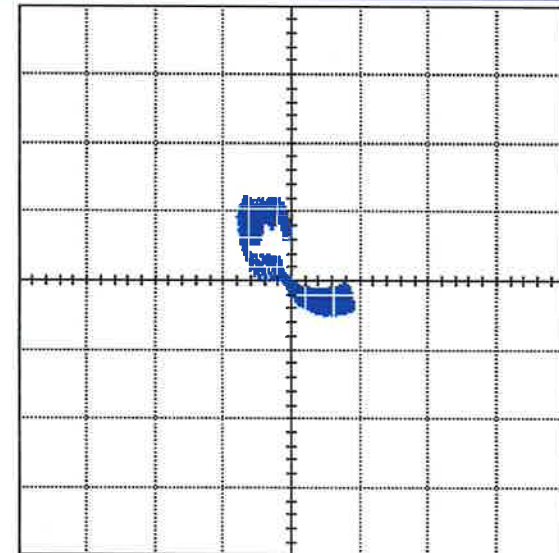
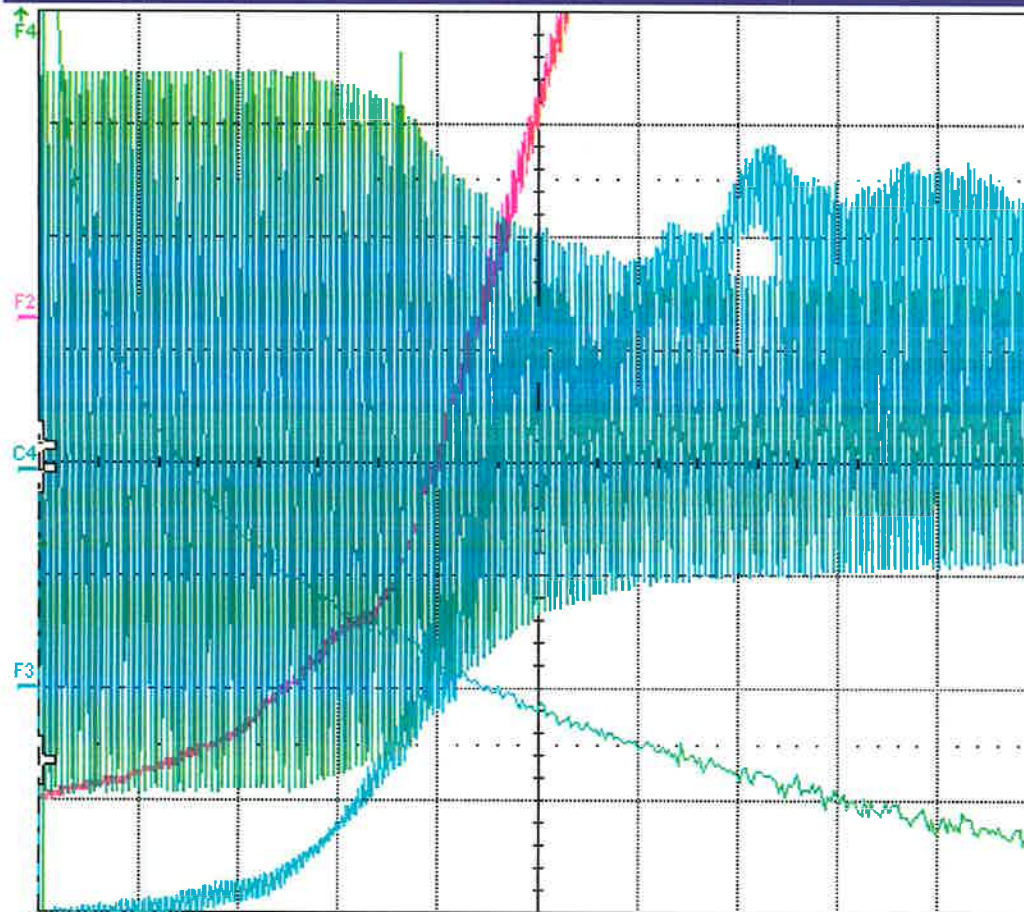


File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



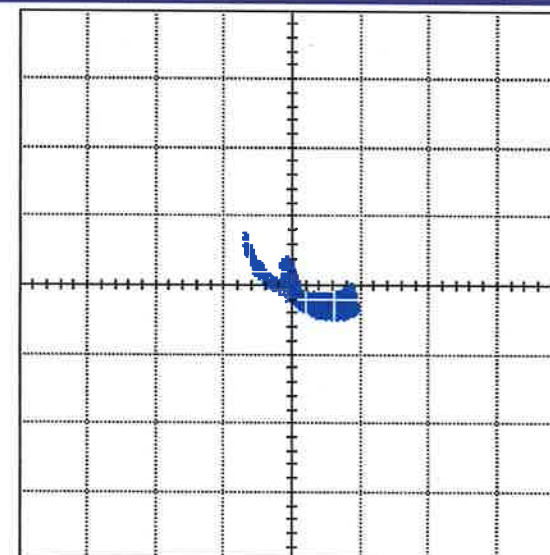
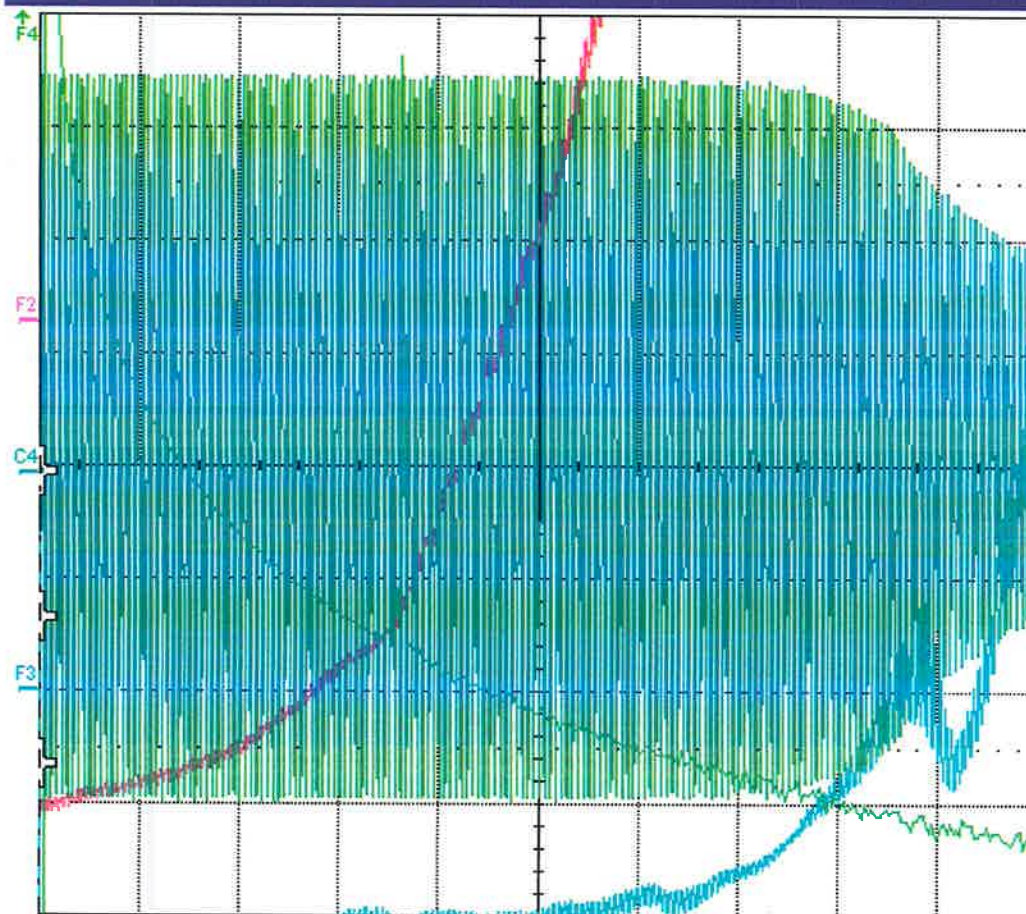
$\Delta Y/\Delta X = -317e-3$ $\Delta Y \cdot \Delta X = -68 \text{ mV}^2$
 -10.0 dB Angle = -17.6°
 Radius = 487 mV

C4 DCIM 50.0 mV/div -3.5 mV ofst 11.1 mV	F2 <F3> 250e-3/div 10.0 μ s/div 12 #	F3 script(C3,C2) 500e-3/div 10.0 μ s/div	F4 <FFT(C2)> 5.00 dB/div 500 kHz/div 41 #	XY X:C2 Y:C3 500 mV/div 500 mV/div
---	---	--	--	--

Tbase -458.4 μ s
 10.0 μ s/div
 50.0 kS 500 MS/s
 Trigger Ext/10 DC
 Normal 130 mV
 Edge Negative
 X1= 408.400 μ s

Page successfully sent to the printer queue.

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help

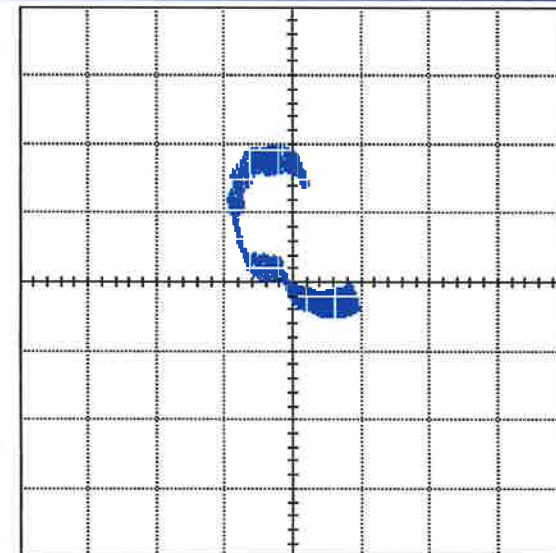
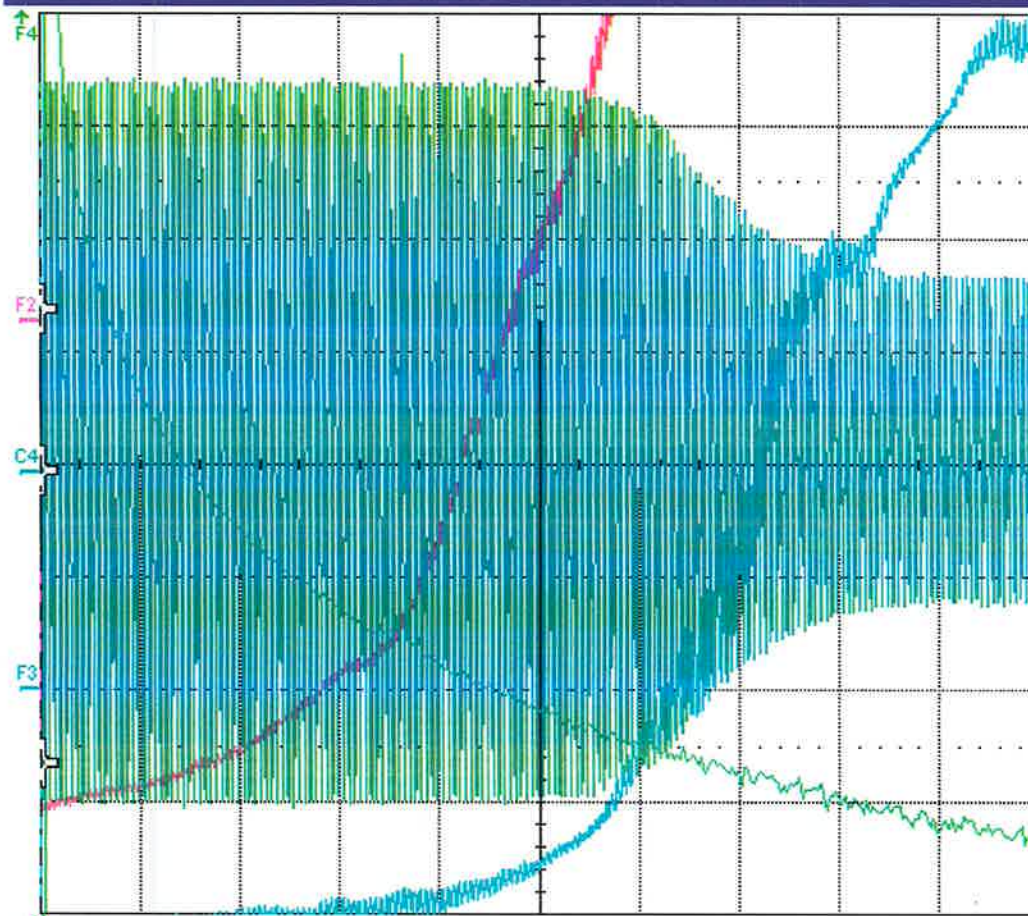


$\Delta Y/\Delta X = -317e-3$ $\Delta Y^2/\Delta X = -68 \text{ mV}^2$
 -10.0 dB Angle = -17.6°
 Radius = 487 mV

C4	DC1M	F2	<F3>	F3	script(C3,C2)	F4	<FFT(C2)>	XY	X:C2 Y:C3
50.0 mV/div		250e-3/div		500e-3/div		5.00 dB/div		500 mV/div	
-3.5 mV ofst		10.0 $\mu\text{s}/\text{div}$		10.0 $\mu\text{s}/\text{div}$		500 kHz/div		500 mV/div	
		17 #				46 #			
-63.2 mV									

Tbase -458.4 μs Trigger Ext/10 DC
 10.0 $\mu\text{s}/\text{div}$ Normal 130 mV
 50.0 kS 500 MS/s Edge Negative
 X1= 408.400 μs

Page successfully sent to the printer queue.

