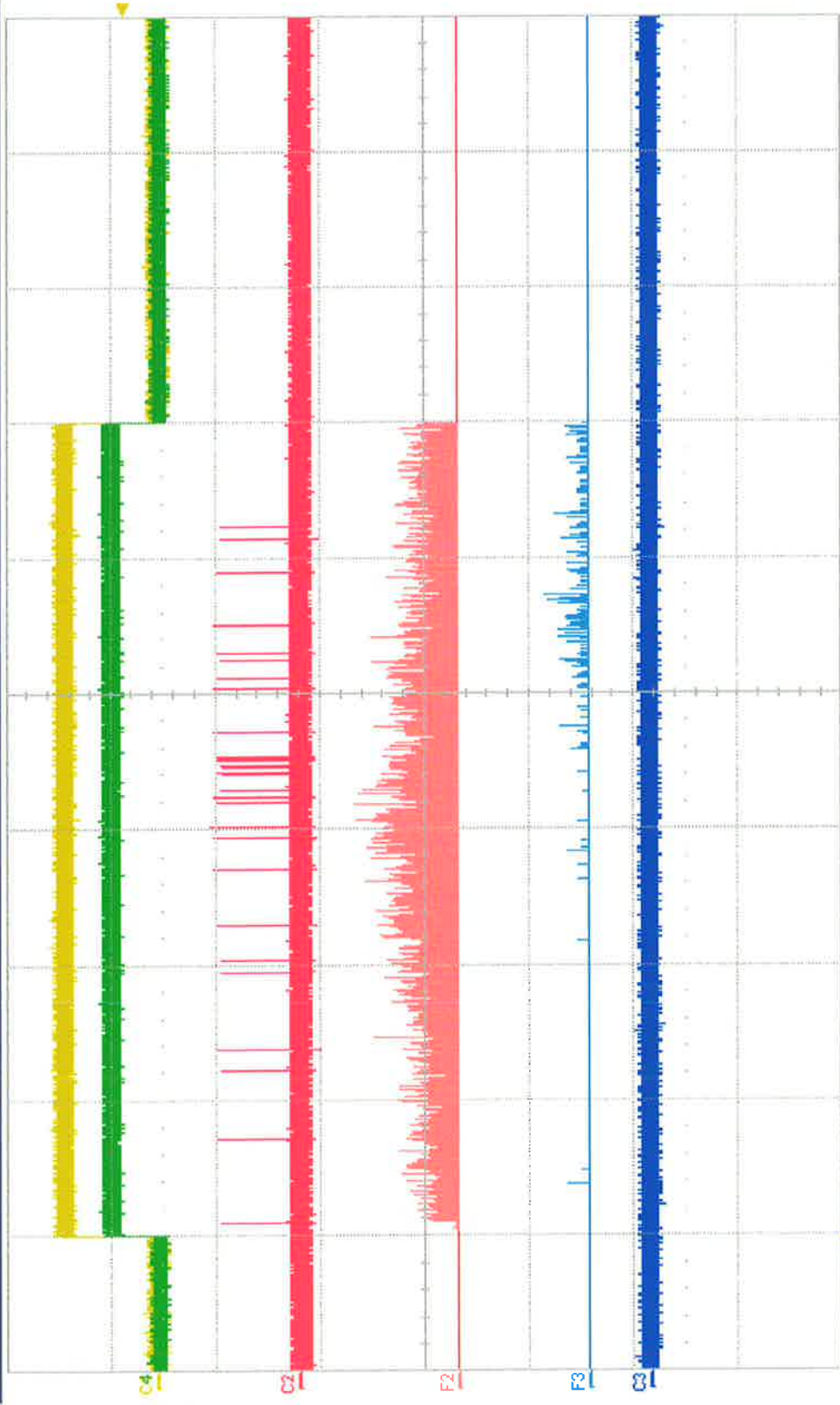
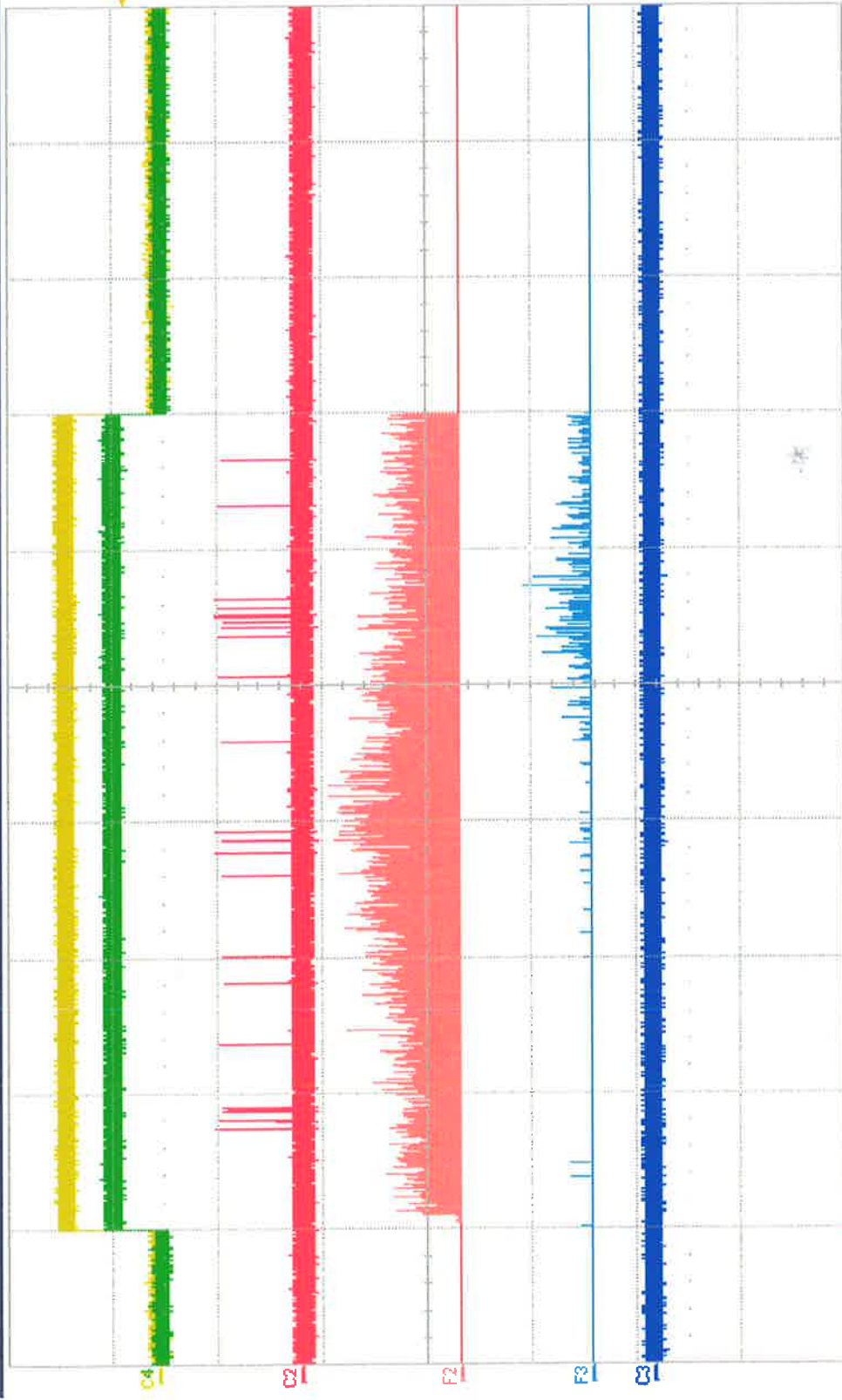


Channel	Scale	Offset	Unit
C1	200 mV/div	0.00 V	DCIM
C2	10.0 A/div	-9.30 A	offset
C3	100 V/div	300.0 V	offset
C4	100 V/div	-80.6 V	offset
	300.0 V	-100.6 V	offset
	100.6 V	-9.9 V	offset

Timebase	Trigger	Ext/IO	DC
-4.00 ms	Normal	700 mV	
1.00 ms/div	Edge	Negative	
1.00 MS	100 MS/s		
X1= 1.23450 ms	$\Delta X=$ -5.00 $\mu$ s		
X2= 1.22950 ms	$1/\Delta X=$ -200.0 kHz		



<b>C1</b>	<b>D1</b>	5.00 V	12.70 V
<b>C2</b>	<b>D2</b>	5.00 V	5.95 V
<b>C3</b>	<b>D3</b>	5.00 V	-11.0 V
<b>C4</b>	<b>D4</b>	10.0 V	25.30 V
<b>F2 peris...</b>	<b>100 #</b>	<b>1.0 ms</b>	<b>28.1 k#</b>
<b>F3 peris...</b>	<b>50.0 #</b>	<b>1.0 ms</b>	<b>1.02 k#</b>
<b>Tbase</b>	<b>-4.00 ms</b>	<b>1.00 ms/div</b>	<b>500 k#</b>
<b>Trigger</b>	<b>C1 DC</b>	<b>Normal</b>	<b>1.85 V</b>
		<b>Edge</b>	<b>Positive</b>



