

14-Nov-22
11:48:44

1
1 ms
0.50 V

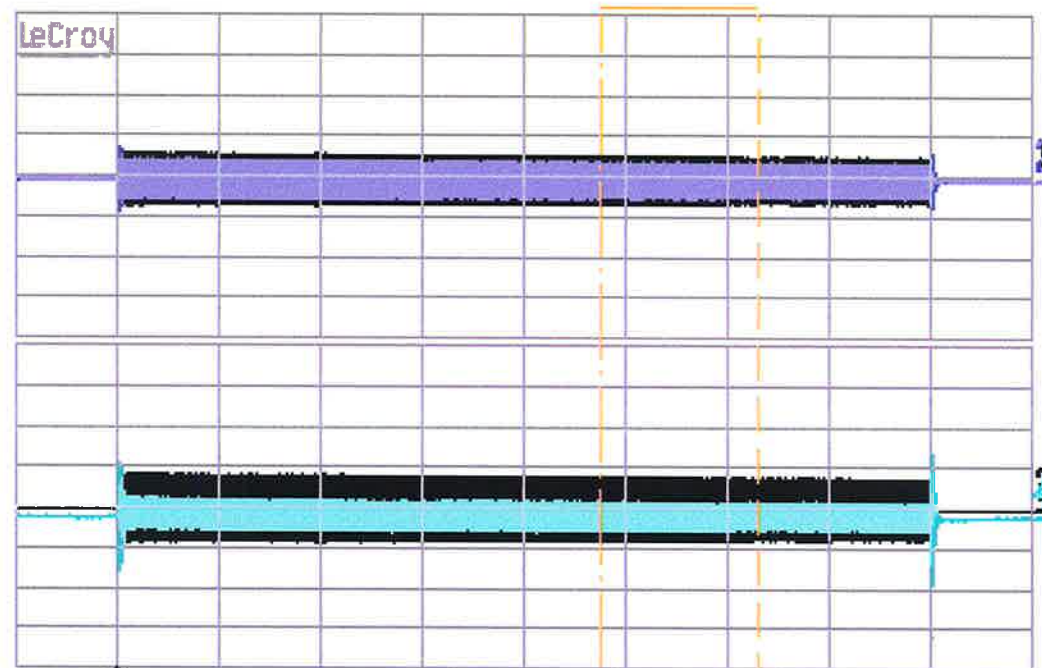
2
1 ms
200 mV

3
1 ms
0.50 V

4
1 ms
100 mV

1 ms

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



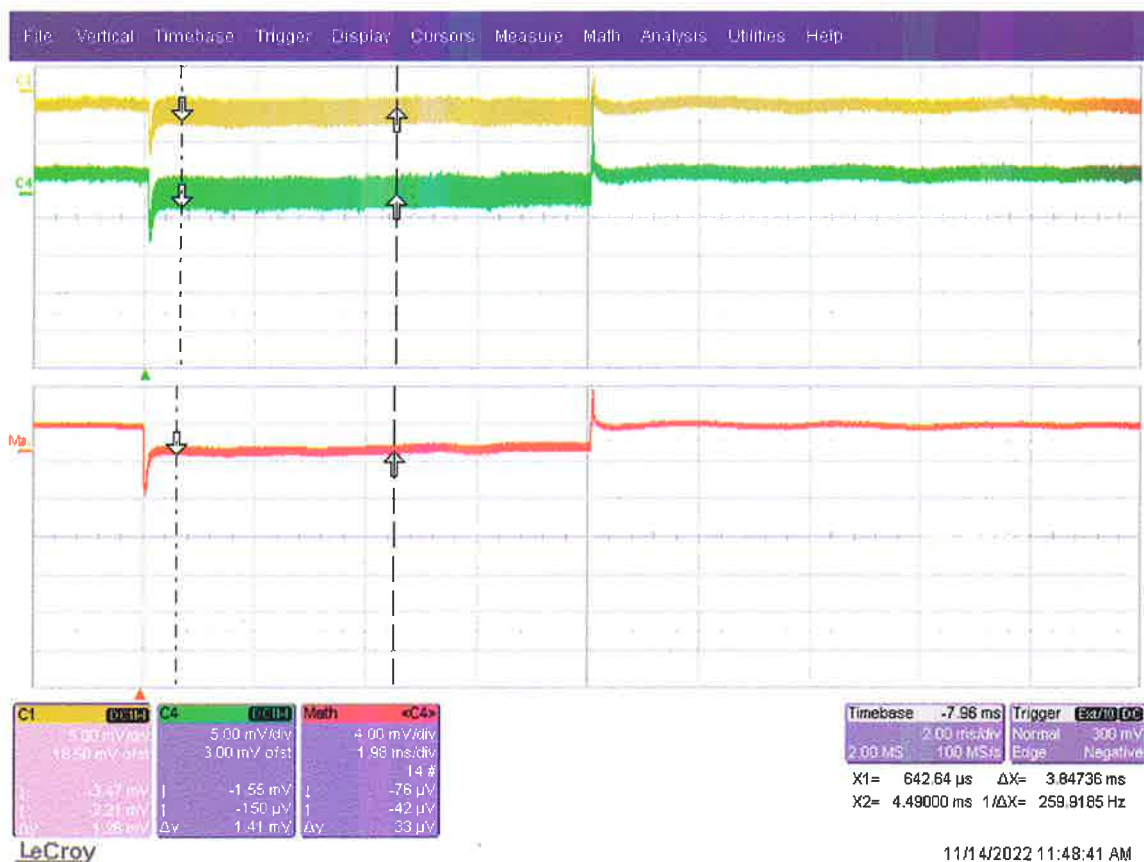
	12 sweeps:	average	low	high	sigma
rms(1)		213.1 mV	211.1	214.2	0.8
rms(2)		62.9 mV	62.4	63.2	0.2
rms(3)		273.9 mV	271.6	275.0	0.9
rms(4)		25.4 mV	25.2	25.5	0.1
phase(1,3)		81 °	38	91	8



Ext10 DC 0.50 V 50Ω

10 MS/s

☐ NORMAL



11/14/2022 11:48:41 AM

14-Nov-22
12:16:51

1
1 ms
0.50 V

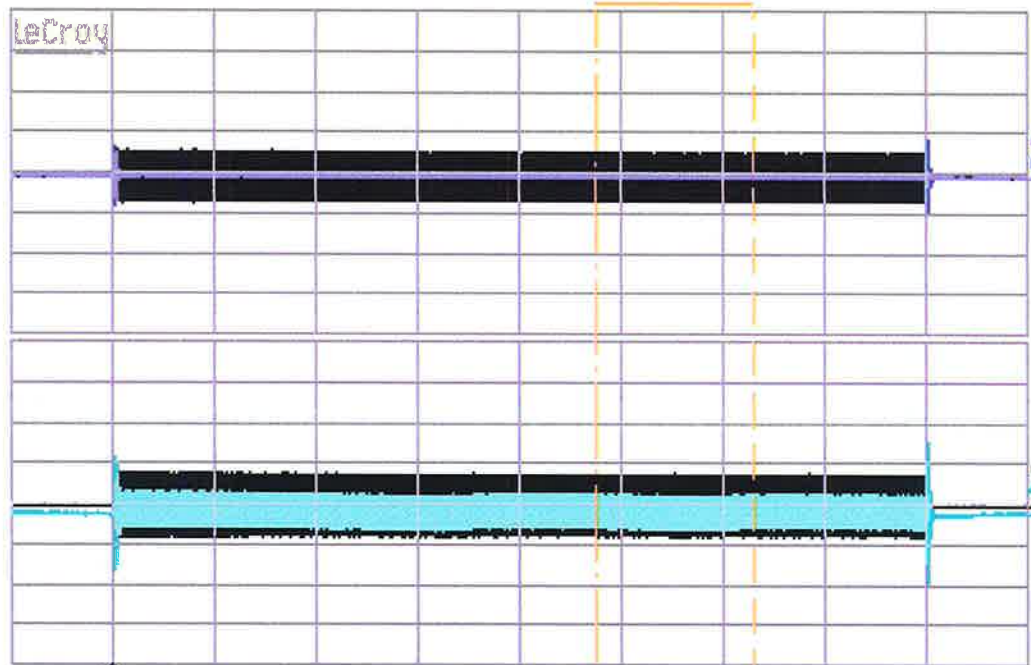
2
1 ms
200mV

3
1 ms
0.50 V

4
1 ms
100mV

1 ms

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



265 sweeps:

	average	low	high	sigma
rms(1)	213.4mV	207.8	217.5	3.0
rms(2)	8.2mV	7.3	8.9	0.3
rms(3)	262.1mV	255.6	266.7	3.4
rms(4)	31.6mV	30.4	32.7	0.5
phase(1,3)	86 °	40	96	9



Ext10 DC 0.50 V 50Ω

10 MS/s

☐ NORMAL

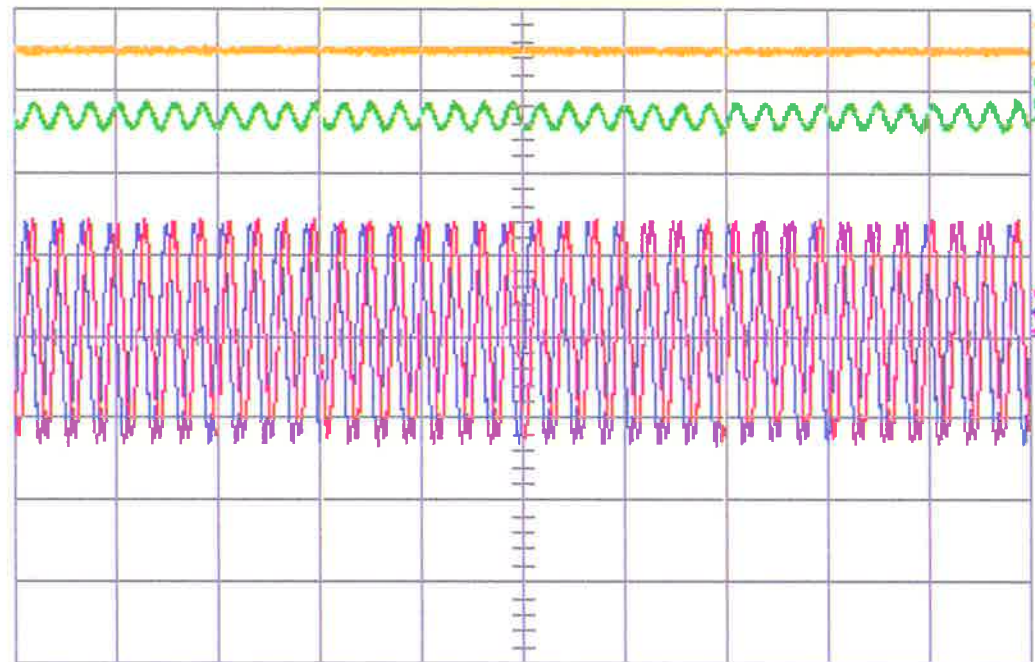
14-Nov-22
12:16:58

3
2 μ s
1.00 V

1
2 μ s
1.00 V

2
2 μ s
200mV

4
2 μ s
1.00 V



← 1.0000 ms

	282 sweeps:	average	low	high	sigma
phase(4,3)		89.41 °	85.73	93.21	1.10
pkpk(3)		2.73 V	2.66	2.81	0.03
rms(2)		21.3mV	20.9	21.7	0.2
rms(4)		915mV	897	937	8
rms(3)		907mV	886	931	8