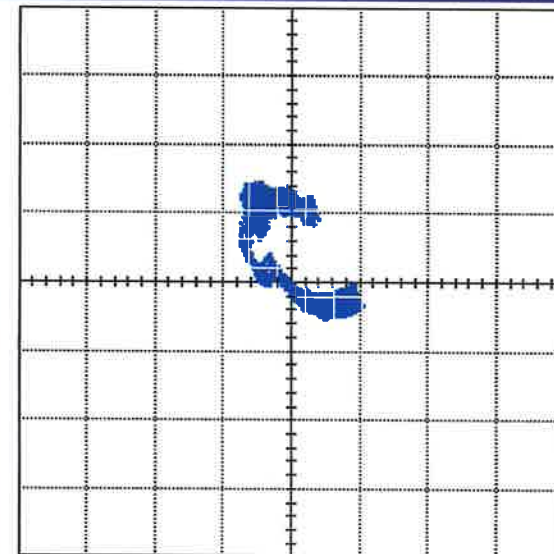
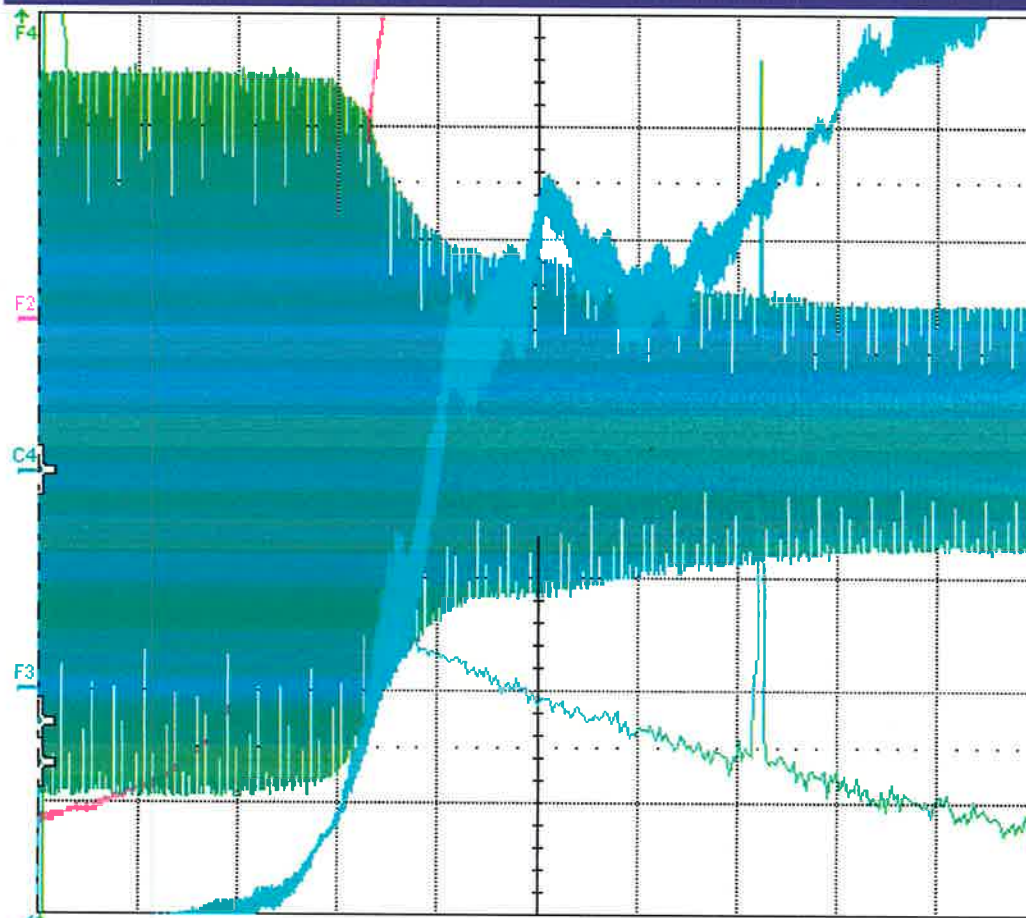


$\Delta Y/\Delta X = -317e-3$ $\Delta Y^* \Delta X = -68 \text{ mV}^2$
 -10.0 dB Angle = -17.6°
 Radius = 487 mV

C4	D01M	F2	<F3>	F3	script(C3,C2)	F4	<FFT(C2)>	XY	X:C2 Y:C3
50.0 mV/div		250e-3/div		500e-3/div		5.00 dB/div		500 mV/div	
-3.5 mV ofst		10.0 $\mu\text{s}/\text{div}$		10.0 $\mu\text{s}/\text{div}$		500 kHz/div		500 mV/div	
		19 #				47 #			
72.7 mV								X	—
								Y	—

Tbase -458.4 μs Trigger Ext 10 DC
 10.0 $\mu\text{s}/\text{div}$ Normal 130 mV
 50.0 kS 500 MS/s Edge Negative
 X1 = 408.400 μs

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



$\Delta Y/\Delta X = -317e-3$ $\Delta Y^*\Delta X = -68 \text{ mV}^2$
 -10.0 dB Angle = -17.6°
 Radius = 487 mV

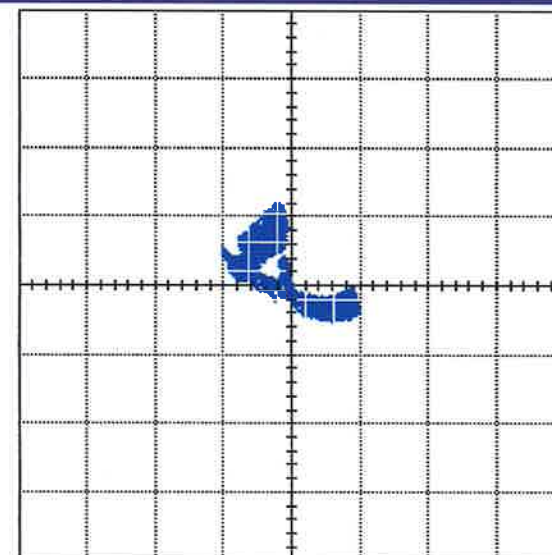
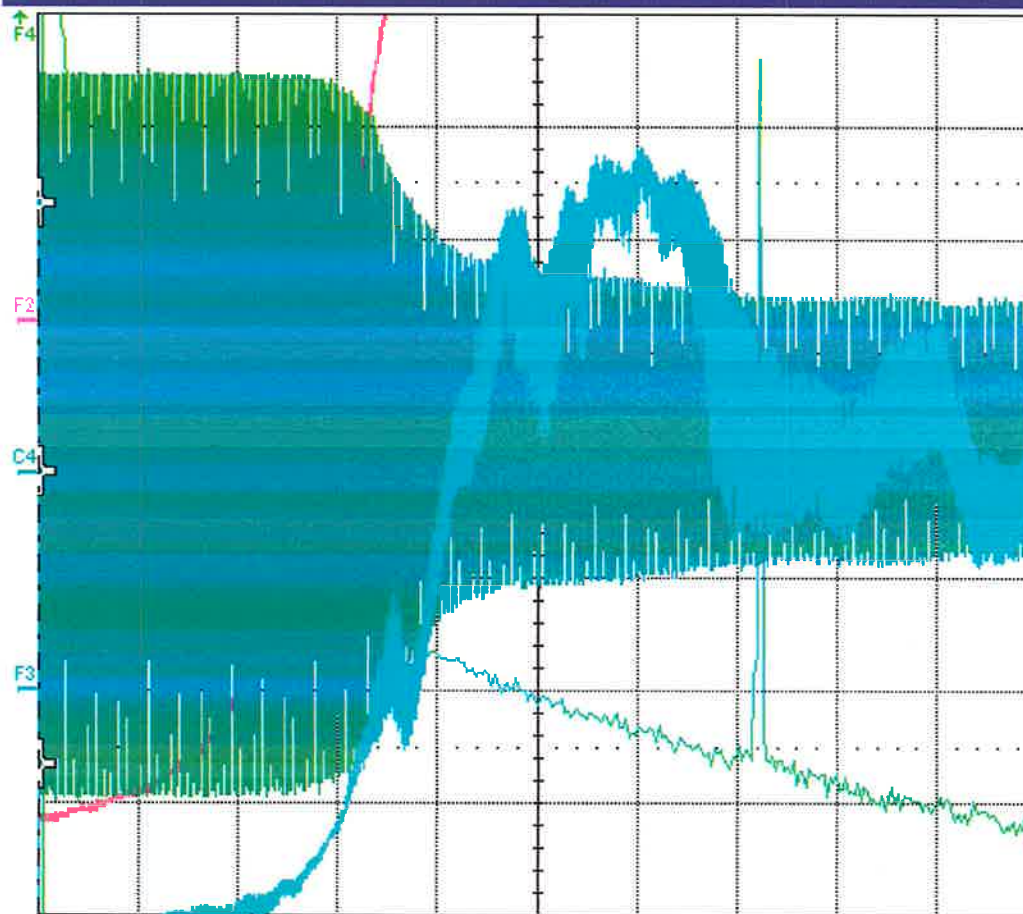
C4	DC1M	F2	<F3>	F3	script(C3,C2)	F4	<FFT(C2)>	XY	X:C2 Y:C3
50.0 mV/div		250e-3/div		500e-3/div		5.00 dB/div		500 mV/div	
-3.5 mV ofst		20.0 $\mu\text{s}/\text{div}$		20.0 $\mu\text{s}/\text{div}$		250 kHz/div		500 mV/div	
		21 #				21 #			
-110.4 mV								X	Y

Tbase -500.0 μs Trigger Exp/10 DC
 20.0 $\mu\text{s}/\text{div}$ Normal 130 mV
 50.0 kS 250 MS/s Edge Negative
 X1= 400.000 μs

