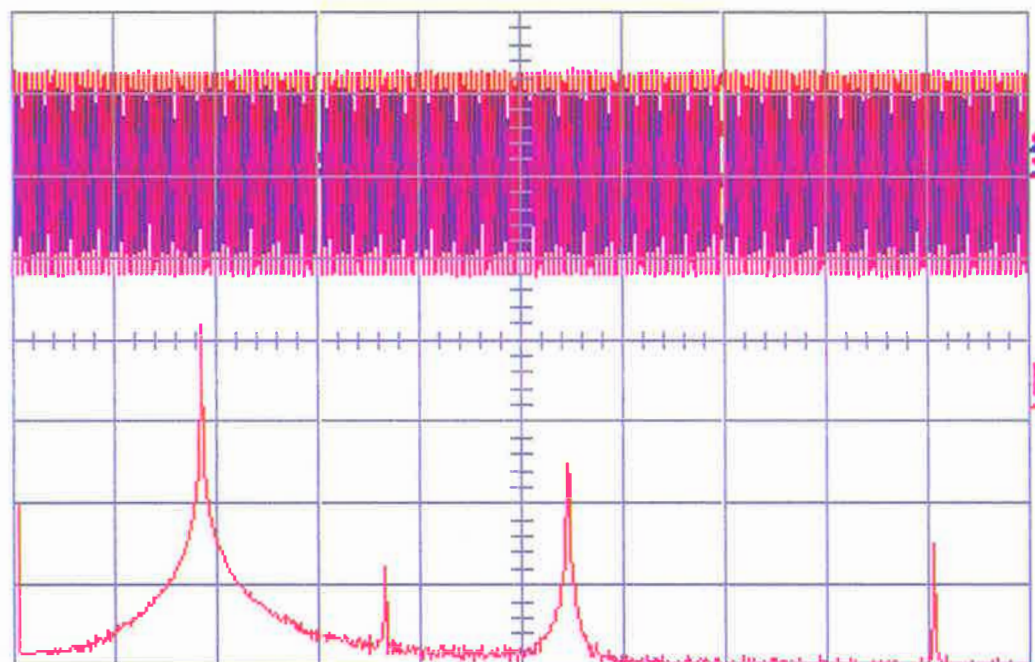


3-Jan-23
14:43:42

3
10 μ s
2.00 V

4
10 μ s
2.00 V

3: Average(A)
1 MHz
=15.0 dBm==



← 1.900 ms

	5 sweeps:	average	low	high	sigma
phase(4,3)		103.73 °	98.92	108.44	1.68
pkpk(3)		5.13 V	5.06	5.19	0.04
rms(2)		42.5mV	41.7	43.0	0.5
rms(4)		1.282 V	1.278	1.285	0.003
rms(3)		1.588 V	1.583	1.593	0.004

10 μ s

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

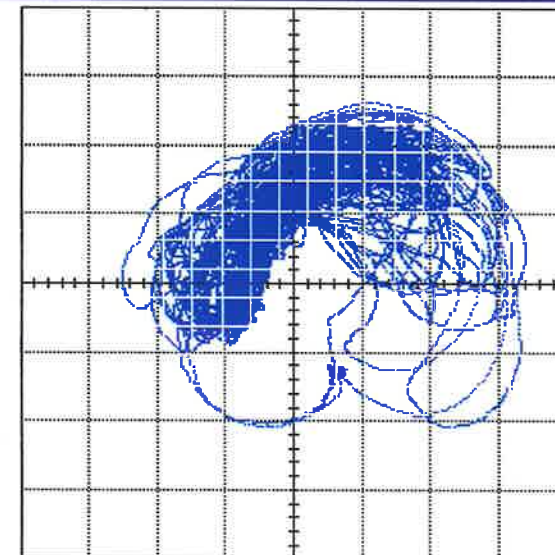
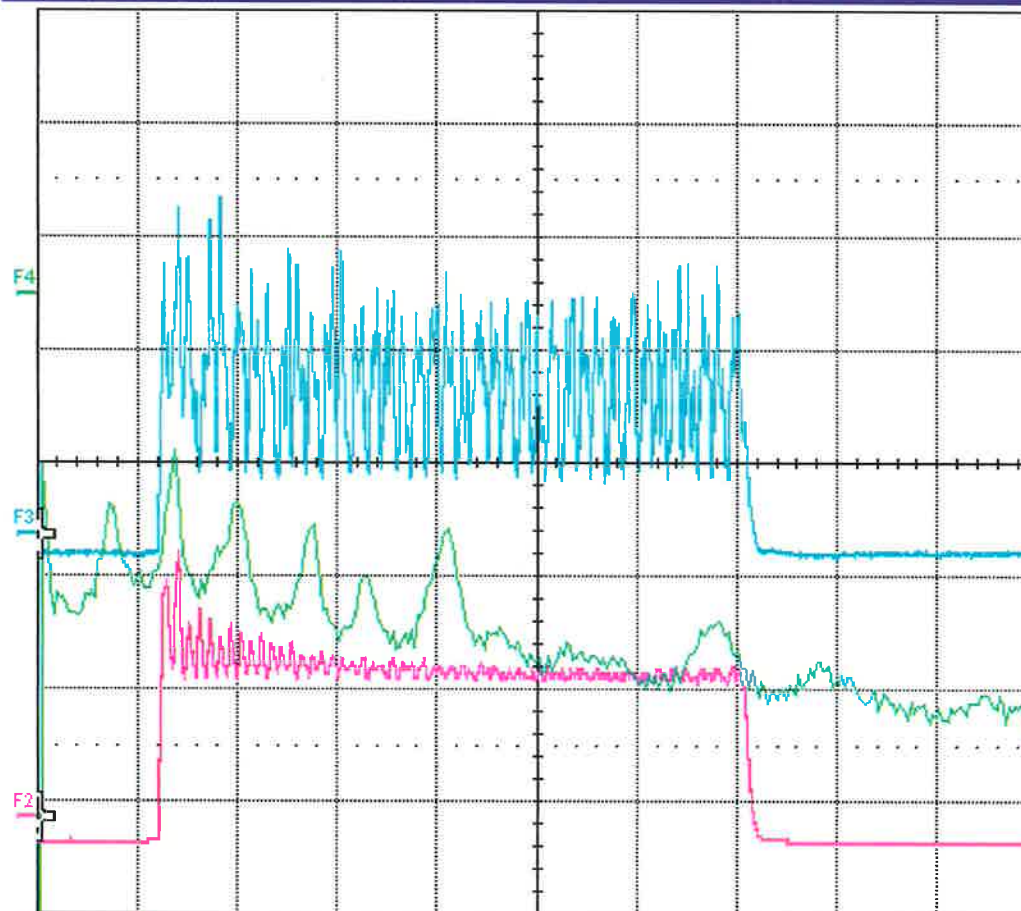


Ext10 DC 0.15 V 50 Ω

1 GS/s

☐ NORMAL

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



$\Delta Y/\Delta X = 0$ $\Delta Y^* \Delta X = 0 V^2$
 0 dB Angle = 0°
 Radius = 0 V

F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>	XY X:C2 Y:C3
2.00/div	2.00/div	2.00/div	10.0 dB/div	200 mV/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	5.00 kHz/div	200 mV/div
206 #			54 #	
+	+	+	+	+

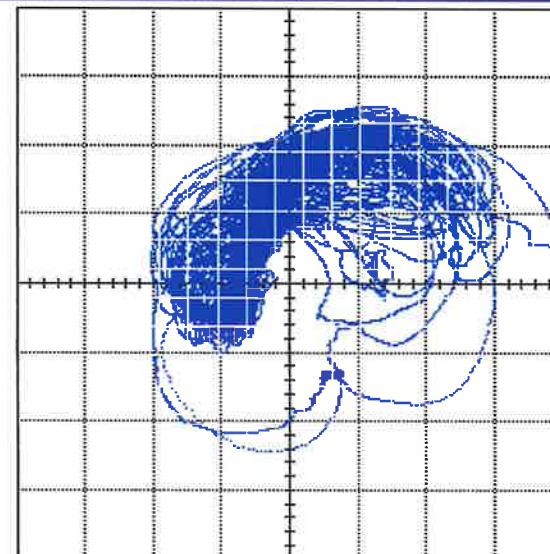
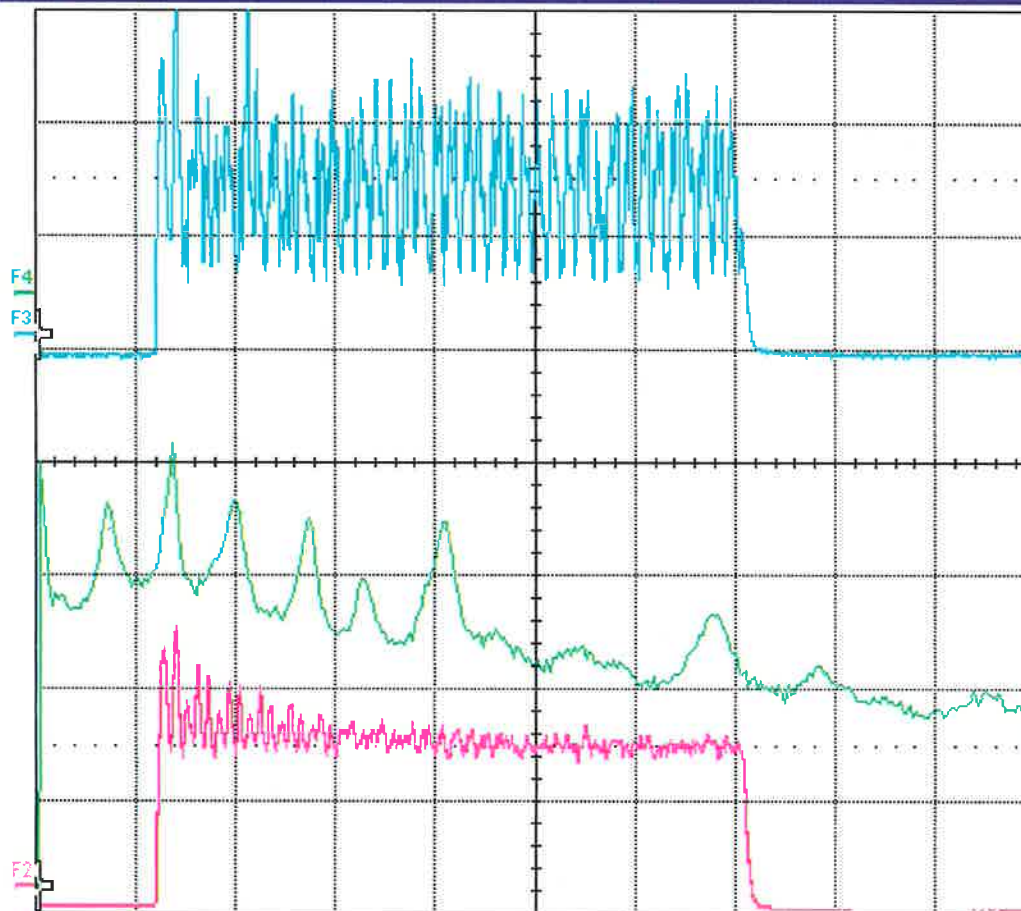
Tbase -3.98 ms Trigger Ext/10 DC
 1.00 ms/div Normal 130 mV
 100 kS 10 MS/s Edge Negative
 X1= -1.0200 ms

LeCroy

Processing ...

~ 2:43 pm

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



$\Delta Y/\Delta X = 0$ $\Delta Y^* \Delta X = 0 V^2$
 0 dB Angle = 0°
 Radius = 0 V

F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>	XY X=C2 Y=C3
2.00/div	2.00/div	2.00/div	10.0 dB/div	200 mV/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	5.00 kHz/div	200 mV/div
73 #			135 #	
				X Y