2 μ s

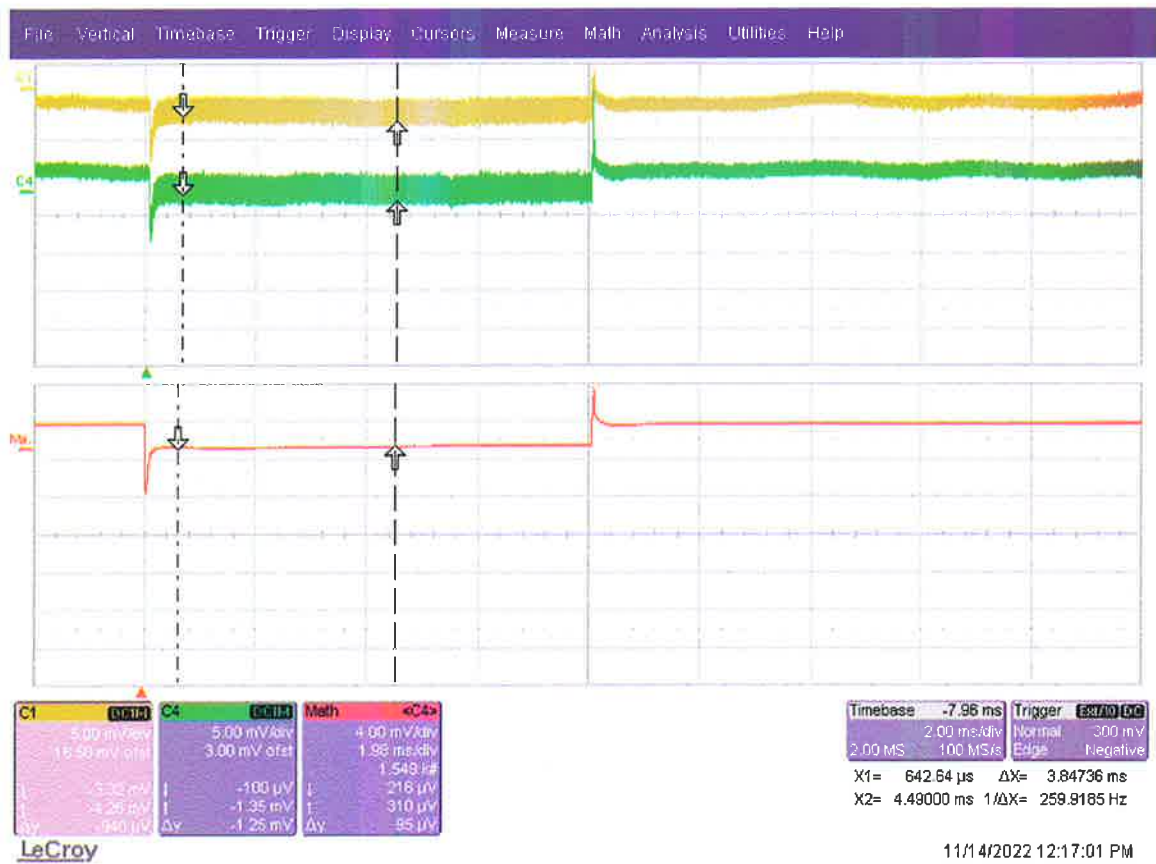
1 1 V DC
2 .2 V DC
3 1 V DC
4 1 V DC



Ext10 DC 0.15 V 50 Ω

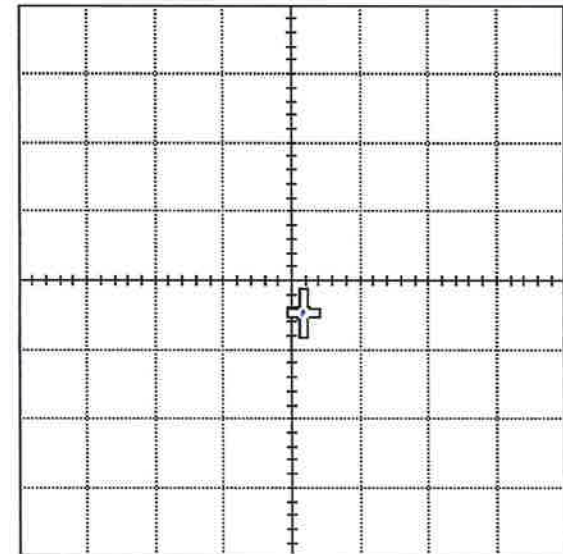
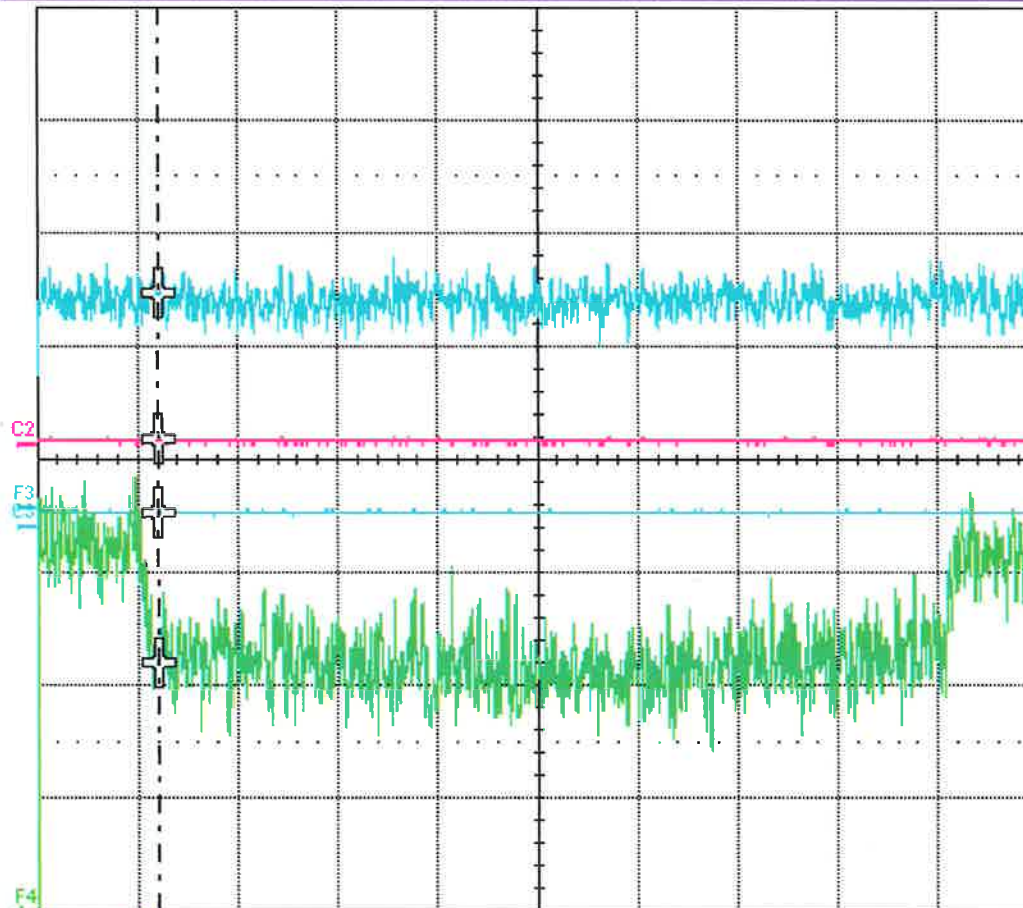
1 GS/s

☐ NORMAL



11/14/2022 12:17:01 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



$\Delta Y/\Delta X = -2.61$
 $\Delta Y * \Delta X = -83 \text{ mV}^2$
 $\text{Radius} = 497 \text{ mV}$
 $\text{Angle} = -69.0^\circ$

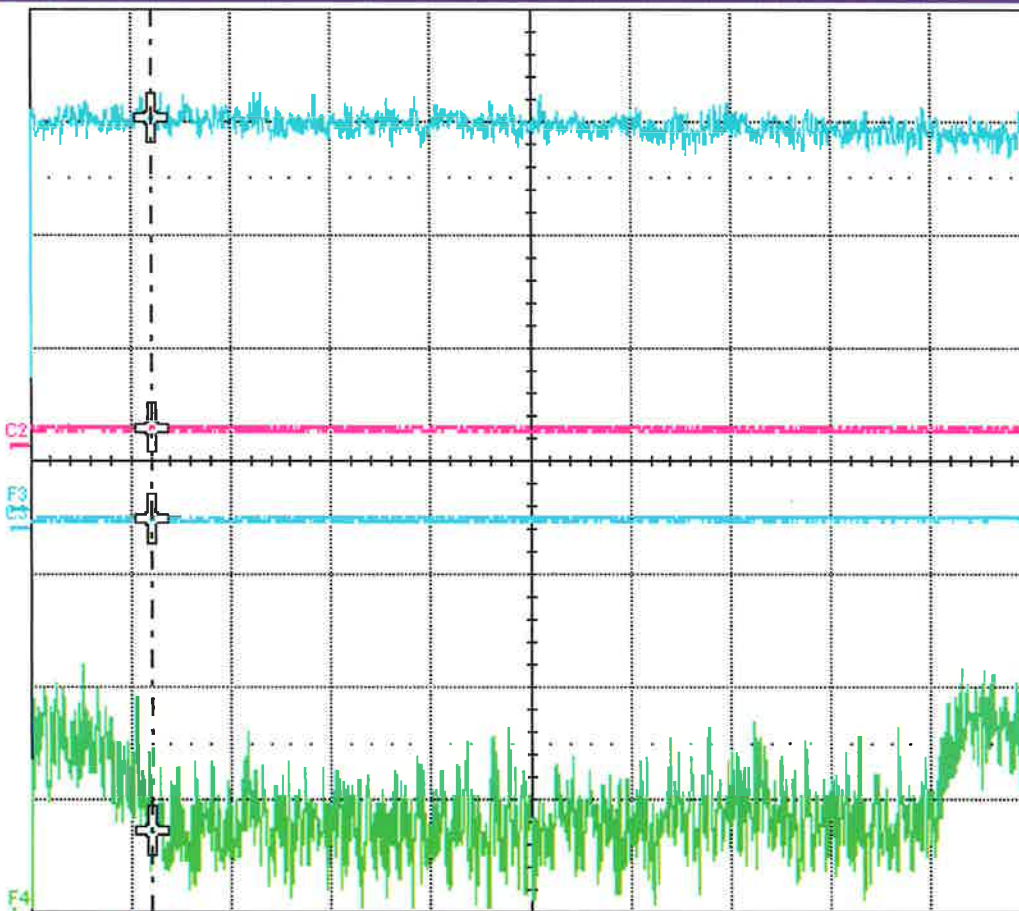
C2	FLT DC1M	C3	FLT DC1M	F3	script(C3,C2)	F4	<F3>	XY	X:C2 Y:C3
1.00 V/div	1.00 V/div	1.00 V/div	500e-3/div	10.0e-3/div	1.00 ms/div	1.00 ms/div	443 #		1.00 V/div
130.0 mV	-590.0 mV								1.00 V/div
47.7 mV	126.3 mV	951.3e-3	1.30988	47.7 mV	126.3 mV				

Tbase -3.98 ms
 1.00 ms/div
 10.0 kS 1.0 MS/s
 Trigger **Err/10 DC**
 Normal 130 mV
 Edge Negative
 X1= 180 μs

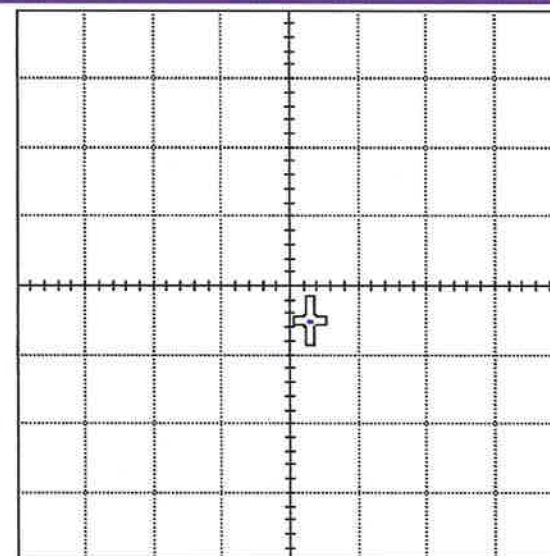
LeCroy

11/14/2022 12:25:26 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



C2	FLT DC1M	C3	FLT DC1M	F3	script(C3,C2)	F4	<F3>	XY	X:C2 Y:C3
1.00 V/div	1.00 V/div	1.00 V/div	1.00 V/div	500e-3/div	500e-3/div	20.0e-3/div	20.0e-3/div	1.00 V/div	1.00 V/div
130.0 mV	130.0 mV	-590.0 mV	-590.0 mV	1.00 ms/div	1.00 ms/div	1.00 ms/div	1.00 ms/div	1.00 V/div	1.00 V/div
+	185.9 mV	+	76.0 mV	+	1.7313	+	1.21441	+	165.9 mV



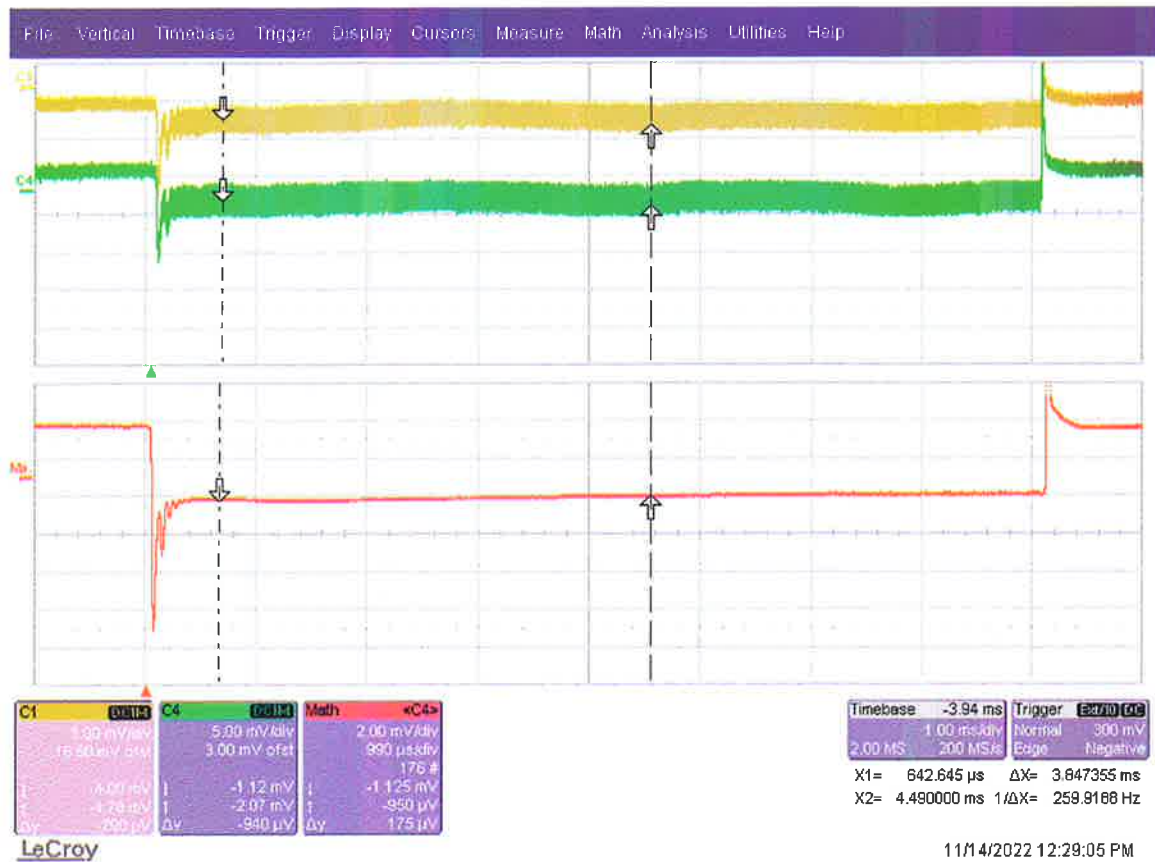
$\Delta Y/\Delta X = -1.74$
 $\Delta Y * \Delta X = -152 \text{ mV}^2$
 $\text{Radius} = 593 \text{ mV}$
 $\text{Angle} = -60.1^\circ$