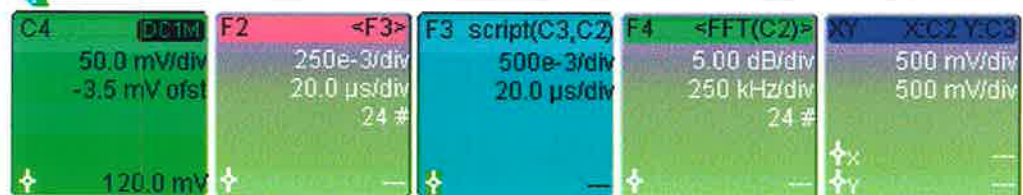
LeCroy

2/21/2023 10:46:51 AM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



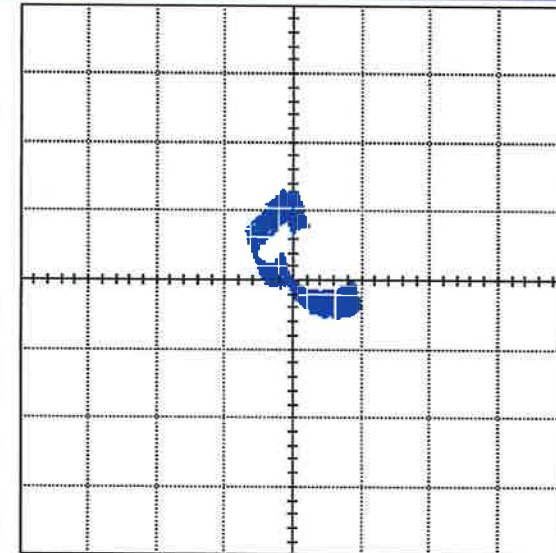
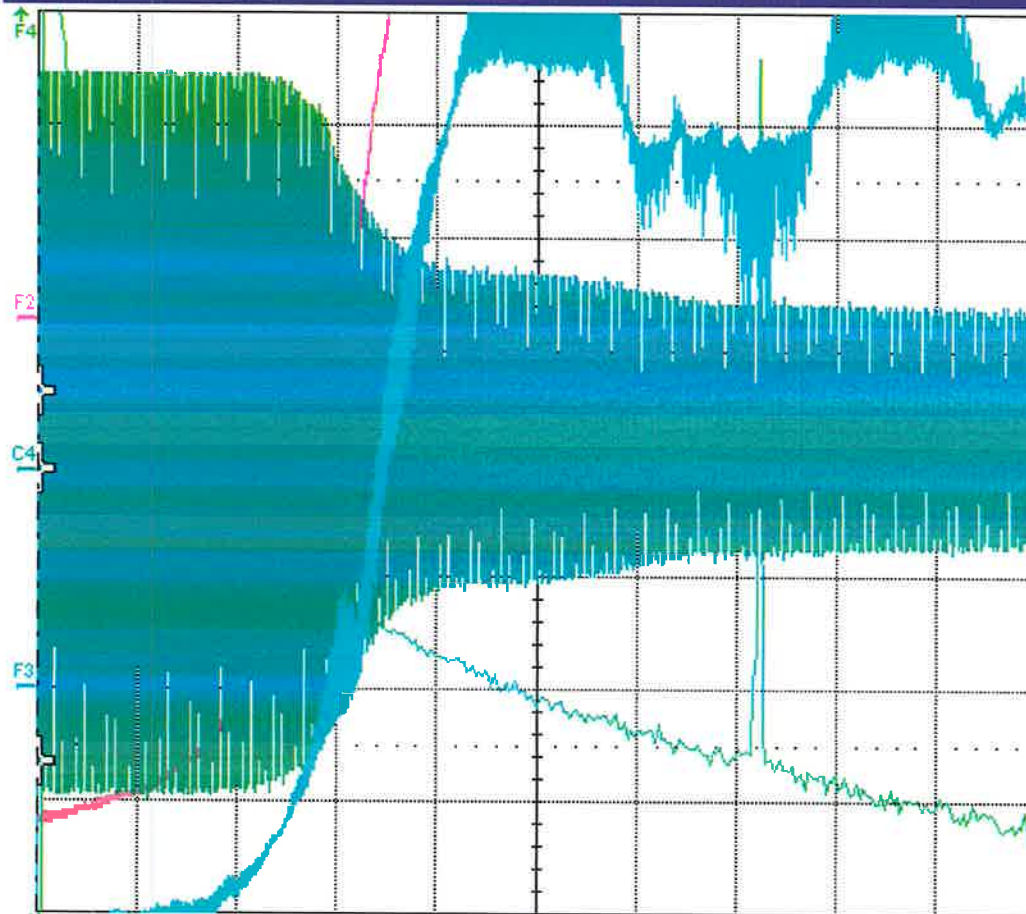
$\Delta Y/\Delta X = -317e-3$ $\Delta Y^*\Delta X = -68 \text{ mV}^2$
 -10.0 dB Angle = -17.6°
 Radius = 487 mV



Tbase	-500.0 μ s	Trigger	Ext/10 DC
	20.0 μ s/div	Normal	130 mV
50.0 kS	250 MS/s	Edge	Negative
X1= 400.000 μ s			

Page successfully sent to the printer queue.

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



$\Delta Y/\Delta X = -317e-3$ $\Delta Y * \Delta X = -68 \text{ mV}^2$
 -10.0 dB Angle = -17.6°
 Radius = 487 mV

C4	DCIM	F2	<F3>	F3	script(C3,C2)	F4	<FFT(C2)>	XY	X:C2 Y:C3
50.0 mV/div		250e-3/div		500e-3/div		5.00 dB/div		500 mV/div	
-3.5 mV ofst		20.0 μ s/div		20.0 μ s/div		250 kHz/div		500 mV/div	
		27 #				27 #			
34.9 mV								X	---
								Y	---

Tbase -500.0 μ s Trigger Ext/10 DC
 20.0 μ s/div Normal 130 mV
 50.0 kS 250 MS/s Edge Negative
 X1= 400.000 μ s

Page successfully sent to the printer queue.

21-Feb-23
10:54:44

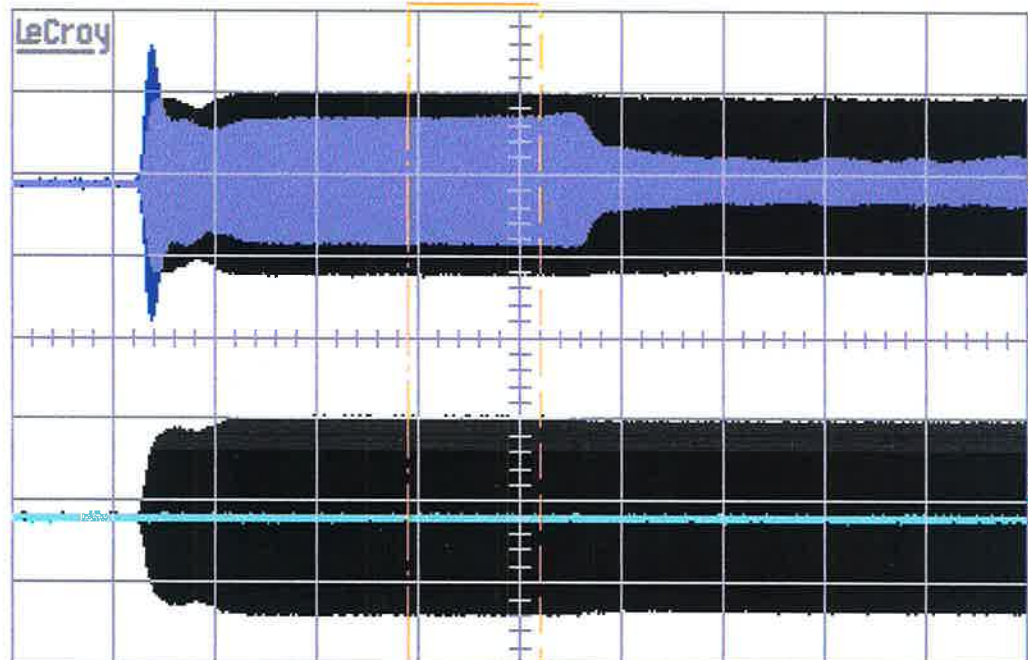
1
.1 ms
0.50 V

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



1008 sweeps:

	average	low	high	sigma
rms(1)	380.1mV	367.5	383.1	3.0
rms(2)	96.0mV	44.2	105.3	13.3
rms(3)	417.8mV	412.7	423.5	2.4
rms(4)	27.2mV	3.9	106.3	41.0
phase(1,3)	87.8 °	82.0	92.5	1.2

CHANNEL 1

Trace
OFF ☒ On

Coupling

ZOOM

FIND

Gain
Fixed ☒ variable

Offsets in
Volts
Divisions ☒

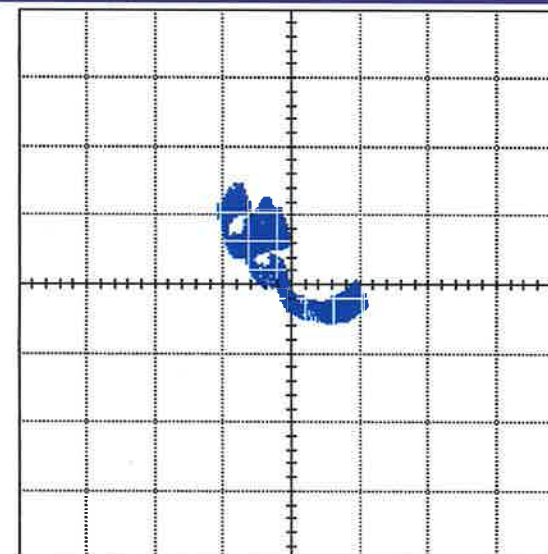
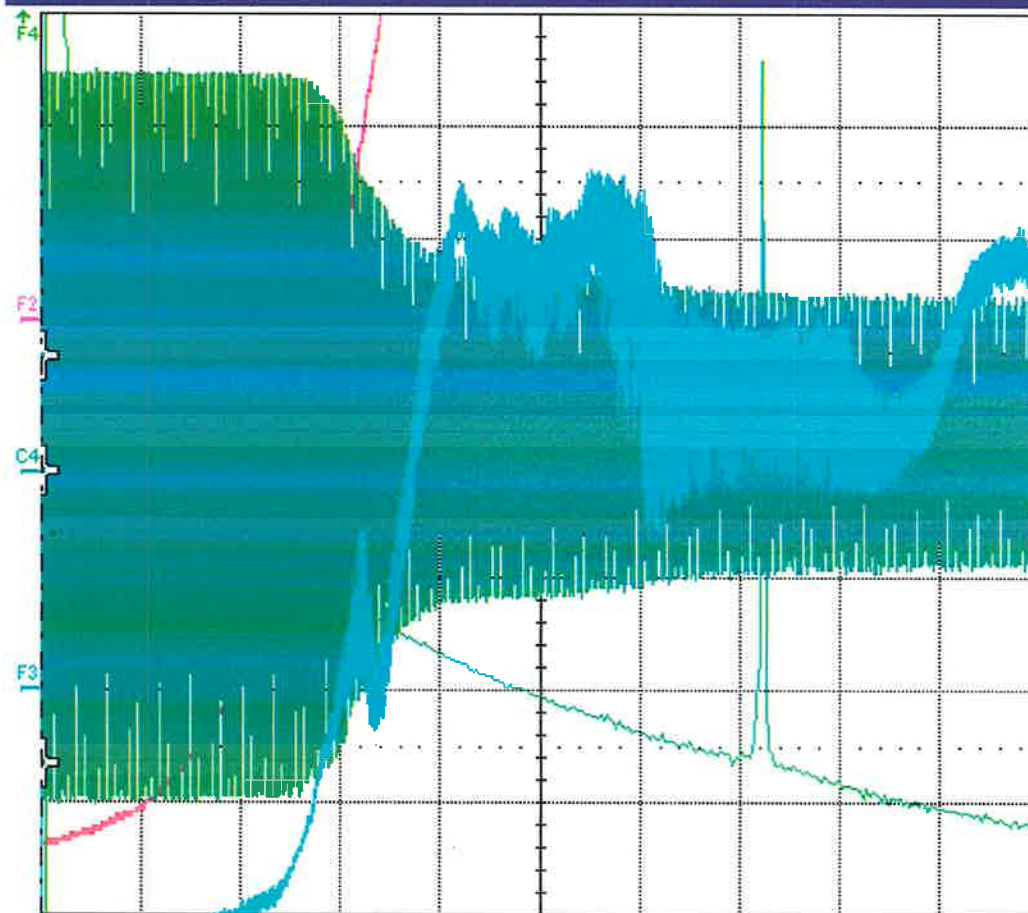
Grids
Single ☒ Dual
Quad Octal

100 MS/s

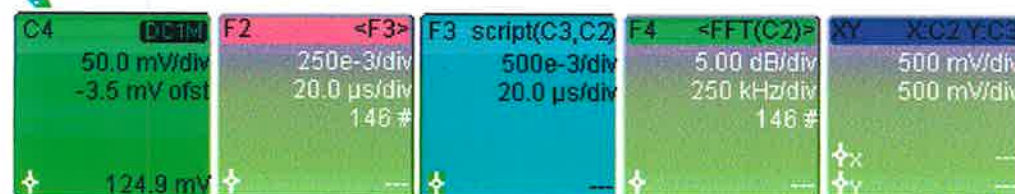
Ext10 DC 0.50 V 50Ω

☒ NORMAL

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



$\Delta Y/\Delta X = -317e-3$ $\Delta Y^* \Delta X = -68 \text{ mV}^2$
 -10.0 dB Angle = -17.6°
 Radius = 487 mV



Tbase -500.0 μ s Trigger Ext/10 DC
 20.0 μ s/div Normal 130 mV
 50.0 kS 250 MS/s Edge Negative
 X1= 400.000 μ s

