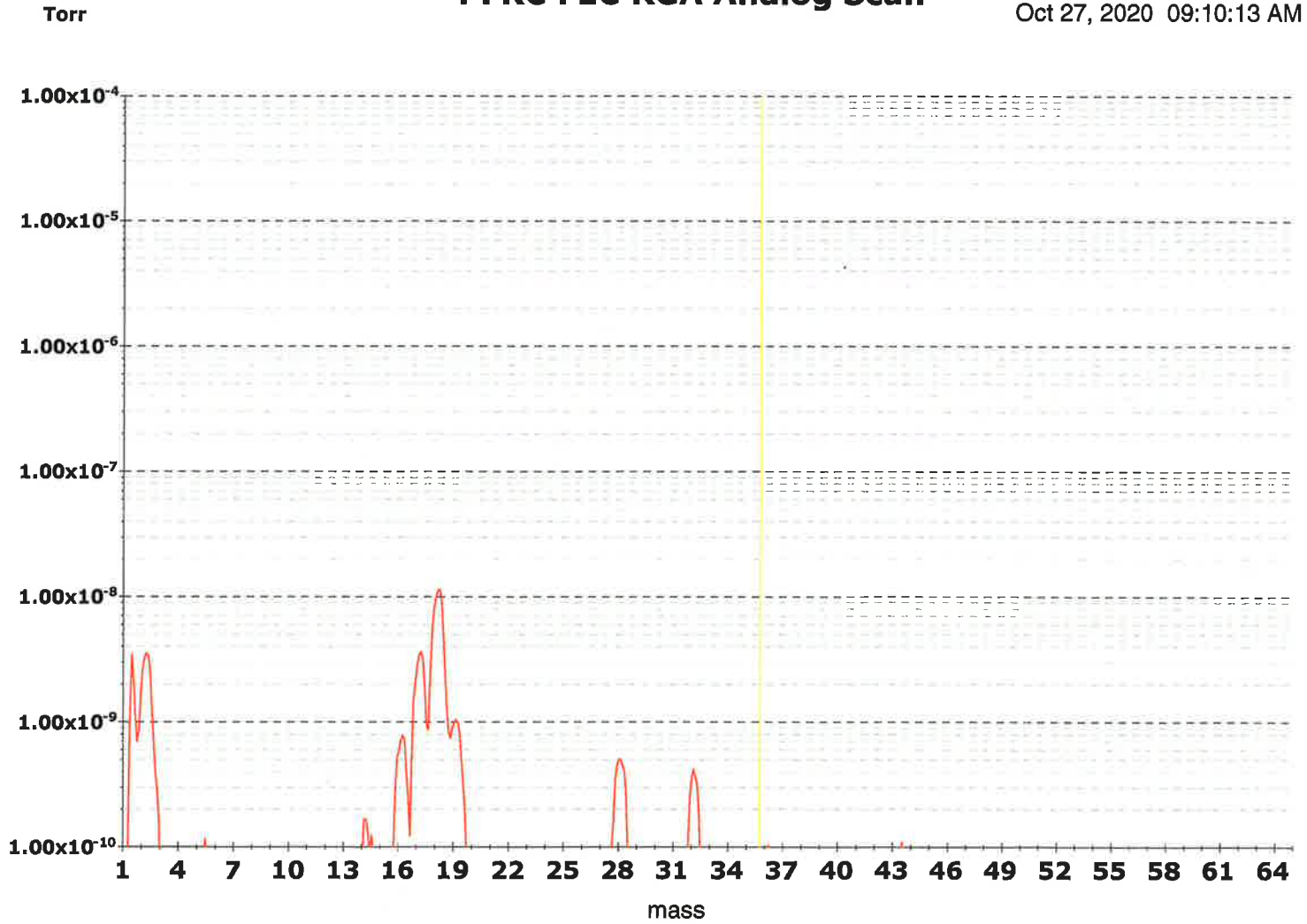


# PFRC FEC RGA Analog Scan

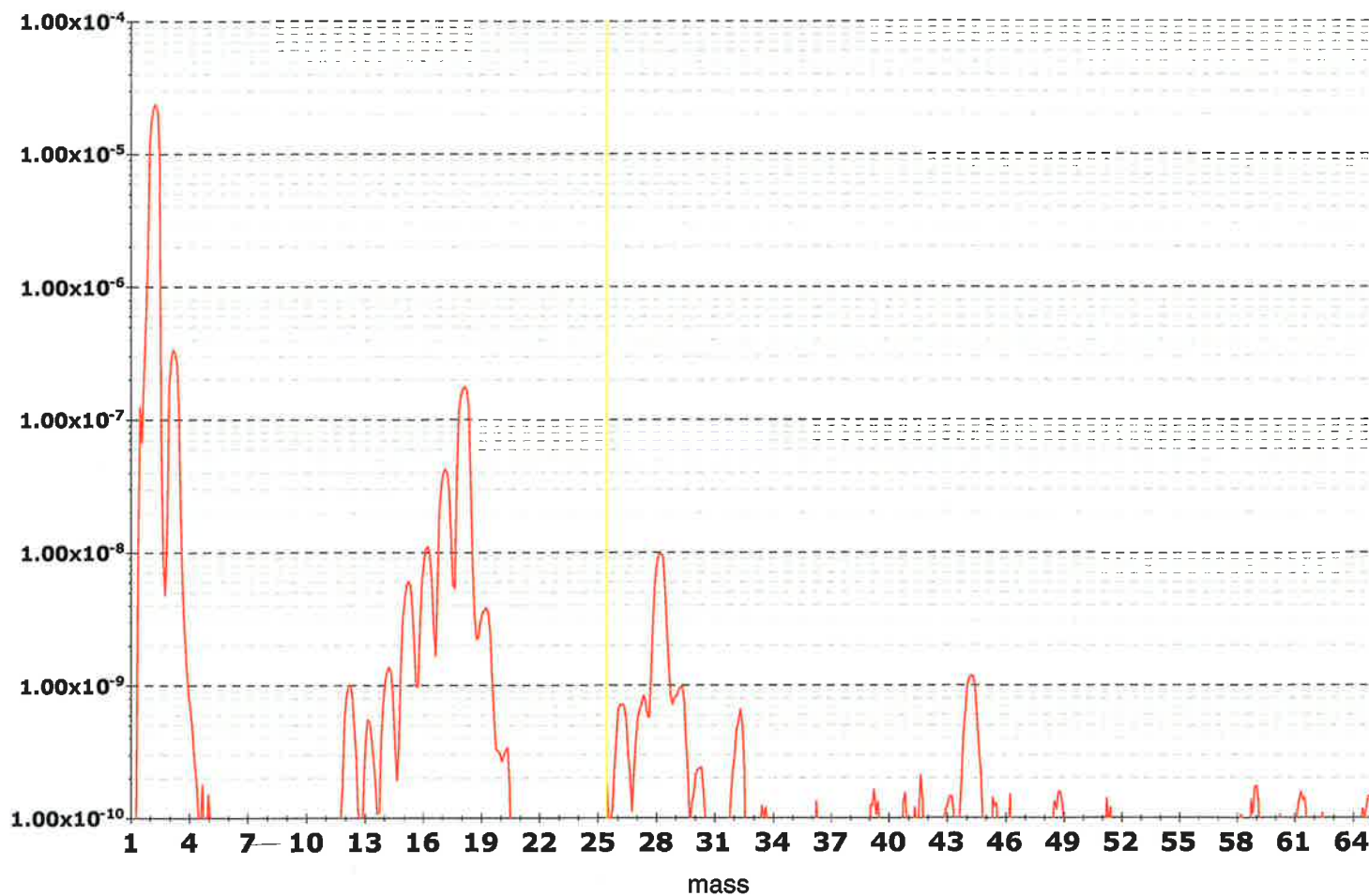
Log every scan: 3  
Oct 27, 2020 09:10:13 AM

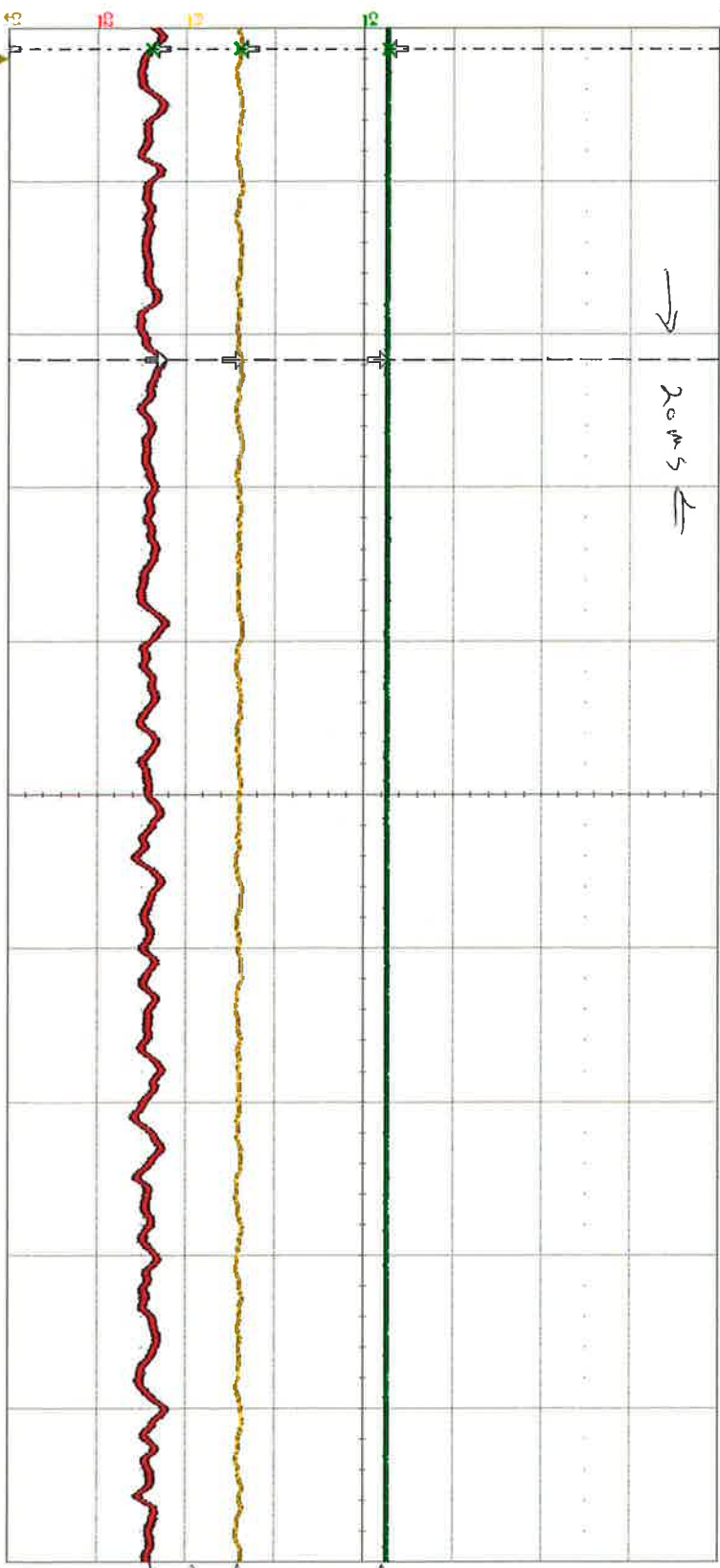


# PFRC FEC RGA Analog Scan

Log every scan: 16  
Oct 27, 2020 09:16:10 AM

Torr





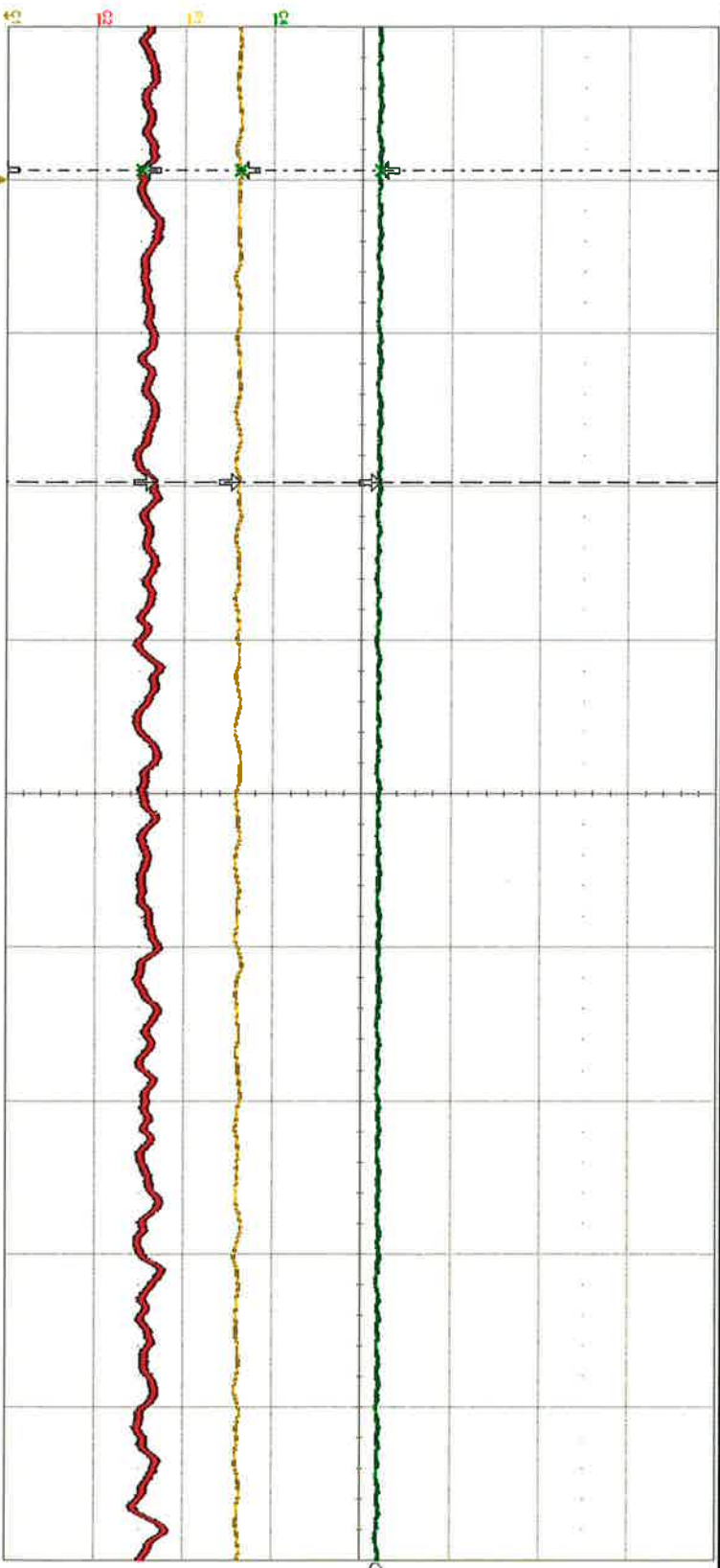
Measure	Value	P1:web edge	P2:web edge	P3:web edge	P4:---	P5:---	P6:---	P7:---	P8:mean(C4)
Value	544.39 $\mu$ V	-40.67 $\mu$ V	504.32 $\mu$ V						
Status									

