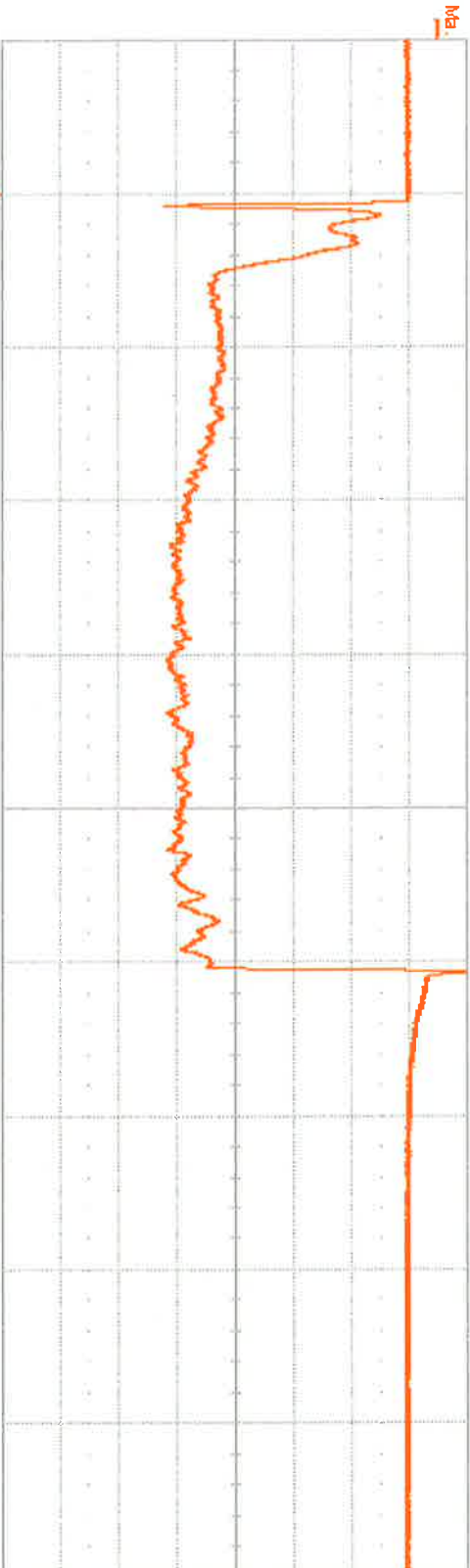
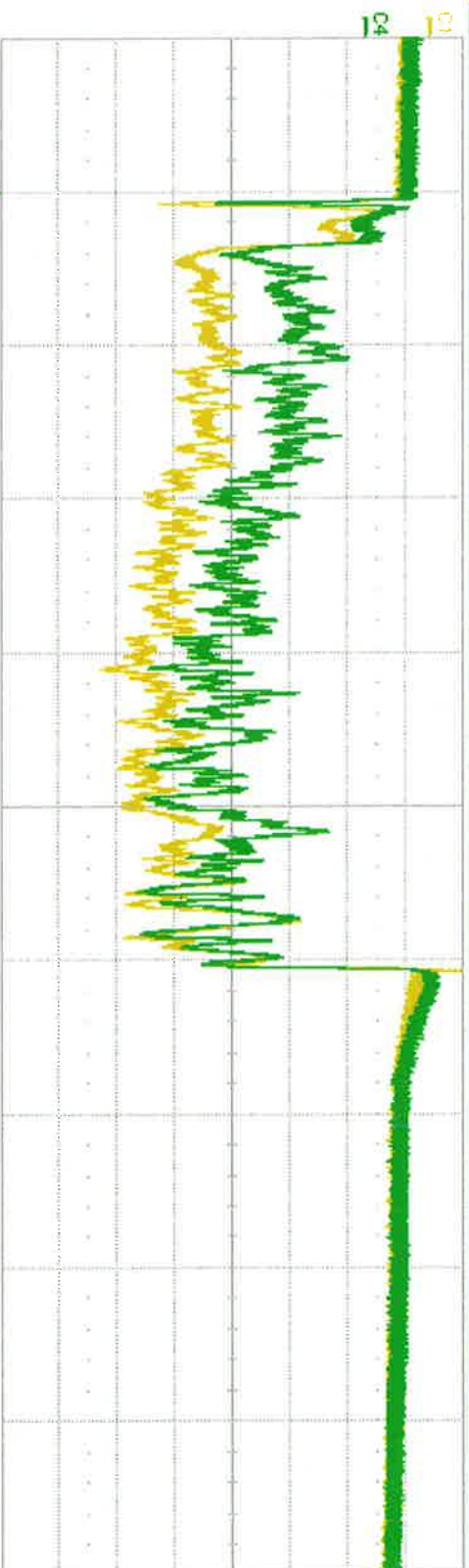


**C1** 5.00 mV/div 17.00 mV offset **DCIM**  
**C4** 5.00 mV/div 11.50 mV offset **DCIM**  
**Math** <C4S 5.00 mV/div 500  $\mu$ s/div 30 #

**Timebase** -2.00 ms 500  $\mu$ s/div 250 kS  
**Trigger** Normal 700 mV Edge Negative

LeCroy

9/29/2020 1:52:24 PM

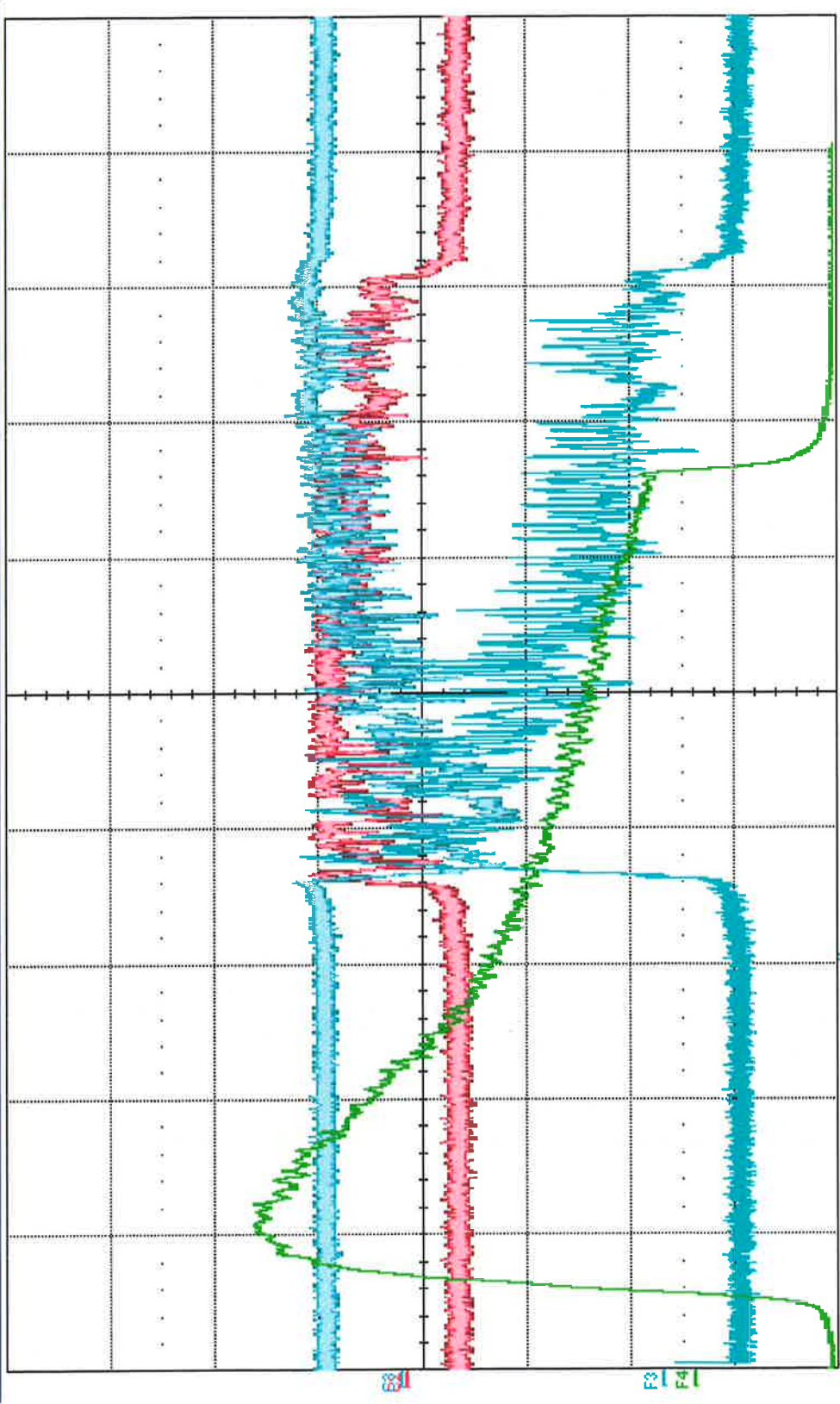


<b>C1</b>	<b>DCIM</b>	<b>C4</b>	<b>DCIM</b>	<b>Math</b>	<b>&lt;C1&gt;</b>
5.00 mV/div		5.00 mV/div		5.00 mV/div	
17.00 mV/div		11.50 mV/div		500 $\mu$ s/div	
				50 $\mu$ s/div	
				50 $\mu$ s/div	

<b>Timebase</b>	<b>-2.00 ms</b>	<b>Trigger</b>	<b>Ext10 DC</b>
500 $\mu$ s/div		Normal	700 mV
250 kS		Edge	Negative

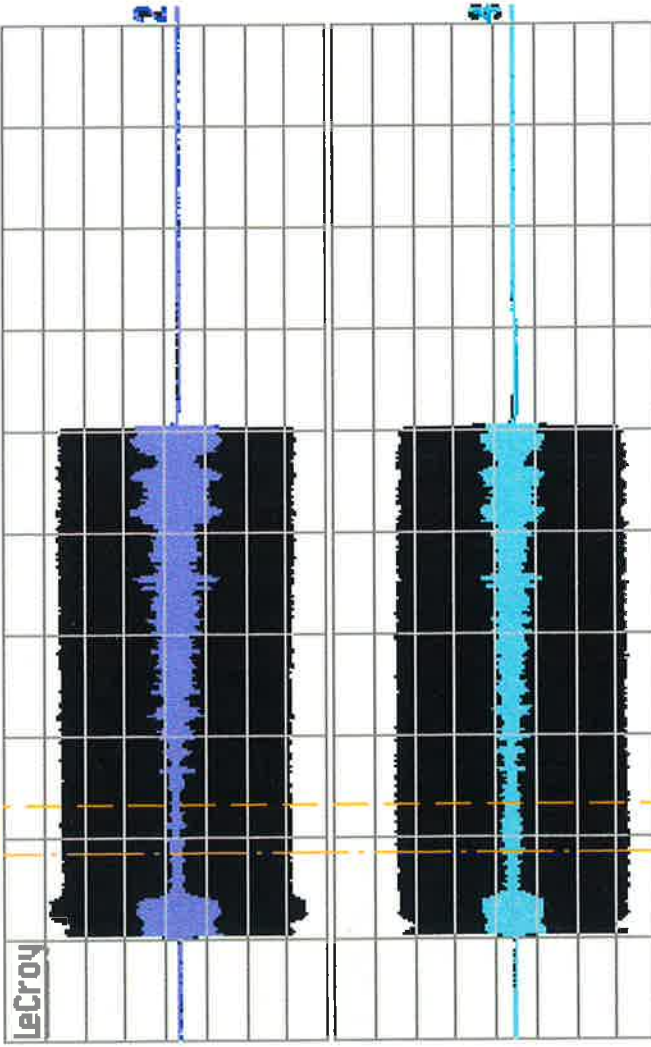
LeCroy

9/29/2020 1:51:40 PM



<b>C2</b> <b>DCIM</b>	<b>C3</b> <b>DCIM</b>	<b>F3</b> <b>script(C3,C2)</b>	<b>F4</b> <b>&lt;F3&gt;</b>	<b>Timebase</b> <b>-990 <math>\mu</math>s</b>	<b>Trigger</b> <b>Ext70 DC</b>
500 mV/div	500 mV/div	1.00/div	500e-3/div	WStream 500 $\mu$ s	Normal 30 mV
75 mV offset	100 mV offset	500 $\mu$ s/div	395 $\mu$ s/div	50.0 kS	Edge Negative
			193 #		