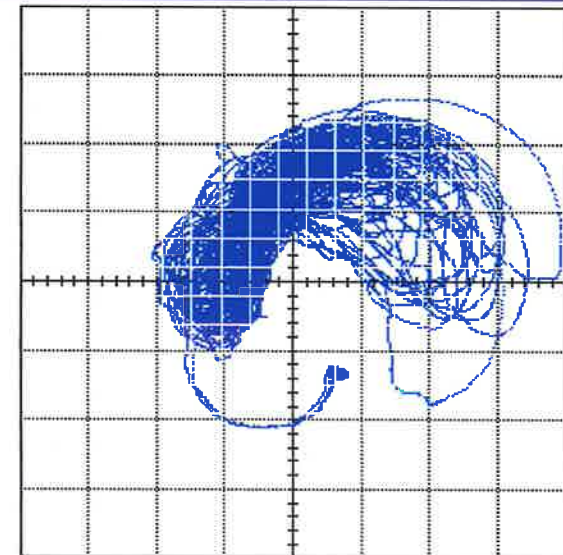
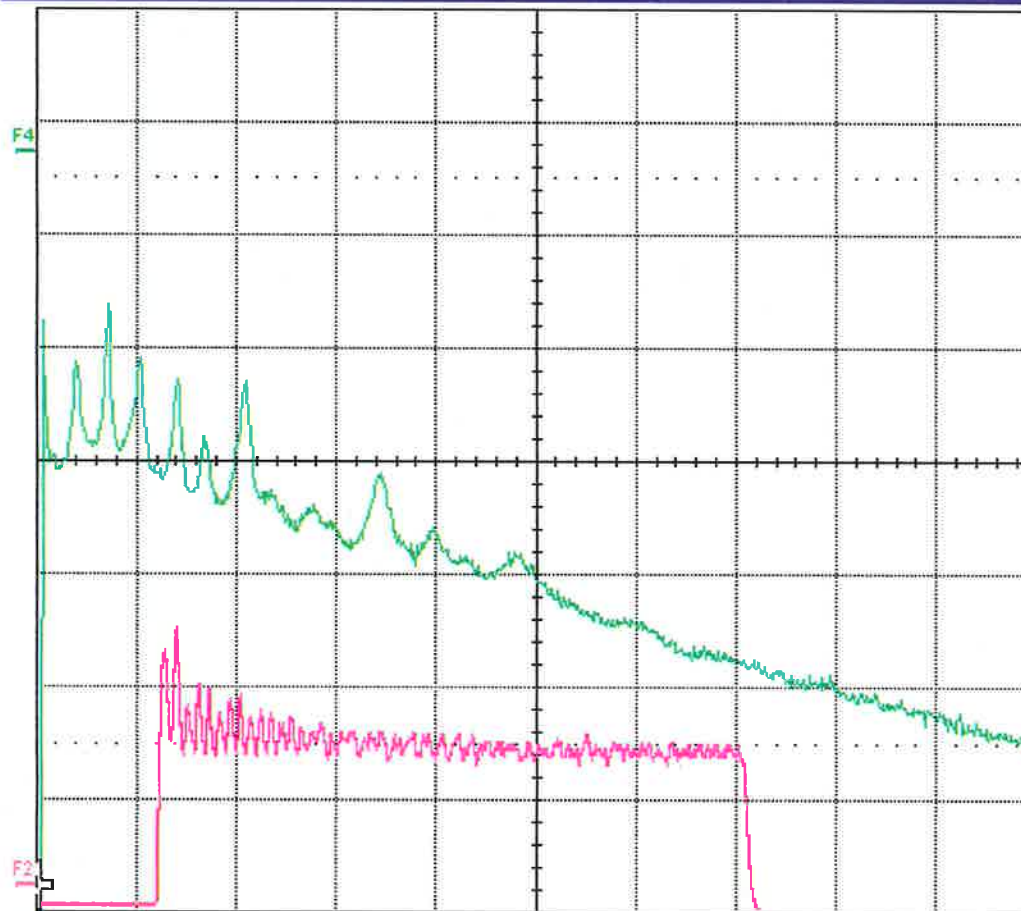
Tbase	-3.98 ms	Trigger	Ext/10/DC
	1.00 ms/div	Normal	130 mV
100 kS	10 MS/s	Edge	Negative
X1=	-1.0200 ms		

LeCroy

1/3/2023 2:51:21 PM

150A
 ~89 kW
 f = 3.57, 10
 13.5...
 2 Hz

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



$\Delta Y/\Delta X =$ 0 $\Delta Y^* \Delta X =$ 0 V²
 0 dB Angle = 0 °
 Radius = 0 V

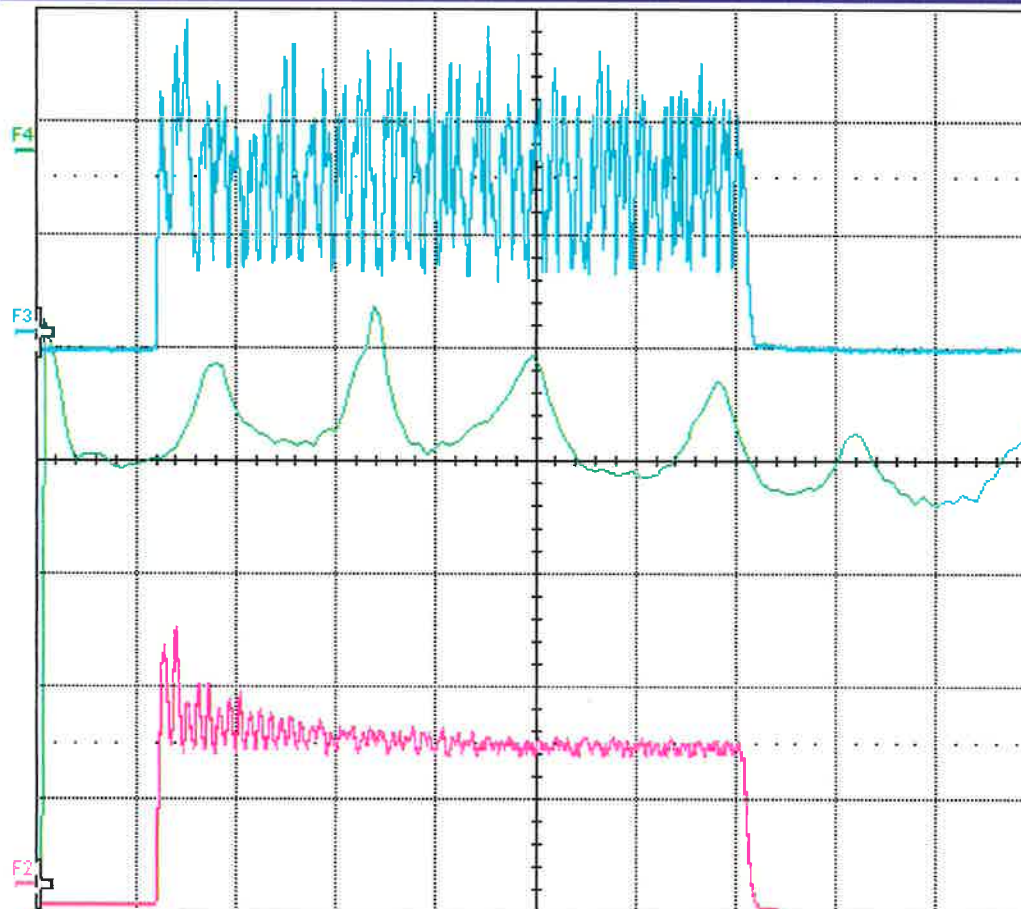
F2	<F3>	F4	<FFT(C2)>	XY	XC2 Y:C3
2.00/div		10.0 dB/div		200 mV/div	
1.00 ms/div		10.0 kHz/div		200 mV/div	
109 #		171 #			
				+	---
				+	---

Tbase -3.98 ms Trigger **Ext/10/DC**
 1.00 ms/div Normal 130 mV
 100 kS 10 MS/s Edge Negative
 X1= -1.0200 ms

LeCroy

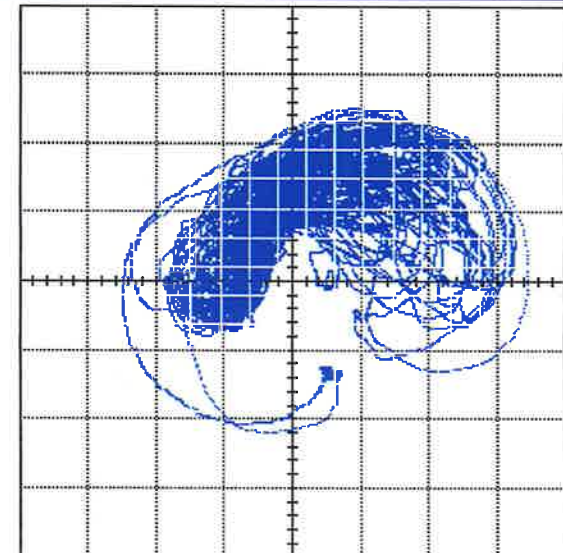
1/3/2023 2:52:35 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>	XY XC2 YC3
2.00/div	2.00/div	2.00/div	10.0 dB/div	200 mV/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	2.00 kHz/div	200 mV/div
152 #			213 #	
+	+	+	+	+

LeCroy

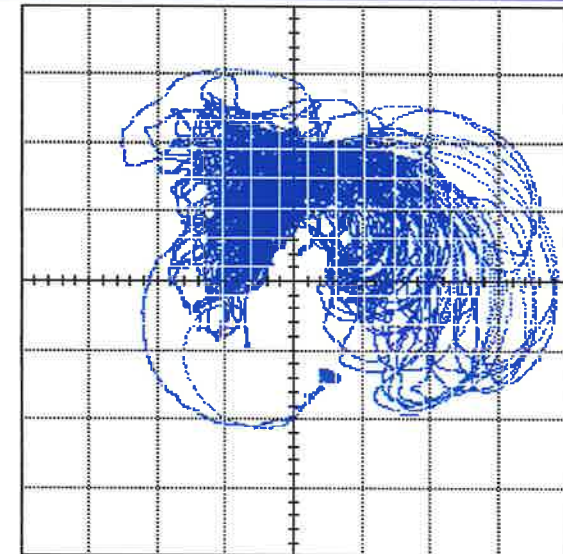
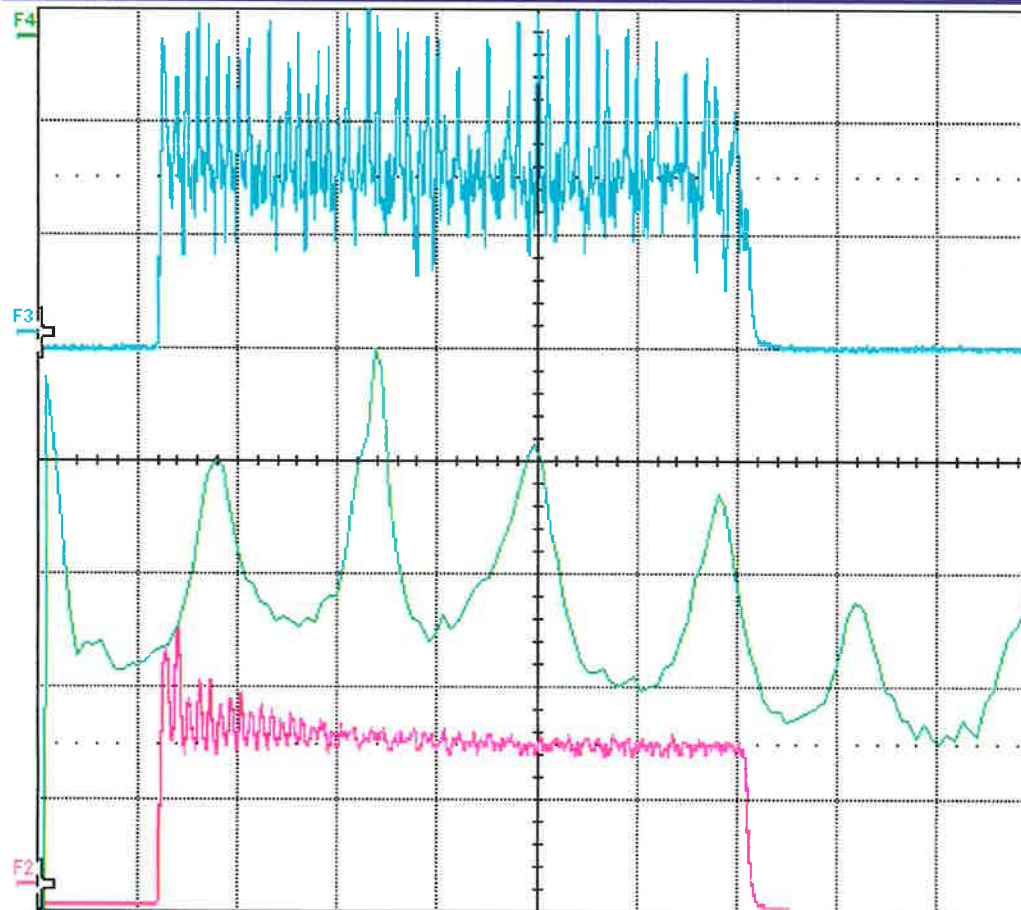


$\Delta Y/\Delta X = 0$
 $\Delta Y^2/\Delta X^2 = 0 \text{ V}^2$
 Radius = 0 V
 Angle = 0°

Tbase -3.98 ms
 1.00 ms/div
 100 kS 10 MS/s
 X1= -1.0200 ms
 Trigger Ext/10/DC
 Normal 130 mV
 Edge Negative

Processing ...

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



$\Delta Y/\Delta X = 0$ $\Delta Y^* \Delta X = 0 \text{ V}^2$
 0 dB Angle = 0°
 Radius = 0 V

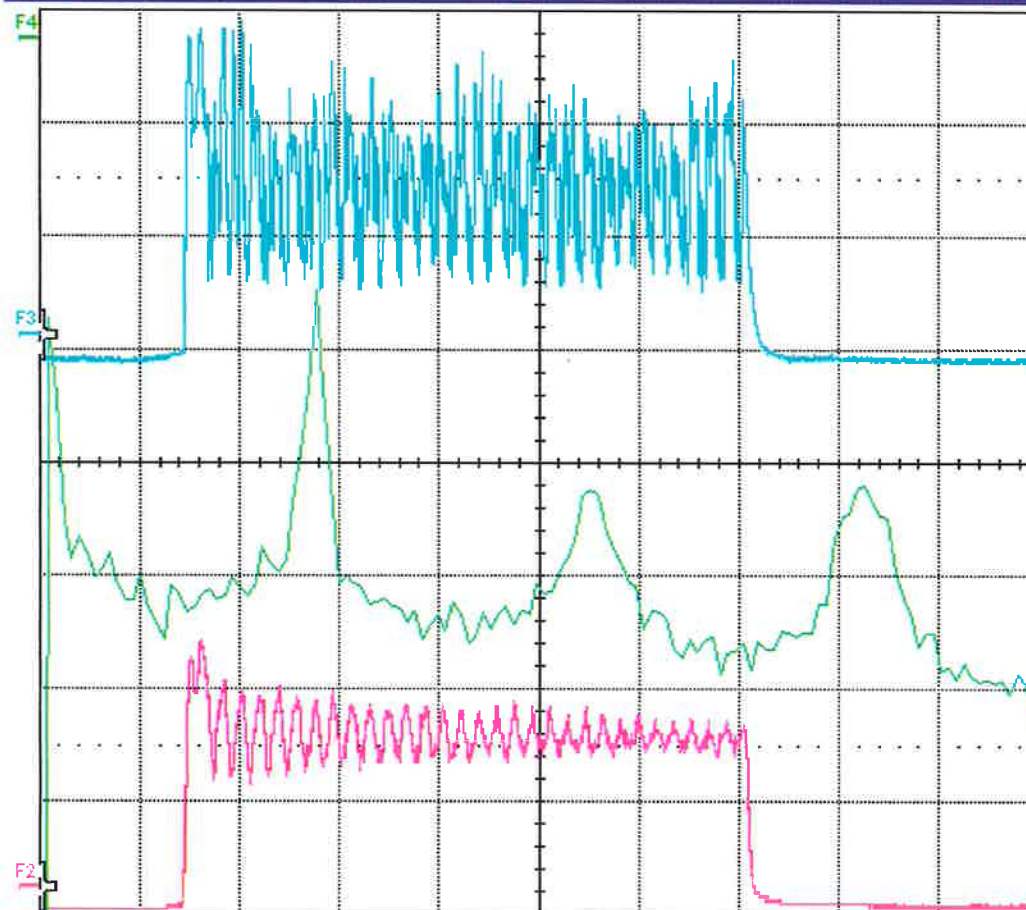
F2 <F3>	F3 script(C3,C2)	F4 <FFT(C2)>	XY X:C2 Y:C3
2.00/div	2.00/div	5.00 dB/div	200 mV/div
1.00 ms/div	1.00 ms/div	2.00 kHz/div	200 mV/div
170 #		232 #	
+	+	+	+