LeCroy

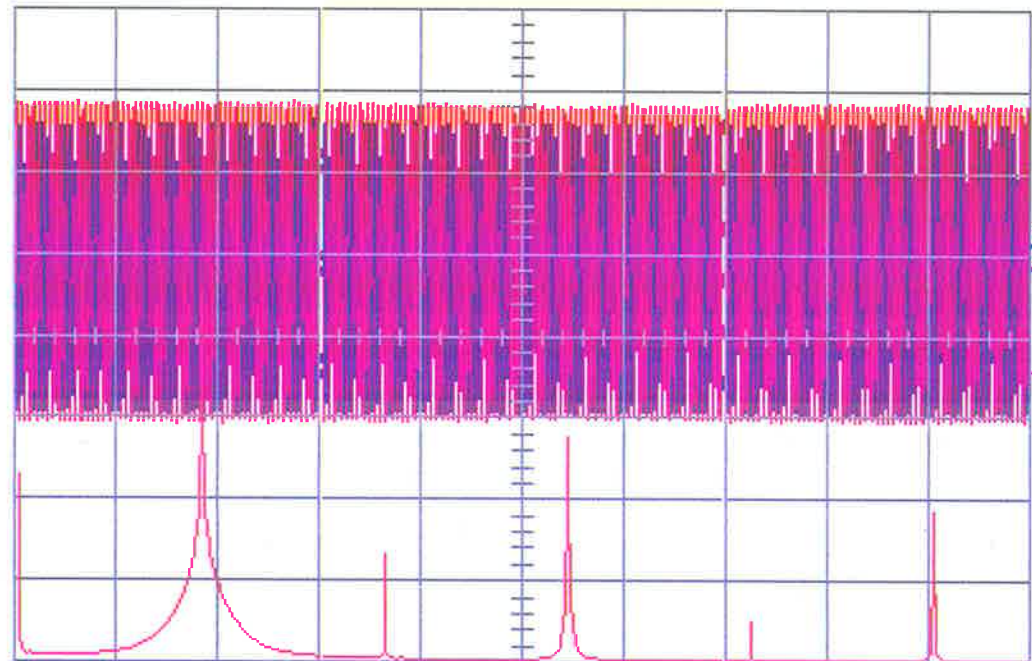
2/21/2023 10:54:18 AM

21-Feb-23
10:55:08

3
10 μ s
1.00 V

4
10 μ s
1.00 V

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



← 1.900 ms

	1246 sweeps:	average	low	high	sigma
phase(4 , 3)		98.58 °	92.81	103.08	1.22
pkpk(3)		3.95 V	3.81	4.06	0.04
rms(2)		46.0mV	32.0	53.8	3.4
rms(4)		1.189 V	1.167	1.211	0.007
rms(3)		1.300 V	1.259	1.330	0.010

10 μ s

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



Ext10 DC 0.15 V 50 Ω

TRIGGER SETUP

Edge SMART

trigger on
1 2 3 4 Ext
Ext10 Line

cplg Ext10
DC AC LFREJ
HFREJ HF

slope Ext10
Pos **Neg**
Window

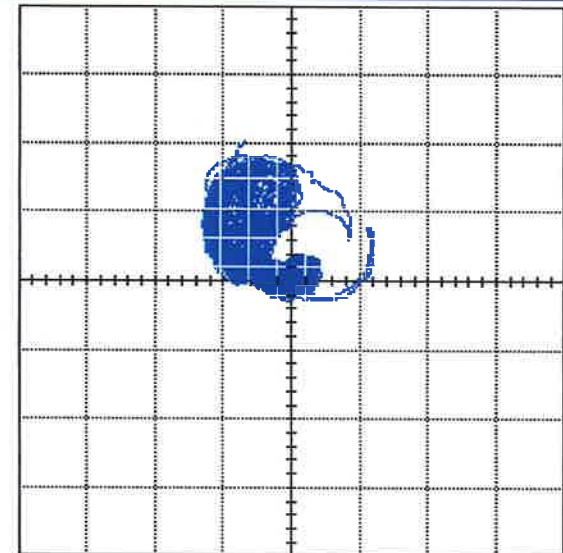
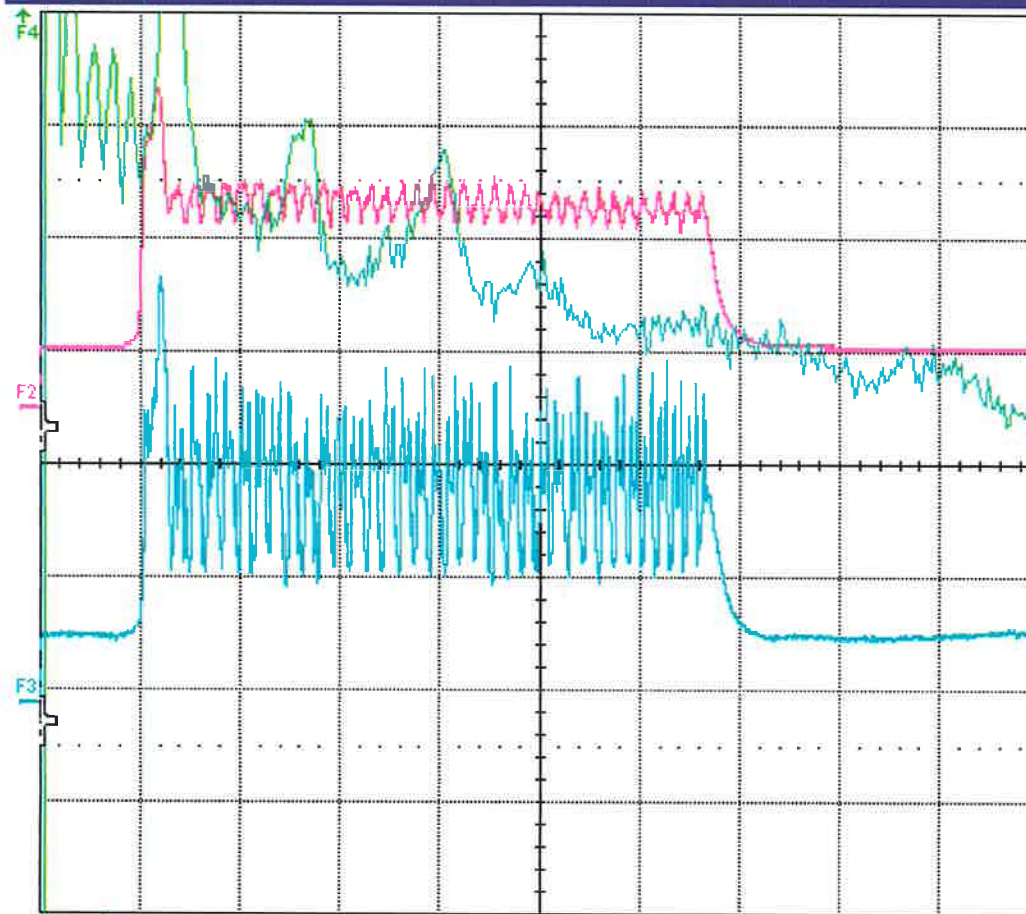
External
Atten x1
DC50 Ω DC1M Ω

holdoff
- - -
OFF Time Evts

1 GS/s

NORMAL

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



$\Delta Y/\Delta X = -11$ $\Delta Y^2/\Delta X = -106 \mu V^2$
 21.1 dB Angle = 95.1 °
 Radius = 35 mV

F2 <F3>	F3 script(C3,C2)	F4 <FFT(C2)>	XY XC2 Y-C3
2.00/div	2.00/div	5.00 dB/div	500 mV/div
1.00 ms/div	1.00 ms/div	5.00 kHz/div	500 mV/div
64 #		64 #	

Tbase -4.36 ms Trigger **Ext10 DC**
 1.00 ms/div Normal 130 mV
 50.0 kS 5.0 MS/s Edge Negative
 X1= -640.0 μs

LeCroy

2/21/2023 11:04:08 AM

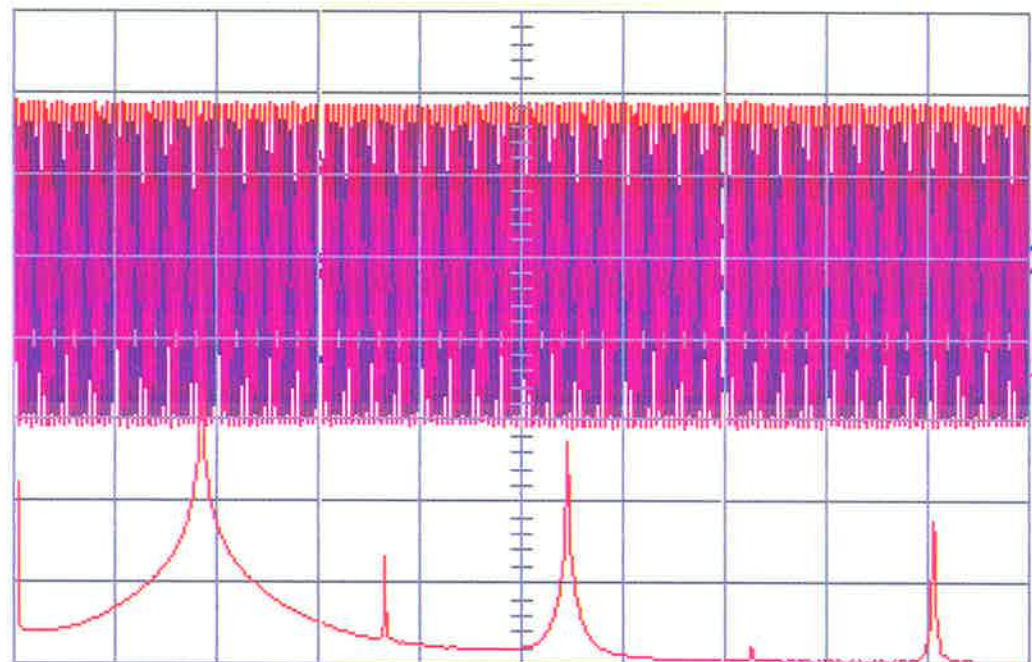
21-Feb-23

11:06:35

3
10 μ s
1.00 V

4
10 μ s
1.00 V

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



← 1.900 ms

	158 sweeps:	average	low	high	sigma
phase(4,3)		91.63 °	87.32	95.38	1.20
pkpk(3)		4.05 V	3.97	4.13	0.02
rms(2)		46.3mV	45.3	47.6	0.5
rms(4)		1.209 V	1.191	1.222	0.006
rms(3)		1.332 V	1.316	1.345	0.006

10 μ s

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



Ext10 DC 0.15 V 50 Ω

TRIGGER SETUP

Edge SMART

trigger on
1 2 3 4 Ext
Ext10 Line

cplg Ext10
DC AC LFREJ
HFREJ HF

slope Ext10
Pos Neg
Window

External
Atten x1
DC50 Ω DC1M Ω

holdoff

OFF Time Evts

1 GS/s

DISPLAY ☐ NORMAL

21-Feb-23
11:06:40

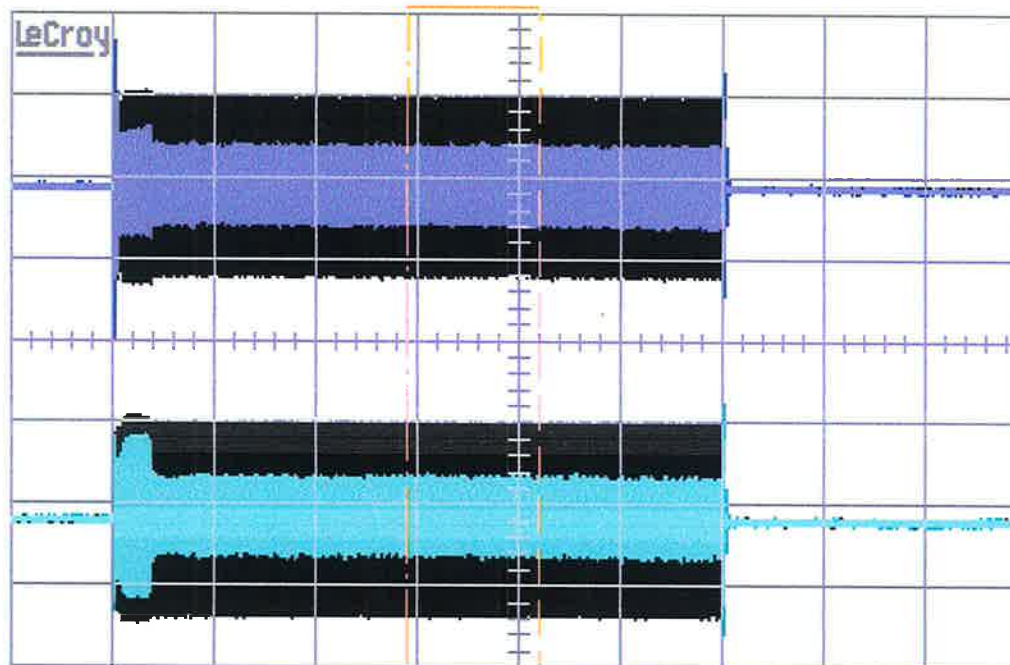
1
1 ms
0.50 V

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



174 sweeps: average low high sigma
rms(1) 381.5mV 380.8 382.0 0.3
rms(2) 67.4mV 66.6 68.4 0.3
rms(3) 408.7mV 408.1 409.2 0.3
rms(4) 62.2mV 61.3 63.2 0.4
phase(1,3) 81 ° 75 87 2

