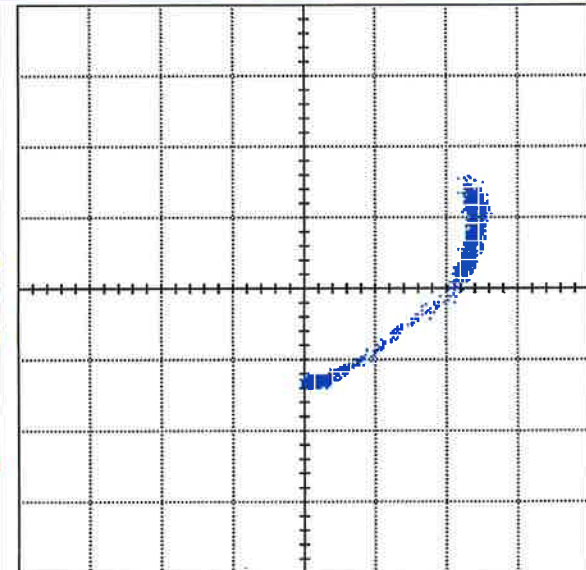
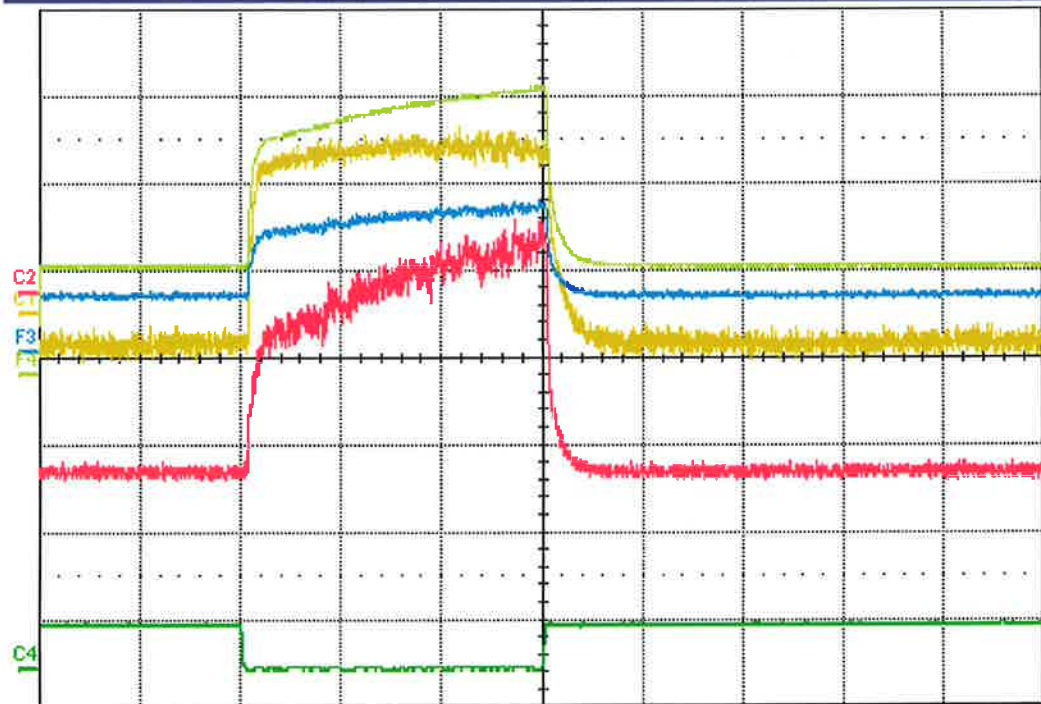
C1	D1	C2	D1	C4	F3	F3 script(...)	F4	<F3>	XY	X:C1
200 mV	200 mV	200 mV	200 mV	5.00 V	2.00	2.00	1.00	1.00	200 mV	200 mV
98 mV	148 mV			-17.9 V	1.0 ms	1.0 ms	1.0 ms	183 #		

Tbase	-2.98 ms	Trigger	C4 DC
	1.00 ms/div	Normal	1.00 V
5.00 kS	500 kS/s	Edge	Negative

LeCroy

12/5/2019 1:51:26 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure	P1:pkpk(F4)	P2:pkpk(C1)	P3:mean(C2)	P4:pkpk(C2)	P5:mean(C3)	P6:mean(F4)	P7:mean(C1)	P8:mean(C4)
value	2.7430							
mean	2.743002							
min	2.7430							
max	2.7430							
sdev	---							
num	1							
status	✓							

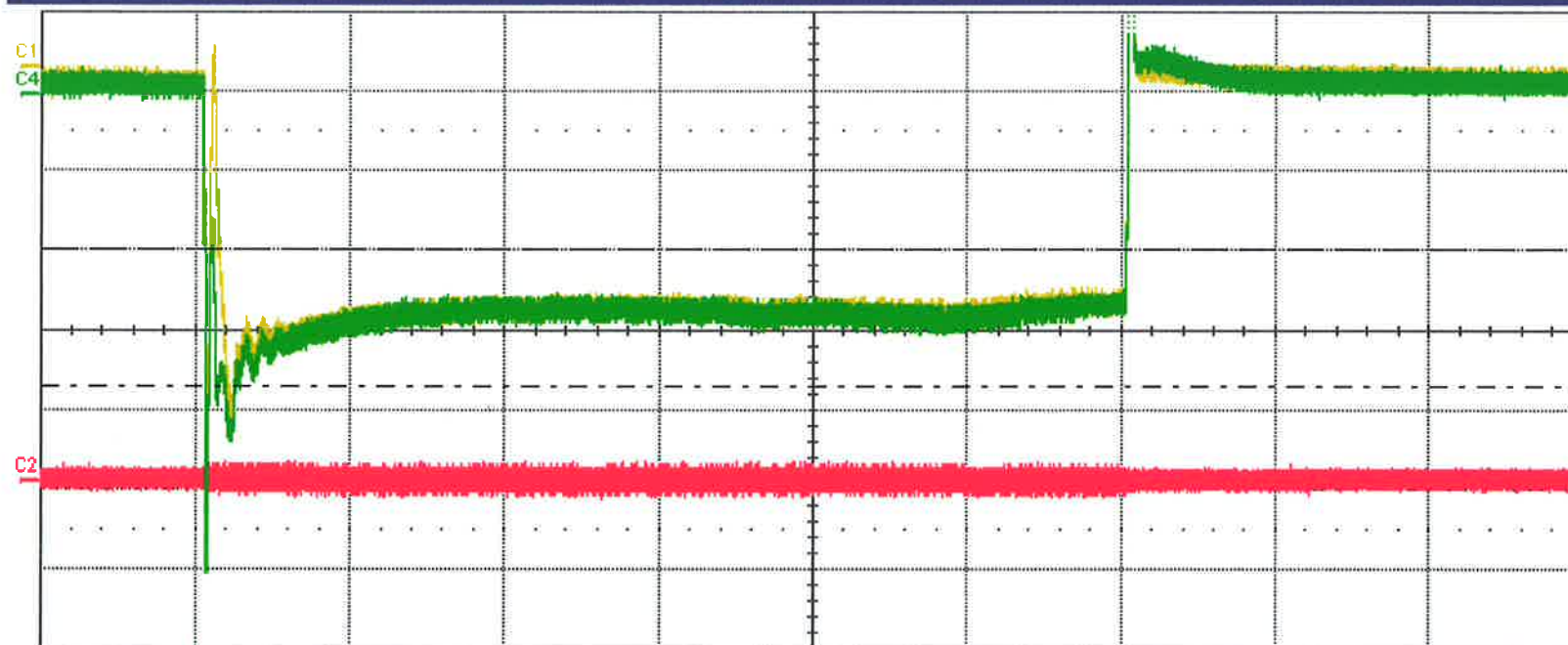
C1	D1	C2	D1	C4	P1	F3	script...	F4	<F3>	XY	X01
200 mV		200 mV		5.00 V		2.00		1.00		200 mV	
98 mV		148 mV		-17.9 V		1.0 ms		1.0 ms		200 mV	
								39 #			

Tbase	-2.98 ms	Trigger	C4 DC
	1.00 ms/div	Normal	1.00 V
5.00 kS	500 kS/s	Edge	Negative

LeCroy

12/5/2019 1:54:33 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	-60.99 mV	-54.98 mV	-60.80 mV	-54.51 mV	---	---
mean	-61.2202 mV	-55.0708 mV	-61.2953 mV	-55.0982 mV	---	---
min	-64.86 mV	-59.20 mV	-64.30 mV	-59.11 mV	---	---
max	-57.77 mV	-51.55 mV	-58.20 mV	-51.53 mV	---	---
sdev	1.5826 mV	2.0047 mV	1.5706 mV	1.9732 mV	---	---
num	65	65	65	65	0	---
status	✓	✓	✓	✓		

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		59.00 mV ofst	
--- -80.0 mV	--- 1.19 V	--- -73.0 mV		--- -73.0 mV	
-----46.0 mV	-----2.69 V	-----39.0 mV		-----39.0 mV	
Δy 34.0 mV	Δy 1.70 V	Δy 34.0 mV		Δy 34.0 mV	