C1	20.0 mV/div	100 mV/div	2.00 V/div	100 mV/div
C2	-6.48E000 V	-358.50 mV	-20.0 mV	20.0 mV/div
C3	59.32 mV	550.5 mV	544.0 mV	57.94E5 mV
C4	74.49 mV	544.0 mV	544.0 mV	61.36E2 mV
C5	15.16 mV	-6.5 mV	-6.5 mV	3.42E2 mV

Timebase	36.0 ms	Trigger	Eq DC
Time	20.0 ns/div	Normal	50 mV
Time	5.0 ns	Edge	100.0 ns
X1	-1.2676 ms	DX	40.678 ms
X2	39.410 ms	10X	24.594 Hz



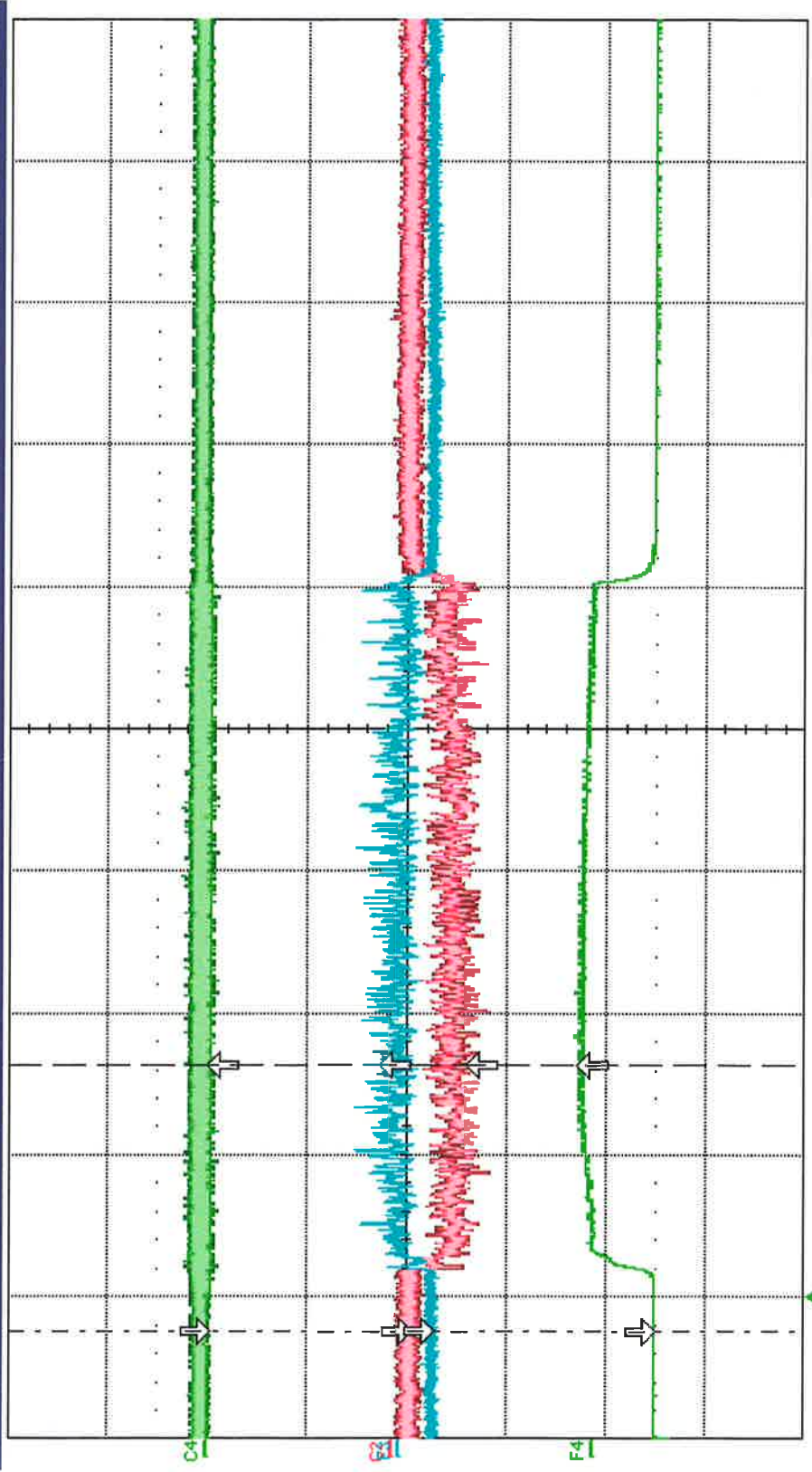
Measure	P1:web ed	P2:web ed	P3:web ed	P4:---	P5:---	P6:---	P7:---	P8:mean(C4)
Value	596.90 $\mu$ t	-36.55 $\mu$ t	560.36 $\mu$ t					
Status								

<b>C1</b> 20.0 mV/div 5.00 $\mu$ s/div 0.00 V	<b>C2</b> 100 mV/div 50.00 $\mu$ s/div 0.00 V	<b>C3</b> 500 mV/div 500.00 $\mu$ s/div 0.00 V	<b>C4</b> 100 mV/div 20.00 $\mu$ s/div 0.00 V
--	--	---	--

TELEDYNE LECROY 10/27/2020 9:53:21 AM

hand  
 f=0

hand  
 scale



C2

DC1M

500 mV/div

75 mV offset

↓

↑

Δy

-125 mV

-338 mV

-213 mV

C4

DC1M

100 V/div

201.0 V offset

↓

↑

Δy

5.2 V

-800 mV

-6.0 V

F3

script(C3,C2)

2.00/div

1.00 ms/div

↓

↑

Δy

-6859-3

378e-3

1.062

F4

<F3>

1.00/div

1.00 ms/div

↓

↑

Δy

281 #

-613.858-3

138.528-3

752.378-3

Tbase

-4.00 ms

Trigger

Ext10

DC

WStream

1.00 ms

Normal

30 mV

50.0 kS

5.0 MS/s

Edge

Negative

X1=

-243.6 μs

ΔX=

1.8706 ms

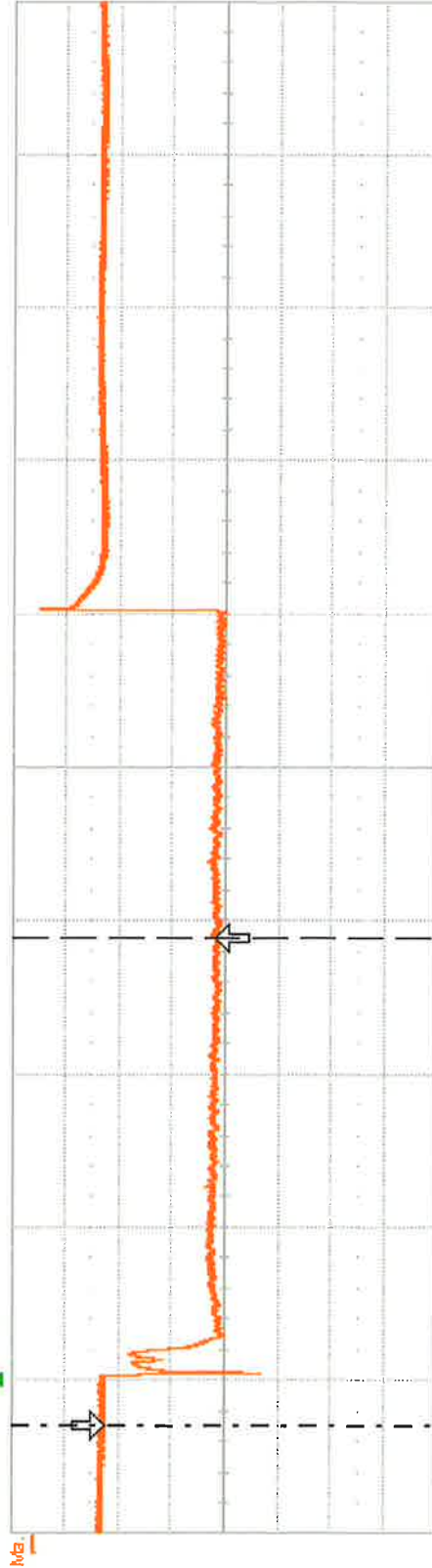
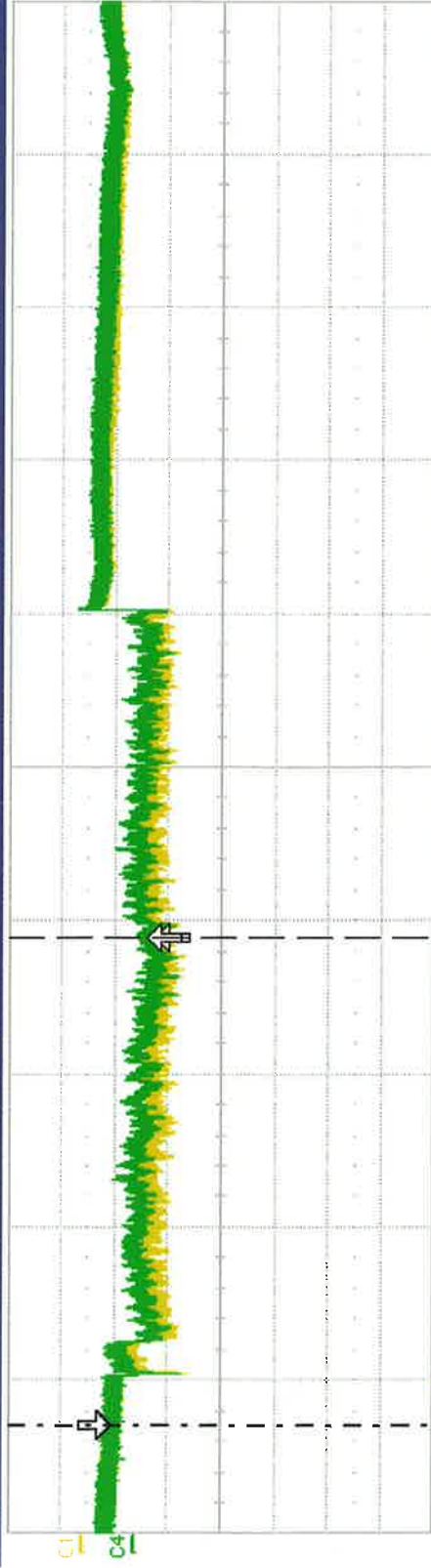
X2=