CHANNEL 1

Trace
OFF **On**

Coupling

ZOOM

FIND

Gain
Fixed
variable

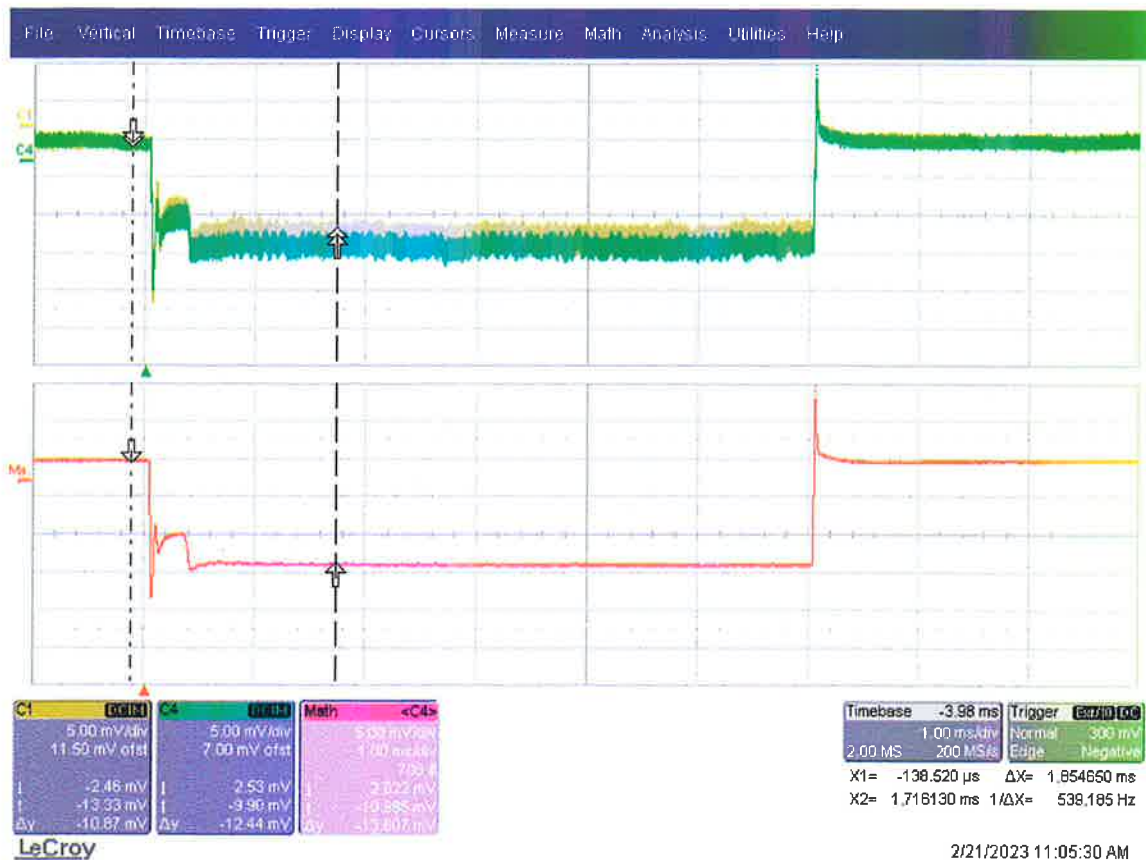
Offsets in
Volts
Divisions

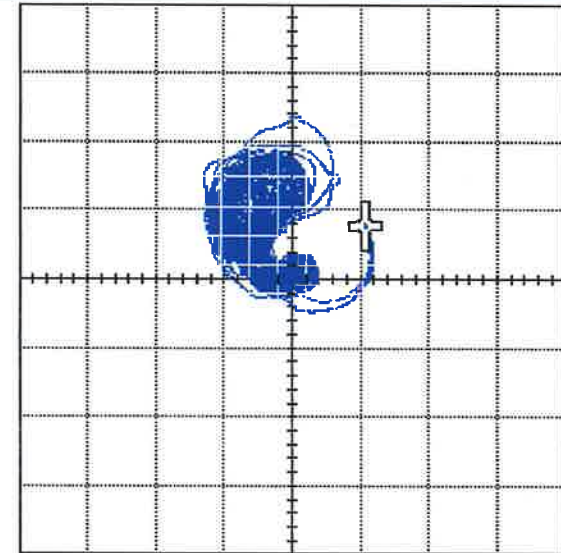
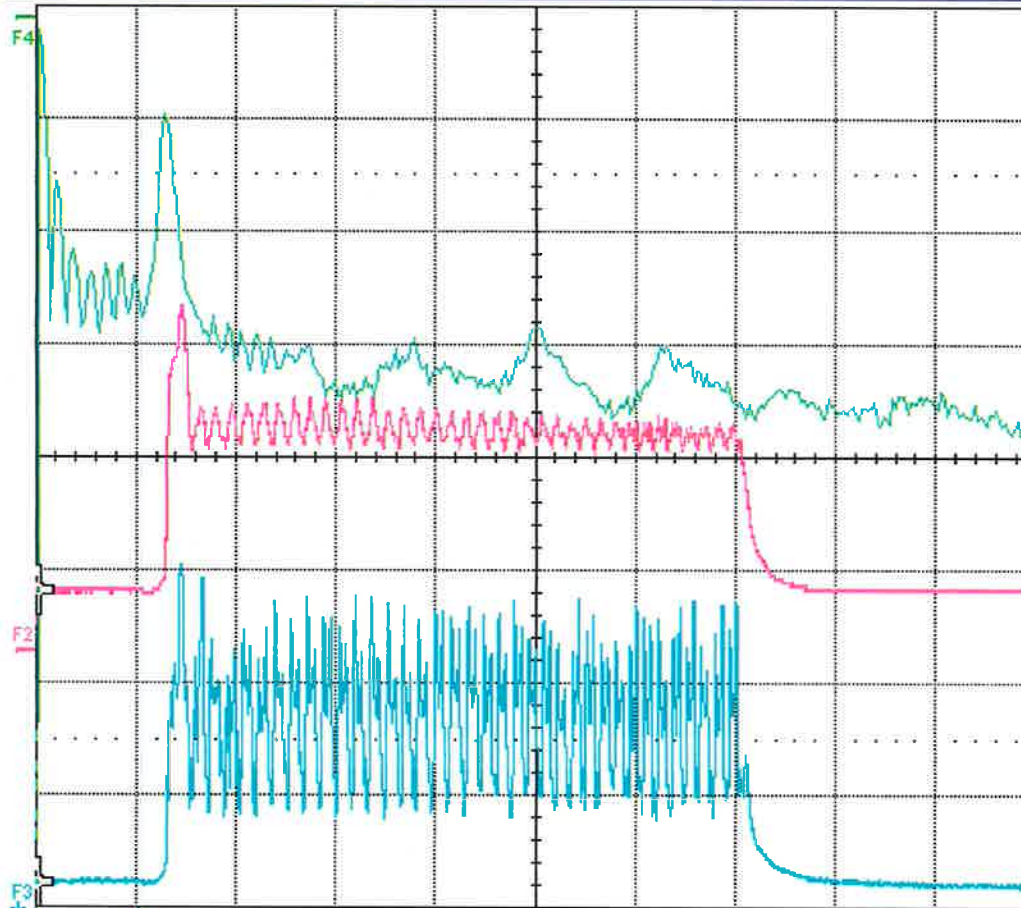
Grids
Single Dual
Quad Octal

10 MS/s

NORMAL

Ext10 DC 0.50 V 50Ω

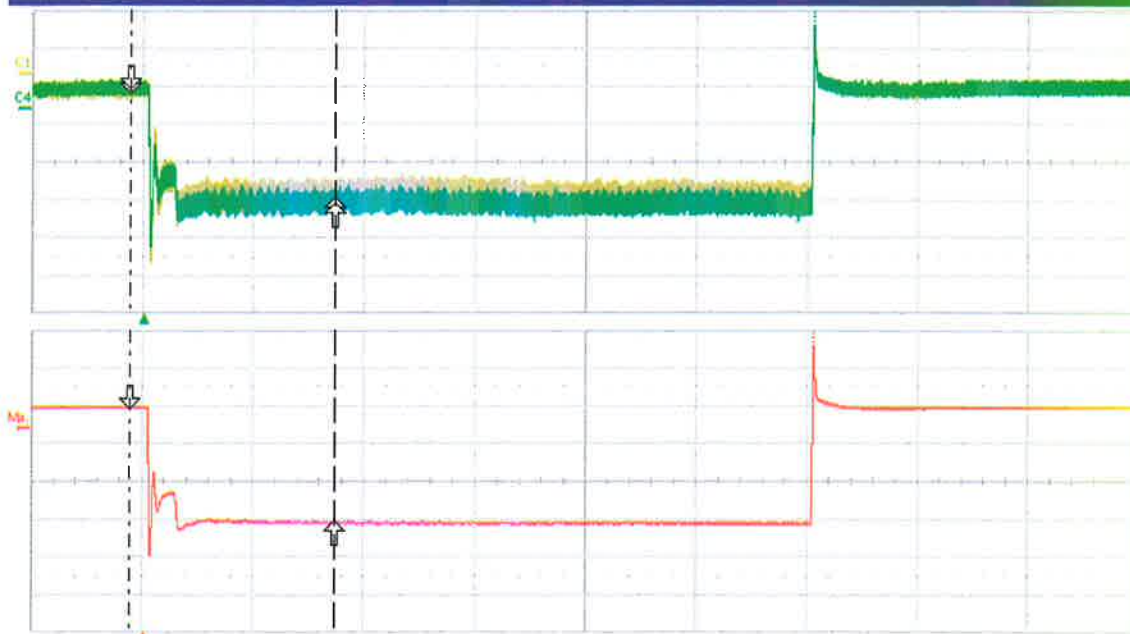




$\Delta Y/\Delta X = 731e-3$ $\Delta Y \cdot \Delta X = 204 \text{ mV}^2$
 -2.7 dB Angle = 36.2°
 Radius = 655 mV

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	500 mV/div		
1.00 ms/div	1.00 ms/div	1.00 ms/div	5.00 kHz/div	500 mV/div		
68 #			68 #			
1.100207	1.1242				X	483.8 mV
					Y	56.5 mV

Tbase -3.98 ms Trigger Ext10 DC
 1.00 ms/div Normal 130 mV
 50.0 kS 5.0 MS/s Edge Negative
 X1= -1.0000 ms



C1	C4	Math
5.00 mV/div	5.00 mV/div	5.00 mV/div
11.50 mV offset	7.00 mV offset	1.00 mV/div
		75.0
I -12.35 mV	I -2.69 mV	I -2.727 mV
I -16.47 mV	I -12.73 mV	I -12.816 mV
ΔV -14.13 mV	ΔV -15.41 mV	ΔV -15.143 mV

LeCroy

Timebase	-3.98 ms	Trigger	Edge 00
	1.00 ms/div	Normal	200 mV
	2.00 MS	Edge	Negative
X1=	-138.520 μs	ΔX=	1.854650 ms
X2=	1.716130 ms	1/ΔX=	539.165 Hz

2/21/2023 11:10:13 AM

21-Feb-23
11:11:29

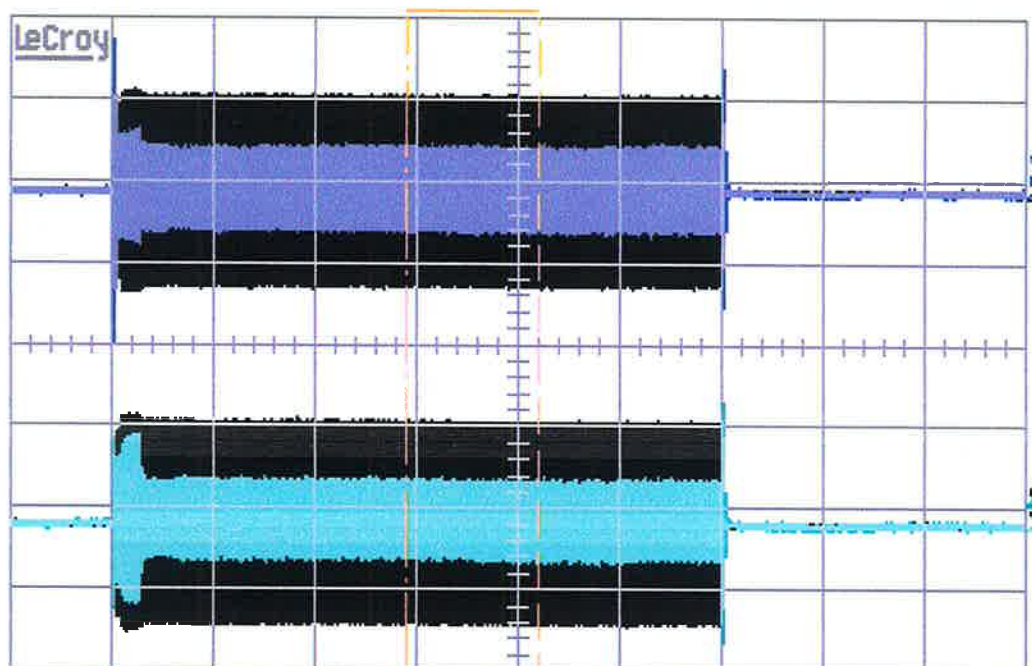
1
1 ms
0.50 V

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



82 sweeps:

	average	low	high	sigma
rms(1)	404.7mV	404.1	405.3	0.3
rms(2)	71.0mV	70.4	71.9	0.3
rms(3)	428.8mV	428.0	429.3	0.3
rms(4)	63.6mV	62.9	64.2	0.3
phase(1,3)	80 °	75	86	2