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

LeCroy

12/5/2019 1:54:36 PM

5-Dec-19
13:55:57

1
.5 ms
0.50 V

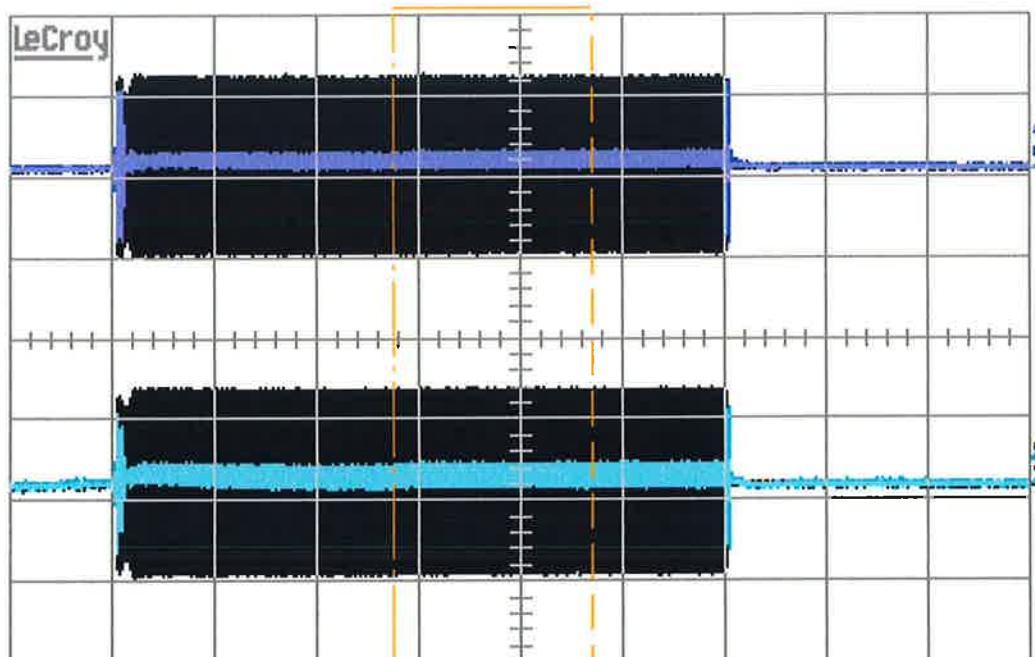
2
.5 ms
200mV

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



75 sweeps: average low high sigma

rms(1)	387.8mV	384.6	393.8	1.9
rms(2)	22.0mV	19.3	25.3	1.5
rms(3)	398.4mV	395.5	403.4	1.7
rms(4)	21.0mV	18.5	24.2	1.4
phase(1,3)	79 °	74	84	2

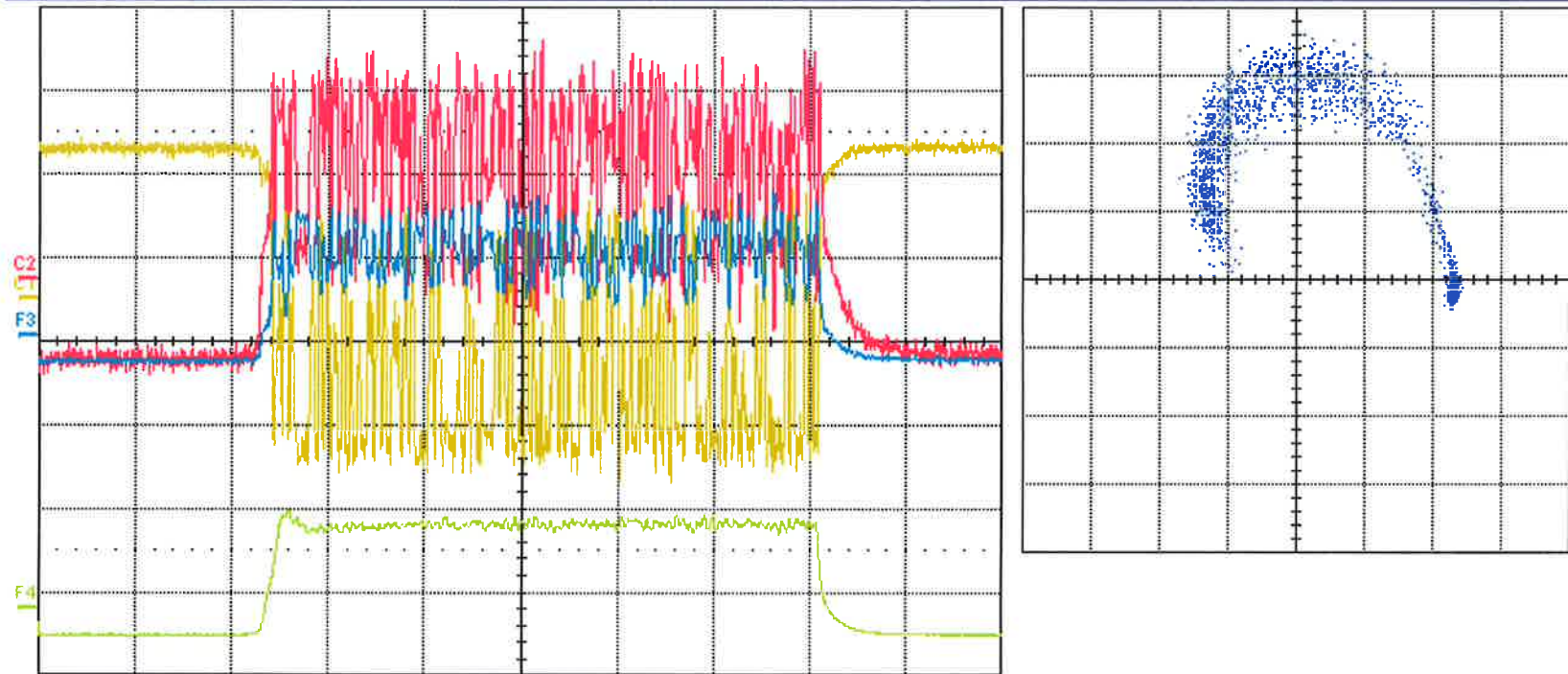


Ext10 DC 0.60 V 1MΩ

20 MS/s

☐ NORMAL

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure	P1:pkpk(F4)	P2:pkpk(C1)	P3:mean(C2)	P4:pkpk(C2)	P5:mean(C3)	P6:mean(F4)	P7:mean(C1)	P8:mean(C4)
value	3.0225							
mean	3.022478							
min	3.0225							
max	3.0225							
sdev	---							
num	1							
status	✓							

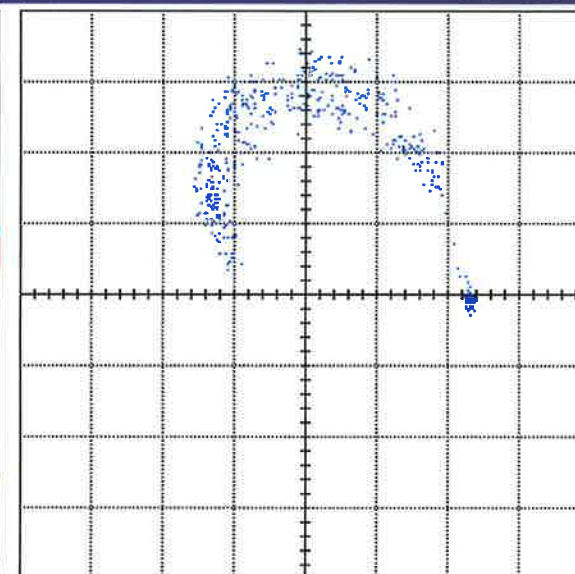
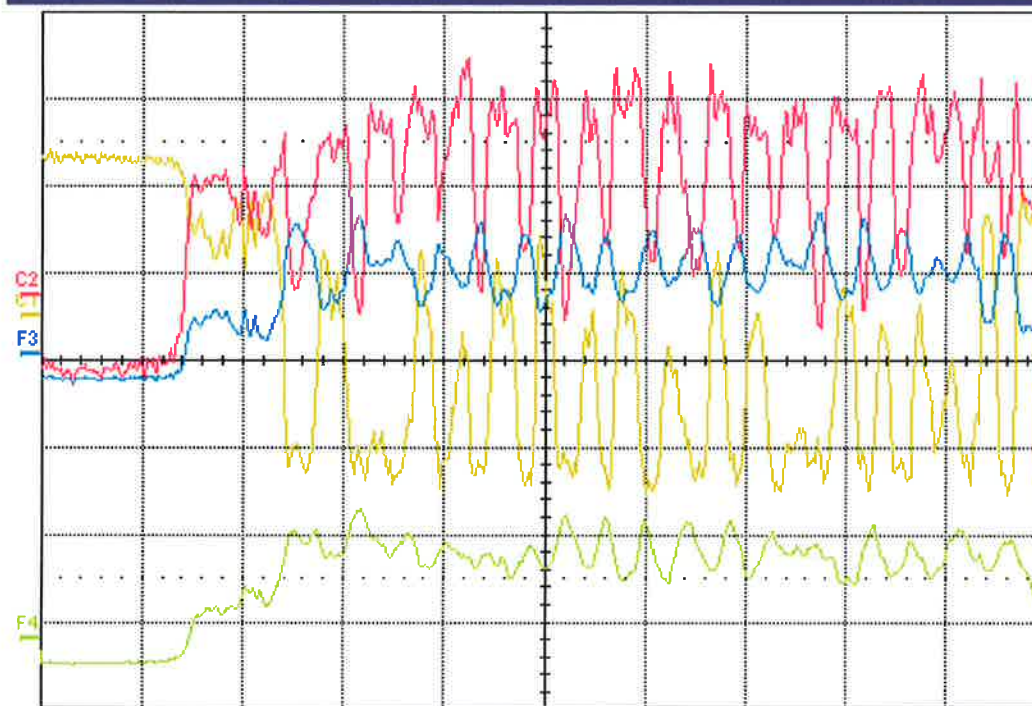
C1	C2	F3	F4	XY
DC1M	DC1M	script(C1,C2)	<F3>	X01 Y02
200 mV/div	200 mV/div	2.00/div	2.00/div	200 mV/div
98.0 mV ofst	148.0 mV	500 μs/div	500 μs/div	200 mV/div
			63 #	

Tbase	-1.49 ms	Trigger	C4 DC
	500 μs/div	Normal	1.90 V
2.50 kS	500 kS/s	Edge	Negative

LeCroy

12/5/2019 2:03:22 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure	P1:pkpk(F4)	P2:pkpk(C1)	P3:mean(C2)	P4:pkpk(C2)	P5:mean(C3)	P6:mean(F4)	P7:mean(C1)	P8:mean(C4)
value	3.5487							
mean	3.548652							
min	3.5487							
max	3.5487							
sdev	---							
num	1							
status	✓							