1.6270 ms

1/ΔX=

534.59 Hz

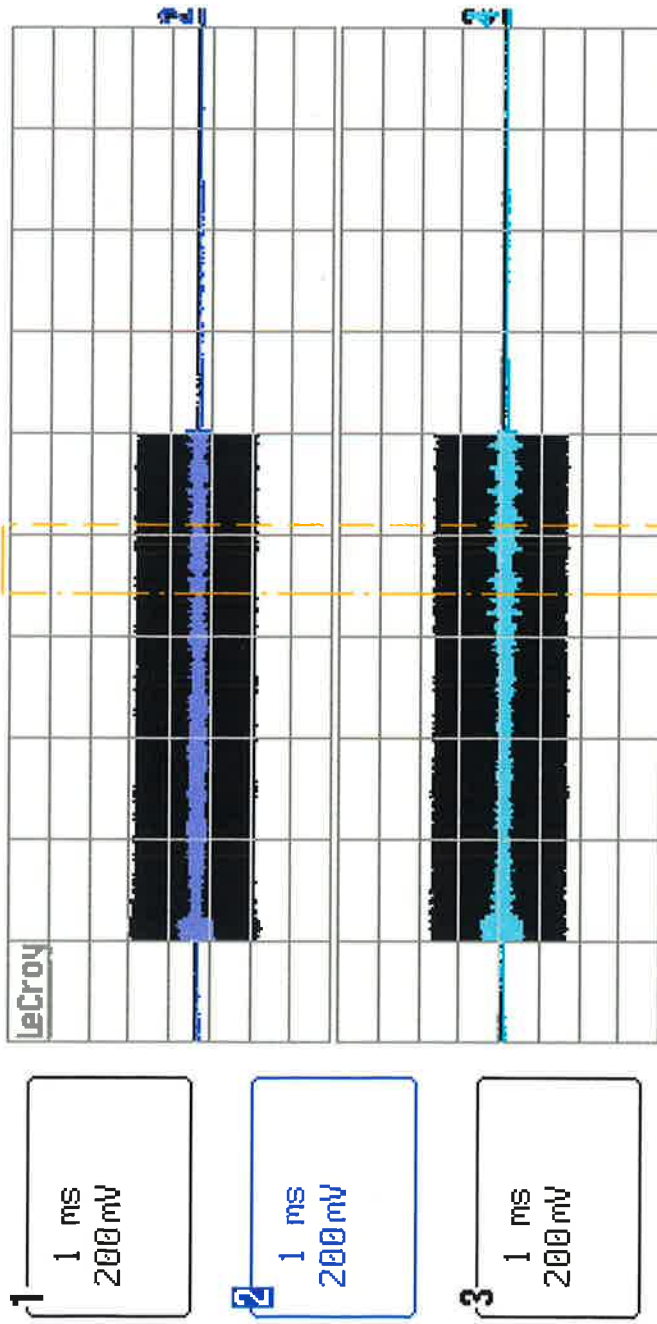




C1	DCIM	C4	DCIM	Math	<C1>
5.00 mV/div	5.00 mV/div	5.00 mV/div	5.00 mV/div	2.00 mV/div	2.00 mV/div
13.00 mV ofst	13.00 mV ofst	8.00 mV ofst	8.00 mV ofst	1.00 mV ofst	1.00 mV ofst
↑	↑	↑	↑	↑	↑
-2.72 mV	-2.72 mV	2.45 mV	2.45 mV	-2.5035 mV	-2.5035 mV
↑	↑	↑	↑	↑	↑
-7.06 mV	-7.06 mV	-1.28 mV	-1.28 mV	-6.7986 mV	-6.7986 mV
Δy	Δy	Δy	Δy	Δy	Δy
-4.35 mV	-4.35 mV	-3.73 mV	-3.73 mV	-4.2891 mV	-4.2891 mV

Timebase	-4.00 ms	Trigger	Ext 10 00
1.00 ms/div	1.00 ms/div	Normal	700 mV
2.00 MS	200 MS/s	Edge	Negative
X1=	-297.005 μs	ΔX=	3.190265 ms
X2=	2.893260 ms	1/ΔX=	313.4536 Hz

27-Oct-20  
10:11:09



3 sweeps:

	average	low	high	sigma
rms(1)	207.7 mV	206.6	208.6	1.0
rms(2)	22.2 mV	21.4	23.5	1.2
rms(3)	227.4 mV	226.4	228.1	0.9
rms(4)	31.6 mV	30.7	33.1	1.3
phase(1,3)	0.06 k°	-0.14	0.13	0.05

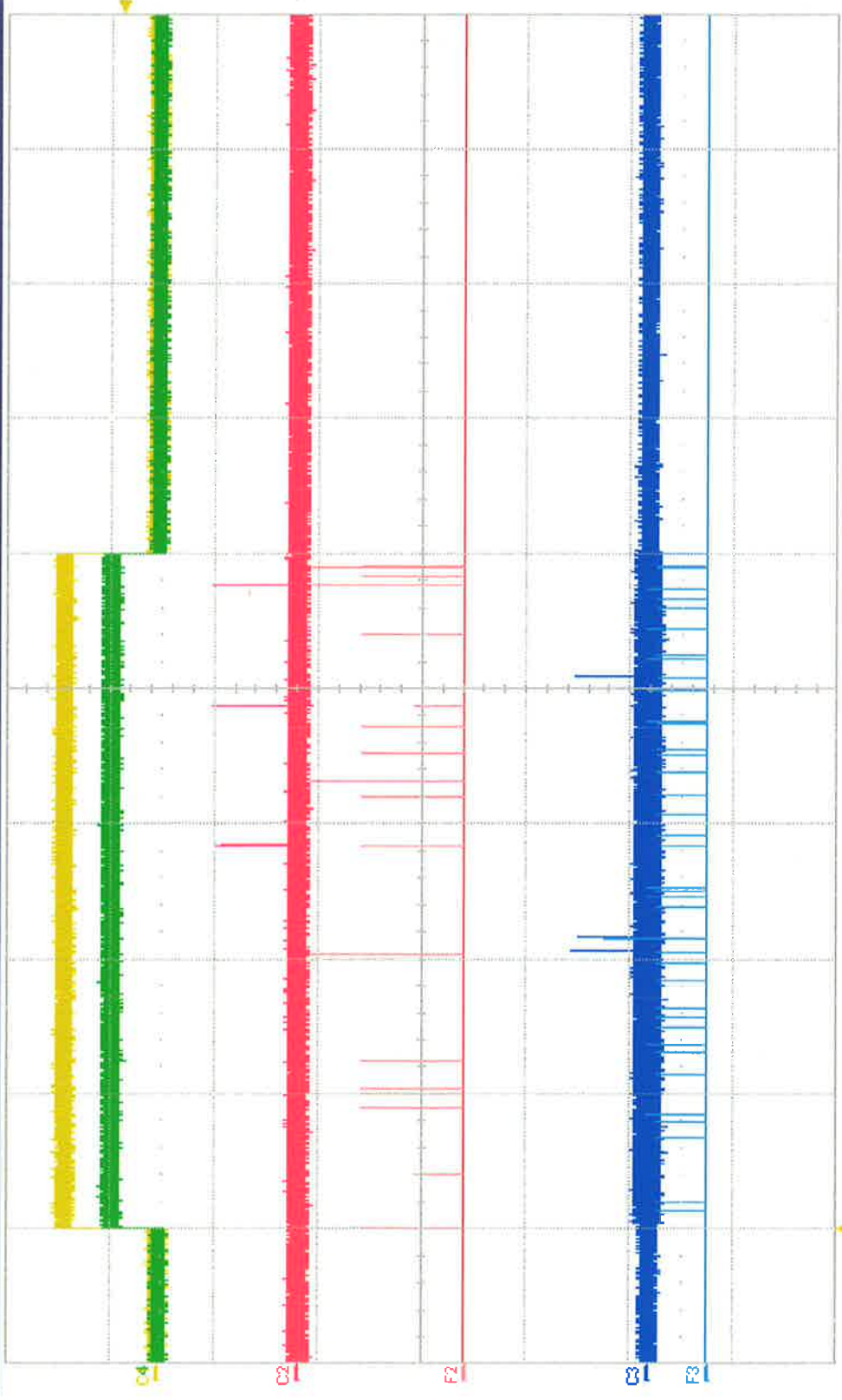
1 ms

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



**Thase** -4.00 ms  
 1.00 ms/div  
 500 kS

**Trigger** Normal  
 Edge  
 Positive

**C1 DC**  
 1.85 V

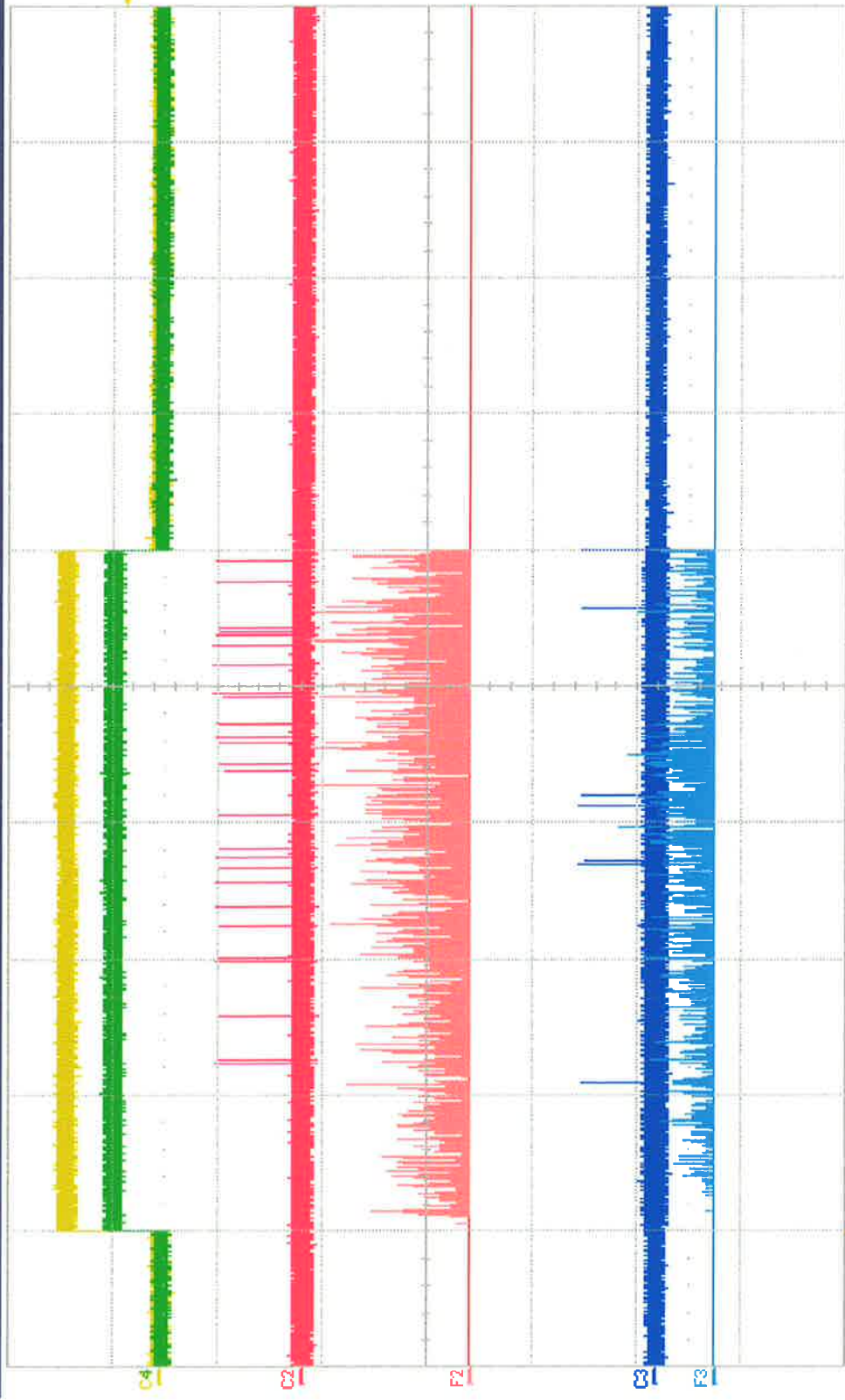
**C1** **D1** 5.00 V 12.70 V  
**C2** **D2** 5.00 V 5.95 V  
**C3** **D3** 5.00 V -11.0 V  
**C4** **D4** 10.0 V 25.30 V

**F2 peris...** 2.00 # 1.0 ms 38 #  
**F3 peris...** 10.0 # 1.0 ms 220 #

TELEDYNE LECROY

10/27/2020 10:14:58 AM



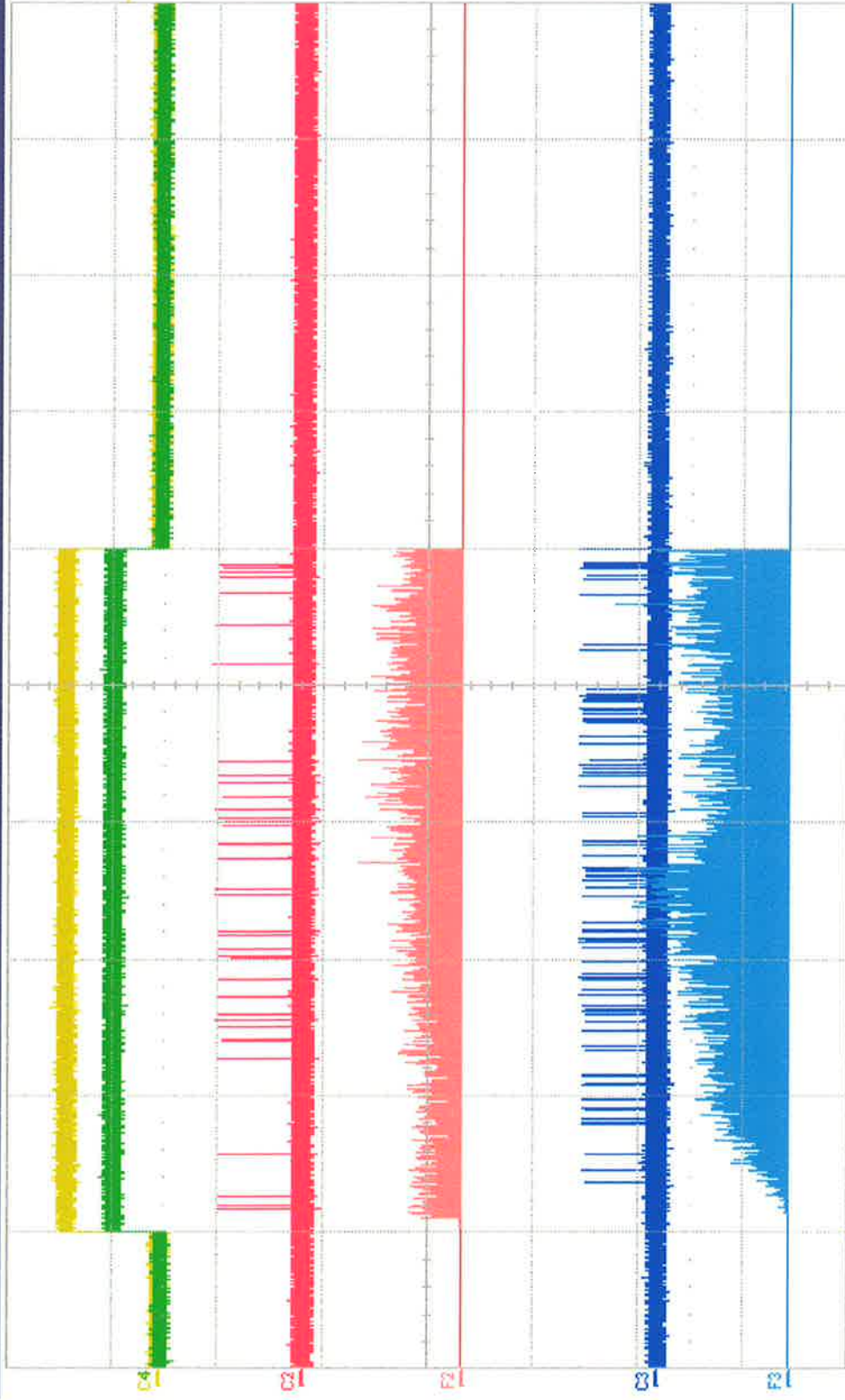


Thase -4.00 ms Trigger C1 DC  
1.00 ms/div Normal 1.55 V  
500 kS 50 MS/s Edge Positive

