

C2 **DCIM** 100 mV/div 298.0 mV
F2 **<C2>** 30.0 mV/div 500 μ S/div 27 #

Tbase -3.09 ms Trigger **C4 DC**
500 μ S/div Normal 2.42 V
100 kS 20 MS/s Edge Negative

20-Oct-16
14:53:01

1
20 μ s
100 mV

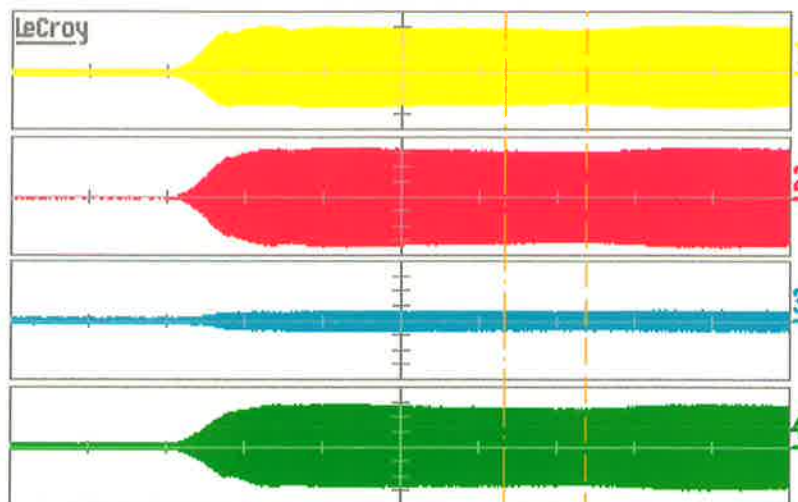
2
20 μ s
200 mV

3
20 μ s
50 mV

4
20 μ s
50 mV

20 μ s

1 .1 V DC
2 .2 V DC
3 50 mV 50 Ω
4 50 mV 50 Ω



← 982 μ s

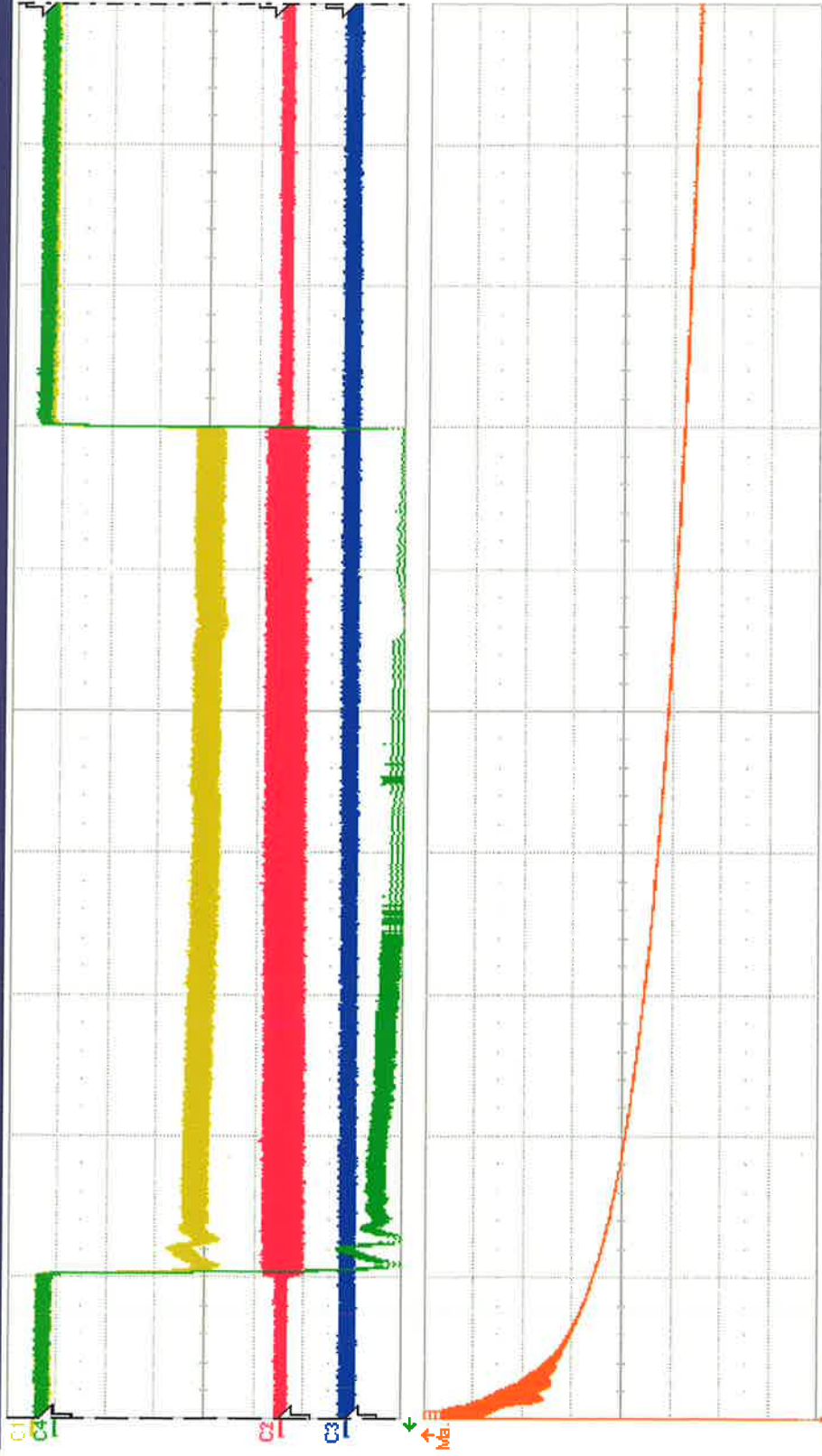
	35 sweeps:	average	low	high	sigma
pkpk(1)		521mV	497	619	29
pkpk(2)		1.244 V	1.200	1.400	0.050
pkpk(3)		68.9mV	64.1	78.1	3.2
pkpk(4)		261.7mV	251.6	298.4	11.0
phase(1,2)		4.9 °	0.1	10.0	1.9