Tbase -4.00 ms  
1.00 ms/div  
500 kS

Trigger C1 DC  
Normal 1.85 V  
Edge Positive

F3 peris...  
50.0 #  
1.0 ms  
1.56 k#

F2 peris...  
100 #  
1.0 ms  
39.7 k#

C4  
10.0 V  
25.30 V

C3  
5.00 V  
-11.0 V

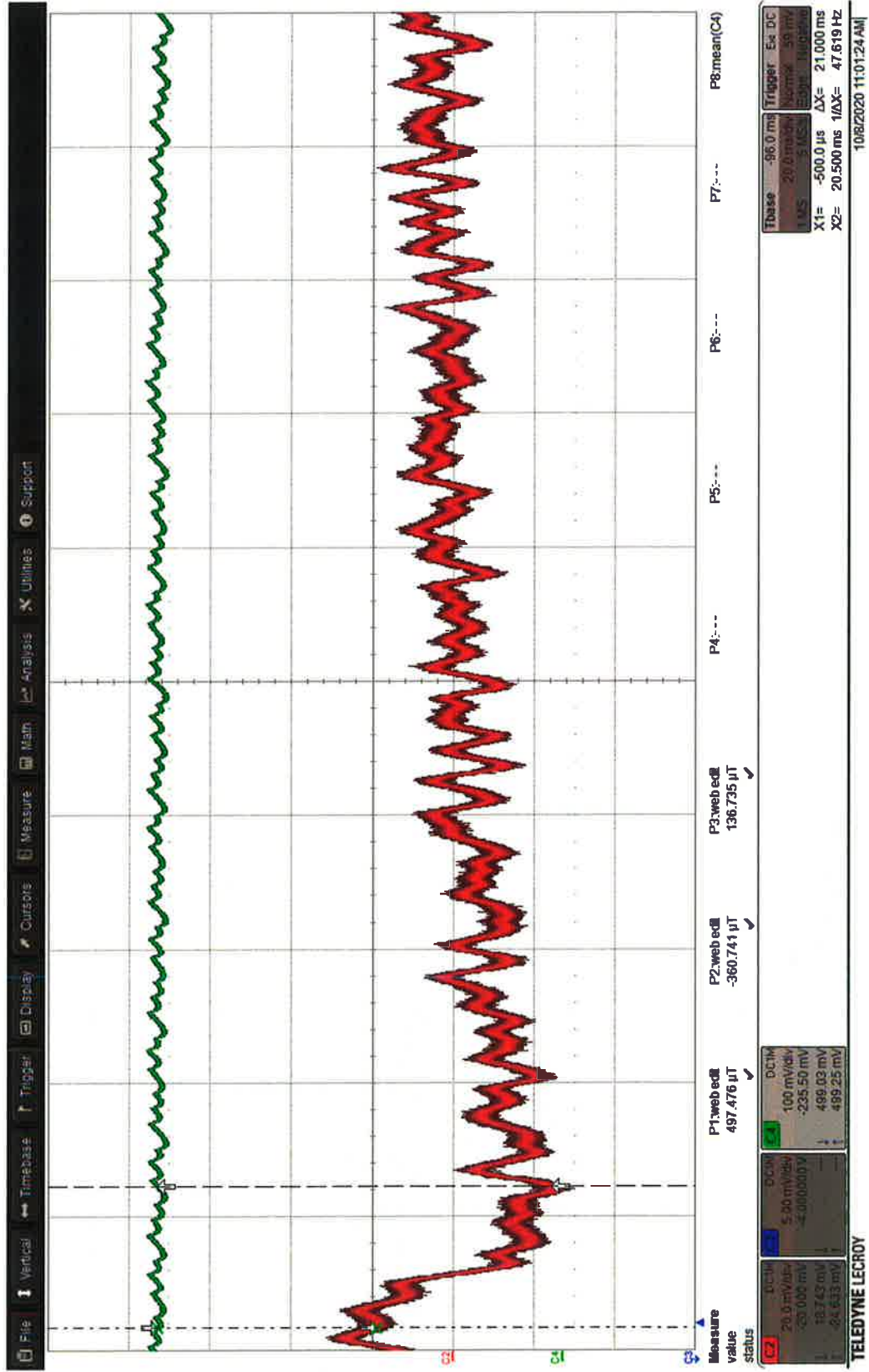
C2  
5.00 V  
12.70 V

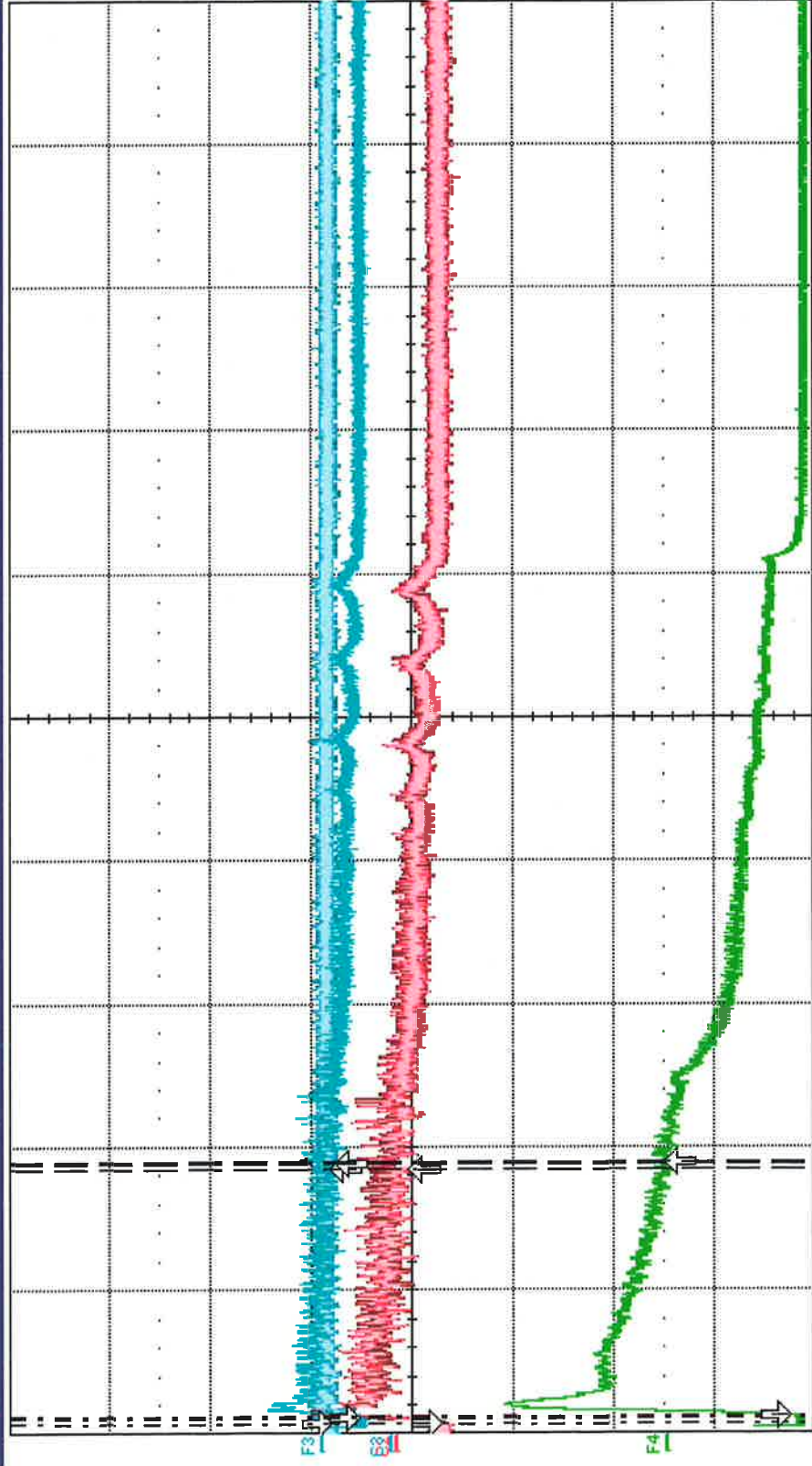
C1  
5.00 V  
12.70 V

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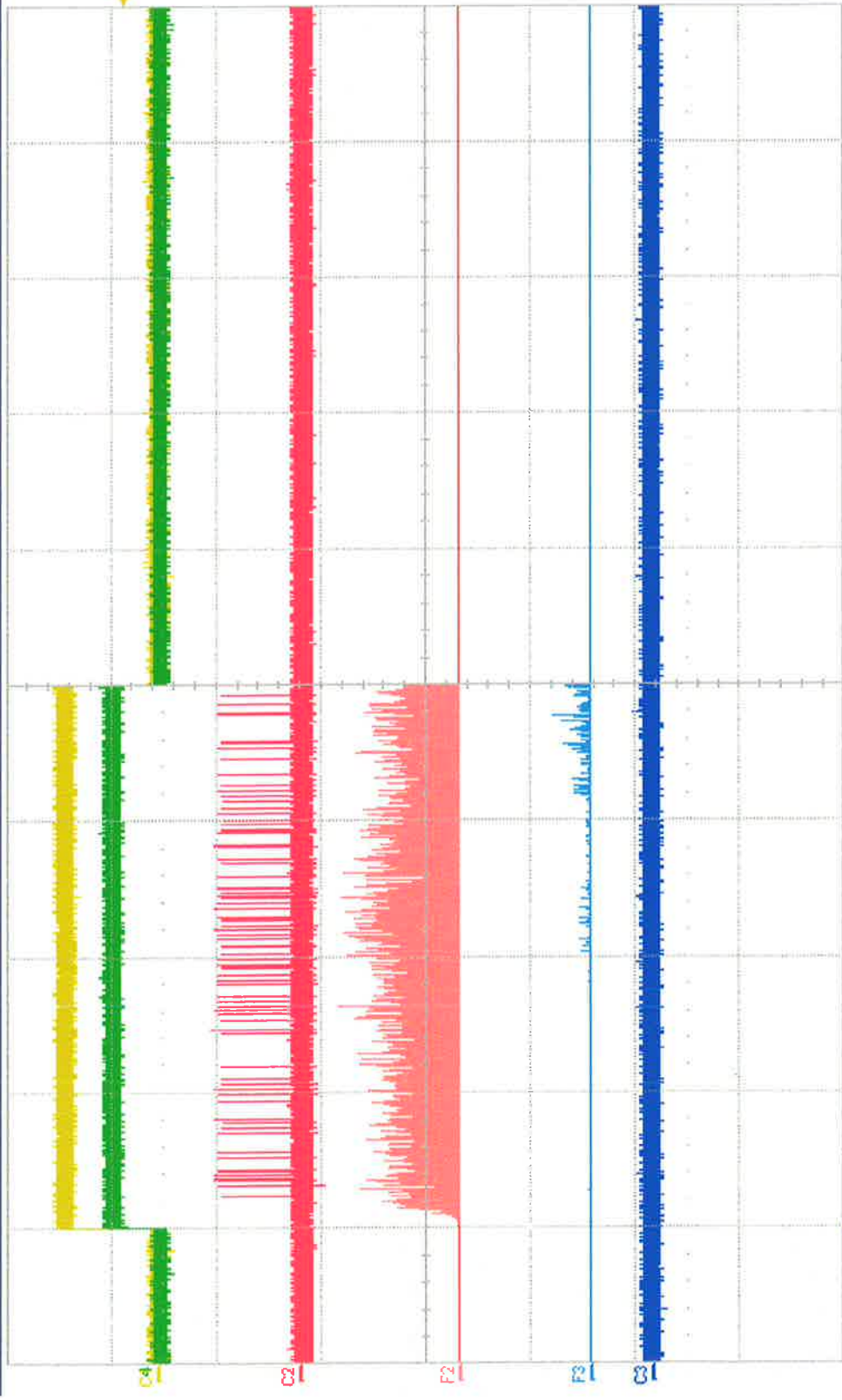






Tbase -5.00 ms Trigger Ext 10 DC  
 WStream 1.00 ms Normal 30 mv  
 50.0 kS 5.0 MS/s Edge Negative  
 X1= 76.2  $\mu$ s  $\Delta$ X= 1.7676 ms  
 X2= 1.8438 ms 1/X= 565.74 Hz

C2	DCIM	C3	F3 script(C3,C2)	F4	<F3>
500 mV/div	500 mV/div	2.00/div	500e-3/div	500e-3/div	500e-3/div
75 mV offset	100 mV offset	1.00 ms/div	1.00 ms/div	1.00 ms/div	1.00 ms/div
-201 mV	325 mV	-653e-3	-602.36e-3	-602.36e-3	-602.36e-3
-22 mV	302 mV	-174e-3	-174e-3	-174e-3	-174e-3
178 mV	-22 mV	480e-3	480e-3	480e-3	480e-3
$\Delta$	$\Delta$	$\Delta$	$\Delta$	$\Delta$	$\Delta$



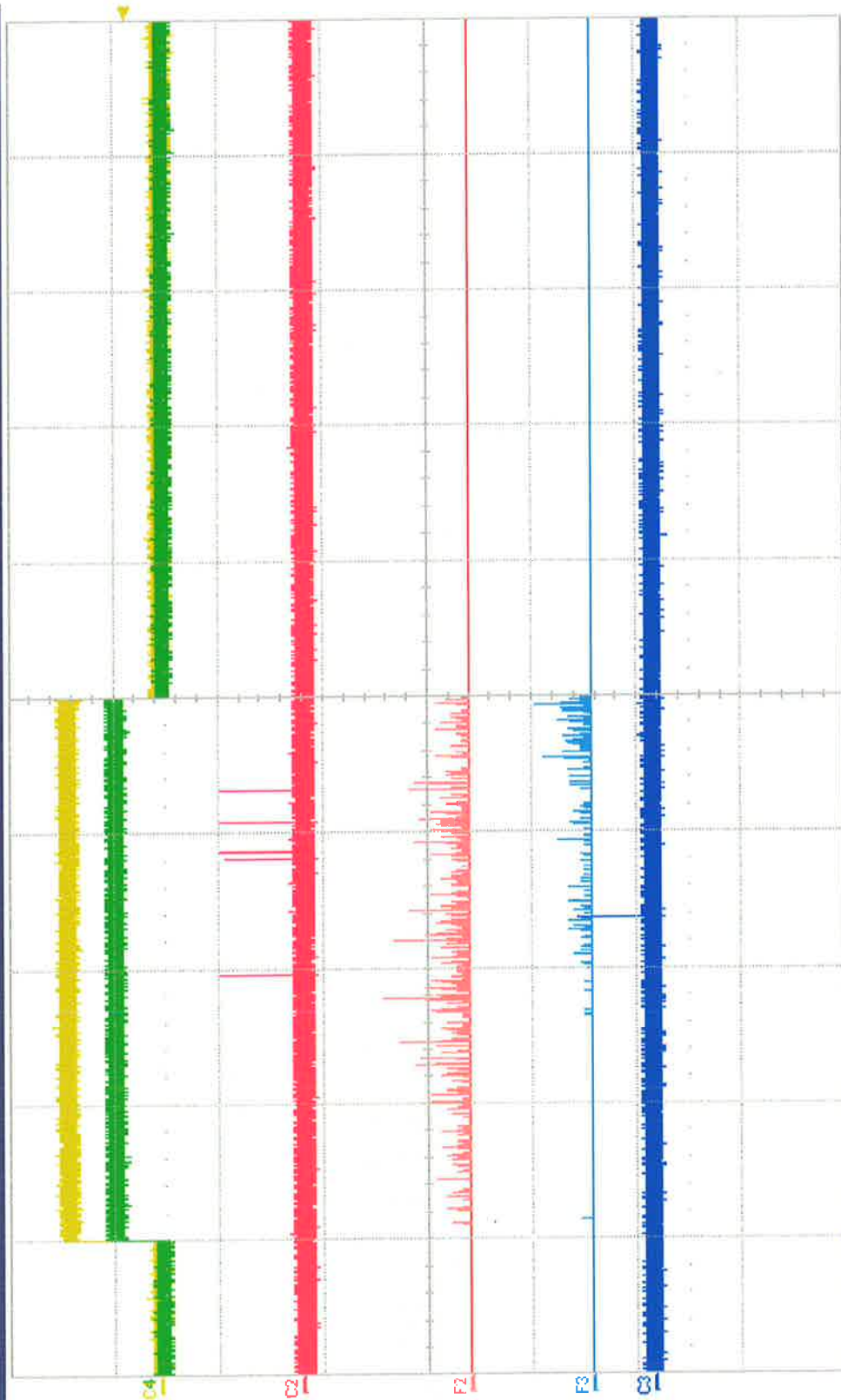
**Thase** -4.00 ms  
 1.00 ms/div  
 500 kS  
**Trigger** **C1 DC**  
 Normal 1.65 V  
 Edge Positive

**C1** **D1** 5.00 V 12.70 V  
**C2** **D1** 5.00 V 5.95 V  
**C3** **D1** 5.00 V -11.0 V  
**C4** **D1** 10.0 V 25.30 V  
**F2 peris...** 100 # 1.0 ms 27.2 k#  
**F3 peris...** 100 # 1.0 ms 1.04 k#

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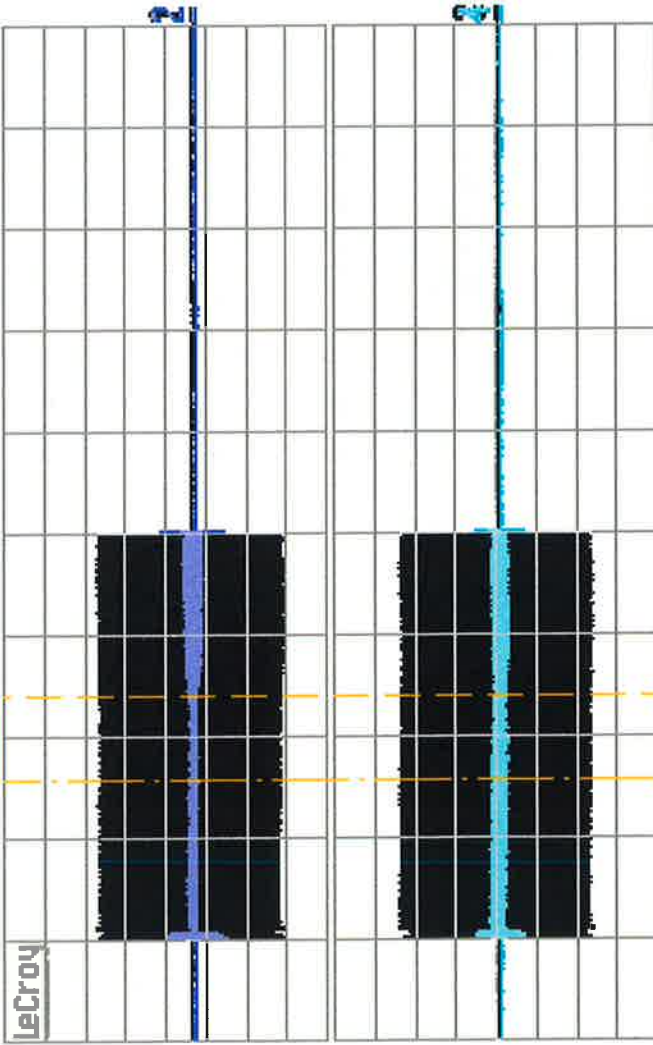
Thase -4.00 ms Trigger C100  
1.00 ms/div Normal 1.85 V  
500 kS 50 mS/s Edge Positive