Tbase -3.98 ms
 1.00 ms/div
 10.0 kS 1.0 MS/s
 X1= 180 μs

Trigger Ext/10 DC
 Normal 130 mV
 Edge Negative

LeCroy

11/14/2022 12:29:02 PM



14-Nov-22
12:29:09

1
1 ms
0.50 V

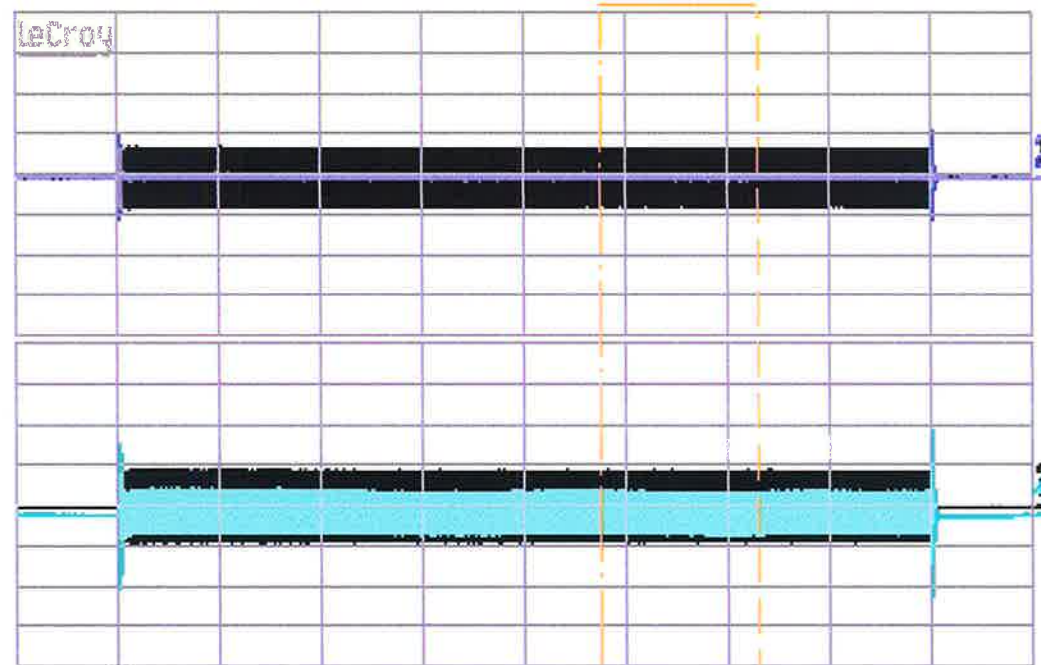
2
1 ms
200 mV

3
1 ms
0.50 V

4
1 ms
100 mV

1 ms

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



60 sweeps:

	average	low	high	sigma
rms(1)	255.9 mV	252.6	259.6	2.2
rms(2)	11.5 mV	10.7	12.3	0.4
rms(3)	306.8 mV	303.5	310.7	2.3
rms(4)	40.6 mV	39.8	41.0	0.3
phase(1,3)	87 °	81	96	2



Ext10 DC 0.50 V 50Ω

10 MS/s

☐ NORMAL

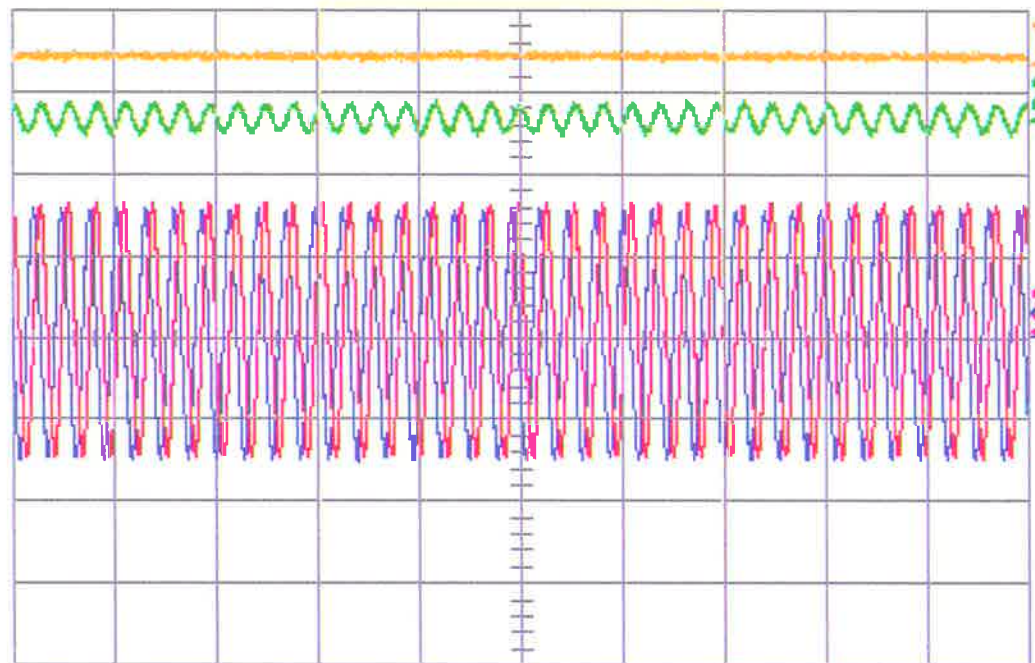
14-Nov-22
12:29:15

3
2 μ s
1.00 V

1
2 μ s
1.00 V

2
2 μ s
200 mV

4
2 μ s
1.00 V



← 1.0000 ms

	71 sweeps:	average	low	high	sigma
phase(4,3)		90.29 °	87.47	93.49	0.99
pkpk(3)		3.20 V	3.13	3.31	0.04
rms(2)		23.5 mV	20.9	24.1	0.5
rms(4)		1.050 V	1.028	1.073	0.009
rms(3)		1.069 V	1.046	1.100	0.011

2 μ s

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

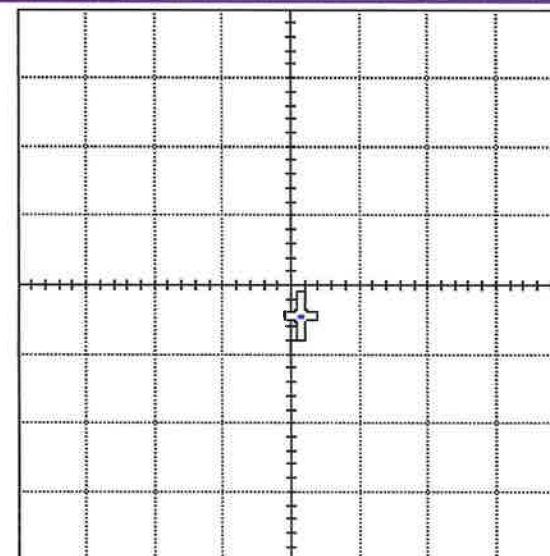
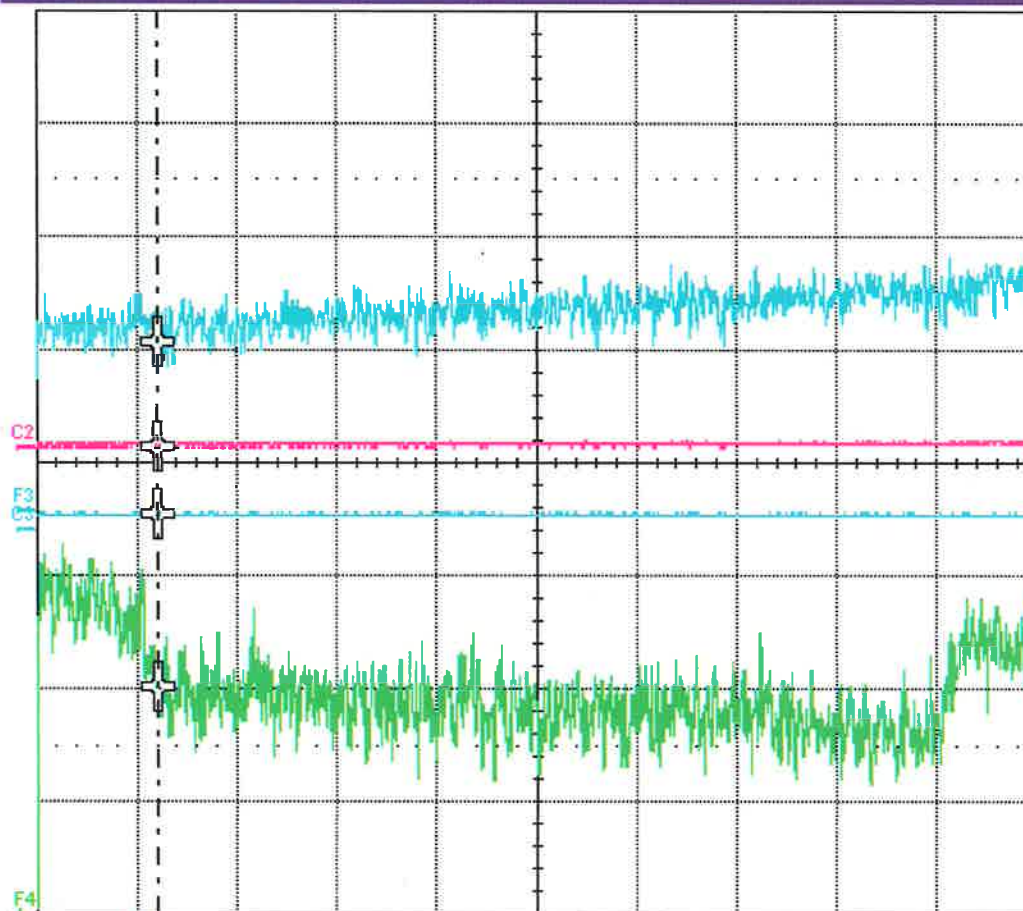


Ext10 DC 0.15 V 50 Ω

1 GS/s



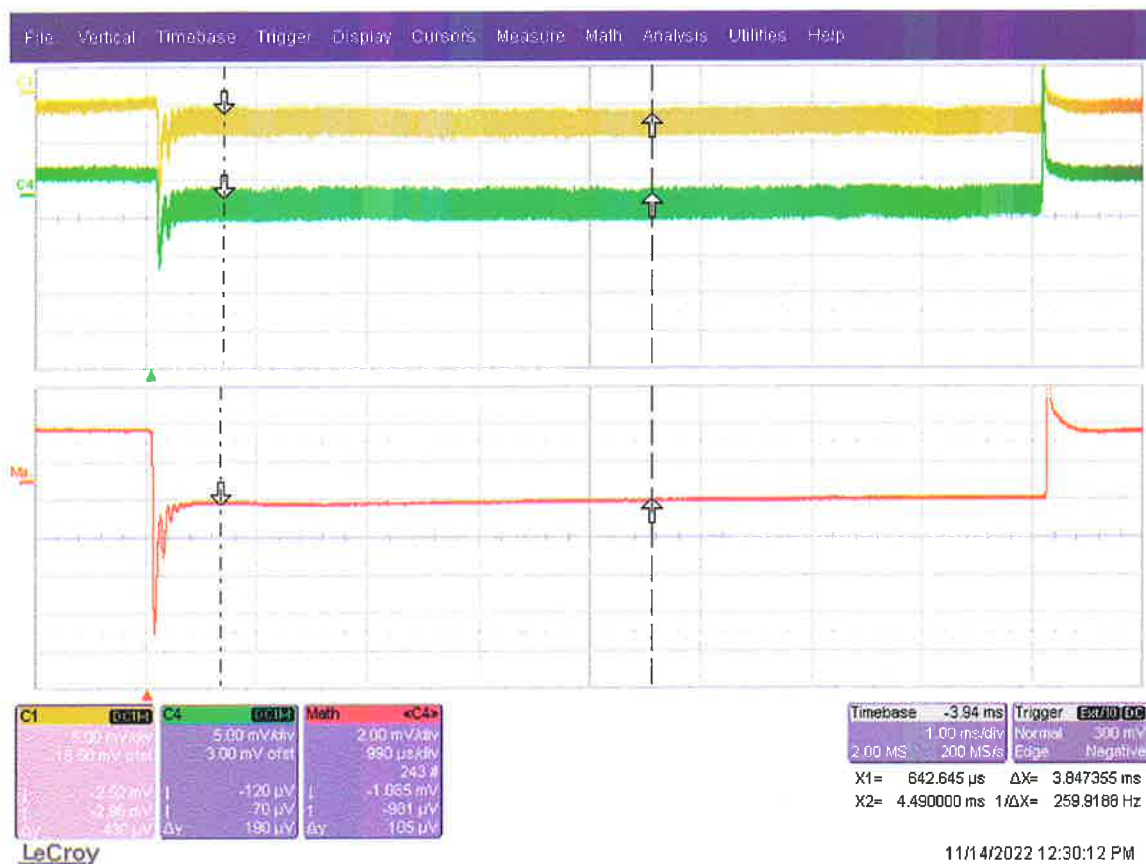
NORMAL



$\Delta Y/\Delta X = -2.93$
 $\Delta Y \cdot \Delta X = -69 \text{ mV}^2$
 $\text{Radius} = 475 \text{ mV}$
 $\text{Angle} = -71.2^\circ$