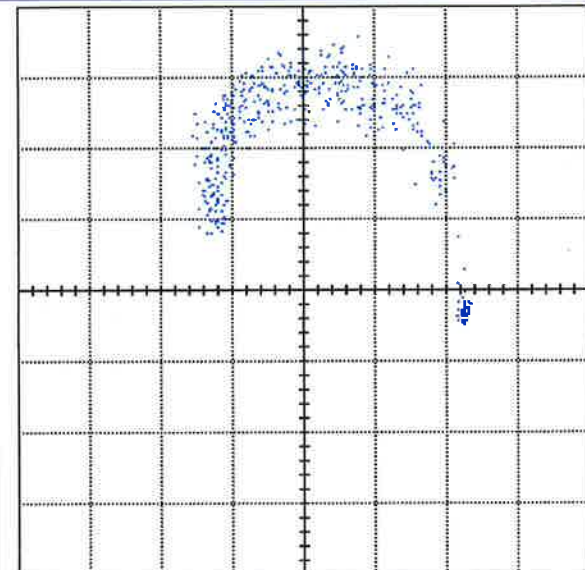
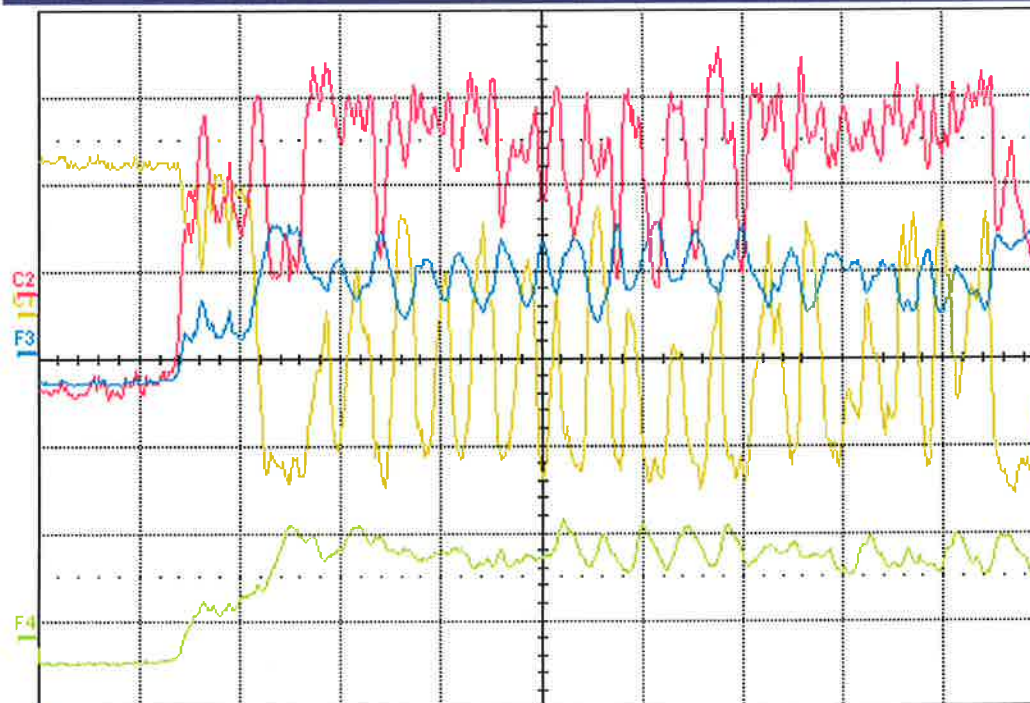
C1	DC1M	C2	DC1M	F3	script(C1,C2)	F4	<F3>	XY	X:C1 Y:C2
200 mV/div		200 mV/div		2.00/div		2.00/div		200 mV/div	
98.0 mV ofst		148.0 mV		100 ps/div		100 ps/div		200 mV/div	
						3 #			

Timebase	-500 μ s	Trigger	C4 DC
500 S	100 ps/div	Stop	1.90 V
	500 kS/s	Edge	Negative

LeCroy

12/5/2019 2:03:47 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure	P1:pkpk(F4)	P2:pkpk(C1)	P3:mean(C2)	P4:pkpk(C2)	P5:mean(C3)	P6:mean(F4)	P7:mean(C1)	P8:mean(C4)
value	3.2951							
mean	3.295053							
min	3.2951							
max	3.2951							
sdev	---							
num	1							
status	✓							

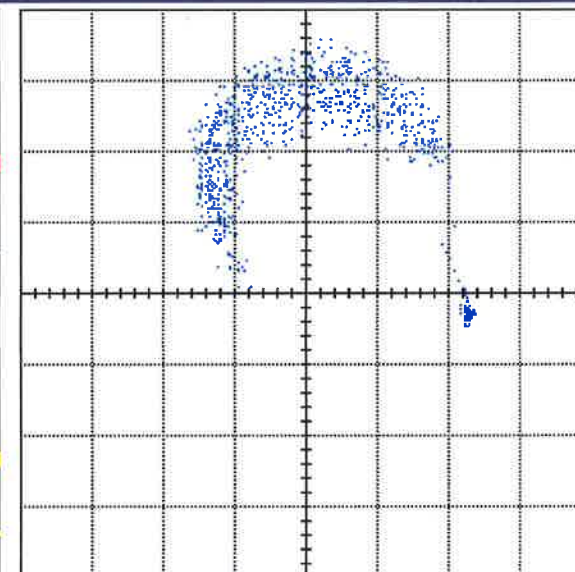
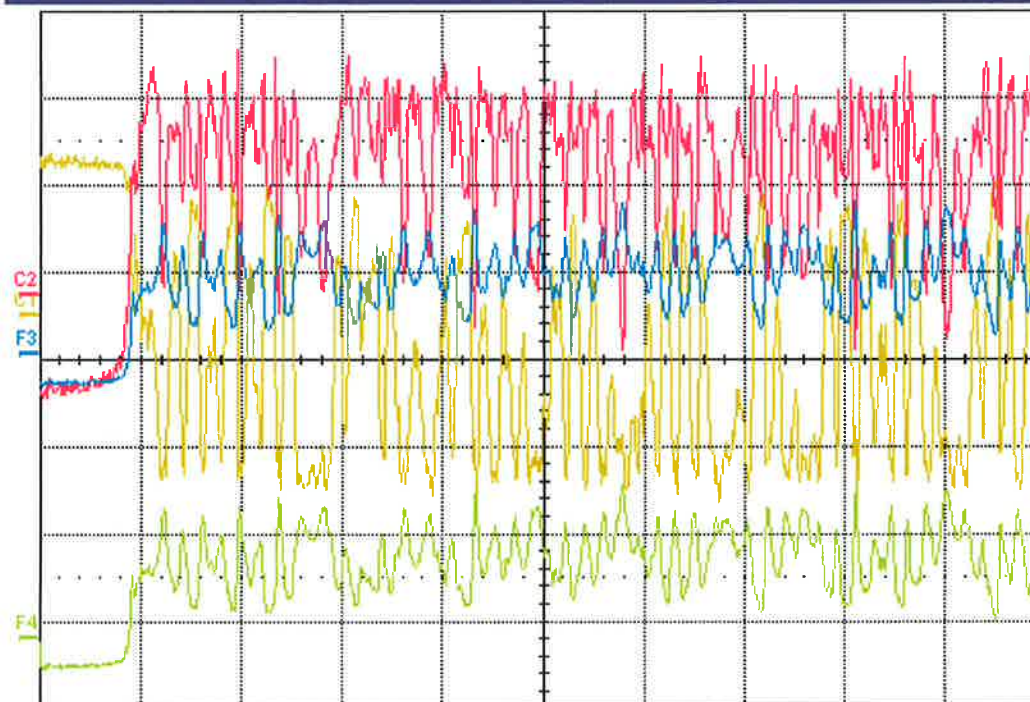
C1	DC1M	C2	DC1M	F3	script(C1,C2)	F4	<F3>	X1	X1Y-C2
200 mV/div	200 mV/div	200 mV/div	2.00/div	2.00/div	200 mV/div	100 µs/div	100 µs/div	200 mV/div	200 mV/div
98.0 mV ofst	148.0 mV		100 µs/div	4 #					

Timebase	-500 µs	Trigger	C4 DC
100 µs/div	Stop	1.90 V	
500 S	500 kS/s	Edge	Negative

LeCroy

12/5/2019 2:04:37 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure	P1:pkpk(F4)	P2:pkpk(C1)	P3:mean(C2)	P4:pkpk(C2)	P5:mean(C3)	P6:mean(F4)	P7:mean(C1)	P8:mean(C4)
value	4.2203							
mean	4.220313							
min	4.2203							
max	4.2203							
sdev	---							
num	1							
status	✓							

