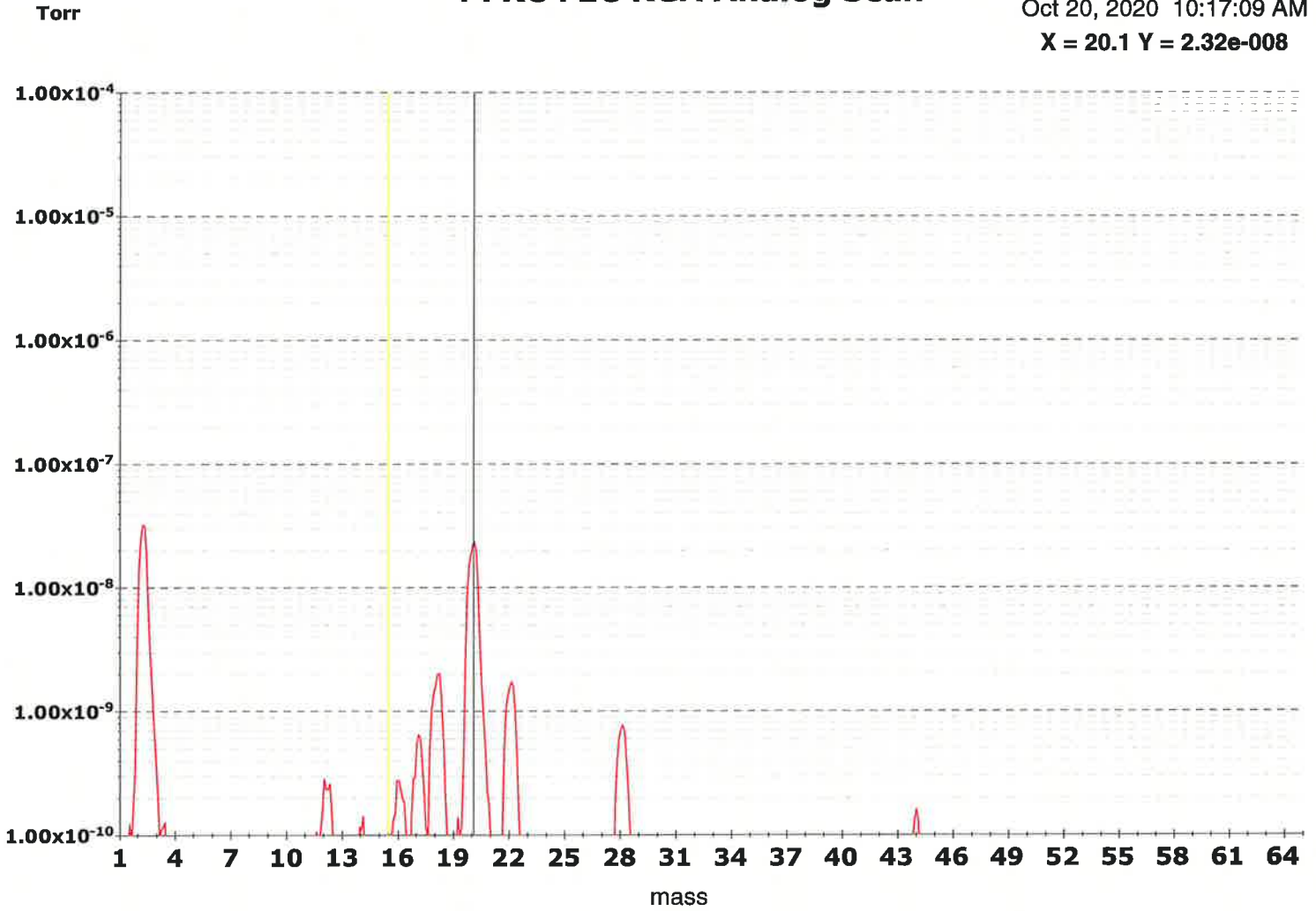


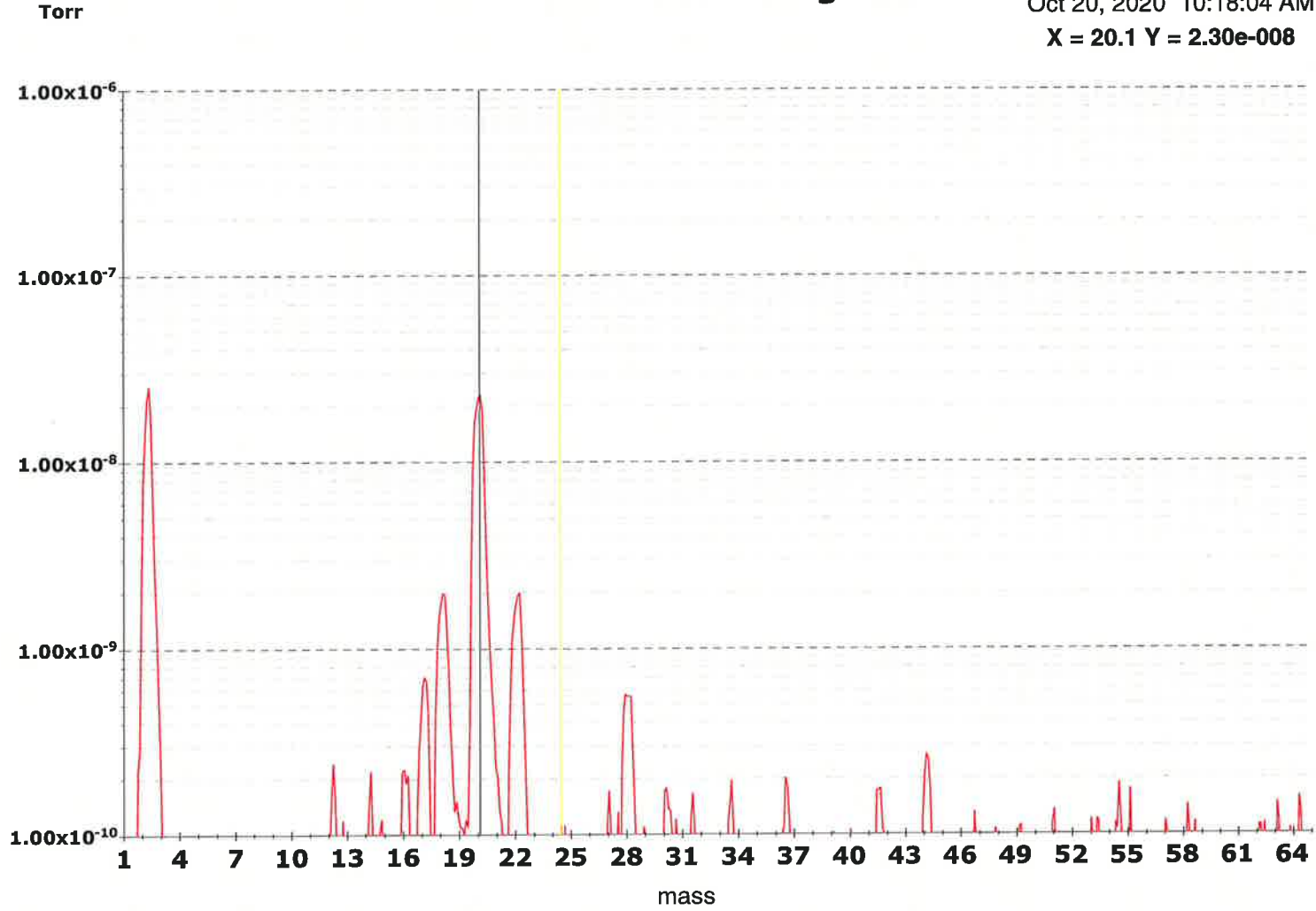
PFRC FEC RGA Analog Scan

Log every scan: 137
Oct 20, 2020 10:17:09 AM
X = 20.1 Y = 2.32e-008



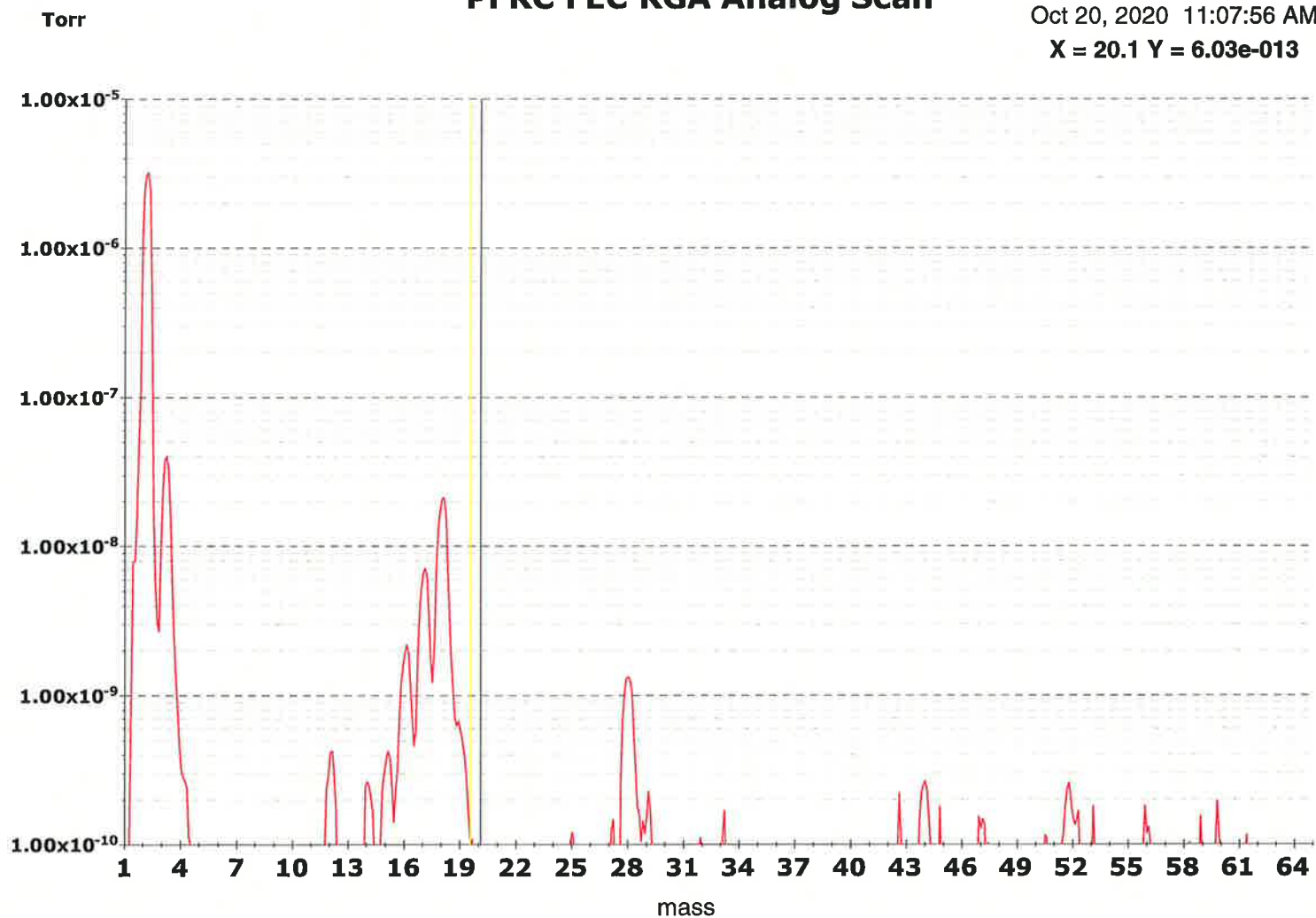
PFRC FEC RGA Analog Scan

Log every scan: 139
Oct 20, 2020 10:18:04 AM
X = 20.1 Y = 2.30e-008



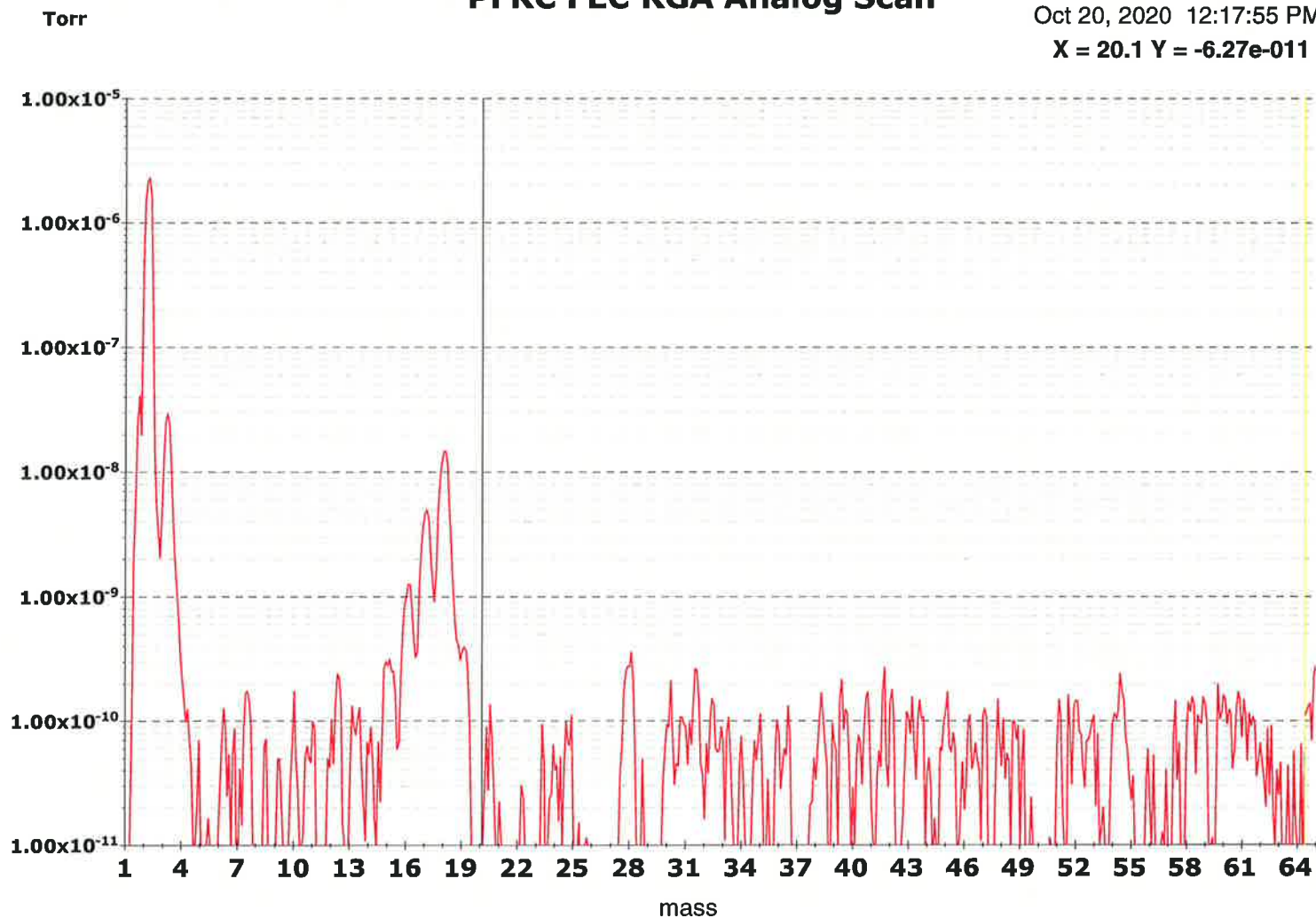
PFRC FEC RGA Analog Scan

Log every scan: 248
Oct 20, 2020 11:07:56 AM
X = 20.1 Y = 6.03e-013



PFRC FEC RGA Analog Scan

Log every scan: 401
Oct 20, 2020 12:17:55 PM
X = 20.1 Y = -6.27e-011





Office of the Provost
3 Nassau Hall
Princeton, NJ 08544-0015
Tel: 609-258-3026

Memorandum

To: Faculty and Other Principal Investigators with Active Research Grants
From: Richard Myers, Deputy Provost for Resource Planning
Date: October 20, 2020
Subj: Charging Personnel on Grants Working Less than Full Effort

I write with updated guidance on the University's position regarding externally supported research personnel with "unproductive" time stemming from the COVID-19 disruption. As you know, the University has been working under guidance from the Office of Management and Budget that has allowed institutions to continue charging underutilized personnel to federal grants during the current crisis.

The designated period for that general allowance expired on September 30, 2020. While requests for further extension remain under consideration, institutions no longer have approval to continue charging individuals to grants beyond the certifiable effort they are providing toward the grant-funded project. There are a few exceptions to this, such as selected NASA-funded research and our contract for the Princeton Plasma Physics Lab.