C2	C3	F3	F4	XY	X: C2 Y: C3
FLT DC1M	FLT DC1M	script(C3,C2)	<F3>		
1.00 V/div	1.00 V/div	500e-3/div	20.0e-3/div		1.00 V/div
130.0 mV	-590.0 mV	1.00 ms/div	1.00 ms/div		1.00 V/div
			164 #		
22.9 mV	140.5 mV	751.1e-3	1.18854		

Tbase -3.98 ms
 1.00 ms/div
 10.0 kS 1.0 MS/s
 Trigger Ext/10 DC
 Normal 130 mV
 Edge Negative
 X1= 180 μs



11/14/2022 12:30:12 PM

14-Nov-22
12:30:16

1
1 ms
0.50 V

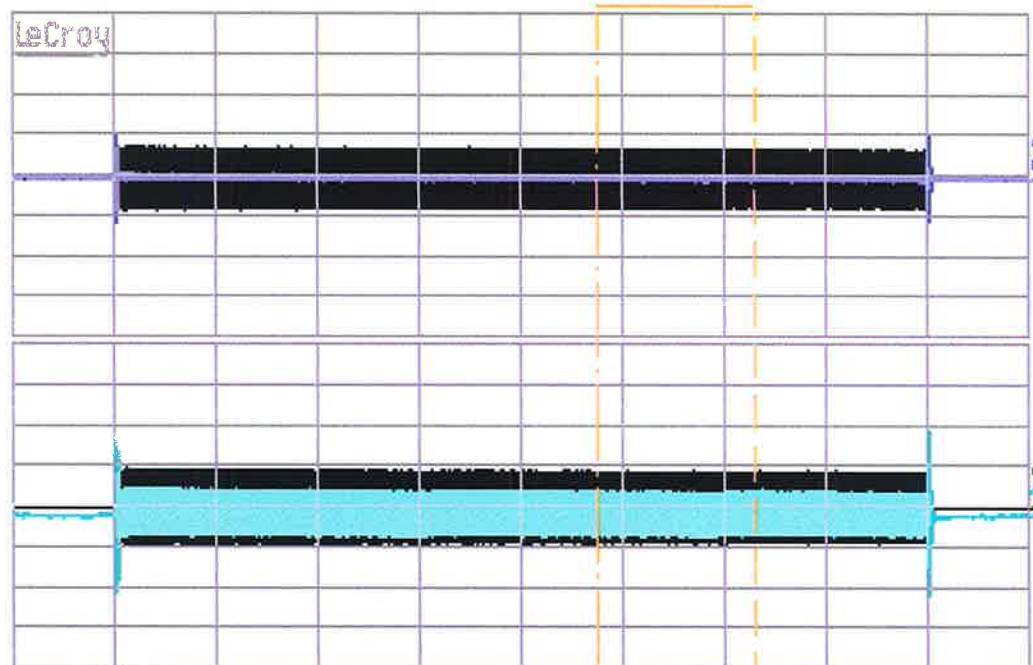
2
1 ms
200mV

3
1 ms
0.50 V

4
1 ms
100mV

1 ms

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



127 sweeps: average low high sigma

rms(1)	257.1mV	252.6	260.2	2.4
rms(2)	11.7mV	10.7	12.6	0.4
rms(3)	308.0mV	303.5	311.2	2.5
rms(4)	41.0mV	39.8	42.0	0.5
phase(1,3)	87 °	81	96	2



Ext10 DC 0.50 V 50Ω

10 MS/s

☐ NORMAL

14-Nov-22

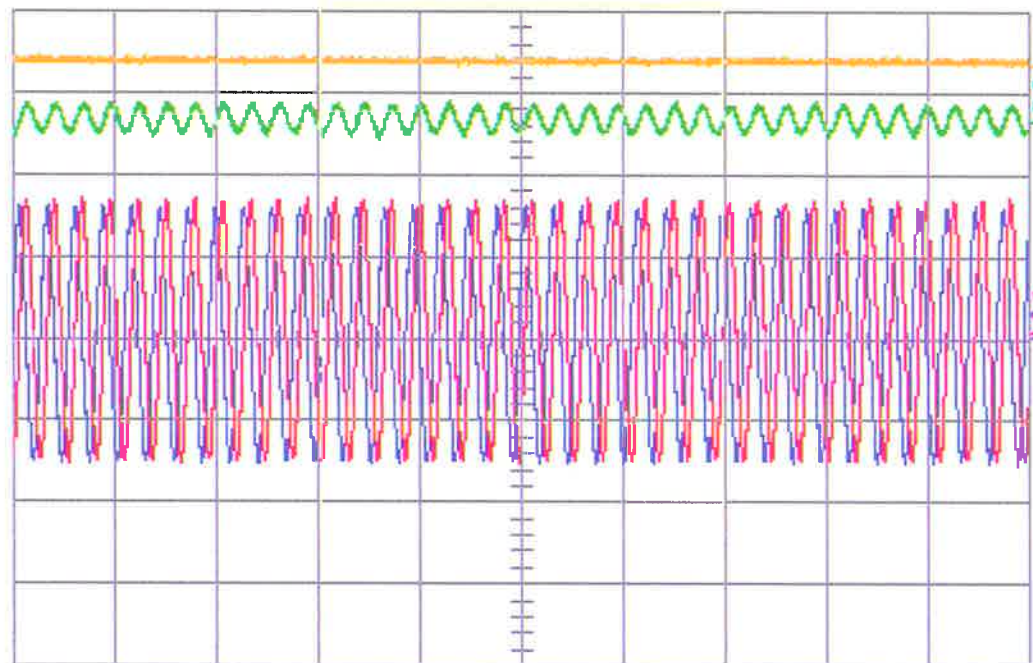
12:30:23

3
2 μ s
1.00 V

1
2 μ s
1.00 V

2
2 μ s
200mV

4
2 μ s
1.00 V



← 1.0000 ms

	139 sweeps:	average	low	high	sigma
phase(4,3)		90.26 °	87.04	93.74	0.97
pkpk(3)		3.20 V	3.13	3.31	0.04
rms(2)		23.5mV	20.9	24.1	0.4
rms(4)		1.049 V	1.028	1.075	0.009
rms(3)		1.069 V	1.046	1.100	0.011

2 μ s

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

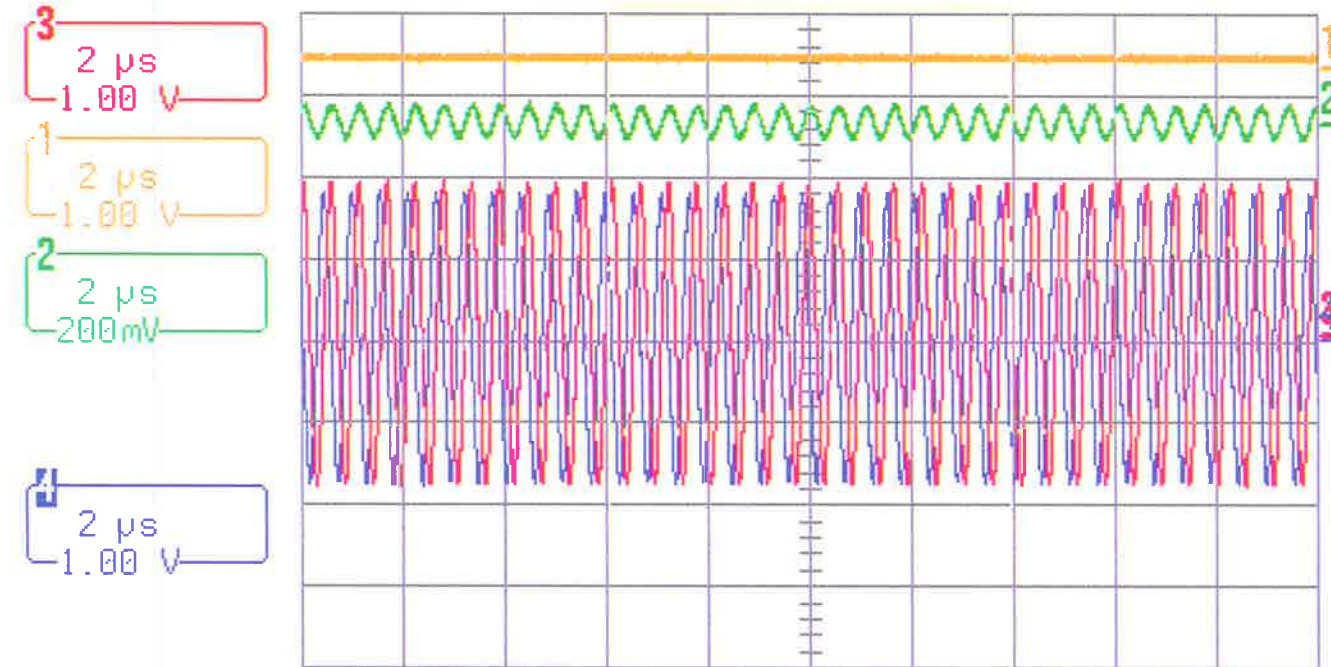


Ext10 DC 0.15 V 50 Ω

1 GS/s

☐ NORMAL

14-Nov-22
12:33:56



	39 sweeps:	average	low	high	sigma
phase(4,3)		93.22 °	90.60	96.05	0.94
pkpk(3)		3.74 V	3.66	3.81	0.04
rms(2)		26.5mV	25.9	27.0	0.2
rms(4)		1.196 V	1.173	1.213	0.009
rms(3)		1.247 V	1.221	1.274	0.011

2 μs

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



Ext10 DC 0.15 V 50Ω

1 GS/s

☐ NORMAL

14-Nov-22
12:33:57

1
1 ms
0.50 V

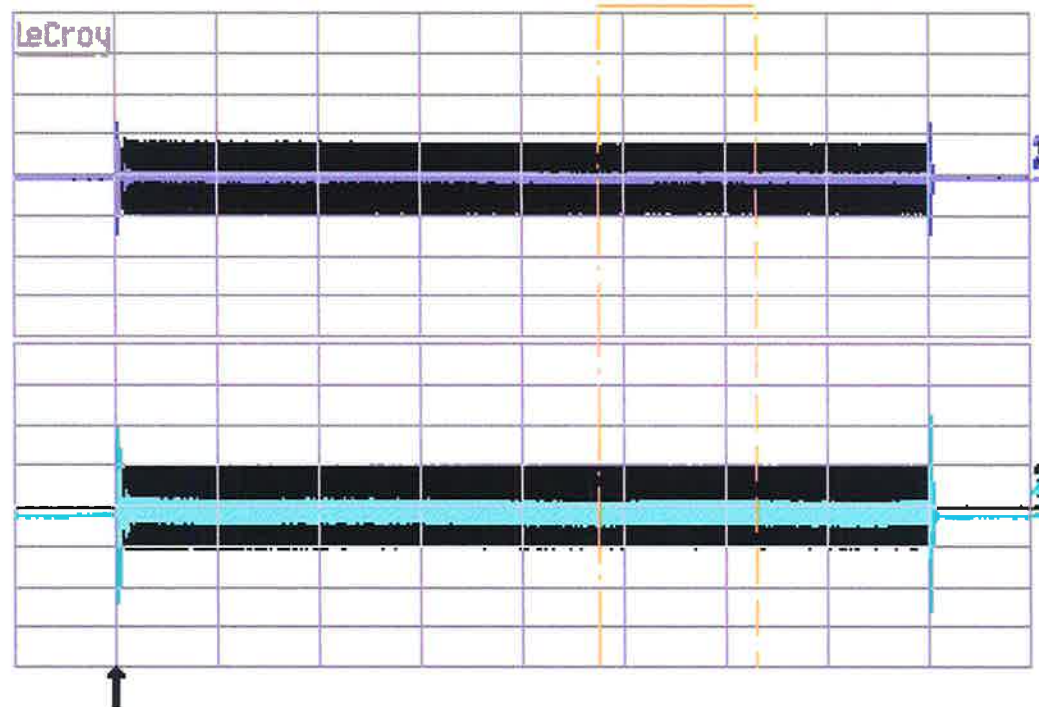
2
1 ms
200 mV

3
1 ms
0.50 V

4
1 ms
100 mV

1 ms

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



47 sweeps: average low high sigma
rms(1) 303.4 mV 298.4 307.0 2.7
rms(2) 20.1 mV 17.8 21.0 0.9
rms(3) 354.0 mV 348.8 357.6 2.8
rms(4) 22.7 mV 22.0 23.4 0.3
phase(1,3) 85 ° 78 92 2