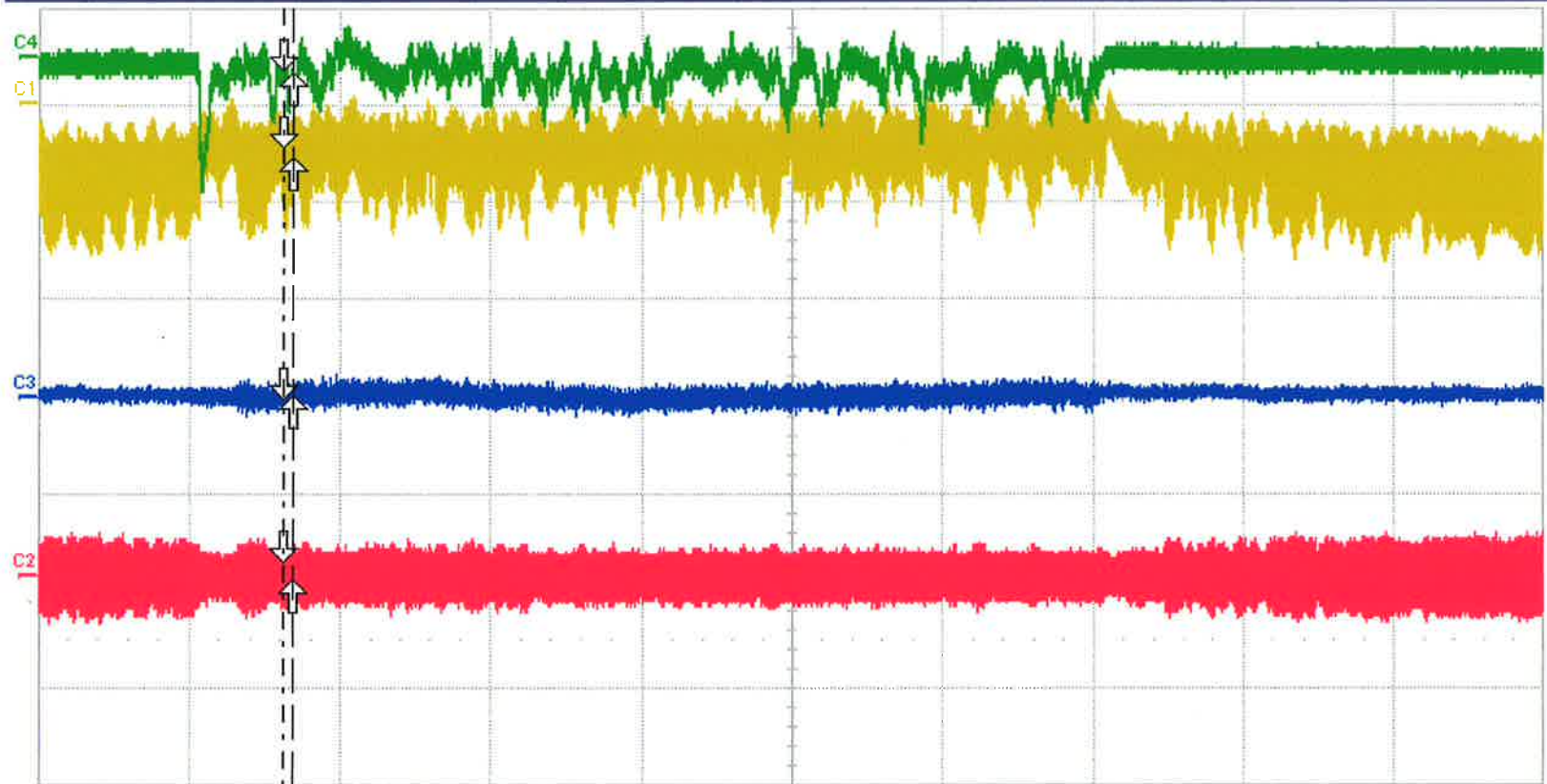
C1	DC1M	C2	DC1M	F3	script(C1,C2)	F4	<F3>	XY	X:C1 Y:C2
200 mV/div	200 mV/div	200 mV/div	200 mV/div	2.00/div	2.00/div	2.00/div	2.00/div	200 mV/div	200 mV/div
98.0 mV ofst	148.0 mV			200 μs/div	200 μs/div	200 μs/div	1 #		

Tbase	-1.000 ms	Trigger	C4 DC
	200 μs/div	Stop	1.90 V
1.00 kS	500 kS/s	Edge	Negative

LeCroy

12/5/2019 2:04:57 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure
value
status

P1:mean(C1)
-268 mV ✓

P2:pkpk(C2)
813 mV ✓

P3:pkpk(C3)
455 μV ✓

P4:mean(C3)
1 μV ✓

P5:mean(C4)
-18.6 V ✓

P6:---

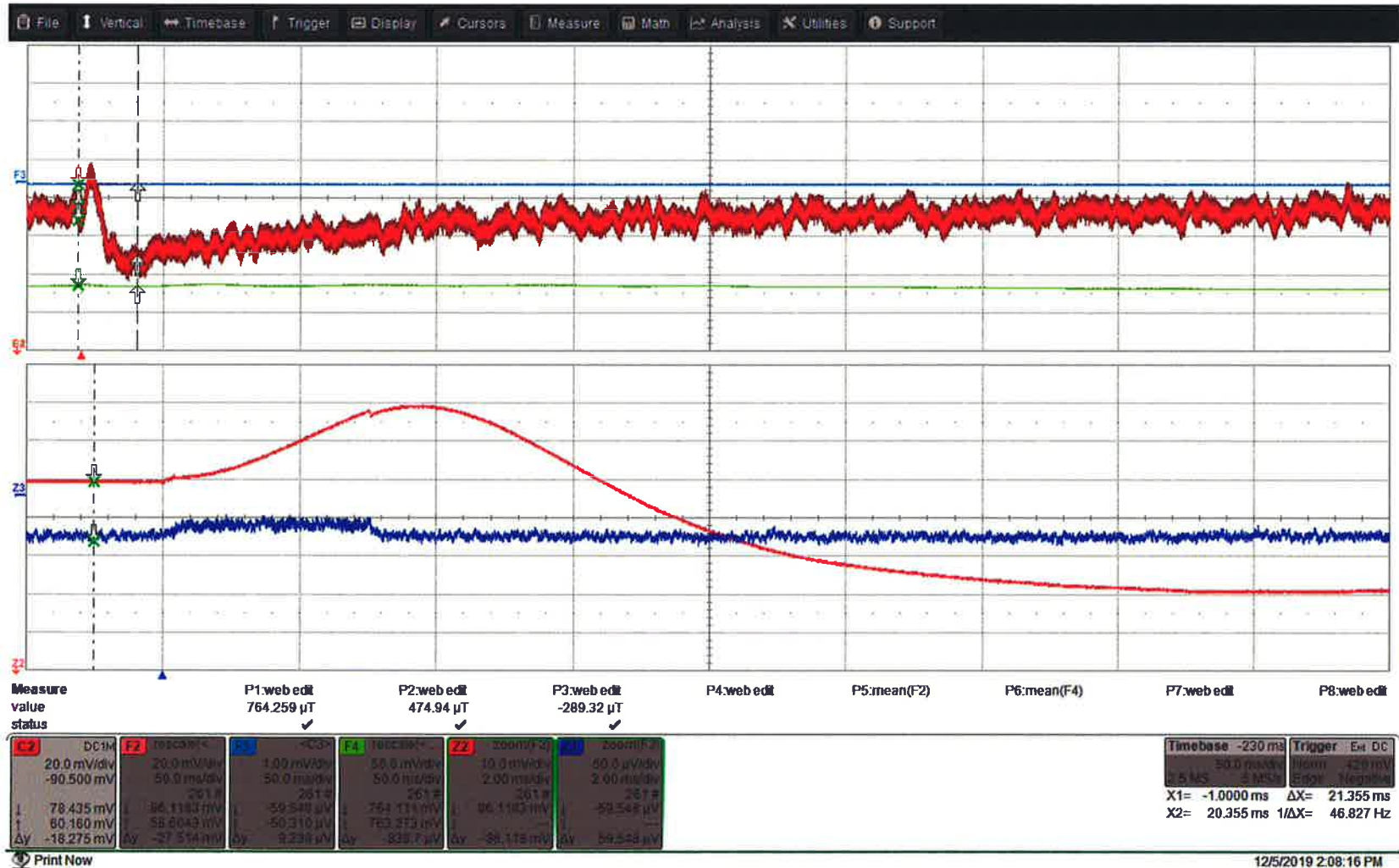
C1	C2	C3	C4
DCIM	DCIM	DCIM	DCIM
500 mV/div	1.00 V/div	1.00 mV/div	100 V/div
1.510 V offset	-1.840 V offset	0.0 μV offset	350.0 V offset
↓ -225 mV	↓ 152 mV	↓ -6.1 μV	↓ -11.7 V
↑ -291 mV	↑ -58 mV	↑ -1.7 μV	↑ -19.5 V
Δy -66 mV	Δy -210 mV	Δy 4.4 μV	Δy -7.8 V

Timebase	-2.00 ms	Trigger	Edge
	500 μs/div	Normal	200 mV
1.00 MS	200 MS/s	Edge	Positive

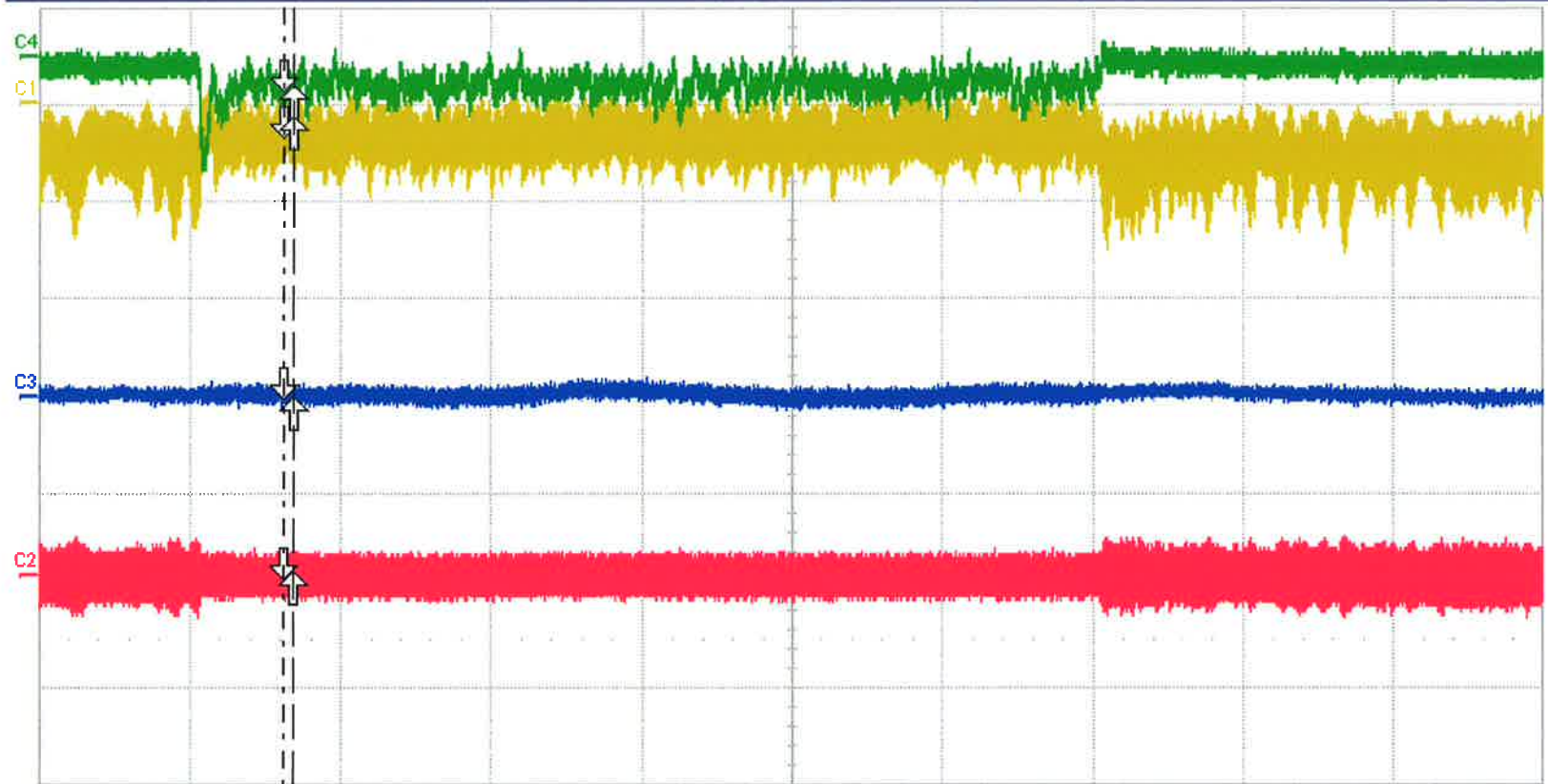
X1= 314.260 μs ΔX= 29.060 μs
X2= 343.320 μs 1/ΔX= 34.412 kHz