Ext10 DC 0.50 V 50Ω

CHANNEL 1

Trace
OFF **On**

Coupling

ZOOM

FIND

Gain
Fixed
variable

Offsets in
Volts
Divisions

Grids
Single Dual
Quad Octal

10 MS/s

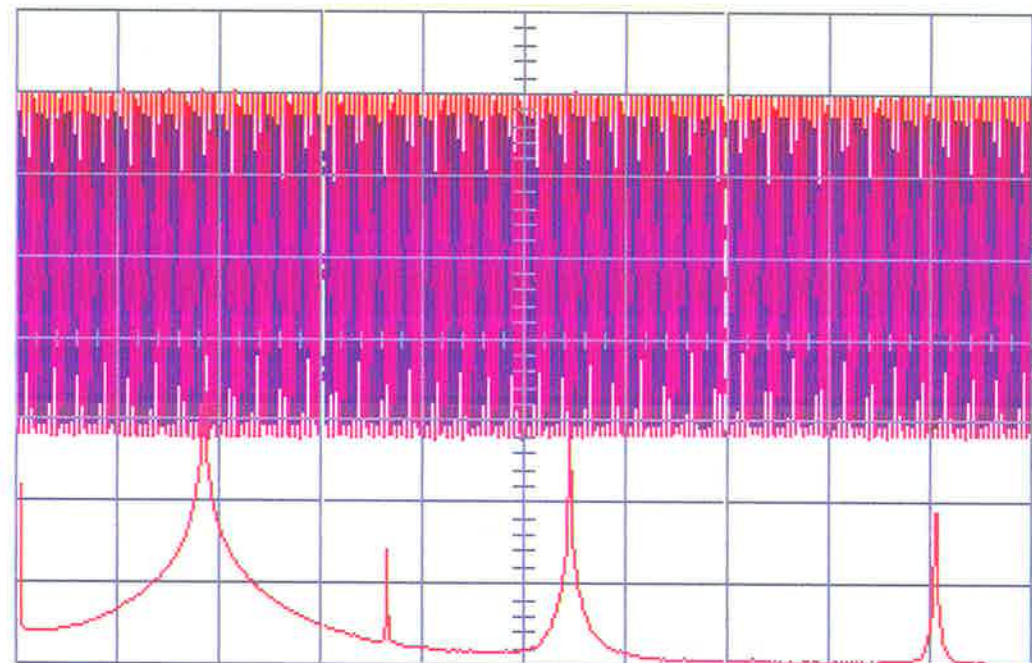
NORMAL

21-Feb-23
11:11:31

3
10 μ s
1.00 V

4
10 μ s
1.00 V

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



← 1.900 ms

	89 sweeps:	average	low	high	sigma
phase(4 , 3)		93.22 °	88.87	97.34	1.18
pkpk(3)		4.29 V	4.22	4.34	0.02
rms(2)		46.4mV	45.7	47.7	0.5
rms(4)		1.263 V	1.254	1.271	0.004
rms(3)		1.405 V	1.387	1.414	0.005

10 μ s

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



Ext10 DC 0.15 V 50 Ω

TRIGGER SETUP

Edge SMART

trigger on
1 2 3 4 Ext
Ext10 Line

cplg Ext10
DC AC LFREJ
HFREJ HF

slope Ext10
Pos **Neg**
Window

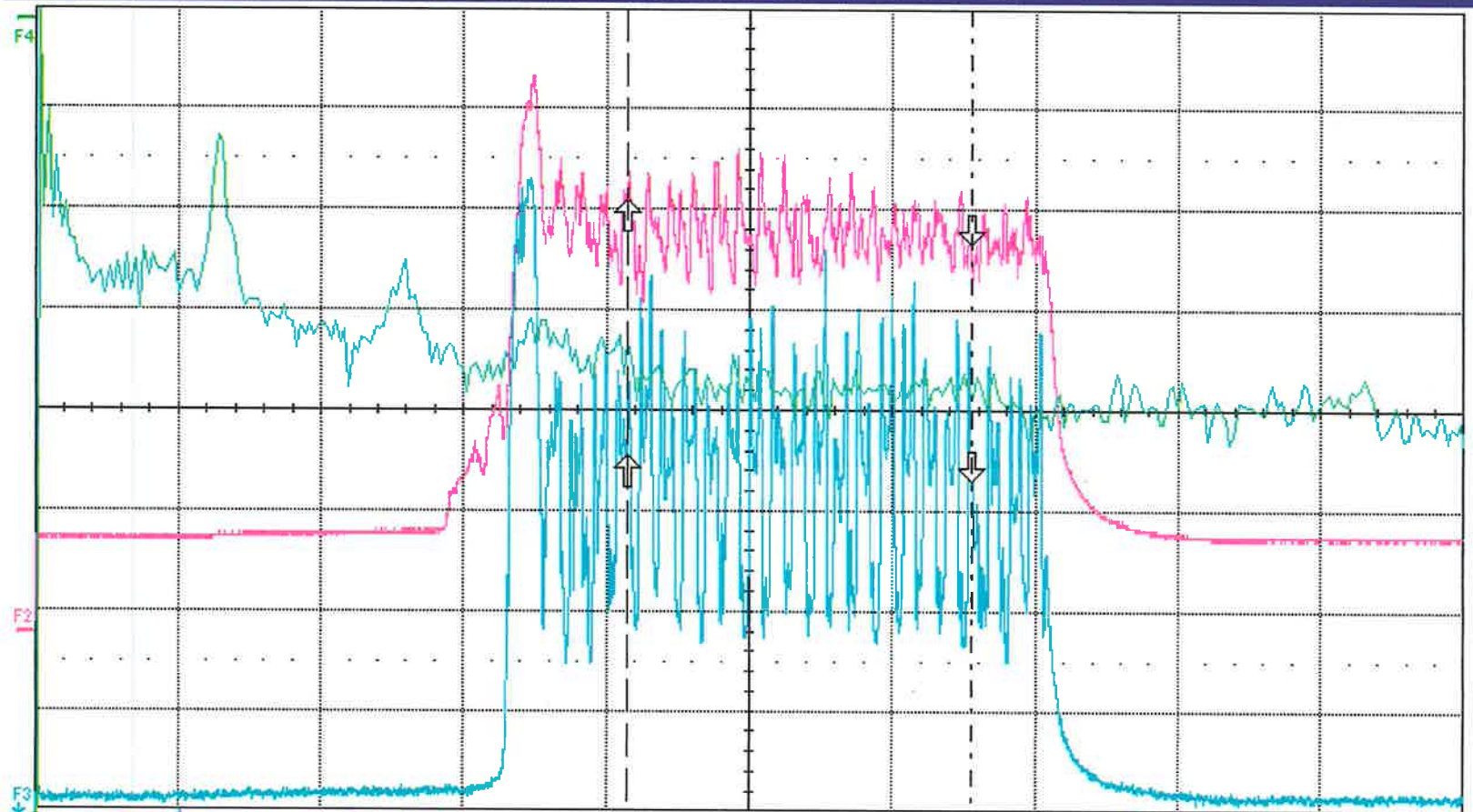
External
Atten x1
DC50 Ω DC1M Ω

holdoff
- - -
OFF Time Evts

1 GS/s

DISPLAY ☐ NORMAL

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help

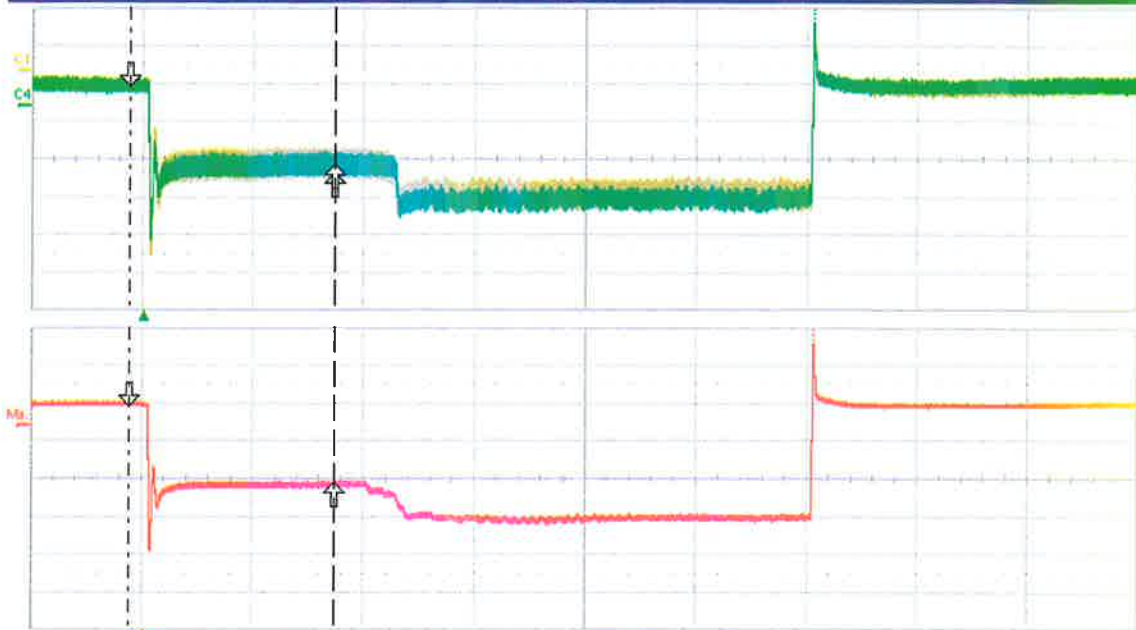


F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>
1.00/div	1.00/div	1.00/div	10.0 dB/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	5.00 kHz/div
11 #			11 #
↓ 3.899322	↓ 4.1511	↓	---
↑ 4.308808	↑ 4.3715	↑	---
Δy 409.486e-3	Δy 220.3e-3	Δy	---

Tbase	-3.98 ms	Trigger Ext	10 DC
	1.00 ms/div	Normal	130 mV
50.0 kS	5.0 MS/s	Edge	Negative
X1= 5.5312 ms	ΔX= -2.4098 ms		
X2= 3.1214 ms	1/ΔX= -414.97 Hz		

LeCroy

2/21/2023 11:30:14 AM



C1	C4	Math
5.00 mV/div	5.00 mV/div	5.00 mV/div
11.50 mV/div	7.00 mV/div	1.00 mV/div
		1.2%
I -2.12 mV	I 2.30 mV	I 2.661 mV
I -13.14 mV	I -8.72 mV	I 7.033 mV
ΔV -11.02 mV	ΔV -11.02 mV	ΔV -10.435 mV

Timebase	-3.98 ms	Trigger	Edge/10.00
	1.00 ms/div	Normal	300 mV
2.00 MS	200 MS/div	Edge	Negative
X1=	-138.520 μs	ΔX=	1.854650 ms
X2=	1.716130 ms	1/ΔX=	539.185 Hz