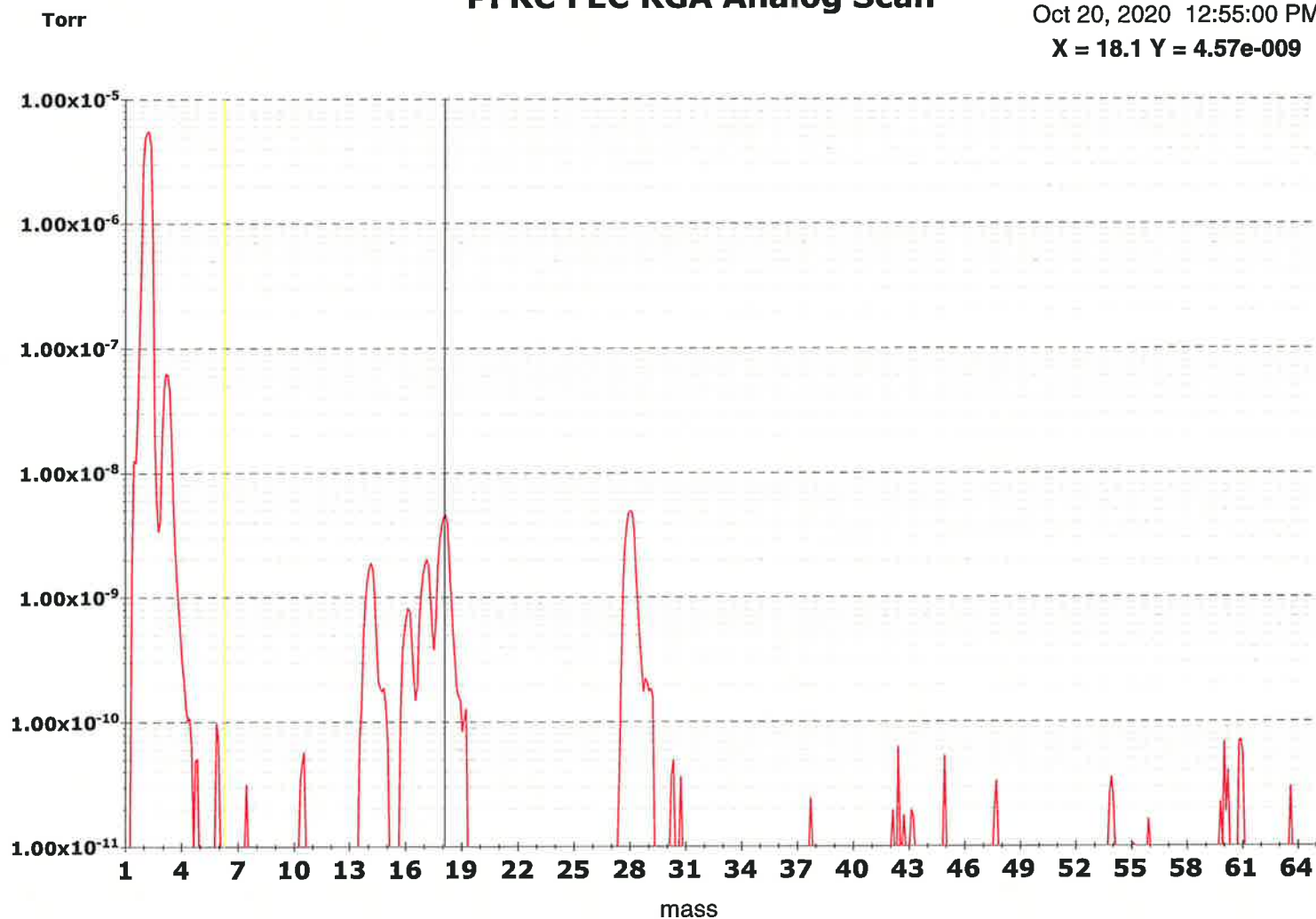
Effective October 1, 2020, unless you have a specific allowance confirmed in writing by your funding agency or foundation, you must adjust the charge on externally sponsored research grants for all personnel and graduate students to reflect the actual effort levels they are contributing to the grant-funded research. This will entail changing the labor distribution for individuals, including retroactive adjustments back to October 1, to move the "unproductive" share of effort off of the sponsored research grants onto a separate tracking chart string (see details below).

Recognizing the unforeseen nature of this expense and the nature of the burden, the Provost has agreed to cover one-third of the cost of the unproductive staff and post-doctoral fellow time. We expect research and other funds available to individual faculty and departmental funds to cover the remainder. In other words, we plan to allocate these costs one-third each to central, departmental, and faculty funds after the unproductive time is moved to the tracking chart string in each department. Faculty members with insufficient balances to cover their one-third should discuss this situation with their department chairs and determine another funding source.

Graduate students who are not able to work on the grant also must be moved to other sources and assignments for the portion of their Assistant-in-Research appointment that is not possible in the current environment. While we are not providing additional central funding for graduate students who cannot work on research grants, we remain hopeful that the increased demand for graduate students to support teaching during the fall (and likely for the spring as well) already has, and will continue to ease this portion of the burden on departmental and other sources.