LeCroy

12/5/2019 2:08:20 PM



File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure
value
status

P1:mean(C1)
-193 mV ✓

P2:pkpk(C2)
813 mV ✓

P3:pkpk(C3)
339 μV ✓

P4:mean(C3)
9 μV ✓

P5:mean(C4)
-30.6 V ✓

P6:---

C1	C2	C3	C4
DCIM	DCIM	DCIM	DCIM
500 mV/div	1.00 V/div	1.00 mV/div	100 V/div
1.510 V offset	-1.840 V offset	0.0 μV offset	350.0 V offset
↓ -182 mV	↓ -35 mV	↓ -12.5 μV	↓ -34.4 V
↑ -26 mV	↑ 90 mV	↑ -26.6 μV	↑ -33.5 V
Δy 156 mV	Δy 125 mV	Δy -14.2 μV	Δy 900 mV

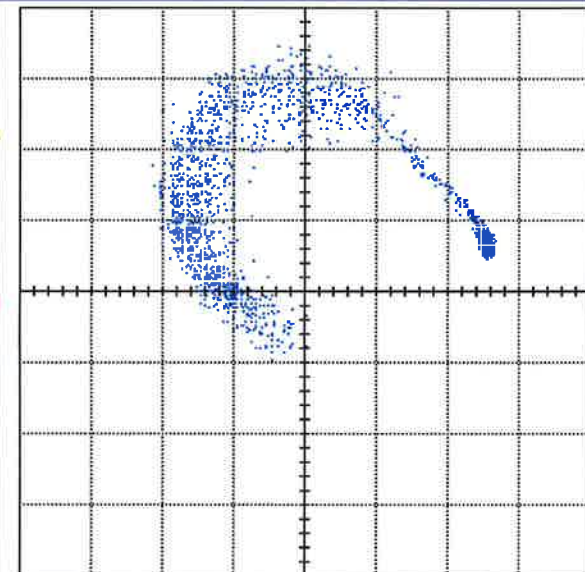
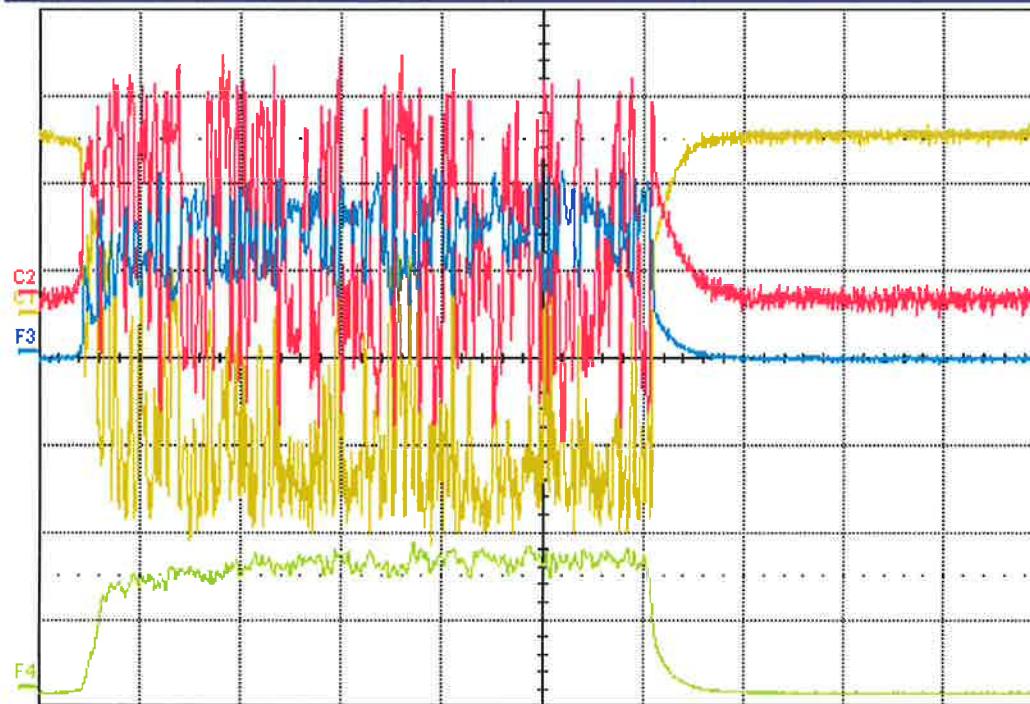
Timebase	-2.00 ms	Trigger	Ext/10 DC
	500 μs/div	Normal	200 mV
1.00 MS	200 MS/s	Edge	Positive

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

LeCroy

12/5/2019 2:08:45 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure	P1:pkpk(F4)	P2:pkpk(C1)	P3:mean(C2)	P4:pkpk(C2)	P5:mean(C3)	P6:mean(F4)	P7:mean(C1)	P8:mean(C4)
value	3.4325							
mean	3.432491							
min	3.4325							
max	3.4325							
sdev	---							
num	1							
status	✓							

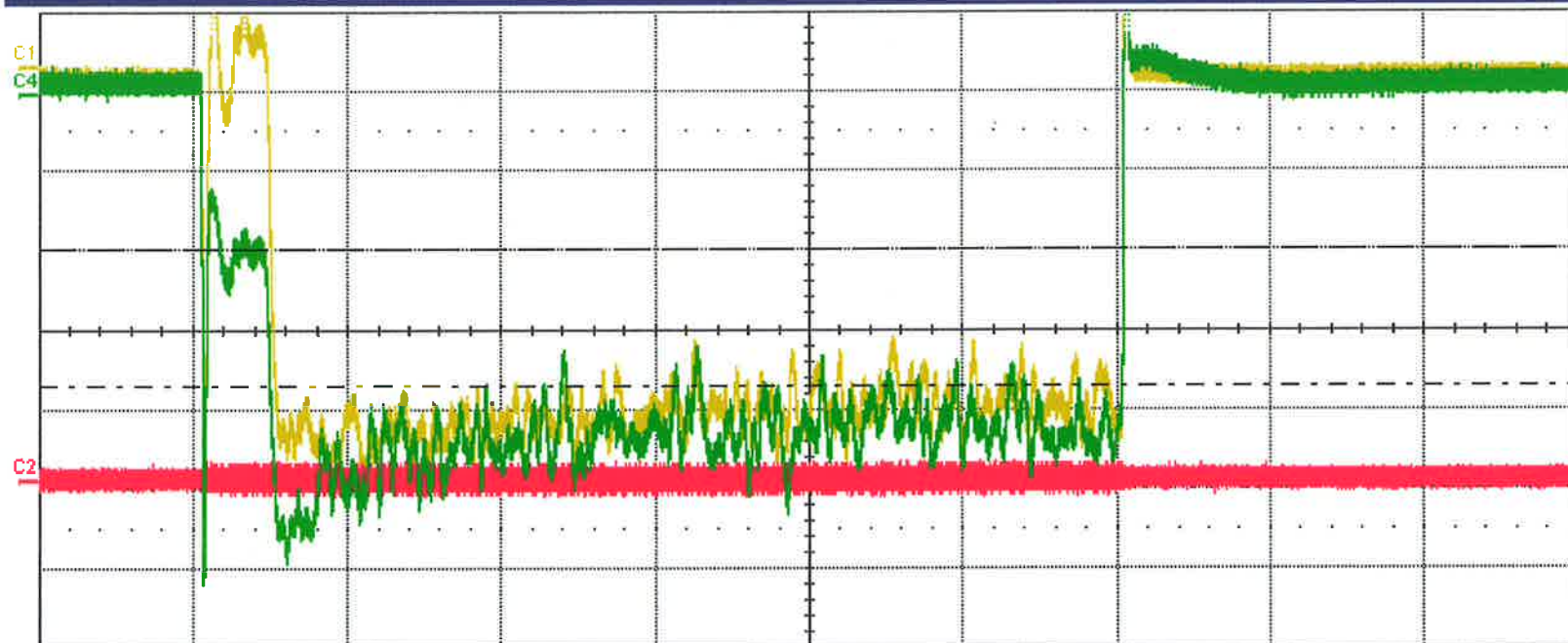
C1	DC1M	C2	DC1M	F3	script(C1,C2)	F4	<F3>	XY	X:C1 Y:C2
200 mV/div		200 mV/div		2.00/div		2.00/div		200 mV/div	
98.0 mV ofst		148.0 mV		500 ps/div		500 ps/div		200 mV/div	
						22 #			