C1 D1 5.00V 12.70V  
C2 D1 5.00V 5.95V  
C3 D1 5.00V -11.0V  
C4 D1 10.0V 25.30V  
F2 peris... 20.0# 1.0ms 1.09k#  
F3 peris... 50.0# 1.0ms 826#

TELEDYNE LECROY

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8-Oct-20  
11:12:18



1 1 ms  
200 mV

2 1 ms  
200 mV

3 1 ms  
200 mV

4 1 ms  
200 mV

494 sweeps:

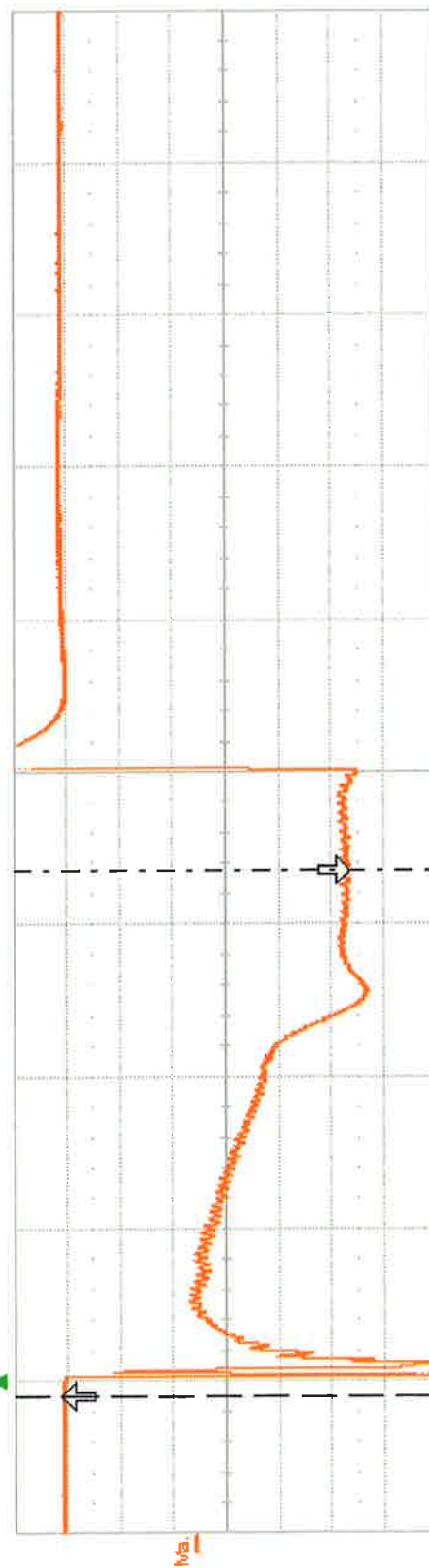
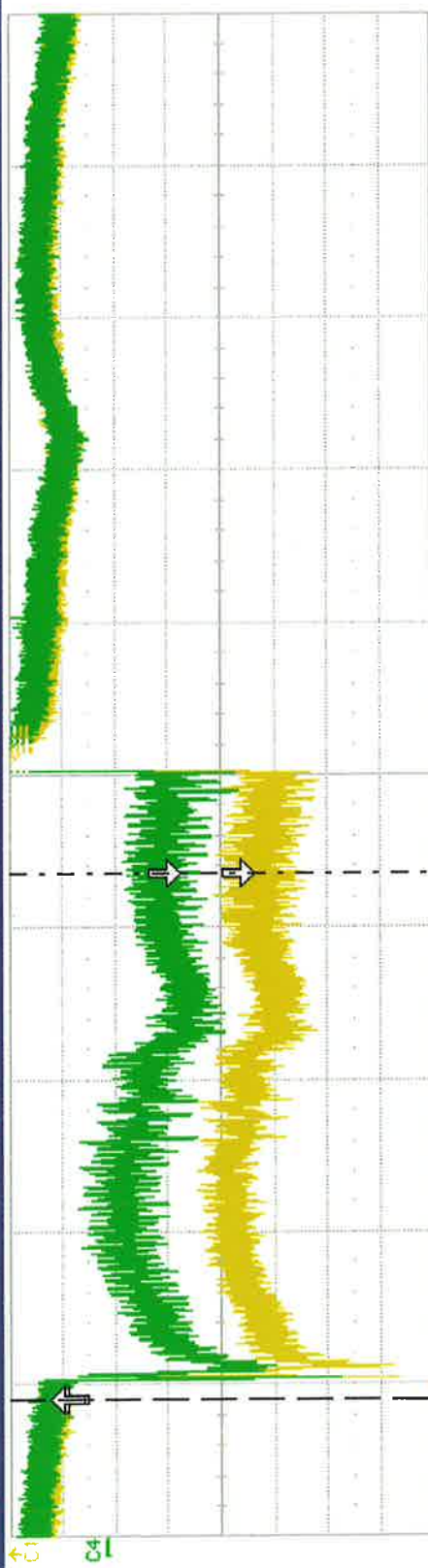
rms(1)	average	low	high	sigma
rms(2)	320.7mV	312.6	326.1	2.3
rms(3)	15.0mV	11.2	19.0	1.9
rms(4)	330.3mV	322.9	333.9	2.0
phase(1,3)	26.3mV	21.9	29.9	1.5
	77°	27	134	36

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

10 MS/s  
NORMAL

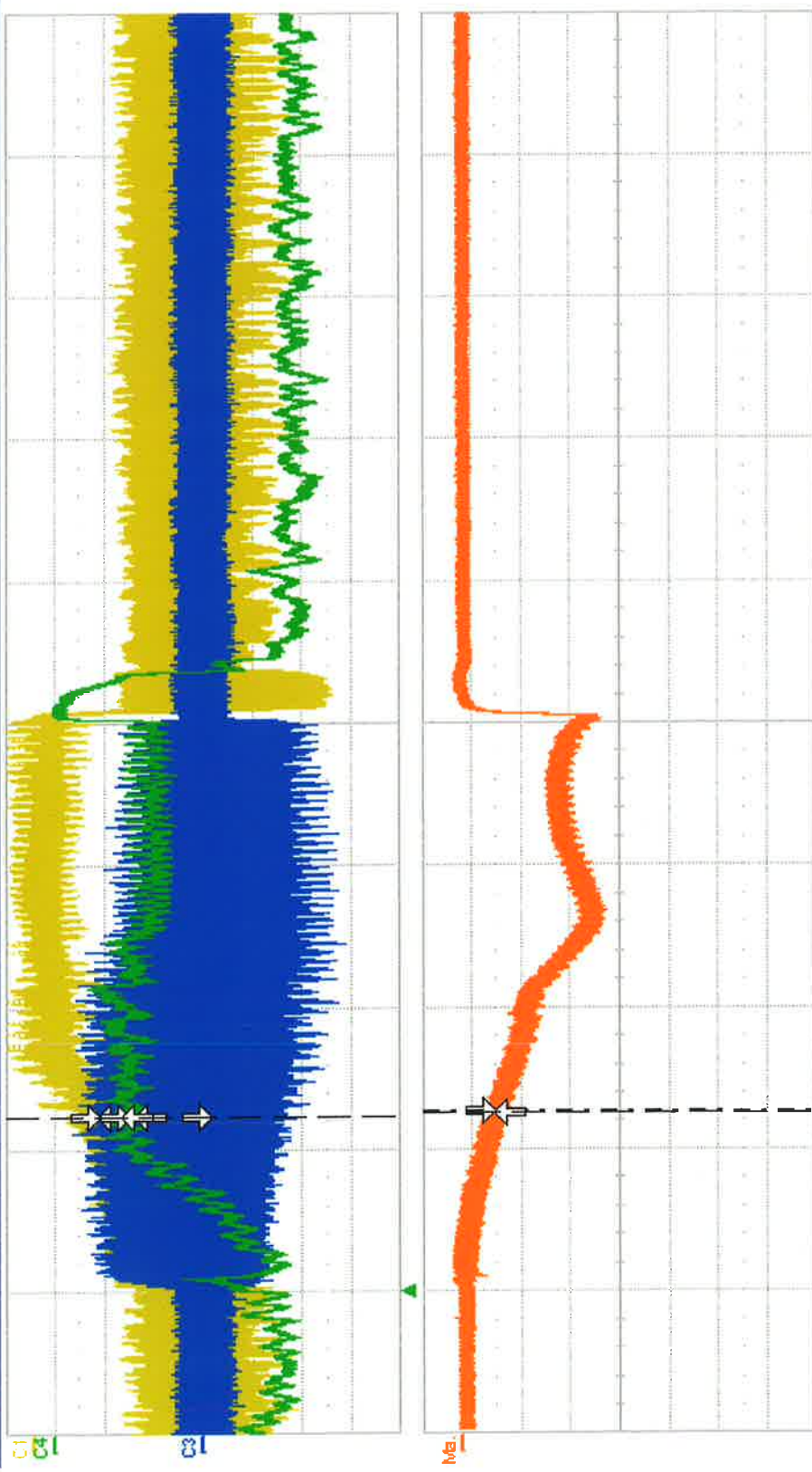
Ext10 DC 0.15 V 50Ω





C1	DCIM	C4	DCIM	Math	<C4>
2.00 mV/div	2.00 mV/div	2.00 mV/div	2.00 mV/div	1.00 mV/div	1.00 mV/div
9.100 mV ofst	4.300 mV ofst	4.300 mV ofst	4.300 mV ofst	1.00 mV/div	1.00 mV/div
↑	↑	↑	↑	↑	↑
-10.287 mV	-2.737 mV	-2.737 mV	-2.737 mV	478.8	478.8
↑	↑	↑	↑	↑	↑
-2.850 mV	2.054 mV	2.054 mV	2.054 mV	2.5113 mV	2.5113 mV
ΔV	7.437 mV	ΔV	4.792 mV	ΔV	5.3923 mV

Timebase	-4.00 ms	Trigger	Edge	Normal	700 mV	DC
2.00 MS	200 MS/s	Normal	Edge	Normal	700 mV	Negative
X1=	3.350635 ms	ΔX=	-3.454275 ms			
X2=	-103.640 μs	1/ΔX=	-288.4963 Hz			

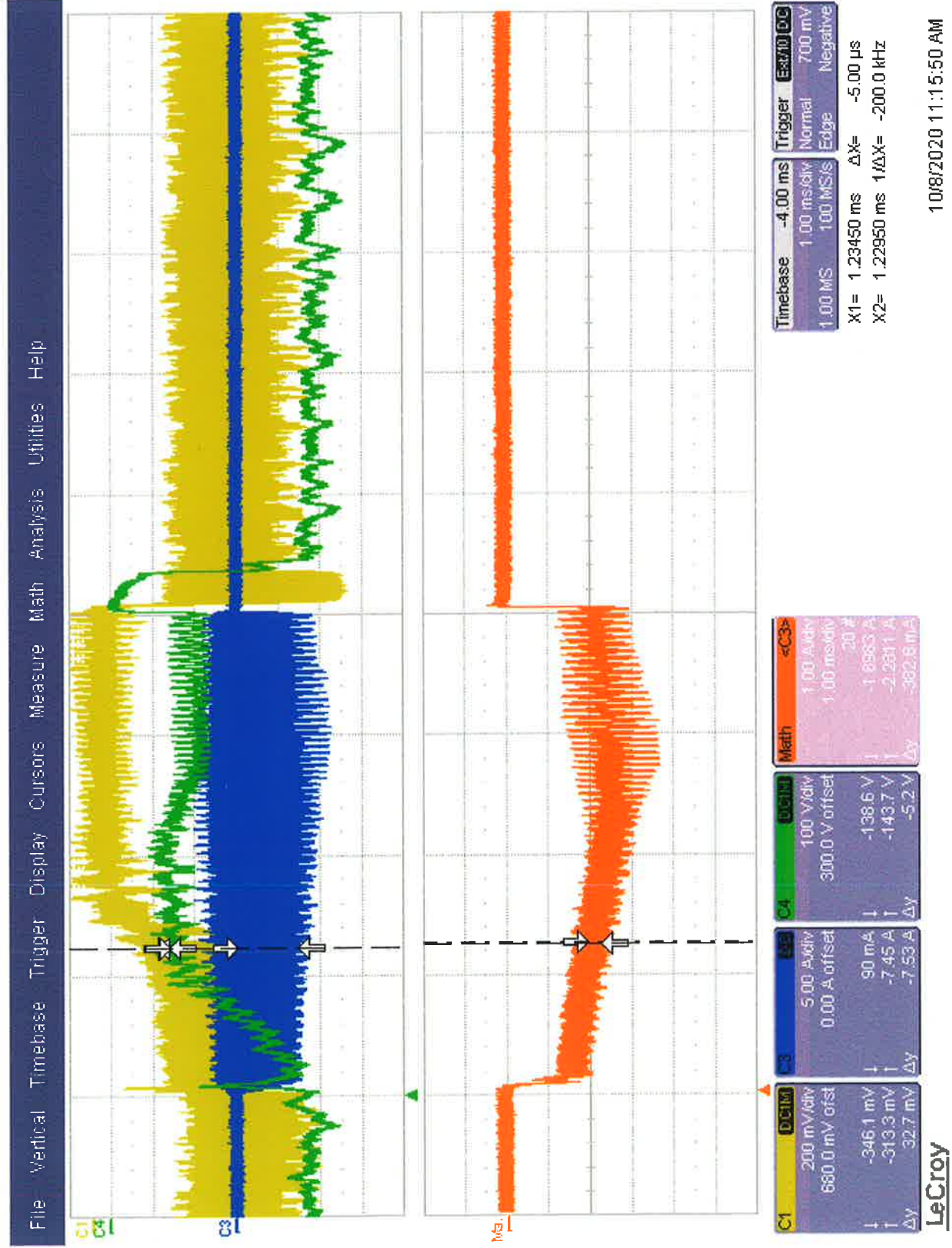


<b>C1</b>	<b>DCIM</b>	200 mV/div	680.0 mV offset	↓	-172.7 mV	↑	-197.4 mV	Δy	-24.8 mV	
<b>C3</b>	<b>DCIM</b>	1.00 mV/div	0 μV offset	↓	-151 μV	↑	1.367 mV	Δy	1.518 mV	
<b>C4</b>	<b>DCIM</b>	100 V/div	300.0 V offset	↓	-148.4 V	↑	-139.2 V	Δy	9.2 V	
<b>Math</b>	<b>&lt;C3&gt;</b>	200 μV/div	1.00 ms/div	436 #	↓	-124.3 μV	↑	-130.8 μV	Δy	-6.5 μV