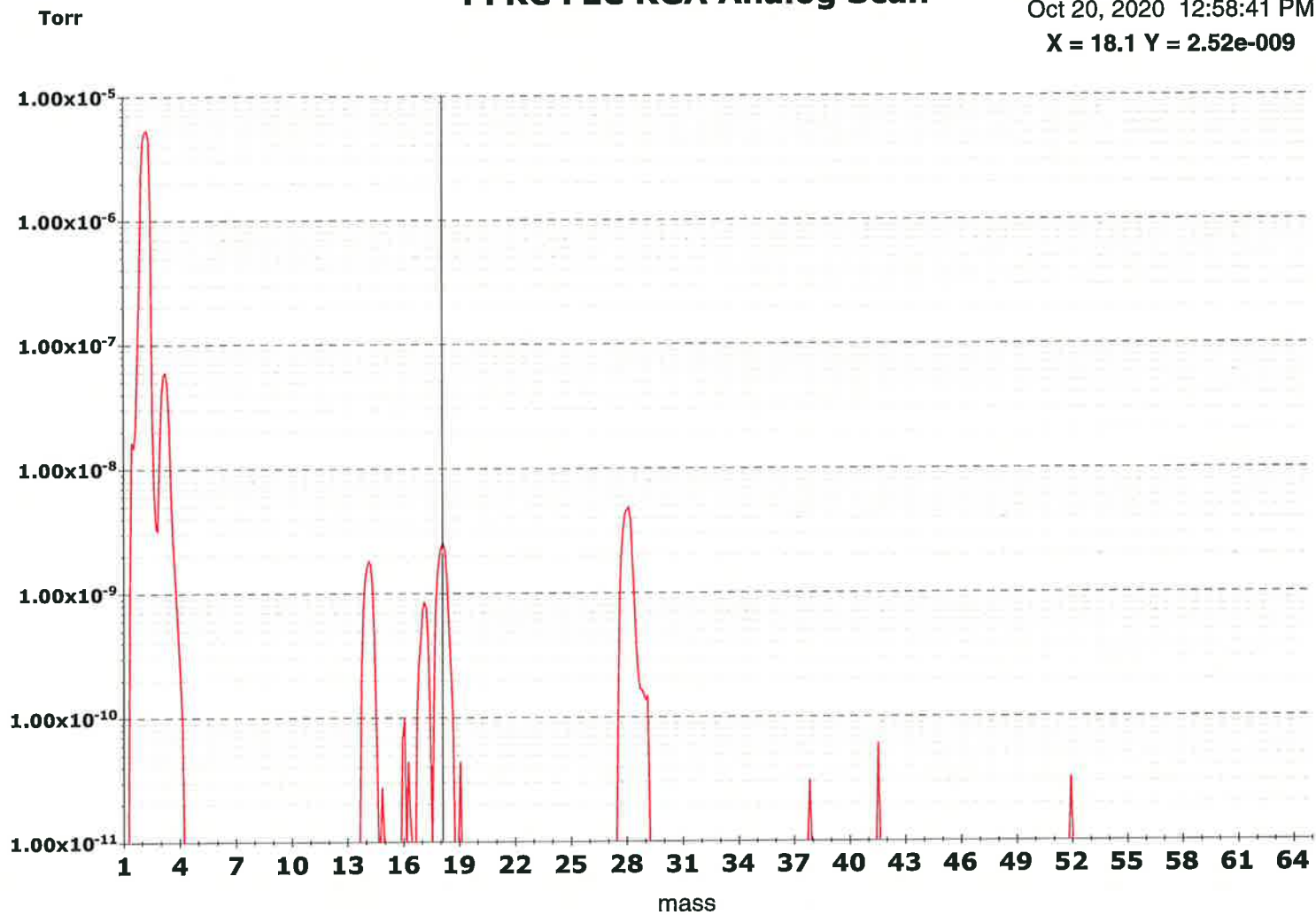
PFRC FEC RGA Analog Scan

Log every scan: 482
Oct 20, 2020 12:55:00 PM
X = 18.1 Y = 4.57e-009



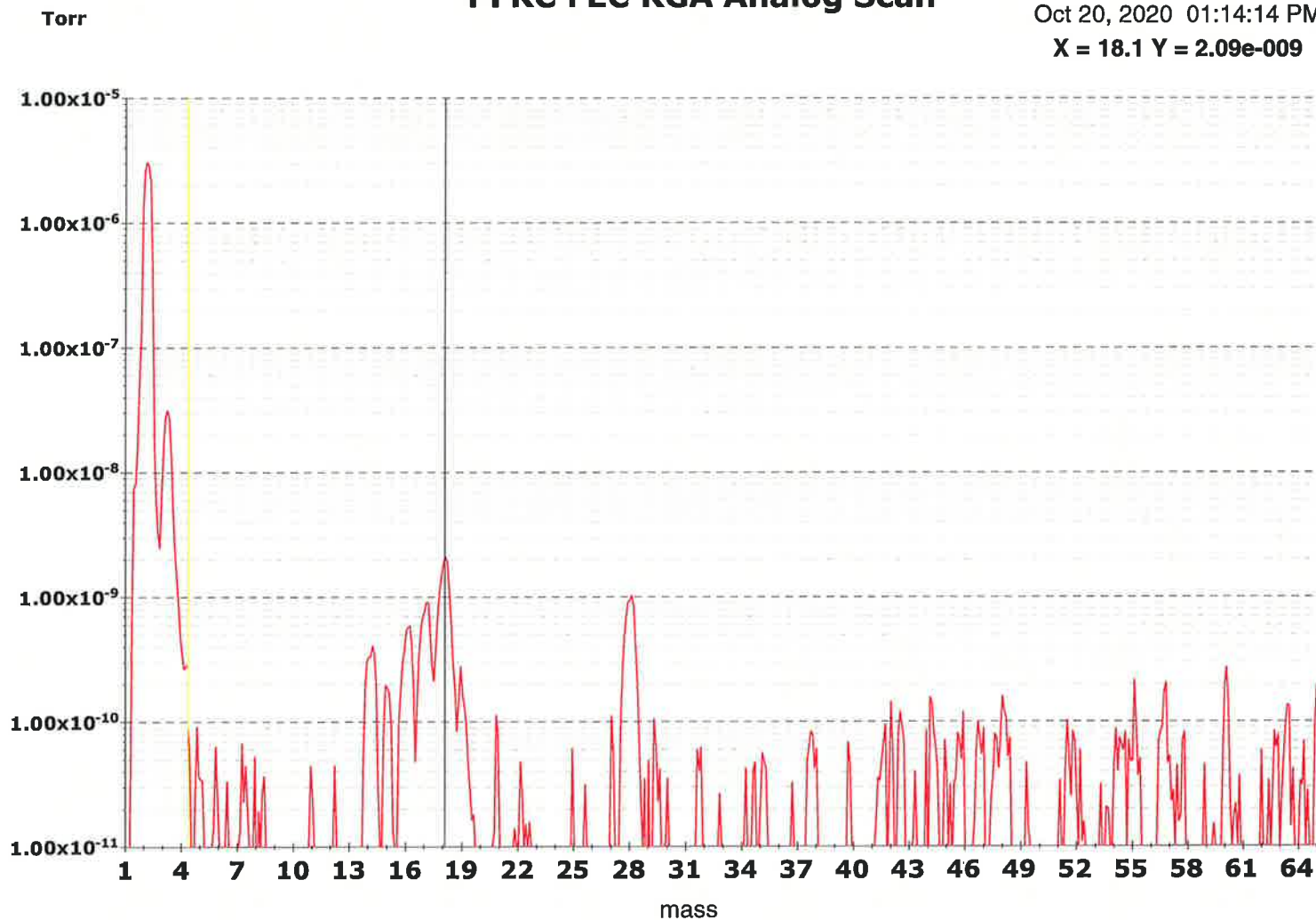
PFRC FEC RGA Analog Scan

Log every scan: 490
Oct 20, 2020 12:58:41 PM
X = 18.1 Y = 2.52e-009



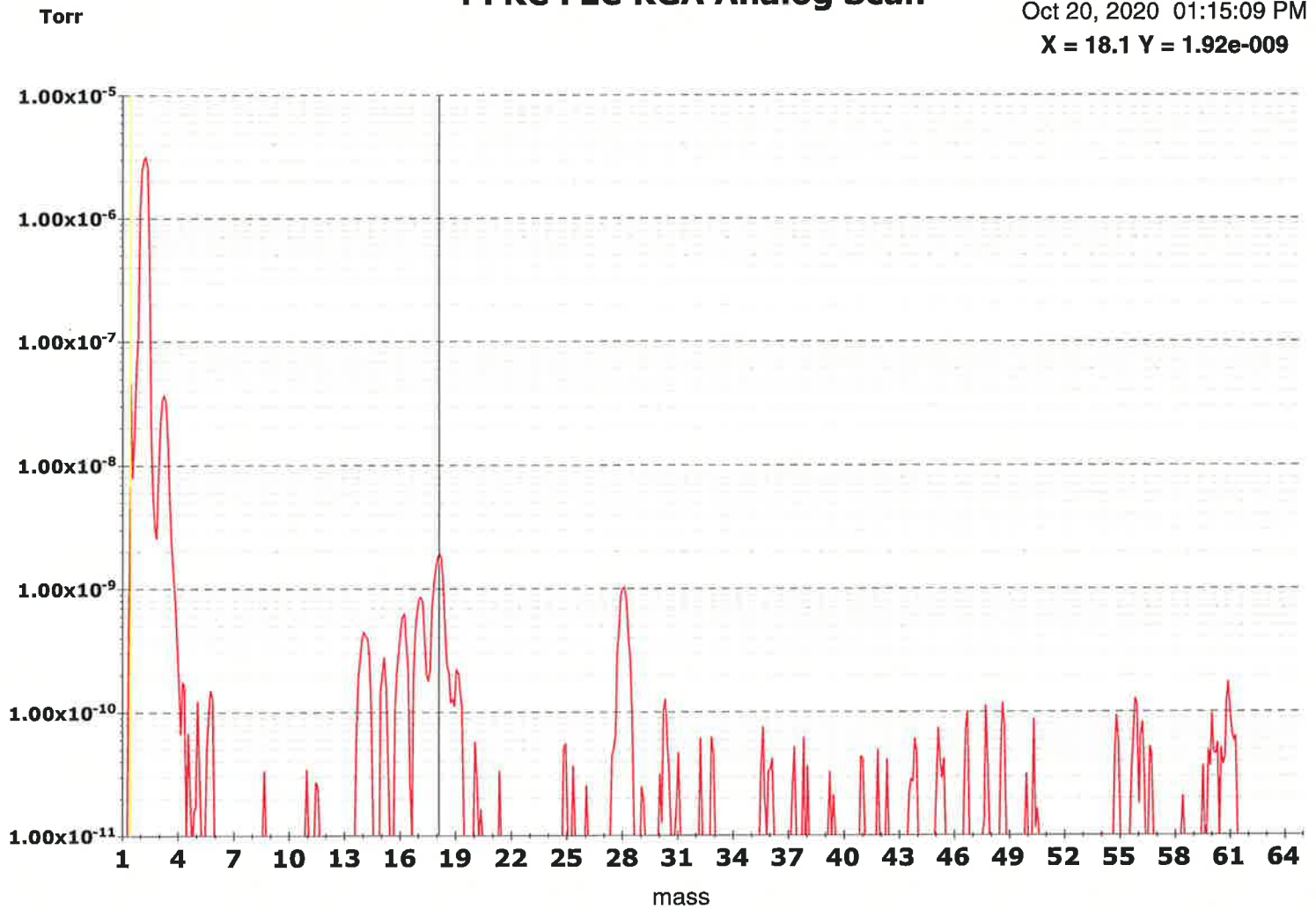
PFRC FEC RGA Analog Scan

Log every scan: 524
Oct 20, 2020 01:14:14 PM
X = 18.1 Y = 2.09e-009



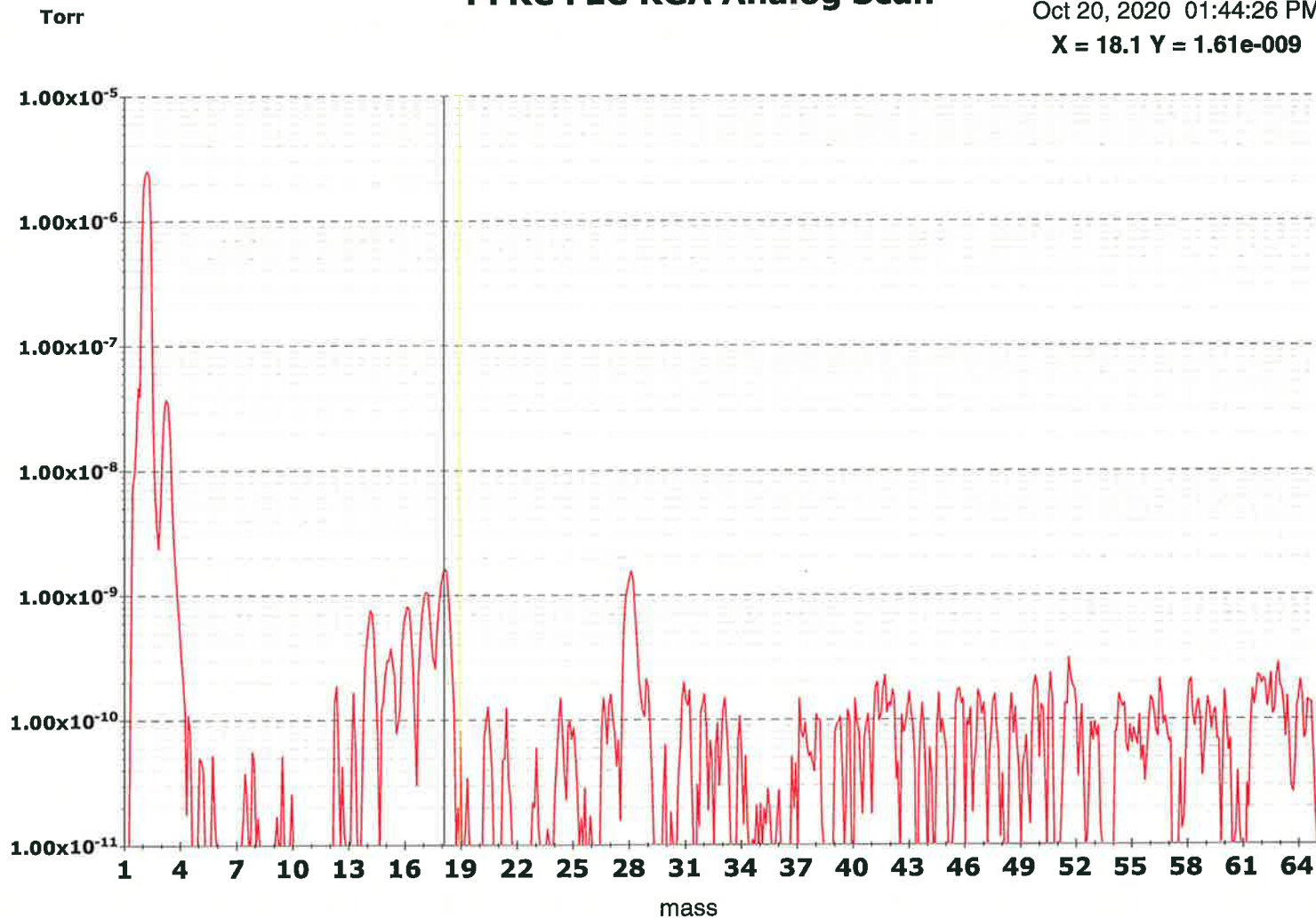
PFRC FEC RGA Analog Scan

Log every scan: 526
Oct 20, 2020 01:15:09 PM
X = 18.1 Y = 1.92e-009



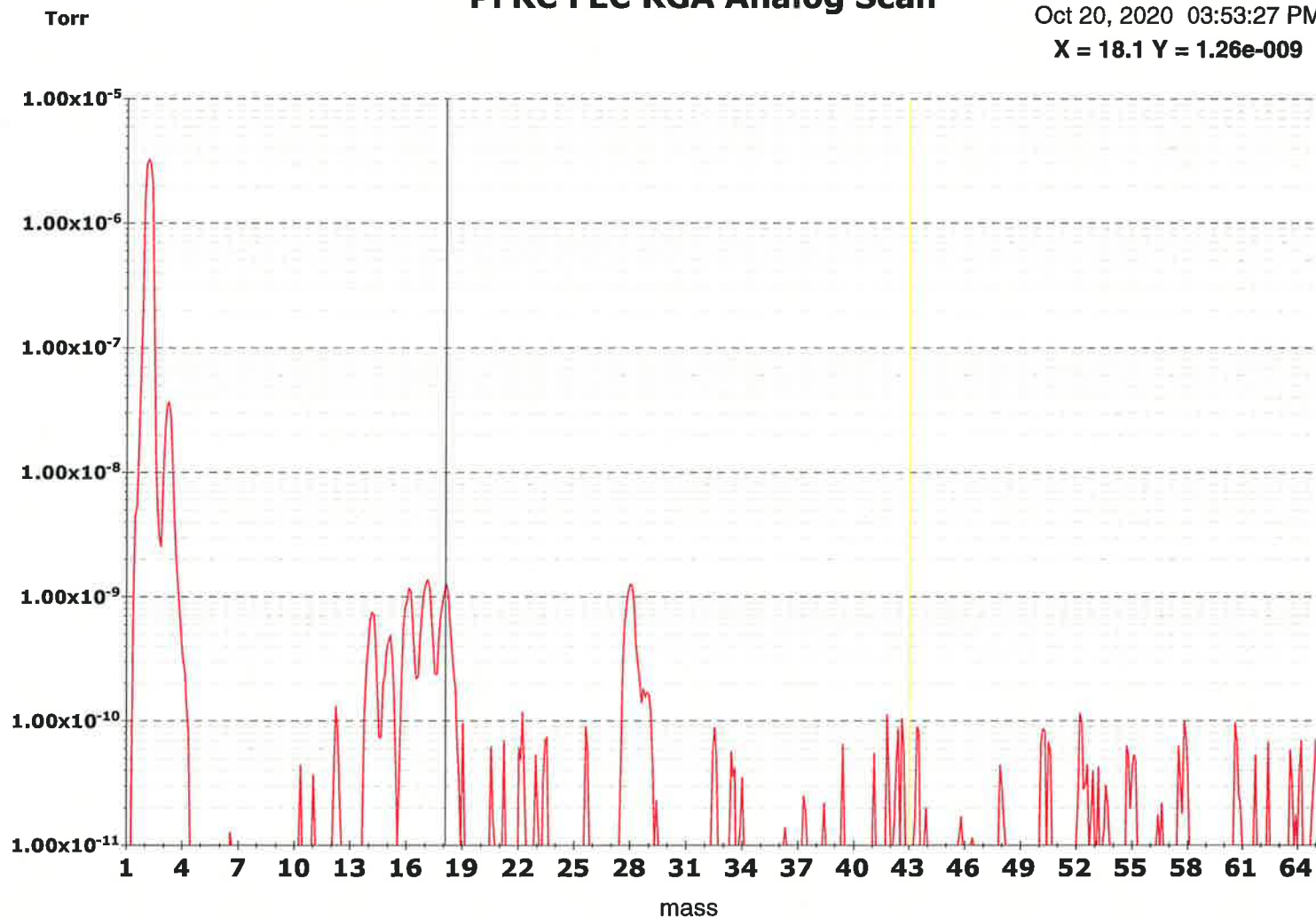
PFRC FEC RGA Analog Scan

Log every scan: 590
Oct 20, 2020 01:44:26 PM
X = 18.1 Y = 1.61e-009



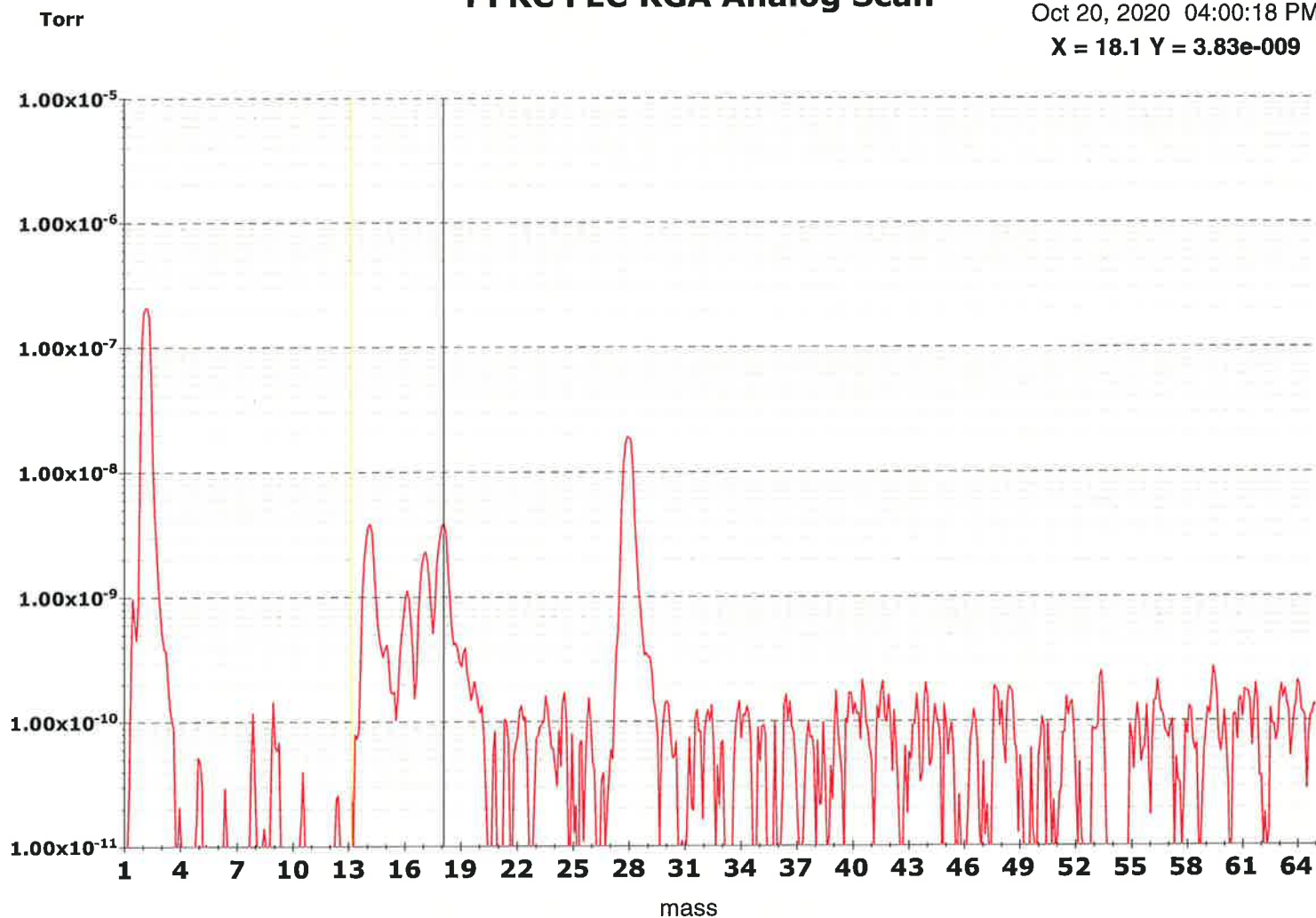
PFRC FEC RGA Analog Scan

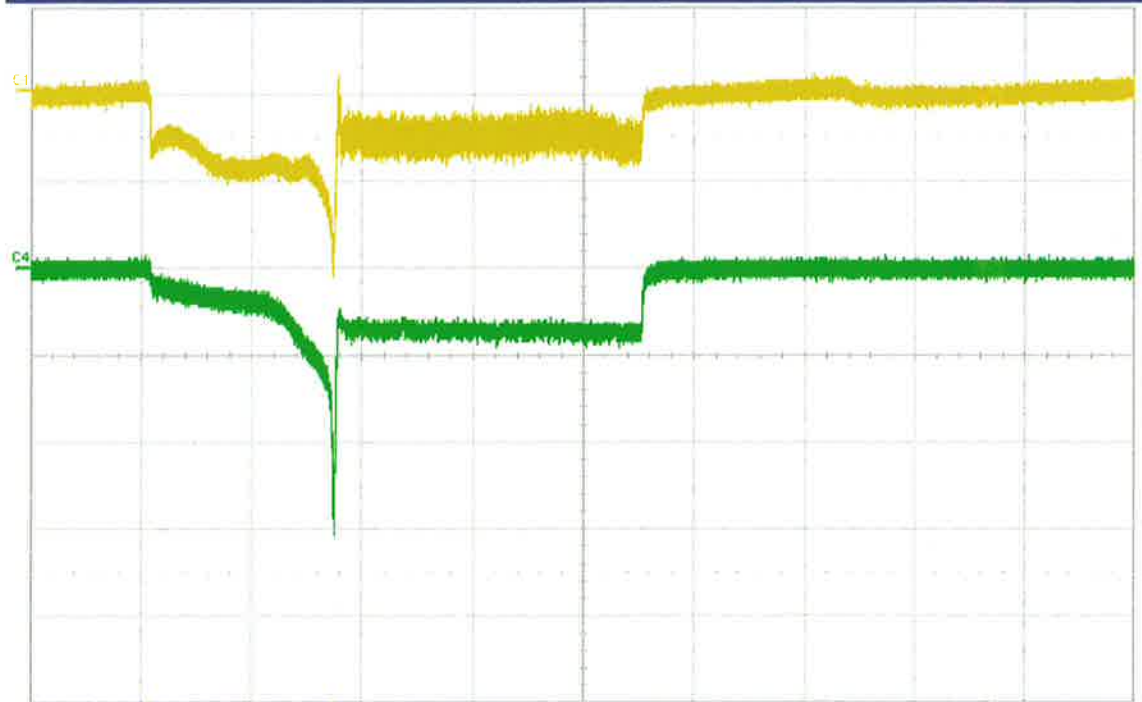
Log every scan: 872
Oct 20, 2020 03:53:27 PM
X = 18.1 Y = 1.26e-009



PFRC FEC RGA Analog Scan

Log every scan: 887
Oct 20, 2020 04:00:18 PM
X = 18.1 Y = 3.83e-009



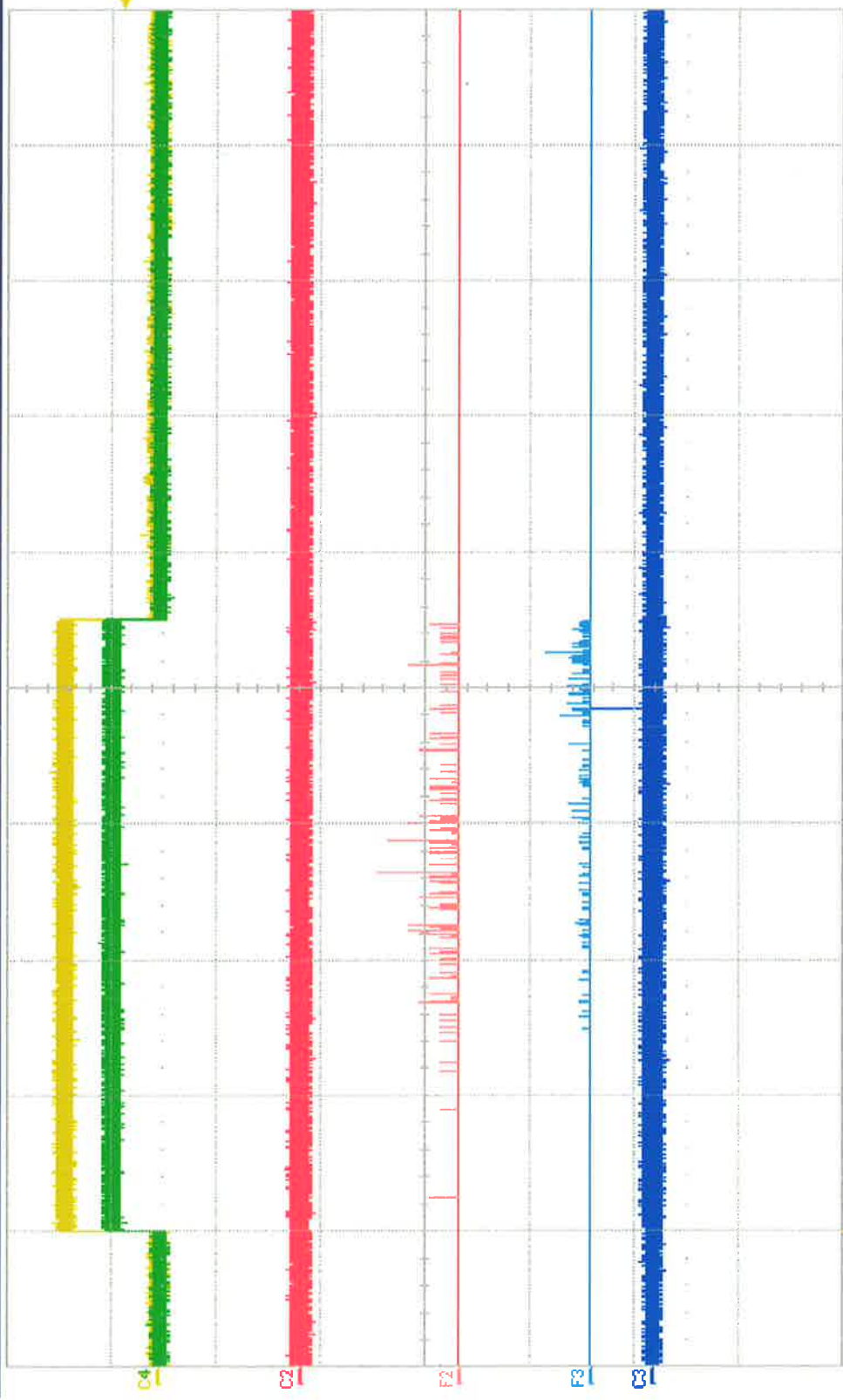


C1	0.01V	C4	0.01V
200 mV/div	100 V/div		
510.0 mV offset	100.0 V offset		

LeCroy

Timebase	-4.00 ms	Trigger	EM100
1.00 ms/div	Normal	150 mV	
250 kS	25 MS/s	Edge	Positive