Ext10 DC 0.3 V 1M Ω

200 MS/s

☐ NORMAL



C1	DCIM	20.0 mV/div 69.00 mV ofst	↑ -4.12 mV ↓ -3.09 mV Δy 1.03 mV
C2	DCIM	1.00 V/div -1.560 V ofst	↑ -34 mV ↓ -34 mV Δy 0 mV
C3	DCIM	100 V/div -291.0 V ofst	↑ 11.2 V ↓ 4.1 V Δy -7.1 V
C4	DCIM	10.0 mV/div 30.00 mV ofst	↑ 3.04 mV ↓ 2.81 mV Δy -230 μV
Math	<FFT(C4)>	9.3 dB/div 200 kHz bndy 1.197 kHz	↑ Δy
Timebase	-3.02 ms	500 μs/div 1.00 MS	Trigger Ext/10 000 Normal Edge ΔX= -4.999990 ms ΔY= -200.0004 Hz

20-Oct-16
14:53:26

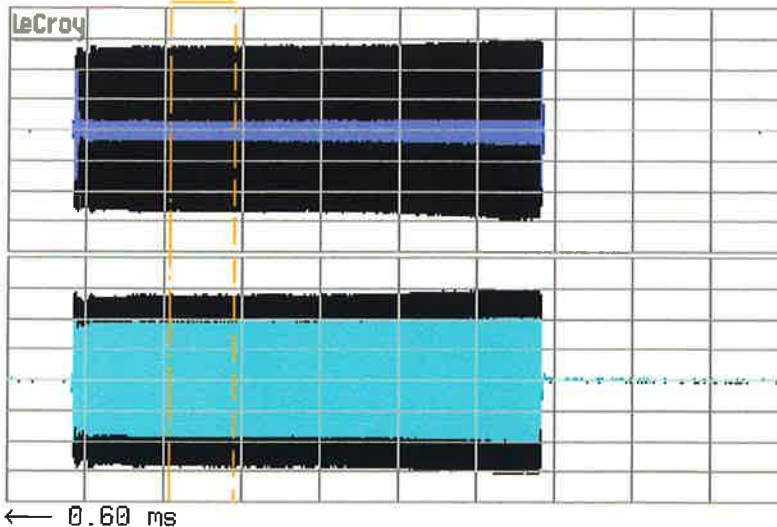
1
.5 ms
1.00 V

2
.5 ms
0.50 V

3
.5 ms
1.00 V

4
.5 ms
0.50 V

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



567 sweeps: average low high sigma
rms(1) 1.773 V 1.469 2.120 0.145
rms(2) 86.2mV 60.3 161.0 17.6
rms(3) 1.847 V 1.540 2.196 0.144
rms(4) 610.4mV 473.9 837.1 66.6
phase(1,3) 88 ° 46 115 24