Tbase -3.98 ms Trigger Exp10 D0
 1.00 ms/div Normal 130 mV
 100 kS 10 MS/s Edge Negative
 X1= -1.0200 ms

LeCroy

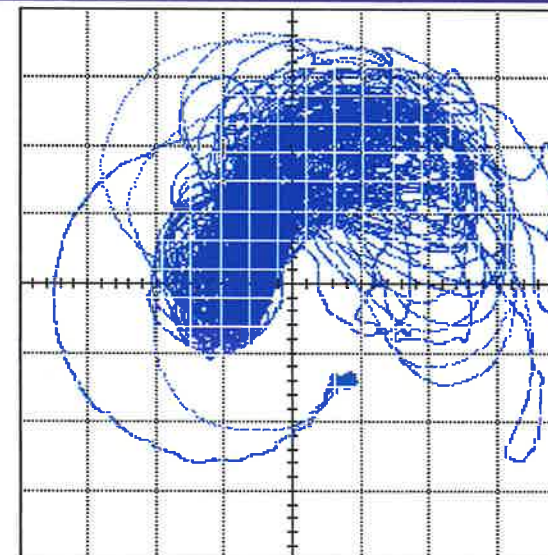
1/3/2023 2:54:42 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>	XY XC2Y:C3
2.00/div	2.00/div	2.00/div	5.00 dB/div	200 mV/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	2.00 kHz/div	200 mV/div
67 #			66 #	
+	+	+	+	+

LeCroy

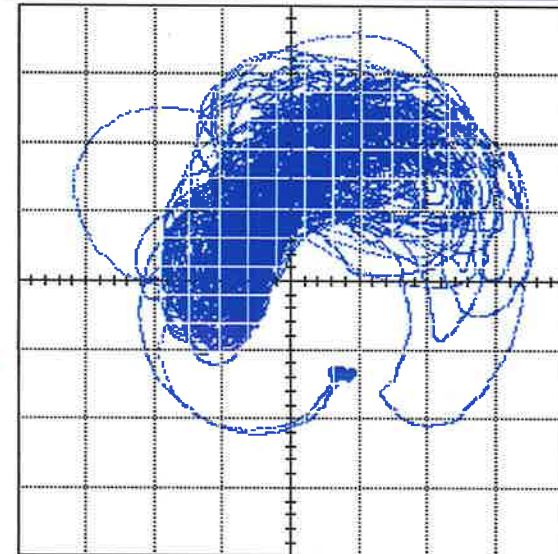
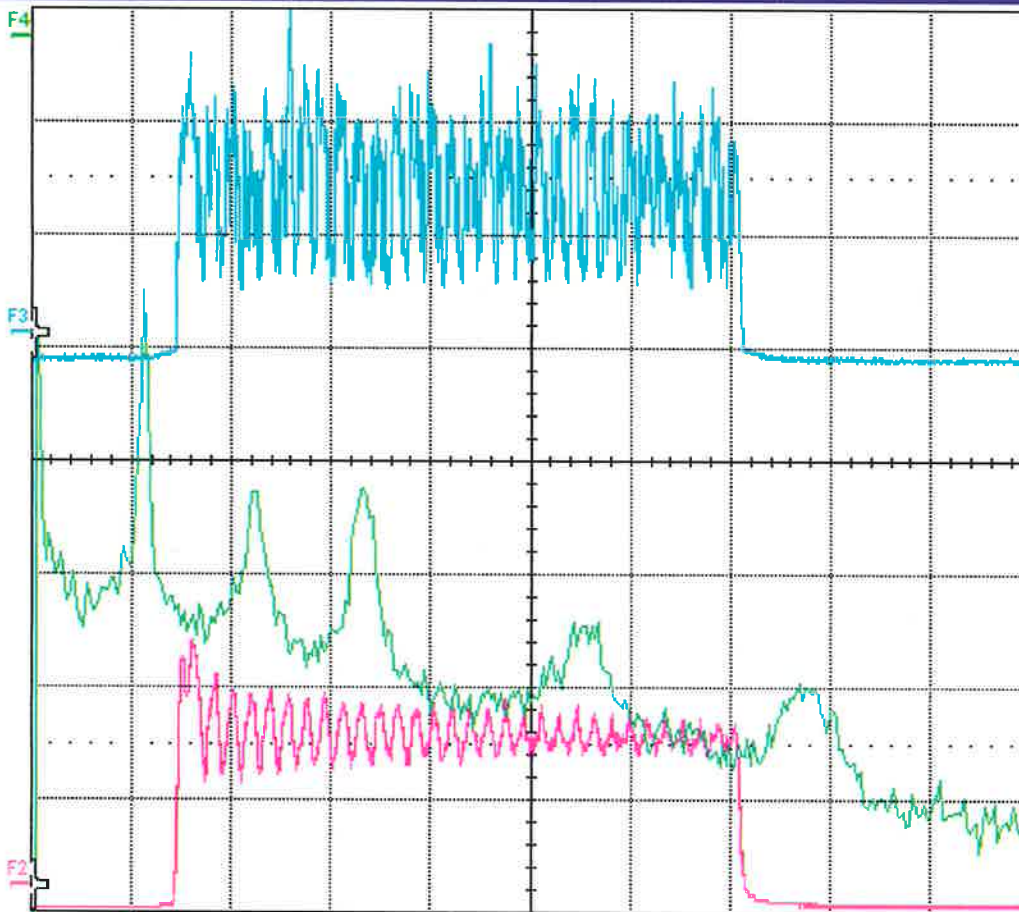


$\Delta Y/\Delta X = 0$ $\Delta Y^2/\Delta X^2 = 0 \text{ V}^2$
 0 dB Angle = 0°
 Radius = 0 V

Tbase -3.98 ms Trigger Ext/10 DC
 1.00 ms/div Normal 130 mV
 100 kS 10 MS/s Edge Negative
 X1= -1.0200 ms

Processing ...

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



$\Delta Y/\Delta X = 0$ $\Delta Y^2/\Delta X = 0 \text{ V}^2$
 0 dB Angle = 0°
 Radius = 0 V

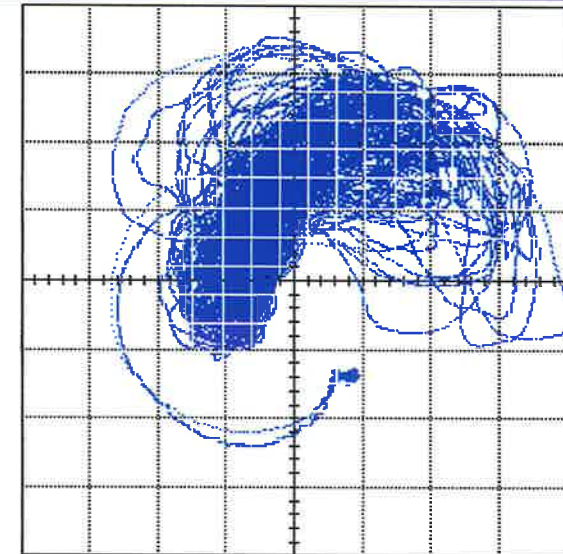
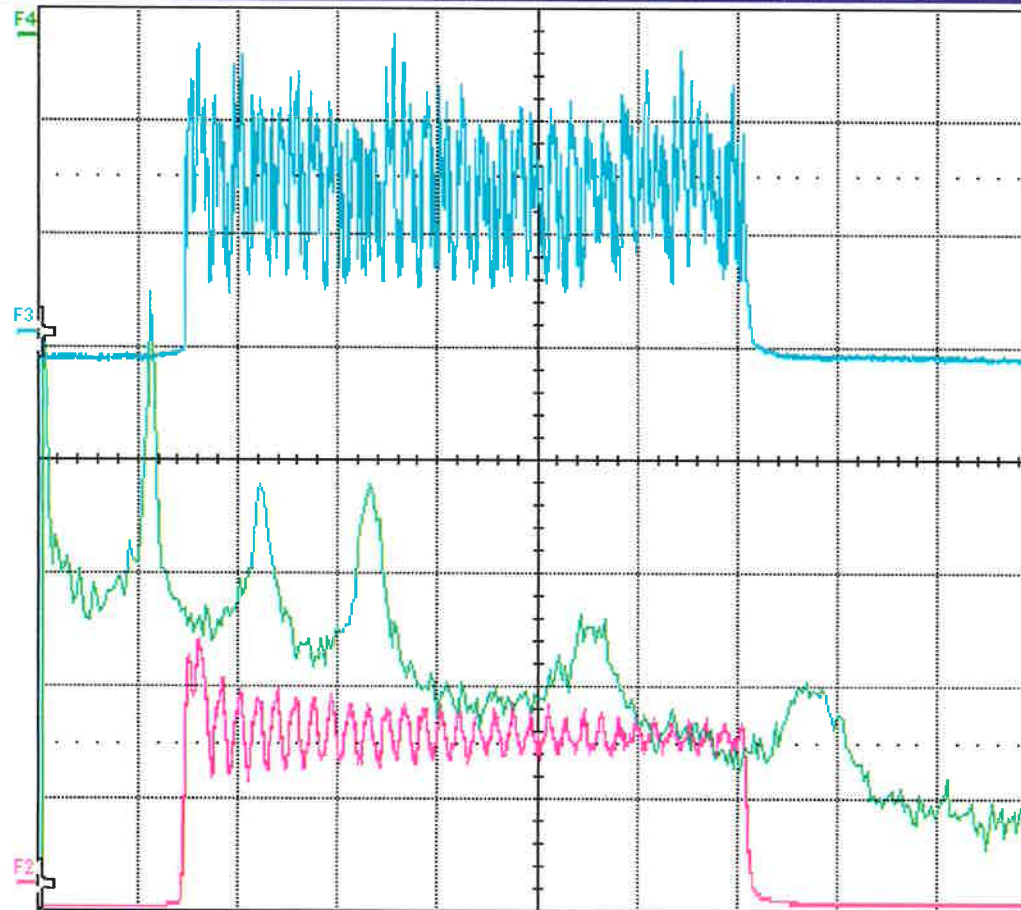
F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>	XY X-C2 Y-C3
2.00/div	2.00/div	2.00/div	5.00 dB/div	200 mV/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	5.00 kHz/div	200 mV/div
76 #			75 #	
+	+	+	+	+

Tbase -3.98 ms Trigger Ext/10 DC
 1.00 ms/div Normal 130 mV
 100 kS 10 MS/s Edge Negative
 X1= -1.0200 ms

LeCroy

Processing ...

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



$\Delta Y/\Delta X = 0$ $\Delta Y * \Delta X = 0 V^2$
 0 dB Angle = 0°
 Radius = 0 V