29-Sep-20  
13:57:05



1  
-5 ms  
200 mV

2  
-5 ms  
200 mV

3  
-5 ms  
200 mV

4  
-5 ms  
200 mV

-5 ms

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

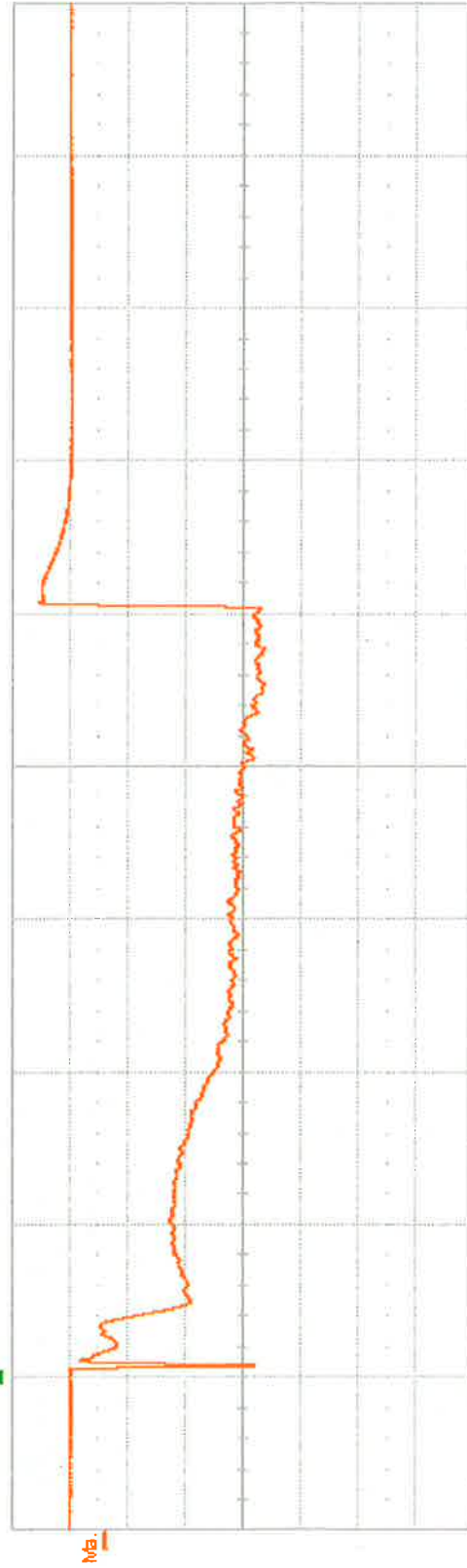
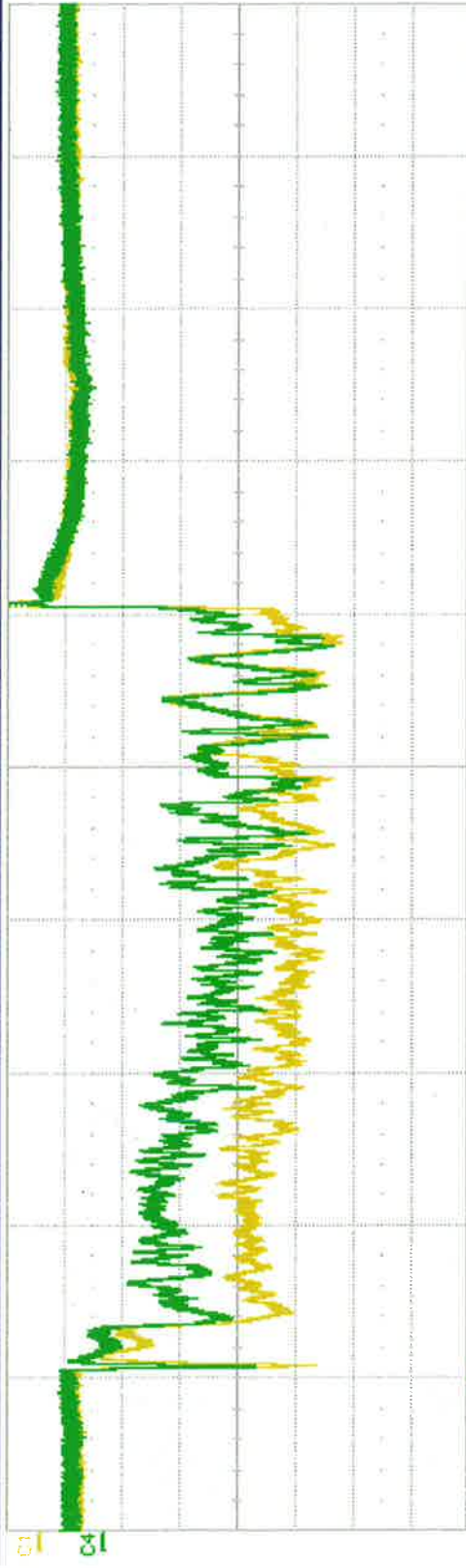
3675 sweeps:				
rms(1)	average	low	high	sigma
rms(2)	403.1mV	397.4	408.6	1.8
rms(3)	23.1mV	15.9	39.7	2.4
rms(4)	399.3mV	395.6	403.2	1.2
phase(1,3)	29.1mV	19.1	39.1	2.9
	78 °	70	82	1

20 MS/s

☐ NORMAL

Ext10 DC 0.15 V 50Ω



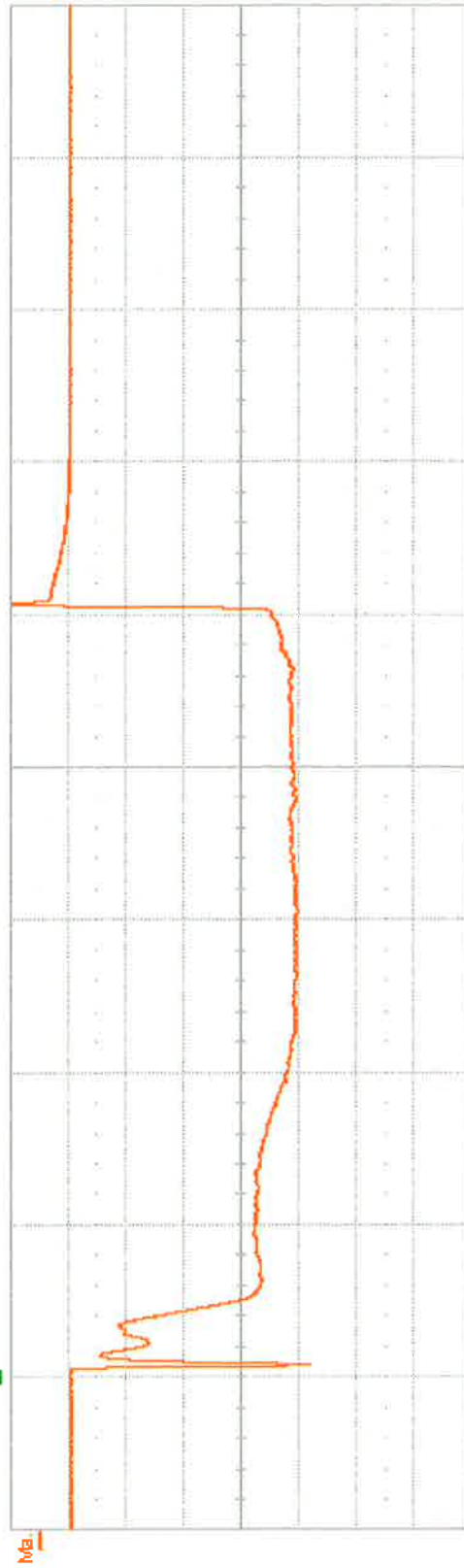
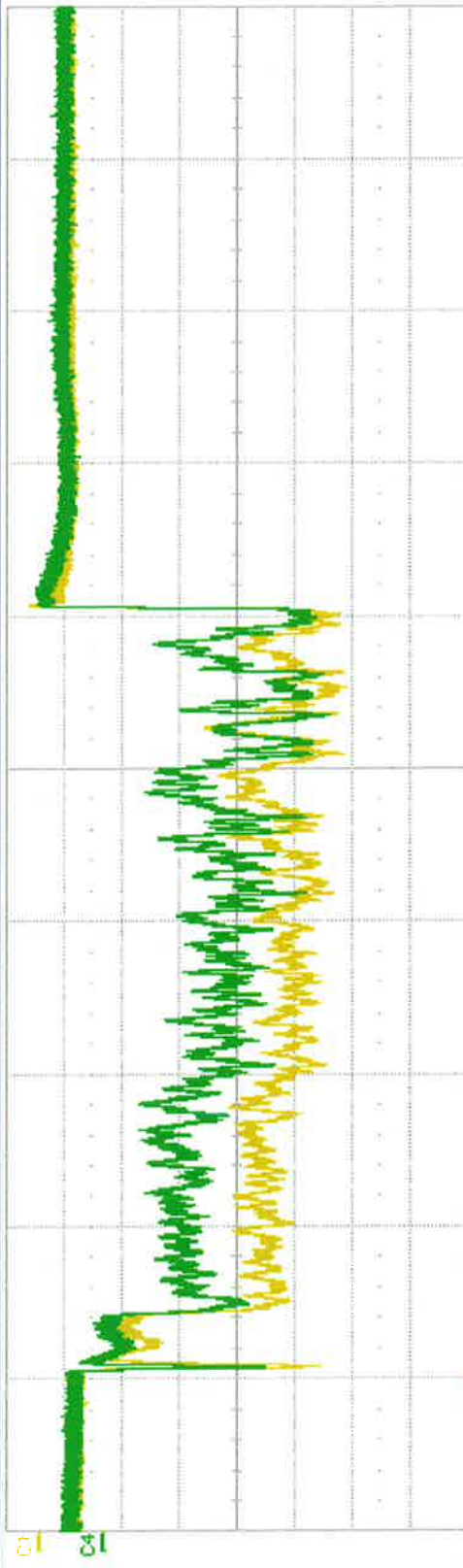


Timebase -2.00 ms  
500  $\mu$ s/div  
250 kS

Trigger Normal  
Edge  
Extr10 DC  
700 mV  
Negative

C1 DCIM 5.00 mV/div  
17.00 mV ofst

Math <C4>  
5.00 mV/div  
500  $\mu$ s/div  
1.32 #



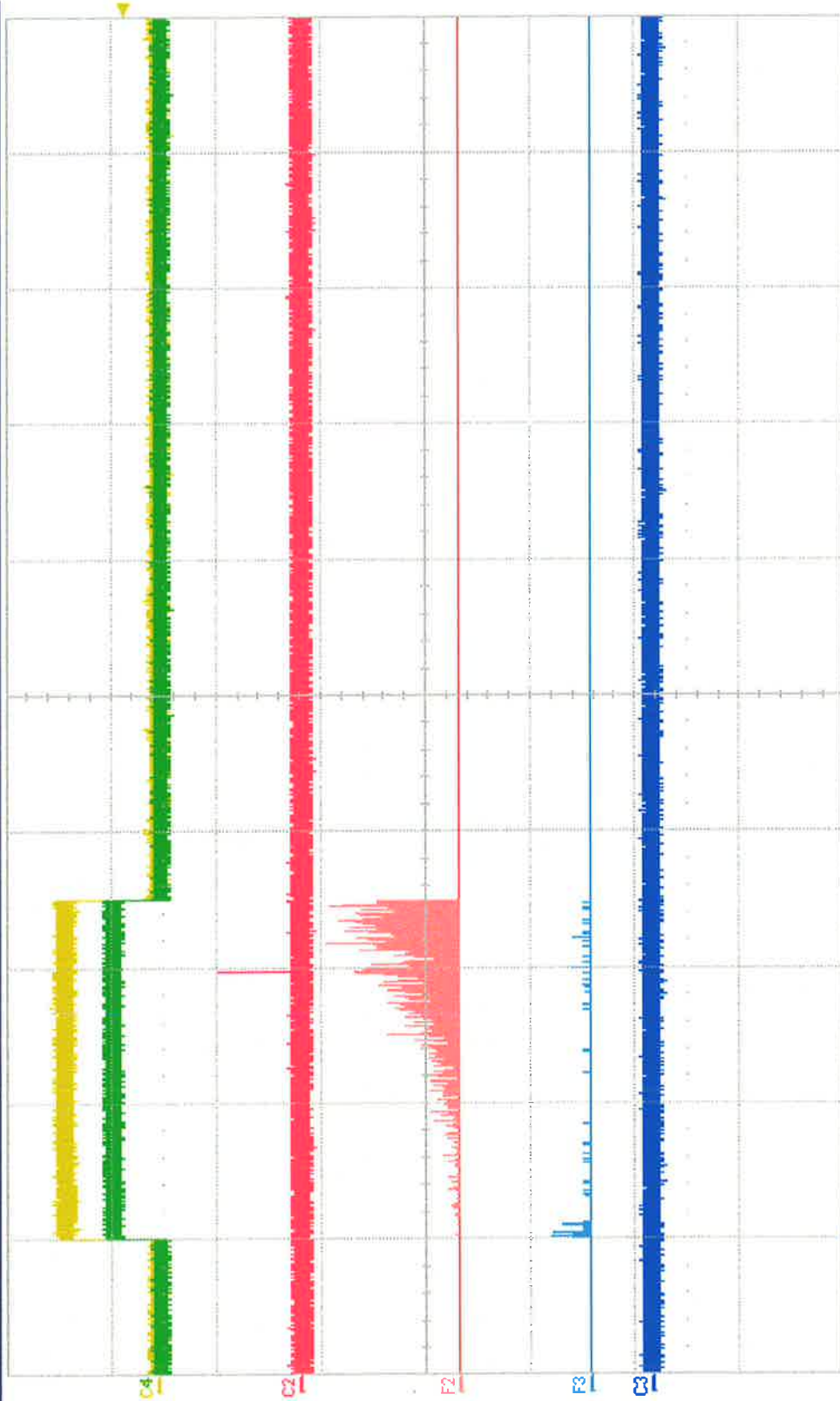
Timebase -2.00 ms  
500  $\mu$ s/div  
250 kS

Trigger Edge  
Normal  
Expt 10 DC  
700 mV  
Negative

C1 DCIM 5.00 mV/div  
17.00 mV ofst

C4 DCIM 5.00 mV/div  
11.50 mV ofst

Math <C1>  
5.00 mV/div  
500  $\mu$ s/div  
194 #



Thase -4.00 ms Trigger C100  
1.00 ms/div Normal 1.65 V  
500 kS 50 MS/s Edge Positive