CHANNEL 2

Trace
OFF ☒ On

Coupling

ZOOM

FIND

Gain
Fixed ☒
variable

Offsets in
Volts
Divisions ☒

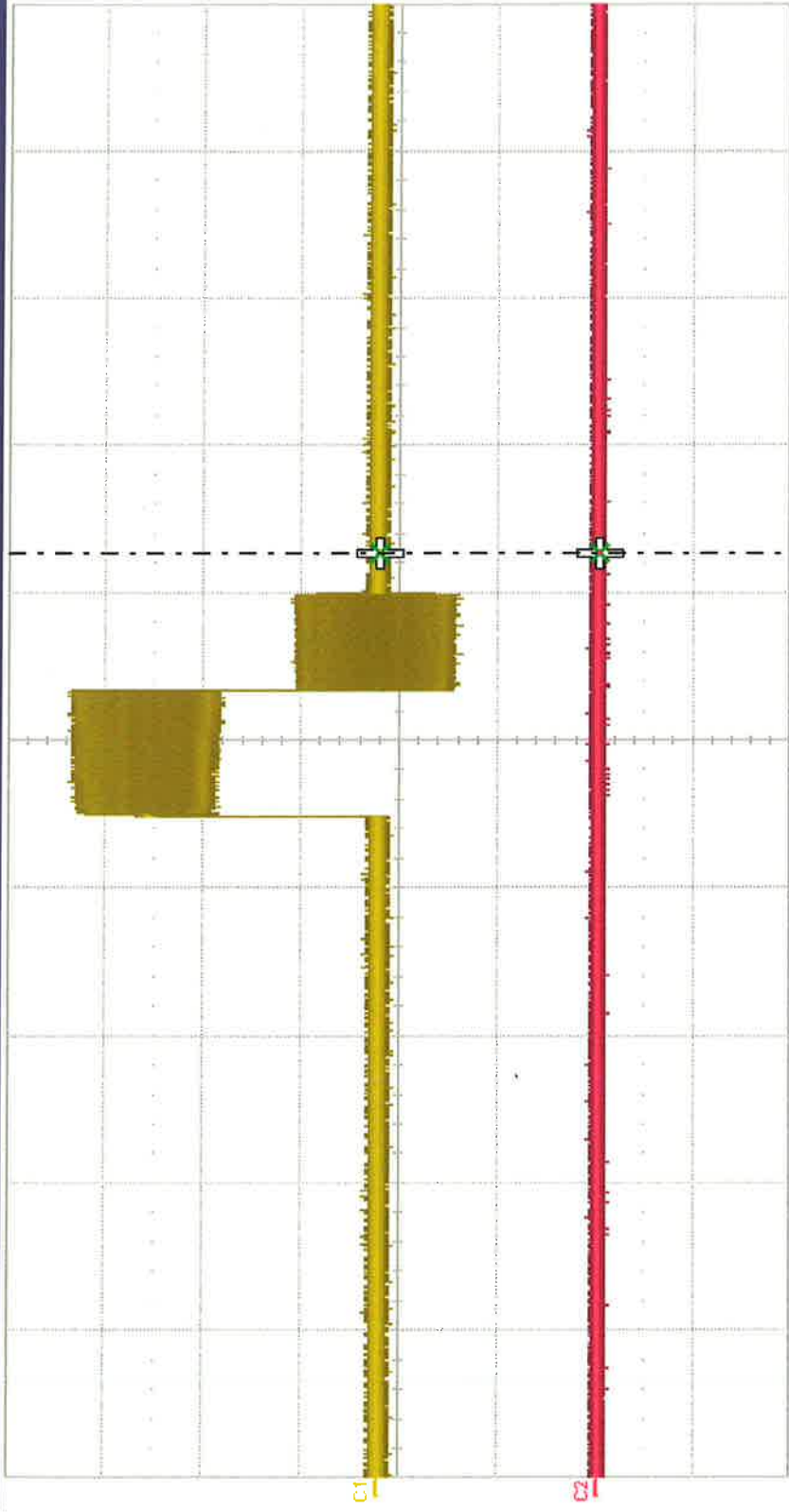
Grids
Single ☒ Dual
Quad Octal

20 MS/s

☐ NORMAL



Ext10 DC 0.05 V 1MΩ



Measure	P1:mean(C4)	P2:rms(C4)	P3:(P1+P2)	P4:---	P5:ampl(C2)	P6:---	P7:---	P8:---
value	-32 mV	328 mV			22 V			
status	✓	✓						

C1	DCIM	2.00 V/div	420 mV ofst	-27 mV	+
C2	BWLDCIM	100 V/div	-202.0 V ofst	-2.8 V	+

Tbase	-2.04 ms	Trigger	Edge	Normal	0.00 V
	2.00 ms/div		Edge	Positive	
	1.00 MS	50 MS/s			
	X1= 4.58000 ms				

20-Oct-16
14:53:04

1
20 μ s
20.0mV

2
20 μ s
50mV

3
20 μ s
50mV

4
20 μ s
50mV

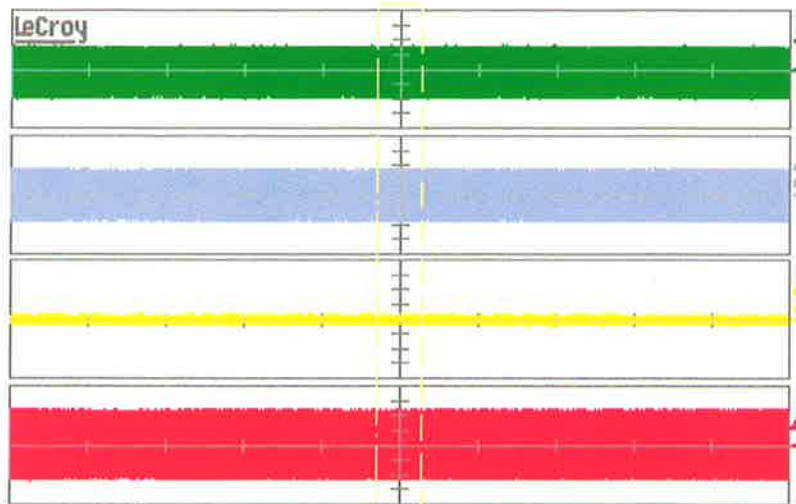
20 μ s

1 20 mV 50 Ω

2 50 mV 50 Ω

3 50 mV 50 Ω

4 50 mV 50 Ω



← 1.146 ms

	41 sweeps:	average	low	high	sigma
pkpk(1)		69.1mV	64.4	76.2	2.8
pkpk(2)		171.9mV	157.8	181.3	5.2
pkpk(3)		41.8mV	37.5	45.3	1.4
pkpk(4)		231.3mV	217.2	243.8	6.3
phase(3,4)		- - -	- - -	- - -	- - -

