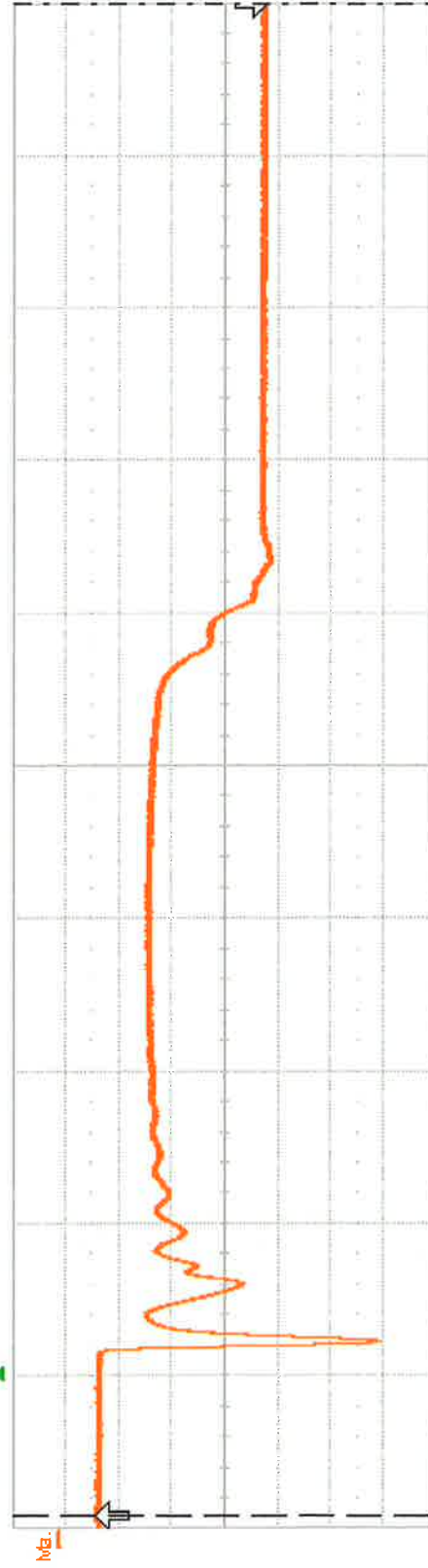
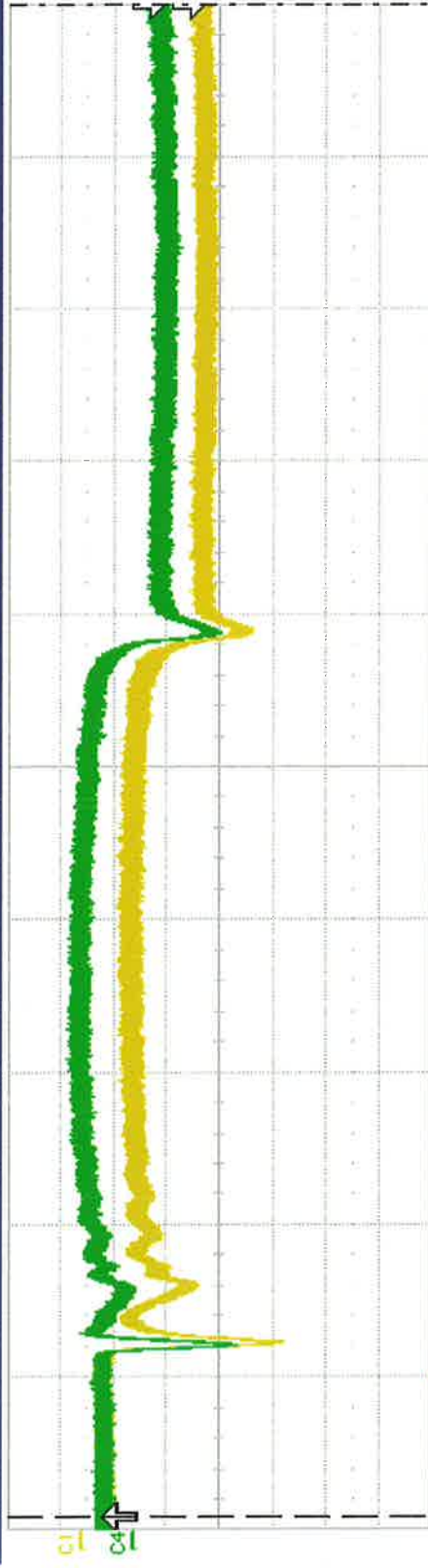


F3 script(C3,C2)
 1.00/div
 1.00 ms/div
 1 -1.132
 1 1.440
 Δy 2.571

F4 <F3>
 500e-3/div
 200 μs/div
 12 #
 -1.15011
 Δy

Tbase -3.96 ms
 WStream 1.00 ms
 50.0 kS 5.0 MS/s
 X1= 63.6 μs ΔX= 3.8298 ms
 X2= 3.8934 ms 1/ΔX= 261.11 Hz

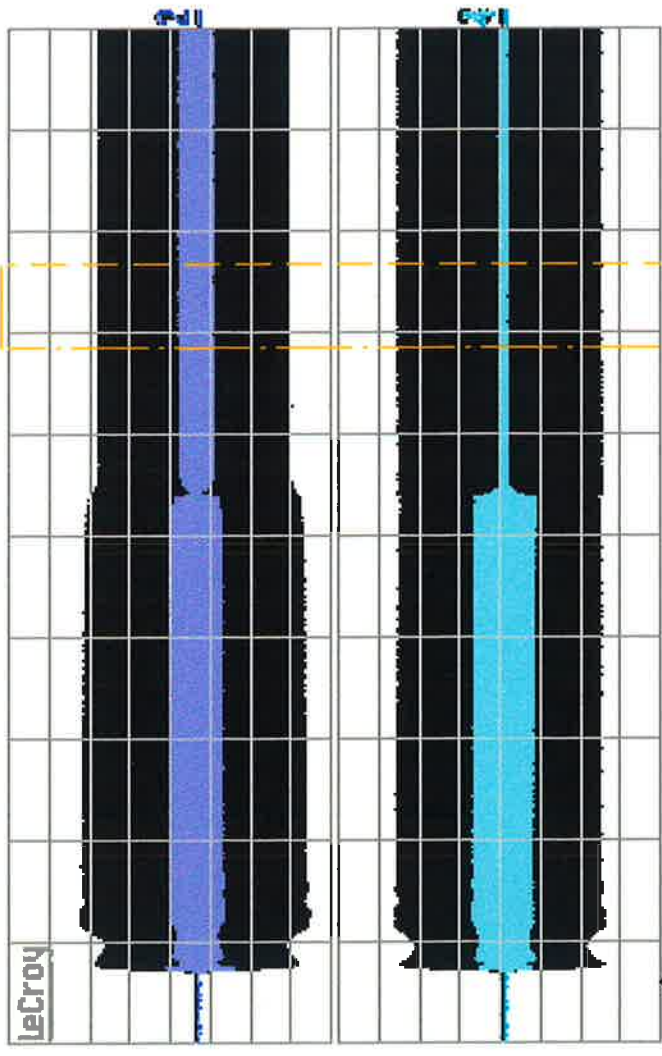
Trigger Ext10 DC
 Normal 30 mV
 Edge Negative



C1	C4	Math	<C1>
5.00 mV/div	5.00 mV/div	3.00 mV/div	3.00 mV/div
13.00 mV ofst	8.00 mV ofst	200 μ s/div	200 μ s/div
-11.28 mV	-2.60 mV	31 #	31 #
-2.38 mV	2.94 mV		
8.88 mV	5.54 mV		
Δy	Δy		

Timebase	-796 μ s	Trigger	Edge	700 mV
2.00 MS	1.0 GS/s	Normal	Edge	Negative
X1=	1.795999 ms	$\Delta X=$	-1.982532 ms	
X2=	-186.533 μ s	1/ $\Delta X=$	-504.4055 Hz	

20-Oct-20
10:23:10



1
-2 ms
200 mV

2
-2 ms
200 mV

3
-2 ms
200 mV

4
-2 ms
200 mV

38 sweeps:

rms(1)	average	low	high	sigma
rms(2)	336.8 mV	334.3	341.7	1.7
rms(3)	56.6 mV	55.2	57.7	0.6
rms(4)	351.6 mV	349.4	356.0	1.5
phase(1,3)	18.1 mV	14.7	21.8	2.0
	82 °	80	84	1

-2 ms

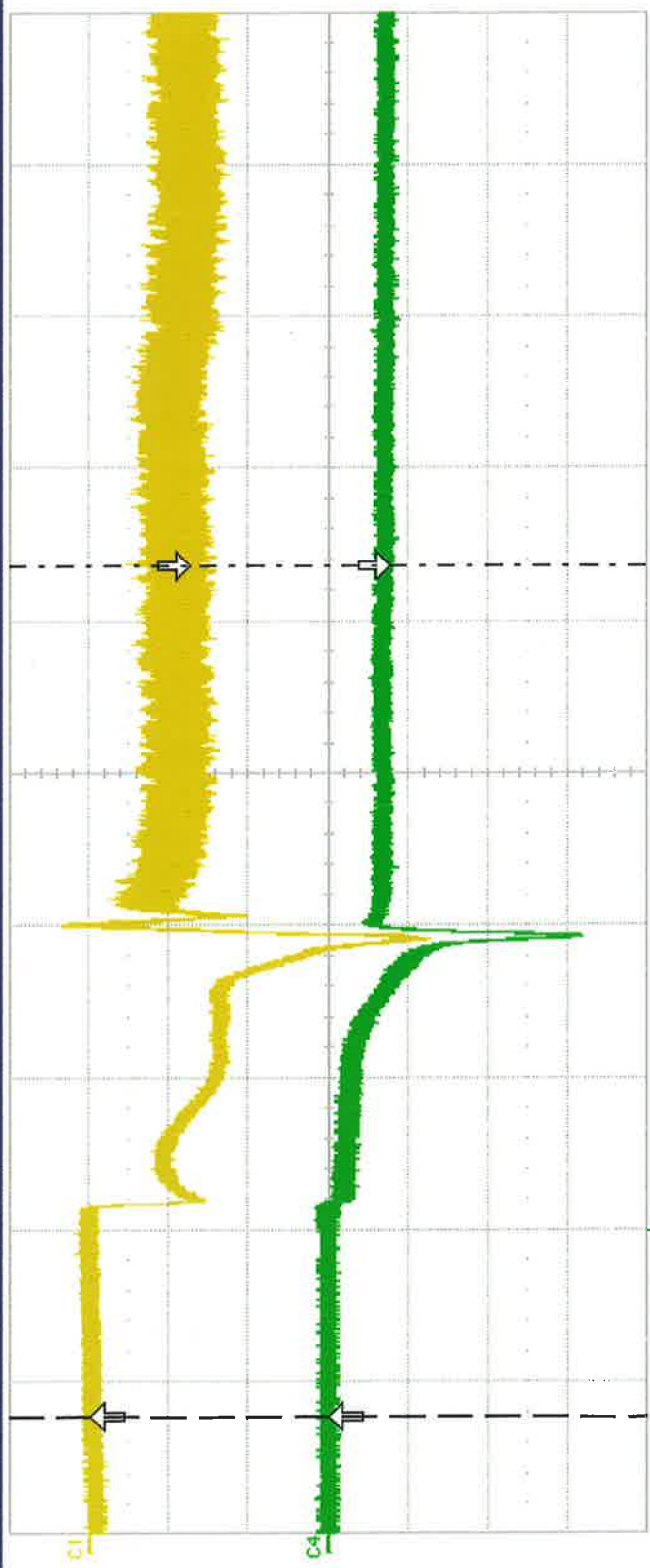
- 1 -2 V AC
- 2 -2 V AC
- 3 -2 V AC
- 4 -2 V AC

50 MS/s



Ext10 DC 0.15 V 50Ω

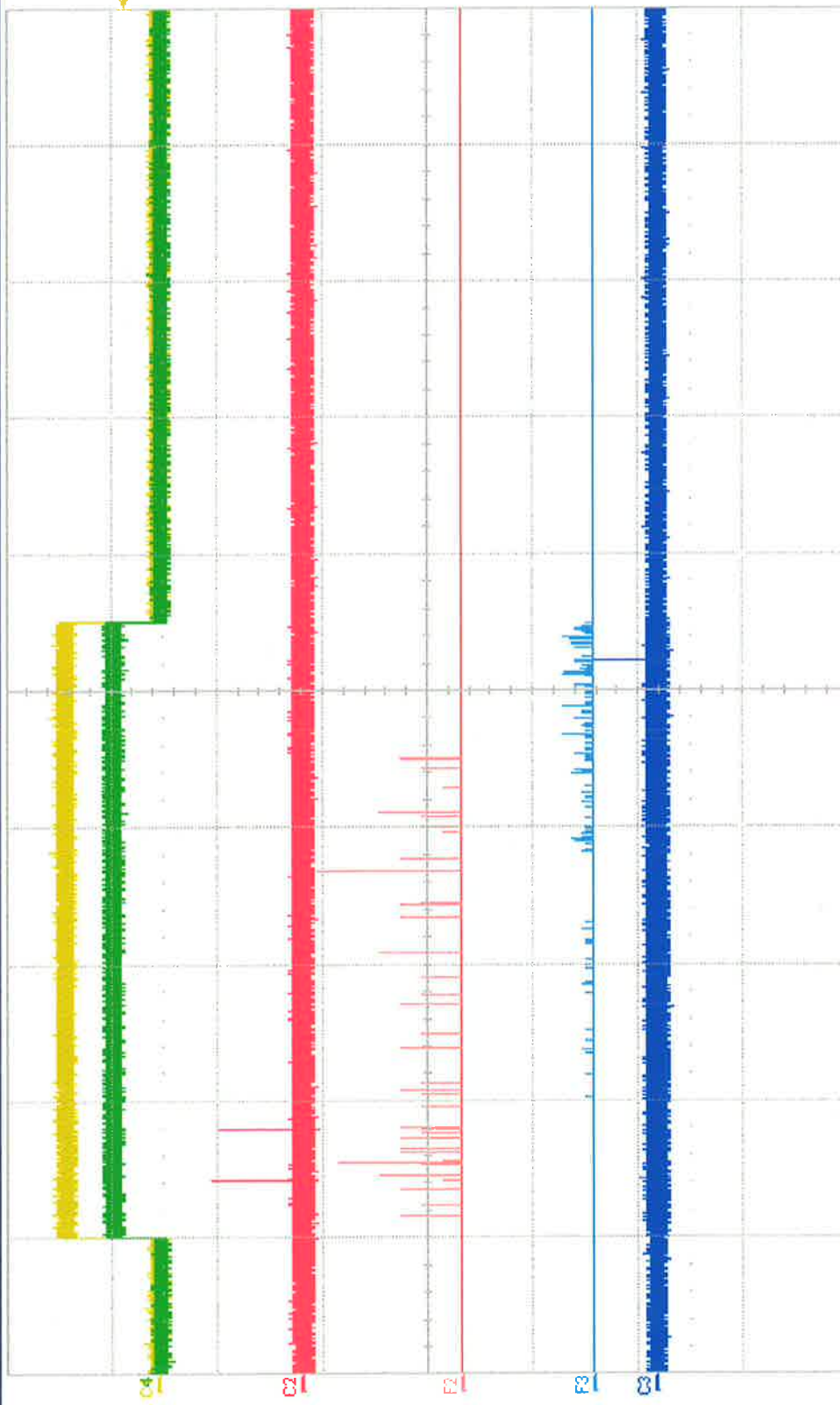
☐ NORMAL



Measure		P1:--	P2:--	P3:--	P4:--	P5:--	P6:--
value		P1:ampl(C1)	P2:ampl(C4)				
mean	463 mV	334 V					
min	460.20 mV	325.83 V					
max	441 mV	313 V					
sdev	481 mV	334 V					
num	8.03 mV	4.31 V					
status	34	34					

C1	DCIM
100 mV/div	100 V/div
296.0 mV orst	0.0 V offset
-120.7 mV	-77.0 V
-1.7 mV	-3.1 V
ΔY	ΔY

Timebase	-1.50 ms	Trigger	Est DC
250 kS	500 μs/div	Normal	150 mV
	50 MS/s	Edge	Positive
X1=	2.18204 ms	ΔX=	-2.79602 ms
X2=	-613.98 μs	1/ΔX=	-357.651 Hz