Ext10 DC 0.50 V 50Ω

10 MS/s

☐ NORMAL

14-Nov-22

12:45:36

1
1 ms
0.50 V

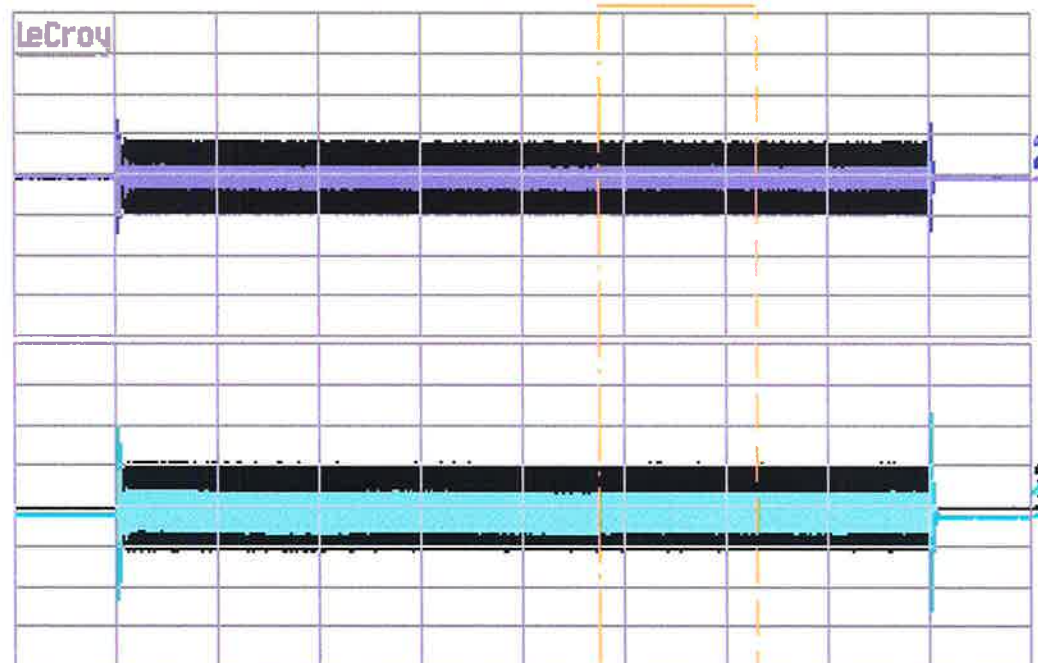
2
1 ms
200 mV

3
1 ms
0.50 V

4
1 ms
100 mV

1 ms

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



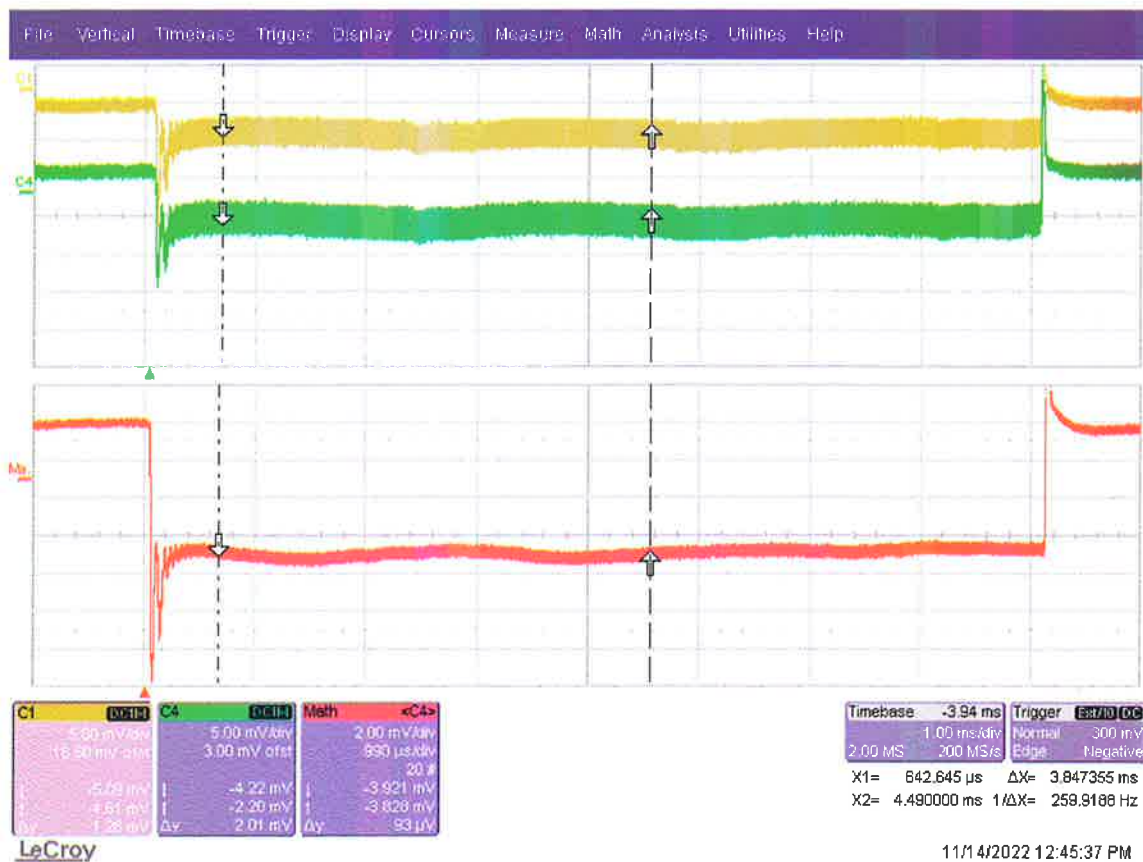
15 sweeps: average low high sigma
rms(1) 317.3mV 316.5 318.1 0.5
rms(2) 37.9mV 37.8 38.1 0.1
rms(3) 374.1mV 373.3 375.1 0.5
rms(4) 36.9mV 36.7 37.3 0.2
phase(1,3) 82 ° 77 89 2



Ext10 DC 0.50 V 50Ω

10 MS/s

☐ NORMAL



11/14/2022 12:45:37 PM

14-Nov-22

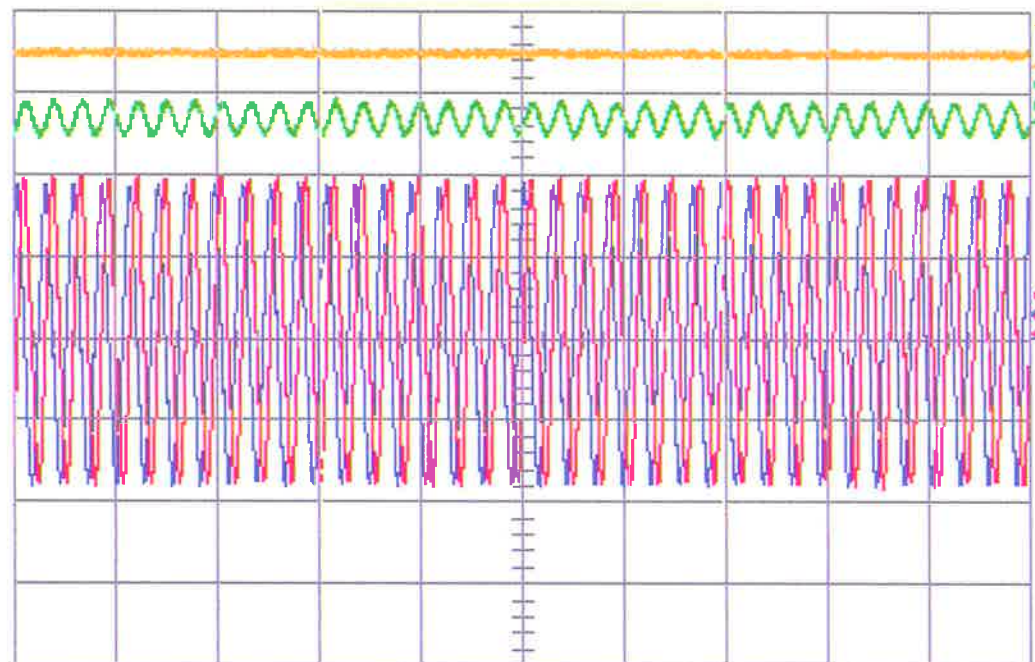
12:45:46

3
2 μ s
1.00 V

2
2 μ s
1.00 V

2
2 μ s
200 mV

4
2 μ s
1.00 V



← 1.0000 ms

	36 sweeps:	average	low	high	sigma
phase(4,3)		89.92 °	87.30	92.75	0.90
pkpk(3)		3.79 V	3.75	3.88	0.03
rms(2)		26.4 mV	26.2	26.8	0.1
rms(4)		1.227 V	1.216	1.249	0.007
rms(3)		1.258 V	1.247	1.272	0.007

2 μ s

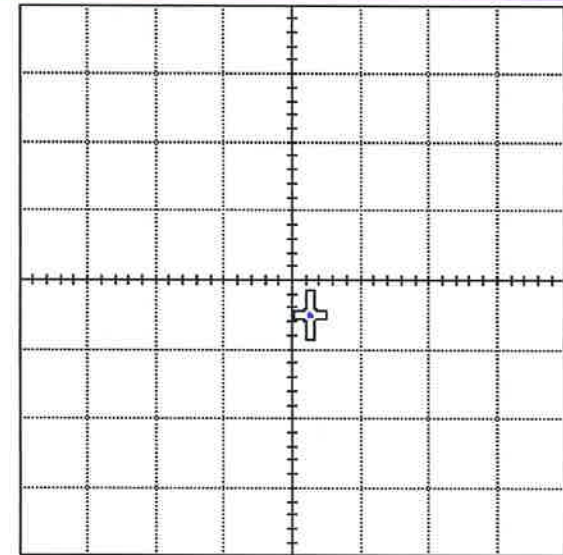
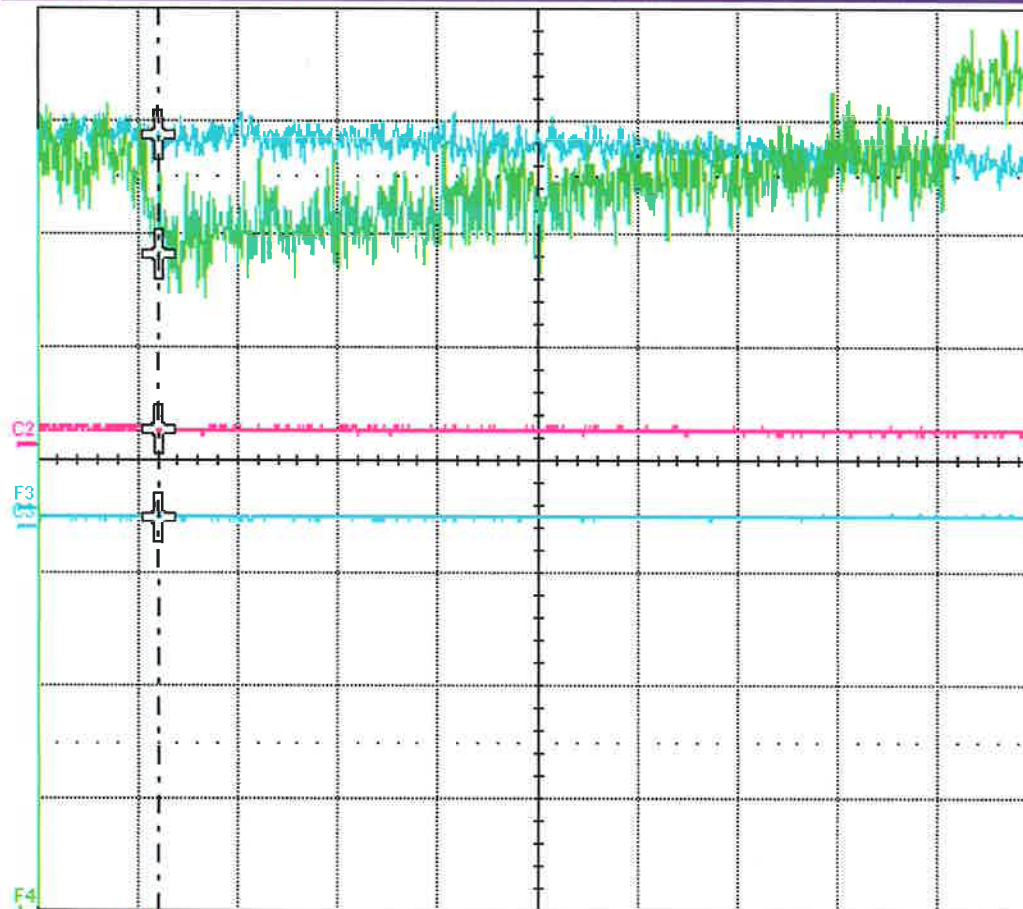
1 1 V DC
2 .2 V DC
3 1 V DC
4 1 V DC