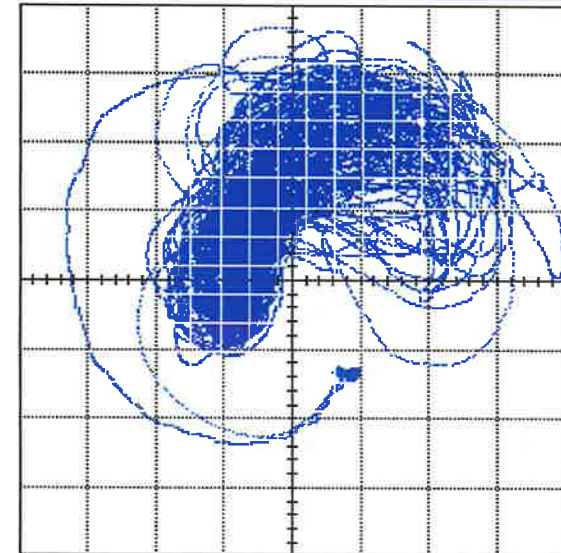
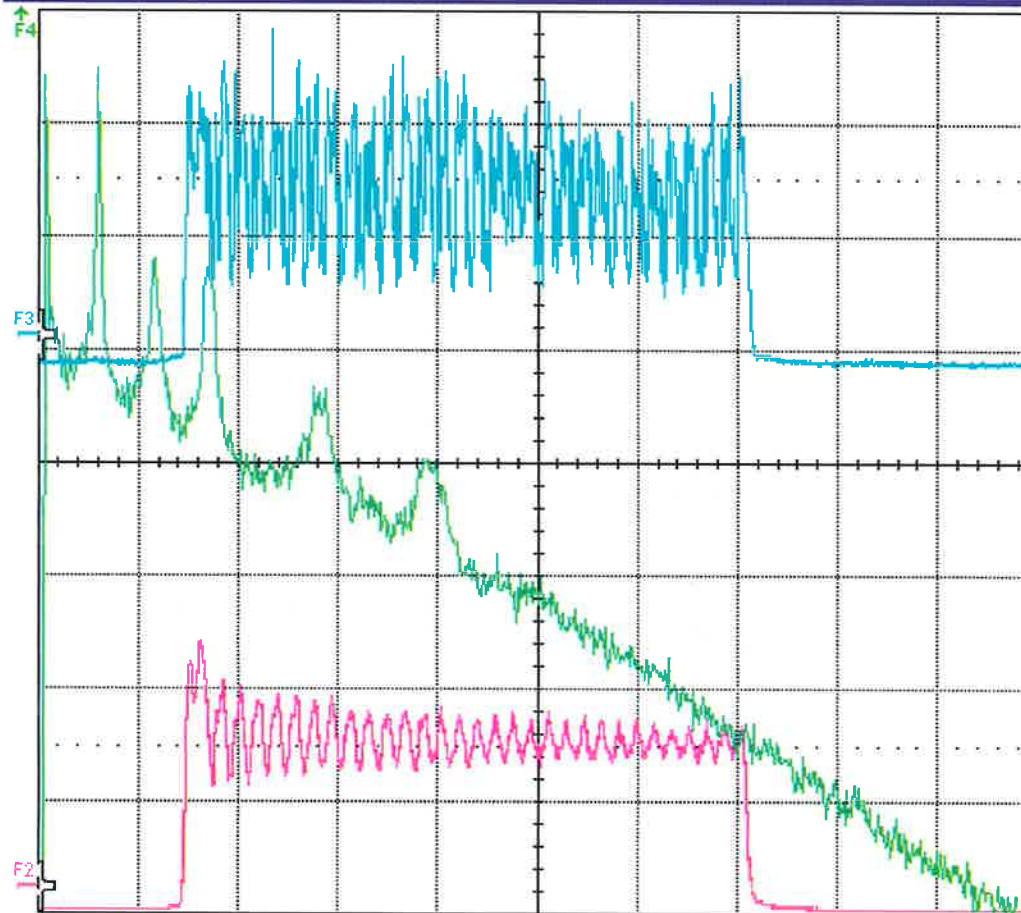
F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>	XY	XC2YC3
2.00/div	2.00/div	2.00/div	5.00 dB/div	200 mV/div	200 mV/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	5.00 kHz/div	200 mV/div	200 mV/div
84 #			83 #		
+	+	+	+	+	+

LeCroy

Tbase -3.98 ms Trigger **Err/10 DC**
 1.00 ms/div Normal 130 mV
 100 kS 10 MS/s Edge Negative
 X1= -1.0200 ms

Processing ...
 ~ 3 p... 1200 A, 81 kW
 8 ~ 5.5, 11, 16.5, 22.5
 missing

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



$\Delta Y/\Delta X = 0$ $\Delta Y * \Delta X = 0 V^2$
 0 dB Angle = 0°
 Radius = 0 V

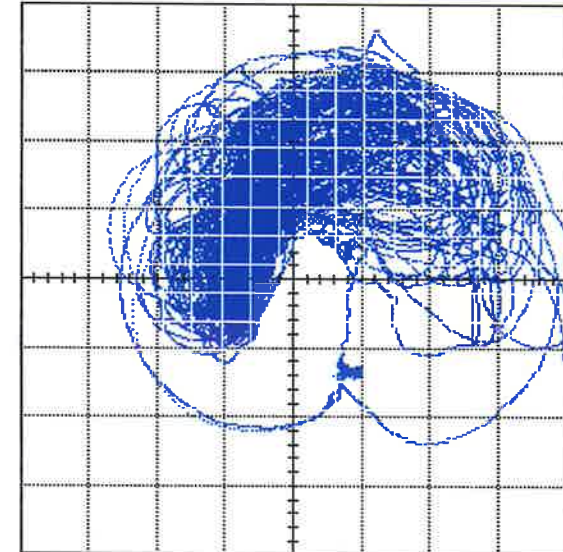
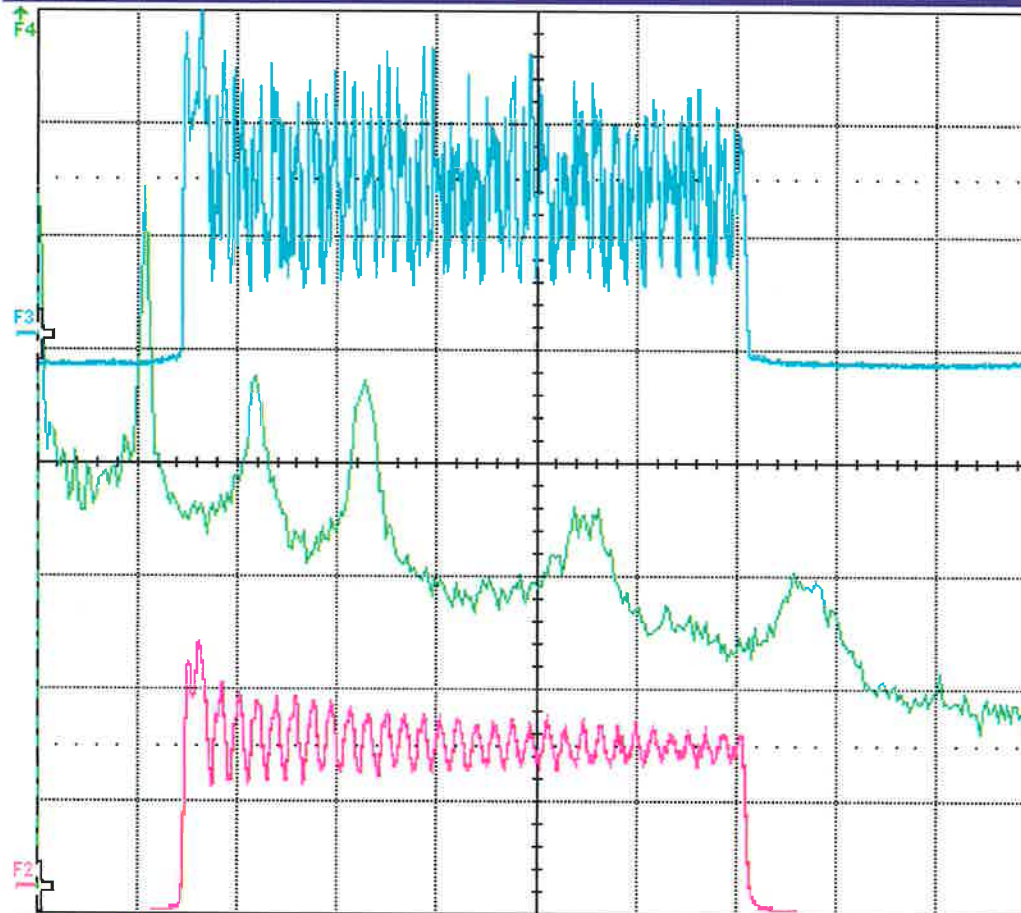
F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>	XY XC2 Y:C3
2.00/div	2.00/div	2.00/div	5.00 dB/div	200 mV/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	10.0 kHz/div	200 mV/div
96 #			95 #	
+	+	+	+	+

Tbase -3.98 ms Trigger Ext/10 DC
 1.00 ms/div Normal 130 mV
 100 kS 10 MS/s Edge Negative
 X1= -1.0200 ms

LeCroy

Processing ...

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



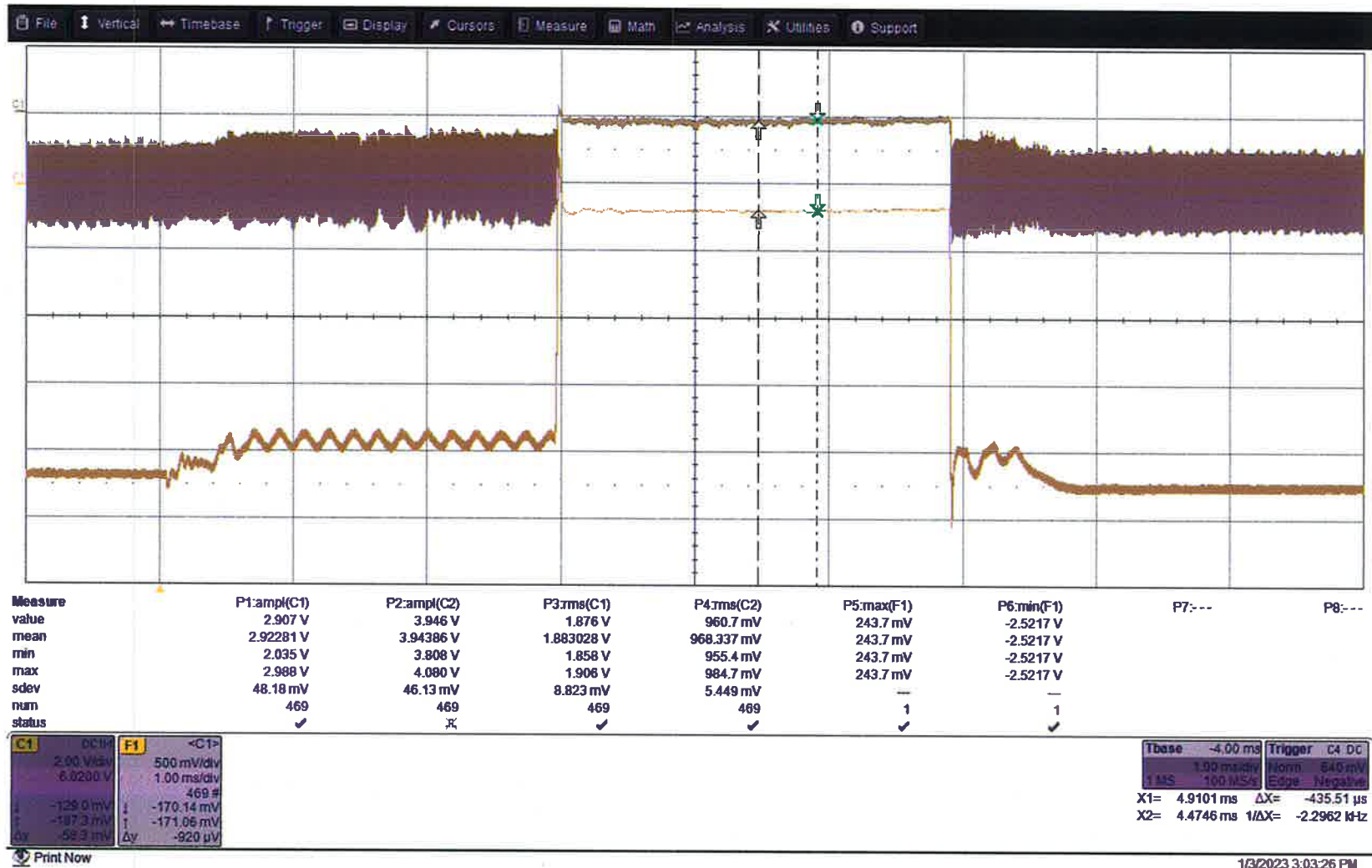
$\Delta Y/\Delta X = 0$ $\Delta Y * \Delta X = 0 \text{ V}^2$
 0 dB Angle = 0 °
 Radius = 0 V

F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>	XY X:C2 Y:C3
2.00/div	2.00/div	2.00/div	5.00 dB/div	200 mV/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	5.00 kHz/div	200 mV/div
121 #			121 #	
+	+	+	+	+

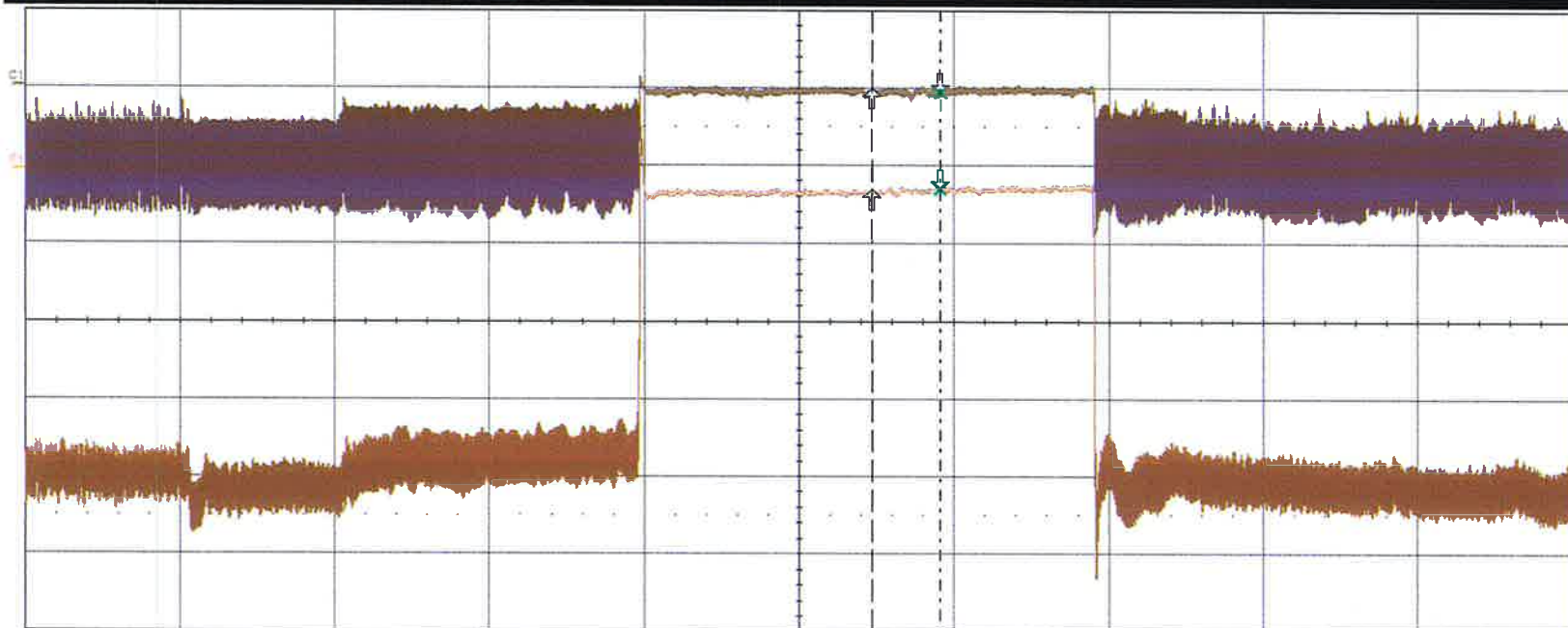
Tbase -3.98 ms Trigger Ext/10 DO
 1.00 ms/div Normal 130 mV
 100 kS 10 MS/s Edge Negative
 X1= -1.0200 ms