LeCroy

2/21/2023 11:29:39 AM

21-Feb-23
11:30:54

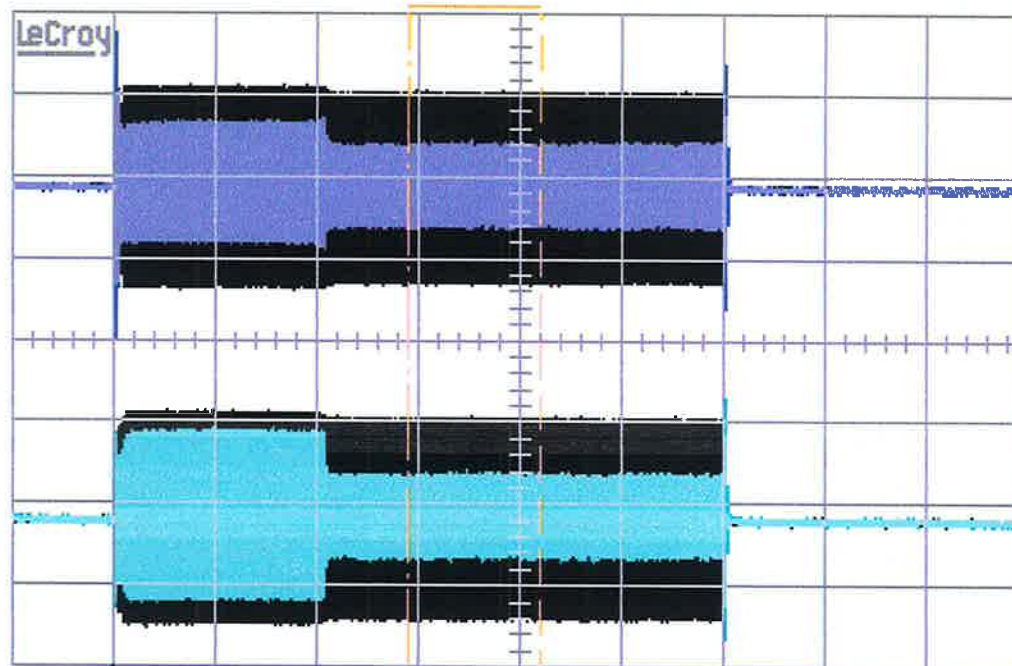
1
1 ms
0.50 V

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



12 sweeps: average low high sigma
rms(1) 402.7mV 402.2 403.1 0.2
rms(2) 70.7mV 69.5 71.4 0.5
rms(3) 425.0mV 424.4 425.3 0.2
rms(4) 66.4mV 65.5 67.0 0.5
phase(1,3) 79 ° 74 85 2

CHANNEL 1

Trace
OFF **On**

Coupling

ZOOM

FIND

Gain
Fixed
variable

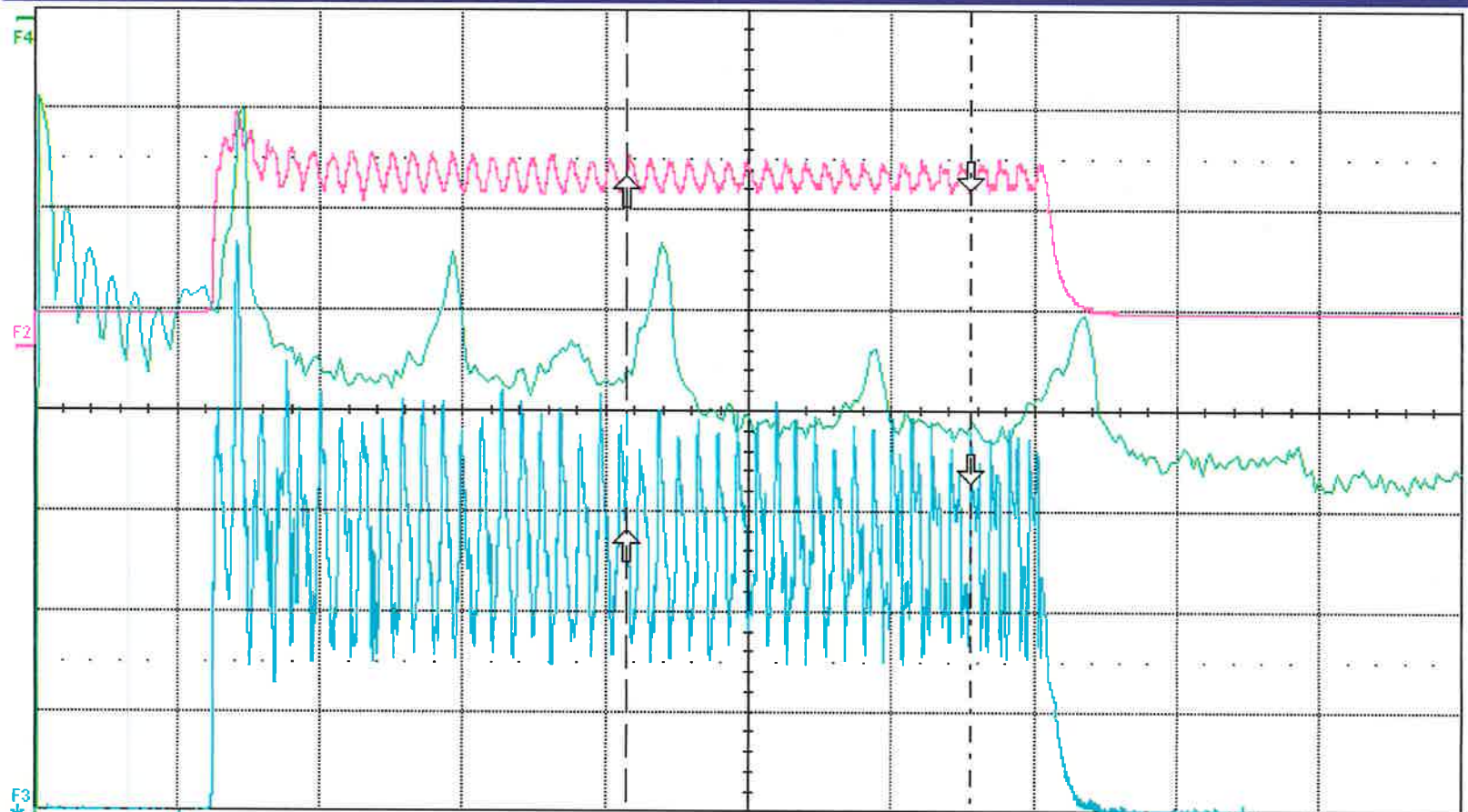
Offsets in
Volts
Divisions

Grids
Single Dual
Quad Octal

10 MS/s

NORMAL

Ext10 DC 0.50 V 50Ω



F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>
2.00/div	1.00/div	1.00/div	10.0 dB/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	5.00 kHz/div
45 #			45 #
L 3.172369	L 4.0683	L 4.0683	L ---
↑ 3.405868	↑ 3.5650	↑ 3.5650	↑ ---
Δy 233.499e-3	Δy -503.3e-3	Δy -503.3e-3	Δy ---

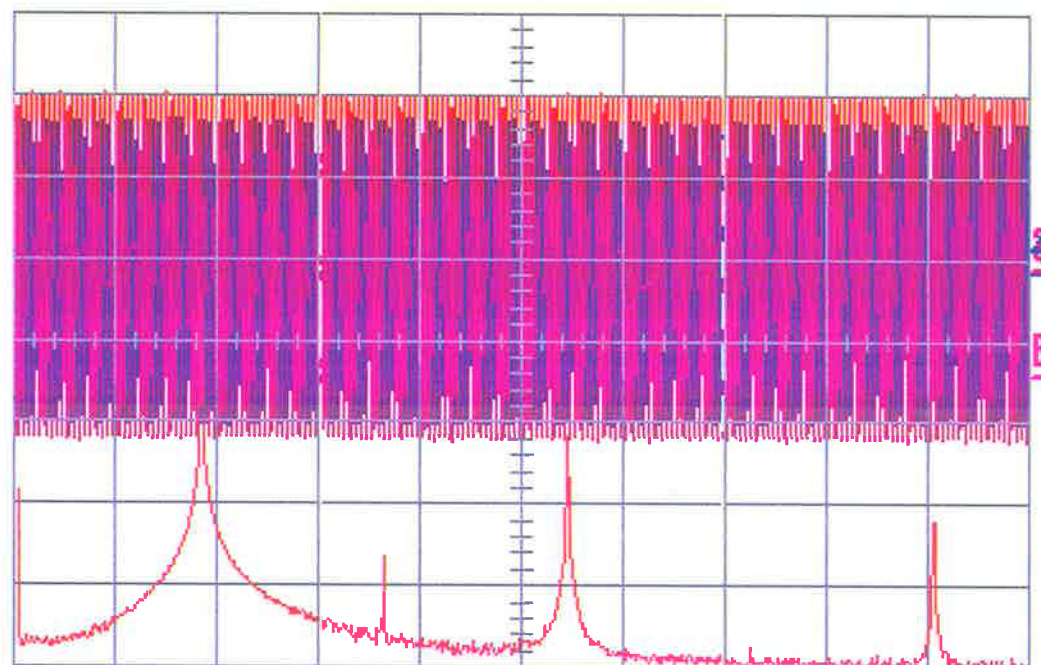
Tbase	-3.98 ms	Trigger	Ext/10 DC
	1.00 ms/div	Normal	130 mV
50.0 kS	5.0 MS/s	Edge	Negative
X1=	5.5312 ms	ΔX=	-2.4098 ms
X2=	3.1214 ms	1/ΔX=	-414.97 Hz

21-Feb-23
12:15:23

3
10 μ s
1.00 V

4
10 μ s
1.00 V

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



← 1.900 ms

	5 sweeps:	average	low	high	sigma
phase(4,3)		97.41 °	94.90	100.49	0.87
pkpk(3)		4.27 V	4.25	4.28	0.02
rms(2)		47.6mV	47.2	47.9	0.3
rms(4)		1.235 V	1.229	1.237	0.003
rms(3)		1.396 V	1.394	1.399	0.002

10 μ s

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



Ext10 DC 0.15 V 50 Ω

CHANNEL 1

Trace
OFF On

Coupling

1 GS/s

NORMAL

21-Feb-23
12:15:28

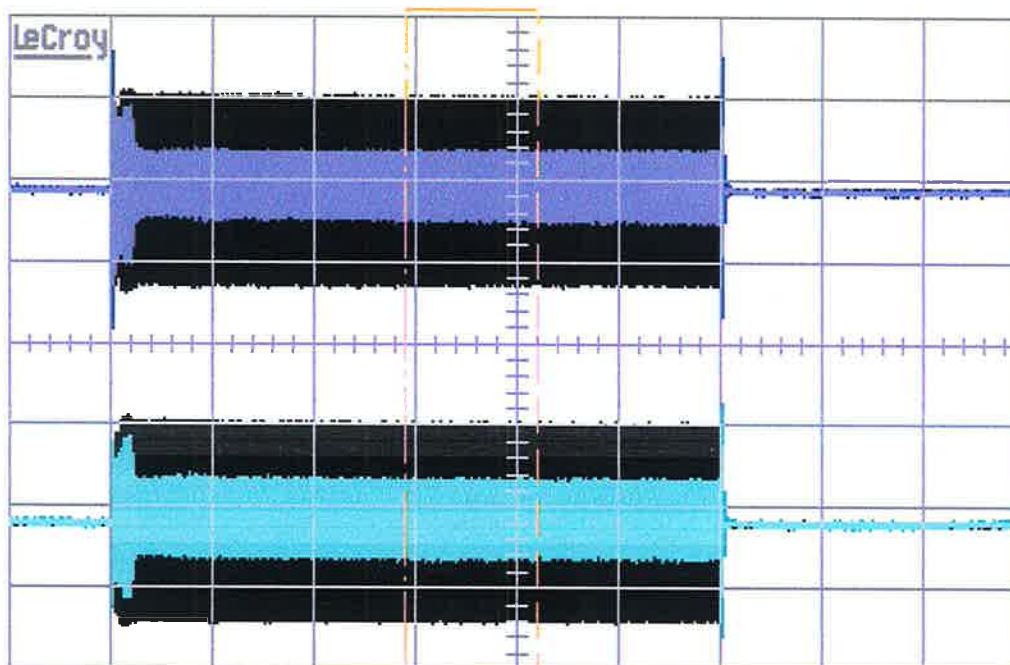
1
1 ms
0.50 V

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



21 sweeps: average low high sigma

rms(1)	398.4mV	397.9	398.9	0.3
rms(2)	62.5mV	62.2	62.7	0.1
rms(3)	418.8mV	418.3	419.2	0.2
rms(4)	63.6mV	63.3	63.8	0.1
phase(1,3)	80 °	76	86	2