Tbase	-2.50 ms	Trigger	C4 DC
500 ps/div		Normal	1.90 V
2.50 kS	500 kS/s	Edge	Negative

LeCroy

12/5/2019 2:10:39 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	-88.80 mV	-83.98 mV	-85.91 mV	-84.40 mV	175.87034692327 °	
mean	> -78.1126 mV	-80.1999 mV	> -78.2935 mV	-80.3034 mV	-2.8155786207485 °	
min	> -92.99 mV	-100.16 mV	> -90.06 mV	-89.31 mV	-179.81368511463 °	
max	> 12.51 mV	-29.85 mV	> 12.49 mV	-30.11 mV	179.99117776797 °	
sdev	> 23.9971 mV	13.4124 mV	> 24.0045 mV	13.2360 mV	100.0379341 °	
num	487	487	487	487	1.490e+3	
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
Δy 34.0 mV	Δy 1.70 V	Δy 34.0 mV

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

LeCroy

12/5/2019 2:10:49 PM

5-Dec-19
14:12:11

1
.5 ms
0.50 V

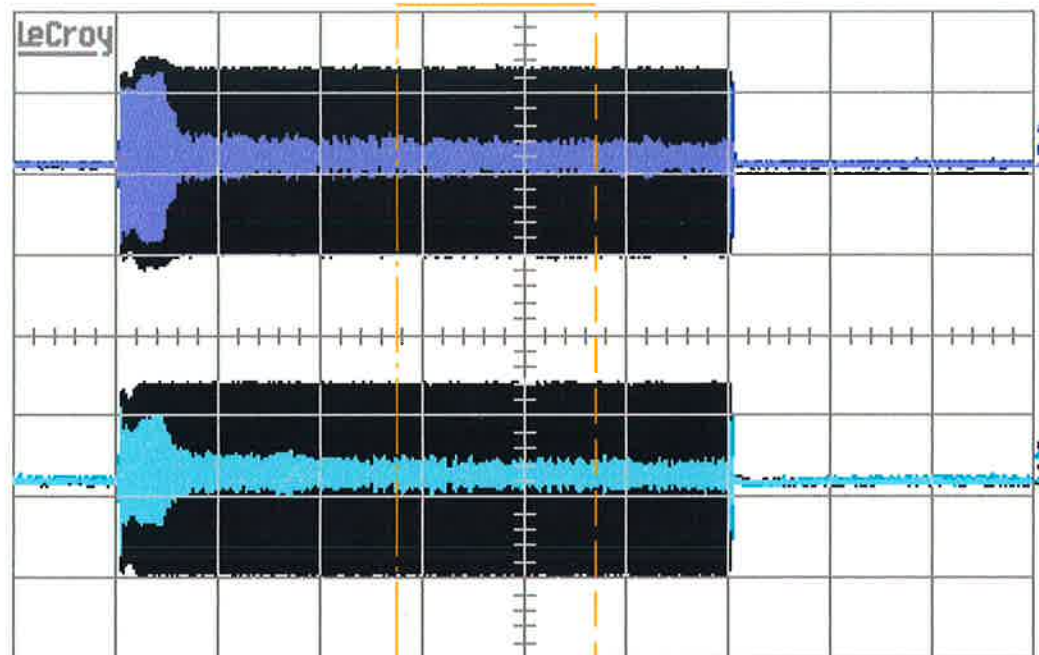
2
.5 ms
200mV

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



175 sweeps:

	average	low	high	sigma
rms(1)	416.4mV	404.4	456.6	18.5
rms(2)	49.9mV	25.1	147.6	46.3
rms(3)	407.9mV	404.8	411.1	1.5
rms(4)	36.0mV	20.8	91.6	26.0
phase(1,3)	77 °	70	84	2

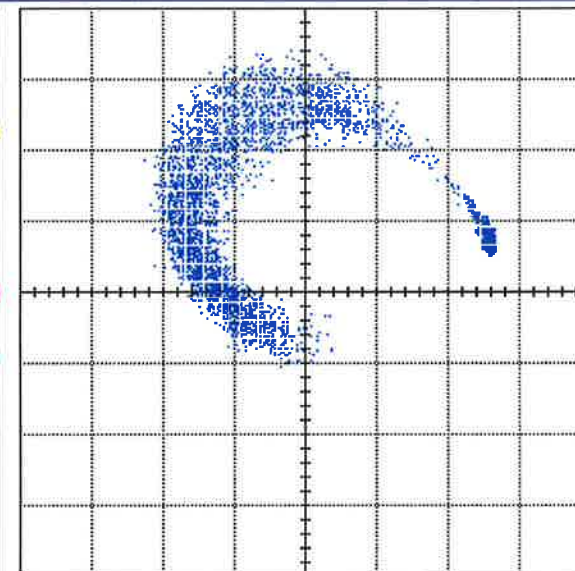
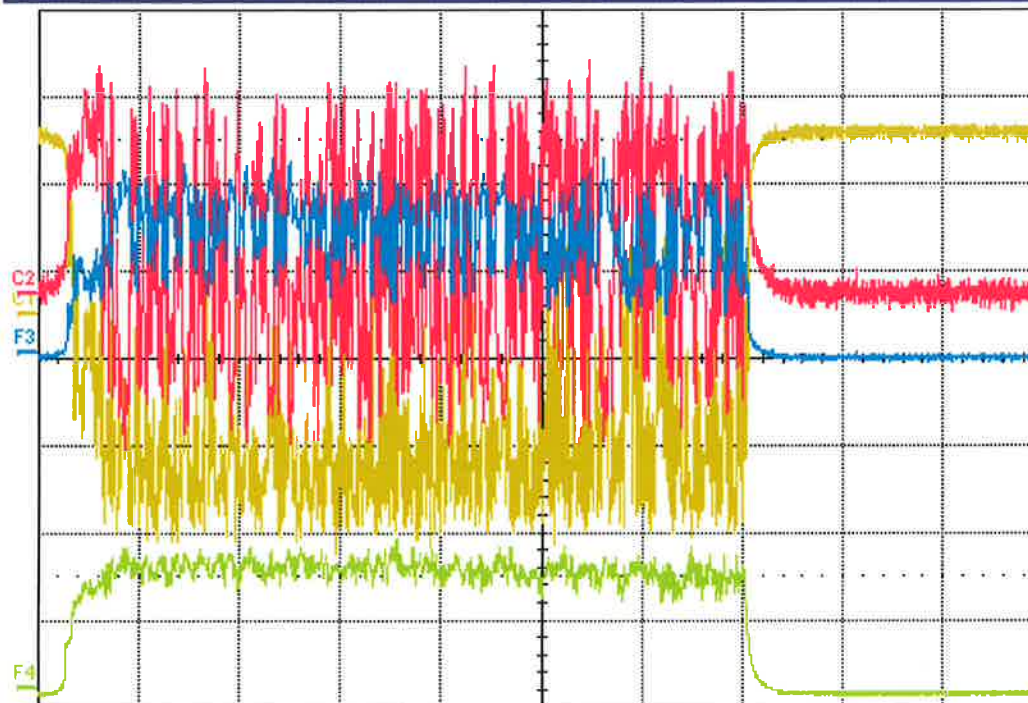


Ext10 DC 0.60 V 1MΩ

20 MS/s

☐ NORMAL

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure	P1:pkpk(F4)	P2:pkpk(C1)	P3:mean(C2)	P4:pkpk(C2)	P5:mean(C3)	P6:mean(F4)	P7:mean(C1)	P8:mean(C4)
value	3.5659							
mean	3.565903							
min	3.5659							
max	3.5659							
sdev	--							
num	1							
status	✓							

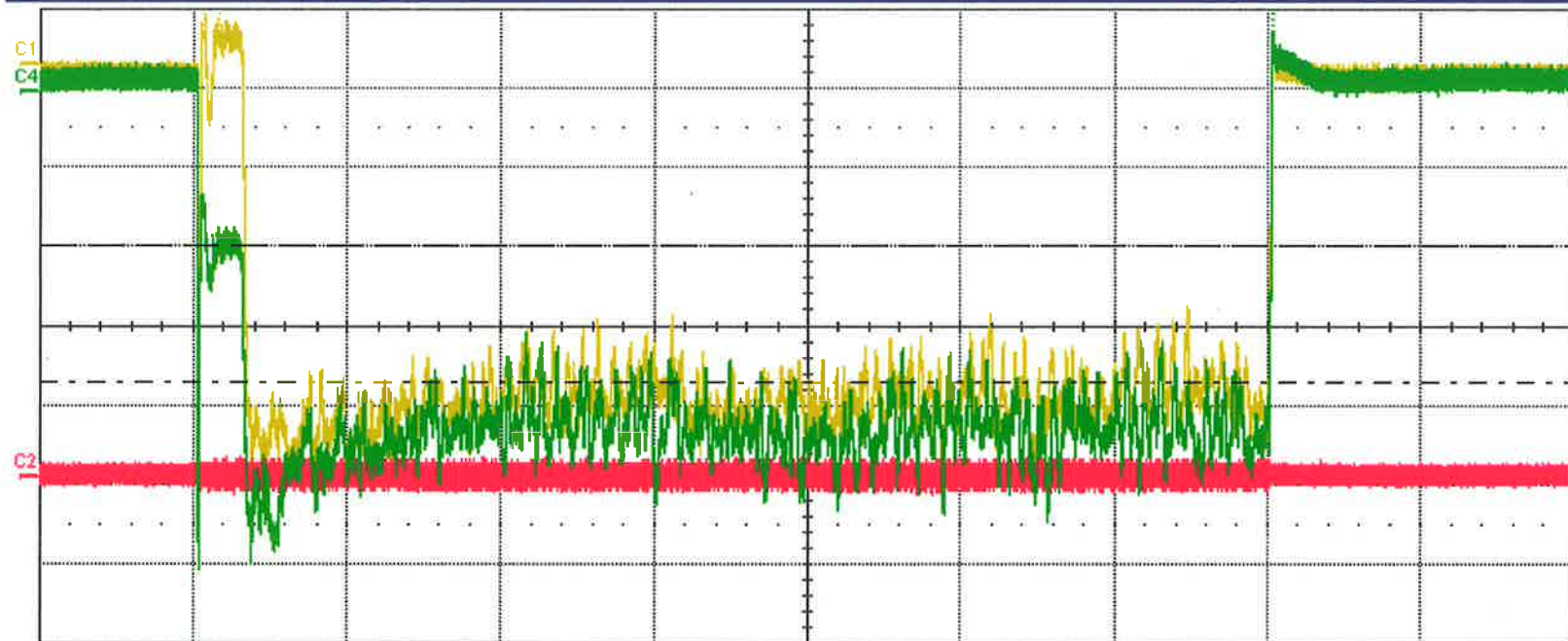
C1	DC1M	C2	DC1M	F3	script(C1,C2)	F4	<F3>	XY	X:C1 Y:C2
200 mV/div		200 mV/div		2.00/div		2.00/div		200 mV/div	
98.0 mV ofst		148.0 mV		1.00 ms/div		1.00 ms/div		200 mV/div	
						13 #			