F3 peris...  
50.0 #  
1.0 ms  
311 #

F2 peris...  
50.0 #  
1.0 ms  
4.02 k#

C4 D1  
10.0 V  
25.30 V

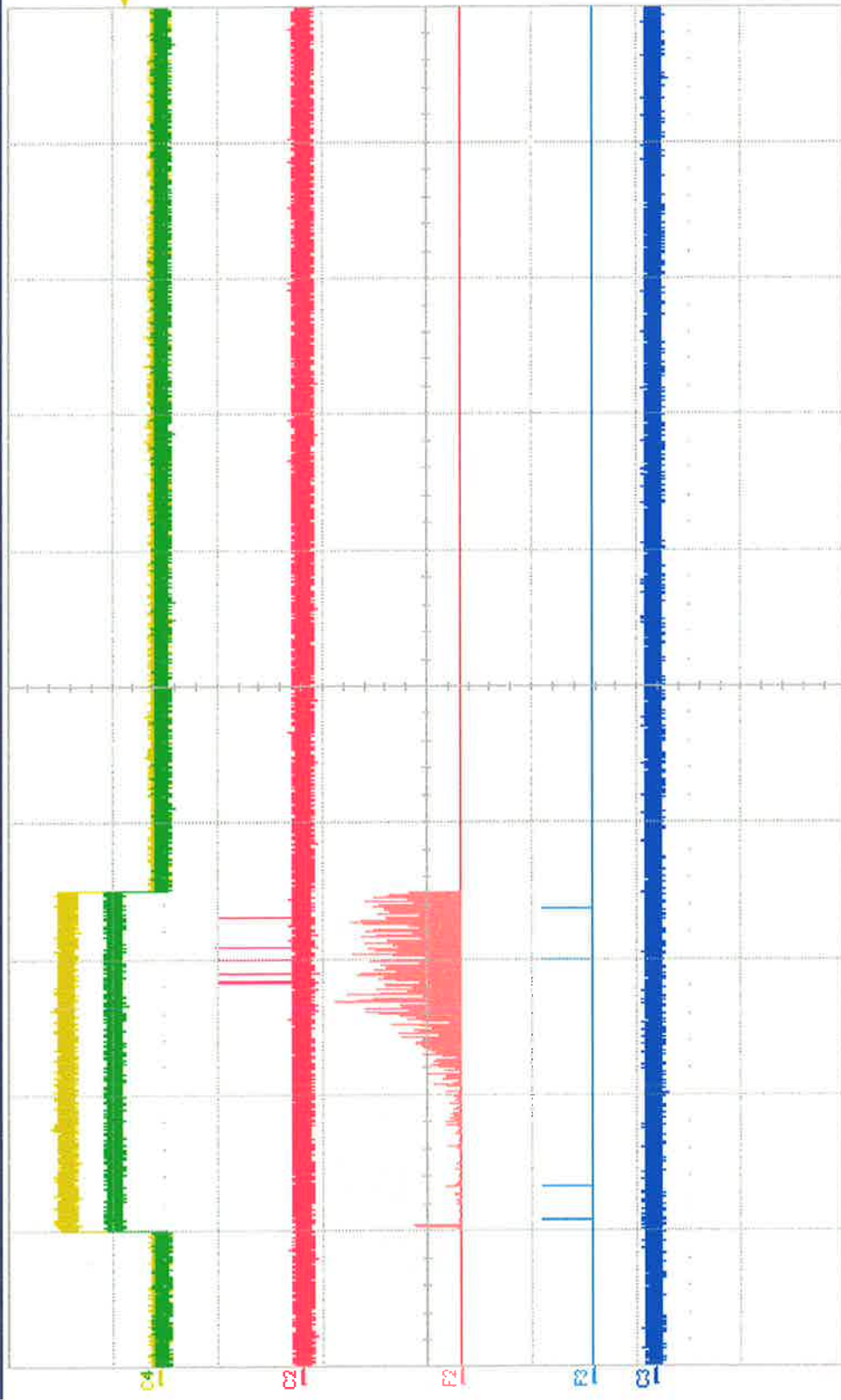
C3 D2  
5.00 V  
-11.0 V

C2 D1  
5.00 V  
5.95 V

C1 D1  
5.00 V  
12.70 V

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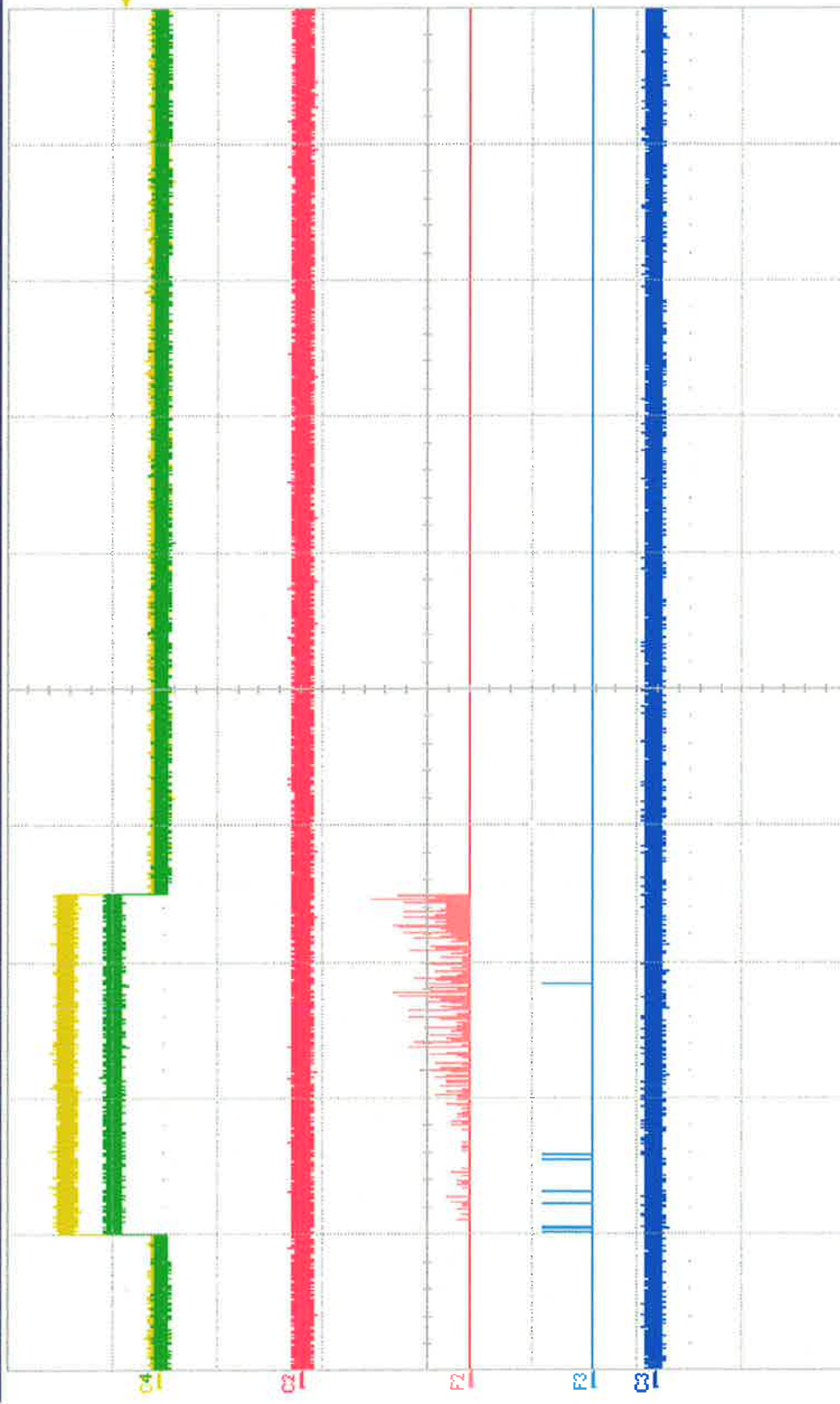
Thase -4.00 ms Trigger C1 DC  
1.00 ms/div Normal 1.65 V  
500 kS 50 MS/s Edge Positive

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... 50.0 # 1.0 ms 4.14 k#  
F3 peris... 10.0 # 1.0 ms 20 #

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9/29/2020 2:10:16 PM





Thase -4.00 ms Trigger C1 DC  
1.00 ms/div Normal 1.55 V  
500 kS 50 MS/s Edge Positive

F3 peris...  
10.0 #  
1.0 ms  
45 #

F2 peris...  
20.0 #  
1.0 ms  
856 #

C4 D1  
10.0 V  
25.30 V

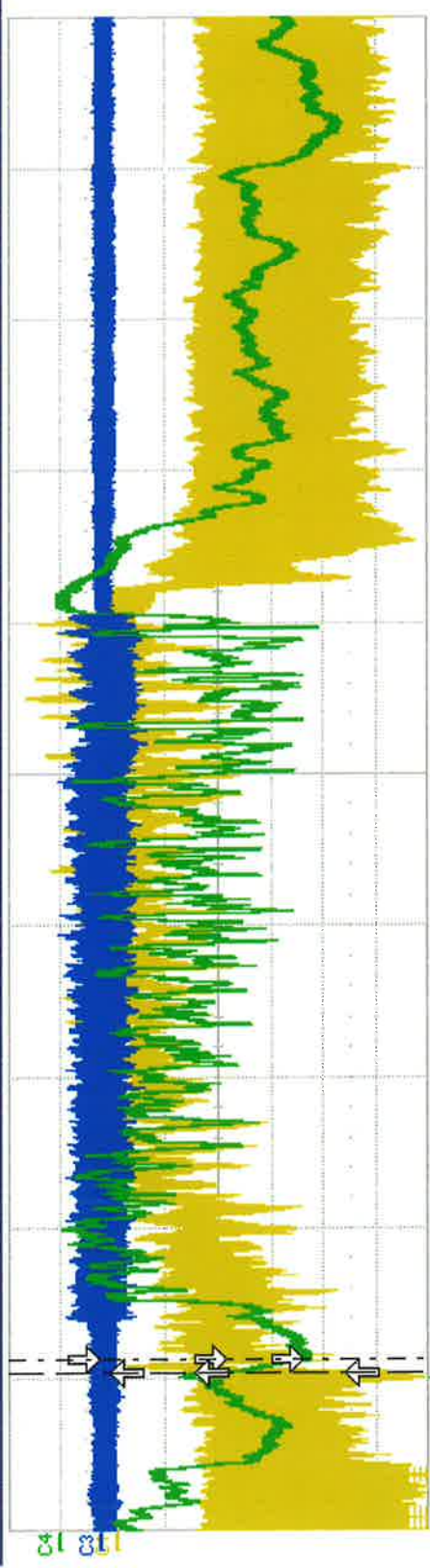
C3 D1  
5.00 V  
-11.0 V

C2 D1  
5.00 V  
5.95 V

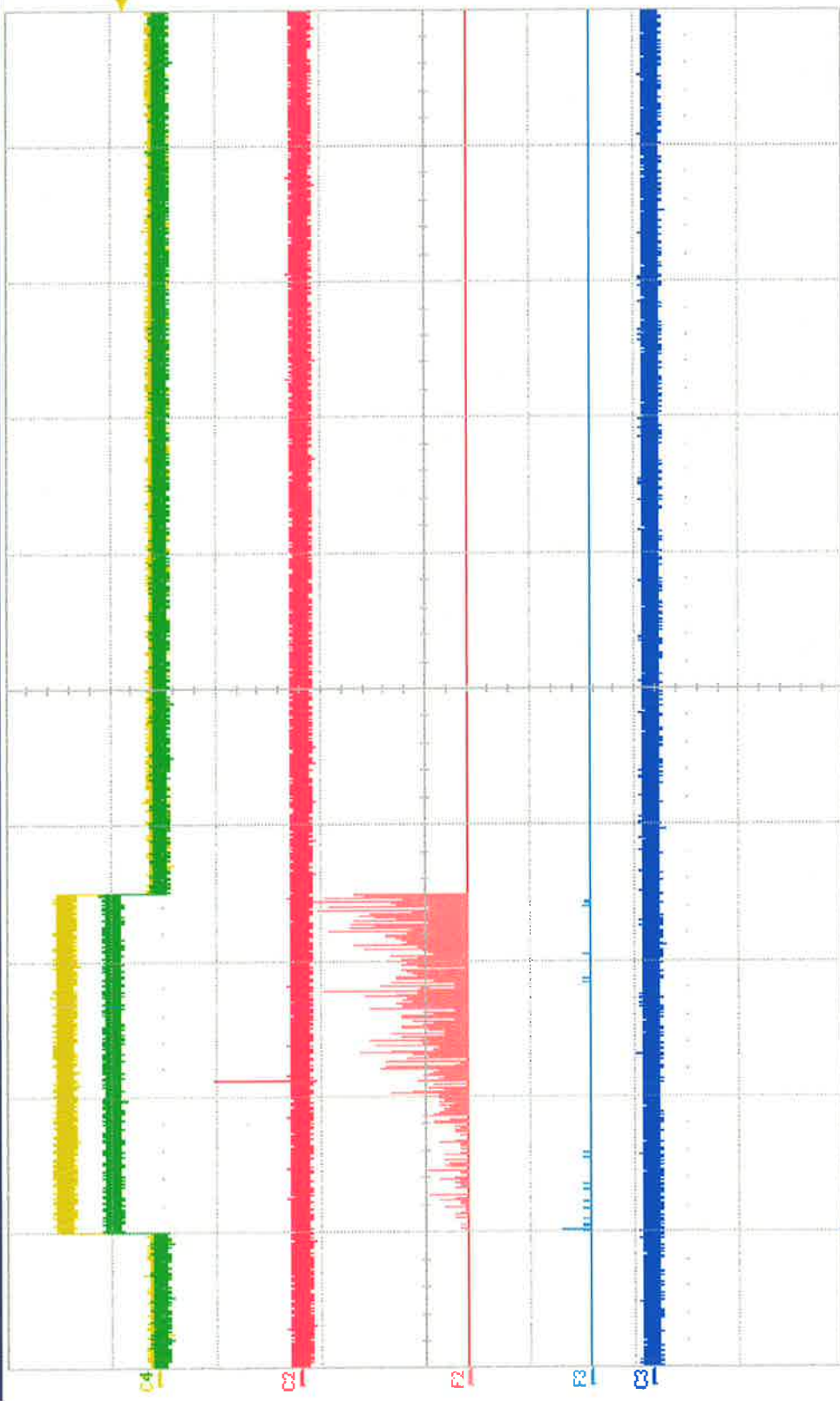
C1 D1  
5.00 V  
12.70 V

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<b>C1</b>	<b>DC1m</b>	200 mV/div	380.0 mV offset	↑	-399.9 mV	↓	-864.7 mV	ΔV	-464.9 mV	
<b>C3</b>	<b>DC50</b>	5.00 mV/div	11.00 mV offset	↑	460 μV	↓	-860 μV	ΔV	-1.32 mV	
<b>C4</b>	<b>DC1k</b>	100 V/div	302.0 V offset	↑	-461.0 V	↓	-261.1 V	ΔV	200.0 V	
<b>Math</b>	<b>&lt;C4&gt;</b>	100 V/div	500 μs/div	4.809 kHz	↑	-462.125 V	↓	-266.361 V	ΔV	173.764 V
<b>Timebase</b>	-2.00 ms	500 μs/div	200 MS/s	Normal	Edge	Negative	700 mV	Extra 0.0s		
<b>Trigger</b>	Ext10 [DC]									
<b>X1=</b>	67.225 μs	<b>ΔX=</b>	-47.795 μs							
<b>X2=</b>	19.430 μs	<b>1/ΔX=</b>	-20.923 kHz							