CHANNEL 2

Trace
OFF **On**

Coupling

ZOOM

FIND

Gain
Fixed
variable

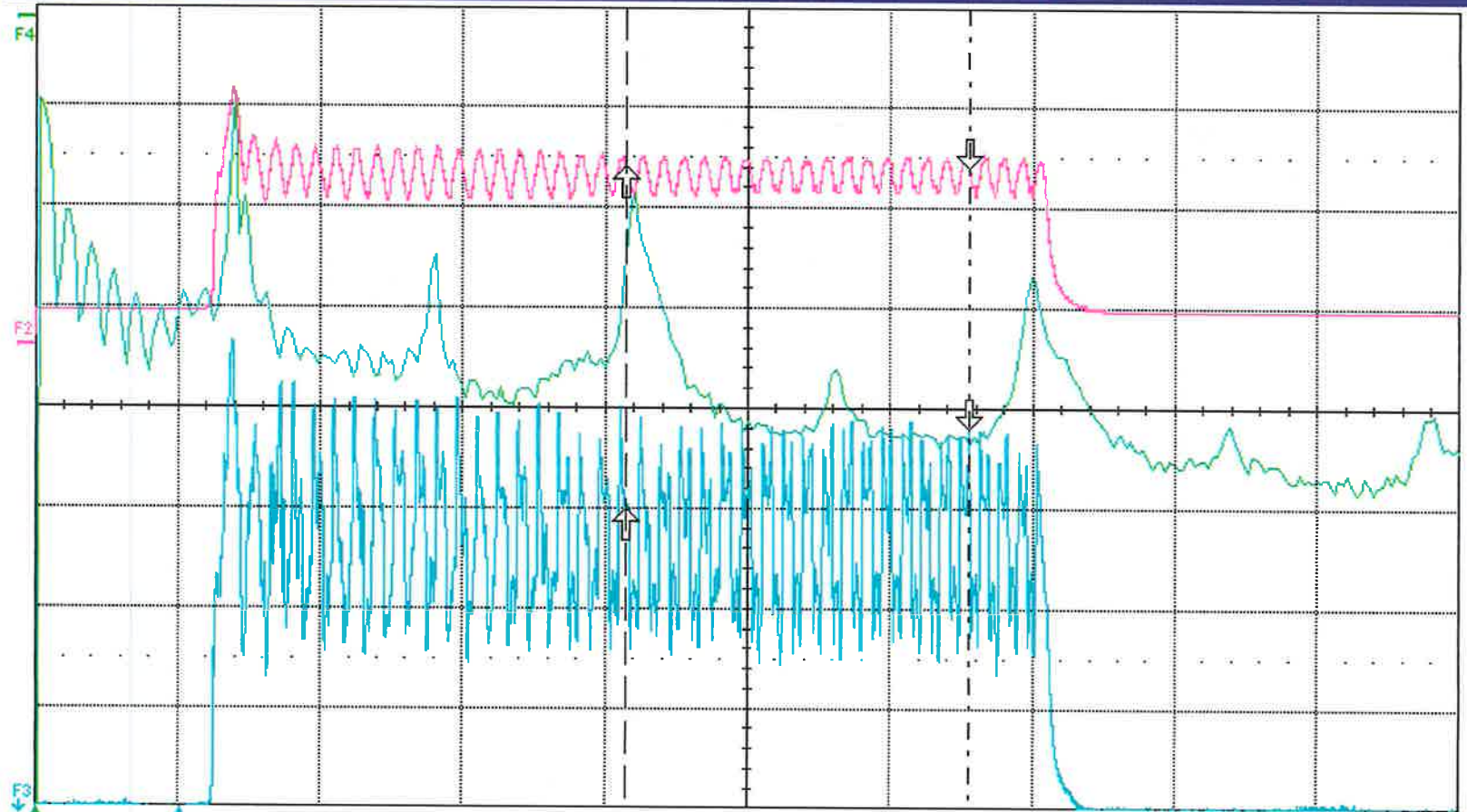
OFFsets in
Volts
Divisions

Grids
Single Dual
Quad Octal

10 MS/s

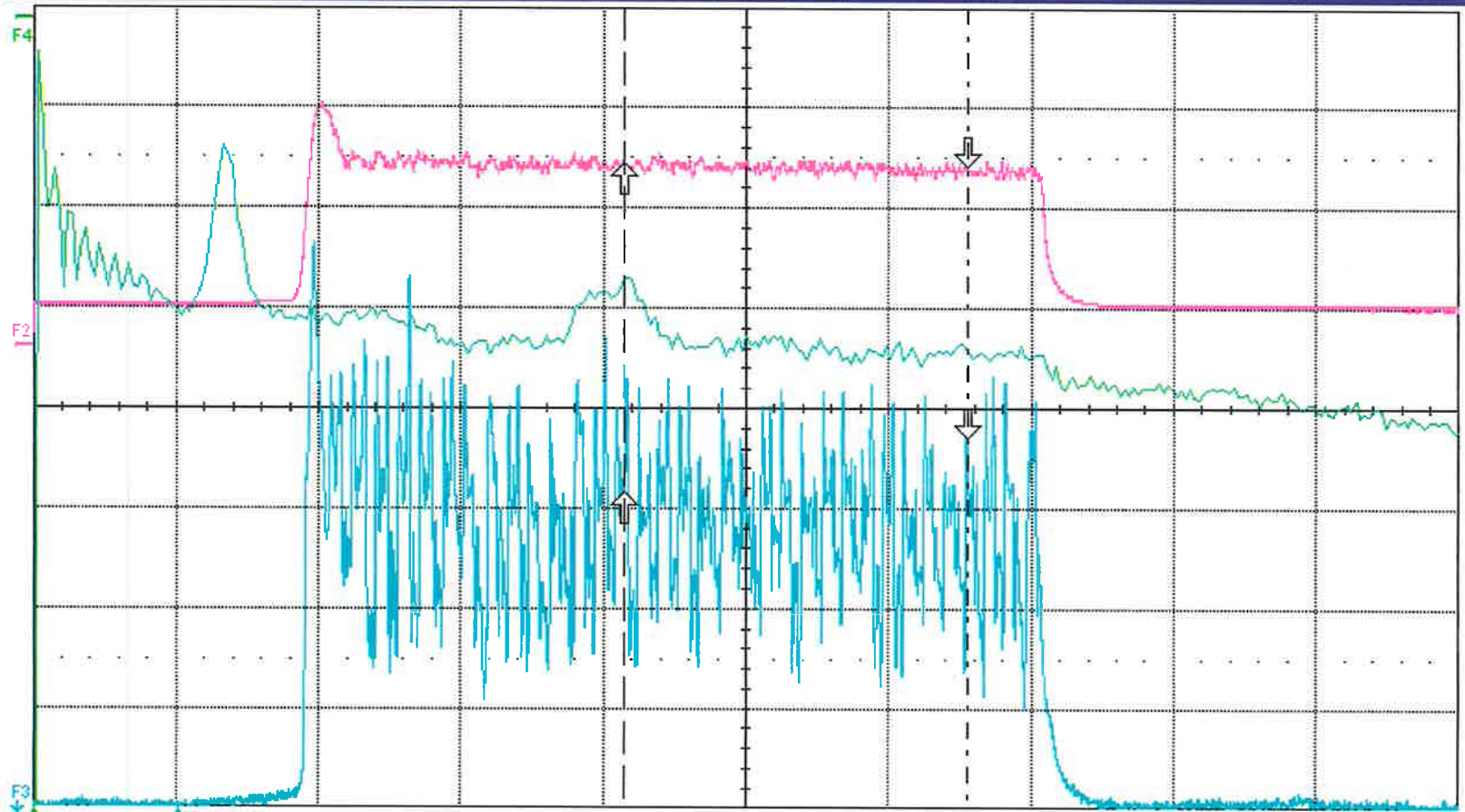
NORMAL

Ext10 DC 0.50 V 50Ω



F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>
2.00/div	1.00/div	1.00/div	10.0 dB/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	5.00 kHz/div
74 #			74 #
L 3.596233	L 4.5970	L	---
↑ 3.555399	↑ 3.7525	↑	---
Δy -40.834e-3	Δy -844.5e-3	Δy	---

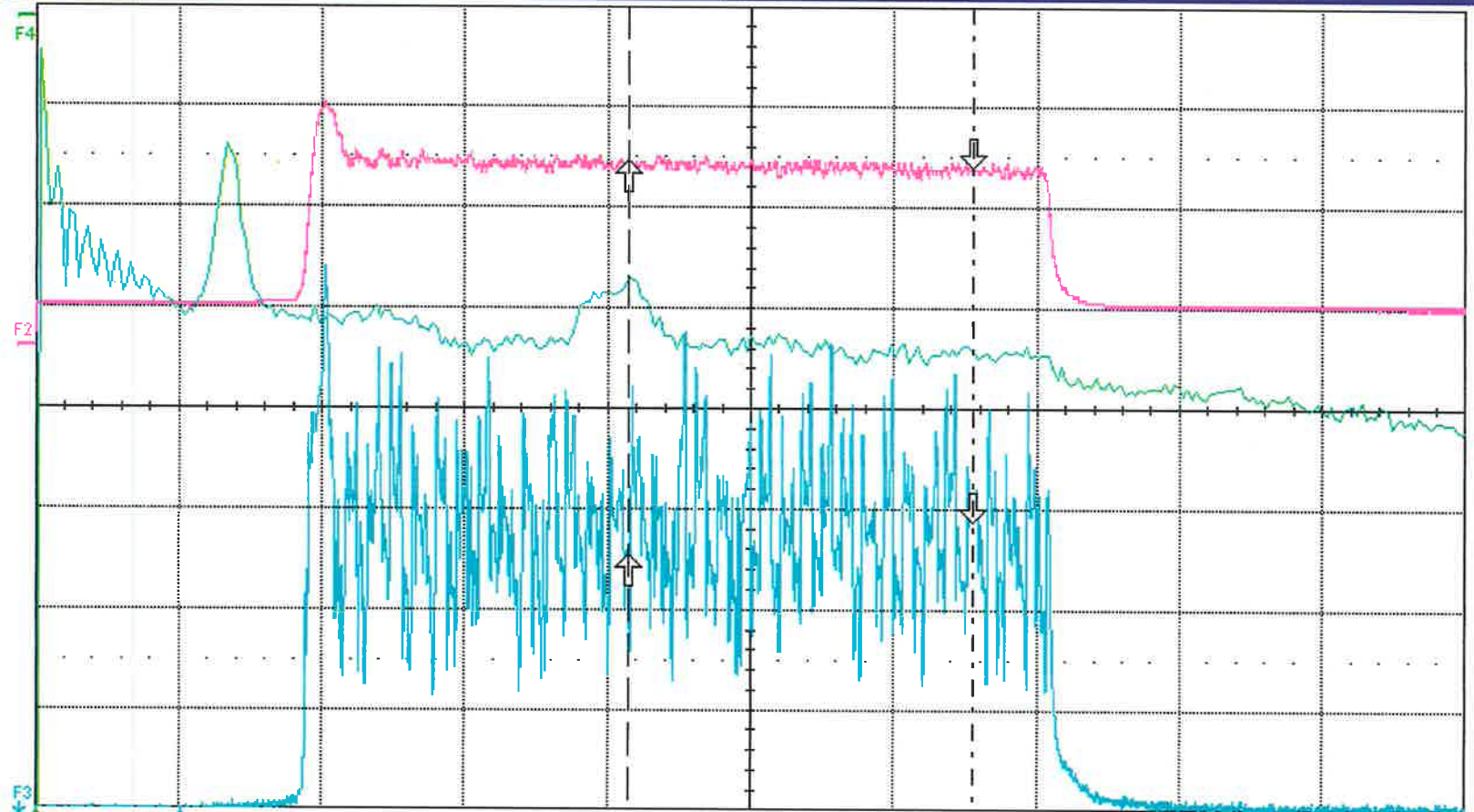
Thase	-3.98 ms	Trigger	Ext/10 DC
	1.00 ms/div	Normal	130 mV
50.0 kS	5.0 MS/s	Edge	Negative
X1=	5.5312 ms	ΔX=	-2.4098 ms
X2=	3.1214 ms	1/ΔX=	-414.97 Hz



F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>
2.00/div	1.00/div	1.00/div	10.0 dB/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	5.00 kHz/div
74 #			74 #
L 3.616937	L 4.4911	L 4.4911	L ---
↑ 3.626139	↑ 3.9153	↑ 3.9153	↑ ---
Δy 9.202e-3	Δy -575.8e-3	Δy -575.8e-3	Δy ---

Tbase	-3.98 ms	Trigger	Ext/10 DC
	1.00 ms/div	Stop	130 mV
50.0 kS	5.0 MS/s	Edge	Negative
X1=	5.5312 ms	ΔX=	-2.4098 ms
X2=	3.1214 ms	1/ΔX=	-414.97 Hz

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>
2.00/div	1.00/div	1.00/div	10.0 dB/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	5.00 kHz/div
79 #			79 #
L 3.580705	L 3.6584	L	---
↑ 3.647994	↑ 3.3073	↑	---
Δy 67.289e-3	Δy -349.2e-3	Δy	---

Thase -3.98 ms Trigger Ext/10 DC
1.00 ms/div Normal 130 mV
50.0 kS 5.0 MS/s Edge Negative
X1= 5.5312 ms ΔX= -2.4098 ms
X2= 3.1214 ms 1/ΔX= -414.97 Hz

LeCroy

2/21/2023 12:20:41 PM