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... 20.0 # 1.0 ms 5.71 k#  
F3 peris... 50.0 # 1.0 ms 6.00 k#

TELEDYNE LECROY

10/27/2020 10:18:48 AM

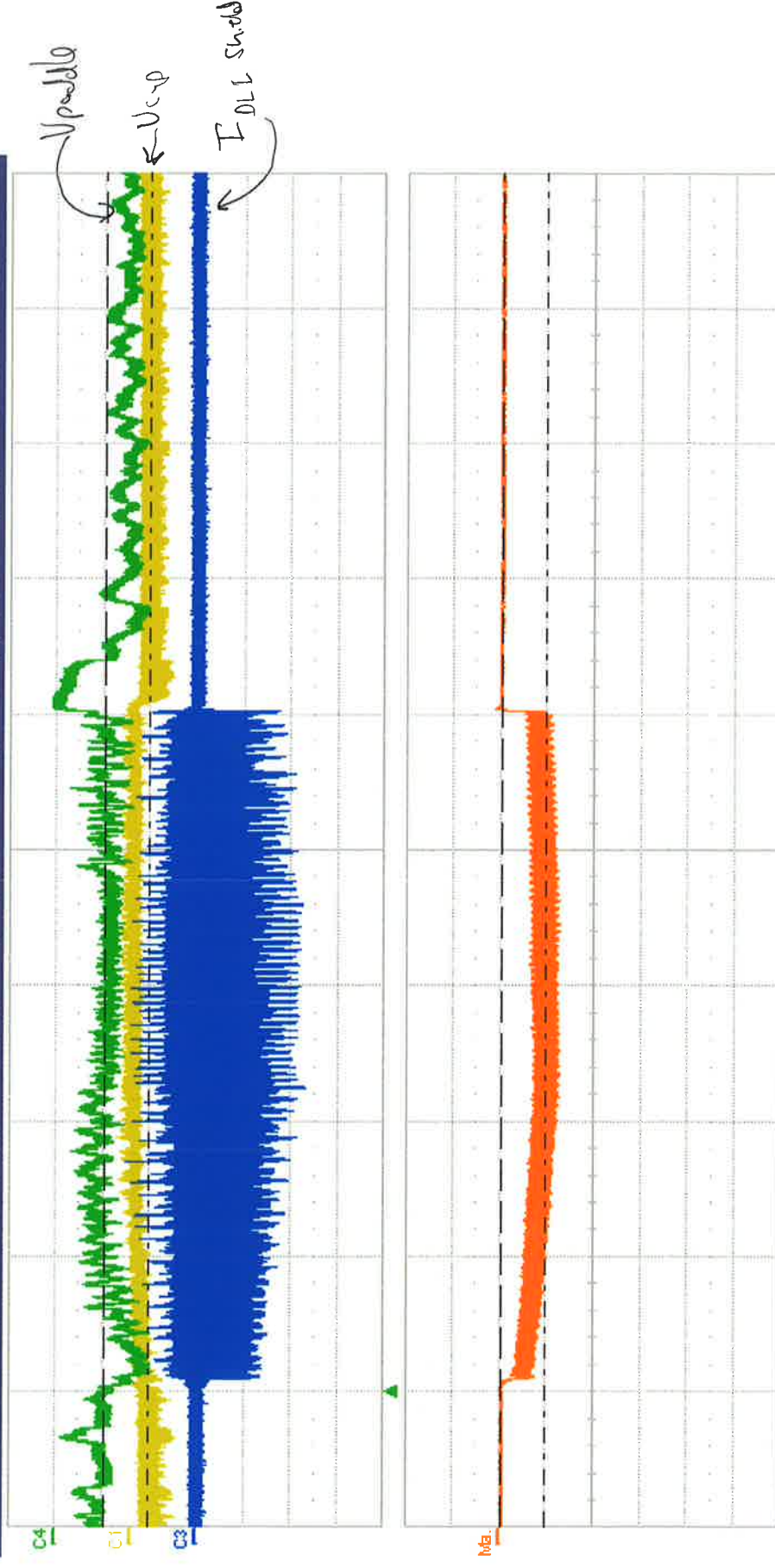


Tbase -4.00 ms  
1.00 ms/div  
500 kS  
Trigger Normal  
Edge Positive  
1.65 V  
50 MS/s

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... 100 # 1.0 ms 24.5 k#  
F3 peris... 200 # 1.0 ms 77.0 k#

TELEDYNE LECROY

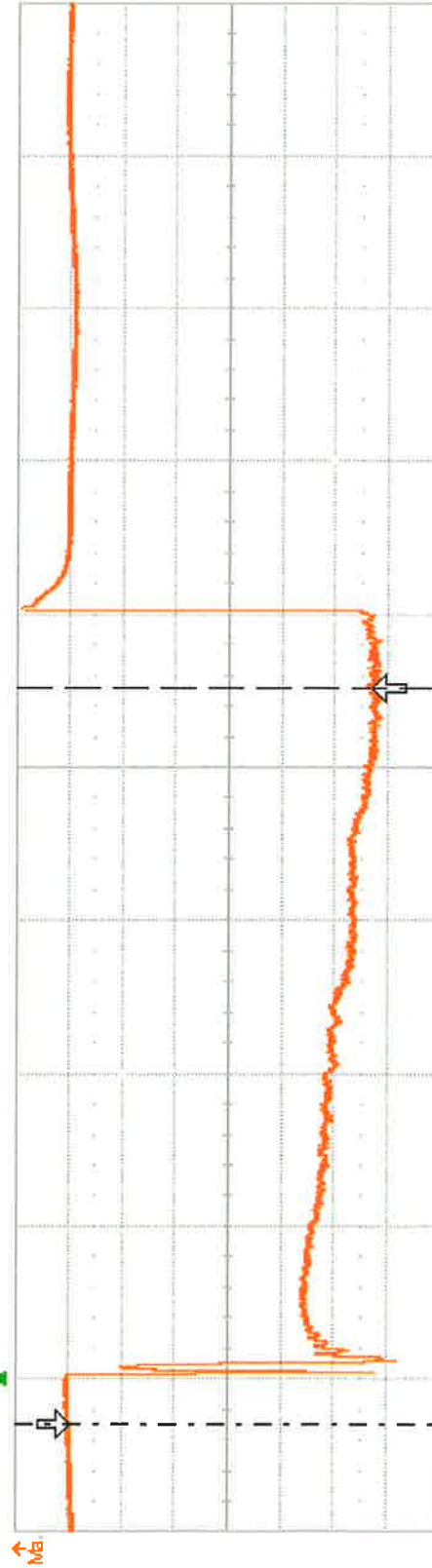
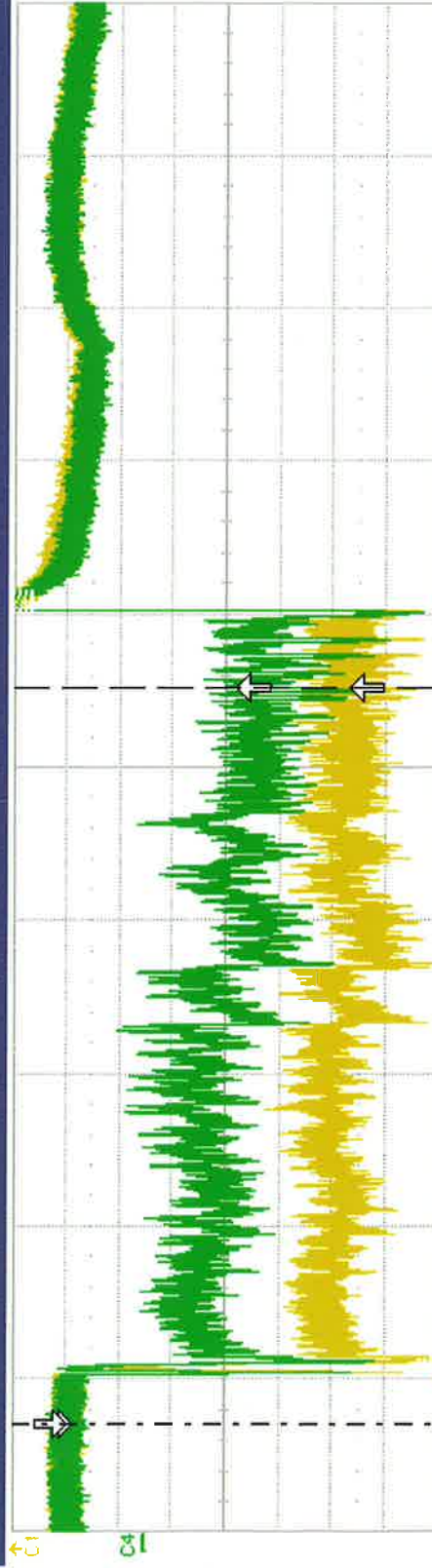
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Timebase -4.00 ms  
 1.00 ms/div  
 1.00 MS  
 Trigger Ext 10 100  
 Normal  
 Edge  
 400 mV  
 Negative

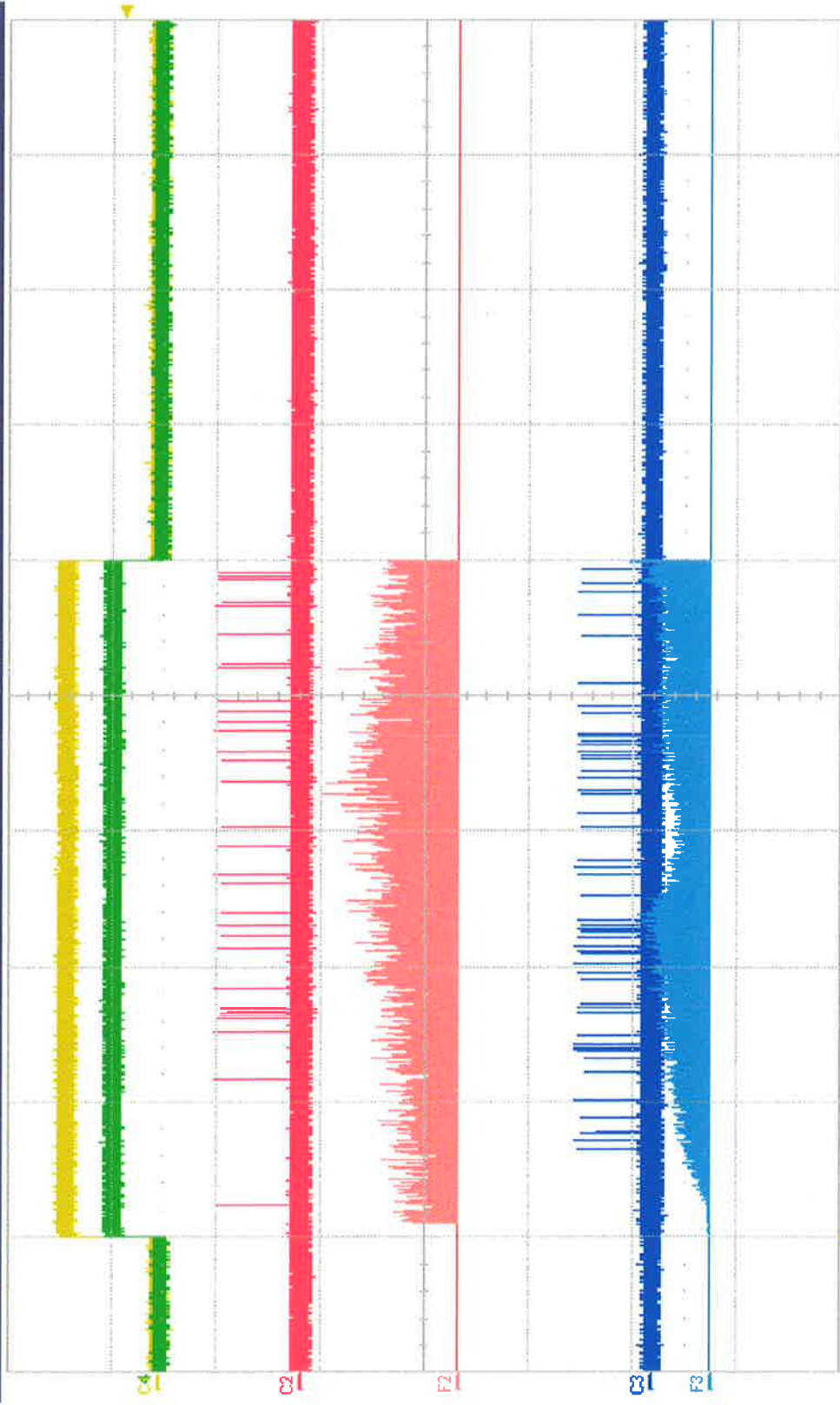
C1	C3	C4	Math
DCIM	DCIM	DCIM	<C3>
1.00 V/div	5.00 A/div	200 V/div	2.00 A/div
1.380 V offset	0.00 A offset	600.0 V offset	1.00 mdiv
-360 mV	5.10 A	-396 V	339 #
590 mV	9.85 A	-206 V	-1.92 A
950 mV	4.75 A	190 V	-20 mA
$\Delta y$	$\Delta y$	$\Delta y$	$\Delta y$