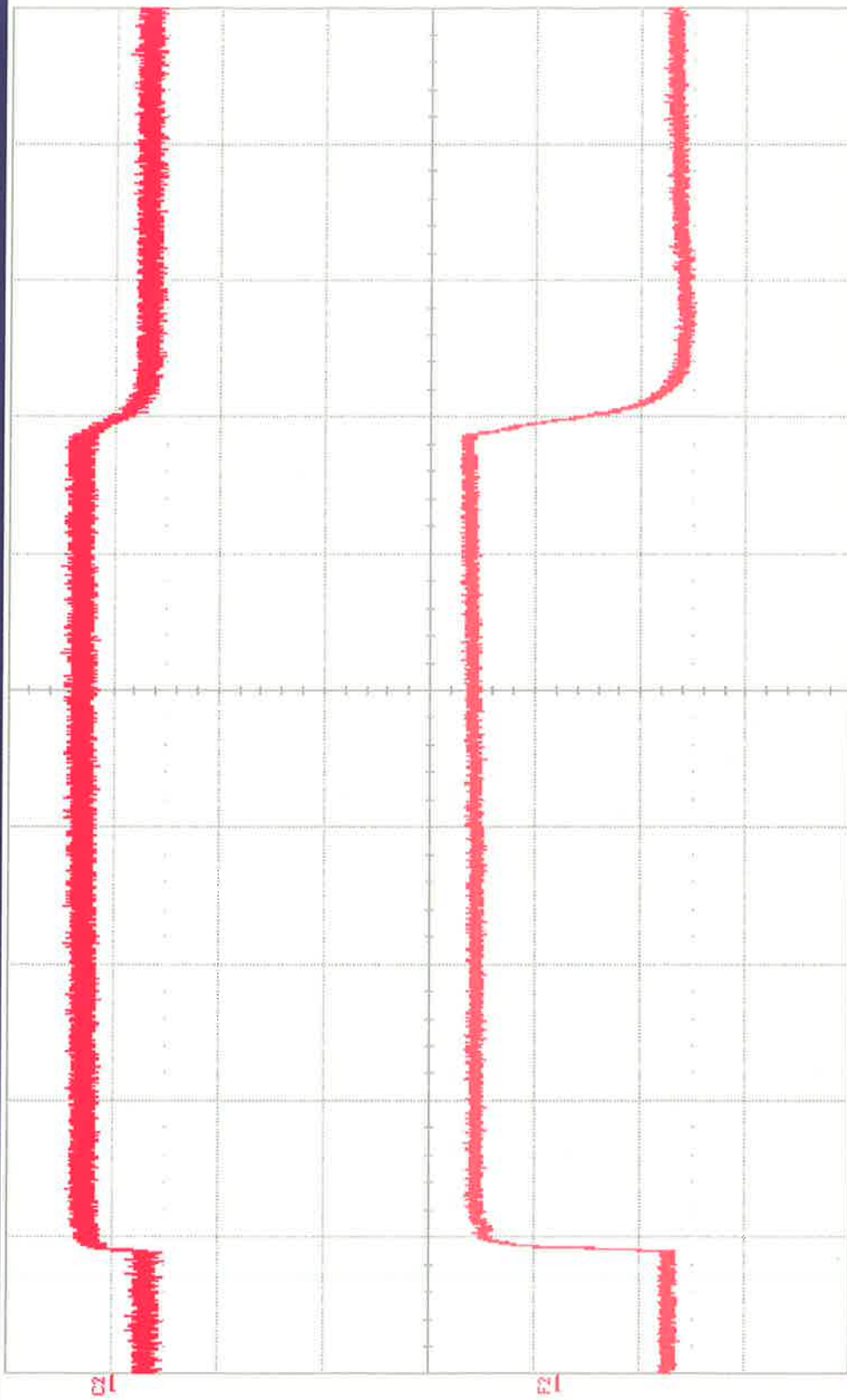


Ext10 DC 0.15 V 1M Ω

200 MS/s

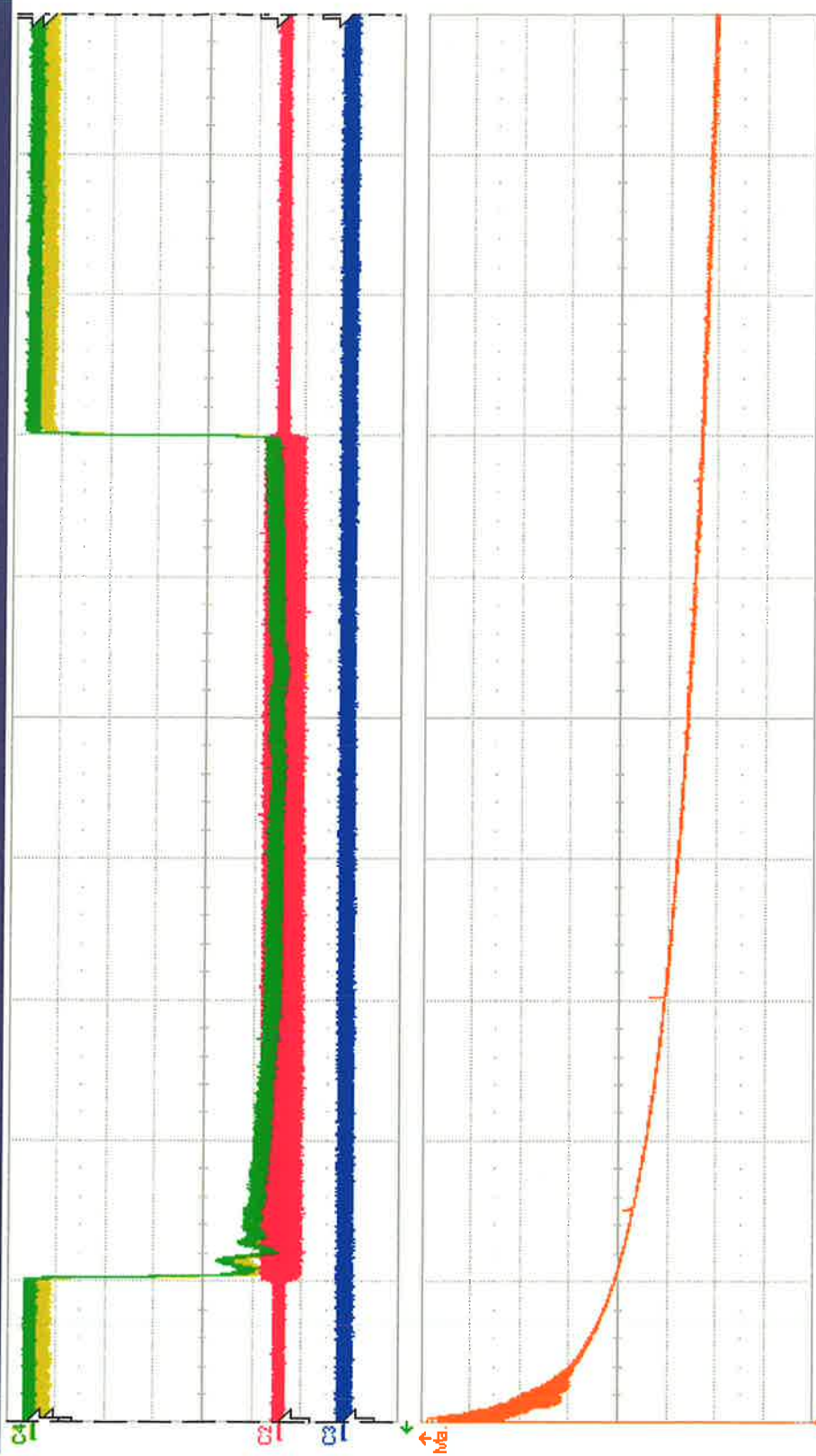


NORMAL



C2 **DCIM** 100 mV/div 298.0 mV
F2 30.0 mV/div 500 μ s/div 28 #

Tbase -3.09 ms
 500 μ s/div 100 kS
Trigger **C4 DC**
 Normal 2.42 V
 Edge Negative