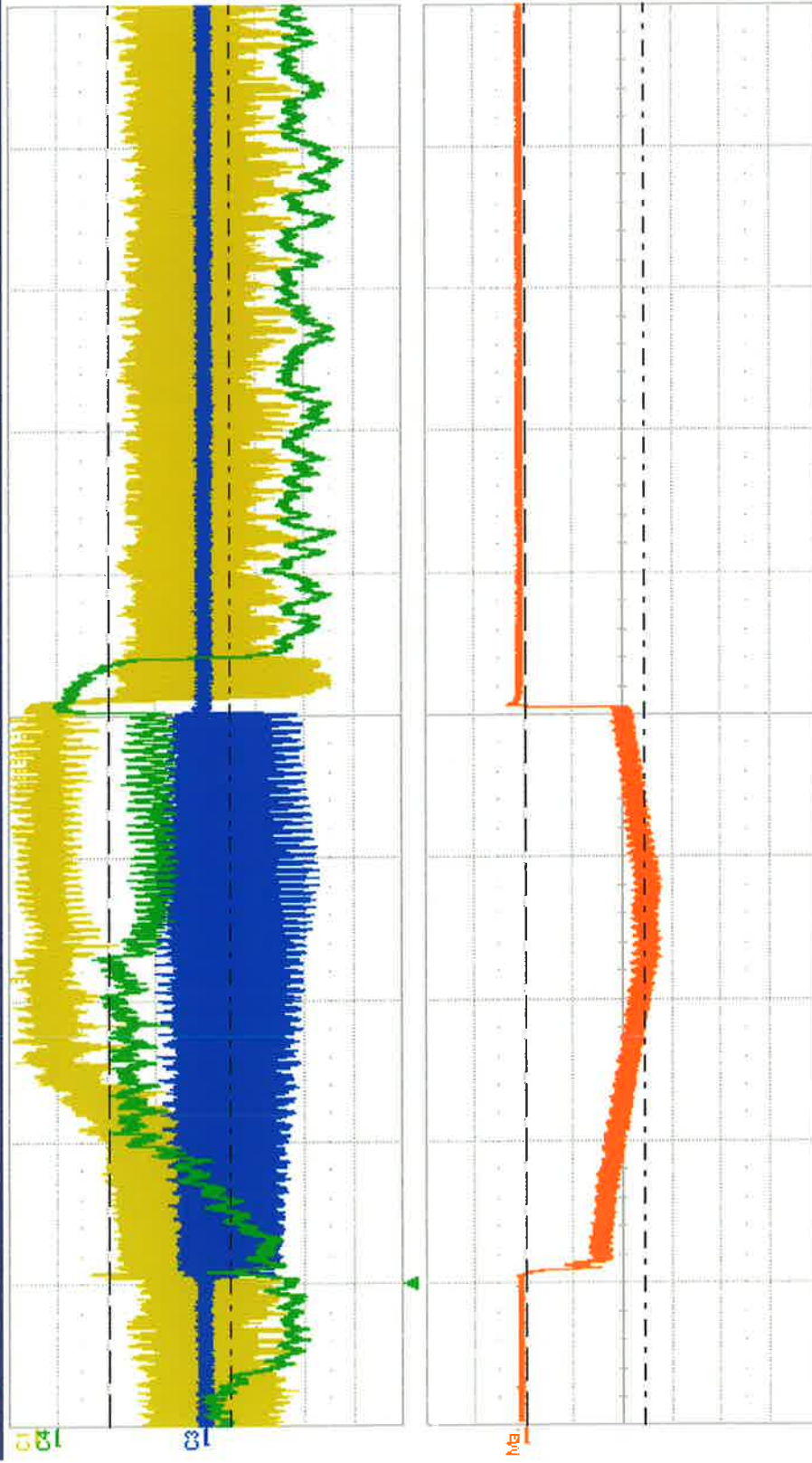
<b>Timebase</b>	<b>-4.00 ms</b>	<b>Trigger</b>	<b>Ex710 OC</b>
	1.00 ms/div	Normal	700 mV
	1.00 μS	Edge	Negative

X1= 1.23450 ms ΔX= -5.00 μs  
X2= 1.22950 ms 1/ΔX= -200.0 kHz

C3: LeCroy  
current probe  
on DLI  
shield

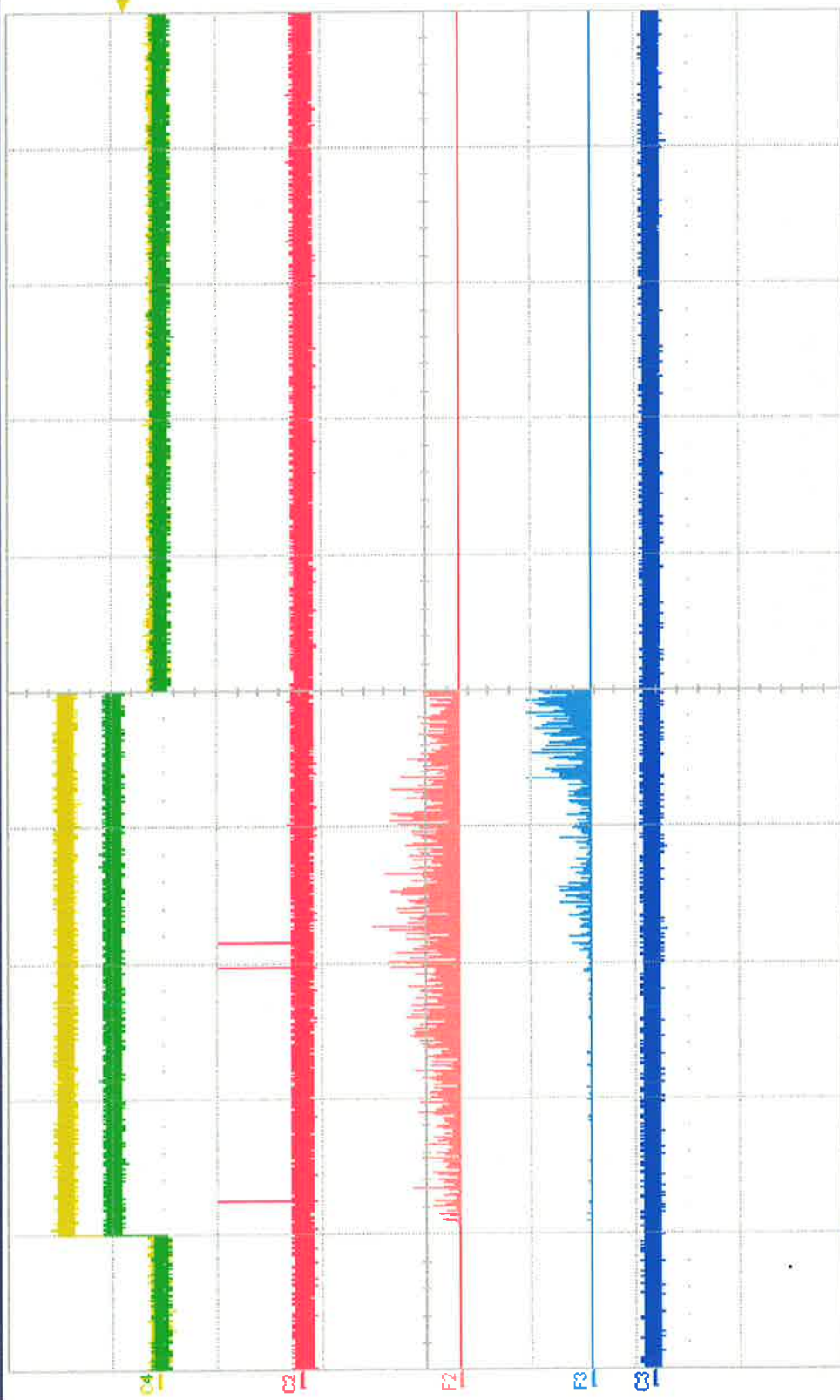






Timebase 4.00 ms  
1.00 ms/div  
1.00 MS  
Trigger Edge  
Normal  
700 mV  
Negative

C1 DCIM 200 mV/div 680.0 mV offset  
C3 DC 5.00 A/div 0.00 A offset  
C4 DC10 100 V/div 300.0 V offset  
Math <C3> 1.00 A/div 1.00 mV/div  
249 #  
-2.43 A  
-10 mA  
2.42 A  
-774 mV  
-280 mV  
484 mV  
-347 V  
-105 V  
242 V  
Δy

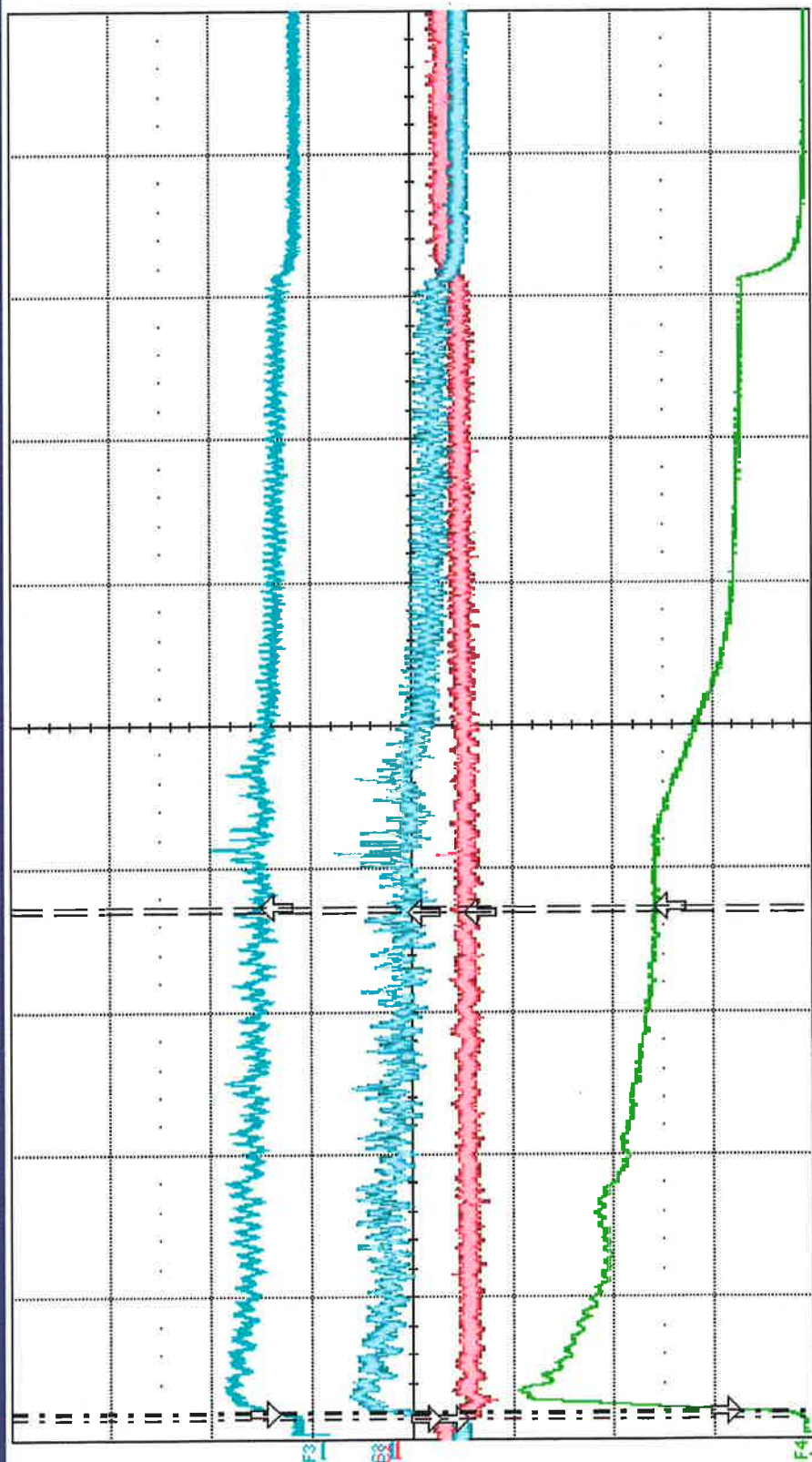


Timebase -4.00 ms  
 1.00 ms/div  
 500 kS  
 Trigger Normal  
 1.65 V  
 Edge  
 Positive

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... 50.0 # 1.0 ms 5.45 k#  
 F3 peris... 100 # 1.0 ms 3.65 k#