10/20/2020 9:42:58 AM

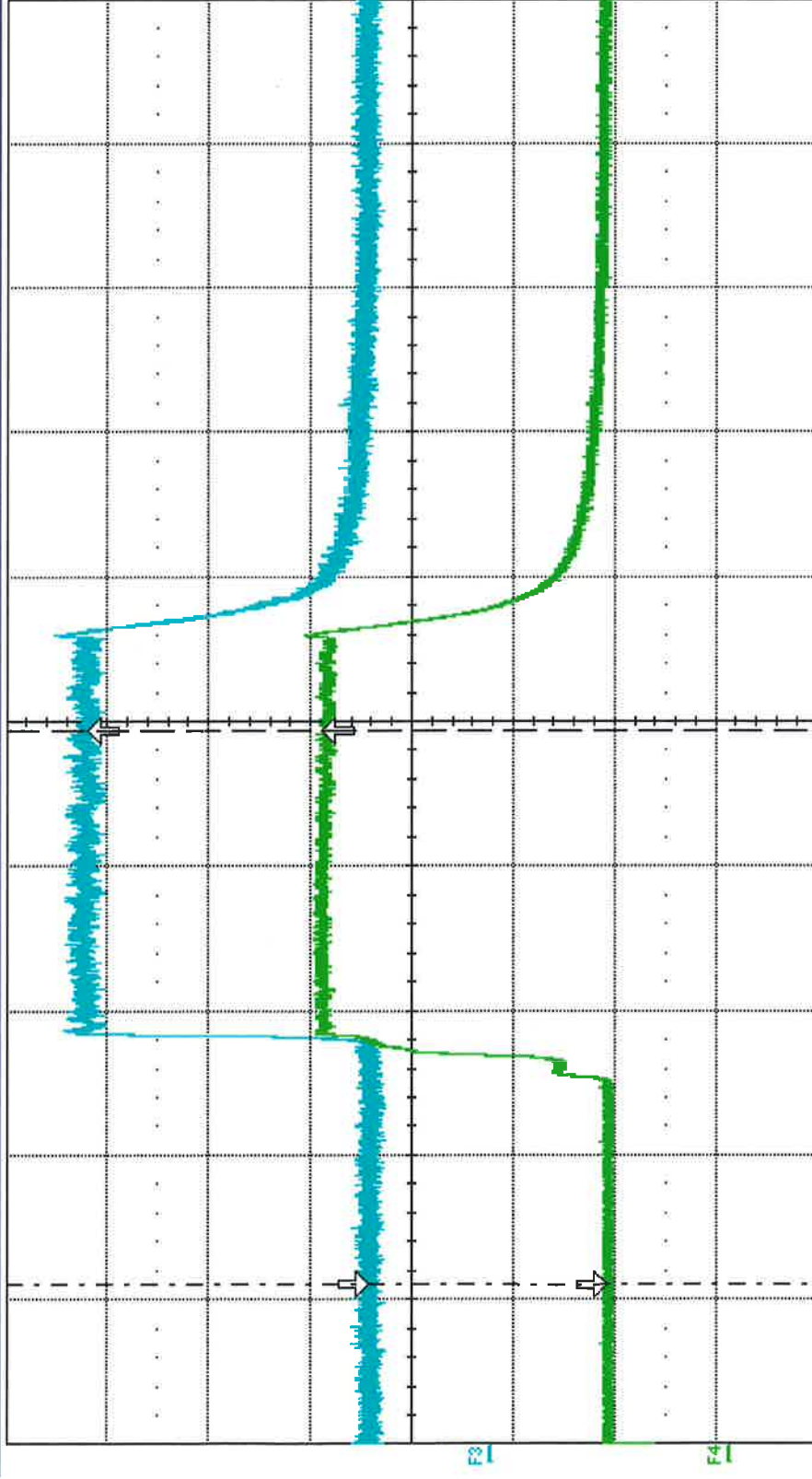


Timebase -4.00 ms
 1.00 ms/div
 500 kS
 Trigger Normal
 1.55 V
 Edge Positive

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... 10.0 # 1.0 ms 255 #
 F3 peris... 50.0 # 1.0 ms 690 #

TELEDYNE LECROY

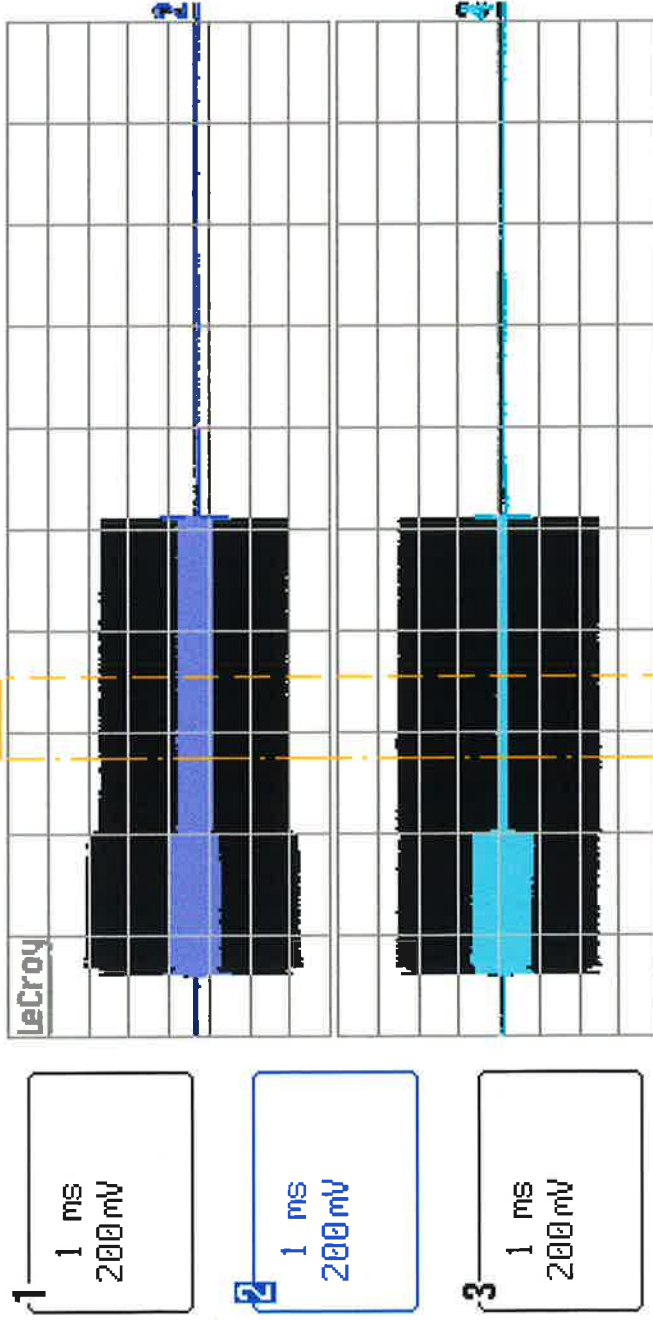
10/20/2020 9:45:57 AM



Tbase -3.96 ms Trigger Edge Normal
Waveform 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

F3 script(C3,C2) 1.00/div 1.00 ms/div
F4 1.00/div 1.00 ms/div
6 #
1.222 1.21678
3.948 3.99866
 Δ y 2.726 2.78188

20-Oct-20
9:45:03



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

21 sweeps:

rms (1)	average	low	high	sigma
rms (2)	325.4mV	322.4	327.3	1.5
rms (3)	57.4mV	56.3	58.4	0.6
rms (4)	346.5mV	343.7	348.1	1.4
phase (1,3)	17.7mV	14.9	20.7	1.7
	0.08 k°	0.03	0.13	0.04

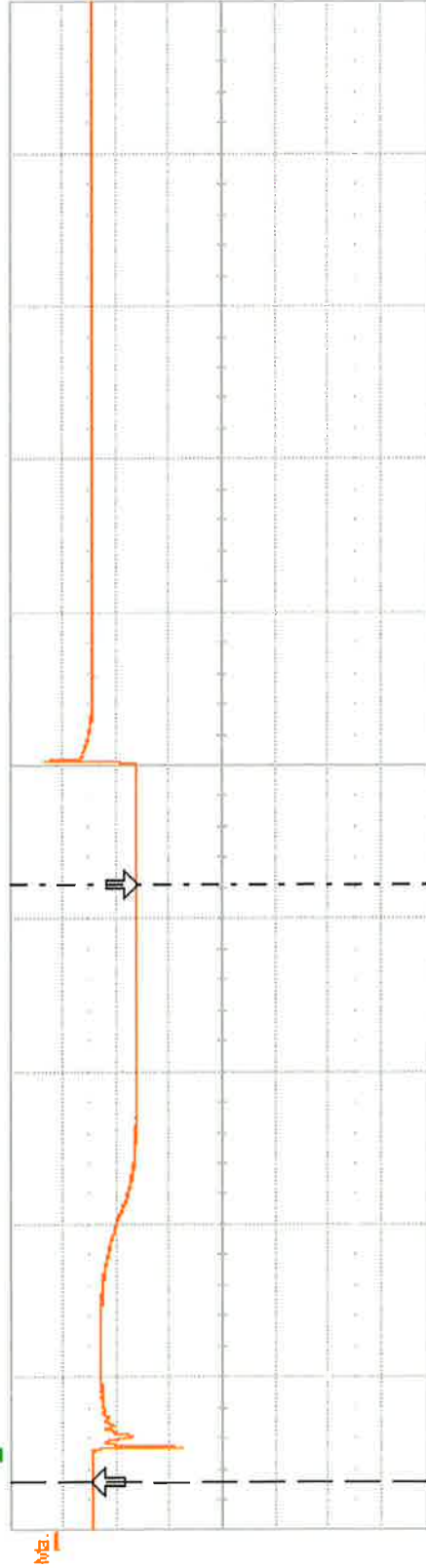
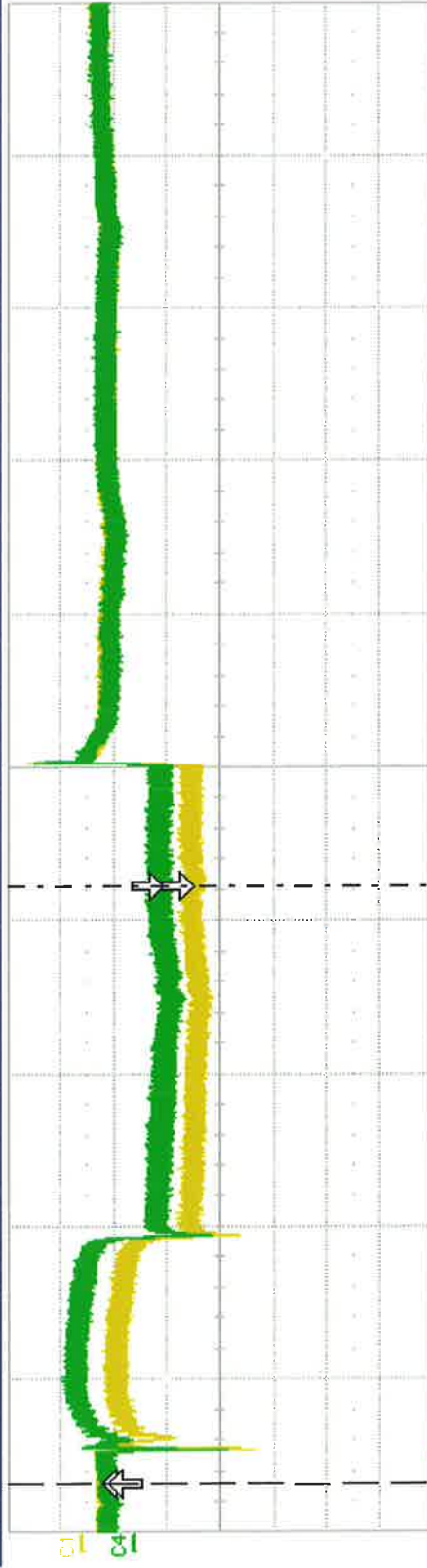
1 ms

- 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



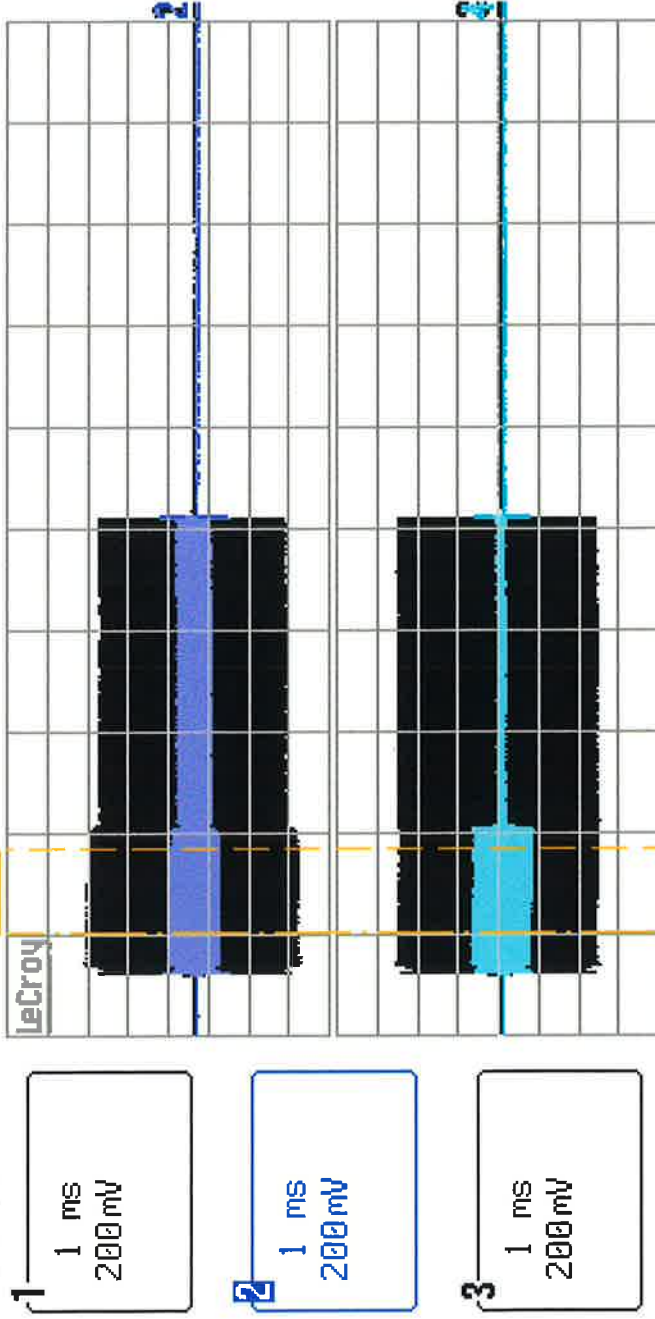
C1	DCIM	C4	DCIM	Math	<C1>
5.00 mV/div	5.00 mV/div	5.00 mV/div	3.00 mV/div	3.00 mV/div	3.00 mV/div
13.00 mV ofst	8.00 mV ofst	8.00 mV ofst	1.00 ms/div	1.00 ms/div	1.00 ms/div
↑	↑	↑	1.304 t ₂	1.304 t ₂	1.304 t ₂
Δy	Δy	Δy	Δy	Δy	Δy
-10.39 mV	-2.64 mV	-2.64 mV	-4.5596 mV	-4.5596 mV	-4.5596 mV
↑	↑	↑	-2.0637 mV	-2.0637 mV	-2.0637 mV
8.33 mV	5.00 mV	5.00 mV	2.4762 mV	2.4762 mV	2.4762 mV

Timebase	-4.50 ms	Trigger	Ext10	DC
1.00 ms/div	1.00 ms/div	Normal	700 mV	Negative
2.00 mS	200 MS/s	Edge		
X1=	3.721890 ms	ΔX=	-3.908425 ms	
X2=	-186.535 μs	1/ΔX=	-255.8575 Hz	



20-Oct-20

9:45:30



16 sweeps:

	average	low	high	sigma
rms (1)	370.9mV	369.0	372.6	1.2
rms (2)	89.8mV	89.2	90.4	0.3
rms (3)	346.4mV	345.0	347.8	0.9
rms (4)	106.2mV	105.1	107.2	0.6
phase(1,3)	0.08 k°	0.03	0.13	0.04