C1	D1C1M	C4	D4C1M	Math	<C1>
↓	2.00 mV/div	2.00 mV/div	2.00 mV/div	2.05 mV/div	75 #
↑	8.400 mV ofst	3.000 mV ofst	3.000 mV ofst	1.00 mV/div	
↑	-2.584 mV	↓	3.006 mV	↑	-2.3957 mV
↑	-13.162 mV	↑	-3.444 mV	↑	-14.1626 mV
ΔV	-10.568 mV	ΔV	-6.450 mV	ΔV	-1.7669 mV

Timebase	-4.00 ms	Trigger	ExtIO 00
	1.00 ms/div	Normal	700 mV
	2.00 MS	Edge	Negative
X1=	-297,005 $\mu$ s	$\Delta X=$	4.818815 ms
X2=	4.521810 ms	$1/\Delta X=$	207.5199 Hz



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

F3 peris...  
 1.00 k#  
 1.0 ms  
 196 k#

C4 D1  
 10.0 V  
 25.30 V

C3 D2  
 5.00 V  
 -11.0 V

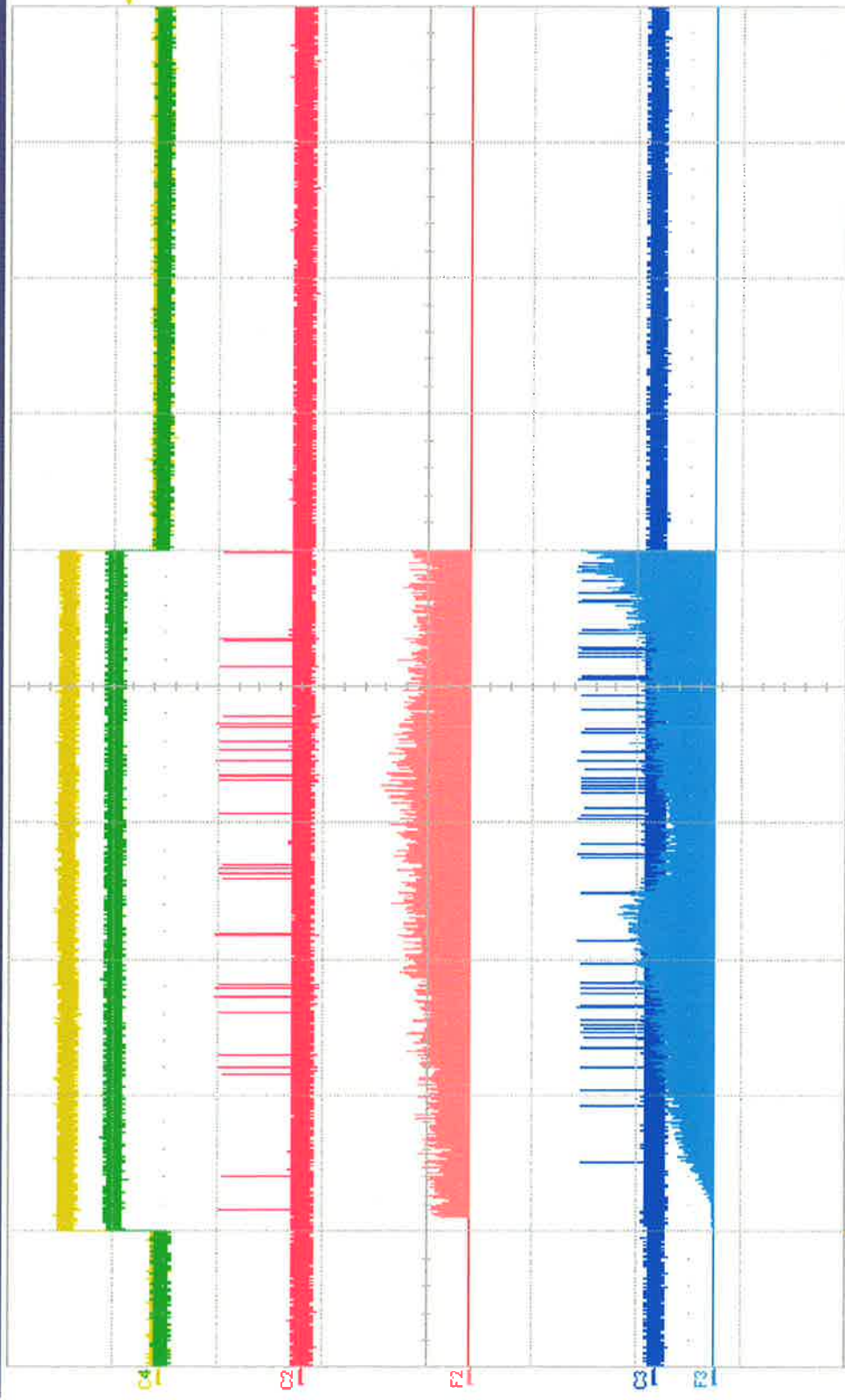
C2 D1  
 5.00 V  
 12.70 V  
 5.95 V

C1 D1  
 5.00 V  
 12.70 V

TELEDYNE LECROY

10/27/2020 10:29:52 AM



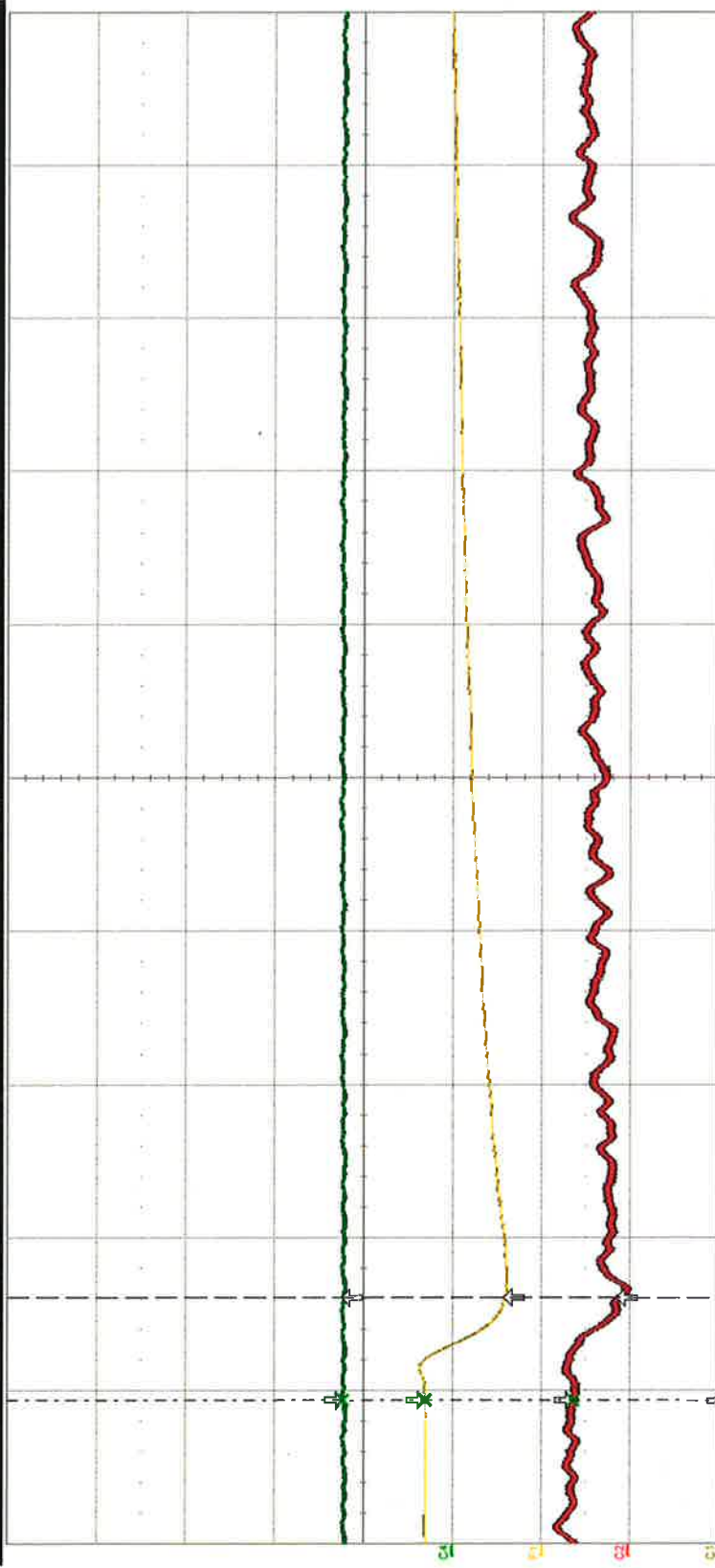


Tbase -4.00 ms  
 1.00 ms/div  
 500 kS  
 Trigger C1 DC  
 Normal 1.65 V  
 Edge Positive

C1 D1 5.00 V 12.70 V  
 C2 D1 5.00 V 6.95 V  
 C3 D1 5.00 V -11.0 V  
 C4 D1 10.0 V 25.30 V  
 F2 peris... 200 # 1.0 ms 50.0 k#  
 F3 peris... 1.00 k# 1.0 ms 283 k#