Thbase -4.00 ms  
1.00 ms/div  
500 kS

Trigger C100  
Normal  
Edge  
Positive

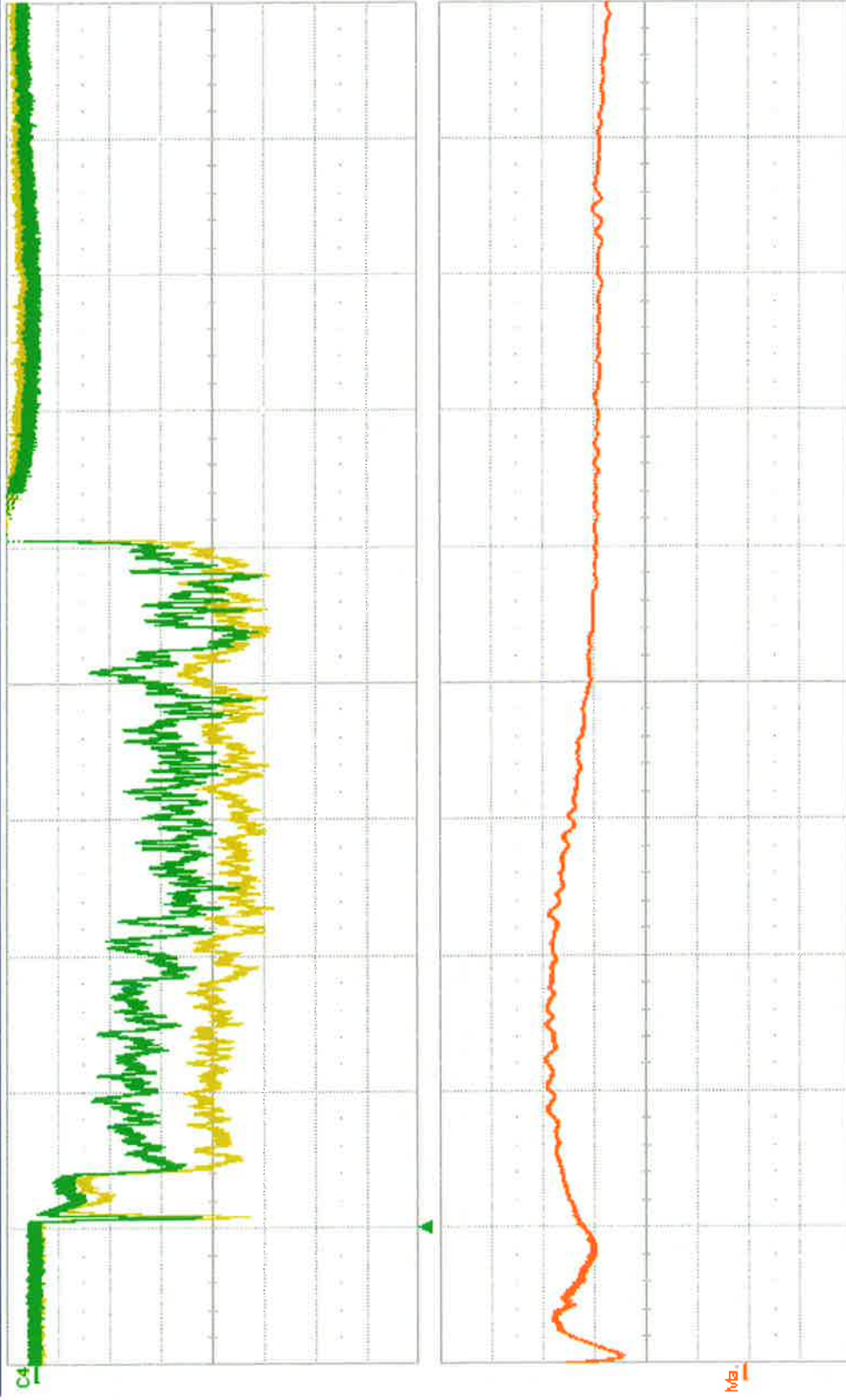
C1 5.00 V 12.70 V  
C2 5.00 V 5.95 V  
C3 5.00 V -11.0 V  
C4 10.0 V 25.30 V

F2 peris... 20.0 # 1.0 ms 2.00 k#  
F3 peris... 50.0 # 1.0 ms 113 #

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**C1** **ACIM** 5.00 mV/div 17.00 mV ofst

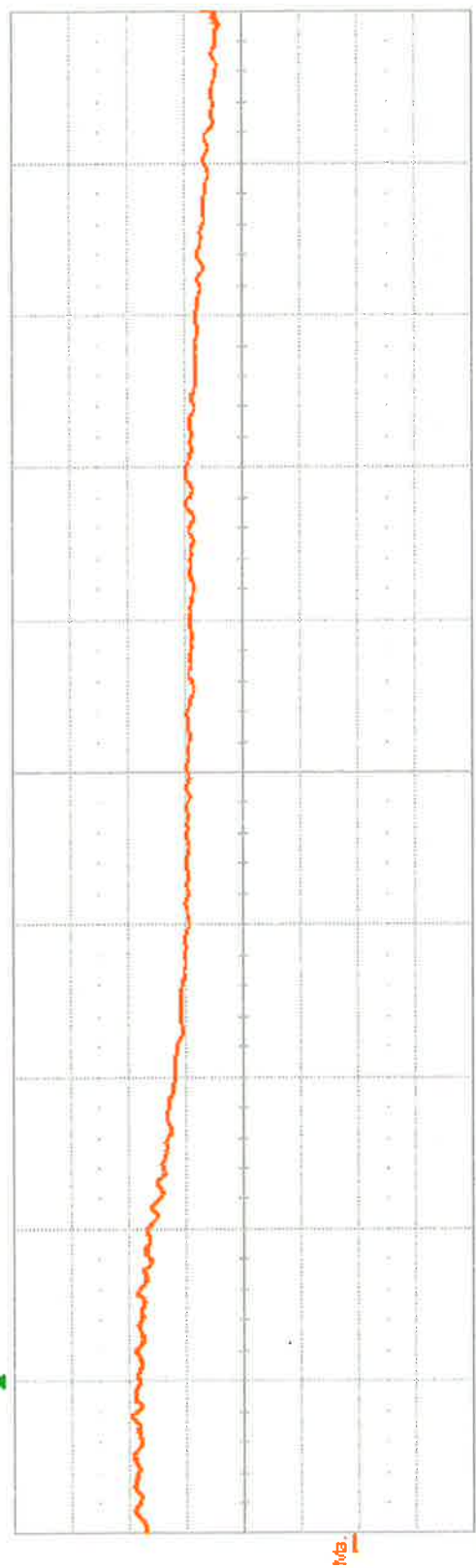
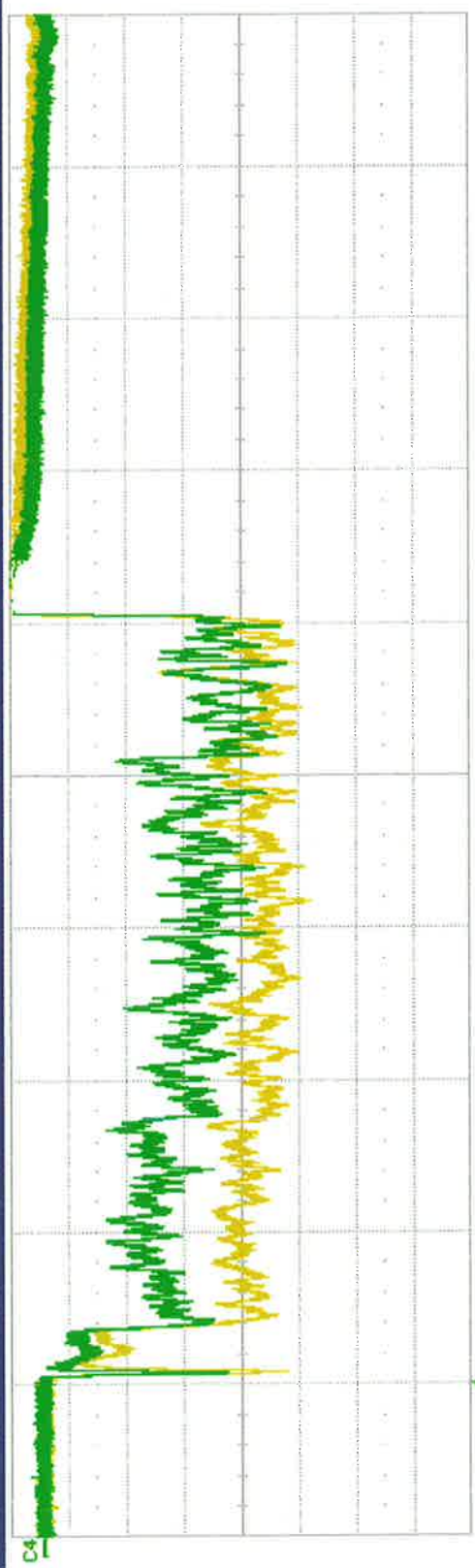
**Math** <(C1/C4)> 500e-3/div 200  $\mu$ s/div 149 #