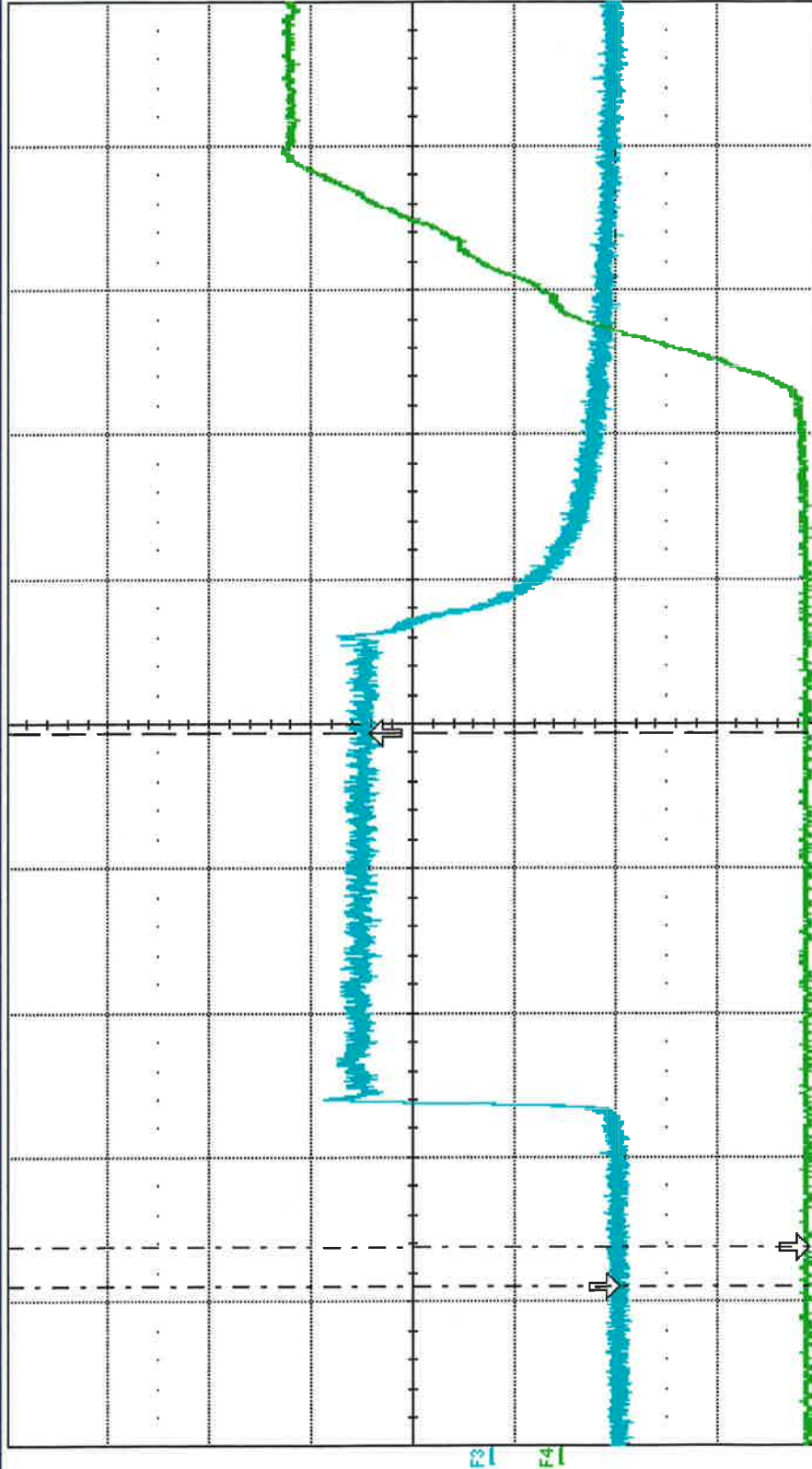


Timebase -4.00 ms
1.00 ms/div
500 kS
Trigger Normal
Edge
Positive
1.55 V
50 MS/s

C1 5.00 V 12.70 V
C2 5.00 V 5.95 V
C3 5.00 V -11.0 V
C4 10.0 V 25.30 V
F2 peris... 5.00 # 1.0 ms 105 #
F3 peris... 50.0 # 1.0 ms 619 #

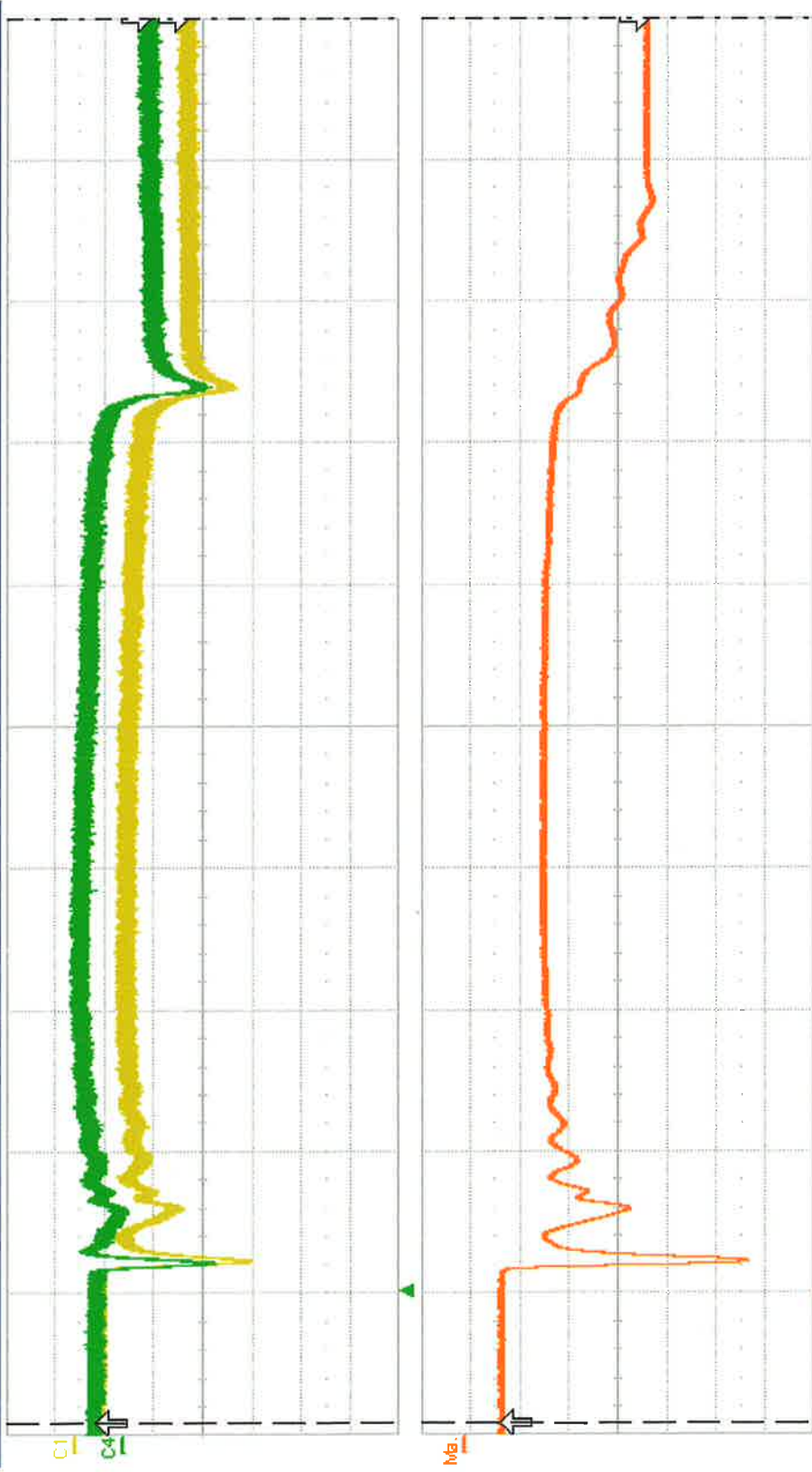
TELEDYNE LECROY

10/20/2020 10:26:47 AM



F3 script(C3,C2) 1.00/div 1.00 ms/div
 F4 <F3> 500e-3/div 200 µs/div 19 #
 ↓ -1.243 V
 ↑ -1.21391 V
 Δy 2.429 V

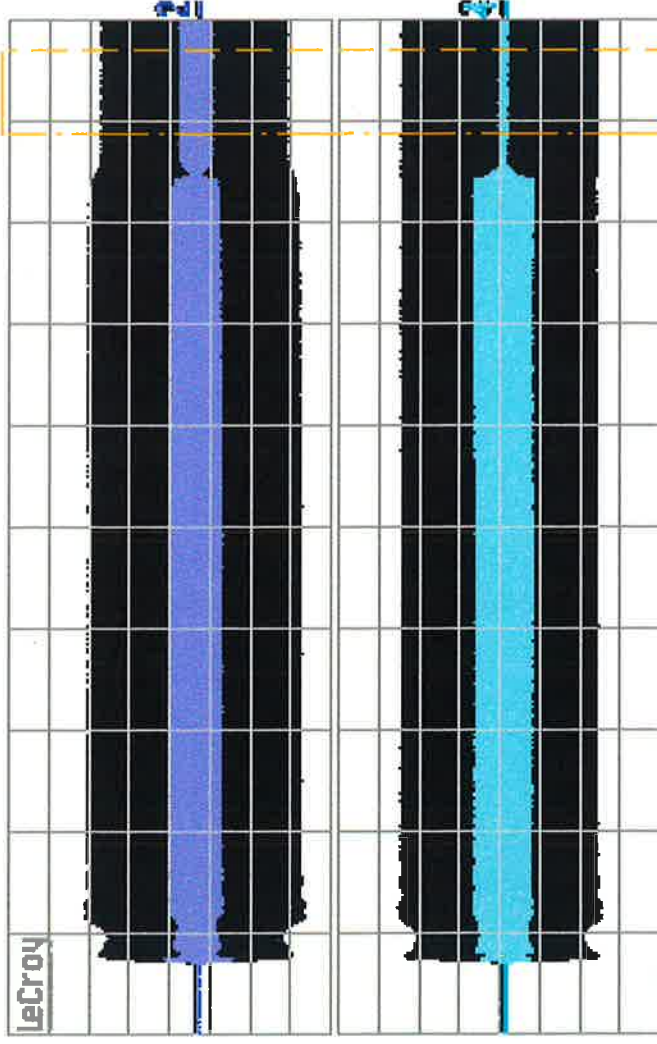
Tbase -3.96 ms Trigger Ext10 DC
 WStream 1.00 ms Normal 30 mV
 50.0 kS 5.0 MS/s Edge Negative
 X1= 63.6 µs ΔX= 3.8298 ms
 X2= 3.8934 ms 1ΔX= 261.11 Hz



C1	C4	Math	<C1>
5.00 mV/div	5.00 mV/div	3.00 mV/div	3.00 mV/div
13.00 mV/div	8.00 mV/div	200 μs/div	200 μs/div
-11.31 mV	-2.52 mV	27 #	27 #
-2.22 mV	2.75 mV		
9.08 mV	5.27 mV		
	Δy		Δy

Timebase	-796 μs	Trigger	Ext10	OC
2.00 MS	200 μs/div	Normal	Edge	Negative
X1=	1.795999 ms	ΔX=	-1.982532 ms	
X2=	-186.533 μs	1/ΔX=	-504.4055 Hz	

20-Oct-20
10:26:33



1
.2 ms
200 mV

2
.2 ms
200 mV

3
.2 ms
200 mV

4
.2 ms
200 mV

35 sweeps:						
	rms(1)	average	low	high	sigma	
	325.7 mV	323.6	327.9	1.3		
	54.4 mV	53.2	55.5	0.6		
	341.4 mV	339.3	343.5	1.2		
	17.3 mV	14.2	20.9	1.9		
	phase(1,3)	82 °	81	84	1	