Tbase	-5.00 ms	Trigger	C4 DC
1.00 ms/div		Normal	1.90 V
5.00 kS	500 kS/s	Edge	Negative

LeCroy

12/5/2019 2:12:04 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	-84.21 mV	-88.52 mV	-85.30 mV	-85.70 mV	-105.6682464455 °	
mean	-83.3200 mV	-84.1287 mV	-83.9155 mV	-84.1433 mV	62.461969638 m°	
min	-90.61 mV	-89.70 mV	-85.67 mV	-86.32 mV	-178.9942127320 °	
max	-77.77 mV	-76.54 mV	-81.15 mV	-81.54 mV	179.4078947368 °	
sdev	3.1925 mV	2.7836 mV	1.1348 mV	1.1433 mV	98.750484186657 °	
num	37	37	37	37	279	
status	✓	✓	✓	✓	✓	

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

Timebase	-4.00 ms	Trigger	Ext/10 DC
1.00 MS	1.00 ms/div	Normal	200 mV
	100 MS/s	Edge	Negative

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1
1 ms
0.50 V

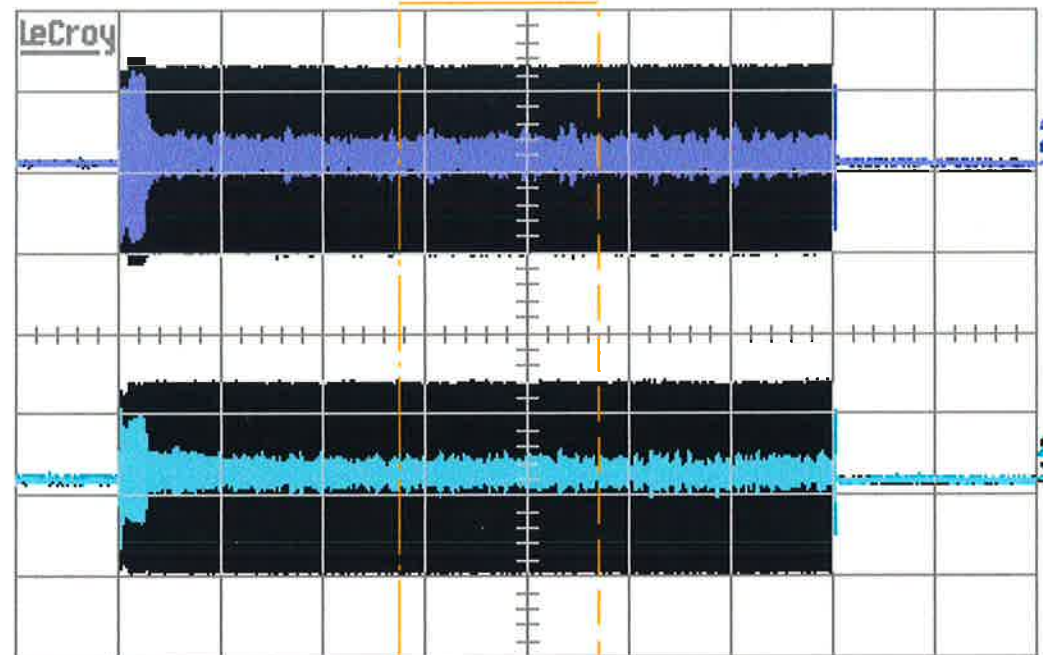
2
1 ms
200 mV

3
1 ms
0.50 V

4
1 ms
200 mV

1 ms

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



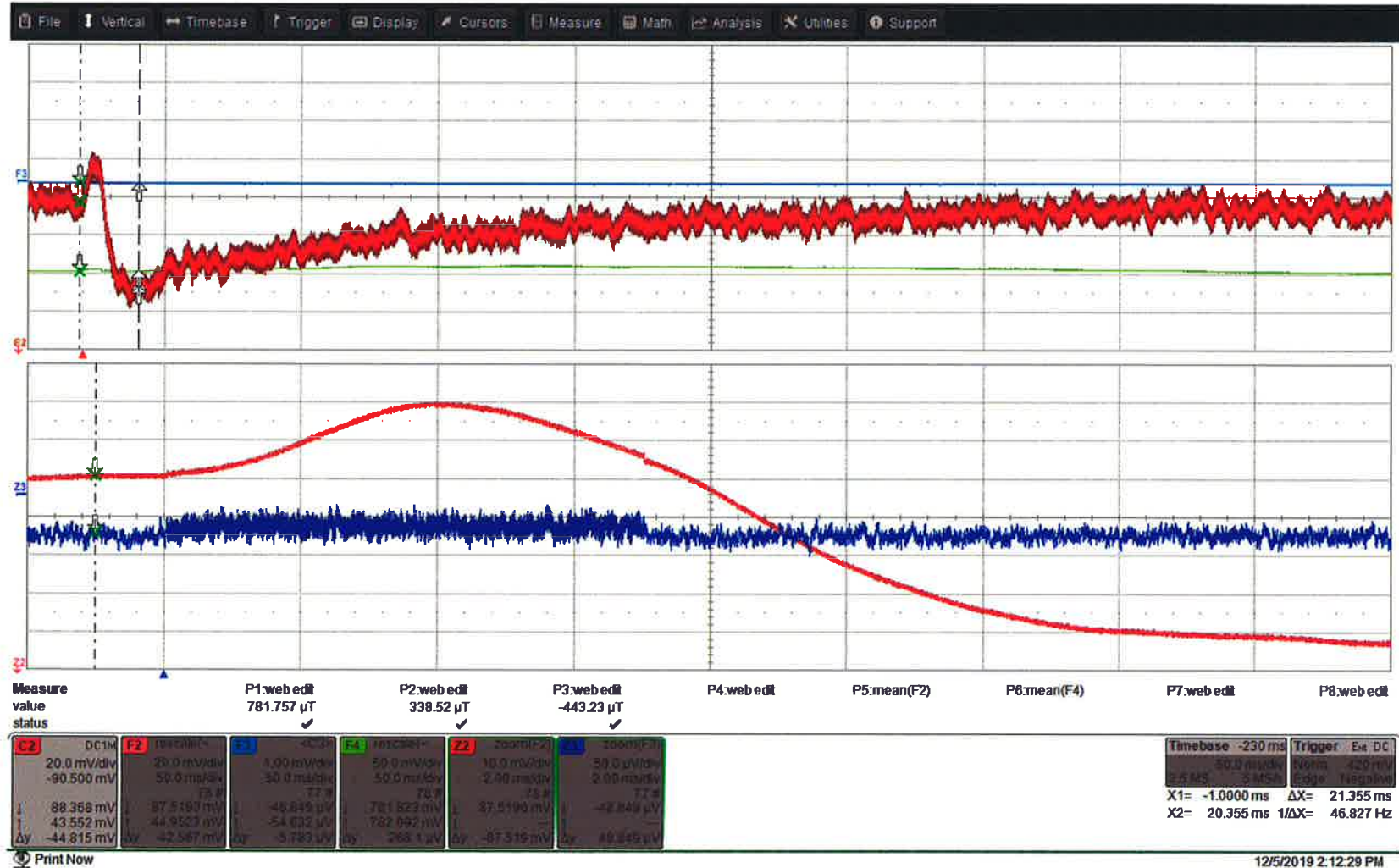
37 sweeps: average low high sigma
rms(1) 406.1 mV 402.6 408.9 1.7
rms(2) 31.0 mV 29.1 34.7 1.2
rms(3) 404.3 mV 401.9 406.2 1.2
rms(4) 22.8 mV 21.8 24.2 0.7
phase(1,3) -4 ° -146 109 87