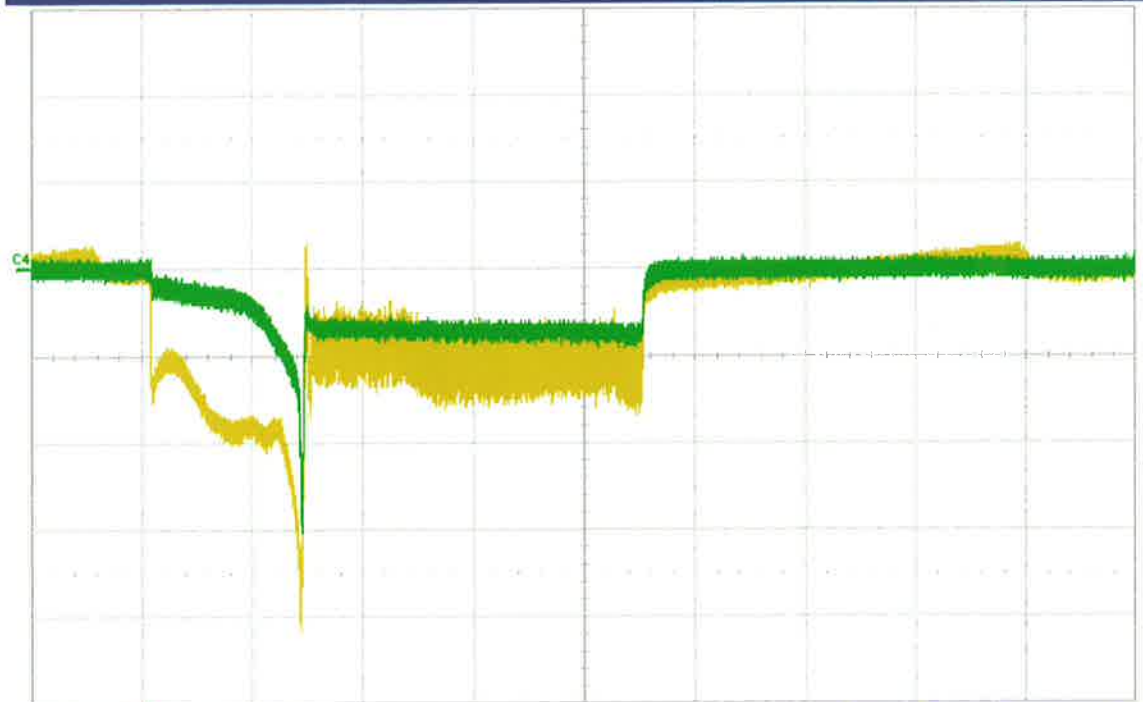
1 ms

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

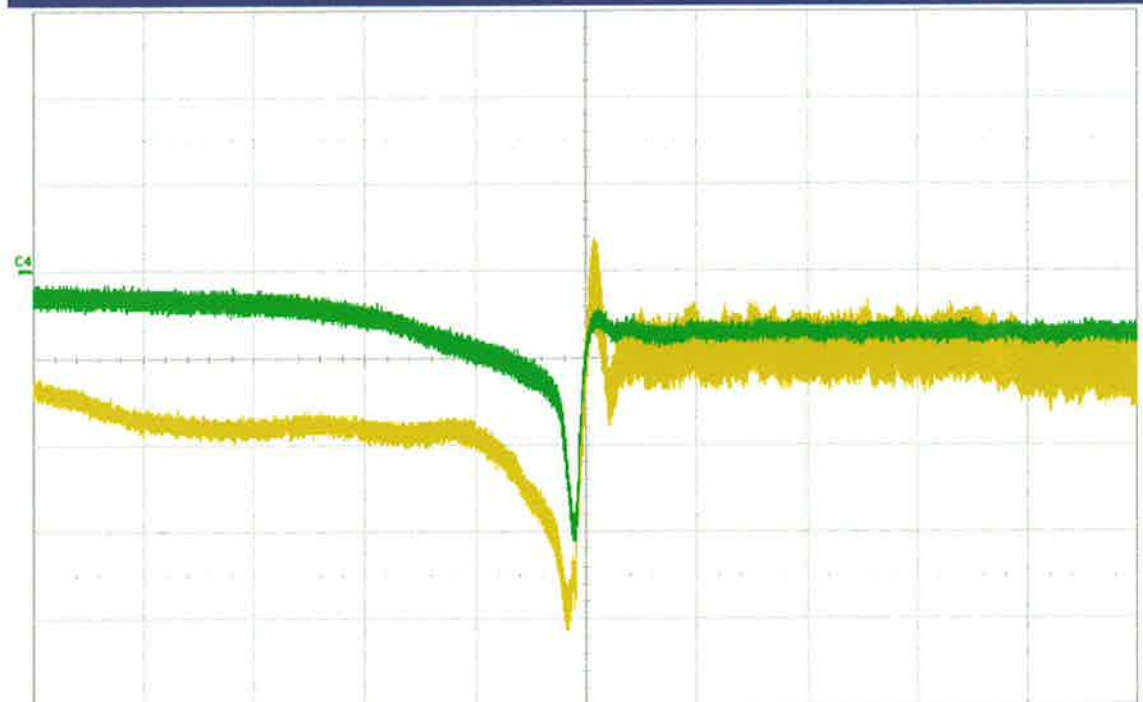


C1 100 mV/div 100.0 mV offset
C4 100 mV/div 100.0 mV offset

LeCroy

Timebase -4.00 ms 1.00 ms/div 250 kS
Trigger Edge Positive

10/20/2020 9:45:50 AM



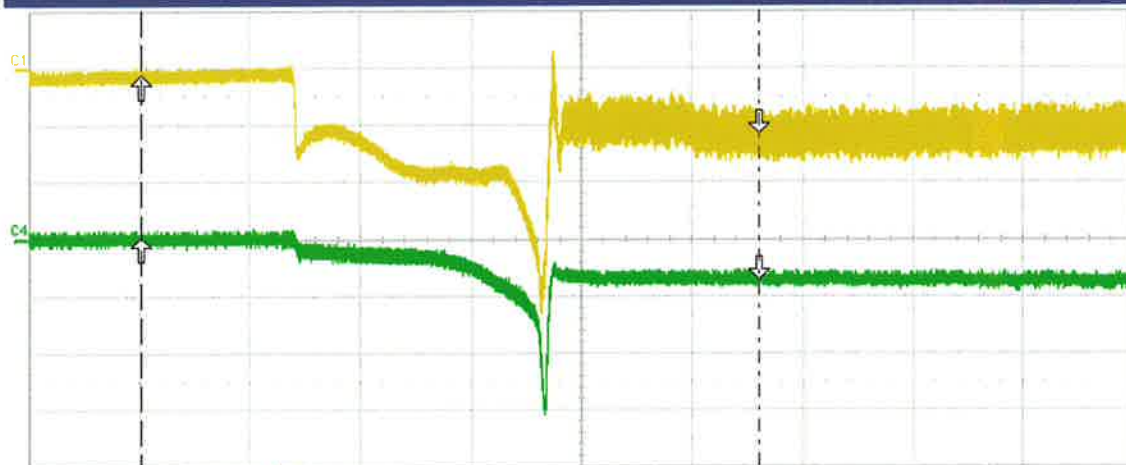
C1	100mV	C4	100mV
100mV/div	100V/div		
100.0mV offset	100.0V offset		

LeCroy

Time	-1.436 ms	Trigger	UI00
200 kS	200 us/div	Stop	150 mV
	100 MS/s	Edge	Positive

10/20/2020 8:46:07 AM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure	P1:amp(C1)	P2:amp(C1)	P3:---	P4:---	P5:---	P6:---
value	459 mV	459 mV				
mean	397.99 mV	397.99 mV				
min	89 mV	89 mV				
max	472 mV	472 mV				
sdev	128.94 mV	128.94 mV				
num	19	19				
status	.fl	.fl				

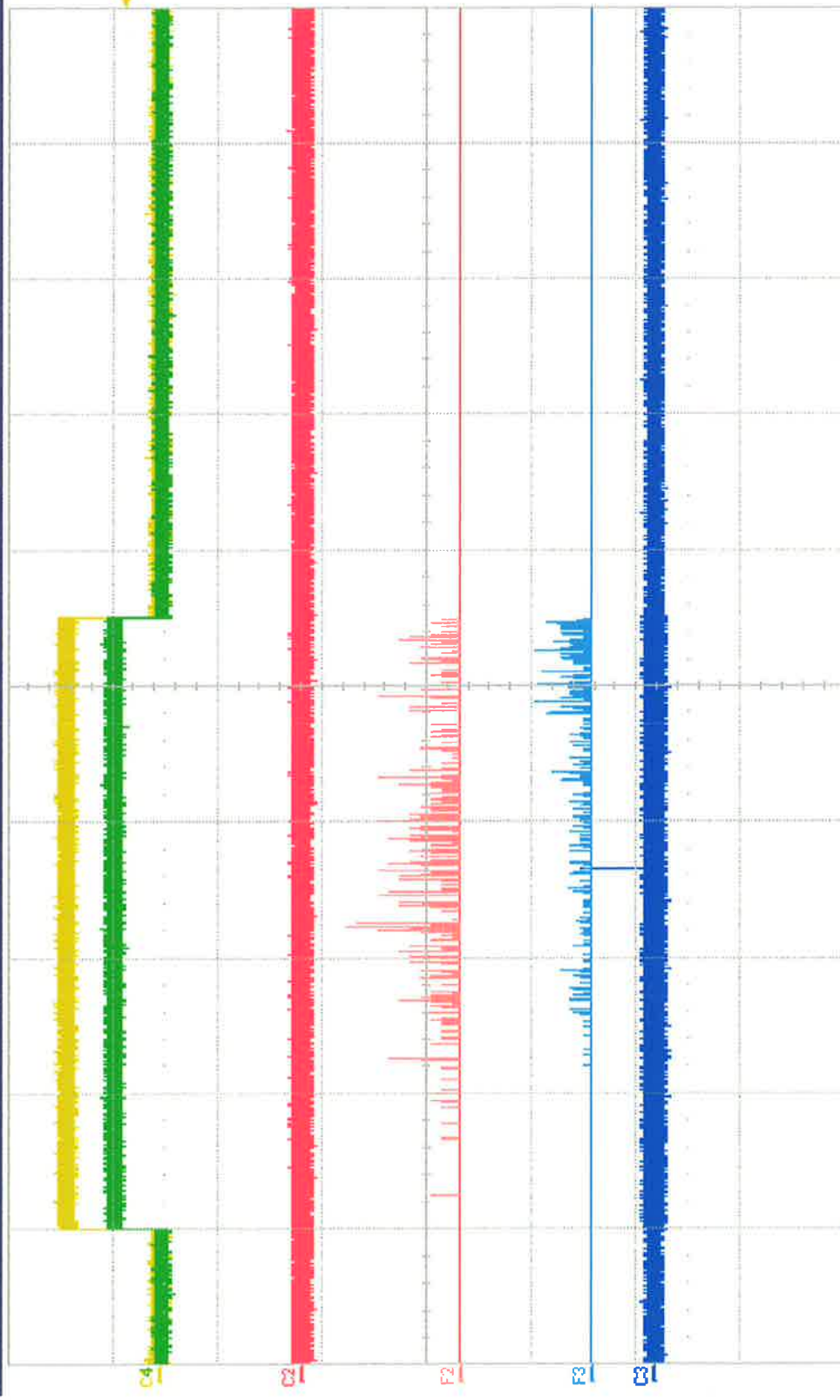
C1	(auto)	C4	(manual)
100 mV/div		100 V/div	
296.0 mV offset		0.0 V offset	
-109.5 mV		-68.7 V	
-11.1 mV		1.4 V	
dy = 98.4 mV		dy = 70.1 V	

LeCroy

Timebase	-1.38 ms	Trigger	2.000
250 kS	500 μ s/div	Normal	150 mV
	50 MS/s	Edge	Positive

X1= 2.16204 ms Δ X= -2.79602 ms
X2= -613.98 μ s 1/ Δ X= -357.651 Hz

10/20/2020 9:49:43 AM



Tbase -4.00 ms
1.00 ms/div
500 kS

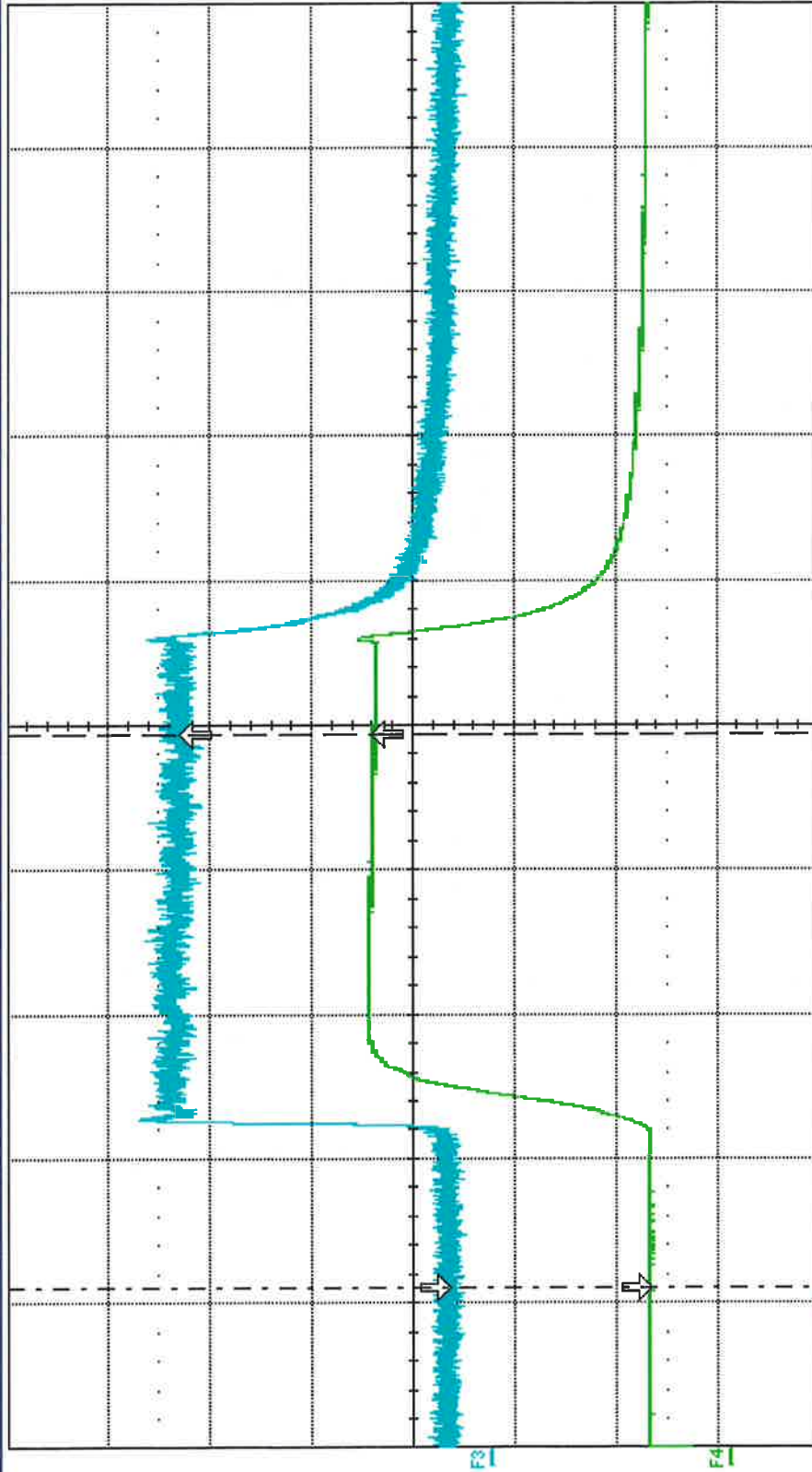
Trigger 0100
Normal 1.85 V
Edge Positive

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

F2 peris... 10.0 # 1.0 ms 598 #
F3 peris... 50.0 # 1.0 ms 1.66 k#

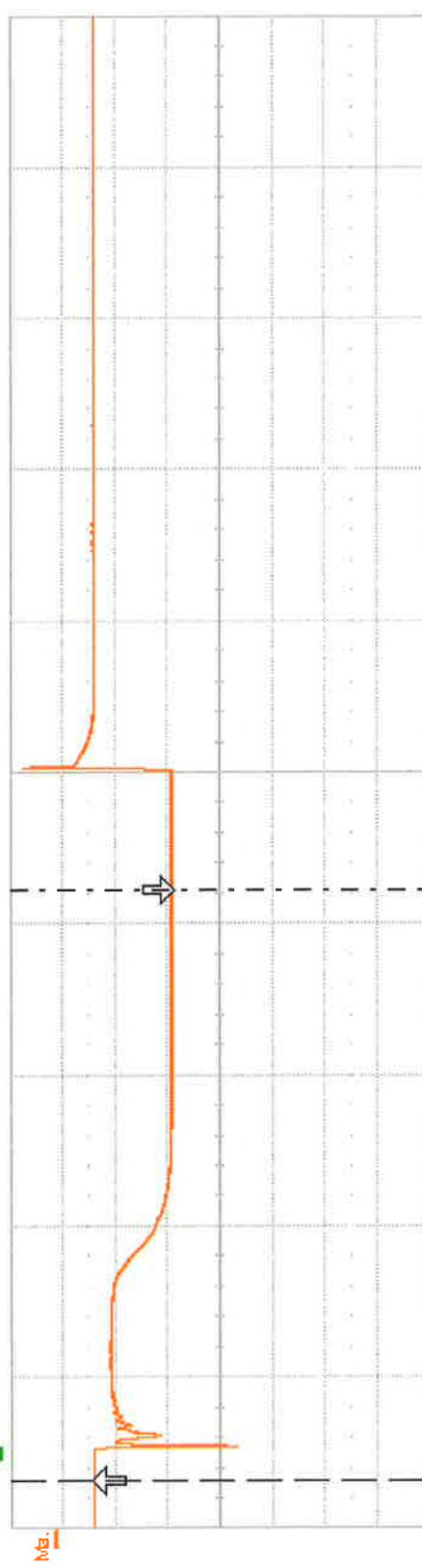
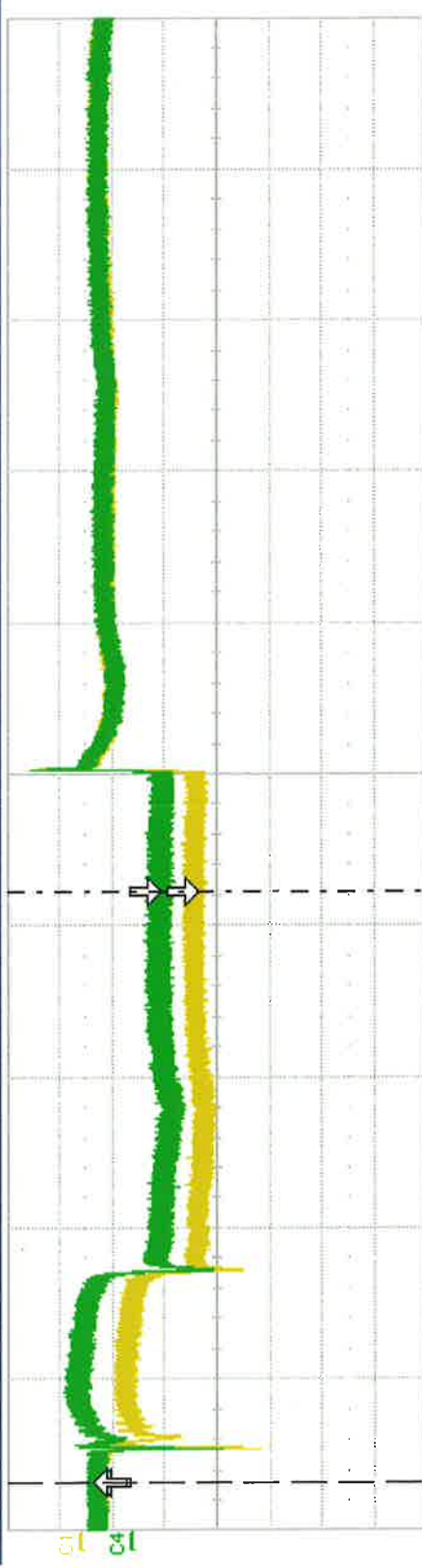
TELEDYNE LECROY