**Timebase** -2.00 ms 500  $\mu$ s/div 250 kS

**Trigger** Normal Edge

**ExtIO** DC 700 mV Negative





Timebase -2.00 ms  
500 µs/div  
250 kS

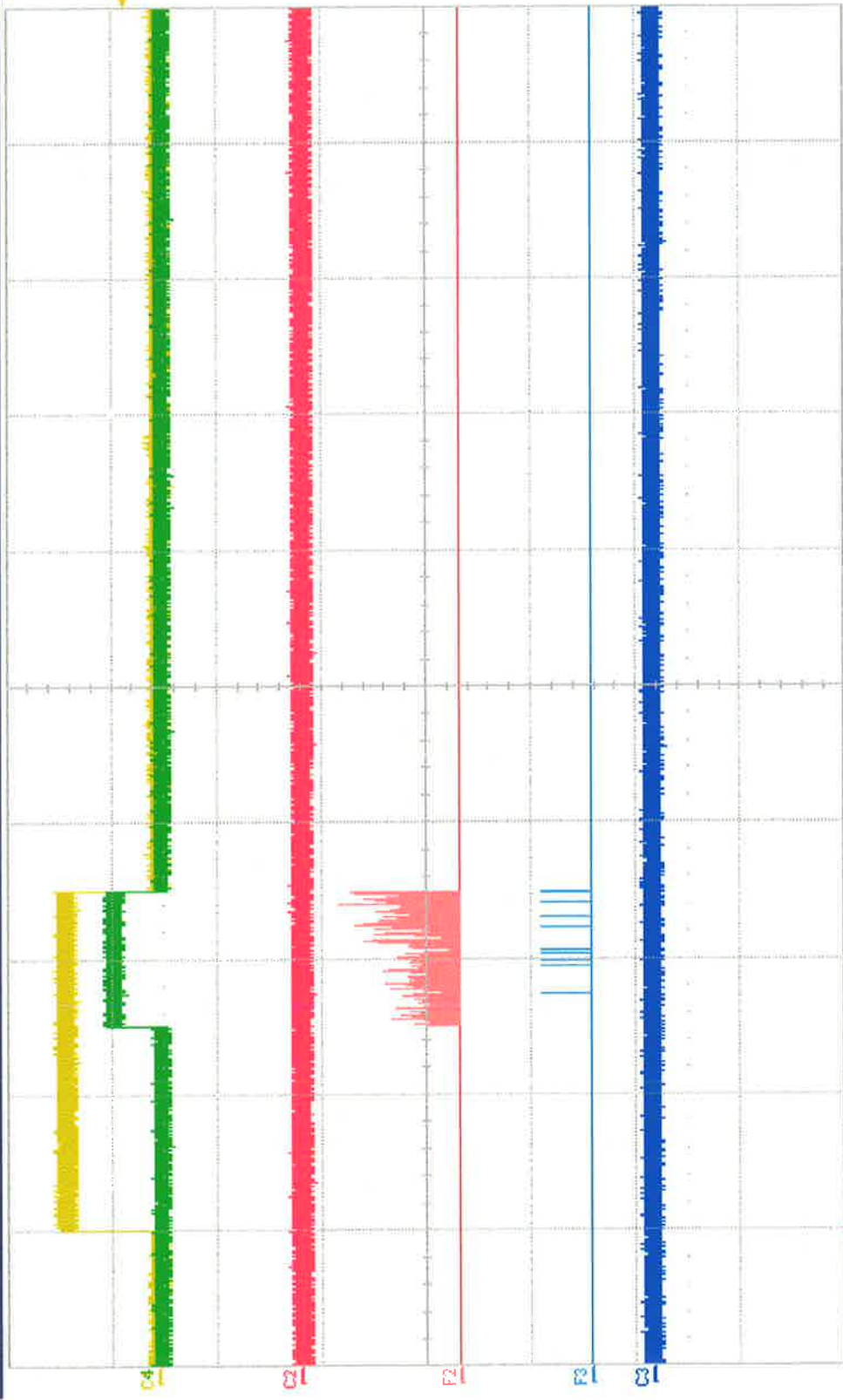
Trigger Normal  
Edge  
Negative

Ext/IO DC  
700 mV

C1 ACIM 5.00 mV/div 17.00 mV ofst

C4 ACIM 5.00 mV/div 17.00 mV ofst

Math <C1/C4> 500e-3/div 200 µs/div 176 #



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

F3 peris...  
10.0 #  
1.0 ms  
45 #

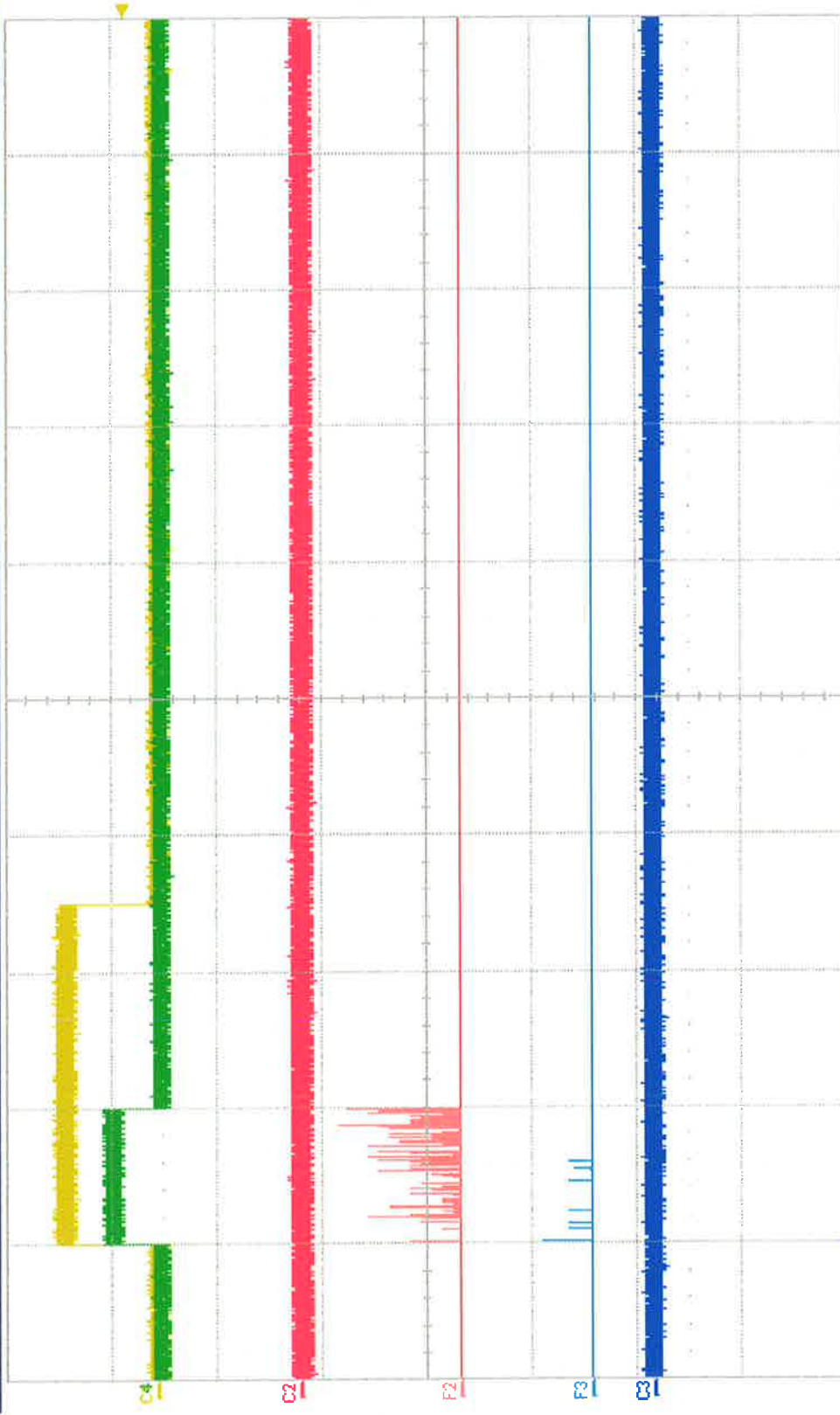
F2 peris...  
50.0 #  
1.0 ms  
2.77 k#

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



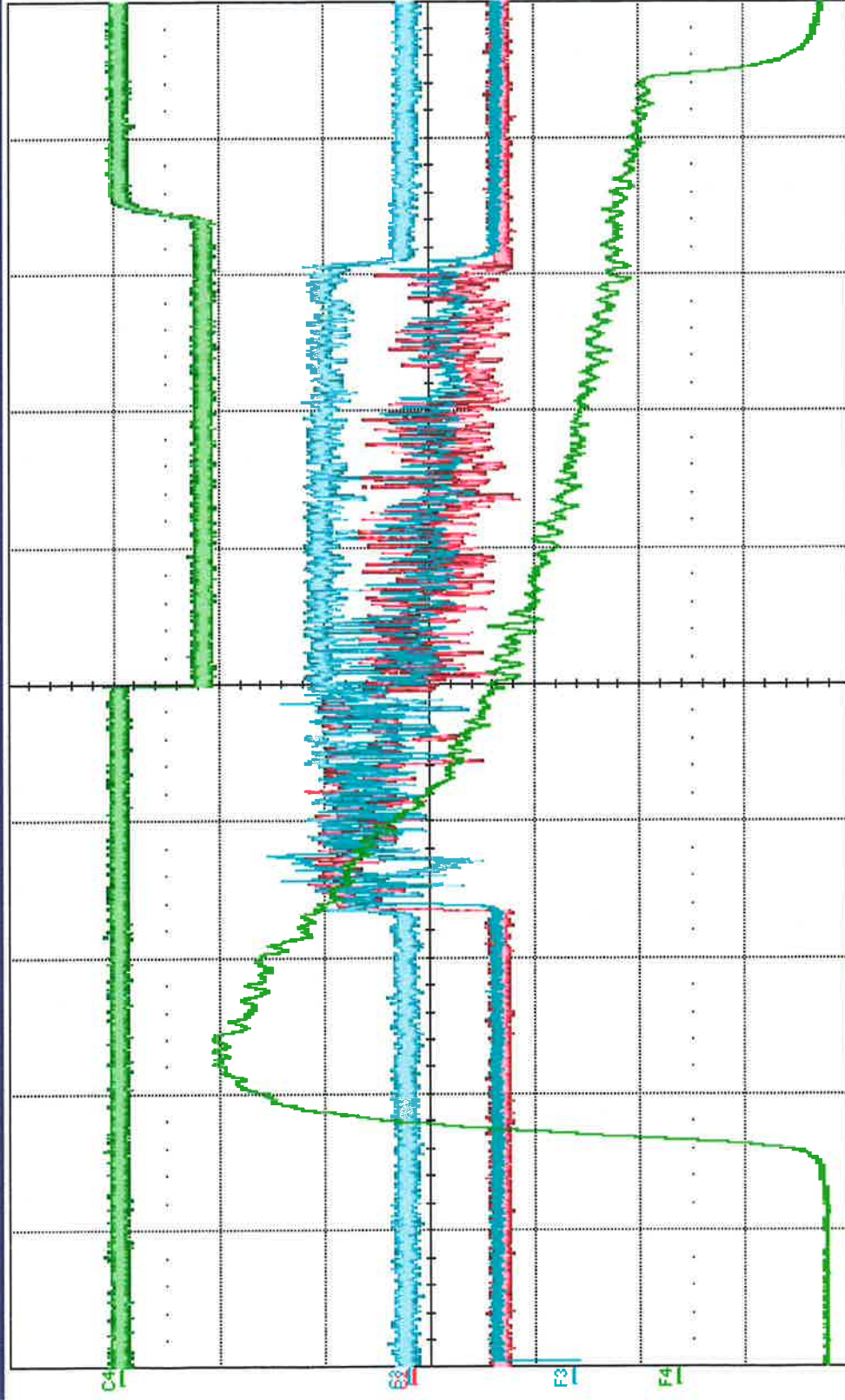
Tbase -4.00 ms Trigger **C1 DC**  
 1.00 ms/div Normal 1.65 V  
 500 kS 50 MS/s Edge Positive

<b>C1</b>	<b>D1</b>	5.00 V	12.70 V
<b>C2</b>	<b>D1</b>	5.00 V	5.95 V
<b>C3</b>	<b>D1</b>	5.00 V	-11.0 V
<b>C4</b>	<b>D1</b>	10.0 V	25.30 V
<b>F2 peris...</b>		10.0 #	1.0 ms
<b>F3 peris...</b>		20.0 #	1.0 ms

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Tbase	-1.01 ms	TriggerExt70 DC
WStream	500 $\mu$ s	Normal
50.0 kS	10 MS/s	Edge Negative

F4 <F3>  
500e-3/dW  
300 μs/dW  
184 #

F3 script(C3,C2)  
2.00/div  
500 μs/div

C4

DC:1V

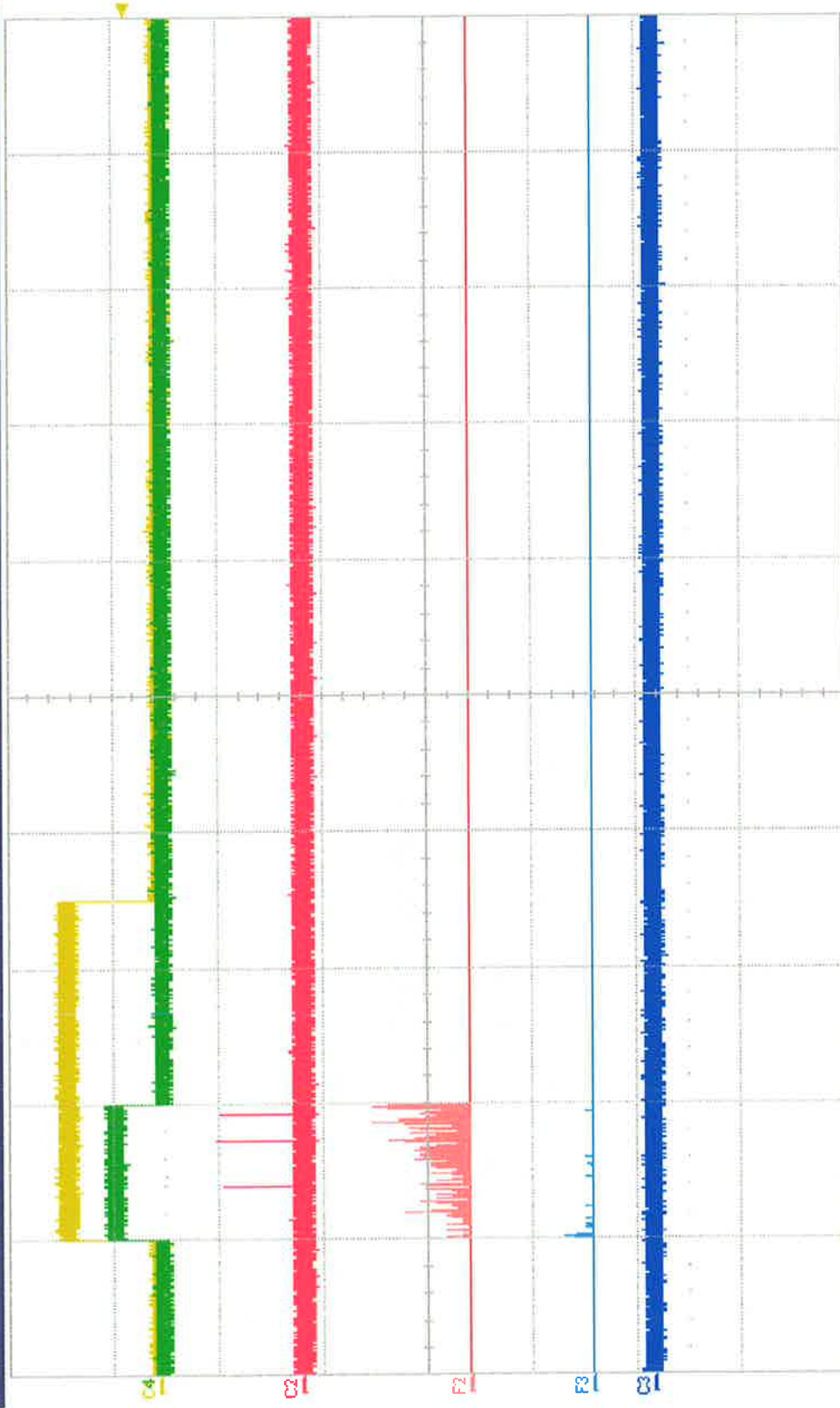
5.00 V/div

14.60 V ofst

500 mV/div  
100 mV offset

C2  
500 mV/div  
75 mV offset



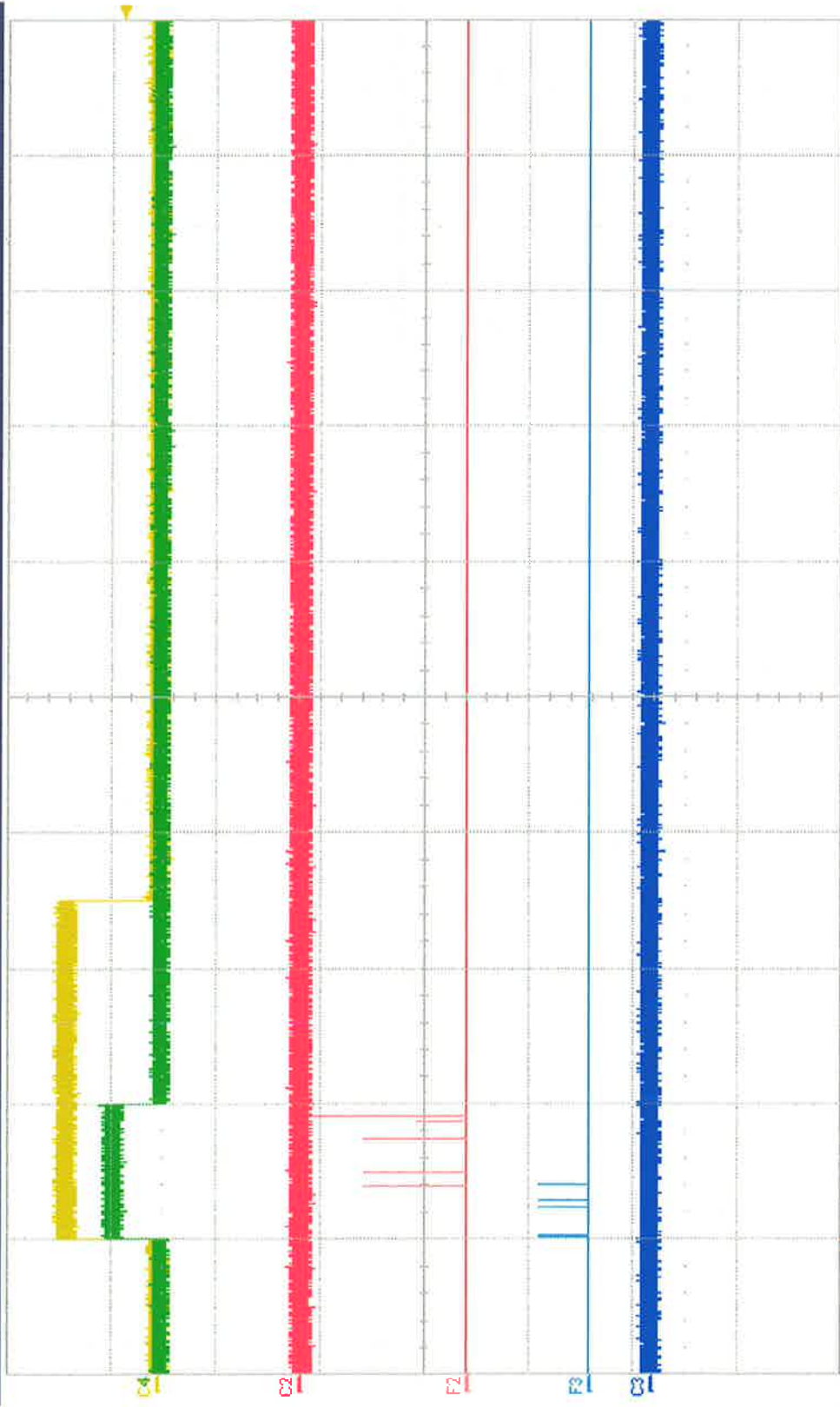


Timebase -4.00 ms  
 1.00 ms/div  
 500 kS  
 Trigger Normal  
 1.65 V  
 Edge  
 Positive

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 659 #  
 F3 peris... 50.0 # 1.0 ms 88 #

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Tbase -4.00 ms Trigger **C1 DC**  
 1.00 ms/div Normal 1.65 V  
 500 kS 50 MS/s Edge Positive