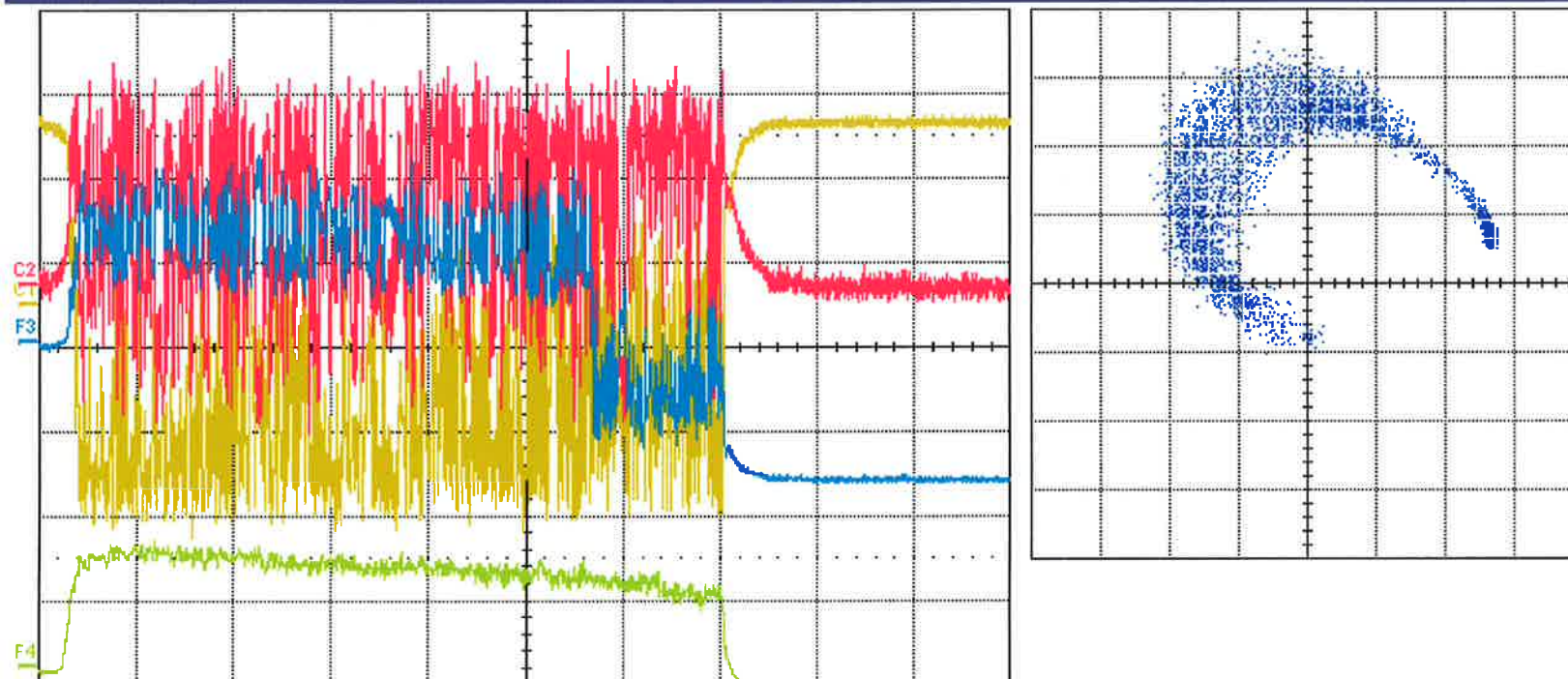


Ext10 DC 0.60 V 1MΩ

10 MS/s

☐ NORMAL



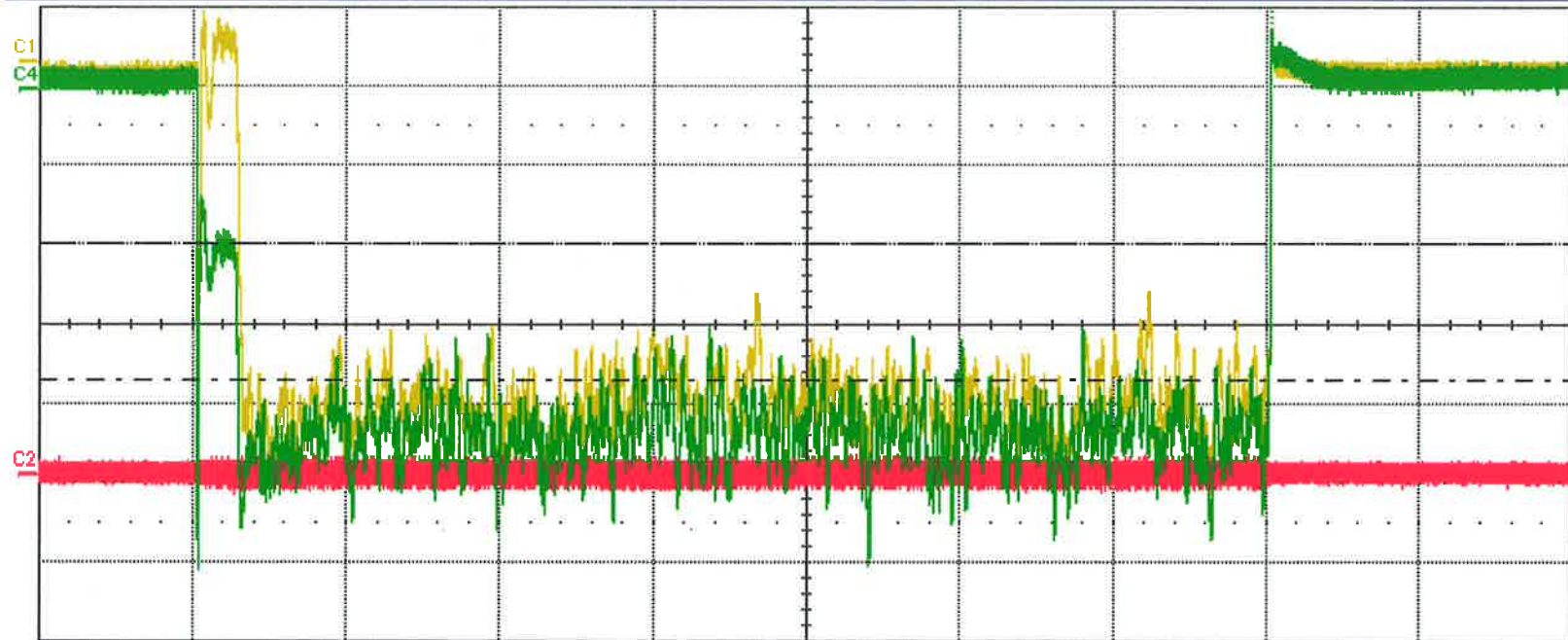


Measure	P1:pkpk(F4)	P2:pkpk(C1)	P3:mean(C2)	P4:pkpk(C2)	P5:mean(C3)	P6:mean(F4)	P7:mean(C1)	P8:mean(C4)
value	3.5642							
mean	3.564178							
min	3.5642							
max	3.5642							
sdev	--							
num	1							
status	✓							

C1	DC1M	C2	DC1M	F3	script(C1,C2)	F4	<F3>	XY	X:C1 Y:C2
200 mV/div		200 mV/div		2.00/div		2.00/div		200 mV/div	
98.0 mV ofst		148.0 mV		1.00 ms/div		1.00 ms/div		200 mV/div	
						40 #			

Tbase	-5.00 ms	Trigger	C4 DC
1.00 ms/div		Normal	1.90 V
5.00 kS	500 kS/s	Edge	Negative

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	-85.52 mV	-86.45 mV	-82.15 mV	-84.13 mV	156.4414860124 °	
mean	-83.9987 mV	-84.8803 mV	-84.3810 mV	-84.9047 mV	-2.700474672479 °	
min	-91.64 mV	-96.52 mV	-88.91 mV	-89.12 mV	-179.8539930684 °	
max	-74.82 mV	-76.54 mV	-79.86 mV	-81.54 mV	179.4078947368 °	
sdev	3.3287 mV	3.1038 mV	1.6059 mV	1.5954 mV	97.146612275519 °	
num	163	163	163	163	1.367e+3	
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	-4.00 ms	Trigger	Ext/10 DC
1.00 MS	1.00 ms/div	Normal	200 mV
	100 MS/s	Edge	Negative

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1
1 ms
0.50 V

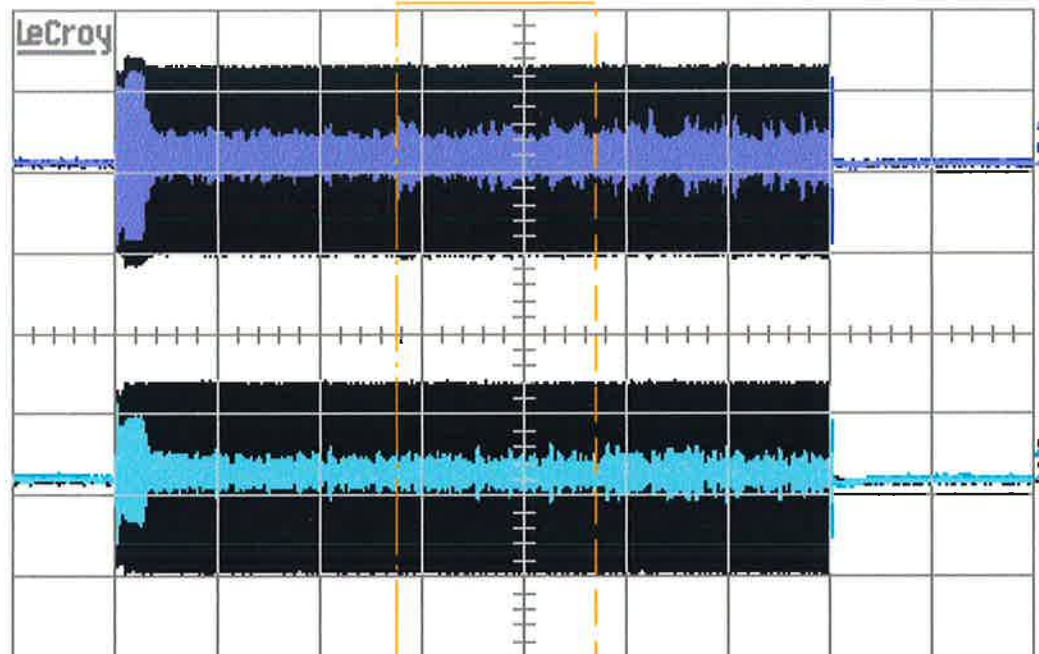
2
1 ms
200 mV

3
1 ms
0.50 V

4
1 ms
200 mV

1 ms

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



41 sweeps: average low high sigma
rms(1) 408.8mV 406.2 412.1 1.6
rms(2) 37.7mV 34.4 41.7 1.5
rms(3) 403.2mV 401.1 405.3 1.3
rms(4) 25.4mV 23.8 28.0 0.9
phase(1,3) -5 ° -146 108 87



Ext10 DC 0.60 V 1MΩ

10 MS/s

☐ NORMAL