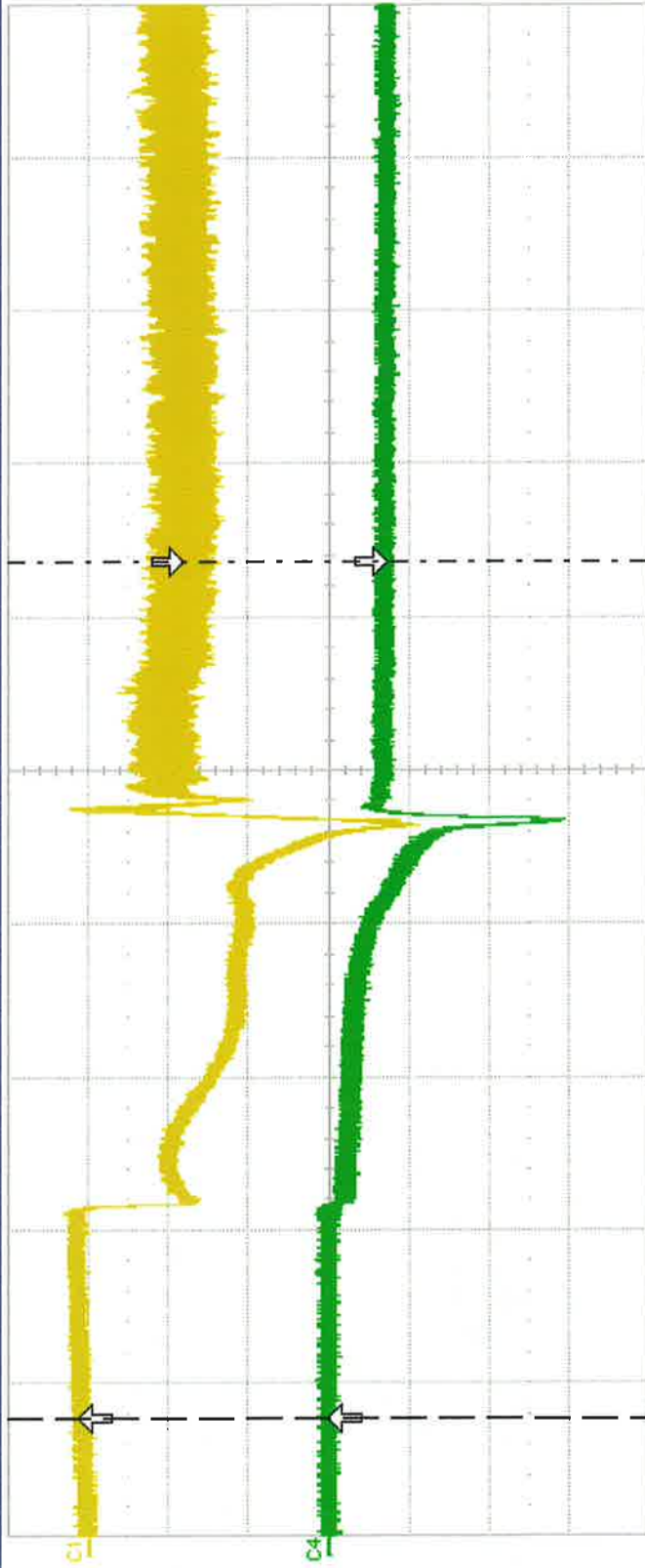
.2 ms

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

Ext10 DC 0.15 V 50Ω

50 MS/s

☐ NORMAL



Measure

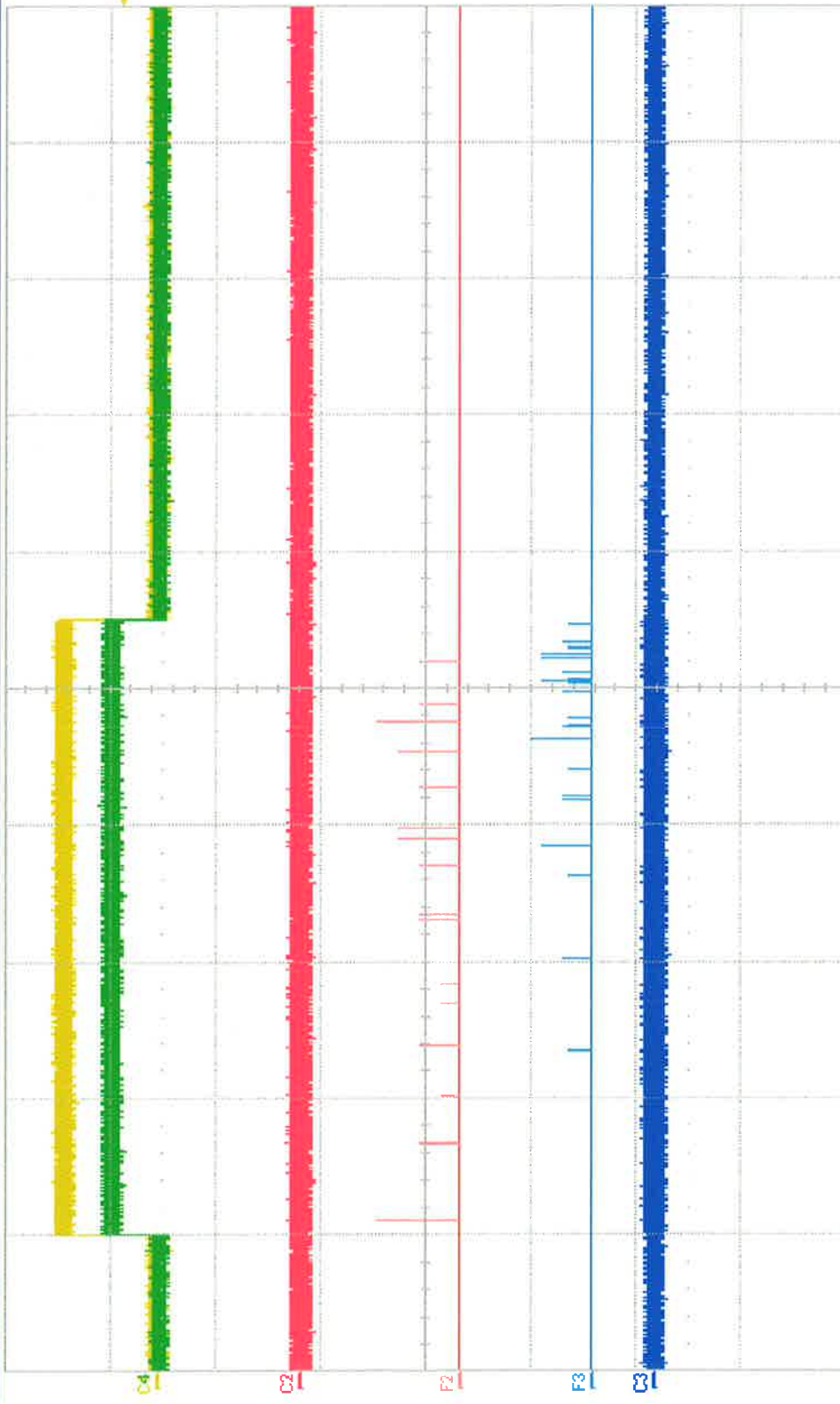
value	P1:ampl(C1)	P2:ampl(C4)	P3:---	P4:---	P5:---	P6:---
mean	441 mV	309 V				
min	442.12 mV	316.98 V				
max	419 mV	306 V				
sdev	462 mV	328 V				
num	9.02 mV	5.46 V				
status	67	67				
	μ	μ				

C1	C4
100 mV/div	100 V/div
296.0 mV ofst	0.0 V ofst
-113.4 mV	-71.2 V
14.1 mV	-1.4 V
127.4 mV	69.8 V
Δy	Δx

Timebase	-1.50 ms	Trigger	Ext DC
500 μs/div	Normal	150 mV	
250 kS	50 MS/s	Edge	Positive

X1= 2.18204 ms ΔX= -2.79602 ms
X2= -613.98 μs 1/ΔX= -357.651 Hz

10/20/2020 10:26:43 AM



Tbase -4.00 ms
 1.00 ms/div
 500 kS
 Trigger Normal
 Edge
 Positive

F3 peris...
 20.0 #
 1.0 ms
 161 #

F2 peris...
 5.00 #
 1.0 ms
 38 #

C4
 10.0 V
 25.30 V

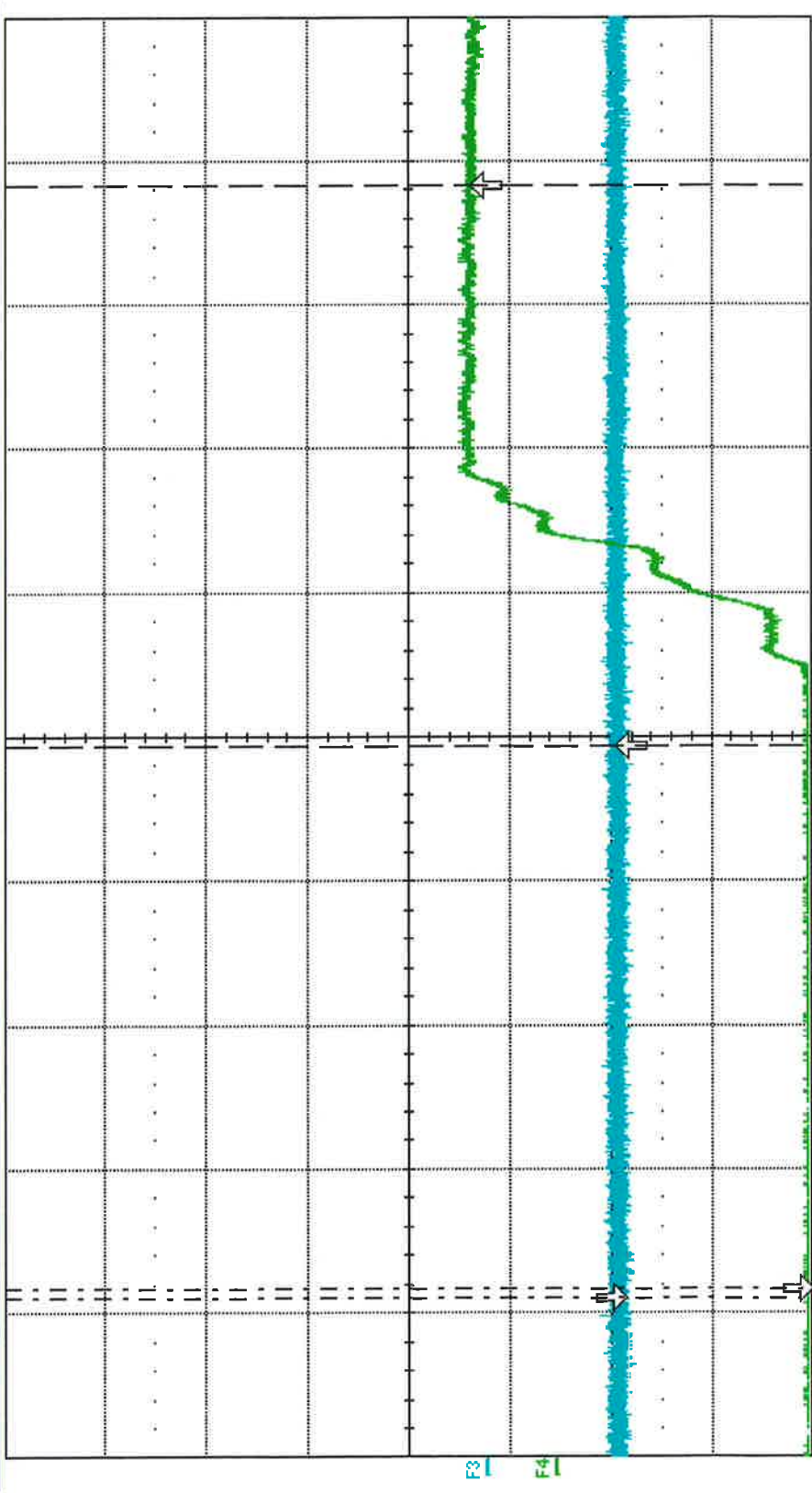
C3
 5.00 V
 -11.0 V

C2
 5.00 V
 5.95 V

C1
 5.00 V
 12.70 V

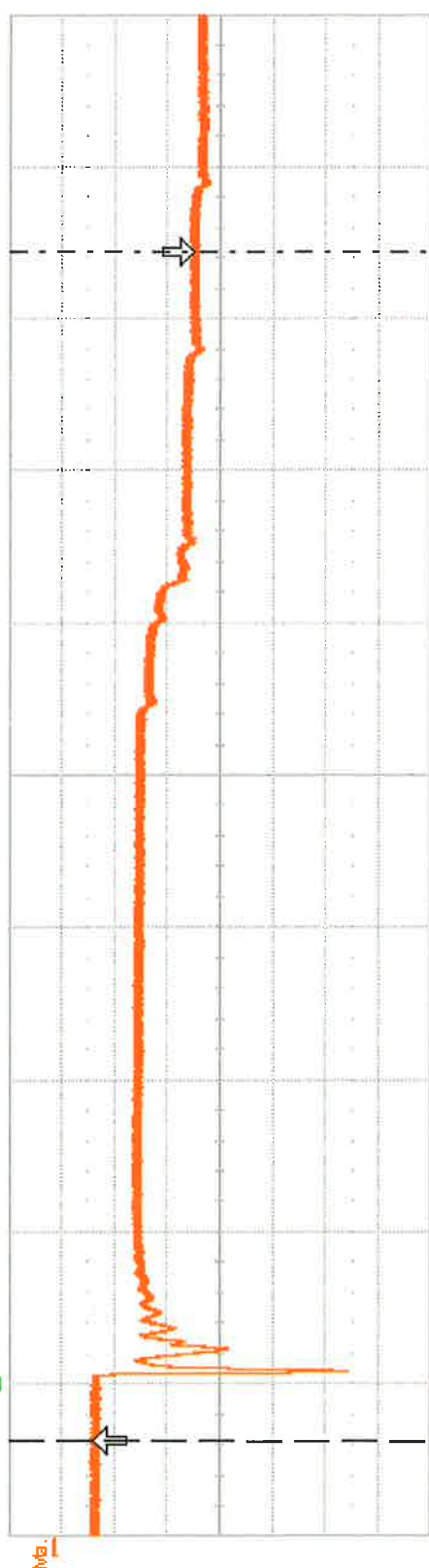
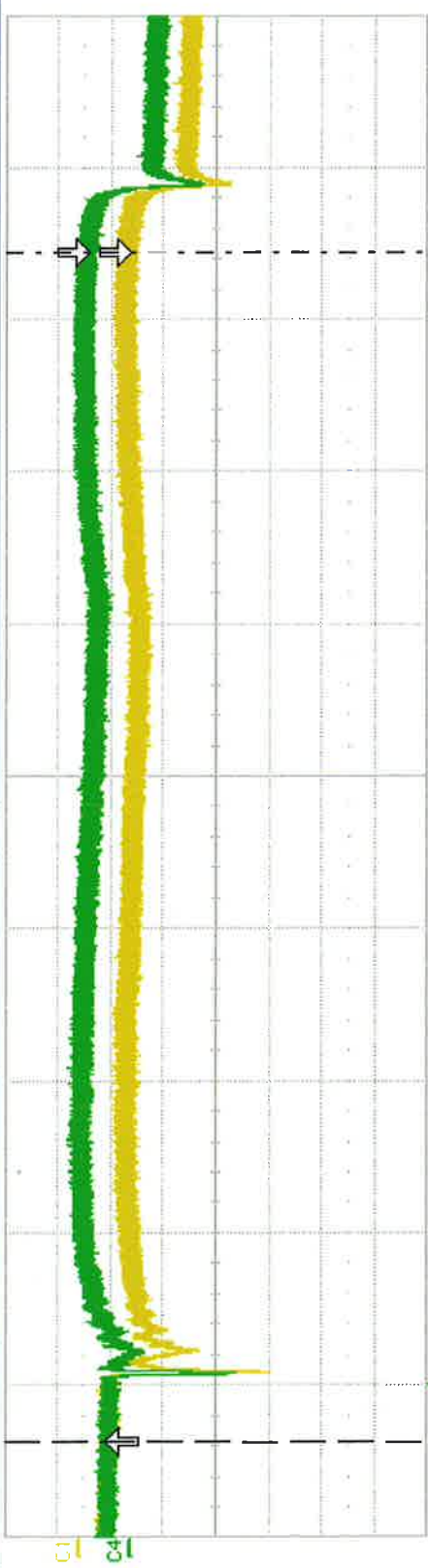
TELEDYNE LECROY

10/20/2020 10:28:57 AM



Tbase -3.96 ms Trigger Exp70 DC
 Wstream 1.00 ms Normal 30 mV
 50.0 kS 5.0 MS/s Edge Negative
 X1= 63.6 μ s Δ X= 3.8298 ms
 X2= 3.8934 ms 1/X= 261.11 Hz

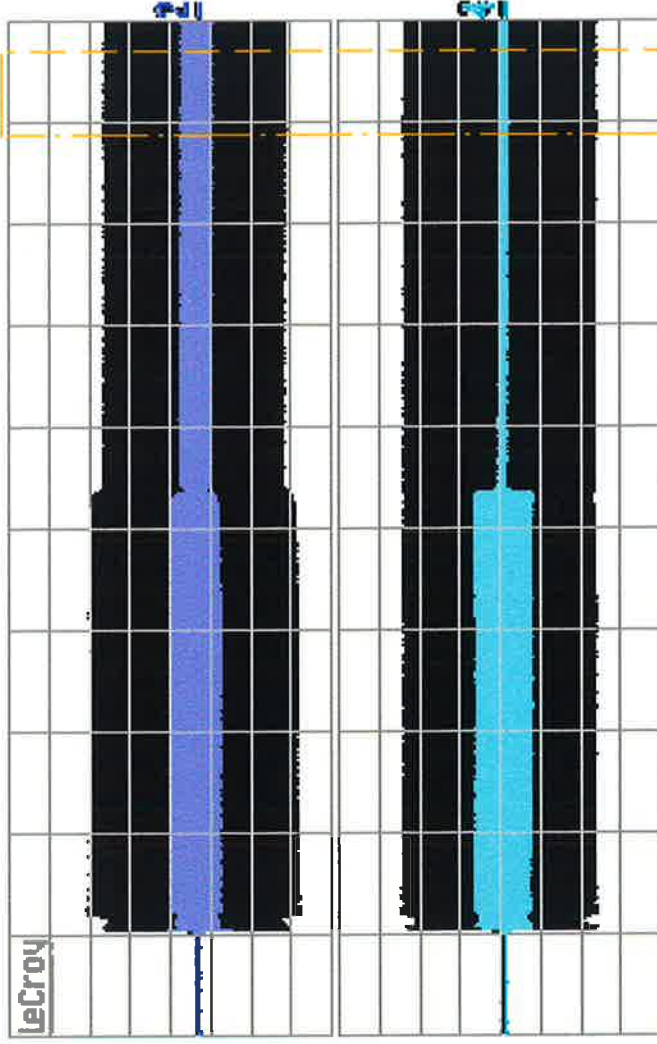
F3 script(C3,C2) 1.00/div 1.00 ms/div
 F4 <F3> 500e-3/div 500 μ s/div 13 #
 1 -1.357 1 -1.25702
 2 -1.276 1 424.18e-3
 Δ y 81e-3 Δ y 1.68120



C1	C4	Math
5.00 mV/div	5.00 mV/div	3.00 mV/div
13.00 mV/div	8.00 mV/div	500 μ s/div
13 #	13 #	
4.78 mV	4.13 mV	-7.8682 mV
2.60 mV	2.30 mV	-2.2551 mV
2.17 mV	-1.83 mV	5.6132 mV
Δv	Δv	Δv

Timebase	-2.00 ms	Trigger	Edge
500 μ s/div	Normal	700 mV	Negative
2.00 MS	400 MS/s	Edge	
X1=	3.721890 ms	$\Delta X=$	-3.908423 ms
X2=	-186.533 μ s	1/ $\Delta X=$	-255.8577 Hz

20-Oct-20
10:29:01



1
.5 ms
200 mV

2
.5 ms
200 mV

3
.5 ms
200 mV

4
.5 ms
200 mV

14 sweeps:

	average	low	high	sigma
rms(1)	331.2 mV	312.6	361.6	22.5
rms(2)	64.6 mV	50.4	88.1	18.0
rms(3)	331.4 mV	329.2	334.0	1.3
rms(4)	47.9 mV	16.5	101.2	41.0
phase(1,3)	81 °	77	86	2