10/20/2020 9:51:28 AM



F3 script(C3,C2) F4
 1.00/div 1.00/div
 1.00 ms/div 1.00 ms/div
 417e-3 437 #
 798.93e-3
 3.066
 3.52505
 Δy 2.648 Δy

Tbase -3.96 ms TriggerExt10 DO
 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	DCIM	C4	DCIM	Math	<C1>
5.00 mV/div	5.00 mV/div	5.00 mV/div	3.00 mV/div		
13.00 mV ofst	8.00 mV ofst	8.00 mV ofst	1.00 mV/div		
			1.731 k#		
↑ -11.08 mV	↑ -2.53 mV	↑ -6.6435 mV			
↑ -1.82 mV	↑ 3.63 mV	↑ -2.1866 mV			
Δy 9.26 mV	Δy 6.16 mV	Δy 4.4768 mV			

Timebase	-4.50 ms	Trigger	Edge	Normal	700 mV	DC
2.00 MS	200 MS/s	Edge	Negative			
X1=	3.721890 ms	ΔX=	-3.908425 ms			
X2=	-186.535 μs	1/ΔX=	-255.8575 Hz			

20-Oct-20
9:52:21



1
1 ms
200 mV

2
1 ms
200 mV

3
1 ms
200 mV

4
1 ms
200 mV

1 ms

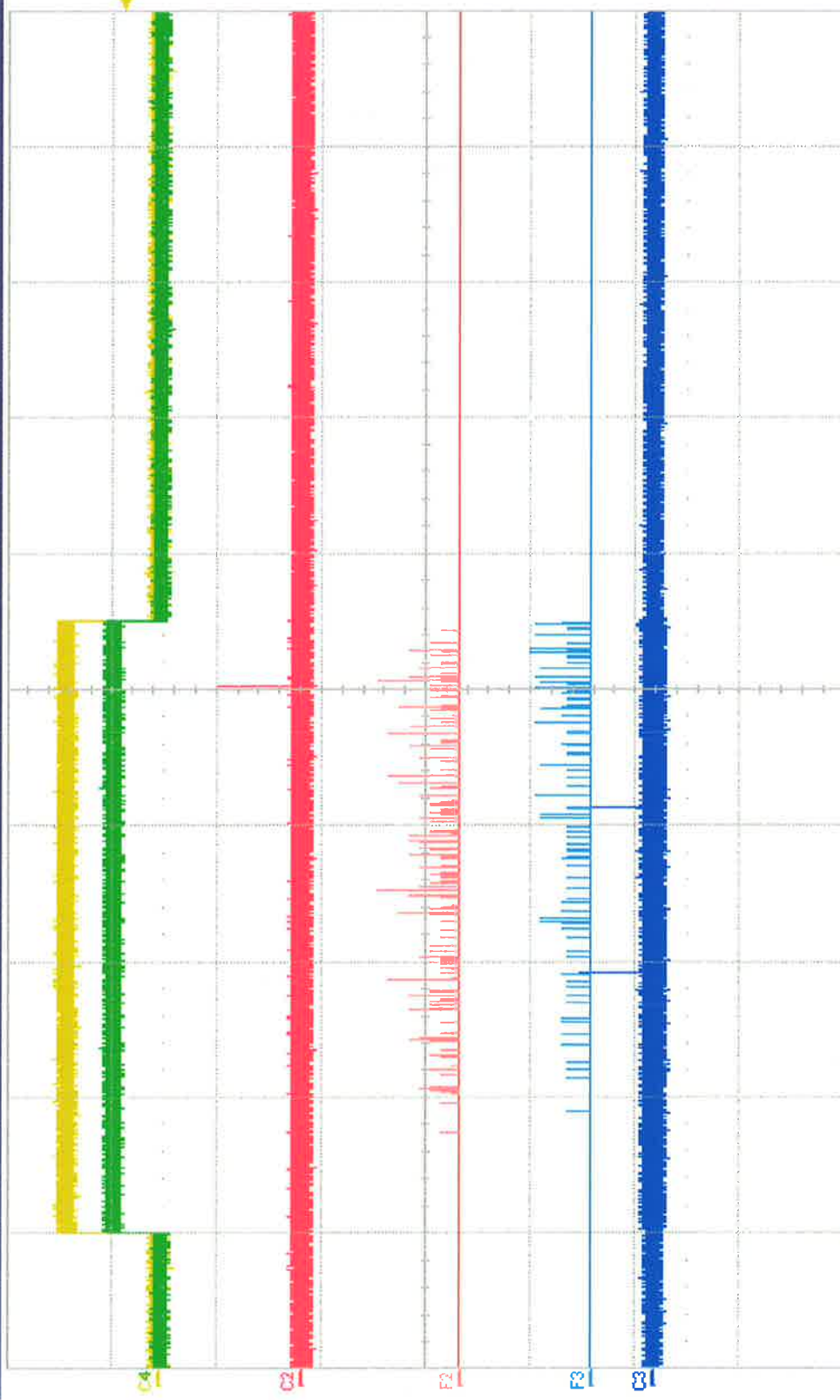
1 .2 V AC
2 .2 V AC
3 .2 V AC
4 .2 V AC

345 sweeps:			
rms(1)	average	low	high
rms(2)	329.4 mV	325.9	332.8
rms(3)	56.9 mV	55.5	58.2
rms(4)	347.7 mV	345.1	350.2
phase(1,3)	17.5 mV	14.3	20.8
	79 °	28	134
			sigma
			1.5
			0.5
			1.3
			1.6
			36

10 MS/s

Ext10 DC 0.15 V 50Ω

☐ NORMAL

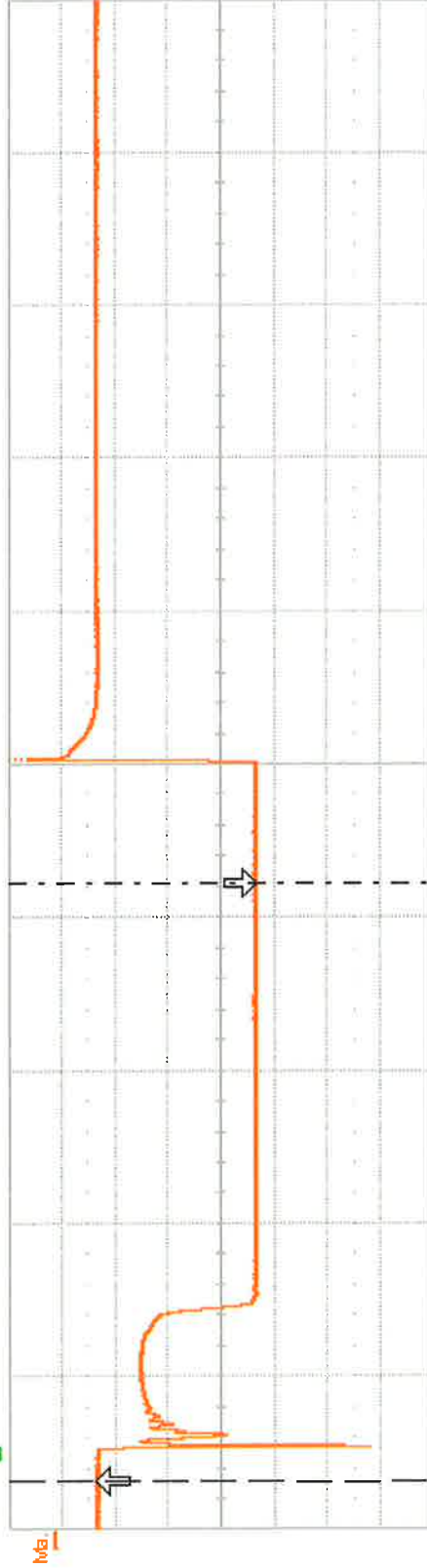
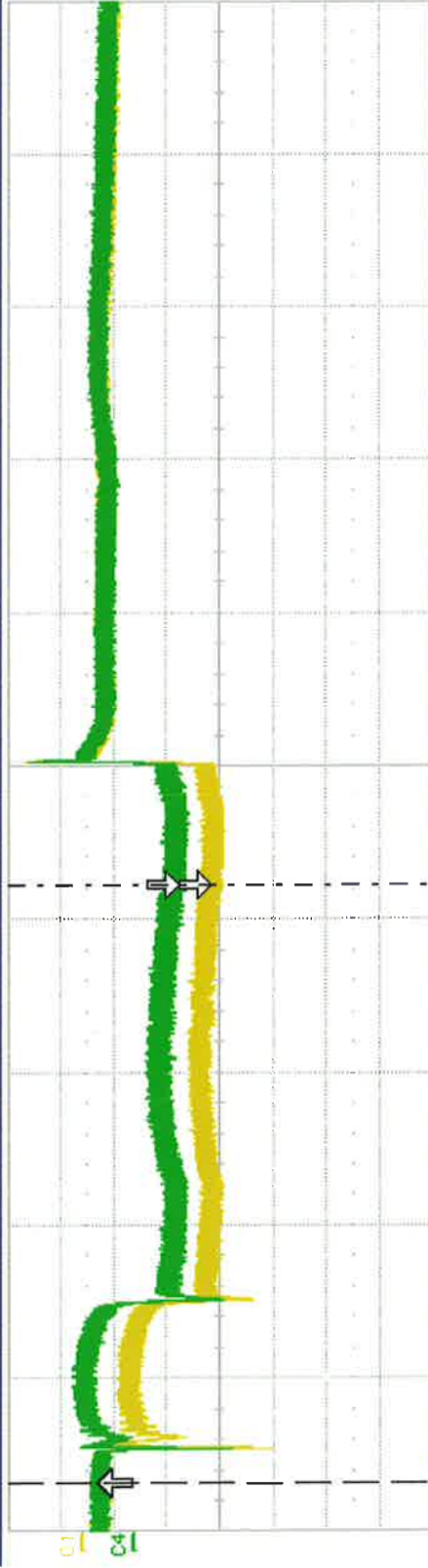


Tbase -4.00 ms
1.00 ms/div
500 kS
Trigger Normal
Edge
Positive

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... 10.0 # 1.0 ms 380 #
F3 peris... 20.0 # 1.0 ms 510 #

TELEDYNE LECROY

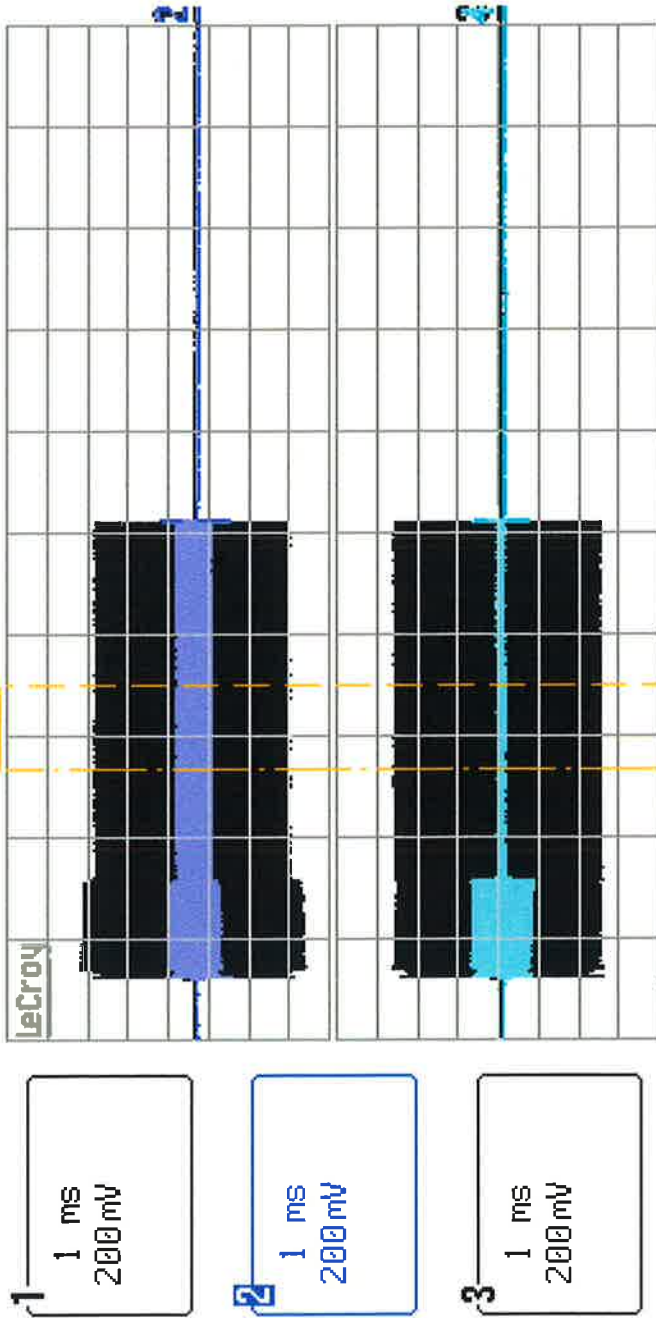
10/20/2020 9:55:32 AM



C1	C4	Math
5.00 mV/div	5.00 mV/div	3.00 mV/div
13.00 mV ofst	8.00 mV ofst	1.00 ms/div
↓	↓	↓
-12.06 mV	-4.02 mV	145 #
↑	↑	↑
-1.51 mV	3.23 mV	-11.3638 mV
Δy	Δy	Δy
10.57 mV	7.26 mV	8.9886 mV

Timebase	-4.50 ms	Trigger	Ext10 DC
1.00 ms/div	Normal	700 mV	Negative
2.00 MS	200 MS/s	Edge	
X1=	3.721890 ms	ΔX=	-3.908425 ms
X2=	-186.535 μs	1/ΔX=	-255.8575 Hz

20-Oct-20
9:55:07



146 sweeps:

	average	low	high	sigma
rms(1)	340.1 mV	337.7	351.0	2.1
rms(2)	59.1 mV	57.9	61.9	0.6
rms(3)	357.3 mV	355.0	367.6	2.0
rms(4)	17.9 mV	14.7	21.2	1.7
phase(1,3)	0.08 k°	0.03	0.13	0.04