C1	C2	C3	C4	MATH	<FFT(C4)>	Timebase	-3.02 ms	Trigger	Extra10 DDC
↓	↓	↓	↓	↓	9.3 dB/div	500 μs/div	Normal	0.0 V	0.0 V
↑	↑	↑	↑	↑	200 kHz/div	200 MS/s	Edge	Negative	Negative
ΔV	ΔV	ΔV	ΔV	ΔV	343 #	1.00 MS	X1= 5.519990 ms X2= 520.000 μs	ΔX= -4.999990 ms 1/ΔX= -200.0004 Hz	

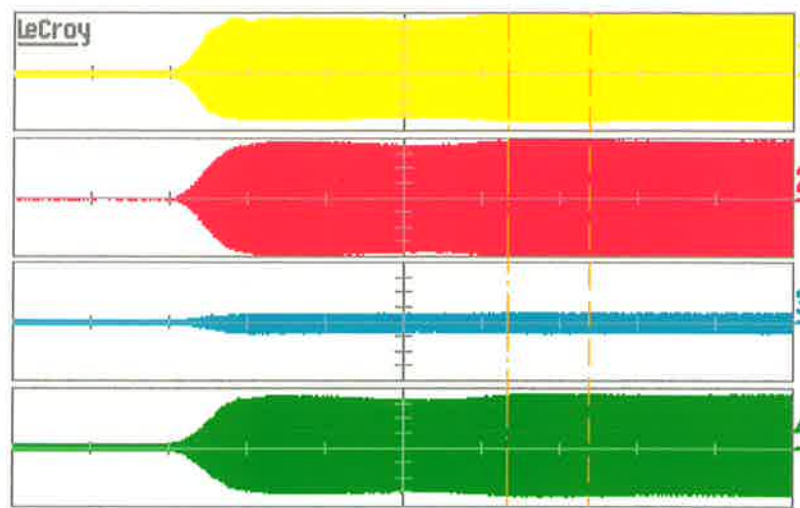
20-Oct-16
15:01:05

1
20 μ s
160 mV

2
20 μ s
200 mV

3
20 μ s
50 mV

4
20 μ s
50 mV



← 982 μ s

1003 sweeps:	average	low	high	sigma
pkpk(1)	605 mV	469	734	60
pkpk(2)	1.361 V	1.119	1.594	0.128
pkpk(3)	67.0 mV	48.4	100.0	10.2
pkpk(4)	293.2 mV	240.6	362.5	26.5
phase(1,2)	-1.4 °	-18.6	21.3	4.7

- 20 μ s
- 1 .1 V DC
 - 2 .2 V DC
 - 3 50 mV 50 Ω
 - 4 50 mV 50 Ω



Ext10 DC 0.3 V 1M Ω

200 MS/s

☐ NORMAL

20-Oct-16
15:01:30

1
.5 ms
1.00 V

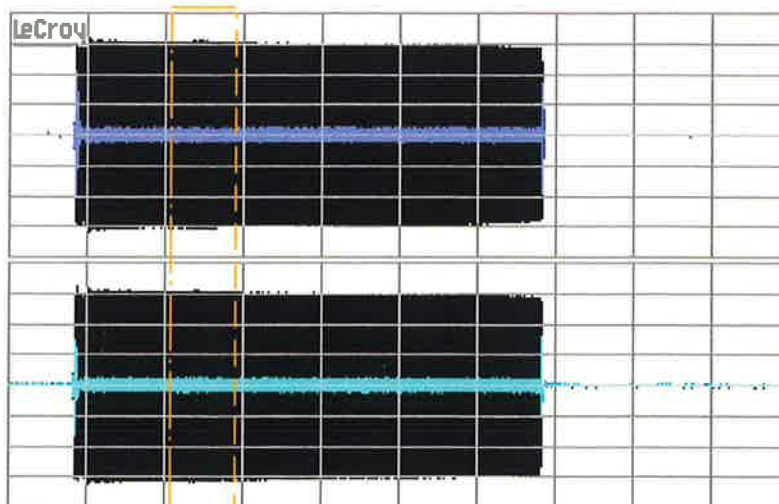
2
.5 ms
0.50 V

3
.5 ms
1.00 V

4
.5 ms
0.50 V

.5 ms

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



← 0.60 ms

388 sweeps: average low high sigma
rms(1) 1.880 V 1.721 2.227 0.114
rms(2) 51.8mV 45.8 88.6 9.1
rms(3) 1.927 V 1.768 2.266 0.112
rms(4) 71.7mV 66.2 85.1 3.2
phase(1,3) 86 ° 45 113 24