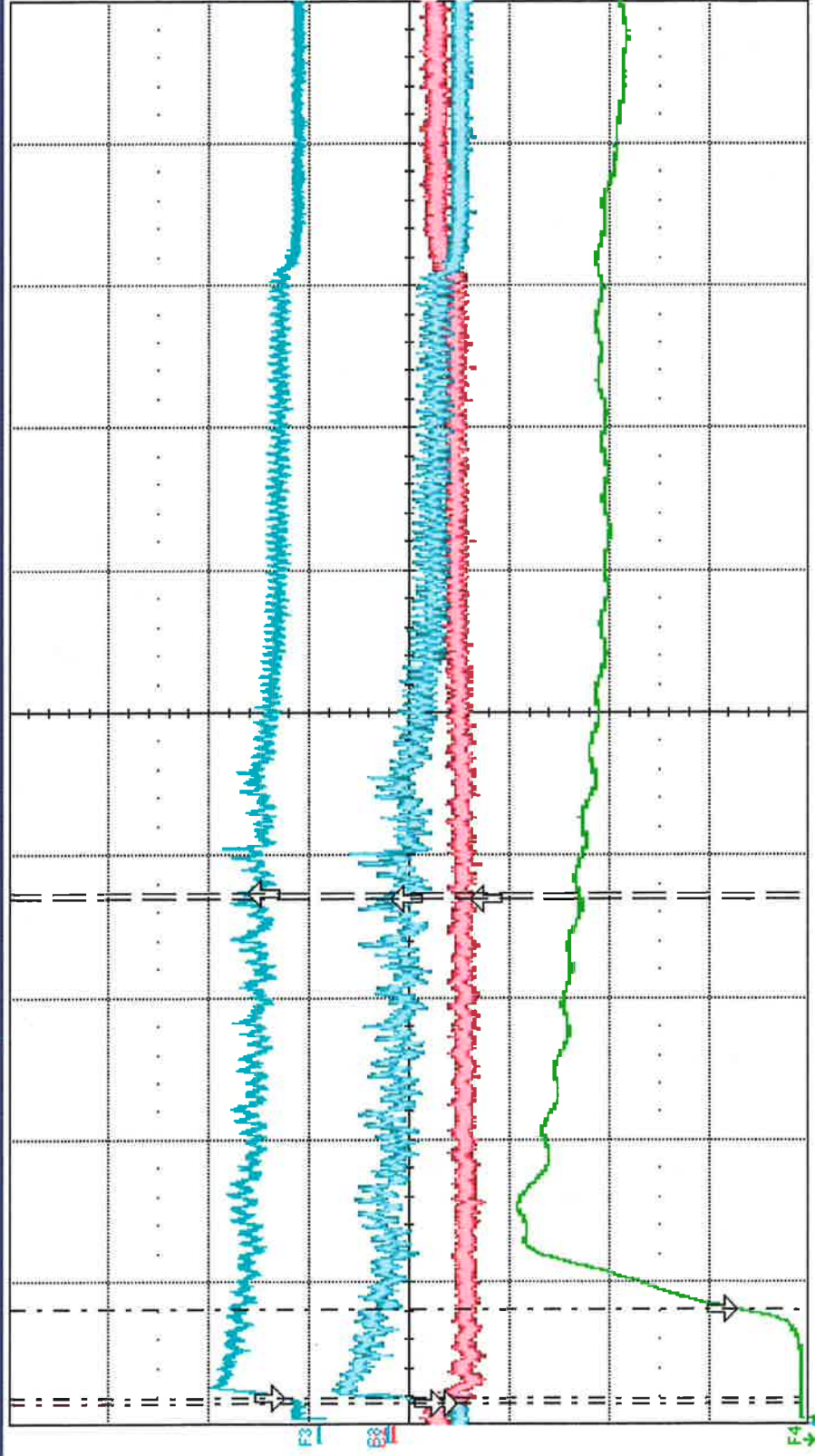
TELEDYNE LECROY

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<b>C2</b> <b>DC1M</b>		<b>C3</b> <b>DC1M</b>		<b>F3</b> <b>script(C3,C2)</b>		<b>F4</b> <b>&lt;F3&gt;</b>	
500 mV/div	75 mV offset	500 mV/div	100 mV offset	2.00/div	500 $\mu$ s/div	500e-3/div	500 $\mu$ s/div
↓	↑	↓	↑	↓	↑	↓	↑
-347 mV	-347 mV	-228 mV	-93 mV	889e-3	1.210	1.20184	1.61280
$\Delta y$	$\Delta y$	$\Delta y$	$\Delta y$	$\Delta y$	$\Delta y$	$\Delta y$	$\Delta y$
0 mV	135 mV	321e-3	321e-3	321e-3	321e-3	410.96e-3	410.96e-3
<b>Trigger Ext/IO DC</b>		<b>Normal</b> 30 mV		<b>Edge</b> Negative		<b>Normal</b> 30 mV	
<b>WStream</b> 500 $\mu$ s		<b>10 MS/s</b>		<b>76.1 <math>\mu</math>s</b>		<b><math>\Delta X</math> 1.7676 ms</b>	
<b>50.0 kS</b>		<b>1.8437 ms</b>		<b>1 <math>\Delta X</math> 565.74 Hz</b>			

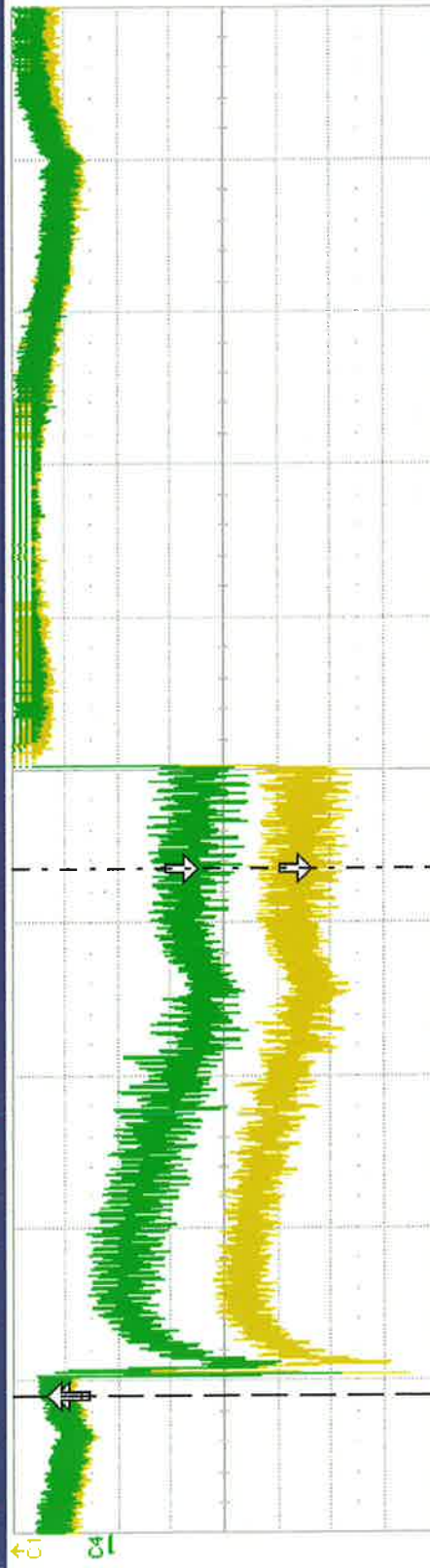




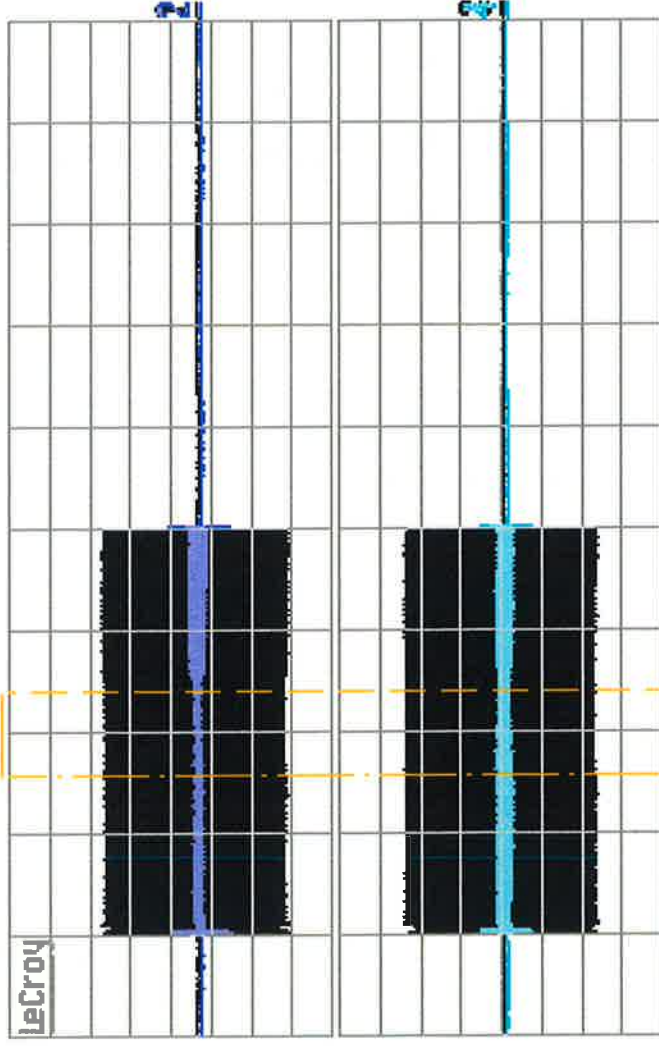
<b>C2</b>	<b>DCIM</b>	500 mV/div 75 mV offset	-286 mV -350 mV -64 mV	Δy
<b>C3</b>	<b>DCIM</b>	500 mV/div 100 mV offset	-304 mV -132 mV 172 mV	Δy
<b>F3</b>	<b>script(C3,C2)</b>	2.00/div 500 μs/div	758e-3 1.419 660e-3	Δy
<b>F4</b>	<b>&lt;F3&gt;</b>	500e-3/div 100 μs/div	778 # 1.19264	Δy

<b>Thase</b>	-2.50 ms	<b>TriggerExt</b>	10 DC
<b>WStream</b>	500 μs	<b>Normal</b>	30 mV
<b>50.0 kS</b>	10 MS/s	<b>Edge</b>	Negative
<b>X1=</b>	76.1 μs	<b>ΔX=</b>	1.7676 ms
<b>X2=</b>	1.8437 ms	<b>1ΔX=</b>	565.74 Hz



8-Oct-20  
11:25:34



1 1 ms  
200 mV

2 1 ms  
200 mV

3 1 ms  
200 mV

4 1 ms  
200 mV

1289 sweeps:

rms(1)	average	low	high	sigma
rms(2)	317.5mV	312.4	326.1	3.1
rms(3)	15.2mV	11.2	19.3	1.8
rms(4)	327.9mV	322.7	333.9	2.5
phase(1,3)	25.0mV	21.2	29.9	1.8
	78 °	27	134	36

1 ms

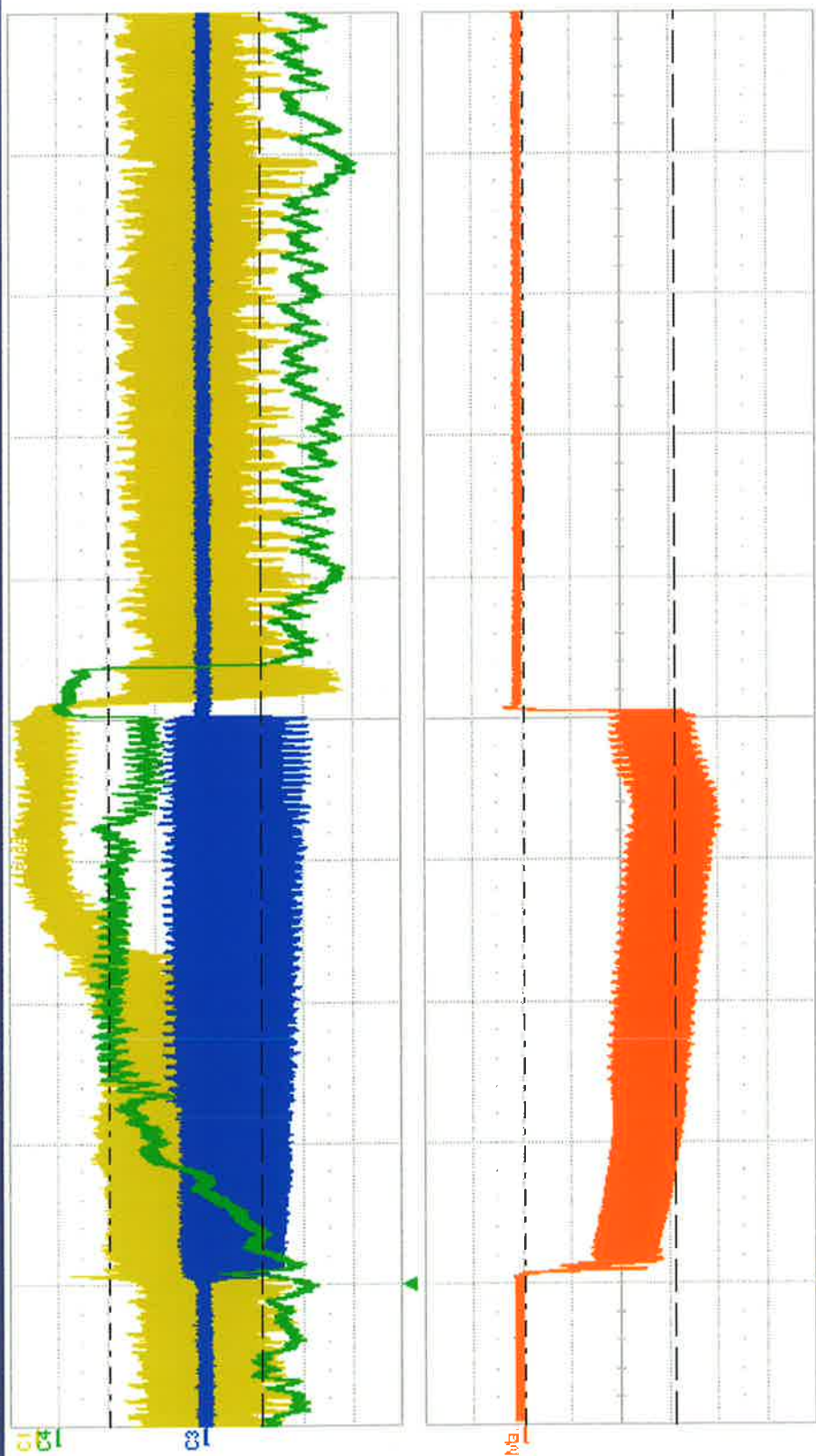
1 .2 V AC  
2 .2 V AC  
3 .2 V AC  
4 .2 V AC