Ext10 DC 0.15 V 50 Ω

1 GS/s

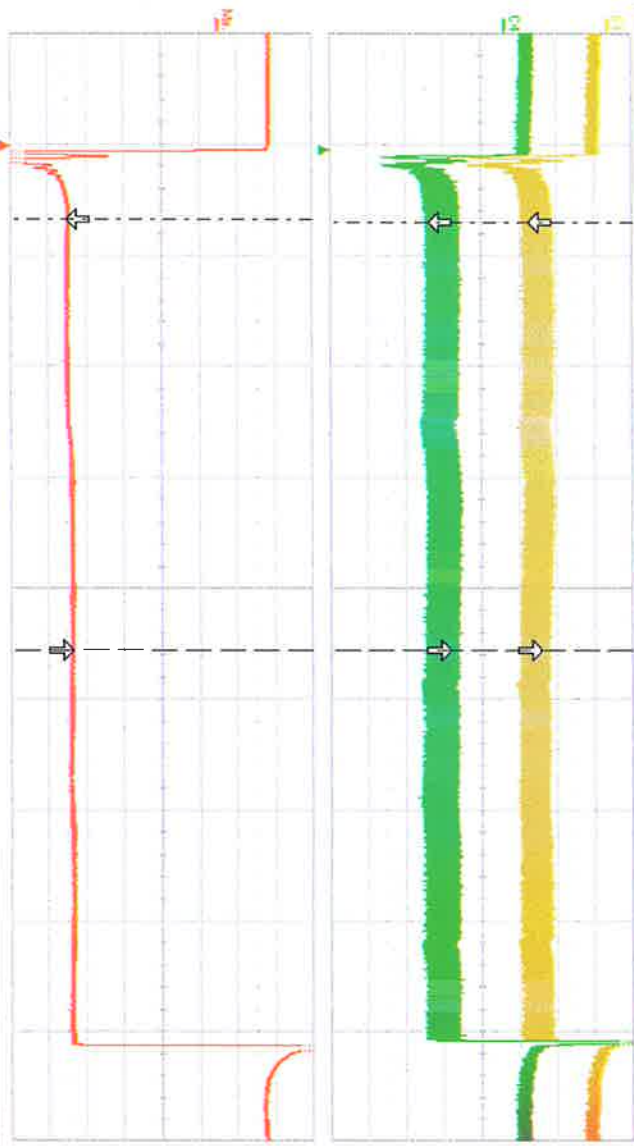
☐ NORMAL



$\Delta Y/\Delta X = -1.83$
 $\Delta Y * \Delta X = -140 \text{ mV}^2$
 5.3 dB
 Angle = -61.4°
 Radius = 577 mV

C2	C3	F3	F4	XY	X: C2 Y: C3
1.00 V/div	1.00 V/div	500e-3/div	20.0e-3/div	1.00 V/div	1.00 V/div
130.0 mV	-590.0 mV	1.00 ms/div	1.00 ms/div	1.00 V/div	1.00 V/div
			154 #		
146.5 mV	83.4 mV	1.6438	1.26444		

Tbase -3.98 ms
 1.00 ms/div
 10.0 kS 1.0 MS/s
 Trigger Ext 10 DD
 Normal 130 mV
 Edge Negative
 X1= 180 μs



CI	CC	High	CC+
5.00 mV/div	5.00 mV/div	2.00 mV/div	
100 ns/div	3.00 ns/div	990 ns/div	
10.14 mV	-9.89 mV	-7.82 mV	
1.57 mV	-7.07 mV	-7.63 mV	
1.57 mV	2.82 mV	159 μ V	

Lectroy

Timebase	-3.94 ms
	1.00 ms/div
2.00 MS	200 MS/s
Trigger	Ext/IO CG
	Normal
	300 mV
	Edge
	Negative

X1=	642.645 μ s	$\Delta X=$	3.847355 ms
X2=	4.490000 ms	1/ $\Delta X=$	259.9188 Hz

11/14/2022 12:51:48 PM

14-Nov-22
12:51:53

1
1 ms
0.50 V

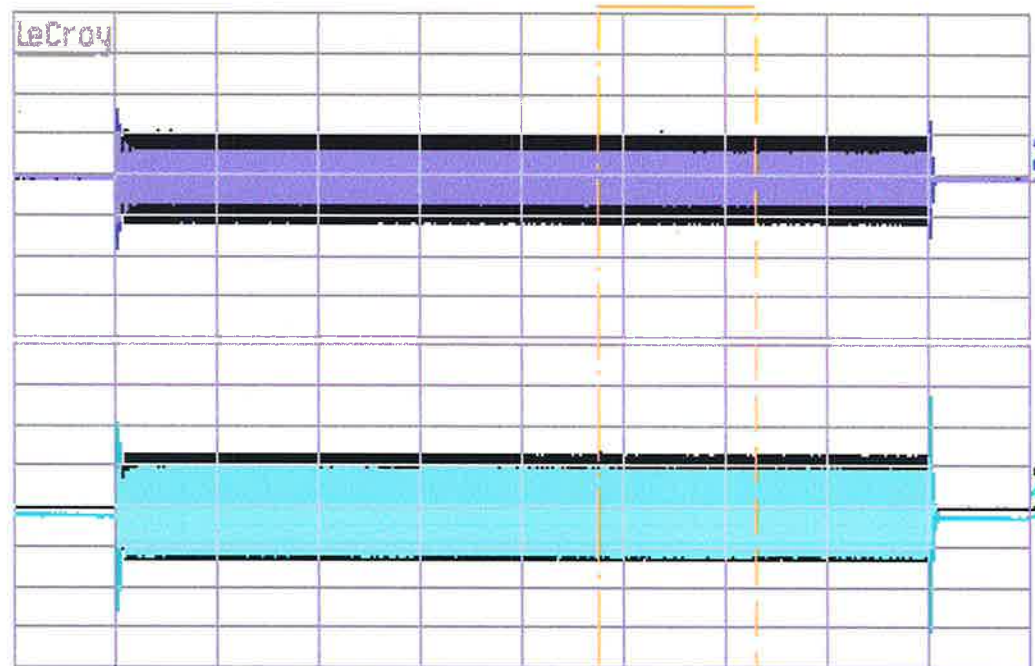
2
1 ms
200mV

3
1 ms
0.50 V

4
1 ms
100mV

1 ms

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



35 sweeps: average low high sigma
rms(1) 392.4mV 391.7 393.1 0.4
rms(2) 88.3mV 87.6 88.9 0.4
rms(3) 451.4mV 450.7 452.1 0.4
rms(4) 74.8mV 74.0 75.6 0.5
phase(1,3) 79 ° 75 85 2



Ext10 DC 0.50 V 50Ω

10 MS/s

☐ NORMAL

14-Nov-22
12:52:19

1
10 μ s
0.50 V

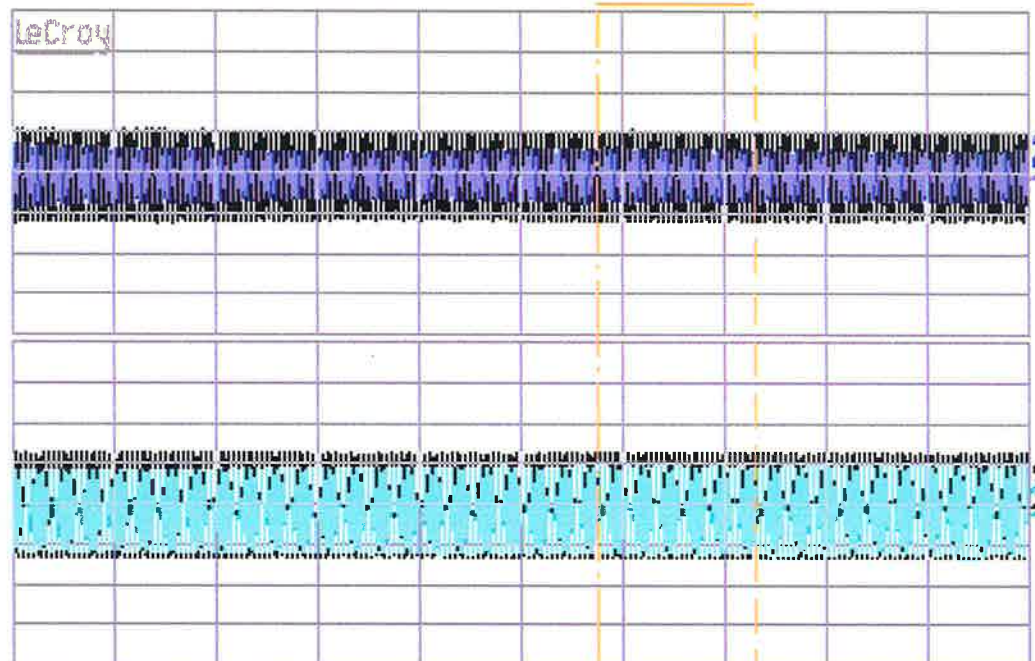
2
10 μ s
200mV

3
10 μ s
0.50 V

4
10 μ s
100mV

10 μ s

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



← 126 μ s

	5 sweeps:	average	low	high	sigma
rms(1)		400.2mV	399.5	400.8	0.6
rms(2)		90.3mV	90.0	90.5	0.2
rms(3)		455.8mV	455.4	456.0	0.3
rms(4)		76.8mV	76.7	76.9	0.1
phase(1,3)		79.11 °	76.93	80.80	0.85



Ext10 DC 0.50 V 50 Ω

200 MS/s

☐ NORMAL

14-Nov-22
12:52:56

1
20 μ s
0.50 V

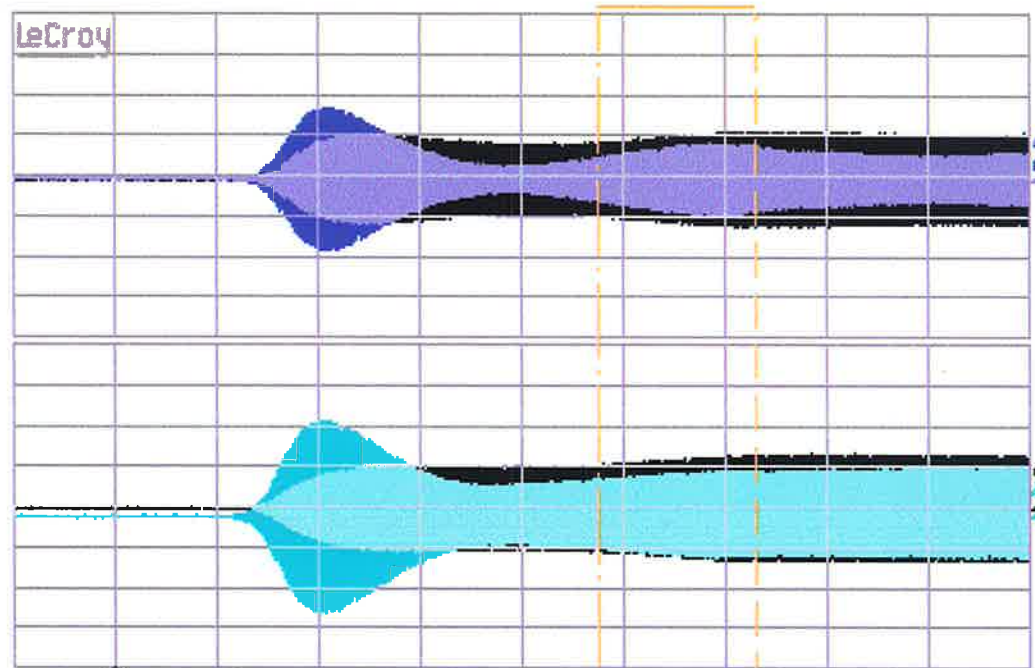
2
20 μ s
200mV

3
20 μ s
0.50 V

4
20 μ s
100mV

20 μ s

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



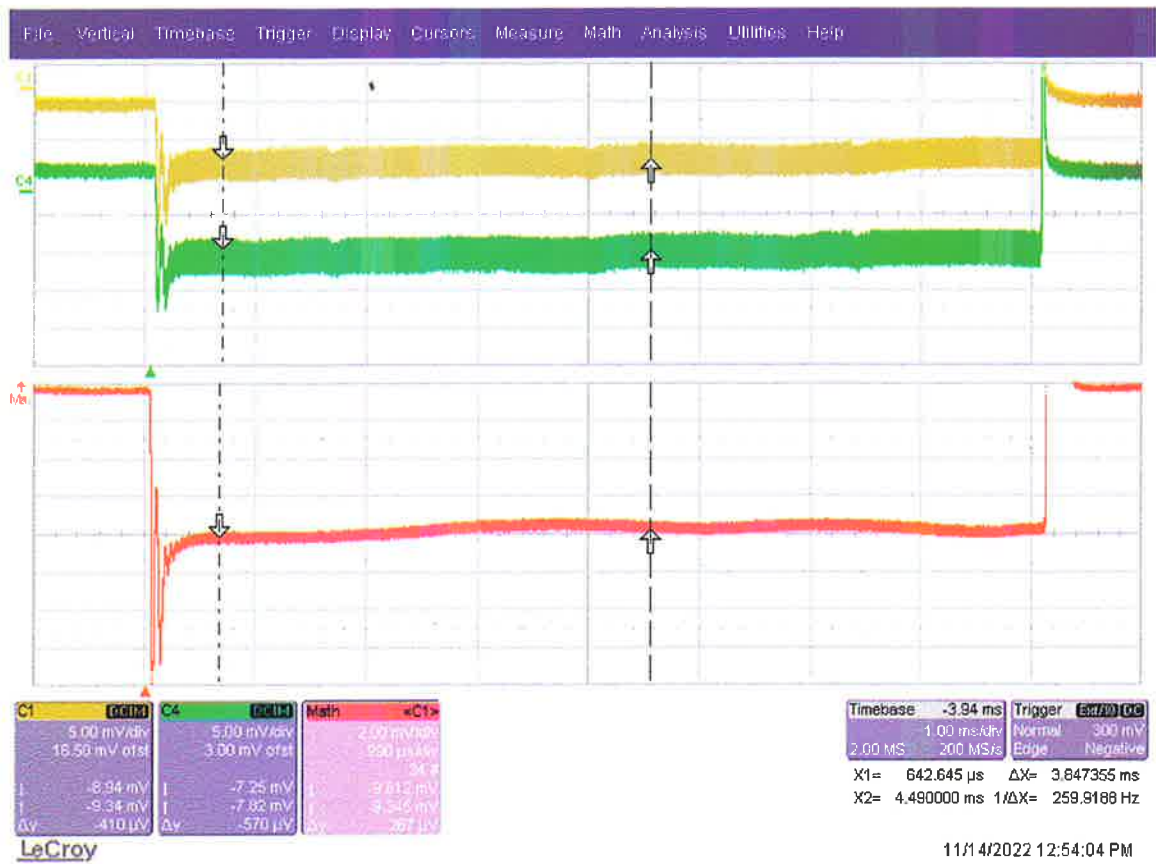
	4 sweeps:	average	low	high	sigma
rms(1)		379.1mV	377.6	380.3	1.2
rms(2)		105.6mV	105.1	106.6	0.7
rms(3)		421.5mV	420.1	422.8	1.2
rms(4)		74.5mV	74.1	74.7	0.3
phase(1,3)		79.04 °	74.88	83.67	1.81