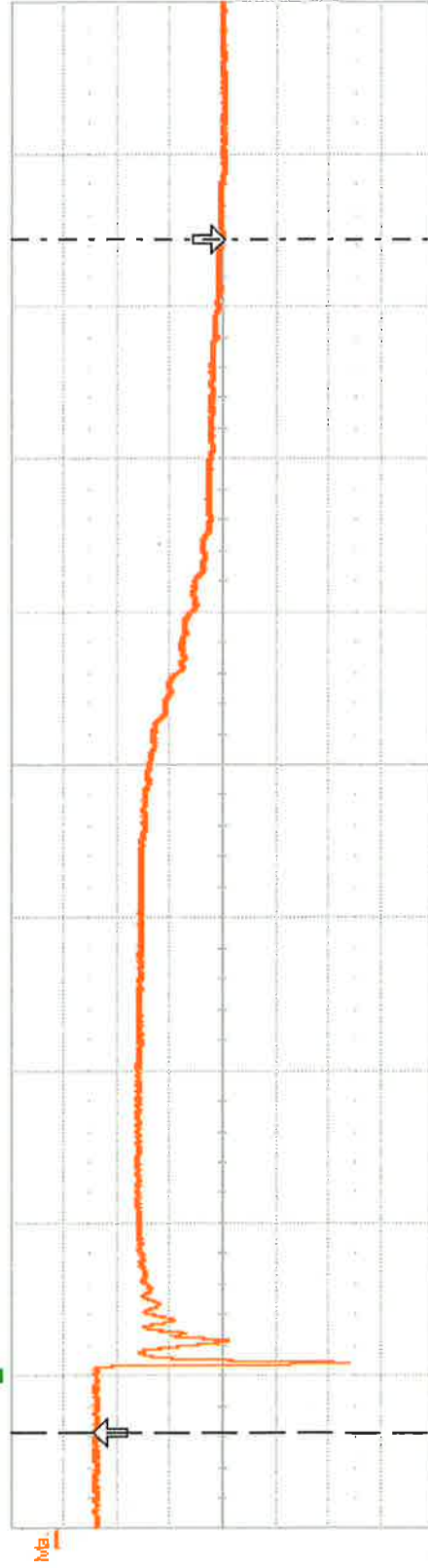
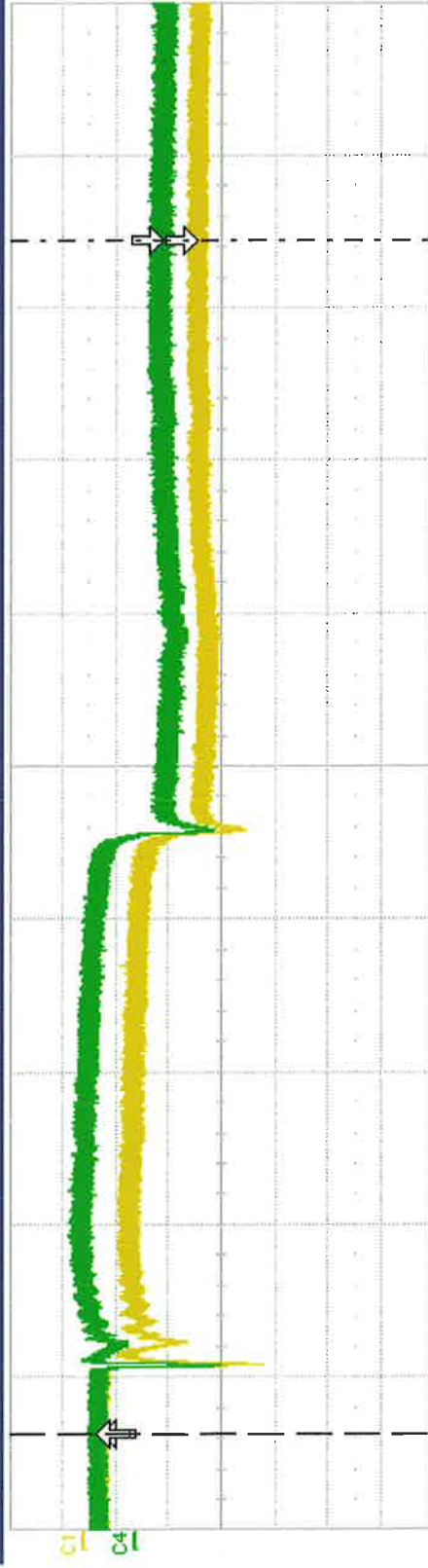
.5 ms

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

20 MS/s

Ext10 DC 0.15 V 50Ω

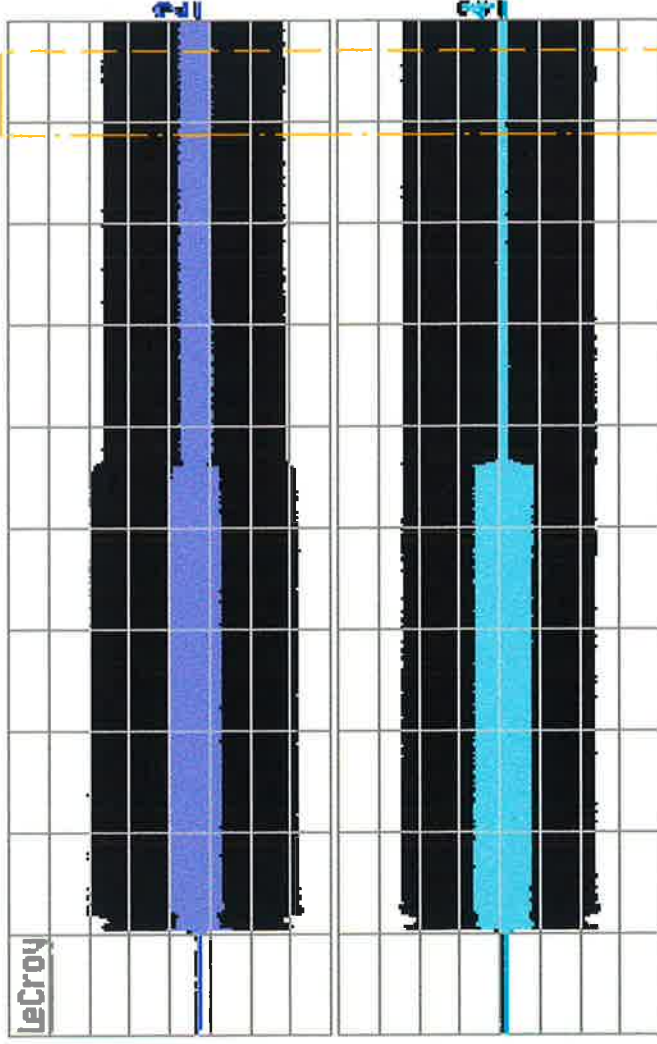
☐ NORMAL



C1	C4	Math	<C1>
5.00 mV/div	5.00 mV/div	3.00 mV/div	3.00 mV/div
13.00 mV/div	8.00 mV/div	500 μs/div	500 μs/div
10.61 mV	-2.29 mV	43 #	43 #
-1.91 mV	3.56 mV		
Δy	Δy		
6.78 mV	5.86 mV		

Timebase	-2.00 ms	Trigger	Ext In	DC
2.00 MS	500 μs/div	Normal	700 mV	Negative
X1=	3.721890 ms	Edge	ΔX=	-3.908423 ms
X2=	-186.533 μs		1/ΔX=	-255.8577 Hz

20-Oct-20
10:29:31



1
.5 ms
200 mV

2
.5 ms
200 mV

3
.5 ms
200 mV

4
.5 ms
200 mV

44 sweeps:				
rms(1)	average	low	high	sigma
rms(2)	324.2 mV	312.4	362.0	18.6
rms(3)	58.9 mV	50.4	88.2	14.9
rms(4)	331.4 mV	329.0	334.0	1.3
phase(1,3)	34.6 mV	14.6	101.3	34.1
	82 °	77	86	2

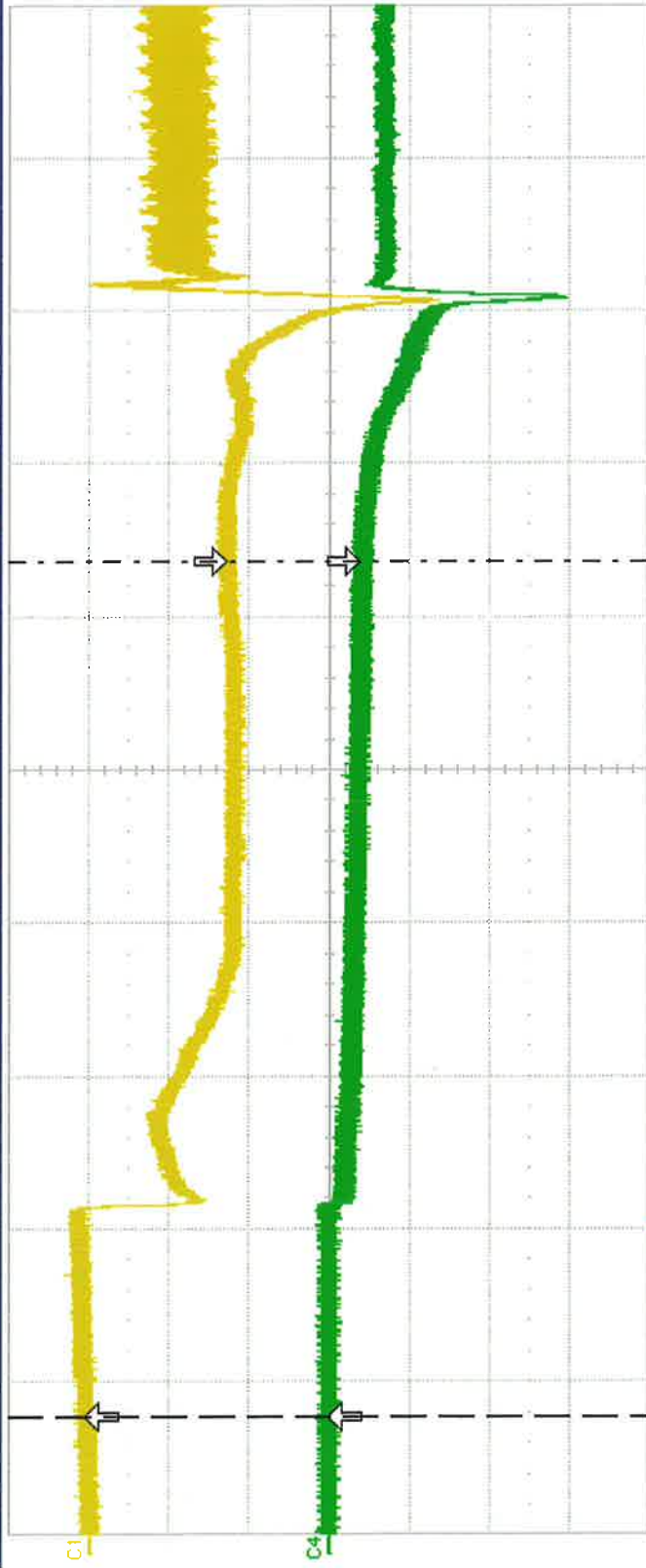
.5 ms

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

20 MS/s

Ext10 DC 0.15 V 50Ω

☐ NORMAL



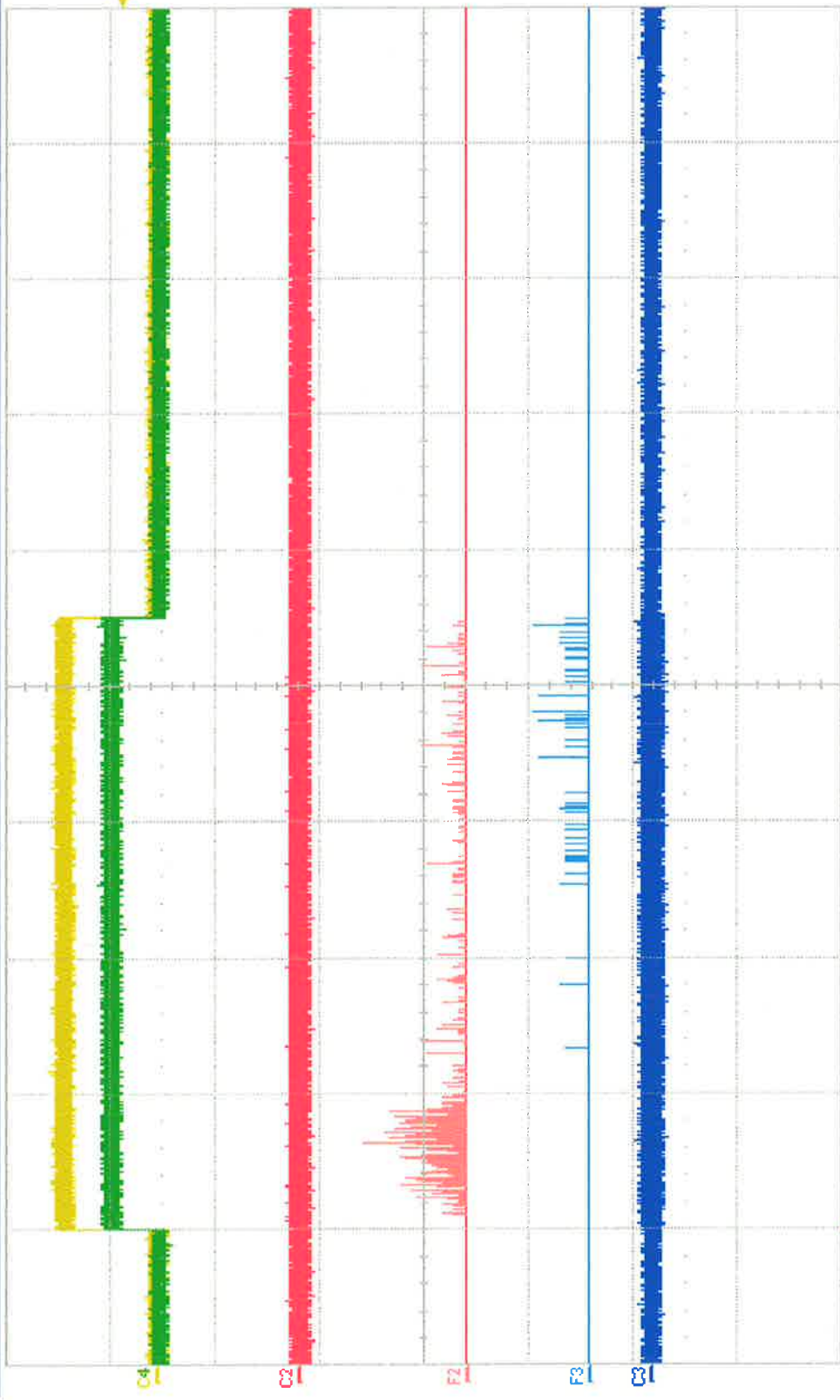
Measure

value	P1:amp(C1)	P2:amp(C4)	P3:---	P4:---	P5:---	P6:---
mean	466 mV	313 V				
min	389.17 mV	257.21 V				
max	160 mV	39 V				
sdev	466 mV	319 V				
num	100.32 mV	108.96 V				
status	55	55				

C1	DCIM	C4	DCIM
100 mV/div	100 V/div	100 V/div	100 V/div
296.0 mV offset	0.0 V offset	0.0 V offset	0.0 V offset
-165.7 mV	-36.2 V	-36.2 V	-36.2 V
4.9 mV	-2.2 V	-2.2 V	-2.2 V
170.6 mV	34.0 V	34.0 V	34.0 V
ΔV	ΔV	ΔV	ΔV

Timebase	-1.50 ms	Trigger	Ext DC
250 kS	500 μ S/div	Normal	150 mV
	50 MS/s	Edge	Positive