LeCroy

1/3/2023 3:00:41 PM



File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Support



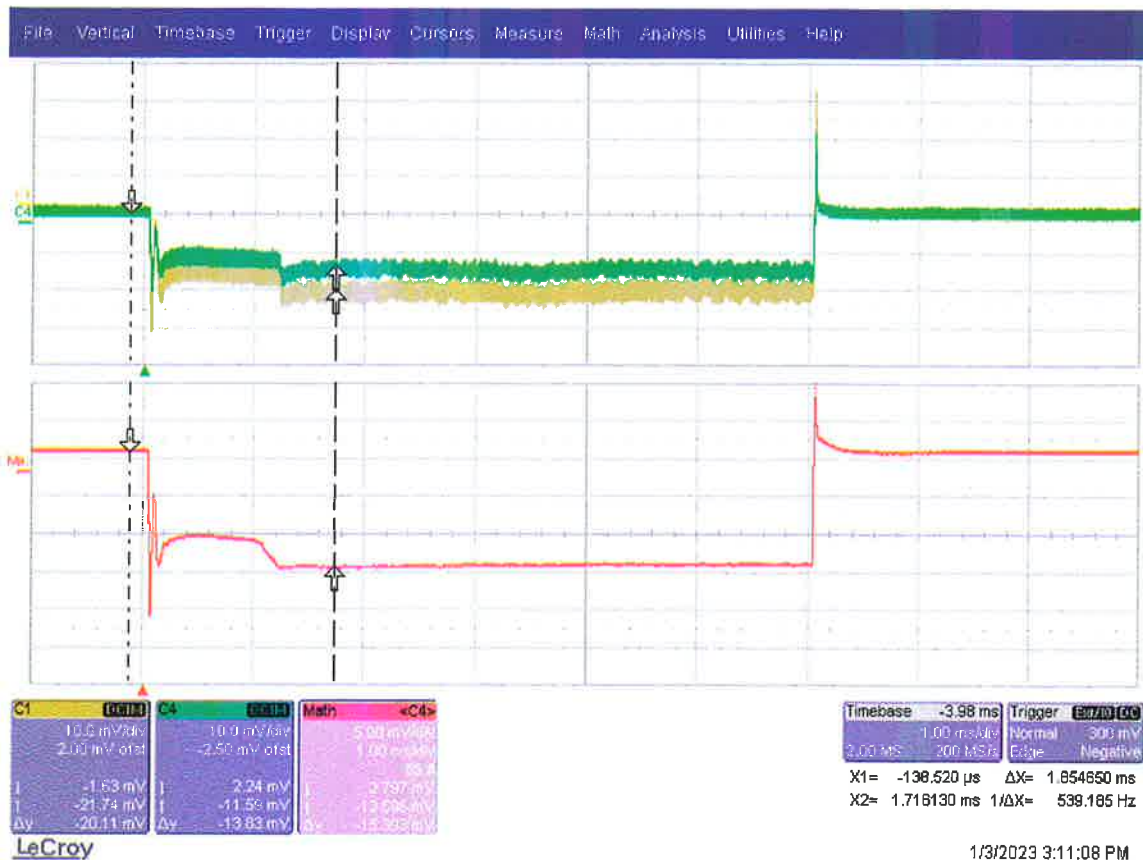
Measure	P1:amp(C1)	P2:amp(C2)	P3:rms(C1)	P4:rms(C2)	P5:max(F1)	P6:min(F1)	P7:--	P8:--
value	2.881 V	3.822 V	1.808 V	945.0 mV	280.3 mV	-2.6224 V		
mean	3.1267 V	3.89328 V	1.80051 V	942.892 mV	280.3 mV	-2.6224 V		
min	1.880 V	3.822 V	1.781 V	935.2 mV	280.3 mV	-2.6224 V		
max	4.352 V	3.970 V	1.823 V	949.9 mV	280.3 mV	-2.6224 V		
sdev	811.5 mV	40.50 mV	11.60 mV	4.060 mV				
num	25	25	25	25	1	1		
status	✓	✗	✓	✓	✓	✓		

C1	F1	<C1>
2.00 V/div	500 mV/div	
5.0200 V	1.00 ms/div	
	25 #	
-180.0 mV	-120.80 mV	
-58.3 mV	-129.12 mV	
Δx 101.8 mV	Δy -8.32 mV	

Tbase -4.00 ms	Trigger C4 DC
1 MS	1.00 ms/div
100 MSs	Norm 640 mV
	Edge Negative
X1= 4.9101 ms	ΔX= -435.51 μs
X2= 4.4746 ms	1/ΔX= -2.2962 kHz

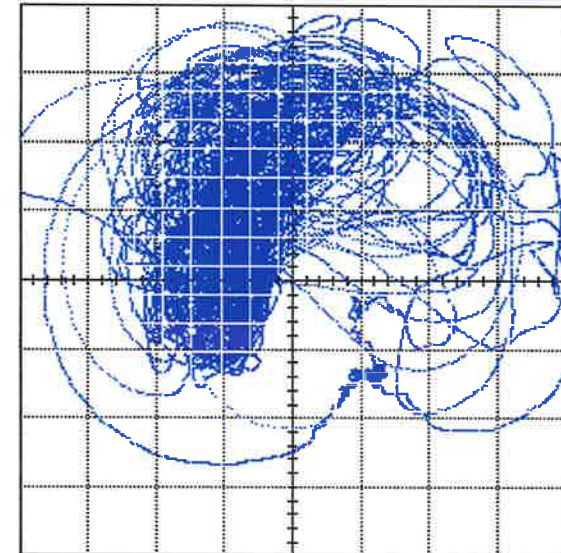
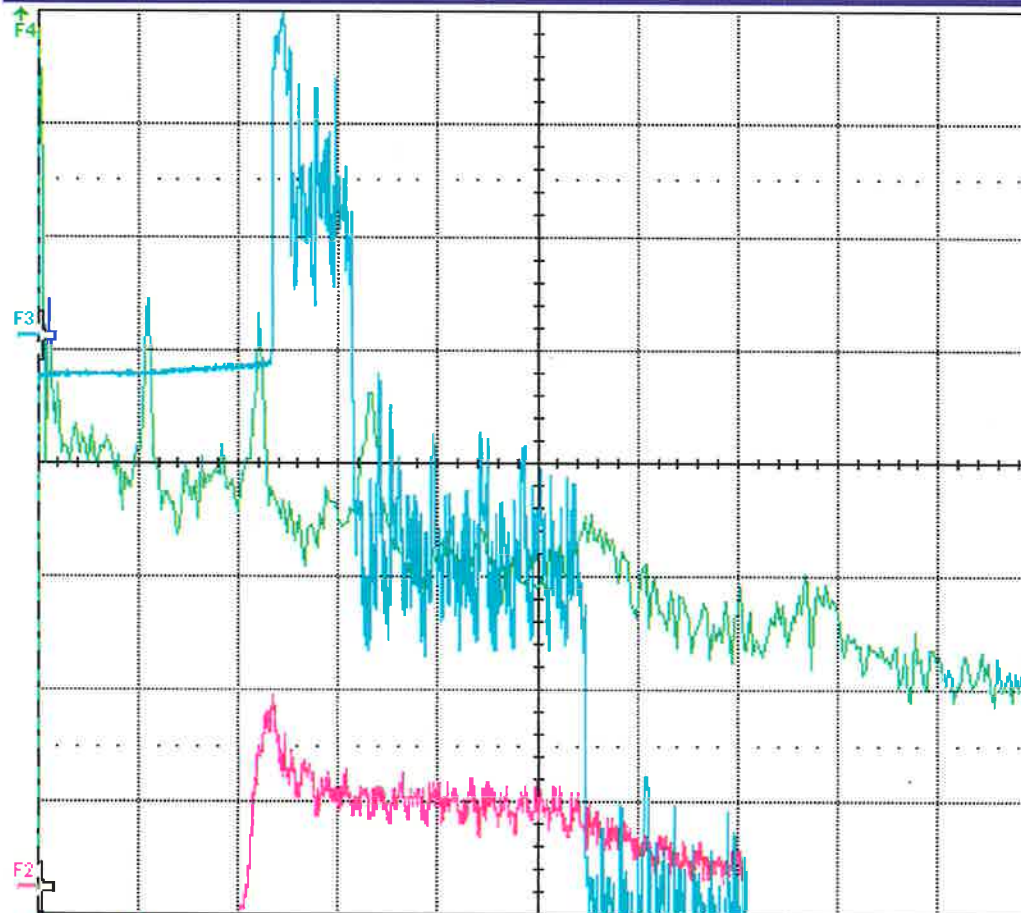
Print Now

1/3/2023 3:10:37 PM



1/3/2023 3:11:08 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



$\Delta Y/\Delta X =$ 0 $\Delta Y \cdot \Delta X =$ 0 V²
 0 dB Angle = 0 °
 Radius = 0 V

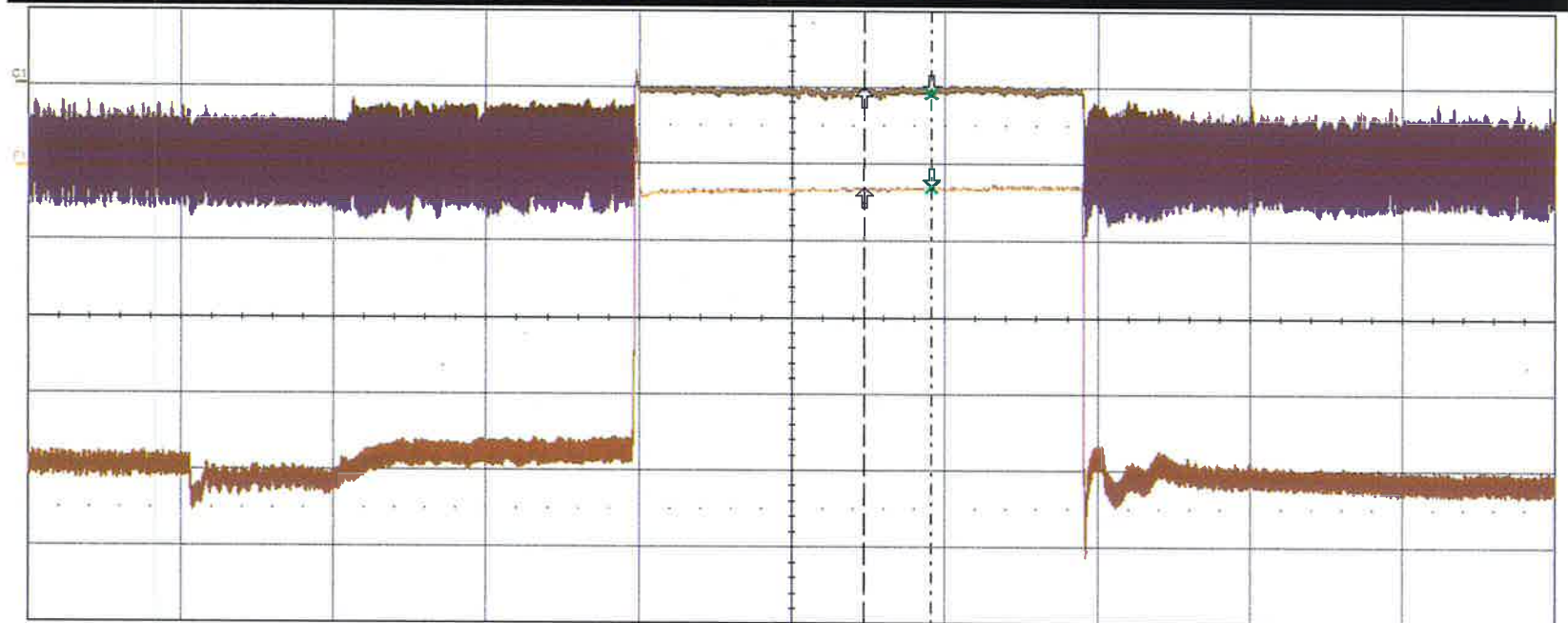
F2 <F3> 2.00/div 1.00 ms/div 33 #	F3 script(C3,C2) 2.00/div 1.00 ms/div	F4 <FFT(C2)> 5.00 dB/div 5.00 kHz/div 32 #	XY X:C2 Y:C3 200 mV/div 200 mV/div +X +Y
---	--	--	---

Tbase	-3.98 ms	Trigger	Ext/10 DC
	1.00 ms/div	Normal	130 mV
100 kS	10 MS/s	Edge	Negative
X1= -1.0200 ms			

LeCroy

Processing ...