Ext10 DC 0.15 V 50Ω

10 MS/s

☐ NORMAL



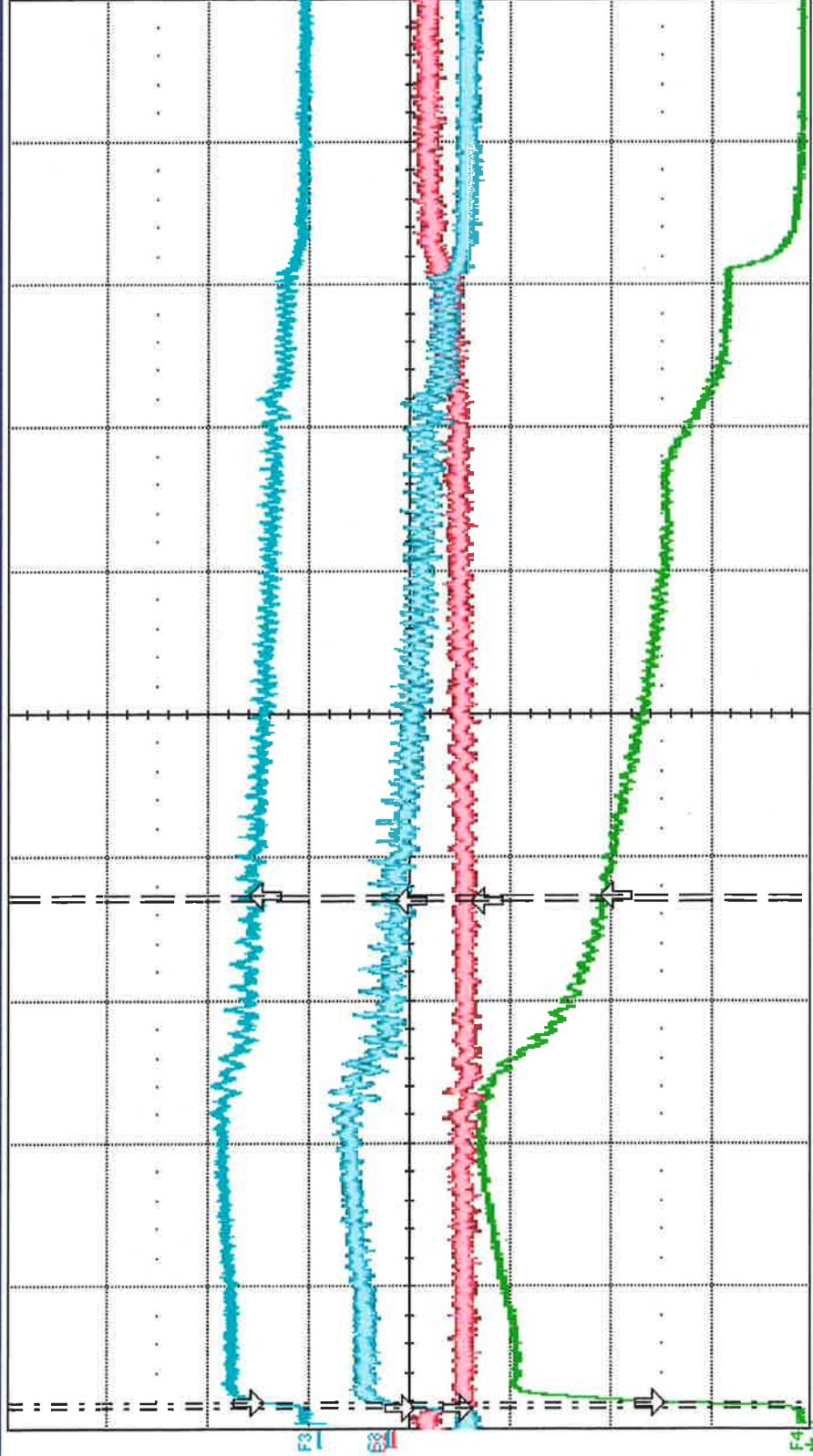


Timebase -4.00 ms  
 1.00 ms/div  
 1.00 MS

Trigger Normal  
 Edge Negative

Ext/IO DC  
 700 mV

Channel	Scale	Offset	Math	Scale	Offset	Math
C1	200 mV/div	600.0 mV offset	DCIM	1.00 A/div	1.00 ms/div	<C3>
C2	200 mV/div	600.0 mV offset	DCIM	1.00 A/div	1.00 ms/div	<C3>
C3	5.00 A/div	0.00 A offset	DCIM	100 V/div	300.0 V offset	<C3>
M1	5.00 A/div	0.00 A offset	DCIM	100 V/div	300.0 V offset	<C3>



Thase -2.50 ms  
 WStream 500  $\mu$ s  
 500 kS 10 MS/s

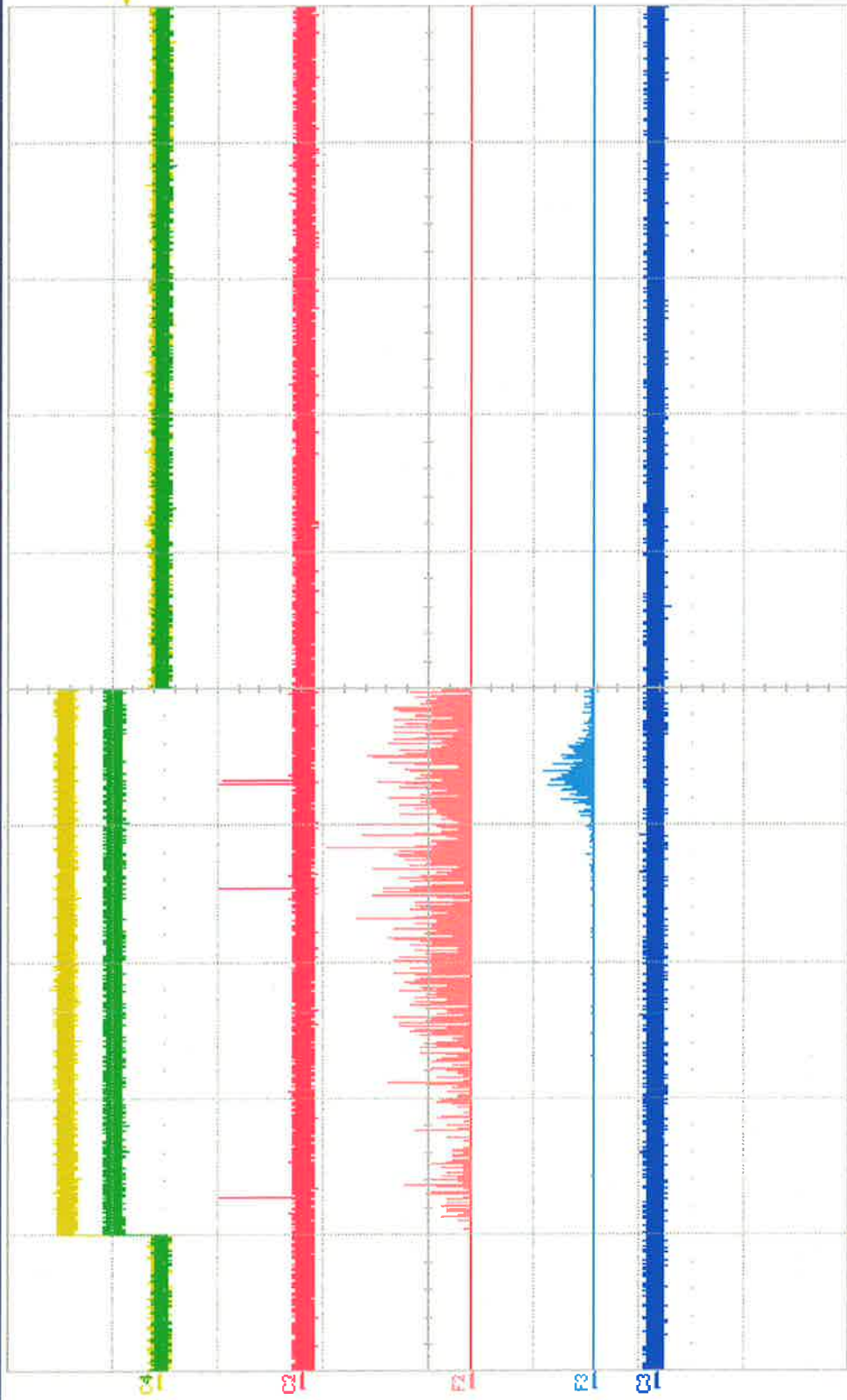
F4  
 500e-3/div  
 500  $\mu$ s/div  
 80 #

F3 script(C3,C2)  
 2.00/div  
 500  $\mu$ s/div

C3  
 500 mV/div  
 100 mV offset

C2  
 500 mV/div  
 75 mV offset

Trigger Exp/10 DC  
 Normal 30 mV  
 Edge Negative  
 X1= 76.1  $\mu$ s  $\Delta$ X= 1.7676 ms  
 X2= 1.8437 ms 1/ $\Delta$ X= 565.74 Hz



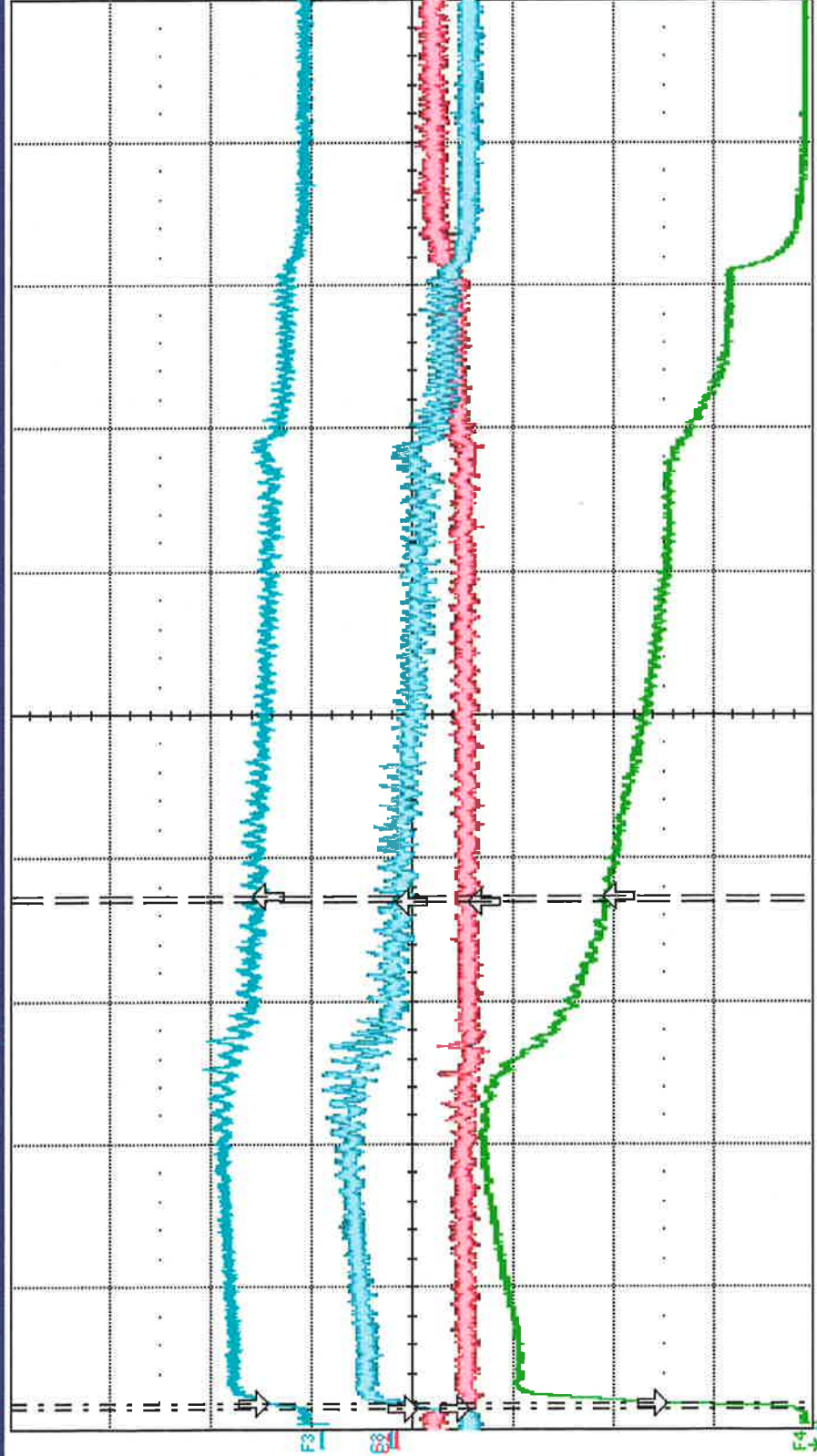
Thase -4.00 ms Trigger C100  
 1.00 ms/div Normal 1.85 V  
 500 kS 50 MS/s Edge Positive

C1 D1 5.00 V 12.70 V  
 C2 D1 5.00 V 6.95 V  
 C3 D1 5.00 V -11.0 V  
 C4 D1 10.0 V 25.30 V  
 F2 peris... 20.0 # 1.0 ms 2.58 k#  
 F3 peris... 200 # 1.0 ms 3.20 k#

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10/8/2020 11:32:50 AM





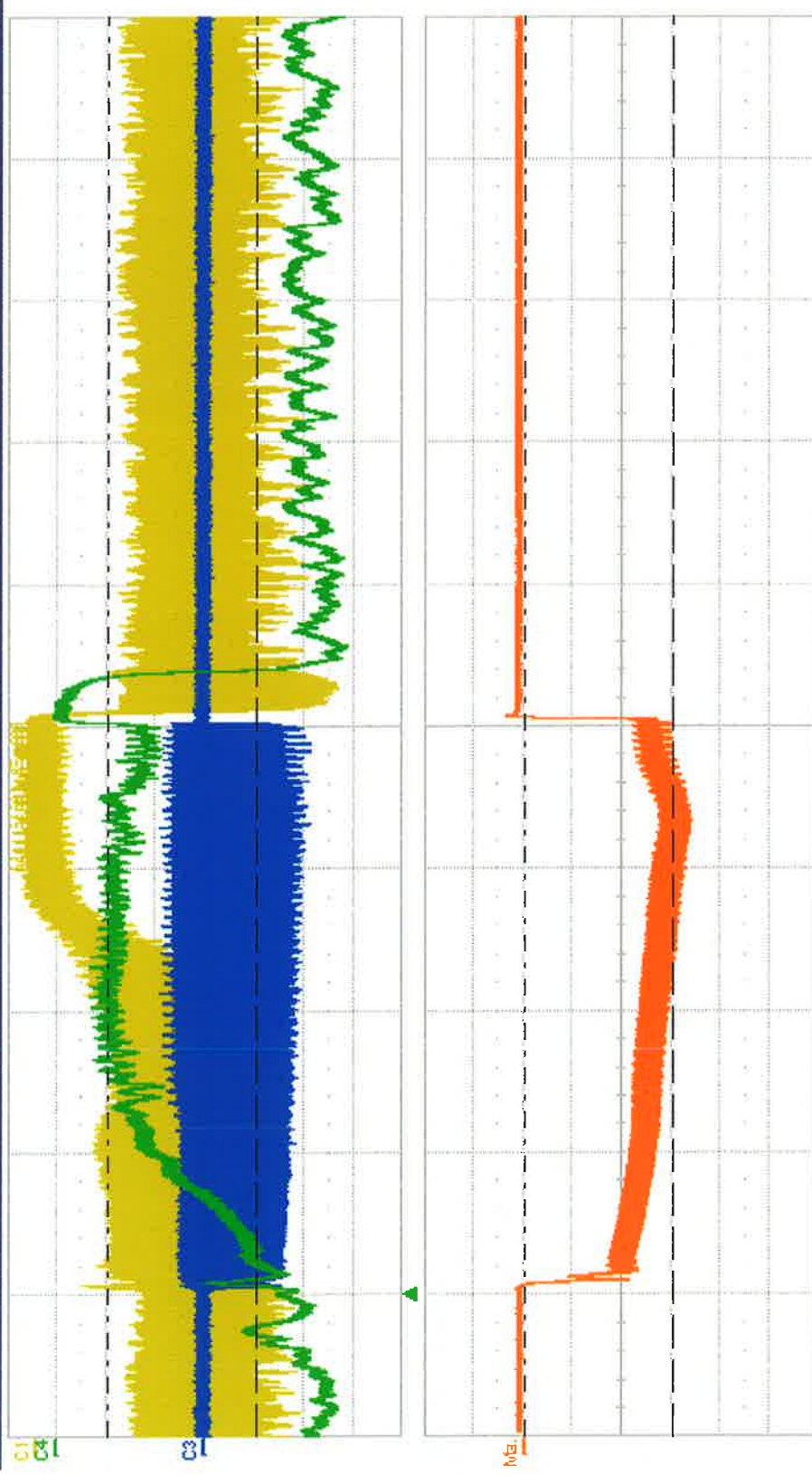
C2	C3	F3	F4	F3=
500 mV/div	500 mV/div	2.00/div	500e-3/div	500e-3/div
75 mV offset	100 mV offset	500 µs/div	500 µs/div	500 µs/div
↓ -357 mV	↓ -123 mV	↓ 1.136	↓ 1.04378	90 #
↑ -383 mV	↑ -29 mV	↑ 1.382	↑ 1.35358	
Δy -6 mV	Δy 94 mV	Δy 255e-3	Δy	