X1= 2.18204 ms ΔX = -2.79602 ms
X2= -613.98 μ s 1/ ΔX = -357.651 Hz



Timebase -4.00 ms
1.00 ms/div
500 kS

Trigger Normal
Edge
Positive

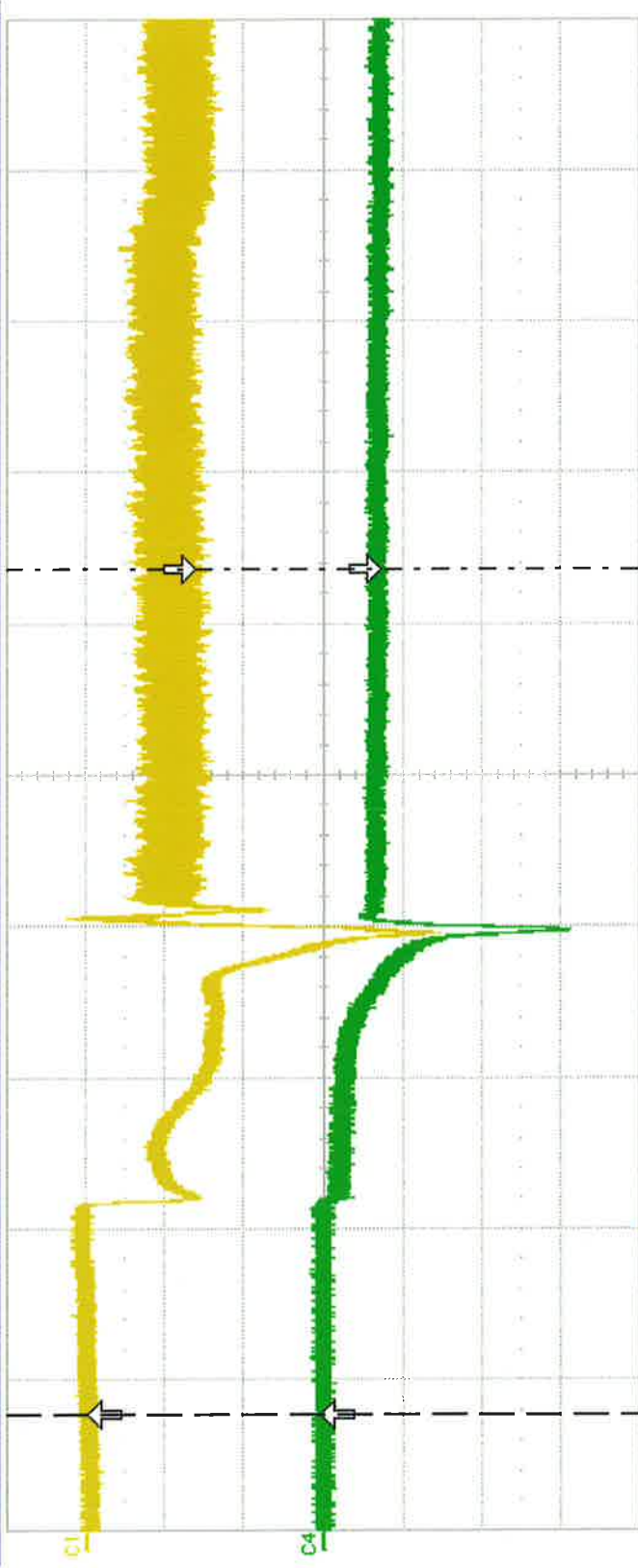
C1 DC
1.85 V

C1 5.00 V 12.70 V
C2 5.00 V 5.95 V
C3 5.00 V -11.0 V
C4 10.0 V 25.30 V

F2 peris... 20.0 # 1.0 ms 974 #
F3 peris... 20.0 # 1.0 ms 258 #

TELEDYNE LECROY

10/20/2020 10:33:12 AM



Measure

value	P1:ampl(C1)	P2:ampl(C4)	P3:---	P4:---	P5:---	P6:---
mean	472 mV	328 V				
min	424.81 mV	290.33 V				
max	160 mV	37 V				
sdev	484 mV	338 V				
num	83.13 mV	86.74 V				
status	218	218				

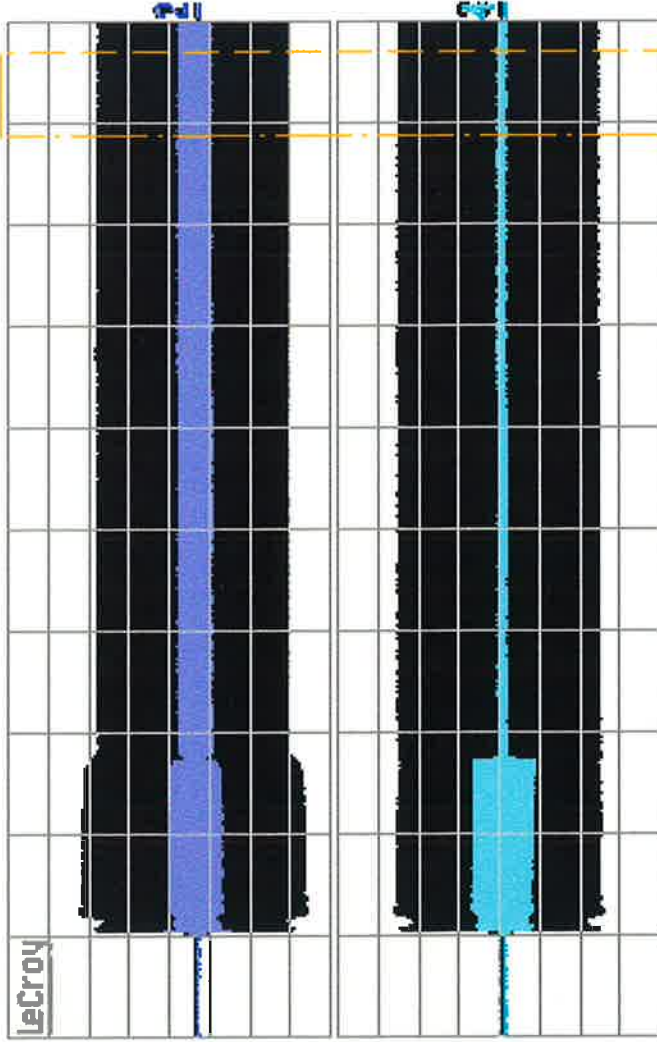
C1	DCIM	C4	DCIM
100 mV/div	100 V/div	100 V/div	100 V/div
296.0 mV offset	0.0 V offset	0.0 V offset	0.0 V offset
-133.5 mV	-70.3 V	-70.3 V	-70.3 V
-2.2 mV	1.8 V	1.8 V	1.8 V
131.3 mV	71.8 V	71.8 V	71.8 V

Timebase	-1.50 ms	Trigger	Ext DC
500 μ s/div	Normal	150 mV	Positive
250 kS	50 MS/s	Edge	
X1= 2.18204 ms	$\Delta X=$ -2.79602 ms		
X2= -613.98 μ s	1/ $\Delta X=$ -357.651 Hz		

10/20/2020 10:31:57 AM

LeCroy

20-Oct-20
10:32:34



1
.5 ms
200 mV

2
.5 ms
200 mV

3
.5 ms
200 mV

4
.5 ms
200 mV

108 sweeps:					
rms(1)	average	low	high	sigma	
rms(2)	335.0 mV	332.2	337.7	1.5	
rms(3)	54.9 mV	53.4	56.2	0.6	
rms(4)	349.2 mV	346.6	351.6	1.4	
phase(1,3)	17.9 mV	14.3	21.4	1.8	
	82 °	79	86	1	

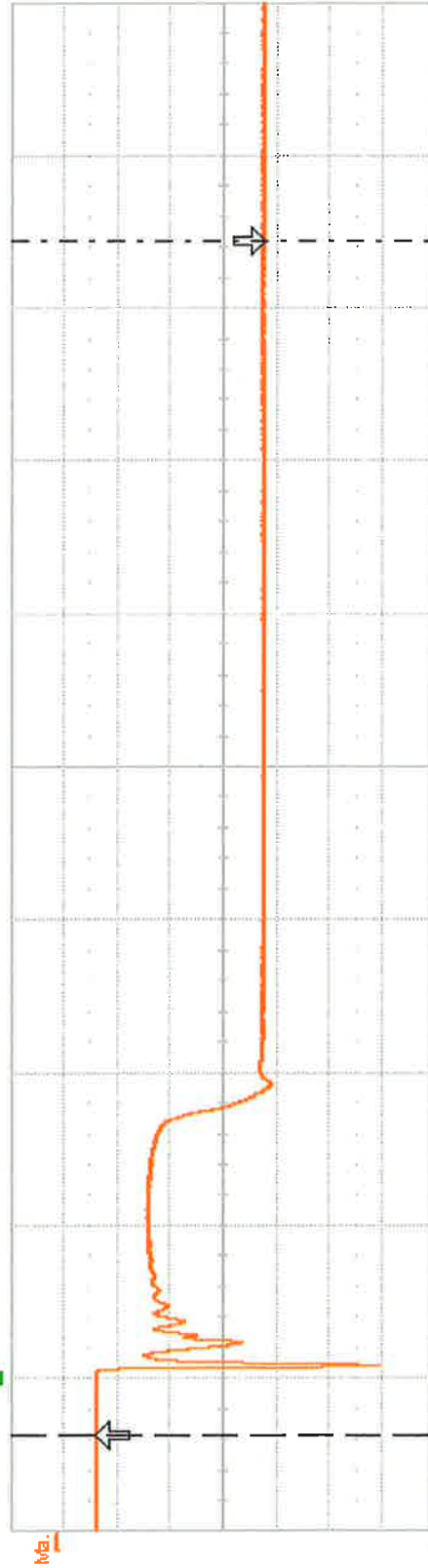
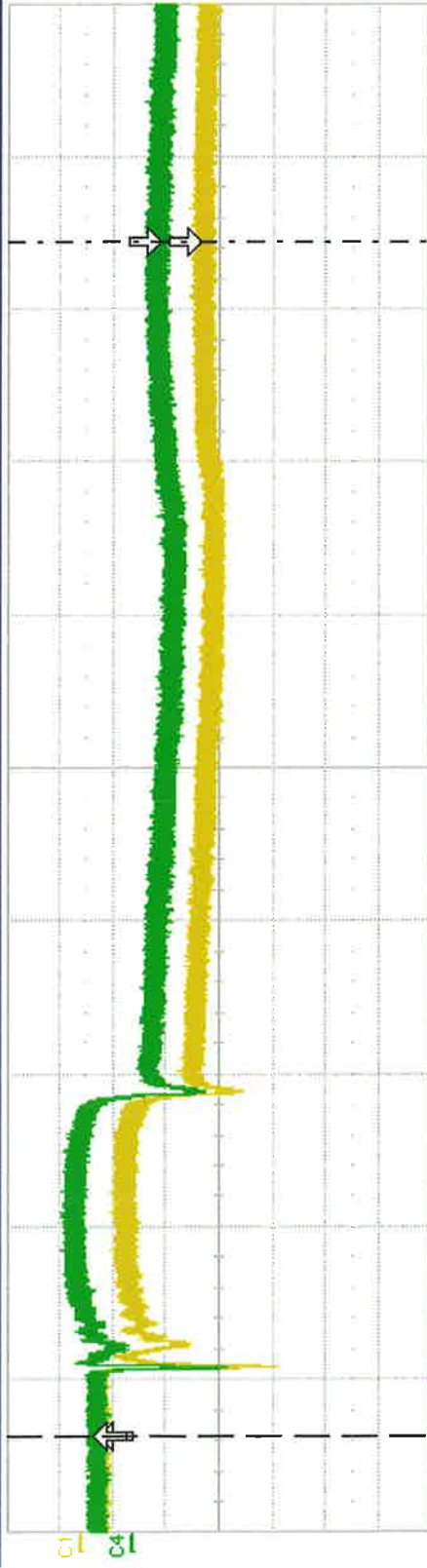
.5 ms