F3 perhs...  
 10.0 #  
 1.0 ms  
 30 #

F2 perhs...  
 2.00 #  
 1.0 ms  
 10 #

C4 **D1**  
 10.0 V  
 25.30 V

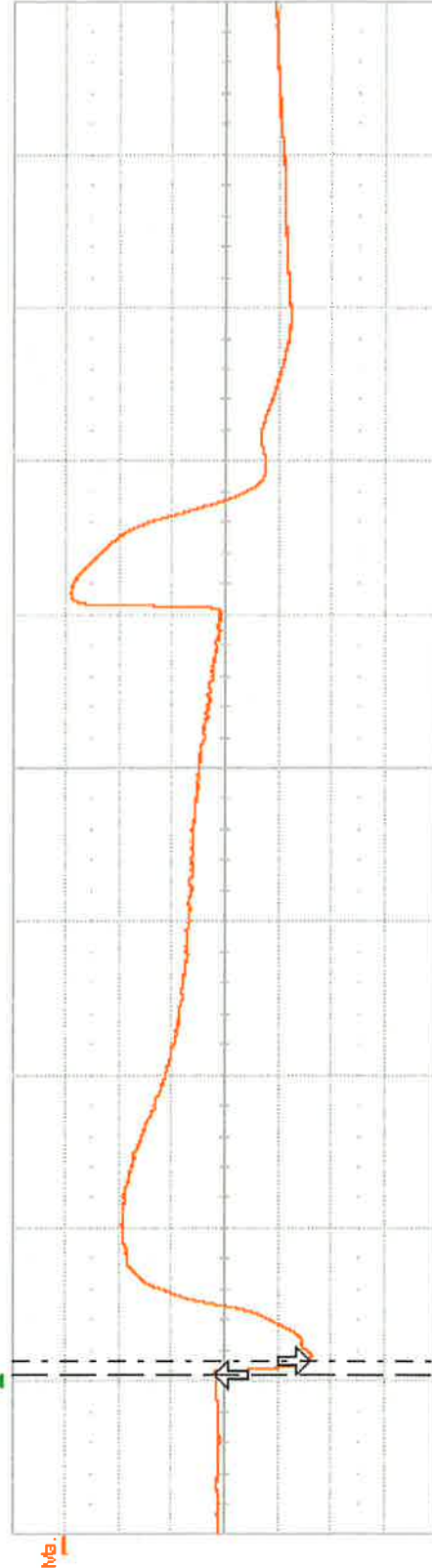
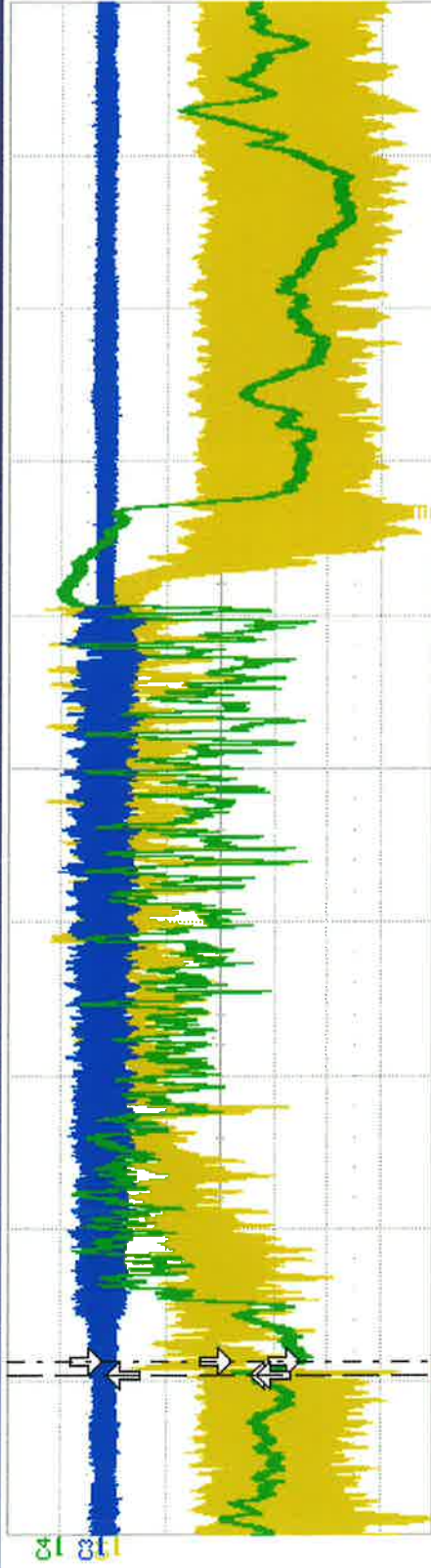
C3 **D1**  
 5.00 V  
 -11.0 V

C2 **D1**  
 5.00 V  
 5.95 V

C1 **D1**  
 5.00 V  
 12.70 V

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9/29/2020 3:09:01 PM



<b>C1</b>	<b>DC1M</b>	200 mV/div	380.0 mV ofst	↓	-418.5 mV	↑	-499.4 mV	Δy	-80.9 mV
<b>C3</b>	<b>DC50</b>	5.00 mV/div	11.00 mV ofst	↓	360 μV	↑	-430 μV	Δy	-780 μV
<b>C4</b>	<b>DC1M</b>	100 V/div	302.0 V ofst	↓	-447.8 V	↑	-373.9 V	Δy	73.9 V
<b>Math</b>	<b>&lt;C4&gt;</b>	100 V/div	3.198 kΩ	↓	-460.150 V	↑	-286.734 V	Δy	-173.416 V

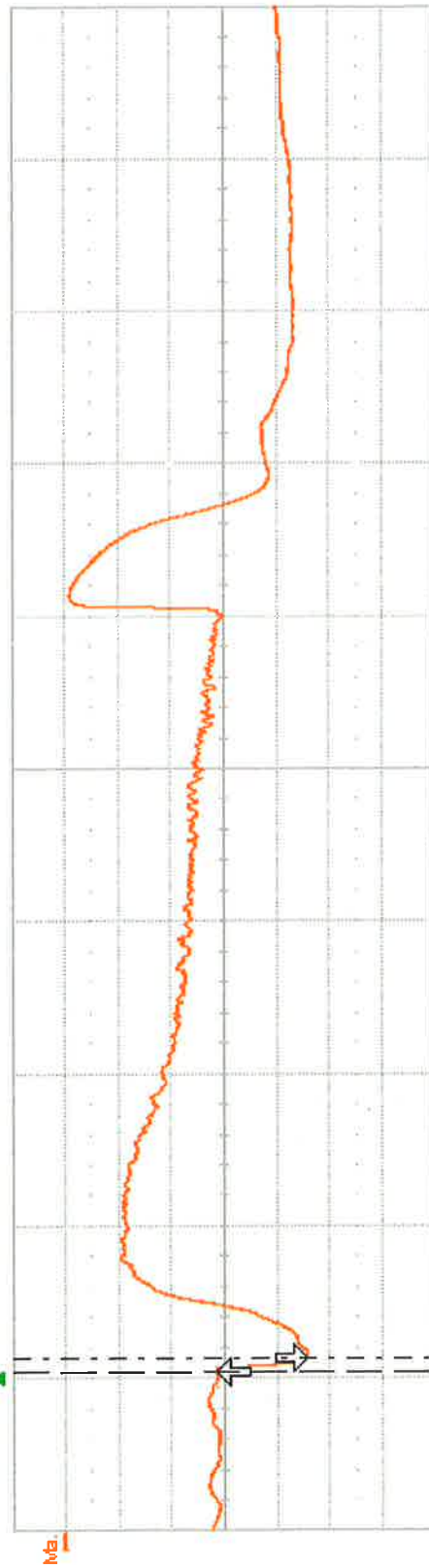
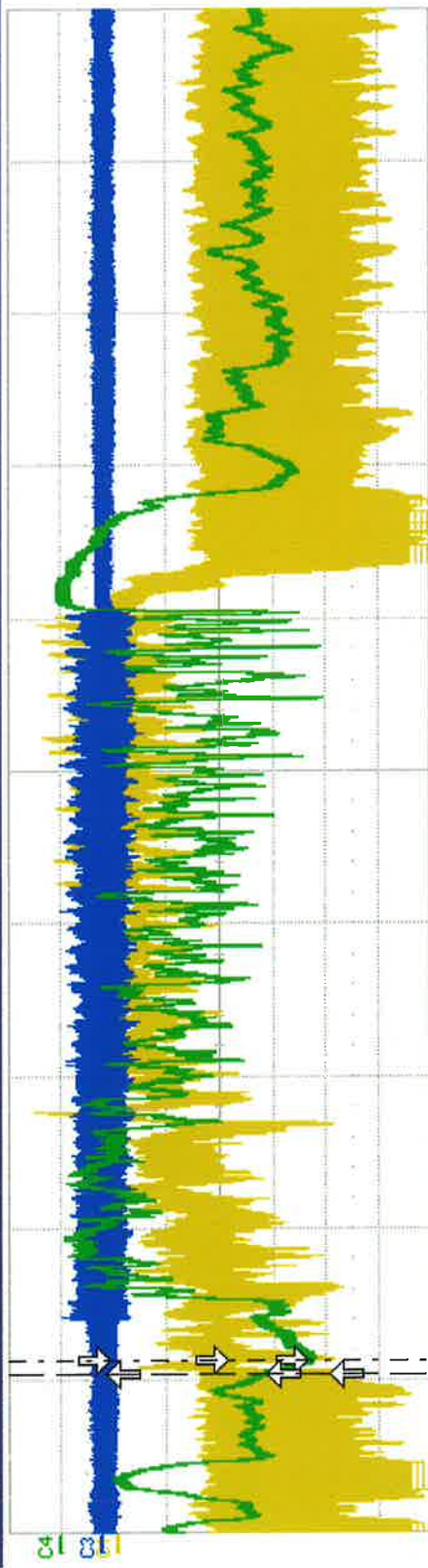
  

<b>Timebase</b>	-2.00 ms	<b>Trigger</b>	Normal	<b>Ext/IO</b>	DC
1.00 MS	500 μs/div	Edge	Negative		
	200 MS/s				

X1= 67.225 μs ΔX= -47.795 μs  
X2= 19.430 μs 1/ΔX= -20.923 kHz

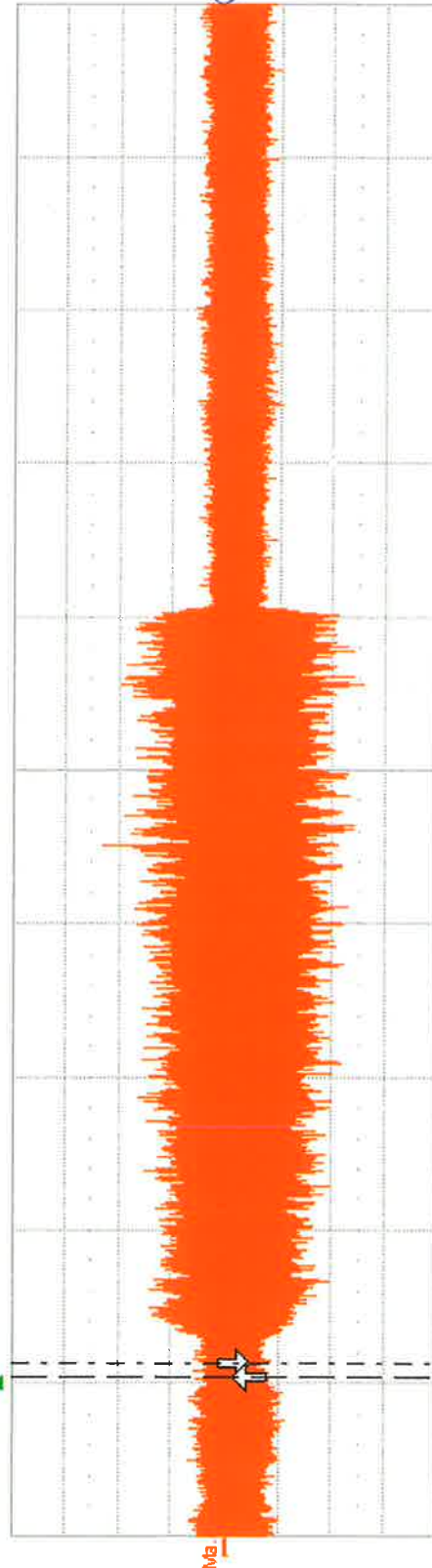
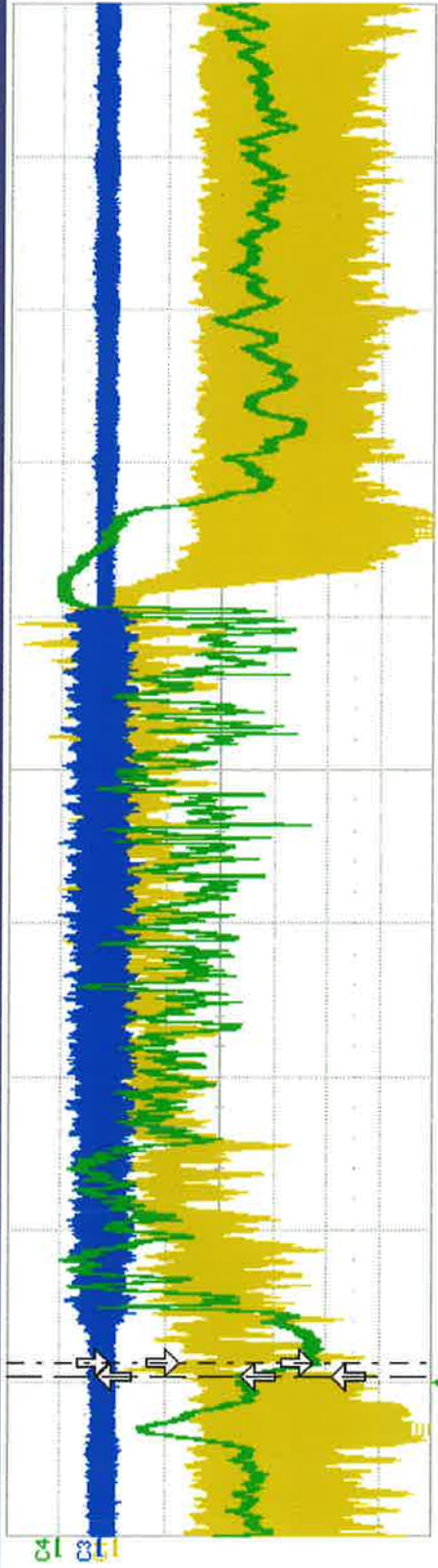




C1	C2	C3	C4	Math	<C4>
200 mV/div	5.00 mV/div	100 V/div	100 V/div	1	1
380.0 mV ofst	11.00 mV ofst	302.0 V ofst	500 μs/div	1	1
-399.9 mV	-420 μV	-464.5 V	193%	1	1
-799.1 mV	-480 μV	-381.5 V	-455.062 V	1	1
-399.2 mV	-80 μV	73.0 V	-289.314 V	1	1
Δy	Δy	Δy	Δy	Δy	Δy

Timebase	-2.00 ms	Trigger	ExtIO	DC
1.00 MS	500 μs/div	Normal	700 mV	
	200 MS/s	Edge	Negative	
X1=	67.225 μs	ΔX=	-47.795 μs	
X2=	19.430 μs	1/ΔX=	-20.923 kHz	