Ext10 DC 0.05 V 1MΩ

CHANNEL 4

Trace
OFF ☒ On

Coupling

ZOOM

FIND

Gain
Fixed ☒
variable

Offsets in
Volts
Divisions ☒

Grids
Single ☒ Dual
Quad Octal

20 MS/s

☐ NORMAL

20-Oct-16
15:01:08

1
20 μ s
20.0mV

2
20 μ s
50mV

3
20 μ s
50mV

4
20 μ s
50mV

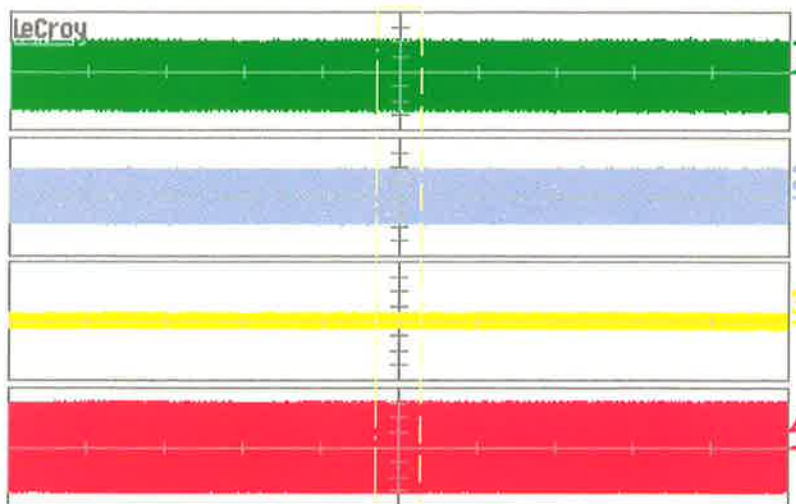
20 μ s

1 20 mV 50 Ω

2 50 mV 50 Ω

3 50 mV 50 Ω

4 50 mV 50 Ω



← 1.146 ms

	1010 sweeps:	average	low	high	sigma
pkpk(1)		80.6mV	61.2	105.6	7.6
pkpk(2)		175.5mV	150.0	207.8	12.3
pkpk(3)		51.2mV	37.5	75.0	6.3
pkpk(4)		277.8mV	217.2	335.9	22.1
phase(3,4)		-24.84 °	-223.43	143.85	88.56



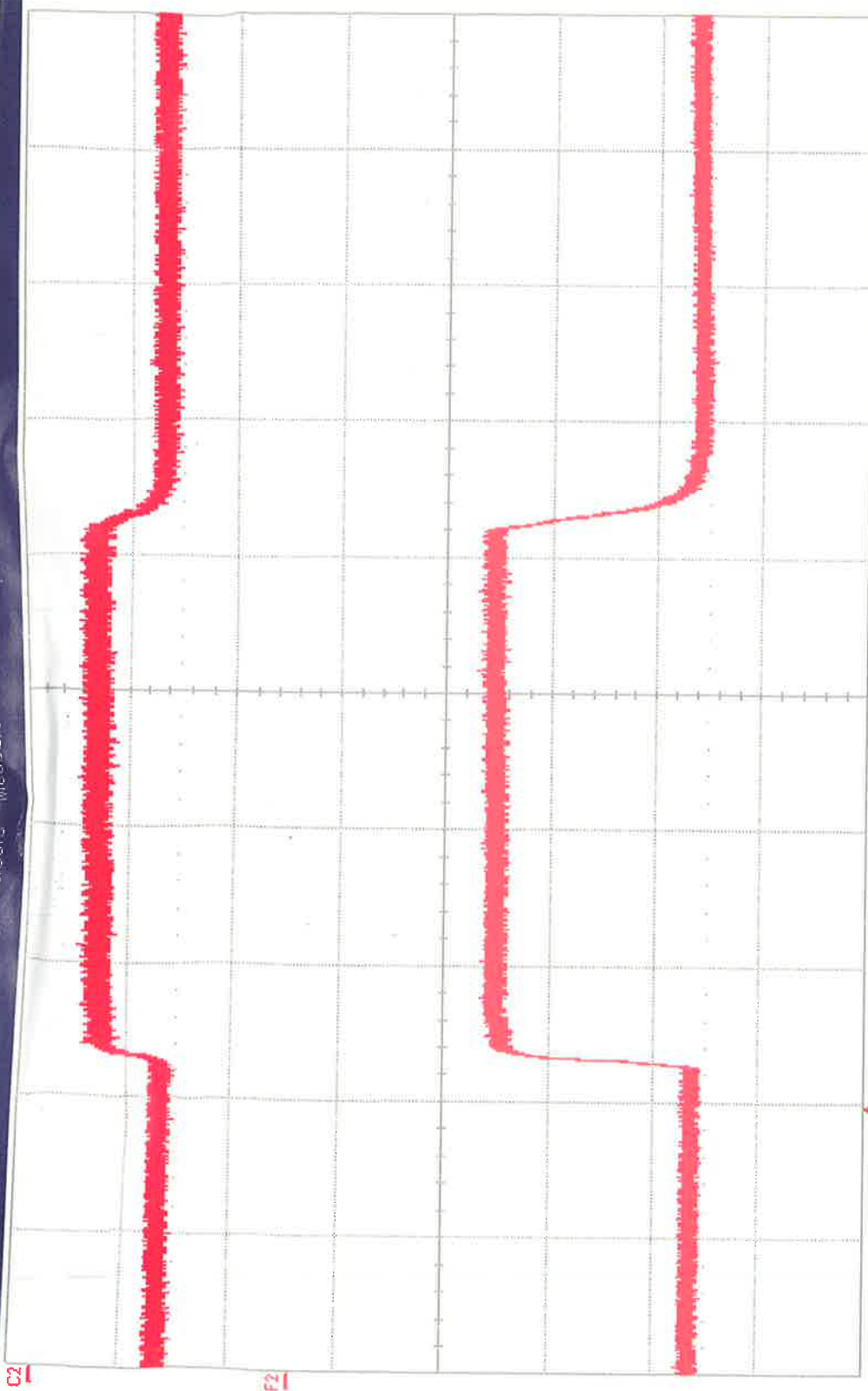
Ext10 DC 0.15 V 1M Ω

200 MS/s



NORMAL

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



C2 **DSM** 100 mV/div 378.0 mV
F2 **<C2>** 30.0 mV/div 500 μ S/div 20 #

Tbase -1.52 ms Trigger **C4 DC**
500 μ S/div Normal 2.42 V
100 kS 20 MS/s Edge Negative