Ext10 DC 0.50 V 50 Ω

200 MS/s

☐ NORMAL



11/14/2022 12:54:04 PM

14-Nov-22

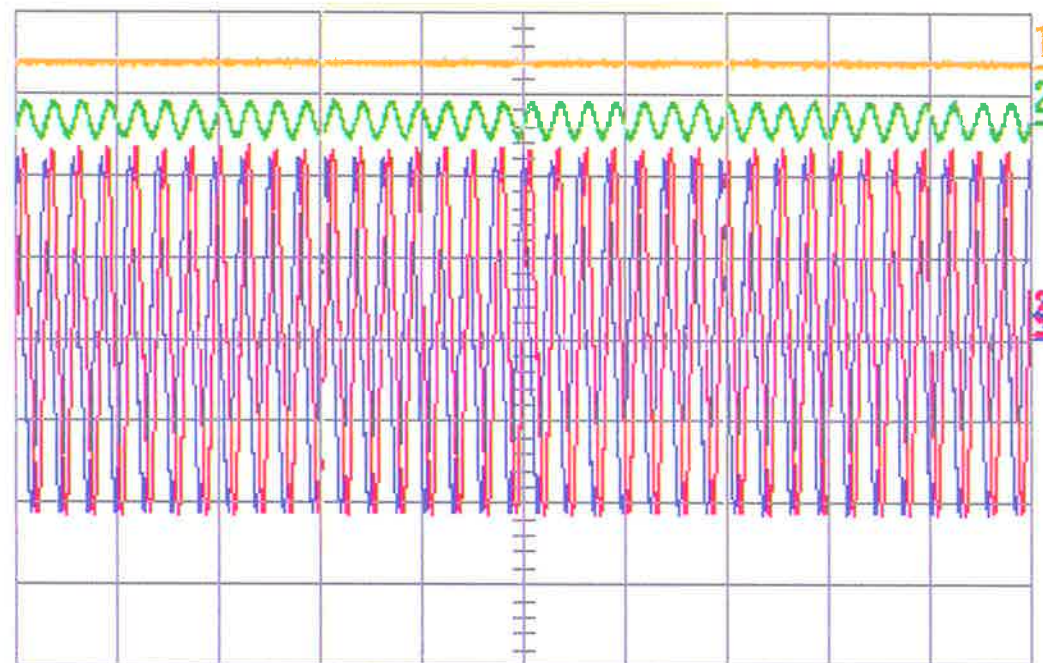
12:54:29

3 2 μ s
1.00 V

1 2 μ s
1.00 V

2 2 μ s
200 mV

4 2 μ s
1.00 V



← 1.0000 ms

	177 sweeps:	average	low	high	sigma
phase(4,3)		88.22 °	84.71	91.42	1.03
pkpk(3)		4.51 V	4.44	4.59	0.03
rms(2)		29.4 mV	28.8	30.0	0.2
rms(4)		1.413 V	1.395	1.431	0.008
rms(3)		1.474 V	1.455	1.501	0.009

2 μ s

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



Ext10 DC 0.15 V 50 Ω

1 GS/s

☐ NORMAL

14-Nov-22
12:54:30

1
1 ms
0.50 V

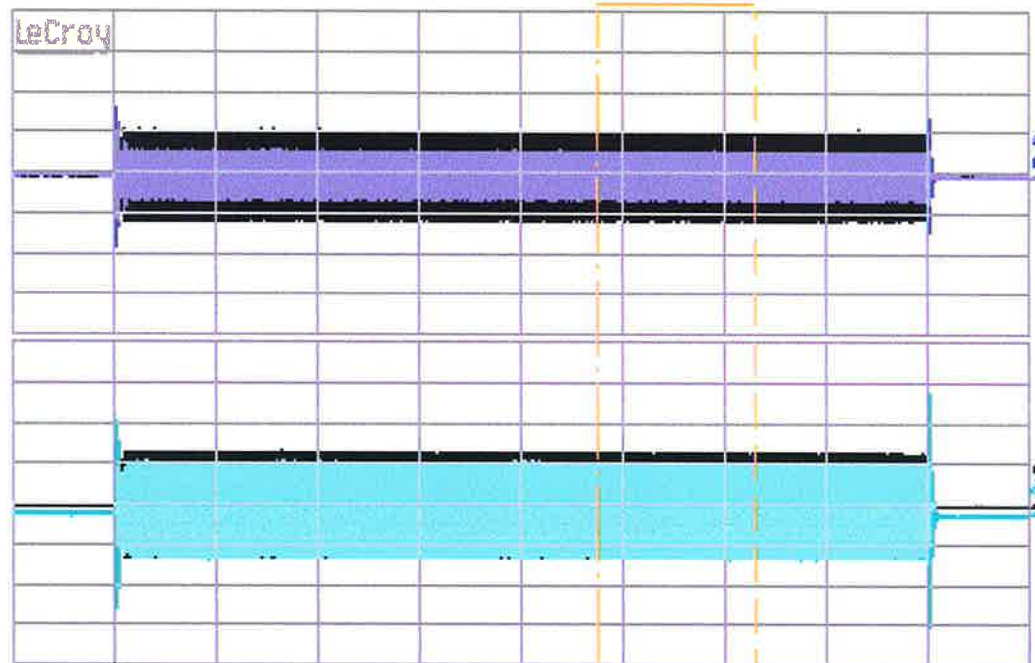
2
1 ms
200mV

3
1 ms
0.50 V

4
1 ms
100mV

1 ms

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



85 sweeps:

	average	low	high	sigma
rms(1)	386.8mV	383.9	392.5	2.5
rms(2)	82.4mV	81.5	83.4	0.6
rms(3)	446.7mV	443.8	452.3	2.4
rms(4)	80.0mV	77.8	82.6	1.4
phase(1,3)	79 °	75	85	2

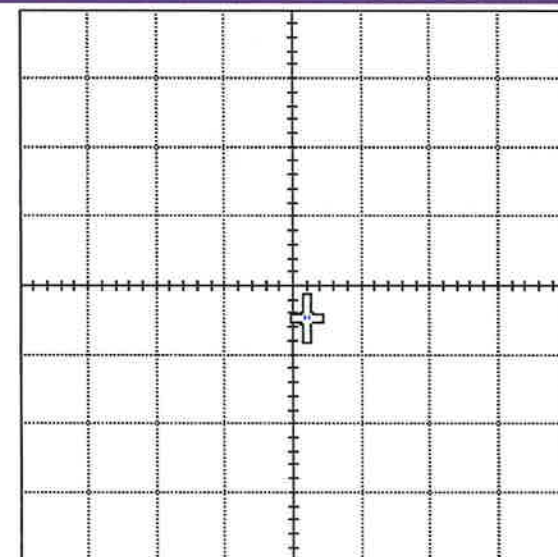
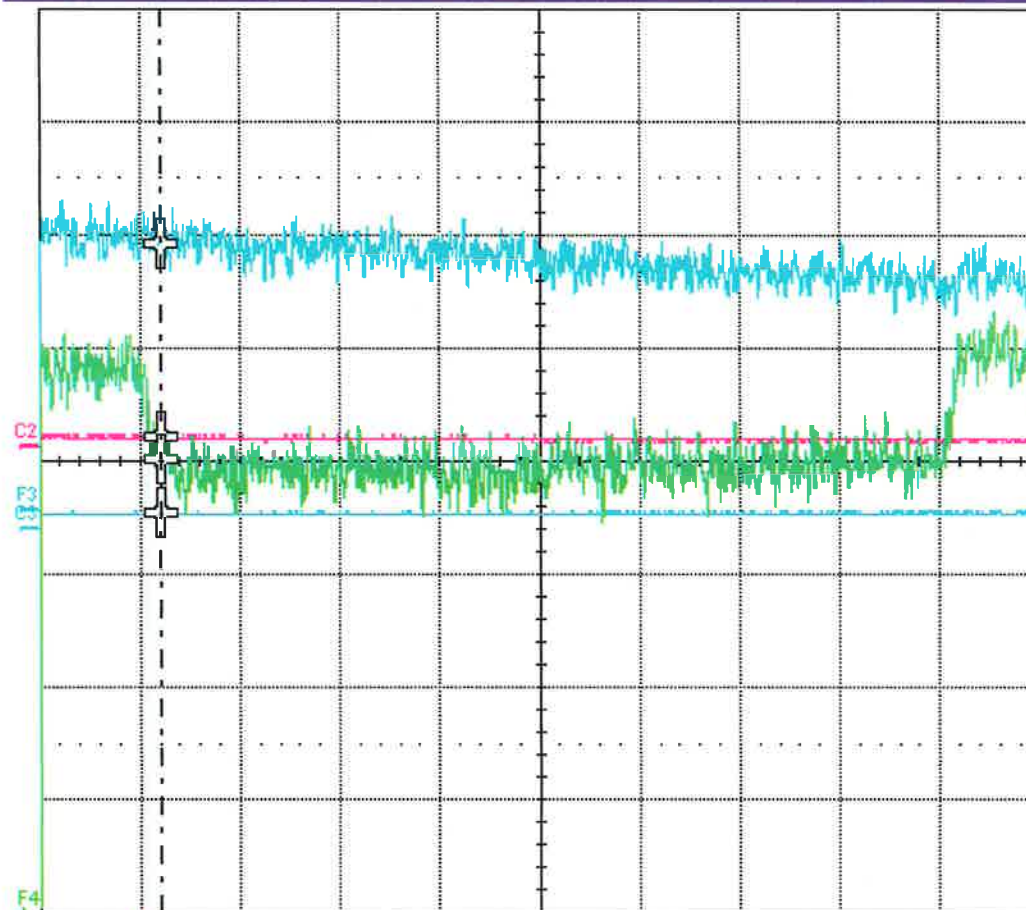


Ext10 DC 0.50 V 50Ω

10 MS/s

☐ NORMAL

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



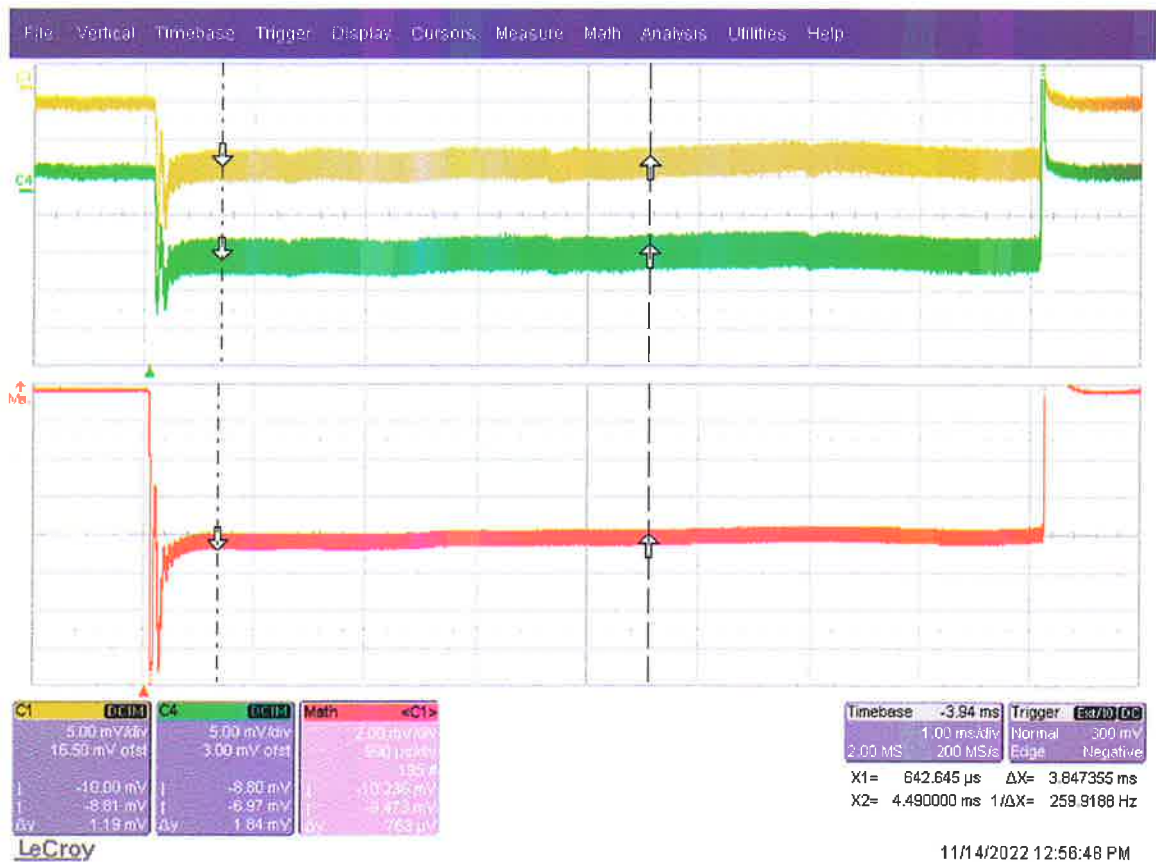
$\Delta Y/\Delta X = -2.14$ $\Delta Y^2/\Delta X = -100 \text{ mV}^2$
 6.6 dB Angle = -65.0°
 Radius = 510 mV