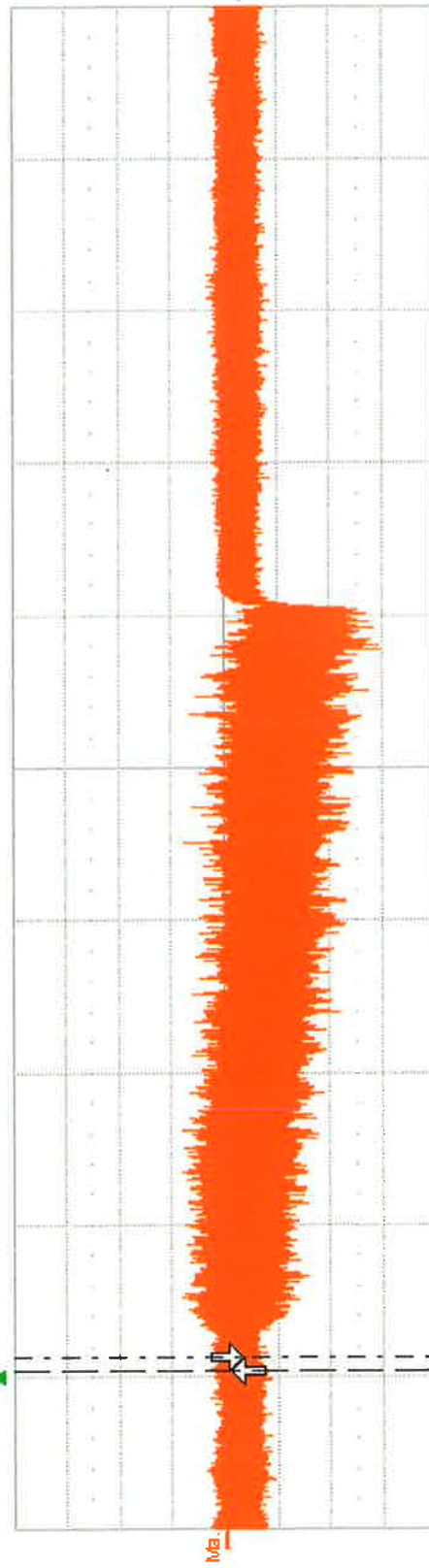
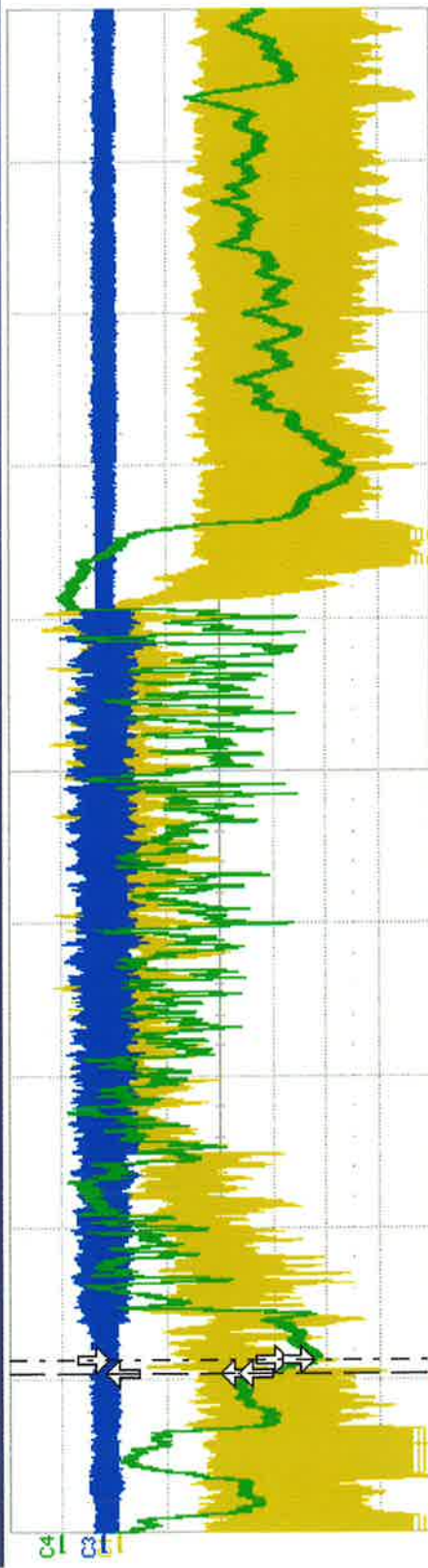


2  
V<sub>0</sub>  
pgm  
3/10/2020

C1	C2	C3	C4	Math	<C3>
DCIM	DCIM	DCIM	DCIM	Math	<C3>
200 mV/div	5.00 mV/div	100 V/div	200 μV/div	200 μV/div	200 μV/div
380.0 mV ofst	11.00 mV ofst	302.0 V offset	500 μV/div	500 μV/div	500 μV/div
↓	↓	↓	↓	↓	↓
-223.4 mV	-530 μV	-475.4 V	-86.0 μV	-86.0 μV	-86.0 μV
↑	↑	↑	↑	↑	↑
-808.6 mV	310 μV	-346.9 V	-35.7 μV	-35.7 μV	-35.7 μV
Δy	Δy	Δy	Δy	Δy	Δy
-585.1 mV	840 μV	128.5 V	50.3 μV	50.3 μV	50.3 μV

Timebase	-2.00 ms	Trigger	Extr10	DC
1.00 MS	500 μs/div	Normal	700 mV	Negative
	200 MS/s	Edge		
X1=	67.225 μs	ΔX=	-47.795 μs	
X2=	19.430 μs	1/ΔX=	-20.923 kHz	



-10  
K3  
P  
20T  
0.1

Timebase	-2.00 ms	Trigger	ExtIO	DC
1.00 MS	500 $\mu$ S/div	Normal	700 mV	
	200 MS/s	Edge	Negative	

Math	<C3>
200 $\mu$ V/div	100 $\mu$ V/div
500 $\mu$ S/div	302.0 V offset
	-473.9 V
	-339.4 V
	-21.8 $\mu$ V
	31.5 $\mu$ V

C4	DGTM
100.0	100 V/div
5.00 mV/div	302.0 V offset
11.00 mV ofst	-473.9 V
	-339.4 V
	-21.8 $\mu$ V
	31.5 $\mu$ V

C3	DGTM
200 mV/div	200 mV/div
380.0 mV ofst	380.0 mV ofst
	-624.8 mV
	-385.2 mV
	239.6 mV

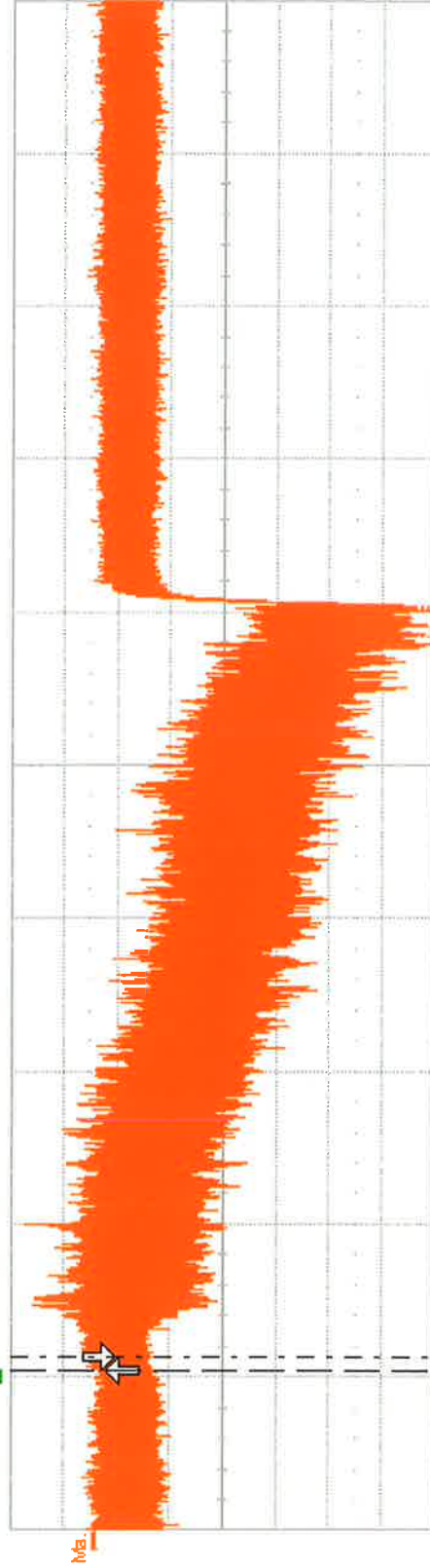
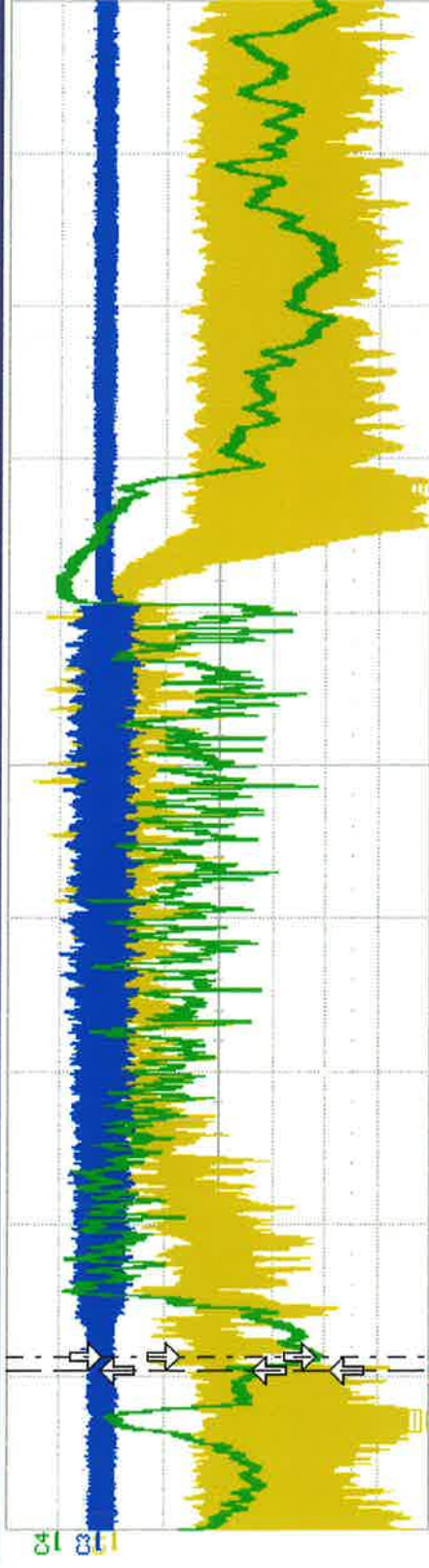
  

C1	DGTM
200 mV/div	200 mV/div
380.0 mV ofst	380.0 mV ofst
	-624.8 mV
	-385.2 mV
	239.6 mV

X1	67.225 $\mu$ s	$\Delta$ X	-47.795 $\mu$ s
X2	19.430 $\mu$ s	1/ $\Delta$ X	-20.923 kHz





SE  
- diode  
NO  
BLACK  
PAPER  
NOT  
B x 168033

Timebase	-2.00 ms	Trigger	Ext10 DC
1.00 MS	500 $\mu$ s/div	Normal	700 mV
	200 MS/s	Edge	Negative
X1=	67.225 $\mu$ s	$\Delta$ X=	-47.795 $\mu$ s
X2=	19.430 $\mu$ s	1/ $\Delta$ X=	-20.923 kHz

Math	<C3>
100 $\mu$ V/div	311 #
500 $\mu$ s/div	-35.3 $\mu$ V
	-21.6 $\mu$ V
	14.5 $\mu$ V

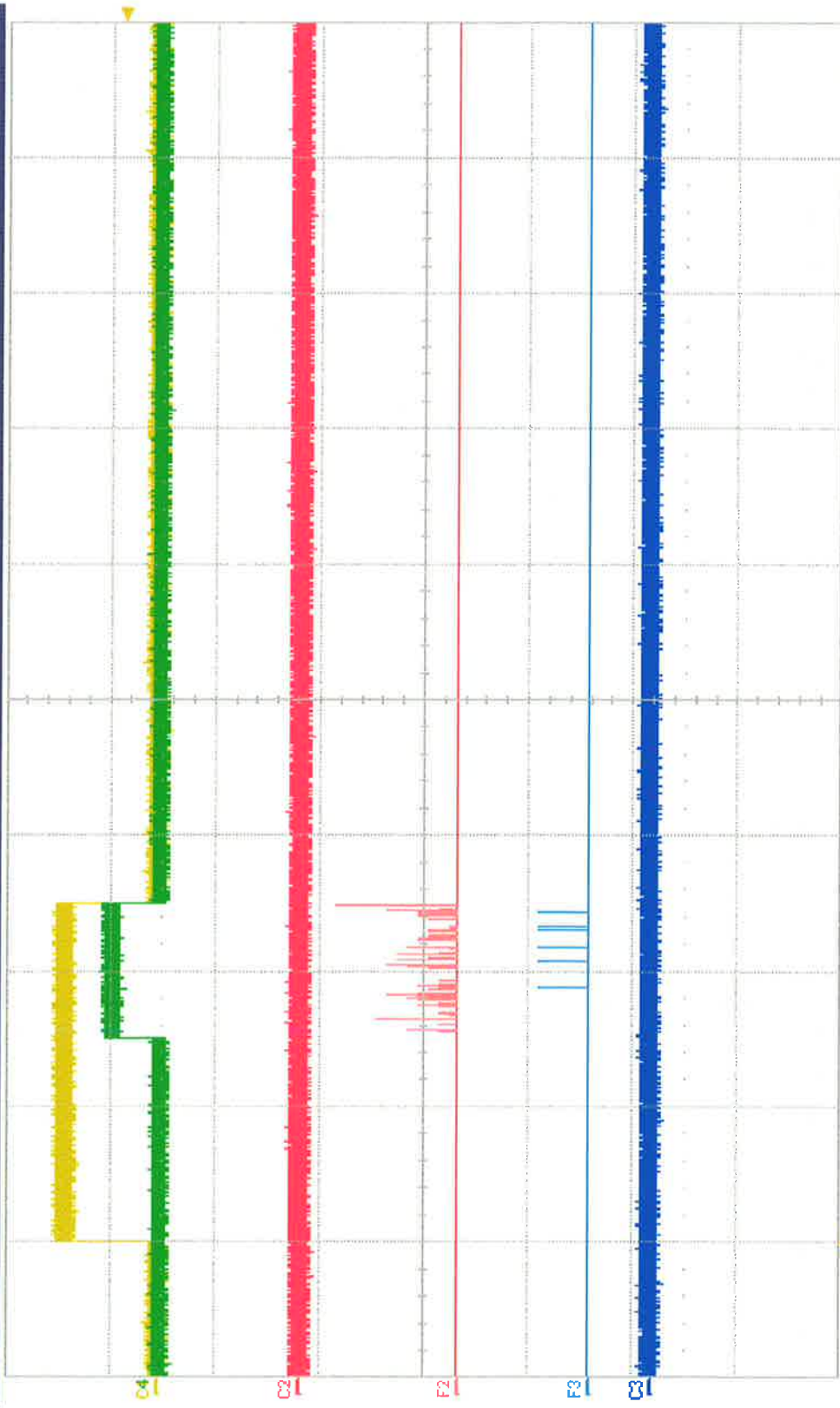
C4	DC1M
100 V/div	302.0 V offset
	-483.2 V
	-369.7 V
	113.5 V