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

20 MS/s

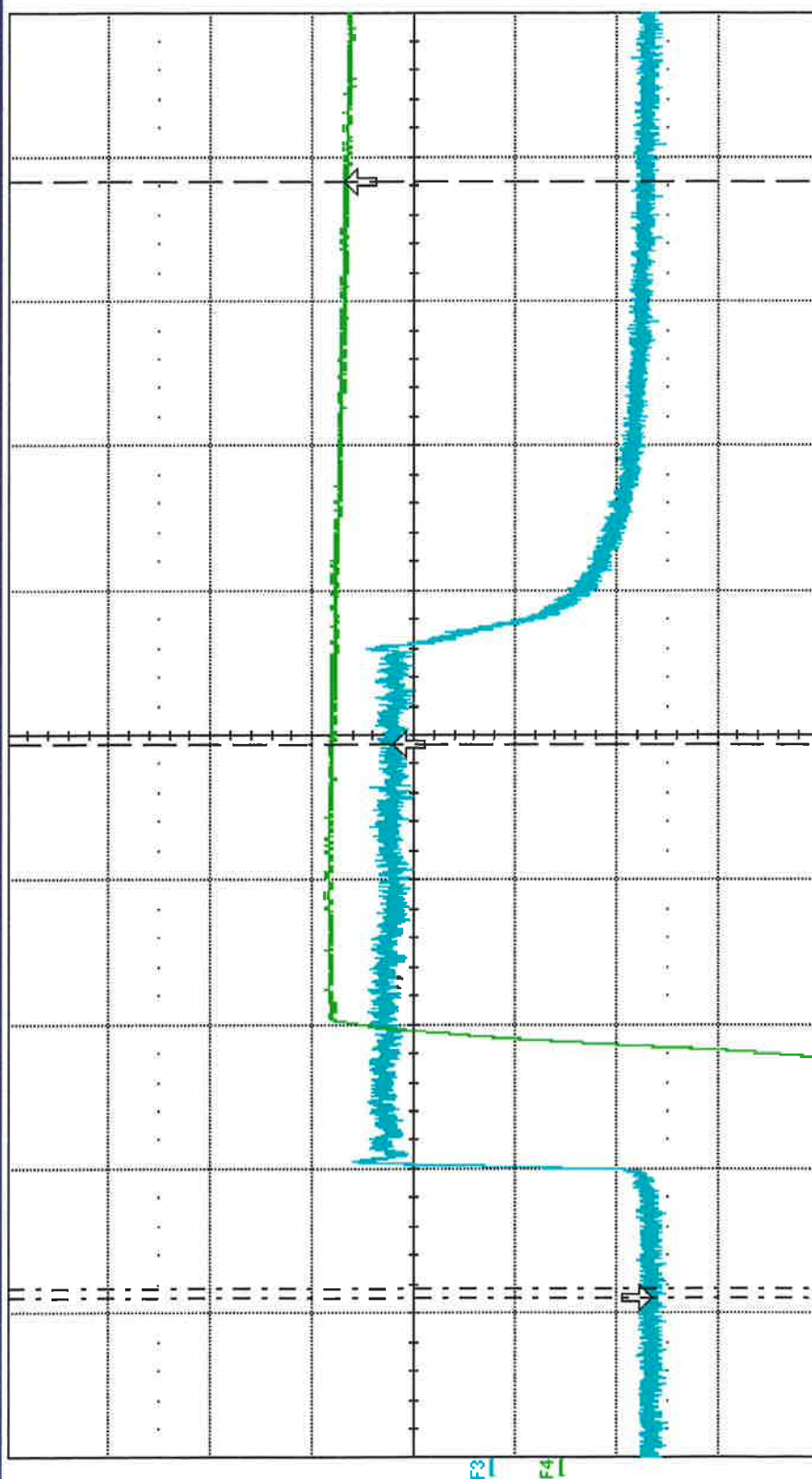
Ext10 DC 0.15 V 50Ω

☐ NORMAL



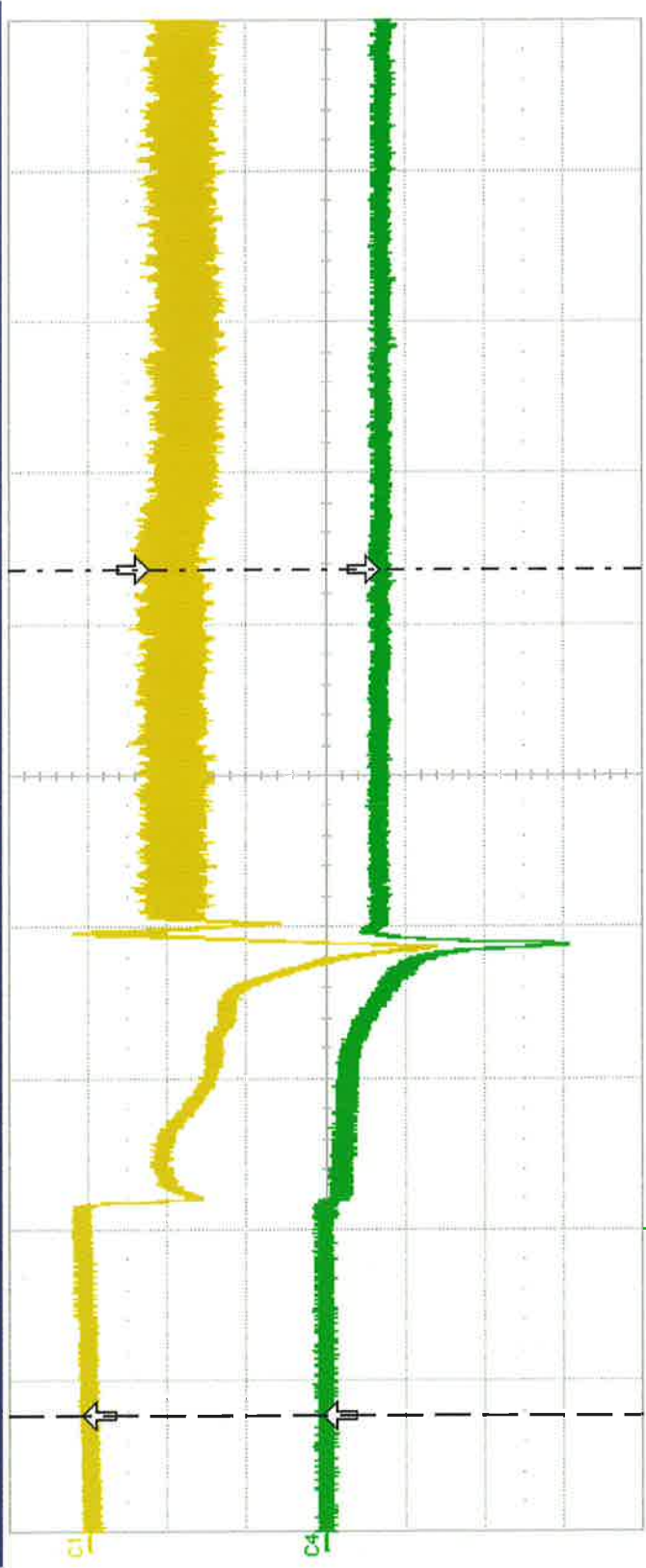
C1	C4	Math	<C1>
5.00 mV/div	5.00 mV/div	3.00 mV/div	3.00 mV/div
1000 mV/div	8.00 mV/div	500 μs/div	500 μs/div
1000 mV/div	8.00 mV/div	114 #	114 #
1000 mV/div	8.00 mV/div	-11.6776 mV	-11.6776 mV
1000 mV/div	8.00 mV/div	-2.2829 mV	-2.2829 mV
1000 mV/div	8.00 mV/div	9.3947 mV	9.3947 mV
Δx	Δy	Δx	Δy
3.721890 ms	3.721890 ms	3.721890 ms	3.721890 ms
Δx	Δy	Δx	Δy
3.721890 ms	3.721890 ms	3.721890 ms	3.721890 ms

Timebase	-2.00 ms	Trigger	Edge	Normal	700 mV	DC
2.00 MS	500 μs/div	Normal	Edge	Normal	700 mV	DC
X1=	3.721890 ms	ΔX=	-3.908423 ms			
X2=	-186.533 μs	1/ΔX=	-255.8577 Hz			



F3 script(C3,C2) F4 <F3>
 1.00/div 500e-3/div
 1.00 ms/div 500 μ s/div
 111 #
 1 -1.567 1 -1.45761
 2 988e-3 2 1.07367
 Δ 2.535 Δ 2.53128

Tbase -3.96 ms Trigger Exp10 DC
 WStream 1.00 ms Normal 30 mV
 50.0 kS 5.0 MS/s Edge Negative
 X1= 63.6 μ s Δ X= 3.8298 ms
 X2= 3.8934 ms 1/ Δ X= 261.11 Hz



Measure		P1:--	P2:--	P3:--	P4:--	P5:--	P6:--
value		P1:amp(C1)	P2:amp(C4)				
mean	459 mV	322 V					
min	466.52 mV	323.21 V					
max	459 mV	313 V					
sdev	472 mV	331 V					
num	4.33 mV	5.24 V					
status	7	7					

C1

100 mV/div

296.0 mV ofst

-71.8 mV

7.1 mV

79.0 mV

Δy

C4

100 V/div

0.0 V ofst

-55.6 V

1.3 V

87.0 V

Δy

Timebase

-1.50 ms

Trigger

Normal

Ext DC

250 μS

500 μs/div

Edge

150 mV

Positive

50 μS/s

X1=

2.18204 ms

ΔX=

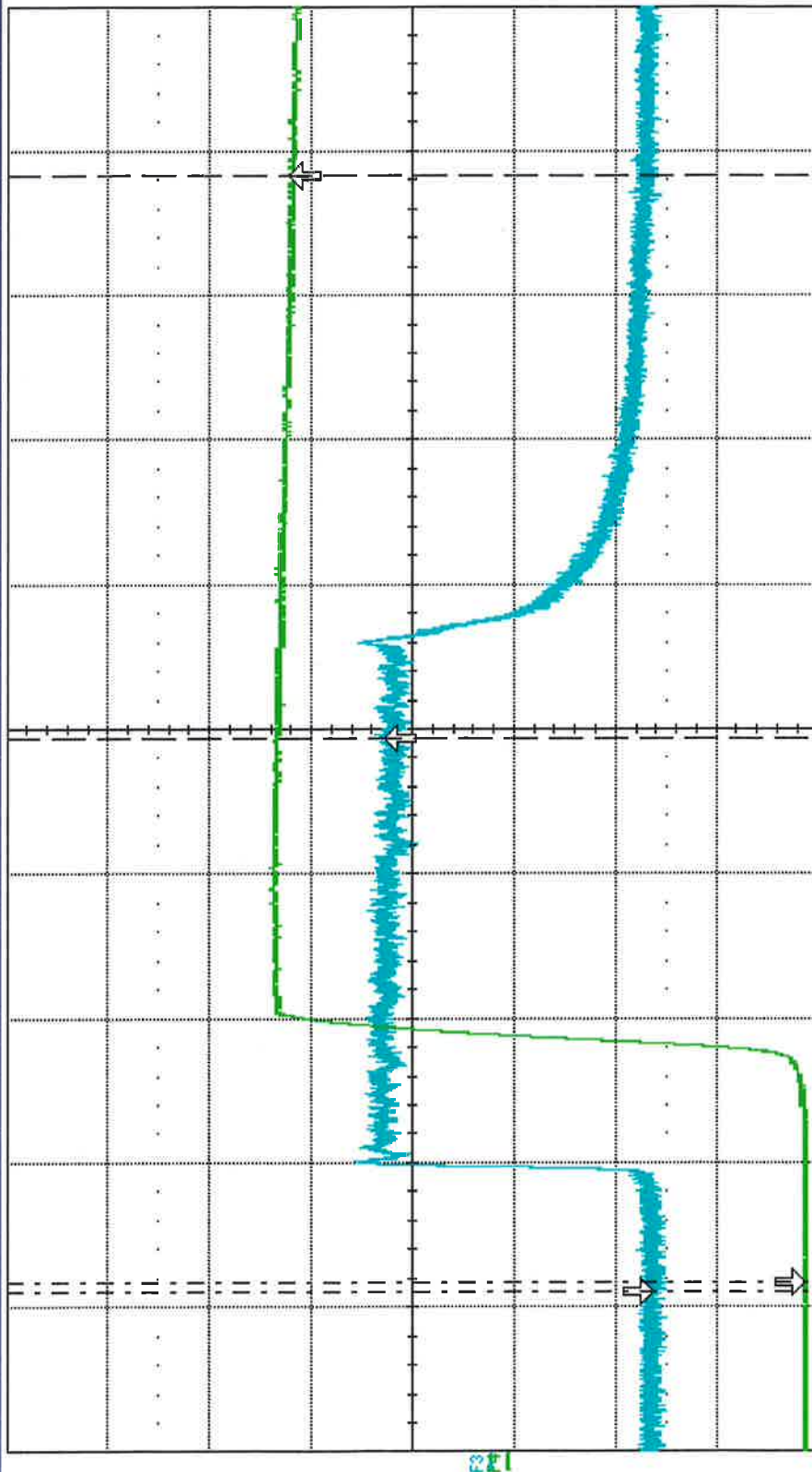
-2.79602 ms

X2=

-613.98 μs

1/ΔX=

-357.651 Hz



F3 script(C3,C2) **F4** **<F3>**

1.00/div	500e-3/div	
1.00 ms/div	500 μ s/div	
		114 #
-1.571	-1.46049	
1.039	1.07194	
2.608	2.53243	

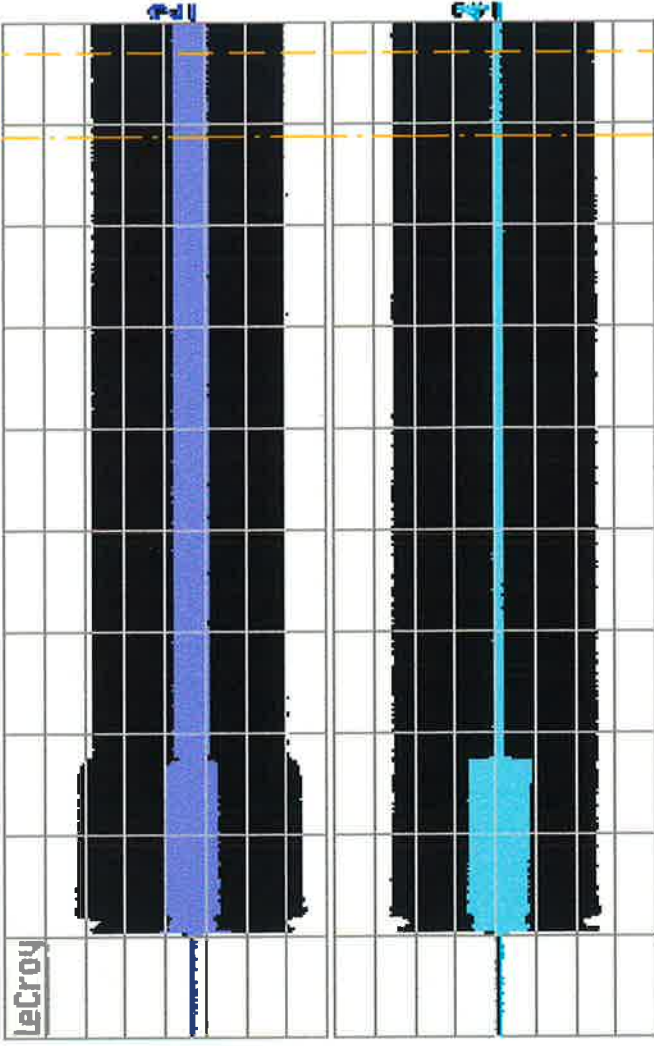
Δy

Tbase **-3.96 ms** **Trigger** **Ext10** **DC**

WStream	1.00 ms	Normal	30 mV
50.0 kS	5.0 MS/s	Edge	Negative

X1= 63.6 μ s ΔX = 3.8298 ms
X2= 3.8934 ms 1/ ΔX = 261.11 Hz

20-Oct-20
10:34:25



- 1 .5 ms
200 mV
- 2 .5 ms
200 mV
- 3 .5 ms
200 mV
- 4 .5 ms
200 mV

13 sweeps:

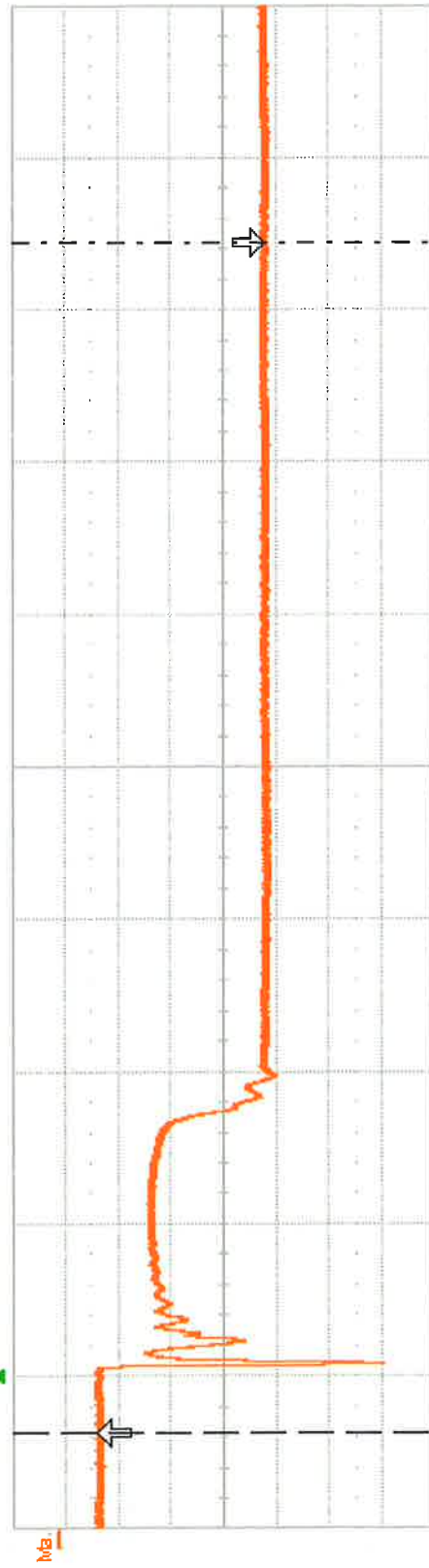
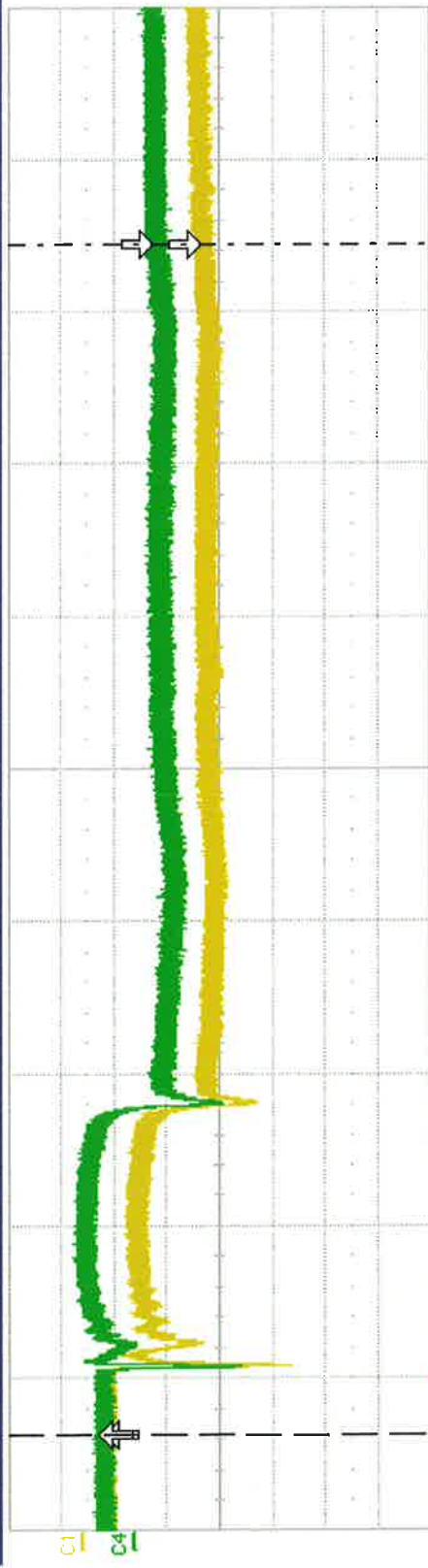
	average	low	high	sigma
rms(1)	335.7mV	333.7	338.1	1.4
rms(2)	55.0mV	54.0	56.2	0.6
rms(3)	349.8mV	348.4	351.7	1.2
rms(4)	17.5mV	14.6	19.8	1.6
phase(1,3)	82 °	79	86	1