TELEDYNE LECROY

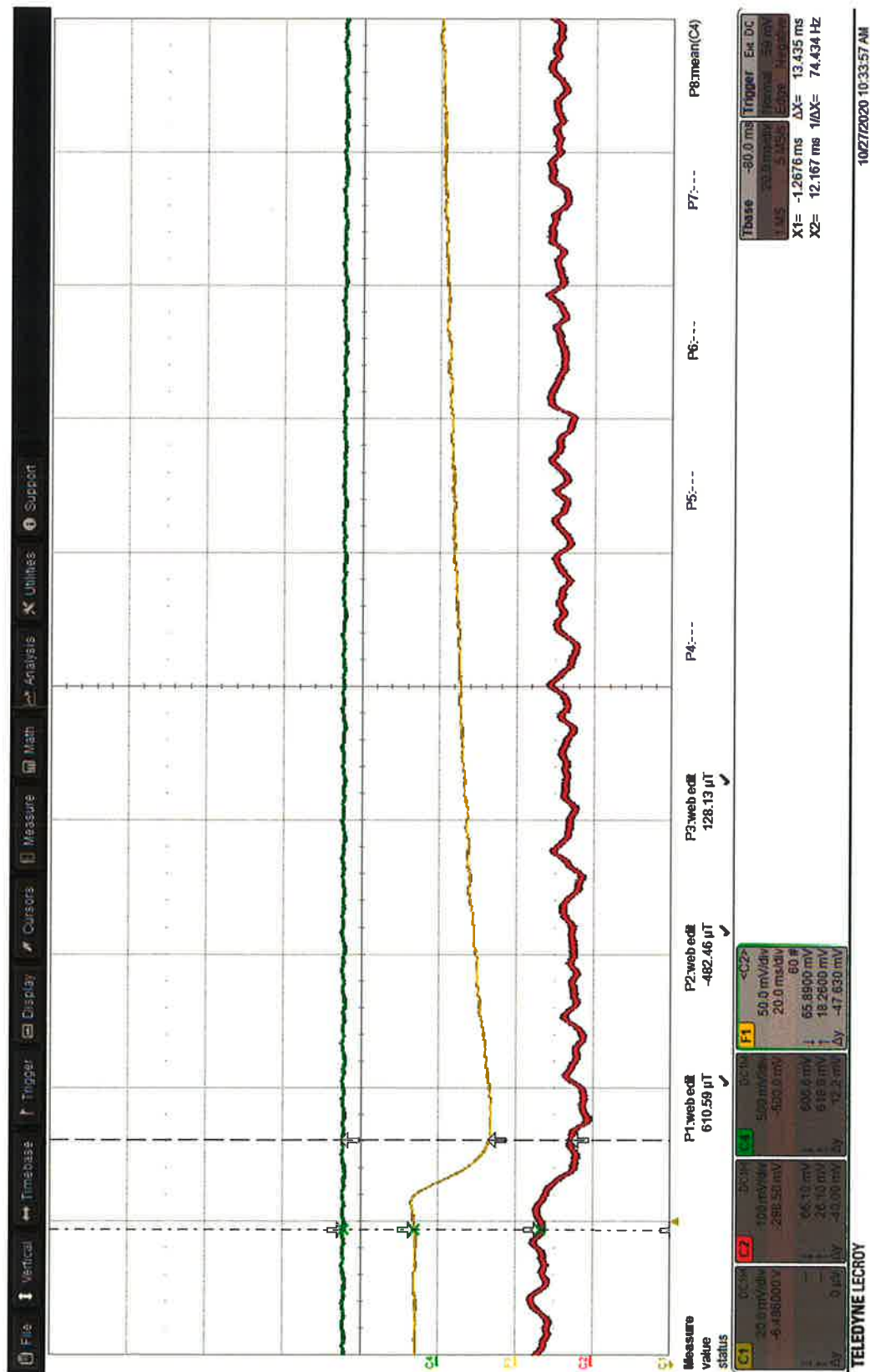
10/27/2020 10:33:54 AM

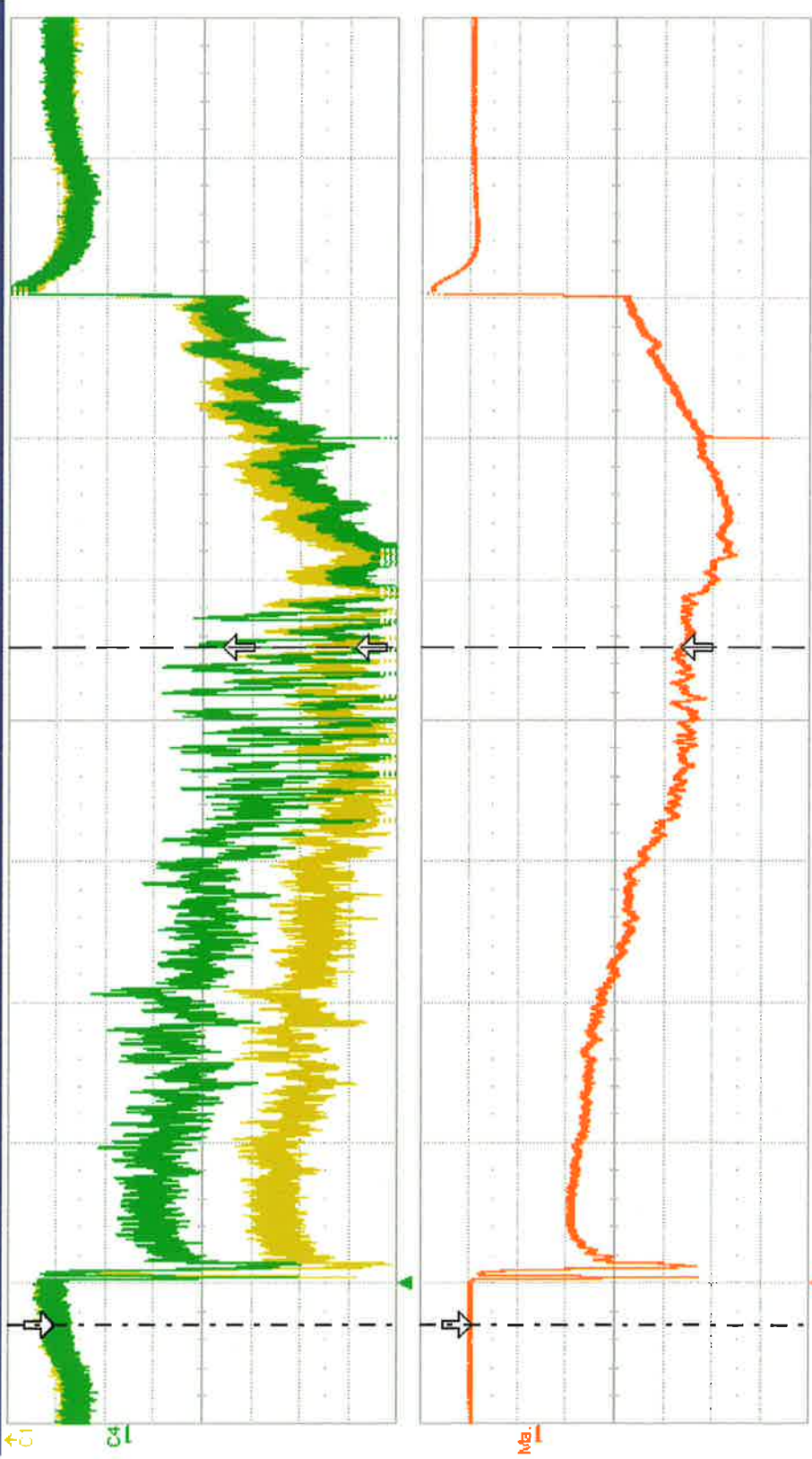


Measure value status P1.web ed 606.12  $\mu$ T P2.web ed -440.17  $\mu$ T P3.web ed 165.95  $\mu$ T P4:--- P5:--- P6:--- P7:--- P8:mean(C4)

C1	DCM	50.0 mV/div	20.0 ms/div	348 #	66.2450 mV	21.8444 mV	-44.401 mV
C2	DCM	50.0 mV/div	20.0 ms/div	348 #	66.2450 mV	21.8444 mV	-44.401 mV
C3	DCM	50.0 mV/div	20.0 ms/div	348 #	66.2450 mV	21.8444 mV	-44.401 mV
C4	DCM	50.0 mV/div	20.0 ms/div	348 #	66.2450 mV	21.8444 mV	-44.401 mV

TELEDYNE LECROY



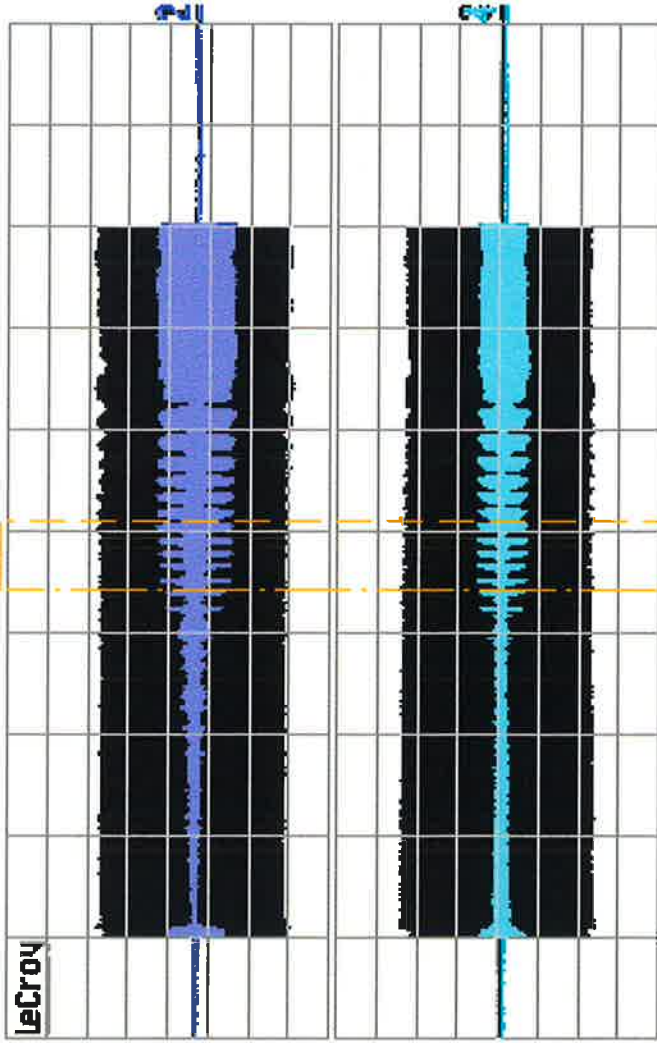


C1	C4	Math	<C4>
2.00 mV/div	2.00 mV/div	2.05 mV/div	2.05 mV/div
3.400 mV ofst	3.000 mV ofst	1.00 ms/div	1.00 ms/div
↓	↓	86.4	86.4
↑	↑	2.9658 mV	2.9658 mV
Δy	Δy	5.9651 mV	5.9651 mV
		-12.358 mV	-8.9009 mV
		-7.068 mV	

Timebase	-4.00 ms	Trigger	Edge	Extr	700 mV	Negative
2.00 MS	200 MS/s	Normal	Edge			
X1=	-297.005 μs	ΔX=	4.818815 ms			
X2=	4.521810 ms	1/ΔX=	207.5198 Hz			



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10:35:27



874 sweeps:				
	average	low	high	sigma
rms(1)	318.8mV	309.5	326.1	2.8
rms(2)	41.0mV	20.9	82.6	14.4
rms(3)	323.9mV	315.6	332.4	3.9
rms(4)	26.0mV	14.6	55.3	9.4
phase(1,3)	74 °	26	132	36

1 ms

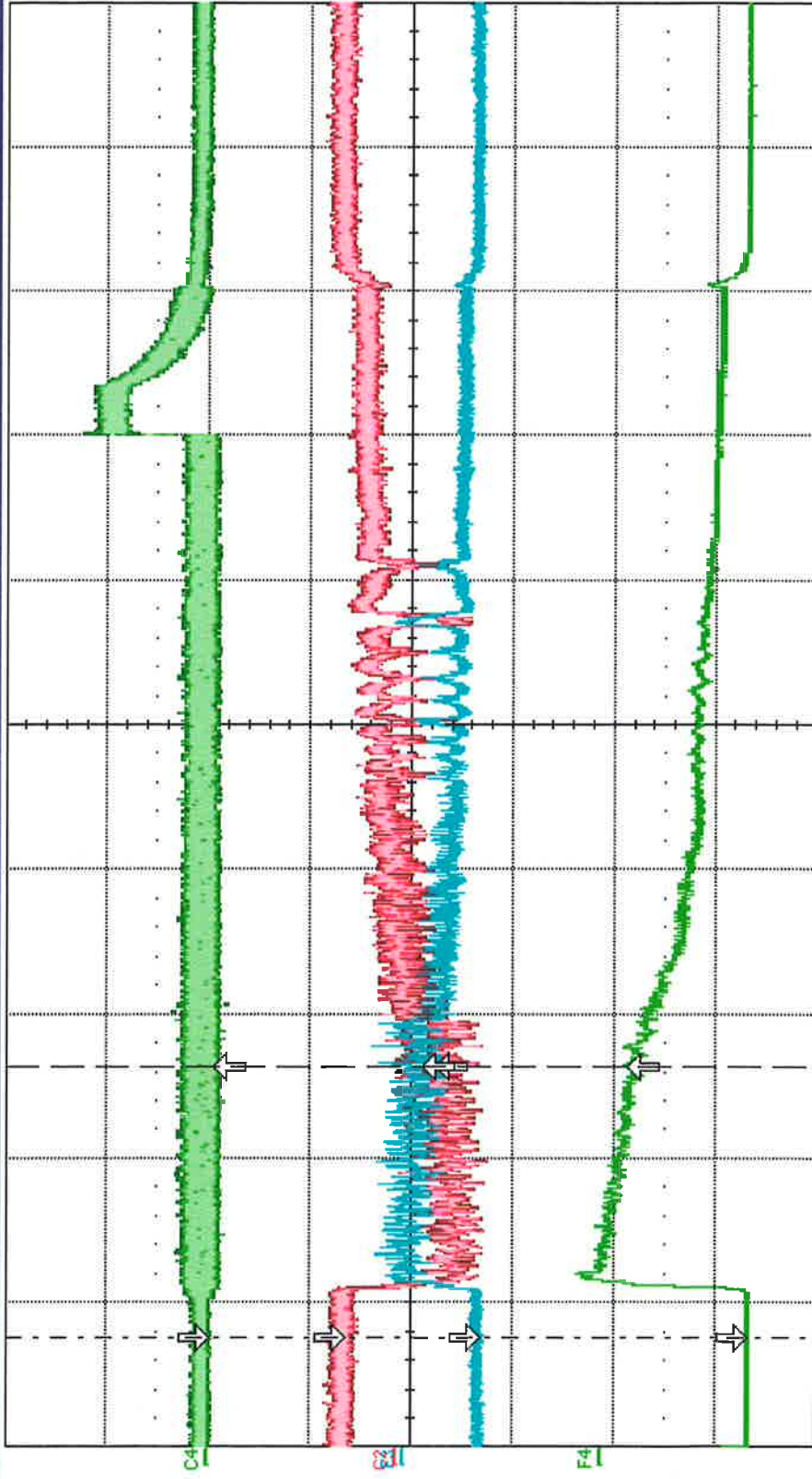
1 .2 V AC  
2 .2 V AC  
3 .2 V AC  
4 .2 V AC

10 MS/s

Ext10 DC 0.15 V 50Ω

☐ NORMAL

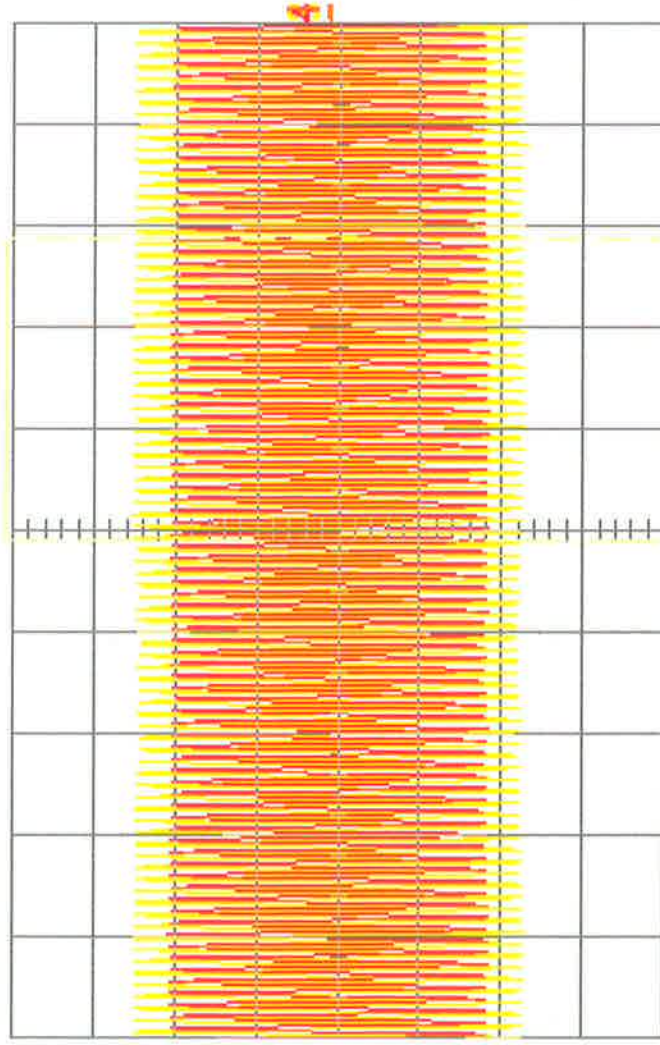




<b>C2</b>	<b>DCIM</b>	500 mV/div 75 mV offset	↓ 260 mV ↑ -203 mV Δy -463 mV
<b>C4</b>	<b>DCIM</b>	100 V/div 201.0 V offset	↓ 400 mV ↑ -8.8 V Δy -9.2 V
<b>F3</b>	<b>script(C3,C2)</b>	2.00/div 1.00 ms/div	↓ -1.506 ↑ -419e-3 Δy 1.097
<b>F4</b>	<b>&lt;F3&gt;</b>	1.00/div 1.00 ms/div	↓ -1.44382 ↑ -286.81e-3 Δy 47 #
<b>Thase</b> -4.00 ms <b>Waveform</b> 1.00 ms <b>Scale</b> 50.0 kS <b>TriggerExt</b> 10 DC <b>Normal</b> 30 mV <b>Edge</b> Negative <b>X1</b> -243.6 μs ΔX= 1.8706 ms <b>X2</b> 1.6270 ms 1/ΔX= 534.59 Hz			