LeCroy

10/20/2016 3:20:06 PM

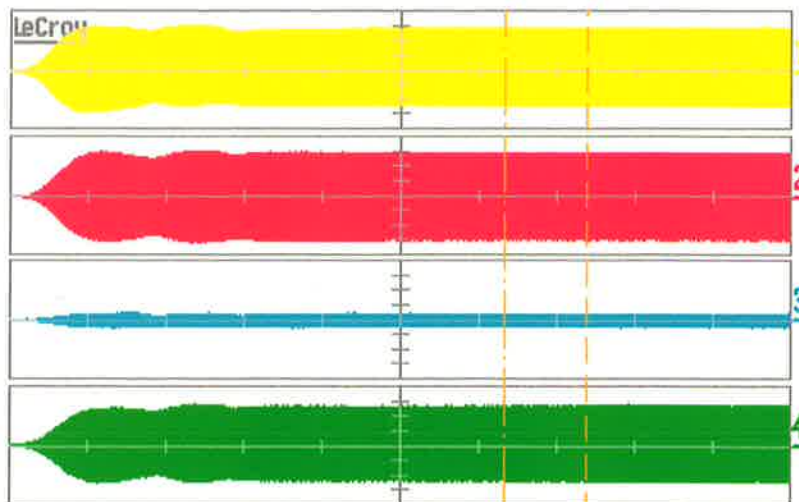
20-Oct-16
15:21:53

1
20 μ s
100mV

2
20 μ s
200mV

3
20 μ s
50mV

4
20 μ s
50mV



← 120 μ s

	1524 sweeps:	average	low	high	sigma
pkpk(1)		586mV	419	753	84
pkpk(2)		1.292 V	0.944	1.594	0.181
pkpk(3)		57.8mV	40.6	75.0	6.8
pkpk(4)		286.5mV	204.7	359.4	39.0
phase(1,2)		-2.8 °	-6.0	2.0	1.0

20 μ s

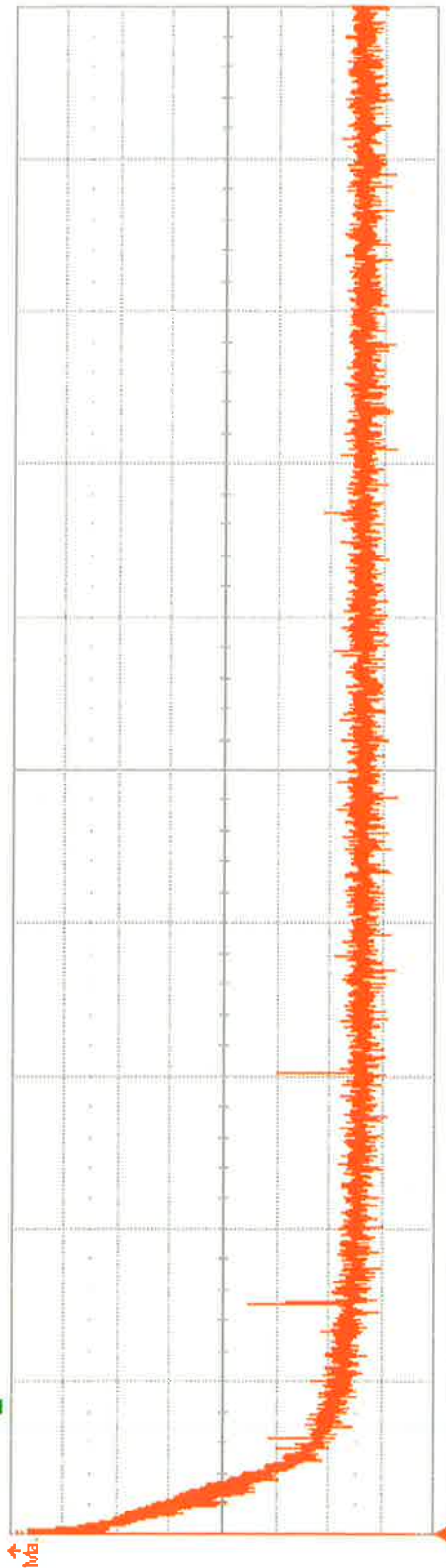
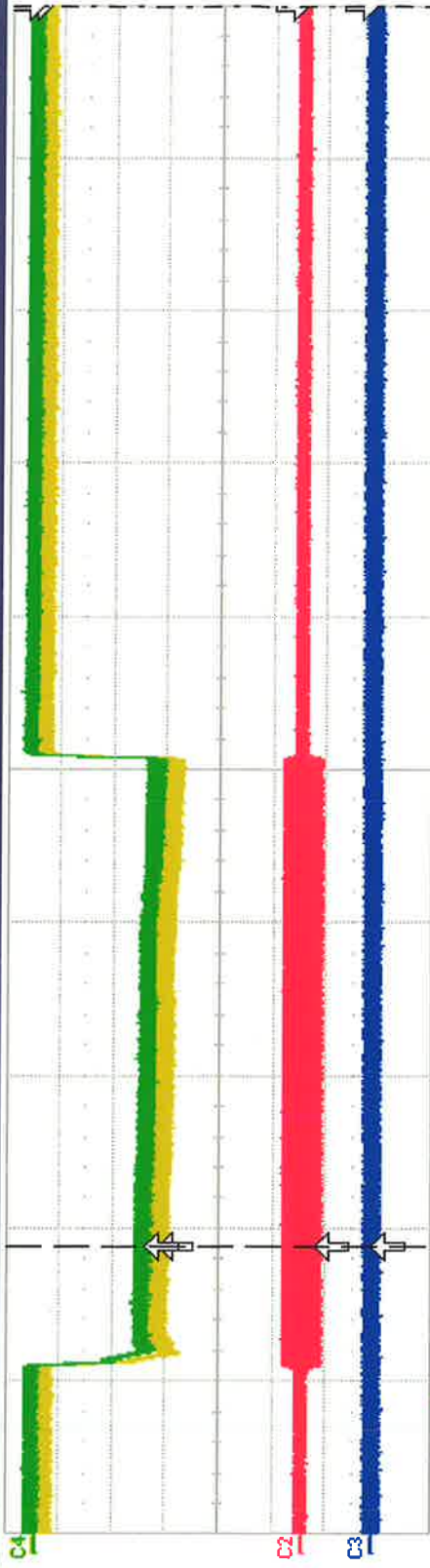
- 1 .1 V DC
- 2 .2 V DC
- 3 50 mV 50 Ω
- 4 50 mV 50 Ω