C2	F3	F4	XY
FLT DC1M	script(C3,C2)	<F3>	X:C2 Y:C3
1.00 V/div	500e-3/div	20.0e-3/div	1.00 V/div
130.0 mV	1.00 ms/div	1.00 ms/div	1.00 V/div
		305 #	
85.5 mV	127.8 mV	1.1802	85.5 mV
		1.22821	127.8 mV

Tbase -3.98 ms Trigger Ext/10 DC
 1.00 ms/div Normal 130 mV
 10.0 kS 1.0 MS/s Edge Negative
 X1= 180 μs

LeCroy

11/14/2022 12:56:44 PM



11/14/2022 12:56:48 PM

14-Nov-22
12:56:52

1
1 ms
0.50 V

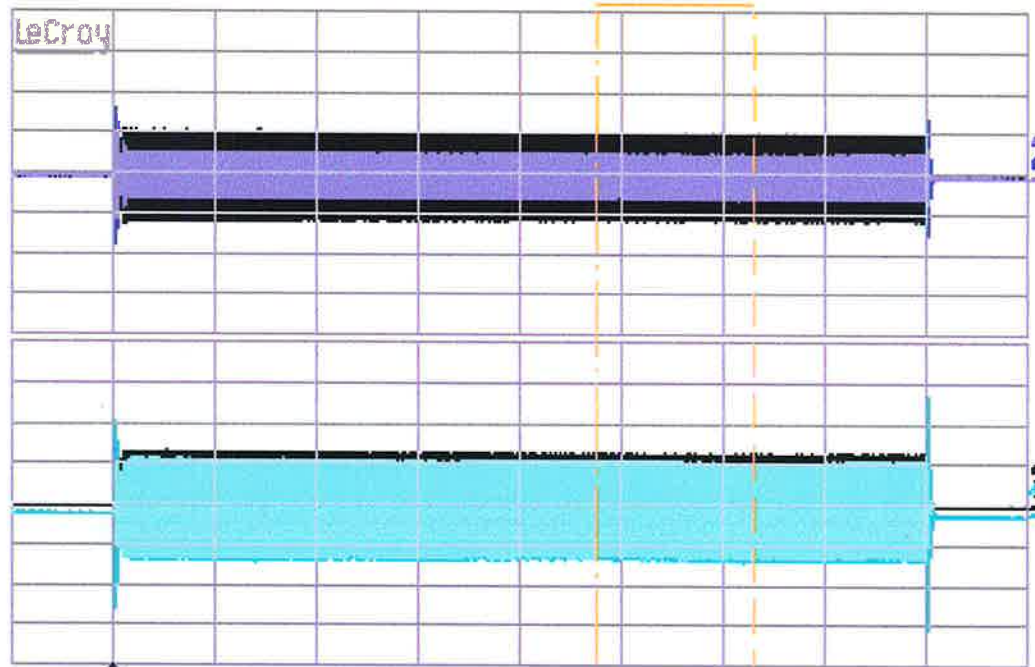
2
1 ms
200 mV

3
1 ms
0.50 V

4
1 ms
100 mV

1 ms

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



227 sweeps:

	average	low	high	sigma
rms(1)	388.2mV	383.6	394.0	3.0
rms(2)	80.3mV	76.1	83.4	2.1
rms(3)	447.8mV	442.8	453.1	3.0
rms(4)	83.0mV	77.8	87.1	2.7
phase(1,3)	79 °	74	86	2



Ext10 DC 0.50 V 50Ω

10 MS/s

☐ NORMAL

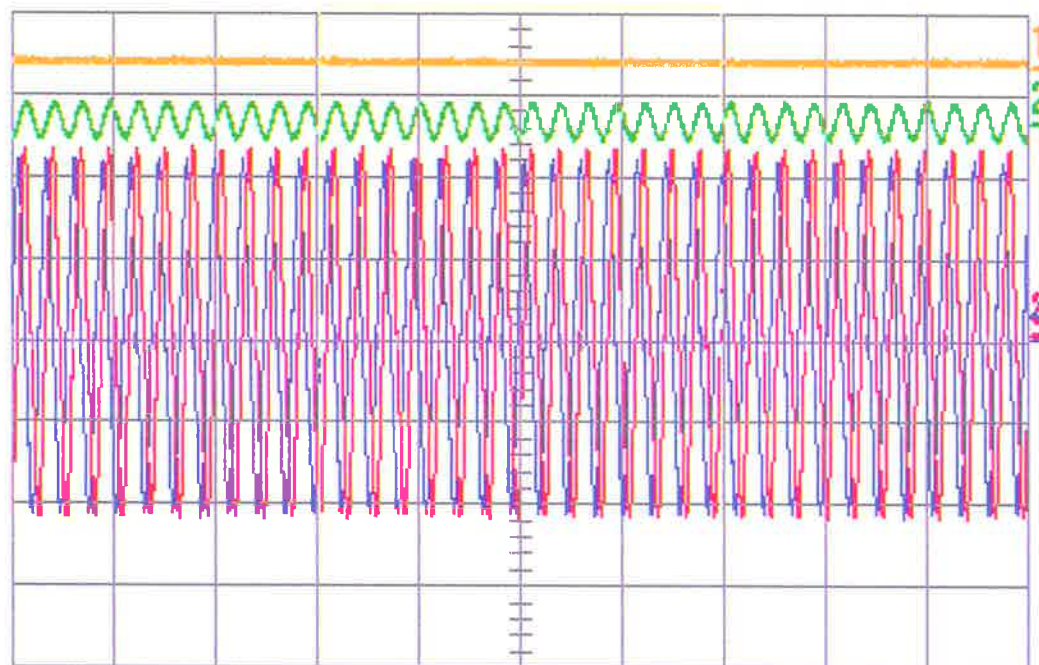
14-Nov-22
12:57:20

3 2 μ s
1.00 V

1 2 μ s
1.00 V

2 2 μ s
200 mV

4 2 μ s
1.00 V



← 1.0000 ms

	348 sweeps:	average	low	high	sigma
phase(4,3)		87.98 °	84.37	91.42	1.08
pkpk(3)		4.53 V	4.44	4.59	0.03
rms(2)		29.4 mV	26.1	30.0	0.4
rms(4)		1.412 V	1.391	1.434	0.009
rms(3)		1.478 V	1.455	1.505	0.010

2 μ s

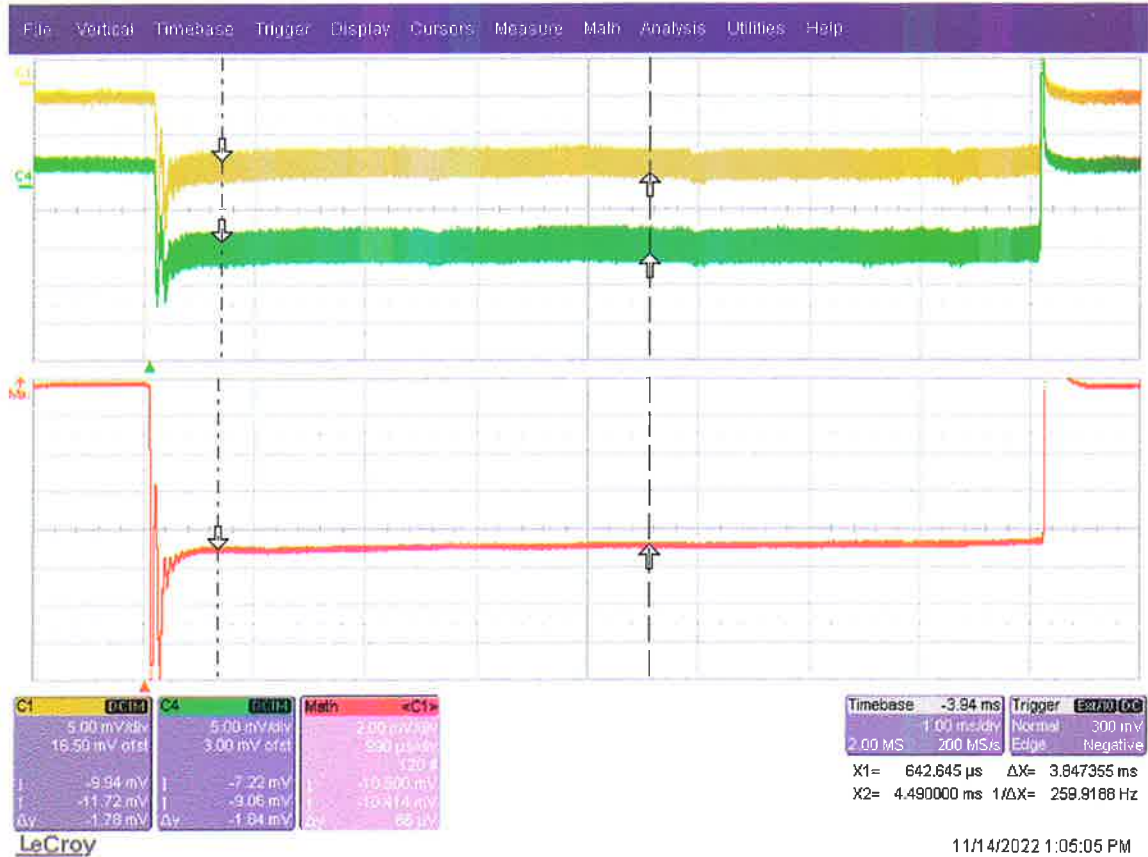
1 1 V DC
2 .2 V DC
3 1 V DC
4 1 V DC



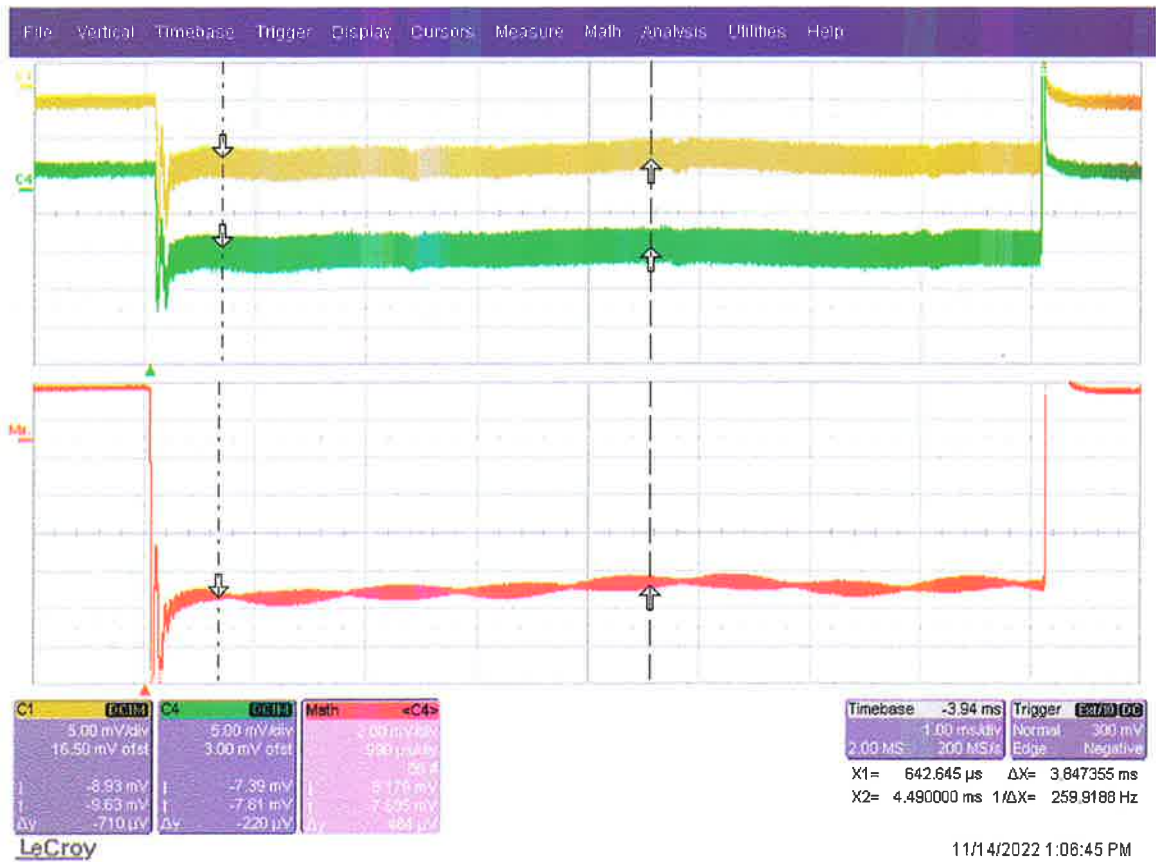
Ext10 DC 0.15 V 50 Ω

1 GS/s

☐ NORMAL



11/14/2022 1:05:05 PM



11/14/2022 1:06:45 PM