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Support



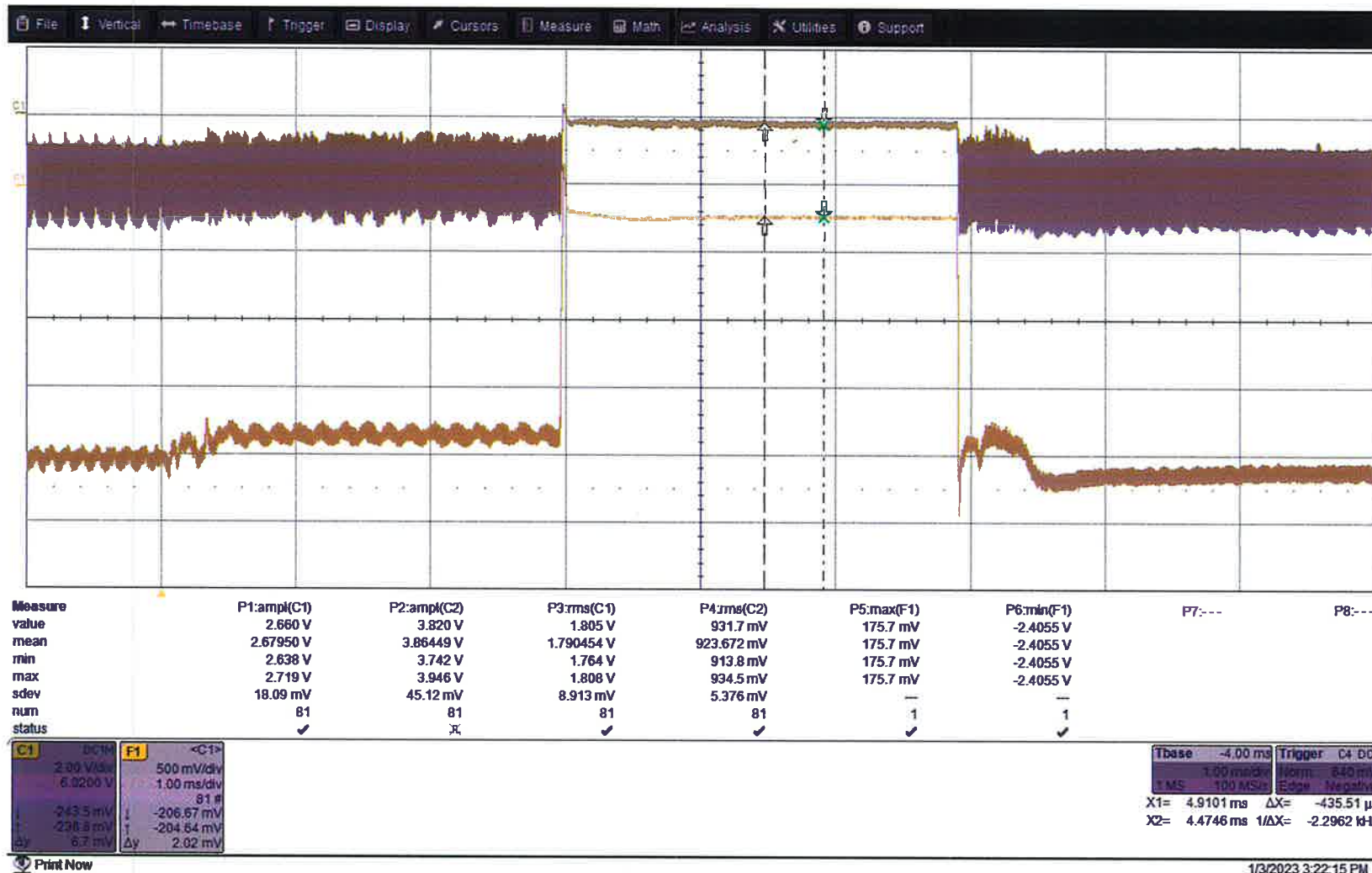
Measure	P1:ampl(C1)	P2:ampl(C2)	P3:rms(C1)	P4:rms(C2)	P5:max(F1)	P6:min(F1)	P7:---	P8:---
value	4.268 V	3.924 V	1.788 V	941.3 mV	268.7 mV	-2.5332 V		
mean	3.0720 V	3.90028 V	1.79567 V	939.894 mV	268.7 mV	-2.5332 V		
min	1.880 V	3.812 V	1.759 V	928.1 mV	268.7 mV	-2.5332 V		
max	4.440 V	4.068 V	1.829 V	951.2 mV	268.7 mV	-2.5332 V		
sdev	702.2 mV	48.65 mV	12.50 mV	5.285 mV				
num	108	108	108	108	1	1		
status	✗	✗	✓	✓	✓	✓		

C1	F1
DC-94	<C1>
2.00 V/div	500 mV/div
5.0200 V	1.00 ms/div
	108 #
-201.0 mV	-123.81 mV
-78.5 mV	-129.52 mV
dy	dy
	-5.70 mV

Tbase	-4.00 ms	Trigger	C4 DC
1 MS	1.00 ms/div	Norm.	640 mV
	100 MS/s	Edge	Negative
X1=	4.9101 ms	ΔX=	-435.51 μs
X2=	4.4746 ms	1/ΔX=	-2.2962 kHz

Print Now

1/3/2023 3:12:00 PM



3-Jan-23
15:23:27

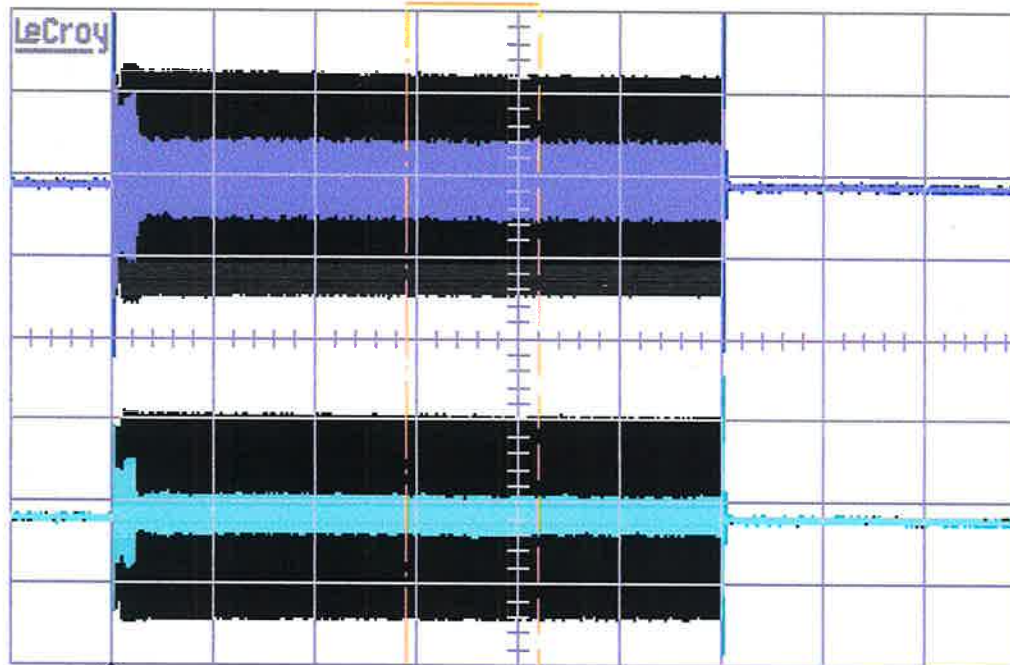
1
1 ms
0.50 V

3
1 ms
0.50 V

4
1 ms
200mV

2
1 ms
200mV

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



92 sweeps: average low high sigma
rms(1) 467.7mV 464.8 469.4 1.3
rms(2) 66.0mV 65.3 66.7 0.3
rms(3) 427.3mV 425.2 428.9 1.0
rms(4) 31.1mV 29.8 32.4 0.6
phase(1,3) 74 ° 69 79 1



Ext10 DC 0.50 V 50Ω

CHANNEL 2

Trace
OFF ☒ On

Coupling

ZOOM

FIND

Gain
Fixed ☒ variable

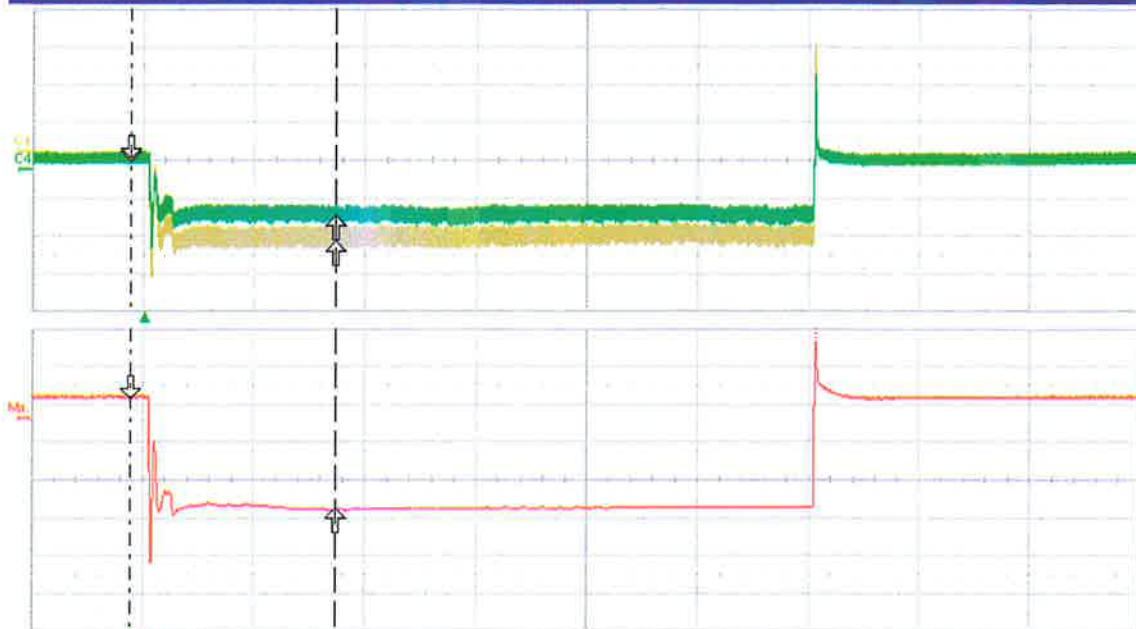
Offsets in
Volts
Divisions ☒

Grids
Single ☒ Dual
Quad Octal

10 MS/s

☒ NORMAL

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



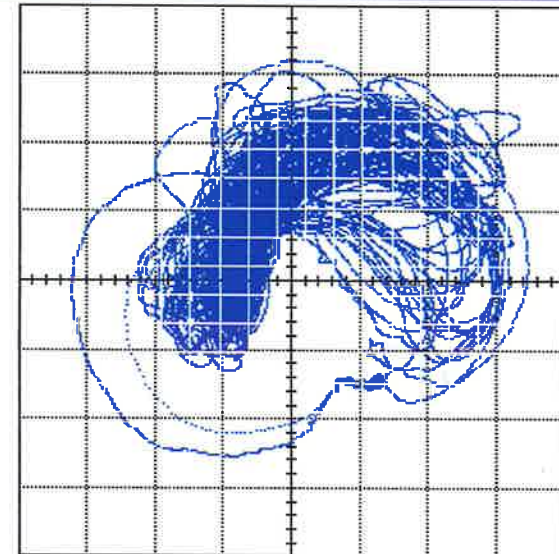
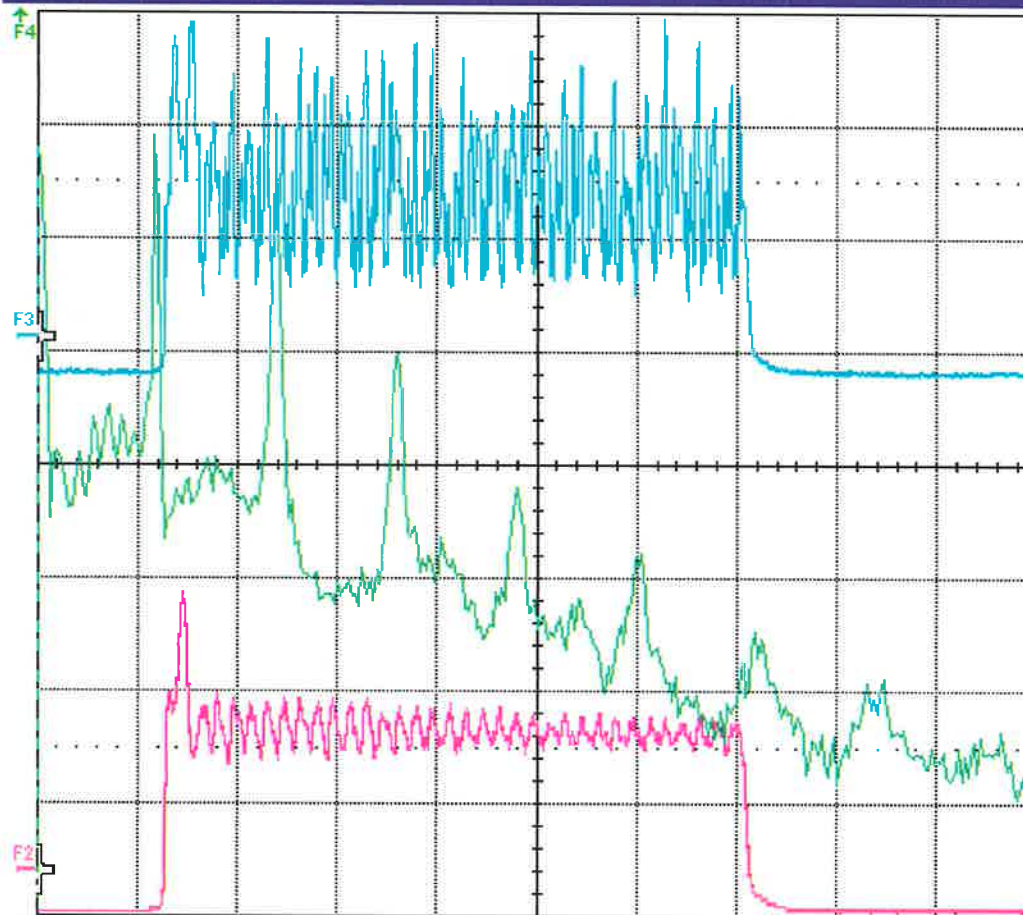
C1	DIG1	C4	DIG4	Math	<C4>
10.0 mV/div	10.0 mV/div	10.0 mV/div	10.0 mV/div	5.00 mV/div	5.00 mV/div
2.00 mV/div	2.00 mV/div	2.00 mV/div	2.00 mV/div	1.00 mV/div	1.00 mV/div
				779.4	779.4
I	-1.97 mV	I	3.41 mV	I	2.844 mV
I	-23.69 mV	I	-12.56 mV	I	-11.898 mV
ΔV	-21.71 mV	ΔV	-15.97 mV	ΔV	-14.842 mV