Ext10 DC 0.3 V 1M Ω

200 MS/s

☐ NORMAL



C1		C2		C3		C4		Math		-FFT(C4)-	
20.0 mV/div	68.00 mV ofst	1.00 V/div	-1.560 V ofst	100 V/div	-291.0 V ofst	20.0 mV/div	68.00 mV ofst	20.0 mV/div	68.00 mV ofst	9.3 dB/div	200 kHz/div
↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
-2.67 mV	-47.99 mV	25 mV	-6 mV	7.0 V	-1.5 V	1.92 mV	-43.08 mV	1.92 mV	-43.08 mV	9 #	---
Δy	-45.32 mV	Δy	-31 mV	Δy	-8.6 V	Δy	-45.00 mV	Δy	Δy	---	---

Timebase		Trigger		Ex10	
-2.08 ms	500 μs/div	Normal	Edge	0.00 V	Negative
1.00 MS	200 MS/s				
X1=	4.579995 ms	ΔX=	-4.059995 ms		
X2=	520.000 μs	1/ΔX=	-246.3057 Hz		

20-Oct-16
15:22:00

MEASURE

1
20 μ s
20.0mV

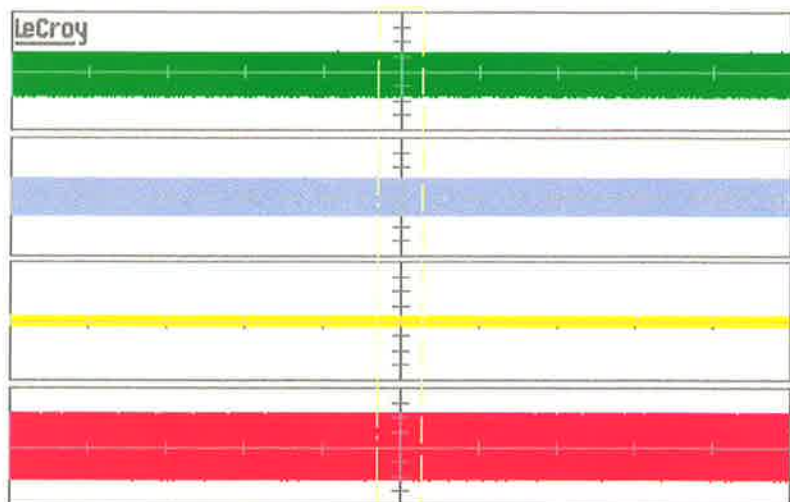
2
20 μ s
50mV

3
20 μ s
50mV

4
20 μ s
50mV

20 μ s

1 20 mV 50 Ω
2 50 mV 50 Ω
3 50 mV 50 Ω
4 50 mV 50 Ω



← 1.146 ms

	1608 sweeps:	average	low	high	sigma
pkpk(1)		80.1mV	51.2	107.5	12.3
pkpk(2)		162.5mV	42.2	200.0	26.7
pkpk(3)		51.4mV	32.8	84.4	7.3
pkpk(4)		267.7mV	40.6	345.3	49.3
phase(2,1)		58.98 °	3.97	78.80	2.75

mode
Std Voltage
Std Time
Custom
Dashboard

statistics
OFF On

CHANGE
PARAMETERS

From
4.69 div
Track OFF On

to
5.28 div

200 MS/s

☐ NORMAL



Ext10 DC 0.15 V 1M Ω

20-Oct-16
15:22:35

1
.5 ms
1.00 V

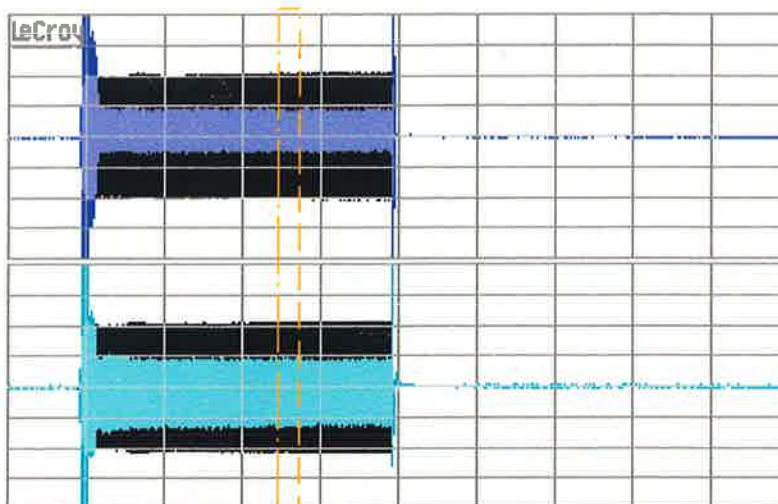
2
.5 ms
100mV

3
.5 ms
1.00 V

4
.5 ms
100mV

.5 ms

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



6 sweeps:

	average	low	high	sigma
rms(1)	1.465 V	1.443	1.498	0.026
rms(2)	41.6mV	40.9	42.3	0.6
rms(3)	1.514 V	1.492	1.548	0.026
rms(4)	77.9mV	76.0	80.5	1.9
phase(1,3)	86 °	47	112	25



Ext10 DC 0.05 V 1MΩ

CHANNEL 2

Trace
OFF ☒ On

Coupling

ZOOM

FIND

Gain
Fixed ☒
variable

OFFsets in
Volts
Divisions ☒

Grids
Single ☒ Dual
Quad Octal

20 MS/s

☐ NORMAL