Thase	-2.50 ms	Trigger	Edge	100
WStream	500 µs	Stop	30 mV	
50.0 kS	10 MS/s	Edge	Negative	

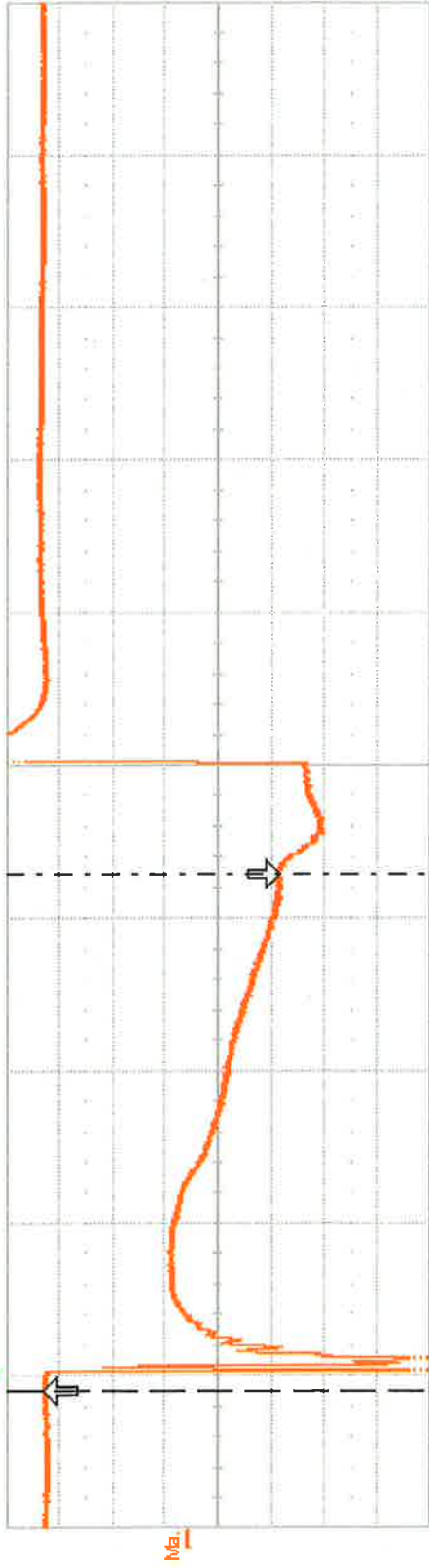
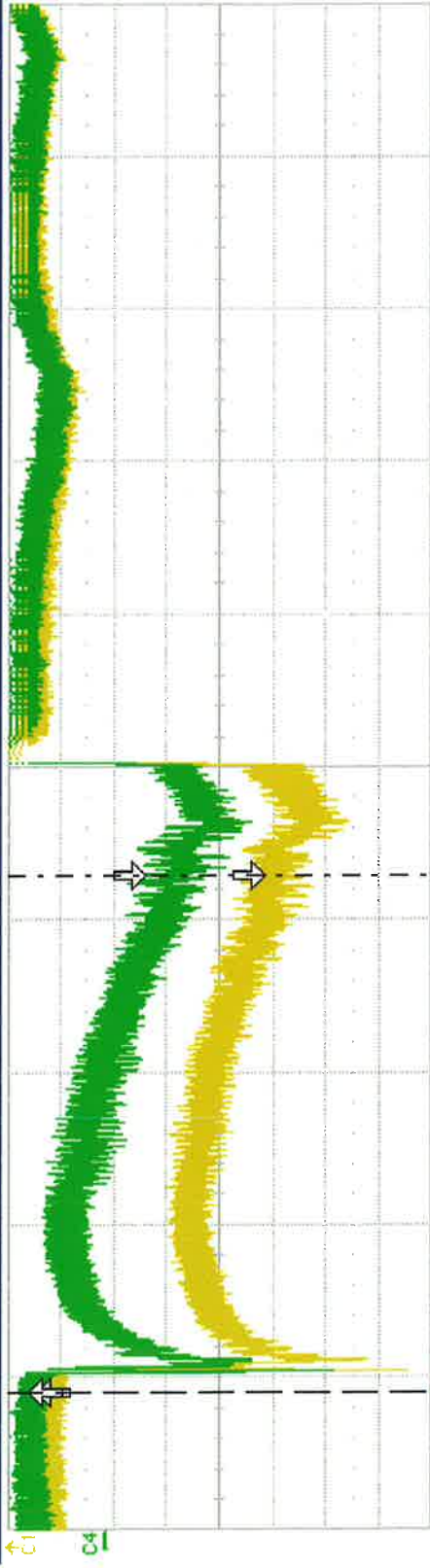
  

X1=	76.1 µs	ΔX=	1.7676 ms
X2=	1.8437 ms	1ΔX=	565.74 Hz



Timebase 4.00 ms  
1.00 ms/div  
1.00 MS  
Trigger Edge  
Normal  
700 mV  
Negative

C1 DCIM 200 mV/div 680.0 mV offset  
C3 DCIM 5.00 A/div 0.00 A offset  
C4 DCIM 100 V/div 300.0 V offset  
Math <C3> 1.00 A/div 1.00 ms/div  
259 #  
0.00 A  
-3.03 A  
-3.03 A  
Δy

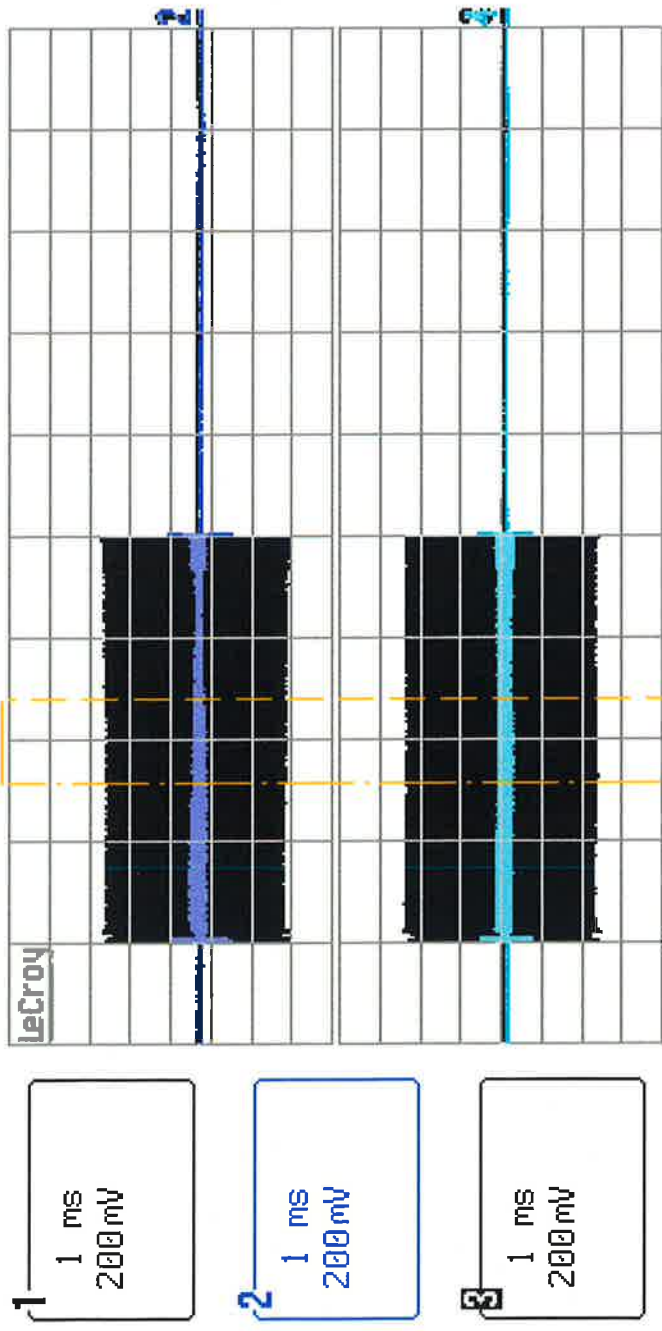


C1	DC1M1	C4	DC1M1	Math	<C4>
2.00 mV/div	2.00 mV/div	2.00 mV/div	2.00 mV/div	1.00 mV/div	1.00 mV/div
9.100 mV ofst	4.300 mV ofst	4.300 mV ofst	4.300 mV ofst	1.00 ns/div	1.00 ns/div
↑ -10.745 mV	↑ -1.476 mV	↑ -1.6807 mV	↑ -1.6807 mV	343.8	343.8
↑ -2.276 mV	↑ 2.837 mV	↑ 2.837 mV	↑ 2.837 mV		
Δy 8.469 mV	Δy 4.313 mV	Δy 4.313 mV	Δy 4.313 mV		

Timebase	-4.00 ms	Trigger	Ext10	DC
2.00 MS	1.00 ms/div	Normal	700 mV	Negative
X1=	3.293210 ms	Edge		
X2=	-103.640 μs			
	ΔX=			
	-3.396850 ms			
	1/ΔX=			
	-294.3904 Hz			



8-Oct-20  
11:32:36



1  
1 ms  
200 mV

2  
1 ms  
200 mV

3  
1 ms  
200 mV

4  
1 ms  
200 mV

243 sweeps:

rms(1)	average	low	high	sigma
rms(2)	312.6 mV	309.9	315.5	1.3
rms(3)	22.1 mV	19.6	25.0	1.3
rms(4)	326.4 mV	323.6	328.9	1.2
phase(1,3)	25.7 mV	23.4	28.7	1.3
	78 °	29	133	36

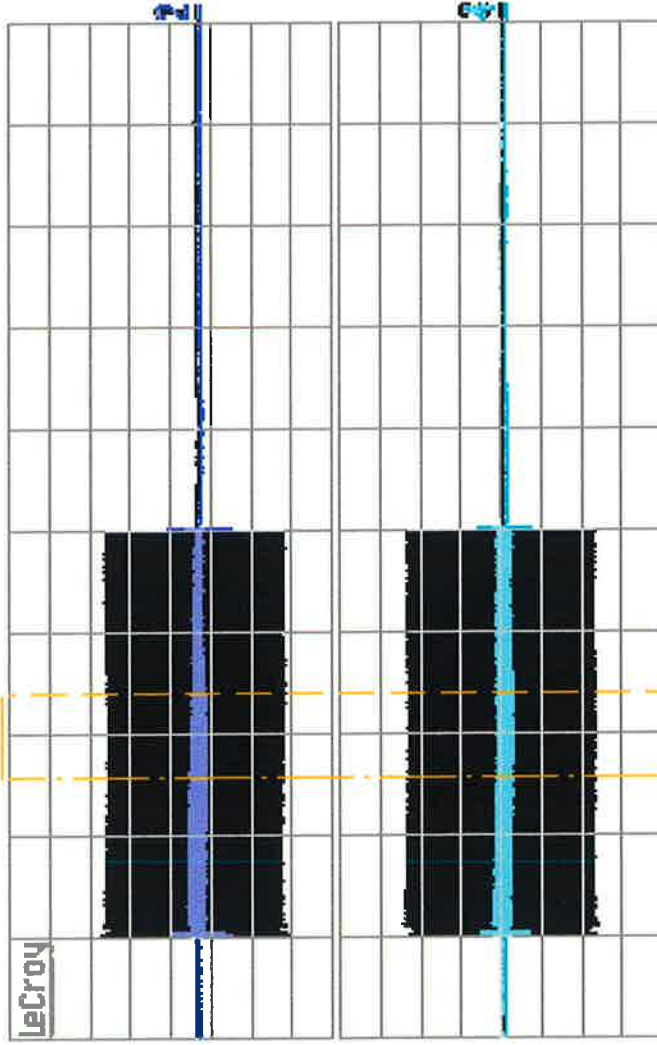
1 ms  
1 .2 V AC  
2 .2 V AC  
3 .2 V AC  
4 .2 V AC

10 MS/s  
NORMAL

Ext10 DC 0.15 V 50Ω

8-Oct-20

11:37:51



1 1 ms  
200 mV

2 1 ms  
200 mV

3 1 ms  
200 mV

4 1 ms  
200 mV

248 sweeps:

	rms (1)	rms (2)	rms (3)	rms (4)	phase (1,3)	average	low	high	sigma
						311.2 mV	308.5	313.6	1.2
						29.2 mV	26.8	31.8	1.1
						327.2 mV	324.8	329.4	1.2
						30.2 mV	28.0	32.8	1.1
						79 °	29	135	36