27-Oct-20  
10:37:51

3 2  $\mu$ s  
0.50 V



4 2  $\mu$ s  
0.50 V

93 sweeps:		average	low	high	sigma
phase(4,3)		-91.1°	-95.8	-82.6	1.5
rms(1)		11.7mV	11.3	12.0	0.2
rms(2)		144mV	140	151	3
rms(4)		684.6mV	606.4	747.8	26.6
rms(3)		843.5mV	792.5	903.7	25.5

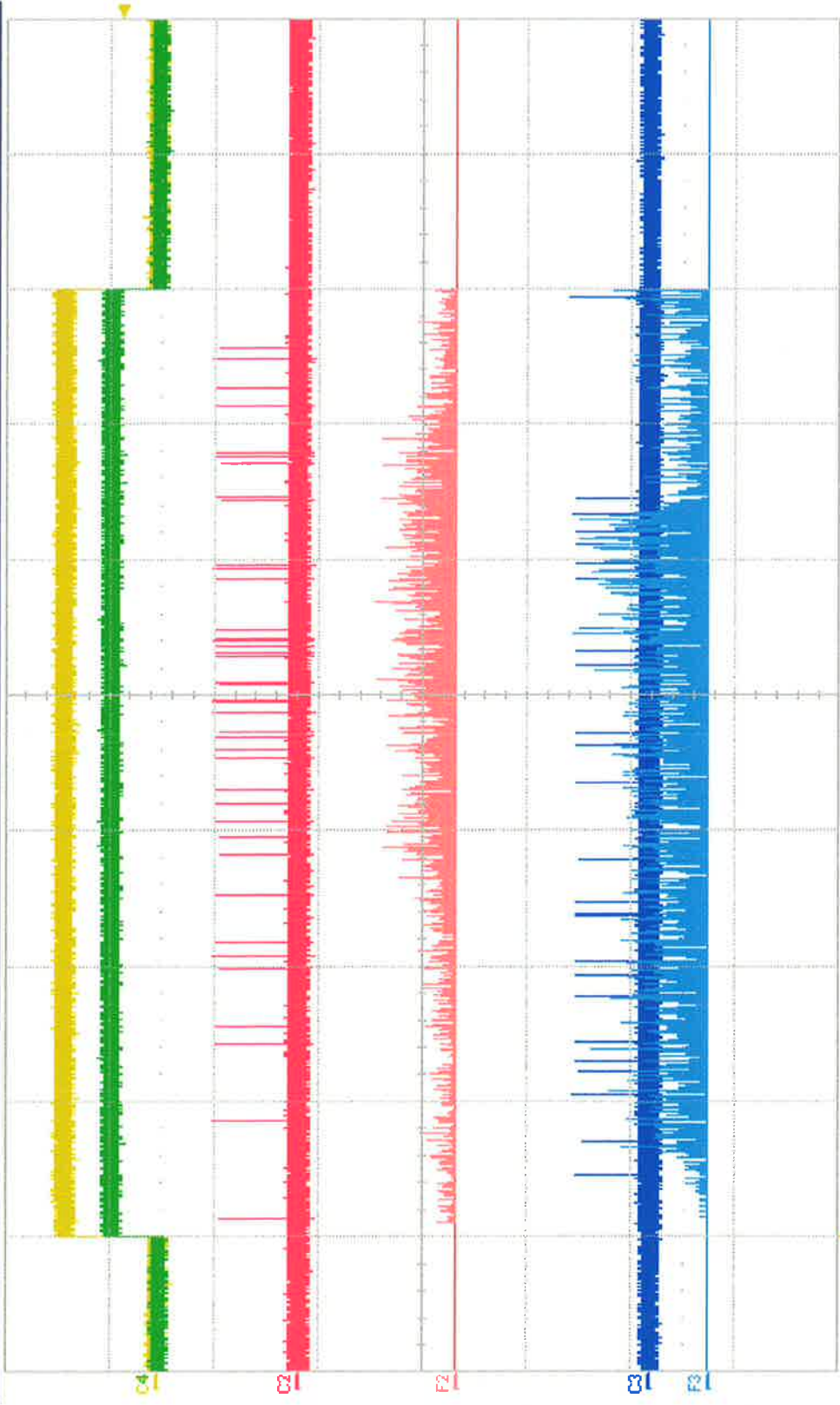
2  $\mu$ s

1 .5 V DC  
2 .5 V DC  
3 .5 V DC  
4 .5 V DC

1 GS/s

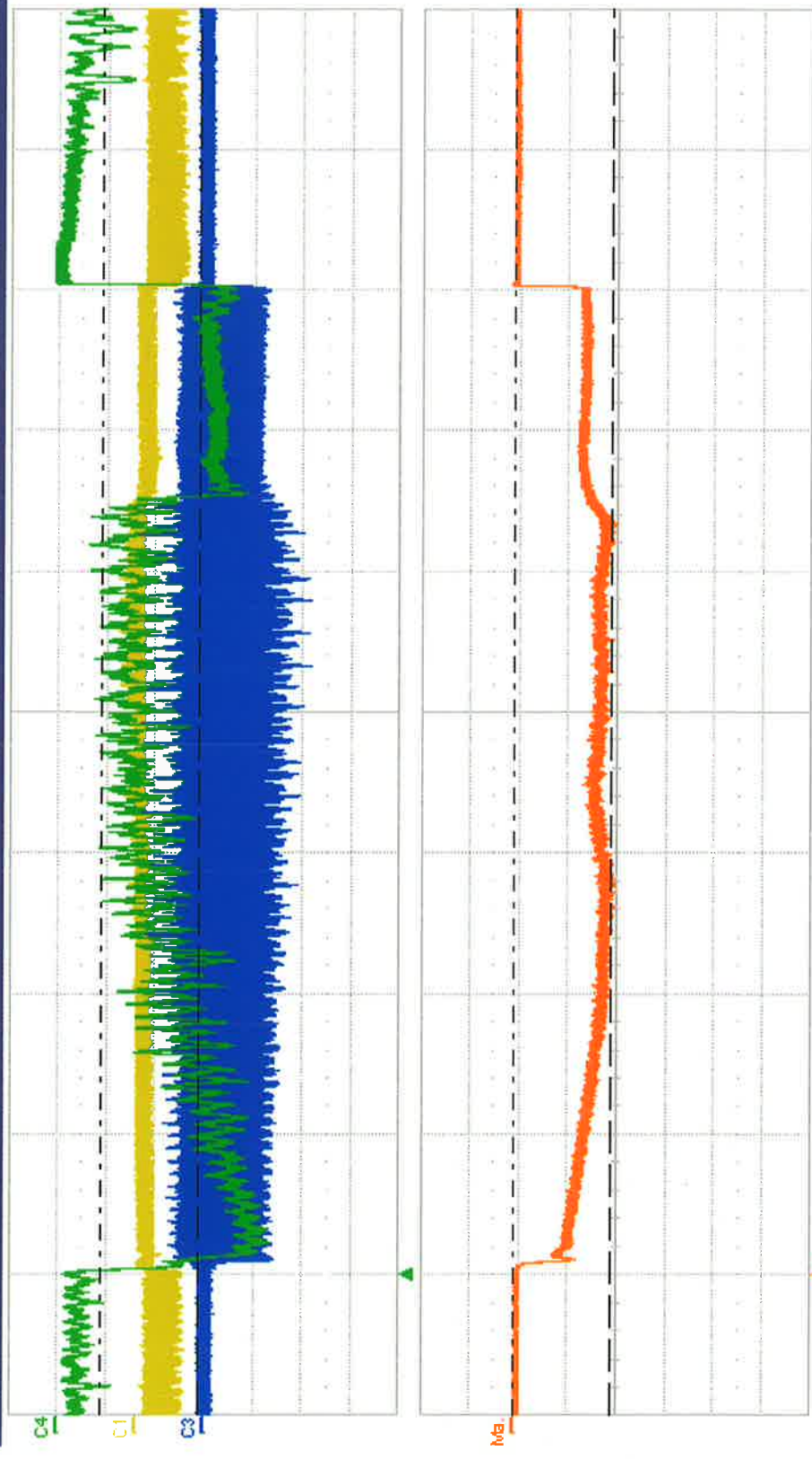
Ext10 DC 0.15 V 50 $\Omega$

☐ NORMAL



<b>C1</b>	<b>01</b>	5.00 V	12.70 V
<b>C2</b>	<b>01</b>	5.00 V	5.95 V
<b>C3</b>	<b>01</b>	5.00 V	-11.0 V
<b>C4</b>	<b>01</b>	10.0 V	25.30 V
<b>F2 peris...</b>	50.0 #	1.0 ms	8.88 k#
<b>F3 peris...</b>	50.0 #	1.0 ms	14.2 k#
<b>Tbase</b>	-4.00 ms	1.00 ms/div	500 kS
<b>Trigger</b>	Normal	Edge	Positive
<b>C1 DC</b>	1.85 V		



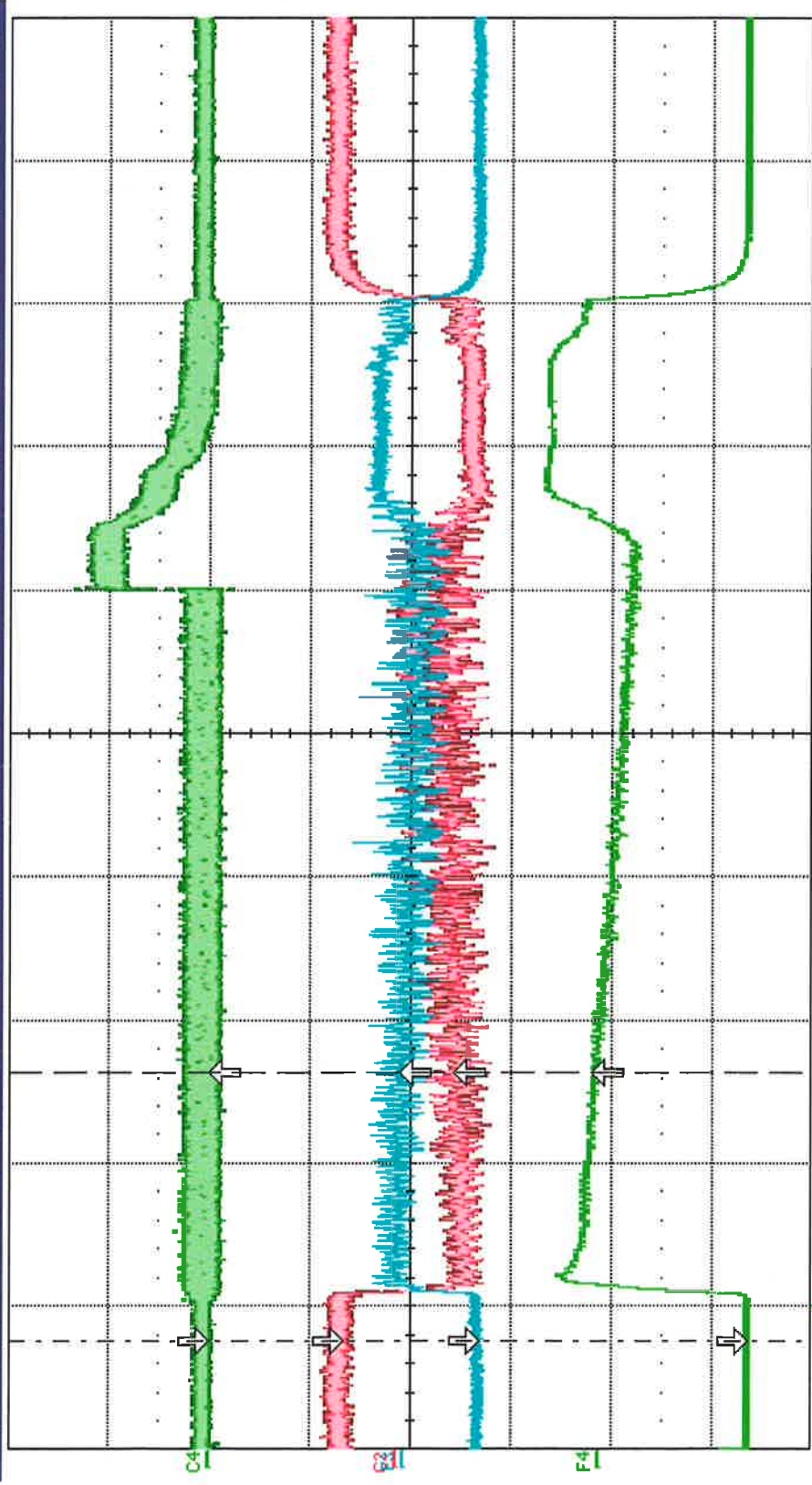


Timebase -4.00 ms  
1.00 ms/div  
1.00 MS

Trigger Normal  
Edge  
100 MS/s

Ext 10 00  
400 mV  
Negative

C1	C3	C4	Math	<C3>
DCIM	DCIM	DCIM		
1.00 V/div	5.00 A/div	100 V/div	1.00 A/div	1.00 A/div
1.380 V offset	0.00 A offset	299.0 V offset	1.00 ms/div	1.00 ms/div
720 mV	10.50 A	-89 V	349 #	349 #
-1.27 V	550 mA	-288 V	10 mA	10 mA
-1.99 V	-9.95 A	-199 V	-1.98 A	-1.98 A
$\Delta y$	$\Delta y$	$\Delta y$	$\Delta y$	$\Delta y$