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

20 MS/s

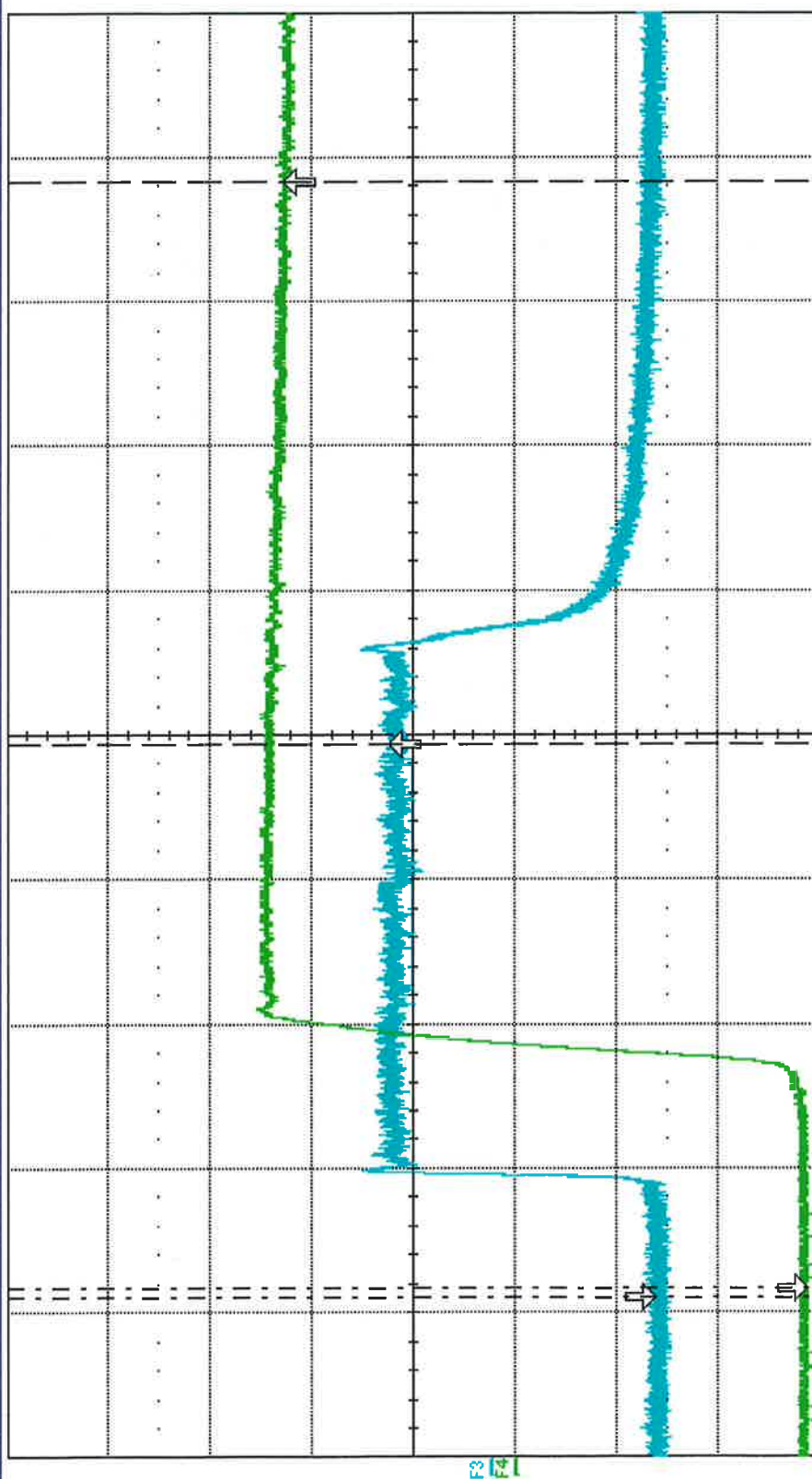
☐ NORMAL

Ext10 DC 0.15 V 50Ω



C1	C4	Math	<C1>
5.00 mV/div	5.00 mV/div	3.00 mV/div	3.00 mV/div
13.00 mV ofst	8.00 mV ofst	500 μs/div	500 μs/div
Δy	Δy	18 #	18 #
-11.12 mV	-1.62 mV	↑	↑
-2.33 mV	3.24 mV	↑	↑
8.79 mV	4.86 mV	Δy	Δy

Timebase	-2.00 ms	Trigger	Ext10 DC
2.00 MS	500 μs/div	Normal	700 mV
	400 MS/s	Edge	Negative
X1=	3.721890 ms	ΔX=	-3.908423 ms
X2=	-186.533 μs	1/ΔX=	-255.8577 Hz



F3 script(C3,C2)

1.00/div

1.00 ms/div

↓ -1.598

↑ 1.004

Δy 2.601

F4 <F3>

500e-3/div

500 μs/div

28 #

↓ -1.42255

↑ 1.14091

Δy 2.56347

Thase -3.96 ms

WStream 1.00 ms

50.0 kS 5.0 MS/s

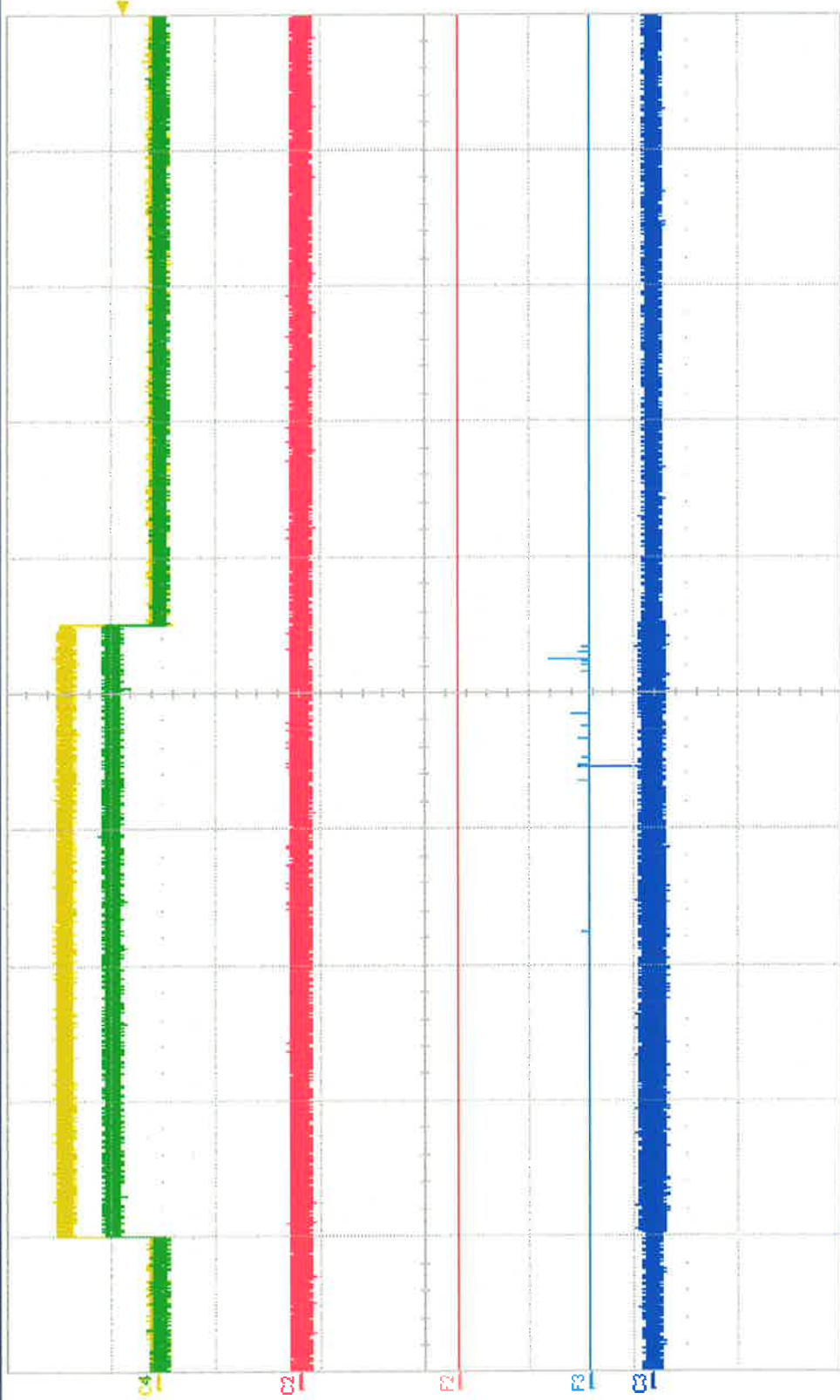
Trigger Ext10 DC

Normal 30 mV

Edge Negative

X1= 63.6 μs ΔX= 3.8298 ms

X2= 3.8934 ms 1ΔX= 261.11 Hz



Thase -4.00 ms
1.00 ms/div Normal 1.85 V
500 kS 50 MS/s Edge Positive

F3 peris...
50.0 #
1.0 ms
105 #

F2 peris...
1.00 #
1.0 ms
0 #

C4 D1
10.0 V
25.30 V

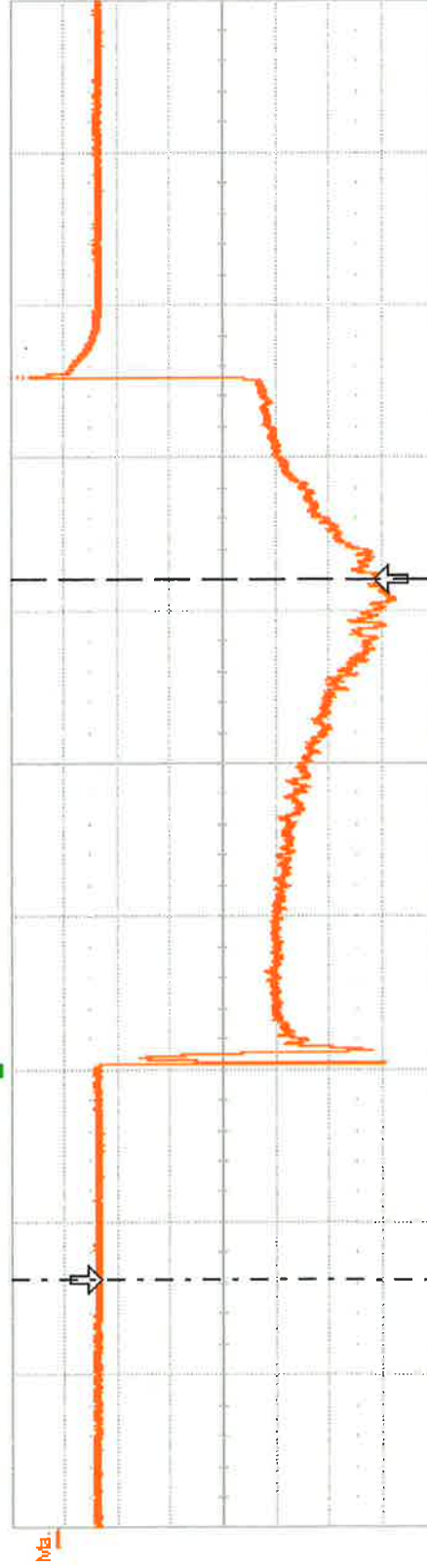
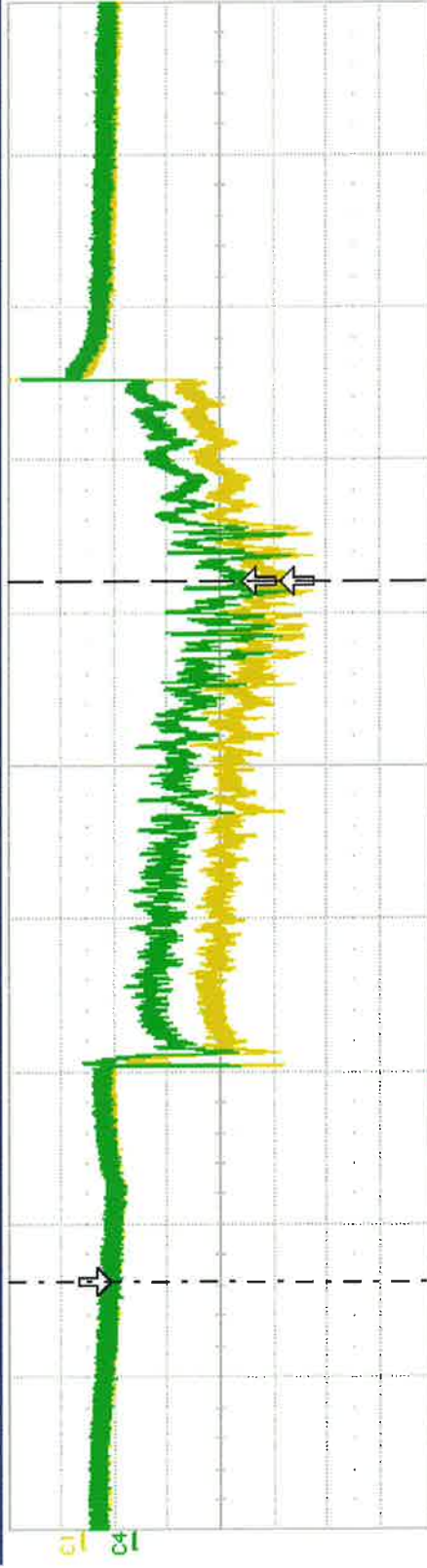
C3 D1
5.00 V
-11.0 V