Timebase	-3.98 ms	Trigger	Edge 100
	1.00 ms/div	Normal	300 mV
2.00 ms	200 MS/s	Edge	Negative
X1=	-138.520 μs	ΔX=	1.854650 ms
X2=	1.716130 ms	1/ΔX=	539.165 Hz

LeCroy

1/3/2023 3:23:03 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



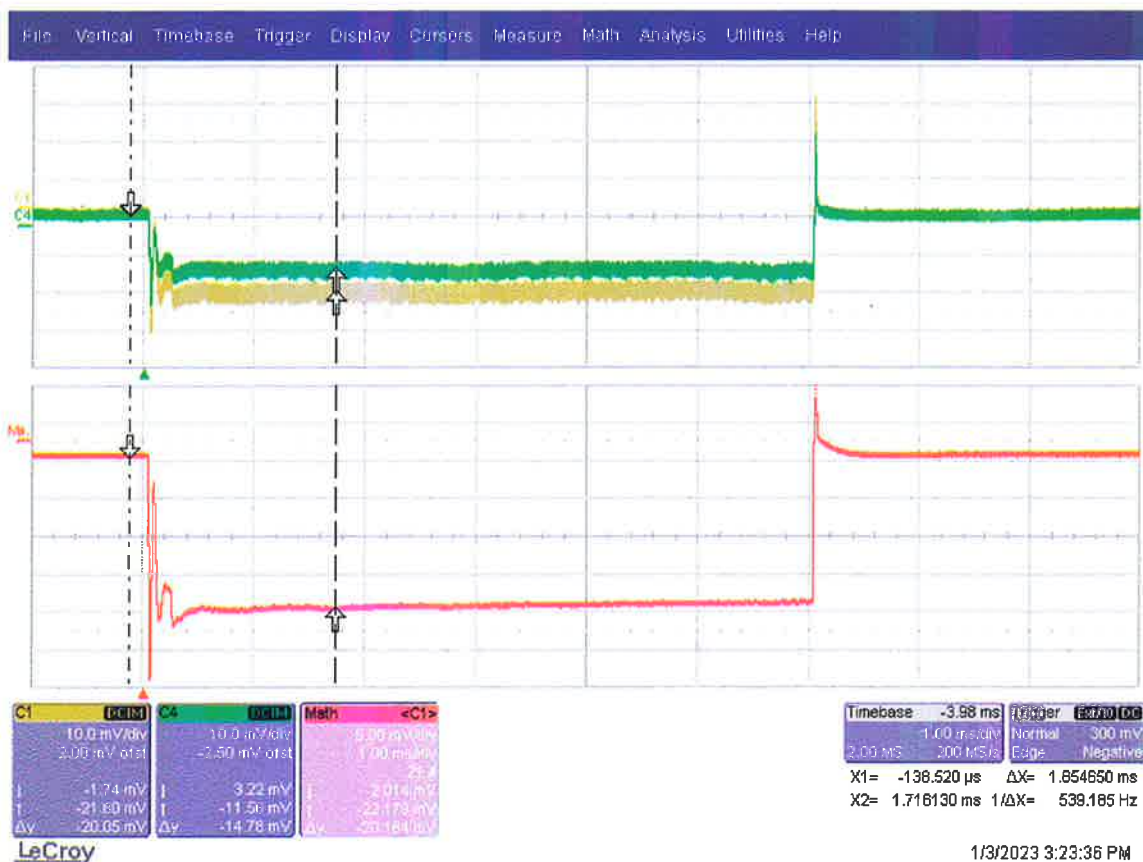
$\Delta Y/\Delta X = 0$ $\Delta Y^* \Delta X = 0 \text{ V}^2$
 0 dB Angle = 0 °
 Radius = 0 V

F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>	XY X:C2 Y:C3
2.00/div	2.00/div	2.00/div	5.00 dB/div	200 mV/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	5.00 kHz/div	200 mV/div
60 #			60 #	
⚙	⚙	⚙	⚙	⚙

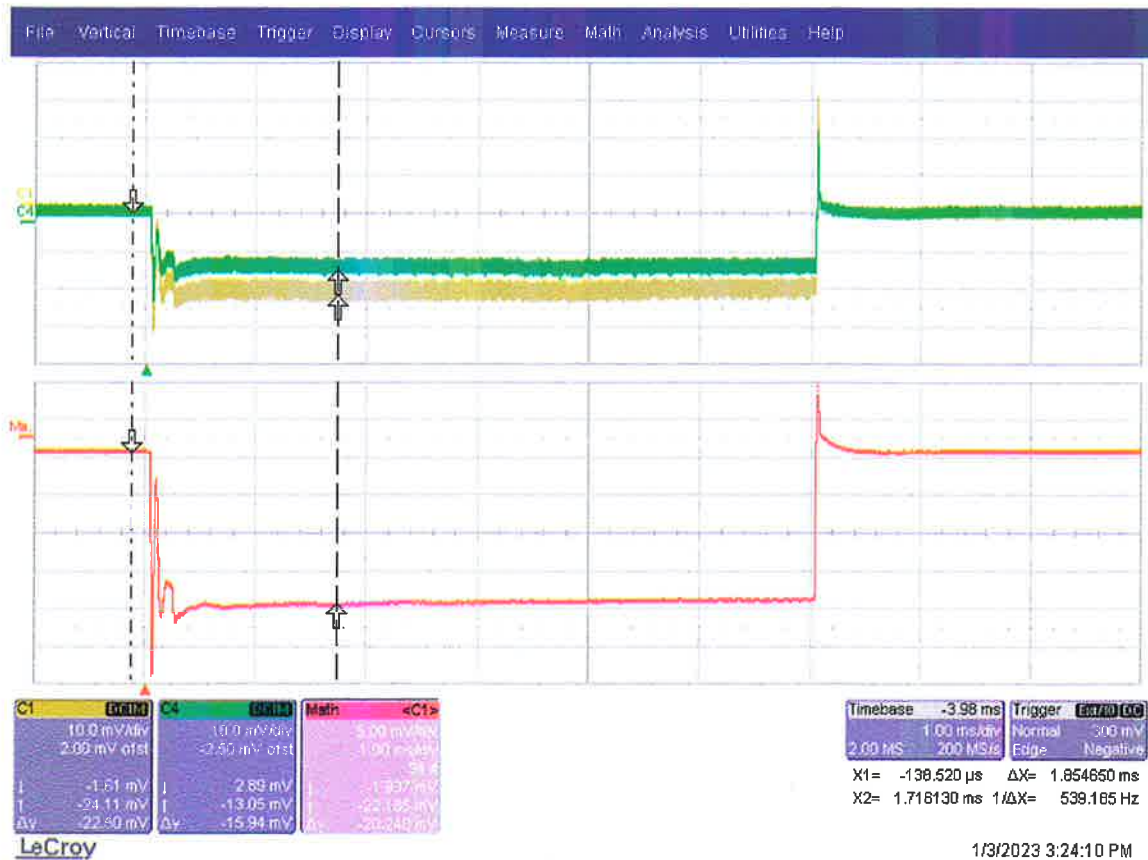
Tbase -3.98 ms Trigger Ext10 DC
 1.00 ms/div Normal 130 mV
 100 kS 10 MS/s Edge Negative
 X1= -1.0200 ms

LeCroy

1/3/2023 3:23:32 PM

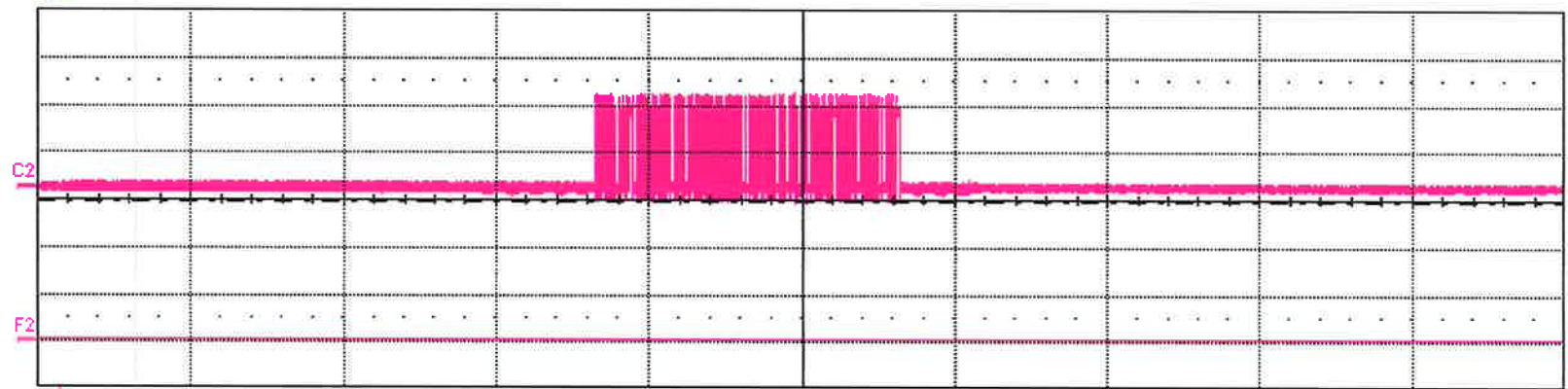
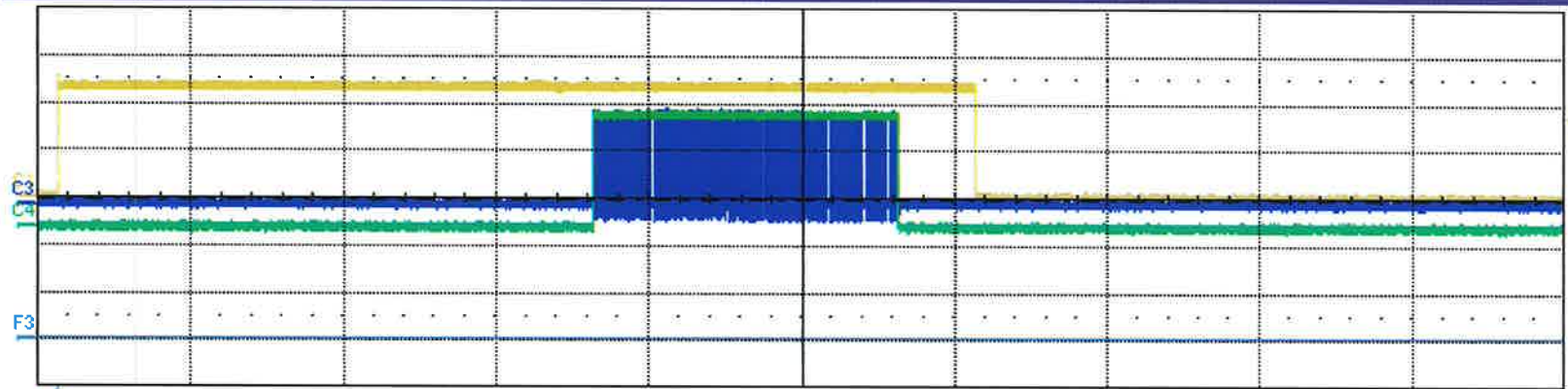


1/3/2023 3:23:36 PM



1/3/2023 3:24:10 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



Measure	P1:mean(C1)	P2:sdev(C1)	P3:mean(C1)	P4:sdev(C1)	P5:ampl(C2)	P6:fwxx(C2)	P7:---	P8:---
value	2.813 V	2.280 V	2.813 V	2.280 V	3.206 V	---	---	---
status	✓	✓	✓	✓	✓	---	---	---
C1	C2	C3	C4	F2 perhis...	F3 perhist(C3)	Tbase	Trigger	
2.00 V	2.00 V	2.00 V	2.00 V/div	200 m#	200 m#/div	-4.86 ms	C1 DC	
0 mV	500 mV	-300 mV	-1.300 V ofst	1.0 ms	1.00 ms/div	1.00 ms/div	Normal	3.46 V
---	---	---	---	0 #	0 #	1.00 MS	Edge	Positive
---	---	---	---	---	---			
---	---	---	---	---	---			
---	---	---	---	---	---			