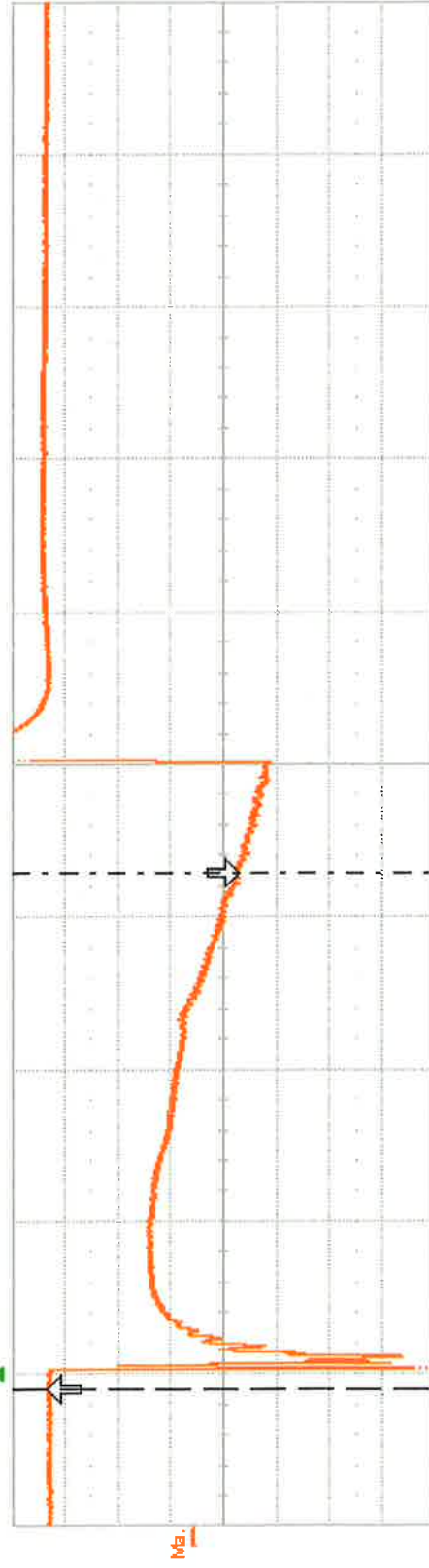
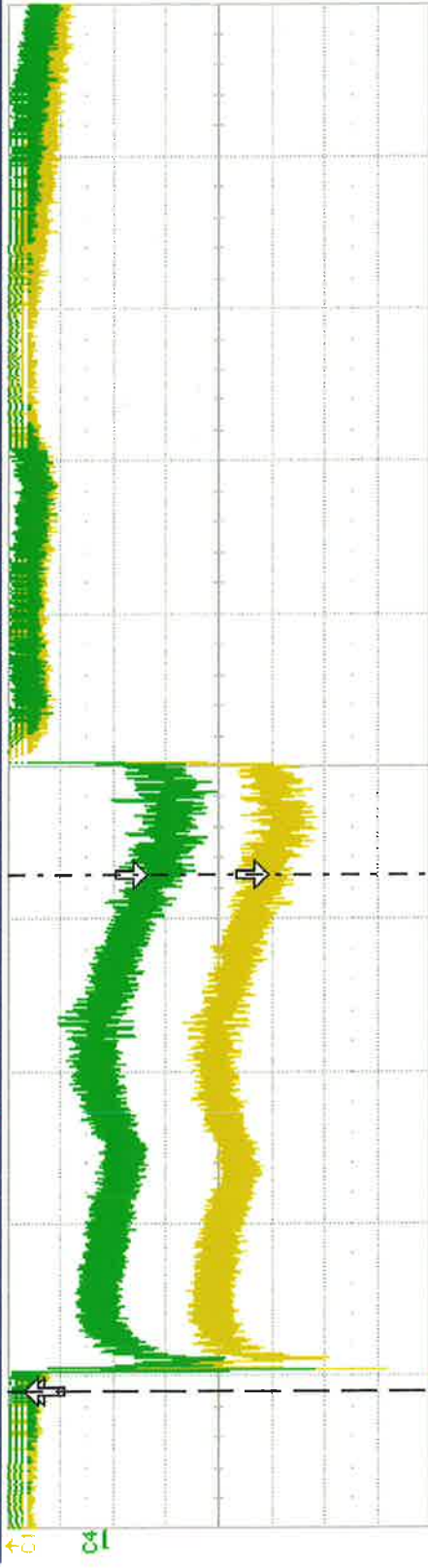
1 ms

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

10 MS/s

Ext10 DC 0.15 V 50Ω

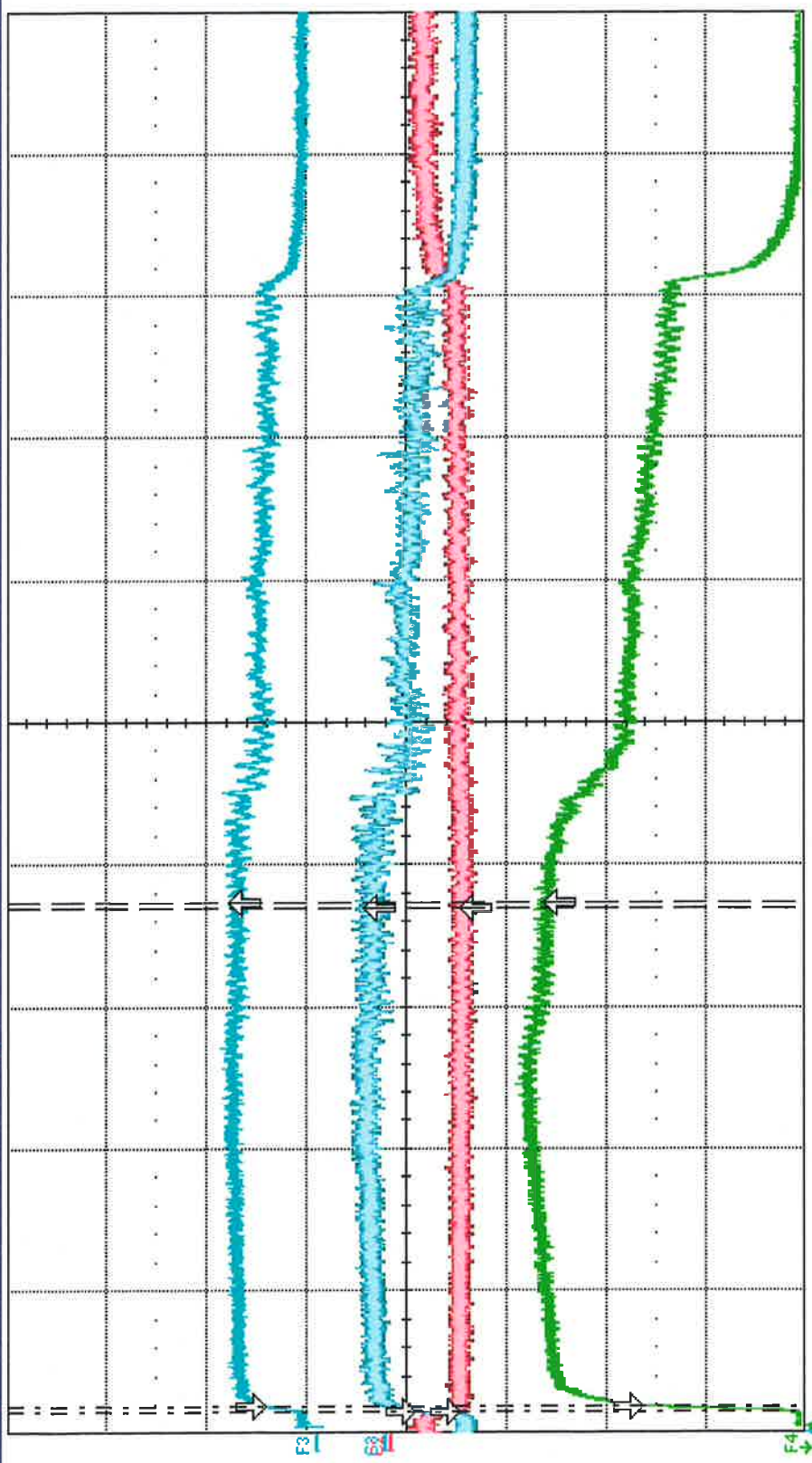
☐ NORMAL



C1	DCIM	C4	DCIM	Math	<C4>
2.00 mV/div	2.00 mV/div	1.00 mV/div	1.00 mV/div	1.00 mV/div	1.00 mV/div
9.100 mV ofst	4.300 mV ofst	1.00 mV ofst	1.00 mV ofst	1.00 mV ofst	1.00 mV ofst
↓ -10.873 mV	↓ -1.558 mV	↓ -808.3 μV	↓ -808.3 μV	↓ -808.3 μV	↓ -808.3 μV
↑ -2.053 mV	↑ 2.973 mV	↑ 2.7386 mV	↑ 2.7386 mV	↑ 2.7386 mV	↑ 2.7386 mV
ΔV 8.820 mV	ΔV 4.531 mV	ΔV 3.5449 mV	ΔV 3.5449 mV	ΔV 3.5449 mV	ΔV 3.5449 mV

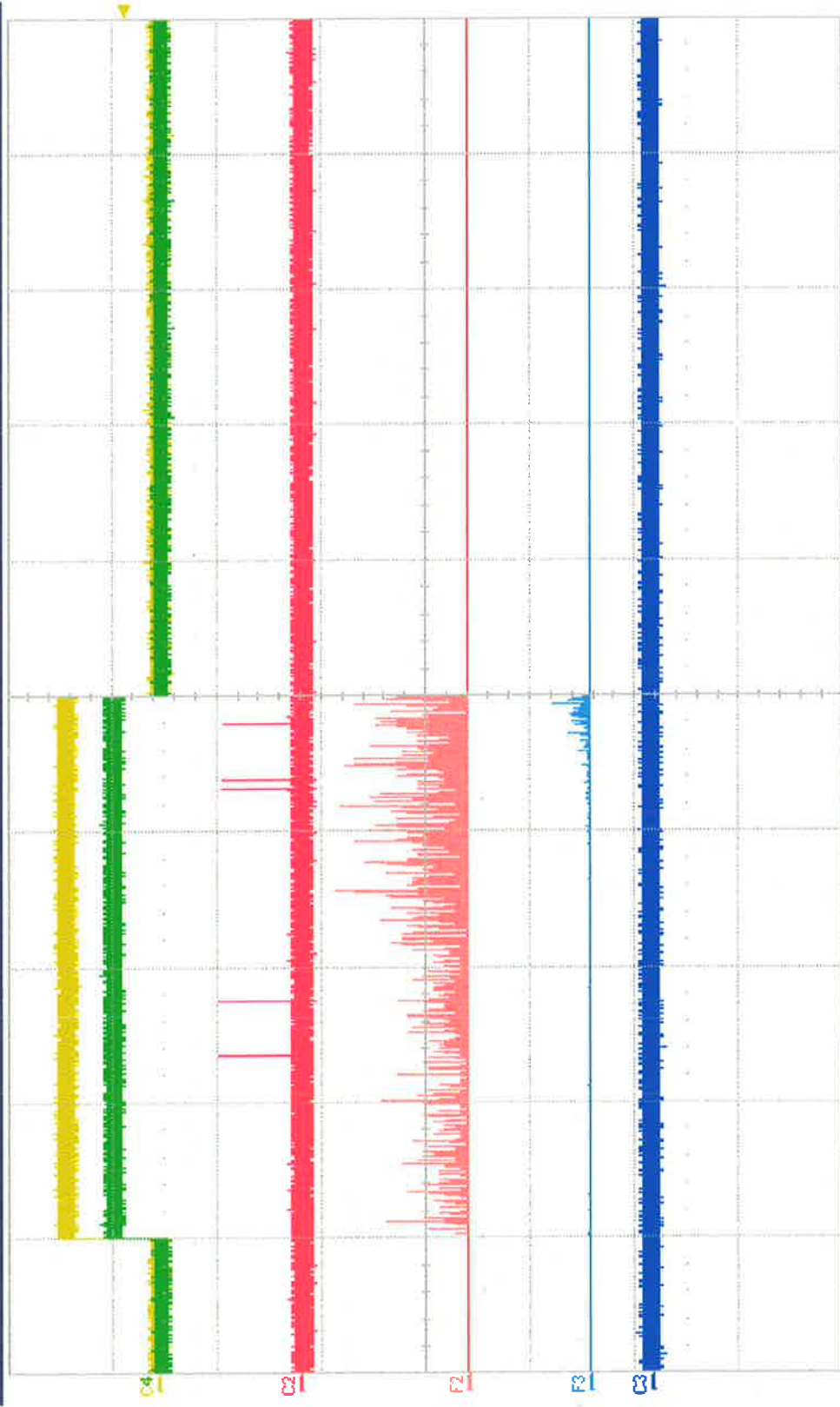
Timebase	-4.00 ms	Trigger	Edge	700 mV	Negative
1.00 ms/div	Normal	Edge	700 mV	Negative	Negative
2.00 MS	200 MS/s	ΔX=	3.293210 ms	ΔX=	-3.396850 ms
		X2=	-103.640 μs	1/ΔX=	-294.3904 Hz





**Tbase** -2.50 ms  
**WStream** 500  $\mu$ s  
**50.0 kS** 10 MS/s  
**Trigger** Ext10 DC  
**Normal** 30 mV  
**Edge** Negative  
**X1** 76.1  $\mu$ s  $\Delta X$  1.7676 ms  
**X2** 1.8437 ms  $1/\Delta X$  565.74 Hz

C2	C3	F3	F4	<F3>
500 mV/div	500 mV/div	500e-3/div	500e-3/div	500e-3/div
75 mV offset	100 mV offset	2.00/div	500 $\mu$ s/div	500 $\mu$ s/div
DC1M	DC1M	script(C3,C2)		19 #
-331 mV	-136 mV	1.080	1.13574	1.13574
-351 mV	103 mV	1.757	1.61797	1.61797
-20 mV	240 mV	678e-3	482.23e-3	482.23e-3
$\Delta y$	$\Delta y$	$\Delta y$	$\Delta y$	$\Delta y$



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

F3 peris...  
200 #  
1.0 ms  
1.12 k#

F2 peris...  
20.0 #  
1.0 ms  
2.81 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

TELEDYNE LECROY

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