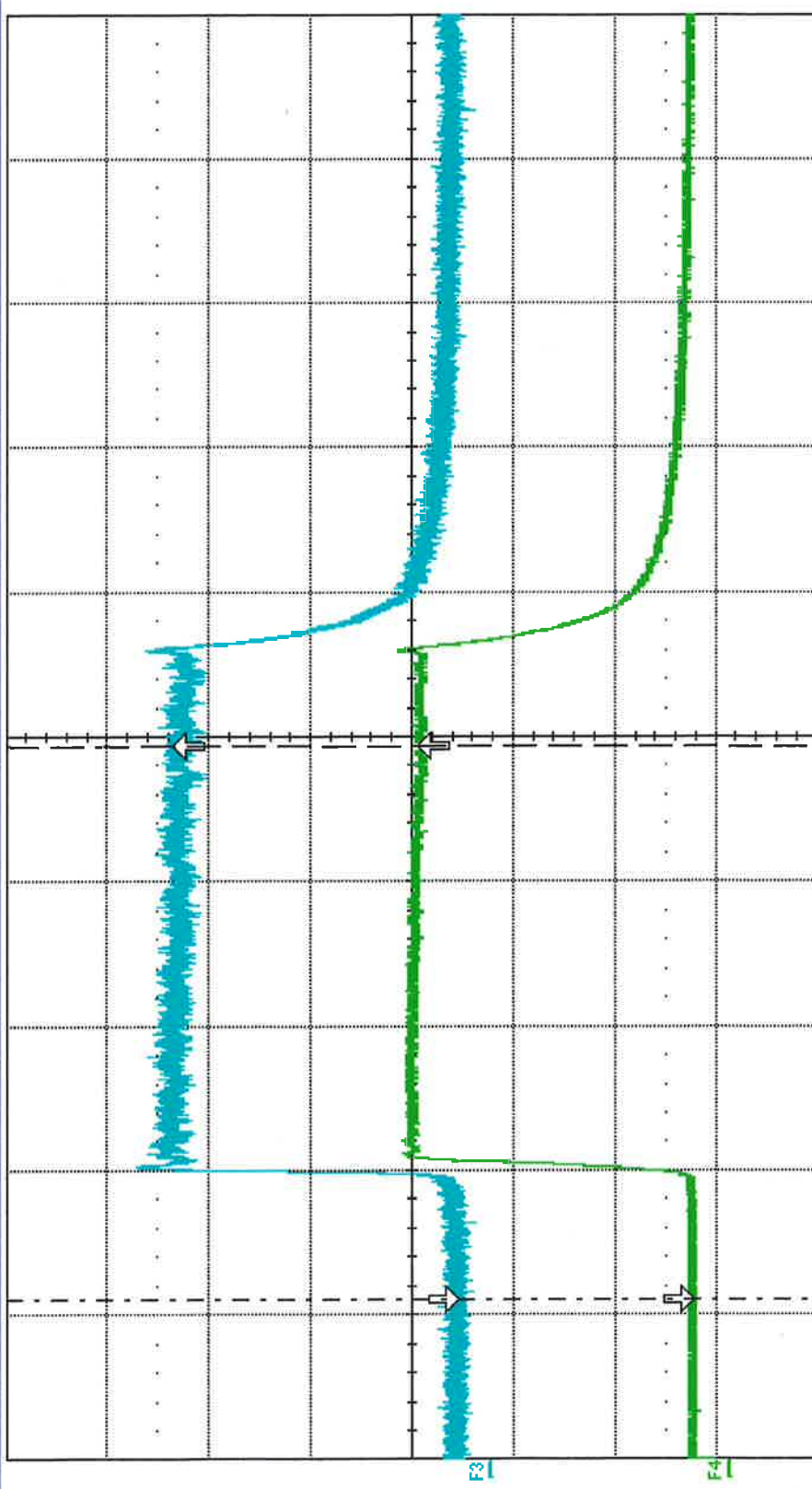
1 ms

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

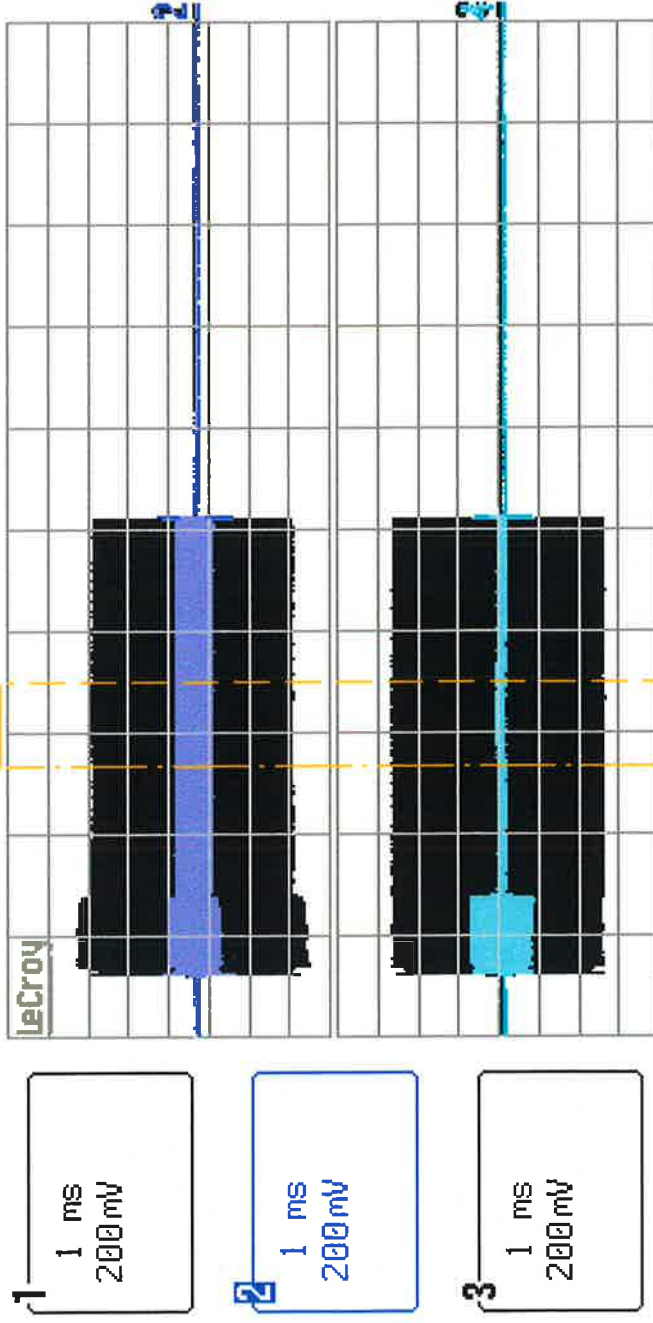
☐ NORMAL



Tbase -3.96 ms
WStream 1.00 ms
 50.0 kS 5.0 MS/s
Trigger **Ext**10 **DC**
 Normal 30 mV
 Edge Negative
 X1= 63.6 μ s Δ X= 3.8298 ms
 X2= 3.8934 ms 1 Δ X= 261.11 Hz

F3 script(C3,C2) **F4** **<F3>**
 1.00/div 1.00/div
 1.00 ms/div 1.00 ms/div
 13 #
 363.83e-3
 3.118 3.06581
 2.792 2.70198
 Δ y

20-Oct-20
9:56:53



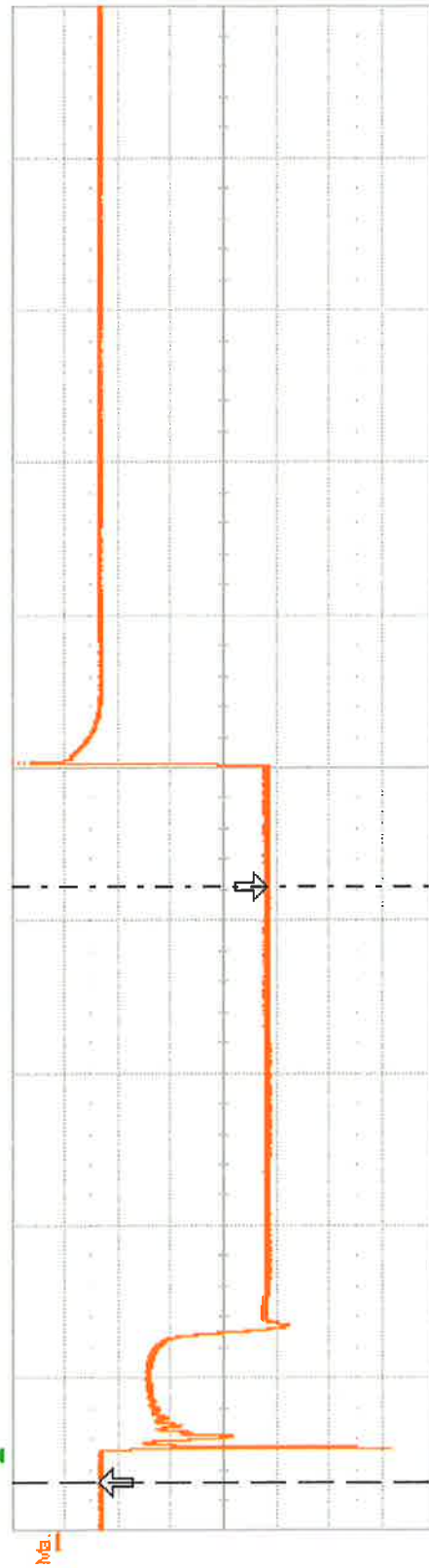
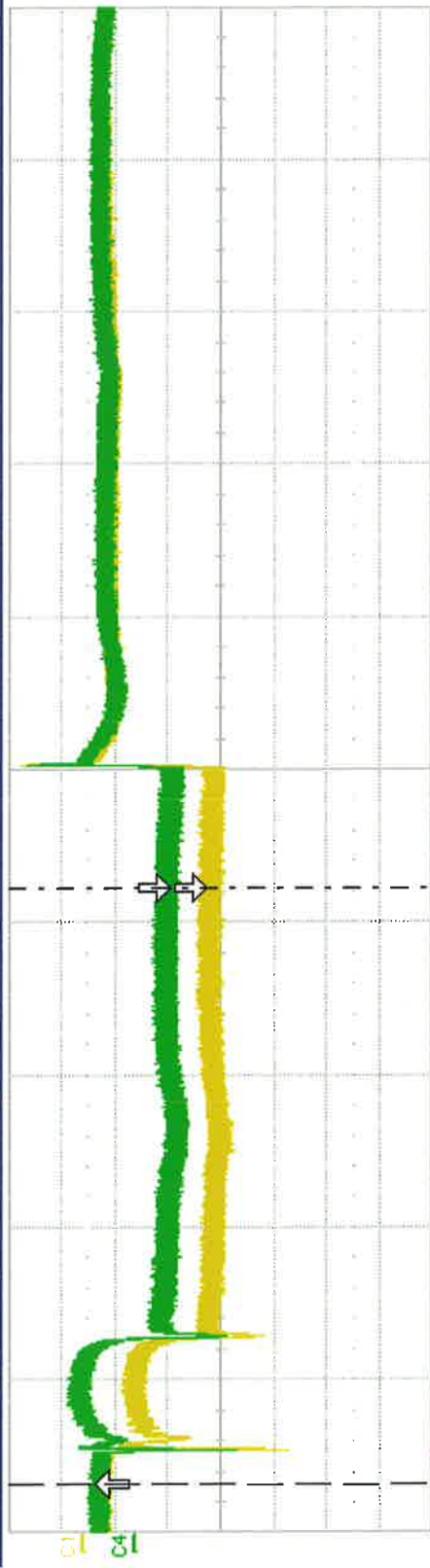
1 ms		86 sweeps:			
1	200 mV	rms(1)	average	low	high
2	200 mV	rms(2)	349.6 mV	347.1	351.8
3	200 mV	rms(3)	61.1 mV	59.9	62.3
4	200 mV	rms(4)	366.2 mV	363.7	368.2
		phase(1,3)	18.2 mV	15.2	21.6
			0.08 k°	0.03	0.13
					sigma
					1.2
					0.5
					1.2
					1.6
					0.04

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

10 MS/s

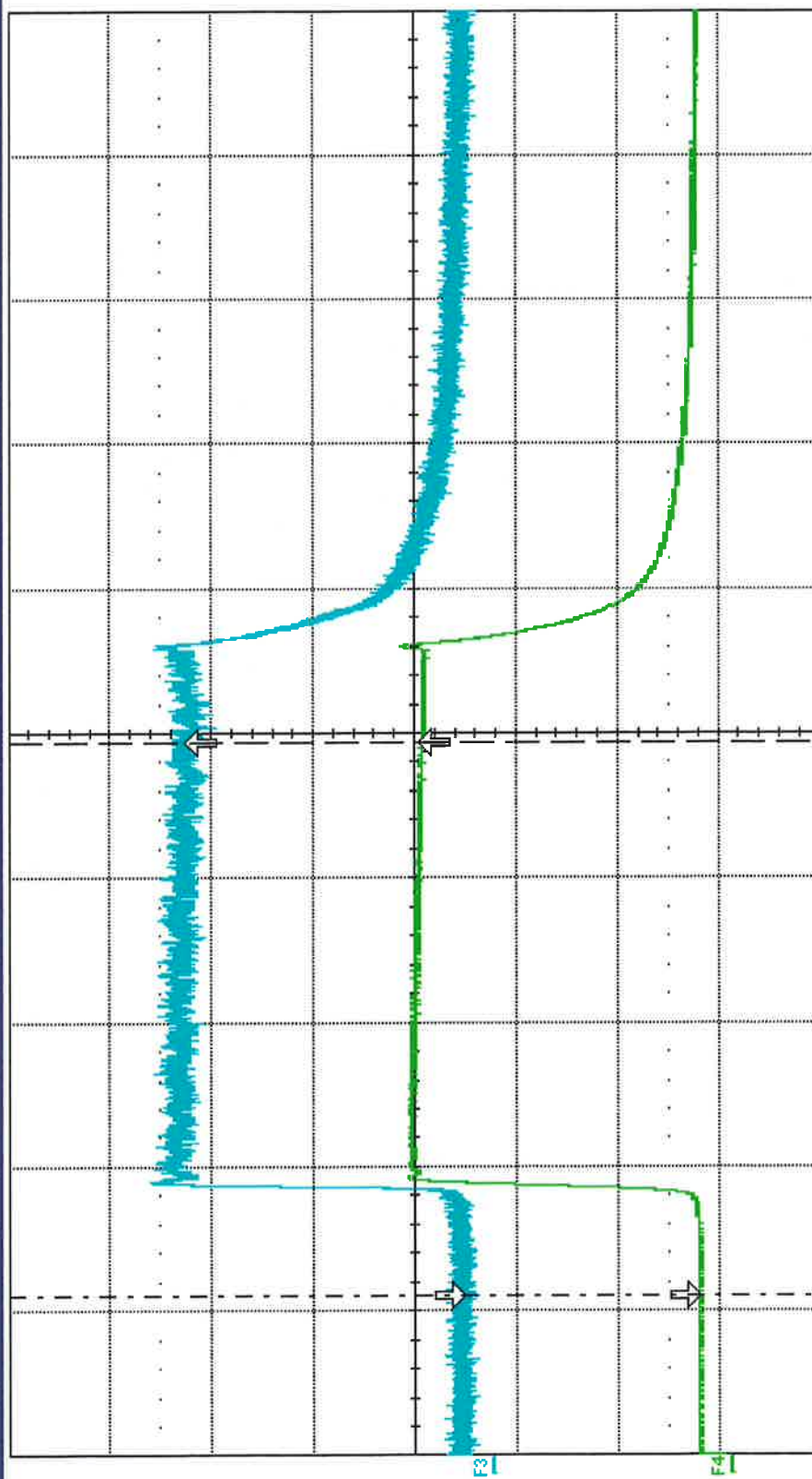
Ext10 DC 0.15 V 50Ω

☐ NORMAL



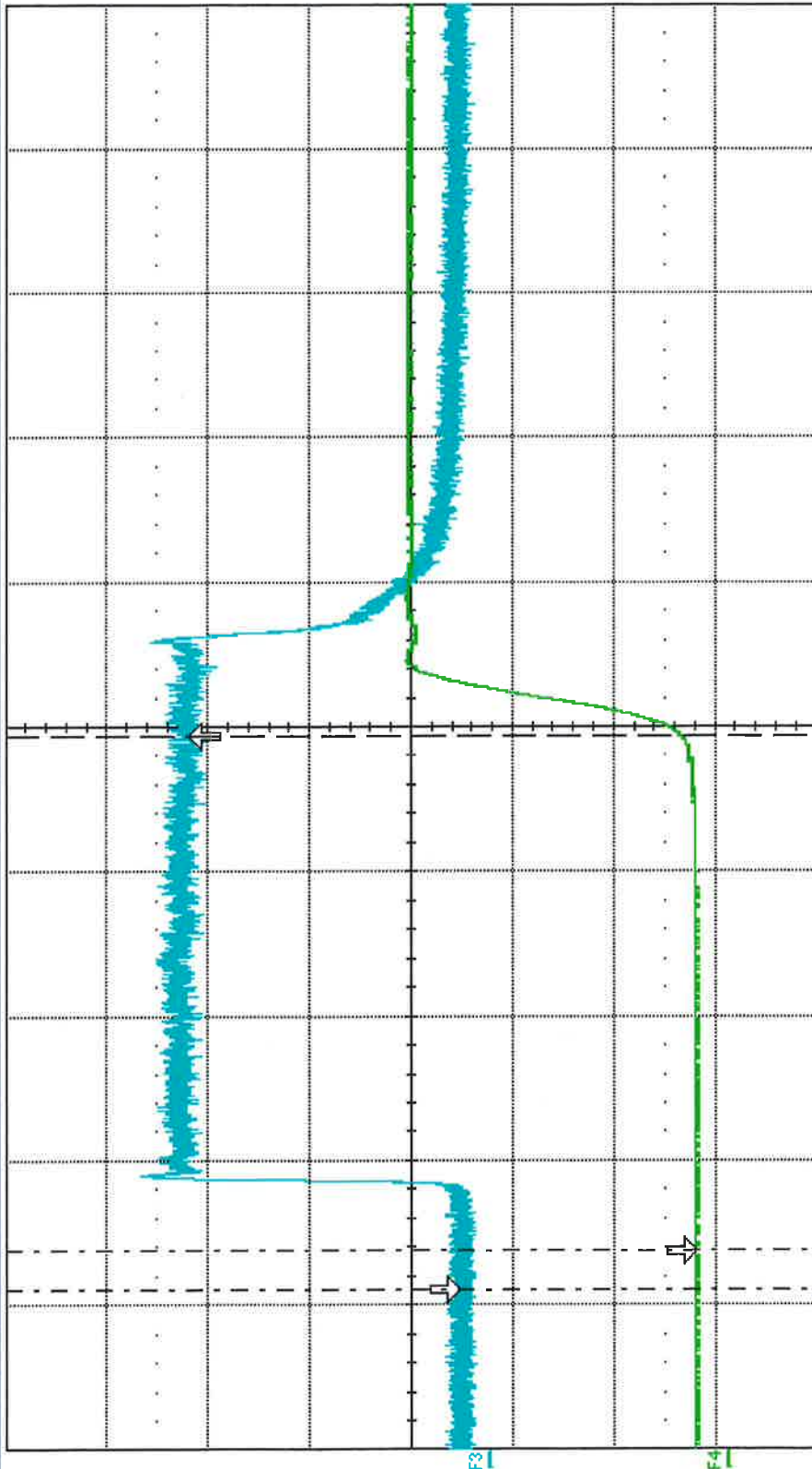
C1	DC1M3	C4	DC1M1	Math	<C1>
5.00 mV/div	5.00 mV/div	5.00 mV/div	3.00 mV/div		
13.00 mV ofst	8.00 mV ofst	8.00 mV ofst	1.00 mV/div		
1	1	1	83 #		
-11.53 mV	-3.05 mV	-11.7927 mV			
-1.44 mV	3.62 mV	-2.4114 mV			
Δy 10.10 mV	Δy 6.67 mV	Δy 9.3813 mV			

Timebase	-4.50 ms	Trigger	Ex10 DC
1.00 ms/div	Normal	Edge	700 mV
2.00 mS	200 mS/s		Negative
X1=	3.721890 ms	ΔX=	-3.908425 ms
X2=	-186.535 μs	1/ΔX=	-255.8575 Hz