C2 D1
5.00 V
5.95 V

C1 D1
5.00 V
12.70 V

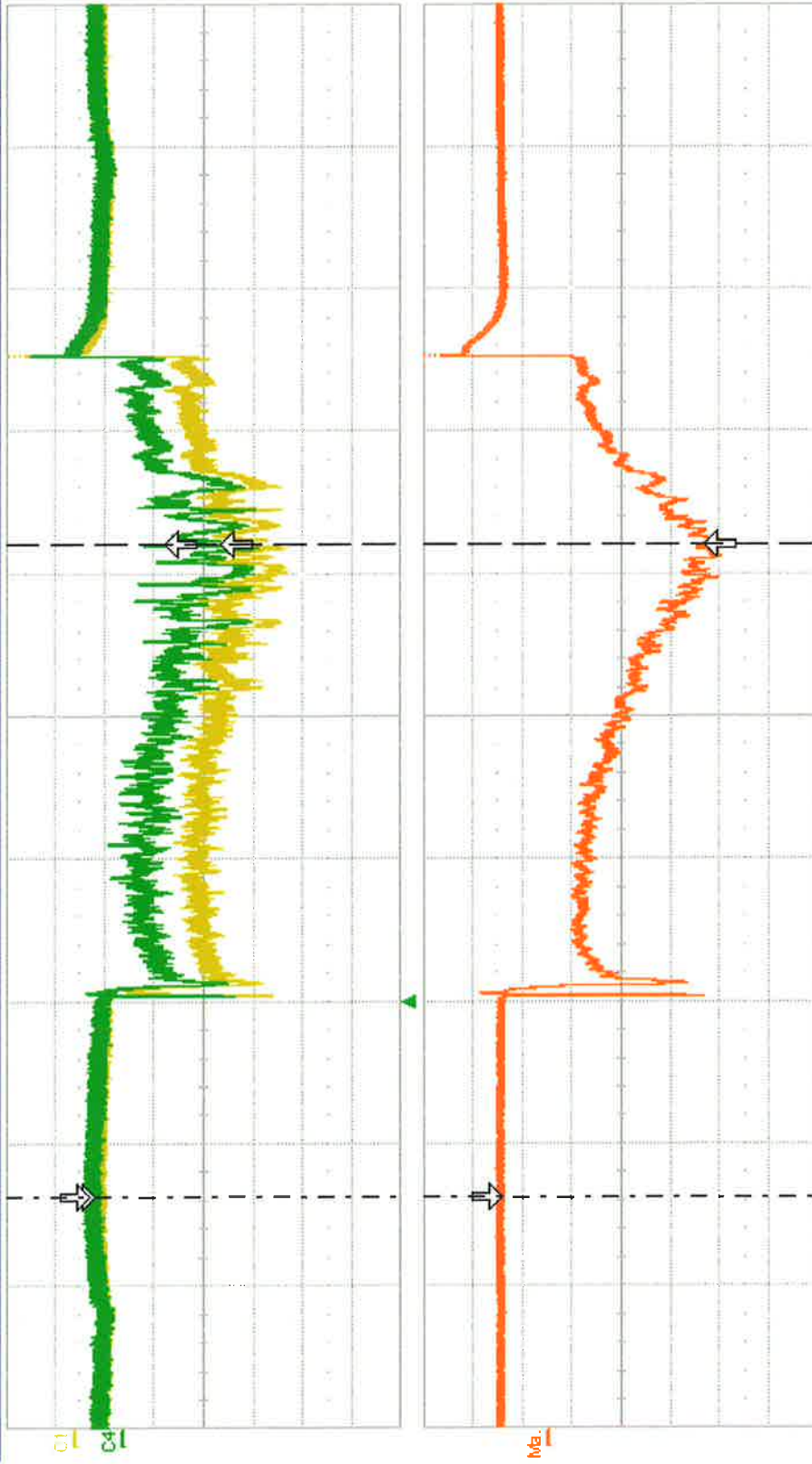
TELEDYNE LECROY

10/20/2020 10:46:39 AM



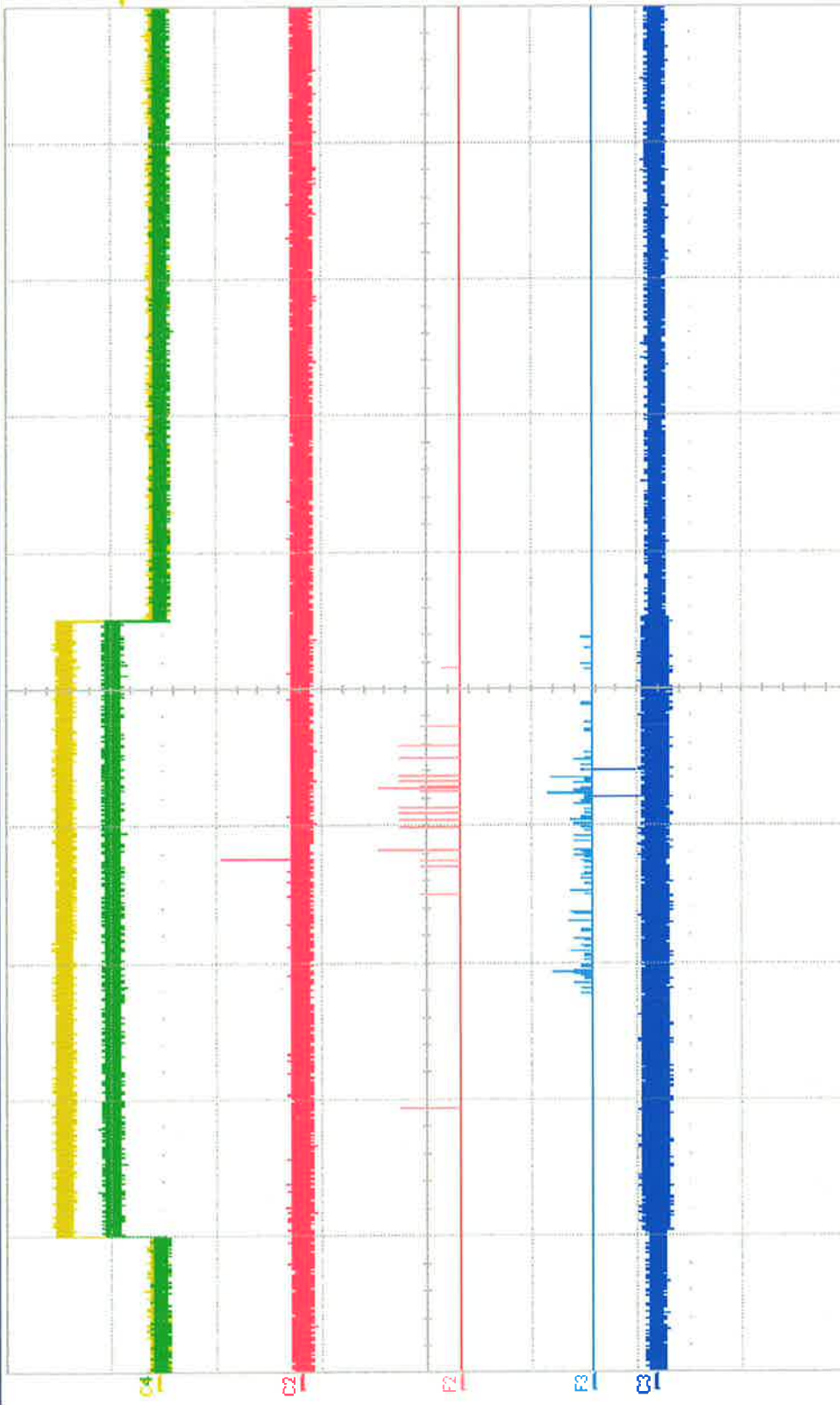
C1	DCIM	C4	DCIM	Math	<C1>
5.00 mV/div	5.00 mV/div	5.00 mV/div	5.00 mV/div	3.00 mV/div	3.00 mV/div
13.00 mV ofst	13.00 mV ofst	8.00 mV ofst	8.00 mV ofst	1.00 ms/div	1.00 ms/div
Δy	Δy	Δy	Δy	20 #	20 #
-2.89 mV	-2.89 mV	2.46 mV	2.46 mV	-2.3829 mV	-2.3829 mV
-18.78 mV	-18.78 mV	-10.20 mV	-10.20 mV	-18.1170 mV	-18.1170 mV
-16.09 mV	-16.09 mV	-12.66 mV	-12.66 mV	-15.7341 mV	-15.7341 mV

Timebase	-2.00 ms	Trigger	Edge
1.00 ms/div	1.00 ms/div	Normal	Normal
2.00 MS	2.00 MS	200 MS/s	Edge
X1=	-1.370080 ms	ΔX=	4.576760 ms
X2=	3.206680 ms	1/ΔX=	218.4952 Hz



C1	DCIM	C4	DCIM	Math	eC4s
5.00 mV/div	5.00 mV/div	5.00 mV/div	5.00 mV/div	3.00 mV/div	3.00 mV/div
13.00 mV ofst	8.00 mV ofst	8.00 mV ofst	8.00 mV ofst	1.00 mV ofst	1.00 mV ofst
↓	↓	↓	↓	↓	↓
-1.97 mV	-1.97 mV	3.67 mV	3.67 mV	2.9202 mV	18. #
↑	↑	↑	↑	↑	↑
-14.87 mV	-14.87 mV	-4.26 mV	-4.26 mV	-9.5540 mV	-9.5540 mV
ΔY	ΔY	ΔY	ΔY	ΔY	ΔY
-12.91 mV	-12.91 mV	-7.94 mV	-7.94 mV	-12.4741 mV	-12.4741 mV

Timebase	-2.00 ms	Trigger	Edge	Normal	700 mV	Negative
1.00 ms/div	1.00 ms/div	Normal	Edge	Normal	700 mV	Negative
2.00 MS	2.00 MS	200 MS/s	Edge	Normal	700 mV	Negative
X1=	-1.370080 ms	ΔX=	4.576760 ms			
X2=	3.206680 ms	1/ΔX=	218.4952 Hz			



Tbase -4.00 ms
1.00 ms/div
500 kS 50 MS/s

Trigger C100
Normal Edge Positive
1.55 V

F3 peris...
50.0 #
1.0 ms
592 #

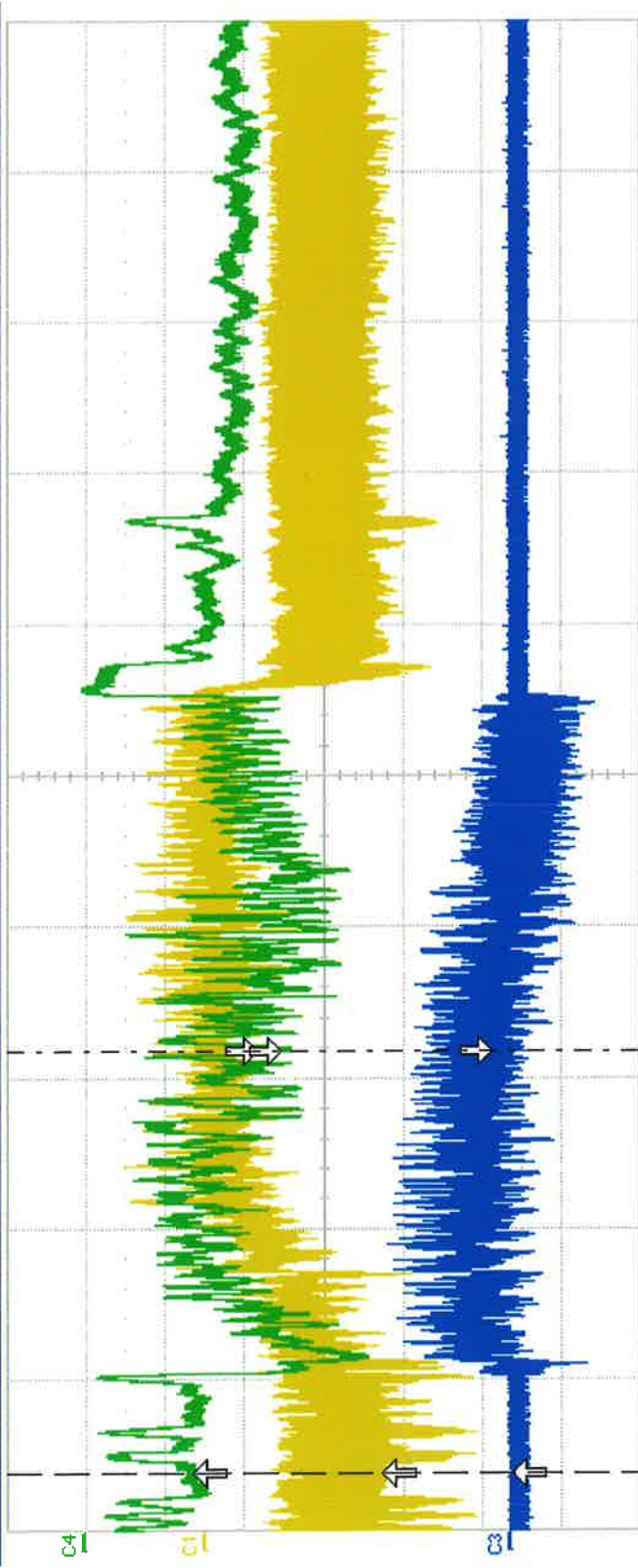
F2 peris...
5.00 #
1.0 ms
48 #

C4 C4
10.0 V
25.30 V

C3 C3
5.00 V
-11.0 V

C2 C2
5.00 V
5.95 V

C1 C1
5.00 V
12.70 V

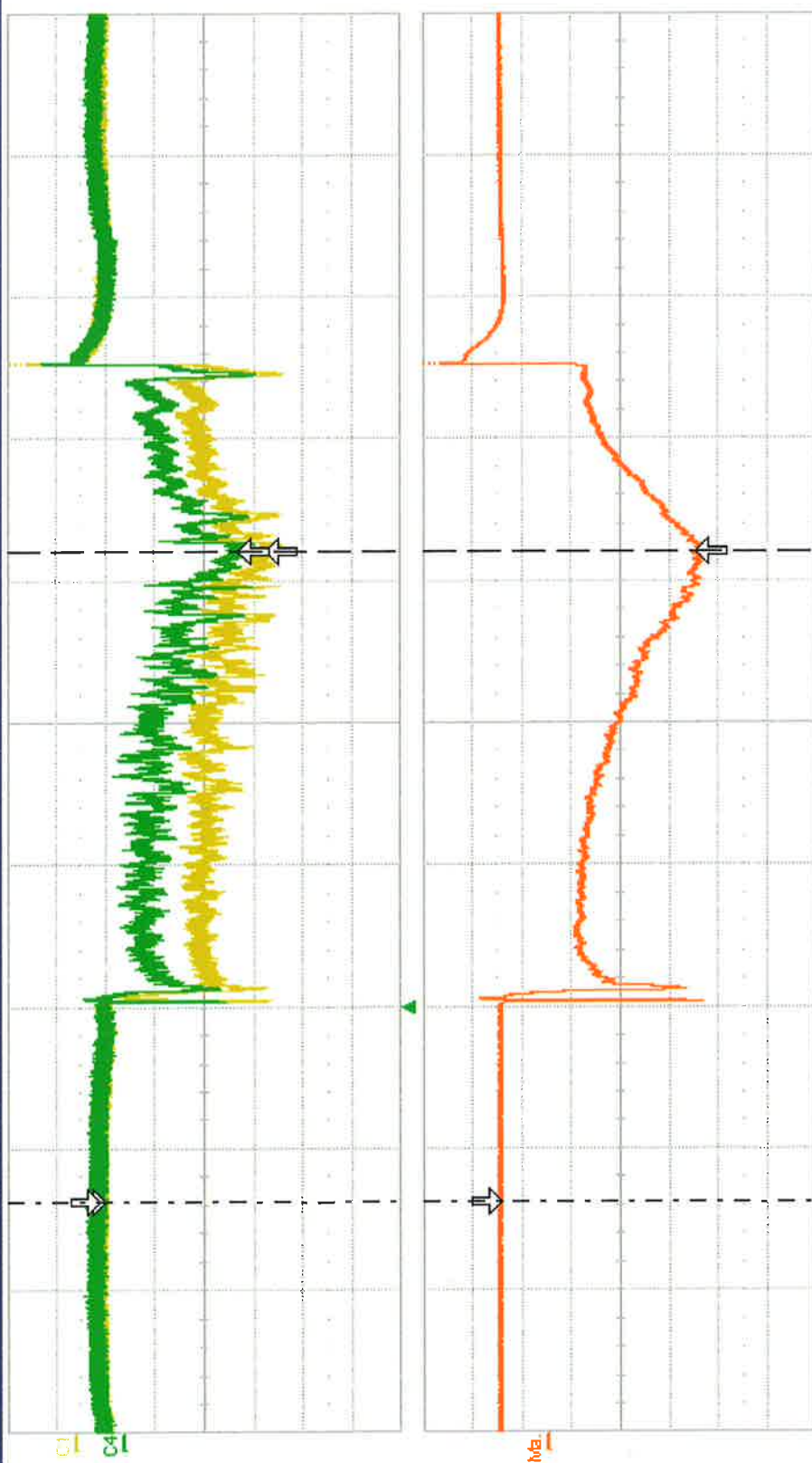


Measure

value	P1:ampl(C1)	P2:ampl(C4)	P3:---	P4:---	P5:---	P6:---
mean	894 mV	359 V				
min	867.76 mV	367.15 V				
max	243 mV	338 V				
sdev	1.031 V	416 V				
num	166.51 mV	14.55 V				
status	138	137				

C1	C3	C4
200 mV/div	500 mA/div	100 V/div
300.0 mV ofst	-1.170 A ofst	302.0 V ofst
-45.0 mV	125 mA	-245.7 V
-352.1 mV	-33 mA	-139.3 V
-307.1 mV	-158 mA	108.5 V

Timebase	4.00 ms	Trigger	Ext 000
250 kS	1.00 ms/div	Normal	150 mV
	25 MS/s	Edge	Positive
X1=	2.18204 ms	$\Delta X=$	-2.79600 ms
X2=	-613.95 μ s	$1/\Delta X=$	-357.654 Hz



C1	DCIM	C4	DCIM	Math	<C4>
5.00 mV/div	5.00 mV/div	5.00 mV/div	5.00 mV/div	3.00 mV/div	3.00 mV/div
13.00 mV ofst	13.00 mV ofst	8.00 mV ofst	8.00 mV ofst	1.00 mV/div	1.00 mV/div
↓	↓	↓	↓	↓	↓
-3.05 mV	-3.05 mV	2.10 mV	2.10 mV	2.9311 mV	2.9311 mV
↑	↑	↑	↑	↑	↑
-18.63 mV	-18.63 mV	-11.23 mV	-11.23 mV	-9.1493 mV	-9.1493 mV
Δy	Δy	Δy	Δy	Δy	Δy
-15.58 mV	-15.58 mV	-13.33 mV	-13.33 mV	-12.0604 mV	-12.0604 mV

Timebase	-2.00 ms	Trigger	Ext/IO	DC
1.00 ms/div	1.00 ms/div	Normal	700 mV	Negative
2.00 MS	2.00 MS	Edge		
X1=	-1.370080 ms	ΔX=	4.576760 ms	
X2=	3.206680 ms	1/ΔX=	218.4952 Hz	