C2

DCIM

500 mV/div

100 V/div

201.0 V offset

75 mV offset

↓

↑

Δy

268 mV

-293 mV

-567 mV

C4

DCIM

100 V/div

201.0 V offset

↓

↑

Δy

600 mV

-2.3 V

-2.9 V

F3

script(C3,C2)

2.00/div

1.00 ms/div

↓

↑

Δy

-1.493

26e-3

1.519

F4

<F3>

1.00/div

1.00 ms/div

↓

↑

Δy

-1.47371

44.26e-3

1.51796

94 #

Tbase

-4.00 ms

↓

↑

TriggerExt10

DC

Normal

Edge

↓

↑

WStream

1.00 ms

50.0 kS

5.0 MS/s

X1=

-243.6 μs

ΔX=

1.8706 ms

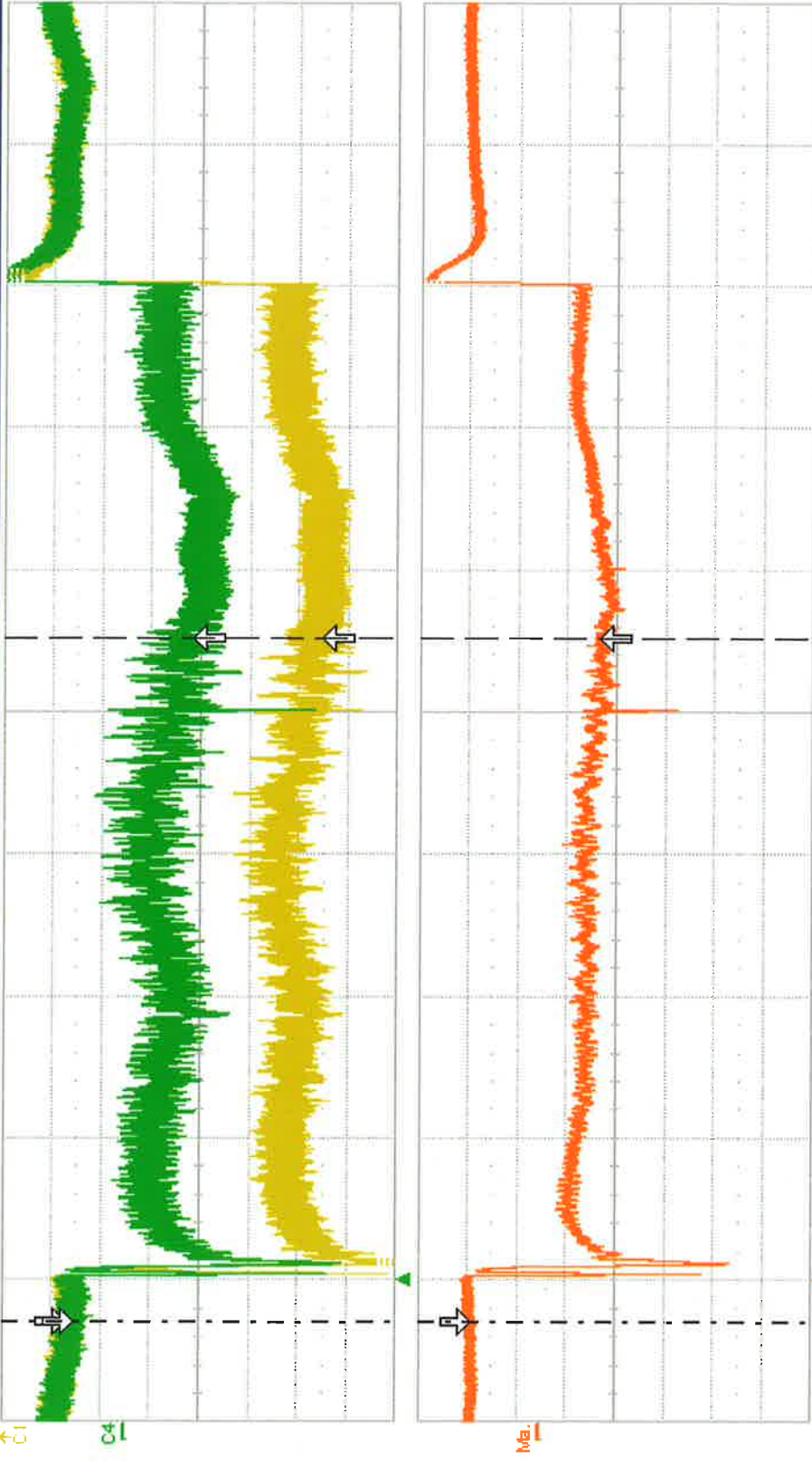
X2=

1.6270 ms

1/ΔX=

534.59 Hz





C1	DCIM	2.00 mV/div	8.400 mV ofst	Δy
↑		-2.881 mV		
↑		-13.441 mV		
Δy		-10.560 mV		

C4	DCIM	2.00 mV/div	3.000 mV ofst	Δy
↑		2.198 mV		
↑		-2.811 mV		
Δy		-5.009 mV		

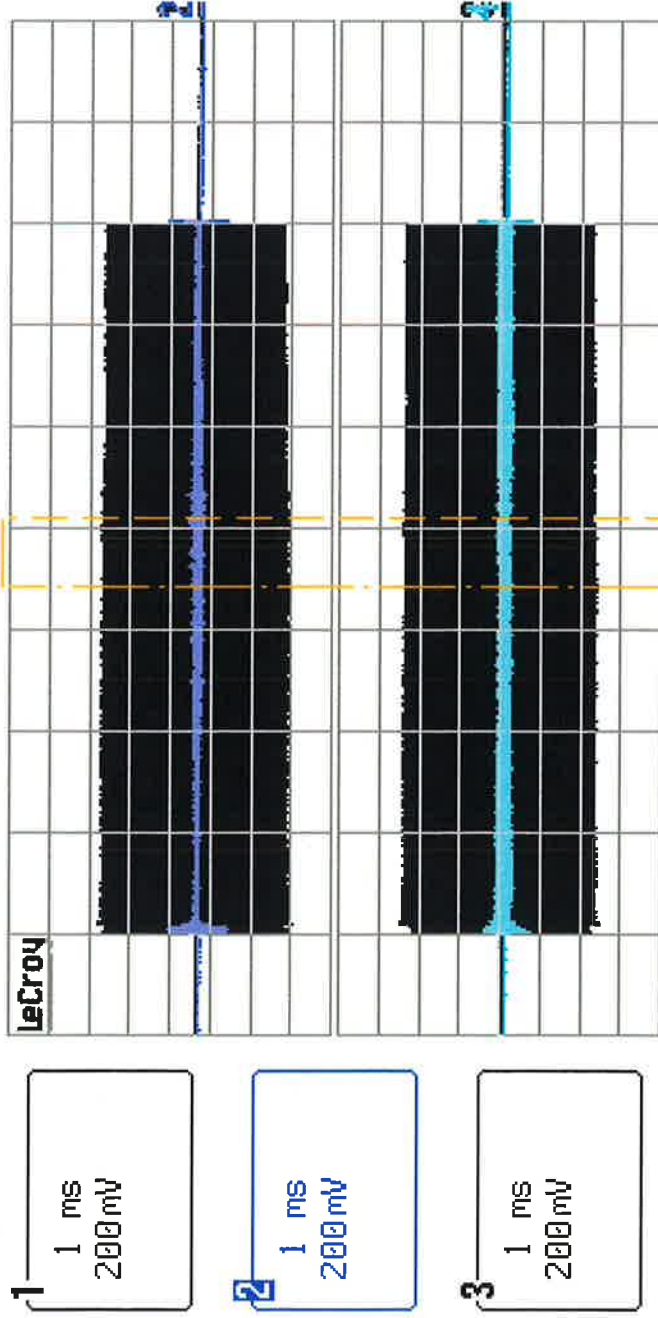
Math	<C4>	2.05 mV/div	1.00 mV ofst	Δy
↑		2.882 mV		
↑		-2.5392 mV		
Δy		-5.4374 mV		

Timebase	-4.00 ms	Trigger	Ext 10 00
1.00 ms/div		Normal	700 mV
2.00 MS		Edge	Negative

X1=	-297.005 μs	ΔX=	4.818815 ms
X2=	4.521810 ms	1/ΔX=	207.5199 Hz

27-Oct-20  
10:44:47



8 sweeps:

	average	low	high	sigma
rms(1)	323.6mV	321.4	327.3	1.8
rms(2)	19.9mV	18.4	23.3	1.6
rms(3)	328.7mV	327.0	331.3	1.5
rms(4)	21.9mV	21.0	24.4	1.2
phase(1,3)	0.07 k°	0.03	0.13	0.04

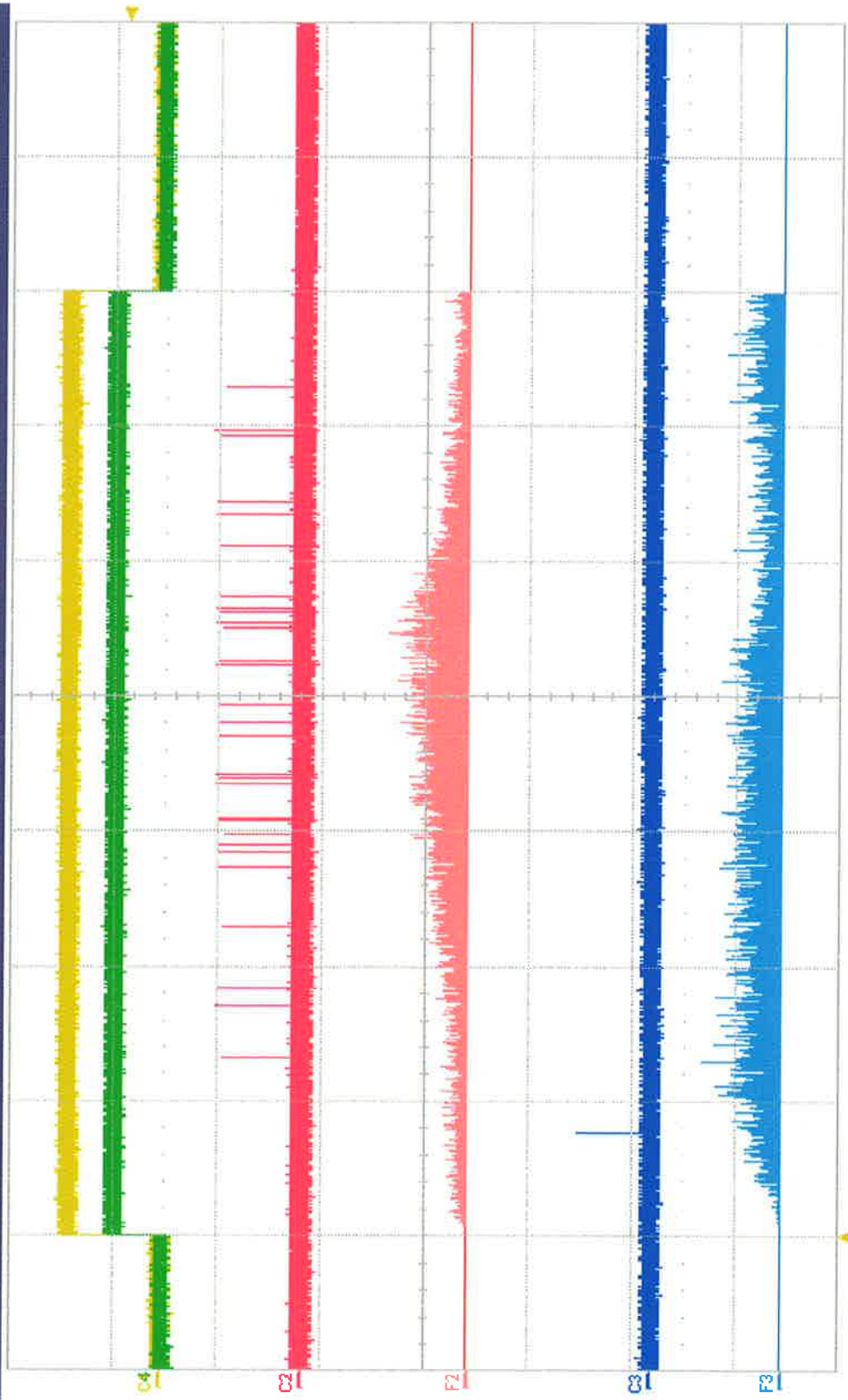
1 ms

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	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...	200 #	1.0 ms	38.2 k#
F3 peris...	200 #	1.0 ms	41.6 k#
Tbase	-4.00 ms	1.00 ms/div	500 kS
Trigger	Normal	Edge	Positive