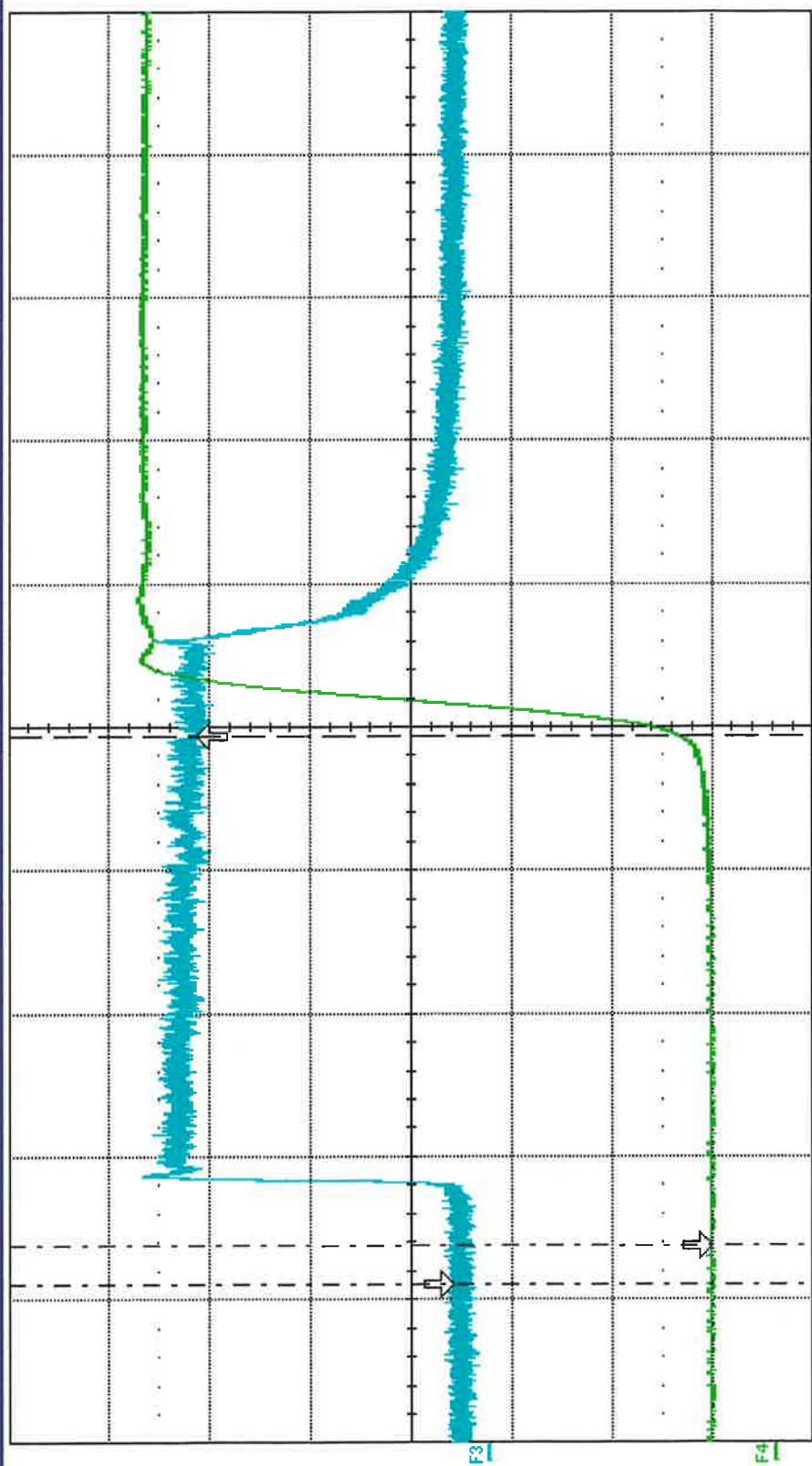
Tbase -3.96 ms
 WStream 1.00 ms
 50.0 kS 5.0 MS/s
 Trigger[Ext/IO] DC
 Normal 30 mV
 Edge Negative
 X1= 63.6 μ s Δ X= 3.8298 ms
 X2= 3.8934 ms 1/ Δ X= 261.11 Hz

F3 script(C3,C2) 1.00/div 1.00 ms/div 89 #
 F4 <F3> 1.00/div 1.00 ms/div 89 #
 325.89e-3
 3.029
 3.06926
 2.732 Δ y
 2.74337



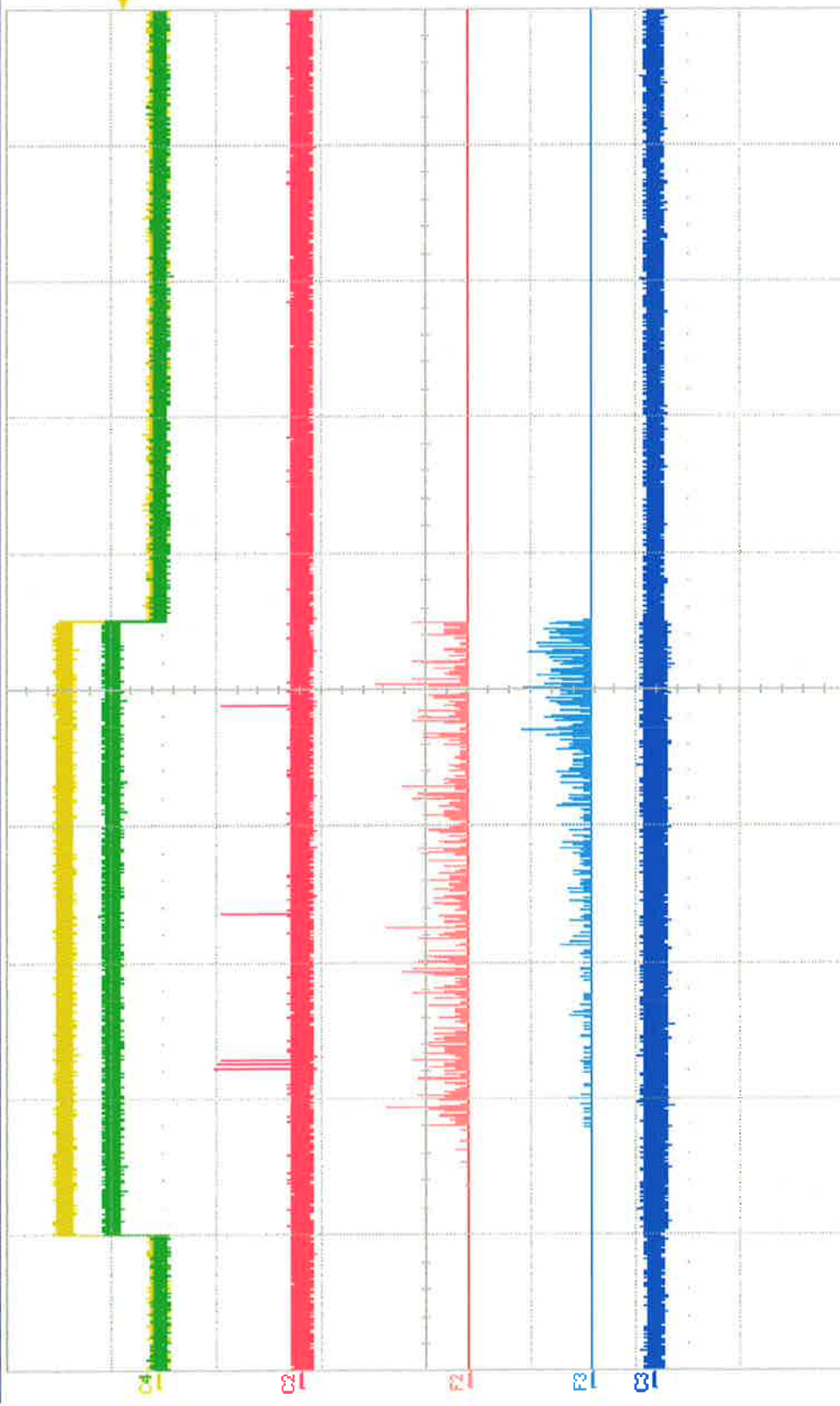
Tbase -3.96 ms Trigger **Edge** **Normal** **30 mV**
 wStream 1.00 ms Edge Negative
 50.0 kS 5.0 MS/s
 X1= 63.6 μ s Δ X= 3.8298 ms
 X2= 3.8934 ms 1/ Δ X= 261.11 Hz

F3 script(C3,C2) F4
 1.00/div 1.00/div
 200 μ s/div 324.74e-3
 106 #
 311e-3
 2.947
 2.638
 Δ y



Tbase -3.96 ms
WStream 1.00 ms
50.0 kS 5.0 MS/s
TriggerExt 10 DC
Normal 30 mV
Edge Negative
X1= 63.6 μ s **Δ X=** 3.8298 ms
X2= 3.8934 ms **$1/\Delta$ X=** 261.11 Hz

F3 scrip(C3,C2)
 1.00/div
 1.00 ms/div
F4 <F3>
 500e-3/div
 200 μ s/div
 120 #
 374e-3
 2.886
 321.30e-3
 2.512
 Δ y



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

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

F2 peris...
20.0 #
1.0 ms
1.35 k#

C4 D1
10.0 V
25.30 V

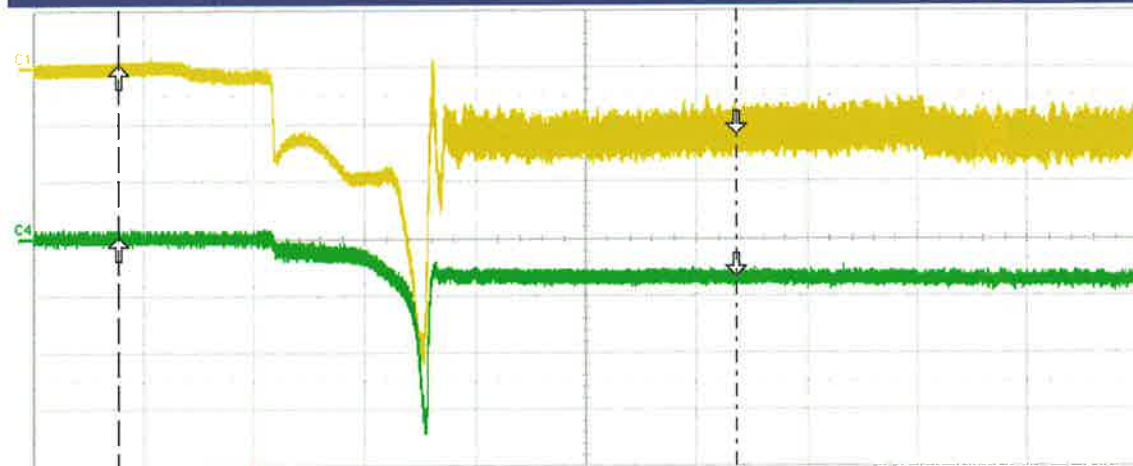
C3 D1
5.00 V
-11.0 V

C2 D1
5.00 V
5.95 V

C1 D1
5.00 V
12.70 V

TELEDYNE LECROY

10/20/2020 10:00:42 AM



Measure	P1:amp(C1)	P2:amp(C4)	P3:---	P4:---	P5:---	P6:---
value	534 mV	356 V				
mean	495.65 mV	345.65 V				
min	466 mV	328 V				
max	538 mV	363 V				
sdev	13.54 mV	6.54 V				
num	257	257				
status	.fl	.fl				

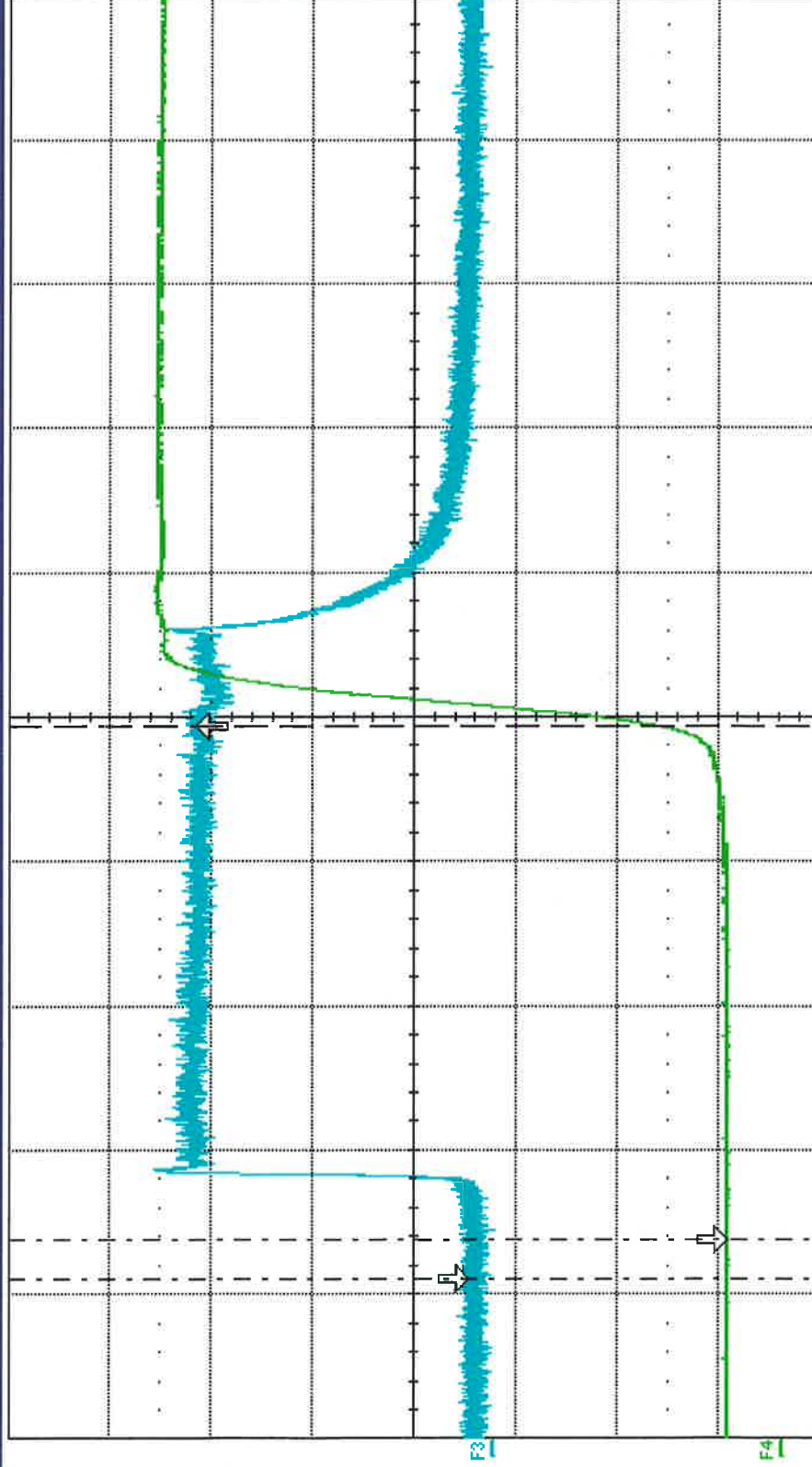
C1	C4
100 mV/div	100 V/div
296.0 mV offset	0.0 V offset
-110.5 mV	-52.5 V
6.7 mV	700 mV
Δv 117.3 mV	Δv 612 V

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

X1= 2.16204 ms ΔX= -2.79602 ms
X2= -613.98 μs 1/ΔX= -357.651 Hz

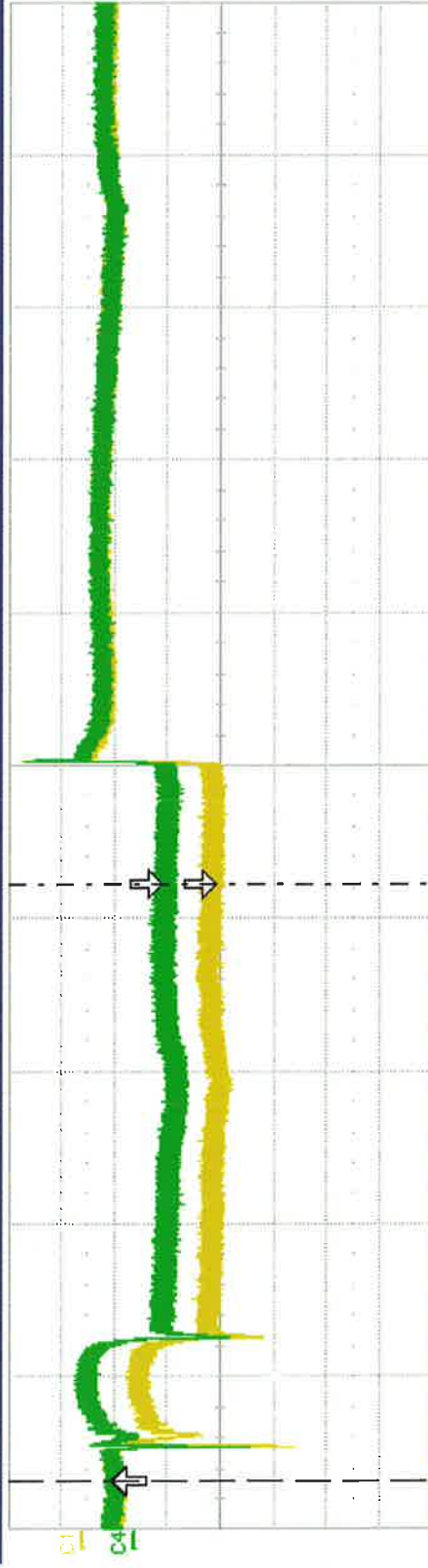
LeCroy

10/20/2020 9:59:18 AM



F3 script(C3,C2)	F4 <F3>
1.00/div	500e-3/div
1.00 ms/div	200 μ s/div
	246 #
	274.74e-3
↓	↑
267e-3	2.909
Δy	2.643

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



C1	C4	Math
DCIM	DCIM	<C1>
5.00 mV/div	5.00 mV/div	3.00 mV/div
13.00 mV ofst	8.00 mV ofst	1.00 ms/div
↓	↓	359 #
↑	↑	↓
Δy	Δy	Δy
-12.46 mV	-2.28 mV	-11.9229 mV
-2.93 mV	1.90 mV	-2.4332 mV
9.53 mV	4.18 mV	9.4896 mV

Timebase	-4.50 ms	Trigger	Edge	700 mV	Negative
1.00 ms/div		Normal			
2.00 MS		Edge			
X1=	3.721890 ms	ΔX=	-3.908425 ms		
X2=	-186.535 μs	1/ΔX=	-255.8575 Hz		