C3	DC1M
5.00 mV/div	11.00 mV ofst
	630 $\mu$ V
	-750 $\mu$ V
	-1.38 mV

C1	DC1M
200 mV/div	380.0 mV ofst
	-429.8 mV
	-538.9 mV
	-109.1 mV



Tbase -4.00 ms Trigger C1 DC  
1.00 ms/div Normal 1.85 V  
500 kS 50 MS/s Edge Positive

F3 peris...  
10.0 #  
1.0 ms  
35 #

F2 peris...  
10.0 #  
1.0 ms  
178 #

C4  
10.0 V  
25.30 V

C3  
5.00 V  
-11.0 V

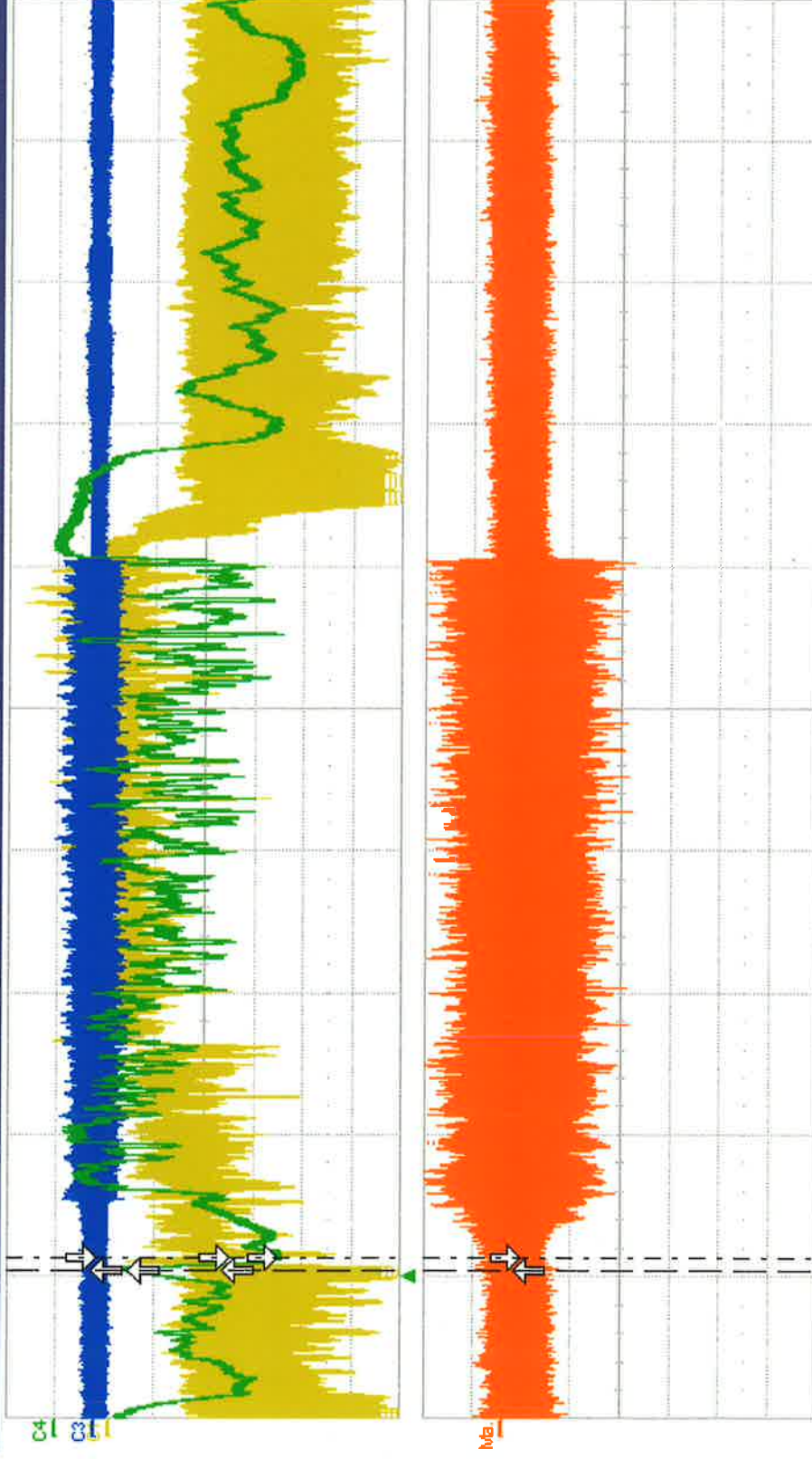
C2  
5.00 V  
5.95 V

C1  
5.00 V  
12.70 V

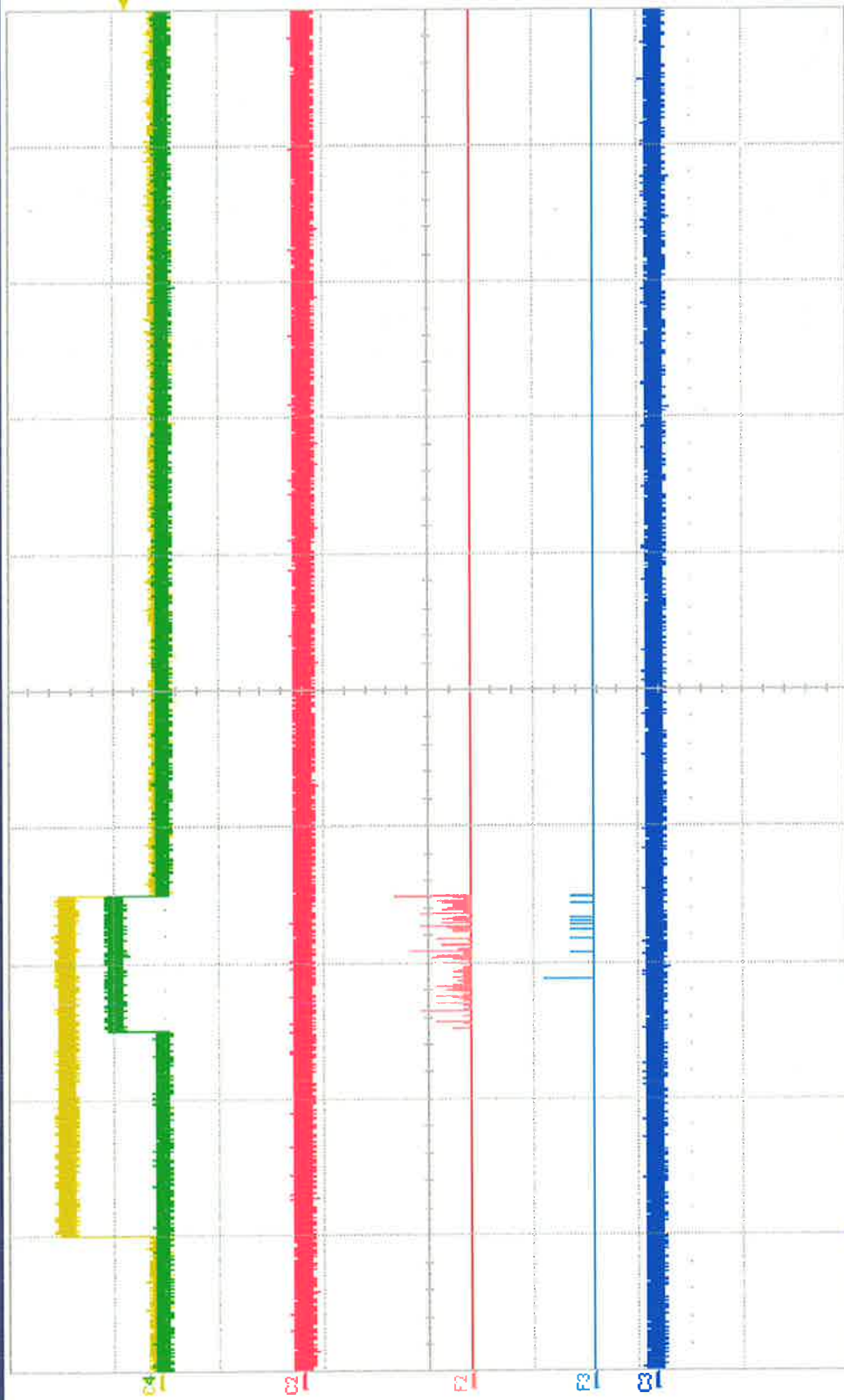
TELEDYNE LECROY

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<b>C1</b>	<b>DC1M</b>	200 mV/div 380.0 mV ofst	↓ ↑	-475.2 mV -465.2 mV	ΔV 10.0 mV
<b>C3</b>	<b>DC1M</b>	5.00 mV/div 11.00 mV ofst	↓ ↑	50 μV 280 μV	ΔV 220 μV
<b>C4</b>	<b>DC1M</b>	100 V/div 302.0 V ofst	↓ ↑	-448.9 V -153.1 V	ΔV 295.7 V
<b>Math</b>	<b>&lt;C3&gt;</b>	100 μV/div 500 μs/div	↓ ↑	175 # -353 μV -25 # μV 8.7 μV	ΔV
<b>Timebase</b>	<b>-2.00 ms</b>	500 μs/div 1.00 MS	Normal Edge	700 mV Negative	
<b>Trigger</b>	<b>Ext/10 DC</b>				
<b>X1=</b>	<b>67.225 μs</b>	<b>ΔX=</b>	<b>-47.795 μs</b>		
<b>X2=</b>	<b>19.430 μs</b>	<b>1/ΔX=</b>	<b>-20.923 kHz</b>		



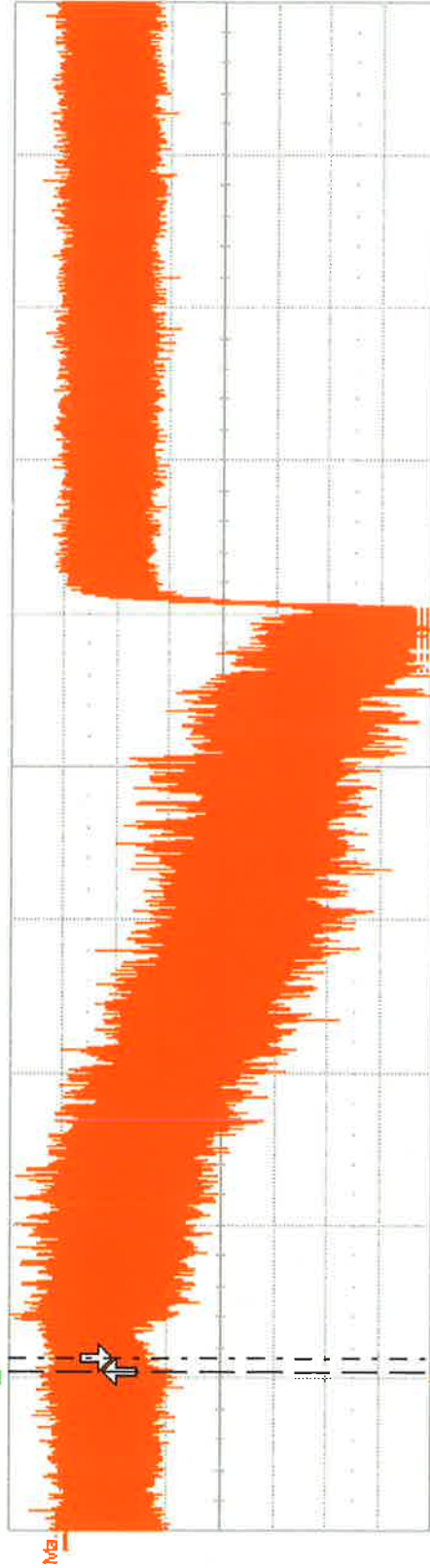
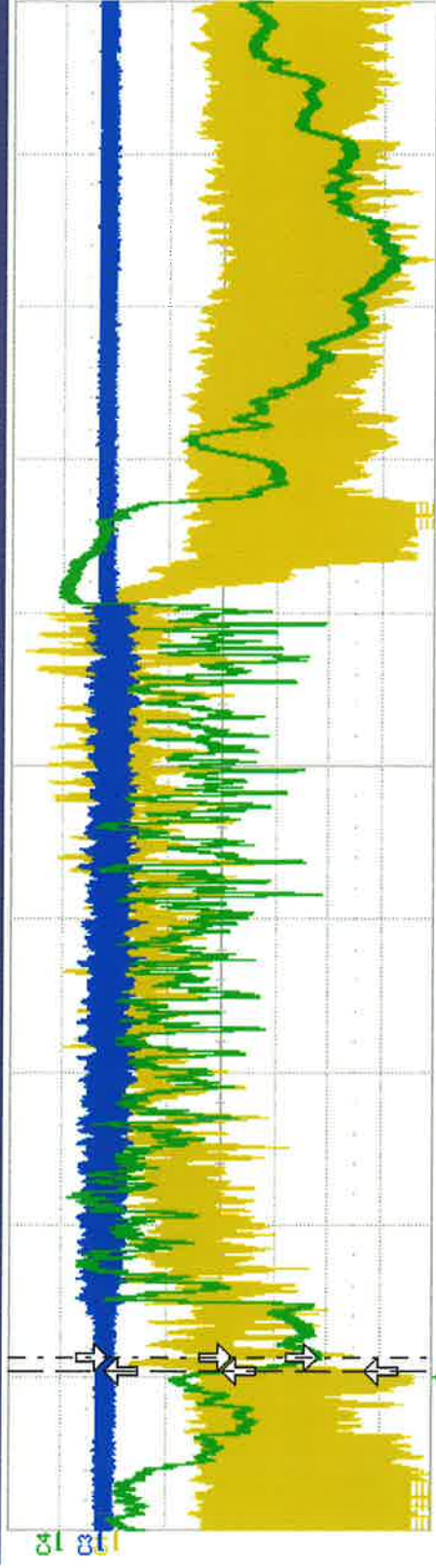
Tbase -4.00 ms  
1.00 ms/div  
500 kS

Trigger C100  
Normal 1.55 V  
Edge Positive

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 313 #  
F3 peris... 20.0 # 1.0 ms 55 #

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Timebase	-2.00 ms	Trigger	Edge	Normal	700 mV	DC
1.00 MS	500 $\mu$ s/div	200 MS/s	Edge	Negative		
X1=	67.225 $\mu$ s	$\Delta$ X=	-47.795 $\mu$ s			
X2=	19.430 $\mu$ s	1/ $\Delta$ X=	-20.923 kHz			

Math	<C3>
100 $\mu$ V/div	500 $\mu$ s/div
78 #	
-30.6 $\mu$ V	-72.7 $\mu$ V
7.9 $\mu$ V	

C4	DC offset
100 V/div	302.0 V offset
-480.9 V	
-309.5 V	
171.3 V	

C3	DC offset
5.00 mV/div	11.00 mV offset
-270 $\mu$ V	
-320 $\mu$ V	
-50 $\mu$ V	

C1	DC offset
200 mV/div	380.0 mV offset
-417.9 mV	
-931.4 mV	
-513.6 mV	