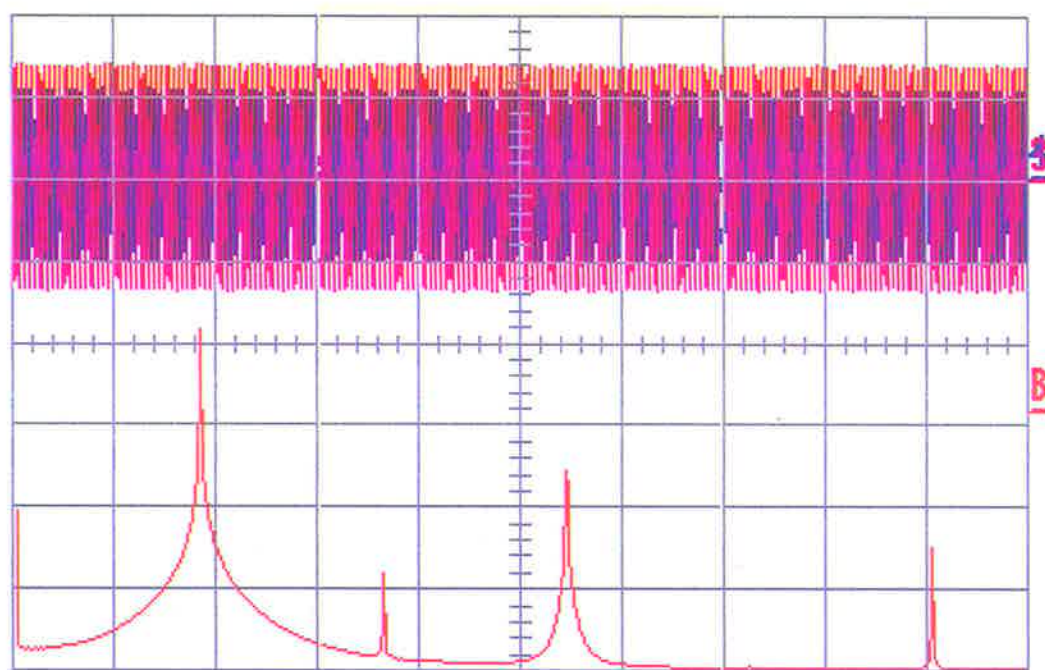
TELEDYNE LECROY

1/3/2023 3:45:00 PM

3-Jan-23
15:39:02

3
10 μ s
2.00 V

1
10 μ s
2.00 V
3: Average(A)
1 MHz
=15.0 dBm==



← 1.900 ms

	1024 sweeps:	average	low	high	sigma
phase(4,3)		104.62 °	89.37	113.10	2.97
pkpk(3)		5.14 V	5.00	5.75	0.15
rms(2)		42.9mV	41.6	44.4	0.4
rms(4)		1.268 V	1.218	1.350	0.025
rms(3)		1.593 V	1.568	1.700	0.033

10 μ s

- 1 1 V DC
- 2 .1 V DC
- 3 2 V DC
- 4 2 V DC



Ext10 DC 0.15 V 50 Ω

1 GS/s

☐ NORMAL

3-Jan-23
15:39:06

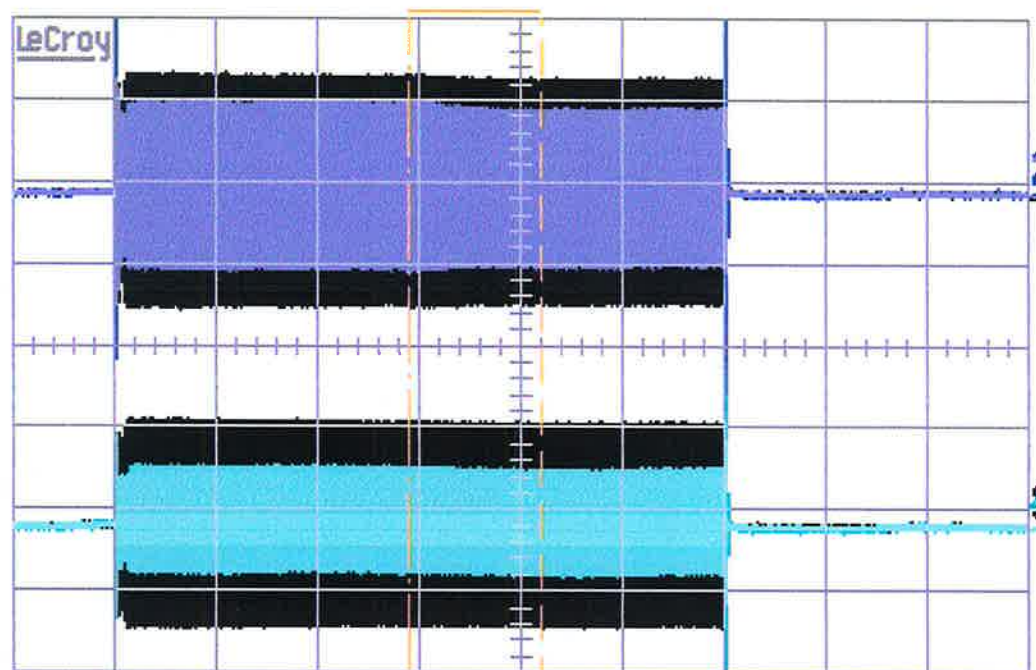
1
1 ms
0.50 V

3
1 ms
0.50 V

4
1 ms
200 mV

2
1 ms
200 mV

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



28 sweeps:

	average	low	high	sigma
rms(1)	476.4mV	471.4	487.6	5.4
rms(2)	91.1mV	74.7	136.2	26.0
rms(3)	428.9mV	426.0	435.4	3.1
rms(4)	42.5mV	26.2	87.1	26.2
phase(1,3)	75 °	70	83	3



Ext10 DC 0.50 V 50Ω

CHANNEL 2

Trace
OFF ☒ On

Coupling

ZOOM

FIND

Gain
Fixed ☒ variable

Offsets in
Volts
Divisions ☒

Grids
Single ☒ Dual
Quad Octal

10 MS/s

☐ NORMAL

3-Jan-23
15:39:13

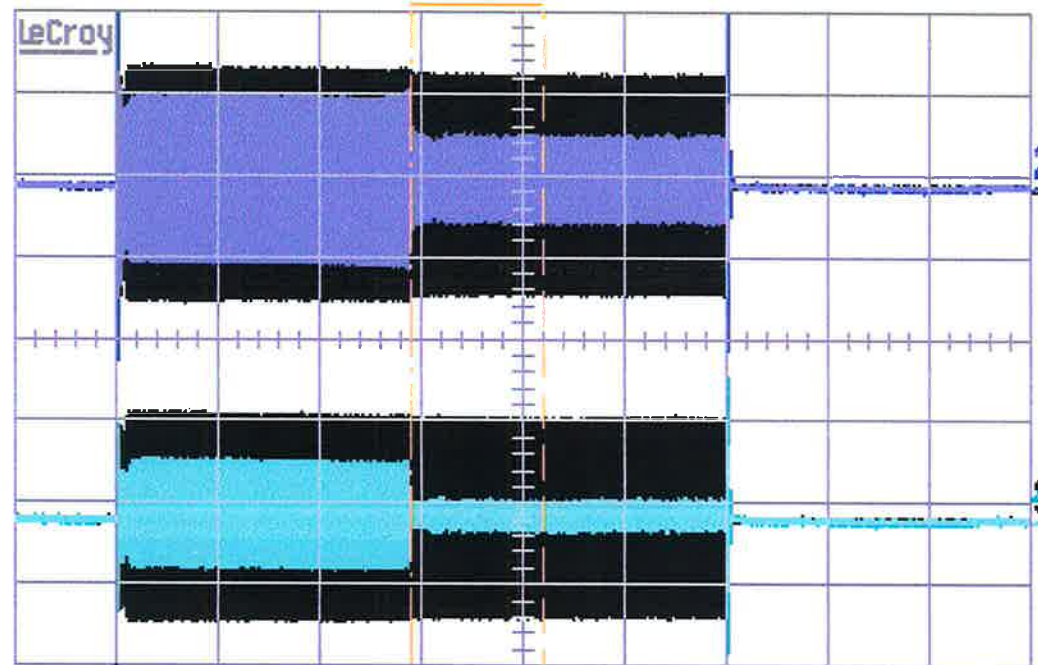
1
1 ms
0.50 V

3
1 ms
0.50 V

4
1 ms
200 mV

2
1 ms
200 mV

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



35 sweeps:

	average	low	high	sigma
rms(1)	476.4mV	470.7	487.6	5.6
rms(2)	93.3mV	74.7	136.2	26.9
rms(3)	428.8mV	424.9	435.4	3.2
rms(4)	44.7mV	26.2	87.3	27.2
phase(1,3)	75 °	70	84	3



Ext10 DC 0.50 V 50Ω

CHANNEL 2

Trace
OFF ☒ On

Coupling

ZOOM

FIND

Gain
Fixed ☒ variable

Offsets in
Volts
Divisions ☒

Grids
Single ☒ Dual
Quad Octal

10 MS/s

☐ NORMAL

3-Jan-23
15:39:21

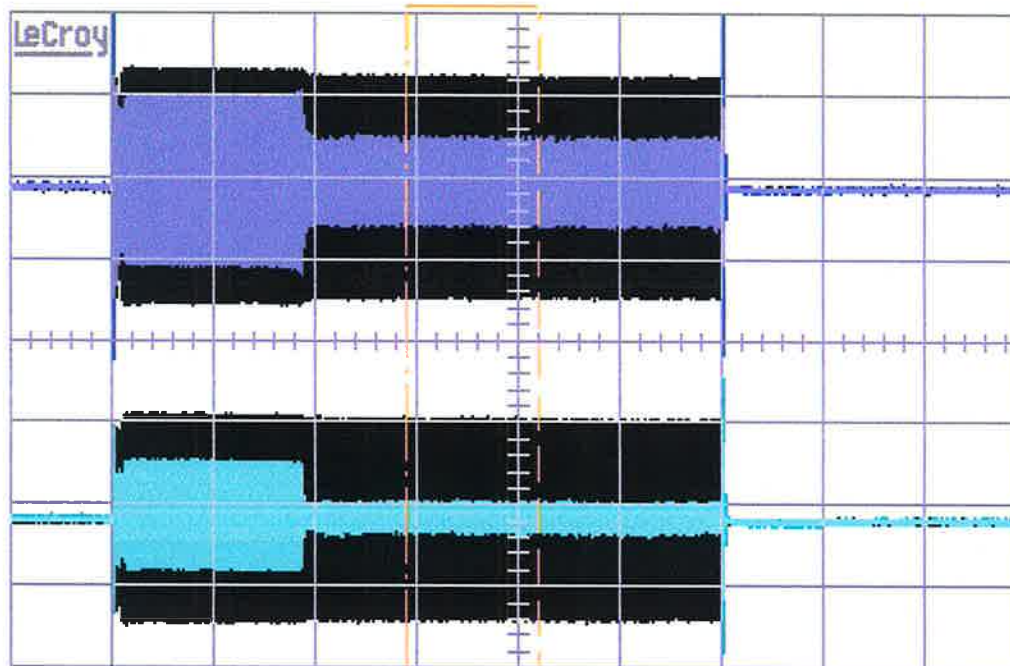
1
1 ms
0.50 V

3
1 ms
0.50 V

4
1 ms
200mV

2
1 ms
200mV

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



3 sweeps: average low high sigma
rms(1) 472.5mV 472.4 472.8 0.3
rms(2) 75.7mV 75.6 75.7 0.1
rms(3) 426.7mV 426.5 426.9 0.2
rms(4) 27.3mV 26.9 27.6 0.3
phase(1,3) 74 ° 70 78 1



Ext10 DC 0.50 V 50Ω

CHANNEL 2

Trace
OFF ☒ On

Coupling

ZOOM

FIND

Gain
Fixed ☒ variable

Offsets in
Volts
Divisions ☒

Grids
Single ☒ Dual
Quad Octal

10 MS/s

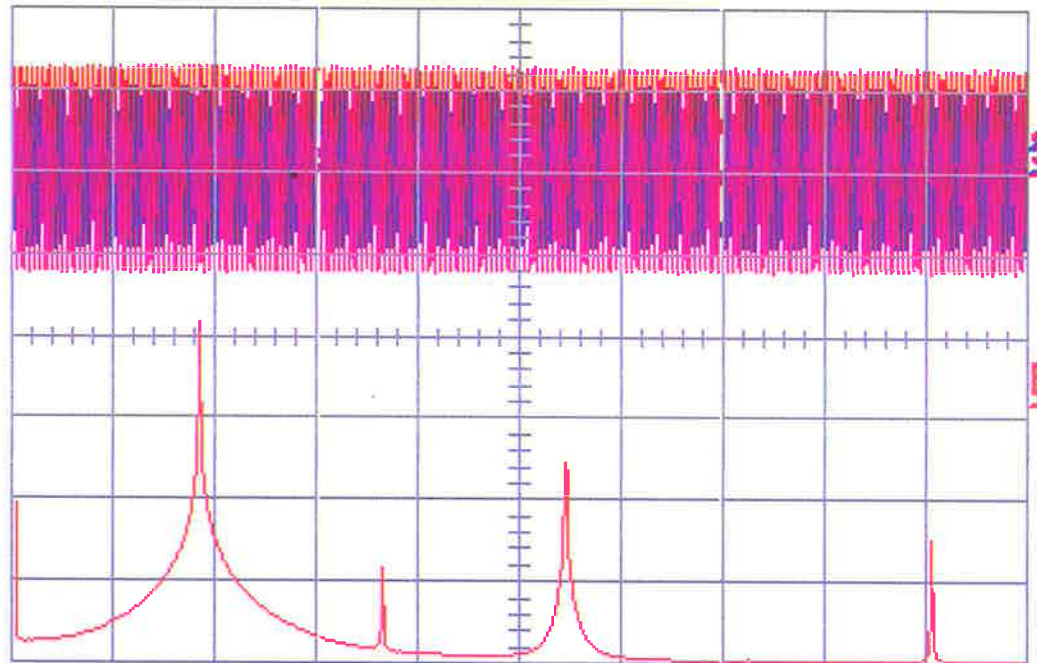
☐ NORMAL

3-Jan-23
15:42:09

3
10 μ s
2.00 V

4
10 μ s
2.00 V

B: Average(A)
1 MHz
=15.0 dBm==



← 1.900 ms

	1211 sweeps:	average	low	high	sigma
phase(4,3)		104.29 °	89.06	113.10	3.32
pkpk(3)		5.16 V	5.00	5.75	0.18
rms(2)		42.9mV	41.6	44.5	0.5
rms(4)		1.271 V	1.218	1.350	0.029
rms(3)		1.598 V	1.568	1.702	0.039

10 μ s

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



Ext10 DC 0.15 V 50 Ω

1 GS/s



NORMAL